



AGENDA

President and Board of Trustees
Village of Arlington Heights
Board Room

Arlington Heights Village Hall
33 S. Arlington Heights Road
Arlington Heights, IL 60005

July 15, 2019

8:00 PM

I. CALL TO ORDER

II. PLEDGE OF ALLEGIANCE

III. ROLL CALL OF MEMBERS

IV. APPROVAL OF MINUTES

- A. Committee of the Whole 06/17/2019
- B. Village Board 06/17/2019
- C. Committee of the Whole 6/24/2019

V. APPROVAL OF ACCOUNTS PAYABLE

- A. Warrant Register 06/30/2019
- B. Warrant Register 07/15/2019

VI. RECOGNITIONS AND PRESENTATIONS

VII. PUBLIC HEARINGS

- A. Substantial Amendments to 2015-2019 Consolidated Plan and Draft 2019 Annual Action Plan

VIII. CITIZENS TO BE HEARD

Anyone wishing to speak on a subject not on the Agenda should fill out a card, located in the back of the room, and hand it to the Village Clerk. Please limit your comments to three minutes.

IX. OLD BUSINESS

- A. Report of Committee of the Whole June 24, 2019

Operating Fund Overview/Recommended Budget Ceilings 2020

Trustee Padovani moved, seconded by Trustee Schwingbeck, that the Committee-of-the-Whole recommend to the Village Board that the Board approve the 2020 Budget Ceilings of \$79,018,500 for the General Fund; and \$20,431,900 for the Water and Sewer Fund. The motion passed unanimously.

- B. Report of Committee-of-the-Whole of July 8, 2019
Trustee Scaletta moved, seconded by Trustee Baldino to recommend that the Committee-of-the-Whole recommend to the Village Board that Staff be directed to prepare an ordinance prohibiting "sweepstakes machines" in the Village. Motion passed unanimously.

- C. Report of Committee-of-the-Whole Meeting of July 15, 2019

Consideration of recommending to the Liquor Commissioner the issuance of a Class E Liquor License to M and B Alba Corp dba Barnaby's Family Inn located at 933 W Rand Road upon surrender of the current liquor license issued to this location.

- D. Report of the Committee-of-the-Whole of July 15, 2019

Interview of Alya Patel for Appointment to the Youth Commission - Term Ending 4/30/20

- E. Report of Committee-of-the-Whole Meeting of July 15, 2019

Interview of Keri Stanley for Appointment to the Special Events Commission -Term Ending 4/30/2023

- F. Report of Committee-of-the-Whole Meeting of July 15, 2019

Interview of William Falk for Appointment to the Police Pension Fund - Term Ending 4/30/2021

X. CONSENT AGENDA

This Agenda consists of proposals and recommendations that, in the opinion of the Village Manager, will be acceptable to all members of the Board of Trustees. The purpose of this Agenda is to save time by taking only one roll call vote instead of separate votes on each item.

Consideration of this Consent Agenda will be governed by the following rules and procedures prior to roll call vote:

1. Any Trustee who wishes to vote "no" or "pass" on any Consent Agenda items should so indicate.
2. Upon the request of any one Trustee, any item will be removed from the Consent Agenda and considered separately after adoption of the Consent Agenda.
3. Citizens in the audience may ask to remove any item on this Consent Agenda.

4. One roll call vote will be taken and will cover all remaining Consent Agenda items.

CONSENT APPROVAL OF BIDS

- A. Public Works Administration Building - Roof Repairs
- B. Unmanned Aerial Vehicle/Drone

CONSENT NEW BUSINESS

- A. Cash in Lieu of Land Dedication

CONSENT LEGAL

- A. An Ordinance Amending Chapter 28 of the Arlington Heights Municipal Code
(Section 28-5.1-21, Overlay Zoning District, South Arlington Heights Road added)
- B. An Ordinance Prohibiting Parking
(Clearbrook Dr from Brook Dr to the cul-de-sac)
- C. Supplemental Resolution for Improvement under the Illinois Highway Code
(Motor fuel tax funds for 2016 MFT general survey and CAD drafting services for Street Reconstruction Program)
- D. Resolution for Maintenance Under the Illinois Highway Code
(Motor fuel tax funds for 2016 MFT for traffic signal maintenance)
- E. A Resolution Authorizing a Grant of Easement
(10' wide easement at Lake Arlington, 2201 N Windsor Dr)

XI. APPROVAL OF BIDS

XII. NEW BUSINESS

- A. 1400 W. Thomas St. - Final Plat of Subdivision - PC#18-025
Final Plat of Subdivision
- B. Dogtopia - 660, 664, 668, 676 & 1000 E. Rand Rd. - PC#19-004
Special Use Permit, Variations
- C. Sigwalt 16 (37-45 S. Chestnut Ave. & 36-40 S. Highland Ave.) -
PC#19-005
PUD, Rezoning from R-3 to R-7, Subdivision, Variations
- D. Raising Canes - 225 E. Palatine Rd. - PC#19-006
PUD Amendment, SUP for restaurant with drive-thru

XIII. LEGAL

XIV. REPORT OF THE VILLAGE MANAGER

- A. Substantial Amendments to 2015-2019 Consolidated Plan and
Draft 2019 Annual Action Plan

XV. APPOINTMENTS

XVI. PETITIONS AND COMMUNICATIONS

XVII. ADJOURNMENT

Persons with disabilities requiring auxiliary aids or services, such as an American Sign Language interpreter or written materials in accessible formats, should contact David Robb, Disability Services Coordinator, at 33 S. Arlington Heights Road, Arlington Heights, Illinois 60005, (847)368-5793 (Voice), (847)368-5980 (Fax) or drobb@vah.com.



**Village Board
7/15/2019**

Item: Committee of the Whole 06/17/2019

Department: Village Clerk

ATTACHMENTS:

Description	Type
Committee of the Whole 06/17/2019	Minutes

**MINUTES OF THE COMMITTEE-OF-THE-WHOLE MEETING OF THE PRESIDENT AND
BOARD OF TRUSTEES OF THE
VILLAGE OF ARLINGTON HEIGHTS
33 S. ARLINGTON HEIGHTS ROAD - COMMUNITY ROOM
June 17, 2019 – 7:45 PM**

President Hayes called the meeting to order at 7:45 PM.

BOARD MEMBERS PRESENT: President Hayes; Trustees Baldino, Canty, LaBedz, Padovani, Scaletta, Schwingbeck, Tinaglia

BOARD MEMBERS ABSENT: Trustee Rosenberg

STAFF MEMBERS PRESENT: Village Manager Randy Recklaus

OTHERS PRESENT: John Eggum, Peg Lane

A. Interview of John Eggum for appointment to the Housing Commission – term ending 4/30/22

President Hayes introduced John Eggum. Mayor Hayes then called on Trustee Tinaglia. Trustee Tinaglia stated that his firm occasionally works with a construction law attorney that is employed at the same firm as Mr. Eggum. Trustee Tinaglia stated he did not see any conflict of interest.

President Hayes stated that John Eggum had been serving on the Senior Citizens Commission for about 14 months. Mr. Eggum has recently resigned from that Commission. President Hayes stated that there is a critical need on the Housing Commission now and the Board needs to make sure that there is a quorum for the upcoming meetings reviewing the Affordable Housing policies.

Trustee Schwingbeck inquired why Mr. Eggum wants to be on the Housing Commission and what he can bring to the commission. Mr. Eggum stated that about 12 years ago he worked for a professor (Congresswoman Porter) that researched and focused on affordable housing and what solutions exist. Mr. Eggum feels that he has a good background in affordability challenges and thinks he would be a good addition and able to think about all the stakeholders' positions and clarify items for consideration. Discussion ensued. Trustee Canty asked Mr. Eggum what work he has done related to housing and construction since his work with Congresswoman Porter. Mr. Eggum stated that in terms of ongoing professional aspects, he does not have an occasion to deal with a lot of housing issues. Mr. Eggum did point out that while on the Senior Commission they did look at what senior options were available and the affordability.

President Hayes stated that he appreciates Mr. Eggum's willingness to change to the Housing Commission from the Senior Commission. President Hayes stated that he does not usually like to make changes from one commission to another however, if a need arises and it serves the best interest of the community, it makes sense. Trustee LaBedz asked the Mayor if he had asked Mr. Eggum to make the change. The Mayor stated he did.

Trustee Scaletta moved to concur in the Mayor's appointment of John Eggum to the Housing Commission with term ending 4/30/22. Trustee Schwingbeck seconded the motion.

President Hayes asked if there were comments from the audience. Peg Lane of Arlington Heights questioned the type of process for inviting residents to participate in this appointment. Ms. Lane would like a process with a broader time line. She also inquired as to whether there were women or people of color considered or people who would use affordable housing as well as someone with more experience? Ms. Lane stated that we have a great way to go for getting residents to participate or notify residents. President Hayes stated this is the process followed for decades, the meeting was publicized, agendas were posted, comments taken and all will be voted on at public session.

Ms. Lane then asked if she could meet with the Commissioners. Randy Recklaus stated that the commission meetings are open, there are opportunities for public comment, and that citizens can reach out to Commissioners. Commissioners or Trustees are private citizens and can meet with anyone. Ms. Lane stated we need to look at this process. President Hayes thanked Ms. Lane for her comments.

President Hayes state there is a motion and a second and then took a vote:

THE FOLLOWING VOICE VOTE WAS RECORDED:

7 AYES

1 NAYS

The motion passed.

B. OTHER BUSINESS – There was no further business.

C. ADJOURNMENT

Trustee LaBedz moved, and Trustee Padovani seconded the motion to adjourn. The meeting adjourned at 7:59 p.m.



**Village Board
7/15/2019**

Item: Village Board 06/17/2019

Department: Village Clerk

ATTACHMENTS:

Description	Type
Village Board 06/17/2019	Minutes



MINUTES

President and Board of Trustees
Village of Arlington Heights
Board Room

Arlington Heights Village Hall
33 S. Arlington Heights Road
Arlington Heights, IL 60005

June 17, 2019

8:00 PM

I. CALL TO ORDER

II. PLEDGE OF ALLEGIANCE

III. ROLL CALL OF MEMBERS

President Hayes and the following Trustees responded to roll: Tinaglia, Schwingbeck, Padovani, Scaletta, Baldino, Canty and LaBedz.

Trustee Rosenberg was absent.

Also present were: Randy Recklaus, Mark Burkland, Cris Papierniak, Charles-Witherington Perkins and Becky Hume.

IV. APPROVAL OF MINUTES

A. Village Board 05/13/2019

Approved

Trustee Robin LaBedz moved to approve. Trustee Richard Baldino
Seconded the Motion.

The Motion: Passed

Ayes: Baldino, Canty, Hayes, LaBedz, Padovani, Scaletta, Schwingbeck,
Tinaglia

Absent: Rosenberg

B. Committee of the Whole 05/23/2019

Approved

Trustee Greg Padovani moved to approve. Trustee Tom Schwingbeck
Seconded the Motion.

The Motion: Passed

Ayes: Baldino, Canty, Hayes, LaBedz, Padovani, Schwingbeck, Tinaglia

Abstain: Scaletta

Absent: Rosenberg

C. Committee of the Whole 05/29/2019

Approved

Trustee Robin LaBedz moved to approve. Trustee Mary Beth Canty
Seconded the Motion.

The Motion: Passed

Ayes: Baldino, Canty, Hayes, LaBedz, Padovani, Scaletta, Schwingbeck,
Tinaglia

Absent: Rosenberg

D. Committee of the Whole 06/03/2019

Approved

Trustee Jim Tinaglia moved to approve. Trustee Tom Schwingbeck
Seconded the Motion.

The Motion: Passed

Ayes: Baldino, Canty, Hayes, Padovani, Scaletta, Schwingbeck, Tinaglia

Abstain: LaBedz

Absent: Rosenberg

E. Village Board 06/03/2019

Approved

Trustee Richard Baldino moved to approve. Trustee Robin LaBedz
Seconded the Motion.

The Motion: Passed

Ayes: Baldino, Canty, LaBedz, Padovani, Scaletta, Schwingbeck, Tinaglia

Abstain: Hayes

Absent: Rosenberg

F. Committee of the Whole 06/10/2019

Approved

Trustee Tom Schwingbeck moved to approve. Trustee Mary Beth Canty
Seconded the Motion.

The Motion: Passed

Ayes: Baldino, Canty, Hayes, Padovani, Schwingbeck, Tinaglia

Abstain: LaBedz, Scaletta

Absent: Rosenberg

V. APPROVAL OF ACCOUNTS PAYABLE

A. Warrant Register 06/15/2019

Approved

Trustee Robin LaBedz moved to approve the Warrant Register of 6/15/2019 in the amount of \$2,343,750.87. Trustee John Scaletta Seconded the Motion.

The Motion: Passed

Ayes: Baldino, Canty, Hayes, LaBedz, Padovani, Scaletta, Schwingbeck, Tinaglia

Absent: Rosenberg

VI. RECOGNITIONS AND PRESENTATIONS

VII. PUBLIC HEARINGS

VIII. CITIZENS TO BE HEARD

Austin Mejdrich, a staffer with State House Representative Mark Walker, said Village staff's efforts in helping to put together information for the Capital Funding Bill was appreciated. Representative Walker and Senator Gillespe are hosting a Springfield update Town hall meeting at the Library Wednesday, June 19th.

Robert Schmidt asked if the Village can send a letter to ask for Golf Road to be cleaned. It is full of asphalt on the sides of the road. Mr. Recklaus said Golf Road is scheduled to be resurfaced this year and will likely be torn up and redone. Mr. Schmidt asked for an update on his request for the trash to be cleaned on the Metra tracks. There was no update but the information was passed on, staff has not heard back.

IX. OLD BUSINESS

- A. Report of the Committee-of-the-Whole Meeting Approved of June 17, 2019

Interview of John Eggum for Appointment to the Housing Commission - term ending 4/30/22

Keith Moens said putting Citizens to Be Heard on the Committee of the Whole Agenda would give a place for residents to be heard formally. In the past 40 Committee of the Whole meetings, there was no comment asked for by the presiding officer in 19 of them. Generally there were two subject matters; Liquor licenses or commission appointments. Comment was asked for at tonight's Housing Commission Appointment but it should be automatic. If Citizens to be Heard was on the agenda it would be automatic.

President Hayes said Citizens to be Heard is to give residents a place to speak for items not on the Agenda. He said Agenda items always have citizen input as was done tonight.

Peg Lane said she is in favor of a process that gives time for public comment. At tonight's Committee of the Whole meeting there was only 3 or 4 minutes given and there was no announcement for public comment. She suggested adding something separate for items that are on the agenda. Three minutes for public comment is not serious. She asked the Board to give a serious effort to invite public comment. She asked if other candidates were considered and said commission candidates seem to be the same kind of candidates. She said our town is more diverse and there is worse poverty in suburbs than in the cities.

President Hayes said this community is serious about all the issues affecting its residents. The process tonight is the same process that has been followed for 28 years. It's a well-accepted practice and the same as all other municipalities. Public notice was given. The public is invited and given the opportunity to comment. He said he and the Board take the process very seriously. This individual is very well qualified. That is the only criteria used in recommendations.

President Hayes administered the Oath of Office to Mr. Eggum.

Trustee John Scaletta moved to concur with the Village President's recommendation to appoint John Eggum to the Housing Commission.
Trustee Tom Schwingbeck Seconded the Motion.

The Motion: Passed

Ayes: Baldino, Hayes, LaBedz, Padovani, Scaletta, Schwingbeck, Tinaglia

Nays: Canty

Absent: Rosenberg

X. CONSENT AGENDA

CONSENT OLD BUSINESS

CONSENT APPROVAL OF BIDS

A. Panic Alarms & Video Cameras Approved

Trustee Greg Padovani moved to approve. Trustee Richard Baldino Seconded the Motion.

The Motion: Passed

Ayes: Baldino, Canty, Hayes, LaBedz, Padovani, Scaletta, Schwingbeck, Tinaglia

Absent: Rosenberg

CONSENT LEGAL

A. A Resolution Approving a Final Plat of Approved

Subdivision
(4 North Subdivision, 4 N. Hickory Ave)

Trustee Greg Padovani moved to approve R19-020. Trustee Richard Baldino
Seconded the Motion.

The Motion: Passed

Ayes: Baldino, Canty, Hayes, LaBedz, Padovani, Scaletta, Schwingbeck,
Tinaglia

Absent: Rosenberg

- B. A Resolution Approving an Agreement with the Approved
Illinois Department of Transportation
(Dunton Ave and Evergreen Ave resurfacing at
Northwest Hwy)

Trustee Greg Padovani moved to approve R19-021/A19-032. Trustee
Richard Baldino Seconded the Motion.

The Motion: Passed

Ayes: Baldino, Canty, Hayes, LaBedz, Padovani, Scaletta, Schwingbeck,
Tinaglia

Absent: Rosenberg

- C. Funding Resolution Approved
(Village's share of costs to State of Illinois for
resurfacing sections of Dunton Ave and
Evergreen Ave between Northwest Hwy and the
Union Pacific Railroad)

Trustee Greg Padovani moved to approve R19-022. Trustee Richard Baldino
Seconded the Motion.

The Motion: Passed

Ayes: Baldino, Canty, Hayes, LaBedz, Padovani, Scaletta, Schwingbeck,
Tinaglia

Absent: Rosenberg

CONSENT REPORT OF THE VILLAGE MANAGER

CONSENT PETITIONS AND COMMUNICATIONS

- A. Bond Waiver - Northwest Suburban Genealogy Society Approved

Trustee Greg Padovani moved to approve. Trustee Richard Baldino
Seconded the Motion.
The Motion: Passed
Ayes: Baldino, Canty, Hayes, LaBedz, Padovani, Scaletta, Schwingbeck,
Tinaglia

Absent: Rosenberg

B. Permit Fee Waiver - Pace Approved

Trustee Greg Padovani moved to approve. Trustee Richard Baldino
Seconded the Motion.
The Motion: Passed
Ayes: Baldino, Canty, Hayes, LaBedz, Padovani, Scaletta, Schwingbeck,
Tinaglia

Absent: Rosenberg

XI. APPROVAL OF BIDS

XII. NEW BUSINESS

A. Chapter 28 Text Amendment - South Arlington Heights Road Corridor - Overlay Zone - PC#19-007 Approved

Mr. Recklaus said in 2018 a Corridor Plan for the South Arlington Heights Road area was adopted. Since that action, interest from developers has come forward. The proposed overlay would be the next step in making the Corridor vision a reality.

Mr. Perkins said the master plan for the STAR Line, a light rail system proposed for the I-90 path, has not moved forward. The Board adopted Corridor Plan encompasses 17 acres and is a gateway to the Village. Staff is proposing an Overlay Zone to facilitate development, which sets a framework for restrictions beyond those in the underlying zoning. One entity now owns many of the properties at the south east corner of Arlington Heights Road and Algonquin. The Plan Commission unanimously approved the Overlay Zoning District.

The proposed overlay would allow for high density residential and commercial land uses similar to Downtown. The guidelines proposed are:

1. Height: 200 feet/20 floors
2. Parking Lot Setback: 15' from public right of way
3. Sidewalks along major arterials: Setback 8-10 feet from curb to give more security to pedestrians from traffic
4. Building setbacks: 15 feet for 3 stories or less, 50 feet for over 3

- floors
5. Parking: studio-1 space per unit, 1 bedroom-1.5 spaces per unit, 2 bedroom-2 spaces per unit
 6. Density: studio-250 sf. of land per unit, 1 bedroom-300 sf. of land per unit, 2 bedroom- +400 sf. of land per unit
 7. Prohibited Uses; motor vehicle repair, auto/motor sales; pawn shops, currency exchanges, second hand stores
 8. Planned Unit Development required
 9. First floor commercial required for buildings that front Algonquin Road and Arlington Heights Road
 10. Building lot coverage: 75%
 11. Development should include sustainable development features such as but not limited to: permeable pavers, green rooftops, electric charging stations, energy efficient building projects, bioswales, and solar energy.

Trustee Discussion

Trustee Scaletta said the Overlay Zone makes some things better for the developer and protects the development process for the Village. He asked if there was any residential area that would be negatively impacted. The answer was no, there is no residential neighborhood adjacent to the area. Trustee Scaletta asked about the changes in the number parking spaces required and the square footage per unit from the current Code. Mr. Perkins said staff did a lot of research and vetted these changes before recommending them. Two consultants have been hired, one to look at traffic calming elements, the other to study the economics and identify tools we might have available to help facilitate the development.

Trustee Scaletta expressed concern about the massing next to the roads. Mr. Perkins explained that there would be 8-10 feet of parkway, then a sidewalk and then parking would occur 15 feet from the property line. So, 5-10 feet from the sidewalk would be parking. Trustee Scaletta said it almost encourages one lane of parking. If you are going to have retail, you need enough parking in the front of the units so people can patronize them. Mr. Perkins said there are two ways it could develop. The building could be closer to the street and parking could be behind it. In the other scenario, the parking would be 15' from the property line.

Trustee LaBedz asked if services other than retail would be allowed. Mr. Perkins said staff anticipates some restaurants and support commercial uses like cleaners and office spaces. The Village has low commercial vacancy rates compared to the market. Trustee LaBedz wished that some other kinds of public transportation in the corridor.

Trustee Baldino asked how the plan compares to the multi-use zoning at Arlington Heights and Golf Roads. Mr. Perkins said this is more dense and taller. Arlington Downs is comparable. This proposal has different setbacks from other overlay zones. Each area is looked at on a case by case basis.

This is the first overlay where the parking was adjusted. Staff differentiated parking needs for studio and one bedroom units from a flat 2 spaces per unit. Each development will be a PUD so parking will be vetted.

Trustee John Scaletta moved to approve the Plan Commission's recommendation of the South Arlington Heights Road Overlay Zoning District. Trustee Jim Tinaglia Seconded the Motion.

The Motion: Passed

Ayes: Baldino, Canty, Hayes, LaBedz, Padovani, Scaletta, Schwingbeck, Tinaglia

Absent: Rosenberg

XIII. LEGAL

- | | | |
|----|--|----------|
| A. | A Resolution Approving a Final Plat of Subdivision
(Arlington Downs, 3400 W Euclid Ave) | Approved |
|----|--|----------|

Mr. Perkins said the Arlington Downs Final Plat of Subdivision implements the Board approval granted last year for the PUD amendment and the preliminary plat. It comes with the unanimous recommendation of the Plan Commission.

Trustee Scaletta asked when they will start. Developer David Trandell said they have the foundation permit and will start right away. They are constructing a 263 unit apartment building. The hotel will be the next part. Then the other retailers will come. This is the lynchpin.

Trustee Scaletta said this is a complex development and you can't just build it and they will come. Mr. Trandell said the world changed since the plan originally came forward. The development will be more relevant for the next 20 years. There is big demand for high quality rental. Their goal is to keep residents here who may have a footprint somewhere else.

Trustee LaBedz asked if the hotel the still the Vibe product. Mr. Trandell said they sold the hotel acreage to General Hotels, so the product is their choice. The legalization of tables at Arlington is a positive. The PUD still controls the hotel space.

Trustee Robin LaBedz moved to approve the Arlington Downs Final Plat of Subdivision R19-023. Trustee Mary Beth Canty Seconded the Motion.

The Motion: Passed

Ayes: Baldino, Canty, Hayes, LaBedz, Padovani, Scaletta, Schwingbeck, Tinaglia

Absent: Rosenberg

XIV. REPORT OF THE VILLAGE MANAGER

XV. APPOINTMENTS

XVI. PETITIONS AND COMMUNICATIONS

XVII. ADJOURNMENT

Trustee Richard Baldino moved to adjourn at 8:48 p.m. Trustee Greg Padovani Seconded the Motion.

The Motion: Passed

Ayes: Baldino, Canty, Hayes, LaBedz, Padovani, Scaletta, Schwingbeck, Tinaglia

Absent: Rosenberg



**Village Board
7/15/2019**

Item: Committee of the Whole 6/24/2019

Department: Finance

ATTACHMENTS:

Description	Type
Committee-of-the-Whole Minutes 6/24/2019	Minutes

**COMMITTEE-OF-THE-WHOLE
MINUTES OF THE MEETING OF THE PRESIDENT
AND THE BOARD OF TRUSTEES OF
THE VILLAGE OF ARLINGTON HEIGHTS
VILLAGE HALL BOARD ROOM
MONDAY, JUNE 24, 2019
7:30 P.M.**

BOARD MEMBERS PRESENT: Mayor Thomas Hayes, Trustees Baldino, LaBedz, Padovani, Scaletta, Schwingbeck, & Tinaglia

BOARD MEMBERS ABSENT: Trustees Rosenberg & Canty

STAFF MEMBERS PRESENT: R. Recklaus, T. Kuehne, M. Juarez, K. Baumgartner, P. Wilkiel

SUBJECTS:

- A. Review of the 12-month period ending 12/31/18 Comprehensive Annual Financial Report (CAFR)
 - B. Operating Fund Overview / Recommended Budget Ceilings - 2020
-

President Hayes called the meeting to order at 7:30 PM.

A. Review of the 12-month period ending 12/31/18 Comprehensive Annual Financial Report (CAFR)

Mr. Recklaus explained that the budget is a plan of what the Village is aiming to spend, and that the CAFR, from a financial perspective, is the report of what actually happened. Mr. Matt Beran, a Partner with the firm Lauterbach & Amen, LLP presented the 2018 CAFR results. He stated there was nothing to cover in the Management Letter, as there were no additional findings this year. He went on to discuss the Audit Report.

Mr. Beran stated that last year's audit report was submitted to the GFOA for the Certificate of Achievement, which the Village has received. Mr. Beran stated that this award is the highest award a financial report is able to receive. Mr. Kuehne added that the Village has received that award for 29 consecutive years and that this will be the 30th year for that award. Mr. Beran talked about the Opinion Page, where Lauterbach and Amen gave the Village an unmodified opinion, the highest opinion that they give, and means that the numbers in the audit are what they say they are, that there is adequate internal control framework in place, and that the audit report is in compliance with all government accounting standards. Mr. Beran next explained that the Management's Discussion and Analysis section is a summary narrative of everything that has happened within this audit report at a high level. Mr. Beran went on to discuss fund balances in the financial section. The total net position of governmental activities at the end of 2018 was \$121 million. The big change in the Audit Report was the update of the new accounting standard, GASB 75, which is related to retiree health insurance, saying a prior-year adjustment was made to add an additional \$15 million to Other Post Employee Benefits (OPEB) liability. Discussion took place on how the actuaries are told to do calculations by this new accounting standard, and on retiree health insurance. Regarding Police and Fire pension liabilities, Mr. Beran pointed out that unfunded liability increased this year due to a crash in the market in December right before these studies were done.

The total fund balance at the end of the year was \$76.6 million, with the General Fund ending with a balance of \$30.7 million. There was a \$10 million decrease in the Public Building fund balance due to the draw down for the new police station. In the General Fund, there was an increase of \$58,000 because revenues came in over budget, up from the prior year. Mr. Beran stated that the total fund balance at the end of the year was 40% of total expenses, a very healthy balance for the General Fund. Mayor Hayes asked if 40% is too much. Mr. Beran stated that every Board is different in how conservative they want to be and added that between 25-50% is a good rule of thumb.

In regards to the Water & Sewer Fund, the total net position was \$41.4 million. However when capital assets are removed the balance is at \$17 million, which represents an increase of \$1.2 million.

Regarding pension obligations, the Village went above and beyond over what the actuary determined contributions were. Trustee Padovani questioned the different Investment Rate of Returns for IMRF and the Police & Fire Pensions. Mr. Kuehne explained that the assumed rate of returned is controlled by the IMRF Board, a statewide board, and that the Police & Fire Pension Funds are controlled by the Village Pension Boards. Trustee Scaletta asked what the percentage was that the actuary is asking for the pension contributions. Mr. Beran stated that the actuary is trying to get the Village 100% funded by 2040 without having to have a balloon payment at the end.

Mr. Beran drew attention to the statistical section of the CAFR noting that the Village's total net position has gone up every year for the last 10 years, as well as the home rule sales taxes.

Mayor Hayes thanked Mr. Beran for his report. He thanked Mr. Kuehne and his team for the great work they have done, and that the Village Board and residents appreciate them for keeping the Village in a strong financial position. Mr. Beran commended the Village and Mary Ellen Juarez for the hard work and for having everything ready when auditors start their fieldwork at the end of February.

Trustee Scaletta moved, seconded by Trustee Baldino that the Committee-of-Whole accept the 12-month period ending December 31, 2018 Comprehensive Annual Financial Report (CAFR). The motion passed unanimously.

C. Operating Fund Overview / Recommended Budget Ceilings - 2020

Mr. Recklaus stated that although the budget does not expire until December the budget process begins now, and said staff tries to base the preliminary budget discussion on realistic assumptions that the Village Board can support. Mr. Recklaus stated that it is important to note the assumptions presented tonight are preliminary, that things can and will change between now and October when the budget proposal will be presented to the Board, but this provides a framework from which staff can develop a budget. He stressed that staff always does its best to outperform the projections in the budget ceilings, and said in recent years the Village has been successful in presenting a budget that costs residents less than what the budget ceiling projections have shown.

Mr. Kuehne gave a brief overview of the General Fund and Water & Sewer Fund reserves. The Village's General Fund balance minimum requirement is 25%, but ended with 40% at year-end. It is generally kept at a higher level because bond rating agencies look at the percentage of reserves, in case reserves are needed for weather related damages/issues, and because

reserves provide flexibility in case of economic downturns. Mr. Kuehne said that the Water & Sewer Fund will need to be looked at over the next year because revenues came in less than expected, and said staff has tried to be very conservative with 2020 projections.

Mr. Kuehne started his presentation by saying sales and income tax receipts are up this year. Discussion took place regarding income taxes and the Village's per capita share, and on the 5% that the State has been keeping. Local Use taxes show a 14% increase. It was explained that 6.25% is collected from large internet vendors and that 80% of that goes directly to the State and the other 20% is divided among all municipalities in the State based on per capita. Part of the State budget that passed requires large online out-of-state retailers to pay state and local taxes starting July 1, 2020. This change could cause the local use tax receipts to decline, and sales taxes receipts to increase.

Mr. Kuehne's presentation also included three-year projections for the General Fund. He talked about some disruptive technologies that affect General Fund revenues, which include decreases in telecommunication taxes due to people cutting their landline phones, and cable franchise fees because of increases in internet streaming services. Some increases in the General Fund revenue projections include increases in building permit fees, and vehicle sticker revenues because of the enhanced vehicle sticker enforcement program. Discussion took place regarding projections showing the fund balance declining through 2020. It was explained that revenues are not expected to increase as fast as expenditures, and that projections are conservative or worst case scenarios. Discussion also took place regarding 2019 estimated actual numbers compared to what is budgeted, and on General Fund assumptions regarding salaries and health insurance costs. Staff has tried hard and has usually been successful outperforming projection numbers each year.

Mr. Kuehne gave an overview of property tax levy history, and explained how the Village's estimated 1.97% tax levy increase amount for this year was developed. A big portion was related to the decrease in IMRF's assumed rate of return from 7.5% to 7.25%. The Library's tax levy increase is at 1%, with the total estimated tax levy being 1.70%, which would generate an additional \$23 cost to an average homeowner with a \$300,000 value. Mr. Kuehne talked about some of the steps that the Village took to offset some of the expected property tax increases (shown in his attachment). He also said that there will be a bond refinancing that is scheduled to come to the Board in August, saying that the bond sale could help drive the projected tax levy even lower.

As far as the Water & Sewer Fund, Mr. Kuehne said the 2014 five-year Water & Sewer rate plan allowed the Village to increase the water main replacement program from \$400,000 a year in 2015 to \$2.5 million in 2020. He went on to explain that the lower revenue projections for the fund are because:

- The amount of water being sold has decreased due to continued wet weather the Village has been experiencing,
- Water meters are getting old
- Increased number of water main breaks

Discussion took place regarding the difference in the amount of water being pumped compared to what is being sold, with under reporting of water because of aged meters, and with meter replacements. This will be something that will be looked at over the summer.

Mr. Kuehne continued by going over the Water & Sewer Fund three-year projections. He said increases in services charges are not shown at this point, saying that it will be part of the water and sewer rate study that will be done. Options will then be provided to the Board for their consideration in August or September.

Trustee Scaletta asked if grant money was shown in these projections. Mr. Recklaus stated that storm water grants will be reflected in the Storm Water Fund or Capital Fund. He said the capital money that is allocated by the State is not reflected in the projections because the Village has not been told when or how the money will be received. Trustee Scaletta felt that there are many variables in the projections and hopes that when the proposed budget is presented that the tax levy increase would come down.

George Metropolis, resident of the Terremere/Creekside community talked about his concerns with upcoming property reassessments by the assessor, and with an increase of the Village's tax levy. He asked if excess money in the General Fund could be utilized to keep the tax levy increase down. Mr. Kuehne understood his thought, but said using one-time revenues would only help one year, and we would be back to where we are at now. Mr. Metropolis asked what the vehicle sticker compliance rate was. Mr. Kuehne said the Village was down about 20%, and added that 44,000 stickers were sold last year, and that an additional 8,300 have been be sold this year.

Trustee Padovani moved, seconded by Trustee Schwingbeck, that the Committee-of-the-Whole recommend to the Village Board that the Board approve the 2020 Budget Ceilings of \$79,018,500 for the General Fund; and \$20,431,900 for the Water & Sewer Fund. The motion passed unanimously.

Adjournment

There being no further business to discuss,

Trustee Scaletta moved, seconded by Trustee Tinaglia to adjourn the meeting at 8:43 PM. The motion passed unanimously.



Village Board
7/15/2019

Item: Warrant Register 06/30/2019

Department: Village Clerk

ATTACHMENTS:

Description	Type
Warrant Register 06/30/2019	Warrant Register



**VILLAGE OF ARLINGTON
HEIGHTS**
WARRANT REGISTER FOR
CHECK DATE: 6-30-2019

Fund	Fund Description	Total Transaction Amount
101	General Fund	\$205,057.53
211	Motor Fuel Tax Fund	\$235,358.06
215	CDBG Fund	\$1,578.41
227	Foreign Fire Ins Tax Fund	\$2,927.30
231	Criminal Investigation Fd	\$3,271.84
235	Municipal Parkg Opr Fund	\$8,227.43
401	Capital Projects Fund	\$309,422.76
431	Public Building Fund	\$4,832.51
505	Water and Sewer Fund	\$377,978.34
515	Arts,Entert & Events Fund	\$15,954.93
605	Health Insurance Fund	\$25,189.46
611	General Liability Ins Fnd	\$7,698.09
615	Workers Compensation Ins	\$56,384.61
621	Fleet Operations Fund	\$50,478.75
625	Technology Fund	\$26,201.32
715	Guaranty Deposits Fund	\$1,350.00
TOTAL ALL FUNDS		\$1,331,911.34

WARRANT REGISTER - GM0002**Department: 0****Division: 0**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218514	101-0000-421.05-00	ROBERT ADAMS	REFUND VEHICLE STICKER	\$30.00	\$30.00
218518	101-0000-421.05-00	JEROME ALLEN	REFUND VEHICLE STICKER	\$102.00	\$102.00
218538	101-0000-421.05-00	LINDA BABL	REFUND VEHICLE STICKER	\$30.00	\$30.00
218539	101-0000-421.05-00	ROBERT BARATTA	REFUND VEHICLE STICKER	\$125.00	\$125.00
218543	101-0000-421.05-00	CARL BIANCHINI	REFUND VEHICLE STICKER	\$30.00	\$30.00
218545	101-0000-433.14-00	BLUE CROSS BLUE SHIELD	REFUND AMBULANCE CLAIM	\$621.80	\$621.80
218547	101-0000-421.05-00	ERIC BOECHE	REFUND VEHICLE STICKER	\$30.00	\$30.00
218548	101-0000-421.05-00	KEVIN BRADLEY	REFUND VEHICLE STICKER	\$60.00	\$60.00
218549	101-0000-421.05-00	MICHAEL BRAUN	REFUND VEHICLE STICKER	\$30.00	\$30.00
218550	101-0000-421.05-00	DAVID BREYMEYER	REFUND VEHICLE STICKER	\$30.00	\$30.00
218551	101-0000-421.05-00	BRITE O MATIC	REFUND TRAILER TAGS	\$126.00	\$126.00
218553	101-0000-421.05-00	MARCI BUERGER	REFUND VEHICLE STICKER	\$30.00	\$30.00
218554	101-0000-421.05-00	RUTH BUESS	REFUND VEHICLE STICKER	\$40.00	\$40.00
218556	235-0000-435.65-03	BONNIE BURGESS	REFUND PARKING PERMIT	\$40.00	\$40.00
218558	101-0000-421.05-00	FROILAN CABRERA	REFUND VEHICLE STICKER	\$30.00	\$30.00
218559	101-0000-421.05-00	BRIAN CADRE	REFUND VEHICLE STICKER	\$45.00	\$45.00
218560	101-0000-421.05-00	BARRY CALHOUN	REFUND VEHICLE STICKER	\$25.00	\$25.00
218561	101-0000-421.05-00	LINDA CALLERO	REFUND VEHICLE STICKER	\$60.00	\$60.00
218562	101-0000-140.51-00	CANON SOLUTIONS AMERICA	COPIER MAINTENANCE	\$22.62	\$22.62
218563	101-0000-421.05-00	DAVE CARDO	REFUND VEHICLE STICKER	\$120.00	\$120.00
218566	101-0000-421.05-00	KRISTINE CERVANTES	REFUND VEHICLE STICKER	\$95.00	\$95.00
218577	715-0000-220.93-00	CONTRERAS CONTRACTORS	BOND REFUND	\$150.00	\$150.00
218581	101-0000-421.05-00	YILEI DAI	REFUND VEHICLE STICKER	\$30.00	\$30.00

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218582	101-0000-421.05-00	ROBERT DALRYMPLE	REFUND VEHICLE STICKER	\$30.00	\$30.00
218588	101-0000-421.05-00	NANCY ELDREDGE	REFUND VEHICLE STICKER	\$30.00	\$30.00
218593	101-0000-421.05-00	TOD FAERBER	REFUND VEHICLE STICKER	\$60.00	\$60.00
218595	101-0000-421.05-00	KEVIN FELTES	REFUND VEHICLE STICKER	\$60.00	\$60.00
218599	101-0000-421.05-00	BARBARA FITZSIMONS	REFUND VEHICLE STICKER	\$60.00	\$60.00
218600	101-0000-421.05-00	GEORGE FITZSIMONS	REFUND VEHICLE STICKER	\$30.00	\$30.00
218602	101-0000-421.05-00	MATTHEW FOLEY	REFUND VEHICLE STICKER	\$30.00	\$30.00
218604	715-0000-220.93-00	FORTIS 191381	BOND REFUND	\$200.00	\$200.00
218610	101-0000-421.05-00	KARTIK GANESHAN	REFUND VEHICLE STICKER	\$10.00	\$10.00
218611	235-0000-435.65-03	GARY GEHN	REFUND PARKING PERMITS	\$120.00	\$120.00
218612	101-0000-421.05-00	SUSANNE GEIMER	REFUND VEHICLE STICKER	\$30.00	\$30.00
218613	101-0000-421.05-00	JOJO GEORGE	REFUND VEHICLE STICKER	\$10.00	\$10.00
218614	101-0000-421.05-00	WENDY GISMONDI	REFUND VEHICLE STICKER	\$30.00	\$30.00
218617	101-0000-421.05-00	JENNIFER GOLDMAN	REFUND VEHICLE STICKER	\$30.00	\$30.00
218620	715-0000-220.93-00	GOODFELLAS CONSTRUCTION CO	BOND REFUND	\$200.00	\$200.00
218621	101-0000-421.05-00	GORDON STOWE ASSOCIATES INC	REFUND VEHICLE STICKER	\$30.00	\$30.00
218625	101-0000-421.05-00	TINA GUERRA	REFUND VEHICLE STICKER	\$30.00	\$30.00
218628	101-0000-421.05-00	JANET HARLOW	REFUND VEHICLE STICKER	\$40.00	\$40.00
218633	101-0000-421.05-00	CAROLYN HELD	REFUND VEHICLE STICKER	\$30.00	\$30.00
218635	101-0000-421.05-00	THEODORE HENDRICKS	REFUND VEHICLE STICKER	\$30.00	\$30.00
218636	101-0000-120.80-00	HOFFMAN, WILLIAM	REFUND HEALTH INS PYMT	\$539.36	\$539.36
218637	101-0000-421.05-00	JENNIFER HUNTZICKER	REFUND VEHICLE STICKER	\$60.00	\$60.00
218641	101-0000-421.05-00	STEPHEN INGHAM	REFUND VEHICLE STICKER	\$30.00	\$30.00
218649	101-0000-421.05-00	NEIL KATRANEVA	REFUND VEHICLE STICKER	\$60.00	\$60.00
218651	101-0000-421.05-00	DAVID KING	REFUND VEHICLE STICKER	\$30.00	\$30.00

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218654	101-0000-421.05-00	TAI LAI	REFUND VEHICLE STICKER	\$60.00	\$60.00
218655	101-0000-421.05-00	LAKE CITY JANITORIAL	REFUND VEHICLE STICKER	\$5.00	\$5.00
218658	101-0000-421.05-00	DAVID LEWIS	REFUND VEHICLE STICKER	\$30.00	\$30.00
218659	101-0000-421.05-00	LINDA Z'S INC	REFUND VEHICLE STICKER	\$55.00	\$55.00
218660	101-0000-421.05-00	MARK LING	REFUND VEHICLE STICKER	\$30.00	\$30.00
218664	101-0000-421.05-00	ERWIN LUTZ	REFUND VEHICLE STICKER	\$42.00	\$42.00
218665	101-0000-421.05-00	PATRICIA MAGDZIARZ	REFUND VEHICLE STICKER	\$60.00	\$60.00
218667	101-0000-421.05-00	JESSICA MARABELLA	REFUND VEHICLE STICKER	\$30.00	\$30.00
218668	101-0000-421.05-00	VICKIE MARHIN	REFUND VEHICLE STICKER	\$5.00	\$5.00
218669	101-0000-421.05-00	NICHOLAS MARONEK	REFUND VEHICLE STICKER	\$10.00	\$10.00
218670	101-0000-441.15-00	CHARLES MATHISON	REFUND PARKING TICKET	\$25.00	\$25.00
218671	101-0000-421.05-00	BEAU MC BRIDE	REFUND VEHICLE STICKER	\$120.00	\$120.00
218673	101-0000-421.05-00	MC CONSTRUCTION INC	REFUND VEHICLE STICKER	\$30.00	\$30.00
218674	101-0000-421.05-00	JAMES MC ILRATH	REFUND VEHICLE STICKER	\$30.00	\$30.00
218681	101-0000-421.05-00	MILTON MOLINA	REFUND VEHICLE STICKER	\$30.00	\$30.00
218682	101-0000-421.05-00	ED MORAIN	REFUND VEHICLE STICKER	\$30.00	\$30.00
218683	101-0000-421.05-00	GARY MUI	REFUND VEHICLE STICKER	\$60.00	\$60.00
218688	101-0000-421.05-00	BRENT NELSON	REFUND VEHICLE STICKER	\$5.00	\$5.00
218689	101-0000-421.05-00	PAUL NEUBAUER	REFUND VEHICLE STICKER	\$270.00	\$270.00
218690	101-0000-421.05-00	REBECCA NICHOLS	REFUND VEHICLE STICKER	\$30.00	\$30.00
218692	101-0000-421.05-00	ROGER NISSEN	REFUND VEHICLE STICKER	\$30.00	\$30.00
218693	101-0000-421.05-00	MURRAY NORMAN	REFUND VEHICLE STICKER	\$42.00	\$42.00
218699	101-0000-421.05-00	JILL NOSBAUM	REFUND VEHICLE STICKER	\$50.00	\$50.00
218700	101-0000-421.05-00	BARBARA NOVAK	REFUND VEHICLE STICKER	\$60.00	\$60.00
218707	101-0000-421.05-00	ADRIANNA PASSANNANTE	REFUND VEHICLE STICKER	\$30.00	\$30.00

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218709	101-0000-421.05-00	PETER DELUCA SALON	REFUND VEHICLE STICKER	\$30.00	\$30.00
218711	101-0000-421.05-00	ROBERT PIOTROWSKI	REFUND VEHICLE STICKER	\$30.00	\$30.00
218712	101-0000-421.05-00	ANTHONY PLATIS	REFUND VEHICLE STICKER	\$30.00	\$30.00
218722	715-0000-220.93-00	REBECCA JEHL	BOND REFUND	\$100.00	\$100.00
218723	715-0000-220.93-00	REBECCA JEHL	BOND REFUND	\$500.00	\$500.00
218724	715-0000-220.93-00	REBECCA JEHL	BOND REFUND	\$200.00	\$200.00
218725	101-0000-421.05-00	RELO REDAC INC	REFUND VEHICLE STICKER	\$30.00	\$30.00
218727	101-0000-421.05-00	DSCOTT RICHEY	REFUND VEHICLE STICKER	\$30.00	\$30.00
218728	101-0000-421.05-00	JEFFREY RIEDEL	REFUND VEHICLE STICKER	\$30.00	\$30.00
218729	101-0000-421.05-00	ROBERT WEBER PHOTOGRAPHY	REFUND VEHICLE STICKER	\$30.00	\$30.00
218733	101-0000-421.05-00	S & C INSURANCE CENTER INC	REFUND VEHICLE STICKER	\$90.00	\$90.00
218734	101-0000-421.05-00	MATTHEW SCALLON	REFUND VEHICLE STICKER	\$100.00	\$100.00
218735	101-0000-421.05-00	DAVID SCHAAP	REFUND VEHICLE STICKER	\$30.00	\$30.00
218740	101-0000-421.05-00	REBECCA SESSIONS	REFUND VEHICLE STICKER	\$90.00	\$90.00
218748	101-0000-421.05-00	ATHANASIOS SPATOULAS	REFUND VEHICLE STICKER	\$30.00	\$30.00
218752	101-0000-421.05-00	RAYMOND STIVENSON	REFUND VEHICLE STICKER	\$30.00	\$30.00
218753	101-0000-421.05-00	PHILIP STUBBS	REFUND VEHICLE STICKER	\$60.00	\$60.00
218760	101-0000-421.05-00	TACTICAL SECURITY LLC	REFUND VEHICLE STICKER	\$25.00	\$145.00
			REFUND VEHICLE STICKER	\$120.00	
218761	101-0000-421.05-00	DONNA TAILLON	REFUND VEHICLE STICKER	\$30.00	\$30.00
218771	101-0000-421.05-00	TREVOR THORLEY	REFUND VEHICLE STICKER	\$30.00	\$30.00
218772	101-0000-421.05-00	DAVID TIMM	REFUND VEHICLE STICKER	\$5.00	\$5.00
218779	101-0000-433.14-00	UMR INSURANCE	REFUND AMBULANCE CLAIM	\$1,224.00	\$1,224.00
218783	101-0000-421.05-00	RONALD VARGASON	REFUND VEHICLE STICKER	\$30.00	\$30.00
218786	101-0000-211.06-00	VISION SERVICE PLAN	PREMIER VISION PREMIUM	\$3,249.16	\$4,459.20

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218786	101-0000-211.06-00	VISION SERVICE PLAN	BASE VISION PREMIUM	\$1,210.04	\$4,459.20
218787	101-0000-421.05-00	ROBERT WAHL	REFUND VEHICLE STICKER	\$30.00	\$30.00
218789	101-0000-421.05-00	JOHN WALTERS	REFUND VEHICLE STICKER	\$30.00	\$30.00
218791	101-0000-433.14-00	WEAVER, MICHAEL	REFUND AMBULANCE CLAIM	\$50.00	\$50.00
218795	101-0000-421.05-00	CARY WICKER	REFUND VEHICLE STICKER	\$30.00	\$30.00
218796	101-0000-421.05-00	THOMAS WIDMAIER	REFUND VEHICLE STICKER	\$30.00	\$30.00
218800	101-0000-421.05-00	KATHLEEN WOLKE	REFUND VEHICLE STICKER	\$60.00	\$60.00
218801	101-0000-421.05-00	MARK WOLOCH	REFUND VEHICLE STICKER	\$30.00	\$30.00
218804	101-0000-421.05-00	ASHLEY ZABINSKI	REFUND VEHICLE STICKER	\$30.00	\$30.00
218807	101-0000-421.05-00	CHERYL ZUCCHERO	REFUND VEHICLE STICKER	\$30.00	\$30.00
218808	101-0000-421.05-00	IKE ZUNZUNIA	REFUND VEHICLE STICKER	\$30.00	\$30.00
218809	101-0000-421.05-00	CAROL ZYDEK	REFUND VEHICLE STICKER	\$30.00	\$30.00
801852	101-0000-210.95-00	RTA/CTA BENEFIT PROGRAM	RTA CTA BENEFIT PROGRAM	\$361.75	\$361.75
901465	101-0000-210.91-00	EMPLOYEE BENEFITS CORP	FSA	\$4,688.50	\$4,688.50
901466	101-0000-210.91-00	EMPLOYEE BENEFITS CORP	FSA	\$3,645.58	\$3,645.58
901467	101-0000-210.91-00	EMPLOYEE BENEFITS CORP	FSA	\$722.50	\$722.50
				Division 0 Total	\$22,042.31
				Department 0 Total	\$22,042.31

WARRANT REGISTER - GM0002**Department: 1 Board of Trustees****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218662	101-0101-501.21-65	LORELLE COMMUNICATIONS INC	SERVICE MISCELLANEOUS	\$2,400.00	\$2,400.00
218717	101-0101-501.21-65	PRO FORMA	SHIRTS FOR NEW TRUSTEES	\$154.05	\$154.05
				Division 1 Total	\$2,554.05
				Department 1 Total	\$2,554.05

WARRANT REGISTER - GM0002**Department: 2 Integrated Services****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218544	515-0201-525.40-55	BLOOZE BROTHERS	SOUNDS OF SUMMER	\$1,750.00	\$1,750.00
218546	515-0201-525.40-55	BMI GENERAL LICENSING	LICENSING	\$770.40	\$770.40
218583	515-0201-525.40-55	DIGGING RECORDS INC	SOUNDS OF SUMMER	\$2,500.00	\$2,500.00
218606	515-0201-525.40-55	FRANK PAUL ENTERTAINMENT	SOUNDS OF SUMMER	\$1,500.00	\$1,500.00
218630	101-0201-502.22-02	HARRIS TRUST & SAVINGS BANK	BAM*ELGL	\$30.00	\$30.00
	101-0201-502.22-03	HARRIS TRUST & SAVINGS BANK	EXXONMOBIL 97555544	\$15.00	\$344.00
			NIU OUTREACH	\$329.00	
218650	515-0201-525.40-55	STEVEN KIKOEN	SOUNDS OF SUMMER	\$3,000.00	\$3,000.00
218710	101-0201-502.30-05	PETTY CASH	OFFICE SUPPLIES, GENERAL	\$29.33	\$29.33
218773	515-0201-525.40-55	TOM CAREY MUSIC INC	SOUNDS OF SUMMER	\$1,950.00	\$1,950.00
218803	101-0201-502.22-15	XEROX CORPORATION	OFFICE MACHINES & ACCESS	\$85.00	\$85.00
Division 1 Total					\$11,958.73
Department 2 Total					\$11,958.73

WARRANT REGISTER - GM0002**Department: 3 Human Resources****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218562	101-0301-503.22-15	CANON SOLUTIONS AMERICA	SERIAL #XVJ04617 INVOICE	\$37.28	\$37.28
218603	101-0301-503.20-75	FONTANA LEADERSHIP DEV INC	LEADERSHIP DEVELOPMENT	\$1,206.00	\$1,206.00
218630	101-0301-503.22-01	HARRIS TRUST & SAVINGS BANK	INDEED	\$1.10	\$1.10
	101-0301-503.40-70	HARRIS TRUST & SAVINGS BANK	COOPERS HAWK ARLGNTN H	\$1,439.18	\$1,589.18
			TARGET 00011767	\$150.00	
	605-0301-552.20-50	HARRIS TRUST & SAVINGS BANK	AKERMAN LLP	\$1,500.00	\$1,500.00
	605-0301-552.22-03	HARRIS TRUST & SAVINGS BANK	NIU OUTREACH	\$795.00	\$795.00
	615-0301-552.20-50	HARRIS TRUST & SAVINGS BANK	JIMMY JOHNS - 748	\$34.14	\$34.14
218642	615-0301-552.42-81	INTERGOVERNMENTAL RISK MGMT AGENCY	W/C TRAINING	\$54.00	\$56,350.47
			CLAIMS - W/C	\$56,296.47	
218696	605-0301-552.20-50	NORTHWEST COMMUNITY HOSPITAL	SERVICE HEALTH TESTING	\$72.00	\$15,301.00
			SERVICE HEALTH TESTING	\$7,428.00	
			SERVICE HEALTH TESTING	\$3,451.00	
			SERVICE HEALTH TESTING	\$1,018.00	
			SERVICE HEALTH TESTING	\$3,332.00	
218701	101-0301-503.30-05	OFFICE DEPOT	OFFICE SUPPLIES, GENERAL	\$51.49	\$51.49
218710	101-0301-503.40-70	PETTY CASH	ORIENTATION	\$24.17	\$24.17
218721	101-0301-503.30-05	RATH, MARY	OFFICE SUPPLIES, GENERAL	\$123.11	\$123.11
901464	605-0301-552.20-65	DEARBORN NATIONAL LIFE INS CO	VILLAGE BASIC LIFE	\$3,163.55	\$6,769.21
			VILLAGE SUPPL LIFE	\$3,328.70	
			DIRECTORS BASIC LIFE	\$276.96	
	605-0301-552.20-66	DEARBORN NATIONAL LIFE INS CO	LIBRARY BASIC LIFE	\$682.95	\$824.25
			LIBRARY SUPPL LIFE	\$141.30	

Check Date: 6-30-2019

Wednesday, June 26, 2019

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
				Division 1 Total	\$84,606.40
				Department 3 Total	\$84,606.40

WARRANT REGISTER - GM0002**Department: 4 Legal Department****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218569	101-0401-503.20-20	CLARK BAIRD SMITH LLP	LEGAL SERVICES	\$850.00	\$850.00
218590	101-0401-503.20-15	ERNEST R BLOMQUIST PC	RETAINER	\$4,170.00	\$4,170.00
218710	101-0401-503.21-65	PETTY CASH	TAX SEARCH	\$50.00	\$100.00
			TAX SEARCH	\$50.00	
218731	101-0401-503.21-65	ROSE MARY JURINEK	COURT REPORTER	\$655.00	\$655.00
218770	101-0401-503.33-05	THOMSON REUTERS-WEST	INFORMATION CHARGES	\$304.02	\$304.02
218803	101-0401-503.22-15	XEROX CORPORATION	OFFICE MACHINES & ACCESS	\$140.90	\$140.90
				Division 1 Total	\$6,219.92
				Department 4 Total	\$6,219.92

WARRANT REGISTER - GM0002**Department: 5 Finance****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218527	101-0501-503.21-65	ANDRES MEDICAL BILLING LTD	SERVICE FINANCIAL	\$6,283.77	\$6,283.77
218609	611-0501-552.42-61	GALLAGHER BASSETT SERVICES	GENERAL LIAB TRUE UP	\$1,125.00	\$1,125.00
218630	101-0501-503.30-05	HARRIS TRUST & SAVINGS BANK	GAYLORD BROS INC	\$222.59	\$222.59
218642	611-0501-552.42-61	INTERGOVERNMENTAL RISK MGMT AGENCY	CLAIMS - AUTO	\$2,380.50	\$6,573.09
			CLAIMS - GEN LIABILITY	\$2,647.50	
			AUTO CLOSED	\$1,545.09	
218701	101-0501-503.30-05	OFFICE DEPOT	OFFICE SUPPLIES, GENERAL	\$682.16	\$682.16
218704	101-0501-503.22-01	PADDOCK PUBLICATIONS INC	ADVERTISING	\$59.40	\$59.40
218710	101-0501-503.22-03	PETTY CASH	TRAIN TICKET	\$13.50	\$13.50
218738	505-0501-503.21-65	SEBIS DIRECT INC	SERVICE PRINTING	\$312.50	\$312.50
	505-0501-503.22-05	SEBIS DIRECT INC	SERVICE POSTAL	\$2,859.71	\$2,859.71
	505-0501-503.22-10	SEBIS DIRECT INC	SERVICE PRINTING	\$1,477.21	\$1,477.21
218759	101-0501-503.33-05	SYLVIA'S FLOWERS INC	ARRANGEMENT	\$60.95	\$60.95
Division 1 Total					\$19,669.88
Department 5 Total					\$19,669.88

WARRANT REGISTER - GM0002**Department: 6 Information Technology****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218564	625-0601-572.50-10	CDS OFFICE TECHNOLOGIES	COMPUTERS,DP & WORD PROC.	\$3,947.00	\$3,947.00
218565	625-0601-553.33-05	CDW GOVERNMENT INC	COMPUTERS,DP & WORD PROC.	\$4,669.02	\$4,669.02
218630	625-0601-553.22-02	HARRIS TRUST & SAVINGS BANK	GMIS	\$475.00	\$475.00
	625-0601-572.50-10	HARRIS TRUST & SAVINGS BANK	AMAZON.COM*M68JK03L2	\$173.97	(\$346.27)
			AMZN MKTP US	(\$552.20)	
			AMZN MKTP US*M63IT9M51	\$31.96	
218747	625-0601-572.50-10	SOUTHERN COMPUTER WAREHOUSE	COMPUTERS,DP & WORD PROC	\$632.05	\$1,127.66
			COMPUTERS,DP & WORD PROC	\$495.61	
218757	625-0601-553.20-39	SUPERION LLC	COMPUTERS,DP & WORD PROC.	\$16,328.91	\$16,328.91
				Division 1 Total	\$26,201.32
				Department 6 Total	\$26,201.32

WARRANT REGISTER - GM0002**Department: 10 Boards & Commissions****Division: 8**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218576	101-1008-502.20-75	CONRAD POLYGRAPH INC	INDIVIDUAL EXAMS	\$640.00	\$640.00
Division 8 Total					\$640.00

Division: 17

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218672	101-1017-502.20-24	JACKIE MC CARTHY	DISABILITY SUPPLIES	\$441.71	\$441.71
	101-1017-502.33-05	JACKIE MC CARTHY	DISABILITY SUPPLIES	\$206.04	\$206.04
218720	101-1017-502.20-24	MICHELE RAMSEY	DISABILITY SUPPLIES	\$46.03	\$46.03
Division 17 Total					\$693.78

Division: 22

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218541	515-1022-525.40-55	BERRY YO	ARTS COMM	\$100.00	\$100.00
218715	515-1022-525.40-55	PRAIRIE MOO	ARTS COMM	\$85.00	\$85.00
Division 22 Total					\$185.00
Department 10 Total					\$1,518.78

WARRANT REGISTER - GM0002**Department: 20 Special Events****Division: 5**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218765	515-2005-525.50-55	TC FURLONG INC	THEATRE SUPPLIES & EQUIP	\$4,299.53	\$4,299.53
				Division 5 Total	\$4,299.53
				Department 20 Total	\$4,299.53

WARRANT REGISTER - GM0002**Department: 30 Police Department****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218570	101-3001-511.21-65	COMCAST	POLICE EQUIPMENT & SUPPLY	\$92.28	\$92.28
218580	101-3001-511.33-25	GREGORZ J CZERNECKI	REIMBURSEMENT	\$145.94	\$145.94
218618	101-3001-511.21-65	GOLF ROSE PET LODGE	SERVICE MISCELLANEOUS	\$672.00	\$852.00
			SERVICE MISCELLANEOUS	\$84.00	
			SERVICE MISCELLANEOUS	\$96.00	
218619	101-3001-511.22-03	TARYN GOMBAR	SPECIAL OLYMPICS	\$187.08	\$187.08
218630	101-3001-511.22-03	HARRIS TRUST & SAVINGS BANK	SAFE KIDS WORLDWIDE	\$55.00	\$55.00
	101-3001-511.30-05	HARRIS TRUST & SAVINGS BANK	AMZN MKTP US*MN4GL5RX0	\$16.79	\$16.79
	101-3001-511.30-35	HARRIS TRUST & SAVINGS BANK	AMZN MKTP US*MN91R0WH0	\$299.90	\$470.30
			GALLS	\$170.40	
	101-3001-511.33-05	HARRIS TRUST & SAVINGS BANK	JEWEL-OSCO	\$42.99	\$42.99
218644	101-3001-511.33-25	INTOXIMETERS INC	SUPPLIES	\$306.50	\$306.50
218646	101-3001-511.30-35	JG UNIFORMS	CLOTHING & APPAREL	\$183.90	\$3,000.40
			CLOTHING & APPAREL	\$79.70	
			CLOTHING & APPAREL	\$586.40	
			CLOTHING & APPAREL	\$33.00	
			CLOTHING & APPAREL	\$78.75	
			CLOTHING & APPAREL	\$429.80	
			CLOTHING & APPAREL	\$747.65	
			CLOTHING & APPAREL	\$861.20	
218653	101-3001-511.22-15	KONICA MINOLTA BUSINESS USA	OFFICE MACHINES & ACCESS	\$189.74	\$252.74
			OFFICE MACHINES & ACCESS	\$63.00	
218694	101-3001-511.21-65	NORTHERN IL FUNERAL SERVICES INC	SERVICE PROFESSIONAL	\$960.00	\$960.00

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Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218698	101-3001-511.22-03	NORTHWESTERN UNIVERSITY	REGISTRATION	\$2,950.00	\$2,950.00
218754	101-3001-511.33-25	SUBURBAN ACCENTS INC	DECALS	\$100.00	\$135.00
			DECALS	\$35.00	
218756	101-3001-511.30-35	SUPER SEER CORP	MOTORCYCLE HELMETS	\$3,101.80	\$3,101.80
218763	101-3001-511.22-03	CHRISTOPHER TATMAN	SPECIAL OLYMPICS	\$242.01	\$242.01
218769	101-3001-511.21-65	THOMSON REUTERS-WEST	SERVICE PROFESSIONAL	\$494.40	\$494.40
218788	101-3001-511.21-65	WALGREEN COMPANY	SERVICE PROFESSIONAL	\$74.37	\$74.37
218810	101-3001-511.21-65	3SI SECURITY SYSTEMS	SERVICE RENEWAL	\$432.00	\$432.00
Division 1 Total					\$13,811.60

Division: 3

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218537	231-3003-511.40-01	RODOLFO AVALOS	TRAVEL & TRAINING	\$719.00	\$719.00
	231-3003-511.40-11	RODOLFO AVALOS	TRAVEL & TRAINING	\$1,050.69	\$1,050.69
218630	231-3003-511.40-11	HARRIS TRUST & SAVINGS BANK	LITTLE CAESARS 3142-00	\$300.00	\$385.92
			WAL-MART #2815	\$85.92	
218656	231-3003-511.40-11	LDV INC	ACCESSORIES	\$574.97	\$574.97
218737	231-3003-511.40-01	SCIENTIFIC ANIMAL FEEDS AND NEEDS	CANINE UNIT PROGRAM	\$69.99	\$191.26
			CANINE UNIT PROGRAM	\$51.28	
			CANINE UNIT PROGRAM	\$69.99	
218749	231-3003-511.40-11	SPECTRUM PRODUCTIONS	PROFESSIONAL SERVICES	\$350.00	\$350.00
Division 3 Total					\$3,271.84
Department 30 Total					\$17,083.44

WARRANT REGISTER - GM0002**Department: 35 Fire****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218515	101-3501-512.30-35	AIR ONE EQUIPMENT	SAFETY & FIRST AID EQUIP.	\$771.60	\$2,178.20
			SAFETY & FIRST AID EQUIP.	\$342.00	
			SAFETY & FIRST AID EQUIP.	\$335.00	
			SAFETY & FIRST AID EQUIP.	\$729.60	
	101-3501-512.31-85	AIR ONE EQUIPMENT	FIRE PROTECTION EQUIP/SUP	\$1,040.00	\$1,040.00
218568	101-3501-512.21-02	CHICAGO COMMUNICATIONS LLC	SERVICE BLDG MAINT	\$210.00	\$210.00
218646	101-3501-512.30-35	JG UNIFORMS	BADGES & OTHER ID EQUIP.	\$41.75	\$101.75
			BADGES & OTHER ID EQUIP.	\$60.00	
218652	101-3501-512.22-03	JAMES KLEIN	TRAVEL & TRAINING	\$175.00	\$175.00
218666	101-3501-512.22-03	RICK MANTHY	TRAVEL & TRAINING	\$175.00	\$175.00
218695	101-3501-512.32-80	NORTHWEST COMMUNITY	SOP BOOKS	\$610.28	\$610.28
218701	101-3501-512.30-05	OFFICE DEPOT	OFFICE SUPPLIES, GENERAL	\$61.05	\$61.05
218705	101-3501-512.22-03	SEBASTIAN PARKER	TRAVEL & TRAINING	\$200.00	\$200.00
218730	101-3501-512.22-03	ROMEOVILLE FIRE DEPARTMENT	CFO CLASS	\$325.00	\$325.00
218739	101-3501-512.33-05	SERVICE SANITATION	RENTAL/LEASE EQUIPMENT	\$231.00	\$231.00
218741	101-3501-512.30-05	SETON	NAME PLATE	\$53.39	\$53.39
218743	101-3501-512.22-03	ADAM SIELIG	TRAVEL & TRAINING	\$175.00	\$175.00
218775	101-3501-512.22-10	TOTAL PRINT SOLUTIONS	PARAMEDIC NOTE PADS	\$335.10	\$335.10
218781	101-3501-512.22-05	UPS STORE #1051	SHIPPING/DELIVERY SERVICE	\$11.26	\$11.26
218799	101-3501-512.31-65	WITMER PUBLIC SAFETY GROUP	BATTERIES	\$84.27	\$418.11
			BATTERIES	\$333.84	
218802	401-3501-572.50-15	WS DARLEY & CO	SAFETY & FIRST AID EQUIP.	(\$597.00)	\$215.54
			SAFETY & FIRST AID EQUIP.	\$121.95	

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218802	401-3501-572.50-15	WS DARLEY & CO	SAFETY & FIRST AID EQUIP.	\$160.00	\$215.54
			SAFETY & FIRST AID EQUIP.	\$530.59	
218803	101-3501-512.22-15	XEROX CORPORATION	OFFICE MACHINES & ACCESS	\$85.00	\$189.00
			OFFICE MACHINES & ACCESS	\$26.00	
			OFFICE MACHINES & ACCESS	\$26.00	
			OFFICE MACHINES & ACCESS	\$26.00	
			OFFICE MACHINES & ACCESS	\$26.00	
Division 1 Total				\$6,704.68	
Department 35 Total				\$6,704.68	

WARRANT REGISTER - GM0002**Department: 37 Foreign Fire Insurance****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218567	227-3701-512.22-03	ROSS CHAPMAN	TUITION REIMBURSEMENT	\$600.00	\$600.00
218608	227-3701-512.22-03	ALEXANDER GABRIELSEN	TUITION REIMBURSEMENT	\$450.00	\$450.00
218634	227-3701-512.50-15	HELLER LUMBER CO	LUMBER	\$1,293.90	\$1,293.90
218648	227-3701-512.22-03	DAVID JOHNSON	TUITION REIMBURSEMENT	\$129.05	\$129.05
218736	227-3701-512.22-03	SCHUBERT MICHAEL	FDIC REIMBURSEMENT	\$454.35	\$454.35
				Division 1 Total	\$2,927.30
				Department 37 Total	\$2,927.30

WARRANT REGISTER - GM0002**Department: 40 Planning****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218615	101-4001-521.40-40	GLOBAL AERIAL VIDEO INC	SERVICE PROFESSIONAL	\$1,350.00	\$1,350.00
218626	401-4001-571.50-30	HAMPTON LENZINI & RENWICK INC	SERVICE PROFESSIONAL	\$1,190.00	\$1,190.00
218630	101-4001-521.21-65	HARRIS TRUST & SAVINGS BANK	APL*ITUNES.COM/BILL	\$0.99	\$1.98
			APL*ITUNES.COM/BILL	\$0.99	
	101-4001-521.30-05	HARRIS TRUST & SAVINGS BANK	AMAZON.COM*M62VS9GB1 A	\$9.99	\$9.99
	101-4001-521.40-40	HARRIS TRUST & SAVINGS BANK	ICSC	\$755.00	\$755.00
218657	101-4001-521.21-65	LEGRAND REPORTING & VIDEO SERVICES	TRANSCRIPTS	\$257.95	\$487.20
			TRANSCRIPTS	\$229.25	
218701	101-4001-521.30-05	OFFICE DEPOT	OFFICE SUPPLIES, GENERAL	\$143.13	\$143.13
218704	101-4001-521.22-01	PADDOCK PUBLICATIONS INC	ADVERTISING	\$561.80	\$561.80
	101-4001-521.40-40	PADDOCK PUBLICATIONS INC	ADVERTISING	\$1,040.00	\$1,040.00
218706	101-4001-521.30-05	PASCUCCI, LINDA	OFFICE SUPPLIES, GENERAL	\$54.00	\$54.00
218803	101-4001-521.22-15	XEROX CORPORATION	OFFICE MACHINES & ACCESS	\$37.96	\$37.96
Division 1 Total					\$5,631.06
Department 40 Total					\$5,631.06

WARRANT REGISTER - GM0002**Department: 41 Community Devl Block Grnt****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218531	215-4101-522.41-16	ARLINGTON HTS PARK DISTRICT	CDBG PROGRAM	\$30.00	\$30.00
218533	215-4101-522.41-76	ARROW ROAD CONSTRUCTION CO	SERVICE CONSTRUCTION	\$1,548.41	\$1,548.41
				Division 1 Total	\$1,578.41
				Department 41 Total	\$1,578.41

WARRANT REGISTER - GM0002**Department: 45 Building****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218510	101-4501-523.30-05	A & E RUBBER STAMP CORP	OFFICE SUPPLIES, GENERAL	\$1,243.90	\$1,354.20
			OFFICE SUPPLIES, GENERAL	\$110.30	
218591	101-4501-523.21-65	ESO SOLUTIONS INC	ANNUAL SUPPORT	\$600.00	\$600.00
218597	101-4501-523.20-35	FIRE SAFETY CONSULTANTS INC	PLAN REVIEW	\$1,025.00	\$1,025.00
218624	101-4501-523.20-35	GRIVAS KRAUSE ASSOCIATES LTD	PLAN REVIEW	\$875.00	\$875.00
218630	101-4501-523.22-03	HARRIS TRUST & SAVINGS BANK	INT L CODE COUNCIL INC	\$90.00	\$90.00
218687	101-4501-523.22-02	NATL FIRE PROTECTION ASSOC	MEMBERSHIP RENEWAL	\$175.00	\$175.00
218747	101-4501-523.30-05	SOUTHERN COMPUTER WAREHOUSE	COMPUTERS,DP&WORD PROC.	\$1,039.96	\$1,039.96
218768	101-4501-523.21-65	THOMPSON ELEVATOR INSPECTION	SERVICE BLDG MAINT	\$76.00	\$816.00
			SERVICE BLDG MAINT	\$38.00	
			SERVICE BLDG MAINT	\$38.00	
			SERVICE BLDG MAINT	\$588.00	
			SERVICE BLDG MAINT	\$76.00	
218776	101-4501-523.20-05	TPI	SERVICE PROFESSIONAL	\$5,593.00	\$5,593.00
218803	101-4501-523.22-15	XEROX CORPORATION	OFFICE MACHINES & ACCESS	\$26.00	\$56.55
			OFFICE MACHINES & ACCESS	\$30.55	
Division 1 Total					\$11,624.71
Department 45 Total					\$11,624.71

WARRANT REGISTER - GM0002**Department: 70 Health****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218517	101-7001-541.20-25	ALEXIAN BROS CENTER MENTAL HEALTH	COUNSELING	\$710.00	\$1,311.60
			COUNSELING	\$146.60	
			COUNSELING	\$455.00	
218528	101-7001-541.20-25	ARLINGTON CENTER	COUNSELING	\$370.50	\$370.50
218529	101-7001-541.20-25	ARLINGTON CENTER FOR RECOVERY	COUNSELING	\$200.00	\$1,075.00
			COUNSELING	\$875.00	
218578	101-7001-541.21-10	CORELOGIC SOLUTIONS LLC	PROPERTY SEARCH	\$220.00	\$220.00
218586	101-7001-541.40-60	DUNTON TOWERS	RENTAL ASSISTANCE PROGRAM	\$600.00	\$600.00
218587	101-7001-541.20-25	EDGE COUNSELING SOLUTIONS	COUNSELING	\$650.00	\$650.00
218594	101-7001-541.22-10	FASTSIGNS	NAME PLATE	\$12.00	\$12.00
218601	101-7001-541.21-10	FLECKS LANDSCAPING	PROPERTY MAINTENANCE	\$130.00	\$1,980.00
			PROPERTY MAINTENANCE	\$85.00	
			PROPERTY MAINTENANCE	\$85.00	
			PROPERTY MAINTENANCE	\$85.00	
			PROPERTY MAINTENANCE	\$130.00	
			PROPERTY MAINTENANCE	\$70.00	
			PROPERTY MAINTENANCE	\$85.00	
			PROPERTY MAINTENANCE	\$200.00	
			PROPERTY MAINTENANCE	\$70.00	
			PROPERTY MAINTENANCE	\$350.00	
			PROPERTY MAINTENANCE	\$200.00	
			PROPERTY MAINTENANCE	\$105.00	
			PROPERTY MAINTENANCE	\$85.00	

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218601	101-7001-541.21-10	FLECKS LANDSCAPING	PROPERTY MAINTENANCE	\$85.00	\$1,980.00
			PROPERTY MAINTENANCE	\$215.00	
218630	101-7001-541.30-01	HARRIS TRUST & SAVINGS BANK	MDC*PEOPLE MAGAZINE	\$94.50	\$94.50
	101-7001-541.30-05	HARRIS TRUST & SAVINGS BANK	AMAZON.COM*M64JA6470	\$13.41	\$48.26
			AMAZON.COM*M68B53XK1 A	\$34.85	
218675	101-7001-541.33-10	MC KESSON MEDICAL SURGICAL	NURSING SUPPLIES CLINIC	\$423.84	\$727.14
			NURSING SUPPLIES FESTIVAL	\$21.72	
			NURSING SUPPLIES FESTIVAL	\$177.20	
			NURSING SUPPLIES FESTIVAL	\$19.08	
			NURSING SUPPLIES FESTIVAL	\$71.58	
			NURSING SUPPLIES FESTIVAL	\$13.72	
218710	101-7001-541.22-03	PETTY CASH	MILEAGE	\$20.88	\$83.52
			MILEAGE	\$20.88	
			MILEAGE	\$20.88	
			MILEAGE	\$20.88	
218726	101-7001-541.40-60	RESIDENCES AT ARLINGTON HEIGHTS	RENTAL ASSISTANCE PROGRAM	\$532.98	\$532.98
218755	101-7001-541.22-10	SUMMIT PRINT SOLUTIONS	OFFICE SUPPLIES, GENERAL	\$65.50	\$65.50
218785	101-7001-541.21-65	VERIZON WIRELESS	ACCT 8478287635	\$149.99	\$149.99
218803	101-7001-541.22-15	XEROX CORPORATION	OFFICE MACHINES & ACCESS	\$85.00	\$85.00
Division 1 Total					\$8,005.99

Division: 7

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218629	101-7007-541.21-65	HARPER COLLEGE	PROGRAM INSTRUCTIONAL FEE	\$80.00	\$80.00
218630	101-7007-541.21-65	HARRIS TRUST & SAVINGS BANK	VOLGISTICS INC	\$61.00	\$61.00
218803	101-7007-541.22-15	XEROX CORPORATION	OFFICE MACHINES & ACCESS	\$18.60	\$37.20

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218803	101-7007-541.22-15	XEROX CORPORATION	OFFICE MACHINES & ACCESS	\$18.60	\$37.20
				Division 7 Total	\$178.20
				Department 70 Total	\$8,184.19

WARRANT REGISTER - GM0002**Department: 71 Public Works****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218511	401-7101-571.50-20	ABT ELECTRONICS	SERVICE BLDG MAINT	\$979.00	\$979.00
218512	101-7101-531.31-55	ACTIVE ELECTRICAL SUPPLY CO	ELECTRICAL SUPPLY	\$673.20	\$673.20
	101-7101-531.31-75	ACTIVE ELECTRICAL SUPPLY CO	ELECTRICAL SUPPLY	\$758.02	\$4,058.02
			ELECTRICAL SUPPLY	\$3,300.00	
218513	101-7101-531.21-11	ACTIVE LOCK AND KEY LTD	SERVICE BLDG MAINT	\$165.00	\$165.00
218519	101-7101-531.21-11	ALPHA BUILDING MAINTENANCE SRVS	SERVICE BLDG MAINT	\$3,562.50	\$3,562.50
218521	101-7101-531.31-65	AMAZON COM CAPITAL SERVICES	HARDWARE SUPPLIES	\$49.90	\$422.64
			HARDWARE SUPPLIES	\$10.99	
			HARDWARE SUPPLIES	\$70.57	
			HARDWARE SUPPLIES	\$11.99	
			HARDWARE SUPPLIES	\$7.38	
			HARDWARE SUPPLIES	\$271.81	
	101-7101-531.33-05	AMAZON COM CAPITAL SERVICES	HARDWARE SUPPLIES	\$8.99	\$8.99
218524	101-7101-531.21-11	AMERICAN DOOR & DOCK	SERVICE BLDG MAINT	\$497.83	\$497.83
218526	101-7101-531.31-55	ANDERSON LOCK	KEYS	\$37.00	\$37.00
218532	101-7101-531.31-65	ARLINGTON POWER EQUIPMENT	FORESTRY SUPPLIES	\$41.94	\$41.94
	401-7101-572.50-15	ARLINGTON POWER EQUIPMENT	FORESTRY SUPPLIES	\$263.96	\$263.96
218533	211-7101-571.50-40	ARROW ROAD CONSTRUCTION CO	SERVICE CONSTRUCTION	\$235,358.06	\$235,358.06
	401-7101-571.50-30	ARROW ROAD CONSTRUCTION CO	SERVICE CONSTRUCTION	\$5,000.00	\$237,173.84
			SERVICE CONSTRUCTION	\$36,440.24	
			SERVICE CONSTRUCTION	\$195,733.60	
	401-7101-571.50-45	ARROW ROAD CONSTRUCTION CO	SERVICE CONSTRUCTION	\$3,973.85	\$3,973.85
218534	101-7101-531.22-70	AT & T	ACCT 84725535058159	\$3,006.67	\$3,006.67

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218535	101-7101-531.22-70	AT & T	ACCT 84725331203952	\$8,951.81	\$8,951.81
218571	101-7101-531.21-50	COMMONWEALTH EDISON COMPANY	ACCT 0211092232	\$29.91	\$29.91
218572	101-7101-531.21-50	COMMONWEALTH EDISON COMPANY	ACCT 0297144471	\$72.61	\$72.61
218573	101-7101-531.21-50	COMMONWEALTH EDISON COMPANY	ACCT 0191814025	\$515.03	\$515.03
218574	101-7101-531.21-50	COMMONWEALTH EDISON COMPANY	ACCT 0191814025	\$1,187.28	\$1,187.28
218575	101-7101-531.21-11	COMPLETE CLEANING CO INC	SERVICE BLDG MAINT	\$5,211.07	\$5,211.07
	101-7101-531.31-45	COMPLETE CLEANING CO INC	SERVICE BLDG MAINT	\$243.88	\$373.32
			SERVICE BLDG MAINT	\$129.44	
218579	101-7101-531.21-11	CRYSTAL MAINTENANCE & MGMT SRVS	SERVICE BLDG MAINT	\$10,025.00	\$10,025.00
218584	401-7101-571.50-20	DREISILKER ELECTRIC MOTORS INC	SERVICE BLDG MAINT	\$657.47	\$657.47
218601	101-7101-531.21-55	FLECKS LANDSCAPING	LANDSCAPING	\$1,762.00	\$9,822.30
			LANDSCAPING	\$500.00	
			LANDSCAPING	\$7,560.30	
218605	101-7101-531.21-02	FOUNTAIN TECHNOLOGIES LTD	SERVICE BLDG MAINT	\$255.50	\$255.50
218607	401-7101-571.50-30	CHRIS FREUND	DRIVEWAY REIMBURSEMENT	\$820.48	\$820.48
218622	101-7101-531.20-05	GOVTEMPSUSA LLC	SERVICE ENGINEERING	\$2,047.50	\$2,047.50
218623	101-7101-531.31-55	GRAINGER W W INC	HARDWARE SUPPLIES	\$111.06	\$111.06
218626	401-7101-571.50-30	HAMPTON LENZINI & RENWICK INC	SERVICE CONSULTING	\$29,279.25	\$29,279.25
218630	101-7101-531.22-02	HARRIS TRUST & SAVINGS BANK	INTL SOC ARBORICULTURE	\$120.00	\$120.00
	101-7101-531.22-03	HARRIS TRUST & SAVINGS BANK	ILLINOIS ARBORIST ASSN	\$135.00	\$238.30
			NIPSTAILPARKPARKSNREC	\$103.30	
	101-7101-531.31-65	HARRIS TRUST & SAVINGS BANK	APL*ITUNES.COM/BILL	\$0.99	\$1,334.99
			SAMS CLUB #6464	\$1,334.00	
218631	101-7101-531.21-02	HAYES MECHANICAL	HVAC MAINTENANCE	\$651.00	\$10,763.87
			HVAC MAINTENANCE	\$2,046.00	

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Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218631	101-7101-531.21-02	HAYES MECHANICAL	HVAC MAINTENANCE	\$975.00	\$10,763.87
			HVAC MAINTENANCE	\$170.00	
			HVAC MAINTENANCE	\$1,647.00	
			HVAC MAINTENANCE	\$1,328.00	
			HVAC MAINTENANCE	\$926.87	
			HVAC MAINTENANCE	\$894.00	
			HVAC MAINTENANCE	\$841.00	
			HVAC MAINTENANCE	\$535.00	
			HVAC MAINTENANCE	\$289.00	
			HVAC MAINTENANCE	\$461.00	
218639	101-7101-531.22-15	IMPACT NETWORKING LLC	COPIER CONTRACT	\$1,626.32	\$1,626.32
218640	401-7101-571.50-30	INFRASTRUCTURE MGMT SERVICES	SERVICE CONSULTING	\$19,322.20	\$19,322.20
218643	101-7101-531.21-11	INTL EXTERMINATORS INC	PEST CONTROL	\$120.00	\$244.00
			PEST CONTROL	\$65.00	
			PEST CONTROL	\$59.00	
218645	101-7101-531.31-40	JCK CONTRACTORS	TOPSOIL	\$1,360.00	\$1,360.00
218647	101-7101-531.21-65	JOHNSON CONTROLS SECURITY SOLUTIONS	QUARTERLY MONITOR	\$106.43	\$1,085.58
			QUARTERLY MONITOR	\$106.43	
			QUARTERLY MONITOR	\$117.07	
			QUARTERLY MONITOR	\$106.43	
			QUARTERLY MONITOR	\$106.43	
			QUARTERLY MONITOR	\$117.07	
			QUARTERLY MONITOR	\$106.43	
			QUARTERLY MONITOR	\$106.43	
			QUARTERLY MONITOR	\$106.43	

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218647	101-7101-531.21-65	JOHNSON CONTROLS SECURITY SOLUTIONS	QUARTERLY MONITOR	\$106.43	\$1,085.58
218661	101-7101-531.21-02	LIONHEART CRITICAL POWER	SERVICE BLDG MAINT	\$74.00	\$74.00
218663	101-7101-531.31-40	LOWES COMMERCIAL SERVICES	HARDWARE SUPPLIES	\$85.32	\$85.32
	101-7101-531.31-55	LOWES COMMERCIAL SERVICES	HARDWARE SUPPLIES	\$37.01	\$37.01
	101-7101-531.31-65	LOWES COMMERCIAL SERVICES	HARDWARE SUPPLIES	\$22.30	\$44.14
			HARDWARE SUPPLIES	\$21.84	
	101-7101-531.31-75	LOWES COMMERCIAL SERVICES	HARDWARE SUPPLIES	\$14.58	\$14.58
	101-7101-531.33-05	LOWES COMMERCIAL SERVICES	HARDWARE SUPPLIES	\$17.56	\$17.56
218676	101-7101-531.31-55	MECOR INC	HARDWARE SUPPLIES	\$947.37	\$947.37
218677	101-7101-531.21-02	MID AMERICAN ELEVATOR CO INC	SERVICE BLDG MAINT	\$1,497.75	\$2,777.75
			SERVICE BLDG MAINT	\$1,280.00	
218679	101-7101-531.31-40	MIDWEST GROUNDCOVERS	AGRICULTURAL SUPPLIES	\$233.97	\$2,458.54
			AGRICULTURAL SUPPLIES	\$1,923.01	
			AGRICULTURAL SUPPLIES	\$301.56	
218680	101-7101-531.21-55	MILIEU DESIGN LLC	SERVICE MISCELLANEOUS	\$2,148.17	\$8,075.98
			SERVICE MISCELLANEOUS	\$2,034.14	
			SERVICE MISCELLANEOUS	\$1,955.86	
			SERVICE MISCELLANEOUS	\$1,937.81	
218686	401-7101-571.50-20	NATL DECORATING SERVICE INC	SERVICE BLDG MAINT	\$14,875.00	\$14,875.00
218691	101-7101-531.21-50	NICOR	ACCT 01701843946	\$43.66	\$43.66
218702	101-7101-531.31-90	OZINGA READY MIX CONCRETE INC	SERVICE CONSTRUCTION	\$2,173.00	\$3,156.00
			SERVICE CONSTRUCTION	\$983.00	
218703	101-7101-531.22-70	PACIFIC TELEMAGEMENT SERVICES	TELECOMMUNICATIONS	\$153.00	\$153.00
218708	101-7101-531.31-40	PESCHES FLOWER SHOP	LANDSCAPING	\$323.64	\$3,310.53
			LANDSCAPING	\$803.49	

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218708	101-7101-531.31-40	PESCHES FLOWER SHOP	LANDSCAPING	\$923.30	\$3,310.53
			LANDSCAPING	\$1,260.10	
218710	101-7101-531.31-65	PETTY CASH	EVENT SUPPLIES	\$28.53	\$57.30
			EVENT SUPPLIES	\$28.77	
218713	101-7101-531.21-15	POTHOLE PROS INC	SERVICE CONSTRUCTION	\$9,646.00	\$9,646.00
218716	101-7101-531.22-70	PRECISE MRM LLC	DATA PLAN / MONTHLY FEE	\$395.01	\$395.01
218742	101-7101-531.31-40	SHERWIN ACE HARDWARE	AGRICULTURAL SUPPLIES	\$49.96	\$60.10
			AGRICULTURAL SUPPLIES	\$7.56	
			AGRICULTURAL SUPPLIES	\$2.58	
	101-7101-531.31-45	SHERWIN ACE HARDWARE	HARDWARE SUPPLIES	\$26.97	\$26.97
	101-7101-531.31-55	SHERWIN ACE HARDWARE	HARDWARE SUPPLIES	\$4.99	\$4.99
	101-7101-531.31-65	SHERWIN ACE HARDWARE	HARDWARE SUPPLIES	\$24.58	\$114.00
			HARDWARE SUPPLIES	\$16.49	
			HARDWARE SUPPLIES	\$53.96	
			HARDWARE SUPPLIES	\$4.98	
			HARDWARE SUPPLIES	\$13.99	
	101-7101-531.31-85	SHERWIN ACE HARDWARE	HARDWARE SUPPLIES	\$70.55	\$70.55
218744	101-7101-531.33-05	SIGNS BY TOMORROW	SERVICE PRINTING	\$476.00	\$476.00
218745	101-7101-531.31-40	SITEONE LANDSCAPE SUPPLY LLC	IRRIGATION SUPPLIES	\$210.48	\$543.45
			IRRIGATION SUPPLIES	\$332.97	
218746	101-7101-531.31-55	SOUTH SIDE CONTROL SUPPLY CO.	HARDWARE SUPPLIES	\$165.65	\$165.65
218762	101-7101-531.21-65	TARGET SOLUTIONS LEARNING LLC	MEMBERSHIPS	\$1,825.93	\$1,825.93
218766	101-7101-531.31-55	TEMPERATURE EQUIPMENT CORP	VEH MAINTENANCE SUPPLY	\$313.78	(\$157.03)
			VEH MAINTENANCE SUPPLY	(\$470.81)	
	401-7101-571.50-20	TEMPERATURE EQUIPMENT CORP	VEH MAINTENANCE SUPPLY	\$532.17	\$532.17

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218774	101-7101-531.21-36	TOPCON SOLUTIONS STORE	RENTAL/LEASE EQUIPMENT	\$250.00	\$250.00
218777	101-7101-531.31-80	TRAFFIC CONTROL & PROTECTION	TRAFFIC SIGNAL SUPPLY	\$970.00	\$970.00
218778	101-7101-531.31-70	TRAFFIC CONTROL CORP	TRAFFIC SIGNAL SUPPLY	\$616.00	\$784.75
			TRAFFIC SIGNAL SUPPLY	\$168.75	
218797	101-7101-531.20-05	WILSON CONSULTING	AT&T AUDIT	\$375.00	\$375.00
218798	401-7101-571.50-30	WILLIAM WINKLER	SIDEWALK REIMBURSEMENT	\$140.00	\$140.00
218805	101-7101-531.31-45	ZEP MANUFACTURING CO	HARDWARE SUPPLIES	\$156.00	\$156.00
801854	101-7101-531.21-50	NICOR	ACCT 05850400002	\$62.97	\$909.19
			ACCT 16797600001	\$101.84	
			ACCT 76830700001	\$238.58	
			ACCT 94830700004	\$505.80	
801855	101-7101-531.21-50	COMMONWEALTH EDISON COMPANY	ACCT 2985063029	\$70.14	\$519.97
			ACCT 4103039009	\$212.50	
			ACCT 5492508009	\$94.92	
			ACCT 8572043011	\$142.41	
801856	101-7101-531.22-70	AT & T	ACCT 84725961248940	\$51.53	\$2,768.81
			ACCT 84739208661733	\$48.73	
			ACCT 84739271083278	\$47.78	
			ACCT 84743978686650	\$101.97	
			ACCT 84757754536603	\$79.40	
			ACCT 84757757951551	\$294.08	
			ACCT 84779713213488	\$46.41	
			ACCT 847R1605198974	\$2,098.91	
801857	101-7101-531.21-50	CONSTELLATION NEW ENERGY INC	ACCT 92054512	\$10,016.42	\$10,016.42
Division 1 Total					\$662,399.02

Check Date: 6-30-2019

Wednesday, June 26, 2019

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
				Department 71 Total	\$662,399.02

WARRANT REGISTER - GM0002**Department: 72 Water and Sewer****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218516	505-7201-561.31-60	ALEXANDER CHEMICAL CORP	CYLINDER DEPOSIT RETURN	(\$600.00)	\$257.50
			CYLINDER DEPOSIT RETURN	(\$500.00)	
			CHLOR/GAS FOR WATER SYSTEM	\$1,357.50	
218521	505-7201-561.31-65	AMAZON COM CAPITAL SERVICES	WATER/SEWER SYSTEM SUPPLY	\$29.65	\$29.65
218522	505-7201-561.30-05	AMAZON.COM	WATER/SEWER SYSTEM SUPPLY	\$15.88	\$15.88
	505-7201-561.30-35	AMAZON.COM	WATER/SEWER SYSTEM SUPPLY	\$119.97	\$199.95
			WATER/SEWER SYSTEM SUPPLY	\$79.98	
	505-7201-561.31-65	AMAZON.COM	WATER/SEWER SYSTEM SUPPLY	\$47.10	\$62.09
			WATER/SEWER SYSTEM SUPPLY	\$14.99	
	505-7201-561.50-10	AMAZON.COM	WATER/SEWER SYSTEM SUPPLY	\$389.00	\$389.00
218523	505-7201-561.21-11	AMERICAN BUILDING SERVICES LLC	SERVICE BLDG MAINT	\$1,833.49	\$1,833.49
218525	505-7201-561.31-85	ANDAX	METERS SUPPLY	\$135.30	\$135.30
218542	505-7201-561.22-10	BHFX LLC	PRINTING SERVICE	\$126.00	\$438.40
			PRINTING SERVICE	\$312.40	
218557	505-7201-561.21-36	C C CARTAGE INC	RENTAL/LEASE EQUIPMENT	\$6,142.08	\$6,142.08
	505-7201-561.21-62	C C CARTAGE INC	STREET/SIDEWALK SUPPLIES	\$1,586.64	\$1,586.64
	505-7201-561.31-90	C C CARTAGE INC	STREET/SIDEWALK SUPPLIES	\$3,474.81	\$3,474.81
218585	505-7201-561.33-05	DRYDON EQUIPMENT INC	HARDWARE SUPPLIES	\$3,335.80	\$3,335.80
218589	505-7201-561.30-35	ELMORE DONALD	UNIFORM REIMBURSEMENT	\$86.77	\$86.77
218623	505-7201-561.31-55	GRAINGER W W INC	ELECTRICAL EQUIP & SUPPLY	\$828.60	\$828.60
218627	505-7201-561.31-85	HARBOR FREIGHT TOOLS	HARDWARE SUPPLIES	\$60.96	\$60.96
218630	505-7201-561.21-65	HARRIS TRUST & SAVINGS BANK	DROPBOX*JZHNHM1XS6GW	\$99.00	\$99.00
218632	505-7201-561.31-02	HBK WATER METER SERVICE INC	METERS SUPPLY	\$375.07	\$375.07

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218645	505-7201-561.31-40	JCK CONTRACTORS	TOPSOIL	\$680.00	\$680.00
218663	505-7201-561.31-01	LOWES COMMERCIAL SERVICES	WATER SEWER SYSTEM SUPPLY	\$25.30	\$42.36
			WATER SEWER SYSTEM SUPPLY	\$17.06	
	505-7201-561.31-02	LOWES COMMERCIAL SERVICES	WATER SEWER SYSTEM SUPPLY	\$23.68	\$80.86
			PLUMBING EQUIP FIXT,SUPP	\$17.33	
			PLUMBING EQUIP FIXT,SUPP	\$37.28	
			PLUMBING EQUIP FIXT,SUPP	(\$37.28)	
			PLUMBING EQUIP FIXT,SUPP	\$39.85	
	505-7201-561.31-05	LOWES COMMERCIAL SERVICES	PLUMBING EQUIP FIXT,SUPP	\$7.07	\$7.07
	505-7201-561.31-07	LOWES COMMERCIAL SERVICES	WATER SEWER SYSTEM SUPPLY	\$45.44	\$176.61
			WATER SEWER SYSTEM SUPPLY	\$131.17	
	505-7201-561.31-55	LOWES COMMERCIAL SERVICES	WATER SEWER SYSTEM SUPPLY	\$1.89	\$1.89
	505-7201-561.31-65	LOWES COMMERCIAL SERVICES	WATER SEWER SYSTEM SUPPLY	\$17.37	\$17.37
218678	505-7201-561.31-01	MID AMERICAN WATER	WATER SEWER SYSTEM SUPPLY	\$6,960.00	\$6,960.00
218697	505-7201-561.31-55	NORTHWEST ELECTRICAL SUPPLY CO	SERVICE BLDG MAINT	\$51.73	\$61.72
			SERVICE BLDG MAINT	\$9.99	
218716	505-7201-561.22-70	PRECISE MRM LLC	DATA PLAN / MONTHLY FEE	\$395.02	\$395.02
218742	505-7201-561.31-55	SHERWIN ACE HARDWARE	PLUMBING EQUIP FIXT,SUPP	\$6.99	\$11.91
			PLUMBING EQUIP FIXT,SUPP	\$4.92	
	505-7201-561.31-65	SHERWIN ACE HARDWARE	HARDWARE SUPPLIES	\$9.99	\$37.69
			HARDWARE SUPPLIES	\$11.56	
			HARDWARE SUPPLIES	\$8.97	
			HARDWARE SUPPLIES	\$7.17	
218751	505-7201-561.21-20	STANDARD PIPE & SUPPLY INC	SERVICE BLDG MAINT	\$227.56	\$227.56
218762	505-7201-561.21-65	TARGET SOLUTIONS LEARNING LLC	MEMBERSHIPS	\$1,825.93	\$1,825.93

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218764	505-7201-561.21-35	TAYLOR PLUMBING	SERVICE METER	\$1,593.75	\$6,323.75
			SERVICE METER	\$4,730.00	
218767	505-7201-561.31-02	TEST GAUGE INC	WATER DIST SUPPLY	\$285.84	\$285.84
218782	505-7201-561.33-05	USA BLUEBOOK	WATER DIST SUPPLY	\$3,001.32	\$3,001.32
218784	505-7201-561.22-70	VERIZON WIRELESS	ACCT 078635116200001	\$3,191.08	\$3,191.08
218797	505-7201-561.20-05	WILSON CONSULTING	AT&T AUDIT	\$375.00	\$375.00
218806	505-7201-561.31-01	ZIEBELL WATER SERVICE PRODUCTS	WATER DIST SUPPLY	\$1,331.00	\$3,047.80
			WATER DIST SUPPLY	\$1,716.80	
801853	505-7201-561.22-70	AMERICAN MESSAGING	ACCT U1109311	\$117.32	\$117.32
801855	505-7201-561.21-50	COMMONWEALTH EDISON COMPANY	ACCT 0087155164	\$283.82	\$1,787.73
			ACCT 0645171017	\$58.48	
			ACCT 0831076049	\$162.94	
			ACCT 1257044037	\$1,282.49	
801856	505-7201-561.22-70	AT & T	ACCT 84743746842777	\$52.08	\$104.16
			ACCT 84743746858567	\$52.08	
801857	505-7201-561.21-50	CONSTELLATION NEW ENERGY INC	ACCT 9205457	\$9,539.13	\$23,534.25
			ACCT 9205455	\$6,923.26	
			ACCT 9205452	\$2,303.70	
			ACCT 9205450	\$1,744.44	
			ACCT 9205459	\$3,023.72	
Division 1 Total					\$71,645.23
Department 72 Total					\$71,645.23

WARRANT REGISTER - GM0002**Department: 73 Parking****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218536	235-7301-532.21-50	AT & T	ACCT 847R0608437214	\$1,919.37	\$1,919.37
218742	235-7301-532.31-65	SHERWIN ACE HARDWARE	HARDWARE SUPPLIES	\$3.30	\$3.30
				Division 1 Total	\$1,922.67

Division: 2

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218512	235-7302-532.31-65	ACTIVE ELECTRICAL SUPPLY CO	ELECTRICAL SUPPLIES	\$181.20	\$181.20
801857	235-7302-532.21-50	CONSTELLATION NEW ENERGY INC	ACCT 9205451	\$4,073.94	\$4,073.94
				Division 2 Total	\$4,255.14

Division: 3

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218742	235-7303-532.31-65	SHERWIN ACE HARDWARE	HARDWARE SUPPLIES	\$12.48	\$12.48
				Division 3 Total	\$12.48

Division: 4

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
801857	235-7304-532.21-50	CONSTELLATION NEW ENERGY INC	ACCT 9205458	\$1,877.14	\$1,877.14
				Division 4 Total	\$1,877.14
				Department 73 Total	\$8,067.43

WARRANT REGISTER - GM0002**Department: 75 Municipal Fleet Services****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218520	621-7501-551.31-51	ALTORFER INDUSTRIES	VEH MAINTENANCE SUPPLY	\$122.23	\$622.67
			VEH MAINTENANCE SUPPLY	\$500.44	
218530	621-7501-551.21-07	ARLINGTON HTS FORD INC	VEH MAINTENANCE SUPPLY	\$69.98	\$69.98
	621-7501-551.31-51	ARLINGTON HTS FORD INC	VEH MAINTENANCE SUPPLY	(\$151.31)	\$176.88
			VEH MAINTENANCE SUPPLY	\$7.64	
			VEH MAINTENANCE SUPPLY	\$4.95	
			VEH MAINTENANCE SUPPLY	\$9.99	
			VEH MAINTENANCE SUPPLY	(\$122.27)	
			VEH MAINTENANCE SUPPLY	\$56.65	
			VEH MAINTENANCE SUPPLY	\$96.65	
			VEH MAINTENANCE SUPPLY	\$172.45	
			VEH MAINTENANCE SUPPLY	\$9.00	
			VEH MAINTENANCE SUPPLY	\$93.13	
218540	621-7501-551.31-51	BATTERIES PLUS LLC	VEH MAINTENANCE SUPPLY	\$795.94	\$795.94
218552	621-7501-551.31-51	BUCK BROTHERS INC	VEH MAINTENANCE SUPPLY	\$37.57	\$37.57
218555	621-7501-551.31-51	BUMPER TO BUMPER	VEH MAINTENANCE SUPPLY	\$148.79	\$589.68
			VEH MAINTENANCE SUPPLY	\$82.99	
			VEH MAINTENANCE SUPPLY	\$29.04	
			VEH MAINTENANCE SUPPLY	\$115.84	
			VEH MAINTENANCE SUPPLY	\$66.38	
			VEH MAINTENANCE SUPPLY	\$12.32	
			VEH MAINTENANCE SUPPLY	\$76.84	
			VEH MAINTENANCE SUPPLY	\$11.54	

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218555	621-7501-551.31-51	BUMPER TO BUMPER	VEH MAINTENANCE SUPPLY	\$8.99	\$589.68
			VEH MAINTENANCE SUPPLY	\$12.08	
			VEH MAINTENANCE SUPPLY	\$4.97	
			VEH MAINTENANCE SUPPLY	\$19.90	
218592	621-7501-551.31-51	FACTORY MOTOR PARTS	VEH MAINTENANCE SUPPLY	\$19.91	\$205.45
			VEH MAINTENANCE SUPPLY	\$24.33	
			VEH MAINTENANCE SUPPLY	\$75.47	
			VEH MAINTENANCE SUPPLY	\$30.54	
			VEH MAINTENANCE SUPPLY	\$55.20	
218616	621-7501-551.31-51	GLOBAL EMERGENCY PRODUCTS	VEH MAINTENANCE SUPPLY	\$33.21	\$33.21
218630	621-7501-551.21-07	HARRIS TRUST & SAVINGS BANK	IL TOLLWAY-AUTOREPLENI	\$40.00	\$40.00
218638	621-7501-551.21-07	IL SECRETARY OF STATE	VEHICLE REGISTRATIONS	\$303.00	\$303.00
218684	621-7501-551.31-51	MUNICIPAL EMERGENCY SERVICES	VEH MAINTENANCE SUPPLY	\$419.00	\$419.00
218685	621-7501-551.31-51	NAPA HEIGHTS AUTOMOTIVE	VEH MAINTENANCE SUPPLY	(\$235.94)	\$317.44
			VEH MAINTENANCE SUPPLY	\$145.00	
			VEH MAINTENANCE SUPPLY	\$261.23	
			VEH MAINTENANCE SUPPLY	\$12.72	
			VEH MAINTENANCE SUPPLY	\$86.77	
			VEH MAINTENANCE SUPPLY	\$5.30	
			VEH MAINTENANCE SUPPLY	\$42.36	
218718	621-7501-551.31-51	PRO SAFETY INC	HARDWARE SUPPLIES	\$81.00	\$81.00
218719	621-7501-551.21-07	RACEWAY CARWASH	CAR WASHES	\$84.00	\$84.00
218732	621-7501-551.31-51	INTERSTATE BILLING SERVICE INC	VEH MAINTENANCE SUPPLY	\$142.29	\$1,365.02
			VEH MAINTENANCE SUPPLY	\$692.69	
			VEH MAINTENANCE SUPPLY	\$530.04	

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218742	621-7501-551.31-51	SHERWIN ACE HARDWARE	HARDWARE SUPPLIES	\$9.98	\$23.08
			HARDWARE SUPPLIES	\$6.99	
			HARDWARE SUPPLIES	\$1.12	
			HARDWARE SUPPLIES	\$4.99	
	621-7501-551.33-05	SHERWIN ACE HARDWARE	HARDWARE SUPPLIES	\$13.98	\$13.98
218750	621-7501-551.31-51	STANDARD EQUIPMENT CO	VEH MAINTENANCE SUPPLY	\$309.85	\$754.72
			VEH MAINTENANCE SUPPLY	\$123.89	
			VEH MAINTENANCE SUPPLY	\$320.98	
218780	621-7501-551.30-35	UNIFIRST CORPORATION	UNIFORM	\$56.19	\$112.38
			UNIFORM	\$56.19	
218790	621-7501-551.21-07	WE WASH EXPRESS	CAR WASH	\$20.00	\$20.00
218792	621-7501-551.31-51	WENTWORTH TIRE SERVICE	VEH MAINTENANCE SUPPLY	\$1,234.96	\$1,234.96
218793	621-7501-551.31-51	WEST SIDE TRACTOR SALES CO	VEH MAINTENANCE SUPPLY	\$1,030.61	\$1,030.61
218794	621-7501-551.31-51	WHOLESALE DIRECT INC	VEH MAINTENANCE SUPPLY	\$93.18	\$93.18
				Division 1 Total	\$8,423.75
				Department 75 Total	\$8,423.75

WARRANT REGISTER - GM0002**Department: 90 Capital****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218533	505-9001-571.50-25	ARROW ROAD CONSTRUCTION CO	SERVICE CONSTRUCTION	\$37,282.59	\$37,282.59
218596	505-9001-571.50-25	FER PAL CONSTRUCTION USA LLC	SERVICE CONSTRUCTION	\$264,401.10	\$264,401.10
				Division 1 Total	\$301,683.69

Division: 3

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218758	621-9003-572.50-05	SUTTON FORD INCORPORATED	VEHICLE MAJOR TRANSPORT	\$21,027.50	\$42,055.00
			VEHICLE MAJOR TRANSPORT	\$21,027.50	
				Division 3 Total	\$42,055.00

Division: 13

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218598	431-9013-571.50-25	FIRST COMMUNICATIONS	TELECOMMUNICATIONS	\$367.51	\$367.51
218714	431-9013-571.50-25	POWERLINK ELECTRIC INC	POLICE EQUIPMENT & SUPPLY	\$4,465.00	\$4,465.00
				Division 13 Total	\$4,832.51
				Department 90 Total	\$348,571.20
TOTAL ALL FUNDS:					\$1,331,911.34



Village Board
7/15/2019

Item: Warrant Register 07/15/2019

Department: Village Clerk

ATTACHMENTS:

Description	Type
Warrant Register 07/15/2019	Warrant Register



**VILLAGE OF ARLINGTON
HEIGHTS**
WARRANT REGISTER FOR
CHECK DATE: 7-15-2019

Fund	Fund Description	Total Transaction Amount
101	General Fund	\$417,883.58
211	Motor Fuel Tax Fund	\$110,031.49
215	CDBG Fund	\$3,138.11
227	Foreign Fire Ins Tax Fund	\$525.00
231	Criminal Investigation Fd	\$107,195.31
235	Municipal Parkg Opr Fund	\$10,678.01
401	Capital Projects Fund	\$397,409.21
426	Storm Water Control Fund	\$711,808.77
431	Public Building Fund	\$206,364.51
505	Water and Sewer Fund	\$126,006.61
515	Arts,Entert & Events Fund	\$96,533.08
605	Health Insurance Fund	\$325,103.58
611	General Liability Ins Fnd	\$1,390.00
615	Workers Compensation Ins	\$16,831.14
621	Fleet Operations Fund	\$17,804.69
625	Technology Fund	\$26,320.77
715	Guaranty Deposits Fund	\$950.00
TOTAL ALL FUNDS		\$2,575,973.86

WARRANT REGISTER - GM0002**Department: 0****Division: 0**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
2184	101-0000-421.10-00	SHIRLEY STEWART	REFUND DUPLICATE PAYMENT	\$130.00	\$130.00
218823	235-0000-435.65-03	JONATHAN ALTON	REFUND PARKING PERMITS	\$45.00	\$45.00
218827	235-0000-435.65-03	ATHINA ANDRICOPULOS	REFUND PARKING PERMITS	\$120.00	\$120.00
218858	715-0000-220.93-00	CYNTHIA COLLETTA SCHLOSS 1835	BOND REFUND	\$400.00	\$400.00
218866	715-0000-220.93-00	ERIC PETERMAN 19 1733	BOND REFUND	\$150.00	\$150.00
218884	715-0000-220.93-00	GREENSCAPE HOMES 183916	BOND REFUND	\$200.00	\$200.00
218897	231-0000-250.20-00	IL STATE POLICE ASSIST SEIZURE UNIT	SEIZED FUNDS TO IL STATE	\$96,530.00	\$96,530.00
218906	101-0000-421.05-00	THOMAS KRYSTOSEK	REFUND VEHICLE STICKER	\$48.00	\$48.00
218916	715-0000-220.93-00	LUCY BORATYN 19 586	BOND REFUND	\$200.00	\$200.00
218939	101-0000-421.05-00	CISSY NORRIS	REFUND VEHICLE STICKER	\$30.00	\$30.00
218988	101-0000-422.05-00	TIMELESS HOMES	REFUND PERMIT FEE	\$1,870.00	\$1,870.00
219016	101-0000-421.05-00	ETHAN WU	REFUND VEHICLE STICKER	\$60.00	\$60.00
219020	101-0000-421.05-00	LISA ZIMNY	REFUND VEHICLE STICKER	\$60.00	\$60.00
901468	101-0000-210.91-00	EMPLOYEE BENEFITS CORP	FSA	\$4,658.47	\$4,658.47
901471	101-0000-210.91-00	EMPLOYEE BENEFITS CORP	FSA	\$3,596.24	\$3,596.24
				Division 0 Total	\$108,097.71
				Department 0 Total	\$108,097.71

WARRANT REGISTER - GM0002**Department: 1 Board of Trustees****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218914	101-0101-501.21-65	LORELLE COMMUNICATIONS INC	SERVICE MISCELLANEOUS	\$4,500.00	\$4,500.00
218944	101-0101-501.22-03	NORTHWEST MUNICIPAL CONFERENCE	ANNUAL GALA DINNER	\$160.00	\$160.00
901470	101-0101-501.22-05	CITIBANK	POSTAGE REIMBURSEMENT	\$0.50	\$0.50
				Division 1 Total	\$4,660.50
				Department 1 Total	\$4,660.50

WARRANT REGISTER - GM0002**Department: 2 Integrated Services****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
2185	515-0201-525.40-55	JEFF PHILIPPE	SOUNDS OF SUMMER	\$1,500.00	\$1,500.00
218887	101-0201-502.22-02	HARRIS TRUST & SAVINGS BANK	ILLINOIS CITY COUNTY M	\$260.75	\$2,165.75
			ILLINOIS CITY COUNTY M	\$505.00	
			INTERNATION	\$1,400.00	
	101-0201-502.22-03	HARRIS TRUST & SAVINGS BANK	EAGLE RIDGE RESORT & S	\$334.69	\$334.69
218945	101-0201-502.30-05	OFFICE DEPOT	OFFICE SUPPLIES, GENERAL	\$101.20	\$101.20
218970	515-0201-525.40-55	SIGNS BY TOMORROW	SOUNDS OF SUMMER BANNERS	\$252.90	\$505.80
			SOUNDS OF SUMMER BANNERS	\$252.90	
218976	101-0201-502.21-65	SPRINT	ACCT 456761884	\$100.00	\$100.00
218979	101-0201-502.22-10	SUMMIT PRINT SOLUTIONS	SERVICE PRINTING	\$48.00	\$48.00
901470	101-0201-502.22-05	CITIBANK	POSTAGE REIMBURSEMENT	\$25.65	\$25.65
Division 1 Total					\$4,781.09
Department 2 Total					\$4,781.09

WARRANT REGISTER - GM0002**Department: 3 Human Resources****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218860	605-0301-552.42-75	DEPARTMENT OF THE TREASURY	PECORI FEE FOR HEALTH PLN	\$2,046.00	\$2,046.00
218869	101-0301-503.22-05	FEDERAL EXPRESS	SHIPPING/DELIVERY SERVICE	\$63.04	\$63.04
218876	615-0301-552.20-45	GALLAGHER BASSETT SERVICES	RUN OFF CLAIM FEES	\$13,882.00	\$13,882.00
218887	101-0301-503.22-01	HARRIS TRUST & SAVINGS BANK	WORKPLACE DIVERSITY LL	\$200.00	\$200.00
	101-0301-503.22-02	HARRIS TRUST & SAVINGS BANK	BAM*ELGL	\$30.00	\$179.00
			IPMA-HR	\$149.00	
	101-0301-503.30-05	HARRIS TRUST & SAVINGS BANK	AMZN MKTP US*M64C92RA0	\$9.55	\$9.55
	615-0301-552.20-50	HARRIS TRUST & SAVINGS BANK	JIMMY JOHNS - 748	\$34.14	\$34.14
218982	615-0301-552.20-50	TARGET SOLUTIONS LEARNING LLC	LEARNING MGMT PLATFORM	\$2,915.00	\$2,915.00
218998	101-0301-503.21-65	VERIZON WIRELESS	ACCT 28544404900001	\$125.38	\$125.38
901469	605-0301-552.20-60	HMO ILLINOIS	HEALTH INSURANCE	\$323,057.58	\$323,057.58
901470	101-0301-503.22-05	CITIBANK	POSTAGE REIMBURSEMENT	\$13.20	\$13.20
				Division 1 Total	\$342,524.89
				Department 3 Total	\$342,524.89

WARRANT REGISTER - GM0002**Department: 4 Legal Department****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218845	101-0401-503.30-05	CANON SOLUTIONS AMERICA	OFFICE SUPPLIES	\$314.00	\$314.00
218887	101-0401-503.22-02	HARRIS TRUST & SAVINGS BANK	AMERICAN BAR ASSOCIATI	\$270.00	\$270.00
218962	101-0401-503.21-65	ROSE MARY JURINEK	COURT REPORTER	\$655.00	\$655.00
219004	101-0401-503.21-65	VERIZON WIRELESS	ACCT 68500580500002	\$91.98	\$91.98
901470	101-0401-503.22-05	CITIBANK	POSTAGE REIMBURSEMENT	\$3.15	\$3.15
				Division 1 Total	\$1,334.13
				Department 4 Total	\$1,334.13

WARRANT REGISTER - GM0002**Department: 5 Finance****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
2183	101-0501-503.21-65	CHICAGO TITLE COMPANY LLC	CLEAR TITLE 112 N BELMONT	\$600.00	\$600.00
218876	611-0501-552.20-45	GALLAGHER BASSETT SERVICES	RUN OFF CLAIM FEES	\$1,390.00	\$1,390.00
218902	101-0501-503.22-01	JOURNAL & TOPICS NEWSPAPERS	TREASURERS REPORT	\$1,380.00	\$1,380.00
218945	101-0501-503.30-05	OFFICE DEPOT	OFFICE SUPPLIES, GENERAL	\$130.31	\$318.05
			OFFICE SUPPLIES, GENERAL	\$187.74	
218954	505-0501-503.22-05	POSTMASTER ARLINGTON HEIGHTS	POSTAL PERMIT 184-001	\$369.16	\$369.16
218955	101-0501-503.22-05	POSTMASTER ARLINGTON HEIGHTS	POSTAL PERMIT PI-2594	\$235.00	\$235.00
218966	505-0501-503.22-05	SEBIS DIRECT INC	SERVICE MISCELLANEOUS	\$4,010.41	\$4,010.41
219003	101-0501-503.21-65	VERIZON WIRELESS	ACCT 38508581800001	\$55.97	\$55.97
219017	101-0501-503.22-15	XEROX CORPORATION	PAPER, OFFICE, MAILROOM	\$37.96	\$63.96
			PAPER, OFFICE, MAILROOM	\$26.00	
901470	101-0501-503.22-05	CITIBANK	POSTAGE REIMBURSEMENT	\$1,503.31	\$1,503.31
	505-0501-503.22-05	CITIBANK	POSTAGE REIMBURSEMENT	\$1,317.40	\$1,317.40
Division 1 Total					\$11,243.26
Department 5 Total					\$11,243.26

WARRANT REGISTER - GM0002**Department: 6 Information Technology****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218851	625-0601-553.21-65	COMCAST PROCESSING CENTER	ACCT 907065060	\$4,595.29	\$4,595.29
218887	625-0601-553.30-05	HARRIS TRUST & SAVINGS BANK	AMZN MKTP US*MH5O42NF1	\$11.99	\$11.99
	625-0601-553.33-05	HARRIS TRUST & SAVINGS BANK	PADDLE.NET* OBSERVUUM	\$260.00	\$260.00
	625-0601-572.50-10	HARRIS TRUST & SAVINGS BANK	AMZN MKTP US*M60KK8YY1	\$14.97	\$1,049.27
			AMZN MKTP US*M66DM32X0	\$114.30	
			CDS OFFICE TECHNOLOGIE	\$920.00	
218934	625-0601-553.20-05	MUNICIPAL GIS PARTNERS INC	COMPUTERS,DP & WORD PROC.	\$16,951.71	\$16,951.71
218945	625-0601-553.30-05	OFFICE DEPOT	OFFICE SUPPLIES	\$169.12	\$169.12
218974	625-0601-572.50-10	SOUTHERN COMPUTER WAREHOUSE	COMPUTERS,DP & WORD PROC.	\$799.05	\$799.05
218996	625-0601-553.21-65	VERIZON WIRELESS	ACCT 68500580500001	\$1,404.53	\$1,404.53
218997	625-0601-553.21-65	VERIZON WIRELESS	ACCT 78036610800001	\$390.99	\$390.99
219001	625-0601-553.21-65	VERIZON WIRELESS	ACCT 98726153700001	\$464.88	\$464.88
219014	625-0601-553.21-65	WOW BUSINESS	ACCT 014748718	\$111.97	\$111.97
219015	625-0601-553.21-65	WOW BUSINESS	ACCT 014753641	\$111.97	\$111.97
				Division 1 Total	\$26,320.77
				Department 6 Total	\$26,320.77

WARRANT REGISTER - GM0002**Department: 10 Boards & Commissions****Division: 17**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
901470	101-1017-502.22-05	CITIBANK	POSTAGE REIMBURSEMENT	\$178.00	\$178.00
Division 17 Total					\$178.00

Division: 18

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218828	515-1018-525.40-55	APF ENTERTAINMENT	MANE EVENT	\$750.00	\$750.00
218835	515-1018-525.40-55	BOUNCE HOUSES R US	MANE EVENT	\$1,415.00	\$1,415.00
218899	515-1018-525.40-55	JET SET QUARTET	MANE EVENT	\$1,075.00	\$1,075.00
218967	515-1018-525.40-55	SEVENTH HEAVEN	MANE EVENT	\$6,000.00	\$6,000.00
Division 18 Total					\$9,240.00
Department 10 Total					\$9,418.00

WARRANT REGISTER - GM0002**Department: 20 Special Events****Division: 5**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218926	515-2005-525.40-81	METROPOLIS PERFORMING ARTS CENTRE	2019 OPERATING CONTRIBUTI	\$66,250.00	\$66,250.00
				Division 5 Total	\$66,250.00
				Department 20 Total	\$66,250.00

WARRANT REGISTER - GM0002**Department: 30 Police Department****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218812	101-3001-511.21-65	ACCURATE DOCUMENT DESTRUCTION	SERVICE MISCELLANEOUS	\$384.72	\$384.72
218818	101-3001-511.21-65	AFTERMATH	BIO-HAZARD CLEANING	\$105.00	\$105.00
218831	101-3001-511.18-03	ARLINGTON HTS SCHOOL DIST 25	CROSSING GUARD REIMBURSE	\$28,173.23	\$28,173.23
218844	101-3001-511.21-65	CAMIC JOHNSON LTD	SERVICE PROFESSIONAL	\$350.00	\$350.00
218846	101-3001-511.22-03	CCROC	REGISTRATION	\$360.00	\$360.00
218853	101-3001-511.30-35	CORPORATE IDENTITY INC	CLOTHING & APPAREL	\$2,029.95	\$2,029.95
218875	101-3001-511.22-03	PIOTR GACEK	TRAVEL & TRAINING	\$65.00	\$65.00
218880	101-3001-511.22-03	TARYN GOMBAR	TRAVEL & TRAINING	\$115.00	\$115.00
218887	101-3001-511.22-02	HARRIS TRUST & SAVINGS BANK	EHARDWARELL	(\$79.13)	(\$79.13)
	101-3001-511.30-05	HARRIS TRUST & SAVINGS BANK	AMZN MKTP US*M65VP2KS1	\$38.00	\$103.68
			SP * COUNTYCOMM	\$65.68	
	101-3001-511.33-25	HARRIS TRUST & SAVINGS BANK	AMZN MKTP US*M63V02PT2	\$25.96	\$911.24
			JIMMY JOHNS - 748 - MO	\$163.96	
			MAMA ROSA PIZZA	\$116.28	
			ACTION TARGETS	\$298.05	
			CENTER MASS INC - ONLI	\$306.99	
218895	101-3001-511.22-03	IL HOMICIDE INVESTIGATORS ASSOC	REGISTRATION	\$3,150.00	\$3,150.00
218900	101-3001-511.30-35	JG UNIFORMS	CLOTHING & APPAREL	\$79.70	\$1,105.35
			CLOTHING & APPAREL	\$368.45	
			CLOTHING & APPAREL	\$179.95	
			CLOTHING & APPAREL	\$14.50	
			CLOTHING & APPAREL	\$327.90	
			CLOTHING & APPAREL	\$12.35	

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218900	101-3001-511.30-35	JG UNIFORMS	CLOTHING & APPAREL	\$122.50	\$1,105.35
218905	101-3001-511.22-15	KONICA MINOLTA BUSINESS USA	OFFICE MACHINES & ACCESS	\$93.89	\$449.87
			OFFICE MACHINES & ACCESS	\$63.00	
			OFFICE MACHINES & ACCESS	\$292.98	
218913	101-3001-511.21-65	LIVE 4 LALI INC	IMAGINEERING SERVICES	\$6,480.00	\$16,605.00
			NALOXONE KITS	\$10,125.00	
218917	101-3001-511.22-03	MADISON COLLEGE	REGISTRATION	\$267.10	\$267.10
218918	101-3001-511.30-35	MANDEL, RUSSELL	CLOTHING REIMBURSEMENT	\$89.68	\$89.68
218937	101-3001-511.22-03	NE MULTI REGIONAL TRAINING INC	REGISTRATION	\$325.00	\$1,825.00
			REGISTRATION	\$1,500.00	
218940	101-3001-511.21-65	NORTHERN IL FUNERAL SERVICES INC	SERVICE PROFESSIONAL	\$480.00	\$1,755.00
			SERVICE PROFESSIONAL	\$425.00	
			SERVICE PROFESSIONAL	\$425.00	
			SERVICE PROFESSIONAL	\$425.00	
218945	101-3001-511.30-05	OFFICE DEPOT	OFFICE SUPPLIES, GENERAL	\$125.79	\$2,105.95
			OFFICE SUPPLIES, GENERAL	\$57.67	
			OFFICE SUPPLIES, GENERAL	\$1,847.04	
			OFFICE SUPPLIES, GENERAL	\$58.68	
			OFFICE SUPPLIES, GENERAL	\$16.77	
218946	101-3001-511.22-03	MICHAEL ORLANDO	TRAVEL & TRAINING	\$177.58	\$177.58
218948	101-3001-511.30-50	ANTHONY PADIYARA	REIMBURSEMENT	\$68.42	\$68.42
	101-3001-511.33-25	ANTHONY PADIYARA	REIMBURSEMENT	\$27.49	\$27.49
218951	101-3001-511.33-25	PETTY CASH/POLICE	MEETING SUPPLIES	\$17.52	\$48.00
			PANTS FOR PRISONER	\$11.00	
			SUPPLIES	\$4.49	

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218951	101-3001-511.33-25	PETTY CASH/POLICE	SUPPLIES	\$14.99	\$48.00
218953	101-3001-511.30-05	PIOTR POREBSKI	REIMBURSEMENT	\$43.99	\$43.99
218958	101-3001-511.21-02	PRO TECH SECURITY SALES	SERVICE EQUIPMENT	\$1,455.00	\$1,455.00
218964	101-3001-511.33-25	SAMS CLUB/SYNCHRONY BANK	POLICE EQUIPMENT & SUPPLY	\$196.50	\$196.50
218968	101-3001-511.33-25	SHERWIN ACE HARDWARE	HARDWARE SUPPLIES	\$27.93	\$27.93
218975	101-3001-511.30-35	SPECIAL T UNLIMITED	CLOTHING & APPAREL	\$420.00	\$420.00
218979	101-3001-511.22-10	SUMMIT PRINT SOLUTIONS	SERVICE PRINTING	\$240.00	\$240.00
218980	101-3001-511.21-02	SUNNY COMMUNICATIONS INC	HARDWARE SUPPLIES	\$115.00	\$115.00
218982	101-3001-511.21-65	TARGET SOLUTIONS LEARNING LLC	LEARNING MGMT PLATFORM	\$2,000.00	\$2,000.00
218989	101-3001-511.22-10	TOTAL PRINT SOLUTIONS	SERVICE PRINTING	\$273.50	\$273.50
218991	101-3001-511.33-25	TRI TECH FORENSICS INC	FORENSIC KITS	\$185.52	\$185.52
218992	401-3001-572.50-15	ULTRA STROBE COMMUNICATIONS INC	EQUIPMENT REMOVAL	\$160.00	\$160.00
219009	101-3001-511.21-65	WALGREEN COMPANY	SERVICE PROFESSIONAL	\$91.95	\$91.95
901470	101-3001-511.22-05	CITIBANK	POSTAGE REIMBURSEMENT	\$590.35	\$590.35
				Division 1 Total	\$65,992.87

Division: 3

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218824	231-3003-511.40-11	AMERICA'S FLOORING STORE	RUBBER FLOORING	\$9,359.00	\$9,359.00
218853	231-3003-511.40-01	CORPORATE IDENTITY INC	SUPPLIES	\$555.84	\$555.84
218887	231-3003-511.40-11	HARRIS TRUST & SAVINGS BANK	NORTHWEST ELECTRICAL	\$89.82	\$89.82
218965	231-3003-511.40-01	SCIENTIFIC ANIMAL FEEDS AND NEEDS	CANINE UNIT PROGRAM	\$18.18	\$456.86
			CANINE UNIT PROGRAM	\$130.97	
			CANINE UNIT PROGRAM	\$61.18	
			CANINE UNIT PROGRAM	\$40.28	
			CANINE UNIT PROGRAM	\$69.59	

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Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218965	231-3003-511.40-01	SCIENTIFIC ANIMAL FEEDS AND NEEDS	CANINE UNIT PROGRAM	\$136.66	\$456.86
218968	231-3003-511.40-01	SHERWIN ACE HARDWARE	HARDWARE SUPPLIES	\$70.98	\$70.98
218984	231-3003-511.40-11	TECHNOLOGY MANAGEMENT REV FUND	SERVICE PROFESSIONAL	\$132.81	\$132.81
				Division 3 Total	\$10,665.31
				Department 30 Total	\$76,658.18

WARRANT REGISTER - GM0002**Department: 35 Fire****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218819	101-3501-512.30-35	AIR ONE EQUIPMENT	SAFETY & FIRST AID EQUIP.	\$737.00	\$1,760.45
			SAFETY & FIRST AID EQUIP.	\$1,023.45	
218836	101-3501-512.33-50	BOUND TREE MEDICAL LLC	MEDICAL SUPPLIES	\$612.84	\$612.84
218871	101-3501-512.30-35	FIRESERVICE MANAGEMENT	CLEAN/REPAIR TURNOUT GEAR	\$342.67	\$342.67
218887	101-3501-512.22-02	HARRIS TRUST & SAVINGS BANK	IL DPT PUB HEALTH EMS	\$21.00	\$359.00
			IL DPT PUB HEALTH EMS	\$41.00	
			IL DPT PUB HEALTH EMS	\$41.00	
			IL DPT PUB HEALTH EMS	\$41.00	
			IL DPT PUB HEALTH EMS	\$41.00	
			IL DPT PUB HEALTH EMS	\$41.00	
			IL DPT PUB HEALTH EMS	\$41.00	
			USPS PO BOXES ONLINE	\$92.00	
	101-3501-512.30-05	HARRIS TRUST & SAVINGS BANK	AMZN MKTP US*M664K9ON2	\$35.00	\$35.00
	101-3501-512.30-35	HARRIS TRUST & SAVINGS BANK	ALL USA CLOTHING	\$91.58	\$722.53
			BLANKSHIRTINC	\$364.50	
			MYPILOTSTORE.COM	\$266.45	
	101-3501-512.31-45	HARRIS TRUST & SAVINGS BANK	AMZN MKTP US*M60AI4DD0	\$286.50	\$286.50
	101-3501-512.31-65	HARRIS TRUST & SAVINGS BANK	AMZN MKTP US*M65PO2GL0	\$40.72	\$40.72
	101-3501-512.33-05	HARRIS TRUST & SAVINGS BANK	CORNER BAKERY 0175	\$409.20	\$425.00
			JEWEL-OSCO	\$15.80	
218900	101-3501-512.30-35	JG UNIFORMS	CLOTHING & APPAREL	\$173.45	\$3,709.00
			CLOTHING & APPAREL	\$220.00	
			CLOTHING & APPAREL	\$85.95	

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Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218900	101-3501-512.30-35	JG UNIFORMS	CLOTHING & APPAREL	\$78.85	\$3,709.00
			CLOTHING & APPAREL	\$93.85	
			CLOTHING & APPAREL	\$55.90	
			CLOTHING & APPAREL	\$2,682.00	
			CLOTHING & APPAREL	\$225.00	
			BADGES & OTHER ID EQUIP.	\$94.00	
218908	101-3501-512.33-05	ANDREW LARSON	SUPPLIES REIMBURSEMENT	\$91.90	\$91.90
218942	101-3501-512.22-03	NORTHWEST COMMUNITY HOSP	TRAINING	\$7,024.00	\$7,024.00
218945	101-3501-512.30-05	OFFICE DEPOT	OFFICE SUPPLIES, GENERAL	\$55.81	\$133.59
			OFFICE SUPPLIES, GENERAL	\$77.78	
218952	101-3501-512.33-50	PHYSIO CONTROL INC	AED TRAINER KIT	\$597.18	\$597.18
218961	101-3501-512.22-03	ROMEOVILLE FIRE DEPARTMENT	TRAVEL & TRAINING	\$325.00	\$1,425.00
			TRAVEL & TRAINING	\$1,100.00	
219002	101-3501-512.21-65	VERIZON WIRELESS	ACCT 44205897800001	\$871.41	\$871.41
219008	101-3501-512.30-35	VISION MARKETING	ACCOUNTABILITY TAGS	\$89.75	\$152.40
			ACCOUNTABILITY TAGS	\$62.65	
901470	101-3501-512.22-05	CITIBANK	POSTAGE REIMBURSEMENT	\$7.55	\$7.55
				Division 1 Total	\$18,596.74
				Department 35 Total	\$18,596.74

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Department: 37 Foreign Fire Insurance

Division: 1

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218929	227-3701-512.22-03	THOMAS MIKULSKI	TUITION REIMBURSEMENT	\$525.00	\$525.00
				Division 1 Total	\$525.00
				Department 37 Total	\$525.00

WARRANT REGISTER - GM0002**Department: 40 Planning****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218904	401-4001-571.50-30	KANE MC KENNA & ASSOCIATES	SERVICE CONSULTING	\$4,475.00	\$4,475.00
218911	101-4001-521.21-65	LEGRAND REPORTING & VIDEO SERVICES	TRANSCRIPTS	\$235.45	\$488.40
			TRANSCRIPTS	\$252.95	
218920	401-4001-571.50-30	MARTAM CONSTRUCTION INC	SERVICE CONSTRUCTION	\$33,634.74	\$33,634.74
218941	101-4001-521.40-40	NORTHERN IL REAL ESTATE MGZN	ADVERTISEMENT	\$150.00	\$150.00
218945	101-4001-521.30-05	OFFICE DEPOT	OFFICE SUPPLIES	\$23.38	\$23.38
218947	101-4001-521.22-01	PADDOCK PUBLICATIONS INC	ADVERTISING	\$637.20	\$637.20
219007	101-4001-521.21-65	VERIZON WIRELESS	ACCT 38042002700001	\$141.24	\$141.24
901470	101-4001-521.22-05	CITIBANK	POSTAGE REIMBURSEMENT	\$323.65	\$323.65
Division 1 Total					\$39,873.61
Department 40 Total					\$39,873.61

WARRANT REGISTER - GM0002**Department: 41 Community Devl Block Grnt****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218833	215-4101-522.41-76	ARROW ROAD CONSTRUCTION CO	SERVICE CONSTRUCTION	\$3,138.11	\$3,138.11
				Division 1 Total	\$3,138.11
				Department 41 Total	\$3,138.11

WARRANT REGISTER - GM0002**Department: 45 Building****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218811	101-4501-523.30-05	A & E RUBBER STAMP CORP	STAMPS	\$219.50	\$219.50
218868	101-4501-523.22-10	FASTSIGNS OF ARLINGTON HTS	NAME PLATE	\$12.00	\$29.05
			NAME PLATE	\$17.05	
218869	101-4501-523.22-05	FEDERAL EXPRESS	SHIPPING/DELIVERY SERVICE	\$71.49	\$180.14
			SHIPPING/DELIVERY SERVICE	\$40.29	
			SHIPPING/DELIVERY SERVICE	\$68.36	
218870	101-4501-523.20-35	FIRE SAFETY CONSULTANTS INC	PLAN REVIEW	\$670.00	\$1,315.00
			PLAN REVIEW	\$205.00	
			PLAN REVIEW	\$440.00	
218885	101-4501-523.20-35	GRIVAS KRAUSE ASSOCIATES LTD	PLAN REVIEW	\$1,750.00	\$1,750.00
218907	101-4501-523.22-03	KRIS LARSEN	TRAVEL & TRAINING	\$209.00	\$209.00
218945	101-4501-523.30-05	OFFICE DEPOT	OFFICE SUPPLIES, GENERAL	\$409.24	\$409.24
218979	101-4501-523.22-10	SUMMIT PRINT SOLUTIONS	SERVICE PRINTING	\$96.00	\$96.00
218986	101-4501-523.21-65	THOMPSON ELEVATOR INSPECTION	SERVICE BLDG MAINT	\$38.00	\$152.00
			SERVICE BLDG MAINT	\$38.00	
			SERVICE BLDG MAINT	\$76.00	
218999	101-4501-523.21-65	VERIZON WIRELESS	ACCT 54209747800002	\$144.04	\$144.04
219000	101-4501-523.21-65	VERIZON WIRELESS	ACCT 54209747800001	\$622.65	\$622.65
219017	101-4501-523.22-15	XEROX CORPORATION	OFFICE MACHINES & ACCESS	\$85.00	\$85.00
901470	101-4501-523.22-05	CITIBANK	POSTAGE REIMBURSEMENT	\$55.05	\$55.05
Division 1 Total					\$5,266.67
Department 45 Total					\$5,266.67

WARRANT REGISTER - GM0002**Department: 70 Health****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218857	101-7001-541.33-05	CUSTOM DATA PROCESSING	COMPUTERS,DP & WORD PROC.	\$9,780.00	\$9,780.00
218872	101-7001-541.21-10	FLECKS LANDSCAPING	PROPERTY MAINTENANCE	\$85.00	\$490.00
			PROPERTY MAINTENANCE	\$105.00	
			PROPERTY MAINTENANCE	\$130.00	
			PROPERTY MAINTENANCE	\$85.00	
			PROPERTY MAINTENANCE	\$85.00	
218887	101-7001-541.21-65	HARRIS TRUST & SAVINGS BANK	J2 *MYFAX SERVICES	\$10.00	\$10.00
	101-7001-541.22-03	HARRIS TRUST & SAVINGS BANK	IL PUBLIC HEALTH ASSOC	\$150.00	\$150.00
	101-7001-541.30-01	HARRIS TRUST & SAVINGS BANK	PREVENTION	\$36.00	\$36.00
	101-7001-541.33-10	HARRIS TRUST & SAVINGS BANK	HOPKINS MEDICAL PRODU	\$113.95	\$113.95
218912	101-7001-541.20-25	SHERRY LEMKE	COUNSELING	\$300.00	\$300.00
218959	101-7001-541.40-60	RESIDENCES AT ARLINGTON HEIGHTS	RENTAL ASSISTANCE PROGRAM	\$1,200.00	\$1,200.00
219006	101-7001-541.21-65	VERIZON WIRELESS	ACCT 88556712200001	\$346.20	\$346.20
	101-7001-541.30-05	VERIZON WIRELESS	ACCT 88556712200001	\$149.99	\$149.99
901470	101-7001-541.22-05	CITIBANK	POSTAGE REIMBURSEMENT	\$273.15	\$273.15
Division 1 Total					\$12,849.29

Division: 7

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218825	101-7007-541.22-40	AMERICAN CHARGE SERVICE	TAXI SERVICE	\$102.00	\$102.00
218887	101-7007-541.22-02	HARRIS TRUST & SAVINGS BANK	SAMSClub.COM	\$100.00	\$100.00
	101-7007-541.30-05	HARRIS TRUST & SAVINGS BANK	AMZN MKTP US*MH2OS5JV1	\$10.99	\$10.99
	101-7007-541.31-65	HARRIS TRUST & SAVINGS BANK	AMZN MKTP US*M647V16E0	\$225.18	\$399.51

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Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218887	101-7007-541.31-65	HARRIS TRUST & SAVINGS BANK	JEWEL-OSCO	\$50.82	\$399.51
			GFS STORE #1913	\$123.51	
901470	101-7007-541.22-05	CITIBANK	POSTAGE REIMBURSEMENT	\$24.10	\$24.10
				Division 7 Total	\$636.60
				Department 70 Total	\$13,485.89

WARRANT REGISTER - GM0002**Department: 71 Public Works****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218813	101-7101-531.31-55	ACTIVE ELECTRICAL SUPPLY CO	ELECTRICAL EQUIP/SUPPLY	\$190.54	\$190.54
	101-7101-531.31-75	ACTIVE ELECTRICAL SUPPLY CO	ELECTRICAL EQUIP/SUPPLY	\$163.95	\$294.61
			ELECTRICAL EQUIP/SUPPLY	\$130.66	
218814	101-7101-531.21-11	ACTIVE LOCK AND KEY LTD	SERVICE BLDG MAINT	\$349.49	\$349.49
218815	101-7101-531.31-55	ADDISON BUILDING MATERIAL CO	HARDWARE SUPPLIES	\$38.97	\$38.97
218817	101-7101-531.21-02	AFFILIATED CUSTOMER SERVICE INC	SERVICE BLDG MAINT	\$885.00	\$885.00
218822	101-7101-531.21-11	ALPHA BUILDING MAINTENANCE SRVS	SERVICE BLDG MAINT	\$3,562.50	\$3,562.50
218826	101-7101-531.21-11	AMERICAN DOOR & DOCK	SERVICE BLDG MAINT	\$348.75	\$4,388.06
			SERVICE BLDG MAINT	\$4,039.31	
	401-7101-571.50-20	AMERICAN DOOR & DOCK	SERVICE BLDG MAINT	\$430.84	\$430.84
218833	101-7101-531.31-90	ARROW ROAD CONSTRUCTION CO	STREET/SIDEWALK SUPPLIES	\$870.00	\$64,816.56
			STREET/SIDEWALK SUPPLIES	\$9,506.23	
			STREET/SIDEWALK SUPPLIES	\$9,557.28	
			STREET/SIDEWALK SUPPLIES	\$8,537.13	
			STREET/SIDEWALK SUPPLIES	\$10,493.77	
			STREET/SIDEWALK SUPPLIES	\$10,898.11	
			STREET/SIDEWALK SUPPLIES	\$3,788.04	
			STREET/SIDEWALK SUPPLIES	\$9,549.25	
			STREET/SIDEWALK SUPPLIES	\$1,616.75	
	211-7101-571.50-40	ARROW ROAD CONSTRUCTION CO	SERVICE CONSTRUCTION	\$110,031.49	\$110,031.49
	401-7101-571.50-30	ARROW ROAD CONSTRUCTION CO	SERVICE CONSTRUCTION	\$91,506.79	\$165,358.74
			SERVICE CONSTRUCTION	\$73,851.95	
	401-7101-571.50-45	ARROW ROAD CONSTRUCTION CO	SERVICE CONSTRUCTION	\$8,053.64	\$8,053.64

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Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218837	401-7101-571.50-30	BOYLE JENNIFER	SIDEWALK REIMBURSEMENT	\$695.00	\$695.00
218838	101-7101-531.30-39	BP	FUEL	\$93.13	\$93.13
218839	101-7101-531.20-05	BUILDING CONSULTANTS LTD	SERVICE CONSULTING	\$11,279.00	\$11,279.00
218843	101-7101-531.21-36	C C CARTAGE INC	RENTAL/LEASE EQUIPMENT	\$39,085.20	\$40,254.80
			RENTAL/LEASE EQUIPMENT	\$1,169.60	
218848	426-7101-571.50-25	CHRISTOPHER B BURKE LTD	SERVICE CONSULTING	\$29,968.92	\$29,968.92
218850	101-7101-531.22-70	COMCAST CABLE	TELECOMMUNICATIONS	\$8.68	\$8.68
218852	101-7101-531.21-11	COMPLETE CLEANING CO INC	SERVICE BLDG MAINT	\$5,211.07	\$5,211.07
218856	101-7101-531.21-11	CRYSTAL MAINTENANCE & MGMT SRVS	SERVICE BLDG MAINT	\$10,025.00	\$10,025.00
218859	101-7101-531.21-11	DAHME MECHANICAL INDUSTRIES	SERVICE BLDG MAINT	\$1,340.00	\$1,340.00
218862	101-7101-531.21-55	DRISCOLL PRODUCTS INC	BEE REMOVAL	\$250.00	\$250.00
218863	101-7101-531.21-02	DYNAMIC HEATING & PIPING CO	HVAC MAINT	\$2,718.00	\$2,718.00
218864	401-7101-571.50-30	ECOLOGY AND VISION LLC	SERVICE CONSULTING	\$467.50	\$467.50
218872	101-7101-531.21-55	FLECKS LANDSCAPING	LANDSCAPING	\$13,975.10	\$13,975.10
218873	101-7101-531.21-02	FOUNTAIN TECHNOLOGIES LTD	FOUNTAIN MAINTENANCE	\$876.00	\$876.00
218874	101-7101-531.21-02	FOX VALLEY FIRE & SAFETY COMPANY	FIRE EXTINGUISHER CHECK	\$86.65	\$7,004.35
			FIRE EXTINGUISHER CHECK	\$70.00	
			FIRE EXTINGUISHER CHECK	\$186.75	
			FIRE EXTINGUISHER CHECK	\$504.10	
			FIRE EXTINGUISHER CHECK	\$173.05	
			FIRE EXTINGUISHER CHECK	\$84.45	
			FIRE EXTINGUISHER CHECK	\$77.55	
			FIRE EXTINGUISHER CHECK	\$70.00	
			FIRE EXTINGUISHER CHECK	\$70.65	
			FIRE EXTINGUISHER CHECK	\$342.15	

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Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218874	101-7101-531.21-02	FOX VALLEY FIRE & SAFETY COMPANY	FIRE EXTINGUISHER CHECK	\$70.00	\$7,004.35
			FIRE EXTINGUISHER CHECK	\$70.00	
			FIRE EXTINGUISHER CHECK	\$905.75	
			FIRE EXTINGUISHER CHECK	\$4,293.25	
218877	101-7101-531.30-39	GAS DEPOT INC	FUEL,OIL,GREASE, & LUBES	\$14,746.92	\$33,515.72
			FUEL,OIL,GREASE, & LUBES	\$18,768.80	
218879	401-7101-571.50-20	GLOBAL EQUIPMENT COMPANY	STOREROOM EQUIP	\$114.87	\$569.47
			STOREROOM EQUIP	\$454.60	
218882	101-7101-531.20-05	GOVTEMPSUSA LLC	SERVICE ENGINEERING	\$1,701.00	\$1,701.00
218887	101-7101-531.22-02	HARRIS TRUST & SAVINGS BANK	AMERICAN PUBLIC WORKS	\$325.00	\$445.00
			INTL SOC ARBORICULTURE	\$120.00	
	101-7101-531.22-03	HARRIS TRUST & SAVINGS BANK	NIPSTAILPARKPARKSNREC	(\$103.30)	(\$103.30)
	101-7101-531.31-65	HARRIS TRUST & SAVINGS BANK	APL*ITUNES.COM/BILL	\$0.99	\$1,248.79
			SAMSClub #6464	\$1,247.80	
218888	101-7101-531.21-02	HAYES MECHANICAL	HVAC MAINT	\$760.86	\$1,147.21
			HVAC MAINT	\$386.35	
218890	101-7101-531.21-55	HENDRICKSEN ROBERT W COMPANY	LANDSCAPING	\$10,262.00	\$10,262.00
218891	101-7101-531.31-45	HP PRODUCTS CORP	MATS	\$1,492.55	\$1,492.55
218892	515-7101-525.33-05	HRP CHICAGO LLC	THEATRE SUPPLIES & EQUIP	\$11,700.00	\$11,700.00
218894	401-7101-571.50-30	IL DEPT OF TRANSPORTATION	SERVICE CONSTRUCTION	\$179,104.56	\$179,104.56
218901	101-7101-531.21-02	JOHNSON CONTROLS	SERVICE BLDG MAINT	\$4,940.00	\$4,940.00
218903	101-7101-531.31-55	JUST FAUCETS	SERVICE BLDG MAINT	\$29.75	\$29.75
218915	101-7101-531.31-55	LOWES COMMERCIAL SERVICES	HARDWARE SUPPLIES	(\$39.14)	(\$39.14)
	101-7101-531.31-65	LOWES COMMERCIAL SERVICES	STREET/SIDEWALK SUPPLIES	\$83.96	\$1,286.11
			STREET/SIDEWALK SUPPLIES	\$216.75	

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Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218915	101-7101-531.31-65	LOWES COMMERCIAL SERVICES	STREET/SIDEWALK SUPPLIES	\$30.96	\$1,286.11
			HARDWARE SUPPLIES	\$954.44	
218919	426-7101-571.50-25	MANHARD CONSULTING	ANNUAL REPORT PREP	\$742.50	\$742.50
218920	426-7101-571.50-25	MARTAM CONSTRUCTION INC	SERVICE CONSTRUCTION	\$664,181.34	\$664,181.34
218921	426-7101-571.50-25	MAURO SEWER CONSTRUCTION	SERVICE CONSTRUCTION	\$14,076.02	\$14,076.02
218924	101-7101-531.21-62	MERCPAK INC	HARDWARE SUPPLIES	\$600.00	\$600.00
218927	101-7101-531.21-02	MID AMERICAN ELEVATOR CO INC	SERVICE BLDG MAINT	\$2,141.50	\$2,141.50
218928	101-7101-531.31-40	MIDWEST GROUNDCOVERS	LANDSCAPING	\$36.30	\$36.30
218930	101-7101-531.21-55	MILIEU DESIGN LLC	SERVICE MISCELLANEOUS	\$1,784.74	\$8,194.77
			SERVICE MISCELLANEOUS	\$2,145.22	
			SERVICE MISCELLANEOUS	\$2,134.94	
			SERVICE MISCELLANEOUS	\$2,129.87	
218931	101-7101-531.20-05	MIOVISION TECHNOLOGIES	TRAFFIC STUDY	\$311.96	\$311.96
	101-7101-531.31-65	MIOVISION TECHNOLOGIES	EQUIPMENT, NON OFFICE	\$5,140.00	\$5,140.00
218935	101-7101-531.31-80	MUNICIPAL MARKING DIST INC	SIGN SHOP SUPPLY	\$174.00	\$174.00
218943	101-7101-531.31-75	NORTHWEST ELECTRICAL SUPPLY CO	ELECTRICAL EQUIP/SUPPLY	\$1,260.13	\$1,260.13
	101-7101-531.31-85	NORTHWEST ELECTRICAL SUPPLY CO	ELECTRICAL EQUIP/SUPPLY	\$31.53	\$31.53
	401-7101-571.50-20	NORTHWEST ELECTRICAL SUPPLY CO	ELECTRICAL EQUIP/SUPPLY	\$51.94	\$51.94
218950	101-7101-531.31-40	PESCHES FLOWER SHOP	LANDSCAPING	\$147.98	\$147.98
218956	101-7101-531.21-15	POTHOLE PROS INC	SERVICE CONSTRUCTION	\$10,812.00	\$10,812.00
218972	101-7101-531.22-70	SOUND INCORPORATED	TELECOMMUNICATIONS	\$72.73	\$72.73
218981	401-7101-571.50-30	TALLGRASS RESTORATION LLC	SERVICE MISCELLANEOUS	\$1,720.84	\$1,720.84
218985	101-7101-531.21-02	TGF ENTERPRISES INC	IRRIGATION SERVICE	\$1,260.32	\$3,078.26
			IRRIGATION SERVICE	\$312.14	
			IRRIGATION SERVICE	\$855.98	

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Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218985	101-7101-531.21-02	TGF ENTERPRISES INC	IRRIGATION SERVICE	\$649.82	\$3,078.26
218987	101-7101-531.31-80	THREE M	SIGN SHOP SUPPLY	\$416.42	\$416.42
218990	101-7101-531.31-70	TRAFFIC CONTROL CORP	TRAFFIC SIGNAL SUPPLY	\$940.00	\$940.00
218993	101-7101-531.21-11	UNIFIRST CORPORATION	MATS	\$23.03	\$101.50
			MATS	\$78.47	
219005	101-7101-531.21-65	VERIZON WIRELESS	ACCT 98547850100002	\$478.12	\$478.12
219010	426-7101-571.50-25	WATER PRODUCTS CO	WATER SEWER SYSTEM SUPPLY	\$2,839.99	\$2,839.99
219012	101-7101-531.21-55	WEST CENTRAL MUNICIPAL CONF	AGRICULTURAL SUPPLIES	\$15,210.00	\$22,965.00
			AGRICULTURAL SUPPLIES	\$7,755.00	
219013	101-7101-531.30-39	WEX BANK	FUEL	\$175.95	\$175.95
219017	101-7101-531.22-15	XEROX CORPORATION	COPIER MAINTENANCE	\$85.00	\$85.00
801858	101-7101-531.21-50	COMMONWEALTH EDISON COMPANY	ACCT 0002031003	\$31.55	\$903.06
			ACCT 4321662000	\$871.51	
801859	101-7101-531.22-70	AT & T	ACCT 84734215365273	\$46.41	\$986.41
			ACCT 84739420624707	\$46.41	
			ACCT 84739443682112	\$46.41	
			ACCT 847R1902892011	\$847.18	
801860	101-7101-531.21-50	CONSTELLATION NEW ENERGY INC	ACCT 92054513	\$728.27	\$728.27
801861	101-7101-531.21-50	NICOR	ACCT 15839647334	\$432.09	\$4,545.76
			ACCT 19426400008	\$104.45	
			ACCT 25422686599	\$1,556.77	
			ACCT 28178600004	\$292.36	
			ACCT 38178600003	\$190.68	
			ACCT 40178600009	\$76.95	
			ACCT 53278600001	\$474.38	

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
801861	101-7101-531.21-50	NICOR	ACCT 72489260108	\$222.92	\$4,545.76
			ACCT 94830700004	\$395.69	
			ACCT 97034457784	\$799.47	
901470	101-7101-531.22-05	CITIBANK	POSTAGE REIMBURSEMENT	\$977.25	\$977.25
				Division 1 Total	\$1,478,783.24
				Department 71 Total	\$1,478,783.24

WARRANT REGISTER - GM0002**Department: 72 Water and Sewer****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218820	505-7201-561.50-15	ALLAN INTEGRATED CONTROL SYSTEMS	PUMPING SYSTEM SUPPLIES	\$13,381.00	\$13,381.00
218832	505-7201-561.31-85	ARLINGTON POWER EQUIPMENT	RENTAL/LEASE EQUIPMENT	\$727.23	\$727.23
218834	505-7201-561.31-55	BENJAMIN MOORE MT PROSPECT PAINT	HARDWARE SUPPLIES	\$221.54	\$221.54
	505-7201-561.33-05	BENJAMIN MOORE MT PROSPECT PAINT	HARDWARE SUPPLIES	\$80.55	\$80.55
218841	505-7201-561.50-15	BURNS MCDONNELL	SERVICE CONSULTING	\$27,712.03	\$27,712.03
218843	505-7201-561.21-36	C C CARTAGE INC	RENTAL/LEASE EQUIPMENT	\$4,606.56	\$4,606.56
	505-7201-561.21-62	C C CARTAGE INC	SERVICE DISPOSAL	\$1,189.98	\$1,189.98
	505-7201-561.31-90	C C CARTAGE INC	STREET/SIDEWALK SUPPLIES	\$3,498.98	\$3,498.98
218850	505-7201-561.22-70	COMCAST CABLE	TELECOMMUNICATIONS	\$186.85	\$186.85
218854	505-7201-561.21-02	CORRPRO WATERWORKS	SERVICE PROFESSIONAL	\$5,200.00	\$5,200.00
218855	505-7201-561.22-10	CREEKSIDE PRINTING	WATER REPORT	\$1,881.40	\$1,881.40
218861	505-7201-561.50-15	DREISILKER ELECTRIC MOTORS INC	SERVICE BLDG MAINT	\$4,670.00	\$4,670.00
218865	505-7201-561.31-07	EJ EQUIPMENT INCORPORATED	WATER SEWER SYSTEM SUPPLY	\$27.56	\$27.56
218881	505-7201-561.22-03	CHESTER GORECKI	TRAVEL & TRAINING	\$127.34	\$127.34
218883	505-7201-561.31-65	GRAINGER W W INC	HARDWARE SUPPLIES	\$531.10	\$531.10
218886	505-7201-561.31-01	HARBOR FREIGHT TOOLS	HARDWARE SUPPLIES	\$27.97	\$27.97
	505-7201-561.31-85	HARBOR FREIGHT TOOLS	HARDWARE SUPPLIES	\$2.99	\$2.99
218887	505-7201-561.22-02	HARRIS TRUST & SAVINGS BANK	AWWA.ORG	\$218.00	\$218.00
	505-7201-561.31-65	HARRIS TRUST & SAVINGS BANK	PANERA BREAD #203287	\$158.11	\$158.11
218889	505-7201-561.21-35	HBK WATER METER SERVICE INC	WATER SEWER SYSTEM SUPPLY	\$118.75	\$118.75
218893	505-7201-561.22-03	MIKE IGNOFFO	TRAVEL & TRAINING	\$179.84	\$179.84
218922	505-7201-561.31-07	MC CANN INDUSTRIES	WATER SEWER SYSTEM SUPPLY	\$1,269.56	\$1,269.56
218923	505-7201-561.31-07	MCA INDUSTRIES	WATER SEWER SYSTEM SUPPLY	\$400.00	\$400.00

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218938	505-7201-561.22-03	NORDIN DAVID	TRAVEL & TRAINING	\$40.02	\$40.02
218943	505-7201-561.31-05	NORTHWEST ELECTRICAL SUPPLY CO	ELECTRICAL EQUIP/SUPPLY	\$41.83	\$41.83
	505-7201-561.31-55	NORTHWEST ELECTRICAL SUPPLY CO	ELECTRICAL EQUIP/SUPPLY	\$48.05	\$131.63
			ELECTRICAL EQUIP/SUPPLY	\$14.83	
			ELECTRICAL EQUIP/SUPPLY	\$68.75	
218945	505-7201-561.30-05	OFFICE DEPOT	OFFICE SUPPLIES, GENERAL	\$29.99	\$56.09
			OFFICE SUPPLIES, GENERAL	\$26.10	
218957	505-7201-561.22-03	PREUCIL JOHN	TRAVEL & TRAINING	\$157.34	\$157.34
218969	505-7201-561.22-03	SCOTT SHIRLEY	TRAVEL & TRAINING	\$10.41	\$10.41
218977	505-7201-561.31-05	STEINER ELECTRIC	SERVICE BLDG MAINT	\$117.43	\$2,267.43
			SERVICE BLDG MAINT	\$2,150.00	
218978	505-7201-561.20-05	SUBURBAN LABORATORIES INC	JUNE WATER SAMPLES	\$774.00	\$774.00
218983	505-7201-561.21-35	TAYLOR PLUMBING	WATER SEWER SYSTEM SUPPLY	\$6,400.38	\$6,400.38
	505-7201-561.31-02	TAYLOR PLUMBING	WATER SEWER SYSTEM SUPPLY	\$1,061.32	\$1,061.32
218994	505-7201-561.30-35	USA BLUEBOOK	WATER SEWER SYSTEM SUPPLY	\$165.11	\$165.11
	505-7201-561.31-65	USA BLUEBOOK	CHLORINE TEST KITS	\$853.60	\$853.60
219010	505-7201-561.31-01	WATER PRODUCTS CO	WATER DIST SUPPLY	\$1,444.65	\$2,889.30
			WATER DIST SUPPLY	\$1,444.65	
	505-7201-561.31-07	WATER PRODUCTS CO	WATER SEWER SYSTEM SUPPLY	\$3,344.47	\$4,574.65
			WATER SEWER SYSTEM SUPPLY	\$609.65	
			WATER SEWER SYSTEM SUPPLY	\$620.53	
219018	505-7201-561.21-25	RANDY YEATER	BEAVER REMOVAL	\$650.00	\$650.00
219019	505-7201-561.31-01	ZIEBELL WATER SERVICE PRODUCTS	WATER DIST SUPPLY	\$1,254.00	\$1,254.00
219021	505-7201-561.31-55	1000BULBS.COM	HARDWARE SUPPLIES	\$212.50	\$212.50
801858	505-7201-561.21-50	COMMONWEALTH EDISON COMPANY	ACCT 0111076085	\$424.02	\$700.65

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
801858	505-7201-561.21-50	COMMONWEALTH EDISON COMPANY	ACCT 0368380009	\$32.18	\$700.65
			ACCT 0684023014	\$113.49	
			ACCT 1092085063	\$130.96	
801859	505-7201-561.22-70	AT & T	ACCT 84759021056118	\$1,772.60	\$1,968.43
			ACCT 84759080850047	\$195.83	
801860	505-7201-561.21-50	CONSTELLATION NEW ENERGY INC	ACCT 92054511	\$318.07	\$318.07
801861	505-7201-561.21-50	NICOR	ACCT 05850400002	\$37.06	\$653.51
			ACCT 16797600000	\$148.61	
			ACCT 19278600002	\$202.39	
			ACCT 42567835683	\$33.10	
			ACCT 76830700001	\$232.35	
Division 1 Total				\$91,597.61	
Department 72 Total				\$91,597.61	

WARRANT REGISTER - GM0002**Department: 73 Parking****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
801858	235-7301-532.21-50	COMMONWEALTH EDISON COMPANY	ACCT 4286290000	\$622.14	\$622.14
Division 1 Total					\$622.14

Division: 2

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218927	235-7302-532.21-02	MID AMERICAN ELEVATOR CO INC	VAIL ELEVATOR MAINT	\$852.50	\$1,992.50
			VAIL ELEVATOR MAINT	\$1,140.00	
218995	235-7302-532.21-02	VALLEY FIRE PROTECTION	SERVICE BLDG MAINT	\$2,750.00	\$2,750.00
Division 2 Total					\$4,742.50

Division: 3

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
801860	235-7303-532.21-50	CONSTELLATION NEW ENERGY INC	ACCT 92054510	\$3,024.17	\$3,024.17
801861	235-7303-532.21-50	NICOR	ACCT 12690400002	\$31.03	\$31.03
Division 3 Total					\$3,055.20

Division: 4

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218829	235-7304-532.21-02	ARCO MECHANICAL EQUIPMENT SALES	EVERGREEN GARAGE CO2	\$1,980.00	\$1,980.00
801861	235-7304-532.21-50	NICOR	ACCT 92296400002	\$113.17	\$113.17
Division 4 Total					\$2,093.17
Department 73 Total					\$10,513.01

WARRANT REGISTER - GM0002**Department: 75 Municipal Fleet Services****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218816	621-7501-551.31-51	ADVANCE AUTO PARTS	VEH MAINTENANCE SUPPLY	\$141.67	\$166.12
			VEH MAINTENANCE SUPPLY	\$24.45	
218821	621-7501-551.31-51	WINDSHIELD CENTERS LLC	VEH MAINTENANCE SUPPLY	\$275.00	\$275.00
218830	621-7501-551.31-51	ARLINGTON HTS FORD INC	VEH MAINTENANCE SUPPLY	\$96.65	\$691.02
			VEH MAINTENANCE SUPPLY	\$235.83	
			VEH MAINTENANCE SUPPLY	\$348.00	
			VEH MAINTENANCE SUPPLY	\$10.54	
218840	621-7501-551.31-51	BUMPER TO BUMPER	VEH MAINTENANCE SUPPLY	(\$57.09)	\$1,041.83
			VEH MAINTENANCE SUPPLY	\$115.39	
			VEH MAINTENANCE SUPPLY	\$121.99	
			VEH MAINTENANCE SUPPLY	\$27.76	
			VEH MAINTENANCE SUPPLY	\$42.96	
			VEH MAINTENANCE SUPPLY	\$10.69	
			VEH MAINTENANCE SUPPLY	\$10.69	
			VEH MAINTENANCE SUPPLY	\$173.76	
			VEH MAINTENANCE SUPPLY	\$96.90	
			VEH MAINTENANCE SUPPLY	\$353.44	
			VEH MAINTENANCE SUPPLY	\$7.99	
			VEH MAINTENANCE SUPPLY	\$19.49	
			VEH MAINTENANCE SUPPLY	\$30.87	
			VEH MAINTENANCE SUPPLY	\$202.38	
			VEH MAINTENANCE SUPPLY	(\$115.39)	
218842	621-7501-551.31-51	BURRIS EQUIPMENT CO	VEH MAINTENANCE SUPPLY	\$237.40	\$237.40

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218847	621-7501-551.31-51	CHICAGO PARTS AND SOUND LLC	VEH MAINTENANCE SUPPLY	\$548.84	\$601.95
			VEH MAINTENANCE SUPPLY	\$53.11	
218849	621-7501-551.21-36	CITY WELDING SALES & SERVICE	CYLINDER RENTAL	\$142.08	\$142.08
218867	621-7501-551.31-51	FACTORY MOTOR PARTS	VEH MAINTENANCE SUPPLY	\$17.47	\$410.64
			VEH MAINTENANCE SUPPLY	\$393.17	
218878	621-7501-551.31-51	GLOBAL EMERGENCY PRODUCTS	VEH MAINTENANCE SUPPLY	\$199.39	\$285.74
			VEH MAINTENANCE SUPPLY	\$86.35	
218887	621-7501-551.21-07	HARRIS TRUST & SAVINGS BANK	IL TOLLWAY-AUTOREPLENI	\$40.00	\$40.00
	621-7501-551.31-65	HARRIS TRUST & SAVINGS BANK	SOI*SBS ROCHESTER HILL	\$648.00	\$648.00
218896	621-7501-551.21-62	IL RECOVERY GROUP INC	VEH MAINTENANCE SUPPLY	\$270.00	\$270.00
218898	621-7501-551.31-51	INTERSTATE POWER SYSTEMS INC	VEH MAINTENANCE SUPPLY	\$67.21	\$67.21
218909	621-7501-551.31-51	LEACH ENTERPRISES INC	VEH MAINTENANCE SUPPLY	\$56.28	\$56.28
218910	621-7501-551.31-51	LEAHY WOLF CO	VEH MAINTENANCE SUPPLY	\$2,683.70	\$2,683.70
218922	621-7501-551.31-51	MC CANN INDUSTRIES	VEH MAINTENANCE SUPPLY	\$199.80	\$199.80
218932	621-7501-551.31-51	MORTON GROVE AUTOMOTIVE WEST	VEH MAINTENANCE SUPPLY	\$195.00	\$195.00
218933	621-7501-551.22-03	MUNICIPAL FLEET MANAGERS ASSOC	REGISTRATION FEE	\$25.00	\$150.00
			REGISTRATION FEE	\$25.00	
			REGISTRATION FEE	\$25.00	
			REGISTRATION FEE	\$25.00	
			REGISTRATION FEE	\$25.00	
			REGISTRATION FEE	\$25.00	
218936	621-7501-551.31-51	NAPA HEIGHTS AUTOMOTIVE	VEH MAINTENANCE SUPPLY	\$6.31	\$101.36
			VEH MAINTENANCE SUPPLY	\$81.89	
			VEH MAINTENANCE SUPPLY	\$13.16	
218949	621-7501-551.31-51	PATLIN INC	VEH MAINTENANCE SUPPLY	\$278.46	\$278.46

WARRANT REGISTER - GM0002

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218963	621-7501-551.31-51	INTERSTATE BILLING SERVICE INC	VEH MAINTENANCE SUPPLY	\$3,172.80	\$6,316.73
			VEH MAINTENANCE SUPPLY	\$163.12	
			VEH MAINTENANCE SUPPLY	(\$798.00)	
			VEH MAINTENANCE SUPPLY	\$257.94	
			VEH MAINTENANCE SUPPLY	\$190.87	
			VEH MAINTENANCE SUPPLY	\$3,330.00	
218971	401-7501-572.50-15	SNAP ON INDUSTRIAL TOOLS	VEH MAINTENANCE SUPPLY	\$2,686.94	\$2,686.94
218973	621-7501-551.21-02	SOURCE NORTH AMERICA CORP	FUEL ISLAND REPAIRS	\$451.06	\$451.06
218993	621-7501-551.30-35	UNIFIRST CORPORATION	UNIFORM	\$56.19	\$168.57
			UNIFORM	\$56.19	
			UNIFORM	\$56.19	
219011	621-7501-551.31-51	WENTWORTH TIRE SERVICE	VEH MAINTENANCE SUPPLY	\$1,738.74	\$2,326.74
			VEH MAINTENANCE SUPPLY	\$588.00	
Division 1 Total					\$20,491.63
Department 75 Total					\$20,491.63

WARRANT REGISTER - GM0002**Department: 90 Capital****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218833	505-9001-571.50-25	ARROW ROAD CONSTRUCTION CO	SERVICE CONSTRUCTION	\$17,429.86	\$17,429.86
218848	505-9001-571.50-25	CHRISTOPHER B BURKE LTD	SERVICE CONSULTING	\$11,282.17	\$11,282.17
				Division 1 Total	\$28,712.03

Division: 13

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218887	431-9013-571.50-15	HARRIS TRUST & SAVINGS BANK	PAYPAL *THADWRIGHT	(\$349.45)	(\$349.45)
218960	431-9013-571.50-25	RILEY CONSTRUCTION	SERVICE CONSTRUCTION	\$206,713.96	\$206,713.96
				Division 13 Total	\$206,364.51
				Department 90 Total	\$235,076.54

WARRANT REGISTER - GM0002**Department: 99 Non Operating****Division: 1**

Check #	Account Number	Payee	Description 1	Transaction Amount	Total Trans Amount
218925	515-9901-525.40-83	METROPOLIS COMMERCIAL CONDO ASSN	CAM CHARGE	\$6,506.58	\$6,506.58
	515-9901-525.40-92	METROPOLIS COMMERCIAL CONDO ASSN	BUILDING RESERVE CHARGE	\$830.70	\$830.70
Division 1 Total					\$7,337.28
Department 99 Total					\$7,337.28
TOTAL ALL FUNDS:					\$2,575,973.86



**Village Board
7/15/2019**

Item: Substantial Amendments to 2015-2019 Consolidated Plan and Draft 2019 Annual Action Plan

Department: Planning & Community Development

BACKGROUND

The purpose of this public hearing is to receive final comments on the proposed Substantial Amendments to the 2015-2019 Consolidated Plan and the draft 2019 Annual Action Plan.

Substantial Amendments to 2015-2019 Consolidated Plan

Several substantial amendments have been proposed with regard to anticipated expenditures and numbers/types of beneficiaries served under certain programs over the 5-year period of the 2015-2019 Consolidated Plan. The pages of the 2015-2019 Consolidated Plan as they are proposed to be amended are attached.

2019 Annual Action Plan

The 2019 Annual Action Plan states how the Village will address the community development needs of its low and moderate income residents during the program year (October 1, 2019 – September 30, 2020) including how it will use its available CDBG funds. The draft 2019 Annual Action Plan is attached. Since the the Community Development Block Grant (CDBG) budget, which is a part of the 2019 Annual Action Plan, has historically been of particular interest to members of the community, the draft CDBG budget is provided as a separate document for the convenience of the Village Board and the public.

Public Comment

The proposed substantial amendments and draft 2019 Annual Action Plan was made available for a 30-day public comment period ending on Friday, July 12, 2019. As of the writing of this memorandum, a total of six verbal and written comments were received. Four of the public comment received concerned the draft 2019 Annual Action Plan and requested that the Village make a CDBG allocation to Northwest Compass for its Housing Counseling Program, which was

not recommended by staff for several reasons including the limited amount of funds available for public service grants and HUD's suggestion that the Village reduce its number of subrecipients. Additionally, a question was received from Global Executive Council Services and a thank you letter was received from Little City Foundation. If any additional public comments are received, the Village Board will be informed of those comments at the July 15, 2019 Village Board meeting.

HUD REVIEW

If approved by the Village Board, the Village's 2019 Annual Action Plan will be submitted by Cook County with the 2019 Annual Action Plans of the other municipal members of the Cook County HOME Consortium. HUD may take up to 45 days to review the Village's 2019 Annual Action Plan. Upon approval, HUD will provide a Grant Agreement to the Village for its Federal fiscal year 2019 CDBG entitlement funds.

ATTACHMENTS:

Description	Type
Substantial Amendments to 2015-2019 Consolidated Plan	Exhibits
2019 Annual Action Plan	Exhibits
2019 CDBG Draft Budget	Exhibits

SUMMARY

Proposed Substantial Amendments to the 2015-2019 Consolidated Plan

When the Village makes a substantial change to the 2015-2019 Consolidated Plan, the Village must undergo a public participation process. The 2019 Annual Action Plan is the last year (fifth year) covered by the 2015 – 2019 Consolidated Plan. Several substantial amendments are proposed with regard to anticipated expenditures and numbers/types of beneficiaries served under certain programs over the 5-year period of the 2015-2019 Consolidated Plan.

It may be necessary to adjust the estimates of expenditures and beneficiaries for 2015-2019 Consolidated Plan and the 2019-2020 prior to final adoption by the Village Board depending on public input received and Village Board discussions concerning the draft 2019 Annual Action Plan.

Substantial Amendments:

Single Family Rehab Loan Program

Current 5-year Budget:	\$297,200
Proposed 5-year Budget:	\$132,400
Current 5-Year Beneficiary Goal:	20 housing units
Proposed 5-Year Beneficiary Goal:	6 housing units

Explanation: Applications under the Single Family Rehab Program have decreased since the decline in the housing market in the mid-2000s. Funding has been shifting to the renovation of group homes under the category of “public facilities” below.

Rental Rehab Program

Current 5-year Budget:	\$73,000
Proposed 5-year Budget:	\$91,000
Current 5-Year Beneficiary Goal:	118 housing units
Proposed 5-Year Beneficiary Goal:	No change

Explanation: At the beginning of the Consolidated Plan 5-year period, the Village anticipated providing funding in the amount of \$73,000 for renovations of Goedke Apartments. Since then, funds have also been approved, and are requested under the 2019 CDBG budget, for renovations at another apartment building that provides units for low/moderate income tenant.

Public Facilities

Current 5-year Budget:	\$564,934
Proposed 5-year Budget:	\$685,000
Current 5-Year Beneficiary Goal:	18,035 people
Proposed 5-Year Beneficiary Goal:	40,000 people

Explanation: As demand for home renovations under the Single Family Rehab Program have decreased, grants for home renovations of group homes by non-profit organizations (classified by HUD as “public facilities”) has increased. Renovations at the Senior Center during more years than anticipated also pushed up the total number of beneficiaries under this category because (in compliance with HUD’s instructions) all Senior Center patrons are reported each

year that CDBG funds are used for a project at the Senior Center. An additional amendment under this category is to homeless persons among the categories of persons who may be assisted through CDBG-funded public facilities projects.

Public Infrastructure

Current 5-year Budget: \$450,000

Proposed 5-year Budget: \$525,000

Current 5-Year Beneficiary Goal: 2,000 people

Proposed 5-Year Beneficiary Goal: No change

Explanation: The proposed increase in the budget amount under this category is due to: 1) the transfer of funds from the Capital Fund to the CDBG fund in connection with the disposition of the Teen Center to the Arlington Heights Memorial Library; and 2) higher than expected other CDBG program Income.

Exhibit A

Below are the tables from the 2015-2019 Consolidated Plan that are proposed to be amended through the Substantial Amendment process.

SP – 25 Priority Needs - 91.415, 91.215(a)(2)

Proposed Amendments are highlighted. It adds various homeless populations to the populations that may be assisted through CDBG-funded public facilities.

5	Priority Need Name	Public Facilities
	Priority Level	High
	Population	Extremely Low Low Moderate Elderly Frail Elderly Persons with Mental Disabilities Persons with Physical Disabilities Persons with Developmental Disabilities Chronic Homelessness Homeless Individuals Homeless Families with Children Homeless Mentally Ill Homeless Veterans Homeless Victims of Domestic Violence Homeless Unaccompanied Youth Non-housing Community Development
	Geographic Areas Affected	Municipality
	Associated Goals	Public Facilities without Low/Mod Housing Benefit
	Description	Under Public Facilities needs, the Village seeks to ensure that the facilities that serve the social, recreational, health, family and other needs of persons in the community are provided, maintained, and available for use by all residents. Housing and other facilities that provide housing and/or services for special populations are usually categorized by HUD as public facilities. Priority for such special needs housing facilities will be given to the populations indicated above. Persons with alcohol and other addictions and persons with HIV/AIDS are not included under this need area because their specific numbers in Arlington Heights are not known, and it is not expected that public facilities would be funded specifically for these populations although they may be present in the designated income levels for programs under other needs categories.

	Basis for Relative Priority	According to the community survey, senior services and senior housing ranked in the top five public services and housing need areas. Supporting the Village's Senior Center, which is a public facility, is important to the Village in addressing senior housing and service needs. Housing for persons with disabilities is also ranked relative highly (fifth out of fifteen housing need areas).
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SP-45 Goals - 91.415, 91.215(a)(4)

Proposed Amendments are highlighted

Goals Summary Information Proposed Amendments Highlighted Sort Order	Goal Name	Start Year	End Year	Category	Geographic Area	Needs Addressed	Funding	Goal Outcome Indicators
1	Homeowner Unit Preservation	2015	2019	Affordable Housing	Village of Arlington Heights, IL	Affordable Housing, Planning & Administration	CDBG: \$297,920 \$132,400	Homeowner Housing Rehabilitated: 206 Household Housing Units
2	Rental Unit Preservation	2015	2019	Affordable Housing and Public Housing	Village of Arlington Heights, IL	Affordable Housing, Other Special Housing/Non-Homeless Needs, Planning & Administration	CDBG: \$73,000 \$91,000	Rental Units rehabilitated: 118 Household Housing Units
3	Homeless Services	2015	2019	Homeless	Village of Arlington Heights, IL	Affordable Housing, Homelessness, Planning & Administration	CDBG: \$20,000	Homeless Prevention: 200 Persons Assisted
4	Public Facilities without Low Mod Housing Benefit	2015	2019	Non-Homeless Special Needs, Homeless , Non-Housing Community Development	Village of Arlington Heights, IL	Affordable Housing, Other Special Housing/Non-Homeless, Homeless Needs, Planning & Administration	CDBG: \$565,000 \$685,000	Public Facility or Infrastructure Activities other than Low/Moderate Income Housing Benefit: 18,035 40,000

5	Public Services	2015	2019	Non-Housing Community Development	Village of Arlington Heights, IL	Affordable Housing, Planning & Administration , Public Service Needs	CDBG: \$248,000	Public service activities other than Low/Moderate Income Housing Benefit: 1,250 persons assisted
6	Planning and Administration	2015	2019	Planning and Administration	Village of Arlington Heights, IL	Planning and Administration	CDBG: \$300,000	Other: 0 Other
7	Economic Development	2015	2019	Non-Housing Community Development	Village of Arlington Heights, IL	Economic Development	CDBG: \$0	Other: 0 Other
8	Infrastructure	2015	2019	Non-Housing Community Development	Village of Arlington Heights, IL	Infrastructure	CDBG: \$450,000 \$525,000	Public Facility or Infrastructure Activities other and Low/Moderate Income Housing Benefit: 2000 persons assisted

Table 1 – Goals Summary

Goal Descriptions

1	Goal Name	Homeowner Unit Preservation
	Goal Description	It is the goal of the Village to provide funding for programs that assist in overcoming cost burdens experienced by extremely low, low and moderate income homeowners (ex. homeowner rehabilitation program).
2	Goal Name	Rental Unit Preservation
	Goal Description	It is the goal of the Village to provide funds for the improvement of affordable rental units for extremely low, low, and moderate income residents which may include federally assisted or public housing.
3	Goal Name	Homeless Services
	Goal Description	It is a goal of the Village to address homeless needs by providing support for homeless services including services to individuals and families at risk of homelessness.

4	Goal Name	Public Facilities without Low/Mod Housing Benefit
	Goal Description	It is a goal of the Village to support public facilities including, but not limited to, the Arlington Heights Senior Center (which serves more than 9,000 seniors each year), emergency/transitional housing, and supportive housing for persons with special needs. It is planned that the Senior Center will receive CDBG funding for the next two years (ext. 9,000 persons served each year, or 18,000 for the 2 years), an estimated 11 other people will be beneficiaries of FFY 2015 CDBG funds (est. 5 at the Safe House and 6 at a group home); and it is estimated that there will be 6 persons assisted through renovations of group homes or other public facilities in years 3, 4, & 5. Therefore, the number of estimated beneficiaries is 9,011 in year 1 (9,000 at the Senior Center, 5 at the Safe House, 6 at a group home), 9,006 in year 2 (9,000 at the Senior Center and 6 at another public facility), 6 in year 3 at a public facility, 6 in year 4 at a public facility, and 6 in year 5 at a public facility for a total for the 5 years of 18,035. The number of person who may be assisted at other types of public facilities cannot be estimated until those facilities and allocations are identified. The goal over the course of the 5-year Consolidated Plan is to assist a total of approximately 40,000 persons. This number includes duplication of the approximately 9,000 persons assisted at the Senior Center each year for years in which the Senior Center is assisted with CDBG funds.
5	Goal Name	Public Services
	Goal Description	It is a goal of the Village to support the availability of various public services including literacy, housing counseling, services to persons with disabilities, child care, youth services, health care, etc. as needed.
6	Goal Name	Planning and Administration
	Goal Description	It is a goal of the Village to effectively administer the Community Development Block Grant (CDBG) program and ensure Village compliance with Federal laws, regulations, and guidelines concerning the CDBG program.
7	Goal Name	Economic Development
	Goal Description	The goal of economic development is to expand economic opportunities including job creation and retention.
8	Goal Name	Infrastructure
	Goal Description	The goal of infrastructure is to provide the basic equipment and structures that are the Village to function properly.

Village of Arlington Heights

Draft 2019 Annual Action Plan

Program Year

October 1, 2019 – September 30, 2020

Contact: Nora Boyer, Housing Planner
Department of Planning and Community Development
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Executive Summary

AP-05 Executive Summary - 91.200(c), 91.220(b)

1. Introduction

Purpose: The purpose of the Annual Action Plan is to describe the housing and community development goals that the Village plans to address during the program year and how it will utilize its Community Development Block Grant (CDBG) funds to address those goals.

2. Summarize the objectives and outcomes identified in the Plan

This could be a restatement of items or a table listed elsewhere in the plan or a reference to another location. It may also contain any essential items from the housing and homeless needs assessment, the housing market analysis or the strategic plan.

In this program year, the Village intends to address its goals in the areas of homeowner unit preservation, rental housing preservation, homeless services, public facilities, public services, infrastructure and planning and administration.

3. Evaluation of past performance

This is an evaluation of past performance that helped lead the grantee to choose its goals or projects.

The Village of Arlington Heights has been a recipient of Community Development Block Grant (CDBG) funds since 1974. For 44 years, the Village has addressed housing and community development needs of the Village's low and moderate income citizens, and has worked effectively with the US Department of Housing and Urban Development.

4. Summary of Citizen Participation Process and consultation process

Summary from citizen participation section of plan.

The Village held a public hearing on June 10, 2019 and will hold a second public hearing on July 15, 2019 during the development of the Annual Action Plan. The Village is also making the draft Annual Action Plan available for a 30-day public comment period. Public notices of the public hearings and availability of the draft Annual Action Plan are published via a notices in the Daily Herald newspaper and through announcements directly mailed to persons and organizations of the Village's CDBG "interested persons" mailing list.

5. Summary of public comments

This could be a brief narrative summary or reference an attached document from the Citizen Participation section of the Con Plan.

The minutes of the June 10, 2019 and July 15, 2019 public hearing will be posted on the Village's website. Comments made during the 30 day public comment period will be included in materials sent to the Village Board for the July 15, 2019 public hearing.

6. Summary of comments or views not accepted and the reasons for not accepting them

To be completed.

7. Summary

The following is the draft CDBG allocation plan for 2019-2020:

Faith Community homes is requesting funds to provide family counseling, including financial counseling, to Arlington Heights families enrolled in a 2-year program during which they develop plans and skills help them to become financially independent. Draft allocation: \$2,500.

District 214 Education Foundation provides beginning English as a Second Language classes for students through a literacy program coordinated with the Arlington Heights Memorial Library. Draft allocation: \$1,500.

Northwest Center Against Sexual Assault (CASA) is requesting funds to provide counseling and services to Arlington Heights residents who are victims of sexual assault. Draft allocation: \$2,500.

Children's Advocacy Center is requesting funds to provide advocacy and counseling for the benefit of Arlington Heights children in circumstances of child sexual assault and severe physical abuse. Draft allocation: \$2,500.

WINGS provides housing and social services for battered and homeless women and their children. Funds are requested for the cost of providing emergency housing and services to homeless persons, including victims of domestic violence, whose last permanent address was in Arlington Heights. Draft allocation: \$6,000.

Resources for Community Living is requesting funds to work with person with disabilities to locate and maintain housing in the community. Draft allocation: \$5,000.

Escorted Transportation Service is seeking funds to provide transportation to doctor appointments for Arlington Heights residents who are frail seniors and persons with disabilities. Draft allocation: \$3,500.

Suburban Primary Health Care Council provides subsidized medical care for Arlington Heights residents who are low/moderate income and who are uninsured, have unaffordable deductibles and are not eligible for publicly funded medical assistance. Draft allocation: \$4,337.

Journeys The Road Home is requesting CDBG funds to provide homeless services to persons who report that their last permanent address was in Arlington Heights. Draft allocation: \$4,500.

Arlington Heights Park District Children at Play program is requesting funds for subsidies for the cost of providing before and after school childcare for low/moderate income Arlington Heights families. CDBG Draft allocation: \$9,113 (additional need for \$20,887 to be considered for inclusion in the Health and Human Services Department budget for 2020).

Lifespan provides legal services and counseling for victims of domestic violence. Draft allocation: \$3,000.

Northwest Compass is seeing funds for its housing program that provides families and individuals experiencing a crisis regarding their housing with crisis intervention, housing counseling and assistance, rapid re-housing, and street outreach for homeless persons. Draft allocation: \$0.

Global Executive Council Services provides assistance to under served Asian community members living in Suburban Cook County with the public benefit system including Food Stamps, Social Security, Retirement Benefits, SSI, Medicaid, Medicare, KidCare/Family Care, LIHEAP, etc. The agency states that the assistance is needed due to language barriers and basic need to understand and navigate the social service systems. Draft allocation: \$0.

Little City Foundation is requesting funds for renovations at the Euclid Avenue group home to include bathroom renovations, kitchen renovation, painting, and electrical work. Draft allocation: To be considered under the Group Home and Transitional Housing Program.

Clearbrook is requesting funds to replace the existing siding, fascia, soffits and deteriorated wood around windows and doors at the Kennicott Avenue group home. Draft allocation: To be considered under the Group Home and Transitional Housing Program.

Shelter, Inc. is requesting funds for renovations to its group home that provides housing for males 17 – 21 year of age who are homeless and have aged out of the child welfare system. The funds would be used to replace worn flooring throughout the home. Draft allocation: To be considered under the Group Home and Transitional Housing Program.

Alexian Brothers Center for Mental Health is requesting funds to install a storm water drainage system at its 4-unit apartment building in Arlington Heights in order to prevent storm water flooding in the basement of the building. Draft allocation: \$13,960.

Journeys | The Road Home is requesting funding to assist with the demolition of its current day center and construction of a new building on the same property. The new building will include floors for administration, day services, and transitional housing. Draft allocation: \$28,000. With the contingency that if this project does not proceed as a jointly CDBG-funded project with Cook County and the other Northwest Suburban CDBG entitlement communities, this amount will be reallocated to public infrastructure or public facilities.

Single Family Rehabilitation Loan Program provides 0% interest, deferred loans to low/moderate income homeowners for home repairs. Draft allocation: \$55,000.

Group Home and Transitional Housing Acquisition and Rehabilitation Program provides funds for renovations to groups homes and transitional housing facilities/units. Draft allocation \$76,900.

Public Infrastructure and Public Facilities programs funded through the CDBG program provide: 1) improved infrastructure (ex. street resurfacing, sidewalk replacement, handicapped accessibility or other improvements) in low/moderate income areas of the Village or for the benefit of persons (ex. persons with disabilities) who are low/moderate income or presumed to be low/moderate income; and 2) improved public facilities that may be owned by the Village or a non-profit organization where services and opportunities are made available to low/moderate income persons. Priorities and specific projects will be identified during the program year. Projects under this category in the past few years have included street resurfacing, improvements to the Village-owned Senior Center, and improvements to the Children's Advocacy Center's Main Service Center in Hoffman Estates. Funds will be used for either or both public infrastructure or public facilities projects with funding transferred as necessary between these two goals as needed according to priorities set by the Village. Draft allocation: \$225,277.

CDBG Administration includes the cost of salaries and soft costs (public notices, audits, etc.) that are necessary in order to administer the Village's CDBG program. Draft allocation: \$63,000.

PR-05 Lead & Responsible Agencies - 91.200(b)

1. Agency/entity responsible for preparing/administering the Consolidated Plan

The following are the agencies/entities responsible for preparing the Consolidated Plan and those responsible for administration of each grant program and funding source.

Agency Role		Name	Department/Agency
CDBG Administrator		ARLINGTON HEIGHTS	Department of Planning & Community Development

Table 1 – Responsible Agencies

Narrative

Consolidated Plan Public Contact Information

Nora A. Boyer, Housing Planner

Village of Arlington Heights

Department of Planning & Community Development

33 S. Arlington Heights Road

Arlington Heights, IL 60005

(847) 368-5214 or nboyer@vah.com

AP-10 Consultation - 91.100, 91.200(b), 91.215(l)

1. Introduction

The Village held a public hearing on June 10, 2019 and will hold a second public hearing on July 15, 2019 concerning the 2019 Annual Action Plan. The draft 2019 Annual Action Plan, including the CDBG budget, has been made available for a 30-day public comment period. Public hearings and the public comment period are advertised in the local newspaper and mailings are sent to all of the individuals and entities on the CDBG “interested persons” mailing list.

Provide a concise summary of the jurisdiction’s activities to enhance coordination between public and assisted housing providers and private and governmental health, mental health and service agencies (91.215(l)).

The Village of Arlington Heights has regular, on-going contact with the Housing Authority of Cook County, the public and assisted housing provider for the Village of Arlington Heights. Arlington Heights has its own Department of Health and Human Services that is in ongoing contact with other government health agencies such as the Cook County Department of Public Health and the Illinois Department of Public Health. Relationships are maintained with social service agencies through CDBG funding and through various group and individual professional contacts between the Village and those agencies.

Describe coordination with the Continuum of Care and efforts to address the needs of homeless persons (particularly chronically homeless individuals and families, families with children, veterans, and unaccompanied youth) and persons at risk of homelessness.

The Village maintains communication with the homeless service providers in the area including Journeys|The Road Home, Northwest Compass and the WINGS Program, Inc. Village departments involved in this coordination are the Department of Planning and Community Development, Department of Health and Human Services Department, and the Police Department.

The Village keeps informed with respect to Continuum of Care activities through emails and minutes of AHAND (Association of Homeless Advocates in the North/Northwest District) which is a coordinating entity of the Alliance to End Homelessness in Suburban Cook County and operates in an area the includes Arlington Heights.

Describe consultation with the Continuum(s) of Care that serves the jurisdiction’s area in determining how to allocate ESG funds, develop performance standards for and evaluate outcomes of projects and activities assisted by ESG funds, and develop funding, policies and procedures for the operation and administration of HMIS

The Village does not receive ESG funds.

Agencies, groups, organizations and others who participated in the process and consultations.

Not applicable.

Table 2 – Agencies, groups, organizations who participated

1	Agency/Group/Organization	Village of Arlington Heights
	Agency/Group/Organization Type	Other government - Local Grantee Department
	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	The Department of Planning & Community Development has an ongoing dialogue with other departments of the Village with respect to community needs and with respect to services being provided by the Village and by local non-profit agencies. Village departments and commissions are also involved in submitting grant applications.
2	Agency/Group/Organization	COOK COUNTY
	Agency/Group/Organization Type	Other government - County
	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	The Village joined the Cook County HOME Consortium effective October 1, 2016. The Village coordinates with Cook County on the submission of Annual Action Plans.
3	Agency/Group/Organization	Housing Authority of Cook County (HACC)
	Agency/Group/Organization Type	PHA
	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	The Village works regularly with the Cook County Housing Authority. The Cook County Housing Authority recently completed a total renovation of the Albert Goedke Apartments in Arlington Heights.

4	Agency/Group/Organization	TOWNSHIP HIGH SCHOOL DISTRICT 214 COMMUNITY EDUCATION FOUNDATION
	Agency/Group/Organization Type	Services-Education
	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	The District 214 Education Foundation provides educational programs for community residents, some of which are targeted toward the needs of low and moderate-income residents. Communication with this agency has been on-going. This agency submitted a grant application for program year 2019 and presented its grant application at a public hearing on June 10, 2019. The agency was invited to make any other comments on the 2019 Annual Action Plan.
5	Agency/Group/Organization	Faith Community Homes
	Agency/Group/Organization Type	Services - Housing
	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Faith Community Homes is a non-profit agency that provides housing subsidies and mentoring (financial, educational, employment, etc.) for families with children that are at risk of homelessness. Faith Community Homes has been a subrecipient agency of the Village of Arlington Heights, and communication with this agency is on-going. This agency submitted a grant application for program year 2019 and presented its grant application at a public hearing on June 10, 2019. The agency was invited to make any other comments on the 2019 Annual Action Plan.
6	Agency/Group/Organization	Northwest Center Against Sexual Assault
	Agency/Group/Organization Type	Services - Victims

	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	The Northwest Center Against Sexual Assault is a non-profit organization that provides specialized counseling, crisis intervention, and advocacy services for person who are victims of sexual assault. Northwest CASA has been a subrecipient agency of the Village of Arlington Heights. Communication with this agency has been on-going. This agency submitted a grant application for program year 2019 and presented its grant application at a public hearing on June 10, 2019. The agency was invited to make any other comments on the 2019 Annual Action Plan.
7	Agency/Group/Organization	Children's Advocacy Center
	Agency/Group/Organization Type	Services-Children Services - Victims
	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	The Children's Advocacy Center provides direct client services for child victims of sexual assault, severe physical abuse, witnesses to domestic violence, and their families. The Children's Advocacy Center has been a subrecipient agency of the Village of Arlington Heights. Communication with this agency has been on-going. This agency submitted a grant application for program year 2019 and presented its grant application at a public hearing on June 10, 2019. The agency was invited to make any other comments on the 2019 Annual Action Plan.
8	Agency/Group/Organization	WINGS
	Agency/Group/Organization Type	Services-Victims of Domestic Violence Services-homeless Services - Victims

	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	The WINGS Program, Inc. provides housing and wide variety of supportive services to victims of domestic violence and homelessness. Communication with this agency has been on-going. This agency submitted a grant application for program year 2019 and presented its grant application at a public hearing on June 10, 2019. The agency was invited to make any other comments on the 2019 Annual Action Plan.
9	Agency/Group/Organization	Resources for Community Living
	Agency/Group/Organization Type	Services-Persons with Disabilities
	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Resources for Community Living assists persons with disabilities in securing and maintaining private housing. The agency provides a variety of services to assist its clients in maintaining private housing and to be integrated successfully in the community. Communication with this agency has been on-going. This agency submitted a grant application for program year 2019 and presented its grant application at a public hearing on June 10, 2019. The agency was invited to make any other comments on the 2019 Annual Action Plan.
10	Agency/Group/Organization	Escorted Transportation Services - Northwest
	Agency/Group/Organization Type	Services-Elderly Persons Services-Persons with Disabilities
	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan

	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	This non-profit agency provides seniors with transportation by volunteers to medical appointments. Escorted Transportation Northwest has been a subrecipient agency of the Village of Arlington Heights. Communication with this agency has been on-going. This agency submitted a grant application for program year 2019 and presented its grant application at a public hearing on June 10, 2019. The agency was invited to make any other comments on the 2019 Annual Action Plan.
11	Agency/Group/Organization	Suburban Primary Health Care Council
	Agency/Group/Organization Type	Health Agency
	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	This agency provides subsidies for health care for low-income persons who are uninsured or are under insured. Communication with this agency has been on-going. This agency submitted a grant application for program year 2019 and presented its grant application at a public hearing on June 10, 2019. The agency was invited to make any other comments on the 2019 Annual Action Plan.

12	Agency/Group/Organization	Journeys from PADS to HOPE
	Agency/Group/Organization Type	Housing Services - Housing Services-Children Services-Elderly Persons Services-Persons with Disabilities Services-Persons with HIV/AIDS Services-Victims of Domestic Violence Services-homeless Services-Health Services-Education Services-Employment Service-Fair Housing
	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Journeys The Road Home provides a wide variety of homeless and homeless prevention programs. The agency operates and emergency shelter program (PADS), the HOPE Center (homeless day center), and five transitional housing units through its Pathway Development Institute Housing Readiness Program. Journeys has been a subrecipient agency of the Village of Arlington Heights. Communication with this agency has been ongoing. This agency submitted a grant application for program year 2019 and presented its grant application at a public hearing on June 10, 2019. The agency was invited to make any other comments on the 2019 Annual Action Plan.
13	Agency/Group/Organization	ARLINGTON HEIGHTS PARK DISTRICT
	Agency/Group/Organization Type	Services-Children

	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	The Arlington Heights Park District provides before and after school childcare for elementary school children at their own schools. Since the program was founded, the Village has provided CDBG subsidies for low and moderate-income families who use the program in order for the parents to maintain employment. The Park District has been a subrecipient agency of the Village of Arlington Heights. Communication with this agency has been on-going. This agency submitted a grant application for program year 2019 and presented its grant application at a public hearing on June 10, 2019. The agency was invited to make any other comments on the 2019 Annual Action Plan.
14	Agency/Group/Organization	Life Span
	Agency/Group/Organization Type	Services-Victims of Domestic Violence Services - Victims
	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Life Span provides services to women who are survivors of domestic violence. Life Span has been a subrecipient agency of the Village of Arlington Heights. Communication with this agency has been ongoing. This agency submitted a grant application for program year 2019 and presented its grant application at a public hearing on June 10, 2019. The agency was invited to make any other comments on the 2019 Annual Action Plan.

15	Agency/Group/Organization	Northwest Compass
	Agency/Group/Organization Type	Housing Services - Housing Services-Children Services-Elderly Persons Services-Persons with Disabilities Services-Persons with HIV/AIDS Services-Victims of Domestic Violence Services-homeless Services-Health Services-Education Services-Employment Service-Fair Housing Services - Victims
	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Northwest Compass provides emergency assistance, support, and assistance to low and moderate income person. They have an emphasis on serving youth and veterans experiencing or at risk of experiencing homelessness. In March 2019, Village staff met with representatives of Northwest Compass to discuss the services offered by the agency and their plan to submit a CDBG application for the 2019 program year. This agency submitted a grant application for program year 2019 and presented its grant application at a public hearing on June 10, 2019. The agency was invited to make any other comments on the 2019 Annual Action Plan.
16	Agency/Group/Organization	SHELTER, INC.
	Agency/Group/Organization Type	Homeless

	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Shelter, Inc. provides shelter in Arlington Heights to men 17-21 years of age who are homeless and have aged out of the child welfare system. This agency submitted a grant application for program year 2019 and presented its grant application at a public hearing on June 10, 2019. The agency was invited to make any other comments on the 2019 Annual Action Plan.
17	Agency/Group/Organization	LITTLE CITY FOUNDATION
	Agency/Group/Organization Type	Housing Services - Housing Services-Persons with Disabilities
	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Little City Foundation provides services for persons with developmental disabilities include two (CIL) homes in Arlington Heights. The agency has been a recipient of Village CDBG funds, and discussion regarding the agency's needs and the needs of its clients are ongoing. This agency submitted a grant application for program year 2019 and presented its grant application at a public hearing on June 10, 2019. The agency was invited to make any other comments on the 2019 Annual Action Plan.
18	Agency/Group/Organization	CLEARBROOK CENTER
	Agency/Group/Organization Type	Housing Services - Housing Services-Persons with Disabilities
	What section of the Plan was addressed by Consultation?	2019 Annual Action Plan

	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Clearbrook provides services for persons with disabilities. The agency operates group (CILA) homes in Arlington Heights. The agency has been a recipient of Village CDBG funds, and discussion regarding the agency's needs and the needs of its clients are ongoing. This agency submitted a grant application for program year 2019 and presented its grant application at a public hearing on June 10, 2019. The agency was invited to make any other comments on the 2019 Annual Action Plan.
19	Agency/Group/Organization	Alexian Brothers Center for Mental Health
	Agency/Group/Organization Type	Housing Services - Housing Services-Persons with Disabilities
	What section of the Plan was addressed by Consultation?	2018/2019 Annual Action Plan
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Alexian Brothers provides mental health services and housing for persons with disabilities in Arlington Heights. The agency has been a recipient of Village CDBG funds, and discussion regarding the agency's needs and the needs of its clients are ongoing. This agency submitted a grant application for program year 2019 and presented its grant application at a public hearing on June 10, 2019. The agency was invited to make any other comments on the 2019 Annual Action Plan.

Identify any Agency Types not consulted and provide rationale for not consulting

The Village operates an open consultation process. The Village maintains a mailing list of persons and agencies that have expressed interest in participating in the Consolidated Plan/Annual Action Plan process. The mailing list contains approximately 80 persons and agencies. Notices concerning the availability of grant applications, the two public hearings, and the 30-day public comment period on the draft Annual Action Plan

are mailed to the individuals and groups on the mailing list. Some of the individuals and groups participate in the process, including those identified above. Others choose not to participate in the consultation process. No individuals or agencies are intentionally not consulted.

Other local/regional/state/federal planning efforts considered when preparing the Plan

Name of Plan	Lead Organization	How do the goals of your Strategic Plan overlap with the goals of each plan?
Continuum of Care	Alliance to End Homelessness in Suburban Cook County	The goals of the Alliance to End Homelessness in Suburban Cook County address the homeless needs identified in the Strategic Plan.
Village of Arlington Heights Comprehensive Plan	Village of Arlington Heights	The Comprehensive Plan contains a section regarding housing. The goals of the Comprehensive Plan are consistent with the goals of the Consolidated Plan.
Multi-Family Affordable Housing Toolkit	Village of Arlington Heights	The policies contained in this Toolkit explain the number of affordable housing units that the Village expects developers to provide in new or substantially modified for-sale residential developments. An option is provided whereby developers may pay a fee-in-lieu of providing affordable units, although the Village Board has expressed a preference that affordable units be provided rather than the fee-in-lieu option being selected. Funds collected are deposited in the Village's Affordable Housing Trust Fund to be used to maintain existing affordable housing units and create new affordable units.
Affordable Rental Housing Guidelines	Village of Arlington Heights	The policies contained in these Guidelines explain the number of affordable units that the Village expects developers to provide in new or substantially modified rental residential developments. An option is provided whereby developers may pay a fee-in-lieu of providing the affordable units, although the Village Board has expressed a preference that affordable units be provided rather than the fee-in-lieu option being selected.. Funds collected are deposited in the Village's Affordable Housing Trust Fund to be used to maintain existing affordable units or create new affordable units.
Arlington Heights Affordable Housing Trust Fund	Village of Arlington Heights	The Village has created an Affordable Housing Trust Fund to be used to maintain and/or create affordable housing with an emphasis on creating permanently affordable housing.

Name of Plan	Lead Organization	How do the goals of your Strategic Plan overlap with the goals of each plan?
Homes for a Changing Region	Chicago Metropolitan Agency for Planning	The Homes for a Changing Region report includes data on housing needs and includes recommendations for strategies for each of the member communities of the Northwest Suburban Housing Collaborative and the 5-community area as a whole. The goals in the Strategic Plan are consistent with the needs and strategies in the Homes for a Changing Region report.
Senior Housing Needs Assessment	Northwest Suburban Housing Collaborative	The Senior Housing Needs Assessment includes and analysis of senior housing needs in each of the 5 member communities of the Northwest Suburban Housing Collaborative and the 5-community area as a whole. The goals of the Strategic Plan are consistent with the needs and recommended strategies in the Senior Housing Needs Assessment.
Go To 2040 and On to 2050	Chicago Metropolitan Agency for Planning	The goals of the Strategic Plan are consistent with the Go to 2040 and On to 2050 Regional Plans for the Chicago Metropolitan Area.
Planning for Progress	Cook County, IL	This is a strategic planning process which led to the development of the Cook County Consolidated Plan and Comprehensive Economic Development Strategy. The planning efforts included countywide and sub-regional goals and plans for the future of housing and community and economic development throughout the Cook County.
Public Housing Plan	Cook County Housing Authority	The Village reviewed the Housing Authority's Plan with respect to public housing in Arlington Heights. The Village's Strategic Plan supports the Housing Authority's plan to renovate and modernize the public housing building in Arlington Heights including increasing the number of accessible units.

Table 3 - Other local / regional / federal planning efforts

Narrative

(Optional) None

AP-12 Participation - 91.401, 91.105, 91.200(c)

1. Summary of citizen participation process/Efforts made to broaden citizen participation Summarize citizen participation process and how it impacted goal-setting

With respect to the Annual Action Plan, the Village held a public hearing on June 10, 2019 and will hold a second public hearing on July 15, 2019 during the program year. The draft of the Annual Action Plan has been made available for a 30-day public comment period. The Village publishes and mails notices regarding the public hearings and the availability of the draft Annual Action Plan for comment. Input from grant applicants and the Village's other partners impacts goal-setting by helping to identify priorities.

Citizen Participation Outreach

Sort Order	Mode of Outreach	Target of Outreach	Summary of response/attendance	Summary of comments received	Summary of comments not accepted and reasons	URL (If applicable)
1	Newspaper Ad	Non-targeted/broad community	A newspaper notice was published concerning the availability of the 2019 CDBG Grant Application and due date. Notices were also mailed to persons on the CDBG mailing list, a notice was published on the Village website, and emails were sent to all applicants that applied for CDBG funds for the 2019 CDBG program year.	21 CDBG grant applications were received.	None	

Sort Order	Mode of Outreach	Target of Outreach	Summary of response/attendance	Summary of comments received	Summary of comments not accepted and reasons	URL (If applicable)
2	Newspaper Ad	Non-targeted/broad community	On May 23, 2019, a newspaper notice was published concerning the 2019 Annual Action Plan scheduled for June 10, 2019. Notices were also mailed to persons on the CDBG mailing list, and emails were sent to Program Year 2019 applicants for CDBG funds.	CDBG grant applications were presented. The minutes of the June 10, 2019 Committee of the Whole meeting will be made public.	None	

3	Newspaper Ad	Non-targeted/broad community	A newspaper notice was published on June 12, 2019 concerning the 30-day public comment period for the 2019 Annual Action Plan. Notices were also mailed to persons on the CDBG mailing list. A notice was also posted on the Village's website.	Comments were received asking the Village to include an allocation to Northwest Compass, which was not included in the draft 2019 CDBG budget. The representative of Global Executive Council asked how to continue to be involved in the Annual Action Plan process. A letter of appreciation was received from the Little City Foundation. The Village Board will be notified of comments received during the public comment period.	To be completed.	
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Sort Order	Mode of Outreach	Target of Outreach	Summary of response/attendance	Summary of comments received	Summary of comments not accepted and reasons	URL (If applicable)
				Written comments will be attached to the draft 2019 Annual Action Plan. The Village Board will be notified of all comments received during the public comment period.		
4	Newspaper Ad	Non-targeted/broad community	A newspaper notice was published concerning the 2019 Annual Action Plan public hearing scheduled for July 15, 2019. Notices were also mailed to persons on the CDBG mailing list and an announcement appeared on the Village's website.	To be completed.	To be completed.	

Sort Order	Mode of Outreach	Target of Outreach	Summary of response/attendance	Summary of comments received	Summary of comments not accepted and reasons	URL (If applicable)
5	Public Hearing	Non-targeted/broad community	A Public Hearing was held before the Village Board's Committee of the Whole on June 10, 2019.	Minutes of the meeting will be prepared and published.	To be completed.	
6	Public Hearing	Non-targeted/broad community	A Public Hearing is scheduled for July 15, 2019 at a meeting of the Village Board of Trustees.	Minutes of the meeting will be prepared and published.	To be completed.	

Table 4 – Citizen Participation Outreach

Expected Resources

AP-15 Expected Resources - 91.420(b), 91.220(c)(1,2)

Introduction

The Village's FFY 2018 (Program year 2018 - 2019) CDBG entitlement allocation is \$269,344. Program year 2019 is the last year remaining in the 5-year Consolidated Plan (FFY 2015-2019).

Anticipated Resources

Program	Source of Funds	Uses of Funds	Expected Amount Available Year 5				Expected Amount Available Remainder of ConPlan \$	Narrative Description
			Annual Allocation: \$	Program Income: \$	Prior Year Resources: \$	Total: \$		
CDBG	public - federal	CDBG-eligible activities	\$269,344	\$50,000	\$182,243	\$501,587	\$0	2019 is the final year of the 2015 – 2019 Consolidated Plan.

Table 5 - Expected Resources – Priority Table

Explain how federal funds will leverage those additional resources (private, state and local funds), including a description of how matching requirements will be satisfied

The Village does not anticipate receiving any Federal funds that have matching requirements. CDBG funds are used to leverage many sources of other funds. Sub-recipient agencies receiving CDBG funding frequently site receiving Village/CDBG support of their programs as beneficial to them when seeking other public and private funds. CDBG funds may also leverage other government funding from other federally funded programs such as the HOME program, State programs such as those administered by the Illinois Housing Development Authority (IHDA), other public housing funds, or funding from other public or private entities. The CDBG entitlement program has no matching requirements.

If appropriate, describe publically owned land or property located within the jurisdiction that may be used to address the needs

identified in the plan

Discussion

At this time, no publically owned land or property located within the jurisdiction has been identified to address the needs identified in the plan.

Annual Goals and Objectives

AP-20 Annual Goals and Objectives - 91.420, 91.220(c)(3)&(e)

Goals Summary Information

Sort Order	Goal Name	Start Year	End Year	Category	Geographic Area	Needs Addressed	Funding	Goal Outcome Indicator
1	Homeowner Unit Preservation	2015	2019	Affordable Housing	Village of Arlington Heights, IL	Affordable Housing	Draft CDBG: \$50,000	Homeowner Housing Rehabilitated: 2 Household Housing Unit
2	Rental Unit Preservation	2015	2019	Affordable Housing Public Housing	Village of Arlington Heights, IL	Affordable Housing Other Special Housing/Non-Homeless Needs	Drafft CDBG: \$13,960	Rental units rehabilitated: 4 Household Housing Unit
3	Homeless Services	2015	2019	Homeless	Village of Arlington Heights, IL	Homelessness	Draft CDBG: \$4,500	Public service activities other than Low/Moderate Income Housing Benefit: 60 Persons Assisted
4	Public Facilities with or without Low/Mod Housing Benefit	2015	2017	Homeless and Non-Homeless Special Needs Non-Housing Community Development	Village of Arlington Heights, IL	Homelessness Infrastructure Other Special Housing/Non-Homeless Needs Public Facilities	Draft CDBG: \$25,277	Public Facility or Infrastructure Activities other than Low/Moderate Income Housing Benefit: 20 Persons Assisted.
5	Public Services	2015	2019	Non-Housing Community Development	Village of Arlington Heights, IL	Public Service Needs	Draft CDBG: \$44,450	Public service activities other than Low/Moderate Income Housing Benefit: 450 Persons Assisted

Sort Order	Goal Name	Start Year	End Year	Category	Geographic Area	Needs Addressed	Funding	Goal Outcome Indicator
6	Planning and Administration	2015	2019	Planning and Administration	Village of Arlington Heights, IL	Planning & Administration	Draft CDBG: \$63,000	Other: 0 Other
7	Infrastructure	2015	2019	Non-Housing Community Development	Village of Arlington Heights, IL	Infrastructure	Draft CDBG: Included in Public Facilities above	Public Facility or Infrastructure Activities other than Low/Moderate Income Housing Benefit: 2,000 Persons Assisted

Table 6 – Goals Summary

Goal Descriptions

1	Goal Name	Homeowner Unit Preservation
	Goal Description	It is the goal of the Village to provide funding for programs that assist in overcoming cost burdens experienced by extremely low, low and moderate income homeowners (ex. homeowner rehabilitation program).
2	Goal Name	Rental Unit Preservation
	Goal Description	It is the goal of the Village to provide funds for the improvement of affordable rental units for extremely low, low, and moderate income residents which may include federally assisted or public housing.
3	Goal Name	Homeless Services
	Goal Description	It is a goal of the Village to address homeless needs by providing support for homeless services including services to individuals and families at risk of homelessness.

4	Goal Name	Public Facilities with or without Low/Mod Housing Benefit
	Goal Description	It is a goal of the Village to support public facilities including, but not limited to, the Arlington Heights Senior Center, emergency/transitional housing, and supportive housing for persons with special needs.
5	Goal Name	Public Services
	Goal Description	It is a goal of the Village to support the availability of various public services including literacy, housing counseling, services to persons with disabilities, childcare, youth services, health care, etc. as needed.
6	Goal Name	Planning and Administration
	Goal Description	It is a goal of the Village to effectively administer the Community Development Block Grant (CDBG) program and ensure Village compliance with Federal laws, regulations, and guidelines concerning the CDBG program.
7	Goal Name	Infrastructure
	Goal Description	The goal of infrastructure is to provide the basic equipment and structures that are the Village to function properly.

AP-35 Projects - 91.420, 91.220(d)

Introduction

The Village is funding projects as described below.

#	Project Name
1	Faith Community Homes
2	District 214 Education Foundation
3	Northwest Center Against Sexual Assault
4	Childrens Advocacy Center
5	WINGS Program, Inc.
6	Resources for Community Living
7	Escorted Transportation Service Northwest
8	Suburban Primary Health Care Council Access to Care
9	Journeys The Road Home
10	Arlington Heights Park District Children at Play Program
11	Life Span
12	Northwest Compass
13	Global Executive Council Services
14	Little City Foundation
15	Clearbrook
16	Shelter, Inc.
17	Alexian Brothers Center for Mental Health
18	Journeys The Road Home – Capital Project
19	Single Family Rehabilitation Loan Program
20	Group Home and Transitional Housing Acquisition and Rehab Program
21	Public Infrastructure and Public Facilities
22	CDBG Administration

Table 7 – Project Information

Describe the reasons for allocation priorities and any obstacles to addressing underserved needs

To be completed.

AP-38 Project Summary

Project Summary Information

1	Project Name	Faith Community Homes
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Public Services
	Needs Addressed	Public Service Needs
	Funding	Draft CDBG Allocation: \$2,500
	Description	Faith Community Homes provides supportive services to low income working families with children living in Arlington heights to help them obtain stable housing and work toward financial stability. Families are assisted for 2 years during which time they work with staff and volunteer mentors to develop and implement steps to lead to financial self-sufficiency.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	Families with children are provided with services through this program. The expected number of beneficiaries at the requested grant amount is 18.
	Location Description	Agency Office: 302 N. Dunton Avenue, Arlington Heights, IL 60004
2	Planned Activities	CDBG funds would be used for staff costs for direct client services to eligible Arlington Heights residents.
	Project Name	District 214 Community Education Foundation
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Public Services
	Needs Addressed	Public Service Needs
	Funding	Draft CDBG Allocation: \$1,500
	Description	Beginning English as a Second Language lessons are provided every Thursday from 12:30 - 3:00 pm for 34 weeks to eligible non-native speakers of English. This project fills the gap for beginning ESL learners who are not advanced enough in their English skills for the existing ESL programs offered at the Arlington Heights Memorial Library.
	Target Date	9/30/2020

	Estimate the number and type of families that will benefit from the proposed activities	This program provides instruction to individuals. The expected number of beneficiaries at the requested grant amount is 40.
	Location Description	Agency Office: 2121 S. Goebbert Rd., Arlington Heights, IL 60005 ESL Lessons are provide at: Arlington Heights Memorial Library, 500 N. Dunton Ave., Arlington Heights, IL 60004
	Planned Activities	CDBG funds would be used to pay salary costs of the ESL instructor.
3	Project Name	Northwest Center Against Sexual Assault
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Public Services
	Needs Addressed	Public Service Needs
	Funding	Draft CDBG Allocation: \$2,500
	Description	This agency provides services to persons who are victims of sexual abuse and sexual assault.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 45.
	Location Description	Agency Location: 415 W Golf Rd., #47, Arlington Heights, IL 60005
	Planned Activities	CDBG funds would be used to pay salary costs of staff providing direct client services to eligible Arlington Heights residents.
4	Project Name	Childrens Advocacy Center
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Public Services
	Needs Addressed	Public Service Needs
	Funding	Draft CDBG Allocation: \$2,500
	Description	The Childrens Advocacy Center of North and Northwest Suburban Cook County provides direct client services for child victims of sexual assault and sever physical abuse, witnesses to domestic violence, and their families. Services are provided through the Center's CASA, Family Supportive Services, and Safe From the Start Programs.

	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 68.
	Location Description	Agency Location: 640 Illinois Blvd., Hoffman Estates, IL 60169
	Planned Activities	CDBG funds would be used for salary costs of staff that provide direct client services to eligible Arlington Heights residents.
5	Project Name	WINGS Program, Inc.
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Homeless Services
	Needs Addressed	Public Service Needs
	Funding	Draft CDBG Allocation: \$6,000
	Description	The WINGS Program provides housing and supportive services to persons who are victims of domestic violence or are homeless. Emergency shelter and services are provided at the agency's Safe House.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 15.
	Location Description	Safe House address is suppressed in order to protect the safety of persons receiving assistance.
	Planned Activities	CDBG funds would be used to reimburse the agency for direct client service costs for providing shelter and services to eligible Arlington Heights residents. In past years, the agency has been reimbursed on a cost per night of service basis.
6	Project Name	Resources for Community Living
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Public Services
	Needs Addressed	Public Service Needs
	Funding	Draft CDBG Allocation: \$5,000

	Description	RCL offers affordable housing and individualized support services for adults with developmental and/or physical disabilities. The primary goal of these services is to assist persons with disabilities to live in their own homes and apartments rather than in group homes and institutional settings. Services provided include money management, cooking, using public transportation safely, vocational training, community involvement and other skills necessary for living on one's own. Monthly social activities, social group training, and rent subsidies are also available.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 6.
	Location Description	Agency Office: 4300 Lincoln Ave., Rolling Meadows, IL 60008
	Planned Activities	CDBG funds would be used to pay salary costs of staff that provide direct client services to eligible Arlington Heights residents.
7	Project Name	Escorted Transportation Service Northwest
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Public Services
	Needs Addressed	Public Service Needs
	Funding	Draft CDBG Allocation: \$3,500
	Description	This program provides senior citizens with transportation to medical appointments. The agency is run by a small staff, and the transportation is provided by screened and trained volunteer drivers.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 166.
	Location Description	Agency location: 1801 W Central Road, Arlington Heights, IL 60005
	Planned Activities	CDBG funds would be used to pay salary costs of staff providing direct client services to eligible Arlington Heights residents.
8	Project Name	Suburban Primary Health Care Council Access to Care
	Target Area	Village of Arlington Heights, IL

	Goals Supported	Public Services
	Needs Addressed	Public Service Needs
	Funding	Draft CDBG Allocation: \$4,337
	Description	The Suburban Primary Health Care Council's Access to Care program provides access to primary medical care to income eligible person who are uninsured or under insured. Covered services include office visits to a primary care physician, routine lab tests, x-rays and prescription drugs. Services are provided by local physicians and other service providers who are under contract and paid by the Suburban Primary Health Care Council at discounted rates.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 15.
	Location Description	Agency location: 2225 Enterprise Dr # 2507, Westchester, IL 60154
	Planned Activities	CDBG funds would be used to pay the per person enrollment fee for income-eligible Arlington Heights residents who are enrolled in the program.
9	Project Name	Journeys The Road Home
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Homeless Services
	Needs Addressed	Public Service Needs
	Funding	Draft CDBG Allocation: \$4,500
	Description	JOURNEYS The Road Home provides comprehensive wrap-around services for homeless and at-risk individuals from Arlington Heights and 36 neighboring communities in the north and northwest suburbs. JOURNEYS is the only emergency shelter provider in the area. The Day Center program provides vital counseling and services to the homeless and at-risk individuals. CDBG funds were used support agency salary costs of agency workers providing direct client services.
	Target Date	9/30/2020

	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 60.
	Location Description	Agency location: 1140 W Northwest Highway, Palatine, IL 60074
	Planned Activities	CDBG funds would be used support agency salary costs of agency workers providing direct client services to eligible Arlington Height residents.
10	Project Name	Arlington Heights Park District Children at Play Program
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Public Services
	Needs Addressed	Public Service Needs
	Funding	Draft CDBG Allocation: \$9,113 with \$20,887 to be requested in the Health and Human Services Department's budget
	Description	This project involves providing child care subsidies for income eligible families with children participating in the Park District's before and after school program. The amount of the scholarship for each child is determined on a sliding scale based on household income.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 21.
	Location Description	Agency Location: 410 N. Arlington Heights Rd., Arlington Heights, IL 60004 The services are provided at all Arlington Heights School District 25 schools.
	Planned Activities	CDBG funds would be used to pay all or a portion of the fees assessed by the Park District for the childcare. The amount of the scholarship for each child is determined on a sliding scale based on household income.
11	Project Name	Life Span
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Public Services
	Needs Addressed	Public Service Needs

	Funding	Draft CDBG Allocation: \$3,000
	Description	Lifespan provides legal and counseling services to victims of domestic violence and their children. Arlington Heights clients will receive counseling for survivors, counseling for their children who have been exposed to domestic violence. Criminal court advocates work with clients and clients receive legal representation in order of protection law cases.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 75.
	Location Description	Agency office: Is in Des Plaines, IL but services are also provide at locations such as courthouses.
	Planned Activities	CDBG funds would be used for salary costs of staff providing direct client services to eligible Arlington Heights residents.
12	Project Name	Northwest Compass
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Public Services
	Needs Addressed	Public Service Needs
	Funding	Draft CDBG Allocation: \$0
	Description	Housing program including crisis intervention, housing counseling and assistance, rapid re-housing, and street outreach to the homeless.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 95.
	Location Description	Northwest Compass is located at 1300 W Northwest Highway, Mt. Prospect, IL.
	Planned Activities	CDBG would be used for costs associated with providing the housing program.
13	Project Name	Global Executive Council Services
	Target Area	Village of Arlington Heights, IL

	Goals Supported	Public Services
	Needs Addressed	Public Service Needs
	Funding	Draft CDBG Allocation: \$0
	Description	This agency provides assistance to immigrants with accessing social services.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 330.
	Location Description	2200 W Higgins Rd. Suite 110, Hoffman Estates, IL 60159
	Planned Activities	Assistance would be provided to under served Asian community members living in Suburban Cook County with the public benefit system including Food Stamps, Social Security, Retirement Benefits, SSI, Medicaid, Medicare, KidCare/Family Care, LIHEAP, etc. The agency states that the assistance is needed due to language barriers and basic need to understand and navigate the social service systems.
14	Project Name	Little City Foundation
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Public Facilities without Low/Mod Housing Benefit
	Needs Addressed	Public Facilities
	Funding	Draft CDBG Allocation: To be considered under the Group Home and Transitional Housing Acquisition and Rehab Program.
	Description	This project would involve renovations to a group home.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 6 persons with disabilities.
	Location Description	Group home on Euclid Avenue.
	Planned Activities	Work would include renovations to bathrooms and kitchen as well as painting and electrical work.
15	Project Name	Clearbrook
	Target Area	Village of Arlington Heights, IL

	Goals Supported	Public Facilities without Low/Mod Housing Benefit
	Needs Addressed	Public Facilities
	Funding	Draft CDBG Allocation: To be considered under the Group Home and Transitional Housing Acquisition and Rehab Program.
	Description	This project would involve renovations to a group home.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 8.
	Location Description	Group home on Kennicott Avnue.
	Planned Activities	Work to be done would include exterior siding, soffits, fascia and wood trim repair or replacement.
16	Project Name	Shelter, Inc.
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Public Facilities without Low/Mod Housing Benefit
	Needs Addressed	Public Facilities
	Funding	Draft CDBG Allocation: To be considered under the Group Home and Transitional Housing Acquisition and Rehab Program.
	Description	Renovation to a group home for males ages 17 – 21 who would otherwise be homeless.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 9.
	Location Description	Group home on Golf Road.
	Planned Activities	Replacement of flooring throughout the home.
17	Project Name	Alexian Brothers Center for Mental Health
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Public Facilities without Low/Mod Housing Benefit
	Needs Addressed	Public Facilities
	Funding	Draft CDBG Allocation: \$13,960

	Description	Renovation at an apartment buildings owned by the agency.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 8 but this number is subject to change when specific projects are identified.
	Location Description	Apartment building on Northwest Highway
	Planned Activities	Installation of storm water drainage system to prevent basement flooding.
18	Project Name	Journeys The Road Home
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Public Facilities without Low/Mod Housing Benefit
	Needs Addressed	Public Facilities
	Funding	Draft CDBG Allocation: \$28,000
	Description	New construction of a homeless services facility
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 60 during the 2019 program year.
	Location Description	1140 E Northwest Highway, Palatine, IL
	Planned Activities	New construction of a building to house administration, services and transitional housing.
19	Project Name	Single Family Rehab Program
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Affordable Housing
	Needs Addressed	Owner Housing
	Funding	Draft CDBG Allocation: \$50,000
	Description	Renovation to homes owned by low/moderate income persons.
	Target Date	9/30/2020

	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 1.
	Location Description	To be determined
	Planned Activities	Home renovations.
20	Project Name	Group Home and Transitional Housing Acquisition and Rehab Program
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Public Facilities without Low/Mod Housing Benefit
	Needs Addressed	Public Facilities
	Funding	Draft CDBG Allocation: \$76,900
	Description	Acquisition or renovation of group homes or transitional housing by non-profit agencies.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 30.
	Location Description	To be determined.
21	Planned Activities	Group home acquisition or rehab.
	Project Name	Public Infrastructure and Public Facilities
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Public Infrastructure and Public Facilities
	Needs Addressed	Public Infrastructure and Public Facility Needs
	Funding	Draft CDBG Allocation: \$225,227

	Description	Projects to provide: 1) improved infrastructure (ex. street resurfacing, sidewalk replacement, handicapped accessibility or other improvements) in low/moderate income areas of the Village or for the benefit of persons (ex. persons with disabilities) who are low/moderate income or presumed to be low/moderate income; and 2) improved public facilities that may be owned by the Village or a non-profit organization where services and opportunities are made available to low/moderate income persons. Priorities and specific projects will be identified during the program year. Projects under this category in the past few years have included street resurfacing, improvements to the Village-owned Senior Center, and improvements to the Children's Advocacy Center's Main Service Center in Hoffman Estates. Funds will be used for either or both public infrastructure of public facilities projects with funding transferred as necessary between these two goals as needed according to priorities set by the Village.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	The expected number of beneficiaries at the requested grant amount is 60 during the 2019 program year.
	Location Description	To be determined.
	Planned Activities	Public Infrastructure and Public Facility construction and renovation.
22	Project Name	CDBG Administration
	Target Area	Village of Arlington Heights, IL
	Goals Supported	Planning and Administration
	Needs Addressed	Planning and Administration Needs
	Funding	Draft CDBG Allocation: \$63,000
	Description	Planning and administration of the CDBG program.
	Target Date	9/30/2020
	Estimate the number and type of families that will benefit from the proposed activities	NA.
	Location Description	33 S. Arlington Heights Rd., Arlington Heights, IL
	Planned Activities	Planning and administration of the CDBG program.

AP-50 Geographic Distribution - 91.420, 91.220(f)

Description of the geographic areas of the entitlement (including areas of low-income and minority concentration) where assistance will be directed

The Village of Arlington Heights is not allocating investments geographically.

Geographic Distribution

Target Area	Percentage of Funds
Village of Arlington Heights, IL	100%

Table 8 - Geographic Distribution

Rationale for the priorities for allocating investments geographically

Not applicable.

Discussion

Specific locations for projects are indicated in this Annual Action Plan if known at the time the Annual Action Plan is submitted to HUD. Some project locations will be identified during the program year such as locations of homes under the Single Family Rehabilitation Loan Program, Group Home and Transitional Housing Acquisition and Rehab Program and the Infrastructure and Public Facilities Programs.

AP-75 Barriers to affordable housing -91.420, 91.220(j)

Introduction

A primary barrier to affordable housing is the cost of land and construction. In the coming year, the Village will continue to implement its affordable inclusionary housing policy seeking to include affordable units in new housing developments or substantially rehabilitated developments.

Another barrier to affordable housing is a lack of sufficient funds to address problems. The Village will plan for how to use funds collected into its new Affordable Housing Trust Fund to preserve and create affordable housing.

Actions it plans to remove or ameliorate the negative effects of public policies that serve as barriers to affordable housing such as land use controls, tax policies affecting land, zoning ordinances, building codes, fees and charges, growth limitations, and policies affecting the return on residential investment

The Village of Arlington Heights has been very proactive in addressing affordable housing needs. The Village regularly reviews its land use controls, tax policies affecting land, zoning ordinance, building codes, fees and charges, growth limitation, and policies affecting residential return on investment. The Village has adopted Multi-Family Affordable Housing Guidelines for For-Sale and Rental Housing that call upon developers of Planned Unit Developments, or who are proposing amendments to Planned Unit Development, to explain how their projects are responsive to the Village's goal to explore and promote the creation of affordable private housing. The Village distributes a Multi-Family Affordable Housing Guidelines to inform developers with respect to the Village's expectations concerning the percentage of affordable housing units the Village expects to be included in developments. Actual numbers of affordable housing units, or fees paid in lieu of providing affordable housing units, are negotiated on a case-by-case basis due to the uniqueness of each development.

The Village is working on a Housing Needs and Trends report. Production of this report is one of the Village Board current strategic priorities.

The Village has a Housing Commission that was created to expand the amount of affordable housing in the Village. The Village's Building Department is proactive in working with owners of rental housing to insure that the rental housing stock is well maintained and safe. Many of the non-profit agencies in the Village also work to remove barriers to affordable housing by providing financial assistance, housing counseling,

landlord-tenant counseling, and information on other housing related issues.

Discussion

The Village staff and commissions will continue to monitor and evaluate barriers to affordable housing in Arlington Heights.

AP-85 Other Actions - 91.420, 91.220(k)

Introduction

Below are actions the Village intends to take during the program year.

Actions planned to address obstacles to meeting underserved needs

The primary obstacle to addressing underserved needs is insufficient funding. The Village will seek funding from other sources and will support service providers in seeking funding from other sources.

Actions planned to foster and maintain affordable housing

During the program year, the Village will take the following actions to foster and maintain affordable housing, to remove barriers to affordable housing, and to encourage public housing improvements and resident initiatives:

Professionals in the Department of Planning and Community Development will continue to research and investigate alternative sources of funding to replace dwindling State and Federal funds for housing assistance and other affordable housing programs. The Housing Planner will track housing initiatives at these levels through contact with HUD and through professional organizations and planning offices.

The Village will continue to promote and enforce the goals and policies from the Comprehensive Plan relating to preserving the existing housing stock, encouraging a wide variety of housing types within the Village, utilizing good housing redevelopment concepts, maintaining a good housing balance, preventing housing deterioration, and providing housing for the young, single, and elderly.

Code enforcement will continue to uncover unsafe and unsanitary conditions. The Single Family Rehabilitation Program will be available to income-eligible individuals to improve their properties.

The Village will continue to implement its inclusionary housing guidelines, as contained in the Multi-Family Affordable Housing Toolkit and Multi-Family Affordable Rental Housing Toolkit, intended to result in affordable units in new construction residential projects or contributions to the Village's Affordable Housing Trust Fund.

The Housing Commission will continue to promote a balanced housing stock including affordable housing for persons with low to moderate incomes.

The Department of Building and Health Services will work throughout the community, including at the

Backstretch at Arlington Park, to improve housing and living environments.

No units are expected to be lost from the federally assisted housing inventory in Arlington Heights.

Actions planned to reduce lead-based paint hazards

The Village is aware of the health risks, especially to children, that exist in its older homes due to the presence of lead-based paint. The Village will continue to provide information and blood lead based paint testing services to Village residents. When persons are identified as having elevated blood levels, the appropriate County and State agencies will be notified, and these persons will be referred for appropriate services.

The Village complies with HUD's lead-based paint regulations with respect to the Village's housing rehabilitation programs. The required notifications, lead-hazard testing, and lead hazard treatment protocols are followed.

Actions planned to reduce the number of poverty-level families

The Village will continue to coordinate efforts to assist households with incomes below the poverty line with other agencies providing services to this population. This will take place through the activities of the Village's Health and Human Services Department and by supporting senior service agencies at the Village's Senior Center. The Health and Human Services Department administers an emergency assistance fund to assist very low and low income persons with emergency needs. Village staff coordinate and combine resources with local agencies to address needs of poverty-level families on a case by case basis.

Actions planned to develop institutional structure

The Village will continue to address affordable housing and other community needs within the area by coordinating its efforts with private and non-profit agencies and organizations. The Village will also work with regional planning groups such as the Metropolitan Mayors Caucus, the Chicago Metropolitan Agency for Planning, the Metropolitan Planning Council (MPC), etc.

Actions planned to enhance coordination between public and private housing and social service agencies

The Village will enhance coordination between public and private housing and social service agencies through the citizen participation plan that encourages all interested parties to share in the Consolidated Planning process. The Village will continue to work with non-profit service providers, other private institutions, public housing and assisted housing providers, and community organizations to discuss community needs and opportunities. The Village will also continue to work with and coordinate the provision of services with Elk Grove and Wheeling Townships, Northwest Housing Partnership, and other

Northwest Chicago Suburbs.

Discussion

The Village recognizes that enhancing institutional structure provides efficiencies in service that are of benefit to its residents. The various departments of the Village seek to maximize coordination with public and private housing and service providers to meet the needs in the community.

Program Specific Requirements

AP-90 Program Specific Requirements - 91.420, 91.220(I)(1,2,4)

Introduction

The Village of Arlington Heights is an entitlement jurisdiction for the CDBG program. As such information is provided below concerning program specific requirements for the CDBG program.

Community Development Block Grant Program (CDBG)

Reference 24 CFR 91.220(I)(1)

Projects planned with all CDBG funds expected to be available during the year are identified in the Projects Table. The following identifies program income that is available for use that is included in projects to be carried out.

1. The total amount of program income that will have been received before the start of the next program year and that has not yet been reprogrammed	0
2. The amount of proceeds from section 108 loan guarantees that will be used during the year to address the priority needs and specific objectives identified in the grantee's strategic plan.	0
3. The amount of surplus funds from urban renewal settlements	0
4. The amount of any grant funds returned to the line of credit for which the planned use has not been included in a prior statement or plan	0
5. The amount of income from float-funded activities	0
Total Program Income:	0

Other CDBG Requirements

1. The amount of urgent need activities	0
2. The estimated percentage of CDBG funds that will be used for activities that benefit persons of low and moderate income. Overall Benefit - A consecutive period of one, two or three years may be used to determine that a minimum overall benefit of 70% of CDBG funds is used to benefit persons of low and moderate income. Specify the years covered that include this Annual Action Plan.	100.00%

Discussion

The Village has budgeted all program income that it has received as of the submission of the Consolidated Plan. No additional program income is scheduled to be received, although program income could be received from the repayment of past years' Single Family Rehabilitation Loans. It is not possible to predict whether or when such loans will be repaid. The Village does not receive any of the other types of income listed above.

No projects are expected to be funded on the basis of urgent need. 100% of CDBG funds are budgeted to be used for activities benefitting low and moderate income persons including Planning and Administration.

Attachments

SF 424 Form

SF 424D Form

Public Notifications

Written Public Comments Received

Application for Federal Assistance SF-424

*** 1. Type of Submission:**

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

*** 2. Type of Application:**

- ☒ New
☐ Continuation
☐ Revision

*** If Revision, select appropriate letter(s):**

*** Other (Specify)**

*** 3. Date Received:**

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

*** a. Legal Name:** Village of Arlington Heights

*** b. Employer/Taxpayer Identification Number (EIN/TIN):**

36-6005774

*** c. Organizational DUNS:**

0723186290000

d. Address:

*** Street1:** 33 S Arlington Heights Road

Street2:

*** City:** Arlington Heights

County/Parish:

*** State:** IL: Illinois

Province:

*** Country:** USA: UNITED STATES

*** Zip / Postal Code:** 60005-1499

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix: *** First Name:** Nora

Middle Name:

*** Last Name:** Boyer

Suffix:

Title:

Organizational Affiliation:

*** Telephone Number:** 847-368-5214

Fax Number:

*** Email:** nboyer@vah.com

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

C: City or Township Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

US Department of Housing and Urban Development

11. Catalog of Federal Domestic Assistance Number:

CFDA Title:

* 12. Funding Opportunity Number:

14.218

* Title:

Community Development Block Grant - Entitlement Grant

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

CDBG-funded activities including public services, single and multi-family housing, public infrastructure, public facilities, and administration.

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant

* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal	451,587.00
* b. Applicant	
* c. State	
* d. Local	
* e. Other	
* f. Program Income	50,000.00
* g. TOTAL	501,587.00

* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)

☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)

☒ ** I AGREE

** The list of certifications and assurances, or an Internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title:

* Telephone Number: Fax Number:

* Email:

* Signature of Authorized Representative: * Date Signed:

ASSURANCES - CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0042), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the Awarding Agency. Further, certain Federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will not dispose of, modify the use of, or change the terms of the real property title, or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal interest in the title of real property in accordance with awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life of the project.
4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.
5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progress reports and such other information as may be required by the assistance awarding agency or State.
6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
10. Will comply with all Federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.
14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL		TITLE	
		Village Manager	
APPLICANT ORGANIZATION		DATE SUBMITTED	
Village of Arlington Heights, IL		TBD	

**PUBLIC NOTICE
RELEASE OF
COMMUNITY
DEVELOPMENT BLOCK
GRANT APPLICATIONS
PROGRAM YEAR 2019-2020**
The Village of Arlington Heights is undertaking the preparation of its HUD 2019-2020 HUD Annual Action Plan. The 2019-2020 Annual Action Plan describes how the Village will use its Federal FY 2019 Community Development Block Grant (CDBG) funds during the fiscal and program year of October 1, 2019-September 30, 2020. Other housing and community development activities to be undertaken by the Village, that are principally for the benefit of low and moderate income residents, will also be described in the Annual Action Plan.
The Village has released its CDBG Grant Application form for projects to be funded from October 1, 2019 - September 30, 2020. Grant applications must be submitted on the form provided by the Village and are due on or before 5:00 p.m., April 12, 2019.
CDBG Grant Application forms (including an electronic form option) may be obtained by contacting: Village of Arlington Heights, Department of Planning & Community Development, 33 S. Arlington Heights Road, Arlington Heights, IL 60005, (847) 368-5214 or nboyer@voh.com. The CDBG Grant Application form and instructions are also available on the Village's website at www.voh.com.
Published in Daily Herald February 28, 2019 (4519388)

RECEIVED
MAR 05 2019
**PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT**
CERTIFICATE OF PUBLICATION
Paddock Publications, Inc.

Daily Herald

Corporation organized and existing under and by virtue of the laws of the State of Illinois, DOES HEREBY CERTIFY that it is the publisher of the **DAILY HERALD**. That said **DAILY HERALD** is a secular newspaper and has been circulated daily in the Village(s) of Algonquin, Antioch, Arlington Heights, Aurora, North Aurora, Bannockburn, Barrington, Barrington Hills, Lake Barrington, North Barrington, South Barrington, Bartlett, Batavia, Buffalo Grove, Burlington, Campton Hills, Carpentersville, Cary, Crystal Lake, Deerfield, Deer Park, Des Plaines, Elburn, East Dundee, Elgin, South Elgin, Elk Grove Village, Fox Lake, Fox River Grove, Franklin Park, Geneva, Gilberts, Glenview, Grayslake, Green Oaks, Gurnee, Hainesville, Hampshire, Hanover Park, Hawthorn Woods, Highland Park, Highwood, Hoffman Estates, Huntley, Inverness, Island Lake, Kildeer, Lake Bluff, Lake Forest, Lake in the Hills, Lake Villa, Lake Zurich, Libertyville, Lincolnshire, Lindenhurst, Long Grove, Melrose Park, Montgomery, Morton Grove, Mt. Prospect, Mundelein, Niles, Northbrook, Northfield, Northlake, Palatine, Park Ridge, Prospect Heights, River Grove, Riverwoods, Rolling Meadows, Rosemont, Round Lake, Round Lake Beach, Round Lake Heights, Round Lake Park, Schaumburg, Schiller Park, Sleepy Hollow, St. Charles, Streamwood, Sugar Grove, Third Lake, Tower Lakes, Vernon Hills, Volo, Wadsworth, Wauconda, Waukegan, West Dundee, Wheeling, Wildwood, Wilmette
County(ies) of Cook, Kane, Lake, McHenry
and State of Illinois, continuously for more than one year prior to the date of the first publication of the notice hereinafter referred to and is of general circulation throughout said Village(s), County(ies) and State.

I further certify that the **DAILY HERALD** is a newspaper as defined in "an Act to revise the law in relation to notices" as amended in 1992 Illinois Compiled Statutes, Chapter 715, Act 5, Section 1 and 5. That a notice of which the annexed printed slip is a true copy, was published 28-FEB-19 in said **DAILY HERALD**.

IN WITNESS WHEREOF, the undersigned, the said **PADDOCK PUBLICATIONS, Inc.**, has caused this certificate to be signed by, this authorized agent, at Arlington Heights, Illinois.

PADDOCK PUBLICATIONS, INC.
DAILY HERALD NEWSPAPERS

BY *Danula Baltz*
Authorized Agent

Control # 4519388

Community Development Block Grant Applications

Posted on 03/01/2019



The Village of Arlington Heights is accepting Community Development Block Grant (CDBG) applications for service providers undertaking housing and community development activities during the 2019-2020 program year (October 1, 2019 – September 30, 2020). CDBG-funded activities must principally benefit low and moderate income residents.

CDBG grant applications must be submitted on the form provided by the Village and are due on or before 5 p.m., April 12, 2019. To receive an application, please email or call Nora Boyer, of the Village's Planning & Community Development Department, 847.368.5200.

In previous years, the Village has granted CDBG funds for the following programs:

- Home Rehabilitation Programs
- Financial Assistance for Public Service Programs
- Public Facilities and Infrastructure Improvement Programs



Village of Arlington Heights

33 South Arlington Heights Road
Arlington Heights, Illinois 60005-1499
(847) 368-5000
Website: www.vah.com

mailey

To: Interested Agencies and Individuals

From: Nora Boyer, Housing Planner

Re: Release of CDBG Grant Applications for the Program Year
2019-2020 (October 1, 2019 – September 30, 2020)

Date: March 1, 2019

The Village of Arlington Heights is undertaking the preparation of its HUD *2019–2020 Annual Action Plan*. The *2019-2020 Annual Action Plan* describes how the Village will use its Federal FY 2019 Community Development Block Grant (CDBG) funds during the fiscal and program year of October 1, 2019–September 30, 2020. Other housing and community development activities to be undertaken by the Village, that are principally for the benefit of low and moderate income residents, will also be described in the *2019-2020 Annual Action Plan*.

The Village has released its CDBG Application form for projects to be funded from October 1, 2019–September 30, 2020. Grant applications must be submitted on the form provided by the Village and are due on or before 5:00 p.m., April 12, 2019.

A hardcopy or an electronic version of the CDBG application form may be obtained by contacting:

Nora Boyer, Housing Planner
Department of Planning & Community Development
33 S. Arlington Heights Road
Arlington Heights, IL 60005
(847) 368-5214 or
nboyer@vah.com

Public Hearing
Every 5 years, the Village of Arlington Heights adopts a 5-Year Consolidated Plan. Through the Consolidated Plan process, the Village assess its affordable housing and community development needs and market conditions; and develops a strategic plan to meet those needs, particularly with respect to its low and moderate income residents. The Consolidated Plan is carried out through Annual Action Plans, which provide a concise summary of the actions, activities, and the specific federal and non-federal resources that will be used each year to address the priority needs and specific goals identified by the Consolidated Plan.

The Village intends to amend its 2015-2019 Consolidated Plan to update the information in the Plan regarding Anticipated Resources, Goals Summary and other relevant pages to update budget figures to reflect actual funds received over the past 5 years and to make adjustments in the 5-year budget to coincide with the Village's 2019 Annual Action Plan that is under development.

The Village of Arlington Heights is also in the process of developing its Federal Fiscal Year 2019 Annual Action Plan. The 2019 Annual Action Plan will be incorporated into the 2015-2019 Consolidated Plan. The 2019 Annual Action Plan identifies actions and activities to be taken the 2019 program year (October 1, 2019 – September 30, 2020), including how the Village will use its Community Development Block Grant (CDBG) funds.

The Federal resources expected to be received during the 1-year period of the 2019 Annual Action Plan are shown below:

Estimated Federal FY 2019
CDBG Entitlement Grant: \$269,344
Estimated Prior Year's CDBG

Carry Over Funds: \$197,473
Anticipated CDBG Program Income: \$ 50,000
Total Estimated CDBG Funds Available: \$316,817

The estimates above may be adjusted prior to the public hearing as additional information becomes available concerning current year expenditures and program income. A PUBLIC HEARING will be held concerning the Substantial Amendment to the 2015-2019 Consolidated Plan and the 2019 Annual Action Plan.

Date: Monday, June 10, 2019

Time: 7:30 p.m.

Place: Board Room, Municipal Building,

33 S. Arlington Heights Rd., Arlington Heights, IL

The funds available for program year 2019 are expected to fund a range of activities including the provision of decent housing and suitable living environment and expanding economic opportunities, principally for persons of low and moderate income.

The Village does not anticipate the displacement of any persons as the result of any activities presented in its Federal 2019 Annual Action Plan. If any displacement does occur, the Village will comply with all federal laws and regulations concerning assistance to displaced persons. The Arlington Heights Department of Planning and Community Development will respond to any problems associated with displacement in the Village. The Village anticipates that all of the activities funded will benefit very low, low and moderate income persons as defined by HUD.

For more information, contact Nora Bayer, Housing Planner, at (847) 368-5214 or nbayer@vgh.com.

Village Hall is wheelchair accessible. Provisions will be arranged for any non-English speaking persons or individuals with disabilities who wish to attend. If non-English speaking persons wish to participate in the public hearing, and if a request for assistance is made at least 5 working days before the public hearing, the Village of Arlington Heights will arrange for translation. Persons with disabilities requiring auxiliary aids or services, such as an American Sign Language interpreter or written materials in accessible formats, should contact David Robb, Disability Services Coordinator, at 33 S. Arlington Heights Road, Arlington Heights, Illinois 60005, (847) 368-5793 (Voice), (847) 368-5980 (Fax) or drobb@vgh.com. This request should be made as soon as possible.

Published in Daily Herald May 23, 2019 (4524792)

RECEIVED

MAY 30 2019

PLANNING & COMMUNITY

CERTIFICATE OF PUBLICATION

Paddock Publications, Inc.

Daily Herald

Corporation organized and existing under and by virtue of the laws of the State of Illinois, DOES HEREBY CERTIFY that it is the publisher of the **DAILY HERALD**. That said **DAILY HERALD** is a secular newspaper and has been circulated daily in the Village(s) of Algonquin, Antioch, Arlington Heights, Aurora, North Aurora, Bannockburn, Barrington, Barrington Hills, Lake Barrington, North Barrington, South Barrington, Bartlett, Batavia, Buffalo Grove, Burlington, Campton Hills, Carpentersville, Cary, Crystal Lake, Deerfield, Deer Park, Des Plaines, Elburn, East Dundee, Elgin, South Elgin, Elk Grove Village, Fox Lake, Fox River Grove, Franklin Park, Geneva, Gilberts, Glenview, Grayslake, Green Oaks, Gurnee, Hainesville, Hampshire, Hanover Park, Hawthorn Woods, Highland Park, Highwood, Hoffman Estates, Huntley, Inverness, Island Lake, Kildeer, Lake Bluff, Lake Forest, Lake in the Hills, Lake Villa, Lake Zurich, Libertyville, Lincolnshire, Lindenhurst, Long Grove, Melrose Park, Montgomery, Morton Grove, Mt. Prospect, Mundelein, Niles, Northbrook, Northfield, Northlake, Palatine, Park Ridge, Prospect Heights, River Grove, Riverwoods, Rolling Meadows, Rosemont, Round Lake, Round Lake Beach, Round Lake Heights, Round Lake Park, Schaumburg, Schiller Park, Sleepy Hollow, St. Charles, Streamwood, Sugar Grove, Third Lake, Tower Lakes, Vernon Hills, Volo, Wadsworth, Wauconda, Waukegan, West Dundee, Wheeling, Wildwood, Wilmette

County(ies) of Cook, Kane, Lake, McHenry

and State of Illinois, continuously for more than one year prior to the date of the first publication of the notice hereinafter referred to and is of general circulation throughout said Village(s), County(ies) and State.

I further certify that the **DAILY HERALD** is a newspaper as defined in "an Act to revise the law in relation to notices" as amended in 1992

Illinois Compiled Statutes, Chapter 715, Act 5, Section 1 and 5. That a notice of which the annexed printed slip is a true copy, was published 23-MAY-19 in said **DAILY HERALD**.

IN WITNESS WHEREOF, the undersigned, the said **PADDOCK PUBLICATIONS, Inc.**, has caused this certificate to be signed by, this authorized agent, at Arlington Heights, Illinois.

PADDOCK PUBLICATIONS, INC.
DAILY HERALD NEWSPAPERS

BY

Danula Baltz
Authorized Agent

Control # 4524792

Notice of Public Hearing

Topics: Substantial Amendment to 2015-2019 Consolidated Plan and Federal FY 2019 Annual Action Plan

Every 5 years, the Village of Arlington Heights adopts a 5-Year Consolidated Plan. Through the Consolidated Plan process, the Village assess its affordable housing and community development needs and market conditions; and develops a strategic plan to meet those needs, particularly with respect to its low and moderate income residents. The Consolidated Plan is carried out through Annual Action Plans, which provide a concise summary of the actions, activities, and the specific federal and non-federal resources that will be used each year to address the priority needs and specific goals identified by the Consolidated Plan.

The Village intends to amend its 2015-2019 Consolidated Plan to update the information in the Plan regarding Anticipated Resources, Goals Summary and other relevant pages to update budget figures to reflect actual funds received over the past 5 years and to make adjustments in the 5-year budget to coincide with the Village's 2019 Annual Action Plan that is under development.

The Village of Arlington Heights is also in the process of developing its Federal Fiscal Year 2019 Annual Action Plan. The 2019 Annual Action Plan will be incorporated into the 2015-2019 Consolidated Plan. The 2019 Annual Action Plan identifies actions and activities to be taken the 2019 program year (October 1, 2019 – September 30, 2020), including how the Village will use its Community Development Block Grant (CDBG) funds.

The Federal resources expected to be received during the 1-year period of the 2019 Annual Action Plan are shown below:

Estimated Federal FY 2019 CDBG Entitlement Grant:	\$269,344
Estimated Prior Year's CDBG Carry Over Funds:	\$197,473
Anticipated CDBG Program Income:	<u>\$ 50,000</u>
Total Estimated CDBG Funds Available:	\$516,817

The estimates above may be adjusted prior to the public hearing as additional information becomes available concerning current year expenditures and program income.

A PUBLIC HEARING will be held concerning the Substantial Amendment to the 2015-2019 Consolidated Plan and the 2019 Annual Action Plan:

Date: Monday, June 10, 2019

Time: 7:30 p.m.

Place: Board Room, Municipal Building, 33 S. Arlington Heights Rd., Arlington Heights, IL

The funds available for program year 2019 are expected to fund a range of activities including the provision of decent housing and suitable living environment and expanding economic opportunities, principally for persons of low and moderate income.

The Village does not anticipate the displacement of any persons as the result of any activities presented in its Federal 2019 Annual Action Plan. If any displacement does occur, the Village will comply with all federal laws and regulations concerning assistance to displaced persons. The Arlington Heights Department of Planning and Community Development will respond to any problems associated with displacement in the Village. The Village anticipates that all of the activities funded will benefit very low, low and moderate income persons as defined by HUD.

For more information, contact Nora Boyer, Housing Planner, at (847) 368-5214 or nboyer@vah.com.

Village Hall is wheelchair accessible. Provisions will be arranged for any non-English speaking persons or individuals with disabilities who wish to attend. If non-English speaking persons wish to participate in the public hearing, and if a request for assistance is made at least 5 working days before the public hearing, the Village of Arlington Heights will arrange for translation. Persons with disabilities requiring auxiliary aids or services, such as an American Sign Language interpreter or written materials in accessible formats, should contact David Robb, Disability Services Coordinator, at 33 S. Arlington Heights Road, Arlington Heights, Illinois 60005, (847)368-5793 (Voice), (847) 368-5980 (Fax) or drobb@vah.com. This request should be made as soon as possible.

Public Hearing June 10: Consolidated Plan Amendments and 2019 Annual Action Plan

Posted on 05/30/2019



A public hearing will be held on June 10 at 7:30 p.m. in the Board Room to discuss proposed amendments to the 2015-2019 Consolidated Plan and to review the Draft 2019 Annual Action Plan.

The Village is proposing to amend the budgeted expenditures and beneficiary goals in the Consolidated Plan. The 2019 Annual Action Plan describes the activities the Village expects to undertake during the October 1, 2019 – September 30, 2020.

Every 5 years, the Village of Arlington Heights adopts a 5-Year Consolidated Plan. Through the Consolidated Plan process, the Village assesses its affordable housing and community development needs

and market conditions; and develops a strategic plan to meet those needs, particularly with respect to its low and moderate income residents.

The Consolidated Plan is carried out through Annual Action Plans, which provide a concise summary of the actions, activities, and the specific federal and non-federal resources that will be used each year to address the priority needs and specific goals identified by the Consolidated Plan.

The Village intends to amend its 2015-2019 Consolidated Plan to update the information in the Plan regarding Anticipated Resources, Goals Summary and to update budget figures on other relevant pages to reflect actual funds received over the past 5 years and to make adjustments in the 5-year budget to coincide with the Village's 2019 Annual Action Plan that is under development.

The Village of Arlington Heights is also in the process of developing its Federal Fiscal Year 2019 Annual Action Plan. The 2019 Annual Action Plan will be incorporated into the 2015-2019 Consolidated Plan. The 2019 Annual Action Plan identifies actions and activities to be taken the 2019 program year (October 1, 2019 – September 30, 2020), including how the Village will use its Community Development Block Grant (CDBG) funds.

The Federal resources expected to be received during the 1-year period of the 2019 Annual Action Plan are shown below:

Estimated Federal FY 2019 CDBG Entitlement Grant: \$269,344

Estimated Prior Year's CDBG Carry Over Funds: \$197,473

Anticipated CDBG Program Income: \$50,000

Total Estimated CDBG Funds Available: \$516,817

The estimates above may be adjusted prior to the public hearing as additional information becomes available concerning current year expenditures and program income.

The funds available for program year 2019 are expected to fund a range of activities including the provision of decent housing and suitable living environment and expanding economic opportunities, principally for persons of low and moderate income.

The Village does not anticipate the displacement of any persons as the result of any activities presented in its Federal 2019 Annual Action Plan. If any displacement does occur, the Village will comply with all federal laws and regulations concerning assistance to displaced persons. The Arlington Heights Department of Planning and Community Development will respond to any problems associated with displacement in the Village. The Village anticipates that all of the activities funded will benefit very low, low and moderate income persons as defined by HUD.

For more information, contact Nora Boyer, Housing Planner, at (847) 368-5214 or nboyer@vah.com.

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PUBLIC NOTICE

To: The Citizens of Arlington Heights
Subject: Substantial Amendments to 2015-2019
Consolidated Plan and 2019 Annual Action Plan
Including the CDBG Budget
30-Day Public Comment Period

On June 13, 2019, the Village of Arlington Heights will make available for public comment the proposed Substantial Amendments to its 2015-2019 Consolidated Plan and the draft 2019 Annual Action Plan.

The 2015-2019 Consolidated Plan assesses the needs of the Village's low and moderate income residents and its housing market. The Consolidated Plan also includes a Strategic Plan for addressing community needs over the five year period of the Consolidated Plan. The 2019 Annual Action Plan will set forth the actions the Village intends to undertake during the 2019 program year (October 1, 2019 - September 30, 2020).

Persons interested in receiving a copy of the amendments to the Consolidated Plan or draft 2019 Annual Action Plan, may telephone, email or pick up a copy during regular business hours at:

Village of Arlington Heights
Department of Planning and Community Development
33 S. Arlington Heights Road, Arlington Heights, IL 60005
Telephone: (847) 368-5200, Email: aboyer@vah.com

Copies will also be available on the Village's website: www.vah.com.

Village Hall is wheelchair accessible. Should you need an auxiliary aid or service, such as a sign language interpreter or materials in alternate formats, please contact David Robb, Disability Services Coordinator at (847) 368-5793. Requests for accommodations should be made as soon as possible.

The Department of Planning and Community Development staff will be available to accept written or verbal comments during regular business hours at Village Hall: 33 S. Arlington Heights Rd., Arlington Heights, IL 60005, (847) 368-5214. Written comments may be mailed to the Village at: 33 S. Arlington Heights Rd., Arlington Heights, IL 60005 or sent by email to aboyer@vah.com or by fax to (847) 368-5988. This public comment period expires at 5:00 p.m. on July 12, 2019.

Published in Daily Herald June 12, 2019 (4526686)

RECEIVED

JUN 18 2019

CERTIFICATE OF PUBLICATION

Paddock Publications, Inc.

Daily Herald

Corporation organized and existing under and by virtue of the laws of the State of Illinois, DOES HEREBY CERTIFY that it is the publisher of the **DAILY HERALD**. That said **DAILY HERALD** is a secular newspaper and has been circulated daily in the Village(s) of Algonquin, Antioch, Arlington Heights, Aurora, North Aurora, Bannockburn, Barrington, Barrington Hills, Lake Barrington, North Barrington, South Barrington, Bartlett, Batavia, Buffalo Grove, Burlington, Campton Hills, Carpentersville, Cary, Crystal Lake, Deerfield, Deer Park, Des Plaines, Elburn, East Dundee, Elgin, South Elgin, Elk Grove Village, Fox Lake, Fox River Grove, Franklin Park, Geneva, Gilberts, Glenview, Grayslake, Green Oaks, Gurnee, Hainesville, Hampshire, Hanover Park, Hawthorn Woods, Highland Park, Highwood, Hoffman Estates, Huntley, Inverness, Island Lake, Kildeer, Lake Bluff, Lake Forest, Lake in the Hills, Lake Villa, Lake Zurich, Libertyville, Lincolnshire, Lindenhurst, Long Grove, Melrose Park, Montgomery, Morton Grove, Mt. Prospect, Mundelein, Niles, Northbrook, Northfield, Northlake, Palatine, Park Ridge, Prospect Heights, River Grove, Riverwoods, Rolling Meadows, Rosemont, Round Lake, Round Lake Beach, Round Lake Heights, Round Lake Park, Schaumburg, Schiller Park, Sleepy Hollow, St. Charles, Streamwood, Sugar Grove, Third Lake, Tower Lakes, Vernon Hills, Volo, Wadsworth, Wauconda, Waukegan, West Dundee, Wheeling, Wildwood, Wilmette

County(ies) of Cook, Kane, Lake, McHenry

and State of Illinois, continuously for more than one year prior to the date of the first publication of the notice hereinafter referred to and is of general circulation throughout said Village(s), County(ies) and State.

I further certify that the **DAILY HERALD** is a newspaper as defined in "an Act to revise the law in relation to notices" as amended in 1992 Illinois Compiled Statutes, Chapter 715, Act 5, Section 1 and 5. That a notice of which the annexed printed slip is a true copy, was published 12-JUN-19 in said **DAILY HERALD**.

IN WITNESS WHEREOF, the undersigned, the said **PADDOCK PUBLICATIONS, Inc.**, has caused this certificate to be signed by, this authorized agent, at Arlington Heights, Illinois.

PADDOCK PUBLICATIONS, INC.
DAILY HERALD NEWSPAPERS

BY

Danula Baltz
Authorized Agent

Control # 4526686

PUBLIC NOTICE

To: The Citizens of Arlington Heights
Subject: Substantial Amendments to 2015-2019 Consolidated Plan and 2019 Annual Action Plan including the CDBG Budget
30-Day Public Comment Period

On June 13, 2019, the Village of Arlington Heights will make available for public comment the proposed Substantial Amendments to its 2015-2019 Consolidated Plan and the draft 2019 Annual Action Plan.

The 2015-2019 Consolidated Plan assesses the needs of the Village's low and moderate income residents and its housing market. The Consolidated Plan also includes a Strategic Plan for addressing community needs over the five year period of the Consolidated Plan. The 2019 Annual Action Plan will set forth the actions the Village intends to undertake during the 2019 program year (October 1, 2019 – September 30, 2020).

Persons interested in receiving a copy of the amendments to the Consolidated Plan or draft 2019 Annual Action Plan, may telephone, email or pick up a copy during regular business hours at:

Village of Arlington Heights
Department of Planning and Community Development
33 S. Arlington Heights Road
Arlington Heights, IL 60005
Telephone: (847) 368-5200
Email: nboyer@vah.com

Copies will also be available on the Village's website: www.vah.com.

Village Hall is wheelchair accessible. Should you need an auxiliary aid or service, such as a sign language interpreter or materials in alternate formats, please contact David Robb, Disability Services Coordinator at (847) 368-5793. Requests for accommodations should be made as soon as possible.

The Department of Planning and Community Development staff will be available to accept written or verbal comments during regular business hours at Village Hall: 33 S. Arlington Heights Rd., Arlington Heights, IL 60005, (847) 368-5214. Written comments may be mailed to the Village at: 33 S. Arlington Heights Rd., Arlington Heights, IL 60005 or sent by email to nboyer@vah.com or by fax to (847) 368-5988. This public comment period expires at 5:00 p.m. on July 12, 2019.

NOTICE OF PUBLIC HEARING

TO: The Citizens of Arlington Heights
 SUBJECT: Public Hearing - Substantial Amendments to the 2015-2019 Consolidated Plan and Draft 2019 Annual Action Plan including the Community Development Block Grant (CDBG) Budget

The Village is seeking resident input concerning proposed Substantial Amendments to the Village's 2015-2019 Consolidated Plan and the Village's Draft 2019 Annual Action Plan. The 2015-2019 Consolidated Plan assesses the needs of the Village's low and moderate income residents and its housing market. The 2015-2019 Consolidated Plan also includes a Strategic Plan for addressing community needs over the five year period of the Consolidated Plan. The proposed amendments make changes in the estimated total amounts of funding and total numbers of beneficiaries under certain programs as described therein.

The 2019 Annual Action Plan contains a description of the Village's plans for addressing the housing and community development needs in the Village during the program year. The Annual Action Plan contains the amount of assistance expected to be received and the range of activities that may be undertaken during the program year. Any activities to be funded by the Village of Arlington Heights through Community Development Block Grant (CDBG) program are described therein. The Village anticipates that all federal funds will be used to benefit low and moderate-income residents of Arlington Heights, and the activities will not result in the displacement of any Arlington Heights residents.

For this purpose, a public hearing is scheduled for the date and time indicated below. The draft Substantial Amendments to the 2015-2019 Consolidated Plan and the draft 2019 Annual Action Plan is available in electronic or printed form upon request and is available on the Village's website at: <https://www.vah.com/our-community/WhatsNew/comment-on-consolidated-plan-action-plan>

For more information or to request an electronic or printed copy, contact Nora Boyer, Housing Planner at (847) 368-5214 or nboyer@vah.com.

A PUBLIC HEARING WILL BE HELD CONCERNING THE 2018 ANNUAL ACTION PLAN:

Date: Monday, July 15, 2019

Time: 8:00 p.m.

Place: Board Room, Municipal Building, 33 S. Arlington Heights Rd., Arlington Heights, IL Village Hall is wheelchair accessible. Provisions will be arranged for any non-English speaking persons or individuals with disabilities who wish to attend. If non-English speaking persons wish to participate in the public hearing, and if a request for assistance is made at least 5 working days before the public hearing, the Village of Arlington Heights will arrange for translation. With notice, the Village will arrange to have a sign language interpreter present or a real time captionist available for the hearing impaired. Should you need an auxiliary aid or service, such as a sign language interpreter or materials in alternate formats, please contact David Robb, Disability Services Coordinator at (847) 368-5793. Requests for accommodations should be made as soon as possible.

Published in Daily Herald June 26, 2019 (4527492)

RECEIVED

JUL - 1 2019

PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

CERTIFICATE OF PUBLICATION

Paddock Publications, Inc.

Daily Herald

Corporation organized and existing under and by virtue of the laws of the State of Illinois, DOES HEREBY CERTIFY that it is the publisher of the **DAILY HERALD**. That said **DAILY HERALD** is a secular newspaper and has been circulated daily in the Village(s) of Algonquin, Antioch, Arlington Heights, Aurora, North Aurora, Bannockburn, Barrington, Barrington Hills, Lake Barrington, North Barrington, South Barrington, Bartlett, Batavia, Buffalo Grove, Burlington, Campton Hills, Carpentersville, Cary, Crystal Lake, Deerfield, Deer Park, Des Plaines, Elburn, East Dundee, Elgin, South Elgin, Elk Grove Village, Fox Lake, Fox River Grove, Franklin Park, Geneva, Gilberts, Glenview, Grayslake, Green Oaks, Gurnee, Hainesville, Hampshire, Hanover Park, Hawthorn Woods, Highland Park, Highwood, Hoffman Estates, Huntley, Inverness, Island Lake, Kildeer, Lake Bluff, Lake Forest, Lake in the Hills, Lake Villa, Lake Zurich, Libertyville, Lincolnshire, Lindenhurst, Long Grove, Melrose Park, Montgomery, Morton Grove, Mt. Prospect, Mundelein, Niles, Northbrook, Northfield, Northlake, Palatine, Park Ridge, Prospect Heights, River Grove, Riverwoods, Rolling Meadows, Rosemont, Round Lake, Round Lake Beach, Round Lake Heights, Round Lake Park, Schaumburg, Schiller Park, Sleepy Hollow, St. Charles, Streamwood, Sugar Grove, Third Lake, Tower Lakes, Vernon Hills, Volo, Wadsworth, Wauconda, Waukegan, West Dundee, Wheeling, Wildwood, Wilmette

County(ies) of Cook, Kane, Lake, McHenry

and State of Illinois, continuously for more than one year prior to the date of the first publication of the notice hereinafter referred to and is of general circulation throughout said Village(s), County(ies) and State.

I further certify that the **DAILY HERALD** is a newspaper as defined in "an Act to revise the law in relation to notices" as amended in 1992 Illinois Compiled Statutes, Chapter 715, Act 5, Section 1 and 5. That a notice of which the annexed printed slip is a true copy, was published 26-JUN-19 in said **DAILY HERALD**.

IN WITNESS WHEREOF, the undersigned, the said **PADDOCK PUBLICATIONS, Inc.**, has caused this certificate to be signed by, this authorized agent, at Arlington Heights, Illinois.

PADDOCK PUBLICATIONS, INC.
DAILY HERALD NEWSPAPERS

BY

Authorized Agent

Danula Baltz

Control # 4527492

Mailing

TO: The Citizens of Arlington Heights

SUBJECT: Public Hearing
Proposed Substantial Amendments to the 2015-2019 Consolidated Plan and the Draft 2019 Annual Action Plan, including the Community Development Block Grant (CDBG) Budget

Date: June 11, 2019

The Village is seeking citizen input on the proposed Substantial Amendments to its 2015-2019 Consolidated plan and its Draft 2019 Annual Action Plan.

The proposed substantial amendments to the 2015-2019 Consolidated Plan and the Draft 2019 Annual Action Plan will be posted on the Village's website by June 13, 2019 at www.vah.com. Copies may be requested by telephone at (847) 368-5214 or email at nboyer@vah.com, or may be a copy can be picked up during regular business hours at:

Village of Arlington Heights
Department of Planning and Community Development
33 S. Arlington Heights Road
Arlington Heights, IL 60005
Telephone: (847) 368-5214
Email: nboyer@vah.com

A PUBLIC HEARING WILL BE HELD CONCERNING THE PROPOSED SUBSTANTIAL AMENDMENTS TO THE 2015-2019 CONSOLIDATED PLAN AND THE 2019 ANNUAL ACTION PLAN:

Date: Monday, July 15, 2019

Time: 8:00 p.m.

Place: Board Room, Municipal Building, 33 S. Arlington Heights Rd., Arlington Heights, IL

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To: The Citizens of Arlington Heights

Re: **30-Day Public Comment Period**
Proposed Substantial Amendments to the 2015-2019 Consolidated Plan and Draft 2019 Annual Action Plan Including the CDBG budget

Date: June 11, 2019

The Village of Arlington Heights has made available for public comment its proposed Substantial Amendments to its 2015-2019 Consolidated Plan and its Draft 2019 Annual Action Plan.

The 2015-2018 Consolidated Plan assesses the needs of the Village's low and moderate income residents and its housing market. The Consolidated Plan also includes a Strategic Plan for addressing community needs over the five year period of the Consolidated Plan. The proposed amendments make changes in the estimated total amounts of funding and total numbers of beneficiaries under certain programs as described therein.

The 2019 Annual Action Plan contains a description of the Village's plans for addressing the housing and community development needs in the Village during the program year (October 1, 2019 – September 30, 2020). The Annual Action Plan contains the amount of assistance expected to be received and the range of activities that may be undertaken during the program year. The activities proposed to be funded by the Village of Arlington Heights through Community Development Block Grant (CDBG) program are described therein. The Village anticipates that all federal funds will be used to benefit low and moderate-income residents of Arlington Heights, and the activities will not result in the displacement of any Arlington Heights residents.

The proposed Substantial Amendments to the 2015-2019 Consolidated Plan and the Draft 2019 Annual Action Plan will be posted on the Village's website at www.vah.com by June 13, 2019. Copies may be requested by telephone at (847) 368-5214 or email at nboyer@vah.com, or copies may be picked up during regular business hours at:

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Department of Planning and Community Development
33 S. Arlington Heights Road
Arlington Heights, IL 60005
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Email: nboyer@vah.com

The Department of Planning and Community Development staff will be available to accept written or verbal comments during regular business hours at Village Hall: 33 S. Arlington Heights Rd., Arlington Heights, IL 60005, (847) 368-5214. Written comments may be mailed to the Village at: 33 S. Arlington Heights Rd., Arlington Heights, IL 60005 or sent by email to nboyer@vah.com or by fax to (847) 368-5988. This public comment period expires at 5:00 p.m. on July 12, 2019.

Consideration of Update to 2015- 2019 Consolidated Plan

Posted on 07/09/2019



Every 5 years, the Village adopts a 5-Year Consolidated Plan. Through the Consolidated Plan process, the Village assesses its affordable housing and community development needs and market conditions; and develops a strategic plan to meet those needs, particularly with respect to its low and moderate income residents.

The Consolidated Plan is carried out through Annual Action Plans, which provide a concise summary of the actions, activities, and the specific federal and non-federal resources that will be used each year to address the priority needs and specific goals identified by the Consolidated Plan.

The Village intends to make Substantial Amendments to its 2015-2019 Consolidated Plan to update the information in the Plan regarding Anticipated Resources, Goals Summary and other relevant pages to update budget figures to reflect actual funds received over the past 5 years and to make adjustments in the 5-year budget to coincide with the Village's 2019 Annual Action Plan that is under development.

The Village is also in the process of developing its Federal Fiscal Year 2019 Annual Action Plan. The 2019 Annual Action Plan will be incorporated into the 2015-2019 Consolidated Plan. The 2019 Annual Action Plan identifies actions and activities to be taken the 2019 program year (October 1, 2019 – September 30, 2020), including how the Village will use its Community Development Block Grant (CDBG) funds

A **PUBLIC HEARING** will be held concerning the Substantial Amendments to the 2015-2019 Consolidated Plan and the 2019 Annual Action Plan:

Date: Monday, July 15, 2019

Time: 8 p.m.

Place: Board Room, Arlington Heights Village Hall, 33 S. Arlington Heights Rd., Arlington Heights, IL

The funds available for program year 2019 are expected to fund a range of activities including the provision of decent housing and suitable living environment and expanding economic opportunities, principally for persons of low and moderate income.

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For more information, contact Nora Boyer, Housing Planner, at (847) 368-5214 or nboyer@vah.com.

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From: Perkins, Charles
Sent: Monday, June 24, 2019 9:40 AM
To: [REDACTED]
Cc: Recklaus, Randall
Subject: Community Development Block Grant/Northwest Compass

Good Morning:

Thank you for your comments and questions about Northwest Compass. Northwest Compass's services are very valued in the region. However, the amount of CDBG funding the Village has available for public services is very limited.

Previously, Northwest Compass (CEDA Northwest) received CDBG funding for many years for a day care subsidy program. Several years ago, the agency decided to end that program and did not submit a grant application to the Village for several funding cycles. For the coming year, the maximum in CDBG funds that the Village can allocate for public services for \$44,500. The total amount of grant requests the Village received for public service grants was \$194,087 including CEDA Northwest's request for \$15,000. Because the demand for CDBG funds exceeded available funds by such a large amount, and because HUD has encouraged the Village to decrease its number of sub recipients, it was not recommended that any new sub recipients be added for the coming year. Please let me know if you have any other questions.

Thanks

Charles

Hi Randy,

I've recently been informed that Northwest Compass failed to receive funding from the Community Development Block Grant program. Can you help us understand why they did not receive funding this year so that we can explain it to them? Their Executive Director did say that most of their other municipalities do come through with funding. So, we were just wondering why Arlington Heights was not among them given the number of Arlington Heights residents they do support. Any insight you can provide is appreciated.

Thanks,

Jack Lockhart

Charles Witherington-Perkins, AICP

Director of Planning and Community Development

Arlington Heights, IL

847-368-5210

www.vah.com

www.discoverarlington.com

Please consider the Environment before printing this e-mail

Boyer, Nora

To: Barb Naunheimer
Subject: RE: Northwest Compass, Inc Funding

Dear Ms. Naunheimer:

Thank you for your comments about NW Compass. CEDA Northwest's services are valued. However, the amount of CDBG funding the Village has available for public services is very limited.

Previously, CEDA Northwest received CDBG funding for many years for a day care subsidy program. Several years ago, the agency decided to end that program.

For the coming year, the maximum in CDBG funds that the Village can allocate for public services for \$44,500. The total amount of grant requests the Village received for public service grants was \$194,087 including CEDA Northwest's request for \$15,000. Because the demand for CDBG funds exceeded available funds by such a large amount, and because HUD has encouraged the Village to decrease its number of subrecipients, it was not recommended that any new subrecipients be added for the coming year.

Sincerely,
Nora Boyer
Housing Planner

From: Barb Naunheimer [REDACTED]
Sent: Friday, June 14, 2019 10:08 AM
To: Boyer, Nora <nboyer@vah.com>
Subject: Northwest Compass, Inc Funding

[**NOTICE:** This message originated outside of Village of Arlington Heights email system -- **DO NOT CLICK** on links or open attachments unless you are sure the content is safe.]

I have been a resident of Arlington Heights for 40+ years and currently work for Northwest Compass, Inc. in accounting..As a taxpayer, I am very disappointed that since 2016 our agency has not received any funding from the Village of Arlington Heights. We have many homeless clients in this area and many others who live in the village who are in need of rental assistance but we have to turn them away because of lack of funding. I understand that Arlington Heights funded Journeys in Palatine which is ironic because they turn out of state clients away who then come to us for assistance We also help a lot of Journeys' clients who come to us for food, gift cards, etc.

Our agency is very involved with the homeless initiative and we see many clients in need but are very limited in the amount of assistance we can provide due to lack of funding.

Respectfully,

Barb Naunheimer, Accountant

Advocacy & Support of Northwest Compass, Inc.

I am reaching out to you for support and would like to ask you a big favor. We found out last week that we won't receive funding from Village of Arlington Hts. - a funding application for providing services to homeless and instability housed. Our Housing Program provides services geared towards Housing counseling, Homelessness diversion and prevention, Housing navigation, Rapid re-housing and immediate short-term Rent assistance to prevent individuals and families at risk of becoming homeless for the first time and/or to assist them to exit homelessness as quickly as possible. In addition, the program also facilitates Transitional Living and Permanent Supportive Housing Program components.

We are extremely puzzled by the decision and the reason for it due to the following facts:

- Village of Arl. Hts is the only municipality that is not providing funding to us

- We provide service to many Arlington Hts. residents

In the last calendar year, we received requests for housing assistance from 99 households though the Call Center (One of the access points for the Coordinated Entry), additional requests from 182 households though our Intake and Referral Services and we provided extensive housing counseling and assistance to 87 residents of Arlington Heights,

8 households received direct client assistance towards their rent in the last three months, as well, we engaged and provided case management and assistance to 24 literally homeless individuals even though we have not been awarded funding from the Village of Arlington Heights since 2016.

- Due to federal mandate and Continuum of Care guidance all housing resources and assistance have to be coordinate though the Coordinated Entry and we are the only Lead Agency in the North and a Walk -In Center for anyone in the Suburban Cook County area including residents of Village of Arlington Height who are in need of housing or housing assistance. Our program is The only one that provides individual housing counseling, assistance and education for a clientele experiencing homelessness and housing instability as a partner in the Coordinated Entry Initiative in the Cook County area. As federally mandated, rental assistance is dispersed only though the Coordinated Entry process and all residents in need of assistance have to be seen by program staff at a Walk-in center

- Currently, Northwest Compass has 3 (three) apartments located in Village of Arlington Heights that are part of a Permanent Supportive Housing ("PSH") - a program serving family and individuals who are chronically homeless and have a disabling condition. PSH embraces the 'housing first' approach that prioritizes providing housing to the most vulnerable and is guided by the belief that people need basic necessities like shelter and food before seeking a job, or improving budgeting skills. The apartments are affordable housing units.

We would greatly appreciate your support and advocacy on our behalf and we hope that the Village of Arlington Hts will reconsider their decision and will help us serve the residents of Arlington Hts.

All written and verbal comments have to be provided to the following:

The Department of Planning and Community Development staff will be available to accept written or verbal comments during regular business hours at Village Hall: 33 S. Arlington Heights Rd., Arlington Heights, IL 60005, (847) 368-5214. Written comments may be mailed to the Village at: 33 S. Arlington Heights Rd., Arlington Heights, IL 60005 or sent by email to nboyer@vah.com or by fax to (847) 368-5988. This public comment period expires at 5 p.m. on July 12, 2019.

Boyer, Nora

From: Nazneen Begum <Nazneen@gecnfp.com>
Sent: Thursday, June 13, 2019 12:30 PM
To: Boyer, Nora
Subject: Re: Reminder - Village of Arlington Heights Grant Application Presentations - June 10, 2019 7:30 pm

[NOTICE: This message originated outside of Village of Arlington Heights email system -- DO NOT CLICK on links or open attachments unless you are sure the content is safe.]

Hello Nora,

Thank you for your response. Please let me know if I can still work with village board and staff to make sure our voices are heard and issues are addressed.

Thanks

Nazneen Begum
CEO
Global Executive Council Serv.
5766 N. Lincoln Ave, Chicago IL, 60659
Phone: (872) 806 2066
nazneen@gecnfp.com



Nazneen Begum
CEO
W: www.gecnfp.com

"CONFIDENTIALITY NOTICE: This email and any files or attachments transmitted with it are confidential and may be protected by legal privilege. This e-mail is intended solely for the use of the individual or entity to whom this e-mail is addressed. If you are not the intended recipient of this e-mail, you are hereby notified that any use, dissemination, distribution or copying of this e-mail is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately by e-mail and delete this e-mail from your system"

From: Boyer, Nora <nboyer@vah.com>
Sent: Thursday, June 13, 2019 8:39 AM
To: Nazneen Begum
Subject: RE: Reminder - Village of Arlington Heights Grant Application Presentations - June 10, 2019 7:30 pm

Hello Nazneen,

Staff did not recommend, and the Village Board did not approve, a draft allocation for GEC for the 2019-2020 grant year.

Federal CDBG regulations limit the amount that the Village may allocate for public/social service requests. Your application falls into that category. The total maximum the Village can allocate for public/social services that the Village can allocate for 2019/2020 is \$44,450. Your application greatly exceeds the maximum that the Village can allocate for all requests under this category. Also, due to funding limitations, the Village Board did not include grants to any new grant applicants for 2019/2020 in its draft allocations.

The 2019 Annual Action Plan and 2019-2020 budget are still in draft form. You are welcome to provide more testimony/input during the 30-day public comment period that starts today and ends on July 12, 2019. You are also welcome to make any comments that you have at the second public hearing before the Village Board, that will be held on July 15, 2019.

More information is available at:

https://www.vah.com/our_community/WhatsNew/comment_on_consolidated_plan_action_plan

Regards,
Nora

From: Nazneen Begum <Nazneen@gecnfp.com>

Sent: Tuesday, June 11, 2019 4:18 PM

To: Boyer, Nora <nboyer@vah.com>

Subject: Re: Reminder - Village of Arlington Heights Grant Application Presentations - June 10, 2019 7:30 pm

[NOTICE: This message originated outside of Village of Arlington Heights email system -- **DO NOT CLICK** on links or open attachments unless you are sure the content is safe.]

Hello Boyer,

It was nice meeting you in the Presentation. I haven't seen GEC name in the staff recommendation. Please let me know with the process and let us know if there is any hope to work with village this year!

Thank you again for all your time and support!

Get [Outlook for iOS](#)



June 27, 2019

Village of Arlington Heights
Mr. Alex Hageli
33 S Arlington Heights Rd
Arlington Hts, IL 60005-1403

Dear Mr. Hageli,

Little City is tremendously grateful for your organization's support of our programs and services through your generous grant award. We would like to take this opportunity to notify you of a change in our grants department staff. Beverly Saiz, Director of Grants Management, is no longer with Little City. Please update your records to reflect the new point of contact for grants, Julie Frankino, Grants Manager. Ms. Frankino can be reached at

Julie Frankino
1760 W. Algonquin Road
Palatine, IL 60067
(847) 221-7713
jfrankino@littlecity.org

Thank you,

Jayne M. Drew,
Chief Development Officer



	2019-2020 Draft Budget Made Available for 30-Day			
	Public Comment Period After the June 10, 2019		Estimated	Estimated
	Public Hearing	Revenue	Revenue	Revenue
		2018-2019	2019-2020	2019-2020
	CDBG Grant	273,974.00	269,344.00	269,344.00
	Carry Over of Unexpended CDBG funds	225,899.00	182,243.00	139,443.00
	Transfer from Capital Fund for Disposition of Teen Center	-	-	42,800.00
	Program income (expected May 15th)	27,000.00	50,000.00	50,000.00
	Total Revenue	526,873.00	501,587.00	501,587.00
		2018-2019	2019-2020	2019-2020
	EXPENDITURES	Expected	Grant	Draft
	Public Services (2019-2020 Cap \$44,450)	Expenditures	Requests	Allocations
1	Faith Community Homes	2,500.00	3,000.00	2,500.00
2	District 214 Education Foundation	1,500.00	1,500.00	1,500.00
3	NW CASA - Sexual Assault Program	2,500.00	3,000.00	2,500.00
4	Children's Advocacy Center	2,500.00	3,500.00	2,500.00
5	WINGS	6,000.00	15,000.00	6,000.00
6	Resources for Community Living	5,000.00	5,000.00	5,000.00
7	Escorted Transportation Service/NW	3,500.00	3,750.00	3,500.00
8	Suburban Primary Health Care Council	7,253.00	4,337.00	4,337.00
9	Journeys The Road Home	4,500.00	5,000.00	4,500.00
10	Arlington Hts. Park District	6,947.00	30,000.00	9,113.00
11	Life Span	3,000.00	5,000.00	3,000.00
12	Northwest Compass	-	15,000.00	-
13	Global Executive Council Services	-	100,000.00	-
		45,200.00	194,087.00	44,450.00
	Construction/Econ. Development (2019-2020 Cap \$394,137)			
14	Little City Foundation	Incl in 20 below	32,050.00	Incl in 20 below
15	Clearbrook	Incl in 20 below	28,350.00	Incl in 20 below
16	Shelter, Inc.	-	16,500.00	Incl in 20 below
17	Alexian Brothers Center for Mental Health	3,000.00	13,960.00	13,960.00
18	Journeys The Road Home - Capital Project or Public Facility*	-	100,000.00	28,000.00
19	Single Family Rehab Loan Program	-	75,000.00	50,000.00
20	Group Residence/Transitional Housing Program	64,000.00	100,000.00	76,900.00
21	Public Infrastructure and Facilities	203,000.00	225,000.00	225,277.00
na	Children's Advocacy Center (project carried over from prior year)	7,230.00	-	-
		277,230.00	590,860.00	394,137.00
	Administration (2019-2020 Cap \$63,000)			
22	CDBG Administration/Salaries Audit/Legal Notice	65,000.00	63,000.00	63,000.00
	Total Est Expenditures or Requests	387,430.00	847,947.00	501,587.00

* The CDBG Northwest Suburban Network is discussing this project with Cook County, HUD and Journeys to determine whether it is feasible as a jointly-funded CDBG project. \$28,000 is recommended as a placeholder. If the joint funding does not move forward, the \$28,000 would be moved to public infrastructure/facilities.



Village Board
7/15/2019

Item: Report of Committee-of-the-Whole June 24, 2019

Department: Village Manager's Office

Report of Committee of the Whole June 24, 2019

Operating Fund Overview/Recommended Budget Ceilings 2020

Trustee Padovani moved, seconded by Trustee Schwingbeck, that the Committee-of-the-Whole recommend to the Village Board that the Board approve the 2020 Budget Ceilings of \$79,018,500 for the General Fund; and \$20,431,900 for the Water and Sewer Fund. The motion passed unanimously.



Village Board
7/15/2019

Item: Report of Committee-of-the-Whole of July 8, 2019

Department: Village Manager's Office

Report of Committee-of-the-Whole of July 8, 2019

Trustee Scaletta moved, seconded by Trustee Baldino to recommend that the Committee-of-the-Whole recommend to the Village Board that Staff be directed to prepare an ordinance prohibiting "sweepstakes machines" in the Village. Motion passed unanimously.



Village Board
7/15/2019

Item: Report of Committee-of-the-Whole Meeting of July 15, 2019

Department: Village Manager's Office

Report of Committee-of-the-Whole Meeting of July 15, 2019

Consideration of recommending to the Liquor Commissioner the issuance of a Class E Liquor License to M and B Alba Corp dba Barnaby's Family Inn located at 933 W Rand Road upon surrender of the current liquor license issued to this location.



Village Board
7/15/2019

Item: Report of Committee-of-the-Whole Meeting of July 15, 2019

Department: Village Manager's Office

Report of the Committee-of-the-Whole of July 15, 2019

Interview of Alya Patel for Appointment to the Youth Commission - Term Ending 4/30/20



Village Board
7/15/2019

Item: Report of Committee-of-the-Whole Meeting of July 15, 2019

Department: Village Manager's Office

Report of Committee-of-the-Whole Meeting of July 15, 2019

Interview of Keri Stanley for Appointment to the Special Events Commission -
Term Ending 4/30/2023



Village Board
7/15/2019

Item: Report of Committee-of-the-Whole Meeting July 15, 2019

Department:

Report of Committee-of-the-Whole Meeting of July 15, 2019

Interview of William Falk for Appointment to the Police Pension Fund - Term
Ending 4/30/2021



**Village Board
7/15/2019**

Item: Public Works Administration Building - Roof Repairs

Department: Public Works

The Fiscal Year 2019 Capital Roof Maintenance Program includes \$403,000 for the work on one section of the Public Works Municipal building. The purpose of this program is to repair or replace roofs on municipal buildings prior to any notable leaks. The proposed project includes a seam repair over the main garage as a preventative maintenance measure and replacement of a roof over the Administrative section. The Public Works facility includes 146,175 sq. ft. under roof. The main garage is slated for replacement in phases over the next several years.

On June 11, 2019, a public bid opening was held, and 10 bids were publicly opened and read aloud. The bid tabulation is listed below:

<u>BIDDER</u>	<u>TOTAL BID</u>
CIC Corp. Wauconda, IL	\$301,562
Malcor Roofing St. Charles, IL	\$339,400
Riddiford Roofing Arlington Heights, IL	\$340,350
CSR Roofing Oak Park, IL	\$366,315
JL Adler Roofing Joliet, IL	\$370,365
DCG Roofing Melrose Park, IL	\$390,240
L. Marashall Glenview, IL	\$396,500
Knickerbocker Harvey, IL	\$414,400
Elens & Maichin Joliet, IL	\$416,075
Combined Roofing West Chicago, IL	\$421,600

The bids ranged from \$301,562 to \$421,600 with CIC Corporation of Wauconda, IL, as the lowest bidder. Village staff has successfully completed work with CIC Corp. in the past, and recommends award, based upon our past experience and positive comments received during reference checks.

Funds are available in the Roof Maintenance Program, in the Capital Project Account No. 401-7101-571.50-20 (\$241,800) BL9506 and Water & Sewer Account No. 505-7201-561.50-20 (\$161,200) BL9506.

RECOMMENDATION

It is recommended that the Village Board award the lowest responsible bidder, CIC Corporation of Wauconda, Illinois, the contract for the replacement and repair of a roof section of the Public Works facility, in an not-to-exceed amount of \$301,562 and to authorize staff to execute the necessary documents.



Village Board
7/15/2019

Item: Unmanned Aerial Vehicle/ Drone

Department: Police

Unmanned Aerial Vehicle (UAV or drone) technology is quickly becoming a standard in civil, commercial, and military applications. Public safety agencies are currently utilizing UAV technology to not only increase efficiency and effectiveness of daily operations, but also to accurately locate and collect information not readily available at ground-level perspectives. In a joint project between the Police, Fire and Public Works Departments, the use of drones was explored for utilization in public safety matters, including but not limited to: search and rescue, traffic collision reconstruction, fires, chemical spills, crime scene searches, structural assessments, and event preplanning.

A Request for Proposal, meeting the specific needs of the Village, was developed and publicly advertised. Five bids were received. The bids were based on specific equipment for purchase, program support, and training:

Vendor

Proposal Amount

Mechanical Testing, INC. (Sarasota Springs, NY)

\$39,720.00

General Aerial Robotics, LLC (Virginia Beach, VA)

\$43,268.00

Florida Drone Supply (Fort Meyers, FL)

\$44,720.00

AeroVista Drone Academy (Glenview, IL)

\$45,455.00

Steel City Drones, LLC (Pittsburgh, PA)

\$47,216.70

Mechanical Testing, Inc. was removed from further consideration as its equipment pricing clearly violated the SZ DJI Technology Co., Ltd. '*Unilateral Pricing Policy*' wherein a minimum resale price is established by the manufacturer. A violation of this policy may result in cancellation of any orders and suspension of dealer accounts, negatively impacting the Village's purchase of specified equipment and future loss of product support from the vendor.

Aside from equipment requisition, program support and training was a significant aspect of the proposal. Proposals from General Aerial Robotics, LLC. and Florida Drone Supply lacked sufficient detail regarding the requirements for one or both, of these critical aspects. Training pricing submitted by Steel City Drones included training outside of the scope of the proposal, ranging from \$3,975 to \$17,450. The Proposal Amount shown for this vendor was adjusted by Staff in an attempt to standardize pricing to match the Village's request.

Staff is recommending the UAV contract be awarded to AeroVista Drone Academy. AeroVista Drone Academy markets a significant portion of their business model towards the on-going training and support of public safety agencies, with current curriculum approved by the North East Multi-regional Training (NEMRT), as well as on-going training centered at the Northeastern Illinois Public Safety Training Academy (NIPSTA) in Glenview.

The Police, Fire, and Public Works Departments have previous experience with AeroVista for training and have a positive impression regarding their operations and staff.

The budgeted amount for this project is \$35,000, established in mid-2018, when this developing technology was rapidly evolving. Since that time, an advanced generation of UAV technology was produced and a significant price increase resulted. In addition, advances in mapping software now allow digital imagery captured by the drone to be plotted in scale to relative landmarks enhancing system output. These advances have caused the proposed amount to exceed the budget.

This acquisition is being funded through the Criminal Investigation Fund (asset forfeiture) and a sufficient balance exists to cover the proposed purchase.

Recommendation

It is recommended the Village Board reject the proposals from Mechanical Testing, Inc., General Aerial Robotics, LLC and Florida Drone Supply for the reasons set forth above and approve a contract with AeroVista Drone Academy for the purchase of two drones and related equipment, software, and training in the amount of \$45,455. It is also recommended that the Criminal Investigations Fund budget be amended by \$10,500 through the use of reserves.



**Village Board
7/15/2019**

Item: Cash in Lieu of Land Dedication

Department: Finance

Two times per year, subject to availability of funds, the Village solicits requests from other governmental bodies for the release of monies collected from developers under the Village's Land Dedication Ordinance. As of April 30, 2019 the following summarizes the amounts collected and the requests from the other governmental bodies including their proposed designation for the use of these monies:

Arlington Heights School District 25 – To fund improvements to existing schools.

Total collected to date and requested: \$1,992.76

Wheeling School District 21 – To fund improvements to Poe and Riley Elementary buildings.

Total collected to date and requested: \$3,311.00

Community Consolidated School District 59 – To fund improvements to existing schools, specially asphalt repair, security system cameras upgrades, and pest management.

Total collected to date and requested: \$2,380.84

Township High School District 214 – To offset costs related to improvements of existing business, technology, special education and facility improvement projects at Hersey High School.

Total collected to date and requested: \$2,711.72

Arlington Heights Park District – To fund improvements and/or additions to parks.

Total collected to date and requested: \$26,280.08

Arlington Heights Memorial Library – To help fund the reupholstering of furniture to be used in the public space.

Total collected to date and requested: \$2,110.90

RECOMMENDATION

It is recommended that the Village Board approve disbursement of contributions in lieu of land dedication to various local governments and approve the local governments' designation for use of the monies totaling \$38,787.30.

ATTACHMENTS:

Description	Type
Cash in Lieu of Land Dedication as of 4/30/19	Exhibits

Elem School #25	Elem School #21	Elem School #59	Elem School #23	High School #211	High School #214	A H Park District	MP Park District	A H Memorial Library	Total
\$ 1,490.72	\$ 3,311.00				\$910.37	\$13,789.73		\$1,107.63	\$ 19,118.73
\$ 502.04					\$550.10	\$4,159.49		\$334.10	\$ 6,534.41
					\$77.45	\$2,938.82		\$236.06	\$ 3,754.37
		\$ 2,380.84			\$1,173.80	\$5,392.04		\$433.11	\$ 9,379.79
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<u>\$1,992.76</u>	<u>\$3,311.00</u>	<u>\$2,380.84</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$2,711.72</u>	<u>\$26,280.08</u>	<u>\$0.00</u>	<u>\$2,110.90</u>	<u>\$38,787.30</u>



Stacey Mallek
Assistant Superintendent for Business/CSBO
Email: smallek@sd25.org

Embracing Today – Inspiring Tomorrow

PATTON | OLIVE | IVY HILL | GREENBRIER | THOMAS
WINDSOR | WESTGATE | DRYDEN | SOUTH

May 27, 2019

Ms. Pamela Wilkiel
Administrative Assistant, Finance Department
Deputy Village Clerk
Village of Arlington Heights
33 South Arlington Heights Road
Arlington Heights, Illinois 60005

Dear Ms. Wilkiel:

We are in receipt of your notification regarding cash contributions in lieu of land dedication monies for the period November 1, 2018 through April 30, 2019.

Please be advised that we are requesting \$1,992.76 in cash contributions, and that the monies will be used for improvements to our existing schools.

Should you have any questions, please feel free to contact me.

Respectfully,

A handwritten signature in black ink that reads 'Stacey Mallek'.

Stacey Mallek
Assistant Superintendent For Business/CSBO
Phone 847-228-2080 fax 847-758-4908



Community Consolidated School District 21

999 West Dundee Road • Wheeling, Illinois 60090
847.537.8270
www.ccsd21.org

Dr. Michael Connolly, Superintendent

Board of Education

Phil Pritzker, *President* • Staci Allan, *Vice President* • Debbi McAtee, *Secretary*
Arlen S. Gould • Bill Harrison • Stacy Hipsak Goetz • Jessica Riddick

June 14, 2019

Village of Arlington Heights
33 South Arlington Heights Road
Arlington Heights, Illinois 60005-1499

Dear Ms. Wilkiel,

Thank you for the notice of cash contributions in lieu of land dedication for the period November 1, 2018 through April 30, 2019 of \$3,311.00. Community Consolidated School District 21 requests the Village of Arlington Heights disburse these funds to be used for the care and upkeep of Poe and Riley Elementary school buildings.

Contributions, such as these, benefit the students of Poe and Riley Elementary schools. If you have any question, please call me at (847) 520-2707.

Respectfully,

A handwritten signature in blue ink that reads 'Mary Werling'.

Mary Werling/ SFO
Assistant Superintendent for Finance & Operations/CSBO



COMMUNITY CONSOLIDATED
SCHOOL DISTRICT 59

June 11, 2019

Village of Arlington Heights
Attn: Ms. Pamela Wilkiel
33 South Arlington Heights Rd.
Arlington Heights, Illinois 60005

Dear Ms. Wilkiel,

Please use this letter as a request for the collection of \$2,380.84 in cash contributions in lieu of land dedication for the time period of November 1 through April 30, 2019. These funds will be used for the improvement of existing schools. Specifically these improvement projects include: asphalt repair, security system cameras upgrades and pest management.

In addition, please note our new address listed below.

Sincerely,

Vickie Nissen
Assistant Superintendent for Business Services



Township High School District 214

2121 South Goebbert Road
Arlington Heights, Illinois 60005
847-718-7600 ■ www.d214.org

Dr. David R. Schuler
Superintendent

June 5, 2019

Ms. Pamela Wilkiel
Finance Department
Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL 60005

Dear Ms. Wilkiel:

Thank you for your May 27, 2019 letter in which you indicated that the Village has collected \$2,711.72 in cash contributions in lieu of land dedication for District 214 for the period of November 1, 2018 through April 30, 2019.

Our intent is to use these funds to offset costs related to improvement of existing business, technology, special education, and facility improvement projects at the John Hersey High School site.

Thank you for your consideration of this request.

Sincerely,

Cathy Johnson
Associate Superintendent
for Finance & Operations
Township High School District 214

Buffalo Grove High School ■ Community Education ■ Elk Grove High School
John Hersey High School ■ Newcomer Center ■ Prospect High School ■ Rolling Meadows High School
The Academy at Forest View ■ Vanguard School ■ Wheeling High School



May 29, 2019

Ms. Pamela Wilkeil
Administrative Assistant, Finance Dept.
Village of Arlington Heights
33 S. Arlington Heights Rd.
Arlington Heights, IL 60005

Dear Pam:

The Arlington Heights Park District requests \$26,280.08 in cash contributions in lieu of land dedication from November 1, 2018 through April 30, 2019. The contribution shall be considered for improvements and/or additions to the following parks:

Project	Date	Amount	Parks
3243-3249 N. Heritage Ln	11/13/2018	\$13,789.73	Arlington Ridge Center, Lake Arlington, Camelot, Frontier, Raven, Centennial, Rand-Berkley Parks and Nickol Knoll Golf Club and the Heritage Tennis Club
52 N. Beverly Lot H	12/04/2018	\$ 4,159.49	Arlington Ridge Center, Lake Arlington, Recreation, Methodist, Banta, Berbecker, Evergreen, North School Parks
52 N. Beverly Lot 41	12/04/2018	\$ 2,938.82	Arlington Ridge Center, Lake Arlington, Recreation, Methodist, Banta, Berbecker, Evergreen, North School Parks
508 S. Mitchell	01/17/2019	\$ 5,392.04	Arlington Ridge Center, Lake Arlington, Sunset Meadows, Pioneer, Cronin, Shagg, Volz, and Recreation Parks

Should you have any questions, please feel free to call me at 847-506-7145.

Sincerely,

Ben Rea

Director of Parks and Planning

June 10, 2019

Ms. Pamela Wilkiel
Finance Department
Village of Arlington Heights
33 South Arlington Heights Road
Arlington Heights, Illinois 60005

Dear Ms. Wilkiel,

Thank you for your letter of May 27 notifying the library about the contribution fees collected for the Arlington Heights Memorial Library for the period November 1, 2018 through April 30, 2019 in the amount of \$2,110.90.

This letter serves as the library's request to disburse those funds. The funds will be applied toward reupholstering furniture to be used in the public space.

I appreciate your assistance in processing this request. If you have any questions, please call me at 847-506-2615.

Best regards,



Michael Driskell
Executive Director

c: Board of Library Trustees



Village Board
7/15/2019

Item: Ordinance - Code Amendment - Chapter 28 - Overlay Zoning District, South Arlington Heights Road

Department: Planning/Legal

An Ordinance Amending Chapter 28 of the Arlington Heights Municipal Code (Section 28-5.1-21, Overlay Zoning District, South Arlington Heights Road added)

ATTACHMENTS:

Description

Code Amendment - Chapter 28

Type

Ordinance

**AN ORDINANCE AMENDING CHAPTER 28 OF
THE ARLINGTON HEIGHTS MUNICIPAL CODE**

WHEREAS, on May 22, 2019, in Petition Number 19-007, the Plan Commission of the Village of Arlington Heights conducted a public hearing to amend Chapter 28, Zoning Regulations, of the Arlington Heights Municipal Code with regard to an Overlay Zoning District at the South Arlington Heights Road Corridor, and has recommended to the Board of Trustees adoption of said amendment; and

WHEREAS, the President and Board of Trustees have determined that said amendment to Chapter 28 of the Municipal Code is in the best interests of the Village of Arlington Heights; and

NOW, THEREFORE, BE IT ORDAINED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF ARLINGTON HEIGHTS:

SECTION ONE: That Chapter 28 of the Arlington Heights Municipal Code Zoning Regulations be and is hereby amended by adding the following to Section 5, Use Districts and renumbering existing section 5.1-21 through 5.1-24 to 5.1-22 through 5.1-25 accordingly:

Section 5.1-21 Overlay Zoning District - South Arlington Heights Road. The purpose of the overlay zoning district is to implement the goals of the South Arlington Heights Road Corridor Plan by establishing guidelines specific to the corridor area. The following conditions of use shall supplement the underlying zoning for the area, but supersede the underlying zoning where different.

Section 5.1-21.1 Conditions of Use:

- a. Height: 200 feet (20 floors).
- b. Parking Lot Setback: 15 feet from public right-of-way.
- c. Sidewalks along major arterials: Setback 8 to 10 feet from curb.
- d. Building Setbacks:
 - 3 floors and less: 15 feet;
 - over 3 floors: 50 feet;
- e. Parking:
 - Studio: 1.0 parking spaces per unit;
 - 1 bedroom: 1.5 parking spaces per unit;
 - 2 bedroom+: 2.0 parking spaces per unit;
- f. Density:
 - Studio: 250 square feet of land per dwelling unit;
 - 1 bedroom: 300 square feet of land per dwelling unit;
 - 2 bedroom+: 400 square feet of land per dwelling unit;

- g. Prohibited Uses: motor vehicle repair, auto/motor vehicle sales; pawn shops, currency exchanges; second hand stores.
- h. Planned Unit Development (PUD) Required.
- i. First floor commercial required for buildings that front Algonquin Road and Arlington Heights Road frontage.
- j. Building Lot Coverage: 75%
- k. Development should include sustainable development features such as but not limited to, permeable pavers, green rooftops, electric charging stations, energy efficient building products, bioswales, solar energy.

SECTION TWO: This Ordinance shall be in full force and effect from and after its passage, approval and publication in pamphlet form in the manner provided by law.

AYES:

NAYS:

PASSED AND APPROVED this 15th day of July, 2019.

Village President

ATTEST:

Village Clerk



Village Board
7/15/2019

Item: Ordinance - No Parking - Clearbrook Drive

Department: Engineering/PW/Legal

The Police Department has identified a long-standing problem of semi-trucks parking along Clearbrook Drive south of Brook Dr. Because of the curve, any trucks parked there leave a tight fit for traffic on the street. The trucks are not trucks relating to the businesses in the area. Those businesses have loading docks. We believe these semi-trucks are generally parked there by people looking for a place to park a semi-truck during the day and at night. Police have issued tickets for overnight parking but that has not solved the problem.

In order to accommodate the needs of the non-industrial use located at 2626 S Clearbrook while also addressing the issue of semi-trucks parking on Clearbrook, Staff is proposing to restrict parking on Clearbrook in two ways. The attached ordinance prohibits parking completely for the portion of Clearbrook at the curve to Brook Drive and prohibits truck parking on the portion of Clearbrook that is directly in front of and across the street from the 2626 building.

Once the signs are posted, Staff will continue to monitor the situation to determine if this has solved the initial parking issue and ensure that it has not created difficulties for other businesses in the area.

Recommendation

It is recommended that the Village Board adopt the attached Ordinance Prohibiting Parking along Clearbrook Drive.

ATTACHMENTS:

Description

No Parking - Clearbrook Dr

Type

Resolution

AN ORDINANCE PROHIBITING PARKING

BE IT ORDAINED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF ARLINGTON HEIGHTS:

SECTION ONE: It shall be unlawful for any person, firm or corporation to park or permit to be parked, stop or stand a motor vehicle on Clearbrook Drive from Brook Drive to the Cul-de-Sac in accordance with the restrictions depicted on the attached map, which is attached to and made a part this Ordinance, within the corporate limits of the Village of Arlington Heights.

SECTION TWO: That the Village Manager is hereby directed to install appropriate signs to effectuate the purposes of this Ordinance.

SECTION THREE: That any person, firm or corporation violating any of the terms of this Ordinance shall be fined not more than \$750.00 for each such offense.

SECTION FOUR: This Ordinance shall be in full force and effect from and after its passage, approval, publication in pamphlet form, and the posting of such signs in the manner provided by law.

AYES:

NAYS:

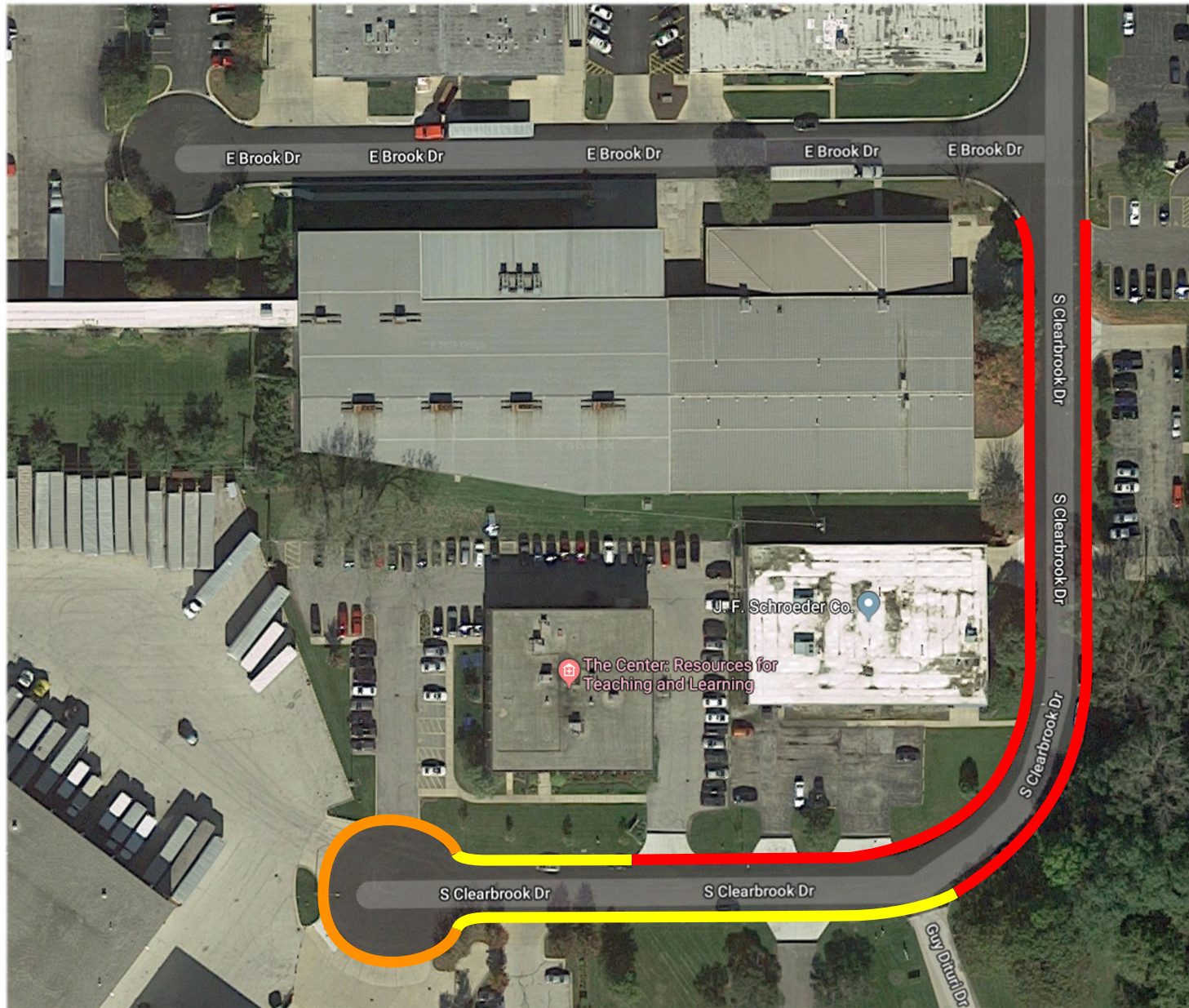
PASSED AND APPROVED this 15th day of July, 2019.

Village President

ATTEST:

Village Clerk

TRAFFICREGS:No Park Zone – Clearbrook Dr



EXISTING NO PARKING
PROPOSED NO PARKING
PROPOSED TRUCK PARKING PROHIBITED

S. Clearbrook Drive Parking Restrictions



**Village Board
7/15/2019**

Item: Resolution - IDOT - MFT Funds - Supplemental

Department: Engineering/Legal

Attached is a supplemental Illinois Department of Transportation Motor Fuel Tax Resolution appropriating additional funds for the 2016 MFT General Survey and CAD Drafting Services used for the Street Reconstruction and Street Rehabilitation Program. Funding for this project was provided in the proposed FY 2015B and FY 2016 and \$60,000 was appropriated. However, an additional, \$1,094.93 was spent under this contract and a Supplemental Resolution is required.

This procedure is required by the Illinois Department of Transportation in order for the Village of Arlington Heights to access these funds.

RECOMMENDATION

It is recommended that the Village Board approve the Supplemental Resolution for Improvement by Municipality Under the Illinois Highway Code appropriating an additional \$1,094.93 for the 2016 MFT General Survey and CAD Drafting Services.

ATTACHMENTS:

Description	Type
IDOT - 2016 Supplemental MFT Funds	Resolution



Resolution for Improvement
Under the Illinois Highway Code



Resolution Number	Resolution Type	Section Number
	Supplemental	16-00208-00-PV

BE IT RESOLVED, by the President and Board of Trustees of the Village
Governing Body Type Local Public Agency Type
of Arlington Heights Illinois that the following described street(s)/road(s)/structure be improved under
Name of Local Public Agency
the Illinois Highway Code. Work shall be done by Contract
Contract or Day Labor

For Roadway/Street improvements:

Name of Street(s)/Road(s)	Length (miles)	Route	From	To
Pine Avenue	0.1		Park Street	500' north

For Structures:

Name of Street(s)/Road(s)	Existing Structure No.	Route	Location	Feature Crossed

BE IT FURTHER RESOLVED,

1. That the proposed improvement shall consist of

Engineering services consisting of general Topographic Survey and CAD Drafting services for various streets in the Village. The supplemental resolution is needed to include Pine Avenue.

2. That there is hereby appropriated the sum of One thousand ninety-four dollars and ninety-three cents

\$1,094.93 Dollars (\$1,094.93) for the improvement of
said section from the Local Public Agency's allotment of Motor Fuel Tax funds.

BE IT FURTHER RESOLVED, that the Clerk is hereby directed to transmit four (4) certified originals of this resolution to the district office of the Department of Transportation.

I, Rebecca Hume Village Clerk in and for said Village
Name of Clerk Local Public Agency Type Local Public Agency Type
of Arlington Heights in the State aforesaid, and keeper of the records and files thereof, as provided by
Name of Local Public Agency
statute, do hereby certify the foregoing to be a true, perfect and complete original of a resolution adopted by

President and Board of Trustees of Arlington Heights at a meeting held on July 15, 2019
Governing Body Type Name of Local Public Agency Date

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this 15th day of July, 2019
Day Month, Year

(SEAL)

Clerk Signature

--

Approved

Regional Engineer
Department of Transportation

	Date



**Village Board
7/15/2019**

Item: Resolution - IDOT - MFT Funds - Supplemental

Department: Engineering/Legal

Attached is the Illinois Department of Transportation Resolution for Maintenance appropriating funds for the 2016 MFT General Maintenance for traffic signal maintenance. Funding for this project was previously approved and \$104,856.45 was appropriated. However, an additional, \$6,668.60 was spent under this contract and a Supplemental Resolution is required.

This procedure is required by the Illinois Department of Transportation in order for the Village of Arlington Heights to access these funds.

RECOMMENDATION

It is recommended that the Village Board approve the attached Supplemental Resolution for Improvement by Municipality Under the Illinois Highway Code appropriating an additional \$6,668.60 for the 2016 MFT General Maintenance for Traffic Signals.

ATTACHMENTS:

Description	Type
IDOT - 2016 Supplemental MFT Funds	Resolution



Resolution for Maintenance
Under the Illinois Highway Code



Resolution Number	Resolution Type	Section Number
	Supplemental	16-00000-00-GM

BE IT RESOLVED, by the President and Board of Trustees of the Village of
Governing Body Type Local Public Agency Type
Arlington Heights Illinois that there is hereby appropriated the sum of Six thousand
Name of Local Public Agency
six hundred and sixty-eight dollars and sixty cents Dollars (\$6,668.60)
of Motor Fuel Tax funds for the purpose of maintaining streets and highways under the applicable provisions of Illinois Highway Code from
01/01/16 to 12/31/16
Beginning Date Ending Date

BE IT FURTHER RESOLVED, that only those operations as listed and described on the approved Estimate of Maintenance Costs, including supplemental or revised estimates approved in connection with this resolution, are eligible for maintenance with Motor Fuel Tax funds during the period as specified above.

BE IT FURTHER RESOLVED, that Village of Arlington Heights
Local Public Agency Type Name of Local Public Agency
shall submit within three months after the end of the maintenance period as stated above, to the Department of Transportation, on forms available from the Department, a certified statement showing expenditures and the balances remaining in the funds authorized for expenditure by the Department under this appropriation, and

BE IT FURTHER RESOLVED, that the Clerk is hereby directed to transmit four (4) certified originals of this resolution to the district office of the Department of Transportation.

I Rebecca Hume Village Clerk in and for said Village
Name of Clerk Local Public Agency Type Local Public Agency Type
of Arlington Heights in the State of Illinois, and keeper of the records and files thereof, as
Name of Local Public Agency
provided by statute, do hereby certify the foregoing to be a true, perfect and complete copy of a resolution adopted by the

President and Board of Trustees of Arlington Heights at a meeting held on 07/15/19
Governing Body Type Name of Local Public Agency Date
IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this 15th day of July, 2019
Day Month, Year

(SEAL)

Clerk Signature

--

APPROVED

Regional Engineer
Department of Transportation

Date

--	--



**Village Board
7/15/2019**

Item: Resolution - Easement - Lake Arlington

Department: Public Works/Legal

ComEd is requesting an easement on the south central side of Lake Arlington to connect two ends of a grid loop to bring primary power circuits together. This will provide redundancy to the power grid in the Lake Arlington and Vista subdivisions and is part of the reliability improvements being performed by ComEd.

Recommendation

It is recommended that the Village Board adopt the attached Resolution Authorizing a Grant of Easement for Electric Facility Purposes to ComEd.

ATTACHMENTS:

Description

Easement - Lake Arlington

Type

Resolution

RESOLUTION AUTHORIZING A
GRANT OF EASEMENT

BE IT RESOLVED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF ARLINGTON HEIGHTS:

SECTION ONE: The Grant of Easement, attached hereto and made a part hereof, over and across a portion of property located at Lake Arlington, 2201 N Windsor Dr, Arlington Heights, Illinois, owned by the Village of Arlington Heights is hereby approved.

SECTION TWO: The Village President and Village Clerk are hereby authorized to sign the Grant of Easement approved and all employees of the Village of Arlington Heights are hereby authorized to take all actions necessary to effectuate the purposes of this Resolution.

SECTION THREE: This Resolution shall be in full force and effect from and after its passage and approval in the manner provided by law and the Resolution and Grant of Easement shall be recorded in the Office of the Recorder of Cook County, Illinois.

AYES:

NAYS:

PASSED AND APPROVED this 15th day of July, 2019.

Village President

ATTEST:

Village Clerk

EASEMENT:Resolution Grant of Easement Lake Arlington

GRANT OF EASEMENT

The Grantor(s) VILLAGE OF ARLINGTON HEIGHTS, in consideration of the sum of One Dollar and other valuable consideration, receipt of which is hereby acknowledged, hereby grant(s) and conveys to COMMONWEALTH EDISON COMPANY, an Illinois Corporation, it's licensees, successors and assigns, jointly and severally, an easement to construct, operate, repair, maintain, modify, reconstruct, replace, supplement, relocate and

remove, from time to time, cables, conduits, manholes, transformers, pedestals, or other facilities used in connection with underground transmission and distribution of electricity, sounds and signals, together with right of access to the same and the right, from time to time, to trim or remove trees, bushes, roots and saplings and to clear obstructions from the surface and subsurface as may be reasonably required incident to the grant herein given, in, under, across, along and upon the surface of property situated in Section 16, Township 42 North, Range 11, East of the Third Principal Meridian in Cook County, Illinois, described below. Obstructions shall not be placed over Grantees facilities or in, upon or over the Easement Area without prior written consent of the Grantees. After installation of any such facilities, the grade of the property shall not be altered in a manner so as to interfere with the operation and maintenance thereof.

A TEN (10) FOOT WIDE EASEMENT BEING FIVE (5) FEET FROM EITHER SIDE OF THE CENTERLINE OF GRANTEE'S FACILITIES AS INSTALLED AND APPROXIMATELY DEPICTED ON EXHIBIT "A", ATTACHED HERETO AND MADE A PART HEREOF. GRANTOR'S PROPERTY IS DESCRIBED AS FOLLOWS:

Lot 11 (except the North 195 feet thereof and also except the East 25 feet thereof) and Lot 12 (except the North 195 feet thereof) in School Trustee's Subdivision of Section 16, Township 42 North, Range 11, East of the Third Principal Meridian in Cook County, Illinois

ALSO

That part of the East 25 feet of the North Half (1/2) of the Southwest Quarter (1/4) of Section 16, Township 42 North, Range 11, East of the Third Principal Meridian, lying South of the center line of a creek, said center line extends from a point on the East line of said Southwest Quarter (1/4), 59 feet South of the Northwest corner thereof, to a point on the West line of the East 25 feet of said Southwest Quarter (1/4), 63 feet South of the North line thereof, all in Cook County, Illinois,

PROPERTY ADDRESS: Lake Arlington Park, 2201 North Windsor Drive, Arlington Heights, Illinois 60004
PIN: 03-16-305-034-0000

After Recording Please Return To:

This instrument prepared by Marcus Garvey, 3 Lincoln Centre - 4th Floor, Oakbrook Terrace, Illinois 60181, on behalf of Commonwealth Edison Company.

Complete the Following Appropriate Acknowledgments

For Corporate or Trust Signature

IN WITNESS WHEREOF, the Grantor VILLAGE OF ARLINGTON HEIGHTS has caused this instrument to be executed on its behalf and its corporate seal to be affixed hereto this 15th day of July, 2019.

By: _____
Village President

ATTEST: _____

TITLE: Village Clerk

If grantor is a corporation or trust, complete the following:

State of _____

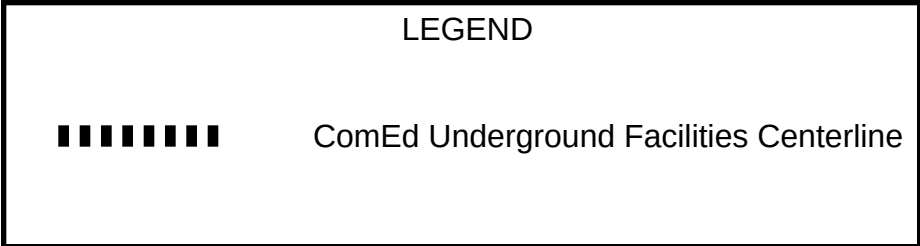
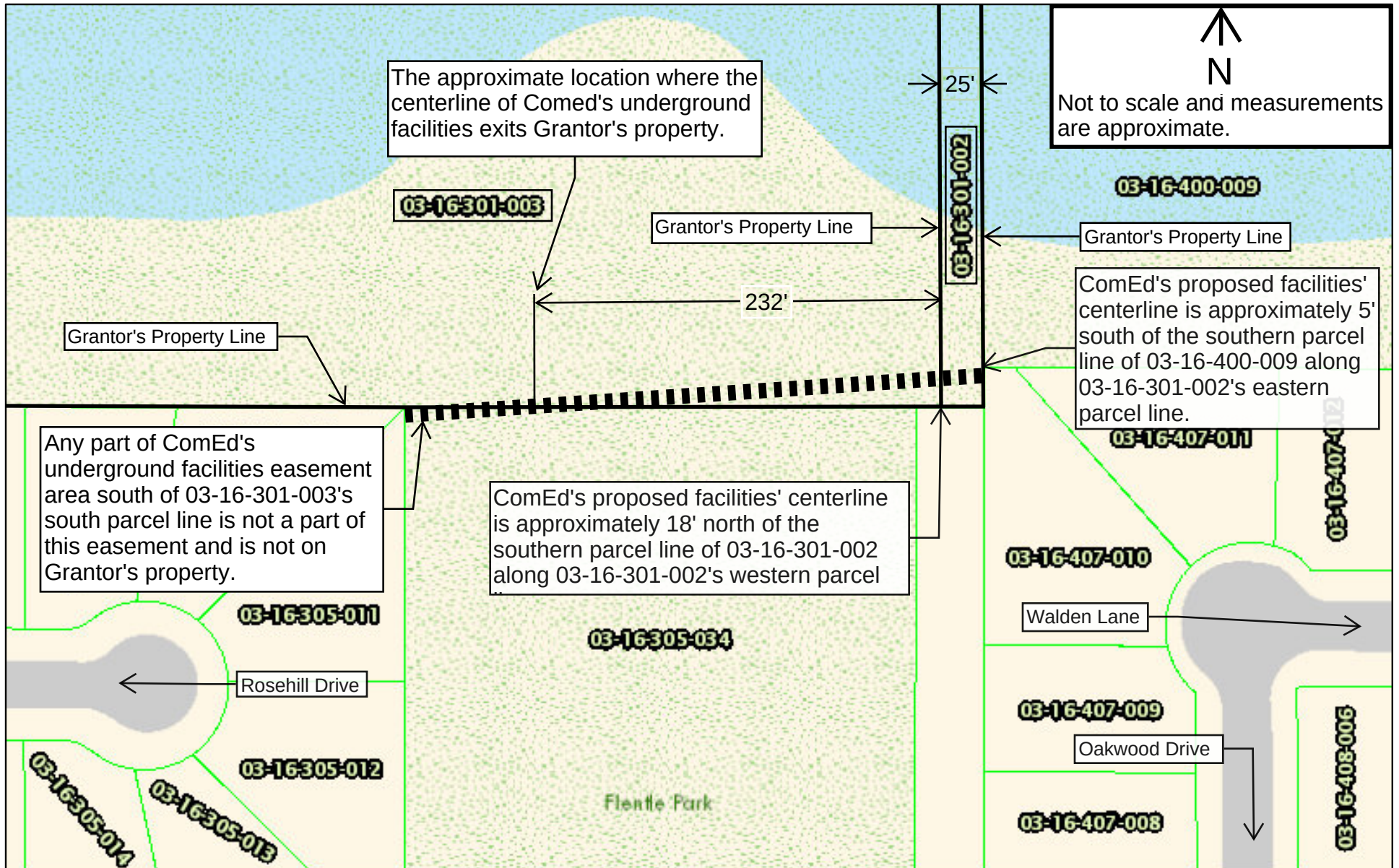
County of _____

I, _____ the undersigned, a Notary Public in and for the said County and State aforesaid, do hereby certify that _____, _____ President of the Village of Arlington Heights, and _____, Secretary of said corporation, personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed and delivered said instrument as their own free and voluntary act and as the free and voluntary act of said corporation for the uses and purposes therein set forth; and the said _____ Secretary then and there _____ acknowledged that he/she, as custodian of the seal of said corporation, did affix the seal to the foregoing instrument as his/her free and voluntary act and the free and voluntary act of said corporation, for the uses and purposes therein set forth.

GIVEN under my hand and NOTARIAL SEAL this _____ day of _____, 2019.

Notary Public

EXHIBIT A





**Village Board
7/15/2019**

Item: 1400 W. Thomas St. - Final Plat of Subdivision - PC#18-025

Department: Planning & Community Development

BACKGROUND

The Village Board approved the Preliminary Plat of Subdivision for the 1400 W. Thomas Subdivision (Named the Harvard Thomas Resubdivision) on April 1, 2019.

As part of the Final Plat approval process, the petitioner has provided engineering plans to the Village, which have been reviewed by the Public Works Department and Engineering Division. While the plans have been deemed acceptable for Final Plat approval, two changes will be required at time of permit. Those changes are:

- Upsizing of the 8-inch storm sewer shown on Engineering Plans (dated 4/16/19) to a 10-inch storm sewer.
- Incorporation of additional stormwater infrastructure to achieve positive drainage on Lot 1 and Lot 2, if determined necessary by the Public Works Department and Engineering Division, once plans for a new home or new homes are provided. Such stormwater infrastructure may consist of, but is not limited to, an additional swale along Thomas Street, which would connect to the proposed stormwater inlet.

Additionally, as per the Preliminary Plat Approval Ordinance, the required \$4,716 fee-in-lieu of detention shall be provided by the petitioner prior to approval of the Final Plat of Subdivision by the Village Board.

Recommendation

A public hearing was held by the Plan Commission on June 12, 2019 where Commissioner Dawson moved and Commissioner Jensen seconded:

A motion to recommend to the Village Board of Trustees, approval of PC#18-025, a Final Plat of Subdivision for 1400 W. Thomas Street.

Roll Call Vote: Commissioners Dawson, Green, Lorenzini, Warskow, Jensen, and Chair Ennes voted in favor. Motion carried.

ATTACHMENTS:

Description	Type
Staff Memo	Memorandum
PC MInutes 6/12/19	Minutes
Final Plat	Exhibits
Engineering Plans - Existing Conditions	Exhibits
Engineering Plans - Proposed Improvements	Exhibits
Department Comments - Round 1	Exhibits
Department Comments - Round 1 - Petitioner Response	Exhibits
Department Comments - Round 2	Exhibits



Memorandum

To: Chairman Ennes and Members of the Plan Commission
CC: Randy Recklaus, Village Manager
All Department Heads
From: Jake Schmidt, Assistant Planner
Date: 6/6/2019
Re: Final Plat of Subdivision - PC #18-025: 1400 W. Thomas Subdivision (Harvard Thomas Resubdivision) – 6/12/19 Plan Commission Meeting

The Village Board approved the Preliminary Plat of Subdivision for the 1400 W. Thomas Subdivision (Named the Harvard Thomas Resubdivision) on April 1, 2019.

As part of the Final Plat approval process, the petitioner has provided engineering plans to the Village, which have been reviewed by the Public Works Department and Engineering Division. While the plans have been deemed acceptable for Final Plat approval, two changes will be required at time of permit. Those changes are:

- Upsizing of the 8-inch storm sewer shown on Engineering Plans (dated 4/16/19) to a 10-inch storm sewer.
- Incorporation of additional stormwater infrastructure to achieve positive drainage on Lot 1 and Lot 2, if determined necessary by the Public Works Department and Engineering Division, once plans for a new home or new homes are provided. Such stormwater infrastructure may consist of, but is not limited to, an additional swale along Thomas Street, which would connect to the proposed stormwater inlet.

Additionally, as per the Preliminary Plat Approval Ordinance, the required \$4,716 fee-in-lieu of detention shall be provided by the petitioner prior to approval of the Final Plat of Subdivision by the Village Board.

Recommendation: Staff recommends that the Plan Commission recommend approval of the Final Plat of Subdivision for PC 18-025.

APPROVED

PLAN

REPORT OF THE PROCEEDINGS OF A PUBLIC HEARING
BEFORE THE VILLAGE OF ARLINGTON HEIGHTS
PLAN COMMISSION

COMMISSION

RE: 1400 WEST THOMAS STREET SUBDIVISION - PC# 18-025
FINAL PLAT OF SUBDIVISION

REPORT OF PROCEEDINGS had before the Village of
Arlington Heights Plan Commission Meeting taken at the Arlington Heights Village
Hall, 33 South Arlington Heights Road, 3rd Floor Board Room, Arlington Heights,
Illinois on the 12th day of June, 2019 at the hour of 7:57 p.m.

MEMBERS PRESENT:

TERRY ENNES, Chairman
LYNN JENSEN
MARY JO WARSKOW
JOE LORENZINI
BRUCE GREEN
SUSAN DAWSON

ALSO PRESENT:

BILL ENRIGHT, Planning & Community Development Deputy Director
JACOB SCHMIDT, Assistant Development Planner

APPROVED

CHAIRMAN ENNES: And we have one other petition this evening and that is for approval of the final plat for 1400 West Thomas Street. Is the Petitioner here?

MR. HEIDKAMP: Yes.

MS. GLUECKERT: Yes.

CHAIRMAN ENNES: Do you have anything that you wanted to say?

MS. GLUECKERT: No.

CHAIRMAN ENNES: Okay. Then I would ask for a motion –

COMMISSIONER LORENZINI: I do have a question.

CHAIRMAN ENNES: Yes.

COMMISSIONER LORENZINI: One question. So, it says the final plat approval process, two changes were required at the time of permit. The upsizing of the sewer and incorporation of additional stormwater structure. Shouldn't they have submitted plans showing that already, before this came out?

MR. SCHMIDT: They did provide engineering plans to the satisfaction of the Public Works Department, Engineering Division. They just didn't want to have to see new plans for that stormwater, or for the storm sewer specifically.

COMMISSIONER LORENZINI: Okay.

MR. SCHMIDT: Prior to final plat approval they thought the plans were sufficient and met their needs. And then with respect to the additional stormwater infrastructure, that's to be incorporated, if necessary. The prior reason for that is full plans will have to be submitted for homes before the Engineering Department can determine if it's necessary or not. They did see ponding along Thomas and so they did want to include some type of condition or some type of stormwater infrastructure, if necessary when a new home is built. But again, it did not need to be seen at the time of final plat and the second one would definitely be needed only if determined necessary at the time of building permit.

COMMISSIONER LORENZINI: Okay, thank you.

CHAIRMAN ENNES: Okay, any other questions?

(No response.)

CHAIRMAN ENNES: Can we have a motion on this petition?

COMMISSIONER DAWSON: I can make a motion.

A motion to recommend to the Village Board of Trustees approval of PC# 18-025, a final plat of subdivision for 1400 West Thomas Street.

CHAIRMAN ENNES: Is there a second?

COMMISSIONER JENSEN: Second.

CHAIRMAN ENNES: Can we have a roll call?

MR. SCHMIDT: Commissioner Dawson.

COMMISSIONER DAWSON: Yes.

MR. SCHMIDT: Chairman Ennes.

CHAIRMAN ENNES: Yes.

MR. SCHMIDT: Commissioner Green.

COMMISSIONER GREEN: Yes, with comment.

MR. SCHMIDT: Commissioner Lorenzini.

COMMISSIONER LORENZINI: Yes.

APPROVED

MR. SCHMIDT: Commissioner Warskow.

COMMISSIONER WARSKOW: Yes.

MR. ENRIGHT: Commissioner Jensen.

COMMISSIONER JENSEN: Yes.

CHAIRMAN ENNES: Okay.

COMMISSIONER GREEN: My comment is that, I voted yes for the procedural part of this. I still think from a zoning standpoint it's wrong.

CHAIRMAN ENNES: Okay. So, you've received approval and we will get that signed. Do they have to go –

MR. ENRIGHT: The Village Board, yes.

CHAIRMAN ENNES: Okay, so you'll be getting notice for that.

MS. GLUECKERT: Okay, thank you.

MR. HEIDKAMP: Thank you.

CHAIRMAN ENNES: Okay, is there anything else on our agenda? Nothing that I see.

(No response.)

CHAIRMAN ENNES: So, can we have, can we adjourn –

COMMISSIONER DAWSON: I'll make a motion to adjourn.

COMMISSIONER WARSKOW: I'll second that motion.

CHAIRMAN ENNES: All in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: Thank you ladies and gentleman. Have a great
(Whereupon, at 8:00 p.m., the above-mentioned petition
was adjourned.)

FINAL PLAT OF HARVARD THOMAS RESUBDIVISION

VILLAGE CERTIFICATE

UNDER THE AUTHORITY PROVIDED BY 65 ILCS 5/11-12 AS AMENDED BY THE STATE LEGISLATURE OF THE STATE OF ILLINOIS AND ORDINANCE ADOPTED BY THE VILLAGE BOARD OF THE VILLAGE OF ARLINGTON HEIGHTS, ILLINOIS, THIS PLAT WAS GIVEN APPROVAL BY THE VILLAGE OF ARLINGTON HEIGHTS AND MUST BE RECORDED WITHIN SIX MONTHS OF THE DATE OF APPROVAL BY THE VILLAGE BOARD, OTHERWISE IT IS NULL AND VOID.

APPROVED BY THE PLAN COMMISSION AT A MEETING HELD

CHAIRMAN

SECRETARY

APPROVED BY THE VILLAGE BOARD OF TRUSTEES AT A MEETING HELD

PRESIDENT

VILLAGE CLERK

APPROVED BY THE VILLAGE ENGINEER

VILLAGE ENGINEER

COUNTY CLERK CERTIFICATE

STATE OF ILLINOIS
COUNTY OF COOK) SS

I, _____, COUNTY CLERK OF COOK COUNTY, ILLINOIS DO HEREBY CERTIFY THAT THERE ARE NO DELINQUENT TAXES, NO UNPAID FORFEITED TAXES AND NO REDEEMABLE TAX SALES AGAINST ANY OF THE LAND INCLUDED IN THE ATTACHED PLAT.

I FURTHER CERTIFY THAT I HAVE RECEIVED ALL STATUTORY FEES IN CONNECTION WITH THE ATTACHED PLAT.

DATED THIS _____ DAY OF _____, A.D., 20____

COUNTY CLERK

VILLAGE COLLECTOR

STATE OF ILLINOIS
COUNTY OF COOK) SS

I FIND NO DEFERRED INSTALLMENTS OF OUTSTANDING SPECIAL ASSESSMENTS DUE AGAINST THE LAND INCLUDED IN THE PLAT HEREON DRAWN.

DATED THIS _____ DAY OF _____, A.D., 20____

VILLAGE COLLECTOR

OWNER'S CERTIFICATE

STATE OF ILLINOIS
COUNTY OF COOK) SS

I, _____

DO HEREBY CERTIFY THAT I AM THE LEGAL OWNER THE PROPERTY DESCRIBED HEREON AND THAT I HAVE CAUSED THE SAID PROPERTY TO BE SURVEYED AND SUBDIVIDED AS SHOWN HEREON. ADDITIONALLY, I HEREBY CERTIFY THAT THE PROPERTY HEREON DESCRIBED IS LOCATED WITHIN THE BOUNDARIES OF:

ELEMENTARY SCHOOL DISTRICT: CONSOLIDATED COMMUNITY SCHOOL DISTRICT NO. 25.

HIGH SCHOOL DISTRICT: TOWNSHIP HIGH SCHOOL DISTRICT NO. 214.

COMMUNITY COLLEGE DISTRICT: HARPER COMMUNITY COLLEGE DISTRICT NO. 512.

DATED THIS _____ DAY OF _____, A.D., 20____

OWNER

NOTARY PUBLIC

STATE OF ILLINOIS
COUNTY OF _____) SS

I, _____, A NOTARY PUBLIC IN AND FOR SAID COUNTY DO HEREBY CERTIFY THAT

AND

ARE/IS PERSONALLY KNOWN TO ME TO BE THE SAME PERSONS WHOSE NAMES ARE SUBSCRIBED TO THE FOREGOING CERTIFICATE AS SUCH OWNER, APPEARED BEFORE ME THIS DAY IN PERSON AND ACKNOWLEDGED THAT THEY SIGNED AND DELIVERED THE SAID INSTRUMENT AS THEIR OWN FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES THEREIN SET FORTH.

GIVEN UNDER MY HAND AND NOTARIAL SEAL DATED

THIS _____ DAY OF _____, A.D., 20____

NOTARY PUBLIC

MY COMMISSION EXPIRES: _____

DEED OF DEDICATION

WE, THE UNDERSIGNED, MARCIE GLUECKERT & MARC HEIDKAMP,

OWNERS OF THE REAL ESTATE SHOWN AND DESCRIBED HEREIN, DO HEREBY LAY OFF, PLAT AND SUBDIVIDE SAID REAL ESTATE IN ACCORDANCE WITH THE WITHIN PLAT. THIS SUBDIVISION SHALL BE KNOWN AND DESIGNATED AS HARVARD THOMAS RESUBDIVISION, AN ADDITION TO THE VILLAGE OF ARLINGTON HEIGHTS, COOK COUNTY. ALL STREETS AND ALLEYS AND PUBLIC OPEN SPACES SHOWN AND NOT HERETOFORE DEDICATED ARE HEREBY DEDICATED TO THE PUBLIC. FRONT AND SIDE YARD BUILDING SETBACK LINES ARE ESTABLISHED AS SHOWN ON THIS PLAT, BETWEEN WHICH LINES AND THE PROPERTY LINES OF THE STREETS, THERE SHALL BE ERRECTED OR MAINTAINED NO BUILDING OR STRUCTURE. THERE ARE STRIPS OF GROUND, FIVE (5) FEET IN WIDTH, AS SHOWN ON THIS PLAT AND MARKED "EASEMENT" RESERVED FOR THE USE OF PUBLIC UTILITIES FOR THE INSTALLATION OF WATER AND SEWER MAINS, POLES, DUCTS, LINES AND WIRES, SUBJECT AT ALL TIMES TO THE PROPER AUTHORITIES AND TO THE EASEMENT HEREIN RESERVED. NO PERMANENT OR OTHER STRUCTURES ARE TO BE ERRECTED OR MAINTAINED UPON THESE STRIPS OF LAND, BUT OWNERS OF LOTS IN THIS SUBDIVISION SHALL TAKE THEIR TITLES SUBJECT TO THE RIGHTS OF THE PUBLIC UTILITIES, AND TO THE RIGHTS OF THE OWNERS OF OTHER LOTS IN THIS SUBDIVISION.

THE FOREGOING COVENANTS (OR RESTRICTIONS), ARE TO RUN WITH THE LAND AND SHALL BE BINDING ON ALL PARTIES AND ALL PERSONS CLAIMING UNDER THEM UNTIL JANUARY 1, 2044, AT WHICH TIME SAID COVENANTS (OR RESTRICTIONS) SHALL BE AUTOMATICALLY EXTENDED FOR SUCCESSIVE PERIODS OF TEN YEARS UNLESS INDICATED OTHERWISE BY NEGATIVE VOTE OF A MAJORITY OF THE THEN OWNERS OF THE BUILDING SITES COVERED BY THESE COVENANTS (OR RESTRICTIONS), IN WHOLE OR IN PART, WHICH SAID VOTE WILL BE EVIDENCED BY A PETITION IN WRITING SIGNED BY THE OWNERS AND DULY RECORDED. INVALIDATION OF ANY ONE OF THE FOREGOING COVENANTS (OR RESTRICTIONS) BY JUDGMENT OR COURT ORDER SHALL IN NO WAY AFFECT ANY OF THE OTHER VARIOUS COVENANTS (OR RESTRICTIONS), WHICH SHALL REMAIN IN FULL FORCE AND EFFECT.

THE RIGHT TO ENFORCE THESE PROVISIONS BY INJUNCTION, TOGETHER WITH THE RIGHT TO CAUSE THE REMOVAL, BY DUE PROCESS OF LAW, OF ANY STRUCTURE OR PART THEREOF ERRECTED OR MAINTAINED IN VIOLATION, IS HEREBY DEDICATED TO THE PUBLIC, AND RESERVED TO THE SEVERAL OWNERS OF THE SEVERAL LOTS IN THIS SUBDIVISION AND TO THEIR HEIRS AND ASSIGNS.

WITNESS OUR HANDS AND SEALS THIS _____ DAY OF _____, 20____

OWNER

OWNER

STATE OF ILLINOIS)
COUNTY OF COOK) SS.

BEFORE ME THE UNDERSIGNED NOTARY PUBLIC, IN AND FOR THE COUNTY AND STATE AFORESAID, PERSONALLY APPEARED

AND EACH SEPARATELY AND SEVERALLY ACKNOWLEDGED THE EXECUTION OF THE FOREGOING INSTRUMENT AS HIS OR HER VOLUNTARY ACT AND DEED, FOR THE PURPOSES THEREIN EXPRESSED.

WITNESS MY HAND AND NOTARIAL SEAL THIS _____ DAY OF 20 ____

NOTARY PUBLIC

SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS
COUNTY OF MC HENRY) SS

I, JAMES E. SCHROEDER, A PROFESSIONAL LAND SURVEYOR IN THE STATE AND COUNTY AFORESAID HEREBY CERTIFY THAT A PLAT OF RESUBDIVISION HAS BEEN MADE UNDER MY SUPERVISION OF THE FOLLOWING DESCRIBED PROPERTY:

LOT 1 IN LYNNWOOD SUBDIVISION UNIT NO. TWO, BEING A SUBDIVISION IN THE EAST 1/2 OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF SECTION 19 AND IN THE WEST 1/2 OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.
COMMONLY KNOWN AS: 1400 W. THOMAS STREET, ARLINGTON HEIGHTS, IL 60004.
PROPERTY INDEX NUMBER: 03-19-107-005.

I FURTHER CERTIFY THAT IRON STAKES WERE FOUND OR SET AT ALL LOT CORNERS. DIMENSIONS ARE GIVEN IN FEET AND DECIMAL PARTS THEREOF.

I FURTHER CERTIFY THAT NO PART OF SAID PROPERTY IS SITUATED WITHIN A FLOOD HAZARD AREA AS IDENTIFIED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY ON THE FLOOD INSURANCE RATE MAP NO. 17031C02014, EFFECTIVE DATE OF 8/19/2008.

I FURTHER CERTIFY THAT THE PLAT HEREON IS A CORRECT REPRESENTATION OF SAID SURVEY AND SUBDIVISION AND THAT THE PROPERTY SHOWN HEREON IS SITUATED WITHIN THE VILLAGE OF ARLINGTON HEIGHTS, ILLINOIS.

DATED AT CARY, ILLINOIS,

THIS _____ DAY OF _____, A.D., 20____

James E. Schroeder

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-3287.

MY LICENSE EXPIRES: 11/30/2020



EASEMENT PROVISIONS

AN EASEMENT FOR SERVING THE SUBDIVISION AND OTHER PROPERTY WITH ELECTRIC AND COMMUNICATION SERVICE IS HEREBY RESERVED FOR AND GRANTED TO COMMONWEALTH EDISON COMPANY, AND SBC TELEPHONE COMPANY, GRANTEEES,

THEIR RESPECTIVE LICENSEES, SUCCESSORS AND ASSIGNS JOINTLY AND SEVERALLY, TO CONSTRUCT, OPERATE, REPAIR, MAINTAIN, MODIFY, RECONSTRUCT, REPLACE, SUPPLEMENT, RELOCATE AND REMOVE, FROM TIME TO TIME, POLES, GUYS, ANCHORS, WIRES, CABLE, CONDUITS, MANHOLES, TRANSFORMERS, PEDESTALS, EQUIPMENT CABINETS OR OTHER FACILITIES USED IN CONNECTION WITH OVERHEAD AND UNDERGROUND TRANSMISSION AND DISTRIBUTION OF ELECTRICITY, COMMUNICATIONS, SOUNDS AND SIGNALS IN, OVER, UNDER, ACROSS, ALONG AND UPON THE SURFACE OF THE PROPERTY SHOWN WITHIN THE DASHED OR DOTTED LINES (OR SIMILAR DESIGNATION) ON THE PLAT AND MARKED "EASEMENT", "UTILITY EASEMENT", "PUBLIC UTILITY EASEMENT", "P.U.E." (OR SIMILAR DESIGNATION), THE PROPERTY DESIGNATED IN THE DECLARATION OF CONDOMINIUM AND/OR ON THIS PLAT AS "COMMON ELEMENTS", AND THE PROPERTY DESIGNATED ON THE PLAT AS "COMMON AREA OR AREAS", AND THE PROPERTY DESIGNATED ON THE PLAT FOR STREETS AND ALLEYS, WHETHER PUBLIC OR PRIVATE, TOGETHER WITH THE RIGHTS TO INSTALL REQUIRED SERVICE CONNECTIONS OVER OR UNDER THE SURFACE OF EACH LOT AND COMMON AREA OR AREAS TO SERVE IMPROVEMENTS THEREON, OR ON ADJACENT LOTS, AND COMMON AREA OR AREAS, THE RIGHT TO CUT, TRIM OR REMOVE TREES, BUSHES, ROOTS AND SAPLINGS AND TO CLEAR OBSTRUCTIONS FROM THE SURFACE AND SUBSURFACE AS MAY BE REASONABLY REQUIRED INCIDENT TO THE RIGHTS HEREIN GIVEN, AND THE RIGHT TO ENTER UPON THE SUBDIVIDED PROPERTY FOR ALL SUCH PURPOSES. OBSTRUCTIONS SHALL NOT BE PLACED OVER GRANTEEES' FACILITIES OR IN, UPON OR OVER THE PROPERTY WITHIN THE DASHED OR DOTTED LINES (OR SIMILAR DESIGNATION) MARKED "EASEMENT", "UTILITY EASEMENT", "PUBLIC UTILITY EASEMENT", "P.U.E." (OR SIMILAR DESIGNATION) WITHOUT THE PRIOR WRITTEN CONSENT OF GRANTEEES. AFTER INSTALLATION OF ANY SUCH FACILITIES, THE GRADE OF THE SUBDIVIDED PROPERTY SHALL NOT BE ALTERED IN A MANNER SO AS TO INTERFERE WITH THE PROPER OPERATION AND MAINTENANCE THEREOF.

THE TERM "COMMON ELEMENTS" SHALL HAVE THE MEANING SET FORTH FOR SUCH TERM IN THE "CONDOMINIUM PROPERTY ACT", CHAPTER 765 ILCS 605/2(c), AS AMENDED FROM TIME TO TIME.

THE TERM "COMMON AREA OR AREAS" IS DEFINED AS A LOT, PARCEL OR AREA OF REAL PROPERTY, THE BENEFICIAL USE AND ENJOYMENT OF WHICH IS RESERVED IN WHOLE AS AN APPORTIONMENT TO THE SEPARATELY OWNED LOTS, PARCELS OR AREAS WITHIN THE PLANNED DEVELOPMENT, EVEN THOUGH SUCH BE OTHERWISE DESIGNATED ON THE PLAT BY TERMS SUCH AS "OUTLOTS", "COMMON ELEMENTS", "OPEN SPACE", "OPEN AREA", "COMMON GROUND", "PARKING" AND "COMMON AREA". THE TERMS "COMMON AREA OR AREAS" AND "COMMON ELEMENTS" INCLUDE REAL PROPERTY SURFACED WITH INTERIOR DRIVEWAYS AND WALKWAYS, BUT EXCLUDES REAL PROPERTY PHYSICALLY OCCUPIED BY A BUILDING, SERVICE BUSINESS DISTRICT OR STRUCTURES SUCH AS A POOL, OR RETENTION POND, OR MECHANICAL EQUIPMENT. RELOCATION OF FACILITIES WILL BE DONE BY GRANTEEES AT COST OF THE GRANTEE/LOT OWNER, UPON WRITTEN CONSENT.

COMMONWEALTH EDISON COMPANY
EASEMENT APPROVED AND ACCEPTED

BY: _____ DATE: _____ 20____

TITLE: _____

AMERITECH/SBC
EASEMENT APPROVED AND ACCEPTED

BY: _____ DATE: _____ 20____

TITLE: _____

NICOR GAS
EASEMENT APPROVED AND ACCEPTED

BY: _____ DATE: _____ 20____

TITLE: _____

COMCAST CABLE
EASEMENT APPROVED AND ACCEPTED

BY: _____ DATE: _____ 20____

TITLE: _____

WIDE OPEN WEST, LLC
EASEMENT APPROVED AND ACCEPTED

BY: _____ DATE: _____ 20____

TITLE: _____

PLAT SUBMITTED FOR RECORDING BY:

SEND TAX BILL TO:

MARCIE GLUECKERT
1510 N. HARVARD AVENUE
ARLINGTON HEIGHTS, ILLINOIS 60004

LOT AREAS	
LOT 1	10,365.05 SQ. FT.
LOT 2	10,365.05 SQ. FT.
TOTAL	20,730.10 SQ. FT.



0 10 20 40
SCALE: 1" = 20'

REVISIONS

NO.	DATE	DESCRIPTION
1	01/07/19	VILLAGE COMMENTS - ROUND 1
2	02/12/19	VILLAGE COMMENTS - ROUND 2
3	04/05/19	CORRECTED RANGE NUMBER

SCHROEDER & ASSOCIATES 66 PINE CIRCLE - CARY, ILLINOIS 60013 TEL: 847-639-1415 CELL: 847-650-1416 JSCHRO8956@aol.com	
CLIENT: MARCIE GLUECKERT HEIDKAMP	FIELD WORK COMPLETED: N/A
JOB NO. 18079 PLAT	DATE: NOVEMBER 5, 2018

** THE ACTUAL REQUIRED FRONT YARD BUILDING SETBACK LINE MAY BE LESS THAN OR GREATER THAN 30.32' (THOMAS STREET) AND 32.02' (HARVARD AVENUE) AS PRESCRIBED IN THE ARLINGTON HEIGHTS MUNICIPAL CODE. SPECIFICALLY, SECTION 5.1 -3.6(A) OF CHAPTER 28 ALLOWS THE FRONT YARD SETBACK TO BE CALCULATED BASED ON THE AVERAGE OF THE EXISTING FRONT YARD SETBACKS OF THE FRONTAGE WHEN 40% OR MORE OF THE FRONTAGE IS DEVELOPED WITH FRONT YARDS OF MORE THAN 15 FEET IN DEPTH. IF THIS CODE SECTION IS NO LONGER APPLICABLE, THE REQUIRED SETBACK SHALL BE BASED ON CURRENT CODE REQUIREMENTS.

LEGAL DESCRIPTION
LOT 1 IN LYNNWOOD SUBDIVISION NO. TWO, BEING A SUBDIVISION IN THE EAST ½ OF THE WEST ½ OF THE NORTHWEST ¼ OF SECTION 19 AND IN THE WEST ½ OF THE EAST ½ OF THE NORTHWEST ¼ OF SECTION 19, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

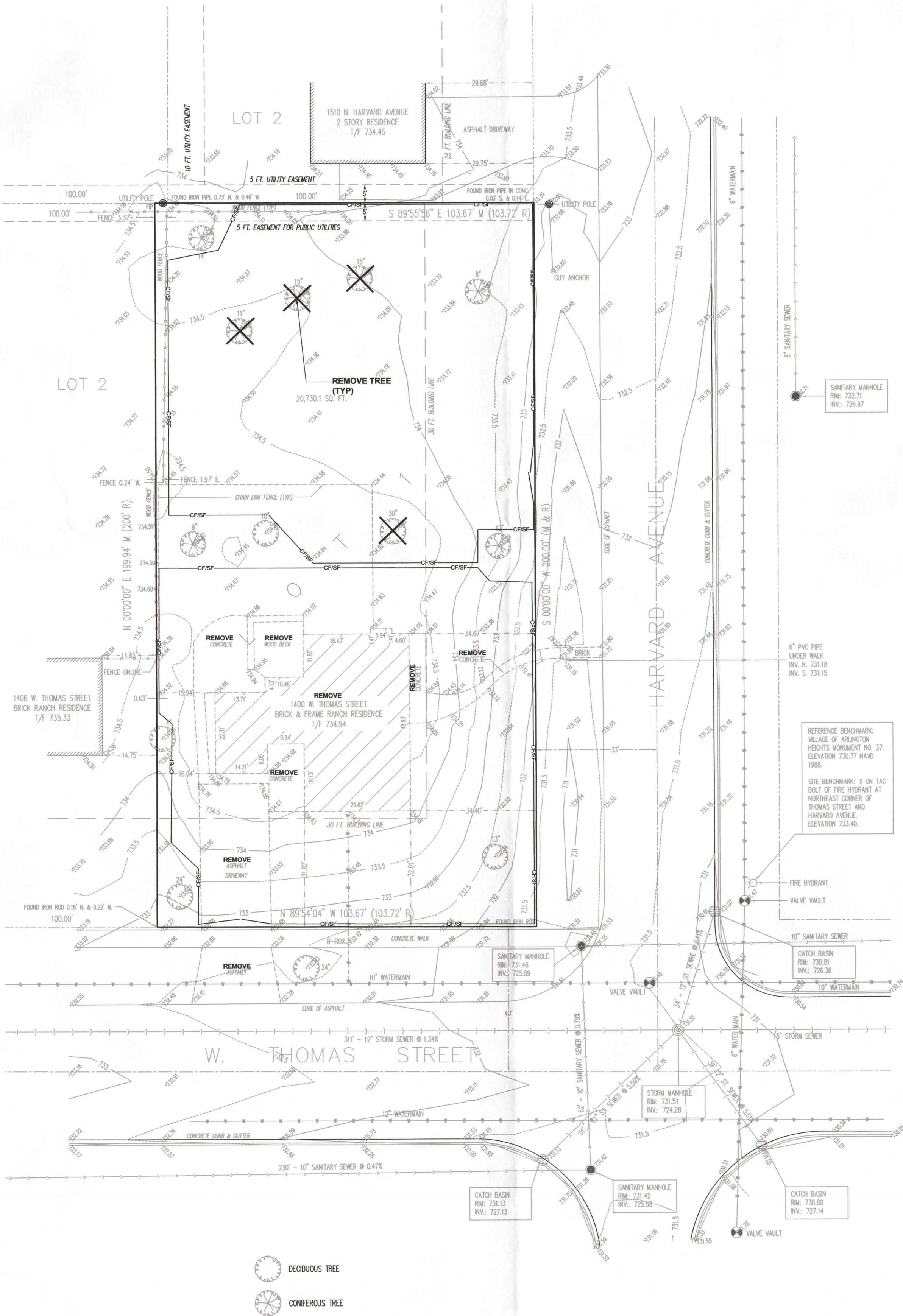
COMMONLY KNOWN AS: 1400 W. THOMAS STREETM ALRINGTON HEIGHTS, IL 60004

PROPERTY INDEX NUMBER: 03-19-107-005

REFERENCE BENCHMARK:
VILLAGE OF ARLINGTON
HEIGHTS MONUMENT NO. 37.
ELEVATION 730.77 NAVD
1988.

SITE BENCHMARK: X ON TAG
BOLT OF FIRE HYDRANT AT
NORTHEAST CORNER OF
THOMAS STREET AND
HARVARD AVENUE.
ELEVATION 733.40.

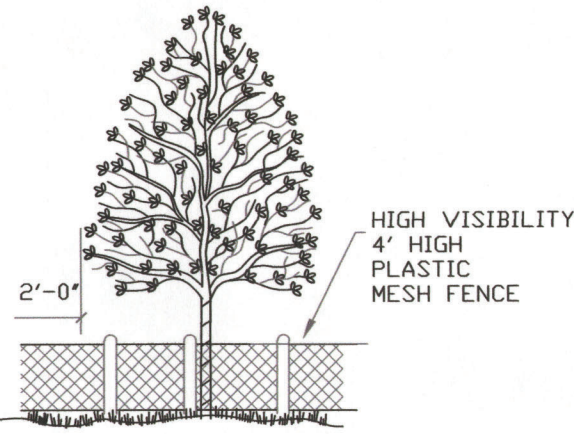
- LEGEND**
- 630--- EXISTING CONTOUR
 - 630--- PROPOSED CONTOUR
 - 102.81--- EXISTING ELEVATION
 - 101.20--- PROPOSED ELEVATION
 - X--- EXISTING SANITARY
 - X--- COMBINATION SEWER
 - X--- PROPOSED SANITARY SEWER
 - X--- PROPOSED COMBINATION SEWER
 - X--- EXISTING STORM SEWER
 - X--- PROPOSED STORM SEWER
 - X--- EXISTING WATERMAIN
 - X--- PROPOSED WATERMAIN
 - X--- EXISTING GAS LINE
 - X--- EXISTING UNDERGROUND ELECTRIC
 - X--- EXISTING UNDERGROUND TELEPHONE
 - X--- EXISTING UNDERGROUND CABLE
 - X--- EXISTING TREE
 - X--- REMOVE TREE
 - X--- TEMPORARY TREE FENCE
 - X--- TEMPORARY SILT / CONSTRUCTION FENCE
 - X--- SUMP PUMP [PROPOSED/EXISTING]
 - X--- DOWNSPOUT (IN-GROUND) [PROPOSED]
 - X--- SWALE [PROPOSED]
 - X--- OUTLET / POP-UP EMITTER
 - X--- CATCH BASIN
 - X--- STORM SEWER
 - X--- SANITARY SEWER
 - X--- CLEANOUT
 - X--- B BOX
 - X--- WOOD UTILITY POLE
 - X--- LIGHT POLE
 - X--- FLARED END SECTION (F.E.S.)
 - X--- INLET / DRAIN
 - X--- WATER VALVE VAULT / WATER METER
 - X--- SIGN
 - X--- MANHOLE (UNCLASSIFIED)
 - X--- FIRE HYDRANT
 - X--- TREE TAG NO.
 - X--- STOP LIGHT
 - X--- GAS VALVE
 - X--- ROOT PRUNE
 - X--- TOP OF GARAGE SLAB
 - X--- TOP OF FOUNDATION
 - X--- TOP OF WALL



LOCATION OF UNDERGROUND UTILITIES WHERE NOT SUBSTANTIATED BY PHYSICAL EVIDENCE ARE TAKEN FROM RECORDS NORMALLY CONSIDERED RELIABLE. NO RESPONSIBILITY FOR THEIR ACCURACY IS ASSUMED BY THE SURVEYOR.

FOR LOCATION OF BURIED CABLE CALL J.U.L.I.E. @ 1-800-892-0123 BEFORE DIGGING

LOCATIONS OF EXISTING UTILITY SERVICES ARE BASED ON VISUAL OBSERVATIONS. CONTRACTOR MUST CONFIRM LOCATION AND CONDITION OF ALL UTILITY SERVICES TO REMAIN.



TREE PROTECTION
SCALE: N.T.S. DURING CONSTRUCTION

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF ILLINOIS.

SIGNATURE: *Zachary Grabius* DATE: 4/16/2019

MY LICENSE EXPIRES ON NOVEMBER 30, 2019

PAGES OR SHEETS COVERED BY THIS SEAL: C-1, C-2



DATE	REVISIONS	ISSUE	PROJECT STAFF
11-30-2018	PERMIT DRAWINGS	1	Z. GRABUIS, P.E.
01-25-2019	REVISION PER VALVE COMMENTS	2	M. WANG
02-18-2019	REVISION PER VALVE COMMENTS	3	ENGINEER
04-16-2019	REVISION TO ADD PUBLIC IMPROVEMENTS	4	TECHNICAL

BCI
BONO CONSULTING, INC.
CIVIL ENGINEERS
1018 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: (847) 823-3300
FAX: (847) 823-3303
bbono@bonoconsulting.com

EXISTING TOPOGRAPHY
NEW SUBDIVISION

1400 W THOMAS ST, ARLINGTON HEIGHTS, IL 60004

COPYRIGHT: THIS DRAWING SHALL NOT BE USED, REPRODUCED, MODIFIED OR SOLD EITHER WHOLLY OR IN PART, EXCEPT WHEN AUTHORIZED IN WRITING BY THE ENGINEER.	PROJECT NO.: 18432
BASE FILE:	SHEET FILE:
ISSUE DATE: NOV. 30, 2018	SCALE: 1"=20'
SHEET NUMBER	C-1

1400 W THOMAS ST., ARLINGTON HEIGHTS

LOT SIZE: 20730 SF
NORTH LOT SIZE: 10365 SF
SOUTH LOT SIZE: 10365 SF

	EXISTING IMPERVIOUS AREA EXISTING LOT (s.f.)	PROPOSED IMPERVIOUS AREA SOUTH LOT (s.f.)	PROPOSED IMPERVIOUS AREA NORTH LOT (s.f.)
HOUSE AND GARAGE	1929	2576	2576
DRIVEWAY	753	1121	481
WALKS, STOOPS, & PATIO	1872	339	364
TOTALS	4554	4036	3421
% OF LOT	21.97%	38.94%	33.01%

ENGINEER'S COST ESTIMATE 4/16/2019 1400 W. Thomas Subdivision
COST ESTIMATE FOR PROBABLE CONSTRUCTION COST FOR PUBLIC IMPROVEMENTS
THIS DOES NOT INCLUDE ANY SITE COSTS FOR FOUNDATION EXCAVATION, STRUCTURAL WALLS & RESIDENCE COMPONENT:

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL	SUB-GROUP TOTAL
8" PVC Storm Sewer	LF	39	\$40.00	\$1,560.00	\$2,810.00
24" RCP Inlet	ea.	1	\$1,250.00	\$1,250.00	
Pavement patch	SY	30	\$50.00	\$1,500.00	\$1,500.00
Restore ROW to existing conditions	ea.	1	\$2,500.00	\$2,500.00	\$2,500.00
Contingency		10%		\$681.00	
ESTIMATED TOTAL					\$6,810.00

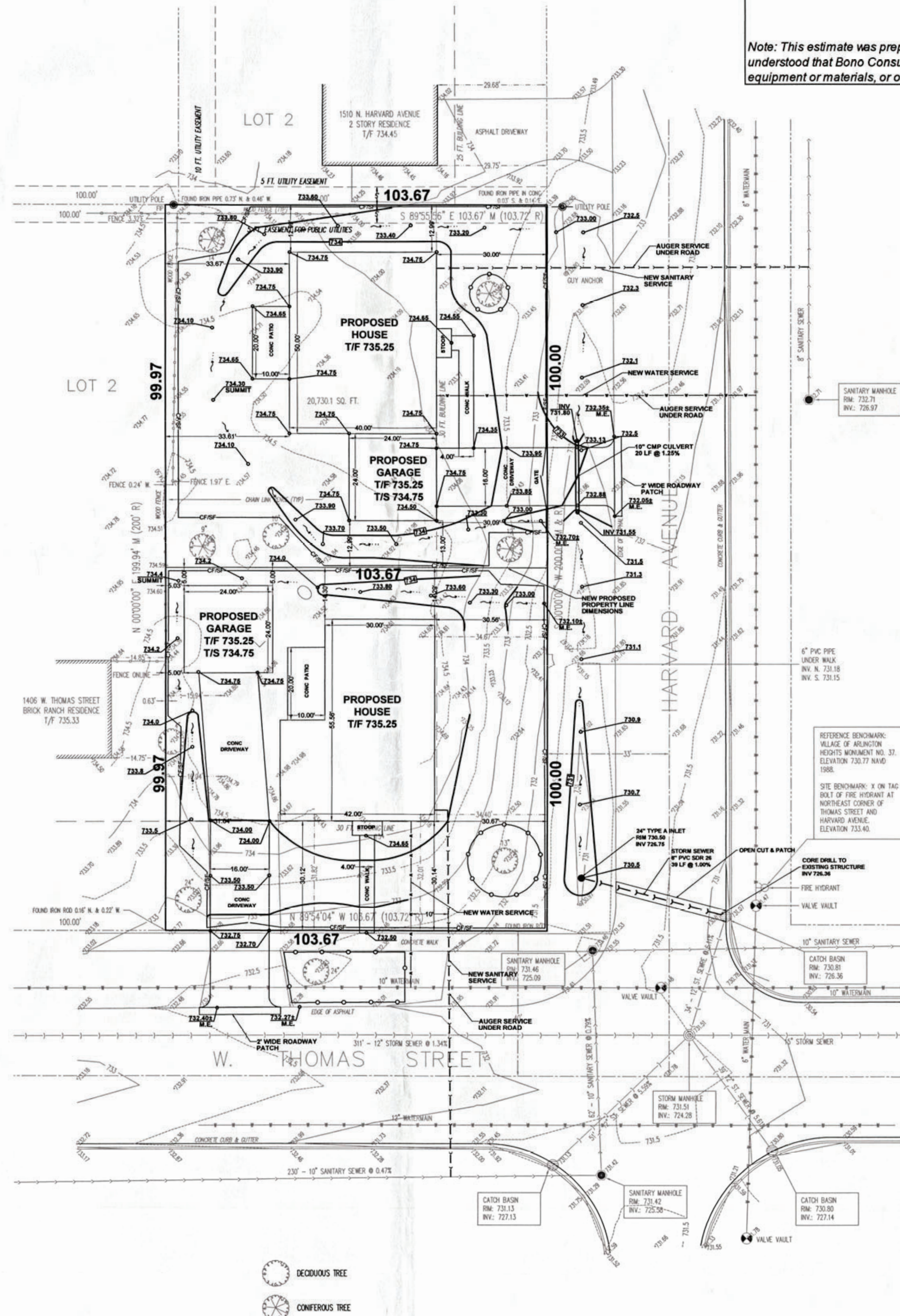
Note: This estimate was prepared using standard cost estimating practices. It is understood that Bono Consulting Inc. has no control over costs, the price of labor, equipment or materials, or over the Contractor's method of pricing.

LEGEND	
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
---	EXISTING ELEVATION
---	PROPOSED ELEVATION
---	EXISTING SANITARY
---	COMBINATION SEWER
---	PROPOSED SANITARY SEWER
---	PROPOSED COMBINATION SEWER
---	EXISTING STORM SEWER
---	PROPOSED STORM SEWER
---	EXISTING WATERMAIN
---	PROPOSED WATERMAIN
---	EXISTING GAS LINE
---	EXISTING UNDERGROUND ELECTRIC
---	EXISTING UNDERGROUND TELEPHONE
---	EXISTING UNDERGROUND CABLE
---	EXISTING TREE
---	REMOVE TREE
---	TEMPORARY TREE FENCE
---	TEMPORARY SILT / CONSTRUCTION FENCE
---	SUMP PUMP [PROPOSED/EXISTING]
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---	SWALE [PROPOSED]
---	OUTLET / POP-UP EMITTER
---	CATCH BASIN
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---	SANITARY SEWER
---	CLEANOUT
---	B BOX
---	WOOD UTILITY POLE
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---	FLARED END SECTION (F.E.S.)
---	INLET / DRAIN
---	WATER VALVE VAULT / WATER METER
---	SIGN
---	MANHOLE (UNCLASSIFIED)
---	FIRE HYDRANT
---	TREE TAG NO.
---	STOP LIGHT
---	GAS VALVE
---	ROOT PRUNE
---	TOP OF GARAGE SLAB
---	TOP OF FOUNDATION
---	TOP OF WALL

LOCATION OF UNDERGROUND UTILITIES WHERE NOT SUBSTANTIATED BY PHYSICAL EVIDENCE ARE TAKEN FROM RECORDS NORMALLY CONSIDERED RELIABLE. NO RESPONSIBILITY FOR THEIR ACCURACY IS ASSUMED BY THE SURVEYOR.

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LOCATIONS OF EXISTING UTILITY SERVICES ARE BASED ON VISUAL OBSERVATIONS. CONTRACTOR MUST CONFIRM LOCATION AND CONDITION OF ALL UTILITY SERVICES TO REMAIN.



THIS PLAN IS TO SATISFY VILLAGE OF ARLINGTON HEIGHTS REQUIREMENTS FOR A SUBDIVISION. THIS PLAN SHOWS THAT THE PROPOSED NEW LOTS WILL ALLOW ADEQUATE DRAINAGE FOR A NEW HOUSE ON THE NORTH LOT WHILE MAINTAINING DRAINAGE ON THE SOUTH LOT. THIS IS A TEMPLATE HOUSE AND WHEN A FINAL HOUSE DESIGN IS PRODUCED BY AN ARCHITECT THE ENGINEERING PLAN WILL NEED TO BE UPDATED.

DATE	REVISIONS	ISSUE	PROJECT STAFF
11-28-2018	1	1	PROJECT MANAGER
11-28-2018	2	2	ENGINEER
11-28-2018	3	3	ENGINEER
11-28-2018	4	4	ENGINEER

BCI
BONO CONSULTING, INC.
CIVIL ENGINEERS

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P.O. BOX 623-3300
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FAX: (847) 623-3303
bbono@bonoconsulting.com

PROPOSED SUBDIVISION PLAN
NEW SUBDIVISION

1400 W THOMAS ST., ARLINGTON HEIGHTS, IL 60004

PROJECT NO.:	18432
BASE FILE:	
SHEET FILE:	
ISSUE DATE:	NOV. 30, 2018
SCALE:	1"=20'
SHEET NUMBER	C-2

PLAN COMMISSION PC #18-025
1400 W Thomas St
Plat of Subdivision, Rezoning from R-E to R-3, Comprehensive Plan Amendment
Round 1 (Final Plat)

11. The petitioner is notified that these comments are being provided to ensure that the project meets the requirements for submittal to the Plan Commission. Approval by the Plan Commission is not an endorsement or approval of these documents to obtain the required building permits, engineering approval, or permits required by other government or permitting agencies for construction. Detailed plan review with associated comments will be provided upon submittal of plans for a building permit. The petitioner shall acknowledge that they accept this understanding.
12. Per the ORDINANCE AMENDING THE ZONING ORDINANCE OF THE VILLAGE OF ARLINGTON HEIGHTS AND APPROVING A PRELIMINARY PLAT OF SUBDIVISION, installation of public storm water improvements shall be required prior to issuance of a building permit for Lot 1 or Lot 2. The Village is in receipt of the Engineer's Cost Estimate and will generate the fee letter prior to the final Plan Commission meeting.
13. Final engineering plans for the shall be georeferenced by using State Plane Coordinate System – Illinois East. Below are details about projection:

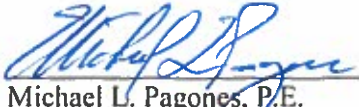
Projected Coordinate System:	NAD_1983_StatePlane_Illinois_East_FIPS_1201_Feet
Projection:	Transverse_Mercator
False_Easting:	984250.00000000
False_Northing:	0.00000000
Central_Meridian:	-88.33333333
Scale_Factor:	0.99997500
Latitude_Of_Origin:	36.66666667
Linear Unit:	Foot_US
Geographic Coordinate System:	GCS_North_American_1983
Datum:	D_North_American_1983
Prime Meridian:	Greenwich
Angular Unit:	Degree

RECEIVED
APR 26 2019
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

14. Per the ORDINANCE AMENDING THE ZONING ORDINANCE OF THE VILLAGE OF ARLINGTON HEIGHTS AND APPROVING A PRELIMINARY PLAT OF SUBDIVISION, the subject property owner shall enter into an estoppel agreement for the future public improvements within the Thomas Street and Harvard Avenue right-of-way. A copy of the estoppel agreement is included with these comments.
15. Per the ORDINANCE AMENDING THE ZONING ORDINANCE OF THE VILLAGE OF ARLINGTON HEIGHTS AND APPROVING A PRELIMINARY PLAT OF SUBDIVISION, the petitioner shall provide a \$4,716 fee in lieu of detention prior to final plat of resubdivision approval.
16. The Proposed Subdivision Plan Legal Description reference Range 13, the subject property is located in Range 11. This can be addressed at final engineering.

Final Plat:

17. The Final Plat is acceptable.


Michael L. Pagones, P.E. 4/26/19
Village Engineer Date

Attachment:
Estoppel Agreement

ESTOPPEL AGREEMENT

WHEREAS, Marcie Glueckert

and Marc Heidkamp are the owners of
the property described as:

LOT 1 IN LYNNWOOD SUBDIVISION UNIT NO. TWO, BEING A SUBDIVISION
IN THE EAST ½ OF THE WEST ½ OF THE NORTHWEST ¼ OF SECTION 19 AND
IN THE WEST ½ OF THE EAST ½ OF THE NORTHWEST ¼ OF SECTION 19,
TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL
MERIDIAN, IN COOK COUNTY, ILLINOIS.

Commonly known as 1400 W. Thomas St Arlington Heights, IL. 60004.

WHEREAS, it is the desire of the owners of said previously described
property to subdivide the property into residential lots, and

WHEREAS, the subdivision control regulations of the Village of Arlington
Heights Municipal Code requires the purchase and installation of certain public
improvements which are fully known, recognized and understood by the owner, and

WHEREAS, the Village of Arlington Heights is willing to permit the
subdivision of said lots provided that certain public improvements will be guaranteed for
future installation in the manner hereinafter set forth.

NOW THEREFORE, in consideration of the mutual covenants and
agreements as hereinafter set forth, it is agreed by and between the Village of Arlington
Heights (herein after referred to as "VILLAGE") and Marcie Glueckert and Marc
Heidkamp (herein after referred to as "OWNERS") as follows:

1. THAT the OWNERS will not object to any special assessments
which may be levied by the VILLAGE concerning curb and gutter, storm sewer
improvements, and sidewalk improvements to Thomas Street and Harvard Avenue
adjacent to the property. If the VILLAGE should determine to proceed to install the
improvements without special assessment proceeding, the OWNERS agree to proceed to
place in escrow with the VILLAGE a sum of money in the amount representing the
OWNER'S Proprietary value of the cost of said improvement or improvements. Such
funds shall be deposited with the VILLAGE within 30 days after receiving notice in
writing of the total amount to be deposited. Such dollar amount shall be determined by
the Director of Engineering. The actual amount finally expended shall be based upon
actual cost of construction and the OWNERS shall be entitled to examine the books and
records of the VILLAGE relating to the cost of such improvements.

2. This agreement shall be binding between all successors and assigns and shall be a covenant running with the land as here and before legally described.

3. This agreement shall be recorded in the Office of the Recorder of Deeds, in Cook County, Illinois.

In Witness whereof, the Parties hereto have set their hands and seal this
____ day of _____, 20__.

State of Illinois
County of Cook

I, the Undersigned, being a Notary Public in and for the County and State aforesaid, Certify that _____ and _____ stated to me to be the owners of the above described property in the Village of Arlington Heights, Illinois, did appear before me this day in person and acknowledge that they signed, sealed and delivered this instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and Notarial Seal _____, 20__.

Owner Signature

Notary

Accepted by the Village of Arlington Heights:

Village Manager

Dated: _____

Attest:

Village Clerk

Memorandum

To: Jake Schmidt, Planning & Community Development
From: Cris Papierniak, Assistant Director of Public Works
Date: May 10, 2019
Subject: 1400 W Thomas St., P.C. #18-025 round 1 Final Plat

With regard to the proposed Final Plat of Subdivision, I have the following comments:

- 1) The 8" PVC Storm Sewer must be upsized to 10".
- 2) The Village will not maintain the proposed 10" CMP under the driveway for the proposed northern house. There must be a maintenance agreement on file regarding future maintenance of this pipe. This is noted in response from rounds 2 and 3. VAHPW awaits a draft of the maintenance agreement.
- 3) The proposed property facing Thomas must address the west to east flow within the unimproved ditch line on the north side of Thomas. The grade will need to be established to move the storm water related to flow to the proposed east structure (24" inlet). The resultant culvert pipe must be maintained by the homeowner and is under the same requirement as comment #2.
- 4) Verify the condition of the sidewalk fronting Thomas after the demolition. If damage has occurred as a result of the construction, or drainage is not adequate (ponding), permittee must replace the affected squares.

VAHPW has no further comments at this time. If you have any questions, please feel free to contact me.

C. file

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MAY 13 2019
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

Village of Arlington Heights

In Response to Public Works Comments dated May 10, 2019

1. The 8" PVC Pipe has been changed to a 10" PVC per the engineering plans and will be addressed prior to permit.
2. It is understood that the village will not maintain the culverts and that the village does not require a maintenance agreement. The maintenance of the culvert will be the responsibility of the homeowner.
3. The property currently sits with an existing home on the property and the water flow from east to west is void of a culvert currently. We do not anticipate any drainage issues as there have not been any in the past decades. Currently there is no culvert or culverts that run along the North side of Thomas Ave or existing ditch between the edge of the pavement and the sidewalk.
4. Understood.

Marcie Glueckert-Heidkamp

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MAY 21 2019
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

RECEIVED
MAY 12 2019
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

Village of Arlington Heights

In Response to Plan Commissions PC #18-025

Dated 4-26-19

11. Understood

12. Understood

13. Understood

14. The Estoppel Agreement has been signed, notarized, and returned to the Village.

15. The \$4,716 fee in lieu of detention is considered permit fees and will be part of the building permit process.

16. Range 13 has been changed to Range 11

17. Understood

Marcie Glueckert-Heidkamp

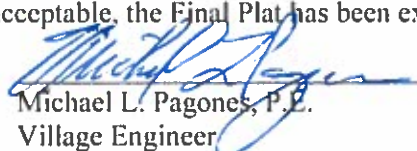
RECEIVED
MAY 21 2019
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

PLAN COMMISSION PC #18-025
1400 W Thomas St
Plat of Subdivision, Rezoning from R-E to R-3, Comprehensive Plan Amendment
Round 2 - Final Plat (Round 5 for PC#18-025)

18. The petitioner's response to Comment Nos. 11, 12 and 13 are acceptable.
19. The petitioner's response to Comment No. 14 is noted. The Village is in receipt of the executed Estoppel Agreement and is in the process of recording the document. No further action is required of the petitioner regarding the Estoppel Agreement.
20. The petitioner's response to Comment Nos. 15 and 16 are acceptable.
21. The Engineering Division has reviewed the petitioner's response to Public Works comments regarding the public improvements:
 - a. The petitioner's response that the 8" PVC pipe will be revised to a 10" PVC pipe at permit is acceptable.
 - b. The petitioner's acknowledgement that the Village will not maintain culverts is acceptable.
 - c. The petitioner's response to the requested drainage improvements along Thomas St is noted. The plans provided are for a template home. Once the plans have been finalized for a new home, the Engineering Division will assess improvements that may be necessary to the Thomas St frontage at time of permit.
 - d. The petitioner's acknowledgement that if public sidewalk along Thomas St is damaged during construction it shall be replaced is acceptable.

Final Plat:

22. The petitioner's response to Comment No. 17 is acceptable, the Final Plat has been executed by the Village.

 5/30/19
Michael L. Pagones, P.E. Date
Village Engineer

RECEIVED
MAY 30 2019
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

Memorandum

To: Jake Schmidt, Planning & Community Development
From: Cris Papierniak, Assistant Director of Public Works
Date: May 30, 2019
Subject: 1400 W Thomas St., P.C. #18-025 round

With regard to the proposed Final Plat, I have the following comments:

Response #3 – not accepted. An inspection on 5/23/19 noticed standing water in the R.O.W. – positive drainage from both properties must be achieved. We recommend a swale with proper slope to proposed inlet.

VAHPW has no further comments at this time. If you have any questions, please feel free to contact me.

C. file

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MAY 31 2019
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT



**Village Board
7/15/2019**

Item: Dogtopia - 660, 664, 668, 676 & 1000 E. Rand Rd. - PC#19-004

Department: Planning & Community Development

Requested Action

1. Special Use Permit to allow a "Kennel, Commercial".

Variations Required

1. Variation from Chapter 28, Section 6.12-1 of the Municipal Code, to waive the requirement to provide a traffic and parking study from a certified Traffic Engineer.
2. Variation from Chapter 28, Section 6.13-3(b), to allow an 8-foot tall fence where the maximum fence height is restricted to 6 feet.

Recommendation

A public hearing was held by the Plan Commission on June 12, 2019 where Commissioner Warskow moved and Commissioner Green seconded:

A motion to recommend to the Village Board of Trustees, approval of PC 19-004, a Special Use Permit to allow a "Kennel, Commercial" on the subject property, as well as the following variations:

1. Variation from Chapter 28, Section 6.12-1 of the Municipal Code, to waive the requirement to provide a traffic and parking study from a certified Traffic Engineer.
2. Variation from Chapter 28, Section 6.13-3(b), to allow an 8-foot tall fence where the maximum fence height is restricted to 6 feet.

This recommendation shall be subject to the following conditions:

1. The final design for the outdoor play area shall be limited to a maximum width of 45-feet, measured from the east side of the tenant space, so as to allow

adequate visibility and access to the tenant spaces east of the courtyard.

2. The proposed fencing shall match or complement the building.

3. A continuous row of landscaping shall be provided along the southern outer edge of the outdoor play area fencing, in order to soften the proposed 8-foot tall fence. The landscaping must consist of a mix of deciduous shrubs and evergreens, and the landscaping must be planted approximately 3-feet on center. The landscaping shall be a minimum height of 3 to 4 feet at time of installation.

4. The two existing trees within the courtyard shall remain.

5. The applicant shall comply with all applicable Federal, State, and Village Codes, Regulations, and Policies.

Roll Call Vote: Commissioners Dawson, Green, Jensen, Lorenzini, Warskow, and Chair Ennes vote in favor. Motion carried.

ATTACHMENTS:

Description	Type
PC Staff Report	Board or Commission Report
PC Minutes 6/12/19	Minutes
CPRC Minutes 2/27/19	Minutes
Aerial	Exhibits
Business Plan	Exhibits
Plat of Survey	Exhibits
Special Use Permit Justification	Exhibits
Fence Variation Justification	Exhibits
Fence Concepts	Exhibits
Traffic Study Variation Justification	Exhibits
Floor Plan	Exhibits
Outdoor Play Area Detail Plan	Exhibits
Parking Estimate	Exhibits
Department Comments - Round 1	Exhibits
Department Comments - Round 1 - Petitioner Response	Exhibits
Department Comments - Round 2	Exhibits
Department Comments - Round 2 - Petitioner Response	Exhibits
PC Timeline Tracker	Exhibits



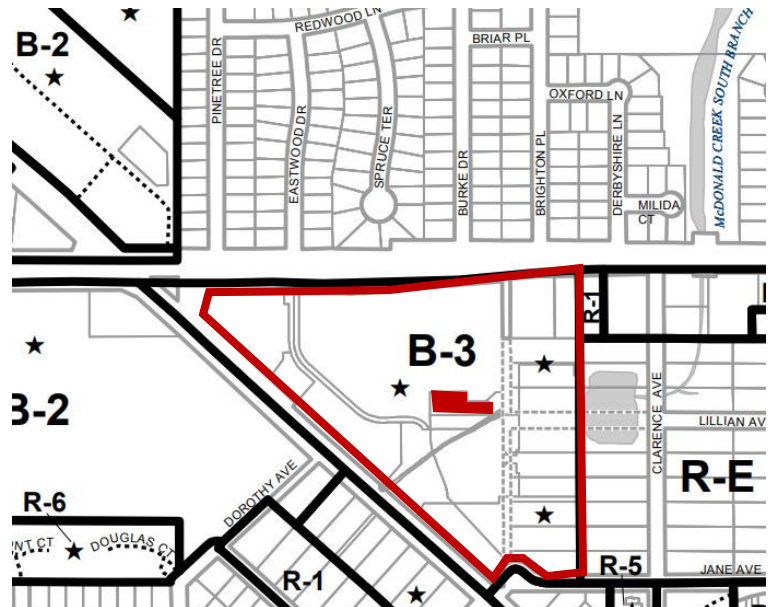
VILLAGE OF ARLINGTON HEIGHTS **STAFF DEVELOPMENT** **COMMITTEE REPORT**

Temp File Number: PC 19-004
Project Title: Dogtopia SUP
Address: 660-676 E. Palatine Rd.
PIN: 03-20-200-008-0000, 03-20-200-013-0000

To: Plan Commission
Prepared By: Jake Schmidt, Assistant Planner
Meeting Date: June 12, 2019
Date Prepared: June 6, 2019

Petitioner: Chris Barnes
 ToMac Holdings
Address: 1965 South Egret Ct
 Libertyville, IL 60048

Existing Zoning: B-3: General Service, Wholesale, and Motor Vehicles District
Comprehensive Plan: Commercial



SURROUNDING LAND USES

Direction	Existing Zoning	Existing Use	Comprehensive Plan
North	B-3, General Service, Wholesale, and Motor Vehicles District	Home furnishings retail sales business (Floor and Décor)	Commercial
South	B-3, General Service, Wholesale, and Motor Vehicles District	Multi-tenant commercial building	Commercial
East	R-E, One-Family Dwelling District	Single-Family homes and detention facility	Parks, Single-family Detached Estate
West	B-1, Limited Retail District	Multi-tenant commercial building, Motor vehicle repair facility, Fur sales and cleaning business	Commercial

Requested Action:

1. Special Use Permit to allow a “Kennel, Commercial”.

Variations Required:

1. Variation from Chapter 28, Section 6.12-1of the Municipal Code, to waive the requirement to provide a traffic and parking study from a certified Traffic Engineer.
2. Variation from Chapter 28, Section 6.13-3(b), to allow an 8-foot tall fence where the maximum fence height is restricted to 6 feet

Project Background:

The subject property is part of the Southpoint Shopping center, an approximately 27-acre shopping center development located at the southeast intersection of Rand Road and Palatine Road. The proposed location for the facility is within four currently vacant units, immediately east of Laser Quest. Primary access to the property comes from a full access drive aisle (non-signalized) at Palatine Road to the north, a full access signalized drive aisle at Rand Road to the west, and a full access non-signalized drive aisle at Jane Avenue to the south, which eventually leads to another signalized full access intersection with Rand Road.

The petitioner is Chris Barnes, representing ToMac Holdings, a franchisee of Dogtopia. The petitioner has a lease agreement to occupy the aforementioned four vacant units, and would establish a 5,727 square-foot doggy-daycare with overnight boarding. This facility would offer the following services:

- Grooming
- Pet Training
- Day Care for Dogs
- Overnight Boarding
- Outdoor Play Area
- Live-stream viewing of play areas and kennels

The proposed facility includes three large playrooms for the dogs (“Toy”, “Romper”, and “Gym”), a spa room for grooming services, a “suite” kennel room, and an outdoor play area. Their target customer, as outlined in their business summary, are female millennials and baby boomers. However, the services they offer extend to the dog-owning community at large, who seek a service that provides social interaction and play for their dog during the workday when they are not home. Hours of operation would be between 7am - 7pm on Monday through Friday, and 10am to 5pm Saturday and Sunday. For boarding operations, staff will arrive at 6:30am, and depart at 9pm. When staff is not present, boarding areas will be monitored via a security camera feed, which allows “staff” to be notified of any issues. It is anticipated that the facility will employ 15 to 20 persons once the facility reaches full operation. It is estimated that the maximum number of employees on-site at any given time will be 6 to 8 employees.

The subject property is part of the Southpoint Shopping Center PUD, which was approved in 1988. This PUD includes the subject unit as well as the building to the north, which is the home of Floor & Décor, and the outlot buildings to the west of the subject unit. The entire Southpoint Shopping Center is subject to a lengthy Reciprocal Easement Agreement (REA) that provides for shared access and shared parking between all users within the PUD.

Zoning and Comprehensive Plan

The subject property is located within the B-3 Zoning District and the proposed use is classified as a “Kennel, Commercial”, which is a special use within the B-3 Zoning District. To proceed forward, the Plan Commission must review and the Village Board must approve a special use permit for the subject property. In order to demonstrate conformance with the standards of approval for a special use permit, the petitioner has provided acceptable written justification to Special Use Permit criteria.

To substantiate the public need for this facility, the petitioner has provided a lengthy business summary that details research on target customers, area demographics, and business operations.

The subject property is designated as appropriate for commercial uses as per the Comprehensive Plan of the Village of Arlington Heights. The proposed special use permit is compatible with this designation.

TIF District

The subject property is located within TIF V, which was established in 2005 and includes both the Southpoint Shopping Center and the Town & Country Shopping Center. One of the goals of TIF V is to facilitate the redevelopment and revitalization of the Southpoint Shopping Center, be it through the introduction of a new outlet and/or through the redevelopment of the vacant spaces within the shopping center. The location of a “destination user” within the shopping center will help to bring additional traffic and customers to the other businesses within Southpoint, especially with the daily traffic generated via drop-off and pick-up of pets.

Building

Changes to the existing structure will be primarily limited to HVAC, the interior buildout, and possibly replacement of storefront windows. Regarding sound attenuation, the petitioner has indicated that they will be using fire-X drywall over insulated walls, with a 1-1/2 inch air gap, to prevent sound transmission outside of their building envelope. This would prevent any disruption to other tenants within the shopping center.

Site Plan and Landscaping

The applicant has identified one site alteration as part of the proposed special use permit application. This alteration would be the addition of an approximately 750 square-foot outdoor play area, in the open courtyard immediately east of the tenant space. It should be noted that the final design of the outdoor play area is still to be determined, however the completed play area will incorporate the elements as described in the following paragraphs. This play area would be located in a way which maintains access to the rear auxiliary parking area, preserves visibility for storefronts east of the courtyard, and allows for any future potential site modifications north of the Bif Furniture space. The open-air play area would be enclosed with a privacy screen, preventing any unwanted interaction between dogs in the play area and customers outside. The proposed privacy screen would be 8 feet in height, however code allows fences to be a maximum height of 6 feet. Therefore, the petitioner has requested the following variation:

- **A variation from Chapter 28, Section 6.13-3(b), to allow an 8-foot tall fence where the maximum fence height is restricted to 6 feet.**

In order to demonstrate conformance with the standards of approval for a zoning code variation, the petitioner has provided acceptable written justification to variation criteria.

The appearance of the proposed 8-foot tall privacy screen will be softened along the southern edge by viburnums, which will be planted outside of the privacy fence facing the parking lot. The existing landscaped areas and mature trees within the proposed play area will also be preserved.

Due to the location of the play area within Southpoint Shopping Center, as well as the proposed landscape enhancements, Staff supports this variation.

Traffic and Parking

The total parking requirement for the proposed Dogtopia facility is 19 spaces. The Southpoint Shopping Center provides a total of 1,331 on-site parking spaces, with a total code-requirement of 937 parking spaces. This results in a site-wide surplus of 394 parking spaces. Parking for the proposed use is not a concern due to this surplus.

Per section 6.12-1 of Chapter 28 of the Municipal Code, any special use permit application over 5,000 square feet in floor area must include a traffic and parking study from a certified Traffic Engineer. The petitioner has requested relief from this requirement, and is seeking the following variation:

- **A variation from Chapter 28, Section 6.12-1 of the Municipal Code, to waive the requirement to provide a traffic and parking study from a certified Traffic Engineer.**

To support this variation request, the petitioner has provided an acceptable written justification to variation criteria, in addition to an estimate of parking based upon parking utilization at an existing Dogtopia location in LaGrange.

Due to the relatively small magnitude of the space in comparison to the entire shopping center (2% of total PUD square footage), and due to the substantial code-required parking surplus on-site (394 spaces), Staff supports this variation.

With respect to bicycle parking, no additional bicycle parking spaces are required as this project does not increase the number of code-required vehicular parking spaces.

RECOMMENDATION

The Staff Development Committee recommends approval of PC 19-004, a Special Use Permit to allow a "Kennel, Commercial" on the subject property, as well as the following variations:

1. Variation from Chapter 28, Section 6.12-1 of the Municipal Code, to waive the requirement to provide a traffic and parking study from a certified Traffic Engineer.
2. Variation from Chapter 28, Section 6.13-3(b), to allow an 8-foot tall fence where the maximum fence height is restricted to 6 feet

This recommendation shall be subject to the following conditions:

1. The final design for the outdoor play area shall be limited to a maximum width of 45-feet, measured from the east side of the tenant space, so as to allow adequate visibility and access to the tenant spaces east of the courtyard.
2. The proposed fencing shall match or complement the building.
3. A continuous row of landscaping shall be provided along the southern outer edge of the outdoor play area fencing, in order to soften the proposed 8-foot tall fence. The landscaping must consist of a mix of deciduous shrubs and evergreens, and the landscaping must be planted approximately 3-feet on center. The landscaping shall be a minimum height of 3 to 4 feet at time of installation.
4. The two existing trees within the courtyard shall remain.
5. The applicant shall comply with all applicable Federal, State, and Village Codes, Regulations, and Policies.

June 7, 2019

Bill Enright, Deputy Director of Planning and Community Development

Cc: Randy Recklaus, Village Manager
All Department Heads
PC File 19-004

APPROVED

PLAN

REPORT OF THE PROCEEDINGS OF A PUBLIC HEARING BEFORE THE VILLAGE OF ARLINGTON HEIGHTS PLAN COMMISSION

COMMISSION

RE: DOGTOPIA - 660, 664, 668, 676 & 1000 EAST RAND ROAD - PC# 19-004
SPECIAL USE PERMIT, VARIATIONS

REPORT OF PROCEEDINGS had before the Village of
Arlington Heights Plan Commission Meeting taken at the Arlington Heights Village
Hall, 33 South Arlington Heights Road, 3rd Floor Board Room, Arlington Heights,
Illinois on the 12th day of June, 2019 at the hour of 7:00 p.m.

MEMBERS PRESENT:

TERRY ENNES, Chairman
LYNN JENSEN
MARY JO WARSKOW
JOE LORENZINI
BRUCE GREEN
SUSAN DAWSON

ALSO PRESENT:

BILL ENRIGHT, Planning & Community Development Deputy Director
JACOB SCHMIDT, Assistant Development Planner

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CHAIRMAN ENNES: The Arlington Heights Plan Commission is called to order. I would like to ask you all to please rise and follow us in the Pledge of Allegiance.

(Pledge of Allegiance cited.)

CHAIRMAN ENNES: Please be seated. Okay, Jake, will you do the role?

MR. SCHMIDT: Certainly. Commissioner Cherwin.

(No response.)

MR. SCHMIDT: Commissioner Dawson.

COMMISSIONER DAWSON: Yes.

MR. SCHMIDT: Commissioner Drost.

(No response.)

MR. SCHMIDT: Commissioner Green.

COMMISSIONER GREEN: Here.

MR. SCHMIDT: Commissioner Jensen.

COMMISSIONER JENSEN: Here.

MR. SCHMIDT: Commissioner Lorenzini.

COMMISSIONER LORENZINI: Here.

MR. SCHMIDT: Commissioner Sigalos.

(No response.)

MR. SCHMIDT: Commissioner Warskow.

COMMISSIONER WARSKOW: Here.

MR. SCHMIDT: Chairman Ennes.

CHAIRMAN ENNES: Here. So, we have minutes from our last meeting on two subjects. The South Arlington Heights Road overlay zoning and the Hickory/Kensington projects. Was everyone at that meeting?

COMMISSIONER LORENZINI: I was not.

CHAIRMAN ENNES: That's here tonight.

COMMISSIONER LORENZINI: I wasn't there.

CHAIRMAN ENNES: Okay, can, I trust you all have the minutes and you had a chance to review them? Can I get a motion to approve those minutes?

COMMISSIONER JENSEN: So moved.

CHAIRMAN ENNES: And a second?

COMMISSIONER GREEN: Second.

CHAIRMAN ENNES: All in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: Anyone opposed?

(No response.)

CHAIRMAN ENNES: And anyone abstaining?

COMMISSIONER LORENZINI: I abstain. I wasn't here.

CHAIRMAN ENNES: Okay, so we're good. Since projects for final plats aren't here I'm not going to move that up and we will get started with our Petitioner on Dogtopia. I would like to ask anybody that's going to talk from the Petitioner to please come forward and to swear you in.

(Witnesses sworn.)

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CHAIRMAN ENNES: Okay, state your name.

MR. BARNES: Chris Barnes

MS. BARNES: Catherine Barnes.

CHAIRMAN ENNES: Okay, now what I would like you to do is to give us your presentation and when you do that, if you would please state and spell your name for our court reporter.

MS. BARNES: Yes.

CHAIRMAN ENNES: And let us hear about the project.

MS. BARNES: My name is Catherine Barnes, C-a-t-h-e-r-i-n-e, B-a-r-n-e-s.

MR. BARNES: My name is Chris Barnes, C-h-r-i-s, B-a-r-n-e-s.

MS. BARNES: We are here for a special use permit for a location at Southport, Southpoint Shopping Center. Its address is 660 through 664 East Rand Road. We are here for a specialized business of dog daycare, dog boarding, spa and training. Our services at full capacity will be about 100 dogs a day in separate play rooms based on temperament and size of the dogs. All of the dogs will be over the age of four months old and will be of age to receive all of their shots, including canine influenza. And 65 percent of our business will be dog daycare and 22 percent will be the boarding. The rest will be split between the spa, training, and a small retail. One percent will be retail.

Demographics tells us that in the area, about five miles radius of our location, that 40 percent of the households owns dogs. That means about 50,000 in the five mile radius and 20,000 in a three mile radius. And I know that there are a few dog daycares that will be in the area, but with those numbers we feel like there's enough to go around. Do you want to go over the variances?

MR. BARNES: Yeah. So, are also requesting two variances. One is for the fence height of eight foot versus a six foot that's allowable right now. Reasons for that is essentially to stop people from peering over the fence. It's going to allow us to maintain control of the outdoor play area when the dogs are out there, so canine coaches can control behavior. And then also to avoid having any distractions with the pedestrians on the sidewalk.

The second variance is for a traffic study. So, we did provide in the special use application a study that we did. Going out to a center for three hours on a Monday and also on a Saturday, just to count cars. They were coming in and out, so that's provided over to you guys. But at the shopping center the first, there's five rows of parking immediately in front of our proposal location. The first three contain 177 parking spaces, approximately. We're going to have at any given time about six to eight employee cars at the property. The rest of our car traffic is going to be mostly drop off and pick ups. So, very short time there, minus some that are going to be there for --

MS. BARNES: Evaluations.

MR. BARNES: -- evaluations for potential customers. We also have two light egresses on Rand Road and on Palatine there's two ingress/egress and one egress. So, we feel there's plenty of wait in and out in left turns. It's not going to have an impact on traffic of the roads.

CHAIRMAN ENNES: Is that it?

MS. BARNES: That's it.

MR. BARNES: That's it.

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CHAIRMAN ENNES: Short and sweet, okay. Do we have any -- well, we won't get into that yet. Jake, will you give us the Staff report? Thank you, you can be seated.

MR. BARNES: Thank you.

MR. SCHMIDT: So, I would like to begin by just mentioning to the Plan Commission that all notices have been served for this project. As the Petitioner stated, they are here before the Commission tonight to seek a special use permit to open a Dogtopia facility in Arlington Heights. The Dogtopia in question will be located at 660 through 676 East Rand Road in the Southpoint Shopping Center. As well as within the courtyard at 1000 East Rand Road immediately east of the tenant spaces.

The subject property is zoned B-3, General Service, Wholesale and Motor Vehicle District, and is designated as Commercial on the Village Comprehensive Plan. The requested action more specifically put is a special use permit to allow a kennel commercial, which if approved, would be compatible with the underlying zoning and comprehensive plan designation.

Two variations are requested part of this petition. The first being a variation from Chapter 28, Section 6.12-12 of the municipal code to waive the requirement to provide a traffic and parking study from a certified traffic engineer. The second variation is from Chapter 28 as well, Section 6.13-3(b) to allow a eight foot tall fence where the maximum fence height permitted by code is six feet.

The 10 spaces are located in the center of the Southpoint Shopping Center, which is accessible from Palatine Road to the north, Rand Road to southwest, and Jane Avenue to the southeast. The four primary services provided by Dogtopia would be doggie daycare, as well as overnight boarding which is targeted to current clients, salon and grooming services, and retail sales. And maximum enrollment of the facility would have capacity for 100 dogs. Dogtopia would operate between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday and 10:00 a.m. to 5:00 p.m. on Saturdays and Sundays.

For overnight boarding operations, dogs would be monitored by a webcam which would alert staff to any issue should they arise. Once the facility reaches full operation, 15 to 20 person will be employed with a maximum of six to eight employees on site at any given time. The majority of the space, the Dogtopia facility, will be taken up by three playrooms for the dogs. Dogs will be separated based upon size and temperament. The other areas will be devoted to kennel suites, of which three are proposed. The dog spa/salon and the outdoor play area. The final design of the outdoor play area had not yet been determine, though there will be four primary design criteria incorporated into that final design. First of which is a maximum width of 45 feet. This will allow for adequate access and visibility to current and any future 10 spaces to the east of the courtyard as well as act as a visibility to the rear auxiliary parking area at the shopping center.

The second design criteria which will be incorporated in the final designs, a eight tall fence which will allow for adequate separation between the general public and the dogs in the play area. As a six foot tall fence is the maximum height permitted by code, variation is required. Staff supports this variation due to the location of the fence within the shopping center as well as the landscaping proposed by the Petitioner to screen and soften the appearance of the fence. This landscaping will be located along the south side of the fence adjacent to the parking area. It will consist of three to four foot tall shrubs at the time of planting. Lastly, the two

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mature trees within the courtyard will be preserved as part of the construction of the outdoor play area.

With respect to parking, parking is not a concern at this location. For Dogtopia the parking requirement is 19 spaces combined with all other uses within Southpoint. There's a total site-wide requirement of 937 parking spaces. And Southpoint provides 1,331 spaces. There is a code required surplus of 394 parking spaces. Per Section 6.12-1 of the Village Chapter 28 of the municipal code, any special use permit application over 5,000 square feet floor area must include a traffic and parking study from a certified parking engineer. The Petitioner has requested relief from this requirement and to support this request Petitioner provided written justification, a variation criteria, flows and estimate of parking demand based upon the parking utilization and existing Dogtopia facility in Lagrange.

Staff supports this variation as well for two reasons. It's due to the relatively small magnitude of the space in comparison to the entire shopping center. Dogtopia would be approximately two percent of total PUD square footage. And secondly, Staff supports this variation due to the significant code required parking surplus at the site. With respect to bicycle parking, there are no additional bicycle parking spaces required. As the project does increase the number of code required vehicular parking spaces.

In consideration of the facts, the Staff Development Committee recommends approval of this application. The special use permit and two variations, subject to five conditions as detailed in the Staff report and on this slide. The first four deal with the final design of the outdoor play area and the fifth is, that the Applicant shall comply with all applicable federal, state, and Village codes, regulations, and policies. This concludes my presentation and if there are any questions I'm happy to answer.

CHAIRMAN ENNES: Thank you, Jake. Is there a motion to accept the Staff report?

COMMISSIONER WARSKOW: I'll make such a motion.

CHAIRMAN ENNES: Second?

COMMISSIONER DAWSON: Second.

CHAIRMAN ENNES: All in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: Any oppose?

(No response.)

CHAIRMAN ENNES: Okay, so to -- any Commissioners have questions of the Petitioner?

COMMISSIONER JENSEN: Yes, I just have a couple of them, questions mainly for information worth anything. The mall that you're in is rather desolate. There's hardly anything else around there that's, that is in operation, but what concerns me more is that the parking and the roads are disastrous. I drove over there and I think I may have to replace my shock absorbers and a number of other things. So, is the landlord going to do anything about, or is there anything you are going to do about parking and roads to let people get in and out without destroying their vehicle?

MR. BARNES: This is. So, part of our lease negotiation, obviously, it's a tired shopping center. And our landlord has a pretty soft history of bringing some of these things backs, so part of our lease negotiations involve them replacing our roof, replacing our HVAC, but

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also a new pair of the caps. They're re-painting the eaves on the outside doing some repairs. And then we also required a mill and overlay. And that work was supposed to start May 15th, but because of some contingency until the special use is done. It hasn't started yet, but it is to be completed this year.

COMMISSIONER JENSEN: So, the road, at least the roads to your place and parking around your place will be improved, if not throughout a larger area?

MR. BARNES: Yes.

MS. BARNES: Yes.

MR. BARNES: We actually spec'd out two-inch mill and overlay on those areas.

COMMISSIONER JENSEN: Okay, great. The other question, you provide a lot of real great services and I'm sure I'll want to take advantage of those because I have a couple dogs; but how robust is your business plan in terms of the four services you are going to offer? Can you really be competitive, especially with PetSmart, Petco, and others? Especially, you have trainers that have more education, certification, as so forth, and I don't think that's the kind of people who take care of the dogs at PetSmart, so it's hard for me to see how you're going to remain competitive in that, or the other three services.

MS. BARNES: Yep, so Dogtopia is a franchise and currently they are, we about to actually open our 100th store in Deer Park. Part of what differentiates us is the training for our canine coaches. They brought in dog specialists to actually build out a program of how to understand when the dog's temperament, understand how dogs play, when they look like they maybe getting into a fight, you know, how to break that up without actually getting hurt and injured. So, safety first. Think about safety of the dogs and safety of the team members. So, that's one thing that differentiates us.

The training is extensive and they go through a training on-hand before we put them into the room. We also have multiple canine coaches in one room, so one can, so they can kind of feed off each other and watch the activity of the dogs. They also have, what we like to call, you know, organized play. And it's not just letting the dogs run free and let them do their own things, but almost guiding them and training them as they are in the room with them for six to eight hours a day. There are times that the dogs will get a rest. Two hours in the middle of the day so there's time to clean and also just time to give the dogs a rest. And we also recommend that dogs only come in about three times a week because they can get agitated and they can get, you know, five days it can get, you know, kind of cranky and so fights would break out or they just may want to come home.

So, we have specialists that, were provided by Dogtopia as part of our franchise agreement we had access to, to this, you know, specialty and expertise so that our team is trained. The difference, also the difference between PetSmart and Petco is that they're more boarding and then have introduced the daycare. We are daycare, and daycare is our bread and butter. So, we have built programs around the daycare, and not necessarily just boarding the dogs. So, any dog that is actually boarded will also be part of daycare and there is, there's known studies, Dogtopia has been open since 2002. There's known studies from the franchises that have been opened longer than the dogs that have come in that have, maybe had some, some issues with maybe temperament or just being hyperactive or over-active; being in that atmosphere it actually does train them and it calms them and so they're learning while they

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are there. So, it's not just come in and play. We want to teach them; we want to educate, and we actually want to make it a better, safer place for the dog to be.

COMMISSIONER JENSEN: I'm very impressed with all the services, but my question goes to the economics of it. Can you over the long run remain competitive in terms of price, even though you may charge a little more because you provide more, but you're providing a lot more. Can you really stay competitive with the other providers of those services.

MS. BARNES: Yes.

MR. BARNES: We can. And we board at PetSmart ourselves. We have two dogs. Been boarding for years and years. So, if you were to look at, if you drop your dog off for the weekend; we all love them. You are going to give them the boarding plus the daycare, so they're not locked up all weekend and if you look at price points, again, PetSmart is a boarding company that has ancillary income through daycare. We're the exact opposite, but if you were to look at boarding and daycare for a full day package, we'll actually be similar price and possibly a couple dollars cheaper. And another piece of it too, being that I have work, PetSmart, we call our, we call them everyday to see how the dogs are doing. We have cameras in every room. So, if you're a pet parent and you want to see how Fluffy's doing you can actually log-on through a app on your phone and you can see your dog's playing which PetSmart does not offer.

COMMISSIONER JENSEN: Well, I'm very impressed with your proposal and I'm looking forward to you proceeding, so you have my support. I just wanted to make sure that something was going to be done with the parking and roads and that you actually can remain in business.

MS. BARNES: Yes.

COMMISSIONER JENSEN: So, that's all I have with questions.

MS. BARNES: Let me add, I can add a lot bit more about the history of Dogtopia as well. The stores that have been in business have seen a 32 percent growth year over year. As we've looked at different models, marketing, bringing different services in, and really the growth of Dogtopia. So, we're, we sign on our franchise in 2017; there were no Dogtopia's. There will be five Dogtopia's in the Chicagoland area by the time we open. So, brand recognition and it's the fastest growing franchise right now for dog daycare services. So, you'll see Dogtopia's start growing. So, when you talk about, can we stay competitive, we actually are coming up to the point where we are trying to have them be as competitive as we can be.

COMMISSIONER JENSEN: Thank you.

CHAIRMAN ENNES: Anyone else?

COMMISSIONER LORENZINI: So, you're going to put up an eight-foot fence because you don't want people peering over; so I assume it's going to be a solid fence?

MR. BARNES: It will, yes. So, the application has three potential proposed designs. We have, they're all maintenance free vinyl-based materials, so there is, a kind of your standard white vinyl fence. There's a wood-look and then also a stone-look. There is silver in Deer Park; I'm not sure what the address is, but there's a brand new Dogtopia that has that same type of fencing up. It's a maintenance free vinyl-based material.

COMMISSIONER LORENZINI: Okay, if I'm looking at the floor plan you've got so many dogs in each of the rooms, but I'm counting crates. It seems like there's only half numbers of crates as the number of dogs designated for that room.

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MS. BARNES: With the boarding in the three crates --

COMMISSIONER LORENZINI: Well --

MS. BARNES: -- in the three boarding room suites?

COMMISSIONER LORENZINI: Yes, the romper, the gym and the toy, those have crates showing on them and the number of dogs, but the number of dogs exceed the number of crates shown. So, are those crates, or are they pens, or --

MS. BARNES: Well, they will be crates. So, each of the playrooms, they do have crates because that's where there go to take their two-hour break, and that's also for boarding to be there. We will have the number of crates will match the number of dogs that we have, so there won't be, it will be even, so dogs to the number of crates.

COMMISSIONER LORENZINI: Where do dogs go to relieve themselves?

MS. BARNES: They will go inside. So, we do have an extensive cleaning program that, if an accident does happen that we have an extensive, kind of cleaning program, that will, the canine coaches will stop, clean up any mess, double bag, put the waste into a sealed bin and then all of the waste would go out in the evening. And we actually had talked about having frequency of the waste pick-up to be twice based on the waste we are putting outside.

COMMISSIONER LORENZINI: Okay, that's all I have. Thank you.

MR. BARNES: Just really quick, too, so Dogtopia has worked Ecolab to create a suite of products that they use for cleaning. They're compatible with the flooring materials and the FRP on the walls. So, they have tested these materials with the stuff that happens with the dogs just to make sure it's going to sanitize correctly.

COMMISSIONER LORENZINI: Thank you.

CHAIRMAN ENNES: Anyone else?

COMMISSIONER DAWSON: I'm going to wait for audience comment.

CHAIRMAN ENNES: Okay. I have a couple questions. You are the operators under the franchise agreement, right?

MR. BARNES: Correct.

CHAIRMAN ENNES: Do you have experience with the running or working at this type of facility?

MR. BARNES: Well, so I work in childcare myself, so --

CHAIRMAN ENNES: Okay, I'm not even going to go there.

MR. BARNES: They're, they are surprising similar businesses. So, I work at KinderCare. I oversee facilities for about 435 KinderCare locations in six states, so I spend a lot of my days with little kids and stinking diapers and those sort of things. So, I have my own dogs. I've never run a dog care business, but what I do for my career does surprisingly coincide with doggie daycare fairly well in how you treat your client and how you oversee them.

MS. BARNES: And we've both been in retail and customer service type industry most of our career. We both actually have facility background, but we do have the customer experience, I guess, experience.

MR. BARNES: Yes.

CHAIRMAN ENNES: Okay, the fence in area outside that's the only place where you really have an eight-foot fence, just in that outdoor play area?

MR. BARNES: Correct.

APPROVED

CHAIRMAN ENNES: Is there going to be a cover on top of that?

MR. BARNES: No, it's an open top.

CHAIRMAN ENNES: Okay. You won't have any dogs big enough that they go over an eight-foot fence?

MR. BARNES: That's why we are asking for an eight feet.

MS. BARNES: Eight feet. And they're never unattended. So, there's always a canine coach with the dogs in the rooms on the inside and the rooms on the outside. They would never be left out there by themselves.

CHAIRMAN ENNES: Okay. I just ask that because I've watched some of these amazing pet movies and you can't believe what dogs get in and out of.

MS. BARNES: Huskies are notorious escape artists, so –

CHAIRMAN ENNES: Climbers?

MS. BARNES: -- you have to watch them. Yes.

CHAIRMAN ENNES: And when you're going to be boarding dogs, is there a maximum time people can board a dog with you?

MS. BARNES: We do know that some franchise owners are allowing up to a month –

CHAIRMAN ENNES: Okay.

MS. BARNES: -- if they're traveling abroad. We haven't really discussed if there's, you know, over an extended period of time, but if someone came in and needed to board them for a month then I'm sure we can accommodate.

CHAIRMAN ENNES: Okay. With some of the other dog care facilities that we've had, what type of property is to the east of your facility there in the shopping center; that's residential right back there, right?

MR. BARNES: Well, so, directly to the east if you're in – are you talking about the same Southpoint shopping center?

CHAIRMAN ENNES: Right, right.

MR. BARNES: So, right next door to us there is, I believe, it's about 100,000 square foot building. It's a Biff's Furniture and then some vacant space which I believe right now is for sale.

CHAIRMAN ENNES: Okay.

MR. BARNES: Directly behind there's a giant beat-up parking lot that I think there's some future plans for that I'm not aware of. And then there's some residential once you cross, when you cross outside the bounds of the shopping center.

CHAIRMAN ENNES: Okay. Did Staff have concerns about possible noise and odor. How is that resolved to your satisfaction?

MR. SCHMIDT: Petitioner addressed early in the process what type of systems they'd be including. They'll be including a wall system which is sound attenuating as well as a very intense HVAC system with filtration that will eliminate odors and bacteria.

CHAIRMAN ENNES: Waste when it's taken out, is that going to be stored outdoors in a dumpster or something?

MR. BARNES: It will and then we're planning on two-time per week trash pick-up.

CHAIRMAN ENNES: Okay. You're planning on that, but you're not

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committed to it?

MR. BARNES: I'm committed to that.

CHAIRMAN ENNES: Okay.

MR. BARNES: I don't want to smell it either.

CHAIRMAN ENNES: Okay. That's all I have. You guys can sit down if you want.

MR. BARNES: Thank you.

CHAIRMAN ENNES: Is there anyone in the audience that would like to comment?

(No response.)

COMMISSIONER WARSKOW: I'd like to make a motion?

CHAIRMAN ENNES: Well, wait. Commissioner Dawson?

COMMISSIONER DAWSON: I was just waiting to see if anyone – I don't have any questions. We actually use Dog Play Day Care. Their website might be outdated, but they're great. And their taxi service is awesome. So, we're very, very familiar with daycares. We've got two dogs. They frequent them. Actually, their going to be put in doggie juvie right now because there was a little incident at daycare. So, now they're going to a special daycare for dogs that need to be re-trained.

CHAIRMAN ENNES: I think that's what they were talking about.

COMMISSIONER DAWSON: Oh, no, this is a different – it's like boot camp for dogs. But anyway, so I think to address what you're saying, I think there's plenty of space in Arlington Heights for another daycare. It's convenience. You know, we go to Dog Play Day Care because it's close to where we're at. We probably wouldn't head up your way, but if I lived near you I would definitely go there. It sounds like a fabulous daycare facility. I would be, I'd feel comfortable sending my dogs there if they weren't at doggie juvie.

CHAIRMAN ENNES: Okay. Mary Jo?

COMMISSIONER WARSKOW: Yes, I'll make the motion.

A motion to recommend to the Village Board of Trustees approval of PC# 19-004, a special use permit to allow a "Kennel, Commercial" on the subject property, as well as the following variations:

- 1. Variation from Chapter 28, Section 6.12.1 of the municipal code, to waive the requirement to provide a traffic and parking study from a certified traffic engineer.**
- 2. Variation from Chapter 28, Section 6.13-2(b), to allow an 8-foot tall fence where the maximum fence height is restricted to 6-feet.**

This recommendation shall be subject to the following conditions:

- 1. The final design for the outdoor play area shall be limited to a maximum width of 45-feet, measured from the east side of the tenant space, so as to allow adequate visibility and access to the tenant spaces east of the courtyard.**

APPROVED

2. The proposed fencing shall match or complement the building.
3. A continuous row of landscaping shall be provided along the southern outer edge of the outdoor play area fencing, in order to soften the proposed 8-foot tall fence. The landscaping must be planted approximately 3-feet on the center. The landscaping shall be a minimum height of 3 to 4-feet at time of installation.
4. The two existing trees within the courtyard shall remain.
5. The Applicant shall comply with all applicable federal, state, and Village codes, regulations, and policies.

CHAIRMAN ENNES: Is there a second?

COMMISSIONER GREEN: Second.

CHAIRMAN ENNES: Can we get a roll call vote?

MR. SCHMIDT: Commissioner Dawson.

COMMISSIONER DAWSON: Yes.

MR. SCHMIDT: Commissioner Green.

COMMISSIONER GREEN: Yes.

MR. SCHMIDT: Commissioner Jensen.

COMMISSIONER JENSEN: Yes.

MR. SCHMIDT: Commissioner Lorenzini.

COMMISSIONER LORENZINI: Yes.

MR. SCHMIDT: Chairman Ennes.

CHAIRMAN ENNES: Yes.

MR. SCHMIDT: Commissioner Warskow.

COMMISSIONER WARSKOW: Yes.

MR. SCHMIDT: Commissioner Cherwin.

(No response.)

MR. SCHMIDT: Commissioner Drost.

(No response.)

MR. SCHMIDT: Commissioner Sigalos.

(No response.)

CHAIRMAN ENNES: Okay, so you've gotten, received 100 percent approval from the Plan Commission and you'll be hearing from Staff if you haven't already as to when you will be able to go before the Village Board.

MR. BARNES: Thank you.

MS. BARNES: Thank you.

CHAIRMAN ENNES: Okay, good luck.

(Whereupon, at 7:55 p.m., the above-mentioned petition was adjourned.)

REPORT OF THE PROCEEDINGS OF
THE CONCEPTUAL PLAN REVIEW COMMITTEE

OF THE VILLAGE OF ARLINGTON HEIGHTS PLAN COMMISSION

HELD AT VILLAGE HALL ON:

February 27, 2019

Project Title: Dogtopia
Address: 660-676 E. Rand Rd.
 Arlington Heights, IL 60004

Petitioner: Chris Barnes
 ToMac Holdings
 1965 South Egret Ct
 Libertyville, IL 60048

Requested Action:

1. Special Use Permit to allow a "Kennel, Commercial".

Variations Required:

2. Variation from Chapter 28, Section 6.12-1 of the Municipal Code, to waive the requirement to provide a traffic and parking study from a certified Traffic Engineer.

Attendees: Chris Barnes, Petitioner, ToMac Holdings
 Catherine Barnes, ToMac Holdings
 Jay Cherwin, Plan Commissioner
 John Sigalos, Plan Commissioner
 Bruce Green, Plan Commissioner
 Lynn Jensen, Plan Commissioner
 Jake Schmidt, Assistant Planner
 Sam Hubbard, Development Planner

Project Summary:

The subject property is part of the Southpoint Shopping center, an approximately 27-acre shopping center development located at the southeast intersection of Rand Road and Palatine Road. The proposed location for the facility is within four currently vacant units, immediately east of Laser Quest. Primary access to the property comes from a full access drive aisle (non-signalized) at Palatine Road to the north, a full access signalized drive aisle at Rand Road to the west, and a full access non-signalized drive aisle at Jane Avenue to the south, which eventually leads to another signalized full access intersection with Rand Road.

The petitioner is Chris Barnes, representing ToMac Holdings, a franchisee of Dogtopia. The petitioner has a lease agreement to occupy the aforementioned four vacant units, and would establish a 5,220 square-foot doggy-daycare with overnight boarding. This facility would offer the following services:

- Grooming
- Pet Training
- Day Care for Dogs
- Overnight Boarding
- Outdoor Play Area
- Live-stream viewing of play areas and kennels

The proposed facility includes three large playrooms for the dogs ("Toy", "Romper", and "Gym"), a spa room for grooming services, a "suite" kennel room, and an outdoor play area. Their target customer, as outlined in their business summary, are female millennials and baby boomers. However, the services they offer extend to the dog-owning community at large, who seek a service that provides social interaction and play for their dog during the workday when they are not home.

Hours of operation would be between 7am - 7pm on Monday through Friday, and 10am to 5pm Saturday and Sunday. For boarding operations, staff will arrive at 6:30am, and depart at 9pm. When staff is not present, boarding areas will be monitored via a security camera feed, which allows "staff" to be notified of any issues. It is anticipated that the facility will employ 15 to 20 persons once the facility reaches full operation. It is estimated that the maximum number of employees on-site at any given time will be 6 to 8 employees.

The subject property is part of the Southpoint Shopping Center PUD, which was approved in 1988. This PUD includes the subject unit as well as the building to the north, which is the home of Floor & Décor, and the outlot buildings to the west of the subject unit. The entire Southpoint Shopping Center is subject to a lengthy Reciprocal Easement Agreement (REA) that provides for shared access and shared parking between all users within the PUD.

Meeting Discussion:

Mr. Barnes began by explaining that he was seeking to open a Dogtopia doggy-daycare facility. Dogtopia is a franchise, with 85 locations nationwide. He has already signed a lease for the 5,600 square-foot tenant space at the subject property.

Commissioner Green asked the petitioner to provide some additional background.

Mr. Barnes explained that Dogtopia provides dog-centric services. The primary service offered would be doggy-daycare (approximately 65% of total business), though overnight boarding would also be offered as a small portion of the business. Morning drop-off and afternoon pick-up will bring approximately 70 vehicles into the site.

Commissioner Green noted that the subject site has plenty of parking.

Mr. Barnes continued, stating that the focus of the business is to provide great service to dog owners and lovers, and would drive additional traffic to the shopping center and area businesses. The subject site was chosen as it is a perfect "halfway point" between homes and the highway, which makes it easy for customer drop-off and pick-up of their animals. This allows for their clientele, referred to as "pet parents", to coordinate the drop-off/pick-up with other activities such as buying morning coffee, picking up dry-cleaning, etc.

Commissioner Green stated that he thinks that the proposed facility would be a great use for the site.

Mr. Barnes stated that 65% of the business is doggy-daycare, and added that approximately 15% would be overnight boarding. Boarding would be targeted towards current clients. The facility would also offer a "salon" as a small portion of the business, which provides nail trimming and similar grooming services. Approximately 5% of the business would be retail.

Commissioner Green asked Mr. Schmidt to provide the Staff perspective.

Mr. Schmidt began by stating that the petitioner is proposing to operate a Dogtopia facility. The subject property is zoned B-3, and allows commercial kennels as a Special Use. The petitioner is seeking Special Use Permit approval to operate the proposed facility (classified as a "Kennel, Commercial), which requires Plan Commission review and Village Board approval. The petitioner has signed a lease to occupy four tenant spaces at 660-676 E. Rand Road, immediately east of Laser Quest, with the intent to operate a doggy-daycare with overnight boarding. The facility would offer grooming, pet training, day care for dogs, overnight boarding, an outdoor play area, and live-stream viewing of the play areas and kennels. The proposed facility would include three large playrooms for dogs, a spa room for grooming services, and a suite kennel room in addition to the outdoor play area. Their targeted customers would be the dog-owning community at large, who seek a service that would provide social interaction and play for their dog during the workday when they are not home.

The hours of operation would be 7:00am to 7:00pm on Monday through Friday, and 10:00am to 5:00pm on Saturday and Sunday. For boarding operations, staff would arrive at 6:30am and depart at 9:00pm. When staff is not present, boarding areas will be monitored via a security camera, which allows staff to be notified of any issues. It is anticipated that the facility

will employ 15 to 20 persons once the facility reaches full operation. The maximum number of employees on-site at any given time will be 6 to 8 employees. In order to demonstrate compliance with the standards of approval for a Special Use Permit, the petitioner must provide written justification to the Special Use criteria as outlined in the Plan Commission Application Packet. In order to substantiate the public need for this type of facility, typically the petitioner is required to provide a market study that evaluates the demand for a facility of this type and size at this location. The study would address the potential effect this facility would have on similar facilities within the vicinity. As part of the Conceptual Plan Review Committee process, the petitioner has provided a lengthy business summary which details target customers, demographics, and operations. Staff will evaluate if this business summary is sufficient for the purposes of substantiating the public need for this facility.

The subject property, within Southpoint Shopping Center, is designated as appropriate for commercial uses per the Comprehensive Plan. The proposed special use permit is compatible with this designation. The Southpoint Shopping Center is governed by a set of covenants and restrictions established during the original construction of the shopping center, which may be applicable to the proposed use. If not discussed during leasing process, the applicant is advised to obtain a copy of the covenants and restrictions for the shopping center to determine if the proposed use would be affected by these documents.

The subject property is located within TIF V, which was established in 2005 and includes both the Southpoint Shopping Center and the Town & Country Shopping Center. One of the goals of TIF V is to facilitate the redevelopment and revitalization of the Southpoint Shopping Center. Dogtopia is a destination user, and the location of a destination user within the shopping center will help to bring additional traffic and customers to the other businesses within Southpoint, especially with the daily traffic generated via drop-off and pick-up of pets. The petitioner is also encouraged to reach out to the Building Department early on in this process in order to understand the extent of any building upgrades/improvements that may be needed. The proposed use of the space may change the occupancy classification per Building Code, and if so the unit would be required to update to current life safety, accessibility, and building code standards. Regarding sound attenuation, the petitioner has indicated that they will be using fire-X drywall over insulated walls, with a 1-1/2 inch air gap, to prevent sound transmission outside of their building envelope. This would prevent any disruption to other tenants within the shopping center. The applicant has identified one site alteration as part of the proposed special use permit application. This alteration would be the addition of an outdoor play area, in the open courtyard immediately east of the tenant space. The outdoor play area would be configured in way which maintains access to the rear auxiliary parking area, as well as allows for any future potential site modifications north of the Bif Furniture space. The open-air play area would be enclosed with a privacy screen, preventing any unwanted interaction between dogs in the play area and customers outside. Staff encourages the utilization of high-quality materials in the construction of the privacy screen, in addition to landscaping to soften the appearance of the screen. During the formal Plan Commission review process, staff will evaluate the condition of the parking lot to determine if any repairs, resurfacing, or restriping is needed. Additionally, staff will also evaluate the existing site landscaping to ensure that it conforms to all code requirements.

Per the Staff analysis, a total of 17 spaces would be required for the proposed Dogtopia facility, leaving a site-wide surplus of 412 parking spaces. Parking is shared throughout the center, and there is no parking area specifically dedicated to the proposed Dogtopia tenant space. Per section 6.12-1 of Chapter 28 of the Municipal Code, any special use permit application over 5,000 square feet in floor area must include a traffic and parking study from a certified Traffic Engineer that assesses access, on-site circulation, parking, trip generation, and impacts to adjacent roadways. However, due to the relatively small magnitude of the space in comparison to the entire shopping center, which is 2% of total PUD square footage, and due to the substantial code-required parking surplus on-site, 412 spaces, Staff supports a variation from this requirement.

If a variation is requested, the petitioner will need to provide a written response to the hardship criteria in order to justify the variation, as listed in the Plan Commission Application Packet. The petitioner shall also provide Staff with an estimate of parking demand. With respect to bicycle parking, the provision of bicycle parking spaces is required when there is a requirement for additional off-street motor vehicle spaces. As there is no change in the number of required vehicular spaces for the proposed Dogtopia from the previous use, no additional bicycle parking spaces are required as part of this petition.

The Staff Development Committee reviewed the proposed special use permit to allow a "Kennel, Commercial" on the subject property, and is generally supportive of the application, subject to resolution of the provision of a written justification to the

Special Use Permit and Variation Criteria, an estimate of parking demand, and a market study if it is determined that the provided business and demographic information within the business summary is insufficient. Additionally, missing or deficient landscaping identified by Staff must be provided or replaced, and the petitioner shall provide details on any proposed fencing and screening for the exterior play area.

Commissioner Cherwin stated that his primary questions were regarding sound attenuation and pick-up/drop-off operations, which were addressed. He asked if the petitioner had examined the restrictive covenants prior to executing the lease.

Mr. Barnes stated that he had not.

Commissioner Cherwin recommended that the petitioner research the restrictive covenants, as they may impact his business. Neighbors could take action against the petitioner should the covenants be violated. He stated that he believed the proposed use would be an excellent fit for the subject site.

Commissioner Sigalos asked for clarification on where the proposed outdoor play area would be located.

Mr. Barnes indicated that it would be located to the east of the tenant spaces.

Mrs. Barnes indicated the location of the play area on the site plan. She added that the proposed fencing would be a privacy fence.

Commissioner Sigalos stated that on the elevations multiple doors were shown. He asked if ingress and egress would be allowed through all doors.

Mr. Barnes indicated that all ingress and egress would be through the front door only.

Mrs. Barnes added that the only way into the play area would be through the tenant space.

Commissioner Sigalos indicated that he believed the project was a good use for the site.

Commissioner Jensen stated that he believed the proposed facility would be a good use for the site, and that as an empty-nester with two dogs he believed it was a good service. He asked what differentiates their business from other establishments such as PetSmart.

Mrs. Barnes explained that cleanliness is one of the differentiating factors separating their business from others. Dogtopia has an established cleanliness routine and uses cleaning products that are not harmful to the environment or to the dogs. Training and coach interaction is another differentiating factor. Controlled play is used within the play area versus “free-range” play. Branding is another factor; the design of the locations leads individuals to believe the location is a spa or salon. Camera access is also provided, which allows customers to view their pets. Twelve-step tours are also provided to customers, so that they will see where their pets will be throughout the day. PetSmart does not offer tours of their facility. Strict rules are also enforced at Dogtopia regarding separation of dogs by size, so that smaller dogs are never at risk.

Commissioner Jensen asked where the boarding of dogs would take place.

Mr. Barnes indicated the location of the boarding room on the plan. Four “suites” are provided.

Mrs. Barnes added that crates are provided within the playrooms as well. There is a 2-hour break during the day, and dogs are moved into the crates for naptime. Some customers opt for the playroom crates, and others choose the “suites” for overnight boarding.

Commissioner Jensen asked if half-days were offered.

Mrs. Barnes stated that only full-day daycare is offered. Taking dogs in and out of the playroom reduces the control that Dogtopia encourages. Pricing is competitive with competing businesses. Memberships are offered which reduce the cost for daycare. Packages are also offered which offer more competitive pricing. It is better for the dogs to remain in the facility for a full-day. Customers are encouraged to only bring their dog in every other day, so that the dogs have a break and will not be over stimulated.

Commissioner Jensen asked if Dogtopia would be competitive with PetSmart.

Mr. Barnes stated that PetSmart is primarily focused on boarding. Customers at PetSmart pay for boarding, and daycare is an upcharge. PetSmart costs are approximately \$50 a night for boarding, with a \$12 upcharge for daycare. Dogtopia offers \$36 per day for daycare. Boarding is offered at \$50 a night with daycare included.

Commissioner Jensen stated that he believed the business was a great idea and the subject site was a great location.

Commissioner Green asked if the glass storefront would create an issue with respect to noise.

Mrs. Barnes stated that the glass would be insulated.

Commissioner Green asked if the landlord would be providing the insulated glass.

Mr. Barnes indicated that he did not have a commitment from the landlord on replacement of the glass, however the windows may need to be replaced. Both the windows and parking lot may be repaired by the landlord if needed. They are located next to a furniture store and a laser tag establishment. He does not believe noise will impact either of these businesses.

Commissioner Green agreed, and stated that he believed that it was a good location.

Mr. Barnes added that branded decals would be placed on the windows, so that interaction between the public and dogs is reduced.

Mrs. Barnes stated the building would never be 100-percent soundproof.

Commissioner Green stated that he understood that.

Mrs. Barnes added that every step would be taken to minimize sound as much as possible.

Mr. Barnes added that the landlord would be installing a new HVAC system for the facility, with components which will kill airborne bacteria and mitigate odor issues.

Commissioner Green stated that the proposal was very well planned.

Mrs. Barnes stated that many of the issues were already addressed via Dogtopia's brand standard.

Commissioner Sigalos asked what the cost would be for 1 week of boarding.

Mr. Barnes reiterated that the cost for boarding was \$50 a night.

Mrs. Barnes reiterated that memberships and packagers were offered that could reduce the price. The price of boarding includes daycare and food, which is prepared on-site. Bedding could be brought in for individual pets.

Commissioner Jensen asked if the petitioner intended to bring specialized documents included in the Business Plan to the Plan Commission.

Mrs. Barnes confirmed she would. Dogtopia provides a template for the business plan, but the information within the plan is site-specific.

Commissioner Jensen asked when the petitioner hoped to open.

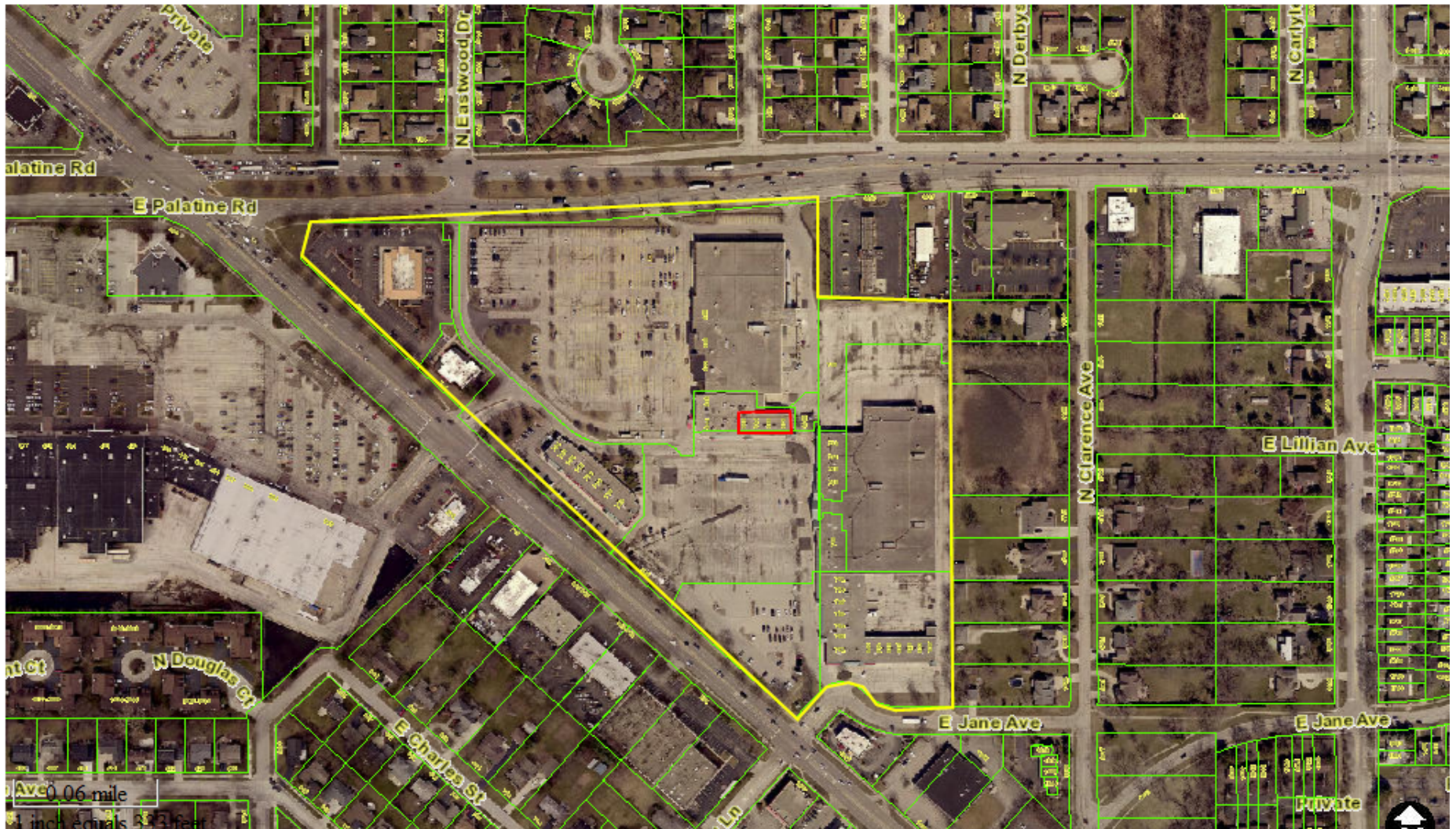
Mr. Barnes indicated they were planning to open October 15th.

Commissioner Jensen stated that the proposal was a great project.

RECOMMENDATION

The Conceptual Plan Review Committee advised the petitioner to proceed forward with their application.

Bruce Green, Chair
CONCEPTUAL PLAN REVIEW COMMITTEE
Jake Schmidt, Recorder



Map created on February 22, 2019.

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Addresses and Parcel Lines for Photo View

Parcel Boundary





ToMac Holdings, INC

DBA Dogtopia Arlington Heights

Business Plan

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Executive Summary

ToMac Holdings, Inc. is a franchise owner of Dogtopia, the industry leader in dog daycare and boarding with highly sophisticated, safe, and strikingly clean and branded stores all across the country and Canada. With new corporate leadership in 2015, Dogtopia has shown amazing growth both in the number of franchises and profitability of those franchises. ToMac Holdings, Inc. anticipates the same growth and profitability as many of the new Dogtopia franchise owners with positive cash flow beginning in month seven. ToMac Holdings, Inc. will mainly focus on dog daycare and utilizing the combined marketing and operational skills of its owners, Catherine and Chris Barnes, to surpass company wide averages for profitability and growth.

ToMac Holdings, Inc. is currently focused on finding the best location with focus on the northern suburbs of Chicago, IL. Currently, ToMac Holdings, Inc. is in negotiations to lease a 5,600 sq. foot space at Southpoint Shopping Center in Arlington Heights, IL. ToMac Holdings Inc. will DBA as Dogtopia of Arlington Heights after a full lease execution. The **REGIONAL RETAIL CORRIDOR** of East Rand and Palatine Road serves over 1.5 Million SF of Retail in immediate area and Southpoint is across the street from Best Buy, Marshalls, Dicks. The **HIGH TRAFFIC** count of Rand Road, which sees approximately 26,700 VPD and Palatine Road which sees approximately 28,700 VPD to give a total of 55,400 VPD. The convenience for our pet parents there is **EASY ACCESS** with Traffic Light at Two Entrances to Center and is 1.2 Miles from IL-53 Full Interchange. Our target market includes the **GREAT DEMOGRAPHICS** of 330,737 People within 5 Miles and 59,542 Employees within 3 Miles. 20% of the population within a 3 mile radius are Millennials. 28% are Baby Boomers (empty nesters). See appendix for Arlington Heights Demographics.

The day-to-day operations and sales of the business will be handled by an experienced General Manager, hired specifically for building the business at the store level. Catherine and Chris will both be involved with the higher level management of overall operations, which includes Marketing, Team Development, Community Relations, and Volunteer Events. Sales leads will be generated through social media, PPC campaigns, strategic partnerships and guerilla marketing tactics. Training of staff and pre-opening evaluations for dogs will be conducted at nearby Dogtopias ensure the “soft” opening and Grand Opening processes are streamlined.

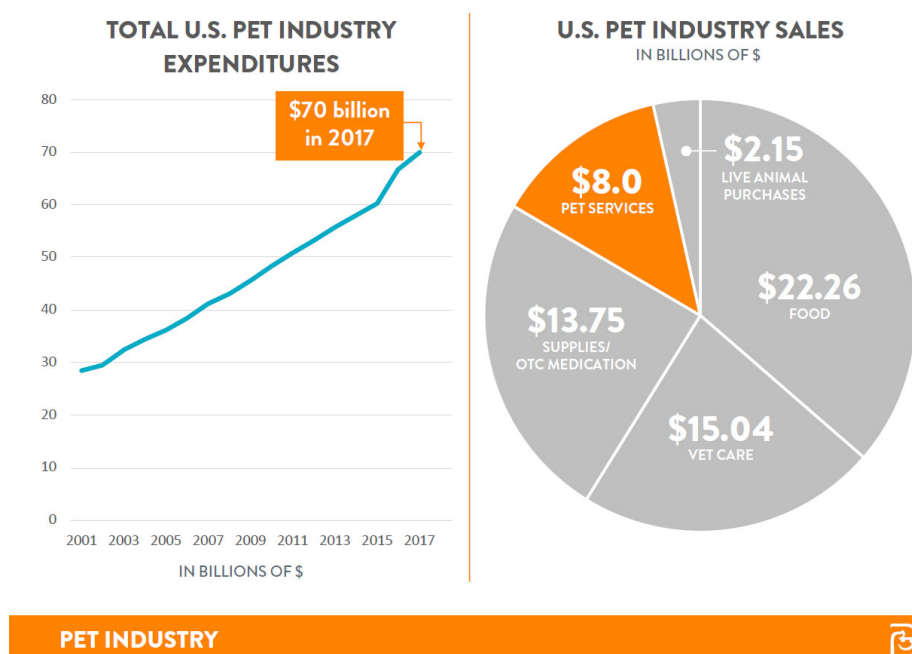
ToMac Holdings, Inc. currently projects revenue of about \$539,850,000 in our first year and about 35% growth in year two estimating \$869,186. Cost of sales will be approximately 90% of gross sales in the inaugural year. Net Income should be modest in year one as we establish our name in the community with reasonable growth and Net Income growing to about \$100,000 in year two. Net Income is projected to reach around \$157,000 by year three as sales increase and operations become more efficient.

Highlights

Dogtopia, created in 2002, has 85 units operating in the U.S. and Canada as of October 2018. Dogtopia focuses on daycare, with 65% of revenues from that service, 22% from boarding, 11% from grooming/spa and 1% in retail. The brand grew modestly under its founder until acquired in June 2015 by franchise guru Peter Thomas of Thomas Franchise Solutions. Thomas has developed billions of dollars in real estate, including shopping centers, apartments, condominiums and golf courses. His most recent development is the Four Seasons Resort in Scottsdale, AZ. His franchise experience includes founder and chairman of Century 21 Real Estate Canada.

In Q3 and Q4 of 2015, Thomas built a world-class leadership team around Dogtopia's new CEO Neil Gill and moved the headquarters to Phoenix, AZ. Mr. Gill has over 30 years of franchise experience, including CEO of Gloria Jean's Coffee where he expanded franchise units from 200 to over 1,000. Fueled by Thomas' unlimited capital and Neil's leadership, Dogtopia was reinvented in what was coined "Dogtopia 2.0." The result was immediate. Franchisees open 13+ months are enjoying a sales increase of 18% this year, their second year of double-digit growth. Forty-eight contracts were signed for new franchise stores in 2016 with a goal of 400 stores by 2021.

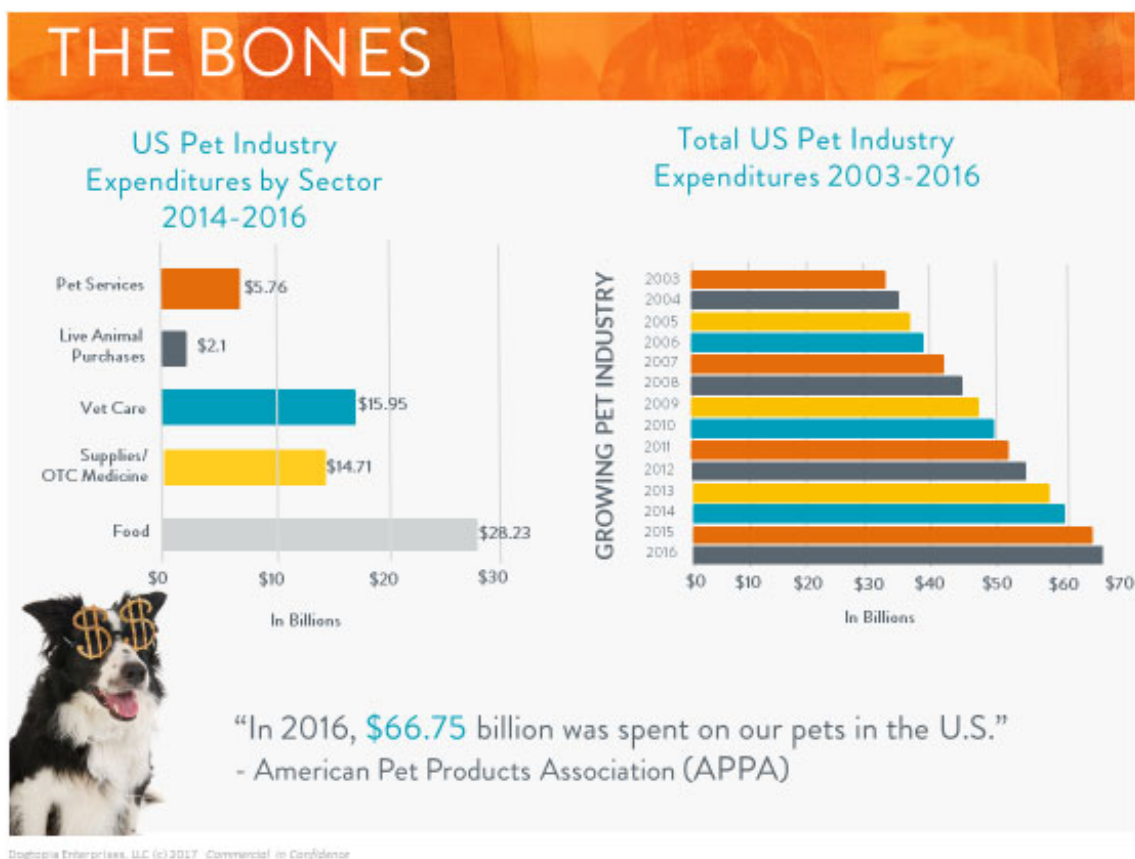
Dogtopia's growth is possible due to the pet industry's explosive growth. The industry is expected to reach a staggering \$66.75 billion this year. Of that, a remarkable \$5.76 billion will be spent on daycare, grooming and boarding by businesses with no consistent service quality, brand or standards. By comparison, the U.S. health & fitness club industry is \$25.8 billion, serviced by what appears to be a fitness club on every corner.



The psychology of the pet industry, in particular America's infatuation with dogs, is interesting and explains the industry's recession-resistant nature. There are two very different groups driving pet industry growth, female millennials, and baby boomers.

Female millennials are the prized market of all retailers. They spend more than their male counterparts and are more loyal to a "brand". Statistically, they are getting married later, having fewer children and/or postponing children until later in life to focus on self-development and careers. They are the top growing demographic for dog ownership based on their lifestyle choices. Forty percent of American households have one dog; 20% have two or more. They spend lavishly on their furry children and apply their nurturing instincts on them, including daycare to ease their guilt of leaving their furbabies alone for hours as they work and to ensure the pet receives the proper exercise, stimulation and socialization. On average, each Dogtopia client brings his/her dog to daycare three times per week. The second population fueling pet industry growth is baby boomers as they find themselves with an "empty nest". Dogtopia has coined the name "pet parent" to accurately describe the loving, nurturing relationship held by the aforementioned pet parents and their dogs.

Millennials, at 84 million, are the largest cohort group in history. Baby boomers are the second largest at 74 million. Together, they represent 50% of the U.S. population. Their love



and psychological need for dogs will ensure the industry continues its growth trajectory for years to come (see chart “The Bones”).

Internet Links:

www.Dogtopia.com

YouTube: <https://youtu.be/9FONo1u85eY>

Facebook: <https://www.facebook.com/dogtopia>

Objectives

ToMac Holdings, Inc.’s objective is to positively impact the lives of the dogs we have under our care as well as the lives of the pet parents. Dogs that go to daycare are better-behaved dogs and daycare reduces health issues by keeping the dogs’ minds and bodies active during the day. Additionally, ToMac Holdings, Inc. desires to positively impact the surrounding community. By working with animal rescue organizations, schools that help the autistic community, and other worthy causes, we can create a profitable business that is always impacting our community.

Description of Business

Dogtopia is the leading provider of dog daycare services in the U.S. It enjoys three differentiators from competitors. First, pet parents place pet safety as their first priority and Dogtopia takes measures to secure and maintain pet parent trust. Facilities are striking in design and maintenance. One feels as if they are walking into a modern professional office when entering Dogtopia (see enclosures for interior store pictures). Each room is sound proofed and the HVAC/air filtration system is industrial grade. The end result is that no part of the facility smells of dog and no dog noise can be heard from the reception area. Additionally, airborne illnesses and diseases, like kennel cough, are eliminated through the air filtration system. A trained Canine Coach remains with the dogs in play areas at all times to provide a safe, structured play environment and to work with the dogs on socialization, education and exercise. To provide the highest level of transparency in terms of pet care, live streaming of all play rooms and kennels is available to pet parents during operating hours via Nest Cameras. This feature is very popular and on average Dogtopia pet parents watch the video feeds of their furry children 13 minutes a day.

The second differentiating factor is Dogtopia’s convenience play. Most daycare and boarding facilities are in rural, industrial or commercial areas. Dogtopias are in neighborhood retail shopping centers. The pet parent arrives in the morning in front of the store that is conveniently located in their community shopping center and is promptly greeted by a Dogtopian who takes their dog. On the way home from work or shopping the pet parent comes into the store to receive his/her dog and a report on the day’s activities.

The third differentiator is Dogtopia's focus on daycare. 65% of Dogtopia's revenues are from daycare and it is considered the "hero" of our business. Daycare is less maintenance than boarding and provides far greater profits.

It is important to note that from the consumer's perspective, dog daycare is not a discretionary spend. A growing population of Americans is choosing dog ownership and loves their pets deeply. They consider their dogs as children, full members of the family and become conflicted when they have to leave their pet at home alone, oftentimes in a kennel, for long periods of time while they work, shop and recreate. They often return home to find the pet too full of energy to enjoy and lacking socialization. Many seek solutions to no avail and are willing to make weekly daycare a part of the family budget.

Service pricing will start at \$36. Multi-day packages will bring the average daycare revenue down to \$32. Competitor pricing ranges from \$28-35 per day.

Grooming and training services are provided on-site through a revenue sharing relationship with grooming and training professionals. Dogtopia staff does provide spa services, such as bathing, nail trimming and teeth brushing.

Hours of business for Dogtopia Daycare lobby are as follows:

Monday-Friday: 7 am to 7 pm

Saturday - Sunday: 10 am to 5 pm

Boarding operations:

Dogs will be boarded overnight in secured location inside of the building

Staff arrives at 6:30 am

Staff leaves around 9:00 pm

Security cameras are in place to notify "staff" of any issues or concerns

Grooming and training services are provided on-site through a revenue sharing relationship with grooming and training professionals. Dogtopia staff does provide spa services, such as bathing, nail trimming and teeth brushing.

Dogtopia provides an exterior play area that is accessible via the Dogtopia location and offers a privacy fence for pet safety. The recommended placement for this location is to be on the East side of the building. This area is equipped with start of the art turf that is easily cleaned with a traditional garden hose. The area is meant to be a play area and should not be considered the "bathroom" area. As in the interior of the Dogtopia facility, all bathroom incidents by the dogs are to be cleaned up immediately and discarded in a safe and secure location. Dogtopia is to occupy its own trash area adjacent to the building to discard of waste.

Company Ownership/Legal Entity

The Corporation, ToMac Holdings, Inc. is a 50/50 ownership corporation between Catherine and Chris Barnes. Combined Catherine and Chris bring over 30+ years' experience in retail and customer service industry. Currently Chris Barnes is Regional Facilities Manager for the mid-west for KinderCare Education. Catherine is Director of Facilities Planning, Design, and Construction for ACCESS Community Health Network a non-profit healthcare organization in Chicago. Resumes for both Catherine and Chris are included in this business plan.

Both Chris and Catherine have an extensive background in retail, facilities management, construction, real estate, and operations. As executives in their careers, team development and finding top talent for organizations is a key component to their professional experience. ToMac Holdings, Inc. will have an extensive training program for staff, along with engagement and incentive programs to be competitive in the market for top talent.

Marketing/Client Acquisition

Dogtopia franchisees and senior leadership credit their 18% 2016 revenue growth to the Dogtopia 2.0 marketing and client acquisition strategies. Store design, graphics, website and social media have been redesigned, providing for a clean, modern look and feel that says we enjoy dog care but take the responsibilities very seriously. Each store enjoys a micro website where a budget is defined monthly for search engine click-throughs and Facebook advertising. We have \$1,500 a month budgeted per store for digital client acquisition. Dogtopia Club Membership and Awards programs are being developed and will only add to the current acquisition strategy.

Each store participates in a Client Experience Survey program where store managers or owners call distracter clients to resolve any issues that may impair the trust relationship.

Dogtopia provides a robust pre-opening client acquisition strategy that begins 90 days prior to the store opening. "Soft" openings begin one month before the formal opening to allow pet parents to purchase pre-opening packages and tour the facility. Collectively, these actions allow Dogtopia stores to open on their first official day of business with 25 paying dogs. The result is stores achieve positive cash flow in the first seven months.

Marketing will include partnership with neighboring businesses to drive pet parents to change their routines going to and from work or running daily errands. Co-marketing with drycleaners, coffee houses, and retail convenience stores (CVS, Walgreens) will drive pet parents to shop in local businesses.

ToMac Holdings Inc. (DBA Dogtopia Arlington Heights) will also engage in community events such as block parties, main street fairs, community walks, etc. The presence will bring awareness to the business and services, but also provide information regarding Dogtopia Foundation. 100% of Dogtopia Foundation funding goes to the three focuses: Service Dogs for

Veterans; Youth Literacy Programs; and Employment Initiatives for Adults with Autism. To learn more about Dogtopia Foundation: <https://www.dogtopiafoundation.org/>

Competition

The competition in the dog daycare business is fragmented with only one other national brand competitor, Camp Bow Wow. Bow Wow focuses on boarding in a camp environment in rural areas and is not a competitor to Dogtopia's daycare-focused business. There are no standards for service quality, standard of care, consistent practices, or pricing. The closest Camp Bow Wow is 25 minutes away in Elmhurst, IL.

The closest competitor in proximity is Arlington Dog House 9 minutes at 213 S. Arlington Heights Road, Arlington Heights, IL. Arlington Dog House is located on a main road in Arlington Heights in an office/retail setting. ADH charges \$32 per day for day care. They offer ½ day daycare at \$24 per dog per day. They offer packages and specials. They are currently advertising an increase in space with an addition of 2000 square feet to total 4000 square feet. They have received awards regarding their services and are to be considered our top competition in the area.

Doggie DayDream is 9 minutes away at 680 N. Milwaukee Ave Prospect Heights, IL. This Daycare, Boarding and Grooming organization is branded as "cage free". Their 6000 square foot facility offers daycare and boarding which are free reign. The facility is full of sofas, beds and multiple spots with floor beds. There is no agility or skill equipment for the dogs to exercise. Dogs of all sizes are housed together, which can be dangerous in free range daycare based on dogs' natural instincts. Cleanliness practices would be hard to maintain with the amount of "cloth" furnishings. Their fee is \$28 a day for daycare with a discount for multiple days.

Doggie Playhouse is a daycare, boarding, and grooming business located 9 minutes away at 1900 North Rand Road, Palatine, IL. Their fee is \$30 full day and \$20 for a half day. Packages are available.

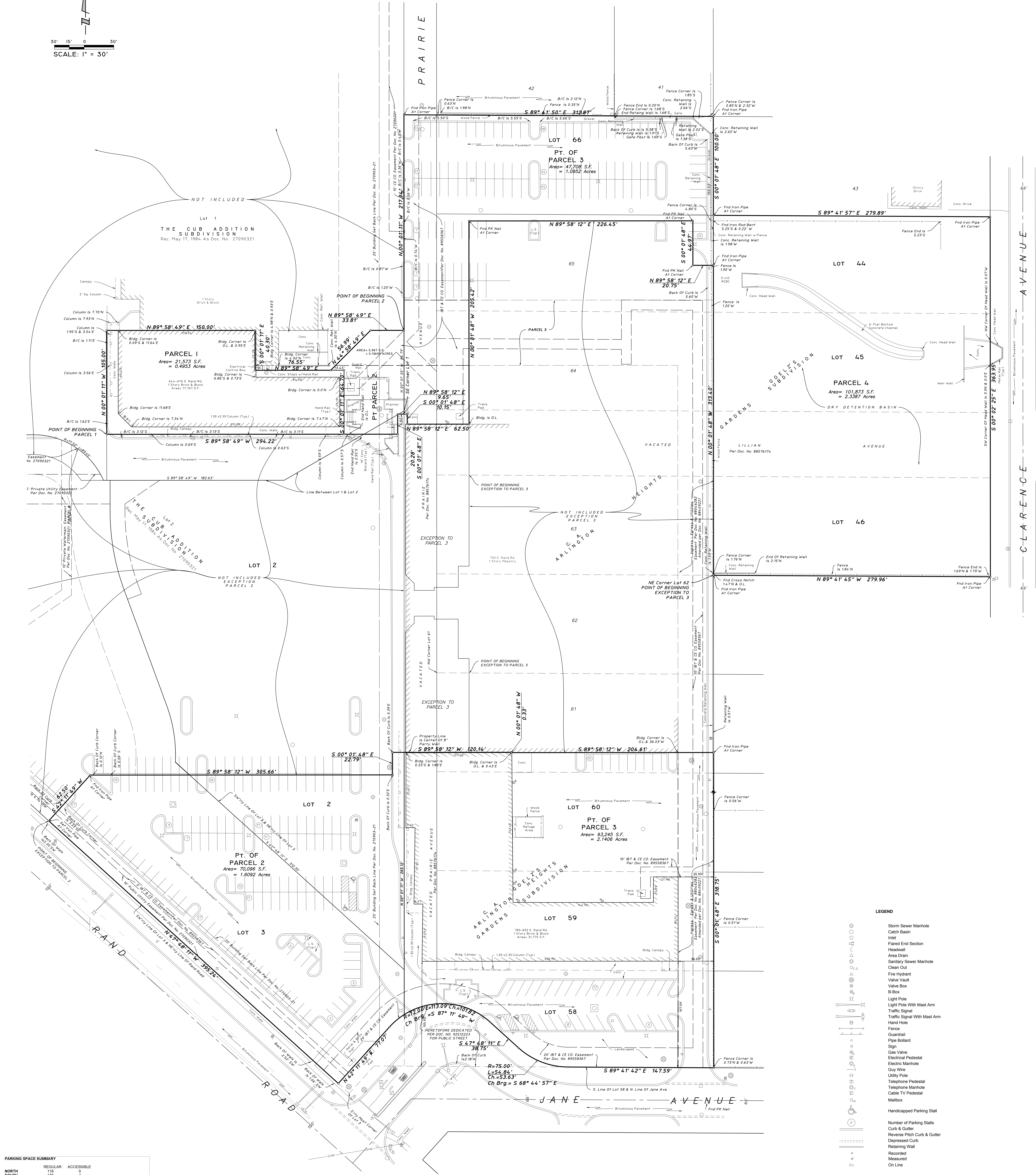
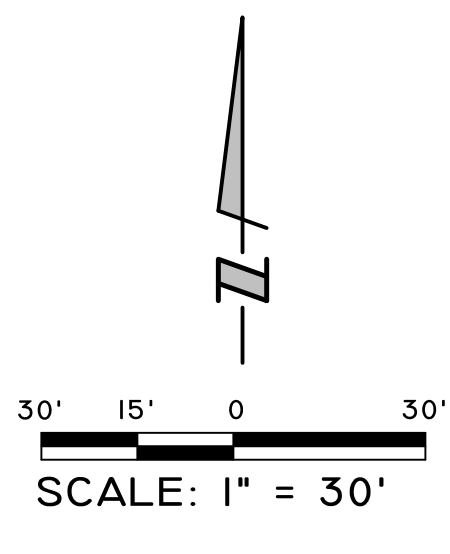
Dog Play Day Care is a 6000 square foot boarding, daycare, and grooming business 10 minutes away at 301 W. Central Road, Mount Prospect, IL. Their fee is \$24 for half day and \$35 for a full day. They offer 10 day packages for \$220 ½ day and \$330 full day. One service that stands out is they offer a taxi service to pick up pets.

All of the above mentioned businesses are independently owned locations and have established their own "brand". Interiors have an industrial feel with fences and "institutional" décor. All have outdoor areas with chain link fences. Only Arlington Dog House mentions cleanliness routines or dedication to service. Websites for the 3 other competitors listed above are outdated. Photos of the dogs do not appear to be "happy" or showing their best dog life.

Financial Performance

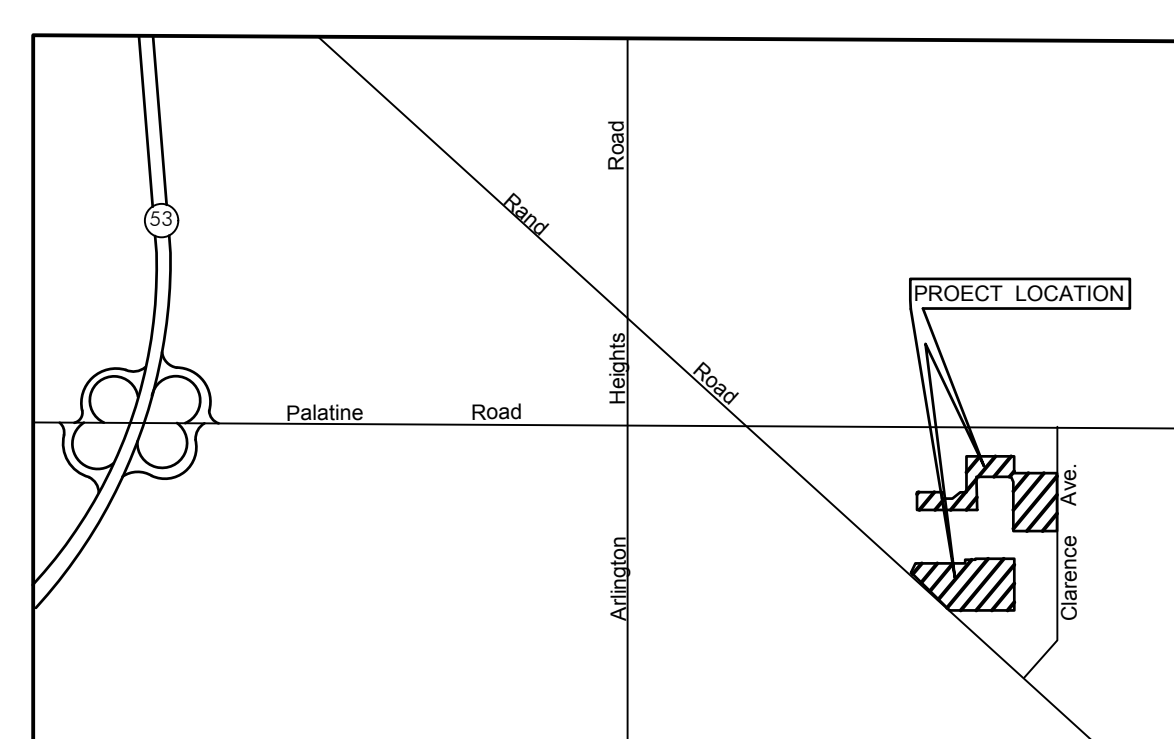
The detailed financial performance pro forma is attached to this presentation. We have been conservative in projecting growth as far as number of dogs per day in daycare and revenue. The revenue figures, expenses and staffing have been derived from existing franchisee financials, data from the Franchise Disclosure Document (FDD) and guidance from existing franchisees and the franchisor. The average price per day of daycare has been calculated at \$32 for the first year of operations based on discounted packages and incentives to build the business. Membership and packages will be available to promote repeat business and incentives for pet parent members. Boarding will be priced at \$50 per day (which will include full day of daycare). Spa services will be priced at \$25. Retail sales projected to be about 1% of the business will be for Dogtopia branded merchandise and an up-sale of treats during daycare. The business projects to achieve operating profit in the fourth month of operations. It should be noted that these important milestones are due to a conservative starting point of 25 dogs per day in month one of operations. Projected growth

ALTA / ACSM LAND TITLE SURVEY



PARKING SPACE SUMMARY

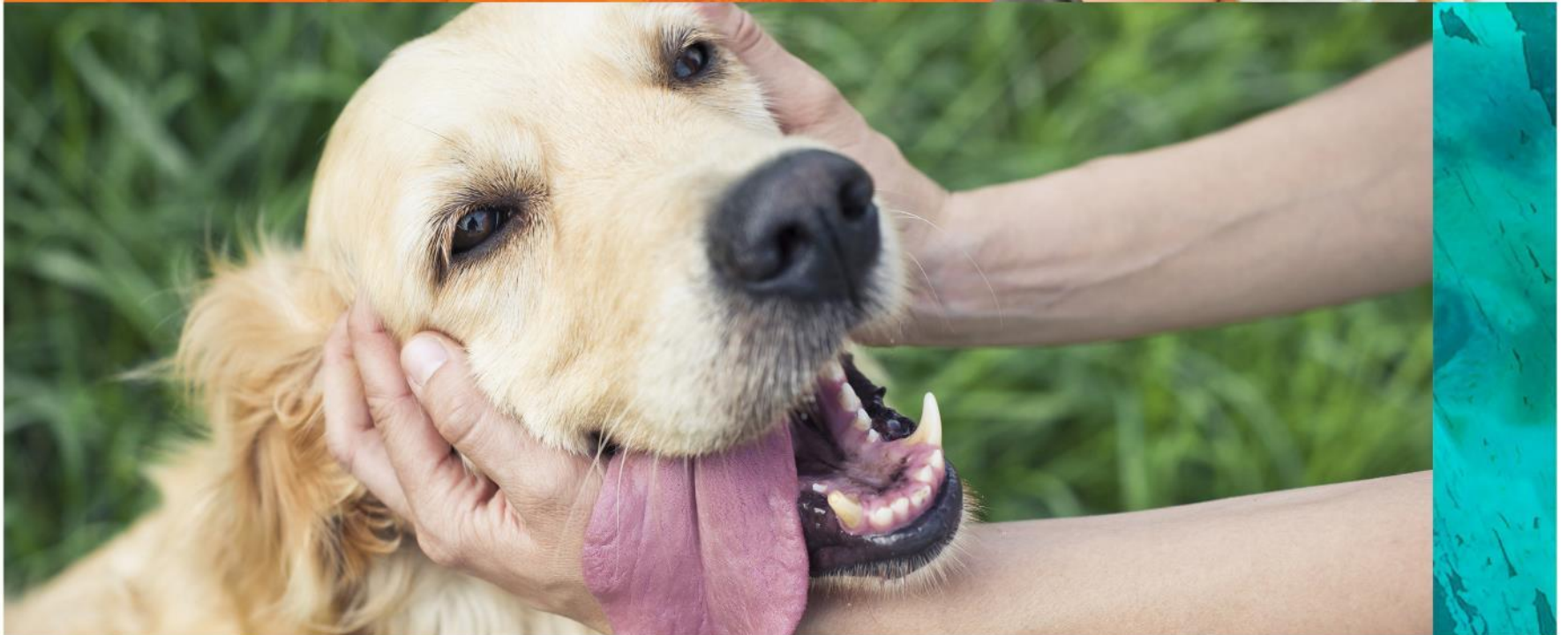
	REGULAR	ACCESSIBLE
NORTH	118	0
SOUTH	176	4
TOTAL	294	4



LOCATION MAP
NOT TO SCALE

- LEGEND
- Storm Sewer Manhole
 - Catch Basin
 - Inlet
 - Flared End Section
 - Headwall
 - Area Drain
 - Sanitary Sewer Manhole
 - Clean Out
 - Fire Hydrant
 - Valve Vault
 - Valve Box
 - B-Box
 - Light Pole
 - Light Pole With Mast Arm
 - Traffic Signal
 - Traffic Signal With Mast Arm
 - Hand Hole
 - Fence
 - Guardrail
 - Pipe Bollard
 - Sign
 - Gas Valve
 - Electric Pedestal
 - Electric Manhole
 - Guy Wire
 - Utility Pole
 - Telephone Pedestal
 - Telephone Manhole
 - Cable TV Pedestal
 - Mailbox
 - Handicapped Parking Stall
 - Number of Parking Stalls
 - Curb & Gutter
 - Reverse Pitch Curb & Gutter
 - Depressed Curb
 - Retaining Wall
 - Recorded
 - Measured
 - On Line

DOGTOPIA – Arlington Heights
It's the most exciting
day ever!



The following presentation is the written response to the Village of Arlington Heights Department Comments.

Catherine Barnes
Christopher Barnes
Owners, Dogtopia of Arlington Heights

That said special use is deemed necessary for the public convenience at this location.

- *Kennel. Any lot or premises or portion thereof on which more than four dogs, cats, and other household domestic animals, over four months of age, are kept, or on which more than two such animals are boarded for compensation or kept for sale.*
- Dogtopia of Arlington Heights is a specialized business for dog daycare, spa, boarding and training. Our services, at full capacity, would be for up to 100 dogs a day. All dogs will be over four months of age and will be of age to receive all necessary vaccinations. 65% of the business is for daycare services with 22% to be boarding overnight.

DOGTOPIA IS A NEEDED SERVICE

DOGTOPIA OF Arlington Heights

We will love and care for your pup like they are our own. With our award winning daycare, boarding and spa services, pets will be treated to their most exciting day ever

50K DOGS

within 5 miles of the
Arlington Heights Location

20K DOGS

within 3 miles of the
Arlington Heights Location

40%

of households in the area
own a dog



That such case will not, under the circumstances of the particular case, be detrimental to the health, safety, morals or general welfare of persons residing or working in the vicinity.

- As highlighted in this presentation below, Dogtopia of Arlington Heights policies and procedures are built around the safety of our team members, customers, and neighbors.
 - Prior vetting for every dog is performed to ensure the dog is fit for daycare. The evaluation for every dog includes temperament, adjustment to noise, and play stimulation with other dogs and our Canine Coaches.
 - The exterior play area is surrounded by a secure privacy fence to prevent unnecessary distractions or interruptions to the canine play.
 - Dogs are not free to roam or interact with the public.
 - All dogs are required to have up to date vaccinations for Rabies, Bordetella, and Canine Influenza for the protection of our pets, pet parents, team members, and neighbors.
 - Canine coaches are certified with extensive training to understand behaviors and changes in temperament during playtime. Our goal is to prevent play time from turning volatile to protect our pets and team members.
 - All dogs are required to be on leashes when entering or leaving our premises.
 - Exterior cleanliness best practices are built into the morning and evening routines to ensure the exterior remains free of waste.

10

COMMITMENTS TO SAFETY



Certified Canine Coaches

Safety Experts

Extensive Evaluation Process

Room Assignment by Size & Temperament

Home-style Crates

Dog-Safe Cleaning Products

Rubberized Flooring

Climate-Controlled HVAC Systems

Webcams

Village of Knowledge



Odor Control

- Playrooms on separate HVAC systems. Each system has an outside air intake requirement.
- Steril-Aire UVC Emitters Installed
- Temperature & Humidity Controlled
- Walls extended to the deck to avoid smell and sound transfers
- Rooms cleaned 3x daily
- ScentAir System Installed
- HVAC Filters Replaced Quarterly (vs. Annually)

Health Technology Product Descriptions:

Triple Two:

Disinfectant, Cleaner, Deodorizer (1:64 or 2 oz/gal)



- Use for the room closing buckets at the end of each shift daily
- Use to sanitize and disinfect all hard surfaces
- Leave Triple Two on surface for 3 mins to clean and 10 mins to sanitize
- Use to sanitize dog bowls in 3 min. with dilution of **1:256 (0.5 oz/gal)**
- This is considered a "Quat" Cleaner (it is lower in toxicity and less corrosive than bleach)
- * **Don't use Triple Two when dogs are in open play.**

Eliminator:

Odor Digester, Bio-Enzymatic (1:64 or 2 oz/gal)



- Use in mop buckets for playrooms and spot cleaning
- Use on artificial grass with the approved HT Econo-foamer hose and sprayer
- Safe to use when dogs are present
- Effectively eliminates odors by digesting bacteria, viruses, & other organic matter

Cage & Kennel:

Degreaser, Deodorizer (1:128 or 1 oz/gal)



- Use as part of a weekly, deep cleaning protocol to remove grease, grime, and oil buildup
- Use to reduce odors
- Use regularly to keep drains clean

Glass Cleaner:

Streak-Free Glass Cleaner (1:64 or 2 oz/gal)



- Use on all glossy and reflective surfaces including windows, mirrors, stainless steel, chrome, laminates, plastics and vinyl

Four Product Mixing Unit:

Cleaning Product Dispenser

- Stainless steel for durability
- Auto-calculates and distributes the correct dilution of the 4 cleaning products
- This 1 unit will be used to fill mop buckets, spray bottles, etc.
- Your specific unit will look like the picture to the right; though if your location orders larger pails, the unit will have hoses similar to the inset picture (Your unit may be a slightly different size depending upon where the unit is installed.)
- * The **only** time you will need to calculate your own dilution will be sanitizing dog bowls with a far less concentrated version of Triple Two (from 1:64 to 1:256)



Example: Hose to a larger pail of cleaning solution ->

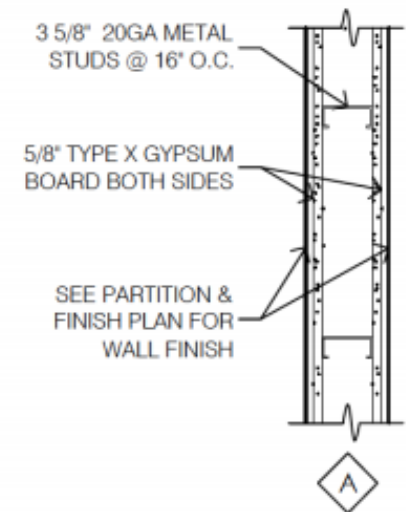
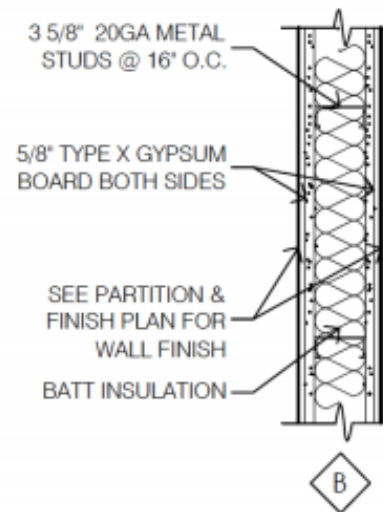
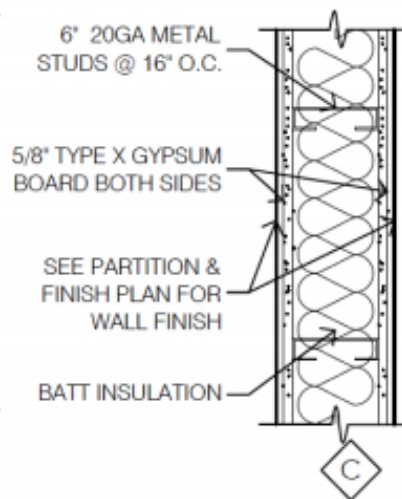
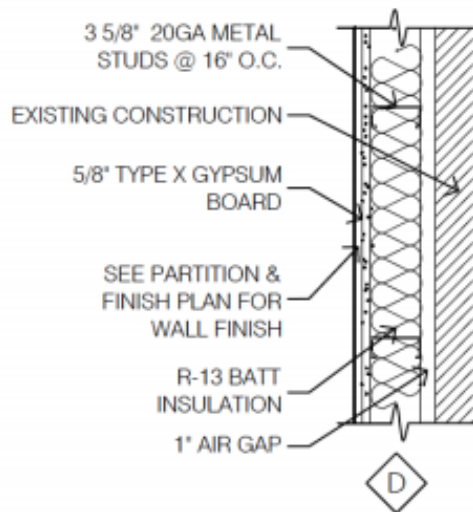
Cleaning Best Practice

- The approved cleaning chemicals do not pose any environmental hazard to wastewater streams when diluted as directed and used properly
- Our sanitation cleaner (Triple Two) is a standard cleaner
 - Less concentrated than veterinarian hospital grade
 - Effective at eliminating germs.
- Our spot cleaner (Eliminator)
 - Bio-enzymatic cleaner
 - Environmentally safe for municipal wastewater systems.

Updated: June 2016

Wall Sound Control

- Special Wall Type at Demising Wall(s) that Extend to the Roof Deck
- Special Wall Type Between Playrooms and PeopleSpace that Extend to the Roof Deck
- Air Gap at the Demising Wall
- Type A: Walls for Bathrooms, Dog Food Prep Area, etc (Non-Dog Rooms)
- Type B: Walls Between the Dog Playrooms.
- Type D: Demising Walls (Adjacent/Shared wall with Neighboring Tenant(s))
- Type C: Wall Between Playroom and People Spaces (i.e. – Hallways, Restrooms, Spa/Grooming, etc) Extends to Roof Deck



Ceiling Sound Control

- Suspended ceiling system fitted with School Zone® lay in acoustical tiles used to absorb and prevent sound from escaping the rooms.
- Tiles have a noise reduction coefficient (NRC) of .70
- Ceiling attenuation class (CAC) of up to 40.
- Above the suspend ceiling - existing building roof system and typically an R-30 insulation.

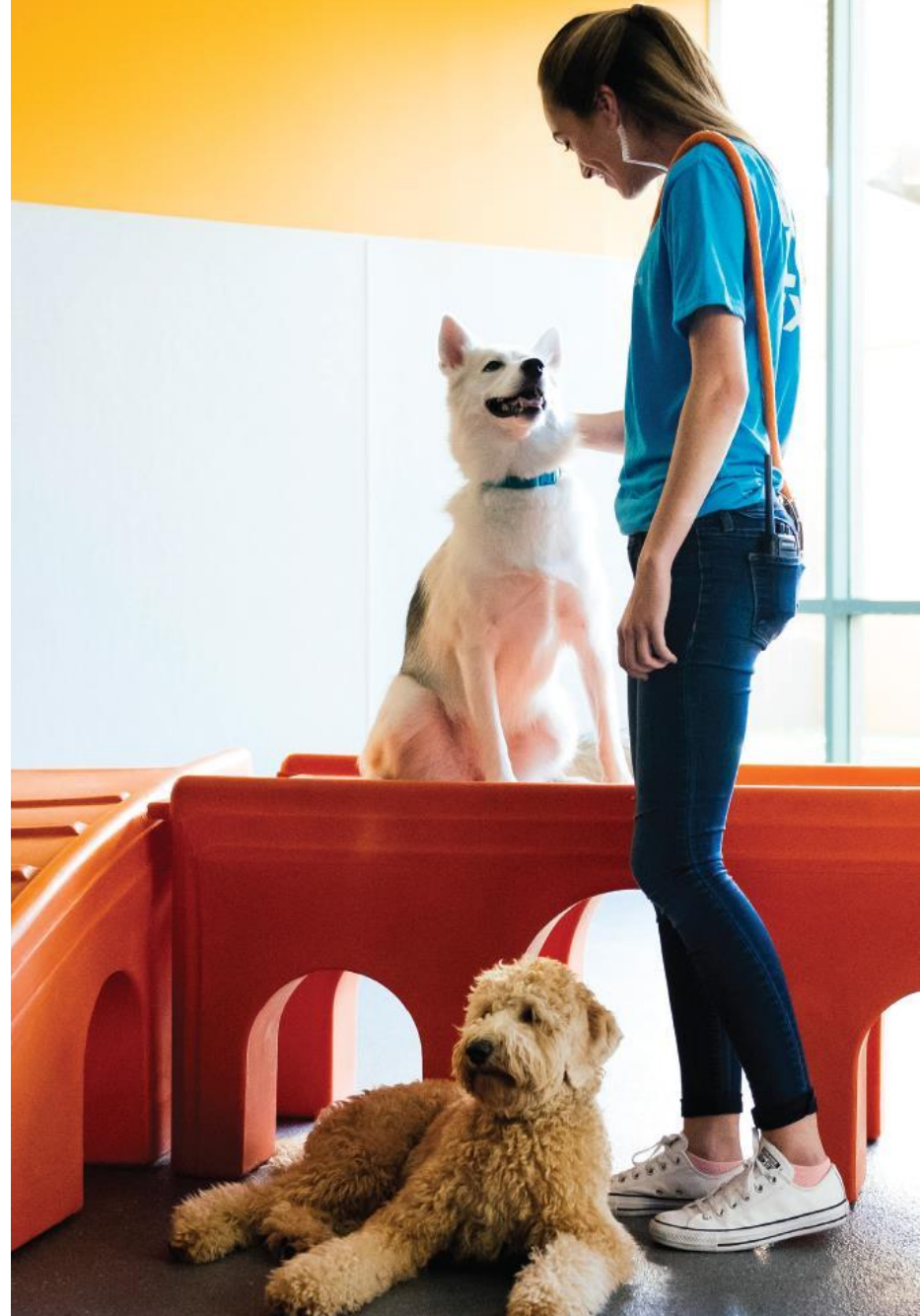
NRC: A measure for rating the overall sound absorption of a material when used in an enclosed architectural space where sound is reflected at many angles of incidence. A ceiling system with an NRC < 0.50 is low performance, **an NRC > 0.70 is high performance.**

CAC: A measure for rating the performance of a ceiling system as a barrier to airborne sound transmission through a common plenum between adjacent closed spaces. A ceiling system with a CAC < 25 is considered low performance, whereas one with **CAC of 35 or higher is high performance.**



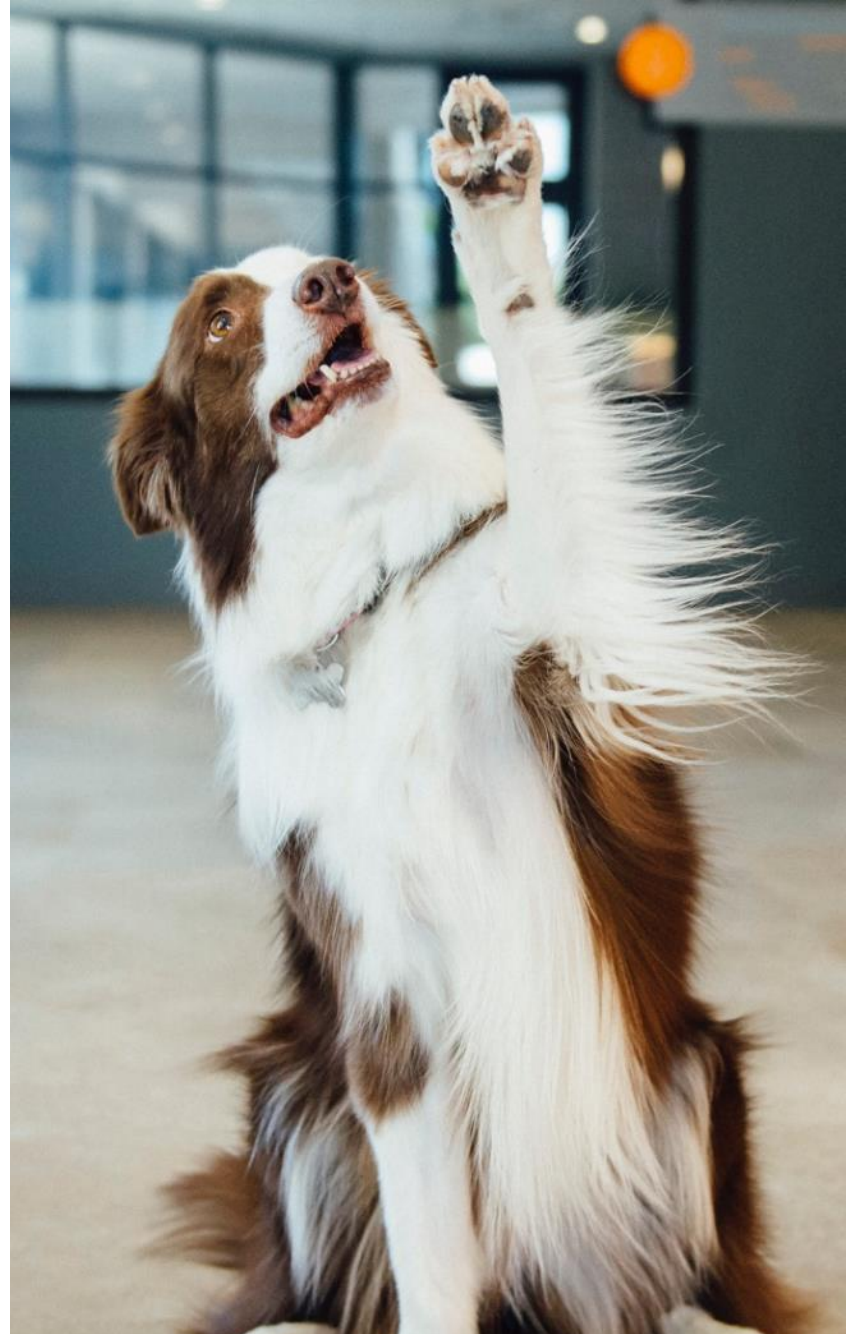
Waste Management

- Pick up solid waste immediately using plastic bag
- Securely tie the plastic bag
- Place in a tightly lidded bin lined with 2ND plastic trash liner
- Empty the trash bin at the end of each day, double bagged waste
- Waste picked up 2x weekly
- Sealed external container



Controlled Playrooms

- To maintain a controlled playroom, **Certified Canine Coaches** are required to pass training classes in order to perform the following:
 - Decrease barking with mood shifting play and engagement
 - Proactive measure to deescalate incidents (altercations, rough play, etc)
 - Manage the room with fun activities to keep dogs engaged
 - Provide timeouts for tired or agitated dogs
- **All Dogtopia playrooms are monitored and controlled by a certified Canine Coach**



Security Systems

- Commercial security system to include access control, intrusion, video, motion and sound.
- Monitored 24/7/365 by third party commercial monitoring service.
- Professionally installed and maintained.
- Owner and Assistant Manager alerted after hours
- Phone app allows remote access.
- Combined with professionally monitored commercial fire and sprinkler systems.



That the proposed use will comply with the regulations and conditions specified in this ordinance for such use, and with the stipulations and conditions made a part of the authorization granted by the Village Board of Trustees.

- Dogtopia of Arlington Heights, and its owners, will comply with the regulations and conditions specified in this ordinance. At no time will our business deter from dog daycare, boarding, spa, or training. The business will not exceed company guidelines for total number of dogs per day per play room. Dogtopia of Arlington Heights will not allow dogs under the age of four months.

Planning and Community Development Variance Request

Item 9

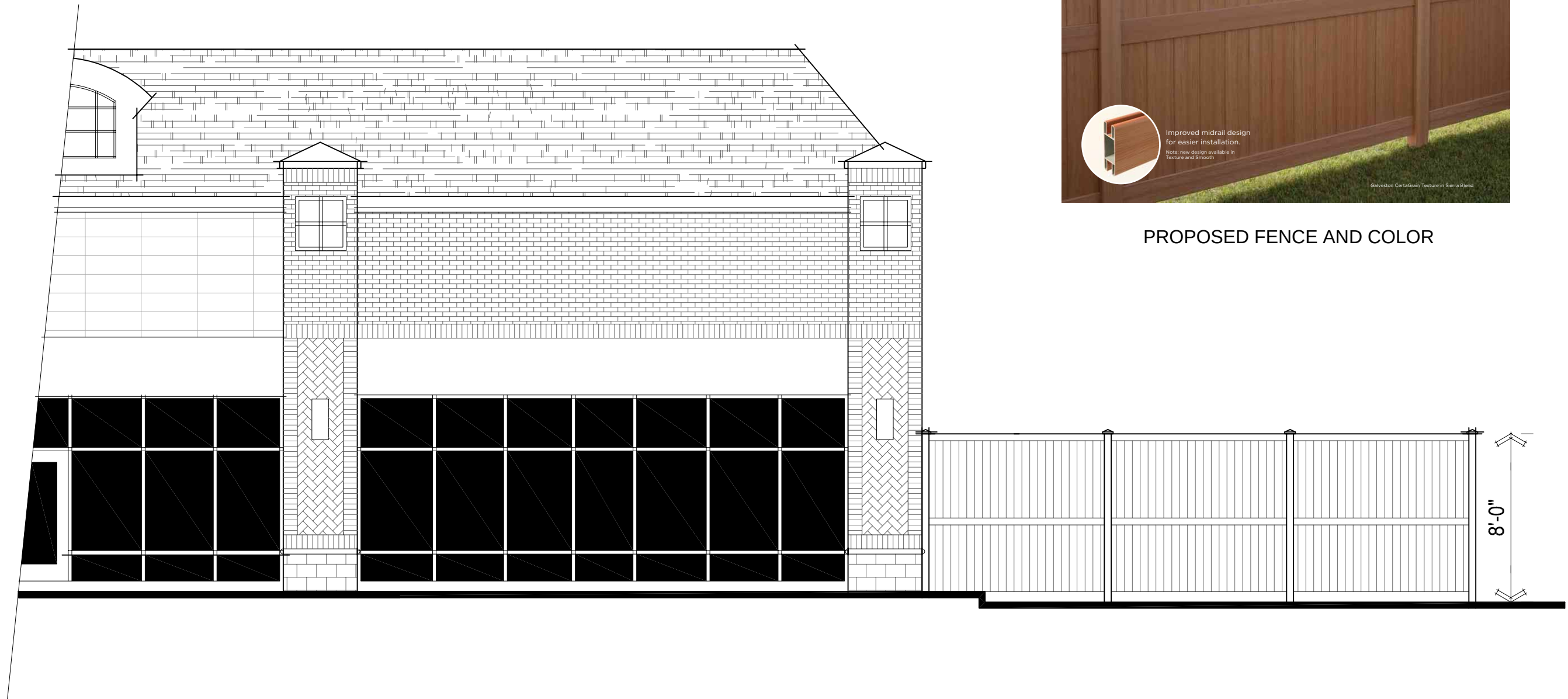
- A. The materials used in the construction of the fence will be maintenance free and, per submitted cut sheets, a material that will complement the existing centers material, color and style. 3 options have been provided for review and, if those are not agreeable, we are open to investigating other material/color selections. To minimize the additional requested height of 8', a rendering has been provided that would include the addition of a boxwood hedgerow in front of the fence to soften the height.
- B. The unique circumstances that make this request necessary are related to safety and community harmony. Dogtopia dictates an 8' fence, in order to prevent people from looking over the fence and distracting the dogs, resulting in noise concerns from barking, or aggravating the dogs within the enclosed exterior space, which can lead to altered animal behavior and risk to Dogtopia staff.
- C. This request is necessary for the fenced area to be useful and be in harmony with the center and foot traffic that it experiences.
- D. 8' is the minimum required height for Dogtopia locations. We are seeking a variance for only that height, as additional height would be excessive and less would risk functionality.



PROPOSED FENCE AND COLOR

DOGTOPIA - DEER PARK ,ILLINOIS

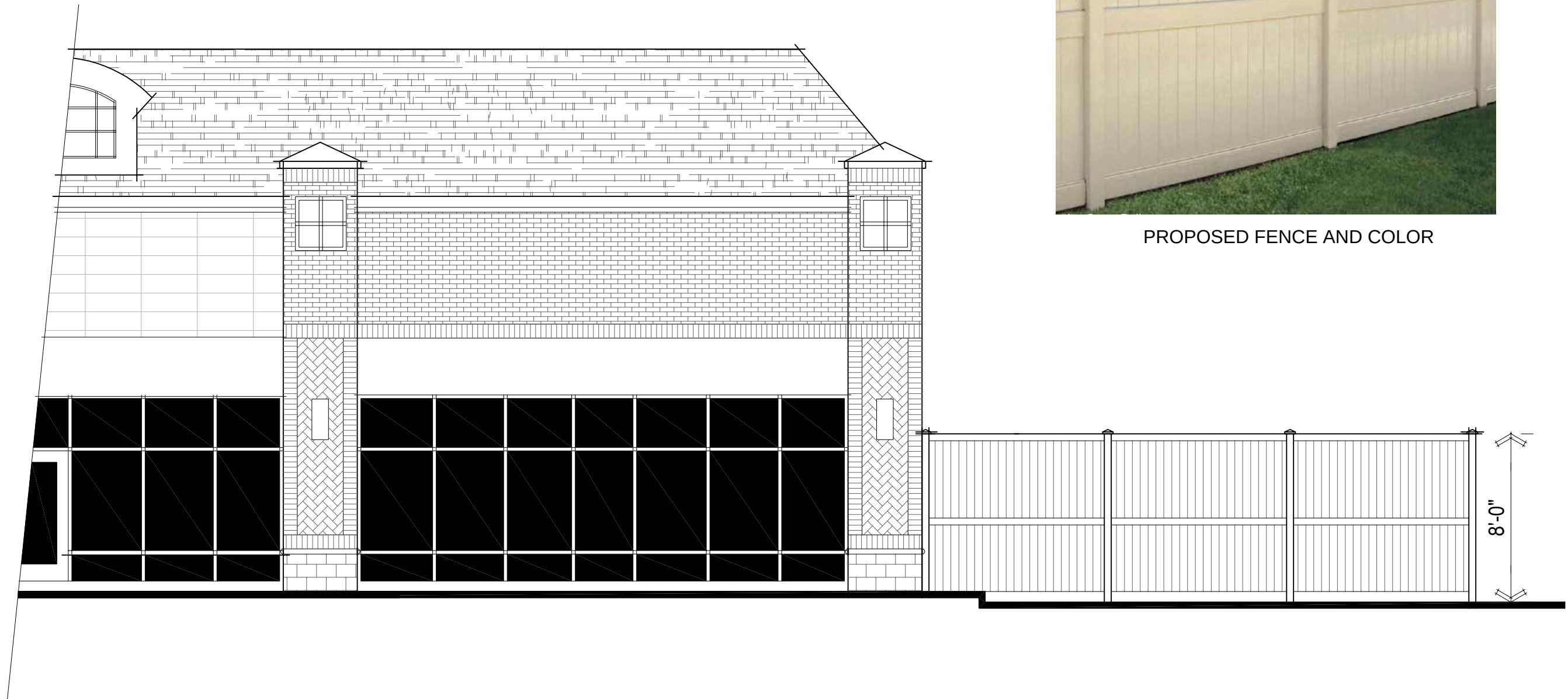




PROPOSED FENCE AND COLOR

DOGTOPIA - DEER PARK ,ILLINOIS





PROPOSED FENCE AND COLOR

DOGTOPIA - DEER PARK ,ILLINOIS





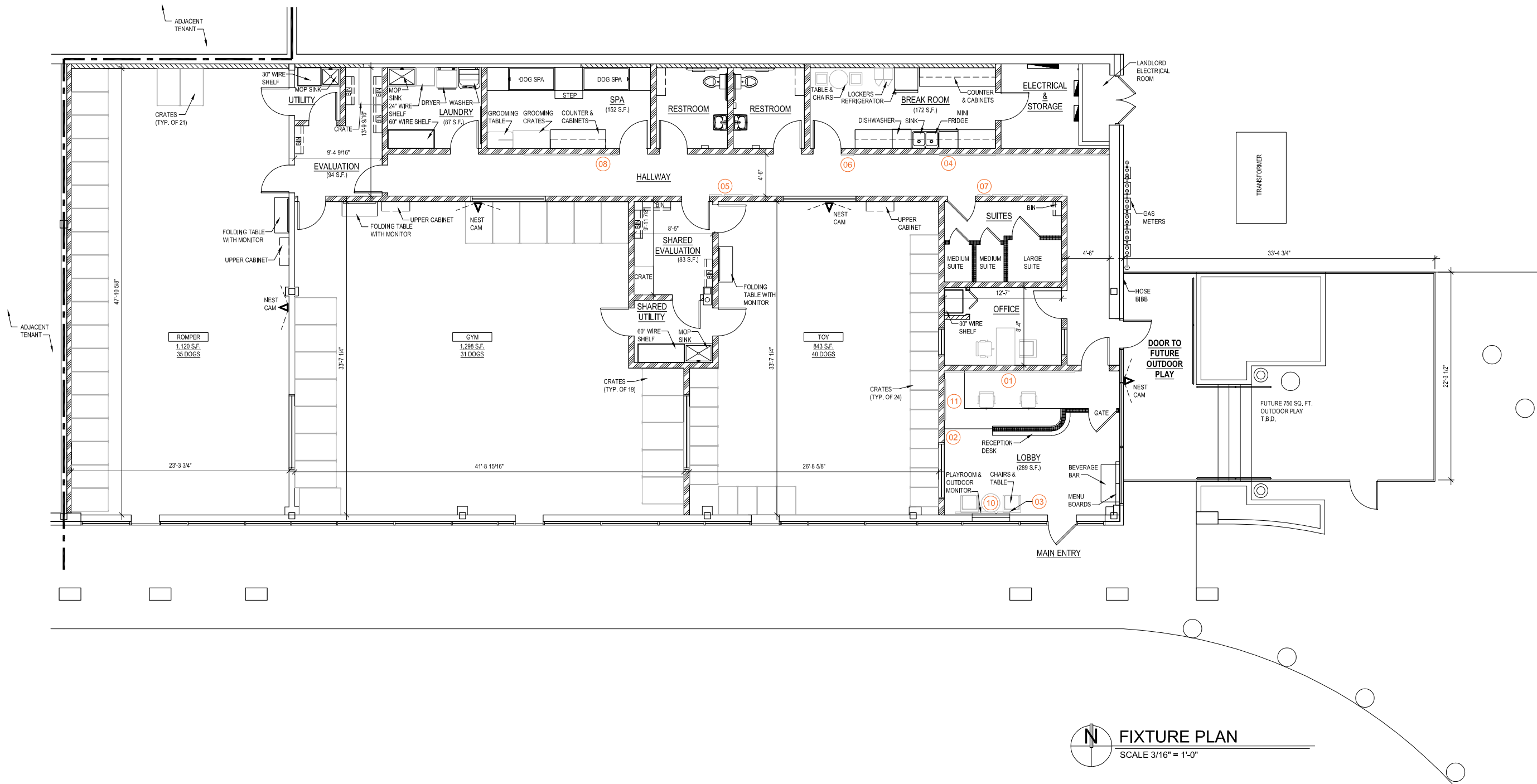
Dogtopia is a Good Neighbor

- No impact to residential or retail properties
- No issues in 79 locations for over 10 years
- Support of local businesses
- Bringing new customers into this retail corridor
- Job creation in Arlington Heights Southpoint Shopping Center

Arlington Heights Involvement:

- Partnerships with veterinarians and other Arlington Heights business owners within a 1-3 mile radius
- Promote the Shopping Center!
- Community & Volunteer Events in Arlington Heights





FIXTURE PLAN
SCALE 3/16" = 1'-0"

11 STOP TOUR	
01	WOW WALL
02	PLAYROOM
03	OUTDOOR PLAY AREA
04	BRAG WALL
05	MEET & GREET
06	BREAK ROOM
07	SUITES
08	SPA
09	TRAINING ROOM
10	COFFEE TABLE BOOK
11	WHY DAYCARE

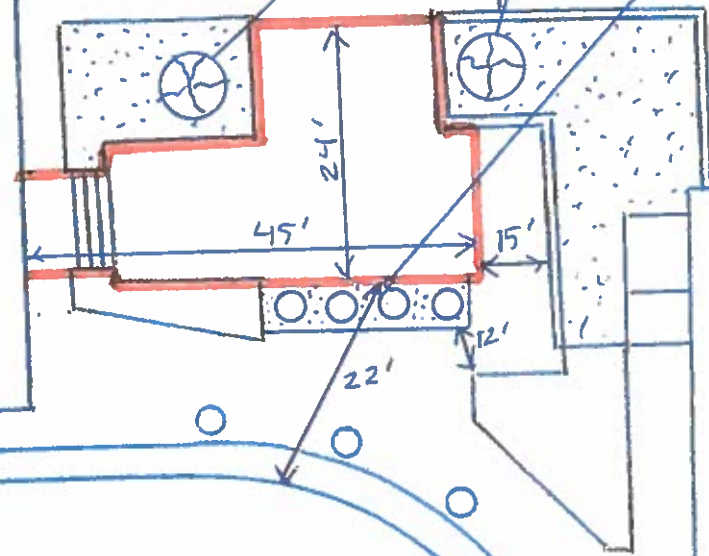
DAYCARE DATA	
Total Daycare Center Area = 5,727 S.F.	
Playroom Areas	
Toy =	843 S.F.
Romper =	1,120 S.F.
Gym =	1,298 S.F.
Total =	3,261 S.F.
Efficiency	
% (Playroom Areas / Total Area) =	56.94%
Suites?	YES ☒ NO ☐
Outdoor Play Area?	YES ☒ NO ☐
Potty Platforms?	YES ☐ NO ☒
# Spa Tubs	1 ☐ 2 ☒
FRP In Hallway?	YES ☒ NO ☐

FINAL SCHEMATIC APPROVAL	
_____	INITIAL
_____	INITIAL
_____	INITIAL
_____	INITIAL
_____	INITIAL
_____	INITIAL
_____	INITIAL
_____	INITIAL
_____	INITIAL
_____	INITIAL
SIGN/DATE	



EXISTING TILES
& PLASTER TILES

LANDSCAPE BED W/ 4" UNDERLAY
AT TIME OF INSTALLATION



RECEIVED
JUN 04 2019
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

* NOT TO SCALE *

Dogtopia of Arlington Heights Traffic Observations

Comp Store Location: 1416 W. 55th St., LaGrange, IL 60525

Maturity of Operation: Opened 12/2017. Approximately 1 year and 5 months operating time

Observations:

Saturday May 25, 2019:

- Lobby open at 10:00 am CST and close at 3:00 pm CST
- Observation time 10:00 am CST to 1:00 pm CST
 - Number of employee vehicles: 3
 - Number of pet parent vehicles (clients): 15
 - (13) vehicles were existing clients and (2) were for evaluations for potential clients

Monday May 27, 2019:

- Lobby open at 7:00 am CST and close at 7:00 pm CST
- Observation time 3:00 pm CST – 6:00 pm CST
 - Number of employee vehicles: 9
 - Number of pet parent vehicles (clients): 43
 - (42) vehicles were existing clients and (1) was for an evaluation for potential client

RECEIVED
JUN 04 2019
**PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT**



Village of Arlington Heights Building & Life Safety Department

Interoffice Memorandum

To: Jake Schmidt, Planning and Community Development

From: Deb Pierce, Plan Reviewer, Building & Life Safety Department

Subject: Dogtopia Special Use Permit, Special Use Permit, Variation to waive traffic and parking study

PC#: 19-004 – Round 1

Date: April 25, 2019

General Comments:

The information provided is conceptual only and subject to a formal plan review.

Jake –

I do not have any comments.

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DEVELOPMENT DEPARTMENT



Village of Arlington Heights, IL
Department of Building & Life Safety

Fire Safety Comments

Date: 4/16/2019

P.C. Number: 19-004

Project Name: Dogtopia Special Use Permit

Project Location: 660 -676 E. Rand Ave

Planning Department Contact: Jake Schmidt, Planning and Community Development

General Comments:

The information provided is conceptual only and subject to a formal plan review.

1. All currently adopted codes shall apply.
2. A fully functional fire alarm may be required. The alarm annunciator panel shall be located at the front entrance.
3. Shop drawings for fire alarm systems shall be submitted for review and approval prior to system installation.
4. Visible alarm notification appliances shall be provided in public areas and common areas. A visible exterior weatherproof alarm notification device shall be located within closest proximity to the front main entrance of the building or tenant space.
5. A key box (Know Box) shall be provided and contain keys to gain necessary access as required by the fire code official.
6. Exit signs shall be illuminated at all times and have emergency power backup.
7. Buildings shall have approved address numbers.

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DEVELOPMENT DEPARTMENT

Date 04-16-19

Reviewed By:


Fire Safety Supervisor

Memorandum

To: Jake Schmidt, Planning & Community Development
From: Cris Papierniak, Assistant Director of Public Works
Date: May 2, 2019
Subject: 660-676 E Rand Road, P.C. #19-004

With regard to the special use permit, I have the following comments:

- 1) If there is an existing backflow prevention device installed within this property, a new RPZ must be installed to replace it.
- 2) Until a set of plumbing plans have been submitted, detailing the proposed additions to existing utilities and conditions, VAHPW cannot provide further comments.

If you have any questions, please feel free to contact me.

C. file

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DEVELOPMENT DEPARTMENT

ENGINEERING DEPARTMENT

3

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION FORM 3

Petition #: P.C. 19-004
 Petitioner: Dogtopia of Arlington Heights
Chris and Catherine Barnes (513) 328-561
1965 S. Egret Ct Libertyville, IL 60048
 Owner: MJK Real Estate Holdings Co, LLC
Ricky Silverman - VP (847) 919-4804
790 Estate Drive, Suite 100 Deerfield, IL
 Contact Person: _____
 Address: _____
 Phone #: _____
 Fax #: _____
 E-Mail: _____

P.I.N.# D3-2D-200-007-0000
 Location: 660, 664, 668 and 676 E Rand Rd Arl
 Rezoning: _____ Current: _____ Proposed: _____
 Subdivision: _____
 # of Lots: _____ Current: _____ Proposed: _____
 PUD: _____ For: _____
 Special Use: _____ For: Dog Kennel Usage
 Land Use Variation: _____ For: _____
 Land Use: _____ Current: _____
 Proposed: _____
 Site Gross Area: _____
 # of Units Total: _____
 1BR: _____ 2BR: _____ 3BR: _____ 4BR: _____

(Petitioner: Please do not write below this line.)

1. PUBLIC IMPROVEMENTS

REQUIRED:	YES	NO	COMMENTS
a. Underground Utilities			
Water		<u>NO</u>	_____
Sanitary Sewer		<u>NO</u>	_____
Storm Sewer		<u>NO</u>	_____
b. Surface Improvement			
Pavement		<u>NO</u>	_____
Curb & Gutter		<u>NO</u>	_____
Sidewalks		<u>NO</u>	_____
Street Lighting		<u>NO</u>	_____
c. Easements			
Utility & Drainage		<u>NO</u>	_____
Access		<u>NO</u>	_____

2. PERMITS REQUIRED OTHER THAN VILLAGE:

a. MWRDGC	_____	b. IDOT	_____
c. ARMY CORP	_____	d. IEPA	_____
e. CCHD	_____		

3. R.O.W. DEDICATIONS?
4. SITE PLAN ACCEPTABLE?
5. PRELIMINARY PLAT ACCEPTABLE?
6. TRAFFIC STUDY ACCEPTABLE?
7. STORM WATER DETENTION REQUIRED?
8. CONTRIBUTION ORDINANCE EXISTING?
9. FLOOD PLAIN OR FLOODWAY EXISTING? ...
10. WETLAND EXISTING?

YES	NO	COMMENTS
	<u>X</u>	_____
	<u>N/A</u>	_____
	<u>N/A</u>	_____
	<u>N/A</u>	_____
	<u>NO</u>	_____
<u>X</u>		<u>79-159 (PAID 1984)</u>
	<u>X</u>	_____
	<u>X</u>	_____

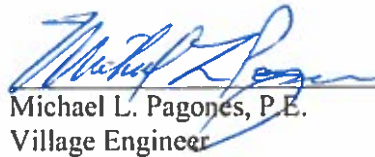
GENERAL COMMENTS ATTACHED

PLANS PREPARED BY: _____
 DATE OF PLANS: _____

Michael J. Lopez 4-30-19
 Director VILLAGE ENGINEER Date

PLAN COMMISSION PC #19-004
Dogtopia of Arlington Heights
660, 664, 668 & 676 E Rand Rd
Special Use Permit, Variation to waive traffic and parking study
Round 1

11. The petitioner is notified that these comments are being provided to ensure that the project meets the requirements for submittal to the Plan Commission. Approval by the Plan Commission is not an endorsement or approval of these documents to obtain the required building permits, engineering approval, or permits required by other government or permitting agencies for construction. Detailed plan review with associated comments will be provided upon submittal of plans for a building permit. The petitioner shall acknowledge that they accept this understanding.
12. The plans are for interior modifications, so stormwater detention is not required.
13. If new lighting is proposed on the exterior of the building, provide a site photometric lighting diagram indicating lighting intensities. Also provide the associated catalog cuts for all roadway, parking lot, and building mounted luminaires. All fixtures must be flat bottom, sharp cut-off, and no wall pack style fixtures will be permitted.
14. The plans are for interior modifications, so the existing fire truck access for the has not changed.

 4-30-19
Michael L. Pagones, P.E. Date
Village Engineer

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DEVELOPMENT DEPARTMENT



Arlington Heights Fire Department Plan Review Sheet

P. C. Number 19-004

Project Name

Dogtopia

Project Location

660-676 E. Rand Road

Planning Department Contact Sam Hubbard

General Comments

Round 1

General Comments:

- 1) Install a fully operational annunciator panel or alarm panel at the main front entrance.
- 2) The Fire Department will defer to The Building and Life Safety Department as to what changes if any need to be done to an existing building due to it change of use and expansion.
- 3) Locate a Knox Box at the main front entrance.

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APR 16 2019
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

**NOTE: PLAN IS CONCEPTUAL ONLY
SUBJECT TO DETAILED PLAN REVIEW**

Date April 16, 2019

Reviewed By: LT. Mark Aleckson

Arlington Heights Fire Department

ARLINGTON HEIGHTS POLICE DEPARTMENT

Community Services Bureau

DEPARTMENT PLAN REVIEW SUMMARY

Dogtopia
660-676 E. Rand Rd.
Special Use Permit, Variation to waive traffic and parking study

Round 1 Review Comments

04/23/2019

1. Character of use:

The character of use is consistent with the area and is not a concern.

2. Are lighting requirements adequate?

Lighting should be up to Village of Arlington Heights code. The exterior of the building should be illuminated especially during nighttime hours for safety, to deter criminal activity and increase surveillance/visibility- potentially reducing theft, trespassing, vandalism, underage drinking, and other criminal activity.

3. Present traffic problems?

There are no traffic problems at this location.

4. Traffic accidents at particular location?

This is not a problem area in relation to traffic accidents.

5. Traffic problems that may be created by the development.

This development should not create any additional traffic problems.

6. General comments:

- Please ensure that there is an emergency information/contact card on file with the Arlington Heights Police Department and that it is up-to-date. Agent contact information must be provided to the Arlington Heights Police Department during all construction phases. The form is attached. Please complete and return. This allows police department personnel to contact an agent during emergency situations or for suspicious/criminal activity on the property during all hours.

A. Ovington #330

Alexandra Ovington, Crime Prevention Officer
Community Services Bureau

Approved by:

D. Hagedorn #557

Supervisor's Signature

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APR 23 2019

**PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT**

HEALTH SERVICES DEPARTMENT

6

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. _____	P.I.N.# _____
Petitioner: Dogtopia of Arlington Heights	Location: 660, 664, 668 and 676 E Rand Rd Arl
Chris and Catherine Barnes (513) 328-561	Rezoning: _____ Current: _____ Proposed: _____
1965 S. Egret Ct Libertyville, IL 60048	Subdivision: _____
Owner: MJK Real Estate Holdings Co, LLC	# of Lots: _____ Current: _____ Proposed: _____
Ricky Silverman - VP (847) 919-4804	PUD: _____ For: _____
790 Estate Drive, Suite 100 Deerfield, IL	Special Use: _____ For: Dog Kennel Usage
Contact Person: _____	Land Use Variation: _____ For: _____
Address: _____	Land Use: _____ Current: _____
Phone #: _____	Proposed: _____
Fax #: _____	Site Gross Area: _____
E-Mail: _____	# of Units Total: _____
	1BR: _____ 2BR: _____ 3BR: _____ 4BR: _____

(Petitioner: Please do not write below this line.)

1. GENERAL COMMENTS:

The business is required to obtain a Kennel Operator license from the Illinois Department of Agriculture and a Kennel business license from the Village of Arlington Heights.

Solid waste storage site is not shown on plan. Show location of solid waste storage site.

Solid waste storage sites must comply with the following:

- Container Site
 - Area shall be of a sufficient size to easily accommodate the container.
 - The surface shall be paved, curbed and graded to the front to prevent accumulation of liquid.
 - Visual screening of the site shall be provided.
- Access to Container
 - Sufficient space to accommodate the turning requirements of the scavenger truck shall be provided.
 - Parking, fences, plantings, etc., shall be located so as to create no obstacles to service vehicles.

See the attached accessibility comments.

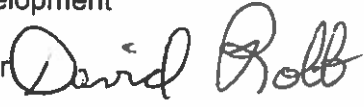
Sean Freres, LEHP  4/29/19
Environmental Health Officer Date

James McCalister  4/29/19
tor Date

Plan Review for Accessibility

Address: Dogtopia
660-676 E. Rand Road
SUP, Variation to wave traffic and parking study
P.C. #19-004

Submitted to: Jake Schmidt, Planning & Community Development

Submitted by: David Robb, Disability Services Coordinator 
(847) 368-5793

Date: April 26, 2019

Re: Illinois Accessibility Code (IAC) effective October 23, 2018

<https://www2.illinois.gov/cdb/announcements/2018/Pages/New-Illinois-Accessibility-Code.aspx>

Reception 101

1. Service and sales counters shall comply with the requirements of IAC Sections 904.4, 904.4.1, 904.4.2.

Exterior Play Area

2. Provide an accessible route to the exterior play area as required by IAC Section 206.2

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APR 29 2019
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT

7

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. _____	P.I.N.# _____
Petitioner: Dogtopia of Arlington Heights	Location: 660, 664, 668 and 676 E Rand Rd Arl
Chris and Catherine Barnes (513) 328-581	Rezoning: _____ Current: _____ Proposed: _____
1965 S. Egret Ct Libertyville, IL 60048	Subdivision: _____
Owner: MJK Real Estate Holdings Co, LLC	# of Lots: _____ Current: _____ Proposed: _____
Ricky Silverman - VP (847) 919-4804	PUD: _____ For: _____
790 Estate Drive, Suite 100 Deerfield, IL	Special Use: _____ For: Dog Kennel Usage
Contact Person: _____	Land Use Variation: _____ For: _____
Address: _____	Land Use: _____ Current: _____
Phone #: _____	Proposed: _____
Fax #: _____	Site Gross Area: _____
E-Mail: _____	# of Units Total: _____
	1BR: _____ 2BR: 3BR: 4BR: _____

(Petitioner: Please do not write below this line.)

- | | YES | NO | |
|----|-------------------------------------|--------------------------|---|
| 1. | ☒ | ☐ | COMPLIES WITH COMPREHENSIVE PLAN? |
| 2. | ☒ | ☐ | COMPLIES WITH THOROUGHFARE PLAN? |
| 3. | ☒ | ☐ | VARIATIONS NEEDED FROM ZONING REGULATIONS? |
| | | | (See below.) |
| 4. | ☒ | ☐ | VARIATIONS NEEDED FROM SUBDIVISION REGULATIONS? |
| | | | (See below.) |
| 5. | ☒ | ☐ | SUBDIVISION REQUIRED? |
| 6. | ☒ | ☐ | SCHOOL/PARK DISTRICT CONTRIBUTIONS REQUIRED? |
| | | | (See below.) |

Comments:

PLEASE SEE ATTACHED

 4.26.19
Date

Planning & Community Development Dept. Review

April 26, 2019



REVIEW ROUND 1

Project: Dogtopia Special Use Permit

Case Number: PC 19-004

General:

7. The following approval has been requested:
 - a. **Special Use Permit to allow a "Kennel, Commercial"**
8. The following variations have been identified:
 - a. **A Variation from Chapter 28, Section 6.12-1 of the Village of Arlington Heights Municipal Code, to waive the requirement to provide a traffic and parking study from a certified Traffic Engineer.**
 - b. **A Variation from Chapter 28, Section 6.13-3 of the Village of Arlington Heights Municipal Code, to allow a fence that is 8 feet in height where a maximum height of 6 feet is permitted for fences in side yards.**
9. If seeking the variations as noted in comment 8, please provide written justification demonstrating compliance with the following standards of approval, as outlined in the Plan Commission Application Packet:
 - a. **The proposed use will not alter the essential character of the locality and will be compatible with existing uses and zoning of nearby property.**
 - b. **The plight of the owner is due to unique circumstances, which may include the length of time the subject property has been vacant as zoned.**
 - c. **The proposed variation is in harmony with the spirit and intent of this Chapter.**
 - d. **The variance requested is the minimum variance necessary to allow reasonable use of the property.**
10. The maximum fence height permitted by code is 6 feet. Currently, the fence enclosing the outdoor play area is shown to be 8 feet in height. If you wish to avoid the variation noted in comment 8b, please revise plans to show the fence at 6 feet in height.
11. Please provide additional details on the proposed design of the solid fence.
12. If the variation noted in comments 8a is requested, please provide an estimate of parking demand based upon parking lot utilization at other Dogtopia locations in suburban Chicago. Such parking counts shall consist of two days of counts (one weekday and one Saturday), conducted over a three-hour period on each day when the selected Dogtopia is at its busiest.
13. The provided response to Special Use Permit Review Criteria is acceptable.
14. Please revise plans to show the location of the building to the east in relation to the proposed outdoor play area. Per the provided plans, adequate space does not appear to be provided outside of the fenced play area to allow for access to the building to the east or to the auxiliary parking area north of the play area. Adequate space (a minimum of 5 feet in width) shall be provided along the east side of the outdoor play area to allow for access to the building to the east and the auxiliary parking area to the north.
15. It is understood that the provided renderings are conceptual, and that final building and window signage is to be determined. All signage shall require separate permit review and approval.

Prepared by:

4.26.19

Dogtopia
660-676 E. Rand Road
PC 19-004
April 25, 2019

Landscape Comment

- 1) Provide a detailed site plan that shows the exterior play area, the existing trees, the existing planters, the existing trash coral and the building to the east.
- 2) In order to soften the proposed 8 foot high fence, provide landscaping along the perimeter. The landscaping should consist of a mix of deciduous shrubs and evergreen shrubs that are 3-4 feet high at time of installation. The location of the play area may need to be evaluated in order to accomodate landscaping.
- 3) After review of a detailed site plan, additional comments may be forthcoming.

Plan Review for Accessibility

- Service and sales counter
 - All ADA requirements will be incorporated into the construction plan and execution
 - Exhibit with current proposed floorplan is attached. We have configured the hallway space to include an ADA accessible route to the [play area, with required turn radius

Fire Safety Comments

Point 1 – All currently adopted codes will be included in the buildout design and permit application

Point 2 – If required, a fully functional fire alarm will be installed. A functional operational annunciator panel or alarm panel at the main front entrance

Point 3 – Shop drawings for the fire alarm and suppression systems will be submitted a part of the permit process

Point 4 – All required visual and audio requirements will be included in construction plan for permit review

Point 5 – A knox box will be installed adjacent to the main entry door and master key will be located inside box

Point 6 – The building will be equipped with all necessary illuminated Exit and Emergency lighting. These items will be included in the design and permit application submission

Point 7 - Building numeric address will be included on exterior front elevation

Public Works Department

Point 1 - Installation of a new RPZ on domestic and fire suppression lines will be included in the building plans for permit application submission and all required testing will be filed with the Public Works Department upon completion

Point 2 – Plumbing plans will be included in overall building architecture and engineering and submitted for permit application submission

Engineering Department

Point 11 – Acknowledged

Point 12 - Acknowledged

Point 13 - Exterior lighting comments

- Proposed lighting plan will be included in construction drawings and permit process. Dark-sky compliant fixtures will be used if required and photometric plan will be submitted if exterior lighting changes take place

Point 14 – Acknowledged

Arlington Heights Fire Department Plan Review Sheet

Point 1 – A fully functional fire alarm will be installed. A functional operational annunciator panel or alarm panel at the main front entrance

Point 2 – Further comments will be addressed once any applicable items are identified

Point 3 – A knox box will be installed adjacent to the main entry door and master key will be located inside box

Arlington Heights Police Department

Point 1 - Acknowledged

Point 2 – Exterior lighting, as identified previously, will be assessed per Village requirements and included in the final plans for construction. Applicable photometric plans, location and spec sheet for fixtures will be provided in permit application submission

Point 3 – Acknowledged

Point 4 – Acknowledged

Point 5 - Acknowledged

Point 6 – Contact form not included, will solicit that from Jake Schultz. Once staff is identified, staff and agent contact sheet will be provided to the Village for any future contact needs. Prior to business opening, the requested contact card will be filed with the Police Department to include management and owner information

Health Services Department

Point 1 – “General Comments”

- Exhibit is included to show the location of the exiting dumpster corral. This will be used, and we will contract for pickup of refuse multiple times per week
- Existing interior dumpster corral conditions are paved

- Dumpster corral is fully enclosed with swing gate access, providing coverage and security
- Existing dumpster corral is located behind the building and accessed through a shared asphalt lot in the rear of the property. This provides sufficient space for trash pickup and the area is not accessible through the front of the property common areas

Plan Review for Accessibility

Reception 101 – Service and sales counters will be designed in a manner with which to comply with IAC Section 904.4, 904.4.1 and 904.4.2. This will be included in final design and formal permit application submission

Exterior Play Area – Accessible route is identified on provided conceptual floorplan. Egress is granted through the main hallway, with IAC turning radius at doorway for accessibility

Planning and Community Development Department

Point 7 – Acknowledged

Point 8 – Variation for 8' fence height to be requested, to ensure the safety and overall appeal of the shopping center and Dogtopia staff and clients

Point 9 – Acknowledged

Point 10 – Acknowledged

Point 11 – Sample of material option is being included in submittal email

Point 12 – Car count will be conducted and submitted

Point 13 – acknowledged

Point 14 – Exhibit is included on email response to show East building access in relation to proposed outside play area

Point 15 - Acknowledged



**Village of Arlington Heights, IL
Department of Building & Life Safety**

Fire Safety Comments

Date: 5/16/2019

P.C. Number: 19-004 Rev. No. 2

Project Name: Dogtopia Special Use Permit

Project Location: 660 -676 E. Rand Ave

Planning Department Contact: Jake Schmidt, Planning and Community Development

No additional comments.

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MAY 17 2019

**PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT**

Date 05-16-19

Reviewed By: 

Fire Safety Supervisor

Memorandum

To: Jake Schmidt, Planning & Community Development
From: Cris Papierniak, Assistant Director of Public Works
Date: May 2, 2019
Subject: 660-676 E Rand Road, P.C. #19-004

With regard to the special use permit, I have the following comments:

- 1) Further comments will be made once construction plans have been submitted.

If you have any questions, please feel free to contact me.

C. file

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MAY 23 2019
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

**PLAN COMMISSION PC #19-004
Dogtopia of Arlington Heights
660, 664, 668 & 676 E Rand Rd
Special Use Permit, Variation to waive traffic and parking study
Round 2**

15. The petitioner's response to comment nos. 11, 12 and 14 are acceptable.
16. The petitioner's response to comment No. 13 is noted. The proposed lighting plan cut sheets and photometric plan shall be provided. This can be addressed at permit.
17. The Engineering Division has no further comments.


Michael L. Pagones, P.E. 5/22/19
Village Engineer Date

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**PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT**



Arlington Heights Fire Department Plan Review Sheet

P. C. Number 19-004

Project Name

Dogtopia

Project Location

660-676 E. Rand Road

Planning Department Contact Jake Schmidt

General Comments

Round 2

The Fire Department has no additional comments at this time.

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MAY 21 2019
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

**NOTE: PLAN IS CONCEPTUAL ONLY
SUBJECT TO DETAILED PLAN REVIEW**

Date May 21, 2019

Reviewed By: LT. Mark Aleckson

Arlington Heights Fire Department

ARLINGTON HEIGHTS POLICE DEPARTMENT

Community Services Bureau

DEPARTMENT PLAN REVIEW SUMMARY

Dogtopia
660-676 E. Rand Rd.
Special Use Permit, Variation to waive traffic and parking study

Round 2 Review Comments

05/22/2019

1. **Character of use:**
Nothing further.
2. **Are lighting requirements adequate?**
Nothing further.
3. **Present traffic problems?**
Nothing further.
4. **Traffic accidents at particular location?**
Nothing further.
5. **Traffic problems that may be created by the development.**
Nothing further.
6. **General comments:**
Nothing further.

Alexandra Ovington #330
Alexandra Ovington, Crime Prevention Officer
Community Services Bureau

Approved by:

[Signature] #553
Supervisor's Signature

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MAY 23 2019

**PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT**



**Village of Arlington Heights
Health & Human Services Department**

Memorandum

To: Jake Schmidt, Assistant Planner

From: Sean Freres, Environmental Health Officer

A handwritten signature in black ink, appearing to be "SF", written over the name Sean Freres.

CC: James McCalister, Health & Human Services Director

A handwritten signature in black ink, appearing to be "JM", written over the name James McCalister.

Date: May 22, 2019

Re: PC# 19-004. Dogtopia Special Use Permit, 660-676 E. Rand Rd.- Round 2

-
- The business is required to obtain a Kennel Operator license from the Illinois Department of Agriculture (217-782-2172) and a Kennel business license from the Village of Arlington Heights.
 - See attached disability comments.

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PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

Plan Review for Accessibility

Address: Dogtopia
660-676 E. Rand Road
SUP, Variation to wave traffic and parking study
P.C. #19-004

Round 2

Submitted to: Jake Schmidt, Planning & Community Development

Submitted by: David Robb, Disability Services Coordinator
(847) 368-5793



Date: May 21, 2019

Re: Illinois Accessibility Code (IAC) effective October 23, 2018
<https://www2.illinois.gov/cdb/announcements/2018/Pages/New-Illinois-Accessibility-Code.aspx>

Exterior Play Area

Per the conversation with Jay, the Architect on May 21, 2019, he agreed to put in a wheelchair ramp to serve the area now served by stairs, as required by IAC Section 206.2.

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MAY 22 2019

PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

Planning & Community Development Dept. Review

May 22, 2019



REVIEW ROUND 2

Project: Dogtopia Special Use Permit

Case Number: PC 19-004

General:

1. The responses to comments 7 and 8 are acceptable
2. The written justification to variation criteria is acceptable
3. The responses to comments 10 and 11 are acceptable.
4. The response to comment 12 is acceptable. Please provide the parking survey no later than Tuesday, June 4th, 2019.
5. The response to comment 13 is acceptable.
6. The response to comment 14 is not acceptable. Please revise the proposed east-west dimension of the outdoor play area to 45 feet from the proposed 51 feet 11 inches, in order to allow greater access and visibility for the storefronts to the east and the rear parking area.
7. The response to comment 15 is acceptable.
8. Please provide documentation or evidence that you have permission to utilize the courtyard for the proposed outdoor play area.
9. Per comment 6 above and comments submitted by the Landscape Planner, please provide a revised site plan for the outdoor play area showing the existing and proposed landscaping (including landscape screening along the outside of the fence), as well as the dimensions to the building to the east, and the dimensions to the edge of the sidewalk to the south.

Prepared by: _____

A handwritten signature in black ink, consisting of a stylized 'A' followed by a horizontal line.

Dogtopia
660-676 E. Rand Road
PC 19-004
May 16, 2019

Landscape Comments

- 1) Provide a detailed site plan with dimensions that shows the exterior play area, the existing trees, the existing planters, the existing trash coral and the building to the east.**
- 2) In order to soften the proposed 8 foot high fence, provide landscaping along the perimeter. The landscaping should consist of a mix of deciduous shrubs and evergreen shrubs that are 3-4 feet high at time of installation. The location of the play area may need to be evaluated in order to accommodate landscaping. Please provide a detailed plan that identifies the proposed landscaping on the site plan. In place of the proposed Boxwood it is recommended that 4 foot high Viburnum be provided.**
- 3) After review of a detailed site plan, additional comments may be forthcoming.**

Department of Building and Life Safety

- No additional comments – acknowledged

Public Works Department

- 1.) Acknowledged

Plan Commission

- 15.) Acknowledged
- 16.) Acknowledged
- 17.) Acknowledged

Fire Department

- No additional comments – acknowledged

Police Department

- 1.) Acknowledged
- 2.) Acknowledged
- 3.) Acknowledged
- 4.) Acknowledged
- 5.) Acknowledged
- 6.) Acknowledged

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JUN 04 2019
**PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT**

Health and Human Services Department

- Once approval to move forward is granted, Dogtopia of Arlington Heights will apply for the proper Kennel Operator License
- “Attached disability comments” – Exterior Play Area - Wheelchair ramp is agreed to be installed to serve the area now served by stairs, as required by IAC Section 206.2. This will be incorporated into the overall design and construction, to meet necessary code requirements.

Planning and Community Development Department

- 1.) Acknowledged

- 2.) Acknowledged
- 3.) Acknowledged
- 4.) Traffic observations are included with response material
- 5.) Acknowledged
- 6.) Proposed East-West dimensions of the outdoor play area to 45 feet from the proposed 51'-11", in order to allow greater access and visibility for the storefronts to the East and the rear parking area. The length of outside play area is adjusted on the included exterior site drawing
- 7.) Acknowledged
- 8.) Documentation or evidence that Dogtopia of Arlington Heights has permission to utilize the courtyard for the proposed outdoor play area
 - a. Please reference page (34) of previously included executed lease, Exhibit A-1, page included in this packet. Area for outdoor play area was a negotiated portion of the lease agreement between Dogtopia of Arlington Heights and MJK Real Estate Holding Company LLC
 - b. Email acknowledgement of outdoor play area from landlord is included in response materials
- 9.) Per comment 6 above and comments submitted by the Landscape Planner, please provide a revised site plan for the outdoor play area showing the existing and proposed landscaping (including landscape screening along the outside of the fence), as well as the dimensions to the building to the East, and the dimensions to the edge of the sidewalk to the South
 - a. Revised site plan exhibit included in packet. Size of outdoor play area revised down to 45' long front elevation, with dimension to sidewalk and building to the East identified. Includes Viburnum, as marked, and to be installed in bed along front of fence, at spacing dictated by architect and approved by Village. Bed to have hard curb and mulch inside to be aesthetically pleasing and soften fence appearance.
 - b. Proposed fence material included in first round response. Proposed as three options (or similar and agreed upon) to be a vinyl-based maintenance free designer appearance of either white vinyl or faux stone or brick. Screening unnecessary as there will be no gaps in material to allow for visual observation from outside to inside the outdoor enclosure.

Landscape Comments:

- 1.) Provide a detailed site plan with dimensions that shows the exterior play area, the existing trees, the existing planters, the existing trash corral and the building to the East.
 - a. Included in packet
- 2.) In order to soften the proposed 8' high fence provide landscaping along the perimeter. The landscaping should consist of a mix of deciduous shrubs and evergreen shrubs that are 3-4 feet high at the time of installation. The location of the play area may need to be evaluated in order to accommodate landscaping. Please provide a detailed plan that identifies the proposed landscaping on the site plan. In place of the proposed Boxwood it is recommended that 4-foot-high Viburnum be provided
 - a. Revised plan included to identify reduced footprint, viburnum, rather than boxwoods, and mulched bed.
- 3.) After review of a detailed site plan, additional comments may be forthcoming - Acknowledged

PLAN COMMISSION PROJECT TIMELINE

Project Name: Dogtopia
 PC Number: 19-004
 Location: 660, 664, 668, 676, and 1000 E. Rand Rd.
 Requested Action:

1. Special Use Permit to allow a “Kennel, Commercial”.
2. Variation from Chapter 28, Section 6.12-1 of the Municipal Code, to waive the requirement to provide a traffic and parking study from a certified Traffic Engineer.
3. Variation from Chapter 28, Section 6.13-3(b), to allow an 8-foot tall fence where the maximum fence height is restricted to 6 feet

	Date	# of Business Days
Petitioner Provided Documentation for CPRC	1/9/19	-
Conceptual Plan Review Meeting (CPRC)	2/27/19	34
Awaiting PC Application	4/15/19	33
PC Application Submittal Date	4/15/19	-
1 st Round Department Comments	5/3/19	14
Petitioner’s Response – 1 st Round	5/15/19	8
2 nd Round Department Comments	5/24/19	7
Petitioner’s Response – 2 nd Round	6/4/19	6
PC Hearing	6/12/19	58 days from application date
Village Board	7/15/19	22
Potential Village Board Ord. Adoption	8/5/19	15



Village Board
7/15/2019

Item: Sigwalt 16 - 37-45 S. Chestnut Ave. & 36-40 S. Highland Ave. -
PC#19-005

Department: Planning & Community Development

Requested Action

1. A rezoning from R-3, One-Family Dwelling District to R-7, Multiple-Family Dwelling District.
2. A Planned Unit Development (PUD) to allow the construction of a 16-unit residential rowhome development.
3. Final Plat of Resubdivision to subdivide the subject property into individual lots for each townhome unit and for common areas.

Variations Required

1. Variation to Chapter 28, Section 5.1-7.2, Minimum Area for Zoning District, to allow the R-7 District to be approximately 1.39 acres where code requires a minimum of 2 acres for the R-7 District.
2. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback for the townhome building along Highland Avenue to be 12' where code requires a 25' setback.
3. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback for the townhome building along Chestnut Avenue to be 17' where code requires a 25' setback.
4. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback (north) to be 8' for the building along Chestnut Avenue where code requires a 15' setback.
5. Variation to Chapter 28, Section 5.1-7.10, Spacing Between Multi-Family Buildings, to allow 5' spacing between principal buildings where code requires 25' spacing.

6. Variation to Chapter 28, Section 10.2-8, to allow a two-way driveway width of 21' where code requires a minimum of 24' for a two-way drive aisle.
7. Variation to Chapter 28, Section 10.2-9, to allow tandem parking spaces.
8. Variation to Chapter 28, Section 10.2-13 Maximum Number of Spaces to exceed code by more than 50%.
9. A variation from Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback of 4.6 feet for lots 1 through 11 and 4.3 feet for lots 12 through 16 where code requires a 25-foot front yard setback for all lots.
10. A variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback of 0 feet for interior walls on lots 1, 6, and 12 where code requires a 2.6 foot side yard setback, and 0 feet for interior walls on lots 2, 3, 4, 5, 8, 9, 10, 13, 14, and 15 where code requires a 2 foot side yard setback, and 0 feet for interior walls on lots 7, 11, and 16 where code requires a 2.1 foot side yard setback.
11. A variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback of 0 feet for outer walls on lots 7, 11, and 15 where code requires a 2.1 foot side yard setback, and 4.3 feet for outer walls on lots 1 and 6 where code requires a 2.6 foot side yard setback, and 4.6 feet for outer walls on lot 12 where code requires a 2.6 foot side yard setback.
12. A variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a rear yard setback of 0 feet for lots 1 through 16 where code requires a 30-foot rear yard setback.
13. A variation to Chapter 28, Section 5.1-7.7, Maximum Building Lot Coverage, to allow approximately 291% building lot coverage for lots 2 and 15, approximately 290% building coverage for lots 3 and 8, approximately 287% building lot coverage for lot 16, approximately 284% building lot coverage for lots 7, 11, 13, and 14, and approximately 283% building lot coverage for lots 4, 5, 9, and 10 where code allows a maximum building lot coverage of 200% on all lots.
14. A variation to Chapter 28, Section 5.1-7.11, Maximum Floor Area Ratio, to allow approximately 73% F.A.R. on lot 1, approximately 74% F.A.R. on lot 12, approximately 75% F.A.R. on lot 6, approximately 84% F.A.R. on lots 4, 5, 9, 10, and 14, approximately 85% F.A.R. on lot 13, approximately 87% F.A.R. on lots 7 and 11, approximately 88% F.A.R. on lots 2, 3, 8, and 16, and approximately 89% F.A.R. on lot 15 where code allows a maximum F.A.R. of 55% on all lots.

Recommendation

A public hearing was held by the Plan Commission on June 26, 2019 where Commissioner Cherwin moved and Commissioner Sigalos seconded:

A motion to recommend to the Village Board of Trustees, approval of PC#19-005, a re-zoning from R-3 One Family Dwelling District to R-7 Multiple-Family Dwelling District; a planned unit development to allow the construction of a 16-unit

residential townhome development; and a Final Plat of resubdivision to subdivide the subject property into individual lots for each townhome unit and for common areas, as well as the following variations:

1. Variation to Chapter 28, Section 5.1-7.2, Minimum Area for Zoning District, to allow the R-7 District to be approximately 1.39 acres where code requires a minimum of 2 acres for the R-7 District.
2. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback for the townhome building along Highland Avenue to be 12' where code requires a 25' setback.
3. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback for the townhome building along Chestnut Avenue to be 17' where code requires a 25' setback.
4. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback (north) to be 8' for the building along Chestnut Avenue where code requires a 15' setback.
5. Variation to Chapter 28, Section 5.1-7.10, Spacing Between Multi-Family Buildings, to allow 5' spacing between principal buildings where code requires 25' spacing.
6. Variation to Chapter 28, Section 10.2-8, to allow a two-way driveway width of 21' where code requires a minimum of 24' for a two-way drive aisle.
7. Variation to Chapter 28, Section 10.2-9, to allow tandem parking spaces.
8. Variation to Chapter 28, Section 10.2-13 Maximum Number of Spaces to exceed code by more than 50%.
9. A variation from Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback of 4.6 feet for lots 1 through 11 and 4.3 feet for lots 12 through 16 where code requires a 25-foot front yard setback for all lots.
10. A variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback of 0 feet for interior walls on lots 1, 6, and 12 where code requires a 2.6 foot side yard setback, and 0 feet for interior walls on lots 2, 3, 4, 5, 8, 9, 10, 13, 14, and 15 where code requires a 2 foot side yard setback, and 0 feet for interior walls on lots 7, 11, and 16 where code requires a 2.1 foot side yard setback.
11. A variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback of 0 feet for outer walls on lots 7, 11, and 15 where code requires a 2.1 foot side yard setback, and 4.3 feet for outer walls on lots 1 and 6 where code requires a 2.6 foot side yard setback, and 4.6 feet for outer walls on lot 12 where code requires a 2.6 foot side yard setback.
12. A variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a rear yard setback of 0 feet for lots 1 through 16 where code requires a 30-foot rear yard setback.

13. A variation to Chapter 28, Section 5.1-7.7, Maximum Building Lot Coverage, to allow approximately 291% building lot coverage for lots 2 and 15, approximately 290% building coverage for lots 3 and 8, approximately 287% building lot coverage for lot 16, approximately 284% building lot coverage for lots 7, 11, 13, and 14, and approximately 283% building lot coverage for lots 4, 5, 9, and 10 where code allows a maximum building lot coverage of 200% on all lots.

14. A variation to Chapter 28, Section 5.1-7.11, Maximum Floor Area Ratio, to allow approximately 73% F.A.R. on lot 1, approximately 74% F.A.R. on lot 12, approximately 75% F.A.R. on lot 6, approximately 84% F.A.R. on lots 4, 5, 9, 10, and 14, approximately 85% F.A.R. on lot 13, approximately 87% F.A.R. on lots 7 and 11, approximately 88% F.A.R. on lots 2, 3, 8, and 16, and approximately 89% F.A.R. on lot 15 where code allows a maximum F.A.R. of 55% on all lots.

This recommendation shall be subject to the following conditions:

1. Eight feet of land shall be dedicated for additional right-of-way along both Highland and Chestnut Avenues.
2. The Petitioner shall widen Chestnut Avenue approximately eight feet and construct four on-street parking spaces.
3. Brick paver sidewalks shall be required on Highland Avenue (five feet wide) including decorative streetlights within the parkway.
4. All fees required for final plat approval shall be provided prior to Village Board consideration of the final plat.
5. An on-site utility management agreement must be provided prior to building permit issuance.
6. All new above ground utility equipment, transformers, switch gear, and building-mounted mechanical equipment must be appropriately located and screened. All gas and electric meters, as well as all cable and phone connections, should be routed to the rear of each unit, as feasible rooftop mechanicals shall be screened.
7. The Petitioner shall cooperate with implementation of a parking/loading zone on Sigwalt if required.
8. Final staging and construction plans shall be provided at building permit.
9. Architectural design shall be in substantial compliance with the Design Commission recommendation of May 28, 2019.
10. Petitioner shall pay a fee of \$120,000 for affordable housing at time of building permit per the Housing Commission recommendation of June 11, 2019.
11. School, park, and library contributions shall be required per Village code prior to the issuance of a building permit for each row home building.

12. The Petitioner shall comply with all federal, state, and Village codes, regulations, and policies.

Roll Call Vote: Commissioners Cherwin, Dawson, Green, Lorenzini, Sigalos, Warskow, and Chair Ennes voted in favor. Motion carried.

ATTACHMENTS:

Description	Type
PC Staff Report	Board or Commission Report
PC Minutes 6/26/19	Minutes
CPRC Minutes - 2/27/19	Minutes
DC Minutes - 5/28/19	Minutes
DC Staff Report - 5/28/19	Board or Commission Report
Housing Commission Minutes - 6/11/19 DRAFT	Minutes
Housing Commission Staff Report - 6/11/19	Board or Commission Report
Neighborhood Meeting Summary	Exhibits
Project Narrative	Correspondence
Site Plan	Exhibits
Variation Criteria	Exhibits
Renderings	Exhibits
Elevations	Exhibits
Floor Plans	Exhibits
Final Engineering Plans	Exhibits
Plat of Survey	Exhibits
Plat of Subdivision	Exhibits
Landscape Plan	Exhibits
Market Study - April 2019	Exhibits
Traffic Study	Exhibits
Loading Zone Concept	Exhibits
Construction Phasing	Exhibits
Construction Schedule	Exhibits
Supplemental Variation Letter	Correspondence
Department Comments - Round 1	Exhibits
Department Comments - Round 1 - Petitioner Response	Exhibits
Department Comments - Round 2	Exhibits
Department Comments - Round 2 - Petitioner Response	Exhibits
PC Timeline Tracker	Exhibits



VILLAGE OF ARLINGTON HEIGHTS STAFF DEVELOPMENT COMMITTEE REPORT

PC File Number: 19-005

Project Title: Sigwalt 16

Address: 37-45 S. Chestnut St., 36-40 S. Highland St.

PIN: 03-30-425-021 thru 023, 03-30-425-012 thru 014

To: Plan Commission

Prepared By: Bill Enright, Deputy Director Planning

Meeting Date: June 26, 2019

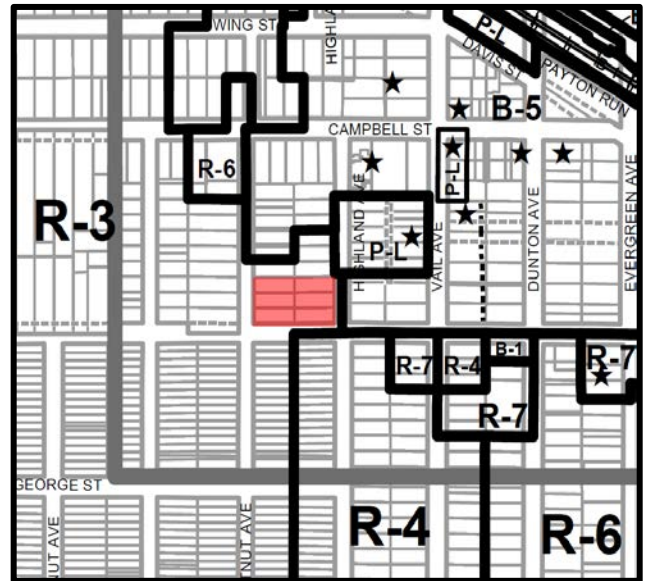
Date Prepared: June 20, 2019

Petitioner: Marc McLaughlin
Taylor Morrison

Address: 1834 Walden Office Square - Suite 300
Schaumburg, IL 60173

Existing Zoning: R-3: One-Family Dwelling District

Comprehensive Plan: High Density Multi-Family



SURROUNDING LAND USES

Direction	Existing Zoning	Existing Use	Comprehensive Plan
North	B-5: Downtown District	Vacant	Mixed Use
South	R-3: One-Family Dwelling District, R-4: Two-Family Dwelling District	Single Family	Single Family Attached; High Density Multi Family
East	B-5: Downtown District	Offices, Parking	Mixed Use
West	R-3: One-Family Dwelling District	Single Family	Single Family Attached

Requested Action:

1. A rezoning from R-3, One-Family Dwelling District to R-7, Multiple-Family Dwelling District
2. A Planned Unit Development (PUD) to allow the construction of a 16-unit residential rowhome development.
3. Final Plat of Resubdivision to subdivide the subject property into individual lots for each townhome unit and for common areas.

Variations Required:

1. Multiple Variations, see **Appendix 1**.

Project Background:

The subject property consists of six lots of record comprising a total of 41,987 square feet (0.96 acres) and is approximately one-fourth of the larger “Block 425” site, which is the area of land bounded by Sigwalt Street to the south, Campbell Street to the north, Highland Avenue to the east, and Chestnut Avenue to the west. Block 425 has sat vacant and undeveloped for several years. As it is an important piece of downtown, one of the Board’s 2017 Strategic Priorities is to facilitate development of Block 425. Currently, the subject property is zoned R-3, One-Family Dwelling District.

Taylor Morrison, a national homebuilder headquartered in Arizona, has the property under contract and is proposing a resubdivision of the property to accommodate the construction of a four-story 16-unit residential rowhome development consisting of three separate rowhome buildings. Each rowhome unit would include a ground floor garage and a small entry room on the first floor (and option bedroom or tandem parking space), kitchen and living room/dining room space on the second floor, three bedrooms on the third floor, and as an option a recessed fourth floor with space for a small office/den as well as an outdoor rooftop deck for each unit. Building 1 would be oriented along Highland Avenue, Building 2 along Sigwalt Street, and Building 3 along Chestnut Avenue.

Access to the site would come from Highland Avenue, which would provide entry/exit to the rear loaded garages at the back of each unit. Each unit would include a minimum of two garage parking spaces and there would be 8 guest parking spaces in the rear motor court area. Two on-street parking spaces along Highland Avenue would be removed to accommodate the driveway entrance (there are currently five on-street parking spaces along Highland Avenue adjacent to the site). In addition Chestnut Avenue will be widened for four public on street parking spaces.

The basic characteristics of the development are summarized in **Table 1** below:

Table 1: Development Characteristics

	Proposed	Code
Total Number of Units	16	-
Overall Number of Bedrooms	48	-
Max. Dwelling Units Per Acre	17.6	48.4
Required Minimum Lot Size (density)	39,587 sq. ft.	14,400 sq. ft.
Setbacks		
North (side)	8'	15'
South (exterior side)	20'	20'
East (front)	12'	25'
West (front)	17'	25'
F.A.R.	115%	200%
Building Lot Coverage	37%	55%
Height	Chestnut 42'6" Highland 43'9" Sigwalt 43'10"	60'
Number of Parking Spaces	40	24
Parking Spaces Per Unit	2.5	1.5

Zoning, Comprehensive Plan, Downtown Master Plan

The subject property is currently zoned R-3, One-Dwelling Residential District. In order to proceed with the development, the site must be rezoned to R-7, Multiple-Family Dwelling District, and obtain approval of a Planned Unit Development. Staff notes the following with regards to the proposed rezoning:

2015 Comprehensive Plan:

- The Comprehensive Plan designates this property as “High Density Multi-Family”, which is appropriate for the R-7 Multiple-Family Dwelling District classification. The proposed rezoning is therefore consistent with the Comprehensive Plan land use designation.

2007 Downtown Master Plan:

- One of the objectives of the Downtown Master Plan is to “Strengthen downtown’s residential base by encouraging additional residential development”. The proposed rezoning is consistent with this objective as it will facilitate a moderate density residential development that will strengthen the downtown residential base to a greater extent than single-family homes, which are allowed under the current R-3 zoning.
- The Downtown Master Plan calls for redevelopment of Block 425, and Recommendation #1 within the plan calls for Block 425 to be redeveloped as “mixed-use on northern three-quarters of block transitioning to 4 to 6 stories on the southern quarter of block.” The proposed 4-story building is consistent with this recommendation.

Conceptual Plan Review Committee

The Conceptual Plan Review Committee of the Plan Commission met on February 27, 2019 to discuss the proposed development and were supportive of the developer moving forward. The minutes of the meeting are included in the packet.

Neighborhood Meeting

The petitioner held a neighborhood meeting at Village Hall on April 16, 2019 to obtain early input on the development. The developer’s summary of the meeting is included in the packet.

Analysis

As outlined in this report, staff is supportive of the rezoning, PUD, Plat of Subdivision, and variations. The developer has proposed a high quality, low density rowhome concept that will compliment the varied housing types in the downtown area and is an appropriate transition from the downtown to the single family homes to the south and west. The following subsections of the project analysis address the architecture, infrastructure, parking and traffic, affordable housing, and justifications for the variations sought. Included in the recommendation are several conditions of approval to ensure a high quality development.

Architectural Design / Landscaping

The Design Commission met on May 28, 2019 and recommended approval of the architecture with several conditions. As part of the developer’s presentation at the meeting, it was stated that the fourth floor spaces would be included on the end units, but the interior units it would be optional depending on the buyer. The fourth floor is recessed 14 feet from the fronts of the buildings to reduce massing and provide a roof terrace. It should be noted that the developer has made several positive modifications to the design as a result of a preliminary review of the Design Commission and staff comments.

Landscaping for the project is extensive and provides a variety of trees, shrubs and perennials. The developer has accented the corners of the site with layers of landscaping to create very nice focal points in the front corner yards. In addition, the motor courtyard at the rear consists of permeable decorative brick pavers, which enhance the aesthetics and assist with storm water management. The staff report and minutes are included in this packet for more detailed information on the design.

Affordable Housing

The Housing Commission met on June 11, 2019 and recommended that the developer pay a fee in lieu of \$120,000, which equates to \$75,000 per affordable unit (1.60 units required; 10% of 16 total units). Since this is a for sale

development, it was determined that requiring a fee in lieu of was more beneficial. The fee is to be paid with the first building permit. The minutes of this meeting are included in the packet.

Variations

As outlined in **Appendix 1** at the end of this report, several variations are required and will be discussed throughout this report. For the requested variations, the petitioner provided written justification detailing how each variation complies with the hardship standards for variation approval as outlined below:

- **The proposed use will not alter the essential character of the locality and will be compatible with existing uses and zoning of nearby property.**
- **The plight of the owner is due to unique circumstances, which may include the length of time the subject property has been vacant as zoned.**
- **The proposed variation is in harmony with the spirit and intent of this Chapter.**
- **The variance requested is the minimum variance necessary to allow reasonable use of the property.**

The petitioners proposed development complies with the height, density, building lot coverage, floor area ratio and parking regulations of the R-7 District as outlined in Table 1. The petitioner is seeking the following setback variations for the buildings as follows:

- **Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback along Highland Avenue to be 12' where code requires a 25' setback.**
- **Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback along Chestnut Avenue to be 17' where code requires a 25' setback.**
- **Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback (north) to be 8' where code requires a 15' setback.**

The petitioner has provided the required justification for each setback variation (included in the packet). Staff notes that 8' of ROW dedication is required along both Chestnut Avenue and Highland Avenue. There are no plans to widen Highland Avenue at this time, so although the setback along Highland will be 12', in reality the setback will appear as 20'. Chestnut will be widened by 8 feet to accommodate parking along the east side of Chestnut. The 17 foot setback for the 6 rowhomes along Chestnut will be setback five feet more than the approved setback for the Chestnut multifamily building approved to the north as part of the Block 425 development. In addition, the single family homes on the west side of Chestnut across from the development are generally setback 15 to 17 feet. Also, the fourth floor of the buildings are recessed 14 feet from the front, thus reducing the massing of the buildings.

Relative to the separation between buildings, the following variation is required:

- **Variation to Chapter 28, Section 5.1-7.10, Spacing Between Multi-Family Buildings, to allow 5' spacing between principal buildings where code requires 25' spacing.**

The 5' building separation is between the rear of the Chestnut and Highland buildings and the side of the Sigwalt building to allow for pedestrian walkways from behind to the front of the buildings. Additionally, there is nothing that would prevent the developer from attaching all of the buildings together, which would eliminate the need for this variation. This is a minor variation request that enhances the project and has no negative impacts on the surrounding properties therefore the Staff Development Committee is supportive of this variation.

In addition, the following variation is necessary for the drive aisle entrance to the rear motor court:

- **Variation to Chapter 28, Section 10.2-8, to allow a two-way driveway width of 21' where code requires a minimum of 24' for a two-way drive aisle.**

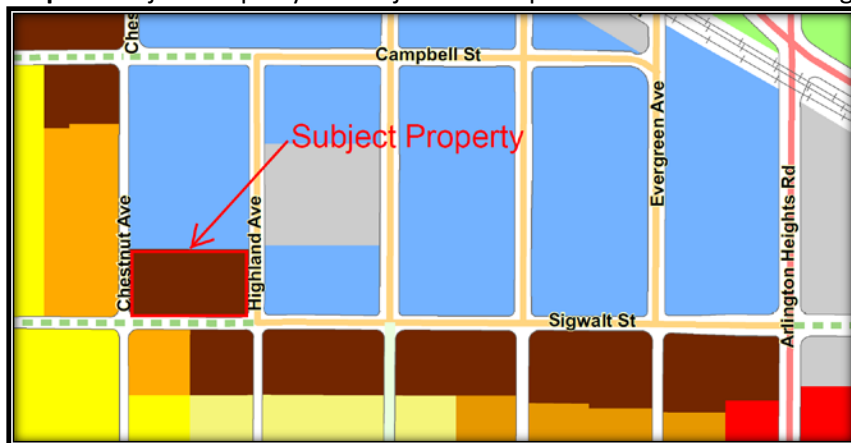
This variation is for a small portion of the driveway adjacent to the north side of the Highland building. Staff notes that the petitioner has space to increase the drive aisle entrance to 24' and comply with code, however, the reduced drive aisle width allows for additional greenspace for foundation plantings along the north side of the eastern townhome building. The drive aisle widens to 24 feet where not adjacent to the building therefore staff supports this request.

One of the required variations relates to the size of the R-7 Zoning District, which in this instance will be 1.39 acres where code requires a minimum of two acres for land within the R-7 District. Therefore, the following variation is needed:

- **Chapter 28, Section 5.1-7.3, Minimum Area for Zoning District, to allow the R-7 District to be approximately 1.39 acres where code requires a minimum of two acres for the R-7 District.**

The minimum R-7 district size is primarily intended to limit instances of spot zoning on smaller properties that may be contiguous with the B-5 District. However, the Comprehensive Plan designates the site as one part of a larger strip of R-7 zoned land that is contiguous to the subject property, and when considered in sum, this strip of potential R-7 zoning is well over two acres in size. **Map I** (below) illustrates this area, with the subject property outlined in red, the brown areas indicating properties appropriate for the R-7 District, and the blue properties as appropriate for B-5 Downtown District zoning:

Map I – Subject Property and Adjacent Comprehensive Plan Land Designations



When the vision of the Comprehensive Plan is realized, the subject property will no longer be an isolated pocket of R-7 zoning and the variation will no longer be applicable. Additionally, this property is unique in that in order to comply with the Comprehensive Plan designation of “High-Density Residential”, R-7 zoning is required and a variation is needed. Any development of this property as R-7 will require this variation. For these reasons, the Staff Development Committee is supportive of the requested variation.

Multiple Variations for Individual Townhome Lots

Since the developer is proposing to subdivide each individual rowhome into its own lot of record, additional variations are technically required. Staff supports the variations as listed in Appendix 1 as there is no impact on the adjacent properties resulting from these variations. In effect, the individual lots will mostly follow the footprint of each rowhome, creating zero lot lines for each home.

Consideration of Variations in Conjunction with a PUD

Section 9.5 of the zoning code provides the authority to grant variations if such variations will not exercise a detrimental influence on the surrounding neighborhood. Variations shall be justified when the other characteristics of the development exceed the minimum standards of the municipal code, including the provision of recreation facilities, conservation of natural resources such as wetlands, and preservation of the natural drainage and floodwater. As outlined in the responses to the variation criteria, staff agrees that the variations sought will not exercise a detrimental influence on the neighborhood. The proposed development is well under code allowances for density, heights, floor

area and building lot coverage. Traffic impact is minimal as the peak hour traffic volume is estimated at 12 trips during the PM peak hour. There are no natural resources to protect and drainage in the neighborhood is being enhanced as part of new storm sewers. Natural drainage shall be provided for on site in green areas and with permeable pavers, as and grading to provide for overland flow of water. The developer will be required to pay contribution fees for park district capital projects for each housing unit.

Market Study

In order to substantiate the market demand for rowhomes in this location, the developer provided a market assessment that analyzes the market absorption rates and suggested pricing for these types of units at this location (see attached market study). The downtown area has a minimal number of rowhome units and this development provides a housing type not common in the downtown. The base price points as recommended in the market study range from \$575,000 to \$725,000, with an absorption rate of 0.5 to 1.5 units per month.

Site Infrastructure

Site engineering plans were provided and reviewed by staff and include on-site underground storm water detention just to the north of the parking courtyard behind the buildings. In addition, permeable pavers are provided in the parking courtyard which are beneficial for storm water management and aesthetics. Storm drainage pipes are provided underground in the front yards with the overall system tying into the Village's storm water sewer to be constructed on Sigwalt Street.

The petitioner has indicated that the overhead utilities that run north south through the property will be relocated underground by Com Ed. Overhead utility wires along Sigwalt will remain due to high estimated costs to bury. However, if the Village determines that a parking and loading zone is necessary along Sigwalt in front of the building, the Village may pursue with Com Ed the possible burial of some of the overhead utilities.

The petitioner shall screen all above ground utility equipment, transformers, switch gear, and building mounted mechanical equipment and facilities should be located to the rear to the extent feasible. All gas and electric meters, as well as all cable and phone connections, should be routed to the rear of each unit.

Plat of Subdivision

The developer has proposed each townhome to be located on an individual platted lot for fee-simple ownership. Therefore the Plat includes 16 lots 1 to 16, and two outlots (outlot A for the motor court and outlot B for the common areas in front of the buildings). All utility easements as required are provided. Prior to the Final Plat approval of the Village Board, the petitioner shall pay all required fees and bonds/ escrows that are typically required for Final Plat approval.

Parking & Traffic

Chapter 28, Section 6.12, Traffic Engineering Approval, requires that planned unit developments provide a traffic and parking study from a certified traffic engineer. The study needs to assess access (location, design, and Level of Service), on-site circulation, trip generation and distribution, parking, and impacts to public streets. The petitioner provided the required study (included in the packet). Traffic volumes are estimated to be very low from this 16 unit development with only 8 trips during the peak AM hour and 12 during the PM peak hour. Other than the widening of Chestnut, no off site roadway improvements are necessary resulting from this development. The Village will monitor the intersection of Highland and Sigwalt and if and when the remainder of the block develops, install a four way stop sign at this intersection.

Relative to parking, the developer is proposing 40 on-site parking spaces, which exceed the code requirement of 24 spaces for this development (1.5 per unit). Of the 40 spaces, 8 will be for guests within the rear parking/access courtyard. The petitioner has verbally indicated that some of the interior garage spaces may be tandem spaces, which would require the following variation, to which staff does not object:

- **Variation to Chapter 28, Section 10.2-9, to allow tandem parking spaces**

Also, Section 10.2-13 Maximum Number of Spaces allows for parking on site to exceed code by no more than 50% of the required parking. Since the required parking is 24 spaces and the developer proposes 40, a variation is necessary. Staff does not object as 32 of the 40 spaces are internal therefore the additional parking beyond code does not result in large expanses of parking areas.

- **Variation to Chapter 28, Section 10.2-13 Maximum Number of Spaces to exceed code by more than 50%.**

Loading/Access

Practically, loading and deliveries will occur on street as the front doors face each of three streets. The petitioner is not proposing a separate loading area but if determined necessary, a loading zone / short term parking area could be accommodated along Sigwalt Street. A concept plan is attached as part of this packet. If deemed necessary, the Village may pursue said parking and loading zone in front of the building, which would require the relocation of certain utilities serving ComEd and others. In addition, the petitioner should note that two bicycle parking spaces shall be provided per Section 10.8-1 of the Zoning Ordinance.

RECOMMENDATION

The Staff Development Committee recommends approval of a Planned Unit Development, rezoning to from R-3 (One Family Dwelling District) to R-7 (Multi Family Dwelling District), Final Plat of Subdivision and requested variations subject to the following conditions:

1. Eight feet of land shall be dedicated for additional right of way along both Highland and Chestnut Avenues.
2. The petitioner shall widen Chestnut Avenue approximately 8 feet and construct 4 on street parking spaces.
3. Brick paver sidewalks shall be required on Highland Avenue (6 feet wide) and Sigwalt Street (5 feet wide) including decorative street lights within the parkway.
4. All fees required for Final Plat approval shall be provided prior to Village Board consideration of the Final Plat.
5. An On-site Utility Management Agreement must be provided prior to building permit issuance.
6. All new above ground utility equipment, transformers, switch gear, and building mounted mechanical equipment must be appropriately located and screened. All gas and electric meters, as well as all cable and phone connections, should be routed to the rear of each unit, as feasible. Rooftop mechanicals shall be screened.
7. The petitioner shall cooperate with implementation of a parking/loading zone on Sigwalt if required.
8. Final staging and construction plans shall be provided at building permit.
9. Architectural design shall be in substantial compliance with the Design Commission recommendation of May 28, 2019.
10. Petitioner shall pay a fee of \$120,000 for affordable housing at time of building permit per the Housing Commission recommendation of June 11, 2019.
11. School, Park, and Library contributions shall be required per Village Code prior to the issuance of a building permit for each rowhome building.
12. The petitioner shall comply with all Federal, State, and Village Codes, Regulations, and Policies.

June 20, 2019

Bill Enright, Deputy Director of Planning and Community Development

Cc: Randy Recklaus, Village Manager
All Department Heads
PC File 19-005

Appendix 1 – Required Variations

- Variation to Chapter 28, Section 5.1-7.2, Minimum Area for Zoning District, to allow the R-7 District to be approximately 1.39 acres where code requires a minimum of 2 acres for the R-7 District.
- Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback for the townhome building along Highland Avenue to be 12' where code requires a 25' setback.
- Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback for the townhome building along Chestnut Avenue to be 17' where code requires a 25' setback.
- Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback (north) to be 8' for the building along Chestnut Avenue where code requires a 15' setback.
- Variation to Chapter 28, Section 5.1-7.10, Spacing Between Multi-Family Buildings, to allow 5' spacing between principal buildings where code requires 25' spacing.
- Variation to Chapter 28, Section 10.2-8, to allow a two-way driveway width of 21' where code requires a minimum of 24' for a two-way drive aisle.
- Variation to Chapter 28, Section 10.2-9, to allow tandem parking spaces.
- Variation to Chapter 28, Section 10.2-13 Maximum Number of Spaces to exceed code by more than 50%.
- A variation from Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback of 4.6 feet for lots 1 through 11 and 4.3 feet for lots 12 through 16 where code requires a 25-foot front yard setback for all lots.
- A variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback of 0 feet for interior walls on lots 1, 6, and 12 where code requires a 2.6 foot side yard setback, and 0 feet for interior walls on lots 2, 3, 4, 5, 8, 9, 10, 13, 14, and 15 where code requires a 2 foot side yard setback, and 0 feet for interior walls on lots 7, 11, and 16 where code requires a 2.1 foot side yard setback.
- A variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback of 0 feet for outer walls on lots 7, 11, and 15 where code requires a 2.1 foot side yard setback, and 4.3 feet for outer walls on lots 1 and 6 where code requires a 2.6 foot side yard setback, and 4.6 feet for outer walls on lot 12 where code requires a 2.6 foot side yard setback.
- A variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a rear yard setback of 0 feet for lots 1 through 16 where code requires a 30-foot rear yard setback.
- A variation to Chapter 28, Section 5.1-7.7, Maximum Building Lot Coverage, to allow approximately 291% building lot coverage for lots 2 and 15, approximately 290% building coverage for lots 3 and 8, approximately 287% building lot coverage for lot 16, approximately 284% building lot coverage for lots 7, 11, 13, and 14, and approximately 283% building lot coverage for lots 4, 5, 9, and 10 where code allows a maximum building lot coverage of 200% on all lots.
- A variation to Chapter 28, Section 5.1-7.11, Maximum Floor Area Ratio, to allow approximately 73% F.A.R. on lot 1, approximately 74% F.A.R. on lot 12, approximately 75% F.A.R. on lot 6, approximately 84% F.A.R. on lots 4, 5, 9, 10, and 14, approximately 85% F.A.R. on lot 13, approximately 87% F.A.R. on lots 7 and 11, approximately 88% F.A.R. on lots 2, 3, 8, and 16, and approximately 89% F.A.R. on lot 15 where code allows a maximum F.A.R. of 55% on all lots.

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PLAN

REPORT OF THE PROCEEDINGS OF A PUBLIC HEARING BEFORE THE VILLAGE OF ARLINGTON HEIGHTS PLAN COMMISSION

COMMISSION

RE: SIGWALT 16 (37-45 S. CHESTNUT AVE. & 36-40 S. HIGHLAND AVE.) - PC# 19-005
PUD, REZONING FROM R-3 TO R-7, SUBDIVISION, VARIATIONS

REPORT OF PROCEEDINGS had before the Village of
Arlington Heights Plan Commission Meeting taken at the Arlington Heights Village
Hall, 33 South Arlington Heights Road, 3rd Floor Board Room, Arlington Heights,
Illinois on the 26th day of June, 2019 at the hour of 7:30 p.m.

MEMBERS PRESENT:

TERRY ENNES, Chairman
MARY JO WARSKOW
JOE LORENZINI
BRUCE GREEN
SUSAN DAWSON
JOHN SIGALOS
JAY CHERWIN

ALSO PRESENT:

BILL ENRIGHT, Planning & Community Development Deputy Director
JACOB SCHMIDT, Assistant Development Planner

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CHAIRMAN ENNES: This meeting of the Arlington Heights Plan Commission is called to order. Welcome, everybody. Would you please all rise and join us in the pledge of allegiance?

(Pledge of allegiance recited.)

CHAIRMAN ENNES: Thank you. Please be seated. Jake, would you please call the roll?

MR. SCHMIDT: Commissioner Cherwin.

COMMISSIONER CHERWIN: Here.

MR. SCHMIDT: Commissioner Dawson.

COMMISSIONER DAWSON: Here.

MR. SCHMIDT: Commissioner Drost.

(No response.)

MR. SCHMIDT: Commissioner Green.

COMMISSIONER GREEN: Here.

MR. SCHMIDT: Commissioner Jensen.

(No response.)

MR. SCHMIDT: Commissioner Lorenzini.

COMMISSIONER LORENZINI: Here.

MR. SCHMIDT: Commissioner Sigalos.

COMMISSIONER SIGALOS: Here.

MR. SCHMIDT: Commissioner Warskow.

COMMISSIONER WARSKOW: Here.

MR. SCHMIDT: Chairman Ennes.

CHAIRMAN ENNES: Here. Have all public notices for both of the hearings that we have this evening been posted?

MR. SCHMIDT: Yes.

CHAIRMAN ENNES: Okay, our first item of business this evening is to approve the minutes from our last meeting on June 12th. There were three petitions that evening: Dogtopia, Arlington Downs, and 1400 West Thomas. I trust everyone received --

COMMISSIONER WARSKOW: I make a motion to approve the minutes.

CHAIRMAN ENNES: I trust everyone received them. I'm sorry, Mary Jo, what did you say?

COMMISSIONER WARSKOW: Yes, just making a motion.

CHAIRMAN ENNES: Okay, and would you --

COMMISSIONER GREEN: I'll second that.

CHAIRMAN ENNES: Okay, all in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: Anyone opposed?

COMMISSIONER CHERWIN: I will abstain. I wasn't here.

COMMISSIONER SIGALOS: I wasn't in that meeting also, Commissioner.

COMMISSIONER DAWSON: It was very lonely on this side of the desk; it was just me.

CHAIRMAN ENNES: Everyone else votes yes? Okay.

Let's see. Our first petition of the evening is the Sigwalt 16, 37 through 45 South Chestnut Avenue. Is the Petitioner present?

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MR. MCLAUGHLIN: Yes.

CHAIRMAN ENNES: Would you and anyone else that's going to speak with your group please come forward and we'll swear you in? Please raise your hand.

(Witnesses sworn.)

CHAIRMAN ENNES: Okay, and whoever is going to start, as you would speak, if you would please state your name and spell it for our court reporter?

MR. MCLAUGHLIN: Marc McLaughlin, M-a-r-c M-c-L-a-u-g-h-l-i-n.

CHAIRMAN ENNES: Would you tell us about your project?

MR. MCLAUGHLIN: Yes, thank you. So, yes, I'm Marc McLaughlin, I'm the land entitlement manager with Taylor Morrison. Along with me is Mark Hopkins and Eden Richards of HKM, and Mike Firsell of Firsell Ross, our legal representation.

Real quick about Taylor Morrison. We are the America's Most Trusted Homebuilder for four years in a row, that is by Life Research Magazine. Over 30,000 surveys per year is how they calculated who ends up being the most trusted homebuilder. We are that for 2019 and we expect to hit it again for 2020. Our national, we're the fifth largest homebuilder in the US. We currently operate in 17 markets and nine different states. For the Chicago division, we're expecting to close 110 homes this year. We currently have 11 active communities: Hawthorn Woods, Lake Barrington, Lincolnshire. Then we also have 10 communities in planning: Barrington, Libertyville, and Rolling Meadows, which is actually just a four-minute drive from here.

I want to leave this here for a quick second. I'm going to introduce Mike Firsell to go over our project overview. He had done a little bit of our variation requests, a little bit of how we're developing this. But that is the rendering from HKM of what we propose to build.

MR. FIRSELL: Hi, good evening. Michael Firsell, F-i-r-s-e-l. It's good to see you all.

So, the Petitioner is proposing a new class A row home residential for sale development. The parcel is just under an acre at 41,939 square feet. On the southern, I believe around one quarter of Block 425, located between Sigwalt on the south, Highland Avenue on the east, Chestnut on the west, and adjacent to and immediately south of the Arlington 425 proposed development. The vision of the existing master plan is an all residential development in an R-7 zoning which is exactly what is planned here.

There are six existing legal lots on the property. The proposal is to consolidate and subdivide those lots into a new PUD. There will be 16 townhomes built in three separate buildings, and then two outlots, for a total of 18 total legal parcels. We're requesting an underlying zoning for the entire project of R-7. Each building will be fee-simple ownership, and each homeowner will be a member of the association and will pay their proportionate share of the common area, maintenance upkeep and repair.

The variances requested are very few in nature. Most significantly, there is no height, density or parking variation requested. Each residence will have a two-car garage. There is a possibility, should a homeowner choose the option, to create a third spot which would be a tandem spot inside of their garage; hence, the request for the tandem variance. There will be eight surface parking spaces for guests. Since the total parking of 40 spots will exceed more than 50 percent of what is required, we need a variance for having too much parking. Haven't heard that much lately, but we are requesting that variance to certainly

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comply with your ordinances.

The other variances, which I'm sure Bill will go through, deal with some by necessity because since each lot is going to be a, each home will be a separate lot, obviously there aren't side yards and things like that that we can satisfy. I did not see anything in the Village code for separate townhome type of developments into separate lots that didn't need any variances like this. Obviously, there is an eight-foot dedication on each of the east and west of the property which basically shrinks the property on both sides, which causes us to require a setback. Other than that, they are three to four-story units.

There are no extending balconies. All the balconies would be on the top of the development. If we go back to the plan, you can see the folks standing on the development, standing on the roof in that area. Obviously, all of the HVAC and other utilities, both on the roof as well as at ground level, will be fully screened. As you can see, there is a lot of landscaping involved.

On that note, I'd like to ask Mark Hopkins from HKM to go through the architectural elements of the project. Thanks.

MR. HOPKINS: So, it's Mark Hopkins, 43 South Vail, HKM Architects. Mike got a good leap on talking about the architecture. It's substantially similar to what you saw last time on the preliminary round. We've gone through a couple of rounds with Staff, working with Planning Staff, and then making tweaks to the plans and architecture also with the input of the Design Commission. So, what you have tonight I think should be very recognizable, but it's gone through a series of enhancements that are more detailed in nature rather than substantive. So, from the long view as in the perspective, it's largely the same as what you saw before.

I'll go through this geometric plan and I'll settle on this. This illustrates I think the core of the concept, and you'll recognize I think everything. The three buildings, one that faces Chestnut, one Highland, one Sigwalt, and then the pedestrian passages in between the three buildings, they are leading out onto the sidewalk on Sigwalt. I think as it says in the Staff report, you know, one of our variances is to not have those code minimum separations but we, you know, could have connected those buildings and avoided that request. But those are for the convenience of those folks that are using the, to get through the project on a, you know, just a pedestrian basis, but also to be able to use those guest spots and get to the front doors of the units.

So, looking back at the back of the project, we have a green space. There is underground detention below that. Those were held away from the north property line, enough for us to get that line of spruces there. The reason for that is the project north of us is about 4.5 feet higher than our project, so we're going to have a retaining wall there that we need to cover. So, that's what's going on there and that's simply a green space. It's not a dogwalk or anything else, it's just some open space relief.

Then, it's hard to see, but the center of the field of that motor court is permeable pavers. So, you know, part of our detention stormwater management requirement is being handled there, and it's aesthetically nice as well. So, those are concrete L-shaped pavers with about a 24-inch gravel base that gives us some staging for some of our stormwater, as well as an underground vault system which is under that green space.

So, then the three buildings, you can kind of see the beige color, and those are the walk-out roof decks. The white color roof is the partial floor story that extends, there you go, Bill is cursoring it. So, all of that light tan color is walk-out. So, each one of those

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units has a balcony on the fourth floor, partial balcony on the fourth floor and a partial enclosed floor which is a stair leading up to a family room kind of space and a bathroom. It can be built out in a number of ways. We can get an office up there, another bedroom, what have you.

Then the end units, there's three of them that are the extended units. that's where the garage and the second floor is projected out away from the standard unit. That's a larger unit. The base unit is about 2,400 square feet, and the large unit is about 2,700 square feet. That has also a balcony at the third floor level. So, the master bedroom can walk out onto that roof deck on top of the family room which is on top of the garage. We'll see that real briefly, I won't belabor the floor plans but they're coming up next.

So, every unit has a front door that is out on the street connected up individually to the street as well as those passages that I mentioned. Then every unit has a two-car garage door back on the motor court. So, there's two cars side by side in each unit. So, the optional tandem that Mike was talking about is in addition to that. So, they can choose on the first floor, do I want to build that out as part of my enclosed unit, you know, some space there whether it's a family room, bonus space, those kind of things on the first floor, or do I want to get an extra car there. So, there's the opportunity for the buyer to get that third car, that's where that variance is coming from.

We have modified Chestnut, the curb line on Chestnut. You know, there is that eight-foot taking that Mike talked about, the extension that is to the right-of-way on both Chestnut and Highland. Then, to be harmonious with what's happening with the Chestnut curb on the north, you know, the big project, that it's got the cutouts in the road there and the parking, so this is doing the same thing. So, the character of Chestnut is going to be consistent along.

In the same way over on the Highland side, as you get out of the project, the driveway on the project also has a knuckle there. The geometry of it is intended to get that car turned as perpendicular as we can to Highland so that the driver is, you know, the entrance to that parking deck where cars come in and out is in their field of view, and yet it's pulled away from that overhead door so that it's not right on top of it. So, it's doing those couple of things there.

One of the variances that we asked for was the width of that driveway. There is room there on that site plan to get to 24 feet that is the requirement, but what we're trying to do is we're trying to get a little bit more green stuff up against our building and then up against the retaining wall which is not as tall where the hand is now. What it does is it's highest in the center where we've got the spruces, and then it tapers down to almost nothing on the east and the west according to everything that we've seen so far. We're trying to coordinate properly with that. Okay, I won't belabor that too much.

Now, there are, you know, the living level of these units is on the second floor. Let me go to those. Here is a typical in-board unit. It's got lots of different options. You can see on the left, there is the first floor and there's a couple of different configurations for the front facade. That's what all those drop-down plans are.

That one is showing the tandem garage, so that's the three-car garage option there. There's another option that's not even illustrated that's got a built-out space at the front, the bonus space. Then there's a stair that leads up to the second floor where you've got the living room, dining room, and then kitchen and breakfast island up there along with the powder room, and a utility room up another floor. There's a three-bedroom layout, and we also

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have a dual master layout for this unit. So, conceptually, we'll be building a few less bedrooms than just three times the number of units that we have.

Then upstairs, you can see the plan with the optional build-out out there, and then the roof deck out a series of sliders. Then there's your air conditioning condenser up on the upper level, so that's all screened up. There's an optional balcony that hangs off the back. So, that would be hanging over the garage door, so that would come off off the back.

There is a big long list of sustainable features. We talked about a couple of them on the site. I will not belabor reading them all.

If there's questions on the traffic study, Luay is here.

MR. MCLAUGHLIN: Yes, Luay is here. This slide is pointing out that we are meeting all the recommendations of the independent traffic study. That was a traffic and access study, so we'll be doing a full single access point that is stop sign controlled on Highland, one point of access. But we are meeting everything that is in the recommendation.

MR. HOPKINS: These are your slides then.

MR. FIRSEL: As you can see, we met with the Housing Commission, had a hearing. Based on Staff's recommendation, we had agreed to pay the full guideline recommendation of \$75,000 per unit times 1.6 which is for 16 units. Guideline's call on a project of this size is 10 percent. This is I believe the highest dollar equivalent Arlington Heights has received on affordable housing, and the total fee of \$120,000 is equal to the highest fee paid by any developer, and this is only 16 units. So, we received a unanimous approval from the Housing Commission and are very pleased to be able to enhance the affordable housing fund by this significant amount.

We can go through additional items. Mr. Ennes -- Chairman Ennes, excuse me, the last time I was here, you started off with what don't you agree with on the Staff report.

CHAIRMAN ENNES: We're not going to do that at this time.

MR. FIRSEL: We've got the Staff before you and Marc can go into that; we might as well dive into it right now and give you our thoughts on it.

MR. MCLAUGHLIN: So, we thought the Staff report was excellent. We agreed with the majority of the recommendations. There was just a last minute adjustment from Staff that we don't agree with, and I've highlighted that here.

We do not agree with doing the downtown streetscape along Sigwalt. We also don't agree with widening the sidewalk along Highland from six to five feet. There are two reasons for that. To go back one more, our parcel is in blue. As you can see, it's not part of the B-5 downtown zoning district. It's not in the central business district; it is a residential zoning district. You can see that all residential zoning districts have a residential streetscape, a five-foot concrete sidewalk. It does not have the brick paver at various widths, five to 11 to 12.

We are a residential development. We are for sale. We're not a condo; we're not a high rise. We are a suburban residential development that calls for a traditional residential sidewalk.

Furthermore, on Highland, the existing, to the north, the existing pavement that is in place and is not to be removed is five feet from the curb. Our engineering has that following that line to remain five feet off the curb for the entire length of the sidewalk.

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We feel it would be silly to go out an extra foot and then have a jog of something that we're not adjusting.

But the rest of it, we agree with. On that, I'd like to thank you guys and open it up for questions, plus Bill's presentation.

CHAIRMAN ENNES: Thank you. Bill, are you going to do the Staff report?

MR. ENRIGHT: Yes, Chairman Ennes. The developer is seeking a rezoning of the properties from R-3 One-Family to R-7 Multi-Family, which is consistent with the Village's Comprehensive Plan which has designated this portion of Block 425 as high density residential for over roughly 20 years. Previous to that, it had been designated as a mixed-use downtown, but that was scaled back when the Plan Commission previously reviewed it and the Village Board changed the Comprehensive Plan. They're seeking a planned unit development for the 16 row homes, a final plat of subdivision which we have tonight if approved, and the requested variations as Mr. Firsel outlined.

The site plan has already been fairly well described. The Petitioner has made quite, you know, a lot of improvements from really the very first iteration when we met with them the first time to doing a more traditional, urban type row home versus a more standard suburban type of townhouse complex. So, it's really come a long way. They have been very amenable to making changes that Staff has requested. They have worked with the Housing Commission on the fee, and as well as the Design Commission, going twice to the Design Commission, once for preliminary review and then final review.

So, they've made a lot of changes to the architecture and there's a couple more tweaks that the Design Commission wants to see as the project comes in for permit if it's approved as is. A lot of landscaping in front of all the buildings, there will be a lot of base landscaping, and then at the corners, they've done a good job accentuating here at the corner of the project, right at Sigwalt and Chestnut, and then over at Highland as well. So, it's a very ample landscape plan.

The next slide here which we've already seen is kind of the elevation looking northeasterly from above the intersection of Sigwalt and Chestnut. As you can see, the upper level is set back about 14 feet for the fourth level. It's going to be optional, although the end units of all three buildings are going to be required to have these. The developer wants to have each of the end units with a fourth level. The middle units, it will be optional for the individual homeowners. You know, in discussions with the developer, I think they have a high degree of probability that people will opt for that option because it's such a nice amenity to have, the roof terrace.

The building itself on Chestnut is about 42.5 feet to the roofline of the fourth level. The third level is about 10 feet less than that, around 32 feet to the roofline where you see the terrace levels. The other two buildings, because of the grade elevation actually is lower as you go east towards Highland, the buildings are a couple of feet taller when you get over to Highland. So, for instance, let me check this here, 43 feet 10 inches for the Sigwalt building, and the Highland building is 43' 9" where the Chestnut is 42' 6". That's to the flat roof deck of the fourth level; again, it's about 10 feet less for the third floor.

This is the general site plan. Mr. Firsel, there's two dedications required of eight feet that will allow for the developer to extend the parking. Chestnut is very narrow right now. We do allow parking on one side of the street, but if there are cars there, it's very narrow for passing cars going north and south. So, this will help alleviate that condition,

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and it's not going to be a row of parking just endlessly. We're going to have these bump-outs here for landscaping, and that will happen as you go north if the rest of the block does develop pursuant to the PUD that was recently approved by the Board. So, it won't be your traditional on-street parking; it will have some of these bump-outs which kind of breaks up the asphalt in the parking spaces and the ability to introduce additional trees to make for a nicer streetscape.

One of the variations is, as Mr. Firsel pointed to, is on Chestnut for 17 feet for the front facade. Normally, it's 25 feet. With the dedication of eight feet, that is the primary cause for that. We do think though that, we're fully supportive of that given that this project is a lot lower in scale and density than could be typically allowed in the R-7. The R-7 allows up to 60 feet, and this project as I mentioned is quite a bit less than that dimension. Especially at the front of the building on Chestnut, it's about 32 feet where the building is 17 feet set back.

The other variation is off of Highland. It's 12 feet; again, eight feet of dedication. Nothing will change around Highland in terms of the streetscape. We're not adding to the street. There's parking here now. They're going to lose a couple of spaces here where the driveway is coming in. But the developer is also going to put in a bump-out here to landscape it, and then you'll have three parking spaces to the south.

I know they touched on traffic. Eventually, if the rest of this block does develop, the Village wants to put in a four-way stop sign here at Highland and Sigwalt. It won't be necessary for this development based on the traffic counts, but it's always something the Village can do really at any time if it's deemed necessary.

Another variation is at the north end. The setback of this first building that fronts on Chestnut is eight feet set back; the requirement is 15. Then the parking area here, the drive aisle is 21 feet; normally, it would be 24 feet. They could accommodate it but then they would lose some of the landscaping here. We thought it was a fair tradeoff to just go to 21 feet which is more than enough room for two cars that pass one another. That's not an issue. It does widen out to the normal 24 feet back here in the courtyard, the motor courtyard. One of the nice things, too, about this is all the garage doors are internalized to the development, so they won't be seen, I don't want to say completely from the street, but eventually as the block to the north redevelops, you really won't see back in there, although they've done a really good job with the landscaping.

The Chestnut Street, this is just kind of a cross-section, this would be looking north along Chestnut if you were standing in the middle of Chestnut and Sigwalt Street. So, you can see here the additional parking lane on the east side of the road with a 5.5-foot parkway for trees, and then the five-foot sidewalk which is typically one foot off of the right-of-way line. So, this is the area here that would be dedicated to the Village, at no cost to the Village.

The setback is to the facade of the building which here is about 32 feet high, and then you can see the fourth level terrace is back about 14 feet. This is a screen wall here, a divider in between the different units on the roof terraces.

The plat of subdivision, since they're doing a fee simple plat, each of the individual homes more or less follows the lot lines. In the front, there's a little extra room in front that's part of the individual home. So, basically, you're creating a zero lot line with these individual homes being platted this way, so that's why there's a series of variation. This has occurred before, and quite frankly, we should probably look at changing our code because it's

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just, practically it's somewhat nonsensical. But to the letter of the law, each of these are technically zero lot line to these internal lots. But of course we're looking more at the overall setbacks for the development.

This just gives you an idea of the property to the north that was recently approved by the Village Board. This of course is the taller building that has the garage in the first several levels before going up to 12 stories, and then the Chestnut building. There will be an access off of Chestnut into the south end of the second phase of that project. So, there isn't a lot of room in between the two developments here. This will obviously go down in slope, so it will probably be at this point maybe eight to 10 feet lower, but there will have to be a guard rail, or not a guard rail but a decorative fence there.

In addition, this developer is proposing quite a bit of landscaping. This is where their detention is going in this, behind the motor court underneath in a detention vault. They do meet all the requirements for detention on site, and they're doing quite a bit of extensive sewer work and new water mains to accommodate the development.

This is a visual of the driveway that's proposed. They've angled it south of some of the utility boxes here that are just south of the facade of the Village Garage. So, this is the entrance/exit to Highland to the garage. I took this picture today just standing probably 30 or 40 feet inside the garage looking south. This is approximately, well, this area here is where we have the utilities which is indicated by this curbing. That's there today. Their new curb will be just south of that. This green icon here is really somewhat mimicking where this island will be which will be landscaped by the developer.

So, you can see there is a bit of a, you know, distance between people coming out. This approximates, you know, about the field of vision for someone if that were a vehicle pulling out. So, since there is a parking lane here, there is extra room to clear the sidewalk and have the visibility into the garage to see cars coming out. We may put a sign here on the internal wall of the garage that says slow down, you know, there's a curb cut coming up. There's also curb cuts to the left on the east side as well, but of course AT&T is vacant right now but, you know, eventually there will be something there.

So, we're not concerned about this geometric because we think there's more than enough visibility. They've done some geometric studies as well as part of their traffic study, and the volume of traffic is going to be very minimal for this project with the 16 units. There's about eight to 12 trips coming in and out at a peak hour which is very, very low.

This is just again their engineering plan. They're going to have a series of underground detention vault underneath the back green space going in a little bit of the driveway. One of the really nice amenities they're doing here, and it helps the stormwater retention, too, and lowers their needs for the vault in terms of capacities, is brick pavers in the back here which is much nicer aesthetically for the people who live there, but also it helps environmentally. So, they'll have these sewer drains here that will eventually go out to the new sewer that's going to be built along Sigwalt. Everybody that lives in the neighborhood is well aware of the significant construction that's going on in this part of downtown with the new sewer project, so they'll be tying into that down here at Sigwalt and Chestnut. They'll also have stormwater detention, or I'm sorry, stormwater pipes, drainage pipes in the fronts of the buildings that will carry water over to that system.

There will be a new water main that will actually have to be located on their site in an easement in front of the building on Sigwalt. That will be a Village water main.

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There's a water main on the south side of Sigwalt right now, but there is also a 36-inch mass of water supply line that is actually one of our main water supply lines to Lake Michigan. So, that's kind of in the way for them to just tap in. So, there has to be a new water main put in here, but it's on their property in an easement.

Some of the recommendations, well, there's 12 specifically: the dedication of eight feet of land; the Petitioner widening Chestnut to accommodate the parking for four spaces. As the Petitioner has alluded to, the brick paver sidewalks on Highland, six feet wide. We don't oppose if it's five feet, that's fine, but they are indicated as pavers. Sigwalt Street, the developer is correct in that it historically wasn't in the master plan for this block to have the paver sidewalk, but we thought that it would be a nice amenity as a transition in between our B-5 which has 11 to 12-foot wide paver sidewalks in the residential single-family as you go west really. But they are correct, across the street it's your normal standard five-foot with parkway. Chestnut itself from Sigwalt north is just a normal five-foot concrete sidewalk as well, and that will remain although it's obviously relocating as development occurs in this block.

They have to post all fees prior to final plat approval, an on-site utility maintenance agreement for their underground detention prior to permit. We want them to work on, you know, any aboveground utility equipment, transformers, switch gear, to be in the rear as feasible. We've had some developments where they just end up popping up in the front yard very close to the sidewalk. That won't be tenable here. So, if they are, if any of the gear is in front, they have to be close to the building and screened. They did show the transformer at the rear of the property in their motor court area, so hopefully, I know they've outreached to ComEd on that because that's probably the biggest component. But we want to see those as feasible to the back and certainly screened if they're up front. Rooftop mechanicals should be screened which are showing on their plans.

The potential loading zone, let me skip back here, we don't think there's really a need for a loading zone in front of the buildings. We have shown an optional 60-foot loading zone, it could be three parking spaces and/or loading. Given that there's, you know, the units are spread out, I mean the reality is, you know, UPS or Amazon is just going to come to the front door and either double park or park in any available parking spot and run in and make the delivery, as will the mail carrier. So, you know, we'd rather just have the green space. There are some overhead utilities here though that, if it's deemed necessary by the Plan Commission and Village Board to have some sort of loading area, which again we're not a proponent of necessarily, we don't think it's necessary for only 16 lots here, but it is an option if needed.

Then finally, the architecture has been recommended unanimously by the Design Commission with a couple of modifications that they're seeking when they come in for permit.

Final staging and construction plans, they're proposing to do all their construction staging either on site or on the property to the north. If this project gets approved, they're looking at moving forward with this pretty quickly and starting in the fall with about, I think, a 12-month timeframe for all three buildings.

As I mentioned, the \$120,000 fee for affordable housing was presented to the Housing Commission. They deliberated it at a public hearing, had public comment which was reflected in the minutes which was included in your packet. So, that's a recommendation that will be going to the Village Board. It's under their purview for discussion, not necessarily Plan Commission as you look at zoning issues. But that will be the

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recommendation moving forward to the Village Board for final decision.

The normal school, park, and library contributions will be required for impact fees for each of the units at time of permit. That would conclude Staff's presentation.

CHAIRMAN ENNES: Bill, thank you. Is there a motion to approve the Staff report?

COMMISSIONER GREEN: I'll make that motion.

CHAIRMAN ENNES: Is there a second?

COMMISSIONER CHERWIN: I'll second.

CHAIRMAN ENNES: Can we have a roll call vote on it?

MR. ENRIGHT: Voice vote is fine.

CHAIRMAN ENNES: Voice vote is fine. All in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: Anybody opposed?

(No response.)

CHAIRMAN ENNES: Okay, do any of the Commissioners have questions they would like to address to the Staff and/or the Petitioner before we move on to any public comment that there might be? Anybody?

COMMISSIONER WARSKOW: I have no questions.

COMMISSIONER DAWSON: I'd like to hear public comment.

CHAIRMAN ENNES: Anybody else?

COMMISSIONER GREEN: Public comment is fine with me.

CHAIRMAN ENNES: Okay, can I see a show of hands of the number of people who would like to address the Plan Commission? So, two people? Let's start over here on the right. Young lady, if you'd like to come up, introduce yourself, give us your name.

QUESTIONS FROM AUDIENCE

MS. ROJEK: Good evening. My name is Gabriela Rojek.

CHAIRMAN ENNES: Please spell it for our reporter.

MS. ROJEK: Gabriela is G-a-b-r-i-e-l-a. The last name is Rojek, R-o-j-e-k. I live at 104 South Highland, directly across from the development.

I expressed my comments at the Design Committee. I think it's a much better project than the one that was previously under consideration. I really appreciate the way that they've listened to the comments that the residents and the neighbors had presented previously in our objections to the previous development. I think this is much more thoughtful consideration to those objections.

I think the design looks perhaps not cookie-cutter like other buildings downtown. I appreciate that it looks a little different. I also appreciate the transition, the scope of the project itself as it moves in to the rest of the neighborhood. As long as the landscaping stays as nice as it looks here, I think it would transition well.

As I listened to the Staff comments about the traffic and the parking, I don't think that cutout on Sigwalt is appropriate, so I agree with that. For years, I've been complaining about a stop sign needed at that corner of Highland and Sigwalt. Nobody has ever listened. So, if you guys are considering that, kudos to you finally for acting on it.

That's all I have. Thank you for your time.

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CHAIRMAN ENNES: Thank you very much. Please introduce yourself.

MS. HARP: Lauree Harp, L-a-u-r-e-e H-a-r-p. Good evening. I am a downtown resident, and I do agree that this is a much better presentation than from what we saw before. I walk that area, I actually live in the Vail building and I walk the area everyday. I did notice that the alignment on the parkway is about three feet into Sigwalt as you make that transition from Highland going west. So, the street is more narrow from Highland west.

That being the case, so it's a narrower residential street similar to what Chestnut is. So, that being the case, and having to dodge the UPS trucks and the mail trucks and the moving vans, I am a proponent for that cutout so that cars can get off the street there, because it is narrower. I don't know if you've noticed it. I noticed it in the renderings. They have it pretty much aligned but it's not, it's got to be three feet narrower from Highland to Sigwalt.

But I like the design. Other than getting some of those trucks off the street which I think would be helpful, that's my only comment. Thank you.

CHAIRMAN ENNES: Thank you, Lauree. Bill, do your drawings confirm what Lauree Harp is saying?

MR. ENRIGHT: Yes. Well, in front of the former AT&T building, there's parking introduced in the downtown district, so the street is wider to accommodate that. Once you get west of Highland, it's a little bit narrower because, you know, of the no parking.

CHAIRMAN ENNES: Is that much like three feet?

MR. ENRIGHT: Yes, it's probably about three, yes.

CHAIRMAN ENNES: Anyone else? Okay, I'm going to close the public portion of the hearing. If we can start at one end, yes, and go all the way through?

COMMISSIONER CHERWIN: Okay, well, I actually don't have many comments. I saw this in the committee and I like the development. I think they did a great job with it. There really hasn't been any significant changes. They answered most of my questions then, so I'll defer to the rest of the Commission.

CHAIRMAN ENNES: Okay, John?

COMMISSIONER SIGALOS: Yes, I also was at the Conceptual Plan Review Committee and saw this project. I like it a lot, I think they did a great job. They've listened to previous resident comments. I think it will blend in greatly with the local residential neighborhood. So, I don't have any further comments.

CHAIRMAN ENNES: Sue?

COMMISSIONER DAWSON: The questions that I have relate to the comparison between this and the development, the 425 development. Just out of curiosity, is there any way to see this with that rendering? I mean we know what's going up there, correct?

MR. ENRIGHT: I don't have the renderings. I know you had, in your PowerPoint, you had a broader --

MR. McLAUGHLIN: Yes. We have, it's not necessarily the rendering, it's more of an elevation to show reference.

COMMISSIONER DAWSON: Right, no, I was just looking for the renderings because we have the photo of what is being built there at 425. But then your photo shows nothing next to it, so it doesn't actually give an accurate portrayal of what that corner, what that lot section is going to look like. I mean I see that, but that's --

MR. McLAUGHLIN: Yes, that's what we have available at this time.

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Obviously, we're the little four-story guy there compared to Arlington 425. But this is the closest that I have available.

COMMISSIONER DAWSON: That you have, okay.

MR. McLAUGHLIN: Yes.

COMMISSIONER DAWSON: Because from looking at the 425 building drawings to compare to your buildings, they just don't seem design, I know it's a Design Commission element, but I didn't really see much discussion of that in the Design Committee minutes, it seems like a completely different building on the lot to me. It doesn't seem to me as cohesive with the rest of the lot. So, Design Commission approved it, I understand that, so I'm not really, there's nothing I can do it at this point. But that would be my primary comment is I just feel that it doesn't blend with the rest of what's going up there.

On the sidewalk that you're proposing, not having pavers on Sigwalt?

MR. McLAUGHLIN: Yes.

COMMISSIONER DAWSON: Do you have any renderings of what that would look like? Because you're going to have pavers coming down --

MR. McLAUGHLIN: Yes, regular concrete sidewalk, right.

COMMISSIONER DAWSON: What, not Highland, well, Highland and, tell me my other word, Chestnut?

MR. McLAUGHLIN: So, Highland has pavers. There we go. Highland has pavers, that is part and across from other pavers. We're good with that.

COMMISSIONER DAWSON: Right.

MR. McLAUGHLIN: We're just concerned about the width.

COMMISSIONER DAWSON: Sure.

MR. McLAUGHLIN: But we're still going to do the downtown pavers to match across the street. Then at the corner, it will transition to a traditional residential concrete sidewalk, and then again north on Chestnut.

COMMISSIONER CHERWIN: I think the Village was looking to carry it along the Sigwalt path to extend those pavers.

COMMISSIONER DAWSON: Right, but it's not going up Chestnut as well?

MR. ENRIGHT: It's not.

COMMISSIONER DAWSON: That was my understanding was that it was the whole block around.

MR. ENRIGHT: No.

COMMISSIONER DAWSON: So, it's really just Highland we're talking about. Then you wanted to carry it, okay, so now I can understand your argument. I thought it was also on Chestnut. So, I had that confusion.

MR. McLAUGHLIN: No, Chestnut in front of Arlington 425 and us we all agree is regular residential sidewalk.

COMMISSIONER DAWSON: Okay, all right. So, then I think that makes sense to leave it regular because it won't look, I was thinking it would be on both sides.

MR. McLAUGHLIN: Right, no.

COMMISSIONER DAWSON: And then suddenly we would have this cement, and I thought that doesn't make any sense.

MR. McLAUGHLIN: Right.

COMMISSIONER DAWSON: But I understand what you're saying now.

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So, that was the only clarification I needed.

MR. McLAUGHLIN: Okay, thank you.

CHAIRMAN ENNES: That it?

COMMISSIONER DAWSON: Yes.

CHAIRMAN ENNES: Bill, how do you feel about the Petitioner's, about them not going along with this issue on the corner and with the sidewalk?

MR. ENRIGHT: You know, I don't think this is a major issue from the Village's perspective. The Petitioner has made some valid points about the context to the area. We just thought it would be a nice transition from the sidewalks in the downtown as you get into residential.

But they're correct; the south side of Sigwalt does not have pavers. As we just pointed out, Chestnut is not going to have pavers either.

CHAIRMAN ENNES: Right, going up to 425, right? That's going to be concrete.

MR. ENRIGHT: Right, that will just be a normal sidewalk, concrete.

CHAIRMAN ENNES: Okay, Mary Jo?

COMMISSIONER WARSKOW: I don't have any questions, just comments that I appreciate the green space being considered here, and also the detention being accommodated by the permeable pavers. So, I really like that. I'm very supportive of the project, and I agree that it's a better solution for the residential section than the previous petition was.

CHAIRMAN ENNES: Joe?

COMMISSIONER LORENZINI: Okay, so one question to the developer. The landscaping, who is going to maintain this over the years?

MR. McLAUGHLIN: It will be HOA maintained.

COMMISSIONER LORENZINI: Pardon me?

MR. McLAUGHLIN: HOA, homeowners association.

COMMISSIONER LORENZINI: Okay, and Mr. Enright, well, it's a question for you. So, explain to me the parking. Each unit will have two parking spots just in the garage, but there's also an option for a tandem space that will be --

MR. ENRIGHT: Yes. The rear of the buildings have a garage door in the internal courtyard. So, you get two cars side by side. There's an option though that you could pull farther into that first level towards the front of the building, although internalized you won't be able to tell that from the outside, to have a third car. So, you'd have a car here, and then behind it another car, and then another car over here. So, there would be some jockeying. No different than, you know, a lot of residential homes with their cars in the driveways.

COMMISSIONER LORENZINI: But if they just, if everybody just built the standard two spots, there'd be 32 spots with the 16 units, and then you've got eight guest units. So, that's a total of 40. Does that meet code, 40 for this development?

MR. ENRIGHT: It's well over code, yes. Yes.

COMMISSIONER LORENZINI: That's fine.

MR. McLAUGHLIN: Just one point of clarification. We will have the three-car tandem as standard, and then they will have the option to the space, not the reverse. So, three times 16 will be as offered. We expect some to be built out, not nearly as many as the rooftop, but it will be the standard three-car.

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COMMISSIONER LORENZINI: Some of the units, if you put in all the optional bedrooms, you can have up to four units, four bedrooms per unit, correct?

MR. McLAUGHLIN: Actually, we have one that we're planning that could actually get up to five in the corner.

COMMISSIONER LORENZINI: But is that, Bill, there's no issue with having families there with kids and of the school district and all that?

MR. ENRIGHT: No, we're not concerned about that. This is a low density development in our downtown area.

COMMISSIONER LORENZINI: Village policies as far as affordable housing, it seems like we're always taking a fee in lieu of affordable housing. At what point do we stop doing that?

MR. ENRIGHT: Well, that's not the case. Block 425 to the north which was recently approved by the Board, our new group of Board members, required 18 actual units out of 361 and, in addition to that, a fee in lieu of for an additional nine units at \$25,000 per unit. So, that will be another \$225,000 to the trust fund. Our Village Board has been very clear that with these developments they want to see affordable housing units in their rentals.

Projects like this, it's just, you know, you've got units that are going to be \$750,000. It's not practical to reduce one of these units to quite a bit lower than that. So, the fee in lieu of was found to be more suitable by the Housing Commission. Of course that will be forwarded to Village Board for their decision.

COMMISSIONER LORENZINI: That makes sense, thank you. Final question, could you go to the cross-section of the street that shows the eight-foot dedication strip? Just explain to me, what are we going to do with that strip? Why are we requiring that?

MR. ENRIGHT: Well, the eight feet is required by code because the street is only 50 feet of dedicated right-of-way right now. That doesn't mean it's 50 feet of pavement, but that's how much Village-owned property we have for the street. Normally, it's 66 feet. So, the required eight feet is to give us the 33 feet on that half, the east half. We'll probably never get on the west half, but it won't be necessary either. This will allow the pavement to be expanded to accommodate parking so it won't block north and southbound cars.

COMMISSIONER LORENZINI: Makes sense because it gives you an opportunity for more green space at this point, too.

MR. ENRIGHT: That's correct.

COMMISSIONER LORENZINI: Okay, thank you. That's all I have.

CHAIRMAN ENNES: Bruce?

COMMISSIONER GREEN: I really have no comments, but the one I want to make, I agree with the concrete versus the paver scenario. I think that makes a lot of sense. I think it's a nice-looking development.

Just a comment for public consumption. Is all the property across the street on Sigwalt zoned R-7?

MR. ENRIGHT: No.

COMMISSIONER GREEN: At the Comprehensive Plan?

MR. ENRIGHT: Yes. So, the property to the south, directly across the street there's a couple of properties.

COMMISSIONER CHERWIN: Gabby's Place.

MR. ENRIGHT: Pardon me?

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COMMISSIONER CHERWIN: Gabby's Place.

MR. ENRIGHT: Yes, there's two properties to the south. The one that fronts on Highland is zoned R-4 which would allow two units on a zoning lot. Then across from, fronting on Chestnut, it's still R-3 Single-Family. However, both properties are designated as, let me double check this, well, one of them is single-family attached, and one of them is high density multifamily. So, the property that fronts on Highland is actually designated the same as the subject property here for a potential R-7, whereas the other property on Chestnut would be more like the R-5 or R-6 zoning which is not --

COMMISSIONER GREEN: But Sigwalt is, on the Comprehensive Plan, is that to be R-7?

MR. ENRIGHT: Just for the property half the block. So, the eastern portion, there's two lots, so it would be the east lot would be designated as high density multifamily. The western lot which fronts on Chestnut is moderate density.

COMMISSIONER GREEN: Okay, no, that was just for --

MR. ENRIGHT: Or I'm sorry, single-family attached R-4.

COMMISSIONER GREEN: Okay, so in that R higher density, what's the heights that would be allowed by code on the other side of the street?

MR. ENRIGHT: 60 feet in the R-7.

COMMISSIONER GREEN: R-7.

MR. ENRIGHT: So, that would be the one property that fronts on Highland. The other one would be corresponding to R-4 which is the same as single-family. As I recall, I think it's 25.

COMMISSIONER GREEN: Okay, no other question. I think it's a great project, and I think I'm looking forward to this thing moving forward.

CHAIRMAN ENNES: Thank you. I have a couple of questions since I wasn't at the preliminary review of this. Can we go to the slide that shows the driveway coming in and the parking lot? Yes, on this. I don't remember seeing in our packet a drawing showing a fire truck being able to come in and turn around in there.

MR. ENRIGHT: Yes, this is the developer's. Obviously they did provide that. The Fire Department does not anticipate, unless there's like a car fire where they'd have one of their normal-sized vehicles, well, not that any of them are really normal but other than ambulances, but their smaller vehicles, not the larger ones that they have, they can make that turn and do a three-point turn or back out. They can actually back out in case they have to get back into their motor court if there's an auto fire. If there's another type of fire, God forbid, they'd be able to fight it from the street. So, they're okay with this development and the scope and magnitude.

CHAIRMAN ENNES: Okay, I just didn't see a vehicle, much of a truck being turned around in there.

MR. MCLAUGHLIN: Yes, the rear of it is not the regulatory fire lane. The fire lane will be on the three public streets.

CHAIRMAN ENNES: For the Petitioner, there's an overhang from the buildings over the garage door?

MR. MCLAUGHLIN: Optional balcony.

CHAIRMAN ENNES: An optional balcony? Is there room --

MR. MCLAUGHLIN: Oh, I'm sorry. Are you referring to the cantilever?

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CHAIRMAN ENNES: The rear of the buildings.

MR. McLAUGHLIN: I'm going to defer to Mark Hopkins.

CHAIRMAN ENNES: Okay, okay. So, at the rear of the buildings, there is an overhang of the building over the garage door.

MR. HOPKINS: Right, correct.

CHAIRMAN ENNES: Okay, can a car park, is there room for cars to park along the front of the doors?

MR. HOPKINS: No.

MR. McLAUGHLIN: No.

CHAIRMAN ENNES: Okay, initially, I didn't, eight guest spots seems like not a lot for 16 units, especially on a holiday. But then I guess people can park on the street.

MR. McLAUGHLIN: They can, yes.

CHAIRMAN ENNES: Staff mentioned a price, a value for the units. What do you anticipate the range of prices will be within the development?

MR. McLAUGHLIN: Sure. The interior unit which is what we showed on the floor plans will start on the high fives. The corner units will end up starting in the high sixes, low sevens. Then once you add all options, they'd be in sixes and sevens, potentially eight depending on how fancy someone wants to get.

CHAIRMAN ENNES: Is there a possibility for elevators in there?

MR. McLAUGHLIN: We looked at it and we have decided to not offer it.

CHAIRMAN ENNES: Not offer it, okay. Okay, let's see. That's all I have. Can we have questions or can we have a motion on the project?

COMMISSIONER SIGALOS: Commissioner, I just had one question regarding the fee in lieu of for the affordable housing. I understand that this project you're paying \$75,000 per unit. But the 425 project, they're paying \$25,000 per unit. Is that because those are rentals versus purchase? Or what determines that?

MR. McLAUGHLIN: There is different criteria between the two, but it's a guideline. This is what we negotiated with the Housing Commission.

MR. ENRIGHT: That's correct.

COMMISSIONER SIGALOS: Okay, all right. Thank you.

COMMISSIONER CHERWIN: Could I just have Mr. McLaughlin, did you put the revised language that would be acceptable on your --

MR. McLAUGHLIN: Yes. That was one of my last thing before, thank you.

COMMISSIONER CHERWIN: Okay, I would like to make a motion, Chairman Ennes.

A motion to recommend to the Village Board of Trustees approval of PC# 19-005, a re-zoning from R-3 One-Family Dwelling District to R-7 Multiple-Family Dwelling District; a planned unit development to allow the construction of a 16-unit residential townhome development; and a final plat of resubdivision to subdivide the subject property into individual lots for each townhome unit and for common areas, as well as the following variations:

- 1. Variation to Chapter 28, Section 5.1-7.2, *Minimum Area for Zoning District*, to allow the R-7 District to be approximately 1.39 acres where code requires a minimum of**

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- two acres for the R-7 District.
2. Variation to Chapter 28, Section 5.1-7.6, *Required Minimum Yards*, to allow a front yard setback for the townhome building along Highland Avenue to be 12 feet where code requires a 25-foot setback.
 3. Variation to Chapter 28, Section 5.1-7.6, *Required Minimum Yards*, to allow a front yard setback for the townhome building along Chestnut Avenue to be 17 feet where code requires a 25-foot setback.
 4. Variation to Chapter 28, Section 5.1-7.6, *Required Minimum Yards*, to allow a side yard setback (north) to be eight feet for the building along Chestnut Avenue where code requires a 15-foot setback.
 5. Variation to Chapter 28, Section 5.1-7.10, *Spacing Between Multi-Family Buildings*, to allow five-foot spacing between principal buildings where code requires 25-foot spacing.
 6. Variation to Chapter 28, Section 10.2-8, to allow a two-way driveway width of 21 feet where code requires a minimum of 24 feet for a two-way drive aisle.
 7. Variation to Chapter 28, Section 10.2-9, to allow tandem parking spaces.
 8. Variation to Chapter 28, Section 10.2-13 maximum number of spaces to exceed code by more than 50 percent.
 9. Variation from Chapter 28, Section 5.1-7.6, *Required Minimum Yards*, to allow a front yard setback of 4.6 feet for Lots 1 through 11 and 4.3 feet for Lots 12 through 16 where code requires a 25-foot front yard setback for all lots.
 10. Variation to Chapter 28, Section 5.1-7.6, *Required Minimum Yards*, to allow a side yard setback of zero feet for interior walls on Lots 1, 6 and 12 where code requires a 2.6-foot side yard setback, and zero feet for interior walls on Lots 2, 3, 4, 5, 8, 9, 10, 13, 14 and 15 where code requires a two-foot side yard setback, and zero feet for interior walls on Lots 7, 11 and 16 where code requires a 2.1-foot side yard setback.
 11. Variation to Chapter 28, Section 5.1-7.6, *Required Minimum Yards*, to allow a side yard setback of zero feet for outer walls on Lots 7, 11 and 15 where code requires a 2.1-foot side yard setback, and 4.3 feet for outer walls on Lots 1 and 6 where code requires a 2.6-foot side yard setback, and 4.6 feet for outer walls on Lot 12 where code requires a 2.6-foot side yard setback.
 12. Variation to Chapter 28, Section 5.1-7.6, *Required Minimum Yards*, to allow a rear yard setback of zero feet for Lots 1 through 16 where code requires a 30-foot rear yard setback.
 13. Variation to Chapter 28, Section 5.1-7.7, *Maximum Building Lot Coverage*, to allow approximately 291 percent building lot coverage for Lots 2 and 15, approximately 290 percent building coverage for Lots 3 and 8, approximately 287 percent building lot coverage for Lot 16, approximately 284 percent building lot coverage for Lots 7, 11, 13 and 14, and approximately 283 percent building lot coverage for Lots 4, 5, 9 and 10 where code allows a maximum building lot coverage of 200 percent on all lots.
 14. Variation to Chapter 28, Section 5.1-7.11, *Maximum Floor Area Ratio*, to allow approximately 73 percent FAR on Lot 1, approximately 74 percent FAR on Lot 12, approximately 75 percent FAR on Lot 6, approximately 84 percent FAR on Lots 4, 5,

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9, 10 and 14, approximately 85 percent FAR on Lot 13, approximately 87 percent FAR on Lots 7 and 11, approximately 88 percent FAR on Lots 2, 3, 8 and 16, and approximately 89 percent FAR on Lot 15 where code allows a maximum FAR of 55 percent on all lots.

This recommendation shall be subject to the following conditions:

1. Eight feet of land shall be dedicated for additional right-of-way along both Highland and Chestnut Avenues.
2. The Petitioner shall widen Chestnut Avenue approximately eight feet and construct four on-street parking spaces.
3. Brick paver sidewalks shall be required on Highland Avenue (five feet wide) including decorative streetlights within the parkway.
4. All fees required for final plat approval shall be provided prior to Village Board consideration of the final plat.
5. An on-site utility management agreement must be provided prior to building permit issuance.
6. All new aboveground utility equipment, transformers, switch gear, and building-mounted mechanical equipment must be appropriately located and screened. All gas and electric meters, as well as all cable and phone connections, should be routed to the rear of each unit, as feasible rooftop mechanicals shall be screened.
7. The Petitioner shall cooperate with implementation of a parking/loading zone on Sigwalt if required.
8. Final staging and construction plans shall be provided at building permit.
9. Architectural design shall be in substantial compliance with the Design Commission recommendation of May 28, 2019.
10. Petitioner shall pay a fee of \$120,000 for affordable housing at time of building permit per the Housing Commission recommendation of June 11, 2019.
11. School, park, and library contributions shall be required per Village code prior to the issuance of a building permit for each row home building.
12. The Petitioner shall comply with all federal, state, and Village codes, regulations, and policies.

CHAIRMAN ENNES: Is there a second?

COMMISSIONER SIGALOS: I'll second.

CHAIRMAN ENNES: Can we have roll call vote?

MR. ENRIGHT: Commissioner Cherwin.

COMMISSIONER CHERWIN: Yes.

MR. ENRIGHT: Commissioner Dawson.

COMMISSIONER DAWSON: Yes.

MR. ENRIGHT: Commissioner Green.

COMMISSIONER GREEN: Yes.

MR. ENRIGHT: Commissioner Lorenzini.

COMMISSIONER LORENZINI: Yes.

MR. ENRIGHT: Commissioner Sigalos.

APPROVED

COMMISSIONER SIGALOS: Yes.

MR. ENRIGHT: Commissioner Warskow.

COMMISSIONER WARSKOW: Yes.

MR. ENRIGHT: Chairman Ennes.

CHAIRMAN ENNES: Yes. So, you have a unanimous approval from the Plan Commission. You'll be moving on, as you know, to the Village Board.

MR. ENRIGHT: Just a note. The Village Board is not meeting July 1st to the 4th of July holiday, so this will likely be on July 15th, although the public should check the Board agenda several days prior to that, typically it's posted the Thursday prior to that, to confirm.

CHAIRMAN ENNES: Okay, good luck.

MR. FIRSEL: Thank you all very, very much. I did fail to mention Staff has been phenomenal to work with on this project, and we're glad that this is the development. We think it's the one you wanted, the people wanted. We thank you and the Staff for your consideration.

CHAIRMAN ENNES: It sounds like you worked with Staff quite well, thank you.

MR. McLAUGHLIN: Thank you to all.

(Whereupon, the above-mentioned public hearing was adjourned at 8:30 p.m.)

REPORT OF THE PROCEEDINGS OF
THE CONCEPTUAL PLAN REVIEW COMMITTEE

OF THE VILLAGE OF ARLINGTON HEIGHTS PLAN COMMISSION

HELD AT VILLAGE HALL ON:

February 27, 2019

Project Title: Taylor Morrison Townhomes
Address: 37-45 S. Chestnut St., 36-40 S. Highland St.
Petitioner: Marc McLaughlin
Taylor Morrison
Address: 1834 Walden Office Square - Suite 300
Schaumburg, IL 60173

Requested Action:

1. A rezoning from R-3, One-Family Dwelling District into the R-7, Multiple-Family Dwelling District
2. A Planned Unit Development (PUD) to allow the construction of a 16-unit residential rowhome development.
3. Preliminary Plat of Resubdivision to subdivide the subject property into individual lots for each rowhome unit.

Variations Required:

1. Variation to Chapter 28, Section 5.1-7.2, Minimum Area for Zoning District, to allow the R-7 District to be approx. 1.39 acres where code requires a minimum of 2 acres for the R-7 District.
2. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback along Highland Avenue to be 14' where code requires a 25' setback.
3. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback along Chestnut Avenue to be 16' where code requires a 25' setback.
4. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback (north) to be 8' where code requires a 15' setback.
5. Variation to Chapter 28, Section 5.1-7.10, Spacing Between Multi-Family Buildings, to allow 5' spacing between principal buildings where code requires 25' spacing.
6. Variation to Chapter 28, Section 10.2-8, to allow a two-way driveway width of 22' where code requires a minimum of 24' for a two-way drive aisle.
7. Variation to Chapter 28, Section 10.2-9, to allow tandem parking spaces.
8. Variations will be required for each lot based on the R-7 setback and bulk standards, although the overall development will comply with bulk standards and with most setback standards.

Attendees: Marc McLaughlin, Taylor Morrison
Scott Barenbrugge, Taylor Morrison
Mark Hopkins, HKM Architects
Jay Cherwin, Plan Commissioner
John Sigalos, Plan Commissioner
Bruce Green, Plan Commissioner
Lynn Jensen, Plan Commissioner
Sam Hubbard, Development Planner
Jake Schmidt, Assistant Planner

Project Summary:

The subject property consists of six lots of record comprising a total of 41,987 square feet (0.96 acres) and is approximately one-fourth of the larger "Block 425" site, which is the area of land bounded by Sigwalt Street to the south, Campbell Street to the north, Highland Avenue to the east, and Chestnut Avenue to the west. Block 425 has sat vacant and undeveloped for several years. As it is an important piece of downtown, one of the Board's 2017 Strategic Priorities is to facilitate development

of Block 425. Currently, the subject property is zoned R-3, One-Family Dwelling District.

Taylor Morrison, a national homebuilder headquartered in Arizona, has the property under contract and is proposing a resubdivision of the property to accommodate the construction of a four-story 16-unit residential condominium rowhome development consisting of three separate rowhome buildings. Each rowhome unit would include a ground floor garage and a small entry room on the first floor, kitchen and living room/dining room space on the second floor, three bedrooms on the third floor, and a recessed fourth floor with space for a small office/den as well as an outdoor rooftop deck for each unit.

Access to the site would come from Highland Avenue, which would provide entry/exit to the rear loaded garages at the back of each unit. Each unit would include a minimum of two garage parking spaces and there would be 12 guest parking spaces in the rear motor court area. Two on-street parking spaces along Highland Avenue would be removed to accommodate the driveway entrance (there are currently five on-street parking spaces along Highland Avenue adjacent to the site).

Meeting Discussion:

Mr. McLaughlin began by giving a brief overview of the development; a 16-unit rowhome project proposed on the southern 150 feet of "Block 425". The site would be laid out so that five units faced Chestnut, six units faced Sigwalt, and five units faced Highland. Units would be accessed via rear loaded garages and a rear motor court, accessible with a single curb cut off of Highland. They would be requesting a couple of variations.

Mr. Hopkins described the rowhome structures as three story buildings with each unit sitting on a 20' x 40' lot. The unit would each have a two-car rear loaded garage and a front entry for each unit would face the street. The units would have a partial fourth floor, however, the two corner units would be only two stories at their rear. The site was designed to provide a continuous street wall along Sigwalt that would block the view into the motor court at the rear of the property. There would be a small five-foot separation between the Sigwalt rowhome building and the two rowhome buildings on each side, which would require a variation. The reason for this separation was to provide access to the rear guest parking stalls.

The interior would feature a small room on the first floor along with the garage parking spaces at the rear. The second floor would have the main living room, dining room, kitchen, and breakfast space. The third level would have the bedrooms, either two bedrooms or three bedrooms. The fourth level would have a small den that would provide access to the rooftop deck area. Each unit would have their own private rooftop deck with a partial screen wall between each deck to provide privacy.

The variation requests were a result of trying to fit the 20' x 40' the townhome footprints onto the site. Without the setback variations they would not have enough space behind the buildings to accommodate for the rear loaded garage, and without the setback variation to the north they would have to eliminate a unit. The proposed buildings would be less than 44 feet tall, although 60 feet is allowed by code. The townhomes would be fee simple so there would be a subdivision involved. He presented the renderings and discussed some of the architectural elements of the buildings.

Mr. Hubbard stated that the subject property was currently zoned R-3 and so the petitioner would be requesting a rezoning into the R-7 district to accommodate for the development. This rezoning was consistent with the Comprehensive Plan, which designated the property as suitable for High Density Multi-Family development. The Staff Development Committee supported this rezoning. The proposed development was well below the maximum allowable density for the R-7 district and provided parking in excess of code requirements. All developments within the R-7 district were required to receive Planned Unit Development approval. Since the developer was proposing each rowhome to be on its own platted lot for fee simple ownership, a plat of subdivision would be required. This would create multiple variations for each rowhome lot, but these variations were due to how the code applied to each individual lot and did not really relate to the overall development.

The petitioner was requesting setback variations on the north side of the side, along the east side of the site abutting Highland Avenue, and along the west side of the site abutting Chestnut Avenue. These variations were fairly consistent with the previous proposal for this site from about a year ago, which had proposed a five story building. Staff was generally supportive of these setback variation requests. The requirement for eight feet of ROW dedication along both the east and west sides of the site was one of the reasons these variations were needed. The overall development appeared to conform with height

and bulk standard requirements, however, there would be certain variations required for the drive aisle width, building separation, and tandem parking spaces.

Design Commission approval would be required. The petitioner met with the Design Commission for a preliminary hearing on February 26th, and the commission was fairly supportive of the proposed architecture. As this project move forward, staff recommended that the petitioner hold a neighborhood meeting prior to appearing before the Plan Commission, and for all requested variations the petitioner would need to provide the necessary justification based on the approval criteria outlined in the Zoning Code. Overhead utility lines running through the center of the site would need to be buried. Lines that ran parallel to Sigwalt abutting the property would need to be analyzed to ensure that they wouldn't obstruct fire access to the buildings. If so, those lines would need to be buried or relocated.

A traffic and parking study would be required, as well as a market assessment. Staff will require that all utility infrastructure be appropriately sited and screened. Overall, staff was generally supportive of this project.

Commissioner Jensen asked staff how this project compared to the previous proposal on the site relative to opposition from the surrounding neighborhood.

Mr. Hubbard replied that staff would know more about neighborhood opinions as the project became more public and moved through the Plan Commission process. He noted that this project was not as tall, less dense, and provided more parking relative to code requirements in comparison to the previously proposed project on this site.

Commissioner Jensen asked the petitioner if they had any sense of neighborhood opposition at this point.

Mr. Hopkins responded that he did not. Up to this point the project had been confidential.

Commissioner Jensen asked about affordable housing.

Mr. McLaughlin replied that since these units would be for sale and would not be rental units, he anticipated paying a fee in lieu of affordable units.

Commissioner Jensen stated that the Plan Commission, and likely Village Board, would be less receptive to paying the fee in lieu of affordable units in the future.

Commissioner Sigalos said that the petitioner stated that the building would be around 42 feet tall, he asked if this was measured to the roof of the partial fourth floor or to the roof of the third floor.

Mr. Hopkins replied that the 42 foot measurement was to the top of the fourth floor. The top of the third floor would be about ten feet lower.

Commissioner Sigalos asked about pricing for the units.

Mr. McLaughlin said that with base price plus options, they expected that these units would close in the \$600,000 range.

Commissioner Sigalos stated that the previous proposal for the site was for more units and more height, and the developer at that time had stated that they could not reduce the height or unit count and still have an economically viable project. He asked the developer how confident they were in the viability of this development and said he wasn't sure if the price of the property had gone down since the last proposal.

Mr. McLaughlin replied that the price of the property had not gone down. Given their expected sale price, the proposed unit count was economically viable.

Commissioner Sigalos said that he thought that this project was great and that it was a great transitional development.

Given that the fourth floor would be setback from the street, this project would only appear like a three-story building. He thought the developer had done a nice job with this development proposal. With regards to affordable housing, he was not sure how the developer would be able to incorporate affordable units within the development given the price range that they were expecting.

Mr. McLaughlin responded that he agreed that affordable housing would be difficult to incorporate into the development and said that this is why they were looking at the fee in lieu option.

Mr. Barenbrugge stated that it was more difficult to incorporate affordable units into the development given the low number of units proposed.

Commissioner Cherwin said that he thought the site design was great and the buildings looked good too. He was glad to see some rooftop space and that this was something he usually looked for in new developments and that it would be a great selling feature. Some of the issues he had with the previous development proposed for this property did not appear to be present in this proposal. He agreed that utility infrastructure needed to be appropriately placed and screened. The fee in lieu of affordable housing made sense to him for this project.

Commissioner Green stated that he thought the developer had done a good job with their preliminary proposal and he noted that he hadn't had as many issues with the previously proposed project for this site as some of the other commissioners. The elevations were good and the five foot separation between the buildings was also a good feature. He encouraged the petitioner to move forward

RECOMMENDATION

The Conceptual Plan Review Committee advised the petitioner to proceed forward with their application.

Bruce Green, Chair
CONCEPTUAL PLAN REVIEW COMMITTEE
Sam Hubbard, Recorder

APPROVED

MINUTES OF
THE VILLAGE OF ARLINGTON HEIGHTS
DESIGN COMMISSION MEETING
HELD AT THE ARLINGTON HEIGHTS MUNICIPAL BUILDING
33 S. ARLINGTON HEIGHTS RD.
MAY 28, 2019

Chair Fitzgerald called the meeting to order at 6:30 p.m.

Members Present: John Fitzgerald, Chair
Kirsten Kingsley
Jonathan Kubow
Ted Eckhardt
Scott Seyer

Members Absent: None

Also Present: Marc McLaughlin, Taylor Morrison Illinois for *Taylor Morrison Townhomes/Sigwalt 16*
Mark Hopkins & Eden Richards, HKM Architects for *Taylor Morrison Townhomes/Sigwalt16*
Steve Hautzinger, Staff Liaison

REVIEW OF MEETING MINUTES FROM MAY 14, 2019

A MOTION WAS MADE BY COMMISSIONER SEYER, SECONDED BY COMMISSIONER KUBOW, TO APPROVE THE MEETING MINUTES OF MAY 14, 2019. ALL WERE IN FAVOR. MOTION CARRIED.

ITEM 1. MULTI-FAMILY REVIEWDC#19-034 – Taylor Morrison Townhomes / Sigwalt 16 – 37-45 S. Chestnut Ave. & 36-40 S. Highland Ave.

Marc McLaughlin, representing *Taylor Morrison of Illinois*, and Mark Hopkins and Eden Richards, representing *HKM Architects*, were present on behalf of the project.

Mr. Hautzinger presented Staff comments. The petitioner is seeking design approval for three new 4-story townhome buildings with a total of 16 units on an existing vacant site at the south end of Block 425 on the edge of the Downtown. Tonight's review is regarding aesthetics and architectural design of the buildings only. This project also requires Plan Commission review and Village Board approval for all matters pertaining to zoning. The Plan Commission meeting is tentatively scheduled for June 26, and separate public notification will be provided once that meeting date is confirmed.

Mr. Hautzinger explained that this project received a preliminary Design Commission review on February 26, 2019. At that time, Staff reported that the Village Board and neighboring residents had previously expressed their preference for a traditional style development in this location to complement the context of the adjacent single-family neighborhood. At a Committee of the Whole meeting on June 11, 2018, the Village Board expressed their preference for an example of a traditional style multi-family development on the edge of Naperville's Downtown. In order to comply with the direction from the Village Board, Staff had recommended that the modern style townhome proposal be redesigned with a more traditional aesthetic, and several design suggestions were provided. However, despite the Village Board's preference for a traditional style development, the Design Commission liked the overall modern style direction for this project, including the materials and colors. However, they did recommend the following:

- It was encouraged to enhance the appearance of the buildings as townhouses by further defining the appearance of each individual townhome.
- It was recommended to add windows to the blank wall areas facing south.
- There was a preference to omit the grids (muntins) from the windows.
- Sustainable design was encouraged, and a list of "green" design features was requested.

Based on the feedback received at the preliminary Design Commission review, the petitioner has made the following changes to the proposed design:

- Massing. The overall appearance of the design as individual townhomes instead of one large building was greatly improved by the following:
 - The three story corner "tower" element was omitted and replaced with a two-story box bay creating a clear identity for the corner townhome unit.
 - Box bays were added to all of the units, providing a very nice residential scale.
 - Scuppers and downspouts were added between each of the units, which provides a subtle visual break between each of the units.
- Brick Colors. The brick colors were revised from shades of gray to a creamy white and a reddish brown.
- South Windows. The south walls of the east and west buildings were redesigned to include three vertical rows of windows.
- Window Grids. The window grids (muntins) were omitted from the design.
- Sustainable Design. An extensive list of sustainable design features was provided.

Staff felt that overall, the proposed design is very nicely done, consistent with the Design Commission's support for a more contemporary design. The softened material palette combined with the changes to the massing helps to create a transitional style development that has a fresh modern appearance to complement the Downtown, yet has a nice scale and level of detail to fit with the adjacent traditional style single-family neighborhood.

Staff's concerns to be evaluated by the Design Commission are as follows:

- North Elevation of the Highland building. The north elevation of the Highland building is lacking detail. Although visibility of this elevation will be limited, it is recommended that additional masonry and windows be provided to enhance the appearance.
- Optional Fourth Floors. The petitioner is proposing to offer the fourth floors for all interior units as an option to potential buyers. The fourth floor for all end units will be standard, which raises concerns about the potential for a random appearance to the massing at the top of each building. To ensure a consistent appearance for the development, it is recommended that the fourth floor space either be included for all units on all buildings, or completely eliminated.

All rooftop mechanical equipment is required to be screened from public view. Air conditioning units are located on the fourth floor roof terraces, and will be fully screened by the parapet walls. Exterior wall-mounted equipment and meters must also be screened from view. The locations of these items is not yet determined, but it is recommended that they be required to be located on the back of the buildings, away from the street frontages.

Mr. Hautzinger concluded that Staff recommends approval of the proposed design for the new Sigwalt 16-Taylor Morrison Townhomes, with recommendations to provide additional masonry and windows on north elevation of the Highland building, a requirement that the fourth floor space either be included for all units on all buildings, or completely eliminated, and a requirement to locate all exterior wall-mounted mechanical equipment and meters on the back of the buildings, away from the street frontages.

Mr. McLaughlin said that a neighborhood meeting was held on April 11, 2019, where positive feedback was received from neighbors and their input was considered when the preliminary design was revised for tonight's review. There was also good discussion about the fences in the front yard, which were ultimately eliminated from the design.

Mr. Hopkins appreciated the feedback received on this very important transitional site. He felt the proposed design was more transitional than contemporary because it was a little bit cleaner than a highly detailed traditional building, but with all the allusions to traditional urban row homes without super contemporary or modernistic approaches to details. In response to Staff's concerns that the north elevation of the Highland building lacked detail, Mr. Hopkins said that this was because the windows look at the parking deck and they felt punched openings were unnecessary there. He also said that they are trying to locate all exterior wall-mounted mechanical equipment and meters on the rear of the buildings; however, there is a place on the corner units where they might not be able to do so, which he presented a diagram of, but they are committed to fully screening any meters with landscape (a total of 3 meters on each corner building).

Chair Fitzgerald asked if there was any public comment and there was response from the audience.

PUBLIC COMMENT

Gabriela Rojek, 104 S. Highland Avenue. She lives directly across the street from the site (to the south) and was at the neighborhood meeting on April 11th. She appreciated the design being presented tonight, which she felt was a lot better than the previous development that was proposed for the site. She felt the scale was better too, and she liked individual homes rather than rentals. She had concerns about the carve-outs shown on Sigwalt because of the high amount of traffic and the plows. Mr. Hopkins clarified that there was no carve-out for parking being proposed on Sigwalt, only on Chestnut. Ms. Rojek liked the design and had no further comments.

Lauree Harp, 44 N. Vail Avenue. She has lived here for 19 years and followed all of the Block 425 reviews, which she is very happy with how that development turned out. Living Downtown and seeing the development of the Downtown, she had concerns about how these buildings look, which is more industrial. She also had concerns about traffic on Sigwalt, which is a narrow street that carries a lot of traffic and travels very quickly, and felt that carving out space for cars to pull in for package delivery and such was necessary. Mr. Hautzinger explained that these comments are matters to be discussed by the Plan Commission. With regards to the design, Ms. Harp felt that the proposed buildings look like the Chestnut building, which is a downgrade of the Campbell/Vail/Wing buildings, and not as architecturally attractive as what is going in on Block 425 or the surrounding buildings. Architecturally, she felt that something could

be added to the buildings to resemble the look of Arlington Heights look, as opposed to the industrial look; the design looks very plain to her and did not add to what is existing on Chestnut.

There was no further public comment.

Commissioner Eckhardt said the current design was a great improvement from the design presented at the preliminary review, and the petitioner established each elevation of each building as a separate unit to be identified as such. He referred to the south elevation and asked for clarification on the function of the box bays. Mr. Hopkins explained that they will add interior floor space, and when the box bay is only 2-stories tall then the bedroom floor does not extend that far out. Commissioner Eckhardt felt they looked a little boxy and a little blank. In terms of the building design, when he first reviewed it he wondered if it should be similar in architecture to the future building next to it on Chestnut, but now he preferred the differences between the buildings. He felt it was a transitional design, boxy with a 4th floor walk-out setback, which he felt was a good design element. He referred to the southwest corner unit and asked why the box bay did not go all the way up; it looks a little boxy as shown. Mr. Hopkins replied that it is a result of getting the right alternation going down the street with high/low and wide/narrow box bays. If they changed the height of the corner box bays, then they would need to change other things down the rest of the elevation. Commissioner Eckhardt said that at this point he was generally in favor of the design being shown tonight, and he liked the massing. He wanted to hear comments from other commissioners before making any further comments.

Commissioner Kingsley said it was a nice project and she appreciated a lot of things the petitioner was doing on the project, and although she liked the design being shown tonight, she really liked the previous design as well. She was unsure about the box bays and the fact that units with a box bay on the second and third-floor do not get a canopy. She felt this was a little more foreboding with less light, and if the current design moves forward, then the light quality and how it will portray each door will be very important. She liked the canopies and did not mind the box bays on the ground. She understood how the scuppers make a rhythm across the building and break up the elevations; however, she felt this was contributing to the industrial look of the building, and she questioned whether there was a way to get that same rhythm by doing a reveal in the brick and then having internal drainage. She also had concerns about the downspouts being painted to match the surrounding brick. Mr. Hopkins replied that they prefer not to do internal drainage, and the current location for the downspouts was approximate.

Commissioner Kingsley asked for clarification that the window trim, when in brick, would be a cast stone material, and the window trim in a box bay or siding would be vinyl, and if all of the trim will be smooth. Mr. Hopkins reviewed the window trim details, which will break the plane and all be a clay color, the spandrel panels in the box bays will be one smooth piece in the Siding D color, all of the trim will be smooth, and the cap on the coping stone will match the cast stone. Commissioner Kingsley said that she liked the previous small roof overhang on the penthouse, which was now eliminated, and Mr. Hopkins said that it was eliminated as a result of feedback given. Commissioner Kingsley felt there should be some kind of overhang on the doors for protection, and she agreed with Staff that the fourth-floor space should either be included for all units, or completely eliminated.

Mr. McLaughlin replied to the comment about the optional fourth-floor space. After receiving feedback from Staff, input from their architect, and the competing market conditions of the starting price for these units and whether to include this element as a standard or an option, they have decided to make this fourth-floor element standard on the corner units, and an option on the interior units, in order to market the units at a particular dollar amount. Their solution to keep everything feeling like a 4-story building if buyers do not option them, is to do a faux wall just at the front of the buildings. The faux wall would be the same material across with a door, which would be visible from the front elevations. Commissioner Eckhardt asked if the faux wall would be the same height as the occupied space, 10' tall, and Mr. McLaughlin agreed, adding that they have rendered this and it looks just like it would if it was a full build-out. This is their solution to keep to the integrity of the 4-story massing, however they feel most buyers will buy this option, with it only being an issue for 1 or 2 units; however, but they cannot guarantee that. Commissioner Kingsley said she was not in favor of doing a false wall because so many people would be seeing this from above. She liked the color palette and although she felt the previous color palette was a little stronger, this color palette blends itself more with the

neighborhood and the other developments going in. She felt it would be nice to see a little more of the dark versus light siding color, the white brick is unique but felt it could be a little more white.

Commissioner Kubow commented about the tight turning radius for cars into the garages, which the petitioner acknowledged and added that the anticipation is for tenants to own a small car and use the train. In terms of the architecture, Commissioner Kubow really liked the original design, but after looking at the current architecture in Arlington Heights and what is being proposed tonight, he really liked the color palette, the materials, and the transitional design of the buildings. He is always a big proponent of seeing more contemporary housing, which this is stepping towards, and felt the petitioner, architect, developer, and the Design Commission have done a good job of working together to come up with a design that fits within Arlington Heights. So well done to everyone involved with the project. Initially, he had some concerns with the box bays, specifically that the 2 infill units were lacking an entrance there, but he felt it could be done with downlights recessed either below the box bays or below the canopies to help highlight where each entrance is. The petitioner said that recessed lighting is proposed in the bottom of the box bays and the canopies.

With regards to the fourth floor material, Commissioner Kubow liked the cornice on the previous design and felt the box protruding from the fourth floor in the current design is lacking. He recommended going back to what was previously proposed, maybe something even simpler because there needs to be some type of projecting feature at the top of the fourth floor. He also felt that a dark material for the fourth floor might be an interesting idea to consider, and the screening material could be different instead of the same as the enclosure. He said it was important for residents of the Highland building to have windows added on the north side of the building, even though it will have limited exposure. With regards to the fourth floor space, Commissioner Kubow felt that a rendering showing the space included, the space not included, and a rendering that showed the false wall from the rear would have been helpful. Mr. Hautzinger said that the petitioner did provide an updated rendering to show how the false wall would look, and it essentially looks identical as the rendering with the full fourth floor.

Commissioner Seyer did not have a lot to add to the other commissioner's comments other than he applauded the petitioner's efforts to respond to some of the comments made at the preliminary review, such as adding windows to the solid wall and improving the softscape at the entry by eliminating the fence. He agreed with Commissioner Kubow that the top of the fourth floor could use a little more of a pronounced parapet because right now it is flat going all the way up, and the little bit of articulation that was previously there was nice. He understood the intent of the downspouts, which certainly help break up the elevation in a positive way, at least in the renderings, but he questioned how it would look in real life. He explained that a paint color that looks like brick will wear differently than brick and eventually not blend. At the very least, he felt it should be the same color as the windows, to tie in with the aluminum in the windows; however, he preferred to see the downspouts go away and be replaced with a brick detail, bumped out for articulation. If this is cost prohibitive, then he said that there needs to be a lot of care into how the downspouts are treated, otherwise it will be a major aesthetic detriment to the property value and how it looks aesthetically, which is a big concern to him. Commissioner Seyer had no further comments.

Chair Fitzgerald had a big issue with the fourth floor space and the faux wall in the rear. He was unsure how it would look, other than it would look odd, especially since that part would be visible by so many people that are higher. He did not understand this detail enough to be comfortable with approving it tonight. He agreed with the comments that the fourth floor could be darker and the cap a little nicer, and he liked the colors and materials being presented. He also liked that the fencing in front of the buildings was eliminated, and he really liked the idea of adding windows or some type of architectural detail to the area on the northeast corner of the building. He pointed out the 28' wide opening there and that this is a walking neighborhood where people will see the elevation. All in all, Chair Fitzgerald liked the project, which he agreed is transitional in style, and he liked how the proposed materials were brought from the neighborhood and combined in a good way.

Commissioner Kingsley asked the petitioner if the gas meters could be located on the east and west walls between the buildings. Mr. Hopkins replied that there is only 5' of space in the pedestrian passages, which is not enough space to add meters, and they are still waiting for NICOR's response to their request on the location of the meters.

Commissioner Kingsley referred to the dark bronze color proposed for the canopies and railings, and pointed out how light the back of the building will be. She suggested a warmer color for the railings, a color in between the 'Siding A' color and the dark bronze canopy color.

Commissioner Eckhardt asked for clarification on the petitioner's intent to build the fourth floor space. Mr. McLaughlin replied that all corner or end units would be built with the fourth floor space, with a buyer option for the remaining units. Commissioner Eckhardt was concerned that the fourth floor would be out of balance and look unfinished if some units had the faux walls and some did not. Mr. McLaughlin presented a rendering that showed what they believe to be the best and worst case scenario if only some units have the fourth floor space, which would be their approach from a sales perspective. Chair Fitzgerald said that what was shown in this rendering looked okay, but if it was not balanced it would not look okay. Mr. McLaughlin replied that they are in favor of the balanced look as well. Commissioner Eckhardt said he has never seen a developer come here with a major architectural element such as this as an option, and Mr. McLaughlin suggested thinking of it as a basement option, which Commissioner Eckhardt replied was different because a basement is not visible.

Commissioner Kubow asked about the roof material for a unit where a false wall would be, and Mr. Hopkins said that roof pavers would be used where there are roof decks, and only roofing where there is a false wall. Commissioner Eckhardt asked if a buyer could option a big roof deck instead of the fourth floor space and Mr. McLaughlin said that that would not be an option because of building code issues. He reiterated that they anticipate that every buyer would option for the fourth floor space.

Mr. Hautzinger commented that having a glass patio door in a false wall would have a strange appearance if you can see the sky through the glass door. He asked if the petitioner considered spandrel glass instead. Chair Fitzgerald reiterated his concerns about the residents in Downtown buildings looking down on these buildings and seeing this odd detail of false walls; he could not visualize how this would look. Commissioner Kubow pointed out that traditional row homes have a lot more units across the building, sometimes having different character and different levels, and since there are only 5 units here, he was unsure if the false walls would look as bad architecturally and be that noticeable.

Mr. McLaughlin said that they looked at the false wall from the street; however, he understood the concerns about how it would look from above, which is why they rendered other variations of it. Commissioner Kingsley suggested meeting halfway; the commissioners really want to have the fourth floor space built on all the units, and if it cannot be done, then at a minimum on the Chestnut building, it follow both the white brick or the red brick, and the same on the Sigwalt building, so at least it makes sense with the elevations. The petitioner understood and said that they actually tried to do just that.

An audience member asked if it was too late to comment on the project. Chair Fitzgerald re-opened the public comment portion of the meeting.

PUBLIC COMMENT

Andrew Wimberly, 615 W. Haven Drive. He said that the population of Arlington Heights is decreasing, not because people are leaving but because home sizes are getting smaller due to people having less children and downsizing, etc. and he felt the 3 bedroom standard for this development was not adapting to this housing market or to the way the housing size trend is going in. Commissioner Eckhardt acknowledged the issue of this demographic, ownership of smaller units is difficult to find in town, but pointed out that smaller rental units are coming with the other development on this site. Mr. Wimberly added that 6% of the homes in downtown Arlington Heights only have 1 car, and he clarified that the 25' wide turning radius for this development is actually larger than the standard parking lot aisle which is 22' to 24'.

Gabriela Rojek asked if the developer is committed to the landscaping as shown. Mr. Hautzinger replied that the landscaping and all site design elements would be reviewed in detail as part of the Plan Commission hearing.

Commissioner Kingsley pointed out that the plans do not show lighting and she asked if this has been developed yet, specifically at the patio doors, on the fourth floor, and in the walkways between the buildings. Mr. Hopkins indicated the can lights on the canopies and under the box bays, as well as in the overhang above the garage doors; otherwise there are no surface mounted lights. Commissioner Kingsley suggested that any lights proposed in the rear of the buildings be a lamp that is shielded to not show the source of the light, and lights in the walkways be low to just light up the ground.

Commissioner Eckhardt suggested a straw vote at this time prior to a motion because there could be differing opinions about some very large elements of the buildings, particularly the top. He summarized that he was in favor of a darker tone at the top level of the buildings, and he was not in favor of the faux wall idea because the big giant block across the building makes it look like a big mechanical penthouse, which did not make sense to him. The downspouts are somewhat of an issue for him as well because they are not an attractive design element, he was okay with the color palette, he liked the bricks, he was in favor of adding windows on the northeast elevation, and he agreed with the suggestion that the railings be the same color as 'Siding A'.

Commissioner Kingsley summarized that she was not in favor of a false wall for the fourth floor, and was more in favor of following the facade so that it looks like it matches vertically. She was in support of eliminating the scuppers and doing something different in those locations, whether it be a reveal or something that projects out, although she would rather not see a projection. She was also in support of doing some kind of parapet or expression of the cornice, not in a detailed way, but just a projection on the fourth floor. She also emphasized her preference for the wall mounted mechanical equipment to be located in the rear of the buildings.

Commissioner Kubow agreed with the comments made by Commissioner Kingsley. Commissioner Seyer and Chair Fitzgerald agreed as well.

Commissioner Kubow asked the petitioner if they thought about a compromise for the fourth floor, and Mr. McLaughlin replied that if all the options for the fourth floor space could not be sold, they could work with putting them in the white brick units, as opposed to the brown brick units. Mr. Hautzinger clarified that this concept goes against the idea of having each end/corner unit as standard then, and Mr. McLaughlin said the space would remain standard on the corner units and this scenario would only apply to the interior units. Commissioner Kingsley reiterated that each elevation should make sense vertically, whether it is red brick or white brick.

A MOTION WAS MADE BY COMMISSIONER KINGSLEY, SECONDED BY COMMISSIONER KUBOW, TO RECOMMEND APPROVAL THE PROPOSED ARCHITECTURAL DESIGN FOR THE SIGWALT 16-TAYLOR MORRISON TOWNHOMES TO BE LOCATED AT 37-45 S. CHESTNUT AVENUE AND 36-40 S. HIGHLAND AVENUE. THIS RECOMMENDATION IS BASED ON AND SUBJECT TO COMPLIANCE WITH THE ARCHITECTURAL PLANS DATED AND RECEIVED 4/12/19, EXTERIOR ELEVATIONS AND RENDERINGS DATED 5/22/19 AND RECEIVED 5/24/19, DESIGN COMMISSION RECOMMENDATIONS, COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE, AND VILLAGE CODES, REGULATIONS, AND POLICIES, THE ISSUANCE OF ALL REQUIRED PERMITS, AND THE FOLLOWING:

1. A REQUIREMENT TO PROVIDE ADDITIONAL WINDOWS ON THE NORTH ELEVATION OF THE HIGHLAND BUILDING.
2. A PREFERENCE THAT THE FOURTH FLOOR BE CONTINUOUS, AND IF NOT, THAT IT FOLLOW THE LEAD OF THE FRONT FACADE SO IT READS VERTICALLY.
3. A REQUIREMENT TO LOCATE ALL EXTERIOR WALL MOUNTED MECHANICAL EQUIPMENT AND METERS ON THE BACK OF THE BUILDINGS AWAY FROM THE STREET FRONTAGES, AND IF NOT POSSIBLE, THEN REVIEWED BY STAFF AS TO HOW THEY WILL BE HIDDEN.
4. A REQUIREMENT THAT THE DOWNSPOUTS BE INTERNALIZED AND THAT THOSE DIVISIONS IN THE FACADE BE BROKEN UP BY EITHER A REVEAL OR A BRICK PROTRUSION, TO BE REVIEWED BY STAFF.
5. A REQUIREMENT TO ENHANCE THE FOURTH FLOOR COPING WITH A SIMPLE PROJECTED PROFILE.

6. A RECOMMENDATION THAT THE RAILINGS BE A WARM BROWN COLOR, AND NOT AS DARK AS THE DARK BRONZE COLOR.
7. A RECOMMENDATION THAT THE COLOR OF THE FOURTH FLOOR BE A DARKER AND RICHER COLOR, SUCH AS THE 'SIDING A' COLOR.

Commissioner Eckhardt asked for clarification on the motion regarding the fourth floor. Commissioner Kingsley explained that the motion states the commissioners' preference that all units have the fourth floor space, and if this could not be done, then it must be built as a unit, not as a false wall, and match what it is on the base of the unit. Commissioner Seyer added that the materiality of the massing divisions should be followed on the fourth floor. Mr. Hautzinger added that the fourth floor space would be standard on the end units of each building in all cases, regardless of the color of the brick.

Commissioner Seyer asked for clarification on the issue of the downspouts; do they need to be changed or eliminated in favor of a brick reveal. He also pointed out that the previous version did not have external downspouts. Ms. Richards replied that they have not fully designed the roof drainage plan yet, but drainage is needed from the roof deck because it is a flat roof deck area at the third floor, and external downspouts are preferred. Commissioner Kingsley clarified that the motion did not state how the petitioner should change the downspouts, only that it is a requirement not to see the downspouts. Commissioner Seyer was in favor of that, but expected the petitioner to have an issue with it and wondered if there should be discussion about it now. Mr. McLaughlin said he was going to propose that the downspouts be a different color and not match the brick. Chair Fitzgerald said that he and two other commissioners appear to be in favor of the downspout requirement in the motion. Commissioner Kubow said he was okay with the downspouts as proposed, which help break up the elevation. Commissioner Eckhardt said that he is used to seeing scuppers and downspouts on the back of buildings, not on the primary elevations. He was not in favor of the downspouts as proposed; they are not attractive to him, especially on the Sigwalt elevation. Mr. McLaughlin asked if the only concern is the four downspouts on the end elevations facing Sigwalt. Commissioner Eckhardt reiterated his preference that the downspouts be internal and the overflow go out the back or somehow camouflaged. He reiterated that the Sigwalt elevation is the most prominent and disturbing, and the downspouts are not as prominent on the other elevations. He was also concerned about the blank brick wall areas that will be left after the downspouts are removed.

Chair Fitzgerald asked if the commissioners were comfortable leaving the motion as is. Commissioner Kingsley asked what would happen if the petitioner determines during construction documentation that they cannot comply with this requirement. Mr. Hautzinger replied that Staff would work with the petitioner to achieve a solution that is in the spirit of what the motion states, and if it was not attainable, then the petitioner would be required to return to the Design Commission to review it.

To clarify, Mr. Hautzinger said that the motion currently includes a requirement to internalize all of the downspouts, whether they are on the front or the ends of the buildings. Commissioner Kingsley added that the motion did not specify an elevation; it just states scuppers in general. Mr. Hopkins asked about the gutters and downspouts on the rear elevations. Commissioner Seyer and Commissioner Kingsley were not concerned about the downspouts on the rear elevations because those walls are all siding. This only applies to the three main street façades.

A MOTION WAS MADE BY COMMISSIONER KINGSLEY, SECONDED BY COMMISSIONER KUBOW, TO AMEND THE MOTION AS FOLLOWS:

4. A REQUIREMENT THAT THE DOWNSPOUTS BE INTERNALIZED AND THAT THOSE DIVISIONS IN THE FACADE BE BROKEN UP BY EITHER A REVEAL OR A BRICK PROTRUSION, TO BE REVIEWED BY STAFF. THE EXPOSED DOWNSPOUTS MAY REMAIN ON NON-STREET ELEVATIONS.

Mr. Hautzinger understood that a brick detail was required on the front elevations between the units in place of the downspouts, but he asked if that detail also applied to the south elevations of the Chestnut and Highland buildings. Commissioner Kingsley replied that it did not apply in those locations.

Mr. Hautzinger also asked for clarification on item 1 of the motion, to confirm if additional masonry is required on the north elevation of the Highland building. Commissioner Kingsley replied that only the addition of windows is required.

SEYER, AYE; ECKHARDT, AYE; KINGSLEY, AYE; KUBOW, AYE; FITZGERALD,
AYE. ALL WERE IN FAVOR. MOTION CARRIED.

STAFF DESIGN COMMISSION REPORT

PROJECT INFORMATION:

Project Name: Sigwalt 16, Taylor Morrison Townhomes
Project Address: 37-45 S. Chestnut Avenue,
36-40 S. Highland Avenue

Prepared By: Steve Hautzinger
Date Prepared: May 21, 2019

PETITIONER INFORMATION:

DC Number: 19-034
Petitioner Name: Marc McLaughlin
Petitioner Address: Taylor Morrison of Illinois Inc.
1834 Walden Office Square, Suite 300
Schaumburg, IL 60173

Meeting Date: May 28, 2019

Requested Action(s):

Approval of the proposed architectural design for three new multi-family townhome buildings.

Design Commission Responsibility for Projects Being Reviewed by Plan Commission:

The subject design is being forwarded to the Design Commission for review pursuant to Chapter 6 of the Municipal Code.

This project requires Plan Commission review and Village Board approval for Rezoning, Subdivision, PUD approval, and multiple zoning variations. Because this project is going to the Plan Commission, the role of the Design Commission is limited. The Design Commission's responsibility is as outlined in Chapter 28 of the Municipal Code, Section 14.2-1, which states:

*"For developments where a public hearing is necessary before the Plan Commission or Zoning Board of Appeals, the design review process should, if feasible, be completed by the time of the public hearing. Development proposals requiring rezoning, PUD or other Plan Commission approvals, shall be reviewed by the Design Commission **for building and signage only.**"*

Summary:

The petitioner is proposing to build three new 4-story townhome buildings with a total of 16 units on an existing vacant site at the south end of Block 425 on the edge of the Downtown. Each townhome unit will have a separate entrance on the front and a private enclosed garage on the back. The top floor of each unit will be recessed approximately 14 feet to create an outdoor rooftop terrace.

Preliminary Design Commission Review:

This project received a preliminary Design Commission review on February 26, 2019. At that time, Staff reported that the Village Board and neighboring residents had previously expressed their preference for a traditional style development in this location to complement the context of the adjacent single-family neighborhood. Staff presented an image of a traditional style multi-family development on the edge of Naperville's Downtown that the Village Board expressed their preference for at a Committee of the Whole meeting on June 11, 2018. In order to comply with the direction from the Village Board, Staff recommended that the modern style townhome proposal be redesigned with a more traditional aesthetic, and several design suggestions were provided.

Despite the Village Board's preference for a traditional style development, the Design Commission liked the overall modern style direction for this project, including the materials and colors. However, they did recommend the following:

- It was encouraged to enhance the appearance of the buildings as townhouses by further defining the appearance of each individual townhome.
- It was recommended to add windows to the blank wall areas facing south.
- There was a preference to omit the grids (muntins) from the windows.
- Sustainable design was encouraged, and a list of "green" design features was requested.

Project Update:

Based on the feedback received at the preliminary Design Commission review, the petitioner has made the following changes to the proposed design:

- Massing. The overall appearance of the design as individual townhomes instead of one large building was greatly improved by the following:

- The three story corner “tower” element was omitted and replaced with a two-story box bay creating a clear identity for the corner townhome unit.
- Box bays were added to all of the units, providing a very nice residential scale.
- Scuppers and downspouts were added between each of the units, which provides a subtle visual break between each of the units.
- Brick Colors. The brick colors were revised from shades of gray to a creamy white and a reddish brown.
- South Windows. The south walls of the east and west buildings were redesigned to include three vertical rows of windows.
- Window Grids. The window grids (muntins) were omitted from the design.
- Sustainable Design. An extensive list of sustainable design features was provided.

Staff Comments:

Overall, the proposed design is very nicely done, consistent with the Design Commission’s support for a more contemporary design. The softened material palette combined with the changes to the massing helps to create a transitional style development that has a fresh modern appearance to complement the Downtown, yet has a nice scale and level of detail to fit with the adjacent traditional style single-family neighborhood.

Staff has just a couple items of concerns to be evaluated by the Design Commission:

- North Elevation of the Highland building. The north elevation of the Highland building is lacking detail. Although visibility of this elevation will be limited, it is recommended that additional masonry and windows be provided to enhance the appearance.
- Optional Fourth Floors. The petitioner is proposing to offer the fourth floors for all interior units as an option to potential buyers. The fourth floor for all end units will be standard. This raises concerns about the potential for a random appearance to the massing at the top of each building. To ensure a consistent appearance for the development, it is recommended that the fourth floor space either be included for all units on all buildings, or completely eliminated.

Mechanical Equipment, Utility Equipment, and Utility Meter Screening:

All rooftop mechanical equipment is required to be screened from public view. Air conditioning units are located on the fourth floor roof terraces, and will be fully screened by the parapet walls.

Exterior wall-mounted equipment and meters must also be screened from view. The locations of these items is not yet determined, but it is recommended that they be required to be located on the back of the buildings, away from the street frontages.

RECOMMENDATION:

It is recommended that the Design Commission **approve** the proposed architectural design for the Sigwalt 16, Taylor Morrison Townhomes to be located at 37-45 S. Chestnut Avenue and 36-40 S. Highland Avenue. This recommendation is based on, and subject to compliance with, the architectural plans dated and received 4/12/19, exterior elevations and renderings dated 5/22/19 and received 5/24/19, Design Commission recommendations, compliance with all applicable Federal, State, and Village codes regulations and policies, the issuance of all required permits, and the following:

1. Provide additional masonry and windows on north elevation of the Highland building.
2. A requirement that the fourth floor space either be included for all units on all buildings, or completely eliminated.
3. A requirement to locate all exterior wall-mounted mechanical equipment and meters on the back of the buildings, away from the street frontages.
4. This review deals with architectural design only and should not be construed to be an approval of, or to have any other impact on, any other zoning and/or land use issues or decisions that stem from zoning, sign code or building or any other reviews. In addition to the normal technical review, permit drawings will be reviewed for consistency with the Design Commission and any other Commission or Board approval conditions. It is the architect/owner/builder’s responsibility to comply with the Design Commission approval and ensure that building permit plans and sign permit plans comply with all zoning code, building code and sign code requirements.
5. All signage shall comply with Chapter 30, Sign Code.

____ May 21, 2019

Steve Hautzinger AIA, Design Planner
Department of Planning & Community Development

Cc: Charles Witherington Perkins, Director of Planning and Community Development, Bill Enright, Deputy Director of Planning and Community Development, Sam Hubbard,
Development Planner, Petitioner, DC File 19-034

DRAFT

MINUTES OF A MEETING OF
THE ARLINGTON HEIGHTS HOUSING COMMISSION
HELD AT ARLINGTON HEIGHTS VILLAGE HALL
VILLAGE OF ARLINGTON HEIGHTS, ILLINOIS
June 11, 2019

IN ATTENDANCE:

Commissioners

Present: Alex Hageli Mark Hellner
Zach Creer Andrew Tripp

Commissioners

Absent: William Delea

Staff Present: Nora Boyer, Housing Planner/Staff Liaison

On Behalf of Marc McLaughlin, Taylor Morrison
Sigwalt 16: Michael Firsel, Attorney for the Developer

I. CALL TO ORDER

The meeting was called to order at 7:00 p.m.

II. AGENDA

A motion was made by Commissioner Hageli, seconded by Commissioner Tripp to move the Sigwalt 16 item up on the start of the agenda. The motion was approved unanimously.

III. SIGWALT 16 RESPONSE TO AFFORDABLE HOUSING POLICY

Ms. Boyer explained that the proposed Sigwalt 16 project is a for-sale, 16-townhome development, in three buildings, on the south end of Block 425 in downtown Arlington Heights. She explained that the Village's affordable housing guidelines call for 10% of the units or 1.6 units (rounded up to two units) to be affordable or the guidelines provide the option for the developer to contribute a fee in lieu of providing affordable units at \$75,000 per affordable unit not provided. The original developer proposal was to pay \$25,000 for each of the two affordable units. However, after discussion with the developer, the developer has agreed to pay \$75,000 per unit for the 1.6 units.

Ms. Boyer stated that staff looked at how other suburban communities in the Chicago area apply their fee in lieu charges, and she said that the majority apply the whole plus fractional amount to the fee amount, rather

than rounding. The 1.6 times \$75,000 equals a fee in lieu equals a total of \$120,000. Ms. Boyer said that the developer has agreed to pay the fee in lieu amount of \$120,000.

Ms. Boyer stated that for-sale affordable housing units under the Village's guidelines are not recommended at this time. There have been issues with the deed restricted for-sale units at Timber Court condominiums, due to dealing with fluctuations in value, especially during the housing crash, and the percentage of units being rented at the development. She added that since the housing downturn, there are also fewer lenders willing to work with programs like this. She said that the prices of units in this development also make it difficult to apply the guidelines to this for-sale development.

She said that staff is currently doing research on the Village's affordable housing guidelines including the for-sale guidelines. Staff will be coming back to the Housing Commission with its recommendations, but the research is not to that point yet, and this project is not being held up while that work is being done.

Ms. Boyer stated that the recommendation is that the Housing Commission consider recommending to the Village Board that the Village accept from the developer a fee in lieu of providing affordable units at 1.6 times \$75,000 for a total of \$120,000

Mr. Firsel, attorney speaking on behalf of the developer, said that staff approached the developer about fully complying with the affordable housing guidelines by providing the full fee amount at \$120,000, and the developer readily agreed to do so. He said that it is not economically feasible to include two affordable units in this development with the prices of the units at between the mid-\$500,000 and the high \$700,000 - \$800,000 and be able to construct the project. He pointed out that no other for-sale developer has paid the full amount of the fee.

Commissioner Hellner asked some questions about the square footages of the units, number of stories, parking and guest parking, how the exterior grounds will be maintained, the projected construction timetable, and storm water retention. The developer responded to these questions.

The meeting was opened to comments from the public.

Cathy Motto said that she thought that if there were affordable townhomes that there is a market demand for them. She asked how affordable units are kept affordable. The response was that this is done through deed restrictions and keeps the unit affordable in perpetuity.

Keith Moens said that there is a need to get as many affordable units as town as we can get. He asked that one affordable unit be included in the development and said that he did not think that would be an undue burden since it would only be 6% of the units. He commented that staff said that there were difficulties with fluctuations in values but that's how the market works. He said there is an affordable market out there, so there is another market to go to. He asked that there be one affordable unit in the development or that the fee be set at two (for two units) times the fee in lieu amount. He said that staff can look at it, but you can never get around market volatility. Mr. Moens asked about some statements in the developer's letter. Mr. Firsel responded that the sentences to which Mr. Moens referred were in the letter were a mistake.

Mr. Firsel disputed Mr. Moen's assertions saying that he did not have any factual basis for them. Mr. Firsel further stated that in a 16-unit development where 80 units were proposed before one cannot apply of the

affordable housing guidelines to \$600,000 units and make the development work. He commented that no evidence has been provided that this can be done and still have a viable project.

Carl Becker said that he is in the affordable housing business on the rental side. He said that HUD is stressing home ownership, especially in opportunity areas like Arlington Heights. He said there is a need for affordable unit to help the working poor get ahead.

Commissioner Hellner asked Mr. Becker how he would address including an affordable units when the price point is \$600,000 - \$800,000. He asked how he would price the units. Mr. Becker responded that he is not as familiar for-sale developments than homeowner units. Commissioner Hellner said that to make a unit at this price point affordable seems an enormous challenge.

Carl Becker asked what the price for a for-sale unit is. Ms. Boyer responded that the sale price would be around \$150,000 depending on the association dues, taxes, etc. Mr. Firsel said that their estimate was around \$150,000 - \$170,000 and it is not feasible to include one or two units in the development at this price. He said that the developer is offering to fully comply with the guidelines by paying the full fee in lie in the guidelines as was suggested by staff.

Peg Lane asked where she can get precise affordable home sale price amounts. Ms. Boyer said that she can provide that information, but it would be estimates because the affordable sale prices for developments need to be based, on part, on factors such as the property taxes, association dues, etc. of the particular development. She said that under the Village's guidelines, for-sale homes are to be affordable at households at 80% of the area median income.

Commissioner Hellner said that at some point it is counter intuitive that high price housing can be affordable housing. He said that does not mean that affordable cannot be provided, but trying to make a high value unit into an affordable unit at some point does not work. He said that he does not know how to make a unit at this price point affordable. It is more readily done with rental units than for-sale units. He said at the some point the market price prevents units in the proposal from being affordable. The price write down for the affordable units would need to be spread across the market rate units, and at some point that does not work.

There was a discussion about the price a household at 80% of area median income would be able to afford. Commission Tripp confirmed that there are several variable factors and that the number is something of a moving target.

Mr. McLaughlin said that the developer ran proformas on whether one of the townhomes could be split into two affordable units under various scenarios, but none of them worked.

Peg Lane suggested that some educated professionals such as architects and funders to come up with creative solutions for affordable housing. She asked if that can happen. Ms. Boyer responded that that is the kind of research and discussion that staff is working on. Solutions

Commissioner Creer said that the \$120,000 will not go to waste. He said that the Housing Commission received requests from agencies such as the Little City Foundation for funding for group homes in the

Village. He said that using the funds for a use like this makes more sense than including an affordable unit in this type of development. He said that he was in favor of the earlier proposal for this site with 80 units, and it would have made sense to require affordable units in that type of development.

Mr. Moens suggested that the fee could be applied to the cost of a unit and would contribute to bringing down the price. He asked again that if the Housing Commission is looking at the fee that it be charged for two units and paid right away.

A motion was made by Commissioner Hageli, seconded by Commissioner Creer to recommend to the Village Board that it accept as the affordable housing component of the Sigwalt 16 development a fee-in-lieu of providing 1.6 affordable units at \$75,000 per affordable unit not provided (i.e. 1.6 units x \$75,000) for a total of \$120,000 to be paid upon the issuance of the first building permit. The motion was approved unanimously.

Peg Lane asked why the staff went down in its recommendation with regard to the Arlington 425 project from the 54 units called for in the guidelines to the 18 units. Ms. Boyer said that she would give Ms. Lane her telephone number and would be happy to answer her questions. Commissioner Hellner responded that Arlington Heights is just one of a few communities in the area with a policy of this kind. He said that since 2012, when the Village started applying the guidelines that the housing market was poor, but the Village has been more aggressive in applying the guidelines. He said that he would rather see affordable units too, but that is hard to do at the high end of the market. He pointed out that the group homes referred to by Commissioner Creer help an even more disadvantaged group than general low/moderate-income residents.

Peg Lane asked if the Housing Commission has a timeline for the use of the Trust Fund. She asked if 3 months would be enough.

Commissioner Hellner said that the Housing Commission wants to maximize the impact of allocations from the Trust Fund. Commissioner Creer said that there is more money coming into the Trust Fund in the future. He said that there was a discussion that then there is about \$500,000 in the Trust Fund, the Housing Commission determine how to use it. Commissioner Tripp commented that the Housing Commission has discussed how the Trust Fund money could be best used at a couple of Housing Commission meetings.

Keith Moens said that the Village needs to revamp the guidelines. Commissioner Hellner said that as much flexibility as has been the case may not have been as positive an idea as thought previously.

IV. MINUTES

A motion was made by Commissioner Hellner, seconded by Commissioner Tripp to approve the minutes of the April 29, 2019 and May 6, 2019 Housing Commission meetings. The motion was approved unanimously.

V. OLD BUSINESS

A. Single Family Rehab Program

Ms. Boyer reported that there is one pending case, but the homeowners have not been following up. She said that she has recently received telephone calls requesting application forms.

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B. Group Home and Transitional Housing Acquisition and Rehab Program.

Ms. Boyer reported that the Little City project has been converted from an acquisition project to a rehab project. The work is under contract.

C. Timber Court

Ms. Boyer said that the Village is awaiting the judgement of damages from the pending lawsuit. There is a local bank that agreed to provide mortgages under the Village's for-sale affordable housing guidelines a few years ago despite the high percentage of rental units in the development. However, the lender said they could not provide mortgage with the litigation still pending. This same lender is being updated as the situation develops to determine if they continue to be willing to provide the mortgages once the litigation is resolved.

D. Substantial Amendments to 2015-2019 Consolidated Plan and Draft 2019 Annual Action Plan

Ms. Boyer said that she submitted CDBG applications for the Single Family Rehab Program and the Group Home and Transitional Housing Acquisition and Rehab Program. She asked for the same grant amounts as for the previous year. She said that the Village is developing the 2019-2020 Annual Action Plan, of which the 2019-2020 CDBG budget is a part. The Village is also proposing some amendment to the 5-year Consolidated Plan. This is the fifth year of the Consolidated Plan, and some amendments to change total allocations for goal areas and total beneficiary numbers are proposed to be changed to reflect actual allocations and beneficiary counts over the first four years under the Consolidated Plan and anticipated allocations and beneficiary numbers in the fifth year.

Commissioner Hellner asked if this means that the Village is developing a new 5-year Consolidated Plan. Ms. Boyer responded that it does.

VI. OTHER

Peg Lane asked why meeting materials are not posted until the Friday before a Housing Commission meeting. Ms. Boyer explained how the public had been provided with notice about the Consolidated Plan, Annual Action Plan and CDBG matters. It was clarified that Ms. Lane was referring to the Housing Commission packet. Ms. Boyer explained that the Village process calls for meeting packets to be posted on the Friday before meeting held the next week. The process was changed in that meeting dates and times are posted further in advance. Ms. Boyer said that sometimes it is not known what will be on agendas until into the week before a scheduled meeting and that there are factors outside staff's control regarding when information in the packets is ready to be posted. She said that the process is applied across the Village and is established by the Village Manager's office. She said that she does not have the authority to change the process.

VII. ADJOURNMENT

A motion was made by Commissioner Hageli, seconded by Commissioner Hellner, to adjourn the meeting. The motion passed unanimously. The meeting adjourned at 8:15 pm.

NEXT MEETING: July 2, 2019 7:00 pm.

Staff Report to the Housing Commission

To: The Chairman and Members of the Housing Commission
From: Nora Boyer, Housing Planner
Re: Sigwalt 16 – Response to Affordable Housing Policy
Report Prepared: June 4, 2019
Meeting Date: June 11, 2019

Background

Sigwalt 16 is a residential, rowhomes development proposed for the southern quarter of vacant Block 425 located in downtown Arlington Heights. Block 425 is bounded by Campbell Street to the north, Sigwalt Street to the south, Highland Avenue to the east, and Chestnut Avenue to the west. The proposed development is just south of the proposed Arlington 425 project.

The proposed development would involve the construction of a total of sixteen rowhomes on the site, in three buildings. The first building, located at the northeast corner of Chestnut Street and Sigwalt Street would contain six rowhomes. The second building, located at the northwest corner of Highland Avenue and Sigwalt Street would contain five rowhomes. The third building, located between the other two buildings along Sigwalt Street would contain five rowhomes. An exhibit is provided showing the site plan and a rendering in order to provide context and general understanding of the development to the Housing Commission, but site and design considerations do not fall under the purview of the Housing Commission.

Affordable Housing Guidelines

The Village's affordable housing guidelines call for a percentage of units in multi-family developments to be set aside as affordable housing. The guidelines suggest the inclusion of affordable units as a percentage of the total units. A fee in lieu of providing the affordable units in the amount of \$75,000 per required affordable unit is allowed. However, the guidelines stipulate that there is a preference for actual affordable units over the payment of fees. According to the guidelines, Sigwalt 16 with its 16 townhomes would either need to provide 10% of its units as affordable (i.e. 2 affordable units, rounded up from 1.6 units) or \$75,000 for each of the affordable unit not provided for a total of \$150,000.

Developer Proposal

The developer originally proposed to provide a fee for two units of \$25,000 per unit for a total of \$50,000. After discussions with Staff the developer has agreed to a fee in lieu of \$75,000 multiplied by 1.6 (10%) for a total of \$120,000.

Analysis

Recently, the Village Board has been requiring the inclusion of affordable units in new multi-family developments, and has permitted a combination of actual affordable units to the extent feasible in the development with the fees in lieu of units at \$25,000/unit for affordable units not provided. However, it is not recommended that actual affordable units be included "for sale" developments at this time for the following reasons:

1. The only for-sale development that included affordable, deed-restricted units to date is Timber Court condominium. Difficulties have been experienced with respect to the resale of these units due to fluctuation in values and the high proportion of rental units that resulted from the recession and decline in the suburban condominium market. Staff continues to work on these challenges, and is reluctant to recommend the inclusion of affordable for-sale units until solutions are found that resolve the difficulties at Timber Court.
2. The anticipated costs of the Sigwalt 16 units are expected to be in excess of \$600,000 per unit. Therefore, it is unrealistic to expect an affordable unit to be incorporated within this small development.

Since the Multi-Family Affordable Housing Guidelines for For-Sale developments has been implemented, units and fees have been approved for developments as follows:

<u>Affordable Housing Guidelines Applied to For-Sale Developments</u>							
<u>Year</u>	<u>Development</u>	<u>Guideline Requirement</u>	<u>Units Provided</u>	<u>Fee per Affordable Unit</u>	<u>Total Fee</u>	<u>Fee Across All Units</u>	<u>Public Assistance Provided</u>
2004	Timber Court Condos Total: 72 Units	20% - 14 units	14 Deed Restricted	0	0	0	VAH \$100,000
2012	Arbor Lane Townhomes Total: 16 Units	12% - 2 units	0	\$15,189/unit	\$30,378	\$1,898/unit	\$0
2016	Lexington Townhomes 48 townhomes	15% - 7 units	0	\$17,142/unit	\$120,000	\$2,500/unit	\$0
2019 Original Proposal	Sigwalt 16	10% - 2 units	0	\$25,000/unit	\$50,000	\$3,125/unit	\$0
Guideline Requirement	Sigwalt 16 Rounded Up	10% - 2 units	0	\$75,000	\$150,000	\$9,375/unit	\$0
	Sigwalt 16 Not Rounded	10% - 1.6 units	0	\$75,000	\$120,000	\$7,500/unit	\$0

If the Housing Commission concurs with the recommendation that this for-sale development not be required to include actual affordable housing units, the Housing Commission will need to determine the appropriate fee.

In the majority of suburban Chicago communities with inclusionary housing programs (i.e. the communities of Highland Park, St. Charles, and Lake Forest), when the calculation number of required affordable units includes a fractional number, that number is rounded up or down for the number of affordable units required. However, the whole number and (non-rounded) fractional number are used when calculating the fee-in-lieu amount. It is recommended that Arlington Heights calculate the fee-in-lieu amount in this manner. The non-rounded requirement for Sigwalt 16 (10% of 16 units) of 1.6 units multiplied by the \$75,000 fee per affordable units not provided totals \$120,000.

Recommendation

It is recommended that the Housing Commission recommend to the Village Board that a fee-in-lieu of providing affordable be accepted for the Sigwalt 16 project in the amount of \$120,000 (1.6 units x \$75,000) to be paid upon the issuance of the first building permit.

Date: April 26, 2019
To: Village of Arlington Heights, Sam Hubbard
From: Taylor Morrison, Marc McLaughlin, AICP, GISP
Subject: Sigwalt 16 Neighborhood Meeting

The Chicago Division of Taylor Morrison held an informational open house (neighborhood meeting) for our proposed development, Sigwalt 16, on Thursday April 11, 2019 at 7:30pm in the Buechner Room at Arlington Heights Village Hall. Approximately 70 invitations were mailed to property owners within 250' of the subject property inviting them to the neighborhood meeting. A sign-in sheet and comment cards were utilized.

The event was an open house with boards on display around the room and a member of the development team at each board. The boards consisted of the landscape plan, elevation renderings, floor plans, neighborhood building heights, and Taylor Morrison information. Refreshments of coffee, pop and water were served. At 7:45 Taylor Morrison gave a brief introduction of the development team and project overview. The remainder of the open house the development team answered all questions and addressed any perceived concerns from the neighbors.

In summary, the attendees appreciated that Taylor Morrison studied the meeting minutes of the previous proposal on the property and presented a product and architectural design that fits the neighborhood. All of the attendees voiced their general support of this development.

In attendance from the development team:

Rick Champine, Taylor Morrison
Scott Barenbrugge, Taylor Morrison
Marc McLaughlin, Taylor Morrison
Eden Richards, HKM Architects
Maureen Mulligan, RWG Engineering
Julie Workman, Levenfeld Pearlstein
Mike Firsell, Firsell Ross

In attendance from the community:

Donald Meersman, 202 S Highland Avenue
Catherine Meersman, 202 S Highland Avenue
Dan Thomas, 1623 N Mitchell Avenue
Gabriela Rojek, 104 S Highland Avenue





MICHAEL D. FIRSEL
MICHAEL E. ROSS
CHRISTINE S. BOLGER
KAREN JERWOOD
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April 12, 2019

Mr. Terrence Ennes and
Members of the Plan Commission of the
Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL 60005-1403

**Re: Request of Taylor Morrison of Illinois, Inc. ("Petitioner") for Plan Commission
Hearing and Recommendation – Sigwalt 16 – Proposed Rowhome Development
in Downtown Arlington Heights**

Dear Chairman Ennes and Plan Commission Members:

Please consider this letter the formal request of Taylor Morrison of Illinois, Inc., on behalf of SSO Arlington, LLC, the owner of the property referenced herein, to present Petitioner's proposed project known as "**Sigwalt 16**" before the Plan Commission of the Village of Arlington Heights for review and recommendation to the Village Board.

Petitioner is proposing a new "Class A" rowhome residential development on the 41,939 square foot parcel of vacant land identified as the southern portion of "Block 425" in the Village Downtown Master Plan (the "**Property**"), located between Sigwalt Street on the south, Highland Avenue on the east, and Chestnut Avenue on the west. The Property is south of and directly adjacent to the proposed "Arlington 425" development. The undersigned has been authorized to submit this letter to the Village for and on behalf of the Owner/Petitioner of the Sigwalt 16 project (the "**Project**").

The Project will involve the construction of three new residential rowhome buildings on the currently vacant Property. Each will be a four-story, rowhome style residential building containing 2-3 car rear-loaded garages. Each building will also have balconies on the top floor adjacent to the public streets, thereby reducing the mass of the fourth floor of the buildings.

The first building, located at the northeast corner of Chestnut Street and Sigwalt Street (the "**Chestnut Building**"), will contain six rowhomes. The second building, located at the northwest corner of Highland Avenue and Sigwalt Street (the "**Highland Building**"), will contain five rowhomes. The third building located between the Chestnut Building and Highland Building along Sigwalt Street (the "**Sigwalt Building**"), will contain five rowhomes. The total number of rowhomes in this development is sixteen, evoked by the subdivision name: "Sigwalt 16". Each building will include tastefully landscaped grass front yards ranging in size from twelve to twenty feet from the property line following required additional right-of-way dedications on Chestnut and Highland.



Mr. Terrence Ennes, et.al.

April 12, 2019

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Sidewalks will be constructed on the border of the entire development to provide for easier foot transportation and access for pedestrians.

It is currently contemplated that the Project will be constructed in three phases, with the first phase to include the five unit Highland Building as well as all onsite improvements. Petitioner hopes to break ground early fall of 2019.

Taylor Morrison is very responsive to the many environmental issues connected with new construction and development, and the need to use sustainable elements in its developments whenever and wherever possible. Attached to this letter are many of the presently contemplated sustainable elements of Sigwalt 16. Wherever possible additional sustainable elements will be added.

The parcel on which the Project is located currently consists of 6 lots, all of which are zoned R-3. Petitioner is seeking to consolidate the 6 lots into a Planned Unit Development initially containing four lots, all with R-7 as the underlying zoning for the entire Property. The four lots will consist of the three phases of buildings referenced above, and the fourth lot will be the common area of the project. As each residence phase is completed it will be divided into separate townhome fee simple lots for each unit so that each owner has its own indefeasible fee simple interest in the residence.

Petitioner is seeking very few variances to the Village's Zoning Code, each of which Petitioner vetted carefully with Village Staff, and believes are justified and necessary. Please see Petitioner's **"Written Justification for Land Use Variations"** for a more in-depth explanation of the necessity of these variances.

Petitioner is not seeking any height, density or parking variances. Based on the number and type of residential units being proposed, 24 parking spaces are required for the Project. Petitioner currently plans to provide a minimum of 40 parking spaces with 2 spaces (plus a possible third tandem space) in each garage and 8 surface parking spaces. The surplus of 16 spaces is well in excess of code requirements, and does not include the optional third-car tandem garage space, which may be selected by prospective homebuyers.

Petitioner looks forward to presenting this project before the Village Plan Commission and Board of Trustees for review and approval.

Sincerely,

A handwritten signature in blue ink that reads 'Michael D. Firsell'.

Michael D. Firsell

Sigwalt 16 – Proposed Sustainable Elements
4/12/19

Location and Transportation

- Avoiding environmentally sensitive land (farmland, wetlands, etc.).
- Infill development to avoid dependency on vehicles.
- Compact development to conserve land.
- Proximity to community resources, stores, restaurants, services, public amenities.
- Walkable access to mass transit.

Sustainable Sites

- Construction activity pollution prevention via erosion and sedimentation control
- Multiple trees and native landscape plantings along exterior streets and the internal courtyard, all as depicted in Petitioner's landscape plans;
- Rainwater management through use of water-efficient landscaping, permeable pavers, and detention system to allow infiltration and control volume of rainwater runoff from site.
- The siding of all buildings will be LP SmartSide which is pest resistant which goes through an extensive energy seal process that includes, sealing all exterior penetrations via flashing, non-expansive foam, approved drainage plane tape, penetration flashing as well as window and door flashing.

Water Efficiency

- Indoor water use reduction through use of high-efficiency/low-flow plumbing fixtures.
- Outdoor water use reduction with efficient landscape design and no irrigation system.

Energy and Atmosphere

- Inherently energy efficient building style of rowhomes with shared walls for greatly reduced heat loss.
- Exterior joints and penetrations sealed against air leakage for an energy efficient building envelope. We will execute an extensive energy seal process that includes, sealing all exterior penetrations via flashing, non-expansive foam, approved drainage plane tape, penetration flashing as well as window and door flashing.
- Favorable wall-to-window ratio, thermally broken windows, insulated low-E glass.
- Majority of appliance options offered will be ENERGY STAR qualified.
- High-efficiency HVAC systems.
- Programmable thermostats and/or smart home system will be offered. A programmable thermostat will be included as well as the option to buy the Alarm.com package which will enable the homeowner to create a "Smart Home".
- No CFC-based refrigerants in HVAC systems.

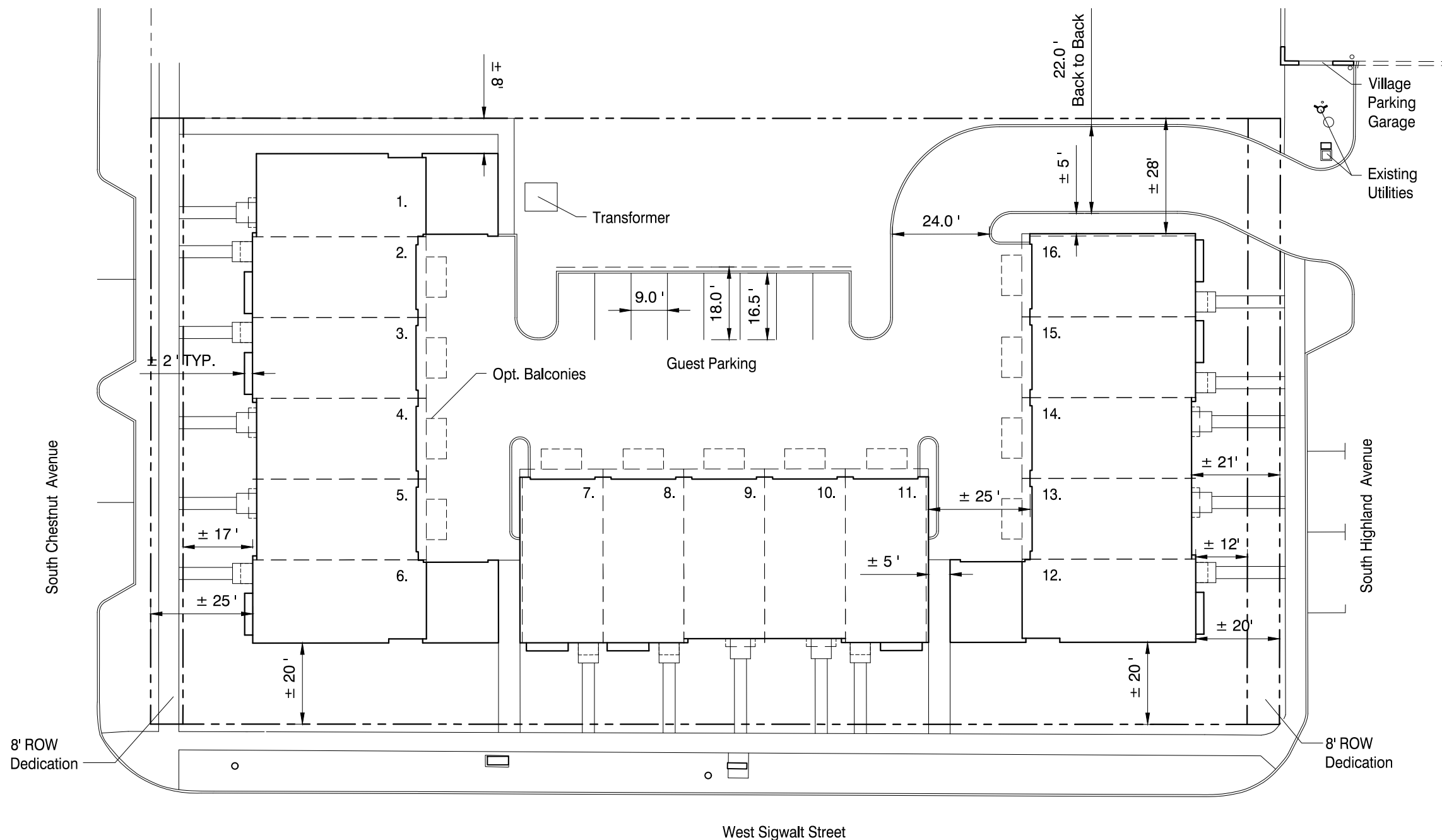
- LED light fixtures will be used interior and exterior to reduce energy consumption and extend lifespan of fixtures;

Materials and Resources

- Environmentally preferable products, no tropical wood or materials from endangered forest areas.
- Durable building enclosure to prevent water infiltration with low-maintenance, long-life exterior cladding materials and minimized areas of painting to reduce on-going material waste. The majority of the façades will be masonry. The small sections of the exterior cladding that is not masonry will be LP SmartSide.
- Indoor moisture control with water-resistant building materials at sensitive areas. All tile locations will be installed with the Schluter drainage plane system.
- Construction waste reduction with material-efficient, panelized and prefabricated structural components, and recycling construction debris when possible. Roofs and floor systems will be built with premanufactured floor trusses. Over 95% of the waste removed from the site will be recycled.
- Building materials with sustainable attributes.
- Developer will continue to promote and implement green features and sustainable design elements during the final planning and design process.
- All required above-ground utilities will be properly screened;

Indoor Environmental Quality

- Ventilation with outdoor air to improve indoor air quality. Developer will either install a continuous ventilation system or use a mechanical damper at the furnace to ensure indoor air quality.
- Carbon monoxide monitoring.
- Reduce exposure to indoor pollutants by weather-stripping doors between the garage and conditioned spaces.
- Air filters with minimum MERV 8.
- Low-emitting (low-VOC) materials.
- Windows will meet minimum U-factors per the energy code;



Project Data		R-7
	Provided	Required
Site		
Site Area (Gross, prior to Dedication)	± 41,939 sf	
Site Area (Net, after Dedication)	± 39,539 sf	14,400 sf (Per Unit Count)
Lot Size (Gross, prior to Dedication)	± 150' x ± 280'	
Lot Size (Net, after Dedication)	± 150' x ± 264'	
East (front) Setback (after 8' Ded.)	± 12'	25'
West (front) Setback (after 8' Ded.)	± 17'	25'
North (side) Setback	± 8'	15'
South (exterior side) Setback	± 20'	20'
Residential Site Data		
Dwelling Units	16	
Three Bedroom Min. sf	2400 sf	900 sf
Building Footprint	± 14,540 sf	
Gross Building Area	± 51,830 sf	
Building Area (Not Including Parking)	± 45,430 sf	
% Building Lot Coverage (Building Footprint / Net Site Area)	± 37%	55%
Floor Area Ratio (FAR) (Building Area / Net Site Area)	± 1.15	2.00
Parking	32 to 40	24
Stalls/Unit	2.0 to 2.5	1.5





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April 12, 2019

Mr. Terrence Ennes and Members of
the Plan Commission of the
Village of Arlington Heights
33 S. Arlington Heights Rd.
Arlington Heights, IL 60005-1403

**Re: Sigwalt 16 / Taylor Morrison of Illinois, Inc. – Proposed Rowhome
Development in Downtown Arlington Heights**

VARIATION CRITERIA

A. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a 12' setback along a front yard lot line (eastern lot line) for the building along Highland Avenue ("Highland Building") where code requires a 25' setback.

- 1. The proposed use will not alter the essential character of the locality and will be compatible with existing uses and zoning of nearby property.*

Correct. The property is bordered by residential districts on the west and south, and a commercial district on the east. The property is intended to be a transitional area in downtown Arlington Heights between existing residential and commercial uses. To develop the property in the most beneficial fashion, consistent with its location on the edge of downtown, this variation is required; specifically, due to the imposition of the eight foot right-of-way required dedication along Highland Avenue, which severely impacts this property.

- 2. The plight of the owner is due to unique circumstances, which may include the length of time the subject property has been vacant as zoned.*

The property has been vacant for a long time. To develop the property in the most beneficial fashion, consistent with its location on the edge of downtown, this variation is required; specifically, due to the imposition of the eight foot right-of-way required

Mr. Terrence Ennes and Members of
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dedication along Highland Avenue, which severely impacts this property. In an effort to minimize the variation on Chestnut, which is adjacent to residential uses, Petitioner has been required to move all buildings further east on the property, increasing the magnitude of the required variation.

3. *The proposed variation is in harmony with the spirit and intent of this Chapter.*

Correct. It is the intention of the Village Zoning Code “[t]o protect the character and stability of the residential, business and manufacturing areas within the Village and to promote the orderly and beneficial development of such areas.” This project promotes the orderly and beneficial development consistent with the unique nature of this and the neighboring properties.

4. *The variance requested is the minimum variance necessary to allow reasonable use of the property.*

Correct. In order to accommodate the proper and orderly development of the property, the requested setback is the minimum required.

B. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a 17’ setback along a front yard lot line (western lot line) for the building along Chestnut Street (“Chestnut Building”) where code requires a 25’ setback.

1. *The proposed use will not alter the essential character of the locality and will be compatible with existing uses and zoning of nearby property.*

Correct. Petitioner’s plans shows a 17’ setback. Thus, the requested variance is a total of 8’. The property will be zoned R-7. Because the Chestnut Building will be bordered on the west by the R-3 District, this variation will not conflict with existing nearby residential uses.

2. *The plight of the owner is due to unique circumstances, which may include the length of time the subject property has been vacant as zoned.*

Correct. The property has been vacant for a long time. To develop the property in the most beneficial fashion, consistent with its location on the edge of downtown, this variation is required; specifically, due to the imposition of the eight foot right-of-way required

Mr. Terrence Ennes and Members of
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dedication along Chestnut Avenue, which severely impacts this property. But for the required eight foot dedication, Petitioner would not require this variance.

3. *The proposed variation is in harmony with the spirit and intent of this Chapter.*

Correct. It is the intention of the Village Zoning Code “[t]o protect the character and stability of the residential, business and manufacturing areas within the Village and to promote the orderly and beneficial development of such areas.” This project promotes the orderly and beneficial development consistent with the unique nature of this and the neighboring properties.

4. *The variance requested is the minimum variance necessary to allow reasonable use of the property.*

Correct. In order to accommodate the proper and orderly development of the property, the requested setback is the minimum required.

C. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow an 8’ setback along a side yard lot line (northern lot line) where code requires a 15’ setback.

1. *The proposed use will not alter the essential character of the locality and will be compatible with existing uses and zoning of nearby property.*

Correct. The property is bordered by the “Arlington 425” Project to the North which is or will be a B-5 zoning district. The property is meant as a transitional area in downtown Arlington Heights between existing residential and high-density residential and commercial uses. The property will be zoned R-7 as a means to accomplish this transitional purpose, and this variation will not conflict with this purpose.

2. *The plight of the owner is due to unique circumstances, which may include the length of time the subject property has been vacant as zoned.*

Correct. The property has been vacant for many years. To develop the property in the most beneficial fashion, consistent with its location on the edge of downtown, this variation is required. Petitioner seeks to maximize the use of space on its parcel.

3. *The proposed variation is in harmony with the spirit and intent of this Chapter.*

Mr. Terrence Ennes and Members of
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Correct. It is the intention of the Village Zoning Code “[t]o protect the character and stability of the residential, business and manufacturing areas within the Village and to promote the orderly and beneficial development of such areas.” This project promotes the orderly and beneficial development consistent with the unique nature of this and the neighboring properties.

4. *The variance requested is the minimum variance necessary to allow reasonable use of the property.*

Correct. In order to accommodate the proper and orderly development of the property, the requested setback is the minimum required.

D. Variations to Chapter 28, Section 5.1-7.10, Spacing Between Multi-Family Buildings, to allow a space of no less than 5’ between the Highland Building and the building along Sigwalt Street (“Sigwalt Building”) and the Sigwalt Building and the Chestnut Building, where Code requires 25’.

1. *The proposed use will not alter the essential character of the locality and will be compatible with existing uses and zoning of nearby property.*

Correct. Petitioner seeks to maximize the use of space on this very small parcel. Because the property is located downtown and is meant as a transitional area between residential and commercial districts, it is appropriate to construct multiple residential buildings on this parcel that utilize the space in the most efficient way possible. To most efficiently develop this parcel, this variation is required. While the 3 buildings could be connected to eliminate the variation, the +/-5.33’ pedestrian alley between the Highland Building and Sigwalt Building will allow guests to park behind the buildings and more readily access the front entrances.

2. *The plight of the owner is due to unique circumstances, which may include the length of time the subject property has been vacant as zoned.*

Correct. The property has been vacant for many years. This parcel’s downtown location calls for multiple buildings to be developed. To develop the property in the most beneficial fashion, consistent with its location on the edge of downtown, this variation is required. Petitioner seeks to maximize the use of space on its parcel.

Mr. Terrence Ennes and Members of
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3. *The proposed variation is in harmony with the spirit and intent of this Chapter.*

Correct. It is the intention of the Village Zoning Code “[t]o protect the character and stability of the residential, business and manufacturing areas within the Village and to promote the orderly and beneficial development of such areas.” By maximizing the use of space on this parcel with residential buildings, Petitioner is providing the most effective transition possible between residential and commercial districts.

4. *The variance requested is the minimum variance necessary to allow reasonable use of the property.*

Correct. In order to accommodate the proper and orderly development of the property, the requested setback is the minimum required.

E. Variation to Chapter 28, Section 10.2-8, to allow a two-way driveway width of 22’ where Code requires a minimum of 24’ for a two-way drive aisle.

1. *The proposed use will not alter the essential character of the locality and will be compatible with existing uses and zoning of nearby property.*

Correct. Petitioner seeks to maximize the use of space on its parcel. Because the property is located downtown and is meant as a transitional residential area. Although Petitioner has space to increase the drive aisle entrance to 24’ and comply with Code, the reduced drive aisle width allows for additional greenspace for foundation plantings along the north side of the eastern townhome building. Petitioner will fully comply with the Fire Safety Division of the Building Department after its review the rear motor court area to determine if fire truck access will be necessary to the rear of the buildings. To most efficiently develop this parcel, this variation is required.

2. *The plight of the owner is due to unique circumstances, which may include the length of time the subject property has been vacant as zoned.*

Correct. The property has been vacant for many years. This parcel’s downtown location calls for multiple buildings to be developed. To develop the property in the most beneficial fashion, consistent with its location on the edge of downtown, this variation is required. Petitioner seeks to maximize the use of space on its parcel.

Mr. Terrence Ennes and Members of
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3. *The proposed variation is in harmony with the spirit and intent of this Chapter.*

Correct. It is the intention of the Village Zoning Code “[t]o protect the character and stability of the residential, business and manufacturing areas within the Village and to promote the orderly and beneficial development of such areas.” By maximizing the use of space on this parcel with residential buildings, and providing as much greenspace as possible, Petitioner is providing the most effective transition possible between residential and commercial districts.

4. *The variance requested is the minimum variance necessary to allow reasonable use of the property.*

Correct. In order to accommodate the proper and orderly development of the property, the requested variance is the minimum required.

F. Chapter 28, Section 5.1-7.3, Minimum Area for Zoning District, to allow the R-7 District to be approximately 1.39 acres where code requires a minimum of two acres for the R-7 District.

1. *The proposed use will not alter the essential character of the locality and will be compatible with existing uses and zoning of nearby property.*

Correct. The R-7 zoning is appropriate for this property because it acts as a transitional site between the B-5 Districts downtown, and the R-3 District for single-family homes. The site is not large enough to meet the formal area requirements of the R-7 District. This subject parcel is bordered by streets on all but the north side of the property, which is or will be zoned B-5 and is not for sale, so there is no room to make the site bigger. Therefore, if it’s to be developed within the R-7 guideline the variance is necessary. In addition, the Minimum Area variation request is not unique to this site and has been granted on nearby R-7 zoned properties.

2. *The plight of the owner is due to unique circumstances, which may include the length of time the subject property has been vacant as zoned.*

Correct. The vision of the Village’s Comprehensive Plan and Downtown Master Plan shows the subject property as part of a larger strip of R-7 zoned land. This is a unique

Mr. Terrence Ennes and Members of
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circumstance because when considered in sum, the strip of potential R-7 zoning is over 2 acres in size.

3. *The proposed variation is in harmony with the spirit and intent of this Chapter.*

Correct. The vision of the Village's Comprehensive Plan and Downtown Master Plan shows the property as R-7 zoned land. When considering the alteration of the "essential character of the locality", the Village has determined what that "essential character" is to be, and that includes the requirements and rights associated with property zoned as R-7.

4. *The variance requested is the minimum variance necessary to allow reasonable use of the property.*

Correct. In order to accommodate the proper and orderly development of the property, the requested variance is the minimum required.

G. Variation to Chapter 28, Section 10.2-9, to Allow Tandem Parking Spaces.

1. *The proposed use will not alter the essential character of the locality and will be compatible with existing uses and zoning of nearby property.*

Correct. Tandem parking is offered as an option to an owner which will take place within the garage of the townhome should an owner choose to pay for such an option. The project exceeds the require parking by 16 spaces without accounting for tandem parking. The purpose of this request is to offer yet another option to an owner as well as making certain that if an owner needs the 3 parking spaces, that they do not use public parking spaces or the guest parking to satisfy their needs. Since tandem parking spaces, if any, will be within the residence garage, such variance will not alter the essential character of the locality and will be compatible with existing uses and zoning of nearby property.

2. *The plight of the owner is due to unique circumstances, which may include the length of time the subject property has been vacant as zoned.*

Correct. The ability of the Petitioner to sell the townhomes is enhanced by offering as many life-style choices as possible, thus hastening the period of time within this long vacant parcel can be completely developed.



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3. *The proposed variation is in harmony with the spirit and intent of this Chapter.*

Correct. Due to the location of the tandem parking spaces within the garages, the proposed variation is in harmony with the spirit and intent of this Chapter

4. *The variance requested is the minimum variance necessary to allow reasonable use of the property.*

Correct. In order to accommodate the proper and orderly development of the property, the requested variance is the minimum required.

It should be noted that the property is proposed to be further subdivided into individual units for each townhome, which will require variations for each lot based on the R-7 setback and bulk standards, although the overall development will comply with bulk standards and with most setback standards as set forth in the Code, subject to the variances set forth in this letter.

Should you require and further information or clarification, please do not hesitate to contact the undersigned.

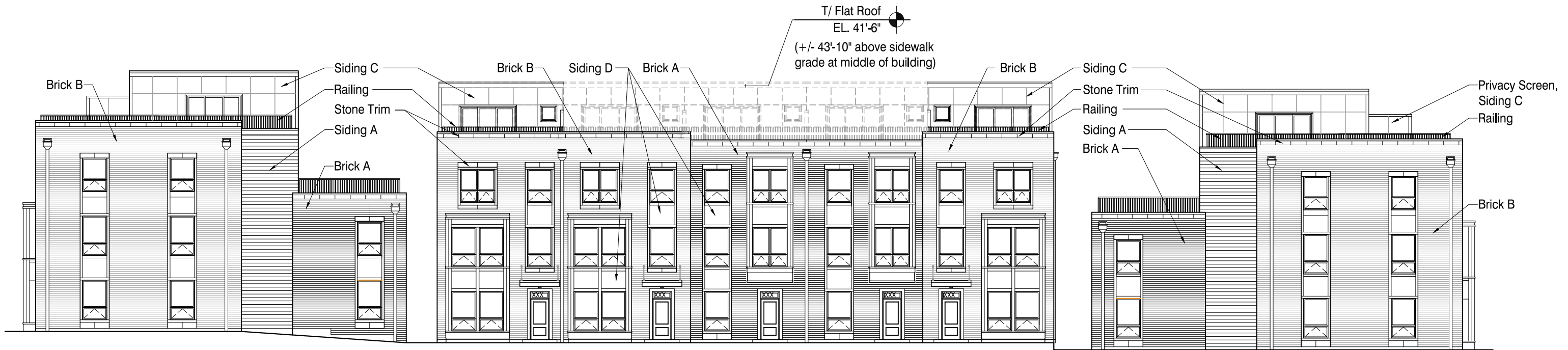
Sincerely,

A handwritten signature in blue ink that reads 'Michael D. Firsell'. The signature is fluid and cursive.

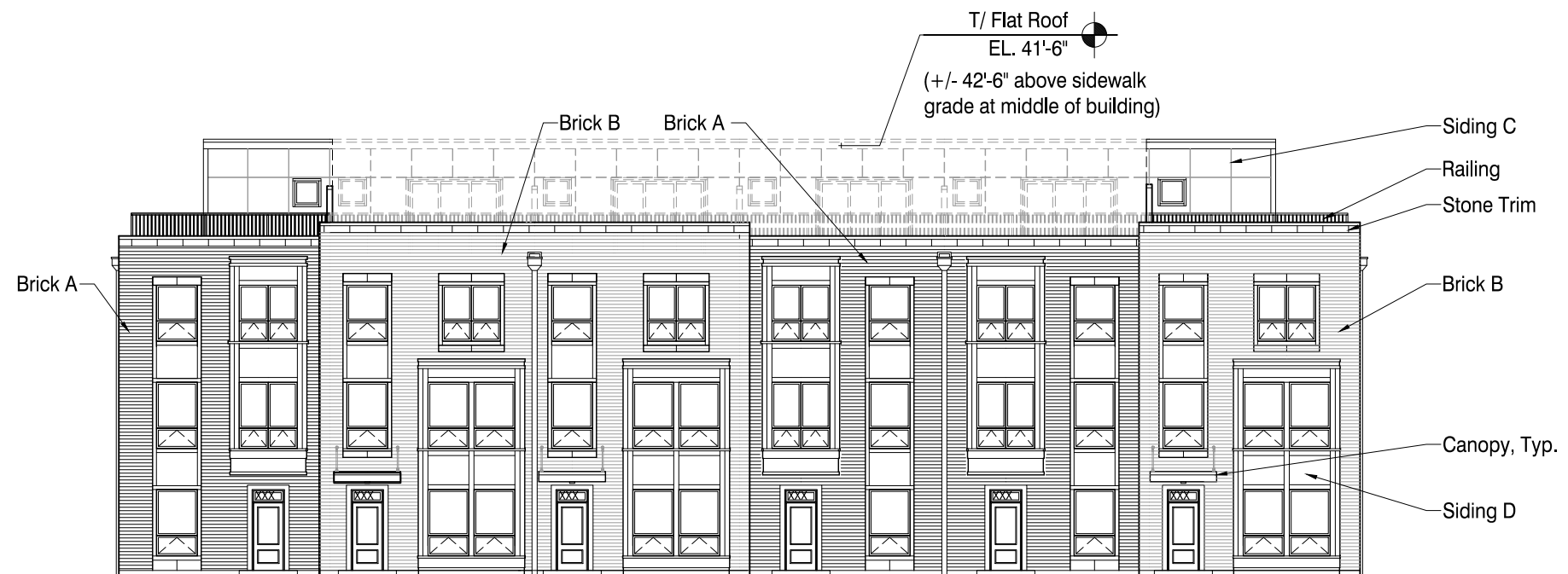
Michael D. Firsell





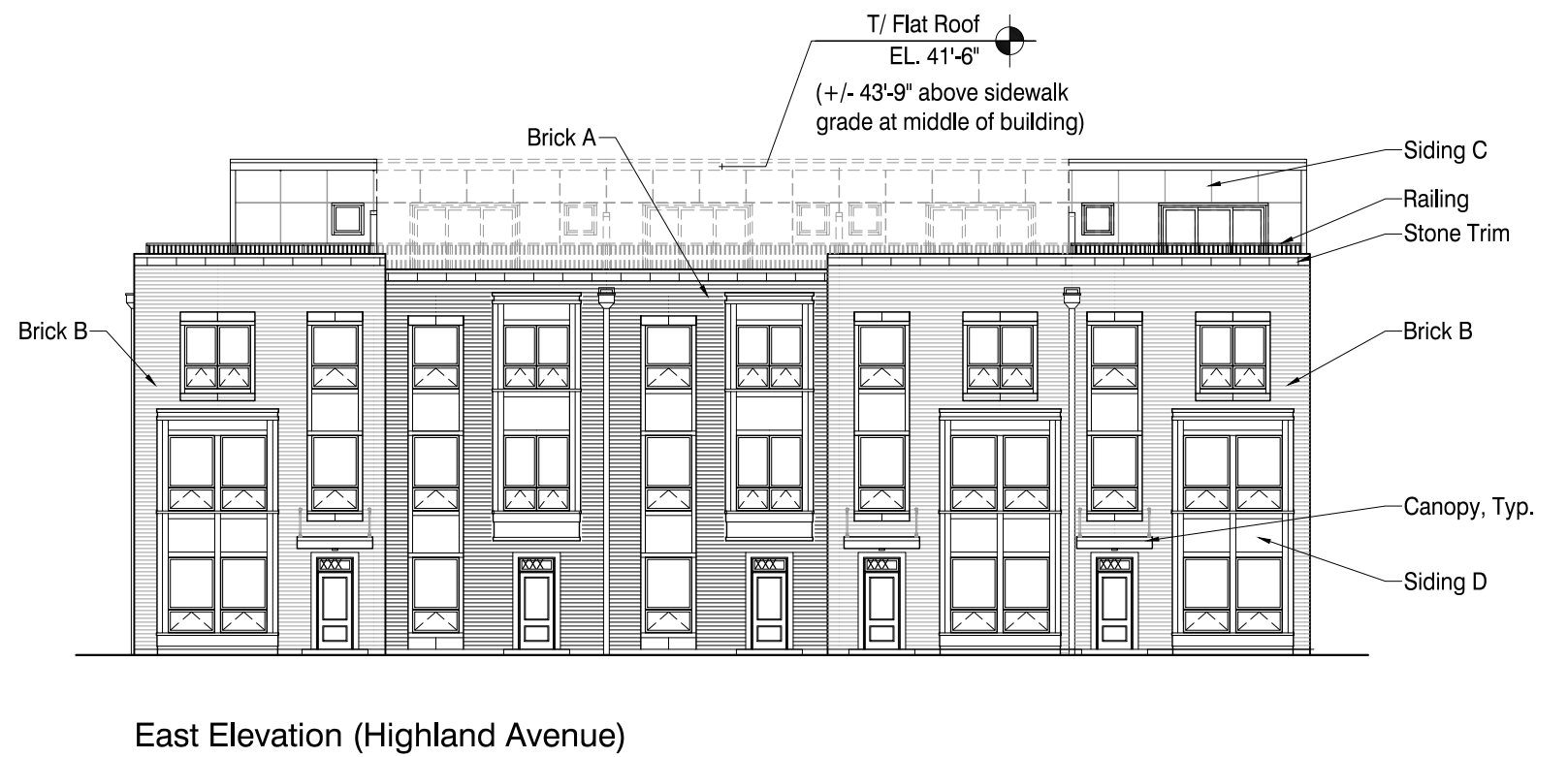
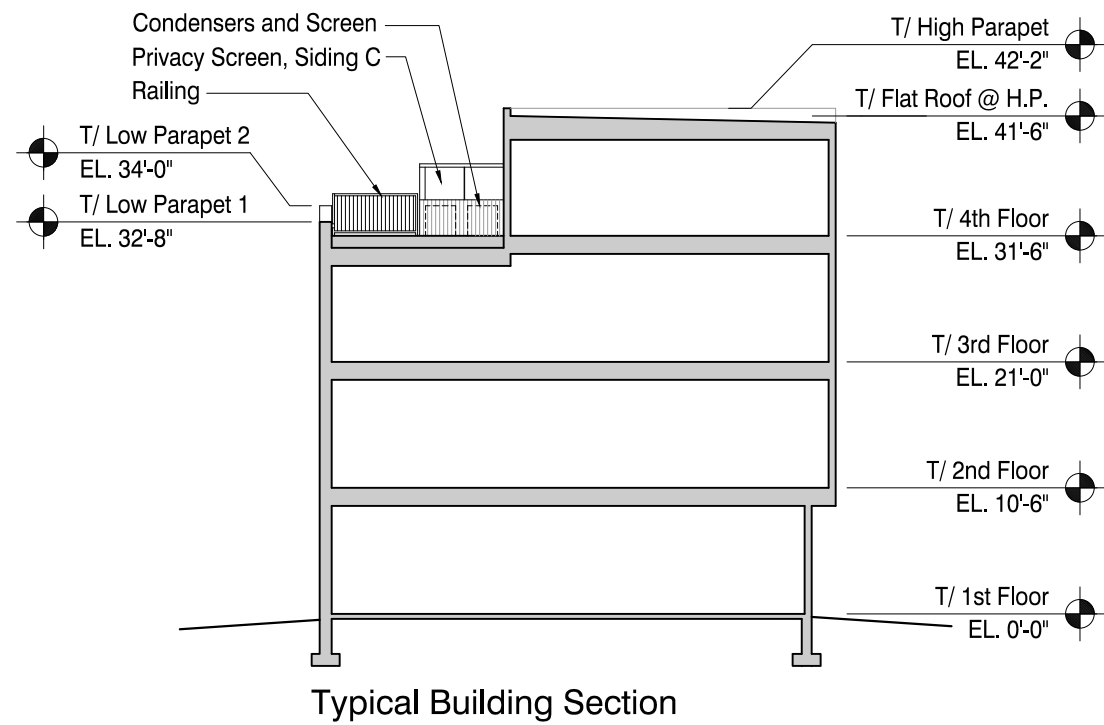


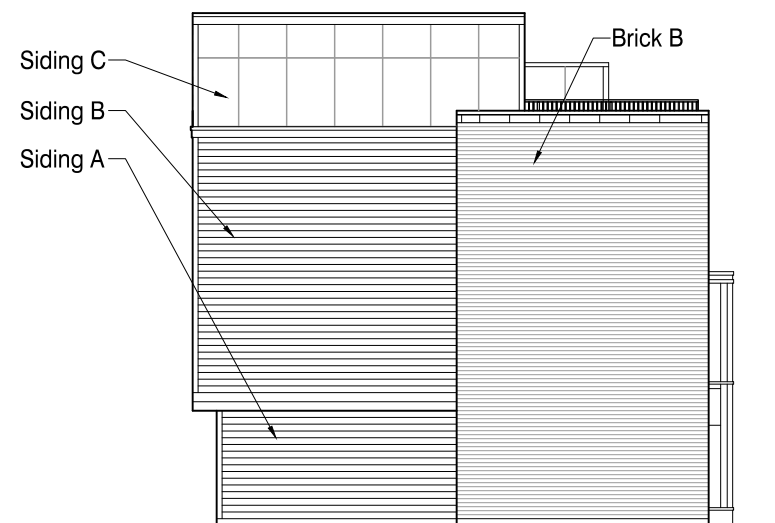
South Elevation (Sigwalt Street)



West Elevation (Chestnut Avenue)

0 8' 16' 32'

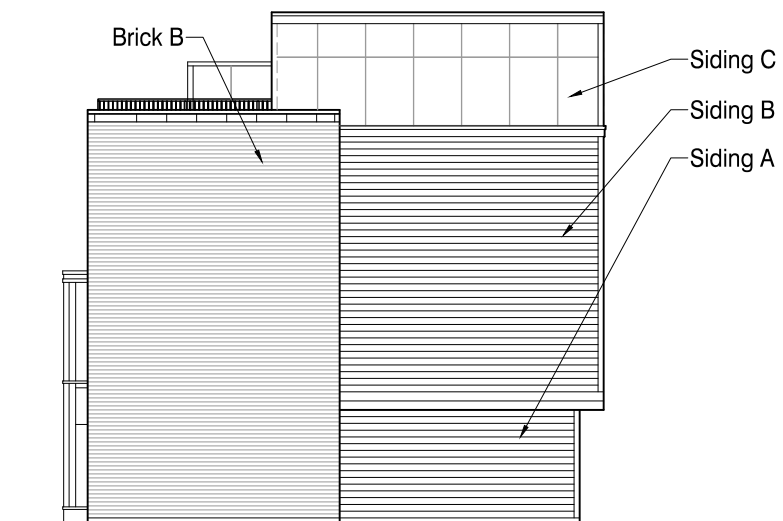




South Building (Sigwalt), West Side Elevation



West Building (Chestnut), Rear Elevation

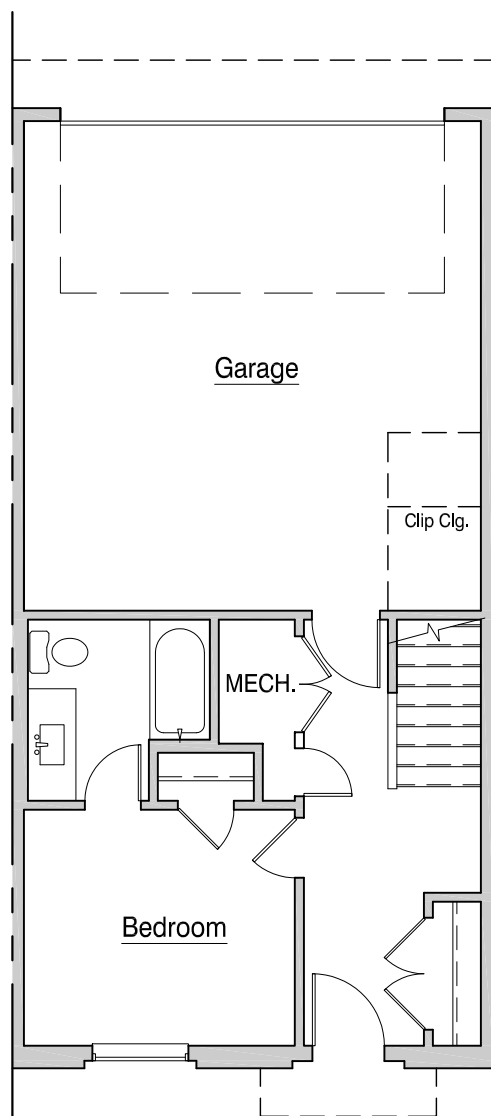


South Building (Sigwalt), East Side Elevation

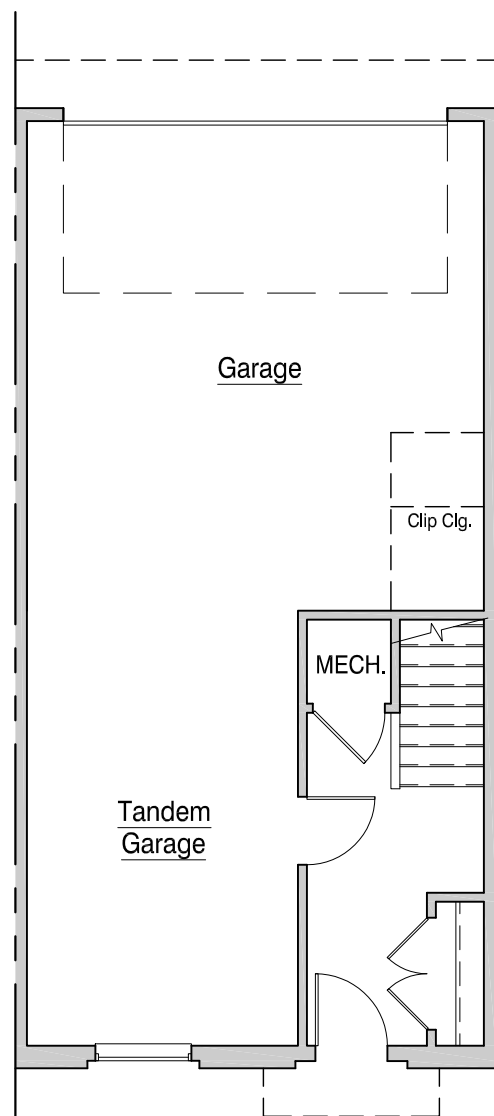


East Building (Highland), Rear Elevation

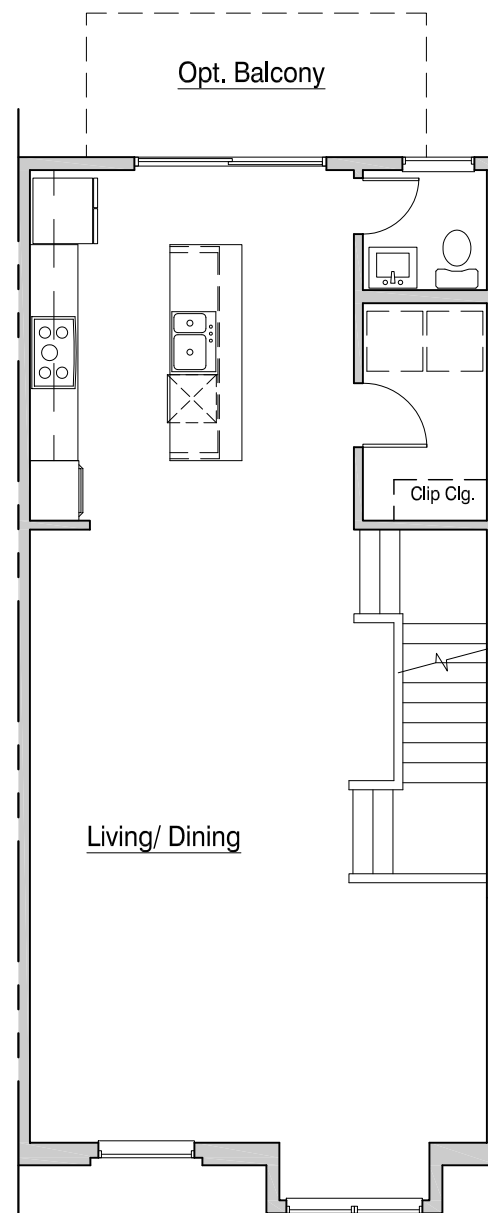




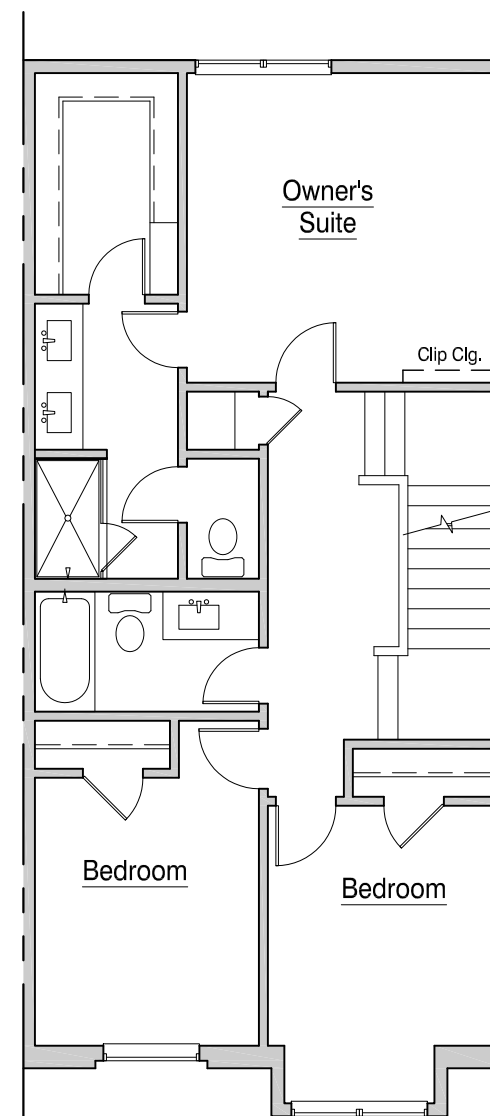
Optional
1st Floor



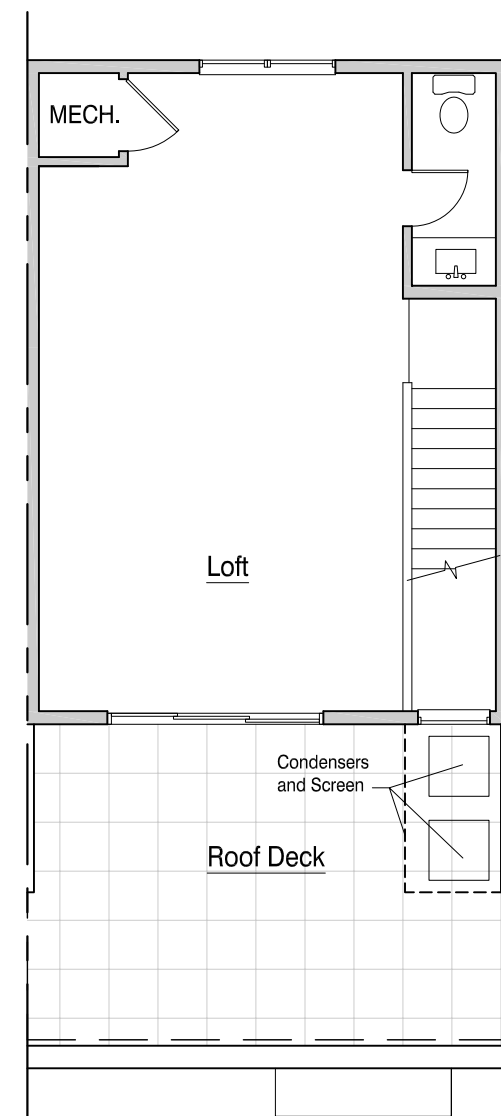
1st Floor



2nd Floor

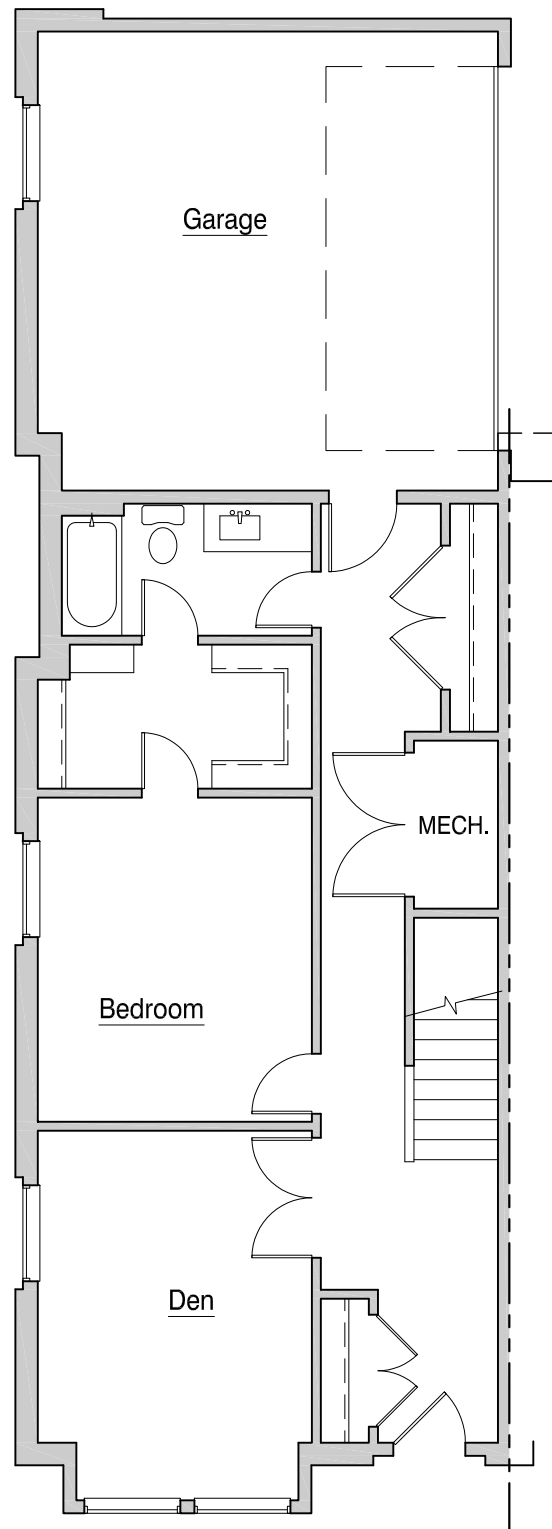


3rd Floor

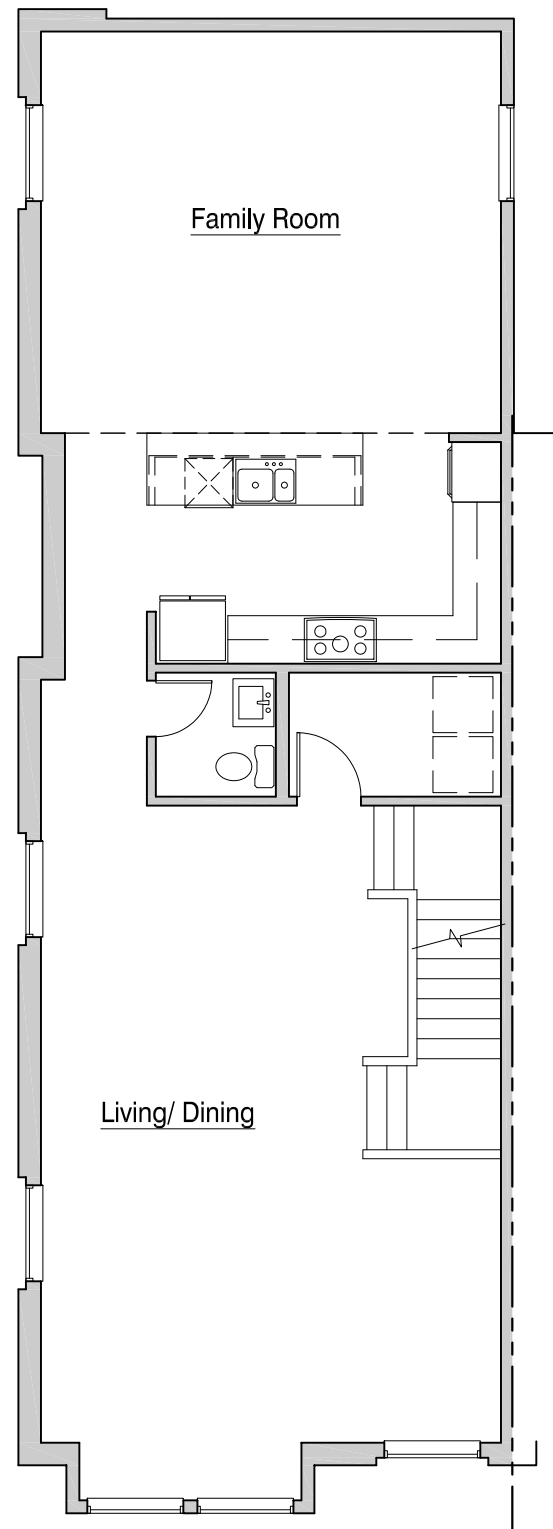


4th Floor

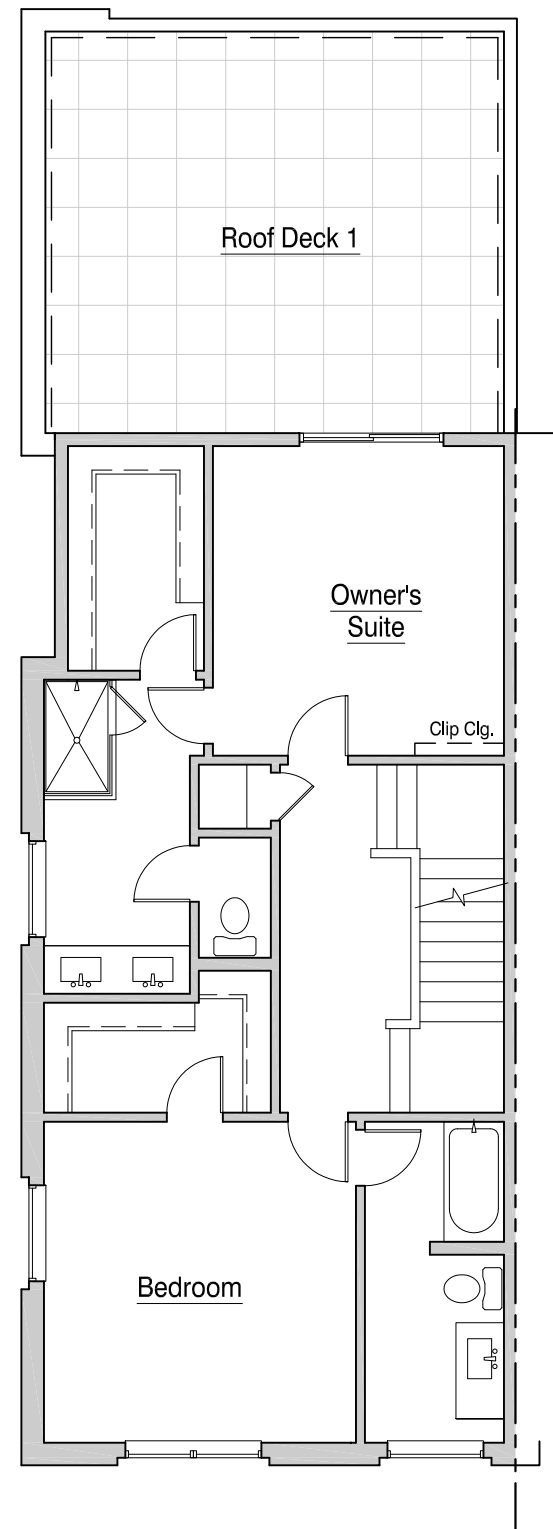




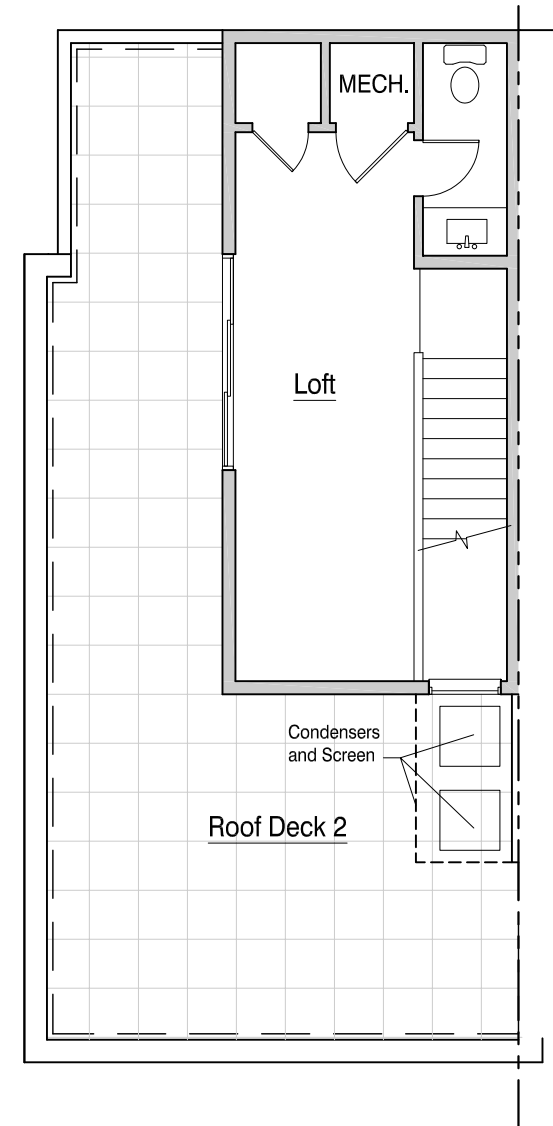
1st Floor



2nd Floor

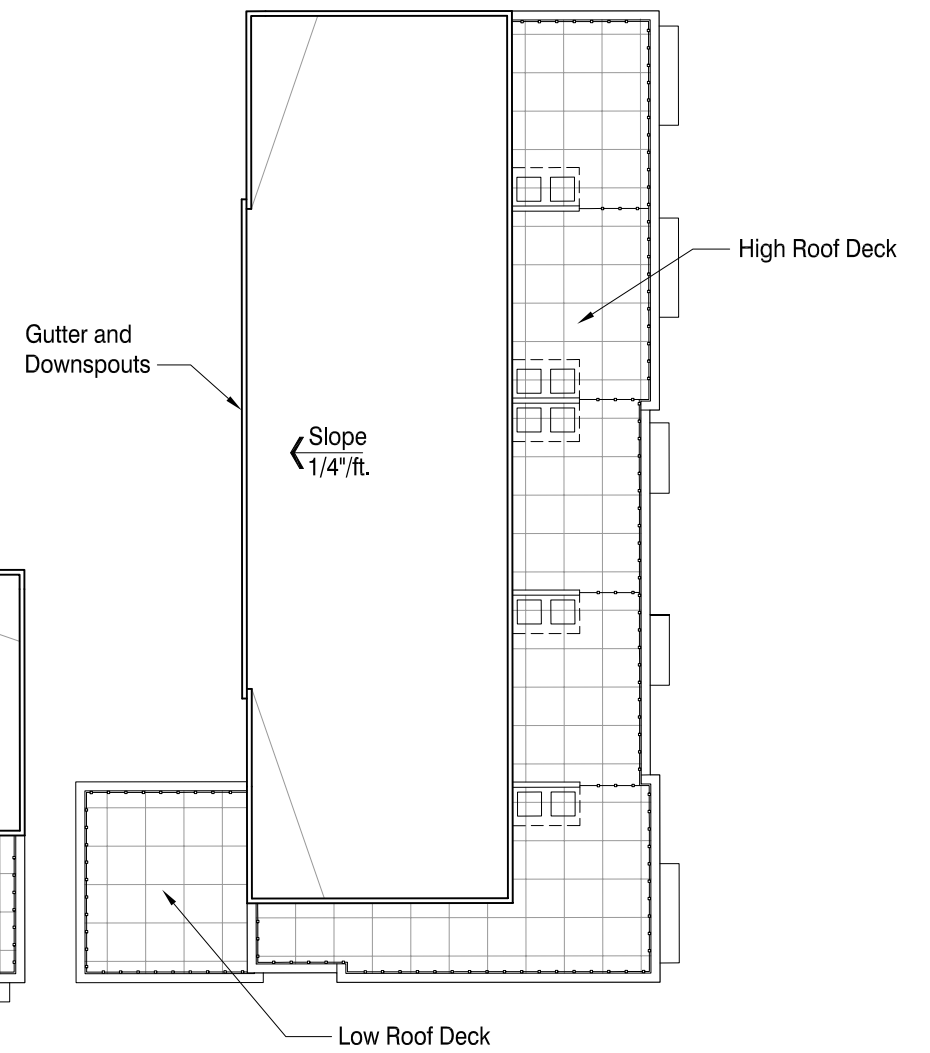
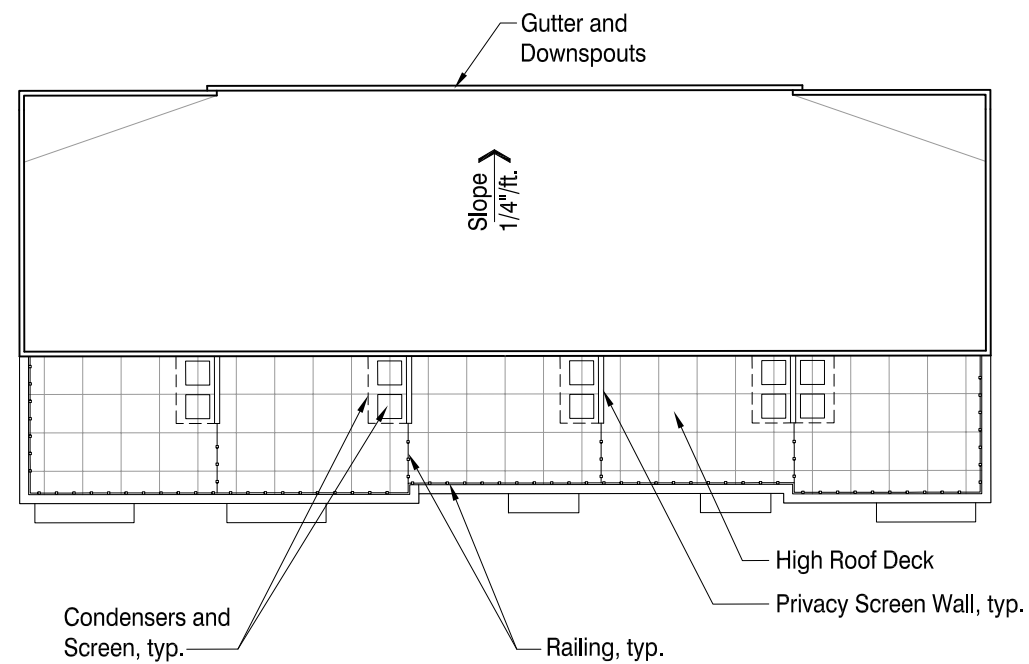
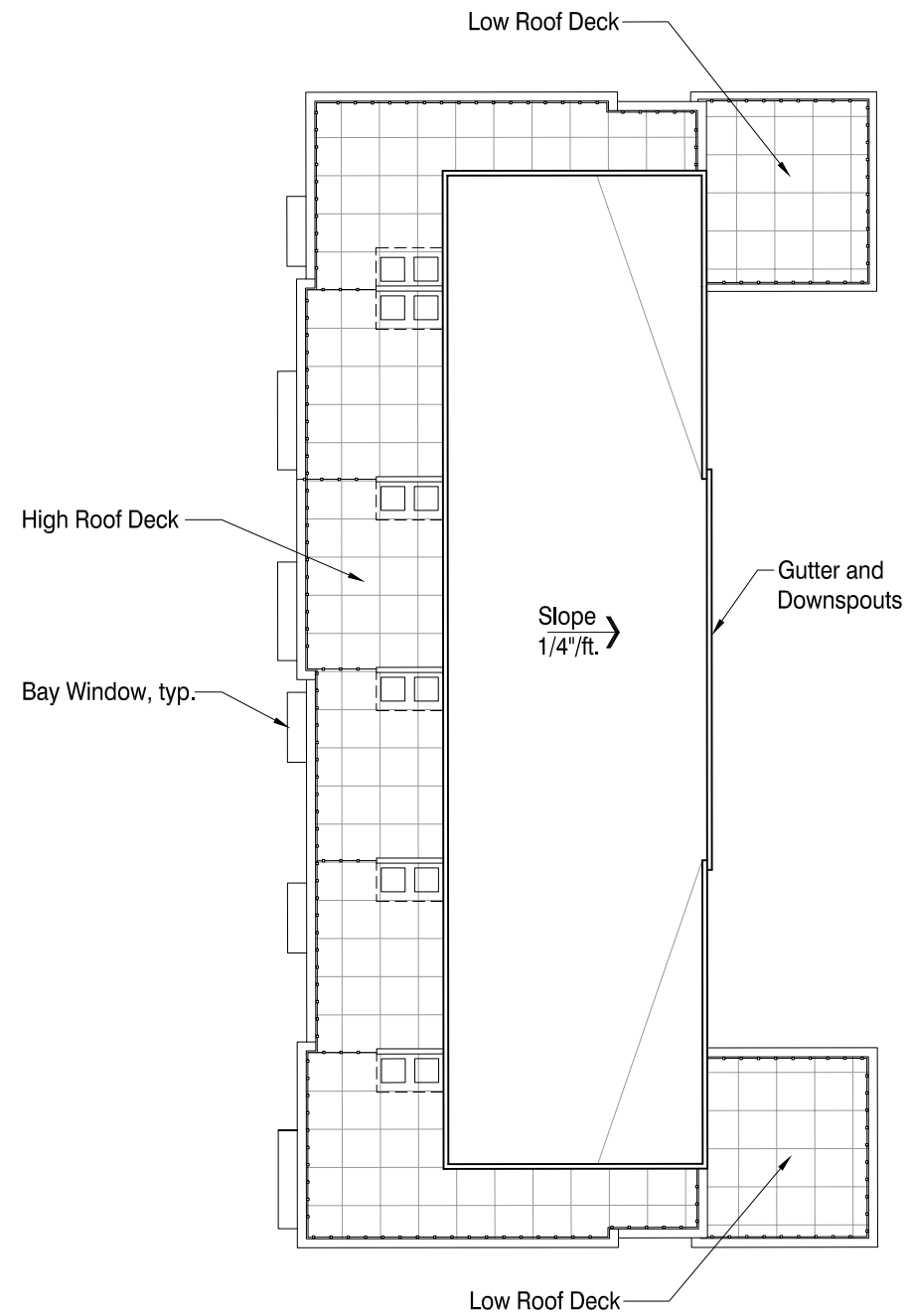


3rd Floor



4th Floor





0 10' 20' 40'

RWG ENGINEERING, LLC
CIVIL ENGINEERING — REAL ESTATE CONSULTING — PROJECT MANAGEMENT
ILLINOIS PROFESSIONAL DESIGN FIRM #184-006370
LIMITATION OF WARRANTY OF ENGINEER'S
INSTRUMENTS OF SERVICE

THE ENGINEER AND HIS CONSULTANTS DO NOT WARRANT OR GUARANTEE THE ACCURACY AND COMPLETENESS OF THE DELIVERABLES HEREIN BEYOND A REASONABLE DILIGENCE. IF ANY MISTAKES, OMISSIONS, OR DISCREPANCIES ARE FOUND TO EXIST WITHIN THE DELIVERABLES, THE ENGINEER SHALL BE PROMPTLY NOTIFIED SO THAT HE MAY HAVE THE OPPORTUNITY TO TAKE WHATEVER STEPS NECESSARY TO RESOLVE THEM. FAILURE TO PROMPTLY NOTIFY THE ENGINEER OF SUCH CONDITIONS SHALL ABSOLVE THE ENGINEER FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES OF SUCH FAILURE. ACTIONS TAKEN WITHOUT THE KNOWLEDGE AND CONSENT TO THE ENGINEER OR IN CONTRADICTION TO THE ENGINEER'S DELIVERABLES OR RECOMMENDATIONS, SHALL BECOME THE RESPONSIBILITY NOT OF THE ENGINEER BUT OF THE PARTIES RESPONSIBLE FOR TAKING SUCH ACTION.

LEGEND

	EXISTING	PROPOSED
SANITARY MANHOLE	⊙	⊙
STORM MANHOLE	⊙	⊙
CATCH BASIN	□	■
INLET	□	■
PRECAST FLARED END SECTION	▽	▶
CONCRETE HEADWALL	⌋	⌋
VALVE VAULT	⊗	⊗
VALVE BOX	⊞	⊞
FIRE HYDRANT	⌋	⌋
BUFFALO BOX	⊙	⊙
CLEANOUT	⊙	⊙
SANITARY SEWER	—	—
FORCE MAIN	—	—
STORM SEWER	—	—
WATER MAIN	—	—
CONSTRUCT WATER MAIN UNDER SEWER	—	—
GRANULAR TRENCH BACKFILL	—	—
STREET LIGHT	⊙	⊙
ELECTRICAL CABLE	—	—
2" CONDUIT ENCASEMENT	—	—
ELECTRICAL TRANSFORMER OR PEDESTAL	⊙	⊙
POWER POLE	⊙	⊙
STREET SIGN	⊙	⊙
GAS MAIN	—	—
TELEPHONE LINE	—	—
CONTOUR	—	—
SPOT ELEVATION	× (750.00)	× 750.00
WETLANDS	—	—
FLOODWAY	—	—
FLOODPLAIN	—	—
HIGH WATER LEVEL (HWL)	—	—
NORMAL WATER LEVEL (NWL)	—	—
DIRECTION OF SURFACE FLOW	—	—
DITCH OR SWALE	—	—
OVERFLOW RELIEF ROUTING	—	—
SLOPE BANK	—	—
TREE WITH TRUNK SIZE	⊙	⊙
SOIL BORING	⊙	⊙
TOPSOIL PROBE	⊙	⊙
FENCE LINE, WIRE OR SILT	—	—
FENCE LINE, CHAIN LINK OR IRON	—	—
FENCE LINE, WOOD OR PLASTIC	—	—
CONCRETE SIDEWALK	—	—
CURB AND GUTTER	—	—
DEPRESSED CURB	—	—
REVERSE PITCH CURB & GUTTER	—	—
EASEMENT LINE	—	—

ABBREVIATIONS

BL	BASE LINE	NWL	NORMAL WATER LEVEL
C	LONG CHORD OF CURVE	PC	POINT OF CURVATURE
C & G	CURB AND GUTTER	PT	POINT OF TANGENCY
CB	CATCH BASIN	PVI	POINT OF VERTICAL INTERSECTION
CL	CENTERLINE	R	RADIUS
D	DEGREE OF CURVE	ROW	RIGHT-OF-WAY
EP	EDGE OF PAVEMENT	SAN	SANITARY SEWER
FF	FINISHED FLOOR	ST	STORM SEWER
FG	FINISHED GRADE	T	TANGENCY OF CURVE
FL	FLOW LINE	TOB	TOP OF BANK
FP	FLOODPLAIN	TC	TOP OF CURB
FR	FRAME	TF	TOP OF FOUNDATION
FW	FLOODWAY	TP	TOP OF PIPE
HWL	HIGH WATER LEVEL	TS	TOP OF SIDEWALK
INV	INVERT	TW	TOP OF WALK
L	LENGTH OF CURVE	WM	WATER MAIN
MH	MANHOLE	Δ	INTERSECTION ANGLE

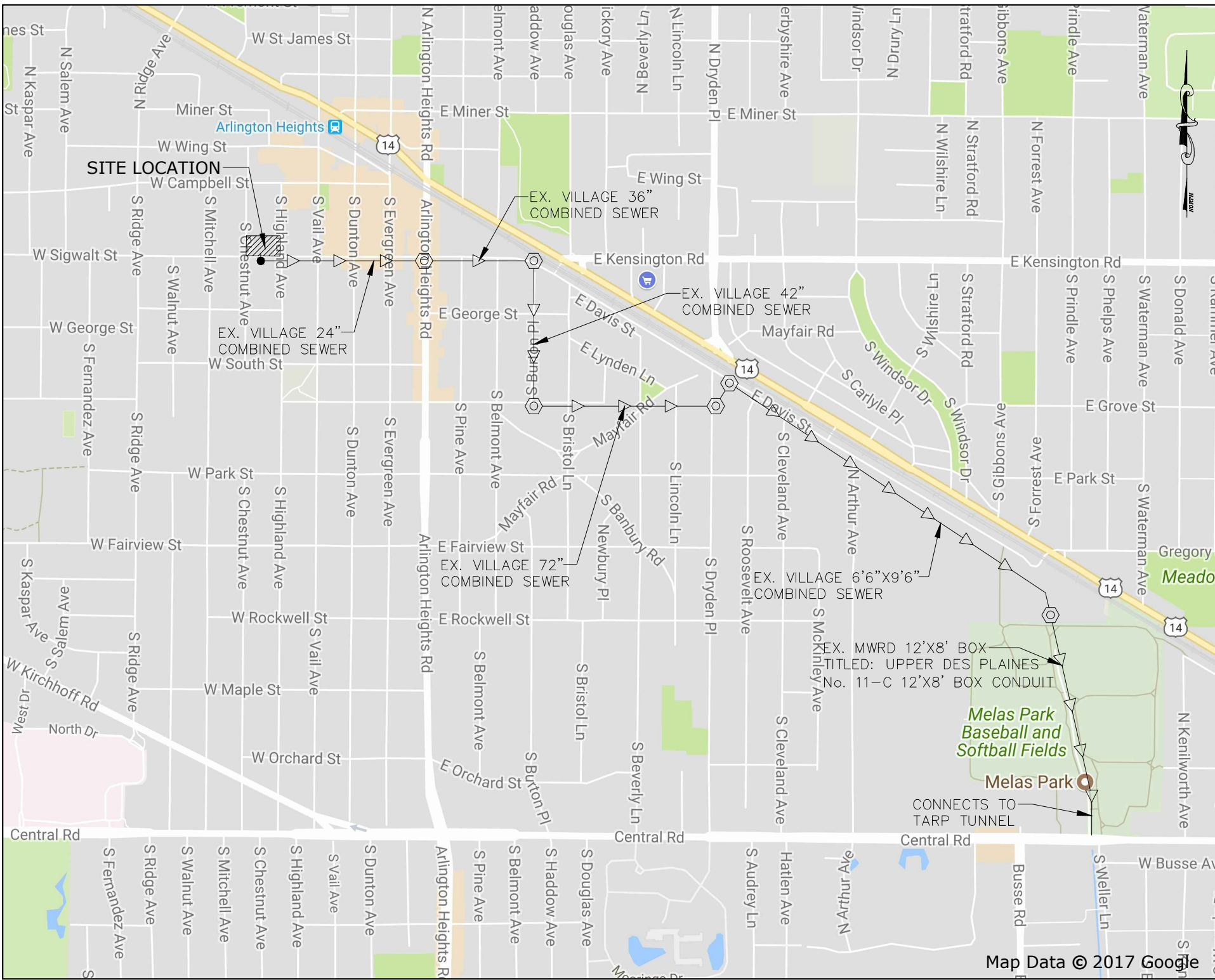


Know what's below.
Call before you dig.

Formerly JULIE 1-800-892-0123

FINAL ENGINEERING PLANS FOR SIGWALT 16 45 S. CHESTNUT AVE ARLINGTON HEIGHTS, ILLINOIS

LOCATION MAP



CONTACTS

VILLAGE OF ARLINGTON HEIGHTS
Community Development: (847) 368-5200
Address
City, State ZIP

Public Works Department: (847) 368-5800
222 N. Ridge Ave
Arlington Heights, IL 60005

JULIE
Underground Utility Locations
1-800-892-0123
811

GENERAL NOTES

- The contractor shall notify the following governmental agencies at least two working days prior to commencement of construction:
 - Village of Arlington Heights Public Works Department (847-368-5800)
 - MWRD Local Sewer System Sections Field Office (708-588-4055)
- The contractor shall notify all utility companies and arrange for their facilities to be located prior to work in any easement, right-of-way, or suspected utility location. Repair of any damage to existing facilities shall be the responsibility of the contractor. Utility locations shown herein are for graphic illustration only and are not to be relied upon.
- Prior to commencement of any offsite construction, the contractor shall secure written authorization that all offsite easements have been secured, and that permission has been granted to enter onto private property.
- Elevations shown herein reflect NAVD 1988 datum.
- The boundary and topographic survey data for this project is based on a field survey prepared by Professional Associated Survey, Inc., dated February 13, 2017, and updated boundary survey prepared by Thomson Surveying, Ltd, dated 3-11-19. The contractor shall verify existing conditions prior to commencing construction and shall immediately notify the engineer in writing of any differing conditions.
- RWG Engineering, LLC, its employees and agents are not responsible for the safety of any party at or on the construction site. Safety is the sole responsibility of the contractor, and any other entity performing work at the site. Neither the owner nor the engineer assumes any responsibility for job site safety or for the means, methods or sequences of construction.
- Except where modified by the contract documents, all work proposed hereon shall be in accordance with the following specifications, which are hereby made a part hereof:
 - "Standard Specifications for Road and Bridge Construction in Illinois," as prepared by I.D.O.T. latest edition.
 - "Standard Specifications for Water and Sewer Main Construction in Illinois," latest edition.
 - "Illinois Recommended Standards for Sewage Works," as published by the I.E.P.A., latest edition.
 - The subdivision and development codes and standards of the Village of Arlington Heights, as published by the Municipality.
 - "Illinois Accessibility Code" as published by the State of Illinois Capital Development Board, effective April 24, 1997.
 - The National Electric Code.
 - "Illinois Urban Manual" as prepared by the U.S. Dept. of Agriculture latest edition.
 - The Village of Arlington Heights Development Ordinance shall take precedence if a conflict in project specifications occurs.

PLANS PREPARED FOR

TAYLOR MORRISON

1834 WALDEN OFFICE SQUARE, SUITE 300
SCHAUMBURG, ILLINOIS 60173
(847) 925-1400

INDEX OF SHEETS

- TITLE SHEET
- EXISTING CONDITIONS PLAN
- DEMOLITION PLAN
- SITE GEOMETRIC AND PAVING PLAN
- SOIL EROSION AND SEDIMENT CONTROL (SESC) PLAN
- GRADING PLAN
- UTILITY PLAN
- PROJECT NOTES AND SPECIFICATIONS
- CONSTRUCTION DETAILS AND STANDARDS
- CONSTRUCTION DETAILS AND STANDARDS

NOTE:
COORDINATES AT LOT CORNERS SHOWN HEREON ARE REFERENCED TO ILLINOIS STATE PLANE SYSTEM COORDINATES, EAST ZONE. ESTABLISHED THROUGH VRS TRIMBLE NETWORK.

NORTHWEST CORNER:
N 1972496.90, E 1078414.44
SOUTHWEST CORNER:
N 1972346.89, E 1078414.32
NORTHEAST CORNER:
N 1972496.83, E 1078678.07
SOUTHEAST CORNER:
N 1972346.82, E 1078677.83

"TO THE BEST OF OUR KNOWLEDGE AND BELIEF, THE DRAINAGE OF SURFACE WATERS WILL NOT BE CHANGED BY THE CONSTRUCTION OF THIS PROJECT, OR, THAT IF DRAINAGE WILL BE CHANGED, REASONABLE PROVISION HAS BEEN MADE FOR COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO PUBLIC AREAS, OR DRAINS APPROVED FOR USE BY THE VILLAGE, AND THAT SUCH SURFACE WATERS ARE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES SO AS TO REDUCE THE LIKELIHOOD OF DAMAGE TO ADJOINING PROPERTIES BECAUSE OF THE CONSTRUCTION OF THIS PROJECT."



EXPIRATION DATE: 11/30/19

Maureen R. Mulligan

REGISTERED PROFESSIONAL ENGINEER

BENCHMARKS

SOURCE BENCHMARK:

ALTA/NSPS LAND TITLE SURVEY PROVIDED BY PROFESSIONALS ASSOCIATED SURVEY, INC.
7100 N. TRIP AVENUE, LINCOLNWOOD, IL. 60712

SITE BENCHMARK:

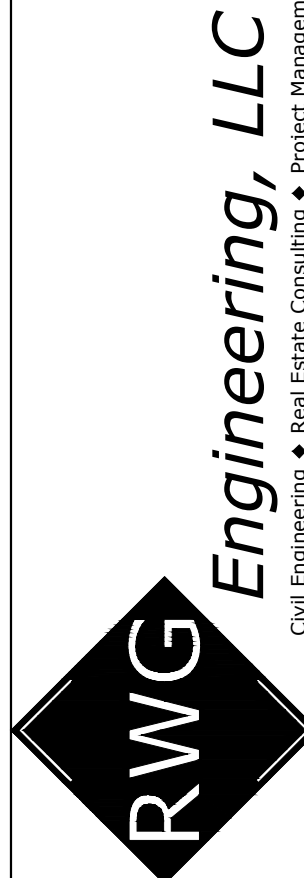
FIRE HYDRANT ON N.W. CORNER OF SIGWALT STREET AND S. HIGHLAND AVENUE. N.W. BOLT ON FIRE HYDRANT
ELEV.= 692.99



EXPIRATION DATE: 11/30/19

SIGWALT 16
ARLINGTON HEIGHTS, ILLINOIS
TITLE SHEET

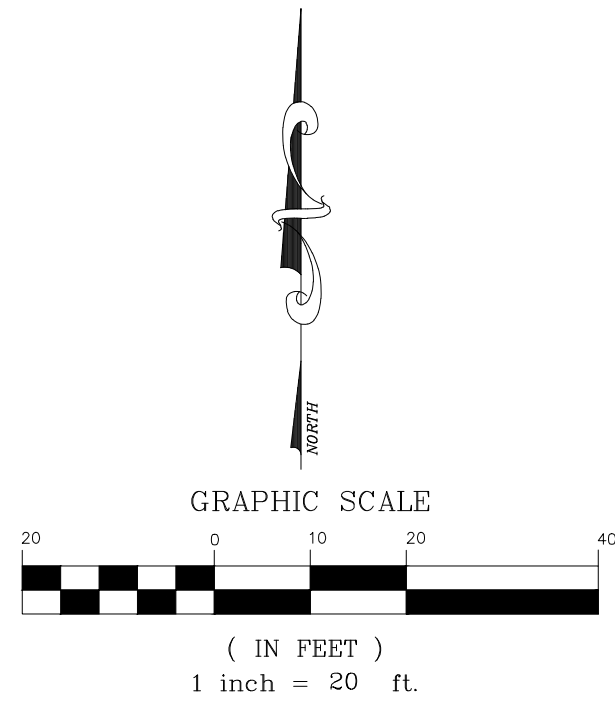
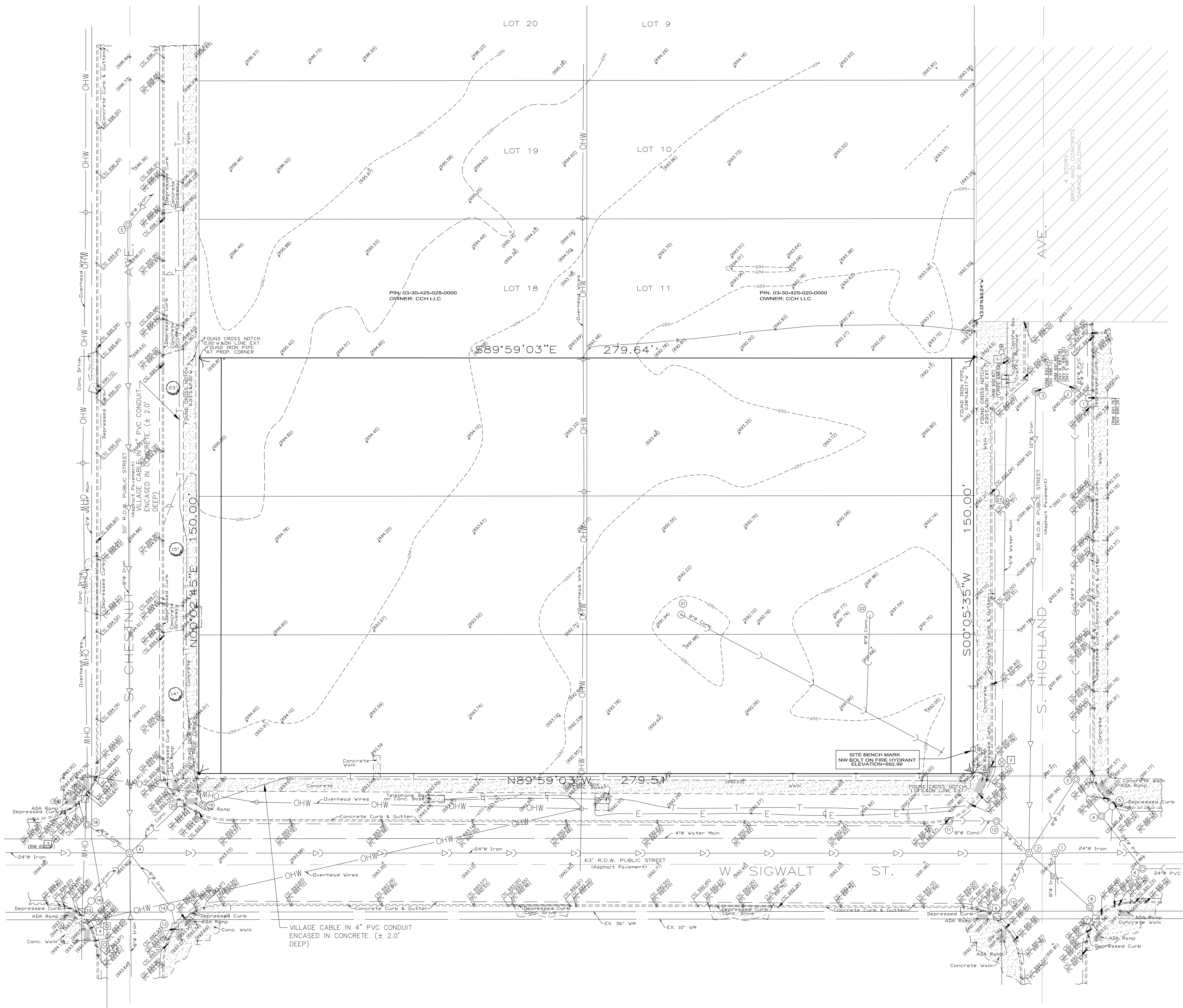
975 E. 22nd St, Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com



PROJECT NO. 42905219
DATE 04/12/19
SCALE NONE
PROJ. MGR. RWG
PROJ. ASSOC. MRM
DRAWN BY TLM

SHEET

1 OF 10



SURVEY NOTE

THE INFORMATION SHOWN HEREON IS BASED ON A BOUNDARY AND TOPOGRAPHIC SURVEY DONE BY PROFESSIONALS ASSOCIATED SURVEY, INC. ORDER NO. 17-91627, DATED 02/13/17 & AN UPDATED BOUNDARY SURVEY PREPARED BY: THOMSON SURVEYING LTD., DATED 03/11/19.

ABBREVIATIONS LEGEND
(IN ADDITION TO TITLE SHEET LEGEND)

EX = EXISTING
PR = PROPOSED
BC = BACK OF CURB
FC = FACE OF CURB
EP = EDGE OF PAVEMENT
PL = PROPERTY LINE
FB = FACE OF BUILDING
EC = EDGE OF CONCRETE
RW = RETAINING WALL
ROW = RIGHT OF WAY
BC/BC= BACK OF CURB TO BACK OF CURB
SW = SIDEWALK
R = RADIUS
(TYP) = TYPICAL

EXISTING PROPERTY DATA

ADDRESS: 37-45 S. CHESTNUT AVE, ARLINGTON HEIGHTS
36-40 S. HIGHLAND AVE, ARLINGTON HEIGHTS

EXISTING ZONE:
VC-PD (VILLAGE CENTER - PLANNED DEVELOPMENT)

TOTAL SITE AREA BEFORE DEDICATED ROW: 41,939 SF (0.963 AC)
TOTAL SITE AREA AFTER DEDICATED ROW: 39,539 S.F. (0.908 AC)

PIN: 03-30-425-012-0000
03-30-425-013-0000
03-30-425-014-0000
03-30-425-021-0000
03-30-425-022-0000
03-30-425-023-0000

LEGAL DESCRIPTION: LOTS 12, 13, 14, 15, 16 AND 17 IN BLOCK 2 IN A SUBDIVISION OF LOTS 26, 27, 28 AND 29 IN ASSESSOR'S SUBDIVISION OF SECTION 30, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS

2 SANITARY STRUCTURE NUMBER
11 STORM STRUCTURE NUMBER
5 WATERMAIN STRUCTURE NUMBER

EXISTING UTILITY STRUCTURE SCHEDULE

SANITARY SEWER STRUCTURES

1 EX SAN M.H. RIM= 691.91 INV= 684.56 (8" S) INV= 684.26 (24" W) INV= 684.21 (24" E)	2 EX SAN M.H. RIM= 691.94 INV= 686.99 (8" NE) INV= 687.04 (8" SE) INV= 688.49 (8" SW) INV= 686.84 (8" NW) INV= 684.39 (24" W) INV= 684.29 (24" E)
3 EX SAN M.H. RIM= 692.02 INV= 686.12 (12" S)	4 EX SAN M.H. RIM= 693.95 INV= 689.85 (8" SE) INV= 685.75 (8" S) INV= 689.43 (8" SW) INV= 689.55 (8" NW) INV= 687.25 (8" N) INV= 690.00 (8" NE) INV= 685.60 (24" W) INV= 685.40 (24" E)
5 EX SAN M.H. RIM= 696.21 INV= 690.76 (8" NE) INV= 688.73 (8" S)	

STORM SEWER STRUCTURES

1 EX STM C.B. RIM= 691.76 INV= 690.26 (8" NW)	2 EX STM M.H. RIM= 691.88 INV= 687.08 (24" N) INV= 689.30 (8" E) INV= 687.03 (24" S)
3 EX STM M.H. RIM= 691.49 INV= 686.67 (24" SE) INV= 686.09 (8" SW) INV= 686.59 (24" N)	4 EX STM M.H. RIM= 691.33 INV= 686.73 (24" NW) INV= 686.53 (24" SE)
5 EX STM C.B. RIM= 691.07 INV= 688.97 (24" SW) INV= 688.91 (24" S)	6 EX STM M.H. RIM= 691.83 INV= 687.03 (24" E) INV= 686.83 (24" NW)
7 EX STM INLET RIM= 691.26 INV= 688.40 (8" NW)	8 EX STM M.H. RIM= 691.55 INV= 688.50 (8" SE) INV= 688.30 (8" NW)
9 EX STM INLET RIM= 691.34 INV= 688.54 (8" NE)	10 EX STM M.H. RIM= 691.53 INV= 688.51 (8" NE)
11 EX STM INLET RIM= 690.97 INV= 688.27 (8" E)	12 EX STM M.H. RIM= 691.48 INV= 688.03 (8" W,SE)
13 EX STM INLET RIM= 692.87 INV= 689.97 (8" N)	14 EX STM C.B. RIM= 693.24 INV= 690.04 (8" SE) INV= 689.84 (8" NW)
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17 EX STM INLET RIM= 693.30 INV= 691.05 (8" S)	18 EX STM M.H. RIM= 693.68 WATER FILLED T/WATER= 690.03
19 EX STM M.H. RIM= 693.70	20 EX STM INLET RIM= 693.44 END OF PIPE SEALED
21 EX STM C.B. RIM= 691.68 UNABLE TO OPEN INV= 688.88 (8" SE)	22 EX STM C.B. RIM= 691.50 UNABLE TO OPEN INV= 688.85 (8" S)
23 EX STM C.B. RIM= 691.52 WATER FILLED T/WATER= 687.67	

WATERMAIN STRUCTURES

1 EX VALVE VAULT RIM= 692.67 T/P= 688.02	2 EX WATER M.H. RIM= 691.18 WATER FILLED T/WATER= 689.18
3 EX VALVE VAULT RIM= 693.91	4 EX CLEANOUT RIM= 693.53 T/P= 688.38
5 EX CLEANOUT RIM= 693.55 T/P= 688.35	

SIGWALT 16
ARLINGTON HEIGHTS, ILLINOIS
EXISTING CONDITIONS PLAN

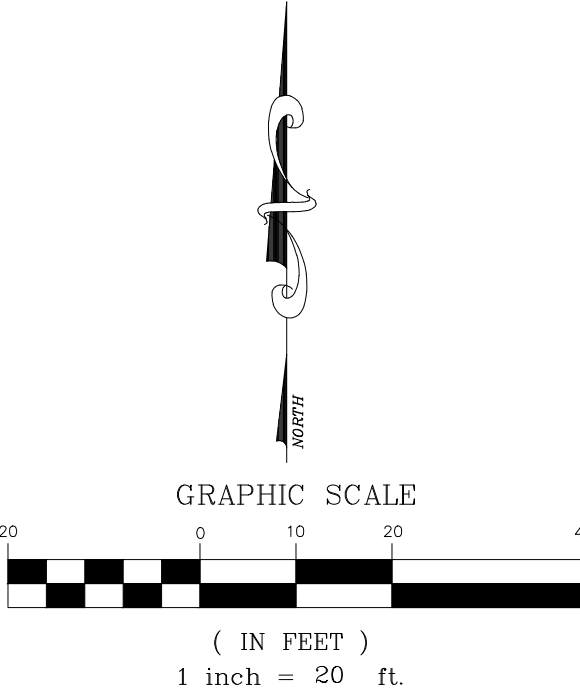
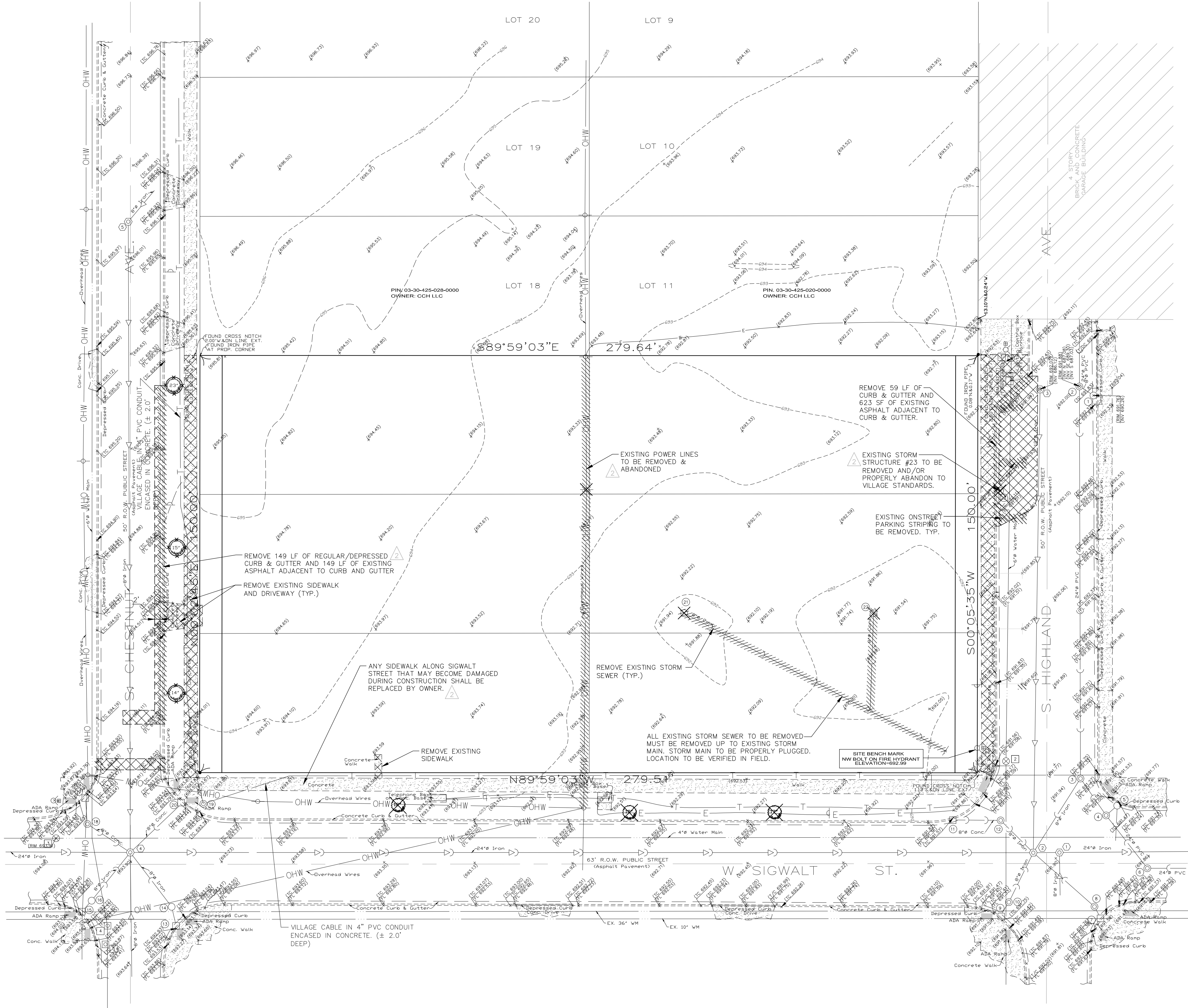
975 E. 22nd St, Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

Engineering, LLC
Civil Engineering • Real Estate Consulting • Project Management

PROJECT NO. 42905219
DATE 04/12/19
SCALE 1"=20'
PROJ. MGR. RWG
PROJ. ASSOC. MRM
DRAWN BY. TLM

SHEET
2 OF 10

June 05, 2019 12:20:55 p.m. Assewer:22.0s (LMS Tech)
Drawing: S:\42905219 - SIGWALT TOWNHOMES\300_ENGINEERING\310_CADD\TVAL\229_BASE.DWG



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FC	= FACE OF CURB
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3 EX VALVE VAULT RIM= 693.91	4 EX CLEANOUT RIM= 693.53 T/P= 688.38
5 EX CLEANOUT RIM= 693.55 T/P= 688.35	

DEMOLITION LEGEND	
	REMOVE EXISTING PAVEMENT/SIDEWALK/STRUCTURE/C&G (INCL SAWCUT)
	TREE/BUSH/STRUCTURE REMOVAL
	TREE PROTECTION FENCE
	REMOVE EXISTING UTILITY LINE
	REMOVE EXISTING CURB AND GUTTER

DEMOLITION NOTES:

- EROSION CONTROL INSTALLATION SHALL BE DONE PRIOR TO COMMENCEMENT OF ANY DEMOLITION ACTIVITY
- EXISTING ELECTRICAL AND PHONE CABLES MAY BE LOCATED WITHIN THE PROPOSED IMPROVEMENT AREA. APPROXIMATE KNOWN LOCATIONS ARE SHOWN HEREON. THE CONTRACTOR SHALL ARRANGE FOR PRECISE LOCATION OF EXISTING CABLE SERVICES AND EXERCISE EXTREME CARE WHEN WORKING AROUND THE SAME.
- ALL STRUCTURAL PAVEMENT MATERIALS (ASPHALT, CONCRETE SIDEWALK, CURB/GUTTER) THAT CANNOT BE CRUSHED TO AN APPROVED IDOT SPECIFICATION FOR USE AS STRUCTURAL FILL SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN OFFSITE LOCATION. RE-USE OF MILLED ASPHALT AND PROPERLY CRUSHED CONCRETE AS STRUCTURAL FILL IS ACCEPTABLE AND ENCOURAGED.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO EXISTING AMENITIES SCHEDULED TO REMAIN. PROPER SAWCUTTING SHALL BE ACCOMPLISHED AT ALL POINTS OF CONNECTION OR INTERFACE BETWEEN EXISTING AND PROPOSED IMPROVEMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE TO HAVE ALL UNDERGROUND UTILITIES (EVEN IF NOT SHOWN ON THESE PLANS) LOCATED PRIOR TO DEMOLITION WORK. SANITARY SERVICE, WATERMAIN SERVICE, GAS, ELECTRIC, ETC SHALL BE CUT-OFF. CONTRACTOR TO COORDINATE WITH RESPECTIVE MUNICIPAL AGENCY TO ARRANGE FOR DISCONNECT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO EXISTING UTILITIES, STREET LIGHTS, SIGNS, ETC. THAT ARE NOT INTENDED TO BE PERMANENTLY REMOVED.
- CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT, ALL UTILITY COMPANIES, AND THE FIRE DEPARTMENT PRIOR TO START UP.
- ON-SITE DISTURBED AREAS TO REMAIN AS GREENSPACE SHALL BE RESTORED WITH MINIMUM 4" TOPSOIL AND SEED, OR RESTORED IN ACCORDANCE WITH THE LANDSCAPE PLAN (SEE BY OTHERS).
- DISTURBED AREAS OF PUBLIC PARKWAYS SHALL BE RESTORED WITH MINIMUM 4" TOPSOIL AND SEED.
- ALL EXISTING DRIVEWAY APRONS SHALL BE SAWCUT ALONG WITH REMOVAL OF ANY EXISTING DEPRESSED CURB AND GUTTER, AND NEW BARRIER CURB AND GUTTER (SIZED TO MEET EXISTING ADJACENT CONDITIONS) SHALL BE INSTALLED AND DOWELED INTO THE EXISTING ADJOINING CURB AND GUTTER.
- UTILITY LINES SCHEDULED FOR REMOVAL SHALL BE PROPERLY DISCONNECTED FROM FACILITIES THAT ARE TO REMAIN, SECURELY PLUGGED AT ALL CONNECTION POINTS, AND EITHER REMOVED OR FILLED WITH FLOWABLE FILL (LEAN CONCRETE MIXTURE) AND ABANDONED IN PLACE (REMOVE IF LOCATED UNDER NEW BUILDING PAD AREAS). IN THE CASE OF STRUCTURE ABANDONMENT, CASTINGS AND TOP SLABS AND CONE SECTIONS SHALL BE REMOVED PRIOR TO FILLING THE STRUCTURE (UNLESS THE STRUCTURE IS EASIER TO COMPLETELY REMOVE).

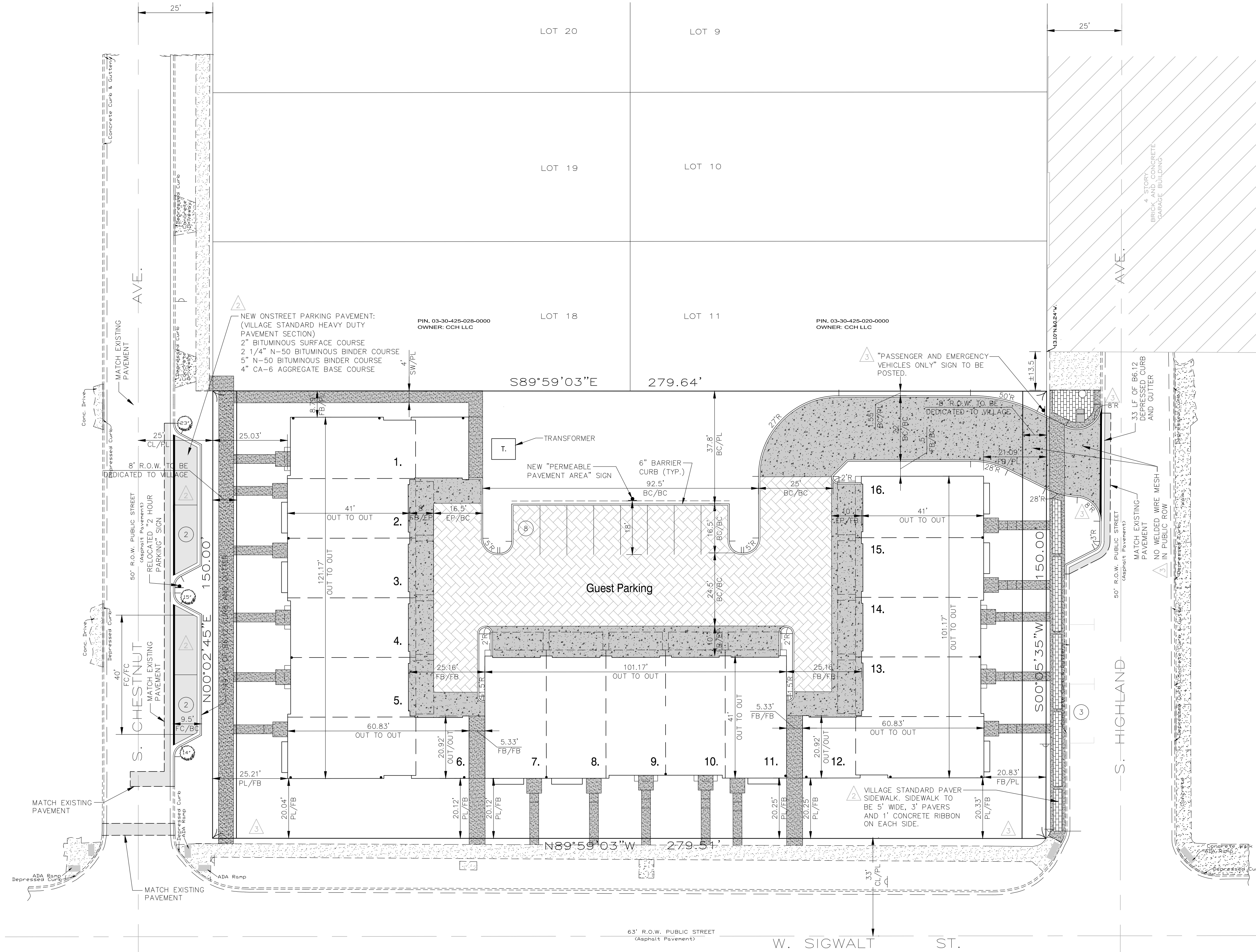
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ARLINGTON HEIGHTS, ILLINOIS
DEMOLITION PLAN

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PROJECT NO. 42905219
DATE 04/12/19
SCALE 1"=20'
PROJ. MGR. RWG
PROJ. ASSOC. MRM
DRAWN BY TLM

SHEET



- SURFACE IMPROVEMENT LEGEND:**
- PERMEABLE PAVERS (SEE DETAIL)
 - VILLAGE STANDARD BRICK PAVEMENT (SEE DETAIL)
 - CONCRETE DRIVEWAY ENTRANCE & APRONS (GARAGE ENTRY) 6" PCC PAVEMENT WITH 6"x6" No. 6 WELDED WIRE MESH (NO WELDED WIRE MESH IN PUBLIC RIGHT-OF-WAY) 4" AGGREGATE BASE COURSE CA-6, TYPE B
 - CONCRETE SIDEWALKS (PUBLIC AND/OR PRIVATE) 4" AGGREGATE BASE COURSE TYPE B, CA-6
 - EX. CURB AND GUTTER
 - CURB AND GUTTER (B6.12) SEE DETAIL SHEET
 - REVERSED PITCH CURB AND GUTTER
 - DEPRESSED CURB AND GUTTER
 - ADA CURB RAMP WITH DETECTABLE WARNING

- ABBREVIATIONS LEGEND (IN ADDITION TO TITLE SHEET LEGEND)**
- EX = EXISTING
 - PR = PROPOSED
 - BC = BACK OF CURB
 - FC = FACE OF CURB
 - EL = EDGE OF PAVEMENT
 - PL = PROPERTY LINE
 - FB = FACE OF BUILDING
 - FW = FACE OF WALK (SIDEWALK)
 - ROW = RIGHT OF WAY
 - BC/BC = BACK OF CURB TO BACK OF CURB
 - SW = SIDEWALK
 - RW = RADIUS
 - (TYP) = TYPICAL

SITE DATA:

EXISTING ZONING: VC-PD (VILLAGE CENTER - PLANNED DEVELOPMENT)
TOTAL PROPERTY SIZE BEFORE DEDICATED ROW= 41,939 S.F. (0.963 AC)
TOTAL PROPERTY SIZE AFTER DEDICATED ROW= 39,539 S.F. (0.908 AC)

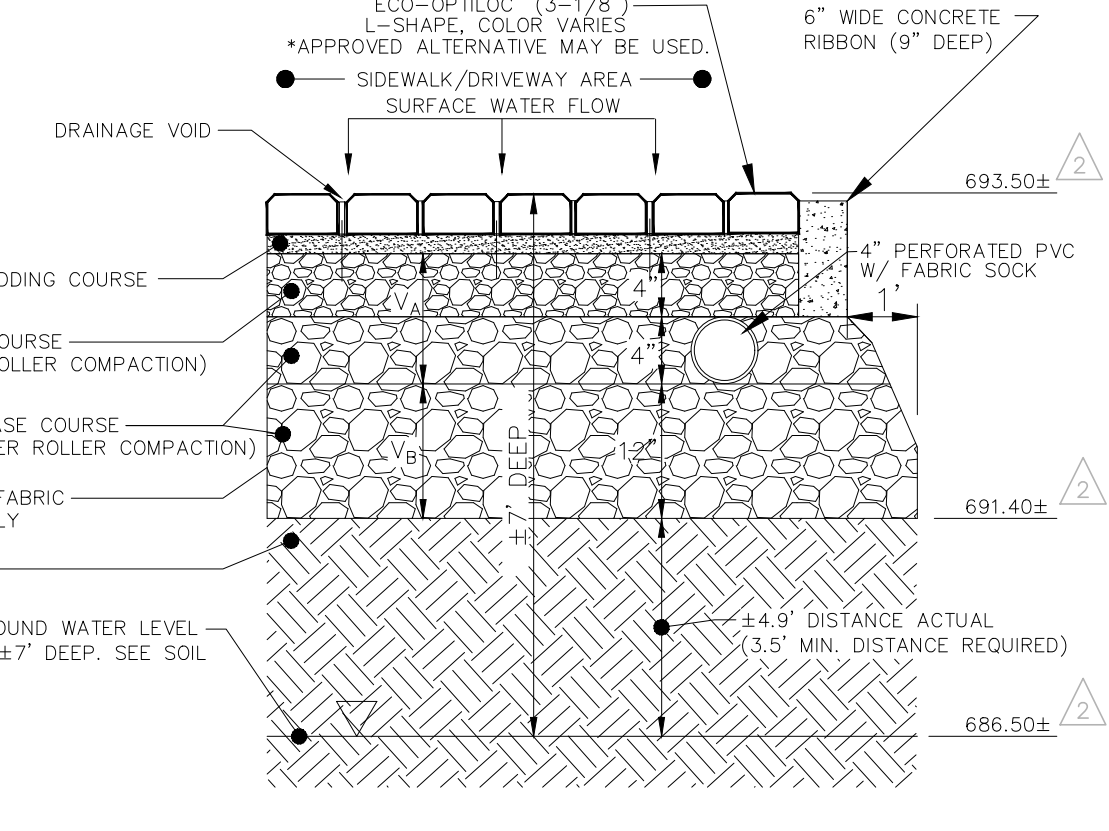
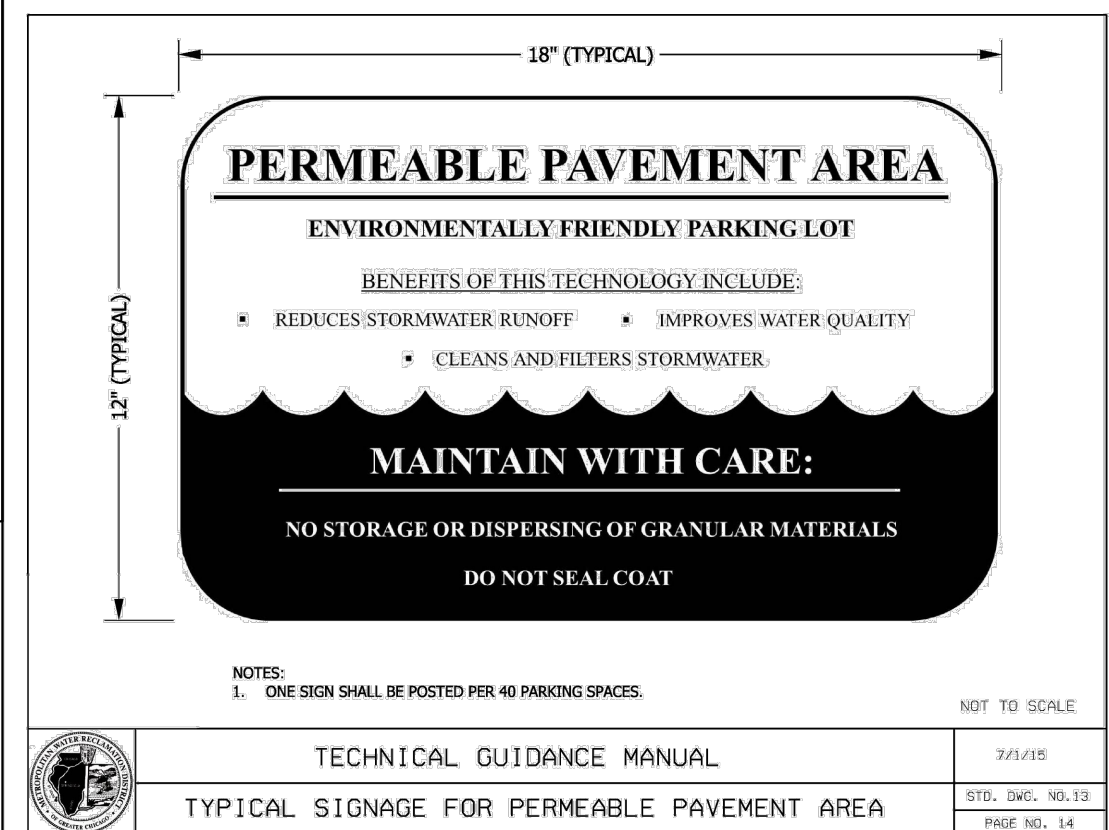
PROPOSED SITE CONDITIONS:

IMPERVIOUS:	
PROPOSED BUILDING IMPERVIOUS FOOTPRINT	= 14,356 S.F.
SIDEWALK/CURB/PAVED AREAS	= 7,000 S.F.
TOTAL IMPERVIOUS AREA	= 21,356 S.F. (54%)
PERVIOUS:	
PERMEABLE PAVEMENT AREA	= 5,920 S.F.
PROPOSED GREENSPACE	= 12,263 S.F.
TOTAL PERVIOUS AREA	= 18,183 S.F. (46%)

PROPOSED PARKING SUMMARY: (ONSITE AND ADJACENT ROW)

REGULAR STALLS (ON-SITE)	= 8
REGULAR STALLS (ADJACENT ROW)	= 3
TOTAL STALLS PROVIDED	= 11

- SITE GEOMETRIC AND PAVING NOTES:**
- SIDEWALK RAMPS WITH DETECTABLE WARNINGS AND DEPRESSED CURBS SHALL BE INSTALLED AT ALL SIDEWALK CROSSINGS. SEE CONSTRUCTION STANDARDS FOR SPECIFIC DETAILS.
 - UNLESS OTHERWISE NOTED ON THE PLAN, ALL DIMENSIONS ARE TO THE BACK OF CURB, FACE OF CURB, FACE OF BUILDING, OR PROPERTY LINES.
 - UNLESS OTHERWISE NOTED, ALL CURB AND GUTTER SHALL BE B6.12 CONCRETE CURB AND GUTTER.
 - UNLESS OTHERWISE NOTED, ALL CURB RADI ARE 4' TO BACK OF CURB.
 - ALL BOUNDARY AND LOT DIMENSIONS ARE SHOWN PER THE SUBDIVISION (OR SITE) PLAT PREPARED BY THOMSON SURVEYING LTD. AND DATED 03/11/19.
 - BUILDING DIMENSIONS HAVE BEEN INDICATED HEREON BASED UPON ARCHITECTURAL INFORMATION CURRENT AS OF THE BASE DATE OF THIS PLAN PREPARATION. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS AND ADVISE THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
 - IMPROVEMENTS ADJACENT TO BUILDINGS, IF SHOWN (SUCH AS TRUCK DOCKS, RETAINING WALLS, SIDEWALKS, CURBING, FENCING, CANOPIES, RAMPS, HANDICAP ACCESS, PLANTERS, DUMPSTERS, TRANSFORMERS, BOLLARDS, ETC) HAVE BEEN SHOWN FOR APPROXIMATE LOCATION ONLY - REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS, SPECIFICATIONS AND DETAILS.
 - THE LOCATION OF PRIVATE SIDEWALKS SHALL BE COORDINATED WITH PROPOSED DRIVEWAYS. CONTRACTOR TO VERIFY ACTUAL DRIVEWAY LOCATION WITH ARCHITECTURAL PLANS PRIOR TO CONSTRUCTING SIDEWALKS.
 - UPON COMPLETION OF PAVING OPERATIONS, THE CONTRACTOR SHALL INSTALL THE PAVEMENT MARKINGS AND SIGNAGE AND ALL DIRECTIONAL SIGNAGE, ETC AS SHOWN HEREON AND ON SIGNAGE AND STRIPING PLAN. PARKING STALL (EXCEPT FOR HC) MARKING COLOR IS WHITE. ALL ONSITE PAVEMENT MARKINGS AND STRIPES SHALL BE PAINTED WITH IDOT SPECIFICATION PAVEMENT PAINT. STRIPES SHANT BE 4" WIDE. HANDICAP STALLS SHALL BE PAINTED YELLOW AND SIGNED PER FEDERAL, STATE AND LOCAL REQUIREMENTS.
 - PRIOR TO OPENING TO THE PUBLIC, ALL TRAFFIC CONTROL SIGNAGE SHALL BE INSTALLED AS INDICATED. SIGNS SHALL BE INSTALL WITH 3" SQUARE ALUMINUM POSTS WITH A BAKED ON ENAMEL FINISH, SET 1' INTO CONCRETE PIER AND SHALL INCLUDE A POST CAP.
 - ALL ROADWAY PATCHES SHALL HAVE SURFACE ASPHALT LAYER EXTEND 2.0' BEYOND EDGE OF TRENCH.
 - ANY STAIRWAYS LEADING TO PUBLIC SIDEWALK SHALL NOT AFFECT THE ADA COMPLIANCE OF THE PUBLIC WALK.



- NOTES:**
- OFFSET A MINIMUM OF 10 FEET FROM FOUNDATIONS UNLESS WATERPROOFED, 20 FEET FROM SANITARY SEWERS, 20 FEET FROM ROADWAY SHOULDER AND 100 FEET FROM POTABLE WATER WELLS OR SEPTIC TANKS.
 - AVOID INSTALLATION ON SLOPES GREATER THAN 15 TO 1 AND ABOVE COMPACTED FILL.
 - WOVEN GEOTEXTILE FABRIC SHALL MEET REQUIREMENTS OF ILM MATERIAL SPECIFICATION 592 GEOTEXTILE, TABLE 1, CLASS 1, WITH AN APPARENT OPENING SIZE OF 0.50 MM.
 - STONE STORAGE OPTIONS ARE CA-7, DISTRICT VULCAN MIX, OR APPROVED ALTERNATE. NO RECYCLED MATERIALS.
 - MINIMUM DISTANCE OF 2 FEET (0.5 FEET IN COMBINED SEWER AREAS) BETWEEN BOTTOM OF BMP AND SEASONALLY HIGH GROUNDWATER LEVEL.
 - UNDERDRAINS ARE REQUIRED IN TYPICAL CLAYEY SOILS WHERE INFILTRATION RATES ARE LESS THAN 0.5 INCH/ HOUR. MAXIMUM OF 1 UNDERDRAIN PER 30 FEET. PROVIDE A SOIL REPORT DOCUMENTING NATIVE INFILTRATION RATE TO FOREGO UNDERDRAINS.
 - MINIMUM UNDERDRAIN BEDDING OF TWO INCHES, MAXIMUM OF 12 INCHES.
 - ONE OBSERVATION WELL REQUIRED PER 40,000 SQUARE FEET OF SURFACE AREA.
 - FOLLOW THE REQUIRED PRETREATMENT MEASURES LISTED ON THE VOLUME CONTROL PRETREATMENT MEASURES DETAIL.
 - MAINTENANCE REQUIREMENTS INCLUDE ANNUAL VACUUMING AND LOW-PRESSURE POWER WASHING OF PAVEMENT SURFACE. ADJACENT VEGETATED AREAS SHALL BE WELL MAINTAINED. BARE SPOTS AND ERODED AREAS SHALL BE REPLANTED AND STABILIZED IMMEDIATELY. DO NOT SEAL COAT.
 - APPROPRIATE SIGNAGE REQUIRED FOR FACILITY, REFER TO THE SIGNAGE FOR PERMEABLE PAVEMENT DETAIL.

VILLAGE OF ARLINGTON HEIGHTS SIDEWALK REQUIREMENTS

REINFORCEMENT:
No wetter wet fabric is allowed to be placed in any sidewalk in the Village right-of-way or any sidewalk to be maintained by the Village. Where sidewalks cross over a utility conduit, use an reinforcing bar to be placed mid-depth within sidewalk and extend to a minimum of 5 feet beyond either side of the utility crossing.

FORMS:
Side forms shall be lumber with a nominal thickness of 2 inches and a depth equal to the sidewalk thickness specified or of steel with equal rigidity. 2nd forms will not be allowed. Side forms shall be fast securely in place by stakes or bracing, within top edges of the forms face to grade. The forms shall be lightly coated with oil prior to placing concrete.

FORM REMOVAL AND BACKFILL:
Unless otherwise approved by the Director of Engineering, all forms shall remain undisturbed for a minimum of 24 hours after the concrete has been placed, and be removed within 48 hours. Upon the removal of the forms, the Contractor shall have seven calendar days to backfill. Between the side of the sidewalk and the ground using top soil. The Contractor is responsible for maintaining proper backfill until soil has been placed.

EXPANSION JOINTS:
Expansion joints shall consist of preformed joint filler, 1/2 inch thick. The top of the expansion joint shall be placed 1/4 inch below the surface of the sidewalk, and extend to the full depth of the walk. Expansion joints shall be spaced a minimum of 50 feet and shall also be placed between the sidewalk and all structures, such as light standards, manholes, etc. which extend through the sidewalk.

When the sidewalk is constructed adjacent to pavement or curb having expansion joints, the expansion joints in the sidewalk shall be placed opposite the existing expansion joints in nearby pavement.

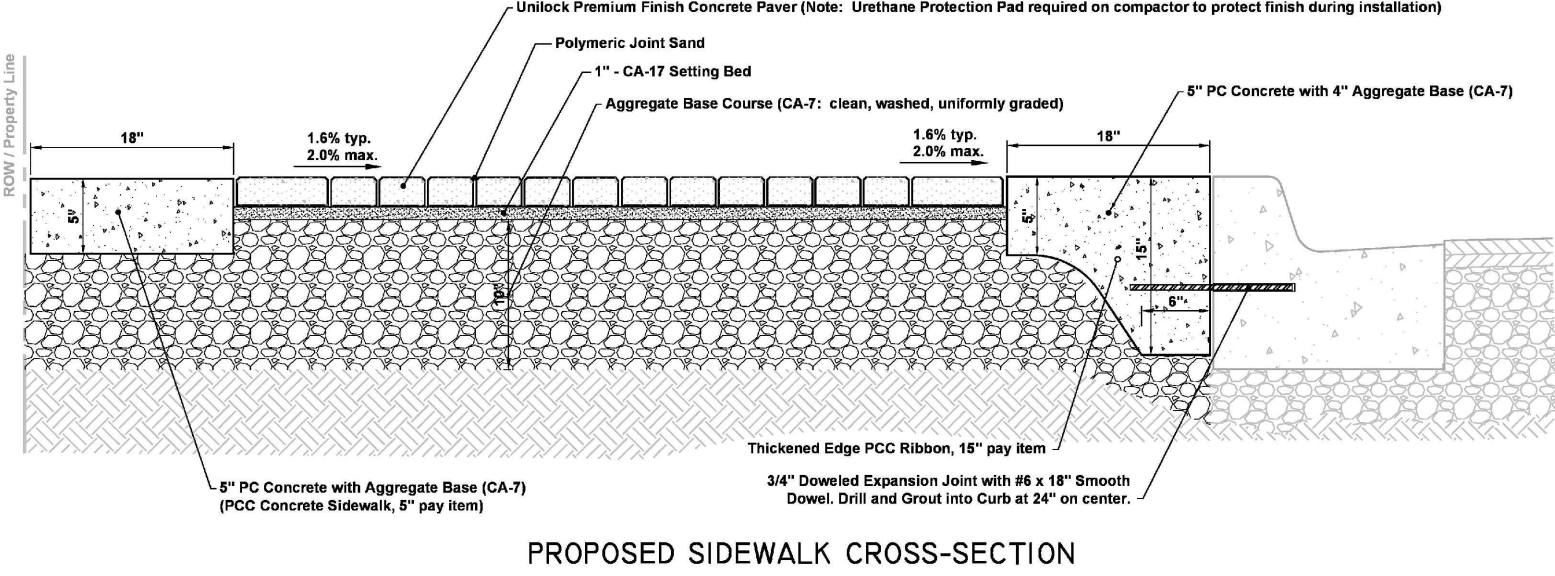
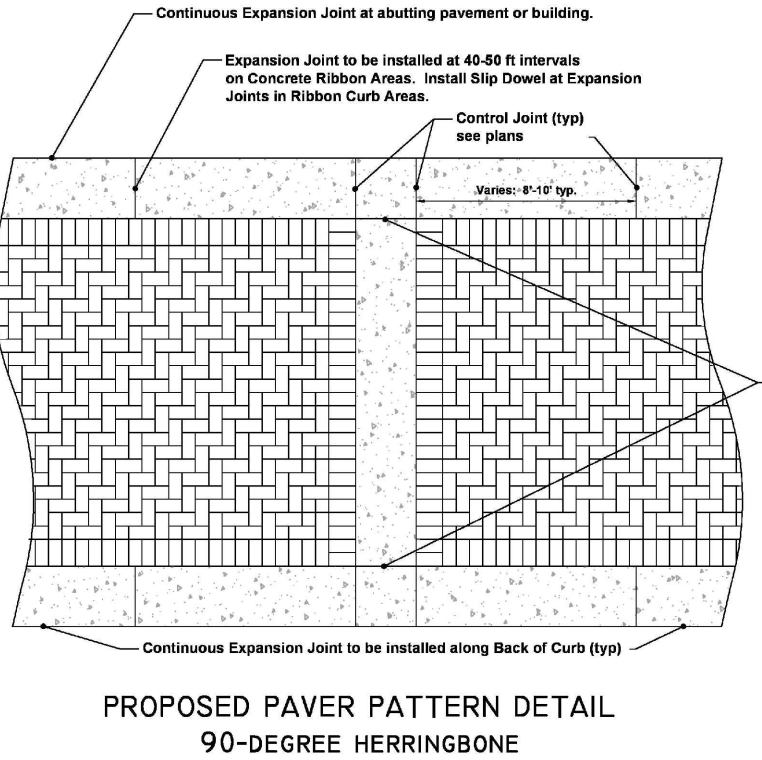
Expansion joints shall also be placed where the sidewalk abuts existing sidewalks, between concrete driveway pavement and sidewalk, and between sidewalk and curbs where the sidewalk abuts a curb.

Slip Dowels are to be installed at all expansion joint locations within concrete ribbon areas.

PLACING, FINISHING, PROTECTION AND CURING
The concrete sidewalk shall be placed and finished in accordance with Article 424.05 of the Standard Specifications for Road and Bridge Construction.

All exposed concrete surfaces shall be protected against damage by rain or other natural causes. The Contractor shall be responsible for protecting the concrete against vandalism until the concrete is set and cured.

The sidewalks shall be cured for a minimum period of three days after placement as described in Article 720.13 of the Standard Specifications for Road and Bridge Construction.



SIGWALT 16

ARLINGTON HEIGHTS, ILLINOIS

SITE GEOMETRIC AND PAVING PLAN

PROJECT NO. 42905219

DATE 04/12/19

SCALE 1"=20'

PROJ. MGR. RWG

PROJ. ASSOC. MRM

DRAWN BY TLM

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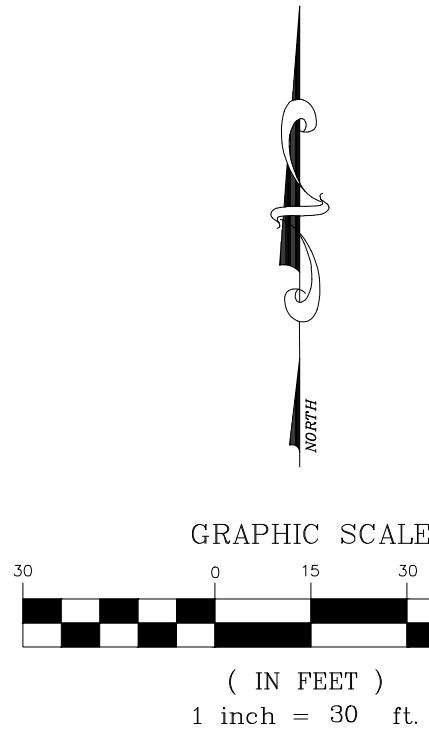
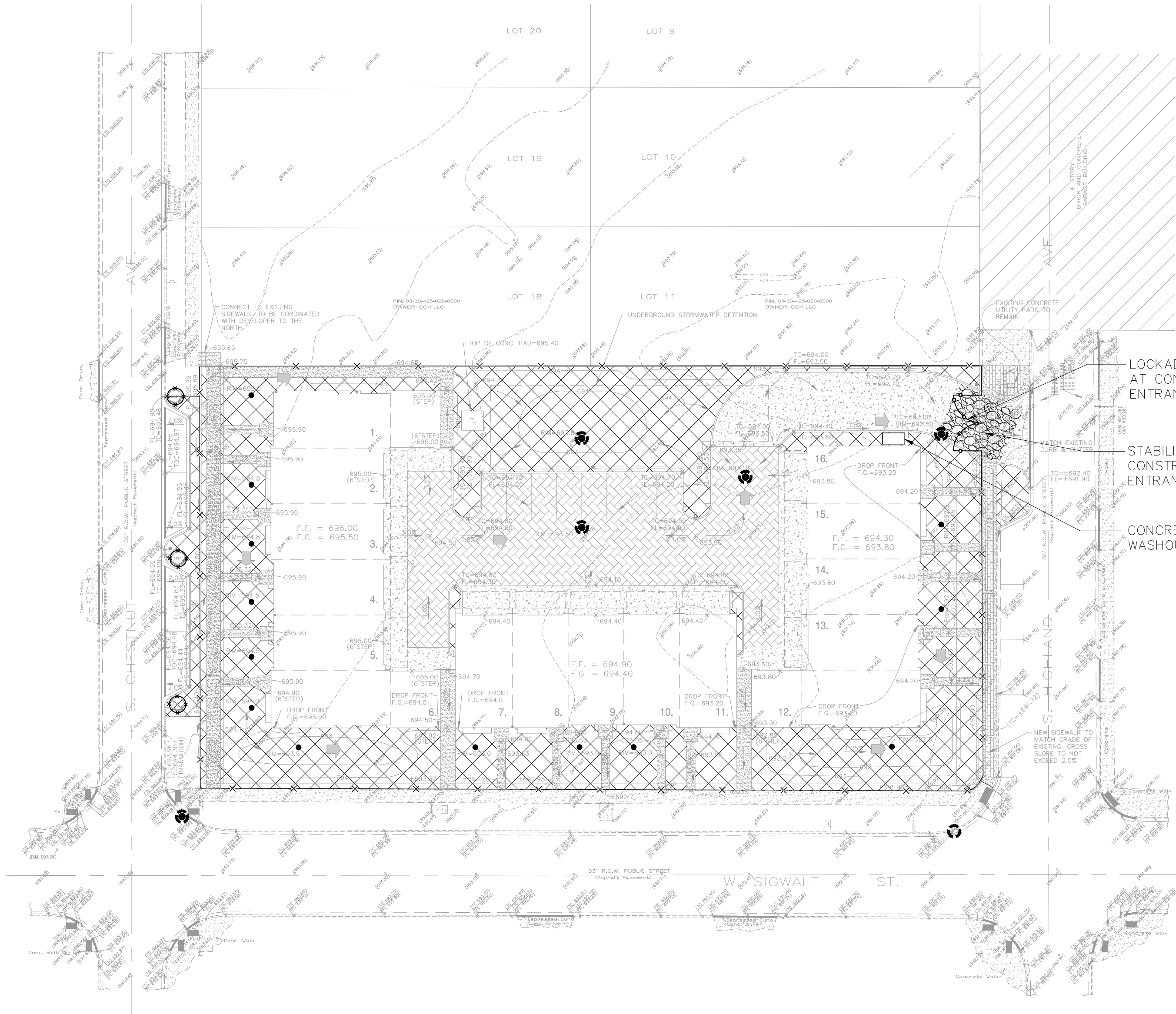
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SPECIAL CONCRETE WASHOUT NOTE:
CONCRETE WASHOUT SHALL BE CONTAINED AT ALL TIMES. WASHOUT MATERIAL SHALL NOT BE ALLOWED TO ENTER STORM SEWERS OR LEACH INTO THE SOIL UNDER ANY CIRCUMSTANCES. ALL WASTE SHALL BE DISPOSED OF PROPERLY AND THE LOCATION OF THE WASHOUT SHALL BE DESIGNATED WITH PROPER SIGNAGE (SEE PLAN).

- EROSION CONTROL LEGEND**
- STORM DRAINAGE STRUCTURE
 - INLET PROTECTION
 - TREE PROTECTION FENCE
 - SILT FENCE & CHAIN-LINK FENCE
 - TEMPORARY SEEDING AND EROSION CONTROL BLANKET (LANDSCAPING/SOD TO FOLLOW)

- PLAN ABBREVIATION LEGEND**
(IN ADDITION TO TITLE SHEET)
- P = PAVEMENT
 - R = RIM (OR RADIUS)
 - TC = TOP OF CURB
 - SW = WALK (OR TOP OF WALK)
 - FF = FINISHED FLOOR
 - EP = EDGE OF PAVEMENT
 - FL = FLOW LINE
 - TW = TOP OF WALL ELEV
 - SW = BOTTOM OF WALL (GRADE) ELEV
 - TPC = TOP OF DEPRESSED CURB

DATE	REVISIONS	IN OFFICE/CLIENT REVIEW	DATE	REVISIONS	IN OFFICE/CLIENT REVIEW
05/07/19	1.	TLW	05/07/19	1.	TLW
05/17/19	2.	TLW	05/17/19	2.	TLW
06/06/19	3.	ZRN	06/06/19	3.	ZRN

SILT FENCE

2"x2"x36" FENCE POSTS 10' O/C WITH WOVEN WIRE FENCE (14 1/2 GAGE VIN. MAX. 6" MESH SPACING) OR 5' O/C WITHOUT WIRE FENCE.

FLOW
UNDISTURBED GROUND
20"
16"
12"
EMBED FILTER CLOTH MIN. 8" INTO GROUND

SILT FENCE SHALL BE INSTALLED AND INSPECTED BY HANOVER PARK ENGINEERING DEPARTMENT PERSONNEL PRIOR TO ANY OTHER CONSTRUCTION.
WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
TOPSOIL STOCKPILES SHALL HAVE DIVERSION DITCHES PLACED AROUND THEM WITH A SILT TRAP BUILT AT THE LOW POINT OF THE DITCHES.
SILT FENCE TO BE PROVIDED AROUND ENTIRE PERIMETER OF ALL WETLAND AREAS PRIOR TO MASS EARTHWORK START.
MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN SILT FENCE.

SOIL EROSION CONTROL CONSTRUCTION SCHEDULE:

1. INSTALL SEDIMENT CONTROL MEASURES
2. INLET BASKETS/BARRIER FILTERS
3. SITE DEMOLITION WORK
SAWOUT/REMOVE PAVEMENT/SIDEWALKS/CURBS/CONCRETE SLABS
4. SITE CONSTRUCTION WORK
INSTALL BUILDING EXPANSION FOUNDATION/WALLS
INSTALL CANOPY UNDERDRAIN SYSTEM & OUTFALL SEWER
PREPARE SUBGRADE FOR BLDG FLOOR SLAB & PAVT AREAS
INSTALL BASE COURSE MATERIALS
INSTALL NEW CURB/SIDEWALK/CANOPY CONCRETE SLABS
INSTALL NEW ASPHALT PAVEMENT
REPAIR & SEALCOAT EXISTING ASPHALT PAVEMENT & RE-STRIPE
PERMANENTLY VEGETATIVE STABILIZATION OF DISTURBED GREENSPACE
SPREAD TOPSOIL IN NEW ISLAND
MALOW/SEED AS SPECIFIED
5. CLEANUP/RESTORATION
REMOVE INLET BASKETS/BARRIER FILTERS

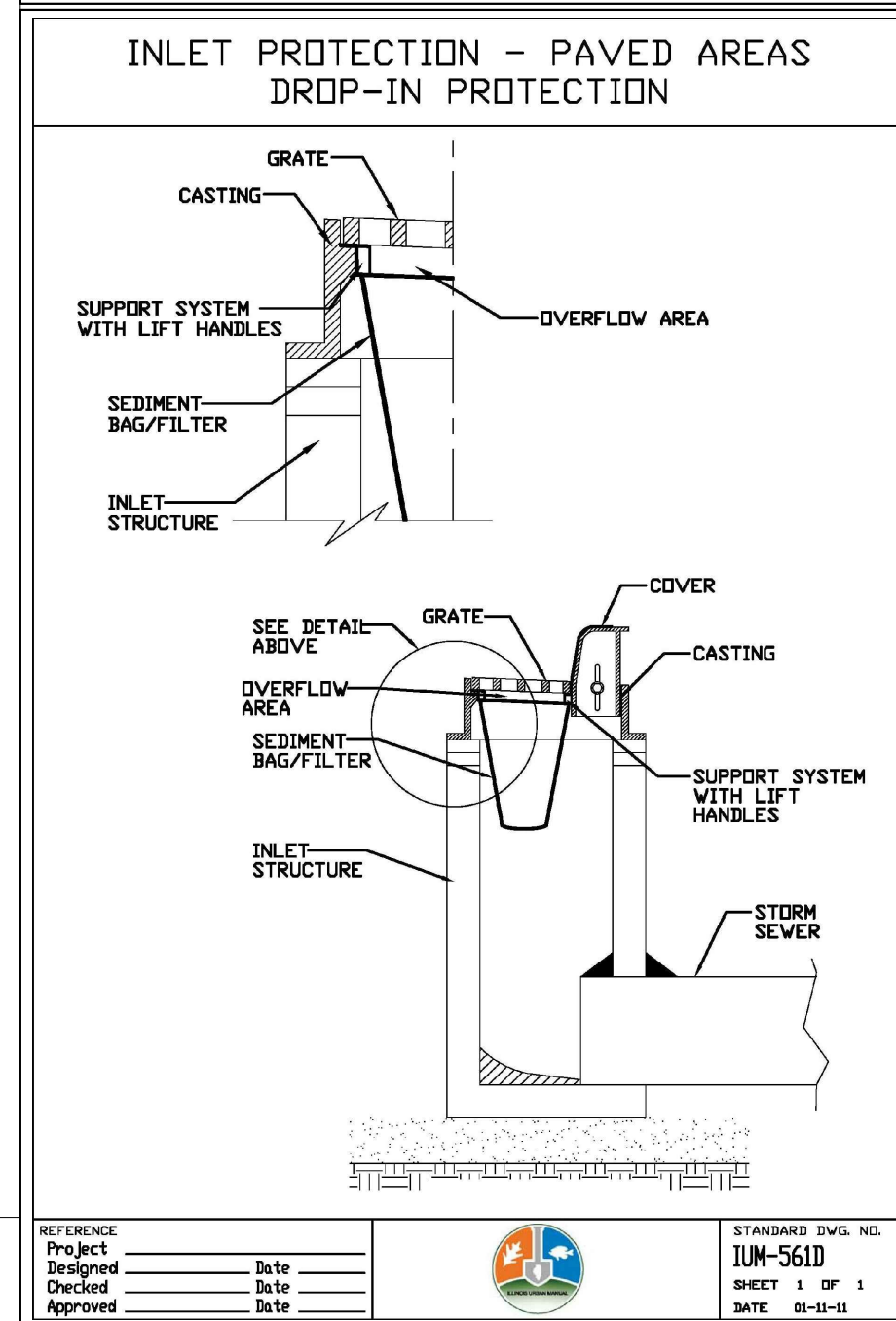
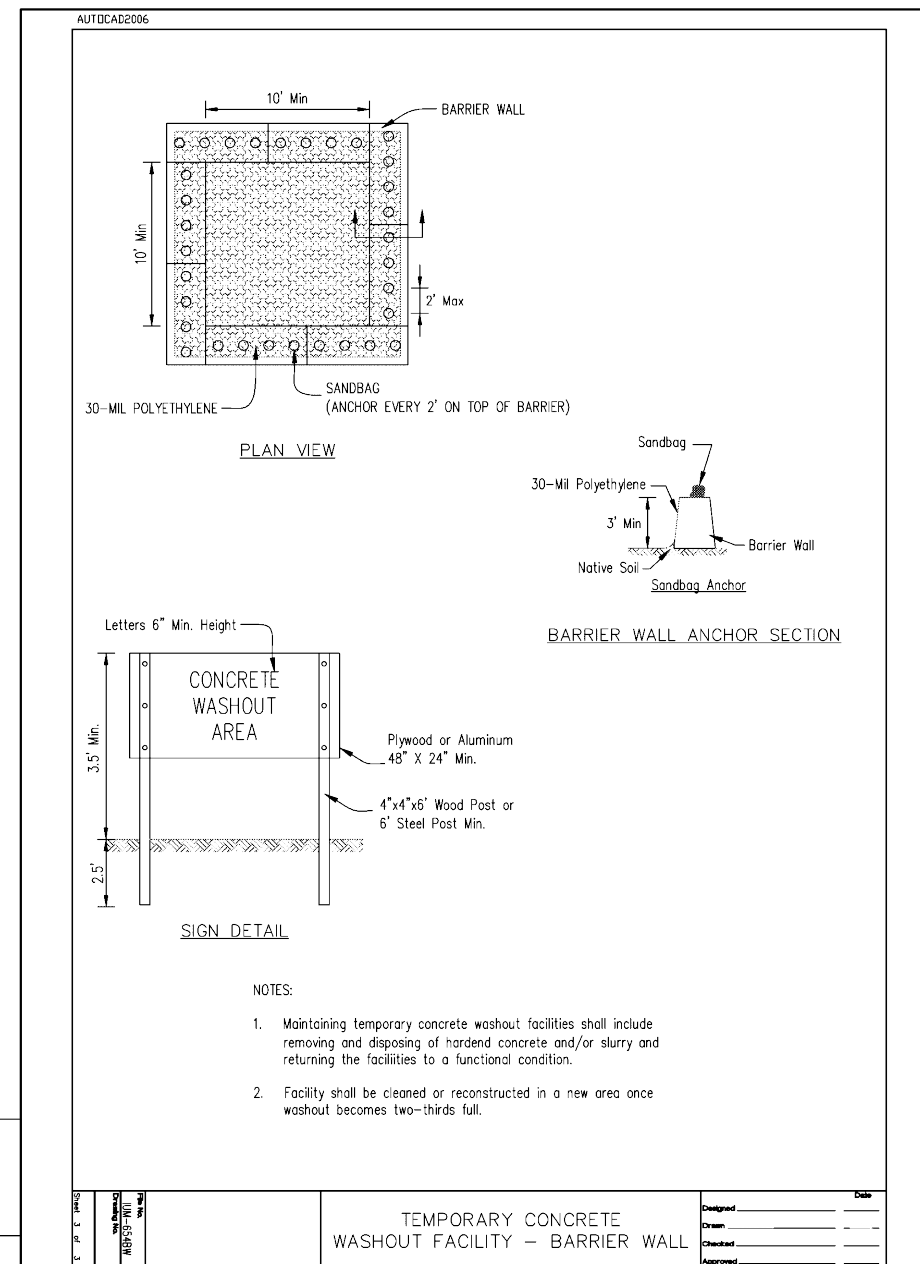
SECS INSPECTION SCHEDULE:

1. DIVERSION AND STRUCTURAL MEASURES - WILL BE INSPECTED AT 7 DAY INTERVALS AND AFTER EVERY 1/2" RAIN.
2. SEDIMENT BASINS AND PONDS - WILL BE CHECKED AFTER EACH MAJOR PHASE OF THE DEVELOPMENT FOR SEDIMENT ACCUMULATION.
3. VEGETATIVE PLANTINGS - SPRING PLANTINGS WILL BE CHECKED DURING SUMMER OR EARLY FALL.
4. REPAIRS - ANY EROSION CONTROL MEASURES, STRUCTURAL MEASURES OR OTHER RELATED ITEMS IN NEED OF REPAIR WILL BE MADE WITHIN 15 DAYS, OR EARLIER IF POSSIBLE BASE ON FIELD CONDITIONS.
5. MAINTENANCE - DRAINAGEWAYS, DITCHES AND OTHER AREAS THAT SUPPORT A DESIGNATED FLOW OF WATER WILL BE MAINTAINED REGULARLY TO MAINTAIN THAT FLOW.
6. FERTILIZATION - SEEDING AREAS WHERE THE SEED HAS NOT PRODUCED A GOOD COVER WILL BE INSPECTED AND FERTILIZED IF NECESSARY.

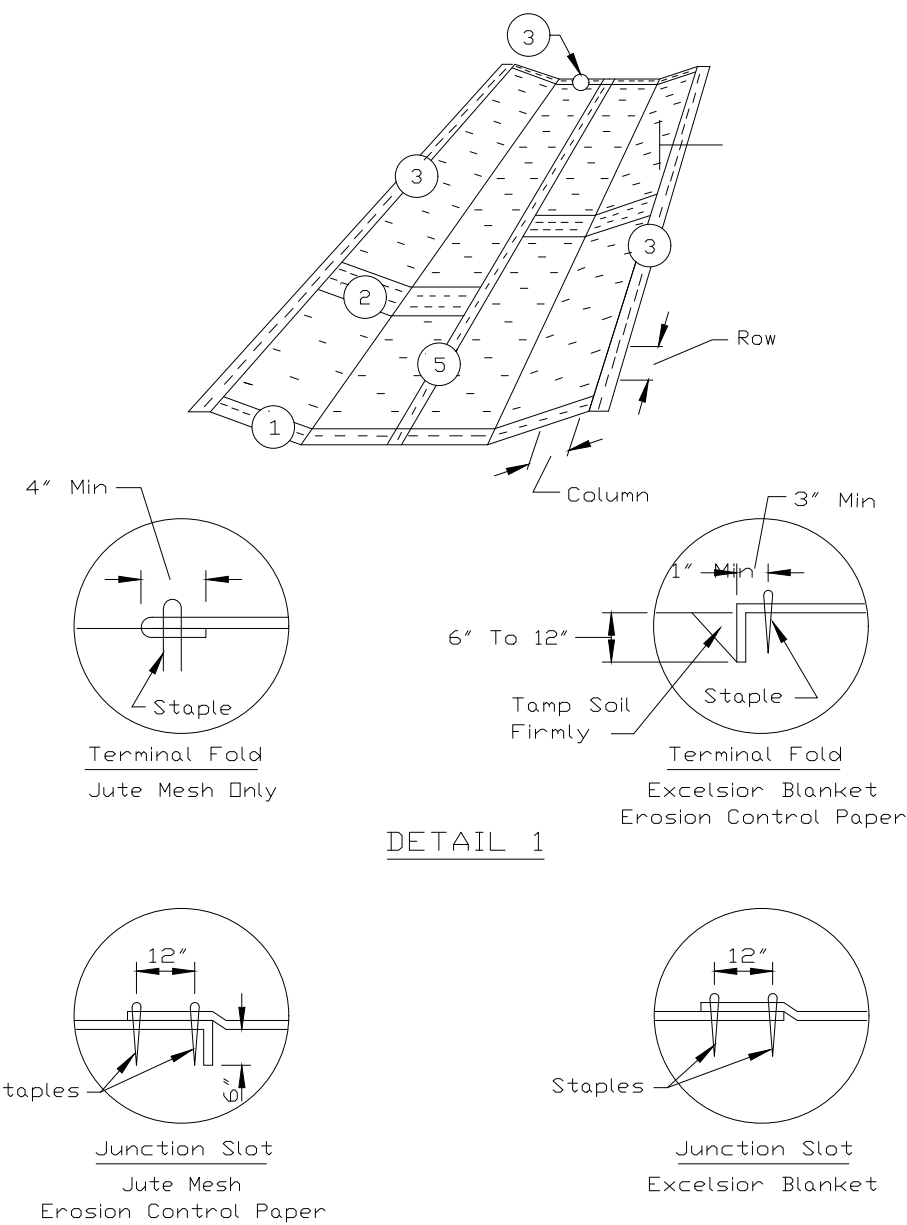
SOIL EROSION AND SEDIMENT CONTROL NOTES:

1. VEGETATIVE AND STRUCTURAL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH SPECIFICATIONS AS OUTLINED IN THE "ILLINOIS URBAN MANUAL."
2. EROSION CONTROL MEASURES SHALL BE MAINTAINED AND FUNCTIONAL THROUGHOUT THE CONSTRUCTION PROJECT (MAINTENANCE AND/OR REPLACEMENT COST IS INCIDENTAL).
3. EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT COMPLIANCE WITH CONSTRUCTION SEQUENCE (SEE SCHEDULE).
4. ALL SITE RUNOFF SHALL BE ROUTED THROUGH TRAPS AND SILTATION CONTROL DEVICES PRIOR TO DISCHARGE DOWNSTREAM/OFFSITE.
5. INLET PROTECTION FILTER BASKETS SHALL BE INSTALLED UNDER THE GRATING OF EACH DRAINAGE STRUCTURE.
6. ALL DEWATERING OPERATIONS SHALL BE DISCHARGED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING DISCHARGE DIRECTLY INTO FIELD TILE OR STORM SEWER IS PROHIBITED.
7. DUST CONTROL SHALL BE PERFORMED ON A DAILY BASIS USING EQUIPMENT SPECIFICALLY DESIGNED FOR THAT PURPOSE.
8. SEDIMENT REACHING A PUBLIC ROAD SHALL BE REMOVED ON A DAILY BASIS.
9. LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF ANY GUTTER OR DRAINAGE DITCH SHALL BE REMOVED ON A DAILY BASIS.
10. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES AT LEAST ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS AFTER A STORM EVENT OF 0.5 INCHES OR GREATER (OR THE EQUIVALENT SNOWFALL). REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF SAID MEASURES SHALL BE IMMEDIATE.
12. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH JURISDICTIONAL GOVERNMENTAL AGENCY REQUIREMENTS WITHIN THIRTY (30) DAYS OF FINAL SITE STABILIZATION.

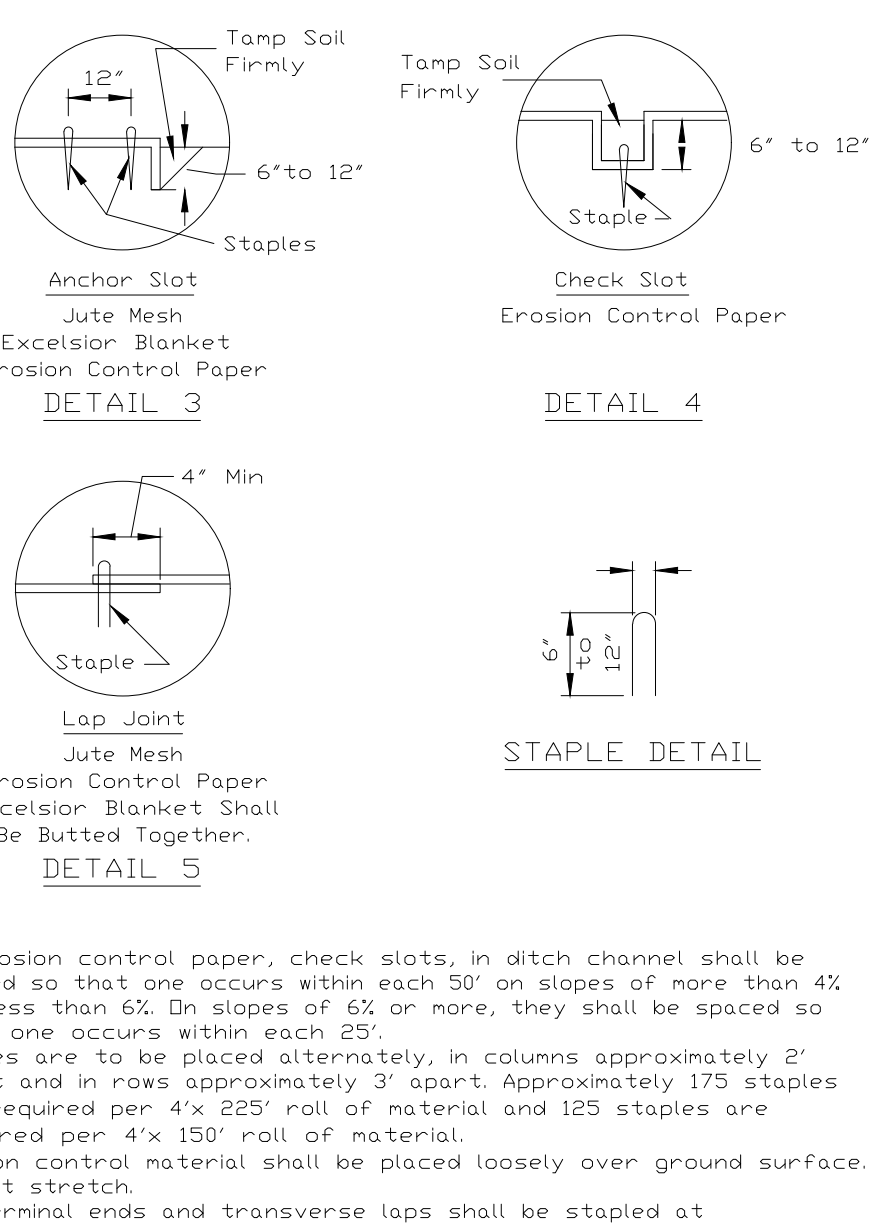
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June 05, 2019 12:24:11 p.m. Acadver:22.0a (LMS Tech)



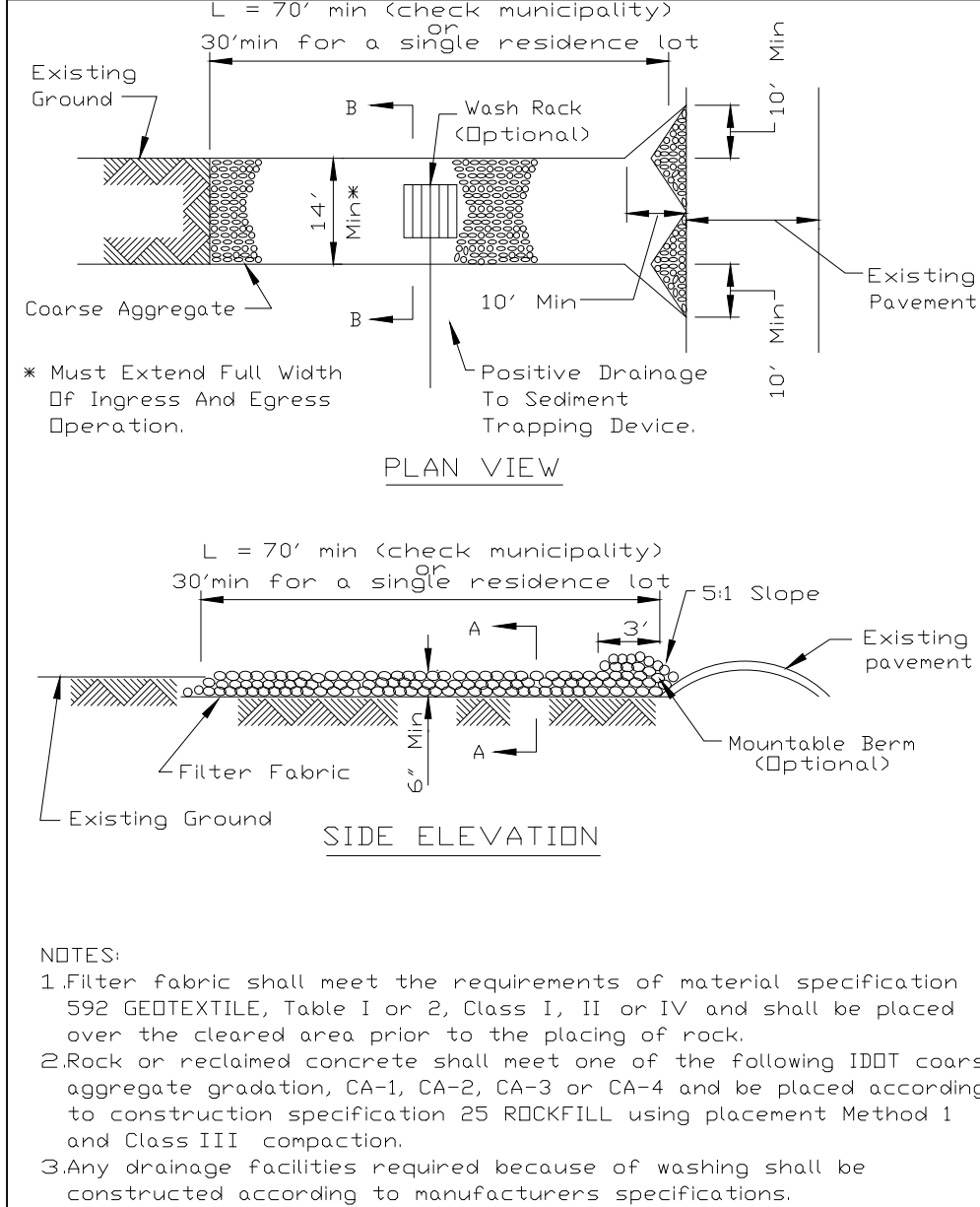
EROSION BLANKET PLAN



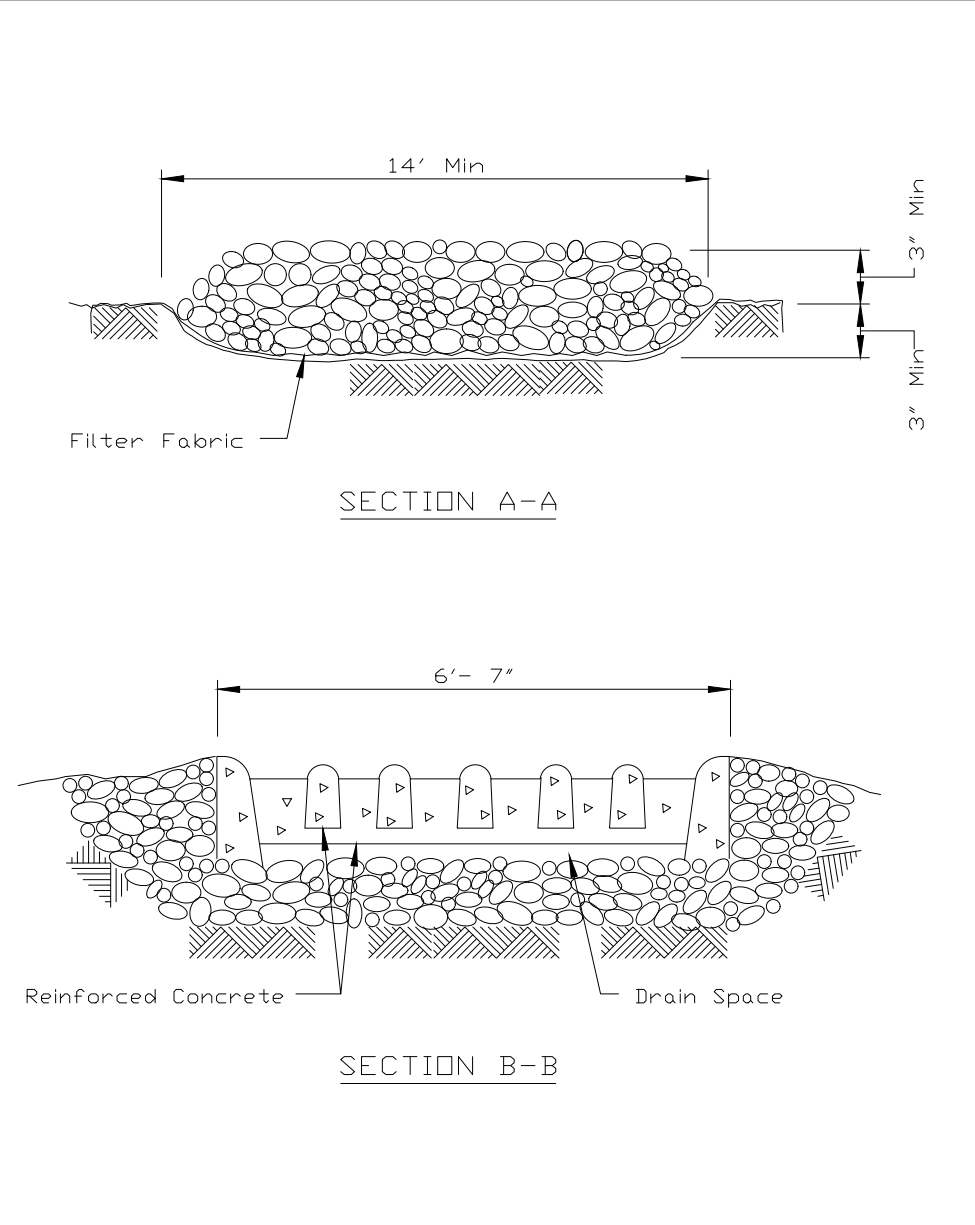
EROSION BLANKET PLAN



STABILIZED CONSTRUCTION ENTRANCE PLAN



STABILIZED CONSTRUCTION ENTRANCE PLAN



REFERENCE	Project	Design	Check	Approved



STANDARD DWG. NO.	Project	Design	Check	Approved
1L-530				



STANDARD DWG. NO.	Project	Design	Check	Approved
1L-530				



STANDARD DWG. NO.	Project	Design	Check	Approved
1L-630B				



STANDARD DWG. NO.	Project	Design	Check	Approved
1L-630B				



STANDARD DWG. NO.	Project	Design	Check	Approved
1L-561D				

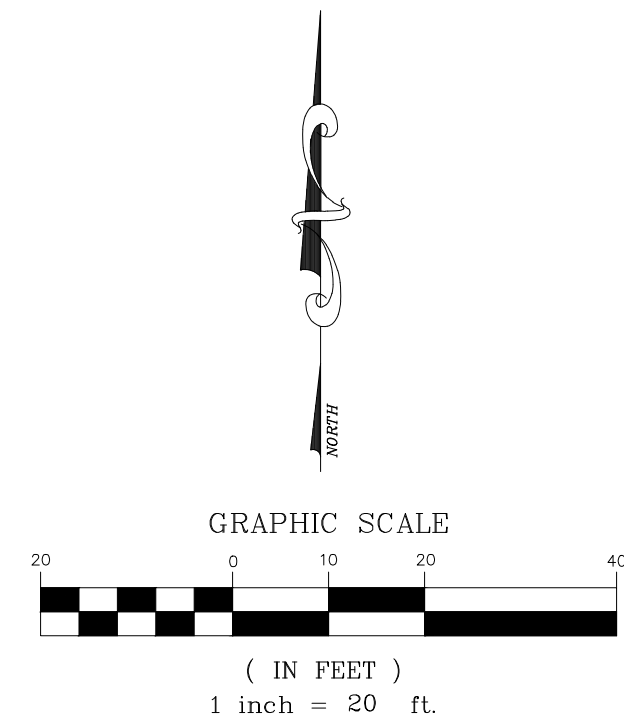
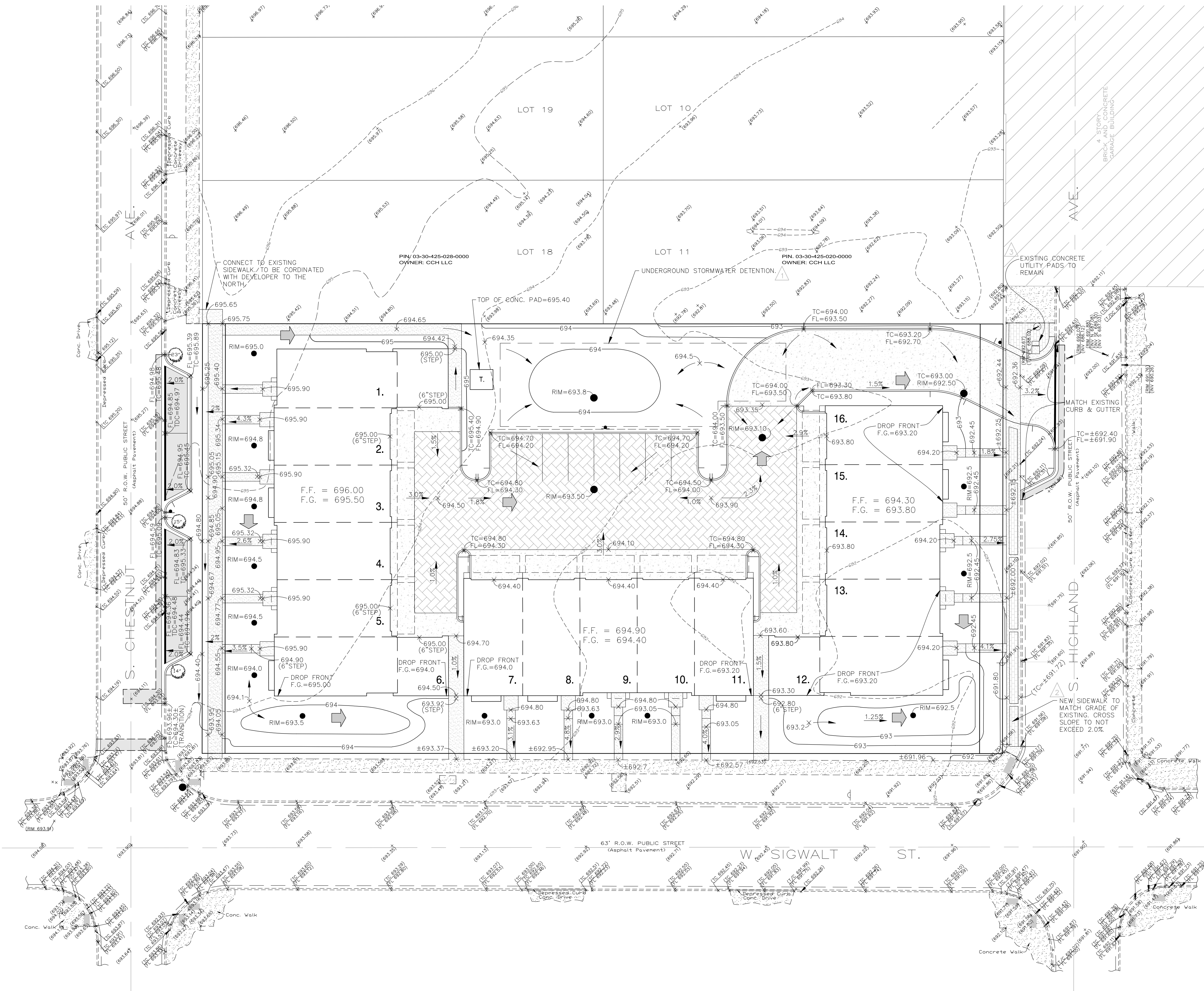
SIGWALT 16
ARLINGTON HEIGHTS, ILLINOIS
SOIL EROSION AND SEDIMENT CONTROL (SESC) PLAN

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PROJECT NO. 42905219
DATE 04/12/19
SCALE 1"=30'
PROJ. MGR. RWG
PROJ. ASSOC. MRM
DRAWN BY TLM

SHEET
5 OF 10



GRADING LEGEND

	EXISTING	PROPOSED
CONCRETE HEADWALL	—	—
PRECAST FLARED END SECTION	—	—
STORM DRAINAGE STRUCTURE	—	—
RETAINING WALL	—	—
CONTOUR	—	—
5' CONTOUR	—	—
SPOT ELEVATION	—	—
DIRECTION OF SURFACE FLOW	—	—
DITCH OR SWALE	—	—
OVERFLOW RELIEF ROUTING	—	—
SLOPE BANK	—	—
RR-3 ROCK RIP-RAP	—	—

GRADING NOTES:

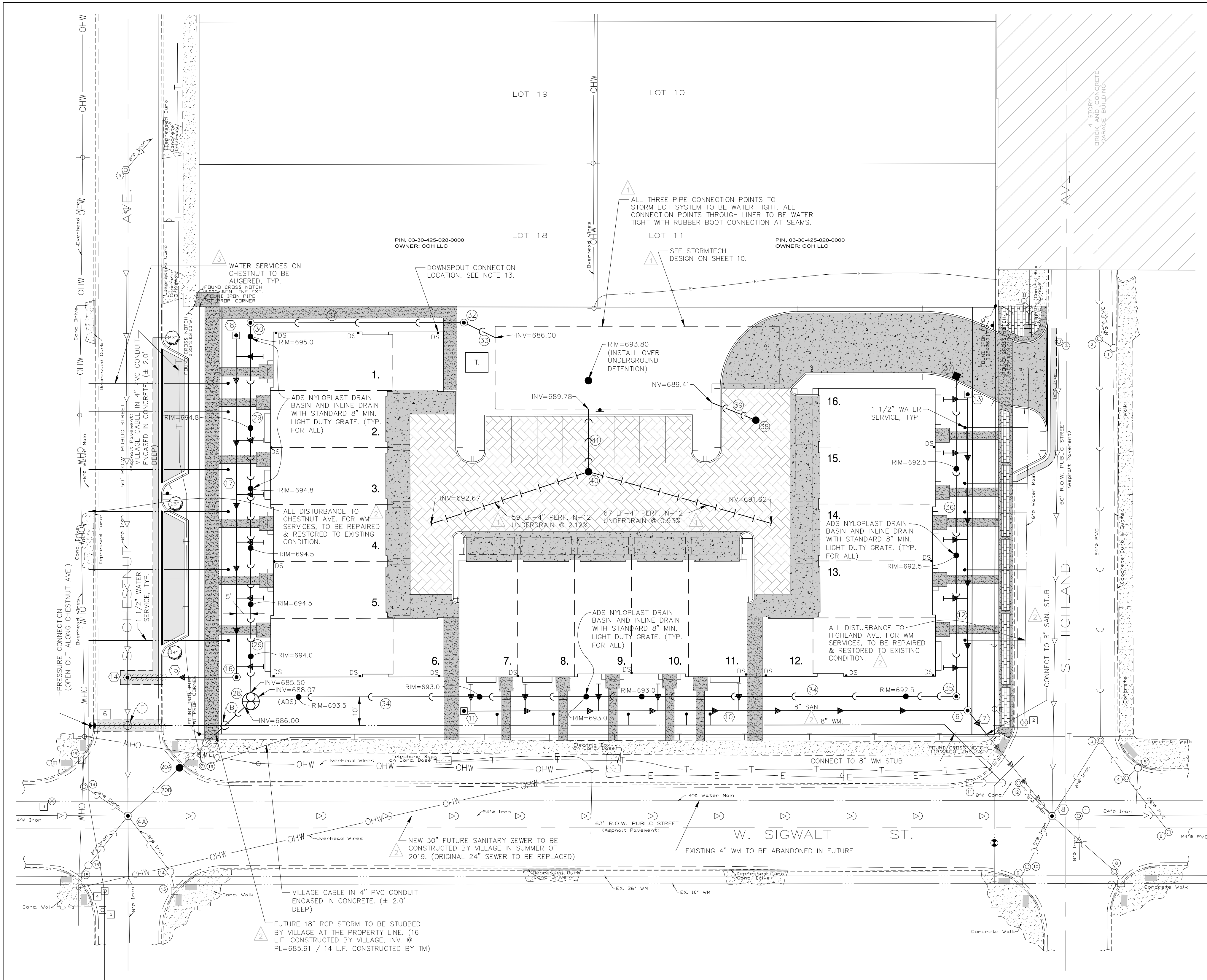
- PAVEMENT SLOPES WITHIN HANDICAP ACCESSIBLE PARKING AREAS SHALL NOT EXCEED 2.00% IN ANY DIRECTION.
- HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A CROSS SLOPE NOT TO EXCEED 2.00%.
- UNLESS SPECIFICALLY INDICATED OTHERWISE, EXISTING GRADES ARE TO BE MET AT PROJECT PERIMETER LINES.
- THE CONTRACTOR SHALL REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLANS AND DETAILS (AND SWPPP DOCUMENTS IF APPLICABLE) FOR THE INSTALLATION OF EROSION CONTROL MEASURES PRIOR TO BEGINNING GRADING OPERATIONS.
- UNLESS OTHERWISE NOTED, SPOT ELEVATIONS AND PROPOSED CONTOURS REFLECT THE FINISHED PAVEMENT SURFACE GRADE, TOP OF CURB GRADE, OR FINISHED GROUND ELEVATION AS APPLICABLE.
- RIM GRADES FOR DRAINAGE STRUCTURES REFLECT THE FLOW LINE ELEVATION OF THE GUTTER, PAVEMENT OR DRAINAGE SWALE (AS APPLICABLE).
- WHEREVER THE DESIGN FOR SURFACE FLOW OF DRAINAGE IS DIRECTED AWAY FROM A CURB, THE CONTRACTOR SHALL INSTALL REVERSE GUTTER PITCH.
- ALL STEPS 7" UNLESS CALLED OUT OTHERWISE.

SIGWALT 16
ARLINGTON HEIGHTS, ILLINOIS
GRADING PLAN

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PROJECT NO. 42905219
DATE 04/12/19
SCALE 1"=20'
PROJ. MGR. RWG
PROJ. ASSOC. MRM
DRAWN BY TLM

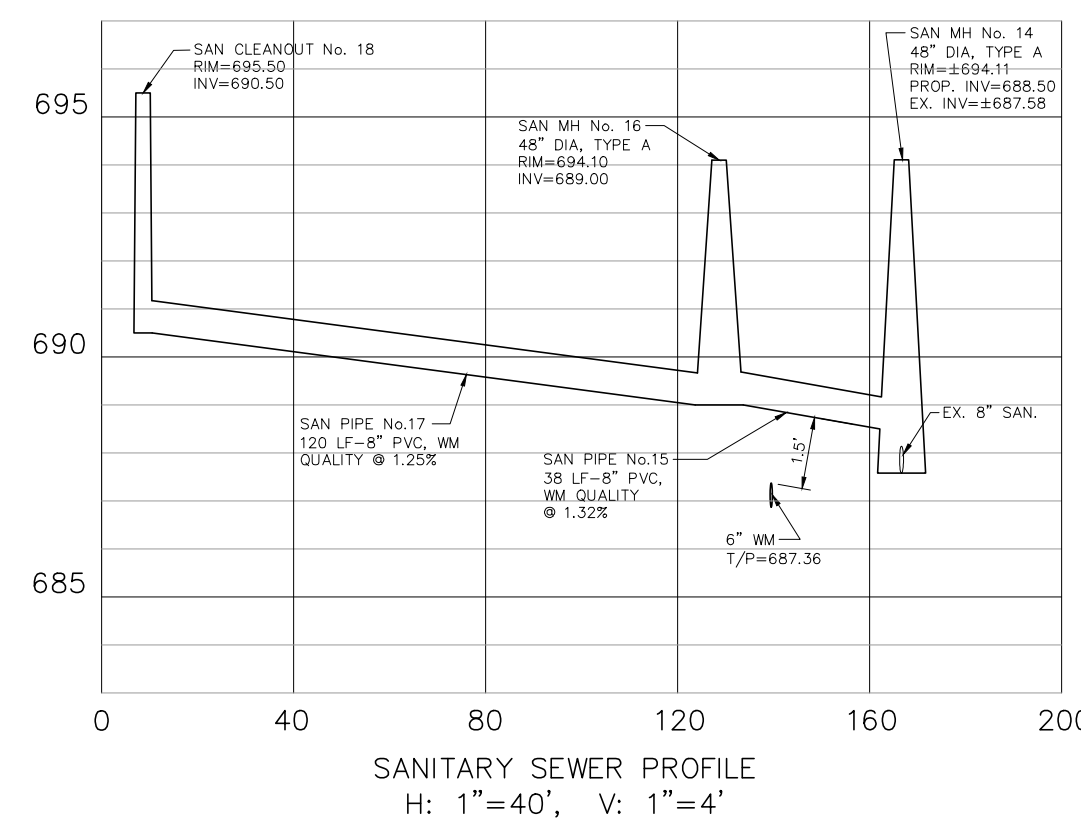
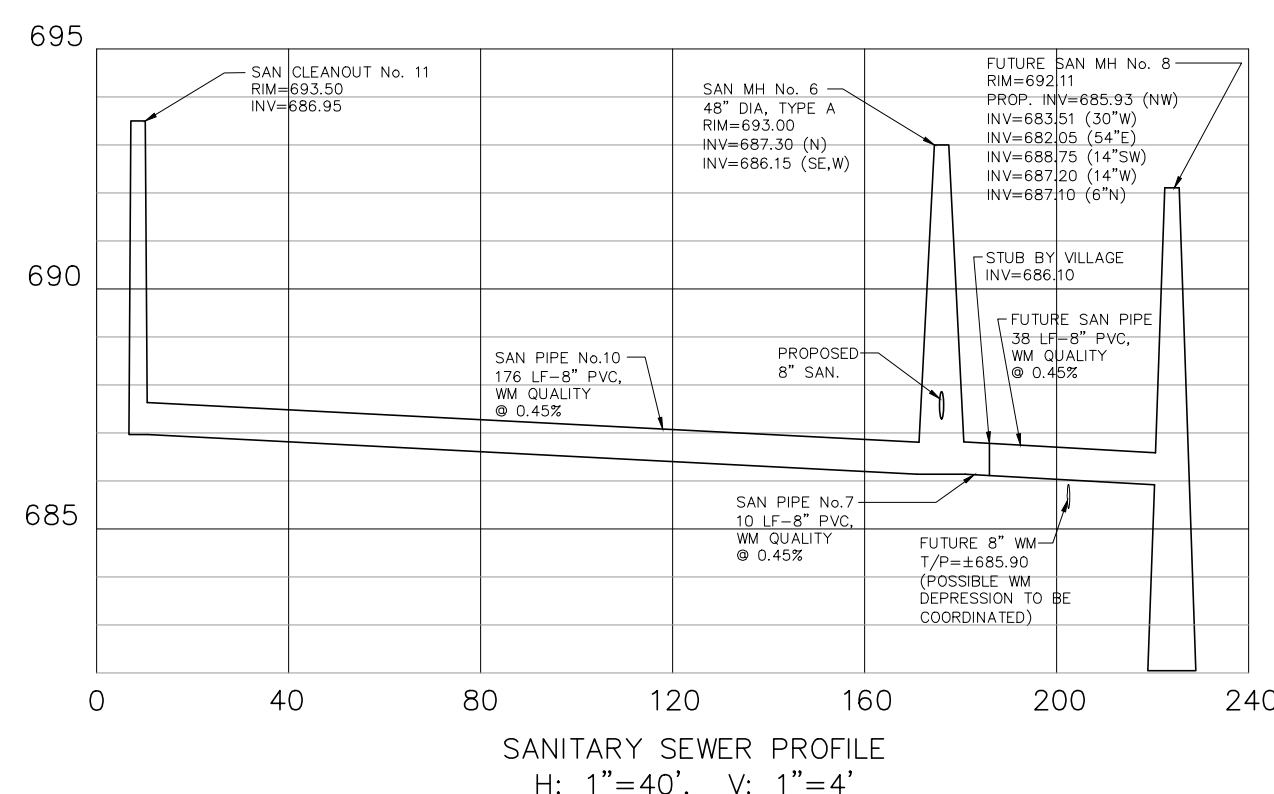
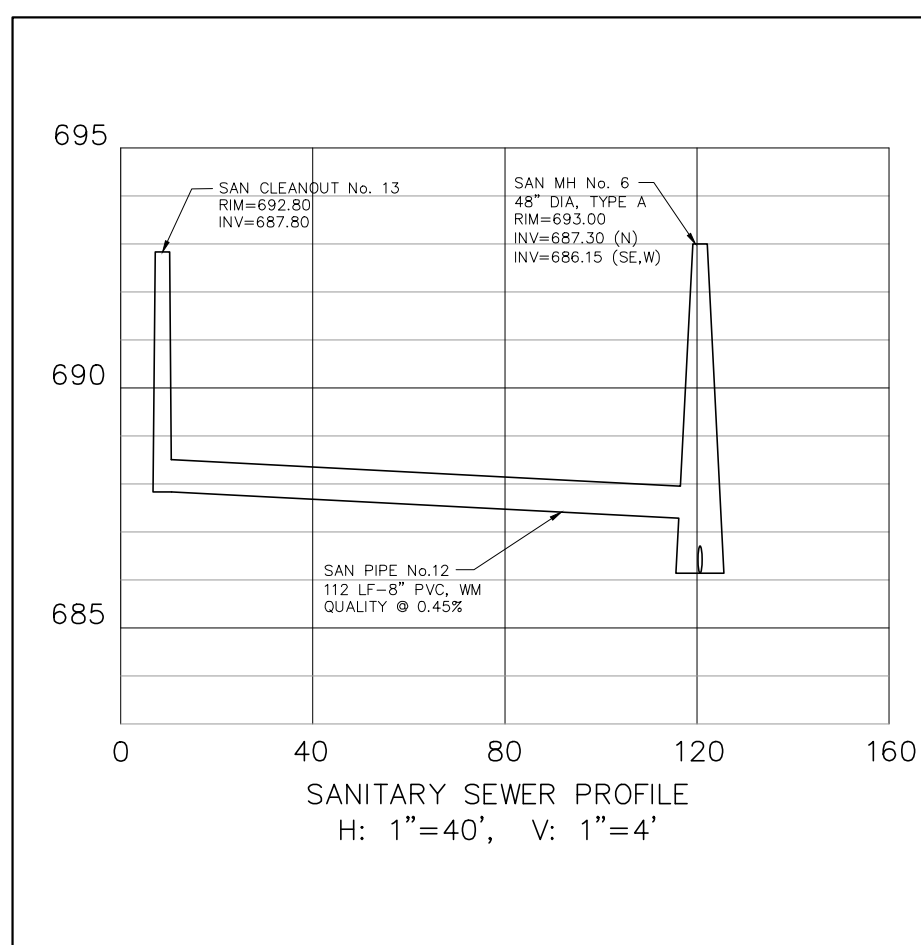


UTILITY NOTES:

- RIM GRADES FOR DRAINAGE STRUCTURES REFLECT THE FLOW LINE ELEVATIONS OF THE GUTTER, PAVEMENT, OR DRAINAGE SWALE (AS APPLICABLE).
- UNLESS OTHERWISE NOTED, ALL UTILITY DIMENSIONS ARE CENTER TO CENTER OF STRUCTURES (OR TO END OF FLARED END SECTION INCLUDING LENGTH OF FLARED END SECTION).
- THE CONTRACTOR SHALL ADJUST RIM ELEVATIONS OF ALL EXISTING STRUCTURES TO THE PROPOSED GRADES AS INDICATED ON THE PLANS.
- CONNECTIONS TO EXISTING SEWERS OR WATERMANS (OR EXISTING SERVICE STUDIES) AT POINTS OTHER THAN VISIBLE STRUCTURES ARE APPROXIMATE. THE CONTRACTOR SHALL EXCAVATE AND VERIFY EXISTING SEWER OR WATERMAN LOCATIONS, SIZES, ELEVATIONS, AND PIPE CONDITIONS AT PROPOSED CONNECTION POINTS PRIOR TO CONSTRUCTING UTILITY EXTENSIONS, AND NOTIFY THE ENGINEER AND OWNER OF ANY CONFLICT OR DISCREPANCIES.
- EXISTING UNDERGROUND PIPE, CONDUIT AND/OR CABLES (LIGHTING, ELECTRIC, GAS, CABLE, ETC) ARE SHOWN FROM RECORD INFORMATION AND ARE APPROXIMATE IN NATURE. THE CONTRACTOR SHALL VERIFY EXACT LOCATION IN THE FIELD AND NOTIFY THE ENGINEER AND OWNER OF ANY CONFLICT.
- SELECT GRANULAR TRENCH BACKFILL IS REQUIRED FOR ALL UTILITY TRENCHES UNDER EXISTING OR PROPOSED PAVEMENT, DRIVEWAYS, PARKING LOTS, AND SIDEWALKS, AND EXTENDED A MINIMUM OF 2' EACH SIDE OF SAME. GRANULAR TRENCH BACKFILL SHALL BE COMPACTED IN PLACE IN ACCORDANCE WITH THE SPECIFICATIONS.
- BUILDING DIMENSIONS AND ADJACENT UTILITY SERVICE LOCATIONS HAVE BEEN PREPARED BASED UPON ARCHITECTURAL INFORMATION CURRENT AT THE TIME OF DRAWING PREPARATION. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. THE CONTRACTOR SHALL REFER TO THE CURRENT ARCHITECTURAL PLANS FIRST, FOR PRECISE BUILDING DIMENSIONS AND UTILITY SERVICE CONNECTION LOCATIONS AND NOTIFY THE ENGINEER AND ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- ROUTING OF GAS, ELECTRIC, TELEPHONE AND OTHER CABLE SERVICES (IF SHOWN) ARE APPROXIMATE AND SUBJECT TO MODIFICATION BY THE RESPECTIVE UTILITY COMPANY AND/OR DEVELOPER. THE CONTRACTOR SHALL COORDINATE THE FINAL UTILITY SERVICE LOCATION WITH EACH UTILITY COMPANY PRIOR TO CONSTRUCTION.
- ALL METHODS OF CONSTRUCTION AND MATERIALS MUST CONFORM TO THE MOST RECENT VERSION (DATED PRIOR TO THE APPROVAL DATE OF THIS PLAN SET) OF "A MANUAL OF PRACTICE FOR THE DESIGN OF PUBLIC AND PRIVATE IMPROVEMENTS" AS PUBLISHED BY THE VILLAGE OF ARLINGTON HEIGHTS ENGINEERING DEPARTMENT.
- THE WATERMAIN SHOULD BE ZINC COATED D.I.P. AND SHOULD BE WRAPPED IN "V-BIO" POLY ETHYLENE WRAPPING.
- ALL WATERMAIN QUALITY PIPE SHALL BE:
 - IF RCP: USE ASTM C443 JOINTS
 - IF PVC: USE AWWA C900 WITH GASKETS MEETING ASTM F477 AND JOINTS IN COMPLIANCE WITH ASTM D3139.
- ALL SANITARY SERVICES TO BE 6" PVC SDR26 SANITARY PIPE, UNLESS OTHERWISE NOTED.
- ALL DOWNSPOUT LOCATIONS SHOWN ARE TO BE DIRECTLY CONNECTED TO ADS STORM SEWER SYSTEM. DOWNSPOUT PIPE SIZE TO BE 6" MIN. DOWNSPOUT LOCATIONS AT BACK GARAGES OF UNITS (NOT SHOWN ON PLAN) ALL SPLASH TO GRADE.
- ALL ADS N-12 HDPE STORM SEWER PIPE TO BE WATER TIGHT (WT) OPTION WITH ASTM D3212 JOINTS.

UTILITY CROSSING SCHEDULE

CROSSING	SIZE (IN.)	MATERIAL	UTILITY	BOTTOM OF PIPE	TOP OF PIPE	CLEARANCE
(B)	18"	RCP	STM	685.94	684.44	1.50' DEPRESS WM
	8"	DIP	WM	685.94	684.44	1.50' DEPRESS WM
(F)	8"	IRON PIPE	EX. SAN	687.45	685.95	1.50' DEPRESS WM
	8"	DIP	WM	687.45	685.95	1.50' DEPRESS WM



UTILITY STRUCTURE SCHEDULE		
SANITARY SEWER STRUCTURES		
1 EX SAN M.H. RIM= 691.91 INV= 684.56 (8" S) INV= 684.26 (24" W) INV= 684.21 (24" E)	2 EX SAN M.H. RIM= 691.94 INV= 686.99 (8" NE) INV= 687.04 (8" SE) INV= 688.49 (8" SW) INV= 686.84 (8" NW) INV= 684.39 (24" W) INV= 684.29 (24" E)	3 EX SAN M.H. RIM= 692.02 INV= 686.12 (12" S)
4 EX SAN M.H. (OLD) RIM= 693.95 INV= 689.85 (8" SE) INV= 685.75 (8" S) INV= 689.13 (8" SW) INV= 689.55 (8" NW) INV= 687.25 (8" N) INV= 690.00 (8" NE) INV= 685.60 (24" W) INV= 685.40 (24" E)	4A FUTURE SAN M.H. 30" INV= 684.00 (E, W) 21" INV= 685.67 (NE) 14" INV= 688.90 (N) 14" INV= 689.70 (SW) 14" INV= 688.90 (SE)	5 EX SAN M.H. RIM= 695.21 INV= 690.76 (8" NE) INV= 688.73 (8" S)
6 SAN M.H. 48" DIA. TYP. A RIM= 693.00 INV= 687.30 (N) INV= 686.15 (SE, W)	7 10 LF - 8" PVC, WM QUALITY SAN @ 0.45%	8 FUTURE SAN M.H. RIM= 692.11 PROP. INV= 685.93 (NW)
9 SAN M.H. 60" DIA. TYP. A RIM= 693.95 INV= 689.85 (8" SE) EX INV= 685.29 (24" W, E)	10 176 LF - 8" PVC, WM QUALITY SAN @ 0.45%	11 SANITARY CLEANOUT RIM= 693.50 INV= 686.95
12 112 LF - 8" PVC, WM QUALITY SAN @ 0.45%	13 SANITARY CLEANOUT RIM= 692.80 INV= 687.80	14 SAN M.H. 48" DIA. TYP. A RIM= 694.11 INV= 688.50 EX INV= 687.58
15 38 LF - 8" PVC, WM QUALITY SAN @ 1.32%	16 SAN INSPECTION M.H. 48" DIA. TYP. A RIM= 694.10 INV= 688.00	
17 120 LF - 8" PVC, WM QUALITY SAN @ 1.25%	18 SANITARY CLEANOUT RIM= 695.50 INV= 690.50	
STORM SEWER STRUCTURES		
1 EX STM C.B. RIM= 691.76 INV= 690.26 (8" NW)	2 EX STM M.H. RIM= 691.88 INV= 687.08 (24" N) INV= 689.30 (8" E) INV= 687.03 (24" S)	3 EX STM M.H. RIM= 691.49 INV= 686.67 (24" SE) INV= 686.09 (8" SW) INV= 686.59 (24" N)
4 EX STM M.H. RIM= 691.33 INV= 686.73 (24" NW) INV= 686.53 (24" SE)	5 EX STM C.B. RIM= 691.07 INV= 688.97 (24" SW) INV= 688.91 (24" S)	6 EX STM M.H. RIM= 691.83 INV= 687.03 (24" E) INV= 686.83 (24" NW)
7 EX STM INLET RIM= 691.26 INV= 688.40 (8" NW)	8 EX STM M.H. RIM= 691.55 INV= 688.50 (8" SE) INV= 688.30 (8" NW)	9 EX STM INLET RIM= 691.34 INV= 688.54 (8" NE)
10 EX STM M.H. RIM= 691.53 INV= 688.51 (8" NE)	11 EX STM INLET RIM= 690.97 INV= 688.27 (8" E)	12 EX STM M.H. (OPEN LID) RIM= 691.48 INV= 688.03 (8" W, SE, N)
13 EX STM INLET RIM= 692.87 INV= 689.97 (8" N)	14 EX STM C.B. RIM= 693.24 INV= 690.04 (8" SE) INV= 689.54 (8" NW)	15 EX STM INLET RIM= 693.28 INV= 690.48 (8" NE)
16 EX STM C.B. RIM= 693.30 INV= 690.40 (8" SW) INV= 690.20 (8" NE)	17 EX STM INLET RIM= 693.30 INV= 691.05 (8" S)	18 EX STM M.H. RIM= 693.68 WATER FILLED T/WATER= 690.03
19 EX STM M.H. RIM= 693.70	20 EX STM INLET (OLD) UNABLE TO OPEN END OF PIPE SEALED	21 EX STM C.B. RIM= 691.44 UNABLE TO OPEN INV= 688.88 (8" SE)
22 EX STM C.B. RIM= 691.50 UNABLE TO OPEN INV= 688.85 (8" S)	23 EX STM C.B. RIM= 691.52 WATER FILLED T/WATER= 687.67	27 30 LF - 18" RCP STORM SEWER @ 0.67% W/ ASTM C443 JOINTS. (PORTION STUBBED BY VILLAGE)
28 SPECIAL RESTRICTOR STRUCTURE, SEE DETAIL 72" DIA. TYP. C RIM= 694.00 INV= 685.50 (N) INV= 688.07 (E) INV= 686.00 (S) *SEE CHECK VALVE DETAIL, INSTALLED ON DOWNSIDE PIPE	29 130 LF - 18" ADS N-12 HDPE STM @ 0.23%	30 STM M.H. 48" DIA., TYPE C RIM= 695.10 INV= 685.60
33 13 LF - 18" ADS N-12 HDPE STM @ 0.23%	34 245 LF - 12" ADS N-12 HDPE STM @ 0.40%	35 STM M.H. 48" DIA., TYPE C RIM= 692.75 INV= 689.05
36 113 LF - 12" ADS N-12 HDPE STM @ 0.40%	37 STM INLET 24" DIA., TYPE A RIM= 692.50 INV= 689.50	38 STM C.B. 48" DIA., TYPE C RIM= 693.10 INV= 689.60
39 19 LF - 12" ADS N-12 HDPE STM @ 1.00%	40 STM C.B. 48" DIA., TYPE C RIM= 693.50 INV= 691.00 (4" PVC SE) INV= 691.42 (4" PVC SW) INV= 690.00 (12" N)	41 22 LF - 12" ADS N-12 HDPE STM @ 1.00%
20A FUTURE STM C.B. 48" DIA., TYPE C RIM= 693.61 INV= 685.80 (18" NE) INV= 685.80 (21" SW)	20B FUTURE 25 LF - 21" RCP STORM SEWER W/ RUBBER GASKET @ 0.50%	
* NYLOPLAST DRAIN BASIN & INLINE DRAIN W/ STANDARD 8" MIN. LIGHT DUTY GRATE.		
WATERMAIN STRUCTURES		
1 EX VALVE VAULT RIM= 692.67 T/P= 688.02	2 EX WATER M.H. RIM= 691.18 WATER FILLED T/WATER= 689.18	3 EX VALVE VAULT RIM= 693.91
4 EX CLEANOUT RIM= 693.53 T/P= 688.38	5 EX CLEANOUT RIM= 693.55 T/P= 688.35	6 8" VALVE IN 60" VAULT PRESSURE CONNECTION TO EXISTING 6" WM. RIM= 693.75
7 8" VALVE IN 60" VAULT PRESSURE CONNECTION TO EXISTING 6" WM. RIM= 692.00	8 6" DUCTILE IRON WM. CL. WITH 6" SERVICE VALVE @ 2' (DOMESTIC SUPPLY LINE) RIM= 693.80	
STORM SEWER DRAINAGE STRUCTURE LEGEND		
EXISTING	PROPOSED	
□	●	STORM INLET - OPEN GRATE
○	●	STORM CATCH BASIN - OPEN GRATE
⊙	●	STORM MANHOLE - CLOSED LID
2		SANITARY STRUCTURE NUMBER
11		STORM STRUCTURE NUMBER
5		WATERMAIN STRUCTURE NUMBER

DRAWN BY

TLN

REVISIONS

DATE

1. 05/07/19

2. 05/17/19

3. 06/06/19

IN OFFICE/CLIENT REVIEW

VILLAGE REVIEW #1

VILLAGE REVIEW #2

TLN

ZRN

PROJECT NO.

DATE

SCALE

PROJ. MGR.

PROJ. ASSOC.

DRAWN BY

42905219

04/12/19

1"=20'

RWG

MRM

TLN

SHEET

7 OF 10

Engineering, LLC

975 E. 22nd St. Suite 400

Wheaton, IL 60189

630.480.7889

www.rwg-engineering.com

RWG

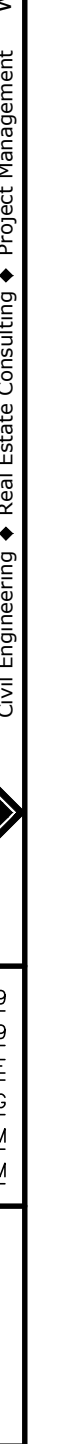
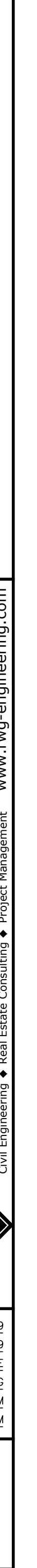
Engineering, LLC

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June 05, 2019 12:26:40 p.m. AcadVer:22.0s (LMS Tech)

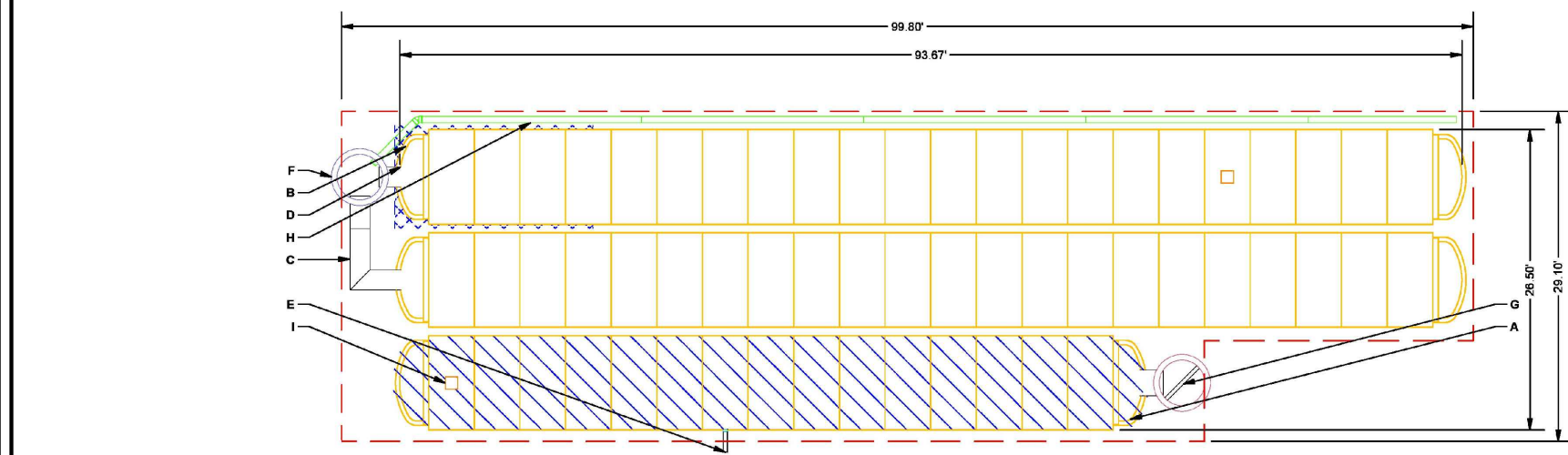
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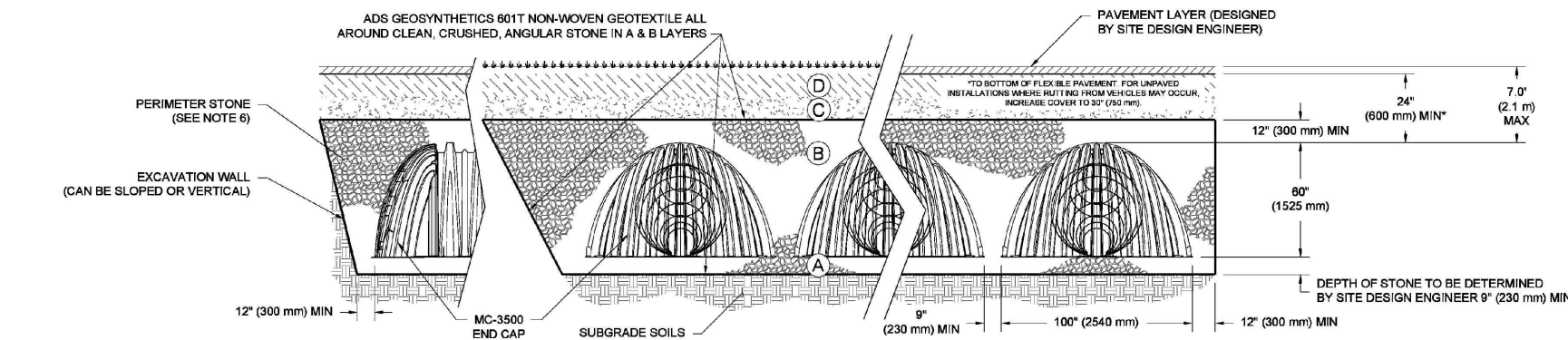
1. STORMTECH MC-4500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3000/MC-4000 CONSTRUCTION GUIDE".
2. THE USE OF EQUIPMENT OVER MC-4000 CHAMBERS IS LIMITED.
3. NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
4. NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3000/MC-4000 CONSTRUCTION GUIDE".
5. WEIGHT LIMITS FOR LOADS ON STORMTECH EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3000/MC-4000 CONSTRUCTION GUIDE".
6. FILL 30" TO 600 mm OF STABILIZED CORE MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAILER, OR DUMPING.
7. IN ORDER TO AVOID A DYNAMIC IMPACT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE WORK PRACTICE. ANY CHAMBERS DAMAGED WITH THE "DUMP AND PULL" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.
- CONTACT STORMTECH AT 1-888-856-2664 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

[illegible]

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH SHEET #7 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.

ACCEPTABLE FILL MATERIALS: STORMTECH MC-4500 CHAMBER SYSTEMS				
	MATERIAL LOCATION	DESCRIPTION	ASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL MATERIAL FOR LAYER 1 STARTS FROM THE TOP OF THE CHAMBER TO THE BOTTOM OF THE FIRST PAVEMENT LAYER. FILLING PROVIDED ABOVE MUST BE AT LEAST 12" ABOVE THE TOP OF THE CHAMBER	ANY SOLIDIFIED MATERIAL, NATIVE SOIL, OR PER ENGINEER'S AND CHECKED FILL FOR PAVEMENT SURFACE REQUIREMENTS	ASHTO M41 ¹ A-1, P-2, R-3	PREPARE PER SITE DESIGN ENGINEER'S PLANS. MINIMUM DENSIFICATION AND MAXIMUM MATERIAL COMPACTED PER INCH OF LAYER
C	INITIAL FILL MATERIAL FOR LAYER 2 STARTS FROM THE TOP OF THE SUBGRADE TO THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SURFACE MUST BE AT LEAST 12" ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SURFACE MUST BE AT LEAST 12" ABOVE THE TOP OF THE CHAMBER	GRAVELLY WELL-GRADED SUBGRADE/AGGREGATE MIXTURES - 40% FINES OR LESS (PER THE SUBMITTAL) OR MOST MOVEMENT SURFACE MATERIALS CAN BE USED IN LAYER OF THIS LAYER.	ASHTO M41 ¹ 3, 5.57, 4.40 ² , 5.5, 5.5, 5.5, 7.0, 7.0, 8.0, 8.0	BEGIN COMPACTIONS AFTER 200' MIN OF MATERIAL OVER THE CHAMBER IS PLACED. DENSIFICATION PER INCH OF LAYER MUST BE 1.0. WILL GRADED MATERIAL AND 5% RELATIVE DENSITY FOR 10% OR MORE AGGREGATE
B	EMBANKMENT STORE FILL LOCATED BETWEEN THE CHAMBERS FROM THE FOUNDATION STORE (A) 4" TO THE TOP OF LAYER 1	CLEAN, CRUSHED, ANGULAR STONE	ASHTO M41 ¹ 3.4	NO COMPACTION REQUIRED.
A	FOUNDATION STORE FILL BELOW CHAMBERS FROM THE SURGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER	CLEAN, CRUSHED, ANGULAR STONE	ASHTO M41 ¹ 3.4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE 1"

- PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M45) STONE".
 2. STORMTRENCH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
 3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTRENCH FOR COMPACTION REQUIREMENTS.

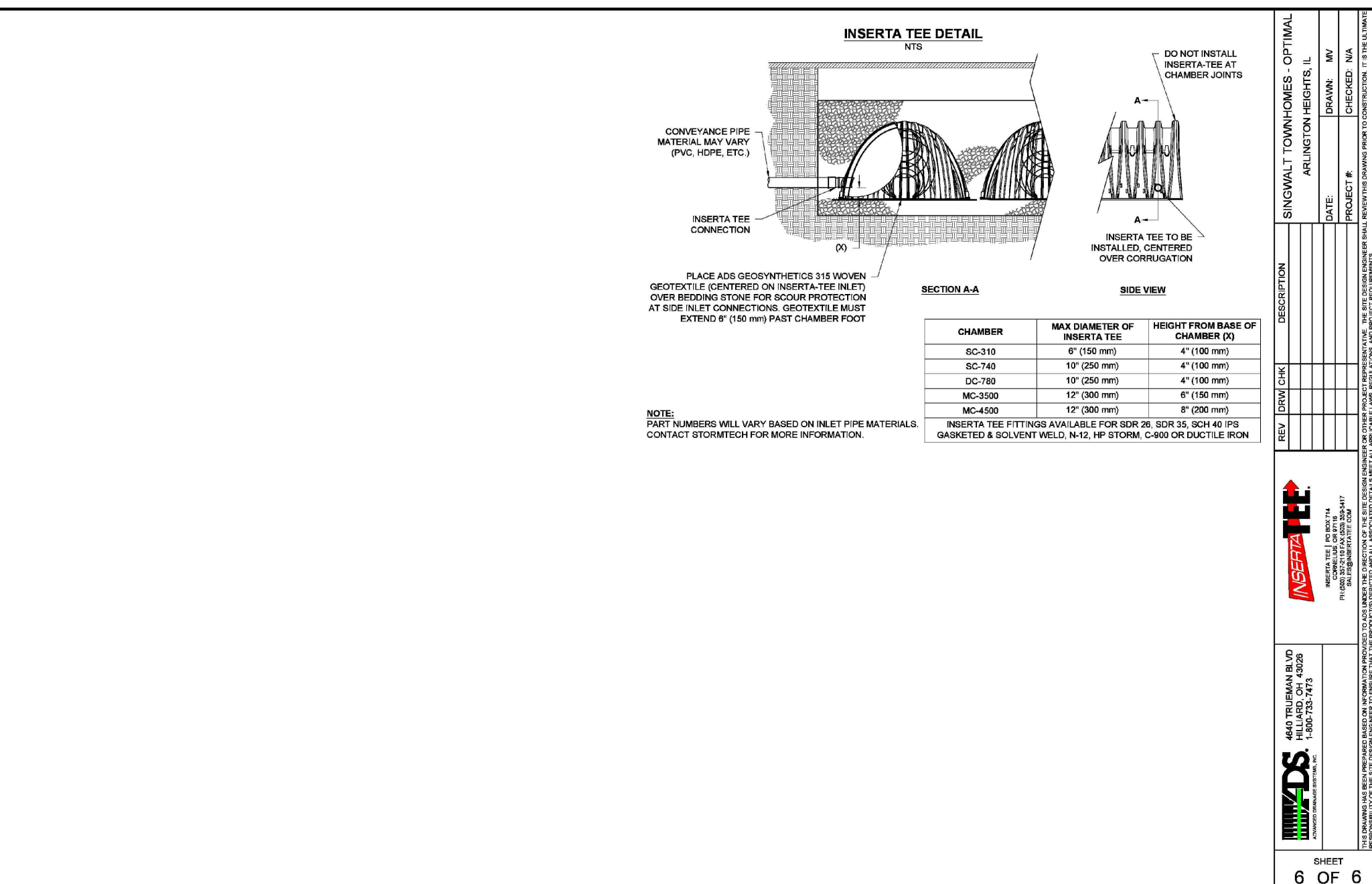
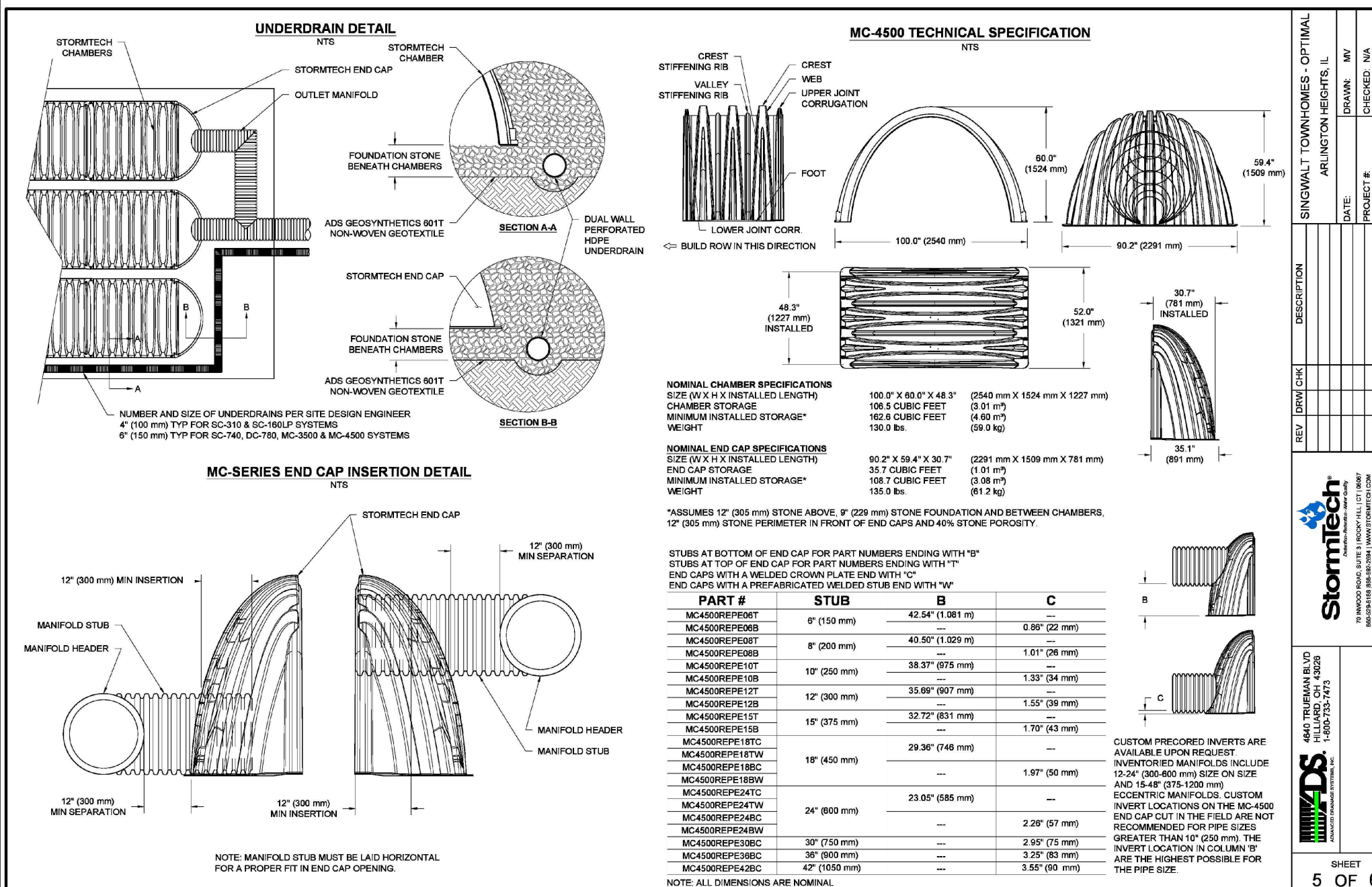
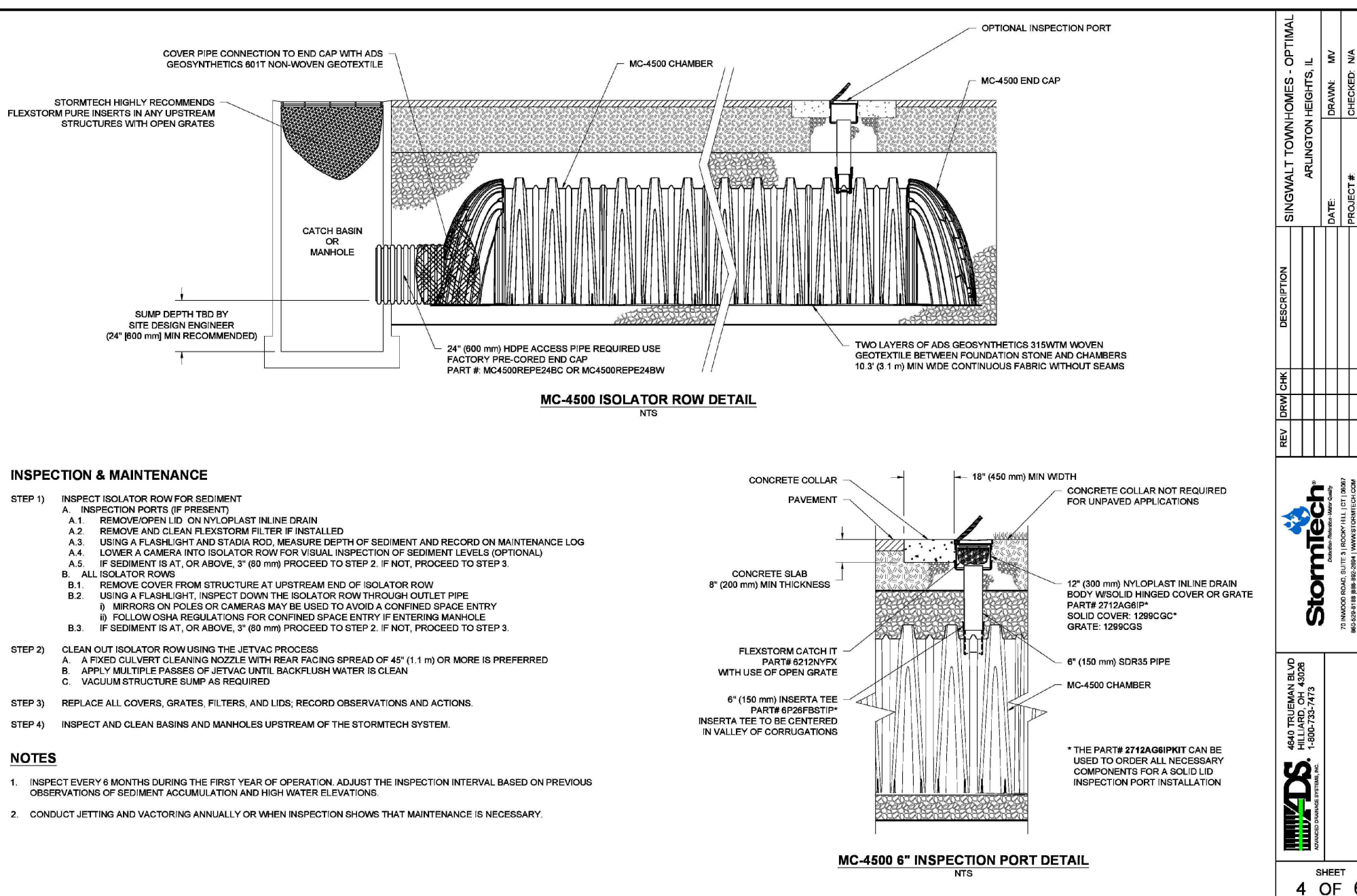


1. MC-6050 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2197 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL, STORMWATER COLLECTION CHAMBERS".
2. MC-6050 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH A618 F278 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. ACCEPTABLE FILL MATERIALS SHALL ABOVE PROVIDES MATERIAL, LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, FILLMENT, AND FILL MATERIALS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND ASSASSINATING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND AGENCIES OF THE STATE OF TEXAS WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
5. ONCE LAYER 2 IS PLACED, ANY SOLID MATERIAL CAN BE PLACED IN LAYER 1 UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOLLS CAN BE USED TO REPLACE THE MATERIAL. REQUIREMENTS OF LAYER 1 OR 2 AT THE SITE DESIGN ENGINEER'S DISCRETION.
6. PERMITTER SITE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FROM BOTH VERTICAL AND SLOPED EXCAVATION WALLS.

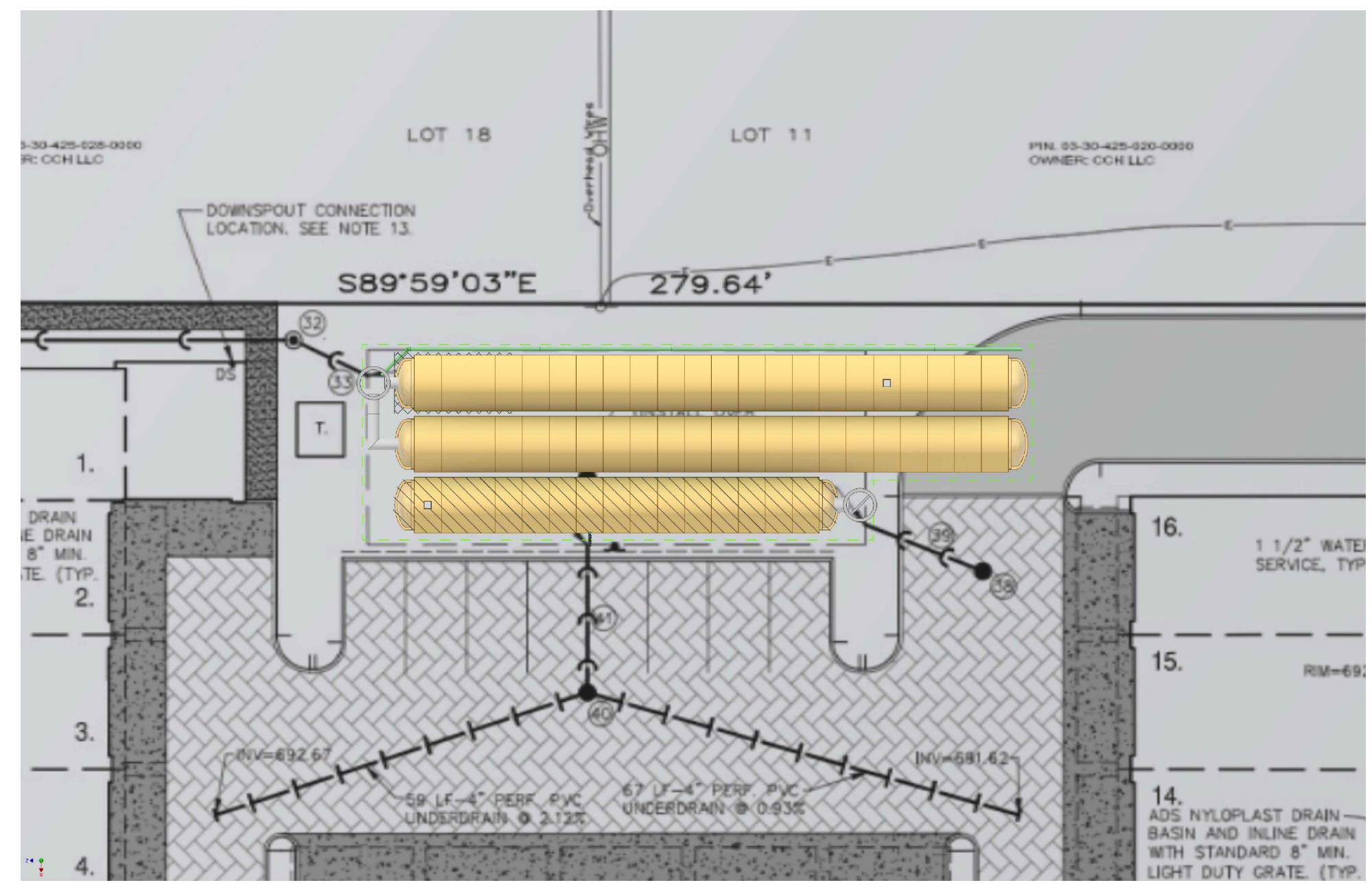
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DATE		REVISIONS	DRAWN BY
1.	05/01/19	IN OFFICE/CLIENT REVIEW	TLM
2.	05/17/19	VILLAGE REVIEW #1	TLM
	06/06/19	VILLAGE REVIEW #2	ZRN

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Arlington Heights, IL 60189
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DESCRIPTION	BLACK 36 X 36 COUNT PER INCH	
FABRICATION & WAREHOUSE	PRINEVILLE, OREGON	
WEIGHT	18.5 OZ./SQ.YD. (+/-5%)	ASTM D751
THICKNESS	40 MIL (+/-10%)	ASTM D177
COATING THICKNESS	2.5 MIL EACH (+/-5%)	
TENSILE STRENGTH (GRAB METHOD)	MD 6800S. TD 6800LBS.	ASTM D503
(STRIP METHOD)	MD 460 LBS. TD 4600LBS.	ASTM D503
TEAR STRENGTH (TONGUE METHOD)	MD 140 LBS. TD 135 LBS.	ASTM D588
BURSTING STRENGTH (MULLEN BURST) MVR	1300 PSI 0.31 g/m ² - 24hr (0.04 pores)	ASTM D378 ASTM E96
HYDROSTATIC RESISTANCE	685PSI	ASTM D753
PUNCTURE RESISTANCE	350 LBS	ASTM D483
CBR STATIC RESISTANCE	2356 PSI (10,461 N)	ASTM D624
LOW TEMPERATURE COLD CRACK	-85°F	ASTM D211
PERMEABILITY	<2.65 x 10 ⁻¹⁰ CM/SEC	ASTM D449
CARBON BLACK CONTENT	3.1%	ASTM D423
DIMENSIONAL STABILITY	MD -3.8% TD -1.8%	ASTM D1220
HP-OIT	3048 minutes	ASTM D588
UV RESISTANCE	>90% STRENGTH RETAINED	ASTM G-15

ALL DATA IS DRAWN FROM U.S. TESTING AND PRECISION LABORATORIES. AVAILABLE ON REQUEST.



*NOTE: STORMTECH SYSTEM TO BE WATERTIGHT. USE OF BTL LINER IS REQUIRED.

3451 SW Empire Drive, Prineville, OR 97754 | 800.280.0712 | p 541.447.0712 | f 541.447.0759 | BTLLINERS.COM

June 04, 2019 3:26:01 p.m. AcadVer:22.0s (LMS Tech
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975 E. 22nd St., Suite 400 Wheaton, IL 60189 630.480.7889 www.rwg-engineering.com	SIGWALT 16 ARLINGTON HEIGHTS, ILLINOIS CONSTRUCTION DETAILS AND STANDARDS
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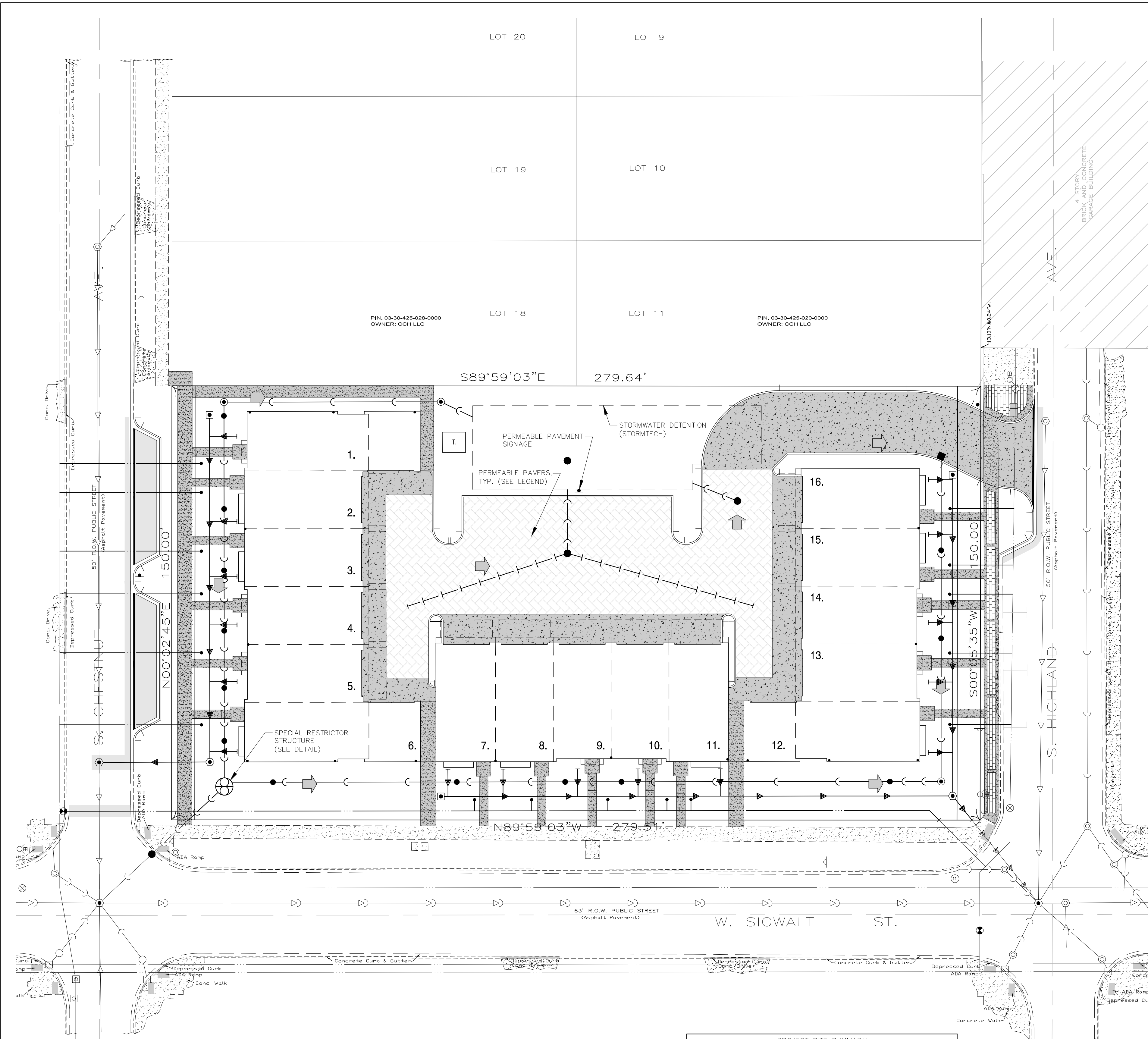
Engineering, LLC

Civil Engineering • Real Estate Consulting • Project Management

PROJECT NO. 429805219		
DATE 04/12/19		
SCALE NONE		
PROJ. MGR. RWG		
PROJ. ASSOC. MRM		
DRAWN BY TLM		

SHEET

10 OF 10



PROJECT SITE SUMMARY

PROPERTY LEGAL DESCRIPTION: SEE NOTE ON PLAN
PROPERTY ADDRESS: 45 SOUTH CHESTNUT AVENUE, ARLINGTON HEIGHTS, IL
PROPERTY INDEX NUMBER(S): SEE NOTE ON PLAN
TOTAL CONTIGUOUS OWNERSHIP: 0.908 ACRES
PROJECT AREA: 0.908 ACRES

DETENTION AND VOLUME CONTROL SUMMARY			
	EXISTING (AC-FT)	PROPOSED (AC-FT)	PROVIDED (AC-FT)
VOLUME CONTROL	0	0.0408	* 0.0652
DETENTION	0.26	0.0	0.26

* EXCESS 0.0244 AC-FT OF VOLUME CONTROL APPLIED TO VILLAGE DETENTION REQUIREMENT.

UTILITY LEGEND

	EXISTING	PROPOSED
SANITARY MANHOLE	⊙	⊙
STORM MANHOLE	⊙	⊙
CATCH BASIN	○	●
INLET	□	■
PRECAST FLARED END SECTION	▷	▷
SANITARY SEWER	—	—
STORM SEWER	—	—

SURFACE IMPROVEMENT LEGEND:

- PERMEABLE PAVERS (SEE DETAIL)
- VILLAGE STANDARD BRICK PAVEMENT (SEE DETAIL)
- CONCRETE DRIVEWAY APRONS (GARAGE ENTRY)
- 6" PCC PAVEMENT WITH 4"x4" No. 6 WELDED WIRE MESH
- 6" AGGREGATE BASE COURSE CA-6, TYPE B
- CONCRETE SIDEWALKS (PUBLIC AND/OR PRIVATE)
- 5" PCC SIDEWALK
- 4" AGGREGATE BASE COURSE TYPE B, CA-6
- EX. CURB AND GUTTER
- CURB AND GUTTER (86.12) SEE DETAIL SHEET
- REVERSED PITCH CURB AND GUTTER
- DEPRESSED CURB AND GUTTER
- ADA CURB RAMP WITH DETECTABLE WARNING

GRAPHIC SCALE
1 inch = 20 ft

RESTRICTOR IN CATCH BASIN No. 28

PERMEABLE PAVEMENT AREA
ENVIRONMENTALLY FRIENDLY PARKING LOT
BENEFITS OF THIS TECHNOLOGY INCLUDE:
* REDUCES STORMWATER RUNOFF * IMPROVES WATER QUALITY
* CLEANS AND FILTERS STORMWATER

MAINTAIN WITH CARE:
NO STORAGE OR DISPERSING OF GRANULAR MATERIALS
DO NOT SEAL COAT

TECHNICAL GUIDANCE MANUAL
TYPICAL SIGNAGE FOR PERMEABLE PAVEMENT AREA

PERMEABLE PAVER SECTION

NOTES:
1. OFFSET A MINIMUM OF 10 FEET FROM FOUNDATIONS UNLESS WATERPROOFED, 20 FEET FROM SANITARY SEWERS, 20 FEET FROM ROADWAY GRAVEL SHOULDER AND 100 FEET FROM POTABLE WATER WELLS OR SEPTIC TANKS.
2. AVOID INSTALLATION ON SLOPES GREATER THAN 1:1 AND ABOVE COMPACTED FILL.
3. WOVEN GEOTEXTILE FABRIC SHALL MEET REQUIREMENTS OF IUM MATERIAL SPECIFICATION 592 GEOTEXTILE, TABLE 1, CLASS 1, WITH AN APPARENT OPENING SIZE OF 0.50 MM.
4. STONE STORAGE OPTIONS ARE CA-7, DISTRICT VULCAN MIX, OR APPROVED ALTERNATE, NO RECYCLED MATERIALS.
5. MINIMUM DISTANCE OF 2 FEET (3.5 FEET IN COMBINED SEWER AREAS) BETWEEN BOTTOM OF BMP AND SEASONALLY HIGH GROUNDWATER LEVEL.
6. UNDERDRAINS ARE REQUIRED IN TYPICAL CLAYEY SOILS WHERE INFILTRATION RATES ARE LESS THAN 0.5 INCH/HOUR. MAXIMUM OF 1 UNDERDRAIN PER 30 FEET. PROVIDE A SOIL REPORT DOCUMENTING NATIVE INFILTRATION RATE TO FOREGO UNDERDRAINS.
7. MINIMUM UNDERDRAIN BEDDING OF TWO INCHES, MAXIMUM OF 12 INCHES.
8. ONE OBSERVATION WELL REQUIRED PER 40,000 SQUARE FEET OF SURFACE AREA.
9. FOLLOW THE REQUIRED PRETREATMENT MEASURES LISTED ON THE VOLUME CONTROL PRETREATMENT MEASURES DETAIL.
10. MAINTENANCE REQUIREMENTS INCLUDE ANNUAL VACUUMING AND LOW-PRESSURE POWER WASHING OF PAVEMENT SURFACE. ADJACENT VEGETATED AREAS SHALL BE WELL-MAINTAINED. BARE SPOTS AND ERODED AREAS SHALL BE REPLANTED AND STABILIZED IMMEDIATELY. DO NOT SEAL COAT.
11. APPROPRIATE SIGNAGE REQUIRED FOR FACILITY, REFER TO THE SIGNAGE FOR PERMEABLE PAVEMENT DETAIL.

SITE DATA:
EXISTING ZONING: VC-PD (VILLAGE CENTER - PLANNED DEVELOPMENT)
TOTAL PROPERTY SIZE BEFORE DEDICATED ROW= 41,939 S.F. (0.963 AC)
TOTAL PROPERTY SIZE AFTER DEDICATED ROW= 39,539 S.F. (0.908 AC)

PROPOSED SITE CONDITIONS:
IMPERVIOUS:
PROPOSED BUILDING IMPERVIOUS FOOTPRINT = 14,356 S.F.
SIDEWALK/CURB/PAVED AREAS = 7,000 S.F.
TOTAL IMPERVIOUS AREA = 21,356 S.F. (54%)
PERVIOUS:
PERMEABLE PAVEMENT AREA = 5,920 S.F.
PROPOSED GREENSPACE = 12,263 S.F.
TOTAL PERVIOUS AREA = 18,183 S.F. (46%)

PROPOSED PARKING SUMMARY: (ONSITE AND ADJACENT ROW)
REGULAR STALLS (ON-SITE) = 8
REGULAR STALLS (ADJACENT ROW) = 3
TOTAL STALLS PROVIDED = 11

MAINTENANCE PLAN
THE OWNER OF THE SIGWALT 16, 550 ARLINGTON, LLC WITH FACILITIES AS SHOWN ON THIS EXHIBIT (EXHIBIT R), SHALL ASSUME RESPONSIBILITY FOR THE FOLLOWING PERPETUAL MAINTENANCE ACTIVITIES:

1. General
Regular inspections and routine maintenance of general areas shall be performed on a monthly or as-needed basis. Specific items of concern include:
Litter and debris shall be controlled
Landscaped areas shall be maintained with regular mowing and restored with appropriate seeding/vegetation as necessary
Accumulated sediment shall be disposed of properly, along with any wastes generated during maintenance operations
Riprap areas shall be repaired with the addition of new riprap, as necessary, of similar size and shape
Roads shall be swept, vacuumed and/or washed on a regular basis

2. Stormwater Management Facilities
All components of the stormwater management facilities shall be checked monthly between March and November and maintained as necessary to ensure proper performance. It is critical that all inlets and outflows to the detention facility are clean and performing as designed. In addition, the design volume of the detention facility shall also be maintained. Inspections for the following specific items should be conducted monthly between March and November:
Side Slopes/Embankment/Emergency Overflow Structure
Inspect embankments for settlement and erosion
Remove woody growth from the embankment
Any breaks, hire Registered Professional Engineer for design resolution
Seed and sod any eroded areas
Signs of piping (leakage) or seepage, repair
Stabilize emergency overflow structure if erosion observed
Remove obstructions blocking emergency overflow spillway

Vegetated Areas
Regular mowing to control vegetation, no cutting of native vegetation
Need for planting, reseeding or sodding. Supplement alternative native vegetation if a significant portion has not established (50% of the surface area).
Reseed with alternative grass species if original grass cover has not successfully established
Evidence of grazing, motorbikes or other vehicles, repair
Check for invasive vegetation, remove where possible
All vegetation must be maintained per the approved planting plan

Outlet Control Structure
Inspect restrictor and remove debris if clogged or discharge reduced
Remove accumulated sediment at outlet
Scour and erosion at outlet, repair and reseed
Any ice damage to outlet of pipe, repair if necessary
Condition of trash racks, remove debris
Outlet channel conditions downstream

Access for Maintenance Equipment
Remove any obstructions placed in maintenance easements

Safety Features
Access controls to hazardous areas
Fences
Loose or damaged posts
Loose or broken wires
Condition of gates
Signs

Detention Volume
Inspect all stormwater detention facilities to ensure that the constructed volume for detention is maintained. No sediment, topsoil, or other dumping into the facility shall be allowed. Specific locations in the stormwater management system, designed to accumulate sediment, shall be dredged as necessary to prevent sediment from reaching the invert of any gravity outlet pipe.

3. Volume Control Facility
Routine inspections and maintenance of volume control facilities shall be performed by the Owner on a yearly or as-needed basis. Specific items of concern include:
Facility shall be inspected yearly using the monitoring well to verify the system is functioning properly.
Surface of permeable pavement shall be cleaned with low-pressure power washer.
Accumulated sediment from surface shall be vacuumed out and disposed of properly.
Appropriate signage shall be repaired if damaged or illegible.

4. Stormwater Collection System
The Owner shall perform monthly inspections of all components of the stormwater collection system. The monthly inspection shall occur between March and November and include the following specific areas of concern:
Storm Inlets/Manholes
Remove accumulated leaves and other debris from grates
Reset covers/lids on as-needed basis
Remove accumulated sediment from manhole bottom when 50% of sump is filled
Storm Sewers/Culverts
Visually inspect pipes by removing manhole lids, make repairs as necessary
Storm sewers and culverts shall be checked for siltation deposits at inlets, outlets, and within the conduit, clean out as necessary
Restore riprap at outfalls if erosion observed
Restore riprap at outfalls
Replant and reseed any eroded areas
Overland Flow Routes (Ditches/Swales)
Annual visual inspections shall be performed that verify the design capacity of the overland flow routes is maintained. The slope and cross-sectional area of the ditch/swale shall be verified during this inspection
Remove any obstructions that have been placed in the drainage path
Seed and sod any eroded areas
Restore riprap as necessary
Regrade to provide positive drainage as necessary
Regular mowing to control vegetation

5. Qualified Sewer Construction
Perform manhole inspections once every five years, make repairs as necessary.
Perform sewer inspections once every five years, make repairs as necessary.
Perform regular cleaning so that each sewer segment is cleaned once every five years.
Remove any obstructions placed in maintenance easements that may impede maintenance equipment access.

6. Stormtech Inspection and Maintenance Plan
(Step 1) Inspect Isolator row for sediment
A. Inspection ports (if present)
A.1. Remove/Open lid on nyloplast inline drain
A.2. Remove and clean flexform filter if installed
A.3. Using a flashlight and stadia rod, measure depth of sediment and record on maintenance log
A.4. Lower a camera into Isolator row for visual inspection of sediment levels (optional)
A.5. If sediment is at, or above, 3" (80 mm) proceed to step 2, if not, proceed to step 3.
(Step 2) Clean out Isolator row using the jetvac process
A. fixed culvert cleaning nozzle with rear facing spread of 45" (1.1m) or more is preferred
A. Apply multiple passes of jetvac until backflow water is clean
B. Vacuum structure sump as required
(Step 3) Replace all covers, Grates, Filters, and Lids; record observations and actions.
(Step 4) Inspect and clean basins and manholes upstream of the stormtech system.

NOTES:
1. Inspect every 6 months during the first year of operation. Adjust the inspection interval based on previous observations of sediment accumulation and high water elevations.
2. Conduct jetting and vacuuming annually or when inspection shows that maintenance is necessary.

PROJECT NO. 42905219
DATE 04/05/19
SCALE 1"=20'
PROJ. MGR. RWG
PROJ. ASSOC. MRM
DRAWN BY TLM

SHEET
1 OF 1

Engineering, LLC
Civil Engineering • Real Estate Consulting • Project Management
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Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

LEGAL DESCRIPTION:

LOTS 12, 13, 14, 15, 16 AND 17 IN BLOCK 2 IN A SUBDIVISION OF LOTS 26, 27, 28 AND 29 IN ASSESSORS SUBDIVISION OF SECTION 30, TOWNSHIP 42 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

CONTAINING 41,939 SQUARE FEET OR 0.96 ACRES, MORE OR LESS

LEGEND

- FIRE HYDRANT
- CATCH BASIN
- MANHOLE
- ⊢ SIGN
- BUFFALO BOX
- ⊞ UTILITY PEDESTAL
- ⊞ TRANSFORMER
- ⊞ LIGHT STANDARD
- ⊞ HAND HOLE
- ⊞ VALVE VAULT
- ⊞ GAS VALVE
- ⊞ SANITARY MANHOLE
- ⊞ UTILITY HANDHOLE
- OH — OVERHEAD WIRES
- CONCRETE
- BITUMINOUS PAVEMENT
- BOLLARD
- UTILITY POLE

GENERAL NOTES:

- ALL DIMENSIONS ARE GIVEN IN FEET AND DECIMAL PARTS THEREOF.
- COMPARE DEED DESCRIPTION AND SITE CONDITIONS WITH THE DATA GIVEN ON THIS PLAT AND REPORT ANY DISCREPANCIES TO THE SURVEYOR AT ONCE.
- NO DIMENSIONS SHALL BE DERIVED FROM SCALE MEASUREMENT.

P.I.N.# 03-30-425-012-0000 (LOT 17)
P.I.N.# 03-30-425-013-0000 (LOT 16)
P.I.N.# 03-30-425-014-0000 (LOT 15)
P.I.N.# 03-30-425-021-0000 (LOT 12)
P.I.N.# 03-30-425-022-0000 (LOT 13)
P.I.N.# 03-30-425-023-0000 (LOT 23)

SURVEYORS NOTES:

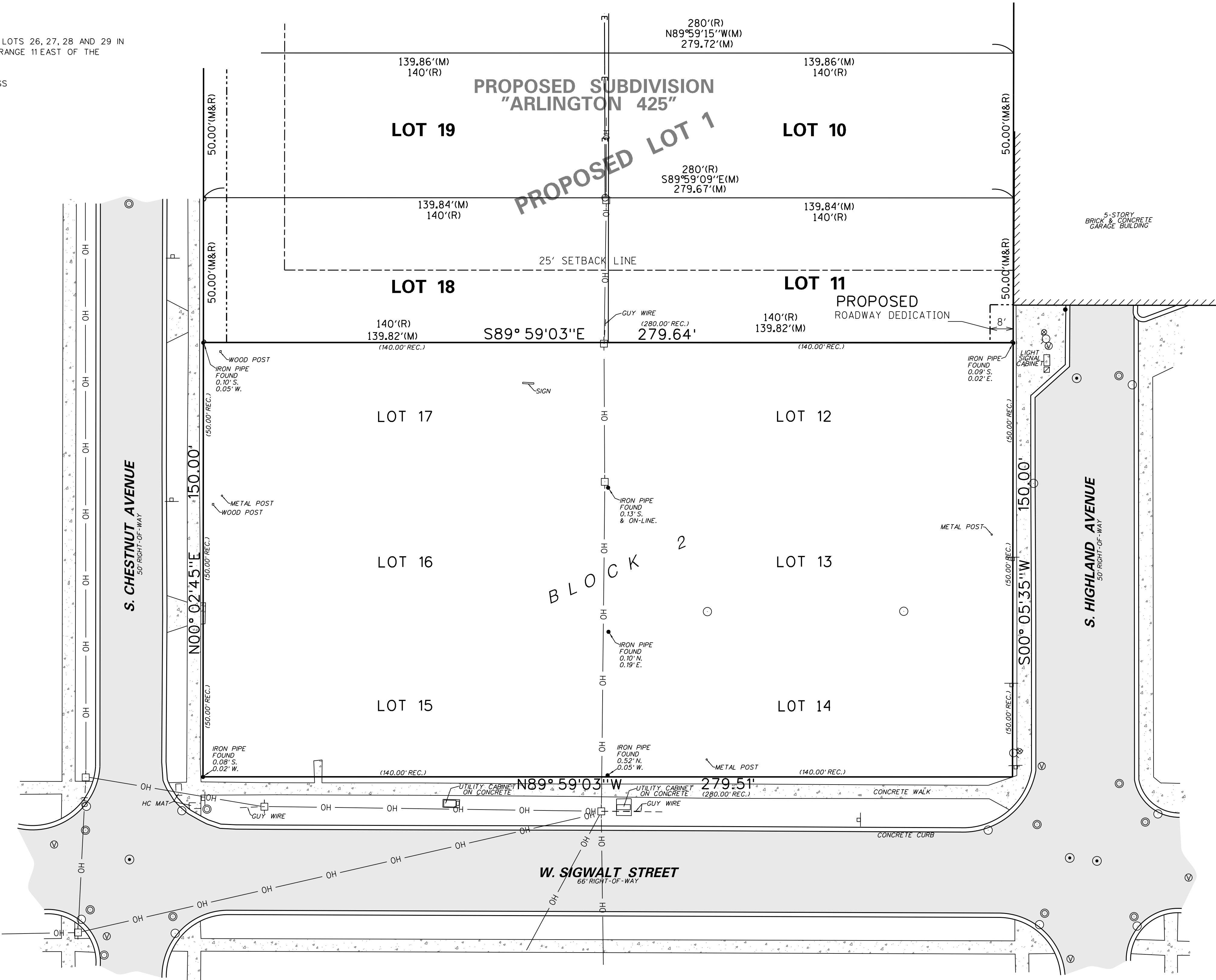
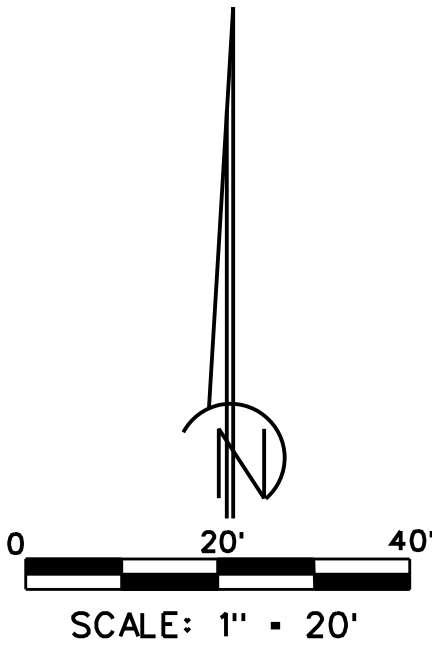
- BEARINGS BASED UPON STATE PLANE COORDINATES ILLINOIS EAST ZONE.
- FIELD WORK COMPLETED 3-7-2019
- ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA.

STATE OF ILLINOIS)
COUNTY OF COOK) SS

WE, THOMSON SURVEYING, LIMITED, ILLINOIS PROFESSIONAL DESIGN FIRM NUMBER 184-002768, DO HEREBY DECLARE THAT THE SURVEY SHOWN HEREON IS A CORRECT REPRESENTATION OF A PLAT OF SURVEY PERFORMED AT AND UNDER MY DIRECTION. GIVEN UNDER MY HAND AND SEAL THIS 11TH DAY OF MARCH A.D., 2019 AT ROSEMONT, ILLINOIS.

Walter J. Lutz

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY. WALTER J. LUTZ ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3576 MY LICENSE EXPIRES NOVEMBER 30, 2020 DESIGN FIRM LICENSE EXPIRES APRIL 30, 2021



Thomson Surveying Ltd. 9575 W. Higgins Road, Suite 850 Rosemont, IL 60018 TEL: 647.318-9790 FAX: 647.318-9792 wjl22@thomsonit-d.com	CLIENT: TAYLOR-MORRISON OF ILLINOIS, INC. 1834 WALDEN OFFICE SQUARE SUITE 300 SCHAUMBURG, ILLINOIS 60173										PROJECT NO. 5451									
											SHEET 1 OF 1									
											DRAWING NO. 5451-PLN.DGN									
	TITLE: PLAT OF SURVEY 37-45 S. CHESTNUT AVE. & 36-40 S. HIGHLAND AVE. ARLINGTON HEIGHTS, ILLINOIS																			
									DSGN.								W.J.L			
																	DMS			
																	CHKD.			
																	SCALE:		1" = 20'	
	NO.		DATE																DATE:	
																			3-11-2019	

LEGEND

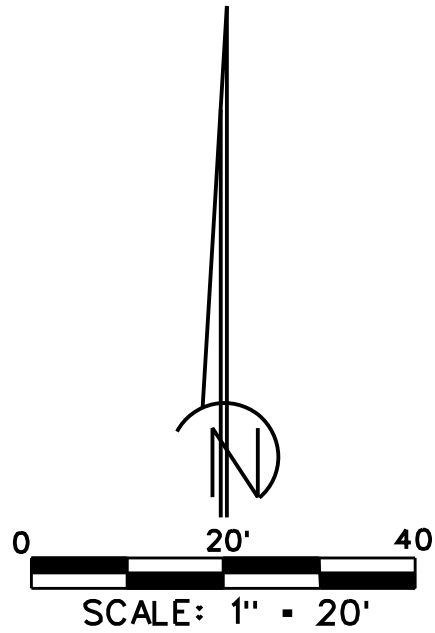
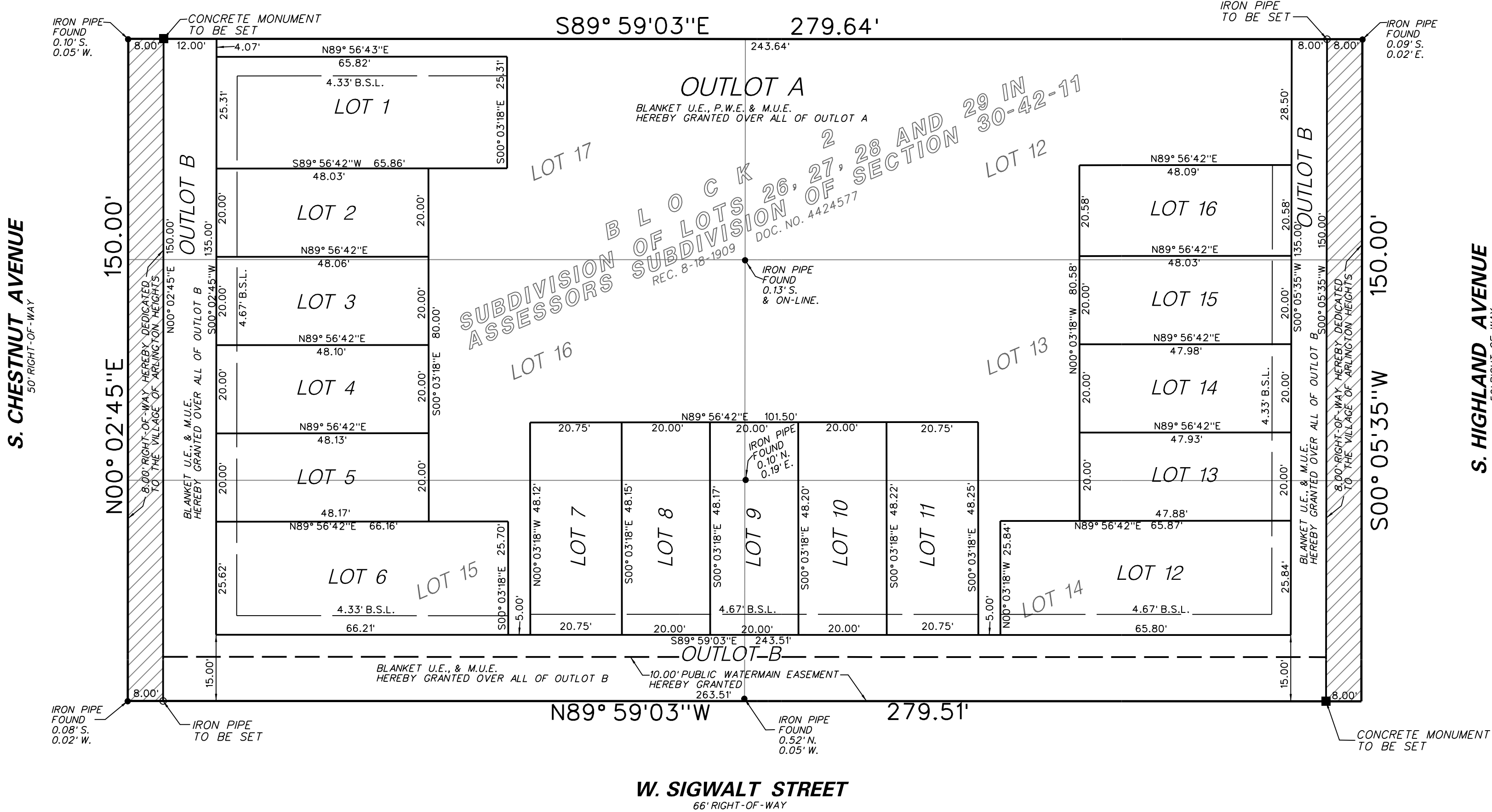
U.E. • GENERAL PUBLIC UTILITY EASEMENT
P.W.E. • PUBLIC WATERMAIN EASEMENT
M.U.E. • MUNICIPAL UTILITY EASEMENT
B.S.L. • BUILDING SETBACK LINE

FINAL PLAT OF RESUBDIVISION
SIGWALT 16 SUBDIVISION

BEING A RESUBDIVISION OF LOTS 12, 13, 14, 15, 16 AND 17 IN BLOCK 2 IN A SUBDIVISION
OF LOTS 26, 27, 28 AND 29 IN ASSESSORS SUBDIVISION OF SECTION 30, TOWNSHIP
42 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY,
ILLINOIS.

PROPOSED SUBDIVISION
"ARLINGTON 425"

AREA TABLE		
	SQ. FT.	ACRES
LOT 1	1,666	0.038
LOT 2	961	0.022
LOT 3	962	0.022
LOT 4	962	0.022
LOT 5	963	0.022
LOT 6	1,698	0.039
LOT 7	999	0.023
LOT 8	963	0.022
LOT 9	964	0.022
LOT 10	964	0.022
LOT 11	1,001	0.023
LOT 12	1,704	0.039
LOT 13	958	0.022
LOT 14	959	0.022
LOT 15	960	0.022
LOT 16	989	0.023
OUTLOT A	15,212	0.349
OUTLOT B	6,654	0.153
CHESTNUT AVE. DEDICATION	1,200	0.027
SIGWALT ST. DEDICATION	1,200	0.027
TOTAL	41,939 +/-	0.96 +/-



PROJECT NO. 5451

SHEET 1 OF 2

DRAWING NO. 5451-PLN.DGN

TITLE:

SIGWALT 16 SUBDIVISION

ARLINGTON HEIGHTS, ILLINOIS

DSGN.

DWN.

CHKD.

SCALE

DATE

2. 06-05-19

REVISED PER VILLAGE COMMENTS

1. 06-15-19

REVISED PER VILLAGE COMMENTS

NO.

DATE

NATURE OF REVISION

CLIENT:

TAYLOR MORRISON OF ILLINOIS, INC.

1834 WALDEN OFFICE SQUARE

SUITE 300

SCHAUMBURG, ILLINOIS 60173

Thomson Surveying Ltd.

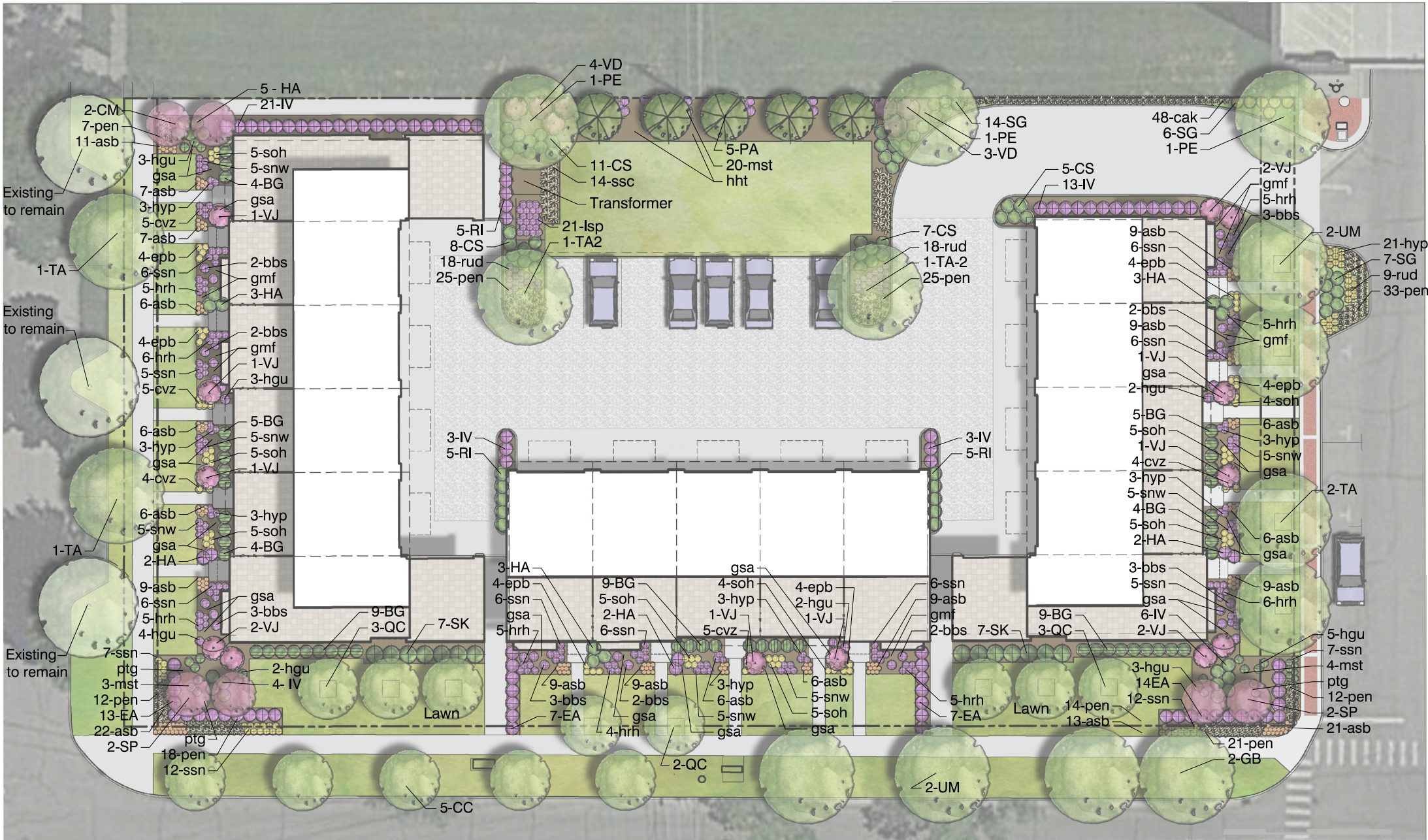
9575 W. Higgins Road, Suite 850

Skokie, IL 60076

TEL: (847) 318-9799

FAX: (847) 318-9792

wlutz@thomsonltd.com



Note: Decorative streetlights to match the Village standard will be provided along Highland, Sigwalt and Chestnut at locations to be agreed upon with the Village during building permit process.

Plant List
Trees + Ornamentals

sym	Botanic Name	Common Name	Size
CC	Carpinus caroliniana	American Hornbeam	2" BB
CM	Cornus mas 'Golden Glory'	Golden Glory C. Cherry	MS 8' ht. BB
GB	Ginkgo biloba 'Autumn Gold'	Male Ginkgo	2.5" BB
PA	Picea aibes	Norway Spruce	10' ht. BB
PE	Platanus acerifolia 'Morton Circle'	Exclamation Planetree	3" BB
QC	Quercus 'Crimschmidt'	Crimson Spire Oak	2.5" BB
SP	Syringa pekinensis 'Zhang Zhiming'	Beijing Gold Tree Lilac	MS 8' ht. BB
TA	Tilia americana 'McKSentry'	Sentry Linden	3" BB
TA2	Tilia americana 'McKSentry'	Sentry Linden	4" BB
UM	Ulmus 'Frontier'	Frontier Elm	3" BB

Shrubs

sym	Botanic Name	Common Name	Size
BG	Buxus x 'Glencoe'	Glencoe Boxwood	24" BB
CS	Cornus sanguinia 'Cato'	Arctic Sun Dogwood	3" BB
EA	Euonymus alatus 'Compactus'	Dwarf Burningbush	30" BB
HA	Hydrangea arborescens 'Annabelle'	Annabelle Hydrangea	24" BB
IV	Itea virginica 'Morton'	Morton Sweetspire	24" BB
RI	Ribes alpinum 'Green Mound'	Alpine Currant	24" BB
SG	Spiraea x bumalda 'Goldflame'	Goldflame Spiraea	18" BB
SK	Syringa 'Miss Kim'	Miss Kim Lilac	36" BB
VD	Viburnum dentatum 'Ralph Senior'	Autumn Jazz Arrowwood Vib.	4" BB
VJ	Viburnum x 'Juddii'	Judd Viburnum	4" BB

Perennials

sym	Botanic Name	Common Name	Size
asb	Allium 'Summer Beauty'	Summer Beauty Onion	#1 Cont.
bbs	Baptisia 'Blueberry Sundae'	Blueberry Sundae False Indigo	#2 Cont.
cak	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	#1 Cont.
cvz	Coreopsis verticillata 'Zagreb'	Zagreb Coreopsis	#1 Cont.
epb	Euphorbia polychroma 'Bonfire'	Cushion Spurge	#1 Cont.
gmf	Geranium sanguineum 'Max Frei'	Bloody Cranesbill	#1 Cont.
gsa	Geranium sanguineum album	White Cranesbill	#1 Cont.
hht	Hedera helix 'Thorndale'	Thorndale Ivy	9" oc 4" pots
hrh	Hemerocallis 'Red Hot Returns'	Red Hot Returns Daylily	#1 Cont.
hyp	Hemerocallis 'Yellow Punch'	Yellow Punch Daylily	#1 Cont.
hgu	Hosta 'Guacamole'	Guacamole Hosta	#1 Cont.
lsp	Liriope spicata	Creeping Lilyturf	#1 Cont.
mst	Matteuccia struthiopteris	Ostrich Fern	#1 Cont.
pen	Pennisetum alopecuroides 'Hameln'	Dwarf Fountain Grass	#1 Cont.
ptg	Pachysandra terminalis 'Green Carpet'	Green Carpet Pachysandra	9" oc 4" pots
rud	Rudbeckia x 'American Gold Rush'	Gold Rush Black-eyed Susan	#1 Cont.
snw	Salvia nemorosa 'Wesuwe'	Wesuwe Salvia	#1 Cont.
soh	Stachys officinalis 'Hummelo'	Hummelo Betony	#1 Cont.
ssn	Sedum spectabile 'Neon'	Neon Sedum	#1 Cont.
ssc	Schizachyrium scoparium 'Carousel'	Carousel Little Bluestem	#1 Cont.





Sigwalt Townhomes

Prepared for Taylor Morrison
Pricing and Absorption Analysis Report

April 2019

Metrostudy-Midwest
1275 Davis Road, Suite 115
Elgin, IL 60123

Phone: 847.812.3925
Email: dleach@metrostudy.com
Web: www.metrostudy.com



April 10th, 2019

Mr. Marc McLaughlin
Taylor Morrison
1834 Walden Office Square
Schaumburg, IL 60173

RE: Sigwalt Townhomes Pricing and Absorption Analysis Report—Arlington Heights, Illinois

Dear Mr. McLaughlin:

Metrostudy is pleased to present this abbreviated report to Taylor Morrison. We have evaluated the market potential for the proposed 16 single-family attached homes known as Sigwalt Townhomes. We have based our recommendations on the housing supply and demand in the surrounding CMA. This analysis was conducted by **Danielle Leach**, Midwest Regional Director, and **Maya Sachdeva**, Consultant.

Please contact us at your convenience with any comments or questions regarding this report, or any other matter relevant to your real estate market research needs.

Respectfully Submitted,
Metrostudy



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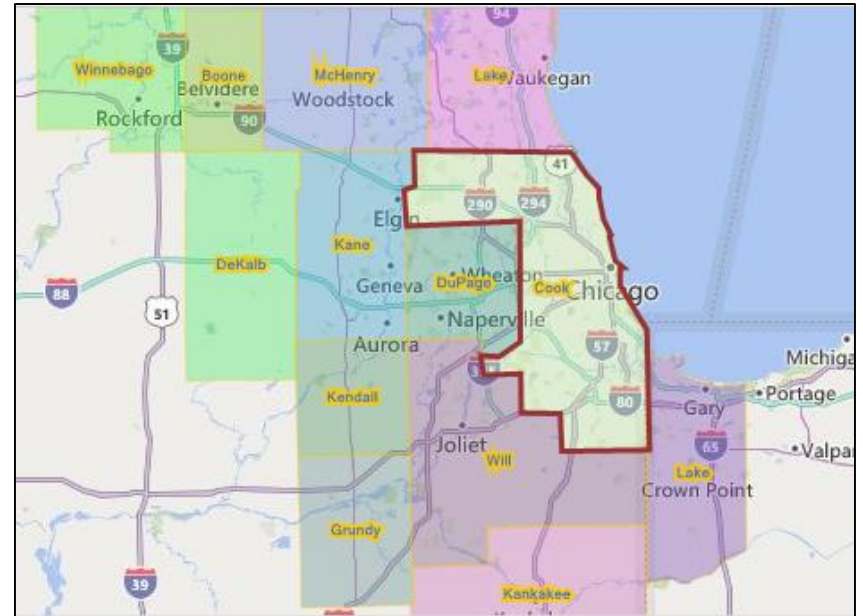
Chicago Market Forecast..... 14

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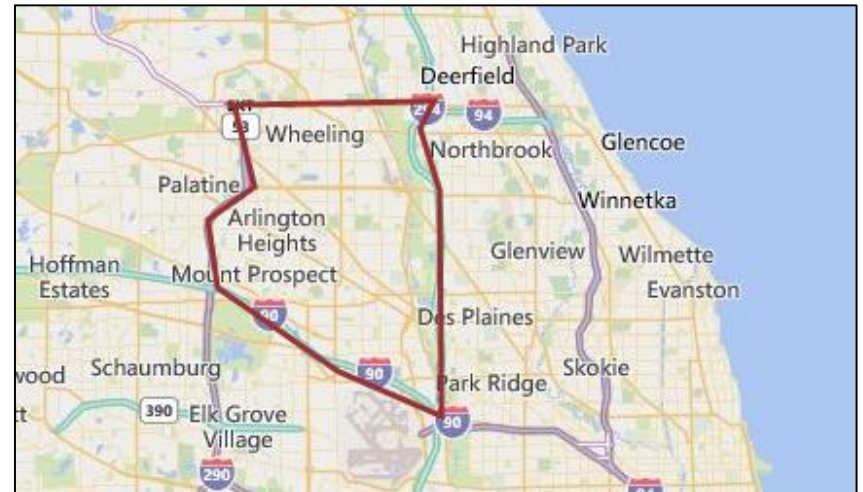
Cook County Market Map

Cook County Market: Sigwalt Townhomes is located within the larger Cook County Market.

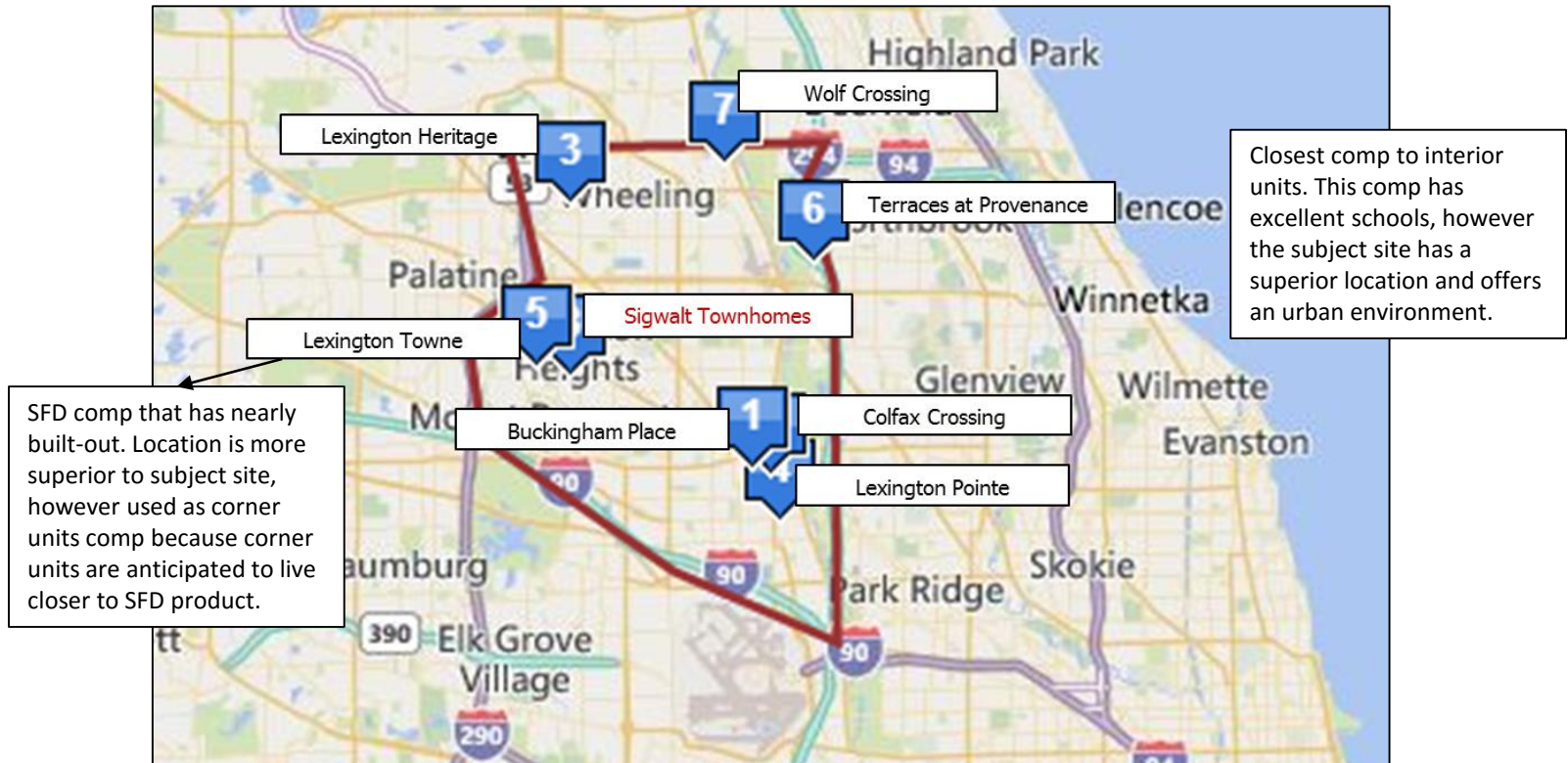


Sigwalt Townhomes CMA Map

Sigwalt Townhomes CMA: The Competitive Market Area ("CMA") has been defined to encompass a territory that includes a representative portion of the competitive new housing market in the Arlington Heights market. The boundaries are defined by major thoroughfares including 90 to the south and 53 to the west. The CMA boundary takes into account the location of other attached projects comparable to the proposed subject development, as well as other considerations such as drive time, infrastructure, high school district boundaries, and socioeconomic indicators.



Competitive Market Area. Competitive Communities



Subdivision	Active Qtr	Current Builder	Base Price	Total Lots	Ann Starts	Ann Closings	Occupied	Total Inv	VDL	Future	Built Out %
Buckingham Place	3Q17	Ryan Homes	\$311-\$329	127	46	26	26	6	77	0	20.5%
Colfax Crossing	1Q16	Taylor Morrison Homes	\$299-\$305	101	28	46	82	0	4	0	81.2%
Lexington Heritage	4Q17	Lexington Homes	\$360-\$430	47	25	9	9	9	12	0	19.1%
Lexington Pointe	3Q17	Lexington Homes	\$355-\$370	58	30	24	24	0	12	0	41.4%
Lexington Towne	4Q16	Lexington Homes	\$745-\$798	15	7	10	13	0	0	0	86.7%
Terraces at Provenance	1Q17	Red Seal Development	\$489-\$625	82	17	11	14	3	53	0	17.1%
Wolf Crossing	2Q18	D.R. Horton Homes	\$364-\$399	39	39	0	0	9	0	0	0.0%



**The proposed project has the following positive features:**

- The location off of 26 S Highland Ave is close to major thoroughfares including 90 and 294. Arlington Heights is a desirable community with local shopping, restaurants, and entertainment venues. The site is adjacent to Metropolis Performing Arts Theater, which is a notable community theater.
- Other site adjacencies include parking which is helpful for a more urban location, ranch-style single-family detached homes that appear well maintained, and a mid-rise apartment building.
- Metrostudy anticipates that Sigwalt Townhomes will appeal most to the Active Adult Feature and Location buyer as well as the Elite buyer. The AA buyer represents 16.53% of consumers in the CMA, while the Elite buyer makes up 13.83% of consumers in the CMA. Elite buyers are more likely to purchase the townhomes as they tend to have an annual household income of \$175,000 and are financially savvy, secure with investments and a 401K.
- The schools are ranked highly by Great Schools. Westgate Elementary is an 8/10, South Middle is 7/10, and Rolling Meadows is 10/10. An excellent school path is likely to see a mix of Elite consumers that have children or are recent empty-nesters seeking a walkable, lively lifestyle while downsizing.
- Attached product is dominant in the CMA. Metrostudy analyzed Lexington Towne, a single-family detached product, due to its proximity to the subject site. Lexington Towne is nearly built-out and sold at a price range between \$745,000 and \$798,000. The community is located closer to downtown Arlington Heights, however the square footage is comparable to the Sigwalt corner units and was used as the main competitor to justify that pricing. Terraces at Provenance was used as the main comparable for the interior units. Most competitive communities are anticipated to be built-out or near build-out when Sigwalt comes to market.
- Resale within the CMA is healthy. New attached product rivals resale. There have been 4,316 total resale transactions over the last year averaging \$207/SF on par with Sigwalt Townhome pricing.

Some challenges and concerns associated with the project include:

- Top employers in the area include the U.S. Government, Chicago Public Schools, City of Chicago, Cook County, and the University of Chicago. The average household income within the CMA is approximately \$95,000. A household income of at least \$120,000 is needed to qualify for a \$500,000 home. However, roughly 40% of all households make above \$120,000 within the CMA.
- Power lines run through the site and are expected to be removed and placed underground which can contribute to higher price points for the townhomes.
- Higher priced townhomes mean the community will be a margin play, with absorptions expected to be slower. For 16 units, slower absorptions are better and Metrostudy would anticipate community build-out to occur within 1 to 2 years.





Metrostudy believes Sigwalt Townhomes will have a competitive advantage in the CMA by offering new attached product in a walkable, urban market. Metrostudy suggests creating floorplans that speak to a near term empty nester buyer due to the strength of the high school. Buyers within the CMA have few new home move-up or downsizing options. Further, these buyers are better established and can afford to purchase homes north of \$500,000. These buyers are more sound consumers in the case of a housing decline. Metrostudy believes Sigwalt Townhomes should use clever marketing to primarily target empty nester buyers while modeling plans that appeal to both older and younger family buyers:

For empty nesters:

- Interior plans will be highly desirable. Open floorplans for entertaining with spacious kitchens and living rooms are necessary for this buyer. Backyard space can be limited as long as there is an option for outdoor entertaining or minimal gardening activity. The open rooftop feature qualifies as excellent outdoor space and should be merchandised to showcase outdoor living.
- Lock and leave homes with minor maintenance are ideal for these buyers. A gated community is considered an attractive amenity for lock and leave product.
- A master downstairs or a room on the ground floor is a consideration for many empty-nester buyers worrying about aging. Metrostudy would assume an empty-nester urban buyer to be okay with stairs in a home, however an elevator option is important to offer.

For a family buyer:

- Corner units provide more spacious living and could be ideal for the Elite family buyer. Metrostudy would suggest selling a few interior lots before starting a corner unit that will be a longer sell. Modeling an interior home will be important as buyers need to visualize a new product offering.
- Floorplans should include a few master down plans as well that could target both active adult and family buyers. A split dual master (one up/one down) could also be a good consideration for the area demographic. Further, most buyers will want their guests to enjoy their home which is why a dual master can be desirable especially in corner units that have more space. Guests will have their own suite preferably with a private balcony/patio, inside sitting area, and a nice private bath. Fundamentally, a room closer or on the ground floor should be considered in addition to rooms for children on a higher floor so families can see themselves growing with the home.



Competitive Market Area.

Metrostudy Recommendations



Metrostudy Recommendations

Product Description

Sigwalt Townhomes product will comprise of 16 units. The townhomes will have high-end finishes and modern exteriors. The site is proximate and walkable to downtown Arlington Heights. The units are anticipated to have four floorplans. Interior 1 and 2 which include 13 units, while Corner 1 and 2 include 3 units with an additional floor plus more square footage.

Location

The site is located within Arlington Heights, Illinois in Cook County. More specifically, the subject property is located at 26 S Highland Avenue in Arlington Heights. Mileage for retail, educational facilities, transportation, etc. is displayed below:

Grocery stores	0.2	Elementary School	3.0
Gas station	0.3	Middle School	2.1
Restaurants	0.5	High School	2.6
Shopping	0.5	Hospital	1.3
Golf course	2.3	Airport	10.9

Target Market

Predominantly elite buyers and active adult feature and location buyers, with potential from family life young children, active adult elite, and simple life affluent buyers seeking a new home option with a walkable, urban lifestyle component.

Housing Consumer Groups			
CMA Existing Households	Share	Market Existing Households	Share
Entry Level Suburban	6.5%	Entry Level Suburban	2.4%
Entry Level Urban	7.6%	Entry Level Urban	15.2%
Simple Life Affluent No Children	7.8%	Simple Life Affluent No Children	4.0%
Simple Life Moderate Income With Children	0.1%	Simple Life Moderate Income With Children	0.0%
Simple Life Moderate Income No children	1.3%	Simple Life Moderate Income No children	0.5%
Feature and Location	5.7%	Feature and Location	25.7%
Family Life School Age Children	4.8%	Family Life School Age Children	1.9%
Family Life Young Children	8.3%	Family Life Young Children	3.0%
Elite	13.8%	Elite	6.1%
Active Adult Entry Level	6.5%	Active Adult Entry Level	2.7%
Active Adult Feature and Location	16.5%	Active Adult Feature and Location	13.5%
Active Adult Elite	6.7%	Active Adult Elite	2.2%
Renters Near Term Buyers	6.7%	Renters Near Term Buyers	6.1%
Renters	7.7%	Renters	16.8%
	100.0%		100.0%

Base Price Recommendations

Sigwalt Townhome Product: Attached (Metrostudy Recommendation)

Plan	Bed/Bath	Fir/Pkg	Unit Size (Sq. Ft.)	Base Price (\$)	\$/Sq. Ft.
A	3/2	3/2	2,100	\$574,990	\$273.80
B	3/2.5	3/2	2,300	\$589,990	\$256.52
C	3/2.5	3/2	2,400	\$634,990	\$264.58
D	4/3	4/2	2,500	\$638,115	\$255.25
E	4/3	4/2	2,600	\$649,990	\$250.00
F	4/3	4/2	2,750	\$699,990	\$254.54
G	4/3.5	4/2	3,150	\$724,990	\$230.16

Average	2,543	\$644,722	\$253.54
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Amenity Programming

Amenity programming is limited within the CMA and fairly nonexistent for most projects. The subject property's location is considered the largest amenity in being walkable to downtown Arlington Heights.

Subdivision	Builder	Ann HOAs	Note
Buckingham Place	Ryan Homes	\$232	none
Colfax Crossing	TM Homes	\$171	none
Lexington Heritage	Lexington Homes	\$307	none
Lexington Pointe	Lexington Homes	\$236	none
Provenance	Red Seal	\$294	none
Wolf Crossing	DR Horton	\$246	none
Combined Average		\$248	

Absorption

Metrostudy believes that Sigwalt Townhomes should be able to achieve an absorption of about 0.5 to 1.5 homes total per month, in the present market. This absorption pace is due to a niche townhome offering that is higher-end and can bring demand from various market areas. This absorption pace is contingent upon product/pricing differentiation, offering a lifestyle component, and strong execution in marketing the community. Absorptions could possibly increase if pricing is lowered or if amenities are heightened. Absorptions could decrease with Metrostudy expecting a decline in housing starts into 2020 coupled with higher interest rates later into the year.



Competitive Market Area. CMA Housing Competitors



CMA Market Rate Competitive Positioning - Single-Family Attached & Detached Product Details

				Unit									
Project Name/Community Area/Lot Size/Builder		Planned Units	Occ.	Annual Starts / Annual Closings	Plan Name	Bed- Bath	Floors- Parking	Size (Sq.Ft.)	Base Price	Incen's	Ann. HOA	Net Base Price	Price / Sq.Ft.
1	Buckingham Place	127	26	3.8	Mozart	3 - 2.5	3 - 1	1,734	\$313,990	(\$5,000)	\$232	\$308,990	\$178
	Townhouse		20.5%	46	Mendelssohn	3 - 2.5	3 - 2	1,876	\$328,990	(\$5,000)	\$232	\$323,990	\$173
	Ryan Homes			2.2									
				26									
					Averages			1,805	\$321,490	(\$5,000)	\$232	\$316,490	\$175
2	Colfax Crossing	101	82	2.3	Swarthmore	3 - 2.5	3 - 2	1,703	\$298,990		\$171	\$298,990	\$176
	Townhouse		81.2%	28	Bryn Mawr	3 - 2.5	3 - 2	1,782	\$304,990		\$171	\$304,990	\$171
	Taylor Morrison Homes			3.8									
				46									
					Averages			1,743	\$301,990		\$171	\$301,990	\$173
3	Lexington Heritage	47	9	2.1	Berkley	3 - 2.5	3 - 2	1,649	\$389,990		\$307	\$389,990	\$237
	Townhouse		19.1%	25	Warrington	2 - 2.5	3 - 2	1,813	\$359,990		\$307	\$359,990	\$199
	Lexington Homes			0.8	Summit	3 - 2.5	3 - 2	1,950	\$419,990		\$307	\$419,990	\$215
				9	Coventry	3 - 2.5	3 - 2	1,976	\$384,990		\$307	\$384,990	\$195
					Averages			1,847	\$388,740		\$307	\$388,740	\$211
4	Lexington Pointe	58	24	2.5	Warrington	2 - 2.5	3 - 2	1,758	\$359,990		\$236	\$359,990	\$205
	Townhouse		41.4%	30	Coventry	3 - 2.5	3 - 2	1,913	\$376,990		\$236	\$376,990	\$197
	Lexington Homes			2.0									
				24									
					Averages			1,836	\$368,490		\$236	\$368,490	\$201
5	Lexington Towne	15	13	0.6	2951	4 - 2.5	2 - 2	2,951	\$758,448		N/A	\$758,448	\$257
	SFD		86.7%	7									
	Lexington Homes			0.8									
				10									
					Averages			2,951	\$758,448			\$758,448	\$257
6	Terraces at Provenance	82	14	1.4	2081	3 - 2.5	2 - 2	2,081	\$498,900		\$294	\$498,900	\$240
	Townhouse		17.1%	17	2099	3 - 2.5	2 - 2	2,099	\$509,900		\$294	\$509,900	\$243
	Red Seal Development			0.9	2350	3 - 2.5	2 - 2	2,350	\$549,900		\$294	\$549,900	\$234
				11	2459	3 - 2.5	2 - 3	2,459	\$584,900		\$294	\$584,900	\$238
					2664	3 - 2.5	2 - 3	2,664	\$604,900		\$294	\$604,900	\$227
					Averages			2,331	\$549,700		\$294	\$549,700	\$236
7	Wolf Crossing	39	0	3.3	2193	3 - 2.5	3 - 2	2,193	\$363,990	(\$3,000)	\$246	\$360,990	\$165
	Townhouse		0.0%	39	2447	3 - 2.5	3 - 2	2,447	\$398,990	(\$3,000)	\$246	\$395,990	\$162
	D.R. Horton Homes			0.0									
				0									
					Averages			2,320	\$381,490	(\$3,000)	\$246	\$378,490	\$163

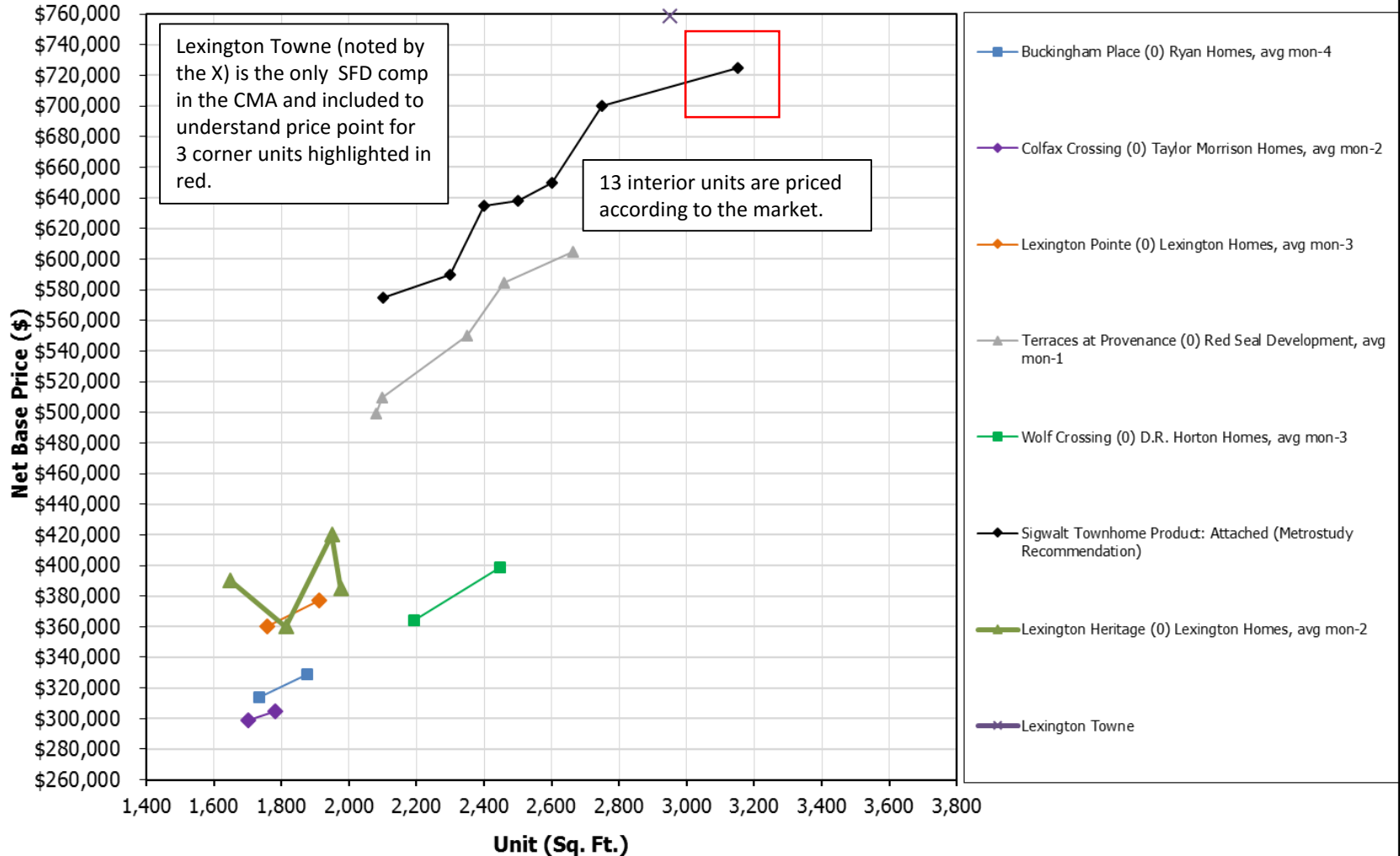


Single-Family Attached/Detached: New Activity Graph



metrostudy

Competitive Builder Floorplans Sigwalt CMA - Single-Family Attached/Detached





Appendix to Follow





Cook County Market		Annual Starts	Annual Closings	Ann Lot Delivery	VDL	Supply Mos	Fin/Vac	U/C	Inventory Models	Total	Supply Mos
Detached	4Q17	370	291	388	2,573	83.4	79	220	24	323	13.3
	4Q18	417	422	239	2,395	68.9	99	192	27	318	9.0
		↑12.7%	↑45.0%	↓-38.4%	↓-6.9%	↓-17.4%	↑25.3%	↓-12.7%	↑12.5%	↓-1.5%	↓-32.1%
Attached	4Q17	713	200	867	1,836	0.0	99	1,593	10	1,702	102.1
	4Q18	639	542	689	1,886	35.4	265	1,507	27	1,799	0.0
		↓-10.4%	↑171.0%	↓-20.5%	↑2.7%	NA	↑167.7%	↓-5.4%	↑170.0%	↑5.7%	↓100.0%
Sigwalt TH CMA											
Detached	4Q17	8	3	0	7	10.5	1	4	1	6	24.0
	4Q18	7	10	0	0	0.0	0	2	0	2	2.4
		↓-12.5%	↑233.3%	NA	#####	↓100.0%	↓100.0%	↓-50.0%	↓100.0%	↓-66.7%	↓-90.0%
Attached	4Q17	82	36	202	258	0.0	8	58	6	72	0.0
	4Q18	185	116	151	224	0.0	27	101	13	141	0.0
		↑125.6%	↑222.2%	↓-25.2%	↓13.2%	NA	↑237.5%	↑74.1%	↑116.7%	↑95.8%	NA

- New home attached construction activity in the Sigwalt Townhomes CMA has increased significantly over the last year, with annual starts increasing 125.6 percent in the past year. There were 82 annual starts as of the end of 4Q17 compared to 185 annual starts in 4Q18.
- Move-ins trended upward over the same period. There were 116 annual closings as of the end of 4Q18, a 222.2 percent increase from the 36 homes closed annually at the end of 4Q17. Annual starts exceed annual closings; finished vacant inventory levels in this CMA have increased with demand and building conditions. There are currently 13 attached models in the CMA.
- Vacant developed lot ("VDL") supplies in the CMA for attached product has decreased from 258 lots in 4Q17 to 224 lots in 4Q18. This market is mostly an attached market.





Price Distribution		\$0-\$149	\$150-\$199	\$200-\$249	\$250-\$299	\$300-\$349	\$350-\$399	\$400-\$499	\$500+
Annual Starts	4Q17	0	0	0	40	4	21	6	19
		0.0%	0.0%	0.0%	44.4%	4.4%	23.3%	6.7%	21.1%
	4Q18	0	0	0	5	69	83	12	23
		0.0%	0.0%	0.0%	2.6%	35.9%	43.2%	6.3%	12.0%
VDL	4Q17	0	0	0	91	130	17	20	7
		0.0%	0.0%	0.0%	34.3%	49.1%	6.4%	7.5%	2.6%
	4Q18	0	0	0	50	97	19	9	49
		0.0%	0.0%	0.0%	22.3%	43.3%	8.5%	4.0%	21.9%
Sigwalt Townhomes is in a higher pricing tier regarding the superior location and high-end									Subject Property

Sigwalt Townhomes is in a higher pricing tier regarding the superior location and high-end finish out of the product. Within the CMA the \$350,000 to \$399,999 pricing tier represents 43.2 percent of all annual starts and is the most active pricing tier. This is largely due to responsiveness regarding affordability.

VDL lot sizes show more product coming in the \$300,000 to \$349,999 price tier. 43.3 percent of all VDL in 4Q18 is represented in the aforementioned tier.





Chicago-Naperville-Elgin CBSA

Annual Starts Projections

2006	28,632
2007	18,095
2008	7,637
2009	4,383
2010	4,244
2011	4,145
2012	5,658
2013	7,261
2014	7,723
2015	7,676
2016	8,032
2017	8,416
2018	8,920
2019 (F)	9,370
2020 (F)	9,840
2021 (F)	9,940
2022 (F)	9,740

While the Chicago market generally appears to be moving in the right direction on a number of fronts, there remain some challenges:

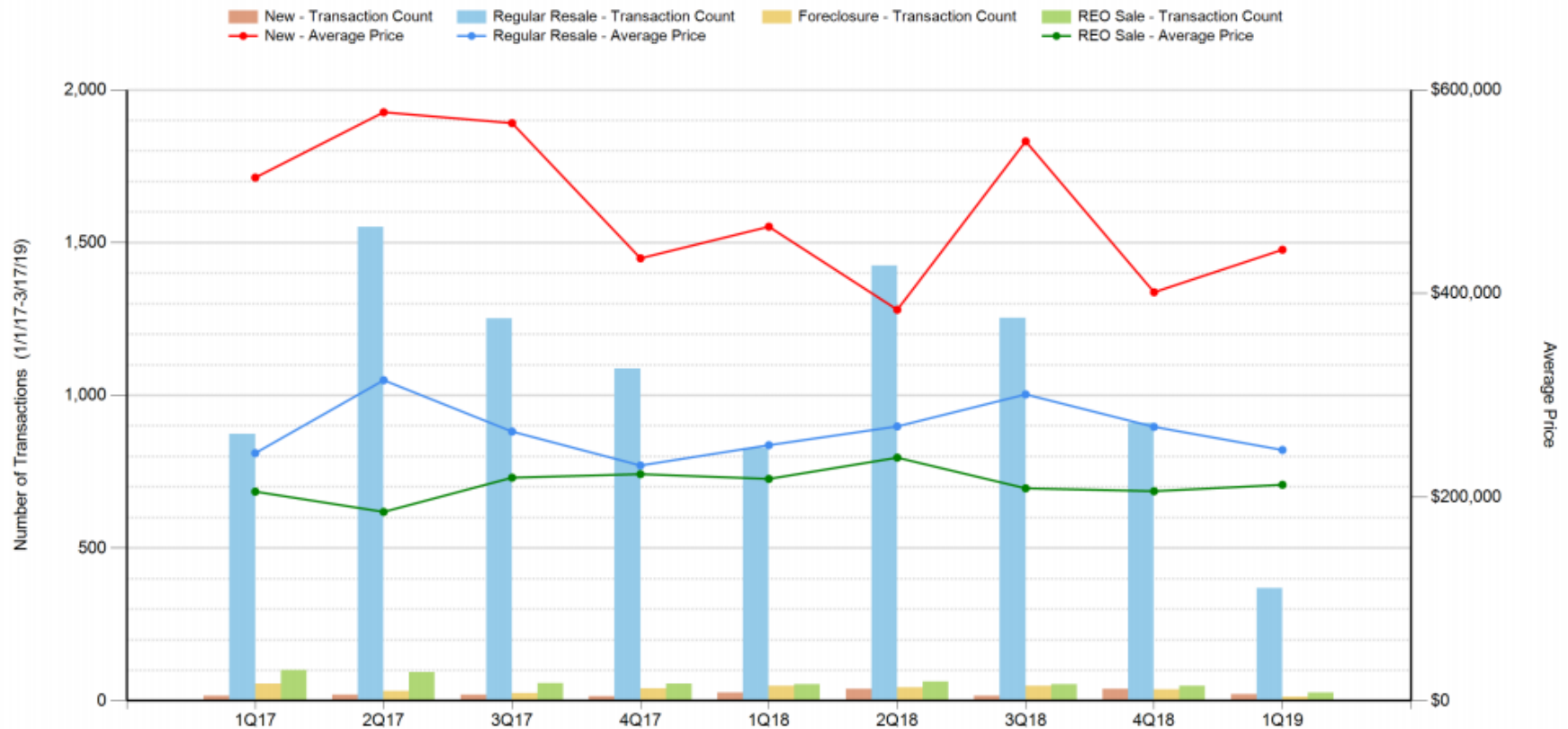
- Potential mortgage rate increases, even if only marginally higher, may soften buyer traffic and contract activity.
- Shortages of trade labor are extending production completion timeframes.
- Rapid price increases over the past two years on new construction may suppress purchases and move unsure potential buyers back onto the sidelines. There has been minimal price appreciation on the resale side.
- Entry-level homebuyers are feeling the squeeze of rising home prices with relatively flat wage appreciation.
- Limited finished lot supplies with a slow replenishment of new lots underway.



CMA New, Resale, & Foreclosure Comparison



Date Range: 3/1/2018 - 2/28/2019																			
Transaction Type	Single Family					TH/Plex/Other				Condominium				Other/ Unknown	Total				
	Count	Avg Price	Avg SF	\$/SF	AvgLotSF	Count	Avg Price	Avg SF	\$/SF	Count	Avg Price	Avg SF	\$/SF	Count	Count	Avg Price	Avg SF	\$/SF	AvgLotSF
New	24	\$816,630	1,779	\$559.3	9,063	100	\$327,544	1,816	\$178.9	1	\$162,500			1	126	\$423,926	1,811	\$241.7	9,063
Regular Resale	2,298	\$359,939	1,682	\$224.8	10,091	237	\$256,814	1,606	\$162.2	1,759	\$163,019	1,218	\$144.6	22	4,316	\$273,997	1,607	\$207.9	10,091
Foreclosure	107	n/a	1,646		11,080	8	n/a	1,419		43	n/a	1,332		0	158	n/a	1,617		11,080
REO Sale	124	\$274,630	1,679	\$173.1	11,713	12	\$163,875	1,394	\$116.9	73	\$131,343	1,208	\$135.8	2	211	\$218,822	1,618	\$164.9	11,713
Selection Totals	2,553	\$360,436	1,681	\$225.0	10,206	357	\$272,464	1,654	\$165.2	1,876	\$161,929	1,219	\$144.4	25	4,811	\$275,562	1,615	\$207.3	10,206





	2010 Census	%	2019 Estimate	%	2024 Projection	%
Population	148,141		174,428		193,114	
Annual Pop Growth 2016 to 2021				-0.68%		
Annual Pop Growth 2010 to 2016		0.38%				
Population by Age						
Average Age	39.7		40.9		41.5	
Median Age	40.2		41.2		41.8	
Pop Age 0-4	17,188	6.06%	15,295	5.37%	16,563	5.86%
Pop Age 5-9	16,906	5.96%	15,700	5.51%	15,819	5.59%
Pop Age 10-14	16,969	5.98%	16,420	5.77%	15,757	5.57%
Pop Age 15-19	16,895	5.96%	16,255	5.71%	15,939	5.64%
Pop Age 20-24	15,160	5.34%	16,933	5.95%	16,232	5.74%
Pop Age 25-29	19,551	6.89%	20,292	7.13%	17,570	6.21%
Pop Age 30-34	19,289	6.80%	19,248	6.76%	18,680	6.61%
Pop Age 35-39	19,097	6.73%	18,203	6.39%	18,586	6.57%
Pop Age 40-44	19,535	6.89%	17,350	6.09%	17,803	6.30%
Pop Age 45-49	21,115	7.44%	18,874	6.63%	17,630	6.23%
Pop Age 50-54	22,547	7.95%	19,713	6.92%	18,115	6.41%
Pop Age 55-59	19,298	6.80%	21,046	7.39%	18,928	6.69%
Pop Age 60-64	15,902	5.61%	19,225	6.75%	18,850	6.67%
Pop Age 65-69	11,622	4.10%	15,606	5.48%	17,003	6.01%
Pop Age 70-74	9,501	3.35%	11,534	4.05%	13,697	4.84%
Pop Age 75-79	8,181	2.88%	8,408	2.95%	10,036	3.55%
Pop Age 80-84	7,324	2.58%	6,335	2.22%	6,862	2.43%
Pop Age 85+	7,557	2.66%	8,288	2.91%	8,711	3.08%



	2010 Census	%	2019 Estimate	%	2024 Projection	%
Population by Gender						
Female	145,003	51.12%	144,909	50.89%	143,591	50.78%
Male	138,634	48.88%	139,817	49.11%	139,190	49.22%
Population by Race Class						
Not Hispanic White	198,167	84.26%	185,676	82.25%	179,411	81.18%
Not Hispanic Black	5,065	2.15%	3,903	1.73%	3,503	1.59%
Not Hispanic Native American	236	0.10%	212	0.09%	186	0.08%
Not Hispanic Asian	28,448	12.10%	32,396	14.35%	34,252	15.50%
Not Hispanic Pacific Islander	58	0.02%	54	0.02%	53	0.02%
Not Hispanic Two Or More Races	3,207	1.36%	3,504	1.55%	3,594	1.63%
Hispanic White	44,384	91.60%	54,290	92.05%	56,956	92.19%
Hispanic Black	858	1.77%	914	1.55%	918	1.49%
Hispanic Native American	1,850	3.82%	2,095	3.55%	2,173	3.52%
Hispanic Asian	379	0.78%	411	0.70%	420	0.68%
Hispanic Pacific Islander	64	0.13%	116	0.20%	107	0.17%
Hispanic Two Or More Races	921	1.90%	1,154	1.96%	1,208	1.96%
Population by Education						
No High School Diploma	21,156	7.46%	21,067	7.40%	21,056	7.45%
High School Diploma	49,510	17.46%	45,090	15.84%	44,745	15.82%
Some College	50,851	17.93%	53,318	18.73%	52,851	18.69%
Bachelors Degree	50,692	17.87%	54,820	19.25%	54,282	19.20%
Advanced Degree	28,311	9.98%	29,827	10.48%	29,537	10.45%





	2010 Census	%	2019 Estimate	%	2024 Projection	%
Households and Housing Units Summary						
Households	111,372		111,606		110,794	
HH Growth 2016 to 2021				-0.73%		
HH Growth 2010 Census to 2016		0.21%				
Housing Units	118,264		119,309		120,319	
HU Growth 2016 to 2021				0.85%		
HU Growth 2010 Census to 2016		0.88%				

Total Households by Income

Average HH Income	80,831		95,014		96,400	
Median HH Income	63,031		74,865		76,174	
HH Income Below 10k	4,564	4.10%	4,190	3.75%	4,129	3.73%
HH Income 10k-15k	3,961	3.56%	3,183	2.85%	3,146	2.84%
HH Income 15k-20k	4,768	4.28%	3,744	3.35%	3,675	3.32%
HH Income 20k-25k	4,784	4.30%	4,430	3.97%	4,433	4.00%
HH Income 25k-30k	5,705	5.12%	4,409	3.95%	4,232	3.82%
HH Income 30k-35k	5,166	4.64%	4,390	3.93%	4,301	3.88%
HH Income 35k-40k	5,352	4.81%	4,277	3.83%	4,166	3.76%
HH Income 40k-45k	5,326	4.78%	4,010	3.59%	3,861	3.48%
HH Income 45k-50k	4,654	4.18%	3,633	3.26%	3,533	3.19%
HH Income 50k-60k	8,802	7.90%	8,421	7.55%	8,290	7.48%
HH Income 60k-75k	12,890	11.57%	11,215	10.05%	10,855	9.80%
HH Income 75k-100k	16,227	14.57%	16,728	14.99%	16,501	14.89%
HH Income 100k-125k	10,660	9.57%	12,635	11.32%	12,691	11.45%
HH Income 125k-150k	6,285	5.64%	7,985	7.15%	8,079	7.29%
HH Income 150k-200k	6,422	5.77%	9,529	8.54%	9,794	8.84%
HH Income Above 200k	5,807	5.21%	8,825	7.91%	9,106	8.22%



Consumer Segmentation Defined



ENTRY LEVEL— SUBURBAN

Average Annual HH Income	\$38K
Average Age (Head of HH)	50
With Children in HH	36%
Dominant Education	High School Diploma
Married	38%
Homeownership	73%

- Average credit: small savings account; need education on how to budget their money and save to buy a home
- Employed in part-time job(s)
- Not concerned with personally saving the environment
- Use the internet for shopping, work, and entertainment
- High percentage of single parent families



ENTRY LEVEL— URBAN

Average Annual HH Income	\$69K
Average Age (Head of HH)	47
With Children in HH	69%
Dominant Education	College Graduate
Married	49%
Homeownership	66%

- Good credit: have some savings including 401k and savings account
- Feel they work hard for their money and are workaholics; often self-employed
- Strong belief in sustainability; will pay more for energy efficiency and sustainability
- Read numerous magazines for news and entertainment
- Very family oriented: spend time and make decisions together; multi-generational households common



SIMPLE LIFE— AFFLUENT, NO CHILDREN

Average Annual HH Income	\$125K
Average Age (Head of HH)	50
With Children in HH	14%
Dominant Education	College Graduate
Married	68%
Homeownership	79%

- Financially stable with mortgage, checking, and savings accounts
- Work for the government, either as active military or civilian; or are entrepreneurial, own and run a small business
- Not concerned with personally saving the environment
- Use the internet for shopping, work, and entertainment
- Two-person household; grown children recently left home to work or attend college



SIMPLE LIFE— MODERATE INCOME, WITH CHILDREN

Average Annual HH Income	\$64K
Average Age (Head of HH)	39
With Children in HH	84%
Dominant Education	Some College
Married	62%
Homeownership	84%

- Some savings, but may be forced to borrow money for emergencies
- Employed by others in management, administrative work, or real estate
- Not concerned with personally saving the environment
- Heavy tablet use by all family members
- One spouse works, the other stays home with the children



SIMPLE LIFE— MODERATE INCOME, NO CHILDREN

Average Annual HH Income	\$41K
Average Age (Head of HH)	52
With Children in HH	17%
Dominant Education	High School Diploma
Married	45%
Homeownership	88%

- Equity in current home is the majority of savings; spend money as quickly as it is earned
- Non-managerial employment including truck driver, retailer, or nurse
- Only concerned about energy efficiency and sustainability if it benefits them directly
- Enjoy gadgets, but not heavily dependent on the latest technology; average smartphone and internet usage
- Male works while the female stays home



FEATURE & LOCATION

Average Annual HH Income	\$127K
Average Age (Head of HH)	40
With Children in HH	19%
Dominant Education	College Graduate
Married	52%
Homeownership	52%

- Significant savings in banks and invest in stock and money market accounts
- Own and run medium sized business; will change jobs for higher pay or better company
- Sustainability is important, but not a priority
- Conduct business and shopping on smartphone; shop primarily on the internet
- Multigenerational households common



FAMILY LIFE— YOUNG CHILDREN

Average Annual HH Income	\$109K
Average Age (Head of HH)	32
With Children in HH	95%
Dominant Education	College Graduate
Married	86%
Homeownership	95%

- Some savings; will borrow money to purchase a home
- Employed as a manager in finance, insurance, and other professional sectors
- Indifferent about sustainability; will recycle if it's easy, but won't go out of the way
- High smartphone usage; research products and shop primarily on the internet
- Both spouses work; two to three kids under age of 12



FAMILY LIFE— SCHOOL AGE CHILDREN

Average Annual HH Income	\$114K
Average Age (Head of HH)	46
With Children in HH	100%
Dominant Education	College Graduate
Married	82%
Homeownership	100%

- Financially stable and want to leave monetary legacy for kids; safe and stable investors
- Employed in education, engineering, and government
- Sustainability important because they believe it's best for their children
- Entertainment for all family members is primarily technology based
- Family focused: life revolves around children and parents put kids needs ahead of their own; two to three kids ages 12 to 18



Consumer Segmentation Defined



ACTIVE ADULT— ENTRY LEVEL



Average Annual HH Income	\$24K
Average Age (Head of HH)	74
With Children in HH	3%
Dominant Education	High School Diploma
Married	28%
Homeownership	99%

- Live on a fixed income; very budget conscious
- Retired
- Feel indifferent about sustainability; will recycle if financially beneficial
- Little to no internet usage; read magazines and newspapers
- High percentage of widows; often live alone

ACTIVE ADULT— FEATURE & LOCATION



Average Annual HH Income	\$61K
Average Age (Head of HH)	68
With Children in HH	4%
Dominant Education	College Graduate
Married	45%
Homeownership	73%

- Savings are in "safe" accounts, e.g. money market, annuities
- Retired; served in the armed forces
- Sustainability is important, but not a priority
- Read newspaper daily
- Not tech savvy; do not use internet on mobile devices
- Married; have grandchildren

ACTIVE ADULT— ELITE



Average Annual HH Income	\$91K
Average Age (Head of HH)	64
With Children in HH	2%
Dominant Education	College Graduate
Married	70%
Homeownership	99%

- Excellent credit; strictly manages money; investments include IRA, CDs, and life insurance
- Retired; highly educated
- Strong belief in sustainability; will pay more for energy efficiency and sustainability
- Read newspaper daily; don't use mobile to shop
- Married; have grandchildren

ELITE



Average Annual HH Income	\$175K
Average Age (Head of HH)	51
With Children in HH	35%
Dominant Education	College Graduate
Married	80%
Homeownership	90%

- Financially savvy and secure; high net-worth, have investments and 401k
- Employed as managerial architect, engineer, or doctor, and often self-employed
- Sustainability is important and part of their lifestyle
- Research, purchase, and conduct business primarily on the internet
- One or both adults work from home; older children of high school and college age

RENTERS—NEAR TERM BUYERS



Average Annual HH Income	\$41K
Average Age (Head of HH)	34
With Children in HH	71%
Dominant Education	High School Diploma
Married	39%
Homeownership	6%

- Little to no savings; credit challenged with limited credit history
- Employed in information systems, technical studies, managerial support, or sales
- Not concerned with personally saving the environment
- Affinity for latest technology; communicate on social media
- Engaged or living with partner; four or more children living at home

RENTERS



Average Annual HH Income	\$33K
Average Age (Head of HH)	49
With Children in HH	29%
Dominant Education	High School Diploma
Married	27%
Homeownership	6%

- Credit challenged; not financially secure
- Temporarily unemployed or collecting disability
- Not concerned with personally saving the environment
- High smartphone usage; heavily influenced by media and advertisements
- Live alone or with partner



The Metrostudy housing survey monitors the supply of attached and detached homes on a quarterly basis. Our survey tracks all condominium, townhome, duplex, and single-family construction activity in the Chicago area. The survey allows us to accurately track the size of the total market, as well as supply and demand within the sub-markets. Further, it helps us establish the depth of the market and the scope of the competition.

DEFINITIONS

Annual Starts: The number of homes started during the last four quarters. A “start” occurs when a slab or foundation is initiated.

Annual Closings: The number of homes closed during the last four quarters. A “closing” occurs when a home is moved into and occupied. Metrostudy tracks move-ins, as they are a better indicator of demand than deed deliveries.

Square Footage: All measures of a home size are in terms of air-conditioned space.

Models: Must be fully finished, furnished and decorated.

Finished Vacant: Construction is complete, the site is clean, but there is no evidence of occupancy.

Finished Vacant Months of Supply: F/V months of supply is calculated by dividing the number of F/V homes by the current annual closings pace; and then multiplying by twelve to yield months.

Vacant Developed Lots: Also referred to as “VDL” and “Finished Lots”; a lot on a recorded plat with streets and utilities in place, ready for construction of a new home.

Vacant Developed Lots Months of Supply: VDL months-of-supply is calculated by dividing the number of VDL by the current annual starts pace; and then multiplying by twelve to yield months.

Future Lots: Lots that are platted, but not yet developed.

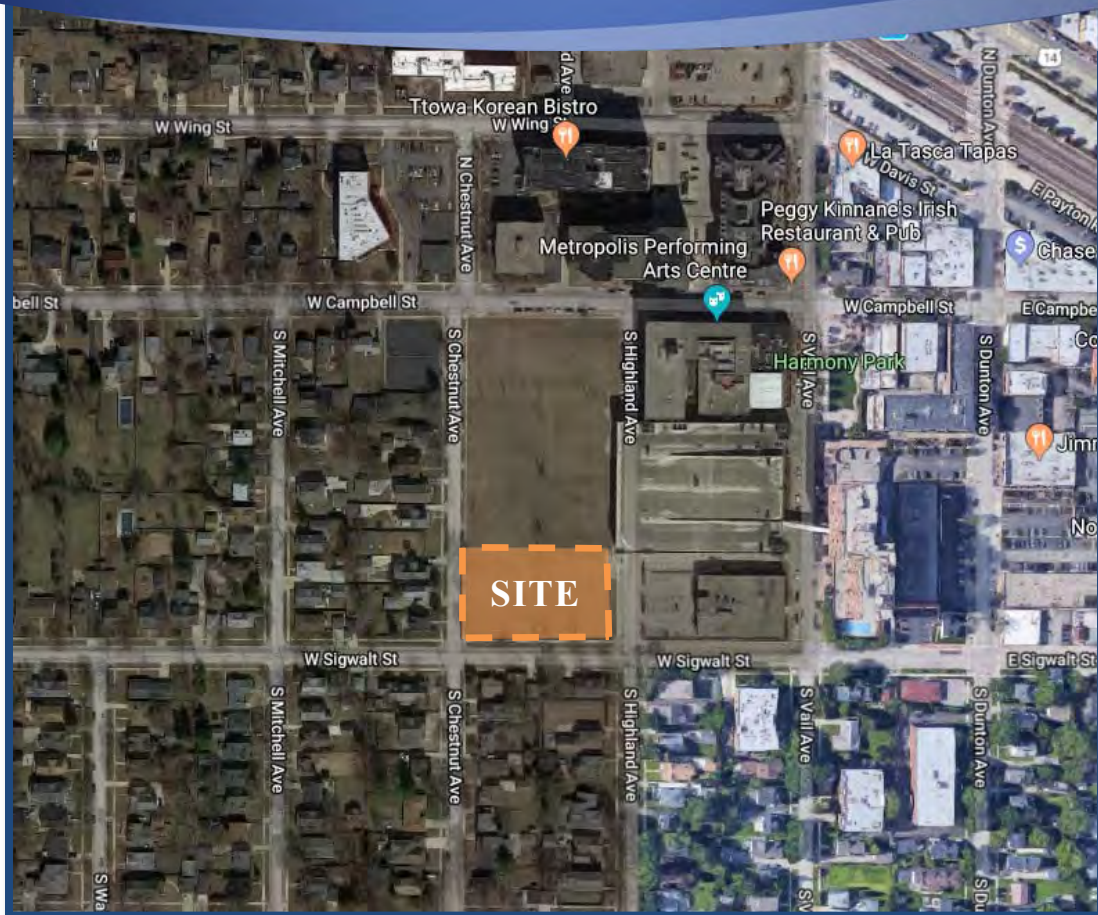
Limiting Conditions

It is understood by Taylor Morrison (“Client”) that Metrostudy can make no guarantees about the recommendations in this study. Conclusions are based on estimates, assumptions, and other information developed by Metrostudy from its independent research effort, general knowledge of the industry, and consultations with the Client and its representatives. Reasonable efforts have been made to ensure that data contained in this study is as accurate and timely as possible, and the data is believed to be reliable. There will usually be differences between projected and actual results, because events and circumstances frequently do not occur as expected. Metrostudy has no responsibility to update our report for events and circumstances occurring after the date of our report. It is understood by the Client that payment of any and all Metrostudy fees and expenses for this study is not in any way contingent upon the specific conclusions reached or the nature of the advice given in this report.



Traffic Impact Study Proposed Row Home Residential Development

Arlington Heights, Illinois



Prepared For:

TaylorMorrison



April 9, 2019

1. Introduction

This report summarizes the methodologies, results and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed residential row home development to be located in Arlington Heights, Illinois. The site is located on the north side of Sigwalt Street and is bounded by Highland Avenue on the east and Chestnut Avenue on the west.

The concept plans call for 16 row homes that will front Sigwalt Street, Chestnut Street, and Highland Avenue. Eight guest parking spaces are proposed on-site. Access to the individual row home garages and guest parking will be from a single access drive off Highland Avenue, north of Sigwalt Street.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area, and determine if any roadway or access improvements are necessary to accommodate traffic generated by the proposed development.

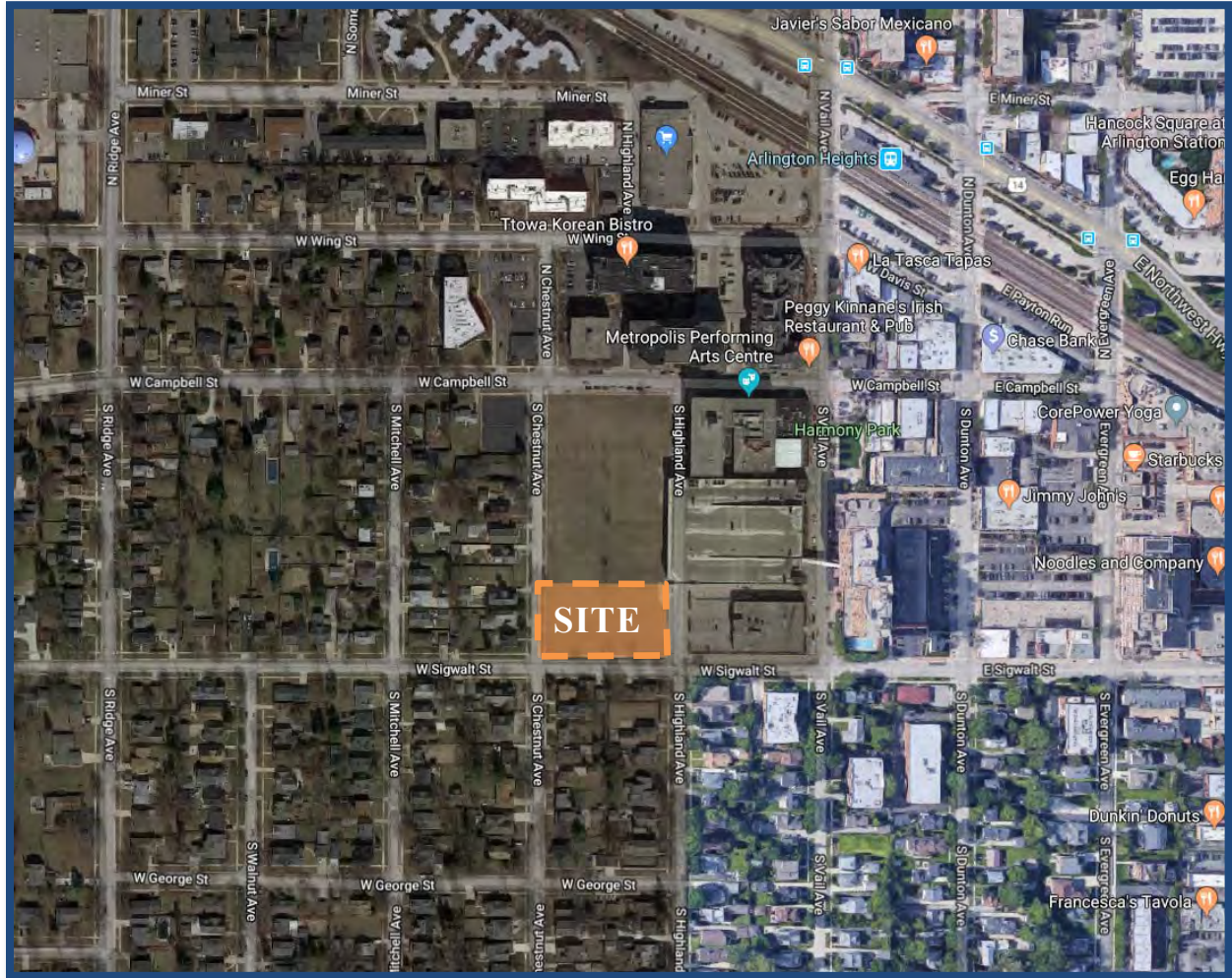
Figure 1 shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site area.

The sections of this report present the following.

- Existing roadway conditions
- A description of the proposed development
- Directional distribution of the development traffic
- Vehicle trip generation for the development
- Projected base traffic conditions that includes regional growth and background developments
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning and evening peak hours
- Recommendations with respect to adequacy of the site access and adjacent roadway system

Traffic capacity analyses were conducted for the weekday morning and evening peak hours for the following conditions:

1. Existing (Year 2018/2019) Conditions - Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.
2. Future (Year 2024) Conditions - The future projected traffic volumes include the existing traffic volumes, ambient area growth not attributable to any particular development, traffic estimated to be generated by the proposed Arlington 425 residential development, and the traffic estimated to be generated by the proposed subject development.



Aerial View of Site Location

Figure 2

2. Existing Conditions

Existing transportation conditions in the vicinity of the site were documented based on field visits conducted by KLOA, Inc. in order to obtain a database for projecting future conditions. The following provides a description of the geographical location of the site, physical characteristics of the area roadway system including lane usage and traffic control devices and existing peak hour traffic volumes.

Site Location

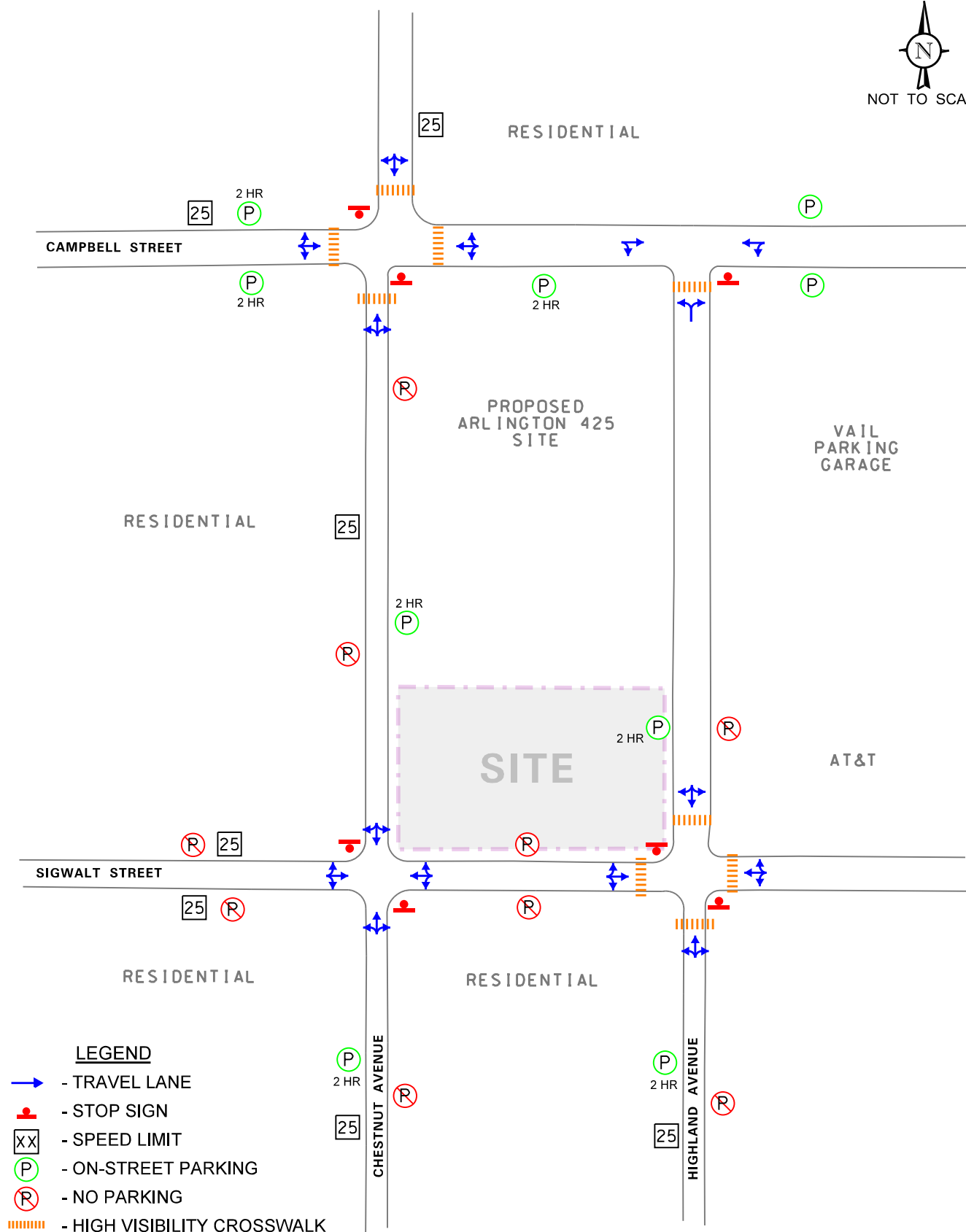
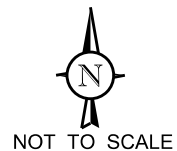
The site is located to the west of downtown Arlington Heights and is bounded by Sigwalt Street to the south, Chestnut Avenue to the west, and Highland Avenue to the east. The proposed Arlington 425 residential development borders the site to the north. The site is currently undeveloped and is within walking distance to the Arlington Heights Metra Station. Land uses in the vicinity of the site are residential to the north, west, and south and include the Arlington Heights Vail Street public parking garage and the Dunton Tower Luxury Apartments and the former AT&T development to the east.

Existing Roadway System Characteristics

The characteristics of the existing roadways near the development are described below. **Figure 3** illustrates the existing roadway characteristics. All roadways have a posted speed limit of 25 mph and are under the jurisdiction of the Village of Arlington Heights, unless otherwise noted.

Campbell Street is an east west local roadway that provides one lane in each direction and extends from Rohlwing Road to Evergreen Avenue. At its unsignalized intersection with Highland Avenue, Campbell Street provides a shared through/right-turn lane on the eastbound approach and a shared through/left-turn lane on the westbound approach. A high visibility crosswalk is planned across Campbell Street on the east leg. Parking is generally provided on both sides of the roadway and is restricted to two-hours. Campbell Street is a designated bicycle route (signage only).

Highland Avenue is a north-south local roadway that provides one lane in each direction and extends from Campbell Street south to Central Road. At its unsignalized intersection with Sigwalt Street, Highland Avenue provides a single lane approach under stop-sign control and a high visibility crosswalk on both legs. At its unsignalized intersection with Campbell Street, Highland Avenue provides a shared left/right-turn lane under stop-sign control and a high visibility crosswalk on the south leg. It should be noted that between Campbell Street and Sigwalt Street, Highland Avenue traverses through the Arlington Heights Public Parking Garage, which provides parking on the west side of Highland Avenue and has two ramp access drives off Highland Avenue. South of the garage, there is a one-way exit only alley, and two full access drives serving the former AT&T development. Parking is prohibited on the east side of the roadway and is restricted to two-hours on the west side of the roadway. There are approximately five on-street parking spaces on the west side of Highland Avenue between Sigwalt Street and the Vail parking garage.



Proposed Row
Home Development
Arlington Heights, Illinois

Existing Roadway Characteristics

Sigwalt Street is an east-west local roadway that in the vicinity of the site provides one lane in each direction. Parking is prohibited on both sides of the roadway between Highland Avenue and Chestnut Avenue.

Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted manual peak period vehicle, pedestrian, and bicycle traffic counts using Miovision Scout Collection Units during the weekday morning (7:00 A.M. to 9:00 A.M.) and weekday evening (4:00 P.M. to 6:00 P.M.) peak periods at the following four (4) intersections:

1. Highland Avenue and Campbell Street (AM – June 26, 2018; PM – February 7, 2019)
2. Highland Avenue and Sigwalt Street (AM – June 26, 2018; PM – February 7, 2019)
3. Highland Avenue and North Garage Ramp (June 27, 2018)
4. Highland Avenue and South Garage Ramp (June 27, 2018)

The results of the traffic counts showed that the weekday morning peak hour of traffic generally occurs from 8:00 A.M. to 9:00 A.M. and the weekday evening peak hour of traffic generally occurs from 5:00 P.M. to 6:00 P.M.

Figure 4 illustrates the existing peak hour vehicle traffic volumes.

Figure 5 illustrates the existing peak hour pedestrian and bicycle traffic volumes.

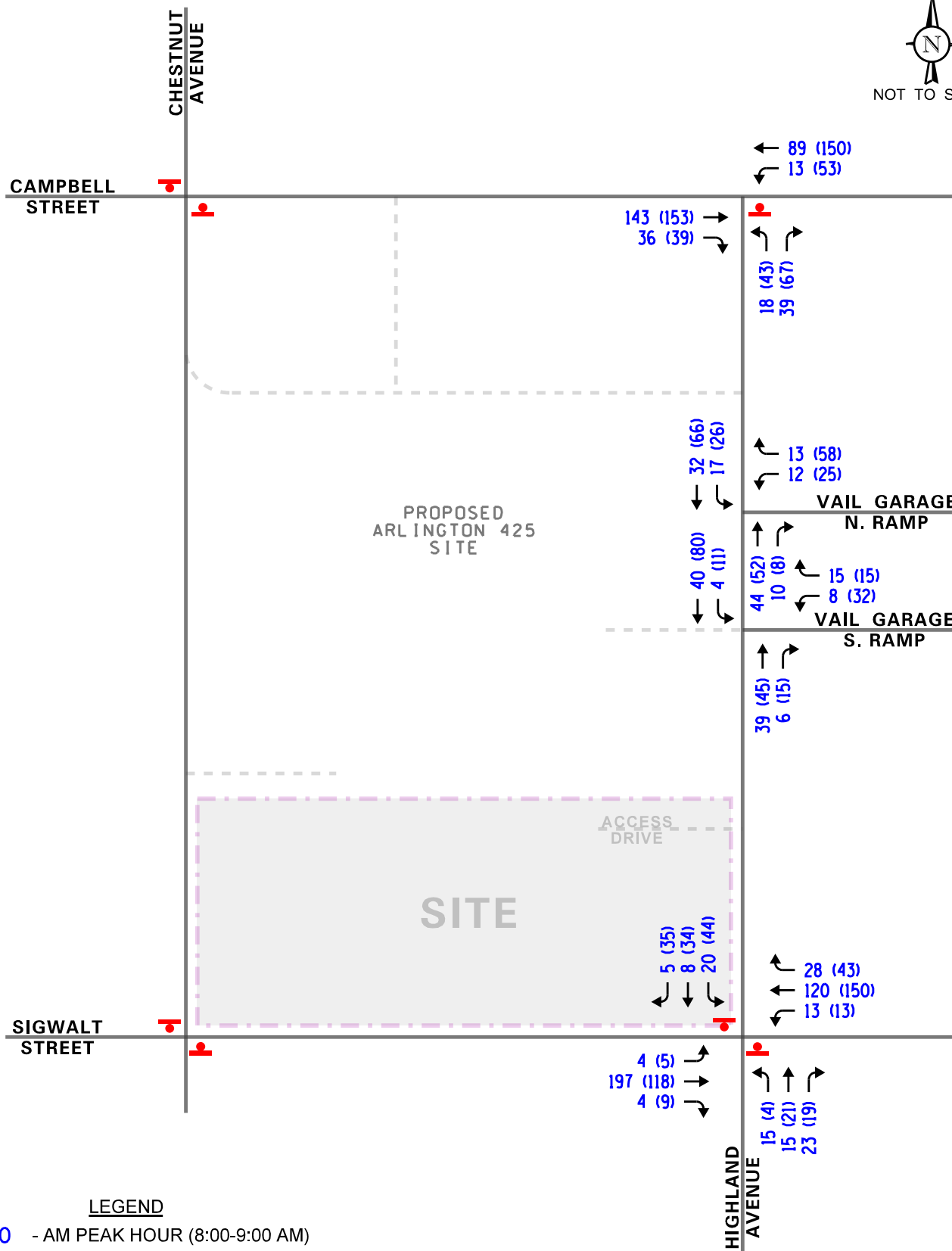
Accident Analysis

KLOA, Inc. obtained accident data from the Village of Arlington Heights and IDOT for the most recent available five years (2012 to 2016) for the studied intersections. **Table 1** summarizes the accident data for the intersections¹. A review of the data showed that the intersections are not high accident locations and that no fatalities were reported.

Table 1
ACCIDENT DATA SUMMARY

Intersection	Year				
	2012	2013	2014	2015	2016
Highland Avenue with Campbell Street	0	4	1	0	2
Highland Avenue with Sigwalt Street	1	1	1	0	1

¹ Disclaimer: The motor vehicle crash data referenced herein was partly provided by the Illinois Department of Transportation. The author is responsible for any data analyses and conclusions drawn.

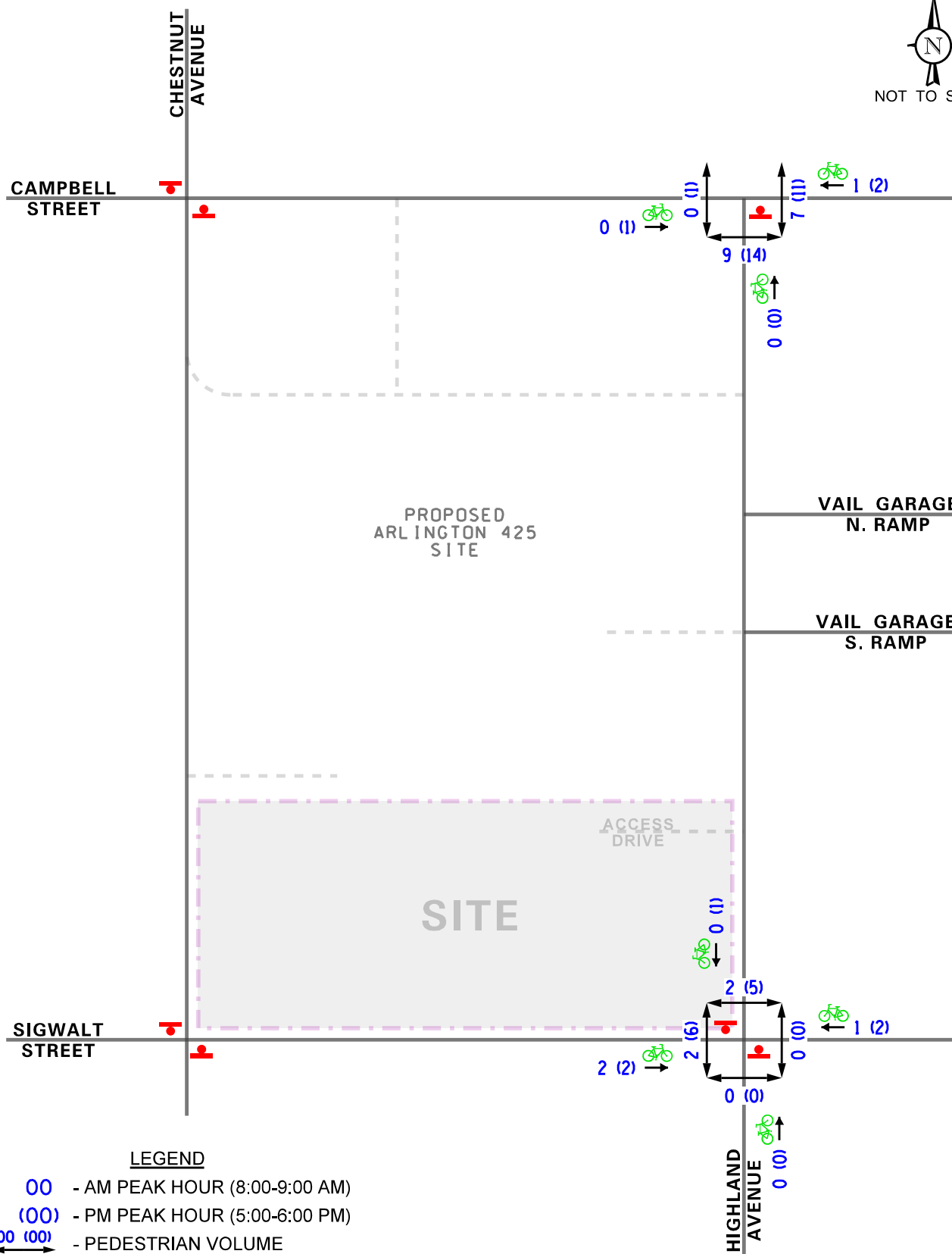
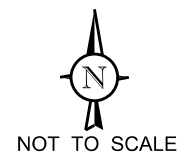


LEGEND
 00 - AM PEAK HOUR (8:00-9:00 AM)
 (00) - PM PEAK HOUR (5:00-6:00 PM)

Proposed Row
 Home Development
 Arlington Heights, Illinois

Existing Traffic Volumes

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Proposed Row
Home Development
Arlington Heights, Illinois

Existing Pedestrian and Bicycle
Traffic Volumes

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Job No: 19-063 Figure: 5

Public Transportation

Sidewalks are provided on the surrounding roadway network and high-visibility or standard crosswalks are generally provided, as noted above. The intersection of Chestnut Avenue with Sigwalt Street does not provide crosswalks. Furthermore, the site is located approximately one-third of a mile walking distance from the Arlington Heights UP-NW Metra Station which offers daily service between Harvard/McHenry and Chicago.

The site is also within the vicinity of Pace Bus Route 696 (Randhurst/Woodfield/Harper College) which provides weekday service from Mt. Prospect to Palatine. Service operates from Randhurst Mall to Harper College. Rush hour service runs every 30 minutes and mid-day service runs every hour. This bus route serves the following major destinations: Randhurst Mall, Prospect H.S., Metra Union Pacific Northwest Line (Arlington Heights), Cook County Courthouse, Rolling Meadows Shopping Center, East Park, Mallard Cove, Woodfield Gardens, Motorola Headquarters, Schaumburg Convention Center, IKEA, Roosevelt University, Woodfield Mall, Pace Northwest Transportation Center, and Harper College.

3. Traffic Characteristics of the Proposed Development

To evaluate the impact of the subject development on the area roadway system, it was necessary to quantify the number of vehicle trips the overall development will generate during the weekday morning and the weekday evening peak hours and then determine the directions from which this traffic will approach and depart the individual sites.

Proposed Development Plan

The concept plans call for 16 row homes that will front Sigwalt Street, Chestnut Street, and Highland Avenue.

Vehicle Access

Access to the individual row home garages and guest parking will be from a single access drive off Highland Avenue, located approximately 125 feet north of Sigwalt Street and approximately 155 feet south of the southerly ramp serving the Vail garage. The access will provide one lane inbound and one lane outbound allowing both left- and right-turning exiting movements. The outbound lane will be under stop sign control.

Parking

Each row home will provide individual garages and approximately eight guest parking spaces are proposed on-site.

Refuse

Refuse vehicles will serve the site from the proposed internal surface parking lot accessed from the proposed drive off Highland Avenue.

Directional Distribution

The directions from which vehicles will approach and depart the overall site were estimated based on existing travel patterns, as determined from the traffic counts, as well as the type and location of the access drives proposed to serve the development. **Figure 6** illustrates the directional distribution of the development generated traffic. Figure 6 also shows the distance, in feet, between existing and proposed roadways.

Estimated Site Traffic Generation

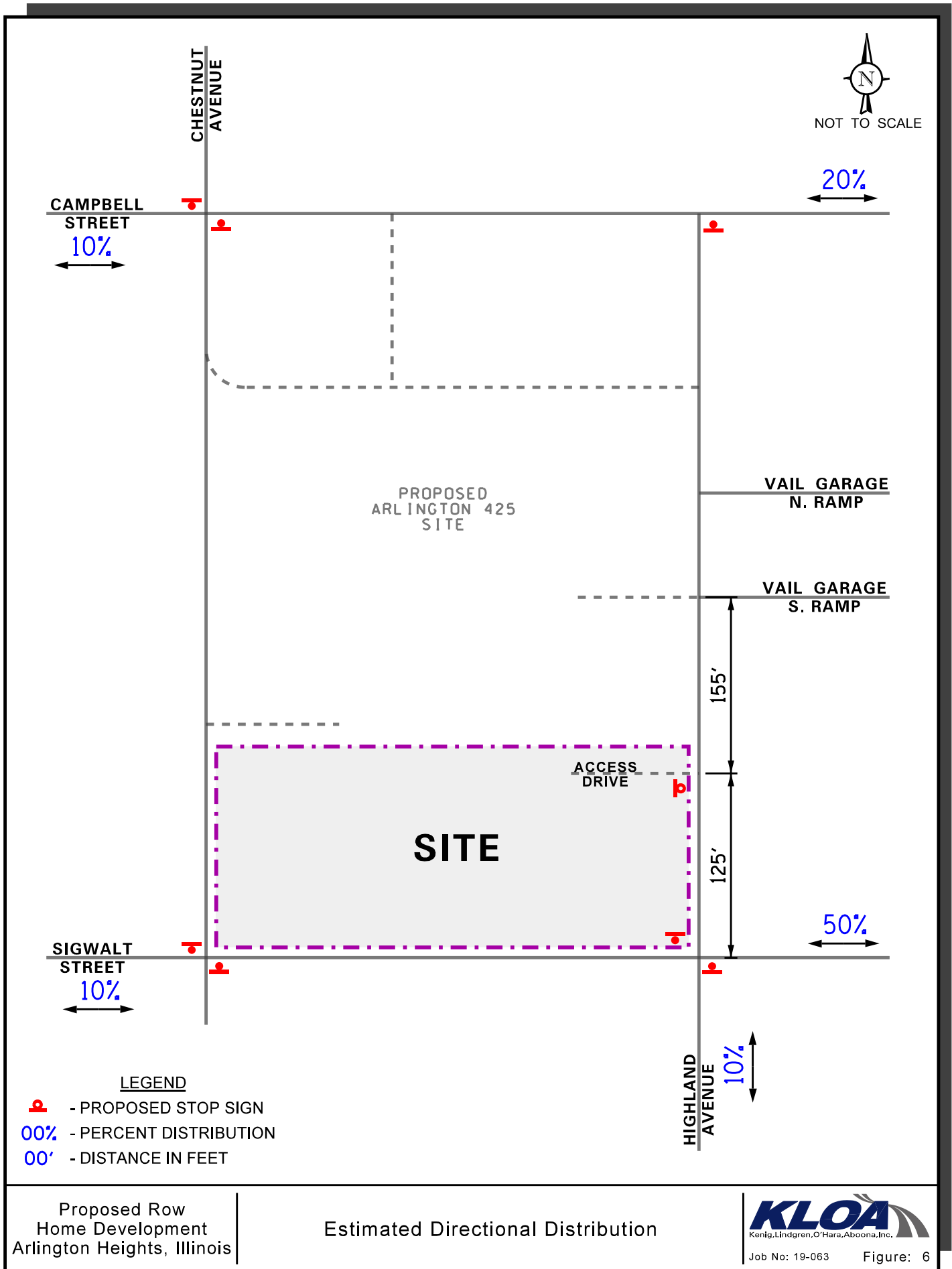
The estimates of vehicle traffic to be generated by the development are based upon the proposed land use types and sizes. The volume of traffic generated was estimated using data published in the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition.

Table 2 tabulates the total trips anticipated from this proposed development for the weekday morning and weekday evening peak hours, as well as the daily (two-way) traffic volumes. As shown, the development is estimated to generate a low volume of vehicle trips during peak commuting hours. It is further important to note that based on a review of the census data, approximately 15 percent of the residents located within one-quarter mile of the Metra station utilize alternative modes of transportation to get to work. As a result, the estimated number of generated trips may be further reduced. However, no reductions were applied to the trip generation shown in Table 2 to provide for a conservative study.

Table 2

ESTIMATED VEHICLE TRIP GENERATION FOR THE PROPOSED DEVELOPMENT

Development/Size	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Weekday Daily Trips
	In	Out	In	Out	
LUC 220 – 16 row home units	2	6	7	5	80



4. Projected Traffic Conditions

The total projected traffic volumes include the existing traffic volumes increased by ambient growth, background traffic estimated to be generated by the proposed Arlington 425 residential development, and the traffic estimated to be generated by the proposed subject development.

Development Traffic Assignment

The estimated weekday morning and evening peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 6). The traffic assignment is illustrated in **Figure 7**.

Background Traffic Conditions

The background traffic volumes include regional growth in traffic and traffic estimated to be generated by planned developments in the area, as described below.

Regional Growth

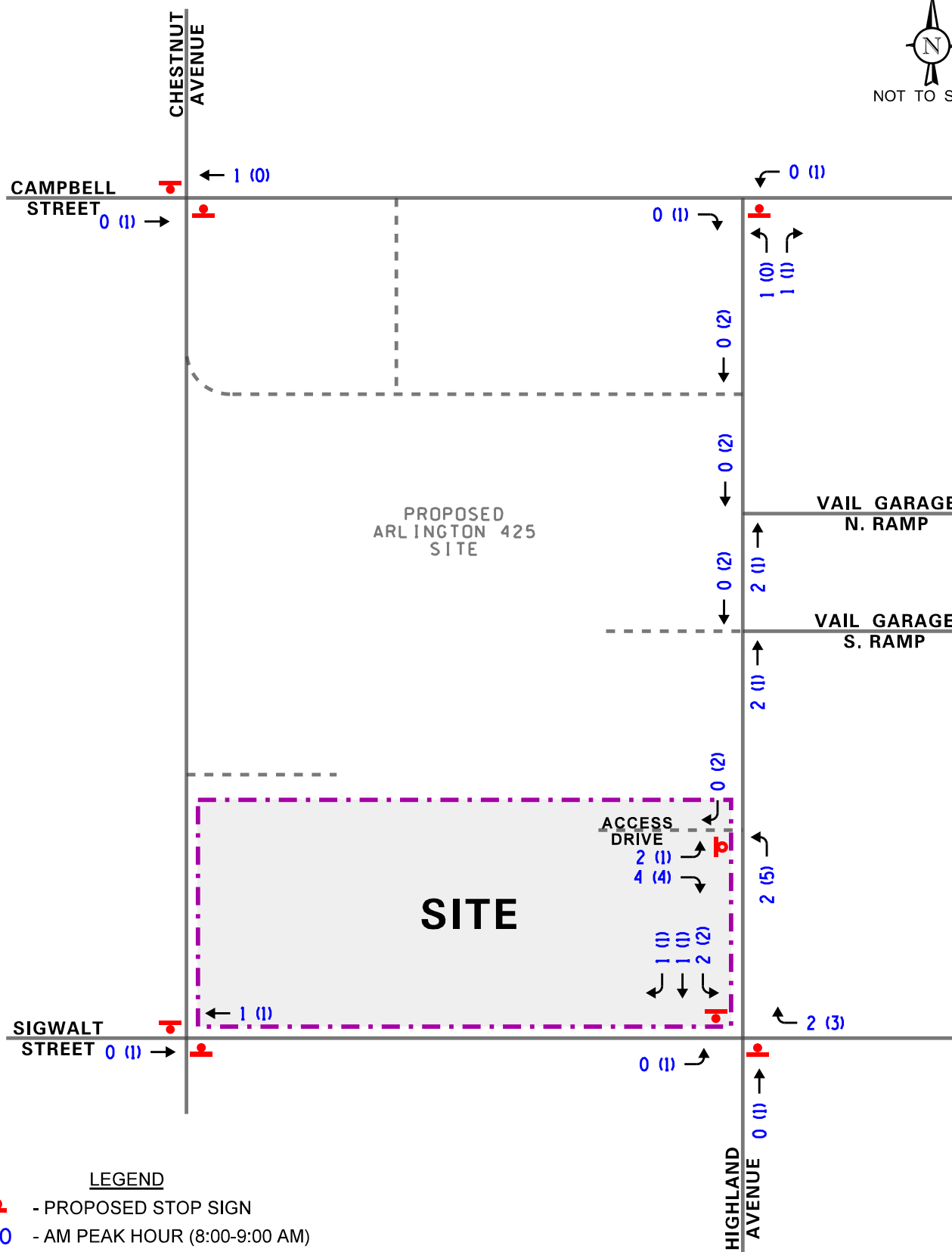
The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on the Village of Arlington Heights 2015 Comprehensive Plan, an increase of one-half percent per year over six years (three percent total) was applied to the existing peak hour traffic volumes to project Year 2024 conditions.

Planned Background Development

The traffic from the proposed Arlington 425 residential development was included in the Year 2024 base condition. The Arlington 425 residential development proposes an inbound only access drive and a residential access drive off Highland Avenue, located north of the access drive serving the proposed row home development. Further, access is proposed from Campbell Street and two access drives off Chestnut Avenue. Traffic assignment for the overall Arlington 425 development is included as **Figure A** and is located in the Appendix of this report. **Figure 8** shows the Year 2024 Base (No-Build) traffic volumes, which includes the regional growth in traffic and the traffic estimated to be generated by the proposed Arlington 425 residential development.

Total Projected Traffic Volumes

Total projected traffic volumes include the Year 2024 Base traffic volumes (Figure 8) and the traffic estimated to be generated by the proposed development (Figure 7). It is important to note that the existing pedestrian and bicycle traffic volumes (Figure 5) were increased to account for projected pedestrian activity in this area. **Figure 9** shows the total projected vehicle traffic volumes.



LEGEND

- PROPOSED STOP SIGN
- 00 - AM PEAK HOUR (8:00-9:00 AM)
- (00) - PM PEAK HOUR (5:00-6:00 PM)

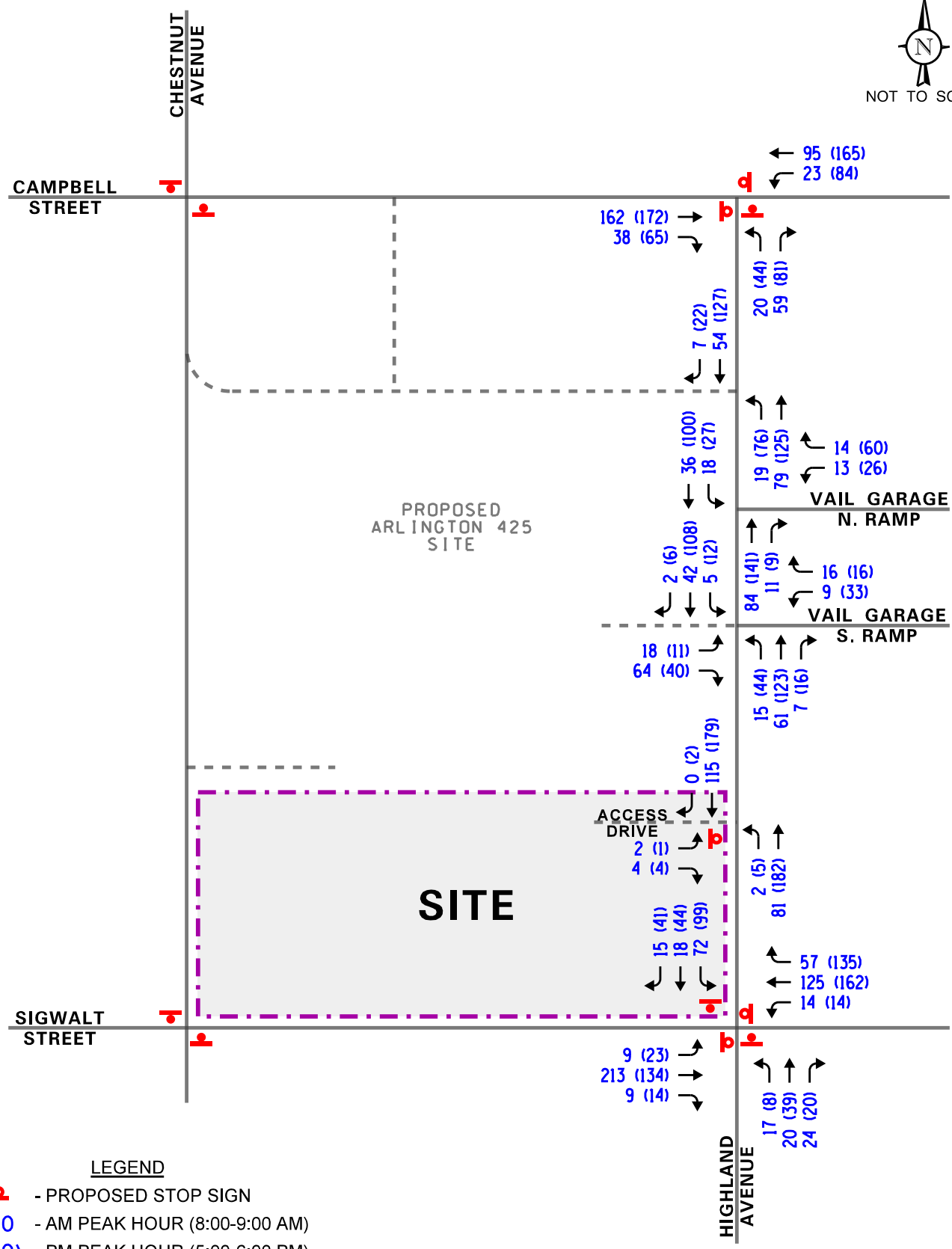
Proposed Row
Home Development
Arlington Heights, Illinois

Estimated Site-Generated
Traffic Volumes

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Job No: 19-063 Figure: 7



NOT TO SCALE



Proposed Row
Home Development
Arlington Heights, Illinois

Total Projected Traffic Volumes

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5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning and weekday evening peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access drives are projected to operate and whether any roadway improvements or modifications are required.

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning and weekday evening peak hour periods for the existing (Year 2018/2019) and future projected (Year 2024) traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM)*, 2010 and analyzed using Synchro/SimTraffic computer software.

The analyses for the unsignalized intersections determine the average control delay to vehicles at an intersection. Control delay is the elapsed time from a vehicle joining the queue at a stop sign (includes the time required to decelerate to a stop) until its departure from the stop sign and resumption of free flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter from A to F based on the average control delay experienced by vehicles passing through the intersection. The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for signalized intersections and unsignalized intersections are included in the Appendix of this report.

Pedestrian and bicycle impacts are factored into the resulting levels of service and delay for each respective intersection. As noted, the existing pedestrian volumes were increased under projected traffic conditions to account for increased pedestrian activity in the area resulting from the proposed development. Further, the Village has plans to modify the traffic control at the intersections of Highland Avenue with Campbell Street and Sigwalt Street to be under all way stop sign control. As such, analyses for future conditions included these improvements.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing (Year 2018/2019) and Year 2024 total projected conditions are presented in **Tables 3 and 4**, respectively. A discussion of the intersections follows.

Table 3

CAPACITY ANALYSIS RESULTS – EXISTING TRAFFIC CONDITIONS

Intersection/Approach	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Highland Avenue and Campbell Street				
• Northbound Approach	B	10.1	B	12.3
Highland Avenue and Sigwalt Street				
• Northbound Approach	B	12.8	B	11.9
• Southbound Approach	B	14.3	B	14.1
Highland Avenue and North Garage Ramp				
• Westbound Approach	A	9.0	A	9.3
Highland Avenue and South Garage Ramp				
• Westbound Approach	A	8.8	A	9.5
LOS = Level of Service Delay is measured in seconds.				

Table 4

CAPACITY ANALYSIS RESULTS – FUTURE TRAFFIC CONDITIONS

Intersection/Approach	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Highland and Campbell (All-Way Stop)				
• Overall	A	8.4	A	9.6
• Eastbound Approach	A	8.6	A	9.5
• Westbound Approach	A	8.4	B	10.1
• Northbound Approach	A	7.8	A	8.9
Highland Ave and Sigwalt St (All-Way Stop)				
• Overall	B	11.1	B	10.9
• Eastbound Approach	B	12.1	B	10.2
• Westbound Approach	B	10.9	B	11.8
• Northbound Approach	A	9.4	A	9.2
• Southbound Approach	B	10.4	B	10.8
Highland Avenue and North Garage Ramp				
• Westbound Approach	B	10.4	B	12.0
Highland Avenue and South Garage Ramp/425 Access				
• Eastbound Approach	B	10.6	B	11.8
• Westbound Approach	B	10.9	C	15.5
Highland Avenue and Proposed Access				
• Eastbound Approach	A	9.2	A	9.6
LOS = Level of Service Delay is measured in seconds.				

Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identify any roadway and traffic control improvements to accommodate the development traffic.

Highland Avenue and Campbell Street

The northbound approach currently operates at a LOS B or better during the peak hours. For future conditions, the intersection was analyzed as an all way stop sign-control. The analyses show that northbound approach will continue to operate at acceptable levels of service during the peak hours with minimal increases in overall delay. The queue analysis shows that the northbound queue on Highland Avenue will not exceed one to two vehicles during peak hours. Furthermore, westbound left-turn movements from Campbell Street onto Highland Avenue are projected to continue operating at LOS A during the peak hours with increases in delay of less than one second and 95th percentile queues of one to two vehicles. The proposed development traffic will have a limited impact on the operations of this intersection. High-visibility crosswalks should be provided on the east and south legs of the intersection.

Highland Avenue and Sigwalt Street

This intersection was analyzed as an all way stop sign control. The analyses show that the overall intersection, as well as the individual approaches, will operate at an LOS B or better for both peak hours under projected conditions. The queue analysis shows that the queues on all four approaches will not exceed one to two vehicles during peak hours. The existing high-visibility crosswalks on all four legs should be restriped due to weathering/fading.

Highland Avenue and Proposed Access Drive

All of the independent row home garages and the guest parking will be accessed from a single, full access drive off Highland Avenue. The access will provide one lane inbound and one lane outbound. The outbound lane should be under stop sign control. A minimum of two on-street parking spaces on the west side of Highland Avenue will need to be removed to accommodate the access intersection. The capacity analyses show that this access intersection will operate at acceptable levels of service with minimal queuing and delay. The access drive is located south of the existing one-way westbound (exit) alley to the north, and north of the two access drives on the east side of Highland Avenue serving the former AT&T development, and therefore will not have turning movement conflicts with these existing access drives. Further, the proposed development is estimated to generate a low volume of traffic during peak commuting hours. As such, the introduction of this access drive will have a minimal impact on the projected traffic operations along Highland Avenue. A high-visibility crosswalk is recommended across the driveway approach.

Pedestrian Mobility

The development proposes a pedestrian network system both within the development, as well as along the site frontage of the surrounding roadways (Sigwalt Street, Chestnut Avenue, and Highland Avenue). Further, high-visibility crosswalks should be provided on surrounding intersections, as identified earlier in this study.

6. Conclusion

The plan for a 16-row home residential development is proposed to be located north of Sigwalt Street between Chestnut Avenue and Highland Avenue. Access to the individual row home unit garages and guest parking will be from a single, full access drive off Highland Avenue. Based on the preceding analyses and recommendations, the following conclusions have been made:

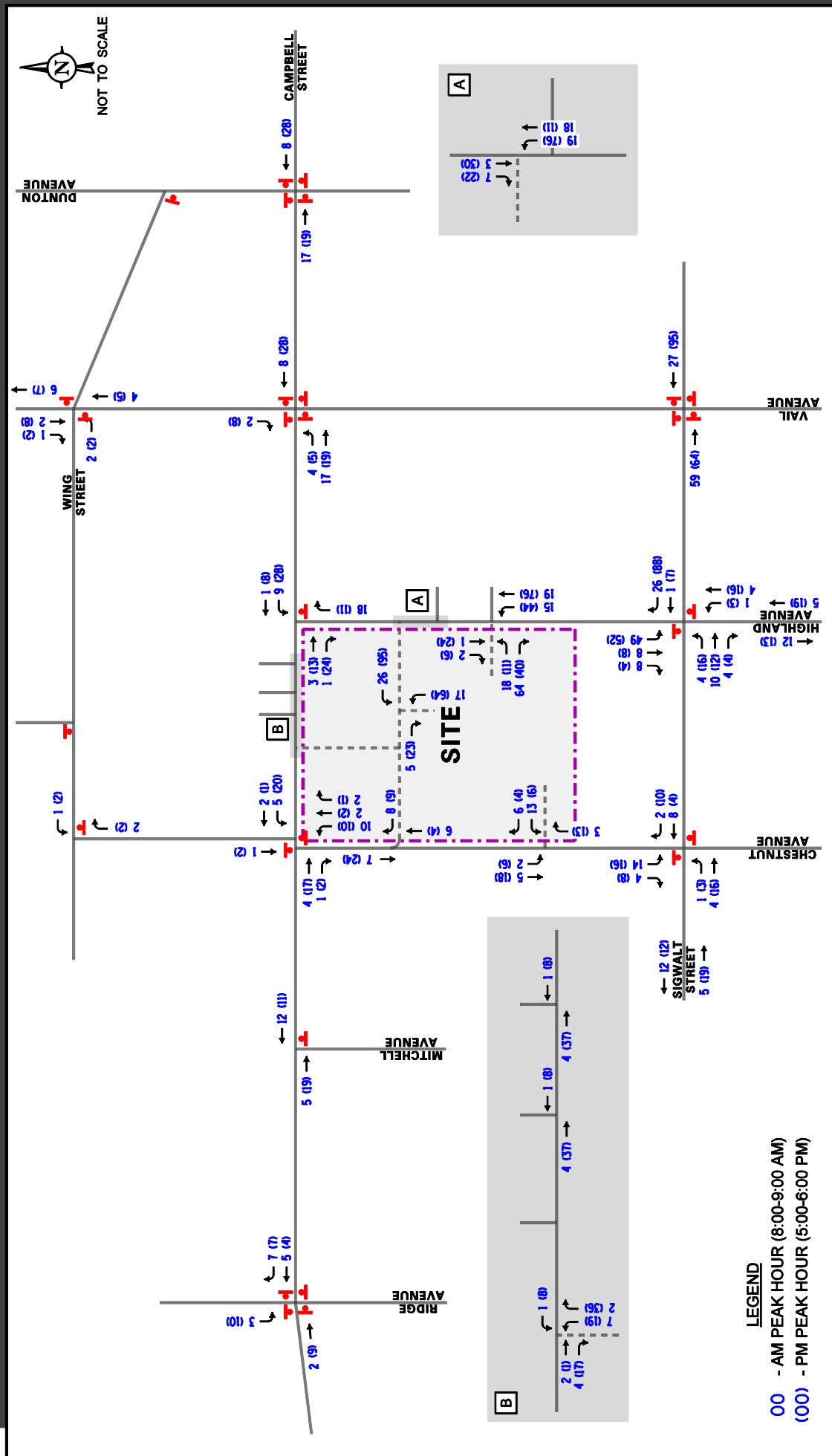
- The proposed overall development is located on the west portion of the Village of Arlington Heights's downtown district, which provides retail, entertainment, and commercial uses, and experiences high pedestrian mobility and interactivity. A residential development in this area is considered a complementary land use to further support these convenient and nearby goods and services without requiring the use of an automobile.
- Accessibility to and from the proposed development and surrounding area is enhanced by the various alternative modes of transportation serving the area, including bus transit and pedestrian and bicycle amenities.
- The low volume of traffic estimated to be generated by the proposed development will be further reduced due to the alternative modes of transportation serving the area and the convenience and accessibility of nearby goods and services.
- The development-generated traffic can be accommodated without significant impact to the external roadway system. All of the intersections within the study limits are projected to operate at acceptable levels of service with the addition of the proposed development-generated traffic, regional growth in existing traffic, and the traffic estimated to be generated by the proposed Arlington 425 development.
- The capacity analyses show that the intersections of Highland Avenue with Campbell Street and Sigwalt Street will operate at acceptable levels of service under all way stop sign control. Both Sigwalt Street traffic and Campbell Street traffic are currently under freeflow conditions.
- The proposed full access off Highland Avenue serving the proposed development will provide one lane inbound and one lane outbound under stop sign control. A high-visibility crosswalk is recommended across the driveway approach.
- The projected low vehicle turning movements at the proposed access drive will have a low impact on the projected traffic operations along Highland Avenue between Sigwalt Street and Campbell Street that include the Vail garage ramps and the one-way westbound (exit) alley to the north and the two access drives serving the former AT&T development to the south.
- A minimum of two on-street parking spaces on the west side of Highland Avenue will need to be removed to accommodate the access intersection.

Appendix

Site Plan
Background Traffic Assignment Figure
Traffic Counts
Capacity Analysis

Site Plan

Background Traffic Assignment Figure



Traffic Counts



Kenig, Lindgren, O'Hara, Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Campbell Street and Highland Avenue
Site Code:
Start Date: 06/26/2018
Page No: 1

Turning Movement Data

Start Time	Campbell Street Eastbound					Campbell Street Westbound					Highland Avenue Northbound				
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	Int. Total
7:00 AM	0	9	11	0	20	0	0	15	1	15	0	8	5	4	48
7:15 AM	0	17	8	0	25	0	0	14	3	14	0	7	8	3	54
7:30 AM	0	20	13	0	33	0	2	16	5	18	0	7	4	1	62
7:45 AM	0	27	17	0	44	0	3	18	4	21	0	6	4	2	75
Hourly Total	0	73	49	0	122	0	5	63	13	68	0	28	21	10	239
8:00 AM	0	22	8	0	30	1	1	16	3	18	0	3	5	1	56
8:15 AM	0	39	13	0	52	0	4	18	1	22	0	8	8	0	90
8:30 AM	0	38	5	0	43	0	4	17	1	21	0	6	12	3	82
8:45 AM	0	41	10	0	51	0	3	16	2	19	0	1	14	5	85
Hourly Total	0	140	36	0	176	1	12	67	7	80	0	18	39	9	313
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	37	5	1	42	0	6	30	3	36	0	5	9	6	92
4:15 PM	0	40	5	2	45	4	1	22	2	27	0	2	5	5	79
4:30 PM	0	38	6	0	44	0	3	40	0	43	0	2	9	6	98
4:45 PM	0	36	12	3	48	3	3	24	0	30	0	2	7	3	87
Hourly Total	0	151	28	6	179	7	13	116	5	136	0	11	30	20	356
5:00 PM	0	36	7	0	43	0	10	38	3	48	0	8	17	5	116
5:15 PM	0	23	7	0	30	0	10	35	2	45	0	6	16	0	97
5:30 PM	0	36	6	0	42	0	9	31	1	40	0	10	18	1	110
5:45 PM	0	43	8	1	51	1	18	16	5	35	0	7	9	8	102
Hourly Total	0	138	28	1	166	1	47	120	11	168	0	31	60	14	425
Grand Total	0	502	141	7	643	9	77	366	36	452	0	88	150	53	1333
Approach %	0.0	78.1	21.9	-	-	2.0	17.0	81.0	-	-	0.0	37.0	63.0	-	-
Total %	0.0	37.7	10.6	-	48.2	0.7	5.8	27.5	-	33.9	0.0	6.6	11.3	-	17.9
Lights	0	500	140	-	640	9	75	356	-	440	0	87	147	-	234
% Lights	-	99.6	99.3	-	99.5	100.0	97.4	97.3	-	97.3	-	98.9	98.0	-	98.6
Buses	0	0	0	-	0	0	0	1	-	1	0	1	0	-	2
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	0.3	-	0.2	-	1.1	0.0	-	0.4
Single-Unit Trucks	0	0	1	-	1	0	0	4	-	4	0	0	0	-	5
% Single-Unit Trucks	-	0.0	0.7	-	0.2	0.0	0.0	1.1	-	0.9	-	0.0	0.0	-	0.4
Articulated Trucks	0	0	0	-	0	0	0	1	-	1	0	0	0	-	1
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.3	-	0.2	-	0.0	0.0	-	0.1
Bicycles on Road	0	2	0	-	2	0	2	4	-	6	0	0	3	-	11
% Bicycles on Road	-	0.4	0.0	-	0.3	0.0	2.6	1.1	-	1.3	-	0.0	2.0	-	0.8
Pedestrians	-	-	-	7	-	-	-	-	36	-	-	-	-	53	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Campbell Street and Highland Avenue
Site Code:
Start Date: 06/26/2018
Page No.: 2

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Campbell Street Eastbound					Campbell Street Westbound					Highland Avenue Northbound				
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	Int. Total
8:00 AM	0	22	8	0	30	1	1	16	3	18	0	3	5	1	56
8:15 AM	0	39	13	0	52	0	4	18	1	22	0	8	8	0	16
8:30 AM	0	38	5	0	43	0	4	17	1	21	0	6	12	3	18
8:45 AM	0	41	10	0	51	0	3	16	2	19	0	1	14	5	15
Total	0	140	36	0	176	1	12	67	7	80	0	18	39	9	313
Approach %	0.0	79.5	20.5	-	-	1.3	15.0	83.8	-	-	0.0	31.6	68.4	-	-
Total %	0.0	44.7	11.5	-	56.2	0.3	3.8	21.4	-	25.6	0.0	5.8	12.5	-	18.2
PHF	0.000	0.854	0.682	-	0.846	0.250	0.750	0.931	-	0.909	0.000	0.563	0.696	-	0.792
Lights	0	140	35	-	175	1	12	63	-	76	0	18	39	-	57
% Lights	-	100.0	97.2	-	99.4	100.0	100.0	94.0	-	95.0	-	100.0	100.0	-	100.0
Buses	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	1.5	-	1.3	-	0.0	0.0	-	0.0
Single-Unit Trucks	0	0	1	-	1	0	0	2	-	2	0	0	0	-	0
% Single-Unit Trucks	-	0.0	2.8	-	0.6	0.0	0.0	3.0	-	2.5	-	0.0	0.0	-	0.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0
Bicycles on Road	0	0	0	-	0	0	0	1	-	1	0	0	0	-	1
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	0.0	1.5	-	1.3	-	0.0	0.0	-	0.0
Pedestrians	-	-	-	0	-	-	-	-	7	-	-	-	-	9	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Campbell Street and Highland Avenue
Site Code:
Start Date: 06/26/2018
Page No.: 3

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Campbell Street Eastbound					Campbell Street Westbound					Highland Avenue Northbound				
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	Int. Total
5:00 PM	0	36	7	0	43	0	10	38	3	48	0	8	17	5	116
5:15 PM	0	23	7	0	30	0	10	35	2	45	0	6	16	0	22
5:30 PM	0	36	6	0	42	0	9	31	1	40	0	10	18	1	110
5:45 PM	0	43	8	1	51	1	18	16	5	35	0	7	9	8	102
Total	0	138	28	1	166	1	47	120	11	168	0	31	60	14	425
Approach %	0.0	83.1	16.9	-	-	0.6	28.0	71.4	-	-	0.0	34.1	65.9	-	-
Total %	0.0	32.5	6.6	-	39.1	0.2	11.1	28.2	-	39.5	0.0	7.3	14.1	-	21.4
PHF	0.000	0.802	0.875	-	0.814	0.250	0.653	0.789	-	0.875	0.000	0.775	0.833	-	0.813
Lights	0	137	28	-	165	1	45	120	-	166	0	31	60	-	91
% Lights	-	99.3	100.0	-	99.4	100.0	95.7	100.0	-	98.8	-	100.0	100.0	-	100.0
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Single-Unit Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0
Bicycles on Road	0	1	0	-	1	0	2	0	-	2	0	0	0	-	3
% Bicycles on Road	-	0.7	0.0	-	0.6	0.0	4.3	0.0	-	1.2	-	0.0	0.0	-	0.7
Pedestrians	-	-	-	1	-	-	-	-	11	-	-	-	-	14	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400
Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Campbell St and Chestnut Ave
Site Code:
Start Date: 08/08/2017
Page No: 1

Turning Movement Data

Start Time	Campbell Ave Eastbound					Campbell St Westbound					Chestnut Ave Northbound					Chestnut Ave Southbound					App. Total	Int. Total			
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total							
7:00 AM	0	4	24	0	0	28	0	0	24	2	3	26	0	0	1	2	3	3	0	0	5	2	2	7	64
7:15 AM	0	2	24	1	0	27	0	0	18	3	2	21	0	0	2	0	3	2	0	2	4	1	3	7	57
7:30 AM	0	5	26	0	1	31	0	0	22	2	1	24	0	1	1	0	0	2	0	1	3	2	5	6	63
7:45 AM	0	0	43	5	3	48	0	1	25	2	4	28	0	2	4	0	2	6	0	0	4	1	5	5	87
Hourly Total	0	11	117	6	4	134	0	1	89	9	10	99	0	3	8	2	8	13	0	3	16	6	15	25	271
8:00 AM	0	2	34	1	1	37	0	1	25	1	1	27	0	0	1	0	2	1	0	2	1	2	1	5	70
8:15 AM	0	3	38	1	1	42	0	0	28	2	3	30	0	2	0	0	1	2	0	2	2	2	3	6	80
8:30 AM	0	6	38	1	1	45	0	1	28	1	0	30	0	1	1	0	2	2	0	1	2	2	1	5	82
8:45 AM	0	2	43	3	1	48	0	0	26	2	2	28	0	1	2	2	2	5	0	1	0	2	2	3	84
Hourly Total	0	13	153	6	4	172	0	2	107	6	6	115	0	4	4	2	7	10	0	6	5	8	7	19	316
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	7	53	0	2	60	0	0	29	1	1	30	0	3	0	0	5	3	0	1	2	6	0	9	102
4:15 PM	0	4	35	0	1	39	0	0	38	2	1	40	0	6	1	0	0	7	0	0	2	7	2	9	95
4:30 PM	0	6	24	0	1	30	1	2	30	5	0	38	0	2	2	0	2	4	0	3	1	6	0	10	82
4:45 PM	0	3	33	4	0	40	0	0	31	2	0	33	0	2	2	3	2	7	0	1	3	3	2	7	87
Hourly Total	0	20	145	4	4	169	1	2	128	10	2	141	0	13	5	3	9	21	0	5	8	22	4	35	366
5:00 PM	0	2	40	3	0	45	0	0	34	0	0	34	0	4	2	2	2	8	0	1	1	9	2	11	98
5:15 PM	0	7	41	2	0	50	2	2	26	3	0	33	0	4	2	0	0	6	0	1	1	5	0	7	96
5:30 PM	0	5	29	4	0	38	1	5	35	6	2	47	0	4	1	2	4	7	0	5	2	3	4	10	102
5:45 PM	0	6	50	3	1	59	2	1	31	3	4	37	0	2	8	3	6	13	0	3	4	2	10	9	118
Hourly Total	0	20	160	12	1	192	5	8	126	12	6	151	0	14	13	7	12	34	0	10	8	19	16	37	414
Grand Total	0	64	575	28	13	667	6	13	450	37	24	506	0	34	30	14	36	78	0	24	37	55	42	116	1367
Approach %	0.0	9.6	86.2	4.2	-	-	1.2	2.6	88.9	7.3	-	-	0.0	43.6	38.5	17.9	-	-	0.0	20.7	31.9	47.4	-	-	-
Total %	0.0	4.7	42.1	2.0	-	48.8	0.4	1.0	32.9	2.7	-	37.0	0.0	2.5	2.2	1.0	-	5.7	0.0	1.8	2.7	4.0	-	8.5	-
% Lights	0	60	564	27	-	651	6	13	440	35	-	494	0	34	27	13	-	74	0	24	34	53	-	111	1330
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	2	0	0	0	0	-	0	2
% Buses	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	6.7	0.0	-	2.6	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	7	0	-	7	0	0	5	2	-	7	0	0	1	1	-	2	0	0	1	2	-	3	19
% Single-Unit Trucks	-	0.0	1.2	0.0	-	1.0	0.0	0.0	1.1	5.4	-	1.4	-	0.0	3.3	7.1	-	2.6	-	0.0	2.7	3.6	-	2.6	1.4
Articulated Trucks	0	1	1	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	2
% Articulated Trucks	-	1.6	0.2	0.0	-	0.3	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	3	3	1	-	7	0	0	5	0	-	5	0	0	0	0	-	0	0	0	2	0	-	2	14
% Bicycles on Road	-	4.7	0.5	3.6	-	1.0	0.0	0.0	1.1	0.0	-	1.0	-	0.0	0.0	0.0	-	0.0	-	0.0	5.4	0.0	-	1.7	1.0
Pedestrians	-	-	-	-	13	-	-	-	-	-	24	-	-	-	-	-	36	-	-	-	-	-	42	-	-



Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Campbell St and Chestnut Ave
Site Code:
Start Date: 08/08/2017
Page No.: 3

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Campbell Ave Eastbound						Campbell St Westbound						Chestnut Ave Northbound						Chestnut Ave Southbound					
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total
8:00 AM	0	2	34	1	1	37	0	1	25	1	1	27	0	0	1	0	0	2	0	2	1	2	1	5
8:15 AM	0	3	38	1	1	42	0	0	28	2	3	30	0	2	0	0	0	1	2	2	2	2	3	6
8:30 AM	0	6	38	1	1	45	0	1	28	1	0	30	0	1	1	0	0	2	0	1	2	2	1	5
8:45 AM	0	2	43	3	1	48	0	0	26	2	2	28	0	1	2	2	2	5	0	1	0	2	2	3
Total	0	13	153	6	4	172	0	2	107	6	6	115	0	4	4	2	7	10	0	6	5	8	7	19
Approach %	0.0	7.6	89.0	3.5	-	-	0.0	1.7	93.0	5.2	-	-	0.0	40.0	40.0	20.0	-	-	0.0	31.6	26.3	42.1	-	-
Total %	0.0	4.1	48.4	1.9	-	54.4	0.0	0.6	33.9	1.9	-	36.4	0.0	1.3	1.3	0.6	-	3.2	0.0	1.9	1.6	2.5	-	6.0
PHF	0.000	0.542	0.890	0.500	-	0.896	0.000	0.500	0.955	0.750	-	0.958	0.000	0.500	0.500	0.250	-	0.500	0.000	0.750	0.625	1.000	-	0.792
Lights	0	13	151	6	-	170	0	2	104	5	-	111	0	4	4	2	-	10	0	6	5	7	-	18
% Lights	-	100.0	98.7	100.0	-	98.8	-	100.0	97.2	83.3	-	96.5	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	87.5	-	94.7
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0
Single-Unit Trucks	0	0	2	0	-	2	0	0	3	1	-	4	0	0	0	0	-	0	0	0	0	1	-	1
% Single-Unit Trucks	-	0.0	1.3	0.0	-	1.2	-	0.0	2.8	16.7	-	3.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	12.5	-	5.3
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0
Pedestrians	-	-	-	-	4	-	-	-	-	-	6	-	-	-	-	-	7	-	-	-	-	-	7	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-



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Count Name: Campbell St and Chestnut Ave
Site Code:
Start Date: 08/08/2017
Page No: 4

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Campbell Ave Eastbound						Campbell St Westbound						Chestnut Ave Northbound						Chestnut Ave Southbound							
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total	
5:00 PM	0	2	40	3	0	45	0	0	34	0	0	34	0	4	2	2	2	2	8	0	1	1	9	2	11	98
5:15 PM	0	7	41	2	0	50	2	2	26	3	0	33	0	4	2	0	0	0	6	0	1	1	5	0	7	96
5:30 PM	0	5	29	4	0	38	1	5	35	6	2	47	0	4	1	2	4	7	7	0	5	2	3	4	10	102
5:45 PM	0	6	50	3	1	59	2	1	31	3	4	37	0	2	8	3	6	13	13	0	3	4	2	10	9	118
Total	0	20	160	12	1	192	5	8	126	12	6	151	0	14	13	7	12	34	34	0	10	8	19	16	37	414
Approach %	0.0	10.4	83.3	6.3	-	-	3.3	5.3	83.4	7.9	-	-	0.0	41.2	38.2	20.6	-	-	-	0.0	27.0	21.6	51.4	-	-	-
Total %	0.0	4.8	38.6	2.9	-	46.4	1.2	1.9	30.4	2.9	-	36.5	0.0	3.4	3.1	1.7	-	8.2	0.0	2.4	1.9	4.6	-	8.9	-	
PHF	0.000	0.714	0.800	0.750	-	0.814	0.625	0.400	0.900	0.500	-	0.803	0.000	0.875	0.406	0.583	-	0.654	0.000	0.500	0.500	0.528	-	0.841	0.877	
Lights	0	20	157	11	-	188	5	8	123	12	-	148	0	14	13	7	-	34	0	10	6	19	-	35	405	
% Lights	-	100.0	98.1	91.7	-	97.9	100.0	100.0	97.6	100.0	-	98.0	-	100.0	100.0	100.0	-	100.0	-	100.0	75.0	100.0	-	94.6	97.8	
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	
% Buses	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	
Single-Unit Trucks	0	0	2	0	-	2	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	3	
% Single-Unit Trucks	-	0.0	1.3	0.0	-	1.0	0.0	0.0	0.8	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.7	
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	
Bicycles on Road	0	0	1	1	-	2	0	0	2	0	-	2	0	0	0	0	-	0	0	0	2	0	-	2	6	
% Bicycles on Road	-	0.0	0.6	8.3	-	1.0	0.0	0.0	1.6	0.0	-	1.3	-	0.0	0.0	0.0	-	0.0	-	0.0	25.0	0.0	-	5.4	1.4	
Pedestrians	-	-	-	-	1	-	-	-	-	-	6	-	-	-	-	-	12	-	-	-	-	-	16	-	-	
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	



Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Sigwalt Street and Highland Avenue
Site Code:
Start Date: 06/26/2018
Page No: 1

Turning Movement Data

Start Time	Sigwalt Street Eastbound					Sigwalt Street Westbound					Highland Avenue Northbound					Highland Avenue Southbound					Int. Total				
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total							
7:00 AM	0	9	30	1	4	40	0	4	35	5	1	44	0	0	6	3	0	9	0	3	1	2	4	6	99
7:15 AM	0	5	28	0	0	33	0	1	21	2	0	24	0	0	2	2	0	4	0	6	0	2	1	8	69
7:30 AM	0	7	31	0	1	38	0	2	20	7	0	29	0	1	2	2	0	5	0	7	2	3	0	12	84
7:45 AM	0	10	16	1	2	27	0	2	29	3	2	34	0	1	8	3	0	12	0	7	0	1	0	8	81
Hourly Total	0	31	105	2	7	138	0	9	105	17	3	131	0	2	18	10	0	30	0	23	3	8	5	34	333
8:00 AM	0	0	25	2	1	27	0	1	14	3	0	18	0	3	3	3	0	9	0	3	1	2	2	6	60
8:15 AM	0	2	23	0	0	25	0	3	28	7	0	38	0	2	5	1	0	8	0	4	2	1	0	7	78
8:30 AM	0	2	26	0	0	28	0	1	26	9	0	36	0	2	2	4	0	8	0	8	2	1	0	11	83
8:45 AM	0	0	32	2	1	34	0	8	36	9	0	53	0	8	5	15	0	28	0	5	3	1	0	9	124
Hourly Total	0	4	106	4	2	114	0	13	104	28	0	145	0	15	15	23	0	53	0	20	8	5	2	33	345
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	25	1	2	26	0	3	41	4	0	48	0	0	5	3	0	8	0	5	3	0	0	8	90
4:15 PM	0	1	25	1	3	27	0	2	30	3	0	35	0	0	1	2	0	3	0	2	2	0	2	4	69
4:30 PM	0	0	32	0	0	32	0	0	38	3	2	41	0	1	1	5	0	7	0	6	2	4	2	12	92
4:45 PM	0	2	29	1	2	32	0	0	42	6	0	48	0	0	5	7	0	12	0	2	0	2	0	4	96
Hourly Total	0	3	111	3	7	117	0	5	151	16	2	172	0	1	12	17	0	30	0	15	7	6	4	28	347
5:00 PM	0	0	28	2	2	30	0	2	48	4	0	54	0	1	3	1	0	5	0	6	6	5	2	17	106
5:15 PM	0	2	29	3	1	34	0	1	28	3	0	32	0	1	7	2	0	10	0	7	4	5	0	16	92
5:30 PM	0	3	25	0	2	28	0	2	48	4	0	54	0	0	4	1	0	5	0	13	8	13	1	34	121
5:45 PM	0	5	26	1	1	32	0	2	43	5	0	50	0	2	2	7	0	11	0	7	7	3	2	17	110
Hourly Total	0	10	108	6	6	124	0	7	167	16	0	190	0	4	16	11	0	31	0	33	25	26	5	84	429
Grand Total	0	48	430	15	22	493	0	34	527	77	5	638	0	22	61	61	0	144	0	91	43	45	16	179	1454
Approach %	0.0	9.7	87.2	3.0	-	-	0.0	5.3	82.6	12.1	-	-	0.0	15.3	42.4	42.4	-	-	0.0	50.8	24.0	25.1	-	-	-
Total %	0.0	3.3	29.6	1.0	-	33.9	0.0	2.3	36.2	5.3	-	43.9	0.0	1.5	4.2	4.2	-	9.9	0.0	6.3	3.0	3.1	-	12.3	-
Lights	0	48	421	14	-	483	0	31	516	77	-	624	0	22	57	60	-	139	0	90	40	45	-	175	1421
% Lights	-	100.0	97.9	93.3	-	98.0	-	91.2	97.9	100.0	-	97.8	-	100.0	93.4	98.4	-	96.5	-	98.9	93.0	100.0	-	97.8	97.7
Buses	0	0	1	0	-	1	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	2
% Buses	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	1.6	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	6	0	-	6	0	0	7	0	-	7	0	0	0	1	-	1	0	1	0	0	-	1	15
% Single-Unit Trucks	-	0.0	1.4	0.0	-	1.2	-	0.0	1.3	0.0	-	1.1	-	0.0	0.0	1.6	-	0.7	-	1.1	0.0	0.0	-	0.6	1.0
Articulated Trucks	0	0	0	0	-	0	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	3
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.6	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	2	1	-	3	0	3	1	0	-	4	0	0	3	0	-	3	0	0	3	0	-	3	13
% Bicycles on Road	-	0.0	0.5	6.7	-	0.6	-	8.8	0.2	0.0	-	0.6	-	0.0	4.9	0.0	-	2.1	-	0.0	7.0	0.0	-	1.7	0.9
Pedestrians	-	-	-	-	22	-	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	16	-	-



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400
Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Sigwalt Street and Highland Avenue
Site Code:
Start Date: 06/26/2018
Page No.: 3

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Sigwalt Street Eastbound						Sigwalt Street Westbound						Highland Avenue Northbound						Highland Avenue Southbound						Int. Total	
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total		
8:00 AM	0	0	25	2	1	27	0	1	14	3	0	18	0	3	3	3	3	0	9	0	3	1	2	2	6	60
8:15 AM	0	2	23	0	0	25	0	3	28	7	0	38	0	2	5	1	0	8	8	0	4	2	1	0	7	78
8:30 AM	0	2	26	0	0	28	0	1	26	9	0	36	0	2	2	4	0	8	8	0	8	2	1	0	11	83
8:45 AM	0	0	32	2	1	34	0	8	36	9	0	53	0	8	5	15	0	28	0	5	3	1	0	9	124	
Total	0	4	106	4	2	114	0	13	104	28	0	145	0	15	15	23	0	53	0	20	8	5	2	33	345	
Approach %	0.0	3.5	93.0	3.5	-	-	0.0	9.0	71.7	19.3	-	-	0.0	28.3	28.3	43.4	-	-	0.0	60.6	24.2	15.2	-	-	-	-
Total %	0.0	1.2	30.7	1.2	-	33.0	0.0	3.8	30.1	8.1	-	42.0	0.0	4.3	4.3	6.7	-	15.4	0.0	5.8	2.3	1.4	-	-	9.6	-
PHF	0.000	0.500	0.828	0.500	-	0.838	0.000	0.406	0.722	0.778	-	0.684	0.000	0.469	0.750	0.383	-	0.473	0.000	0.625	0.667	0.625	-	-	0.750	0.696
Lights	0	4	104	4	-	112	0	13	103	28	-	144	0	15	15	22	-	52	0	19	8	5	-	-	32	340
% Lights	-	100.0	98.1	100.0	-	98.2	-	100.0	99.0	100.0	-	99.3	-	100.0	100.0	95.7	-	98.1	-	95.0	100.0	100.0	-	-	97.0	98.6
Buses	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1
% Buses	-	0.0	0.9	0.0	-	0.9	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	-	0.0	0.3
Single-Unit Trucks	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	1	-	1	0	1	0	0	-	-	1	3
% Single-Unit Trucks	-	0.0	0.9	0.0	-	0.9	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	4.3	-	1.9	-	5.0	0.0	0.0	-	-	3.0	0.9
Articulated Trucks	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	1.0	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	-	0.0	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	0.0	0.0	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Sigwalt Street and Highland Avenue
Site Code:
Start Date: 06/26/2018
Page No: 4

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Sigwalt Street Eastbound						Sigwalt Street Westbound						Highland Avenue Northbound						Highland Avenue Southbound					
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total
5:00 PM	0	0	28	2	2	30	0	2	48	4	0	54	0	1	3	1	0	5	0	6	6	5	2	17
5:15 PM	0	2	29	3	1	34	0	1	28	3	0	32	0	1	7	2	0	10	0	7	4	5	0	16
5:30 PM	0	3	25	0	2	28	0	2	48	4	0	54	0	0	4	1	0	5	0	13	8	13	1	34
5:45 PM	0	5	26	1	1	32	0	2	43	5	0	50	0	2	2	7	0	11	0	7	7	3	2	17
Total	0	10	108	6	6	124	0	7	167	16	0	190	0	4	16	11	0	31	0	33	25	26	5	84
Approach %	0.0	8.1	87.1	4.8	-	-	0.0	3.7	87.9	8.4	-	-	0.0	12.9	51.6	35.5	-	-	0.0	39.3	29.8	31.0	-	-
Total %	0.0	2.3	25.2	1.4	-	28.9	0.0	1.6	38.9	3.7	-	44.3	0.0	0.9	3.7	2.6	-	7.2	0.0	7.7	5.8	6.1	-	19.6
PHF	0.000	0.500	0.931	0.500	-	0.912	0.000	0.875	0.870	0.800	-	0.880	0.000	0.500	0.571	0.393	-	0.705	0.000	0.635	0.781	0.500	-	0.618
Lights	0	10	105	6	-	121	0	7	163	16	-	186	0	4	16	11	-	31	0	33	24	26	-	83
% Lights	-	100.0	97.2	100.0	-	97.6	-	100.0	97.6	100.0	-	97.9	-	100.0	100.0	100.0	-	100.0	-	100.0	96.0	100.0	-	98.8
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0
Single-Unit Trucks	0	0	3	0	-	3	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0
% Single-Unit Trucks	-	0.0	2.8	0.0	-	2.4	-	0.0	1.8	0.0	-	1.6	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	1	0	-	1
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.6	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	4.0	0.0	-	1.2
Pedestrians	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	5	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-

Arlington Heights, IL Weather: Warm and Dry
 Highland Ave and Lower Level Garage Access
 Wednesday June 27, 2018

07/02/18
 11:39:45

URNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 1 highland/lowerlevelgar													
Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
700	0	59	38	25	0	5	25	52	0	0	0	0	204
715	0	56	38	20	0	7	20	45	0	0	0	0	186
730	0	53	37	13	0	8	21	35	0	0	0	0	167
745	0	52	32	14	0	11	12	42	0	0	0	0	163
800	0	35	17	13	0	12	10	52	0	0	0	0	139
815	0	25	9	12	0	8	7	46	0	0	0	0	107*
830	0	15	3	10	0	6	5	41	0	0	0	0	80*
845	0	9	2	4	0	3	3	22	0	0	0	0	43*

1600	0	45	18	18	0	17	2	53	0	0	0	0	153
1615	0	51	22	23	0	19	3	68	0	0	0	0	186
1630	0	54	23	19	0	20	7	67	0	0	0	0	190
1645	0	61	25	24	0	19	6	74	0	0	0	0	209
1700	0	65	26	39	0	25	8	97	0	0	0	0	260
1715	0	52	20	31	0	21	7	73	0	0	0	0	204*
1730	0	42	15	28	0	18	3	58	0	0	0	0	164*
1745	0	21	7	16	0	9	3	32	0	0	0	0	88*
=====													

URNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: Appr/Exit Totals

Intersection # 1 highland/lowerlevelgar									
Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
700	97	30	77	0	77	63	64	0	204
715	94	27	65	0	65	58	63	0	186
730	90	21	56	0	48	58	61	0	167
745	84	25	54	0	56	44	63	0	163
800	52	25	62	0	65	27	47	0	139
815	34	20	53	0	58	16	33	0	107*
830	18	16	46	0	51	8	21	0	80*
845	11	7	25	0	26	5	12	0	43*

1600	63	35	55	0	71	20	62	0	153
1615	73	42	71	0	91	25	70	0	186
1630	77	39	74	0	86	30	74	0	190
1645	86	43	80	0	98	31	80	0	209
1700	91	64	105	0	136	34	90	0	260
1715	72	52	80	0	104	27	73	0	204*
1730	57	46	61	0	86	18	60	0	164*
1745	28	25	35	0	48	10	30	0	88*
=====									

Arlington Heights, IL Weather: Warm and Dry
 Highland Ave and Garage Ramp Access
 Wednesday June 27, 2018

07/02/18
 11:42:01

URNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 2 highland/garageramp													
Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
700	0	0	9	19	0	22	25	0	0	0	0	0	75
715	0	0	7	17	0	18	20	0	0	0	0	0	62
730	0	0	7	12	0	14	22	0	0	0	0	0	55
745	0	0	8	13	0	10	17	0	0	0	0	0	48
800	0	0	4	15	0	8	6	0	0	0	0	0	33
815	0	0	3	12	0	5	6	0	0	0	0	0	26*
830	0	0	1	12	0	3	2	0	0	0	0	0	18*
845	0	0	0	6	0	1	2	0	0	0	0	0	9*

1600	0	0	9	7	0	13	8	0	0	0	0	0	37
1615	0	0	9	10	0	18	10	0	0	0	0	0	47
1630	0	0	10	9	0	18	14	0	0	0	0	0	51
1645	0	0	11	10	0	25	10	0	0	0	0	0	56
1700	0	0	11	15	0	32	15	0	0	0	0	0	73
1715	0	0	10	10	0	26	13	0	0	0	0	0	59*
1730	0	0	8	9	0	22	8	0	0	0	0	0	47*
1745	0	0	3	6	0	11	7	0	0	0	0	0	27*
=====													

URNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: Appr/Exit Totals

Intersection # 2 highland/garageramp									
Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
700	9	41	25	0	19	34	22	0	75
715	7	35	20	0	17	27	18	0	62
730	7	26	22	0	12	29	14	0	55
745	8	23	17	0	13	25	10	0	48
800	4	23	6	0	15	10	8	0	33
815	3	17	6	0	12	9	5	0	26*
830	1	15	2	0	12	3	3	0	18*
845	0	7	2	0	6	2	1	0	9*

1600	9	20	8	0	7	17	13	0	37
1615	9	28	10	0	10	19	18	0	47
1630	10	27	14	0	9	24	18	0	51
1645	11	35	10	0	10	21	25	0	56
1700	11	47	15	0	15	26	32	0	73
1715	10	36	13	0	10	23	26	0	59*
1730	8	31	8	0	9	16	22	0	47*
1745	3	17	7	0	6	10	11	0	27*
=====									

Capacity Analysis – Existing Conditions

LEVEL OF SERVICE CRITERIA		
Unsignalized Intersections		
Level of Service		Average Control Delay (seconds per vehicle)
A		0 - 10
B		> 10 - 15
C		> 15 – 25
D		> 25 – 35
E		> 35 – 50
F		> 50
Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤ 10
B	Good progression, with more vehicles stopping than for Level of Service A.	> 10 - 20
C	Individual cycle failures (i.e. one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	> 20 - 35
D	The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable.	> 35 – 55
E	Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent.	> 55 – 80
F	The volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	> 80

Source: *Highway Capacity Manual, 2010.*

HCM Unsignalized Intersection Capacity Analysis

1: Highland Ave & Campbell St

04/09/2019

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	143	36	13	89	18	39
Future Volume (Veh/h)	143	36	13	89	18	39
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	164	41	15	102	21	45
Pedestrians				7	9	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				3.5	3.5	
Percent Blockage				1	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			214		326	200
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			214		326	200
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		97	95
cM capacity (veh/h)			1356		660	833
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	205	117	66			
Volume Left	0	15	21			
Volume Right	41	0	45			
cSH	1700	1356	769			
Volume to Capacity	0.12	0.01	0.09			
Queue Length 95th (ft)	0	1	7			
Control Delay (s)	0.0	1.1	10.1			
Lane LOS		A	B			
Approach Delay (s)	0.0	1.1	10.1			
Approach LOS			B			
Intersection Summary						
Average Delay			2.0			
Intersection Capacity Utilization			28.2%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: Highland Ave & Sigwalt St

04/09/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	197	4	13	120	28	15	15	23	20	8	5
Future Volume (Veh/h)	4	197	4	13	120	28	15	15	23	20	8	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Hourly flow rate (vph)	6	281	6	19	171	40	21	21	33	29	11	7
Pedestrians		2									2	
Lane Width (ft)		12.0									12.0	
Walking Speed (ft/s)		3.5									3.5	
Percent Blockage		0									0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	213			287			540	547	284	570	530	195
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	213			287			540	547	284	570	530	195
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			95	95	96	93	98	99
cM capacity (veh/h)	1367			1287			436	438	750	387	448	848
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	293	230	75	47								
Volume Left	6	19	21	29								
Volume Right	6	40	33	7								
cSH	1367	1287	535	436								
Volume to Capacity	0.00	0.01	0.14	0.11								
Queue Length 95th (ft)	0	1	12	9								
Control Delay (s)	0.2	0.8	12.8	14.3								
Lane LOS	A	A	B	B								
Approach Delay (s)	0.2	0.8	12.8	14.3								
Approach LOS			B	B								
Intersection Summary												
Average Delay			2.9									
Intersection Capacity Utilization			26.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

3: Highland Ave & North Garage Ramp

04/09/2019

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	12	13	44	10	17	32
Future Volume (Veh/h)	12	13	44	10	17	32
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	14	48	11	18	35
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	124	54			59	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	124	54			59	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	99			99	
cM capacity (veh/h)	860	1014			1545	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	27	59	53			
Volume Left	13	0	18			
Volume Right	14	11	0			
cSH	934	1700	1545			
Volume to Capacity	0.03	0.03	0.01			
Queue Length 95th (ft)	2	0	1			
Control Delay (s)	9.0	0.0	2.6			
Lane LOS	A		A			
Approach Delay (s)	9.0	0.0	2.6			
Approach LOS	A					
Intersection Summary						
Average Delay			2.7			
Intersection Capacity Utilization			19.3%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

4: Highland Ave & South Garage Ramp

04/09/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	8	0	15	0	39	6	4	40	0
Future Volume (Veh/h)	0	0	0	8	0	15	0	39	6	4	40	0
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	9	0	16	0	42	7	4	43	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	112	100	43	96	96	46	43				49	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	112	100	43	96	96	46	43				49	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	100	100	100	99	100	98	100				100	
cM capacity (veh/h)	850	788	1027	884	792	1024	1566				1558	
Direction, Lane #	WB 1	NB 1	SB 1									
Volume Total	25	49	47									
Volume Left	9	0	4									
Volume Right	16	7	0									
cSH	969	1700	1558									
Volume to Capacity	0.03	0.03	0.00									
Queue Length 95th (ft)	2	0	0									
Control Delay (s)	8.8	0.0	0.6									
Lane LOS	A		A									
Approach Delay (s)	8.8	0.0	0.6									
Approach LOS	A											
Intersection Summary												
Average Delay	2.1											
Intersection Capacity Utilization	15.4%			ICU Level of Service			A					
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis

1: Highland Ave & Campbell St

04/09/2019

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	153	39	53	150	43	67
Future Volume (Veh/h)	153	39	53	150	43	67
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	166	42	58	163	47	73
Pedestrians	25			25	25	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	2			2	2	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			233		516	237
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			233		516	237
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		90	90
cM capacity (veh/h)			1303		473	764
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	208	221	120			
Volume Left	0	58	47			
Volume Right	42	0	73			
cSH	1700	1303	616			
Volume to Capacity	0.12	0.04	0.19			
Queue Length 95th (ft)	0	3	18			
Control Delay (s)	0.0	2.4	12.3			
Lane LOS		A	B			
Approach Delay (s)	0.0	2.4	12.3			
Approach LOS			B			
Intersection Summary						
Average Delay			3.6			
Intersection Capacity Utilization			44.1%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: Highland Ave & Sigwalt St

04/09/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	118	9	13	150	43	4	21	19	44	34	35
Future Volume (Veh/h)	5	118	9	13	150	43	4	21	19	44	34	35
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	6	133	10	15	169	48	4	24	21	49	38	39
Pedestrians		25			25			25			25	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		2			2			2			2	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	242			168			481	447	188	456	428	243
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	242			168			481	447	188	456	428	243
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	95	97	89	92	95
cM capacity (veh/h)	1293			1376			401	475	814	438	487	758
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	149	232	49	126								
Volume Left	6	15	4	49								
Volume Right	10	48	21	39								
cSH	1293	1376	568	522								
Volume to Capacity	0.00	0.01	0.09	0.24								
Queue Length 95th (ft)	0	1	7	23								
Control Delay (s)	0.4	0.6	11.9	14.1								
Lane LOS	A	A	B	B								
Approach Delay (s)	0.4	0.6	11.9	14.1								
Approach LOS			B	B								
Intersection Summary												
Average Delay			4.6									
Intersection Capacity Utilization			36.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

3: Highland Ave & North Garage Ramp

04/09/2019

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	25	58	52	8	26	66
Future Volume (Veh/h)	25	58	52	8	26	66
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	27	63	57	9	28	72
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	190	62			66	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	190	62			66	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	94			98	
cM capacity (veh/h)	785	1004			1536	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	90	66	100			
Volume Left	27	0	28			
Volume Right	63	9	0			
cSH	926	1700	1536			
Volume to Capacity	0.10	0.04	0.02			
Queue Length 95th (ft)	8	0	1			
Control Delay (s)	9.3	0.0	2.2			
Lane LOS	A		A			
Approach Delay (s)	9.3	0.0	2.2			
Approach LOS	A					
Intersection Summary						
Average Delay		4.1				
Intersection Capacity Utilization		23.2%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

4: Highland Ave & South Garage Ramp

04/09/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	32	0	15	0	45	15	11	80	0
Future Volume (Veh/h)	0	0	0	32	0	15	0	45	15	11	80	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	35	0	16	0	49	16	12	87	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	184	176	87	168	168	57	87			65		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	184	176	87	168	168	57	87			65		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	96	100	98	100			99		
cM capacity (veh/h)	760	712	971	791	719	1009	1509			1537		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	0	51	65	99								
Volume Left	0	35	0	12								
Volume Right	0	16	16	0								
cSH	1700	849	1509	1537								
Volume to Capacity	0.00	0.06	0.00	0.01								
Queue Length 95th (ft)	0	5	0	1								
Control Delay (s)	0.0	9.5	0.0	0.9								
Lane LOS	A	A		A								
Approach Delay (s)	0.0	9.5	0.0	0.9								
Approach LOS	A	A										
Intersection Summary												
Average Delay	2.7											
Intersection Capacity Utilization	21.5%			ICU Level of Service					A			
Analysis Period (min)	15											

Capacity Analysis – Future Conditions

HCM Unsignalized Intersection Capacity Analysis

1: Highland Ave & Campbell St

04/09/2019

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	162	38	23	95	20	59
Future Volume (vph)	162	38	23	95	20	59
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	186	44	26	109	23	68
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total (vph)	230	135	91			
Volume Left (vph)	0	26	23			
Volume Right (vph)	44	0	68			
Hadj (s)	-0.11	0.12	-0.40			
Departure Headway (s)	4.2	4.5	4.3			
Degree Utilization, x	0.27	0.17	0.11			
Capacity (veh/h)	845	774	772			
Control Delay (s)	8.6	8.4	7.8			
Approach Delay (s)	8.6	8.4	7.8			
Approach LOS	A	A	A			
Intersection Summary						
Delay			8.4			
Level of Service			A			
Intersection Capacity Utilization			41.5%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: Highland Ave & Sigwalt St

04/09/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	9	213	9	14	125	57	17	20	24	70	18	15
Future Volume (vph)	9	213	9	14	125	57	17	20	24	70	18	15
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Hourly flow rate (vph)	13	304	13	20	179	81	24	29	34	100	26	21
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	330	280	87	147								
Volume Left (vph)	13	20	24	100								
Volume Right (vph)	13	81	34	21								
Hadj (s)	0.02	-0.15	-0.15	0.11								
Departure Headway (s)	5.0	4.9	5.6	5.7								
Degree Utilization, x	0.46	0.38	0.13	0.23								
Capacity (veh/h)	686	693	557	565								
Control Delay (s)	12.1	10.9	9.4	10.4								
Approach Delay (s)	12.1	10.9	9.4	10.4								
Approach LOS	B	B	A	B								
Intersection Summary												
Delay			11.1									
Level of Service			B									
Intersection Capacity Utilization			37.1%	ICU Level of Service				A				
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

3: Highland Ave & North Garage Ramp

04/09/2019

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	13	14	84	11	18	36
Future Volume (Veh/h)	13	14	84	11	18	36
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	15	91	12	20	39
Pedestrians	50		50			50
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	3.5		3.5			3.5
Percent Blockage	5		5			5
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	276	197			153	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	276	197			153	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	98			99	
cM capacity (veh/h)	638	766			1360	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	29	103	59			
Volume Left	14	0	20			
Volume Right	15	12	0			
cSH	698	1700	1360			
Volume to Capacity	0.04	0.06	0.01			
Queue Length 95th (ft)	3	0	1			
Control Delay (s)	10.4	0.0	2.7			
Lane LOS	B		A			
Approach Delay (s)	10.4	0.0	2.7			
Approach LOS	B					
Intersection Summary						
Average Delay			2.4			
Intersection Capacity Utilization			30.0%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 4: Highland Ave & South Garage Ramp

04/09/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	0	64	9	0	16	15	61	7	5	42	2
Future Volume (Veh/h)	18	0	64	9	0	16	15	61	7	5	42	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	20	0	70	10	0	17	16	66	8	5	46	2
Pedestrians		50			50			50			50	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		5			5			5			5	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	276	263	147	329	260	170	98			124		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	276	263	147	329	260	170	98			124		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	100	91	98	100	98	99			100		
cM capacity (veh/h)	551	574	816	475	576	793	1424			1393		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	90	27	90	53								
Volume Left	20	10	16	5								
Volume Right	70	17	8	2								
cSH	738	636	1424	1393								
Volume to Capacity	0.12	0.04	0.01	0.00								
Queue Length 95th (ft)	10	3	1	0								
Control Delay (s)	10.6	10.9	1.4	0.7								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.6	10.9	1.4	0.7								
Approach LOS	B	B										
Intersection Summary												
Average Delay			5.4									
Intersection Capacity Utilization			31.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

5: Highland Ave & Access Drive

04/09/2019



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	4	2	81	115	0
Future Volume (Veh/h)	2	4	2	81	115	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	4	2	88	125	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	217	125	125			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	217	125	125			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	770	926	1462			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	6	90	125			
Volume Left	2	2	0			
Volume Right	4	0	0			
cSH	867	1462	1700			
Volume to Capacity	0.01	0.00	0.07			
Queue Length 95th (ft)	1	0	0			
Control Delay (s)	9.2	0.2	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.2	0.2	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay	0.3					
Intersection Capacity Utilization	16.1%			ICU Level of Service	A	
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis

1: Highland Ave & Campbell St

04/09/2019

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	172	65	84	165	44	81
Future Volume (vph)	172	65	84	165	44	81
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	187	71	91	179	48	88
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total (vph)	258	270	136			
Volume Left (vph)	0	91	48			
Volume Right (vph)	71	0	88			
Hadj (s)	-0.13	0.10	-0.28			
Departure Headway (s)	4.4	4.6	4.8			
Degree Utilization, x	0.32	0.35	0.18			
Capacity (veh/h)	782	744	682			
Control Delay (s)	9.5	10.1	8.9			
Approach Delay (s)	9.5	10.1	8.9			
Approach LOS	A	B	A			
Intersection Summary						
Delay			9.6			
Level of Service			A			
Intersection Capacity Utilization			50.5%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: Highland Ave & Sigwalt St

04/09/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	23	134	14	14	162	135	8	39	20	99	44	41
Future Volume (vph)	23	134	14	14	162	135	8	39	20	99	44	41
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	26	151	16	16	182	152	9	44	22	111	49	46
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	193	350	75	206								
Volume Left (vph)	26	16	9	111								
Volume Right (vph)	16	152	22	46								
Hadj (s)	0.01	-0.22	-0.12	0.01								
Departure Headway (s)	5.2	4.8	5.5	5.4								
Degree Utilization, x	0.28	0.46	0.12	0.31								
Capacity (veh/h)	643	719	562	609								
Control Delay (s)	10.2	11.8	9.2	10.8								
Approach Delay (s)	10.2	11.8	9.2	10.8								
Approach LOS	B	B	A	B								
Intersection Summary												
Delay				10.9								
Level of Service				B								
Intersection Capacity Utilization				45.8%	ICU Level of Service	A						
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis

3: Highland Ave & North Garage Ramp

04/09/2019

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	26	60	141	9	27	100
Future Volume (Veh/h)	26	60	141	9	27	100
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	28	65	153	10	29	109
Pedestrians	60		60			60
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	3.5		3.5			3.5
Percent Blockage	6		6			6
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	445	278			223	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	445	278			223	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	90			98	
cM capacity (veh/h)	496	676			1269	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	93	163	138			
Volume Left	28	0	29			
Volume Right	65	10	0			
cSH	609	1700	1269			
Volume to Capacity	0.15	0.10	0.02			
Queue Length 95th (ft)	13	0	2			
Control Delay (s)	12.0	0.0	1.8			
Lane LOS	B		A			
Approach Delay (s)	12.0	0.0	1.8			
Approach LOS	B					
Intersection Summary						
Average Delay			3.5			
Intersection Capacity Utilization			42.0%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

4: Highland Ave & South Garage Ramp

04/09/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	0	40	33	0	16	44	123	16	12	108	6
Future Volume (Veh/h)	11	0	40	33	0	16	44	123	16	12	108	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	0	43	36	0	17	48	134	17	13	117	7
Pedestrians		60			60			60			60	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		6			6			6			6	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	522	514	240	548	508	262	184			211		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	522	514	240	548	508	262	184			211		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	94	89	100	98	96			99		
cM capacity (veh/h)	356	394	710	330	396	690	1311			1282		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	55	53	199	137								
Volume Left	12	36	48	13								
Volume Right	43	17	17	7								
cSH	583	396	1311	1282								
Volume to Capacity	0.09	0.13	0.04	0.01								
Queue Length 95th (ft)	8	11	3	1								
Control Delay (s)	11.8	15.5	2.1	0.8								
Lane LOS	B	C	A	A								
Approach Delay (s)	11.8	15.5	2.1	0.8								
Approach LOS	B	C										
Intersection Summary												
Average Delay			4.5									
Intersection Capacity Utilization			36.3%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

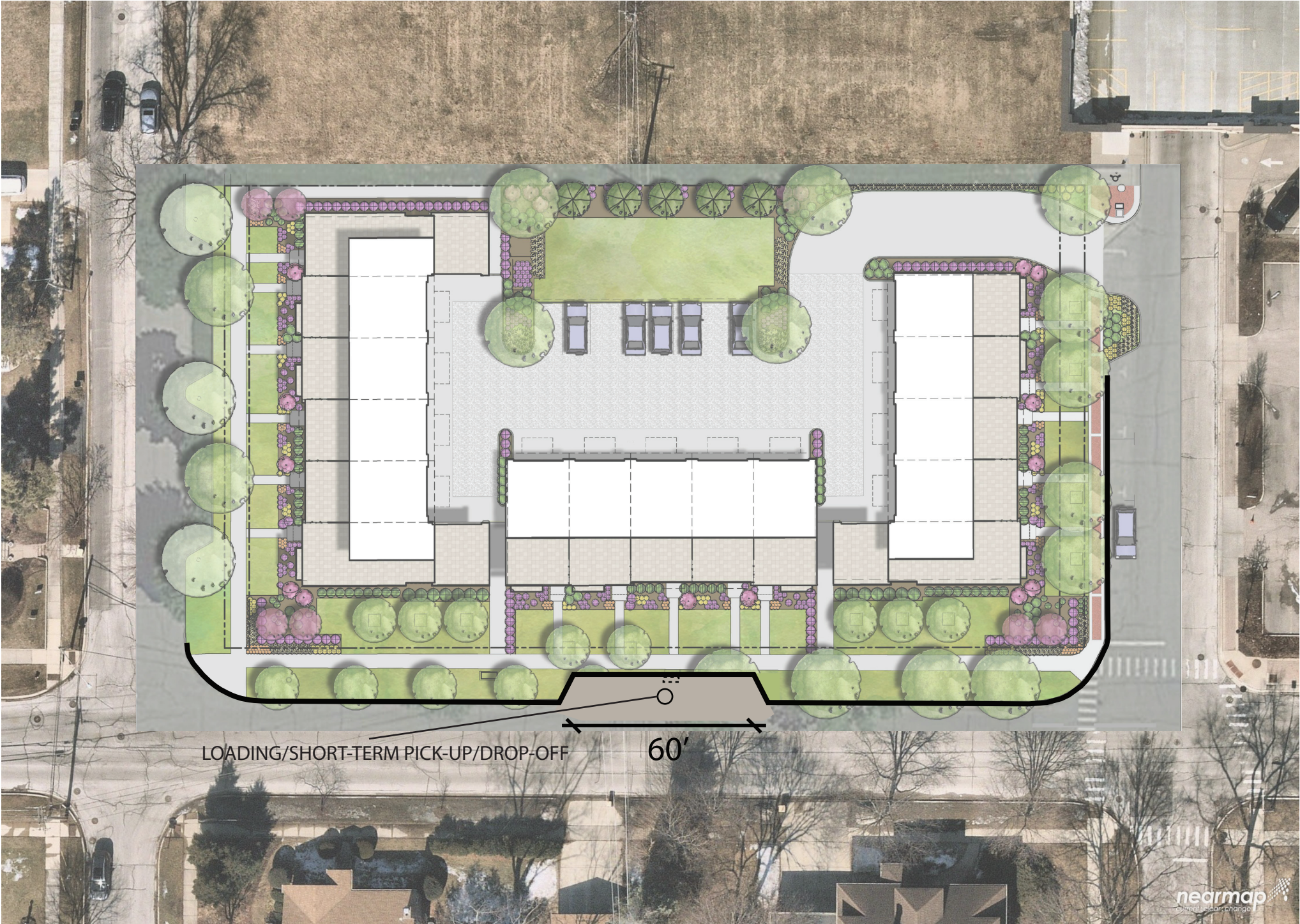
5: Highland Ave & Access

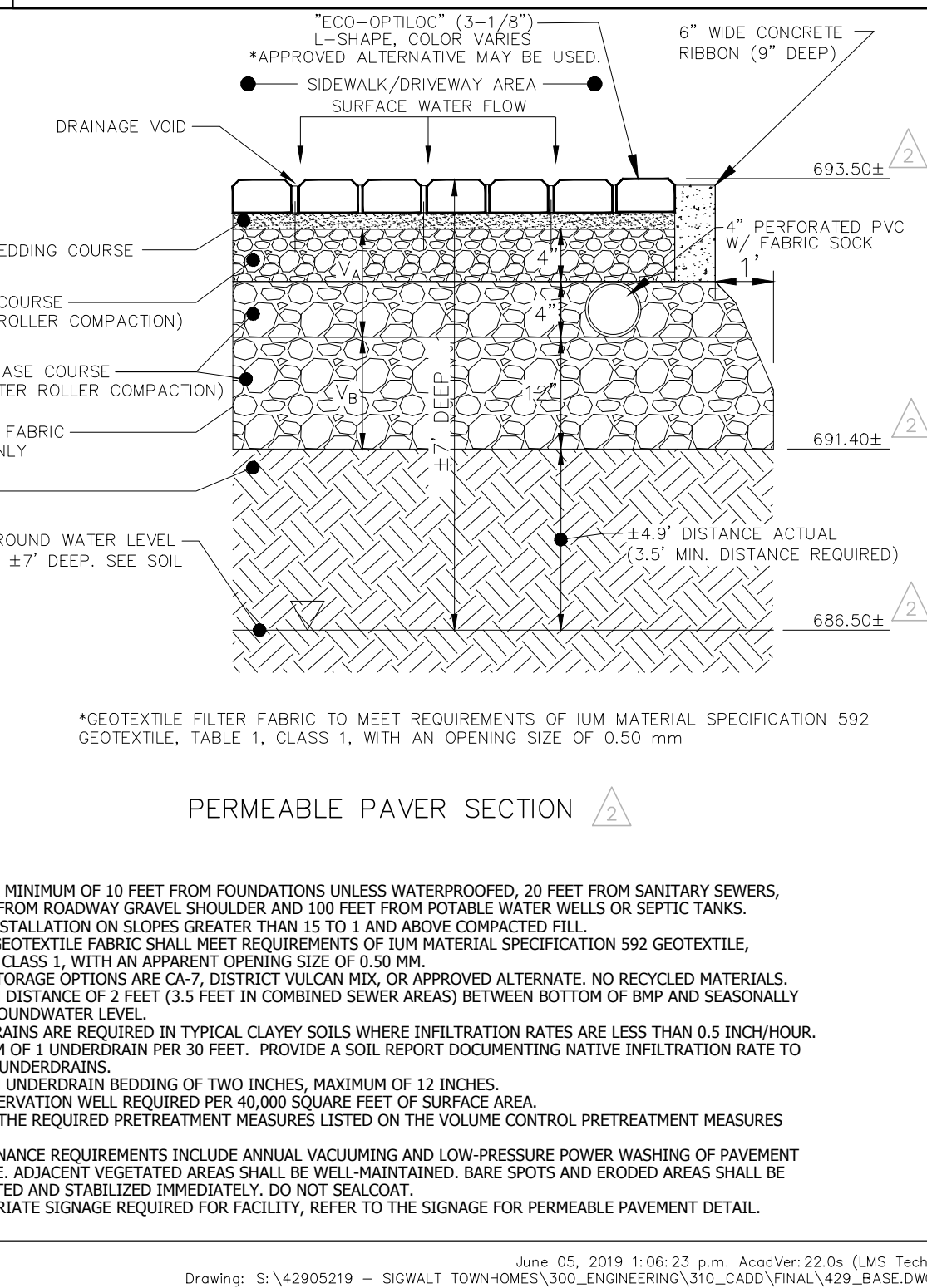
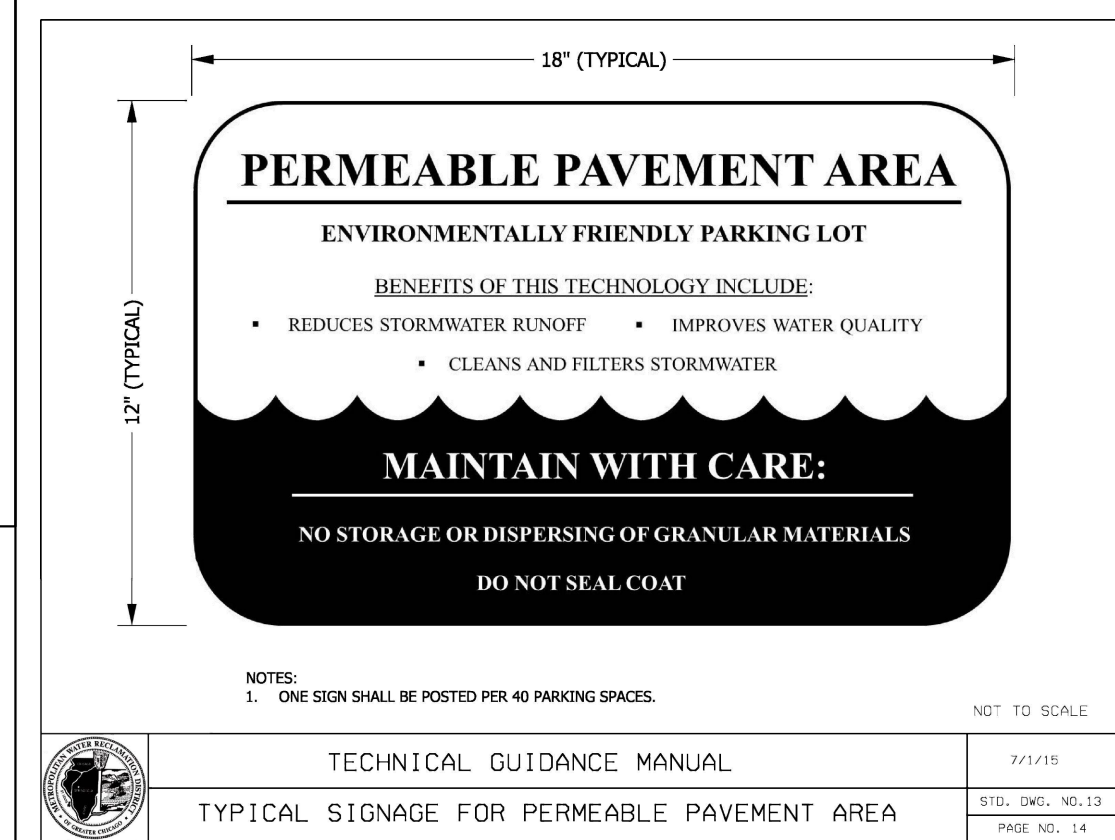
04/09/2019



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	4	5	182	179	2
Future Volume (Veh/h)	1	4	5	182	179	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	4	5	198	195	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	404	196	197			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	404	196	197			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	600	845	1376			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	5	203	197			
Volume Left	1	5	0			
Volume Right	4	0	2			
cSH	782	1376	1700			
Volume to Capacity	0.01	0.00	0.12			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	9.6	0.2	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.6	0.2	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			23.6%	ICU Level of Service		A
Analysis Period (min)			15			

Sigwalt 16 Conceptual Drop-Off





	DATE	REVISIONS	DRAWN BY
1.	05/01/19	IN OFFICE / CLIENT REVIEW	TLM
2.	05/17/19	VILLAGE REVIEW #1	TLM
3.	06/06/19	VILLAGE REVIEW #2	ZRN

975 E. 22nd St, Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

Engineering, LLC

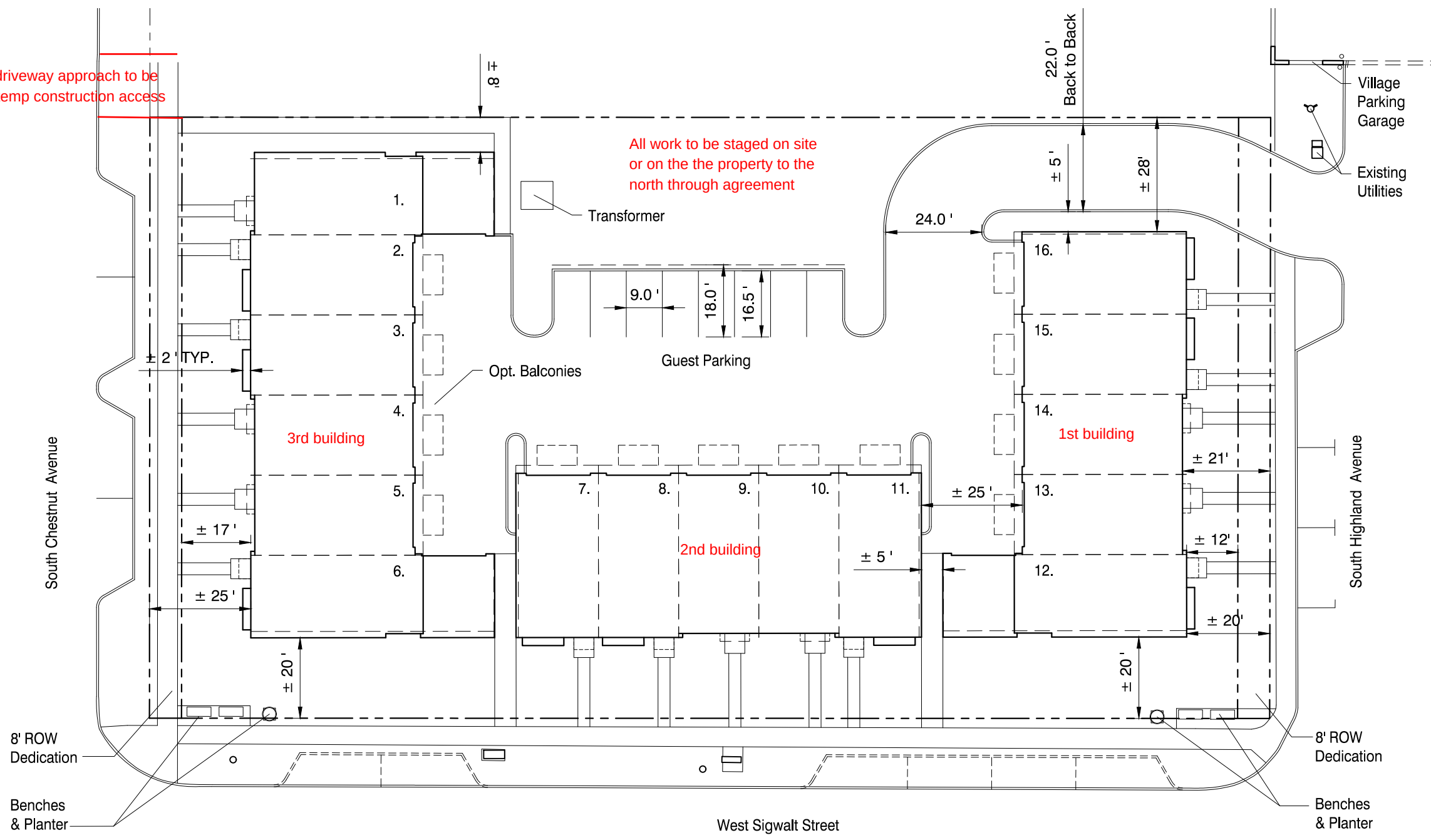
PROJECT NO. 42905219
DATE 04/12/19
SCALE 1"=20'
PROJ. MGR. RWG
PROJ. ASSOC. MRM
DRAWN BY TLM

SHEET

4 OF 10

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existing driveway approach to be used as temp construction access



Project Data		R-7
	Provided	Required
Site		
Site Area (Gross, prior to Dedication)	± 41,939 sf	
Site Area (Net, after Dedication)	± 39,539 sf	14,400 sf (Per Unit Count)
Lot Size (Gross, prior to Dedication)	± 150' x ± 280'	
Lot Size (Net, after Dedication)	± 150' x ± 264'	
East (front) Setback (after 8' Ded.)	± 12'	25'
West (front) Setback (after 8' Ded.)	± 17'	25'
North (side) Setback	± 8'	15'
South (exterior side) Setback	± 20'	20'
Residential Site Data		
Dwelling Units	16	
Three Bedroom Min. sf	2400 sf	900 sf
Building Footprint	± 14,540 sf	
Gross Building Area	± 51,830 sf	
Building Area (Not Including Parking)	± 45,430 sf	
% Building Lot Coverage (Building Footprint / Net Site Area)	± 37%	55%
Floor Area Ratio (FAR) (Building Area / Net Site Area)	± 1.15	2.00
Parking	40	24
Stalls/Unit	2.5	1.5



[illegible]



MICHAEL D. FIRSEL
MICHAEL E. ROSS
CHRISTINE S. BOLGER
KAREN JERWOOD
STEPHEN E. ROSS

2801 LAKESIDE DRIVE, SUITE 207
BANNOCKBURN, IL 60015

O 847-582-9900
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June 20, 2019

Mr. Terrence Ennes and Members of
the Plan Commission of the
Village of Arlington Heights
33 S. Arlington Heights Rd.
Arlington Heights, IL 60005-1403

**Re: Sigwalt 16 / Taylor Morrison of Illinois, LLC – Proposed Rowhome
Development in Downtown Arlington Heights**

ADDITIONAL VARIATION CRITERIA

Chairman Ennes and Commission Members,

This letter is written as an addition and supplement to our original Variation Criteria Justification letter of April 12, 2019. Village Staff has determined that additional variations for this project are required.

I. Variation to Chapter 28, Section 10.2-13, Maximum Number of Spaces, to allow a 40' accessory parking spaces where code limits the maximum number of accessory parking spaces to 36.

- 1. The proposed use will not alter the essential character of the locality and will be compatible with existing uses and zoning of nearby property.*

Of the 40 parking spaces provided, 32 of them will be in garages and 8 will be surface parking for guests. The number of parking spaces for this project is compatible for existing uses and zoning of nearby property

- 2. The plight of the owner is due to unique circumstances, which may include the length of time the subject property has been vacant as zoned.*

Mr. Terrence Ennes and Members of
the Plan Commission of the
Village of Arlington Heights
June 20, 2019
Page 2

The property has been vacant for a long time. To develop the property in the most beneficial fashion, consistent with its location on the edge of downtown. Due to the price point of the proposed rowhomes, owners will demand and expect at least 2 parking spaces each plus an area for guest parking

3. *The proposed variation is in harmony with the spirit and intent of this Chapter.*

It is the intention of the Village Zoning Code “[t]o protect the character and stability of the residential, business and manufacturing areas within the Village and to promote the orderly and beneficial development of such areas.” This project promotes the orderly and beneficial development consistent with the unique nature of this and the neighboring properties.

4. *The variance requested is the minimum variance necessary to allow reasonable use of the property.*

In order to accommodate the possibility of up to 8 guests at any one time, and to avoid the use of the adjoining Village garage and other surface parking spaces, the 8 additional parking spaces is the minimum needed.

J. Variation to Chapter 28, Section 10.2-8, Minimum Horizontal Width for Driving Aisle of 24 feet, to allow a minimum driving aisle width of 21’.

1. *The proposed use will not alter the essential character of the locality and will be compatible with existing uses and zoning of nearby property.*

The reduction of the drive aisle width reduction from 24’ to 21’ will have no bearing whatsoever on the essential character of the locality, and it will be compatible with existing uses and zoning of nearby property

2. *The plight of the owner is due to unique circumstances, which may include the length of time the subject property has been vacant as zoned.*

Due to the public utilities located north of the drive aisle which is also very close to the Vail Street Garage, there is no opportunity to widen the driving aisle to the north. To widen the driving aisle to the south would require the removal of a significant amount of the landscaped area adjoining lot 16 and well as minimize the fully landscaped entry feature to the project.

Mr. Terrence Ennes and Members of
the Plan Commission of the
Village of Arlington Heights
June 20, 2019
Page 3

3. The proposed variation is in harmony with the spirit and intent of this Chapter.

It is the intention of the Village Zoning Code “[t]o protect the character and stability of the residential, business and manufacturing areas within the Village and to promote the orderly and beneficial development of such areas.” This variation will have no impact on the harmony, spirit and intent of this Chapter.

4. The variance requested is the minimum variance necessary to allow reasonable use of the property.

The requested variation is the minimum necessary to maintain the residential nature and requires landscaping for the project.

The variances referenced below are necessary due to each dwelling unit being on a separate legally subdivided lot. In each of the three buildings there will be party walls separating the units, and due to site constraints, Village Code required rear, front, and side yards are not possible. Unfortunately, Village Code does not include separate zoning provisions for multi-family adjoining parcels when each unit is to be owned as a separate unit in fee simple. The collective justification for the above variances is provided after the list of requested variances.

K. Variation from Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback of 4.6 feet for lots 1 through 11 and 4.3 feet for lots 12 through 16 where code requires a 25-foot front yard setback for all lots.

L. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback of 0 feet for interior walls on lots 1, 6, and 12 where code requires a 2.6 foot side yard setback, and 0 feet for interior walls on lots 2, 3, 4, 5, 8, 9, 10, 13, 14, and 15 where code requires a 2 foot side yard setback, and 0 feet for interior walls on lots 7, 11, and 16 where code requires a 2.1 foot side yard setback.

M. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback of 0 feet for outer walls on lots 7, 11, and 15 where code requires a 2.1 foot side yard setback, and 4.3 feet for outer walls on lots 1 and 6 where code requires a 2.6 foot side yard setback, and 4.6 feet for outer walls on lot 12 where code requires a 2.6 foot side yard setback.

Mr. Terrence Ennes and Members of
the Plan Commission of the
Village of Arlington Heights
June 20, 2019
Page 4

- N. Variation from Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a rear yard setback of 0 feet for lots 1 through 16 where code requires a 30-foot rear yard setback.**
- O. Variation to Chapter 28, Section 5.1-7.7, Maximum Building Lot Coverage, to allow approximately 291% building lot coverage for lots 2 and 15, approximately 290% building coverage for lots 3 and 8, approximately 287% building lot coverage for lot 16, approximately 284% building lot coverage for lots 7, 11, 13, and 14, and approximately 283% building lot coverage for lots 4, 5, 9, and 10 where code allows a maximum building lot coverage of 200% on all lots.**
- P. Variation to Chapter 28, Section 5.1-7.11, Maximum Floor Area Ratio, to allow approximately 73% F.A.R. on lot 1, approximately 74% F.A.R. on lot 12, approximately 75% F.A.R. on lot 6, approximately 84% F.A.R. on lots 4, 5, 9, 10, and 14, approximately 85% F.A.R. on lot 13, approximately 87% F.A.R. on lots 7 and 11, approximately 88% F.A.R. on lots 2, 3, 8, and 16, and approximately 89% F.A.R. on lot 15 where code allows a maximum F.A.R. of 55% on all lots.**

- 1. The proposed use will not alter the essential character of the locality and will be compatible with existing uses and zoning of nearby property.*

The proposed use is completely in line with the Downtown Master Plan for attached dwelling units at this site. All surrounding uses and zoning of nearby are very compatible.

- 2. The plight of the owner is due to unique circumstances, which may include the length of time the subject property has been vacant as zoned.*

The property has been vacant for a long time. The subject property is in the transitional portion of the Downtown Business District to residential uses south and west. Previous higher density projects were not welcomed by the neighbors and the owner was able to find a nationally renowned developer to develop 16 rowhomes.

- 3. The proposed variation is in harmony with the spirit and intent of this Chapter.*

It is the intention of the Village Zoning Code "[t]o protect the character and stability of the residential, business and manufacturing areas within the Village and to promote the orderly



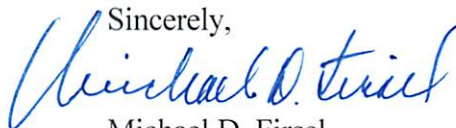
Mr. Terrence Ennes and Members of
the Plan Commission of the
Village of Arlington Heights
June 20, 2019
Page 5

and beneficial development of such areas.” This project promotes the orderly and beneficial development consistent with the unique nature of this and the neighboring properties.

4. *The variance requested is the minimum variance necessary to allow reasonable use of the property.*

In order to make the project financially feasible and viable, no less than 16 residential rowhome units will work. As a result the multi-family nature of the attached units and the location of the buildings on the small site is necessary.

Should you require and further information or clarification, please do not hesitate to contact the undersigned.

Sincerely,

Michael D. Firsell



Village of Arlington Heights Building & Life Safety Department

Interoffice Memorandum

To: Sam Hubbard, Development Planner, Planning and Community Development
From: Deb Pierce, Plan Reviewer, Building & Life Safety Department
Subject: Sigwalt 16 – PUD, Rezoning to R-7, Plat of Subdivision, Variations
PC#: 19-005 – Round 1
Date: April 25, 2019

General Comments:

The information provided is conceptual only and subject to a formal plan review.

Sam...

I do not have any comments.

RECEIVED
APR 25 2019
PLANNING AND COMMUNITY
DEVELOPMENT DEPARTMENT



**Village of Arlington Heights, IL
Department of Building & Life Safety**

Fire Safety Division

Date: 4/16/2018

P.C. Number: 19-005

Project Name: PUD, Rezoning to R-7, Plat of Subdivision, Variations

Project Location: Southern portion block 425

Planning Department Contact: Sam Hubbard, Planning and Community Development

General Comments:

The information provided is conceptual only and subject to a formal plan review.

1. All currently adopted codes shall apply.
2. A complete NFPA compliant fire suppression system is required.
3. An approved water supply capable of supplying the required fire flow for fire protection shall be provided.
4. A fire alarm may be required depending on the type of fire sprinkler provided.
5. Shop drawings for fire alarm systems shall be submitted for review and approval prior to system installation.
6. In buildings four or more stories above grade plane, one stairway shall extend to the roof surface, unless the roof has a slope steeper than four units vertical in 12 units horizontal.
7. Buildings or portions of buildings or facilities exceeding 30 feet in height above the lowest level of fire department vehicle access shall be provided with approved fire apparatus access roads capable of accommodating fire department aerial apparatus. Overhead utility and power lines shall not be located within the aerial fire apparatus access roadway.
8. Buildings shall have approved address numbers.

Date 04-16-18

Reviewed By:


Fire Safety Supervisor

RECEIVED

APR 23 2019

**PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT**

Memorandum

To: Sam Hubbard, Planning & Community Development
From: Cris Papierniak, Assistant Director of Public Works
Date: May 1, 2019
Subject: 45 S Chestnut Ave (16 Sigwalt) P.C. #19-005

With regard to the proposed PUD/Rezoning, I have the following comments:

- 1) The water line related comments will be reserved until plumbing submittals show what the intention is within each unit.
- 2) Provide elevations for every sanitary and storm crossing of water main.
- 3) The storm water connection to Sigwalt is mislabeled as sanitary connection.
- 4) The combined sewer line on Sigwalt will be a 30" RCP (the 18" combined sewer will be replaced with a 30")
- 5) The 4" water main on Sigwalt will be abandoned in summer of 2019.
- 6) Submit a maintenance plan for the underground detention basin.
- 7) The existing Village telemetry conduit (encased in concrete) will be impacted for storm MH #8.
- 8) The surface course of roadway shall be milled with a minimum of 2' beyond any roadway trench or cut to ensure smooth transition.
- 9) The project is located in Downtown Arlington Heights and will require brick paver sidewalks (new design with concrete bands), decorative lights and tree grates per Village standards.
- 10) Any work done on sidewalks will meet ADA compliance.
- 11) If approval is provided prior to Village's reconstruction of Sigwalt sewer, contact Mike Pagones, Village Engineer to coordinate storm sewer taps.

If you have any questions, please feel free to contact me.

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. <u>19-005</u>	P.I.N.# <u>03-30-425-012,013,014,03-30-425-021,022,023</u>
Petitioner: <u>Taylor Morrison of Illinois, Inc</u>	Location: _____
<u>1384 Walden Office Square, Suite 300</u>	Rezoning: ☒ Current: <u>R3</u> Proposed: <u>R7</u>
<u>Schaumburg, IL 60173 - 847-232-8467</u>	Subdivision: ☒
Owner: <u>SSO Arlington, LLC</u>	# of Lots: <u>17</u> Current: <u>6</u> Proposed: <u>16</u>
<u>4205 W. Irving Park Road, 1st Floor</u>	PUD: ☒ For: <u>16 row homes</u>
<u>Chicago, IL 60641</u>	Special Use: _____ For: _____
Contact Person: <u>Marc McLaughlin</u>	Land Use Variation: _____ For: _____
Address: <u>1834 Walden Office Square, Suite 300</u>	Land Use: _____ Current: <u>vacant residential</u>
<u>Schaumburg, IL 60173 - 847-232-8467</u>	Proposed: <u>attached SFR</u>
Phone #: <u>224-223-3316</u>	Site Gross Area: <u>41,939 sqft</u>
Fax #: _____	# of Units Total: <u>16</u>
E-Mail: <u>mmclaughlin@taylormorrison.com</u>	1BR: _____ 2BR: _____ 3BR: _____ 4BR: _____

(Petitioner: Please do not write below this line.)

1. PUBLIC IMPROVEMENTS

REQUIRED: _____ YES NO COMMENTS

a. Underground Utilities

Water _____ NO

Sanitary Sewer _____ NO

Storm Sewer _____ NO

b. Surface Improvement

Pavement _____ YES

Curb & Gutter _____ YES

Sidewalks _____ YES

Street Lighting _____ YES

c. Easements

Utility & Drainage _____ NO

Access _____ ~~NO~~ POSSIBLE CROSS ACCESS W/425

2. PERMITS REQUIRED OTHER THAN VILLAGE:

a. MWRDGC X

b. IDOT _____

c. ARMY CORP _____

d. IEPA _____

e. CCHD _____

3. R.O.W. DEDICATIONS? _____

YES

NO

COMMENTS

4. SITE PLAN ACCEPTABLE? _____

XX

5. PRELIMINARY PLAT ACCEPTABLE? _____

X

6. TRAFFIC STUDY ACCEPTABLE? _____

X

7. STORM WATER DETENTION REQUIRED? _____

XX

8. CONTRIBUTION ORDINANCE EXISTING? _____

XX

9. FLOOD PLAIN OR FLOODWAY EXISTING? _____

XXWITHIN 500 YARD

10. WETLAND EXISTING? _____

XX

GENERAL COMMENTS ATTACHED

PLANS PREPARED BY: RWG Eng., LLCDATE OF PLANS: 4-12-19

 Director VILLAGE ENGINEER

4/30/19

Date

PLAN COMMISSION PC #19-005
Sigwalt 16
45 S Chestnut Ave
PUD, Rezoning to R-7, Plat of Subdivision, Variations
Round 1

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MAY 01 2019
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

- 1) The petitioner is notified that these comments are being provided to ensure that the project meets the requirements for submittal to the Plan Commission. Approval by the Plan Commission is not an endorsement or approval of these documents to obtain the required building permits, engineering approval, or permits required by other government or permitting agencies for construction. Detailed plan review with associated comments will be provided upon submittal of plans for a building permit. The petitioner shall acknowledge that they accept this understanding.
- 2) Since a subdivision is being proposed the plans must meet all subdivision requirements. Final engineering plans for all public improvements must be approved prior to the final plat of subdivision approval. An Engineers estimate of construction cost for full site improvements is required to complete the calculation for plan review, inspection, and other fees. An Engineers estimate of construction cost for public improvements is also required to complete the calculation for the required public improvement guarantee deposit. The public improvements for this development would include public sidewalk and all right-of-way improvements required by the Planning Department which may include but not limited to street lights and parking lanes. These estimates should be submitted at least three weeks prior to the final Plan Commission meeting to allow us time to generate the fee letter and for the petitioner to assemble the proper documents.
- 3) Final engineering plans shall be georeferenced by using State Plane Coordinate System – Illinois East. Below are details about projection:

Projected Coordinate System: NAD_1983_StatePlane_Illinois_East_FIPS_1201_Feet
Projection: Transverse_Mercator
False_Easting: 984250.00000000
False_Northing: 0.00000000
Central_Meridian: -88.33333333
Scale_Factor: 0.99997500
Latitude_Of_Origin: 36.66666667
Linear Unit: Foot_US
Geographic Coordinate System: GCS_North_American_1983
Datum: D_North_American_1983
Prime Meridian: Greenwich
Angular Unit: Degree

- 4) The Final Plat of Subdivision must be reviewed and approved by Engineering prior to final Plan Commission approval. The original signed mylar Final Plat of Subdivision, containing all non-Village signatures, shall be submitted one week before the scheduled date of the final Plan Commission meeting. Village Code Section 29-209 also requires a digital copy of the plat to be provided on disk to the Village. The petitioner shall acknowledge that they accept this understanding.

- 5) The proposed detention/retention facility will be a private system and as such will not be the Village's responsibility to maintain. If a basin is proposed, the basin requires a 1-foot freeboard with an overflow weir at the 6" line. The basin requires a 5' flat zone around the perimeter before the top of slope begins. Provide calculations for sizing the weir. An Onsite Utility Maintenance Agreement must be executed prior to final engineering approval. Please contact the Village Engineer for an editable version of the OUMA.
- 6) If a wet bottom basin is proposed, the basin shall be constructed with a minimum depth of no less than six feet (6'). A safety ledge, five feet (5') wide, back pitched towards the shore three inches (3"), at three feet (3') below normal water level (NWL) must be provided. The side slopes leading down to the basin's NWL must be 5:1 maximum. Provisions, such as a recirculation pump, must be made to keep the pond nuisance free.
- 7) The preliminary detention calculations are acceptable.
 - a) Final approval will require final engineering plans including calculations for storage provided and details of the detention system.
 - b) If the detention storage system will be located under pavement, it must be designed to AASHTO HS-25 loading standard.
 - c) The outlet pipe in the special restrictor structure must have a trap with a removable hood. For reference is a removal hood detail from the Metropolitan Water Reclamation District.
 - d) Since the restrictor required to meet the allowable release rate is less than 2", calculate the amount of detention storage provided with a 2" restrictor. Subtract this amount from the required storage based on the allowable release rate to show the storage deficiency. This deficiency can be paid as money in lieu of detention at the rate of \$1.00 per cubic foot.
- 8) Regarding the permeable pavers, the following items shall be addressed at final engineering:
 - a) The top of the CA-7 stone layer cannot be higher than the surrounding ground to avoid detained water from "bleeding" out of the side of the facility.
 - b) Provide existing and proposed elevations of the finished grade, and also provide the proposed elevations of the bottom of the CA07 stone layer.
 - c) At time of permit, provide a copy of the manufacturer's brochure showing specifications for their permeable paver system.
- 9) If on-site lighting is proposed, provide a site photometric lighting diagram indicating lighting intensities. Also provide the associated catalog cuts for all roadway, parking lot, and building mounted luminaires. All fixtures must be flat bottom, sharp cut-off, and no wall pack style fixtures will be permitted.

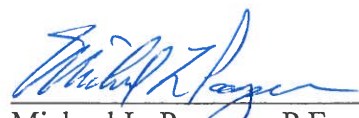
- 10) Provide an exhibit to engineering scale showing the turning path of the Fire Department's responding vehicle, in this case a Pierce Quantum. Exhibit must show front and rear wheel paths and the extent of the front and rear overhangs, as provided in an "Autoturn" exhibit. The vehicle shall be shown maneuvering through the site in all possible directions of travel. Attached are the specifications for the Pierce Quantum.
- 11) Per the Fire Department, fire lanes adjacent to buildings must be able to support the responding vehicle (Pierce Velocity or Pierce Quantum). A fully loaded engine is 49,800 lbs. Fire lanes require a heavy duty pavement section. Asphalt pavement section to consist of: 2" Surface, 2-1/4" N-50 Binder, 5" N-50 Binder, and 4" CA-6 Stone Subbase. For the proposed permeable pavers, provide additional information to show that the structural number of the proposed cross section is equivalent to the above referenced asphalt pavement section.
- 12) Coordinate possible fire lane cross access with the parcel located north of the proposed development.
- 13) The Professional Engineer stamp expiration date provided on the cover page of the engineering plans is not current. Provide current expiration date.
- 14) Regarding the Highland Ave driveway and pedestrian access route:
 - a) The proposed ADA ramps and pedestrian access route at the Highland Ave entrance are currently shown at an angle. The preferred alignment would have the north receiving ADA ramp in alignment with the public sidewalk south of the new driveway.
 - b) Sidewalk takes precedence through the driveway, with curb stopping on either side of the sidewalk.
 - c) All sidewalk and ADA ramps shall meet the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way dated July 26, 2011.
- 15) Verify the depth of the Village cable located in the parkway to confirm there are no conflicts with the proposed storm sewer and water main.
- 16) Provide additional information on the power lines to be relocated.
- 17) The proposed water main is not a public main and therefore must not be located in the right-of-way. Revise the plans accordingly.
- 18) Master meters shall be required at both connection points. In the event the petitioner chooses to install individual meters in the units, the units would not be supplied, maintained or read by the Village.
- 19) The proposed sanitary sewer on Highland Ave is located close to the property line. The line shall be relocated such that all structures are located on private property and not encroaching on the public right-of-way.

TRAFFIC:

- 20) The entrance/exit driveway width is required to be 24 ft. face to face of curb by Village Code. Curb return radii must be 20 ft. radii minimum.
- 21) The geometric alignment for the entrance/exit driveway into the internal parking lot needs to provide turning templates to verify if delivery, garbage, and fire emergency vehicles to get in and turn around to pull out forward, instead of having to back out. The internal 5 ft. radius of the right angle curve needs to be softened into a compound or tapered geometric transition to allow two vehicles to pass each other through this 90 degree turn.
- 22) The garage access for units 1; 5 & 6; 12 & 13; 16, does not accommodate vehicles to pull in to these garages, and back out in order to proceed forward back to the entrance/exit driveway. As such the 2-3 cars parked in these units can only pull into their garage, and must back out across 2-4 other unit's garage door openings, or have other access deficiencies. Pulling into or backing out of units 5 & 13 garages may not be possible if one car is already in the garage.
- 23) The sight distance for vehicles exiting the proposed driveway looking north must be evaluated to verify if oncoming traffic can be seen past the bay of cars parked under the parking garage.
- 24) Clarify if the proposed driveway to be bituminous or concrete.

PRELIMINARY PLAT OF SUBDIVISION:

- 25) The plat was reviewed against the attached Preliminary Plat of Subdivision Checklist. Use the checklist to complete items 12 & 13.
- 26) For the Final Plat of Subdivision, use the attached Final Plat of Subdivision Checklist.


Michael L. Pagones, P.E. 4/30/19
Village Engineer Date

Attachments:

Preliminary Plat of Subdivision Checklist (1 page)
Final Plat of Subdivision Checklist (3 pages)
Contacts for Plat Signatures (1 page)
Sample Utility Signature Blocks (1 page)
Pierce Quantum turning analysis (3 pages)
Removal Hood Detail from MWRD

Preliminary Plat of Subdivision Checklist

Municipal Code Section 29-201(b)(1 – 13)

- ☐ 1. The name of the proposed subdivision.
- ☐ 2. A north-point indication, scale, date of preparation of the Preliminary plat, and by whom prepared.
- ☐ 3. A legal description of land proposed to be subdivided, by section, township and range, and other terms as used in describing land on the records of the Recorder of Deeds or Registrar of Titles, Cook County, Illinois.
- ☐ 4. Sufficient information to locate accurately the proposed subdivision in relation to its general neighborhood, by means of references to streets, railroad lines, recorded plats, etc. If the foregoing references cannot be made, then a vicinity plat showing the location of the proposed subdivision, drawn to a smaller scale, shall accompany the Preliminary plat.
- ☐ 5. The description and location of all survey monuments, existing and to be erected, in the area of the proposed subdivision.
- ☐ 6. The boundary lines of the proposed subdivision, drawn to accurate scale and bearing, and a statement of the total area encompassed by the boundary lines.
- ☐ 7. The location and dimensions of streets, easements, improvements and utilities within and immediately contiguous to the proposed subdivision, as well as the location and dimensions of major features such as railroad lines, airports, water courses, lakes and exceptional topography.
- ☐ 8. The location, dimensions and layout of proposed streets, alleys, and sidewalks of the proposed subdivision.
- ☐ 9. The layout, number, dimensions and area of each lot of the proposed subdivision.
- ☐ 10. The location, dimensions and layout of all parcels of land intended to be dedicated for public use, such as parks and other open spaces, or reserved for the use of all subdivision property owners, together with an indication of the nature of each such use within the proposed subdivision.
- ☐ 11. The location, dimensions and layout of all public utility easements in the proposed subdivision.
- ☐ 12. The location and dimensions of all building setback lines in the proposed subdivision.
- ☐ 13. The names and last known addresses of the owners of the land proposed to be subdivided, the subdivider and all owners of land immediately adjoining the land proposed to be subdivided.

The Village of Arlington Heights Municipal Code can be accessed over the internet at www.vah.com .

Final Plat of Subdivision Checklist
Municipal Code Section 29-209(a – t)

- ☐ a. The date of preparation of the final plat and by whom prepared.
- ☐ b. The boundary of the plat, based on accurate traverse, with angles and lineal dimensions.
- ☐ c. All permanent survey monuments, markers and bench marks.
- ☐ d. Exact location, width and name of all streets within and adjoining the plat, and the exact location and widths of all cross walkways.
- ☐ e. True angles and distances to the nearest established street lines or official monuments, not less than three.
- ☐ f. Municipal, township, county and section lines accurately tied to the lines of the subdivision by distances and angles.
- ☐ g. Radii, internal angles, points and curvatures, tangent bearings and lengths of all arcs.
- ☐ h. All easements for rights of way established for public use and utilities.
- ☐ i. All lot numbers and lines, with accurate dimensions given in hundredths of feet.
- ☐ j. Accurate outlines and legal descriptions of all areas dedicated or reserved for public use, with the proposed uses indicated thereon; and all areas to be reserved by deed covenant for the common use of all property owners; together with the proposed uses indicated thereon.
- ☐ k. The text of protective covenants, approved by the Plan Commission, relating to the proposed subdivision.
- ☐ l. An endorsement by the County Clerk in the form acceptable to Cook County, that there are no delinquent, forfeited, foreclosed or purchased general taxes, or unpaid current general taxes, against the land proposed to be subdivided.
- ☐ m. A summary of all restrictions applicable to any part of such subdivision concerning building restrictions, use restrictions, building setback lines and similar matters.
- ☐ n. A deed of dedication in the form set forth in Section 29-217(a):
The Final plat shall contain a deed of dedication substantially as follows:

"We, the undersigned, (Names), owners of the real estate shown and described herein, do hereby lay off, plat and subdivide said real estate in accordance with the within plat. This subdivision shall be known and designated as (Name), an addition to the Village of Arlington Heights, Cook County. All streets and alleys and public open spaces shown and not heretofore dedicated are hereby dedicated to the public. Front and side yard building setback lines are established as shown on this plat, between which lines and the property lines of the streets, there shall be erected or maintained no building or structure. There are strips of ground, (Number) feet in width, as shown on this plat and marked 'Easement' reserved for the use of public utilities for the installation of water and sewer mains, poles, ducts, lines and wires, subject at all times to the proper authorities and to the easement herein reserved. No permanent or other structures are to be erected or maintained upon

these strips of land, but owners of lots in this subdivision shall take their titles subject to the rights of the public utilities, and to the rights of the owners of other lots in this subdivision.

(Additional dedications and protective covenants, or private restrictions, would be inserted here upon the subdivider's initiative or the recommendation of the Plan Commission or Village Board; important provisions are those specifying the use to be made of the property and, in the case of residential use, the minimum habitable floor area.)

The foregoing covenants (or restrictions), are to run with the land and shall be binding on all parties and all persons claiming under them until January 1, 20____ [25 year period is suggested], at which time said covenants (or restrictions) shall be automatically extended for successive periods of ten years unless indicated otherwise by negative vote of a majority of the then owners of the building sites covered by these covenants (or restrictions), in whole or in part, which said vote will be evidenced by a petition in writing signed by the owners and duly recorded. Invalidity of any one of the foregoing covenants (or restrictions) by judgment or court order shall in no way affect any of the other various covenants (or restrictions), which shall remain in full force and effect.

The right to enforce these provisions by injunction, together with the right to cause the removal, by due process of law, of any structure or part thereof erected or maintained in violation, is hereby dedicated to the public, and reserved to the several owners of the several lots in this subdivision and to their heirs and assigns.

WITNESS our hands and seals this ____ day of _____, 20____.

STATE OF ILLINOIS)
COUNTY OF COOK) SS.

Before me the undersigned Notary Public, in and for the County and State aforesaid, personally appeared (Names), and each separately and severally acknowledged the execution of the foregoing instrument as his or her voluntary act and deed, for the purposes therein expressed.

WITNESS my hand and notarial seal this ____ day of 20 ____.

Notary Public"

- ☐ o. A blank certificate of approval in the form set forth in Section 29-217(b).
The Final plat shall contain a certificate of approval as follows:

"Under the authority provided by 65 ILCS 5/11-12 as amended by the State Legislature of the State of Illinois and Ordinance adopted by the Village Board of the Village of Arlington Heights, Illinois, this plat was given approval by the Village of Arlington Heights AND MUST BE RECORDED WITHIN SIX MONTHS OF THE DATE OF APPROVAL BY THE VILLAGE BOARD, OTHERWISE IT IS NULL AND VOID.

APPROVED by the Plan Commission at a meeting held _____

Chairman

Secretary

APPROVED by the Village Board of Trustees at a meeting held _____

President

Village Clerk

APPROVED by the Village Collector

APPROVED by the Village Engineer

"

- ☐ p. A certification by a registered surveyor in the form set forth in Section 29-217(c). The Final plat shall contain a certificate signed by an Illinois Registered Land Surveyor in substantially the following form:

"I, (Name), hereby certify that I am an Illinois Registered Land Surveyor in compliance with the laws of the State of Illinois, and that this plat correctly represents a survey completed by me on (Date); that all monuments and markers shown thereon actually exist, and that I have accurately shown the materials that they are made of.

Signature

(SURVEYOR'S SEAL)

Illinois Land Surveyor
No. _____"

- ☐ q. A notarized statement from the owner indicating the school district in which each tract, parcel, lot or block lies.
- ☐ r. A certificate in the form as required by the Illinois Department of Transportation or Cook County Highway Department, respectively, when any new street or new driveway will access one of these Department's streets.
- ☐ s. The parcel index numbers of all lots contained within the plat shall be included on the plat of subdivision.
- ☐ t. A block stating "Send Tax Bill To: (Name/Address)." The actual name and address shall be provided by the developer.
- ☐ u. Provide a location to identify the address of each new lot.

The Village of Arlington Heights Municipal Code can be accessed over the internet at www.vah.com .

Contacts for Plat Signatures

Mr. Frank Gautier
Comcast Cable
688 Industrial Drive
Elmhurst, IL 60126

224-229-5853
Frank_Gautier2@comcast.com
Alternates:
Bob Schulter (Department Supervisor), Martha Agieras (Assistant)
Bob_Schulter@comcast.ncom
Martha_Gieras@comcast.com

Per Frank: Request that completed plat data be shared with Comcast in advance of signature, and that the plat be physically provided at their 688 Industrial Drive office at a mutually agreed date and time.

Mr. Mark Cozzi
ComEd
Three Lincoln Center, 4th Floor
Oakbrook Terrace, IL 60181

630-576-6530
Mark.Cozzi@ComEd.com

Ms. Kim Augustine
NICOR Gas
300 W Terra Cotta Ave
Crystal Lake, IL 60014

630-338-2976
kaugust@aglresources.com

Ms. Sue E. Manshum
ROW Engineer
Ameritech
1391 Abbot Ct
Buffalo Grove, IL 60089

847-465-6086
sm9231@att.com

Mr. Dominick Silvio
WOW Internet Cable
4350 Weaver Parkway
Warrenville, IL 60555

630-536-3121
dominick.silvio@wowinc.com

Ms. Abigail Robinson
IDOT Permits
201 W Center Court
Schaumburg, IL 60196

847-705-4541
Abigail.L.Robinson@illinois.gov

Mr. Michael Sterr, P.E.
Permit Division Head, Construction Bureau
Cook County Department of Transportation and Highways
69 W Washington St
24th Floor
Chicago, IL 60602

312-603-1670
michael.sterr@cookcountyil.gov
hwy.permits@cookcountyil.gov

Sample Signature Blocks

COMMONWEALTH EDISON COMPANY
EASEMENT APPROVED AND ACCEPTED

BY: _____ DATE: _____, 20__

TITLE: _____

AMERITECH/SBC
EASEMENT APPROVED AND ACCEPTED

BY: _____ DATE: _____, 20__

TITLE: _____

NICOR GAS
EASEMENT APPROVED AND ACCEPTED

BY: _____ DATE: _____, 20__

TITLE: _____

COMCAST CABLE
EASEMENT APPROVED AND ACCEPTED

BY: _____ DATE: _____, 20__

TITLE: _____

WIDE OPEN WEST, LLC
EASEMENT APPROVED AND ACCEPTED

BY: _____ DATE: _____, 20__

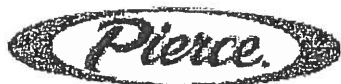
TITLE: _____

Received Fax: 06/03/05 10:45 FAX 820 832 3280 Fax Station: Norman J. Toberman Assoc

06/03/05 FRI 10:45 FAX 820 832 3280

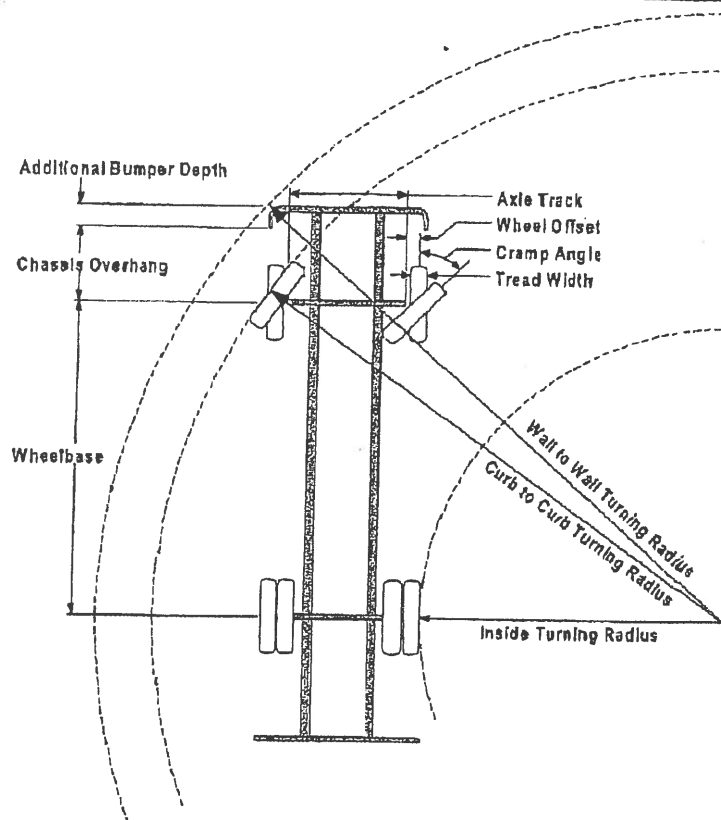
TECH SERVICE

004



Turning Performance Analysis

6/3/2005



Parameters:

Inside Cramp Angle:	40.00 °
Axle Track:	82.92 in.
Wheel Offset:	5.25 in.
Tread Width:	17.40 in.
Chassis Overhang:	65.99 in.
Additional Bumper Depth:	22.00 in.
Front Overhang:	146.60 in.
Wheelbase:	257.00 in.

Calculated Turning Radii:

Inside Turn:	24 ft. 4 in.
Curb to Curb:	40 ft. 0 in.
Wall to Wall:	47 ft. 6 in.

Comments:

Aerial Application

JOB# 13807 FOR REFERENCE ONLY

Components	PRIDE #	Description
Front Axle	0090913	Axle, Front, Oshkosh TAK-4, Non Drive, 24,000 lb, DLN/Qtm/AXT
Front Tires	0052978	Tires, Goodyear, 425/65R22.50 20 ply G286 tread
Chassis	0050220	Dash-2000 Chassis
Front Bumper	0012246	Bumper, 22" extended - all chassis'
Aerial Device	0022160	Aerial, 100' Pierce Platform

Notes:

Actual Inside Cramp Angle may be less due to highly specialized options.

Curb to Curb turning radius calculated for a 9.00 inch curb.

Reduce turning radius by 33% if vehicle is equipped with all-wheel steer.

Received/Fax: Jun 03 2005 9:40AM Fax Station: Norman J. Toberman Assoc

06/03/05 FRI 10:45 FAX 920 832 3260

TECH SERVICE

005



Turning Performance Analysis

6/3/2005

Definitions:

Inside Cramp Angle	Maximum turning angle of the front inside tire.
Axle Track	King-pin to king-pin distance of the front axle.
Wheel Offset	Offset from the center-line of the wheel to the king-pin.
Tread Width	Width of the tire tread.
Chassis Overhang	Distance from the center-line of the front axle to the front edge of the cab. This does not include the bumper depth.
Additional Bumper Depth	Depth that the bumper assembly adds to the front overhang.
Wheelbase	Distance between the center lines of the vehicle's front and rear axles.
Inside Turning Radius	Radius of the smallest circle around which the vehicle can turn.
Curb to Curb Turning Radius	Radius of the smallest circle inside of which the vehicle's tires can turn. This measurement assumes a curb height of 9 inches.
Wall to Wall Turning Radius	Radius of the smallest circle inside of which the entire vehicle can turn. This measurement takes into account any front overhang due to the chassis, bumper extensions and/or aerial devices.

TURNING PERFORMANCE ANALYSIS

OF

A PIERCE QUANTUM CHASSIS

FRONT AXLE	FRONT BRAKES	FRONT TIRES	CRAMP ANGLE	BUMPER TO AXLE DIM.
FL -943	DISC	385/65R22.5	45 DEG.	92.5 IN.
WHEELBASE	WHEEL OFFSET	FRONT AXLE TRACK		
184 INCHES	4.12	83.86 INCHES		

INSIDE TURNING RADIUS MEASURED TO THE CENTERLINE OF THE
INSIDE TIRE : 256.10 INCHES OR 21.34 FEET.

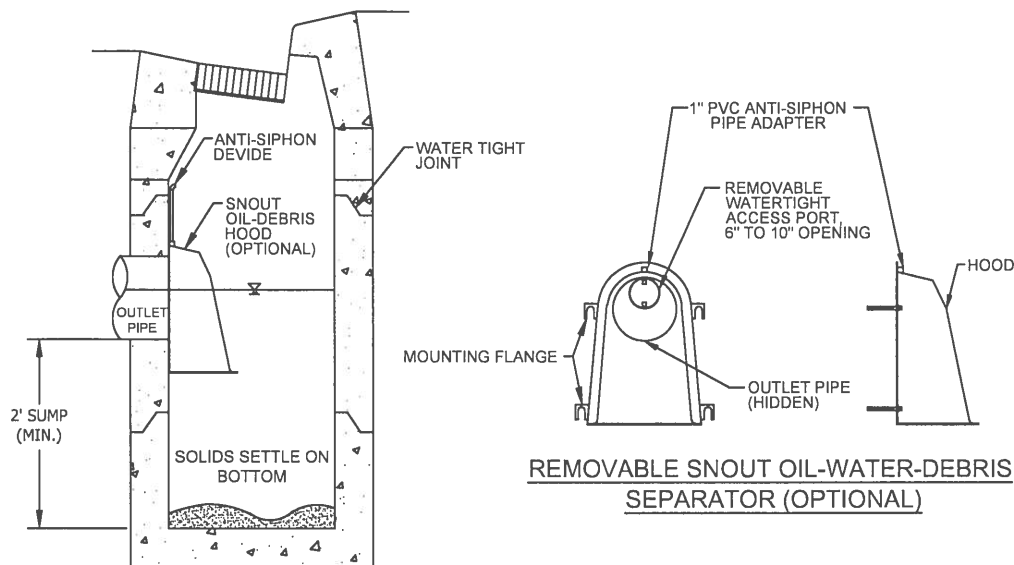
OUTSIDE TURNING RADIUS MEASURED TO THE CENTERLINE OF THE
OUTSIDE TIRE : 307.02 INCHES OR 25.59 FEET.

CURB TO CURB TURNING RADIUS CALCULATED FOR A 9.00 INCH CURB
HEIGHT : 316.55 INCHES OR 26.38 FEET.

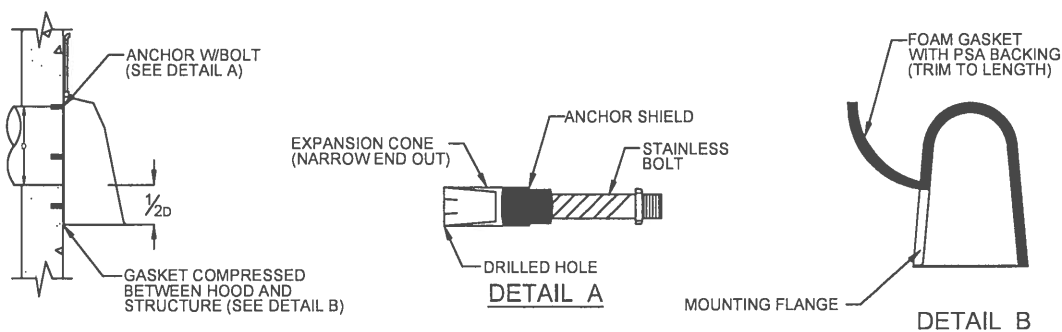
WALL TO WALL TURNING RADIUS MEASURED USING AN AXLE TO BUMPER
DIMENSION OF 92.50 INCHES : 375.18 INCHES OR 31.27 FEET.

ACTUAL WHEEL CRAMP ANGLE MAY BE LESS DUE TO OPTIONS
REDUCE TURNING RADIUS BY 33% IF VEHICLE IS EQUIPPED WITH ALL-WHEEL STEER

=====



CATCH BASIN WITH OPTIONAL HOOD



OUTLET PIPE

NOTES:

1. ALL HOODS SHALL BE CONSTRUCTED OF A FIBERGLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
2. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT PIPE AND ELBOW AS DRAWN. (SEE CONFIGURATION DETAIL).
3. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION (SNOUT SIZE ALWAYS LARGER THAN PIPE SIZE).
4. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A MINIMUM DISTANCE EQUAL TO $\frac{1}{2}$ THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES < 12" I.D.
5. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 12" ACCORDING TO STRUCTURE CONFIGURATION.
6. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND PIPE SHALL BE FINISHED FLUSH TO WALL.
7. THE REMOVABLE HOOD SHALL BE ATTACHED TO THE STRUCTURE WITH THE SLOTTED TABS MOUNTED OVER $\frac{3}{8}$ " STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKETS.
8. POSITION HOOD SUCH THAT BOTTOM FLANGE IS AT A DISTANCE OF $\frac{1}{2}$ " OUTLET PIPE DIAMETER (MIN.) BELOW THE PIPE INVERT. MINIMUM DISTANCE FOR PIPES < 12" I.D. IS 6".
9. RESTRICTOR AND SNOUT WHEN PAIRED SHOULD BE INSTALLED IN SUCH A WAY THAT RESTRICTOR AND SNOUT REMAIN INSPECTABLE.
10. RESTRICTOR AND SNOUT HOOD SHALL BE CURVED TO INSIDE RADIUS OF STRUCTURE AND WATERTIGHT.

NOT TO SCALE





Arlington Heights Fire Department Plan Review Sheet

P. C. Number 19-005

Project Name Sigwalt 16 PUD

Project Location 45 S Chestnut

Planning Department Contact Sam Hubbard

General Comments

Round 1

General Comments:

- 1) Sprinkler system installed per code.
- 2) Any Fire Department connections will be located at the front of the building. The Fire Connections will be fully visible and accessible and located within 100' of a accessible fire hydrant capable of providing the needed flow.
- 3) Install a fully operational annunciator panel or alarm panel at the main front entrance or to meet the Fire Departments needs.
- 4) Knox Box(s) shall be installed to meet the Fire Departments needs.

**NOTE: PLAN IS CONCEPTUAL ONLY
SUBJECT TO DETAILED PLAN REVIEW**

Date April 22, 2019

Reviewed By: LT. Mark Aleckson

Arlington Heights Fire Department

ARLINGTON HEIGHTS POLICE DEPARTMENT

Community Services Bureau

RECEIVED

APR 23 2019

PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

DEPARTMENT PLAN REVIEW SUMMARY

Sigwalt 16 PDU
45 S. Chestnut Ave.

Round 1 Review Comments

04/23/2019

1. Character of use:

The character of use is consistent with the area. It will be necessary to limit access to the grounds, especially benches or pergola areas. This is recommended to limit access and loitering. The addition of Trespass signs is recommended.

2. Are lighting requirements adequate?

Lighting should be up to Village of Arlington Heights Code. Special attention should be given to those outside common areas- ie courtyard and parking lot. Landscaping must not create hiding locations and should provide for natural surveillance.

3. Present traffic problems?

With the construction of Arlington 425 imminent, there will be increased traffic flow to an already congested downtown area. The Police Department has concerns about the traffic flow at Highland/Sigwalt and Highland/Campbell and again recommend a four way stop sign at those intersections.

4. Traffic accidents at particular location?

This is not a problem area in relation to traffic accidents.

5. Traffic problems that may be created by the development.

-The area around the parking lot entrance/exit should be clear of obstructions. Vehicle traffic entering and exiting the parking lot must be able to view other vehicles and pedestrians. Street parking adjacent to the entrances/exits should be prohibited. Warning lights/audible signals could be used to signal that vehicles are exiting.

6. General comments:

-Please ensure that there is an emergency information/contact card on file with the Arlington Heights Police Department and that it is up-to-date. Agent contact information must be provided to the Arlington Heights Police Department during all construction phases. The form is attached. Please complete and return. This allows police department personnel to contact an agent during emergency situations or for suspicious/criminal activity on the property during all hours.

A-121 #330
Alexandra Ovington, Crime Prevention Officer
Community Services Bureau

D. Hajek #557
Doug Hajek, Sergeant
Community Services Bureau

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. **19-005**
 Petitioner: Taylor Morrison of Illinois, Inc
1384 Walden Office Square, Suite 300
Schaumburg, IL 60173 - 847-232-8467
 Owner: SSO Arlington, LLC
4205 W. Irving Park Road, 1st Floor
Chicago, IL 60641
 Contact Person: Marc McLaughlin
 Address: 1834 Walden Office Square, Suite 300
Schaumburg, IL 60173 - 847-232-8467
 Phone #: 224-223-3316
 Fax #: _____
 E-Mail: mmclaughlin@taylormorrison.com

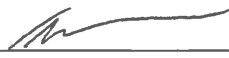
P.I.N.# 03-30-425-012,013,014,03-30-425-021,022,023
 Location: _____
 Rezoning: ☒ Current: R3 Proposed: R7
 Subdivision: ☒
 # of Lots: 17 Current: 6 Proposed: 16
 PUD: ☒ For: 16 row homes
 Special Use: _____ For: _____
 Land Use Variation: _____ For: _____
 Land Use: _____ Current: vacant residential
 Proposed: attached SFR
 Site Gross Area: 41,939 sqft
 # of Units Total: 16
 1BR: _____ 2BR: _____ 3BR: _____ 4BR: _____

(Petitioner: Please do not write below this line.)

1. GENERAL COMMENTS:

No Comments.

RECEIVED
 APR 24 2019
 PLANNING & COMMUNITY
 DEVELOPMENT DEPARTMENT


 Environmental Health Officer 4-22-19
 Date


 Director 4/23/19
 Date

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

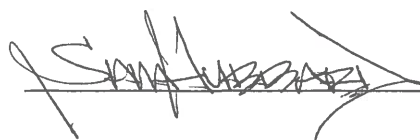
Petition #: P.C. <u>19-005</u>	P.I.N.# <u>03-30-425-012,013,014,03-30-425-021,022,023</u>
Petitioner: <u>Taylor Morrison of Illinois, Inc</u>	Location: _____
<u>1384 Walden Office Square, Suite 300</u>	Rezoning: ☒ Current: <u>R3</u> Proposed: <u>R7</u>
<u>Schaumburg, IL 60173 - 847-232-8467</u>	Subdivision: ☒
Owner: <u>SSO Arlington, LLC</u>	# of Lots: <u>17</u> Current: <u>6</u> Proposed: <u>16</u>
<u>4205 W. Irving Park Road, 1st Floor</u>	PUD: ☒ For: <u>16 row homes</u>
<u>Chicago, IL 60641</u>	Special Use: _____ For: _____
Contact Person: <u>Marc McLaughlin</u>	Land Use Variation: _____ For: _____
Address: <u>1834 Walden Office Square, Suite 300</u>	Land Use: _____ Current: <u>vacant residential</u>
<u>Schaumburg, IL 60173 - 847-232-8467</u>	Proposed: <u>attached SFR</u>
Phone #: <u>224-223-3316</u>	Site Gross Area: <u>41,939 sqft</u>
Fax #: _____	# of Units Total: <u>16</u>
E-Mail: <u>mmclaughlin@taylormorrison.com</u>	1BR: _____ 2BR: _____ 3BR: _____ 4BR: _____

(Petitioner: Please do not write below this line.)

- | | <u>YES</u> | <u>NO</u> | |
|----|-------------------------------------|--------------------------|---|
| 1. | ☒ | ☐ | COMPLIES WITH COMPREHENSIVE PLAN? |
| 2. | ☒ | ☐ | COMPLIES WITH THOROUGHFARE PLAN? |
| 3. | ☒ | ☐ | VARIATIONS NEEDED FROM ZONING REGULATIONS?
(See below.) |
| 4. | ☒ | ☐ | VARIATIONS NEEDED FROM SUBDIVISION REGULATIONS?
(See below.) |
| 5. | ☒ | ☐ | SUBDIVISION REQUIRED? |
| 6. | ☒ | ☐ | SCHOOL/PARK DISTRICT CONTRIBUTIONS REQUIRED?
(See below.) |

Comments:

PLEASE SEE ATTACHED COMMENTS.

 5/1/19
Date

Planning & Community Development Dept. Review

May 1, 2019



REVIEW ROUND 1

Project: Southern 1/3 of Block 425 – Taylor Morrison Townhomes
Sigwalt 16

Case Number: PC 19-005

General:

7. The Plan Commission must review and approve the following actions:
 - a. A rezoning from R-3, One-Family Dwelling District into the R-7, Multiple-Family Dwelling District.
 - b. A Planned Unit Development (PUD) to allow the construction of a 16-unit single-family attached rowhome development.
 - c. Preliminary and Final Plat of Resubdivision to subdivide the subject property into individual lots for each townhome unit.
 - d. Variation to Chapter 28, Section 5.1-7.2, Minimum Area for Zoning District, to allow the R-7 District to be approx. 1.39 acres where code requires a minimum of 2 acres for the R-7 District.
 - e. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback along Highland Avenue to be 12' where code requires a 25' setback.
 - f. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback along Chestnut Avenue to be 17' where code requires a 25' setback.
 - g. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback (north) to be 8' where code requires a 15' setback.
 - h. Variation to Chapter 28, Section 5.1-7.10, Spacing Between Multi-Family Buildings, to allow 5' spacing between principal buildings where code requires 25' spacing.
 - i. Variation to Chapter 28, Section 10.2-8, to allow a two-way driveway width of 22' where code requires a minimum of 24' for a two-way drive aisle.
 - j. Variation to Chapter 28, Section 10.2-9, to allow tandem parking spaces.
 - k. It should be noted that the property is proposed to be subdivided into individual units for each townhome, which will require variations for each lot based on the R-7 setback and bulk standards, although the overall development will comply with bulk standards and with most setback standards.
8. Section 9.8(i) of the Zoning Code requires that all PUD's include a preliminary construction schedule and phasing plan. Please provide the required preliminary construction schedule, which includes information on the approximate date of construction start, the number of construction phases and the starting and completion date for each phase, and details on what will be constructed in each phase, as well as a construction staging plan. The construction phasing plan shall include the anticipated number of construction workers and where they will park during each phase of construction, the type and amount of construction vehicles per phase and where they will be staged, the location of material storage, and information on anticipated lane closures, including info on where the closures will take place and the general timeframe for each closure.
9. School, Park, and Library contributions will be required prior to the issuance of a building permit. Your response to the affordable housing policy has been received and will be evaluated by the Housing Commission as part of the zoning entitlement process.
10. Please ensure that all plans and/or studies to be resubmitted as a result of the Round 1 Department review comments include a revision date.

Site Plan:

11. Streetscape along Chestnut should be modified to be consistent the proposed streetscape to the north (widening of Chestnut to include parking along the east side of the street). Please revise the plans to show this improvement.
12. The plans appear to show that the existing overhead lines on the north side of Sigwalt that traverse directly south across Sigwalt, along the north side of Sigwalt, and diagonally across Sigwalt to the southwest corner of Sigwalt and Chestnut will all remain. These overhead lines should be buried or relocated as part of this development proposal. Can the existing telephone and electric utility boxes located along Sigwalt Street be relocated to the rear of the site or put underground?
13. Staff would like to discuss the potential merits of parking bump-outs at Sigwalt/Highland and Sigwalt/Chestnut and installation of these improvements may be required.
14. Previous iterations of the plans showed fencing in the front yard areas. Is fencing still proposed?
15. Other than the proposed transformer at the rear of the property, will there be any other ground mounted utility or mechanical equipment (switch gear, generators, meters, utility pedestals, AC units, etc.). Any/all proposed ground mounted utility/mechanical equipment must be appropriately located and screened.
16. The KLOA study recommended the provision of high-visibility crosswalks across the driveway entrance to the subject property. Please show these on the plans.
17. Given the 8' of ROW dedication along Highland Avenue, the proposed servicewalks for each unit extend well into the ROW. Maintenance of these servicewalks will be the responsibility of the homeowners and the Village will not maintain said service walks to each unit.

Building:

18. Please provide the projection distance of the proposed bay windows. Bay windows may not project more than 3' into a required front, rear, or exterior side yard.

Plat of Subdivision:

19. Please clarify if you are proceeding with Preliminary and Final Plat of Subdivision concurrently or separately. The submitted plat of subdivision was reviewed under the assumption that you are proceeding with Preliminary approval first, then returning for Final Plat approval at a future date.
20. Please revise the title of the plat to clarify whether it is preliminary or final. If you are proceeding with Final Plat approval, please note that the Final Plat, as approved by the Engineering Dept., must be printed on mylar and submitted to the Village, with signatures obtained from all parties except those to be coordinated by the Village, no less than one week prior to the Plan Commission hearing date. If this requirement cannot be met, you can proceed with Preliminary Plat approval with Final Plat approval obtained at a future date (i.e. a separate Plan Commission meeting would be needed). No public notice is required for Final Plat of Subdivision approval.
21. Please note that final engineering must be approved by the Engineering Dept. no less than one week prior to appearance before the Village Board for Final Plat of Subdivision approval. Additionally, please note that all applicable engineering fees and surety bonds, public improvement deposits, and recording fee's must be provided one week prior to appearing before the Village Board for Final Plat approval. If this requirement cannot be met, you can proceed with Preliminary Plat approval with Final Plat approval obtained at a future date (i.e. a separate Plan Commission meeting would be needed). No public notice is required for Final Plat of Subdivision approval.
22. Please clarify if each townhome unit will be placed on a separate subdivided lot. Currently, the Plat of Subdivision only places each building on separate platted lots. Since variations will be required for each townhome lot, please revise the plat to show the individual lots and the necessary variations can be incorporated into the Plat approval process. Otherwise, when a final plat of Subdivision is prepared that shows individual lots for each unit, another public notice and Plan Commission hearing would be required for the needed variations.

Prepared by:

Sigwalt 16
45 S. Chestnut
PC 19-005
4/29/19

- 1) Provide additional landscaping on the south end adjacent to unit #6 and #12. Overall, the landscaping is minimal and it is recommended that additional landscaping be provided. Along Sigwalt, Chestnut and Highland provide additional understory trees. On the north elevation adjacent to unit #1 and #16, vary the landscaping and increase the height to soften the elevation.
- 2) Along Highland Avenue, the streetscape shall match the Downtown. Incorporate the brick pavers and the site furnishings that are consistent with the Downtown streetscape.
- 3) Increase the size of the shade trees in the courtyard at the ends of the parking row so that they are a minimum of 4" caliper (Chapter 28. Section 6.15).
- 4) Incorporate permeable pavers within the drive aisle. The crosswalk near Highland shall be striped.
- 5) It is recommended that specialty pavement such as brick pavers be provided for the private walkways.
- 6) Will the three buildings be constructed at once? If not please provide an interim landscape plan.
- 7) The proposed Linden trees along Sigwalt may potentially conflict with the existing overhead utility lines. Please evaluate the placement and species of the proposed trees.
- 8) Landscape screening must be provided for any utility/mechanical areas located at grade so that they are fully screened.
- 9) A landscape compliance bond in the amount of 30% of the landscaping costs will be required. In addition, a \$4 tree fee is required for each lineal foot of frontage.

SIGWALT 16 – PC#: 19-005
PETITIONER RESPONSES TO ROUND 1 COMMENTS
MAY 21, 2019

RESPONSES TO BUILDING AND LIFE SAFETY DEPARTMENT COMMENTS

- A. The information provided is conceptual only and subject to formal plan review.

[Response:](#) No Comments.

SIGWALT 16 – PC#: 19-005
PETITIONER RESPONSES TO ROUND 1 COMMENTS
MAY 21, 2019

RESPONSES TO FIRE SAFETY DIVISION COMMENTS

1. All currently adopted codes shall apply.

Response: Understood

2. A complete NFPA compliant fire suppression system is required.

Response: Understood and will comply with requirements of currently adopted codes to provide the appropriate NFPA system.

3. An approved water supply capable of supplying the required fire flow for fire protection shall be provided.

Response: Understood and will comply.

4. A fire alarm may be required depending on the type of fire sprinkler provided.

Response: Understood and agree.

5. Shop drawings for fire alarm systems shall be submitted for review and approval prior to system installation.

Response: Understood. Will be in final plans.

6. In buildings four or more stories above grade plane, one stairway shall extend to the roof surface, unless the roof has a slope steeper than four units vertical in 12 units horizontal.

Response: With the upper roof not occupied, IBC 1009.13 allows access to be by an alternating tread device. Given the individual townhouse construction with no shared interior exit stair, no mechanical equipment on the upper roof, and full access being provided to the 3rd floor roof decks, we would like to work with the Fire and Building Departments during building permit review to request relief from this code requirement. If relief is not granted, we will comply with the code requirements to provide an alternating tread device.

7. Buildings or portions of buildings or facilities exceeding 30 feet in height above the lowest level of fire department vehicles access shall be provided with approved fire apparatus access roads capable of accommodating fire department aerial apparatus. Overhead utility

and power lines shall not be located within the aerial fire apparatus access roadway.

[Response:](#) Understood and agree. See accompanying exhibit.

8. Buildings shall have approved address numbers.

[Response:](#) Understood and agree. Will be assigned by USPS.

SIGWALT 16 – PC#: 19-005
PETITIONER RESPONSES TO ROUND 1 COMMENTS
MAY 21, 2019

RESPONSE TO PUBLIC WORKS DEPARTMENT COMMENTS

1. The water line related comments will be reserved until plumbing submittals show what the intention is within each unit.

Response: The watermain was redesigned in coordination with Engineering Department. All units have individual services.

2. Provide elevations for every sanitary and storm crossing of water main.

Response: A crossings schedule is now provided.

3. The storm water connection to Sigwalt is mislabeled as sanitary connection.

Response: The storm sewer connection is now provided by the Village's contractor at owner's expense. Coordinated with Engineering Department.

4. The combined sewer line on Sigwalt will be a 30" RCP (the 18" combined sewer will be replaced with a 30").

Response: Change is noted.

5. The 4" water main on Sigwalt will be abandoned in summer of 2019.

Response: Change is noted.

6. Submit a maintenance plan for the underground detention basin.

Response: The maintenance plan is submitted as the required Exhibit R for MWRD. See maintenance notes on the Final Engineering Plan.

7. The existing Village telemetry conduit (encased in concrete) will be impacted for storm MH #8.

Response: Sanitary manhole #8 has now been redesigned to connect in a different location. Coordinated with the Engineering Department.

8. The surface course of roadway shall be milled with a minimum of 2' beyond any roadway trench or cut to ensure smooth transition.

Response: Comment is noted and addressed in note #11 on page 4.

9. The project is located in Downtown Arlington Heights and will require brick paver sidewalks (new design with concrete bands), decorative lights and tree grates per Village standards.

Response: Brick Pavers have been incorporated on Highland; however, Petitioner feels that site furnishings in front of these individually owned townhomes is not appropriate.

10. Any work done on sidewalks will meet ADA compliance.

Response: Public sidewalks. Understood and agree.

11. If approval is provided prior to Village's reconstruction of Sigwalt sewer, contact Mike Pagones, Village Engineer to coordinate storm sewer taps.

Response: Coordination with the Engineering Department for all utility stubs/taps has been done.

SIGWALT 16 – PC#: 19-005
PETITIONER RESPONSES TO ROUND 1 COMMENTS
MAY 21, 2019

RESPONSE TO ENGINEERING DEPARTMENT COMMENTS

1-10. Printed comments – all agreed.

ADDITIONAL COMMENTS:

1. The petitioner is notified that these comments are being provided to ensure that the project meets the requirements for submittal to the Plan Commission. Approval by the Plan Commission is not an endorsement or approval of these documents to obtain the required building permits, engineering approval, or permits required by other government or permitting agencies for construction. Detailed plan review with associated comments will be provided upon submittal of plans for a building permit. The petitioner shall acknowledge that they accept this understanding.

[Response: Understood and agree.](#)

2. Since a subdivision is being proposed the plans must meet all subdivision requirements. Final engineering plans for all public improvements must be approved prior to the final plat of subdivision approval. An Engineers estimate of construction cost for full site improvements is required to complete the calculation for plan review, inspection, and other fees. An Engineers estimate of construction cost for public improvements is also required to complete the calculation for the required public improvements guarantee deposit. The public improvements for this development would include public sidewalk and all right-of-way improvements required by the Planning Department which may include but not limited to streetlights and parking lanes. These estimates should be submitted at least three weeks prior to the final Plan Commission meeting to allow us time to generate the fee letter and for the petitioner to assemble the proper documents.

[Response: Understood. See attached EEOPC.](#)

3. Final engineering plans shall be georeferenced by using State Plane Coordinate System – Illinois East. Below are details about projection:

Projected Coordinate System:	NAD_1983_StatePlane_Illinois_East_FIPS_1201_Feet
Projection:	Transverse_Mercator
False_Easting:	984250.00000000
False_Northing:	0.00000000
Central_Meridian:	-88.33333333

Scale_Factor: 0.99997500
Latitude_Of_Origin: 36.66666667
Linear Unit: Foot_US
Geographic Coordinate System: GCS_North_American_1983
Datum: D_North_American_1983
Prime Meridian: Greenwich
Angular Unit: Degree

[Response:](#) The georeference of the engineering plans using the State Plane Coordinate System – Illinois East was previously done. Please see front page of engineering plans.

4. The Final Plat of Subdivision must be reviewed and approved by Engineering prior to final Plan Commission approval. The original signed mylar Final Plat of Subdivision, containing all non-Village signatures, shall be submitted one week before the scheduled date of the final Plan Commission meeting. Village Code Section 29-209 also requires a digital copy of the plat to be provided on disk to the Village. The petitioner shall acknowledge that they accept this understanding.

[Response:](#) Understood and agree.

5. The proposed detention/retention facility will be a private system and as such will not be the Village's responsibility to maintain. If a basin is proposed, the basin requires a 1-foot freeboard with an overflow weir at the 6" line. The basin requires a 5' flat zone around the perimeter before the top of slope begins. Provide calculations for sizing the weir. An Onsite Utility Maintenance Agreement must be executed prior to final engineering approval. Please contact the Village Engineer for an editable version of the OUMA.

[Response:](#) The detention design is an underground StormTech system already preapproved by MWRD. Weir calculations are included in the Storm Drainage Analysis. The OUMA will be submitted for your approval.

6. If a wet bottom basin is proposed, the basin shall be constructed with a minimum depth of no less than six feet (6'). A safety ledge, five feet (5') wide, back pitched towards the shore three inches (3"), at three feet (3') below normal water level (NWL) must be provided. The side slopes leading down to the basin's NWL must be 5:1 maximum. Provisions, such as a recirculation pump, must be made to keep the pond nuisance free.

[Response:](#) A wet bottom basin is not proposed.

7. The preliminary detention calculations are acceptable.
 - a. Final approval will require final engineering plans including calculations for storage provided and details of the detention system.

- b. If the detention storage system will be located under pavement, it must be designed to AASHTO HS-25 loading standard.
- c. The outlet pipe in the special restrictor structure must have a trap with a removable hood. For reference is a removal hood detail from the Metropolitan Water Reclamation District.
- d. Since the restrictor required to meet the allowable release rate is less than 2", calculate the amount of detention storage provided with a 2" restrictor. Subtract this amount from the required storage based on the allowable release rate to show the storage deficiency. The deficiency can be paid as money in lieu of detention at the rate of \$1.00 per cubic foot.

Response: We meet storage. Calculations for storage and details of the StormTech system are provided. The detention system is almost all in the grass area north of the parking lot. However, a portion does stretch out into the pavement. The StormTech system meets the AASHTO HS-25 loading standard. The restrictor does have the trash grate and a check valve is on the downstream pipe. As discussed, a removable hood is not needed. The detention volume was calculated using the required village release rate, not that of the 2" restrictor. Therefore, the required detention volume has been met. No money in lieu of is required.

8. Regarding the permeable pavers, the following items shall be addresses at final engineering:

- a. The top of the CA-7 stone layer cannot be higher than the surrounding ground to avoid detained water from "bleeding" out of the side of the facility.

Response: The permeable pavers are in the lowest area around the back of the townhome units. All drainage flows to them, permeates through them, then uses the underdrain to flow any remaining stormwater to the detention system.

- b. Provide existing and proposed elevations of the finished grade, and also provide the proposed elevations of the bottom of the CA-7 stone layer.

Response: Elevations were added to the permeable paver cross section on Sheet 4.

- c. At time of permit, provide a copy of the manufacturer's brochure showing specifications for their permeable paver system.

Response: Manufacturer's information has been included with this submittal.

9. If on-site lighting is proposed, provide a site photometric lighting diagram indicating lighting intensities. Also provide the associated catalog cuts for all roadway, parking lot, and building mounted luminaires. All fixtures must be flat bottom, sharp- cut-off, and no wall pack style fixtures will be permitted.

[Response:](#) There is no roadway or parking lot lighting proposed.

10. Provide an exhibit to engineering scale showing the turning path of the Fire Department's responding vehicle, in this case a Pierce Quantum. Exhibit must show front and rear wheel paths and the extent of the front and rear overhangs, as provided in an "Autoturn" exhibit. The vehicle shall be shown maneuvering through the site in all possible directions of travel. Attached are the specifications for the Pierce Quantum.

[Response:](#) See accompanying exhibit.

11. Per the Fire Department, fire lanes adjacent to buildings must be able to support the responding vehicle (Pierce Velocity or Pierce Quantum). A fully loaded engine is 49,800 lbs. Fire lanes require a heavy duty pavement section. Asphalt pavement section to consist of: 2" Surface, 2 1/4" N-50 Binder, 5" N-50 Binder, and 4" CA-6 Stone Subbase. For the proposed permeable pavers provide additional information to show that the structural number of the proposed cross section is equivalent to the above referenced asphalt pavement section.

[Response:](#) Calculations were submitted showing that the permeable pavers stone base can support the 49,800 lb. fire truck. Another calculations sheet was added showing the SN for the permeable pavers exceeds that of the heavy-duty cross section.

12. Coordinate possible fire lane cross access with the parcel located north of the proposed development.

[Response:](#) We are unable to provide fire lane cross access and meet the requirements of the stormwater ordinance.

13. The Professional Engineer stamp expiration date provided on the cover page of the engineering plans is not current. Provide current expiration date.

[Response:](#) Stamp was updated.

14. Regarding the Highland Ave driveway and pedestrian access route:

- a. The proposed ADA ramps and pedestrian access route at the Highland Ave entrance are currently shown at an angle. The preferred alignment would have the north receiving ADA ramp in alignment with the public sidewalk south of the new driveway.

Response: The angle was taken out of the crossing. It is now shown as straight.

- b. Sidewalk takes precedence through the driveway, with curb stopping on either side of the sidewalk.

Response: The sidewalk is now shown as continuous.

- c. All sidewalk and ADA ramps shall meet the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way dated July 26, 2011.

Response: All sidewalks and ADA ramps in the public right-of-way will meet required guidelines.

- 15. Verify the depth of the Village cable located in the parkway to confirm there are no conflicts with the proposed storm sewer and water main.

Response: The depth of the Village cable encased in concrete was confirmed with public works. It was noted as being +/- 2' deep.

- 16. Provide additional information on the power lines to be relocated.

Response: The power lines are not proposed to be relocated. Power lines on site are being removed and abandoned.

- 17. The proposed water main is not a public main and therefore must not be located in the right-of-way. Revise the plans accordingly.

Response: The plans were revised per our meeting dated 5/16/19.

- 18. Master meters shall be required at both connection points. In the event the petitioner chooses to install individual meters in the units, the units would not be supplied, maintained or read by the Village.

Response: The petitioner has chosen to install individual meters.

- 19. The proposed sanitary sewer on Highland Ave is located close to the property line. The line shall be relocated such that all structures are located on private property and not encroaching on the public right-of-way.

Response: The sanitary sewer was moved west to be out of the ROW

TRAFFIC:

- 20. The entrance/exit driveway width is required to be 24 ft. face to face of curb by Village Code. Curb return radii must be 20 ft. radii minimum.

Response: It appears that the 20 ft. radii turn is used for standard perpendicular access. The entrance to the property is not simple. It comes in at an angle and has a compound curb return necessitated by the site characteristics and configuration, as well as the existing above ground utilities. A large fire truck can make all necessary turns so Petitioner does not believe that the proposed entrance/exit driveway is an issue.

21. The geometric alignment for the entrance/exit driveway into the internal parking lot needs to provide turning templates to verify if delivery, garbage, and fire emergency vehicles to get in and turn around to pull out forward, instead of having to back out. The internal 5 ft. radius of the right angle curve needs to be softened into a compound or tapered geometric transition to allow two vehicles to pass each other through this 90 degree turn.

Response: The largest vehicle (the fire truck) has an Autoturn exhibit provided as required by the fire department. Other smaller vehicles will back out as well if they choose to pull all the way into the parking lot. A tapered transition was added to the corner radius.

22. The garage access for units 1; 5 & 6; 12 & 13; 16, does not accommodate vehicles to pull into these garages, and back out in order to proceed forward back to the entrance/exit driveway. As such the 2-3 cars parked in these units can only pull into their garage, and must back out across 2-4 other unit's garage dooring openings, or have other access deficiencies. Pulling into or backing out of units 5 & 13 garages may not be possible if one car is already in the garage.

Response: Petitioner is well aware of this situation and will advise each Purchaser of such. Developer also believes that the smaller of these units will have 1-car owners and will not pose an issue.

23. The sight distance for vehicles exiting the proposed driveway looking north must be evaluated to verify if oncoming traffic can be seen past the bay of cars parked under the parking garage.

Response: Included with this submittal, please find the prepared sight distance figure which shows the available sight distance for vehicles exiting the proposed access drive serving the development. It is important to note that this access drive is located in an urban downtown setting and, as such, other access drive/intersections in the vicinity also do not meet the 150 feet sight distance. For example, the one-way exiting access drive located offset to the north of the proposed access drive on the east side of Highland Avenue is immediately adjacent to the parking garage wall and has limited sight distance.

24. Clarify if the proposed driveway to be bituminous or concrete.

Response: Concrete.

PRELIMINARY PLAT OF SUBDIVISION:

25. The plat was reviewed against the attached Preliminary Plat of Subdivision Checklist. Use the checklist to complete items 12 & 13.

Response: The submitted plat of subdivision is a final plat of subdivision.

26. For the Final Plat of Subdivision, use the attached Final Plat of Subdivision Checklist.

Response: The submitted plat of subdivision is a final plat of subdivision.

SIGWALT 16 – PC#: 19-005
PETITIONER RESPONSES TO ROUND 1 COMMENTS
MAY __, 2019

RESPONSE TO FIRE DEPARTMENT COMMENTS

1. Sprinkler system installed per code.

Response: Understand and agree.

2. Any Fire Department connections will be located at the front of the building. The Fire Connections will be fully visible and accessible and located within 100' of an accessible fire hydrant capable of providing the needed flow.

Response: We do not believe any fire department connections will be required for the applicable fire suppression system; however, final details of the system design will be in final plans and will comply with applicable code requirements.

3. Install a fully operational annunciator panel or alarm panel at the main front entrance or to meet the Fire Department's needs.

Response: We do not believe any annunciator panels will be required for the applicable fire suppression system; however, final details of the system design will be in final plans and will comply with applicable code requirements.

4. Knox Box(s) shall be installed to meet the Fire Department's needs.

Response: It is not anticipated that Knox Box(s) will be required for these individual townhomes, but if required, they will be provided.

SIGWALT 16 – PC#: 19-005
PETITIONER RESPONSES TO ROUND 1 COMMENTS
MAY __, 2019

RESPONSE TO POLICE DEPARTMENT COMMENTS

1. Character of use:

The character of use is consistent with the area. It will be necessary to limit access to the grounds, especially benches or pergola areas. This is recommended to limit access and loitering. The addition of Trespass signs is recommended.

[Response:](#) Understood and agree.

2. Are lighting requirements adequate?

Lighting should be up to Village of Arlington Heights Code. Special attention should be given to those outside common areas- ie courtyard and parking lot. Landscaping must not create hiding locations and should provide for natural surveillance.

[Response:](#) There is no roadway or parking lot lighting proposed, and landscaping has been designed to avoid creating hiding locations.

3. Present traffic problems?

With the construction of Arlington 425 imminent, there will be increased traffic flow to an already congested downtown area. The Police Department has concerns about the traffic flow at Highland/Sigwalt and Highland/Campbell and again recommend a four way stop sign at those intersections.

[Response:](#) We concur regarding a four-way stop at Sigwalt and Highland.

4. Traffic accidents at particular location?

This is not a problem area in relation to traffic accidents.

[Response:](#) Agreed.

5. Traffic problems that may be created by the development.

The area around the parking lot entrance/exit should be clear of obstructions. Vehicles traffic entering and existing the parking lot must be able to view other vehicles and pedestrians. Street parking adjacent to the entrances/exits should be prohibited. Warning lights/audible signals could be used to signal that vehicles are exiting.

[Response:](#) The access drive off Highland Avenue has been located and designed to optimize sightlines for both approaching traffic on Highland Avenue as well as exiting traffic on the access drive. A high-visibility crosswalk will be provided across the access drive. Warning lights/audible signals

are not needed for this access drive since traffic exiting the development will be visible to the pedestrians on the adjacent sidewalk.

6. **General comments:**

Please ensure that there is an emergency information/contact card on file with the Arlington Heights Police Department and that it is up-to-date. Agent contact information must be provided to the Arlington Heights Police Department during all construction phases. The form is attached. Please complete and return. This allows police department personnel to contact an agent during emergency situations or for suspicious/criminal activity on the property during all hours.

Response: Duly noted.

SIGWALT 16 – PC#: 19-005
PETITIONER RESPONSES TO ROUND 1 COMMENTS
MAY __, 2019

RESPONSE TO PLANNING & COMMUNITY DEVELOPMENT COMMENTS

1-6. [Printed Comments – all agreed.](#)

ADDITIONAL COMMENTS:

General:

7. The Plan Commission must review and approve the following actions:
 - a. A rezoning from R-3, One-Family Dwelling District into the R-7, Multiple-Family Dwelling District.
 - b. A Planned Unit Development (PUD) to allow the construction of a 16-unit single-family attached rowhome development.
 - c. Preliminary and Final Plat of Resubdivision to subdivide the subject property into individual lots for each townhome unit.
 - d. Variation to Chapter 28, Section 5.1-7.2, Minimum Area for Zoning District, to allow the R-7 District to be approx. 1.39 acres where code requires a minimum of 2 acres for the R-7 District.
 - e. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback along Highland Avenue to be 12' where code requires a 25' setback.
 - f. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback along Chestnut Avenue to be 17' where code requires a 25' setback.
 - g. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback (north) to be 8' where code requires a 15' setback.
 - h. Variation to Chapter 28, Section 5.1-7.10, Spacing Between Multi-Family Buildings, to allow 5' spacing between principal buildings where code requires 25' spacing.
 - i. Variation to Chapter 28, Section 10.2-8, to allow a two-way driveway width of 22' where code requires a minimum of 25' for a two-way drive aisle.
 - j. Variation to Chapter 28, Section 10.2-9, to allow tandem parking spaces.
 - k. It should be noted that the property is proposed to be subdivided into individual units for each townhome, which will require variations for each lot based on the R-7 setback and bulk standards, although the overall development will comply with bulk standards and with most setback standards.

[Response:](#) Understood and agree.

8. Section 9.8(i) of the zoning Code requires that all PUD's include a preliminary construction schedule and phasing plan. Please provide the required preliminary construction schedule, which includes information on the approximate date of construction start, the number of construction phases and the starting and completion date for each phase, and details on what will be constructed in each phase, as well as a construction staging plan. The construction phase plan shall include the anticipated number of construction workers and where they will park during each phase of construction, the type and amount of construction vehicles per phase and where they will be staged, the location of material storage, and information on anticipated lane closures, including info on where the closures will take place and the general timeframe for each closure.

[Response:](#) See attached construction schedule.

9. School, Park, and Library contributions will be required prior to the issuance of a building permit. Your response to the affordable housing policy has been received and will be evaluated by the Housing Commission as part of the zoning entitlement process.

[Response:](#) Understood.

10. Please ensure that all plans and/or studies to be resubmitted as a result of the Round 1 Department review comments include a revision date.

[Response:](#) All plans and/or studies to be resubmitted as a result of the Round 1 Department review comments will include a revision date.

Site Plan:

11. Streetscape along Chestnut should be modified to be consistent with the proposed streetscape to the north (widening of Chestnut to include parking along the east side of the street). Please revise the plans to show this improvement.

[Response:](#) Plans have been revised

12. The plans appear to show that the existing overhead lines on the north side of Sigwalt that traverse directly south across Sigwalt, along the north side of Sigwalt, and diagonally across Sigwalt to the southwest corner of Sigwalt and Chestnut will all remain. These overhead lines should be buried or relocated as part of this development proposal. Can the existing telephone and electric utility boxes located along Sigwalt Street be relocated to the rear of the site or put underground?

Response: The existing powerlines are not proposed to be relocated or buried. See the attached fire access diagram showing unobstructed access with the existing power lines, which the Fire Chief and Fire Marshal have reviewed and accepted.

13. Staff would like to discuss the potential merits of parking bump-outs at Sigwalt/Highland and Sigwalt/Chestnut and installation of these Improvements may be required.

Response: Due to the existing utilities on Sigwalt, which break up and limit where street parking could be accommodated, the Petitioner feels that the green space and parkway trees would provide a better transition from the CBD to the residential neighborhood.

14. Previous iterations of the plans showed fencing in the front yard areas. Is fencing still proposed?

Response: Per recommendation by the Design Commission and agreed by our architect, the proposed fencing in the front yard area has been removed.

15. Other than the proposed transformer at the rear of the property, will there be any other ground mounted utility or mechanical equipment (switch gear, generators, meters, utility pedestals, AC units, etc.). Any/all proposed ground mounted utility/mechanical equipment must be appropriately located and screened.

Response: The AC units will be located on the 3rd floor roof decks with appropriate screening. The Petitioner will work with the utility companies to locate all meters (gas and electric) on the rear or sides of the buildings, and will comply with Village requirements to provide landscape screening as needed.

16. The KLOA study recommended the provision of high-visibility crosswalks across the driveway entrance to the subject property. Please show these on the plans.

Response: Petitioner's engineer met with the Village Engineering Department who instructed Petitioner to pour the sidewalk straight through to match sidewalk grades, with no depressed curb, striping or ADA domes.

17. Given the 8' of ROW dedication along Highland Avenue, the proposed servicewalks for each unit extend well into the ROW. Maintenance of these servicewalks will be the responsibility of the homeowners and the Village will not maintain said service walks to each unit.

Response: Understood and agree.

Building:

18. Please provide the projection distance of the proposed bay windows. Bay windows may not project more than 3' into a required front, rear, or exterior side yard.

Response: The bay windows are currently planned to project 2', and will not exceed the 3' maximum allowed projection into the front, rear, or exterior side yards.

Plat of Subdivision:

19. Please clarify if you are proceeding with Preliminary and Final Plat of Subdivision concurrently or separately. The submitted plat of subdivision was reviewed under the assumption that you are proceeding with Preliminary approval first, then returning for Final Plat approval at a future date.

Response: We submitted a proposed Final Plat of Subdivision.

20. Please revise the title of the plat to clarify whether it is preliminary or final. If you are proceeding with Final Plat approval, please note that the Final Plat, as approved by the Engineering Dept., must be printed on mylar and submitted to the Village, with signature obtained from all parties except those to be coordinated by the Village, no less than one week prior to the Plan Commission hearing date. If this requirement cannot be met, you can proceed with Preliminary Plat approval with Final Plat approval obtained at a future date (i.e. a separate Plan Commission meeting would be needed). No public notice is required for Final Plat of Subdivision approval.

Response: Understood. We are proceeding with Final Plat approval.

21. Please note that final engineering must be approved by the Engineering Dept. no less than one week prior to appearance before the Village Board for Final Plat of Subdivision approval. Additionally, please note that all applicable engineering fees and surety bonds, public improvement deposits, and recording fees must be provided one week prior to appearing before the Village Board for Final Plat approval. If this requirement cannot be met, you can proceed with Preliminary Plat approval with Final Plat approval obtained at a future date (i.e. a separate Plan Commission meeting would be needed). No public notice is required for Final Plat of Subdivision approval.

Response: We are proceeding with Final Plat approval.

22. Please clarify if each townhome unit will be placed on a separate subdivided lot. Currently, the Plat of Subdivision only places each building on separate platted lots. Since variations will be required for each townhome lot, please revise the plat to show the individual lots and the necessary variations can be incorporated into the Plat approval process. Otherwise, when a final plat of Subdivision is prepared that shows individual lots for each unit, another public notice and Plan Commission hearing would be required for the needed variations.

Response: Each townhome will be on a separately divided lot. The attached revised Plat of Subdivision depicts each subdivided lot.

23. A draft of the proposed Declaration of Conditions, Covenants, and Restrictions (if any are proposed) is required for Final Plat of Subdivision approval, per Section 29-209(k) of Chapter 29 of the Municipal Code.

Response: The proposed Declaration for Sigwalt 16 Townhomes is being submitted herewith.

24. Please revise the Plat to show the required setbacks (20' to south, 25' to east, 25' to west, 15' to north).

Response: The required setbacks are now shown on the revised Plat

25. Please cross-hatch area of ROW dedication.

Response: The ROW is crosshatched on the revised Plat.

26. The corresponding lot number in parenthesis next to the PINs at the top left-hand corner of the plat do not match the existing lots as shown on the plat.

Response: The Amended Plat has been revised so that PIN 03-30-425-023 now references Lot 14

ADDITIONAL COMMENTS – Landscaping

1. Provide additional landscaping on the south end adjacent to unit #6 and #12. Overall, the landscaping is minimal, and it is recommended that additional landscaping be provided. Along Sigwalt, Chestnut and Highland Provide additional understory trees. On the north elevation adjacent to unit #1 and #16, vary the landscaping and increase the height to soften the elevation.

Response: Landscaping along Sigwalt and Chestnut has been modified to provide additional trees as well as the street parking on Chestnut as requested by the Planning and Community Development Department. On Highland, given the shallower front yards, we feel the initially proposed trees are appropriate, and on the north elevation of units #1 and #16, we have limited space due to the entry drive and sidewalk. We do not believe that the proposed overall landscaping is minimal. A substantial variety of planting sizes and types has been provided at the front entries and site corners to draw focus and attract people's attention to those feature areas.

2. Along Highland Avenue, the streetscape shall match the Downtown. Incorporate the brick pavers and the site furnishings that are consistent with the Downtown streetscape.

Response: Brick pavers have been incorporated; however, we feel site furnishings in front of these individually owned townhomes is not appropriate and has not been included.

3. Increase the size of the shade trees in the courtyard at the ends of the parking row so that they are a minimum of 4" caliper (Chapter 28. Section 6.15).

Response: The size of the shade trees in the courtyard at the ends of the parking row have been increased to a minimum of 4' caliper. See revised plan.

4. Incorporate permeable pavers within the drive aisle. The crosswalk near Highland shall be striped.

Response: The detention structure required to meet stormwater control requirements extends under the drive aisle and permeable pavers are not allowed to be installed over it. The crosswalk near Highland will be treated like a standard residential driveway crossing per direction from Engineering Department.

5. It is recommended that specialty pavement such as brick pavers be provided for the private walkways.

Response: Many of the private walkways have steps due to grading, and concrete will perform better than brick pavers in this condition long-term.

6. Will the three buildings be constructed at once? If not, please provide an interim landscape plan.

Response: All three building foundations will be constructed at once. An interim landscape plan isn't warranted under the construction schedule.

7. The proposed Linden trees along Sigwalt may potentially conflict with the existing overhead utility lines. Please evaluate the placement and species of the proposed trees.]

Response: Two trees on the initially submitted plan were mis-tagged and the landscaping along Sigwalt has been modified.

8. Landscape screening must be provided for any utility/mechanical areas located at grade so that they are fully screened.

Response: Landscape screening will be provided for any utility/mechanical areas located at grade to comply with Village requirements.

9. A landscape compliance bond in the amount of 30% of the landscaping costs will be required. In addition, a \$4 tree fee is required for each lineal foot of frontage.

Response: Understood.



Village of Arlington Heights, IL
Department of Building & Life Safety

Fire Safety Division

Date: 5/22/2019

P.C. Number: 19-005 Round 2

Project Name: PUD, Rezoning to R-7, Plat of Subdivision, Variations

Project Location: Southern portion block 425

Planning Department Contact: Sam Hubbard, Planning and Community Development

1. Addresses will be assigned by the Building and Life Safety Department.

No further comments.

RECEIVED

MAY 22 2019

PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

05-22-19

Reviewed By: _____


Fire Safety Supervisor

Memorandum

To: Sam Hubbard, Planning & Community Development
From: Cris Papierniak, Assistant Director of Public Works
Date: May 31, 2019
Subject: 45 S Chestnut Ave (16 Sigwalt) P.C. #19-005 Round 2

With regard to the proposed PUD/Rezoning, I have the following comments:

- 1) Water meters and backflow devices will be sized once plumbing plans have been submitted.
- 2) Strike Traverse City reference on hydrant detail.
- 3) PW is still evaluating the proposed concrete sidewalk on Sigwalt and whether that sidewalk should follow the downtown streetscape.
- 4) PW is still evaluating the proposed walk on Highland to determine the appropriate width.
- 5) Further comments will be submitted once the construction plans have been submitted for review.

If you have any questions, please feel free to contact me.

C. file

PLAN COMMISSION PC #19-005
Sigwalt 16
45 S Chestnut Ave
PUD, Rezoning to R-7, Plat of Subdivision, Variations
Round 1

RECEIVED
MAY 31 2019
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

- 27) The petitioner's response to Comment No. 1 is acceptable.
- 28) The petitioner's response to Comment No. 2 is noted. The Engineering Division is in receipt of the Engineer's Estimate of Probable Cost. The Estimate will be reviewed and the fee letter prepared.
- 29) The petitioner's response to Comment Nos. 3 and 4 are acceptable.
- 30) The petitioner's response to Comment No. 5 is noted. The Onsite Utility Maintenance Agreement (OUMA) shall be submitted for approval, and shall be executed prior to final engineering approval.
- 31) The petitioner's response to Comment No. 6 is acceptable.
- 32) The petitioner's response to Comment Nos. 7 a, c and d are acceptable.
- 33) The petitioner's response to Comment No. 7 b is noted. The Engineering Division is in receipt of the information provided from the manufacturer regarding the AASHTO HS-25 loading. This information shall be shown on the plans. This can be addressed at permit.
- 34) The petitioner's response to Comment Nos. 8 a, b and c are acceptable.
- 35) The petitioner's response to Comment No. 9 is noted. If lights are proposed on the buildings, provide a photometric lighting diagram and associated catalog cut sheets. This can be addressed at permit. Please refer to the Traffic Comments No. 44 pertaining to roadway lighting.
- 36) The petitioner's response to Comment Nos. 10 thru 15 are acceptable.
- 37) The petitioner's response to Comment No. 16 is noted. The Engineering Division will defer to the Fire Department regarding the fire access diagram for buildings 7 thru 11.
- 38) The petitioner's response to Comment No. 17 is not acceptable. Please refer to Final Plat Comments pertaining to the Blanket Public Utility Easement shown for Lot 18.
- 39) The petitioner's response to Comment No. 18 is noted. The water services on Chestnut Ave shall be augered under the pavement and not open cut. This can be addressed at permit.
- 40) The petitioner's response to Comment No. 19 is acceptable.

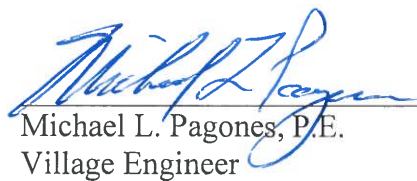
- 41) Regarding the proposed concrete apron off of Highland Ave, wire mesh is not allowed in the public right-of-way. Revise the plans accordingly. This can be addressed at permit.
- 42) The temporary construction access off of Chestnut Ave is on the adjacent property to the north. Approval must be obtained from the adjacent property, and use of this entrance shall be coordinated with the pending future improvements proposed on this property. The Soil and Erosion Control Plan also shows the construction entrance being located off of Highland Ave. Clarify the construction plan. This can be addressed at permit.

TRAFFIC:

- 43) The petitioner's response to Comment No. 9 is noted. If street lighting or ornamental lighting will be required on Chestnut Ave, Highland Ave, and/or Sigwalt St, this can be addressed at permit.
- 44) The petitioner's response to Comment No. 20 is noted.
 - b) Provide a turning template for a westbound vehicle turning right exiting the site. The template shall allow the rear wheel path to clear the 6 ft radius on the south curb return and to complete the turn without vehicles traveling over the centerline of Highland Ave into oncoming northbound traffic.
 - c) It is recommended that the 6 ft radius on the north and south side of the Highland Ave entrance/exit be widened to improve turning vehicles into and out of the site.
- 45) The petitioner's response to Comment No. 21 is not acceptable. The proposal to have all vehicles SU-30 and larger backing out of the site is unreasonable. This design conflicts with Sections 2.05 & 8.06 of the Condominium Declaration. Is there going to be an onsite garbage corral or is each property owner placing their garbage out at the curb, via garbage and recycling bins? All deliveries, Large Panel, Moving, and Service vehicles, etc. should be made from the street. The entrance to the parking lot should be posted with signage stating, "Passenger and Emergency Vehicles Only".
- 46) The petitioner's response to Comment No. 22 is noted. The Engineering Division reiterates for the Plan Commission their position that the garage access for units 1; 5 & 6; 12 & 13; and 16 are problematic regardless of the number of vehicles owned by the future purchasers.
- 47) The petitioner's response to Comment No. 23 is not acceptable. Please relate what segment of Village Ordinance 88-095 the Traffic Consultant is referring to for the 150 ft. sight distance, and how the sight triangle to the north is only 70 ft. Also an explanation for the position of the motorist vehicle projecting over the curb and across the public sidewalk must be provided.
- 48) A maintenance and traffic staging plan shall be provided. This can be addressed at permit.

FINAL PLAT OF SUBDIVISION:

- 49) The plat was reviewed against the Final Plat of Subdivision Checklist provided in Round 1 comments. The following items must be addressed:
- a) The water main proposed to be installed along the north side of Sigwalt St shall be in a dedicated public easement separate from the blanket easement proposed for the private sanitary sewer and the storm sewer. The water main easement description on page 2 shall be titled PUBLIC WATER MAIN EASEMENT PROVISIONS. The blanket easements for the private sanitary sewer, storm sewer and other utilities may overlap the public water main easement.
 - b) Per item m., provide a summary of all restrictions applicable to any part of such subdivision concerning building restrictions, use restrictions, building setback lines and similar matters.
 - c) Revise the Owner's Certificate with all applicable language provided in item n., deed of dedication.
 - d) On the Village Certificate on page 2, revise "DIRECTOR OF ENGINEERING" to "VILLAGE ENGINEER".
 - e) Provide all utility signature blocks.
 - f) Provide Nicor Gas Company plat stamp.
 - g) Provide ComEd Easment Provisions.

 5/31/19
Michael L. Pagones, P.E. Date
Village Engineer

Attachments:

Nicor Gas Company Plat Stamp
ComEd Easement Provisions

NICOR GAS COMPANY PLAT STAMP

An easement is hereby reserved for and granted to NORTHERN ILLINOIS GAS COMPANY, an Illinois Corporation, doing business as NICOR GAS COMPANY, its successors and assigns ("Nicor") to install, operate, maintain, repair, replace and remove, facilities used in connection with the transmission and distribution of natural gas in, over, under, across, along and upon the surface of the property shown on this plat marked "Nicor Easement", together with reasonable right of access thereto and the right to install required service connections to serve improvements thereon, or on adjacent lots and to serve other property, adjacent or otherwise, and the right to remove obstructions, including but not limited to, trees, bushes, roots and fences, as may be reasonably required incident to the rights herein given, and the right to enter upon the property for all such purposes. Obstructions shall not be placed over Nicor facilities or in, upon or over the property identified on this plat for utility purposes without the prior written consent of Nicor. After installation of any such facilities, the grade of the property shall not be altered in a manner so as to interfere with the proper operation and maintenance thereof.

INFORMATION PROVIDED BY:

Erin K. Andersen
Land Management Agent
Land Services Department
630-388-2094

X2ekande@southernco.com

EASEMENT PROVISIONS

An easement for serving the subdivision and other property with electric and communication service is hereby reserved for and granted to

Commonwealth Edison Company
and
SBC Telephone Company, Grantees,

their respective licensees, successors and assigns jointly and severally, to construct, operate, repair, maintain, modify, reconstruct, replace, supplement, relocate and remove, from time to time, poles, guys, anchors, wires, cables, conduits, manholes, transformers, pedestals, equipment cabinets or other facilities used in connection with overhead and underground transmission and distribution of electricity, communications, sounds and signals in, over, under, across, along and upon the surface of the property shown within the dashed or dotted lines (or similar designation) on the plat and marked "Easement", "Utility Easement", "Public Utility Easement", "P.U.E" (or similar designation), the property designated in the Declaration of Condominium and/or on this plat as "Common Elements", and the property designated on the plat as "common area or areas", and the property designated on the plat for streets and alleys, whether public or private, together with the rights to install required service connections over or under the surface of each lot and common area or areas to serve improvements thereon, or on adjacent lots, and common area or areas, the right to cut, trim or remove trees, bushes, roots and saplings and to clear obstructions from the surface and subsurface as may be reasonably required incident to the rights herein given, and the right to enter upon the subdivided property for all such purposes. Obstructions shall not be placed over Grantees' facilities or in, upon or over the property within the dashed or dotted lines (or similar designation) marked "Easement", "Utility Easement", "Public Utility Easement", "P.U.E" (or similar designation) without the prior written consent of Grantees. After installation of any such facilities, the grade of the subdivided property shall not be altered in a manner so as to interfere with the proper operation and maintenance thereof.

The term "Common Elements" shall have the meaning set forth for such term in the "*Condominium Property Act*", Chapter 765 ILCS 605/2(c), as amended from time to time.

The term "common area or areas" is defined as a lot, parcel or area of real property, the beneficial use and enjoyment of which is reserved in whole or as an apportionment to the separately owned lots, parcels or areas within the planned development, even though such be otherwise designated on the plat by terms such as "outlots", "common elements", "open space", "open area", "common ground", "parking" and "common area". The term "common area or areas", and "Common Elements" include real property surfaced with interior driveways and walkways, but excludes real property physically occupied by a building, Service Business District or structures such as a pool, retention pond or mechanical equipment.

Relocation of facilities will be done by Grantees at cost of the Grantor/Lot Owner, upon written request.



Arlington Heights Fire Department Plan Review Sheet

P. C. Number 19-005

Project Name

Sigwalt 16 PUD

Project Location

45 S Chestnut

Planning Department Contact Sam Hubbard

General Comments

Round 2

General Comments:

1) The Fire Department has no additional comments at this time. Please be advised as more detailed plans are provided we may have additional comments at that time.

**NOTE: PLAN IS CONCEPTUAL ONLY
SUBJECT TO DETAILED PLAN REVIEW**

Date May 29, 2019

Reviewed By: LT. Mark Aleckson

Arlington Heights Fire Department

ARLINGTON HEIGHTS POLICE DEPARTMENT

Community Services Bureau

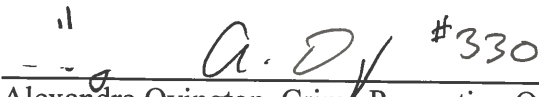
DEPARTMENT PLAN REVIEW SUMMARY

Sigwalt 16 PDU
45 S. Chestnut Ave.

Round 2 Review Comments

04/23/2019

1. **Character of use:**
Nothing further.
2. **Are lighting requirements adequate?**
Nothing further.
3. **Present traffic problems?**
Nothing further.
4. **Traffic accidents at particular location?**
Nothing further.
5. **Traffic problems that may be created by the development.**
Nothing further.
6. **General comments:**
Nothing further.



Alexandra Ovington, Crime Prevention Officer
Community Services Bureau



Doug Hajek, Sergeant
Community Services Bureau

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MAY 23 2019

**PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT**

Planning & Community Development Dept. Review

May 29, 2019



REVIEW ROUND 2

Project: Southern 1/3 of Block 425 – Taylor Morrison Townhomes
Sigwalt 16

Case Number: PC 19-005

27. The response to comments #8, #9, #10, #14, #16, #18, #19, #21, #23, and #25 are acceptable.
28. The response to comment #7 is noted. Based on the Final Plat submitted as part of Round 2, additional variations will be required for each individual townhome lot. The final list of these variations will be provided once a response to my 5/28/19 email to Marc McLaughlin is received.
29. The response to comment #11 is noted. If streetlights are required along Chestnut Avenue, they shall be the decorative style of streetlights as will be provided along the norther ¾'s of the block.
30. The response to comment #12 is noted. Staff will recommend a condition of approval that the overhead utilities along Sigwalt Street west of Highland Avenue and east of Chestnut Avenue be buried unless Commonwealth Edison and the Village deems that it is not feasible, in which case the overhead utilities will need to be relocated to the south side of Sigwalt Street.
31. The response to comment #13 is noted. Staff is still evaluating whether parking along Sigwalt shall be required.
32. The response to comment #15 is noted, however, no mention was made to above ground cable and telephone equipment/pedestals. Please note that any above ground utility equipment, including cable and telephone equipment, shall be located at the rear of the site and screened with landscaping to the satisfaction of the Village.
33. The response to comment #20 is noted. The final plat as printed on mylar, with all non-Village signatures, must be provided no later than June 19th to proceed at the June 26th Plan Commission hearing.
34. The response to comment #22 is noted. Please complete the attached table, as was emailed to Marc McLaughlin on 5/28/19, to allow a full analysis of the necessary variations for each individual townhome lot.
35. The response to comment #24 is unacceptable. No building setbacks are shown on the Final Plat.
36. The landscape plan show grass in the northeast corner curb bump-out, however, the engineering plan calls for this area to be concrete. Please revise the landscape plan to be consistent with the engineering plans. The concrete in this area should be replaced with brick pavers with the concrete ribbon, similar to what is required of the development to the north.
37. The architectural plans show dashed lines indicating parking spaces within the ROW along Sigwalt. Please clarify if these parking spaces are being proposed (see comment #31).
38. Page 34 of the CCR's reference "Colfax Crossing". Please make sure all reference to Colfax Crossing are revised to read "Sigwalt 16 Townhomes".

Final Plat of Subdivision:

39. Signature blocks for Ameritech/SBC and ComEd are missing from the Final Plat.
40. Iron pipes should be set in the 4 new corners of the subject property as based on the new property boundaries due to the ROW dedication. Please show this on the plat.
41. The Owners Certificate must be revised to remove reference to the dedication of ROW, which will be contained in a newly added Deed of Dedication certificate (see comment #42). Please follow the example below relative to the language on the Owners Certificate:

OWNER'S CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF _____) S.S.

I _____, DO HEREBY
CERTIFY THAT I AM THE LEGAL OWNER OF THE PROPERTY DESCRIBED HEREON
AND THAT I HAVE CAUSED THE SAID PROPERTY TO BE SURVEYED AND SUBDIVIDED
AS SHOWN HEREON. ADDITIONALLY, I HEREBY CERTIFY THAT THE PROPERTY HEREO
DESCRIBED IS LOCATED WITHIN THE BOUNDARIES OF:

ELEMENTARY SCHOOL DISTRICT: CONSOLIDATED COMMUNITY SCHOOL DISTRICT #25

TOWNSHIP HIGH SCHOOL DISTRICT #214
HIGH SCHOOL DISTRICT: HARPER COMMUNITY COLLEGE DISTRICT #512

DATED THIS _____ DAY OF _____, A.D. 20_____.

OWNER SIGNATURE

42. A Deed of Dedication certificate must be added to the Plat, as per Section 29-217(a) of the Subdivision Control Regulations. The 2nd and 3rd paragraphs as shown in Section 29-217(a) can be omitted, and the language from the "Declaration of Covenants, Conditions, Restrictions and Easements" as shown on the plat, can be substituted in their place.
43. In the "Certificated As To Special Assessments", please remove the line referencing the statutory fee's regarding the annexed plat. The submitted document is a Plat of Subdivision and not a Plat of Annexation.

Prepared by:

Sam J. [Signature]

Sigwalt 16
45 S. Chestnut
PC 19-005
5/30/19

- 1) Provide additional landscaping on the south end adjacent to unit #6 and #12 in order to soften the elevation. Provide foundation plantings adjacent to the building where there is no landscaping.
- 2) Please remove the benches and concrete near each corner along Sigwalt to allow for additional green space.
- 3) Along Highland, incorporate pavers in the northeast corner where there is currently concrete.
- 4) The width of the sidewalk along Highland Avenue will need to be increased and we are still evaluating how wide the sidewalk will need to be.
- 5) We are still evaluating the proposed concrete sidewalk on Sigwalt and whether that sidewalk should be more of the downtown style with pavers and a concrete ribbon.
- 6) It is recommended that additional understory trees be provided along Sigwalt, Chestnut and Highland in order to soften the mass of the proposed building.
- 7) It is recommended that tinted concrete that is patterned be included for the front walkways.

SIGWALT 16 – PC#: 19-005

PETITIONER RESPONSES TO ROUND 2 COMMENTS

JUNE 6, 2019

RESPONSE TO PUBLIC WORKS DEPARTMENT COMMENTS

1. Water meters and backflow devices will be sized once plumbing plans have been submitted.

[Response:](#) Agreed.

2. Strike Traverse City reference on hydrant detail.

[Response:](#) Done.

3. PW is still evaluating the proposed concrete sidewalk on Sigwalt and whether that sidewalk should follow the downtown streetscape.

[Response:](#) See response in “Roadway Clarifications” below

4. PW is still evaluating the proposed walk on Highland to determine the appropriate width.

[Response:](#) See response in “Roadway Clarifications” below

5. Further comments will be submitted once the construction plans have been submitted for review.

[Response:](#) Understood.

SIGWALT 16 – PC#: 19-005

PETITIONER RESPONSES TO ROUND 2 COMMENTS

JUNE 6, 2019

RESPONSE TO ENGINEERING DEPARTMENT COMMENTS

30. The petitioner's response to Comment No. 5 is noted. The Onsite Utility Maintenance Agreement (OUMA) shall be submitted for approval, and shall be executed prior to final engineering approval.

[Response:](#) Submitted herewith.

35. The petitioner's response to Comment No. 9 is noted. If lights are proposed on the buildings, provide a photometric lighting diagram and associated catalog cut sheets. This can be addressed at permit. Please refer to the Traffic Comments No. 44 pertaining to roadway lighting.

[Response:](#) Photometrics and cut sheets of lights that are proposed on the buildings will be provided at permit.

38. The petitioner's response to Comment No. 17 is not acceptable. Please refer to Final Plat Comments pertaining to the Blanket Public Utility Easement shown for Lot 18.

[Response:](#) Blanket Public Utility Easement has been revised.

41. Regarding the proposed concrete apron off of Highland Ave, wire mesh is not allowed in the public right-of-way. Revise the plans accordingly. This can be addressed at permit.

[Response:](#) A note was added to the Final Engineering Plans to not allow welded wire mesh in the proposed concrete apron in the public right-of-way.

42. The temporary construction access off of Chestnut Ave is on the adjacent property to the north. Approval must be obtained from the adjacent property, and use of this entrance shall be coordinated with the pending future improvements proposed on this property. The Soil and Erosion Control Plan also shows the construction entrance being located off of Highland Ave. Clarify the construction plan. This can be addressed at permit.

[Response:](#) Understood and agreed.

TRAFFIC:

44. The petitioner's response to Comment No. 20 is noted.

- b) Provide a turning template for a westbound vehicle turning right exiting the site. The template shall allow the rear wheel path to clear the 6 ft radius on the south curb return and to complete the turn without vehicles traveling over the centerline of Highland Ave into oncoming northbound traffic.

Response: An auto-turn exhibit was created and included in this resubmittal package showing a passenger vehicle turning right, exiting the site from an eastbound position. It utilizes the new 8' radius and completes the turn without traveling over the centerline of Highland Ave.

- c) It is recommended that the 6 ft radius on the north and south side of the Highland Ave entrance/exit be widened to improve turning vehicles into and out of the site.

Response: The 6' radii on the north and south side were both widened to 8'. This is the maximum radius allowed on the north side to not conflict with the existing utility box locations.

- 45. The petitioner's response to Comment No. 21 is not acceptable. The proposal to have all vehicles SU-30 and larger backing out of the site is unreasonable. This design conflicts with Sections 2.05 & 8.06 of the Condominium Declaration. Is there going to be an onsite garbage corral or is each property owner placing their garbage out at the curb, via garbage and recycling bins? All deliveries, Large Panel, Moving, and Service vehicles, etc. should be made from the street. The entrance to the parking lot should be posted with signage stating, "Passenger and Emergency Vehicles Only".

Response: Petitioner agrees that vehicles SU-30 and larger should not be backing in or out of the site. Each townhome will have its own garbage receptacles that will be put out in the common area on trash pickup day(s). An auto-turn exhibit was created and included in this resubmittal package showing the largest Mack Garbage Truck (28.7' in length) being able to turn around in the back parking area without having to use any proposed parking stalls. SU-30 trucks or larger should be required to make deliveries or provide move-in move-out services from the street. A sign was added to the plans at the entrance to the parking lot stating "Passenger and Emergency Vehicles Only"

- 46. The petitioner's response to Comment No. 22 is noted. The Engineering Division reiterates for the Plan Commission their position that the garage access for units 1; 5 & 6; 12 & 13; and 16 are problematic regardless of the number of vehicles owned by the future purchasers.

Response: Petitioner believes that this is an internal developer issue to deal with potential purchasers.

- 47. The petitioner's response to Comment No. 23 is not acceptable. Please relate what segment of Village Ordinance 88-095 the Traffic Consultant is referring to for the 150 ft. sight distance, and how the sight triangle to the north is only 70 ft. Also an explanation for the position of the motorist vehicle projecting over the curb and across the public sidewalk must be provided.

Response: The 150-foot sight distance requirement was based on Chapter 29 Subdivision Control Regulations, Section 29-304 Street Layout and Design. The attached exhibit shows the vehicle position being at the edge of pavement. This

requires the motorist to stop before the sidewalk at the stop bar prior to proceeding. At this position the available sight line to the north is 70 feet. In order to alleviate any concerns about the available sight distance, consideration should be given to the placement of a sign facing north warning drivers on Highland Avenue of exiting traffic from the driveway.

FINAL PLAT OF SUBDIVISION:

49. The plat was reviewed against the Final Plat of Subdivision Checklist provided in Round 1 comments. The following items must be addressed:

- a) The water main proposed to be installed along the north side of Sigwalt St shall be in a dedicated public easement separate from the blanket easement proposed for the private sanitary sewer and the storm sewer. The water main easement description on page 2 shall be titled PUBLIC WATER MAIN EASEMENT PROVISIONS. The blanket easements for the private sanitary sewer, storm sewer and other utilities may overlap the public water main easement.

Response: A 10' Public Watermain Easement has been added along the south line of the subdivision.

- b) Per item m., provide a summary of all restrictions applicable to any part of such subdivision concerning building restrictions, use restrictions, building setback lines and similar matters.

Response: Any such restrictions are contained in the Declaration

- c) Revise the Owner's Certificate with all applicable language provided in item n., deed of dedication.

Response: Owner's Certification has been revised

- d) On the Village Certificate on page 2, revise "DIRECTOR OF ENGINEERING" to "VILLAGE ENGINEER".

Response: "Director of Engineering" has been change to "Village Engineer".

- e) Provide all utility signature blocks.

Response: Signature blocks have been added.

- f) Provide Nicor Gas Company plat stamp.

Response: Nicor plat stamp has been added.

- g) Provide ComEd Easement Provisions.

Response: ComEd Easement Provisions have been added.

SIGWALT 16 – PC#: 19-005

PETITIONER RESPONSES TO ROUND 2 COMMENTS

JUNE 6, 2019

RESPONSE TO PLANNING & COMMUNITY DEVELOPMENT COMMENTS

General:

ADDITIONAL COMMENTS:

7. The Plan Commission must review and approve the following actions:
 - a. A rezoning from R-3, One-Family Dwelling District into the R-7, Multiple-Family Dwelling District.
 - b. A Planned Unit Development (PUD) to allow the construction of a 16-unit single-family attached rowhome development.
 - c. Preliminary and Final Plat of Resubdivision to subdivide the subject property into individual lots for each townhome unit.
 - d. Variation to Chapter 28, Section 5.1-7.2, Minimum Area for Zoning District, to allow the R-7 District to be approx. 1.39 acres where code requires a minimum of 2 acres for the R-7 District.
 - e. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback along Highland Avenue to be 12' where code requires a 25' setback.
 - f. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback along Chestnut Avenue to be 17' where code requires a 25' setback.
 - g. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback (north) to be 8' where code requires a 15' setback.
 - h. Variation to Chapter 28, Section 5.1-7.10, Spacing Between Multi-Family Buildings, to allow 5' spacing between principal buildings where code requires 25' spacing.
 - i. Variation to Chapter 28, Section 10.2-8, to allow a two-way driveway width of 22' where code requires a minimum of 25' for a two-way drive aisle.
 - j. Variation to Chapter 28, Section 10.2-9, to allow tandem parking spaces.
 - k. It should be noted that the property is proposed to be subdivided into individual units for each townhome, which will require variations for each lot based on the R-7 setback and bulk standards, although the overall development will comply with bulk standards and with most setback standards.

[Response:](#) Based on minor wording changes to some of the above referenced Variances as well as the additional Variances required as a result of platting each of the individual rowhome Lots, the Petitioner requests that the Plan Commission review and approve the following Variances:

- d. Variation to Chapter 28, Section 5.1-7.2, Minimum Area for Zoning District, to allow the R-7 District to be approximately 1.39 acres where code requires a minimum of 2 acres for the R-7 District.
- e. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback for the rowhome building along Highland Avenue to be 12' where code requires a 25' setback.
- f. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback for the rowhome building along Chestnut Avenue to be 17' where code requires a 25' setback.
- g. Variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback (north) to be 8' for the rowhome building along Chestnut Avenue where code requires a 15' setback.
- h. Variation to Chapter 28, Section 5.1-7.10, Spacing Between Multi-Family Buildings, to allow 5' spacing between principal buildings where code requires 25' spacing.
- i. Variation to Chapter 28, Section 10.2-8, to allow a two-way driveway width of 21' where code requires a minimum of 24' for a two-way drive aisle.
- j. Variation to Chapter 28, Section 10.2-9, to allow tandem parking spaces.
- k. A variation from Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a front yard setback of 4.6 feet for lots 1 through 11 and 4.3 feet for lots 12 through 16 where code requires a 25-foot front yard setback for all lots.
- l. A variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback of 0 feet for interior walls on lots 1, 6, and 12 where code requires a 2.6 foot side yard setback, and 0 feet for interior walls on lots 2, 3, 4, 5, 8, 9, 10, 13, 14, and 15 where code requires a 2 foot side yard setback, and 0 feet for interior walls on lots 7, 11, and 16 where code requires a 2.1 foot side yard setback.
- m. A variation to Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a side yard setback of 0 feet for outer walls on lots 7, 11, and 15 where code requires a 2.1 foot side yard setback, and 4.3 feet for outer walls on lots 1 and 6 where code requires a 2.6 foot side yard setback, and 4.6 feet for outer walls on lot 12 where code requires a 2.6 foot side yard setback.
- n. A variation from Chapter 28, Section 5.1-7.6, Required Minimum Yards, to allow a rear yard setback of 0 feet for lots 1 through 16 where code requires a 30-foot rear yard setback.
- o. A variation to Chapter 28, Section 5.1-7.7, Maximum Building Lot Coverage, to allow approximately 291% building lot coverage for lots 2 and 15, approximately 290% building coverage for lots 3 and 8, approximately 287% building lot coverage for lot 16, approximately 284% building lot coverage for lots 7, 11, 13, and 14, and approximately 283% building lot coverage for lots 4, 5, 9, and 10 where code allows a maximum building lot coverage of 200% on all lots.
- p. A variation to Chapter 28, Section 5.1-7.11, Maximum Floor Area Ratio, to allow approximately 73% F.A.R. on lot 1, approximately 74% F.A.R. on lot 12, approximately 75% F.A.R. on lot 6, approximately 84% F.A.R. on lots 4, 5, 9, 10, and 14, approximately 85% F.A.R. on lot 13, approximately 87%

F.A.R. on lots 7 and 11, approximately 88% F.A.R. on lots 2, 3, 8, and 16, and approximately 89% F.A.R. on lot 15 where code allows a maximum F.A.R. of 55% on all lots.

28. The response to comment #7 is noted. Based on the Final Plat submitted as part of Round 2, additional variations will be required for each individual townhome lot. The final list of these variations will be provided once a response to my 5/28/19 email to Marc McLaughlin is received.

Response: The requested Zoning Analysis Table related to the Individual Lots has been completed and is being simultaneously submitted to staff.

29. The response to comment #11 is noted. If streetlights are required along Chestnut Avenue, they shall be the decorative style of streetlights as will be provided along the norther ¾'s of the block.

Response: Agreed. Location of decorative streetlights will be provided on all streets at locations to be worked out with Village staff during permitting process.

30. The response to comment #12 is noted. Staff will recommend a condition of approval that the overhead utilities along Sigwalt Street west of Highland Avenue and east of Chestnut Avenue be buried unless Commonwealth Edison and the Village deems that it is not feasible, in which case the overhead utilities will need to be relocated to the south side of Sigwalt Street.

Response: Petitioner does not agree with this recommendation. The overhead utilities serve many more properties than just this one. Petitioner does not believe that it should bear the responsibility or cost of burying or relocating public utility poles that serve many other properties. The cost of such endeavor will be prohibitive and cannot fall on the shoulders of a 16 unit rowhome development simply because the utility lines border the subject property.

31. The response to comment #13 is noted. Staff is still evaluating whether parking along Sigwalt shall be required.

Response: See response in "Roadway Clarifications" below.

32. The response to comment #15 is noted, however, no mention was made to above ground cable and telephone equipment/pedestals. Please note that any above ground utility equipment, including cable and telephone equipment, shall be located at the rear of the site and screened with landscaping to the satisfaction of the Village.

Response: Understood and agreed

33. The response to comment #20 is noted. The final plat as printed on mylar, with all non-Village signatures, must be provided no later than June 19th to proceed at the June 26th Plan Commission hearing.

[Response:](#) Understood.

34. The response to comment #22 is noted. Please complete the attached table, as was emailed to Marc McLaughlin on 5/28/19, to allow a full analysis of the necessary variations for each individual townhome lot.

[Response:](#) The requested Zoning Analysis Table related to the Individual Lots has been completed and has been previously submitted to staff.

35. The response to comment #24 is unacceptable. No building setbacks are shown on the Final Plat.

[Response:](#) The building setbacks are now shown.

36. The landscape plan show grass in the northeast corner curb bump-out, however, the engineering plan calls for this area to be concrete. Please revise the landscape plan to be consistent with the engineering plans. The concrete in this area should be replaced with brick pavers with the concrete ribbon, similar to what is required of the development to the north.

[Response:](#) The northeast corner of the Landscape Plan has been revised to show pavers in that area.

37. The architectural plans show dashed lines indicating parking spaces within the ROW along Sigwalt. Please clarify if these parking spaces are being proposed (see comment #31).

[Response:](#) The dashed lines for parking spaces on Sigwalt should not have been included and have been removed in the revised plan. The neighbors have indicated they do not want parking added there and we feel having a parkway with greenspace is more appropriate for the townhomes as well.

38. Page 34 of the CCR's reference "Colfax Crossing". Please make sure all reference to Colfax Crossing are revised to read "Sigwalt 16 Townhomes".

[Response:](#) Done.

Final Plat of Subdivision:

39. Signature blocks for Ameritech/SBC and ComEd are missing from the Final Plat.

[Response:](#) Added.

40. Iron pipes should be set in the 4 new corners of the subject property as based on the new property boundaries due to the ROW dedication. Please show this on the plat.

[Response:](#) Corners to be set are shown on the plat

41. The Owners Certificate must be revised to remove reference to the dedication of ROW, which will be contained in a newly added Deed of Dedication certificate (see comment #42). Please follow the example below relative to the language on the Owners Certificate:

OWNER'S CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF _____) S.S.

I _____, DO HEREBY

CERTIFY THAT I AM THE LEGAL OWNER OF THE PROPERTY DESCRIBED HEREON AND THAT I HAVE CAUSED THE SAID PROPERTY TO BE SURVEYED AND SUBDIVIDED AS SHOWN HEREON. ADDITIONALLY, I HEREBY CERTIFY THAT THE PROPERTY HEREO DESCRIBED IS LOCATED WITHIN THE BOUNDARIES OF:

ELEMENTARY SCHOOL DISTRICT: CONSOLIDATED COMMUNITY SCHOOL DISTRICT #25

TOWNSHIP HIGH SCHOOL DISTRICT #214

HIGH SCHOOL DISTRICT: HARPER COMMUNITY COLLEGE DISTRICT #512

DATED THIS _____ DAY OF _____, A.D. 20_____.

OWNER SIGNATURE

[Response:](#) Owner's Certificate has been revised

42. A Deed of Dedication certificate must be added to the Plat, as per Section 29-217(a) of the Subdivision Control Regulations. The 2nd and 3rd paragraphs as shown in Section 29-217(a) can be omitted, and the language from the "Declaration of Covenants, Conditions, Restrictions and Easements" as shown on the plat, can be substituted in their place.

[Response:](#) A Deed of Dedication certificate has been added to the plat.

43. In the "Certificated As To Special Assessments", please remove the line referencing the statutory fee's regarding the annexed plat. The submitted document is a Plat of Subdivision and not a Plat of Annexation.

[Response:](#) The "Certification As To Special Assessment" has been revised

ADDITIONAL COMMENTS – Landscaping

1. Provide additional landscaping on the south end adjacent to unit #6 and #12 in order to soften the elevation. Provide foundation plantings adjacent to the building where there is no landscaping.

Response: Additional landscaping south of units #6 and 12 has been provided in the revised plan.

2. Please remove the benches and concrete near each corner along Sigwalt to allow for additional green space.

Response: The benches and concrete near the corners has been removed in the revised plan.

3. Along Highland, incorporate pavers in the northeast corner where there is currently concrete.

Response: The northeast corner of the Landscape Plan has been revised to show pavers in that area.

4. The width of the sidewalk along Highland Avenue will need to be increased and we are still evaluating how wide the sidewalk will need to be.

Response: See response in “Roadway Clarifications” below.

5. We are still evaluating the proposed concrete sidewalk on Sigwalt and whether that sidewalk should be more of the downtown style with pavers and a concrete ribbon.

Response: See response in “Roadway Clarifications” below

6. It is recommended that additional understory trees be provided along Sigwalt, Chestnut and Highland in order to soften the mass of the proposed building.

Response: We feel the front yards on Chestnut and Highland are not large enough to warrant additional understory trees. An additional tree has been provided on Sigwalt.

7. It is recommended that tinted concrete that is patterned be included for the front walkways.

Response: Petitioner does not agree with this recommendation. This is matter of taste and perceived aesthetics that has not been required of similar projects within the Village and not required by any portion of the Village Code.

SIGWALT 16 – PC#: 19-005

PETITIONER RESPONSES TO ROUND 2 COMMENTS

JUNE 6, 2019

ROADWAY CLARIFICATIONS

RESPONSE TO EMAIL FROM SAM HUBBARD OF JUNE 5, 2019

- Chestnut: Standard 5' wide concrete sidewalk, decorative streetlights (where required – to be consistent with what Arlington 425 will be constructing along Chestnut to the north), expanded pavement with parking bump-outs on east side of street (also consistent with what Arlington 425 will be providing to the north). All of these improvements appear to be shown on your Round 2 plans and no changes are needed (except no streetlights are shown – this can be addressed at permit).

[Response:](#) Understood. No response required

- Sigwalt: The existing 5' wide concrete sidewalk should be replaced with the downtown style pavers/brick ribbon sidewalk at 7' in width. Upon scaling the plans, it appears that there is 7' between the property line and the closest existing utility box, which should provide just enough space to accommodate the 7' wide downtown style sidewalk (1.5' concrete ribbons on each side, 4' of pavers) within the ROW. Please revise all plans to reflect this improvement. The Planning Dept. will not recommend the expansion of Sigwalt to include street parking/bump-outs on the northern side of the street given the low number of proposed units along this street. However, please be aware that the Plan Commission and/or Village Board may opt to require them as part of zoning approval. Where streetlights are required, they must be the decorative downtown style fixtures.

[Response:](#) Petitioner does not agree with this recommendation. This property has residential on the south side of Sigwalt and west side of Chestnut. This property will be zoned as an R-7 *residential* district, and not a part of the downtown business district. This is supposed to be a transitional block and should look and feel residential, not commercial. Widening the sidewalk to by 2' to the north as recommended by staff will take away green space that serves as a part of the front yard of the residential units facing Sigwalt. This will detract from the residential look and feel Petitioner is attempting to create for these units. Location of decorative streetlights will be provided on all streets at locations to be worked out with Village staff during permitting process.

- Highland: The proposed 5' wide “downtown” style sidewalk should be increased to 7' in width. Where streetlights are required, they should be the decorative downtown style. No other typical downtown street furnishings should be included. As previously indicated, the existing concrete area to the north of the drive aisle (where abutting the subject property) should be revised to be the downtown style streetscape for the full width from the curb to approx. 1' from the property line. Please ensure that your next submittal includes revised plans that reflect these changes. The bump-out on the southern side of the entry drive, currently shown as landscaping

within the Round 2 plans, will be the maintenance responsibility of the HOA. Please clarify this within the CCR's.

Response: Agreed. Location of decorative streetlights will be provided on all streets at locations to be worked out with Village staff during permitting process.

PLAN COMMISSION PROJECT TIMELINE

Project Name: Sigwalt 16
 PC Number: 19-005
 Location: Sigwalt/Highland/Chestnut
 Requested Action:

1. A rezoning from R-3, One-Family Dwelling District to R-7, Multiple-Family Dwelling District
2. A Planned Unit Development (PUD) to allow the construction of a 16-unit residential rowhome development.
3. Final Plat of Resubdivision to subdivide the subject property into individual lots for each townhome unit and for common areas.
4. Multiple Variations

	Date	Number of Business Days
Petitioner Provides Plans needed for CPRC	02/18/19	-
Conceptual Plan Review Meeting (CPRC)	02/27/19	7
Awaiting PC Application	04/15/19	33
PC Application Submittal Date	04/15/19	-
1 st Round Department Comments	05/01/19	12
Petitioner's Response – 1 st Round	05/21/19	14
2 nd Round Department Comments	05/31/19	7
Petitioner's Response – 2 nd Round	06/07/19	4
PC Hearing	06/26/19	51 days from application date
Village Board	07/15/19	12
Anticipated Village Board Ord. Adoption	08/05/19	15



**Village Board
7/15/2019**

Item: Raising Canes - 225 E. Palatine Rd. - PC#19-006

Department: Planning & Community Development

Requested Action

1. Amendment to Planned Unit Development Ordinances #74-49 and #01-026.
2. Special Use Permit for a restaurant with a drive-through.

Variations Required

1. None

Recommendation

—
A public hearing was held by the Plan Commission on June 26, 2019 where Commissioner Dawson moved and Commissioner Green seconded:

A motion to recommend to the Village Board of Trustees, approval of PC#19-006, an amendment to Ordinances #74-49 and #01-026 to allow for development of an outlot within the Town & Country shopping center, and a Special Use Permit for a restaurant with a drive-through.

This recommendation shall be subject to the following conditions:

1. The petitioner shall comply with all Design Commission recommendations from June 25th, 2019.
2. The petitioner shall comply with all applicable Federal, State, and Village Codes, Regulations, and Policies.

Roll Call Vote: Commissioners Cherwin, Dawson, Green, Lorenzini, Sigalos, Warskow, and Chair Ennes voted in favor. Motion carried.

ATTACHMENTS:

Description	Type
-------------	------

Staff Report	Board or Commission Report
PC Minutes 6/26/19	Minutes
DC Minutes 6/25/19	Minutes
DC Staff Report	Board or Commission Report
Business Description	Correspondence
Written response to Special Use Justification Criteria	Correspondence
Plat of Survey	Exhibits
Construction Plans: Site Plan, Floor Plans, Elevations, Civil Engineering	Exhibits
Parking Summary	Exhibits
Traffic Study	Exhibits
Market Study	Exhibits
Department Comments - Round 1	Exhibits
Department Comments - Round 1 - Petitioner Response	Exhibits
PC Timeline Tracker	Exhibits



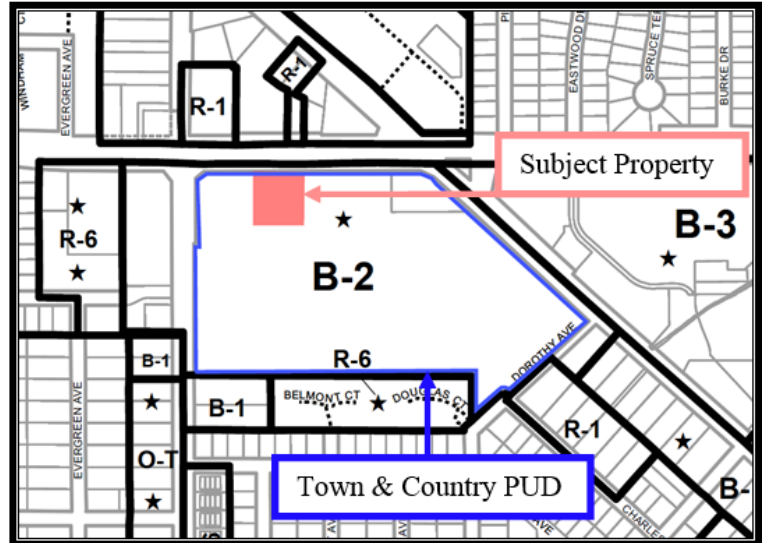
VILLAGE OF ARLINGTON HEIGHTS **STAFF DEVELOPMENT** **COMMITTEE REPORT**

PC File Number: 19-006
Project Title: Raising Cane's
Address: Town & Country Shopping Center
PIN: 03-20-101-016

To: Plan Commission
Prepared By: Jake Schmidt, Assistant Planner
Meeting Date: June 26, 2019
Date Prepared: June 19, 2019

Petitioner: Greg Barrow
 Visconsi Companies, Ltd.
Address: 30050 Chagrin Blvd. Ste. 360
 Pepper Pike, OH 44124

Existing Zoning: B-2: General Business District
Comprehensive Plan: Commercial



SURROUNDING LAND USES

Direction	Existing Zoning	Existing Use	Comprehensive Plan
North	R-1, One-Family Dwelling District, and B-2, General Business District	Bank, Auto Repair Facility, Multi-tenant commercial building	Commercial
South	B-1, Business District Limited Retail, and R-6, Multiple-Family Dwelling District	Office Building, Multi-family residential homes	Offices Only, Moderate Density Multi-family
East	B-3, General Service, Wholesale and Motor Vehicle District, and R-1, One-Family Dwelling District	Southpoint Shopping Center, Single-family residential homes	Commercial, Single-Family Detached
West	B-1, Business District Limited Retail, and B-2, General Business District	Multi-tenant shopping center, Bank	Commercial

Requested Action:

1. Amendment to Planned Unit Development Ordinances #74-49 and #01-026.
2. Special Use Permit for a restaurant with a drive-through.

Variations Required:

1. None

Project Background:

Town and Country Shopping center is situated on 31.51 acres of land, bounded by Arlington Heights Road, Palatine Road, and Rand Road. The petitioner is proposing construction of a 3,736 square foot outlot building on the northern side of the shopping center abutting Palatine Road. The building would house Raising Cane's, a fast casual fried chicken restaurant that is based out of Louisiana. The restaurant would offer a drive-through as well as outdoor seating. Hours of operation are 10:00am-midnight on Sunday through Thursday, and 10:00am-2:00am on Friday and Saturday. Management anticipates a total of 12 employees onsite during peak shift.

Zoning and Comprehensive Plan

The subject property is within the B-2, General Business District, which permits restaurants with a drive-through as a Special Use. Although restaurants that are less than 4,000 square feet can qualify for a waiver from the Special Use Permit review process, since the proposal includes a drive-through lane and requires a PUD amendment, the restaurant is not eligible for a Special Use Permit waiver. As previously mentioned, the PUD must also be amended to allow for construction of the proposed outlot building. As part of the Special Use Permit review process, the petitioner has provided acceptable written justification demonstrating compliance with the three standards for Special Use Permit approval.

The site is designated as "Commercial" on the Comprehensive Plan and the proposed use is compatible with this designation. In order to demonstrate that the proposed restaurant is necessary for the public convenience, the petitioner has provided a market analysis establishing that there is sufficient market demand for the proposed restaurant at the proposed location. Staff is supportive of a restaurant use in this location and notes that the proposed building would be located near the center of the shopping center and would not be located in close proximity to any residential homes.

Site Plan, Building and Landscaping

Site circulation to the shopping center would not be altered with the current proposal; patrons of the proposed restaurant would utilize the current drive aisles into the shopping center for access to the outlot. Currently, access to the Town & Country shopping center comes from a full access signalized intersection with Rand Road, a right-in/right-out non-signalized intersection with Rand Road, a non-signalized right-in/right-out intersection with Palatine Road, and a full access signalized intersection with Arlington Heights Road. To improve site access to the outlot, the proposed drive aisle leading from the outlot to the main circulation drive within the shopping center aligns with the existing drive-aisles in the parking lot.

The building architecture requires Design Review, and will be appearing before the Design Commission on June 25th. Recommended changes to the design are minimal, with concerns limited to signage and rooftop screening rather than the layout or siting of the structure. A three-foot tall landscape screen is proposed adjacent to parking areas, and shade trees shall be provided within all parking lot landscape islands at the end of all rows of parking. Staff will provide a verbal update of the results of the Design Commission meeting at Plan Commission hearing. Overall, Staff approves of the building design and proposed site landscaping.

The proposed restaurant will move forward as a new building within the shopping center, and no new subdivision or separate lot is proposed.

Traffic

Pursuant to Chapter 28, Section 6.12, the petitioner has provided a traffic and parking study from Kimley-Horn, a certified traffic engineer, that assessed access (location, design, and Level of Service) at relevant intersections, on-site circulation through the shopping center and outlot, trip generation and distribution, parking, and drive-through stacking.

The study has found that drive-through operations would not impact on-site circulation within the Town and Country circulation network, or negatively impact circulation within the proposed Raising Cane's parking lot. Two drive-through lanes are proposed for the restaurant, with a total stacking capacity of 18 vehicles. Peak weekday and weekend drive-through stacking observed at an existing Raising Cane's location in Oak Lawn was found to be 9 total vehicles, which the proposed Arlington Heights location would be able to accommodate.

With respect to traffic conditions, the study assessed a scenario wherein Town and Country was fully occupied and the proposed Raising Cane's was in operation. The study found that under this scenario, the existing access intersections to Town and Country Shopping Center are expected to adequately accommodate projected traffic volumes.

The petitioner has also proposed a pedestrian connection to the sidewalk along Palatine Road, which is located in IDOT right-of-way. Review and approval by IDOT within any portion of their right-of-way shall be required.

Parking

The subject area in which Raising Cane's is proposed currently provides 115 parking spaces. The proposed development would reduce the number of spaces in this area to 46 spaces (loss of 69 parking stalls), however, the overall shopping center would still conform to code requirements (see **Table 1** at the end of this report). This area of the parking lot is not regularly used. The closest tenant space to the proposed Raising Cane's development is the BMO Bank outlot, which has adequate parking per code for its customers. The BMO Bank parking lot will not be altered as part of this petition. Therefore, Staff does not have concerns related to the proposed reduction of parking in this area.

Staff has analyzed the proposed Raising Cane's outlot to determine if it can stand alone relative to parking requirements, and found that the site provides the necessary number of parking stall to conform to code requirements. Specifically, the zoning code requires 39 parking spaces for Raising Cane's, and the outlot would contain 46 parking spaces (surplus of 7 spaces on the outlot site) upon completion of the development. The provided parking study surveyed existing parking lot usage to determine if adequate parking is provided at the site. The survey includes hourly counts between 11:00am and 8:00pm on Thursday, January 10th, 2019, Saturday, January 12th, 2019, and on Tuesday, January 15th, 2019. Peak parking lot occupancy was observed at 11:00am on Saturday, January 12th, when 515 vehicles were observed accessing the site, resulting in a surplus of 1,098 parking spaces.

With respect to bicycle parking, Raising Cane's requires 2 bicycle parking spaces per code, and a 2-space bicycle rack is proposed outside the western entrance to the building.

RECOMMENDATION

The Staff Development Committee reviewed the proposed amendment to Ordinances #74-49 and #01-026 to allow for development of an outlot within the Town & Country shopping center, as well as the request for a Special Use Permit, and recommends approval of the application subject to the following conditions:

1. The petitioner shall comply with all Design Commission recommendations from June 25th, 2019.
2. The applicant shall comply with all applicable Federal, State, and Village Codes, Regulations, and Policies.

June 19, 2019

Bill Enright, Deputy Director of Planning and Community Development

Cc: Randy Recklaus, Village Manager
All Department Heads
PC File 19-006

Table 1: Vehicle Parking Calculations

SPACE	SPACE SF	CODE USE	PARKING CALC SF	PARKING RATIO (1:X)	PARKING REQUIRED
Vacancy	1,294	VACANT	1,294	300	4
Walgreen's	17,498	Retail	17,498	300	58
Vacancy	50,041	VACANT	50,041	300	167
LA Fitness	50,003	Health Club	50,003	250	200
Great Clips	1,056	Beauty Shop	1,056	250	4
Sally Beauty Supply	1,965	Retail	1,965	300	7
Jo-Ann Fabrics	29,887	Retail	36,796	300	123
Palm Beach Tan	2,602	Beauty Shop	2,602	250	10
Dick's Sporting Goods	51,330	Retail	51,330	300	171
Catherine's	6,073	Retail	6,073	300	20
Golden Corral	10,618	Restaurant	4,080	45	91
Vision Works	3,528	Retail	3,528	300	12
Vacancy	41,722	VACANT	41,722	300	139
Best Buy*	44,365	Retail	44,365	300	148
Burger King	2,995	Restaurant	1,260	45	28
BMO Harris Bank	4,146	Retail	4,146	300	14
Verizon	4,220	Retail	4,220	300	14
PROPOSED - Raising Cane's	3,736	Restaurant	1,754	45	39

Town & Country Shopping Center
6/19/2019

TOTAL PARKING REQUIRED	1,249
TOTAL PARKING PROVIDED	1,544
SURPLUS	
(DEFICIT)	295

APPROVED

PLAN

REPORT OF THE PROCEEDINGS OF A PUBLIC HEARING BEFORE THE VILLAGE OF ARLINGTON HEIGHTS PLAN COMMISSION

COMMISSION

RE: RAISING CANES - 225 E. PALATINE RD. - PC# 19-006
PUD AMENDMENT, SUP FOR RESTAURANT WITH DRIVE-THROUGH

REPORT OF PROCEEDINGS had before the Village of
Arlington Heights Plan Commission Meeting taken at the Arlington Heights Village
Hall, 33 South Arlington Heights Road, 3rd Floor Board Room, Arlington Heights,
Illinois on the 26th day of June, 2019 at the hour of 8:30 p.m.

MEMBERS PRESENT:

TERRY ENNES, Chairman
MARY JO WARSKOW
JOE LORENZINI
BRUCE GREEN
SUSAN DAWSON
JOHN SIGALOS
JAY CHERWIN

ALSO PRESENT:

BILL ENRIGHT, Planning & Community Development Deputy Director
JACOB SCHMIDT, Assistant Development Planner

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CHAIRMAN ENNES: So, we have another hearing. I trust the Petitioner has been here. If they would come forward?

MR. BIBAT: Good evening.

CHAIRMAN ENNES: If you can bring anybody from your group that is going to talk and we will swear them in? Please raise your hand.

(Witnesses sworn.)

MR. BIBAT: Good evening, members of the board. My name is Joseph Bibat, B-i-b-a-t. I'm the representative of Town & County Chicago Associates, the owners of the shopping center. Thanks for hearing our petition tonight.

You know, over the past several months, I along with our tenants and engineers have been coordinating diligently with the Village Planning and Engineering Departments and all the other departments to gain approval for a new freestanding Raising Cane's tenants. I believe we have met most if not all of the requirements, and I'd like your support tonight.

As you may know, the building will be located on an empty site area between the existing Harris Bank and the Verizon store along Palatine Road.

We did have our Design Commission meeting last night, and the response from the board was very positive.

Today, I have Jeff Cossel with Visconsi Companies; LuAron McCormack with Raising Cane's; Jeffrey Pountney with ADA Architects; and somebody with the traffic engineer, Horn. We're here to answer any questions you might have about the project. Now we'll have a presentation from LuAron.

MS. McCORMACK: Good evening. LuAron McCormack, first name is L-u-A-r-o-n, last name is McCormack, M-c-C-o-r-m-a-c-k. I just want to do a brief introduction to Raising Cane's, of who we are and what we do.

So, our founder had a dream to build a chicken finger restaurant. He joined a college business planning class and received the worst grade in his class on his business plan. The banks would not support him either, saying that such a limited menu would never work. So, he set off to raise his own money, first moving to LA and worked as a boilermaker, and from there he moved to Alaska and commercially fished for sockeye salmon. He came back to Baton Rouge with the money that he raised and, using that in a small business loan, he bought a rundown building outside the gates of LSU and renovated the building himself and opened our first restaurant in 1996. Today, we have over 430 restaurant locations.

We have one love, and this is quality chicken finger meals and the meals that we serve our customers. We have a very focused menu that includes chicken fingers, fries, cole slaw, Texas toast, our famous Cane sauce, and freshly brewed sweet tea, and freshly squeezed lemonade.

We are highly involved in the community with six main areas of focus. In addition, each Cane's we like to think is the local community's Cane's with our traditional and historical hand-painted mural that has the city name on the mural.

This is the existing site at Rand and at Palatine and Arlington Heights. Then I wanted to show you a few photos of existing Raising Cane's locations around the US.

We are here for any questions.

CHAIRMAN ENNES: Is that the end of your presentation?

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MR. BIBAT: That's it.

CHAIRMAN ENNES: Okay, thank you. Jake, I take it you're going to give us the Staff report?

MR. SCHMIDT: Absolutely. So, as the Petitioner mentioned, they're seeking to open a Raising Cane's Restaurant in the Town & Country Shopping Center, addressed as 225 East Palatine Road. Subject site is currently zoned B-2 General Business District, and is designated as commercial on the Comprehensive Plan.

Two actions are requested tonight, the first being an amendment to the Planned Unit Development Ordinances 74-49 and 01-26 which govern the Town & Country Shopping Center. The proposed Raising Cane's would not be on its own separate subdivided lot; rather it would be part of the overall Town & Country Shopping Center. The second action requested tonight is a special use permit for a 3,736 square-foot restaurant with a drive-through. Typically, restaurants under 4,000 square feet in size qualify for the special use waiver process. However, due to the fact that a planned unit development amendment is required as part of this petition, as well as the fact that the restaurant proposes a drive-through, Raising Cane's does not qualify for the special use waiver.

No variations are required as part of this approval process.

Town & Country Shopping Center is approximately 31.5 acres in size. It is bordered to the west by Arlington Heights Road, it is bordered to the north by Palatine Road, and it is bordered to the east by Rand Road. The subject site would be inside of an existing parking area on the northern end of Town & Country Shopping Center adjacent to Palatine Road. Town & Country is accessible via four driveways, two of which are full access and signalized. One is in Arlington Heights Road and one is on Rand Road. It's also accessible by two non-signalized right-in/right-out only intersections at Palatine Road and Rand Road.

The subject site would be developed with a 3,700 square-foot restaurant with outdoor seating, 46 parking spaces, landscaped areas conforming to code which would also include two bio-retention areas for stormwater management, and a dual lane drive-through with capacity for 18 vehicles.

The Design Commission did review this project yesterday, and they recommended approval with several requirements with respect to extending the rooftop parapet wall, modifying the materials for the dumpster enclosure to match the materials of the building, and requiring the provision of specifications for proposed EIFS for Staff review. It should be noticed that sign variations would be required for the proposed signage, and the Petitioner would have to go through the sign variation process via the Design Commission and Village Board.

Two primary considerations are factored in in formulating the Staff opinion on this project, the first being the impact of Raising Cane's on the traffic circulation and capacity of Town & Country, the second being the impact on parking for Town & Country.

With respect to traffic circulation, the Petitioner did provide a traffic study which assessed Town & Country under a scenario where Town & Country was fully occupied and Raising Cane's was in operation. The study found that the operation of Raising Cane's would not negatively impact circulation within the Town & Country circulation network, and also found that the drive-through has sufficient capacity for peak demand stacking and would not impact circulation within the Raising Cane's parking lot. Lastly, the study determined that the existing access intersections to Town & Country would be able to accommodate anticipated traffic from Raising Cane's and a fully occupied center.

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With respect to parking, Town & Country with the proposed outlet would have a 295-space surplus per code. Regarding bicycle parking, Raising Cane's requires two bicycle parking spaces, and they do provide these two spaces adjacent to the entrance to the building.

Staff did not have concerns about the outlet being located in the existing parking area for the primary reason that the area in question is not used frequently for parking. The adjacent outlots, being the bank to the west and the Verizon store to the east, have sufficient code-required parking adjacent to them for their uses. Secondly, Raising Cane's also provides code-required parking for their use within the specific site. They require 39 spaces per code, and 46 are provided; so, there's a surplus of seven parking spaces. Therefore, parking is not a major concern with this petition.

In review of all of the facts, Staff Development Committee recommends approval of this requested PUD amendment and special use permit subject to two conditions: the first being that the Petitioner shall comply with all Design Commission recommendations from the June 25th meeting, and the second being that the Applicant shall comply with all applicable federal, state, and Village codes, regulations and policies.

That concludes my presentation. If there are any questions, I'm happy to answer.

CHAIRMAN ENNES: Thank you, Jake. Can we have a motion to approve the Staff report?

COMMISSIONER DAWSON: So moved.

CHAIRMAN ENNES: Is there a second?

COMMISSIONER WARSKOW: I'll make the second.

CHAIRMAN ENNES: Are we all in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: Anyone opposed?

(No response.)

CHAIRMAN ENNES: Okay, is there anyone in the audience that would like to comment about this project? Seeing nobody, I'm closing the public portion of the meeting. Mary Jo, if you'd like to start with any questions you might have?

COMMISSIONER WARSKOW: I have no questions. I'm very supportive. It's good to see some of the parking lot that's not being currently utilized to be utilized for such a, I think what's going to be a popular establishment, and even provide some green space around the establishment. So, I am supportive.

CHAIRMAN ENNES: Joe?

COMMISSIONER LORENZINI: I have no comments other than I think it's a good project and it sounds very interesting. Thank you.

CHAIRMAN ENNES: Bruce?

COMMISSIONER GREEN: It's the best project if it will bring some life to this Town & Country Shopping Center. So, thumbs up.

CHAIRMAN ENNES: Okay, we're moving right along. Sue?

COMMISSIONER DAWSON: I just have one quick question. I want to know if you went back to the professor and told him how well he's been doing? Any idea? Did you send him a box of chicken? If he hasn't, he needs to do that, you know, right away.

I don't have any questions, and I think that my nine-year-old

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daughter that's obsessed with chicken fingers would completely disagree with the professor and think that this is the best restaurant idea she's ever heard of. So, I have no questions, I think it's a good project.

COMMISSIONER SIGALOS: I also have no questions. I think it's a great project. I'm glad to see them coming into Arlington Heights and to further develop this parking area. It's really not used there in the shopping center.

CHAIRMAN ENNES: Just a pile of snow, right?

COMMISSIONER SIGALOS: That's it, a pile of snow.

CHAIRMAN ENNES: Jay?

COMMISSIONER CHERWIN: Yes, I would agree with what our colleagues here said. I would also echo what Sue said. I think my kids are going to be very excited that it's probably going in, because I told them conceptually it's going in and now they're like, well, where is it? It's not there. So, well, you've got to wait, you've got to be patient.

No, but you know, a great project. It sounds like a great business ran by great people and we're delighted to have you in the community. I'm sure it will be a great fit. So, thank you for all your good work. That's it.

CHAIRMAN ENNES: Okay, Mrs. McCormack, I have a, I wanted to piggyback a little bit on Sue's comments. Where was, your founder, where was his original school where he took this class? Was it at LSU?

MS. McCORMACK: I do not know if it was LSU, I'm not sure.

CHAIRMAN ENNES: You need to find out.

MS. McCORMACK: I'm going to have to look into that.

CHAIRMAN ENNES: Anyways, don't interpret this as being derogatory about teachers, but some people, because I have teachers in the family, some people say that those that can, do, and those that can't, teach.

COMMISSIONER DAWSON: You just put that on the record, Terry. That's brave.

CHAIRMAN ENNES: No, I wanted to tie into this. There is a very successful business in the country that started with a business proposal at one of the, I believe it was at one of the Ivy League universities. The gentleman that wrote that was told it would never succeed, and that is the biggest air parcel delivery company we have in this country.

So, congratulations, I'm glad he went back and did this. I think it will be a great improvement to the shopping center. I live right in that area, so we'll try it out once you get it built.

So, is there a motion?

COMMISSIONER DAWSON: I'll make a motion.

A motion to recommend to the Village Board of Trustees approval of PC# 19-006, an amendment to Ordinances #74-49 and #01-026 to allow for development of an outlot within the Town & Country Shopping Center, and a special use permit for a restaurant with a drive-through.

This recommendation shall be subject to the following conditions:

- 1. The Petitioner shall comply with all Design Commission recommendations from**

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June 25, 2019.

- 2. The Petitioner shall comply with all applicable federal, state, and Village codes, regulations, and policies.**

CHAIRMAN ENNES: Is there a second?

COMMISSIONER GREEN: Second.

CHAIRMAN ENNES: Can we have a roll call vote?

MR. SCHMIDT: Commissioner Cherwin.

COMMISSIONER CHERWIN: Yes.

MR. SCHMIDT: Commissioner Dawson.

COMMISSIONER DAWSON: Yes.

MR. SCHMIDT: Commissioner Green.

COMMISSIONER GREEN: Yes.

MR. SCHMIDT: Commissioner Lorenzini.

COMMISSIONER LORENZINI: Yes.

MR. SCHMIDT: Commissioner Sigalos.

COMMISSIONER SIGALOS: Yes.

MR. SCHMIDT: Commissioner Warskow.

COMMISSIONER WARSKOW: Yes.

MR. SCHMIDT: Chairman Ennes.

CHAIRMAN ENNES: Yes. So, you have unanimous approval from the Plan Commission. You heard the comment about the Village Board meeting; it might not be until July --

MR. SCHMIDT: 15th.

CHAIRMAN ENNES: -- 15th. You'll get that date from Staff, but good luck!

MR. BIBAT: Okay, great! Thank you.

CHAIRMAN ENNES: So, is there a motion to adjourn the meeting?

COMMISSIONER GREEN: So moved.

CHAIRMAN ENNES: Second?

COMMISSIONER LORENZINI: Second.

CHAIRMAN ENNES: All in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: Any opposed?

(No response.)

CHAIRMAN ENNES: Thank you.

(Whereupon, the above-mentioned public hearing was adjourned at 8:40 p.m.)

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MINUTES OF
THE VILLAGE OF ARLINGTON HEIGHTS
DESIGN COMMISSION MEETING
HELD AT THE ARLINGTON HEIGHTS MUNICIPAL BUILDING
33 S. ARLINGTON HEIGHTS RD.
JUNE 25, 2019

Chair Fitzgerald called the meeting to order at 6:30 p.m.

Members Present: John Fitzgerald, Chair
Kirsten Kingsley
Ted Eckhardt
Scott Seyer
Jonathan Kubow

Members Absent: None

Also Present: Dan Olsen, Watermark Engineering for *McDonalds*
Joe Kerchner, Lingle Design Group for *McDonalds*
Joe Bibat, Town & Country Chicago Associates for *Raising Cane's*
Jeff Cossel, Visconsi Companies for *Raising Cane's*
Jeff Pountney, ADA Architects for *Raising Cane's*
LuAron McCormack, *Raising Cane's*
Steve Hautzinger, Staff Liaison

REVIEW OF MEETING MINUTES FROM JUNE 11, 2019

A MOTION WAS MADE BY COMMISSIONER ECKHARDT, SECONDED BY COMMISSIONER SEYER, TO APPROVE THE MEETING MINUTES OF JUNE 11, 2019. ALL WERE IN FAVOR. MOTION CARRIED.

ITEM 2. COMMERCIAL REVIEWDC#19-047 – Raising Cane's – 225 E. Palatine Rd.

Joe Bibat, representing *Town & Country Chicago Associates*, Jeff Cossel, representing *Visconsi Companies*, Jeff Pountney, representing *ADA Architects*, and LuAron McCormack, representing *Raising Cane's*, were present on behalf of the project.

Mr. Hautzinger presented Staff comments. The petitioner is proposing to build a new free standing Raising Cane's fast casual restaurant at the Town & Country shopping center. The proposed restaurant will be located in an existing parking area facing Palatine Road between BMO Harris Bank and the Verizon store. The restaurant will have indoor dining, outdoor dining, and a drive through. The scope of the project includes redevelopment of the site with new parking and landscaping.

This project requires Plan Commission review and Village Board approval to amend the existing Planned Unit Development for Town and Country shopping center, as well as Special Use approval for a restaurant with a drive-through. Because this project is going to the Plan Commission, the role of the Design Commission is limited to building and signage only.

The proposed building design is based on prototype branding for Raising Cane's. The design has a fresh modern appearance that is generally consistent with other fast casual restaurants in this area. The exterior materials and colors are nicely coordinated, and the black outdoor dining canopy has an inviting appeal. The red number "1" on the face of the entry tower is considered a large wall sign, so it is not allowed by code, and will either need to be omitted or a hardship demonstrated to justify a sign variation. Overall, the architectural design is nicely done, and will fit in well in this location.

In addition to the large number "1" wall sign, the proposed design includes three more wall signs and one ground sign that do not comply with Chapter 30 sign code. This building has one street frontage, so only one wall sign is allowed, with a maximum size of 25% of the wall that it is mounted on. The proposed wall mural is not allowed to be painted directly on the building wall, without a variation being given. One 6-foot tall ground sign is proposed, however the location of the sign is not shown on the site plan. Raising Cane's will be part of the Town & Country shopping center, and Town & Country already has three code-compliant multi-tenant ground signs. Additional ground signs are not allowed. The adjacent Verizon store has a small ground that was approved by variation in 1981.

Signage will either need to be revised, or sign variations requested as a separate application to be reviewed based on hardship. Preliminary feedback from the commissioners tonight regarding signage is welcome.

The proposed new building will have multiple rooftop mechanical units, which are required to be fully screened from public view. The building design includes a continuous equipment screen which is nicely coordinated with the building design. One minor concern is the rooftop guard rail on the back of the building that sticks up above the wall. Since the back of the building will be highly visible from the Town & Country parking lot, it is recommended that an alternative solution be studied to better fit with the building design.

A trash dumpster enclosure is proposed at the southwest corner of the site. The enclosure is proposed to be built with split-face CMU in a "Texas Buff" color to complement the colors of the building, with a black standing seam flat roof.

Staff recommends approval of the proposed architectural design for the new commercial restaurant building with the comments to explore alternative solutions to eliminate the rooftop guard rail, and either revise the proposed signage package to comply with the sign code, or request sign variations.

Mr. Bibat introduced his team in attendance tonight, and said that they have been working with the Village for the past few months to obtain approval of this project. He was prepared to answer any questions the commissioners might have.

Chair Fitzgerald asked if there was any public comment and there was no response from the audience.

Commissioner Seyer said that in general, he liked the aesthetic of the building, which follows a more modern theme seen a lot with these types of uses. He completely agreed with Staff's comments about the rooftop guard rail, and asked if a solid parapet could be used instead. The petitioner replied that they prefer the guard rail to a solid parapet because of design standards. The guard rail is for the adjacent roof hatch which is in a mechanical room that is located more outward on the building and there is nowhere else to move it. He added that the guard rail would be painted black to blend in with the fascia and other materials of the building. Commissioner Seyer said the guard rail would look better as a solid continuation of the parapet wall, rather than an open guard rail; it looks like they ran out of material, and he wanted to see a different type of design element than the unsightly guard rail. He liked the overall aesthetic of the building.

Commissioner Kingsley liked the design aesthetic of the building and was glad to see the new restaurant being built. She agreed that the guard rail should be changed and suggested raising the parapet wall and returning it so it looks less like a parapet and more like an actual volume behind it. She also commented about the trash enclosure, which she preferred to be attached to the building, although she appreciated the metal being proposed for the canopy and the doors. She was not in favor of the CMU material because it would be quite visible, and she suggested a more long lasting material such as brick instead. The petitioner explained that the CMU split-face would be textured and colored in a color that will accent the building, not painted. Commissioner Kingsley had no further comments.

Commissioner Eckhardt asked for clarification on the location of the two different brick materials, and the petitioner replied that the iron spot brick would be on the front elevation and the common brick would be on the side elevations. Commissioner Eckhardt asked about the significance of the large number 1 on the front elevation, and Ms. McCormack explained that it represents their one love, which is their high quality chicken fingers that they serve. Commissioner Eckhardt understood the concerns about the guard rail at the top of the building and supported a modification to the design to include a solid extension of the parapet instead of the guard rail. Mr. Hautzinger clarified that the high wall shown on the elevations is actually the roof mechanical screen that is recessed back, which the commissioners understood. Commissioner Eckhardt concluded that he liked the varying materials being proposed, he supported the painting of the sign on the brick building, similar to Portillo's, and he liked how the materials break up with the darks being different colors. His only issue was the guard rail.

With respect to the concerns about the guard rail, the petitioner asked for clarification about raising the parapet as suggested, and whether it needed to be raised across the entire facade. Commissioner Eckhardt replied that he was okay with it only be raised in the section where it currently is.

Commissioner Kubow really liked the color palette of materials, which were very warm with a modern touch. His initial thoughts about the signage was that there is a lot happening there; he really liked the number 1, which he supported because it was very important, and he liked the wall sign above the front entrance; however, he felt the wall sign to the left of the entrance was a bit much and a little busy. He was not overly concerned about the guard rail at the top of the building because it faced the parking lot and was not on the corner, and the impact of the view would not be that great; however, he encouraged the petitioner to consider the suggestion to extend the parapet just in that section.

Chair Fitzgerald liked the building design and asked about possible options if the number 1 on the front elevation did not receive approval. The petitioner explained that the number 1 would be the same shape as the Dryvit material behind it and would be applied to it in the same shape. If the metal is not allowed, then the number 1 could be painted instead. Chair Fitzgerald liked the front elevation and was okay with the signage on the left side of the entrance, which he felt was fun. He felt the sides and back of the building would be more visible than anticipated because of people entering from both Rand Road and Arlington Heights Road through the shopping center, and he wanted to make sure the back of the building looks better than it does so that people know what the building is. Chair Fitzgerald encouraged a little more detail or some very heavy landscaping because the back of the building does not look anything like the front; it does not even look like it is part of the same building. Chair Fitzgerald agreed with the concerns about the guard rail and was in favor of changing it to something else as suggested, and he suggested the petitioner study signage allowed for the adjacent buildings in this unique situation because he believed that variations were approved.

The petitioner commented that the whole site is landscaped extensively and the entire site will be part of a visitor's experience. He added that the tower elements are intended to be monolithic and they are proposing a heavy duty, high impact Dryvit in lieu of the hydraulic limestone material specified on the plans. There would also be no control joints in

the Dryvit. Commissioner Kingsley expressed concerns about the maintenance of the Dryvit at the ground, and the petitioner replied that the product has a 20-year warranty for damage.

Commissioner Eckhardt also cautioned the petitioner about EIFS at the ground level, especially near a hard surface because the product is highly dependent upon the skill of the application. The petitioner understood and agreed with this. Commissioner Eckhardt added that he was not a big proponent of EIFS without control joints or something similar because eventually cracks would appear, and this commission has always discouraged the use of EIFS at the ground level.

Commissioner Kingsley asked if the EIFS would come all the way down to the ground, and the petitioner replied that details are currently being developed for the material at the base of the building so the EIFS would not sit directly on a concrete surface or on top of the landscaped areas. Commissioner Kingsley pointed out that the current drawings and photographs show the hydraulic limestone coming all the way down to the ground to meet the concrete, and she had a really difficult time changing that material to EIFS. Commissioner Kubow asked if costs were driving the change in material to EIFS and the petitioner said it was more of an overall design issue from the prototype. Commissioner Eckhardt asked if there have been issues with the cementitious material and the petitioner said he was not aware of any, but as the prototype design evolves, different materials and finishes are being considered.

A MOTION WAS MADE BY COMMISSIONER KINGSLEY, SECONDED BY COMMISSIONER ECKHARDT, TO RECOMMEND APPROVAL OF THE PROPOSED ARCHITECTURAL DESIGN FOR THE NEW *RAISING CANE'S RESTAURANT* TO BE LOCATED AT 225 E. PALATINE ROAD. THIS RECOMMENDATION IS BASED ON THE ARCHITECTURAL PLANS RECEIVED 5/22/19, EXTERIOR ELEVATIONS AND ROOF PLAN RECEIVED 6/14/19, DESIGN COMMISSION RECOMMENDATIONS, COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE, AND VILLAGE CODES, REGULATIONS, AND POLICIES, THE ISSUANCE OF ALL REQUIRED PERMITS, AND THE FOLLOWING:

1. A REQUIREMENT TO INCLUDE A PARAPET WALL IN LIEU OF THE ROOFTOP RAIL, THAT WILL TURN THE CORNER IN AREAS WHERE THE THICKNESS OF THE PARAPET WILL BE SEEN.
2. A REQUIREMENT THAT THE TRASH ENCLOSURE MATERIAL BE CHANGED FROM CMU TO A MATERIAL THAT IS ON THE BUILDING, SUCH AS BRICK.
3. A REQUIREMENT THAT THE PETITIONER SUBMIT TO STAFF FOR REVIEW, THE DETAILING AND SPECIFICATIONS FOR THE EIFS BEING PROPOSED FOR THE LIGHTER COLOR WALLS; SPECIFICATIONS TO KNOW THAT CONTROL JOINTS ARE NOT NECESSARY, AND HOW THE DETAILING AT THE BASE OF THE BUILDING WILL WORK WITH THE HARD SURFACES AND LANDSCAPE SURFACES, TO UNDERSTAND THAT THERE WILL NOT BE A GAP IN MATERIALS.
4. THIS REVIEW DEALS WITH ARCHITECTURAL DESIGN ONLY AND SHOULD NOT BE CONSTRUED TO BE AN APPROVAL OF, OR TO HAVE ANY OTHER IMPACT ON, NOR REPRESENT ANY TACIT APPROVAL OR SUPPORT FOR THE PROPOSED LAND USE OR ANY OTHER ZONING AND/OR LAND USE ISSUES OR DECISIONS THAT STEM FROM ZONING, BUILDING, SIGNAGE OR ANY OTHER REVIEWS. IN ADDITION TO THE NORMAL TECHNICAL REVIEW, PERMIT DRAWINGS WILL BE REVIEWED FOR CONSISTENCY WITH THE DESIGN COMMISSION AND ANY OTHER COMMISSION OR BOARD APPROVAL CONDITIONS. IT IS THE PETITIONER'S RESPONSIBILITY TO INCORPORATE ALL REQUIREMENTS LISTED ON THE CERTIFICATE OF APPROPRIATENESS INTO THE PERMIT DRAWINGS, AND TO ENSURE THAT BUILDING PERMIT PLANS AND SIGN PERMIT PLANS COMPLY WITH ALL ZONING CODE, BUILDING CODE AND SIGN CODE REQUIREMENTS.

Commissioner Eckhardt suggested a more durable material for the lower 6-inches of the building, such as a glazed brick, tile, or something durable to meet the ground. He reiterated the tremendous amount of splash up and wear-and-tear on EIFS that hits the ground; it is a very difficult detail. He added that the images shown in the petitioner's photographs of the other restaurant does not show a margin or reveal, and he wondered if the originally proposed cementitious material has had problems with that as well. He reiterated that EIFS does not like hitting the ground and a more durable material should be considered for the first 2 or 3-inches between the ground and the EIFS.

A MOTION WAS MADE BY COMMISSIONER KINGSLEY TO AMEND THE MOTION AS FOLLOWS:

3. A REQUIREMENT THAT THE PETITIONER SUBMIT TO STAFF FOR REVIEW, THE DETAILING AND SPECIFICATIONS FOR THE EIFS BEING PROPOSED FOR THE LIGHTER COLOR WALLS; SPECIFICATIONS TO KNOW THAT CONTROL JOINTS ARE NOT NECESSARY, AND HOW THE DETAILING AT THE BASE OF THE BUILDING WILL WORK WITH THE HARD SURFACES AND LANDSCAPE SURFACES, TO UNDERSTAND THAT THERE WILL NOT BE A GAP IN MATERIALS, AND THAT IT WOULD BE ACCEPTABLE FOR ANOTHER MORE DURABLE MATERIAL TO BE ADDED AS A BASE TO HELP WITH THE EIFS CONCERNS, TO BE REVIEWED BY STAFF.

COMMISSIONER ECKHARDT SECONDED THE AMENDMENT TO THE MOTION.

KUBOW, AYE; SEYER, AYE; KINGSLEY, AYE; ECKHARDT, AYE; FITZGERALD, AYE.
ALL WERE IN FAVOR. MOTION CARRIED.

STAFF DESIGN COMMISSION REPORT

PROJECT INFORMATION:

Project Name: Raising Cane's
Project Address: 225 E. Palatine Road
Prepared By: Steve Hautzinger

Date Prepared: June 18, 2019

PETITION INFORMATION:

DC Number: 19-047
Petitioner Name: Gregory Barrow
Petitioner Address: Town & Country Chicago Associates
30050 Chagrin Blvd, Suite 360
Pepper Pike, OH 44124
Meeting Date: June 25, 2019

Requested Action(s):

Approval of the proposed architectural design for a new restaurant building.

Design Commission Responsibility for Projects Being Reviewed by Plan Commission:

The subject design is being forwarded to the Design Commission for review pursuant to Chapter 6 of the Municipal Code.

This project requires Plan Commission review and Village Board approval to amend the existing Planned Unit Development for Town and Country shopping center, as well as Special Use approval for a restaurant with a drive-through. Because this project is going to the Plan Commission, the role of the Design Commission is limited. The Design Commission's responsibility is as outlined in Chapter 28 of the Municipal Code, Section 14.2-1, which states:

*"For developments where a public hearing is necessary before the Plan Commission or Zoning Board of Appeals, the design review process should, if feasible, be completed by the time of the public hearing. Development proposals requiring rezoning, PUD or other Plan Commission approvals, shall be reviewed by the Design Commission **for building and signage only.**"*

Summary:

The petitioner is proposing to build a new free standing Raising Cane's fast casual restaurant at the Town & Country shopping center. The proposed restaurant will be located in an existing parking area facing Palatine Road between BMO Harris Bank and the Verizon store. The restaurant will have indoor dining, outdoor dining, and a drive through. The scope of the project includes redevelopment of the site with new parking and landscaping.

Architectural Design:

The proposed design is based on prototype branding for Raising Cane's. The design has a fresh modern appearance that is generally consistent with other fast casual restaurants in this area. The exterior materials and colors are nicely coordinated, and the black outdoor dining canopy has an inviting appeal. The red number "1" on the face of the entry tower is considered a large wall sign, so it is not allowed by code, and will either need to be omitted or a hardship demonstrated to justify a sign variation.

Overall, the architectural design is nicely done, and will fit in well in this location

Signage:

In addition to the large number "1" wall sign, the proposed design includes three more wall signs and one ground that do not comply with Chapter 30 sign code. This building has one street frontage, so only one wall sign is allowed, with a maximum size of 25% of the wall that it is mounted on. The proposed wall mural is not allowed to be painted directly on the building wall.

One 6-foot tall ground sign is proposed, however the location of the sign is not shown on the site plan. Raising Cane's will be part of the Town & Country shopping center, and Town & Country already has three code-compliant multi-tenant ground signs. Additional ground signs are not allowed. The adjacent Verizon store has a small ground that was approved by variation in 1981.

The signage will either need to be revised, or sign variations requested as a separate application to be reviewed based on hardship.

Rooftop Mechanical Unit Screening:

The proposed building has multiple rooftop mechanical units, which are required to be fully screened from public view. The building design includes a continuous equipment screen which is nicely coordinated with the building design.

One minor concern is the rooftop guard rail on the back of the building that sticks up above the wall. Since the back of the building will be highly visible from the Town & Country parking lot, it is recommended that an alternative solution be studied to better fit with the building design.

Trash Dumpster Screening:

A trash dumpster enclosure is proposed at the southwest corner of the site. The enclosure is proposed to be built with split-face CMU in a "Texas Buff" color to complement the colors of the building, with a black standing seam flat roof.

RECOMMENDATION:

It is recommended that the Design Commission **approve** the proposed architectural design for Raising Cane's located at 225 E. Palatine Road. This recommendation is subject to compliance with the plans received 5/22/19, exterior elevations and roof plan received 6/14/19, Design Commission recommendations, compliance with all applicable Federal, State, and Village codes regulations and policies, the issuance of all required permits, and the following:

1. Explore alternative solutions to eliminate the rooftop guard rail.
2. Either revise the proposed signage package to comply with Chapter 30 sign code, or request sign variations.
3. This review deals with architectural design only and should not be construed to be an approval of, or to have any other impact on, any other zoning and/or land use issues or decisions that stem from zoning, sign code or building or any other reviews. In addition to the normal technical review, permit drawings will be reviewed for consistency with the Design Commission and any other Commission or Board approval conditions. It is the architect/owner/builder's responsibility to comply with the Design Commission approval and ensure that building permit plans and sign permit plans comply with all zoning code, building code and sign code requirements.

_____, June 18, 2019

Steve Hautzinger AIA, Design Planner
Department of Planning & Community Development

Cc: Charles Witherington Perkins, Director of Planning and Community Development, Bill Enright, Deputy Director of Planning and Community Development, Jake Schmidt, Assistant Planner, Petitioner, DC File 19-047



Raising Cane's Project description N. Arlington Heights Road & E. Palatine Road

Raising Cane's is a quick serve restaurant that was founded in 1996 in Baton Rouge, LA by its founder, Todd Graves. The restaurant has ONE LOVE, which is chicken, as evident by the minimal menu that includes: chicken fingers, fries, cole slaw and Texas toast. The food is always cooked to order to ensure the best quality and flavor possible.

Raising Cane's is not a chain restaurant, but is part of the community, starting with the name of the city being part of the painted mural on the side of the building. The restaurant not only employs people from the area, but gives back to the community in several ways. By promoting education, feeding the hungry, pet welfare, local community involvement and more.

The building itself promotes visual esthetics with the variations not only in the architecture, but the building materials themselves. The use of a brick wainscot with EIFS above is accented by the use of full brick facades and limestone (hydraulic limestone) at the main entrances and drive thru areas to provide a seamless look to the 'towers'. All of this with the variations in the heights of the building, along with the ample landscaping around the building provides an esthetically pleasing structure that accents the development unlike the fast food 'box style' of many businesses. Though there are no 'green' features to the landscaping, Raising Cane's designs with native plants to ensure they are best suited for the local climate and conditions.

The structure is approximately 3,800 square feet, including a masonry corral at the rear of the building for operations. The roof line around the exterior varies from the main façade at 16'-7", to the towers for the entrances and drive thru pick-up at 19'-10", the lower drive thru tower at 17'-3" and finally the ONE (for the one love) at the main entrance topping out at 23'-4".

Raising Cane's will have approximately 55 employees at this location, with an average of 8 employees per shift. The restaurant will be open Sun - Thu: 10:00am - 12:00am; Fri - Sat: 10:00am - 2:00am. The drive Thru will have the hours of operation.

The project is being submitted to the Planning Commission for review 4/12/19 with a tentative date of a Plan Commission Meeting of 7/10/19. The building plans will be submitted for permitting after Planning and Design Commission approval with a construction start date of mid-October. The project will have a 175 day construction schedule with an anticipated opening date of 3/20/2020.



April 11, 2019

**Sam Hubbard
Village of Arlington Heights
Planning & Zoning Commission
33 South Arlington Heights Road
Arlington Heights, IL 60005**

***Regarding:
Raising Cane's Chicken Fingers
N. Arlington Heights Road &
East Palatine Road
Arlington, IL 60004
Our Project No. 19064***

**RE: Proposed Drive-Through
Restaurant**

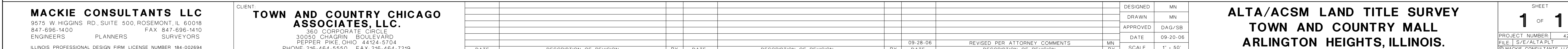
Mr. Hubbard:

The location of the proposed drive-through restaurant is currently occupied by under-utilized mall parking spaces.

The project is deemed necessary and suitable for the location based on the similar uses of the surrounding commercial center, which includes a variety of retail and restaurant establishments. As a result, the proposed project is not anticipated to cause any detriment, above and beyond what is generated by the surrounding uses to the health, safety, or general welfare of those living and working in the overall vicinity.

It is the intent of the client to comply with all applicable codes and regulations, and to incorporate any conditions granted by the Village Board of Trustees, including conditions related to signage, materials, noise mitigation or traffic control measures, to the design of the structure and site.

PIN NO. 03-20-101-016



PRELIMINARY CIVIL CONSTRUCTION PLANS FOR



STORE # 484
225 E. PALETINE ROAD
VILLAGE OF ARLINGTON HEIGHTS
COOK COUNTY, IL 60004

GOVERNMENT/UTILITY CONTACTS

PUBLIC WORKS & ENGINEERING DEPARTMENT	33 S. ARLINGTON HEIGHTS ROAD ARLINGTON HEIGHTS, IL 60005
CONTACTS: SCOTT SHIRLEY (DIRECTOR OF PUBLIC WORKS) GLENN ADAMS (STREET FOREMAN) SCOTT BELLANGER (TRAFFIC FOREMAN) DAVE NORDIN (WATER DIST. FOREMAN) JEFF MUSINSKI (SUPT. OF UTILITIES) MIKE NOLAN (SEWER FOREMAN) MIKE PAGONES (VILLAGE ENGINEER)	(847) 368-5808 (847) 368-5837 (847) 368-5845 (847) 368-5830 (847) 368-5806 (847) 368-5832 (847) 368-5250
PLANNING & COMMUNITY DEVELOPMENT	33 S. ARLINGTON HEIGHTS RD. ARLINGTON HEIGHTS, IL 60005
CONTACT: CHARLES PERKINS	(847) 368-5200
SANITARY SEWER	METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO 100 E. ERIE ST. CHICAGO, IL 60611 (312) 751-4449
CONTACT: TBD	
POWER COMPANY	COMMONWEALTH EDISON MAYWOOD OFFICE
CONTACT: TBD	(630) 890-0883
NATURAL GAS COMPANY	NICOR GAS COMPANY
CONTACT: TBD	(630) 878-0768
TELEPHONE COMPANY	AT&T CHICAGO NORTH OFFICE
CONTACT: TBD	(630) 779-5160

INDEX OF SHEETS

SHEET NO.	DESCRIPTION	DATE	REVISION
C1.0	COVER SHEET		
V0.0	ALTA SURVEY		
V0.1	ALTA SURVEY		
C5.0	SITE KEYNOTE PLAN		
C5.1	DIMENSION CONTROL PLAN		
C5.2	STRIPING AND SIGNAGE PLAN		
C5.3	AUTOTURN PLAN		
C5.4	AUTOTURN PLAN		
C6.0	GRADING PLAN		
C7.0	UTILITY PLAN		
L1.0	TREE PRESERVATION PLAN		
L2.0	LANDSCAPE PLAN		

ENGINEER
Kimley»Horn

1001 WARRENVILLE ROAD
SUITE 350
LISLE, IL 60532
PH. (630) 487-3449
CONTACT: JASON COOPER, P.E.

OWNER/DEVELOPER

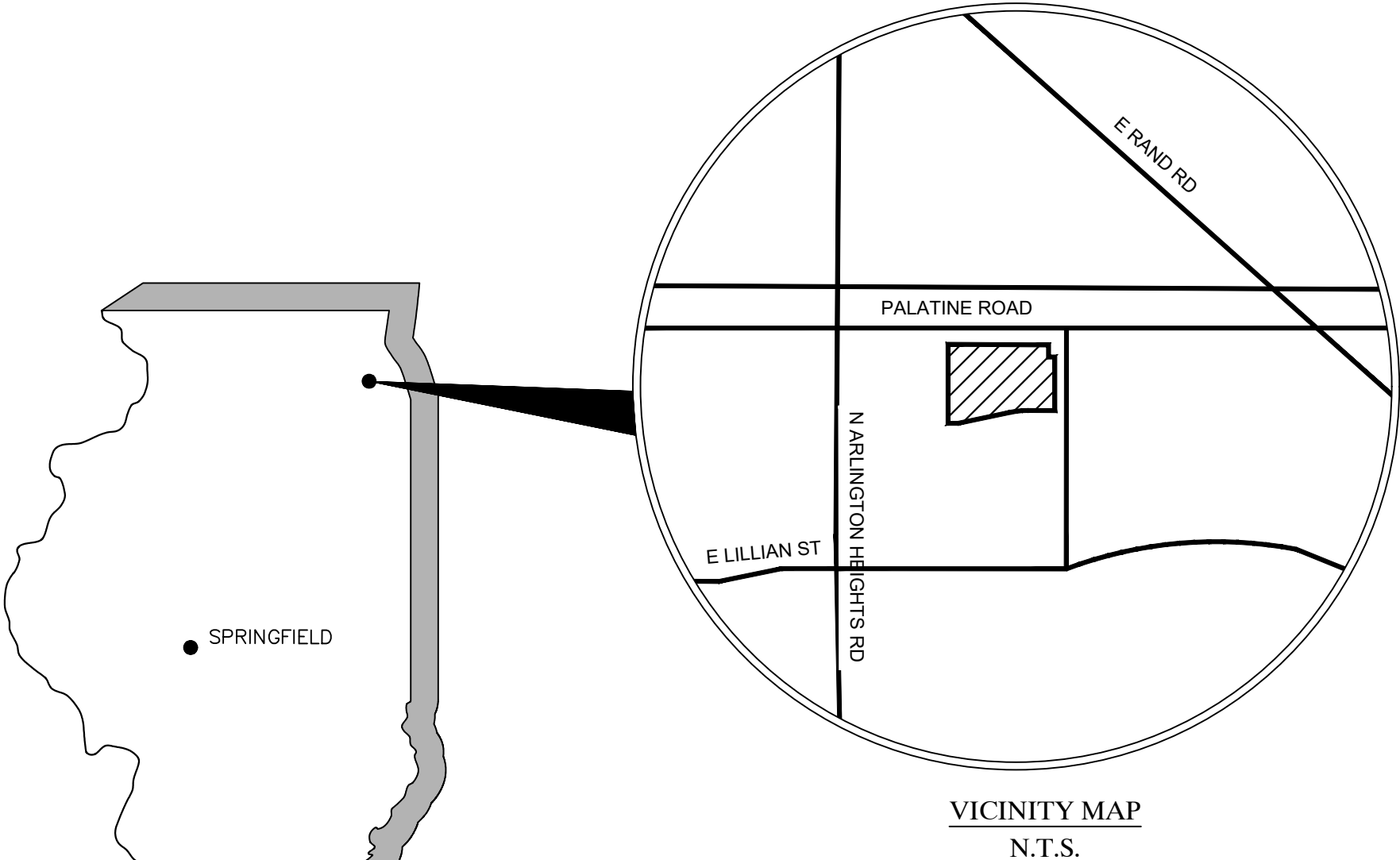


RAISING CANES RESTAURANT, LLC
6800 BISHOP ROAD
PLANO, TX 75024
(P) (972) 769-3364
CONTACT: LUARON MCCORMACK

ARCHITECT



ADA ARCHITECTS, INC.
17710 DETROIT AVENUE
LAKEWOOD, OH 44107
(P) (216) 521-5134
CONTACT: JEFF POUNTNEY

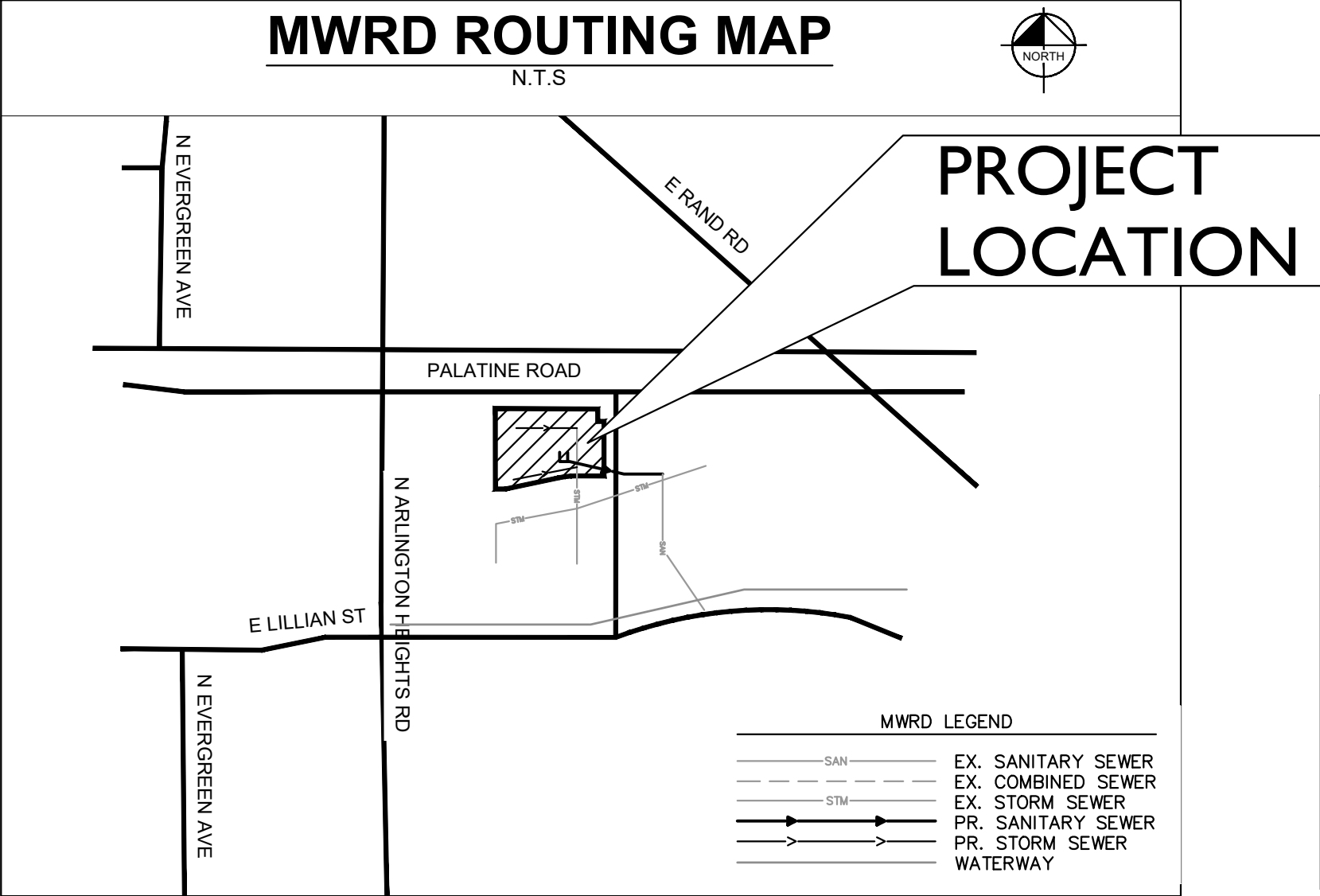


SITE LOCATION MAP
(NOT TO SCALE)

- NOTES:
- IF REPRODUCED, THE SCALES SHOWN ON THESE PLANS ARE BASED ON A 24" X 36" SHEET.
 - ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO CONTRACT COMPLETION AND THE FINAL CONNECTION OF SERVICES.

PLANS SUBMITTAL/REVIEW LOG

NO.	DESCRIPTION	DATE	MILESTONE
0	VILLAGE DEVELOPMENT REVIEW	04/12/2019	
1	VILLAGE DEVELOPMENT REVIEW #2	05/24/2019	



BENCHMARKS

LOCATIONS SHOWN ON SURVEY
REFERENCE BENCHMARK: COOK COUNTY BENCHMARK DM3905, LOCATED IN PALATINE, 36 FEET NORTH OF THE CENTERLINE OF ANDERSON DRIVE, 17 FEET EAST OF THE CENTERLINE OF REYNOLDS DRIVE, 2.5 FEET WEST OF BACK OF SIDEWALK. DATUM: NAVD88 ELEVATION = 719.509
SITE BENCHMARKS:
SITE BENCHMARK #1 SOUTHEAST BOLT ON FIRE HYDRANT AT THE NORTHWEST CORNER OF SITE ELEVATION = 696.74
SITE BENCHMARK #2 SOUTHWEST BOLT ON FIRE HYDRANT AT THE ENTRANCE TO MALL, NEAR THE NORTHEAST CORNER OF SITE. ELEVATION = 691.09

PROFESSIONAL ENGINEER'S CERTIFICATION

I, JASON C. COOPER, A LICENSED PROFESSIONAL ENGINEER OF KIMLEY-HORN AND ASSOCIATES, INC., HEREBY CERTIFY THAT THIS SUBMISSION, PERTAINING ONLY TO THE "C" SERIES CIVIL SHEETS LISTED ABOVE, WAS PREPARED ON BEHALF OF RAISING CANE'S, LLC BY KIMLEY-HORN AND ASSOCIATES, INC. UNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS.

DATED THIS 24TH DAY OF MAY, A.D., 2019.

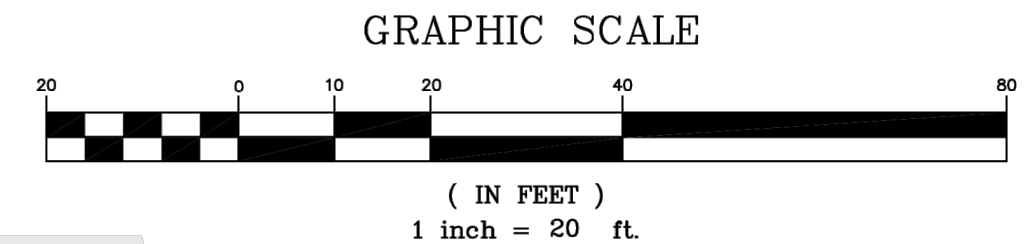
IL LICENSED PROFESSIONAL ENGINEER 062-066282
MY LICENSE EXPIRES ON NOVEMBER 30, 2019.



Date of Expiration: 11-30-19



ALTA/NSPS LAND TITLE AND TOPOGRAPHIC SURVEY



PALATINE ROAD

46

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM VISIBLE FIELD EVIDENCE AND EXISTING DRAWINGS, MAPS AND RECORDS SUPPLIED TO SURVEYOR. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM AVAILABLE INFORMATION. THE SURVEYOR HAS PHYSICALLY LOCATED VISIBLE STRUCTURES, HOWEVER, HE HAS NOT PHYSICALLY LOCATED THE UNDERGROUND LINES.

ABBREVIATIONS

O.D.I.P. = OUTSIDE DIAMETER IRON PIPE
TF = TOP OF FOUNDATION
FF = FINISHED FLOOR
FES = FLARED END SECTION
VCP = VITRIFIED CLAY PIPE
DIP = DUCTILE IRON PIPE
PVC = POLYVINYL CHLORIDE
RCP = REINFORCED CONCRETE PIPE
CMP = CORRUGATED METAL PIPE
(R) = RECORD BEARING OR DISTANCE
(M) = MEASURED BEARING OR DISTANCE
(C) = CALCULATED BEARING OR DISTANCE
(D) = DEED BEARING OR DISTANCE
A = ARC LENGTH
R = RADIUS
CH = CHORD
CB = CHORD BEARING
B.S.L. = BUILDING SETBACK LINE
U.E. = UTILITY EASEMENT
D.E. = DRAINAGE EASEMENT
P.U.E. = PUBLIC UTILITY EASEMENT
P.O.C. = POINT OF COMMENCEMENT
P.O.B. = POINT OF BEGINNING
P.U. & D.E. = PUBLIC UTILITY AND DRAINAGE EASEMENT
BC = BACK OF CURB
BDC = BACK OF DEPRESSION
FL = FLOW LINE
C = CONCRETE
P = PAVEMENT
G = GRAVEL
EW = EDGE OF WALK
TW = TOP OF WALL
TP = TOP OF PIPE
IE = INVERT ELEVATION
PL = PROPERTY LINE
DS = DOWN SPOUT
S.F. = SQUARE FEET
SL = SHORE LINE
TSF = TRANSFORMER
B = PAVERS

LINE LEGEND

— LIMITS OF LAND PER
— LEGAL DESCRIPTION
— ADJACENT LAND
— PARCEL LINE
— EASEMENT LINE
— CENTERLINE
— BUILDING SETBACK LINE
— SECTION LINE
— EXISTING CONTOUR

LEGEND

● FOUND 7/8" O.D.I.P. UNLESS OTHERWISE NOTED (FIELD LOCATION)
■ CONCRETE MONUMENT
+ CROSS IN CONCRETE
⊙ MANHOLE
⊙ STORM STRUCTURE
⊙ SANITARY MANHOLE
⊙ CLEANOUT
▽ FLARED END SECTION
⊙ TRANSFORMER PAD
⊙ ELECTRIC MANHOLE
⊙ ELECTRIC BOX
⊙ ELECTRIC PEDESTAL
⊙ ELECTRIC MARKER
⊙ ELECTRIC METER
⊙ UTILITY POLE
⊙ UTILITY POLE W/LIGHT
⊙ UTILITY POLE W/TSP
⊙ GUY POLE
⊙ OVERHEAD TRAFFIC SIGNAL
⊙ TRAFFIC SIGNAL MANHOLE
⊙ LIGHT
⊙ LIGHT POLE
⊙ HAND HOLE
⊙ VALVE VAULT
⊙ FIRE HYDRANT
⊙ IRRIGATION CONTROL VALVE
⊙ POST INDICATOR VALVE
⊙ SIAMANESE WATER CONNECTION
⊙ WATER MARKER
⊙ WATER METER
⊙ VALVE BOX
⊙ B/BOX
⊙ TELEPHONE MANHOLE
⊙ TELEPHONE NETWORK INTERFACE
⊙ TELEPHONE MARKER
⊙ TELEPHONE PEDESTAL
⊙ CABLE TELEVISION PEDESTAL

⊙ GAS METER
⊙ GAS VALVE
⊙ GAS MARKER
⊙ DOWN SPOUT
⊙ BORING HOLE
⊙ MONITORING WELL
⊙ GATE POST
⊙ BOLLARD POLE
⊙ SIGN
⊙ FLAG POLE
⊙ MAILBOX
⊙ SANITARY SEWER
⊙ STORM SEWER
⊙ WATER MAIN
⊙ GAS MAIN
⊙ ELECTRIC LINE
⊙ OVERHEAD WIRES
⊙ TELEPHONE LINE
⊙ CONIFEROUS TREE
⊙ W/APPROX. DIAMETER
⊙ DECIDUOUS TREE
⊙ W/APPROX. DIAMETER
⊙ MULTI-STEM
(DRIP LINE SHOWN IS APPROXIMATE)
+ ELEVATION

— BITUMINOUS PAVEMENT
— CONCRETE SURFACE
— DEPRESSION CURB
— GRAVEL SURFACE
— LANDSCAPE AREA
— STONE SURFACE
— DETECTABLE TACTILE WARNING SURFACE
— WOOD FENCE
— CHAIN LINK FENCE
— METAL FENCE
— METAL GUARDRAIL
— OVERHEAD TRAFFIC ARM

BENCHMARKS

REFERENCE BENCHMARK:
COOK COUNTY BENCHMARK DM3905, LOCATED IN PALATINE, 38 FEET NORTH OF THE CENTERLINE OF ANDERSON DRIVE, 17 FEET EAST OF THE CENTERLINE OF REYNOLDS DRIVE, 2.0 FEET WEST OF BACK OF SIDEWALK
ELEVATION = 719.509

SITE BENCHMARKS

SITE BENCHMARK #1
SOUTHEAST BOLT ON FIRE HYDRANT AT THE NORTHWEST CORNER OF SITE
ELEVATION = 696.74

SITE BENCHMARK #2
SOUTHWEST BOLT ON FIRE HYDRANT AT THE ENTRANCE TO WALL NEAR THE NORTHEAST CORNER OF SITE
ELEVATION = 691.09

OWNER: TOWN & COUNTRY CHICAGO ASSOCIATES, LLC

GENERAL NOTES

1. SURVEY ABOVE IS FOR REFERENCE ONLY AND IS NOT TO SCALE.

CLIENT
Kimley»Horn
© 2017 KIMLEY-HORN AND ASSOCIATES, INC.
1001 WARRENVILLE ROAD, SUITE 350,
LISLE, IL 60532
PHONE: (630) 585-6550
WWW.KIMLEY-HORN.COM

PROJECT
RAISING CANE
ARLINGTON HEIGHTS ROAD
& E. PALATINE ROAD
ARLINGTON HEIGHTS, IL

COMPASS
SURVEYING LTD
ALTA SURVEYS • TOPOGRAPHY • CONSTRUCTION STAKING
2631 GINGER WOODS PARKWAY, STE. 100
AURORA, IL 60502
PHONE: (630) 830-9100 FAX: (630) 830-0001 EMAIL: ADMIN@COMPASSSURVEYING.COM

SCALE: 1" = 20'

V0.1

A

A

A

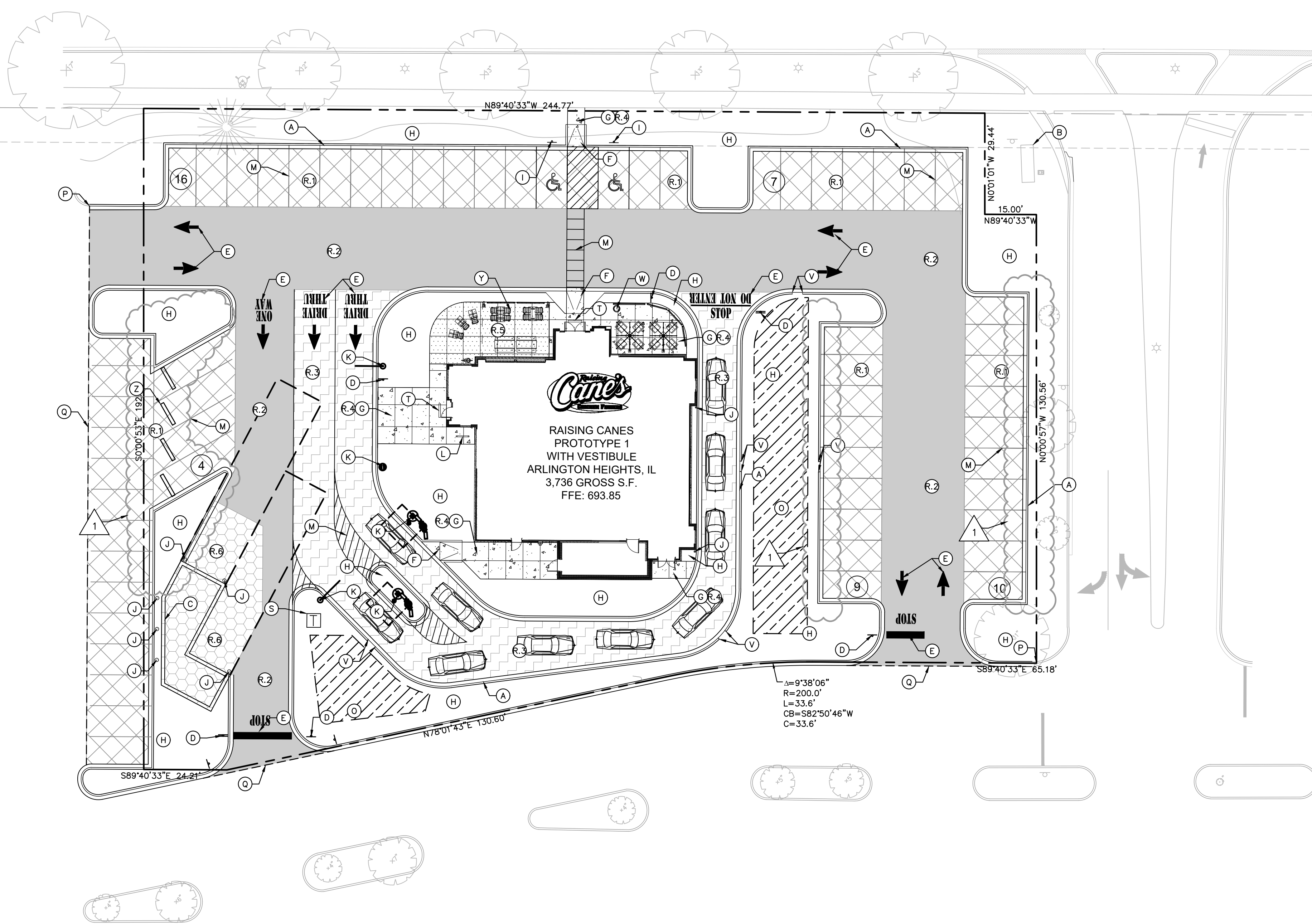
A

A

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NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 20-42-11

PALATINE ROAD



SITE LEGEND

(A)	B&I2 BARRIER CURB AND GUTTER. SEE CONSTRUCTION DETAILS.
(B)	EXISTING MULTI-TENANT MONUMENT SIGN.
(C)	RECYCLING/TRASH DUMPSTER LOCATION. SEE ARCHITECTURAL PLANS FOR DETAILS OF SCREENING, GATES, BOLLARDS AND MASONRY.
(D)	SITE DIRECTIONAL SIGN. SEE SHEET C5.2 - STRIPING AND SIGNAGE PLAN.
(E)	DIRECTIONAL PAVEMENT MARKING. SEE SHEET C5.2 - STRIPING AND SIGNAGE PLAN.
(F)	BARRIER FREE RAMP. SEE CONSTRUCTION DETAILS.
(G)	CONCRETE SIDEWALK. SEE CONSTRUCTION DETAILS.
(H)	LANDSCAPE AREA. SEE LANDSCAPE PLANS FOR DETAILS.
(I)	ACCESSIBLE PARKING SIGN.
(J)	6" PIPE BOLLARD. SEE CONSTRUCTION DETAILS.
(K)	DRIVE THRU ORDER BOARD, PRE-ORDER BOARD OR HEIGHT DETECTOR. SEE ARCHITECTURAL PLANS FOR DETAILS.
(L)	BIKE RACK. SEE ARCHITECTURAL PLANS FOR DETAILS.
(M)	PAVEMENT STRIPING. SEE SHEET C5.2 - STRIPING AND SIGNAGE PLAN.
(N)	PROPOSED FIRE HYDRANT. SEE SHEET C7.0 - UTILITY PLAN FOR DETAILS. (NOT USED)
(O)	BIORETENTION FACILITY. SEE CONSTRUCTION DETAILS
(P)	TIE PROPOSED CURB AND GUTTER TO EXISTING CURB & GUTTER WITH SMOOTH, CONTINUOUS TRANSITIONS.
(Q)	SAWCUT LINE.
(R-1)	STANDARD DUTY ASPHALT PAVEMENT. SEE CONSTRUCTION DETAILS.
(R-2)	HEAVY DUTY ASPHALT PAVEMENT. SEE CONSTRUCTION DETAILS .
(R-3)	HEAVY DUTY INTEGRAL COLORED CONCRETE PAVEMENT. SEE CONSTRUCTION DETAILS AND GENERAL NOTES.
(R-4)	STANDARD DUTY CONCRETE PAVEMENT. FOR SIDEWALK. SEE CONSTRUCTION DETAILS.
(R-5)	PATIO AREA PAVING. SEE ARCHITECTURAL PLANS FOR DETAILS.
(R-6)	HEAVY DUTY INTEGRAL COLORED CONCRETE PAVEMENT AT TRASH ENCLOSURE. SEE CONSTRUCTION DETAILS.
(S)	TRANSFORMER PAD LOCATION. SEE ELECTRICAL PLANS FOR DETAILS.
(T)	NoLA TILES. SEE ARCHITECTURAL PLANS FOR DETAILS.
(U)	LIGHT POLE. SEE LIGHTING PLANS FOR DETAILS.
(V)	CURB CUT. SEE SHEET C6.0 - GRADING PLAN FOR DETAILS
(W)	TRASH PAD. SEE ARCHITECTURAL PLANS FOR DETAILS
(X)	GUIDE RAIL IN CURB. SEE ARCHITECTURAL PLANS FOR DETAILS. (NOT USED)
(Y)	COVERED PATIO. SEE ARCHITECTURAL PLANS FOR DETAILS.
(Z)	CONCRETE WHEEL STOPS. SEE CONSTRUCTION DETAILS.

SITE ANALYSIS TABLE

TOWN AND COUNTRY CENTER		
EXISTING ZONING	B-2 GENERAL BUSINESS/PUD	
PROPOSED USE	RESTAURANT W/ DRIVE THRU	
LOT AREA	44,334 SF / 1.02 AC	
GROSS BUILDING AREA	3,736 SF	
NET SEATING AREA	1,754 SF	
	REQUIRED	PROVIDED
TOTAL PARKING	39 SPACES	46 SPACES
ACCESSIBLE	2 SPACES	2 SPACES

LEGEND

---	LEASE LINE
---	ADJACENT PROPERTY LINE
[Symbol]	PROPOSED CONCRETE CURB & GUTTER
[Symbol]	EXISTING CURB & GUTTER
[Symbol]	PROPOSED PARKING COUNT
[Symbol]	(R-1) STANDARD DUTY ASPHALT PAVEMENT. SEE CONSTRUCTION DETAILS.
[Symbol]	(R-2) HEAVY DUTY ASPHALT PAVEMENT. SEE CONSTRUCTION DETAILS.
[Symbol]	(R-3) HEAVY DUTY CONCRETE PAVEMENT. INTEGRAL COLOR 880 GRAPHITE (IRON OXIDE) SEE GENERAL NOTES - PAVING NOTES.
[Symbol]	(R-4) STANDARD DUTY CONCRETE FOR SIDEWALKS. SEE CONSTRUCTION DETAILS.
[Symbol]	(R-5) PATIO PAVEMENT. SEE ARCHITECTURAL PLANS.
[Symbol]	(R-6) HEAVY DUTY CONCRETE PAVEMENT AT TRASH ENCLOSURE. INTEGRAL COLOR 880 GRAPHITE (IRON OXIDE) SEE CONSTRUCTION DETAILS
[Symbol]	(O) BIORETENTION FACILITY. SEE CONSTRUCTION DETAILS

SITE NOTES

- ALL WORK AND MATERIALS SHALL COMPLY WITH ALL VILLAGE/COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR SITE LIGHTING & ELECTRICAL PLAN.
- REFERENCE ARCHITECTURAL PLANS FOR DUMPSTER ENCLOSURE DETAILS.
- EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COSTS SHALL BE INCLUDED IN BASE BID.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, (UNLESS OTHERWISE NOTED ON PLANS) INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES REQUIREMENTS AND PROJECT SITE WORK SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COSTS SHALL BE INCLUDED IN BASE BID.
- EXISTING SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM A SURVEY BY COMPASS SURVEYING, LTD. DATED DECEMBER 17TH 2018, AND REVISED MARCH 14, 2019.
- TOTAL LAND AREA IS 1.02 ACRES.
- ALL PROPOSED PAVING IN VILLAGE R.O.W. AND EASEMENTS TO CONFORM TO VILLAGE OF ARLINGTON HEIGHTS STANDARDS.
- CONTRACTOR SHALL ADJUST EXISTING VALVES, MANHOLE RIMS, ETC. AS NECESSARY TO MATCH FINISHED GRADE.
- REFERENCE LANDSCAPE PLANS FOR PROPOSED BUFFERS, SCREENING, AND PLANTING.
- THERE ARE EXISTING TREES ONSITE, REFER TO LANDSCAPE PLAN AND TREE PRESERVATION PLAN FOR TREES TO REMAIN.
- CONTRACTOR SHALL SAWCUT ALONG ALL EXISTING PAVEMENT TO PROVIDE CLEAN UNIFORM SURFACE TO TIE INTO PROPOSED PAVEMENT.

BENCHMARKS

LOCATIONS SHOWN ON SURVEY

REFERENCE BENCHMARK:
COOK COUNTY BENCHMARK DM3905, LOCATED IN PALATINE, 36 FEET NORTH OF THE CENTERLINE OF ANDERSON DRIVE, 17 FEET EAST OF THE CENTERLINE OF REYNOLDS DRIVE, 2.5 FEET WEST OF BACK OF SIDEWALK
DATUM: NAVD83 ELEVATION = 719.509

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SITE BENCHMARK #2
SOUTHWEST BOLT ON FIRE HYDRANT AT THE ENTRANCE TO MALL, NEAR THE NORTHEAST CORNER OF SITE. ELEVATION = 691.09

Δ=9°38'06"
R=200.0'
L=33.6'
CB=S82°50'46"W
C=33.6'

Restaurant Support Office
6800 Bishop Road, Plano, TX 75024
Tele: 972-769-3100 Fax: 972-769-3101

Store:

RAISING CANE'S #484
225 E. PALETINE ROAD
ARLINGTON HEIGHTS, IL

Architect & Project Manager:

ARCHITECTS, INC.
17710 Detroit Avenue Lakewood, Ohio 44107
Phone (216) 521-5134 Fax (216) 521-4824
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Set Control Information:

Setup / Update Date:

ADA Project Manager: JEFF POUNTNEY

Engineer's Information:

Kimley»Horn

2019 KIMLEY-HORN AND ASSOCIATES, INC.
1001 WARRENVILLE ROAD, SUITE 350, IL 60532
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PRELIMINARY ENGINEERING

Sheet Revisions: (sheet specific per Designer)

#	Date:	Description:
1	5/24/2019	DEVELOPMENT REVIEW #2

Sheet Title:

SITE KEYNOTE PLAN

Date: 04/12/2019

Project Number: 168418012

Drawn By: AEK

Checked By: JCC

Sheet Number:

C5.0

REVIEW SET - NOT FOR CONSTRUCTION



Store:

RAISING CANE'S #484
225 E. PALATINE ROAD
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**PRELIMINARY
ENGINEERING**

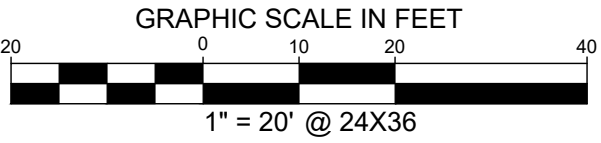
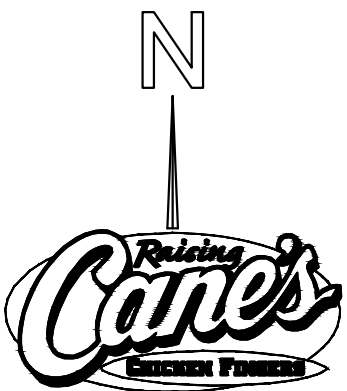
Sheet Revisions: (sheet specific per Designer)

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1	5/24/2019	DEVELOPMENT REVIEW #2

Sheet Title:

**DIMENSION
CONTROL PLAN**

Date:	04/12/2019
Project Number:	168418012
Drawn By:	AEK
Checked By:	JCC
Sheet Number:	C5.1

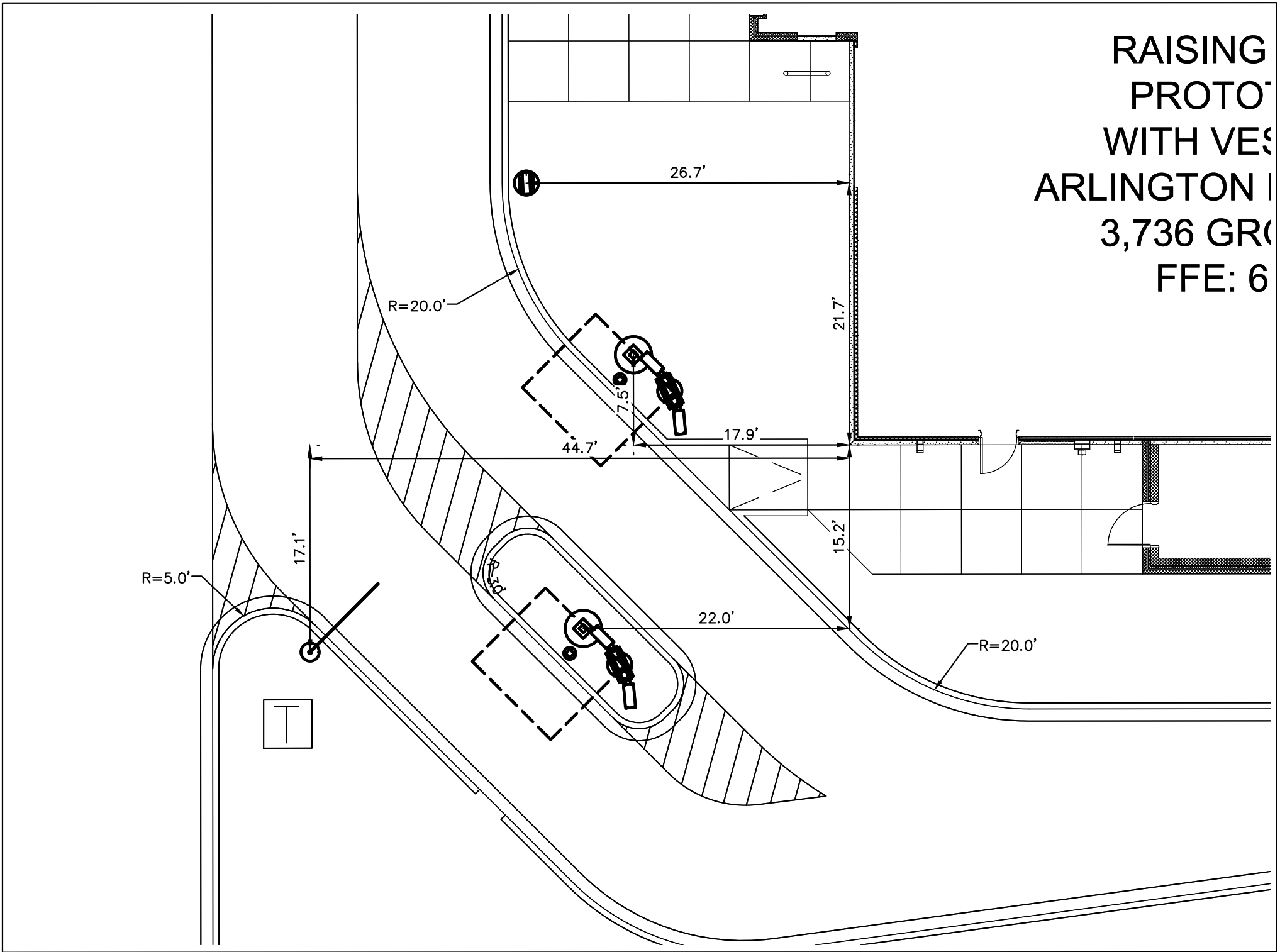


DIMENSION NOTES

1. ALL CURB RADII ARE TO BE 3' UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
3. ALL CURBS SHALL BE 6" STANDARD EXCEPT WHERE OTHERWISE NOTED ON PLANS.
4. REFERENCE LANDSCAPE PLANS FOR PROPOSED BUFFERS, SCREENING, AND PLANTING.

LEGEND

- LEASE LINE
- - - ADJACENT PROPERTY LINE
- PROPOSED CONCRETE CURB
- EXISTING CURB



INSET 1

SCALE: 1"=10'

REFERENCE ARCHITECTURAL PLANS FOR DETAILS AND EXACT LOCATION OF MENU BOARD,
HEIGHT DETECTOR AND PRE-ORDER BOARD.

BENCHMARKS

LOCATIONS SHOWN ON SURVEY

REFERENCE BENCHMARK:
COOK COUNTY BENCHMARK DM3905, LOCATED IN PALATINE, 36 FEET NORTH OF THE
CENTERLINE OF ANDERSON DRIVE, 17 FEET EAST OF THE CENTERLINE OF REYNOLDS
DRIVE, 2.5 FEET WEST OF BACK OF SIDEWALK.
DATUM: NAVD88 ELEVATION = 719.509

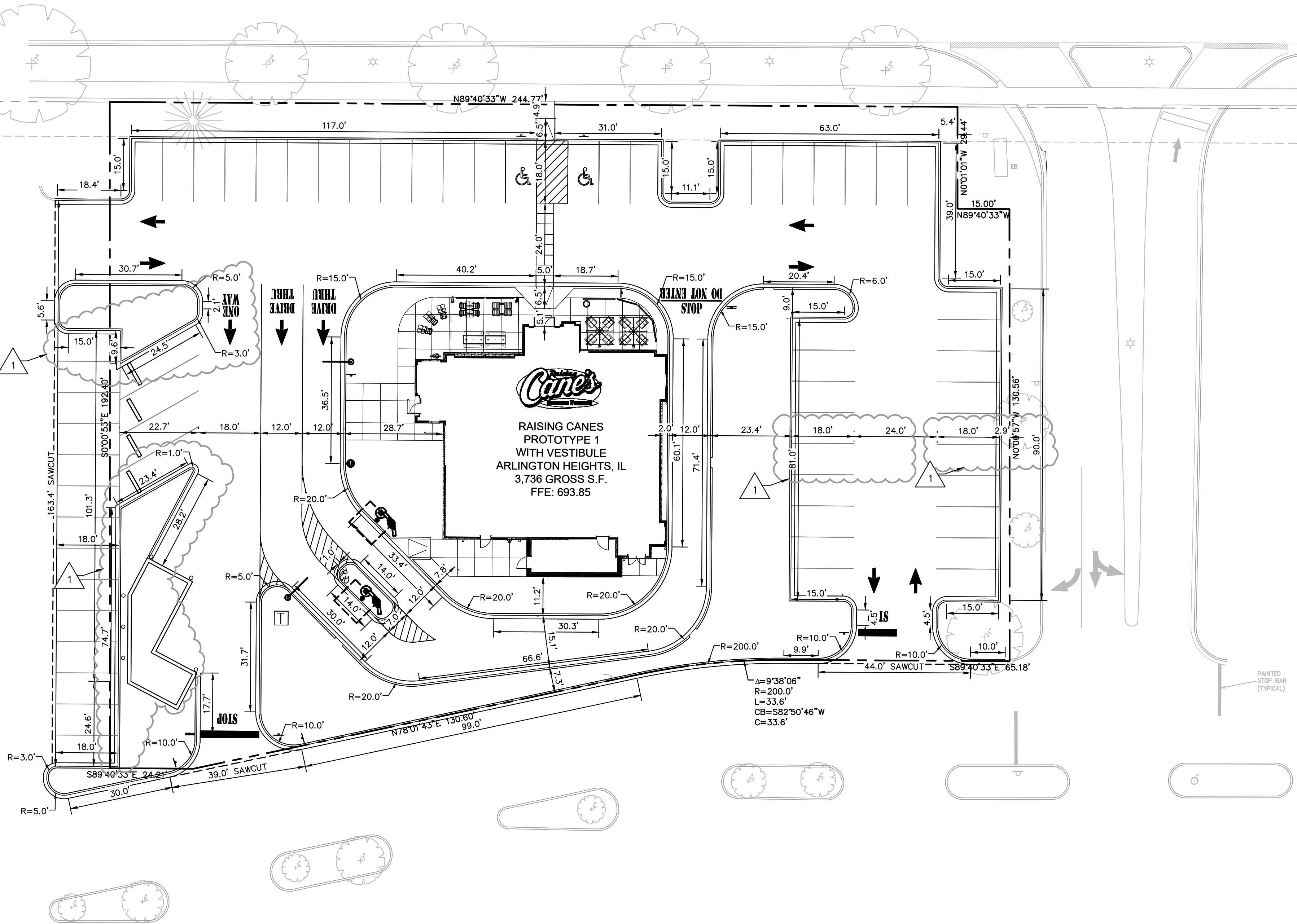
SITE BENCHMARKS:

SITE BENCHMARK #1
SOUTHEAST BOLT ON FIRE HYDRANT AT THE NORTHWEST CORNER OF SITE
ELEVATION = 696.74

SITE BENCHMARK #2
SOUTHWEST BOLT ON FIRE HYDRANT AT THE ENTRANCE TO MALL, NEAR THE
NORTHEAST CORNER OF SITE.
ELEVATION = 691.09



PALATINE ROAD



A

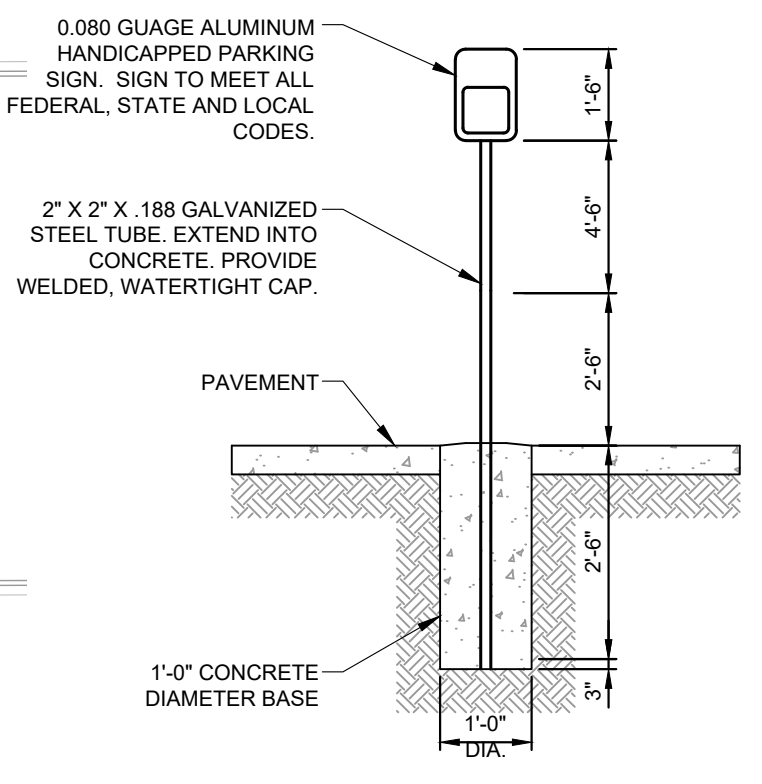
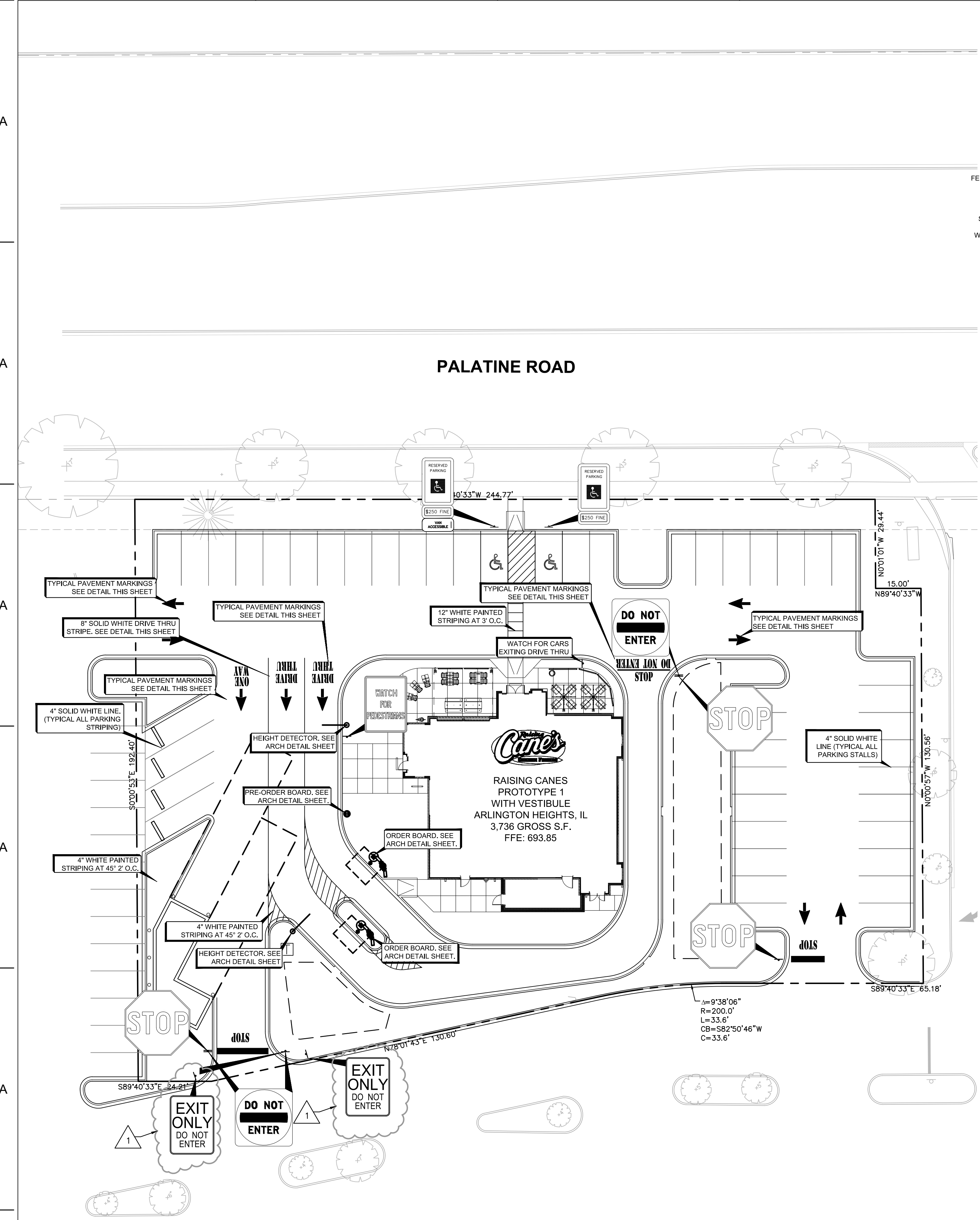
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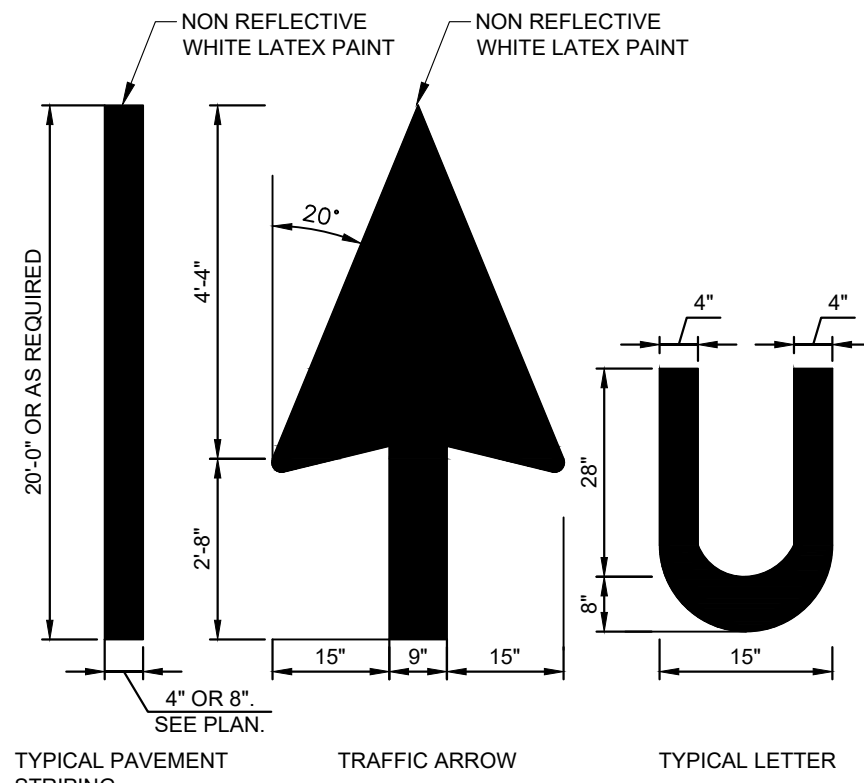
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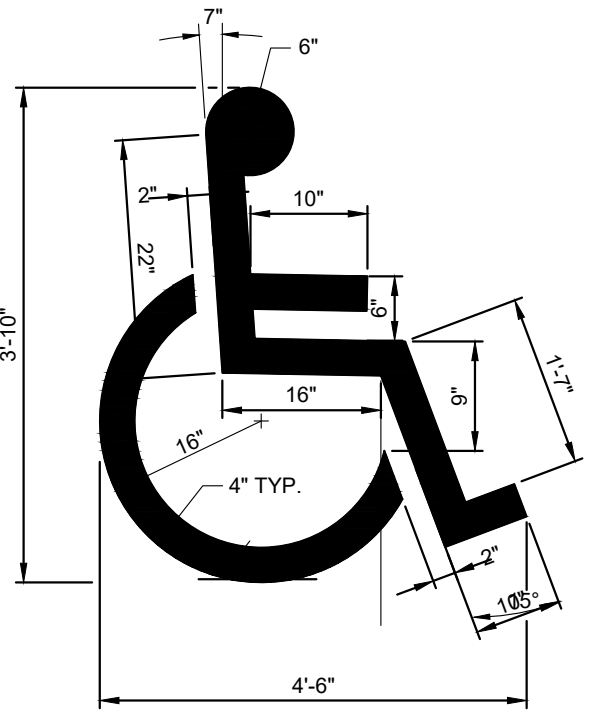
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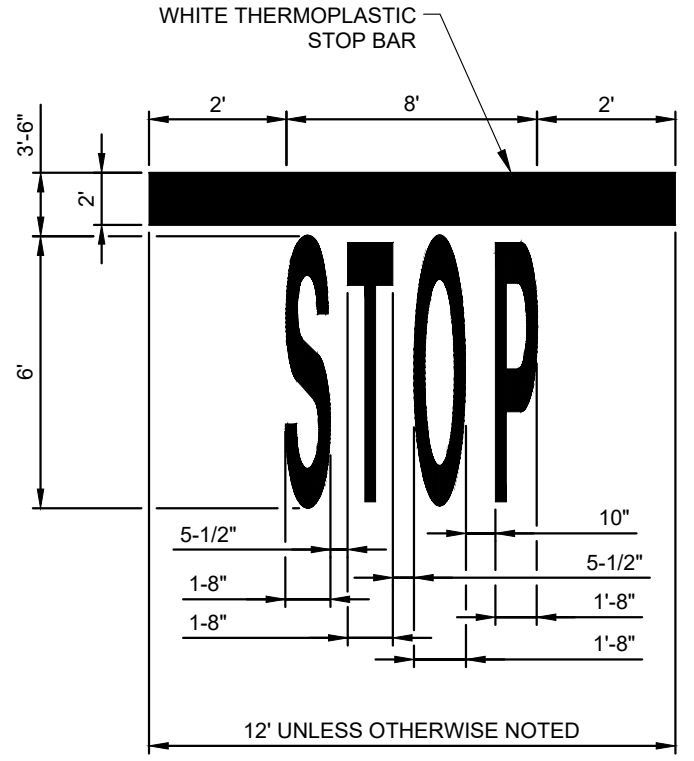
"HANDICAPPED PARKING" SIGN POST DETAIL
N.T.S.



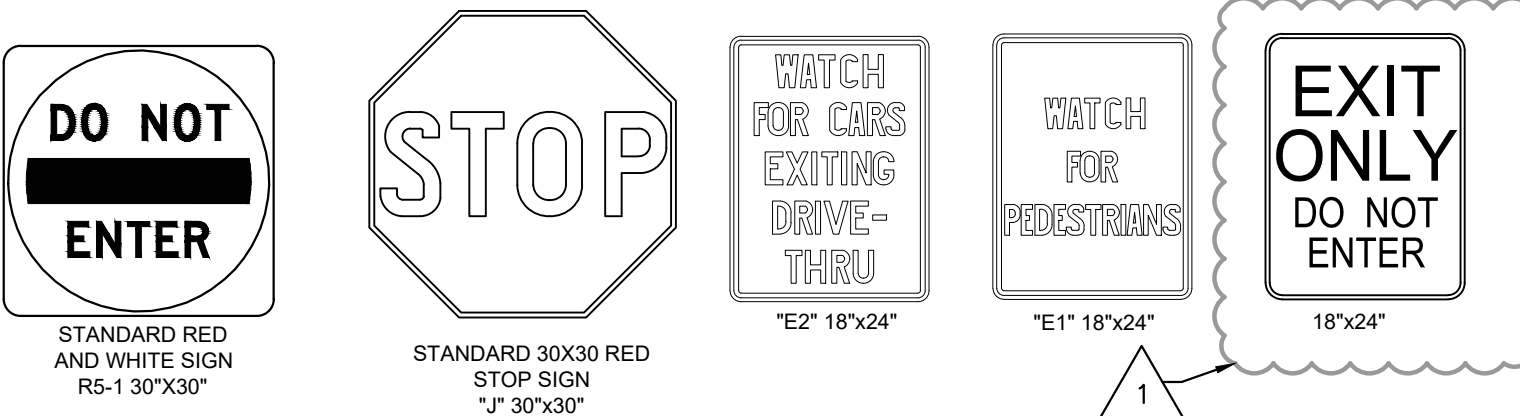
TYPICAL PAVEMENT MARKINGS
N.T.S.



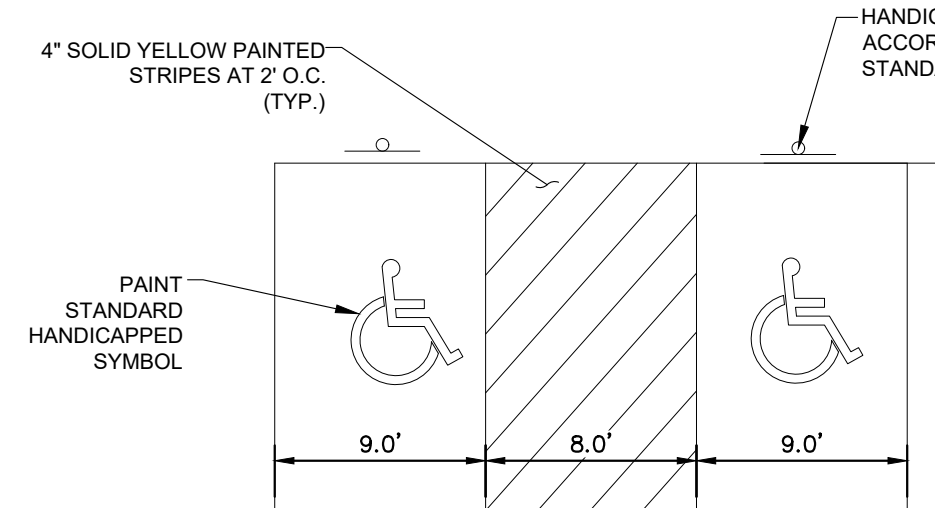
NOTE:
1. ALL TRAFFIC MARKINGS TO BE THERMOPLASTIC AS PER DIMENSIONS SHOWN.
2. HANDICAPPED PARKING SYMBOLS SHALL BE PAINTED YELLOW.
HANDICAPPED PARKING SYMBOL DETAIL
N.T.S.



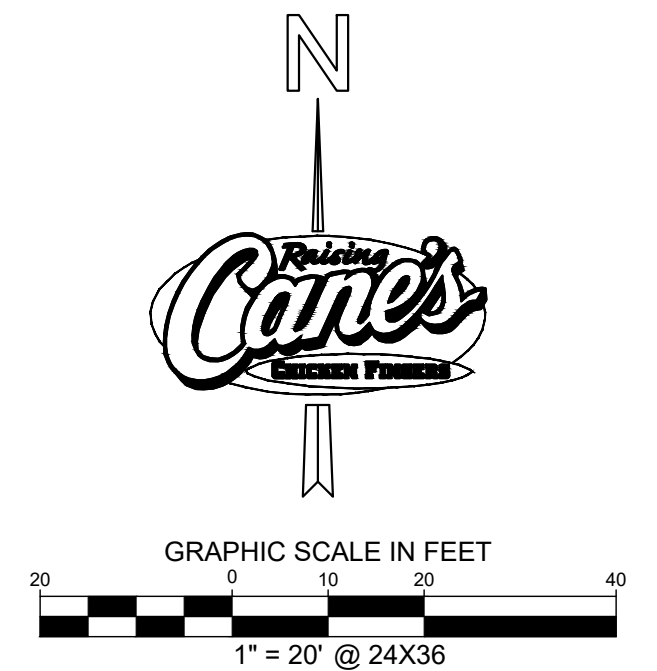
STOP BAR DETAIL
N.T.S.



STANDARD PARKING LOT SIGNS
N.T.S.



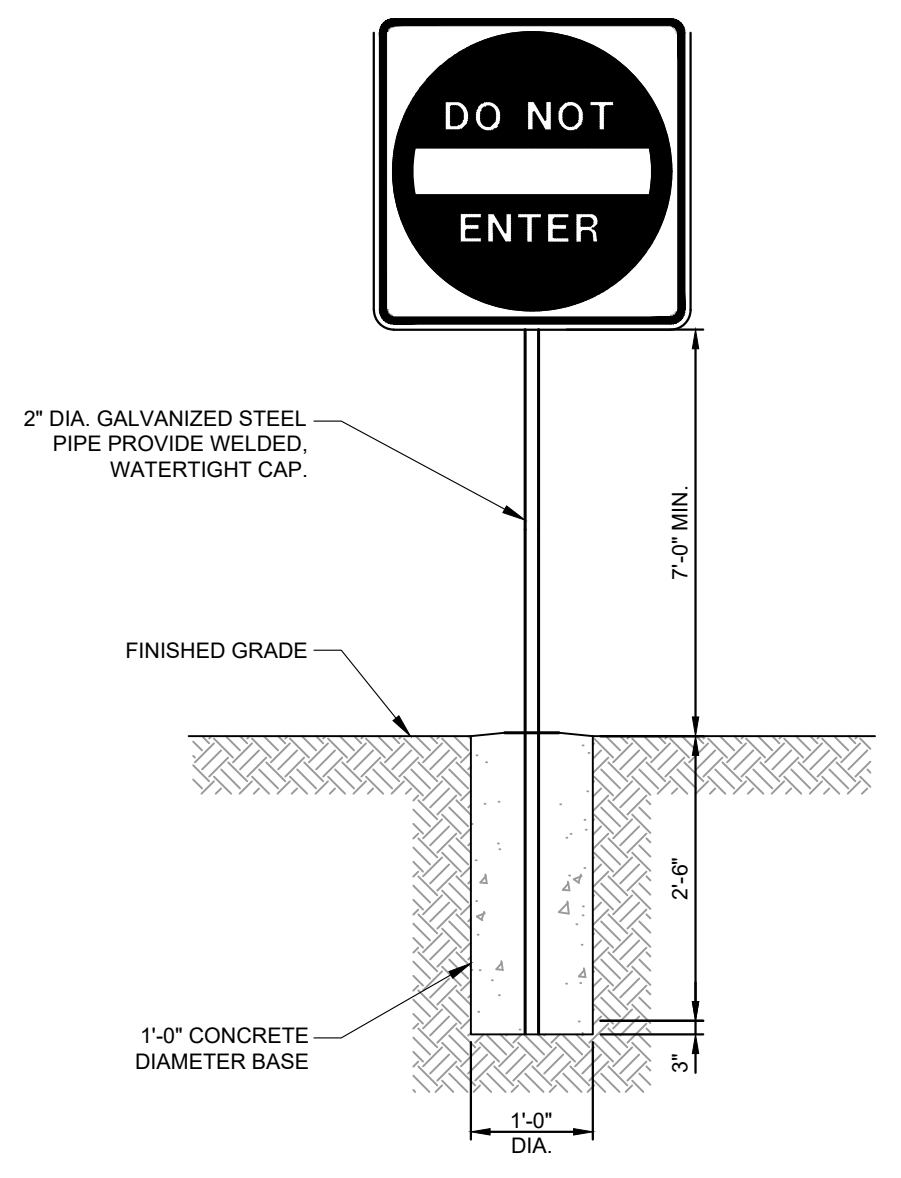
NOTES:
1. DIMENSIONS MAY VARY REFER TO SITE GEOMETRICS PLAN.
2. SIGNAGE AND MARKINGS TO BE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.
ACCESSIBLE PARKING DETAIL
N.T.S.



SITE LEGEND

---	LEASE LINE
---	ADJACENT PROPERTY LINE
---	PROPOSED CONCRETE CURB & GUTTER
---	EXISTING CONCRETE CURB & GUTTER

BENCHMARKS
LOCATIONS SHOWN ON SURVEY
REFERENCE BENCHMARK:
COOK COUNTY BENCHMARK DM3905, LOCATED IN PALATINE, 36 FEET NORTH OF THE CENTERLINE OF ANDERSON DRIVE, 17 FEET EAST OF THE CENTERLINE OF REYNOLDS DRIVE, 2.5 FEET WEST OF BACK OF SIDEWALK.
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SOUTHWEST BOLT ON FIRE HYDRANT AT THE ENTRANCE TO MALL, NEAR THE NORTHEAST CORNER OF SITE. ELEVATION = 691.09



SIGN POST DETAIL
N.T.S.



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PRELIMINARY ENGINEERING

Sheet Revisions: (sheet specific per Designer)

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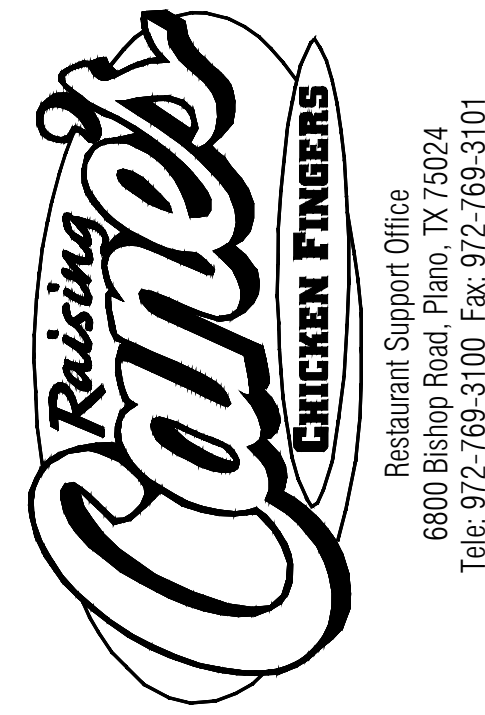
Sheet Title:

STRIPING AND SIGNAGE PLAN

Date: 04/12/2019
Project Number: 168418012
Drawn By: AEK
Checked By: JCC
Sheet Number:

C5.2

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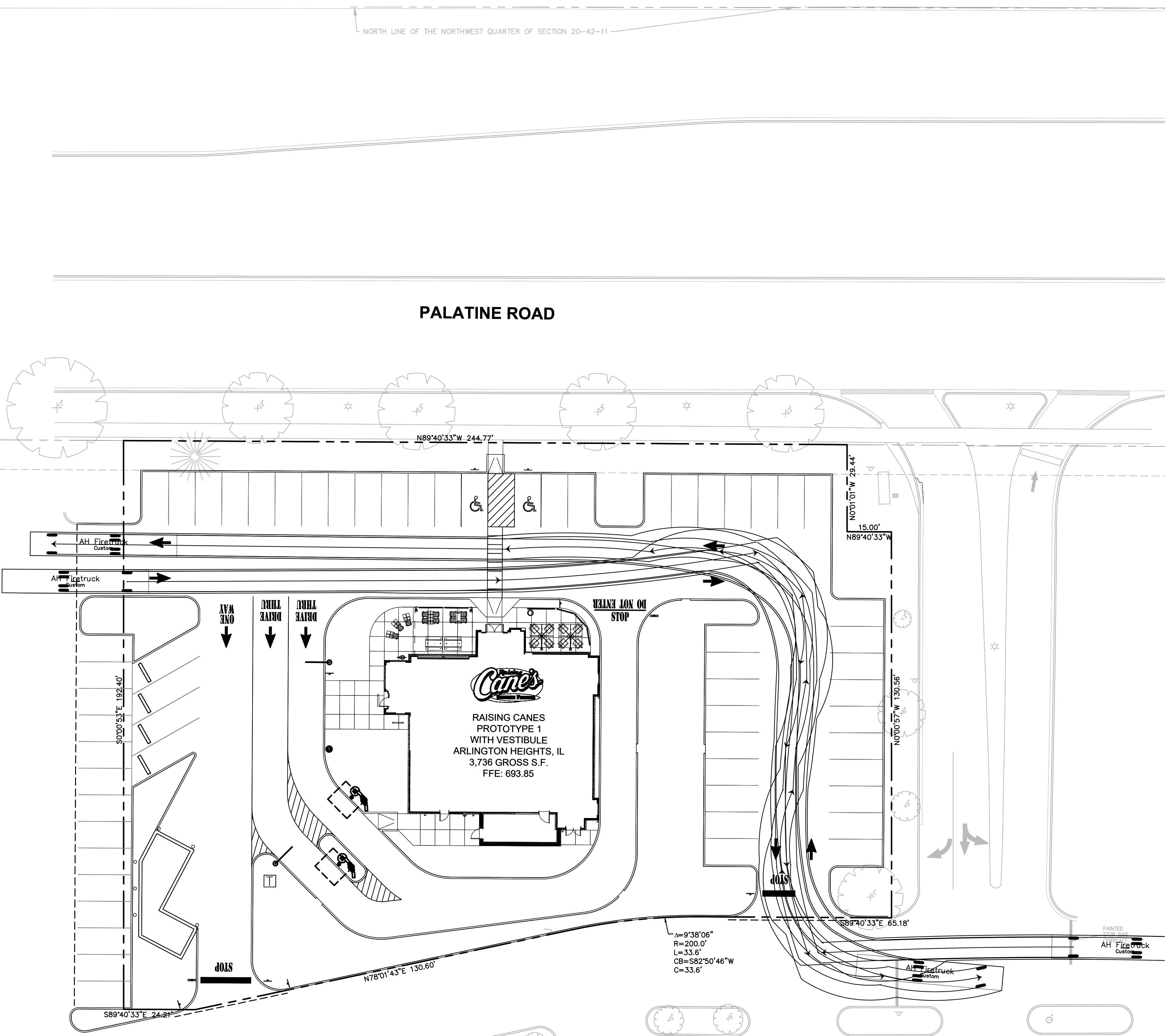
#	Date:	Description:
1	5/24/2019	DEVELOPMENT REVIEW #2

Sheet Title:

AUTOTURN PLAN

Date: 04/12/2019
Project Number: 168418012
Drawn By: AEK
Checked By: JCC
Sheet Number:

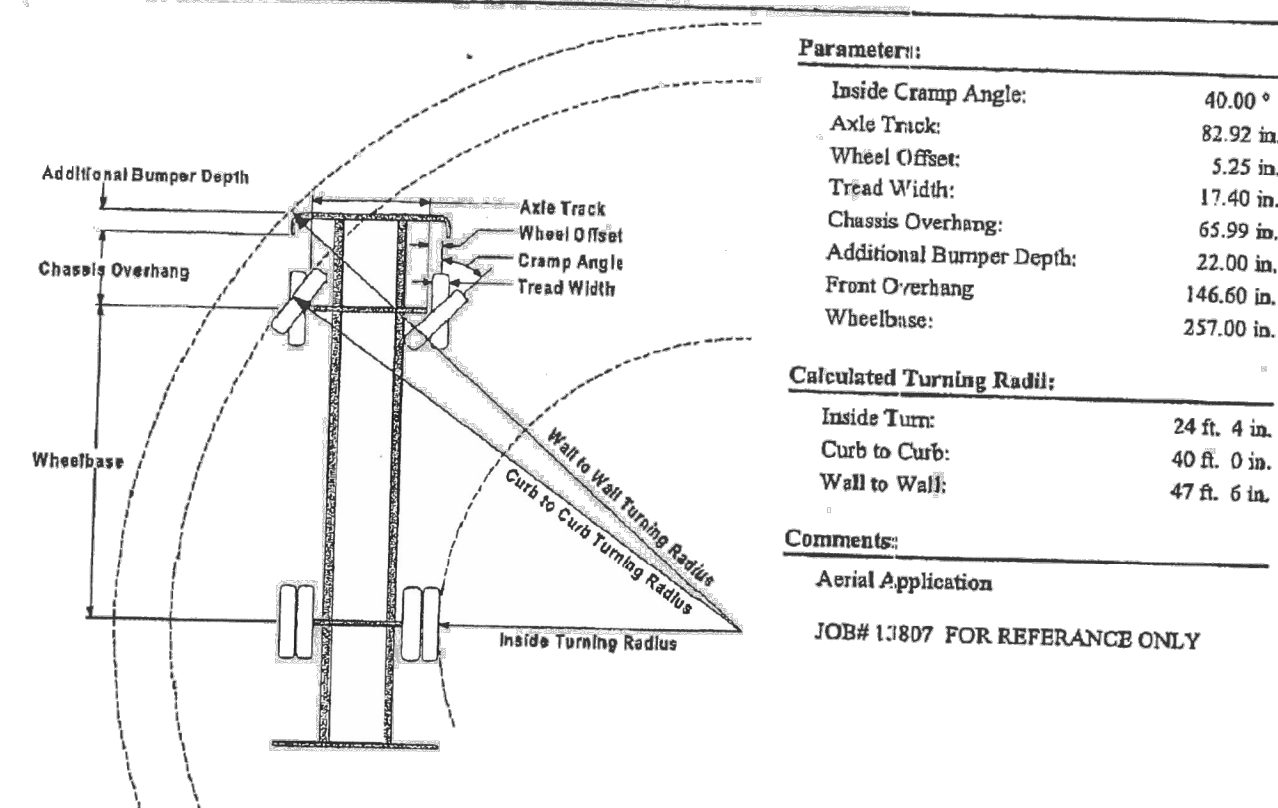
C5.3



Jun 03 2005 10:37AM Norman J. Toberman Assoc 8474398221 p. 4
08/03/06 PRI 10:45 PAX 920 832 3280 TECH SERVICE Q 004
6/3/2005



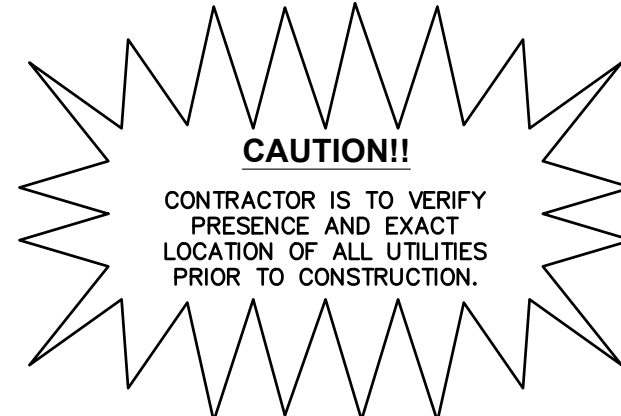
Turning Performance Analysis



Parameters:	
Inside Cramp Angle:	40.00 °
Axle Track:	82.92 in.
Wheel Offset:	5.25 in.
Tread Width:	17.40 in.
Chassis Overhang:	65.99 in.
Additional Bumper Depth:	22.00 in.
Front Overhang:	146.60 in.
Wheelbase:	257.00 in.
Calculated Turning Radii:	
Inside Turn:	24 ft. 4 in.
Curb to Curb:	40 ft. 0 in.
Wall to Wall:	47 ft. 6 in.
Comments:	
Aerial Application	
JOB# 13807 FOR REFERENCE ONLY	

Components	PRIDE #	Description
Front Axle	0090913	Axle, Front, Oshkosh TAK-4, Non Drive, 24,000 lb, D3X/Qm/AXT
Front Tires	0052978	Tires, Goodyear, 425/65R22.50 20 ply G286 tread
Chassis	0050220	Drive-2000 Chassis
Front Bumper	0012246	Bumper, 22" extended - all chassis
Aerial Device	0022160	Aerial, 100' Pierce Platform

Notes:
Actual Inside Cramp Angle may be less due to highly specialized options.
Curb to Curb turning radius calculated for a 9.00 inch curb.
Reduce turning radius by 33% if vehicle is equipped with all-wheel steer.





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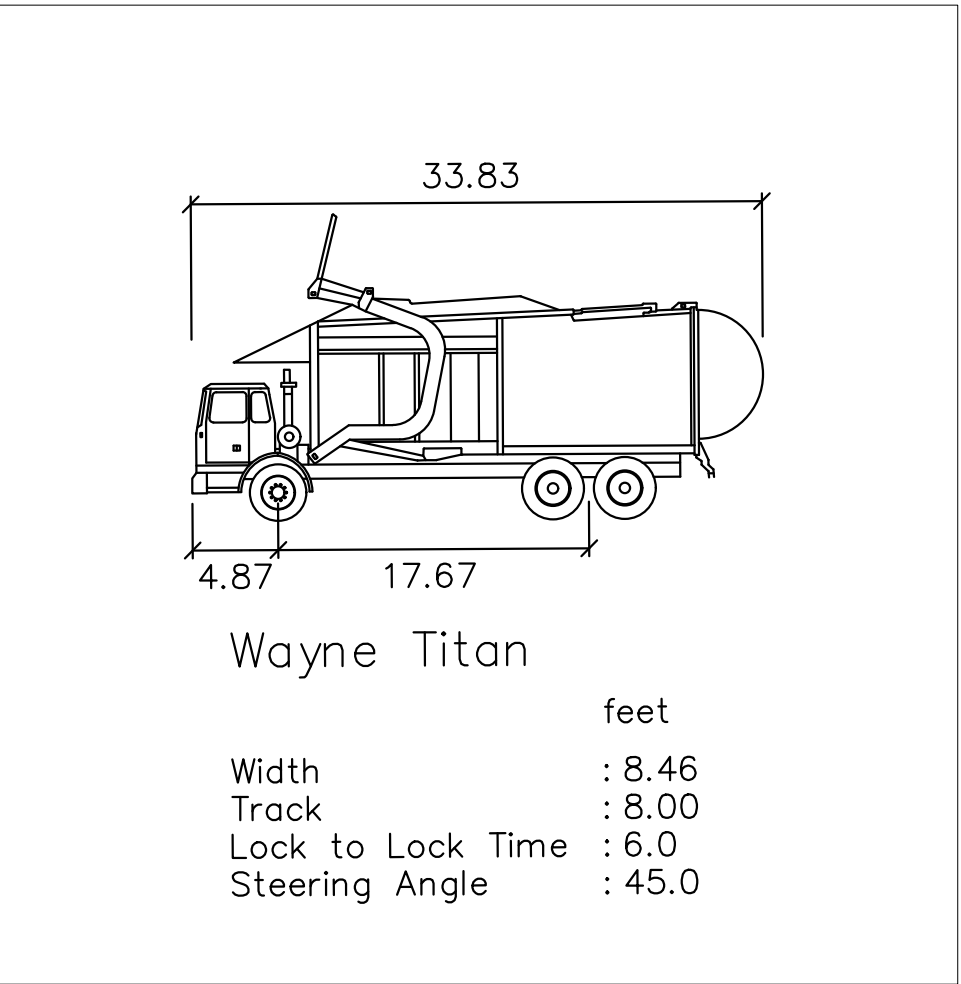
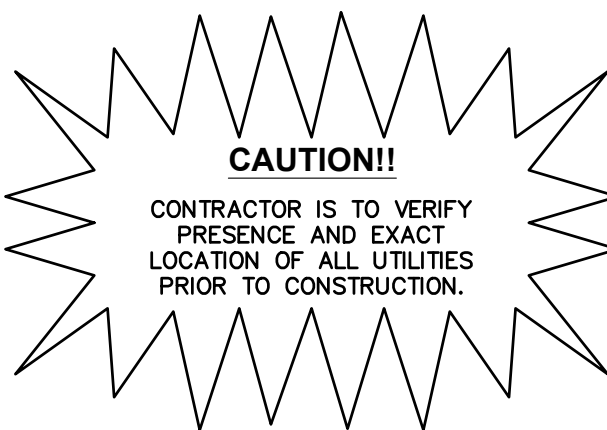
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AUTOTURN PLAN

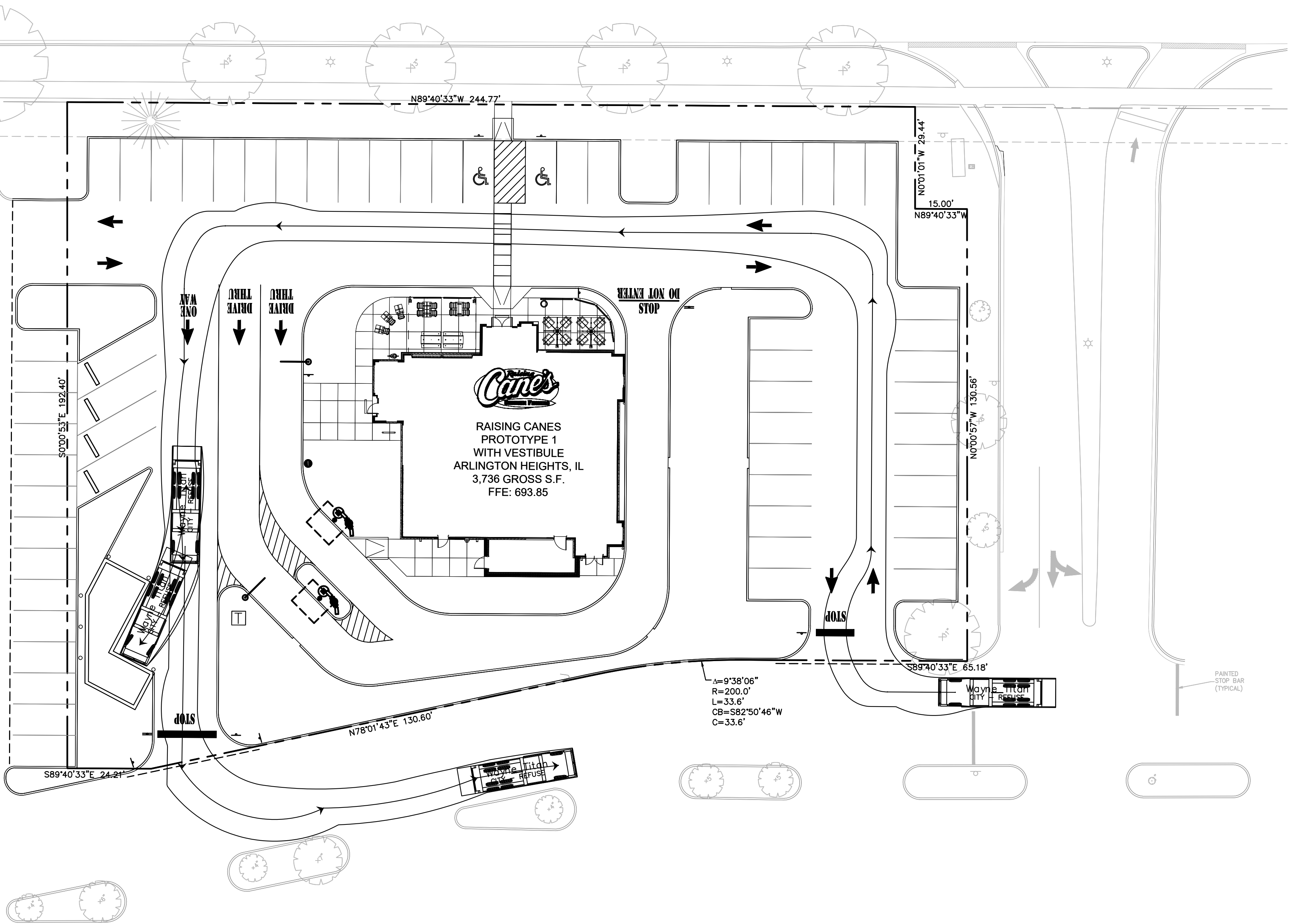
Date:	04/12/2019
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Drawn By:	AEK
Checked By:	JCC

Sheet Number:

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PALATINE ROAD



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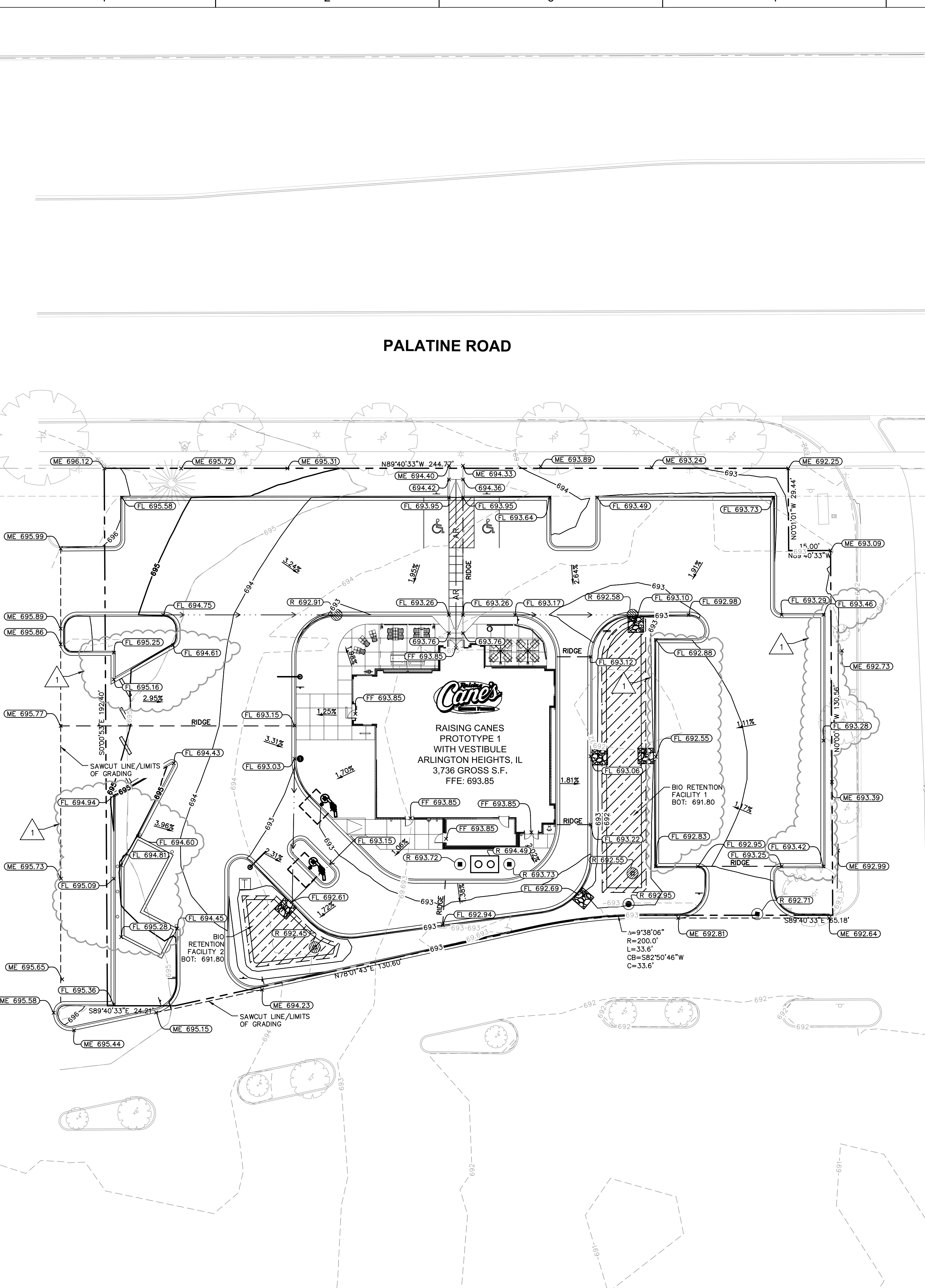
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PALATINE ROAD

GRADING NOTES

- ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THESE PLANS AND THE VILLAGE OF ARLINGTON HEIGHTS STANDARDS AND SPECIFICATIONS.
- PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL MAKE CERTAIN THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
- THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE COMMENCEMENT OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES. MINOR ADJUSTMENTS TO FINISH GRADE TO ACCOMPLISH SPOT DRAINAGE ARE ACCEPTABLE. IF NECESSARY, UPON PRIOR APPROVAL OF ENGINEER, PAVING INSTALLED SHALL "FLUSH OUT" AT ANY JUNCTURE WITH EXISTING PAVING.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
- EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.
- THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE EPA OR APPLICABLE STATE GENERAL N.P.D.E.S. PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
- FOR CURRENT TOPOGRAPHIC INFORMATION REFER TO SHEETS V0.0 AND V0.1 ALTA SURVEY. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
- ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 4H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH GOVERNING SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
- CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING FOOTPRINT DIMENSIONS.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND FINAL GEOTECH REPORT FOR BUILDING SUBGRADE PREPARATION REQUIREMENTS.
- CONTRACTOR SHALL ADJUST EXISTING VALVES, MANHOLE RIMS, ETC. AS NECESSARY TO MATCH FINISHED GRADE. CONTRACTOR SHALL CONFIRM ALL EXISTING MANHOLES WITHIN PROJECT AREA ARE IN COMPLIANCE WITH CURRENT VILLAGE OF ARLINGTON HEIGHTS AND COOK COUNTY REQUIREMENTS. CONTRACTOR SHALL IMPROVE STRUCTURES AS NECESSARY TO MEET CURRENT REQUIREMENTS.
- ALL ELEVATIONS ARE TOP OF PAVEMENT UNLESS NOTED OTHERWISE, TO GET TOP OF CURB ELEVATIONS ADD 6" TO THE ELEVATION SHOWN.
- GRADING FOR ALL SIDEWALKS AND ACCESSIBLE ROUTES INCLUDING CROSSING DRIVEWAYS SHALL CONFORM TO ADA STANDARDS. SLOPES SHALL NOT EXCEED 5% LONGITUDINAL SLOPE OR 2% CROSS SLOPE. SIDEWALK ACCESS TO EXTERNAL BUILDING DOORS SHALL BE ADA COMPLIANT. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF ADA CRITERIA CANNOT BE MET AT ANY LOCATION.
- ANY PROPOSED CONTOURS SHOWN ARE APPROXIMATE. PROPOSED SPOT ELEVATIONS AND DESIGNATED GRADIENT ARE TO BE USED IN THE EVENT OF ANY DISCREPANCIES.
- REFER TO EROSION CONTROL PLAN FOR EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO COMMENCING GRADING OPERATIONS.
- ALL VEGETATION SHALL BE CLEARED AND GRUBBED FOR ALL AREAS TO BE DISTURBED.
- ALL FILL TO BE PLACED SHALL BE IN ACCORDANCE WITH THE CURRENT APPLICABLE GEOTECHNICAL REPORT RECOMMENDATIONS.

GRADING LEGEND

- PROPOSED LEASE LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- 700 EXISTING CONTOUR
- 700 PROPOSED CONTOUR
- AR ACCESSIBLE ROUTE
- 1.00% PROPOSED FLOW ARROW WITH SLOPE
- FL FLOW LINE
- TS TOP OF SLAB (DUMPSTER PAD)
- ME MATCH EXISTING ELEVATION
- FG FINISHED GRADE
- EG EXISTING GRADE
- R RIM ELEVATION
- PROPOSED RIDGE
- SAWCUT LINE
- PROPOSED SWALE
- 100 YEAR OVERLAND FLOW ROUTE

UTILITY LEGEND

- EX. HYDRANT
- EX. SANITARY SEWER MANHOLE
- EX. STORM MANHOLE
- EX. STORM STRUCTURE
- PROPOSED STORM STRUCTURE
- PROPOSED SANITARY MANHOLE
- PROPOSED STORM/SANITARY CLEANOUT
- PROPOSED WATER STRUCTURE
- PROPOSED TRANSFORMER
- LIGHT POLE



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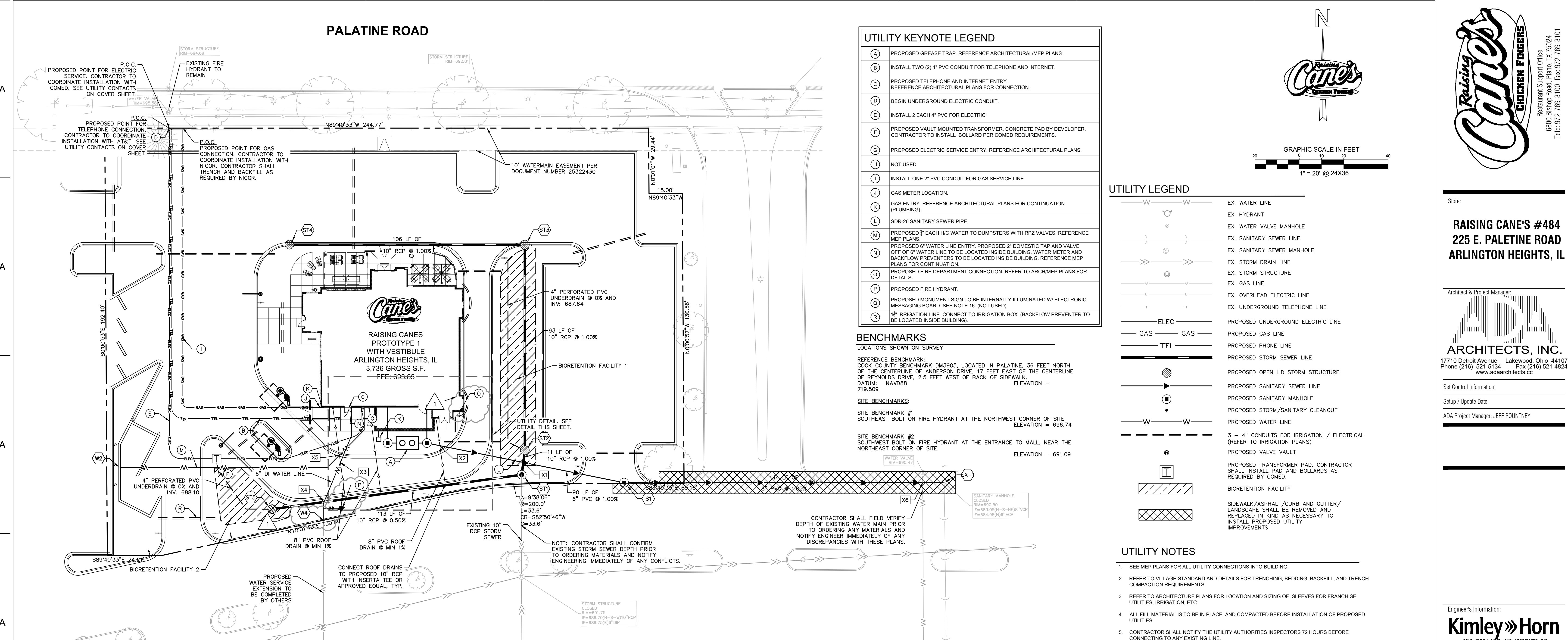
Sheet Title:

GRADING PLAN

Date:	04/12/2019
Project Number:	168418012
Drawn By:	AEK
Checked By:	JCC
Sheet Number:	C6.0

C6.0

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UTILITY KEYNOTE LEGEND	
(A)	PROPOSED GREASE TRAP. REFERENCE ARCHITECTURAL/MEP PLANS.
(B)	INSTALL TWO (2) 4" PVC CONDUIT FOR TELEPHONE AND INTERNET.
(C)	PROPOSED TELEPHONE AND INTERNET ENTRY. REFERENCE ARCHITECTURAL PLANS FOR CONNECTION.
(D)	BEGIN UNDERGROUND ELECTRIC CONDUIT.
(E)	INSTALL 2 EACH 4" PVC FOR ELECTRIC
(F)	PROPOSED VAULT MOUNTED TRANSFORMER. CONCRETE PAD BY DEVELOPER. CONTRACTOR TO INSTALL BOLLARD PER COMED REQUIREMENTS.
(G)	PROPOSED ELECTRIC SERVICE ENTRY. REFERENCE ARCHITECTURAL PLANS.
(H)	NOT USED
(I)	INSTALL ONE 2" PVC CONDUIT FOR GAS SERVICE LINE
(J)	GAS METER LOCATION.
(K)	GAS ENTRY. REFERENCE ARCHITECTURAL PLANS FOR CONTINUATION (PLUMBING).
(L)	SDR-26 SANITARY SEWER PIPE.
(M)	PROPOSED 3/4" EACH H/C WATER TO DUMPSTERS WITH RPZ VALVES. REFERENCE MEP PLANS.
(N)	PROPOSED 6" WATER LINE ENTRY. PROPOSED 2" DOMESTIC TAP AND VALVE OFF OF 6" WATER LINE TO BE LOCATED INSIDE BUILDING. WATER METER AND BACKFLOW PREVENTERS TO BE LOCATED INSIDE BUILDING. REFERENCE MEP PLANS FOR CONTINUATION.
(O)	PROPOSED FIRE DEPARTMENT CONNECTION. REFER TO ARCH/MEP PLANS FOR DETAILS.
(P)	PROPOSED FIRE HYDRANT.
(Q)	PROPOSED MONUMENT SIGN TO BE INTERNALLY ILLUMINATED W/ ELECTRONIC MESSAGING BOARD. SEE NOTE 16, (NOT USED).
(R)	12" IRRIGATION LINE. CONNECT TO IRRIGATION BOX. (BACKFLOW PREVENTER TO BE LOCATED INSIDE BUILDING).

BENCHMARKS
LOCATIONS SHOWN ON SURVEY

REFERENCE BENCHMARK:
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DATUM: NAVD88 ELEVATION = 719.509

SITE BENCHMARKS:

SITE BENCHMARK #1
SOUTHEAST BOLT ON FIRE HYDRANT AT THE NORTHWEST CORNER OF SITE. ELEVATION = 696.74

SITE BENCHMARK #2
SOUTHWEST BOLT ON FIRE HYDRANT AT THE ENTRANCE TO MALL, NEAR THE NORTHEAST CORNER OF SITE. ELEVATION = 691.09

UTILITY LEGEND	
W	EX. WATER LINE
H	EX. HYDRANT
WV	EX. WATER VALVE MANHOLE
S	EX. SANITARY SEWER LINE
SM	EX. SANITARY SEWER MANHOLE
SD	EX. STORM DRAIN LINE
ST	EX. STORM STRUCTURE
G	EX. GAS LINE
OE	EX. OVERHEAD ELECTRIC LINE
UT	EX. UNDERGROUND TELEPHONE LINE
UE	PROPOSED UNDERGROUND ELECTRIC LINE
UG	PROPOSED GAS LINE
UTL	PROPOSED PHONE LINE
SS	PROPOSED STORM SEWER LINE
OS	PROPOSED OPEN LID STORM STRUCTURE
SSM	PROPOSED SANITARY SEWER LINE
SMH	PROPOSED SANITARY MANHOLE
SSC	PROPOSED STORM/SANITARY CLEANOUT
WL	PROPOSED WATER LINE
3-4	3 - 4" CONDUITS FOR IRRIGATION / ELECTRICAL (REFER TO IRRIGATION PLANS)
VV	PROPOSED VALVE VAULT
TP	PROPOSED TRANSFORMER PAD. CONTRACTOR SHALL INSTALL PAD AND BOLLARDS AS REQUIRED BY COMED.
BF	BIORETENTION FACILITY
SA	SIDEWALK/ASPHALT/CURB AND GUTTER/ LANDSCAPE SHALL BE REMOVED AND REPLACED IN KIND AS NECESSARY TO INSTALL PROPOSED UTILITY IMPROVEMENTS

- UTILITY NOTES**
- SEE MEP PLANS FOR ALL UTILITY CONNECTIONS INTO BUILDING.
 - REFER TO VILLAGE STANDARD AND DETAILS FOR TRENCHING, BEDDING, BACKFILL, AND TRENCH COMPACTION REQUIREMENTS.
 - REFER TO ARCHITECTURE PLANS FOR LOCATION AND SIZING OF SLEEVES FOR FRANCHISE UTILITIES, IRRIGATION, ETC.
 - ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
 - CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
 - ALL SANITARY SEWER LINES SHALL BE PVC MEETING, ASTM D-3034 SDR 26 EXCEPT FOR SANITARY SEWER THAT CROSSES ABOVE WATER MAIN. THIS PIPE SHALL BE AWWA C900 (UNLESS WATER MAIN CASING IS UTILIZED). PROVIDE 42" MINIMUM COVER.
 - WATER LINES SHALL BE AS FOLLOWS:
PRIVATE (LARGER THAN 3 INCHES): DUCTILE IRON PIPE, CLASS 52 OR POLYVINYL CHLORIDE PLASTIC PIPE (ASTM D-312 AND AWWA C900)
PRIVATE (3 INCHES OR SMALLER): TYPE "K" SOFT COPPER, ASTM B88
 - CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE VILLAGE OF ARLINGTON HEIGHTS WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER LINE.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO DEFLECT ELECTRIC, GAS, CABLE, AND TELEPHONE CONDUIT AND PIPING AS REQUIRED TO AVOID UTILITY CONFLICTS.
 - THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
 - CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY PERMITS, INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY VILLAGE CODES AND/OR UTILITY SERVICE COMPANIES.
 - CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS IN REGARDS TO TAPS, HYDRANTS, VALVES, ETC.
 - CONTRACTOR IS RESPONSIBLE FOR PAVEMENT REPLACEMENT REQUIRED FOR ALL UTILITY INSTALLATIONS PER VILLAGE OF ARLINGTON HEIGHTS STANDARDS.
 - WATER TIGHT CONNECTION SHALL BE MADE USING A RESILIENT CONNECTOR "SEAL BOOT" PER ASTM C-923.
 - CONTRACTOR SHALL MAINTAIN A MINIMUM OF 5.5 FEET COVER ON ALL WATER LINES.

STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
ST1	4' DIA STORM MH (TYPE A) WITH NEENAH R-1772 FRAME/LID TO BE CONSTRUCTED ON TOP OF EXISTING 10" STORM SEWER RIM: 692.95 INV IN: 687.53 (N) INV IN: 687.53 (W) INV OUT: 687.43 (S)
ST2	4' DIA (TYPE A) CATCH BASIN WITH NEENAH R-4340-B GRATE. CONNECT UNDERDRAIN FOR BIORETENTION FACILITY 1 RIM: 692.55 INV IN: 687.64 (N) INV OUT: 687.64 (S)
ST3	4' DIA (TYPE A) CATCHBASIN WITH NEENAH R-2540 FRAME/GRATE RIM: 692.58 INV IN: 688.57 (W) INV OUT: 688.57 (S)

STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
ST4	2' DIA STORM INLET WITH NEENAH R-2540 FRAME/GRATE RIM: 692.91 INV OUT: 689.63 (E)
ST5	2' DIA STORM INLET WITH NEENAH R-4340-B GRATE. CONNECT UNDERDRAIN FOR BIORETENTION FACILITY 2 RIM: 692.45 INV OUT: 688.10 (E)

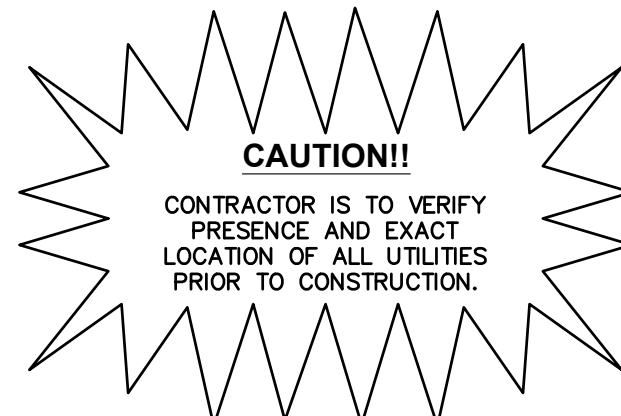
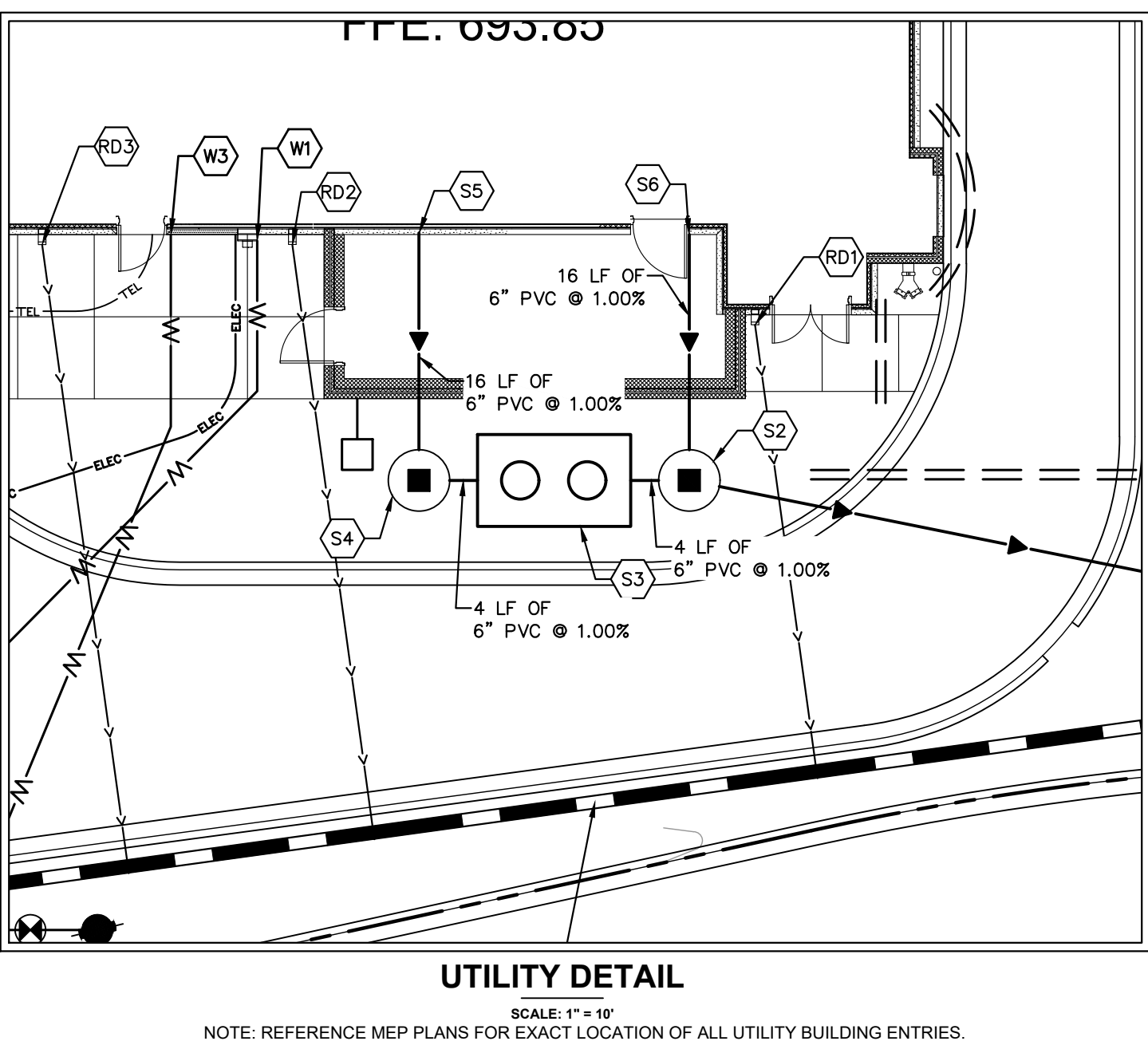
SANITARY STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
EX-1	CONNECT TO EXISTING SANITARY MH RIM: 692.61 INV IN: 683.15 (W) INV IN: 684.98 (N) INV OUT: 683.05 (S) INV OUT: 683.05 (NE)
S1	4' DIA SANITARY MH RIM: 692.71 INV IN: 684.69 (W) INV OUT: 684.59 (E)
S2	4' DIA SANITARY DROP MH RIM: 693.73 INV IN: 688.26 (W) INV IN: 688.64 (N) INV OUT: 685.60 (E)
S3	GREASE TRAP RIM: 694.49 INV IN: 688.50 (W) INV OUT: 688.30 (E)

SANITARY STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
S4	4' DIA SANITARY MH RIM: 693.72 INV IN: 688.64 (N) INV OUT: 688.54 (E)
S5	SANITARY BUILDING CONNECTION FOR GREASE TRAP RIM: 693.85 INV OUT: 688.80 (S)
S6	SANITARY BUILDING CONNECTION FOR WASTE RIM: 693.85 INV OUT: 688.80 (S)

ROOF DRAIN STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
RD1	ROOF DRAIN INV OUT: 688.00 (S)
RD2	ROOF DRAIN INV OUT: 688.24 (S)
RD3	ROOF DRAIN INV OUT: 688.34 (S)

WATER STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
W1	3/4" WATER BUILDING CONNECTION
W2	3/4" WATER CONNECTION TO TRASH ENCLOSURE
W3	6" FIRE WATER BUILDING CONNECTION
W4	CONNECT TO 6" STUB LEFT BY OTHERS

UTILITY CROSSING LEGEND			
X1	10" STORM 6" SAN.	B/P = 688.54 T/P = 685.67	NOTE: WHERE THERE IS LESS THAN 10 FT HORIZONTAL OR 18-IN VERTICAL SEPARATION BETWEEN A SEWER AND WATER MAIN, OR IF WATER MAIN CROSSES UNDER A SEWER, WATER MAIN QUALITY PIPE IS TO BE USED TO CONSTRUCT THE SEWER OR EITHER PIPE IS TO BE ENCASED. THE PROTECTION MUST EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE DISTANCE BETWEEN THE WATER MAIN AND SEWER IS AT LEAST 10 FT. ACCEPTABLE WATER MAIN QUALITY PIPE INCLUDES PVC SDR/VMOQ MEETING ASTM D2241 WITH JOINTS MEETING ASTM D3153 OR DUCTILE IRON PIPE. RCP STORM SEWER WITH FLEXIBLE GASKET JOINTS MEETING ASTM C361 OR ASTM C443 IS ALSO ACCEPTABLE AT CROSSINGS.
X2	6" STORM 6" SAN.	B/P = 690.28 T/P = 688.54	
X3	6" STORM 6" WATER	B/P = 690.28 T/P = 688.78	
X4	10" STORM 6" WATER	B/P = 690.38 T/P = 688.88	
X5	6" STORM 6" WATER	B/P = 690.55 T/P = 689.05	
X6	6" WATER 6" SSWR	B/P = 684.47 T/P = 683.75	



CHICKEN FINGERS

Restaurant Support Office
6800 Bishop Road, Plano, TX 75024
Tel: 972-769-3100 Fax: 972-769-3101

Store:

RAISING CANE'S #484
225 E. PALETINE ROAD
ARLINGTON HEIGHTS, IL

Architect & Project Manager:

ARCHITECTS, INC.
17710 Detroit Avenue Lakewood, Ohio 44107
Phone (216) 521-5134 Fax (216) 521-4824
www.adaarchitects.cc

Set Control Information:

Setup / Update Date:

ADA Project Manager: JEFF POUNTNEY

Engineer's Information:

Kimley»Horn

2019 KIMLEY-HORN AND ASSOCIATES, INC.
1001 WARRENVILLE ROAD, SUITE 350, IL 60532
PHONE: 630-487-5550
WWW.KIMLEY-HORN.COM

PRELIMINARY ENGINEERING		
Sheet Revisions: (sheet specific per Designer)		
#	Date:	Description:
1	5/24/2019	DEVELOPMENT REVIEW #2
Sheet Title:		

UTILITY PLAN

Date: 04/12/2019

Project Number: 168418012

Drawn By: AEK

Checked By: JCC

Sheet Number:

C7.0

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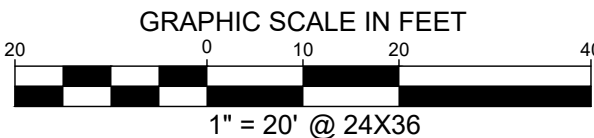
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TREE INVENTORY

Tree #	Botanical Name	Common Name	Size (Cal.)	Condition	Action	Replacement
1	Gleditsia triacanthos	Honey Locust	17"	Good	Preserve	
2	Pinus Nigra	Austrian Pine	17"	Fair	Preserve	
3	Gleditsia triacanthos	Honey Locust	12"	Good	Preserve	
4	Gleditsia triacanthos	Honey Locust	13"	Good	Preserve	
5	Gleditsia triacanthos	Honey Locust	13"	Good	Preserve	
6	Gleditsia triacanthos	Honey Locust	13"	Good	Preserve	
7	Gleditsia triacanthos	Honey Locust	3"	Good	Remove	2
8	Gleditsia triacanthos	Honey Locust	3"	Good	Remove	2
9	Gleditsia triacanthos	Honey Locust	4"	Good	Remove	2
10	Gleditsia triacanthos	Honey Locust	3"	Good	Preserve	
11	Gleditsia triacanthos	Honey Locust	8"	Fair	Preserve	
12	Gleditsia triacanthos	Honey Locust	5"	Good	Preserve	
13	Gleditsia triacanthos	Honey Locust	11"	Fair	Preserve	
14	Ulmus	Elm	4"	Fair	Remove	2
15	Ulmus	Elm	2"	Fair	Remove	0
16	Ulmus	Elm	4"	Good	Remove	2
17	Acer	Maple	7"	Fair	Remove	2
18	Gleditsia triacanthos	Honey Locust	5"	Good	Remove	2
						14 Total Replacement Trees

*Tree inventory w as performed during dormant season, species and condition may be different than identified.



Store:

RAISING CANE'S #484
225 E. PALETINE ROAD
ARLINGTON HEIGHTS, IL

Architect & Project Manager:

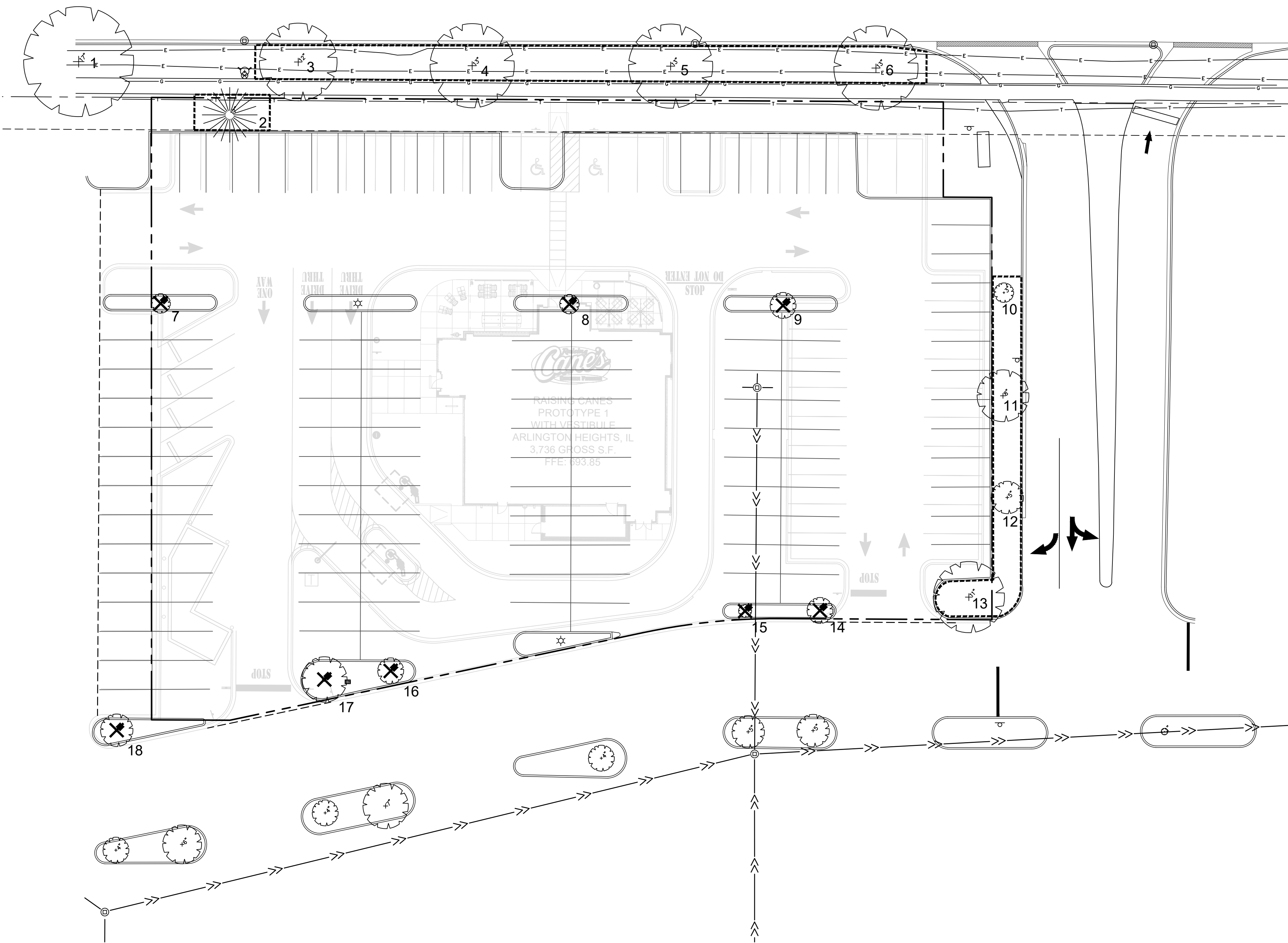


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Setup / Update Date:

ADA Project Manager: JEFF POUNTNEY

PALATINE ROAD

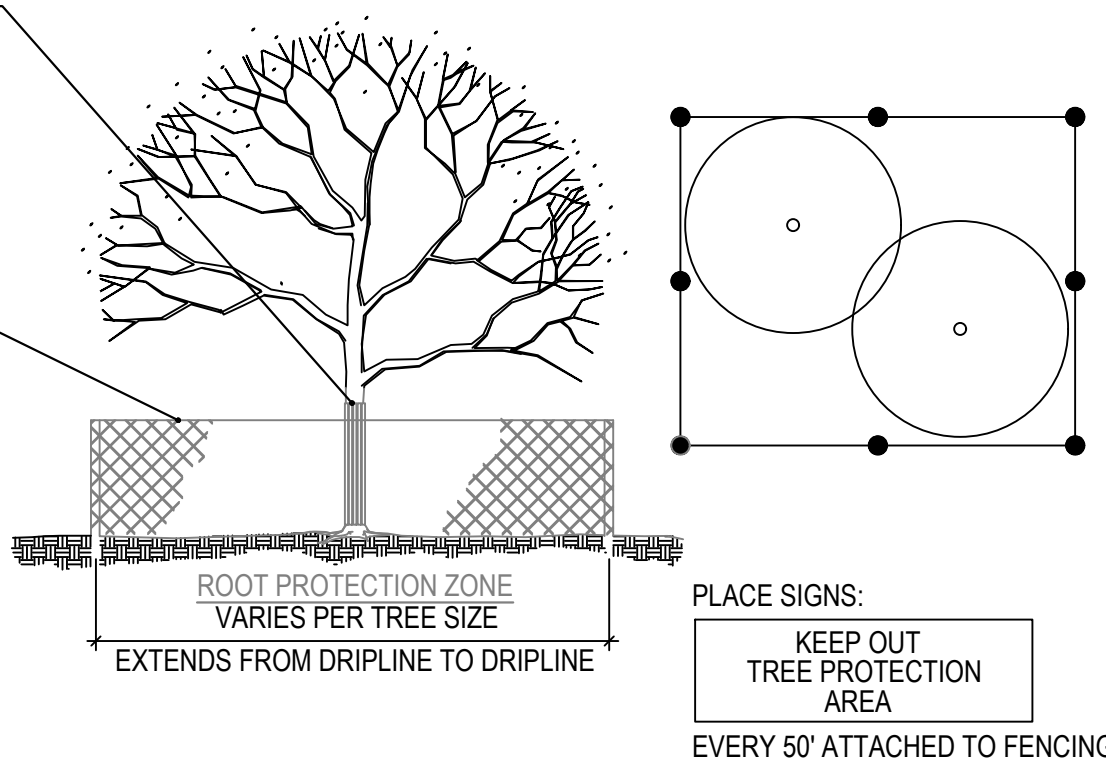


TRUNK PROTECTION

Required if wheeled construction equipment involved within 20' or less, 1" boards not less than 5' long or to reach first scaffold branch. Wire to hold boards in place, no nails permitted. include wrapping of burlap under boards.

BRANCH PROTECTION

Protect lower branches of tree canopy. provide construction fencing or equal at dripline (min.)



TREE PROTECTION NOTES

- ALL TREES TO BE PROTECTED AND PRESERVED SHALL BE PER DETAIL. GROUPING OF MORE THAN ONE TREE MAY OCCUR.
- TREES TO BE PROTECTED AND PRESERVED SHALL BE IDENTIFIED ON THE TRUNK WITH WHITE SURVEY TAPE.
- TO PREVENT ROOT SMOTHERING, SOIL STOCKPILES, SUPPLIES, EQUIPMENT OR ANY OTHER MATERIAL SHALL NOT BE PLACED OR STORED WITHIN THE DRIP LINE OR WITHIN 15 FEET OF A TREE TRUNK, WHICHEVER IS GREATER.
- TREE ROOTS SHALL NOT BE CUT UNLESS CUTTING IS UNAVOIDABLE.
- WHEN ROOT CUTTING IS UNAVOIDABLE, A CLEAN SHARP CUT SHALL BE MADE TO AVOID SHREDDING OR SMASHING. ROOT CUTS SHOULD BE MADE BACK TO A LATERAL ROOT. WHENEVER POSSIBLE, ROOTS SHOULD BE CUT BETWEEN LATE FALL AND BUD OPENING, WHEN ROOT ENERGY SUPPLIES ARE HIGH AND CONDITIONS ARE LEAST FAVORABLE FOR DISEASE CAUSING AGENTS. EXPOSED ROOTS SHALL BE COVERED IMMEDIATELY TO PREVENT DEHYDRATION. ROOTS SHALL BE COVERED WITH SOIL OR BURLAP AND KEPT MOIST.
- WATERING OF PROTECTED TREES IN WHICH ROOTS WERE CUT SHALL BE PROVIDED BY THE CONTRACTOR.
- AUGER TUNNELING RATHER THAN TRENCHING SHOULD BE USED FOR UTILITY PLACEMENT WITHIN DRIP LINE.
- FENCING MATERIAL SHALL ENCIRCLE ANY TREE OR SHRUB WHOSE OUTER DRIP LINE EDGE IS WITHIN 20 FEET OF ANY CONSTRUCTION ACTIVITIES.
- FENCING MATERIAL SHALL BE BRIGHT, CONTRASTING COLOR, DURABLE, AND A MINIMUM OF FOUR FEET IN HEIGHT.
- FENCING MATERIAL SHALL BE SET AT THE DRIP LINE OR 15 FEET FROM TREE TRUNK, WHICHEVER IS GREATER, AND MAINTAINED IN AN UPRIGHT POSITION THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.
- ANY GRADE CHANGES (SUCH AS THE REMOVAL OF TOPSOIL OR ADDITION OF FILL MATERIAL) WITHIN THE DRIP LINE SHOULD BE AVOIDED FOR EXISTING TREES TO REMAIN. RETAINING WALLS AND TREE WELLS ARE ACCEPTABLE ONLY WHEN CONSTRUCTED PRIOR TO GRADE CHANGE.
- REFER TO PLANS FOR FENCE STAKING LOCATIONS.

1 TREE PROTECTION

NTS



PRELIMINARY ENGINEERING

Sheet Revisions: (sheet specific per Designer)

#	Date:	Description:
1	5/24/2019	DEVELOPMENT REVIEW #2

Sheet Title:

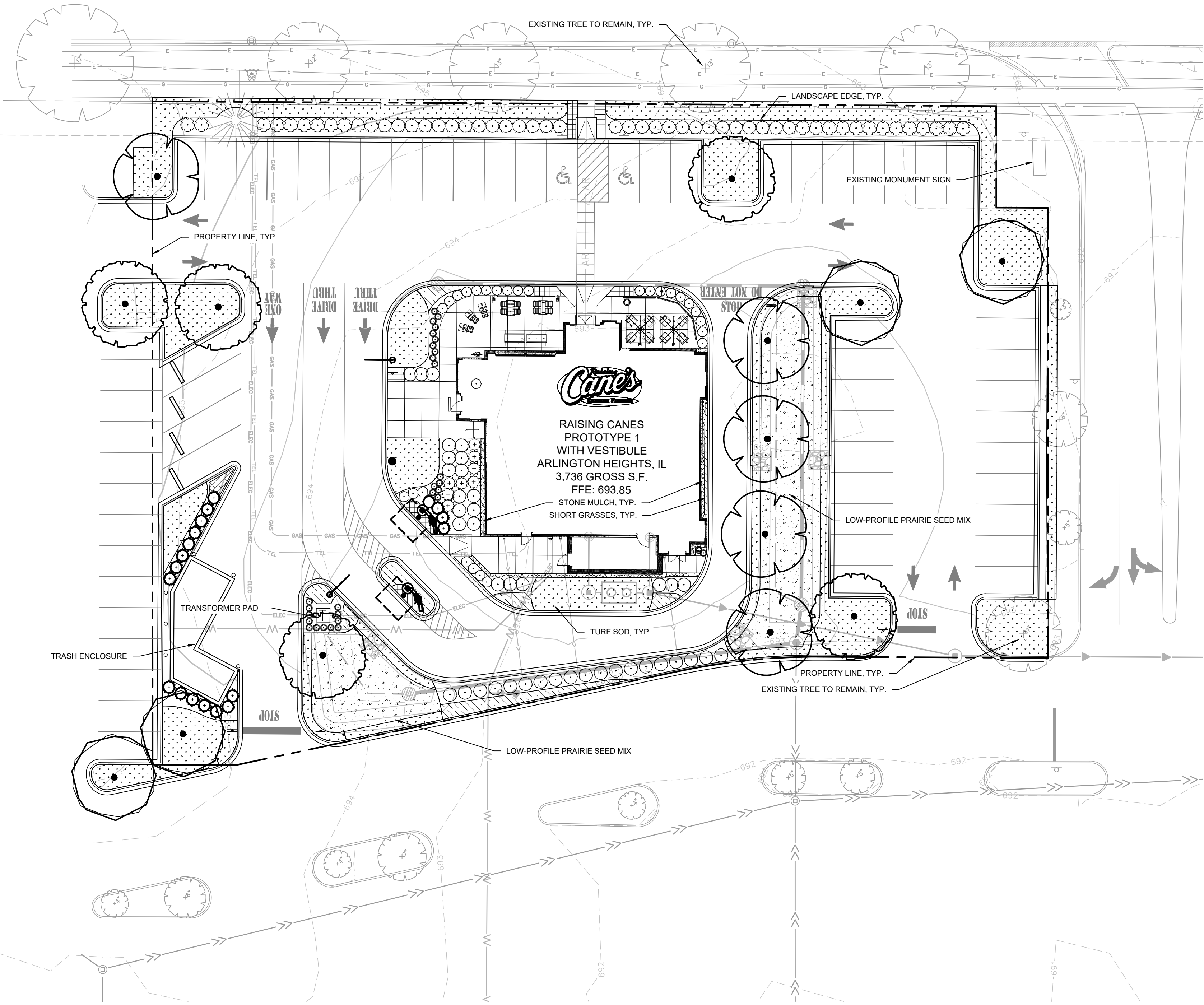
TREE PRESERVATION PLAN

Date:	04/12/2019
Project Number:	168418012
Drawn By:	CALW
Checked By:	KED

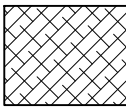
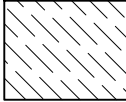
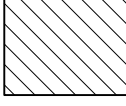
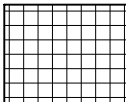
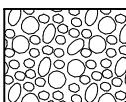
Sheet Number:

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PALATINE ROAD



PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE
	AA	4	ACER FREEMANII 'ARMSTRONG' / FREEMAN MAPLE	B & B	4"	CAL MIN
	LT	5	LIRIODENDRON TULIPIFERA / TULIP TREE	B & B	4"	CAL MIN
	QB	5	QUERCUS BICOLOR / SWAMP WHITE OAK	B & B	4"	CAL MIN
EVERGREEN TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE
	JS	19	JUNIPERUS CHINENSIS 'SPARTAN' / SPARTAN JUNIPER	B & B		4' HT MIN
SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	SPACING	SIZE
	AM2	24	ARONIA MELANOCARPA ELATA / GLOSSY BLACK CHOKEBERRY	5 GAL		36" FULL
	CH	40	CORNUS ALBA 'BAILHALO' TM / IVORY HALO DOGWOOD	3 GAL		24" HT MIN
	RR	7	ROSA X 'KNOCKOUT' TM / ROSE	3 GAL		18" HT MIN
	ST2	21	SPIRAEA BETULIFOLIA 'TOR' / BIRCHLEAF SPIREA	3 GAL		18" HT MIN
	TT	8	TAXUS X MEDIA 'TAUNTONII' / TAUTON YEW	3 GAL		36" HT MIN
	VR	28	VIBURNUM DENTATUM 'RASTZAM' / RASPBERRY TART VIBURNUM	5 GAL		36" HT MIN
GRASSES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	SPACING	SIZE
	CK	30	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' / FEATHER REED GRASS	1 GAL		12" HT MIN
SHRUB AREAS	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	SPACING	
	SH	11	SPOROBOLUS HETEROLEPIS / PRAIRIE DROPSEED	1 GAL	18" o.c.	
PERENNIALS AND GRASSES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	SPACING	
	EK	137	ECHINACEA PURPUREA 'KIM'S KNEE HIGH' TM / PURPLE CONEFLOWER	1 GAL	18" o.c.	
	LB	33	LIRIOPE MUSCARI 'BIG BLUE' / BIG BLUE LILYTURF	1 GAL	24" o.c.	
GROUND COVERS	CODE	QTY	BOTANICAL NAME / COMMON NAME			
	A	185	/ ANNUALS			
	R	135 SF	/ 2"- 3" RIVER ROCK MULCH			

LOW-PROFILE PRAIRIE SEED MIX

BOTANICAL NAME	COMMON NAME	LBS / ACRE	% OF TOTAL
GRASSES, SEDGES, & RUSHES			
Agrostis alba palustris	Bent grass	2.0	6.7%
Bouteloua curtipendula	Side-Oats Grama	6.0	20.0%
Calamagrostis canadensis	Bluejoint	2.0	6.7%
Carex vulpinoidia	Prairie Sedge	2.0	6.7%
Elymus canadensis	Canada Wild Rye	3.0	10.0%
Panicum virgatum	Switch Grass	4.0	13.3%
Schizachyrium scoparium	Little Bluestem	4.0	13.3%
Sporobolus heterolepis	Prairie Dropseed	3.0	10.0%
TOTAL LBS PER ACRE:		26	86.7%

FORBS & BROADLEAVES

Asclepias tuberosa	Butterfly Weed	0.25	0.8%
Cassia fasciculata	Partridge Pea	0.50	1.7%
Coreopsis palmata	Prairie Coreopsis	0.25	0.8%
Echinacea purpurea	Purple Coneflower	0.75	2.5%
Liatris aspera	Rough Blazing Star	0.25	0.8%
Monarda fistulosa	Wild Bergamot	0.50	1.7%
Potentilla arguta	Prairie Cinquefoil	0.25	0.8%
Pycnanthemum virginianum	Virginia Mountain Mint	0.25	0.8%
Rudbeckia hirta	Black-Eyed Susan	0.75	2.5%
Solidago juncea	Early Goldenrod	0.25	0.8%
FORBS & BROADLEAVES LBS PER ACRE:		4	13.3%

SEED MIX TOTAL LBS PER ACRE:

30

TEMPORARY COVER

Avena sativa	Common Oat	150	60%
Lolium multiflorum	Annual Rye	100	40%
TEMPORARY COVER LBS PER ACRE:		250	



Store:

RAISING CANE'S #484
225 E. PALETINE ROAD
ARLINGTON HEIGHTS, IL

Architect & Project Manager:



Set Control Information:

Setup / Update Date:

ADA Project Manager: JEFF POUNTNEY

Engineers Information:



PRELIMINARY
ENGINEERING

Sheet Revisions: (sheet specific per Designer)

#	Date:	Description:
1	5/24/2019	DEVELOPMENT REVIEW #2

Sheet Title:

LANDSCAPE
PLAN

Date:	04/12/2019
Project Number:	168418012
Drawn By:	CALW
Checked By:	KED
Sheet Number:	L2.0

MEMORANDUM

To: LuAron McCormack – Raising Cane’s Restaurants, LLC

From: Rory Fancier, AICP, PTP – Kimley-Horn
Tim Sjogren, P.E., PTOE – Kimley-Horn

Date: May 31, 2019

RE: Parking Summary for Raising Cane’s Outlot Redevelopment
Arlington Heights, Illinois

Kimley-Horn and Associates, Inc. (Kimley-Horn) was retained by Raising Cane’s Restaurants, LLC to perform a parking analysis for the restaurant outlot proposed for the Town & Country Center, located on the southeast quadrant of Arlington Heights Road/Palatine Road in Arlington Heights, Illinois. The parking analysis was completed in order to evaluate existing parking occupancy and assess future parking conditions with the addition of the proposed outlot redevelopment.

Executive Summary

The Town & Country Center currently provides a total of 1,619 parking spaces. With the proposed outlot redevelopment, an overall total of 1,550 spaces would be provided. The proposed parking supply exceeds Village of Arlington Heights Municipal Code requirements. Furthermore, the proposed parking supply is expected to accommodate peak demand for the existing shopping center, future occupancy of currently vacant tenant spaces, and the proposed outlot redevelopment. The conservative analysis that follows suggests that the Town & Country Center would have approximately 667 spaces (44 percent) available during the weekday peak period, and 543 spaces (36 percent) available during the Saturday peak period. Similarly, the Raising Cane’s outlot would have approximately 24 spaces (52 percent) available during the weekday peak period, and 22 spaces (48 percent) available during the Saturday peak period. Establishment of cross-access and shared parking between the Town & Country Center and the proposed outlot redevelopment is recommended in order to facilitate access and circulation, as well as to provide for efficient use of the proposed parking supply.

Existing and Proposed Site Development

The Town & Country Center is a multi-tenant shopping center with both inline and outlot uses. A total of 1,619 parking spaces are currently provided for the Town & Country Center, including 44 ADA spaces. Cross-access and shared parking is provided across the Town & Country Center. An aerial of the existing shopping center, including the proposed outlot redevelopment site is shown in **Exhibit 1**.

Raising Cane’s Restaurants, LLC proposes to redevelop an outlot parcel located along the Palatine Road frontage. The redevelopment would include removal of 115 existing parking spaces to accommodate an approximately 3,700 square-foot restaurant with drive-through window. A total of 46 spaces would be provided for the proposed restaurant, including 2 ADA spaces. The proposed site plan is provided as **Attachment 1**.



EXHIBIT 1
SITE LOCATION MAP

Table 1 summarizes the parking required for the existing Town & Country Center and proposed outlot redevelopment per Section 28.10.4-2 (Off Street Parking and Loading) of the Village of Arlington Heights Municipal Code. As shown in the table, the Town & Country Center is required to provide a total of 1,210 parking spaces, which includes parking required for the currently vacant tenant spaces. The vacant tenant spaces were assumed to be future retail tenants which require 1 space per 300 square feet. Based on the existing supply (1,619 spaces), a parking surplus of 409 spaces is currently provided.

With the proposed outlot redevelopment a total of 115 spaces would be removed and the proposed restaurant would provide a total of 46 spaces. The proposed parking supply exceeds the parking required for the outlot redevelopment. Furthermore, with the proposed modifications, an overall total parking supply of 1,550 spaces would be provided for the Town & Country Center. Per the Code a total of 1,249 spaces is required; therefore, a parking surplus of 301 spaces would be provided.

Table 1. Village of Arlington Heights Required Parking

Land Use	Floor Area (sq. ft.)		Land Use	Parking Ratio	Required Spaces
	Total	Parking Calculation ¹			
Existing					
Walgreen's	17,498	17,498	Retail	1 / 300 sq. ft.	58
LA Fitness	50,003	50,003	Health Club	1 / 250 sq. ft.	200
Great Clips	1,056	1,056	Beauty Shop	1 / 250 sq. ft.	4
Sally Beauty Supply	1,965	1,965	Retail	1 / 300 sq. ft.	7
Jo-Ann Fabrics	29,887	36,796	Retail	1 / 300 sq. ft.	123
Palm Beach Tan	2,602	2,602	Beauty Shop	1 / 250 sq. ft.	10
Dick's Sporting Goods	51,330	51,330	Retail	1 / 300 sq. ft.	171
Catherine's	6,073	6,073	Retail	1 / 300 sq. ft.	20
Golden Corral	10,618	4,080	Restaurant	1 / 45 sq. ft.	91
Vision Works	3,528	3,528	Retail	1 / 300 sq. ft.	12
Best Buy	44,365	44,365	Retail	1 / 300 sq. ft.	148
Burger King	2,995	1,260	Restaurant	1 / 45 sq. ft.	28
BMO Harris	4,146	4,146	Retail	1 / 300 sq. ft.	14
Verizon	4,220	4,220	Retail	1 / 300 sq. ft.	14
Existing Required Parking					900
Existing Parking Supply					1,619
Parking Surplus (+) / Deficit (-)					+719
Vacant (Future Occupancy)					
Vacant	1,294	1,294	Vacant ²	1 / 300 sq. ft.	4
Vacant	15,041	15,041	Vacant ²	1 / 300 sq. ft.	50
	35,000	35,000	Vacant (Grocery Store) ³	1 / 300 sq. ft.	117
Vacant	41,722	41,722	Vacant ²	1 / 300 sq. ft.	139
Total Town & Country Center Required Parking (with Future Occupancy)					1,210
Existing Parking Supply					1,619
Parking Surplus (+) / Deficit (-)					+409
Proposed					
Raising Cane's	3,736	1,754	Restaurant	1 / 45 sq. ft.	39
Future Required Parking					1,249
Future Parking Supply					1,550
Parking Surplus (+) / Deficit (-)					+301

¹ Per Section 28-3(47) (Definitions) of the Village of Arlington Heights Municipal Code, for determining off-street parking requirements, floor area is calculated as the "sum of the gross horizontal areas of several floors of the building, or portion thereof, devoted to such use, measured from the exterior faces of the exterior walls or from the center line of walls separating two buildings."

² For purposes of this analysis, vacant tenant spaces were assumed to be occupied by future retail uses with a required parking ratio of 1 / 300 sq. ft.

³ Based on input from the Village of Arlington Heights, approximately 35,000 square feet is assumed to be a future grocery store.

Existing Parking Demand

To determine actual parking demand for the existing Town & Country Center, Kimley-Horn conducted hourly parking occupancy counts during two typical weekdays and one Saturday as follows. The count dates were selected in coordination with Village of Arlington Heights staff.

- Thursday, January 10, 2019, from 11:00AM to 8:00PM
- Saturday, January 12, 2019, from 11:00AM to 7:00PM
- Tuesday, January 15, 2019, from 11:00AM to 8:00PM

The count periods captured the peak periods of parking demand for the existing shopping center and were identified based on data provided by the Urban Land Institute (ULI) Shared Parking, Second Edition. During the study periods, the existing parking supply was verified, and the number of parked vehicles were documented. Other observations regarding curbside and delivery truck loading activity were noted.

The Town & Country Center currently provides a total of 1,619 spaces, including 44 ADA spaces and 115 standard spaces on the subject outlot. **Table 3** summarizes the observed parking occupancy for the Town & Country Center. During the weekday, the peak occurred at 6:00PM with approximately 444 occupied spaces (27 percent) on Thursday and 446 occupied spaces (28 percent) on Tuesday. On Saturday, the peak occurred at 11:00AM with approximately 515 occupied spaces (32 percent).

During the observation periods, the outlot was generally not used for employee or customer parking. On Thursday and Saturday, a maximum of two (2) vehicles were observed parked in the outlot. During the Tuesday observation period, a total of four (4) vehicles were parked in the outlot. These vehicles were parked continuously from 11:00AM to 8:00PM indicating use for long-term storage rather than active employee or customer parking. Parking occupancy for the outlot is included in the data presented in Table 3.

Table 3. Observed Parking Occupancy – Town & Country Center

Time of Day	Thursday, January 10, 2019		Saturday, January 12, 2019		Tuesday, January 15, 2019	
	Occupied Spaces	Percent Occupied	Occupied Spaces	Percent Occupied	Occupied Spaces	Percent Occupied
11:00AM	320	20%	515	32%	312	19%
12:00PM	327	20%	501	31%	337	21%
1:00PM	312	19%	470	29%	341	21%
2:00PM	338	21%	449	28%	315	20%
3:00PM	349	22%	411	25%	309	19%
4:00PM	375	23%	371	23%	379	23%
5:00PM	443	27%	347	21%	425	26%
6:00PM	444	27%	316	20%	446	28%
7:00PM	408	25%	302	19%	444	27%
8:00PM	325	20%	--	--	352	22%
Average	364	22%	409	25%	366	23%

As shown in Table 3, during the weekday peak hour (6:00PM), the overall Town & Country Center is approximately 27 to 28 percent occupied. During this period, approximately 1,175 spaces are available for employees and customers. During the Saturday peak hour (11:00AM), a total of 1,104 spaces remain available for employees and customers. Spillover parking to adjacent residential neighborhoods or commercial centers was not observed during the count periods.

Future Parking Demand

In order to evaluate future parking conditions with occupancy of existing vacant tenant spaces and redevelopment of the proposed Raising Cane's outlot, a future parking analysis was performed for Town & Country Center.

Vacant Retail Uses

As shown in Table 1, a total of 93,057 square feet of retail use is currently vacant. Per direction from Village of Arlington Heights staff, of the total vacant retail square footage approximately 35,000 square feet was assumed to be a future grocery store and the remaining square footage was assumed to be other retail uses. In order to project future parking demand for the vacant tenant spaces, the Urban Land Institute (ULI) Shared Parking, 2nd Edition and Institute of Engineers (ITE) Parking Generation Manual, 5th Edition were referenced. These manuals provide base parking ratios reflecting 85th percentile conditions. A summary of the parking demand ratios for retail and grocery store uses is outlined in **Table 4**.

Table 4. Peak Parking Demand Ratios

Land Use	Parking Demand Ratio (per 1,000 square feet)					
	Weekday			Saturday		
	Visitor	Employee	Total	Visitor	Employee	Total
Retail ¹	2.9	0.7	3.6	3.2	0.8	4.0
Grocery Store ²	3.28	0.79	4.07	3.86	0.96	4.82

¹Based on ULI data for Community Shopping Center (<400,000 square feet).

²ULI data not provided specific to grocery store; therefore, 85th percentile parking demand rates from the ITE Parking Generation Manual, 5th Edition manual was assumed. ITE provides a total parking demand rate. The customer and employee rates were estimated based on the ratio of ULI parking demand rates provided for customers and employees for the general retail use.

Next, hourly parking demand was calculated using the time-of-day factors provided in the ULI manual as summarized in **Table 5**. Based on available data, the time-of-day factors for a shopping center were assumed for the retail and grocery store uses.

Table 5. Time-of-Day Factors for Parking Demand¹

Time of Day	Weekday		Saturday	
	Visitor	Employee	Visitor	Employee
11:00AM	85%	95%	65%	95%
12:00PM	95%	100%	80%	100%
1:00PM	100%	100%	90%	100%
2:00PM	95%	100%	100%	100%
3:00PM	90%	100%	100%	100%
4:00PM	90%	100%	95%	100%
5:00PM	95%	95%	90%	95%
6:00PM	95%	95%	80%	85%
7:00PM	95%	95%	75%	80%
8:00PM	80%	90%	65%	75%

¹Referenced from ULI's Shared Parking as a percentage of peak parking demand.

The peak parking demand ratios (Table 4) and time-of-day factors (Table 5) were used to calculate new parking demand projections for the currently vacant tenant spaces at the Town & Country Center. The peak parking demand ratios were adjusted to reflect a 90 percent effective capacity ratio which accounts for vehicle circulation convenience and operational fluctuations, including snow cover, vehicles encroaching into adjacent spaces, maintenance, and vacant spaces designated for specific user groups such as accessible parking or valet parking. Based on these assumptions, the projected future parking demand is presented in **Table 6**.

Table 6. Projected Parking Occupancy – Vacant Tenant Spaces

Time of Day	Projected Future Demand					
	Weekday			Saturday		
	Visitor	Employee	Total	Visitor	Employee	Total
11:00AM	268	72	340	232	85	316
12:00PM	299	76	375	285	89	374
1:00PM	315	76	391	321	89	410
2:00PM	299	76	375	357	89	446
3:00PM	283	76	359	357	89	446
4:00PM	283	76	359	339	89	428
5:00PM	299	72	371	321	85	406
6:00PM	299	72	371	285	76	361
7:00PM	299	72	371	267	71	339
8:00PM	252	68	320	232	67	299

As shown above, the currently vacant tenant spaces are projected to generate demand for approximately 391 spaces under peak weekday conditions (1:00PM). Under Saturday conditions, the peak is expected to occur from 2:00PM to 4:00PM with approximately 446 spaces occupied.

Proposed Raising Cane's Restaurant

Based on input from the Village of Arlington Heights, supplemental parking counts were conducted at the existing Raising Cane's in Oak Lawn, Illinois in order to address potential concerns that the proposed Raising Cane's outlot redevelopment may generate parking demand at different rates than a typical restaurant. This supplemental count was conducted to estimate parking demand generated by the proposed outlot redevelopment. The existing Raising Cane's in Oak Lawn was selected based on the following considerations:

- Suburban setting
- Frontage along major arterial roadway with similar average daily traffic volumes (39,000 average daily vehicles along Palatine Road in Arlington Heights; 45,800 average daily vehicles on Cicero Avenue in Oak Lawn)
- Outlot in an existing commercial shopping center
- Similar building size (3,736 square feet is proposed in Arlington Heights; 3,575 square feet is developed in Oak Lawn)

Kimley-Horn conducted hourly parking occupancy counts at the Oak Lawn site during a typical weekday and weekend as follows:

- Thursday, January 10, 2019, from 11:00AM to 8:00PM
- Saturday, January 12, 2019, from 11:00AM to 7:00PM

The Raising Cane's Oak Lawn development provides a total parking supply of 41 spaces. A summary of the observed parking occupancy is provided in **Table 7**. During the weekday, the peak occurred at 4:00PM with approximately 24 occupied spaces (59 percent). On Saturday, the peak occurred at 4:00PM with approximately 26 occupied spaces (63 percent).

Table 7. Observed Parking Occupancy – Raising Cane’s Oak Lawn

Time of Day	Thursday, January 10, 2019		Saturday, January 12, 2019	
	Occupied Spaces	Percent Occupied	Occupied Spaces	Percent Occupied
11:00AM	7	17%	10	24%
12:00PM	26	63%	14	34%
1:00PM	18	44%	17	42%
2:00PM	20	49%	18	44%
3:00PM	17	42%	18	44%
4:00PM	24	59%	26	63%
5:00PM	18	44%	20	49%
6:00PM	14	34%	18	44%
7:00PM	19	46%	11	27%
8:00PM	18	44%	--	--
Average	18	44%	17	41%

The Raising Cane’s in Oak Lawn includes approximately 3,575 square feet of gross floor area. The proposed Raising Cane’s outlet redevelopment would be similar, with a total of 3,736 square feet of gross floor area (1,754 square feet net seating area); and therefore, the peak demand observed at the Oak Lawn Raising Cane’s development was assumed for the proposed Arlington Heights outlet redevelopment.

The proposed redevelopment would provide 46 parking spaces for restaurant employees and customers; therefore, peak parking demand (26 spaces) would be accommodated onsite without spillover to the Town & Country Center. Although parking demand is expected to be accommodated onsite, cross-access and shared parking would be provided between the proposed Raising Cane’s restaurant and the overall Town & Country Center.

Overall Town & Country Center

In order to evaluate peak parking conditions for the overall Town & Country Center, parking demand for existing tenants (Table 3), currently vacant tenant spaces (Table 6), and the proposed restaurant outlet (Table 7) were considered. A summary of projected weekday parking conditions is presented in **Table 8**; Saturday conditions are presented in **Table 9**.

Table 8. Projected Parking Occupancy – Overall Town & Country Center (Weekday)

Time of Day	Weekday				
	Existing Demand ¹	Projected Future Demand			Percent Occupied
	Occupied Spaces	Vacant Tenants	Raising Cane's	Total	
11:00AM	312	340	7	659	43%
12:00PM	337	375	26	738	48%
1:00PM	341	391	18	750	48%
2:00PM	315	375	20	710	46%
3:00PM	309	359	17	685	44%
4:00PM	379	359	24	762	49%
5:00PM	425	371	18	814	53%
6:00PM	446	371	14	831	54%
7:00PM	444	371	19	834	54%
8:00PM	352	320	18	690	45%

¹ Assumed data from Tuesday, January 15, 2019 for purposes of a conservative analysis.

As shown above, peak weekday conditions are projected to occur at 7:00PM with 834 spaces occupied, which reflects an approximately 54 percent occupancy rate. Under peak conditions, approximately 716 spaces would be available.

Table 9. Projected Parking Occupancy – Overall Town & Country Center (Saturday)

Time of Day	Saturday				
	Existing Demand	Projected Future Demand			Percent Occupied
	Occupied Spaces	Vacant Tenants	Raising Cane's	Total	
11:00AM	515	316	10	841	54%
12:00PM	501	374	14	889	57%
1:00PM	470	410	17	897	58%
2:00PM	449	446	18	913	59%
3:00PM	411	446	18	875	56%
4:00PM	371	428	26	825	53%
5:00PM	347	406	20	773	50%
6:00PM	316	361	18	695	45%
7:00PM	302	339	11	652	42%

As shown above, peak Saturday conditions are projected to occur at 2:00PM with 913 spaces occupied, which reflects an approximately 59 percent occupancy rate. Under peak conditions, approximately 637 spaces would be available.

Proposed Parking Supply Evaluation

Based on existing parking occupancy and future parking projections, the individual peak demand for the Town & Country Center, currently vacant tenant spaces, and the proposed outlet redevelopment occur at different times which provides an opportunity for shared parking between uses. During the weekday, peak parking demand for the Town & Country Center occurs at 6:00PM (446 spaces), whereas the weekday peak for the currently vacant tenant spaces is projected to occur at 1:00PM (391 spaces) and peak demand for Raising Cane's occurs at 4:00PM (24

spaces). On Saturday, peak parking demand for the Town & Country Center occurs at 11:00AM (515 spaces), whereas the peak for the currently vacant tenant spaces is projected to occur from 2:00PM to 4:00PM (446 spaces) and peak demand for Raising Cane's occurs at 4:00PM (26 spaces).

A summary of the overall peak parking conditions (highlighted in Table 8 and Table 9) for the Town & Country Center is provided in **Table 10**.

Table 10. Summary of Overall Town & Country Parking Conditions

Land Use	Future Parking Supply	Village Code Requirements		Overall Peak Demand Scenario (based on empirical data)			
				Weekday		Saturday	
		Required Spaces	Δ	Peak Demand	Δ	Peak Demand	Δ
Existing	1,504	900	+294	444	+689	449	+609
Future Retail Tenants		310		371		446	
Raising Cane's Outlot	46	39	+7	19	+27	18	+28
Total	1,550	1,249	+301	834	+716	913	+637

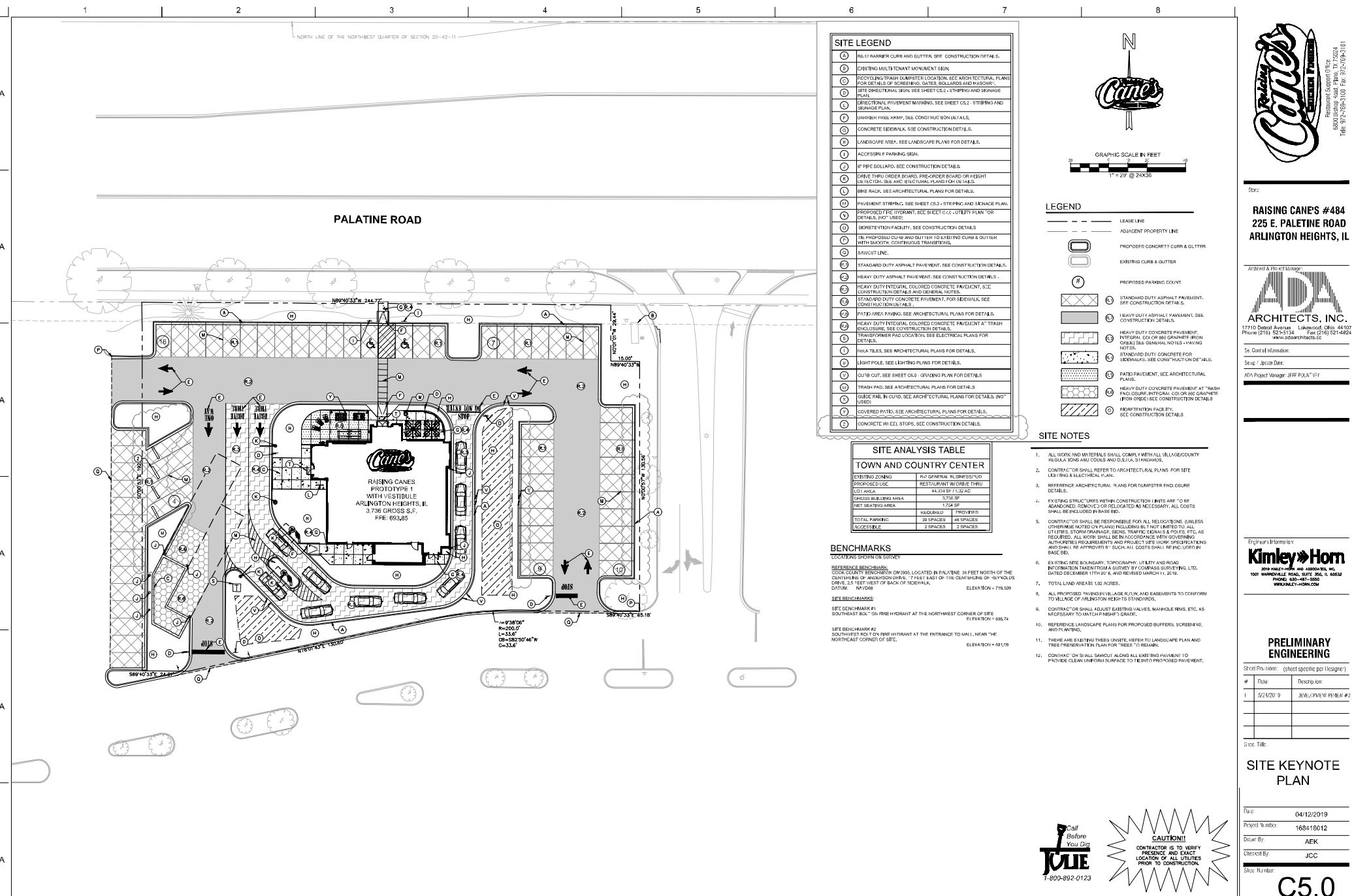
As shown above, peak demand for the overall Town & Country Center is approximately 834 spaces during a typical weekday. Based on the future parking supply of 1,550 spaces, a surplus of 716 spaces is anticipated during peak weekday conditions. On Saturday, peak demand is projected to be approximately 913 spaces. Under peak Saturday conditions, approximately 637 spaces would be available. Therefore, the proposed parking supply is expected to accommodate peak parking demand for the Town & Country Center.

Conclusion

The Town & Country Center currently provides a total of 1,619 spaces. With the proposed outlot redevelopment, 115 spaces would be removed, and 46 spaces would be provided for the Raising Cane's restaurant. The parking supply proposed for the Raising Cane's restaurant (46 spaces) exceeds the Village of Arlington Heights parking requirements. Furthermore, the overall parking supply of 1,550 spaces planned for the Town & Country Center exceeds the Village parking requirements.

Based on the observed peak parking demand for the existing Town & Country Center, observed peak parking demand for a comparable Raising Cane's location, and projected parking demand for currently vacant tenant spaces, the proposed parking supply is expected to be more than sufficient. Based on this analysis, the Town & Country Center is expected to continue to operate with surplus parking, and spillover parking to adjacent residential neighborhoods or commercial centers is not anticipated. Establishment of cross-access and shared parking between the Town & Country Center and the proposed outlot redevelopment is recommended in order to facilitate access and circulation, as well as to provide for efficient use of the proposed parking supply.

Please do not hesitate to contact us with any questions related to the information in this memorandum.



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PRELIMINARY ENGINEERING

#	Date	Description
1	5/2/2019	JCC/JP/REV 1

SITE KEYNOTE PLAN

Drawn: 04/12/2019
Project Number: 168415012
Drawn By: AEK
Checked By: JCC
Site Number: C5.0



RAISING CANE'S RESTAURANT

Traffic Impact Study

Arlington Heights, Illinois

May 2019

Prepared for:
Raising Cane's Restaurants, LLC

Kimley»Horn

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EXECUTIVE SUMMARY

Kimley-Horn and Associates, Inc., (Kimley-Horn) was retained by Raising Cane's Restaurants, LLC to perform a traffic impact study for a proposed restaurant on the southeast quadrant of Arlington Heights Road/Palatine Road in Arlington Heights, Illinois. The proposed restaurant would occupy an outlot within the existing shopping center known as Town & Country Center. Access to the restaurant would be provided via the existing Town & Country Center driveways along Arlington Heights Road, Palatine Road, and Rand Road. Internal to the shopping center, two-full access driveways would be provided for the proposed Raising Cane's restaurant.

As part of this traffic impact study, existing and future traffic conditions were evaluated for the signalized intersections of Arlington Heights Road/Palatine Road, Arlington Heights Road/Lillian Avenue/Access B, and Rand Road/Access E. In addition, the unsignalized intersections of Arlington Heights Road/Access A, Palatine Road/Access C and Rand Road/Access D were evaluated. Traffic conditions were also evaluated from the proposed site access driveways on the southern boundary of the subject site.

Based on a review of future traffic conditions, it is anticipated that future background traffic growth and site-generated trips would be accommodated at the study intersections. The existing Town & Country Center access driveways are projected to operate with acceptable delay and limited queues. At the internal site access driveways proposed for the Raising Cane's restaurant, a single inbound lane and single outbound lane is recommended. Stop control should be posted for outbound traffic at each Raising Cane's restaurant driveway. In addition, onsite wayfinding should be provided to direct motorists to the dedicated drive-through window lanes. Additional details related to the improvements identified above are provided in the *Recommendations & Conclusions* section of this report.

1. INTRODUCTION

Kimley-Horn and Associates, Inc., (Kimley-Horn) was retained by Raising Cane's Restaurants, LLC to perform a traffic impact study for a proposed outlot redevelopment at the Town & Country Center, located on the southeast quadrant of the intersection of Arlington Heights Road/Palatine Road in Arlington Heights, Illinois. The proposed outlot redevelopment would provide an approximately 3,735 square-foot restaurant with a drive-through window.

Existing site access for the Town & Country Center would be maintained with the outlot redevelopment; internal cross-access would be provided in order to facilitate access to the proposed restaurant. The proposed outlot redevelopment would provide two full-access driveways to the internal Town & Country Center access drive, and cross-access with the bank to the west would be maintained. With the outlot redevelopment, two internal full-access driveways would be removed. An aerial view of the study location and surrounding roadway network is presented in **Exhibit 1**.

As a part of this study, the existing network was analyzed to determine the current operations at the study intersections. In order to assess the site's impact on the area roadway network, site-generated trips were established and added to background traffic volumes. This report presents and documents Kimley-Horn's data collection, summarizes the evaluation of existing and projected future traffic conditions on the surrounding roadways, and identifies recommendations to address the potential impact of site-generated traffic on the adjacent roadway network.

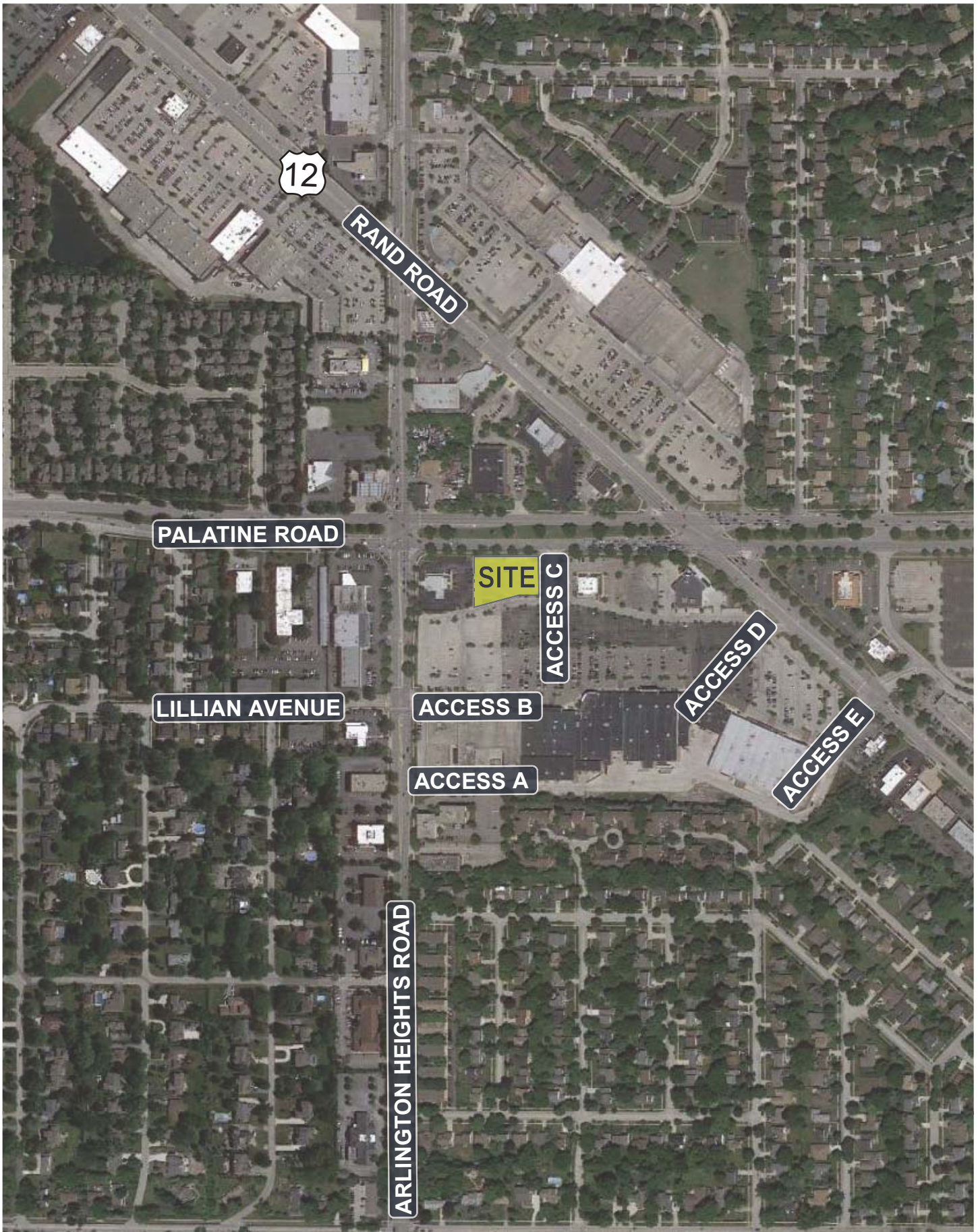


EXHIBIT 1
SITE LOCATION MAP

2. EXISTING CONDITIONS

Kimley-Horn conducted a field visit to collect relevant information pertaining to existing land uses in the surrounding area, the adjacent street system, current traffic volumes and operating conditions, lane configurations and traffic controls at nearby intersections, and other key roadway characteristics. This section of the report details information on these existing conditions.

2.1. Area Land Uses & Connectivity

Located on the southeast quadrant of the intersection of Arlington Heights Road/Palatine Road, Town & Country Center is an existing commercial shopping center. The shopping center provides both inline commercial tenants and outlots fronting Palatine Road. The restaurant redevelopment is proposed for an outlot currently occupied by a surface parking lot.

Near Town & Country Center, commercial uses front Palatine Road and Rand Road. East of Rand Road, the north side of Palatine Road is developed with single-family residences. Single-family residences are also located on the north and south sides of Palatine Road west of Arlington Heights Road. South of Palatine Road, Arlington Heights Road provides access to single- and multi-family residences with limited commercial uses on the west side of the street.

Located along the northern boundary of the Town & Country Center, Palatine Road provides east-west access from South Barrington on the west to Northbrook on the east. Approximately one mile west of the subject site, Palatine Road provides a full interchange with IL Route 53. IL 53 provides access to Interstate 90 (I-90) and Interstate 290 (I-290) less than five miles south of the Palatine Road interchange. Nearly six miles east of the subject site, Palatine Road provides a full interchange with Interstate 294 (I-294). Regional connectivity is also provided by Arlington Heights Road and Rand Road (US Route 12), located on the eastern and western boundaries of the Town & Country Center, respectively.

2.2. Existing Roadway Characteristics

A field investigation was conducted within the study area. As a result of this visit, the following information was obtained about the existing roadway network.

Arlington Heights Road travels in a north-south direction along the west boundary of the Town & Country Center. The Illinois Department of Transportation (IDOT) classifies Arlington Heights Road as a minor arterial roadway. Through the study area, Arlington Heights Road provides two travel lanes in each direction with channelized turn lanes provided at key intersections. At its signalized intersection with Palatine Road, Arlington Heights Road provides a dedicated left-turn lane, two through lanes, and a dedicated right-turn lane on both the north and south legs. At its signalized intersection with Lillian Avenue, Arlington Heights Road provides a dedicated left-turn lane, a single through lane, and a shared through/right-turn lane on both legs. The posted speed limit is 35 miles per hour (MPH) through the study area. Arlington Heights Road is under IDOT jurisdiction.

Rand Road (US 12) travels in a northwesterly-southeasterly direction along the eastern boundary of the Town & Country Center. IDOT classifies Rand Road as a Strategic Regional Arterial (SRA) roadway. The SRA system was established by IDOT to promote mobility on key routes throughout the Chicago area by applying various strategies, such as access control and limited signalization. Through the study area, Rand Road generally provides two travel lanes in each direction; however, along the property frontage three travel lanes are provided. A signalized access to the Town & Country Center is provided on Rand Road; the signalized intersection also provides access to the Southpoint shopping center located on the east side of the street. At this intersection, Rand Road provides a dedicated left-turn lane, two through lanes, and a shared through/right-turn lane on the north leg; the south leg provides a dedicated left-turn lane, one through lane, and one shared through/right-turn lane. A 35 MPH speed limit is posted on Rand Road through the study area. Rand Road is under IDOT jurisdiction.

Palatine Road travels in an east-west direction along the northern boundary of the subject site. IDOT classifies Palatine Road as an SRA roadway. Palatine Road generally provides three travel lanes in each direction with left-turn channelization. A landscape center median is provided through the study area. At its signalized intersection with Arlington Heights Road, Palatine Road provides a dedicated left-turn lane, three through lanes, and a dedicated right-turn lane on the west leg. On the east leg, Palatine Road provides a dedicated left-turn lane, two through lanes, and a shared through/right-turn lane. A 35 MPH speed limit is posted on Palatine Road through the study area. Palatine Road is under IDOT jurisdiction.

Lillian Avenue is an east-west roadway which extends west of Arlington Heights Road. Classified as a local roadway, Lillian Avenue generally provides a single travel lane in each direction. At its signalized intersection with Arlington Heights Road, Lillian Avenue provides a dedicated left-turn lane and a shared through/right-turn lane. A speed limit is not posted on Lillian Avenue; therefore, a 25 MPH speed limit was assumed for the purposes of this analysis. Lillian Avenue is under the jurisdiction of the Village of Arlington Heights.

Site Access Driveways for the Town & Country Center are currently provided along Arlington Heights Road, Palatine Road, and Rand Road. For purposes of this analysis, the driveways are labeled Access A through Access E in a clockwise orientation. Two full-access driveways are provided on Arlington Heights Road; the south access driveway (Access A) facilitates loading activity in the rear of the inline commercial buildings, and the north access driveway (Access B) provides customer and employee access to the shopping center. A right-in/right-out (RIRO) access driveway (Access C) is provided on Palatine Road. Two site access driveways are provided on Rand Road, including a RIRO access driveway (Access D) and a full-access driveway (Access E) located opposite the Southpoint shopping center. Each site access driveway provides a single inbound lane and a single outbound lane, with the exception of Access B and Access E. Access B provides a dedicated left-turn lane, a single through lane, and a dedicated right-turn lane in the outbound direction; a single lane is provided in the inbound direction. Access E provides a dedicated left-turn lane and a shared through/right-turn lane in the outbound direction, and two lanes for inbound traffic. For purposes of this analysis, a 25 MPH speed limit was assumed for each site access driveway.

Private Access Driveway, providing access to the Southpoint shopping center, is located on the east side of Rand Road opposite Access E. This driveway provides a dedicated left-turn lane and shared through/right-turn lane in the outbound direction, and a single lane for inbound traffic. For purposes of this analysis, a 25 MPH speed limit was assumed.

2.3. Data Collection

Based on discussions with Village of Arlington Heights, data collection efforts for this study included traffic counts at study area intersections, as well as trip generation counts and drive-through queue observations at an existing Raising Cane's restaurant. A summary of the data collection performed for this study is provided in the following sections.

Study Area Traffic Counts

Turning movement count data was collected in January 2019 at the intersections listed below. Counts were conducted on a typical weekday from 7:00 to 9:00AM and 4:00 to 6:00PM in order to capture peak traffic conditions. In addition, counts were conducted from 11:00AM to 1:00PM on a typical Saturday.

- Arlington Heights Road / Access A
- Arlington Heights Road / Lillian Avenue / Access B
- Arlington Heights Road / Palatine Road
- Palatine Road / Access C
- Rand Road / Access D
- Rand Road / Access E

The traffic count data indicates that peak traffic volumes occur within the study area on weekdays from 7:15 to 8:15AM and 4:15 to 5:15PM. During the Saturday midday period, the peak hour occurs from 11:45AM to 12:45PM. Existing peak hour vehicle traffic volumes are presented in **Exhibit 2**. A summary of the traffic count data is provided in the appendix.

Weekday count data reveals traffic volumes on Palatine Road at Arlington Heights Road are higher in the eastbound direction during the morning peak hour. During the evening and Saturday midday peak hours, traffic volumes on Palatine Road are generally evenly distributed. During the evening peak hour, traffic volumes in the westbound direction are slightly higher as compared to the eastbound direction. During the Saturday midday peak hour, traffic volumes in the eastbound direction are slightly higher as compared to the westbound direction. Traffic volumes on Arlington Heights Road are generally evenly distributed during each peak hour. South of Palatine Road, traffic volumes on Rand Road are higher in the southbound direction during the morning peak hour and higher in the northbound direction during the evening peak hour. Traffic volumes on Rand Road during the Saturday midday peak hour are generally evenly distributed.

Existing Raising Cane's Restaurant

Kimley-Horn conducted traffic counts at an existing Raising Cane's restaurant in Oak Lawn, Illinois. The Oak Lawn restaurant was selected as comparable to the proposed Arlington Heights location based



on its size and location. The existing 3,575 square-foot restaurant occupies an outlot on the northwest quadrant of Cicero Avenue/111th Street. According to IDOT, the average daily traffic volume along the segment of Cicero Avenue fronting the restaurant is 45,800 vehicles, which is generally comparable to the estimated 39,000 average daily vehicles on Palatine Road.

Traffic counts were conducted at the existing Raising Cane's access driveways in January 2019 in order to evaluate empirical trip generation characteristics (*Section 3.3. Trip Generation*). The counts were conducted on a typical weekday from 7:00 to 9:00AM and 4:00 to 6:00PM. In addition, counts were conducted from 11:00AM to 1:00PM on a typical Saturday. A summary of the traffic counts conducted at the existing Raising Cane's restaurant is provided in the appendix.

Observations of drive-through operations were also performed at the existing Raising Cane's restaurant in Oak Lawn, Illinois. The drive-through observations were conducted from 11:00AM to 8:00PM on a typical weekday, and from 11:00AM to 7:00PM on a typical Saturday. A summary of the drive-through observations is presented in *Section 3.2. Site Plan Evaluation*; detailed counts are provided in the appendix.

2.4. Existing Capacity Analyses

Per IDOT standards, Synchro capacity software was used to evaluate existing operational conditions at the study intersections during the weekday and Saturday peak hours. The capacity of an intersection quantifies its ability to accommodate traffic volumes and is expressed in terms of level of service (LOS), measured in average delay per vehicle. LOS grades range from A to F, with LOS A as the highest (best traffic flow and least delay), LOS E as saturated or at-capacity conditions, and LOS F as the lowest (oversaturated conditions). The lowest LOS grade typically accepted by jurisdictional transportation agencies in Northeastern Illinois is LOS D.

The LOS grades shown below, which are provided in the Transportation Research Board's Highway Capacity Manual (HCM), quantify and categorize the driver's discomfort, frustration, fuel consumption, and travel times experienced as a result of intersection control and the resulting traffic queuing. A detailed description of each LOS rating can be found in **Table 2.2**.

Table 2.1. Level of Service Grading Descriptions¹

Level of Service	Description
A	Minimal control delay; traffic operates at primarily free-flow conditions; unimpeded movement within traffic stream.
B	Minor control delay at signalized intersections; traffic operates at a fairly unimpeded level with slightly restricted movement within traffic stream.
C	Moderate control delay; movement within traffic stream more restricted than at LOS B; formation of queues contributes to lower average travel speeds.
D	Considerable control delay that may be substantially increased by small increases in flow; average travel speeds continue to decrease.
E	High control delay; average travel speed no more than 33 percent of free flow speed.
F	Extremely high control delay; extensive queuing and high volumes create exceedingly restricted traffic flow.

¹ Highway Capacity Manual 2010

The range of control delay for each rating (as detailed in the HCM) is shown in **Table 2.3**. Because signalized intersections are expected to carry a higher volume of vehicles and stopping is required during red time, note that higher delays are tolerated for the corresponding LOS ratings.

Table 2.2. Level of Service Grading Criteria¹

Level of Service	Average Control Delay (s/veh) at:	
	Unsignalized Intersections	Signalized Intersections
A	0 – 10	0 – 10
B	> 10 – 15	> 10 – 20
C	> 15 – 25	> 20 – 35
D	> 25 – 35	> 35 – 55
E	> 35 – 50	> 55 – 80
F ²	> 50	> 80

¹ Highway Capacity Manual 2010

² All movements with a Volume to Capacity (v/C) ratio greater than 1 receive a rating of LOS F.

Based on these standards, capacity results were identified for the study intersections under existing conditions. In order to evaluate existing traffic operation, signal timings for the Arlington Heights Road/Palatine Road intersection were obtained from IDOT. The intersection of Arlington Heights Road/Lilliane Avenue/Access B and Rand Road/Access E were assumed to be “free” running stand-alone traffic signals and do not currently operate on a coordinated signal system. In order to evaluate traffic conditions and reflect the responsive nature of the signal cycles, the signal was optimized with an assumed minimum cycle length of 90 seconds. Per IDOT requirements, right-turn-on-red (RTOR) movements were not included in the capacity analysis.

The results of capacity analysis for existing conditions are summarized in **Table 2.4**. In this table, operation on each approach is quantified according to the average delay per vehicle and the corresponding level of service. Overall intersection operations are reported for the signalized intersections of Arlington Heights Road/Palatine Road, Arlington Heights Road/Lilliane Avenue/Access B, and Rand Road/Access E. Overall intersection level of service is not reported for

minor-leg stop-controlled intersections, since the majority of vehicles are able to move through the intersection with little to no delay. The results presented in Table 2.4 are based on Synchro's HCM 2010 reports with the exception of Arlington Heights Road/Palatine Road, which is reported using Synchro's Lanes, Volumes, Timings Report. Due to the presence of U-turn movements on the east and west legs, the Synchro HCM 2010 report is not available for this intersection.

Table 2.3. Existing (Year 2018) Levels of Service

Intersection		Weekday				Saturday	
		AM Peak Hour		PM Peak Hour		Midday Peak Hour	
		Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Arlington Heights Road / Access A (Loading Dock)	△						
Westbound		26	D	34	D	19	C
Southbound (Left)		12	B	11	B	11	B
Arlington Heights Road / Lillian Avenue / Access B	★						
Eastbound		28	C	29	C	25	C
Westbound		30	C	33	C	31	C
Northbound		11	B	14	B	15	B
Southbound		13	B	11	B	13	B
Intersection		14	B	15	B	17	B
Arlington Heights Road / Palatine Road	★						
Eastbound		98	F	65	E ¹	43	D ²
Westbound		42	D ¹	79	E ¹	51	D ²
Northbound		61	E ¹	60	E ¹	49	D ¹
Southbound		64	E	55+	E ¹	44	D ²
Intersection		74	E	66	E	47	D
Palatine Road / Access C (RIRO)	△						
Northbound (Right)		28	D	20	C	16	C
Rand Road / Access D (RIRO)	△						
Eastbound (Right)		19	C	16	C	16	C
Rand Road / Access E	★						
Eastbound		32	C	38	D	29	C
Westbound		32	C	36	D	27	C
Northbound		5	A	9	A	8	A
Southbound		6	A	7	A	8	A
Intersection		6	A	11	B	10-	A

★ – Signalized Intersection

△ – Minor-Leg Stop-Controlled Intersection

¹ Left-turn operates at LOS F.

² Left-turn operates at LOS E.

The intersection of Arlington Heights Road/Palatine Road operates at LOS E during the weekday peak hours, and LOS D during the Saturday midday peak hours. During the morning peak hour, the northbound and southbound approaches operate at LOS E, and the eastbound approach operates at LOS F. During the evening peak hour, each approach operates at LOS E. The delay estimated for the weekday peak hours is likely a function of a relatively long cycle length (140 seconds during the morning peak hour and 150 seconds during the evening peak hour) and priority given to east-west

traffic on Palatine Road. As a result, long periods of green time are allocated to the east-west through movements and the minor street (Arlington Heights Road) approach receives shorter green times.

According to the capacity analysis completed for the intersection of Arlington Heights Road/Palatine Road, the 95th percentile queue estimated for the eastbound left-turn movement exceeds the existing storage lane by approximately 145 feet (6 vehicles) during the morning peak hour. Similarly, the queue estimated for the northbound left-turn movement exceeds the existing storage lane by approximately 210 feet (8 vehicles), and the southbound right-turn movement exceeds the storage lane by approximately 120 feet (5 vehicles). During the evening peak hour, 95th percentile queues exceed the storage lanes for the eastbound and westbound left-turn movements by approximately 130 feet (5 vehicles) and 60 feet (2 vehicles), respectively. The queues estimated for the northbound left-turn movement exceeds the storage lane by 185 feet (7 vehicles), and the southbound right-turn movement exceeds the storage lane by roughly 110 feet (4 vehicles). During the Saturday midday peak hour, the 95th percentile queues are generally accommodated within the storage lanes with the exception of the northbound left-turn movement which exceeds the turn lane by approximately 160 feet (6 vehicles). The estimated queues are generally higher than the maximum queues observed in the field. The maximum queues observed in the field were accommodated within the storage lanes provided with the exception of the northbound left-turn movement which exceeded the existing storage by approximately 50 feet (2 vehicles) in the morning peak hour and 100 feet (4 vehicles) in the evening peak hour. The results of the capacity analysis are considered conservative as they do not reflect RTOR movements, which were observed in the field.

The signalized intersections of Arlington Heights Road/Lillian Avenue/Access B and Rand Road/Access E operate at LOS B or better during each peak hour, with each approach operating at LOS D or better. During each peak hour, the 95th percentile queues are accommodated within the existing storage lanes.

The approaches and turn movements at the unsignalized intersections operate at LOS D or better. The 95th percentile queues estimated for the Town & Country Center access driveways are approximately 75 feet (3 vehicles) or less during each peak hour with two exceptions. At Access B, the estimated 95th percentile queue for the westbound (outbound) right-turn movement is approximately 125 feet (5 vehicles) during the evening peak hour and 175 feet (7 vehicles) during the Saturday midday peak hour.

3. FUTURE CONDITIONS

This section of the report outlines the proposed site plan, summarizes site-specific traffic characteristics, and develops future traffic projections for analysis.

3.1. Development Characteristics & Site Access

The proposed redevelopment would include an approximately 3,735 square-foot restaurant with a drive-through window. Existing site access for the Town & Country Center would be maintained with the outlot redevelopment; internal cross-access would be provided in order to facilitate access to the proposed restaurant.

The proposed outlot redevelopment would provide two full-access driveways to the internal Town & Country Center access drive, and cross-access with the bank to the west would be maintained. With the outlot redevelopment, two internal full-access driveways would be removed. A copy of the site plan is provided in the appendix.

3.2. Site Plan Evaluation

For purposes of this analysis, the proposed site plan was evaluated based on several characteristics including onsite circulation, drive-through window access and vehicle stacking, and pedestrian access. A summary of the key benefits of the proposed site plan are summarized below.

- Utilizes existing Town & Country Center site access driveways; new access to the public roadway network is not proposed.
- Eliminates two full-access driveways to the internal Town & Country Center access drive, thereby reducing turning movement conflicts at the shopping center.
- Maintains cross-access with the existing bank to the west of the site.
- Includes a designated onsite crosswalk to provide an accessible route between the ADA parking spaces and the proposed Raising Cane's entryway.
- Maintains sidewalk along the Palatine Road frontage.
- Dedicates drive-through lanes separate from the parking lot drive aisle in order to optimize drive-through operations and minimize impacts to the parking lot.
- Provides queue storage for approximately 18 vehicles (12 inside lane, 6 outside lane) in the dedicated drive-through lanes. Between the menu order board and pick-up window, queue storage for approximately 10 vehicles (8 inside lane, 2 outside lane) is provided. As noted in *Section 3.5. Drive-Through Operations*, the maximum observed queue at the existing Raising Cane's restaurant in Oak Lawn was 9 vehicles; therefore, the proposed queue storage is expected to accommodate demand without spillback to the parking lot.
- Provides a total of 46 parking spaces, which exceeds the Village of Arlington Heights requirement of 39 spaces for the proposed restaurant.

3.3. Trip Generation

In order to calculate trips generated by the proposed restaurant, data was referenced from the Institute of Transportation Engineers (ITE) manual titled Trip Generation, Tenth Edition. Trip generation rates for the ITE Land Use Code (LUC) corresponding to the proposed use are shown in **Table 3.1**. Copies of the ITE data are provided in the appendix.

Table 3.1. ITE Trip Generation Data by Land Use

ITE Land Use	Unit	Weekday			Saturday
		Daily	AM Peak Hour	PM Peak Hour	Midday Peak Hour
Fast-Food Restaurant with Drive-Through Window (LUC 934)	Per 1,000 sq. ft.	470.95 50% in / 50% out	40.19 51% in / 49% out	32.67 52% in / 48% out	54.86 51% in / 49% out

For the purpose of this study, site generated trips are expected to exhibit multiple routing patterns when traveling to and from the subject site, as described below:

- **Pass-by** – Pass-by traffic reflects the travel patterns of motorists who are already traveling on the adjacent study roadways and stop at the site en-route to another destination. Data in the ITE Trip Generation Handbook, Third Edition, reveals that 49 percent of vehicles at a Fast-Food Restaurant with Drive-Through Window (LUC 934) during the morning peak hour and 50 percent of trips during the evening peak hour are pass-by trips. ITE data is not provided for Daily trips and Saturday peak hour trips; therefore, an average of the morning and evening peak hour data (50 percent) was used to estimate pass-by trips during these periods.
- **Primary Trips** – Vehicles that travel to the subject redevelopment and then return directly to their place of origin are called “primary trips.” Primary trips reflect new traffic volumes generated by the proposed redevelopment that would approach and depart on the same route. Trips to/from the site that are not pass-by trips are expected to be primary trips.

Per these assumptions, site-generated traffic projections are presented in **Table 3.2**.

Table 3.2. Site-Generated Traffic Projections

Land Use	Size	Weekday							Saturday		
		Daily	AM Peak			PM Peak			Midday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Fast-Food Restaurant with Drive-Through Window	3,736 sq. ft.	1,760	75	75	150	65	60	125	105	100	205
<i>Less Pass-by Trips¹</i>		-880	-35	-35	-70	-30	-30	-60	-50	-50	-100
<i>Total New Trips to the Study Area</i>		880	40	40	80	35	30	65	55	50	105

¹ Pass-by trips were applied at a rate of 49 percent during the morning peak hour and 50 percent during the evening peak hour, based on data provided in ITE's Trip Generation Handbook, Third Edition. ITE data is not provided for Daily and Saturday midday peak hour; therefore, an average of 50 percent was assumed to estimate pass-by trips during these periods.

For purposes of this analysis, the ITE trip generation was compared to empirical data collected at the existing Raising Cane's restaurant in Oak Lawn. A comparison of the trip generation is presented in **Table 3.3** below. The empirical trip generation reflects the peak hour of generator (i.e., highest volume of site-generated traffic during a one-hour period); and therefore, ITE data for peak hour of generator was reviewed for comparison.

Table 3.3. Trip Generation Comparison (Driveway Trips)

Land Use	Size	Weekday						Saturday		
		AM Peak			PM Peak			Midday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
ITE Peak Hour of Generator ¹	3,575 sq. ft.	95	85	180	95	90	185	100	95	195
Empirical Peak Hour of Generator ²	3,575 sq. ft.	5	5	10	65	70	135	60	55	115

¹ Reflects trip generation based on ITE peak hour of generator provided for Fast-Food Restaurant with Drive-Through Window (LUC 934) as presented in Trip Generation, Tenth Edition.

² Reflects empirical peak hour of generator per observations conducted at an existing Raising Cane's restaurant in Oak Lawn, Illinois.

As shown, the ITE data provides a higher estimate of site-generated traffic during each peak hour. Therefore, use of the ITE data for the proposed Raising Cane's restaurant is assumed to provide a conservative estimate of site-generated traffic during the peak hour of adjacent street traffic (Table 3.2). As such, the empirical data was set aside and the standard ITE trip generation was used for the capacity analysis.

3.4. Directional Distribution

The estimated distribution of site-generated traffic on the surrounding roadway network as it approaches and departs the site is a function of several variables, such as the nature of surrounding land uses, prevailing traffic volumes/patterns, characteristics of the street system, and the ease with which motorists can travel over various sections of that system. The anticipated directional distributions estimated for primary trips are outlined in **Table 3.4**.

Table 3.4. Estimated Trip Distribution

Traveling to/from:	Portion of Primary Trips
North on Arlington Heights Road	15%
South on Arlington Heights Road	15%
North on Rand Road	15%
South on Rand Road	15%
East on Palatine Road	20%
West on Palatine Road	20%
Total	100%

Pass-by trips are expected to travel to and from the site in a manner that is proportional to existing travel patterns. Pass-by trip distribution estimates account for the expectation that site trips are likely to travel along Palatine Road and Arlington Heights Road. Based on the preceding trip distribution

assumptions, the site trip assignments for primary trips and pass-by trips are illustrated on **Exhibits 3 and 4**, respectively. Total site trip assignment is depicted in **Exhibit 5**.

3.5. Drive-Through Operations

The proposed restaurant redevelopment would provide a drive-through window on the east side of the building. Two drive-through lanes would be provided with stacking for a total of 18 vehicles (12 inside lane, 6 outside lane). In order to evaluate the proposed drive-through lane stacking, observations were conducted at the Raising Cane's restaurant in Oak Lawn. A summary of the drive-through observations is presented in **Table 3.5** below.

Table 3.5 Drive-Through Observations – Raising Cane's Restaurant Oak Lawn, IL

Drive-Through Lane Queue	Weekday	Saturday
Maximum	9 vehicles (4:00PM)	9 vehicles (1:30PM)

As shown above, a maximum queue of nine (9) vehicles occurred during both the weekday and Saturday observations. During the weekday, the maximum queue was observed at 4:00PM. On Saturday, the maximum queue occurred at 1:30PM. During the weekday and Saturday observation periods when vehicles were present in the drive-through lanes, an average of three (3) vehicles or less was observed. The maximum queue conditions represent periods when vehicles arrived in groups or platoons; throughout most of the observation periods, drive-through vehicle arrivals were staggered. Based on observations conducted at the existing Raising Cane's restaurant in Oak Lawn, the proposed drive-through window stacking is expected to accommodate demand without impacting site access, internal circulation, or parking maneuvers. Queue spillback to the Raising Cane's parking lot or Town & Country Center circulation network is not anticipated.







3.6. Future Capacity Analysis

The proposed redevelopment is expected to be constructed by Year 2020; Kimley-Horn therefore evaluated future traffic conditions for a Year 2025 design horizon (build-plus-five conditions, per typical IDOT requirements).

Future No-Build Traffic Projections

Based on information received from the Chicago Metropolitan Agency for Planning (CMAP), traffic growth on Arlington Heights Road north of Palatine Road is projected at a compounded rate of roughly 0.38 percent annually through Year 2050; south of Palatine Road, growth on Arlington Heights Road is projected at a rate of 0.35 percent. Palatine Road has a projected growth rate of 0.15 percent, and Rand Road south of Palatine Road has a projected growth rate of 0.18 percent. An official letter from CMAP documenting the projected Year 2050 traffic volumes on the study roadways is included in the appendix. Background traffic volumes are depicted in **Exhibit 6**.

In addition to the background traffic growth, trips estimated for future occupancy of currently vacant tenant spaces was added to the roadway network. A total of 93,057 square feet of retail use is currently vacant. Per direction from Village of Arlington Heights staff, approximately 35,000 square feet of the vacant space is assumed to be a future grocery store and the remaining square footage is assumed to be retail use. In order to calculate trips generated by the vacant tenant spaces, data was referenced from the ITE Trip Generation, Tenth Edition manual. Trip generation rates for the ITE Land Use Code (LUC) corresponding to the vacant tenant spaces are shown in **Table 3.6**. Copies of the ITE data are provided in the appendix.

Table 3.6. ITE Trip Generation Data by Land Use – Vacant Tenant Spaces

ITE Land Use	Unit	Weekday			Saturday
		Daily	AM Peak Hour	PM Peak Hour	Midday Peak Hour
Shopping Center (LUC 820)	Per 1,000 sq. ft.	$\ln(T) = 0.68 \ln(X) + 5.57$ 50% in/50% out	$T = 0.50(X) + 151.78$ 62% in/38% out	$\ln(T) = 0.74 \ln(X) + 2.89$ 48% in/52% out	$\ln(T) = 0.79 \ln(X) + 2.79$ 52% in/48% out
Supermarket (LUC 850)	Per 1,000 sq. ft.	$T = 70.89(X) + 1212.64$ 50% in/50% out	3.82 60% in/40% out	$\ln(T) = 0.75 \ln(X) + 3.21$ 51% in / 49% out	$\ln(T) = 0.69 \ln(X) + 3.61$ 51% in/49% out

T – Site-generated trips

X – 1,000 square feet gross floor area

Based on this data, the trip generation estimated for the vacant tenant spaces is presented in **Table 3.7**. Similar to trips estimated for the proposed restaurant, the traffic estimated for the vacant tenant spaces is also expected to exhibit a diverse range of travel patterns when traveling to and from Town & Country Center. Pass-by trips and primary trips are anticipated. In addition, the future retail and grocery store tenants are expected to complement other uses in the Town & Country Center; thus, it is likely that some patrons that visit the retail and grocery store uses will also visit other tenants. To reflect these “internally captured” trips, a 10 percent reduction was assumed for the future retail and grocery store uses.



Table 3.7. Site-Generated Traffic Projections – Vacant Tenant Spaces

Land Use	Size	Weekday							Saturday		
		Daily	AM Peak			PM Peak			Midday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Shopping Center (LUC 820)	58,057 sq. ft.	4,150	110	70	180	175	190	365	210	195	405
Supermarket (LUC 850)	35,000 sq. ft.	3,690	80	55	135	180	175	355	220	210	430
Total Trips		7,840	190	125	315	355	365	720	430	405	835
<i>Less 10% Internal Capture</i>		<i>-840</i>	<i>-20</i>	<i>-10</i>	<i>-30</i>	<i>-40</i>	<i>-40</i>	<i>-80</i>	<i>-40</i>	<i>-40</i>	<i>-80</i>
Total Driveway Trips		7,000	170	115	285	315	325	640	390	365	755
<i>Less Pass-by Trips¹</i>		<i>-2,470</i>	<i>-30</i>	<i>-30</i>	<i>-60</i>	<i>-115</i>	<i>-115</i>	<i>-230</i>	<i>-115</i>	<i>-115</i>	<i>-230</i>
Total New Trips to the Study Area		4,530	140	85	225	200	210	410	275	250	525

¹Pass-by trips were applied at a rate of 34 percent during the evening peak hour and 26 percent during the Saturday midday peak hour for the Shopping Center (LUC 820). ITE data is not provided for Daily and morning peak hour; therefore, 34 percent was applied to estimate pass-by trips during these periods. For the Supermarket (LUC 850), pass-by trips were applied at a rate of 36 percent during the evening peak hour. ITE data is not provided for Daily and Saturday midday peak hour; therefore, 36 percent was assumed. For purposes of the analysis, pass-by trips were not assumed during the morning peak hour.

For purposes of the analysis, the directional distributions summarized in Table 3.4 were assumed for the site-generated trips outlined above. Pass-by trips are expected to travel to and from the site in a manner that is proportional to existing travel patterns. Based on the preceding trip distribution assumptions, the total site trip assignments for primary trips and pass-by trips are illustrated on **Exhibit 7**. Detailed trip assignments for primary trips and pass-by trips are provided in the appendix.

The site-generated trips were added to the background traffic volumes depicted in Exhibit 6 to estimate the Future (2025) No-Build traffic volumes, which are depicted in **Exhibit 8**. Based on these assumptions, future capacity results for the no-build condition are provided in **Table 3.8**. Consistent with existing conditions, the results are based on Synchro's HCM 2010 reports with the exception of Arlington Heights Road/Palatine Road, which is reported using Synchro's Lanes, Volumes, Timings Report. Due to the presence of U-turn movements on the east and west legs, the Synchro HCM 2010 report is not available for this intersection. Additional capacity analysis details are included in the appendix.





Table 3.8. Future (Year 2025) No-Build Levels of Service

Intersection		Weekday				Saturday	
		AM Peak Hour		PM Peak Hour		Midday Peak Hour	
		Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Arlington Heights Road / Access A (Loading Dock)	△						
Westbound		28	D	38	E	20	C
Southbound (Left)		12	B	12	B	12	B
Arlington Heights Road / Lillian Avenue / Access B	★						
Eastbound		29	C	32	C	28	C
Westbound		32	C	46	D ⁵	50	D ⁵
Northbound		11	B	17	B	17	B
Southbound		13	B	12	B	14	B
Intersection		15	B	20-	B	22	C
Arlington Heights Road / Palatine Road	★						
Eastbound		109	F	67	E ¹	44	D ³
Westbound		42	D ¹	81	F	52	D ³
Northbound		70	E ¹	81	F	68	E ¹
Southbound		71	E ²	58	E ¹	49	D ⁴
Intersection		82	F	73	E	53	D
Palatine Road / Access C (RIRO)	△						
Northbound (Right)		39	E	33	D	26	D
Rand Road / Access D (RIRO)	△						
Eastbound (Right)		21	C	18	C	19	C
Rand Road / Access E	★						
Eastbound		33	C	39	D	29	C
Westbound		33	C	34	C	26	C
Northbound		5	A	11	B	10-	A
Southbound		6	A	9	A	10-	A
Intersection		7	A	13	B	12	B

★ – Signalized Intersection

△ – Minor-Leg Stop-Controlled Intersection

¹ Left-turn operates at LOS F.

² Thru movement operates at LOS F.

³ Left-turn operates at LOS E.

⁴ Left-turn and thru movements operate at LOS E.

⁵ Right-turn movement operates at LOS E.

With the addition of background traffic growth and trips estimated for the currently vacant tenant spaces, the study intersections are expected to operate similar to existing conditions. The level of service for each approach and movement is consistent with existing conditions with some exceptions. The westbound approach at Arlington Heights/Access A is projected to operate at LOS E (compared to LOS D under existing conditions) during the evening peak hour. The 95th percentile queues projected for Arlington Heights/Access A are expected to be similar to existing conditions.

At Arlington Heights/Palatine Road, the overall intersection is projected to operate at LOS F (compared to LOS E under existing conditions) during the morning peak hour. During this same peak hour, the southbound through movement is projected to operate at LOS F (compared to LOS E under

existing conditions). During the evening peak hour, the westbound and northbound approaches are projected to operate at LOS F (compared to LOS E under existing conditions). During the Saturday midday peak hour, the northbound approach is projected to operate at LOS E (compared to LOS D under existing conditions). The 95th percentile queues projected for Arlington Heights/Palatine Road are projected to be generally consistent with existing conditions with some exceptions. During each peak hour, the 95th percentile queues projected for the northbound and southbound left-turn lanes are projected to increase as compared to existing conditions. The queues estimated for the northbound left-turn lane would continue to exceed the available storage, consistent with existing conditions.

At the intersection of Arlington Heights Road/Lillian Avenue/Access B, the projected level of service is consistent with existing conditions. The 95th percentile queues for the westbound right-turn movement are expected to exceed the available storage length during the weekday evening and Saturday midday peak hours. The results of the capacity analysis are considered conservative as they do not reflect RTOR movements, which were observed in the field. Furthermore, the current site access and onsite circulation configuration provides flexibility for motorists to select an alternate outbound access driveway if long delays or queues are observed at Access B.

At the intersection of Palatine Road/Access C, the northbound right-turn movement is projected to operate at LOS E (compared to LOS D under existing conditions) during the morning peak hour, and LOS D (compared to LOS C under existing conditions) during the evening and Saturday midday peak hours. During each peak hour, the 95th percentile queues are approximately 75 feet (3 vehicles) or less.

For the intersection of Rand Road/Access E, delay is shown to decrease for the westbound approach in the evening peak hour. This is attributable to the future traffic volumes and green time allocated to this movement. During the evening peak hour, the northbound approach is projected to operate at LOS B (compared to LOS A under existing conditions). During the Saturday midday peak hour, the overall intersection is projected to operate at LOS B (compared to LOS A under existing conditions). The projected 95th percentile queues are expected to be similar to existing conditions.

Future Build Traffic Projections

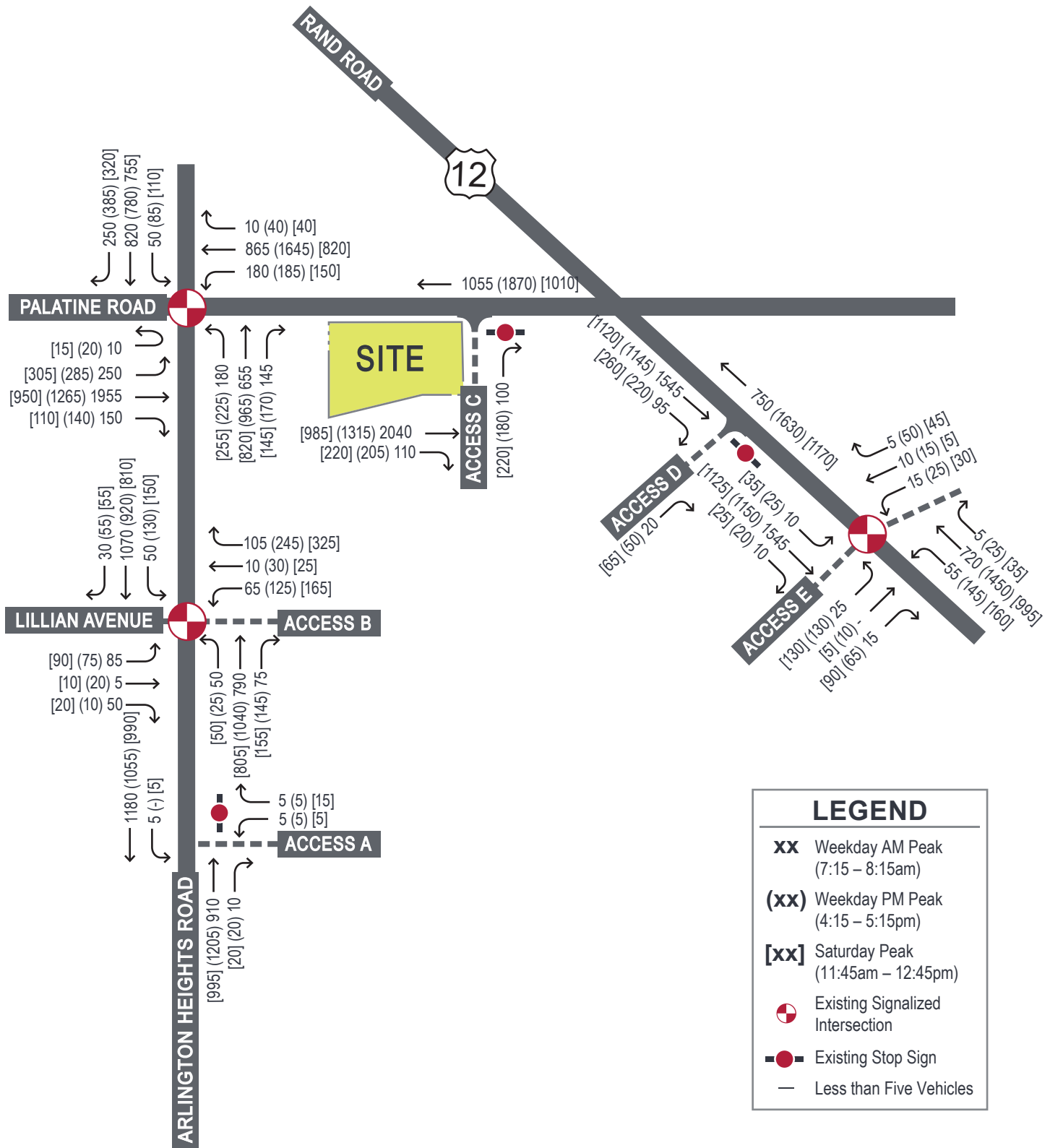
Total traffic projections for Year 2025 were calculated by adding site trips (Exhibit 5) to Future (2025) No-Build traffic volumes (Exhibit 8). Traffic projections for the Year 2025 future build scenario are illustrated in **Exhibit 9**.

For the analysis of future traffic conditions, turn lane warrants were evaluated for the study intersections and the proposed site access driveways using guidelines in the IDOT *Bureau of Design and Environment (BDE) Manual*. At the intersection of Arlington Heights Road/Palatine Road, dedicated left- and right-turn lanes are provided on each leg, with the exception of the east leg which provides a left-turn lane only. Based on the IDOT *BDE Manual* volume guidance provided for signalized intersections, projected future traffic volumes (Exhibit 9) do not meet warrant criteria for a right-turn lane on Palatine Road at Arlington Heights Road.

At the site access driveways, dedicated right-turn lanes are not currently provided. Based on the IDOT *BDE Manual* volume guidance for signalized intersections, projected future traffic volumes (Exhibit 9) meet the minimum warrant criteria for a northbound right-turn lane on Arlington Heights Road at Access B during Saturday midday peak hour conditions; however, based on a review of the corridor, exclusive right-turn lanes are generally not provided along the Arlington Heights Road corridor. Furthermore, the capacity analysis results indicate the northbound approach and northbound right-turn movement are projected to operate at LOS B during each peak hour. Therefore, a northbound right-turn lane was not included in the analysis of Arlington Heights/Lillian Avenue/Access B. At the intersection of Rand Road/Access E, the projected future traffic volumes (Exhibit 9) do not meet warrant criteria for a southbound right-turn lane on Rand Road. Therefore, a right-turn lane was not included in the analysis of future conditions at Rand Road/Access E.

Right-turn lanes were also evaluated for the unsignalized Town & Country Center access driveways. The IDOT *BDE Manual* does not provide specific volume guidance for four-lane roadways with a design speed less than 50 MPH (design speed on Arlington Heights Road is 40 MPH, posted speed limit is 35 MPH). Per IDOT guidance, a right-turn lane may also be considered to meet the level of service criteria or to provide uniform intersection design along a corridor. At Arlington Heights Road/Access A, the northbound right-turn is projected to operate under “free-flow” conditions and right-turn lanes are generally not provided along the corridor; therefore, a dedicated northbound right-turn lane was not included in the analysis of future conditions. The IDOT *BDE Manual* does not provide specific volume guidance for unsignalized intersections on a six-lane roadway with a design speed of 40 MPH (posted speed limit on Palatine Road and Rand Road is 35 MPH). Per guidance in the IDOT *BDE Manual*, a right-turn lane may also be considered where right-turn lanes are consistently provided along the corridor. Based on a review of the study area, right-turn lanes are generally not provided on Palatine Road or Rand Road at site access driveways. Therefore, an eastbound right-turn lane on Palatine Road at Access C was not included in the analysis of future conditions. Similarly, a southbound right-turn lane on Rand Road at Access D was not included in the analysis of future conditions.

At the internal site access driveways proposed for the Raising Cane’s restaurant, a single inbound lane and single outbound lane is recommended. Stop control should be posted for outbound traffic at each Raising Cane’s restaurant driveway. In addition, onsite wayfinding should be provided to direct motorists to the dedicated drive-through window lanes.



Based on the assumptions applied to the traffic projections for the future build scenario, future capacity results are provided in **Table 3.9**. The results are based on Synchro's HCM 2010 reports with the exception of Arlington Heights Road/Palatine Road, which is reported using Synchro's Lanes, Volumes, Timings Report. Due to the presence of U-turn movements on the east and west legs, the Synchro HCM 2010 report is not available for this intersection. Additional capacity analysis details are included in the appendix.

Table 3.9. Future (Year 2025) Build Levels of Service

Intersection		Weekday				Saturday	
		AM Peak Hour		PM Peak Hour		Midday Peak Hour	
		Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Arlington Heights Road / Access A (Loading Dock)	△						
Westbound		29	D	39	E	21	C
Southbound (Left)		12	B	12	B	12	B
Arlington Heights Road / Lillian Avenue / Access B	★						
Eastbound		29	C	32	C	28	C
Westbound		32	C	51	D ⁵	59	E
Northbound		12	B	17	B	18	B
Southbound		13	B	12	B	14	B
Intersection		15	B	21	C	25	C
Arlington Heights Road / Palatine Road	★						
Eastbound		107	F	67	E ¹	44	D ³
Westbound		42	D ¹	81	F	52	D ³
Northbound		75	E ¹	83	F	72	E ¹
Southbound		71	E ²	59	E ¹	50	D ⁴
Intersection		82	F	73	E	54	D
Palatine Road / Access C (RIRO)	△						
Northbound (Right)		56	F	41	E	31	D
Rand Road / Access D (RIRO)	△						
Eastbound (Right)		21	C	19	C	20	C
Rand Road / Access E	★						
Eastbound		33	C	41	D	29	C
Westbound		33	C	34	C	26	C
Northbound		5	A	11	B	10-	A
Southbound		6	A	9	A	11	B
Intersection		7	A	13	B	12	B

★ – Signalized Intersection

△ – Minor-Leg Stop-Controlled Intersection

¹ Left-turn operates at LOS F.

² Thru movement operates at LOS F.

³ Left-turn operates at LOS E.

⁴ Left-turn and thru movement operate at LOS E.

⁵ Right-turn movement operates at LOS E.

With the addition of site-generated traffic, the study intersections are expected to operate similar to future-no build conditions. The level of service for each approach and movement is consistent with some exceptions. At the intersection of Arlington Heights Road/Lillian Avenue/Access B, the overall intersection is projected to operate at LOS C (compared to LOS B under future no-build conditions) during the evening peak hour. During the Saturday midday peak hour, the westbound approach is projected to operate at LOS E (compared to LOS D under future no-build conditions).

At the intersection of Palatine Road/Access C, the northbound right-turn movement is projected to operate at LOS F (compared to LOS E under future no-build conditions) during the morning peak hour. During the evening peak hour, the northbound right-turn movement is projected to operate at LOS E (compared to LOS D under future no-build conditions). The projected delay is not unusual for a minor-street stop-controlled intersection with a heavily traveled arterial such as Palatine Road. The projected 95th percentile queues are approximately 125 feet (5 vehicles) or less during each peak hour. The queue is expected to be accommodated within the existing throat length provided for Access C; therefore, impacts to onsite circulation are not anticipated. Furthermore, the current site access and onsite circulation configuration provides flexibility for motorists to select an alternate outbound access driveway if long delays or queues are observed at Access C.

At the intersection of Rand Road/Access E, the southbound approach is projected to operate at LOS B (compared to LOS A under future no-build conditions) during the Saturday midday peak hour.

For each study intersection, the projected 95th percentile queues are expected to be similar to existing conditions. The 95th percentile queues projected for the existing Town & Country Center access driveways are approximately 125 feet (5 vehicles) or less during each peak hour with some exceptions. Consistent with future no-build conditions, the 95th percentile queue for the westbound (outbound) right-turn movement at Access B is projected to exceed the storage length during the weekday evening and Saturday midday peak hours. The results of the capacity analysis are considered conservative as they do not reflect RTOR movements, which were observed in the field.

4. RECOMMENDATIONS & CONCLUSIONS

Based on Kimley-Horn's review of the proposed site plan and evaluation of existing and future traffic conditions, the study intersections are expected to adequately accommodate the proposed redevelopment with the following recommendations:

- Provide a single inbound lane and a single outbound lane at the internal site access driveways proposed for the Raising Cane's restaurant.
- Install minor-leg stop control for outbound traffic at the internal site access driveways.
- Consider onsite wayfinding to direct motorists to the dedicated drive-through window lanes.

Regardless of the final configuration of the intersection geometrics, several additional items should be taken into consideration when preparing site and roadway improvement plans for the subject redevelopment. As the site design progresses, care should be taken with landscaping, signage, and monumentation at the site access locations to ensure that adequate horizontal sight distance is provided from the new stop bars. If alterations to the site plan or land use should occur, changes to the analysis provided within this traffic impact study may be needed.

APPENDIX

Conceptual Site Plan

CMAP Year 2050 Projections

Existing Capacity Reports

Future No-Build Capacity Reports

Future Build Capacity Reports

Data from the ITE Manual Trip Generation, Tenth Edition

Data from the ITE Trip Generation Handbook, Third Edition

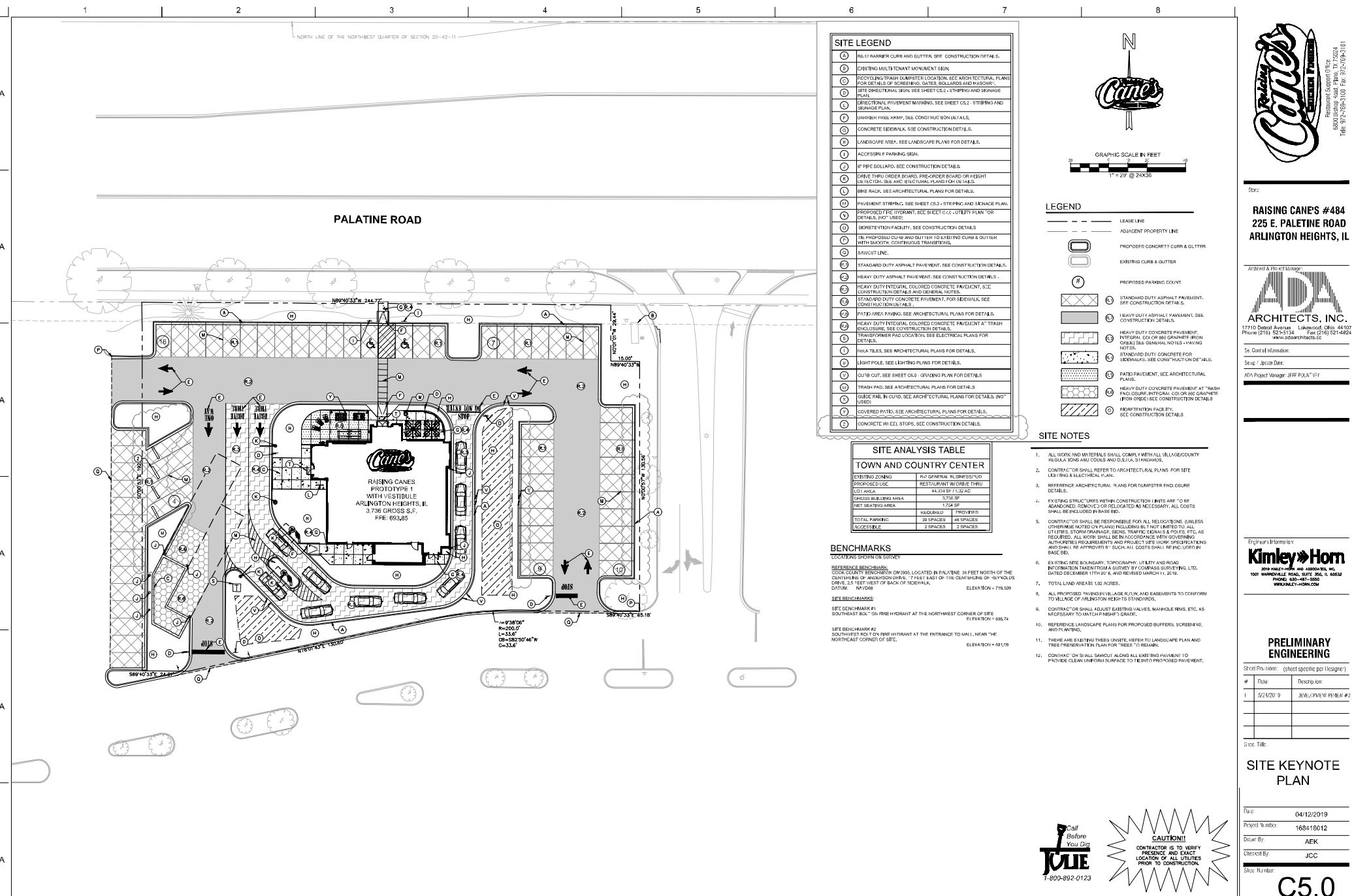
Vacant Tenant Spaces Trip Assignment – Primary Trips

Vacant Tenant Spaces Trip Assignment – Pass-By Trips

Traffic Counts – Study Intersections

Traffic Counts – Existing Raising Cane's Restaurant

CONCEPTUAL SITE PLAN



SITE LEGEND

- 1. 12" WALKWAY CURB AND GUTTER, SEE CONSTRUCTION DETAILS.
- 2. EXISTING MULTITENANT MONUMENT SIGN.
- 3. RECYCLING TRASH DUMPSTER LOCATION, SEE ARCHITECTURAL PLANS FOR DETAILS OF SCREENING, GATES, BOLLARDS AND VASONS.
- 4. UTILITY DIRECTIONAL SIGN, SEE SHEET C02 - STIPING AND SIGNAGE PLAN.
- 5. DIRECTIONAL PAVEMENT MARKING, SEE SHEET C02 - STIPING AND SIGNAGE PLAN.
- 6. SANITARY FIBER HAMP, SEE CONSTRUCTION DETAILS.
- 7. CONCRETE SIDEWALK, SEE CONSTRUCTION DETAILS.
- 8. LANDSCAPE VEB, SEE LANDSCAPE PLANS FOR DETAILS.
- 9. ACCESSIBLE PARKING SIGN.
- 10. 8" PIPE DOLLARD, SEE CONSTRUCTION DETAILS.
- 11. DRIVE THRU ORDER BOARD, PRE-ORDER BOARD OR HEIGHT SIGN, SEE ARCHITECTURAL PLANS FOR DETAILS.
- 12. DRIVE RACK, SEE ARCHITECTURAL PLANS FOR DETAILS.
- 13. PAVEMENT STIPING, SEE SHEET C02 - STIPING AND SIGNAGE PLAN.
- 14. PROPOSED FIRE HYDRANT, SEE SHEET C02 - UTILITY PLAN FOR DETAILS, NOT USED.
- 15. BIKERETRYCH FACILITY, SEE CONSTRUCTION DETAILS.
- 16. 18" PROPOSED CURB AND GUTTER TO EXISTING CURB AND GUTTER WITH SMOOTH, CONTINUOUS TRANSITIONS.
- 17. SAVOIT LINE.
- 18. STANDARD DUTY ASPHALT PAVEMENT, SEE CONSTRUCTION DETAILS.
- 19. HEAVY DUTY ASPHALT PAVEMENT, SEE CONSTRUCTION DETAILS.
- 20. HEAVY DUTY INTERIOR COLORED CONCRETE PAVEMENT, SEE CONSTRUCTION DETAILS AND GENERAL NOTES.
- 21. STANDARD DUTY CONCRETE PAVEMENT, FOR SIDEWALK, SEE CONSTRUCTION DETAILS.
- 22. PAVED AREA PAVING, SEE ARCHITECTURAL PLANS FOR DETAILS.
- 23. HEAVY DUTY INTERIOR COLORED CONCRETE PAVEMENT AT TRASH ENCLOSURE, SEE CONSTRUCTION DETAILS.
- 24. TRANSFORMER PAD LOCATION, SEE ELECTRICAL PLANS FOR DETAILS.
- 25. HALLA TILES, SEE ARCHITECTURAL PLANS FOR DETAILS.
- 26. LIGHT POLE, SEE LIGHTING PLANS FOR DETAILS.
- 27. DUTY CUT, SEE SHEET C02 - GRADING PLAN FOR DETAILS.
- 28. TRASH PAD, SEE ARCHITECTURAL PLANS FOR DETAILS.
- 29. GUIDE RAIL IN CURB, SEE ARCHITECTURAL PLANS FOR DETAILS (NOT USED).
- 30. COVERED PAVTID, SEE ARCHITECTURAL PLANS FOR DETAILS.
- 31. CONCRETE WHEEL STOPS, SEE CONSTRUCTION DETAILS.

SITE ANALYSIS TABLE
TOWN AND COUNTRY CENTER

EXISTING ZONING	R-7 GENERAL RESIDENTIAL
PROPOSED USE	RESTAURANT WITH DRIVE THRU
LOT AREA	44,324 SF / 1.02 AC
CRSSED BUILDING AREA	3,750 SF
NET SEATING AREA	1,724 SF
HIGHWAY	PROVIDED
TOTAL PARKING	39 SPACES / 48 SPACES
ACCESSIBLE	2 SPACES / 2 SPACES

BENCHMARKS
LOCATIONS SHOWN ON SITEPLAN

REFERENCE BENCHMARK
COOK COUNTY BENCHMARK DV305, LOCATED IN PALATINE, 33 FEET NORTH OF THE CENTERLINE OF PALATINE DRIVE, 77 FEET EAST OF THE CENTERLINE OF 45TH AVENUE DRIVE, 25 FEET WEST OF BACK OF SIDEWALK.
GUTTER, 11/1/2018 ELEVATION = 715.00

SITE BENCHMARK #1
SOUTHEAST BOLT ON FIRE HYDRANT AT THE NORTHWEST CORNER OF SITE ELEVATION = 696.74

SITE BENCHMARK #2
SOUTHWEST BOLT ON FIRE HYDRANT AT THE ENTRANCE TO MAIN, NEAR THE NORTHWEST CORNER OF SITE ELEVATION = 691.09

LEGEND

- LEASE LINE
- ADJACENT PROPERTY LINE
- PROPOSED CONCRETE CURB & GUTTER
- EXISTING CURB & GUTTER
- PROPOSED PARKING COUNT
- STANDARD DUTY ASPHALT PAVEMENT, SEE CONSTRUCTION DETAILS.
- HEAVY DUTY ASPHALT PAVEMENT, SEE CONSTRUCTION DETAILS.
- HEAVY DUTY CONCRETE PAVEMENT, INTERIOR COLORED OR GRANITE (BROWN ORTAL) SEE GENERAL NOTES - PAVING NOTES.
- STANDARD DUTY CONCRETE FOR SIDEWALKS, SEE CONSTRUCTION DETAILS.
- PATIO PAVEMENT, SEE ARCHITECTURAL PLANS.
- HEAVY DUTY CONCRETE PAVEMENT AT TRASH PAD, INTERIOR COLORED OR GRANITE (BROWN ORTAL) SEE CONSTRUCTION DETAILS.
- BIKERETRYCH FACILITY, SEE CONSTRUCTION DETAILS.

SITE NOTES

- ALL WORK AND MATERIALS SHALL COMPLY WITH ALL ILLINOIS COUNTY RESOLUTIONS AND ORDINANCES.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR SITE LAYOUTING AND ELECTRICAL PLAN.
- REFERENCE ARCHITECTURAL PLANS FOR DUMPSTER PAD COLOUR DETAILS.
- EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY, ALL COSTS SHALL BE INCLUDED IN BASE BID.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, UNLESS OTHERWISE NOTED ON PLANS. RELOCATIONS SHALL BE LIMITED TO ALL UTILITIES, STORM DRAINAGE, SEWER, TRAFFIC SIGNALS, ETC., ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS AND PROJECT SITE SPECIFICATIONS AND SHALL BE APPROVED BY SUCH ALL COSTS SHALL BE INCLUDED IN BASE BID.
- EXISTING SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM A SURVEY BY CONRAD SURVEYING LTD. DATED DECEMBER 17TH 2018, AND REVISED MARCH 11, 2019.
- TOTAL LAND AREA IS 1.02 ACRES.
- ALL PROPOSED PAVING SHALL BE TO CONFORM TO THE ILLINOIS COUNTY SPECIFICATIONS.
- CONTRACTOR SHALL ADJUST EXISTING VALVES, MANHOLE RIMS, ETC. AS NECESSARY TO MATCH FINISHED GRADE.
- REFERENCE LANDSCAPE PLANS FOR PROPOSED BUFFERS, SCREENING, AND PLANTING.
- THERE ARE EXISTING TREES ON SITE, REFER TO LANDSCAPE PLAN AND TREE PRESERVATION PLAN FOR TREE TO REMAIN.
- CONTRACTOR SHALL MAINTAIN ALL EXISTING PAVEMENT TO PROVIDE CLEAN UNIFORM SURFACE TO BE INTO PROPOSED PAVEMENT.

RAISING CANES #484
225 E. PALETINE ROAD
ARLINGTON HEIGHTS, IL

Architect & Principal
ADA ARCHITECTS, INC.
17711 Daniel Avenue, Lombard, Illinois 60148
Phone (708) 525-5154 Fax (708) 521-4824
www.adaarchitects.com

Site Information:
Scale / Issue Date:
ADA Project Manager: JEFF POLAN, EIT

Engineer's Information:
Kimley-Horn
1001 WARDVILLE ROAD, SUITE 201, IL 60632
PHONE 630-467-8800
WWW.KIMLEY-HORN.COM

PRELIMINARY ENGINEERING

Sheet No. (min):	(sheet specific per Designer)	
#	Date	Description
1	5/2/2019	JEREMY PERIN #2

Site Title:
SITE KEYNOTE PLAN

Drawn:	04/12/2019
Project Number:	168415012
Drawn By:	AEK
Checked By:	JCC
Scale:	As Shown

C5.0

REVIEW SET - NOT FOR CONSTRUCTION

CMAP YEAR 2050 PROJECTIONS



Chicago Metropolitan Agency for Planning

233 South Wacker Drive
Suite 800
Chicago, Illinois 60606

312 454 0400
www.cmap.illinois.gov

January 23, 2019

Rory S. Fancier-Splitt
Transportation Planner
1001 Warrenville Road
Suite 350
Lisle, IL 60532

Subject: Palatine Road @ Arlington Heights Road
IDOT

Dear Ms. Fancier-Splitt:

In response to a request made on your behalf and dated January 22, 2019, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT	Year 2050 ADT
Arlington Hts Rd N of Palatine Rd	28,800	33,000
Arlington Hts Rd S of Palatine Rd	28,300	32,100
Palatine Rd E of Arlington Hts Rd	39,000	41,100
Palatine Rd W of Arlington Hts Rd	45,000	47,500
Rand Rd S of Palatine Rd	28,700	30,500

Traffic projections are developed using existing ADT data provided in the request letter and the results from the October 2018 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806.

Sincerely,

Jose Rodriguez, PTP, AICP
Senior Planner, Research & Analysis

cc: Quigley (IDOT)
Letters1



January 22, 2019

Mr. Jose Rodriguez
Chicago Metropolitan Agency for Planning
233 S. Wacker Drive, Suite 800
Chicago, IL 60606

RE: Request for 2050 Traffic Projections
Arlington Heights, Illinois

Dear Mr. Rodriguez:

Kimley-Horn is formally requesting Year 2050 traffic projections for roadway segments near the intersection of Palatine Road/Arlington Heights Road in Arlington Heights, Illinois. This information is requested for use in developing an annual growth rate for area traffic volumes. The existing Average Daily Traffic volumes on the requested roadway segments are identified by IDOT as follows:

Arlington Heights Road north of Palatine Road (Year 2014)	28,800
Arlington Heights Road south of Palatine Road (Year 2014)	28,300
Palatine Road east of Arlington Heights Road (Year 2014)	39,000
Palatine Road west of Arlington Heights Road (Year 2014)	45,000
Rand Road south of Palatine Road (Year 2017)	28,700

Please do not hesitate to contact me at (630) 487-3395 or via email at rory.fancler@kimley-horn.com should you have any questions on this matter.

Sincerely,

A handwritten signature in blue ink that reads "Rory Fancler-Splitt".

Rory Fancler-Splitt, AICP, PTP
Transportation Planner

EXISTING CAPACITY REPORTS

Weekday Morning Peak Hour

Weekday Evening Peak Hour

Saturday Midday Peak Hour

HCM 2010 TWSC
100: Arlington Heights Road & Access A (Loading Dock)

02/14/2019

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	860	10	5	1135
Future Vol, veh/h	5	5	860	10	5	1135
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	40	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	25	4	10	40	3
Mvmt Flow	5	5	905	11	5	1195

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1519	458	0
Stage 1	911	-	-
Stage 2	608	-	-
Critical Hdwy	6.84	7.4	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.55	-
Pot Cap-1 Maneuver	110	492	-
Stage 1	352	-	-
Stage 2	506	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	109	492	-
Mov Cap-2 Maneuver	109	-	-
Stage 1	349	-	-
Stage 2	506	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.1	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 109 492	544	-
HCM Lane V/C Ratio	-	- 0.048 0.011	0.01	-
HCM Control Delay (s)	-	- 39.7 12.4	11.7	-
HCM Lane LOS	-	- E B	B	-
HCM 95th %tile Q(veh)	-	- 0.1 0	0	-

HCM 2010 Signalized Intersection Capacity Analysis

200: Arlington Heights Road & Lillian Avenue/Access B

02/14/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	5	50	30	10	50	50	775	40	25	1060	30
Future Volume (veh/h)	85	5	50	30	10	50	50	775	40	25	1060	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1849	1900	1863	1961	1827	1863	1818	1900	1863	1862	1900
Adj Flow Rate, veh/h	89	5	53	32	11	53	53	816	42	26	1116	32
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	11	11	2	2	4	2	4	4	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	331	20	208	274	204	187	313	1877	97	397	1937	56
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.14	0.14	0.02	0.10	0.10	0.03	0.56	0.56	0.02	0.55	0.55
Ln Grp Delay, s/veh	26.4	0.0	29.3	29.0	30.0	31.3	8.8	10.8	10.7	7.7	13.3	13.2
Ln Grp LOS	C		C	C	C	C	A	B	B	A	B	B
Approach Vol, veh/h		147			96			911			1174	
Approach Delay, s/veh		27.6			30.4			10.7			13.2	
Approach LOS		C			C			B			B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	1.1	4.0	1.1	4.0	1.1	4.0	1.1	3.0				
Phs Duration (G+Y+Rc), s	4.7	47.4	5.0	16.6	5.5	46.7	7.9	13.7				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green (Gmax), s	4.5	51.0	3.5	12.0	6.5	49.0	7.5	8.0				
Max Allow Headway (MAH), s	3.8	9.1	3.9	7.7	3.8	9.1	3.9	6.3				
Max Q Clear (g_c+I1), s	2.5	12.4	3.2	4.4	3.0	17.4	5.2	4.3				
Green Ext Time (g_e), s	0.0	19.8	0.0	0.2	0.0	23.3	0.0	0.1				
Prob of Phs Call (p_c)	0.41	1.00	0.48	0.99	0.66	1.00	0.84	0.96				
Prob of Max Out (p_x)	1.00	0.38	1.00	1.00	1.00	0.71	1.00	1.00				
Left-Turn Movement Data												
Assigned Mvmt	1		3		5		7					
Mvmt Sat Flow, veh/h	1774		1774		1774		1740					
Through Movement Data												
Assigned Mvmt		2			4		6			8		
Mvmt Sat Flow, veh/h		3342			137		3512			1961		
Right-Turn Movement Data												
Assigned Mvmt		12			14		16			18		
Mvmt Sat Flow, veh/h		172			1455		101			1553		
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				
Lane Assignment	(Pr/Pm)		(Pr/Pm)		(Pr/Pm)		(Pr/Pm)					

Existing (2019) Traffic Volumes 7:15 am 02/04/2019 AM Peak Hour

Synchro 10 Report
Page 2

HCM 2010 Signalized Intersection Capacity Analysis

200: Arlington Heights Road & Lillian Avenue/Access B

02/14/2019

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	26	0	32	0	53	0	89	0
Grp Sat Flow (s), veh/h/ln	1774	0	1774	0	1774	0	1740	0
Q Serve Time (g_s), s	0.5	0.0	1.2	0.0	1.0	0.0	3.2	0.0
Cycle Q Clear Time (g_c), s	0.5	0.0	1.2	0.0	1.0	0.0	3.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	641	0	1340	0	488	0	1307	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	40.7	0.0	7.7	0.0	40.7	0.0	9.1	0.0
Perm LT Serve Time (g_u), s	31.0	0.0	7.7	0.0	25.3	0.0	7.3	0.0
Perm LT Q Serve Time (g_ps), s	0.4	0.0	0.0	0.0	1.9	0.0	0.1	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	397	0	274	0	313	0	331	0
V/C Ratio (X)	0.07	0.00	0.12	0.00	0.17	0.00	0.27	0.00
Avail Cap (c_a), veh/h	475	0	321	0	421	0	404	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	7.6	0.0	28.8	0.0	8.6	0.0	26.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.3	0.0	0.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.7	0.0	29.0	0.0	8.8	0.0	26.4	0.0
1st-Term Q (Q1), veh/ln	0.2	0.0	0.6	0.0	0.5	0.0	1.5	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	0.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	0.4	0.0	1.0	0.0	0.9	0.0	2.8	0.0
%ile Storage Ratio (RQ%)	0.06	0.00	0.17	0.00	0.44	0.00	0.61	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T				T		T	
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	422	0	0	0	562	0	11
Grp Sat Flow (s), veh/h/ln	0	1727	0	0	0	1769	0	1961
Q Serve Time (g_s), s	0.0	10.4	0.0	0.0	0.0	15.4	0.0	0.4
Cycle Q Clear Time (g_c), s	0.0	10.4	0.0	0.0	0.0	15.4	0.0	0.4
Lane Grp Cap (c), veh/h	0	970	0	0	0	975	0	204
V/C Ratio (X)	0.00	0.43	0.00	0.00	0.00	0.58	0.00	0.05
Avail Cap (c_a), veh/h	0	1194	0	0	0	1175	0	213
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.4	0.0	0.0	0.0	10.9	0.0	29.8
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.0	0.0	2.5	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.8	0.0	0.0	0.0	13.3	0.0	30.0
1st-Term Q (Q1), veh/ln	0.0	4.9	0.0	0.0	0.0	7.5	0.0	0.2

Existing (2019) Traffic Volumes 7:15 am 02/04/2019 AM Peak Hour

Synchro 10 Report
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HCM 2010 Signalized Intersection Capacity Analysis

200: Arlington Heights Road & Lillian Avenue/Access B

02/14/2019

2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.7	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.71	0.00	1.00	0.00	1.57	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	9.1	0.0	0.0	0.0	12.8	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	1.04	0.00	0.00	0.00	0.64	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	436	0	58	0	586	0	53
Grp Sat Flow (s), veh/h/ln	0	1787	0	1592	0	1844	0	1553
Q Serve Time (g_s), s	0.0	10.4	0.0	2.4	0.0	15.4	0.0	2.3
Cycle Q Clear Time (g_c), s	0.0	10.4	0.0	2.4	0.0	15.4	0.0	2.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1552.9
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Prop RT Outside Lane (P_R)	0.00	0.10	0.00	0.91	0.00	0.05	0.00	1.00
Lane Grp Cap (c), veh/h	0	1004	0	228	0	1017	0	187
V/C Ratio (X)	0.00	0.43	0.00	0.25	0.00	0.58	0.00	0.28
Avail Cap (c_a), veh/h	0	1236	0	259	0	1225	0	195
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.4	0.0	28.1	0.0	10.9	0.0	29.5
Incr Delay (d2), s/veh	0.0	1.4	0.0	1.2	0.0	2.4	0.0	1.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.7	0.0	29.3	0.0	13.2	0.0	31.3
1st-Term Q (Q1), veh/ln	0.0	5.1	0.0	1.0	0.0	7.8	0.0	1.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.1	0.0	0.7	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.70	0.00	1.80	0.00	1.56	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	9.3	0.0	2.0	0.0	13.3	0.0	1.9
%ile Storage Ratio (RQ%)	0.00	1.07	0.00	0.21	0.00	0.66	0.00	0.32
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	13.8
HCM 2010 LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
200: Arlington Heights Road & Lillian Avenue/Access B

02/14/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	5	50	30	10	50	50	775	40	25	1060	30
Future Volume (veh/h)	85	5	50	30	10	50	50	775	40	25	1060	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1849	1900	1863	1961	1827	1863	1818	1900	1863	1862	1900
Adj Flow Rate, veh/h	89	5	53	32	11	53	53	816	42	26	1116	32
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	11	11	2	2	4	2	4	4	2	2	2
Cap, veh/h	331	20	208	274	204	187	313	1877	97	397	1937	56
Arrive On Green	0.06	0.14	0.14	0.02	0.10	0.10	0.03	0.56	0.56	0.02	0.55	0.55
Sat Flow, veh/h	1740	137	1455	1774	1961	1553	1774	3342	172	1774	3512	101
Grp Volume(v), veh/h	89	0	58	32	11	53	53	422	436	26	562	586
Grp Sat Flow(s),veh/h/ln	1740	0	1592	1774	1961	1553	1774	1727	1787	1774	1769	1844
Q Serve(g_s), s	3.2	0.0	2.4	1.2	0.4	2.3	1.0	10.4	10.4	0.5	15.4	15.4
Cycle Q Clear(g_c), s	3.2	0.0	2.4	1.2	0.4	2.3	1.0	10.4	10.4	0.5	15.4	15.4
Prop In Lane	1.00		0.91	1.00		1.00	1.00		0.10	1.00		0.05
Lane Grp Cap(c), veh/h	331	0	228	274	204	187	313	970	1004	397	975	1017
V/C Ratio(X)	0.27	0.00	0.25	0.12	0.05	0.28	0.17	0.43	0.43	0.07	0.58	0.58
Avail Cap(c_a), veh/h	404	0	259	321	213	195	421	1194	1236	475	1175	1225
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	0.0	28.1	28.8	29.8	29.5	8.6	9.4	9.4	7.6	10.9	10.9
Incr Delay (d2), s/veh	0.4	0.0	1.2	0.2	0.2	1.7	0.3	1.4	1.4	0.1	2.5	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	0.0	2.0	1.0	0.4	1.9	0.9	9.1	9.3	0.4	12.8	13.3
LnGrp Delay(d),s/veh	26.4	0.0	29.3	29.0	30.0	31.3	8.8	10.8	10.7	7.7	13.3	13.2
LnGrp LOS	C		C	C	C	C	A	B	B	A	B	B
Approach Vol, veh/h		147			96			911			1174	
Approach Delay, s/veh		27.6			30.4			10.7			13.2	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.7	47.4	5.0	16.6	5.5	46.7	7.9	13.7				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	4.5	51.0	3.5	12.0	6.5	49.0	7.5	8.0				
Max Q Clear Time (g_c+I1), s	2.5	12.4	3.2	4.4	3.0	17.4	5.2	4.3				
Green Ext Time (p_c), s	0.0	19.8	0.0	0.2	0.0	23.3	0.0	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			13.8									
HCM 2010 LOS			B									
Notes												

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

02/14/2019

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	10	250	1900	150	180	855	10	150	620	140	35	785
Future Volume (vph)	10	250	1900	150	180	855	10	150	620	140	35	785
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	2000
Lane Width (ft)	12	13	12	12	13	12	12	12	12	12	12	12
Storage Length (ft)		415		0	215		0	140		175	150	
Storage Lanes		1		0	1		0	1		1	1	
Taper Length (ft)		120			180			170			250	
Lane Util. Factor	0.91	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95
Frt			0.989			0.998				0.850		
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1829	5029	0	1811	4932	0	1752	3654	1583	1752	3725
Flt Permitted		0.950			0.950			0.950			0.950	
Satd. Flow (perm)	0	1829	5029	0	1811	4932	0	1752	3654	1583	1752	3725
Right Turn on Red				No			No			No		
Satd. Flow (RTOR)												
Link Speed (mph)			35			35			35			35
Link Distance (ft)			601			560			640			500
Travel Time (s)			11.7			10.9			12.5			9.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	3%	5%	2%	3%	4%	2%	3%	2%
Adj. Flow (vph)	11	263	2000	158	189	900	11	158	653	147	37	826
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	274	2158	0	189	911	0	158	653	147	37	826
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			52			52			17			17
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	0.96	1.00	1.00	0.96	1.00	1.00	1.00	0.94	1.00	1.00	0.94
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2		1	2		1	2	1	1	2
Detector Template	Left	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100		20	100		20	100	20	20	100
Trailing Detector (ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Position(ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Size(ft)	20	20	6		20	6		20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	Prot	Prot	NA		Prot	NA		Prot	NA	pm+ov	Prot	NA

Existing (2019) Traffic Volumes 7:15 am 02/04/2019 AM Peak Hour

Synchro 10 Report
Page 1

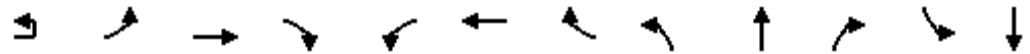
Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

02/14/2019

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	245
Future Volume (vph)	245
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Storage Length (ft)	280
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1568
Flt Permitted	
Satd. Flow (perm)	1568
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Heavy Vehicles (%)	3%
Adj. Flow (vph)	258
Shared Lane Traffic (%)	
Lane Group Flow (vph)	258
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	pm+ov

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

02/14/2019



Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Protected Phases	7!	7	4		3	8		5	2	3	1	6
Permitted Phases										2		
Detector Phase	7	7	4		3	8		5	2	3	1	6
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0		3.0	15.0	3.0	3.0	15.0
Minimum Split (s)	7.5	7.5	21.5		7.5	21.5		7.5	21.5	7.5	7.5	21.5
Total Split (s)	24.0	24.0	60.0		24.0	60.0		17.0	39.0	24.0	17.0	39.0
Total Split (%)	17.1%	17.1%	42.9%		17.1%	42.9%		12.1%	27.9%	17.1%	12.1%	27.9%
Maximum Green (s)	19.5	19.5	53.5		19.5	53.5		12.5	32.5	19.5	12.5	32.5
Yellow Time (s)	3.5	3.5	4.5		3.5	4.5		3.5	4.5	3.5	3.5	4.5
All-Red Time (s)	1.0	1.0	2.0		1.0	2.0		1.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	6.5		4.5	6.5		4.5	6.5	4.5	4.5	6.5
Lead/Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	7.0		4.0	7.0		4.0	7.0	4.0	4.0	7.0
Recall Mode	None	None	None		None	None		None	C-Min	None	None	C-Min
Walk Time (s)									7.0			7.0
Flash Dont Walk (s)									11.0			11.0
Pedestrian Calls (#/hr)									0			0
Act Effect Green (s)		19.5	54.7		18.3	53.5		12.5	37.8	62.6	9.4	32.5
Actuated g/C Ratio		0.14	0.39		0.13	0.38		0.09	0.27	0.45	0.07	0.23
v/c Ratio		1.08	1.10		0.80	0.48		1.01	0.66	0.21	0.32	0.96
Control Delay		134.3	92.9		83.1	33.8		137.3	50.3	25.5	68.5	74.5
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		134.3	92.9		83.1	33.8		137.3	50.3	25.5	68.5	74.5
LOS		F	F		F	C		F	D	C	E	E
Approach Delay			97.5			42.3			60.9			64.2
Approach LOS			F			D			E			E
90th %ile Green (s)	19.5	19.5	53.5		19.5	53.5		12.5	32.6	19.5	12.4	32.5
90th %ile Term Code	Max	Max	Max		Max	Max		Max	Coord	Max	Gap	Coord
70th %ile Green (s)	19.5	19.5	53.5		19.5	53.5		12.5	34.4	19.5	10.6	32.5
70th %ile Term Code	Max	Max	Max		Max	Hold		Max	Coord	Max	Gap	Coord
50th %ile Green (s)	19.5	19.5	53.5		19.5	53.5		12.5	35.7	19.5	9.3	32.5
50th %ile Term Code	Max	Max	Max		Max	Hold		Max	Coord	Max	Gap	Coord
30th %ile Green (s)	19.5	19.5	54.6		18.4	53.5		12.5	36.9	18.4	8.1	32.5
30th %ile Term Code	Max	Max	Max		Gap	Hold		Max	Coord	Gap	Gap	Coord
10th %ile Green (s)	19.5	19.5	58.5		14.5	53.5		12.5	49.5	14.5	0.0	32.5
10th %ile Term Code	Max	Max	Max		Gap	Hold		Max	Coord	Gap	Skip	Coord
Queue Length 50th (ft)		~277	~828		168	228		~148	285	81	33	393
Queue Length 95th (ft)		#460	#920		#279	272		#300	367	136	70	#523
Internal Link Dist (ft)			521			480			560			420
Turn Bay Length (ft)		415			215			140		175	150	
Base Capacity (vph)		254	1965		252	1884		156	986	721	156	864
Starvation Cap Reductn		0	0		0	0		0	0	0	0	0
Spillback Cap Reductn		0	0		0	0		0	0	0	0	0
Storage Cap Reductn		0	0		0	0		0	0	0	0	0
Reduced v/c Ratio		1.08	1.10		0.75	0.48		1.01	0.66	0.20	0.24	0.96

Existing (2019) Traffic Volumes 7:15 am 02/04/2019 AM Peak Hour

Synchro 10 Report
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Lanes, Volumes, Timings

300: Arlington Heights Road & Palatine Road

02/14/2019

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 57.4 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.10

Intersection Signal Delay: 73.8

Intersection LOS: E

Intersection Capacity Utilization 97.3%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

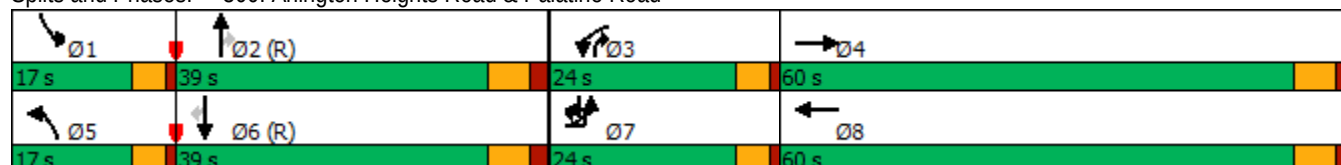
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

! Phase conflict between lane groups.

Splits and Phases: 300: Arlington Heights Road & Palatine Road



Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

02/14/2019

Lane Group	SBR
Protected Phases	7!
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	7.5
Total Split (s)	24.0
Total Split (%)	17.1%
Maximum Green (s)	19.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	58.5
Actuated g/C Ratio	0.42
v/c Ratio	0.39
Control Delay	30.7
Queue Delay	0.0
Total Delay	30.7
LOS	C
Approach Delay	
Approach LOS	
90th %ile Green (s)	19.5
90th %ile Term Code	Max
70th %ile Green (s)	19.5
70th %ile Term Code	Max
50th %ile Green (s)	19.5
50th %ile Term Code	Max
30th %ile Green (s)	19.5
30th %ile Term Code	Max
10th %ile Green (s)	19.5
10th %ile Term Code	Max
Queue Length 50th (ft)	162
Queue Length 95th (ft)	239
Internal Link Dist (ft)	
Turn Bay Length (ft)	280
Base Capacity (vph)	655
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.39

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	2050	25	0	1045	0	20
Future Vol, veh/h	2050	25	0	1045	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	4	2	4	2	2
Mvmt Flow	2158	26	0	1100	0	21

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 1092
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 7.14
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.92
Pot Cap-1 Maneuver	-	-	0 - 0 180
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 180
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	27.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	180	-	-	-
HCM Lane V/C Ratio	0.117	-	-	-
HCM Control Delay (s)	27.6	-	-	-
HCM Lane LOS	D	-	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	15	0	725	1515	20
Future Vol, veh/h	0	15	0	725	1515	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	6	2	3	2	2
Mvmt Flow	0	16	0	763	1595	21
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	808	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.96	-	-	-	-
Pot Cap-1 Maneuver	0	271	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	271	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	19.1	0	0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	-	271	-	-		
HCM Lane V/C Ratio	-	0.058	-	-		
HCM Control Delay (s)	-	19.1	-	-		
HCM Lane LOS	-	C	-	-		
HCM 95th %tile Q(veh)	-	0.2	-	-		

HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

02/14/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	2	15	15	10	5	30	710	5	10	1510	10
Future Volume (veh/h)	10	2	15	15	10	5	30	710	5	10	1510	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1759	1863	1900	1863	1842	1900	1759	1862	1900
Adj Flow Rate, veh/h	11	2	16	16	11	5	32	747	5	11	1589	11
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	8	2	2	2	3	3	8	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	195	14	111	187	94	43	309	2500	17	529	3594	25
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.02	0.70	0.70	0.01	0.69	0.69
Ln Grp Delay, s/veh	32.1	0.0	32.5	32.5	0.0	32.1	4.0	4.7	4.7	3.5	5.6	6.2
Ln Grp LOS	C		C	C		C	A	A	A	A	A	A
Approach Vol, veh/h		29			32			784			1611	
Approach Delay, s/veh		32.3			32.3			4.7			5.8	
Approach LOS		C			C			A			A	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		1	2		4	5	6		8			
Case No		1.1	4.0		6.0	1.1	4.0		6.0			
Phs Duration (G+Y+Rc), s		4.1	57.2		11.7	4.9	56.3		11.7			
Change Period (Y+Rc), s		3.5	6.0		6.0	3.5	6.0		6.0			
Max Green (Gmax), s		5.5	58.0		11.0	6.5	57.0		11.0			
Max Allow Headway (MAH), s		3.8	9.1		7.0	3.8	9.1		6.8			
Max Q Clear (g_c+I1), s		2.1	7.8		3.2	2.4	11.9		3.6			
Green Ext Time (g_e), s		0.0	19.0		0.1	0.0	38.4		0.1			
Prob of Phs Call (p_c)		0.20	1.00		0.71	0.48	1.00		0.71			
Prob of Max Out (p_x)		1.00	0.17		0.51	0.59	0.81		0.60			
Left-Turn Movement Data												
Assigned Mvmt		1			7	5			3			
Mvmt Sat Flow, veh/h		1675			1392	1774			1312			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3564		179		5208		1214			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			24		1431		36		552			
Left Lane Group Data												
Assigned Mvmt		1	0	0	7	5	0	0	3			
Lane Assignment		(Pr/Pm)			(Pr/Pm)							

Existing (2019) Traffic Volumes 7:15 am 02/04/2019 AM Peak Hour

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HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

02/14/2019

Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	11	0	0	11	32	0	0	16
Grp Sat Flow (s), veh/h/ln	1675	0	0	1392	1774	0	0	1312
Q Serve Time (g_s), s	0.1	0.0	0.0	0.5	0.4	0.0	0.0	0.8
Cycle Q Clear Time (g_c), s	0.1	0.0	0.0	1.2	0.4	0.0	0.0	1.6
Perm LT Sat Flow (s_l), veh/h/ln	669	0	0	1392	316	0	0	1312
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	50.3	0.0	0.0	5.7	50.3	0.0	0.0	5.7
Perm LT Serve Time (g_u), s	45.4	0.0	0.0	5.1	40.4	0.0	0.0	4.9
Perm LT Q Serve Time (g_ps), s	0.1	0.0	0.0	0.5	1.1	0.0	0.0	0.8
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	529	0	0	195	309	0	0	187
V/C Ratio (X)	0.02	0.00	0.00	0.06	0.10	0.00	0.00	0.09
Avail Cap (c_a), veh/h	641	0	0	297	432	0	0	283
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	3.5	0.0	0.0	31.8	3.9	0.0	0.0	32.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	3.5	0.0	0.0	32.1	4.0	0.0	0.0	32.5
1st-Term Q (Q1), veh/ln	0.1	0.0	0.0	0.2	0.2	0.0	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	1.80	1.80	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	0.1	0.0	0.0	0.4	0.3	0.0	0.0	0.6
%ile Storage Ratio (RQ%)	0.02	0.00	0.00	0.07	0.04	0.00	0.00	0.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T			T				
Lanes in Grp	0	1	0	0	0	2	0	0
Grp Vol (v), veh/h	0	367	0	0	0	1034	0	0
Grp Sat Flow (s), veh/h/ln	0	1750	0	0	0	1694	0	0
Q Serve Time (g_s), s	0.0	5.8	0.0	0.0	0.0	9.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.8	0.0	0.0	0.0	9.9	0.0	0.0
Lane Grp Cap (c), veh/h	0	1228	0	0	0	2338	0	0
V/C Ratio (X)	0.00	0.30	0.00	0.00	0.00	0.44	0.00	0.00
Avail Cap (c_a), veh/h	0	1391	0	0	0	2648	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.1	0.0	0.0	0.0	5.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.7	0.0	0.0	0.0	5.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.8	0.0	0.0	0.0	4.6	0.0	0.0

Existing (2019) Traffic Volumes 7:15 am 02/04/2019 AM Peak Hour

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HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

02/14/2019

2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.75	0.00	1.00
%ile Back of Q (95%), veh/ln	0.0	5.3	0.0	0.0	0.0	8.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.22	0.00	0.00	0.00	0.58	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	385	0	18	0	566	0	16
Grp Sat Flow (s), veh/h/ln	0	1838	0	1610	0	1856	0	1765
Q Serve Time (g_s), s	0.0	5.8	0.0	0.8	0.0	9.9	0.0	0.6
Cycle Q Clear Time (g_c), s	0.0	5.8	0.0	0.8	0.0	9.9	0.0	0.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.01	0.00	0.89	0.00	0.02	0.00	0.31
Lane Grp Cap (c), veh/h	0	1289	0	125	0	1280	0	137
V/C Ratio (X)	0.00	0.30	0.00	0.14	0.00	0.44	0.00	0.12
Avail Cap (c_a), veh/h	0	1461	0	243	0	1450	0	266
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	4.1	0.0	31.4	0.0	5.0	0.0	31.3
Incr Delay (d2), s/veh	0.0	0.6	0.0	1.1	0.0	1.1	0.0	0.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.7	0.0	32.5	0.0	6.2	0.0	32.1
1st-Term Q (Q1), veh/ln	0.0	2.9	0.0	0.3	0.0	5.0	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.70	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	5.6	0.0	0.7	0.0	9.2	0.0	0.6
%ile Storage Ratio (RQ%)	0.00	0.23	0.00	0.09	0.00	0.64	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 2010 Ctrl Delay	6.1							
HCM 2010 LOS	A							

HCM 2010 Signalized Intersection Summary

600: Rand Road & Access E/Private Driveway

02/14/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	2	15	15	10	5	30	710	5	10	1510	10
Future Volume (veh/h)	10	2	15	15	10	5	30	710	5	10	1510	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1759	1863	1900	1863	1842	1900	1759	1862	1900
Adj Flow Rate, veh/h	11	2	16	16	11	5	32	747	5	11	1589	11
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	8	2	2	2	3	3	8	2	2
Cap, veh/h	195	14	111	187	94	43	309	2500	17	529	3594	25
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.02	0.70	0.70	0.01	0.69	0.69
Sat Flow, veh/h	1392	179	1431	1312	1214	552	1774	3564	24	1675	5208	36
Grp Volume(v), veh/h	11	0	18	16	0	16	32	367	385	11	1034	566
Grp Sat Flow(s),veh/h/ln	1392	0	1610	1312	0	1765	1774	1750	1838	1675	1694	1856
Q Serve(g_s), s	0.5	0.0	0.8	0.8	0.0	0.6	0.4	5.8	5.8	0.1	9.9	9.9
Cycle Q Clear(g_c), s	1.2	0.0	0.8	1.6	0.0	0.6	0.4	5.8	5.8	0.1	9.9	9.9
Prop In Lane	1.00		0.89	1.00		0.31	1.00		0.01	1.00		0.02
Lane Grp Cap(c), veh/h	195	0	125	187	0	137	309	1228	1289	529	2338	1280
V/C Ratio(X)	0.06	0.00	0.14	0.09	0.00	0.12	0.10	0.30	0.30	0.02	0.44	0.44
Avail Cap(c_a), veh/h	297	0	243	283	0	266	432	1391	1461	641	2648	1450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	0.0	31.4	32.1	0.0	31.3	3.9	4.1	4.1	3.5	5.0	5.0
Incr Delay (d2), s/veh	0.3	0.0	1.1	0.4	0.0	0.8	0.1	0.6	0.6	0.0	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	0.0	0.7	0.6	0.0	0.6	0.3	5.3	5.6	0.1	8.4	9.2
LnGrp Delay(d),s/veh	32.1	0.0	32.5	32.5	0.0	32.1	4.0	4.7	4.7	3.5	5.6	6.2
LnGrp LOS	C		C	C		C	A	A	A	A	A	A
Approach Vol, veh/h	29					32	784			1611		
Approach Delay, s/veh	32.3					32.3	4.7			5.8		
Approach LOS	C					C	A			A		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	4.1	57.2	11.7		4.9	56.3	11.7					
Change Period (Y+Rc), s	3.5	6.0	6.0		3.5	6.0	6.0					
Max Green Setting (Gmax), s	5.5	58.0	11.0		6.5	57.0	11.0					
Max Q Clear Time (g_c+I1), s	2.1	7.8	3.2		2.4	11.9	3.6					
Green Ext Time (p_c), s	0.0	19.0	0.1		0.0	38.4	0.1					
Intersection Summary												
HCM 2010 Ctrl Delay			6.1									
HCM 2010 LOS			A									

HCM 2010 TWSC
100: Arlington Heights Road & Access A (Loading Dock)

02/14/2019

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	1140	20	2	995
Future Vol, veh/h	5	5	1140	20	2	995
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	40	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	6	2	2
Mvmt Flow	5	5	1200	21	2	1047

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1739	611	0
Stage 1	1211	-	-
Stage 2	528	-	-
Critical Hdwy	6.84	6.94	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	-
Pot Cap-1 Maneuver	78	437	-
Stage 1	245	-	-
Stage 2	556	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	78	437	-
Mov Cap-2 Maneuver	78	-	-
Stage 1	244	-	-
Stage 2	556	-	-

Approach	WB	NB	SB
HCM Control Delay, s	33.9	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 78 437	567	-
HCM Lane V/C Ratio	-	- 0.067 0.012	0.004	-
HCM Control Delay (s)	-	- 54.5 13.3	11.4	-
HCM Lane LOS	-	- F B	B	-
HCM 95th %tile Q(veh)	-	- 0.2 0	0	-

HCM 2010 Signalized Intersection Capacity Analysis

200: Arlington Heights Road & Lillian Avenue/Access B

02/14/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	20	10	65	30	130	25	1040	80	90	920	55
Future Volume (veh/h)	75	20	10	65	30	130	25	1040	80	90	920	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1961	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	79	21	11	68	32	137	26	1095	84	95	968	58
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	300	131	68	310	208	237	345	1818	139	325	1942	116
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.05	0.11	0.11	0.05	0.11	0.11	0.02	0.55	0.55	0.04	0.57	0.57
Ln Grp Delay, s/veh	28.4	0.0	31.0	28.6	31.4	35.5	8.3	14.4	14.3	9.5	11.4	11.4
Ln Grp LOS	C		C	C	C	D	A	B	B	A	B	B
Approach Vol, veh/h		111			237			1205			1121	
Approach Delay, s/veh		29.1			32.9			14.2			11.2	
Approach LOS		C			C			B			B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	1.1	4.0	1.1	4.0	1.1	4.0	1.1	3.0				
Phs Duration (G+Y+Rc), s	6.8	47.2	7.0	14.6	4.8	49.2	7.5	14.0				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green (Gmax), s	8.5	48.0	6.5	8.0	3.5	53.0	6.5	8.0				
Max Allow Headway (MAH), s	3.8	9.1	3.9	7.5	3.8	9.1	3.9	6.3				
Max Q Clear (g_c+I1), s	3.7	18.8	4.6	3.2	2.5	14.9	5.0	8.1				
Green Ext Time (g_e), s	0.1	22.4	0.0	0.0	0.0	24.0	0.0	0.0				
Prob of Phs Call (p_c)	0.86	1.00	0.76	1.00	0.42	1.00	0.81	1.00				
Prob of Max Out (p_x)	0.33	0.76	1.00	1.00	1.00	0.54	1.00	1.00				
Left-Turn Movement Data												
Assigned Mvmt	1		3		5		7					
Mvmt Sat Flow, veh/h	1774		1774		1774		1774					
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		3332		1153		3393		1961				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		255		604		203		1583				
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				
Lane Assignment	(Pr/Pm)		(Pr/Pm)		(Pr/Pm)		(Pr/Pm)					

Existing (2019) Traffic Volumes 4:15 pm 02/04/2019 PM Peak Hour

Synchro 10 Report
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HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

02/14/2019

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	95	0	68	0	26	0	79	0
Grp Sat Flow (s), veh/h/ln	1774	0	1774	0	1774	0	1774	0
Q Serve Time (g_s), s	1.7	0.0	2.6	0.0	0.5	0.0	3.0	0.0
Cycle Q Clear Time (g_c), s	1.7	0.0	2.6	0.0	0.5	0.0	3.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	474	0	1372	0	547	0	1211	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	41.7	0.0	8.0	0.0	41.2	0.0	8.0	0.0
Perm LT Serve Time (g_u), s	24.4	0.0	7.3	0.0	30.3	0.0	6.9	0.0
Perm LT Q Serve Time (g_ps), s	4.3	0.0	0.0	0.0	0.5	0.0	0.1	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	325	0	310	0	345	0	300	0
V/C Ratio (X)	0.29	0.00	0.22	0.00	0.08	0.00	0.26	0.00
Avail Cap (c_a), veh/h	448	0	381	0	397	0	359	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	9.0	0.0	28.2	0.0	8.2	0.0	27.9	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.4	0.0	0.1	0.0	0.5	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	9.5	0.0	28.6	0.0	8.3	0.0	28.4	0.0
1st-Term Q (Q1), veh/ln	0.8	0.0	1.2	0.0	0.2	0.0	1.4	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	0.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	1.6	0.0	2.3	0.0	0.4	0.0	2.6	0.0
%ile Storage Ratio (RQ%)	0.21	0.00	0.37	0.00	0.22	0.00	0.56	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T				T		T	
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	581	0	0	0	505	0	32
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	1961
Q Serve Time (g_s), s	0.0	16.8	0.0	0.0	0.0	12.9	0.0	1.1
Cycle Q Clear Time (g_c), s	0.0	16.8	0.0	0.0	0.0	12.9	0.0	1.1
Lane Grp Cap (c), veh/h	0	965	0	0	0	1013	0	208
V/C Ratio (X)	0.00	0.60	0.00	0.00	0.00	0.50	0.00	0.15
Avail Cap (c_a), veh/h	0	1125	0	0	0	1242	0	208
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	11.6	0.0	0.0	0.0	9.7	0.0	30.7
Incr Delay (d2), s/veh	0.0	2.8	0.0	0.0	0.0	1.8	0.0	0.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.4	0.0	0.0	0.0	11.4	0.0	31.4
1st-Term Q (Q1), veh/ln	0.0	8.1	0.0	0.0	0.0	6.2	0.0	0.6

Existing (2019) Traffic Volumes 4:15 pm 02/04/2019 PM Peak Hour

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HCM 2010 Signalized Intersection Capacity Analysis

200: Arlington Heights Road & Lillian Avenue/Access B

02/14/2019

2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	0.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.55	0.00	1.00	0.00	1.64	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	13.7	0.0	0.0	0.0	10.9	0.0	1.2
%ile Storage Ratio (RQ%)	0.00	1.55	0.00	0.00	0.00	0.54	0.00	0.08
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	598	0	32	0	521	0	137
Grp Sat Flow (s), veh/h/ln	0	1818	0	1756	0	1827	0	1583
Q Serve Time (g_s), s	0.0	16.8	0.0	1.2	0.0	12.9	0.0	6.1
Cycle Q Clear Time (g_c), s	0.0	16.8	0.0	1.2	0.0	12.9	0.0	6.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1583.3
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
Prop RT Outside Lane (P_R)	0.00	0.14	0.00	0.34	0.00	0.11	0.00	1.00
Lane Grp Cap (c), veh/h	0	992	0	199	0	1045	0	237
V/C Ratio (X)	0.00	0.60	0.00	0.16	0.00	0.50	0.00	0.58
Avail Cap (c_a), veh/h	0	1156	0	199	0	1283	0	237
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	11.6	0.0	30.2	0.0	9.7	0.0	29.9
Incr Delay (d2), s/veh	0.0	2.7	0.0	0.8	0.0	1.7	0.0	5.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.3	0.0	31.0	0.0	11.4	0.0	35.5
1st-Term Q (Q1), veh/ln	0.0	8.3	0.0	0.6	0.0	6.4	0.0	2.6
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	0.5	0.0	0.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.55	0.00	1.80	0.00	1.63	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	14.0	0.0	1.2	0.0	11.2	0.0	5.4
%ile Storage Ratio (RQ%)	0.00	1.58	0.00	0.11	0.00	0.55	0.00	0.88
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	15.2
HCM 2010 LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary

200: Arlington Heights Road & Lillian Avenue/Access B

02/14/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	20	10	65	30	130	25	1040	80	90	920	55
Future Volume (veh/h)	75	20	10	65	30	130	25	1040	80	90	920	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1961	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	79	21	11	68	32	137	26	1095	84	95	968	58
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	300	131	68	310	208	237	345	1818	139	325	1942	116
Arrive On Green	0.05	0.11	0.11	0.05	0.11	0.11	0.02	0.55	0.55	0.04	0.57	0.57
Sat Flow, veh/h	1774	1153	604	1774	1961	1583	1774	3332	255	1774	3393	203
Grp Volume(v), veh/h	79	0	32	68	32	137	26	581	598	95	505	521
Grp Sat Flow(s),veh/h/ln	1774	0	1756	1774	1961	1583	1774	1770	1818	1774	1770	1827
Q Serve(g_s), s	3.0	0.0	1.2	2.6	1.1	6.1	0.5	16.8	16.8	1.7	12.9	12.9
Cycle Q Clear(g_c), s	3.0	0.0	1.2	2.6	1.1	6.1	0.5	16.8	16.8	1.7	12.9	12.9
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.14	1.00		0.11
Lane Grp Cap(c), veh/h	300	0	199	310	208	237	345	965	992	325	1013	1045
V/C Ratio(X)	0.26	0.00	0.16	0.22	0.15	0.58	0.08	0.60	0.60	0.29	0.50	0.50
Avail Cap(c_a), veh/h	359	0	199	381	208	237	397	1125	1156	448	1242	1283
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	0.0	30.2	28.2	30.7	29.9	8.2	11.6	11.6	9.0	9.7	9.7
Incr Delay (d2), s/veh	0.5	0.0	0.8	0.4	0.7	5.6	0.1	2.8	2.7	0.5	1.8	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.6	0.0	1.2	2.3	1.2	5.4	0.4	13.7	14.0	1.6	10.9	11.2
LnGrp Delay(d),s/veh	28.4	0.0	31.0	28.6	31.4	35.5	8.3	14.4	14.3	9.5	11.4	11.4
LnGrp LOS	C		C	C	C	D	A	B	B	A	B	B
Approach Vol, veh/h		111			237			1205			1121	
Approach Delay, s/veh		29.1			32.9			14.2			11.2	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.8	47.2	7.0	14.6	4.8	49.2	7.5	14.0				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	8.5	48.0	6.5	8.0	3.5	53.0	6.5	8.0				
Max Q Clear Time (g_c+I1), s	3.7	18.8	4.6	3.2	2.5	14.9	5.0	8.1				
Green Ext Time (p_c), s	0.1	22.4	0.0	0.0	0.0	24.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			15.2									
HCM 2010 LOS			B									
Notes												

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

02/14/2019

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	20	280	1205	140	185	1630	40	170	910	165	65	740
Future Volume (vph)	20	280	1205	140	185	1630	40	170	910	165	65	740
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	2000
Lane Width (ft)	12	13	12	12	13	12	12	12	12	12	12	12
Storage Length (ft)		415		0	215		0	140		175	150	
Storage Lanes		1		0	1		0	1		1	1	
Taper Length (ft)		120			180			170			250	
Lane Util. Factor	0.91	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95
Frt			0.984			0.996				0.850		
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1829	4960	0	1829	5064	0	1770	3725	1583	1770	3725
Flt Permitted		0.950			0.950			0.950			0.950	
Satd. Flow (perm)	0	1829	4960	0	1829	5064	0	1770	3725	1583	1770	3725
Right Turn on Red				No			No			No		
Satd. Flow (RTOR)												
Link Speed (mph)			35			35			35			35
Link Distance (ft)			601			560			640			500
Travel Time (s)			11.7			10.9			12.5			9.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Adj. Flow (vph)	21	295	1268	147	195	1716	42	179	958	174	68	779
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	316	1415	0	195	1758	0	179	958	174	68	779
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			52			52			17			17
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	0.96	1.00	1.00	0.96	1.00	1.00	1.00	0.94	1.00	1.00	0.94
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2		1	2		1	2	1	1	2
Detector Template	Left	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100		20	100		20	100	20	20	100
Trailing Detector (ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Position(ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Size(ft)	20	20	6		20	6		20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	Prot	Prot	NA		Prot	NA		Prot	NA	pm+ov	Prot	NA

Existing (2019) Traffic Volumes 4:15 pm 02/04/2019 PM Peak Hour

Synchro 10 Report
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Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

02/14/2019

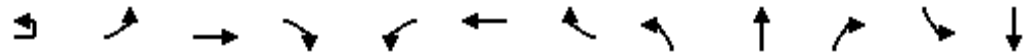
Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	375
Future Volume (vph)	375
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Storage Length (ft)	280
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Heavy Vehicles (%)	2%
Adj. Flow (vph)	395
Shared Lane Traffic (%)	
Lane Group Flow (vph)	395
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	pm+ov

Existing (2019) Traffic Volumes 4:15 pm 02/04/2019 PM Peak Hour

Synchro 10 Report
Page 2

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

02/14/2019



Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Protected Phases	7!	7	4		3	8		5	2	3	1	6
Permitted Phases										2		
Detector Phase	7	7	4		3	8		5	2	3	1	6
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0		3.0	15.0	3.0	3.0	15.0
Minimum Split (s)	7.5	7.5	21.5		7.5	21.5		7.5	21.5	7.5	7.5	21.5
Total Split (s)	28.0	28.0	57.0		28.0	57.0		21.0	50.0	28.0	15.0	44.0
Total Split (%)	18.7%	18.7%	38.0%		18.7%	38.0%		14.0%	33.3%	18.7%	10.0%	29.3%
Maximum Green (s)	23.5	23.5	50.5		23.5	50.5		16.5	43.5	23.5	10.5	37.5
Yellow Time (s)	3.5	3.5	4.5		3.5	4.5		3.5	4.5	3.5	3.5	4.5
All-Red Time (s)	1.0	1.0	2.0		1.0	2.0		1.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	6.5		4.5	6.5		4.5	6.5	4.5	4.5	6.5
Lead/Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	7.0		4.0	7.0		4.0	7.0	4.0	4.0	7.0
Recall Mode	None	None	None		None	None		None	C-Min	None	None	C-Min
Walk Time (s)									7.0			7.0
Flash Dont Walk (s)									11.0			11.0
Pedestrian Calls (#/hr)									0			0
Act Effect Green (s)		23.5	53.4		20.6	50.5		16.5	46.5	73.7	9.9	37.5
Actuated g/C Ratio		0.16	0.36		0.14	0.34		0.11	0.31	0.49	0.07	0.25
v/c Ratio		1.10	0.80		0.78	1.03		0.92	0.83	0.22	0.59	0.84
Control Delay		140.6	48.3		82.9	78.6		112.2	56.0	23.1	88.0	62.5
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.2	0.0	0.0	0.0
Total Delay		140.6	48.3		82.9	78.6		112.2	56.2	23.1	88.0	62.5
LOS		F	D		F	E		F	E	C	F	E
Approach Delay			65.1			79.0			59.5			54.8
Approach LOS			E			E			E			D
90th %ile Green (s)	23.5	23.5	50.5		23.5	50.5		16.5	43.5	23.5	10.5	37.5
90th %ile Term Code	Max	Max	Max		Max	Max		Max	Coord	Max	Max	Coord
70th %ile Green (s)	23.5	23.5	50.5		23.5	50.5		16.5	43.5	23.5	10.5	37.5
70th %ile Term Code	Max	Max	Max		Max	Max		Max	Coord	Max	Max	Coord
50th %ile Green (s)	23.5	23.5	52.0		22.0	50.5		16.5	43.5	22.0	10.5	37.5
50th %ile Term Code	Max	Max	Max		Gap	Max		Max	Coord	Gap	Max	Coord
30th %ile Green (s)	23.5	23.5	54.8		19.2	50.5		16.5	43.7	19.2	10.3	37.5
30th %ile Term Code	Max	Max	Max		Gap	Max		Max	Coord	Gap	Gap	Coord
10th %ile Green (s)	23.5	23.5	59.0		15.0	50.5		16.5	58.5	15.0	0.0	37.5
10th %ile Term Code	Max	Max	Max		Gap	Max		Max	Coord	Gap	Skip	Coord
Queue Length 50th (ft)		~350	463		185	~672		176	473	98	66	383
Queue Length 95th (ft)		#547	534		273	#768		#326	#567	147	121	464
Internal Link Dist (ft)			521			480			560			420
Turn Bay Length (ft)		415			215			140		175	150	
Base Capacity (vph)		286	1764		286	1704		194	1155	807	123	931
Starvation Cap Reductn		0	0		0	0		0	17	0	0	0
Spillback Cap Reductn		0	0		0	0		0	0	0	0	0
Storage Cap Reductn		0	0		0	0		0	0	0	0	0
Reduced v/c Ratio		1.10	0.80		0.68	1.03		0.92	0.84	0.22	0.55	0.84

Existing (2019) Traffic Volumes 4:15 pm 02/04/2019 PM Peak Hour

Synchro 10 Report
Page 3

Lanes, Volumes, Timings

300: Arlington Heights Road & Palatine Road

02/14/2019

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 61.5 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.10

Intersection Signal Delay: 66.2

Intersection LOS: E

Intersection Capacity Utilization 98.3%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

! Phase conflict between lane groups.

Splits and Phases: 300: Arlington Heights Road & Palatine Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
15 s	50 s	28 s	57 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
21 s	44 s	28 s	57 s

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

02/14/2019

Lane Group	SBR
Protected Phases	7!
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	7.5
Total Split (s)	28.0
Total Split (%)	18.7%
Maximum Green (s)	23.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	67.5
Actuated g/C Ratio	0.45
v/c Ratio	0.55
Control Delay	34.0
Queue Delay	0.0
Total Delay	34.0
LOS	C
Approach Delay	
Approach LOS	
90th %ile Green (s)	23.5
90th %ile Term Code	Max
70th %ile Green (s)	23.5
70th %ile Term Code	Max
50th %ile Green (s)	23.5
50th %ile Term Code	Max
30th %ile Green (s)	23.5
30th %ile Term Code	Max
10th %ile Green (s)	23.5
10th %ile Term Code	Max
Queue Length 50th (ft)	280
Queue Length 95th (ft)	388
Internal Link Dist (ft)	
Turn Bay Length (ft)	280
Base Capacity (vph)	712
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.55

Intersection

Int Delay, s/veh 0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	1340	95	0	1855	0	55
Future Vol, veh/h	1340	95	0	1855	0	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1411	100	0	1953	0	58

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 756
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 7.14
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.92
Pot Cap-1 Maneuver	-	-	0 - 0 301
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 301
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	301	-	-	-
HCM Lane V/C Ratio	0.192	-	-	-
HCM Control Delay (s)	19.8	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.7	-	-	-

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	35	0	1545	1115	90
Future Vol, veh/h	0	35	0	1545	1115	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	37	0	1626	1174	95

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 635	- 0	- 0
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- 7.14	- -	- -
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- 3.92	- -	- -
Pot Cap-1 Maneuver	0 361	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	- 361	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Control Delay, s	16.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 361	- -	- -
HCM Lane V/C Ratio	- 0.102	- -	- -
HCM Control Delay (s)	- 16.1	- -	- -
HCM Lane LOS	- C	- -	- -
HCM 95th %tile Q(veh)	- 0.3	- -	- -

HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

02/14/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	10	65	25	15	50	110	1435	25	25	1105	20
Future Volume (veh/h)	60	10	65	25	15	50	110	1435	25	25	1105	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	63	11	68	26	16	53	116	1511	26	26	1163	21
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	187	25	157	178	43	142	425	2414	42	267	3350	60
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.04	0.68	0.68	0.02	0.65	0.65
Ln Grp Delay, s/veh	38.5	0.0	36.7	36.5	0.0	35.7	4.8	9.7	9.6	6.6	6.8	7.1
Ln Grp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		142			95			1653			1210	
Approach Delay, s/veh		37.5			35.9			9.3			6.9	
Approach LOS		D			D			A			A	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Case No	1.1	4.0		6.0	1.1	4.0		6.0				
Phs Duration (G+Y+Rc), s	4.8	60.6		15.1	7.0	58.4		15.1				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green (Gmax), s	3.5	59.0		12.0	7.5	55.0		12.0				
Max Allow Headway (MAH), s	3.8	9.1		6.9	3.8	9.1		7.2				
Max Q Clear (g_c+I1), s	2.4	21.1		8.9	3.7	10.2		7.2				
Green Ext Time (g_e), s	0.0	33.4		0.3	0.1	30.0		0.2				
Prob of Phs Call (p_c)	0.44	1.00		0.99	0.93	1.00		0.99				
Prob of Max Out (p_x)	1.00	0.87		1.00	0.94	0.55		1.00				
Left-Turn Movement Data												
Assigned Mvmt	1			7	5			3				
Mvmt Sat Flow, veh/h	1774			1326	1774			1314				
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		3560		225		5144		380				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		61		1392		93		1260				
Left Lane Group Data												
Assigned Mvmt	1	0	0	7	5	0	0	3				
Lane Assignment	(Pr/Pm)			(Pr/Pm)								

Existing (2019) Traffic Volumes 4:15 pm 02/04/2019 PM Peak Hour

Synchro 10 Report
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HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

02/14/2019

Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	26	0	0	63	116	0	0	26
Grp Sat Flow (s), veh/h/ln	1774	0	0	1326	1774	0	0	1314
Q Serve Time (g_s), s	0.4	0.0	0.0	3.7	1.7	0.0	0.0	1.5
Cycle Q Clear Time (g_c), s	0.4	0.0	0.0	6.9	1.7	0.0	0.0	5.2
Perm LT Sat Flow (s_l), veh/h/ln	336	0	0	1326	471	0	0	1314
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	52.4	0.0	0.0	9.1	53.1	0.0	0.0	9.1
Perm LT Serve Time (g_u), s	35.4	0.0	0.0	5.9	44.2	0.0	0.0	5.4
Perm LT Q Serve Time (g_ps), s	1.4	0.0	0.0	3.7	2.9	0.0	0.0	1.5
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	267	0	0	187	425	0	0	178
V/C Ratio (X)	0.10	0.00	0.00	0.34	0.27	0.00	0.00	0.15
Avail Cap (c_a), veh/h	315	0	0	236	514	0	0	226
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	6.4	0.0	0.0	36.2	4.5	0.0	0.0	35.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	2.2	0.3	0.0	0.0	0.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	6.6	0.0	0.0	38.5	4.8	0.0	0.0	36.5
1st-Term Q (Q1), veh/ln	0.2	0.0	0.0	1.4	0.8	0.0	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	1.80	1.80	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	0.4	0.0	0.0	2.7	1.5	0.0	0.0	1.1
%ile Storage Ratio (RQ%)	0.06	0.00	0.00	0.45	0.16	0.00	0.00	0.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T			T				
Lanes in Grp	0	1	0	0	0	2	0	0
Grp Vol (v), veh/h	0	750	0	0	0	766	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1695	0	0
Q Serve Time (g_s), s	0.0	19.1	0.0	0.0	0.0	8.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	19.1	0.0	0.0	0.0	8.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	1200	0	0	0	2208	0	0
V/C Ratio (X)	0.00	0.63	0.00	0.00	0.00	0.35	0.00	0.00
Avail Cap (c_a), veh/h	0	1297	0	0	0	2317	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.2	0.0	0.0	0.0	6.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.5	0.0	0.0	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.7	0.0	0.0	0.0	6.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	9.2	0.0	0.0	0.0	3.8	0.0	0.0

Existing (2019) Traffic Volumes 4:15 pm 02/04/2019 PM Peak Hour

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HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

02/14/2019

2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.52	0.00	1.00	0.00	1.80	0.00	1.00
%ile Back of Q (95%), veh/ln	0.0	15.2	0.0	0.0	0.0	7.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.62	0.00	0.00	0.00	0.50	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	787	0	79	0	418	0	69
Grp Sat Flow (s), veh/h/ln	0	1852	0	1617	0	1846	0	1640
Q Serve Time (g_s), s	0.0	19.1	0.0	3.7	0.0	8.2	0.0	3.1
Cycle Q Clear Time (g_c), s	0.0	19.1	0.0	3.7	0.0	8.2	0.0	3.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.03	0.00	0.86	0.00	0.05	0.00	0.77
Lane Grp Cap (c), veh/h	0	1256	0	182	0	1203	0	185
V/C Ratio (X)	0.00	0.63	0.00	0.43	0.00	0.35	0.00	0.37
Avail Cap (c_a), veh/h	0	1358	0	241	0	1262	0	245
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.2	0.0	33.3	0.0	6.3	0.0	33.1
Incr Delay (d2), s/veh	0.0	2.4	0.0	3.4	0.0	0.8	0.0	2.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.6	0.0	36.7	0.0	7.1	0.0	35.7
1st-Term Q (Q1), veh/ln	0.0	9.6	0.0	1.6	0.0	4.2	0.0	1.4
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	0.2	0.0	0.3	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.51	0.00	1.80	0.00	1.78	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	15.7	0.0	3.3	0.0	7.9	0.0	2.8
%ile Storage Ratio (RQ%)	0.00	0.65	0.00	0.43	0.00	0.55	0.00	0.66
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 2010 Ctrl Delay	10.5							
HCM 2010 LOS	B							

HCM 2010 Signalized Intersection Summary

600: Rand Road & Access E/Private Driveway

02/14/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	10	65	25	15	50	110	1435	25	25	1105	20
Future Volume (veh/h)	60	10	65	25	15	50	110	1435	25	25	1105	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	63	11	68	26	16	53	116	1511	26	26	1163	21
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	187	25	157	178	43	142	425	2414	42	267	3350	60
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.04	0.68	0.68	0.02	0.65	0.65
Sat Flow, veh/h	1326	225	1392	1314	380	1260	1774	3560	61	1774	5144	93
Grp Volume(v), veh/h	63	0	79	26	0	69	116	750	787	26	766	418
Grp Sat Flow(s),veh/h/ln	1326	0	1617	1314	0	1640	1774	1770	1852	1774	1695	1846
Q Serve(g_s), s	3.7	0.0	3.7	1.5	0.0	3.1	1.7	19.1	19.1	0.4	8.2	8.2
Cycle Q Clear(g_c), s	6.9	0.0	3.7	5.2	0.0	3.1	1.7	19.1	19.1	0.4	8.2	8.2
Prop In Lane	1.00		0.86	1.00		0.77	1.00		0.03	1.00		0.05
Lane Grp Cap(c), veh/h	187	0	182	178	0	185	425	1200	1256	267	2208	1203
V/C Ratio(X)	0.34	0.00	0.43	0.15	0.00	0.37	0.27	0.63	0.63	0.10	0.35	0.35
Avail Cap(c_a), veh/h	236	0	241	226	0	245	514	1297	1358	315	2317	1262
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.2	0.0	33.3	35.7	0.0	33.1	4.5	7.2	7.2	6.4	6.3	6.3
Incr Delay (d2), s/veh	2.2	0.0	3.4	0.8	0.0	2.6	0.3	2.5	2.4	0.2	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.7	0.0	3.3	1.1	0.0	2.8	1.5	15.2	15.7	0.4	7.1	7.9
LnGrp Delay(d),s/veh	38.5	0.0	36.7	36.5	0.0	35.7	4.8	9.7	9.6	6.6	6.8	7.1
LnGrp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		142			95			1653			1210	
Approach Delay, s/veh		37.5			35.9			9.3			6.9	
Approach LOS		D			D			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	60.6		15.1	7.0	58.4		15.1				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	3.5	59.0		12.0	7.5	55.0		12.0				
Max Q Clear Time (g_c+I1), s	2.4	21.1		8.9	3.7	10.2		7.2				
Green Ext Time (p_c), s	0.0	33.4		0.3	0.1	30.0		0.2				
Intersection Summary												
HCM 2010 Ctrl Delay				10.5								
HCM 2010 LOS				B								

HCM 2010 TWSC
100: Arlington Heights Road & Access A (Loading Dock)

02/14/2019

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	15	920	20	5	920
Future Vol, veh/h	5	15	920	20	5	920
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	40	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	7	2	2	25	2
Mvmt Flow	5	16	968	21	5	968

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1473	495	0
Stage 1	979	-	-
Stage 2	494	-	-
Critical Hdwy	6.84	7.04	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.37	-
Pot Cap-1 Maneuver	118	507	-
Stage 1	325	-	-
Stage 2	579	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	117	507	-
Mov Cap-2 Maneuver	117	-	-
Stage 1	322	-	-
Stage 2	579	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.5	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 117 507	571	-
HCM Lane V/C Ratio	-	- 0.045 0.031	0.009	-
HCM Control Delay (s)	-	- 37.2 12.3	11.4	-
HCM Lane LOS	-	- E B	B	-
HCM 95th %tile Q(veh)	-	- 0.1 0.1	0	-

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

02/14/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	10	20	80	25	180	50	815	70	90	825	55
Future Volume (veh/h)	90	10	20	80	25	180	50	815	70	90	825	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1961	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	95	11	21	84	26	189	53	858	74	95	868	58
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	354	79	151	369	256	283	353	1592	137	370	1693	113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.14	0.14	0.06	0.13	0.13	0.03	0.48	0.48	0.05	0.50	0.50
Ln Grp Delay, s/veh	24.1	0.0	26.7	24.3	26.8	34.3	9.6	14.9	14.8	9.7	13.6	13.5
Ln Grp LOS	C		C	C	C	C	A	B	B	A	B	B
Approach Vol, veh/h		127			299			985			1021	
Approach Delay, s/veh		24.8			30.8			14.6			13.2	
Approach LOS		C			C			B			B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	1.1	4.0	1.1	4.0	1.1	4.0	1.1	3.0				
Phs Duration (G+Y+Rc), s	6.8	39.3	7.4	15.5	5.4	40.7	7.8	15.0				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green (Gmax), s	13.5	41.0	7.5	9.0	4.5	50.0	7.5	9.0				
Max Allow Headway (MAH), s	3.8	9.1	3.9	7.6	3.8	9.1	3.9	6.2				
Max Q Clear (g_c+I1), s	3.8	14.5	4.8	3.2	3.0	13.9	5.1	9.7				
Green Ext Time (g_e), s	0.1	17.0	0.0	0.1	0.0	20.8	0.0	0.0				
Prob of Phs Call (p_c)	0.84	1.00	0.80	1.00	0.64	1.00	0.84	1.00				
Prob of Max Out (p_x)	0.00	0.63	1.00	1.00	1.00	0.48	1.00	1.00				
Left-Turn Movement Data												
Assigned Mvmt	1		3		5		7					
Mvmt Sat Flow, veh/h	1774		1774		1774		1774					
Through Movement Data												
Assigned Mvmt		2			4		6		8			
Mvmt Sat Flow, veh/h		3298			574		3368		1961			
Right-Turn Movement Data												
Assigned Mvmt		12			14		16		18			
Mvmt Sat Flow, veh/h		284			1096		225		1583			
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				
Lane Assignment	(Pr/Pm)		(Pr/Pm)		(Pr/Pm)		(Pr/Pm)					

Existing (2019) Traffic Volumes 11:45 am 02/04/2019 Saturday Midday Peak Hour

Synchro 10 Report
Page 2

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

02/14/2019

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	95	0	84	0	53	0	95	0
Grp Sat Flow (s), veh/h/ln	1774	0	1774	0	1774	0	1774	0
Q Serve Time (g_s), s	1.8	0.0	2.8	0.0	1.0	0.0	3.1	0.0
Cycle Q Clear Time (g_c), s	1.8	0.0	2.8	0.0	1.0	0.0	3.1	0.0
Perm LT Sat Flow (s_l), veh/h/ln	598	0	1372	0	602	0	1162	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	33.3	0.0	9.0	0.0	33.3	0.0	9.0	0.0
Perm LT Serve Time (g_u), s	20.8	0.0	8.3	0.0	22.8	0.0	8.2	0.0
Perm LT Q Serve Time (g_ps), s	2.4	0.0	0.0	0.0	1.0	0.0	0.1	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	370	0	369	0	353	0	354	0
V/C Ratio (X)	0.26	0.00	0.23	0.00	0.15	0.00	0.27	0.00
Avail Cap (c_a), veh/h	632	0	463	0	419	0	435	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	9.4	0.0	24.0	0.0	9.4	0.0	23.7	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.3	0.0	0.2	0.0	0.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	9.7	0.0	24.3	0.0	9.6	0.0	24.1	0.0
1st-Term Q (Q1), veh/ln	0.9	0.0	1.3	0.0	0.5	0.0	1.5	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	0.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	1.6	0.0	2.5	0.0	0.9	0.0	2.8	0.0
%ile Storage Ratio (RQ%)	0.22	0.00	0.40	0.00	0.48	0.00	0.59	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T				T		T	
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	460	0	0	0	456	0	26
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	1961
Q Serve Time (g_s), s	0.0	12.5	0.0	0.0	0.0	11.9	0.0	0.8
Cycle Q Clear Time (g_c), s	0.0	12.5	0.0	0.0	0.0	11.9	0.0	0.8
Lane Grp Cap (c), veh/h	0	855	0	0	0	890	0	256
V/C Ratio (X)	0.00	0.54	0.00	0.00	0.00	0.51	0.00	0.10
Avail Cap (c_a), veh/h	0	1052	0	0	0	1283	0	256
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.5	0.0	0.0	0.0	11.5	0.0	26.4
Incr Delay (d2), s/veh	0.0	2.4	0.0	0.0	0.0	2.1	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.9	0.0	0.0	0.0	13.6	0.0	26.8
1st-Term Q (Q1), veh/ln	0.0	6.0	0.0	0.0	0.0	5.7	0.0	0.4

HCM 2010 Signalized Intersection Capacity Analysis

200: Arlington Heights Road & Lillian Avenue/Access B

02/14/2019

2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.0	0.0	0.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.64	0.00	1.00	0.00	1.66	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	10.8	0.0	0.0	0.0	10.3	0.0	0.8
%ile Storage Ratio (RQ%)	0.00	1.22	0.00	0.00	0.00	0.51	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	472	0	32	0	470	0	189
Grp Sat Flow (s), veh/h/ln	0	1813	0	1669	0	1823	0	1583
Q Serve Time (g_s), s	0.0	12.5	0.0	1.2	0.0	11.9	0.0	7.7
Cycle Q Clear Time (g_c), s	0.0	12.5	0.0	1.2	0.0	11.9	0.0	7.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1583.3
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
Prop RT Outside Lane (P_R)	0.00	0.16	0.00	0.66	0.00	0.12	0.00	1.00
Lane Grp Cap (c), veh/h	0	875	0	230	0	917	0	283
V/C Ratio (X)	0.00	0.54	0.00	0.14	0.00	0.51	0.00	0.67
Avail Cap (c_a), veh/h	0	1078	0	230	0	1322	0	283
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.5	0.0	26.2	0.0	11.5	0.0	26.4
Incr Delay (d2), s/veh	0.0	2.4	0.0	0.6	0.0	2.0	0.0	7.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.8	0.0	26.7	0.0	13.5	0.0	34.3
1st-Term Q (Q1), veh/ln	0.0	6.2	0.0	0.5	0.0	5.9	0.0	3.3
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.0	0.0	0.5	0.0	0.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.63	0.00	1.80	0.00	1.65	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	11.0	0.0	1.0	0.0	10.5	0.0	7.1
%ile Storage Ratio (RQ%)	0.00	1.24	0.00	0.10	0.00	0.52	0.00	1.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
200: Arlington Heights Road & Lillian Avenue/Access B

02/14/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	10	20	80	25	180	50	815	70	90	825	55
Future Volume (veh/h)	90	10	20	80	25	180	50	815	70	90	825	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1961	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	95	11	21	84	26	189	53	858	74	95	868	58
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	354	79	151	369	256	283	353	1592	137	370	1693	113
Arrive On Green	0.06	0.14	0.14	0.06	0.13	0.13	0.03	0.48	0.48	0.05	0.50	0.50
Sat Flow, veh/h	1774	574	1096	1774	1961	1583	1774	3298	284	1774	3368	225
Grp Volume(v), veh/h	95	0	32	84	26	189	53	460	472	95	456	470
Grp Sat Flow(s),veh/h/ln	1774	0	1669	1774	1961	1583	1774	1770	1813	1774	1770	1823
Q Serve(g_s), s	3.1	0.0	1.2	2.8	0.8	7.7	1.0	12.5	12.5	1.8	11.9	11.9
Cycle Q Clear(g_c), s	3.1	0.0	1.2	2.8	0.8	7.7	1.0	12.5	12.5	1.8	11.9	11.9
Prop In Lane	1.00		0.66	1.00		1.00	1.00		0.16	1.00		0.12
Lane Grp Cap(c), veh/h	354	0	230	369	256	283	353	855	875	370	890	917
V/C Ratio(X)	0.27	0.00	0.14	0.23	0.10	0.67	0.15	0.54	0.54	0.26	0.51	0.51
Avail Cap(c_a), veh/h	435	0	230	463	256	283	419	1052	1078	632	1283	1322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	0.0	26.2	24.0	26.4	26.4	9.4	12.5	12.5	9.4	11.5	11.5
Incr Delay (d2), s/veh	0.4	0.0	0.6	0.3	0.4	7.8	0.2	2.4	2.4	0.4	2.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	0.0	1.0	2.5	0.8	7.1	0.9	10.8	11.0	1.6	10.3	10.5
LnGrp Delay(d),s/veh	24.1	0.0	26.7	24.3	26.8	34.3	9.6	14.9	14.8	9.7	13.6	13.5
LnGrp LOS	C		C	C	C	C	A	B	B	A	B	B
Approach Vol, veh/h		127			299			985			1021	
Approach Delay, s/veh		24.8			30.8			14.6			13.2	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.8	39.3	7.4	15.5	5.4	40.7	7.8	15.0				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	13.5	41.0	7.5	9.0	4.5	50.0	7.5	9.0				
Max Q Clear Time (g_c+I1), s	3.8	14.5	4.8	3.2	3.0	13.9	5.1	9.7				
Green Ext Time (p_c), s	0.1	17.0	0.0	0.1	0.0	20.8	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			16.5									
HCM 2010 LOS			B									
Notes												

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

02/14/2019

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	15	300	875	110	150	810	40	190	755	140	80	710
Future Volume (vph)	15	300	875	110	150	810	40	190	755	140	80	710
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	2000
Lane Width (ft)	12	13	12	12	13	12	12	12	12	12	12	12
Storage Length (ft)		415		0	215		0	140		175	150	
Storage Lanes		1		0	1		0	1		1	1	
Taper Length (ft)		120			180			170			250	
Lane Util. Factor	0.91	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95
Frts			0.983			0.993				0.850		
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1829	4999	0	1829	5050	0	1770	3725	1583	1770	3725
Flt Permitted		0.950			0.950			0.950			0.950	
Satd. Flow (perm)	0	1829	4999	0	1829	5050	0	1770	3725	1583	1770	3725
Right Turn on Red				No			No			No		
Satd. Flow (RTOR)												
Link Speed (mph)			35			35			35			35
Link Distance (ft)			601			560			640			500
Travel Time (s)			11.7			10.9			12.5			9.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	316	921	116	158	853	42	200	795	147	84	747
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	332	1037	0	158	895	0	200	795	147	84	747
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			52			52			17			17
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	0.96	1.00	1.00	0.96	1.00	1.00	1.00	0.94	1.00	1.00	0.94
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2		1	2		1	2	1	1	2
Detector Template	Left	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100		20	100		20	100	20	20	100
Trailing Detector (ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Position(ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Size(ft)	20	20	6		20	6		20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	Prot	Prot	NA		Prot	NA		Prot	NA	pm+ov	Prot	NA
Protected Phases	7!	7	4		3	8		5	2	3	1	6

Existing (2019) Traffic Volumes 11:45 am 02/04/2019 Saturday Midday Peak Hour

Synchro 10 Report
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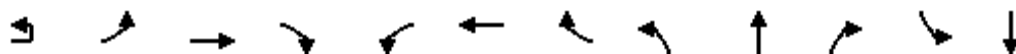
Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

02/14/2019

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	315
Future Volume (vph)	315
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Storage Length (ft)	280
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Adj. Flow (vph)	332
Shared Lane Traffic (%)	
Lane Group Flow (vph)	332
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	pm+ov
Protected Phases	7!

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

02/14/2019



Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Permitted Phases										2		
Detector Phase	7	7	4		3	8		5	2	3	1	6
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0		3.0	15.0	3.0	3.0	15.0
Minimum Split (s)	7.5	7.5	21.5		7.5	21.5		7.5	21.5	7.5	7.5	21.5
Total Split (s)	34.0	34.0	44.0		22.0	32.0		19.0	38.0	22.0	16.0	35.0
Total Split (%)	28.3%	28.3%	36.7%		18.3%	26.7%		15.8%	31.7%	18.3%	13.3%	29.2%
Maximum Green (s)	29.5	29.5	37.5		17.5	25.5		14.5	31.5	17.5	11.5	28.5
Yellow Time (s)	3.5	3.5	4.5		3.5	4.5		3.5	4.5	3.5	3.5	4.5
All-Red Time (s)	1.0	1.0	2.0		1.0	2.0		1.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	6.5		4.5	6.5		4.5	6.5	4.5	4.5	6.5
Lead/Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	7.0		4.0	7.0		4.0	7.0	4.0	4.0	7.0
Recall Mode	None	None	None		None	None		None	C-Min	None	None	C-Min
Walk Time (s)									7.0			7.0
Flash Dont Walk (s)									11.0			11.0
Pedestrian Calls (#/hr)									0			0
Act Effect Green (s)		26.4	38.8		15.3	27.7		14.9	35.8	57.6	10.5	29.0
Actuated g/C Ratio		0.22	0.32		0.13	0.23		0.12	0.30	0.48	0.09	0.24
v/c Ratio		0.83	0.64		0.68	0.77		0.91	0.72	0.19	0.54	0.83
Control Delay		62.0	37.0		64.6	48.6		94.4	43.3	19.7	65.5	52.5
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		62.0	37.0		64.6	48.6		94.4	43.3	19.7	65.5	52.5
LOS		E	D		E	D		F	D	B	E	D
Approach Delay			43.1			51.0			49.2			44.0
Approach LOS			D			D			D			D
90th %ile Green (s)	29.5	29.5	37.5		17.5	25.5		14.5	31.5	17.5	11.5	28.5
90th %ile Term Code	Max	Max	Max		Max	Max		Max	Coord	Max	Max	Coord
70th %ile Green (s)	29.5	29.5	37.5		17.5	25.5		14.5	31.5	17.5	11.5	28.5
70th %ile Term Code	Max	Max	Max		Max	Max		Max	Coord	Max	Max	Coord
50th %ile Green (s)	28.6	28.6	38.5		16.5	26.4		14.5	31.5	16.5	11.5	28.5
50th %ile Term Code	Gap	Gap	Max		Gap	Max		Max	Coord	Gap	Max	Coord
30th %ile Green (s)	24.6	24.6	40.8		14.2	30.4		14.5	32.7	14.2	10.3	28.5
30th %ile Term Code	Gap	Gap	Max		Gap	Max		Max	Coord	Gap	Gap	Coord
10th %ile Green (s)	19.7	19.7	39.7		10.9	30.9		16.5	51.9	10.9	0.0	30.9
10th %ile Term Code	Gap	Gap	Hold		Gap	Gap		Gap	Coord	Gap	Skip	Coord
Queue Length 50th (ft)		241	251		117	242		156	304	67	63	292
Queue Length 95th (ft)		346	305		189	297		#302	381	109	117	#373
Internal Link Dist (ft)			521			480			560			420
Turn Bay Length (ft)		415			215			140		175	150	
Base Capacity (vph)		449	1616		266	1167		219	1111	789	169	899
Starvation Cap Reductn		0	0		0	0		0	0	0	0	0
Spillback Cap Reductn		0	0		0	0		0	0	0	0	0
Storage Cap Reductn		0	0		0	0		0	0	0	0	0
Reduced v/c Ratio		0.74	0.64		0.59	0.77		0.91	0.72	0.19	0.50	0.83

Intersection Summary

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

02/14/2019

Lane Group	SBR
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	7.5
Total Split (s)	34.0
Total Split (%)	28.3%
Maximum Green (s)	29.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	61.9
Actuated g/C Ratio	0.52
v/c Ratio	0.41
Control Delay	19.2
Queue Delay	0.0
Total Delay	19.2
LOS	B
Approach Delay	
Approach LOS	
90th %ile Green (s)	29.5
90th %ile Term Code	Max
70th %ile Green (s)	29.5
70th %ile Term Code	Max
50th %ile Green (s)	28.6
50th %ile Term Code	Gap
30th %ile Green (s)	24.6
30th %ile Term Code	Gap
10th %ile Green (s)	19.7
10th %ile Term Code	Gap
Queue Length 50th (ft)	147
Queue Length 95th (ft)	214
Internal Link Dist (ft)	
Turn Bay Length (ft)	280
Base Capacity (vph)	856
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.39
Intersection Summary	

Lanes, Volumes, Timings

300: Arlington Heights Road & Palatine Road

02/14/2019

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 21.6 (18%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 46.5

Intersection LOS: D

Intersection Capacity Utilization 81.5%

ICU Level of Service D

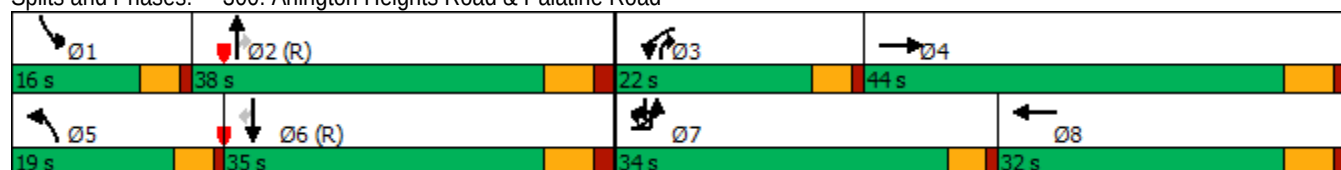
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

! Phase conflict between lane groups.

Splits and Phases: 300: Arlington Heights Road & Palatine Road



Intersection

Int Delay, s/veh 0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	1015	80	0	1000	0	75
Future Vol, veh/h	1015	80	0	1000	0	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1068	84	0	1053	0	79

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 576
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 7.14
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.92
Pot Cap-1 Maneuver	-	-	0 - 0 394
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 394
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	394	-	-	-
HCM Lane V/C Ratio	0.2	-	-	-
HCM Control Delay (s)	16.4	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.7	-	-	-

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	50	0	1085	1085	100
Future Vol, veh/h	0	50	0	1085	1085	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	53	0	1142	1142	105

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 624	- 0	- 0
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- 7.14	- -	- -
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- 3.92	- -	- -
Pot Cap-1 Maneuver	0 367	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	- 367	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Control Delay, s	16.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 367	- -	- -
HCM Lane V/C Ratio	- 0.143	- -	- -
HCM Control Delay (s)	- 16.4	- -	- -
HCM Lane LOS	- C	- -	- -
HCM 95th %tile Q(veh)	- 0.5	- -	- -

HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

02/14/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	5	90	30	5	45	110	985	35	35	1075	25
Future Volume (veh/h)	55	5	90	30	5	45	110	985	35	35	1075	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	58	5	95	32	5	47	116	1037	37	37	1132	26
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	243	10	189	200	19	182	427	2114	75	385	2954	68
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.05	0.61	0.61	0.02	0.58	0.58
Ln Grp Delay, s/veh	28.0	0.0	29.9	29.0	0.0	26.4	5.5	8.6	8.5	5.9	7.8	8.3
Ln Grp LOS	C		C	C		C	A	A	A	A	A	A
Approach Vol, veh/h		158			84			1190			1195	
Approach Delay, s/veh		29.2			27.4			8.2			7.9	
Approach LOS		C			C			A			A	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		1	2		4	5	6		8			
Case No		1.1	4.0		6.0	1.1	4.0		6.0			
Phs Duration (G+Y+Rc), s		4.9	44.3		13.9	6.8	42.4		13.9			
Change Period (Y+Rc), s		3.5	6.0		6.0	3.5	6.0		6.0			
Max Green (Gmax), s		4.5	52.0		18.0	10.5	46.0		18.0			
Max Allow Headway (MAH), s		3.8	9.1		7.1	3.8	9.1		7.1			
Max Q Clear (g_c+I1), s		2.5	12.5		6.4	3.6	9.6		7.2			
Green Ext Time (g_e), s		0.0	25.7		1.0	0.1	25.4		0.4			
Prob of Phs Call (p_c)		0.48	1.00		0.99	0.87	1.00		0.99			
Prob of Max Out (p_x)		1.00	0.57		0.19	0.04	0.62		0.15			
Left-Turn Movement Data												
Assigned Mvmt		1			7	5			3			
Mvmt Sat Flow, veh/h		1774			1347	1774			1290			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3486		80		5115		154			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			124		1516		117		1452			
Left Lane Group Data												
Assigned Mvmt		1	0	0	7	5	0	0	3			
Lane Assignment		(Pr/Pm)			(Pr/Pm)							

Existing (2019) Traffic Volumes 11:45 am 02/04/2019 Saturday Midday Peak Hour

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HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

02/14/2019

Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	37	0	0	58	116	0	0	32
Grp Sat Flow (s), veh/h/ln	1774	0	0	1347	1774	0	0	1290
Q Serve Time (g_s), s	0.5	0.0	0.0	2.6	1.6	0.0	0.0	1.5
Cycle Q Clear Time (g_c), s	0.5	0.0	0.0	4.4	1.6	0.0	0.0	5.2
Perm LT Sat Flow (s_l), veh/h/ln	523	0	0	1347	483	0	0	1290
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	36.4	0.0	0.0	7.9	36.8	0.0	0.0	7.9
Perm LT Serve Time (g_u), s	27.7	0.0	0.0	6.0	28.9	0.0	0.0	4.2
Perm LT Q Serve Time (g_ps), s	0.7	0.0	0.0	2.6	2.5	0.0	0.0	1.5
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	385	0	0	243	427	0	0	200
V/C Ratio (X)	0.10	0.00	0.00	0.24	0.27	0.00	0.00	0.16
Avail Cap (c_a), veh/h	471	0	0	459	631	0	0	407
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	5.8	0.0	0.0	26.9	5.2	0.0	0.0	28.2
Incr Delay (d2), s/veh	0.1	0.0	0.0	1.1	0.3	0.0	0.0	0.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	5.9	0.0	0.0	28.0	5.5	0.0	0.0	29.0
1st-Term Q (Q1), veh/ln	0.3	0.0	0.0	1.0	0.8	0.0	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	1.80	1.80	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	0.5	0.0	0.0	1.8	1.5	0.0	0.0	1.0
%ile Storage Ratio (RQ%)	0.08	0.00	0.00	0.31	0.16	0.00	0.00	0.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T			T				
Lanes in Grp	0	1	0	0	0	2	0	0
Grp Vol (v), veh/h	0	526	0	0	0	750	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1695	0	0
Q Serve Time (g_s), s	0.0	10.5	0.0	0.0	0.0	7.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.5	0.0	0.0	0.0	7.6	0.0	0.0
Lane Grp Cap (c), veh/h	0	1073	0	0	0	1958	0	0
V/C Ratio (X)	0.00	0.49	0.00	0.00	0.00	0.38	0.00	0.00
Avail Cap (c_a), veh/h	0	1459	0	0	0	2473	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	6.9	0.0	0.0	0.0	7.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.6	0.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.6	0.0	0.0	0.0	7.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	5.1	0.0	0.0	0.0	3.5	0.0	0.0

Existing (2019) Traffic Volumes 11:45 am 02/04/2019 Saturday Midday Peak Hour

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600: Rand Road & Access E/Private Driveway

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2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.69	0.00	1.00	0.00	1.80	0.00	1.00
%ile Back of Q (95%), veh/ln	0.0	9.5	0.0	0.0	0.0	6.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.39	0.00	0.00	0.00	0.46	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	548	0	100	0	408	0	52
Grp Sat Flow (s), veh/h/ln	0	1841	0	1595	0	1842	0	1607
Q Serve Time (g_s), s	0.0	10.5	0.0	3.7	0.0	7.6	0.0	1.8
Cycle Q Clear Time (g_c), s	0.0	10.5	0.0	3.7	0.0	7.6	0.0	1.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.07	0.00	0.95	0.00	0.06	0.00	0.90
Lane Grp Cap (c), veh/h	0	1117	0	199	0	1064	0	201
V/C Ratio (X)	0.00	0.49	0.00	0.50	0.00	0.38	0.00	0.26
Avail Cap (c_a), veh/h	0	1518	0	455	0	1343	0	458
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	6.9	0.0	25.8	0.0	7.2	0.0	25.0
Incr Delay (d2), s/veh	0.0	1.5	0.0	4.1	0.0	1.0	0.0	1.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.5	0.0	29.9	0.0	8.3	0.0	26.4
1st-Term Q (Q1), veh/ln	0.0	5.3	0.0	1.6	0.0	3.9	0.0	0.8
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.2	0.0	0.3	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.68	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	9.8	0.0	3.3	0.0	7.5	0.0	1.6
%ile Storage Ratio (RQ%)	0.00	0.40	0.00	0.43	0.00	0.52	0.00	0.38
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	10.0
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary

600: Rand Road & Access E/Private Driveway

02/14/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	5	90	30	5	45	110	985	35	35	1075	25
Future Volume (veh/h)	55	5	90	30	5	45	110	985	35	35	1075	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	58	5	95	32	5	47	116	1037	37	37	1132	26
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	243	10	189	200	19	182	427	2114	75	385	2954	68
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.05	0.61	0.61	0.02	0.58	0.58
Sat Flow, veh/h	1347	80	1516	1290	154	1452	1774	3486	124	1774	5115	117
Grp Volume(v), veh/h	58	0	100	32	0	52	116	526	548	37	750	408
Grp Sat Flow(s),veh/h/ln	1347	0	1595	1290	0	1607	1774	1770	1841	1774	1695	1842
Q Serve(g_s), s	2.6	0.0	3.7	1.5	0.0	1.8	1.6	10.5	10.5	0.5	7.6	7.6
Cycle Q Clear(g_c), s	4.4	0.0	3.7	5.2	0.0	1.8	1.6	10.5	10.5	0.5	7.6	7.6
Prop In Lane	1.00		0.95	1.00		0.90	1.00		0.07	1.00		0.06
Lane Grp Cap(c), veh/h	243	0	199	200	0	201	427	1073	1117	385	1958	1064
V/C Ratio(X)	0.24	0.00	0.50	0.16	0.00	0.26	0.27	0.49	0.49	0.10	0.38	0.38
Avail Cap(c_a), veh/h	459	0	455	407	0	458	631	1459	1518	471	2473	1343
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	0.0	25.8	28.2	0.0	25.0	5.2	6.9	6.9	5.8	7.2	7.2
Incr Delay (d2), s/veh	1.1	0.0	4.1	0.8	0.0	1.4	0.3	1.6	1.5	0.1	0.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.0	3.3	1.0	0.0	1.6	1.5	9.5	9.8	0.5	6.7	7.5
LnGrp Delay(d),s/veh	28.0	0.0	29.9	29.0	0.0	26.4	5.5	8.6	8.5	5.9	7.8	8.3
LnGrp LOS	C		C	C		C	A	A	A	A	A	A
Approach Vol, veh/h	158				84		1190				1195	
Approach Delay, s/veh	29.2				27.4		8.2				7.9	
Approach LOS	C				C		A				A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	4.9	44.3	13.9		6.8	42.4	13.9					
Change Period (Y+Rc), s	3.5	6.0	6.0		3.5	6.0	6.0					
Max Green Setting (Gmax), s	4.5	52.0	18.0		10.5	46.0	18.0					
Max Q Clear Time (g_c+I1), s	2.5	12.5	6.4		3.6	9.6	7.2					
Green Ext Time (p_c), s	0.0	25.7	1.0		0.1	25.4	0.4					
Intersection Summary												
HCM 2010 Ctrl Delay			10.0									
HCM 2010 LOS			A									

FUTURE NO-BUILD CAPACITY REPORTS

Weekday Morning Peak Hour

Weekday Evening Peak Hour

Saturday Midday Peak Hour

HCM 2010 TWSC
100: Arlington Heights Road & Access A (Loading Dock)

05/24/2019

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	905	10	5	1175
Future Vol, veh/h	5	5	905	10	5	1175
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	40	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	25	4	10	40	3
Mvmt Flow	5	5	953	11	5	1237

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1588	482	0
Stage 1	959	-	-
Stage 2	629	-	-
Critical Hdwy	6.84	7.4	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.55	-
Pot Cap-1 Maneuver	99	473	-
Stage 1	333	-	-
Stage 2	494	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	98	473	-
Mov Cap-2 Maneuver	98	-	-
Stage 1	330	-	-
Stage 2	494	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.2	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 98 473	518	-
HCM Lane V/C Ratio	-	- 0.054 0.011	0.01	-
HCM Control Delay (s)	-	- 43.8 12.7	12	-
HCM Lane LOS	-	- E B	B	-
HCM 95th %tile Q(veh)	-	- 0.2 0	0	-

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	5	50	50	10	85	50	795	65	40	1080	30
Future Volume (veh/h)	85	5	50	50	10	85	50	795	65	40	1080	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1849	1900	1863	1961	1827	1863	1813	1900	1863	1862	1900
Adj Flow Rate, veh/h	89	5	53	53	11	89	53	837	68	42	1137	32
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	11	11	2	2	4	2	4	4	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	329	18	190	291	207	200	306	1794	146	383	1942	55
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.13	0.13	0.04	0.11	0.11	0.03	0.56	0.56	0.02	0.55	0.55
Ln Grp Delay, s/veh	27.5	0.0	30.8	28.7	30.3	33.3	9.0	11.6	11.5	7.9	13.6	13.5
Ln Grp LOS	C		C	C	C	C	A	B	B	A	B	B
Approach Vol, veh/h		147			153			958			1211	
Approach Delay, s/veh		28.8			31.5			11.4			13.4	
Approach LOS		C			C			B			B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	1.1	4.0	1.1	4.0	1.1	4.0	1.1	3.0				
Phs Duration (G+Y+Rc), s	5.2	47.5	6.2	15.8	5.5	47.3	8.0	13.9				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green (Gmax), s	4.5	51.0	3.5	12.0	6.5	49.0	7.5	8.0				
Max Allow Headway (MAH), s	3.8	9.1	3.9	7.7	3.8	9.1	3.9	6.2				
Max Q Clear (g_c+I1), s	2.8	13.6	4.0	4.5	3.0	18.0	5.3	6.0				
Green Ext Time (g_e), s	0.0	20.7	0.0	0.2	0.0	23.3	0.0	0.1				
Prob of Phs Call (p_c)	0.58	1.00	0.67	0.99	0.67	1.00	0.84	0.99				
Prob of Max Out (p_x)	1.00	0.44	1.00	1.00	1.00	0.73	1.00	1.00				
Left-Turn Movement Data												
Assigned Mvmt	1		3		5		7					
Mvmt Sat Flow, veh/h	1774		1774		1774		1740					
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		3226		137		3514		1961				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		262		1455		99		1553				
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				
Lane Assignment	(Pr/Pm)		(Pr/Pm)		(Pr/Pm)		(Pr/Pm)					

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	42	0	53	0	53	0	89	0
Grp Sat Flow (s), veh/h/ln	1774	0	1774	0	1774	0	1740	0
Q Serve Time (g_s), s	0.8	0.0	2.0	0.0	1.0	0.0	3.3	0.0
Cycle Q Clear Time (g_c), s	0.8	0.0	2.0	0.0	1.0	0.0	3.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	613	0	1340	0	478	0	1265	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	41.3	0.0	7.9	0.0	41.3	0.0	8.3	0.0
Perm LT Serve Time (g_u), s	29.9	0.0	7.3	0.0	25.3	0.0	7.5	0.0
Perm LT Q Serve Time (g_ps), s	0.8	0.0	0.0	0.0	2.0	0.0	0.1	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	383	0	291	0	306	0	329	0
V/C Ratio (X)	0.11	0.00	0.18	0.00	0.17	0.00	0.27	0.00
Avail Cap (c_a), veh/h	449	0	311	0	413	0	398	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	7.8	0.0	28.4	0.0	8.7	0.0	27.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.3	0.0	0.3	0.0	0.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.9	0.0	28.7	0.0	9.0	0.0	27.5	0.0
1st-Term Q (Q1), veh/ln	0.4	0.0	1.0	0.0	0.5	0.0	1.6	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	0.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	0.7	0.0	1.8	0.0	0.9	0.0	2.9	0.0
%ile Storage Ratio (RQ%)	0.09	0.00	0.29	0.00	0.44	0.00	0.63	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T				T		T	
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	447	0	0	0	572	0	11
Grp Sat Flow (s), veh/h/ln	0	1722	0	0	0	1769	0	1961
Q Serve Time (g_s), s	0.0	11.6	0.0	0.0	0.0	16.0	0.0	0.4
Cycle Q Clear Time (g_c), s	0.0	11.6	0.0	0.0	0.0	16.0	0.0	0.4
Lane Grp Cap (c), veh/h	0	957	0	0	0	977	0	207
V/C Ratio (X)	0.00	0.47	0.00	0.00	0.00	0.59	0.00	0.05
Avail Cap (c_a), veh/h	0	1176	0	0	0	1160	0	210
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.9	0.0	0.0	0.0	11.1	0.0	30.0
Incr Delay (d2), s/veh	0.0	1.6	0.0	0.0	0.0	2.6	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.6	0.0	0.0	0.0	13.6	0.0	30.3
1st-Term Q (Q1), veh/ln	0.0	5.5	0.0	0.0	0.0	7.8	0.0	0.2

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.7	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.68	0.00	1.00	0.00	1.56	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	9.9	0.0	0.0	0.0	13.3	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	1.13	0.00	0.00	0.00	0.66	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	458	0	58	0	597	0	89
Grp Sat Flow (s), veh/h/ln	0	1766	0	1592	0	1844	0	1553
Q Serve Time (g_s), s	0.0	11.6	0.0	2.5	0.0	16.0	0.0	4.0
Cycle Q Clear Time (g_c), s	0.0	11.6	0.0	2.5	0.0	16.0	0.0	4.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1552.9
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
Prop RT Outside Lane (P_R)	0.00	0.15	0.00	0.91	0.00	0.05	0.00	1.00
Lane Grp Cap (c), veh/h	0	982	0	208	0	1019	0	200
V/C Ratio (X)	0.00	0.47	0.00	0.28	0.00	0.59	0.00	0.44
Avail Cap (c_a), veh/h	0	1206	0	256	0	1210	0	203
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.9	0.0	29.3	0.0	11.1	0.0	30.1
Incr Delay (d2), s/veh	0.0	1.6	0.0	1.5	0.0	2.5	0.0	3.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.5	0.0	30.8	0.0	13.5	0.0	33.3
1st-Term Q (Q1), veh/ln	0.0	5.6	0.0	1.1	0.0	8.1	0.0	1.7
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.1	0.0	0.7	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.67	0.00	1.80	0.00	1.55	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	10.1	0.0	2.1	0.0	13.7	0.0	3.4
%ile Storage Ratio (RQ%)	0.00	1.15	0.00	0.21	0.00	0.68	0.00	0.56
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary

200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	5	50	50	10	85	50	795	65	40	1080	30
Future Volume (veh/h)	85	5	50	50	10	85	50	795	65	40	1080	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1849	1900	1863	1961	1827	1863	1813	1900	1863	1862	1900
Adj Flow Rate, veh/h	89	5	53	53	11	89	53	837	68	42	1137	32
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	11	11	2	2	4	2	4	4	2	2	2
Cap, veh/h	329	18	190	291	207	200	306	1794	146	383	1942	55
Arrive On Green	0.06	0.13	0.13	0.04	0.11	0.11	0.03	0.56	0.56	0.02	0.55	0.55
Sat Flow, veh/h	1740	137	1455	1774	1961	1553	1774	3226	262	1774	3514	99
Grp Volume(v), veh/h	89	0	58	53	11	89	53	447	458	42	572	597
Grp Sat Flow(s),veh/h/ln	1740	0	1592	1774	1961	1553	1774	1722	1766	1774	1769	1844
Q Serve(g_s), s	3.3	0.0	2.5	2.0	0.4	4.0	1.0	11.6	11.6	0.8	16.0	16.0
Cycle Q Clear(g_c), s	3.3	0.0	2.5	2.0	0.4	4.0	1.0	11.6	11.6	0.8	16.0	16.0
Prop In Lane	1.00		0.91	1.00		1.00	1.00		0.15	1.00		0.05
Lane Grp Cap(c), veh/h	329	0	208	291	207	200	306	957	982	383	977	1019
V/C Ratio(X)	0.27	0.00	0.28	0.18	0.05	0.44	0.17	0.47	0.47	0.11	0.59	0.59
Avail Cap(c_a), veh/h	398	0	256	311	210	203	413	1176	1206	449	1160	1210
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.0	0.0	29.3	28.4	30.0	30.1	8.7	9.9	9.9	7.8	11.1	11.1
Incr Delay (d2), s/veh	0.4	0.0	1.5	0.3	0.2	3.3	0.3	1.6	1.6	0.1	2.6	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	0.0	2.1	1.8	0.4	3.4	0.9	9.9	10.1	0.7	13.3	13.7
LnGrp Delay(d),s/veh	27.5	0.0	30.8	28.7	30.3	33.3	9.0	11.6	11.5	7.9	13.6	13.5
LnGrp LOS	C		C	C	C	C	A	B	B	A	B	B
Approach Vol, veh/h		147			153			958			1211	
Approach Delay, s/veh		28.8			31.5			11.4			13.4	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	47.5	6.2	15.8	5.5	47.3	8.0	13.9				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	4.5	51.0	3.5	12.0	6.5	49.0	7.5	8.0				
Max Q Clear Time (g_c+I1), s	2.8	13.6	4.0	4.5	3.0	18.0	5.3	6.0				
Green Ext Time (p_c), s	0.0	20.7	0.0	0.2	0.0	23.3	0.0	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			14.7									
HCM 2010 LOS			B									
Notes												

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	10	250	1945	150	180	865	10	170	650	145	45	820
Future Volume (vph)	10	250	1945	150	180	865	10	170	650	145	45	820
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	2000
Lane Width (ft)	12	13	12	12	13	12	12	12	12	12	12	12
Storage Length (ft)		415		0	215		0	140		175	150	
Storage Lanes		1		0	1		0	1		1	1	
Taper Length (ft)		120			180			170			250	
Lane Util. Factor	0.91	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95
Fr't			0.989			0.998				0.850		
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1829	4984	0	1811	4932	0	1752	3585	1583	1752	3725
Flt Permitted		0.950			0.950			0.950			0.950	
Satd. Flow (perm)	0	1829	4984	0	1811	4932	0	1752	3585	1583	1752	3725
Right Turn on Red				No			No			No		
Satd. Flow (RTOR)												
Link Speed (mph)			35			35			35			35
Link Distance (ft)			601			560			640			500
Travel Time (s)			11.7			10.9			12.5			9.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	3%	2%	3%	5%	2%	3%	6%	2%	3%	2%
Adj. Flow (vph)	11	263	2047	158	189	911	11	179	684	153	47	863
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	274	2205	0	189	922	0	179	684	153	47	863
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			52			52			17			17
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	0.96	1.00	1.00	0.96	1.00	1.00	1.00	0.94	1.00	1.00	0.94
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2		1	2		1	2	1	1	2
Detector Template	Left	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100		20	100		20	100	20	20	100
Trailing Detector (ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Position(ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Size(ft)	20	20	6		20	6		20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	Prot	Prot	NA		Prot	NA		Prot	NA	pm+ov	Prot	NA

Future (2025) No-Build Traffic Projections 7:15 am 02/04/2019 AM Peak Hour

Synchro 10 Report
Page 1

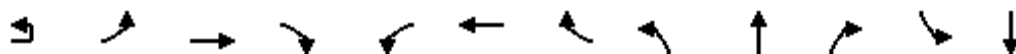
Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	250
Future Volume (vph)	250
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Storage Length (ft)	280
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1568
Flt Permitted	
Satd. Flow (perm)	1568
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Heavy Vehicles (%)	3%
Adj. Flow (vph)	263
Shared Lane Traffic (%)	
Lane Group Flow (vph)	263
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	pm+ov

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019



Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Protected Phases	7!	7	4		3	8		5	2	3	1	6
Permitted Phases										2		
Detector Phase	7	7	4		3	8		5	2	3	1	6
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0		3.0	15.0	3.0	3.0	15.0
Minimum Split (s)	7.5	7.5	21.5		7.5	21.5		7.5	21.5	7.5	7.5	21.5
Total Split (s)	24.0	24.0	60.0		24.0	60.0		17.0	39.0	24.0	17.0	39.0
Total Split (%)	17.1%	17.1%	42.9%		17.1%	42.9%		12.1%	27.9%	17.1%	12.1%	27.9%
Maximum Green (s)	19.5	19.5	53.5		19.5	53.5		12.5	32.5	19.5	12.5	32.5
Yellow Time (s)	3.5	3.5	4.5		3.5	4.5		3.5	4.5	3.5	3.5	4.5
All-Red Time (s)	1.0	1.0	2.0		1.0	2.0		1.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	6.5		4.5	6.5		4.5	6.5	4.5	4.5	6.5
Lead/Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	7.0		4.0	7.0		4.0	7.0	4.0	4.0	7.0
Recall Mode	None	None	None		None	None		None	C-Min	None	None	C-Min
Walk Time (s)									7.0			7.0
Flash Dont Walk (s)									11.0			11.0
Pedestrian Calls (#/hr)									0			0
Act Effect Green (s)		19.5	54.7		18.3	53.5		12.5	37.3	62.1	9.9	32.5
Actuated g/C Ratio		0.14	0.39		0.13	0.38		0.09	0.27	0.44	0.07	0.23
v/c Ratio		1.08	1.13		0.80	0.49		1.15	0.72	0.22	0.38	1.00
Control Delay		134.3	105.9		83.1	34.0		171.7	52.5	26.0	70.3	83.7
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		134.3	105.9		83.1	34.0		171.7	52.5	26.0	70.3	83.7
LOS		F	F		F	C		F	D	C	E	F
Approach Delay			109.0			42.3			69.5			71.3
Approach LOS			F			D			E			E
90th %ile Green (s)	19.5	19.5	53.5		19.5	53.5		12.5	32.5	19.5	12.5	32.5
90th %ile Term Code	Max	Max	Max		Max	Max		Max	Coord	Max	Max	Coord
70th %ile Green (s)	19.5	19.5	53.5		19.5	53.5		12.5	33.5	19.5	11.5	32.5
70th %ile Term Code	Max	Max	Max		Max	Hold		Max	Coord	Max	Gap	Coord
50th %ile Green (s)	19.5	19.5	53.5		19.5	53.5		12.5	34.9	19.5	10.1	32.5
50th %ile Term Code	Max	Max	Max		Max	Hold		Max	Coord	Max	Gap	Coord
30th %ile Green (s)	19.5	19.5	54.6		18.4	53.5		12.5	36.3	18.4	8.7	32.5
30th %ile Term Code	Max	Max	Max		Gap	Hold		Max	Coord	Gap	Gap	Coord
10th %ile Green (s)	19.5	19.5	58.5		14.5	53.5		12.5	49.5	14.5	0.0	32.5
10th %ile Term Code	Max	Max	Max		Gap	Hold		Max	Coord	Gap	Skip	Coord
Queue Length 50th (ft)		~277	~867		168	232		~190	306	86	42	416
Queue Length 95th (ft)		#460	#958		#279	276		#347	389	141	84	#561
Internal Link Dist (ft)			521			480			560			420
Turn Bay Length (ft)		415			215			140		175	150	
Base Capacity (vph)		254	1947		252	1884		156	956	716	156	864
Starvation Cap Reductn		0	0		0	0		0	0	0	0	0
Spillback Cap Reductn		0	0		0	0		0	0	0	0	0
Storage Cap Reductn		0	0		0	0		0	0	0	0	0
Reduced v/c Ratio		1.08	1.13		0.75	0.49		1.15	0.72	0.21	0.30	1.00

Lanes, Volumes, Timings

300: Arlington Heights Road & Palatine Road

05/24/2019

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 57.4 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.15

Intersection Signal Delay: 81.6

Intersection LOS: F

Intersection Capacity Utilization 100.2%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

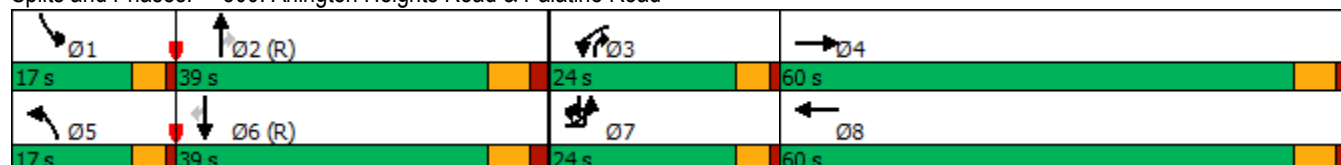
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

! Phase conflict between lane groups.

Splits and Phases: 300: Arlington Heights Road & Palatine Road



Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

Lane Group	SBR
Protected Phases	7!
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	7.5
Total Split (s)	24.0
Total Split (%)	17.1%
Maximum Green (s)	19.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	58.5
Actuated g/C Ratio	0.42
v/c Ratio	0.40
Control Delay	30.8
Queue Delay	0.0
Total Delay	30.8
LOS	C
Approach Delay	
Approach LOS	
90th %ile Green (s)	19.5
90th %ile Term Code	Max
70th %ile Green (s)	19.5
70th %ile Term Code	Max
50th %ile Green (s)	19.5
50th %ile Term Code	Max
30th %ile Green (s)	19.5
30th %ile Term Code	Max
10th %ile Green (s)	19.5
10th %ile Term Code	Max
Queue Length 50th (ft)	166
Queue Length 95th (ft)	243
Internal Link Dist (ft)	
Turn Bay Length (ft)	280
Base Capacity (vph)	655
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.40

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	2055	80	0	1055	0	65
Future Vol, veh/h	2055	80	0	1055	0	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	4	2	4	2	2
Mvmt Flow	2163	84	0	1111	0	68
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	1124
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	171
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	171
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		39.4		
HCM LOS	E					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	171	-	-	-		
HCM Lane V/C Ratio	0.4	-	-	-		
HCM Control Delay (s)	39.4	-	-	-		
HCM Lane LOS	E	-	-	-		
HCM 95th %tile Q(veh)	1.8	-	-	-		

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	20	0	745	1540	75
Future Vol, veh/h	0	20	0	745	1540	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	6	2	3	2	2
Mvmt Flow	0	21	0	784	1621	79
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	850	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.96	-	-	-	-
Pot Cap-1 Maneuver	0	254	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	254	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	20.5	0	0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	-	254	-	-		
HCM Lane V/C Ratio	-	0.083	-	-		
HCM Control Delay (s)	-	20.5	-	-		
HCM Lane LOS	-	C	-	-		
HCM 95th %tile Q(veh)	-	0.3	-	-		

HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1	15	15	10	5	50	720	5	10	1540	10
Future Volume (veh/h)	20	1	15	15	10	5	50	720	5	10	1540	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1759	1863	1900	1863	1842	1900	1759	1862	1900
Adj Flow Rate, veh/h	21	1	16	16	11	5	53	758	5	11	1621	11
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	8	2	2	2	3	3	8	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	199	8	123	191	100	45	310	2502	17	522	3560	24
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.03	0.70	0.70	0.01	0.68	0.68
Ln Grp Delay, s/veh	33.0	0.0	32.7	32.9	0.0	32.4	4.4	4.8	4.8	3.7	6.1	6.6
Ln Grp LOS	C		C	C		C	A	A	A	A	A	A
Approach Vol, veh/h		38			32			816			1643	
Approach Delay, s/veh		32.9			32.7			4.8			6.3	
Approach LOS		C			C			A			A	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Case No	1.1	4.0		6.0	1.1	4.0		6.0				
Phs Duration (G+Y+Rc), s	4.1	58.4		12.1	5.5	57.0		12.1				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green (Gmax), s	5.5	58.0		11.0	6.5	57.0		11.0				
Max Allow Headway (MAH), s	3.8	9.1		6.7	3.8	9.1		6.8				
Max Q Clear (g_c+I1), s	2.2	8.0		3.7	2.7	12.7		3.6				
Green Ext Time (g_e), s	0.0	19.4		0.1	0.0	38.3		0.1				
Prob of Phs Call (p_c)	0.20	1.00		0.77	0.67	1.00		0.77				
Prob of Max Out (p_x)	1.00	0.18		0.62	0.92	0.82		0.60				
Left-Turn Movement Data												
Assigned Mvmt	1			7	5			3				
Mvmt Sat Flow, veh/h	1675			1392	1774			1313				
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		3564		94		5209		1214				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		24		1503		35		552				
Left Lane Group Data												
Assigned Mvmt	1	0	0	7	5	0	0	3				
Lane Assignment	(Pr/Pm)			(Pr/Pm)								

HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

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Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	11	0	0	21	53	0	0	16
Grp Sat Flow (s), veh/h/ln	1675	0	0	1392	1774	0	0	1313
Q Serve Time (g_s), s	0.2	0.0	0.0	1.1	0.7	0.0	0.0	0.9
Cycle Q Clear Time (g_c), s	0.2	0.0	0.0	1.7	0.7	0.0	0.0	1.6
Perm LT Sat Flow (s_l), veh/h/ln	662	0	0	1392	307	0	0	1313
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	51.0	0.0	0.0	6.1	51.0	0.0	0.0	6.1
Perm LT Serve Time (g_u), s	46.4	0.0	0.0	5.5	40.3	0.0	0.0	5.4
Perm LT Q Serve Time (g_ps), s	0.1	0.0	0.0	1.1	2.2	0.0	0.0	0.9
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	522	0	0	199	310	0	0	191
V/C Ratio (X)	0.02	0.00	0.00	0.11	0.17	0.00	0.00	0.08
Avail Cap (c_a), veh/h	631	0	0	290	417	0	0	277
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	3.7	0.0	0.0	32.5	4.2	0.0	0.0	32.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.3	0.0	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	3.7	0.0	0.0	33.0	4.4	0.0	0.0	32.9
1st-Term Q (Q1), veh/ln	0.1	0.0	0.0	0.4	0.3	0.0	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	1.80	1.80	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	0.1	0.0	0.0	0.8	0.6	0.0	0.0	0.6
%ile Storage Ratio (RQ%)	0.02	0.00	0.00	0.13	0.07	0.00	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T			T				
Lanes in Grp	0	1	0	0	0	2	0	0
Grp Vol (v), veh/h	0	372	0	0	0	1055	0	0
Grp Sat Flow (s), veh/h/ln	0	1750	0	0	0	1694	0	0
Q Serve Time (g_s), s	0.0	6.0	0.0	0.0	0.0	10.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	6.0	0.0	0.0	0.0	10.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	1228	0	0	0	2316	0	0
V/C Ratio (X)	0.00	0.30	0.00	0.00	0.00	0.46	0.00	0.00
Avail Cap (c_a), veh/h	0	1360	0	0	0	2589	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.2	0.0	0.0	0.0	5.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.8	0.0	0.0	0.0	6.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.9	0.0	0.0	0.0	4.8	0.0	0.0

Future (2025) No-Build Traffic Projections 7:15 am 02/04/2019 AM Peak Hour

Synchro 10 Report
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HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

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2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.73	0.00	1.00
%ile Back of Q (95%), veh/ln	0.0	5.6	0.0	0.0	0.0	8.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.23	0.00	0.00	0.00	0.61	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	391	0	17	0	577	0	16
Grp Sat Flow (s), veh/h/ln	0	1838	0	1597	0	1856	0	1765
Q Serve Time (g_s), s	0.0	6.0	0.0	0.7	0.0	10.7	0.0	0.6
Cycle Q Clear Time (g_c), s	0.0	6.0	0.0	0.7	0.0	10.7	0.0	0.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.01	0.00	0.94	0.00	0.02	0.00	0.31
Lane Grp Cap (c), veh/h	0	1290	0	131	0	1268	0	145
V/C Ratio (X)	0.00	0.30	0.00	0.13	0.00	0.46	0.00	0.11
Avail Cap (c_a), veh/h	0	1429	0	236	0	1418	0	260
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	4.2	0.0	31.8	0.0	5.4	0.0	31.7
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.9	0.0	1.2	0.0	0.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.8	0.0	32.7	0.0	6.6	0.0	32.4
1st-Term Q (Q1), veh/ln	0.0	3.0	0.0	0.3	0.0	5.3	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.69	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	5.9	0.0	0.6	0.0	9.6	0.0	0.6
%ile Storage Ratio (RQ%)	0.00	0.24	0.00	0.08	0.00	0.67	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	6.5
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary

600: Rand Road & Access E/Private Driveway

05/24/2019

																
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR				
Lane Configurations																
Traffic Volume (veh/h)	20	1	15	15	10	5	50	720	5	10	1540	10				
Future Volume (veh/h)	20	1	15	15	10	5	50	720	5	10	1540	10				
Number	7	4	14	3	8	18	5	2	12	1	6	16				
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0				
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00				
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Adj Sat Flow, veh/h/ln	1863	1863	1900	1759	1863	1900	1863	1842	1900	1759	1862	1900				
Adj Flow Rate, veh/h	21	1	16	16	11	5	53	758	5	11	1621	11				
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95				
Percent Heavy Veh, %	2	2	2	8	2	2	2	3	3	8	2	2				
Cap, veh/h	199	8	123	191	100	45	310	2502	17	522	3560	24				
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.03	0.70	0.70	0.01	0.68	0.68				
Sat Flow, veh/h	1392	94	1503	1313	1214	552	1774	3564	24	1675	5209	35				
Grp Volume(v), veh/h	21	0	17	16	0	16	53	372	391	11	1055	577				
Grp Sat Flow(s),veh/h/ln	1392	0	1597	1313	0	1765	1774	1750	1838	1675	1694	1856				
Q Serve(g_s), s	1.1	0.0	0.7	0.9	0.0	0.6	0.7	6.0	6.0	0.2	10.7	10.7				
Cycle Q Clear(g_c), s	1.7	0.0	0.7	1.6	0.0	0.6	0.7	6.0	6.0	0.2	10.7	10.7				
Prop In Lane	1.00		0.94	1.00		0.31	1.00		0.01	1.00		0.02				
Lane Grp Cap(c), veh/h	199	0	131	191	0	145	310	1228	1290	522	2316	1268				
V/C Ratio(X)	0.11	0.00	0.13	0.08	0.00	0.11	0.17	0.30	0.30	0.02	0.46	0.46				
Avail Cap(c_a), veh/h	290	0	236	277	0	260	417	1360	1429	631	2589	1418				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Uniform Delay (d), s/veh	32.5	0.0	31.8	32.5	0.0	31.7	4.2	4.2	4.2	3.7	5.4	5.4				
Incr Delay (d2), s/veh	0.5	0.0	0.9	0.4	0.0	0.7	0.3	0.6	0.6	0.0	0.6	1.2				
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
%ile BackOfQ(95%),veh/ln	0.8	0.0	0.6	0.6	0.0	0.6	0.6	5.6	5.9	0.1	8.7	9.6				
LnGrp Delay(d),s/veh	33.0	0.0	32.7	32.9	0.0	32.4	4.4	4.8	4.8	3.7	6.1	6.6				
LnGrp LOS	C		C	C		C	A	A	A	A	A	A				
Approach Vol, veh/h	38					32		816		1643						
Approach Delay, s/veh	32.9					32.7		4.8		6.3						
Approach LOS	C					C		A		A						
Timer	1	2	3	4	5	6	7	8								
Assigned Phs	1	2			4	5	6	8								
Phs Duration (G+Y+Rc), s	4.1	58.4			12.1	5.5	57.0	12.1								
Change Period (Y+Rc), s	3.5	6.0			6.0	3.5	6.0	6.0								
Max Green Setting (Gmax), s	5.5	58.0			11.0	6.5	57.0	11.0								
Max Q Clear Time (g_c+I1), s	2.2	8.0			3.7	2.7	12.7	3.6								
Green Ext Time (p_c), s	0.0	19.4			0.1	0.0	38.3	0.1								
Intersection Summary																
HCM 2010 Ctrl Delay	6.5															
HCM 2010 LOS	A															

HCM 2010 TWSC
100: Arlington Heights Road & Access A (Loading Dock)

05/24/2019

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	1200	20	2	1050
Future Vol, veh/h	5	5	1200	20	2	1050
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	40	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	6	2	2
Mvmt Flow	5	5	1263	21	2	1105

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1831	642	0
Stage 1	1274	-	-
Stage 2	557	-	-
Critical Hdwy	6.84	6.94	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	-
Pot Cap-1 Maneuver	68	417	-
Stage 1	226	-	-
Stage 2	537	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	68	417	-
Mov Cap-2 Maneuver	68	-	-
Stage 1	225	-	-
Stage 2	537	-	-

Approach	WB	NB	SB
HCM Control Delay, s	38	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	-	68	417
HCM Lane V/C Ratio	-	-	0.077	0.013
HCM Control Delay (s)	-	-	62.3	13.7
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	0.2	0

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	20	10	115	30	230	25	1045	135	125	925	55
Future Volume (veh/h)	75	20	10	115	30	230	25	1045	135	125	925	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1961	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	79	21	11	121	32	242	26	1100	142	132	974	58
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	292	114	60	341	243	283	335	1682	217	312	1940	116
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.05	0.10	0.10	0.08	0.12	0.12	0.02	0.53	0.53	0.05	0.57	0.57
Ln Grp Delay, s/veh	31.0	0.0	34.6	29.6	32.1	55.7	9.2	17.0	17.1	11.9	12.2	12.2
Ln Grp LOS	C		C	C	C	E	A	B	B	B	B	B
Approach Vol, veh/h		111			395			1268			1164	
Approach Delay, s/veh		32.0			45.8			16.9			12.1	
Approach LOS		C			D			B			B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	1.1	4.0	1.1	4.0	1.1	4.0	1.1	3.0				
Phs Duration (G+Y+Rc), s	7.9	49.2	9.9	14.0	4.8	52.3	7.8	16.1				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green (Gmax), s	8.5	48.0	6.5	8.0	3.5	53.0	6.5	8.0				
Max Allow Headway (MAH), s	3.8	9.2	3.9	7.5	3.8	9.1	3.9	6.2				
Max Q Clear (g_c+I1), s	4.6	22.3	6.8	3.4	2.5	16.0	5.2	12.1				
Green Ext Time (g_e), s	0.1	20.9	0.0	0.0	0.0	23.7	0.0	0.0				
Prob of Phs Call (p_c)	0.95	1.00	0.93	1.00	0.44	1.00	0.83	1.00				
Prob of Max Out (p_x)	0.85	0.83	1.00	1.00	1.00	0.56	1.00	1.00				
Left-Turn Movement Data												
Assigned Mvmt	1		3		5		7					
Mvmt Sat Flow, veh/h	1774		1774		1774		1774					
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		3154		1153		3395		1961				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		406		604		202		1583				
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				
Lane Assignment	(Pr/Pm)		(Pr/Pm)		(Pr/Pm)		(Pr/Pm)					

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	132	0	121	0	26	0	79	0
Grp Sat Flow (s), veh/h/ln	1774	0	1774	0	1774	0	1774	0
Q Serve Time (g_s), s	2.6	0.0	4.8	0.0	0.5	0.0	3.2	0.0
Cycle Q Clear Time (g_c), s	2.6	0.0	4.8	0.0	0.5	0.0	3.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	446	0	1372	0	544	0	1101	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	44.8	0.0	8.6	0.0	43.2	0.0	8.0	0.0
Perm LT Serve Time (g_u), s	22.9	0.0	6.6	0.0	32.3	0.0	8.0	0.0
Perm LT Q Serve Time (g_ps), s	9.2	0.0	0.2	0.0	0.5	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	312	0	341	0	335	0	292	0
V/C Ratio (X)	0.42	0.00	0.35	0.00	0.08	0.00	0.27	0.00
Avail Cap (c_a), veh/h	401	0	344	0	383	0	340	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	10.9	0.0	29.0	0.0	9.1	0.0	30.5	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.6	0.0	0.1	0.0	0.5	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	11.9	0.0	29.6	0.0	9.2	0.0	31.0	0.0
1st-Term Q (Q1), veh/ln	1.2	0.0	2.4	0.0	0.3	0.0	1.5	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	0.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	2.4	0.0	4.3	0.0	0.5	0.0	2.8	0.0
%ile Storage Ratio (RQ%)	0.33	0.00	0.71	0.00	0.25	0.00	0.60	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T				T		T	
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	616	0	0	0	508	0	32
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	1961
Q Serve Time (g_s), s	0.0	20.2	0.0	0.0	0.0	14.0	0.0	1.2
Cycle Q Clear Time (g_c), s	0.0	20.2	0.0	0.0	0.0	14.0	0.0	1.2
Lane Grp Cap (c), veh/h	0	944	0	0	0	1011	0	243
V/C Ratio (X)	0.00	0.65	0.00	0.00	0.00	0.50	0.00	0.13
Avail Cap (c_a), veh/h	0	1048	0	0	0	1157	0	243
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.5	0.0	0.0	0.0	10.4	0.0	31.6
Incr Delay (d2), s/veh	0.0	3.5	0.0	0.0	0.0	1.8	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.0	0.0	0.0	0.0	12.2	0.0	32.1
1st-Term Q (Q1), veh/ln	0.0	9.8	0.0	0.0	0.0	6.8	0.0	0.6

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	0.0	0.0	0.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.50	0.00	1.00	0.00	1.61	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	16.0	0.0	0.0	0.0	11.7	0.0	1.2
%ile Storage Ratio (RQ%)	0.00	1.81	0.00	0.00	0.00	0.58	0.00	0.09
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	626	0	32	0	524	0	242
Grp Sat Flow (s), veh/h/ln	0	1791	0	1756	0	1827	0	1583
Q Serve Time (g_s), s	0.0	20.3	0.0	1.4	0.0	14.0	0.0	10.1
Cycle Q Clear Time (g_c), s	0.0	20.3	0.0	1.4	0.0	14.0	0.0	10.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1583.3
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
Prop RT Outside Lane (P_R)	0.00	0.23	0.00	0.34	0.00	0.11	0.00	1.00
Lane Grp Cap (c), veh/h	0	955	0	173	0	1044	0	283
V/C Ratio (X)	0.00	0.65	0.00	0.18	0.00	0.50	0.00	0.86
Avail Cap (c_a), veh/h	0	1061	0	173	0	1195	0	283
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.6	0.0	33.5	0.0	10.4	0.0	32.3
Incr Delay (d2), s/veh	0.0	3.5	0.0	1.1	0.0	1.7	0.0	23.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.1	0.0	34.6	0.0	12.2	0.0	55.7
1st-Term Q (Q1), veh/ln	0.0	9.9	0.0	0.7	0.0	7.0	0.0	5.2
2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	0.1	0.0	0.5	0.0	1.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.50	0.00	1.80	0.00	1.60	0.00	1.62
%ile Back of Q (95%), veh/ln	0.0	16.2	0.0	1.3	0.0	12.0	0.0	11.4
%ile Storage Ratio (RQ%)	0.00	1.83	0.00	0.12	0.00	0.59	0.00	1.87
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary

200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	20	10	115	30	230	25	1045	135	125	925	55
Future Volume (veh/h)	75	20	10	115	30	230	25	1045	135	125	925	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1961	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	79	21	11	121	32	242	26	1100	142	132	974	58
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	292	114	60	341	243	283	335	1682	217	312	1940	116
Arrive On Green	0.05	0.10	0.10	0.08	0.12	0.12	0.02	0.53	0.53	0.05	0.57	0.57
Sat Flow, veh/h	1774	1153	604	1774	1961	1583	1774	3154	406	1774	3395	202
Grp Volume(v), veh/h	79	0	32	121	32	242	26	616	626	132	508	524
Grp Sat Flow(s),veh/h/ln	1774	0	1756	1774	1961	1583	1774	1770	1791	1774	1770	1827
Q Serve(g_s), s	3.2	0.0	1.4	4.8	1.2	10.1	0.5	20.2	20.3	2.6	14.0	14.0
Cycle Q Clear(g_c), s	3.2	0.0	1.4	4.8	1.2	10.1	0.5	20.2	20.3	2.6	14.0	14.0
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.23	1.00		0.11
Lane Grp Cap(c), veh/h	292	0	173	341	243	283	335	944	955	312	1011	1044
V/C Ratio(X)	0.27	0.00	0.18	0.35	0.13	0.86	0.08	0.65	0.65	0.42	0.50	0.50
Avail Cap(c_a), veh/h	340	0	173	344	243	283	383	1048	1061	401	1157	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	0.0	33.5	29.0	31.6	32.3	9.1	13.5	13.6	10.9	10.4	10.4
Incr Delay (d2), s/veh	0.5	0.0	1.1	0.6	0.5	23.5	0.1	3.5	3.5	0.9	1.8	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	0.0	1.3	4.3	1.2	11.4	0.5	16.0	16.2	2.4	11.7	12.0
LnGrp Delay(d),s/veh	31.0	0.0	34.6	29.6	32.1	55.7	9.2	17.0	17.1	11.9	12.2	12.2
LnGrp LOS	C		C	C	C	E	A	B	B	B	B	B
Approach Vol, veh/h		111			395			1268			1164	
Approach Delay, s/veh		32.0			45.8			16.9			12.1	
Approach LOS		C			D			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	49.2	9.9	14.0	4.8	52.3	7.8	16.1				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	8.5	48.0	6.5	8.0	3.5	53.0	6.5	8.0				
Max Q Clear Time (g_c+I1), s	4.6	22.3	6.8	3.4	2.5	16.0	5.2	12.1				
Green Ext Time (p_c), s	0.1	20.9	0.0	0.0	0.0	23.7	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			19.5									
HCM 2010 LOS			B									
Notes												

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	20	285	1255	140	185	1645	40	220	960	170	80	780
Future Volume (vph)	20	285	1255	140	185	1645	40	220	960	170	80	780
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	2000
Lane Width (ft)	12	13	12	12	13	12	12	12	12	12	12	12
Storage Length (ft)		415		0	215		0	140		175	150	
Storage Lanes		1		0	1		0	1		1	1	
Taper Length (ft)		120			180			170			250	
Lane Util. Factor	0.91	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95
Fr't			0.985			0.996				0.850		
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1829	4965	0	1829	5064	0	1770	3725	1583	1770	3725
Flt Permitted		0.950			0.950			0.950			0.950	
Satd. Flow (perm)	0	1829	4965	0	1829	5064	0	1770	3725	1583	1770	3725
Right Turn on Red				No			No			No		
Satd. Flow (RTOR)												
Link Speed (mph)			35			35			35			35
Link Distance (ft)			601			560			640			500
Travel Time (s)			11.7			10.9			12.5			9.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Adj. Flow (vph)	21	300	1321	147	195	1732	42	232	1011	179	84	821
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	321	1468	0	195	1774	0	232	1011	179	84	821
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			52			52			17			17
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	0.96	1.00	1.00	0.96	1.00	1.00	1.00	0.94	1.00	1.00	0.94
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2		1	2		1	2	1	1	2
Detector Template	Left	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100		20	100		20	100	20	20	100
Trailing Detector (ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Position(ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Size(ft)	20	20	6		20	6		20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	Prot	Prot	NA		Prot	NA		Prot	NA	pm+ov	Prot	NA

Future (2025) No-Build Traffic Projections 4:15 pm 02/04/2019 PM Peak Hour

Synchro 10 Report
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Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	385
Future Volume (vph)	385
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Storage Length (ft)	280
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Heavy Vehicles (%)	2%
Adj. Flow (vph)	405
Shared Lane Traffic (%)	
Lane Group Flow (vph)	405
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	pm+ov

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Protected Phases	7!	7	4		3	8		5	2	3	1	6
Permitted Phases										2		
Detector Phase	7	7	4		3	8		5	2	3	1	6
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0		3.0	15.0	3.0	3.0	15.0
Minimum Split (s)	7.5	7.5	21.5		7.5	21.5		7.5	21.5	7.5	7.5	21.5
Total Split (s)	28.0	28.0	57.0		28.0	57.0		21.0	50.0	28.0	15.0	44.0
Total Split (%)	18.7%	18.7%	38.0%		18.7%	38.0%		14.0%	33.3%	18.7%	10.0%	29.3%
Maximum Green (s)	23.5	23.5	50.5		23.5	50.5		16.5	43.5	23.5	10.5	37.5
Yellow Time (s)	3.5	3.5	4.5		3.5	4.5		3.5	4.5	3.5	3.5	4.5
All-Red Time (s)	1.0	1.0	2.0		1.0	2.0		1.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	6.5		4.5	6.5		4.5	6.5	4.5	4.5	6.5
Lead/Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	7.0		4.0	7.0		4.0	7.0	4.0	4.0	7.0
Recall Mode	None	None	None		None	None		None	C-Min	None	None	C-Min
Walk Time (s)									7.0			7.0
Flash Dont Walk (s)									11.0			11.0
Pedestrian Calls (#/hr)									0			0
Act Effct Green (s)		23.5	53.4		20.6	50.5		16.5	43.8	70.9	10.2	37.5
Actuated g/C Ratio		0.16	0.36		0.14	0.34		0.11	0.29	0.47	0.07	0.25
v/c Ratio		1.12	0.83		0.78	1.04		1.20	0.93	0.24	0.70	0.88
Control Delay		145.7	49.6		82.9	81.2		181.7	66.5	24.1	97.4	66.1
Queue Delay		0.0	0.0		0.0	0.0		0.0	1.2	0.0	0.0	0.0
Total Delay		145.7	49.6		82.9	81.2		181.7	67.7	24.1	97.4	66.1
LOS		F	D		F	F		F	E	C	F	E
Approach Delay			66.9			81.4			80.8			58.3
Approach LOS			E			F			F			E
90th %ile Green (s)	23.5	23.5	50.5		23.5	50.5		16.5	43.5	23.5	10.5	37.5
90th %ile Term Code	Max	Max	Max		Max	Max		Max	Coord	Max	Max	Coord
70th %ile Green (s)	23.5	23.5	50.5		23.5	50.5		16.5	43.5	23.5	10.5	37.5
70th %ile Term Code	Max	Max	Max		Max	Max		Max	Coord	Max	Max	Coord
50th %ile Green (s)	23.5	23.5	52.0		22.0	50.5		16.5	43.5	22.0	10.5	37.5
50th %ile Term Code	Max	Max	Max		Gap	Max		Max	Coord	Gap	Max	Coord
30th %ile Green (s)	23.5	23.5	54.8		19.2	50.5		16.5	43.5	19.2	10.5	37.5
30th %ile Term Code	Max	Max	Max		Gap	Max		Max	Coord	Gap	Max	Coord
10th %ile Green (s)	23.5	23.5	59.0		15.0	50.5		16.5	45.0	15.0	9.0	37.5
10th %ile Term Code	Max	Max	Max		Gap	Max		Max	Coord	Gap	Gap	Coord
Queue Length 50th (ft)		~361	487		185	~684		~273	510	101	82	410
Queue Length 95th (ft)		#559	561		273	#779		#452	#640	151	#162	#513
Internal Link Dist (ft)			521			480			560			420
Turn Bay Length (ft)		415			215			140		175	150	
Base Capacity (vph)		286	1766		286	1704		194	1087	778	123	931
Starvation Cap Reductn		0	0		0	0		0	17	0	0	0
Spillback Cap Reductn		0	0		0	0		0	0	0	0	0
Storage Cap Reductn		0	0		0	0		0	0	0	0	0
Reduced v/c Ratio		1.12	0.83		0.68	1.04		1.20	0.94	0.23	0.68	0.88

Future (2025) No-Build Traffic Projections 4:15 pm 02/04/2019 PM Peak Hour

Synchro 10 Report
Page 3

Lanes, Volumes, Timings

300: Arlington Heights Road & Palatine Road

05/24/2019

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 61.5 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.20

Intersection Signal Delay: 72.6

Intersection LOS: E

Intersection Capacity Utilization 102.3%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

! Phase conflict between lane groups.

Splits and Phases: 300: Arlington Heights Road & Palatine Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
15 s	50 s	28 s	57 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
21 s	44 s	28 s	57 s

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

Lane Group	SBR
Protected Phases	7!
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	7.5
Total Split (s)	28.0
Total Split (%)	18.7%
Maximum Green (s)	23.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	67.5
Actuated g/C Ratio	0.45
v/c Ratio	0.57
Control Delay	34.4
Queue Delay	0.0
Total Delay	34.4
LOS	C
Approach Delay	
Approach LOS	
90th %ile Green (s)	23.5
90th %ile Term Code	Max
70th %ile Green (s)	23.5
70th %ile Term Code	Max
50th %ile Green (s)	23.5
50th %ile Term Code	Max
30th %ile Green (s)	23.5
30th %ile Term Code	Max
10th %ile Green (s)	23.5
10th %ile Term Code	Max
Queue Length 50th (ft)	289
Queue Length 95th (ft)	400
Internal Link Dist (ft)	
Turn Bay Length (ft)	280
Base Capacity (vph)	712
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.57

Intersection

Int Delay, s/veh 1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	1325	180	0	1870	0	155
Future Vol, veh/h	1325	180	0	1870	0	155
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1395	189	0	1968	0	163

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- 792
Stage 1	-	-	- -
Stage 2	-	-	- -
Critical Hdwy	-	-	- 7.14
Critical Hdwy Stg 1	-	-	- -
Critical Hdwy Stg 2	-	-	- -
Follow-up Hdwy	-	-	- 3.92
Pot Cap-1 Maneuver	-	0	0 285
Stage 1	-	0	0 -
Stage 2	-	0	0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- 285
Mov Cap-2 Maneuver	-	-	- -
Stage 1	-	-	- -
Stage 2	-	-	- -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	33.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	285	-	-	-
HCM Lane V/C Ratio	0.572	-	-	-
HCM Control Delay (s)	33.3	-	-	-
HCM Lane LOS	D	-	-	-
HCM 95th %tile Q(veh)	3.3	-	-	-

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	50	0	1620	1140	200
Future Vol, veh/h	0	50	0	1620	1140	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	53	0	1705	1200	211

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 706	- 0	- 0
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- 7.14	- -	- -
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- 3.92	- -	- -
Pot Cap-1 Maneuver	0 324	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	- 324	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Control Delay, s	18.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 324	- -	- -
HCM Lane V/C Ratio	- 0.162	- -	- -
HCM Control Delay (s)	- 18.3	- -	- -
HCM Lane LOS	- C	- -	- -
HCM 95th %tile Q(veh)	- 0.6	- -	- -

HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	10	65	25	15	50	140	1450	25	25	1145	20
Future Volume (veh/h)	120	10	65	25	15	50	140	1450	25	25	1145	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	126	11	68	26	16	53	147	1526	26	26	1205	21
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	225	32	199	215	54	180	406	2339	40	247	3201	56
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.05	0.66	0.66	0.02	0.62	0.62
Ln Grp Delay, s/veh	42.5	0.0	34.4	35.4	0.0	33.7	6.0	11.5	11.4	8.0	8.4	8.8
Ln Grp LOS	D		C	D		C	A	B	B	A	A	A
Approach Vol, veh/h		205			95			1699			1252	
Approach Delay, s/veh		39.3			34.2			11.0			8.5	
Approach LOS		D			C			B			A	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		1	2		4	5	6		8			
Case No		1.1	4.0		6.0	1.1	4.0		6.0			
Phs Duration (G+Y+Rc), s		4.9	61.2		18.0	7.8	58.3		18.0			
Change Period (Y+Rc), s		3.5	6.0		6.0	3.5	6.0		6.0			
Max Green (Gmax), s		3.5	59.0		12.0	7.5	55.0		12.0			
Max Allow Headway (MAH), s		3.8	9.1		6.6	3.8	9.1		7.2			
Max Q Clear (g_c+I1), s		2.5	23.7		13.1	4.4	11.7		7.2			
Green Ext Time (g_e), s		0.0	31.6		0.0	0.1	30.2		0.2			
Prob of Phs Call (p_c)		0.46	1.00		1.00	0.97	1.00		1.00			
Prob of Max Out (p_x)		1.00	0.89		1.00	1.00	0.60		1.00			
Left-Turn Movement Data												
Assigned Mvmt		1			7	5			3			
Mvmt Sat Flow, veh/h		1774			1326	1774			1314			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3561		225		5147		380			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			61		1392		90		1260			
Left Lane Group Data												
Assigned Mvmt		1	0	0	7	5	0	0	3			
Lane Assignment		(Pr/Pm)			(Pr/Pm)							

HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

05/24/2019

Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	26	0	0	126	147	0	0	26
Grp Sat Flow (s), veh/h/ln	1774	0	0	1326	1774	0	0	1314
Q Serve Time (g_s), s	0.5	0.0	0.0	7.9	2.4	0.0	0.0	1.5
Cycle Q Clear Time (g_c), s	0.5	0.0	0.0	11.1	2.4	0.0	0.0	5.2
Perm LT Sat Flow (s_l), veh/h/ln	331	0	0	1326	453	0	0	1314
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	52.3	0.0	0.0	12.0	53.7	0.0	0.0	12.0
Perm LT Serve Time (g_u), s	33.6	0.0	0.0	8.8	42.6	0.0	0.0	8.3
Perm LT Q Serve Time (g_ps), s	1.6	0.0	0.0	7.9	5.4	0.0	0.0	1.5
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	247	0	0	225	406	0	0	215
V/C Ratio (X)	0.11	0.00	0.00	0.56	0.36	0.00	0.00	0.12
Avail Cap (c_a), veh/h	292	0	0	225	473	0	0	215
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	7.9	0.0	0.0	37.2	5.5	0.0	0.0	34.9
Incr Delay (d2), s/veh	0.2	0.0	0.0	5.2	0.5	0.0	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.0	0.0	0.0	42.5	6.0	0.0	0.0	35.4
1st-Term Q (Q1), veh/ln	0.2	0.0	0.0	2.9	1.1	0.0	0.0	0.6
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	1.80	1.80	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	0.4	0.0	0.0	5.8	2.2	0.0	0.0	1.1
%ile Storage Ratio (RQ%)	0.07	0.00	0.00	0.99	0.24	0.00	0.00	0.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T			T				
Lanes in Grp	0	1	0	0	0	2	0	0
Grp Vol (v), veh/h	0	758	0	0	0	794	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1695	0	0
Q Serve Time (g_s), s	0.0	21.6	0.0	0.0	0.0	9.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	21.6	0.0	0.0	0.0	9.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	1162	0	0	0	2108	0	0
V/C Ratio (X)	0.00	0.65	0.00	0.00	0.00	0.38	0.00	0.00
Avail Cap (c_a), veh/h	0	1241	0	0	0	2217	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.7	0.0	0.0	0.0	7.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.8	0.0	0.0	0.0	0.5	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.5	0.0	0.0	0.0	8.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	10.3	0.0	0.0	0.0	4.5	0.0	0.0

Future (2025) No-Build Traffic Projections 4:15 pm 02/04/2019 PM Peak Hour

Synchro 10 Report
Page 12

HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

05/24/2019

2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.49	0.00	1.00	0.00	1.76	0.00	1.00
%ile Back of Q (95%), veh/ln	0.0	16.7	0.0	0.0	0.0	8.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.69	0.00	0.00	0.00	0.57	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	794	0	79	0	432	0	69
Grp Sat Flow (s), veh/h/ln	0	1852	0	1617	0	1847	0	1640
Q Serve Time (g_s), s	0.0	21.7	0.0	3.7	0.0	9.7	0.0	3.2
Cycle Q Clear Time (g_c), s	0.0	21.7	0.0	3.7	0.0	9.7	0.0	3.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.03	0.00	0.86	0.00	0.05	0.00	0.77
Lane Grp Cap (c), veh/h	0	1216	0	231	0	1148	0	234
V/C Ratio (X)	0.00	0.65	0.00	0.34	0.00	0.38	0.00	0.29
Avail Cap (c_a), veh/h	0	1299	0	231	0	1208	0	234
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.7	0.0	32.5	0.0	7.9	0.0	32.3
Incr Delay (d2), s/veh	0.0	2.7	0.0	1.9	0.0	0.9	0.0	1.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.4	0.0	34.4	0.0	8.8	0.0	33.7
1st-Term Q (Q1), veh/ln	0.0	10.8	0.0	1.6	0.0	4.9	0.0	1.4
2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	0.1	0.0	0.3	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.48	0.00	1.80	0.00	1.72	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	17.4	0.0	3.2	0.0	9.0	0.0	2.8
%ile Storage Ratio (RQ%)	0.00	0.71	0.00	0.41	0.00	0.62	0.00	0.65
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	12.5
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary

600: Rand Road & Access E/Private Driveway

05/24/2019

																		
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
Lane Configurations																		
Traffic Volume (veh/h)	120	10	65	25	15	50	140	1450	25	25	1145	20						
Future Volume (veh/h)	120	10	65	25	15	50	140	1450	25	25	1145	20						
Number	7	4	14	3	8	18	5	2	12	1	6	16						
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0						
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00						
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900						
Adj Flow Rate, veh/h	126	11	68	26	16	53	147	1526	26	26	1205	21						
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95						
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2						
Cap, veh/h	225	32	199	215	54	180	406	2339	40	247	3201	56						
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.05	0.66	0.66	0.02	0.62	0.62						
Sat Flow, veh/h	1326	225	1392	1314	380	1260	1774	3561	61	1774	5147	90						
Grp Volume(v), veh/h	126	0	79	26	0	69	147	758	794	26	794	432						
Grp Sat Flow(s),veh/h/ln	1326	0	1617	1314	0	1640	1774	1770	1852	1774	1695	1847						
Q Serve(g_s), s	7.9	0.0	3.7	1.5	0.0	3.2	2.4	21.6	21.7	0.5	9.7	9.7						
Cycle Q Clear(g_c), s	11.1	0.0	3.7	5.2	0.0	3.2	2.4	21.6	21.7	0.5	9.7	9.7						
Prop In Lane	1.00		0.86	1.00		0.77	1.00		0.03	1.00		0.05						
Lane Grp Cap(c), veh/h	225	0	231	215	0	234	406	1162	1216	247	2108	1148						
V/C Ratio(X)	0.56	0.00	0.34	0.12	0.00	0.29	0.36	0.65	0.65	0.11	0.38	0.38						
Avail Cap(c_a), veh/h	225	0	231	215	0	234	473	1241	1299	292	2217	1208						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Uniform Delay (d), s/veh	37.2	0.0	32.5	34.9	0.0	32.3	5.5	8.7	8.7	7.9	7.9	7.9						
Incr Delay (d2), s/veh	5.2	0.0	1.9	0.5	0.0	1.5	0.5	2.8	2.7	0.2	0.5	0.9						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(95%),veh/ln	5.8	0.0	3.2	1.1	0.0	2.8	2.2	16.7	17.4	0.4	8.2	9.0						
LnGrp Delay(d),s/veh	42.5	0.0	34.4	35.4	0.0	33.7	6.0	11.5	11.4	8.0	8.4	8.8						
LnGrp LOS	D		C	D		C	A	B	B	A	A	A						
Approach Vol, veh/h	205					95		1699		1252								
Approach Delay, s/veh	39.3					34.2		11.0		8.5								
Approach LOS	D					C		B		A								
Timer	1	2	3	4	5	6	7	8										
Assigned Phs	1	2			4	5	6	8										
Phs Duration (G+Y+Rc), s	4.9	61.2			18.0	7.8	58.3	18.0										
Change Period (Y+Rc), s	3.5	6.0			6.0	3.5	6.0	6.0										
Max Green Setting (Gmax), s	3.5	59.0			12.0	7.5	55.0	12.0										
Max Q Clear Time (g_c+I1), s	2.5	23.7			13.1	4.4	11.7	7.2										
Green Ext Time (p_c), s	0.0	31.6			0.0	0.1	30.2	0.2										
Intersection Summary																		
HCM 2010 Ctrl Delay																		
HCM 2010 LOS																		

HCM 2010 TWSC
100: Arlington Heights Road & Access A (Loading Dock)

05/24/2019

Intersection

Int Delay, s/veh 0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	15	985	20	5	980
Future Vol, veh/h	5	15	985	20	5	980
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	40	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	7	2	2	25	2
Mvmt Flow	5	16	1037	21	5	1032

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1574	529	0
Stage 1	1048	-	-
Stage 2	526	-	-
Critical Hdwy	6.84	7.04	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.37	-
Pot Cap-1 Maneuver	101	481	-
Stage 1	299	-	-
Stage 2	557	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	100	481	-
Mov Cap-2 Maneuver	100	-	-
Stage 1	296	-	-
Stage 2	557	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.3	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 100 481	533	-
HCM Lane V/C Ratio	-	- 0.053 0.033	0.01	-
HCM Control Delay (s)	-	- 43 12.7	11.8	-
HCM Lane LOS	-	- E B	B	-
HCM 95th %tile Q(veh)	-	- 0.2 0.1	0	-

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	10	20	145	25	295	50	815	135	135	820	55
Future Volume (veh/h)	90	10	20	145	25	295	50	815	135	135	820	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1961	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	95	11	21	153	26	311	53	858	142	142	863	58
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	326	63	120	397	280	330	350	1419	235	360	1696	114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.11	0.11	0.10	0.14	0.14	0.03	0.47	0.47	0.07	0.50	0.50
Ln Grp Delay, s/veh	26.7	0.0	30.3	24.9	27.4	63.7	10.5	17.7	17.7	11.2	14.1	14.1
Ln Grp LOS	C		C	C	C	E	B	B	B	B	B	B
Approach Vol, veh/h		127			490			1053			1063	
Approach Delay, s/veh		27.7			49.7			17.3			13.7	
Approach LOS		C			D			B			B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	1.1	4.0	1.1	4.0	1.1	4.0	1.1	3.0				
Phs Duration (G+Y+Rc), s	8.3	40.0	10.5	14.0	5.6	42.7	8.1	16.4				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green (Gmax), s	13.5	41.0	7.5	9.0	4.5	50.0	7.5	9.0				
Max Allow Headway (MAH), s	3.8	9.2	3.9	7.6	3.8	9.1	3.9	6.2				
Max Q Clear (g_c+I1), s	4.9	17.3	7.4	3.3	3.1	14.4	5.4	12.4				
Green Ext Time (g_e), s	0.2	16.7	0.0	0.1	0.0	20.5	0.0	0.0				
Prob of Phs Call (p_c)	0.94	1.00	0.95	1.00	0.66	1.00	0.85	1.00				
Prob of Max Out (p_x)	0.01	0.72	1.00	1.00	1.00	0.48	1.00	1.00				
Left-Turn Movement Data												
Assigned Mvmt	1		3		5		7					
Mvmt Sat Flow, veh/h	1774		1774		1774		1774					
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		3040		574		3366		1961				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		503		1096		226		1583				
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				
Lane Assignment	(Pr/Pm)		(Pr/Pm)		(Pr/Pm)		(Pr/Pm)					

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	142	0	153	0	53	0	95	0
Grp Sat Flow (s), veh/h/ln	1774	0	1774	0	1774	0	1774	0
Q Serve Time (g_s), s	2.9	0.0	5.4	0.0	1.1	0.0	3.4	0.0
Cycle Q Clear Time (g_c), s	2.9	0.0	5.4	0.0	1.1	0.0	3.4	0.0
Perm LT Sat Flow (s_l), veh/h/ln	561	0	1372	0	604	0	1039	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	35.2	0.0	8.9	0.0	34.0	0.0	8.0	0.0
Perm LT Serve Time (g_u), s	18.7	0.0	6.7	0.0	24.2	0.0	8.0	0.0
Perm LT Q Serve Time (g_ps), s	5.6	0.0	0.3	0.0	0.9	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	360	0	397	0	350	0	326	0
V/C Ratio (X)	0.39	0.00	0.39	0.00	0.15	0.00	0.29	0.00
Avail Cap (c_a), veh/h	572	0	409	0	410	0	396	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	10.5	0.0	24.3	0.0	10.3	0.0	26.3	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.6	0.0	0.2	0.0	0.5	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	11.2	0.0	24.9	0.0	10.5	0.0	26.7	0.0
1st-Term Q (Q1), veh/ln	1.3	0.0	2.6	0.0	0.5	0.0	1.6	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	0.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	2.5	0.0	4.9	0.0	1.0	0.0	3.0	0.0
%ile Storage Ratio (RQ%)	0.35	0.00	0.80	0.00	0.50	0.00	0.64	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T				T		T	
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	499	0	0	0	454	0	26
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	1961
Q Serve Time (g_s), s	0.0	15.3	0.0	0.0	0.0	12.4	0.0	0.8
Cycle Q Clear Time (g_c), s	0.0	15.3	0.0	0.0	0.0	12.4	0.0	0.8
Lane Grp Cap (c), veh/h	0	826	0	0	0	892	0	280
V/C Ratio (X)	0.00	0.60	0.00	0.00	0.00	0.51	0.00	0.09
Avail Cap (c_a), veh/h	0	997	0	0	0	1216	0	280
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.4	0.0	0.0	0.0	12.0	0.0	27.1
Incr Delay (d2), s/veh	0.0	3.3	0.0	0.0	0.0	2.1	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.7	0.0	0.0	0.0	14.1	0.0	27.4
1st-Term Q (Q1), veh/ln	0.0	7.4	0.0	0.0	0.0	6.0	0.0	0.5

HCM 2010 Signalized Intersection Capacity Analysis

200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	0.0	0.0	0.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.58	0.00	1.00	0.00	1.64	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	12.8	0.0	0.0	0.0	10.8	0.0	0.9
%ile Storage Ratio (RQ%)	0.00	1.44	0.00	0.00	0.00	0.53	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	501	0	32	0	467	0	311
Grp Sat Flow (s), veh/h/ln	0	1774	0	1669	0	1823	0	1583
Q Serve Time (g_s), s	0.0	15.3	0.0	1.3	0.0	12.4	0.0	10.4
Cycle Q Clear Time (g_c), s	0.0	15.3	0.0	1.3	0.0	12.4	0.0	10.4
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1583.3
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
Prop RT Outside Lane (P_R)	0.00	0.28	0.00	0.66	0.00	0.12	0.00	1.00
Lane Grp Cap (c), veh/h	0	828	0	183	0	919	0	330
V/C Ratio (X)	0.00	0.60	0.00	0.17	0.00	0.51	0.00	0.94
Avail Cap (c_a), veh/h	0	999	0	206	0	1252	0	330
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.4	0.0	29.4	0.0	12.0	0.0	28.4
Incr Delay (d2), s/veh	0.0	3.3	0.0	1.0	0.0	2.0	0.0	35.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.7	0.0	30.3	0.0	14.1	0.0	63.7
1st-Term Q (Q1), veh/ln	0.0	7.4	0.0	0.6	0.0	6.2	0.0	6.1
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	0.0	0.0	0.5	0.0	3.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.58	0.00	1.80	0.00	1.63	0.00	1.54
%ile Back of Q (95%), veh/ln	0.0	12.8	0.0	1.1	0.0	11.0	0.0	14.3
%ile Storage Ratio (RQ%)	0.00	1.44	0.00	0.11	0.00	0.54	0.00	2.35
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	22.2
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary

200: Arlington Heights Road & Lillian Avenue/Access B

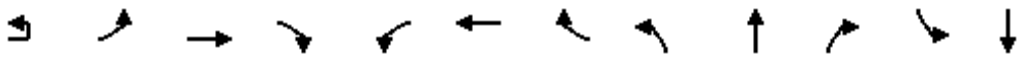
05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	10	20	145	25	295	50	815	135	135	820	55
Future Volume (veh/h)	90	10	20	145	25	295	50	815	135	135	820	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1961	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	95	11	21	153	26	311	53	858	142	142	863	58
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	326	63	120	397	280	330	350	1419	235	360	1696	114
Arrive On Green	0.06	0.11	0.11	0.10	0.14	0.14	0.03	0.47	0.47	0.07	0.50	0.50
Sat Flow, veh/h	1774	574	1096	1774	1961	1583	1774	3040	503	1774	3366	226
Grp Volume(v), veh/h	95	0	32	153	26	311	53	499	501	142	454	467
Grp Sat Flow(s),veh/h/ln	1774	0	1669	1774	1961	1583	1774	1770	1774	1774	1770	1823
Q Serve(g_s), s	3.4	0.0	1.3	5.4	0.8	10.4	1.1	15.3	15.3	2.9	12.4	12.4
Cycle Q Clear(g_c), s	3.4	0.0	1.3	5.4	0.8	10.4	1.1	15.3	15.3	2.9	12.4	12.4
Prop In Lane	1.00		0.66	1.00		1.00	1.00		0.28	1.00		0.12
Lane Grp Cap(c), veh/h	326	0	183	397	280	330	350	826	828	360	892	919
V/C Ratio(X)	0.29	0.00	0.17	0.39	0.09	0.94	0.15	0.60	0.60	0.39	0.51	0.51
Avail Cap(c_a), veh/h	396	0	206	409	280	330	410	997	999	572	1216	1252
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.3	0.0	29.4	24.3	27.1	28.4	10.3	14.4	14.4	10.5	12.0	12.0
Incr Delay (d2), s/veh	0.5	0.0	1.0	0.6	0.3	35.3	0.2	3.3	3.3	0.7	2.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	0.0	1.1	4.9	0.9	14.3	1.0	12.8	12.8	2.5	10.8	11.0
LnGrp Delay(d),s/veh	26.7	0.0	30.3	24.9	27.4	63.7	10.5	17.7	17.7	11.2	14.1	14.1
LnGrp LOS	C		C	C	C	E	B	B	B	B	B	B
Approach Vol, veh/h		127			490			1053			1063	
Approach Delay, s/veh		27.7			49.7			17.3			13.7	
Approach LOS		C			D			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	40.0	10.5	14.0	5.6	42.7	8.1	16.4				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	13.5	41.0	7.5	9.0	4.5	50.0	7.5	9.0				
Max Q Clear Time (g_c+I1), s	4.9	17.3	7.4	3.3	3.1	14.4	5.4	12.4				
Green Ext Time (p_c), s	0.2	16.7	0.0	0.1	0.0	20.5	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			22.2									
HCM 2010 LOS			C									
Notes												

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	15	305	940	110	150	820	40	245	810	145	105	750
Future Volume (vph)	15	305	940	110	150	820	40	245	810	145	105	750
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	2000
Lane Width (ft)	12	13	12	12	13	12	12	12	12	12	12	12
Storage Length (ft)		415		0	215		0	140		175	150	
Storage Lanes		1		0	1		0	1		1	1	
Taper Length (ft)		120			180			170			250	
Lane Util. Factor	0.91	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95
Frt			0.984			0.993				0.850		
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1829	5004	0	1829	5050	0	1770	3725	1583	1770	3725
Flt Permitted		0.950			0.950			0.950			0.950	
Satd. Flow (perm)	0	1829	5004	0	1829	5050	0	1770	3725	1583	1770	3725
Right Turn on Red				No			No			No		
Satd. Flow (RTOR)												
Link Speed (mph)			35			35			35			35
Link Distance (ft)			601			560			640			500
Travel Time (s)			11.7			10.9			12.5			9.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	321	989	116	158	863	42	258	853	153	111	789
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	337	1105	0	158	905	0	258	853	153	111	789
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			52			52			17			17
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	0.96	1.00	1.00	0.96	1.00	1.00	1.00	0.94	1.00	1.00	0.94
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2		1	2		1	2	1	1	2
Detector Template	Left	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100		20	100		20	100	20	20	100
Trailing Detector (ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Position(ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Size(ft)	20	20	6		20	6		20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	Prot	Prot	NA		Prot	NA		Prot	NA	pm+ov	Prot	NA
Protected Phases	7!	7	4		3	8		5	2	3	1	6

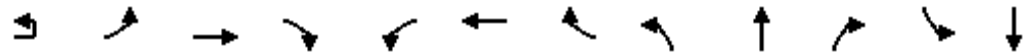
Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	320
Future Volume (vph)	320
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Storage Length (ft)	280
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Adj. Flow (vph)	337
Shared Lane Traffic (%)	
Lane Group Flow (vph)	337
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	pm+ov
Protected Phases	7!

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019



Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Permitted Phases										2		
Detector Phase	7	7	4		3	8		5	2	3	1	6
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0		3.0	15.0	3.0	3.0	15.0
Minimum Split (s)	7.5	7.5	21.5		7.5	21.5		7.5	21.5	7.5	7.5	21.5
Total Split (s)	34.0	34.0	44.0		22.0	32.0		19.0	38.0	22.0	16.0	35.0
Total Split (%)	28.3%	28.3%	36.7%		18.3%	26.7%		15.8%	31.7%	18.3%	13.3%	29.2%
Maximum Green (s)	29.5	29.5	37.5		17.5	25.5		14.5	31.5	17.5	11.5	28.5
Yellow Time (s)	3.5	3.5	4.5		3.5	4.5		3.5	4.5	3.5	3.5	4.5
All-Red Time (s)	1.0	1.0	2.0		1.0	2.0		1.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	6.5		4.5	6.5		4.5	6.5	4.5	4.5	6.5
Lead/Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	7.0		4.0	7.0		4.0	7.0	4.0	4.0	7.0
Recall Mode	None	None	None		None	None		None	C-Min	None	None	C-Min
Walk Time (s)									7.0			7.0
Flash Dont Walk (s)									11.0			11.0
Pedestrian Calls (#/hr)									0			0
Act Effect Green (s)		26.8	38.9		15.3	27.5		15.3	32.7	54.6	11.0	28.5
Actuated g/C Ratio		0.22	0.32		0.13	0.23		0.13	0.27	0.46	0.09	0.24
v/c Ratio		0.83	0.68		0.68	0.78		1.15	0.84	0.21	0.69	0.89
Control Delay		61.6	37.9		64.6	49.4		153.4	50.2	20.6	74.3	57.9
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		61.6	37.9		64.6	49.4		153.4	50.2	20.6	74.3	57.9
LOS		E	D		E	D		F	D	C	E	E
Approach Delay			43.5			51.7			67.7			48.9
Approach LOS			D			D			E			D
90th %ile Green (s)	29.5	29.5	37.5		17.5	25.5		14.5	31.5	17.5	11.5	28.5
90th %ile Term Code	Max	Max	Max		Max	Max		Max	Coord	Max	Max	Coord
70th %ile Green (s)	29.5	29.5	37.5		17.5	25.5		14.5	31.5	17.5	11.5	28.5
70th %ile Term Code	Max	Max	Max		Max	Max		Max	Coord	Max	Max	Coord
50th %ile Green (s)	29.0	29.0	38.5		16.5	26.0		14.5	31.5	16.5	11.5	28.5
50th %ile Term Code	Gap	Gap	Max		Gap	Max		Max	Coord	Gap	Max	Coord
30th %ile Green (s)	25.7	25.7	40.8		14.2	29.3		14.5	31.5	14.2	11.5	28.5
30th %ile Term Code	Gap	Gap	Max		Gap	Max		Max	Coord	Gap	Max	Coord
10th %ile Green (s)	20.1	20.1	40.3		10.9	31.1		18.3	37.7	10.9	9.1	28.5
10th %ile Term Code	Gap	Gap	Hold		Gap	Gap		Max	Coord	Gap	Gap	Coord
Queue Length 50th (ft)		244	272		117	246		~244	333	70	84	312
Queue Length 95th (ft)		#355	329		189	301		#413	#436	114	#161	#420
Internal Link Dist (ft)			521			480			560			420
Turn Bay Length (ft)		415			215			140		175	150	
Base Capacity (vph)		449	1622		266	1156		224	1016	748	169	884
Starvation Cap Reductn		0	0		0	0		0	0	0	0	0
Spillback Cap Reductn		0	0		0	0		0	0	0	0	0
Storage Cap Reductn		0	0		0	0		0	0	0	0	0
Reduced v/c Ratio		0.75	0.68		0.59	0.78		1.15	0.84	0.20	0.66	0.89

Intersection Summary

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

Lane Group	SBR
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	7.5
Total Split (s)	34.0
Total Split (%)	28.3%
Maximum Green (s)	29.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	61.8
Actuated g/C Ratio	0.52
v/c Ratio	0.41
Control Delay	19.3
Queue Delay	0.0
Total Delay	19.3
LOS	B
Approach Delay	
Approach LOS	
90th %ile Green (s)	29.5
90th %ile Term Code	Max
70th %ile Green (s)	29.5
70th %ile Term Code	Max
50th %ile Green (s)	29.0
50th %ile Term Code	Gap
30th %ile Green (s)	25.7
30th %ile Term Code	Gap
10th %ile Green (s)	20.1
10th %ile Term Code	Gap
Queue Length 50th (ft)	149
Queue Length 95th (ft)	217
Internal Link Dist (ft)	
Turn Bay Length (ft)	280
Base Capacity (vph)	850
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.40
Intersection Summary	

Lanes, Volumes, Timings

300: Arlington Heights Road & Palatine Road

05/24/2019

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 21.6 (18%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.15

Intersection Signal Delay: 52.7

Intersection LOS: D

Intersection Capacity Utilization 86.1%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

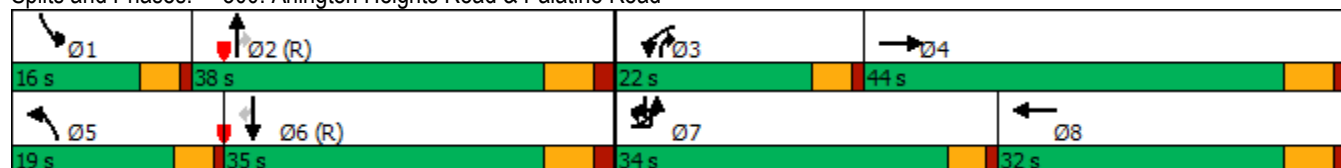
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

! Phase conflict between lane groups.

Splits and Phases: 300: Arlington Heights Road & Palatine Road



Intersection

Int Delay, s/veh 2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	1000	190	0	1010	0	185
Future Vol, veh/h	1000	190	0	1010	0	185
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1053	200	0	1063	0	195

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 627
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 7.14
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.92
Pot Cap-1 Maneuver	-	-	0 - 0 365
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 365
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	25.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	365	-	-	-
HCM Lane V/C Ratio	0.534	-	-	-
HCM Control Delay (s)	25.6	-	-	-
HCM Lane LOS	D	-	-	-
HCM 95th %tile Q(veh)	3	-	-	-

Intersection

Int Delay, s/veh 0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	65	0	1155	1115	230
Future Vol, veh/h	0	65	0	1155	1115	230
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	68	0	1216	1174	242

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 708	- 0	- 0
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- 7.14	- -	- -
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- 3.92	- -	- -
Pot Cap-1 Maneuver	0 324	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	- 324	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Control Delay, s	19.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 324	- -	- -
HCM Lane V/C Ratio	- 0.211	- -	- -
HCM Control Delay (s)	- 19.1	- -	- -
HCM Lane LOS	- C	- -	- -
HCM 95th %tile Q(veh)	- 0.8	- -	- -

HCM 2010 Signalized Intersection Capacity Analysis

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	5	90	30	5	45	150	995	35	35	1120	25
Future Volume (veh/h)	115	5	90	30	5	45	150	995	35	35	1120	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	121	5	95	32	5	47	158	1047	37	37	1179	26
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	284	13	241	240	25	231	412	2049	72	360	2788	61
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.07	0.59	0.59	0.02	0.54	0.54
Ln Grp Delay, s/veh	30.0	0.0	27.4	28.2	0.0	25.3	6.9	10.0	9.9	7.2	9.7	10.3
Ln Grp LOS	C		C	C		C	A	A	A	A	A	B
Approach Vol, veh/h		221			84			1242			1242	
Approach Delay, s/veh		28.8			26.4			9.5			9.9	
Approach LOS		C			C			A			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2		4	5	6		8			
Case No		1.1	4.0		6.0	1.1	4.0		6.0			
Phs Duration (G+Y+Rc), s		5.0	45.4		16.7	7.9	42.5		16.7			
Change Period (Y+Rc), s		3.5	6.0		6.0	3.5	6.0		6.0			
Max Green (Gmax), s		4.5	52.0		18.0	10.5	46.0		18.0			
Max Allow Headway (MAH), s		3.8	9.1		6.7	3.8	9.1		7.1			
Max Q Clear (g_c+I1), s		2.6	13.9		9.6	4.4	11.1		7.3			
Green Ext Time (g_e), s		0.0	25.4		1.1	0.2	25.4		0.4			
Prob of Phs Call (p_c)		0.50	1.00		1.00	0.95	1.00		1.00			
Prob of Max Out (p_x)		1.00	0.59		0.59	0.13	0.67		0.15			
Left-Turn Movement Data												
Assigned Mvmt		1			7	5			3			
Mvmt Sat Flow, veh/h		1774			1347	1774			1290			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3487		80		5120		154			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			123		1516		113		1452			
Left Lane Group Data												
Assigned Mvmt		1	0	0	7	5	0	0	3			
Lane Assignment		(Pr/Pm)			(Pr/Pm)							

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Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	37	0	0	121	158	0	0	32
Grp Sat Flow (s), veh/h/ln	1774	0	0	1347	1774	0	0	1290
Q Serve Time (g_s), s	0.6	0.0	0.0	5.8	2.4	0.0	0.0	1.5
Cycle Q Clear Time (g_c), s	0.6	0.0	0.0	7.6	2.4	0.0	0.0	5.3
Perm LT Sat Flow (s_l), veh/h/ln	518	0	0	1347	462	0	0	1290
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	36.5	0.0	0.0	10.7	37.9	0.0	0.0	10.7
Perm LT Serve Time (g_u), s	27.5	0.0	0.0	8.8	27.4	0.0	0.0	6.9
Perm LT Q Serve Time (g_ps), s	0.7	0.0	0.0	5.8	5.5	0.0	0.0	1.5
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	360	0	0	284	412	0	0	240
V/C Ratio (X)	0.10	0.00	0.00	0.43	0.38	0.00	0.00	0.13
Avail Cap (c_a), veh/h	439	0	0	431	574	0	0	381
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	7.1	0.0	0.0	27.8	6.3	0.0	0.0	27.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	2.2	0.6	0.0	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.2	0.0	0.0	30.0	6.9	0.0	0.0	28.2
1st-Term Q (Q1), veh/ln	0.3	0.0	0.0	2.1	1.1	0.0	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	1.80	1.80	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	0.6	0.0	0.0	4.1	2.2	0.0	0.0	1.0
%ile Storage Ratio (RQ%)	0.09	0.00	0.00	0.70	0.24	0.00	0.00	0.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T			T				
Lanes in Grp	0	1	0	0	0	2	0	0
Grp Vol (v), veh/h	0	531	0	0	0	781	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1695	0	0
Q Serve Time (g_s), s	0.0	11.9	0.0	0.0	0.0	9.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	11.9	0.0	0.0	0.0	9.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	1040	0	0	0	1846	0	0
V/C Ratio (X)	0.00	0.51	0.00	0.00	0.00	0.42	0.00	0.00
Avail Cap (c_a), veh/h	0	1372	0	0	0	2325	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.2	0.0	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.0	0.0	0.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.0	0.0	0.0	0.0	9.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	5.8	0.0	0.0	0.0	4.2	0.0	0.0

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2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.65	0.00	1.00	0.00	1.78	0.00	1.00
%ile Back of Q (95%), veh/ln	0.0	10.4	0.0	0.0	0.0	7.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.43	0.00	0.00	0.00	0.55	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	553	0	100	0	424	0	52
Grp Sat Flow (s), veh/h/ln	0	1841	0	1595	0	1843	0	1607
Q Serve Time (g_s), s	0.0	11.9	0.0	3.8	0.0	9.1	0.0	1.9
Cycle Q Clear Time (g_c), s	0.0	11.9	0.0	3.8	0.0	9.1	0.0	1.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.07	0.00	0.95	0.00	0.06	0.00	0.90
Lane Grp Cap (c), veh/h	0	1082	0	254	0	1004	0	256
V/C Ratio (X)	0.00	0.51	0.00	0.39	0.00	0.42	0.00	0.20
Avail Cap (c_a), veh/h	0	1427	0	428	0	1264	0	431
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.2	0.0	25.3	0.0	9.0	0.0	24.5
Incr Delay (d2), s/veh	0.0	1.7	0.0	2.1	0.0	1.3	0.0	0.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.9	0.0	27.4	0.0	10.3	0.0	25.3
1st-Term Q (Q1), veh/ln	0.0	6.0	0.0	1.7	0.0	4.6	0.0	0.8
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.1	0.0	0.4	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.64	0.00	1.80	0.00	1.74	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	10.7	0.0	3.3	0.0	8.6	0.0	1.6
%ile Storage Ratio (RQ%)	0.00	0.44	0.00	0.43	0.00	0.60	0.00	0.38
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	11.7
HCM 2010 LOS	B

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR				
Lane Configurations																
Traffic Volume (veh/h)	115	5	90	30	5	45	150	995	35	35	1120	25				
Future Volume (veh/h)	115	5	90	30	5	45	150	995	35	35	1120	25				
Number	7	4	14	3	8	18	5	2	12	1	6	16				
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0				
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00				
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900				
Adj Flow Rate, veh/h	121	5	95	32	5	47	158	1047	37	37	1179	26				
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95				
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2				
Cap, veh/h	284	13	241	240	25	231	412	2049	72	360	2788	61				
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.07	0.59	0.59	0.02	0.54	0.54				
Sat Flow, veh/h	1347	80	1516	1290	154	1452	1774	3487	123	1774	5120	113				
Grp Volume(v), veh/h	121	0	100	32	0	52	158	531	553	37	781	424				
Grp Sat Flow(s),veh/h/ln	1347	0	1595	1290	0	1607	1774	1770	1841	1774	1695	1843				
Q Serve(g_s), s	5.8	0.0	3.8	1.5	0.0	1.9	2.4	11.9	11.9	0.6	9.1	9.1				
Cycle Q Clear(g_c), s	7.6	0.0	3.8	5.3	0.0	1.9	2.4	11.9	11.9	0.6	9.1	9.1				
Prop In Lane	1.00		0.95	1.00		0.90	1.00		0.07	1.00		0.06				
Lane Grp Cap(c), veh/h	284	0	254	240	0	256	412	1040	1082	360	1846	1004				
V/C Ratio(X)	0.43	0.00	0.39	0.13	0.00	0.20	0.38	0.51	0.51	0.10	0.42	0.42				
Avail Cap(c_a), veh/h	431	0	428	381	0	431	574	1372	1427	439	2325	1264				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Uniform Delay (d), s/veh	27.8	0.0	25.3	27.7	0.0	24.5	6.3	8.2	8.2	7.1	9.0	9.0				
Incr Delay (d2), s/veh	2.2	0.0	2.1	0.5	0.0	0.8	0.6	1.8	1.7	0.1	0.7	1.3				
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
%ile BackOfQ(95%),veh/ln	4.1	0.0	3.3	1.0	0.0	1.6	2.2	10.4	10.7	0.6	7.9	8.6				
LnGrp Delay(d),s/veh	30.0	0.0	27.4	28.2	0.0	25.3	6.9	10.0	9.9	7.2	9.7	10.3				
LnGrp LOS	C		C	C		C	A	A	A	A	A	B				
Approach Vol, veh/h	221					84		1242		1242						
Approach Delay, s/veh	28.8					26.4		9.5		9.9						
Approach LOS	C					C		A		A						
Timer	1	2	3	4	5	6	7	8								
Assigned Phs	1	2			4	5	6	8								
Phs Duration (G+Y+Rc), s	5.0	45.4			16.7	7.9	42.5	16.7								
Change Period (Y+Rc), s	3.5	6.0			6.0	3.5	6.0	6.0								
Max Green Setting (Gmax), s	4.5	52.0			18.0	10.5	46.0	18.0								
Max Q Clear Time (g_c+I1), s	2.6	13.9			9.6	4.4	11.1	7.3								
Green Ext Time (p_c), s	0.0	25.4			1.1	0.2	25.4	0.4								
Intersection Summary																
HCM 2010 Ctrl Delay				11.7												
HCM 2010 LOS				B												

FUTURE BUILD CAPACITY REPORTS

Weekday Morning Peak Hour

Weekday Evening Peak Hour

Saturday Midday Peak Hour

HCM 2010 TWSC
100: Arlington Heights Road & Access A (Loading Dock)

05/24/2019

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	910	10	5	1180
Future Vol, veh/h	5	5	910	10	5	1180
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	40	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	25	4	10	40	3
Mvmt Flow	5	5	958	11	5	1242

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1595	485	0
Stage 1	964	-	-
Stage 2	631	-	-
Critical Hdwy	6.84	7.4	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.55	-
Pot Cap-1 Maneuver	98	471	-
Stage 1	331	-	-
Stage 2	492	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	97	471	-
Mov Cap-2 Maneuver	97	-	-
Stage 1	328	-	-
Stage 2	492	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.5	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 97 471	515	-
HCM Lane V/C Ratio	-	- 0.054 0.011	0.01	-
HCM Control Delay (s)	-	- 44.2 12.7	12.1	-
HCM Lane LOS	-	- E B	B	-
HCM 95th %tile Q(veh)	-	- 0.2 0	0	-

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	5	50	65	10	105	50	790	75	50	1070	30
Future Volume (veh/h)	85	5	50	65	10	105	50	790	75	50	1070	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1849	1900	1863	1961	1827	1863	1810	1900	1863	1862	1900
Adj Flow Rate, veh/h	89	5	53	68	11	111	53	832	79	53	1126	32
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	11	11	2	2	4	2	4	4	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	328	17	177	296	209	207	308	1748	166	383	1934	55
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.12	0.12	0.05	0.11	0.11	0.03	0.55	0.55	0.03	0.55	0.55
Ln Grp Delay, s/veh	27.6	0.0	31.6	28.2	30.1	35.0	9.0	11.9	11.9	8.1	13.6	13.5
Ln Grp LOS	C		C	C	C	C	A	B	B	A	B	B
Approach Vol, veh/h		147			190			964			1211	
Approach Delay, s/veh		29.2			32.3			11.7			13.3	
Approach LOS		C			C			B			B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	3.0			
Phs Duration (G+Y+Rc), s		5.5	47.0	6.9	15.1	5.5	47.0	8.0	14.0			
Change Period (Y+Rc), s		3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0			
Max Green (Gmax), s		4.5	51.0	3.5	12.0	6.5	49.0	7.5	8.0			
Max Allow Headway (MAH), s		3.8	9.2	3.9	7.7	3.8	9.1	3.9	6.2			
Max Q Clear (g_c+I1), s		3.0	13.9	4.5	4.5	3.0	17.8	5.3	7.0			
Green Ext Time (g_e), s		0.0	20.8	0.0	0.2	0.0	23.2	0.0	0.1			
Prob of Phs Call (p_c)		0.67	1.00	0.76	1.00	0.67	1.00	0.84	0.99			
Prob of Max Out (p_x)		1.00	0.45	1.00	1.00	1.00	0.72	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1774		1774		1774		1740				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3175		137		3513		1961			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			301		1455		100		1553			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		(Pr/Pm)		(Pr/Pm)		(Pr/Pm)		(Pr/Pm)				

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	53	0	68	0	53	0	89	0
Grp Sat Flow (s), veh/h/ln	1774	0	1774	0	1774	0	1740	0
Q Serve Time (g_s), s	1.0	0.0	2.5	0.0	1.0	0.0	3.3	0.0
Cycle Q Clear Time (g_c), s	1.0	0.0	2.5	0.0	1.0	0.0	3.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	610	0	1340	0	483	0	1240	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	41.0	0.0	8.0	0.0	41.0	0.0	8.0	0.0
Perm LT Serve Time (g_u), s	29.1	0.0	6.6	0.0	25.2	0.0	7.6	0.0
Perm LT Q Serve Time (g_ps), s	1.1	0.0	0.1	0.0	1.9	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	383	0	296	0	308	0	328	0
V/C Ratio (X)	0.14	0.00	0.23	0.00	0.17	0.00	0.27	0.00
Avail Cap (c_a), veh/h	442	0	299	0	415	0	398	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	7.9	0.0	27.8	0.0	8.7	0.0	27.2	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.4	0.0	0.3	0.0	0.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.1	0.0	28.2	0.0	9.0	0.0	27.6	0.0
1st-Term Q (Q1), veh/ln	0.5	0.0	1.2	0.0	0.5	0.0	1.6	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	0.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	0.9	0.0	2.2	0.0	0.9	0.0	2.9	0.0
%ile Storage Ratio (RQ%)	0.12	0.00	0.37	0.00	0.44	0.00	0.63	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T				T		T	
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	451	0	0	0	567	0	11
Grp Sat Flow (s), veh/h/ln	0	1720	0	0	0	1769	0	1961
Q Serve Time (g_s), s	0.0	11.9	0.0	0.0	0.0	15.8	0.0	0.4
Cycle Q Clear Time (g_c), s	0.0	11.9	0.0	0.0	0.0	15.8	0.0	0.4
Lane Grp Cap (c), veh/h	0	947	0	0	0	974	0	209
V/C Ratio (X)	0.00	0.48	0.00	0.00	0.00	0.58	0.00	0.05
Avail Cap (c_a), veh/h	0	1177	0	0	0	1163	0	211
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.2	0.0	0.0	0.0	11.1	0.0	29.9
Incr Delay (d2), s/veh	0.0	1.7	0.0	0.0	0.0	2.5	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.9	0.0	0.0	0.0	13.6	0.0	30.1
1st-Term Q (Q1), veh/ln	0.0	5.6	0.0	0.0	0.0	7.6	0.0	0.2

HCM 2010 Signalized Intersection Capacity Analysis

200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.7	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.66	0.00	1.00	0.00	1.57	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	10.1	0.0	0.0	0.0	13.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	1.16	0.00	0.00	0.00	0.64	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	460	0	58	0	591	0	111
Grp Sat Flow (s), veh/h/ln	0	1757	0	1592	0	1844	0	1553
Q Serve Time (g_s), s	0.0	11.9	0.0	2.5	0.0	15.8	0.0	5.0
Cycle Q Clear Time (g_c), s	0.0	11.9	0.0	2.5	0.0	15.8	0.0	5.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1552.9
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
Prop RT Outside Lane (P_R)	0.00	0.17	0.00	0.91	0.00	0.05	0.00	1.00
Lane Grp Cap (c), veh/h	0	967	0	194	0	1015	0	207
V/C Ratio (X)	0.00	0.48	0.00	0.30	0.00	0.58	0.00	0.54
Avail Cap (c_a), veh/h	0	1203	0	256	0	1213	0	208
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.2	0.0	29.8	0.0	11.1	0.0	30.1
Incr Delay (d2), s/veh	0.0	1.7	0.0	1.8	0.0	2.4	0.0	4.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.9	0.0	31.6	0.0	13.5	0.0	35.0
1st-Term Q (Q1), veh/ln	0.0	5.8	0.0	1.1	0.0	7.9	0.0	2.1
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.1	0.0	0.7	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.66	0.00	1.80	0.00	1.56	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	10.3	0.0	2.1	0.0	13.4	0.0	4.3
%ile Storage Ratio (RQ%)	0.00	1.18	0.00	0.22	0.00	0.66	0.00	0.72
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary

200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	5	50	65	10	105	50	790	75	50	1070	30
Future Volume (veh/h)	85	5	50	65	10	105	50	790	75	50	1070	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1849	1900	1863	1961	1827	1863	1810	1900	1863	1862	1900
Adj Flow Rate, veh/h	89	5	53	68	11	111	53	832	79	53	1126	32
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	11	11	2	2	4	2	4	4	2	2	2
Cap, veh/h	328	17	177	296	209	207	308	1748	166	383	1934	55
Arrive On Green	0.06	0.12	0.12	0.05	0.11	0.11	0.03	0.55	0.55	0.03	0.55	0.55
Sat Flow, veh/h	1740	137	1455	1774	1961	1553	1774	3175	301	1774	3513	100
Grp Volume(v), veh/h	89	0	58	68	11	111	53	451	460	53	567	591
Grp Sat Flow(s),veh/h/ln	1740	0	1592	1774	1961	1553	1774	1720	1757	1774	1769	1844
Q Serve(g_s), s	3.3	0.0	2.5	2.5	0.4	5.0	1.0	11.9	11.9	1.0	15.8	15.8
Cycle Q Clear(g_c), s	3.3	0.0	2.5	2.5	0.4	5.0	1.0	11.9	11.9	1.0	15.8	15.8
Prop In Lane	1.00		0.91	1.00		1.00	1.00		0.17	1.00		0.05
Lane Grp Cap(c), veh/h	328	0	194	296	209	207	308	947	967	383	974	1015
V/C Ratio(X)	0.27	0.00	0.30	0.23	0.05	0.54	0.17	0.48	0.48	0.14	0.58	0.58
Avail Cap(c_a), veh/h	398	0	256	299	211	208	415	1177	1203	442	1163	1213
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.2	0.0	29.8	27.8	29.9	30.1	8.7	10.2	10.2	7.9	11.1	11.1
Incr Delay (d2), s/veh	0.4	0.0	1.8	0.4	0.2	4.9	0.3	1.7	1.7	0.2	2.5	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	0.0	2.1	2.2	0.4	4.3	0.9	10.1	10.3	0.9	13.0	13.4
LnGrp Delay(d),s/veh	27.6	0.0	31.6	28.2	30.1	35.0	9.0	11.9	11.9	8.1	13.6	13.5
LnGrp LOS	C		C	C	C	C	A	B	B	A	B	B
Approach Vol, veh/h		147			190			964			1211	
Approach Delay, s/veh		29.2			32.3			11.7			13.3	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.5	47.0	6.9	15.1	5.5	47.0	8.0	14.0				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	4.5	51.0	3.5	12.0	6.5	49.0	7.5	8.0				
Max Q Clear Time (g_c+I1), s	3.0	13.9	4.5	4.5	3.0	17.8	5.3	7.0				
Green Ext Time (p_c), s	0.0	20.8	0.0	0.2	0.0	23.2	0.0	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			15.1									
HCM 2010 LOS			B									
Notes												

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	10	250	1955	150	180	865	10	180	655	145	50	820
Future Volume (vph)	10	250	1955	150	180	865	10	180	655	145	50	820
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	2000
Lane Width (ft)	12	13	12	12	13	12	12	12	12	12	12	12
Storage Length (ft)		415		0	215		0	140		175	150	
Storage Lanes		1		0	1		0	1		1	1	
Taper Length (ft)		120			180			170			250	
Lane Util. Factor	0.91	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95
Frt			0.989			0.998				0.850		
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1829	5029	0	1811	4932	0	1752	3585	1583	1752	3725
Flt Permitted		0.950			0.950			0.950			0.950	
Satd. Flow (perm)	0	1829	5029	0	1811	4932	0	1752	3585	1583	1752	3725
Right Turn on Red				No			No			No		
Satd. Flow (RTOR)												
Link Speed (mph)			35			35			35			35
Link Distance (ft)			601			560			640			500
Travel Time (s)			11.7			10.9			12.5			9.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	3%	5%	2%	3%	6%	2%	3%	2%
Adj. Flow (vph)	11	263	2058	158	189	911	11	189	689	153	53	863
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	274	2216	0	189	922	0	189	689	153	53	863
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			52			52			17			17
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	0.96	1.00	1.00	0.96	1.00	1.00	1.00	0.94	1.00	1.00	0.94
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2		1	2		1	2	1	1	2
Detector Template	Left	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100		20	100		20	100	20	20	100
Trailing Detector (ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Position(ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Size(ft)	20	20	6		20	6		20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	Prot	Prot	NA		Prot	NA		Prot	NA	pm+ov	Prot	NA

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	250
Future Volume (vph)	250
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Storage Length (ft)	280
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1568
Flt Permitted	
Satd. Flow (perm)	1568
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Heavy Vehicles (%)	3%
Adj. Flow (vph)	263
Shared Lane Traffic (%)	
Lane Group Flow (vph)	263
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	pm+ov

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Protected Phases	7!	7	4		3	8		5	2	3	1	6
Permitted Phases										2		
Detector Phase	7	7	4		3	8		5	2	3	1	6
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0		3.0	15.0	3.0	3.0	15.0
Minimum Split (s)	7.5	7.5	21.5		7.5	21.5		7.5	21.5	7.5	7.5	21.5
Total Split (s)	24.0	24.0	60.0		24.0	60.0		17.0	39.0	24.0	17.0	39.0
Total Split (%)	17.1%	17.1%	42.9%		17.1%	42.9%		12.1%	27.9%	17.1%	12.1%	27.9%
Maximum Green (s)	19.5	19.5	53.5		19.5	53.5		12.5	32.5	19.5	12.5	32.5
Yellow Time (s)	3.5	3.5	4.5		3.5	4.5		3.5	4.5	3.5	3.5	4.5
All-Red Time (s)	1.0	1.0	2.0		1.0	2.0		1.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	6.5		4.5	6.5		4.5	6.5	4.5	4.5	6.5
Lead/Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	7.0		4.0	7.0		4.0	7.0	4.0	4.0	7.0
Recall Mode	None	None	None		None	None		None	C-Min	None	None	C-Min
Walk Time (s)									7.0			7.0
Flash Dont Walk (s)									11.0			11.0
Pedestrian Calls (#/hr)									0			0
Act Effct Green (s)		19.5	54.7		18.3	53.5		12.5	37.1	61.8	10.2	32.5
Actuated g/C Ratio		0.14	0.39		0.13	0.38		0.09	0.26	0.44	0.07	0.23
v/c Ratio		1.08	1.13		0.80	0.49		1.21	0.73	0.22	0.42	1.00
Control Delay		134.3	104.1		83.1	34.0		191.7	53.1	26.2	71.3	83.7
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		134.3	104.1		83.1	34.0		191.7	53.1	26.2	71.3	83.7
LOS		F	F		F	C		F	D	C	E	F
Approach Delay			107.4			42.3			74.5			71.3
Approach LOS			F			D			E			E
90th %ile Green (s)	19.5	19.5	53.5		19.5	53.5		12.5	32.5	19.5	12.5	32.5
90th %ile Term Code	Max	Max	Max		Max	Max		Max	Coord	Max	Max	Coord
70th %ile Green (s)	19.5	19.5	53.5		19.5	53.5		12.5	33.0	19.5	12.0	32.5
70th %ile Term Code	Max	Max	Max		Max	Hold		Max	Coord	Max	Gap	Coord
50th %ile Green (s)	19.5	19.5	53.5		19.5	53.5		12.5	34.4	19.5	10.6	32.5
50th %ile Term Code	Max	Max	Max		Max	Hold		Max	Coord	Max	Gap	Coord
30th %ile Green (s)	19.5	19.5	54.6		18.4	53.5		12.5	35.9	18.4	9.1	32.5
30th %ile Term Code	Max	Max	Max		Gap	Hold		Max	Coord	Gap	Gap	Coord
10th %ile Green (s)	19.5	19.5	58.5		14.5	53.5		12.5	49.5	14.5	0.0	32.5
10th %ile Term Code	Max	Max	Max		Gap	Hold		Max	Coord	Gap	Skip	Coord
Queue Length 50th (ft)		~277	~868		168	232		~209	310	87	47	416
Queue Length 95th (ft)		#460	#960		#279	276		#370	392	141	92	#561
Internal Link Dist (ft)			521			480			560			420
Turn Bay Length (ft)		415			215			140		175	150	
Base Capacity (vph)		254	1965		252	1884		156	949	712	156	864
Starvation Cap Reductn		0	0		0	0		0	0	0	0	0
Spillback Cap Reductn		0	0		0	0		0	0	0	0	0
Storage Cap Reductn		0	0		0	0		0	0	0	0	0
Reduced v/c Ratio		1.08	1.13		0.75	0.49		1.21	0.73	0.21	0.34	1.00

Lanes, Volumes, Timings

300: Arlington Heights Road & Palatine Road

05/24/2019

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 57.4 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.21

Intersection Signal Delay: 81.8

Intersection LOS: F

Intersection Capacity Utilization 100.9%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

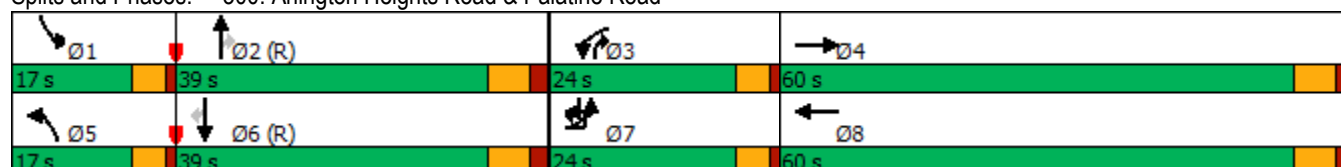
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

! Phase conflict between lane groups.

Splits and Phases: 300: Arlington Heights Road & Palatine Road



Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

Lane Group	SBR
Protected Phases	7!
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	7.5
Total Split (s)	24.0
Total Split (%)	17.1%
Maximum Green (s)	19.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	58.5
Actuated g/C Ratio	0.42
v/c Ratio	0.40
Control Delay	30.8
Queue Delay	0.0
Total Delay	30.8
LOS	C
Approach Delay	
Approach LOS	
90th %ile Green (s)	19.5
90th %ile Term Code	Max
70th %ile Green (s)	19.5
70th %ile Term Code	Max
50th %ile Green (s)	19.5
50th %ile Term Code	Max
30th %ile Green (s)	19.5
30th %ile Term Code	Max
10th %ile Green (s)	19.5
10th %ile Term Code	Max
Queue Length 50th (ft)	166
Queue Length 95th (ft)	243
Internal Link Dist (ft)	
Turn Bay Length (ft)	280
Base Capacity (vph)	655
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.40

Intersection

Int Delay, s/veh 1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	2040	110	0	1055	0	100
Future Vol, veh/h	2040	110	0	1055	0	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	4	2	4	2	2
Mvmt Flow	2147	116	0	1111	0	105

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 1132
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 7.14
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.92
Pot Cap-1 Maneuver	-	-	0 - 0 169
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 169
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	56.2
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	169	-	-	-
HCM Lane V/C Ratio	0.623	-	-	-
HCM Control Delay (s)	56.2	-	-	-
HCM Lane LOS	F	-	-	-
HCM 95th %tile Q(veh)	3.5	-	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	↘
Traffic Vol, veh/h	0	20	0	750	1545	95
Future Vol, veh/h	0	20	0	750	1545	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	6	2	3	2	2
Mvmt Flow	0	21	0	789	1626	100
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	863	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.96	-	-	-	-
Pot Cap-1 Maneuver	0	249	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	249	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	20.8	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 249		-	-		
HCM Lane V/C Ratio	- 0.085		-	-		
HCM Control Delay (s)	- 20.8		-	-		
HCM Lane LOS	- C		-	-		
HCM 95th %tile Q(veh)	- 0.3		-	-		

HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	1	15	15	10	5	55	720	5	10	1545	10
Future Volume (veh/h)	25	1	15	15	10	5	55	720	5	10	1545	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1759	1863	1900	1863	1842	1900	1759	1862	1900
Adj Flow Rate, veh/h	26	1	16	16	11	5	58	758	5	11	1626	11
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	8	2	2	2	3	3	8	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	202	8	127	194	102	47	309	2498	16	520	3548	24
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.03	0.70	0.70	0.01	0.68	0.68
Ln Grp Delay, s/veh	33.3	0.0	32.7	32.9	0.0	32.4	4.5	4.9	4.9	3.8	6.2	6.7
Ln Grp LOS	C		C	C		C	A	A	A	A	A	A
Approach Vol, veh/h		43			32			821			1648	
Approach Delay, s/veh		33.0			32.7			4.9			6.4	
Approach LOS		C			C			A			A	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Case No	1.1	4.0		6.0	1.1	4.0		6.0				
Phs Duration (G+Y+Rc), s	4.1	58.6		12.3	5.6	57.1		12.3				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green (Gmax), s	5.5	58.0		11.0	6.5	57.0		11.0				
Max Allow Headway (MAH), s	3.8	9.1		6.6	3.8	9.1		6.8				
Max Q Clear (g_c+I1), s	2.2	8.1		3.9	2.7	12.9		3.6				
Green Ext Time (g_e), s	0.0	19.4		0.1	0.0	38.2		0.1				
Prob of Phs Call (p_c)	0.20	1.00		0.79	0.70	1.00		0.79				
Prob of Max Out (p_x)	1.00	0.18		0.70	1.00	0.83		0.60				
Left-Turn Movement Data												
Assigned Mvmt	1			7	5			3				
Mvmt Sat Flow, veh/h	1675			1392	1774			1313				
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		3564		94		5209		1214				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		24		1503		35		552				
Left Lane Group Data												
Assigned Mvmt	1	0	0	7	5	0	0	3				
Lane Assignment	(Pr/Pm)			(Pr/Pm)								

HCM 2010 Signalized Intersection Capacity Analysis
600: Rand Road & Access E/Private Driveway

05/24/2019

Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	11	0	0	26	58	0	0	16
Grp Sat Flow (s), veh/h/ln	1675	0	0	1392	1774	0	0	1313
Q Serve Time (g_s), s	0.2	0.0	0.0	1.3	0.7	0.0	0.0	0.9
Cycle Q Clear Time (g_c), s	0.2	0.0	0.0	1.9	0.7	0.0	0.0	1.6
Perm LT Sat Flow (s_l), veh/h/ln	662	0	0	1392	305	0	0	1313
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	51.1	0.0	0.0	6.3	51.1	0.0	0.0	6.3
Perm LT Serve Time (g_u), s	46.5	0.0	0.0	5.7	40.2	0.0	0.0	5.6
Perm LT Q Serve Time (g_ps), s	0.1	0.0	0.0	1.3	2.5	0.0	0.0	0.9
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	520	0	0	202	309	0	0	194
V/C Ratio (X)	0.02	0.00	0.00	0.13	0.19	0.00	0.00	0.08
Avail Cap (c_a), veh/h	629	0	0	288	413	0	0	276
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	3.8	0.0	0.0	32.6	4.3	0.0	0.0	32.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.6	0.3	0.0	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	3.8	0.0	0.0	33.3	4.5	0.0	0.0	32.9
1st-Term Q (Q1), veh/ln	0.1	0.0	0.0	0.5	0.3	0.0	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	1.80	1.80	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	0.1	0.0	0.0	1.0	0.7	0.0	0.0	0.6
%ile Storage Ratio (RQ%)	0.02	0.00	0.00	0.16	0.07	0.00	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T			T				
Lanes in Grp	0	1	0	0	0	2	0	0
Grp Vol (v), veh/h	0	372	0	0	0	1058	0	0
Grp Sat Flow (s), veh/h/ln	0	1750	0	0	0	1694	0	0
Q Serve Time (g_s), s	0.0	6.1	0.0	0.0	0.0	10.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	6.1	0.0	0.0	0.0	10.9	0.0	0.0
Lane Grp Cap (c), veh/h	0	1227	0	0	0	2308	0	0
V/C Ratio (X)	0.00	0.30	0.00	0.00	0.00	0.46	0.00	0.00
Avail Cap (c_a), veh/h	0	1353	0	0	0	2575	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.3	0.0	0.0	0.0	5.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	0.0	0.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.9	0.0	0.0	0.0	6.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.9	0.0	0.0	0.0	5.0	0.0	0.0

HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

05/24/2019

2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.72	0.00	1.00
%ile Back of Q (95%), veh/ln	0.0	5.6	0.0	0.0	0.0	8.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.23	0.00	0.00	0.00	0.62	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	391	0	17	0	579	0	16
Grp Sat Flow (s), veh/h/ln	0	1838	0	1597	0	1856	0	1765
Q Serve Time (g_s), s	0.0	6.1	0.0	0.7	0.0	10.9	0.0	0.6
Cycle Q Clear Time (g_c), s	0.0	6.1	0.0	0.7	0.0	10.9	0.0	0.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.01	0.00	0.94	0.00	0.02	0.00	0.31
Lane Grp Cap (c), veh/h	0	1288	0	135	0	1264	0	149
V/C Ratio (X)	0.00	0.30	0.00	0.13	0.00	0.46	0.00	0.11
Avail Cap (c_a), veh/h	0	1421	0	234	0	1410	0	259
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	4.3	0.0	31.8	0.0	5.5	0.0	31.7
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.9	0.0	1.2	0.0	0.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.9	0.0	32.7	0.0	6.7	0.0	32.4
1st-Term Q (Q1), veh/ln	0.0	3.0	0.0	0.3	0.0	5.5	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.68	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	5.9	0.0	0.6	0.0	9.9	0.0	0.6
%ile Storage Ratio (RQ%)	0.00	0.24	0.00	0.08	0.00	0.69	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	6.7
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary

600: Rand Road & Access E/Private Driveway

05/24/2019

																		
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
Lane Configurations																		
Traffic Volume (veh/h)	25	1	15	15	10	5	55	720	5	10	1545	10						
Future Volume (veh/h)	25	1	15	15	10	5	55	720	5	10	1545	10						
Number	7	4	14	3	8	18	5	2	12	1	6	16						
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0						
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00						
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Adj Sat Flow, veh/h/ln	1863	1863	1900	1759	1863	1900	1863	1842	1900	1759	1862	1900						
Adj Flow Rate, veh/h	26	1	16	16	11	5	58	758	5	11	1626	11						
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95						
Percent Heavy Veh, %	2	2	2	8	2	2	2	3	3	8	2	2						
Cap, veh/h	202	8	127	194	102	47	309	2498	16	520	3548	24						
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.03	0.70	0.70	0.01	0.68	0.68						
Sat Flow, veh/h	1392	94	1503	1313	1214	552	1774	3564	24	1675	5209	35						
Grp Volume(v), veh/h	26	0	17	16	0	16	58	372	391	11	1058	579						
Grp Sat Flow(s),veh/h/ln	1392	0	1597	1313	0	1765	1774	1750	1838	1675	1694	1856						
Q Serve(g_s), s	1.3	0.0	0.7	0.9	0.0	0.6	0.7	6.1	6.1	0.2	10.9	10.9						
Cycle Q Clear(g_c), s	1.9	0.0	0.7	1.6	0.0	0.6	0.7	6.1	6.1	0.2	10.9	10.9						
Prop In Lane	1.00		0.94	1.00		0.31	1.00		0.01	1.00		0.02						
Lane Grp Cap(c), veh/h	202	0	135	194	0	149	309	1227	1288	520	2308	1264						
V/C Ratio(X)	0.13	0.00	0.13	0.08	0.00	0.11	0.19	0.30	0.30	0.02	0.46	0.46						
Avail Cap(c_a), veh/h	288	0	234	276	0	259	413	1353	1421	629	2575	1410						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Uniform Delay (d), s/veh	32.6	0.0	31.8	32.5	0.0	31.7	4.3	4.3	4.3	3.8	5.5	5.5						
Incr Delay (d2), s/veh	0.6	0.0	0.9	0.4	0.0	0.7	0.3	0.6	0.6	0.0	0.7	1.2						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(95%),veh/ln	1.0	0.0	0.6	0.6	0.0	0.6	0.7	5.6	5.9	0.1	8.9	9.9						
LnGrp Delay(d),s/veh	33.3	0.0	32.7	32.9	0.0	32.4	4.5	4.9	4.9	3.8	6.2	6.7						
LnGrp LOS	C		C	C		C	A	A	A	A	A	A						
Approach Vol, veh/h	43					32		821		1648								
Approach Delay, s/veh	33.0					32.7		4.9		6.4								
Approach LOS	C					C		A		A								
Timer	1	2	3	4	5	6	7	8										
Assigned Phs	1	2			4	5	6	8										
Phs Duration (G+Y+Rc), s	4.1	58.6			12.3	5.6	57.1	12.3										
Change Period (Y+Rc), s	3.5	6.0			6.0	3.5	6.0	6.0										
Max Green Setting (Gmax), s	5.5	58.0			11.0	6.5	57.0	11.0										
Max Q Clear Time (g_c+I1), s	2.2	8.1			3.9	2.7	12.9	3.6										
Green Ext Time (p_c), s	0.0	19.4			0.1	0.0	38.2	0.1										
Intersection Summary																		
HCM 2010 Ctrl Delay																		
HCM 2010 LOS																		

HCM 2010 TWSC
100: Arlington Heights Road & Access A (Loading Dock)

05/24/2019

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	1205	20	2	1055
Future Vol, veh/h	5	5	1205	20	2	1055
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	40	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	6	2	2
Mvmt Flow	5	5	1268	21	2	1111

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1839	645	0
Stage 1	1279	-	-
Stage 2	560	-	-
Critical Hdwy	6.84	6.94	4.14
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	2.22
Pot Cap-1 Maneuver	67	415	534
Stage 1	225	-	-
Stage 2	535	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	67	415	534
Mov Cap-2 Maneuver	67	-	-
Stage 1	224	-	-
Stage 2	535	-	-

Approach	WB	NB	SB
HCM Control Delay, s	38.6	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	67 415	534	-
HCM Lane V/C Ratio	-	0.079 0.013	0.004	-
HCM Control Delay (s)	-	63.3 13.8	11.8	-
HCM Lane LOS	-	F B	B	-
HCM 95th %tile Q(veh)	-	0.2 0	0	-

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	20	10	125	30	245	25	1040	145	130	920	55
Future Volume (veh/h)	75	20	10	125	30	245	25	1040	145	130	920	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1961	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	79	21	11	132	32	258	26	1095	153	137	968	58
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	290	113	59	342	244	286	337	1663	232	312	1942	116
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.05	0.10	0.10	0.08	0.12	0.12	0.02	0.53	0.53	0.06	0.57	0.57
Ln Grp Delay, s/veh	31.2	0.0	34.8	29.9	32.2	63.6	9.2	17.3	17.3	12.1	12.2	12.1
Ln Grp LOS	C		C	C	C	E	A	B	B	B	B	B
Approach Vol, veh/h		111			422			1274			1163	
Approach Delay, s/veh		32.2			50.7			17.1			12.1	
Approach LOS		C			D			B			B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	1.1	4.0	1.1	4.0	1.1	4.0	1.1	3.0				
Phs Duration (G+Y+Rc), s	8.1	49.4	10.0	14.0	4.8	52.6	7.9	16.1				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green (Gmax), s	8.5	48.0	6.5	8.0	3.5	53.0	6.5	8.0				
Max Allow Headway (MAH), s	3.8	9.2	3.9	7.5	3.8	9.1	3.9	6.2				
Max Q Clear (g_c+I1), s	4.7	22.6	7.3	3.4	2.5	15.9	5.2	12.1				
Green Ext Time (g_e), s	0.1	20.8	0.0	0.0	0.0	23.6	0.0	0.0				
Prob of Phs Call (p_c)	0.95	1.00	0.95	1.00	0.44	1.00	0.83	1.00				
Prob of Max Out (p_x)	0.93	0.83	1.00	1.00	1.00	0.55	1.00	1.00				
Left-Turn Movement Data												
Assigned Mvmt	1		3		5		7					
Mvmt Sat Flow, veh/h	1774		1774		1774		1774					
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		3120		1153		3393		1961				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		435		604		203		1583				
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				
Lane Assignment	(Pr/Pm)		(Pr/Pm)		(Pr/Pm)		(Pr/Pm)					

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	137	0	132	0	26	0	79	0
Grp Sat Flow (s), veh/h/ln	1774	0	1774	0	1774	0	1774	0
Q Serve Time (g_s), s	2.7	0.0	5.3	0.0	0.5	0.0	3.2	0.0
Cycle Q Clear Time (g_c), s	2.7	0.0	5.3	0.0	0.5	0.0	3.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	444	0	1372	0	547	0	1085	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	45.1	0.0	8.6	0.0	43.4	0.0	8.0	0.0
Perm LT Serve Time (g_u), s	22.8	0.0	6.6	0.0	32.7	0.0	8.0	0.0
Perm LT Q Serve Time (g_ps), s	10.0	0.0	0.2	0.0	0.5	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	312	0	342	0	337	0	290	0
V/C Ratio (X)	0.44	0.00	0.39	0.00	0.08	0.00	0.27	0.00
Avail Cap (c_a), veh/h	398	0	342	0	384	0	337	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	11.2	0.0	29.2	0.0	9.1	0.0	30.7	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.7	0.0	0.1	0.0	0.5	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	12.1	0.0	29.9	0.0	9.2	0.0	31.2	0.0
1st-Term Q (Q1), veh/ln	1.3	0.0	2.6	0.0	0.3	0.0	1.6	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	0.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	2.4	0.0	4.8	0.0	0.5	0.0	2.9	0.0
%ile Storage Ratio (RQ%)	0.33	0.00	0.79	0.00	0.25	0.00	0.61	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T				T		T	
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	620	0	0	0	505	0	32
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	1961
Q Serve Time (g_s), s	0.0	20.5	0.0	0.0	0.0	13.9	0.0	1.2
Cycle Q Clear Time (g_c), s	0.0	20.5	0.0	0.0	0.0	13.9	0.0	1.2
Lane Grp Cap (c), veh/h	0	943	0	0	0	1013	0	244
V/C Ratio (X)	0.00	0.66	0.00	0.00	0.00	0.50	0.00	0.13
Avail Cap (c_a), veh/h	0	1043	0	0	0	1152	0	244
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.7	0.0	0.0	0.0	10.4	0.0	31.7
Incr Delay (d2), s/veh	0.0	3.6	0.0	0.0	0.0	1.8	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.3	0.0	0.0	0.0	12.2	0.0	32.2
1st-Term Q (Q1), veh/ln	0.0	10.0	0.0	0.0	0.0	6.7	0.0	0.6

HCM 2010 Signalized Intersection Capacity Analysis

200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	0.0	0.0	0.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.50	0.00	1.00	0.00	1.61	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	16.4	0.0	0.0	0.0	11.6	0.0	1.2
%ile Storage Ratio (RQ%)	0.00	1.85	0.00	0.00	0.00	0.58	0.00	0.09
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	628	0	32	0	521	0	258
Grp Sat Flow (s), veh/h/ln	0	1786	0	1756	0	1827	0	1583
Q Serve Time (g_s), s	0.0	20.6	0.0	1.4	0.0	13.9	0.0	10.1
Cycle Q Clear Time (g_c), s	0.0	20.6	0.0	1.4	0.0	13.9	0.0	10.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1583.3
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
Prop RT Outside Lane (P_R)	0.00	0.24	0.00	0.34	0.00	0.11	0.00	1.00
Lane Grp Cap (c), veh/h	0	952	0	172	0	1046	0	286
V/C Ratio (X)	0.00	0.66	0.00	0.19	0.00	0.50	0.00	0.90
Avail Cap (c_a), veh/h	0	1053	0	173	0	1189	0	286
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.7	0.0	33.7	0.0	10.4	0.0	32.7
Incr Delay (d2), s/veh	0.0	3.6	0.0	1.1	0.0	1.7	0.0	30.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.3	0.0	34.8	0.0	12.1	0.0	63.6
1st-Term Q (Q1), veh/ln	0.0	10.1	0.0	0.7	0.0	6.9	0.0	5.6
2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	0.1	0.0	0.5	0.0	2.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.49	0.00	1.80	0.00	1.60	0.00	1.58
%ile Back of Q (95%), veh/ln	0.0	16.5	0.0	1.3	0.0	11.9	0.0	12.8
%ile Storage Ratio (RQ%)	0.00	1.86	0.00	0.12	0.00	0.59	0.00	2.09
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	20.5
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	20	10	125	30	245	25	1040	145	130	920	55
Future Volume (veh/h)	75	20	10	125	30	245	25	1040	145	130	920	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1961	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	79	21	11	132	32	258	26	1095	153	137	968	58
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	290	113	59	342	244	286	337	1663	232	312	1942	116
Arrive On Green	0.05	0.10	0.10	0.08	0.12	0.12	0.02	0.53	0.53	0.06	0.57	0.57
Sat Flow, veh/h	1774	1153	604	1774	1961	1583	1774	3120	435	1774	3393	203
Grp Volume(v), veh/h	79	0	32	132	32	258	26	620	628	137	505	521
Grp Sat Flow(s),veh/h/ln	1774	0	1756	1774	1961	1583	1774	1770	1786	1774	1770	1827
Q Serve(g_s), s	3.2	0.0	1.4	5.3	1.2	10.1	0.5	20.5	20.6	2.7	13.9	13.9
Cycle Q Clear(g_c), s	3.2	0.0	1.4	5.3	1.2	10.1	0.5	20.5	20.6	2.7	13.9	13.9
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.24	1.00		0.11
Lane Grp Cap(c), veh/h	290	0	172	342	244	286	337	943	952	312	1013	1046
V/C Ratio(X)	0.27	0.00	0.19	0.39	0.13	0.90	0.08	0.66	0.66	0.44	0.50	0.50
Avail Cap(c_a), veh/h	337	0	173	342	244	286	384	1043	1053	398	1152	1189
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	0.0	33.7	29.2	31.7	32.7	9.1	13.7	13.7	11.2	10.4	10.4
Incr Delay (d2), s/veh	0.5	0.0	1.1	0.7	0.5	30.9	0.1	3.6	3.6	1.0	1.8	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	0.0	1.3	4.8	1.2	12.8	0.5	16.4	16.5	2.4	11.6	11.9
LnGrp Delay(d),s/veh	31.2	0.0	34.8	29.9	32.2	63.6	9.2	17.3	17.3	12.1	12.2	12.1
LnGrp LOS	C		C	C	C	E	A	B	B	B	B	B
Approach Vol, veh/h		111			422			1274			1163	
Approach Delay, s/veh		32.2			50.7			17.1			12.1	
Approach LOS		C			D			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.1	49.4	10.0	14.0	4.8	52.6	7.9	16.1				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	8.5	48.0	6.5	8.0	3.5	53.0	6.5	8.0				
Max Q Clear Time (g_c+I1), s	4.7	22.6	7.3	3.4	2.5	15.9	5.2	12.1				
Green Ext Time (p_c), s	0.1	20.8	0.0	0.0	0.0	23.6	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			20.5									
HCM 2010 LOS			C									
Notes												

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	20	285	1265	140	185	1645	40	225	965	170	85	780
Future Volume (vph)	20	285	1265	140	185	1645	40	225	965	170	85	780
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	2000
Lane Width (ft)	12	13	12	12	13	12	12	12	12	12	12	12
Storage Length (ft)		415		0	215		0	140		175	150	
Storage Lanes		1		0	1		0	1		1	1	
Taper Length (ft)		120			180			170			250	
Lane Util. Factor	0.91	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95
Fr't			0.985			0.996				0.850		
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1829	4965	0	1829	5064	0	1770	3725	1583	1770	3725
Flt Permitted		0.950			0.950			0.950			0.950	
Satd. Flow (perm)	0	1829	4965	0	1829	5064	0	1770	3725	1583	1770	3725
Right Turn on Red				No			No			No		
Satd. Flow (RTOR)												
Link Speed (mph)			35			35			35			35
Link Distance (ft)			601			560			640			500
Travel Time (s)			11.7			10.9			12.5			9.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Adj. Flow (vph)	21	300	1332	147	195	1732	42	237	1016	179	89	821
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	321	1479	0	195	1774	0	237	1016	179	89	821
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			52			52			17			17
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	0.96	1.00	1.00	0.96	1.00	1.00	1.00	0.94	1.00	1.00	0.94
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2		1	2		1	2	1	1	2
Detector Template	Left	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100		20	100		20	100	20	20	100
Trailing Detector (ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Position(ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Size(ft)	20	20	6		20	6		20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	Prot	Prot	NA		Prot	NA		Prot	NA	pm+ov	Prot	NA

Future (2025) Build Traffic Projections 4:15 pm 02/04/2019 PM Peak Hour

Synchro 10 Report
Page 1

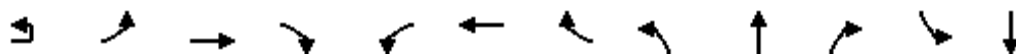
Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	385
Future Volume (vph)	385
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Storage Length (ft)	280
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Heavy Vehicles (%)	2%
Adj. Flow (vph)	405
Shared Lane Traffic (%)	
Lane Group Flow (vph)	405
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	pm+ov

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019



Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Protected Phases	7!	7	4		3	8		5	2	3	1	6
Permitted Phases										2		
Detector Phase	7	7	4		3	8		5	2	3	1	6
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0		3.0	15.0	3.0	3.0	15.0
Minimum Split (s)	7.5	7.5	21.5		7.5	21.5		7.5	21.5	7.5	7.5	21.5
Total Split (s)	28.0	28.0	57.0		28.0	57.0		21.0	50.0	28.0	15.0	44.0
Total Split (%)	18.7%	18.7%	38.0%		18.7%	38.0%		14.0%	33.3%	18.7%	10.0%	29.3%
Maximum Green (s)	23.5	23.5	50.5		23.5	50.5		16.5	43.5	23.5	10.5	37.5
Yellow Time (s)	3.5	3.5	4.5		3.5	4.5		3.5	4.5	3.5	3.5	4.5
All-Red Time (s)	1.0	1.0	2.0		1.0	2.0		1.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	6.5		4.5	6.5		4.5	6.5	4.5	4.5	6.5
Lead/Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	7.0		4.0	7.0		4.0	7.0	4.0	4.0	7.0
Recall Mode	None	None	None		None	None		None	C-Min	None	None	C-Min
Walk Time (s)									7.0			7.0
Flash Dont Walk (s)									11.0			11.0
Pedestrian Calls (#/hr)									0			0
Act Effct Green (s)		23.5	53.4		20.6	50.5		16.5	43.7	70.8	10.3	37.5
Actuated g/C Ratio		0.16	0.36		0.14	0.34		0.11	0.29	0.47	0.07	0.25
v/c Ratio		1.12	0.84		0.78	1.04		1.22	0.94	0.24	0.74	0.88
Control Delay		145.7	50.0		82.9	81.2		190.1	67.5	24.1	100.9	66.1
Queue Delay		0.0	0.0		0.0	0.0		0.0	1.3	0.0	0.0	0.0
Total Delay		145.7	50.0		82.9	81.2		190.1	68.8	24.1	100.9	66.1
LOS		F	D		F	F		F	E	C	F	E
Approach Delay			67.0			81.4			83.3			58.7
Approach LOS			E			F			F			E
90th %ile Green (s)	23.5	23.5	50.5		23.5	50.5		16.5	43.5	23.5	10.5	37.5
90th %ile Term Code	Max	Max	Max		Max	Max		Max	Coord	Max	Max	Coord
70th %ile Green (s)	23.5	23.5	50.5		23.5	50.5		16.5	43.5	23.5	10.5	37.5
70th %ile Term Code	Max	Max	Max		Max	Max		Max	Coord	Max	Max	Coord
50th %ile Green (s)	23.5	23.5	52.0		22.0	50.5		16.5	43.5	22.0	10.5	37.5
50th %ile Term Code	Max	Max	Max		Gap	Max		Max	Coord	Gap	Max	Coord
30th %ile Green (s)	23.5	23.5	54.8		19.2	50.5		16.5	43.5	19.2	10.5	37.5
30th %ile Term Code	Max	Max	Max		Gap	Max		Max	Coord	Gap	Max	Coord
10th %ile Green (s)	23.5	23.5	59.0		15.0	50.5		16.5	44.5	15.0	9.5	37.5
10th %ile Term Code	Max	Max	Max		Gap	Max		Max	Coord	Gap	Gap	Coord
Queue Length 50th (ft)		~361	493		185	~684		~283	513	101	87	410
Queue Length 95th (ft)		#559	566		273	#779		#462	#646	151	#177	#513
Internal Link Dist (ft)			521			480			560			420
Turn Bay Length (ft)		415			215			140		175	150	
Base Capacity (vph)		286	1766		286	1704		194	1085	777	123	931
Starvation Cap Reductn		0	0		0	0		0	17	0	0	0
Spillback Cap Reductn		0	0		0	0		0	0	0	0	0
Storage Cap Reductn		0	0		0	0		0	0	0	0	0
Reduced v/c Ratio		1.12	0.84		0.68	1.04		1.22	0.95	0.23	0.72	0.88

Lanes, Volumes, Timings

300: Arlington Heights Road & Palatine Road

05/24/2019

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 61.5 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.22

Intersection Signal Delay: 73.2

Intersection LOS: E

Intersection Capacity Utilization 102.5%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

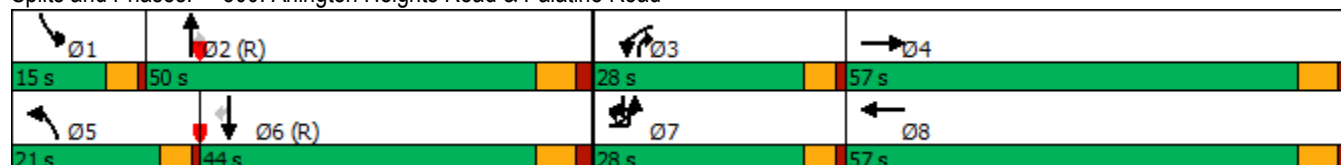
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

! Phase conflict between lane groups.

Splits and Phases: 300: Arlington Heights Road & Palatine Road



Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

Lane Group	SBR
Protected Phases	7!
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	7.5
Total Split (s)	28.0
Total Split (%)	18.7%
Maximum Green (s)	23.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	67.5
Actuated g/C Ratio	0.45
v/c Ratio	0.57
Control Delay	34.4
Queue Delay	0.0
Total Delay	34.4
LOS	C
Approach Delay	
Approach LOS	
90th %ile Green (s)	23.5
90th %ile Term Code	Max
70th %ile Green (s)	23.5
70th %ile Term Code	Max
50th %ile Green (s)	23.5
50th %ile Term Code	Max
30th %ile Green (s)	23.5
30th %ile Term Code	Max
10th %ile Green (s)	23.5
10th %ile Term Code	Max
Queue Length 50th (ft)	289
Queue Length 95th (ft)	400
Internal Link Dist (ft)	
Turn Bay Length (ft)	280
Base Capacity (vph)	712
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.57

Intersection

Int Delay, s/veh 2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	1315	205	0	1870	0	180
Future Vol, veh/h	1315	205	0	1870	0	180
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1384	216	0	1968	0	189

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 800
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 7.14
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.92
Pot Cap-1 Maneuver	-	-	0 - 0 281
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 281
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	40.7
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	281	-	-	-
HCM Lane V/C Ratio	0.674	-	-	-
HCM Control Delay (s)	40.7	-	-	-
HCM Lane LOS	E	-	-	-
HCM 95th %tile Q(veh)	4.5	-	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	50	0	1630	1145	220
Future Vol, veh/h	0	50	0	1630	1145	220
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	53	0	1716	1205	232
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	719	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	318	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	318	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	18.6	0	0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	-	318	-	-		
HCM Lane V/C Ratio	-	0.166	-	-		
HCM Control Delay (s)	-	18.6	-	-		
HCM Lane LOS	-	C	-	-		
HCM 95th %tile Q(veh)	-	0.6	-	-		

HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	10	65	25	15	50	145	1450	25	25	1150	20
Future Volume (veh/h)	130	10	65	25	15	50	145	1450	25	25	1150	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	137	11	68	26	16	53	153	1526	26	26	1211	21
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	225	32	199	215	54	180	406	2339	40	247	3194	55
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.05	0.66	0.66	0.02	0.62	0.62
Ln Grp Delay, s/veh	44.5	0.0	34.4	35.4	0.0	33.7	6.1	11.5	11.4	8.1	8.4	8.9
Ln Grp LOS	D		C	D		C	A	B	B	A	A	A
Approach Vol, veh/h		216			95			1705			1258	
Approach Delay, s/veh		40.8			34.2			11.0			8.6	
Approach LOS		D			C			B			A	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		1	2		4	5	6		8			
Case No		1.1	4.0		6.0	1.1	4.0		6.0			
Phs Duration (G+Y+Rc), s		4.9	61.2		18.0	7.9	58.2		18.0			
Change Period (Y+Rc), s		3.5	6.0		6.0	3.5	6.0		6.0			
Max Green (Gmax), s		3.5	59.0		12.0	7.5	55.0		12.0			
Max Allow Headway (MAH), s		3.8	9.1		6.6	3.8	9.1		7.2			
Max Q Clear (g_c+I1), s		2.5	23.7		13.8	4.4	11.8		7.2			
Green Ext Time (g_e), s		0.0	31.6		0.0	0.1	30.3		0.2			
Prob of Phs Call (p_c)		0.46	1.00		1.00	0.97	1.00		1.00			
Prob of Max Out (p_x)		1.00	0.89		1.00	1.00	0.60		1.00			
Left-Turn Movement Data												
Assigned Mvmt		1			7	5			3			
Mvmt Sat Flow, veh/h		1774			1326	1774			1314			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3561		225		5148		380			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			61		1392		89		1260			
Left Lane Group Data												
Assigned Mvmt		1	0	0	7	5	0	0	3			
Lane Assignment		(Pr/Pm)			(Pr/Pm)							

HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

05/24/2019

Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	26	0	0	137	153	0	0	26
Grp Sat Flow (s), veh/h/ln	1774	0	0	1326	1774	0	0	1314
Q Serve Time (g_s), s	0.5	0.0	0.0	8.7	2.4	0.0	0.0	1.5
Cycle Q Clear Time (g_c), s	0.5	0.0	0.0	11.8	2.4	0.0	0.0	5.2
Perm LT Sat Flow (s_l), veh/h/ln	331	0	0	1326	450	0	0	1314
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	52.2	0.0	0.0	12.0	53.7	0.0	0.0	12.0
Perm LT Serve Time (g_u), s	33.6	0.0	0.0	8.8	42.4	0.0	0.0	8.3
Perm LT Q Serve Time (g_ps), s	1.6	0.0	0.0	8.7	5.9	0.0	0.0	1.5
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	247	0	0	225	406	0	0	215
V/C Ratio (X)	0.11	0.00	0.00	0.61	0.38	0.00	0.00	0.12
Avail Cap (c_a), veh/h	292	0	0	225	471	0	0	215
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	7.9	0.0	0.0	37.6	5.5	0.0	0.0	34.9
Incr Delay (d2), s/veh	0.2	0.0	0.0	7.0	0.6	0.0	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.1	0.0	0.0	44.5	6.1	0.0	0.0	35.4
1st-Term Q (Q1), veh/ln	0.2	0.0	0.0	3.2	1.2	0.0	0.0	0.6
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	1.80	1.80	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	0.4	0.0	0.0	6.5	2.3	0.0	0.0	1.1
%ile Storage Ratio (RQ%)	0.07	0.00	0.00	1.10	0.25	0.00	0.00	0.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T			T				
Lanes in Grp	0	1	0	0	0	2	0	0
Grp Vol (v), veh/h	0	758	0	0	0	797	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1695	0	0
Q Serve Time (g_s), s	0.0	21.6	0.0	0.0	0.0	9.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	21.6	0.0	0.0	0.0	9.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	1162	0	0	0	2103	0	0
V/C Ratio (X)	0.00	0.65	0.00	0.00	0.00	0.38	0.00	0.00
Avail Cap (c_a), veh/h	0	1241	0	0	0	2217	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.7	0.0	0.0	0.0	7.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.8	0.0	0.0	0.0	0.5	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.5	0.0	0.0	0.0	8.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	10.3	0.0	0.0	0.0	4.5	0.0	0.0

Future (2025) Build Traffic Projections 4:15 pm 02/04/2019 PM Peak Hour

Synchro 10 Report
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HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

05/24/2019

2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.49	0.00	1.00	0.00	1.76	0.00	1.00
%ile Back of Q (95%), veh/ln	0.0	16.7	0.0	0.0	0.0	8.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.69	0.00	0.00	0.00	0.57	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	794	0	79	0	435	0	69
Grp Sat Flow (s), veh/h/ln	0	1852	0	1617	0	1847	0	1640
Q Serve Time (g_s), s	0.0	21.7	0.0	3.7	0.0	9.8	0.0	3.2
Cycle Q Clear Time (g_c), s	0.0	21.7	0.0	3.7	0.0	9.8	0.0	3.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.03	0.00	0.86	0.00	0.05	0.00	0.77
Lane Grp Cap (c), veh/h	0	1216	0	231	0	1146	0	234
V/C Ratio (X)	0.00	0.65	0.00	0.34	0.00	0.38	0.00	0.29
Avail Cap (c_a), veh/h	0	1299	0	231	0	1208	0	234
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.7	0.0	32.5	0.0	7.9	0.0	32.3
Incr Delay (d2), s/veh	0.0	2.7	0.0	1.9	0.0	1.0	0.0	1.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.4	0.0	34.4	0.0	8.9	0.0	33.7
1st-Term Q (Q1), veh/ln	0.0	10.8	0.0	1.6	0.0	4.9	0.0	1.4
2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	0.1	0.0	0.3	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.48	0.00	1.80	0.00	1.72	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	17.4	0.0	3.2	0.0	9.0	0.0	2.8
%ile Storage Ratio (RQ%)	0.00	0.71	0.00	0.41	0.00	0.63	0.00	0.65
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	12.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary

600: Rand Road & Access E/Private Driveway

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	10	65	25	15	50	145	1450	25	25	1150	20
Future Volume (veh/h)	130	10	65	25	15	50	145	1450	25	25	1150	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	137	11	68	26	16	53	153	1526	26	26	1211	21
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	225	32	199	215	54	180	406	2339	40	247	3194	55
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.05	0.66	0.66	0.02	0.62	0.62
Sat Flow, veh/h	1326	225	1392	1314	380	1260	1774	3561	61	1774	5148	89
Grp Volume(v), veh/h	137	0	79	26	0	69	153	758	794	26	797	435
Grp Sat Flow(s),veh/h/ln	1326	0	1617	1314	0	1640	1774	1770	1852	1774	1695	1847
Q Serve(g_s), s	8.7	0.0	3.7	1.5	0.0	3.2	2.4	21.6	21.7	0.5	9.8	9.8
Cycle Q Clear(g_c), s	11.8	0.0	3.7	5.2	0.0	3.2	2.4	21.6	21.7	0.5	9.8	9.8
Prop In Lane	1.00		0.86	1.00		0.77	1.00		0.03	1.00		0.05
Lane Grp Cap(c), veh/h	225	0	231	215	0	234	406	1162	1216	247	2103	1146
V/C Ratio(X)	0.61	0.00	0.34	0.12	0.00	0.29	0.38	0.65	0.65	0.11	0.38	0.38
Avail Cap(c_a), veh/h	225	0	231	215	0	234	471	1241	1299	292	2217	1208
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	0.0	32.5	34.9	0.0	32.3	5.5	8.7	8.7	7.9	7.9	7.9
Incr Delay (d2), s/veh	7.0	0.0	1.9	0.5	0.0	1.5	0.6	2.8	2.7	0.2	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.5	0.0	3.2	1.1	0.0	2.8	2.3	16.7	17.4	0.4	8.2	9.0
LnGrp Delay(d),s/veh	44.5	0.0	34.4	35.4	0.0	33.7	6.1	11.5	11.4	8.1	8.4	8.9
LnGrp LOS	D		C	D		C	A	B	B	A	A	A
Approach Vol, veh/h	216			95			1705			1258		
Approach Delay, s/veh	40.8			34.2			11.0			8.6		
Approach LOS	D			C			B			A		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.9	61.2		18.0	7.9	58.2		18.0				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	3.5	59.0		12.0	7.5	55.0		12.0				
Max Q Clear Time (g_c+I1), s	2.5	23.7		13.8	4.4	11.8		7.2				
Green Ext Time (p_c), s	0.0	31.6		0.0	0.1	30.3		0.2				
Intersection Summary												
HCM 2010 Ctrl Delay	12.7											
HCM 2010 LOS	B											

HCM 2010 TWSC
100: Arlington Heights Road & Access A (Loading Dock)

05/24/2019

Intersection

Int Delay, s/veh 0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	15	995	20	5	990
Future Vol, veh/h	5	15	995	20	5	990
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	40	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	7	2	2	25	2
Mvmt Flow	5	16	1047	21	5	1042

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1589	534	0
Stage 1	1058	-	-
Stage 2	531	-	-
Critical Hdwy	6.84	7.04	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.37	-
Pot Cap-1 Maneuver	98	478	-
Stage 1	295	-	-
Stage 2	554	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	97	478	-
Mov Cap-2 Maneuver	97	-	-
Stage 1	292	-	-
Stage 2	554	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.7	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 97 478	528	-
HCM Lane V/C Ratio	-	- 0.054 0.033	0.01	-
HCM Control Delay (s)	-	- 44.2 12.8	11.9	-
HCM Lane LOS	-	- E B	B	-
HCM 95th %tile Q(veh)	-	- 0.2 0.1	0	-

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	10	20	165	25	325	50	805	155	150	810	55
Future Volume (veh/h)	90	10	20	165	25	325	50	805	155	150	810	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1961	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	95	11	21	174	26	342	53	847	163	158	853	58
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	319	62	118	401	285	342	354	1374	264	361	1703	116
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.11	0.11	0.10	0.15	0.15	0.03	0.46	0.46	0.07	0.51	0.51
Ln Grp Delay, s/veh	27.4	0.0	31.1	25.4	27.7	77.8	10.7	18.4	18.4	11.7	14.1	14.0
Ln Grp LOS	C		C	C	C	F	B	B	B	B	B	B
Approach Vol, veh/h		127			542			1063			1069	
Approach Delay, s/veh		28.3			58.6			18.0			13.7	
Approach LOS		C			E			B			B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	1.1	4.0	1.1	4.0	1.1	4.0	1.1	3.0				
Phs Duration (G+Y+Rc), s	8.7	40.4	11.0	14.0	5.6	43.5	8.2	16.8				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green (Gmax), s	13.5	41.0	7.5	9.0	4.5	50.0	7.5	9.0				
Max Allow Headway (MAH), s	3.8	9.2	3.9	7.6	3.8	9.1	3.9	6.2				
Max Q Clear (g_c+I1), s	5.2	17.9	8.2	3.3	3.2	14.4	5.5	12.8				
Green Ext Time (g_e), s	0.2	16.5	0.0	0.1	0.0	20.2	0.0	0.0				
Prob of Phs Call (p_c)	0.96	1.00	0.97	1.00	0.66	1.00	0.86	1.00				
Prob of Max Out (p_x)	0.02	0.74	1.00	1.00	1.00	0.47	1.00	1.00				
Left-Turn Movement Data												
Assigned Mvmt	1		3		5		7					
Mvmt Sat Flow, veh/h	1774		1774		1774		1774					
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		2962		574		3363		1961				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		570		1096		229		1583				
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				
Lane Assignment	(Pr/Pm)		(Pr/Pm)		(Pr/Pm)		(Pr/Pm)					

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	158	0	174	0	53	0	95	0
Grp Sat Flow (s), veh/h/ln	1774	0	1774	0	1774	0	1774	0
Q Serve Time (g_s), s	3.2	0.0	6.2	0.0	1.2	0.0	3.5	0.0
Cycle Q Clear Time (g_c), s	3.2	0.0	6.2	0.0	1.2	0.0	3.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	556	0	1372	0	610	0	1010	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	36.0	0.0	9.3	0.0	34.4	0.0	8.0	0.0
Perm LT Serve Time (g_u), s	18.5	0.0	6.7	0.0	25.1	0.0	8.0	0.0
Perm LT Q Serve Time (g_ps), s	7.0	0.0	0.4	0.0	0.9	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	361	0	401	0	354	0	319	0
V/C Ratio (X)	0.44	0.00	0.43	0.00	0.15	0.00	0.30	0.00
Avail Cap (c_a), veh/h	559	0	401	0	411	0	386	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	10.9	0.0	24.7	0.0	10.5	0.0	26.9	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.7	0.0	0.2	0.0	0.5	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	11.7	0.0	25.4	0.0	10.7	0.0	27.4	0.0
1st-Term Q (Q1), veh/ln	1.5	0.0	3.0	0.0	0.6	0.0	1.7	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	0.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	2.9	0.0	5.5	0.0	1.0	0.0	3.1	0.0
%ile Storage Ratio (RQ%)	0.40	0.00	0.91	0.00	0.53	0.00	0.65	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T				T		T	
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	506	0	0	0	449	0	26
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	1961
Q Serve Time (g_s), s	0.0	15.9	0.0	0.0	0.0	12.4	0.0	0.9
Cycle Q Clear Time (g_c), s	0.0	15.9	0.0	0.0	0.0	12.4	0.0	0.9
Lane Grp Cap (c), veh/h	0	821	0	0	0	896	0	285
V/C Ratio (X)	0.00	0.62	0.00	0.00	0.00	0.50	0.00	0.09
Avail Cap (c_a), veh/h	0	979	0	0	0	1193	0	285
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.9	0.0	0.0	0.0	12.1	0.0	27.5
Incr Delay (d2), s/veh	0.0	3.5	0.0	0.0	0.0	2.0	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.4	0.0	0.0	0.0	14.1	0.0	27.7
1st-Term Q (Q1), veh/ln	0.0	7.7	0.0	0.0	0.0	6.0	0.0	0.5

HCM 2010 Signalized Intersection Capacity Analysis
200: Arlington Heights Road & Lillian Avenue/Access B

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2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	0.0	0.0	0.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.56	0.00	1.00	0.00	1.64	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	13.3	0.0	0.0	0.0	10.7	0.0	0.9
%ile Storage Ratio (RQ%)	0.00	1.50	0.00	0.00	0.00	0.53	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	504	0	32	0	462	0	342
Grp Sat Flow (s), veh/h/ln	0	1762	0	1669	0	1822	0	1583
Q Serve Time (g_s), s	0.0	15.9	0.0	1.3	0.0	12.4	0.0	10.8
Cycle Q Clear Time (g_c), s	0.0	15.9	0.0	1.3	0.0	12.4	0.0	10.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1583.3
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
Prop RT Outside Lane (P_R)	0.00	0.32	0.00	0.66	0.00	0.13	0.00	1.00
Lane Grp Cap (c), veh/h	0	818	0	180	0	923	0	342
V/C Ratio (X)	0.00	0.62	0.00	0.18	0.00	0.50	0.00	1.00
Avail Cap (c_a), veh/h	0	974	0	203	0	1229	0	342
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.9	0.0	30.1	0.0	12.1	0.0	29.1
Incr Delay (d2), s/veh	0.0	3.5	0.0	1.0	0.0	1.9	0.0	48.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.4	0.0	31.1	0.0	14.0	0.0	77.8
1st-Term Q (Q1), veh/ln	0.0	7.7	0.0	0.6	0.0	6.2	0.0	6.9
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	0.0	0.0	0.5	0.0	4.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.56	0.00	1.80	0.00	1.64	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	13.3	0.0	1.2	0.0	10.9	0.0	20.8
%ile Storage Ratio (RQ%)	0.00	1.50	0.00	0.11	0.00	0.54	0.00	3.41
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary

HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary

200: Arlington Heights Road & Lillian Avenue/Access B

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	10	20	165	25	325	50	805	155	150	810	55
Future Volume (veh/h)	90	10	20	165	25	325	50	805	155	150	810	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1961	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	95	11	21	174	26	342	53	847	163	158	853	58
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	319	62	118	401	285	342	354	1374	264	361	1703	116
Arrive On Green	0.06	0.11	0.11	0.10	0.15	0.15	0.03	0.46	0.46	0.07	0.51	0.51
Sat Flow, veh/h	1774	574	1096	1774	1961	1583	1774	2962	570	1774	3363	229
Grp Volume(v), veh/h	95	0	32	174	26	342	53	506	504	158	449	462
Grp Sat Flow(s),veh/h/ln	1774	0	1669	1774	1961	1583	1774	1770	1762	1774	1770	1822
Q Serve(g_s), s	3.5	0.0	1.3	6.2	0.9	10.8	1.2	15.9	15.9	3.2	12.4	12.4
Cycle Q Clear(g_c), s	3.5	0.0	1.3	6.2	0.9	10.8	1.2	15.9	15.9	3.2	12.4	12.4
Prop In Lane	1.00		0.66	1.00		1.00	1.00		0.32	1.00		0.13
Lane Grp Cap(c), veh/h	319	0	180	401	285	342	354	821	818	361	896	923
V/C Ratio(X)	0.30	0.00	0.18	0.43	0.09	1.00	0.15	0.62	0.62	0.44	0.50	0.50
Avail Cap(c_a), veh/h	386	0	203	401	285	342	411	979	974	559	1193	1229
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	0.0	30.1	24.7	27.5	29.1	10.5	14.9	14.9	10.9	12.1	12.1
Incr Delay (d2), s/veh	0.5	0.0	1.0	0.7	0.3	48.8	0.2	3.5	3.5	0.8	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.1	0.0	1.2	5.5	0.9	20.8	1.0	13.3	13.3	2.9	10.7	10.9
LnGrp Delay(d),s/veh	27.4	0.0	31.1	25.4	27.7	77.8	10.7	18.4	18.4	11.7	14.1	14.0
LnGrp LOS	C		C	C	C	F	B	B	B	B	B	B
Approach Vol, veh/h	127			542			1063			1069		
Approach Delay, s/veh	28.3			58.6			18.0			13.7		
Approach LOS	C			E			B			B		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	40.4	11.0	14.0	5.6	43.5	8.2	16.8				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	13.5	41.0	7.5	9.0	4.5	50.0	7.5	9.0				
Max Q Clear Time (g_c+I1), s	5.2	17.9	8.2	3.3	3.2	14.4	5.5	12.8				
Green Ext Time (p_c), s	0.2	16.5	0.0	0.1	0.0	20.2	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	24.7											
HCM 2010 LOS	C											
Notes												

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	15	305	950	110	150	820	40	255	820	145	110	755
Future Volume (vph)	15	305	950	110	150	820	40	255	820	145	110	755
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	2000
Lane Width (ft)	12	13	12	12	13	12	12	12	12	12	12	12
Storage Length (ft)		415		0	215		0	140		175	150	
Storage Lanes		1		0	1		0	1		1	1	
Taper Length (ft)		120			180			170			250	
Lane Util. Factor	0.91	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95
Frt			0.984			0.993				0.850		
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1829	5004	0	1829	5050	0	1770	3725	1583	1770	3725
Flt Permitted		0.950			0.950			0.950			0.950	
Satd. Flow (perm)	0	1829	5004	0	1829	5050	0	1770	3725	1583	1770	3725
Right Turn on Red				No			No			No		
Satd. Flow (RTOR)												
Link Speed (mph)			35			35			35			35
Link Distance (ft)			601			560			640			500
Travel Time (s)			11.7			10.9			12.5			9.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	321	1000	116	158	863	42	268	863	153	116	795
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	337	1116	0	158	905	0	268	863	153	116	795
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			52			52			17			17
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	0.96	1.00	1.00	0.96	1.00	1.00	1.00	0.94	1.00	1.00	0.94
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2		1	2		1	2	1	1	2
Detector Template	Left	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100		20	100		20	100	20	20	100
Trailing Detector (ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Position(ft)	0	0	0		0	0		0	0	0	0	0
Detector 1 Size(ft)	20	20	6		20	6		20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	Prot	Prot	NA		Prot	NA		Prot	NA	pm+ov	Prot	NA
Protected Phases	7!	7	4		3	8		5	2	3	1	6

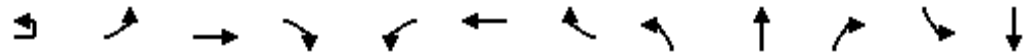
Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	320
Future Volume (vph)	320
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Storage Length (ft)	280
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Adj. Flow (vph)	337
Shared Lane Traffic (%)	
Lane Group Flow (vph)	337
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	pm+ov
Protected Phases	7!

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019



Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Permitted Phases										2		
Detector Phase	7	7	4		3	8		5	2	3	1	6
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0		3.0	15.0	3.0	3.0	15.0
Minimum Split (s)	7.5	7.5	21.5		7.5	21.5		7.5	21.5	7.5	7.5	21.5
Total Split (s)	34.0	34.0	44.0		22.0	32.0		19.0	38.0	22.0	16.0	35.0
Total Split (%)	28.3%	28.3%	36.7%		18.3%	26.7%		15.8%	31.7%	18.3%	13.3%	29.2%
Maximum Green (s)	29.5	29.5	37.5		17.5	25.5		14.5	31.5	17.5	11.5	28.5
Yellow Time (s)	3.5	3.5	4.5		3.5	4.5		3.5	4.5	3.5	3.5	4.5
All-Red Time (s)	1.0	1.0	2.0		1.0	2.0		1.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	6.5		4.5	6.5		4.5	6.5	4.5	4.5	6.5
Lead/Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	7.0		4.0	7.0		4.0	7.0	4.0	4.0	7.0
Recall Mode	None	None	None		None	None		None	C-Min	None	None	C-Min
Walk Time (s)									7.0			7.0
Flash Dont Walk (s)									11.0			11.0
Pedestrian Calls (#/hr)									0			0
Act Effect Green (s)		26.8	38.9		15.3	27.5		15.3	32.7	54.5	11.1	28.5
Actuated g/C Ratio		0.22	0.32		0.13	0.23		0.13	0.27	0.45	0.09	0.24
v/c Ratio		0.83	0.69		0.68	0.78		1.20	0.85	0.21	0.71	0.90
Control Delay		61.6	38.1		64.6	49.4		168.1	51.1	20.7	76.4	58.6
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		61.6	38.1		64.6	49.4		168.1	51.1	20.7	76.4	58.6
LOS		E	D		E	D		F	D	C	E	E
Approach Delay			43.6			51.7			71.9			49.7
Approach LOS			D			D			E			D
90th %ile Green (s)	29.5	29.5	37.5		17.5	25.5		14.5	31.5	17.5	11.5	28.5
90th %ile Term Code	Max	Max	Max		Max	Max		Max	Coord	Max	Max	Coord
70th %ile Green (s)	29.5	29.5	37.5		17.5	25.5		14.5	31.5	17.5	11.5	28.5
70th %ile Term Code	Max	Max	Max		Max	Max		Max	Coord	Max	Max	Coord
50th %ile Green (s)	29.0	29.0	38.5		16.5	26.0		14.5	31.5	16.5	11.5	28.5
50th %ile Term Code	Gap	Gap	Max		Gap	Max		Max	Coord	Gap	Max	Coord
30th %ile Green (s)	25.7	25.7	40.8		14.2	29.3		14.5	31.5	14.2	11.5	28.5
30th %ile Term Code	Gap	Gap	Max		Gap	Max		Max	Coord	Gap	Max	Coord
10th %ile Green (s)	20.1	20.1	40.3		10.9	31.1		18.3	37.3	10.9	9.5	28.5
10th %ile Term Code	Gap	Gap	Hold		Gap	Gap		Max	Coord	Gap	Gap	Coord
Queue Length 50th (ft)		244	275		117	246		~260	338	70	88	315
Queue Length 95th (ft)		#355	333		189	301		#431	#446	114	#173	#425
Internal Link Dist (ft)			521			480			560			420
Turn Bay Length (ft)		415			215			140		175	150	
Base Capacity (vph)		449	1622		266	1156		224	1013	747	169	884
Starvation Cap Reductn		0	0		0	0		0	0	0	0	0
Spillback Cap Reductn		0	0		0	0		0	0	0	0	0
Storage Cap Reductn		0	0		0	0		0	0	0	0	0
Reduced v/c Ratio		0.75	0.69		0.59	0.78		1.20	0.85	0.20	0.69	0.90

Intersection Summary

Lanes, Volumes, Timings
300: Arlington Heights Road & Palatine Road

05/24/2019

Lane Group	SBR
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	7.5
Total Split (s)	34.0
Total Split (%)	28.3%
Maximum Green (s)	29.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	61.8
Actuated g/C Ratio	0.52
v/c Ratio	0.41
Control Delay	19.3
Queue Delay	0.0
Total Delay	19.3
LOS	B
Approach Delay	
Approach LOS	
90th %ile Green (s)	29.5
90th %ile Term Code	Max
70th %ile Green (s)	29.5
70th %ile Term Code	Max
50th %ile Green (s)	29.0
50th %ile Term Code	Gap
30th %ile Green (s)	25.7
30th %ile Term Code	Gap
10th %ile Green (s)	20.1
10th %ile Term Code	Gap
Queue Length 50th (ft)	149
Queue Length 95th (ft)	217
Internal Link Dist (ft)	
Turn Bay Length (ft)	280
Base Capacity (vph)	850
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.40
Intersection Summary	

Lanes, Volumes, Timings

300: Arlington Heights Road & Palatine Road

05/24/2019

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 21.6 (18%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.20

Intersection Signal Delay: 54.0

Intersection LOS: D

Intersection Capacity Utilization 86.7%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

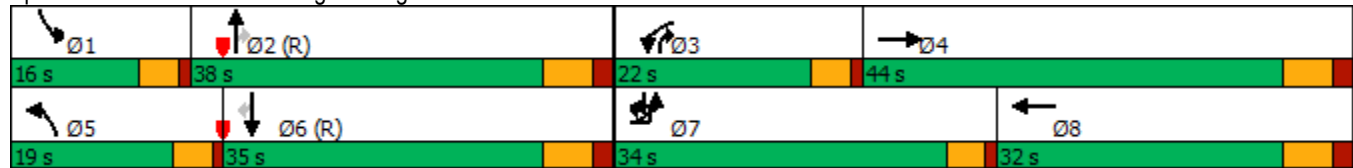
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

! Phase conflict between lane groups.

Splits and Phases: 300: Arlington Heights Road & Palatine Road



Intersection

Int Delay, s/veh 2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	985	220	0	1010	0	220
Future Vol, veh/h	985	220	0	1010	0	220
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1037	232	0	1063	0	232

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	635
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	7.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3.92
Pot Cap-1 Maneuver	-	0	361
Stage 1	-	0	-
Stage 2	-	0	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	361
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	31.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	361	-	-	-
HCM Lane V/C Ratio	0.641	-	-	-
HCM Control Delay (s)	31.2	-	-	-
HCM Lane LOS	D	-	-	-
HCM 95th %tile Q(veh)	4.3	-	-	-

Intersection

Int Delay, s/veh 0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	65	0	1170	1120	260
Future Vol, veh/h	0	65	0	1170	1120	260
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	68	0	1232	1179	274

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 727	- 0	- 0
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- 7.14	- -	- -
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- 3.92	- -	- -
Pot Cap-1 Maneuver	0 314	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	- 314	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Control Delay, s	19.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 314	- -	- -
HCM Lane V/C Ratio	- 0.218	- -	- -
HCM Control Delay (s)	- 19.6	- -	- -
HCM Lane LOS	- C	- -	- -
HCM 95th %tile Q(veh)	- 0.8	- -	- -

HCM 2010 Signalized Intersection Capacity Analysis

600: Rand Road & Access E/Private Driveway

05/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	5	90	30	5	45	160	995	35	35	1125	25
Future Volume (veh/h)	130	5	90	30	5	45	160	995	35	35	1125	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	137	5	95	32	5	47	168	1047	37	37	1184	26
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	296	13	256	252	26	246	408	2032	72	353	2748	60
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.07	0.58	0.58	0.02	0.54	0.54
Ln Grp Delay, s/veh	30.5	0.0	27.0	28.1	0.0	25.2	7.3	10.4	10.3	7.6	10.3	10.9
Ln Grp LOS	C		C	C		C	A	B	B	A	B	B
Approach Vol, veh/h		237			84			1252			1247	
Approach Delay, s/veh		29.1			26.3			9.9			10.5	
Approach LOS		C			C			A			B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		1	2		4	5	6		8			
Case No		1.1	4.0		6.0	1.1	4.0		6.0			
Phs Duration (G+Y+Rc), s		5.0	45.9		17.6	8.2	42.8		17.6			
Change Period (Y+Rc), s		3.5	6.0		6.0	3.5	6.0		6.0			
Max Green (Gmax), s		4.5	52.0		18.0	10.5	46.0		18.0			
Max Allow Headway (MAH), s		3.8	9.1		6.7	3.8	9.1		7.1			
Max Q Clear (g_c+I1), s		2.6	14.3		10.6	4.7	11.6		7.4			
Green Ext Time (g_e), s		0.0	25.2		1.1	0.2	25.2		0.4			
Prob of Phs Call (p_c)		0.51	1.00		1.00	0.96	1.00		1.00			
Prob of Max Out (p_x)		1.00	0.59		0.79	0.17	0.67		0.16			
Left-Turn Movement Data												
Assigned Mvmt		1			7	5			3			
Mvmt Sat Flow, veh/h		1774			1347	1774			1290			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3487		80		5121		154			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			123		1516		112		1452			
Left Lane Group Data												
Assigned Mvmt		1	0	0	7	5	0	0	3			
Lane Assignment		(Pr/Pm)			(Pr/Pm)							

HCM 2010 Signalized Intersection Capacity Analysis

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Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	37	0	0	137	168	0	0	32
Grp Sat Flow (s), veh/h/ln	1774	0	0	1347	1774	0	0	1290
Q Serve Time (g_s), s	0.6	0.0	0.0	6.7	2.7	0.0	0.0	1.5
Cycle Q Clear Time (g_c), s	0.6	0.0	0.0	8.6	2.7	0.0	0.0	5.4
Perm LT Sat Flow (s_l), veh/h/ln	518	0	0	1347	460	0	0	1290
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	36.8	0.0	0.0	11.6	38.4	0.0	0.0	11.6
Perm LT Serve Time (g_u), s	27.7	0.0	0.0	9.7	27.2	0.0	0.0	7.8
Perm LT Q Serve Time (g_ps), s	0.7	0.0	0.0	6.7	6.5	0.0	0.0	1.5
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	353	0	0	296	408	0	0	252
V/C Ratio (X)	0.10	0.00	0.00	0.46	0.41	0.00	0.00	0.13
Avail Cap (c_a), veh/h	431	0	0	421	559	0	0	372
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	7.5	0.0	0.0	28.1	6.7	0.0	0.0	27.6
Incr Delay (d2), s/veh	0.1	0.0	0.0	2.4	0.7	0.0	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.6	0.0	0.0	30.5	7.3	0.0	0.0	28.1
1st-Term Q (Q1), veh/ln	0.3	0.0	0.0	2.5	1.3	0.0	0.0	0.6
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	1.80	1.80	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	0.6	0.0	0.0	4.8	2.4	0.0	0.0	1.1
%ile Storage Ratio (RQ%)	0.10	0.00	0.00	0.81	0.27	0.00	0.00	0.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T			T				
Lanes in Grp	0	1	0	0	0	2	0	0
Grp Vol (v), veh/h	0	531	0	0	0	784	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1695	0	0
Q Serve Time (g_s), s	0.0	12.3	0.0	0.0	0.0	9.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	12.3	0.0	0.0	0.0	9.6	0.0	0.0
Lane Grp Cap (c), veh/h	0	1031	0	0	0	1819	0	0
V/C Ratio (X)	0.00	0.52	0.00	0.00	0.00	0.43	0.00	0.00
Avail Cap (c_a), veh/h	0	1342	0	0	0	2274	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.5	0.0	0.0	0.0	9.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.0	0.0	0.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.4	0.0	0.0	0.0	10.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	5.9	0.0	0.0	0.0	4.5	0.0	0.0

HCM 2010 Signalized Intersection Capacity Analysis

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2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.65	0.00	1.00	0.00	1.76	0.00	1.00
%ile Back of Q (95%), veh/ln	0.0	10.6	0.0	0.0	0.0	8.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.44	0.00	0.00	0.00	0.57	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	553	0	100	0	426	0	52
Grp Sat Flow (s), veh/h/ln	0	1841	0	1595	0	1843	0	1607
Q Serve Time (g_s), s	0.0	12.3	0.0	3.8	0.0	9.6	0.0	1.9
Cycle Q Clear Time (g_c), s	0.0	12.3	0.0	3.8	0.0	9.6	0.0	1.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.07	0.00	0.95	0.00	0.06	0.00	0.90
Lane Grp Cap (c), veh/h	0	1073	0	270	0	989	0	272
V/C Ratio (X)	0.00	0.52	0.00	0.37	0.00	0.43	0.00	0.19
Avail Cap (c_a), veh/h	0	1396	0	419	0	1236	0	422
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.5	0.0	25.2	0.0	9.6	0.0	24.5
Incr Delay (d2), s/veh	0.0	1.8	0.0	1.8	0.0	1.4	0.0	0.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.3	0.0	27.0	0.0	10.9	0.0	25.2
1st-Term Q (Q1), veh/ln	0.0	6.1	0.0	1.7	0.0	4.9	0.0	0.8
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.1	0.0	0.4	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.64	0.00	1.80	0.00	1.72	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	10.9	0.0	3.2	0.0	9.0	0.0	1.6
%ile Storage Ratio (RQ%)	0.00	0.45	0.00	0.42	0.00	0.62	0.00	0.38
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	12.3
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
600: Rand Road & Access E/Private Driveway

05/24/2019

																		
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
Lane Configurations																		
Traffic Volume (veh/h)	130	5	90	30	5	45	160	995	35	35	1125	25						
Future Volume (veh/h)	130	5	90	30	5	45	160	995	35	35	1125	25						
Number	7	4	14	3	8	18	5	2	12	1	6	16						
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0						
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00						
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900						
Adj Flow Rate, veh/h	137	5	95	32	5	47	168	1047	37	37	1184	26						
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	3	0						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95						
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2						
Cap, veh/h	296	13	256	252	26	246	408	2032	72	353	2748	60						
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.07	0.58	0.58	0.02	0.54	0.54						
Sat Flow, veh/h	1347	80	1516	1290	154	1452	1774	3487	123	1774	5121	112						
Grp Volume(v), veh/h	137	0	100	32	0	52	168	531	553	37	784	426						
Grp Sat Flow(s),veh/h/ln	1347	0	1595	1290	0	1607	1774	1770	1841	1774	1695	1843						
Q Serve(g_s), s	6.7	0.0	3.8	1.5	0.0	1.9	2.7	12.3	12.3	0.6	9.6	9.6						
Cycle Q Clear(g_c), s	8.6	0.0	3.8	5.4	0.0	1.9	2.7	12.3	12.3	0.6	9.6	9.6						
Prop In Lane	1.00		0.95	1.00		0.90	1.00		0.07	1.00		0.06						
Lane Grp Cap(c), veh/h	296	0	270	252	0	272	408	1031	1073	353	1819	989						
V/C Ratio(X)	0.46	0.00	0.37	0.13	0.00	0.19	0.41	0.52	0.52	0.10	0.43	0.43						
Avail Cap(c_a), veh/h	421	0	419	372	0	422	559	1342	1396	431	2274	1236						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Uniform Delay (d), s/veh	28.1	0.0	25.2	27.6	0.0	24.5	6.7	8.5	8.5	7.5	9.6	9.6						
Incr Delay (d2), s/veh	2.4	0.0	1.8	0.5	0.0	0.7	0.7	1.8	1.8	0.1	0.7	1.4						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(95%),veh/ln	4.8	0.0	3.2	1.1	0.0	1.6	2.4	10.6	10.9	0.6	8.2	9.0						
LnGrp Delay(d),s/veh	30.5	0.0	27.0	28.1	0.0	25.2	7.3	10.4	10.3	7.6	10.3	10.9						
LnGrp LOS	C		C	C		C	A	B	B	A	B	B						
Approach Vol, veh/h	237					84		1252		1247								
Approach Delay, s/veh	29.1					26.3		9.9		10.5								
Approach LOS	C					C		A		B								
Timer	1	2	3	4	5	6	7	8										
Assigned Phs	1	2			4	5	6	8										
Phs Duration (G+Y+Rc), s	5.0	45.9			17.6	8.2	42.8	17.6										
Change Period (Y+Rc), s	3.5	6.0			6.0	3.5	6.0	6.0										
Max Green Setting (Gmax), s	4.5	52.0			18.0	10.5	46.0	18.0										
Max Q Clear Time (g_c+I1), s	2.6	14.3			10.6	4.7	11.6	7.4										
Green Ext Time (p_c), s	0.0	25.2			1.1	0.2	25.2	0.4										
Intersection Summary																		
HCM 2010 Ctrl Delay		12.3																
HCM 2010 LOS		B																

DATA FROM THE ITE MANUAL TRIP GENERATION, TENTH EDITION

Land Use: 820

Shopping Center

Description

A shopping center is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. A shopping center's composition is related to its market area in terms of size, location, and type of store. A shopping center also provides on-site parking facilities sufficient to serve its own parking demands. Factory outlet center (Land Use 823) is a related use.

Additional Data

Shopping centers, including neighborhood centers, community centers, regional centers, and super regional centers, were surveyed for this land use. Some of these centers contained non-merchandising facilities, such as office buildings, movie theaters, restaurants, post offices, banks, health clubs, and recreational facilities (for example, ice skating rinks or indoor miniature golf courses).

Many shopping centers, in addition to the integrated unit of shops in one building or enclosed around a mall, include outparcels (peripheral buildings or pads located on the perimeter of the center adjacent to the streets and major access points). These buildings are typically drive-in banks, retail stores, restaurants, or small offices. Although the data herein do not indicate which of the centers studied included peripheral buildings, it can be assumed that some of the data show their effect.

The vehicle trips generated at a shopping center are based upon the total GLA of the center. In cases of smaller centers without an enclosed mall or peripheral buildings, the GLA could be the same as the gross floor area of the building.

Time-of-day distribution data for this land use are presented in Appendix A. For the 10 general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 11:45 a.m. and 12:45 p.m. and 12:15 and 1:15 p.m., respectively.

The average numbers of person trips per vehicle trip at the 27 general urban/suburban sites at which both person trip and vehicle trip data were collected were as follows:

- 1.31 during Weekday, AM Peak Hour of Generator
- 1.43 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 1.46 during Weekday, PM Peak Hour of Generator

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), British Columbia (CAN), California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nevada, New Jersey, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia, and Wisconsin.

Source Numbers

105, 110, 154, 156, 159, 186, 190, 198, 199, 202, 204, 211, 213, 239, 251, 259, 260, 269, 294, 295, 299, 300, 301, 304, 305, 307, 308, 309, 310, 311, 314, 315, 316, 317, 319, 358, 365, 376, 385, 390, 400, 404, 414, 420, 423, 428, 437, 440, 442, 444, 446, 507, 562, 580, 598, 629, 658, 702, 715, 728, 868, 870, 871, 880, 899, 908, 912, 915, 926, 936, 944, 946, 960, 961, 962, 973, 974, 978

Shopping Center (820)

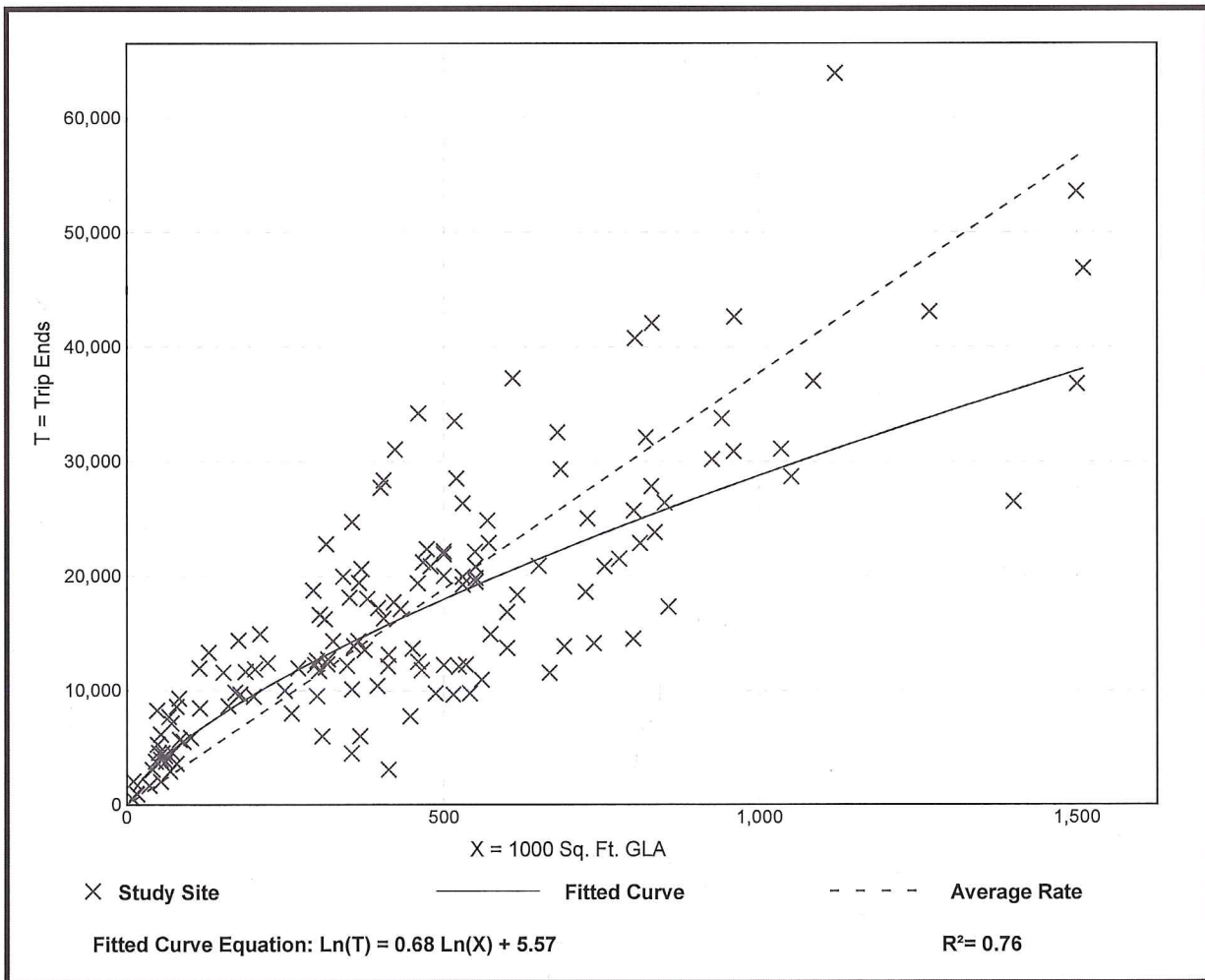
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 147
1000 Sq. Ft. GLA: 453
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
37.75	7.42 - 207.98	16.41

Data Plot and Equation



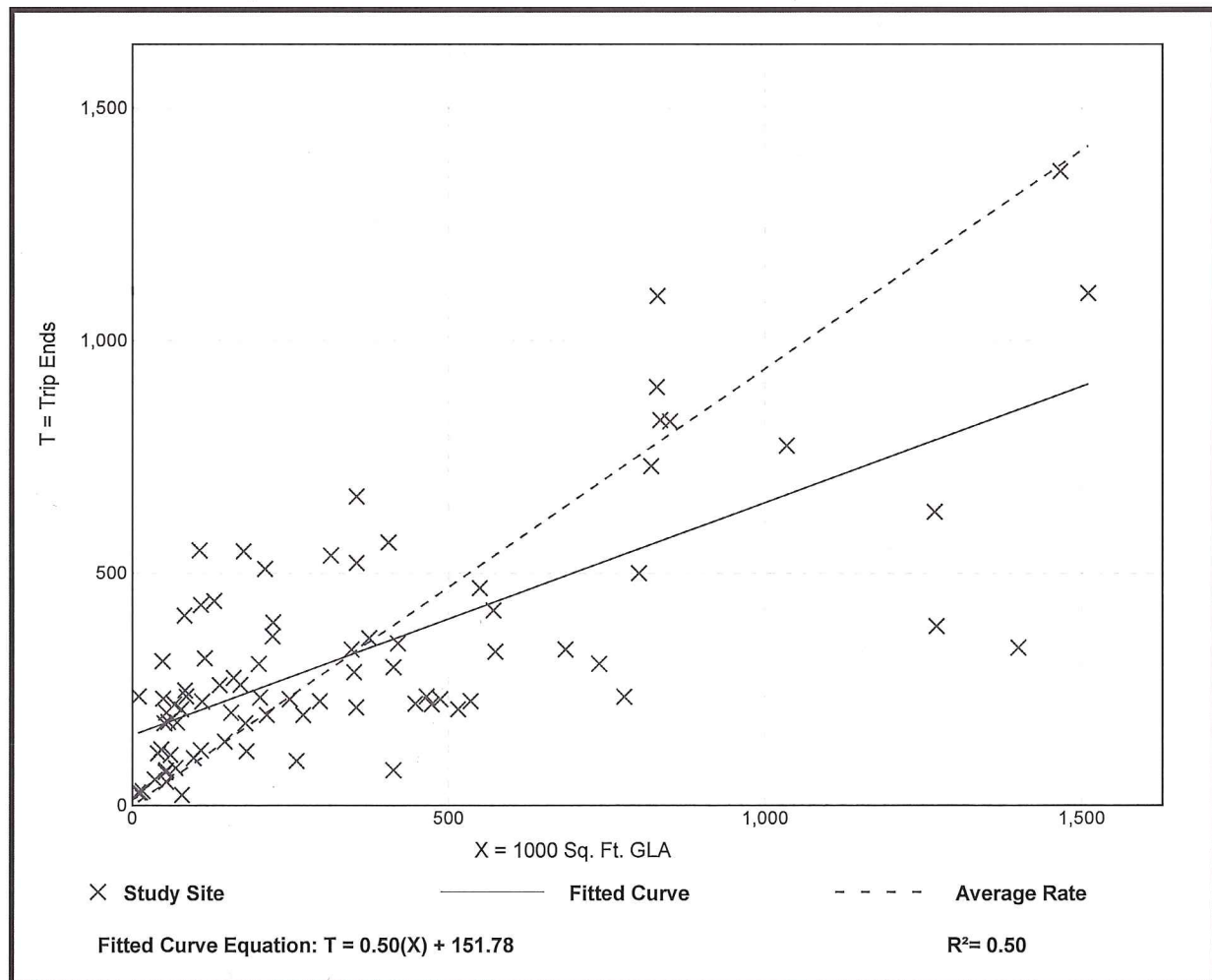
Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 84
 1000 Sq. Ft. GLA: 351
 Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
0.94	0.18 - 23.74	0.87

Data Plot and Equation



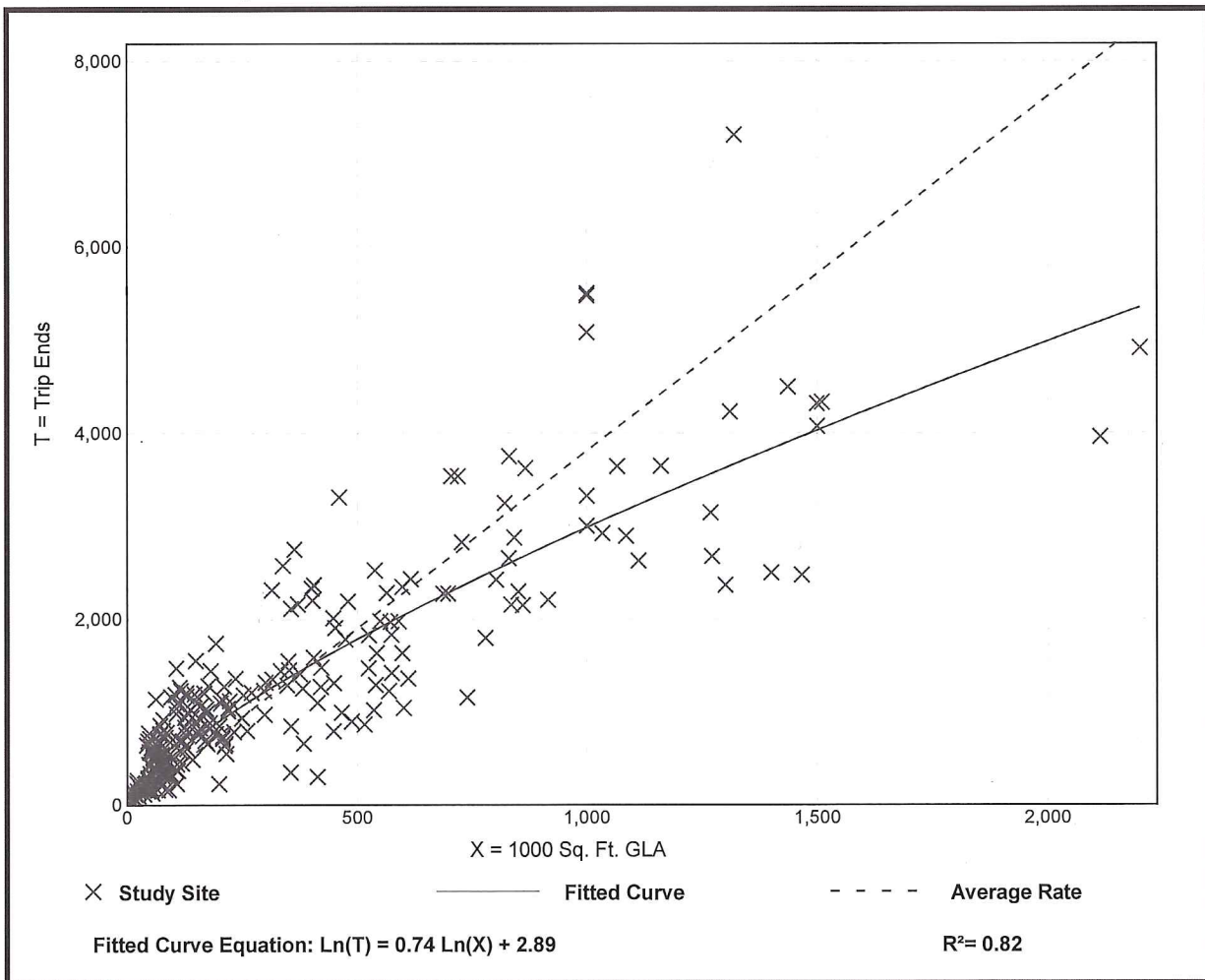
Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 261
 1000 Sq. Ft. GLA: 327
 Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.81	0.74 - 18.69	2.04

Data Plot and Equation



Shopping Center (820)

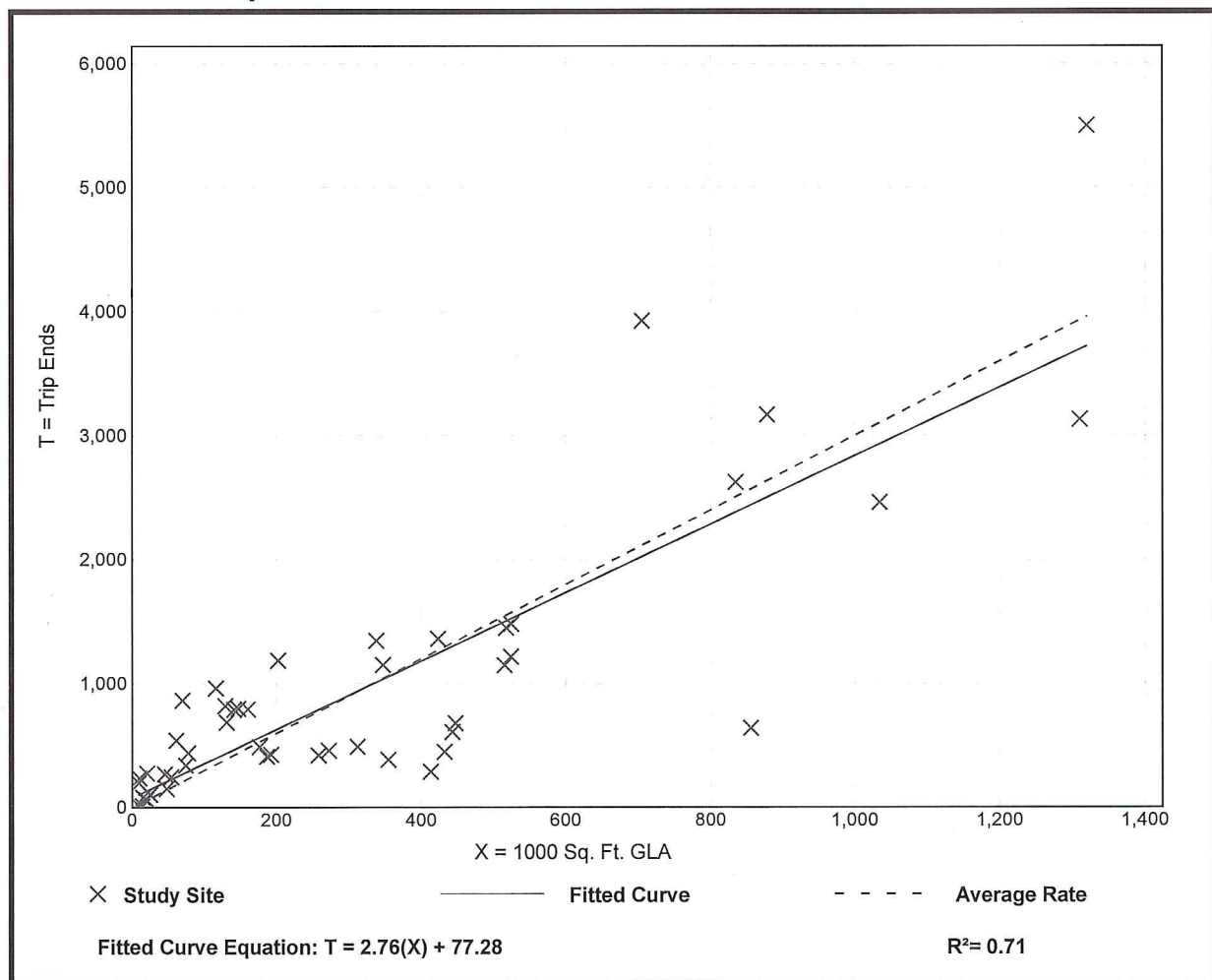
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 47
1000 Sq. Ft. GLA: 323
Directional Distribution: 54% entering, 46% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.00	0.70 - 23.74	1.85

Data Plot and Equation



Shopping Center (820)

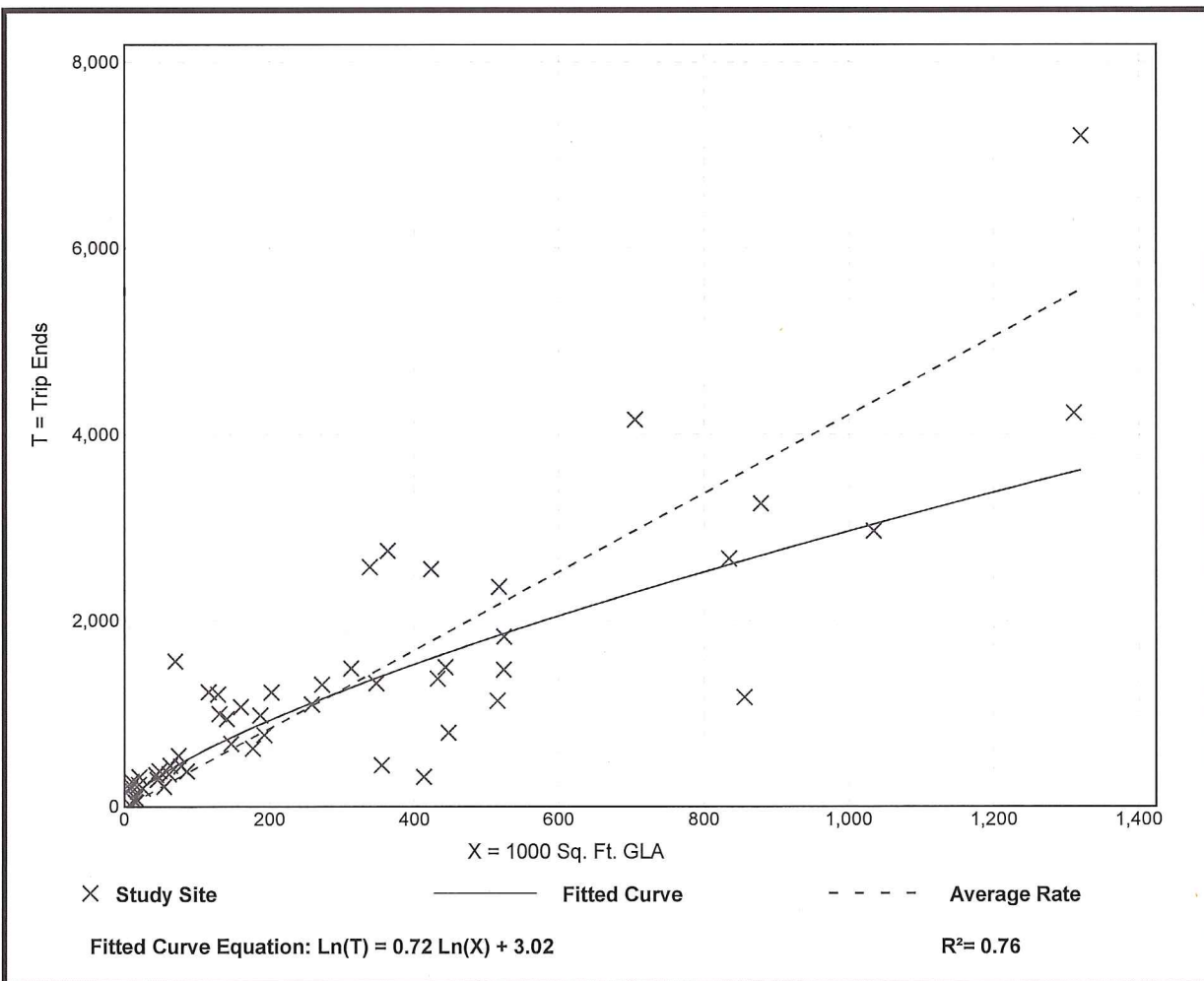
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 53
1000 Sq. Ft. GLA: 298
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
4.21	0.78 - 27.27	2.47

Data Plot and Equation



Shopping Center (820)

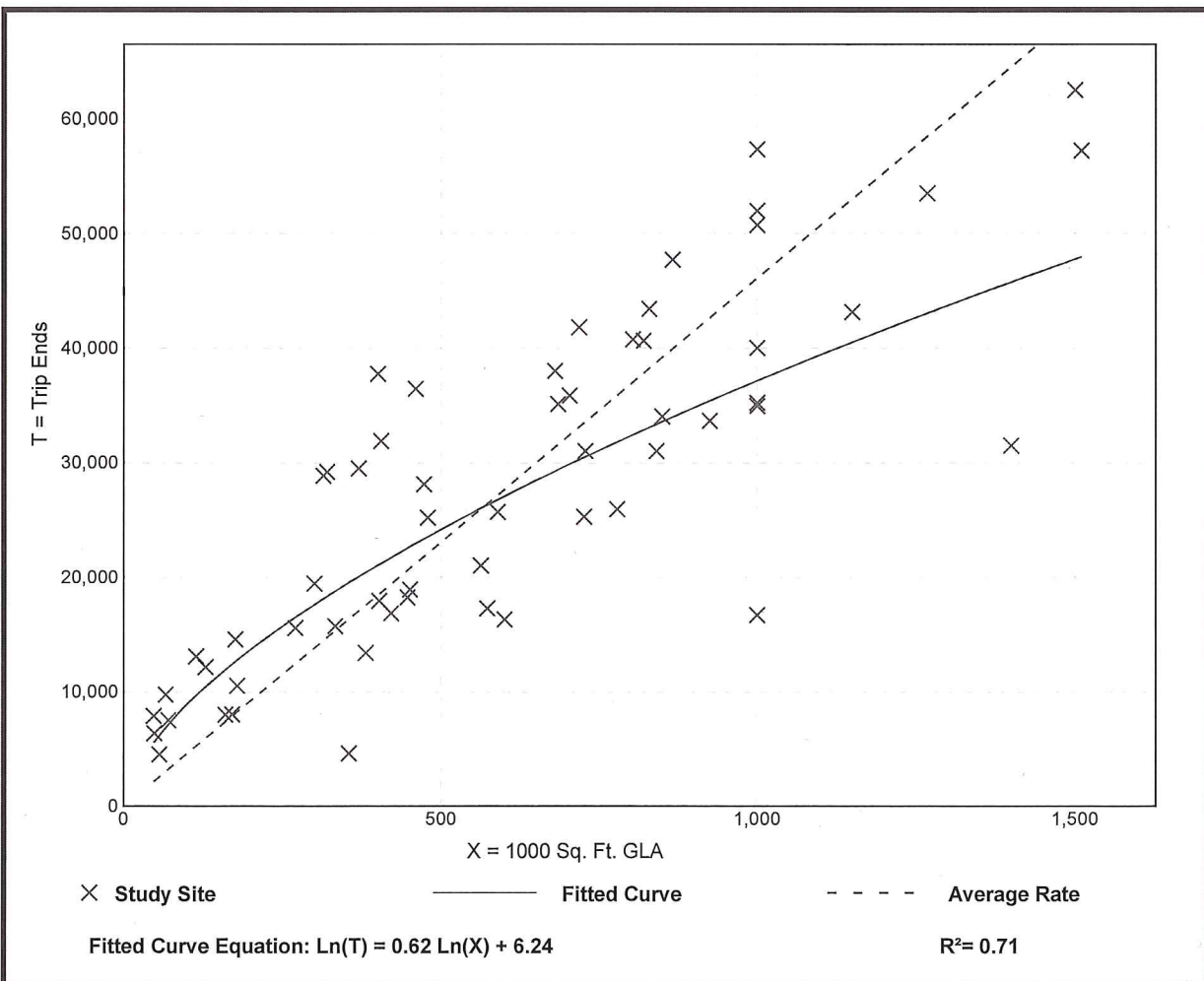
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Saturday

Setting/Location: General Urban/Suburban
Number of Studies: 58
1000 Sq. Ft. GLA: 602
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
46.12	13.01 - 167.89	17.91

Data Plot and Equation



Shopping Center (820)

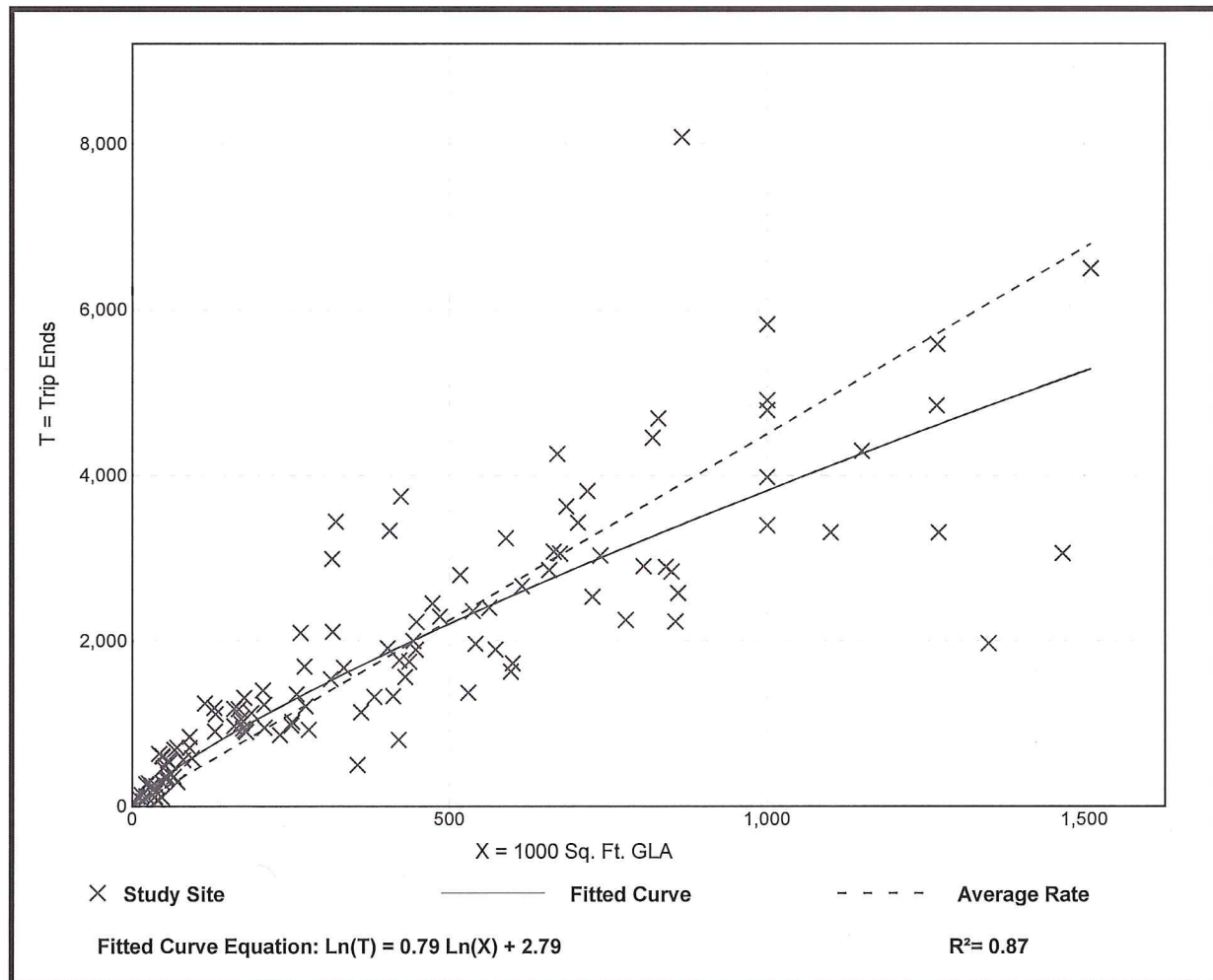
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 119
1000 Sq. Ft. GLA: 416
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
4.50	1.42 - 15.10	1.88

Data Plot and Equation



Shopping Center (820)

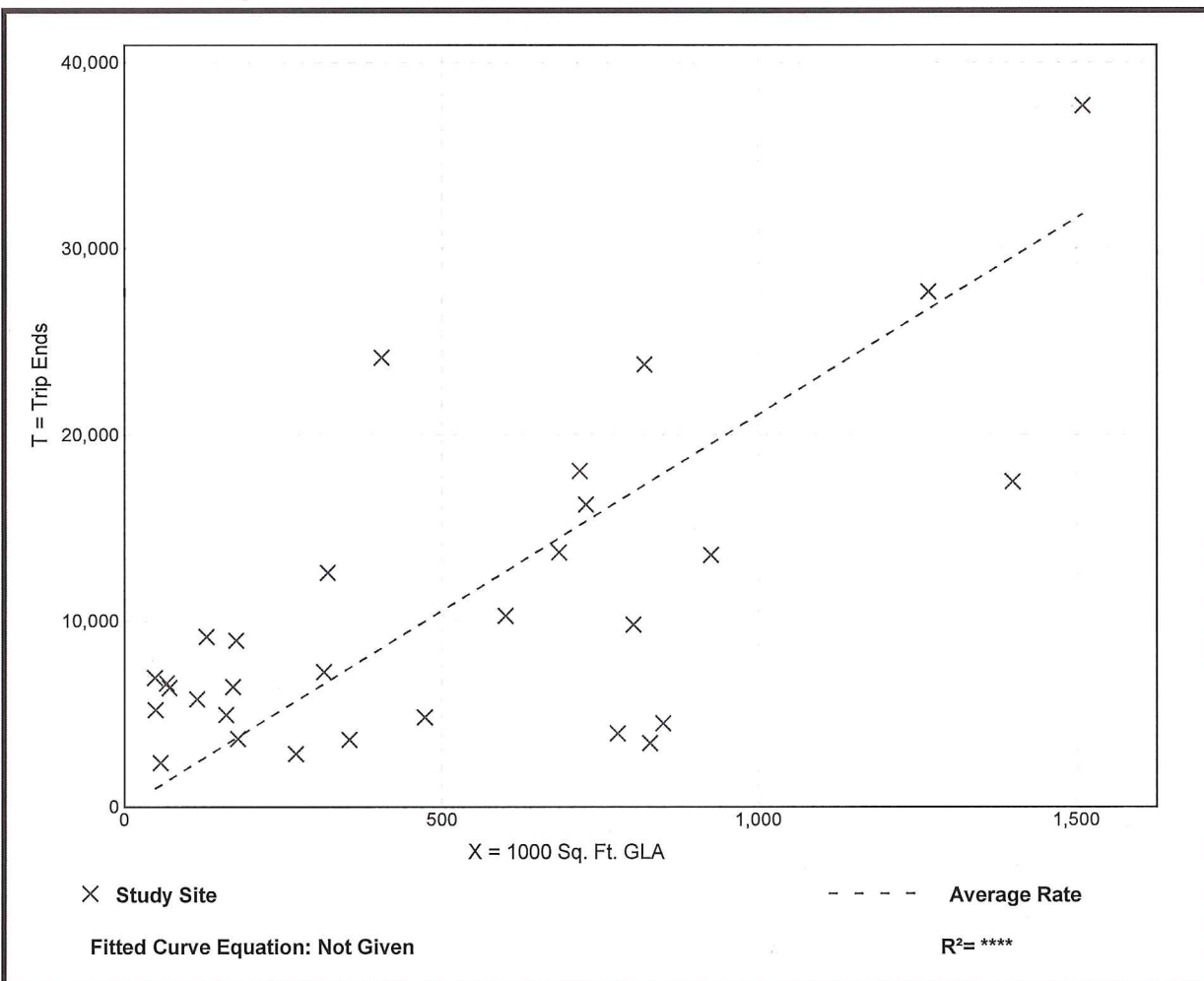
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Sunday

Setting/Location: General Urban/Suburban
Number of Studies: 30
1000 Sq. Ft. GLA: 509
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
21.10	4.15 - 148.15	17.18

Data Plot and Equation



Shopping Center (820)

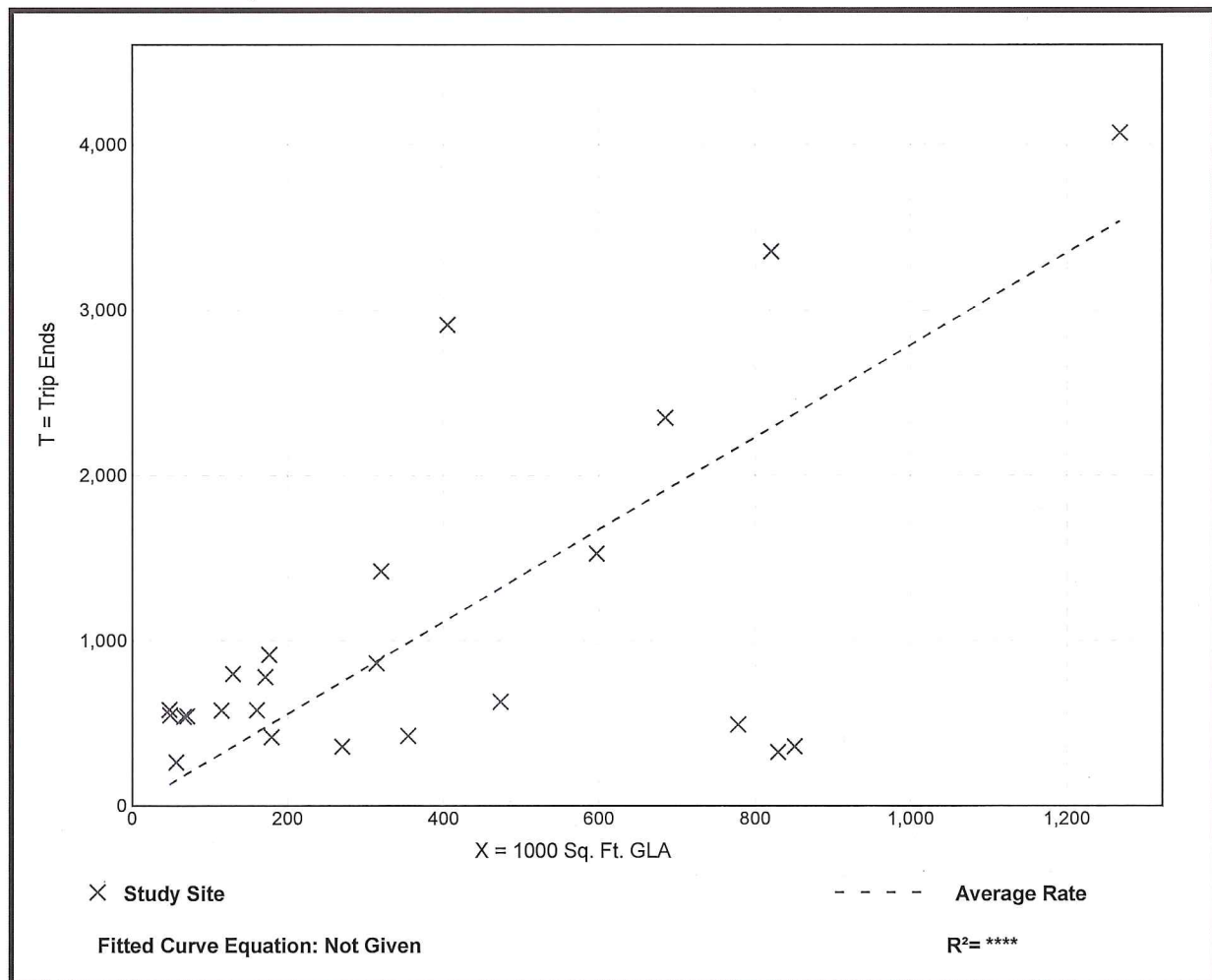
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Sunday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 24
1000 Sq. Ft. GLA: 382
Directional Distribution: 49% entering, 51% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
2.79	0.39 - 12.40	2.18

Data Plot and Equation



Shopping Center (820)

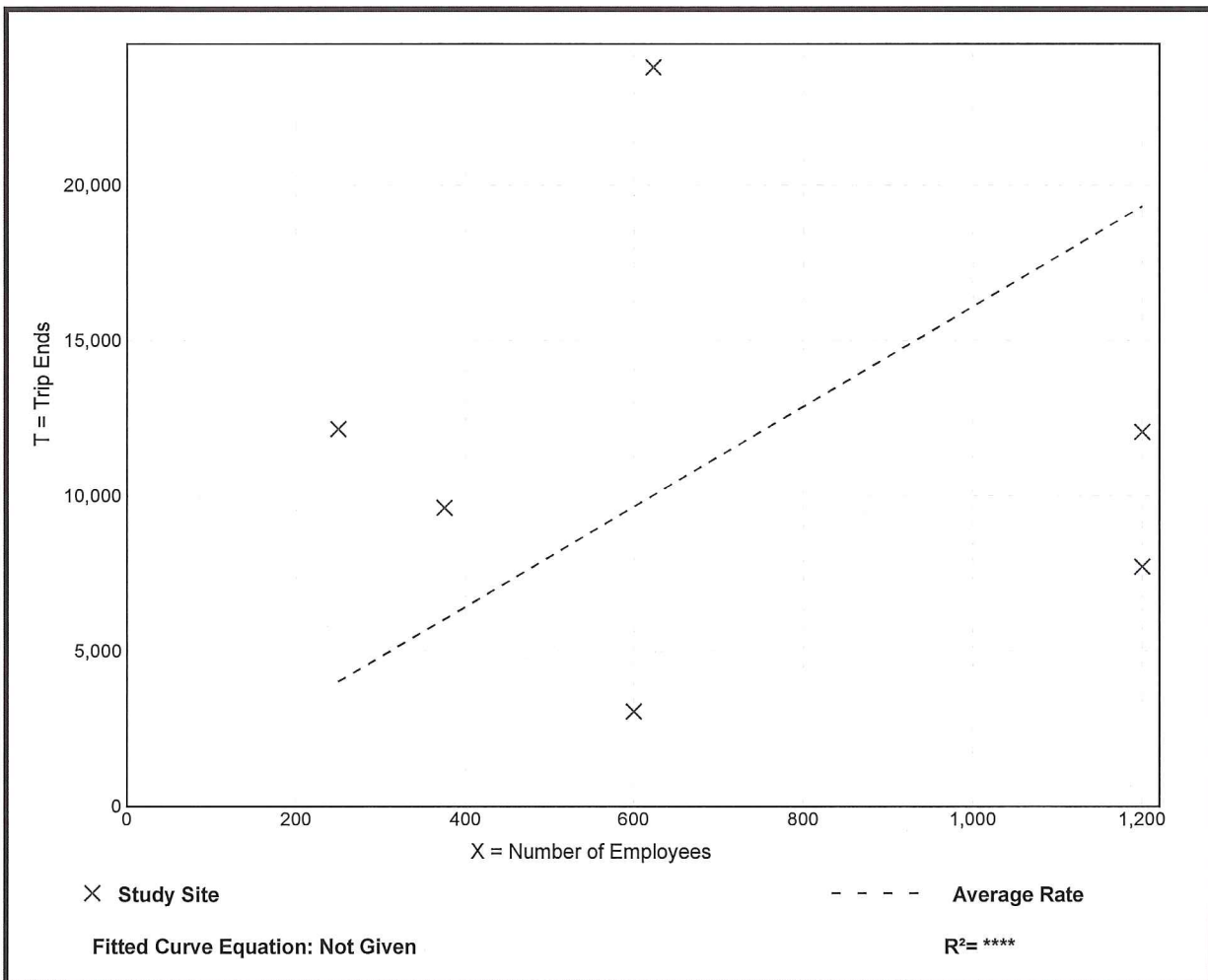
Vehicle Trip Ends vs: Employees
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 6
Avg. Num. of Employees: 708
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
16.11	5.11 - 48.63	15.33

Data Plot and Equation



Shopping Center (820)

Vehicle Trip Ends vs: Employees

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 5

Avg. Num. of Employees: 610

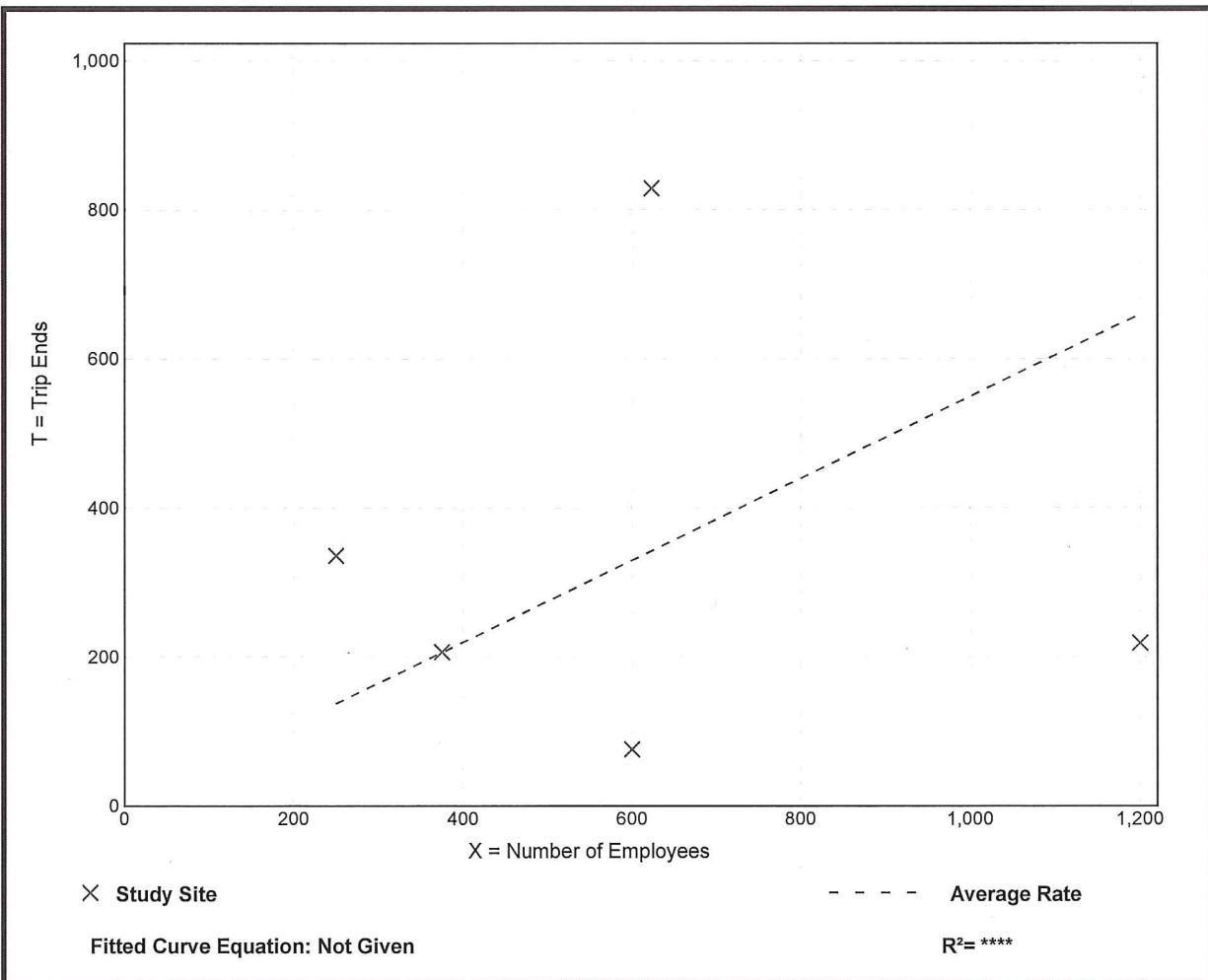
Directional Distribution: 64% entering, 36% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.55	0.13 - 1.34	0.58

Data Plot and Equation

Caution – Small Sample Size



Shopping Center (820)

Vehicle Trip Ends vs: Employees

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 6

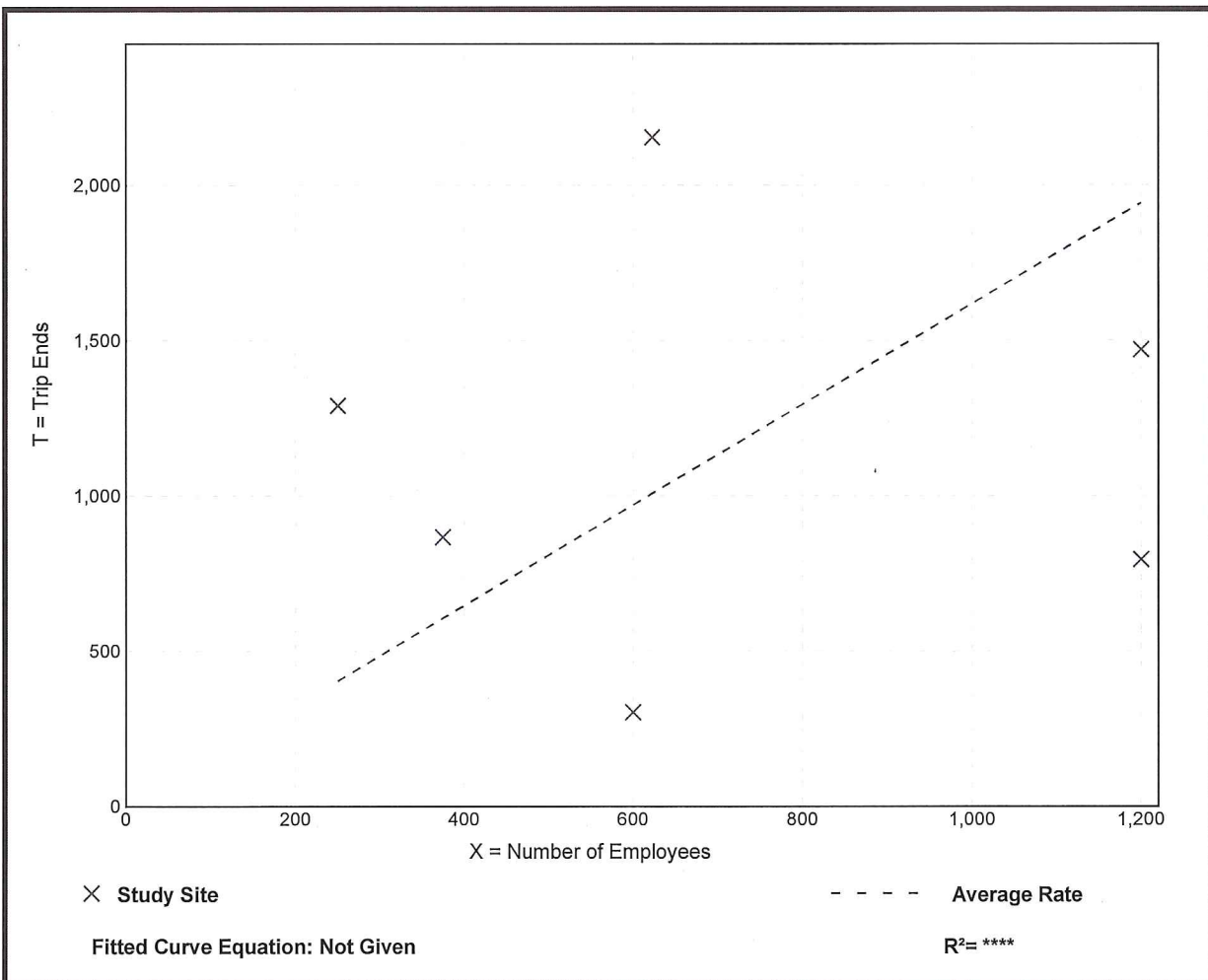
Avg. Num. of Employees: 708

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
1.62	0.51 - 5.16	1.45

Data Plot and Equation



Shopping Center (820)

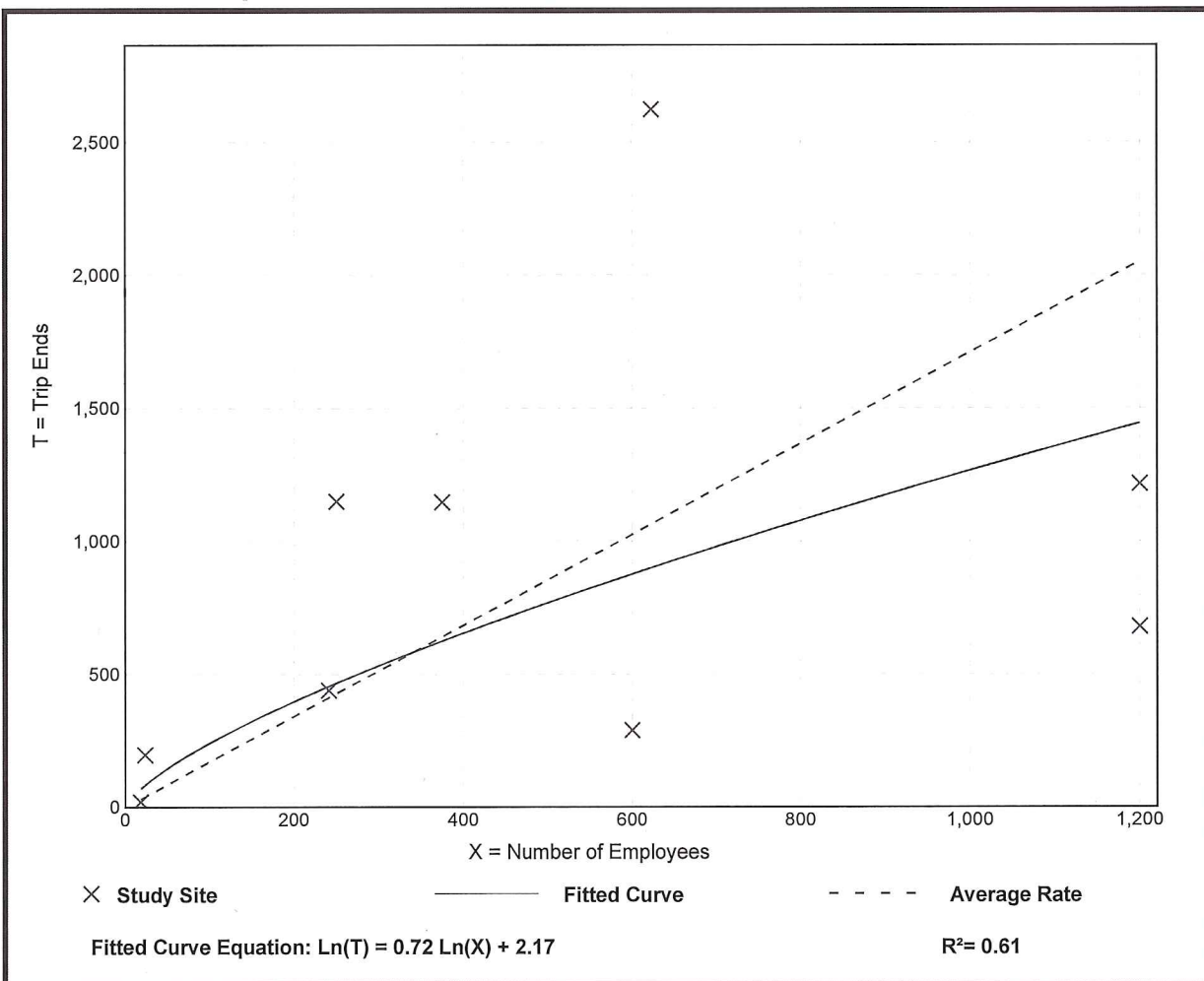
Vehicle Trip Ends vs: Employees
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
 Number of Studies: 9
 Avg. Num. of Employees: 503
 Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
1.71	0.48 - 8.57	1.64

Data Plot and Equation



Shopping Center (820)

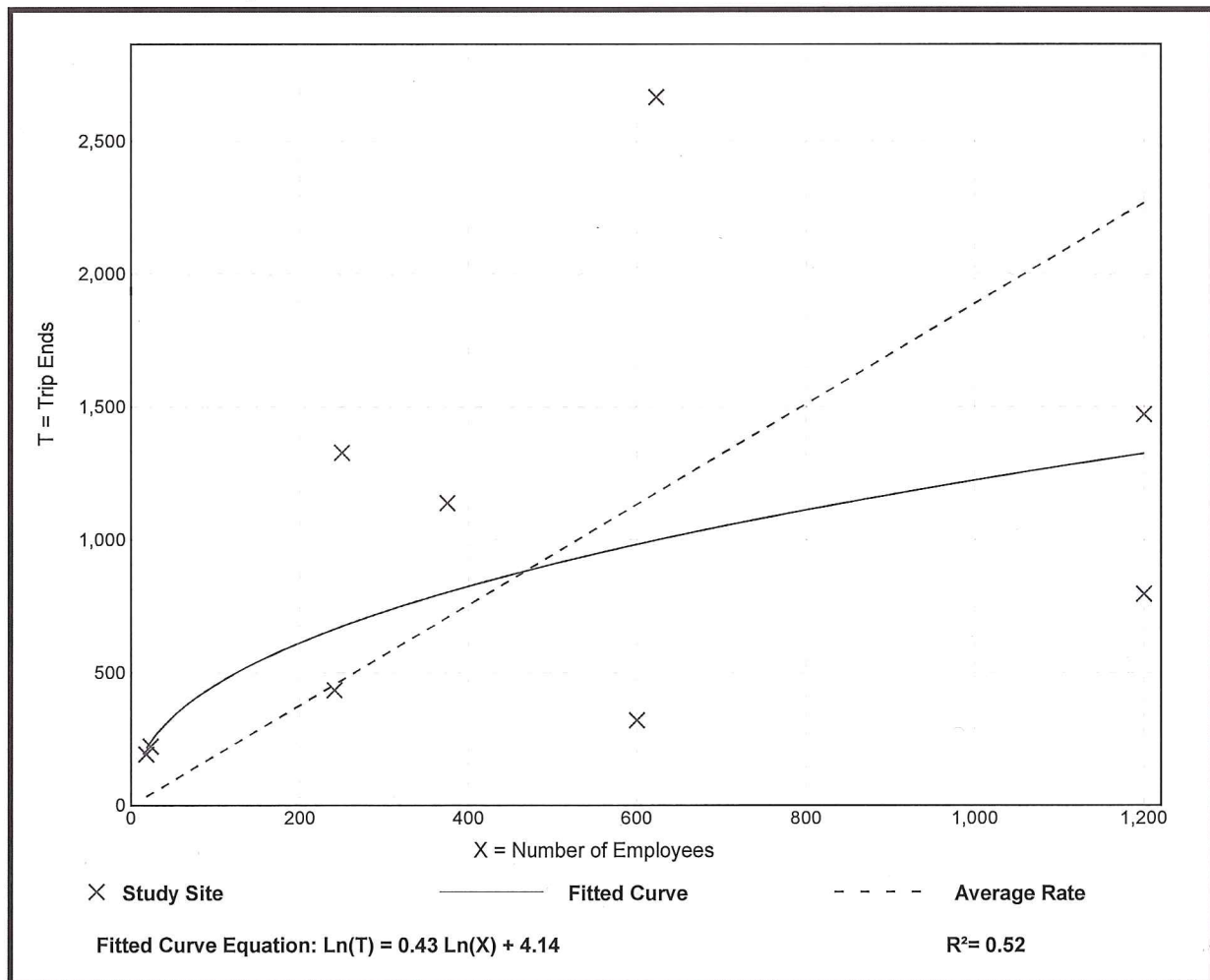
Vehicle Trip Ends vs: Employees
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
 Number of Studies: 9
 Avg. Num. of Employees: 503
 Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
1.89	0.54 - 10.72	1.81

Data Plot and Equation



Shopping Center (820)

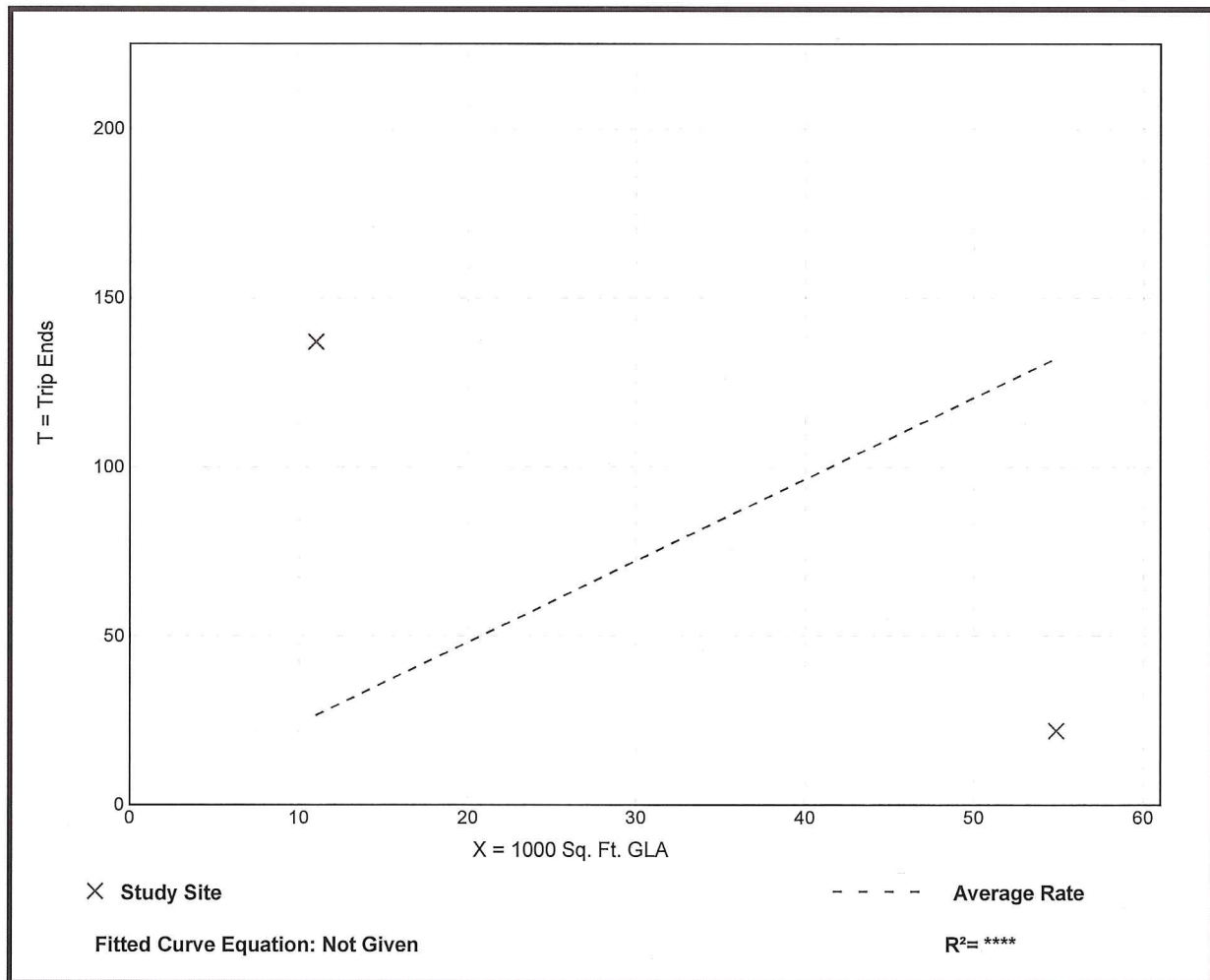
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: Dense Multi-Use Urban
 Number of Studies: 2
 1000 Sq. Ft. GLA: 33
 Directional Distribution: 54% entering, 46% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
2.41	0.40 - 12.45	*

Data Plot and Equation

Caution – Small Sample Size



Shopping Center (820)

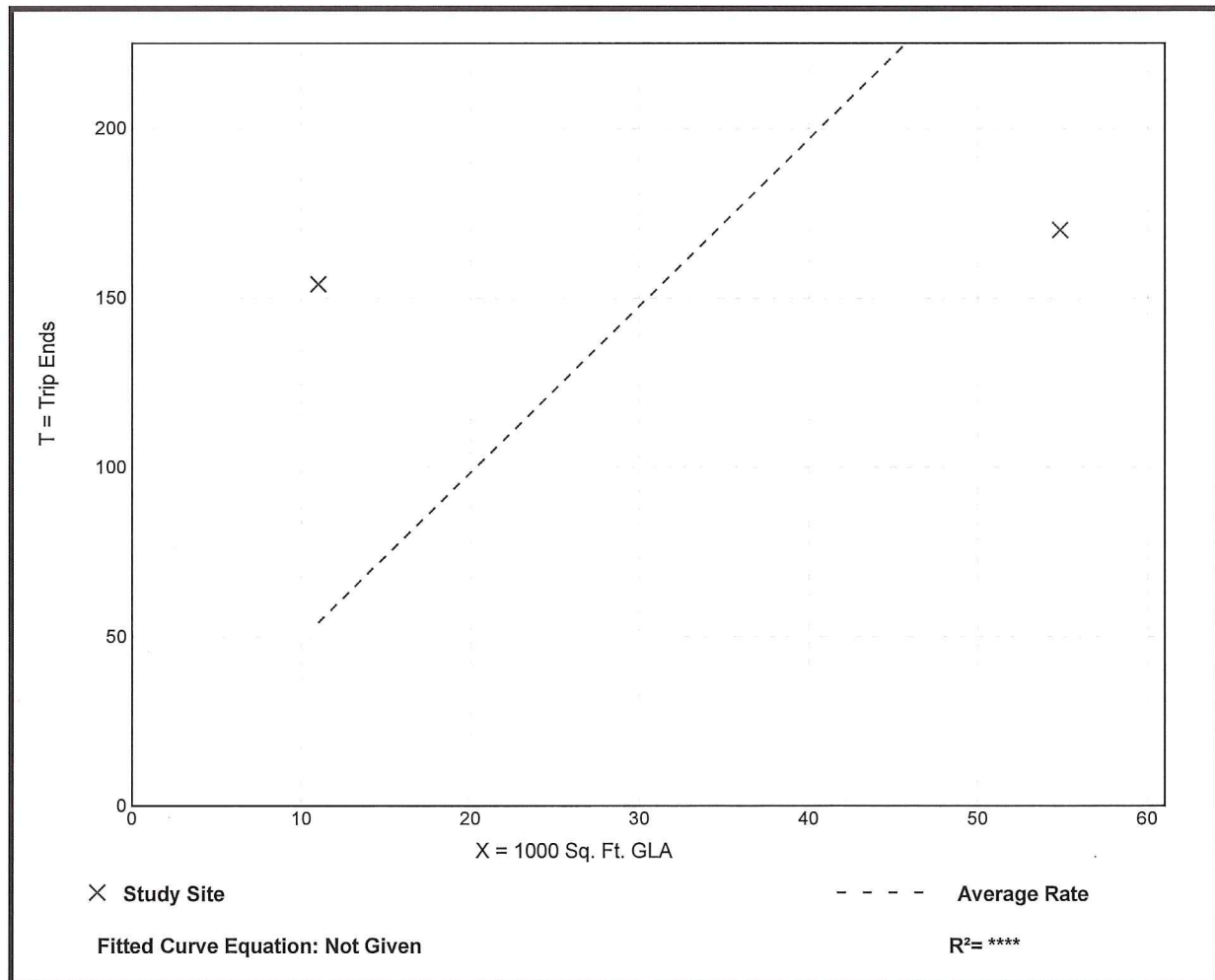
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: Dense Multi-Use Urban
 Number of Studies: 2
 1000 Sq. Ft. GLA: 33
 Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
4.92	3.10 - 13.99	*

Data Plot and Equation

Caution – Small Sample Size



Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Saturday, Peak Hour of Generator

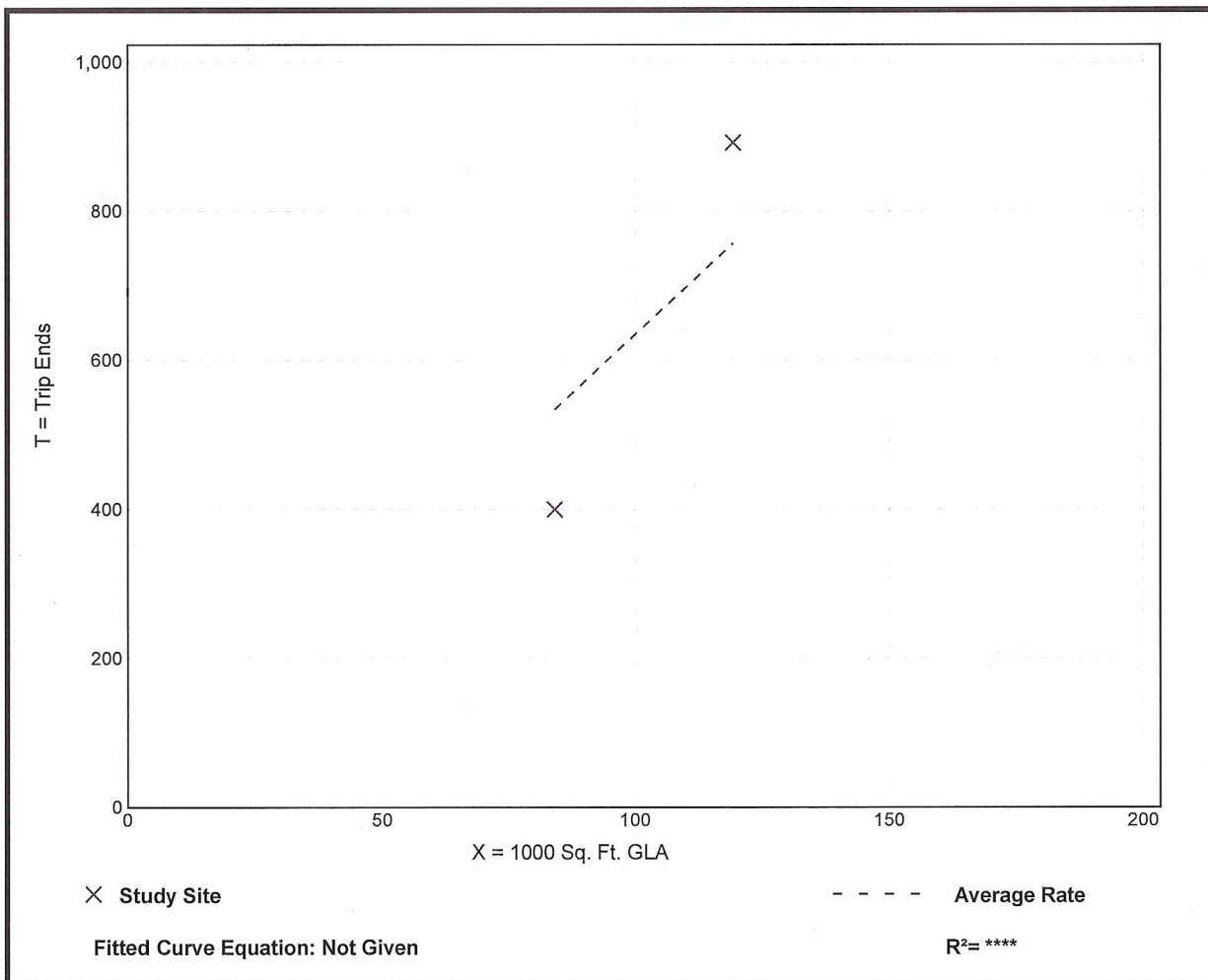
Setting/Location: Dense Multi-Use Urban
Number of Studies: 2
1000 Sq. Ft. GLA: 102
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.35	4.76 - 7.48	*

Data Plot and Equation

Caution – Small Sample Size



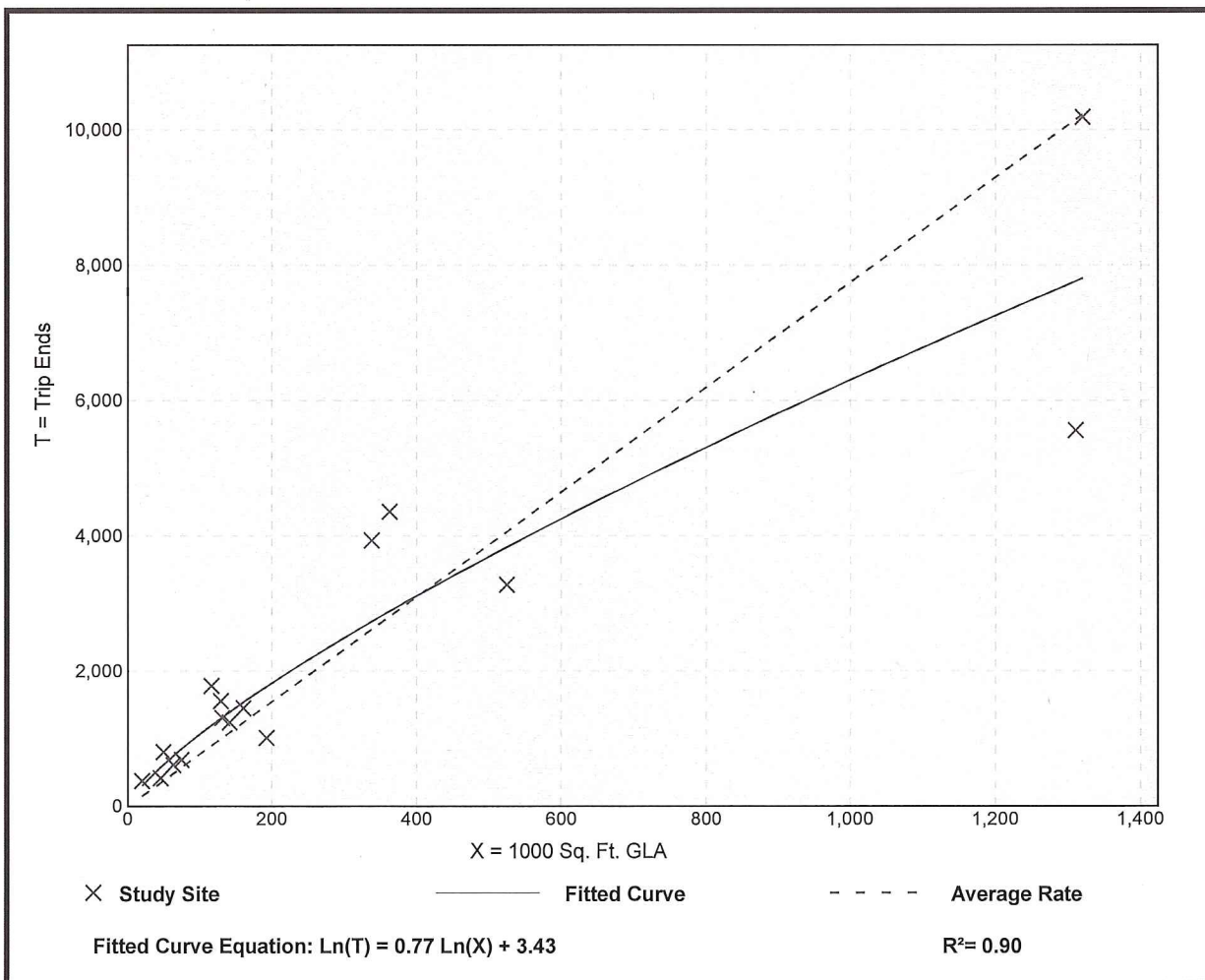
Shopping Center (820)

Person Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 16
 1000 Sq. Ft. GLA: 311
 Directional Distribution: 50% entering, 50% exiting

Person Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
7.75	4.24 - 19.12	3.19

Data Plot and Equation



Shopping Center (820)

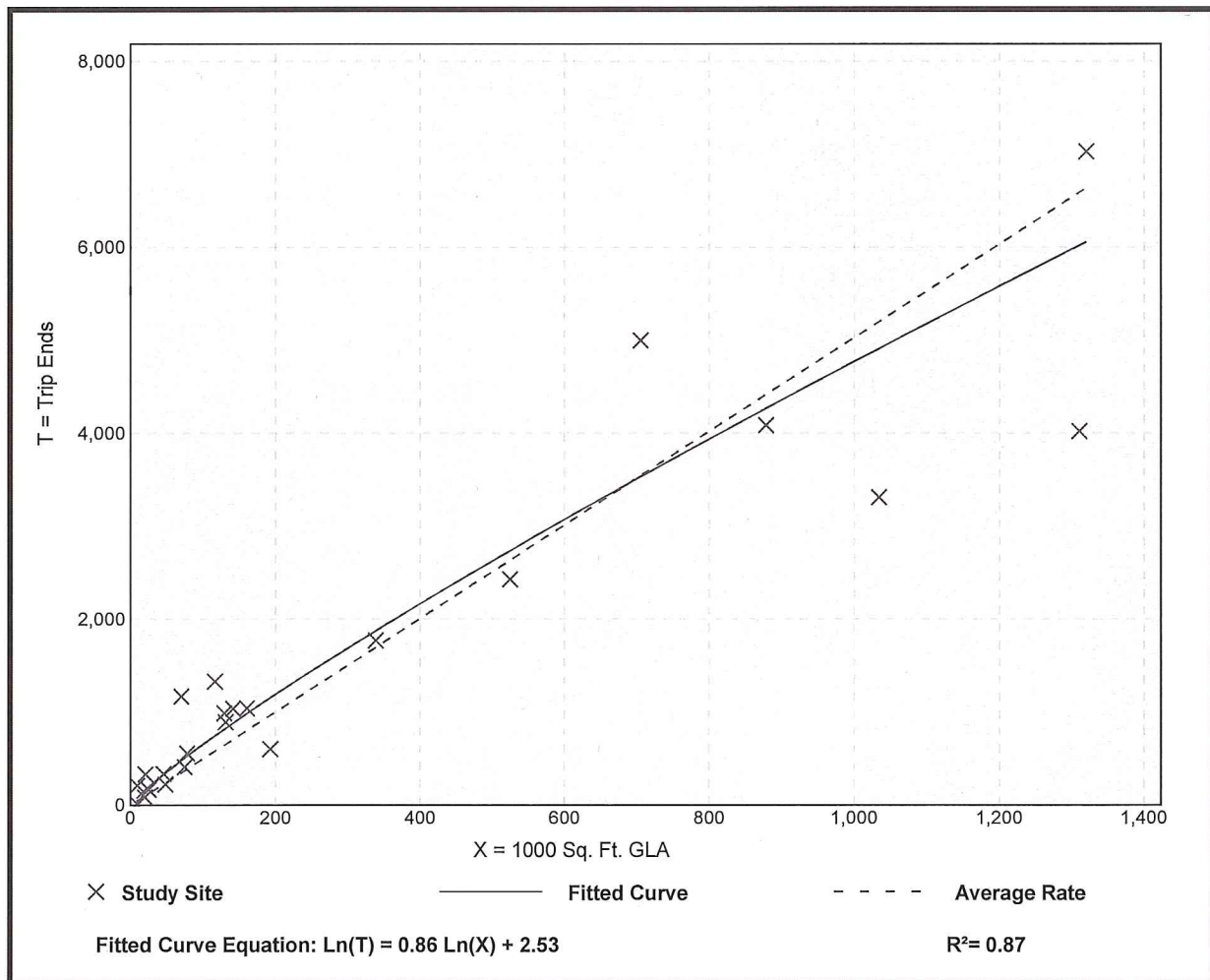
Person Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
 Number of Studies: 23
 1000 Sq. Ft. GLA: 321
 Directional Distribution: 54% entering, 46% exiting

Person Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
5.03	2.52 - 23.03	2.25

Data Plot and Equation



Shopping Center (820)

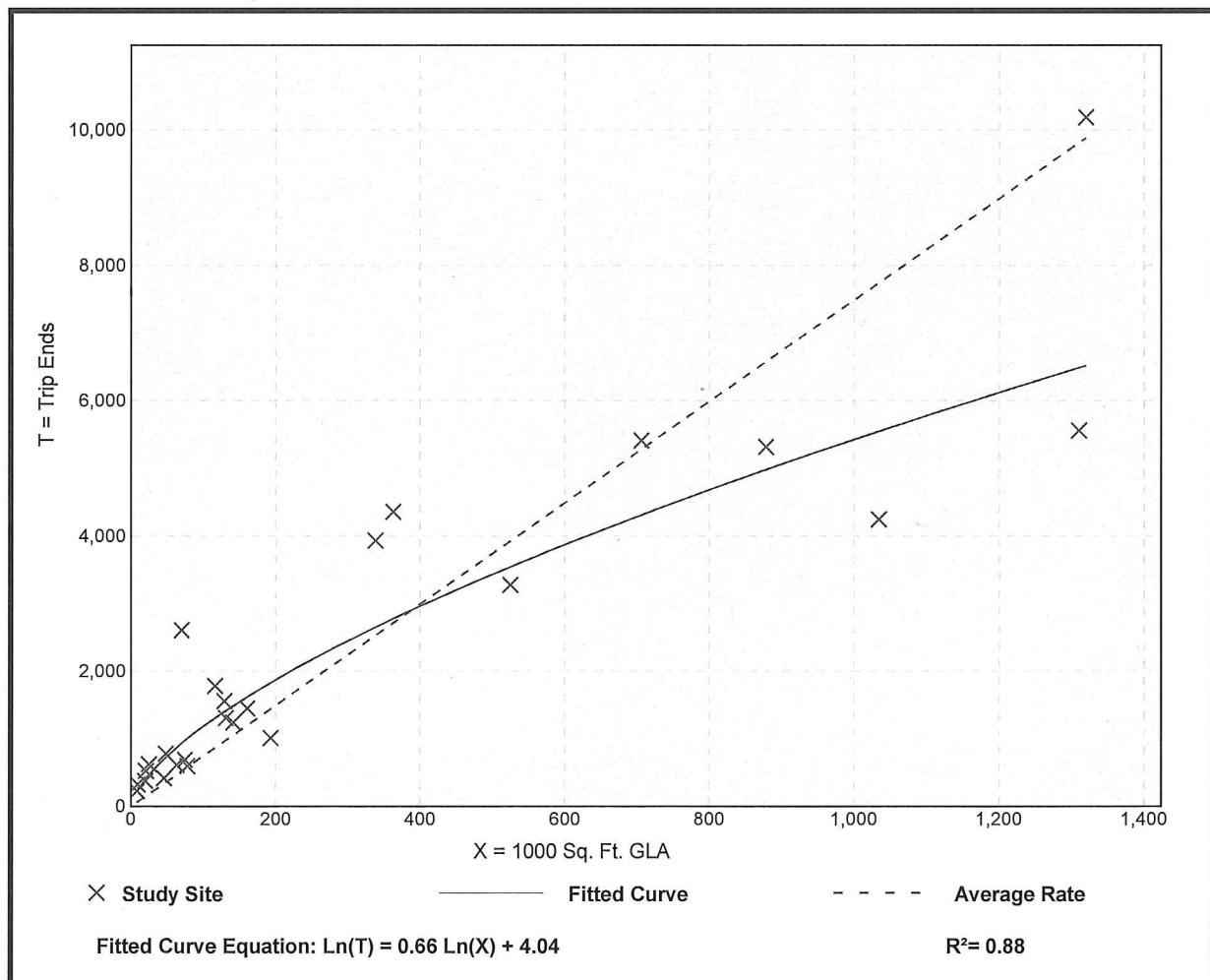
Person Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 25
1000 Sq. Ft. GLA: 312
Directional Distribution: 50% entering, 50% exiting

Person Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
7.49	4.11 - 37.41	4.45

Data Plot and Equation



Shopping Center (820)

Person Trip Ends vs: Employees
On a: Weekday,
AM Peak Hour of Generator

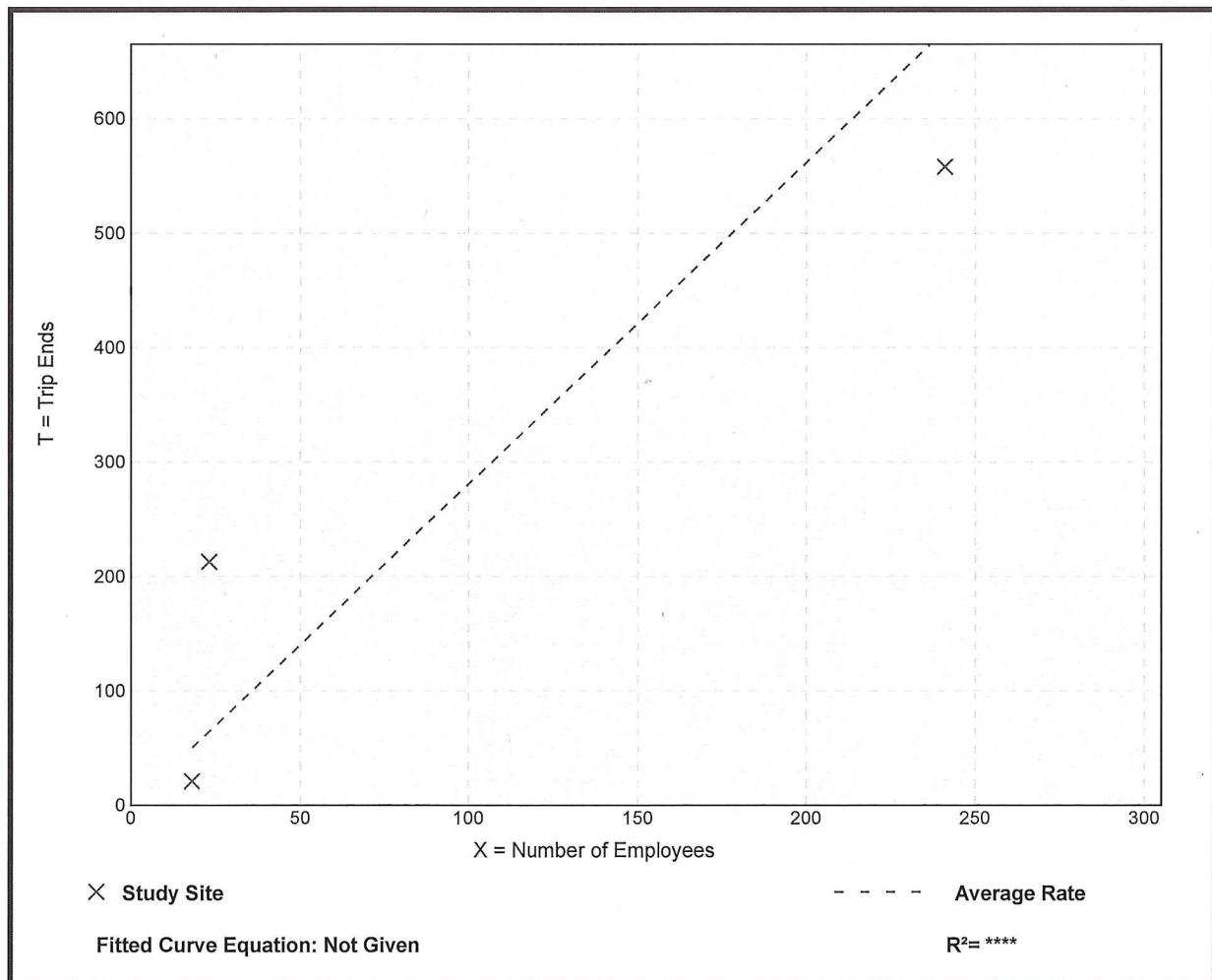
Setting/Location: General Urban/Suburban
 Number of Studies: 3
 Avg. Num. of Employees: 94
 Directional Distribution: 46% entering, 54% exiting

Person Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
2.81	1.17 - 9.26	6.80

Data Plot and Equation

Caution – Small Sample Size



Shopping Center (820)

Person Trip Ends vs: Employees
On a: Weekday,
PM Peak Hour of Generator

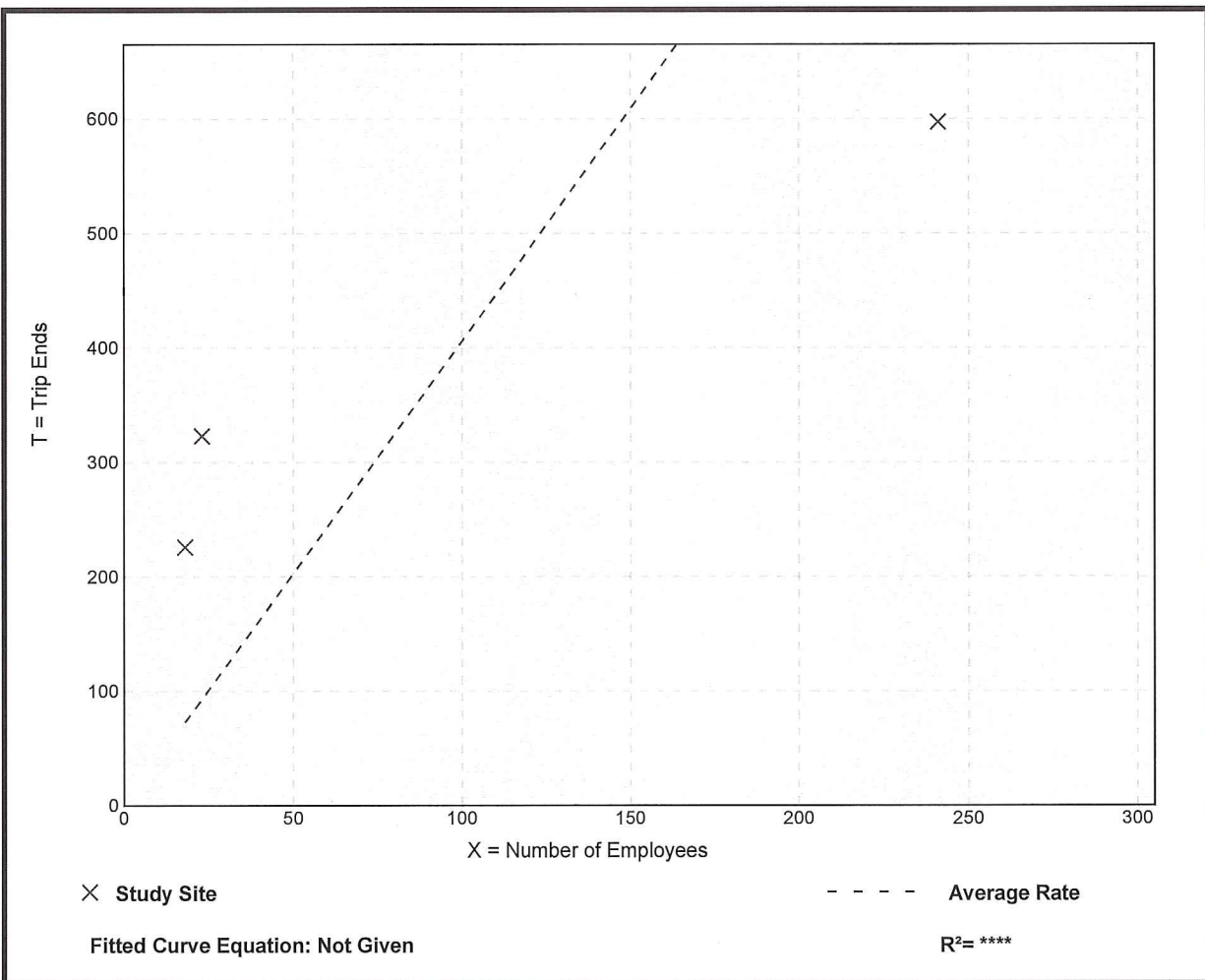
Setting/Location: General Urban/Suburban
 Number of Studies: 3
 Avg. Num. of Employees: 94
 Directional Distribution: 55% entering, 45% exiting

Person Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
4.06	2.48 - 14.04	13.43

Data Plot and Equation

Caution – Small Sample Size



Shopping Center (820)

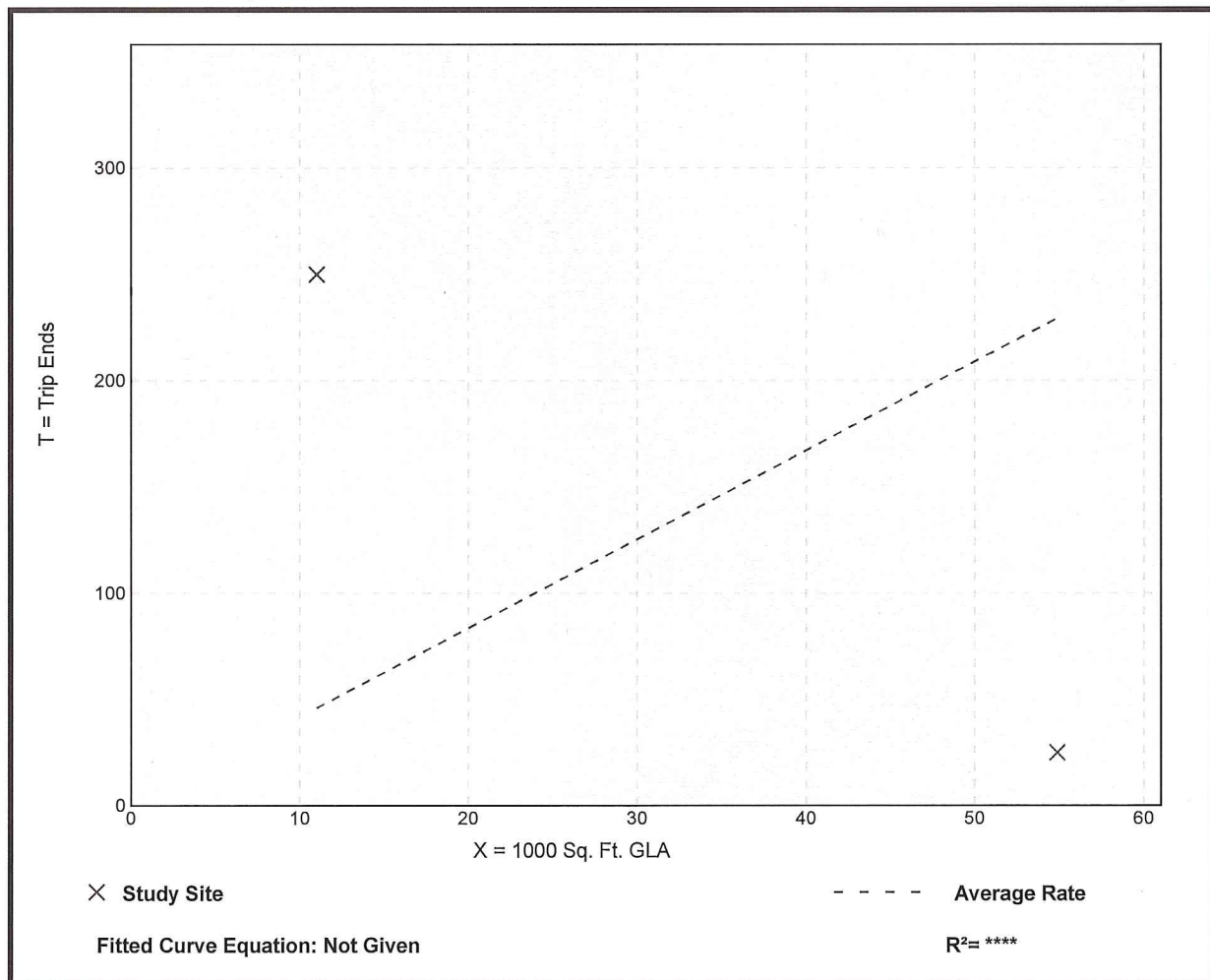
Person Trip Ends vs: 1000 Sq. Ft. GLA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: Dense Multi-Use Urban
 Number of Studies: 2
 1000 Sq. Ft. GLA: 33
 Directional Distribution: 52% entering, 48% exiting

Person Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
4.18	0.46 - 22.72	*

Data Plot and Equation

Caution – Small Sample Size



Shopping Center (820)

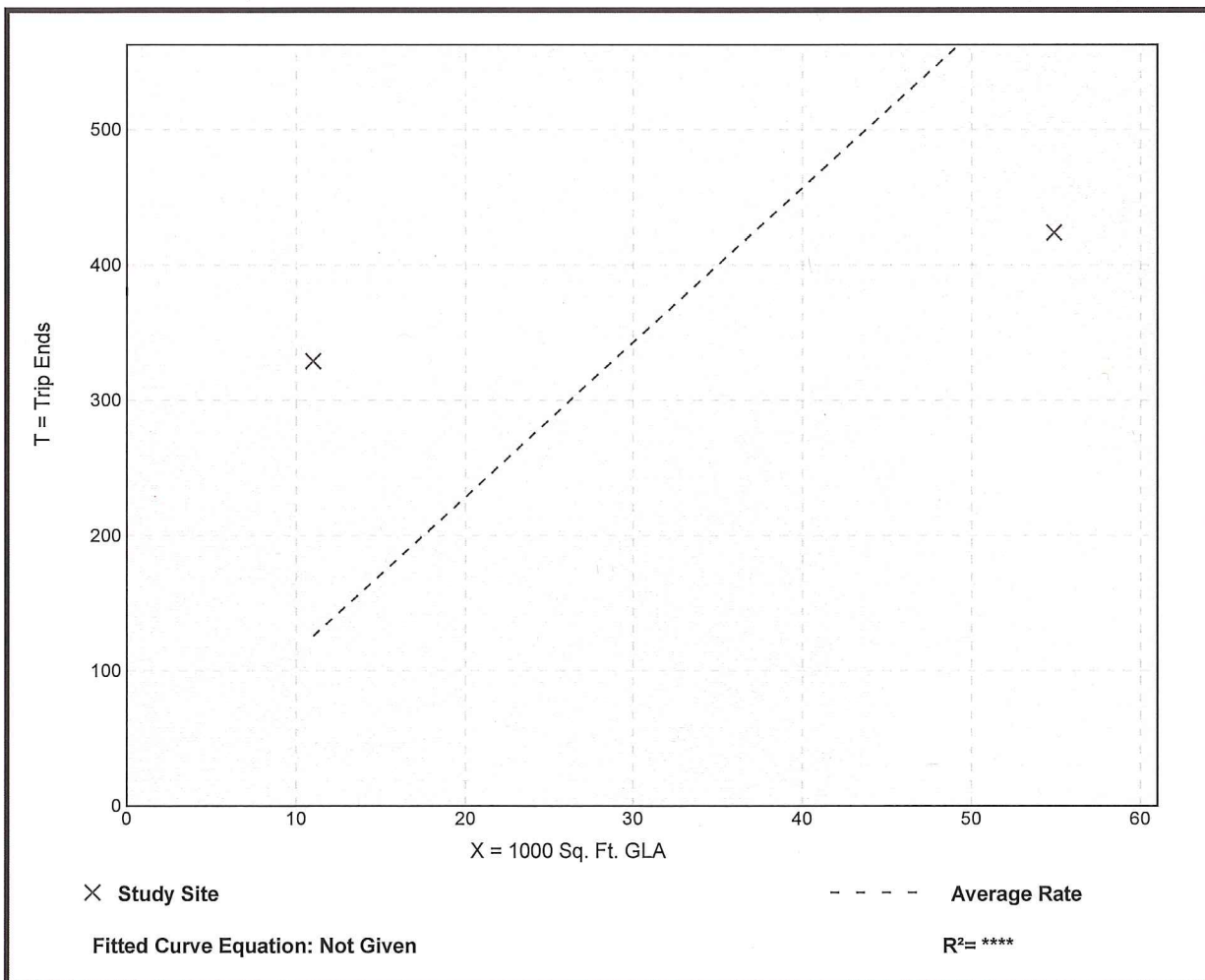
Person Trip Ends vs: 1000 Sq. Ft. GLA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: Dense Multi-Use Urban
 Number of Studies: 2
 1000 Sq. Ft. GLA: 33
 Directional Distribution: 47% entering, 53% exiting

Person Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
11.43	7.73 - 29.90	*

Data Plot and Equation

Caution – Small Sample Size



Land Use: 934

Fast-Food Restaurant with Drive-Through Window

Description

This category includes fast-food restaurants with drive-through windows. This type of restaurant is characterized by a large drive-through clientele, long hours of service (some are open for breakfast, all are open for lunch and dinner, some are open late at night or 24 hours a day) and high turnover rates for eat-in customers. These limited-service eating establishments do not provide table service. Non-drive-through patrons generally order at a cash register and pay before they eat. Fast casual restaurant (Land Use 930), high-turnover (sit-down) restaurant (Land Use 932), fast-food restaurant without drive-through window (Land Use 933), and fast-food restaurant with drive-through window and no indoor seating (Land Use 935) are related uses.

Additional Data

Users should exercise caution when applying statistics during the AM peak periods, as the sites contained in the database for this land use may or may not be open for breakfast. In cases where it was confirmed that the sites were not open for breakfast, data for the AM peak hour of the adjacent street traffic were removed from the database.

The outdoor seating area is not included in the overall gross floor area. Therefore, the number of seats may be a more reliable independent variable on which to establish trip generation rates for facilities having significant outdoor seating.

Time-of-day distribution data for this land use for a weekday, Saturday, and Sunday are presented in Appendix A. For the 46 general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 11:45 a.m. and 12:45 p.m. and 12:00 and 1:00 p.m., respectively. For the one dense multi-use urban site with data, the same AM and PM peak hours were observed.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alaska, Alberta (CAN), California, Colorado, Florida, Indiana, Kentucky, Maryland, Massachusetts, Minnesota, Montana, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Dakota, Texas, Vermont, Virginia, Washington, and Wisconsin.

Source Numbers

163, 164, 168, 180, 181, 241, 245, 278, 294, 300, 301, 319, 338, 340, 342, 358, 389, 438, 502, 552, 577, 583, 584, 617, 640, 641, 704, 715, 728, 810, 866, 867, 869, 885, 886, 927, 935, 962, 977

Fast-Food Restaurant with Drive-Through Window (934)

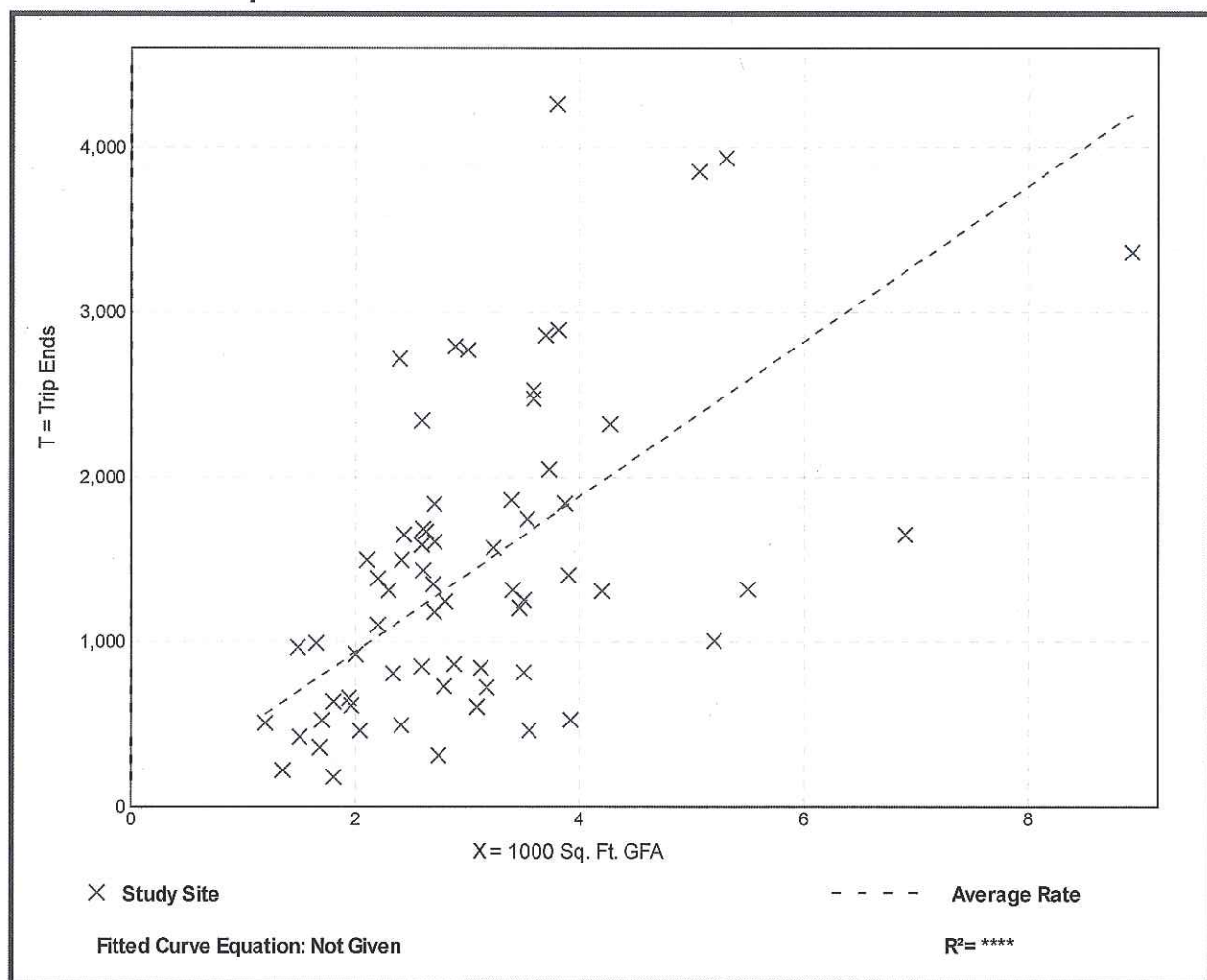
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 67
1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
470.95	98.89 - 1137.66	244.44

Data Plot and Equation



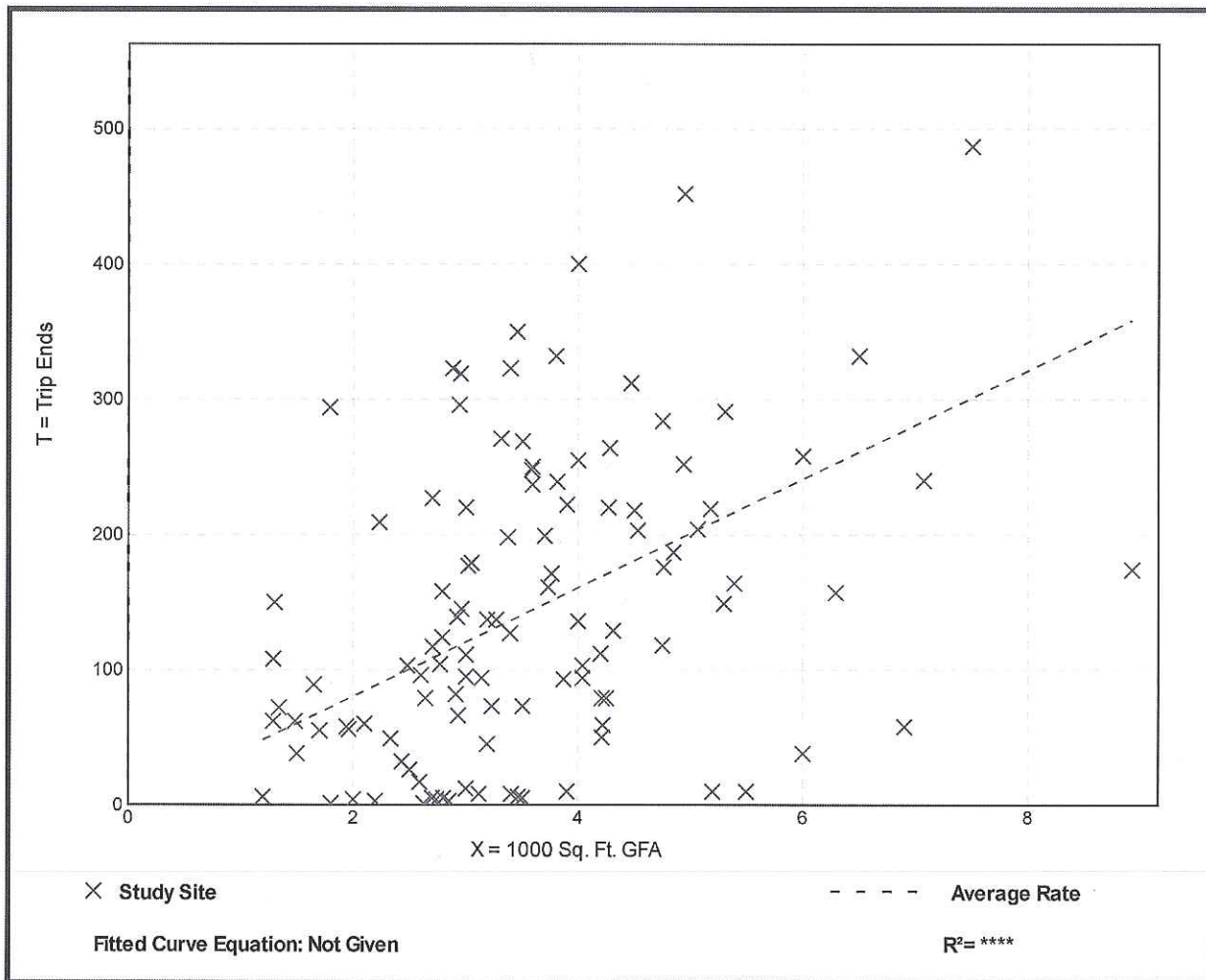
Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 111
 1000 Sq. Ft. GFA: 4
 Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
40.19	0.38 - 164.25	28.78

Data Plot and Equation



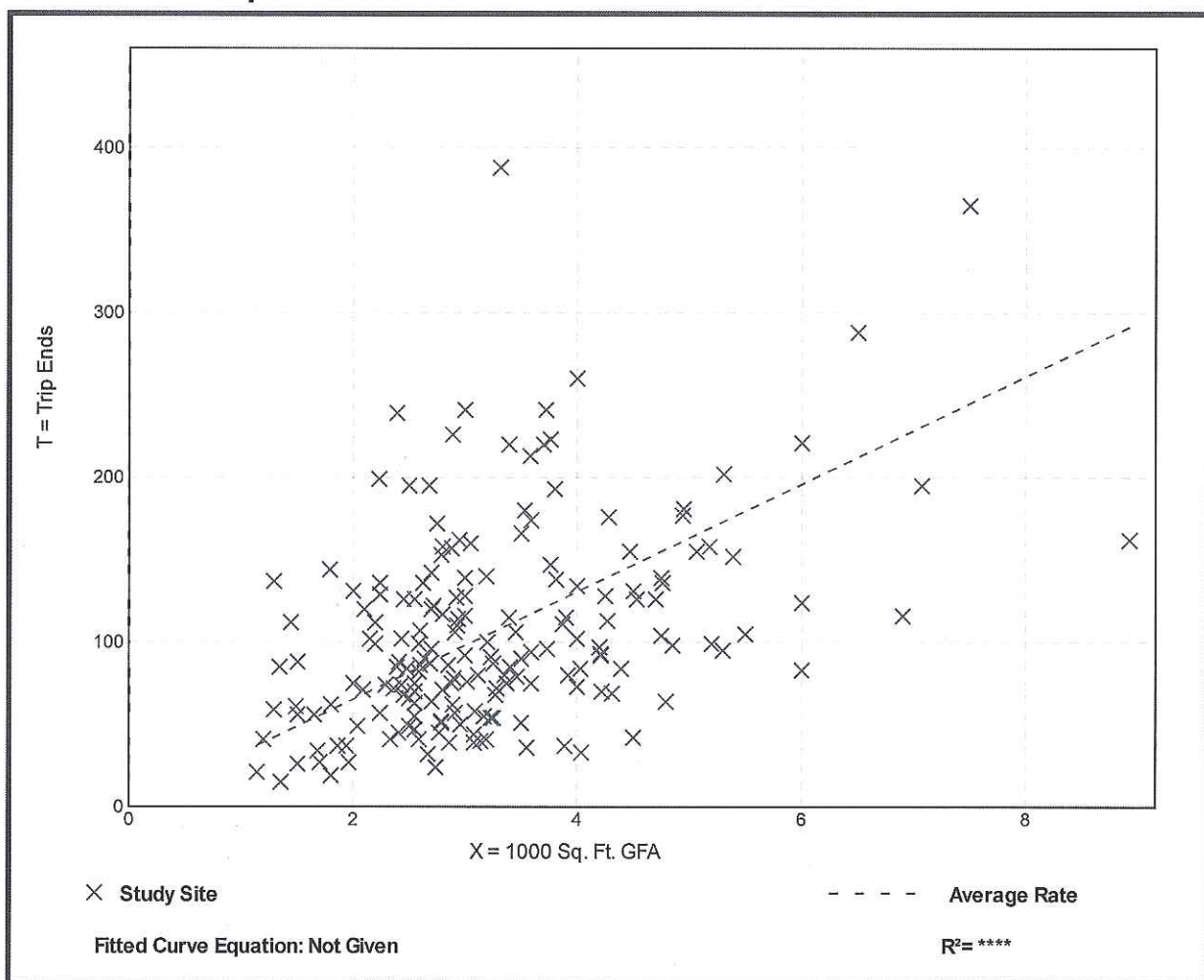
Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 185
 1000 Sq. Ft. GFA: 3
 Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
32.67	8.17 - 117.22	17.87

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

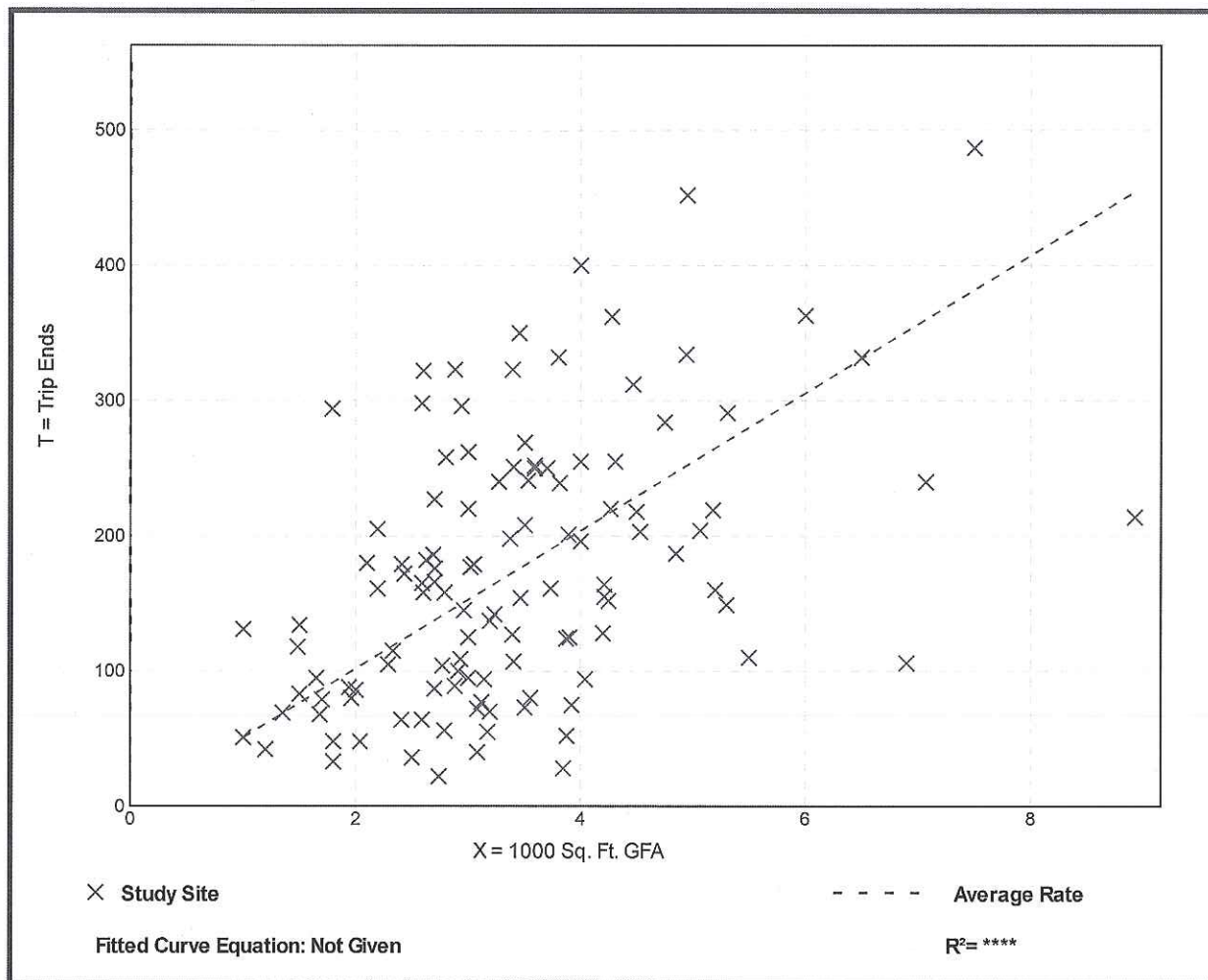
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 117
1000 Sq. Ft. GFA: 3
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
50.97	7.28 - 164.25	26.22

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

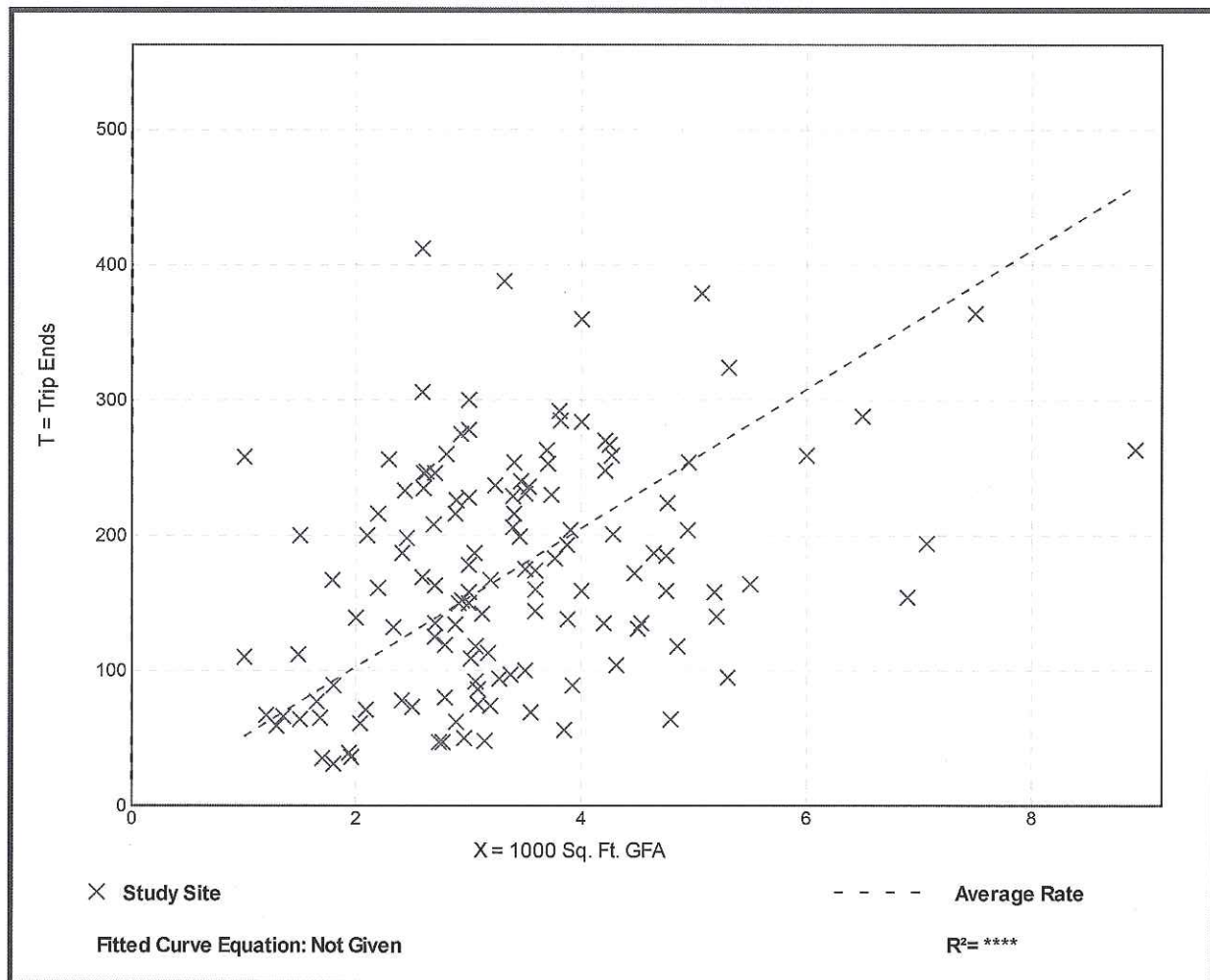
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 132
1000 Sq. Ft. GFA: 3
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
51.36	13.36 - 258.00	27.47

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

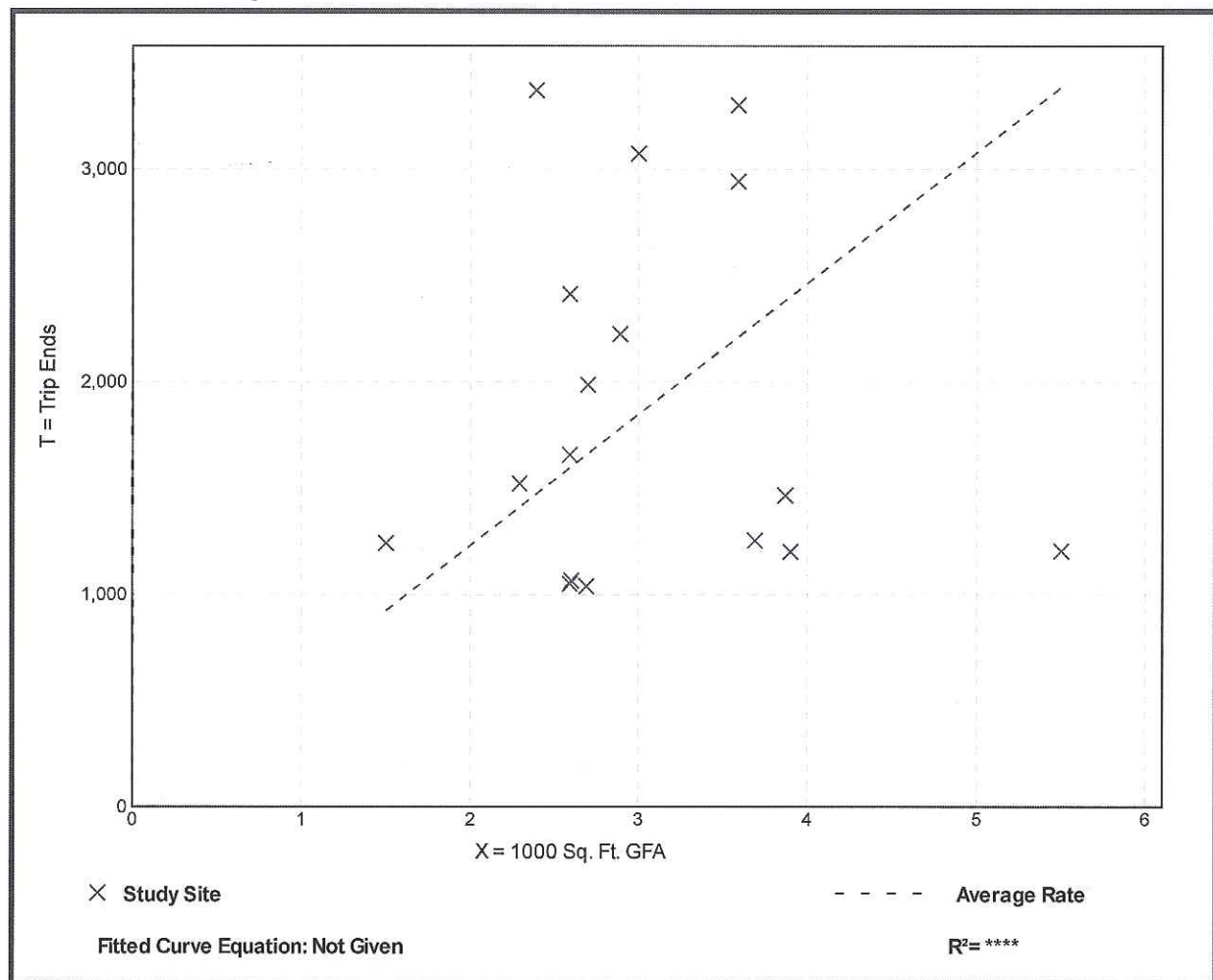
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday

Setting/Location: General Urban/Suburban
Number of Studies: 17
1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
616.12	218.91 - 1410.88	320.90

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

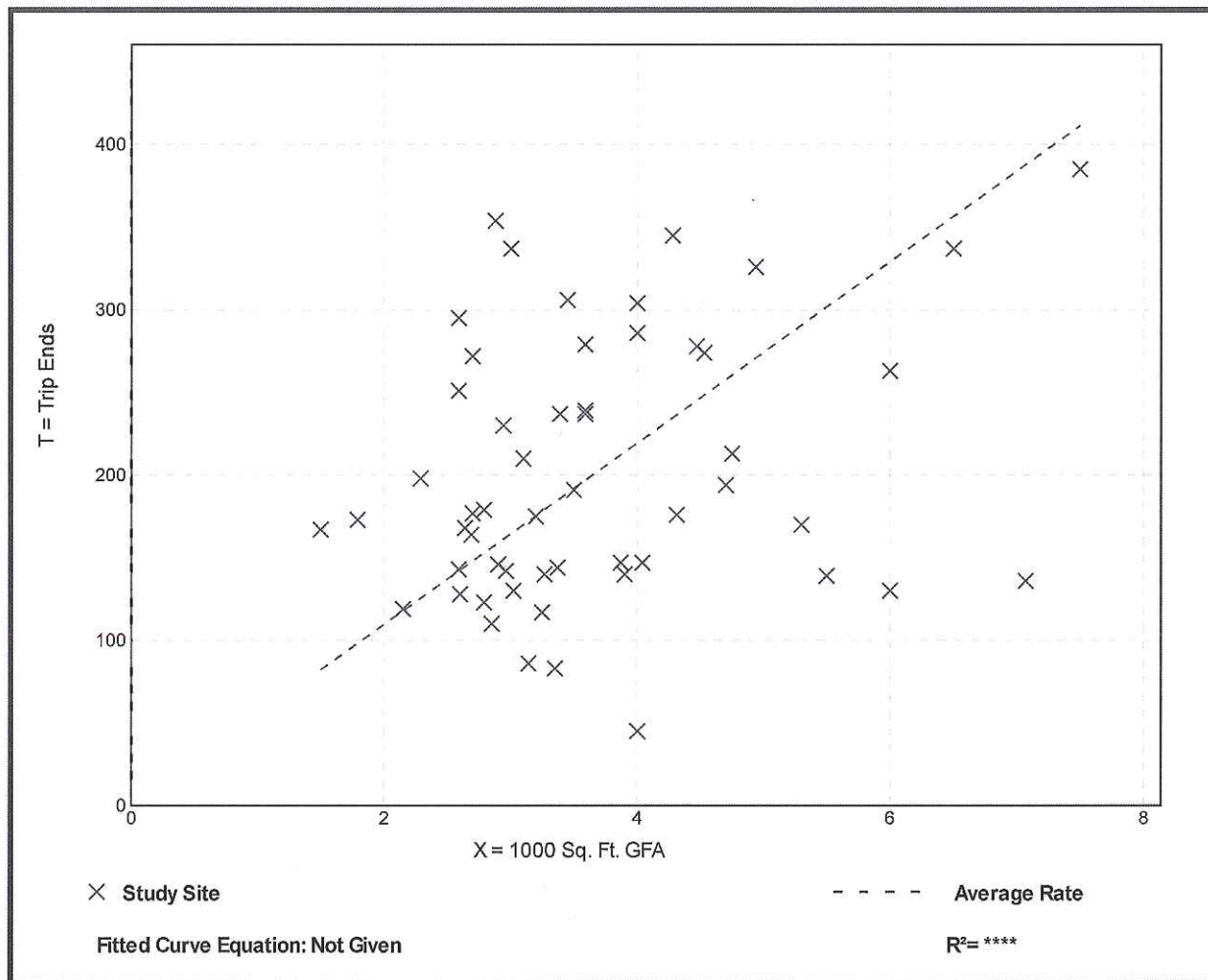
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 54
1000 Sq. Ft. GFA: 4
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
54.86	11.25 - 122.92	24.51

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

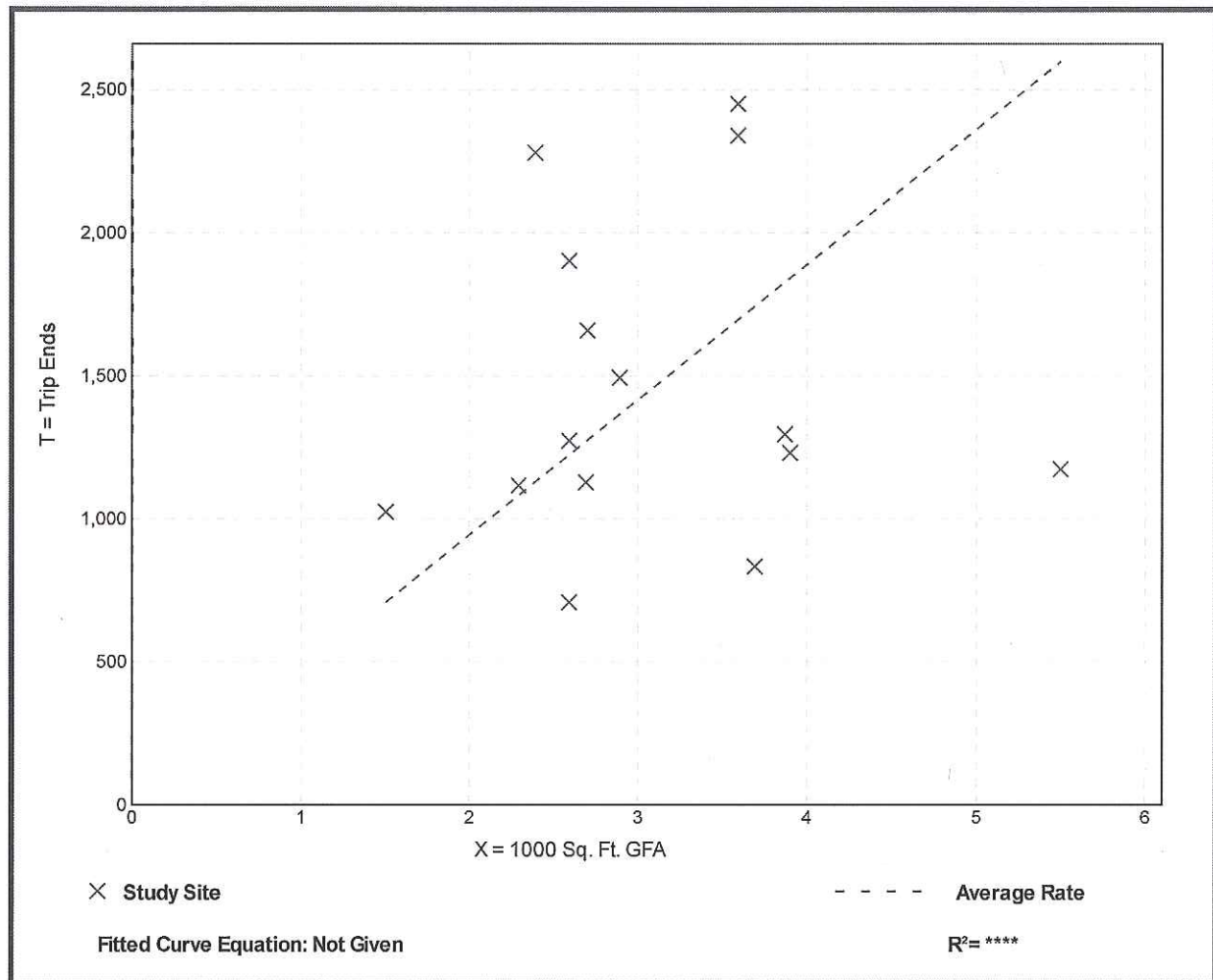
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Sunday

Setting/Location: General Urban/Suburban
Number of Studies: 15
1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
472.58	213.45 - 953.97	215.31

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

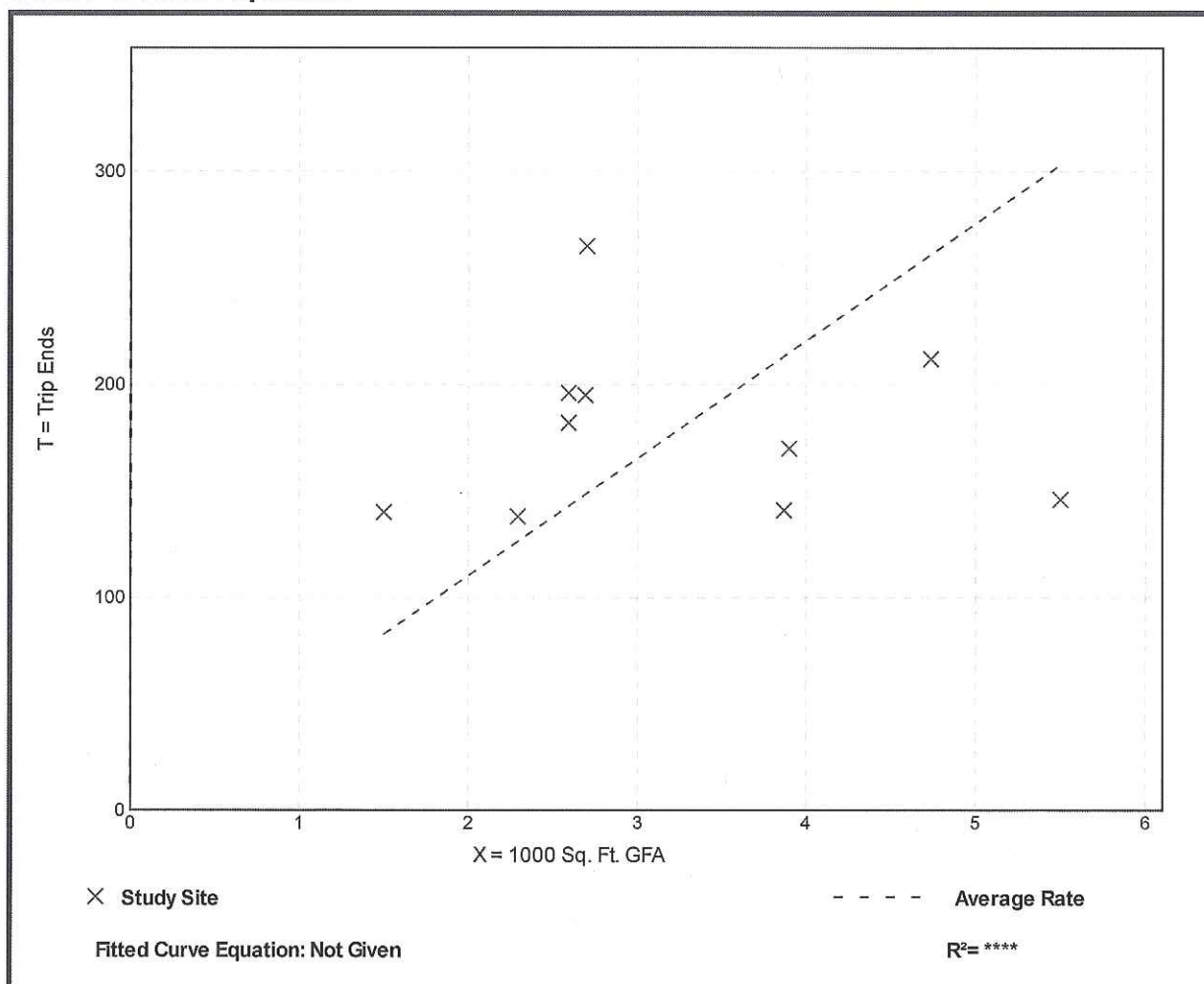
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Sunday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 10
1000 Sq. Ft. GFA: 3
Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
55.15	26.55 - 98.15	23.88

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: AM Peak Hour Traffic on Adj. St.

On a: Weekday,

Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 5

AM Peak Hour Traffic on Adj. St.: 1351

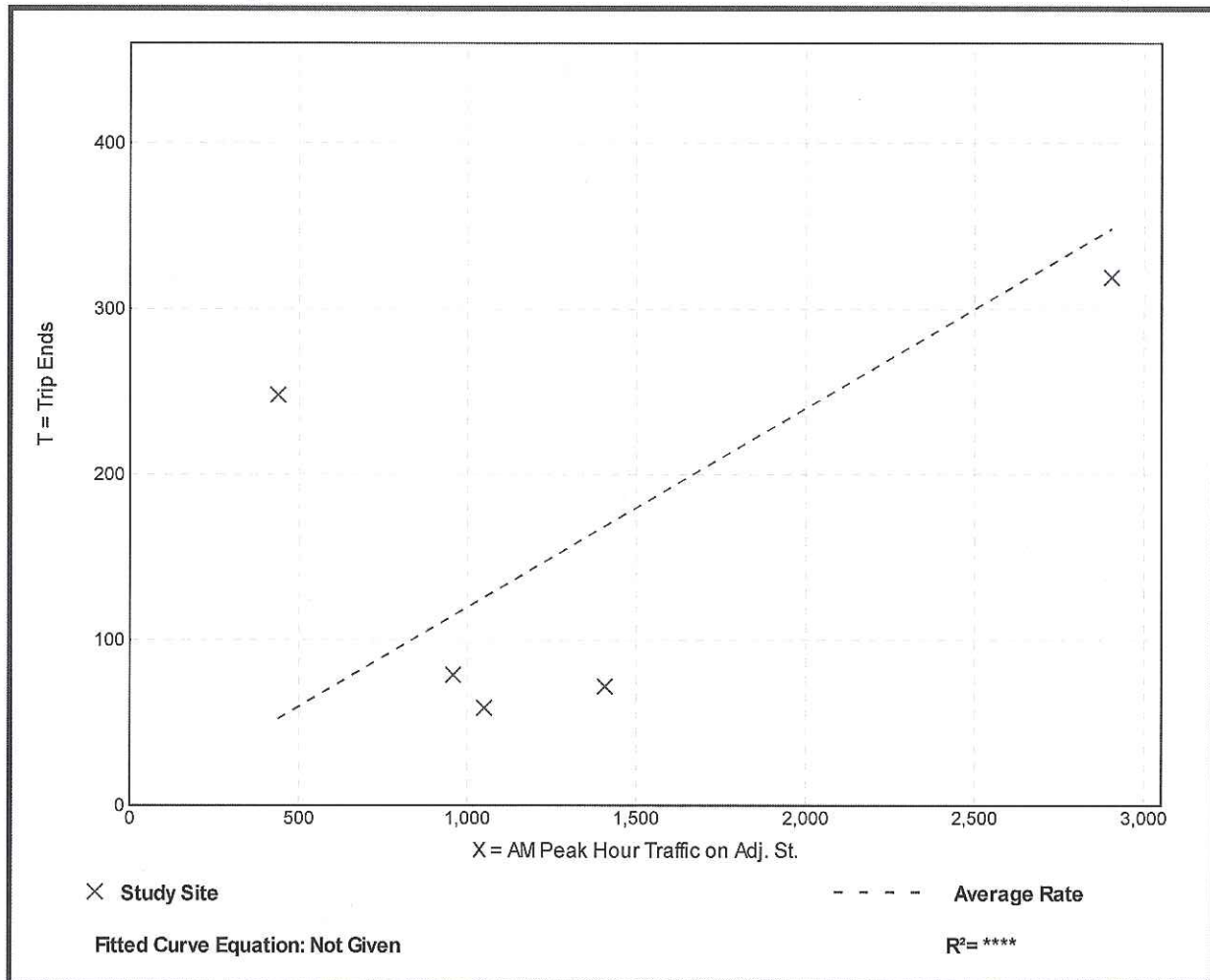
Directional Distribution: 54% entering, 46% exiting

Vehicle Trip Generation per AM Peak Hour Traffic on Adj. St.

Average Rate	Range of Rates	Standard Deviation
0.12	0.05 - 0.57	0.14

Data Plot and Equation

Caution – Small Sample Size



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: PM Peak Hour Traffic on Adj. St.

On a: Weekday,

Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 14

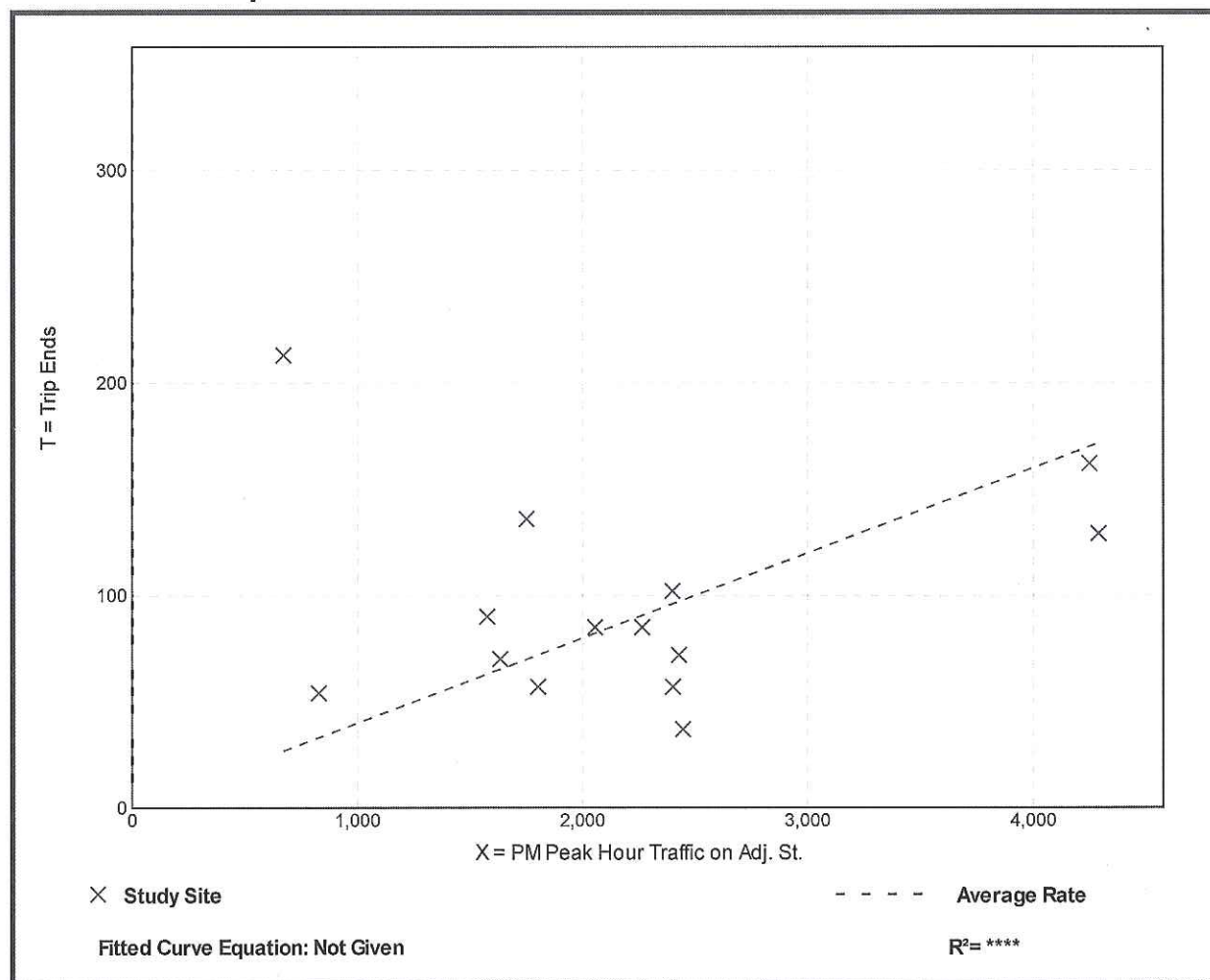
PM Peak Hour Traffic on Adj. St.: 2199

Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per PM Peak Hour Traffic on Adj. St.

Average Rate	Range of Rates	Standard Deviation
0.04	0.02 - 0.32	0.04

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

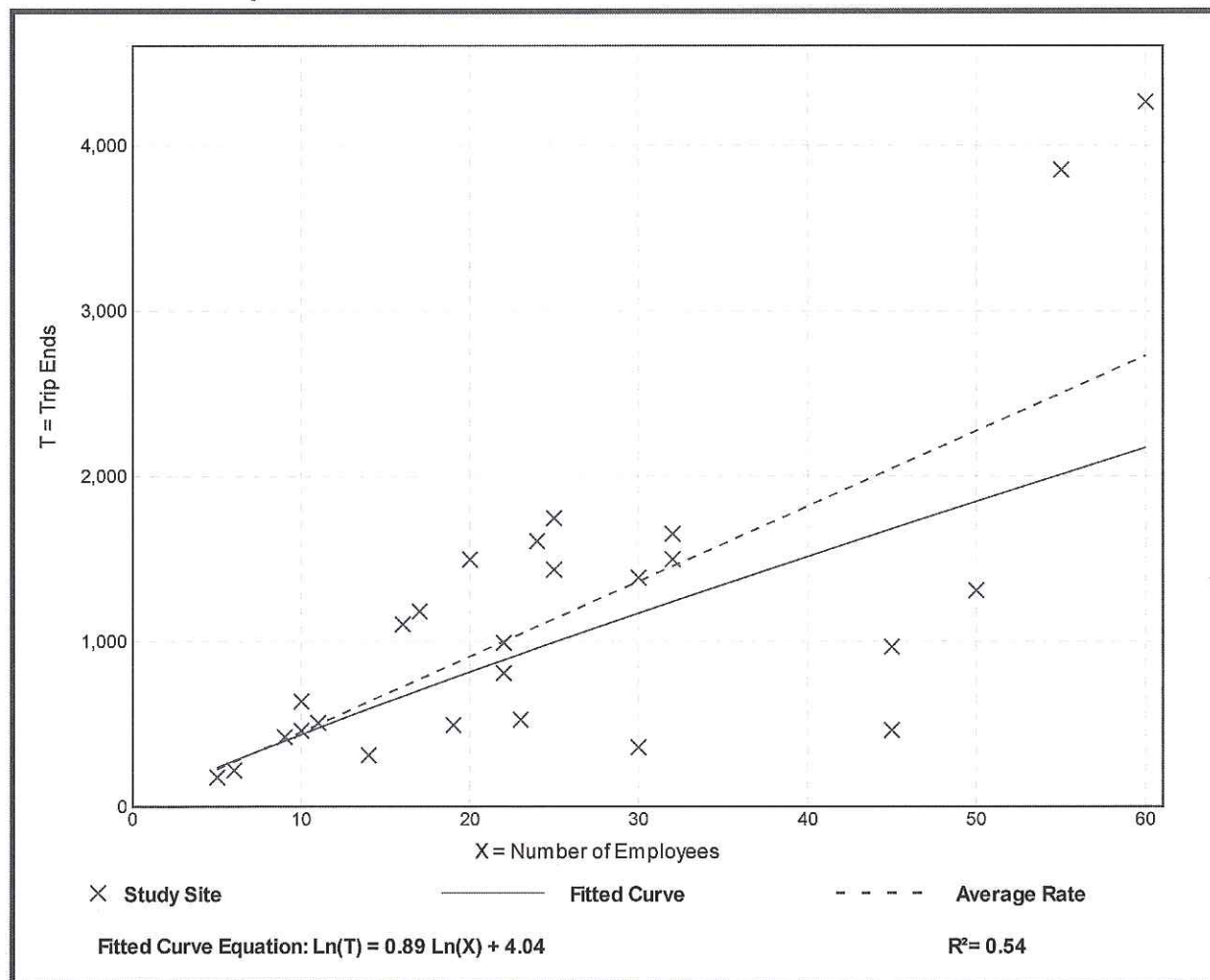
Vehicle Trip Ends vs: Employees
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 26
Avg. Num. of Employees: 25
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
45.49	10.27 - 74.85	22.00

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: Employees

On a: Weekday,

Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 13

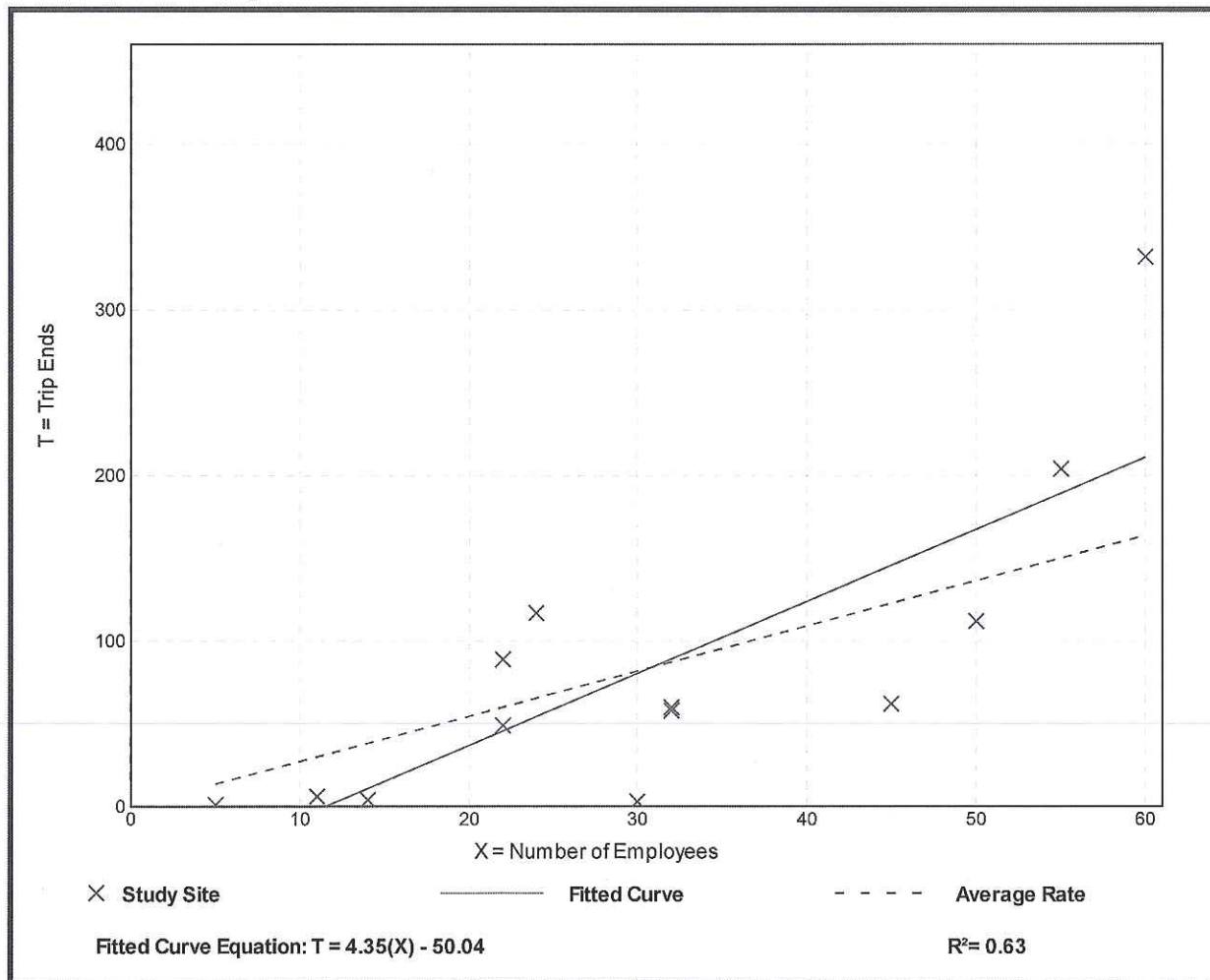
Avg. Num. of Employees: 31

Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
2.73	0.10 - 5.53	1.80

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: Employees

On a: Weekday,

Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 26

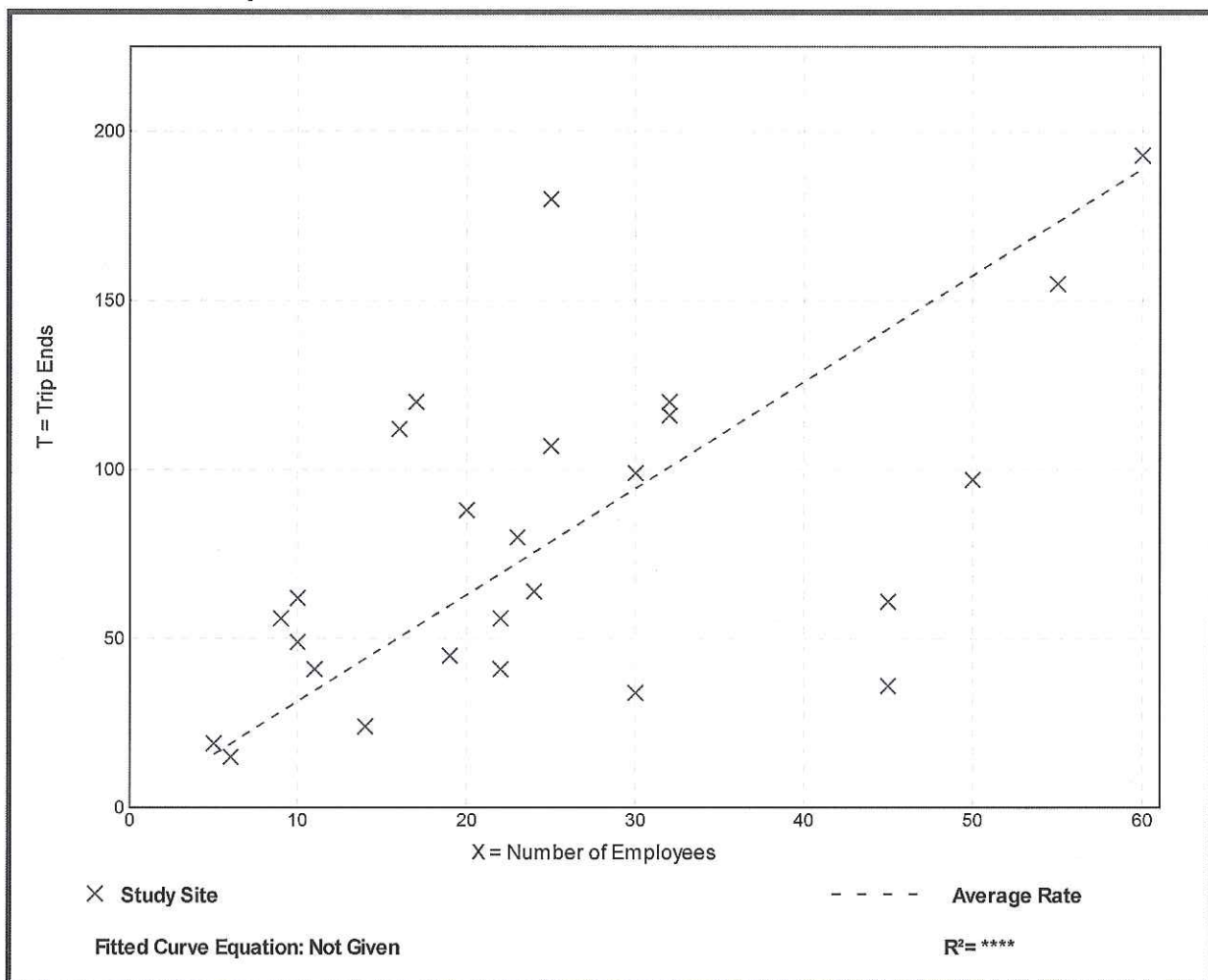
Avg. Num. of Employees: 25

Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
3.15	0.80 - 7.20	1.73

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

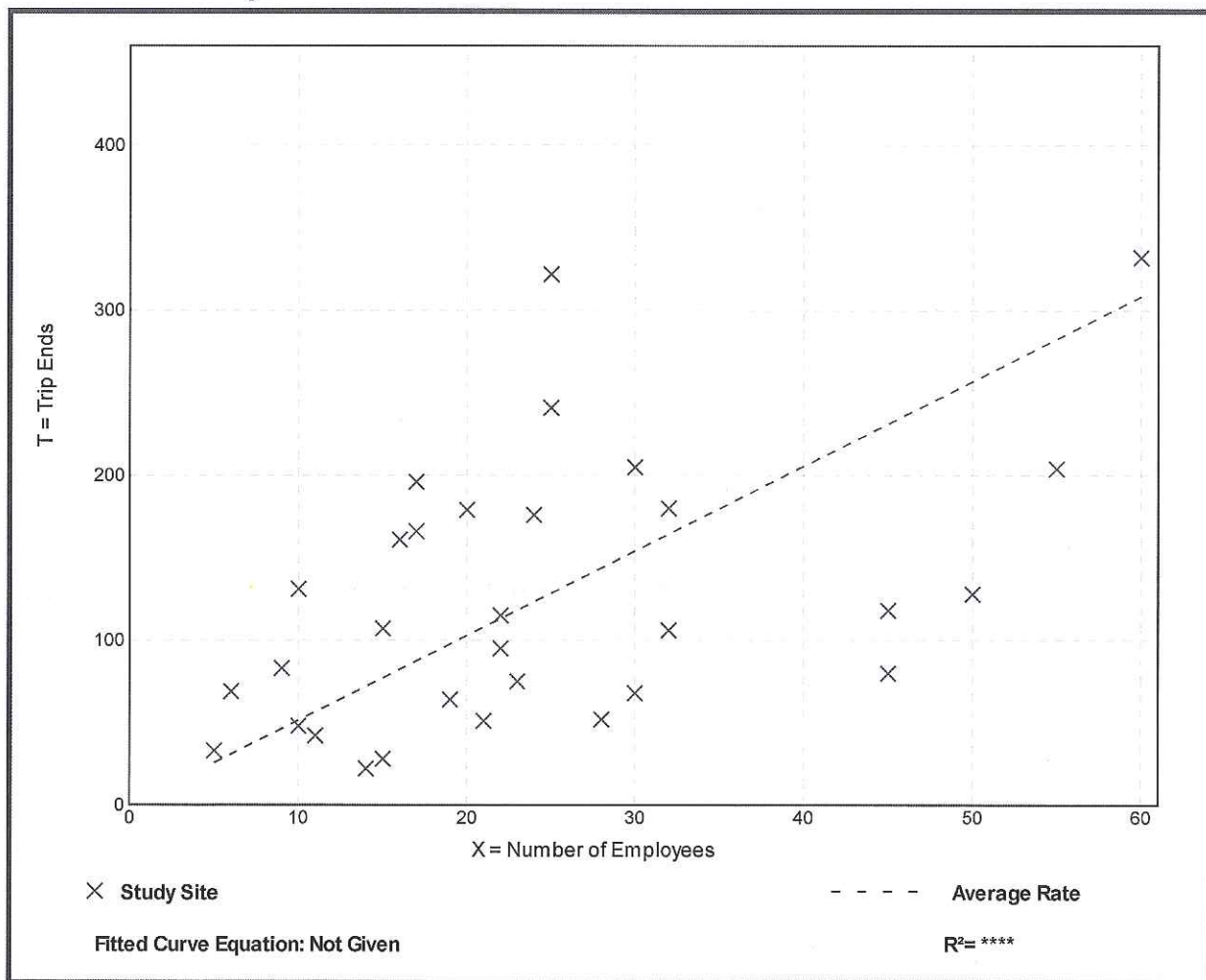
Vehicle Trip Ends vs: Employees
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 32
Avg. Num. of Employees: 24
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
5.14	1.57 - 13.10	3.21

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

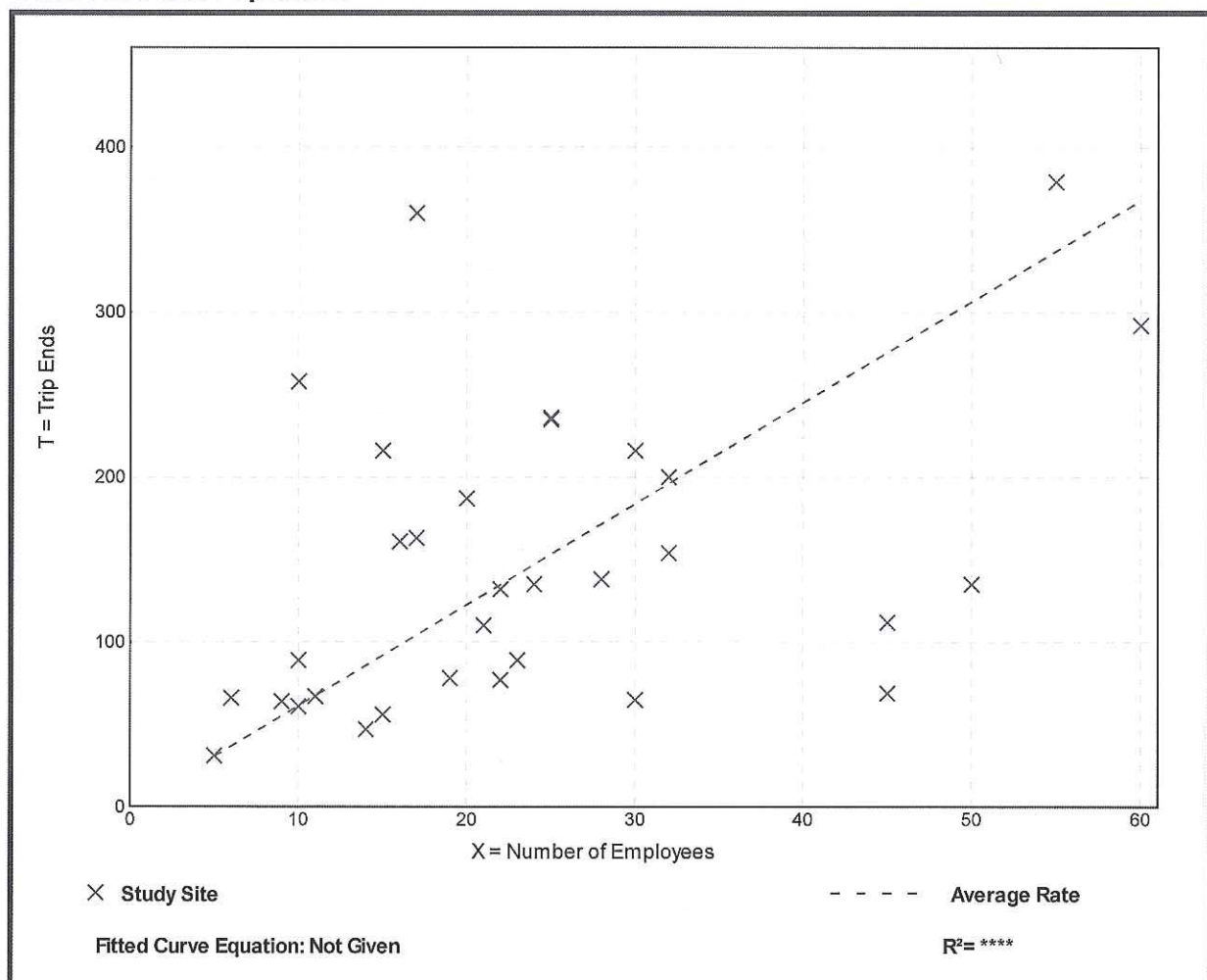
Vehicle Trip Ends vs: Employees
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 32
Avg. Num. of Employees: 24
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
6.13	1.53 - 25.80	4.29

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: Employees

On a: Sunday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Employees: 30

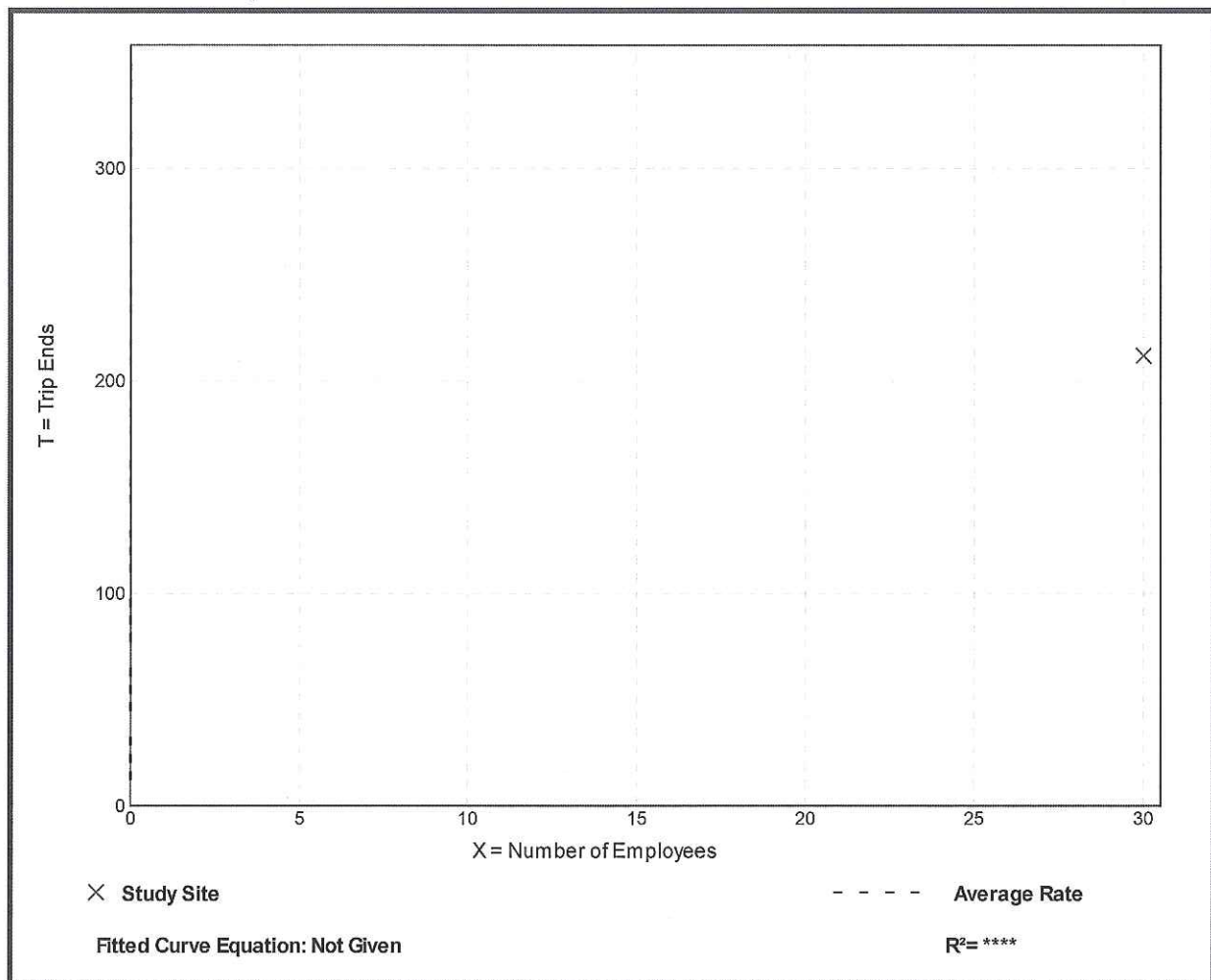
Directional Distribution: 47% entering, 53% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
7.07	7.07 - 7.07	*

Data Plot and Equation

Caution – Small Sample Size



Fast-Food Restaurant with Drive-Through Window (934)

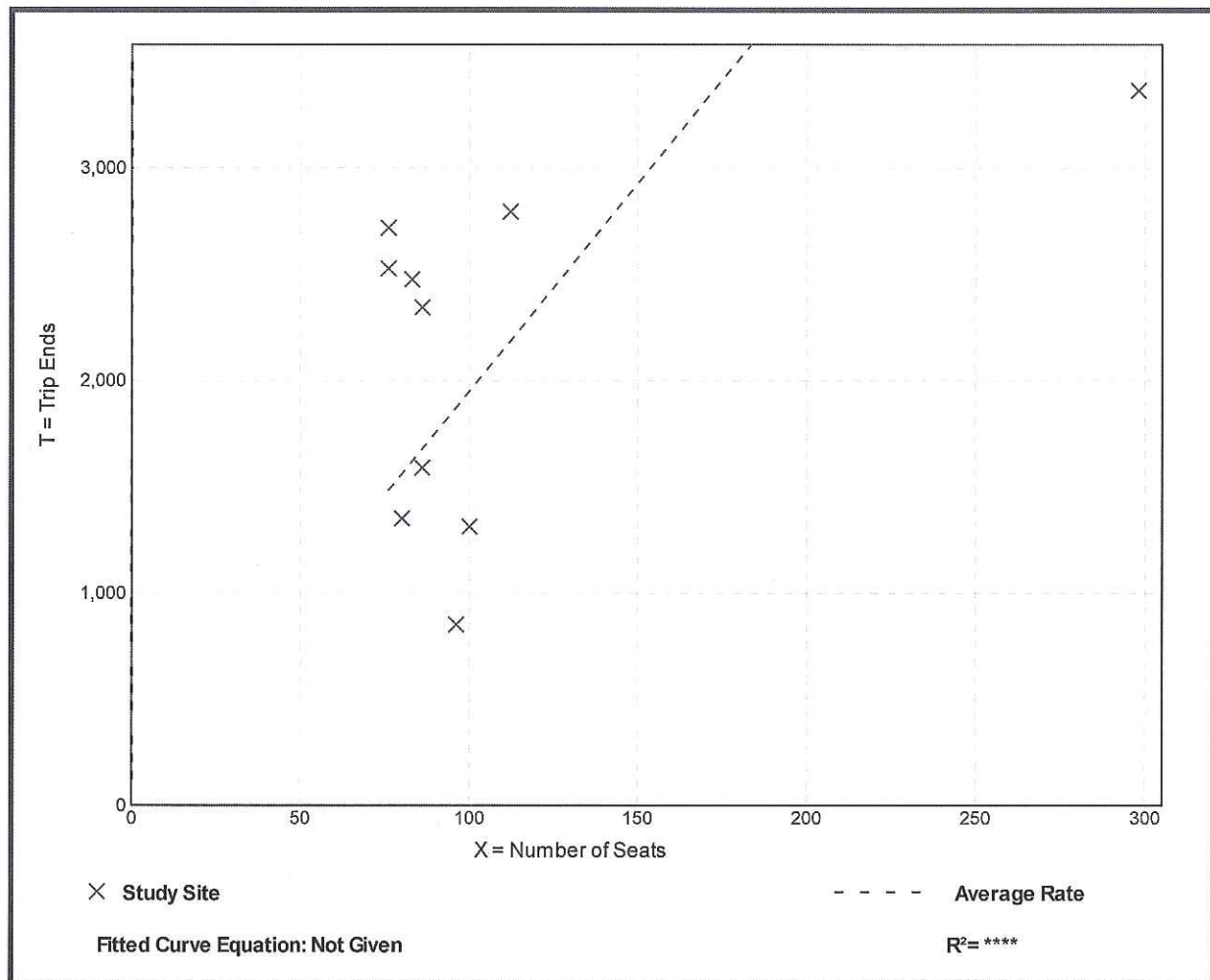
Vehicle Trip Ends vs: **Seats**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 10
Avg. Num. of Seats: 109
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
19.52	8.88 - 35.78	9.43

Data Plot and Equation



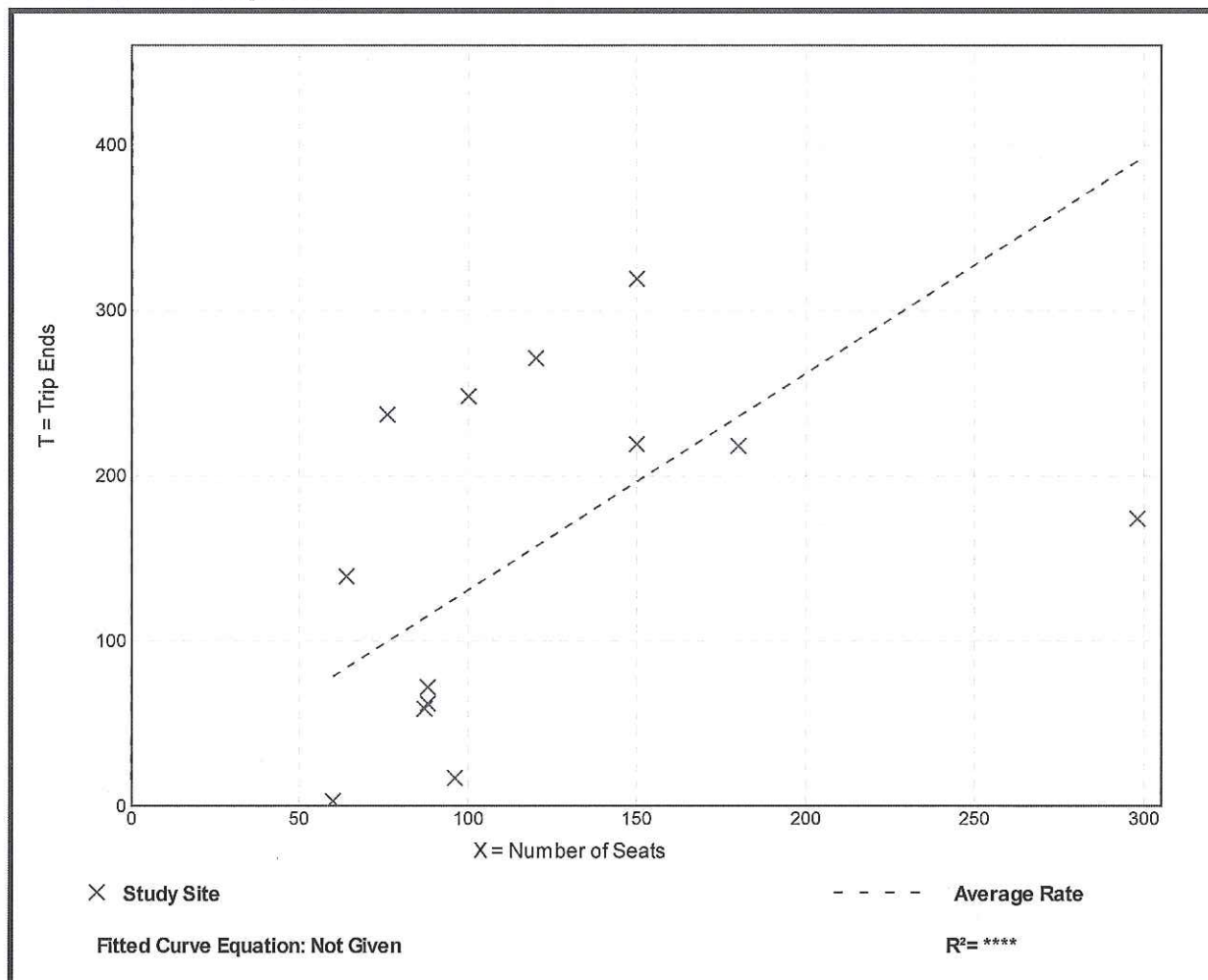
Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: Seats
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 13
 Avg. Num. of Seats: 120
 Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
1.31	0.05 - 3.12	0.88

Data Plot and Equation



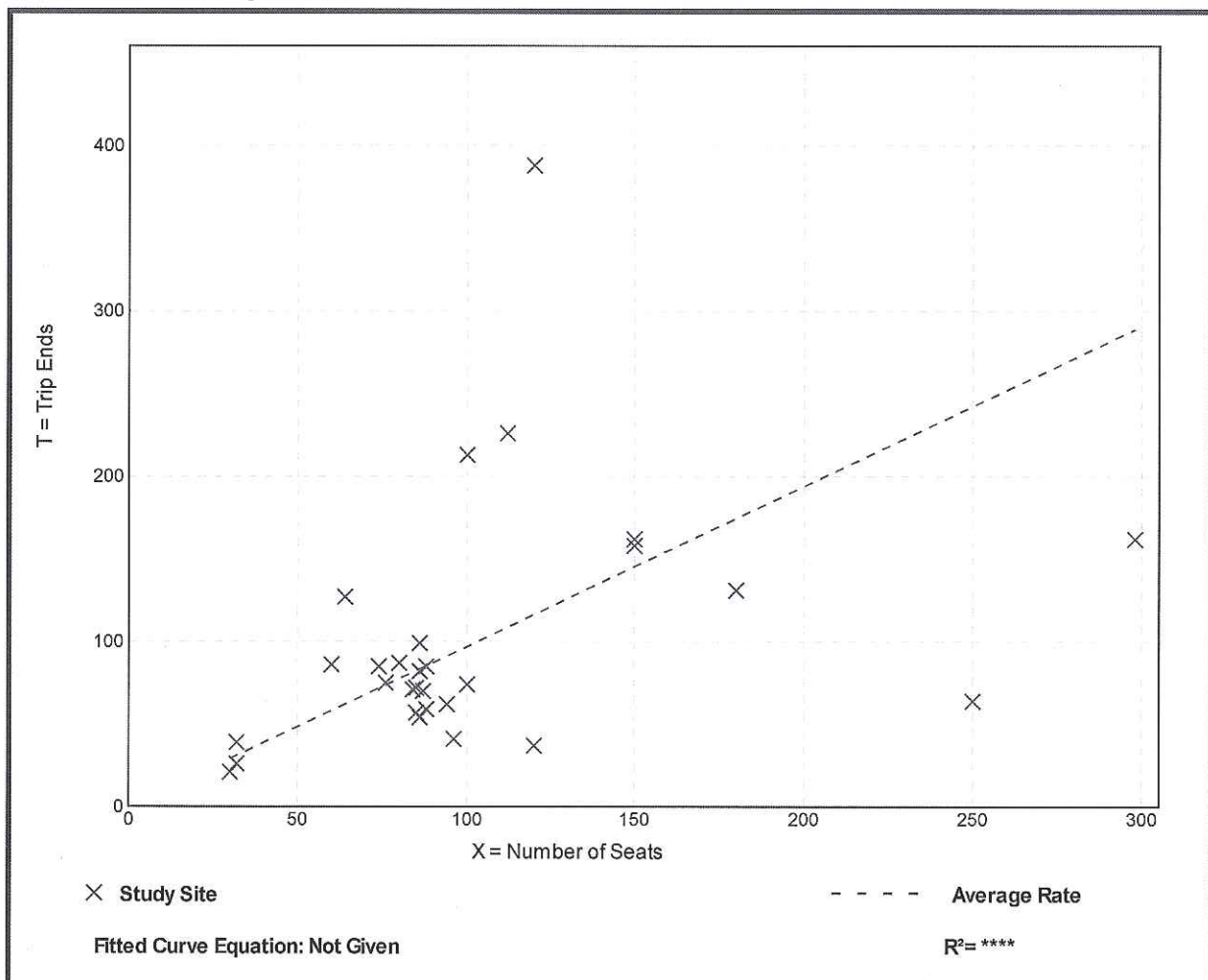
Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: **Seats**
 On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 29
 Avg. Num. of Seats: 103
 Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.97	0.26 - 3.23	0.67

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

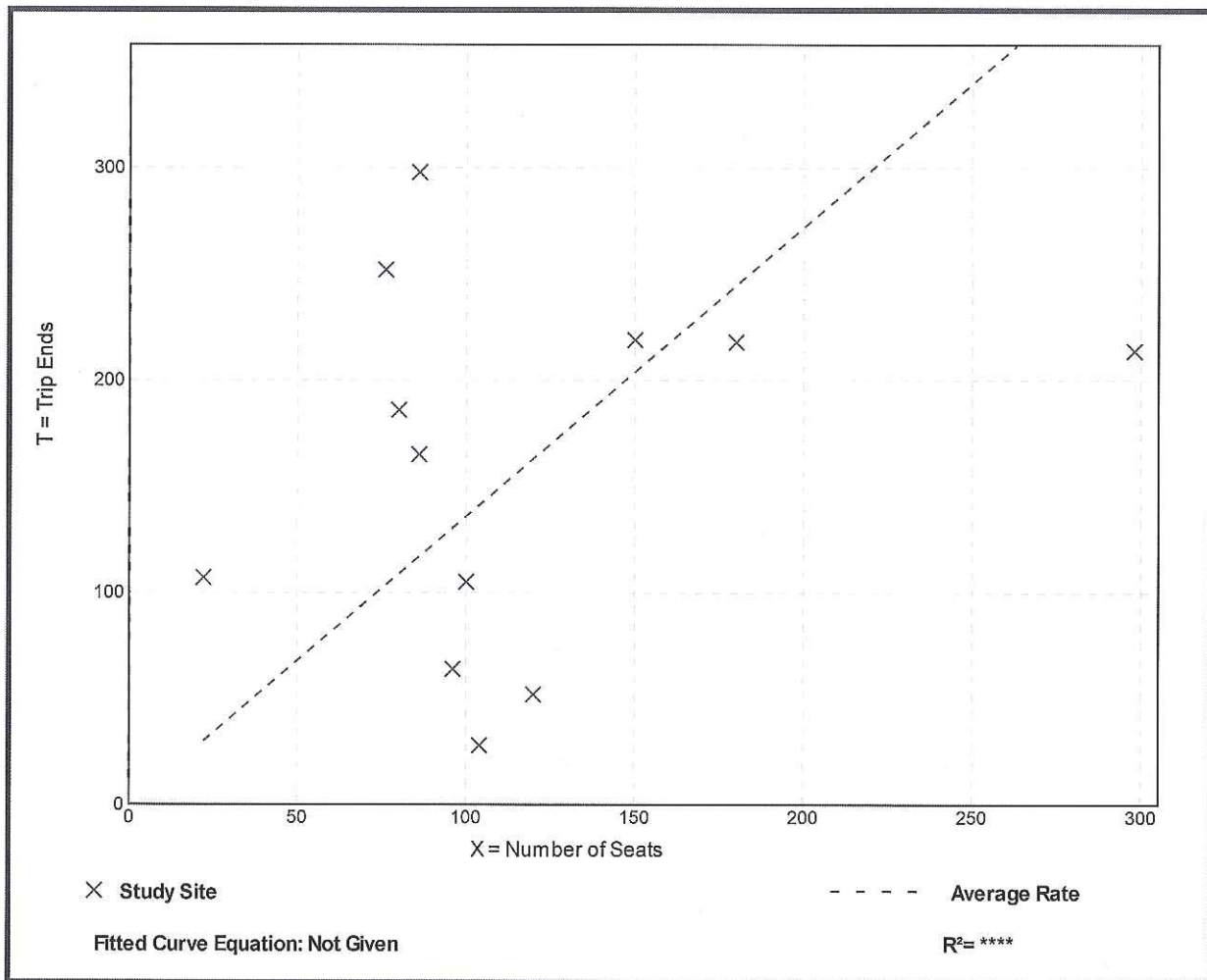
Vehicle Trip Ends vs: **Seats**
On a: **Weekday,**
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 12
Avg. Num. of Seats: 117
Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
1.36	0.27 - 4.86	1.07

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

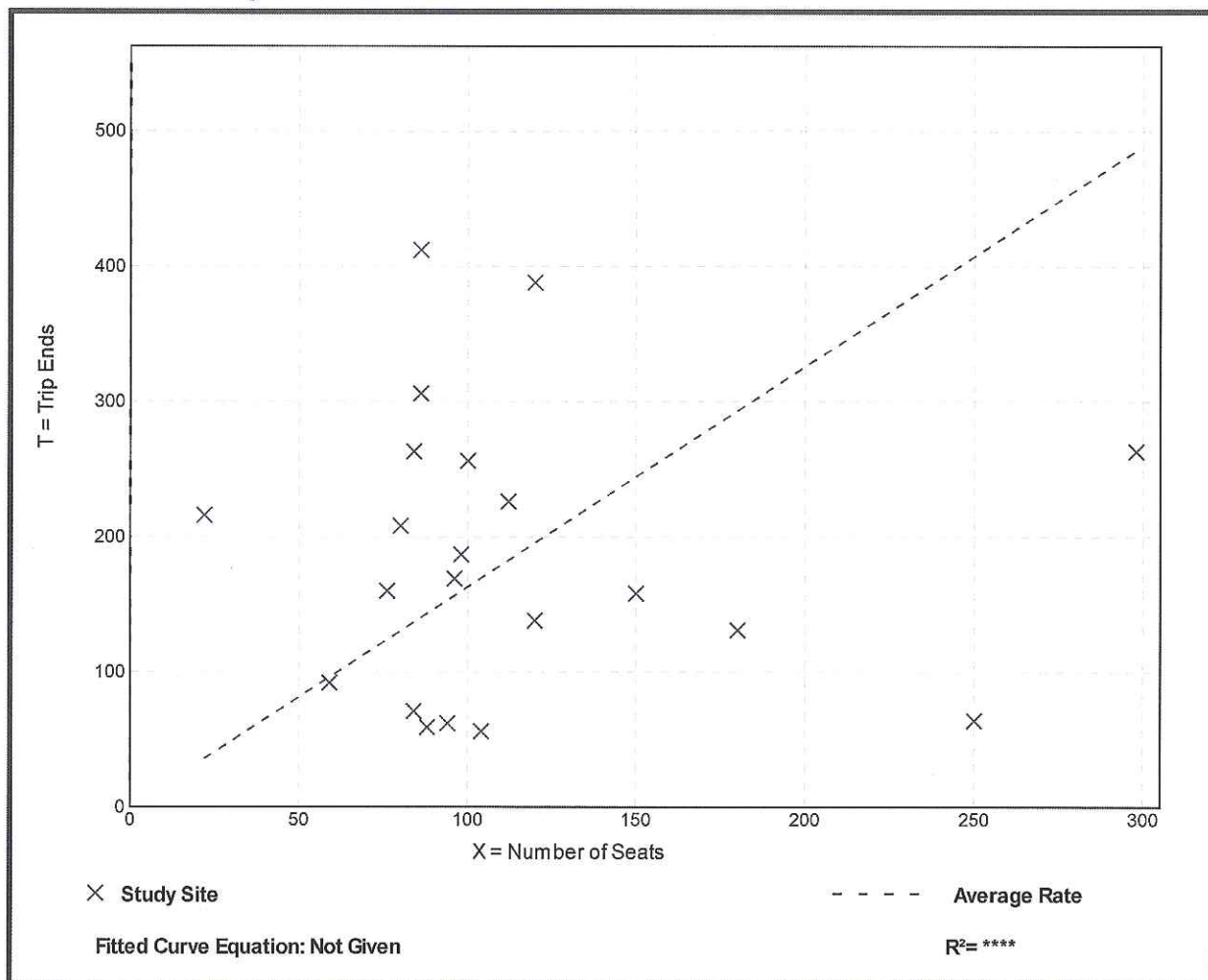
Vehicle Trip Ends vs: **Seats**
On a: **Weekday,**
PM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 21
Avg. Num. of Seats: 114
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
1.63	0.26 - 9.82	1.42

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

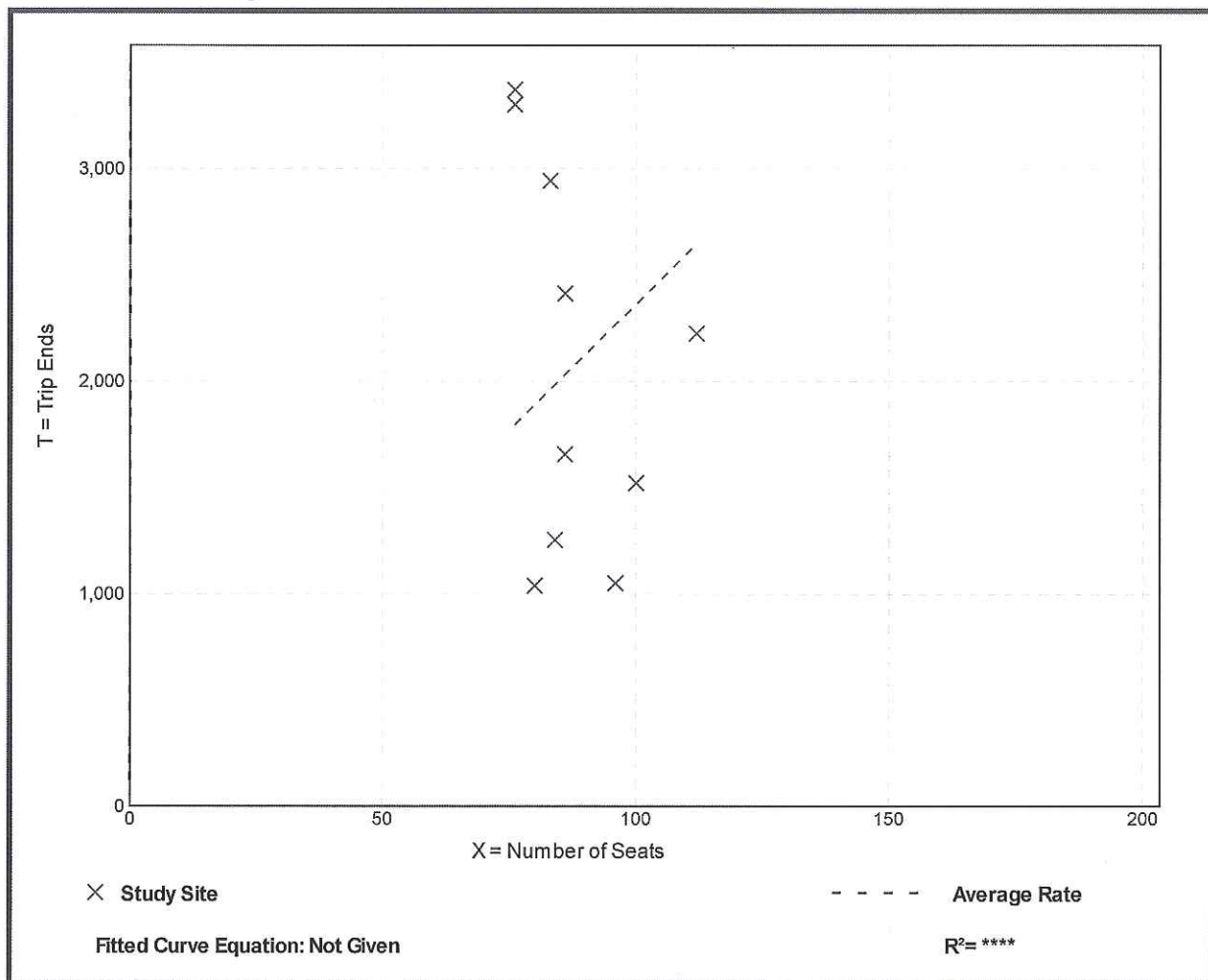
Vehicle Trip Ends vs: **Seats**
On a: **Saturday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 10
Avg. Num. of Seats: 88
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
23.64	10.94 - 44.37	12.17

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

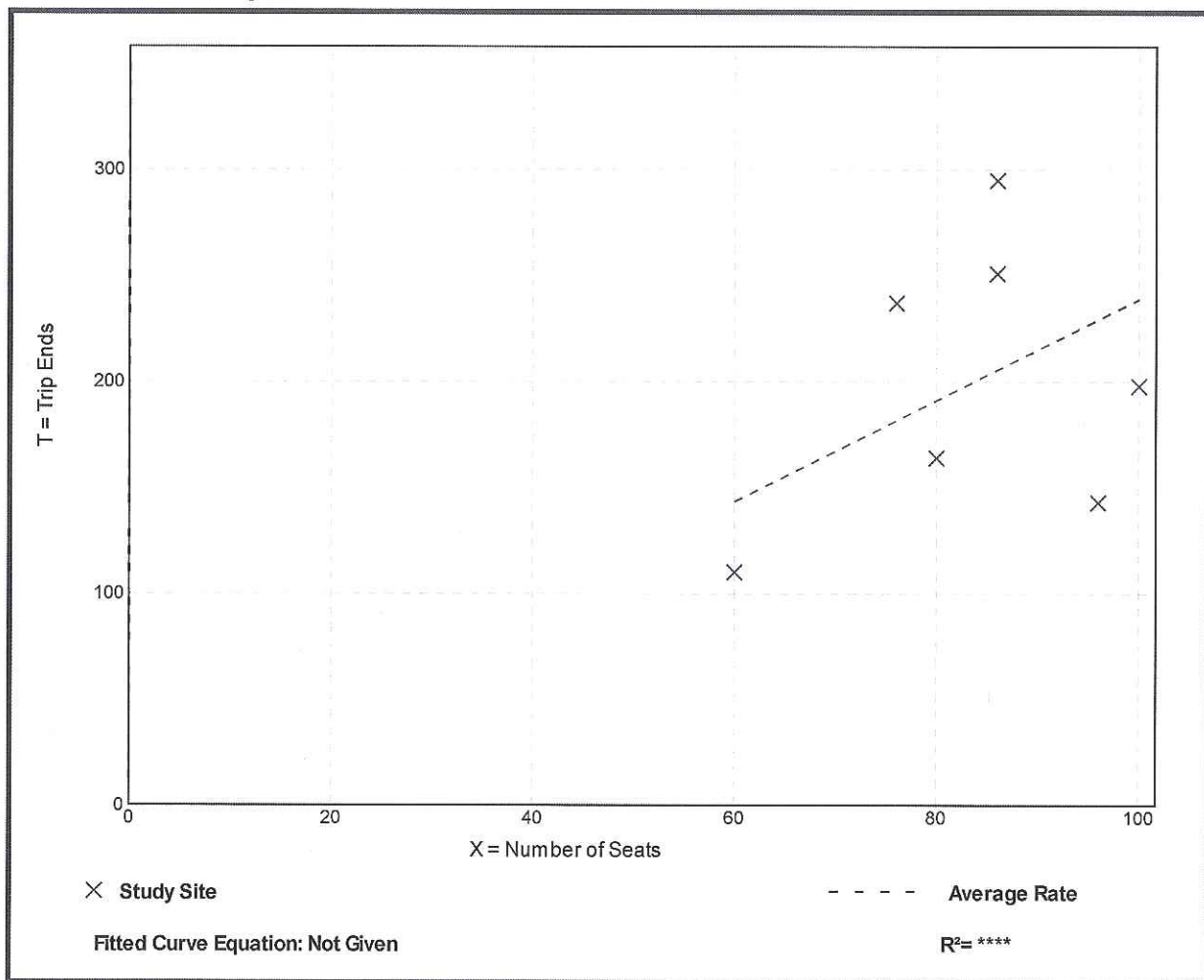
Vehicle Trip Ends vs: Seats
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 7
Avg. Num. of Seats: 83
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
2.39	1.49 - 3.43	0.75

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: **Seats**

On a: **Sunday**

Setting/Location: **General Urban/Suburban**

Number of Studies: 10

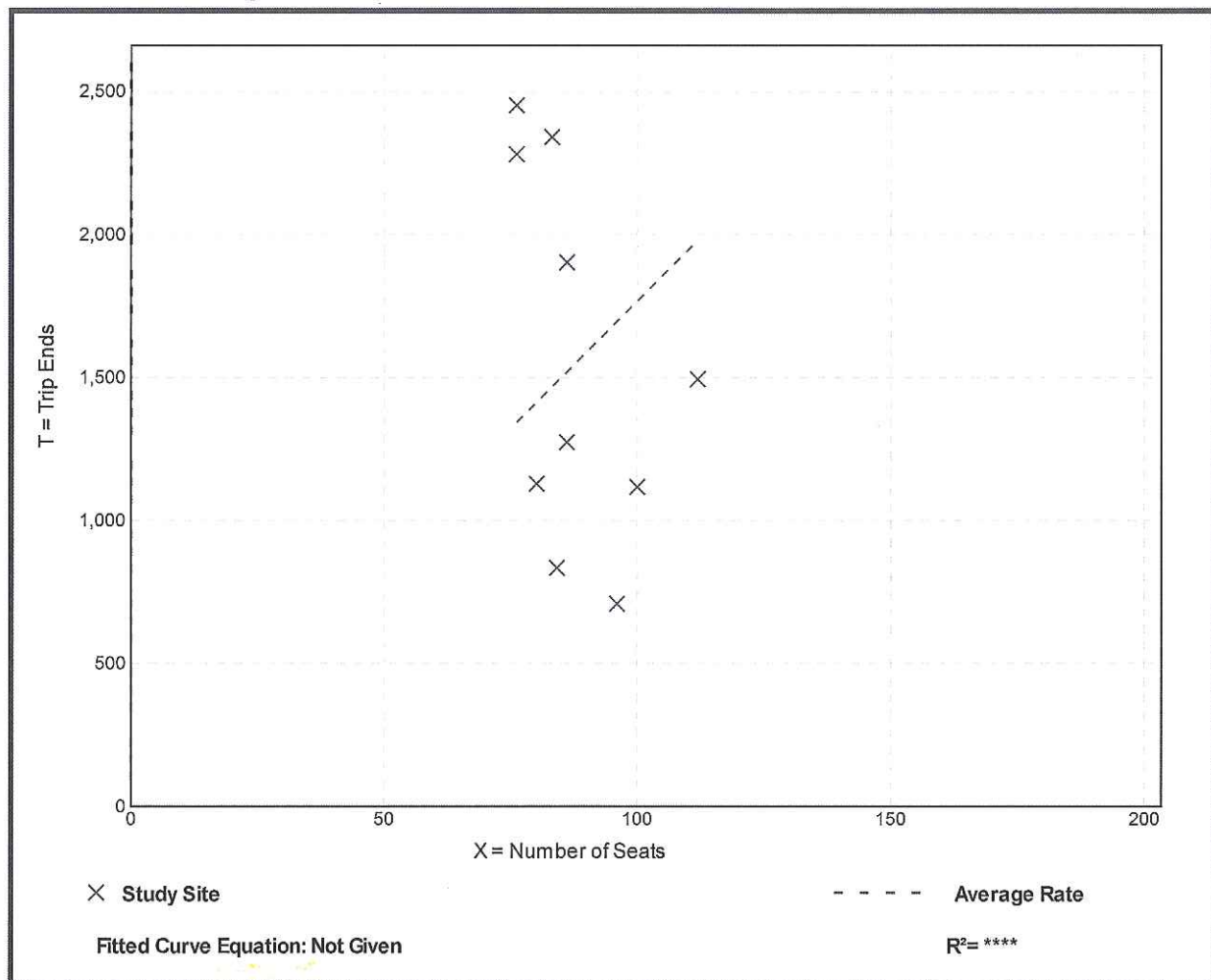
Avg. Num. of Seats: 88

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
17.67	7.39 - 32.25	8.84

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: Seats
On a: Sunday, Peak Hour of Generator

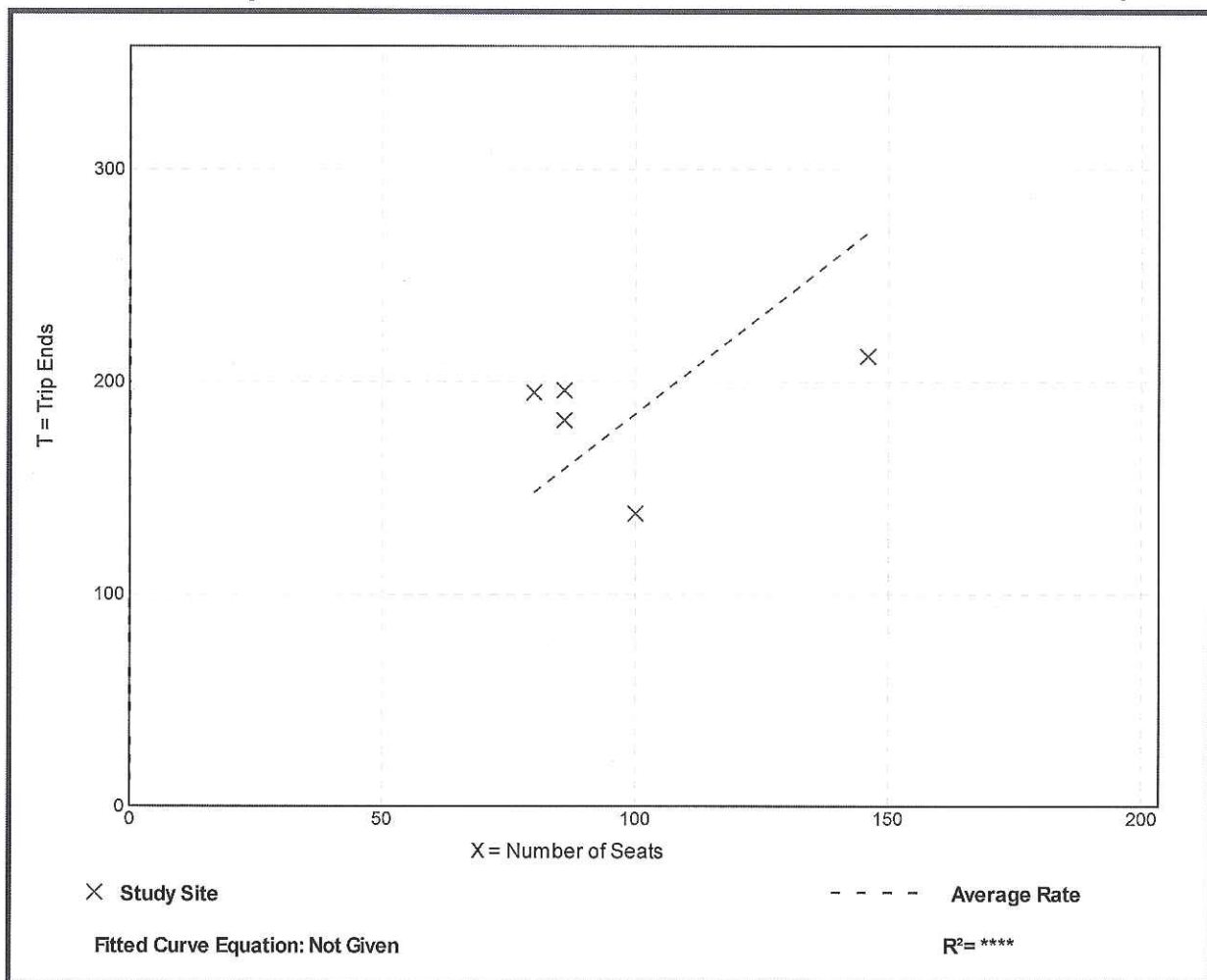
Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. Num. of Seats: 100
Directional Distribution: 49% entering, 51% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
1.85	1.38 - 2.44	0.49

Data Plot and Equation

Caution – Small Sample Size



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

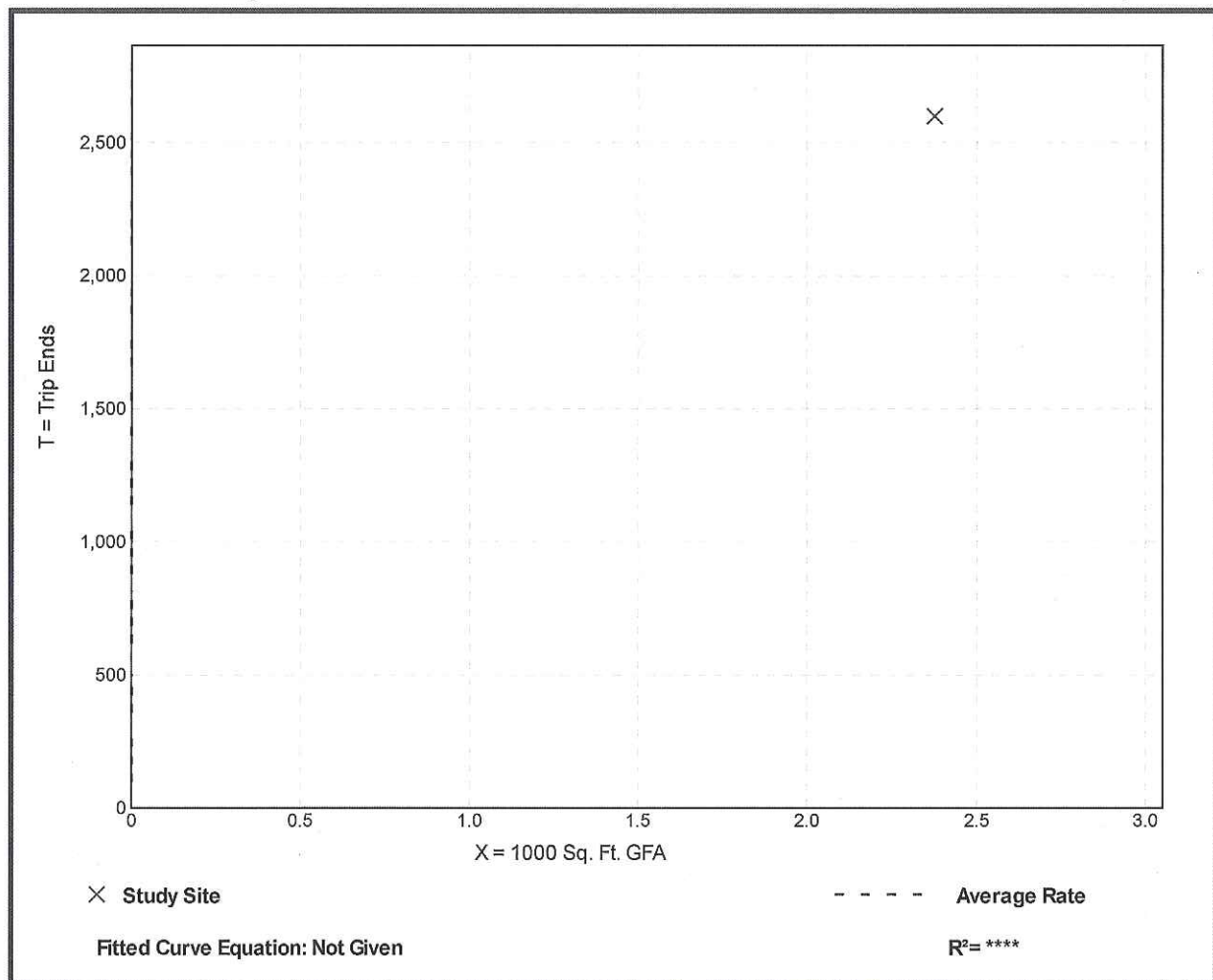
Setting/Location: Dense Multi-Use Urban
Number of Studies: 1
1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1094.74	1094.74 - 1094.74	*

Data Plot and Equation

Caution – Small Sample Size



Fast-Food Restaurant with Drive-Through Window (934)

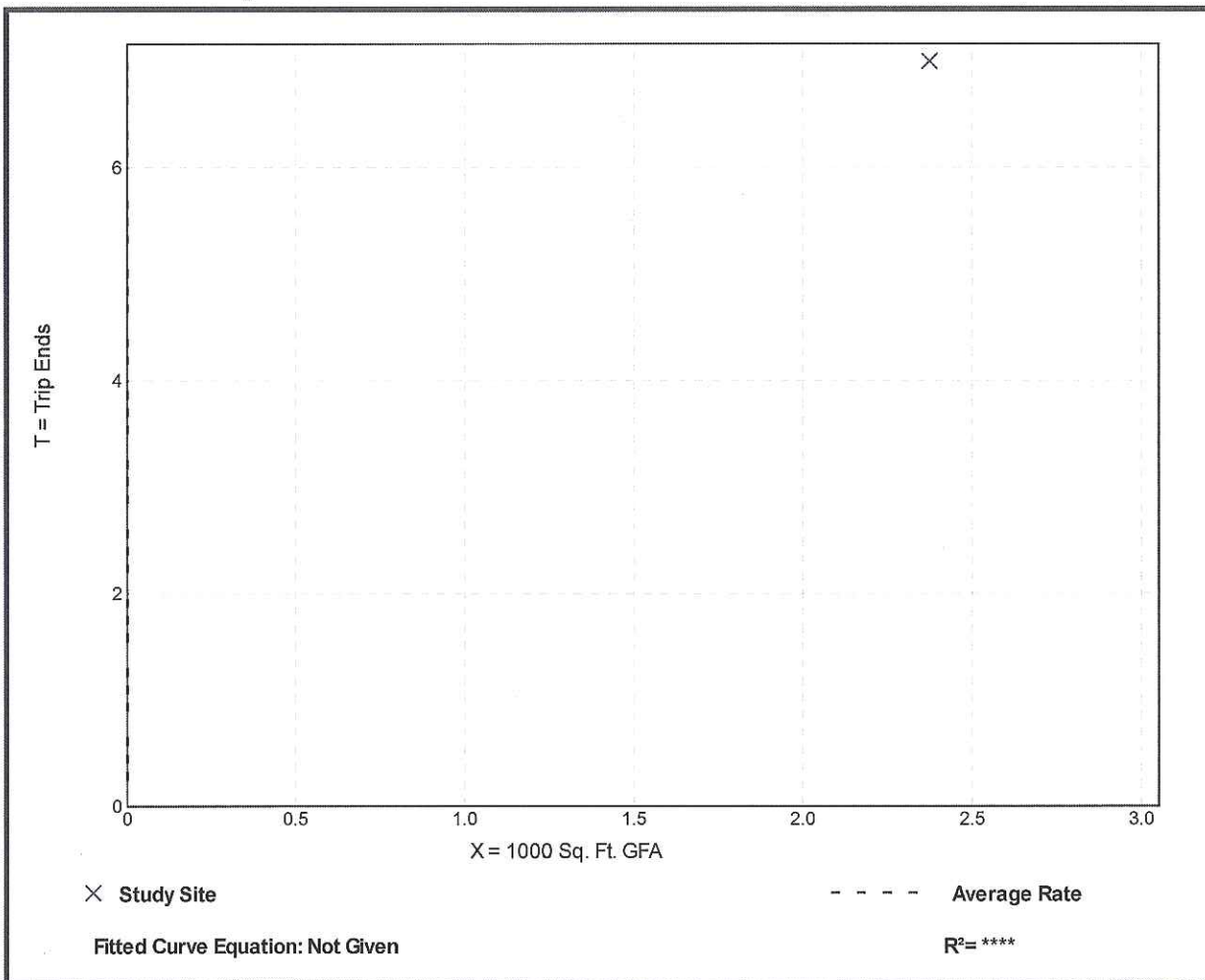
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: Dense Multi-Use Urban
 Number of Studies: 1
 1000 Sq. Ft. GFA: 2
 Directional Distribution: 71% entering, 29% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.95	2.95 - 2.95	*

Data Plot and Equation

Caution – Small Sample Size



Fast-Food Restaurant with Drive-Through Window (934)

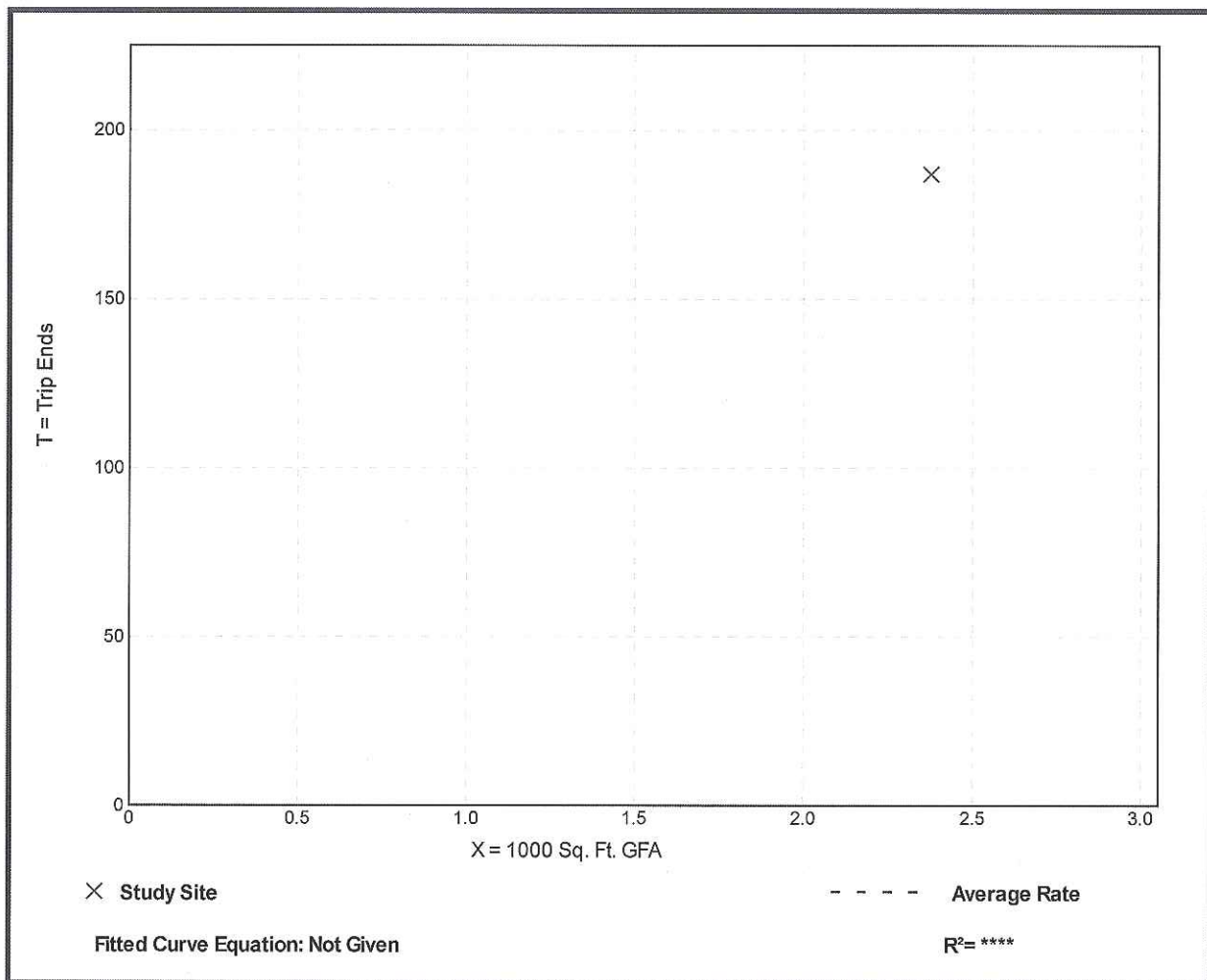
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: Dense Multi-Use Urban
 Number of Studies: 1
 1000 Sq. Ft. GFA: 2
 Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
78.74	78.74 - 78.74	*

Data Plot and Equation

Caution – Small Sample Size



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
AM Peak Hour of Generator

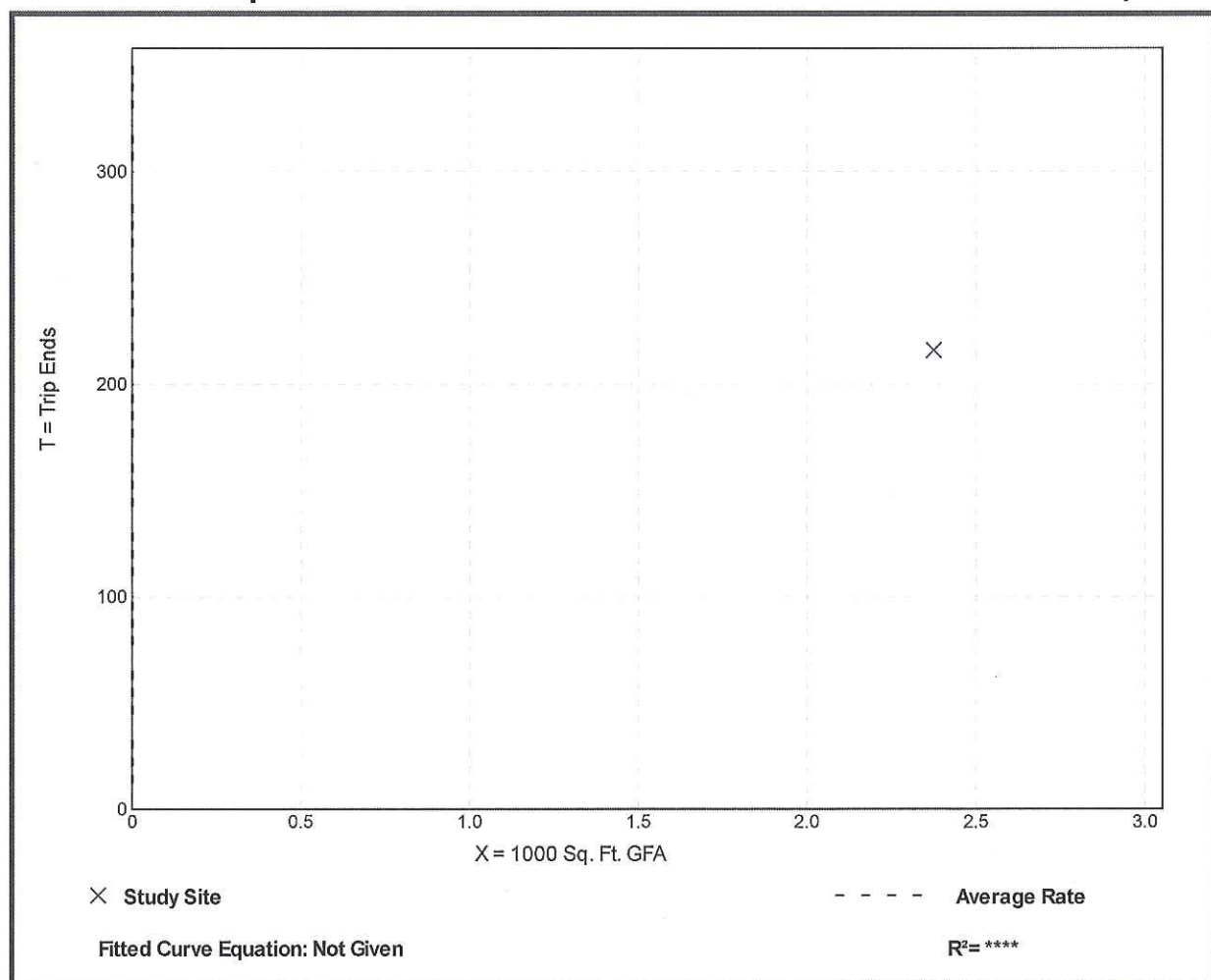
Setting/Location: Dense Multi-Use Urban
Number of Studies: 1
1000 Sq. Ft. GFA: 2
Directional Distribution: 57% entering, 43% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
90.95	90.95 - 90.95	*

Data Plot and Equation

Caution – Small Sample Size



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

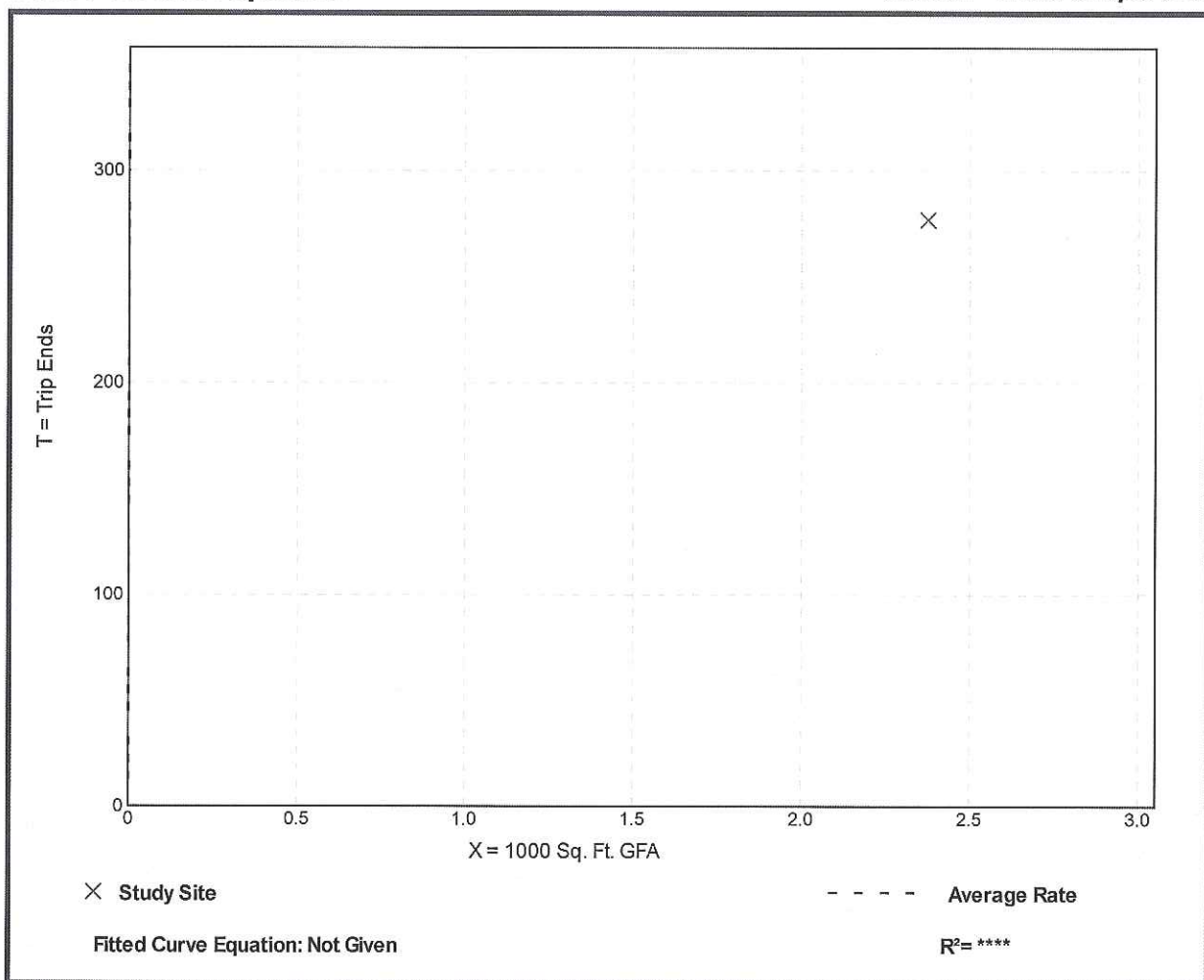
Setting/Location: Dense Multi-Use Urban
Number of Studies: 1
1000 Sq. Ft. GFA: 2
Directional Distribution: 49% entering, 51% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
116.63	116.63 - 116.63	*

Data Plot and Equation

Caution – Small Sample Size



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday

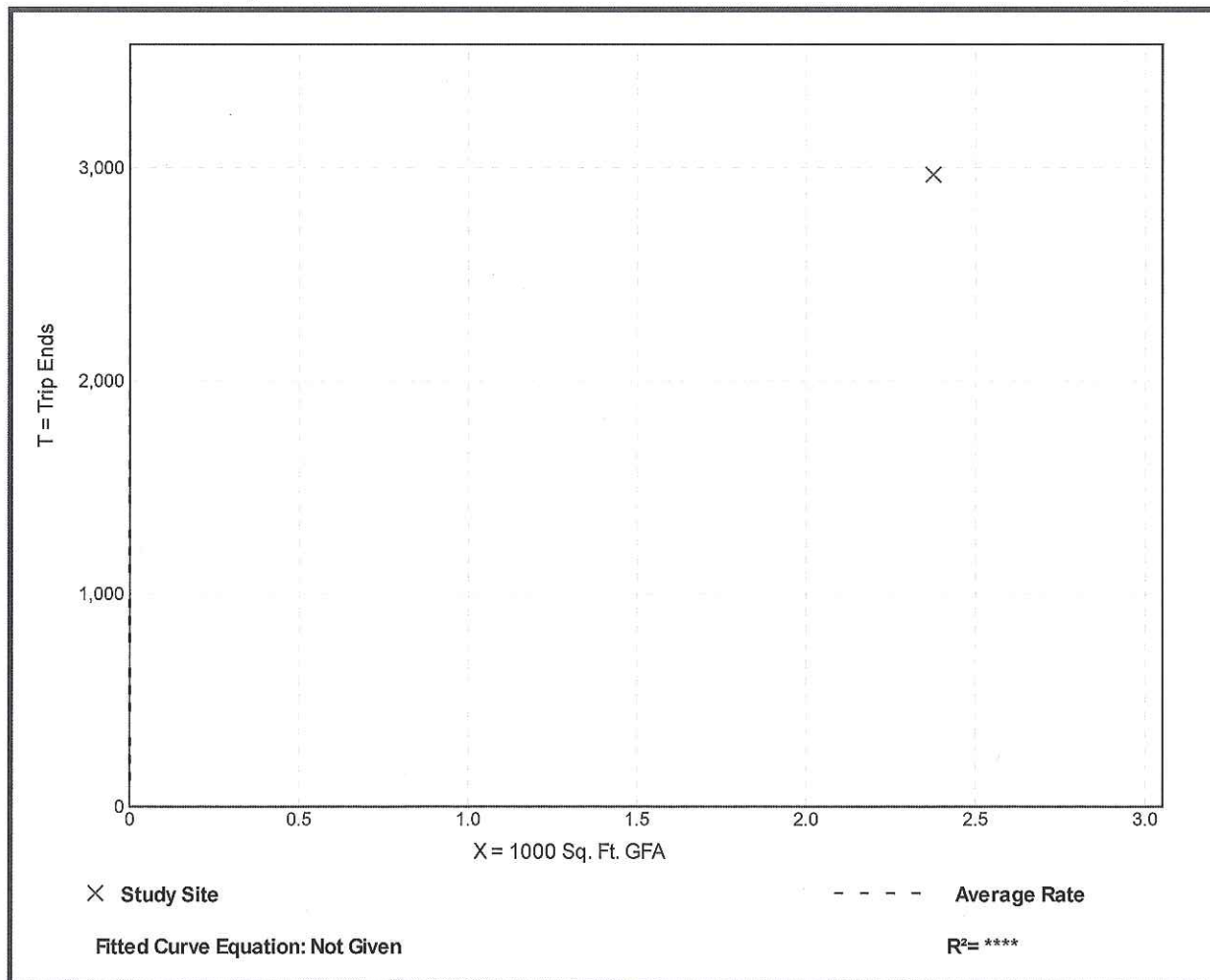
Setting/Location: Dense Multi-Use Urban
Number of Studies: 1
1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1250.11	1250.11 - 1250.11	*

Data Plot and Equation

Caution – Small Sample Size



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

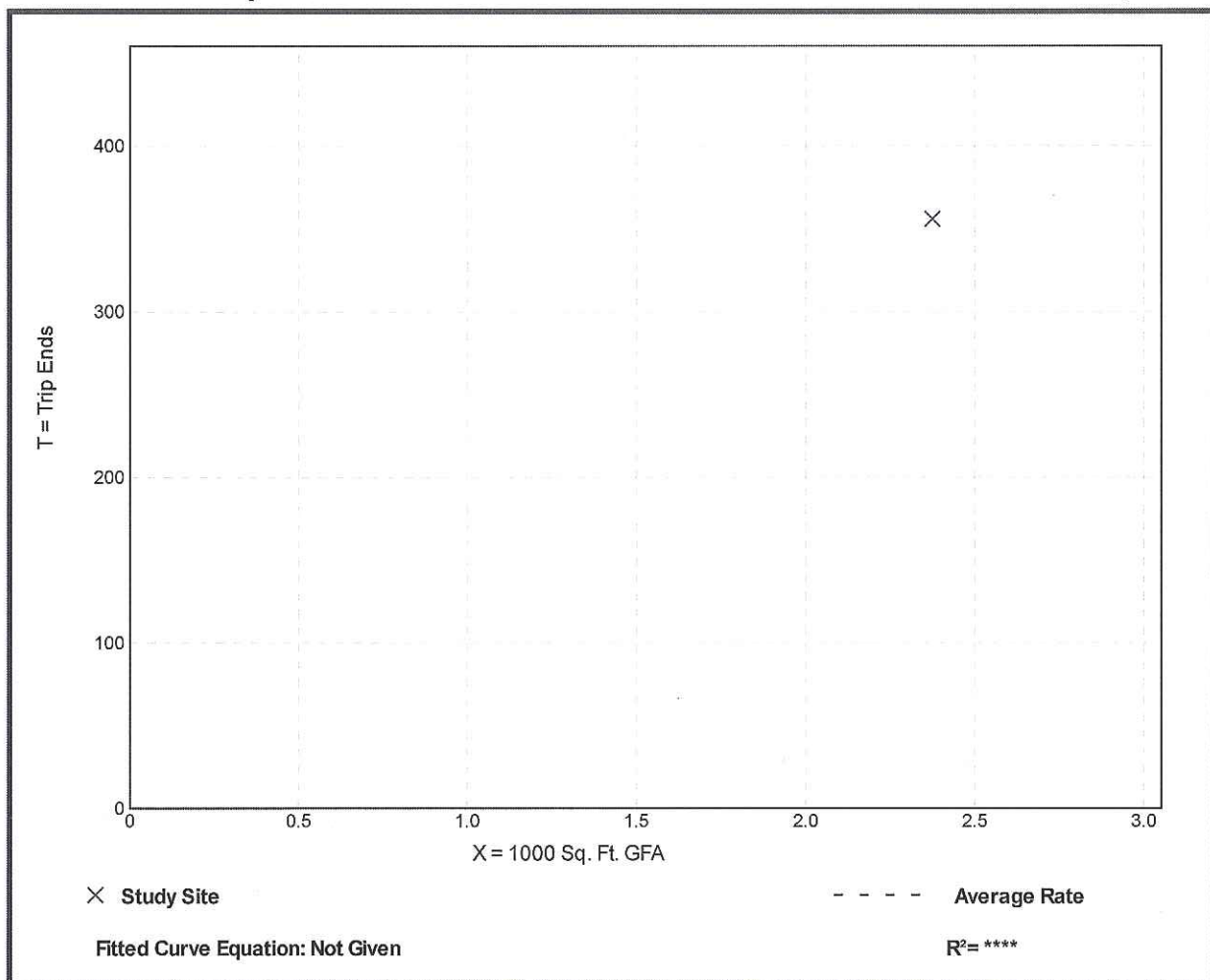
Setting/Location: Dense Multi-Use Urban
Number of Studies: 1
1000 Sq. Ft. GFA: 2
Directional Distribution: Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
149.89	149.89 - 149.89	*

Data Plot and Equation

Caution – Small Sample Size



Fast-Food Restaurant with Drive-Through Window (934)

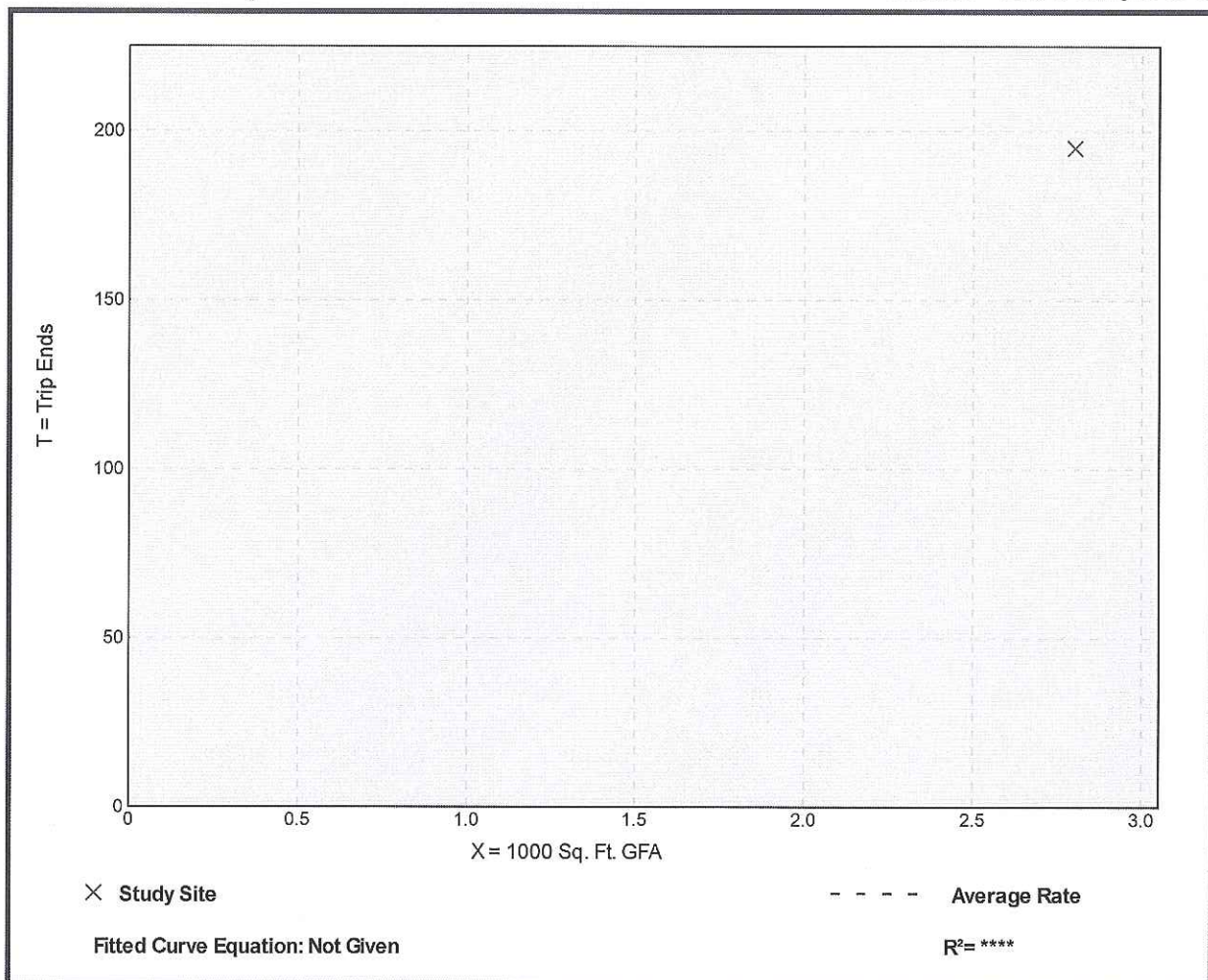
Person Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 1
 1000 Sq. Ft. GFA: 3
 Directional Distribution: 46% entering, 54% exiting

Person Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
69.64	69.64 - 69.64	*

Data Plot and Equation

Caution – Small Sample Size



Fast-Food Restaurant with Drive-Through Window (934)

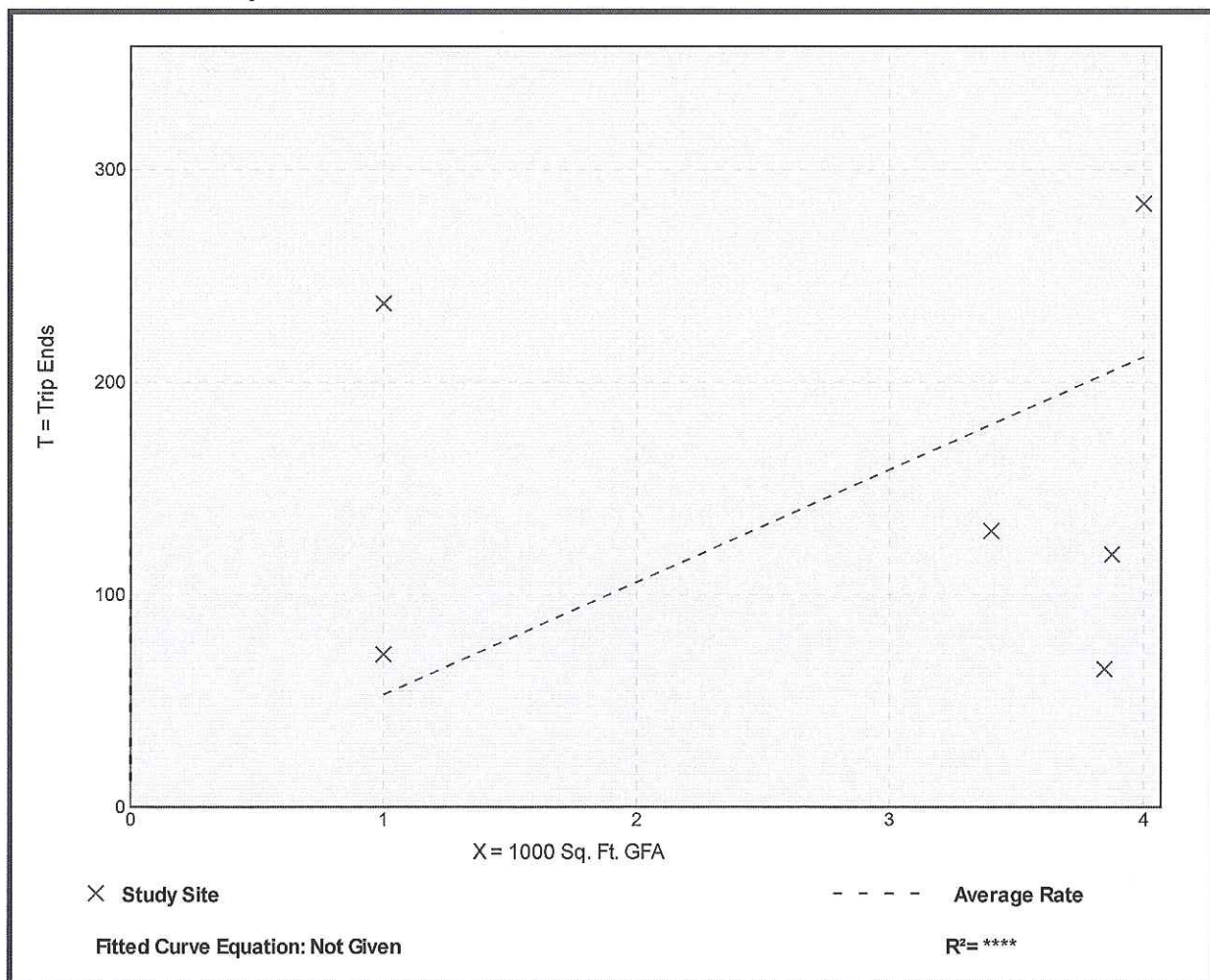
Person Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 6
1000 Sq. Ft. GFA: 3
Directional Distribution: 54% entering, 46% exiting

Person Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
52.98	16.91 - 237.00	55.02

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

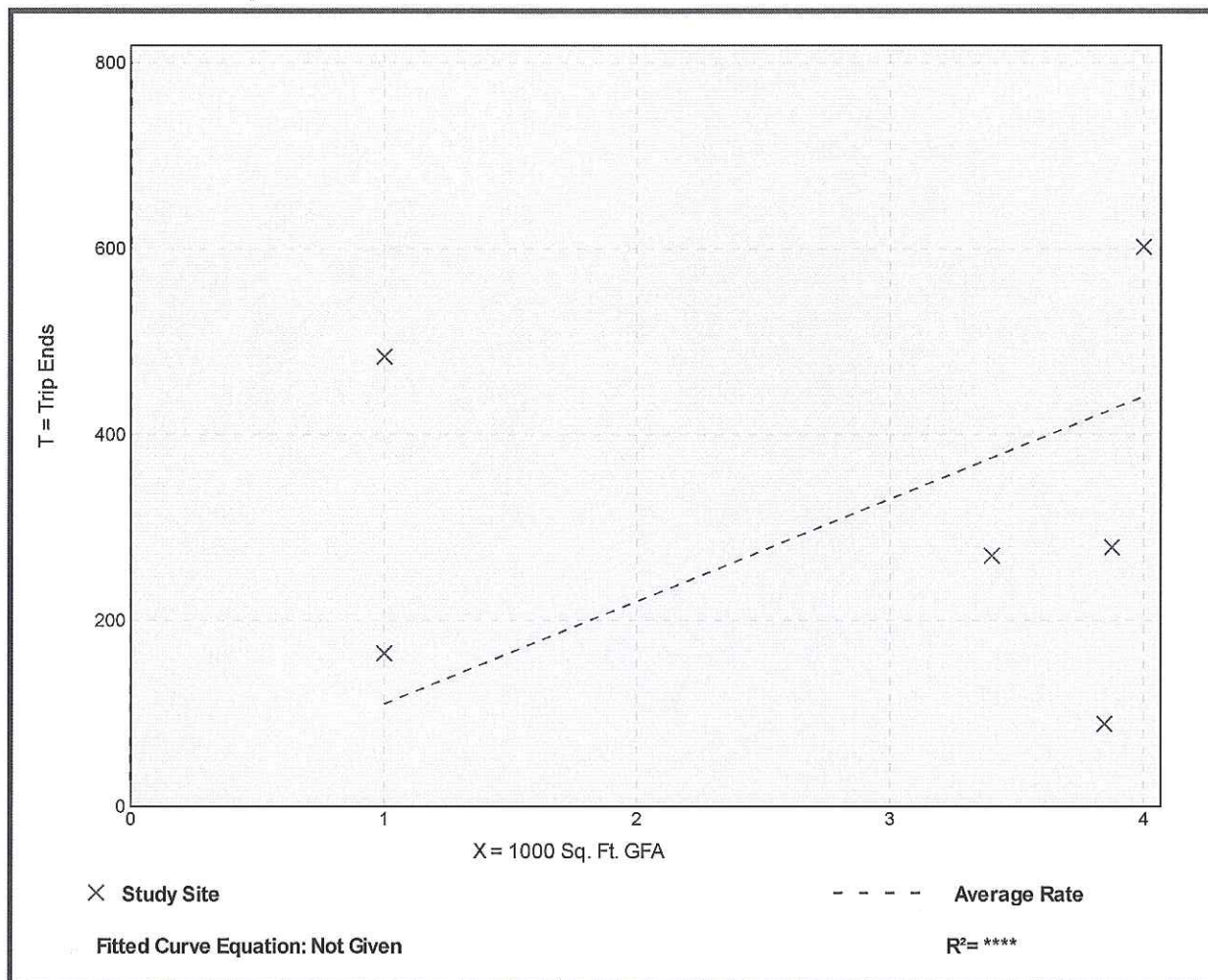
Person Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 6
1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

Person Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
110.34	23.15 - 484.00	114.56

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

Person Trip Ends vs: 1000 Sq. Ft. GFA
On a: Sunday, Peak Hour of Generator

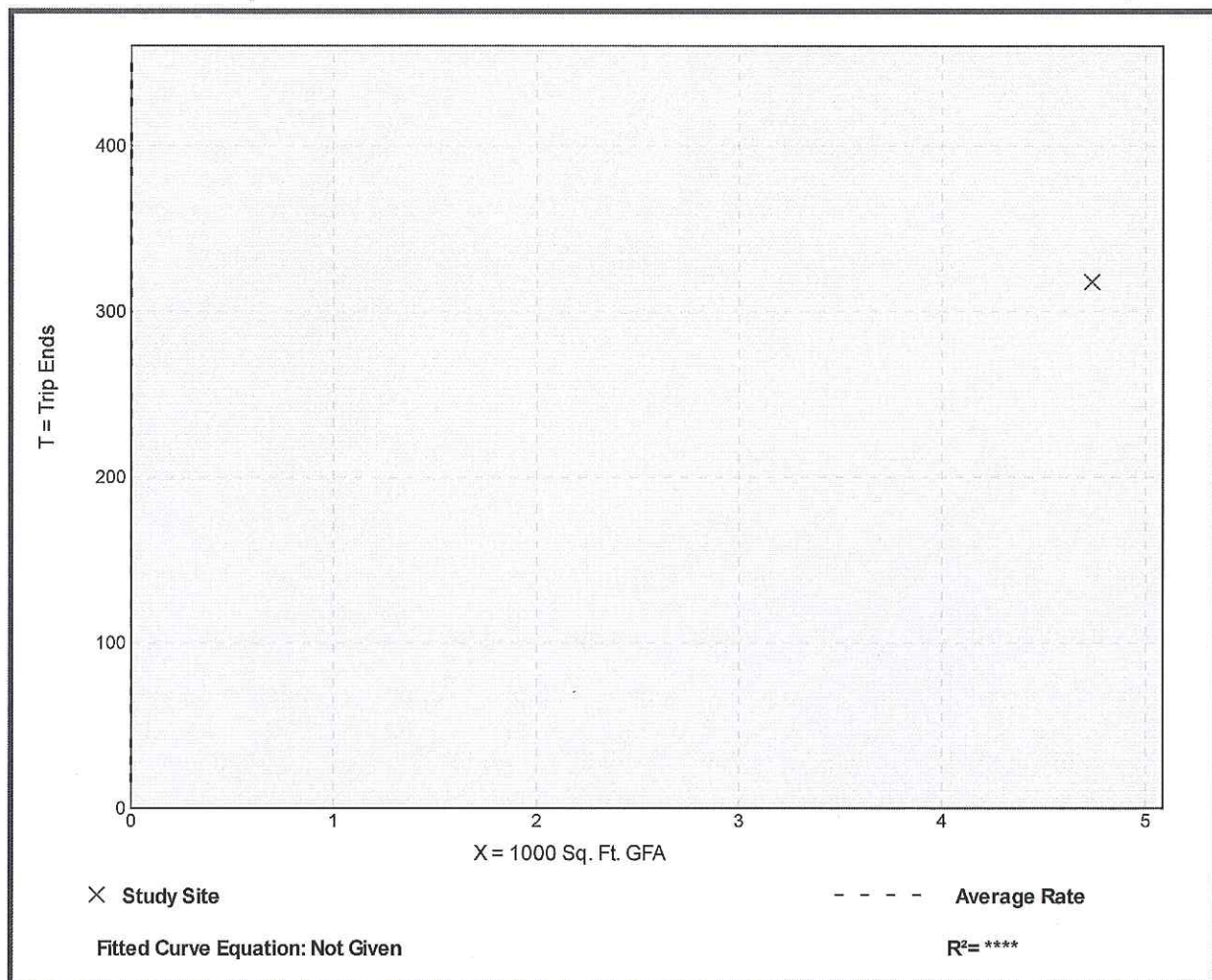
Setting/Location: General Urban/Suburban
Number of Studies: 1
1000 Sq. Ft. GFA: 5
Directional Distribution: 47% entering, 53% exiting

Person Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
67.16	67.16 - 67.16	*

Data Plot and Equation

Caution – Small Sample Size



Fast-Food Restaurant with Drive-Through Window (934)

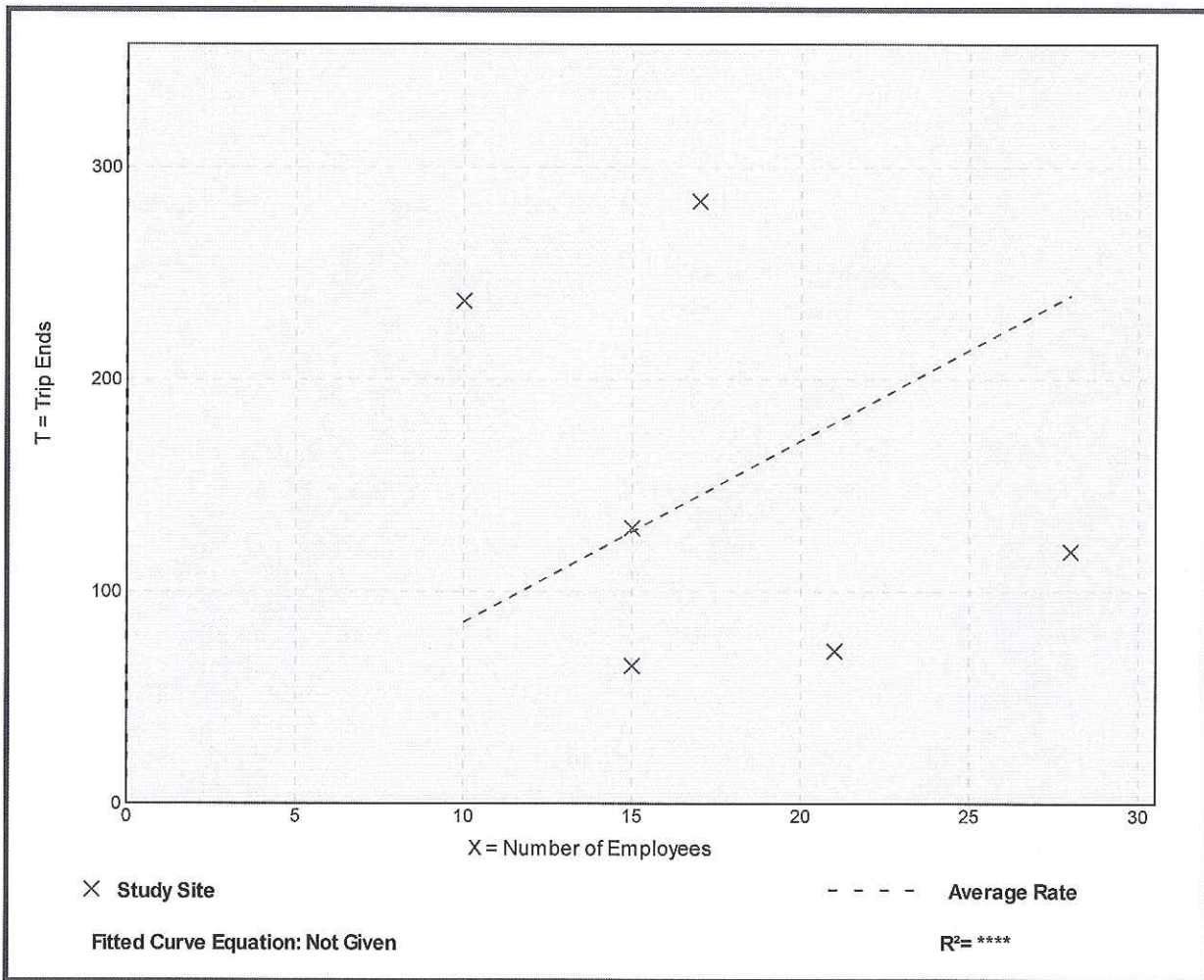
Person Trip Ends vs: Employees
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 6
Avg. Num. of Employees: 18
Directional Distribution: 54% entering, 46% exiting

Person Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
8.56	3.43 - 23.70	7.34

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

Person Trip Ends vs: Employees

On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 6

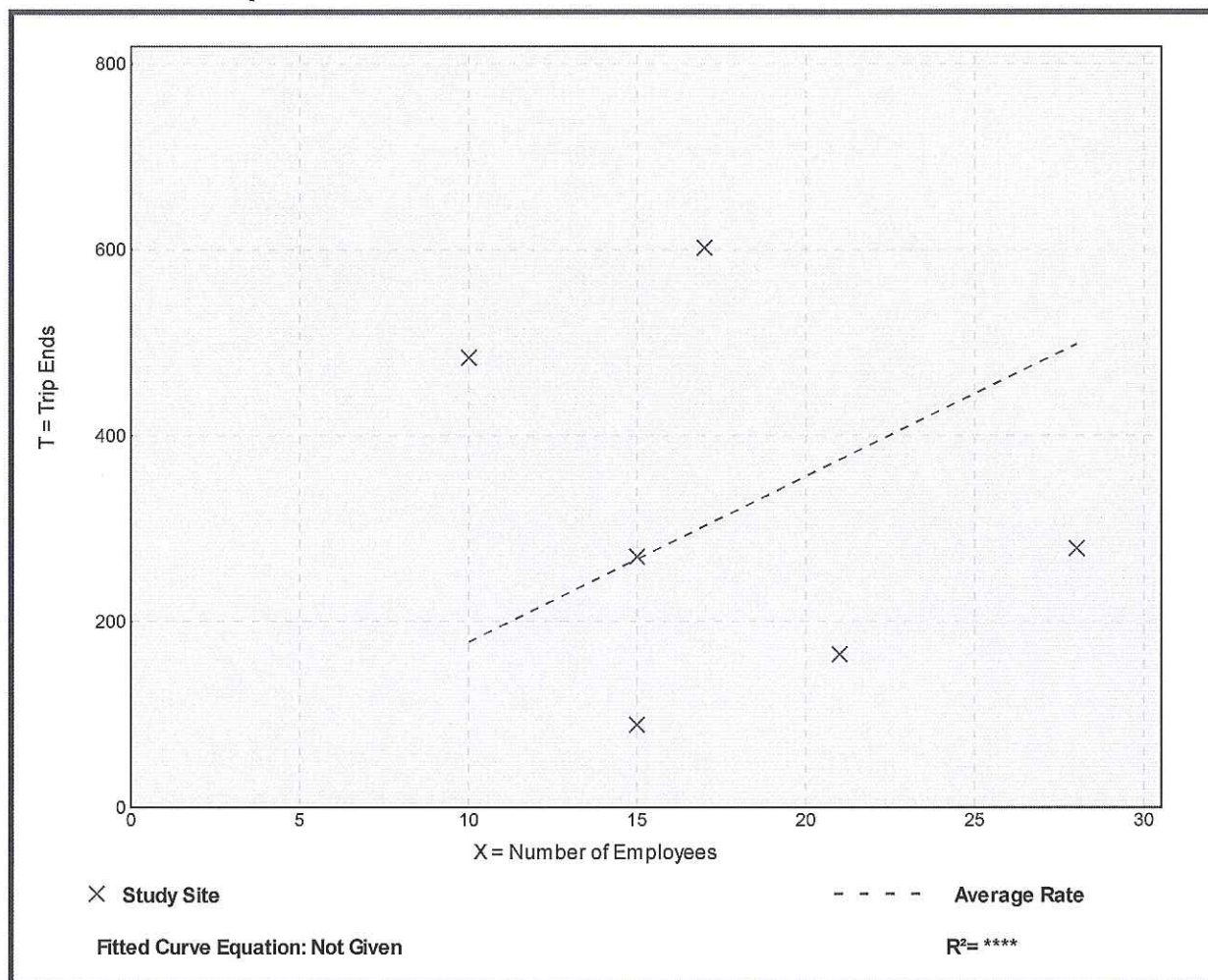
Avg. Num. of Employees: 18

Directional Distribution: 50% entering, 50% exiting

Person Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
17.82	5.93 - 48.40	15.25

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

Person Trip Ends vs: Employees
On a: Sunday, Peak Hour of Generator

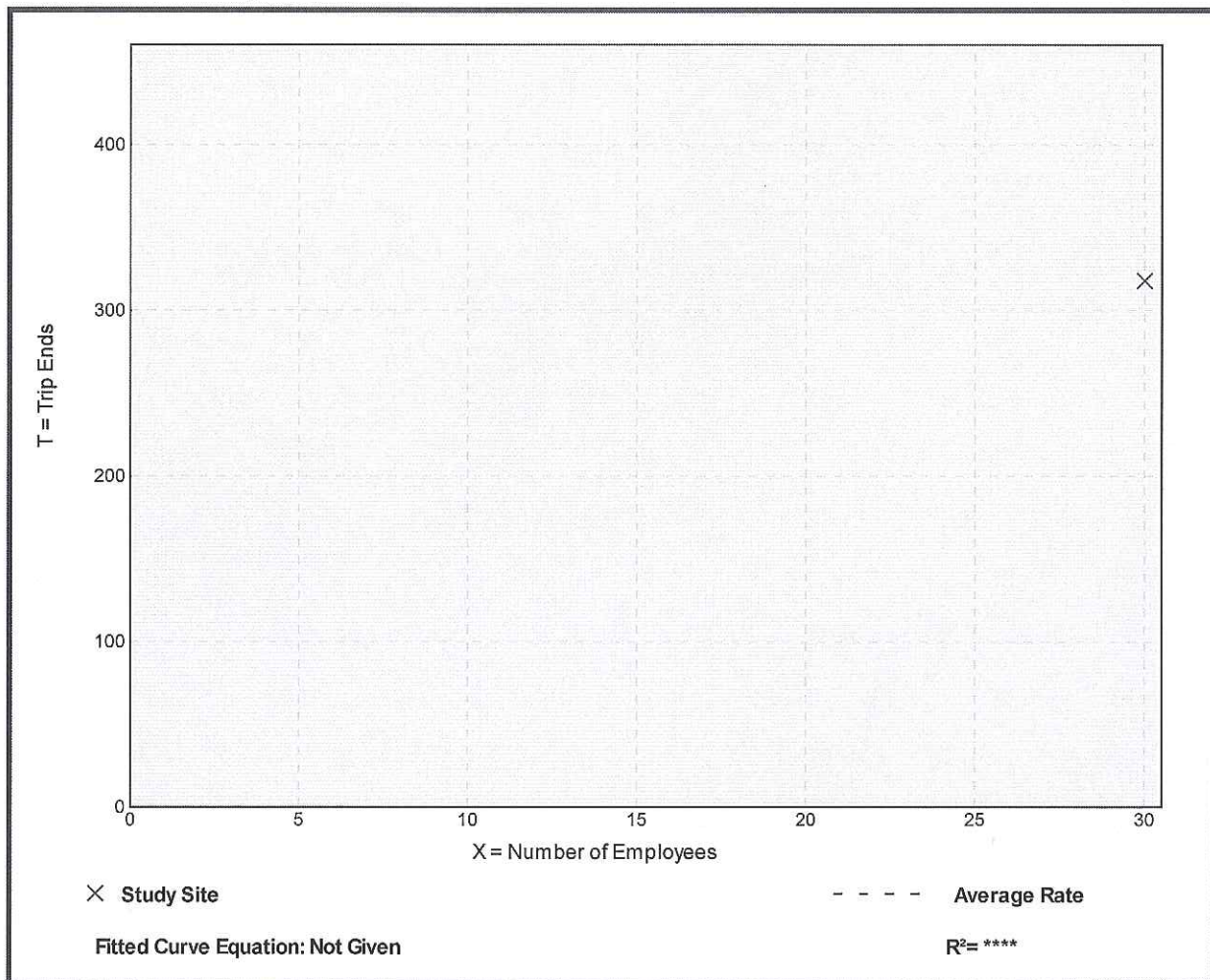
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Employees: 30
Directional Distribution: 47% entering, 53% exiting

Person Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
10.60	10.60 - 10.60	*

Data Plot and Equation

Caution – Small Sample Size



Fast-Food Restaurant with Drive-Through Window (934)

Person Trip Ends vs: Seats
On a: Weekday,
AM Peak Hour of Generator

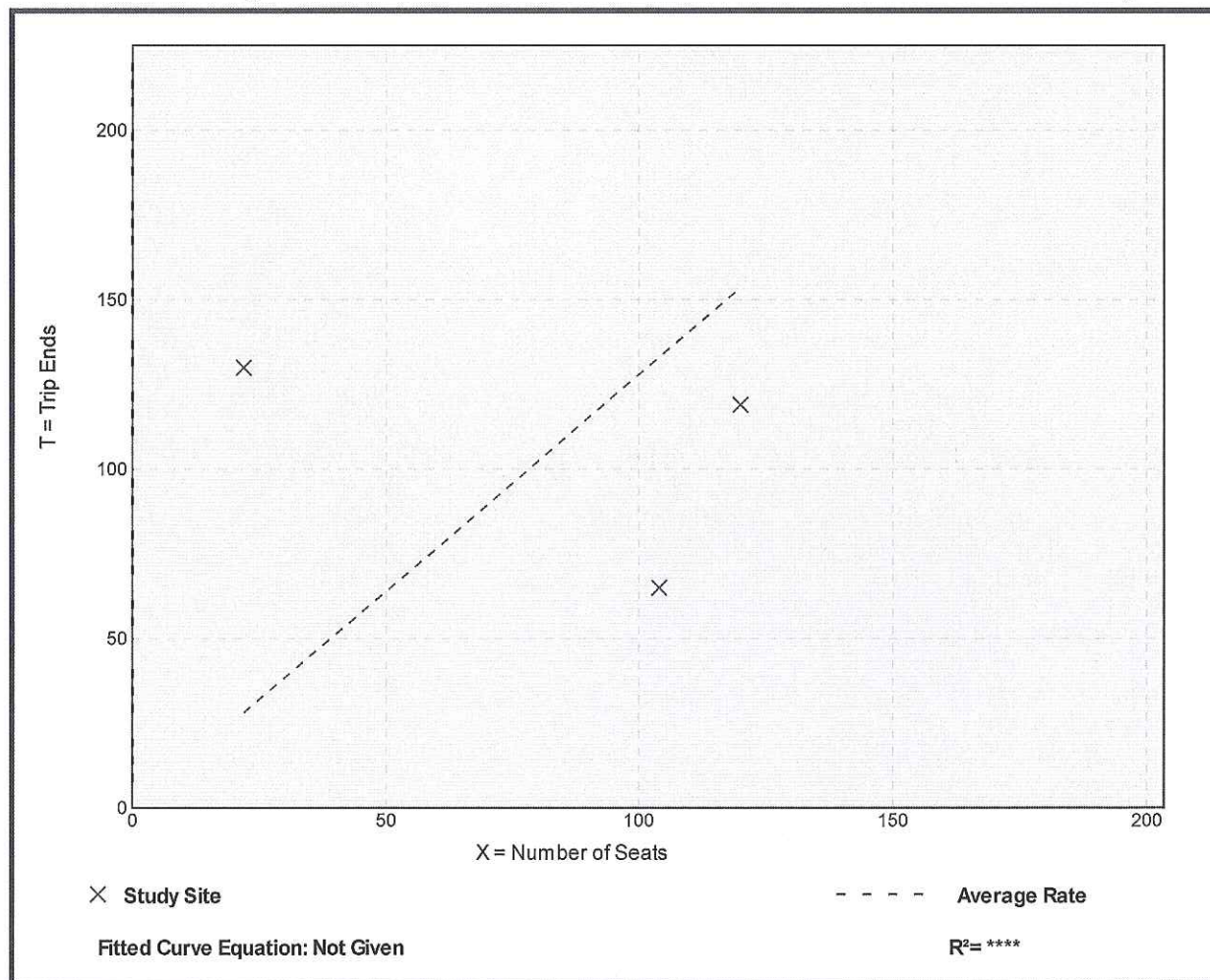
Setting/Location: General Urban/Suburban
Number of Studies: 3
Avg. Num. of Seats: 82
Directional Distribution: 57% entering, 43% exiting

Person Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
1.28	0.63 - 5.91	4.26

Data Plot and Equation

Caution – Small Sample Size



Fast-Food Restaurant with Drive-Through Window (934)

Person Trip Ends vs: Seats
On a: Weekday,
PM Peak Hour of Generator

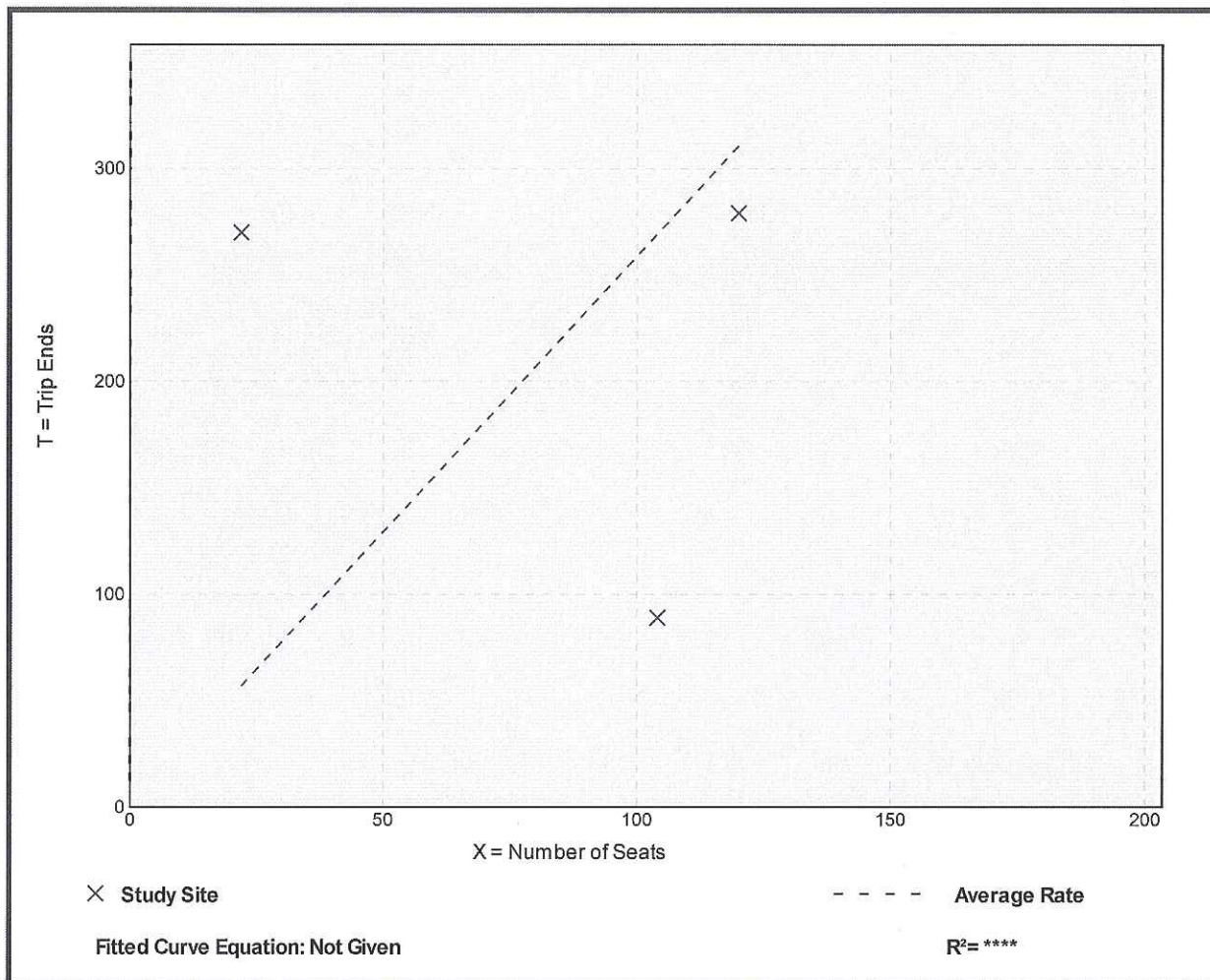
Setting/Location: General Urban/Suburban
Number of Studies: 3
Avg. Num. of Seats: 82
Directional Distribution: 50% entering, 50% exiting

Person Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
2.59	0.86 - 12.27	8.85

Data Plot and Equation

Caution – Small Sample Size



Fast-Food Restaurant with Drive-Through Window (934)

Person Trip Ends vs: Seats
On a: Sunday, Peak Hour of Generator

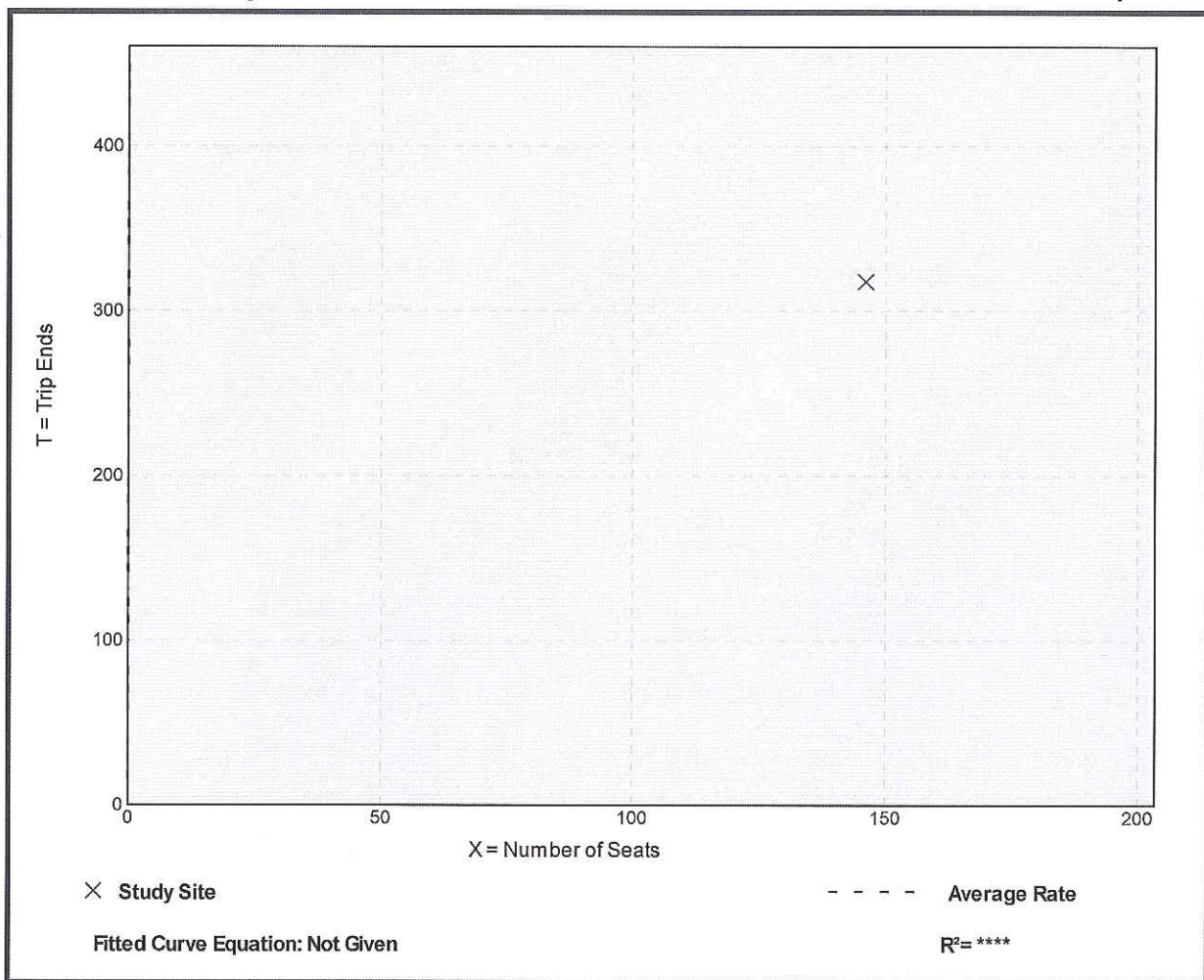
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Seats: 146
Directional Distribution: 47% entering, 53% exiting

Person Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
2.18	2.18 - 2.18	*

Data Plot and Equation

Caution – Small Sample Size



DATA FROM THE ITE TRIP GENERATION HANDBOOK, THIRD EDITION

**Table E.9 Pass-By and Non-Pass-By Trips Weekday, PM Peak Period
Land Use Code 820—Shopping Center**

SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
53	Port Orange, FL	1993	162	2:00–6:00 p.m.	59	—	—	41	—	—	TPD Inc.
9	Kissimmee, FL	1994	107	2:00–6:00 p.m.	66	20	14	34	—	—	TPD Inc.
77	Edgewater, FL	1992	365	2:00–6:00 p.m.	46	—	—	54	—	—	TPD Inc.
82	Deltona, FL	1992	336	2:00–6:00 p.m.	34	—	—	66	—	—	TPD Inc.
78	Orlando, FL	1991	702	2:00–6:00 p.m.	55	23	22	45	—	—	TPD Inc.
45	Orlando, FL	1992	844	2:00–6:00 p.m.	56	24	20	44	—	—	TPD Inc.
50	Orlando, FL	1992	555	2:00–6:00 p.m.	41	41	18	59	—	—	TPD Inc.
52	Orlando, FL	1995	665	2:00–6:00 p.m.	42	33	25	58	—	—	TPD Inc.
17	Orlando, FL	1994	196	2:00–6:00 p.m.	66	—	—	34	—	—	TPD Inc.
60	Orlando, FL	1995	1,583	3:00–7:00 p.m.	40	38	22	60	—	—	TPD Inc.
158	Crestwood, KY	June 1993	129	4:00–6:00 p.m.	36	39	25	64	759	—	Barton- Aschman Assoc.
118	Louisville area, KY	June 1993	133	4:00–6:00 p.m.	22	51	27	78	3,555	—	Barton- Aschman Assoc.
74	Louisville, KY	June 1993	187	4:00–6:00 p.m.	30	43	27	70	922	—	Barton- Aschman Assoc.
59	Louisville area, KY	June 1993	247	4:00–6:00 p.m.	31	52	17	69	2,659	—	Barton- Aschman Assoc.
145	Louisville area, KY	June 1993	210	4:00–6:00 p.m.	53	30	17	47	2,636	—	Barton- Aschman Assoc.
104	Louisville area, KY	June 1993	281	4:00–6:00 p.m.	28	50	22	72	2,111	—	Barton- Aschman Assoc.
235	Louisville, KY	June 1993	211	4:00–6:00 p.m.	35	29	36	65	2,593	—	Barton- Aschman Assoc.
71	Louisville, KY	June 1993	109	4:00–6:00 p.m.	25	42	33	75	1,559	—	Barton- Aschman Assoc.
350	Worcester, MA	Apr. 1994	224	4:00–6:00 p.m.	18	45	37	82	2,112	—	ICSC
738	East Brunswick, NJ	Apr. 1994	283	4:00–6:00 p.m.	14	79	7	86	8,059	—	ICSC
294	Philadelphia, PA	Apr. 1994	213	4:00–6:00 p.m.	25	51	24	75	4,055	—	ICSC
256	Hamden, CT	Apr. 1994	208	4:00–6:00 p.m.	27	51	22	73	3,422	—	ICSC
418	Glen Burnie, MD	Apr. 1994	281	4:00–6:00 p.m.	20	51	29	80	5,610	—	ICSC
560	Harrisonburg, VA	Apr. 1994	437	4:00–6:00 p.m.	19	49	32	81	3,051	—	ICSC

**Table E.9 (Cont'd) Pass-By and Non-Pass-By Trips Weekday,
PM Peak Period Land Use Code 820—Shopping Center**

SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
361	Glen Allen, VA	Apr. 1994	315	4:00–6:00 p.m.	17	54	29	83	2,034	—	ICSC
375	Shelby, NC	May 1994	214	4:00–6:00 p.m.	30	48	22	70	3,053	—	ICSC
413	Texas City, TX	May 1994	228	4:00–6:00 p.m.	28	52	20	72	589	—	ICSC
488	Texas City, TX	May 1994	257	4:00–6:00 p.m.	12	75	13	88	1,094	—	ICSC
293	Berwyn, IL	May 1994	282	4:00–6:00 p.m.	24	70	6	76	4,606	—	ICSC
667	Bourbonais, IL	May 1994	200	4:00–6:00 p.m.	16	53	31	84	2,770	—	ICSC
225	Bellevue, IL	May 1994	264	4:00–6:00 p.m.	35	32	33	65	1,970	—	ICSC
255	Bettendorf, IA	May 1994	222	4:00–6:00 p.m.	24	37	39	76	3,706	—	ICSC
808	Laguna Hills, CA	June 1994	240	4:00–6:00 p.m.	13	73	14	87	4,035	—	ICSC
450	Hanford, CA	May 1994	321	4:00–6:00 p.m.	23	49	28	77	2,787	—	ICSC
800	San Jose, CA	May 1994	205	4:00–6:00 p.m.	21	51	28	79	7,474	—	ICSC
598	Greeley, CO	May 1994	205	4:00–6:00 p.m.	17	55	28	83	3,840	—	ICSC
581	Pueblo, CO	May 1994	296	4:00–6:00 p.m.	18	53	29	82	2,939	—	ICSC
476	Bellevue, WA	May 1994	234	4:00–6:00 p.m.	26	54	20	74	3,427	—	ICSC
720	Framingham, MA	Dec. 1982	92	3:30–7:00 p.m.	23	39	38	77	—	73,628	Raymond Keyes Assoc.
890	Newark, DE	July 1984	179	3:00–8:00 p.m.	12	49	39	88	—	—	Raymond Keyes Assoc.
402	Manassas, VA	June 1984	87	4:00–6:00 p.m.	48	25	27	52	—	—	Raymond Keyes Assoc.
462	Ross, PA	June 1980	175	5:30–7:00 p.m.	36	—	—	64	—	27,200	Raymond Keyes Assoc.
234	Huntington LI, NY	Nov. 1985	181	4:00–7:00 p.m.	46	21	33	54	—	34,630	Raymond Keyes Assoc.
658	Wayne, NJ	Sept. 1984	243	3:00–6:00 p.m.	27	61	12	73	—	85,600	Raymond Keyes Assoc.
1,200	Washington, DC	1980	364	4:00–6:00 p.m.	25	35	40	75	—	—	Gorove-Slade
800	Southern CA	—	1,000	4:00–6:00 p.m.	12	45	43	88	—	—	Frischer
451	Portland, OR	—	—	5:00–6:00 p.m.	25	—	—	75	—	—	Buttke
113	Portland, OR	—	—	5:00–6:00 p.m.	17	—	—	83	—	—	Buttke

**Table E.9 (Cont'd) Pass-By and Non-Pass-By Trips Weekday, PM
Peak Period Land Use Code 820—Shopping Center**

SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
622	Ramsey, MN	Nov. 1985	46	4:00–9:00 p.m.	44	26	30	56	—	36,370	Raymond Keyes Assoc.
736	Pensacola, FL	Oct. 1985	383	3:00–7:00 p.m.	26	35	39	74	—	—	Raymond Keyes Assoc.
84	Dover, DE	July 1985	218	3:30–7:00 p.m.	50	6	44	50	—	—	Raymond Keyes Assoc.
500	Meriden, CT	Apr. 1985	—	4:00–6:00 p.m.	8	—	—	92	—	—	Connecticut DOT
660	Enfield, CT	Apr. 1985	—	4:00–6:00 p.m.	22	—	—	78	—	—	Connecticut DOT
845	Waterford, CT	Apr. 1985	—	4:00–6:00 p.m.	14	—	—	86	—	—	Connecticut DOT
1,060	West Hartford, CT	Apr. 1985	—	4:00–6:00 p.m.	17	—	—	83	—	—	Connecticut DOT
131	Pr. Georges Co., MD	1982/83	88	4:00–6:00 p.m.	74	—	—	26	—	—	JHK
181	Pr. Georges Co., MD	1982/83	105	4:00–6:00 p.m.	36	—	—	64	—	—	JHK
100	Pr. Georges Co., MD	1982/83	93	4:00–6:00 p.m.	36	—	—	64	—	—	JHK
475	Pr. Georges Co., MD	1982/83	130	4:00–6:00 p.m.	20	—	—	80	—	—	JHK
60	Pr. Georges Co., MD	1982/83	72	4:00–6:00 p.m.	72	—	—	28	—	—	JHK
90	Pr. Georges Co., MD	1982/83	91	4:00–6:00 p.m.	58	—	—	42	—	—	JHK
78	Pr. Georges Co., MD	1982/83	113	4:00–6:00 p.m.	59	—	—	41	—	—	JHK
44	Pr. Georges Co., MD	1982/83	97	4:00–6:00 p.m.	51	—	—	49	—	—	JHK
467	Pr. Georges Co., MD	1982/83	99	4:00–6:00 p.m.	56	—	—	44	—	—	JHK
352	W. Orange, NJ	Mar. 1986	149	4:00–6:00 p.m.	38	19	43	62	—	21,520	Raymond Keyes Assoc.
176	Tarpon Springs, FL	May 1986	124	3:00–7:00 p.m.	37	28	35	63	—	34,080	Raymond Keyes Assoc.
762	Orlando, FL	Fall 1985	182	4:00–6:00 p.m.	25	52	23	75	—	—	Kimley-Horn and Assoc. Inc.
166	Orlando, FL	Fall 1985	124	4:00–6:00 p.m.	27	48	25	73	—	—	Kimley-Horn and Assoc. Inc.
129	Orlando, FL	Fall 1985	116	4:00–6:00 p.m.	28	50	22	72	—	—	Kimley-Horn and Assoc. Inc.
71	Orlando, FL	Fall 1985	81	4:00–6:00 p.m.	50	44	6	50	—	—	Kimley-Horn and Assoc. Inc.

**Table E.9 (Cont'd) Pass-By and Non-Pass-By Trips Weekday, PM
Peak Period Land Use Code 820—Shopping Center**

SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
921	Albany, NY	July & Aug. 1985	196	4:00–6:00 p.m.	23	42	35	77	—	60,950	Raymond Keyes Assoc.
108	Overland Park, KS	July 1988	111	4:30–5:30 p.m.	26	61	13	74	—	34,000	—
118	Overland Park, KS	Aug. 1988	123	4:30–5:30 p.m.	25	55	20	75	—	—	—
256	Greece, NY	June 1988	120	4:00–6:00 p.m.	38	62	—	62	—	23,410	Sear Brown
160	Greece, NY	June 1988	78	4:00–6:00 p.m.	29	71	—	71	—	57,306	Sear Brown
550	Greece, NY	June 1988	117	4:00–6:00 p.m.	48	52	—	52	—	40,763	Sear Brown
51	Boca Raton, FL	Dec. 1987	110	4:00–6:00 p.m.	33	34	33	67	—	42,225	Kimley-Horn and Assoc. Inc.
1,090	Ross Twp, PA	July 1988	411	2:00–8:00 p.m.	34	56	10	66	—	51,500	Wilbur Smith and Assoc.
97	Upper Dublin Twp, PA	Winter 1988/89	—	4:00–6:00 p.m.	41	—	—	59	—	34,000	McMahon Associates
118	Tredyffrin Twp, PA	Winter 1988/89	—	4:00–6:00 p.m.	24	—	—	76	—	10,000	Booz Allen & Hamilton
122	Lawnside, NJ	Winter 1988/89	—	4:00–6:00 p.m.	37	—	—	63	—	20,000	Pennoni Associates
126	Boca Raton, FL	Winter 1988/89	—	4:00–6:00 p.m.	43	—	—	57	—	40,000	McMahon Associates
150	Willow Grove, PA	Winter 1988/89	—	4:00–6:00 p.m.	39	—	—	61	—	26,000	Booz Allen & Hamilton
153	Broward Cnty., FL	Winter 1988/89	—	4:00–6:00 p.m.	50	—	—	50	—	85,000	McMahon Associates
153	Arden, DE	Winter 1988/89	—	4:00–6:00 p.m.	30	—	—	70	—	26,000	Orth-Rodgers & Assoc. Inc.
154	Doylestown, PA	Winter 1988/89	—	4:00–6:00 p.m.	32	—	—	68	—	29,000	Orth-Rodgers & Assoc. Inc.
164	Middletown Twp, PA	Winter 1988/89	—	4:00–6:00 p.m.	33	—	—	67	—	25,000	Booz Allen & Hamilton
166	Haddon Twp, NJ	Winter 1988/89	—	4:00–6:00 p.m.	20	—	—	80	—	6,000	Pennoni Associates
205	Broward Cnty., FL	Winter 1988/89	—	4:00–6:00 p.m.	55	—	—	45	—	62,000	McMahon Associates

**Table E.9 (Cont'd) Pass-By and Non-Pass-By Trips Weekday, PM Peak Period
Land Use Code 820—Shopping Center**

SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
237	W. Windsor Twp, NJ	Winter 1988/89	—	4:00–6:00 p.m.	48	—	—	52	—	46,000	Booz Allen & Hamilton
242	Willow Grove, PA	Winter 1988/89	—	4:00–6:00 p.m.	37	—	—	63	—	26,000	McMahon Associates
297	Whitehall, PA	Winter 1988/89	—	4:00–6:00 p.m.	33	—	—	67	—	26,000	Orth-Rodgers & Assoc. Inc.
360	Broward Cnty., FL	Winter 1988/89	—	4:00–6:00 p.m.	44	—	—	56	—	73,000	McMahon Associates
370	Pittsburgh, PA	Winter 1988/89	—	4:00–6:00 p.m.	19	—	—	81	—	33,000	Wilbur Smith
150	Portland, OR	—	519	4:00–6:00 p.m.	68	6	26	32	—	25,000	Kittelson and Associates
150	Portland, OR	—	655	4:00–6:00 p.m.	65	7	28	35	—	30,000	Kittelson and Associates
760	Calgary, Alberta	Oct.-Dec. 1987	15,436	4:00–6:00 p.m.	20	39	41	80	—	—	City of Calgary DOT
178	Bordentown, NJ	Apr. 1989	154	2:00–6:00 p.m.	35	—	—	65	—	37,980	Raymond Keyes Assoc.
144	Manalapan, NJ	July 1990	176	3:30–6:15 p.m.	32	44	24	68	—	69,347	Raymond Keyes Assoc.
549	Natick, MA	Feb. 1989	—	4:45–5:45 p.m.	33	26	41	67	—	48,782	Raymond Keyes Assoc.

Average Pass-By Trip Percentage: 34

“—” means no data were provided

Figure E.7 Shopping Center (820)

Average Pass-By Trip Percentage vs: 1000 Sq. Feet Gross Leasable Area
On a: Weekday, P.M. Peak Period
Number of Studies: 100
Average 1000 Sq. Feet GLA: 329

Data Plot

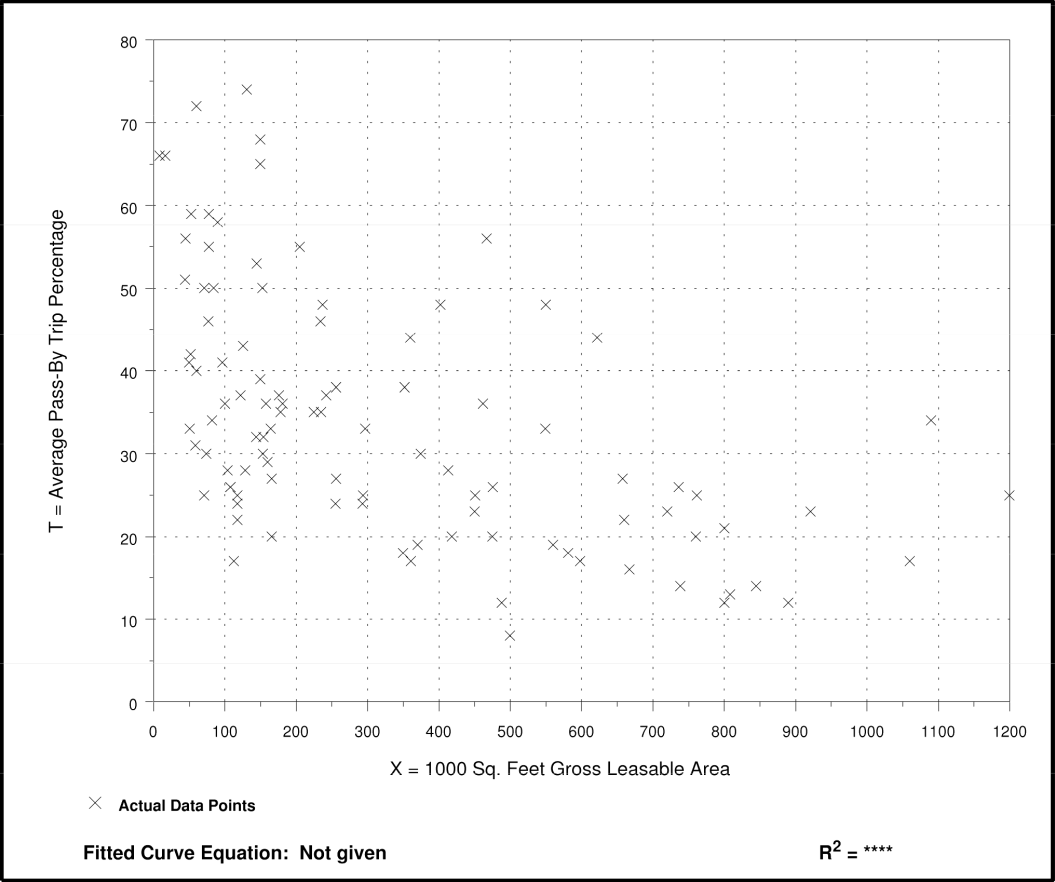


Figure E.8 Shopping Center (820)

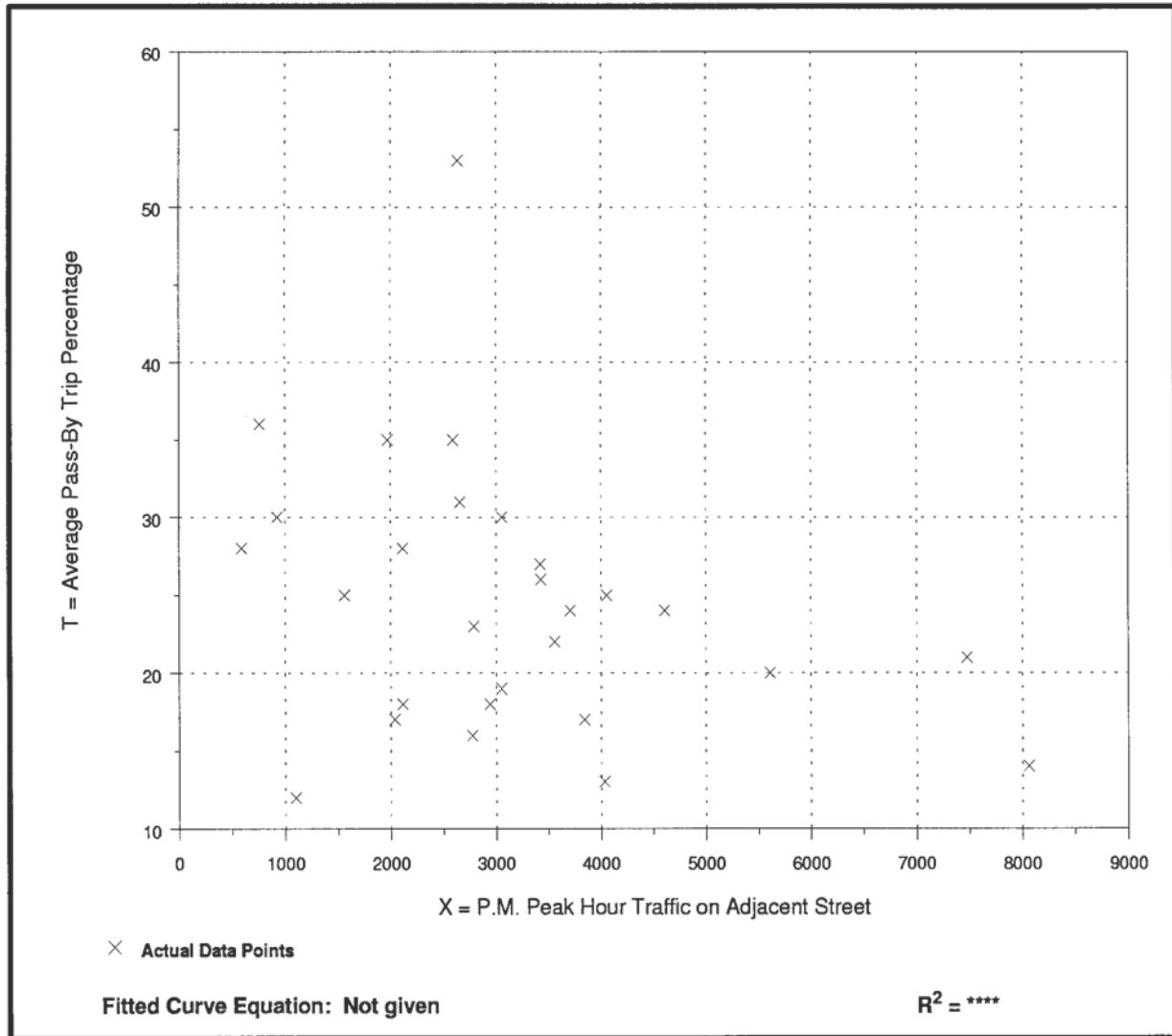
Average Pass-By-Trip Percentage vs: PM Peak Hour Traffic on Adjacent Street

On a: Weekday, PM Peak Period

Number of Studies: 28

Average PM Peak Hr. Traf. On Adj. Street: 3,122

Data Plot



**Table E.10 Pass-By and Non-Pass-By Trips Saturday, Mid-Day Peak Period
Land Use Code 820—Shopping Center**

SIZE (1,000 SQ. FT. GFA)	LOCATION	SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
						PRIMARY	DIVERTED	TOTAL		
720	Framingham, MA	Feb. 1984	258	11:00 a.m.–4:00 p.m.	23	34	43	77	—	Raymond Keyes Assoc.
600	Brandywine, DE	Apr. 1983	256	10:00 a.m.–3:00 p.m.	17	50	33	83	—	Raymond Keyes Assoc.
880	Christiana, DE	July 1984	198	11:00 a.m.–4:00 p.m.	5	55	40	95	—	Raymond Keyes Assoc.
234	Huntington LI, NY	Nov. 1985	223	11:00 a.m.–3:00 p.m.	39	22	39	61	—	Raymond Keyes Assoc.
658	Wayne, NJ	Sept. 1984	329	11:00 a.m.–4:00 p.m.	46	44	10	54	—	Raymond Keyes Assoc.
622	Ramsey Cnty, MN	Nov. 1985	119	11:00 a.m.–3:00 p.m.	23	21	56	77	—	Raymond Keyes Assoc.
736	Pensacola, FL	Oct. 1985	680	11:00 a.m.–3:00 p.m.	20	31	49	80	—	Raymond Keyes Assoc.
430	Ross, PA	June 1980	425	11:00 a.m.–4:00 p.m.	22	—	—	78	—	Raymond Keyes Assoc.
176	Tampa Springs, FL	May 1986	188	11:00 a.m.–3:00 p.m.	31	42	27	69	—	Raymond Keyes Assoc.
144	Manalapan, NJ	July 1990	264	11:00 a.m.–3:15 p.m.	31	47	22	69	63,362	Raymond Keyes Assoc.
549	Natick, MA	Feb. 1989	—	2:15–3:15 p.m.	28	39	33	72	48,782	Raymond Keyes Assoc.

Average Pass-By Trip Percentage: 26

“—” means no data were provided

Figure E.9 Shopping Center (820)

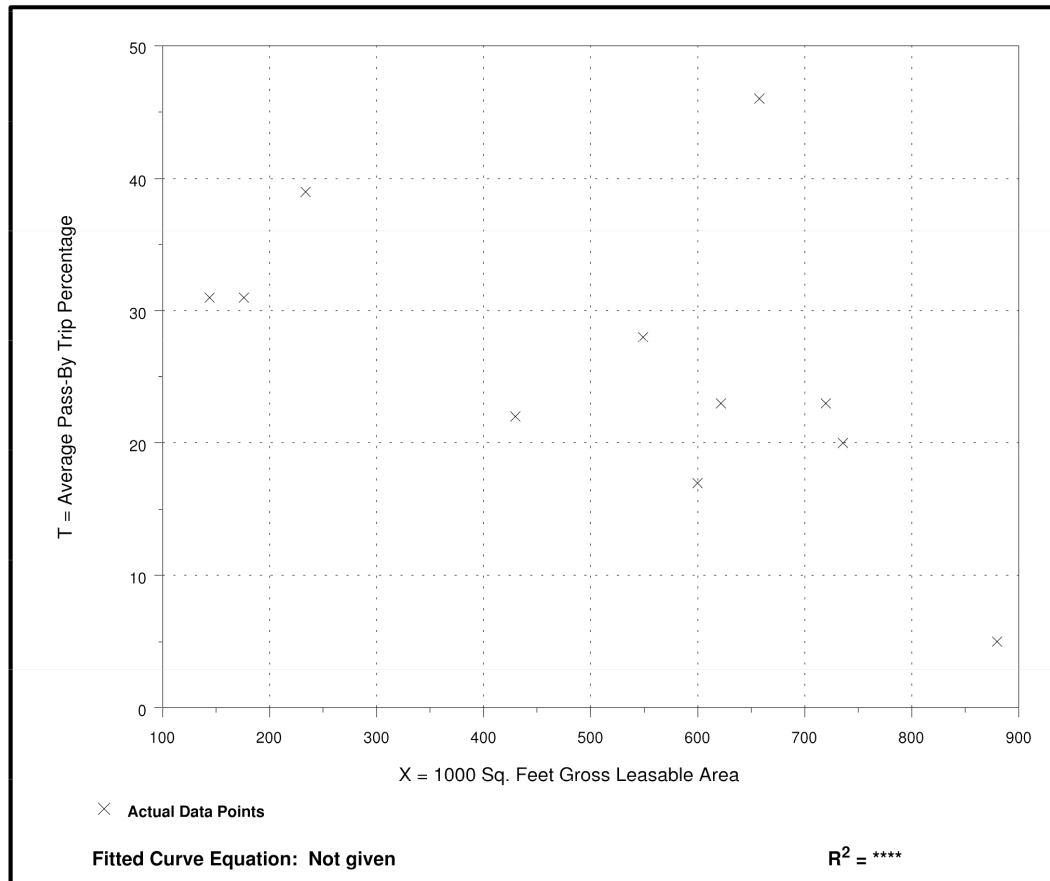
Average Pass-By Trip Percentage vs: 1000 Sq. Feet Gross Leasable Area

On a: Saturday

Number of Studies: 11

Average 1000 Sq. Feet GLA: 523

Data Plot



**Table E.31 Pass-By and Non-Pass-By Trips Weekday, AM Peak Period
Land Use Code 934—Fast-Food Restaurant with Drive-Through Window**

SEATS	SIZE (1,000 SQ. FT. GFA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
							PRIMARY	DIVERTED	TOTAL		
—	<5	Chicago suburbs, IL	1987	84	7:00–9:00 a.m.	44	—	—	56	—	Kenig, O'Hara, Humes, Flock
88	1.4	Louisville area, KY	1993	—	7:00–9:00 a.m.	62	22	16	38	1,407	Barton-Aschman Assoc.
100	3.6	Louisville, KY	1993	—	7:00–9:00 a.m.	32	47	21	68	437	Barton-Aschman Assoc.
87	4.2	New Albany, IN	1993	—	7:00–9:00 a.m.	46	23	31	54	1,049	Barton-Aschman Assoc.
150	3.0	Louisville area, KY	1993	—	7:00–9:00 a.m.	43	14	43	57	2,903	Barton-Aschman Assoc.
—	3.3	varies	1996	—	6:00–9:00 a.m.	68	—	—	32	—	Oracle Engineering

Average Pass-By Trip Percentage: 49

“—” means no data were provided

**Table E.32 Pass-By and Non-Pass-By Trips Weekday, PM Peak Period
Land Use Code 934—Fast-Food Restaurant with Drive-Through Window**

SEATS	SIZE (1,000 SQ. FT. GFA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS- BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
							PRIMARY	DIVERTED	TOTAL		
—	~2.6	Minn-St. Paul, MN	1987	50	3:00–7:00 p.m.	25	27	48	75	—	—
—	<5.0	Chicago suburbs, IL	1987	80	3:00–6:00 p.m.	38	—	—	62	—	Kenig, O'Hara, Humes, Flock
—	<5.0	Chicago suburbs, IL	1987	100	3:00–6:00 p.m.	55	—	—	45	—	Kenig, O'Hara, Humes, Flock
—	<5.0	Chicago suburbs, IL	1987	159	3:00–6:00 p.m.	56	—	—	44	—	Kenig, O'Hara, Humes, Flock
—	<5.0	Chicago suburbs, IL	1987	225	3:00–6:00 p.m.	48	—	—	52	—	Kenig, O'Hara, Humes, Flock
—	<5.0	Chicago suburbs, IL	1987	88	3:00–6:00 p.m.	35	—	—	65	—	Kenig, O'Hara, Humes, Flock
—	<5.0	Chicago suburbs, IL	1987	84	3:00–6:00 p.m.	44	—	—	56	—	Kenig, O'Hara, Humes, Flock
88	1.3	Louisville area, KY	1993	—	4:00–6:00 p.m.	68	22	10	32	2,055	Barton- Aschman Assoc.
120	1.9	Louisville area, KY	1993	33	4:00–6:00 p.m.	67	24	9	33	2,447	Barton- Aschman Assoc.
87	4.2	New Albany, IN	1993	—	4:00–6:00 p.m.	56	25	19	44	1,632	Barton- Aschman Assoc.
150	3.0	Louisville area, KY	1993	—	4:00–6:00 p.m.	31	31	38	69	4,250	Barton- Aschman Assoc.
—	3.1	Kissimmee, FL	1995	28	2:00–6:00 p.m.	71	—	—	29	—	TPD Inc.
—	3.1	Apopka, FL	1996	29	2:00–6:00 p.m.	38	—	—	62	—	TPD Inc.
—	2.8	Winter Springs, FL	1995	47	2:00–6:00 p.m.	66	—	—	34	—	TPD Inc.
—	4.3	Longwood, FL	1994	304	2:00–6:00 p.m.	62	—	—	38	—	TPD Inc.
—	3.2	Altamonte Springs, FL	1996	202	2:00–6:00 p.m.	40	39	21	60	—	TPD Inc.
—	2.9	Winter Park, FL	1996	271	2:00–6:00 p.m.	41	41	18	59	—	TPD Inc.
—	3.3*	several	1996	varies	4:00–6:00 p.m.	62	—	—	38	—	Oracle Engineering

*Average of several combined studies.

Average Pass-By Trip Percentage: 50

“—” means no data were provided

Figure E.17 Fast-Food Restaurant with Drive-Through Window (934)

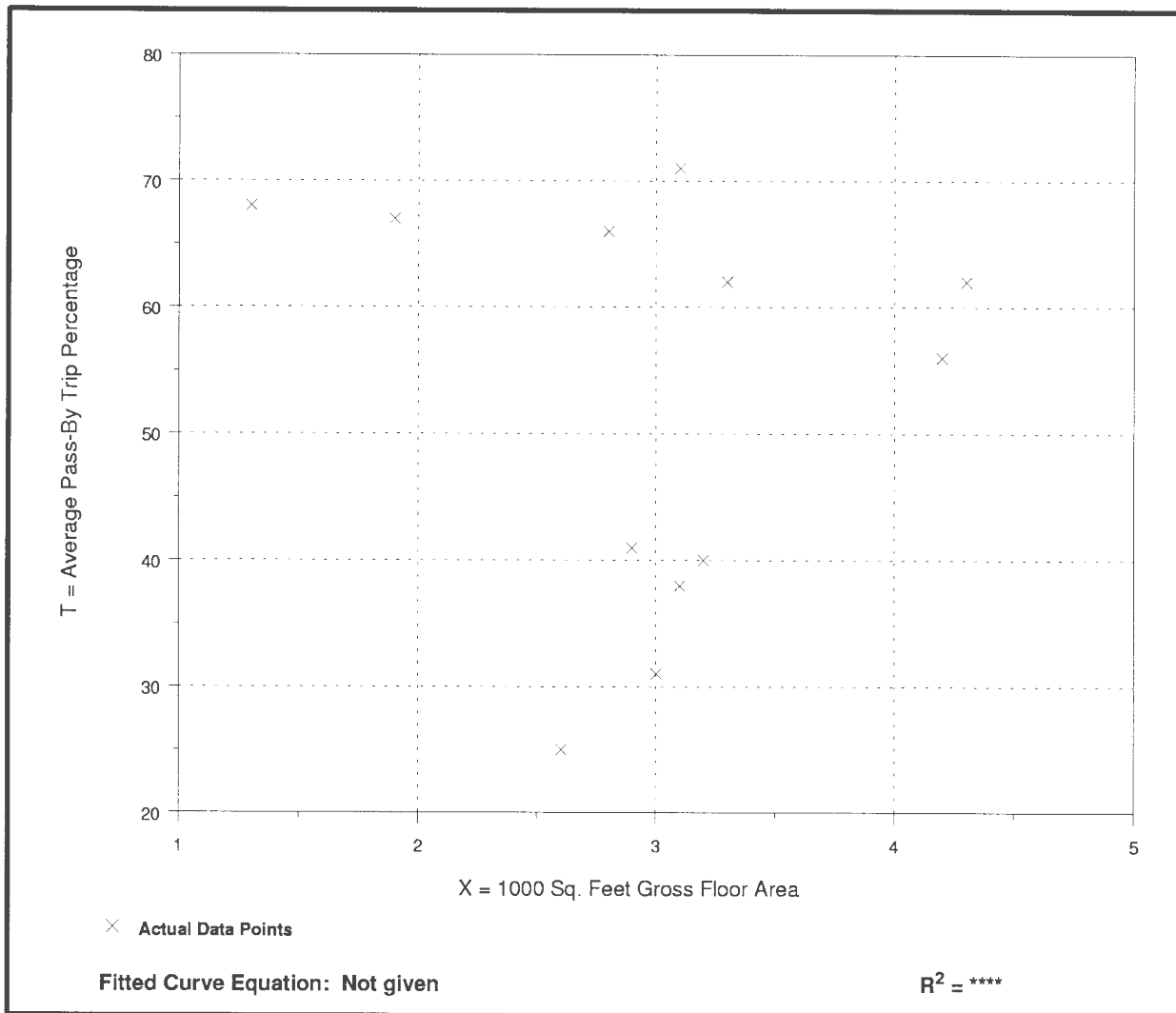
Average Pass-By/Trip Percentage vs: 1,000 Sq. Ft. Gross Floor Area

On a: Weekday, PM Peak Period

Number of Studies: 12

Average 1,000 Sq. Ft. GFA: 3.0

Data Plot



VACANT TENANT SPACES TRIP ASSIGNMENT – PRIMARY TRIPS



VACANT TENANT SPACES TRIP ASSIGNMENT – PASS-BY TRIPS



TRAFFIC COUNTS – STUDY INTERSECTIONS

Study Name 01 Arlington Heights & Palatine
Date Thursday, January 10, 2019

Report Summary

		Eastbound						Westbound						Northbound						Southbound						Crosswalk				
Time Period	Class.	U	L	T	R	I	O	U	L	T	R	I	O	U	L	T	R	I	O	U	L	T	R	I	O	Total	on	Crce	stria	Total
AM Peak Period	Lights	11	248	1852	147	2258	1190	0	176	808	9	993	2023	0	132	593	136	1597	1251	0	35	736	239	1938	993	6786	W	0	2	2
Specified Period	%	100%	99%	98%	98%	98%	95%	0%	97%	95%	100%	95%	98%	0%	91%	97%	99%	96%	98%	0%	97%		97%	97%	97%	97%	0%	100%		
7:00 AM - 9:00 AM	Mediums	0	2	20	2	24	43	0	4	34	0	38	22	0	4	21	1	51	27	0	1	18	5	45	27	158	E	0	0	0
One Hour Peak	%	0%	1%	1%	1%	1%	3%	0%	2%	4%	0%	4%	1%	0%	3%	3%	1%	3%	2%	0%	3%		2%	3%	2%	2%	0%	0%		
7:15 AM - 8:15 AM	ticultated Truc	0	0	16	1	17	14	0	1	11	0	12	16	0	0	5	0	10	5	0	0	1	3	7	5	46	S	0	0	0
	%	0%	0%	1%	1%	1%	1%	0%	1%	1%	0%	1%	1%	0%	0%	1%	0%	1%	0%	0%	0%		1%	0%	0%	1%	0%	0%		
	icycles on Roa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	0	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%		
	Total	11	250	1888	150	2299	1247	0	181	853	9	1043	2061	0	145	610	137	1658	1283	0	36	768	247	1990	1025	6990		0	2	2
	PHF	0	0.79	0.83	0.83	0.85	0	0	0.78	0.82	0.56	0	0.84	0	0.85	0.84	0.95	0.86	0.89	0	0.82	0.86	0.82	0.87	0.9	0.94				
	HV%	0%	1%	2%	2%	2%	5%	0%	3%	5%	0%	5%	2%	0%	3%	4%	1%	4%	2%	0%	3%	2%	3%	3%	3%	3%				
PM Peak Period	Lights	18	280	1187	138	1623	2158	2	184	1609	39	1834	1418	0	160	894	163	2289	1234	0	66	710	371	2059	1391	7805	W	0	1	1
Specified Period	%	100%	99%	97%	100%	98%	99%	100%	100%	99%	98%	99%	98%	0%	97%	100%	99%	99%	100%	0%	100%		99%	100%	99%	99%	99%	0%	100%	
4:00 PM - 6:00 PM	Mediums	0	2	25	0	27	10	0	0	8	1	9	26	0	1	3	1	9	2	0	0	3	1	6	7	51	E	0	0	0
One Hour Peak	%	0%	1%	2%	0%	2%	0%	0%	0%	0%	3%	0%	2%	0%	1%	0%	1%	0%	0%	0%	0%		0%	1%	1%	0%	0%	0%		
4:15 PM - 5:15 PM	ticultated Truc	0	0	9	0	9	14	0	0	13	0	13	9	0	0	2	0	4	0	0	0	0	1	1	2	27	S	0	0	0
	%	0%	0%	1%	0%	1%	1%	0%	0%	1%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%		
	icycles on Roa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	N	0	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%		
	Total	18	282	1221	138	1659	2182	2	184	1630	40	1856	1453	0	165	895	164	2302	1236	0	66	729	373	2067	1400	7884		0	1	1
	PHF	0	0.92	0.91	0.88	0.92	0	0	0.78	0.96	0.83	0	0.95	0	0.85	0.84	0.82	0.92	0.93	0	0.71	0.86	0.9	0.93	0.94	0.98				
	HV%	0%	1%	3%	0%	2%	1%	0%	0%	1%	3%	1%	2%	0%	1%	1%	1%	1%	0%	0%	0%	0%	1%	0%	1%	1%				
Saturday Midday Peak	Lights	14	298	866	107	1285	1308	0	147	808	40	995	1078	0	174	730	135	1957	1101	0	77	684	312	1920	1256	6157	W	0	2	2
Specified Period	%	100%	99%	99%	99%	99%	99%	0%	99%	100%	95%	99%	99%	0%	95%	100%	99%	99%	98%	0%	99%		99%	98%	99%	99%	99%	0%	100%	
11:00 AM - 1:00 PM	Mediums	0	2	3	1	6	4	0	2	1	2	5	5	0	1	8	1	19	18	0	1	13	2	31	13	61	E	0	0	0
One Hour Peak	%	0%	1%	0%	1%	0%	0%	0%	1%	0%	5%	0%	0%	0%	1%	1%	1%	1%	2%	0%	1%		1%	2%	1%	1%	0%	0%		
11:45 AM - 12:45 PM	ticultated Truc	0	0	5	0	5	5	0	0	3	0	3	5	0	0	0	0	0	1	0	0	0	2	3	0	11	S	0	1	1
	%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		1%	0%	0%	0%	0%	100%		
	icycles on Roa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	0	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%		
	Total	14	300	874	108	1296	1317	0	149	812	42	1003	1088	0	183	730	136	1976	1120	0	78	711	316	1954	1269	6229		0	3	3
	PHF	0	0.89	0.92	0.9	0.94	0	0	0.93	0.85	0.75	0	0.94	0	0.85	0.84	0.79	0.86	0.88	0	0.81	0.86	0.94	0.9	0.88	0.92				
	HV%	0%	1%	1%	1%	1%	1%	0%	1%	0%	5%	1%	1%	0%	1%	1%	1%	1%	2%	0%	1%	2%	1%	2%	1%	1%				

Study Name Arlington Heights & Lillian - Town & Country Access
Date Saturday, January 12, 2019 1:15 PM

Report Summary

		Eastbound						Westbound						Northbound						Southbound						Crosswalk				
Time Period	Class.	U	L	T	R	I	O	U	L	T	R	I	O	U	L	T	R	I	O	U	L	T	R	I	O	Total		Bicycles c	Pedestrians	Total
AM Peak	Lights	0	84	6	49	139	82	0	27	8	52	87	62	0	47	747	33	827	1109	0	23	1033	27	1083	883	2136	W	0	2	2
Specified Period	%	0%	99%	100%	96%	98%	96%	0%	96%	89%	100%	98%	91%	0%	98%	96%	85%	96%	97%	0%	100%	98%	96%	98%	97%	97%	0%	100%		
7:00 AM - 9:00 AM	Mediums	0	1	0	2	3	2	0	1	1	0	2	6	0	0	26	6	32	25	0	0	22	1	23	27	60	E	0	0	0
One Hour Peak	%	0%	1%	0%	4%	2%	2%	0%	4%	11%	0%	2%	9%	0%	0%	3%	15%	4%	2%	0%	0%	2%	4%	2%	3%	3%	0%	0%		
7:15 AM - 8:15 AM	Articulated Trucks	0	0	0	0	0	1	0	0	0	0	0	0	0	1	4	0	5	4	0	0	4	0	4	4	9	S	0	1	1
	%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	2%	1%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%		
	Total	0	85	6	51	142	85	0	28	9	52	89	68	0	48	777	39	864	1138	0	23	1059	28	1110	914	2205	N	0	0	0
	PHF																								0.88		0%	0%		
	HV %	0%	1%	0%	4%	2%	4%	0%	4%	11%	0%	2%	9%	0%	2%	4%	15%	4%	3%	0%	0%	2%	4%	2%	3%	3%	0	3	3	3
	Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
PM Peak	Lights	0	77	21	10	108	111	0	66	30	132	228	187	0	27	1028	78	1133	996	0	88	920	54	1062	1237	2531	W	0	0	0
Specified Period	%	0%	100%	100%	100%	100%	100%	0%	100%	100%	100%	100%	100%	0%	100%	99%	100%	99%	100%	0%	100%	100%	100%	100%	100%	100%	0%	0%		
4:00 PM - 6:00 PM	Mediums	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	1	0	0	1	0	1	3	4	E	0	0	0
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
4:15 PM - 5:15 PM	Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	3	3	S	0	6	6
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%		
	Total	0	77	21	10	108	111	0	66	30	132	228	187	0	27	1034	78	1139	997	0	88	921	54	1063	1243	2538	N	0	0	0
	PHF																								0.94		0%	0%		
	HV %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0	6	6	6
	Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

Study Name Arlington Heights & Lillian - Town & Country Access
Date Saturday, January 12, 2019

Report Summary

Time Period	Class.	Eastbound						Westbound						Northbound						Southbound						Crosswalk				
		U	L	T	R	I	O	U	L	T	R	I	O	U	L	T	R	I	O	U	L	T	R	I	O	Total	Bicycles	Pedestrians	Total	
Saturday Peak	Lights	0	89	12	19	120	125	1	82	24	180	287	174	0	48	807	71	926	907	0	90	806	53	949	1076	2282	W	0	0	0
Specified Period	%	0%	99%	100%	100%	99%	100%	50%	100%	100%	100%	100%	99%	0%	100%	99%	100%	99%	98%	0%	100%	98%	100%	98%	99%	99%	0%	0%	0%	0
11:00 AM - 12:00 PM	Mediums	0	1	0	0	1	0	1	0	0	0	1	1	0	0	7	0	7	14	0	0	14	0	14	8	23	E	0	0	0
One Hour Peak	%	0%	1%	0%	0%	1%	0%	50%	0%	0%	0%	0%	1%	0%	0%	1%	0%	1%	2%	0%	0%	2%	0%	1%	1%	1%	0%	0%	0%	0
11:45 AM - 12:45 PM	Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	S	0	3	3
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%
	Total	0	90	12	19	121	125	2	82	24	180	288	175	0	48	814	71	933	922	0	90	821	53	964	1084	2306	N	0	0	0
	PHF																								0.95		0%	0%	0%	0
	HV %	0%	1%	0%	0%	1%	0%	50%	0%	0%	0%	0%	1%	0%	0%	1%	0%	1%	2%	0%	0%	2%	0%	2%	1%	1%	0	3	3	3
	Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

Study Name	Arlington Heights & Town & Country Loading Dock Access
Date	Thursday, January 10, 2019

Report Summary

[illegible]

Study Name	Arlington Heights & Town & Country Loading Dock Access
Date	Saturday, January 12, 2019

Report Summary

		Westbound					Northbound					Southbound					Crosswalk				
Time Period	Class.	U	L	R	I	O	U	T	R	I	O	U	L	T	I	O	Total	Bicycles o	Pedestrians	Total	
Saturday Peak	Lights	0	4	13	17	21	0	891	18	909	869	0	3	865	868	904	1794	E	0	3	3
Specified Period	%	0%	100%	93%	94%	95%	0%	99%	100%	99%	99%	0%	75%	99%	98%	99%	99%	0%	100%		
11:00 AM - 12:00 PM	Mediums	0	0	1	1	1	0	8	0	8	12	0	1	12	13	9	22	S	0	0	0
One Hour Peak	%	0%	0%	7%	6%	5%	0%	1%	0%	1%	1%	0%	25%	1%	1%	1%	1%	0%	0%		
11:45 AM - 12:45 PM	Articulated Trucks	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	1	N	0	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
	Total	0	4	14	18	22	0	899	18	917	882	0	4	878	882	913	1817		0	3	3
	PHF																0.91				
	HV %	0%	0%	7%	6%	5%	0%	1%	0%	1%	1%	0%	25%	1%	2%	1%	1%				
	Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

Study Name Town & Country RIRO Access & Palatine
Date Thursday, January 10, 2019

Report Summary

		Eastbound					Northbound					Crosswalk				
Time Period	Class.	U	T	R	I	O	U	L	R	I	O	Total		Bicycles or	Pedestrians	Total
AM Peak	Lights	0	2019	25	2044	832	0	0	22	22	25	2898	W	0	0	0
Specified Period	%	0%	98%	96%	98%	95%	0%	0%	100%	100%	96%	97%		0%	0%	
7:00 AM - 9:00 AM	Mediums	0	17	1	18	30	0	0	0	0	1	48	E	0	0	0
One Hour Peak	%	0%	1%	4%	1%	3%	0%	0%	0%	0%	4%	2%		0%	0%	
7:15 AM - 8:15 AM	Articulated Trucks	0	15	0	15	12	0	0	0	0	0	27	S	0	0	0
	%	0%	1%	0%	1%	1%	0%	0%	0%	0%	0%	1%		0%	0%	
	Total	0	2051	26	2077	874	0	0	22	22	26	2973		0	0	0
	PHF											0.89				
	HV %	0%	2%	4%	2%	5%	0%	0%	0%	0%	4%	3%				
	Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0				
PM Peak	Lights	0	1287	93	1380	1476	0	0	53	53	93	2909	W	0	0	0
Specified Period	%	0%	98%	99%	98%	99%	0%	0%	100%	100%	99%	98%		0%	0%	
4:00 PM - 6:00 PM	Mediums	0	20	1	21	7	0	0	0	0	1	28	E	0	0	0
One Hour Peak	%	0%	2%	1%	1%	0%	0%	0%	0%	0%	1%	1%		0%	0%	
4:15 PM - 5:15 PM	Articulated Trucks	0	12	0	12	13	0	0	0	0	0	25	S	0	0	0
	%	0%	1%	0%	1%	1%	0%	0%	0%	0%	0%	1%		0%	0%	
	Total	0	1319	94	1413	1496	0	0	53	53	94	2962		0	0	0
	PHF											0.96				
	HV %	0%	2%	1%	2%	1%	0%	0%	0%	0%	1%	2%				
	Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0				

Study Name Town & Country RIRO Access & Palatine
Date Saturday, January 12, 2019

Report Summary

Time Period	Class.	Eastbound					Northbound					Total		Crosswalk		
		U	T	R	I	O	U	L	R	I	O			Bicycles or	Pedestrians	Total
Saturday Peak	Lights	0	987	81	1068	879	0	0	76	76	81	2023	W	0	0	0
Specified Period	%	0%	99%	99%	99%	99%	0%	0%	99%	99%	99%	99%		0%	0%	
11:00 AM - 12:00 PM	Mediums	0	4	0	4	5	0	0	1	1	0	10	E	0	0	0
One Hour Peak	%	0%	0%	0%	0%	1%	0%	0%	1%	1%	0%	0%		0%	0%	
11:45 AM - 12:45 PM	Articulated Trucks	0	4	1	5	3	0	0	0	0	1	8	S	0	0	0
	%	0%	0%	1%	0%	0%	0%	0%	0%	0%	1%	0%		0%	0%	
	Total	0	995	82	1077	887	0	0	77	77	82	2041		0	0	0
	PHF											0.97				
	HV %	0%	1%	1%	1%	1%	0%	0%	1%	1%	1%	1%				
	Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0				

Study Name Town & Country RIRO Access & Rand
Date Thursday, January 10, 2019

Report Summary

		Eastbound					Northbound					Southbound					Crosswalk				
Time Period	Class.	U	L	R	I	O	U	L	T	I	O	U	T	R	I	O	Total		Bicycles c	Pedestrians	Total
AM Peak	Lights	0	0	15	15	22	0	0	691	691	1501	0	1486	22	1508	691	2214	W	0	0	0
Specified Period	%	0%	0%	94%	94%	100%	0%	0%	97%	97%	98%	0%	98%	100%	98%	97%	98%		0%	0%	
7:00 AM - 9:00 AM	Mediums	0	0	1	1	0	0	0	18	18	21	0	20	0	20	18	39	S	0	0	0
One Hour Peak	%	0%	0%	6%	6%	0%	0%	0%	3%	3%	1%	0%	1%	0%	1%	3%	2%		0%	0%	
7:15 AM - 8:15 AM	Articulated Trucks	0	0	0	0	0	0	0	2	2	7	0	7	0	7	2	9	N	0	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	
	Total	0	0	16	16	22	0	0	711	711	1529	0	1513	22	1535	711	2262		0	0	0
	PHF																0.86				
	HV %	0%	0%	6%	6%	0%	0%	0%	3%	3%	2%	0%	2%	0%	2%	3%	2%				
	Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
PM Peak	Lights	0	0	35	35	92	0	0	1512	1512	1139	0	1104	92	1196	1512	2743	W	0	0	0
Specified Period	%	0%	0%	100%	100%	100%	0%	0%	99%	99%	99%	0%	99%	100%	99%	99%	99%		0%	0%	
4:00 PM - 6:00 PM	Mediums	0	0	0	0	0	0	0	16	16	9	0	9	0	9	16	25	S	0	0	0
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	0%	1%	0%	1%	1%	1%		0%	0%	
4:15 PM - 5:15 PM	Articulated Trucks	0	0	0	0	0	0	0	4	4	3	0	3	0	3	4	7	N	0	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	
	Total	0	0	35	35	92	0	0	1532	1532	1151	0	1116	92	1208	1532	2775		0	0	0
	PHF																0.94				
	HV %	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	0%	1%	0%	1%	1%	1%				
	Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

Study Name	Town & Country RIRO Access & Rand
Date	Saturday, January 12, 2019

Report Summary

		Eastbound					Northbound					Southbound					Crosswalk				
Time Period	Class.	U	L	R	I	O	U	L	T	I	O	U	T	R	I	O	Total	Bicycles c	Pedestrians	Total	
Saturday Peak	Lights	0	1	48	49	99	0	2	1106	1108	1120	0	1072	97	1169	1107	2326	W	0	1	1
Specified Period	%	0%	100%	100%	100%	99%	0%	100%	99%	99%	99%	0%	99%	99%	99%	99%	99%	0%	100%		
11:00 AM - 12:00 PM	Mediums	0	0	0	0	1	0	0	12	12	11	0	11	1	12	12	24	S	0	0	0
One Hour Peak	%	0%	0%	0%	0%	1%	0%	0%	1%	1%	1%	0%	1%	1%	1%	1%	1%	0%	0%		
11:45 AM - 12:45 PM	Articulated Trucks	0	0	0	0	0	0	0	2	2	2	0	2	0	2	2	4	N	0	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
	Total	0	1	48	49	100	0	2	1120	1122	1133	0	1085	98	1183	1121	2354		0	1	1
	PHF																0.94				
	HV %	0%	0%	0%	0%	1%	0%	0%	1%	1%	1%	0%	1%	1%	1%	1%	1%				
	Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

Study Name Town & Country Full Access & Rand
Date Thursday, January 10, 2019

Report Summary

		Eastbound						Westbound						Northbound						Southbound						Crosswalk				
Time Period	Class.	U	L	T	R	I	O	U	L	T	R	I	O	U	L	T	R	I	O	U	L	T	R	I	O	Total	W	Bicycles c	Pedestrians	Total
AM Peak	Lights	0	10	2	17	29	47	0	12	8	7	27	16	0	29	702	3	734	1500	0	11	1471	10	1492	719	2282		0	0	0
Specified Period	%	0%	100%	100%	100%	100%	96%	0%	92%	89%	100%	93%	89%	0%	100%	97%	75%	97%	98%	0%	92%	98%	91%	98%	97%	98%		0%	0%	0
7:00 AM - 9:00 AM	Mediums	0	0	0	0	0	0	0	1	0	0	1	2	0	0	16	1	17	19	0	1	18	0	19	16	37	E	0	0	0
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	8%	0%	0%	3%	11%	0%	0%	2%	25%	2%	1%	0%	8%	1%	0%	1%	2%	2%	0%	0%	0%	0
7:15 AM - 8:15 AM	Articulated Trucks	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	0	3	5	0	0	5	1	6	3	9	S	0	0	0
	%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9%	0%	0%	0%	0%	0%	0%	0
	Total	0	10	2	17	29	49	0	13	9	7	29	18	0	29	721	4	754	1524	0	12	1494	11	1517	738	2329	N	0	0	0
	PHF																								0.87		0%	0%	0%	
	HV %	0%	0%	0%	0%	0%	2%	0%	8%	0%	0%	3%	11%	0%	0%	3%	25%	3%	2%	0%	8%	2%	9%	2%	3%	2%	0	0	0	0
	Bicycles on Road	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1					
PM Peak	Lights	0	58	10	66	134	143	0	27	14	49	90	57	0	109	1438	24	1571	1185	0	23	1092	20	1135	1545	2930	W	0	0	0
Specified Period	%	0%	100%	100%	99%	99%	99%	0%	100%	100%	100%	100%	100%	0%	99%	99%	100%	99%	99%	0%	100%	99%	100%	99%	99%	99%	0%	0%	0%	0
4:00 PM - 6:00 PM	Mediums	0	0	0	1	1	1	0	0	0	0	0	0	0	1	8	0	9	11	0	0	10	0	10	8	20	E	0	0	0
One Hour Peak	%	0%	0%	0%	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	1%	1%	0%	0%	1%	0%	1%	1%	1%	0%	0%	0%	0
4:15 PM - 5:15 PM	Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	4	0	0	4	0	4	4	8	S	0	5	5
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%
	Total	0	58	10	67	135	144	0	27	14	49	90	57	0	110	1450	24	1584	1200	0	23	1106	20	1149	1557	2958	N	0	0	0
	PHF																								0.94		0%	0%	0%	
	HV %	0%	0%	0%	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	1%	1%	0%	0%	1%	0%	1%	1%	1%	0	5	5	5
	Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					

Study Name Town & Country Full Access & Rand
Date Saturday, January 12, 2019

Report Summary

Time Period	Class.	Eastbound						Westbound						Northbound						Southbound						Crosswalk				
		U	L	T	R	I	O	U	L	T	R	I	O	U	L	T	R	I	O	U	L	T	R	I	O	Total	Bicycles o	Pedestrians	Total	
Saturday Peak	Lights	0	56	6	89	151	135	0	30	3	43	76	76	1	109	941	35	1086	1169	0	35	1049	23	1107	1040	2420	W	0	1	1
Specified Period	%	0%	98%	100%	100%	99%	99%	0%	100%	100%	100%	100%	100%	100%	99%	99%	100%	99%	99%	0%	100%	99%	100%	99%	99%	99%		0%	100%	
11:00 AM - 12:00 PM	Mediums	0	1	0	0	1	1	0	0	0	0	0	0	0	1	9	0	10	12	0	0	12	0	12	10	23	E	0	0	0
One Hour Peak	%	0%	2%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	1%	1%	0%	0%	1%	0%	1%	1%	1%		0%	0%	
11:45 AM - 12:45 PM	Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	1	0	1	2	3	S	0	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	
	Total	0	57	6	89	152	136	0	30	3	43	76	76	1	110	952	35	1098	1182	0	35	1062	23	1120	1052	2446	N	0	0	0
	PHF																									0.93		0%	0%	
	HV %	0%	2%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	1%	1%	0%	0%	1%	0%	1%	1%	1%		0	1	1
	Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

TRAFFIC COUNTS – EXISTING RAISING CANE’S RESTAURANT

**Raising Cane's Oak Lawn
Empirical Trip Generation
January 2019**

TIME	NORTH DRIVEWAY			SOUTH DRIVEWAY			TOTAL SITE		
	INBOUND	OUTBOUND	TOTAL	INBOUND	OUTBOUND	TOTAL	INBOUND	OUTBOUND	TOTAL
Tuesday, January 15, 2019									
7:00AM	0	0	0	0	0	0	0	0	0
7:15AM	1	0	1	0	0	0	1	0	1
7:30AM	1	1	2	0	0	0	1	1	2
7:45AM	0	0	0	0	0	0	0	0	0
8:00AM	2	0	2	0	0	0	2	0	2
8:15AM	1	0	1	0	0	0	1	0	1
8:30AM	1	1	2	0	1	1	1	2	3
8:45AM	1	0	1	0	0	0	1	0	1
4:00PM	8	10	18	10	7	17	18	17	35
4:15PM	11	16	27	5	2	7	16	18	34
4:30PM	4	9	13	5	4	9	9	13	22
4:45PM	8	12	20	7	2	9	15	14	29
5:00PM	12	6	18	9	9	18	21	15	36
5:15PM	10	13	23	7	11	18	17	24	41
5:30PM	5	7	12	7	8	15	12	15	27
5:45PM	9	11	20	1	1	2	10	12	22
Saturday, January 12, 2019									
11:00AM	3	0	3	5	4	9	8	4	12
11:15AM	14	8	22	5	8	13	19	16	35
11:30AM	6	7	13	4	7	11	10	14	24
11:45AM	5	5	10	5	5	10	10	10	20
12:00PM	12	6	18	6	7	13	18	13	31
12:15PM	7	10	17	3	2	5	10	12	22
12:30PM	6	7	13	5	6	11	11	13	24
12:45PM	13	7	20	6	9	15	19	16	35



Kimley»»Horn

1001 Warrenville Road | Suite 350 | Lisle, IL | 60532
630-487-5550



April 26, 2019

RE: Raising Cane's Arlington Heights

To whom it may concern:

Strategy: We strategize every market that we decide to enter in order to identify the highest potential sites that will maximize sales, brand awareness, and represents active community involvement opportunities. Opportunities that make a good fit for the community and the community a good fit for Raising Cane's.

Our Chicago strategy identified Arlington Heights and this intersection as one of those Tier 1 opportunities based on several factors, including favorable demographics, the need for high quality chicken tender meals at fast food speed and convenience, and community involvement opportunities.

Demographics: We look for at least 125,000 trade area population to support our restaurants sales expectations. We define the trade area as 3 miles and less than 10 minutes' drive time. We also define trade area population as total residential population plus half of the day time population. We only use half of the day time population due to the fact in most cases half of the work force lives in the trade area and already included in the residential number.

Our demographics indicate there is a total trade area population of roughly 201,000. This is well above our standard of 125,000 needed to meet our average sales volume. In addition, we also look at households in the trade area from a median income standard but also the number of our top 10 successful lifestyle segments represented. Life style segments are a study of how people spend their money and Cane's has identified, through extensive study, which lifestyle segments are most likely to frequent our restaurants. Both the median incomes and lifestyle segments we desire meet and exceed our standards for this site.

Trade Area Demographics	1 Mile Rad	3 Mile Rad	5 Mile Rad	10 Min Drive Time
Residential Population	12,788	132,808	318,723	157,541
Percent Change 2014 to 2019	-2.11%	-0.76%	-0.36%	-0.73%
Day Time Population	7,403	75,561	209,870	86,906
Trade Area Population	16,489	170,588	423,658	200,994
Average Household Income	\$109,715	\$98,249	\$95,768	\$97,423
Median Household Income	\$89,883	\$81,181	\$78,555	\$79,816
Median Age	46	43	42	43
Average House Size	2.6	2.5	2.5	2.5

Competition and Need: In order to understand our evaluation of competition you have understand where Raising Cane's falls in the brand positioning conversation. Raising Cane's is considered upscale fast food between quick serve and fast casual.

This location has some quick serve such as McDonald's and Burger King and in the fast-causal segment there is Chipotle and Panera. But what is missing is upscale fast food that offers quality but at fast food speed and convenience. There are also no major chicken focused operations here and specifically no deboned chicken. This indicates a strong need for both chicken and

upscale fast food considering the larger demographics this retail corridor supports. We consider the competition to be light compared to many trade areas we are represented in.

Active Community Involvement: Raising Cane's strives for a global presence but with a focus on local community support at the local restaurant level. We feel this is a sustainable model that gives back to the local community versus writing one large check to a national charity. We partner with local schools, churches, community centers, etc. in order to support our communities which in turn drives loyalty to our brand. We give over \$10 million back to our communities annually and this all done at the local level.

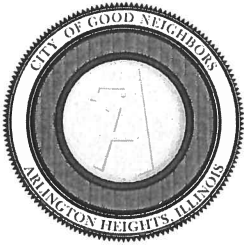
This site represents several opportunities to be involved in the community with many public and private schools including: John Hersey High School, Thomas Middle School, Ivy Hill Elementary, Betsy Ross Elementary, Patton Elementary, Saint Viator High School, Olive Elementary, Prospect, Wheeling and many more. There also many churches and local residential HOA's we traditional seek to support.

In conclusion, this site was specifically targeted because not only meets our real estate standards for site criteria but also our desired community attributes. We are confident this site will meet or exceed our sales expectations and an opportunity for Raising Cane's to further our brand awareness and serve our local communities.

One Love



Jeremy Hudson
Regional Director for Real Estate
Raising Cane's Restaurants, L.L.C



Village of Arlington Heights Building & Life Safety Department

Interoffice Memorandum

To: Sam Hubbard, Development Planner, Planning and Community Development
From: Deb Pierce, Plan Reviewer, Building & Life Safety Department
Subject: Raising Canes – PUD Amendment and SUP for Restaurant with Drive-Thru
PC#: 19-006
Date: May 3, 2019

General Comments:

The information provided is conceptual only and subject to a formal plan review.

Sam –

I do not have any objections or comments to the requests.

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DEVELOPMENT DEPARTMENT



Village of Arlington Heights, IL Building & Life Safety Department

Fire Safety Review

Date: 4/24/2019

P.C. Number: 19-006 Round 1

Project Name: Raising Canes

Project Location: Rand and Palatine Rd.

Planning Department Contact: Sam Hubbard, Planning and Community Development

General Comments:

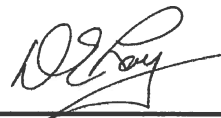
The information provided is conceptual only and subject to a formal plan review.

1. All currently adopted codes shall apply.
2. Fire department connections shall be located at an approved location, fully visible and within a maximum travel distance of 100 feet to the nearest fire hydrant and in accordance with the NFPA standard applicable to the system design.
3. A complete NFPA compliant fire suppression system is required. Supervised indicating control valves shall be provided at the point of connection to the riser on each floor.
4. An approved water supply capable of supplying the required fire flow for fire protection shall be provided.
5. Fire protection equipment and service rooms shall be identified in an approved manner.
6. A fully functional fire alarm shall be installed per NFPA 72. The alarm annunciator panel shall be located at the front entrance.
7. Shop drawings for fire alarm systems shall be submitted for review and approval prior to system installation.
8. Visible alarm notification appliances shall be provided in public areas and common areas. A visible exterior weatherproof alarm notification device shall be located within closest proximity to the front main entrance of the building or tenant space.
9. A zoning indicator panel and the associated controls, or, fire alarm control panel shall be located within the closest proximity to the front main entrance.
10. A key box (Know Box) shall be provided and contain keys to gain necessary access as required by the fire code official.

Rand and Palatine Rd.
PC #19-006 Round 1
April 14, 2019
Page 2

11. Exit signs shall be illuminated at all times and have emergency power backup.
12. Buildings shall have approved address numbers.

Date 04-24-19

Reviewed By: 
Fire Safety Supervisor/Fire Marshal

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APR 25 2019
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

Memorandum

To: Sam Hubbard, Planning & Community Development
From: Cris Papierniak, Assistant Director of Public Works
Date: May 13, 2019
Subject: Raising Cane's, Arlington Heights & Palatine Roads P.C. #19-006

With regard to the proposed PUD addendum for Raising Cane's, I have the following comments:

- 1) The ¾" water connection must be deleted. Only one source for water per customer is allowed. The 6" connection must branch off inside the proposed building for fire and domestic use.
- 2) Approved RPZ devices must be installed for fire, domestic (and irrigation if installed).
- 3) RPZ devices will be sized after plumbing plans have been submitted.
- 4) Provide a detail for ST-1 and the restrictor within the structure.
- 5) Ensure proper separation for X3, X4, X5 and X6.
- 6) What is the plan for the referenced water main extension by "others"?
- 7) Provide a maintenance plan (utilized by owners) for bio-retention basins #1 & #2.
- 8) Verify the condition of the sidewalk fronting the property after the construction. If damage has occurred as a result of the construction, or drainage is not adequate (ponding), permittee must replace the affected squares.
- 9) The directory of contacts on the front page needs to be corrected. Replace Dave Nordin in the place of Kurt Caley
- 10) The grease trap need to be located in a more accessible/maintainable location.

Arlington Heights Public Works will make further comments after final engineering plans have been submitted.

If you have any questions, please feel free to contact me.

C. file

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. 19-006
 Petitioner: Joseph Bibat, RA, ALA
3632 N. Clairmont Avenue
Chicago, IL 60618
 Owner: Town & Country Chicago Associates, LLC
30050 Chagrin Blvd. Ste 360
Pepper Pike, OH 44124
 Contact Person: Greg Barrow
 Address: 30050 Chagrin Blvd. Ste. 360
Pepper Pike, OH 44124
 Phone #: (216) 464-5550
 Fax #: (216) 464-7219
 E-Mail: gbarrow@visconsi.com

P.I.N.# 03-20-101-016
 Location: N. Arlington Heights Rd. at E. Palatine Rd.
 Rezoning: Current: B-2 Proposed: B-2
 Subdivision:
 # of Lots: Current: Proposed:
 PUD: ✓ For: Amend. to PUD
 Special Use: ✓ For: Rest. with Drive-thru
 Land Use Variation: For:
 Land Use: Current:
Proposed:
 Site Gross Area: 44,334 sq. ft.
 # of Units Total:
 1BR: 2BR: 3BR: 4BR:

(Petitioner: Please do not write below this line.)

1. PUBLIC IMPROVEMENTS

REQUIRED: YES NO COMMENTS

a. Underground Utilities

Water NO

Sanitary Sewer NO

Storm Sewer NO

b. Surface Improvement

Pavement NO

Curb & Gutter NO

Sidewalks NO

Street Lighting NO

c. Easements

Utility & Drainage NO

Access NO

2. PERMITS REQUIRED OTHER THAN VILLAGE:

a. MWRDGC ✓

b. IDOT

c. ARMY CORP

d. IEPA

e. CCHD

3. R.O.W. DEDICATIONS? 4. SITE PLAN ACCEPTABLE? 5. PRELIMINARY PLAT ACCEPTABLE? 6. TRAFFIC STUDY ACCEPTABLE? 7. STORM WATER DETENTION REQUIRED? 8. CONTRIBUTION ORDINANCE EXISTING? 9. FLOOD PLAIN OR FLOODWAY EXISTING? 10. WETLAND EXISTING?

YES NO COMMENTS

 X

 SEE COMMENTS

 N/A

 X

X

X #79-114 PD 5/1/1980

 X

 X

GENERAL COMMENTS ATTACHED

PLANS PREPARED BY: KIMLEY-HORN

DATE OF PLANS: 4/12/19

Director

VILLAGE ENGINEER

Date

5/3/19

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MAY 07 2019

PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

PLAN COMMISSION PC #19-006

Raising Canes

Town and Country Mall (N Arlington Heights Rd & E Palatine Rd)

PUD Amendment, SUP for restaurant with drive thru

Round 1

11. The petitioner is notified that these comments are being provided to ensure that the project meets the requirements for submittal to the Plan Commission. Approval by the Plan Commission is not an endorsement or approval of these documents to obtain the required building permits, engineering approval, or permits required by other government or permitting agencies for construction. Detailed plan review with associated comments will be provided upon submittal of plans for a building permit. The petitioner shall acknowledge that they accept this understanding.
12. Final engineering plans shall be georeferenced by using State Plane Coordinate System – Illinois East. Below are details about projection:

Projected Coordinate System:	NAD_1983_StatePlane_Illinois_East_FIPS_1201_Feet
Projection:	Transverse_Mercator
False_Easting:	984250.00000000
False_Northing:	0.00000000
Central_Meridian:	-88.33333333
Scale_Factor:	0.99997500
Latitude_Of_Origin:	36.66666667
Linear Unit:	Foot_US
Geographic Coordinate System:	GCS_North_American_1983
Datum:	D_North_American_1983
Prime Meridian:	Greenwich
Angular Unit:	Degree

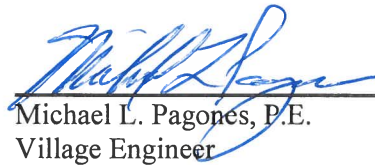
13. The proposed bio-retention facilities will be a private system and as such will not be the Village's responsibility to maintain. An Onsite Utility Maintenance Agreement must be executed prior to final engineering approval. Please contact the Village Engineer for an editable version of the OUMA. If there is an existing OUMA for the complex, the OUMA should be updated to include the new facilities. Please contact the Village Engineer for an editable version of the OUMA.
14. Final approval will require final engineering plans including detention calculations showing HWL, storage required, storage provided, and restrictor sizing calculations. Provide sufficient information to show the proposed conditions compared to existing conditions and the increase or decrease in impervious area. If the proposed conditions increase the impervious area, the Village's allowable release rate is 0.18 cfs/Ac. Use $C=0.50$ for pervious areas, $C=0.95$ for impervious areas. Use Bulletin 70 rainfall data. Clearly show the overflow route for the site. Minimum restrictor size allowed, for maintenance reasons, is 2". Restrictors between 2" and 4" must be in a trap in a catch basin. Show the location and size of the restrictor. Provide a detail showing the restrictor catch basin. If the restrictor required to meet the allowable release rate is less than 2", calculate the amount of detention storage provided with a 2" restrictor. Subtract this amount from the required storage based on the allowable release rate to show the storage deficiency. This deficiency can be paid as money in lieu of detention at the rate of \$1.00 per cubic foot.

15. Provide an exhibit to engineering scale showing the turning path of the Fire Department's responding vehicle, in this case a Pierce Quantum Engine. Exhibit must show front and rear wheel paths and the extent of the front and rear overhangs, as provided in an "Autoturn" exhibit. The vehicle shall be shown maneuvering through the site in all possible directions of travel. Attached are the specifications for the tower apparatus.
16. Fire lanes adjacent to buildings must have a minimum pavement width as directed by the Fire Department to accommodate the tower truck's outriggers. Fire lanes require a heavy duty pavement section. Asphalt pavement section to consist of: 2" Surface, 2-1/4" N-50 Binder, 5" N-50 Binder, and 4" CA-6 Stone Subbase. Concrete driveway apron to be 8" thick.
17. Verify and show on the plans that the fire hose connection is within 100 ft of a fire hydrant. Show the Fire Department Connection on the plans. The Utility Keynote Legend on sheet C7.0 references item P, proposed fire hydrant. Show proposed fire hydrant on the plans.
18. Water Structure Table, Water Service W1 on sheet C7.0 references a 3/4" water building connection, however; note N on the Utility Keynote Legend references a 2" domestic tap off the 6" water line. Clarify the size of the water service to the building.
19. Water Service W1 and shown on sheet C7.0 is less than 10 ft from the 8" PVC roof drain and shall be constructed in accordance with the water and sewer separation requirements in the Standard Specifications for Water & Sewer Construction in Illinois.
20. All work within the Palatine Rd right-of-way requires a permit from the Illinois Department of Transportation.
21. Provide a diagram to show how trucks will maneuver into and out of the trash collection area and how it will affect the drive through aisle and southbound exit aisle.

TRAFFIC

22. The four angle parking stalls on the northwest corner of the parking lot should have wheel stops to prohibit cars parked in these stalls from projecting into the perpendicular stalls to the west.
23. The exit lane passing south of the trash corrals as it intersects the main mall drive lane must be posted with a 'One Way' sign so that traffic travelling east and west can see the limitations of this driveway in advance of arriving at the intersection.
24. The existing parking lot site lighting, and underground circuits, are not shown for modification or removal in the plans. Provide a description for what the site parking lot lighting plan will be. When on-site lighting is proposed, provide a site photometric lighting diagram indicating lighting intensities. Also provide the associated catalog cut sheets for lighting fixtures, poles, building mounted luminaires, and circuit wiring. All fixtures must be flat bottom, sharp cut-off, and no wall pack fixtures will be permitted.
25. The ability to provide less paved surface and more green area, with less detention volume could be realized by compressing the parking stall depths to 16.5 ft. with a 1.5 ft. overhang. This is achievable for the parking area east of the building and along the north property line.

26. The trip distribution percentages provided in Table 3.4 of the Traffic Impact Study do not seem to be accurately represented in Exhibits 3, 4, & 5. For example, if percentages of traffic are indicated coming from the north, Arlington Heights Road S.B. left turns should be contributing to the projected volumes.
27. The Traffic Impact Study states that the conservative values in Table 3.3 are comparable to the ITE projections in Table 3.2. However, it is not clear which values are being used for the tabulations of in/out traffic projections for the Exhibits.
28. The summary of values into and out of the site for site generated traffic volumes do not seem to sum correctly, (i.e. trips into Access 'C'), do not add up correctly if just E.B. Palatine Road with no contribution of right or left turns from Arlington Heights Road contribute to the projections.
29. Based upon the revisions mentioned, please revise affected Tables projecting Build/No Build Levels of Service.

 5/3/19
Michael L. Pagones, P.E. Date
Village Engineer

Attachments:

Fire Apparatus Pierce Quantum Specifications

Received Fax: 06/03/2005 9:40AM Fax Station: Norman J. Toberman Assoc

06/03/05 FRI 10:45 FAX 920 832 3280

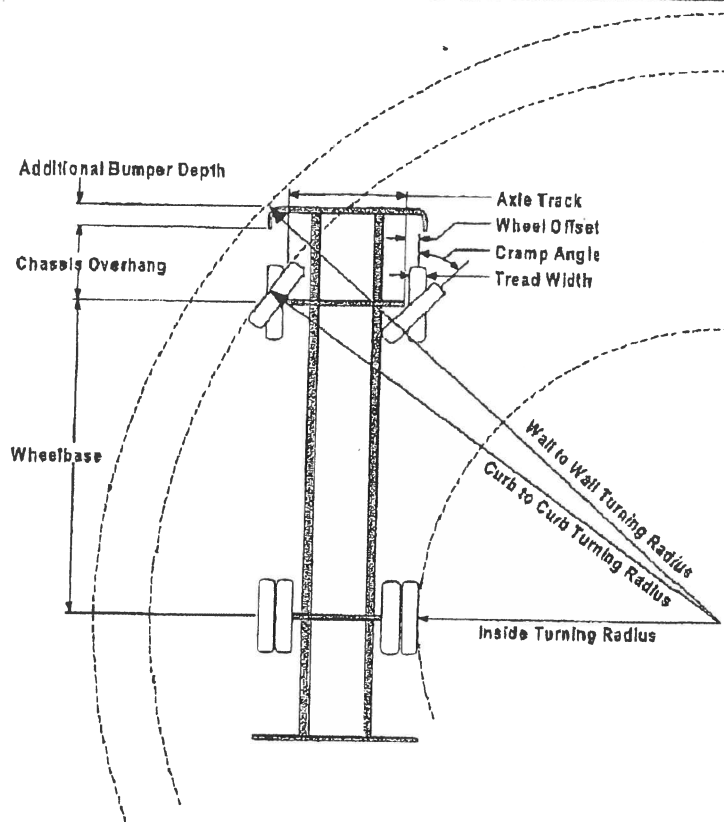
TECH SERVICE

004



Turning Performance Analysis

6/3/2005



Parameters:

Inside Cramp Angle:	40.00 °
Axle Track:	82.92 in.
Wheel Offset:	5.25 in.
Tread Width:	17.40 in.
Chassis Overhang:	65.99 in.
Additional Bumper Depth:	22.00 in.
Front Overhang:	146.60 in.
Wheelbase:	257.00 in.

Calculated Turning Radii:

Inside Turn:	24 ft. 4 in.
Curb to Curb:	40 ft. 0 in.
Wall to Wall:	47 ft. 6 in.

Comments:

Aerial Application

JOB# 11807 FOR REFERENCE ONLY

Components	PRIDE #	Description
Front Axle	0090913	Axle, Front, Oshkosh TAK-4, Non Drive, 24,000 lb, DLX/Qtm/AXT
Front Tires	0052978	Tires, Goodyear, 425/65R22.50 20 ply G286 tread
Chassis	0050220	Dash-2000 Chassis
Front Bumper	0012246	Bumper, 22" extended - all chassis'
Aerial Device	0022160	Aerial, 100' Pierce Platform

Notes:

Actual Inside Cramp Angle may be less due to highly specialized options.

Curb to Curb turning radius calculated for a 9.00 inch curb.

Reduce turning radius by 33% if vehicle is equipped with all-wheel steer.

Received Fax: Jun 03 2005 9:40AM Fax Station: Norman J. Toberman Assoc

06/03/05 FRI 10:45 FAX 920 832 3260

TECH SERVICE

005



Turning Performance Analysis

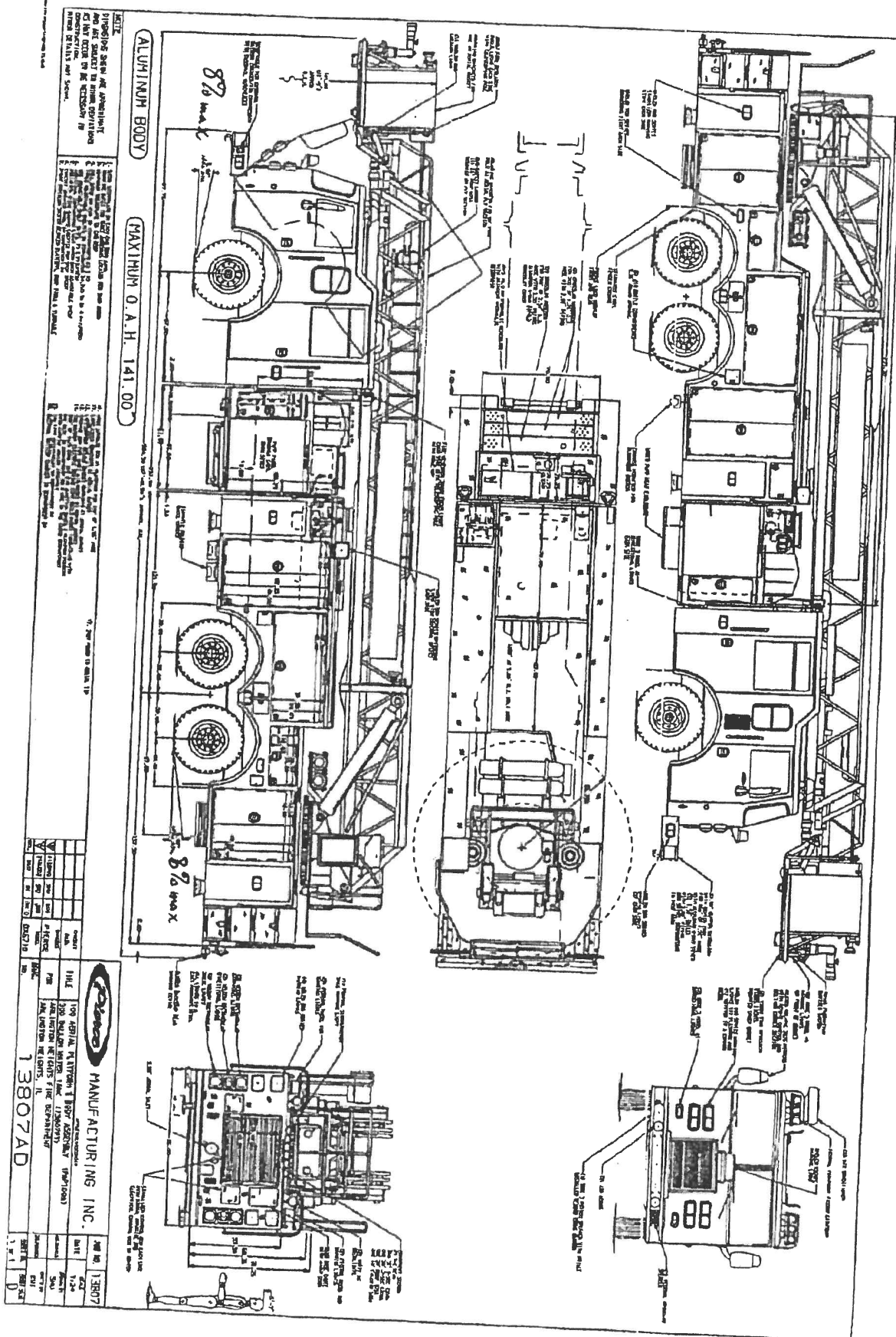
6/3/2005

Definitions:

Inside Cramp Angle	Maximum turning angle of the front inside tire.
Axle Track	King-pin to king-pin distance of the front axle.
Wheel Offset	Offset from the center-line of the wheel to the king-pin.
Tread Width	Width of the tire tread.
Chassis Overhang	Distance from the center-line of the front axle to the front edge of the cab. This does not include the bumper depth.
Additional Bumper Depth	Depth that the bumper assembly adds to the front overhang.
Wheelbase	Distance between the center lines of the vehicle's front and rear axles.
Inside Turning Radius	Radius of the smallest circle around which the vehicle can turn.
Curb to Curb Turning Radius	Radius of the smallest circle inside of which the vehicle's tires can turn. This measurement assumes a curb height of 9 inches.
Wall to Wall Turning Radius	Radius of the smallest circle inside of which the entire vehicle can turn. This measurement takes into account any front overhang due to the chassis, bumper extensions and/or aerial devices.

TECH SERVICE

006





Arlington Heights Fire Department Plan Review Sheet

P. C. Number 19-006

Project Name

Raising Canes

Project Location

Town and Country Shopping Center

Planning Department Contact Sam Hubbard

General Comments

Round 1

General Comments:

- 1)Building is to be sprinkled per code.
- 2) The Fire Department Connection shall be located at the main front entrance. It shall be fully visible and accessible and within 100 feet of the nearest accessible fire hydrant capable of delivering the required flow.
- 3) A Knox Box shall be located at the main front entrance.
- 4) Install a fully operational annunciator panel or alarm panel at the main front entrance.

**NOTE: PLAN IS CONCEPTUAL ONLY
SUBJECT TO DETAILED PLAN REVIEW**

Date April 23, 2019

Reviewed By: _____

LT. Mark Aleckson

Arlington Heights Fire Department

ARLINGTON HEIGHTS POLICE DEPARTMENT

Community Services Bureau

DEPARTMENT PLAN REVIEW SUMMARY

Raising Canes Town and Country Shopping Center PUD Amendment, SUP for restaurant with drive-through

Round 1 Review Comments

04/23/2019

1. Character of use:

The character of use is consistent with the area and is not a concern.

2. Are lighting requirements adequate?

Lighting should be up to Village of Arlington Heights code. The exterior of the building should be illuminated especially during nighttime hours for safety, to deter criminal activity and increase surveillance/visibility- potentially reducing theft, trespassing, vandalism, underage drinking, and other criminal activity.

3. Present traffic problems?

There are no traffic problems at this location.

4. Traffic accidents at particular location?

This is not a problem area in relation to traffic accidents.

5. Traffic problems that may be created by the development.

This development should not create any additional traffic problems.

6. General comments:

- Please ensure that there is an emergency information/contact card on file with the Arlington Heights Police Department and that it is up-to-date. Agent contact information must be provided to the Arlington Heights Police Department during all construction phases. The form is attached. Please complete and return. This allows police department personnel to contact an agent during emergency situations or for suspicious/criminal activity on the property during all hours.

A.O. #330

Alexandra Ovington, Crime Prevention Officer
Community Services Bureau

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APR 23 2019

PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

Approved by:

#557

Supervisor's Signature



**Village of Arlington Heights
Health & Human Services Department**

Memorandum

To: Sam Hubbard, Development Planner

From: Sean Freres, Environmental Health Officer

A handwritten signature in black ink, appearing to be 'SF' or similar, written over the printed name of Sean Freres.

CC: James McCalister, Health & Human Services Director

Handwritten initials 'Jm' in black ink, written over the printed name of James McCalister.

Date: May 1, 2019

Re: PC# 19-006. Raising Cane's, Town & Country Shopping Center, Round 1

Building permit plans must comply with the attached Food Service Plan Review Requirements.

Openable windows must be protected against the entry of insects by screening. An alternative would be to meet the attached minimum requirements for "Open Air Dining".

The drive-thru window must be self-closing and equipped with a mechanical air curtain.

Provide an exterior hose bibb for cleaning of the outdoor dining area.

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Village of Arlington Heights
Health & Human Services Department
33 S. Arlington Heights Rd.
Arlington Heights, IL 60005
(847) 368-5760

Food Service Plan Review Requirements

The Village of Arlington Heights has adopted the Illinois Department of Public Health Food Service Sanitation Code. Copies may be obtained by visiting www.idph.state.il.us or calling 630/293-6800.

For a complete plan review, drawings to scale must be submitted containing the information noted below. This list, while not necessarily complete, highlights areas of concern and common reasons for plan rejection.

- 1. Floor Plan for Operation.** Designation of various areas (service areas, food preparation, dry storage, numbers and locations of seats, restrooms, break areas, etc).
- 2. General Layout.** Location of equipment fixtures (cross-reference to an equipment schedule) including distances above the floor, between other pieces of equipment, whether on legs or casters, etc.
- 3. Food Service Equipment.** All equipment must be commercial and listed with NSF or equivalent in both construction and installation. Used equipment must be inspected for approval prior to installation. Equipment schedules must contain manufacturer and model numbers for each piece of food service equipment. Equipment spec sheets are required for all new equipment.
- 4. Plumbing fixtures.** Location and type must be shown in overhead and schematic design. Include provisions for drainage from condensate for refrigerators and freezers, ice machines, soda or water stations, steam tables, etc. The location of all floor drains and sinks must also be shown. All 3 compartment sinks, dish machines, prep sinks, ice machines, steam tables, and condensate lines must have an air-gap (open-site drain) on the waste line. All hub drains, floor sinks, and floor drains must be located on the toe-edge of, or adjacent to, the equipment to facilitate cleaning. Facilities cooking or performing food prep must have a grease trap. Newly constructed facilities having cooking that produces grease or vapors, or where 3 compartment sinks or food prep sinks are located in two or more areas are required to have an exterior grease trap. Dish machines and garbage grinders may not drain through the grease trap. All ice machines must be air cooled.
- 5. Sinks.** Sinks that are mandatory to be installed include:
 - three compartment sink with integral drain boards
 - mop/utility sink
 - hand sink in preparation areas (including bars) and dish areas (more than one may be required)
 - food prep sink (depending on type of operation)Hot and cold running water are required at all sinks. The water must be tempered by means of a mixing valve. A metering faucet must provide at least 10 seconds of running water.
- 6. Ventilation Requirements.** Adequate ventilation must be provided throughout the facility to remove excessive heat, steam, vapors, smoke, fumes, and noxious odors. Submit specifics on ventilation hoods for Fire Code review.
- 7. Floors, Walls, and Ceilings.** The surfaces in all food preparation, dishwashing rooms, and toilet rooms must be smooth, light colored, non-porous, and easily cleanable. Ceiling tiles may not contain fissures, and must be vinyl coated above food prep areas. Cove base must be provided at all floor/wall junctures. Grouting for all floor tiles must be sealed to be non-porous. Non-slip finishes may only be installed in traffic areas, not under equipment.
- 8. Lighting.** Artificial light sources must be installed to provide at least 20 footcandles of light in all food prep areas, dish areas, and wash rooms. All walk-in refrigeration/freezer units, dry storage areas, dining rooms during cleaning, and other areas must be provided with at least 10 footcandles of light. All light fixtures over, near, or within food preparation, display, or service areas, and dish areas, must be shielded to prevent broken glass from falling onto food. This includes heat lamps.
- 9. Dry Storage Areas.** A minimum of 25% of the food preparation area must be set aside for dry storage. Provide calculations showing how the dry storage requirement is met. Show dimensions and numbers of tiers for each shelving unit. All shelving must be at least 6 inches above the floor, and 18 inches below the ceiling. Remember that carry-out operations require more storage space for disposable containers.

Village of Arlington Heights

Open Air Dining – Minimum Requirements

The Village of Arlington Heights will permit open air dining in approved restaurant establishments subject to submittal of detailed plans and specifications in accordance with the following requirements:

1. An Air Curtain is required to be installed at the top of windows proposed to be open. Manufacturer specifications on the best and quietest model must be provided for review and approval by the Health Department. The Air Curtain must provide sufficient air flow to prevent entry of pests into the establishment.
2. The number of windows permitted to be open shall be pre-established and subject to approval by the Village.
3. Open Air windows shall not be allowed at grade level. A minimum 2 foot high knee wall must be provided. Window opening from top of knee wall to top of window shall be approximately 6 feet in height.
4. The Air Curtain must be on when windows/doors are open – and must be accomplished via automatic switching.
5. Kitchen must be completely enclosed with walls and doors e.g. no open kitchen concept. The establishment must be pre wired to allow for easy installation of an air curtain at the kitchen doors should such installation become necessary in the future in order to prevent entry of pests.
6. Open food prep areas such as a Sushi bar need not be enclosed but shall have an enclosure to protect the food when food prep is not in progress.
7. Monthly pest control service is required by a licensed pest control company.
8. Other measures will be required by the Village if the air curtains are ineffective and pest control becomes a continuous problem.
9. No construction may begin without submitting detailed Building Permit Plans and Specifications and subject to receipt of an approved Building Permit.

As with all Building and Health Code requirements if the above measures are ineffective and other measures to prevent pests within the establishment are not taken, citations will be issued.

November 3, 2016

PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT

7

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. 19-006
 Petitioner: Joseph Bibat, RA, ALA
3632 N. Clairmont Avenue
Chicago, IL 60618
 Owner: Town & Country Chicago Associates, LLC
30050 Chagrin Blvd. Ste 360
Pepper Pike, OH 44124
 Contact Person: Greg Barrow
 Address: 30050 Chagrin Blvd. Ste. 360
Pepper Pike, OH 44124
 Phone #: (216) 464-5550
 Fax #: (216) 464-7219
 E-Mail: gbarrow@visconsi.com

P.I.N.# 03-20-101-016
 Location: N. Arlington Heights Rd. at E. Palatine Rd.
 Rezoning: Current: B-2 Proposed: B-2
 Subdivision:
 # of Lots: Current: Proposed:
 PUD: ✓ For: Amend. to PUD
 Special Use: ✓ For: Rest. with Drive-thru
 Land Use Variation: For:
 Land Use: Current:
 Proposed:
 Site Gross Area: 44,334 sq. ft
 # of Units Total:
 1BR: 2BR: 3BR: 4BR:

(Petitioner: Please do not write below this line.)

YES NO

1. X COMPLIES WITH COMPREHENSIVE PLAN?
2. X COMPLIES WITH THOROUGHFARE PLAN?
3. X VARIATIONS NEEDED FROM ZONING REGULATIONS?
 (See below.)
4. X VARIATIONS NEEDED FROM SUBDIVISION REGULATIONS?
 (See below.)
5. X SUBDIVISION REQUIRED?
6. X SCHOOL/PARK DISTRICT CONTRIBUTIONS REQUIRED?
 (See below.)

Comments:

PLEASE SEE ATTACHED COMMENTS



Date



16. Please revise the plans to include details on the proposed dumpster enclosure (height, materials, gates, etc.).
17. Please provide details on any fencing/seat walls proposed around the outdoor dining area.
18. Other than the proposed transformer in the southwest corner of the site, will there be any ground mounted mechanical equipment (AC units, generators, utility pedestals, switchgear, etc.)?
19. Please explore the construction of a pedestrian connection/route from the existing shopping center to the proposed outlot.

Signage:

20. Signage shall be reviewed as part of the Design Commission application. Please see preliminary signage comments below:
 - a. Drive-Through Signage. The basic layout appears to be code compliant. Detailed plans will be required for a complete review. Refer to Chapter 30, Section 30-208 for detailed requirements.
 - b. Wall Signs - North Elevation:
 - i. Section 30-402, Number. One wall sign is allowed per street frontage. Two wall signs proposed. Variation required.
 - ii. Section 30-403, Dimensions. Signs shall be no larger than 25% of the signable wall area. Both signs exceed 25%. Variations required.
 - c. Wall Signs - West Elevation:
 - i. Section 30-402, Number. One wall sign is allowed per street frontage. The west elevation does not have street frontage. Variation required for the proposed sign.
 - d. Ground Sign. Variation may be required for the proposed ground sign. Additional research will be needed.

Parking/Loading:

21. How was the net seating area calculated? Please provide an exhibit showing a dashed line around the seating areas (including the square footage within the dashed lines), both indoor and outdoor.
22. Where will loading occur? How often are deliveries expected per week and what time of day will they occur?
23. Please revise both the traffic and parking study to project for future conditions with a fully occupied shopping center. Parking study should project total parking demand with occupancy of the vacant spaces as retail (however, 35,000 sq. ft. of the vacant 50,041 sq. ft. space should be classified as a grocery use) using ULI projections for parking demand based on use. Total parking demand should be Raising Canes parking demand (based on Oak Lawn surveys) + Shopping Center demand (based on surveys) + vacant space demand (based on ULI parking rates). Similarly, the traffic study should be revised to project total future trips based on full occupancy of the shopping center (using ITE trip generation rates for the vacant spaces based on their future use as retail – however 35,000 sq. ft. of the vacant 50,041 sq. ft. space should be classified as a grocery use). The capacity analysis should be adjusted accordingly.
24. Page 25 of the traffic study states that under future build conditions, the LOS for only one movement is different than under the no-build scenario. However, Table 3.7 appears to show more than one movement to be different under the future build scenario. Please address.
25. Does the westbound right-turn queue at Access B have capacity to handle the increase in queuing based on the future build scenario, or will the queue block access aisles?

Prepared by:



Raising Canes
PC 19-006
May 2, 2019

Landscape Issues

- 1) Provide a detailed landscape plan that includes sizes, species and quantities for all proposed plant material.
- 2) Per Chapter 28, Section 6.15-1.2a, a three foot high screen must be provided in order to screen the parking/paved areas that are adjacent to the public way. Increase the size of the proposed shrubs along Palatine Road so that they are a minimum of 3 foot high at time of installation. The plant material must be salt and drought tolerant.
- 3) The ends of all parking rows must include a 4" caliper shade tree (Chapter 28, section 6.16-1.2b). Please provide a curbed island and a 4 inch caliper shade tree north of the refuse area at the end of the parking row.
- 4) For the parking row located along the eastern side of the site, reduce the depth of the stalls and incorporate shrubs within the median/green space. Code allows for 16.5 feet depth for parking stalls with 1.5 foot of overhang. Please evaluate the depth of the stalls and reduce if feasible to allow for additional green space. The parking stalls should not exceed a depth of 18 feet.
- 5) For the bio-retention facility that consists of low profile prairie mix, incorporate 2-3 feet of turf along the back of curb between the prairie mix and curb.
- 6) On sheet FS1 it appears that a fence is proposed along the perimeter of the outdoor eating area. Consider a seat wall that matches the building in place of the proposed fence. Please provide details for the proposed barrier. In addition, it is recommended that specialty pavement such as colored concrete be incorporated for the eating area and the walkways.
- 7) Provide details of the proposed site furnishings.
- 8) If there are any utility meters or mechanical units, they must be screened with landscaping or another appropriate method of screening. Evaluate the location of the transformer in the southwest corner and provide evergreens adjacent to the transformer in order to provide year round screening.
- 9) A landscape compliance bond in the amount of 30% of the landscaping costs will be required at the time of building permit. In addition, a \$4 tree fee is required for each lineal foot of frontage.



17710 DETROIT AVENUE
LAKEWOOD, OHIO 44107
TEL (216) 521-5134
FAX (216) 521-4824

June 5, 2019

Village of Arlington Heights
Department of Planning &
Community Development
33 South Arlington Heights Road
Arlington Heights, IL 60005
Attention: Sam Hubbard

RECEIVED

JUN 06 2019

**PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT**

Regarding:
Raising Cane's Chicken Fingers
N. Arlington Hts. Road & E. Palatine Rd
Arlington Heights, IL 60005
Our Project No. 19064

PC Number: 19-006

Mr. Hubbard:

The following letter gives either a direct written response to your comments or describes revisions made to the plan in response to your Plan Review dated May 3, 2019 for the Raising Cane's Chicken Fingers located at N. Arlington Hts. Road & E. Palatine Road, Arlington Hts., IL 60005.

Any revisions made to the drawings in response to these comments have been clouded on the drawings and are marked with **Delta #1**, labeled **Development Review** and dated **5/24/19**

Fire Safety Review:

1. Acknowledged.
2. Acknowledged. The FDC location will be coordinated with Fire Department.
3. Acknowledged. Will be part of separate submittal.
4. Acknowledged.
5. Acknowledged. Rooms/Doors will be provided with appropriate labeling.
6. Acknowledged.
7. Acknowledged. Will be part of separate submittal.
8. Acknowledged. Location of exterior alarm will be coordinated with Fire Department.
9. Acknowledged.
10. Acknowledged. Location of Knox box will be coordinated with Fire Department.
11. Acknowledged.
12. Acknowledged.

Engineering:

- 1-10. N/A
- 11. Acknowledged.
- 12. Acknowledged. Plans are referenced to the State Plane Coordinate System – Illinois East
- 13. Acknowledged. An OUMA will be completed prior to Final Engineering Approval.
- 14. Detention for the existing site is currently provided as part of the overall shopping center per MWRD Permit No. 79-0408. The proposed improvements will decrease impervious area; thus, additional detention is not required. Refer the Preliminary Stormwater Management Report for additional information.
- 15. An Auto turn Plan showing the routes has been included with this submittal.
- 16. Final Engineering plans will specify adequate pavement.
- 17. A proposed Fire Hydrant has been added to the plans within 100 feet of the Fire Department Connection. The Fire Department Connection is labeled as item O on the plan.
- 18. The proposed water line servicing the building is a 6" Ductile Iron Water Line (W3). The ¾" line (W1) is exiting the building and will be providing water service to a post hydrant in the trash enclosure.
- 19. Acknowledged. Final Engineering plans will specify.
- 20. Acknowledged.
- 21. Truck route for trash vehicle is included on the Auto Turn exhibit. The trash will be serviced when the restaurant is closed and/or during off peak hours. The drive through aisle and southbound exit aisle are not anticipated to be affected.

Traffic:

- 22. Wheel stops have been added as requested.
- 23. 'One Way – Exit Only' signs have been added to the plan.
- 24. Two existing light poles will be removed as part of the development. New lights will be proposed for the development. A photometric plan has been included with this submittal.
- 25. Acknowledged. Raising Cane's prefers 20' deep parking stalls; however, per Planning and Community Development comments, the site plan has been revised to provide 18' deep parking stalls.
- 26. The initial analysis reflected an 80/20 split with 80% of traffic from the north on Arlington Heights Road traveling south to Access B, and 20% completing a left-turn onto eastbound Palatine Road to Access C. Based on the limited traffic assumed traveling from the north on Arlington Heights Road (15%), no southbound right-turns were included. Based on the Village review comment, the analysis has been updated to reflect a 50/50 split with 50% of traffic from the north on Arlington Heights traveling south to Access B, and 50% completing a left turn onto eastbound Palatine Road to Access C. The total site trip assignment is depicted in Exhibit 5.
- 27. The report text has been modified to clarify the ITE data is assumed for the analysis. The site trip assignment depicted in Exhibit 3 through Exhibit 5 is based on ITE data.
- 28. The site trip assignment has been updated per Comment 26, and Exhibit 3 through Exhibit 5 revised accordingly.
- 29. The capacity analysis has been updated to reflect the revisions noted above and in Parking/Loading Comment.

Fire Department:

1. Acknowledged.
2. Acknowledged. The FDC location will be coordinated with Fire Department.
3. Acknowledged. Location of Knox box will be coordinated with Fire Department.
4. Acknowledged.

Community Services Bureau:

1. No response required.
2. No response required.
3. No response required.
4. No response required.
5. No response required.
6. Acknowledged. Emergency contact information will be provided prior to store opening.

Health & Human Services Department:

1. Acknowledged.
2. Acknowledged. Screens will be provided at overhead doors.
3. Acknowledged. Windows are self-closing and an air curtain will be provided.
4. Acknowledged. Hose bibb will be provide at patio areas.

Food Service Plan Review Requirements:

- 1.-9. Acknowledged. A full set of plans will all required information will be provided with permit submission for review.

Open-Air Dining – Minimum Requirements:

1. Acknowledged. Per Sean Freres (Environmental Health), the screen at the operable overhead doors will be acceptable to prevent pests from entering building and permit the open kitchen concept.
2. Acknowledged.
3. Acknowledged. Overhead doors have sill at 3'-2" a.f.f.
4. Acknowledged. See 1. Above.
5. N/A. See 1. Above.
6. N/A.
7. Acknowledged.
8. Acknowledged.
9. Acknowledged.

Planning & Community Development Department:

- 1-6. N/A.
7. Acknowledged.
8. Acknowledged. This will be provided.
9. Raising Cane's will be leasing.
10. The project description has been revised.
11. Acknowledged. Photometrics plan provided.
12. Acknowledged.
13. Acknowledged.
14. Parking stalls have been revised to 18' deep.
15. Revised as requested.
16. Propose dumpster enclosure details have been included in this submittal.

17. Details for fencing/seat walls have been included in this submittal.
18. No.
19. Based on the layout of the existing shopping center, there is not an easily constructed pedestrian route to the proposed outlot. Pedestrians have access to the sidewalks along Arlington Heights Road which will route them to Palatine Road and to the front of the Restaurant.
20. Acknowledged. Design Commission application submitted 5.13.19.
21. Seating was calculated based on the actual number of seats. The area of the seating was indicated by a dashed line included the square footage and seats.
22. Deliveries are made 3-4 times a week and are made in early morning.
23. The traffic and parking studies have been updated to include future conditions with a fully occupied shopping center. For the traffic study, the capacity analysis was updated accordingly.
24. The capacity analysis has been updated to reflect Village comments. Table 3.6 and Table 3.7 have been revised accordingly.
25. The 95th percentile queues projected for the westbound right-turn movement at Access B are expected to exceed the available storage length under the future no-build condition. The capacity analysis is considered conservative as it does not include right-turn-on-red movements, which were observed in the field. Furthermore, the current site access and onsite circulation configuration provides flexibility for motorists to select an alternate outbound access driveway if long delays or queues are observed at Access B.

Landscape Issues:

1. Detailed landscape plan showing sizes, species and quantities provided.
2. Shrubs along Palatine Road increased in size to be a minimum of 3-foot height at time of installation. Plant material is salt and drought tolerant.
3. 4" caliper shade trees provided at the ends of all parking rows.
4. Parking stall have been revised to 18' deep.
5. Turf provided along back of curb.
6. Details for the railings has been added.
7. Pictures of furniture provided to illustrate the patio design.
8. Acknowledged. Utility locations will be looked at in detail at time of final landscape plan submittal to provide proper screening.
9. Acknowledged.

Public Works Department:

1. The proposed water line servicing the building is a 6" Ductile Iron Water Line (W3). The ¾" line (W1) is exiting the building and will be providing water service to a post hydrant in the trash enclosure from interior to the building. It is not a separate water source.
2. Acknowledged.
3. Acknowledged.
4. Structure ST-1 will not have a restrictor within the structure. Per MWRD WMO, detention is not required for this site. Final Construction details will be included with Final Engineering Plans.
5. Proper separation will be provided at X3, X4, X5, and X6.
6. The owner of the shopping center will be preparing separate plans and obtaining permit to install the proposed water main extension prior to the start of construction for the Raising Cane's Lot.

7. An OUMA will be completed prior to Final Engineering Approval. In addition, an Exhibit R including maintenance requirements will be completed and recorded against the property as part of the MWRD Permit process.
8. Acknowledged.
9. Revised as requested.
10. Acknowledged. Final grease trap location will be coordinated/confirmed with Public Works during Final Engineering Review.

Please contact me directly if you have any questions or concerns regarding these drawing revisions, attached responses, or if there is any further information needed to expedite the permit. Thank you.

Respectfully Submitted,

Jeff H. Pountney

Jeff H. Pountney
ADA Architects, Inc.

PLAN COMMISSION PROJECT TIMELINE

Project Name: Raising Canes
PC Number: 19-006
Location: 225 E. Palatine Rd.
Requested Action:

1. Amendment to Planned Unit Development Ordinances #74-49 and #01-026.
2. Special Use Permit for a restaurant with a drive-through.

	Date	Number of Business Days
Petitioner Provides Plans needed for CPRC	12/18/18	-
Conceptual Plan Review Meeting (CPRC)	01/09/19	13
Awaiting PC Application	04/19/19	71
PC Application Submittal Date	04/19/19	-
1 st Round Department Comments	05/09/19	14
Petitioner's Response – 1 st Round	06/06/19	19
PC Hearing	06/26/19	47 days from application date
Village Board	07/15/19	12
Anticipated Village Board Ord. Adoption	08/05/19	15



**Village Board
7/15/2019**

Item: Substantial Amendments to 2015-2019 Consolidated Plan and Draft 2019 Annual Action Plan

Department: Planning & Community Development

Proposed Substantial Amendments to the 2015-2019 Consolidated Plan and the 2019 Annual Action Plan have been the subject of two public hearings and a 30-day public comment period. The second of the two required public hearing on the proposed Substantial Amendments to the 2015-2019 Consolidated Plan and the 2019 Annual Action Plan is scheduled for the July 15, 2019 Village Board meeting.

Recommendation

It is recommended that the Village Board approve the Substantial Amendments to the 2015-2019 Consolidated Plan and the 2019 Annual Action Plan including any amendments that are made as a result of discussion during the second public hearing.