



Village of Arlington Heights
Plan Commission
Board Room
Arlington Heights Village Hall
33 S. Arlington Heights Road
Arlington Heights, IL 60005
September 30, 2015
7:30 PM

I. CALL TO ORDER

II. ROLL CALL

III. APPROVAL OF MINUTES

- A. Xilin Adult Day Care - 9/9/15
- B. Olive-Mary Stitt School - 9/9/15
- C. Ivy Hill School - 9/9/15
- D. Christina Court - Final Plat of Subdivision - 9/9/15
- E. Northwest Crossings - 9/16/15

IV. PUBLIC HEARINGS

- A. The Moorings - 811 E. Central Rd. - PC#15-012
PUD Amendment
- B. Collision Damage Experts - 9 E. College Dr. - PC#15-018
Land Use Variation

V. OTHER BUSINESS

VI. 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.



Item: Xilin Adult Day Care - 9/9/15

Department: Planning & Community Development

ATTACHMENTS:

Description	Type
PC Minutes 9/9/15 DRAFT	Minutes

PLAN

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

COMMISSION

RE: XILIN ADULT DAY CARE FACILITY; PC# 15-011

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
9th day of September, 2015, at the hour of 7:30 p.m.

MEMBERS PRESENT:

JOE LORENZINI, Chairman
LYNN JENSEN
BRUCE GREEN
JOHN SIGALOS
MARY JO WARSKOW

ALSO PRESENT:

LATIKA BHIDE, Development Planner

CHAIRMAN LORENZINI: I'd like to call to order this meeting of the Plan Commission. Would you all please stand and say the pledge of allegiance with us?

(Pledge of allegiance.)

CHAIRMAN LORENZINI: Latika, could you please do the roll call.

MS. Bhide: Commissioner Cherwin.

(No response.)

MS. Bhide: Commissioner Dawson.

(No response.)

MS. Bhide: Commissioner Drost.

(No response.)

MS. Bhide: Commissioner Ennes.

(No response.)

MS. Bhide: Commissioner Green.

COMMISSIONER GREEN: Here.

MS. Bhide: Commissioner Jensen.

COMMISSIONER JENSEN: Here.

MS. Bhide: Commissioner Sigalos.

COMMISSIONER SIGALOS: Here.

MS. Bhide: Commissioner Warskow.

COMMISSIONER WARSKOW: here.

MS. Bhide: Chairman Lorenzini.

CHAIRMAN LORENZINI: Here. Okay, the first thing on the, the next thing on the agenda is approval of the meeting minutes from August 26, Competency plan update and the regular meeting.

COMMISSIONER JENSEN: I so move.

COMMISSIONER SIGALOS: I'll second.

CHAIRMAN LORENZINI: All in favor?

(Chorus of ayes.)

CHAIRMAN LORENZINI: Opposed?

(No response.)

CHAIRMAN LORENZINI: Thank you. Okay, moving on to public hearings. Just so everybody in the, in the audience knows, the way this, the public hearing works, we'll have the Petitioner come up, give a brief presentation, then Latika from the Plan, the Planning Department will give a staff report. Commissioners will ask questions, then we'll open it up to the public for, for questions. So, having said that, Latika, have all the proper notices been given?

MS. Bhide: They have.

CHAIRMAN LORENZINI: Is the, let's see the first one on the agenda is the Xilin Adult Day Care, is the Petitioner here?

MR. CLERY: Yes.

CHAIRMAN LORENZINI: Would you please come forward. Is anybody else going to testify beside you? If anybody's going to testify, please come forward. Raise your right hand.

(Witnesses sworn.)

CHAIRMAN LORENZINI: Okay, thank you. You too?

MR. CLERY: No, I'm not testifying, I'm the attorney.

CHAIRMAN LORENZINI: Oh, okay.

MR. CLERY: I could be sworn in though, if you like.

CHAIRMAN LORENZINI: Yes, please.

MR. CLERY: Sure.

(Witness sworn.)

CHAIRMAN LORENZINI: Thank you. Okay, would you please state your name and spell it, and your address for the court reporter?

MR. CLERY: My name is John Clery, C-l-e-r-y, my address is 1515 East Woodfield Road, Suite 830 in Schaumburg, 60173.

CHAIRMAN LORENZINI: Ma'am, would you do the same?

MS. YANG: Linda Yang, and --

CHAIRMAN LORENZINI: Could you speak into that microphone?

MS. YANG: Okay, Linda Yang, I live at 1304 Coventry Court, Roselle, Illinois, 60172.

CHAIRMAN LORENZINI: Could you spell your last name?

MS. YANG: Y, like yellow, a-n-g, g like girl.

CHAIRMAN LORENZINI: Oh, okay, thank you. So, has the Petitioner read the conditions and you agree with them in the staff report?

MR. CLERY: Yes, sir.

CHAIRMAN LORENZINI: Okay, thank you. And would you give us a brief presentation of what you --

MR. CLERY: Why certainly, if I may. Good evening Plan Commissioners and staff. My name, as I mentioned before is John Clery. I'm the attorney for Xilin Association. I want to thank you for volunteering your service here tonight, I know you have some other things to do, but your main goal I'm sure is to keep Arlington Heights the great town that it is. I should say village. I appeared in front of you approximately two years ago and introduced Linda Yang as the Executive Director of Xilin Association.

We presented to you our outline and finance for the adult day care center. At that time, you were so very gracious and wished Xilin the best. I'm sure there was some skepticism about Xilin's plans and questions about their immediate success. Well, we had a fabulous grand opening, attended by Jesse White and some Village of Arlington Heights officials and some Chinese dignitaries. Your village, the village board approved the land use variation two years ago. This adult day care center has been such a success, that they now need to expand.

However, they once again need your help as they need a land use variation. They want to provide additional services to their clients in home care, general service office, general social services, a Chinese language learning and test center and Chinese performing arts and music learning centers or classes, excuse me.

There is a need for these services and Xilin will provide them. This is a great location for Xilin, and it's a benefit to the Village also. The report that was presented by staff states this, when it says that; though Xilin is a tax exempt entity, they will bring activity to our tenant space that has been vacant for eight years and will generate other tax revenues through food and beverage retail sales tax as Xilin plans to cater from local restaurants and take seniors to shop at local stores.

The Staff Development Committee support for this concept as an expansion of an already approved land-use variation approved by the Village Board in 2013. This proposed land use is compatible with surrounding uses. It's also a good transition to the commercial uses to the North and the West. So I would hope that you will follow the recommended approval of staff and recommend to the Village Board the land use variation. Thank you for your time tonight.

CHAIRMAN LORENZINI: Thank you, Mr. Clery. Latika, would you give us the staff presentation, please?

MS. BHIDE: Definitely. And I, in fact apologize, because our video system is not working tonight, so I don't have the PowerPoint up in the screen. So I apologize for that. The Petitioner is --

CHAIRMAN LORENZINI: Actually, we've got to see it to know what you're talking about.

MS. BHIDE: The Petitioner is here this evening, they are seeking a land use variation to allow a 16,200 square foot addition to and existing adult day care facility in the M-2, limited heavy manufacturing district. The site is approximately 6.25 acres. There is an existing one story office building that is approximately 68,000 square feet and divided into three tenant areas. The northern two thirds of the building, 125 and 135 Algonquin Road, are occupied by office related leases. And Xilin occupies approximately 13,000 square feet within the third tenant area. The remaining 16,200 square feet are currently vacant.

In 2013, a land use variation was approved for an adult day care facility by this operator, at this location. The existing parking is located on the northeast and west side of the building as well as on the west side of the private access drive. And there is a total of 279 parking spaces for this building. Access is we have one driveway along the Algonquin Road and there are two driveways along that private access drive.

If approved, it will allow Xilin to acquire and expand their existing day care facility into the 16,200 square feet vacant tenant space at the southeast corner of the building. Along with adult day care, they are hoping to provide an in-home care service, office general, social services, a Chinese language test center, a Chinese performing art and music classes. The existing day care has an enrollment of about 130 adults. The facility will have an

additional room and expand the adults for a total of 200 adults.

The Petitioner has indicated that there are 19 employees that are currently employed and with this expansion, nine additional employees for a total of 28 employees would be anticipated. The hours of operation are expected to be Monday to Friday, 7:00 a.m. to 7:00 p.m. And Saturday and Sunday from 9:30 a.m. to 5:00 p.m. The Petitioner has indicated that staff normally leaves around 6:00 or 7:00 in the evening and patients typically leave around 3:00.

The, in addition to the day care component, as I said, the Petitioner will have an in-home care office, a Chinese language lab and test center. The in-home care office, or the office is backed by, as a business official office that's permitted in the M-2 District. Similarly, the Chinese language lab is considered a commercial school and that is also a permitted use. The language lab will be open to the public, and open only on weekdays. The Petitioner has stated that folk dancing, music, instrument, martial art lessons will take place on Wednesday, or on weekends. However, no schedule has been set for these activities.

The Petitioner has indicated that these activities will take place on the weekend and a maximum of 40 people will be present in the center at those times. The aforementioned components do not require zoning approval because they are all considered a commercial school, which is allowed in that underlying M-2 District. The plat and sub-division review of this project was done at the July 8, 2015 meeting and the committee found this was a good use of this location and encouraged the Petitioner to move forward.

I want to talk briefly about the STAR line master plan. The Village Board, in 2009, approved the STAR line master plan for the area, which is approximately 85 acres. It's bound by Algonquin Road to the North, the tollway to the South, the property starting Clearbrook Drive to the East and Arlington Heights Road to the West. The plans are still conceptual, but it is important to point out the affects that it may have on future land uses.

So the Phase I of this plan will be the stationary land development, which would be the construction of the train station and then the ancillary parking. And then Phase II was a conceptual build-out for about 25 years into the future. This property is located in what's called the Gateway Area of the STAR line master plan and it's characterized for moderate to high-density mixed-use redevelopment.

So staff has recommended to the Petitioner and the property owner, that they evaluate the possibility of rezoning this property to B-3 District which, you know, may effect the configuration of the property which is set up for office uses and the plan, and the master plan. But the Plan Commission, in August, did recommend to the Village Board that the context of land use language for this property be changed to mixed use in the plan. That has still not been adopted the Village Board yet.

The Petitioner's are not seeking a rezoning at this time, because they would have to work with the other property owners in this location. But that is something they had indicated to staff they would pursue.

I wanted to touch briefly on the traffic and parking issues. A traffic study provided by Gewalt Hamilton was provided. And pursuant to the traffic study, the projected number of trips coming to and leaving this facility is nine inbound on weekday morning hours and nine outbound on the weekday morning hours. Gewalt Hamilton used observations of the current Xilin center as well as a neighborhood facility to determine these rates because they show the ideal standard for an adult day care.

In comparison, a traditional day care would have generated 197 trips of similar size. A professional office or a medical office would also generate additional trips compared to this use. Talking about parking, Xilin requires 42 parking spaces, which is based on the premise of three spaces for every two employees. The rest of the users within this development would require 147 spaces for a combined 189 spaces.

As previously mentioned, there are 279 parking stalls so there is a surplus of 90 parking spaces. Staff arrives prior to 7:30 a.m., patrons arrive between 8:00 and 9:00, 9:00/10:00. The vast majority of patrons use buses or taxis, very few patrons will arrive by cars. And the patrons begin to leave the facility between 2:50 and 4:00 or 5:00 in the afternoon. The current parking demand on the site peaked at 69 occupied spaces at 11:00 a.m., with the additional demand of the Xilin expansion, a total of 104 spaces are projected to be occupied which leaves 62 percent of the parking lot as vacant. Based on this information, the staff developed -- from the Petitioner that there is additional parking on the site to accommodate this proposed use.

That being said, the staff development committee has reviewed this request and recommend approval of the expansion of the adult day care, with the following conditions. That if Xilin sells the adult day care to another operator, that they would have to be in substantial compliance with the terms and conditions. That they acknowledges that this property is in an area for potential STAR line redevelopment and they will work with the Village and Metra on redevelopment of the property and they will comply with all state, federal, federal, state, Village codes regulations and policies. Thank you.

CHAIRMAN LORENZINI: Thank you, Latika. Is there any motion to include the Staff report into the public record?

COMMISSIONER JENSEN: I'll make that motion.

CHAIRMAN LORENZINI: Okay.

COMMISSIONER SIGALOS: I'll second.

CHAIRMAN LORENZINI: Latika, a role call, please.

MS. BHIDE: Okay. Commissioner Green?
COMMISSIONER GREEN: Yes.
MS. BHIDE: Commissioner Jensen?
COMMISSIONER JENSEN: Yes.
MS. BHIDE: Commissioner Sigalos?
COMMISSIONER SIGALOS: Yes.
MS. BHIDE: Commissioner Warskow?
COMMISSIONER WARSKOW: Yes.
MS. BHIDE: Chairman Lorenzini?
CHAIRMAN LORENZINI: Yes. Okay, let's start with questions from the Commissioners. John, would you like to start?
COMMISSIONER SIGALOS: Yes, thank you. As I understand it, your existing facility is for adult day care and the --
CHAIRMAN LORENZINI: Would you call it --
COMMISSIONER SIGALOS: -- adults are transported there by your vans or buses or whatever, they're not driving and parking there obviously. They're being transported?
MS. YANG: That's correct.
COMMISSIONER SIGALOS: Okay so expand, you're expanding your services beyond, if I'm reading correctly, beyond adult day care, where you're expanding general social services, Chinese language learning and test center, performing art and music. So this would be clients other than adult day care, is that correct?
MS. YANG: That's correct.
COMMISSIONER SIGALOS: So those people would most likely drive themselves there and park there?
MS. YANG: Yes.
COMMISSIONER SIGALOS: Okay. I was having a hard time with this parking analysis with, it sounded like, based on the square footage of 28 employees, you need three parking spaces for every two employees, and it says employee parking 42, my math says that would be, require 84 parking spaces. If you require three spaces for every two employees.
MS. BHIDE: So, 28 divided by 14, times three, 42.
COMMISSIONER SIGALOS: Oh, okay, so two thirds, I'm sorry, you're right. I guess didn't do well in math. Thank you. The other question I had was, and I think you mentioned it was at a plat and sub, that you rely on state funding for your adult day care and I'd be concerned with the issue our state is in right now, how will that affect your business?
MS. YANG: Right now, this program belongs to Medicaid, and we were for a while. And, you know, two years ago, state started a program, you know, divided this program between IDOA and insurance companies. Currently we have half of the clients under insurance company, which is not affected. So, you know, even the other half, so we have still half of the income and we're waiting for the budget approval. And she has accumulated a reserved fund for the new

days so, you know, I think we are fine.

COMMISSIONER SIGALOS: So right now you only rely on the state for about half of your income?

MS. YANG: Yes.

COMMISSIONER SIGALOS: The last question I had and maybe this is more for Latika, is, I saw that there is a, the existing parking lot does not have landscape islands every 20 spaces. And why doesn't this have to be brought up to code now? I thought whenever there's an improvement or, to a property that it has to be brought up to the current code.

MS. BHIDE: Right, so it's only missing in the parking lot locations, there is parking lots along Algonquin Road and I think that the island is at the end of the property, you know, where there's entrances to the building. So the, you know, our landscape planners did look at that and they said, you know, it's in substantial compliance with the ordinance. But technically there would be that one variation which --

COMMISSIONER SIGALOS: So it's just one island there?

MS. BHIDE: Yes.

COMMISSIONER SIGALOS: All right, that's all I have, thank you.

CHAIRMAN LORENZINI: Bruce, anything?

COMMISSIONER GREEN: We went over this in the plat and sub and I think this is a great use for this, for this project, for this site. I really have no questions. I think it's a great, great fit.

CHAIRMAN LORENZINI: Thanks Bruce, Mary Jo, anything?

COMMISSIONER WARSKOW: No, I'm supportive, no questions. Thank you.

CHAIRMAN LORENZINI: Lynn?

COMMISSIONER JENSEN: Yes, I'm supporting too, and the only question I have is maybe, if you would kind of, you indicated you have a reserve fund if the state budget doesn't come through, is not approved. How many months of operating could you do if we don't get a budget approved?

MS. YANG: We will have three to four months.

COMMISSIONER JENSEN: Okay, that's the only question, I think it's a good project and I'm pleased that the first phase of this went as well as it did. And so I don't really have any further questions.

CHAIRMAN LORENZINI: Okay, thank you. I agree as well, it sounds like a good project. So having said that, we'll open it up for any public comment. Anybody in the audience want to speak about this project? Anybody? Okay, if not, we'll close the public comment and back to the Commissioners, any further questions or a motion?

COMMISSIONER SIGALOS: No, I think it's an excellent project and a great use for the space.

CHAIRMAN LORENZINI: Would somebody like to make a motion?

COMMISSIONER GREEN: I'd like to make a motion;

A motion to recommend to the Village Board of Trustees approval of PC #15-011, a Land Use Variation to allow a 16,200 square foot addition to an existing adult day care facility in an M-2, limited heavy manufacturing district.

This approval is contingent upon compliance with the recommendations of the Plan Commission and the following recommendations detailed in the Staff Development Committee report dated September 4, 2015:

Recommendation

The Staff Development Committee has reviewed the Petitioner's request for a land use variation to allow a 16,200 square foot addition to an existing adult day care facility in an M-2, limited heavy manufacturing district located at 145 E. Algonquin Road, subject to the following conditions:

1. If in the future Xilin sells the adult day care operation to another operator, the new operator must be in substantial compliance with the terms and conditions of the approved ordinance.
2. The property owner acknowledges that this property is in an area for potential STAR line redevelopment. The Petitioner shall work with the Village and Metra on redevelopment of the property for Transit Oriented Development (TOD) in accordance with plans as may be developed by the Village and subject to the installation of the new transit line.
3. The Petitioner shall comply with all federal, state, and Village codes, regulations and policies.

CHAIRMAN LORENZINI: Do we have a second?

COMMISSIONER WARSKOW: Second.

CHAIRMAN LORENZINI: Roll call vote, please.

MS. BHIDE: Commissioner Jensen?

COMMISSIONER JENSEN: Yes.

MS. BHIDE: Commissioner Sigalos?

COMMISSIONER SIGALOS: Yes.

MS. BHIDE: Commissioner Warskow?

COMMISSIONER WARSKOW: Yes.

MS. BHIDE: Commissioner Green?

COMMISSIONER GREEN: Yes.

MS. BHIDE: Chairman Lorenzini?

CHAIRMAN LORENZINI: Yes. Okay, congratulations, is

there a date that it goes to the Board of Trustees yet?

MS. BHIDE: No we'll, I'll keep in touch with the Petitioner.

CHAIRMAN LORENZINI: Okay, as you know this is only advisory, the Board of Trustees has the final say so.

MR. CLERY: Thank you so much.

CHAIRMAN LORENZINI: Thank you. Congratulations.

(Whereupon, at 7:50 p.m., the hearing on the above-mentioned petition was concluded.)



Item: Olive-Mary Stitt School - 9/9/15

Department: Planning & Community Development

ATTACHMENTS:

Description

PC Minutes 9/9/15 DRAFT

Type

Minutes

PLAN

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

COMMISSION

RE: OLIVE-MARY STITT SCHOOL; PC# 15-015

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
9th day of September, 2015, at the hour of 8:00 p.m.

MEMBERS PRESENT:

JOE LORENZINI, Chairman
LYNN JENSEN
BRUCE GREEN
JOHN SIGALOS
MARY JO WARSKOW

ALSO PRESENT:

LATIKA BHIDE, Development Planner

CHAIRMAN LORENZINI: Okay, the next item on the agenda is PC# 15-015, Olive-Miss Stitt School, is the Petitioner here?

MR. HENDERSON: Yes.

CHAIRMAN LORENZINI: Please come forward. Have all the proper notices been given, Latika?

MS. BHIDE: Yes, they have.

CHAIRMAN LORENZINI: Okay and would you please raise your right hand.

(Witnesses sworn.)

CHAIRMAN LORENZINI: Thank you. Would you each please state your name, spell your last name for the court reporter and give your address?

MR. HENDERSON: Sure, I'm Mike Henderson, H-e-n-d-e-r-s-o-n, 131 South 8th Avenue, LaGrange, Illinois 60525.

CHAIRMAN LORENZINI: Ma'am?

MS. MALLEK: I'm Stacy Mallek, M as in mother, a-l-l-e-k, with School District 25 at 1200 South Dunton, Arlington Heights, 60005.

CHAIRMAN LORENZINI: Okay, thank you. Have you read the conditions in the staff report and do you agree with them?

MR. HENDERSON: Yes.

CHAIRMAN LORENZINI: Okay, thank you. Give us a brief presentation of what you would like to do.

MR. HENDERSON: Certainly, I'll make it very, very simple. It's, the project is a, it's expansion to Olive-Mary School, Olive-Nary Stitt School and it involves a few classrooms to address the growth that's anticipated as well as the overcrowding that's presently there and as well as a gymnasium addition for the growing enrollment. Allowing the existing gym to be part of the expansion of the common space, for the cafeteria and such. So it's a, it's a pretty straightforward function and it's, it begins, it's built for sports and, it's planned for kids that are both there right now and ones that are anticipated to come.

CHAIRMAN LORENZINI: Okay, thank you. Latika, could you give us the staff report?

MS. BHIDE: Yes.

CHAIRMAN LORENZINI: You can have a seat.

MS. BHIDE: The Petitioner is here this evening, they are seeking a special use permit for a public elementary school in the R-3, single family, one-family dwelling district. There are three variations they are seeking. One comes from the requirement to provide 167 parking spaces to allow 49 spaces, a variation of 118 spaces. The other two variations are from the required minimum yards which are both for existing buildings. The subject site is approximately eight acres, 7.9 acres in area this includes both the parcel where the school is located and the parcel where the parking lot and green spot for the -- which the school district owns. They are located on the South side of Olive Street, East side of Arlington Heights Road.

And the Petitioner is proposing an addition to the school building. This addition includes a few classrooms, toilets, an expanded commons area and a new gymnasium with storage and facilities.

Elementary schools both public and private are permitted with the approval of a special use, in the R-3 District. Because there is no existing special use for the school, and the school is proposing expansion at this time, a special use permit must be approved for them -- about the two variations from setbacks.

For this property, the side along Arlington Heights is considered the front, which is the narrow side. The sides along Olive and Douglas Avenues are exterior sides and so the South property line is considered exit side. So a side yard of 10 percent of lot width 16.5 feet as required. The existing building is 16 feet from the South property line so they need that variation. And staff supports a variation because it is for an existing building. Similarly, an exterior site setback of 10 percent of lot width, which is 16.5 feet is required. The existing building is 12 feet from the property line along Olive Street, so they require that variation.

Again staff supports the variation as this is an existing building. The addition would not encroach into the required setbacks. The Petitioner did provide information regarding the floor area ratios and the building coverages and both would be within what is permitted in the R-3 District. The school district did hold a neighborhood meeting on August 19th, for both this school and the next one on the agenda, Ivy Hill. And they provided, presented floor plans, site utilization plans and the district has indicated that the conversations in response to the questions raised at the meeting were consistent with the information that has been presented to the Village. The Plat and Subdivision Committee reviewed this project at their June 10th meeting and the Commission had, the Committee had no concerns with the request. They asked the Petitioner to move forward.

The Design Commission did review this project at their August 25th meeting. The Commission approved the project, but they added several conditions, including adding a dark brown scoping to match the existing building and doubling the quantity of the landscape along the South property line which is where, on the South side is where the gymnasium addition is. Staff recommends that the Petitioners submit the revised landscape plans prior to Village Board, to address that the Design Commission motion regarding additional landscaping.

The proposed addition will abut single family residences along Belmont Avenue on the South side and the addition is approximately 19 feet from the South property line, which meets that existing side yard setback. The design is proposed to be a seamless extension of the existing architecture. It uses the same materials, windows, window spacing and masking. The gymnasium is also designed to blend in with the existing building architecture and materials. The Petitioner will be removing 18 trees from the side, this includes four Ash trees and they are proposing to add 19 trees, four inches in caliber to the site. As I stated previously, the Design Commission did recommend doubling the quantity of landscaping to better screen the residences to the South. The existing parking lot does not fit the landscape requirements in the ordinance, there are no islands at the end of every row and every 20 rows and there's no landscaping on Olive Street. This is considered non-conforming and the Petitioner has

stated that additional shade trees have been provided at the East and West end of the parking row and that three foot high shrubs will be provided along the East Olive Street. Again, plans verifying these changes have to be provided.

The existing stormwater management facility will have to be improved to comply with the Village code. And to accommodate the increased run-off volume that's created by this addition. The existing stormwater mains will be redesigned and reconfigured in order to direct water into the basin prior to discharging to the existing combined sewer. In response to staff comments, the Petitioner has provided written confirmation regarding some required use, again they must submit revised plans verifying these changes that were made. Speaking to parking and traffic, elementary schools require two parking spaces per employee plus one space per classroom.

With this addition they're building 31 classrooms and 68 staff which requires 167 parking places. So currently 50 parking spaces on site. With the proposed changes to the parking lot, there will be a loss of one, one lost space. So there will be 49 spaces on-site. They have off-site parking with, provided through an agreement with the Orchard Evangelical Christian Church for 32 spaces at that northeast corner of Alden and Belmont. So there are 82 spaces that are available to the school. It should be noted though that the school's parking arrangement is until 2023 with the church with an automatic renewal for five years.

So they need the variation from 167 spaces required to allow 49 spaces, the ones that are on their property. A variation of 118 spaces. The parking study did review parking and there were 63 vehicles that were parked on-site, they did both parking lots. And the school currently has 68 staff members but they don't all come in at the same time. So per the traffic study, sufficient parking is available at the school within both lots to accommodate the current and projected staff and visitor needs and staff agrees with that. Special event parking would be available on-site near the school. The school currently serves 599 students, but they use only one bus for transportation.

Only two small areas of the school are eligible for busing. With the expansion the school can accommodate up to 642 students, so it's a net increase of 43 students but additional school buses are not expected to be needed. The parking lot located on the east of the school building along Olive Street has a pick up/drop off lane and the parking lot circulation is proposed to modified by closing this existing exit by Belmont Avenue and relocating the parking lot exits, they're basically doubling the amount of queuing available from 400 to 800 feet, so that would clearly help with the back up onto Olive Street. That being said, staff development committee recommends approval of the special use for Olive Mary-Stitt School at 303 East Olive Street, subject to the following conditions.

Consistent with Design Commission recommendations the quantity of landscaping along the south property line adjacent to the classroom addition needs to be doubled. Prior to Village Board,

provide a revised landscaping plan that addresses Design Commission and staff comments. At building permit, Petitioner provides revised civil stormwater plans verifying the changes that they've agreed. And that they comply with all Federal, State and Village code regulations.

CHAIRMAN LORENZINI: Thank you, Latika. Do we have a motion to approve the staff report into the public record?

COMMISSIONER SIGALOS: I'll make that motion.

CHAIRMAN LORENZINI: I guess we can do a voice vote, all those in favor?

(Chorus of ayes.)

CHAIRMAN LORENZINI: Opposed?

(No response.)

CHAIRMAN LORENZINI: Thank you. Okay, Latika, this is a little unusual, it's unfortunate the projection went down for this hearing. Could you just come forward and maybe show me how this plan -- everybody else here -- okay. Does anyone else have questions

COMMISSIONER JENSEN: We had a lot of discussion. I think I really don't have any questions until actually we hear from the audience with questions. So I will pass.

CHAIRMAN LORENZINI: Okay, Mary Jo?

COMMISSIONER WARSKOW: I will, like Commissioner Jensen, I'd like to hear from the public first.

CHAIRMAN LORENZINI: Bruce?

COMMISSIONER GREEN: I would just like to say that I think the additional landscaping is going to be a big plus in this project.

CHAIRMAN LORENZINI: John?

COMMISSIONER SIGALOS: Yes, I was at the Plat and Sub meeting also and at that time they were asking for three different variations. One was a maximum floor area, one was building mod coverage and maximum pervious service coverage. I don't see that now, what's changed?

MS. BHIDE: At the time they weren't sure that they owned the property where the parking lot was, but they've since provided that, the information that they actually own that entire piece.

COMMISSIONER SIGALOS: Oh, so that all comes into play in this calculation?

MS. BHIDE: Yes, yes.

COMMISSIONER SIGALOS: And then my only other question I had, I drove by there today and I see a lot of temporary chain link construction fencing up. Is that, it appears to be much more than what's needed for this project. Is there something else going on there?

MS. MALLEK: No, the chain link fence is blocking off the parking lot during the school day which isn't affected by the construction specifically where it won't be involved in construction traffic. But it will be, we will be using the parking lot for recess at lunchtime for the students because we would not be able to accommodate all of our students walking down and using Reeds Park back in our area for all of the students at Olive Mary-Stitt. So we fenced

off the parking lot to use that as a recess place. It's closed during the day and only open for drop off and pick up. But the rest of the site is fenced for retention as well as construction traffic.

COMMISSIONER SIGALOS: So it's specifically for this project?

MS. MALLEK: Correct.

COMMISSIONER SIGALOS: Then why did they put up the construction fence in advance of the project being approved?

MS. MALLEK: They put up the construction fence to work with the families of the students to teach them the direction they will have to get to and from school, rather than putting it up right when construction starts and having to have construction traffic there as well as people learning that they can or can't go a certain direction to get to school.

COMMISSIONER SIGALOS: And my last concern would, I see you have a, an agreement with the Orchard Evangelical Church for parking but that only goes to 2023, to the final extension. Would there be a possibility of having a perpetual agreement?

MS. MALLEK: We've actually had an unwritten agreement with them for many years where they've used Thomas Middle School and our Olive School parking for their weekend events. And we use not only the corner lot at Olive and Belmont, we actually have access to use their entire lot that is north of, north and east of the church for special events and parking for our schools. We've done it for many, many years. It was actually their request to memorialize it in writing when they were working on some parking issues that they were dealing with. And so we just came to that agreement. We don't see any reason that that, at this time that that will change. But with never knowing the future, we entered into the five year agreement with the intention that it can automatically renew and then, you know, 10 years from now, unless something is very different, we would anticipate that it would continue the agreement at that time as well.

COMMISSIONER SIGALOS: Thank you, that's all I have.

CHAIRMAN LORENZINI: Okay, now Latika, I'm somewhat confused with the parking, so if they're 118 spots short, according to code, if they have 32 at the church, that still leaves them 86 short. Is that right?

MS. BHIDE: Let me check my, right. So they have, they require 167 spaces. We considered the 49 that are available just on their site. Subtracting that, it's 118 spaces variation. But they have access to another, with more than enough spaces.

CHAIRMAN LORENZINI: Okay, but 118 less 32 is 86. They're still 86 short, right?

MS. BHIDE: Right. Right, I, they are seeking a variation. It's a number, really it's depending on whether you consider the spaces that are available on the church property or not.

MS. MALLEK: That's only considering that corner lot, that's directly across the street from Olive School.

CHAIRMAN LORENZINI: Yes.

MS. MALLEK: But our agreement allows us to use all of their parking facility. It's not specific to that lot.

CHAIRMAN LORENZINI: Okay, and who generally parks in the parking lot? Is it all teachers?

MS. MALLEK: During the, on our parking lot normally during the day it's just them.

CHAIRMAN LORENZINI: And so would you need 118 spots?

MS. MALLEK: I don't think --

MS. BHIDE: No, that's, that is what code required, the code parking requirement is based on two space, two spaces for every employee. And one space for every classroom, so that's where that number comes from. In the parking count, it showed that the maximum they found after morning would exceed three vehicles. So they probably do not need the 167 spots, but that's what the code required of them.

CHAIRMAN LORENZINI: So the codes, you're saying the codes are overfill?

MS. BHIDE: The, yes, I mean, this code has less parking than required by code. Most codes do.

CHAIRMAN LORENZINI: All right, thank you. You can have a seat. Okay, we'll open up for the public's comments. Let's start on, okay we'll start on this side of the room, my left, your right. Anybody in the second row?

MR. HUTCHISON: Yeah, I'll come down.

CHAIRMAN LORENZINI: Are you going to come up?

MR. HUTCHISON: Yes, thank you.

CHAIRMAN LORENZINI: State your name, spell it, and give your address.

MR. HUTCHISON: Yep, hold my hand during the proceedings, I've never done this before, so my name Kelly Hutchison, H-u-t-c-h-i-s-o-n, I'm at 1221 North Belmont, a neighbor on the dead-end on Belmont, on the south side of the lot, two houses away. So, I too noticed right away, the fencing go up. While summer vacation was still, summer vacation was still going on. And for the neighbors living south, and basically everybody in Arlington Heights who likes to use Belmont to access Greens and Greenslope, it's a bikeway, it's a very common used bike and running.

The fencing has not only stopped that, but totally cut it off. So if we're behind the project for good schools, which we have to up with the trees and the diggers and the machines and the nails and all of that, fine. But I don't see why the neighborhood must be cut-off when the fence comes all, the construction fence now, the chain link construction fence, comes all the way to the perimeter on the south side. When six or seven feet north would still allow plenty of playground, if we use that during the, where the basketball goals are now and still allow plenty of vehicles to access.

I believe there's the fencing that goes all the way west to Douglas, and if that's what that extension is for, we could still use and access the parks in that neighborhood, Hickory Meadows and Greens and still have not the dead-end at Belmont. You walk to the end of Belmont right now and it's a dead-end, you cannot go further up on foot or bike. And in looking at that construction for the past, however many weeks it's been up, there does seem to be plenty of room to move that fence a moderate six or seven feet north.

Why? Because it is done so around the fire hydrant right there at the end of the cul-de-sac at Belmont. So, the question is, and I don't know if this body has authority over how fencing is laid out in chain link, but how would such a thing be handled and would it be addressed?

COMMISSIONER SIGALOS: Well frankly the answer to that, I'm a general contractor and I've done a lot of school additions and, including in Arlington Heights, but that's under the purview of the building department. When they issue the permit, they have to have a site plan that shows where the contractor is going to install his temporary construction fencing. And the Building Department reviews that and either rejects or approves it so I guess they must have approved it.

MR. HUTCHISON: So --

COMMISSIONER SIGALOS: But I drove by to see, I'm in agreement with you, it seemed much more than what was needed for this particular project. That's why I was questioning whether something else was going on there beside these additions to the school.

MR. HUTCHISON: So I think it's useful to have a brief comment from a contractor, a school builder and contractor here on the Board because I've had the opportunity when I was, as a neighbor two houses down to look at this for weeks. It did come early, but there it is and I think just a moderate step north of the chain link fence on the south side can accomplish all of the goals inherent in building and constructing along with using the school conjointly, contemporaneously, at the same time. And not prevent access for the neighborhood self-seeking to get to Greens. I think it's moderate, feasible, and there you go.

CHAIRMAN LORENZINI: Okay, thank you.

MR. HUTCHISON: So what's the next step, I mean where does it go?

CHAIRMAN LORENZINI: Well, we'll take care to take everybody's comments and go from there. Okay, anybody else in that row? Yes, sir.

MR. STOECKEL: Hi.

CHAIRMAN LORENZINI: Your name, spell it please and the address.

MR. STOECKEL: My name is Scott Stoeckel, S-t-o-e-c-k-e-l, I live at 145 North Belmont and a comment on Mr. Hutchison's and response that was given. I sat on my front porch and I watched the day the fence was put up, which was on Friday. And it was the same day that most moms and everybody else was going to get their school supplies for their kids. And they met with a chain link fence. I had called the Village because the signs that are posted there say to call the Planning Department. The person that I talked to referred me to a code enforcement officer. She wouldn't even take my questions to even direct them properly, but she just put me in a voicemail box.

Later that afternoon he told me that there is no process for putting up a chainlink construction fence. I'm just making comment on this and I'll ask a question also. But he told me that because it's a school district, the Village has nothing to say about

it. It's a construction fence and there is no permit process on a construction fence. That's my comment on what was said that was part of that. I also asked the school district property superintendent, and I also talked to the park district. The park district referred back to the school district, because they're in conjunction as far as that goes.

I also asked if that fence could be moved forward to allow access and my question is, for this Commission is, I live four doors south of the property. And I was never provided any information from the Village, from the school district or from the park district. And I'm sure there's a lot of people around the area who would take plenty of faxes to the school district and the Village who should have been informed about a lot of the processes going on. You mentioned during this proceeding that there was a family night.

We were never notified of that. Okay? I was told that those members of the schools, family who go there, were provided that information and time and process. Nobody else was. I don't have kids in the school district right now, I'm that old. And I'm walking the park. But I do have grandkids and I do access the park. And I do have the opportunity to sit on my porch and watch people come down the street, joggers, walkers, moms, nannies walking kids and everything like that who are turned around by the fence because they can't access the park.

I agree with Mr. Hutchison and I have asked this question of the school district and even with the superintendent. And I understand that once it's set in place, it's going to take money to move it. But I also believe that a little consideration to the neighborhood, as far as information, should have been provided. And there's a lot of other folks, the homeless, who go from church to church, who not have, have not started yet, but who are out there, because I watch them. And they get turned by the fence. So I think a little bit of notice, however, by sign, because it is a good thoroughfare for foot traffic and auto traffic. And I would like to see, again, my question is, why can't that fence be moved.

Now, there is a tree that is set in the path of where the construction traffic was going to be. That is a memorial tree to my grandson. I have been told it's going to be moved. But that's not the point. The point is we picked that spot for him and now it's going to be moved. I can only say that that's the benefit as opposed to having it be torn down. But this is a plan that the school district, in conjunction with the park district, and since the Village is involved with it, there should be some communication oversight as far as who is being notified on what's going on. And I think so many dropped the ball. Thank you.

CHAIRMAN LORENZINI: Thank you, sir. Just a very quick clarification, any public hearing like this, the public has to be notified. Anybody who lives within --

MS. BHIDE: 250 feet.

CHAIRMAN LORENZINI: Of the?

MS. BHIDE: Property.

CHAIRMAN LORENZINI: Property okay. So anybody within

250 feet of the school's property should have been notified for this meeting, for the public hearing. Now as far as the temporary fence goes, that's really out of the purview of this Commission. So, but maybe we can get to that after we're done here and everybody's comments. Anybody else in that row? Next row anybody? Yes, sir.

MR. CANTAL: My name Don Cantal, C-a-n-t-a-l. I live at 1208 North Pine. And my issue is, it doesn't deal with the temporary construction, it's more a permanent issue. And that's the safety of the children that go there. I've lived on that block for close to 30 years. Okay? The school has been there the entire time. For many years there wasn't any problem. It seems like over the last, maybe seven years or so, there has been a terrible traffic problem on Pine and Belmont when school, when kids are dropped off and when they're picked up.

And I was told by the school district that there's never been a traffic study done as far as safety. They're both dead-end streets and both of those streets are being used to pick up and drop off. So if you go down that street at school start or at school end time, you have cars parked on both sides, you have children running between the cars. You have no way for these cars to turn around except to back up in people's driveways. And this goes on endlessly. It's very dangerous, very dangerous. And in winter, when the plows come down, and the snow is piled this high, you can't see anything. Okay?

If we, the neighbors on that, on both of those blocks have talked to the school district in the past, nothing has been done about it. Okay? Now we're talking about increasing the enrollment, there's only one bus that serves that school. So these moms, there's not, the parking issue I think is a bigger issue in that there should be a pick up and drop off that can accommodate all of the mothers in a safe way. That is not there right now. I can't understand how a project like this can move forward without concern for the safety of the children.

Now, who is going to address this? Do you guys address this? Do we have to take it someplace else? We, we've asked the school district, we've asked the Design Committee we keep, I think we're always told it's not our responsibility. If a child gets hurt, it's everyone's responsibility because we have talked about this over and over again. I don't have children that go to the school, I have grandchildren that, you know, that are around. I'm very concerned for them okay? There's elderly people on our block. At pick up time, drop off time, there's way an ambulance can get in or out of there. There's no way a fire truck can get in and out of there. I know it's not a long period of time but we can't plan emergencies. So, I don't see, and I haven't heard anyone address anything other than there's not enough parking okay? And, which puzzles me because okay, that's okay, because most schools, but there's no pick up and drop off plan either, that's safe. Who do we talk to?

CHAIRMAN LORENZINI: Well to try to answer your question, we only know about what's given in the report here. So we'd ask for additional parking. That's why we have the public give comments to talk about things such as you are so everybody's here's

that's taking notes and then after everybody's done with their questions and comments, we'll be asking more questions.

MR. CANTAL: Okay. I'm really disappointed that we don't have visual aids here. Because I think if you look at that and you see how it's laid out, you know, it's just common sense. How is this going to work? And when you add more students, you add more families, they're not adding busses, so it's just more cars coming in there. I, I just can't see how it's going to work out.

CHAIRMAN LORENZINI: Okay, thank you. Anybody else on that side? Yes, sir. Your name and spell it please and the address.

MR. HESS: My name is Charlie Hess, H-e-s-s, and my wife and I live at 1224 North Pine Avenue. We share the south, the school's south property line. So we're right next to the school on their south side. If you can picture that. I agree with Mr. Cantal, that if you could see this it's, a lot of our concerns are immediate. So hopefully you have some type of drawing in front of you.

When you stand in our backyard, and we've been there since '87, the school at this point is probably 50 feet, I think, from our property. And when we bought there we accepted that and that's, that's part of what you accept when you buy here. Now that it's going to be 16 or 18 feet away, changes the whole tone back there. And I realize that it's probably legal, within code, but the first thing that strikes you when you look at that is, it just seems overly aggressive to take all your property and build right up to the legal edge of it. For any type of building, it changes the whole tone.

So, that's our primary concern of all, a peripheral issue is like drainage. Our property has a drainage problem anyway. So, we're hoping that that all gets taken into consideration when the school does there work. We've been assured that it will, but you really don't know till that first storm comes.

CHAIRMAN LORENZINI: Excuse me, you're on Pine south of the school?

MR. HESS: Yes.

CHAIRMAN LORENZINI: Okay.

MR. HESS: So, and just the overcrowded issue that, as Mr. Cantal mentioned, as, you sit there and you wonder wow, if this school district is expanding this much and it's crowded already, shouldn't they be looking at other alternatives to other spaces or whatnot. Because it's really just being jammed into that north, or the west edge of the school's property, it's just, it seems excessive. So, thanks for listening.

CHAIRMAN LORENZINI: Thank you. Anybody else this side of the room? My left, your right side? Okay, if not let's go to my right and your left side of the room. Anybody this side of the room that's here for this? Yes? Your name and spell it please and your address.

MR. BAUER: My name is Bill Bauer, spell the last name, B-a-u-e-r, my address is 1221 North Pine, I am the south neighbor adjacent to the school. It's common property, you step out my door, you step right onto the school property. I am going to reinforce what Mr. Cantal and Mr. Hess said about the traffic issues in the

neighborhood, but I'm going to bring it a little closer to my house. Where, with my house, where I'm at, I had a hedgerow that I put up when I moved in the neighborhood in what, '84 or '85, to sort of block the school to maintain the green I suppose, along there so I wouldn't have to see the existing property masonry wall.

And with the traffic issues and the increase of the people coming on the block in the last five to seven years, with what Mr. Cantal and Hess said was following the traffic, the people dropping off and picking up, moms blocking driveways where we can't get out. My biggest issue for me is, that the kids are not even sticking to the sidewalks and now they're cutting through my hedgerow and they're breaking it up and damaging it. And they're also killing off my ground cover where they've been cutting through for the last few years. To the point last year, and I think that if any of the parents are here they would have seen it.

I put up a snow fence along my hedgerow so if the kids come through they got immediate stopped so they would turn, get out of my bushes and come around and use the sidewalk. That's the thing is, another thing I want to bring up is they're talking about hedging, the landscaping doubling on my property line along the school there. I'm all for that, I appreciate that, what the Design Commission was talking about. The point is, when they do their landscaping, the last time they did the build project it was approximately about 18 months after that and your warranty was out, and I am a builder, in commercial. The warranty was out and it seemed like the school only maintained the grass. And all the ground cover and all the bushes and everything were let go and it all died.

And so the project became more and more vacant I would say, desolate, you know what I'm saying? Where you had the older bushes that stayed, but the newer stuff seemed to die. So if we're going to be putting up this landscaping I would hope the school district takes a better look at how they're going to maintain the trees and the bushes and things like that, that they don't die off on them and then we end up still looking at the school buildings that are coming closer to my house. Because I think the gym's coming closer to me by 75/80 feet. So I'm really going to be looking out at the side of the school and I want to make sure that that's okay.

But another thing is, I think the Board should know also, we have a problem with the kids in the back there. And these are other minor issues where they hang out there in the summertime, they get in trouble, they're drinking and things like that. We've had the police in there taking care of this. I think by increasing the school and you're bringing it closer to the property lines and the neighbors, now you're going to have these problems that might intensify it. So, I want to make sure that everybody understands there might be a, a security issue along the school with writing and things like that. But they need to maintain that.

So those are probably the biggest things I'm complaining about and yourself. But otherwise, the school has been a pretty good neighbor. It's just these things that all started up with the parking and that's where the traffic flow in front with the drop

off. We'd like to see if maybe you guys can consider signing the street, and saying no parking or something like that. I don't know if you have the power to do that and I think you should enforce it if you do it, where your spine's behind it. If the parents come in and they get ticketed, they're fined and I think sooner later that it's all going to stick.

And they're going to stick with their new traffic problem, not traffic problem, the issue of dropping off and picking up over in front of the school instead of on Belmont and on our street, on Pine. And get those numbers back down to the point where it's, the traffic is terrible. So that's one, and special events, same thing. People seem to come with their kids, you know, for the special events, they can also come onto our block for whatever they have and they park there at night. So, it's a lot of traffic issues. So, appreciate it, thank you very much Commissioners, for your time.

COMMISSIONER GREEN: Just to comment on that, Mr. Bauer?

MR. BAUER: Yes.

COMMISSIONER GREEN: That sounds very much like a police complaint. If you have people blocking your driveway that is really a law enforcement issue. And I would give the police department a call on that because obviously it's illegal to block anybody's driveway.

MR. BAUER: Right, right.

COMMISSIONER GREEN: So, you know, and you have to, enforcement is always a tough issue in any village or town. And it is a problem. We don't want to see it, but there's, there is really little we can say or do here. I would just be vigilant in calling the police if somebody is blocking your driveway or whatever they're doing and keep it up. Because sooner or later they're going to have to answer to that and the person should be ticketed or whatever, whatever the situation is.

MR. BAUER: All right my friend, appreciate that.

COMMISSIONER GREEN: But we hear what you're saying and this is a, and the Trustees get every word verbatim of what we say here and what you say here and they will be reading these comments. And I would suggest that you go to that meeting and let them know that you're there and voice your concerns as well, again.

MR. BAUER: Okay, that's fine. We have a large contingency here, basically the whole block's here, so everybody's not speaking, but we're all here, so. Thank you very much, Commissioners.

COMMISSIONER GREEN: Thank you.

CHAIRMAN LORENZINI: Thank you. Yes, ma'am.

MRS. CANTAL: Okay, I'm Sandy Cantal, C-a-n-t-a-l, and I'm 1208 North Pine. And just in addition to, I, we've been there for almost 30 years, and I have over seven grandkids, I'm out with them everyday. They go to Wayside, my kids go to, my kids went to St. James. We never used the public school, we're always in favor of it. We're happy that it's there, and everything. But when the parents started getting a little more rude I would have to say, with the parking, I just want to tell you one thing because we have called. I

probably was, five years, my husband come home he goes Sand, I can't get through this street. It's like these people, we beep our horn, you know, come through, and I go aww it's not so bad.

Well now I have to go pick up at Wayside and I couldn't get out, out of my block. And I called the police, I called the Village, they told me not to go anywhere during that time. That was the advice, okay? So I just want to tell you that we're trying our best, you know, too. And I know a lot of the parents at Olive School and I talk to them. I don't have a problem with them parking but it is a safety issue. But when they tell us that, they told me not to even go out at that time, I was pretty annoyed. And my husband goes, now you know what I'm talking about. But until I left, had to leave the house and I'm telling you it's a problem, it's a big problem.

COMMISSIONER JENSEN: Are you on the north or south boundary of the school?

MRS. CANTAL: South.

COMMISSIONER JENSEN: South, so where is the pick up and drop off?

MRS. CANTAL: It, years ago it used to only be on
Els --

MR. CLERY: There isn't --

COMMISSIONER JENSEN: You do know, where are they dropping them off and picking them up?

MRS. CANTAL: Oh, it, well for in my, we're on Pine, we're on the cul-de-sac, and so is Belmont. They are parking all around the cul-de-sac there and they're getting out of their cars and they're walking their children into school.

COMMISSIONER JENSEN: But it's south of the, where the school is?

MRS. CANTAL: Right.

COMMISSIONER JENSEN: The cul-de-sac, there is a big cul-de-sac out in front?

MRS. CANTAL: It's not that big. It's not that big. It's pretty, it's pretty narrow and when these women and I don't own an SUV which my grandkids said I have to get, but, it, they're pretty big vehicles. And they block the, you can hardly get off the driveway to get out and --

COMMISSIONER JENSEN: So they drive up there and they, they drop their kids off south of the school? In this cul-de-sac area?

MRS. CANTAL: Yes, yes.

COMMISSIONER JENSEN: And over on Belmont as well?

MRS. CANTAL: Yes. And they block Clarendon. And that's when I couldn't get out to go get the kids. And it's all blocked. And especially like they were talking about with the snow and every, it's horrible. But like I said, until I had to go out, I could care less if I was in my house and, but when you do have to go out for something, let's face it, we do, we pay a lot of taxes. And, you know, and we haven't utilized the school, I'm not complaining about that part. But it's a safety issue. So, that's all I wanted to say.

COMMISSIONER JENSEN: Thank you.

CHAIRMAN LORENZINI: Thank you. Yes, ma'am.

MRS. SLOWINSKE: Hi, my name is Amy Slowinske, S-l-o-w-i-n-s-k-e, I'm at 815 North Pine Avenue, so I'm further south than these folks. I, my children do go to Olive. We do walk as much as possible, and I am guilty as one of those parents who will drive and park on Belmont and park on Pine on those awful winter or rainy days. And I do understand where they're coming from, because I was directly across the street from the parking lot of St. James. So for many, many years, I had a school on my side and when I was trying to go down one way, I had cars coming this way.

And that's exactly what the town told me, don't leave your park, don't leave your driveway when school is getting out. I still get stopped and I can't even get into my driveway sometimes. Somebody told me years ago, don't buy a house where a school is. And I thought, you're right, my bad. So now I live with that, and that's fine. What I feel bad for these people, is they're right. On Olive, the pick up and drop off line, although it's there in the, in the front, it really doesn't accommodate enough cars. So you will get a backup on Sheldrick because you've got cars coming Olive going east and on Olive coming and going west. And they're both trying to pull in, you know, we have the same turn, to pull in into the school lot to drop kids off. Plus you've got people, you know, stopped at Douglas.

If you have a bad weather day, like rain or bad snow, it is so backed up, it's a nightmare. So, you know, to talk about looking at a traffic study again is to looking at the drop off/pick up procedure that would, you know, I think that would be wonderful. We do, as PTA, have a parent patrol that, parents volunteer their time to help the kids get in and out of their cars safely so they can get traffic moving. It, they knew it was going to be such a rough year this year with all the construction that nobody volunteered to really want to help. It's been really difficult getting people out there.

Because they know they're just going to get harassed by people in these frustrating little situation and we just have to, you know, make the best of it. So, all I just want to reiterate is I do apologize to people who live on those streets, but, yeah if we could look at something that could ease the pick up and drop off in front of Olive, that would help so much. Like I said, we only have one bus. Everybody walks and if enrollment is just getting, you know, bigger and bigger, it's just going to be all crazy. Thank you.

CHAIRMAN LORENZINI: Thank you. Anybody else?
Comment? Yes, sir.

MR. KLANCNIK: Hi, Rob Klancnik, it's K-l-a-n-c-n-i-k, I live at 733 North Belmont. So further south than most of the rest of these people. I do know what they're talking about with the driving and the parking on those streets, it gets kind of crazy. My comment is more based on this construction fence. I kind of feel like it was put up prematurely. Obviously we're here tonight, so nothing's been approved. Basically, the kids have been sort of shoved off to play at the far playground, the parking lot. And all the while there's a fence surrounding the perfectly good parking lot and blocking routes for walking to school while it's still nice out.

So, I guess, it's really more directed probably at the School Board and the school district. I'm not sure why the fence, I get that maybe it was, you know, a safety concern that people are going to have to readapt, but they're going to have to readapt at some point. So now just have to readapt earlier than when we probably should have had to readapt. I'm all in favor of improving the school, adding onto it, I think the plans look good. I just, I think they went about it in sort of the wrong order. So, that's pretty much all I needed to say.

CHAIRMAN LORENZINI: Thank you. Anybody else have a comment? Miss?

MRS. GABRIONE: Hi, my name is Kelly Gabrione, I live 1015 East Marian Street, I'm not on the path or --

CHAIRMAN LORENZINI: Can you spell your last name, please?

MRS. GABRIONE: Sure, it's G-a-b-r-i-o-n-e. I have a child at Olive, I'm just here to say that I believe, on behalf of most of the students there, I do believe are in favor of the addition. I think it's very much in favor for most of the population, we're very excited about it. And so I just wanted to just let you know that. Also, the population, just to address some of the concerns. Currently we're very overcrowded. This is to maintain the population some classrooms aren't really classrooms. So we're just, we're not so much adding more people to the, right now, we're just accommodating the current population. Thank you.

CHAIRMAN LORENZINI: Thank you. Anybody else? Any other comments from the public? Okay, if not, let me, let me just maybe ask, Mrs. Mallek, do you want to address some of these comments? Give us, well whoever, whoever you want to.

MS. MALLEK: Sure, and I'd like to introduce Steve Corcoran from Erickson Engineering who did perform a traffic study for us at Olive Mary-Stitt school, so he may be able to address some of those concerns. Again, in terms of the construction fencing, actually as I was hearing the comments, in addition, yes, it was intended, it was a decision made by the school district to put it up before the school started so that the families would be trained and know which way they could walk. There was also consideration, because we have heard from the community, that the pick, parents picking up and dropping off on the two cul-de-sacs, is a traffic problem. And in having the fence up there we also figured could help relieve that since the families wouldn't be able to get through.

In terms of a long-term solution, I don't, we try at every one of our schools to control parent traffic. But when you're releasing between 400 and 600 kids all at once, in a 10 to 15 minute window, and we can't control parent behavior, especially off of our own property. So, part of setting up that fence early was to, to try to curb that. In terms of the construction fence going along the walkway all the way to Douglas Street, that is where the construction traffic will enter from the property. They will enter from Douglas and drive along that walkway to get to the construction site.

So, I will bring back the concerns to the

superintendent about the possibility of moving that fence, although knowing that construction traffic would be coming that way it would only be possible until construction would actually start. Because again then the vehicle's intention is to drive up that walkway to access the property.

COMMISSIONER JENSEN: Would enrollment be increased?

MS. MALLEK: I believe if we look at the numbers, like 40 something students, 43 students is our anticipated enrollment increase over the next five years. But the problems we're addressing right now for instance, is our enrollment is enough we can't, we need to run two gym classes at a time but our gym is only big enough for one. So that's the expansion of the gym, that, our population already calls for that and we can't service that. As well as we have converted both at Olive and Ivy, as many internal spaces, we converted a teacher's lounge which is not a full size classroom, to a classroom use. We've converted as many internal spaces that we could to try to stay within the current walls of our building and stick with our student growth and we're no longer finding that that is, that we're able to educate children and provide them the services that they need in those smaller sized classrooms. And without having the gym space --

COMMISSIONER LORENZINI: Okay, and as far as in the ideal world, how should a drop, how should a drop off work at this site? Maybe a traffic engineer can, so how is it designed, to me it appears it was designed for everybody to walk in because there doesn't seem to be a drop off area, or how should it work?

MR. CORCORAN: Well I think, first of all I need to get sworn in.

CHAIRMAN LORENZINI: Yes.

MR. CORCORAN: I didn't get sworn initially.

CHAIRMAN LORENZINI: Okay. Do you swear to tell the truth as advised of this hearing?

MR. CORCORAN: Yes, I do.

(Witness sworn.)

CHAIRMAN LORENZINI: State your name, spell it and your address please.

MR. CORCORAN: My name is Steven Corcoran, C-o-r-c-o-r-a-n, I am Director for Traffic Engineering with Erickson Engineering in Grayslake, Illinois. And basically, up to this point, I performed a traffic study and parking study. I won't touch upon the parking, I think we've covered that pretty well, for the school. And I'm going to describe kind of four traffic conditions that the school has gone through or is going to go through. The first one, if you look at the aerial pretty closely, unfortunately like I said, we don't have it. You could see the parking lot was constructed backwards from what's being used as previous, has been used as. Originally the entrance was the, opposite Belmont and you would come in, drop your kid off on the passenger side and exit out opposite Haddow Street.

Well, where's the doors to the building? It's right by the entrance by Belmont. You know, I wasn't around then when this was done but obviously it was causing backups onto Olive and so they switched it without reconstructing the parking lot. So right now,

or I should say for the last few years, traffic on Olive, for pick up and drop off is you do one of three things. Number one, you can come in at Haddow, drive along the sidewalk and drop your kids off. They have a painted, they have a painted area where you could drop your kids off on the passenger side, which unfortunately is not the sidewalk side.

But they had gates and parents, I should, or PTA help with that. So that there's no, so the kids wouldn't, you know, get in front of the cars and that's how it's been operating for the last several years. The other option is they can go into the church parking lot 32 spaces have been reserved for mostly parents, some staff use it. They can park their car, they got the 32 spaces, and then they walk their kids across the two crosswalks, across Belmont and then across Olive, which has a crossing guard. The third option is, there is a pick up/drop off area in front of the park just north of the parking lot along Olive and then if I wanted to park closer to Douglas, you can park and walk your child in from that location.

So those are the three primary areas along Olive. We'll talk about the cul-de-sacs in a minute. Currently as has been mentioned, in anticipation of construction, we're basically blocking off for construction for the two additions, the outside play areas for the children. So, it is a interim situation, we're using the parking lot, the existing parking lot for those play areas except at drop off and arrival. And there's gates and a fence, where we're going to use, we use Haddow, that's both the entrance and the exit for that parking lot. They come in through the parking area and then make a U-turn and they're adjacent to the sidewalk where they can then drop off their student, or in the afternoon pick them up.

In the future, when it's all said and done, we are changing the site plan for the pick up and drop off along Olive by doing, or I'm sorry, let me take a step back. Also under construction, all the staff and any parents that want to park are basically using now the greater parking lot for the church. Not just the 32 spaces, but they're using more of the parking further to the north for both staff, you know, for this interim construction period. And some parents are additionally now parking on Pine, north of Olive and also on Belmont a little further than they have in the past. With the construction completed, we are basically retooling that existing lot by closing the exit by Belmont. That's going to be closed off and there's going to be no vehicular traffic.

Haddow is going to be both the entrance and exit to the parking lot. So cars would come in, they drive through the parking spaces and then again, now with the passenger side, which is the correct side, can drop their students off on the sidewalks in the morning and then in the afternoon they can line up along that sidewalk and into the parking area. When they exit that lot, they're going to be forced to make a right turn toward Douglas and then there they can turn on Douglas and go up to Thomas or go down to Oakton as they leave the --

CHAIRMAN LORENZINI: Wait a second, is any of that shown in this package?

MS. BHIDE: Yes, it is in the packet, sir.

CHAIRMAN LORENZINI: Okay.

CHAIRMAN LORENZINI: And is it going to be part of this project?

MR. CORCORAN: I'm sorry?

CHAIRMAN LORENZINI: Are these improvements going to be part of this project?

MR. CORCORAN: Yes, they are, they are also, the description of what I'm, or the plans show the changes to the parking lot. What that does is, because what has happened in the past, and when I say past, not this school year, one of the major issues on Olive, in terms of congestion, is people come in and they only use half that drop off area, basically along the southern edge. And that's about 400 feet of stacking. And then they back up onto Olive and basically create more congestion because there's more cars that want to stack in the afternoon than there are spaces to stack. So we're basically now making them come in and instead of going to the sidewalk, they're going to be forced to be drove, drive through the angled parking area before they then get to the curbside.

So we're now adding another 400 feet roughly of off-the-road queuing, and that will help free up traffic on Olive and get rid of a lot of congestion caused by the backups as traffic fills that parking lot and right now was backing up. Or I should say, as of last year. Right now, because of the changes, the congestion is much less because a lot more parents are parking in the school parking, I'm sorry, the church parking lot, and on the streets and walking their kids across. And they're not using the church, or they're still getting used to the idea of this new drop off pattern to do that. As a result of the construction fencing, basically the cul-de-sacs aren't being used by the school for traffic at this point either. As they, you know, in addition to the regular pedestrians and bikes, the school children can't be back, dropped off back there right now.

And that's really, because we don't want them to get into construction areas, and that's real simple. And even if we did move the fence forward, you know, the students would have to walk all then to Douglas and then, because the north side of the fence would come all the way back. So for at least the construction period, that area is going to be blocked off for school traffic. We did talk with staff and the engineer, traffic engineer for the Village, regarding a lot of these concerns on the cul-de-sac, and we've, are working with staff. We don't have a plan to show you today, to enhance the striping and signage of those two cul-de-sacs.

Pine, which we've heard many of the complaints, there's definitely no signage in there in terms of parking, there are no parking, or where you can't park. And we figure two things, with the additional signage and striping that will help those other parents better and hopefully eliminate, maybe not all, but some of these issues with the parents. Also, more importantly, we're hoping that when we, with, by getting that traffic congestion off of Olive and into the parking lot, that's going to free up some people, that they're going to start using the front of the school again as opposed to, and I mean,

quite frankly, with the congestion, if you come off Douglas and then try to go west on Olive in the afternoon, it's very difficult because cars are line up trying to get into the parking lot. By eliminating that and making the traffic flow better, with some of those parents now will probably move from the cul-de-sacs and get away from that congestion and find the right balance to help with that traffic.

CHAIRMAN LORENZINI: Okay, thank you. All right, why don't we go through Commissioner's questions. Lynn, would you like to start?

COMMISSIONER JENSEN: Well, it's hard to know where to start, actually. I appreciate the remarks made by Mr. Corcoran and they did help some, although it doesn't seem like the plan being put together is really going to solve all of these problems. And since the school district owns the property to the east of where the school is, that's now a park, it seems to me there must be some way that they could create a better drop off and pick up arrangement that would relieve a lot of this congestion rather than trying to stay within the confines of the current parking lot as the drop off. But, so did anyone consider doing something a little different with that area that they own and make a better drop off?

MS. MALLEK: We did meet with the park district and have conversations about our intentions both for different opportunities for detention as well as parking. At this point, our conversations with the park district led us to believe that that park and that's -- will move better over on the Douglas end of our property, are both valued by the community and would be missed in exchange for school parking. So we stopped considering the park.

COMMISSIONER JENSEN: Well, parking isn't really the, I don't hear parking as the issue --

MS. MALLEK: I'm sorry, drop off.

COMMISSIONER JENSEN: -- I think it really is the flow of traffic to drop the children off at a fairly compressed period of time and pick them up. And so if, I mean I don't have a solution and at this point it looks like between you and the park district, there must be some kind of a situation that could alleviate this concern than what's been proposed. That's the only thing I can say.

CHAIRMAN LORENZINI: Thank you, Mary Jo?

COMMISSIONER WARSKOW: Yes, I have kids in District 25, and not at Olive, but I have experienced very similar situations at other schools. So I would take this as an opportunity for the school district to have conversations with the schools and the parents to try and come to a better understanding, because it's nuts. It really, and it is a huge safety issue. So, in addressing, Mr. Corcoran's suggestion about signage on the streets, I'd like to say that's going to help, but when you're a desperate parent picking up and you figure it's only going be 10 minutes, you're probably going to park there anyway.

So, I'm sorry to have to, have to, you know, add a little reality to the signage situation. I really would like to see something more done to address this. Because it's not a small issue, it's a really big issue. And even if you do what you're going to say

you're going to do? So what are the people who are going eastbound on Olive going to do when there's going to be this whole line of cars coming in and out of that parking lot around Haddow and Olive there? Where are they going to go? Because it's going to be non-stop, it's going to be cars in and cars out, cars in, cars out, so anybody trying to come from Arlington Heights Road, down Olive Street, where are they going to go?

MR. CORCORAN: Well they are going basically go just like they do today, but it's going to be easier because we're not going to have the cars stacking on Olive. Because right now that's what they're doing. They enter, that's where the entrance is right now, is on Haddow, where they make the left or the right, there's not enough place to put them on our property and so the issue we've got to get them off Olive to make traffic flow better. And that's what we're doing.

COMMISSIONER WARSKOW: But you're still going to have an entrance and exit on Olive that is going to be non-stop cars coming in, cars coming out. And anybody trying to get in the middle of that, it's, I mean it's just not an ideal situation and I just think it needs bigger investigation than just looking at changing the traffic pattern in that existing parking lot.

MR. CORCORAN: And an additional improvement we're not recommending but we can always implement is, there is right now, because of the construction situation, there's actually a police officer at that entrance. Now, when everything's said and done we don't think he is needed, but if he needs to become more of a regular item there, that's another option to continue to keep traffic flowing.

COMMISSIONER WARSKOW: I just haven't seen that at other schools who have as significant of a problem as Olive does. There's not an everyday police presence there directing traffic. So I can't see that continuing forever in this situation I guess.

MS. MALLEK: Now, District 25 has actually hired.

COMMISSIONER WARSKOW: Okay, for every school?

MS. MALLEK: No, for Olive during --

COMMISSIONER WARSKOW: Just for Olive.

MS. MALLEK: -- that time to help with the flow of traffic.

COMMISSIONER WARSKOW: But that won't be in perpetuity for, once construction is done?

MS. MALLEK: No, we're actually looking at hiring a crossing guard at that location, however we are having trouble filling crossing guard positions so at this point we have hired a police officer still having for a crossing guard which could be a possible for perpetuity. But hiring a police officer financially --

MR. CORCORAN: And the other thing is, to know is, right now where the traffic exits the parking lot today, there's actually more conflicts than what we're going to see in the future with the redesign. Because we have over, like 150 or children and their parents crossing over at Belmont and now we're taking the pedestrian conflicts away from the traffic entering and exiting the parking lot. So that's actually going to make the flow smoother --

COMMISSIONER WARSKOW: Right, I understand it's going to be an improvement, I'm just saying I don't think it's enough of an improvement. I think you have a situation here that needs more research and addressing than just the solutions that are being applied according to what the documents we have tonight. That's all I have to say.

CHAIRMAN LORENZINI: Bruce?

COMMISSIONER GREEN: District 21, Riley School, is a school that my kids went to and we had this same problem. And years back, as an architect, I actually took it upon myself to make a drawing and present it to the PTA of what could happen to alleviate some of this concern with dropping off on the wrong side. And believe it or not, shortly after that there was an addition to many of the schools throughout Arlington Heights. But reversing what Mr. Corcoran's saying does work and I'll tell you why. And also, there is no perfect solution to this because you have, if you have 600 kids, you have 600 people in SUV's dropping off these 600 kids within 10 minutes during the day.

So there is no perfect solution to this, but reversing the flow and getting that back flow does help greatly. It did at Riley. We used to kid that the mom's at Riley would drive up on the sidewalk and open the door right at the front door if they could. So it does help. And also it helps train the parents dropping off these kids. Because when they get into this situation, this loop situation, they have to wait. So they have a, there's a little retraining that goes on there. Just like all schools, most schools in Arlington Heights, there's always a neighborhood and a street and parking available if you just want to park your car and let the kids walk across a field or a yard to get over to the school.

And you have that situation somewhat with the park here. So it does help to reverse the flow and to get it on the right side of the car so you can get the kid off and exit at the same loop. We did it at Riley and it has improved tremendously and that was many years ago and it still works. So, I think that, again, there's no perfect solution for this, but it is a safer approach and I really like what, to hear that that's going to happen here. Because it is worthwhile and it will be safer. And just a note, my two grandchildren will be going to this school and I'm really concerned that when they get there it's going to be done and it's going to be a lot safer situation.

CHAIRMAN LORENZINI: Thank you, Bruce. John?

COMMISSIONER SIGALOS: Can I ask, where does the bus come when they drop off and later pick up?

MR. CORCORAN: If you look on Olive, just on the west side of the school, on the south side of Olive Street, there's like a little bump out or cut out, that's where the bus parks to drop off or pick up students before and after school.

COMMISSIONER SIGALOS: That's just strictly for the bus?

MR. CORCORAN: That is strictly for the bus. And there's no parking basically in front of the school, or standing in

front of the school, for parents.

COMMISSIONER SIGALOS: Okay, and I'd just like -- I understand your need for the additional space, and the additions are fine, I just don't think that enough thought went into the safety of the students in dropping off and picking up. I don't agree with the solution of this parking lot and reversing the flow of the traffic through that parking lot. Because you have diagonal parking there. And parents are going to pull into that diagonal stall, drop off their child, now there's cars back behind them. How are they going to pull out of that stall and exit? You've got stacking of cars there. I mean it just seems it's somewhat conflicted. You mentioned that the staff will park across the street?

MR. CORCORAN: No, if I could just interrupt and just to try to answer the first part of that and then I'll answer anything else. No, essentially if staff get there before the students, and that parking lot is 90 percent filled except for the last couple spaces --

COMMISSIONER SIGALOS: I thought I understood that the staff parks over at the church across the street?

MR. CORCORAN: A couple, the parking lot across the street is primarily being used by parents who park and then walk their kids in. There are a couple staff members that do park there for, but for the majority of them they park in the, on the school lot.

COMMISSIONER SIGALOS: I guess to me that seems backwards. I mean you're not looking at the safety of the students. Have them to cross Olive Street, when something could have been, to move right out, knowing that you own all that park property, and again I'm not in favor of taking park property. I'm not, I like greens, parks. But somewhere along the line I think the safety of the students has to take a priority here. And expecting the parents to drop them off and walk them across the street from the Evangelical church across the street when you can somehow rearrange this drop off area on the school property, to me would make more sense. Again, keeping the safety of the students in the --

MR. CORCORAN: Right, and that is, that is the parent's option to use that parking lot. They don't have to use that parking lot and our plan isn't dependent upon it, that's just what has been the practice out there. And they're using, and they cross with their parents at a crossing guard both on the Belmont north leg and the Olive west leg. And in terms of the, to make it safe for the students, it is better to get them off the street, off the curblines and onto the school property to the drop off. Now we do have a Plan B that's not in my traffic report. But if you were to look a little closer at our design plan, we've actually moved some of that diagonal parking further to the south and we widened that aisle to actually 22 feet.

And what I've done at other schools where we've had queuing problems is, in the afternoon we can actually double up and have two lines of cars. Not for pick up, but just for queuing. And when they go around the corner and get along the curbline, or I'm sorry, along the sidewalk then they can pick up their student. And again, that also encourages, getting us more traffic off of, stopped traffic on Olive, to keep the traffic flowing on Olive. So that's

another option we have in the future, as a Plan B, that we kind of designed it, but we're not planning to use it at this point.

COMMISSIONER SIGALOS: But we're talking about this point. I mean we're talking about this addition and the parking configuration or the drop off configuration at this point in time, not 25 years from now.

MR. CORCORAN: No, what I'm saying is we are right now, with the, you know, using the angled parking section as a single lane, we're doubling the amount of storage space for cars to get off the streets as of, to increase the flow of traffic on Olive. And provide a place where you get dropped off, you can drop off your students on the correct side of the street, I'm sorry, the correct side of the vehicle. We also have an option to even add more queuing if we go to this double-up through the parking area, just in the afternoons. In the morning we don't need it because the parents come, they drop off and they leave.

COMMISSIONER SIGALOS: Well, that's my main concern -- I'm not convinced that this drop off and pick up area is going to work.

CHAIRMAN LORENZINI: Is that it?

COMMISSIONER SIGALOS: Yes.

CHAIRMAN LORENZINI: I hate to say, it's very unfortunate and I don't know how to deal with it objectively. But did you, so explain to me one more time because I wasn't in on any sub-committee meetings. How the current parking lot works?

MR. CORCORAN: Would you like me to step up there.

CHAIRMAN LORENZINI: Sure.

MR. CORCORAN: Just to point?

CHAIRMAN LORENZINI: Yes.

MR. CORCORAN: Right here, so here's Olive, here's the existing parking lot. So all traffic comes in, off, opposite Haddow. If you want to park you go, you make the first right, but what most parents do is they park, they come through along the sidewalk. And over here there's actually a little striped out area, they stop, the entrance to the school is right here. Then they, you know, let their students out. So they come in here, track along here, now obviously you're on the wrong side, the passenger side is on this side. They stop right here and there's actually a little change right here and then they have some traffic aids or staff to help get the kids out. The parents are better off on the passenger side than walking around the front of the vehicle. And then they would access the school over here.

Then they come out to Belmont and they actually are not, they're not allowed to make a left turn while the kids are crossing. They can either go straight and go further north, or they make a right turn, or they can make a right turn and head back toward Douglas. And I'll just show you on this and then I'll show you on the plan. Or actually, Kevin can we, can I have that plan? So right now, so they'll now come in and either make a right or a left turn just like they do now and then get out, they are forced to make a right turn through the parking lot. Then they come around and now they're not allowed to drop off or pick up anything in the parking area. And they

come around on the sidewalk.

CHAIRMAN LORENZINI: But that's not, but that's not safer for the kids.

MR. CORCORAN: They do that at schools all the time.
They go --

COMMISSIONER WARSKOW: So that's going to be every day?

CHAIRMAN LORENZINI: So where are they supposed to be?

MR. CORCORAN: And then they come around the corner and then can take the sidewalks and drop off the kids. Then they come up here and then they are going to be forced to make a right.

COMMISSIONER WARSKOW: This is --

MR. CORCORAN: In the afternoon, they'll come in here and they will line up along here and the kids come on the sidewalk.

COMMISSIONER WARSKOW: -- comes out and finds a spot and they park.

MR. CORCORAN: Right. But what's happening now is once this, right now, once this area comes out, they're parking.

COMMISSIONER WARSKOW: Right, I understand that, but then, you know, this kid gets in his car and pulls out and then this person can't --

CHAIRMAN LORENZINI: All right let's go, let's get back to business. All right, so what if, now we talked about added striping, and where would that, we had that discussion about, where would the added striping go?

MR. CORCORAN: It would be basically, and again, I probably, it's just in discussion, but Tom Thompson and I and we have a plat draw up here for that, but basically where they can't stop and park within the cul-de-sac. But like as I said, Pine, the Pine cul-de-sac has no striping or signage at all.

CHAIRMAN LORENZINI: We're talking about the cul-de-sac areas?

MR. CORCORAN: Yes.

COMMISSIONER WARSKOW: Weren't you talking about a Plan B, though for restricting parking in the school parking lot to allow two lanes to pull in? Wasn't that the Plan B you just brought up a few minutes ago?

MR. CORCORAN: An option is, no, not to restrict the parking, because again, it's staff parking.

COMMISSIONER WARSKOW: Okay.

MR. CORCORAN: We've widened the drive aisle. For angled parking we put in 22 feet. Normally we need, I forget what the code is here, 17 or 16.

COMMISSIONER WARSKOW: Okay.

MR. CORCORAN: To provide the option, because we've done this at a number of schools where, when we don't, when we want to get the people off the public way, we could just double them up till they get to the curb then they alternate one, to send, go pick up or drop off their kid. It's really going to be for the pick up, not for the drop off. But again, that gets more cars off of Olive.

COMMISSIONER WARSKOW: I understand --

CHAIRMAN LORENZINI: So if you were to, you're, from

your current parking lot plan, if you were to increase it by 50 percent, you'd have 50 percent more capacity, right?

MR. CORCORAN: Yes.

CHAIRMAN LORENZINI: The parents would go into the park district plan. And I think if you proposed that we'd have twice as many people here tonight as we do now.

MR. CORCORAN: Right, as, you know, as you know with any parking lot, if we could expand the drop off area, we lose green space. And we need more run-off, or more detention.

CHAIRMAN LORENZINI: Okay.

MR. CORCORAN: So that's why just, like I said, we're, that's why we're trying to do this in an efficient manner without taking out the whole park.

COMMISSIONER JENSEN: Could we get some clarification on the ownership of the park area? And what is the relationship between the school district, the park district, who owns it and, you know, who makes the decisions about what's done with that area there, as sort of ongoing?

MS. MALLEK: So actually, we just recently found out that District 25 owns all of the property to Douglas. So we sit, we own the physical land that Greens Park is located on. However, at the time that the property was traded, there was a trade between that property and property up by Land School, between the district and the parking lot there was a lease put into place. Where the park district leased back the property.

COMMISSIONER JENSEN: For what period of time though?

MS. MALLEK: Off the top of my head, I can't tell you, but the lease actually comes up, it expires very shortly, maybe in a year or two years. Which is why we wrote this, and had the conversation with the park district to find out how these -- what kind feedback they get from the community on it. If there is, are there other parks in the area that if that park was not there that they would use. And that's why we came to the decision that we needed to leave this park in place with a --

COMMISSIONER JENSEN: Were you or the park district aware of the discontent of the neighbors when agreeing to this or was a little bit of a surprise to you tonight?

MS. MALLEK: We, this district is aware of the concerns about traffic, absolutely and the concerns about pick up and drop off on the cul-de-sac. Certainly the district does not encourage parents to use those, but we also don't have a legal way to prevent it. So from, I mean from that perspective we did, again, have the traffic study done to try address, that we would meet all the things that we need to meet to --

COMMISSIONER JENSEN: And there's nothing you could do to make it possible for the kids to go from the cul-de-sac areas onto the school property. That can't be done on your property, that's just off in some way?

CHAIRMAN LORENZINI: Well, could you put a fence up, the whole south side of the property line?

MS. MALLEK: Well we could. Sure, we could put a fence

up the whole but then there's, then there's community feedback on that as well.

COMMISSIONER JENSEN: Well, I mean you can't leave this open for park anywhere, that path is and still make it so they can't go through those, at least the one cul-de-sac, the Pine Street cul-de-sac, I would think.

CHAIRMAN LORENZINI: Maybe put up the fence on the west half of the property so the east half of the property is still accessible to the park. I mean that cuts off the cul-de-sacs.

MS. MALLEK: And put a fence running north and south?

CHAIRMAN LORENZINI: No, put a fence on the south --

COMMISSIONER WARSKOW: North of the pathway.

MS. MALLEK: Right.

COMMISSIONER WARSKOW: So you still can follow the pathway and go around the fence for most of your park activity. But kids are not going to want to go that far out of their way to come back to go to the school. So if you put a fence part-way, towards those two parks, running north of the walkway, you will start reducing the amount of traffic from the cul-de-sacs.

MS. MALLEK: I think it's something that we can consider. I, I don't know that parents wouldn't still feel that's a shorter distance to walk than ride and sit in traffic. You know, I don't know.

COMMISSIONER WARSKOW: Okay.

MS. MALLEK: I can't predict that.

CHAIRMAN LORENZINI: The other question I had was now, we're still concerned about drainage. How come, how come the drainage issue hasn't been settled by now? Usually that's settled before it comes to this point.

MR. CAMINO: My name is Kevin Camino, Erickson Engineering.

CHAIRMAN LORENZINI: Raise your right hand, do you swear to tell the truth as it applies to this testimony?

MR. CAMINO: Yes, I do.

(Witness sworn.)

CHAIRMAN LORENZINI: Thank you. Spell your name, please.

MR. CAMINO: Camino, C-a-m-i-n-o.

CHAIRMAN LORENZINI: Your address?

MR. CAMINO: 145 Commerce Drive, Grayslake.

CHAIRMAN LORENZINI: Thank you.

MR. CAMINO: As far as the drainage concerns that were brought up, on the west side where the classroom addition is, currently there's no existing surface drainage. In a proposed condition, we're not only intercepting the entire building, piping it over to our detention facility on the east, but we're also putting in drainage collectors and sewers to collect the remaining grass area between the proposed addition and the property line.

CHAIRMAN LORENZINI: And so that has been approved by the Village?

MS. BHIDE: Correct.

MR. CAMINO: We still need to go through final engineering when we go --

CHAIRMAN LORENZINI: But it's going to be done?

MR. CAMINO: Yes.

MS. BHIDE: Correct.

CHAIRMAN LORENZINI: Okay. All right, that's all the questions I had.

MR. CLERY: I'm sorry, a comment on the drainage? I'm so sorry this is. Excuse me, I'm so sorry to do this. The houses on the east side of Belmont south of the lot, have an existing flooding problem that is known by the Village. About half-way down, between Oakton and the park, there was a house that was permitted with a, up hill. And it blocks the drainage, this is an ongoing problem. If you poured water from, additional water from the western half, the front of the lot, next to Arlington Heights, east to the retention, that's going to exacerbate potentially some of the flooding that we have frequently.

CHAIRMAN LORENZINI: Okay, what I can say about that is, is when somebody comes before us with a program like this, we can't ask them to solve all the problems in the area. But we can ask them to meet codes for their project and they, whatever they're doing, the drainage will be to code for their property.

MS. BHIDE: That's correct.

MR. CAMINO: And I would just like to point out that not only are we meeting code, but we're exceeding code as well, so accommodating detention for a portion of the existing property that wasn't detained before. So we are going above and beyond.

COMMISSIONER WARSKOW: And that's going to be a slow release?

MR. CAMINO: Yes, that's always done.

COMMISSIONER WARSKOW: Okay.

MR. CAMINO: It's all piped to that basin and then it's, there's a restrictor.

COMMISSIONER WARSKOW: Okay. Just because it's a combined sewer, so that tends to exacerbate the situation when you just dump more, more water all at once. But as long as it's a slow release, then that will be helpful.

CHAIRMAN LORENZINI: Okay, final comments or questions from the Commissioners. Well I'd like to make a comment that, yes, I hear what everybody's saying and I fully sympathize with you, but not, I don't think not doing this project is going to make it any better. It seems like doing this project is going to help somewhat, it may not be 100 percent, solve the problems. But it seems like it's going to make it better, in my opinion.

COMMISSIONER JENSEN: Well I would agree ultimately. But it seems to me that there needs to be more thought to the build and to the parking and the drop off and pick up. The bus is an incidental thing and for you to include that in the traffic study is almost ridiculous. So we got one bus that we need to worry about. So, that looked like that was the focus of the traffic issue when clearly it isn't the focus of the traffic issue. It's just, I have the sense that

this just really hasn't been thought through jointly by the park district and the school district to the point where they're solving a serious safety problem. So on that basis I'm having trouble voting for it.

COMMISSIONER WARSKOW: I'd like to comment as well if this was another piece of property and they were coming before for an expansion with that kind of traffic and parking problem, I don't think we would, we would accept it. So I think that in this situation, I think it's even more important, the fact that we have young kids lives at stake here. So, I, I'm not satisfied that this issue has been properly addressed.

CHAIRMAN LORENZINI: Anybody else? Any other comments?

COMMISSIONER SIGALOS: You know, I've got to agree with Commissioners Jensen and Warskow that, again, I understand the need for a school addition, the increased enrollment, I am not convinced that there was enough thought put into this student safety with the pick up and the drop off.

COMMISSIONER GREEN: I think the, my comment is I think the additions are, are great adds to this school and I think that I know from experience what they're talking about. Whether the parking lot has to be made larger or whatever the situation is area-wise. That, this is the solution that worked at our school and it did get a lot of the cars off the street and it makes a safer pick up and drop off for the students. They're finally exiting from the proper side of the vehicle up to the building. And I think that, I often wonder why it took so long to see the logic in that just by reversing the flow. I think that the problem is not going to go away. I don't think the addition of a gymnasium for the existing students is going to increase this in any way above from what it is right now.

I think there is a solution, just from the comments here, the Trustees will be hearing what we're saying and I think that maybe there's a better solution even than what's proposed in the near future. But for tonight, for me, it's really about the additions and the expansion of the classrooms to alleviate a problem they have there currently. And I think that the traffic is another issue. I think it should be addressed more and I think it will be addressed more after the comments here tonight. But I think it's, it's sort of a separate issue. It's been there for years, it's been poor for years and I think that there has to be a better solution than even what might be proposed here now. But I don't think it should be holding up the additions to the school. Those are my comments.

CHAIRMAN LORENZINI: Any other comments from the Commissioners? Any motions?

COMMISSIONER GREEN: I'd like to make a motion;

A motion to recommend to the Village Board of Trustees approval of PC #15-015, a Special Use Permit for a public elementary school in the R-3, one-family dwelling district; a variation from Chapter 28, Section 11.4, schedule of parking requirements, from the requirement to provide 167 spaces to allow 49 spaces, a variation of 118 spaces; a variation from Chapter 28, Section 5.1-3.6, required minimum yards from the

required 16.5 feet side yard setback to allow 16 feet for the existing building; and a variation from Chapter 28, Section 5.1-3.6, required minimum yards, from the required 16.5 feet exterior side yard setback to allow 12 feet for the existing building.

This approval is contingent upon compliance with the recommendation of the Plan Commission and the following recommendations detailed in the Staff Development Committee report dated September 3, 2015:

Recommendation

The Staff Development Committee has reviewed the Petitioner's request and recommends approval of the Special Use request for a public elementary school in the R-3, one-family dwelling district; a variation from Chapter 28, Section 11.4, schedule of parking requirements, from the requirement to provide 167 spaces to allow 49 spaces, a variation of 118 spaces; a variation from Chapter 28, Section 5.1-3.6, required minimum yards from the required 16.5 feet side yard setback to allow 16 feet for the existing building; and a variation from Chapter 28, Section 5.1-3.6, required minimum yards, from the required 16.5 feet exterior side yard setback to allow 12 feet for the existing building. This approval is contingent upon compliance with the recommendation of the Plan Commission and the following recommendations detailed in the Staff Development Committee report dated September 3, 2015. And those are items one, two, three and four.

1. Consistent with the Design Commission recommendation, the quantity of the landscaping along the south property line adjacent to the classroom addition and gymnasium addition must be doubled.
2. Prior to Village Board, provide a revised landscaping plan addressing Design Commission and staff comments.
3. At building permit, the Petitioner shall provide revised civil and stormwater plans verifying the changes agreed to by the Petitioner.
4. The Petitioner shall comply with all federal, state and Village codes, regulations and policies.

CHAIRMAN LORENZINI: Is there a second? I'll second it.

Roll call vote please.

MS. BHIDE: Commissioner Sigalos.

COMMISSIONER SIGALOS: Yes, with comment.

MS. BHIDE: Commissioner Warskow.

COMMISSIONER Warskow: No.

MS. BHIDE: Commissioner Green.

COMMISSIONER GREEN: Yes.

MS. BHIDE: Commissioner Jensen.

COMMISSIONER JENSEN: No, with comment.

MS. BHIDE: Chairman Lorenzini.

CHAIRMAN LORENZINI: Yes. Okay, comments. John?

COMMISSIONER SIGALOS: My comment, I'm voting for the school additions, I recognize the need for them, I didn't want to hold that up. But I strongly feel that you have to re-examine the whole student pick up and drop off situation with the parking. I'm not convinced there was enough thought put into that.

CHAIRMAN LORENZINI: Lynn?

COMMISSIONER JENSEN: Yes, I feel the same thing. I think the project basically, in terms of the expansion should go forward, but since the school district owns all of this property, but wants to do some things jointly with the park district, I think more thought has to go into straightening out this problem as best possible. And thirdly, it's a balancing act between wanting green space and a park and doing something that makes sense for the school and the safety of the children. So while I'll like to see the project go forward, I wanted to do something to force this to be thought through a little more carefully.

CHAIRMAN LORENZINI: Okay. Well that's, that's it, we have a narrow approval of this is there a date this is going to the Board of Trustees?

MS. BHIDE: No, again, I'll touch base with the Petitioners.

CHAIRMAN LORENZINI: Okay, as I said, this is only advisory to the Board of Trustees and they have the final say so. Thank you.

(Whereupon, at 9:20 p.m., the hearing on the above-mentioned petition was concluded.)



Item: Ivy Hill School - 9/9/15

Department: Planning & Community Development

ATTACHMENTS:

Description

PC Minutes 9/9/15 DRAFT

Type

Minutes

PLAN

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

COMMISSION

RE: IVY HILL SCHOOL; PC# 15-016

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
9th day of September, 2015, at the hour of 9:20 p.m.

MEMBERS PRESENT:

JOE LORENZINI, Chairman
LYNN JENSEN
BRUCE GREEN
JOHN SIGALOS
MARY JO WARSKOW

ALSO PRESENT:

LATIKA BHIDE, Development Planner

CHAIRMAN LORENZINI: Okay, the next PC is number 15-
016, 2201 North Burke Drive, Ivy Hill School, is the Petitioner here?

MR. HENDERSON: Yes.

CHAIRMAN LORENZINI: Okay, I think it's got the same,
looks like the same that everybody had. But do you want to give us a
brief, have you read the recommendations in the staff report?

MR. HENDERSON: Yes, I have.

CHAIRMAN LORENZINI: Okay, did you hear from them?

MR. HENDERSON: Yes.

CHAIRMAN LORENZINI: Okay. Do you want to give us a quick presentation? We're going to, if you have anything else to say, please in the audience, would you please step outside? Thank you. And a brief presentation, please.

MR. HENDERSON: Very much, this project is very much like the Olive-Mary Stitt project. In this case though, there are more classrooms. It also has the expansion of common space and a new gymnasium just like at Olive-Mary. Oh yes, but unlike Olive-Mary, the, we do anticipate more busses on this, so there is an extension of the bus lane to accommodate, I believe seven?

MS. MALLEK: Eight.

MR. HENDERSON: Eight busses.

CHAIRMAN LORENZINI: Okay, thank you. Staff report, please?

MS. BHIDE: Thank you. Petitioner is, this evening, seeking a Special Use permit for a public elementary school in the R-3, one-family dwelling district. At this location, they are seeking a variation from the schedule of required parking, parking requirements from the requirement to provide 173 spaces to allow 72 spaces which is a variation of 101 spaces.

The site is approximately 6.7 acres in area, it is located on the east side of Burke Drive, north of Valley Lane. And the Petitioner is proposing an addition that includes new classrooms an expanded common area a new gymnasium and toilets. As with the last one, elementary schools, both public and private are permitted with the approval of a special use in the R-3 district. Because there is no existing special use permit for the school, therefore a special use permit must be obtained at this time.

The, for this particular school, the front yard is along Valley Lane and it is the block average which would be 37.5 feet. The addition will not encroach into the front yard setback. Burke Drive is considered exterior side, again, it -- the block average, but no more than 40 feet is required. Your, an exterior side setback of 35.5 feet is required.

Again, the addition does not, the existing building nor the addition encroaches into this. The side yard, which would be the east property line, is required to be 10 percent of the lot width, which for this property would be 46.2 feet.

The proposed addition is approximately 116 feet from that east property line which abuts -- the rear yard setback is 30 feet, again, neither the addition nor the existing building encroach into the setback. Based on the information provided by the Petitioner, they meet the floor area ratios and the building coverages for the R-3, other uses in the R-3.

The project was reviewed by the Plat Sub-division committee at their June 10th meeting. The committee had no concerns with this request. They asked the Petitioner to move forward. The Plan Commission reviewed the project at their August 25th meeting and

they approved the project with several conditions including add brown scoping to match the existing building and worked with staff to determine the appropriate location and quantity for replacement trees.

The addition is proposed on the east side, which is adjacent to single family residences on Dryden Lane. The design of the addition, proposed two-story addition is a seamless extension of the existing building architecture and the addition is about 116 feet from that east property line.

The Petitioner is proposing to remove seven trees, five, which are located along Valley Lane and two where the addition is proposed. The Petitioner has provided plans showing the 17 trees to be replaced and they've responded that two additional shade trees, for a total of 19 trees four inches in diameter will be added to the site to meet the exchange ratio.

The existing north parking lot, which is north of the school building does not meet the landscape requirements of Chapter 28, Section 6.15 as there is no landscape islands at the end of parking rows or landscape screening along both drives. Similarly, there is no screening for the south parking lot. So both these are considered non-conforming, existing non-conforming.

As part of the proposed improvements, the school bus loading in the south parking lot will be expanded to accommodate the additional busses. The bus loading area has an entrance on Valley Lane and an exit on Burke Drive.

The Petitioner has indicated that three-foot high shrubs will be added along Valley Lane to screen this proposed bus loading area. And then four inch caliber shade trees are proposed to be added, at both ends of the south parking lot.

The existing stormwater facility will be improved to comply with the Village's stormwater management ordinance and to handle the additional run-off created by the addition.

The proposed modifications to the basin increases to a volume of the basin and in response to staff comments, the Petitioner has provided written confirmation on these changes regarding, on the required changes. But we're asking that they submit revised plans at building permit.

To talk about parking and traffic a little bit, after the addition, there will be 35 classrooms and 59 staff members which require 173 parking spaces. So there are a total of 72 parking spaces on-site, 59 spaces in the north parking lot and 13 parking spaces on the south side. They would therefore require variation from the requirement to provide 173 parking spaces to allow 72, which is a variation of 101 spaces.

A traffic, traffic study and parking analysis was conducted. It showed that a maximum of 55 vehicles were parked on the site after the morning arrival. So based on this traffic, the study concludes that there is sufficient parking area along the side.

The school currently has a student population of 562, they use six busses for transportation. And with the expansion the school will be able to accommodate up to 641 students, which would require eight busses. Most, it is anticipated that most of these

additional 79 students will come from areas that require bus service. So as I stated previously, all bus loading currently occurs in the south parking lot and as part of this project that school bus loading lane will be extended to accommodate the additional busses.

The traffic study concludes, and staff agrees that traffic conditions will continue to work whether or not the school gets this expansion.

That being said, the Staff Development Committee recommends approval of the special use for Ivy Hill School, at 2211 North Burke Drive. The approval is subject to the following conditions; Prior to Village Board, the Petitioner must submit an auto turn diagram for a fire department tower truck. At building permit, the Petitioner shall provide revised civil, stormwater and landscape plans verifying the changes that were agreed to by the Petitioner. All lighting fixtures must be mounted parallel with the ground shining down. All illumination must be glareless and all light bulbs or LED's must point to the ground. And that the Petitioner shall comply with all federal, state and Village codes, regulations and policies.

Thank you.

CHAIRMAN LORENZINI: Thank you, do we have a motion to include the staff report into the public record?

COMMISSIONER JENSEN: So moved.

CHAIRMAN LORENZINI: Second?

COMMISSIONER SIGALOS: I'll second.

CHAIRMAN LORENZINI: All in favor?

(Chorus of Ayes.)

CHAIRMAN LORENZINI: Opposed?

(No response.)

CHAIRMAN LORENZINI: Okay, let's go to questions from the Plan Commissioners. Bruce you want to start this one?

COMMISSIONER GREEN: I really don't, don't have any questions. I think that if you were to look at this parking lot here in this last case we just heard, we can see what you're talking about. The two lanes and you wait to merge and drop off on the passenger side towards the inside sidewalk. So that situation seems to have been much improved because there's more space there obviously. But I don't have any questions at this time.

CHAIRMAN LORENZINI: Mary Jo?

COMMISSIONER WARSKOW: No questions at this time.

CHAIRMAN LORENZINI: Lynn?

COMMISSIONER JENSEN: No questions.

CHAIRMAN LORENZINI: John?

COMMISSIONER SIGALOS: No I don't either, have any questions.

CHAIRMAN LORENZINI: Neither do I at this point, so we'll open it up to the public for comments. Let's start on this side of the room, my right, your left. Anybody in the first or second row have any comments?

(No response.)

CHAIRMAN LORENZINI: Next row? Anybody want to speak? Yes, ma'am, come forward, state your name, spell it please for the

court reporter and give an address.

MS. SODERNA: Good evening, my name is Julie Soderna, S-o-d-e-r-n-a, and I live at 2224 North Dryden Lane, directly behind Ivy Hill. And so just obviously we're directly affected by the expansion. I've got three children, each of whom is at Ivy Hill this year. In addition to that, I'm a full-time attorney, so I've got a full plate. But, I did have a couple questions and a comment on, we are definitely thrilled that we're getting expansion, I think it's desperately needed. There's no question there's overcrowding at Ivy Hill and we need the expansion and that's coming from someone who it will directly affect my backyard view. I mean this will be encroaching on our sort of, view from the back which I'm not thrilled about, but I realize that the, you know, the pro's outweigh the con's with regard to that.

But I did have a question with regard to, I call the plan issues that I've seen, I haven't seen an indication of where the playground will moving. That's the first thought I had because if it's going to encroach farther towards us, it's not necessarily a bad thing I just, you know, would, I'm curious about it. And I also, I heard through another individual in the neighborhood that the drainage issue is going to be addressed. There, if you know anything about this, the field in-between the school and our home, our line of homes, there is basically a lake that forms anytime you get any kind of rain.

And so I'd be interested to know if they're going to be addressing the drainage issue and what kind of trees were going to be planted and I couldn't tell from the recitation where those trees would be planted. I'm curious how close to the, our property line those would be. I think those are more informational questions not, not, I doubt that we would have, I would have any personal objection to the resolution to these issues. But just so that I can understand the scope of the project.

CHAIRMAN LORENZINI: Okay would somebody from the school district like to address those questions? The playground, where the playground is going to be? The drainage issue and trees.

MS. MALLEK: So the playground will move further east as she has stated. The building addition will be on the east side creating a courtyard attached to the, leading to the existing building on the south east two-story addition it just will be going north. And then the playground will be east of that as well as the equipment playground, the soft surface and then hard surface playground will shift north to east as well.

CHAIRMAN LORENZINI: Okay. And there appears to be a drainage issue?

MR. CAMINO: Well and I'm, currently there is, there is an existing detention area along their property line --

CHAIRMAN LORENZINI: Could you just describe what the detention area is and what it does?

MR. CAMINO: It, oh well I mean it's, it's an existing detention basin that's rather poorly defined, it doesn't have, you know, it wasn't really built how it was originally designed. And it's, it kind of extended off, onto the playground and it didn't really have

defined overflow. So basically we're taking the remaining area between the new playground and the property line and we're expanding the basin north and south along those so it will be long and skinny, north to south.

CHAIRMAN LORENZINI: So a detention area, so when it rains heavily it will hold water and then slowly release it into the sewer?

MR. CAMINO: Into the sewer system.

CHAIRMAN LORENZINI: So it's meant to be wet during storms?

MR. CAMINO: Yes, and then dry during dry periods. And then the overflow in the basin itself will be south towards --

COMMISSIONER SIGALOS: Can detention basins be deeper than what is currently there?

MR. CAMINO: Yes, in the deepest spot in Mrs., in the center it will probably be upwards of about five feet and then the far north and south ends it's, you know, zero depth out to six inches or so.

CHAIRMAN LORENZINI: And trees, the question about additional trees?

MR. CAMINO: Yes, there will be trees along that east property line on top of the berm. And seven trees are currently planned, I know we're still finalizing the landscape plan, but right now we have seven shown, trees, I'm not sure, but, swamp white oak.

CHAIRMAN LORENZINI: Okay.

MR. CAMINO: Right?

CHAIRMAN LORENZINI: Thank you. Any other questions on this side? Yes, sir. Come on, well come on up and, we need your name and address and spell the name please.

MR. LEONARD: I'm Larry Leonard, L-e-o-n-a-r-d, 915 East Valley Lane.

MRS. LEONARD: And Lynne Leonard.

MR. LEONARD: With an E.

MRS. LEONARD: With an E. We live directly across. We live directly across from the school. As a retired school teacher, I agree, I'm all in favor of expanding the school and having more classrooms for the children. What affects us is the bus turn-around. Right now it is closer to Burke and as you had mentioned, there will be eight school busses. Right now they are lined up down the street because there is no place for them to go. We have contacted the police department because our concern is the safety of the children and because it's a direct thoroughfare from Arlington Heights Road to Windsor Drive, cars speed through there all the time.

Adding that, you know, adding that to eight busses dropping off children, we don't know how to configure a bus turn-around but having it too close to Valley Lane seems a safety issue. So I don't know how to reconfigure it, but that would be a concern. The police have been very responsive and, but I don't know that they have any input as far as a bus turn-around. So that's our concern, how they're going to get eight busses on a very busy street, dropping off children with parents coming and going at the same time.

MR. LEONARD: Our other concern is, right now we have a nice park across the street, that school yard is across the street. So they're changing that, they're making it into a, the entrance to the bus turn-around is directly in front of our house. And our only, our concern is that they do some kind of landscaping to make it a little more pleasant than just having a driveway right in front there with all of those busses coming in. So we hope the landscaping part of this project takes into consideration the fact that maybe they could plant some shrubbery or something of that sort to make that a little more pleasing.

But, again, I want to, the police department, we've contacted them within the last week. We went to the first meeting of the school district and after that meeting we sent a letter to Chief Mourning and within one week the police was out there, they put a survey to test the cars going by and speeds going by, they've been great. So, we're waiting to see what they come up with but they've been very responsive.

CHAIRMAN LORENZINI: Okay, thank you. I will, let's get to the Petitioner and see if they can answer some of the questions. But as Commissioner Green said earlier, we'll try and do the best we can to engineer something, but some of this stuff just comes to down to enforcement too. So we've got two questions here, one about the stage, bus staging, the bus lining up area and landscaping.

MR. CORCORAN: Okay, the existing bus drop off, basically we, as they mentioned, enters on Valley and exits onto Burke. But it's off the street, it's not on the, the busses do not stop on the street. They pull off of Valley and line up along the south side of the school then discharge or pick up the students directly from the sidewalk right up against the south side of the school. And with the, as has been mentioned, with the anticipated potential growth in students, mostly coming from bussed areas, they're areas that are bussed, we lengthened that to accommodate eight busses instead of the current six. So, you know, as far as, you know, I understand there may be speeding on Valley and then obviously the police department will give us better direction. It is a speed school, a school speed zone, but our, we're off the street, we're not, you know, pulling on the side of Valley and discharging students. They're actually pulling right next to the building.

MS. MALLEK: I just want to add, actually the current bus drop off can't fit all of the busses in it, so busses do wait in the street. They're not dropping students off, but they are waiting in the street, they clear through the first run with the busses and then they bring in the busses and, but again they do drop off on property. So the new bus lane, they will continue to all be able to fit and drop off on property. And the bus, if they come out the right side, the bus is actually between the students and the property and then Valley Lane. So students would be going directly into the building.

CHAIRMAN LORENZINI: Okay, and the questions on landscaping in that area?

MR. CAMINO: For the new bus entrance on Valley Lane, there is five canopy trees, half berries on the south and then there's

four honey locust on the north and then there's a line of shrubs all along the south end. So it's being entirely framed.

CHAIRMAN LORENZINI: Okay. Thank you. Anybody, any other questions, comments? On the rights and now on the other side? Okay all of this side, anybody over here?

MR. LAZZARA: Yes, sir.

CHAIRMAN LORENZINI: Your name, spell it please and address.

MR. LAZZARA: My name is John Lazzara, L-a-z-z-a-r-a, 310 East Ivy Lane. I want to start off saying our kids went to Ivy Hill, we really like the neighborhood and we agree expanding the school makes sense. I just want to add a couple of clarifications. You mentioned that there were going to be 79 more students anticipated, and there's 10 more classrooms. We're just trying to get an understanding of the building addition, the size. At 20, 20 students per classroom, that would be four more classrooms even if you took some students from the other classrooms you still probably wouldn't come up to 10. Is there an anticipation that it's going to continue to grow and more students well beyond the 79 more? That's, that's the first one. And the second one is just, I understand the parking issues and that school's typically, especially for staff, don't require the, don't meet the requirement for what the Village requires.

But during school activities, parent night, school plays, things like that, we live at the other end of Ivy Hill, or Ivy Lane, right down from the school and people continually park all the way down. Which is fine, we did it when our kids went there too. But they're starting to park the wrong direction and it's for pick up, it's for going in and seeing the teachers and things like that. With that many more potential kids coming to the school, especially being bussed in at non-school day, at events outside the school hour, they're going to be driving. The parents are going to be coming in, and I'm just wondering what the provisions are for that. Because you're 100 parking spaces short of the requirement what about when all those other parents are coming for those student activities?

CHAIRMAN LORENZINI: Okay, thank you, so it looks like we have two questions, one about student growth, why we need 10 rooms and the additional drop off, just from the traffic we may have.

MS. MALLEK: So the addition of 10 rooms is to meet future growth as well as the existing student population. We started the school year and needed to immediately add a first grade section because we've had more first graders than were presented. So we turned a small room off the library into a classroom. It's not anywhere close to a full-size classroom. We've turned our teacher's lounge at Ivy Hill into a classroom, it's not a full-size classroom. So we've taken over every small meeting space, spaces for psychologists, speech and language people to meet with kids and provide their services. They meet with kids out in the hallways right now. So the 10 classrooms is to also meet the existing student population, as well as we need to be able to run multiple sections, similar to Olive of PE in the gym as well as art and music which then require additional space for that. So it's dual purpose but not all to meet future growth. We're not

projecting having classrooms full of additional students.

CHAIRMAN LORENZINI: Okay. And then the question about the additional traffic in the --

MR. CORCORAN: Well his question, basically concerned about night time parking for, you know, school events when they have them. And obviously the parking lot by itself may or may not be able to accommodate depending on which kind of event is occurring. And there will be, you know, there is plenty of on-street parking around that school and so that will continue. You know, it's not going to be necessarily 79 more cars because everyone has multiple kids and things like that. And as far as parking with, you mentioned the parking in one, the wrong way, I assume that's what he means is someone's parking the wrong direction on the side of the street they're on, that's more of an enforcement issue. But the fact that they again repeated an instruction to, that each of the school's have as part of where to park and where not to park or how to park to help, at least communicate that to the parents, to park correctly.

CHAIRMAN LORENZINI: Okay, thank you. Yes, ma'am. Your name and spell it please and address.

MRS. LAZZARA: Barb Lazzara, 310 East Ivy --

CHAIRMAN LORENZINI: Could you spell your last name?

MRS. LAZZARA: L-a-z-z-a-r-a. So I have a question about the parking and unfortunately we don't have the overhead so I can't visualize it. Will the entrance from the parking or into and out of the parking lot come directly off of Ivy Lane as it does now?

CHAIRMAN LORENZINI: Could you maybe show a map, a plan? And what drawing number are you on?

MR. CORCORAN: C2.1. In essence, the parking lot's going to remain the same as it is today. You come in opposite Ivy, that's a four-way stop, or a three-way stop, go through the parking lot and then exit out this way. The only thing we're going to different, and this is more of an operational, not a design issue, is there's signage out there that you're not allowed to make a left turn during the arrival and dismissal periods. And when we did our traffic counts last spring, obviously there were some violations of that so what we, we're working with the, or at the suggestion of staff, I'm sorry your staff, we are going to be putting some traffic barriers whether it's cones or some other, but basically during the arrival period, force the people to turn right as instructed. We can't make that permanent, you know, with a barrier because this is also our truck route for deliveries and they need to be able to turn back to go south. So, but we'll be able to put cones or a barrier out there to basically help eliminate those violations.

CHAIRMAN LORENZINI: Does that answer your question?

MRS. LAZZARA: It does that question, I just, because I didn't know where it was coming. So it's my understanding then that you're going to double two cars up, I am the former PTA president at Ivy and like my husband said our children went there and we've gone through this issue, this is 10 years back now. It was a problem then, when the school wasn't as big as it is now, so you've got people turning left into the parking lot, people going straight into the

parking lot, people turning right into the parking lot at the same time and you're going to try to double queue those people up.

And I also work at a District 25 school so I see the after school traffic and as you pointed out earlier, parents don't pay attention to signage. It's my five minutes, I'm, you know, no standing, no stopping, no parking, violated every day. You know, calling the police department, we've done that, we've, you know, it's not going to happen. So I'm as concerned with the parking configuration and with not adding enough spaces because I've walked out that parking lot in the morning and it's pretty full already with CAP personnel.

And you know, you've got CAP personnel in the morning in addition to school personnel and then you've got parents dropping off and now you anticipate potentially adding staff. Maybe not next year or the following year, but you've got the room to do it because we are growing as a community and we're not accommodating for that parking. Are, do we have a contingency plan to possibly accommodate the parking five years down the road for that? Thank you.

MR. CORCORAN: And to answer her question very quickly, the answer is yes. I mean as Stacy mentioned, a lot of these improvements are to basically create more elbow room for the existing staff to serve the existing students. And what their projection is really just adding one more staff member to serve these additional students as they're spread out among, now that more kids can be in each classroom. There's really not a need for extra parking because we're only adding one staff member.

CHAIRMAN LORENZINI: Thank you. Any other comments from the public? Yes, ma'am. State your name, spell it and your address.

MS. FALCAO: Hi, Kathleen Falcao, F-a-l-c-a-o, 1010 East Fargo Lane. I'm a three week resident in the neighborhood and I didn't actually know about any of this when we were buying our home. We do have school aged children, so I, I'm in support of the community of course, but our backyard as someone mentioned, is basically, because we border on the east, so the schoolyard is basically in our yard. So just a few comments, I think we've already mentioned the drainage is a problem.

I just saw, with the rain we had yesterday or the day before, a big puddle so it sounds like there's plans to address that, I hope. The landscaping was another question I had, because right now there's nothing really to kind of -- and provide any privacy aside from the fence that you have. But it's just a clear line of direction right into the school. And then, additionally, I was wondering if there was any consideration for, I haven't even seen the plans to be honest, but it sounds like the existing blacktop is where they're going to be doing the addition.

I was wondering if there was consideration to put the new play area on the north side of the building which, the parking is there, but there's also more fieldspace on that side as well because of it being that much closer to the homes on the east.

CHAIRMAN LORENZINI: Okay, so it was a question about

landscaping was asked in her area and location of play yard.

MR. CAMINO: Yes, basically the response is the same as it was to the previous owner, we're putting a line of trees along the east property line. We're regrading that whole area to eliminate the standing water.

CHAIRMAN LORENZINI: Okay. So there's a little more additional landscaping?

MR. CAMINO: Yes.

CHAIRMAN LORENZINI: And what about the location of the play area there was a suggestion there.

MR. CAMINO: The play area --

MS. MALLEK: Based on the use of the playground during school, during the lunch hour, before and after school programs, we wanted to keep a hard scape play space and a soft scape place, space together and have access to the doors where students come out. If it was on the north end we'd have to have 590 to 600 and some students going out the door on the north end. So it just allows them to come from the same spaces that they're currently coming from in the schools in multiples.

CHAIRMAN LORENZINI: All right, thank you. Any other comments from the public? Yes? Anybody else?

(No response.)

CHAIRMAN LORENZINI: Okay, now we'll close the public portion of this hearing and any more comments tonight?

COMMISSIONER JENSEN: Just a question, you certainly have more students bussed but what's the number of students that would be dropped off by their parents and how does that compare with the number that will be bussed?

MR. CORCORAN: Well actually we did kind of a worst case analysis because this, again, the population estimates are basically from bussed areas so the majority would be bussed. But we assumed that we're going to have a mixture of busses and cars so that, so we basically assumed in the morning, if we had about 20 cars coming in, additional cars coming in to drop off students.

COMMISSIONER JENSEN: Well I'm talking about the totals, do you have the total, you know, 60 percent are bussed, and 40 percent dropped off? And then what would those numbers be totaled. And I'm not talking about the addition, I'm talking about the total. And I'm really looking for a ballpark, I'm not --

MR. CORCORAN: I know, I'm just trying to, that's what I'm trying to do. Do you see the wheels spinning?

MS. MALLEK: I could answer that.

MR. CORCORAN: Oh, okay.

MS. MALLEK: So, the bus is depending on so two to a seat, 48 to 54 students. So if you multiply that by eight, it's about 400 out of 616 students.

MR. CORCORAN: Two-thirds.

MS. MALLEK: Two-thirds of the population is.

COMMISSIONER JENSEN: So the part, the drop off problem is nowhere near as acute here as what we were talking about earlier?

MS. MALLEK: Correct.

COMMISSIONER JENSEN: Because no one from the audience said very much about it, the next one just, referred to the fact it was, that's the impression I'm getting from the public comments.

MS. MALLEK: I think we hear at the school district, honestly, I mean we hear about pick up/drop off for the same reason, we still have a large number of cars coming to pick up children in a 10 minute window. But certainly we're not hearing it tonight and not to the same level that we heard about Olive.

COMMISSIONER JENSEN: So that's really the only question I had.

CHAIRMAN LORENZINI: All right, thank you. Mary Jo?

COMMISSIONER WARSKOW: Yes, that's the only question I have as well.

CHAIRMAN LORENZINI: Bruce?

COMMISSIONER GREEN: No questions.

CHAIRMAN LORENZINI: John?

COMMISSIONER SIGALOS: No I, my only question to you, the increase of 79 students but you are only adding one staff member?

MS. MALLEK: Right now we use other, that, we have more kids that generally in some of our classrooms so we hire teacher assistants, and other staff to help relieve some of the congestion. Which being able to spread them out and having our standard, average size classroom we would not necessarily have to have those teacher assistants but we would have that full-time teacher so it's a net of one.

COMMISSIONER SIGALOS: The only reason I'm asking is because I, I drove by there this morning and went into the parking lot and the south parking lot was completely full and the north parking lot I counted like five or maybe six available spaces, I mean it was pretty full. So I thought that we were adding the staff of eight or 10, whatever and there wouldn't be extra parking. But if you're only adding one now at this time, then it should enough. So that's my only question.

CHAIRMAN LORENZINI: I have no questions. Any other comments or a motion?

COMMISSIONER WARSKOW: I'll make a motion;

A motion to recommend to the Village Board of Trustees approval of PC #15-016, a Special Use Permit for a public elementary school in the R-3, one-family dwelling district; and a variation from Chapter 28, Section 11.4, schedule of parking requirements, from the requirement to provide 173 spaces to allow 72 spaces, a variation of 101 spaces.

This approval is contingent upon compliance with the recommendation of the Plan Commission and the following recommendations detailed in the Staff Development Committee report dated September 3, 2015:

Recommendation

The Staff Development Committee has reviewed the Petitioner's request and recommends approval of the Special Use request for a public

elementary school in the R-3, one-family dwelling district; a variation from Chapter 28, Section 11.4, schedule of parking requirements, from the requirement to provide 173 spaces to allow 72 spaces, a variation of 101 spaces, subject to the following conditions:

1. Prior to Village Board, the Petitioner must submit an auto turn diagram for a fire department tower truck.
2. At building permit, the Petitioner shall provide revised civil, stormwater and landscape plans verifying the changes agreed to by the Petitioner.
3. All lighting fixtures must be mounted parallel with the ground and shining down. All illumination must be glareless and all light bulbs or LED's must point to the ground.
4. The Petitioner shall comply with all federal, state and Village codes, regulations and policies.

CHAIRMAN LORENZINI: Okay, is there a second?

COMMISSIONER JENSEN: Second.

CHAIRMAN LORENZINI: Roll call vote, please.

MS. BHIDE: Commissioner Warskow.

COMMISSIONER Warskow: Yes.

MS. BHIDE: Commissioner Green.

COMMISSIONER GREEN: Yes.

MS. BHIDE: Commissioner Jensen.

COMMISSIONER JENSEN: Yes.

MS. BHIDE: Commissioner Sigalos.

COMMISSIONER SIGALOS: Yes.

MS. BHIDE: Chairman Lorenzini.

CHAIRMAN LORENZINI: Yes. Congratulations, it has been approved by the Plan Commission. Is there a date this is going to go the Board of Trustees yet?

MS. BHIDE: No.

CHAIRMAN LORENZINI: Okay, no date? As I said earlier, this is just a recommendation for the Board of Trustees and they have final approval. Thank you for all coming, you all for coming tonight and have a safe trip home. That concludes the public hearing for tonight.

(Whereupon, at 9:55 p.m., the hearing on the above-mentioned petition was concluded.)



Item: Christina Court - Final Plat of Subdivision

Department: Planning & Community Development

ATTACHMENTS:

Description

PC Minutes 9/9/15 DRAFT

Type

Minutes

PLAN

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

COMMISSION

RE: CHRISTINA COURT SUBDIVISION; PC# 15-001

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
9th day of September, 2015, at the hour of 9:56 p.m.

MEMBERS PRESENT:

JOE LORENZINI, Chairman
LYNN JENSEN
BRUCE GREEN
JOHN SIGALOS
MARY JO WARSKOW

ALSO PRESENT:

LATIKA BHIDE, Development Planner

CHAIRMAN LORENZINI: Other business, there's one final Plat of Sub-division for Christina's Court. Latika, do you want to give us a briefing on this?

MS. BHIDE: Sure, so this is, the Village Board did approve the preliminary plat and subdivision for the 13 lots, Christina Courts subdivision --

CHAIRMAN LORENZINI: Let's let them leave. If you could take your conversations in the hall, please. All right. Okay, go ahead Latika, I'm sorry.

MS. BHIDE: So, the 13 lot preliminary Plat of Sub-division for Christina Court was approved by the Village Board on June 15th and at that time, the Village Board did add a condition to the ordinance, approving the preliminary plat, stating that prior to final plat approval, the Petitioner will work with staff to come up with a method to provide a calculation to the Village to cover costs that are related to the ongoing maintenance of the detention basin. So staff has met with the developer we had requested some information in July, which we received this last week.

And so it's, the petition was not ready to go the Village Board because staff is still determining what that, reviewing that information and determining what that calculation amount should be. However we do recommend that Plan Commission recommend approval of the final plat because it is in substantial compliance with the preliminary plat approval and subject to negotiating an acceptable fee for the maintenance of the detention area.

CHAIRMAN LORENZINI: So do we need a motion or any questions on this? Do we need a motion to approve this?

MS. BHIDE: I think we do.

CHAIRMAN LORENZINI: Any of you who would like to make a motion?

COMMISSIONER GREEN: I'd like to make a motion for approval and accept, I need the number, do I need a number on here?

CHAIRMAN LORENZINI: Oh no, there's just a --

MS. BHIDE: I know this was 15-001.

COMMISSIONER GREEN: For 15-001, the Christina Court final plat and subdivision.

CHAIRMAN LORENZINI: Is there a second?

COMMISSIONER SIGALOS: I'll second.

CHAIRMAN LORENZINI: Role call vote, please.

MS. BHIDE: Commissioner Green?

COMMISSIONER GREEN: Yes.

MS. BHIDE: Commissioner Jensen?

COMMISSIONER JENSEN: Yes.

MS. BHIDE: Commissioner Sigalos?

COMMISSIONER SIGALOS: Yes.

MS. BHIDE: Commissioner Warskow?

COMMISSIONER WARSKOW: Yes.

MS. BHIDE: Chairman Lorenzini?

CHAIRMAN LORENZINI: Yes. Congratulations you are approved. Is there any other business?

(No response.)

CHAIRMAN LORENZINI: Can we get a motion to adjourn?

COMMISSIONER GREEN: I'll make that motion.

CHAIRMAN LORENZINI: Second?

COMMISSIONER WARSKOW: Second.

CHAIRMAN LORENZINI: All in favor?

(Chorus of ayes.)

CHAIRMAN LORENZINI: Thank you.

(Whereupon, at 10:01 p.m., the hearing was concluded.)

STATE OF ILLINOIS)
) SS.
COUNTY OF K A N E)

I, ROBERT LUTZOW, depose and say that I am a direct record court reporter doing business in the State of Illinois; that I reported verbatim the foregoing proceedings and that the foregoing is a true and correct transcript to the best of my knowledge and ability.

ROBERT LUTZOW

SUBSCRIBED AND SWORN TO

BEFORE ME THIS _____ DAY OF _____

_____, A.D. 2015.

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Item: Northwest Crossings - 9/16/15

Department: Planning & Community Development

ATTACHMENTS:

Description

PC Minutes 9/16/15 DRAFT

Type

Minutes

PLAN

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

COMMISSION

RE: NORTHWEST CROSSINGS - 1421 & 1501 W. SHURE DR. - PC# 15-019

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
 16th day of September, 2015, at the hour of 9:55 p.m.

MEMBERS PRESENT:

JOE LORENZINI, Chairman
 MARY JO WARSKOW
 TERRY ENNES
 BRUCE GREEN
 GEORGE DROST
 SUSAN DAWSON
 JOHN SIGALOS
 JAY CHERWIN

ALSO PRESENT:

LATIKA BHIDE, Development Planner

CHAIRMAN LORENZINI: Okay. That brings us to the second public hearing, Northwest Crossings, PC# 15-019. Have all the proper notices been given?

MS. BHIDE: They have.

CHAIRMAN LORENZINI: Is the Petitioner here?

MR. BAUER: We are.

CHAIRMAN LORENZINI: Okay, let's give them a few minutes to clear the room.

(Pause.)

CHAIRMAN LORENZINI: Anybody else going to testify besides yourself?

MR. BAUER: I don't believe that's so, but I will introduce the other parties in the room.

CHAIRMAN LORENZINI: Okay. Why don't you raise your right hand?

(Witness sworn.)

CHAIRMAN LORENZINI: Thank you. Would you state your name, spell it, and give your address?

MR. BAUER: Absolutely. Good evening, Mr. Chairman and members of the Commission. My name is Steve Bauer. I'm an attorney with the law firm of Meltzer, Purtill & Stelle. I'm here this evening on behalf of the Applicant, Torburn North Campus, LLC. My address is 300 South Wacker Drive, Suite 2300, Chicago, Illinois.

CHAIRMAN LORENZINI: Thank you. Would you give us a brief description of your program or project?

MR. BAUER: Certainly. As I alluded to, I'm joined this evening by a couple of the Applicant representatives, specifically Bob Horne and Adam Keldermans from Torburn Partners, as well as Travis Bridges from OKW Architects, the project architect.

As a matter of housekeeping, just very quickly, I just want to make sure that our entire petition, inclusive of our letter of request, our responses to standards of justification, as well as the plans and renderings that we've submitted to date relative to this petition be introduced and be made a part of the record.

CHAIRMAN LORENZINI: Okay. Have you read the conditions by the Planning Department and do you agree with them?

MR. BAUER: We have read them and we agree with them generally, but we do have some minor comments that we would like to discuss with the Commission which we've shared with the Planning Staff already.

CHAIRMAN LORENZINI: Okay, all right.

MR. BAUER: So, I had a very detailed presentation that I was going to give you tonight, but I think given the hour, I'll break from script and truncate that and provide you with at least just the fundamentals. Latika, can you go to the next slide please?

As you may recall, we were before you in May of

this year, and we received at that time, you were favorable, a unanimous recommendation of approval for what was then a PUD amendment, similar in nature to the one that we are now before you tonight. Then subsequently, on June 1st of this year, the Village Board also unanimously recommended, or excuse me, unanimously approved that request. So, we are now before you, as I had suggested, for a very similar type of request.

Just to go quickly through the slides that we have here as a sort of refresher, the subject property is depicted in shade in green there. It's generally located south of Dundee Road, or more specifically, south of Shure Drive, east of Wilke, and west of Kennicott.

Again, just a little background context, as we had explained to you back in May, Torburn acquired the entire former Nokia Motorola campus in 2013, so then the southern portion of that campus being the portion of the property south of Cellular Drive, and then retains ownership as I present to you now of the north campus. The north campus is composed of two properties being 1421 Shure and 1501 Shure from east to west.

The petition that was previously before you pertained to certain modifications to the site which we don't necessarily need to get into now unless you would like me to do so, but specifically pertaining to some modifications regarding demolition of certain portions of the site that were not previously demolished back in early 2014 when Torburn demolished the 1441 building which is depicted on the top site plan there as being the white footprint that is no longer there today. That area is now grass. The southern, or excuse me, the site plan there to the south or to the bottom is a depiction of what was approved and specifically depicts, among other things, the modification of that area south of the 1421 building to include a parking lot expansion as well as a new drop-off and pickup location for the new building lobby, et cetera.

With the significant tenant recently secured for the 1421 building identify on the slide as HSBC, Torburn is now looking at further modifications to the site necessary to repurpose, reposition, and retrofit the site in the manner necessary to allow to accommodate, instead of a single tenant/single use that it historically has served, but instead a multi-tenant/multi-use that it's now intended to serve from this point and well into the future.

So, just generally speaking, the PUD amendment consists of two primary requests. The first are site plan modifications, the second are variations. The site plan modifications involve specifically the addition of a sports court on the north side of the 1421 building. You can see it there depicted in green on the bottom site plan, north of the 1421 building. Then to the west, it's a partial demolition of the 1501 building to the tune of approximately

120,000 square feet. I should explain very briefly at least that the proposed demolition is in part due to market demand and in part due to Torburn's very specific efforts in, I should say calculated efforts after a lot of due diligence and analysis given the extreme measures that are proposed, to modify that building to a footprint that is more acceptable for the market and ultimately make it more flexible for office or manufacturing uses alike.

What's depicted here is a rendering of what would be the demolished portion of the 1501 building. Again, that's the approximately 120,000 square feet of space that would be removed from the 1501 building.

CHAIRMAN LORENZINI: Which one are you looking in this view?

MR. BAUER: That would be looking generally southeast. So, to your left would be Shure Drive, and then you'd be looking, you know, sort of diagonally, you know, toward southeast from Kennicott.

But as this depicts the footprint, the removed footprint of the 1501 building would become a grassed, you know, turfed surface with some sort of related landscaping at the time that the final improvements are made to the 1501 building. The 1501 facade on the north wall there would be a CMU or concrete manufactured unit material that would be an interim solution between the time that the 120,000 square feet of space is demolished and the time that Torburn secures a new tenant or a tenant to occupy the entire building.

The intention here is to demolish this portion of the building within this current calendar year, close it up in time for the cold winter months so that the building can be, you know, heated as necessary to allow it to be maintained, you know, with respect to HVAC, water and things of that nature. Then as soon as the cold weather breaks and Torburn has secured a tenant for this space, be in a position to begin modifying that north facade to whatever extent necessary dependent upon the tenant requirements as well as the type of user, be it manufacturing or office, then ultimately put in a final cladding type material on it to give it the finished appearance that you would expect and are accustomed to seeing.

Then at the same time, and I can discuss this to some extent when we get to the conditions of approval, the intention would be to landscape the area accordingly, but of course only after that final finished cladding is added to the building. Otherwise, it would obviously be destroyed as a consequence of the construction activities which this site would be, you know, at least until, you know, April or May of next year, until, you know, construction activities can resume after the cold winter months.

Then what's depicted here is a rendering of the area sort of southwesterly from Shure Drive, across the back of the 1421 building. There's depicted there the patio area which was

approved previously as part of the PUD amendment considered back in May by the Plan Commission and approved in June, and then the now proposed sports court which is immediately adjacent to the patio area. The sports court is proposed to be enclosed or enveloped along with the patio area with a six-foot tall fence. At this time, we've identified that fence as being of a material either wood, metal or a stone type precast concrete, really it's just sort of driven by the tenant requirements; and then for the sports court, an eight-foot tall mesh or net type material similar to what you've seen like for example in like a batting cage, that is really intended equally for both safety and security. Naturally, Torburn doesn't want a ball bouncing out of the sports court and onto the public right of way, you know, to cause some sort of traffic issue, any more than it wants unauthorized personnel to be entering the sports court, you know, during or after business hours.

Then this again is just really a further depiction of the same area that you were seeing. So, for example, on the left side of the screen you've got a portion of the 1421 building footprint. You can see there the proposed sports court, and then in the sort of the speckled area if you will, the patio that was previously proposed and approved, and then some renderings on the right side of the screen that depict both the sports court and the patio.

With respect to the conditions of approval, as I mentioned, I did present those suggested modifications to Staff. I have a copy of them for you this evening which I would be happy to distribute. But essentially, the proposed modifications are really intended to do two things. One, it's to address the question if you will that's raised by the Staff-prepared conditions of approval, and two, it's to provide the flexibility necessary to prepare and provide a landscape plan in conjunction with the finishing process for that north facade 1501 building. So, it really just pertains to the first two conditions. The other two, items 2 and 3, excuse me, 3 and 4, don't change at all.

CHAIRMAN LORENZINI: Is that it? Thank you. Latika, Staff report?

MS. BHIDE: Sure. So, the Petitioner is seeking an amendment to prior PUD Ordinances 88-060, 14-002 and 15-016 which was the latest PUD amendment. They are also seeking three variations. One is the requirement, to waive the requirement for a traffic study and parking analysis; to allow a sports/basketball court and pole at 1421 West Shure Drive within the side yard along Shure Drive; and then the height of the fence at 14 feet, six foot fence plus eight feet tall mesh, in conjunction with that court.

So, as you know, that site is approximately 40 acres in area. As indicated by the Petitioner, it was previously purchased by Torburn in 2013. The last PUD amendment was to subdivide the property into two lots, the 1421 and the 1501 as two separate lots.

Now they are seeking a PUD amendment to demolish a portion of the 1501 building and the addition of the sports court.

So, the 1421 building, the Petitioner has executed a lease with the HSBC and under the parameters of that lease they are required to demolish, about 118,000 square-foot of that 1501 building. They will be left with about 200,000 square-foot leasable tenant space on that building.

What they are suggesting is to install an interim CMU wall on the north facade of the 1501 building. This will allow them to enclose the building for winter and it will also allow them to remain flexible, so any improvements to that wall will be tenant-driven. They have indicated to us that if it's an industrial user, then they can upgrade the CMU wall with materials like stucco or paint or metal panel. If it's an office tenant, then they would add clear story windows or they'd add curtain walling to that facade. In here you see the view, this is more or less looking from 53 I guess at the 1501 west building.

In the landscape plan that was provided, the area that's proposed to be demolished would be restored with grass and mulch and will tie in to existing turf.

So, I just summarized, you know, the interim wall. After the Petitioner installs that wall, it will allow them to enclose it for the winter. The exterior upgrades will be driven by the tenant once one is identified. So, at this time, they have not provided options for upgrading the wall with time frames. Since then, you know, we've had discussions with the Petitioner and they have agreed, I think within three years of the Village Board adopting the ordinance, to provide updates to the wall and provide options for upgrades irrespective of whether the space is tenanted or not, so whichever comes first.

I just want to talk a little bit about the parking. With the demolition of about 118,000 square feet, the square footage of this building, the 1501 building is coming down to 200,000. So, even if that entire space was occupied by an office, there will be a surplus of 128 parking spaces. So, that's the parking variation or the variation from the traffic study and parking analysis ties in to that. Staff does not have a concern that there would be, you know, a surplus of parking spaces on the site.

The sports court would be, it's a half basketball court. It does need two variations. One would be to have it located within a street side yard, and the second is for the fencing. So, the fencing that would go around the court would be a six-foot tall fence. The Village will only allow a five-foot tall fence, but it's a six-foot fence and an eight-foot mesh and then six-foot around the back area.

That being said, the Staff Development Committee recommends approval of the request. The Petitioner did agree to a

three-year time frame to provide these improvements and Staff thinks that's acceptable. Staff was, one of the conditions was that prior to Village Board consideration they provide us with a landscape plan that consists of shade trees, shrubs and perennials on that north elevation where the demolition is being done in the space, but that's up to the Plan Commission if you want to change that condition to, you know, recommend that those improvements be tied with the upgrade of the CMU wall. Then you know, we were just saying provide details of the sports fence prior to Board consideration, and then comply with all federal, state and Village codes and policies.

CHAIRMAN LORENZINI: Thank you, Latika. Do we have a motion to include the Staff report into the public record?

COMMISSIONER DROST: I'll make that motion.

COMMISSIONER GREEN: Second.

CHAIRMAN LORENZINI: All in favor?

(Chorus of ayes.)

CHAIRMAN LORENZINI: Opposed?

(No response.)

CHAIRMAN LORENZINI: Thank you. Okay, questions?
Bruce, do you want to start?

COMMISSIONER GREEN: I really have no questions on this one.

CHAIRMAN LORENZINI: Terry?

COMMISSIONER ENNES: I don't have any.

CHAIRMAN LORENZINI: Mary Jo?

COMMISSIONER WARSKOW: No. No questions.

CHAIRMAN LORENZINI: George?

COMMISSIONER DROST: I have one question. I'd like to have the representative of Torburn step forward.

CHAIRMAN LORENZINI: Please state your name, spell it, and your address please.

MR. HORNE: My name is Bob Horne, H-o-r-n-e, and we're at 1033 Skokie Boulevard, Northbrook.

COMMISSIONER DROST: Good. The question is with these improvements, does this build some flexibility in your ability to locate a tenant? You don't have a tenant yet, you're negotiating the last series of that, correct?

MR. HORNE: Yes, I think your statement is exactly correct. We think that this square footage building gives us more flexibility for both office and for industrial type uses. The depths of it are so significant in its current condition that it really eliminates the office option. But I think in the new condition, it really does create an office option in addition to the industrial/manufacturing option.

COMMISSIONER DROST: Yes, reading today's paper with the headline news in the Herald --

MR. HORNE: Right, Motorola Solutions.

COMMISSIONER DROST: That Motorola is moving Schaumburg, does that, I mean this obviously will play favorably to the market as you see maybe an increase in vacancies.

MR. HORNE: Sure. I mean we actually, no, we've known about Motorola Solutions for a long time. We were a landlord of theirs in Florida as well, so we intimately know the company well. You know, we really, as you've kind of seen how we've gone about this whole project, I think we've made kind of very good decisions strategically to allow us to attract companies like HSBC. We feel like this move that we're now proposing is in line with that same kind of strategy.

COMMISSIONER DROST: Is that with their London-based office or is it a --

MR. HORNE: So, it's a consolidation of Chicago offices.

COMMISSIONER DROST: Okay. Yes, I just want to make that point for the record.

MR. HORNE: Sure. No, it's a good question. Thank you.

COMMISSIONER DROST: Good. I have no other comments.

CHAIRMAN LORENZINI: Susan?

COMMISSIONER DAWSON: I have no questions.

CHAIRMAN LORENZINI: John?

COMMISSIONER SIGALOS: I just have a couple. The time frame as I understand it is three years that you would upgrade that north facade, whether it be leased or not, is that correct?

MR. HORNE: Yes. I mean we were asked by Staff if we could make a commitment of a date and that's what we've agreed to.

COMMISSIONER SIGALOS: At that time then, the landscaping would be done. Right now when you demolish the portion of the existing building, you're just going to seed that area?

MR. HORNE: That's our intent, yes, which was what we did with the other demolition as well if you recall. We did demolish another building and just seeded it with grass and maintained it.

COMMISSIONER SIGALOS: Then my last question is you're still intending to do that this fall prior to this winter, to get this building demolished, a new foundation put in and a new whatever, eight-inch or 12-inch CMU wall constructed?

MR. HORNE: That is our intent. So, we are actually, I think we've already submitted demolition plans to the Village.

COMMISSIONER SIGALOS: I was going to ask that.

MR. HORNE: Yes.

COMMISSIONER SIGALOS: I'm a general constructor so this is very --

MR. HORNE: We're on a very fast track as well with the, you know, getting HSBC into their space. So, we've got a lot of

activity going on right now.

COMMISSIONER SIGALOS: All right. Okay, I have no further questions.

CHAIRMAN LORENZINI: Jay?

COMMISSIONER CHERWIN: So, just for clarification, the landscaping, you talk about really just seeding and that's it. That's acceptable to you? Or did you say you were looking for more in the interim?

MS. BHIDE: Right. So, the recommended condition was that they provide us with a plan that shows, you know, more landscaping whether it's foundation plantings or trees and shrubs, you know, before Board consideration. But if the Plan Commission, you know, they have indicated that the landscaping would get overrun during construction and it's something they would like to do with the upgrade of the CMU wall, so you can definitely recommend that that condition be changed.

COMMISSIONER CHERWIN: I personally wouldn't require a landscaping recommendation for the interim period if it would be destroyed. That would be my recommendation to change. Otherwise, I'm good.

CHAIRMAN LORENZINI: Okay. Just a question. On the CMU wall, why not just put up a precast concrete wall? Wouldn't that be -- your name and spell it please.

MR. BAUER: This is Travis Bridges from OKW Architects.

MR. BRIDGES: Travis Bridges, B-r-i-d-g-e-s. The reason why we're not going with a precast wall, the duration to get precast onsite and getting it up right now is a very difficult --

CHAIRMAN LORENZINI: Makes sense, okay, thank you. That's really all I had. Any other questions or motions from anybody?

MR. BAUER: Mr. Chair?

CHAIRMAN LORENZINI: Yes?

MR. BAUER: Just before you go to motion, would the Commission like to see the conditions as we modified them after communicating with the Village Staff?

CHAIRMAN LORENZINI: Sure, yes. Maybe you can just explain real quick what the difference is?

MR. BAUER: Certainly. So, as I referenced earlier in the presentation, the modifications are really just two conditions, 1 and 2, with one minor exception, and so I'll take them in that order.

So, for condition number 1, obviously the Staff recommendation was for the Petitioner to provide a time frame. What we've provided in the revised or proposed the condition on is reflective of the three-year time frame that we referenced earlier as part of the presentation. Then condition number 2 obviously reflects an obligation, a Staff-proposed obligation to provide a landscape plan prior to review by Village Board consideration. What we have proposed is really language that largely mirrors the condition of approval that

was provided as part of the prior ordinance approval for the PUD modifications that were previously approved. As you can see, it specifically but not only includes an obligation to provide a landscaping modification when the final improvements or upgrades are made to that north wall.

CHAIRMAN LORENZINI: Have you seen this before, Latika?

MS. BHIDE: I have, yes.

CHAIRMAN LORENZINI: Are you okay with these?

MS. BHIDE: Yes, I'm fine with the 1. My only question with the 2 is it says building site restoration and landscaping and talks about site restoration after the wall is upgraded. My understanding was the site would be restored with seeding. It's the additional landscaping that's going to happen in three years, you know, or whenever. So, I'm just a little confused.

MR. BAUER: Yes, I mean I think the only distinction really is that the area north of what will become the new north wall of the 1501 building, that will, you know, probably be somewhat of a construction zone, you know, while the modifications are being made to the site where they may be staging the materials and things like that there. Again, only until there is a final material added to the CMU wall that's proposed. So, really what is contemplated is just an opportunity to do all those improvements to the wall and to the landscaping and to the site itself, all in conjunction at the same time, once and done.

CHAIRMAN LORENZINI: Commissioner, is there any --

COMMISSIONER GREEN: Well, this is just for clarification. So, you're going to put the wall and then wait three years to landscape possibly?

MR. BAUER: Well, I don't think the Village Code would actually allow something like that. That's certainly not the intention and certainly not in Torburn's financial best interest to, you know, wait that long.

COMMISSIONER GREEN: Right. I can see where you'd want to put final landscaping. But if you put the black dirt back and put some grass there, if that's the intention --

MR. HORNE: That is the intention.

COMMISSIONER GREEN: Okay.

CHAIRMAN LORENZINI: Speak into the mic.

MR. HORNE: I'm sorry. We would be seeding it. We'll be doing this demolition work, you know, in the winter months. We'll be seeding it in the spring.

COMMISSIONER GREEN: In the spring, clean it up and seed it?

MR. HORNE: Seed it in the spring.

COMMISSIONER GREEN: Get it to grow and see what happens.

MR. HORNE: Exactly, right.

COMMISSIONER GREEN: I don't have a problem with that. I think that would be the way to go.

COMMISSIONER DAWSON: Wait, the only question I have, I know it's late and I'm not understanding, I thought the prior recommendation was just to provide a landscaping plan, not to install landscaping. Yet we're not even going to get a plan?

COMMISSIONER GREEN: Well, I think the problem, if I can just jump in, I think the problem with the plan is you don't know what the facade is going to be. You don't know where doors are going to be, you don't know where windows are going to be. So, if you put a plan together and then you change the facade of the building, then you have to change the landscape plan.

COMMISSIONER DAWSON: But we don't have, I mean is there a code that's going to require certain number of shrubs and certain number of this and that? I mean it's kind of leaving the whole, I mean at least if we had a plan that everyone understood might have to be modified around that, we would have an idea what they're agreeing to install. But otherwise, they can install really nothing because our code doesn't require them to install anything.

MS. BHIDE: Right. I mean if the area that was removed or demolished, if it's converted into a parking area, then those landscaping provisions would kick in. They'd need landscaping islands, they'd need to screen it from right of ways. But if not, they could just seed and sod and leave it like that.

COMMISSIONER DAWSON: And leave it alone. I do feel like there should be some sort of proposed plan even if it's subject to modifications based on locations of windows and doors and such so that we have an understanding of what you're willing to install because, again, our code isn't going to require anything.

MR. BAUER: Sure. Commissioner Dawson, your point is well taken. I guess I have two responses. The first is Commissioner Green's suggestion or assumption is in fact accurate. I mean obviously without knowing exactly where the building's, excuse me, where windows and doorways will be within that building facade, it's difficult to anticipate what the landscaping would look like. So, really in the end any type of a landscape plan that we submit could wind up being entirely useless.

But you know, leaving that point aside, I spoke with the Village's design planners as recently as today, Steve Hautzinger, and you know, as part of that conversation we spoke specifically about landscaping and the design review, the Design Commission review that would be done for the finished facade of this north wall, landscaping is part of the Design Commission's purview. So, you know, presumably any type of Village concern with respect to landscaping would be, you know, concurrently with Design Commission's

review of the proposed finished material for the wall.

COMMISSIONER DAWSON: Okay. I would still prefer that this not just rely, this as written only says that you'll install to code. So, my vote today is based on whether you're going to install landscaping to code and code doesn't require you to do anything. So, I would like some adjustment to the language that you will --

MS. BHIDE: So, one recommendation I have is that, you know, you could change the prior to Village Board consideration portion of that recommendation and mirror condition 1 for it to say when upgrades or concurrent with the upgrades to the CMU wall, the Petitioner shall provide a landscape plan that consists of, and then the rest of that.

COMMISSIONER DAWSON: Right, and I like that with that language because it specifically talks that you're going to be adding more than just meeting code.

COMMISSIONER CHERWIN: I think that makes sense.

COMMISSIONER GREEN: I think that makes sense. I'd go along with that.

COMMISSIONER CHERWIN: The other issue I'd raise is --

MS. BHIDE: What it does is it ties it to the landscaping so it's not just code --

COMMISSIONER CHERWIN: Then the issue, the other one we talked about, within three years providing options, but it doesn't talk about executing any improvements within any time frame.

COMMISSIONER SIGALOS: That's exactly what I was going to bring up.

COMMISSIONER CHERWIN: That would be my only other thing would be if you want to put in, you know, and shall complete all, you know, I don't know if it's another three or four months or it's just showing reasonable efforts to commence improvements upon approval or something.

COMMISSIONER SIGALOS: These are options that would have to go to Design Commission?

MS. BHIDE: That's correction.

COMMISSIONER SIGALOS: Would it have to come back here again or no?

COMMISSIONER DAWSON: I don't think so. I think just Design Commission.

MS. BHIDE: Yes.

COMMISSIONER SIGALOS: I'm just thinking of the timing it would take. Okay, so just only Design Commission and not Village Board approval either. Okay, yes, I kind of share what Commissioner Cherwin was suggesting, that something should be stated when it should be completed rather than you present options because the options, that could go on for months and months and months. Come back with an option, Design doesn't like it, come back with other options, they

don't like it, I mean it could be delayed until you find the time. That's one way of delaying it.

MR. BAUER: We understand your concern. Obviously it's in no one's best interest, either the Village's nor Torburn's, to allow this wall to be unfinished for an extended period of time.

COMMISSIONER SIGALOS: Well, but if you don't have a tenant, you won't want to put additional expense into something that you may not know the tenant will want. So, that gives you --

MR. BAUER: That's exactly what's --

COMMISSIONER SIGALOS: A way of getting away from making this a finished wall.

COMMISSIONER DAWSON: Well, I think the idea is if you put a deadline here, you can always come back to us and ask for an extension. We're just wanting some sort of deadline so that you have to come back to us and ask for an extension. So, you know, I mean it could be "and completed within a year thereof."

MS. BHIDE: So, you can modify that condition to say shall install within three years from Village adoption or ordinance adoption, like you said, and they can come back and ask for an extension at the end of that period.

MR. HORNE: Say that again?

COMMISSIONER GREEN: The improvement will be made within three years.

MR. HORNE: I think, I mean --

CHAIRMAN LORENZINI: Can you speak into the mic please?

MR. HORNE: Sure, I'm sorry. It was our intent not to have that from the three-year improvement date, it was three years to come back and present a plan to then do it. So, does that mean it's three years and six months to complete? I don't know.

COMMISSIONER SIGALOS: Well, what we're looking at is from the time frame of when it would be completed. If it's three years, it could be four years, it could be five years.

MR. HORNE: Right. Right, right, I understand that point. Honestly, we haven't thought it through. I mean, and I think we're prepared to commit to a date, so I don't know what's reasonable. We felt we wanted to have enough latitude to let the market tell us what this building wants to be. We felt three years was an adequate time frame for us, and if it doesn't happen in three years we'd come back and say, you know, we can tell you exactly why. But our belief is that we'll get something accomplished in the three-year time frame, and as a result we're comfortable with that date.

As it relates to committing to completing the work, I don't know what's a reasonable commitment beyond that three years. Is it six months, is it a year? I mean, something, I mean so I don't want it to be an indefinite period, I agree with that.

COMMISSIONER DROST: Isn't a tenant key to this? I

mean you brought up the point.

MR. HORNE: The tenant is everything about this. So, if it's an office building, it's going to be a window system and there's going to be parking and it's going to be, you know.

COMMISSIONER DROST: Well, that's the whole thing, the market is going to drive it.

MR. HORNE: Yes.

COMMISSIONER DROST: Then certainly the downside is that you get some kind of warehouse type operation, you know, with a bunch of outsourced services and they don't need windows.

MR. HORNE: Right. But we don't know, I mean that might be a great use because it could be a great company that brings jobs.

COMMISSIONER DROST: Right, and you don't get much landscaping.

MR. HORNE: Right. Yes.

COMMISSIONER DAWSON: John, can you, I mean I don't know, I'm not a contractor. So, this wall, if it were to stay out there forever, is that a problem?

COMMISSIONER SIGALOS: It's an ugly wall. I mean you can see it off of 53, you can see it off of Wilke Road, you can see it off Shure.

MR. HORNE: We'd want to finish it.

COMMISSIONER SIGALOS: That wall is a basic ugly wall that you'd never want to see.

COMMISSIONER DAWSON: Okay. So, our objection is that it would be unsightly and at some point we would like something that's much more, you know, a nicer appearance, okay. So, you know, if we're giving you three years for options, I'm happy to say within four years it will be installed. I don't know what anybody else thinks.

COMMISSIONER GREEN: Why don't we just add, John, I'm just going to throw this out there, how about if we have an approved option within three years and at that time submit a completion date for that approved option?

MR. HORNE: I think that's totally reasonable.

COMMISSIONER DAWSON: Sure.

COMMISSIONER GREEN: Latika, what do you think about that?

MS. BHIDE: So, they're not --

COMMISSIONER GREEN: In other words, in three years they've got to know what it's going to be, and so when they submit that approved option within three years, they're going to submit a construction schedule to go along with that option. Then there will be a discussion at that time about, they'll say that it's going to take, you know, 17 months, and we're going to say, no, we want six months.

MS. BHIDE: So, they'd have to come back to Plan

Commission and the Village Board to get that time frame?

COMMISSIONER DAWSON: No, no. I think Staff can do that.

MS. BHIDE: Just Staff.

COMMISSIONER GREEN: To Staff.

MR. HORNE: I think that's a very reasonable approach which is I'm coming in with a plan and say this is going to be our schedule to do this plan.

COMMISSIONER GREEN: Right.

COMMISSIONER DROST: Does that give build enough flexibility in for you? I mean you would think the market will absorb that --

MR. HORNE: If the market is completely upside down in three years, we'd come to you, we might have a different discussion. We might come to you and say the market is upside down, what do you want us to do.

COMMISSIONER DROST: Attorney Bauer is going to come in again and --

MR. HORNE: I mean that's not our hope. You know, we're trying to be flexible to respond to the market. I can't predict the market necessarily.

COMMISSIONER DROST: Okay. I just, you know, the idea is, you know, we're not, we'd like to forecast and we like to think in terms of, you know, positives.

MR. HORNE: Sure.

COMMISSIONER DROST: But if there are --

MR. HORNE: Our intent is to do exactly what we're saying tonight.

COMMISSIONER GREEN: See, if it comes in three years from now, we're in September again, you're going to be fighting the weather. So, the construction schedule, if it was to start three years from today with an approved plan is going to take, it's going to be a different schedule than if it was in the spring.

COMMISSIONER DAWSON: Sure.

COMMISSIONER GREEN: And they get that whole summer to work on.

COMMISSIONER DAWSON: I think your proposal is a good one. At least they come back with a schedule --

COMMISSIONER GREEN: With a schedule then. You'll have to present it to Latika and she's a tough one.

COMMISSIONER DAWSON: She has a comment.

MS. BHIDE: My only concern is that it leaves Staff in the position of having to negotiate their construction schedule. So, I know that this is not Torburn's intent but if they come back and say, well, it's going to take us four more years to finish it, now we're left to argue the four-year time frame.

COMMISSIONER GREEN: Just call me, Latika.

MS. BHIDE: Okay.

CHAIRMAN LORENZINI: Does somebody want to try to craft a motion here?

COMMISSIONER DAWSON: No. Well, do we have the language for what's happening with number 2?

COMMISSIONER DROST: Well, you'll take number 1 as --

COMMISSIONER GREEN: And we'll mod that.

COMMISSIONER DAWSON: So, number 1 is being modified. Number 1 is gone on the blue sheet and we're doing modification on the white sheet as you stated, right, Bruce?

COMMISSIONER GREEN: Yes.

COMMISSIONER DAWSON: Okay. So, then what's happening with number 2? Is it, no, because we want this language.

COMMISSIONER WARSKOW: Right, meaning the same thing, it's being completely changed and then we're amending the change.

COMMISSIONER DAWSON: So, how? Because to be honest, I'm tired. But you know, I have a brain, I usually read this stuff and I'm looking at this going this number 2 still doesn't make any sense to me. George, do you understand number 2?

COMMISSIONER DROST: No.

COMMISSIONER DAWSON: Thank you, okay. So, I don't know. I'm not understanding the way number 2 is written. It's confusing me so I'm trying to figure out how to revise it.

COMMISSIONER WARSKOW: I thought we decided concurrent with the upgrade to the CMU wall, a landscape plan would be submitted.

COMMISSIONER SIGALOS: Right. So, the original --

COMMISSIONER DAWSON: It's doing more than that, this sentence is doing more than that.

COMMISSIONER SIGALOS: But if you take number 2 --

COMMISSIONER WARSKOW: Well, we're modifying it in a sense.

COMMISSIONER SIGALOS: The original recommendation number 2 and just say concurrent with the approved plan for the upgrade of the north wall, the Petitioner shall provide a landscaping plan that consist of shade trees, shrubs, perennials, et cetera.

COMMISSIONER DAWSON: Okay. There isn't anything else going on in this number 2 written on the white sheet that I'm missing, right? Okay. All right, it just wasn't making any sense to me.

Okay. So, if we just take number 2 on the blue sheet and we just say what you just said, concurrent with the approved plan, the Petitioner shall provide a landscaping plan, then we don't need number 2 on the white sheet. Are you in agreement with me? Yes?

MR. BAUER: Yes, correct.

COMMISSIONER DAWSON: Okay, all right. Okay. Go, Bruce.

COMMISSIONER GREEN: Thank you.

A motion to recommend to the Village Board of Trustees approval of PC# 15-019, an amendment to PUD Ordinances 88-060, 14-002, and 15-016; a variation from Chapter 28, Section 6.12, *Traffic Engineering Approval*, to waive the requirement for a traffic study and parking analysis; a variation from Chapter 28, Section 6.5, *Accessory Structures*, to allow a sports/basketball court and associated basketball pole at 1421 West Shure Drive and within the side yard along Shure Drive; and a variation from Chapter 28, Section 6.13-3, *Location of Fences*, to allow a fence 14 feet in height (six-foot fence with an eight-foot tall sports net/mesh constructed thereon) in conjunction with the aforesaid sports/basketball court.

This approval is contingent upon compliance with the recommendations of the Plan Commission and the following recommendations detailed in the Staff Development Committee report dated September 10, 2015:

1. The Petitioner shall, within not more than three years from the date of Village Board approval of the current request for PUD amendment, provide to the Department of Planning and Community Development an approved option for upgrading the exterior proposed interim CMU north wall of the 1501 West Shure Drive building along with the schedule of construction.
2. The Petitioner shall provide a landscaping plan that consists of shade trees, shrubs, and perennials on the north elevation of the 1501 West Shure Drive building, foundation plantings, and it will be submitted concurrent with the design approval referenced in number 1.
3. Prior to Village Board consideration, the Petitioner shall provide details of the proposed sports fence.
4. The Petitioner shall comply with all federal, state, and Village codes, regulations, and policies.

CHAIRMAN LORENZINI: Is there a second?

COMMISSIONER SIGALOS: I'll second.

COMMISSIONER DROST: The discussion is this.

MR. BAUER: Okay, I just have one point of clarification before you vote, sorry to interrupt. With respect to condition number 1, I think I heard Petitioner shall submit an approved plan within three years? I'm just paraphrasing.

COMMISSIONER GREEN: Right, an approved option or plan within three years.

MR. BAUER: Approved by whom though? I'm asking the question because if it's --

COMMISSIONER GREEN: Department of Planning and

Community Development, the Staff.

MR. BAUER: Okay. So, my question is just simply if in the, say 30th month they submit a plan and that results in some dialogue between the Staff and the property owner, and then we get to the 36th month in three years and we don't have a "approved" plan by the Staff, are we then deemed to be in violation of this condition? I just want to make sure that's not an issue.

COMMISSIONER DAWSON: You can come back here and ask for an extension.

COMMISSIONER GREEN: Yes. We're looking for an approved plan within three years.

MR. BAUER: Okay, thank you.

COMMISSIONER DROST: Yes, and the discussion point is this, that if there needs to be some more word-smithing, we've got some time before it goes to the Board of Trustees. If on reflection you can fine tune this or refine it, with the intent --

COMMISSIONER DAWSON: Yes, do that.

CHAIRMAN LORENZINI: Okay, do we have a second?

COMMISSIONER WARSKOW: I second.

COMMISSIONER SIGALOS: I second.

CHAIRMAN LORENZINI: Yes, there was a second. Roll call vote please.

MS. Bhide: Commissioner Dawson.

COMMISSIONER DAWSON: Yes, with comment.

MS. Bhide: Commissioner Drost.

COMMISSIONER DROST: Aye.

MS. Bhide: Commissioner Ennes.

COMMISSIONER ENNES: Yes.

MS. Bhide: Commissioner Green.

COMMISSIONER GREEN: Yes.

MS. Bhide: Commissioner Sigalos.

COMMISSIONER SIGALOS: Yes.

MS. Bhide: Commissioner Warskow.

COMMISSIONER WARSKOW: Yes.

MS. Bhide: Commissioner Cherwin.

COMMISSIONER CHERWIN: Yes.

MS. Bhide: Chairman Lorenzini.

CHAIRMAN LORENZINI: Yes. Commissioner Dawson?

COMMISSIONER DAWSON: I just, no one ever said thank you for demolishing and putting more green space in Arlington Heights, so I think it's a great plan. I know we never said that because we're all too tired, so I just wanted to say thank you.

CHAIRMAN LORENZINI: All right, congratulations. You received a unanimous approval. Any date this is going to the Village Board, Latika?

MS. Bhide: They are in the next schedule, so the plan

is to have them for next Monday.

MR. BAUER: Thanks for your time.

CHAIRMAN LORENZINI: Anything else on the agenda? I'll take a motion to adjourn.

COMMISSIONER DROST: I'll make that motion.

COMMISSIONER GREEN: Second.

CHAIRMAN LORENZINI: All in favor?

(Chorus of ayes.)

CHAIRMAN LORENZINI: Opposed?

(No response.)

CHAIRMAN LORENZINI: Thank you.

(Whereupon, at 10:40 p.m., the meeting was concluded.)

ROBERT LUTZOW

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_____, A.D. 2015.

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Item: The Moorings - 811 E. Central Rd. - PC#15-012

Department: Planning & Community Development

Requested Action

1. Planned Unit Development Amendment by amending Ordinances 85-154, 88-015, 89-041, 91-108, 92-051, 93-051, 02-015 and 06-069 to allow:

- a) A new 2-story resident fellowship hall;
- b) A new 4-story assisted living building;
- c) A new 1-story (with basement) Memory Care building;
- d) Demolish the existing sheltered care building; and
- e) Demolish (2) quad villas.

Variations Required

1. A variation from Chapter 28, Section 5.1-8.11 from the requirement that inner courts are permitted for one and two story buildings to allow inner court for a three story building without the required 12 foot emergency access.

2. A variation from Chapter 28 Section 5.1-8.14 Minimum Distance from building wall to paved area to allow a building wall for the memory care building to be 7 feet from a paved area instead of the required 12 feet.

3. A variation from Chapter 28, Section 11.4 Schedule of Parking Requirements to allow 538 parking spaces where 578 is required, a variation of 40 spaces.

4. A variation from Chapter 28, Section 5.1-8.9 Maximum Height, to allow the Assisted Living building to be 48.5 feet tall whereas 45 feet maximum is permitted, a variation of 3.5 feet.

5. A variation from Chapter 28, Section 5.1-8.10 Dwelling Standards to allow assisted living units to be 585 square feet in area where 650 square feet is required for 1 bedroom units, a variation of 65 square feet per unit, and to allow studio units 481 square feet in size where 550 is required, a variation of 69 square feet per unit.

Recommendation

The Staff Development Committee recommends approval of PC #15-012, an

amendment to The Moorings Planned Unit Development mending Ordinances 85-154, 88-015, 89-041, 91-108, 92-051, 93-051, 02-015 and 06-069 to allow:

- 2-story resident fellowship hall;
- 4-story assisted living building;
- 1-story (with basement) Memory Care building
- and related site improvements.

And the following variations:

1. A variation from Chapter 28, Section 5.1-8.11 from the requirement that inner courts are permitted for one and two story buildings to allow inner court for a three story building without the required 12 foot emergency access.
2. A variation from Chapter 28 Section 5.1-8.14 Minimum Distance from building wall to paved area to allow a building wall for the memory care building to be 7 feet from a paved area instead of the required 12 feet.
3. A variation from Chapter 28, Section 11.4 Schedule of Parking Requirements to allow 538 parking spaces where 578 is required, a variation of 40 spaces.
4. A variation from Chapter 28, Section 5.1-8.9 Maximum Height, to allow the Assisted Living building to be 48.5 feet tall whereas 45 feet maximum is permitted, a variation of 3.5 feet.
5. A variation from Chapter 28, Section 5.1-8.10 Dwelling Standards to allow assisted living units to be 585 square feet in area where 650 square feet is required for 1 bedroom units, a variation of 65 square feet per unit, and to allow studio units 481 square feet in size where 550 is required, a variation of 69 square feet per unit.

Said recommendation is subject to the following conditions:

1. Condition from Ordinance 85-154 regarding the requirement to install a traffic signal if warranted at the property owner's expense shall remain in full force and effect.
2. The petitioner shall work with Village staff on possible relocation of additional trees on site.
3. compliance with the Design Commission motion dated August 25, 2015.
4. Approval of an MWRD permit for storm water.
5. A landscape and tree preservation bond is required prior to issuance of a building permit.
6. Compliance with all Federal, State, and Village Codes and Policies.

ATTACHMENTS:

Description	Type
PC Staff Report	Board or Commission Report
Legal Notification	Correspondence
Location Map	Exhibits
Plat & Sub Minutes	Minutes
DC Staff Report	Board or Commission Report
DC Minutes	Minutes
Narrative	Correspondence
Volume I - Civil Drawings - a	Exhibits
Volume I - Civil Drawings - b	Exhibits
Volume I - Civil Drawings - c	Exhibits
Volume II - Assisted Living - a	Exhibits
Volume II - Assisted Living - b	Exhibits
Volume III - Residential Fellowship Hall	Exhibits
Volume IV - Memory Care	Exhibits
Revised Partial Plans - Assisted Living & Fellowship Hall	Exhibits
Site Lighting	Exhibits
Landscape Plans- Revised	Exhibits
Traffic & Parking Study	Exhibits
Parking Study Analysis	Exhibits
Drainage Study - Revised	Exhibits
Market Study	Exhibits
Department Comments	Correspondence
Petitioner Response to Department Comments	Correspondence
Variation Response	Correspondence
Resident Comment-Pictures	Exhibits
Market Impact Analysis	Exhibits

STAFF DEVELOPMENT COMMITTEE REPORT (revised)

To: Plan Commission
Prepared By: Bill Enright, Deputy Director Planning and Community Development
Meeting Date: September 30, 2015
Date Prepared: September 28, 2015
Project Title: Presbyterian Homes, The Moorings of Arlington Heights
Address: 811 E. Central Road (SEC of Central Rd. and Douglas Ave.)

BACKGROUND INFORMATION

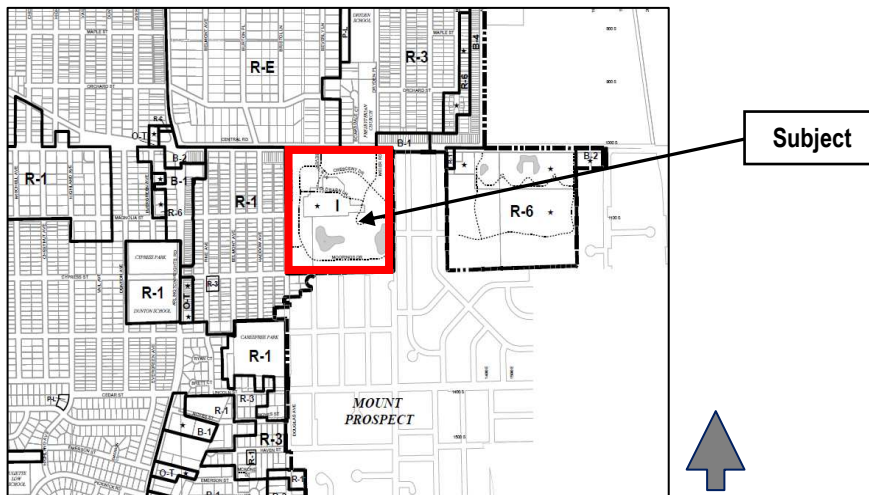
Petitioner: Nancy Tolan, Vice President Facilities, Planning and Construction
Address: Presbyterian Homes
3200 Grant Street
Evanston, IL 60201
Existing Zoning: I, Institutional District

Requested Action:

1. Planned Unit Development Amendment by amending Ordinances 85-154, 88-015, 89-041, 91-108, 92-051, 93-051, 02-015 and 06-069 to allow:
 - a) A new 2-story resident fellowship hall;
 - b) A new 4-story assisted living building;
 - c) A new 1-story (with basement) Memory Care building;
 - d) Demolish the existing sheltered care building; and
 - e) Demolish (2) quad villas.

Variations Required:

- A variation from Chapter 28, Section 5.1-8.11 from the requirement that inner courts are permitted for one and two story buildings to allow inner court for a three story building without the required 12 foot emergency access.
- A variation from Chapter 28 Section 5.1-8.14 Minimum Distance from building wall to paved area to allow a building wall for the memory care building to be 7 feet from a paved area instead of the required 12 feet.
- A variation from Chapter 28, Section 11.4 Schedule of Parking Requirements to allow 538 parking spaces where 578 is required, a variation of 40 spaces.
- A variation from Chapter 28, Section 5.1-8.9 Maximum Height, to allow the Assisted Living building to be 48.5 feet tall whereas 45 feet maximum is permitted, a variation of 3.5 feet.
- A variation from Chapter 28, Section 5.1-8.10 Dwelling Standards to allow assisted living units to be 585 square feet in area where 650 square feet is required for 1 bedroom units, a variation of 65 square feet per unit, and to allow studio units 481 square feet in size where 550 is required, a variation of 69 square feet per unit.



Surrounding Land Uses:

Direction	Existing Zoning	Existing Use	Comprehensive Plan
North	R-E and R-3 One Family Dwelling District	Church and Single Family Dwellings	Single Family Detached and Institutional
South	R-1 One Family Dwelling District & Village of Mount Prospect	Single Family	Single Family (and Village of Mount Prospect)
East	Village of Mount Prospect	Single Family	Village of Mount Prospect
West	R-1 One Family Dwelling District	Single Family	Single Family Detached

Summary:

The subject property is 41.5 acres. The original PUD was approved in 1985 and has been amended numerous times since (A summary of the previous approvals is appended to this report). The property is developed with multiple buildings that serve as a retirement community. These include a four and five-story apartment building, a two-story skilled care center, a one to three stories sheltered care facility, a number of villa units, detention facilities, parking and other associated improvements.

The proposed PUD amendment will include a fellowship hall for worshiping which will also serve as a multi-purpose room for the residents of The Moorings. With views of the existing pond, the proposed Fellowship Hall will serve as a central campus feature. Also included is the addition of an assisted living wing and an assisted living memory care wing. The assisted living wing will be located to the west of the existing pond and include 70 units. The memory care wing will include 20 beds and will be located at the location of the existing sheltered care wing which will be demolished. Both the assisted living and the memory care building will have grade-level entrances allowing each building access without traveling through another building. The assisted living memory care building will be connected to the existing skilled care building.

The Fellowship Hall is proposed to be 1 story with partial lower level and totaling approximately 18,000 square feet.

The assisted living wing is proposed to be 4 stories and 70 units with the first level parking partially underground. Of the 70 units, 64 units will be one bedroom units 585 square feet in area and 3 units will be two bedroom units approximately 830 square feet in area. There are also 3 studio units at 481 square feet. Public Spaces will include a lobby, dining area, cafe and a living room. Parking is underground at the north portion of the building and is at grade level as you proceed south along the ring road due to the grade level dropping from north to south.

The memory care wing is proposed to be 1-story with a total of 20 units, approximately 315 square feet each. Public spaces will include a lobby, dining area, living area, core support and utility.

Total units for The Moorings is only increasing from 463 to 470 units with this amendment.

Zoning and Comprehensive Plan

As previously mentioned the subject site is currently zoned I, Institutional and is designated in the Comprehensive Plan as I - Institutional. This use is in accordance with the Zoning Ordinance and Comprehensive Plan designations.

Plat and Subdivision Committee

The Plat and Subdivision committee of the Plan Commission met on November 12, 2014 and were supportive of the request.

Neighborhood Meeting

The petitioner on September 9, 2015 held a neighborhood meeting one each for the residents of The Moorings and for the adjacent residents. A summary of that meeting is provided in the packet.

Building Analysis

The proposed development architecture and landscaping was approved by Design Commission on August 25, 2015. Minutes of that meeting are in Novus as part of the packet. The Design Commission recommendation include enhancements to the assisted living building to provide less EIFS and more siding where the bays are located. The design of the proposed building expansions incorporate the principals outlined in the Village's Design Guidelines, which include the use of durable quality

materials such as face brick, the limited use of dryvit or light gauge materials, and the use of architectural details to provide visual interest. The petitioner is also to provide a detail of site furnishings to staff for review during permits.

The following variations are required regarding the buildings:

- **A variation from Chapter 28, Section 5.1-8.11 from the requirement that inner courts are permitted for one and two story buildings to allow inner court for a three story building without the required 12 foot emergency access.**

Staff supports this variation as the inner court created by the Memory Care and Fellowship Hall buildings will have a fire lane provided to the south.

- **A variation from Chapter 28, Section 5.1-8.9 Maximum Height, to allow the Assisted Living building to be 48.5 feet tall whereas 45 feet maximum is permitted, a variation of 3.5 feet.**

Staff supports this variation as the Assisted Living building is set back approximately 165 feet at it's closet point to the west property line angling away from the west property line to a point that the building is approximately 250 feet setback at the terminus of the emergency access lane out to Douglas Ave.

In addition, the roof line meets the required 45 foot height, but due to the enhanced architectural element of the sloped roof line, this raises the code determined height to 48.5 feet. The sloped roof is a better architectural treatment of the roof as it screens rooftop mechanicals and fits in with the character of the campus.

- **A variation from Chapter 28, Section 5.1-8.10 Dwelling Standards to allow assisted living units to be 585 square feet in area where 650 square feet is required for 1 bedroom units, a variation of 65 square feet per unit; and to allow studio units at 481 square feet where 550 is required, a variation of 69 square feet per unit.**

Staff supports this variation as the unit sizes are smaller given the smaller size of the kitchen facilities which are more of a kitchenette given that meals are provided for in common dining areas. Also, the parking demand for assisted living is significantly less than parking for typical dwelling units as many seniors requiring assisted living no longer drive.

Site Plan & Landscape Analysis

The Moorings currently has extensive landscaping throughout the site which is very well maintained and mature. The new plans call for relocation of trees and over 100 new trees being planted. Staff would like for the petitioner to work with staff during the permit process to try and relocate a few more trees as feasible. A landscape and tree preservation compliance bond will be required as part of permitting. Overall the additional landscaping is comparable and compatible with the mature landscaping throughout the site. The Moorings has providing extensive landscaping of common areas such as around the perimeter of the new buildings and the parking lot and ring road drive areas. Of particular interest is the courtyard for the new Fellowship Hall, which has exceptional detail and plantings to make for a unique space.

The following variation regarding the site plan is required:

- **A variation from Chapter 28 Section 5.1-8.14 Minimum Distance from building wall to paved area to allow a building wall for the memory care building to be 7 feet from a paved area instead of the required 12 feet.**

Staff supports this variation as the landscape plan for the site is exceptional and the variation is just for three of the corners of the Memory Care building where it is less than the 12 foot requirement.

Stormwater Analysis

The Moorings campus detention system currently provides detention for the entire campus, and includes a system of five separate detention basins. The West Lake (pond/detention) will be enlarged to accommodate most of the new requirements of the site. In addition due to newer MWRD and Village standards, the release rate will be reduced so that storm water is released at a lesser rate thereby reducing storm water runoff downstream during large rain events. The detention pond releases into a 48 inch storm sewer at along the southern border of the site which releases to public storm sewers. An MWRD permit will be required as part of the permitting process. The petitioner's project narrative provides a summary of utilities and storm water

management. In addition, the developer has provided a storm water drainage analysis also included in the Novus packet. No public improvements are required for the proposed plan as improvements are on site.

Traffic & Parking Analysis

A condition of Ordinance 85-154 was, "The developer or its successors will design, construct and maintain, at its expense, a traffic signal on Central Road at any entrance to the property at such time as the warrants for a traffic signal established in the then current edition of the 'Manual on Uniform Traffic Control' are satisfied." A traffic study and parking analysis was prepared as part of the Planned Unit Development Amendment and evaluated whether warrants for a traffic signal are met. Based on the study, a traffic signal is not warranted. It should be noted that the 1985 condition shall remain in effect so that if a signal is warranted in the future, a signal shall be installed at the property owner's expense.

In addition, the traffic study reviewed existing traffic counts and projections, and due to the minimal addition of 7 units net and a fellowship hall to be used by residents, the traffic counts result in no significant impact on internal circulation or impacts to Central Road. In addition the level of service will not change at the two entrances with Central Road.

The following are the parking requirements for the campus per the proposed amendment:

		<u>Required Parking</u>
• Fellowship Hall: 1 parking space for every 5 seats.	486 seats	97
• Assisted Living: 1 parking space per unit:	70 units	70
• Memory Care: 1 parking space for every 2 beds.	20 beds	10
• Senior Apartments: 1 per unit	202 units	202
• Senior Villas: 2 per unit	73	146
• Skilled Care: 1 per 2 beds	105	<u>53</u>
Total Required:		578 required
Parking Provided:		538 provided
		(40 deficit)

Therefore the following variation is required for parking:

•A variation from Chapter 28, Section 11.4 Schedule of Parking Requirements to allow 538 parking spaces where 578 is required, a variation of 40 spaces.

Staff supports this variation for the following reasons:

- 1) The parking study submitted by the engineer indicates that the maximum usage of the site is 67% of the parking provided.
- 2) The Fellowship Hall requires 97 spaces, however this facility is to be used by the residents of the community, who are already counted as part of the other line items for parking. Village code requires accounting for this space even though practically it is primarily only used by residents and their guests.
- 3) The parking code ratio for the assisted living units is 1 per unit, however ITE standards and the parking counts in the traffic and parking study indicate that the actual ratio demand is closer to 0.5. Staff is in the process of collecting data on senior assisted housing to determine if the Village Code should be amended.

RECOMMENDATION

The Staff Development Committee recommends approval of PC #15-012, an amendment to The Moorings Planned Unit Development amending Ordinances 85-154, 88-015, 89-041, 91-108, 92-051, 93-051, 02-015 and 06-069 to allow:

- 2-story resident fellowship hall;
- 4-story assisted living building;
- 1-story (with basement) Memory Care building
- and related site improvements.

And the following variations:

- A variation from Chapter 28, Section 5.1-8.11 from the requirement that inner courts are permitted for one and two story buildings to allow inner court for a three story building without the required 12 foot emergency access.
- A variation from Chapter 28 Section 5.1-8.14 Minimum Distance from building wall to paved area to allow a building wall for the memory care building to be 7 feet from a paved area instead of the required 12 feet.

- A variation from Chapter 28, Section 11.4 Schedule of Parking Requirements to allow 538 parking spaces where 578 is required, a variation of 40 spaces.
- A variation from Chapter 28, Section 5.1-8.9 Maximum Height, to allow the Assisted Living building to be 48.5 feet tall whereas 45 feet maximum is permitted, a variation of 3.5 feet.
- A variation from Chapter 28, Section 5.1-8.10 Dwelling Standards to allow assisted living units to be 585 square feet in area where 650 square feet is required for 1 bedroom units, a variation of 65 square feet per unit, and to allow studio units 481 square feet in size where 550 is required, a variation of 69 square feet per unit.

Said recommendation is subject to the following conditions:

1. Condition from Ordinance 85-154 regarding the requirement to install a traffic signal if warranted at the property owner's expense shall remain in full force and effect.
2. The petitioner shall work with Village staff on possible relocation of additional trees on site.
3. Compliance with the Design Commission motion dated August 25, 2015.
4. Approval of an MWRD permit for storm water.
5. A landscape and tree preservation bond is required prior to issuance of a building permit.
6. Compliance with all Federal, State, and Village Codes and Policies.

_____, September 25, 2015

Bill Enright

Deputy Director of Planning & Community Development

Cc: Randy Recklaus, Village Manager
All Department Heads

Summary of previous approvals

The original PUD for The Moorings was approved in 1985. The PUD has been amended numerous times since then. The following is a list of the ordinances and a preliminary list of the major actions associated with each of the ordinances.

Ordinance	Approval		Allowed
Ord. 85-154	PUD approval	☐ Rezoned the property from R-1 to I ☐ Established the PUD ☐ Approved subject to the Site Plan prepared by Burns & Associates	Allowed: ☐ Up to 5 story buildings ☐ 262 two-bedroom (or one-bedroom with den) units ☐ 8 villa units in a row ☐ Reduce parking requirement to 645
Ord. 88-57	PUD amendment	☐ Allow an overall reduction in the number of villa units ☐ Did not affect the midrise, the parking or the setbacks	☐ 262 apartment units ☐ 76 villa units
Ord. 89-43	PUD amendment	☐ Allow an increase in the number of villa units	☐ 346 total units ☐ 262 apartment units ☐ 84 villa units
Ord. 91-108	PUD amendment	☐ Allow an Adult Day care OR ☐ Permit the construction of a previously approved villa unit when the Adult Day Care ceases operation OR ☐ Permit the rehabilitation of the existing ranch house into a villa unit at such time the Adult Day Care ceases operation	☐ Variation from the required number of parking spaces for the adult day care only
Ord. 92-015	PUD amendment	☐ Allow expansion of the health care facility	☐ 346 total units ☐ 262 apartments ☐ 87 villa units
Ord. 93-051	PUD amendment	☐ Modify the architectural style of the remaining villa units ☐ Reconfigure the site plan	☐ Variation from the required minimum front yard for the quadruplex from 25' to 22'
1998	PUD amendment	☐ Allow the erection and operation of a commercial ham antenna	
Ord. 02-077	PUD amendment	☐ Permit modification to the previously approved site plan and relocation of the adult day care facility	☐ Obtain Vacation of ComED easement ☐ Maintain sanitary and water service
Ord. 06-069	PUD amendment	☐ Allow the expansion of 26 villas	☐ Reduction to required spacing between buildings ☐ Reduction to required spacing from building wall to paved area

PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT



The Moorings
SEC of Central Rd. and Douglas Ave.
Prepared by: The Village of Arlington Heights
Department of Planning & Community Development
November 2014

**REPORT OF THE PROCEEDINGS OF
THE PLAT & SUBDIVISION COMMITTEE
OF THE VILLAGE OF ARLINGTON HEIGHTS PLAN COMMISSION
HELD AT VILLAGE HALL ON:**

November 12, 2014

Project Title: Presbyterian Homes, The Moorings of Arlington Heights
Address: 811 E. Central Road (SEC of Central Rd. and Douglas Ave.)
Petitioner: Nancy Tolan, Vice President Facilities, Planning and Construction
Presbyterian Homes
3200 Grant Street
Evanston, IL 60201

Requested Action:

1. Planned Unit Development Amendment and amendment to Ordinances 85-154, 88-015, 89-041, 91-108, 92-051, 93-051, 02-015 and 06-069 to allow a change in the approved site plan to allow the addition of an assisted living facility, memory care facility, and the addition of a chapel.

Variations Required:

- None have been identified at this time

Attendees: Nancy Tolan, Presbyterian Homes, Petitioner
Scott Freres, Lakota Group
Craig Kimmel, rlp architects
Michael Renner, Eriksson Engineering
Steve Corcoran, Eriksson Engineering
Bruce Green, Plan Commissioner
Lynn Jensen, Plan Commissioner
John Sigalos, Plan Commissioner
Jay Cherwin, Plan Commissioner
Latika Bhide, Development Planner

Project Summary

The subject property is 41.5 acres. The original PUD was approved in 1985 and has been amended numerous times since. The property is developed with multiple buildings that serve as a retirement community. These include a four and five-story apartment building, a two-story skilled care center, a one to three stories sheltered care facility, a number of villa units, detention facilities, parking and other associated improvements.

Presbyterian Homes has provided a site concept plan that provides their overall vision for this campus. Once fully completed, this will include the addition of an assisted living facility, a memory care facility, a chapel, two new 5-story apartment wings with a total of 86 apartments connecting to the existing building, a new 4-story lake apartment building with a total of 28 apartments, 23 new one-story duplex cottages (46 individual units) along the perimeter of the campus, that will replace 25 existing cottages (63 individual units), carports and expanding and adding storm water detention facilities.

The first phase of the project will include a chapel which will also serve as a multi-purpose room. Phase I will also include the addition of an assisted living wing and an assisted living memory care wing. The assisted living wing will be located to the west of the existing pond. The memory care wing will be located at the location of the existing sheltered care wing which will be demolished. Both the assisted living and the memory care building will have grade-level entrances allowing each building access without traveling through another building. The assisted living memory care building will be connected to the existing skilled care building. The Chapel is proposed to be 1 story with partial lower

level and totaling approximately 18,000 square feet. The assisted living wing is proposed to be 3 stories above the parking level with a total of 70 units. Of the 70 units, 67 units will be one bedroom units approximately 550 square feet in area and 3 units will be two bedroom units approximately 830 square feet in area. Public Spaces will include a lobby, dining area, cafe and a living room totaling approximately 4,840 square feet. The memory care wing is proposed to be 1-story with a total of 20 units, approximately 315 square feet each. Public spaces will include a lobby, dining area, living area, core support and utility. A parking deck below surface parking adjacent to assisted living memory care and assisted living is being proposed.

Meeting Discussion:

N. Tolan said that they would like to share early concepts for the Moorings property and provide contextual information about Presbyterian Homes and specific information about the Moorings property. She said that the Moorings property was purchased in the late 1930s by the Magnus family, in the 1950s they built a small retirement facility and in 1986 it was purchased by Lutheran General Hospital and it became the Moorings property similar to what you see today. Presbyterian Homes acquired it in 2000. She said that while Presbyterian Homes has been in Arlington Heights for only 15 years, they have been running senior communities for over 100 years. They serve 1700 seniors in the Chicagoland area out of which 500 seniors reside at the Moorings. She said that it should be noted that 50% of the residents at the Moorings come from within 4 miles of the facility and an additional 18% come from out of state to live adjacent to their adult children who live in the immediate area. She said that the Moorings is a full Continuing Care Retirement Community (CCRC) – which means that they provide independent living through cottages, townhouses, apartment buildings, etc. but also provide assisted living, skilled (nursing) care, memory care, hospice and rehabilitation services. She said that when a senior moves into the community they most often make a choice to come in independently, but Presbyterian Homes provides living accommodations that they would require for the rest of their lives. **N. Tolan** said that Presbyterian Homes is a 'not for profit' organization. Over the last year their charitable programs in the Chicagoland area totaled almost 5.6 million dollars, which is fairly consistent over the last several years. She said that they have several different charitable programs, but the two that are utilized the most at the Moorings are the Life Care Guarantee, where if a senior outlives his/her assets, they are guaranteed that they will be allowed to stay within the Continuum for the rest of their lives. She said that (guarantee) makes them unique in the Arlington Heights area. The other program that she wanted to talk about was the Geneva program where residents with limited resources, through fellowship, can enter the community, much like a scholarship. She said that even though they are a not-for-profit, they do pay property taxes – for this year, the property taxes for the Moorings property was around \$230,000. They are also a significant employer in the area. Overall, Presbyterian Homes employees 1200 people and approximately 325 people are employed at the Moorings. She said, out of them approximately 245 employees live either in Arlington Heights or a town immediately adjacent to Arlington Heights.

N. Tolan said she was excited to share some of their longer range thinking and more immediate plans. She said that over the next few years, the number of seniors looking for senior housing will increase exponentially. Presbyterian Homes has completed a strategic planning process for each of their campuses to determine what they need to do to better serve their residents. She said that they were prioritizing the campuses and the Moorings was at the top of the list. She said that they would like to make a considerable investment in the Moorings. The building constructed by the Magnus family in 1950s served as the assisted living facility and it no longer meets the expectation of the market or allowed them to serve the residents in the manner they would like. That building also does not provide appropriate accommodations for memory care in an assisted living environment and they feel strongly that they need memory care within assisted living. She said that there is a more immediate need for a Chapel. She said that the residents of today are not what many retirement communities were planned for when they were designed many years ago. She said that independent seniors today are more active. They have only one multipurpose room on the Moorings campus and they find the room double-booked all the time. She said that the residents Spiritual Life Committee has worked hard and raised funds to self-fund and gift to the Moorings a room that is being called the 'Chapel'. It is room addition that the Spiritual Life Committee - which is for the residents of Moorings only - can use for worship. She said that they need more space on the campus. They are bringing 2 plans before the Plat and Subdivision Committee today. The first addresses the more immediate project needs - an assisted living and an assisted living memory care and a chapel which is essentially an internal space for the residents. She said that they are also presenting another plan - this is not

immediate, only conceptual. She said that as they understand the direction they are moving forward, it seems prudent to look at and brain storm for the future so they do not put something in a location where they would want to locate something in the future. There is no timeline on these improvements and they are not immediate and they will not be a part of the formal submittal through the approval process. However they would like to share the plan with the Committee as they make significant investment at the Moorings. She said that her understanding was that they were not asking for any variations. **L. Bhide** said that there were not adequate details at this point to confirm that. **N. Tolan** said that they would wait and see (if any variations were needed), but thought that would present the long term plan to see if it was reasonable, but focus on the immediate plan. She said that by the time they are ready to proceed with the long term plan it might not be exactly identical (to this plan) and they would be coming back through the process anyway. **B. Green** said that they could amend the masterplan, but the Village would like to see a (overall) plan.

C. Kimmel described the overall existing plan. He pointed out the existing entries and the villas/cottages on the periphery. He stated that as noted in the full build-out plan some villas were already replaced and they would continue the process. He highlighted the covered drop-off area and pointed out the apartment buildings that were 4 and 5 stories with structured parking below. He pointed out the community common space, space for the residents, on 1st floor which includes the pool and multi-purpose room. He identified the 2-story skilled care and the original "L" shaped building which he said was not adaptable as it is too narrow.

C. Kimmel said that the sheltered care and two 4-unit cottages are the only structures that are proposed to be removed. He said that the inside units (for the 4-unit cottages) were toughest in terms of daylight and hard to sell. He said that the construction will be staged. The Chapel and 3-story assisted living with structured parking will be built initially. Once occupied, they would then tear down the sheltered care and finally build the one-story memory care. The Chapel location is proposed to be central to all levels of care. The Spiritual Life Committee is driving the idea that everyone at all levels of care be able to access the chapel and it would become an extension of common space on the first floor. The Chapel is central to the internal circulation and not for external users. The loop also connects on the basement level so the deliveries can be brought directly up into the buildings and avoid intrusion on the community space on the first level. He said that there is some social space associated with the assisted living such as dining, beauty, etc. The Memory care (facility) will be a secure area for twenty people in two groups of ten with a secure outdoor garden. He said that the building will have its own entrance and residents and visitors can enter the memory care directly. It is set up as a small house and will have its own identity separate from the assisted living. He pointed out these improvements in the context of the masterplan.

C. Kimmel said that they had noted that there were access concerns with the Chapel and that they understood that fire access lane must be maintained and that they need to meet the requirements of the Fire code.

C. Kimmel reviewed the replacement plan for the cottages. He said that the proposed plan will clean up the circulation on-site and create a clean loop around the overall development. He said that another detention/retention pond will be introduced and they would like that element to be an entry feature to the Moorings. He said that they would be introducing two apartment buildings with 45-units and 41-units. He explained that the buildings would be connected to the common space on the first floor. He said that they would also add another 4-story apartment building on the back. All three buildings will have car ports or a parking structure connected to them. He pointed out the location of the other parking structure and discussed the access to it. **C. Kimmel** explained the overall unit count. He said that because they have combined the apartments in the existing building, therefore the total number of units has gone down over time. He said that going forward, more units will get combined and the number will drop. **S. Freres** said that this is not increasing intensity, but mainly changing dynamics. He said that there is history here (at the Moorings) before Presbyterian homes started operating, and they have tracked the changes and are moving forward while being respectful of the past.

J. Cherwin asked about the ownership of cottages? **N. Tolan** said the Presbyterian Homes owns the entire property and have contracts where residents pay a fee to move in and a monthly fee thereafter. She said that the contracts are weighted where you could pay more upfront and get 100% refund of the fees later or pay less upfront and get 50% refund back. **J. Cherwin** said that since Presbyterian Homes owns the properties there would not be any ownership

issues when restructuring and rebuilding the cottages.

J. Sigalos asked if the new at-grade parking to the west and the underground parking below the assisted living was for the employees and guests. **C. Kimmel** said that the parking was primarily for staff. He said that the Arlington Heights Code required 1 parking space for every unit of assisted living, which in his experience doing work all around the country was pretty aggressive. Their estimation was, that based on the frailty of the residents at these facilities, may be 10 percent of the residents can drive. **J. Sigalos** asked if the cottages have separate driveways where residents can park. **N. Tolan** answered that the cottages have separate driveways and garages. The original cottages had a single car garage, but over time an addition was built to allow for a two-car garage. She said that most families go down to a single car after moving in, but that the two car garage was a good selling feature. **J. Sigalos** asked if Presbyterian Homes offered short term care. **N. Tolan** said that they offered short term care – rehabilitation and physical therapy. **C. Kimmel** stated that some of the people that are in the skilled care facility can be accommodated in the assisted living environment. Over time there might be an opportunity to drop down the number of skilled care residents and change the semi-private rooms to private rooms in skilled care. He said that it would make it more marketable. **N. Tolan** said that most of the residents in assisted care and skilled care come in as independent living residents and flow through the continuum. She said that they allow and encourage people to join at any time. The healthcare center does provide the facilities for a short term stay.

J. Sigalos said that Presbyterian Homes was similar to Lutheran Homes, which recently built a large facility, in terms of providing both short and long term stay. He said that Transitional Care Management being built currently was strictly for shorter term stay, 30 days only, as they were strictly rehabilitation. **N. Tolan** said the residents in their system flow through the continuum of care starting with independent living. She said that was why (appropriate) ratios were important for seamless flow.

L. Jensen said that this was a great facility and asked if (he understood correctly that) they were not going to expand the rehab unit, as there were a lot of rehab capacity coming online in Arlington Heights. **N. Tolan** said the rehab was predominantly for internal use. They did offer rehab to the outside community and the stays for short-term rehab occurred in the healthcare center. Their goal ultimately was to go from double occupancy rooms to single occupancy. **L. Jensen** asked if they would be reducing the number of rehab units. **N. Tolan** said that they have not run the numbers at this point, but completing the assisted living facility will give them flexibility. **L. Jensen** asked what timeframe was proposed for Phase I. **N. Tolan** said that the timeframe was around 2-3 years. She said that the goal was to build the worship space and the assisted living at the same time and then remove sheltered care. Last they would build the memory care. She said that because of the sequencing involved - relocating residents from sheltered care to the assisted living and then constructing memory care, it would take some time. **L. Jensen** asked about the time frame for entire project. **N. Tolan** said that it would be significantly more than 5 years. She said that they appreciated being able to share their ideas, but they would reassess after the first projects were under their belt. **L. Jensen** said that the financing model for the Moorings was different than other facilities. He asked if the fees charged upfront were comparable to what residents paid to buy units (in other developments). **N. Tolan** said that that was difficult to compare as they provide for health care included as part of the upfront fees and meal plans and also they provide the life care guarantee.

J. Sigalos asked what the expected cost of the first phase was. **N. Tolan** said that the cost estimate was around 30 million dollars for all three buildings. **L. Jensen** asked if the improvements would be self-funded. **N. Tolan** said that Presbyterian Homes was capable of self-funding but (outside) financing mechanisms were available for a project of this kind. She said that the Spiritual Life Committee was gifting them the worship space. **L. Jensen** asked if they were non-denominational. **N. Tolan** confirmed that they were non-denominational and had residents of all faiths and traditions at all of their facilities.

B. Green said that he thought it was great project and he liked the planning (process). He thought that it was nice that they were upgrading and changing the more tired plans. **L. Jensen** said that they are expanding in a niche that others are not doing in this community and thought that this (project) was good for the community.

J. Cherwin said that he appreciated them sharing their overall vision. **B. Green** said that conceptual and architecturally the design works with smaller units on the periphery and higher density inside.

RECOMMENDATION

The Plat & Sub Committee said the feedback was positive and that the Petitioner should move forward through the process.

Bruce Green, Chair
PLAT & SUBDIVISION COMMITTEE
Latika Bhide, Recorder

STAFF DESIGN COMMISSION REPORT

PROJECT INFORMATION:

Project Name: The Moorings – Assisted Living, Fellowship Hall, & Memory Care
Project Address: 811 E. Central Rd.
Prepared By: Steve Hautzinger

Date Prepared: August 18, 2015

PETITIONER INFORMATION:

DC Number: 15-096
Petitioner Name: Nancy A.H. Tolan
Petitioner Address: Presbyterian Homes
3200 Grant Street
Evanston, IL 60201
Meeting Date: August 25, 2015

Requested Action(s):

1. Approval of the proposed architectural designs for a new Assisted Living building, Fellowship Hall, and Memory Care building at the existing Moorings property.

ANALYSIS

Summary:

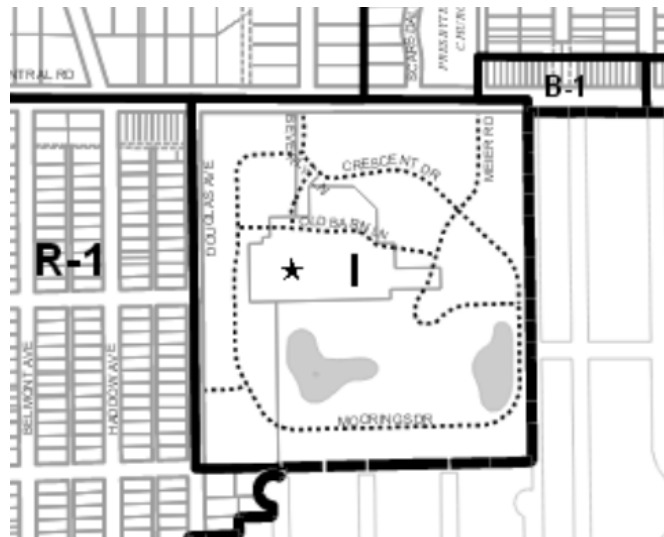
The subject design is being forwarded to the Design Commission for review pursuant to Chapter 6 of the Municipal Code, specifically Section 6-501 (e)(1), which states that the Design Commission "shall review all Plan Commission, Zoning Board of Appeals, Building Permit and Sign Permit applications for new construction and those improvements which affect the architectural design of the building, site improvements or signage to determine whether it meets with the standards, requirements and purposes of the Design Guidelines and Chapter 30, Sign Regulations."

The Moorings is an existing 41-acre senior living community that was originally approved as a Planned Unit Development in 1985. The existing campus includes a 5-story Independent Living Facility, a Skilled Care Facility, a Sheltered Care Building, and numerous independent living duplex cottages. At this time, the petitioner is proposing to build a new 4-story Assisted Living building, a new Fellowship Hall, and a new single story Memory Care building. This project does require Plan Commission approval for an amendment to the existing PUD.

Site:



Aerial Map



Zoning Map

Surrounding Land Uses:

<i>Direction</i>	<i>Existing Zoning</i>	<i>Existing Use</i>
Subject Property	I, Institutional District	The Moorings
North	R-3, One Family Dwelling District R-E, One Family Dwelling District	Single Family Residences Single Family Residences
East	Outside of Village Boundary (Mt. Prospect)	Single Family Residences
South	Outside of Village Boundary (Mt. Prospect)	Single Family Residences
West	R-1, One Family Dwelling District	Single Family Residences

Preliminary Design Commission Review:

This project received a preliminary Design Commission review on April 14, 2015. Overall, the Design Commission expressed support of the proposed Fellowship Hall design, and there were no comments on the proposed Memory Care building. The majority of the feedback pertained to the proposed 4-story Assisted Living facility, with highlights as follows:

1. Overall the articulation of the design was lacking. More depth, variety, and detailing was suggested, such as more detailing around the windows.
2. The entry of the building lacked prominence.
3. There was concern regarding the concern about the close proximity of the loading dock and service area to the residential cottages across the street.
4. Perspective renderings were requested to better communicate the design as it relates to the existing buildings on the site.
5. The existing landscaping is exceptional, and there were no concerns about the proposed landscaping.

Architectural Design:

The petitioner has developed the design and has addressed the Design Commissioner's comments. Perspective renderings have been provided which illustrate how the proposed buildings fit in well with the existing context of the Moorings. Overall, the design of the proposed development is very nicely done with nice materials and extensive landscaping. The proposed material palette is nicely coordinated, and the brick has been selected to match the existing 5-story Independent Living building. The use of the same material palette throughout all three of the proposed new buildings works very well to bring cohesiveness to the overall campus design.

The overall composition of the Assisted Living building is well done, and the proposed porte cochere provides a distinctive identity for the building's main entrance. Additionally, the loading/service area has been modified with a greater setback and enhanced screening. The only design comment is regarding the application of the EIFS and horizontal siding on the building façade. The two materials appear out of balance, and it is recommended to consider reversing the two materials so that the horizontal siding becomes the primary wall cladding, with the EIFS used as the accent color on the top floor and feature areas of the building. As proposed the heavier texture and darker color of the siding material looks out of place located above the smooth, lighter colored EIFS.

The design of the single story Memory Care building has very nice massing and scale. The only design comment on this building is the lack of prominence of the main entry. As proposed, the entry is recessed and unidentifiable. Consider adding a small portico to draw attention to the entry.

Mechanical Unit Screening:

All rooftop mechanical equipment is required to be fully screened from view. The petitioner is proposing a well between the two sides of the roof which works superbly to screen all of the rooftop mechanical equipment.

Landscaping:

Numerous trees on the site are identified for removal, therefore tree replacement will be evaluated as part of the Plan Commission review. If possible, it is encouraged to preserve additional trees adjacent to the west lake and near the court yard. Also, transplanting some of the trees elsewhere on the site should be explored.

It is recommended that the landscaping near the Memory Care building entry be enhanced with a mix of shrubs and perennials. For the Assisted Living building, it is recommended to increase the height of the landscaping to help soften the brick base where there is a significant grade change on the west elevation at the south half of the building.

RECOMMENDATION:

It is recommended that the Design Commission **approve** the proposed architectural designs for the new Assisted Living building, Fellowship Hall, and Memory Care building at the existing Moorings campus located at 811 E. Central Road. This recommendation is subject to compliance with the plans dated 7/24/15 and received 7/27/15, Design Commission recommendations, compliance with all applicable Federal, State, and Village codes regulations and policies, the issuance of all required permits, and resolution of the following:

1. Consider reversing the EIFS and horizontal siding on the Assisted Living building.
2. Consider adding an entry portico at the main entrance of the Memory Care building.
3. Consider enhancing the landscaping near the Memory Care building entry with a mix of shrubs and perennials.
4. For the Assisted Living Building, it is recommended to increase the height of the landscaping to help soften the brick base where there is a significant grade change on the west elevation at the south half of the building.
5. 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/homeowner/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.

August 18, 2015

Steve Hautzinger AIA, Design Planner

Cc: Charles Witherington Perkins, Director of Planning and Community Development, Latika Bhide, Development Planner, Petitioner, DC File 15-096

APPROVED
MINUTES OF
THE VILLAGE OF ARLINGTON HEIGHTS
DESIGN COMMISSION MEETING
HELD AT THE ARLINGTON HEIGHTS MUNICIPAL BUILDING
33 S. ARLINGTON HEIGHTS RD.
AUGUST 25, 2015

Acting Chair Bombick called the meeting to order at 6:35 p.m.

Members Present: Alan Bombick, Acting Chair
 John Fitzgerald
 Jonathan Kubow
 Ted Eckhardt, Chair

Members Absent: Anthony Fasolo

Also Present: Kevin Davis, Fairfield Homes for *922 N. Beverly Ln.*
 John Haran, E & J Builders for *1138 N. Mitchell Ave.*
 Michael Henderson, STR Partners for *Olive-Mary Stitt & Ivy Hill Schools*
 Ryan Schulz, A.H. School District 25 for *Olive-Mary Stitt & Ivy Hill Schools*
 Nancy Tolan, Presbyterian Homes for *The Moorings*
 Craig Kimmel, RLPS Architects for *The Moorings*
 Nick Peppers, Storino, Ramello & Durkin for *The Moorings*
 Scott Freres, The Lakota Group for *The Moorings*
 Steve Hautzinger, Staff Liaison

REVIEW OF MEETING MINUTES FROM AUGUST 11, 2015

A MOTION WAS MADE BY COMMISSIONER FITZGERALD, SECONDED BY COMMISSIONER KUBOW, TO APPROVE THE MEETING MINUTES OF AUGUST 11, 2015. ALL WERE IN FAVOR. THE MOTION CARRIED.

ITEM 5. INSTITUTIONAL REVIEW

DC#15-096 – The Moorings – 811 E. Central Rd.

Ms. Nancy Tolan, representing *Presbyterian Homes*, **Scott Freres**, representing *The Lakota Group*, **Nick Peppers**, representing *Storino, Ramello & Durkin*, and **Craig Kimmel**, representing *RLPS Architects*, were present on behalf of the project.

Acting Chair Bombick asked if there was any public comment on the project and there was no response from the audience.

Mr. Hautzinger presented Staff comments. The Moorings is an existing 41-acre senior living community that was originally approved as a Planned Unit Development in 1985. The existing campus includes a 5-story Independent Living Facility, a Skilled Care Facility, a Sheltered Care Building, and numerous independent living duplex cottages. At this time, the petitioner is proposing to build a new 4-story Assisted Living building, a new Fellowship Hall, and a new single story Memory Care building. This project does require Plan Commission approval for an amendment to the existing PUD.

This project received a preliminary Design Commission review on April 14, 2015. Overall, the Design Commission expressed support of the proposed Fellowship Hall design, and there were no comments on the proposed Memory Care building. The majority of the feedback pertained to the proposed 4-story Assisted Living facility, with highlights as follows:

1. Overall the articulation of the design was lacking. More depth, variety, and detailing was suggested, such as more detailing around the windows.
2. The entry of the building lacked prominence.
3. There was concern regarding the concern about the close proximity of the loading dock and service area to the residential cottages across the street.
4. Perspective renderings were requested to better communicate the design as it relates to the existing buildings on the site.
5. The existing landscaping is exceptional, and there were no concerns about the proposed landscaping.

The petitioner has developed the design and addressed the Design Commissioner's previous comments. Perspective renderings have been provided which illustrate how the proposed buildings fit in well with the existing context of the Moorings. Overall, the design of the proposed development is very nicely done, with nice materials and extensive landscaping. The proposed material palette is nicely coordinated, and the brick has been selected to match the existing 5-story Independent Living building. The use of the same material palette throughout all three of the proposed new buildings works very well to bring cohesiveness to the overall campus design.

The overall composition of the Assisted Living building is well done, and the proposed porte

cochere provides a distinctive identity for the building's main entrance. Additionally, the loading/service area has been modified with a greater setback and enhanced screening. The only design comment is regarding the application of the EIFS and horizontal siding on the building façade. The two materials appear out of balance, and it is recommended to consider reversing the two materials so that the horizontal siding becomes the primary wall cladding, with the EIFS used as the accent color on the top floor and feature areas of the building. As proposed the heavier texture and darker color of the siding material looks out of place located above the smooth, lighter colored EIFS.

The design of the single story Memory Care building has very nice massing and scale. The only design comment on this building is the lack of prominence of the main entry. As proposed, the entry is recessed and unidentifiable. Consider adding a small portico to draw attention to the entry.

All rooftop mechanical equipment is required to be fully screened from view. The petitioner is proposing a well between the two sides of the roof which works superbly to screen all of the rooftop mechanical equipment.

Numerous trees on the site are identified for removal; therefore tree replacement will be evaluated as part of the Plan Commission review. If possible, it is encouraged to preserve additional trees adjacent to the west lake and near the court yard. Also, transplanting some of the trees elsewhere on the site should be explored. It is recommended that the landscaping near the Memory Care building entry be enhanced with a mix of shrubs and perennials. For the Assisted Living building, it is recommended to increase the height of the landscaping to help soften the brick base where there is a significant grade change on the west elevation at the south half of the building.

Staff recommends approval of the proposed architectural designs for the new Assisted Living building, Fellowship Hall, and Memory Care building, with the following comments:

1. Consider reversing the EIFS and horizontal siding on the Assisted Living building.
2. Consider adding an entry portico at the main entrance of the Memory Care building.
3. Consider enhancing the landscaping near the Memory Care building entry with a mix of shrubs and perennials.
4. For the Assisted Living Building, it is recommended to increase the height of the landscaping to help soften the brick base where there is a significant grade change on the west elevation at the south half of the building.

Ms. Tolan gave background on Presbyterian Homes, a brief summary of the proposed project, and introduced the team of representatives present.

Mr. Freres gave a slide presentation regarding connectivity, context, and understanding the character around and within the 40-acre site. Photos of the surrounding areas were shown, with the site being surrounded predominantly by single-family and multi-family residential, with

the exception of a church and some small businesses to the north, and the Village of Mt. Prospect to the south and east. An aerial of the existing campus was shown, indicating the main entrance off Central and the location of the existing buildings. Photos of the existing buildings were also shown that reflect the scale and character of the site and include the Independent Living/Commons, Skilled Care, Sheltered Care, original cottages, and recent cottages. Vehicle circulation, building areas and pedestrian path were also pointed out and summarized.

The current proposal for a new Fellowship Hall building, Assisted Living building, and Memory Care building was presented and reviewed by **Mr. Kimmel**. He stated that the primary entrance to the Assisted Living building was minimized to detract visitors from using it as an entry point because they want to control entry into the Memory Care building that is connected through the lobby of the Assisted Living building. The service area of the Assisted Living building has been revised since the preliminary review, in order to create a larger landscape screening between the service area and the existing drive, and architectural changes were made as well to minimize the impact of the service area on the adjacent environment that exists along the entry drive. Circulation paths for both service and Assisted Living residents were also shown.

With regards to the Fellowship Hall, **Mr. Kimmel** explained that this building has evolved since the preliminary review, with changes that include pulling the brick up to create more of a masonry face to the building and creating more significance to the building. The building is central to both the pond and to the overall community, which is critical to the success of achieving all levels of care at the Fellowship Hall. Materials and colors being proposed for the Fellowship Hall were also reviewed.

Previous concerns made by the commissioners about the Assisted Living building, such as the size of the cross gables and the introduction of more residential detailing and trim work, were incorporated into the current proposal, with the idea of creating a nested gable that allowed the ability to create a larger element where the cross gable comes almost up to the ridge line of the building, and create smaller elements so as not to be repetitive around the building. Brick at the front entrance was pulled all the way up into the gable, which starts to complement the Fellowship building, and the brick was also extended out to create an opportunity to widen the windows and accentuate the front door and create asymmetry in the building.

The Memory Care building will be one-story, residential in appearance, and similar to the cottages, only larger. The building was designed to accentuate the social spaces located across the back of the building, which is where residents will spend the majority of their time. It will be connected to an outdoor controlled garden, metal roofing on the octagon shaped dining room, brick pulled in at the higher elements then transitioning down at the porch to lighter materials, and the eave height pulled out with a shed type element to give a stronger porch area with full shade.

Mr. Freres reviewed the foundation package for landscaping, which included not only the new buildings but bringing all of the buildings up to a new landscaping standard in terms of the

quality of material being used, variety of material, utilizing native plantings, and scale. Bigger plantings are being proposed along the streetscape and pond edges, in order to accentuate some of the spaces to not appear so open and bland. He pointed out one of the core areas of the campus, which will be the cloister courtyard space that touches many building facades, entries and windows, with a range of people utilizing the space on a daily basis, and all connected to access points. He also pointed out the pond, which is a focal point of all the buildings and accessible not only for pedestrians around the perimeter but as a fire lane around the building. Details such as stamped concrete or brick paver patio spaces, decorative railings, benches, pergola elements, and naturalized edges of the ponds are also being proposed. Primary circulation around the site will remain the same, with small changes to the circulation into the parking lot adjacent to the Memory Care building and drop-off at the Assisted Living building.

Mr. Freres also briefly discussed where parking is being proposed; surface parking adjacent to the Memory Care building, and underground parking at the Assisted Living building. Previous concerns about the service area at the Assisted Living building were addressed by reconfiguring the angle of the building, gaining distance off the road, landscaping the area, understanding the views from the adjacent cottage views, and introducing architectural elements from the buildings onto the service area. In closing, **Mr. Freres** stated that their timeline continues to move forward with a Plan Commission hearing date scheduled for the end of September, and they remain committed to starting the project next Spring.

Commissioner Kubow acknowledged the fantastic presentation by the petitioner, learning about the history and seeing the context of the site, which was very helpful. He felt the petitioner addressed a lot of the commissioners' previous concerns, and he felt the service area was very well done. With regards to the Assisted Living building, he felt that overall the composition was good; however, more contrast was necessary to help the stucco pop. He also asked about the reasons for recessing the portico entrance on the Memory Care building. The petitioner explained that the Memory Care entrance is being downplayed because it is not really an entrance, and resident family members will be encouraged to use the Assisted Living entrance that is a common entry for all of the buildings because it will allow better control of people going in and out of the buildings.

Commissioner Eckhardt questioned the lack of an entrance near the circular drive to allow drivers to travel down the ring road and pull to the front entrance, as opposed to driving all the way through the parking lot to get to the front door. The petitioner said this was primarily an issue of the vertical grade change in front of the canopy area, which is set because of the existing building, as well as the important desire to maintain the same elevation of that floor throughout the entire building.

With regards to Staff's suggestion to considering reversing the EIFS and horizontal siding on the Assisted Living building, **Commissioner Eckhardt** felt it might be more appropriate to have siding in the middle of the building facade and a smoother surface on top. He was undecided about the architecture of 3 different materials and 4 different material colors being proposed,

and then breaking it up in such a way to make the building look like row homes. He understood the base and the brick; however, he was unsure about the middle portion of stucco. The petitioner replied that using material and color on a large building like this is a way to break up the building, define elements, and create some verticality. **Commissioner Eckhardt** supported the idea of the tall, brick element behind the entrance portico, and felt that the bay windows and 2 pediment gables worked well together; however, he was concerned about the large 2-story expanse of EIFS being proposed at the corner of the building, void of any windows. He suggested adding another element to help break it down.

Commissioner Eckhardt felt that the proposed design of the Memory Care building significantly achieved which elevation is the front and which is the back. He felt the middle section of the building should have siding and EIFS in between the two, to help the building get along better with the Assisted Living building. He had similar comments about the courtyard side of the building, and questioned the fenestration of the elevation and whether it was designed within the context of the adjacent building.

Commissioner Fitzgerald agreed with the comments already made. Looking at the recommendations in the Staff report, he now understood why the entry portico at the Memory Care building was being downplayed, and he was fine with that. He suggested adding landscaping with more height near the entry to the Memory Care building, such as small ornamental trees. He was okay with the height of landscaping being proposed on the west elevation at the south half of the Assisted Living building, which emphasizes and enhances the significant grade change, and he really liked what was done at the service entrance. Overall, he felt the project was beautiful.

Acting Chair Bombick's commented about the Assisted Living building. He was fine with the dark band of siding at the top of the building; however, he felt the building appeared busy and the materials and colors could be simplified. He was also bothered by the way the gables were detailed; the horizontal trim board that runs across the bottom of the gable creates a deep shadow and looks dated. He suggested the gables be detailed more like a traditional 1920's home. He agreed with previous comments; in general, the building needs to be simplified, although he was fine with the 3 layers and the dark layer on top. With regards to the Memory Care building, he felt that the courtyard side of the building would be stronger if it were all brick, with a change at the other end of the building. Overall, he felt the petitioner added a lot of detail and worked out a lot of things with the project.

Acting Chair Bombick also said that site furnishings shown by the petitioner should be packaged together with colors, and manufacturer name/number as part of the approval process. Street lighting, fence and pergola details were not shown and discussed tonight, which he was concerned about and wanted Staff to review.

In response to the previous concerns about the Assisted Living building, **Commissioner Fitzgerald** questioned just how busy the building would look since the colors would be close together; it seemed like nice detailing to him, and he pointed out that the rendering showed

very drastic color changes that in reality would not appear that way. **Acting Chair Bombick** questioned if part of the problem was that the bay windows were white and everything else was beige, which breaks things up. **Commissioner Eckhardt** was okay with the bay color being different.

Commissioner Eckhardt summarized the concerns stated by the commissioners:

1. Break up large expanses of EIFS on the Assisted Living building.
2. Enlarge the plant material in the courtyard of the Memory Care building.
3. Add siding at the west elevation (back of Memory Care building) on the bump-outs.
4. Consider increasing contrast of the siding color.
5. Consider through study elevations, using stucco on the top floor.
6. Courtyard side of Memory Care building appears to have 2 different sides and looks out of balance.

Commissioner Fitzgerald wanted #2 to be a requirement; add small ornamental trees in the courtyard of the Memory Care building, for Staff review and approval.

After further review of the exterior elevations, the commissioners were fine with the material arrangement on the courtyard side of the Memory Care building (#6).

Commissioner Eckhardt wanted #3 to be a requirement; change the EIFS to siding on the west elevation bay bump-outs on the Memory Care building.

Acting Chair Bombick reiterated his concerns about the gable details on the Assisted Living building; he did not like the horizontal details running across the face of the gable. He was fine with the top course of siding on the building, and the colors; however, he felt the building was too busy with all the material changes. **Commissioner Eckhardt** felt that the material changes were subtle. **Commissioner Kubow** commented that there are 2 ways of breaking up an elevation; either horizontally with planes, or vertically like a townhome. He felt the petitioner was doing both, which is why the building looks a bit busy, and he suggested breaking up the elevation vertically, similar to a townhome, as it might simplify the building. **Commissioner Eckhardt** was unsure if seeing a sense of rhythm on the building was necessary, as opposed to the random appearance currently being proposed.

Commissioner Fitzgerald reiterated that enhancing the grade change that occurs from left to right should be taken advantage of; currently the brick is dropped on the right side; however, if the brick was brought up to be level on the left side, it would actually be very symmetrical so he preferred to leave the brick base as proposed. **Commissioner Eckhardt** agreed and was not concerned about this; he was concerned about seeing the one tall element of blank EIFS and wanted a horizontal line added along the second-floor to break it up.

Acting Chair Bombick felt that the 3 openings next to the right of the entry canopy were really nice and would look beautiful, although it did not show up nicely on the rendering.

A MOTION WAS MADE BY COMMISSIONER ECKHARDT, TO APPROVE THE PROPOSED ARCHITECTURAL DESIGNS FOR THE NEW ASSISTED LIVING BUILDING, FELLOWSHIP HALL, AND MEMORY CARE BUILDING AT THE EXISTING MOORINGS CAMPUS LOCATED AT 811 E. CENTRAL ROAD. THIS RECOMMENDATION IS SUBJECT TO COMPLIANCE WITH THE PLANS DATED 7/24/15 AND RECEIVED 7/27/15, DESIGN COMMISSION RECOMMENDATIONS, COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE, AND VILLAGE CODES, REGULATIONS AND POLICIES, THE ISSUANCE OF ALL REQUIRED PERMITS, AND RESOLUTION OF THE FOLLOWING:

1. A REQUIREMENT THAT THE PLANT MATERIAL IN THE COURTYARD OF THE MEMORY CARE BUILDING BE INCREASED IN QUANTITY, TO BE REVIEWED BY STAFF.
2. A REQUIREMENT THAT THE WEST ELEVATION OF THE MEMORY CARE BUILDING BE ENHANCED WITH SIDING MATERIAL, IN LIEU OF EIFS AT THE 2 BAY PROJECTIONS UNDERNEATH THE GABLED ROOFS.
3. A RECOMMENDATION THAT THE PETITIONER STUDY THE EXTERIOR COLOR SCHEME TO DETERMINE IF A MORE CONTRASTING HARDI-BOARD COLOR IS NECESSARY.
4. A RECOMMENDATION TO ADD DETAILING TO BREAK UP THE 2-STORY BLANK EIFS WALL ADJACENT TO THE SERVICE/LOADING AREA.
5. THIS REVIEW REPRESENTS DESIGN APPROVAL 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.
6. IT IS THE PETITIONER'S RESPONSIBILITY TO SUBMIT THE APPROPRIATE PERMIT APPLICATION(S) TO THE BUILDING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO PROCEEDING WITH ANY WORK. 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.

Acting Chair Bombick asked that the petitioner be required to provide a complete package of site furnishings, such as furniture cuts, lighting, fences, etc., for Staff review.

A MOTION WAS MADE BY COMMISSIONER ECKHARDT TO ADD THE FOLLOWING TO THE MOTION:

7. A REQUIREMENT THAT THE PETITIONER PROVIDE A COMPLETE PACKAGE OF SITE FURNISHINGS TO STAFF FOR APPROVAL.

COMMISSIONER FITZGERALD SECONDED THE MOTION.

ECKHARDT, AYE; FITZGERALD, AYE; KUBOW, AYE; BOMBICK, AYE.
ALL WERE IN FAVOR. THE MOTION CARRIED.

The Moorings of Arlington Heights

Village of Arlington Heights – Plan Commission Submittal Project Narrative

July 10, 2015

I. Concept

The Moorings of Arlington Heights is a Continuing Care Retirement Community (CCRC). A CCRC is a particular type of retirement community that offers several levels of health care on one campus. The Moorings currently has Independent Living, Sheltered Care, and Skilled Care.

The residents of independent living apartments and villas at The Moorings desire updated and modern accommodations at the assisted living and memory support levels of care. Although occupancy is high, Sheltered Care residents have complained about the size of the current apartments and the distance to the elevator or dining venue.

The continued maturing of the independent living residents at The Moorings of Arlington Heights has created significant demand for not only assisted living services, but also memory support services in an assisted living environment. The current assisted living building (sheltered care, originally built in the 1950's) is outdated, institutional and inadequate for this aging campus population. The recommendation is to build new, modern assisted living apartments to serve the needs of our older adults.

The Moorings of Arlington Heights also wants to provide a more refined Resident Fellowship Hall to serve the religious gatherings at the community. Currently the religious gatherings are held in the Harbor Room which is a multi-purpose space. The Resident Fellowship Hall building will also have new spaces to meet market demands for resident services with a beauty shop, clinic and wellness facilities.

The overall demand for all forms of senior's housing in the northwestern suburbs is very high, not only during the initial study period (from 2014-2019) but well beyond when projected through 2040. The 2013 *Senior Housing Needs Assessment for the Northwest Suburban Housing Collaborative* reports that "there will continue to be the need for more...market rate housing to serve the increasing senior population." This project is designed to not only satisfy the needs of The Moorings contractual residents, but also to respond to the community's demand for assisted living and memory support services.

II. Goals

1. Provide a new Assisted Living building, Memory Care building, Resident Fellowship Hall building and renovate part of the wellness center in the commons building. The aforementioned new buildings and renovations will meet the demands of current and future residents' needs, support The Village of Arlington Heights' goals as delineated in the 2013 *Senior Housing Needs Assessment for the Northwest Suburban Housing Collaborative* report, and keep the Moorings current with trends and resident expectations.
2. The new Assisted Living building will replace the existing institutional Sheltered Care building. The new Assisted Living building will provide a neighborhood concept for the resident rooms providing an elegant lifestyle for assisted living residents.
3. The new Memory Care building provides a new critical level of health care service for the Moorings. The new building provides 20 beds of memory care in a small house context.
4. The new Resident Fellowship Hall provides a refined religious gathering space, beauty salon and expanded wellness spaces centrally located on the campus. The additional new spaces included with the Resident Fellowship Hall will enhance resident services and respond to the fact that "Seniors are looking for more educational, health and fitness opportunities in addition to social activities..." according to the 2013 *Senior Housing Needs Assessment for the Northwest Suburban Housing Collaborative* report.
5. The existing commons building will include a renovated wellness center to update the pool, spa and locker rooms. The spaces are being updated because equipment and the layout of some of the spaces are outdated. The update coincides with the new wellness components being provided in the Resident Fellowship Hall.
6. A new full service kitchen in the basement of the Assisted Living building will enhance the food service menu and dining experience for the Assisted Living, Memory Care and Skilled Care buildings.

III. Description

A. Description

The proposed project will provide a new 73-bed Assisted Living building, a new 20-bed Memory Care building with basement and a new Resident Fellowship Hall building. The pool, spa and locker rooms of the existing wellness facility in the commons building are being upgraded. The existing Sheltered Care building will be demolished and 2 of the quad villas will be demolished. The new Resident Fellowship Hall will become the center of the facility. It's centrally located on the campus between all levels of care.

The existing and proposed unit counts for the facility are as follows:
(Numerous apartment units have been combined, and will continue to be combined, over the years to meet market demand for larger units. This has, and will continue to, reduce the overall number of apartment units.)

Unit Counts			
Year	2006 PUD Allowance	Current	Proposed
Apartment Units	262	212	202
Villa Units	87	81	73
Independent Living Total	349	293	275
Skilled Care beds		105	105*
Sheltered Care beds		45	-
Assisted Living beds		-	73
Memory Care beds		-	20
High Care Total Beds		150	198*

* In order to meet the needs and the lifestyle expectations of our residents we expect to convert many of our semi-private skilled care rooms to private rooms, which may reduce skilled care occupancy by as many as 35 beds.

B. Square Footage

New Square Footage

New Assisted Living:	118,715 S.F.
New Memory Care:	31,645 S.F.
<u>Resident Fellowship Hall:</u>	<u>26,700 S.F.</u>
Total:	177,060 S.F.

Revised Square Footage

Commons Building Renovation:	8,136 S.F.
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C. Design

The design of the new buildings on the Moorings campus were developed to relate to the characteristics of the adjacent residential neighborhoods and draw from the positive qualities of the existing campus buildings. The materials are consistent for all new buildings, but their arrangements are unique to each building. The materials evolved from the existing campus and neighborhood palette to create an updated residential character.

The new Resident Fellowship Hall spans between the existing buildings and the new Assisted Living and Memory Care buildings. The steep cross

gable roof over the sanctuary centers the building on the campus. The simple but commanding appearance gives the building a stable yet inviting exterior. The windows open the building to the pond to the south and the Cloister Garden to the north.

The Assisted Living Building is a residentially scaled building with a gable roof. The grade rises up one story to the entry on the north end of the building giving it a smaller appearance. The mass of the building is not a straight line north to south. The undulations in the mass break down the length of the building. They also accentuate the grouping of the Assisted Living neighborhoods within the building. The exterior façade is broken down with a combination of multiple building materials and residential massing elements. Bay windows emphasize each resident room and provide vertical elements on the exterior. Cross gable and nested cross gable elements break up the roof line and coordinate with the bay windows locations. The material placement extends both horizontally and vertically to provide a residential scale and quality.

The Memory Care building is a one story building with a basement. The building spaces facing the campus road are made up of mostly resident rooms. This façade uses the same multiple materials as the other new buildings. Gable roof elements break up the roof line and coordinate with the square window bays in the resident rooms. The casement windows are proportioned and scaled to present a residential character. The façade of the building that faces the courtyard is flooded with daylight. The social spaces (activity rooms, dining room, living rooms) are on this side of the building. The windows are larger on this elevation. The center of this façade is accentuated with an engaged octagonal element that has a trellis wrapped around it creating a porch-like feel.

D. Height

The Moorings property is currently zoned I-PUD. The typical I-Institutional zoning district limits development to 45' and 4-stories.

When The Moorings property was re-zoned from R-1 to I-PUD in 1985 there was a variation included "to permit the construction of buildings up to five stories in heights, with an average of 49.5 feet at the highest point".

Below is the definition of Building Height from Arlington Heights:

3.2-28 Building Height. The vertical distance measured from the sidewalk level or its equivalent established grade opposite the middle of the front of the building to the highest point of the roof in the case of a flat roof; to the deck line of a mansard roof; and to the mean height level between eaves

and ridge of a gable, hip or gambrel roof; provided that where buildings are set back from the street line, the height of a building may be measured from the average elevation of the finished lot grade at the front of the building.

All of the proposed buildings are below the previously approved building height restriction of 49.5 feet. The perceived height of the new buildings is lower because of their relationship to the existing buildings on the site and their sloped roofs with significantly lower eave height. The following are the heights of the proposed buildings:

Assisted Living:	48'-4" (includes sloped roof) 42'-8" (eave height)
Resident Fellowship Hall:	35'-5" (includes sloped roof) 23'-2" (eave height)
Memory Care:	24'-7" (includes sloped roof) 15'-3" (eave height)

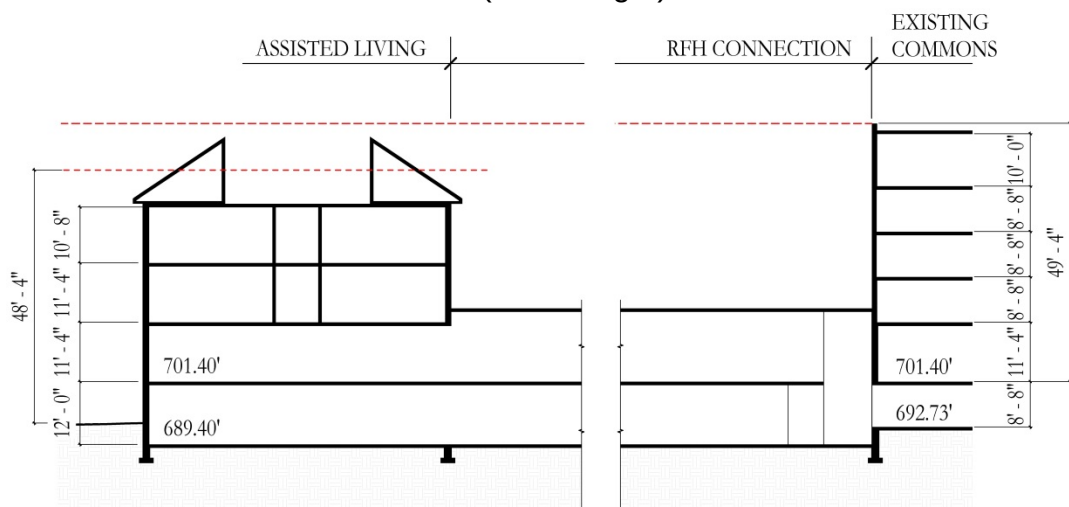


Figure 1: Assisted Living Roof Height

E. Exterior Building Materials

The exterior materials for the proposed buildings have been selected to complement the existing buildings, draw inspiration from adjacent neighborhoods and create a fresh look for the campus.

All of the proposed buildings have a brick base. The brick color matches the brick on the most recently built villas. The color blends with the brick on existing buildings. The height of the brick varies as it wraps around the buildings to break up the mass and add emphasis where desired (A.L. entrance, Resident Fellowship Hall, transitional corners of the building,

etc.) Exterior Insulation Finish System (EIFS) and fiber cement lap siding are used above the brick base. The EIFS is a lighter color (Amarillo White) and serves as a backdrop for the fiber cement siding. The fiber cement siding has a textured finish and is a mixture of 2 colors (Khaki Brown and Autumn Tan). The fiber cement siding is used horizontally and vertically to breakdown mass, provide a play in texture and color, and reflect on residential style. The bay windows are clad in a smooth white fiber cement finish. The color and texture emphasize the bay window element against the siding and EIFS backdrop.

F. Roof

The sloped roofs reinforce the residential scale and character of the buildings and serve to reduce the overall appearance of the new building heights.

A gable roof is used on the Assisted Living and Memory Care buildings to be consistent with the residential style. The gable roof is generally covered with 30 year, high definition asphalt shingles. There are a few areas where a standing seam metal roof is used to emphasize points of interest (A.L. Porte Cochere, Memory Care octagonal element, etc.). There is a well in the center of the gable roof that hides mechanical units and other rooftop equipment. Cross gables and nested gables within the cross gables are used to break up the roof line and emphasize the bay window locations.

The Resident Fellowship Hall has a cross gable roof element over the sanctuary. There are flat roofs on either side of the cross gable roof to help emphasize this element. There is no mechanical equipment on the roof of the Resident Fellowship Hall.

G. Project Plan

The project plan centrally locates the new Resident Fellowship Hall on The Moorings campus to be easily accessible by all residents and specifically to be sensitive to Skilled Care and Assisted Living residents' travel distances to daily activities. It also introduces a second service kitchen on the ground floor of the new Assisted Living building and a dedicated service corridor that connects vertically to buildings, separating service carts and the associated traffic from resident corridors. The new Assisted Living and Memory Care buildings are adjacent to each other and share a new, common entry. The Memory Care building takes advantage of the new Cloister Garden to provide a therapeutic, secure outdoor space accessible to memory care residents.

H. Site Design

1. Parking and Traffic

See Separate Parking & Traffic Summary and Exhibits included in this submittal.

2. Utilities and Storm Water Management

a. Water

The Moorings water system provides potable water and fire protection to the 41 acre campus. The existing system is fed by two 10-inch connections to public water main. One of the connections is located near the southwest corner of the campus and connects to water main along Douglas Avenue. The second connection is located at the northwest corner of the campus and connects to watermain along Central Avenue. There are three campus sub-systems, all comprised of 10-inch water main, that serve separate areas of the campus. These systems are comprised of a southern loop that primarily serves the main building and villas south of Moorings Drive, a northern loop that primarily serves the villas north of Old Barn Lane, and a partial loop that is comprised of public watermain on Douglas Avenue and watermain along Moorings Drive that serves the villas west of Moorings Drive.

During all phases of site improvements the existing loops will be maintained and improved upon where necessary to accommodate the new building footprints. The systems being improved during these phases of development include the southern and western loops that will be shifted to accommodate the site design. Fire hydrants will be placed in these areas of improvement, where not existing, at intervals meeting Village of Arlington Heights approval.

b. Sanitary

The sanitary systems serving The Moorings campus are comprised of three lines that make connections to a 21" public sewer located on the south side of Central Avenue. The systems are comprised of a 10" line running south to north along Moorings Drive, an 8" line serving the northern villas, and a 12" line that runs west to east along the southern end of the campus and then north to Central Road.

These existing sewer mains will not be affected during these phases of improvement and will remain in place. Existing services no longer required will be removed. It is anticipated that new sanitary service connections for the Assisted Living and Memory Care buildings will be made on the existing 10-inch line running along Moorings Drive. Calculations will be performed to ensure that the existing line has excess capacity for these new connections.

c. Storm Sewer and Storm Water Management

Storm Water Management

The Moorings campus detention system currently provides detention for the entire 41 acre campus. This system was permitted through the Village of Arlington Heights and the Metropolitan Water Reclamation District in 1987. The Moorings Metropolitan Water Reclamation District permit number is 87-787.

The detention system is comprised of five separate detention basins: West Lake, Southwest Basin, North Basin, East Lake, and Southeast Basin. Of the approximately 7.75 acres being improved for this project, most will be tributary to West Lake.

Areas of proposed improvement will be designed to meet or exceed the updated storm water management standards set for by both the Village of Arlington Heights and the Metropolitan Water Reclamation District. Some of these standards include a reduced release rate from West Lake, thereby reducing the storm water runoff downstream during large rain events. Another is the infiltration of the first 1-inch of rainfall from hard surfaces, thereby affectively reducing the intensity of large rain events and re-charging local ground water systems. To accomplish this, the footprint of West Lake will be expanded and infiltration basins will be provided throughout the areas of improvement to hold storm water runoff until it is able to infiltrate into the ground naturally.

The restricted storm water release from West Lake will remain tributary to the 48-inch sewer running west to east beneath an existing swale at the south end of the campus.

Storm Sewer

Storm water is conveyed to West Lake through two pipe networks. One located to the northwest of the lake that conveys storm water from the north end of the site and one that conveys runoff from the Skilled Care courtyard. To account for the new building footprints, both systems will be re-designed and improved. The northwest system will be removed and re-designed beginning at the intersection of Moorings Drive and Old Barn Lane while the courtyard system will be removed entirely and replaced with an improved system. The new systems will be designed to convey the 100-year runoff, rather than the typical 10-year runoff, from the improved site and will include infiltration basins to reduce runoff to West Lake.

3. Landscape Design

As part of the proposed building program, Presbyterian Homes seeks to maintain a beautifully landscaped character for the benefit of The Moorings campus residents, visitors, and staff. The proposed landscape development plan is designed to maintain and enhance the existing campus landscape character while also creating new site amenities for the enjoyment of residents. The carefully planned landscape design for the proposed new Assisted Living, Memory Care and Resident Fellowship Hall buildings seeks to accentuate views of the existing pond as a central community focal element while also defining a new internal “Cloister Garden” courtyard. The plan is designed to seamlessly integrate and enhance the overall image of the campus while meeting or exceeding the intent set forth in the Village of Arlington Heights’ landscape and tree preservation codes and ordinances.

The Landscape Development Plan depicts proposed improvements to those targeted campus areas affected by the planned new facilities. Plant materials have been carefully selected to not only provide year round visual interest and an effective transition to existing campus buildings and landscape material, but also to be low maintenance and durable. The plan depicts several seating areas and garden nodes around the pond and building foundations, most notably in the central “Cloister Garden” courtyard. This controlled access courtyard area serves a range of residents and provides several fountains and raised accessible planting beds allowing for contemplative and interactive outdoor opportunities. A meandering walking loop path frames an informal open central lawn

and connects to a secure sensory garden for memory care residents.

Existing trees and vegetation located adjacent to the perimeter of the proposed site will remain protected at all times and in areas where construction activities require removal, preservation techniques will be implemented in order to preserve those trees not located within new building or paving areas. A mix of deciduous, ornamental and evergreen trees will be planted in replacement of trees removed.

Shade trees including a variety of Maple, Ginkgo, Honeylocust, Oak, Linden, Pear and Elm will be installed at sizes ranging from 3-inch caliper to 14' height clump form. Eight to twelve-foot Fir and Spruce evergreen trees will be provided for both year-round interest and targeted screening and buffering and four to ten-foot height single and multi-stem ornamental trees including Serviceberry, Birch, Hornbeam, Red Bud, Dogwood, Magnolia, Crabapple and Lilacs are used as accent elements throughout the site planting palette. Additionally, flowering and evergreen shrubs and perennials and groundcover serve as understory unifying elements adjacent to and throughout foundation landscape beds.

4. Site Lighting

Site Lighting will be provided to accommodate the new buildings on campus. The parking areas and building entrances have been designed to meet Illuminating Engineering Society (IES) standards for safe lighting levels and comply with the Villagr photometric standards. The roadway lighting levels are developed to be consistent with the current campus standards. The lighting fixtures will have cut-off devices to eliminate light glare into adjacent resident windows. The site lighting is accomplished with street pole lights, pedestrian pole lights and bollard lighting.

5. Project Data

a. Site Area

The Moorings Lot Size 41.0 Acres

b. Buildings

Building Coverage Ratio

Existing	0.15
Proposed	0.17

Building Floor Area

Existing	475,944 S.F.
Net Proposed	<u>123,889 S.F.</u>
Total	599,833 S.F. (33.6% of allowable area)
Total Allowable	1,785,223 S.F.

Building Lot Coverage

Existing	266,880 S.F.
Net Proposed	<u>37,175 S.F.</u>
Total	304,055 S.F. (42.5% of allowable coverage)
Total Allowable	715,423 S.F.

IV. Zoning Requirements

A. Request

The proposed request is for an amendment to the existing Planned Unit Development. The following modifications are requested:

1. Build a new 2 story Resident Fellowship Hall
2. Build a new 4 story Assisted Living building
3. Build a new 1 story (w/basement) Memory Care building
4. Demolish the existing Sheltered Care building
5. Demolish (2) quad villas

B. Variation

The Moorings of Arlington Heights is requesting one variation from the Village Ordinance/Code on parking requirements.

The proposed plan provides *a cumulative on-site parking supply for 538 spaces*. This includes 11 accessible spaces, which meets the accessible parking requirements. Through the planned new facilities modifications to the site, (58) spaces will be **removed** in order to implement the proposed site plan. A total of (78) new spaces will be **added**, *creating a net cumulative gain of 20 new spaces provided on-site*.

The *Village ordinance-regulated* parking requirement of 543 *cumulative spaces* for the proposed plan was calculated based on the Village of Arlington Heights' *current* Zoning Ordinance. This calculation, detailed in the chart on the following page, includes all *campus* unit requirements and

Presbyterian Homes' interpretation of the requirements for the proposed Resident Fellowship Hall. ***We believe a parking variation for the Resident Fellowship Hall is warranted based on our planned and historical use of this space as noted in our discussion below.***

Planned Resident Fellowship Hall Parking Demand

The Village of Arlington Heights parking requirement calculations assume that the proposed Resident Fellowship Hall is similar and consistent in all respects with a traditional chapel or religious facility land use. The current and planned Resident Fellowship Hall provides some of the same functions, however, it is intended solely for the use of on-site Moorings residents for various activities and programs which will not generate any significant traffic or parking need from off-campus visitors. Like many of the support facilities at this senior living community, it is designed to be connected and walkable (accessible) for the residents via an interconnected, internal pedestrian circulation system.

The hall will, on occasion, be used for memorial services. The Mooring's religious services team reports that most attendees of memorial services are from within the campus. In addition to on-site residents, memorial services typically draw 10-25 outside guests with a maximum of 20 vehicles. On very rare occasions (once every year or two) we may see a few more visitors. The Moorings has an internal parking management team that oversees and manages parking during these types of events and does not believe that there is, or will be, a lack of available parking for these types of events.

In conclusion, our calculation of the number of seats shown for the proposed Resident Fellowship Hall (486 seats) is based on the building code capacity (1 seat per seven square feet of floor space) and does not accurately reflect the proposed usage of the space.

Additionally, the Moorings of Arlington Heights has provided resident vehicle ownership data for the apartments and villas on the existing campus which is currently 0.61 vehicles per unit. Residents in the skilled care and assisted living/memory care are not able to drive. Forty-three percent of the residential units do not have a vehicle. A parking survey of the campus was also completed to better understand and anticipate demand. Based on the analysis, a total *cumulative site* parking demand of 352 vehicles is projected for the proposed additional development. This amount is well *below* both the 543 spaces *cumulative ordinance* required, and the 538 spaces proposed *within our current plan*. These conclusions and data support our belief that a parking variation for our Resident Fellowship Hall use is warranted.

**Table 1: Zoning Code Requirements for
The Moorings Proposed Plan**

Unit Type	Units	Zoning Code Requirement	Total Spaces
Senior Apartments	202	One Space per Unit	202.0
Senior Villas	73	Two Spaces per Unit	146.0
Skilled Care	105	One Space per Two Beds	52.5
Assisted Living	70	One Space per Two Beds	35.0
Assisted Living: Memory Care	20	One Space per Two Beds	10.0
Resident Fellowship Hall	486 ⁽¹⁾ seats	One Space for each 5 Seats	97.2
	470		542.7 (445.5)⁽²⁾

(1) Approximately 3,400 sq. ft. at 7 sq. ft. per person = 486 seats

(2) Requirement without Resident Fellowship Hall

C. Project Schedule

1. Design

The design and construction document schedule is to be completed by the summer of 2016. This includes approvals from all required agencies (Village of Arlington Heights, Illinois Department of Public Health, Metropolitan Water Reclamation District and the Illinois Environmental Protection Agency).

2. Construction

Construction is scheduled to begin in July of 2016.

Construction phasing is shown on drawing A001 in the Volume I drawings.

Phase I and IA include the demolition of 2 existing quad villas and the construction of the Resident Fellowship Hall and the Assisted Living building. This phase is expected to last 15 months.

Phase II and IIA include the demolition of the existing Sheltered Care and the construction of the Memory Care. This phase is expected to last 18 months.

D. Neighbor Communication

The Moorings will schedule and conduct the required neighbor meetings prior to the scheduled Plan Commission Meeting.

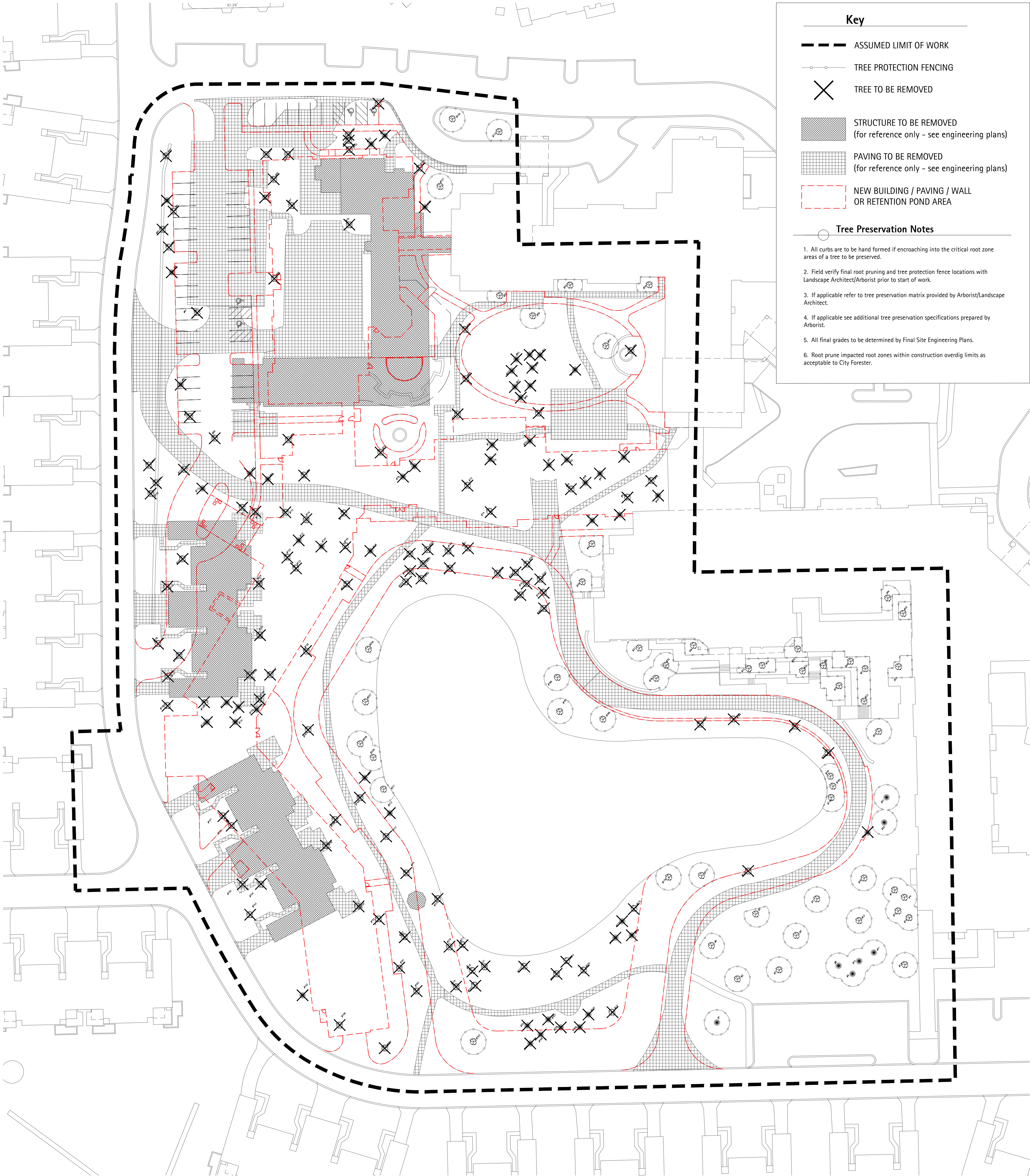
811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005

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AERIAL IMAGE OF CAMPUS

VOLUME I CIVIL DRAWING NO.: 2014104 COMMISSION NO.: 2014104		RENDERING DATE: 06/26/2015 SCALE: AS NOTED		REVISIONS NO. DATE DESCRIPTION		FOR THE MOORINGS OF ARLINGTON HEIGHTS PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005 DRAWN BY: J.S.D. COORDINATED BY: C.S.L. CHECKED BY: J.F.H. APPROVED BY: C.P.K.		rtps architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP		PLANNING COMMISSION SUBMISSION	THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF RLPS ARCHITECTS, P.C. AND IS NOT TO BE REPRODUCED WITHOUT THE ARCHITECT'S PERMISSION AND UNLESS IT BEARS THE NAME OF THE ARCHITECT. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.	
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Key

ASSUMED LIMIT OF WORK

TREE PROTECTION FENCING

TREE TO BE REMOVED

STRUCTURE TO BE REMOVED
(for reference only - see engineering plans)

PAVING TO BE REMOVED
(for reference only - see engineering plans)

NEW BUILDING / PAVING / WALL
OR RETENTION POND AREA

Tree Preservation Notes

1. All curbs are to be hand formed if encroaching into the critical root zone areas of a tree to be preserved.

2. Field verify final root pruning and tree protection fence locations with Landscape Architect/Arborist prior to start of work.

3. If applicable refer to tree preservation matrix provided by Arborist/Landscape Architect.

4. If applicable see additional tree preservation specifications prepared by Arborist.

5. All final grades to be determined by Final Site Engineering Plans.

6. Root prune impacted root zones within construction overdig limits as acceptable to City Forester.

TREE INVENTORY				
Location: The Moorings, 811 E. Central, Arlington Heights, IL				
Date: March 27, 2015				
Condition: 5= Excellent 4= Good 3= Fair 2= Poor 1= Dead				
Tag No.	Size (dbh)	Species	Condition	Location
1	11"	Austrian Pine	5	SE at Green Canopy
2	7"	Red Maple	5	SE at Green Canopy
3	12"	Green Ash	3	SE at Green Canopy
4	6"	Hybrid Maple	5	SE at Green Canopy
5	3"	Norway Maple	5	SE at Green Canopy
6	3"	Burr Oak	5	SE at Green Canopy
7	6.0	Amur Maple	5	SE at Green Canopy
8	12"	Scots Pine	5	SE at Green Canopy
9	14"	Scots Pine	5	SE at Green Canopy
10	12"	Austrian Pine	5	SE at Green Canopy
11	13"	Scots Pine	5	SE at Green Canopy
12	16"	Honey Locust	5	SE at Green Canopy
13	17"	Elm	5	SE at Green Canopy
14	6", 5", 6"	Amur Maple	5	SE at Green Canopy
15	7", 7"	Amur Maple	5	SE at Green Canopy
16	7", 7"	Amur Maple	5	SE at Green Canopy
17	6", 5", 5"	Amur Maple	5	SE at Green Canopy
18	10"	Maple	5	SE at Green Canopy
19	13"	Scots Pine	5	SE at Green Canopy
20	10"	Scots Pine	5	SE at Green Canopy
21	12"	Scots Pine	5	SE at Green Canopy
22	7", 6", 8", 7"	Magnolia	5	Terrace
23	6"	Bradford Pear	5	Terrace
24	10", 5", 10"	Amur Maple	4	Terrace
25	10"	Norway Maple	4	Terrace
26	3", 3", 3", 3", 3"	Serviceberry	4	Terrace
27	4"	Bradford Pear	5	Terrace
28	6"	Bradford Pear	5	Terrace
29	3", 3", 3", 3", 3"	Serviceberry	5	Terrace
30	3", 3", 3", 3"	Japanese Tree Lilac	5	Terrace
31	6" Multi-Stem	Magnolia	5	Terrace
32	11"	Norway Maple	5	Terrace
33	17" Multi-Stem	Amur Maple	5	Terrace
34	3"	Weeping Cherry	5	Terrace
35	12"	Crabapple	5	Terrace
36	3", 3"	Magnolia	5	Terrace
37	8"	Crabapple	4	Terrace
38	16"	Norway Maple	5	Terrace
39	18"	Norway Maple	5	West of Building - East of Lake
40	14"	Norway Maple	4	West of Building - East of Lake
41	11"	Scots Pine	5	West of Building - East of Lake
42	12"	Scots Pine	5	West of Building - East of Lake
43	15"	Norway Maple	5	West of Building - East of Lake
44	10"	Scots Pine	5	West of Building - East of Lake
45	13"	Norway Maple	5	West of Building - East of Lake
46	14"	Douglas Fir	5	West of Building - East of Lake
47	14"	Scots Pine	5	West of Building - East of Lake
48	11"	Scots Pine	5	West of Building - East of Lake
49	16"	Norway Maple	5	West of Building - East of Lake
50	17"	Douglas Fir	5	West of Building - East of Lake
51	11", 10"	Douglas Fir	5	West of Building - East of Lake
52	17"	Concolor Fir	5	West Patio - Inside fenced area
53	31"	Norway Maple	4	West Patio - Inside fenced area
54	6", 4"	Crabapple	4	West Patio - Inside fenced area
55	6"	Crabapple	4	West Patio - Inside fenced area
56	7", 5", 6", 5"	Amur Maple	5	West Patio - Inside fenced area
57	4", 4", 4", 4"	Japanese Tree Lilac	5	West Patio - Inside fenced area
58	28"	Honey Locust	5	West Patio - Inside fenced area
59	4", 3", 3", 4"	Japanese Tree Lilac	5	West Patio - Inside fenced area
60	10"	Blue Spruce	4	West Patio - Inside fenced area
61	10"	Blue Spruce	4	West Patio - Inside fenced area
62	15"	Blue Spruce	4	West Patio - Inside fenced area
63	13"	Blue Spruce	4	West Patio - Inside fenced area
64	9"	Blue Spruce	4	West Patio - Inside fenced area
65	11"	Blue Spruce	4	West Patio - Inside fenced area
66	10"	Blue Spruce	4	West Patio - Inside fenced area
67	10"	Blue Spruce	4	West Patio - Inside fenced area
68	14"	Blue Spruce	4	West Patio - Inside fenced area
69	25"	Sugar Maple	3	West Patio - Inside fenced area
70	15"	Douglas Fir	4	West Patio - Inside fenced area
71	10"	Douglas Fir	5	West Patio - Inside fenced area
72	28"	Norway Maple	4	West Patio - Inside fenced area
73	14"	Ginkgo	5	West of Building & Steel Shed
74	18"	Norway Maple	5	West of Building & Steel Shed
75	11"	Blue Spruce	5	West of Building & Steel Shed
76	18"	Norway Maple	5	West of Building & Steel Shed
77	14"	White Spruce	4	West of Building & Steel Shed
78	12", 10"	Austrian Pine	5	West of Building & Steel Shed
79	21"	Norway Maple	3	West of Building & Steel Shed
80	30"	Ash	4	West of Building & Steel Shed
81	22"	Silver Maple	4	West of Building & Steel Shed
82	8"	White Spruce	4	West of Building & Steel Shed
83	12"	White Spruce	4	West of Building & Steel Shed
84	20"	Elm	4	West of Building & Steel Shed
85	37"	Silver Maple	5	West of Building & Steel Shed
86	13"	Blue Spruce	5	West of Building & Steel Shed
87	11"	Norway Maple	5	West of Building & Steel Shed
88	12"	Austrian Pine	5	West of Building & Steel Shed
89	5", 5", 5"	Amur Maple	4	West of Building & Steel Shed
90	5", 5", 5", 5", 6"	Amur Maple	4	West of Building & Steel Shed
91	5", 5", 5"	Amur Maple	4	West of Building & Steel Shed
92	15"	Austrian Pine	5	West of Building & Steel Shed
93	16"	Norway Maple	5	West of Building & Steel Shed
94	29"	Honey Locust	5	West of Building & Steel Shed
95	6"	Japanese Tree Lilac	5	West of Building & Steel Shed
96	3"	Magnolia	4	West of Building & Steel Shed
97	7"	Red Maple	3	West of Building & Steel Shed
98	4"	Bradford Pear	5	West of Building & Steel Shed
99	3"	Crabapple	5	West of Building & Steel Shed
100	6", 4", 5"	Japanese Tree Lilac	5	North of Rehabilitation Services
101	4"	Japanese Tree Lilac	5	North of Rehabilitation Services
102	6", 5", 4"	Japanese Tree Lilac	5	North of Rehabilitation Services
103	20"	Austrian Pine	5	North of Rehabilitation Services
104	21"	Austrian Pine	5	North of Rehabilitation Services

105	24"	Elm	4	North of Rehabilitation Services
106	6", 7", 7"	Amur Maple	3	North of Rehabilitation Services
107	9"	Sugar Maple	4	North of Rehabilitation Services
108	7", 3"	Hemlock	5	North of Rehabilitation Services
109	5", 3", 3", 4", 4", 5"	Hawthorn	4	North of Rehabilitation Services
110	5", 6", 5", 4"	Crabapple	5	North of Rehabilitation Services
111	29"	Silver Maple	4	Northwest of Lake
112	3"	White Spruce	4	Northwest of Lake
113	29"	Honey Locust	5	Northwest of Lake
114	3" Multi-Stem	Serviceberry	5	Northwest of Lake
115	23"	Honey Locust	5	Northwest of Lake
116	4", 4", 4", 3", 3"	Crabapple	4	Northwest of Lake
117	26"	Silver Maple	4	Northwest of Lake
118	27"	Tamarack	5	Northwest of Lake
119	31"	Silver Maple	5	Northwest of Lake
120	9"	Blue Spruce	4	Northwest of Lake
121	16"	Austrian Pine	5	Northwest of Lake
122	6", 5"	Crabapple	4	Northwest of Lake
123	4", 4", 4", 5"	Crabapple	4	Northwest of Lake
124	8", 9", 8", 6", 7"	Crabapple	5	Northwest of Lake
125	16" Multi-Stem	Crabapple	5	Northwest of Lake
126	3"	Red Maple	5	Northwest of Lake
127	4"	Sugar Maple	5	Northwest of Lake
128	3"	Pagoda Dogwood	5	Northwest of Lake
129	16" Multi-Stem	Crabapple	5	Northwest of Lake
130	12"	Austrian Pine	5	Northwest of Lake
131	8"	Austrian Pine	2	Northwest of Lake
132	6", 6"	Mulberry	4	Northwest of Lake
133	7", 6"	Mulberry	4	Northwest of Lake
134	10"	Bald Cypress	5	Northwest of Lake
135	8"	Bradford Pear	4	Northwest of Lake
136	4"	Crabapple	5	Front of Unit 1085
137	4"	Crabapple	5	Front of Unit 1085
138	8" Multi-Stem	Serviceberry	5	Front of Unit 1085
139	4"	Ginkgo	5	Front of Unit 1079
140	6", 4"	Crabapple	4	Front of Unit 1075
141	7" Multi-Stem	Serviceberry	5	Front of Unit 1071
142	4", 6", 6", 5"	Crabapple	4	Front of Unit 1071
143	6", 3", 6", 4"	Crabapple	4	Front of Unit 1071
144	10"	Crabapple	4	Front of Unit 1071
145	4"	Blue Spruce	5	Back of Unit 1093
146	9", 8"	Hawthorn	5	Back of Unit 1093
147	6", 6"	Hawthorn	5	Back of Unit 1093
148	8"	Red Maple	5	Back of Unit 1097
149	7", 6", 8", 8"	Crabapple	4	Back of Unit 1097
150	18" Multi-Stem	Crabapple	5	Back of Unit 1097
151	17"	Elm	3	Back of Unit 1105
152	3"	Blue Spruce	3	Front of Unit 1105
153	7", 8", 6", 6", 6"	Crabapple	5	Front of Unit 1105
154	10"	Butternut	5	Front of Unit 1101
155	14"	Redbud	4	Front of Unit 1097
156	3", 3", 4"	Serviceberry	5	Front of Unit 1097
157	7" Multi-Stem	Serviceberry	4	Front of Unit 1093
158	3"	Beech	5	South of Unit 1105
159	3"	Red Oak	5	South of Unit 1105
160	18"	Honey Locust	5	South of Unit 1105
161	16"	Honey Locust	5	South of Unit 1105
162	11"	Honey Locust	5	South of Unit 1105
163	7"	Red Maple	5	Southwest of Lake at Road
164	9"	Austrian Pine	4	Southwest of Lake at Road
165	11"	Austrian Pine	5	Southwest of Lake at Road
166	11"	Austrian Pine	5	Southwest of Lake at Road
167	10"	Austrian Pine	4	Southwest of Lake at Road
168	11"	Austrian Pine	5	Southwest of Lake at Road
169	12"	Austrian Pine	5	Southwest of Lake at Road
170	12"	Austrian Pine	5	Southwest of Lake at Road
171	4", 4", 4"	Crabapple	4	Southwest of Lake at Road
172	11"	Austrian Pine	4	Southeast of Lake
173	17"	Austrian Pine	5	Southeast of Lake
174	16"	Austrian Pine	5	Southeast of Lake
175	9"	Red Maple	5	Southeast of Lake
176	8"	Red Maple	3	Southeast of Lake
177	8"	Red Maple	5	Southeast of Lake
178	8"	Red Maple	5	Southeast of Lake
179	9"	Quaking Aspen	5	East of Pond
180	7"	Quaking Aspen	5	East of Pond
181	7"	Quaking Aspen	5	East of Pond
182	13"	Ash	4	Northeast of Pond
183	13"	Ash	4	Northeast of Pond
184	13"	Ash	4	Northeast of Pond
185	14"	Ash	4	Northeast of Pond
186	13"	Norway Maple	2	North of Pond
187	8"	Red Maple	4	North of Pond
188	14"	Norway Maple	5	North of Pond
189	14"	Honey Locust	5	North of Pond
190	8" Multi-Stem	Crabapple	5	North of Pond
191	8" Multi-Stem	Crabapple	5	North of Pond
192	8" Multi-Stem	Crabapple	5	North of Pond
193	7" Multi-Stem	Crabapple	5	North of Pond
194	7" Multi-Stem	Crabapple	5	North of Pond
195	7" Multi-Stem	Crabapple	5	North of Pond
196	6" Multi-Stem	Crabapple	4	North of Pond
197	12"	Honey Locust	5	Northwest of Pond
198	7" Multi-Stem	Crabapple	5	Northwest of Pond
199	7" Multi-Stem	Crabapple	5	Northwest of Pond
200	7" Multi-Stem	Crabapple	5	Northwest of Pond
201	7" Multi-Stem	Crabapple	5	Northwest of Pond
202	7" Multi-Stem	Crabapple	5	Northwest of Pond
203	7" Multi-Stem	Crabapple	5	Northwest of Pond
204	7" Multi-Stem	Crabapple	5	Northwest of Pond
205	7" Multi-Stem	Crabapple	5	Northwest of Pond
206	8"	Red Maple	4	Northwest of Pond
207	8"	Red Maple	4	Northwest of Pond
208	11"	Quaking Aspen	5	West of Pond
209	8"	Red Maple	5	West of Pond
210	12"	Austrian Pine	5	West of Pond
211	11"	Honey Locust	5	West of Pond
212	17"	Austrian Pine	5	West of Pond
213	10"	Honey Locust	5	West of Pond
214	15"	Honey Locust	5	West of Pond
215	11"	Honey Locust	5	Southwest of Pond
216	6"	Crabapple	5	South of Pond
217	6"	Crabapple	5	South of Pond
218	5" Multi-Stem	Crabapple	5	South of Pond
219	5" Multi-Stem	Crabapple	5	South of Pond
220	6" Multi-Stem	Crabapple	5	South of Pond
221	7" Multi-Stem	Crabapple	5	South of Pond
222	7" Multi-Stem	Crabapple	5	South of Pond
223	5"	Bradford Pear	4	South of Pond
224	7" Multi-Stem	Crabapple	5	South of Pond
225	7" Multi-Stem	Crabapple	5	South of Pond

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THE MOORINGS OF ARLINGTON HEIGHTS

Arlington Heights,
Illinois

Presbyterian Homes

PLAN COMMISSION 6/22/2015 NOT FOR CONSTRUCTION

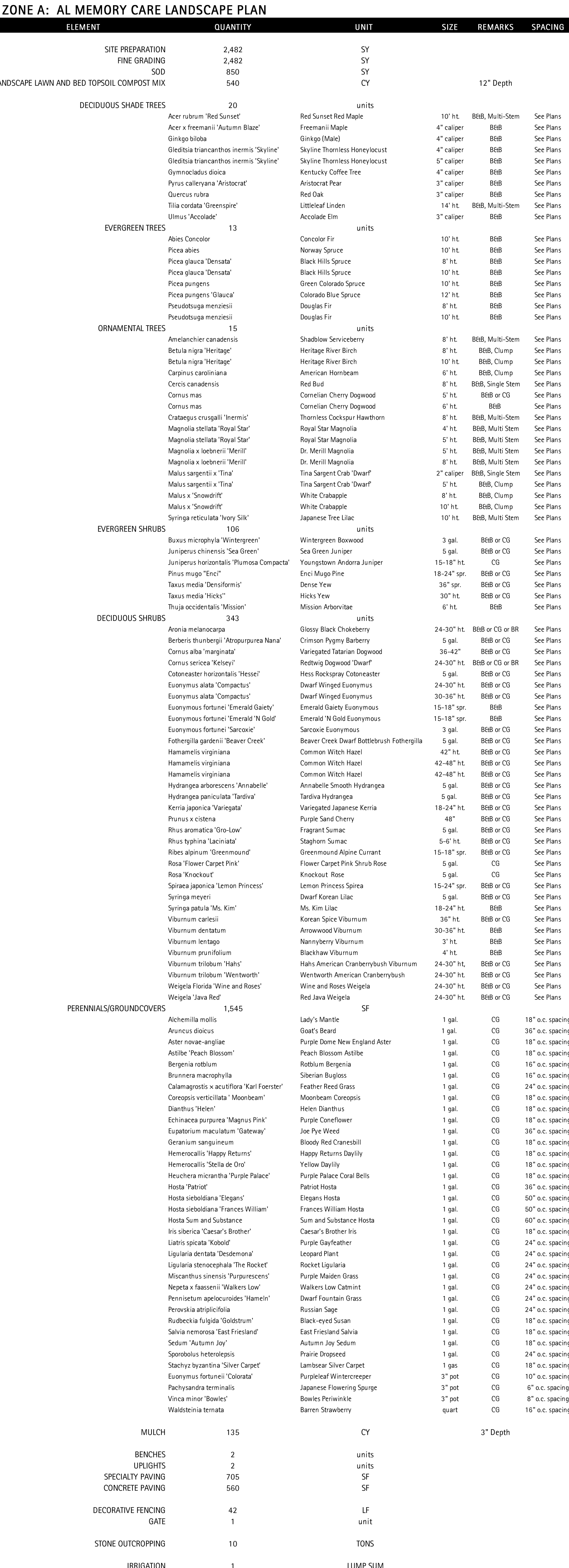
TREE SURVEY / PRESERVATION PLAN

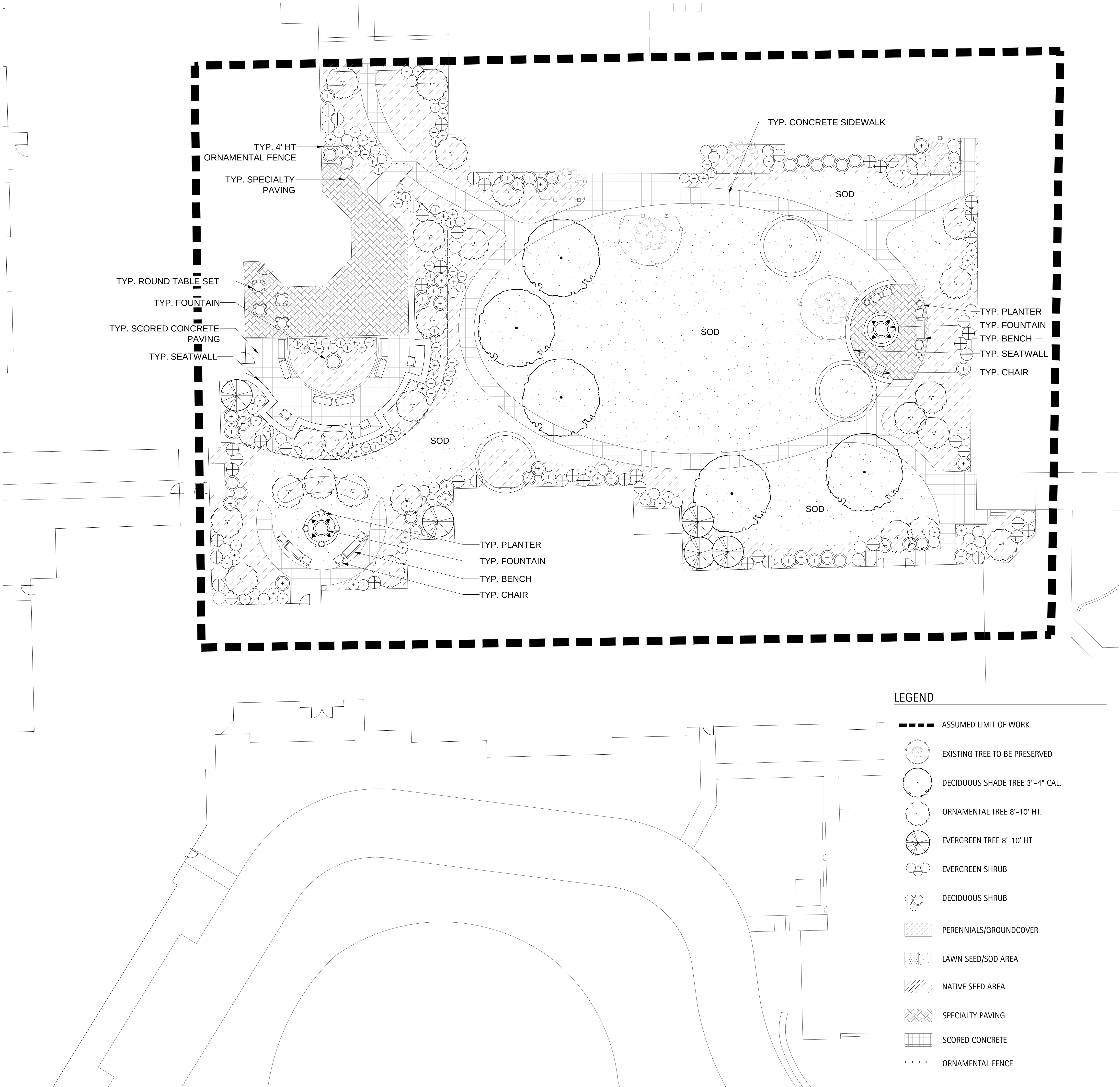
Revisions
PLAN COMMISSION 06/22/15

Date: 06/22/15
Drawn By: JW
Checked By: SF

0' 40' 80'

L-01





ZONE B: FELLOWSHIP HALL LANDSCAPE PLAN				
ELEMENT	QUANTITY	UNIT		
SITE PREPARATION	2,640	SF		
FINE GRADING	2,640	SF		
SOD	1,451	SF		
LANDSCAPE LAWN AND BED TOPSOIL COMPOST MIX	379	CY	12" Depth	
DECIDUOUS SHADE TREES	5	units		
Acer rubrum 'Red Sunset'		Red Sunset Red Maple	10' ht.	B&B, Multi-Stem
Acer x freemanii 'Autumn Blaze'		Freemanii Maple	4" caliper	B&B
Ginkgo biloba		Ginkgo (Male)	4" caliper	B&B
Gleditsia triacanthos inermis 'Skyline'		Skyline Thornless Honeylocust	4" caliper	B&B
Gleditsia triacanthos inermis 'Skyline'		Skyline Thornless Honeylocust	5" caliper	B&B
Gymnocladus dioica		Kentucky Coffee Tree	4" caliper	B&B
Pyrus calleryana 'Aristocrat'		Aristocrat Pear	3" caliper	B&B
Red Oak		Red Oak	3" caliper	B&B
Tilia cordata 'Greenspire'		Littleleaf Linden	14' ht.	B&B, Multi-Stem
Ulmus 'Accolade'		Accolade Elm	3" caliper	B&B
EVERGREEN TREES	5	units		
Abies Concolor		Concolor Fir	10' ht.	B&B
Picea abies		Norway Spruce	10' ht.	B&B
Picea glauca 'Densata'		Black Hills Spruce	8' ht.	B&B
Picea glauca 'Densata'		Black Hills Spruce	10' ht.	B&B
Picea pungens		Green Colorado Spruce	10' ht.	B&B
Picea pungens 'Glaucia'		Colorado Blue Spruce	12' ht.	B&B
Pseudotsuga menziesii		Douglas Fir	8' ht.	B&B
Pseudotsuga menziesii		Douglas Fir	10' ht.	B&B
ORNAMENTAL TREES	30	units		
Amelanchier canadensis		Shadblow Serviceberry	8' ht.	B&B, Multi-Stem
Betula nigra 'Heritage'		Heritage River Birch	8' ht.	B&B, Clump
Betula nigra 'Heritage'		Heritage River Birch	10' ht.	B&B, Clump
Carpinus caroliniana		American Hornbeam	6' ht.	B&B, Clump
Cercis canadensis		Red Bud	8' ht.	B&B, Single Stem
Cornus mas		Cornelian Cherry Dogwood	5' ht.	B&B or CG
Cornus mas		Cornelian Cherry Dogwood	6' ht.	B&B
Crataegus crusgalli 'Inermis'		Thornless Cockspur Hawthorn	8' ht.	B&B, Multi-Stem
Magnolia stellata 'Royal Star'		Royal Star Magnolia	4' ht.	B&B, Multi Stem
Magnolia stellata 'Royal Star'		Royal Star Magnolia	5' ht.	B&B, Multi Stem
Magnolia x loebneri 'Merill'		Dr. Merrill Magnolia	6' ht.	B&B, Multi Stem
Magnolia x loebneri 'Merill'		Dr. Merrill Magnolia	8' ht.	B&B, Multi Stem
Malus sargentii x 'Tina'		Tina Sargent Crab 'Dwarf'	2" caliper	B&B, Single Stem
Malus sargentii x 'Tina'		Tina Sargent Crab 'Dwarf'	3" caliper	B&B, Clump
Malus x 'Snowdrift'		White Crabapple	8' ht.	B&B, Clump
Malus x 'Snowdrift'		White Crabapple	10' ht.	B&B, Clump
Syringa reticulata 'Ivory Silk'		Japanese Tree Lilac	10' ht.	B&B, Multi Stem
EVERGREEN SHRUBS	65	units		
Buxus microphylla 'Wintergreen'		Wintergreen Boxwood	3 gal.	B&B or CG
Juniperus chinensis 'Sea Green'		Sea Green Juniper	5 gal.	B&B or CG
Juniperus horizontalis 'Plumosa Compacta'		Youngstown Andorra Juniper	15-18" ht.	CG
Pinus mugo 'Encl'		Encl Mugho Pine	18-24" spr.	B&B or CG
Taxus media 'Densiformis'		Dense Yew	36" spr.	B&B or CG
Taxus media 'Hicks'		Hicks Yew	30" ht.	B&B or CG
Thuja occidentalis 'Mission'		Mission Arborvitae	6' ht.	B&B
DECIDUOUS SHRUBS	169	units		
Aronia melanocarpa		Glossy Black Chokeberry	24-30" ht.	B&B or CG or BR
Berberis thunbergii 'Atropurpurea Nana'		Crimson Pygmy Barberry	5 gal.	B&B or CG
Cornus alba 'marginata'		Variegated Tatarian Dogwood	36-42"	B&B or CG
Cornus sericea 'Kelsey'		Redtwig Dogwood 'Dwarf'	24-30" ht.	B&B or CG or BR
Cotoneaster horizontalis 'Hesse'		Hesse Rockspray Cotoneaster	5 gal.	B&B or CG
Eucalyptus alata 'Compactus'		Dwarf Winged Eucalyptus	24-30" ht.	B&B or CG
Eucalyptus alata 'Compactus'		Dwarf Winged Eucalyptus	30-36" ht.	B&B or CG
Eucalyptus fortunei 'Emerald Gaiety'		Emerald Gaiety Eucalyptus	15-18" spr.	B&B
Eucalyptus fortunei 'Emerald 'N' Gold'		Emerald 'N' Gold Eucalyptus	15-18" spr.	B&B
Eucalyptus fortunei 'Sarcocoe'		Sarcocoe Eucalyptus	3 gal.	B&B or CG
Forthergillia gardenii 'Beaver Creek'		Beaver Creek Dwarf Bottlebrush Forthergillia	5 gal.	B&B or CG
Hamamelis virginiana		Common Witch Hazel	42" ht.	B&B or CG
Hamamelis virginiana		Common Witch Hazel	42-48" ht.	B&B or CG
Hamamelis virginiana		Common Witch Hazel	42-48" ht.	B&B or CG
Hydrangea arborescens 'Annabelle'		Annabelle Smooth Hydrangea	5 gal.	B&B or CG
Hydrangea paniculata 'Tardiva'		Tardiva Hydrangea	5 gal.	B&B or CG
Kerria japonica 'Variegata'		Variegated Japanese Kerria	18-24" ht.	B&B or CG
Prunus x cistena		Purple Sand Cherry	48"	B&B or CG
Rhus aromatica 'Glaucolow'		Fragrant Sumac	5 gal.	B&B or CG
Rhus typhina 'Laciniata'		Staghorn Sumac	5-6' ht.	B&B or CG
Ribes alpinum 'Greenmound'		Greenmound Alpine Currant	15-18" spr.	B&B or CG
Rosa 'Flower Carpet Pink'		Flower Carpet Pink Shrub Rose	5 gal.	CG
Rosa 'Knockout'		Knockout Rose	5 gal.	CG
Spiraea japonica 'Lemon Princess'		Lemon Princess Spirea	15-24" spr.	B&B or CG
Syringa meyeri		Dwarf Korean Lilac	18-24" ht.	B&B or CG
Syringa patula 'Ms. Kim'		Ms. Kim Lilac	18-24" ht.	B&B
Viburnum carlesii		Korean Spice Viburnum	36" ht.	B&B or CG
Viburnum dentatum		Arrowwood Viburnum	30-36" ht.	B&B
Viburnum lentago		Nannyberry Viburnum	3' ht.	B&B
Viburnum prunifolium		Blackhaw Viburnum	4' ht.	B&B
Viburnum trilobum 'Halls'		Halls American Cranberrybush Viburnum	24-30" ht.	B&B or CG
Viburnum trilobum 'Wentworth'		Wentworth American Cranberrybush	24-30" ht.	B&B or CG
Weigelia Florida 'Wine and Roses'		Wine and Roses Weigelia	24-30" ht.	B&B or CG
Weigelia 'Java Red'		Red Java Weigelia	24-30" ht.	B&B or CG
PERENNIALS/GROUNDCOVERS	3,070	SF		
Alchemilla mollis		Lady's Mantle	1 gal.	CG
Aruncus dioicus		Goat's Beard	1 gal.	CG
Aster novae-angliae		Purple Dome New England Aster	1 gal.	CG
Asclepias 'Peach Blossom'		Peach Blossom Asclepias	1 gal.	CG
Bergenia roburum		Roburum Bergenia	1 gal.	CG
Brunneria macrophylla		Siberian Bugloss	1 gal.	CG
Calamagrostis x acutiflora 'Karl Foerster'		Feather Reed Grass	1 gal.	CG
Coreopsis verticillata 'Moonbeam'		Moonbeam Coreopsis	1 gal.	CG
Dianthus 'Helen'		Helen Dianthus	1 gal.	CG
Echinacea purpurea 'Magnus Pink'		Purple Coneflower	1 gal.	CG
Eupatorium maculatum 'Gateway'		Joe Pye Weed	1 gal.	CG
Geranium sanguineum		Bloody Red Cranesbill	1 gal.	CG
Hemerocallis 'Happy Returns'		Happy Returns Daylily	1 gal.	CG
Hemerocallis 'Stella de Oro'		Yellow Daylily	1 gal.	CG
Heuchera micrantha 'Purple Palace'		Purple Palace Coral Bells	1 gal.	CG
Hosta 'Patriot'		Patriot Hosta	1 gal.	CG
Hosta sieboldiana 'Elegans'		Elegans Hosta	1 gal.	CG
Hosta sieboldiana 'Frances William'		Frances William Hosta	1 gal.	CG
Hosta Sum and Substance		Sum and Substance Hosta	1 gal.	CG
Iris siberica 'Caesar's Brother'		Caesar's Brother Iris	1 gal.	CG
Liatris spicata 'Kobold'		Purple Gayfeather	1 gal.	CG
Ligularia dentata 'Desdemona'		Leopard Plant	1 gal.	CG
Ligularia stenosephala 'The Rocket'		Rocket Ligularia	1 gal.	CG
Miscanthus sinensis 'Purpureuscescens'		Purple Maiden Grass	1 gal.	CG
Nepteta x faassenii 'Walkers Low'		Walkers Low Catmint	1 gal.	CG
Pennisetum apeloceuroides 'Hamelei'		Dwarf Fountain Grass	1 gal.	CG
Perovskia atriplicifolia		Russian Sage	1 gal.	CG
Rubbeckia fulgida 'Goldstrum'		Black-eyed Susan	1 gal.	CG
Salvia nemorosa 'East Friesland'		East Friesland Salvia	1 gal.	CG
Sedum 'Autumn Joy'		Autumn Joy Sedum	1 gal.	CG
Sporobolus heterolepis		Prairie Dropseed	1 gal.	CG
Stachyz byzantina 'Silver Carpet'		Lambear Silver Carpet	1 gal.	CG
Eunymus fortunei 'Colorata'		Purpleleaf Wintercreeper	3" pot	CG
Pachysandra terminalis		Japanese Flowering Spurge	3" pot	CG
Vinca minor 'Bowles'		Bowles Periwinkle	3" pot	CG
Viola dentata		Barren Strawberry	quart	CG
MULCH	95	CY	3" Depth	
BENCHES	9	units		
ROUND TABLE SETS	4	units		
CHAIRS	13	units		
UPLIGHTS	8	units		
FOUNTAINS	3	units		
ELEVATED ROLLING PLANTER	4	units		
PATH LIGHTS	8	units		
SPECIALTY PAVING	2,056	SF		
CONCRETE PAVING	7,793	SF		
DECORATIVE FENCING	177	LF		
GATE	1	unit		
CURBS	155	LF		
STONE SEAT WALLS	185	LF		
STONE OUTCROPPING	10	TONS		
IRRIGATION	1	LUMP SUM		
UNDERDRAINAGE	1	LUMP SUM		

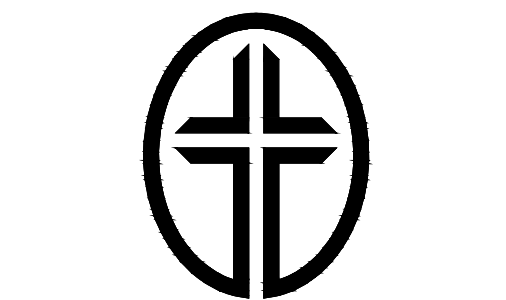
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**THE MOORINGS
OF ARLINGTON
HEIGHTS**

Arlington Heights,
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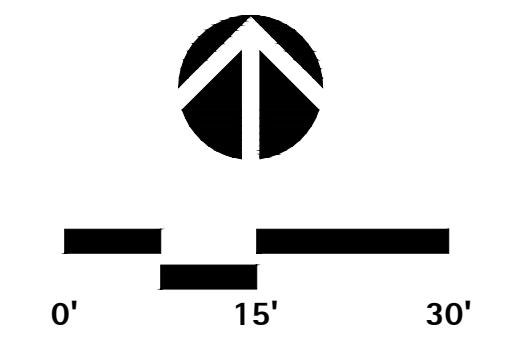
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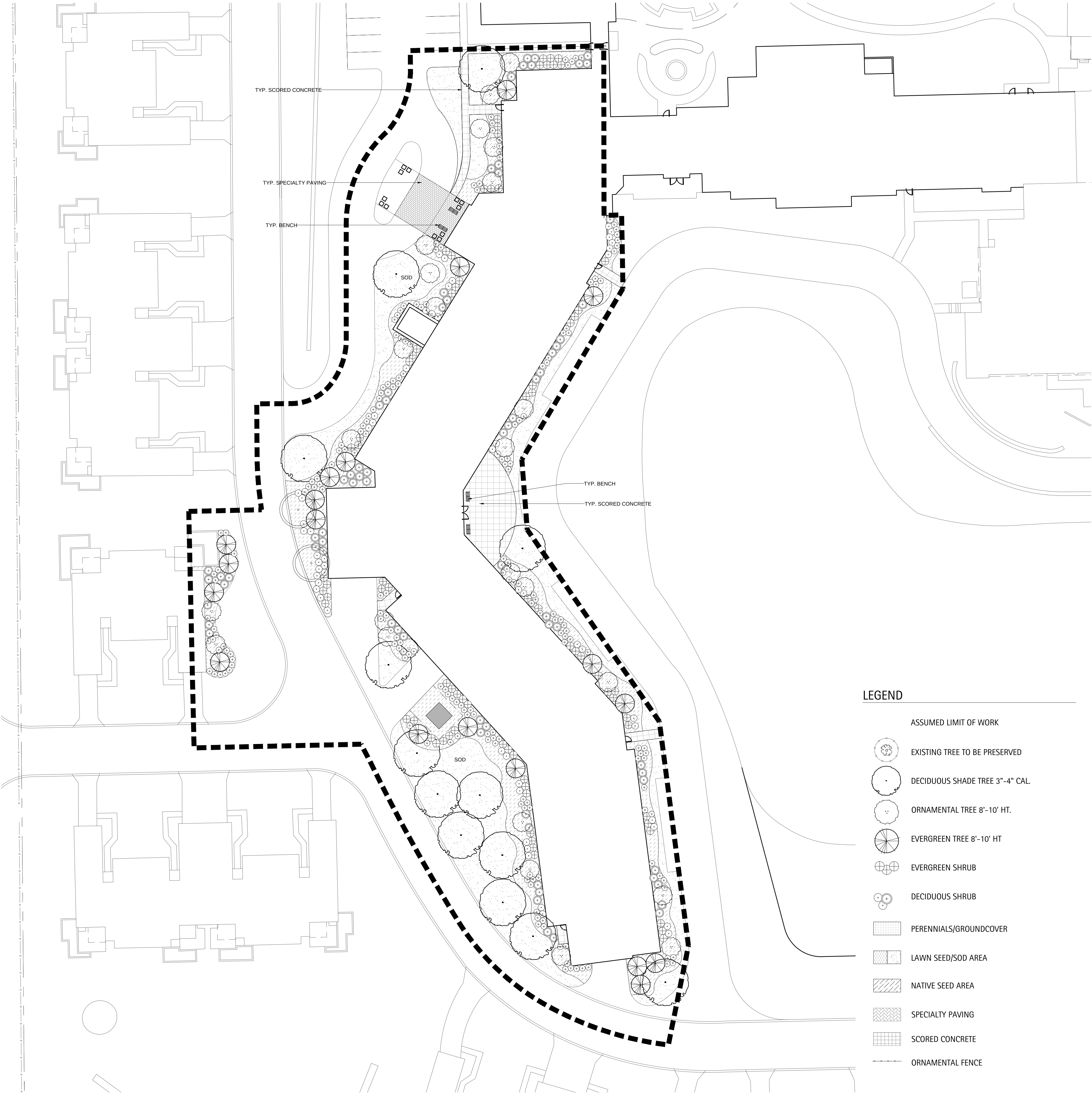
**ZONE B -
FELLOWSHIP HALL
LANDSCAPE PLAN**

Revisions
PLAN COMMISSION 06/22/15

Date: 06/22/15
Drawn By: JW
Checked By: SF



L-03



ZONE C: ASSISTED LIVING LANDSCAPE PLAN				
ELEMENT	QUANTITY	UNIT		
SITE PREPARATION	2,348	SY		
FINE GRADING	2,348	SY		
SOD	1,119	SY		
LANDSCAPE LAWN AND BED TOPSOIL COMPOST MIX	432	CY	12" Depth	
DECIDUOUS SHADE TREES	13	units		
Acer rubrum 'Red Sunset'		Red Sunset Red Maple	10' ht.	B&B, Multi-Stem See Plans
Acer x Freemanii 'Autumn Blaze'		Freemanii Maple	4" caliper	B&B See Plans
Ginkgo biloba		Ginkgo (Male)	4" caliper	B&B See Plans
Gleditsia triacanthos inermis 'Skyline'		Skyline Thornless Honeylocust	4" caliper	B&B See Plans
Gleditsia triacanthos inermis 'Skyline'		Skyline Thornless Honeylocust	5" caliper	B&B See Plans
Gymnocladus dioica		Kentucky Coffee Tree	4" caliper	B&B See Plans
Pyrus calleryana 'Aristocrat'		Aristocrat Pear	3" caliper	B&B See Plans
Quercus rubra		Red Oak	3" caliper	B&B See Plans
Tilia cordata 'Greenspire'		Littleleaf Linden	14' ht.	B&B, Multi-Stem See Plans
Ulmus 'Accolade'		Accolade Elm	3" caliper	B&B See Plans
EVERGREEN TREES	19	units		
Abies Concolor		Concolor Fir	10' ht.	B&B See Plans
Picea abies		Norway Spruce	10' ht.	B&B See Plans
Picea glauca 'Densata'		Black Hills Spruce	8' ht.	B&B See Plans
Picea glauca 'Densata'		Black Hills Spruce	10' ht.	B&B See Plans
Picea pungens		Green Colorado Spruce	10' ht.	B&B See Plans
Picea pungens 'Glaucia'		Colorado Blue Spruce	12' ht.	B&B See Plans
Pseudotsuga menziesii		Douglas Fir	8' ht.	B&B See Plans
Pseudotsuga menziesii		Douglas Fir	10' ht.	B&B See Plans
ORNAMENTAL TREES	27	units		
Amelanchier canadensis		Shadblow Serviceberry	8' ht.	B&B, Multi-Stem See Plans
Betula nigra 'Heritage'		Heritage River Birch	8' ht.	B&B, Clump See Plans
Betula nigra 'Heritage'		Heritage River Birch	10' ht.	B&B, Clump See Plans
Carpinus caroliniana		American Hornbeam	6' ht.	B&B, Clump See Plans
Cercis canadensis		Red Bud	8' ht.	B&B, Single Stem See Plans
Cornus mas		Cornelian Cherry Dogwood	5' ht.	B&B or CG See Plans
Cornus mas		Cornelian Cherry Dogwood	6' ht.	B&B See Plans
Crataegus crusgalli 'Inermis'		Thornless Cockspur Hawthorn	8' ht.	B&B, Multi-Stem See Plans
Magnolia stellata 'Royal Star'		Royal Star Magnolia	4' ht.	B&B, Multi Stem See Plans
Magnolia stellata 'Royal Star'		Royal Star Magnolia	5' ht.	B&B, Multi Stem See Plans
Magnolia x loebneri 'Merill'		Dr. Merrill Magnolia	5' ht.	B&B, Multi Stem See Plans
Magnolia x loebneri 'Merill'		Dr. Merrill Magnolia	8' ht.	B&B, Multi Stem See Plans
Malus sargentii x 'Tina'		Tina Sargent Crab Dwarf	2" caliper	B&B, Single Stem See Plans
Malus sargentii x 'Tina'		Tina Sargent Crab Dwarf	5' ht.	B&B, Clump See Plans
Malus x 'Snowdrift'		White Crabapple	8' ht.	B&B, Clump See Plans
Malus x 'Snowdrift'		White Crabapple	10' ht.	B&B, Clump See Plans
Syringa reticulata 'Ivory Silk'		Japanese Tree Lilac	10' ht.	B&B, Multi Stem See Plans
EVERGREEN SHRUBS	79	units		
Buxus microphylla 'Wintergreen'		Wintergreen Boxwood	3 gal.	B&B or CG See Plans
Juniperus chinensis 'Sea Green'		Sea Green Juniper	5 gal.	B&B or CG See Plans
Juniperus horizontalis 'Plumosa Compacta'		Youngtown Andorra Juniper	15-18" ht.	CG See Plans
Pinus mugo 'Dwarf'		Erict Mugo Pine	18-24" spr.	B&B or CG See Plans
Taxus media 'Densiformis'		Dense Yew	36" spr.	B&B or CG See Plans
Taxus media 'Hicks'		Hicks Yew	30" ht.	B&B or CG See Plans
Thuja occidentalis 'Mission'		Mission Arborvitae	6' ht.	B&B See Plans
DECIDUOUS SHRUBS	325	units		
Aronia melanocarpa		Glossy Black Chokeberry	24-30" ht.	B&B or CG or BR See Plans
Berberis thunbergii 'Atropurpurea Nana'		Crimson Pygmy Barberry	5 gal.	B&B or CG See Plans
Cornus alba 'marginata'		Variegated Tatarian Dogwood	36-42"	B&B or CG See Plans
Cornus sericea 'Kelsey'		Redtwig Dogwood 'Dwarf'	24-30" ht.	B&B or CG or BR See Plans
Cotoneaster horizontalis 'Hessei'		Hess Rockspray Cotoneaster	5 gal.	B&B or CG See Plans
Euonymus alata 'Compactus'		Dwarf Winged Euonymus	24-30" ht.	B&B or CG See Plans
Euonymus alata 'Compactus'		Dwarf Winged Euonymus	30-38" ht.	B&B or CG See Plans
Euonymus fortunei 'Emerald Gaiety'		Emerald Gaiety Euonymus	15-18" spr.	B&B See Plans
Euonymus fortunei 'Emerald 'N Gold'		Emerald 'N Gold Euonymus	15-18" spr.	B&B See Plans
Euonymus fortunei 'Sarcocoe'		Sarcocoe Euonymus	3 gal.	B&B or CG See Plans
Fothergilla gardenii 'Beaver Creek'		Beaver Creek Dwarf Bottlebrush Fothergilla	5 gal.	B&B or CG See Plans
Hamamelis virginiana		Common Witch Hazel	42" ht.	B&B or CG See Plans
Hamamelis virginiana		Common Witch Hazel	42-48" ht.	B&B or CG See Plans
Hamamelis virginiana		Common Witch Hazel	42-48" ht.	B&B or CG See Plans
Hydrangea arborescens 'Annabelle'		Annabelle Smooth Hydrangea	5 gal.	B&B or CG See Plans
Hydrangea paniculata 'Tardiva'		Tardiva Hydrangea	5 gal.	B&B or CG See Plans
Kernia japonica 'Variegata'		Variegated Japanese Kerria	18-24" ht.	B&B or CG See Plans
Prunus x cistena		Purple Sand Cherry	48"	B&B or CG See Plans
Rhus aromatica 'Gro-Low'		Fragrant Sumac	5 gal.	B&B or CG See Plans
Rhus typhina 'Laciniata'		Staghorn Sumac	6-8" ht.	B&B or CG See Plans
Ribes alpinum 'Greenmound'		Greenmound Alpine Currant	15-18" spr.	B&B or CG See Plans
Rosa 'Flower Carpet Pink'		Flower Carpet Pink Shrub Rose	5 gal.	CG See Plans
Rosa 'Knockout'		Knockout Rose	5 gal.	CG See Plans
Spiraea japonica 'Lemon Princess'		Lemon Princess Spirea	15-24" spr.	B&B or CG See Plans
Syringa meyeri		Dwarf Korean Lilac	5 gal.	B&B or CG See Plans
Syringa patula 'Ms. Kim'		Ms. Kim Lilac	18-24" ht.	B&B See Plans
Viburnum carlesii		Korean Spice Viburnum	36" ht.	B&B or CG See Plans
Viburnum dentatum		Arrowwood Viburnum	30-36" ht.	B&B See Plans
Viburnum lentago		Nannyberry Viburnum	3" ht.	B&B See Plans
Viburnum prunifolium		Blackhaw Viburnum	4" ht.	B&B See Plans
Viburnum trilobum 'Hahn'		Hahn American Cranberrybush Viburnum	24-30" ht.	B&B or CG See Plans
Viburnum trilobum 'Wentworth'		Wentworth American Cranberrybush	24-30" ht.	B&B or CG See Plans
Weigela Florida 'Wine and Roses'		Wine and Roses Weigela	24-30" ht.	B&B or CG See Plans
Weigela 'Java Red'		Red Java Weigela	24-30" ht.	B&B or CG See Plans
PERENNIALS/GROUNDCOVERS	3,500	SF		
Alchemilla mollis		Lady's Mantle	1 gal.	CG 18" o.c. spacing
Aruncus dioica		Goat's Beard	1 gal.	CG 36" o.c. spacing
Aster novae-angliae		Purple Dome New England Aster	1 gal.	CG 18" o.c. spacing
Astilbe 'Peach Blossom'		Peach Blossom Astilbe	1 gal.	CG 18" o.c. spacing
Bergenia rotblum		Rotblum Bergenia	1 gal.	CG 16" o.c. spacing
Brunnera macrophylla		Siberian Bugloss	1 gal.	CG 16" o.c. spacing
Calamagrostis x acutiflora 'Karl Foerster'		Feather Reed Grass	1 gal.	CG 24" o.c. spacing
Coneopsis verticillata 'Moonbeam'		Moonbeam Coreopsis	1 gal.	CG 18" o.c. spacing
Dianthus 'Helen'		Helen Dianthus	1 gal.	CG 18" o.c. spacing
Echinacea purpurea 'Magnus Pink'		Purple Coneflower	1 gal.	CG 18" o.c. spacing
Eupatorium maculatum 'Gateway'		Joe Pye Weed	1 gal.	CG 36" o.c. spacing
Geranium sanguineum		Bloody Red Cranesbill	1 gal.	CG 18" o.c. spacing
Hemerocallis 'Happy Returns'		Happy Returns Daylily	1 gal.	CG 18" o.c. spacing
Hemerocallis 'Stella de Oro'		Yellow Daylily	1 gal.	CG 18" o.c. spacing
Heuchera micrantha 'Purple Palace'		Purple Palace Coral Bells	1 gal.	CG 18" o.c. spacing
Hosta 'Patriot'		Hosta Hosta	1 gal.	CG 36" o.c. spacing
Hosta sieboldiana 'Elegans'		Elegans Hosta	1 gal.	CG 50" o.c. spacing
Hosta sieboldiana 'Frances William'		Frances William Hosta	1 gal.	CG 50" o.c. spacing
Hosta Sum and Substance		Sum and Substance Hosta	1 gal.	CG 60" o.c. spacing
Iris siberica 'Caesar's Brother'		Caesar's Brother Iris	1 gal.	CG 18" o.c. spacing
Liatris spicata 'Kobold'		Purple Gayfeather	1 gal.	CG 24" o.c. spacing
Ligularia dentata 'Desdemona'		Leopard Plant	1 gal.	CG 24" o.c. spacing
Ligularia stenocephala 'The Rocket'		Rocket Ligularia	1 gal.	CG 24" o.c. spacing
Miscanthus sinensis 'Purpureascens'		Purple Maiden Grass	1 gal.	CG 24" o.c. spacing
Nepeta x faassenii 'Walkers Low'		Walkers Low Catmint	1 gal.	CG 24" o.c. spacing
Pennisetum apeloocroides 'Hamelin'		Dwarf Fountain Grass	1 gal.	CG 24" o.c. spacing
Perovskia atriplicifolia		Russian Sage	1 gal.	CG 24" o.c. spacing
Rudbeckia fulgida 'Goldstrum'		Black-eyed Susan	1 gal.	CG 18" o.c. spacing
Salvia nemorosa 'East Friesland'		East Friesland Salvia	1 gal.	CG 18" o.c. spacing
Sedum 'Autumn Joy'		Autumn Joy Sedum	1 gal.	CG 18" o.c. spacing
Sporobolus heterolepis		Prince Dwarfgrass	1 gal.	CG 24" o.c. spacing
Stachys byzantina 'Silver Carpet'		Lamb's Ear Silver Carpet	1 gal.	CG 18" o.c. spacing
Euonymus fortunei 'Colorata'		Purpleleaf Wintercreeper	3" pot	CG 10" o.c. spacing
Pachysandra terminalis		Japanese Flowering Spurge	3" pot	CG 6" o.c. spacing
Vinca minor 'Bowles'		Bowles Periwinkle	3" pot	CG 8" o.c. spacing
Waldsteinia ternata		Barren Strawberry	quart	CG 18" o.c. spacing
MULCH	108	CY	3" Depth	
BENCHES	4	units		
UPLIGHTS	2	units		
SPECIALTY PAVING	786	SF		
CONCRETE PAVING	2,155	SF		
STONE OUTCROPPING	60	TONS		
IRRIGATION	1	LUMP SUM		

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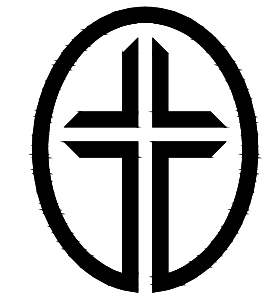
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Planning
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Arlington Heights,
Illinois

Presbyterian Homes



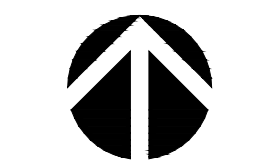
PLAN COMMISSION 6/22/2015 NOT FOR CONSTRUCTION



ZONE C - ASSISTED LIVING LANDSCAPE PLAN

Revisions
PLAN COMMISSION 06/22/15

Date: 06/22/15
Drawn By: JW
Checked By: SF

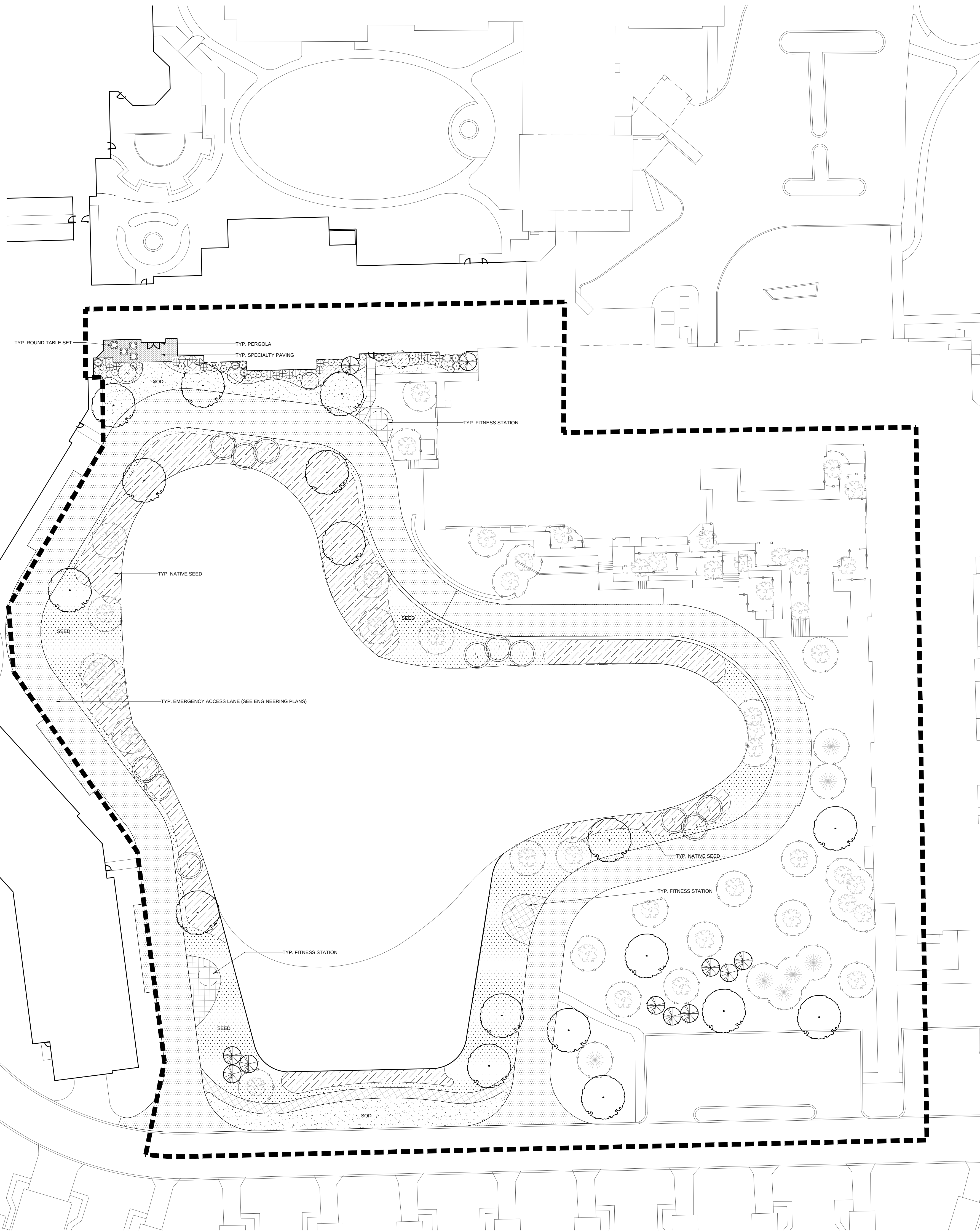


0' 25' 50'

L-04

LEGEND

■■■■ ASSUMED LIMIT OF WORK



ZONE D: RETENTION POND LANDSCAPE PLAN

ELEMENT		QUANTITY	UNIT		
LANDSCAPE LAWN AND BED TOPSOIL COMPOST MIX	SITE PREPARATION	1,773	SY		
	FINE GRADING	1,773	SY		
	SOD	498	SY		
	NATIVE SEED	1,393	CY		12" Depth
	LAWN SEED	1,542	SY		
DECIDUOUS SHADE TREES		17	units		
	Acer rubrum 'Red Sunset'		Red Sunset Red Maple	10' ht.	B&B, Multi-Stem
	Acer x freemanii 'Autumn Blaze'		Freemanii Maple	4" caliper	B&B
	Ginkgo biloba		Ginkgo (Male)	4" caliper	B&B
	Gleditsia triacanthos inermis 'Skyline'		Skyline Thornless Honeylocust	4" caliper	B&B
	Gleditsia triacanthos inermis 'Skyline'		Skyline Thornless Honeylocust	5" caliper	B&B
	Gymnocladus dioica		Kentucky Coffee Tree	4" caliper	B&B
	Pyrus calleryana 'Aristocrat'		Aristocrat Pear	3" caliper	B&B
	Quercus rubra		Red Oak	3" caliper	B&B
	Tilia cordata 'Greenspire'		Littleleaf Linden	14' ht.	B&B, Multi-Stem
	Ulmus 'Accolade'		Accolade Elm	3" caliper	B&B
EVERGREEN TREES		11	units		
	Abies Concolor		Concolor Fir	10' ht.	B&B
	Picea alba		Norway Spruce	10' ht.	B&B
	Picea glauca 'Denata'		Black Hills Spruce	8' ht.	B&B
	Picea glauca 'Denata'		Black Hills Spruce	10' ht.	B&B
	Picea pungens		Green Colorado Spruce	10' ht.	B&B
	Picea pungens 'Glaucia'		Colorado Blue Spruce	12' ht.	B&B
	Pseudotsuga menziesii		Douglas Fir	8' ht.	B&B
	Pseudotsuga menziesii		Douglas Fir	10' ht.	B&B
ORNAMENTAL TREES		16	units		
	Amelanchier canadensis		Shadow Serviceberry	8' ht.	B&B, Multi-Stem
	Betula nigra 'Heritage'		Heritage River Birch	8' ht.	B&B, Clump
	Betula nigra 'Heritage'		Heritage River Birch	10' ht.	B&B, Clump
	Carpinus caroliniana		American Hornbeam	6" ht.	B&B, Clump
	Cercis canadensis		Red Bud	8' ht.	B&B, Single Stem
	Cornus mas		Cornelian Cherry Dogwood	5' ht.	B&B or CG
	Cornus mas		Cornelian Cherry Dogwood	6' ht.	B&B
	Crataegus crusgalli 'Inermis'		Thornless Cockspur Hawthorn	8' ht.	B&B, Multi-Stem
	Magnolia stellata 'Royal Star'		Royal Star Magnolia	4' ht.	B&B, Multi Stem
	Magnolia stellata 'Royal Star'		Royal Star Magnolia	5' ht.	B&B, Multi Stem
	Magnolia x lebanensis 'Meril'		Dr. Meril Magnolia	8' ht.	B&B, Multi Stem
	Magnolia x lebanensis 'Meril'		Dr. Meril Magnolia	8' ht.	B&B, Multi Stem
	Malus sargentii x 'Tina'		Tina Sargent Crab 'Dwarf'	2" caliper	B&B, Single Stem
	Malus sargentii x 'Tina'		Tina Sargent Crab 'Dwarf'	5' ht.	B&B, Clump
	Malus x 'Snowdrift'		White Crabapple	8' ht.	B&B, Clump
	Malus x 'Snowdrift'		White Crabapple	10' ht.	B&B, Clump
	Syringa reticulata 'Ivory Silk'		Japanese Tree Lilac	10' ht.	B&B, Multi Stem
EVERGREEN SHRUBS		74	units		
	Buxus microphylla 'Wintergreen'		Wintergreen Boxwood	3 gal.	B&B or CG
	Juniperus chinensis 'Sea Green'		Sea Green Juniper	5 gal.	B&B or CG
	Juniperus horizontalis 'Plumosa Compacta'		Youngdown Andorra Juniper	15-18" ht.	CG
	Pinus mugo 'Enci'		Ernst Mugo Pine	18-24" spr.	B&B or CG
	Taxus media 'Densiformis'		Dense Yew	36" spr.	B&B or CG
	Taxus media 'Hicks'		Hicks Yew	30" ht.	B&B or CG
	Thuja occidentalis 'Mission'		Mission Arborvitae	6" ht.	B&B
DECIDUOUS SHRUBS		45	units		
	Aronia melanocarpa		Glossy Black Chokeberry	24-30" ht.	B&B or CG or BR
	Berberis thunbergii 'Atropurpurea Nana'		Crimson Pygmy Barberry	5 gal.	B&B or CG
	Cornus alba 'marginata'		Variiegated Tartarian Dogwood	36-42"	B&B or CG
	Cornus sericea 'Kelsey'		Redtwig Dogwood 'Dwarf'	24-30" ht.	B&B or CG or BR
	Cotoneaster horizontalis 'Hesse'		Hess Rockspray Cotoneaster	5 gal.	B&B or CG
	Euonymus alata 'Compactus'		Dwarf Winged Euonymus	24-30" ht.	B&B or CG
	Euonymus alata 'Compactus'		Dwarf Winged Euonymus	30-36" ht.	B&B or CG
	Euonymus fortunei 'Emerald Gaiety'		Emerald Gaiety Euonymus	15-18" spr.	B&B
	Euonymus fortunei 'Emerald 'N Gold'		Emerald 'N Gold Euonymus	15-18" spr.	B&B
	Euonymus fortunei 'Sarcocoe'		Sarcocoe Euonymus	3 gal.	B&B or CG
	Fothergilla gardenii 'Beaver Creek'		Beaver Creek Dwarf Bottlebrush Fothergilla	5 gal.	B&B or CG
	Hamamelis virginiana		Common Witch Hazel	42" ht.	B&B or CG
	Hamamelis virginiana		Common Witch Hazel	42-48" ht.	B&B or CG
	Hamamelis virginiana		Common Witch Hazel	42-48" ht.	B&B or CG
	Hydrangea arborescens 'Annabelle'		Annabelle Smooth Hydrangea	5 gal.	B&B or CG
	Hydrangea paniculata 'Tardiva'		Tardiva Hydrangea	5 gal.	B&B or CG
	Kerria japonica 'Variegata'		Variegated Japanese Kerria	18-24" ht.	B&B or CG
	Prunus x cistena		Purple Sand Cherry	48"	B&B or CG
	Rhus aromatica 'Dro-Low'		Fragrant Sumac	5 gal.	B&B or CG
	Rhus typhina 'lacinata'		Staghorn Sumac	5-6" ht.	B&B or CG
	Ribes alpinum 'Greenmount'		Greenmount Alpine Currant	15-18" spr.	B&B or CG
	Rosa 'Flower Carpet Pink'		Flower Carpet Pink Shrub Rose	5 gal.	CG
	Rosa 'Knockout'		Knockout Rose	5 gal.	CG
	Spiraea japonica 'Lemon Princess'		Lemon Princess Spiraea	15-24" spr.	B&B or CG
	Syringa meyeri		Dwarf Korean Lilac	5 gal.	B&B or CG
	Syringa patula 'Ms. Kim'		Ms. Kim Lilac	18-24" ht.	B&B
	Viburnum carlesii		Korean Spice Viburnum	36" ht.	B&B or CG
	Viburnum dentatum		Aronwood Viburnum	30-36" ht.	B&B
	Viburnum lentago		Nannyberry Viburnum	3" ht.	B&B
	Viburnum prunifolium		Blackhaw Viburnum	4" ht.	B&B
	Viburnum trilobum 'Hahs'		Hahs American Cranberrybush Viburnum	24-30" ht.	B&B or CG
	Viburnum trilobum 'Wentworth'		Wentworth American Cranberrybush	24-30" ht.	B&B or CG
	Weigela Florida 'Wine and Roses'		Wine and Roses Weigela	24-30" ht.	B&B or CG
	Weigela 'Java Red'		Red Java Weigela	24-30" ht.	B&B or CG
PERENNIALS/GROUNDCOVERS		511	SF		
	Alchemilla mollis		Lady's Mantle	1 gal.	CG
	Arcuncus dioica		Gaia's Beard	1 gal.	CG
	Aster novae-angliae		Purple Dome New England Aster	1 gal.	CG
	Astilbe 'Peach Blossom'		Peach Blossom Astilbe	1 gal.	CG
	Bergenia rotundum		Rotblum Bergenia	1 gal.	CG
	Brunnera macrophylla		Siberian Bugloss	1 gal.	CG
	Calamagrostis x acutiflora 'Karl Foerster'		Feather Reed Grass	1 gal.	CG
	Ceropegia verticillata 'Moonbeam'		Moonteam Ceropegis	1 gal.	CG
	Dianthus 'Helei'		Helen Dianthus	1 gal.	CG
	Echinacea purpurea 'Magnus Pink'		Purple Coneflower	1 gal.	CG
	Eupatorium maculatum 'Gateway'		Joe Pye Weed	1 gal.	CG
	Geranium sanguineum		Bloody Red Cranesbill	1 gal.	CG
	Hemerocallis 'Happy Returns'		Happy Returns Daylily	1 gal.	CG
	Hemerocallis 'Stella de Oro'		Yellow Daylily	1 gal.	CG
	Heuchera micrantha 'Purple Palace'		Purple Palace Coral Bells	1 gal.	CG
	Hosta 'Patriot'		Patriot Hosta	1 gal.	CG
	Hosta sieboldiana 'Elegans'		Elegant Hosta	1 gal.	CG
	Hosta sieboldiana 'Frances Williams'		Frances Williams Hosta	1 gal.	CG
	Hosta Sun and Substance		Sun and Substance Hosta	1 gal.	CG
	Iris siberica 'Caesar's Brother'		Caesar's Brother Iris	1 gal.	CG
	Liatris spicata 'Kobold'		Purple Gayfeather	1 gal.	CG
	Ligularia dentata 'Desdemona'		Leopard Plant	1 gal.	CG
	Ligularia stenocephala 'The Rocket'		Rocket Ligularia	1 gal.	CG
	Miscanthus sinensis 'Purpureusens'		Purple Maiden Grass	1 gal.	CG
	Nepeta x faasseni 'Walkers Low'		Low Catmint	1 gal.	CG
	Pennisetum alopecuroides 'Hamenli'		Dwarf Fountain Grass	1 gal.	CG
	Penstemon atriplicifolia		Russian Sage	1 gal.	CG
	Rudbeckia fulgida 'Goldstrum'		Black-eyed Susan	1 gal.	CG
	Salvia nemorosa 'East Friesland'		East Friesland Salvia	1 gal.	CG
	Sedum 'Autumn Joy'		Autumn Joy Sedum	1 gal.	CG
	Sporobolus heterolepis		Prairie Dropseed	1 gal.	CG
	Stachys byzantina 'Silver Carpet'		Lambsear Silver Carpet	1 gas	CG
	Euonymus fortunei 'Colorata'		Purpleleaf Wintercreeper	3" pot	CG
	Pachysandra terminalis		Japanese Flowering Spurge	3" pot	CG
	Vinca minor 'Bowles'		Bowles Periwinkle	3" pot	CG
	Waldsteinia ternata		Barren Strawberry	quart	CG
MULCH		16	CY	3" Depth	
ROUND TABLE SETS		4	units		
	PERGOLA	1	allowance		
SPECIALTY PAVING		495	SF		
CONCRETE PAVING		2,533	SF		
STONE OUTCROPPING		30	TONS		
FITNESS STATIONS		3	units		
IRRIGATION		1	LUMP SUM		

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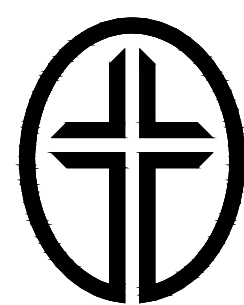
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Planning
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THE MOORINGS OF ARLINGTON HEIGHTS

Arlington Heights,
Illinois

Presbyterian Homes



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ZONE D - RETENTION POND LANDSCAPE PLAN

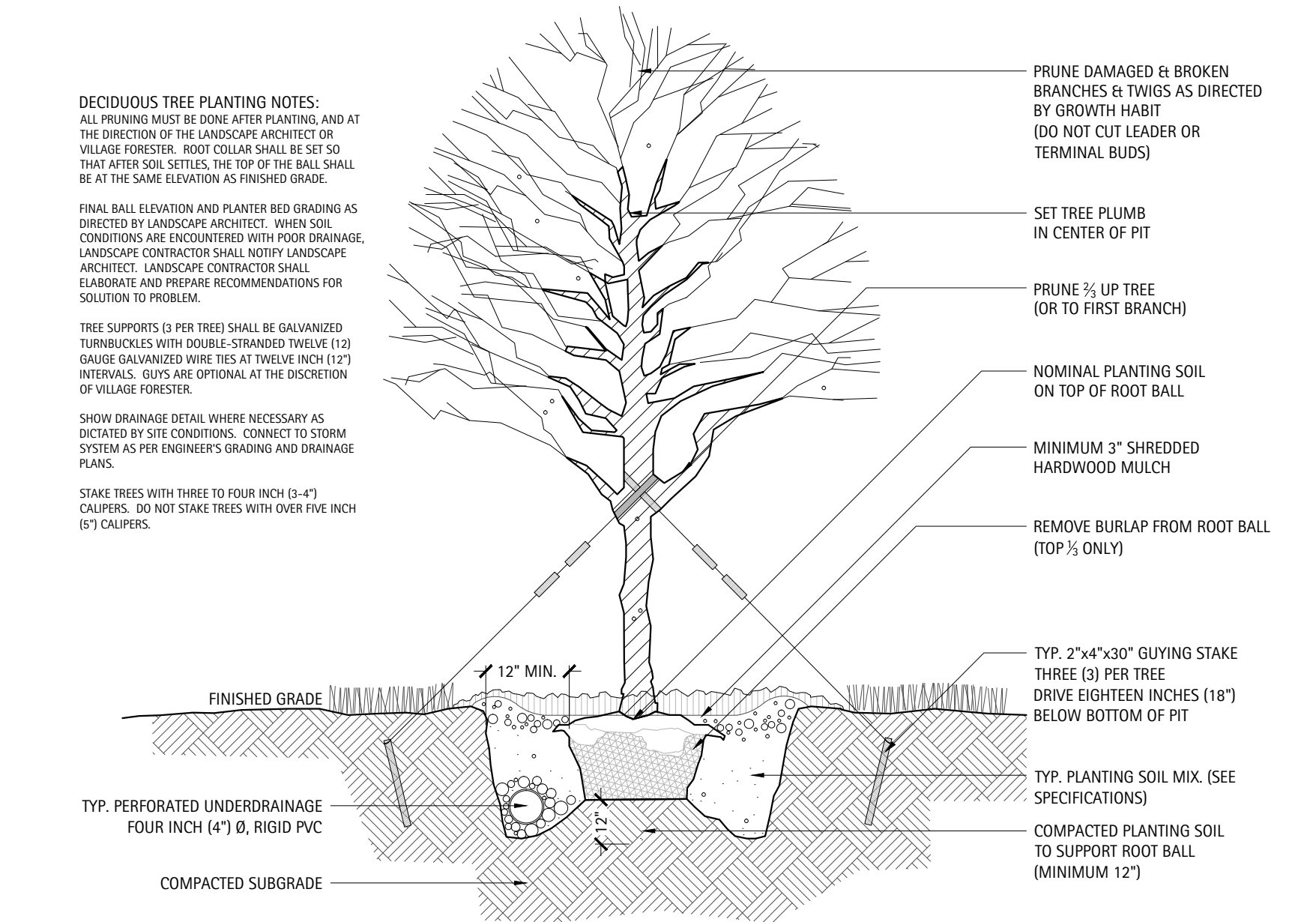
Revisions	
PLAN COMMISSION	06/22/15

Date:	06/22/15
Drawn By:	JW
Checked By:	SF



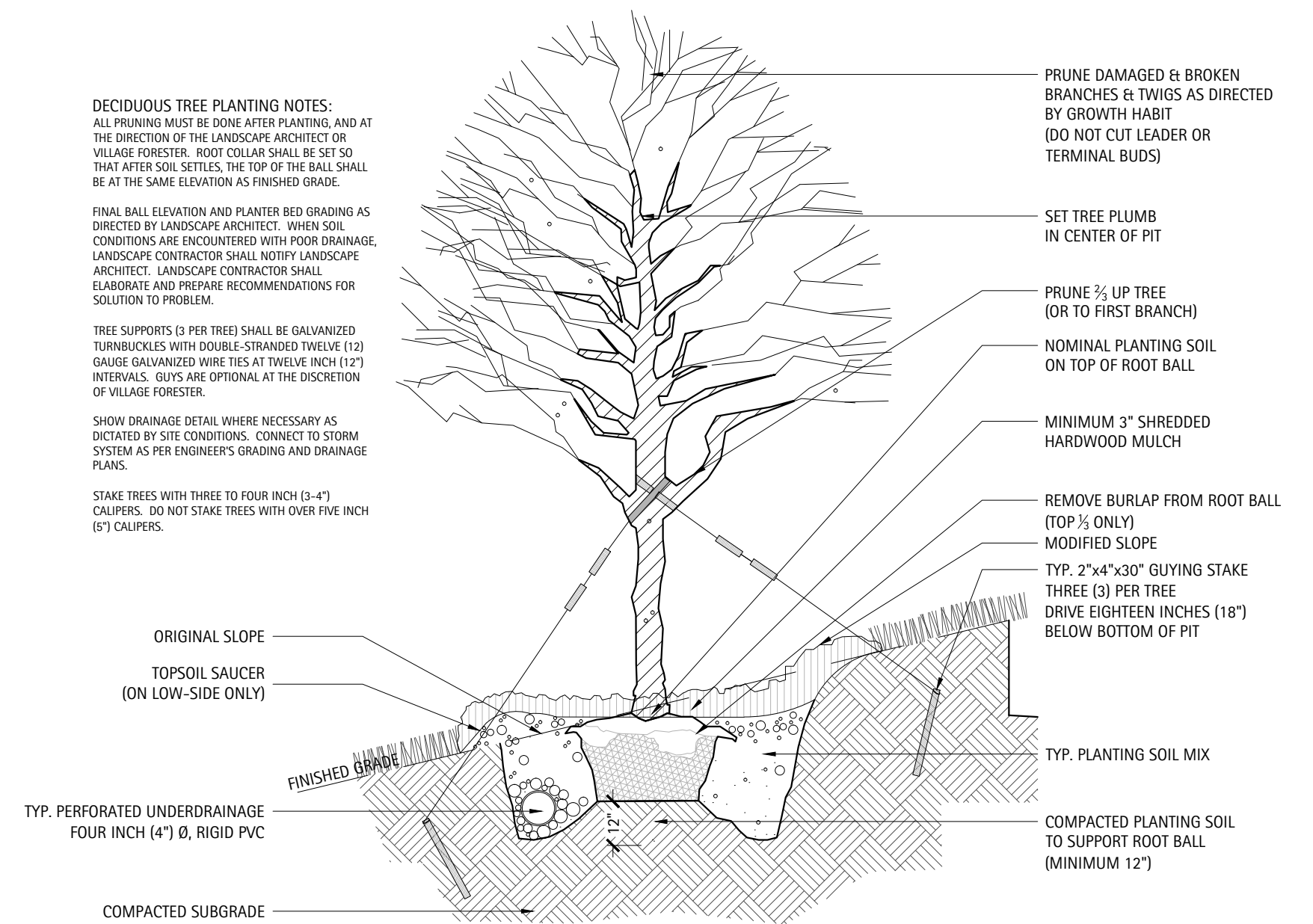
0' 30' 60

L-05



1 Typical Deciduous Tree Planting Detail

Scale: NTS



2 Typical Deciduous Tree Planting on Slope Detail

Scale: NTS

GENERAL NOTES

1. Landscape Contractor shall verify all utility locations (existing and proposed) along with existing conditions and grades (existing and proposed), and note any discrepancies to owner, Engineer, and Landscape Architect immediately, before proceeding with any work.

2. Base information for these plans was taken from Engineer's site survey, geometric, and grading plans. Contractor shall verify all dimensions and locations of existing and proposed features, and familiarize themselves with any obstacles encumbering the installation of this project.

3. Any existing tree surveys or locations for these plans were prepared by the Engineer or a certified arborist. See plans for information.

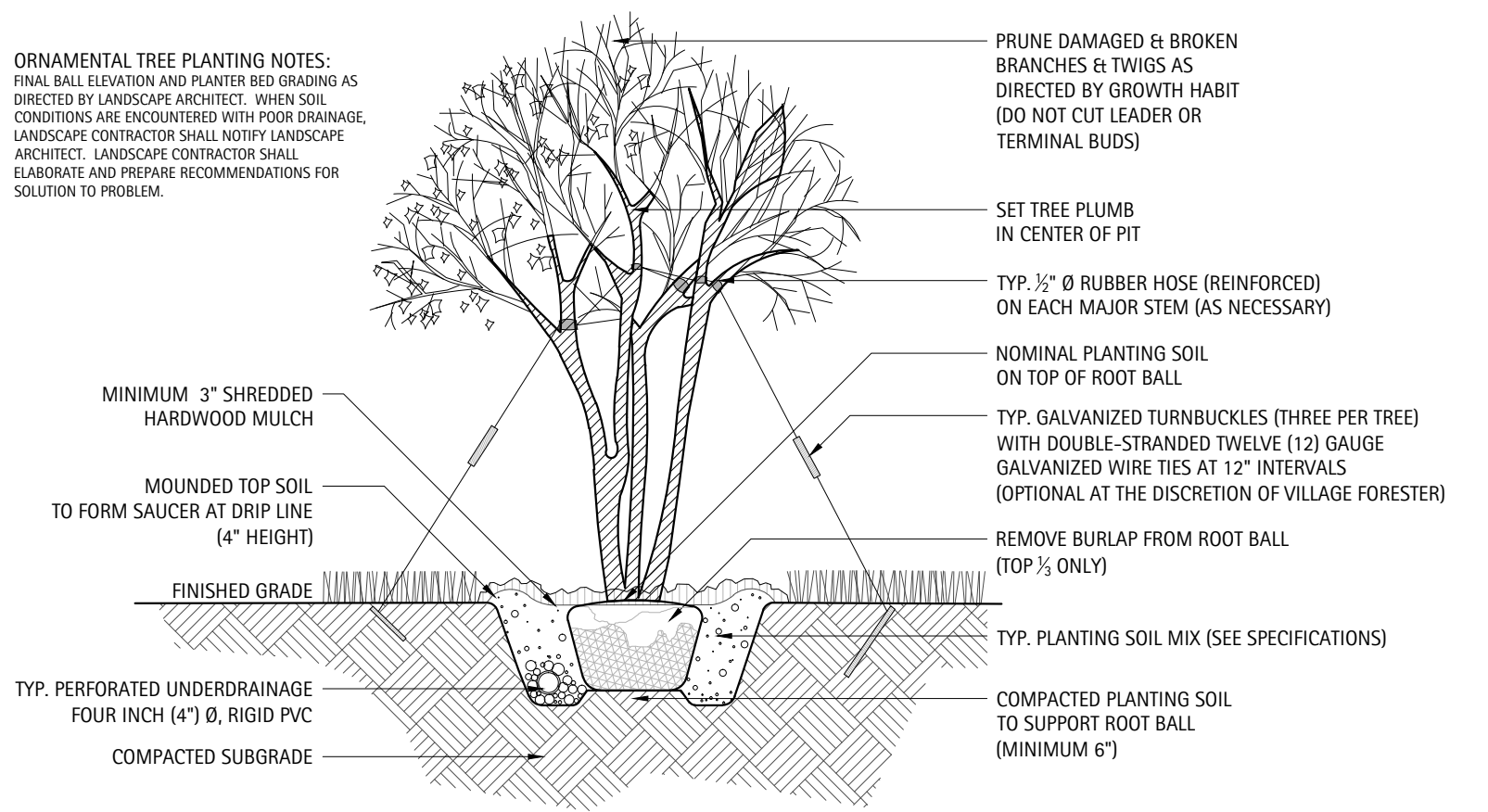
4. All soil/underground conditions shall be referred to soil testing reports prepared by the owner's consultant.

5. Any archeological information relevant to these plans shall be referred to archeological survey and reports (if appropriate to job site) by the owner's consultant.

6. All surface drainage shall be diverted away from structures and noted site features in all areas as shown on the Civil Engineer's grading plans. Surface drainage shall be diverted to existing or proposed basin structures or inlets as directed by the grading plans. Any site underdrainage as shown in the landscape drawings shall be provided at Landscape Architect's direction. Where poor subsurface drainage conditions occur in the field, Contractor shall notify Landscape Architect immediately and make recommendations for solutions to drainage issues before proceeding with work.

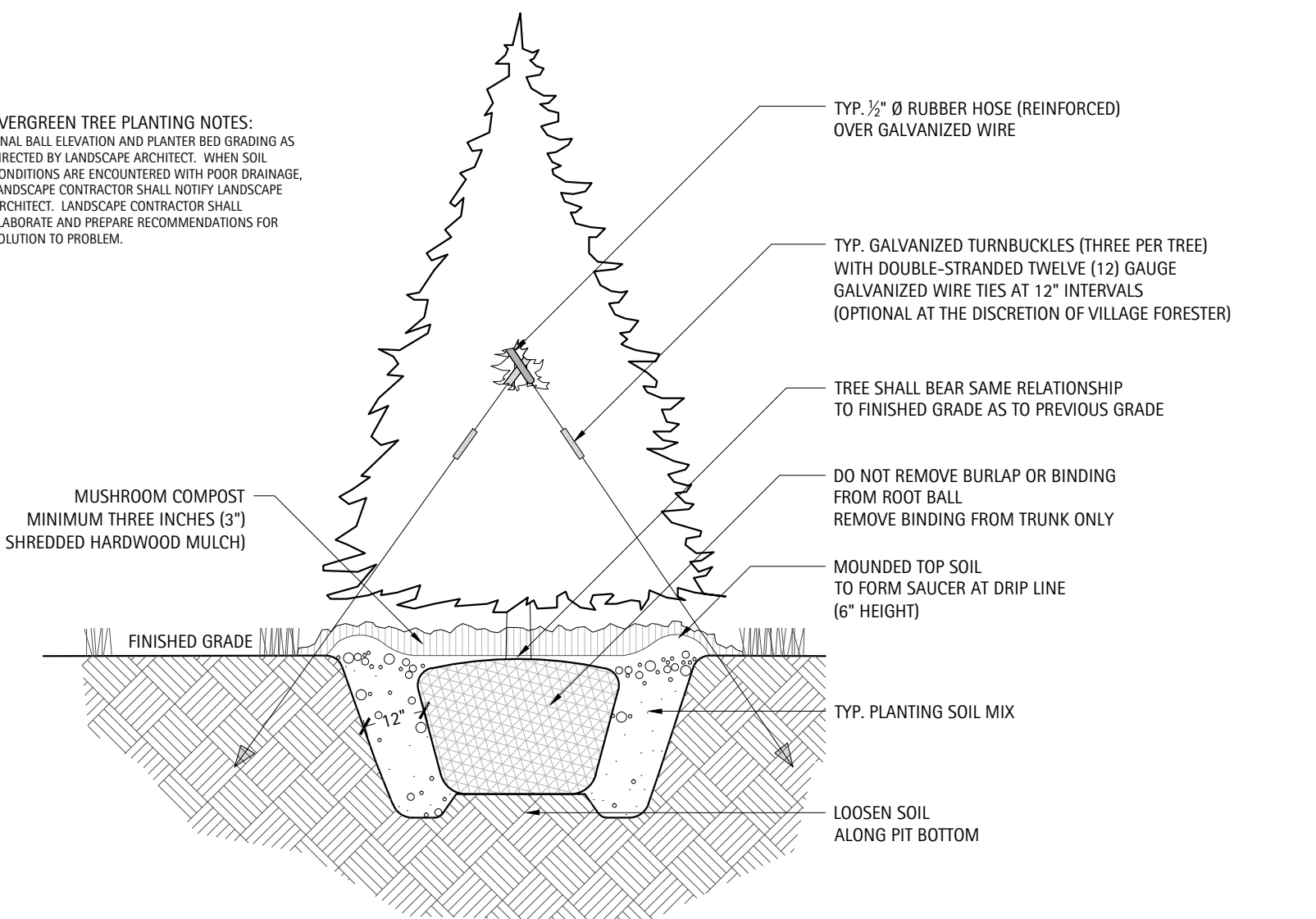
7. Where possible, and at Engineer's approval and per code, all underdrainage shall be tied into existing or proposed storm structures.

8. Landscape accent lighting as shown on these plans is for general location and intent only. The specified fixture and wattage shall be provided and installed on the desired feature at Landscape Architect's direction. Contractor shall field stake all accent lighting locations and obtain Landscape Architect's approval before final installation. Please refer to electrical plans for conduit or low-voltage cable routing and power-source (timer, transformers, switch boxes, etc.).



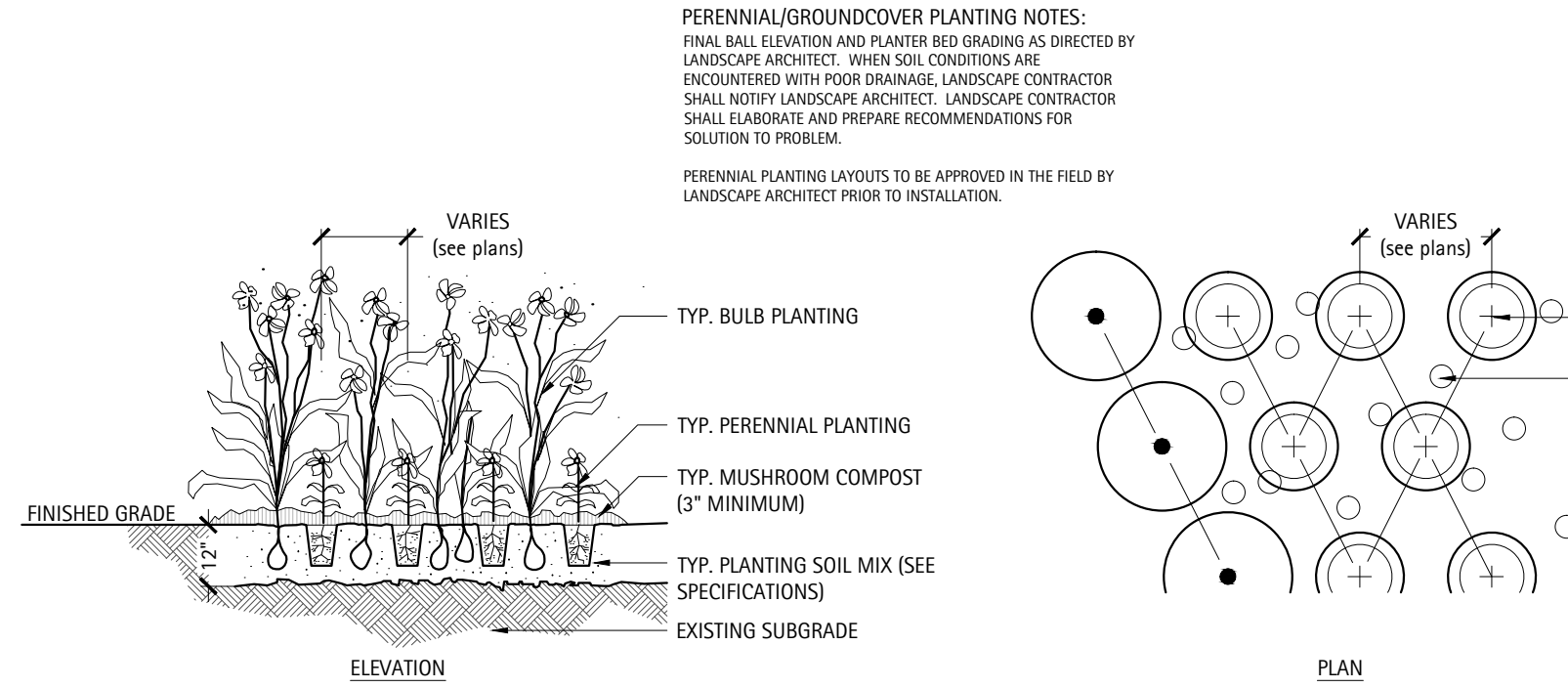
3 Typical Ornamental Tree Planting Detail

Scale: NTS



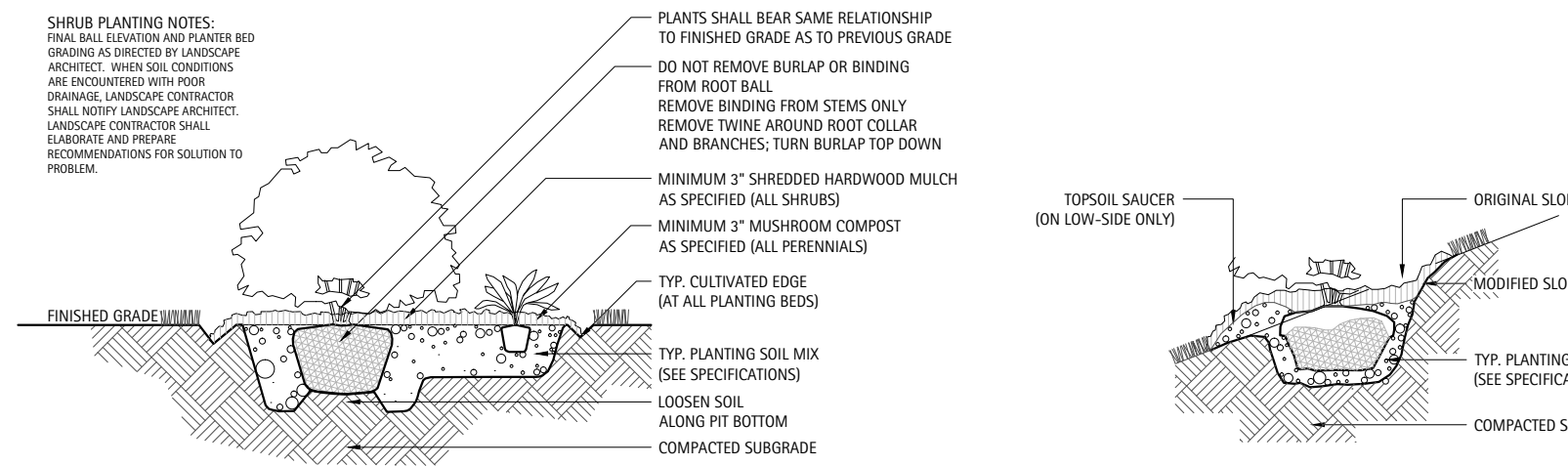
4 Typical Evergreen Tree Planting Detail

Scale: NTS



5 Typical Groundcover & Perennial Planting Detail

Scale: NTS



6 Typical Shrub Planting/Shrub Planting on Slope Detail

Scale: NTS

GENERAL PLANTING NOTES

GENERAL CONDITIONS

1. Contractor shall familiarize themselves with all landscape specifications prior to commencement of work. Any questions or concerns shall be directed to Project Engineer or Landscape Architect in writing prior to landscape work commencement.

2. All project limits shall be fenced with temporary plastic fencing at 48" height, staked at 4' on center, and clearly signed for construction activities. All existing, protected vegetation shall be fenced at a minimum of the plants drip line or as approved by Landscape Architect.

3. The Landscape Contractor shall keep all areas clean and orderly at all times.

4. The Landscape Contractor shall keep all roadways and walkways clear of mud and debris that result from landscape operations.

SITE GRADING & BERMING

5. All grading and drainage shall be properly pitched to existing or proposed drainage swales and structures. Landscape Architect and Project Engineer shall field verify and approve.

6. All stone work to be approved by Landscape Architect in field. All stone color samples shall be approved by Landscape Architect prior to ordering.

SOIL & PLANTING MIX

7. All soil planting mix for backfill or beds, whether from on-site stockpile or new imported soil, shall be tested for approved specified pH levels and nutrient content. Submit testing agency with laboratory report to project Landscape Architect for approval, along with recommendations to amending soil as appropriate for use in planting.

8. Topsoil shall be clean, pulverized soil from an acceptable source. Topsoil shall be free of debris, stones, and other material not more than one inch (1") diameter in size. Contractor shall provide the Landscape Architect with receipt of soil source and soil test results from a qualified lab upon request.

9. It is anticipated that all planting areas, including lawn, shall be thoroughly tilled to a minimum of 12-18" depth. All on-site topsoil shall be amended and reused as approved, or removed off-site and disposed of properly. New planting soil mix shall be PM-35 soil mix by Midwest Trading, St. Charles, Illinois.

10. Clean topsoil mix should have a tested and approved pH of 6.0 -- 7.0

11. The Landscape Contractor shall prepare planting beds by adding A 3" depth of PM-35 soil mix manufactured by Midwest Trading, St. Charles, Illinois, thoroughly till the amended topsoil to a depth of 12".

12. All excess materials and spoils resulting from the landscape work shall be legally disposed of off-site by the Landscape Contractor.

PLANTING STANDARDS

13. All plant material shall be top-quality grade, free of defects, and meet accepted horticultural standards established by the American Nurserymen's Association (AAN) and as deemed appropriate by Landscape Architect. Landscape Architect shall have the right to reject any, and all, plant material delivered to the site that does not meet acceptable standards.

14. Sizes shown on plant schedule are minimum acceptable sizes.

15. All plants to be balled-in-burlap or container-grown as specified in plant schedule. All plastic root wrapping material shall be removed. Metal wire baskets shall be have all rope removed from the top of the ball and the metal basket shall be turned down as much as possible.

16. All new and transplanted plants to be sprayed with an antidessecant within twenty-four (24) hours after planting. Antitranspirant shall be "Wiltpruf" or an approved equal.

17. Landscape Architect shall field verify and approve all final staked tree, shrub, and perennial bed locations prior to installation.

18. The Landscape Contractor shall repair to its original condition any plant material which becomes damaged as a result of landscape operations.

19. All perennials shall be planted at least two (2) feet from the tree trunks planted within planting areas.

20. Landscape Architect shall approve all plant materials for quality, condition and specified sizes. Plant material shall be approved at nursery location, during tagging or before removal and transport to job site. Shrubs, perennials and groundcovers shall be approved at job site prior to installation.

FERTILIZER & MULCHING

21. Prior to mulching tree and shrub planting areas, apply time-release fertilizer by broadcasting over entire planting areas. Rate is to manufacturer's recommendations. Fertilizer is to have no less than 10% available phosphoric acid, and 3-8% total nitrogen soluble potash.

22. All plantings shall receive a slow-release fertilizer with a ratio of 10/10/10.

23. All trees and shrub beds shall receive a minimum of 3" thick shredded hardwood mulch top-dressing.

24. All perennials and groundcover beds shall be top-dressed with two inches (2") minimum of mushroom compost.

MAINTENANCE & WARRANTIES

25. All plants shall be thoroughly watered in at time of planting and watered and maintained throughout construction until final acceptance by owner. Contractor shall water all plants immediately after planting. Flood plants twice during the first twenty-four (24) hours after planting.

26. Landscape Contractor shall warranty all trees, shrubs, perennials, and ornamental grasses under this contract will be healthy and in flourishing condition of active growth one year from date of final acceptance.

27. All newly sodded or seeded areas shall be maintained, watered, and mowed throughout their growing seasons during construction and until final acceptance by owner.

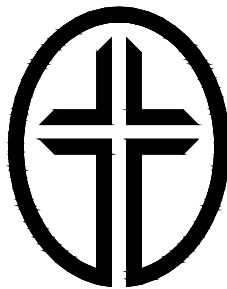
LAKOTA
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Chicago, Illinois 60654
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Planning
Urban Design
Landscape Architecture
Community Engagement

THE MOORINGS OF ARLINGTON HEIGHTS

Arlington Heights,
Illinois

Presbyterian
Homes



PLAN
COMMISSION
6/22/2015
NOT FOR
CONSTRUCTION

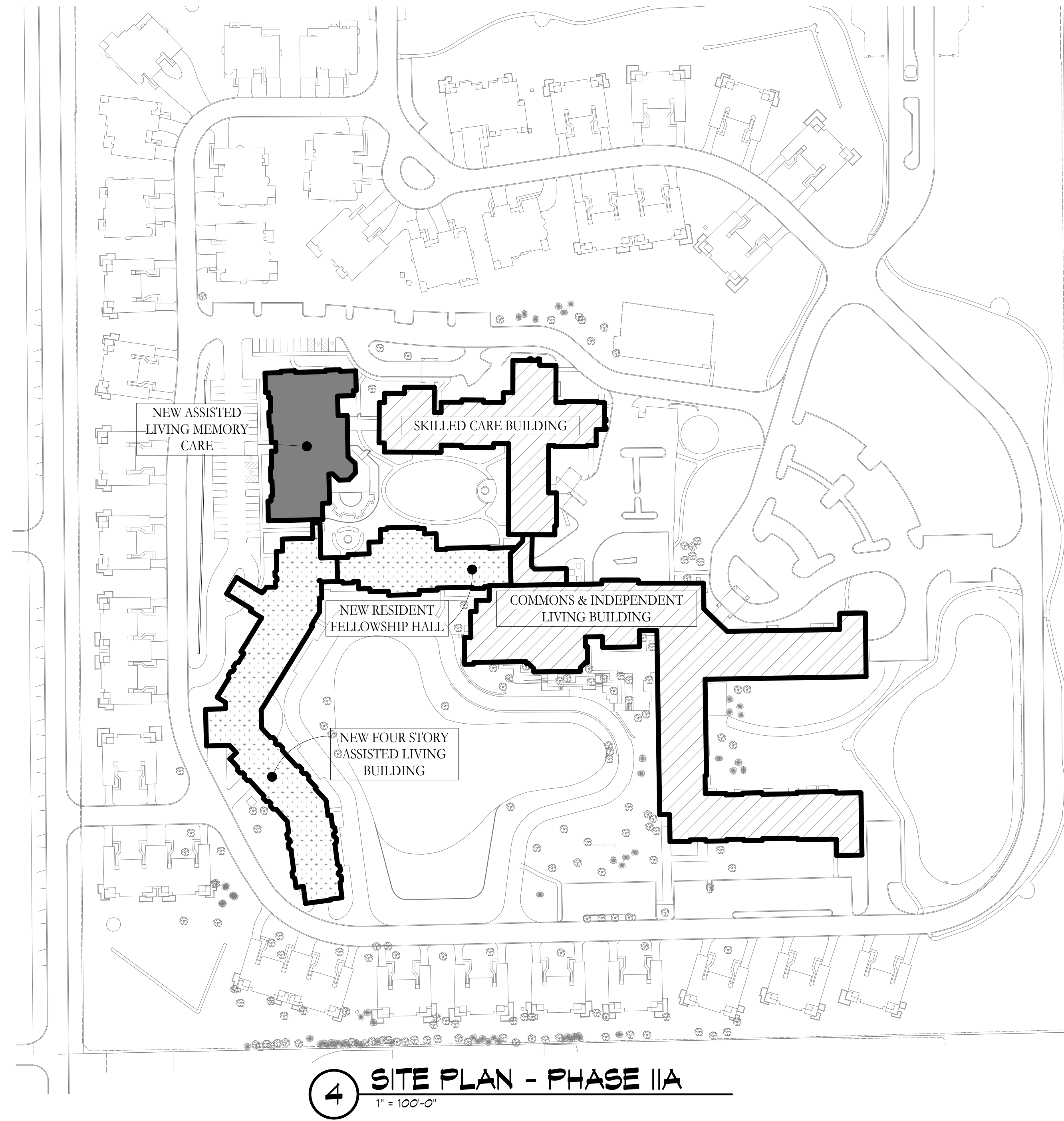
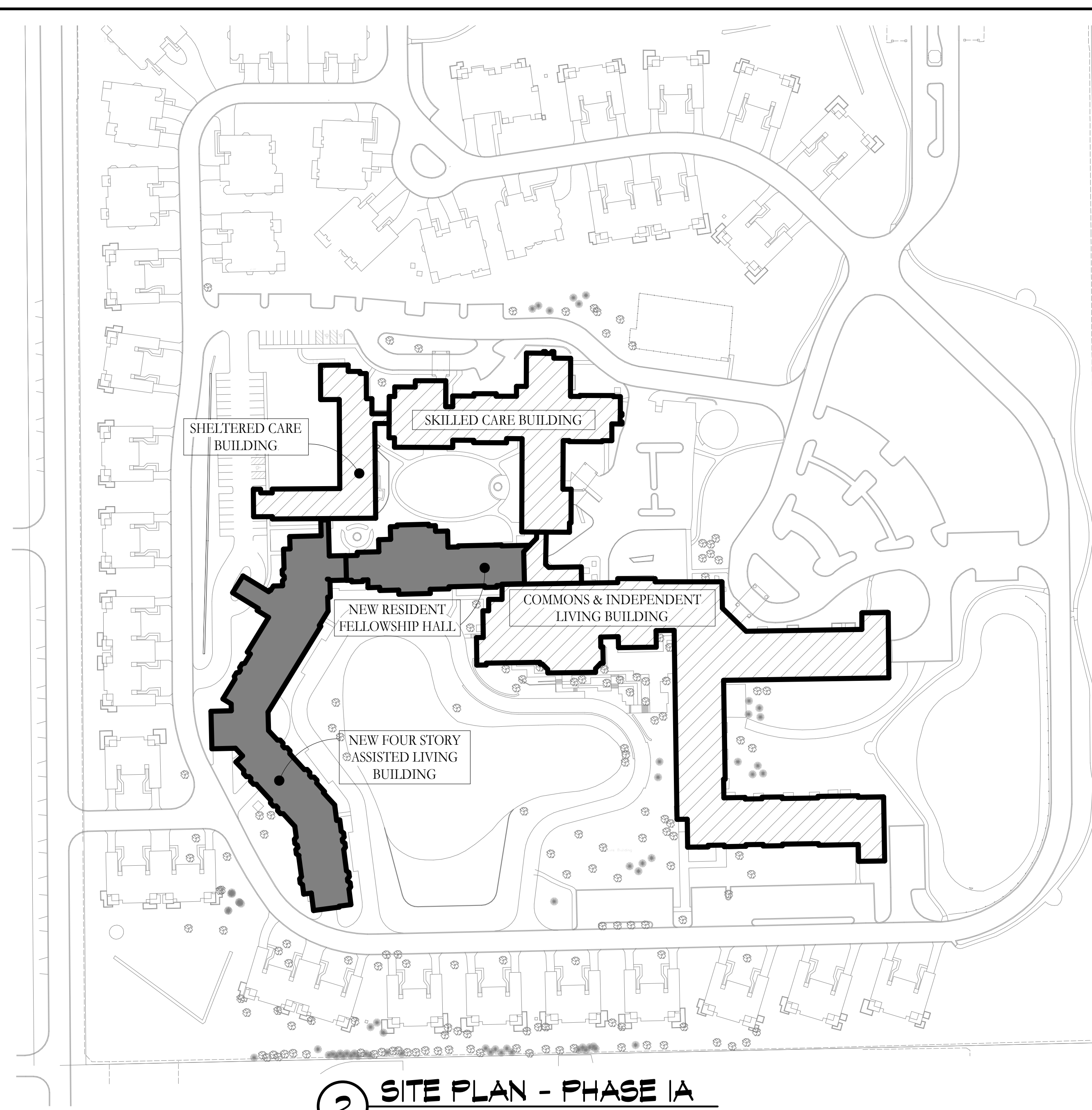
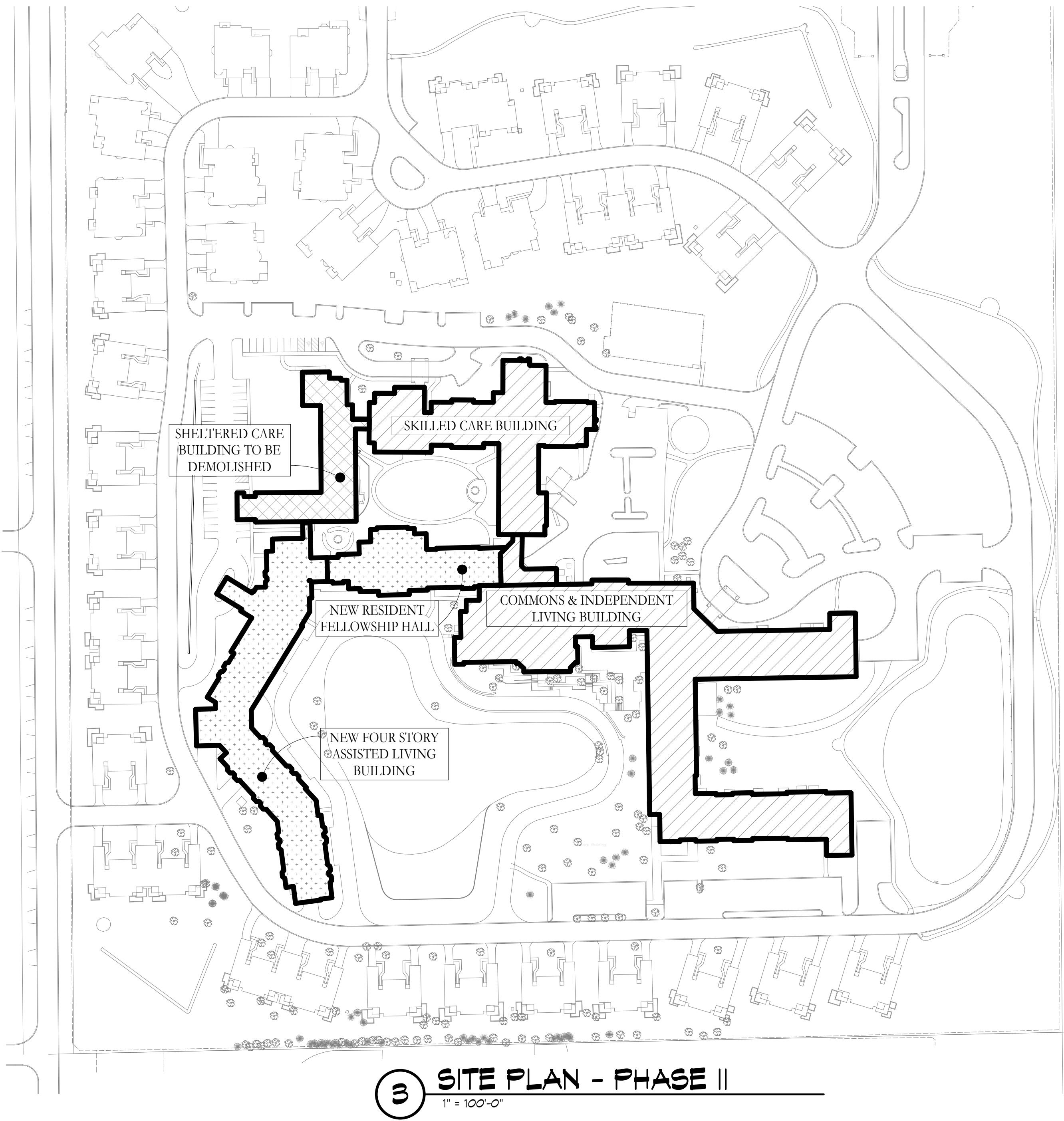
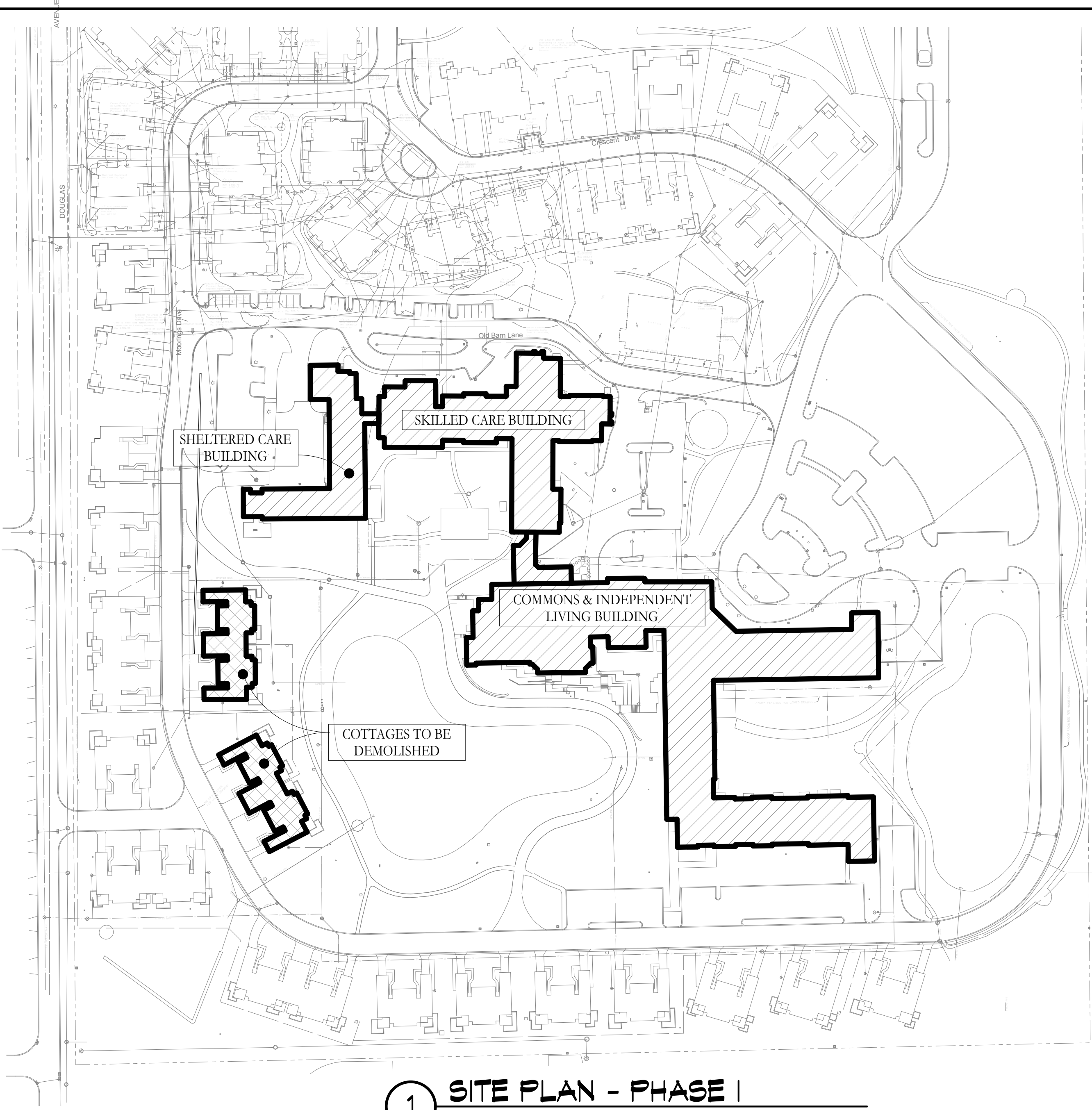


PLANTING DETAILS

Revisions
PLAN COMMISSION 06/22/15

Date: 06/22/15
Drawn By: JW
Checked By: SF

L-06



VOLUME I CIVIL DRAWING NO: A001 COMMISSION NO: 2014104		PHASING SITE PLAN		REVISIONS		THE MOORINGS OF ARLINGTON HEIGHTS FOR PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005		rmps architects® architects • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 • FAX: 717-560-2373 RLPS, LLP		PLANNING COMMISSION SUBMISSION			
SCALE: AS NOTED		DATE: 06/26/2015		NO. DATE DESCRIPTION		REVISIONS & ADDITIONS TO:							

DEMOLITION NOTES

All Signs to Be Removed Shall Be Salvaged and Stored in the Owner's Facility for Future Use as Applicable.

Contractor Shall Keep All Local And County Streets Free and Clear of Construction Related Dirt/Out/Debris.

Coordinate Existing Utility Removal with Local Authorities and Utility Companies Having Jurisdiction.

Adjacent Buildings are to Remain Operational During Construction. Therefore, the temporary Relocation of All Necessary Utilities Serving the Existing Building Shall Be Coordinated Prior to the Commencement of Construction Operations.

All Sawcutting Shall be Full Depth to Provide a Clean Edge to Match New Construction. Match Existing Elevations at Points of Correction for New and Existing Pavement, Curb, Sidewalks, etc.. All Sawcut Locations Shown are Approximate and Should Be Field Adjusted to Accommodate Conditions, Joints, Material Type, etc. Remove Minimum Amount Necessary for Installation of Proposed Improvements.

Contractor Shall Provide and Shall Be Responsible for Any Necessary Traffic Control and Safety Measures During Demolition and Construction Operations Within or Near the Public Roadway.

All Light Poles to Be Removed From Private Property Shall Be Removed in Their Entirety, Including Base and All Appurtenances. Coordinate Abandonment of Electrical Lines With Electrical Engineer and Owner Prior to Demolition.

Perform Tree Pruning In All Locations Where Proposed Pavement And/Or Utility Installation Encroaches Within The Existing Drip Line Of Trees To Remain. All Trenching Within The Drip Line Of Existing Trees To Remain Shall Be Done Radially Away From Trunk If Roots In Excess Of 1" Diameter Are Exposed. Roots Must Be Cut By Reputable Tree Pruning Service Prior To Any Transverse Trenching. Obtain Approval Of The Architect Prior To Operations For A Variance From This Procedure.

Coordinate Tree Removal with Landscape Architect. All Trees To Be Removed Shall Be Removed in Their Entirety and Stumps Shall Be Ground to Proposed Subgrade. Use As Mulch for Proposed Landscaping Where Applicable and Acceptable to Architect.

Provide Tree Protection Fencing Prior To Construction Operations. Maintain Throughout Construction.

GEOMETRY NOTES

All Dimensions Contained Herein Reference Back Of Curb, Face Of Retaining Wall, Edge Of Pavement, Center of Structure And Outside Face Of Building Foundation Unless Otherwise Noted.

All Pavement Striping Shall Be 4" Wide Yellow Paint Per Specifications. All Cross Hatch Striping Shall Be 45° At 2'-0" Centers.

All Accessible Parking Signs (R7-8) Must Be Placed at the Center of the Space and Within 5 Feet of the Space.

Refer to Architectural Drawings for Exact Locations of All Buildings.

Refer to Architectural Drawings for Locations and Details of All Permanent Site Fencing.

UTILITY NOTES

Utility Service Lines as Shown Hereon are Approximate. Coordinate The Exact Locations With The Plumbing Drawings. Coordinate The Locations With The Plumbing Contractor and/or the Owner's Construction Representative Prior to Installation of Any New Utilities.

Refer to Plumbing Drawings for Continuation of All Utilities Within 5 Feet of Building Face.

Contractor Shall Field Verify Invert & Locations of Existing Utility Mains Prior to Installing Any On-Site Utilities or Structures. All Elevations and Inverts Referencing Said Utility Shall Be Field Verified Prior to Installation Of Any New Structures Or Utilities, and Adjustments Shall Be Made as Necessary. Contact Engineer Prior to Installation if Discrepancy Exists With These Drawings.

Contractor Shall Be Responsible For Coordinating the Relocation Of Any Utilities Encountered And Replacement Of Any Utilities Damaged Within Influence Zone Of New Construction. Contact Engineer If The Existing Utilities Vary Appreciably From The Plans.

All Water Main and Services Shall Be Installed at a Minimum Depth of 5'-5" From Top of Finished Ground Elevation to Top of Main.

Protection of water supplies shall be as described in Section 370.350 of the Illinois Recommended Standards for Sewage Works or Section 41-2.01 of the Standard Specifications for Water and Sewer Main Construction in Illinois, latest edition.

Clean Out All Existing and Proposed Storm Catch Basins And Storm Sewers at the Completion of Construction.

The "Standard Specifications for Water and Sewer Main Construction in Illinois", Current Edition Shall Govern Work Where Applicable.

Coordinate Village Water Distribution Unit At 847-368-5800 Prior To Any Water Main Shutdown.

STRUCTURE NOTES

All Catch Basins to Be Installed in Paved Areas Shall Have Neenah R2204-D Frame & Grate or Approved Equal.

All Catch Basins to Be Installed in Landscaped Areas Shall Have Neenah R4340-B Frame & Grate or Approved Equal. For Cone Sections Install a Minimum of 4" Grade Rings For Topsoil Respread. For Flat Slab Tops Install the Following Minimum Height of Grade Rings:

- 4" Diameter Structure- 4"
- 5" Diameter Structure- 6"
- 6" Diameter Structure- 8"

All Catch Basins to Be Installed Along Curb and Gutter Shall Have Neenah R3281-A Frame & Grate or Approved Equal.

Where Structures are Shown Along the Curbline, Unless Specifically Stated Otherwise, It Is Intended That the Frame of the Structure Is To Fall Within the Flowline Of The Gutter or at the Pavement Edge Where No Gutter Exists.

All Manholes Shall Have Neenah R1713-B Frame & Closed Lid or Approved Equal, with "Storm" or "Sanitary" Imprinted as Appropriate.

All Existing Structures To Be Adjusted To Finished Grade As Necessary.

For All Manhole Structures to Be Adjusted, Install or Remove Adjusting Rings, New Cone Section or New Barrel Section As Necessary To Maintain Maximum Allowed Adjusting Ring Heights

All Sanitary Manholes Shall Include a Chimney Seal.

Field Verify The Condition of All Existing Utility Structures To Be Re-Used.

MWRDGC GENERAL NOTES

1. The MWRDGC Local Sewers Field Office must be notified at least two (2) working days prior to the commencement of work. Call (708) 588-4055.

2. Elevation datum is USGS.

3. All floor drains shall discharge to the sanitary sewer system.

4. All downspouts and footing drains, shall discharge to the storm system.

5. All sanitary sewer pipe materials (and storm sewer pipe material in combined sewer areas) and joints shall conform to:

- a. Reinforced Concrete Pipe (RCP): Pipe shall conform to ASTM C-76 1) Joints shall conform to ASTM C-443

- d. Polyvinyl Chloride Pipe (PVC 6"-15"dia.-SDR 26): Pipe shall conform to ASTM D-3034 1) Joints shall conform to ASTM D 3212.

- e. Polyvinyl Chloride Pipe (PVC-C900): Pipe shall conform to AWWA C-900-97 1) Joints shall conform to ASTM D-3139.

6. All sanitary sewer construction (and storm sewer construction in combined sewer areas); requires stone bedding 1/4" to 1" in size, with a minimum bedding thickness equal to 1/4 the outside diameter of the sewer pipe, but not less than four (4) inches nor more than eight (8) inches. Material shall be CA-11 or CA-13 and shall be extended at least 12 inches above the top of the pipe when using PVC.

7. "Band Seal" or similar flexible-type couplings shall be used in the connection of sewer pipe of dissimilar materials.

8. When connecting to an existing sewer main by means other than an existing wye, tee, or on existing manhole, one of the following methods shall be used:

- a. Circular saw-cut of the storm sewer main by proper tools ("sewer-top" machine or similar) and proper installation of hub-wye saddle or hub-tee saddle.
- b. Remove an entire section of pipe (breaking only the top of one bell) and replace with a wye or tee branch section.
- c. With pipe cutter, neatly and accurately cut out desired length of pipe for insertion of proper fitting, using "Band-Seal" or similar couplings to hold it firmly in place.

9. Whenever a sanitary/combined sewer crosses under a watermain, the minimum vertical distance from the top of the sewer to the bottom of the water main shall be 18 inches. Furthermore, a minimum horizontal distance of 10 feet between sanitary/combined sewers and water mains shall be maintained unless: The sewer is laid in a separate trench, keeping a minimum 18" vertical separation; or the sewer is laid in the same trench with the water main located on the opposite side on a bench of undisturbed earth, keeping a minimum 18" vertical separation. If either the vertical or horizontal distances described cannot be maintained, or the sewer crossed above the watermain, the sewer shall be constructed to water main standards. All sanitary sewers shall be tested in keeping with all MWRDGC requirements.

10. All existing septic systems to be abandoned. Abandoned tanks to be filled with granular material or removed.

11. All sanitary manholes, (and storm manholes in combined sewer areas), shall have a minimum inside diameter of 48 inches, and shall be cast in place or pre-cast reinforced concrete. Resilient connectors, conforming to ASTM C-923, shall be used between manhole and pipes.

12. Except for Foundation/Footing Drains provided to protect buildings, Drain Tiles/Field Tiles/Underdrains/Perforated Pipes are not to be installed or to be connected to or be connected to Combined Sewers, Sanitary Sewers, or Storm Sewers tributary to Combined Sewers in Combined Sewer Areas. Construction of new facilities of this type is prohibited; and all existing Drain Tiles and Perforated Pipes encountered within the project area shall be plugged or removed and shall not be connected to Combined Sewers, Sanitary Sewers, or Storm Sewers tributary to Combined Sewers.

13. All abandoned sewers shall be plugged at both ends with a minimum of two (2) foot long non-shrink concrete/mortar plugs.

IEPA GENERAL NOTES

Sanitary Sewer Construction, as a Minimum, must comply with the following requirements:

Standard Specifications for Water and Sewer Main Construction in Illinois, latest edition, shall govern all sanitary sewer construction on this project.

Protection of water supplies shall be as described in Section 370.350 of the Illinois Recommended Standards for Sewage Works or Section 41-2.01 of the Standard Specifications for Water and Sewer Main Construction in Illinois, latest edition.

Flexible thermoplastic sanitary sewer pipe shall be installed in accordance with ASTM 2321-89 using _____ embedment material. Processed materials produced for highway construction should be classified in accordance with ASTM 2321-89, Section 5 and Table 1 according to particle size, shape and gradation.

4. Sewer bedding for rigid pipe sanitary sewers shall be Class B in accordance with ASTM D2321 as described in Appendix A of the Standard Specifications for Water and Sewer Main Construction in Illinois, latest edition.

All sanitary sewers shall be tested for infiltration, exfiltration or exfiltration of air under pressure, and for deflection of flexible thermoplastic pipe as described in Section 31-1 of the Standard Specifications for Water and Sewer Main Construction in Illinois, latest edition.

Pickholes in sanitary sewer manhole covers shall not be larger than 1 inch in diameter or shall be of the concealed type.

A drop pipe shall be provided for a sanitary sewer entering a manhole where its invert is more than 24 inches above the manhole invert.

Contractor shall test manhole tightness in accordance with ASTM C869-94 or ASTM C1244-93.

Leakage Testing Shall Be Conducted On All Manholes For Water-tightness In Accordance With ASTM D969-94 "Standard Practice For Infiltration And Exfiltration Acceptance Testing Of Installed Precast Concrete Pipe Sewer Lines", Vol. 04.05, Chemical Resistant Materials, Vitrified Clay, Concrete, Fiber-Cement Products; Mortars; Masonry (1996) (No Later Editions Or Amendments) Or ASTM C1244-93 "Standard Test Method For Concrete Sewer Manholes By The Negative Pressure (Vacuum) Test", Vol. 04.05, Chemical Resistant Materials, Vitrified Clay, Concrete, Fiber-Cement Products; Mortars; Masonry (1996) (No Later Editions Or Amendments) Prior To Placing into Service.

GRADING NOTES

The Grading and Construction of Proposed Improvements Shall Be Done In A Manner Which Will Allow For Positive Drainage, and Not Cause Ponding of Stormwater on the Surface of Proposed Improvements.

All Landscaped Areas Disturbed By Construction Shall Be Reseaped With 6 Inches (Min.) to 12 Inches (Max.) Topsoil and Hydrosseeded Unless Noted Otherwise On The Landscape Drawings.

Refer to Architectural Drawings for Locations and Patterns of Expansion and Control Joints in Concrete Pavement and Sidewalks.

SOIL EROSION & SEDIMENTATION CONTROL NOTES

Soil Disturbance Shall Be Conducted In Such A Manner as To Minimize Erosion. Soil Stabilization Measures Shall Consider the Time of Year, Site Conditions, and the Use of Temporary or Permanent Measures.

Soil Erosion and Sediment Control Features Shall Be Constructed Prior to the Commencement of Upland Disturbance.

Temporary Soil Stabilization Shall Be Applied to Topsoil Slopesides and Disturbed Areas Where Construction Activity Will Not Occur For A Period of More Than 14 Calendar Days. Within 7 Calendar Days of the End of Active Hydrologic Disturbance, The Sediment Control Measures Shall Be Maintained On A Continuing Basis Until The Site Is Permanently Stabilized And All Inspections Are Complete. Permanent Stabilization Shall Be Done Within 14 days after Completion of Final Grading of Soil.

All Temporary And Permanent Erosion Control Measures Shall Be Removed Within 30 Days After Final Site Stabilization Is Achieved Or After The Temporary Measures Are No Longer Needed. Trapped Sediment And Other Disturbed Soil Areas Shall Be Permanently Stabilized.

Final Site Stabilization Is Defined By The EPA General Permit As Meaning That All Soil Disturbing Activities At The Site Have Been Completed, And That A Uniform Permanent Vegetative Cover With A Density Of 70 Percent Of The Cover For Unpaved Areas Not Covered By Permanent Structures Has Been Established Or Equivalent Permanent Stabilization Measures (Such As The Use Of Riprap, Gabions, Or Geotextiles) Have Been Employed.

All Storm Sewer Structures That Are, Or Will Be, Functioning During Construction Shall Be Protected, Filtered, Or Otherwise Treated To Remove Sediment. The General Contractor Shall Use "Dandy Pops" Inlet Protectors (or equal) in Landscaped Areas And "Dandy Bag" Inlet Protectors (or equal) in Paved Areas To Prevent Siltation.

All Temporary And Permanent Sediment And Erosion Control Measures Must Be Maintained, Repaired, And Inspected In Conformance With All Applicable IEPA-NPDES Phase II Requirements.

Following The Termination Of Construction Activities And Issuance Of The Required "Notice Of Termination", The Permittees Must Keep A Copy Of The Storm Water Pollution Prevention Plan, Inspection Reports, And Records Of All The Data Used To Complete The Notice Of Intent For A Period Of At Least Three Years Following Final Stabilization.

Install And Maintain Silt Fence At The Perimeter Of The Construction Zone And Wetland Areas And Shall Be Maintained Throughout Construction And Until Vegetation Has Been Fully Established.

The Erosion Control Measures Indicated On The Drawings Are The Minimum Requirements. Additional Measures May Be Required As Directed By The Engineer Or Governing Agency.

Unless Otherwise Indicated on the Drawings, Stabilize All Disturbed Ground Areas Where Slopes Exceed 6:1 or Within Swales with North American Green D575 Erosion Control Blanket, or Approved Equal.

Report Releases of Reportable Quantities of Oil or Hazardous Materials If They Occur In Accordance with IEPA NPDES Requirements.

All Concrete Washout Shall Conform To The "Temporary Concrete Washout Facility" Standards (Code 954) of the Illinois Urban Manual, Latest Edition

If Necessary, The SWPPP Shall Be Modified To Reflect Changes Required During The Effective Period Of The IEPA NPDES General Permit No. IEP10 and Local and County Permits.

GENERAL NOTES

The Location of Existing Underground Utilities, Such As Watermains, Sewers, Gas Lines, Etc., As Shown On The Plans, Has Been Determined From The Best Available Information and Is Given For The Convenience of The Contractor. However, The Owner and The Engineer Do Not Assume Responsibility In The Event That During Construction, Utilities Other Than Those Shown May Be Encountered, and That The Actual Location of Those Which Are Shown May Be Different From The Location As Shown On The Drawings. Contact Engineer Immediately If Surface and/or Subsurface Features are Different Than Shown On The Drawings.

Contractor Shall Notify The Engineer Without Delay of Any Discrepancies Between the Drawings and Existing Field Conditions.

Contractor Shall Notify The Owner, Engineer and The Village of Arlington Heights A Minimum of 48 Hours in Advance of Performing Any Work.

No Construction Traffic Will Be Permitted To Use Rohlfing Road Without Authorization Of The City of Rolling Meadows.

All Areas, On or Off Site, Disturbed During Construction Operations and Not Part of the Work As Shown Hereon Shall Be Restored To Original Condition to the Satisfaction of the Owner at No Additional Cost to the Owner. It is Incumbent Upon Contractor to Show That Damaged Areas Were Not Disturbed By Construction Operations.

These Drawings Assume That The Contractor Will Utilize An Electronic Drawing File and Stake All Site Improvements Using Coordinated Tied Into The Control Points. The Dimensions Indicated On The Drawings Are For The Convenience of The Contractor Only.

No Person May Utilize The Information Contained Within These Drawings Without Written Approval From Eriksson Engineering Associates, Ltd.

The Engineer Is Furnishing These Drawings For Construction Purposes As A Convenience To The Owner, Architect, Or Surveyor. Prior To The Use Of These Drawings For Construction Purposes, The User Of This Media Shall Verify All Dimensions And Locations Of Buildings With The Foundation Drawings And Architectural Site Plan. If Conflicts Exist The User Of This Information Shall Contact The Engineer Immediately.

Contractor Shall Provide An As-built Survey Prepared By A Licensed Professional Land Surveyor In Accordance With The Authorities Having Jurisdiction Including All Storm and Sanitary Sewers and Structure Locations, Sizes, Rim and Invert Elevations, and Watermain and Valve and Appurtenance Locations.

The Illinois Department Of Transportation Standard Specifications For Road And Bridge Construction Latest Edition, And All Addenda Thereto, Shall Govern The Earthwork And Paving Work Under This Contract Unless Noted Otherwise.

All Methods Of Construction And Materials To Conform To "A Manual of Practice for the Design of Public Improvements" as Provided by the Village of Arlington Heights Engineering Department.

INTENDED SEQUENCE OF MAJOR SEDIMENT AND EROSION CONTROL MEASURES

1. Install Stabilized Construction Entrance
2. Install All Downslope and Sideslope Perimeter Controls Before Commencement of Any Ground Disturbing Activity.
3. Do Not Disturb An Area Until It is Necessary For Construction To Proceed.
4. Cover and Stabilize Disturbed Areas As Soon As Possible.
5. When Practical, Time Construction Activities To Limit Impact From Seasonal Climate Changes or Weather Events.
6. Construct Sedimentation Basins and Structures.
7. Perform Grading Operations and Installation of Site Infrastructure and Pavement.
8. Install Permanent Seeding and Plantings.
9. Remove Accumulated Sediment From Basins and Along Silt Fence.
10. Construction of Infiltration Measures Shall Take Place Following Stabilization of Upstream Drainage Areas.
11. Remove Temporary Sediment and Erosion Control Measures Following Final Stabilization of All Disturbed Areas.

LEGEND

EXISTING	PROPOSED

RENOVATIONS & ADDITIONS TO THE MOORINGS OF ARLINGTON HEIGHTS

FOR PRESBYTERIAN HOMES

811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005

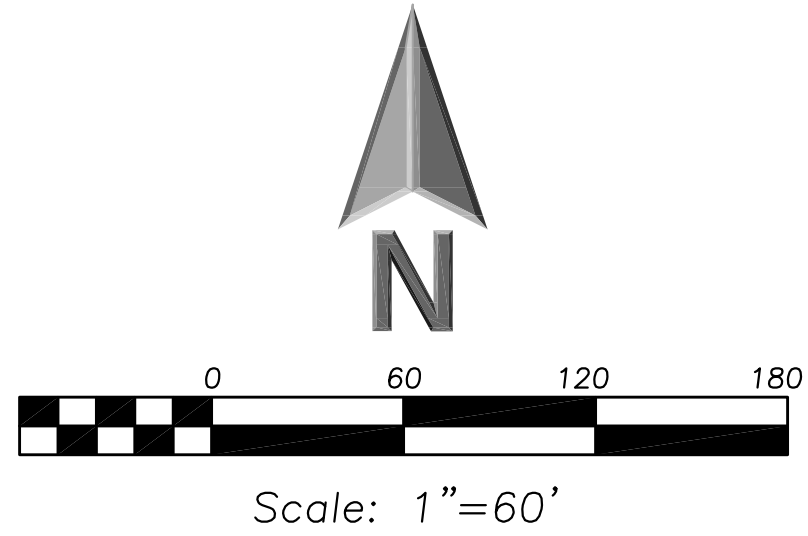
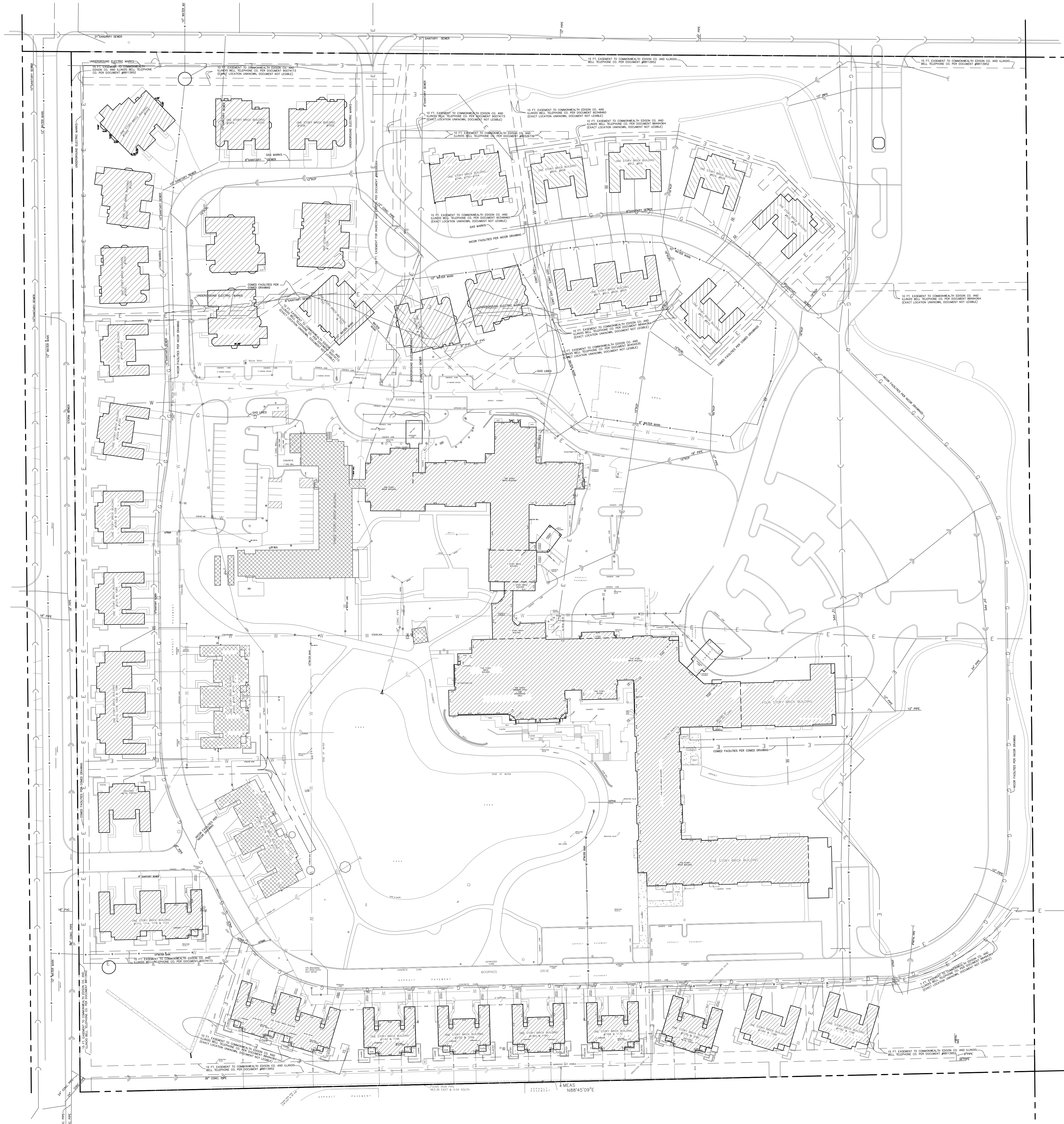
DRAWN BY: C.M.F. CHECKED BY: C.S.L. APPROVED BY: M.J.R.

SITE NOTES AND LEGEND

C0.1



145 COMMERCE DRIVE, SUITE A GRAYSLAKE, ILLINOIS 60030
PHONE (847) 223-4804
FAX (847) 223-4864
EMAIL INFO@EEA-LTD.COM



LEGEND	
EXISTING	PROPOSED



145 COMMERCE DRIVE, SUITE A
GRAYSLAKE, ILLINOIS 60030
PHONE (847) 223-4804
FAX (847) 223-4804
EMAIL INFO@EEA-LTD.COM

OVERALL
EXISTING
CONDITIONS
C1.0

AS NOTED

DATE: 4/27/2015

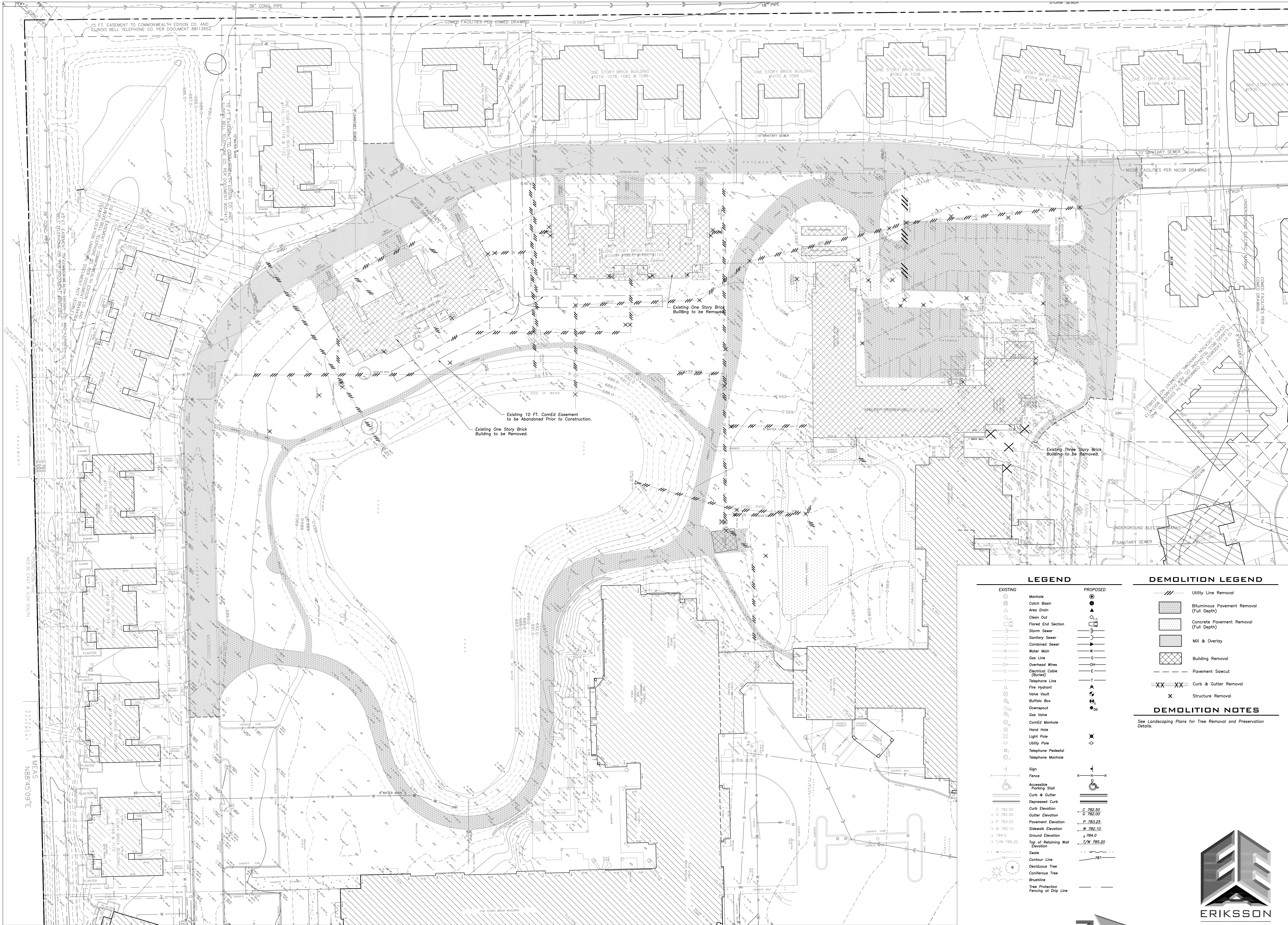
REVISIONS
NO. DATE DESCRIPTION
1 06/22/2015 PUD Application Submittal

THE MOORINGS OF ARLINGTON HEIGHTS
FOR
PRESBYTERIAN HOMES
811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005
DRAWN BY: C.M.F. CHECKED BY: C.S.L. APPROVED BY: M.J.R.

rlps architects®
architecture • master planning • interior design
250 VALLEYBROOK DRIVE, LANCASTER, PA 17601
717-560-9501 FAX: 717-560-2373 RLPS, LLP

DESIGN PHASE

THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF RLPS ARCHITECTS. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED WITHOUT THE ARCHITECT'S PERMISSION AND UNLESS THE ARCHITECT IS NOTICED IN THE NAME OF THE ARCHITECT. CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.



EXISTING

 Manhole
 Catch Basin
 Area Drain
 Clean Out
 Flared End Section
 Storm Sewer
 Sanitary Sewer
 Combined Sewer
 Water Main
 Gas Line
 Overhead Wires
 Electrical Cable (Buried)
 Telephone Line
 Fire Hydrant
 Valve Vault
 Buffalo Box
 Downspout
 Gas Valve
 ComEd Manhole
 Hand Hole
 Light Pole
 Utility Pole
 Telephone Pedestal
 Telephone Manhole

PROPOSED

 Sign
 Fence
 Accessible Parking Stall
 Curb & Gutter
 Depressed Curb
 Curb Elevation
 Gutter Elevation
 Pavement Elevation
 Sidewalk Elevation
 Ground Elevation
 Top of Retaining Wall Elevation
 Swale
 Contour Line
 Deciduous Tree
 Coniferous Tree
 Brushline
 Tree Protection Fencing at Drip Line

DEMOLITION LEGEND

 Utility Line Removal
 Bituminous Pavement Removal (Full Depth)
 Concrete Pavement Removal (Full Depth)
 Mill & Overlay
 Building Removal
 Pavement Sawcut
 Curb & Gutter Removal
 Structure Removal

DEMOLITION NOTES

See Landscaping Plans for Tree Removal and Preservation Details.

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REVISIONS

NO.	DATE	DESCRIPTION
1	06/22/2015	PUD Application Submittal

SITE DEMOLITION PLAN

C2.0

COMMISSION NO.: 2014104

DATE: 4/27/2015

AS NOTED

FOR THE MOORINGS OF ARLINGTON HEIGHTS

PRESBYTERIAN HOMES

811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005

DRAWN BY: C.M.F. COORDINATOR BY: C.S.L. CHECKED BY: M.J.R. APPROVED BY:

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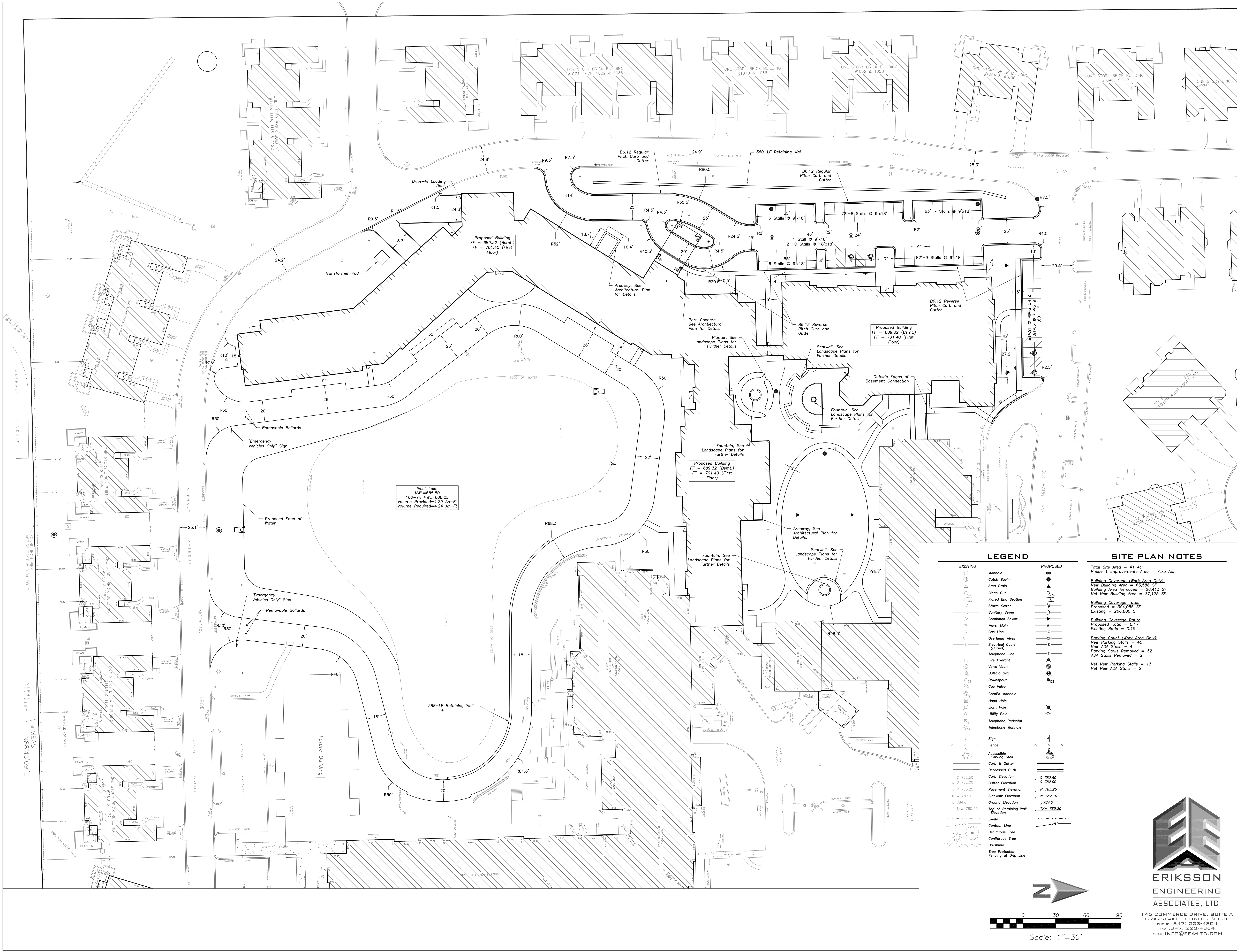
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LEGEND

EXISTING	PROPOSED
Manhole	Manhole
Catch Basin	Catch Basin
Area Drain	Area Drain
Clean Out	Clean Out
Flared End Section	Flared End Section
Storm Sewer	Storm Sewer
Sanitary Sewer	Sanitary Sewer
Combined Sewer	Combined Sewer
Water Main	Water Main
Gas Line	Gas Line
Overhead Wires	Overhead Wires
Electrical Cable (Buried)	Electrical Cable (Buried)
Telephone Line	Telephone Line
Fire Hydrant	Fire Hydrant
Valve Vault	Valve Vault
Buffalo Box	Buffalo Box
Downspout	Downspout
Gas Valve	Gas Valve
CornEd Manhole	CornEd Manhole
Hand Hole	Hand Hole
Light Pole	Light Pole
Utility Pole	Utility Pole
Telephone Pedestal	Telephone Pedestal
Telephone Manhole	Telephone Manhole
Sign	Sign
Fence	Fence
Accessibile Parking Stall	Accessibile Parking Stall
Curb & Gutter	Curb & Gutter
Depressed Curb	Depressed Curb
Curb Elevation	Curb Elevation
Gutter Elevation	Gutter Elevation
Pavement Elevation	Pavement Elevation
Sidewalk Elevation	Sidewalk Elevation
Ground Elevation	Ground Elevation
Top of Retaining Wall Elevation	Top of Retaining Wall Elevation
Swale	Swale
Contour Line	Contour Line
Deciduous Tree	Deciduous Tree
Coniferous Tree	Coniferous Tree
Brushline	Brushline
Tree Protection Fencing at Drip Line	Tree Protection Fencing at Drip Line

SITE PLAN NOTES

Total Site Area = 41 Ac.
Phase I Improvements Area = 7.75 Ac.

Building Coverage (Work Area Only):
Building Area = 63,588 SF
Building Area Removed = 20,413 SF
Net New Building Area = 37,175 SF

Building Coverage Total:
Proposed = 304,055 SF
Existing = 266,880 SF

Building Coverage Ratio:
Proposed Ratio = 0.17
Existing Ratio = 0.15

Parking Count (Work Area Only):
New Parking Stalls = 45
New ADA Stalls = 4
Parking Stalls Removed = 32
ADA Stalls Removed = 2

Net New Parking Stalls = 13
Net New ADA Stalls = 2

Scale: 1"=30'

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SITE GEOMETRY
PLAN

DRAWING NO.: **C3.0**

COMMISSION NO.: 2014104

SCALE: AS NOTED

DATE: 4/27/2015

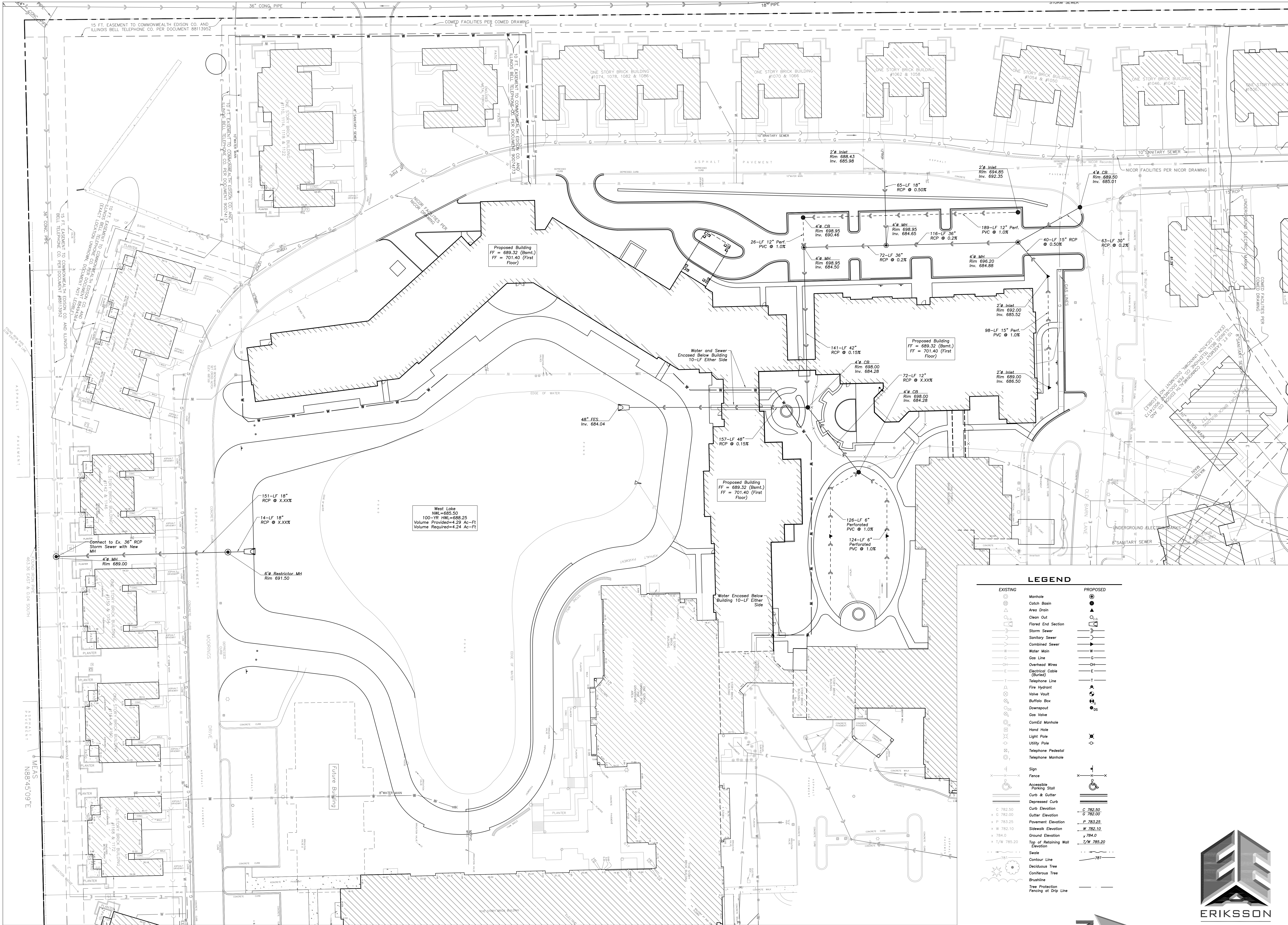
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RENOVATIONS & ADDITIONS TO
THE MOORINGS OF ARLINGTON HEIGHTS

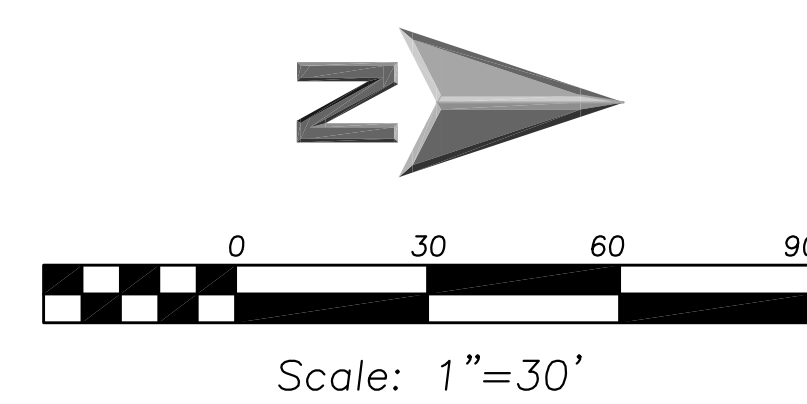
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LEGEND		
EXISTING		PROPOSED
	Manhole	
	Catch Basin	
	Area Drain	
	Clean Out	
	Flared End Section	
	Storm Sewer	
	Sanitary Sewer	
	Combined Sewer	
	Water Main	
	Gas Line	
	Overhead Wires	
	Electrical Cable (Buried)	
	Telephone Line	
	Fire Hydrant	
	Valve Vault	
	Buffalo Box	
	Downspout	
	Gas Valve	
	CornEd Manhole	
	Hand Hole	
	Light Pole	
	Utility Pole	
	Telephone Pedestal	
	Telephone Manhole	
	Sign	
	Fence	
	Accessibility	
	Parking Stall	
	Curb & Gutter	
	Depressed Curb	
	Curb Elevation	
	Gutter Elevation	
	Pavement Elevation	
	Sidewalk Elevation	
	Ground Elevation	
	Top of Retaining Wall Elevation	
	Swale	
	Contour Line	
	Deciduous Tree	
	Coniferous Tree	
	Brushline	
	Tree Protection Fencing at Drip Line	



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THE MOORINGS OF ARLINGTON HEIGHTS

FOR RENOVATIONS & ADDITIONS TO

PRESBYTERIAN HOMES

811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005

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NO.	DATE	DESCRIPTION
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SITE UTILITY PLAN

DATE: 4/27/2015

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DRAWING NO.: C4.0

COMMISSION NO.: 2014104

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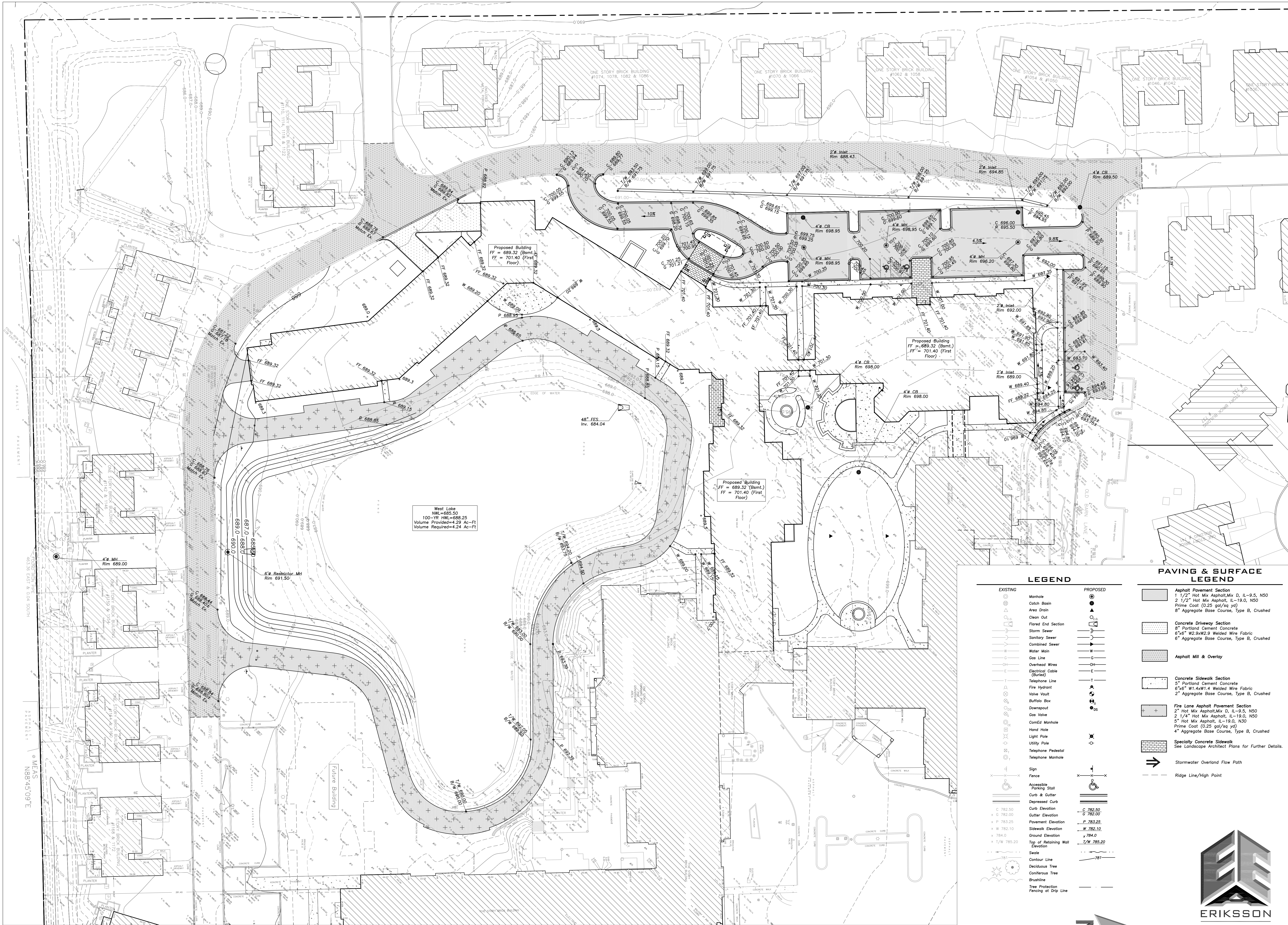
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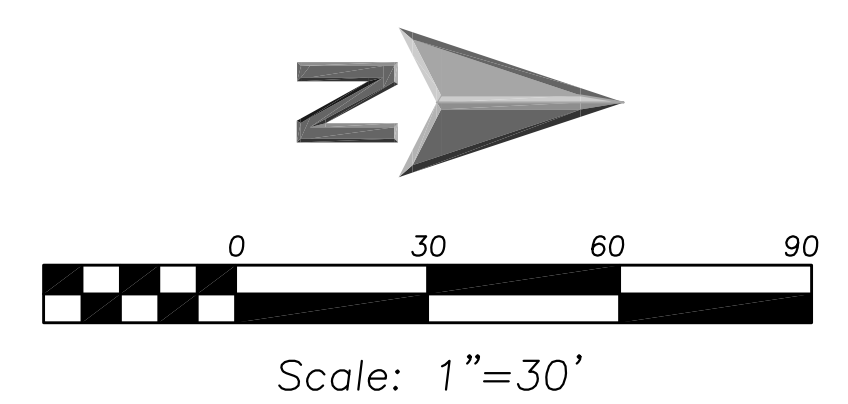
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West Lake
NWL=685.50
100-YR NWL=688.25
Volume Provided=4.29 Ac-Ft
Volume Required=4.24 Ac-Ft

LEGEND	
EXISTING	PROPOSED
Manhole	Manhole
Catch Basin	Catch Basin
Area Drain	Area Drain
Clean Out	Clean Out
Flared End Section	Flared End Section
Storm Sewer	Storm Sewer
Sanitary Sewer	Sanitary Sewer
Combined Sewer	Combined Sewer
Water Main	Water Main
Gas Line	Gas Line
Overhead Wires	Overhead Wires
Electrical Cable (Buried)	Electrical Cable (Buried)
Telephone Line	Telephone Line
Fire Hydrant	Fire Hydrant
Valve Vault	Valve Vault
Buffalo Box	Buffalo Box
Downspout	Downspout
Gas Valve	Gas Valve
Corred Manhole	Corred Manhole
Hand Hole	Hand Hole
Light Pole	Light Pole
Utility Pole	Utility Pole
Telephone Pedestal	Telephone Pedestal
Telephone Manhole	Telephone Manhole
Sign	Sign
Fence	Fence
Accessibility	Accessibility
Parking Stall	Parking Stall
Curb & Gutter	Curb & Gutter
Depressed Curb	Depressed Curb
Curb Elevation	Curb Elevation
Gutter Elevation	Gutter Elevation
Pavement Elevation	Pavement Elevation
Sidewalk Elevation	Sidewalk Elevation
Ground Elevation	Ground Elevation
Top of Retaining Wall Elevation	Top of Retaining Wall Elevation
Swale	Swale
Contour Line	Contour Line
Deciduous Tree	Deciduous Tree
Coniferous Tree	Coniferous Tree
Brushline	Brushline
Tree Protection Fencing at Drip Line	Tree Protection Fencing at Drip Line

PAVING & SURFACE LEGEND	
	Asphalt Pavement Section 1 1/2" Hot Mix Asphalt, Mix D, IL-9.5, N50 2 1/2" Hot Mix Asphalt, IL-19.0, N50 Prime Coat (0.25 gal/sq yd) 8" Aggregate Base Course, Type B, Crushed
	Concrete Driveway Section 8" Portland Cement Concrete 6"x6" W2.0W2.9 Welded Wire Fabric 6" Aggregate Base Course, Type B, Crushed
	Asphalt Mill & Overlay
	Concrete Sidewalk Section 5" Portland Cement Concrete 6"x6" W1.4W1.4 Welded Wire Fabric 2" Aggregate Base Course, Type B, Crushed
	Fire Lane Asphalt Pavement Section 2" Hot Mix Asphalt, Mix D, IL-9.5, N50 2 1/4" Hot Mix Asphalt, IL-19.0, N50 5" Hot Mix Asphalt, IL-19.0, N30 Prime Coat (0.25 gal/sq yd) 4" Aggregate Base Course, Type B, Crushed
	Specialty Concrete Sidewalk See Landscape Architect Plans for Further Details.
	Stormwater Overland Flow Path
	Ridge Line/High Point



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GRADING AND
PAVING PLAN

C5.0

NO. 1

DATE 06/22/2015

DESCRIPTION PUD Application Submittal

REVISIONS

NO.	DATE	DESCRIPTION
1	06/22/2015	PUD Application Submittal

DATE: 4/27/2015

AS NOTED

FOR

PRESBYTERIAN HOMES

811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005

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THE MOORINGS OF ARLINGTON HEIGHTS

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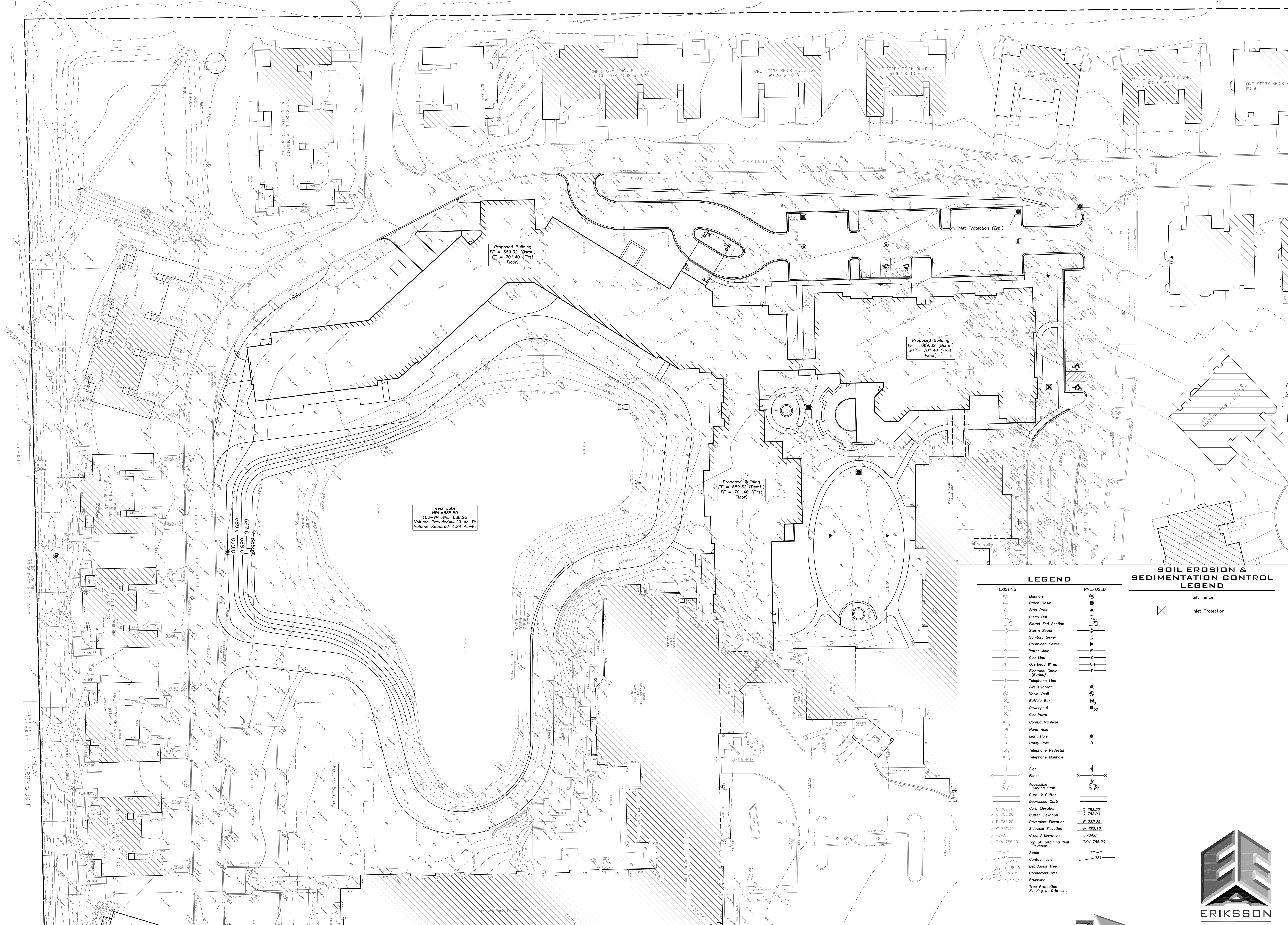
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LEGEND

EXISTING

PROPOSED

Manhole

Catch Basin

Area Drain

Clean Out

Flared End Section

Storm Sewer

Sanitary Sewer

Combined Sewer

Water Main

Gas Line

Overhead Wires

Electrical Cable (Buried)

Telephone Line

Fire Hydrant

Valve Vault

Buffalo Box

Downspout

Gas Valve

CornEd Manhole

Hand Hole

Light Pole

Utility Pole

Telephone Pedestal

Telephone Manhole

Sign

Fence

Access

Stall

Curb & Gutter

Depressed Curb

Curb Elevation

Gutter Elevation

Pavement Elevation

Sidewalk Elevation

Ground Elevation

Top of Retaining Wall Elevation

Swale

Contour Line

Deciduous Tree

Coniferous Tree

Brushline

Tree Protection

Fencing at Drip Line

Manhole

Catch Basin

Area Drain

Clean Out

Flared End Section

Storm Sewer

Sanitary Sewer

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Water Main

Gas Line

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Ground Elevation

Top of Retaining Wall Elevation

Swale

Contour Line

Deciduous Tree

Coniferous Tree

Brushline

Tree Protection

Fencing at Drip Line

Silt Fence

Inlet Protection

0 30 60 90

Scale: 1"=30'

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NO. 1

DATE 06/22/2015

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NO. 1

DATE 06/22/2015

DESCRIPTION PUD Application Submittal

THE MOORINGS OF ARLINGTON HEIGHTS

FOR PRESBYTERIAN HOMES

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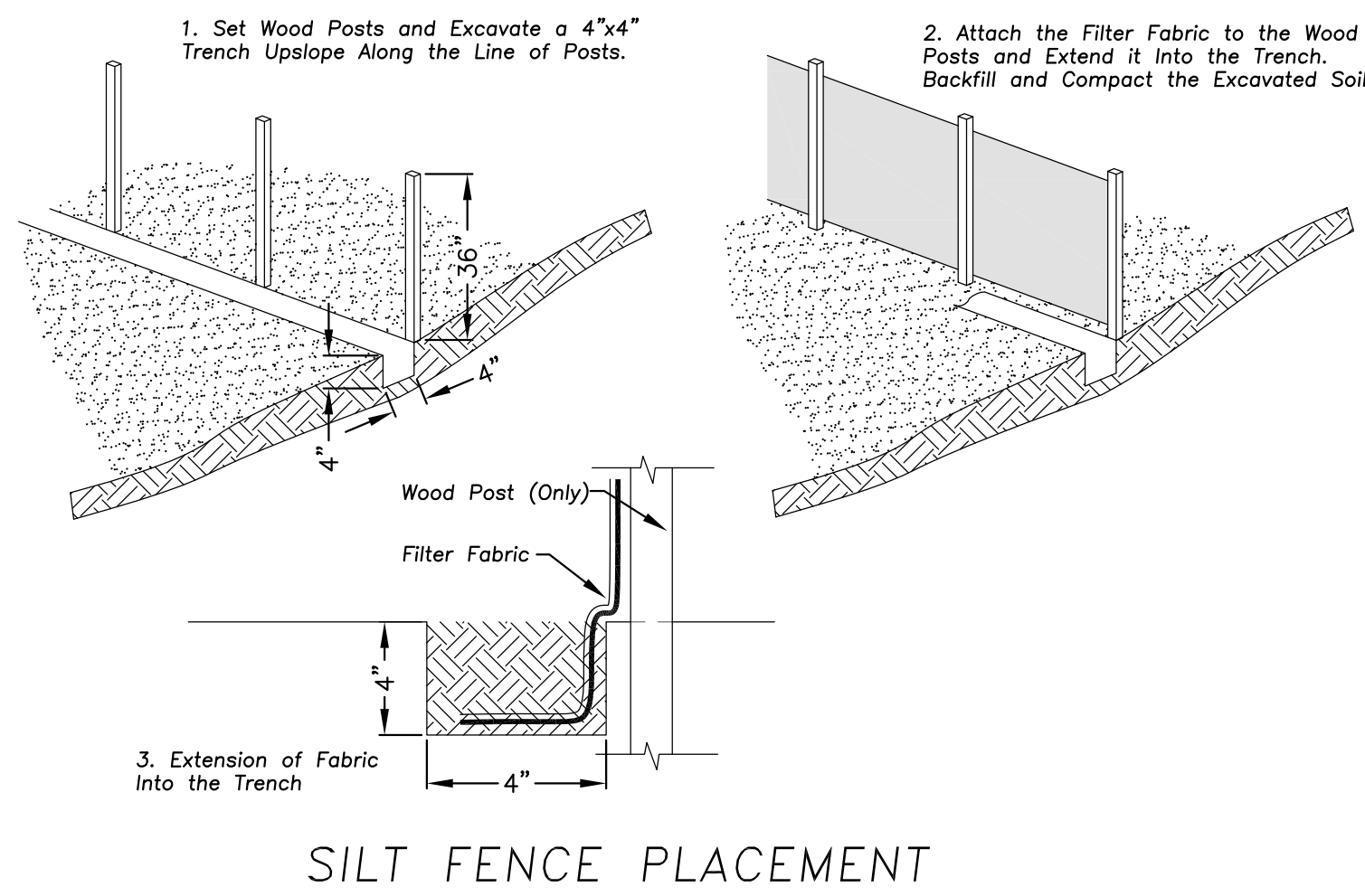
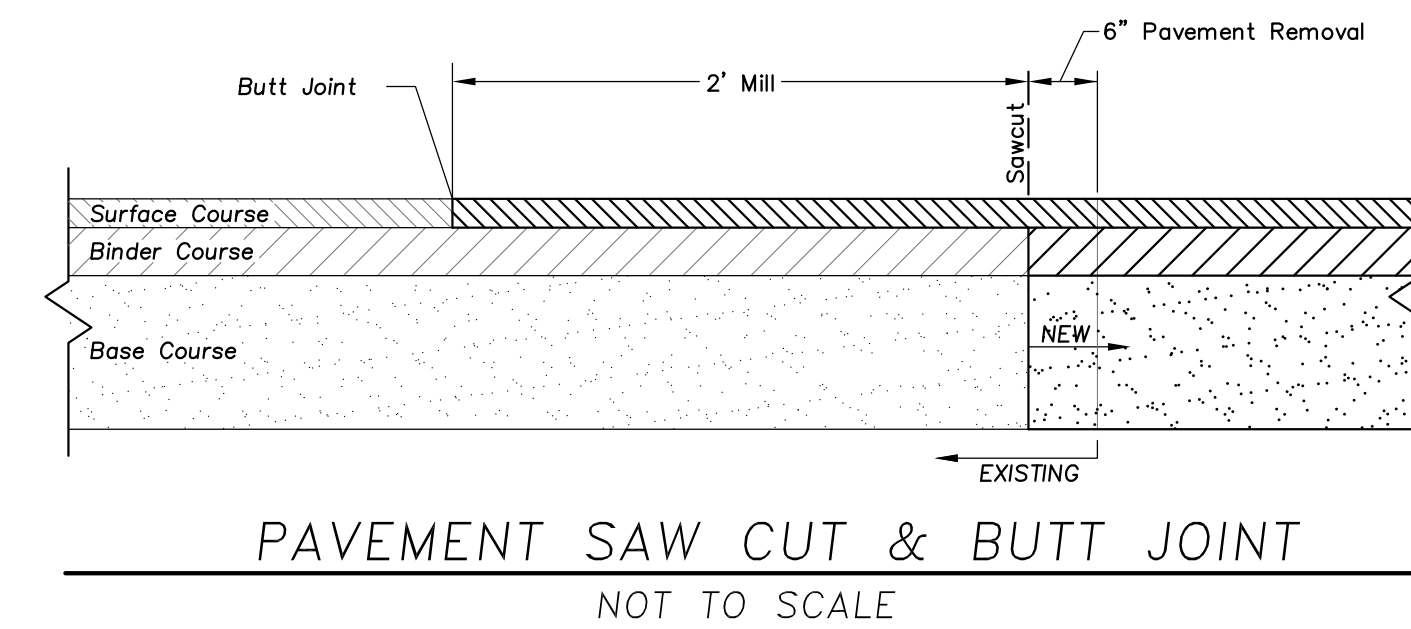
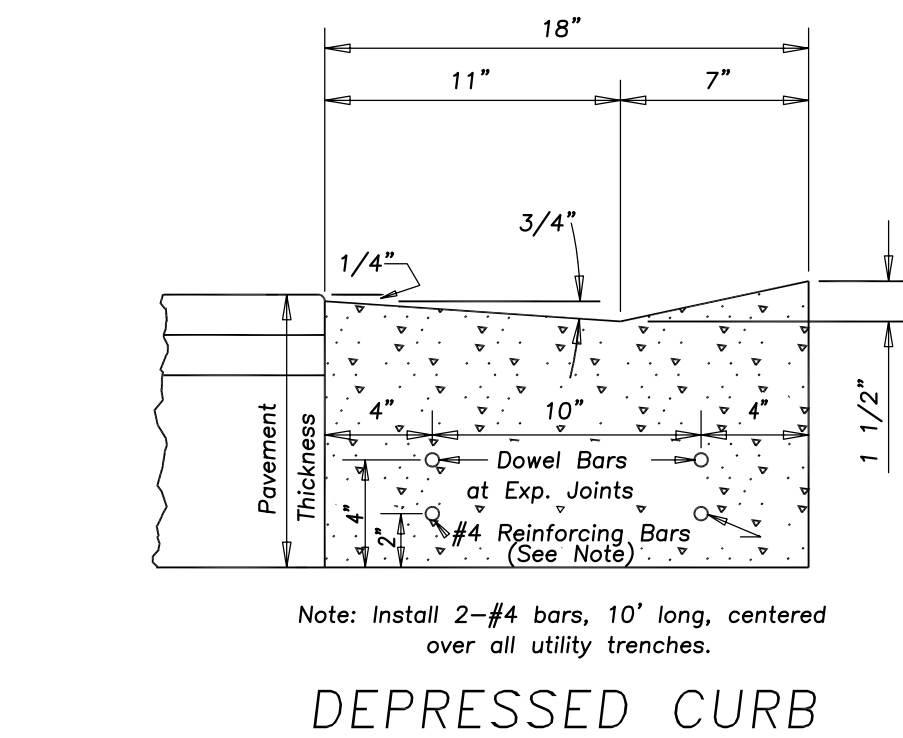
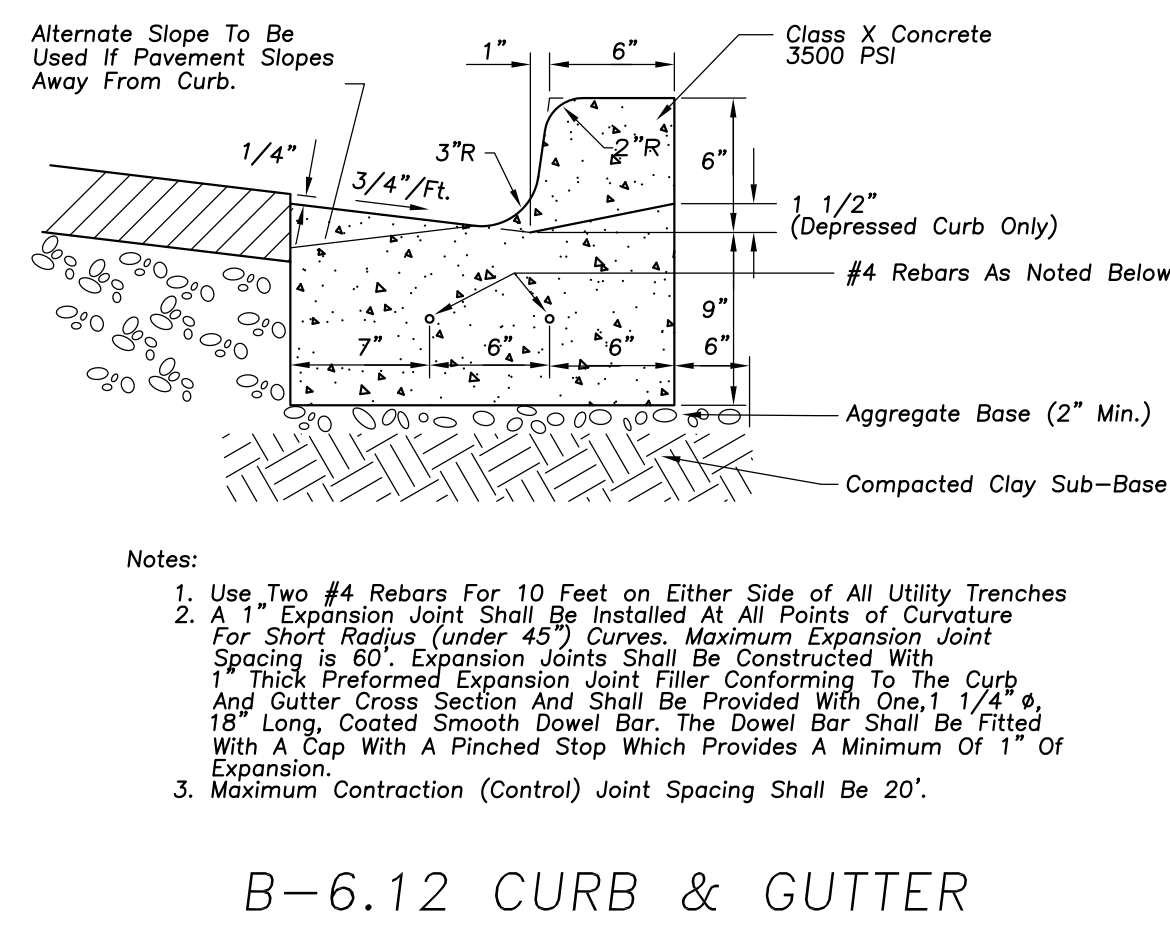
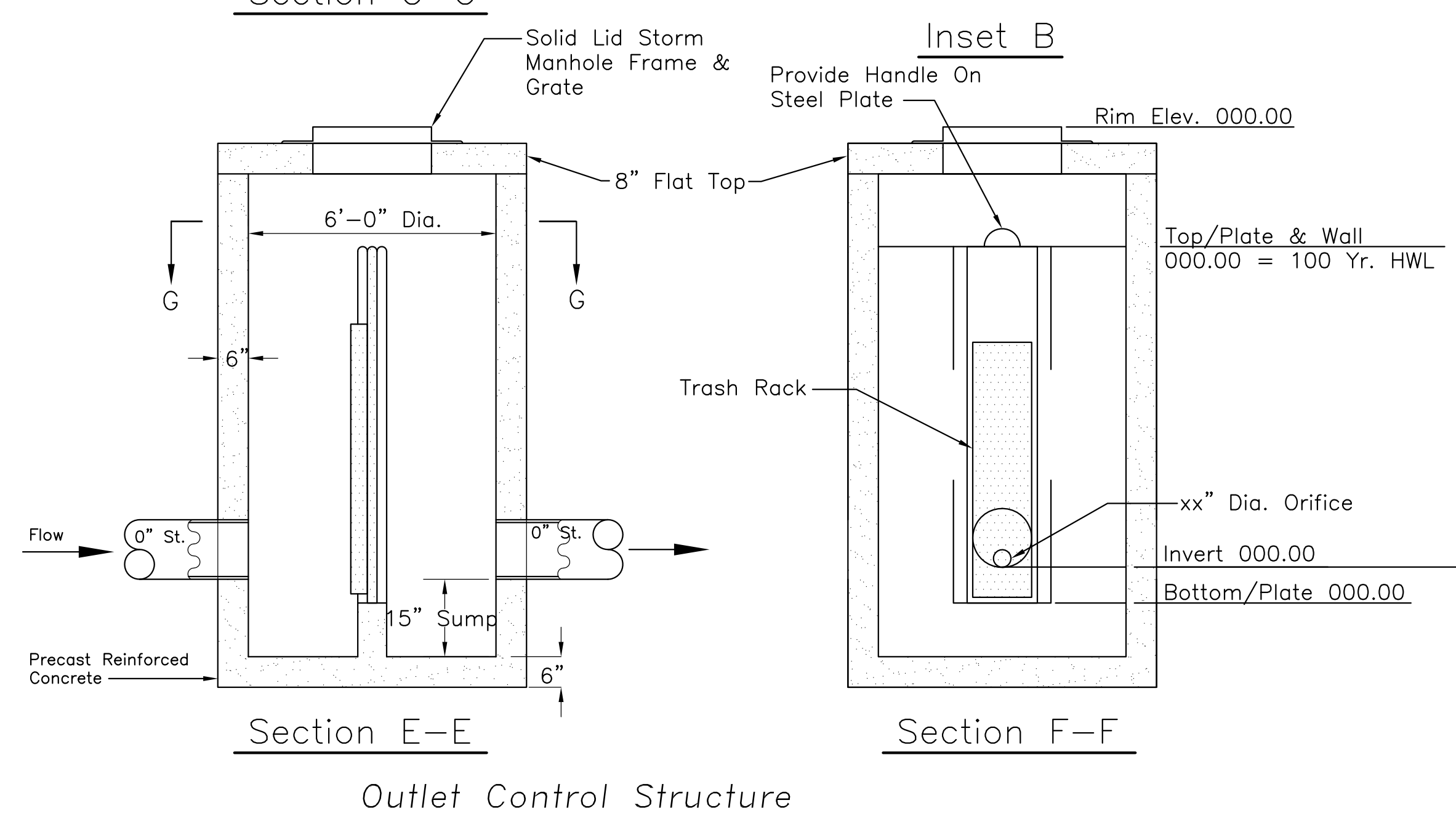
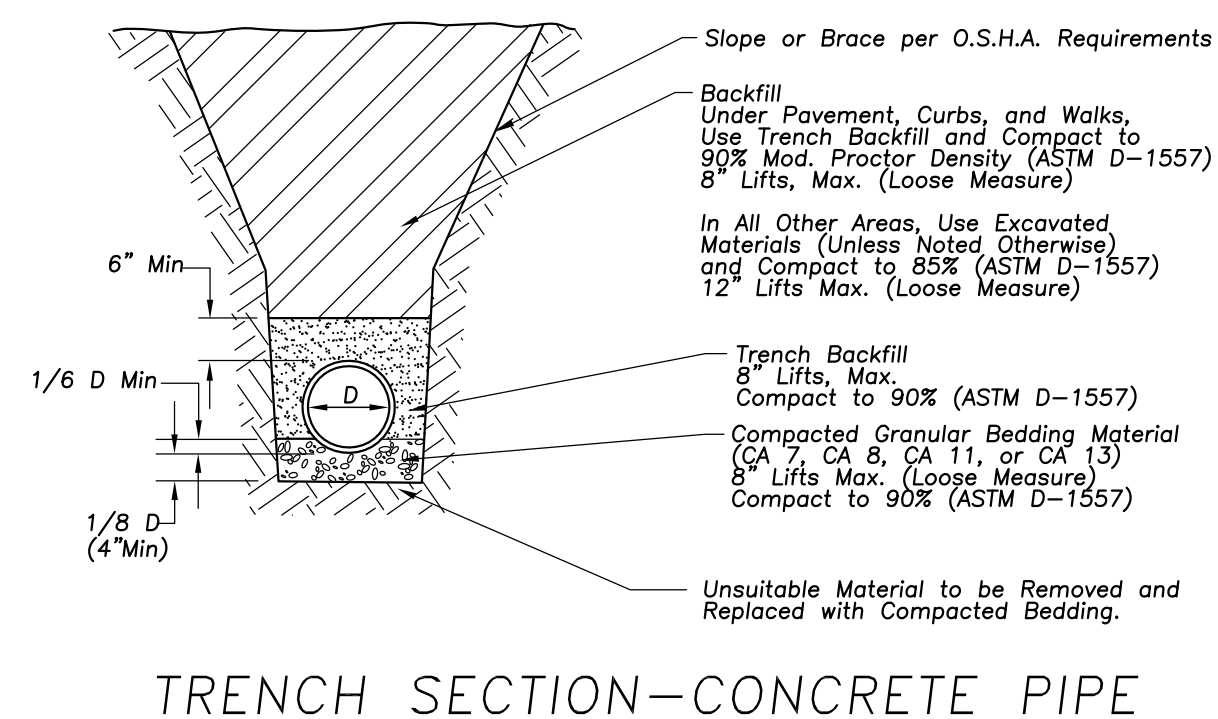
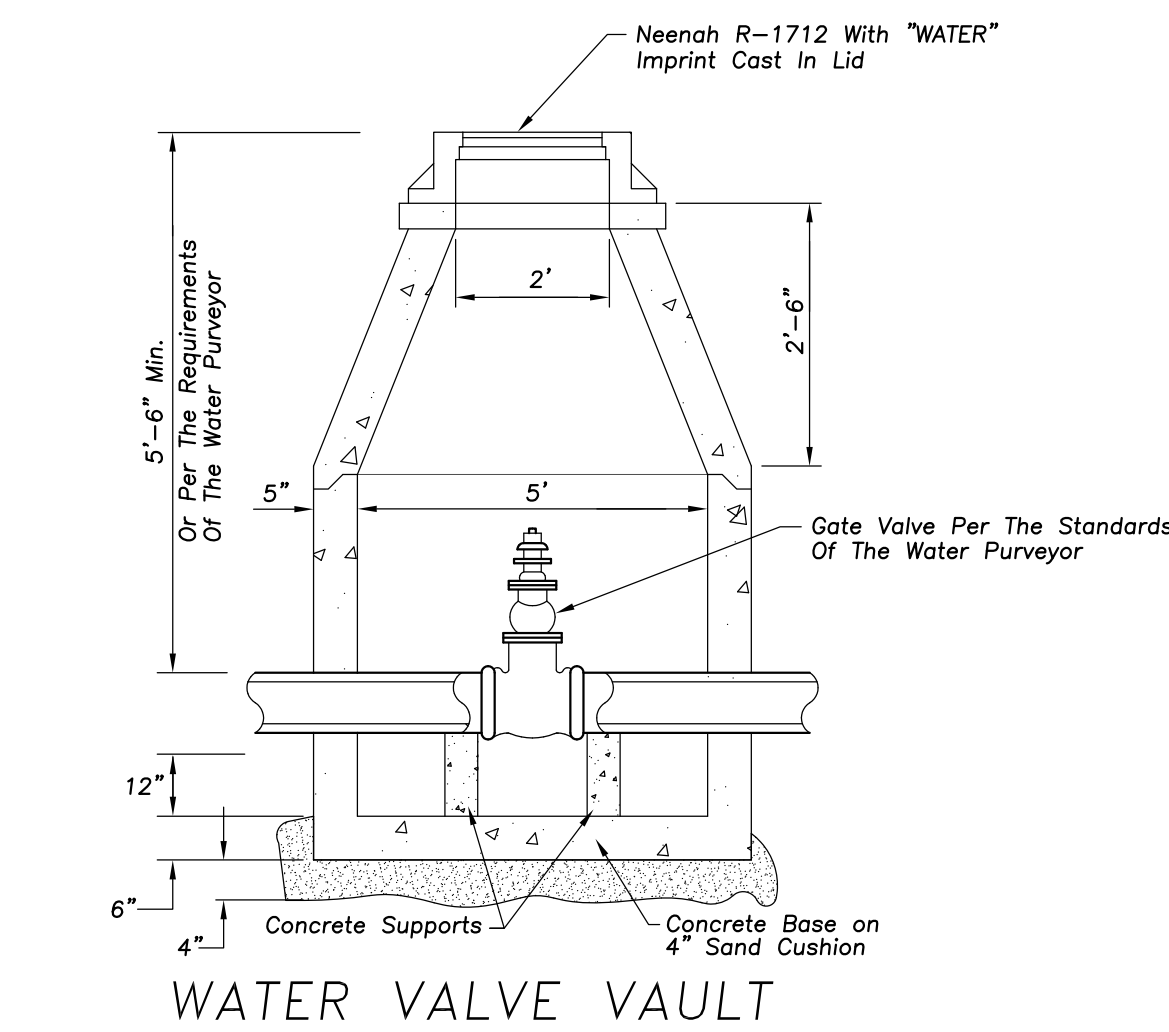
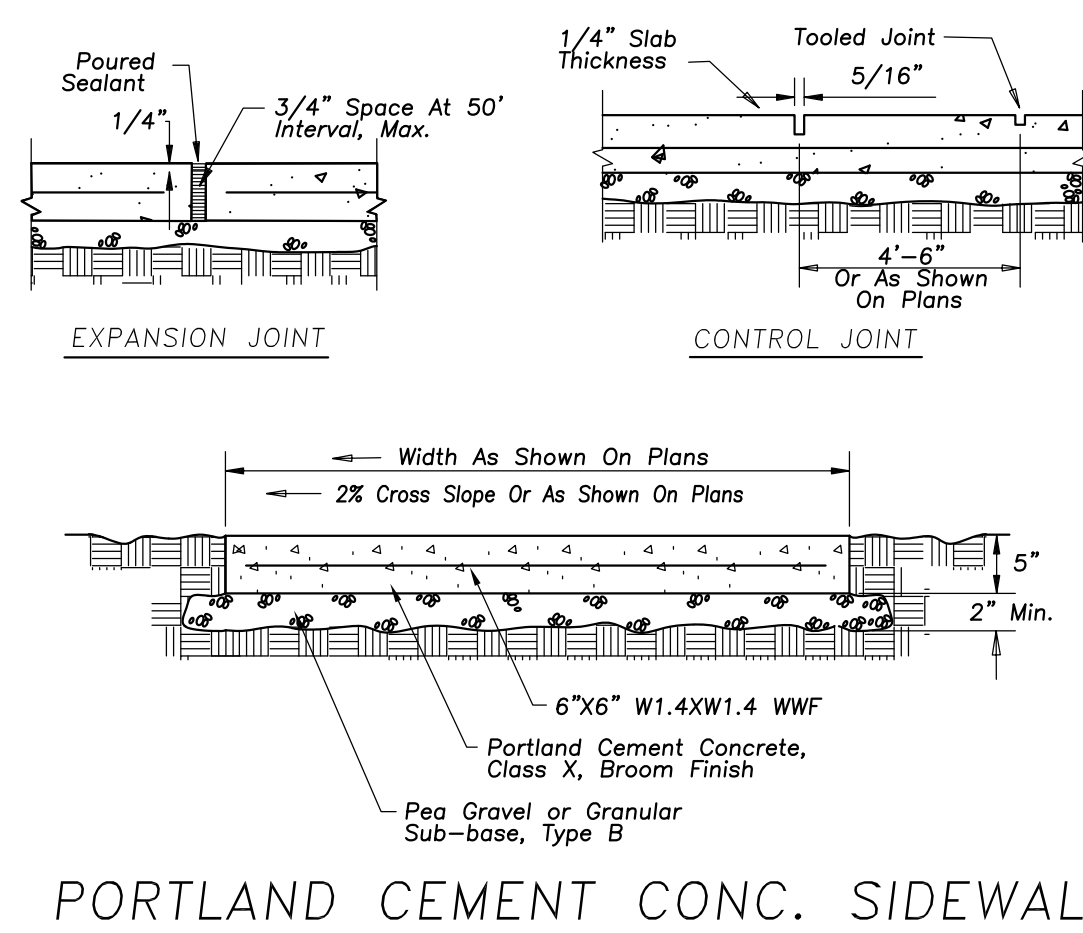
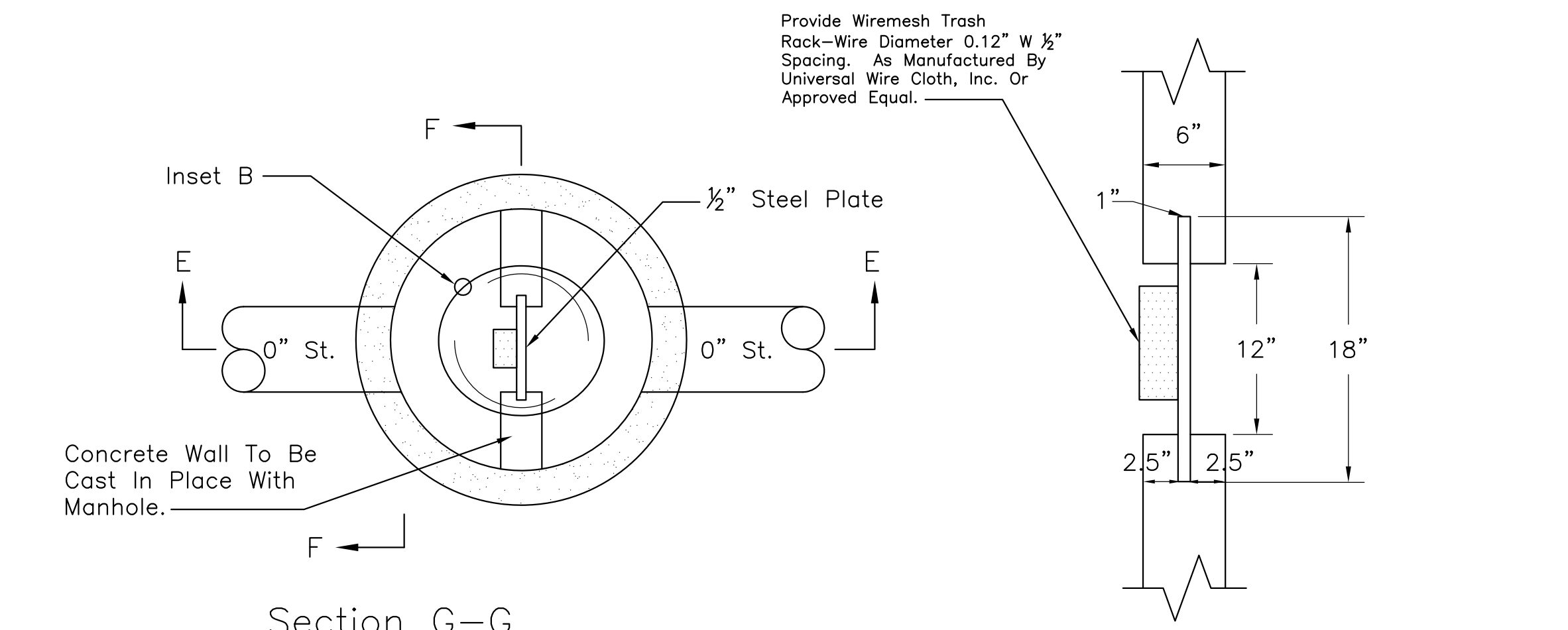
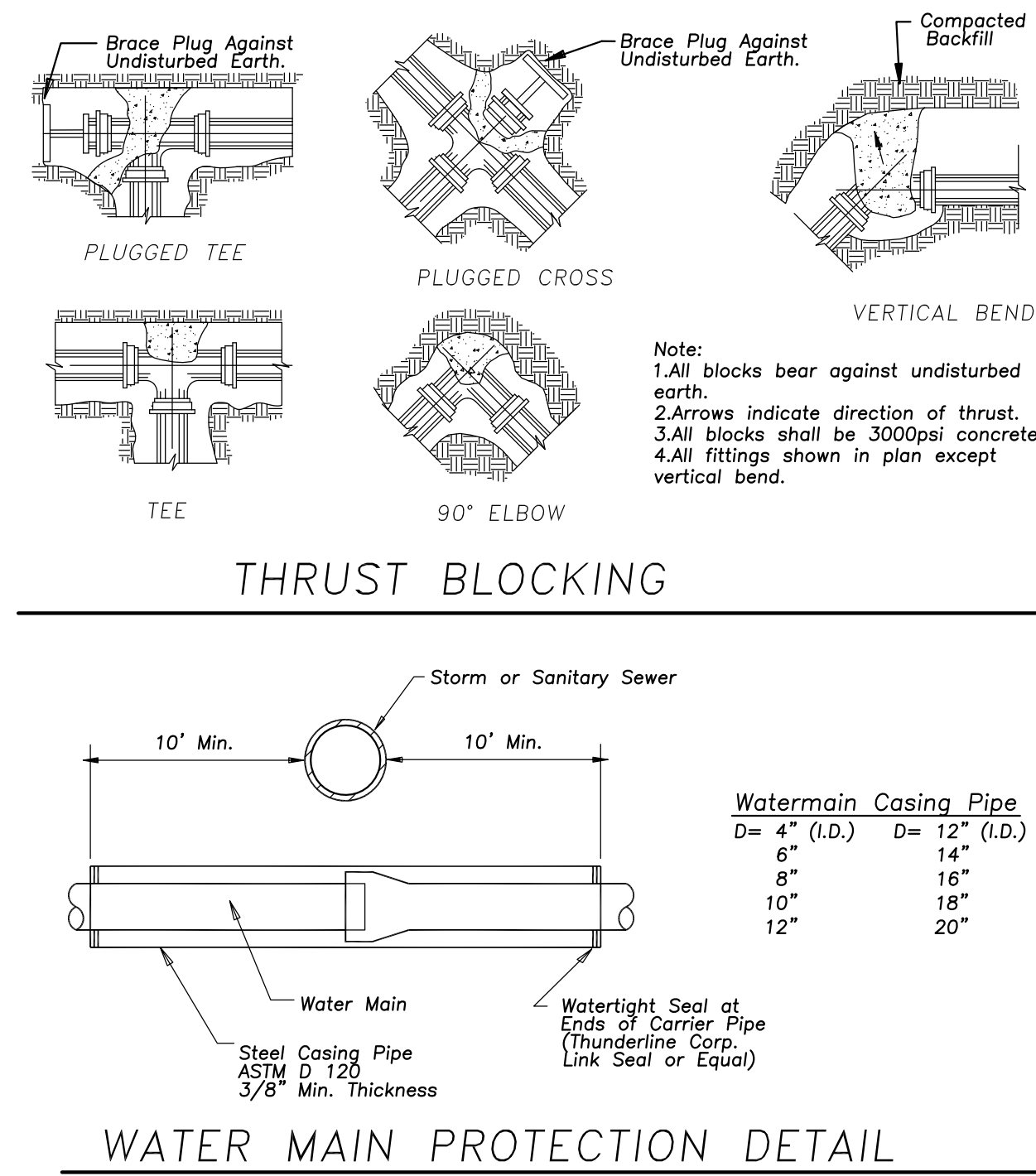
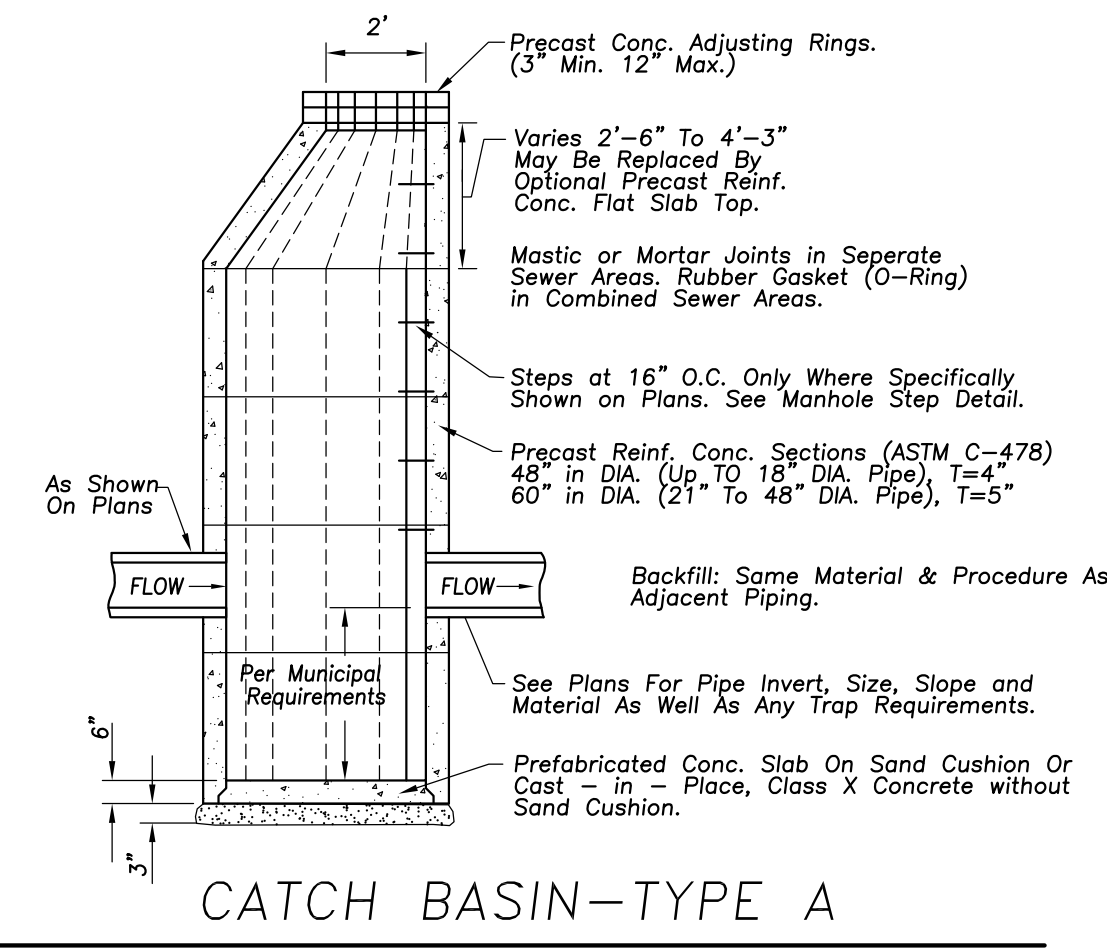
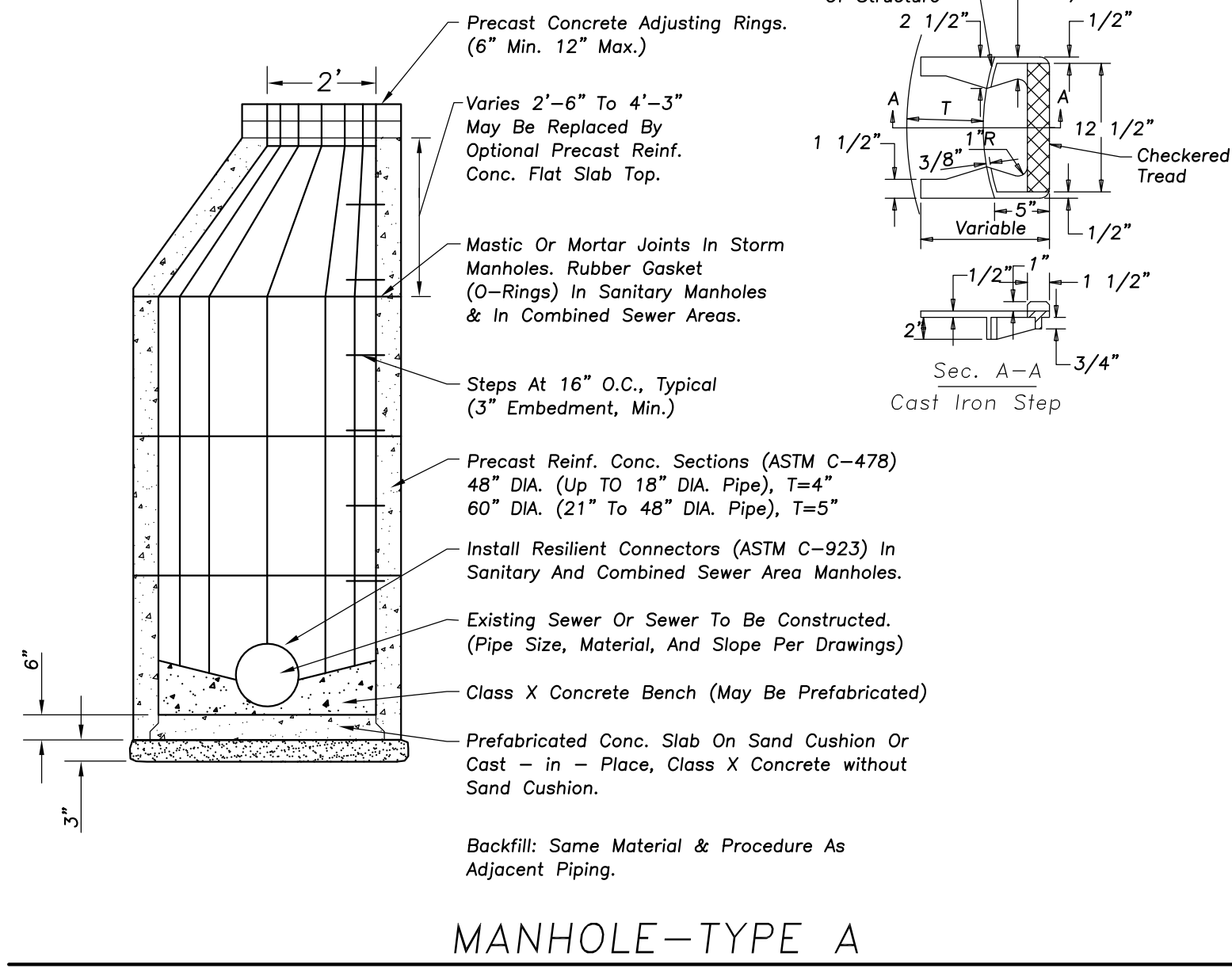
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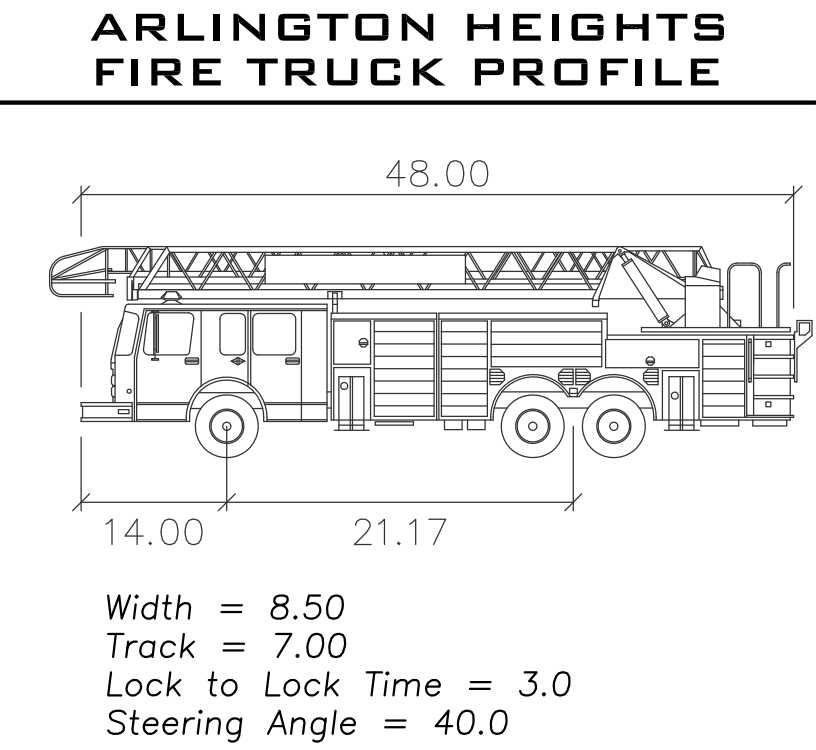
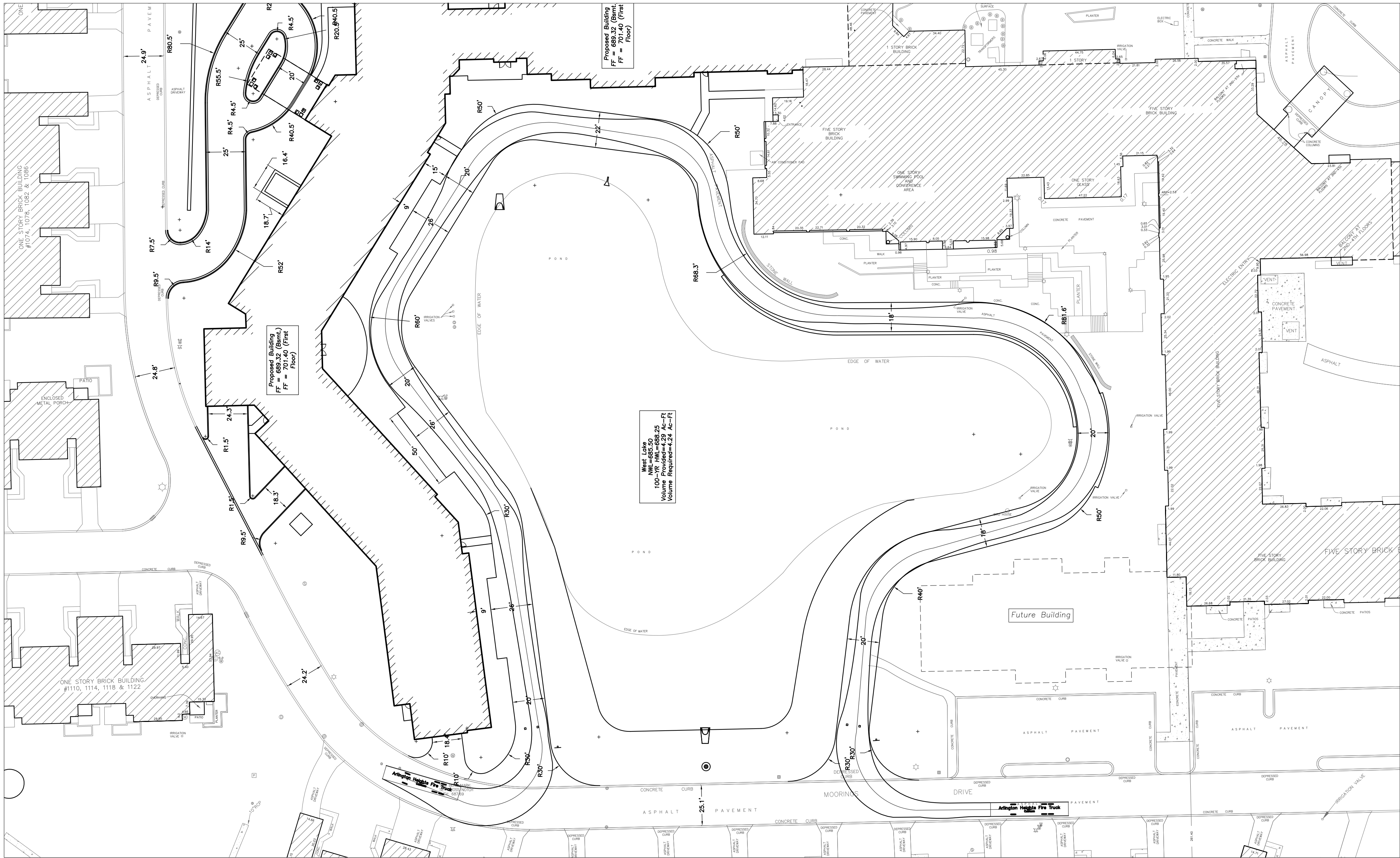
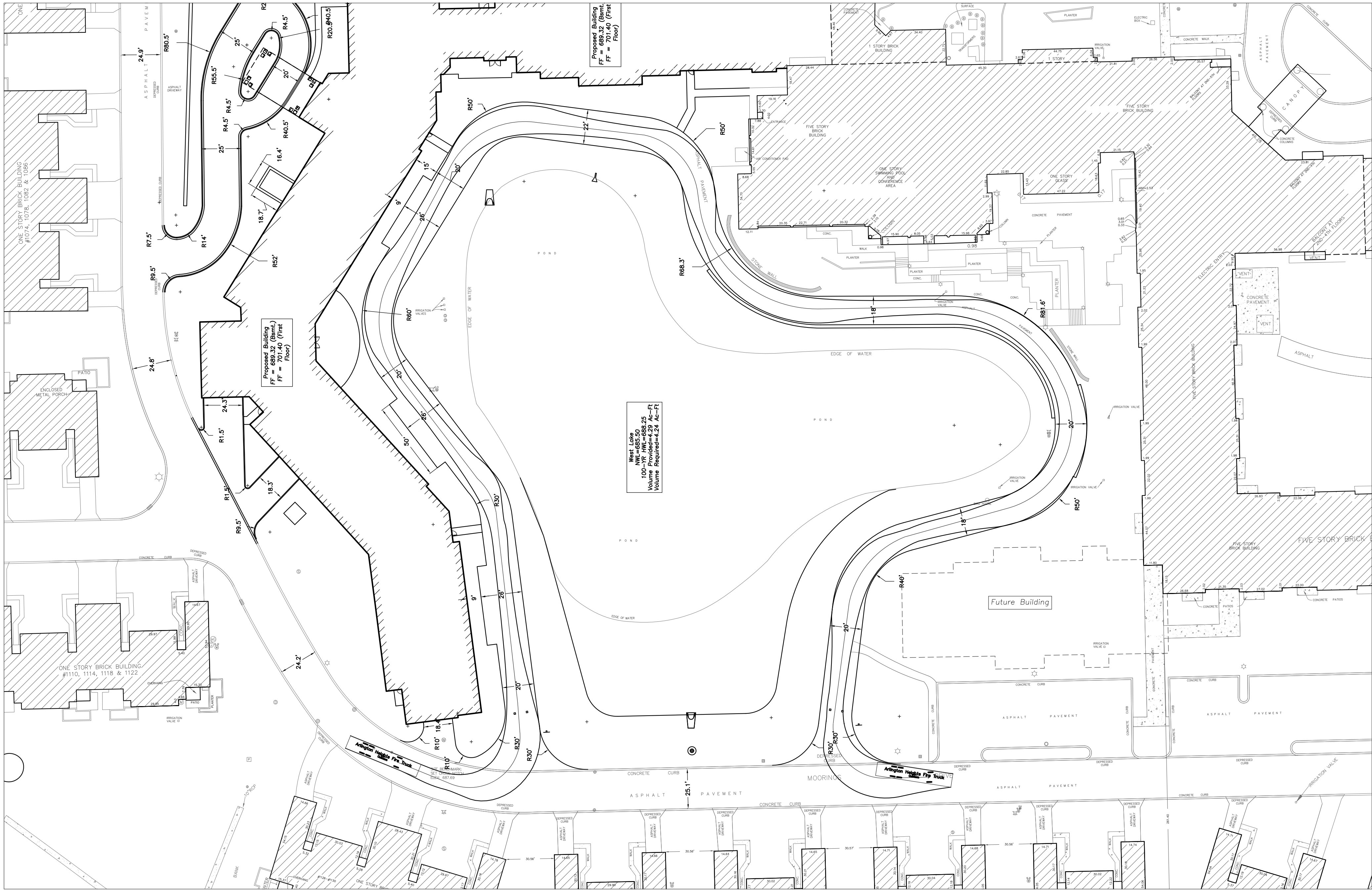
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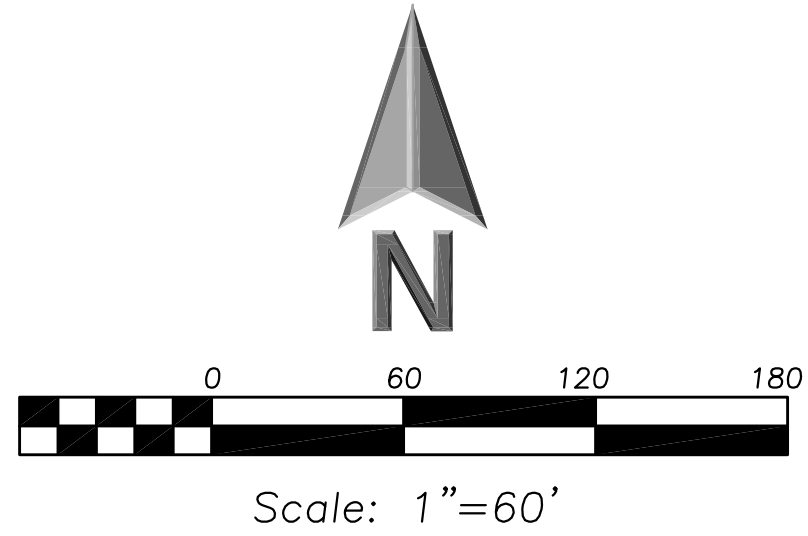


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SITE WORK DETAILS		DATE: 4/27/2015 AS NOTED	
DRAWING NO.: C7.0		SCALE: 20/14104	



LEGEND	
EXISTING	PROPOSED



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**FIRE LANE
TURNING EXHIBIT**

C8.0

DRAWING NO.: 2014104

SCALE: AS NOTED

DATE: 4/27/2015

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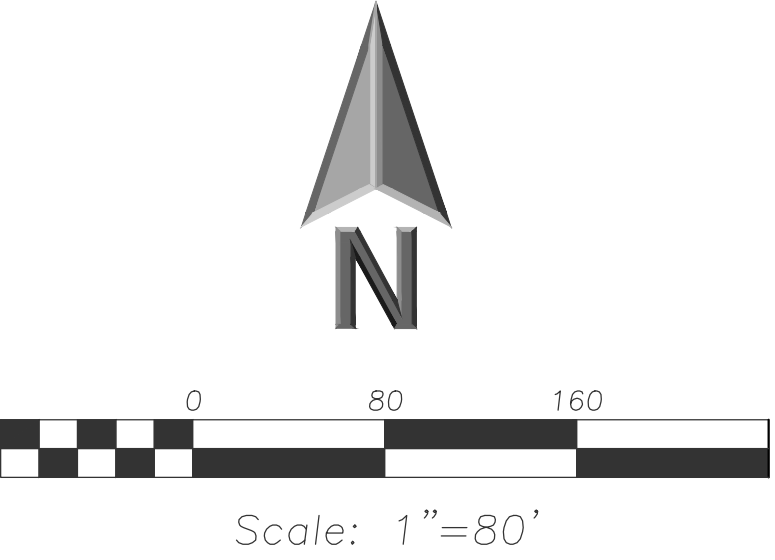
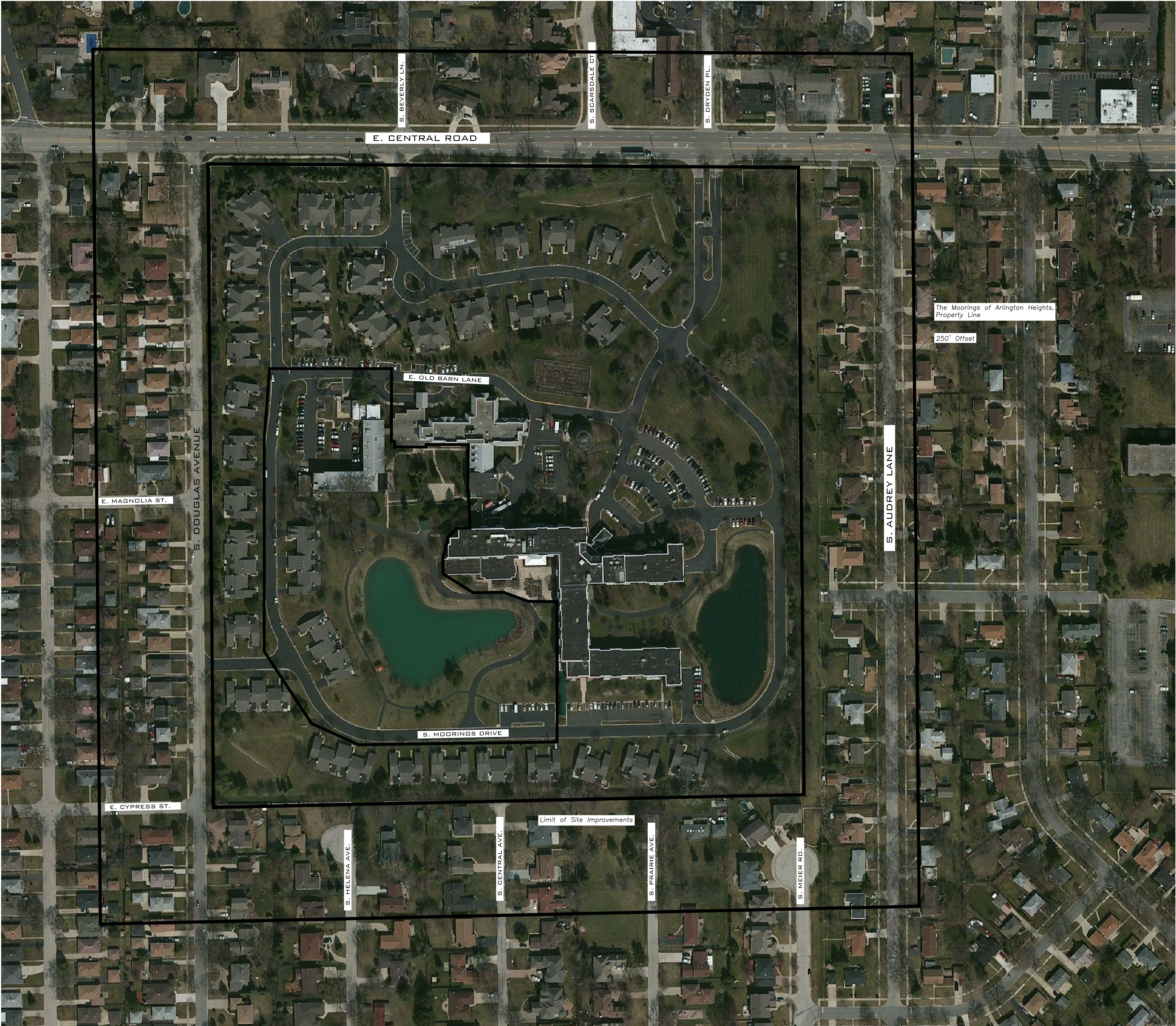
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THE MOORINGS OF ARLINGTON HEIGHTS
FOR
PRESBYTERIAN HOMES
811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005
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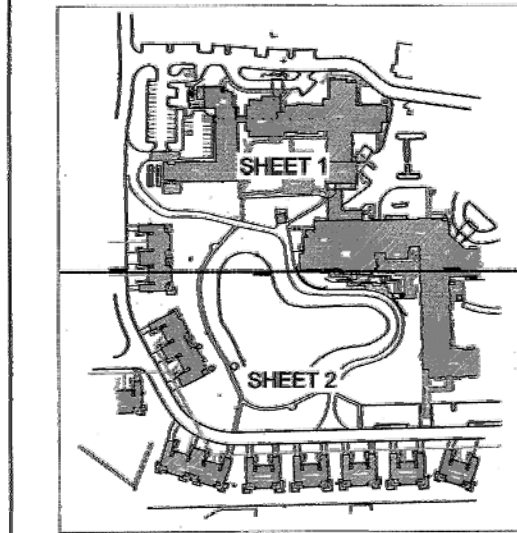
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2014104		4/27/2015		1		05/01/15		In-Progress Set - Not For Construction		DRAWN BY:		717-560-9501 FAX: 717-560-2373 RLPS, LLP	
2014104		4/27/2015		1		05/01/15		In-Progress Set - Not For Construction		COORDINATED BY:		CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.	
2014104		4/27/2015		1		05/01/15		In-Progress Set - Not For Construction		C.M.F.		rpls architects®	
2014104		4/27/2015		1		05/01/15		In-Progress Set - Not For Construction		C.S.I.		architecture • master planning • interior design	
2014104		4/27/2015		1		05/01/15		In-Progress Set - Not For Construction		M.J.R.		250 VALLEYBROOK DRIVE, LANCASTER, PA 17601	
2014104		4/27/2015		1		05/01/15		In-Progress Set - Not For Construction		M.J.R.		717-560-9501 FAX: 717-560-2373 RLPS, LLP	

Legend:

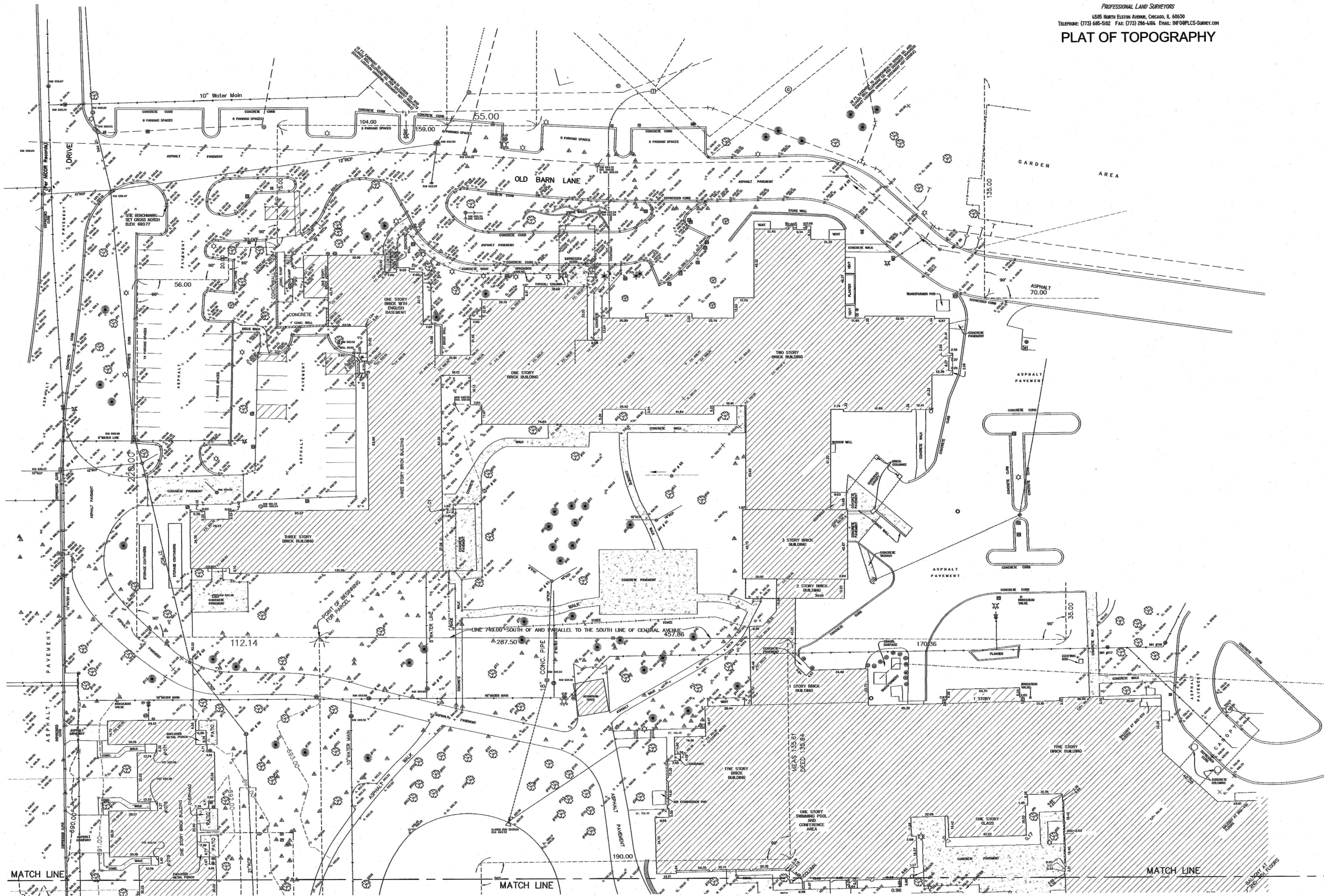
- Storm MH
- Storm CB
- Storm Inlet
- San MH
- San Clean Out
- Water Valve Vault
- Water MH
- Water Buffalo Box
- Water Hand Hole
- Water Meter
- Water Fire Hydrant
- Telephone MH
- Telephone Vault
- Telephone Pedestal
- Public Telephone
- Combination Pedestal
- Utility Pole
- Electric Warehouse
- Electric MH
- Electric Vault
- Electric Meter
- Electric Pad
- Electric Pedestal
- Electric Light Pole
- Electric Traffic Signal
- Pole with Traffic Signal
- Electric Traffic Control Box
- Electric Traffic Vault
- Gas Buffalo Box
- Gas Hand Hole
- Gas Meter
- Gas Valve
- Gas MH
- Gas Vault
- Gas Buffalo Box
- Cable TV Pedestal
- Parking Meter
- Sign Post
- Mail Box
- Bumper Post
- Guy Anchor
- Soil Boring
- Monumentation Established
- Unestablished Monohole
- Auto Sprinkler
- House Connection
- Fire Alarm
- Flag Pole
- Tree - Deciduous
- Tree - Evergreen

A=ASPHALT ELEVATION
CB=CONCRETE ELEVATION
F=FINISHED FLOOR ELEVATION
W=WATER ELEVATION
X=CONCRETE ELEVATION
Y=TOP OF SLOPE ELEVATION
Z=TOP OF BANK ELEVATION
C=CURB ELEVATION
L=ELEVATION

GRAPHIC SCALE
0 10 20
(FEET)
0 10 20
(METERS)



LOCATION MAP

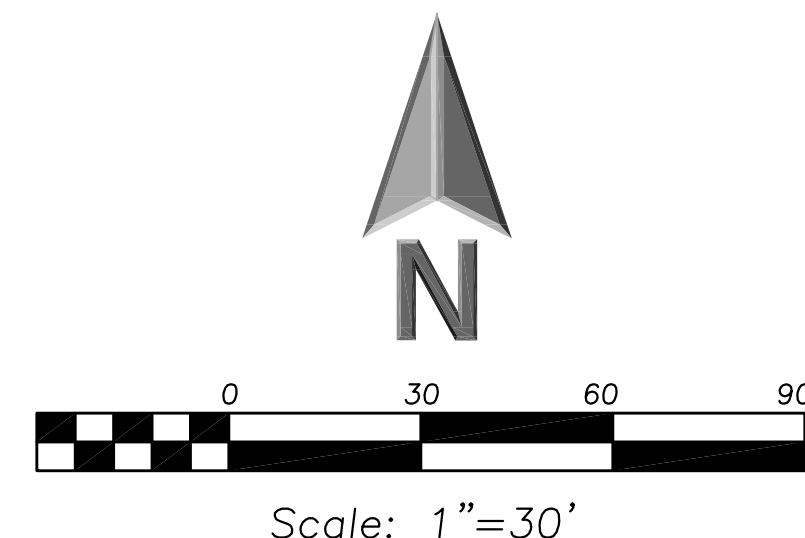


ADDITIONAL TOPOGRAPHY ADDED MAY 9, 2015
OWNER: THE BOARD OF ARRLINGTON HEIGHTS
PROJECT: PRESBYTERIAN HOMES
PREPARED BY: GREMLEY & BIEDERMANN
PLAT NO.: 2015-20606-001
SHEET: 1 OF 2

SURVEY NOTES:
Note R, S, & M. denotes Record and Measured distances respectively.
Distances are marked in feet and decimal parts thereof. Compare all points BEFORE building by same and at once report any differences REPAIR. Change is done.
For easements, building lines and other conditions not shown on survey plat refer to your original, deed, contract, title policy and local building line regulations.
NO dimensions shall be assumed by scale measurement upon this plat.
Unless otherwise noted herein the Bearing, Elevation Datum and Coordinate Datum if used is ASSUMED.
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NO.	DATE	DESCRIPTION
1	06/22/2015	PUD Application Submittal

State of Illinois
County of Cook
We, GREMLEY & BIEDERMANN, INC. hereby certify that we have measured the elevations and bearings shown hereon and that the plat herein shown is a correct representation thereof.
Field measurements completed on MAY 9, 2015.
Signed on May 15, 2015
By: [Signature]
Professional Meas. Land Surveyor No. 22672
My license expires November 30, 2019
This professional service conforms to the current Illinois minimum standards for topographic surveys.



GREMLEY & BIEDERMANN
A Division of
PLCS Corporation
PROFESSIONAL LAND SURVEYORS
4505 NORTH ELSTON AVENUE, CHICAGO, IL 60630
Telephone: (773) 645-5102 Fax: (773) 284-4384 Email: INFO@PLCS-SURVEY.COM
PLAT OF TOPOGRAPHY

PLAT OF
SURVEY
(1 OF 2)
C9.0
2014104

REVISIONS
NO. DATE DESCRIPTION
1 06/22/2015 PUD Application Submittal

THE MOORINGS OF ARLINGTON HEIGHTS
FOR
PRESBYTERIAN HOMES
811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005
DRAWN BY: C.M.F. CHECKED BY: C.S.L. APPROVED BY: M.J.R.

rlps architects®
architecture • master planning • interior design
250 VALLEYBROOK DRIVE, LANCASTER, PA 17601
717-560-9501 FAX: 717-560-2373 RLPS, LLP

DESIGN PHASE

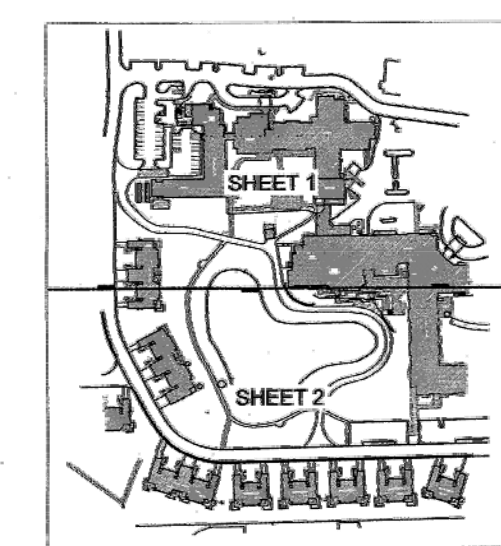
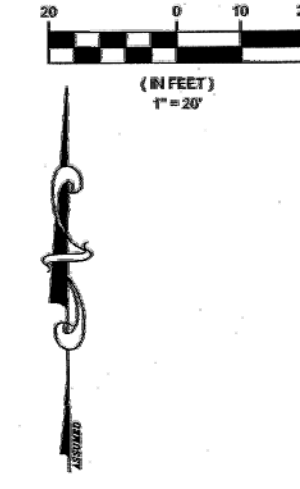
THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF GREMLEY & BIEDERMANN, INC. AND IS NOT TO BE REPRODUCED WITHOUT THE ARCHITECT'S PERMISSION AND WITHOUT THE NAME OF THE ARCHITECT. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.

Legend:

- Storm MH
- Storm CB
- Storm Inlet
- Sun MH
- Sun Clean Out
- Water Valve Vault
- Water MH
- Water Buffalo Box
- Water Hand Hole
- Water Meter
- Telephone MH
- Telephone Vault
- Telephone Pedestal
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- Cable TV Pedestal
- Parking Meter
- Sign Post
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- Bumper Post
- Guy Anchor
- Soil Boring
- Monumentation Found
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- Hose Connection
- Fire Alarm
- Flag Pole
- Tree - Deciduous
- Tree - Evergreen

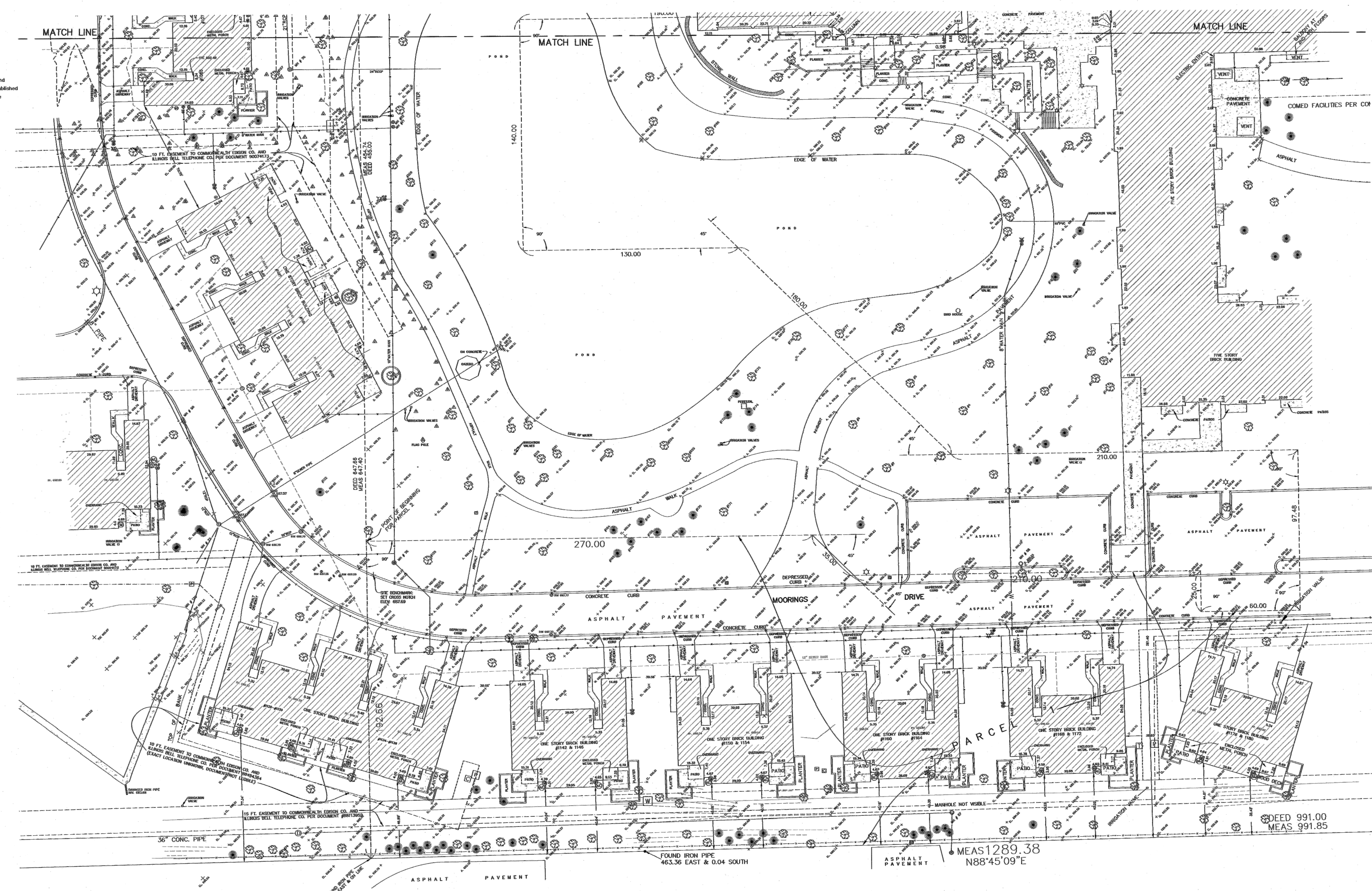
A-ASPHALT ELEVATION
GR-GRASS ELEVATION
PF-FINISHED FLOOR ELEVATION
W-WALK ELEVATION
X-CONCRETE ELEVATION
T-TOP OF BLOKE ELEVATION
TOL-TOP OF BANK ELEVATION
C-CURB ELEVATION
Q-QUOTER ELEVATION
EL-ELEVATION

GRAPHIC SCALE
1"=30'



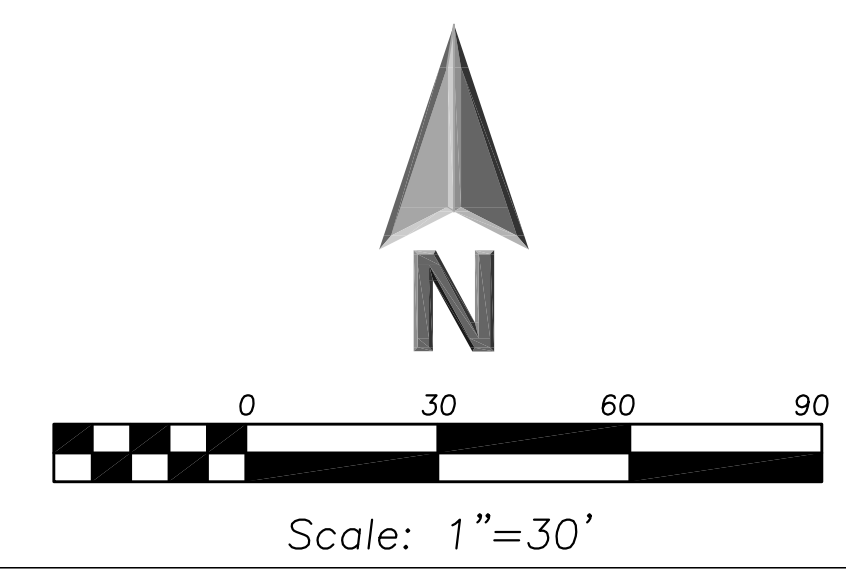
LOCATION MAP

GREMLEY & BIEDERMANN
A Division of
PLCS Corporation
Professional Land Surveyors
4555 North Elston Avenue, Chicago, IL 60630
Telephone: (773) 465-6500 Fax: (773) 294-4444 Email: INFO@PLCS-SURVEY.COM
PLAT OF TOPOGRAPHY



SURVEY NOTES:
Note R. & M. denotes Record and Measured distances respectively.
Distances are marked in feet and decimal parts thereof. Compare all points BEFORE building by owner and at once report any differences BEFORE damage is done.
For easements, building lines and other restrictions not shown on survey plat refer to your deed, deed contract, life policy and local building line regulations.
NO dimensions shall be assumed by scale measurement upon this plat.
Monumentation or witness points were not set at the clients request.
Unless otherwise noted between the Bearing Basis, Elevation Datum and Coordinate Datum if used to ASSUMED.
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NO.	DATE	DESCRIPTION
1	06/22/2015	PUD Application Submittal



THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF GREMLEY & BIEDERMANN, A DIVISION OF PLCS CORPORATION. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED WITHOUT THE ARCHITECT'S PERMISSION AND UNLESS OTHERWISE SPECIFIED, THE NAME OF THE ARCHITECT SHALL BE THE NAME OF THE ARCHITECT. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.

DESIGN PHASE

rp architects®
architecture • master planning • interior design
250 VALLEYBROOK DRIVE, LANCASTER, PA 17601
717-560-9501 FAX: 717-560-2373 RLPS, LLP

THE MOORINGS OF ARLINGTON HEIGHTS
FOR
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811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005
DRAWN BY: C.M.F. COORDINATOR BY: C.S.L. CHECKED BY: M.J.R. APPROVED BY: M.J.R.

PLAT OF SURVEY (2 OF 2)

C9.1
DRAWING NO.: 2014104
COMMISSION NO.: SCALE: AS NOTED DATE: 4/27/2015




SternbergLighting
ESTABLISHED 1982 • CHANDLER, ARIZONA

1843 LED CARSON CITY SERIES

S1 (III) & S1 (V)

18-798

1843LED

- The luminaire shall use high output, high brightness LEDs.
- The LEDs shall be mounted in arrays, on printed circuit boards designed to maximize heat transfer to the heat sink surface.
- The LED arrays shall be mounted to minimize up-light.
- The LEDs shall be attached to the printed circuit board with not less than 90% pure silver to insure optimal electrical and thermal conductivity.
- The LEDs and printed circuit boards shall be protected from moisture and corrosion by a conformal coating of 1 to 3 mils.
- The LEDs and printed circuit board construction shall be environmentally friendly and 100% recyclable. They shall not contain lead, mercury or any other hazardous substance and shall be RoHS compliant.
- The LED life rating shall be determined in accordance with IESNA LM-80.

d'series

Specifications

Diameter: 8" Round
(20.3 cm)

Height: 42"
(106.7 cm)

Weight (max): 27 lbs
(12.25 kg)

d'series

The D-Series LED Bollard is a stylish, energy-saving, long-life solution designed to perform the way a bollard should—with zero uplift. An optical leap forward, this full cut-off luminaire will meet the most stringent of lighting codes. The D-Series LED Bollard's rugged construction, durable finish and long-lasting LEDs will provide years of maintenance-free service.

Ordering Information										EXAMPLE: DSXB LED 16C 700 40K SYM MVOLT DOBKD									
DSXB LED																			
Series	Units	Shw color	Color temperature	Distribution	Wavelength	Control options	Shw options	Shw options	Part#										
A	Assorted	12C	40K	40K	460nm	FE	Shipped unsorted	FE	1201										
	250 - 1,125	100	400-410 nm	40K	460nm	FE	Phosphors: 101, 102, 103	FE	1201										
S	Assorted	16C	40K	40K	460nm	FE	Shipped unsorted	FE	1601										
	250 - 1,125	100	400-410 nm	40K	460nm	FE	Phosphors: 101, 102, 103	FE	1601										
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	250 - 1,125	100	400-410 nm	40K	460nm	FE	Ph												

Ordered and shipped separately	
HRM 2	Anchor bolts for 203 ¹

**LITHONIA
LIGHTING**

One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.229.8041 • Fax: 770.918.1209 • www.lithonia.com
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1 of 1

811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005

PROJECT DESCRIPTION		STANDARD ABBREVIATIONS																DRAWING SYMBOLS										SITE LOCATION MAP	
ARCHITECT	RLPS ARCHITECTS 280 VALLEY BROOK DRIVE LANCASTER, PA 717-560-4501 (FAX) 717-560-2373	A.F.F.	ABOVE FINISHED FLOOR	D.H.	DISHWASHER	G.C.	GENERAL CONTRACTOR	L.S.F.	LINEUM SHEET FLOORING	P.M.F.	PRE-MOLDED FILLER	TYP.	TYPICAL		SECTION		FLOOR LINE												
		A.D.	ACCESS DOOR	D.B.L.	DOUBLE	G.L.	GLASS	L.T.F.	LINEUM TILE FLOORING	P.R.T.B.D.	PROTECTION BOARD	U.L.	UNDERWRITERS LABORATORIES		DETAIL		PARTITION TYPE		1ST DIGIT = FIRE RATINGS 2ND & 3RD DIGIT = PARTITION TYPE										
CIVIL ENGINEER	ERIKSSON ENGINEERING ASSOCIATES, LTD. 149 COMMERCE DRIVE, SUITE A GRANTSLAKE, IL 60090 847-223-4304 (FAX) 847-223-4364	A.P.	ACCOUSTICAL PANEL	D.N.	DOWN	G.L.B.L.	GLASS BLOCK	L.R.	LIVING ROOM	R.P.P.	RAIN WATER PIPE	REF.	REFRIGERATOR		ELEVATION		WINDOW TYPE												
		A.P.C.	ACCOUSTICAL PANEL CEILING	D.N.S.P.	DOWNPOUT	G.M.F.-G.K.B.	GYPSUM WALL BOARD	L.P.	LOFT POINT	R.	RADIUS	REINFORCED	REQUIRED	RETURN		SPOT ELEVATION			ROOM NAME # NUMBER										
STRUCTURAL ENGINEER	McINTOSH ENGINEERS 145 COMMERCE DRIVE, SUITE A GRANTSLAKE, IL 60090 847-223-4304 (FAX) 847-223-4364	A.N.P.	ACCOUSTICAL PANEL	D.P.	DRINKING FOUNTAIN	G.O.V.T.	GOVERNMENT	M.A.C.H.R.M.	MACHINE ROOM	Q.T.Y.	QUANTITY	U.D.	UNIT DIMENSION		COLUMN GRID LINE		MATCH LINE												
		A.R.	ANCHOR BOLT	D.R.	DRAIN	G.R.	GRADE	M.T.L.	MATERIAL	Q.T.	QUANTITY	U.H.	UNIT HEATER		DOOR # NUMBER														
MECHANICAL, ELECTRICAL & PLUMBING ENGINEER	REISS ENGINEERING INC. 2021 FINE HALL ROAD STATE COLLEGE, PA 16801 814-561-9366 (FAX) 814-234-2544	A.R.C.H.	ARCHITECT	E.F.	EACH FACE	G.S.	GRADE LINE	M.F.R.	MANUFACTURER	R.	RADIUS	V.A.G.	VACUUM																
		A.R.C.H.	ARCHITECT	E.V.A.	EACH WAY	G.T.	GRANITE TILE	M.K.B.D.	MANUFACTURER	R.A.I.G.	RAIN WATER CONDUCTOR	R.E.F.	REFRIGERATOR	V.A.P.B.	VAPOR BARRIER														
FOOD SERVICE	SCORPUS HOSPITALITY GROUP 300 WEST GASTOWN STREET ENHART, PA 17822 717-739-5510 (FAX) 868-728-9304	A.T.C.	ACCOUSTICAL TILE CEILING	E.L.E.C.	ELECTRIC OR ELECTRICAL	G.Y.P.L.T.H.	GYPSUM LATH	M.E.C.H.	MECHANICAL	R.E.N.F.	REINFORCED	U.D.	UNIT DIMENSION																
		A.T.C.	ACCOUSTICAL TILE CEILING	E.L.E.C.	ELECTRIC OR ELECTRICAL	G.Y.P.L.T.H.	GYPSUM LATH	M.E.C.H.	MECHANICAL	R.E.N.F.	REINFORCED	U.D.	UNIT DIMENSION																
LANDSCAPE ARCHITECT	THE LAKOTA GROUP 212 W. KINGS STREET, FLOOR 3 CHICAGO, IL 60684 312-461-5448 (FAX) 312-461-5454	A.T.C.	ACCOUSTICAL TILE CEILING	E.L.E.C.	ELECTRIC OR ELECTRICAL	G.Y.P.L.T.H.	GYPSUM LATH	M.E.C.H.	MECHANICAL	R.E.N.F.	REINFORCED	U.D.	UNIT DIMENSION																
		A.T.C.	ACCOUSTICAL TILE CEILING	E.L.E.C.	ELECTRIC OR ELECTRICAL	G.Y.P.L.T.H.	GYPSUM LATH	M.E.C.H.	MECHANICAL	R.E.N.F.	REINFORCED	U.D.	UNIT DIMENSION																
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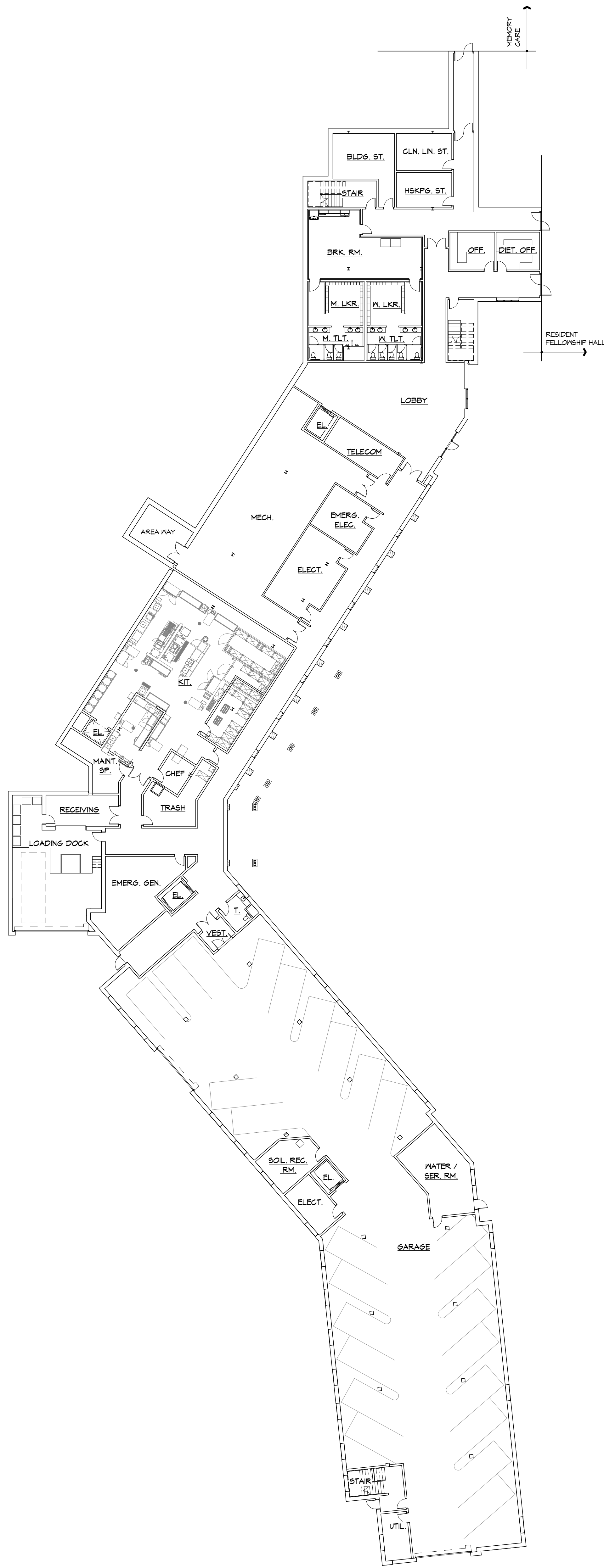
DRAWING INDEX - VOLUME II ASSISTED LIVING	
ARCHITECTURAL DRAWING LIST	
COVER SHEET	
RENDERING	
OVERALL GROUND & FIRST FLOOR PLANS	
OVERALL SECOND & THIRD FLOOR PLANS	
PARTIAL GROUND FLOOR PLAN - AREAS 'A' & 'B'	
PARTIAL GROUND FLOOR PLAN - AREAS 'C' & 'D'	
PARTIAL FIRST FLOOR PLAN - AREAS 'A' & 'B'	
PARTIAL FIRST FLOOR PLAN - AREAS 'C' & 'D'	
PARTIAL SECOND FLOOR PLAN - AREAS 'A' & 'B'	
PARTIAL SECOND FLOOR PLAN - AREAS 'C' & 'D'	
PARTIAL THIRD FLOOR PLAN - AREAS 'A' & 'B'	
PARTIAL THIRD FLOOR PLAN - AREAS 'C' & 'D'	
OVERALL ATTIC & ROOF PLAN	
EXTERIOR ELEVATIONS	
EXTERIOR ELEVATIONS	
EXTERIOR ELEVATIONS	
BUILDING SECTIONS	

REVISIONS	
NO.	DATE

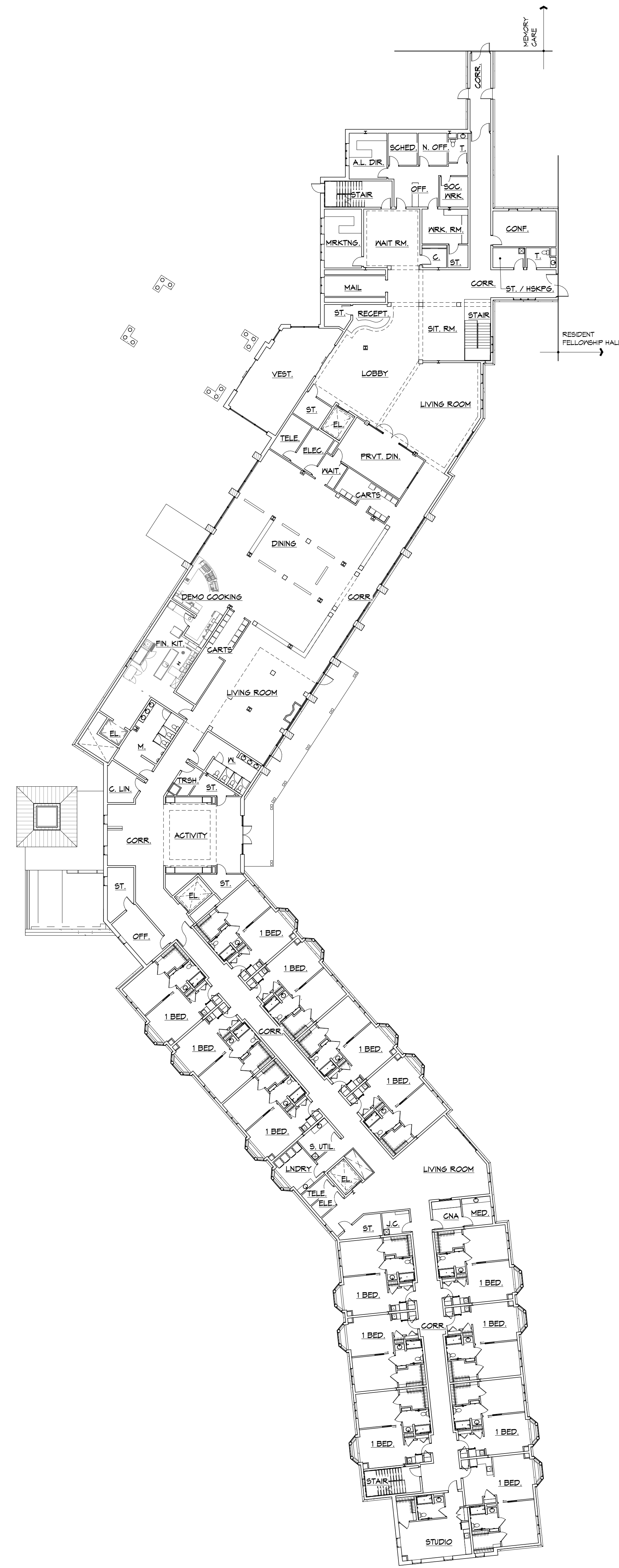


ASSISTED LIVING ENTRY

VOLUME II ASSISTED LIVING DRAWING NO: 02REN		RENDERING		REVISIONS		THE MOORINGS OF ARLINGTON HEIGHTS FOR PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005 DRAWN BY: J.S.D. COORDINATED BY: C.S.L. CHECKED BY: J.F.H. APPROVED BY: C.P.K.				 rlps architects [®] architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP		PLANNING COMMISSION SUBMISSION						THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF RLPS ARCHITECTS, LLP. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED WITHOUT THE ARCHITECT'S PERMISSION AND UNLESS OTHERWISE SPECIFIED, IT IS THE PROPERTY OF THE ARCHITECT. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.	
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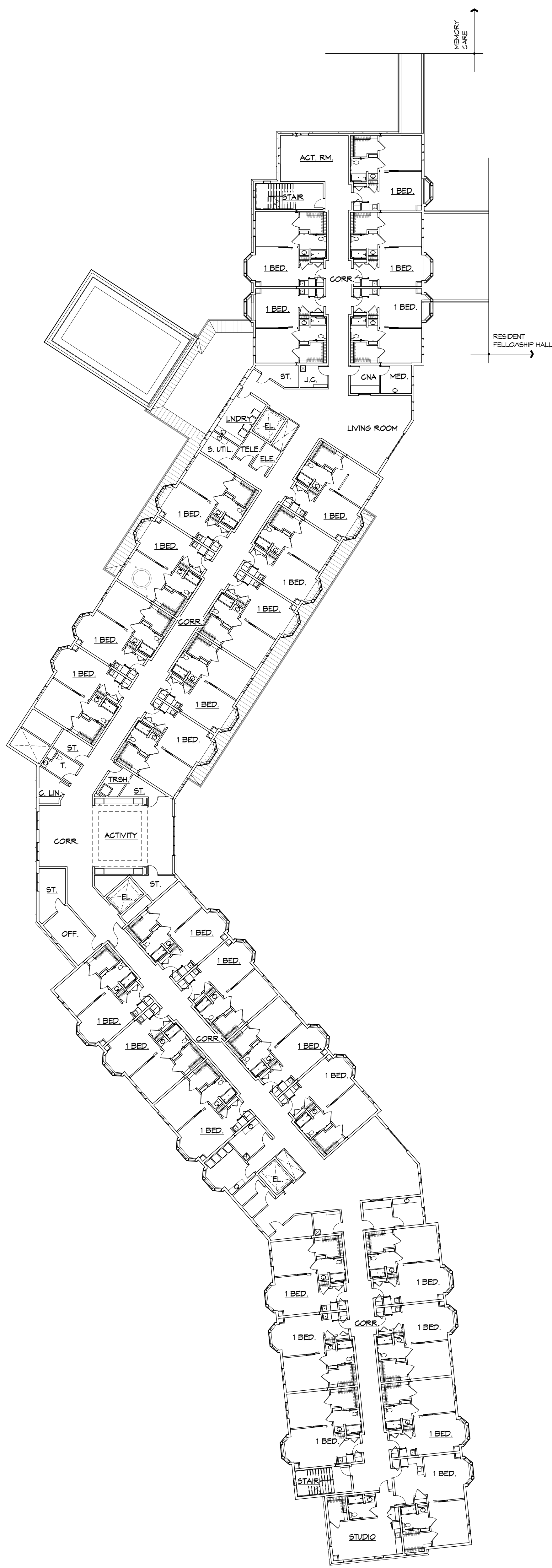
① OVERALL GROUND FLOOR PLAN
1" = 20'-0"
TOTAL AREA: 30,170



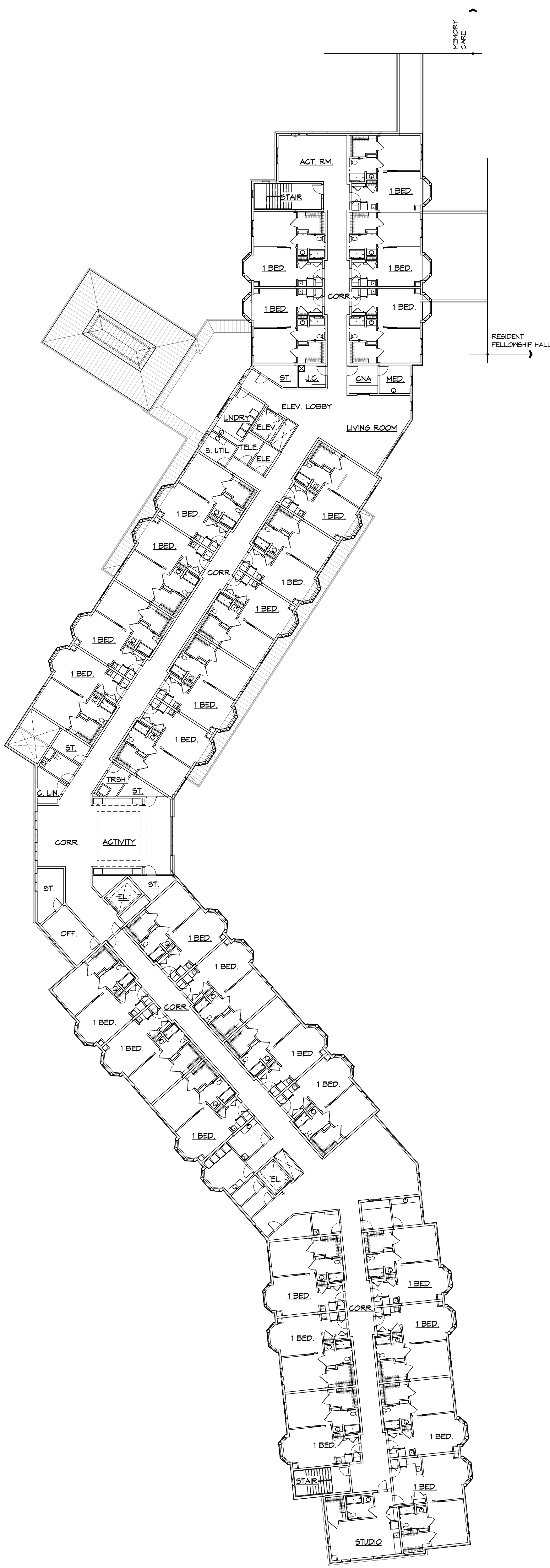
② OVERALL FIRST FLOOR PLAN
1" = 20'-0"
TOTAL AREA: 31,075

VOLUME II ASSISTED LIVING DRAWING NO: A002 COMMISSION NO: 2014104		OVERALL GROUND & FIRST FLOOR PLANS SCALE: AS NOTED DATE: 06/26/2015	R E V I S I O N S <table><tr><th>NO.</th><th>DATE</th><th>DESCRIPTION</th></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>		NO.	DATE	DESCRIPTION										RENOVATIONS & ADDITIONS TO: THE MOORINGS OF ARLINGTON HEIGHTS FOR PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005 DRAWN BY: SJM COORDINATED BY: CSJL CHECKED BY: JFH APPROVED BY: CJK		rlps architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP	PLANNING COMMISSION SUBMISSION		THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF RLPS ARCHITECTS, LLP. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED WITHOUT THE ARCHITECT'S PERMISSION AND UNLESS OTHERWISE SPECIFIED, IT IS THE PROPERTY OF THE ARCHITECT. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.
NO.	DATE	DESCRIPTION																				

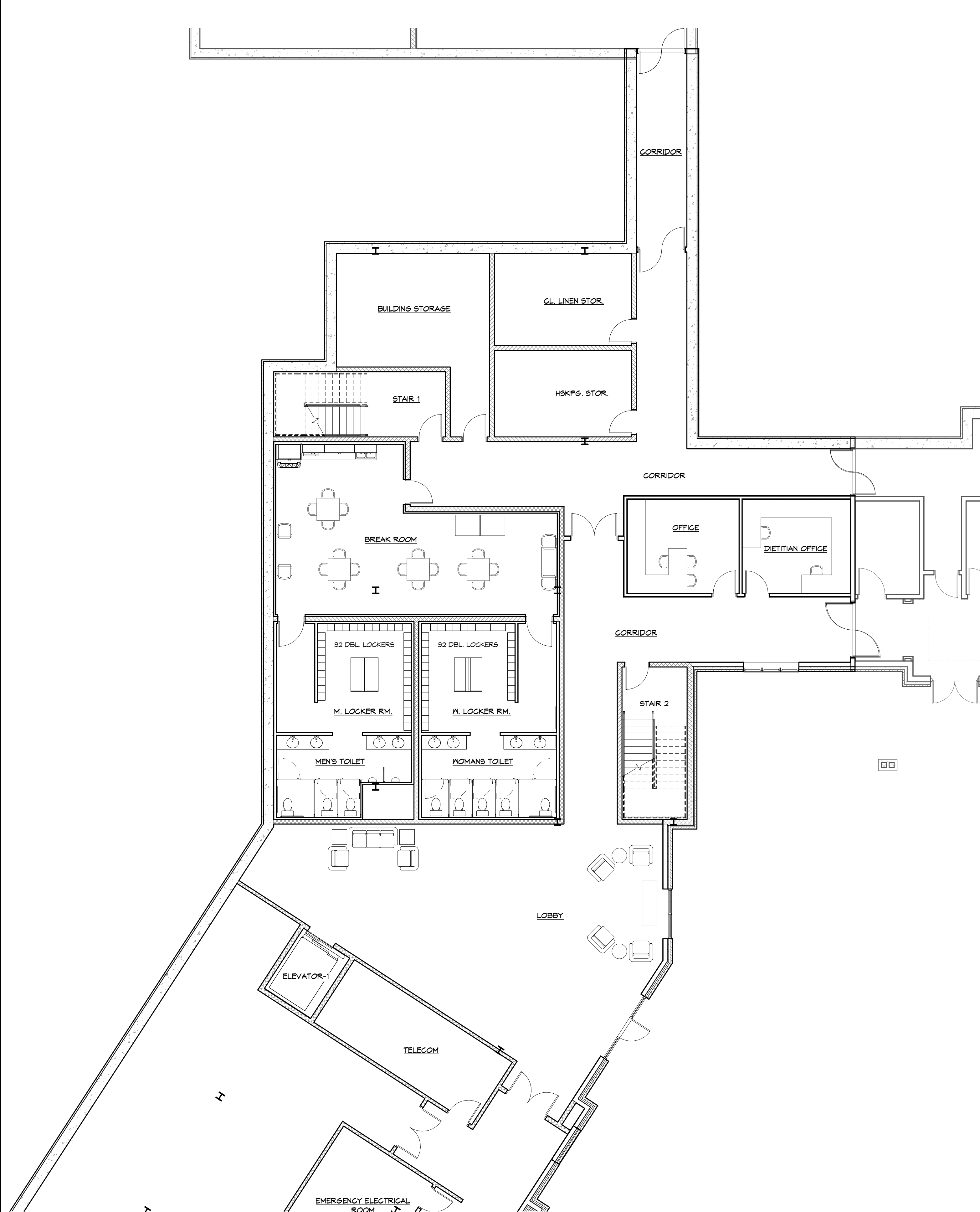
1 OVERALL SECOND FLOOR PLAN
1" = 20'-0"
TOTAL AREA: 23,735



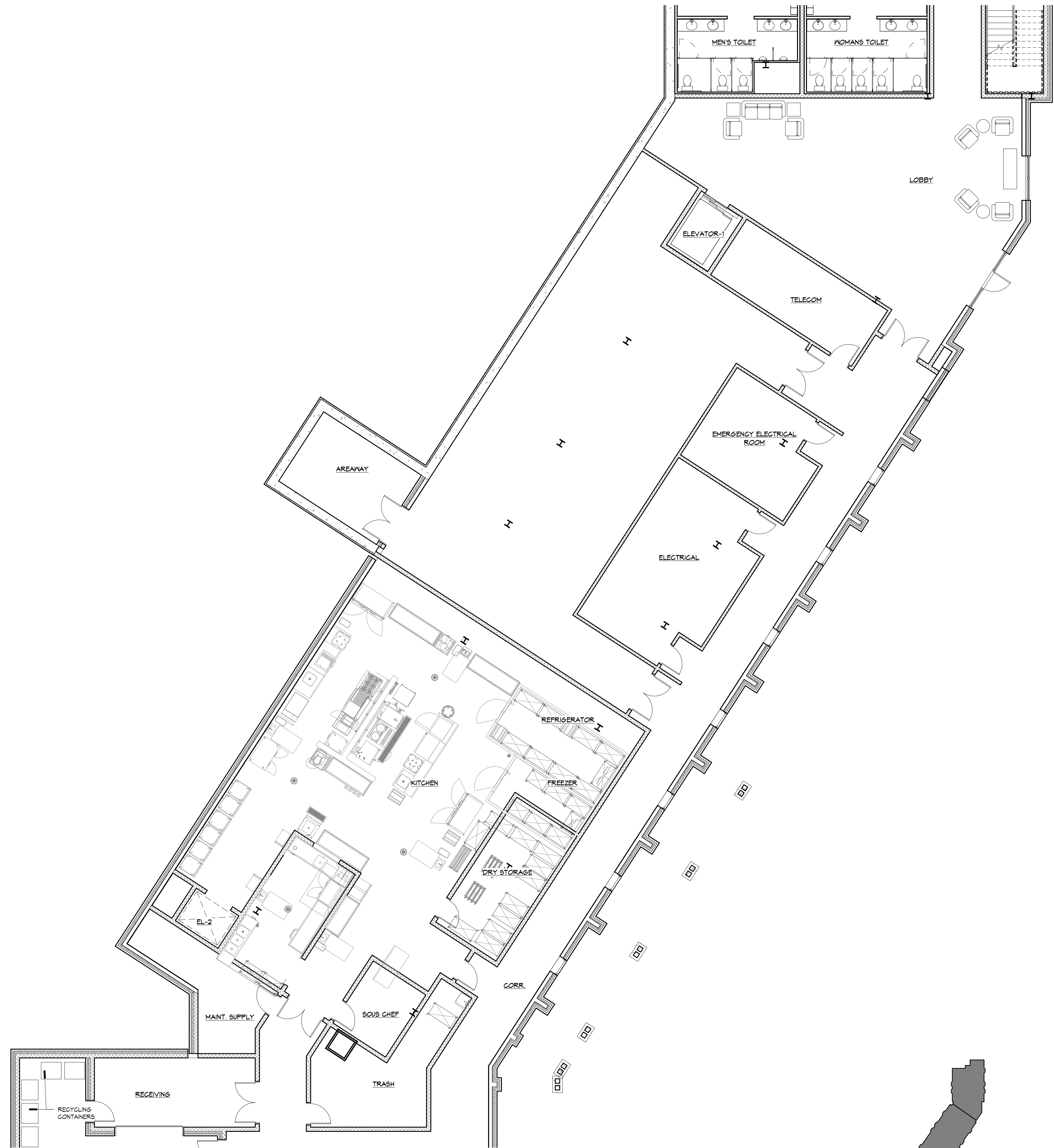
2 OVERALL THIRD FLOOR PLAN
1" = 20'-0"
TOTAL AREA: 23,735



VOLUME II ASSISTED LIVING DRAWING NO: A003 COMMISSION NO: 2014104	OVERALL SECOND & THIRD FLOOR PLANS		REVISIONS		THE MOORINGS OF ARLINGTON HEIGHTS FOR PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005 DRAWN BY: SJM COORDINATED BY: CSJL CHECKED BY: JFH APPROVED BY: CJK		rlps architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP	PLANNING COMMISSION SUBMISSION	THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF RLPS ARCHITECTS, LLP. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED WITHOUT THE ARCHITECT'S PERMISSION AND UNLESS OTHERWISE NOTED, IT IS THE PROPERTY OF RLPS ARCHITECTS, LLP.	CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.
	SCALE: AS NOTED	DATE: 06/26/2015								



1 PARTIAL GROUND FLOOR PLAN - AREA 'A'
1/8" = 1'-0"



2 PARTIAL GROUND FLOOR PLAN - AREA 'B'
1/8" = 1'-0"



VOLUME II ASSISTED LIVING DRAWING NO: A101 COMMISSION NO: 2014104		PARTIAL GROUND FLOOR PLAN - AREAS 'A' & 'B' SCALE: AS NOTED DATE: 06/26/2015		REVISIONS <table><thead><tr><th>NO.</th><th>DATE</th><th>DESCRIPTION</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></tbody></table>		NO.	DATE	DESCRIPTION										RENOVATIONS & ADDITIONS TO: THE MOORINGS OF ARLINGTON HEIGHTS FOR PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005 DRAWN BY: S.J.M. CHECKED BY: J.F.H. APPROVED BY: C.P.K.		rlps architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP		PLANNING COMMISSION SUBMISSION		THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF RLPS ARCHITECTS, LLP. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED WITHOUT THE ARCHITECT'S PERMISSION AND UNLESS OTHERWISE SPECIFIED, IT IS THE PROPERTY OF THE ARCHITECT. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.	
NO.	DATE	DESCRIPTION																							



1 PARTIAL FIRST FLOOR PLAN - AREA 'A'
1/8" = 1'-0"



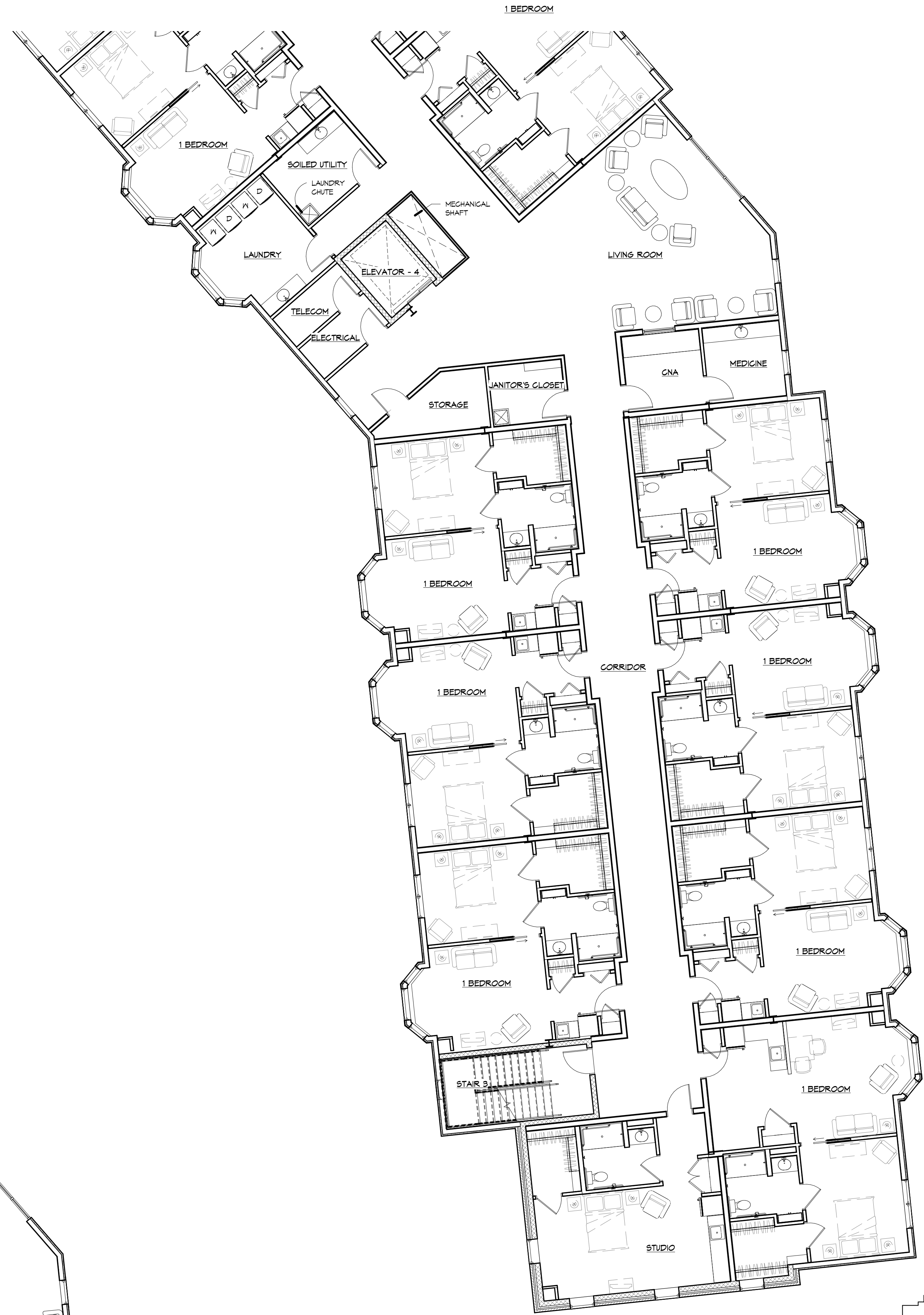
2 PARTIAL FIRST FLOOR PLAN - AREA 'B'
1/8" = 1'-0"



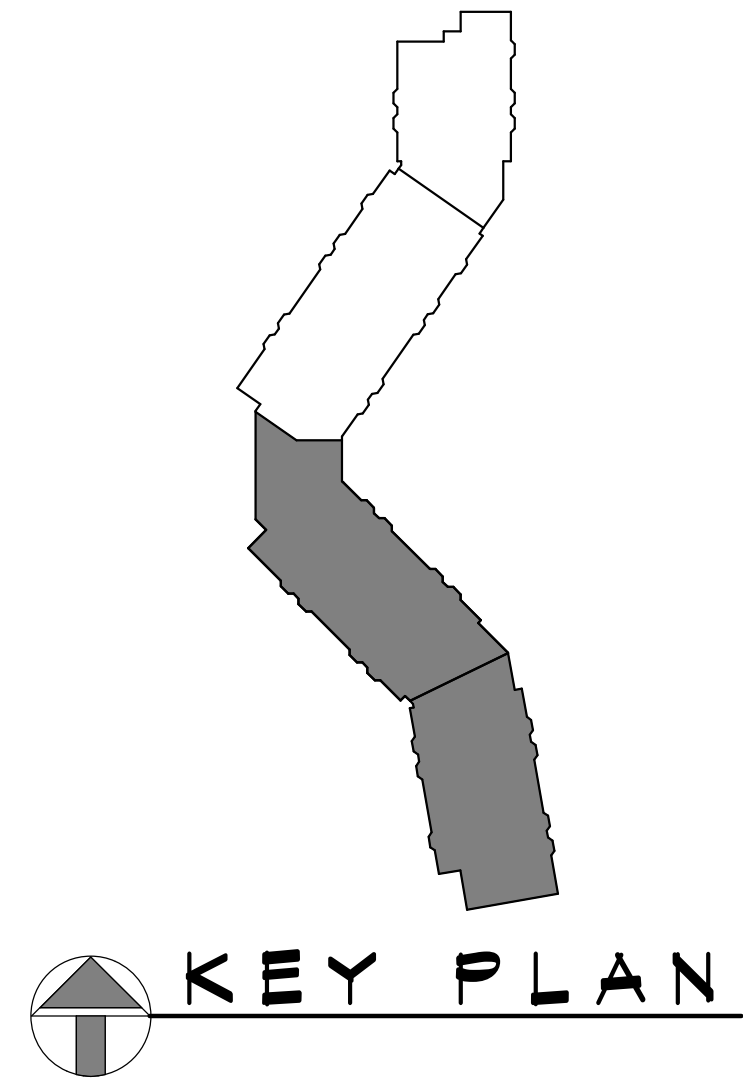
VOLUME II ASSISTED LIVING DRAWING NO: A103		PARTIAL FIRST FLOOR PLAN - AREAS 'A' & 'B' SCALE: AS NOTED DATE: 06/26/2015		REVISIONS <table><tr><th>NO.</th><th>DATE</th><th>DESCRIPTION</th></tr><tr><td> </td><td> </td><td> </td></tr></table>		NO.	DATE	DESCRIPTION				RENOVATIONS & ADDITIONS TO: THE MOORINGS OF ARLINGTON HEIGHTS FOR PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005 DRAWN BY: SJM. CHECKED BY: JFH. APPROVED BY: CJK.		 rlps architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP		PLANNING COMMISSION SUBMISSION		THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF RLPS ARCHITECTS, LLP. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED WITHOUT THE ARCHITECT'S PERMISSION AND UNLESS THE ARCHITECT'S NAME AND DATE OF THE ARCHITECT'S SIGNATURE ARE SHOWN. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.	
NO.	DATE	DESCRIPTION																	



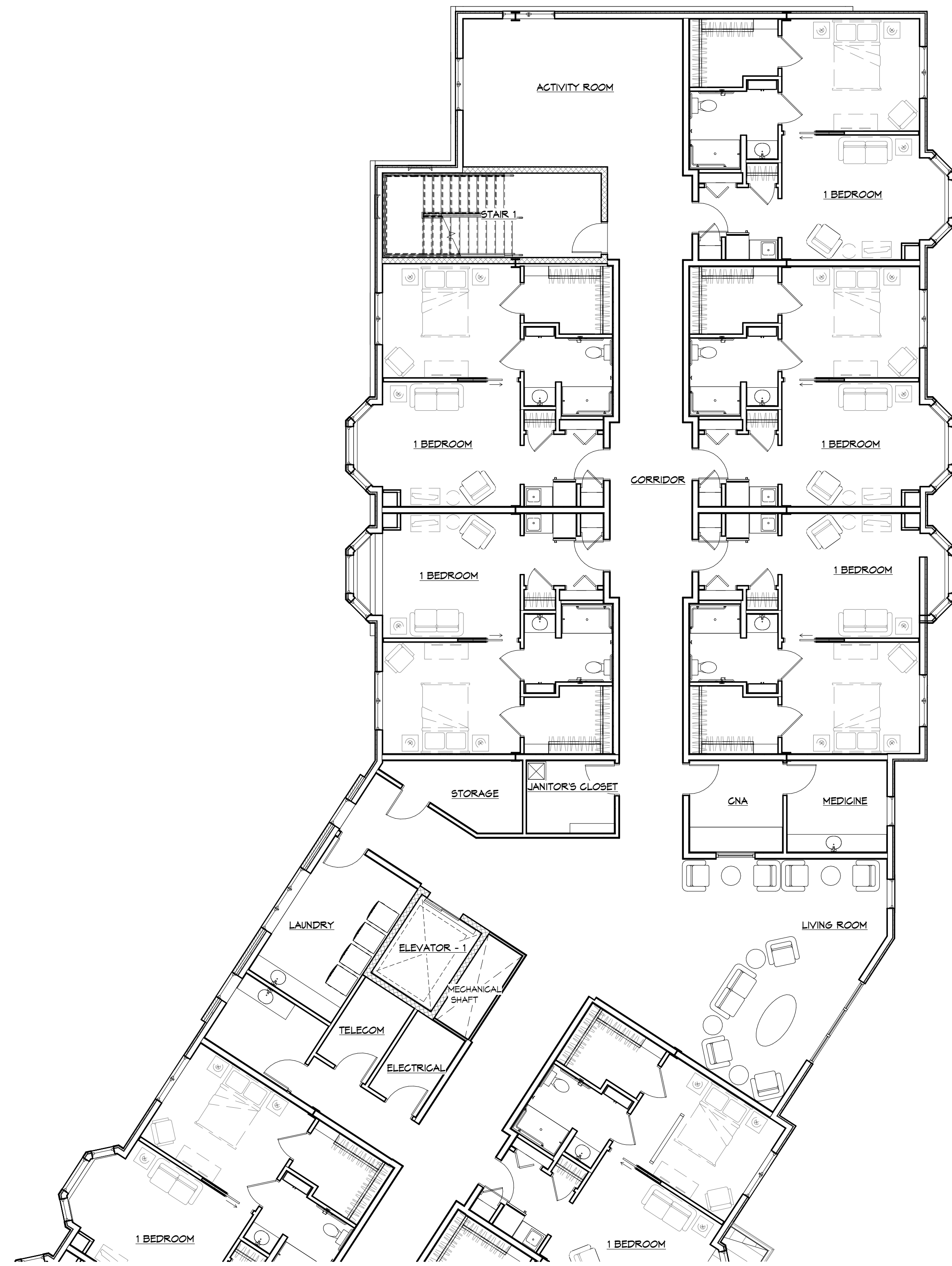
1 PARTIAL FIRST FLOOR PLAN - AREA 'C'
1/8" = 1'-0"



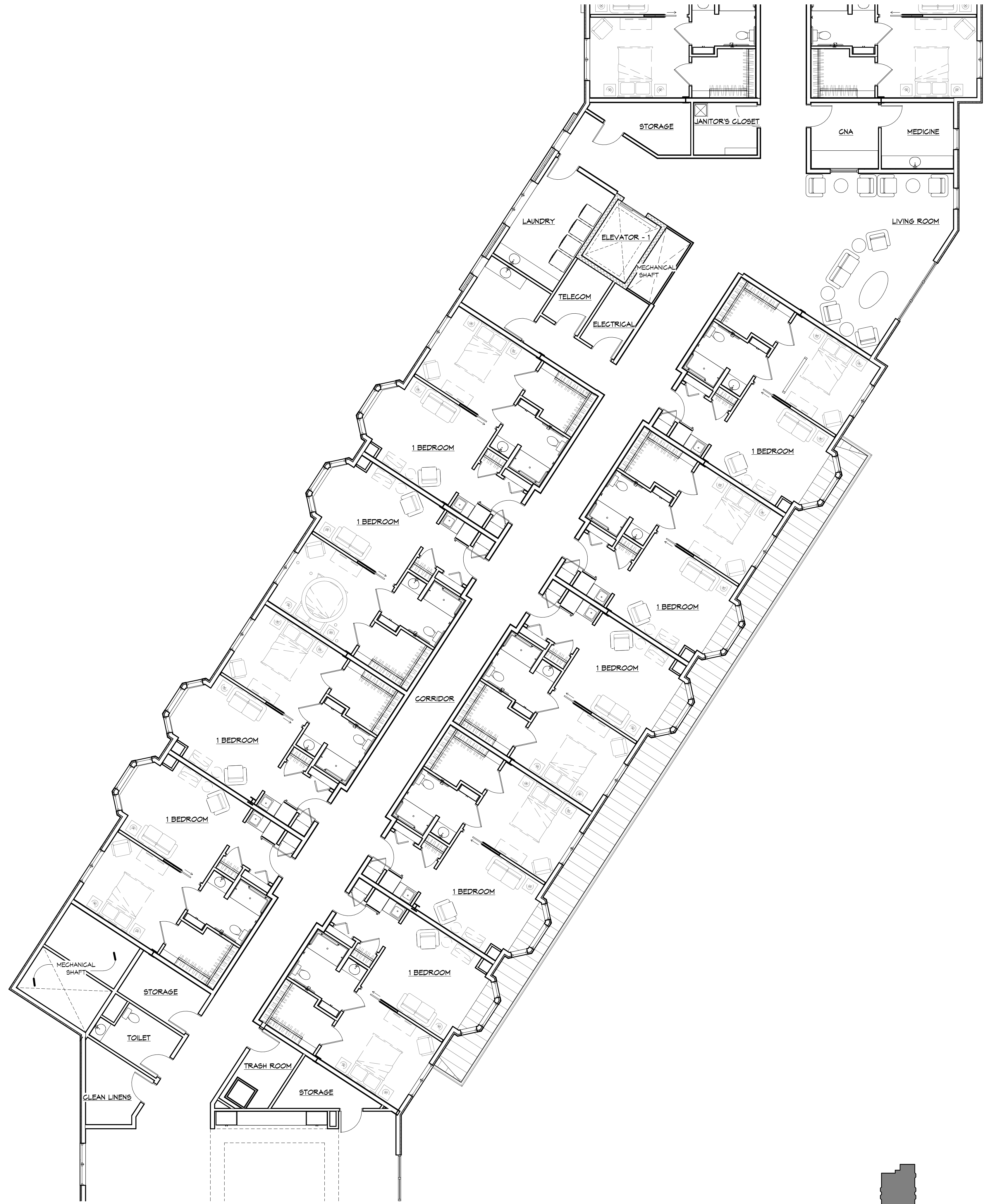
2 PARTIAL FIRST FLOOR PLAN - AREA 'D'
1/8" = 1'-0"



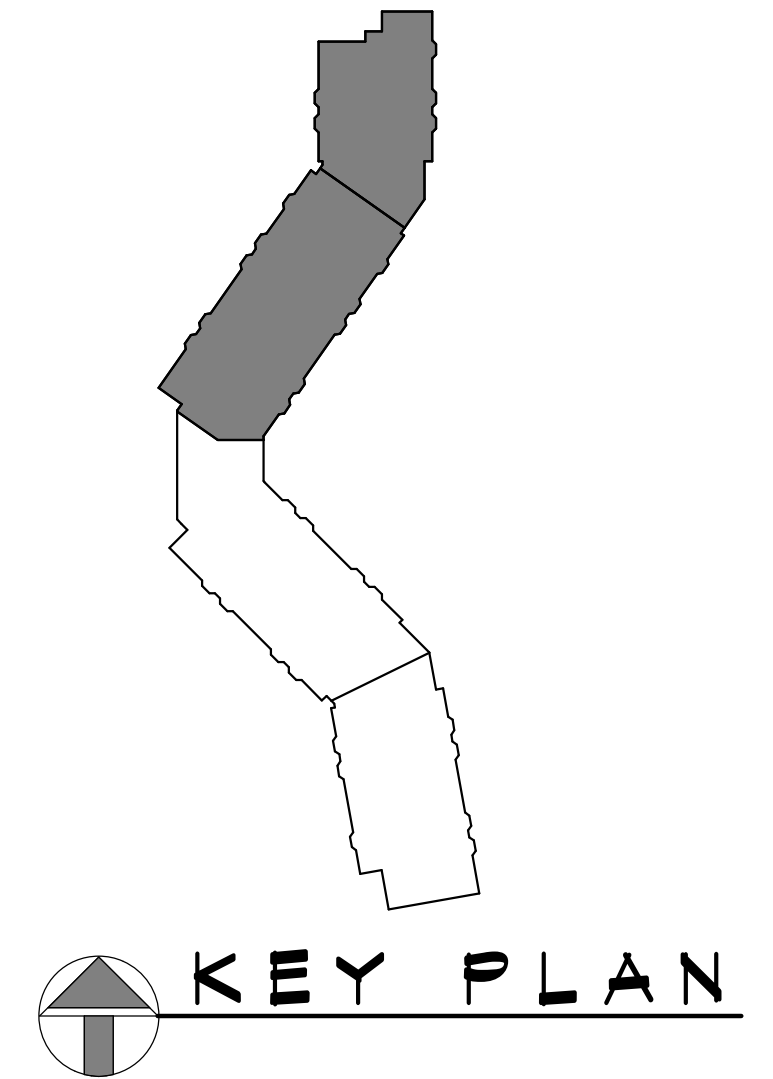
DRAWING NO: A104		COMMISSION NO: 2014104		DATE: 06/26/2015		SCALE: AS NOTED		PARTIAL FIRST FLOOR PLAN - AREAS 'C' & 'D'		REVISIONS		THE MOORINGS OF ARLINGTON HEIGHTS		FOR PRESBYTERIAN HOMES		811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005		DRAWN BY: SJM		COORDINATED BY: CS.L		CHECKED BY: JFH		APPROVED BY: CJK		250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP		architecture • master planning • interior design		rlps architects®				PLANNING COMMISSION SUBMISSION		CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.		THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF RLPS ARCHITECTS, LLP. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED WITHOUT THE ARCHITECT'S PERMISSION AND UNLESS OTHERWISE NOTED, IT IS THE PROPERTY OF RLPS ARCHITECTS, LLP.	
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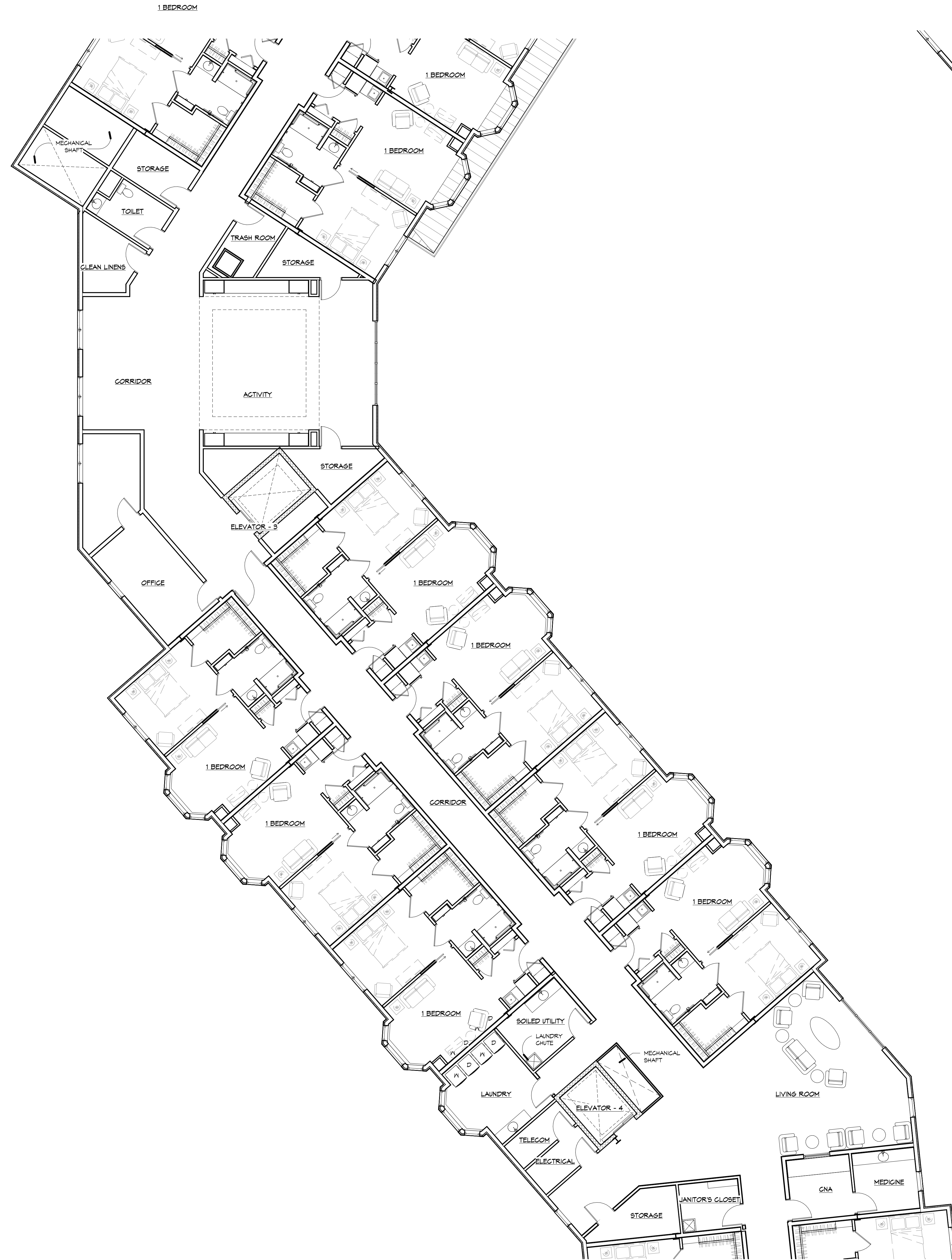


1 PARTIAL SECOND FLOOR PLAN - AREA 'A'
1/8" = 1'-0"

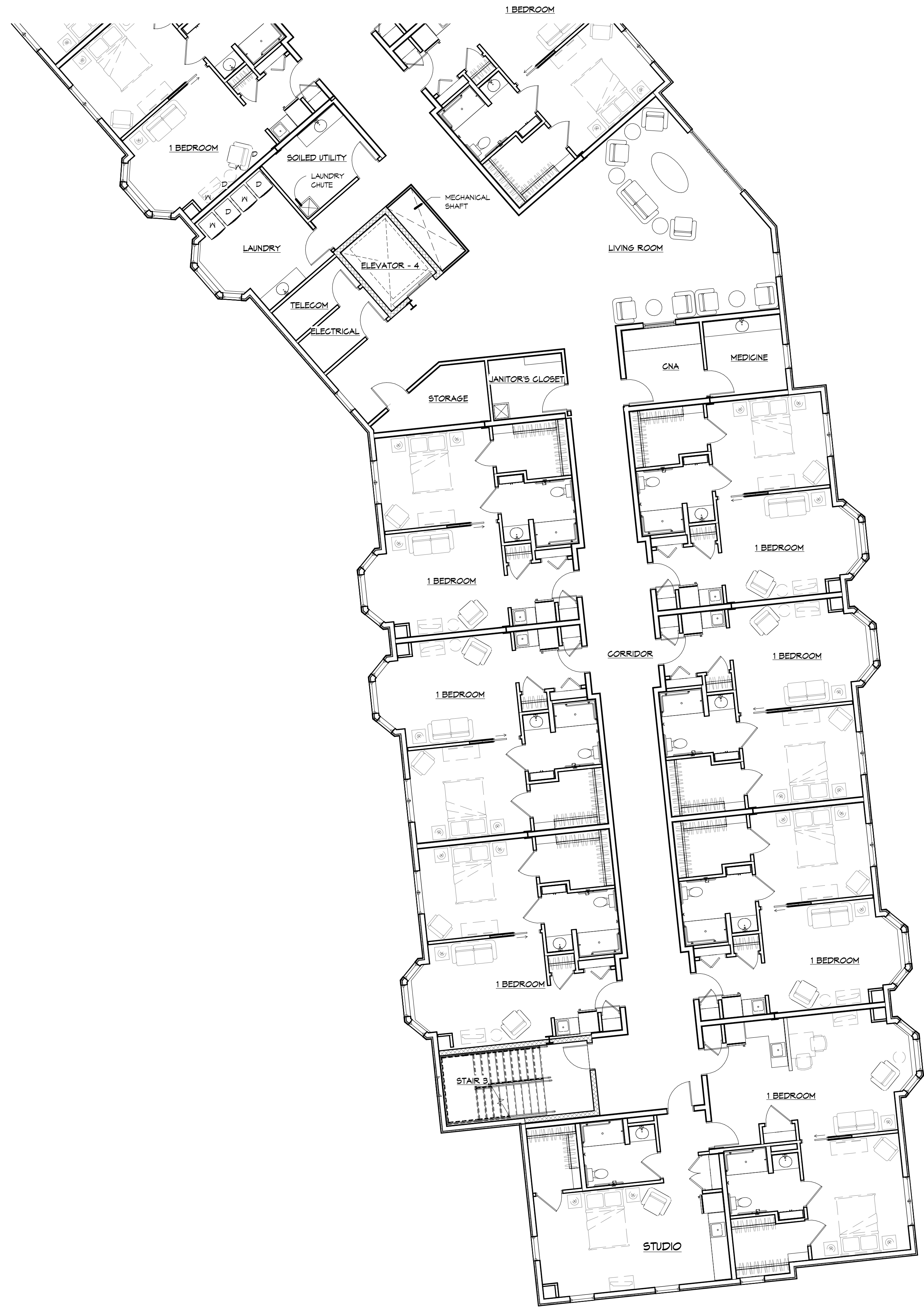


2 PARTIAL SECOND FLOOR PLAN - AREA 'B'
1/8" = 1'-0"

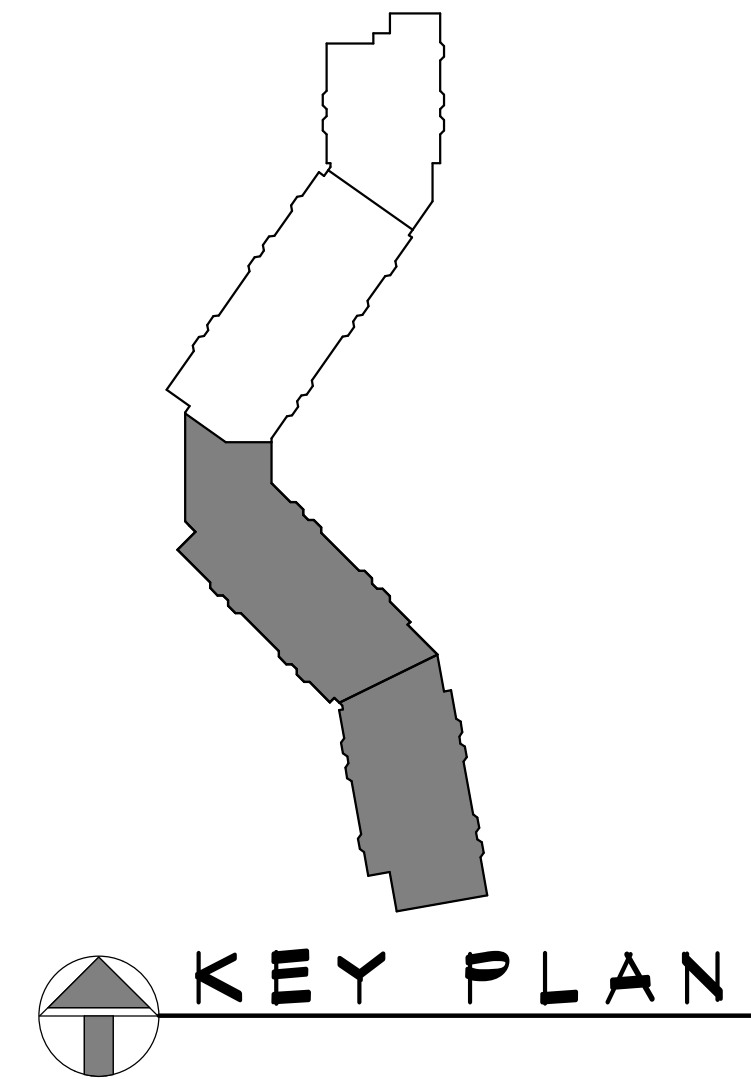




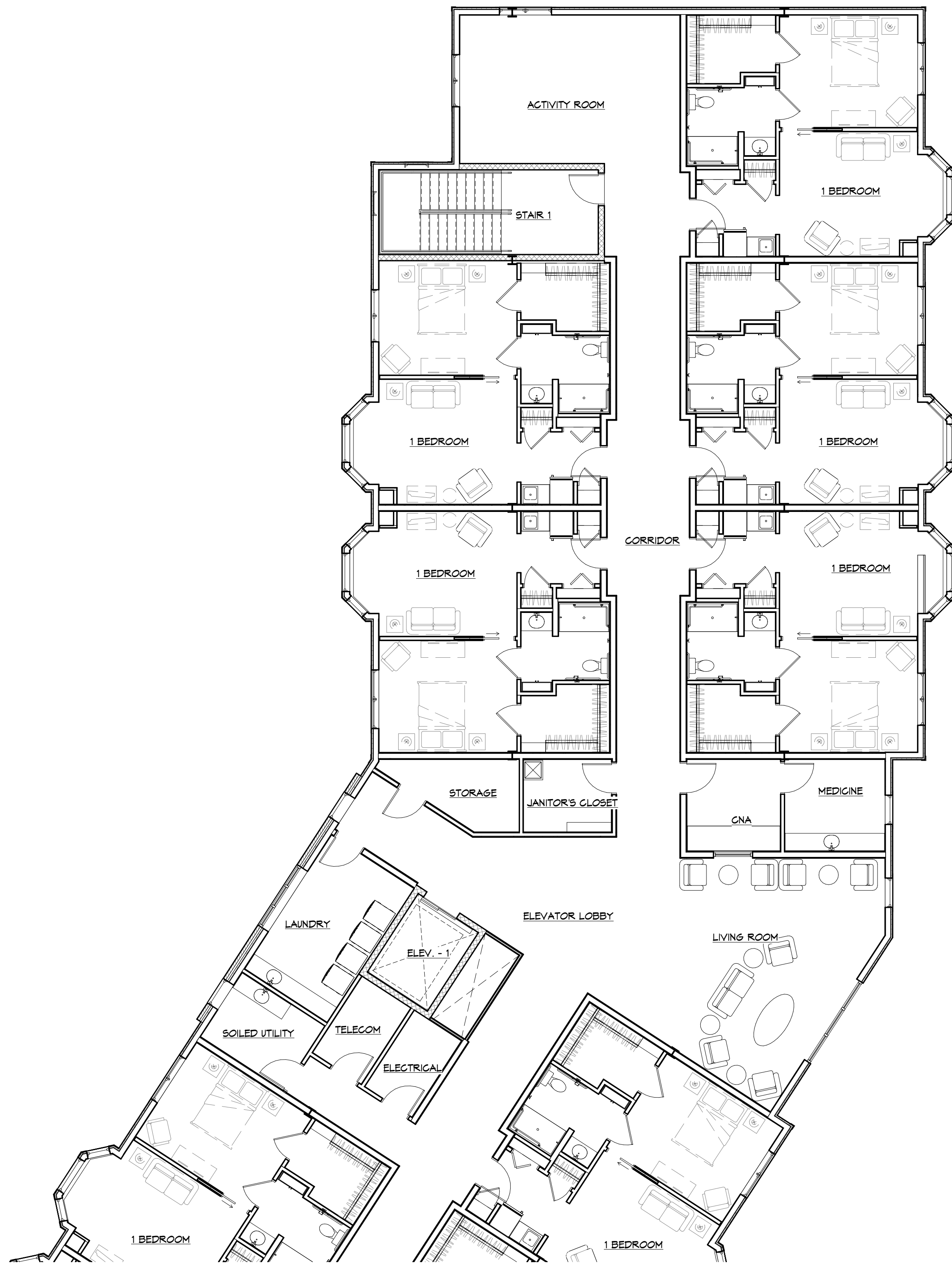
1 PARTIAL SECOND FLOOR PLAN - AREA 'C'
1/8" = 1'-0"



2 PARTIAL SECOND FLOOR PLAN - AREA 'D'
1/8" = 1'-0"



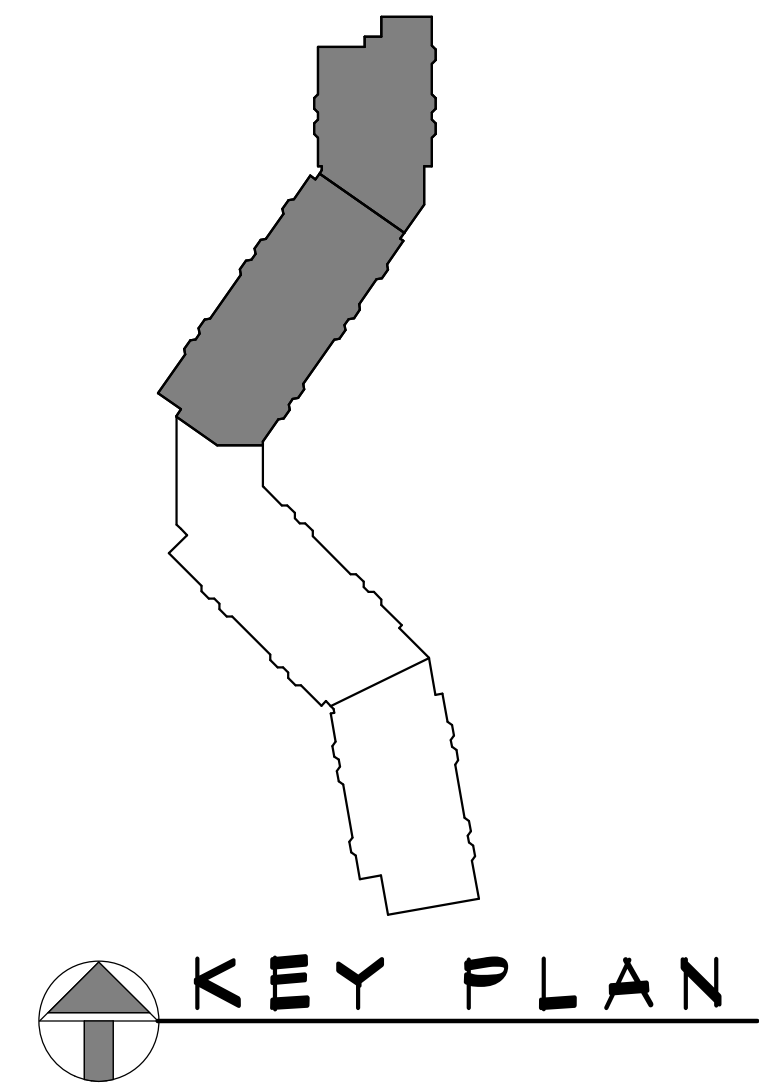
PARTIAL SECOND FLOOR PLAN - AREAS 'C' & 'D'		REVISIONS		THE MOORINGS OF ARLINGTON HEIGHTS FOR PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005 DRAWN BY: SJM COORDINATED BY: CS.L CHECKED BY: JFH APPROVED BY: CJK		rlps architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP		PLANNING COMMISSION SUBMISSION	
ANSWERED LIVING DRAWING NO: A106		DATE: 06/26/2015		SCALE: AS NOTED		COMMISSION NO: 2014104		CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK	

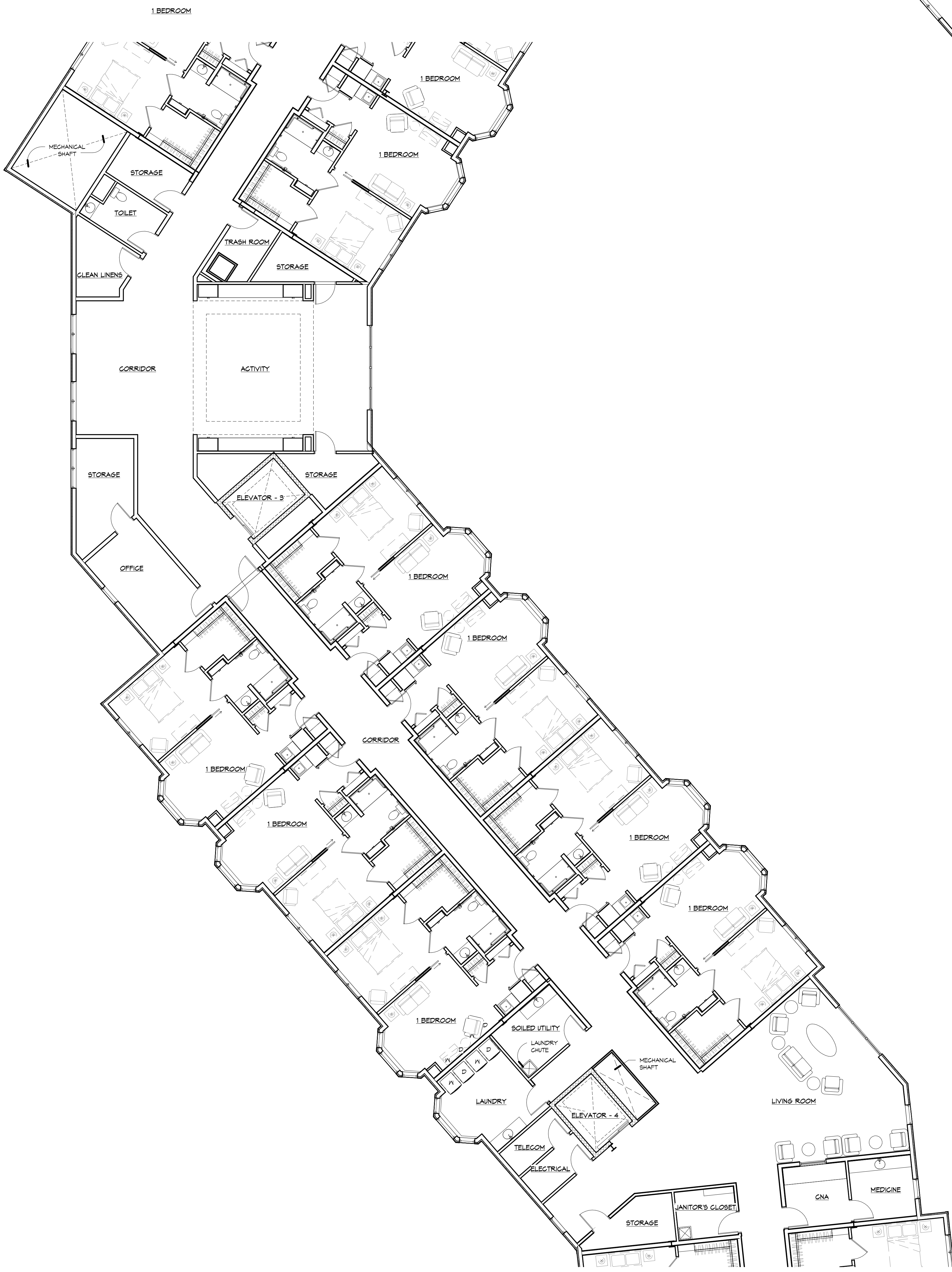


1 PARTIAL THIRD FLOOR PLAN - AREA 'A'
1/8" = 1'-0"

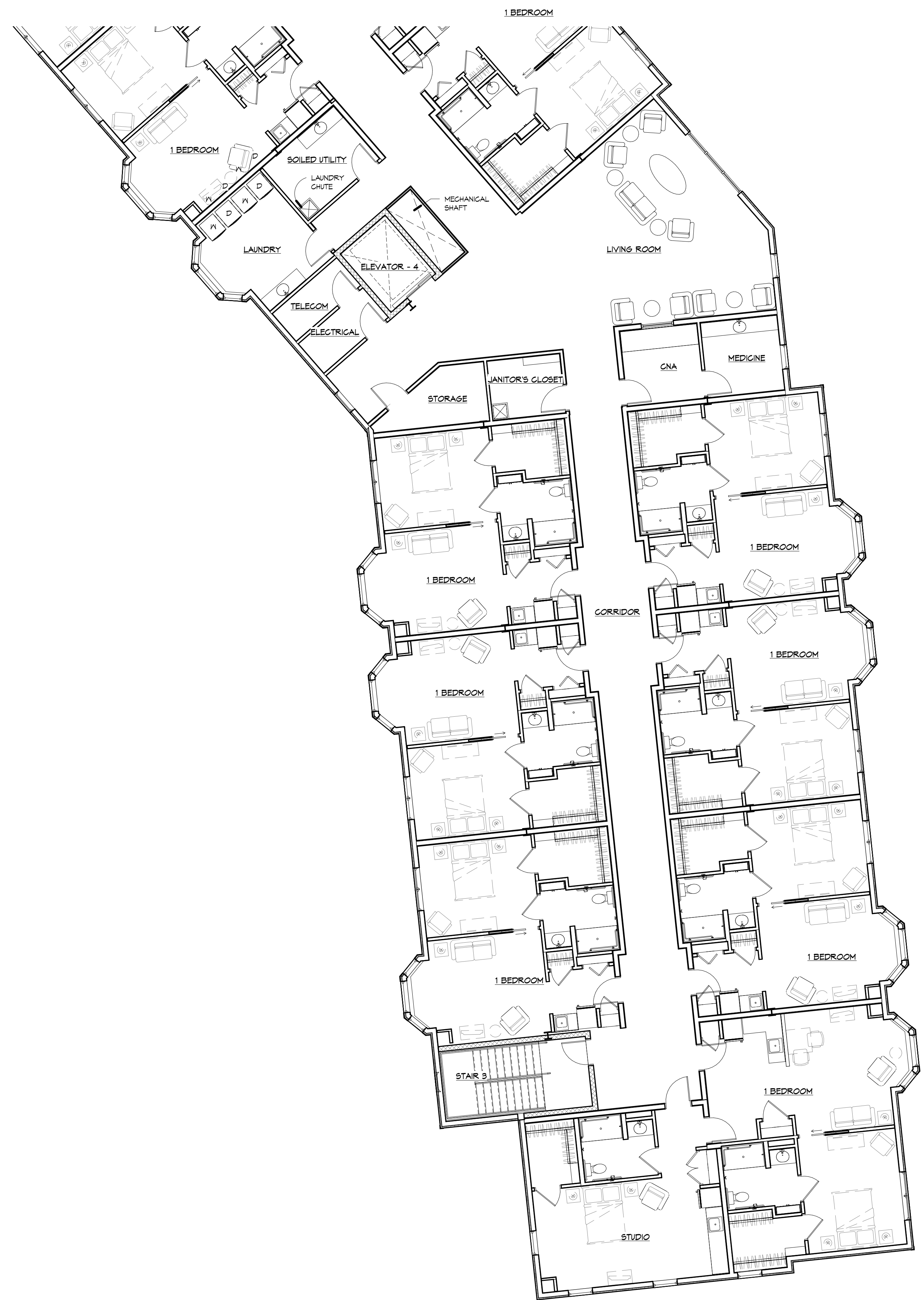


2 PARTIAL THIRD FLOOR PLAN - AREA 'B'
1/8" = 1'-0"

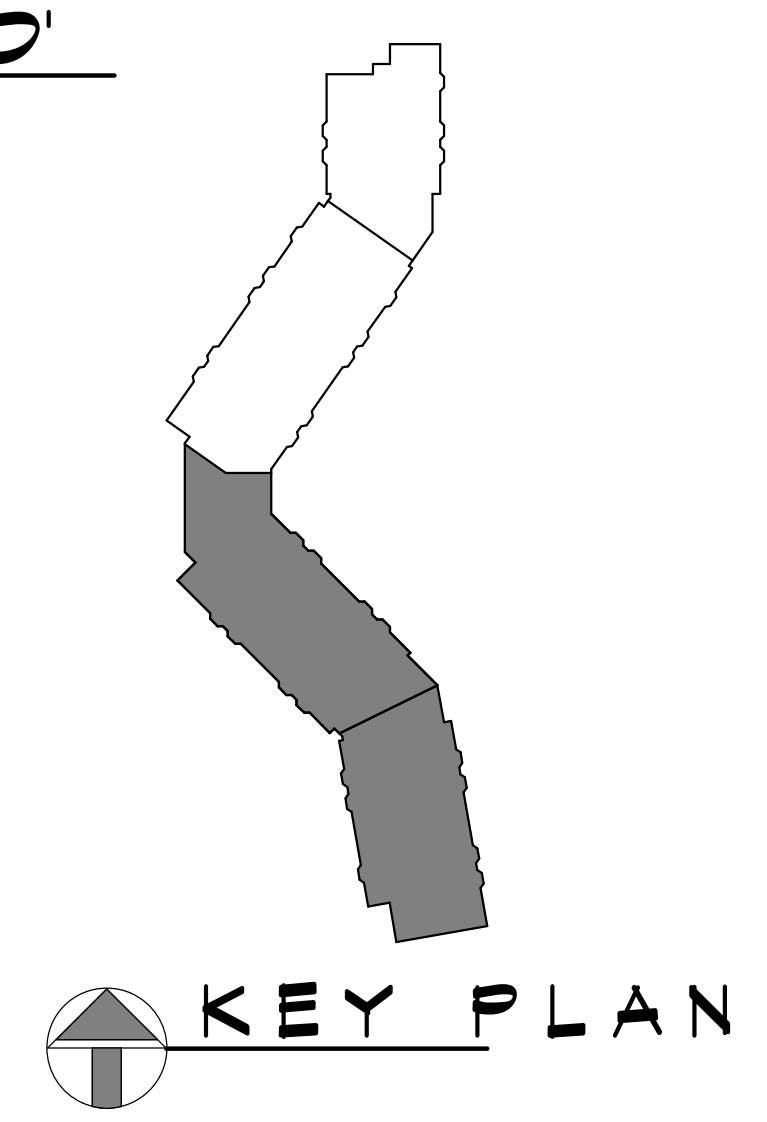




1 PARTIAL THIRD FLOOR PLAN - AREA 'C'
1/8" = 1'-0"



2 PARTIAL THIRD FLOOR PLAN - AREA 'D'
1/8" = 1'-0"



VOLUME II ASSISTED LIVING DRAWING NO: A108 COMMISSION NO: 2014104		PARTIAL THIRD FLOOR PLAN - AREAS 'C' & 'D'		SCALE: AS NOTED		DATE: 06/26/2015	
REVISIONS				REVISIONS			
NO.		DATE		DESCRIPTION			
THE MOORINGS OF ARLINGTON HEIGHTS FOR PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005				DRAWN BY: S.J.M. COORDINATED BY: C.S.L. CHECKED BY: J.F.H. APPROVED BY: C.P.K.			
 rlps architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP				PLANNING COMMISSION SUBMISSION			
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A WEST ELEVATION
1/8" = 1'-0"



B WEST ELEVATION
1/8" = 1'-0"

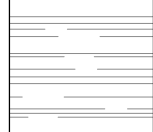
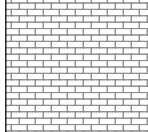
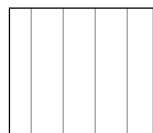
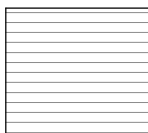
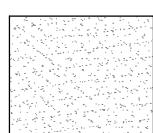
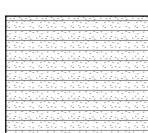


C WEST ELEVATION
1/8" = 1'-0"

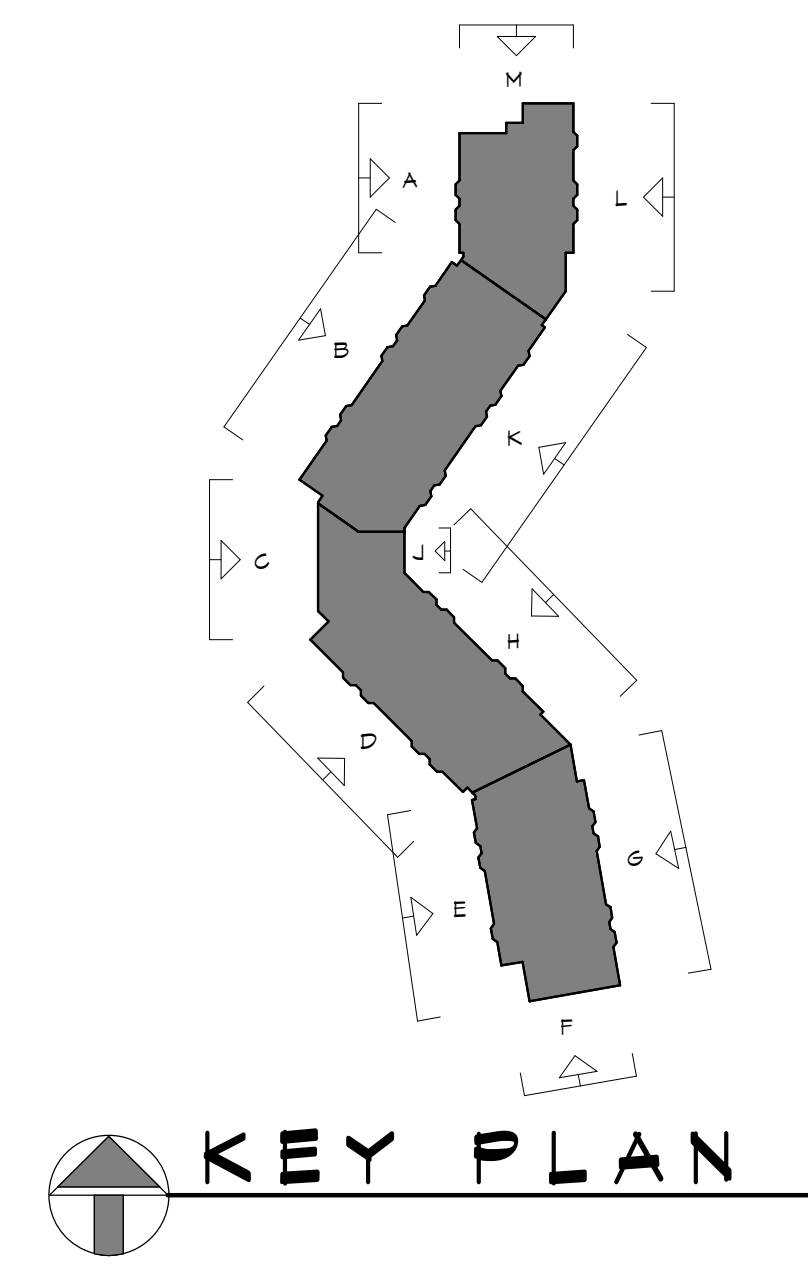


E WEST ELEVATION
1/8" = 1'-0"

D WEST ELEVATION
1/8" = 1'-0"

EXTERIOR MATERIAL LEGEND					
	ASPHALT SHINGLES		BRICK TYPE - 1: STANDARD FACE BRICK		FIBER CEMENT PANELS
	STANDING SEAM ROOF		FIBER CEMENT SIDING - 1: 6" EXPOSURE		
	EXTERIOR INSULATION FINISH SYSTEM		FIBER CEMENT SIDING - 2: 6" EXPOSURE		

- EXTERIOR ELEVATION KEYED NOTES**
- 3B STANDARD BRICK VENEER
 - 4A CAST STONE WATER TABLE
 - 1A ALUMINUM FASCIA
 - 3B ALUMINUM STOREFRONT SYSTEM
 - 9A ASPHALT SHINGLES
 - 1B RIDGE VENT
 - 1C STANDING SEAM METAL ROOF



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PLANNING COMMISSION SUBMISSION

rlps architects®
architecture • master planning • interior design
250 VALLEYBROOK DRIVE, LANCASTER, PA 17601
717-560-9501 FAX: 717-560-2373 RLPs, LLP

THE MOORINGS OF ARLINGTON HEIGHTS
FOR
PRESBYTERIAN HOMES
811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005
DRAWN BY: SJM CHECKED BY: J.E.H. APPROVED BY: C.P.K.
COORDINATED BY: C.S.L.

REVISIONS

NO.	DATE	DESCRIPTION

EXTERIOR ELEVATIONS

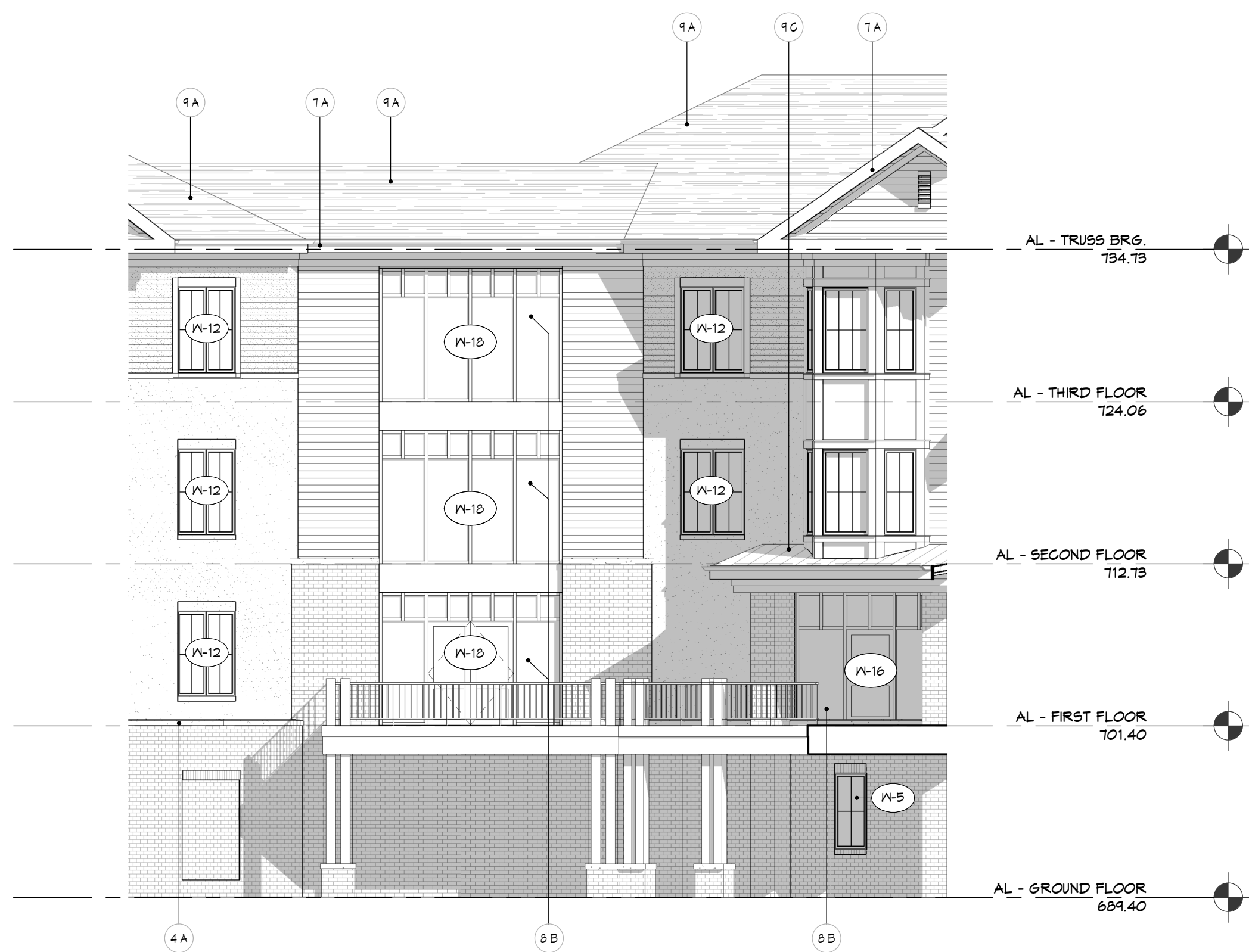
SCALE	DATE
AS NOTED	06/26/2015

VOLUME II
ASSISTED LIVING
DRAWING NO:
A201
COMMISSION NO:
2014104



G EAST ELEVATION
1/8" = 1'-0"

H EAST ELEVATION
1/8" = 1'-0"



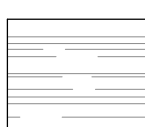
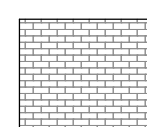
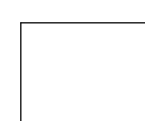
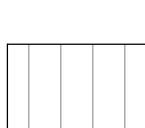
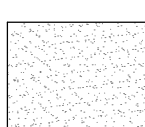
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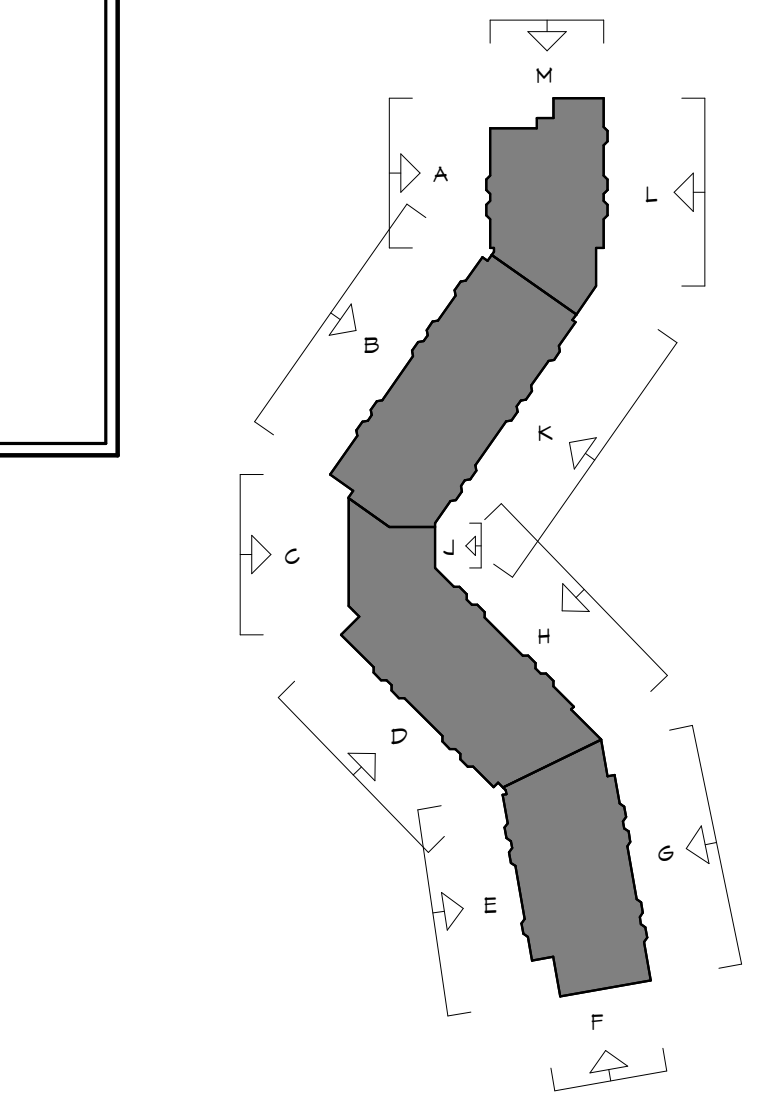
K EAST ELEVATION
1/8" = 1'-0"



L EAST ELEVATION
1/8" = 1'-0"

EXTERIOR MATERIAL LEGEND					
	ASPHALT SHINGLES		BRICK TYPE - 1: STANDARD FACE BRICK		FIBER CEMENT PANELS
	STANDING SEAM ROOF		FIBER CEMENT SIDING - 1: 6\" EXPOSURE		
	EXTERIOR INSULATION FINISH SYSTEM		FIBER CEMENT SIDING - 2: 6\" EXPOSURE		

- EXTERIOR ELEVATION KEYED NOTES**
- 3 B STANDARD BRICK VENER
 - 4 A CAST STONE WATER TABLE
 - 1 A ALUMINUM FASCIA
 - 2 B ALUMINUM STOREFRONT SYSTEM
 - 6 A ASPHALT SHINGLES
 - 2 B RIDGE VENT
 - 2 C STANDING SEAM METAL ROOF



KEY PLAN

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THE MOORINGS OF ARLINGTON HEIGHTS
FOR
PRESBYTERIAN HOMES
811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005
DRAWN BY: SJM CHECKED BY: J.F.H. APPROVED BY: C.P.K.
COORDINATED BY: C.S.L.

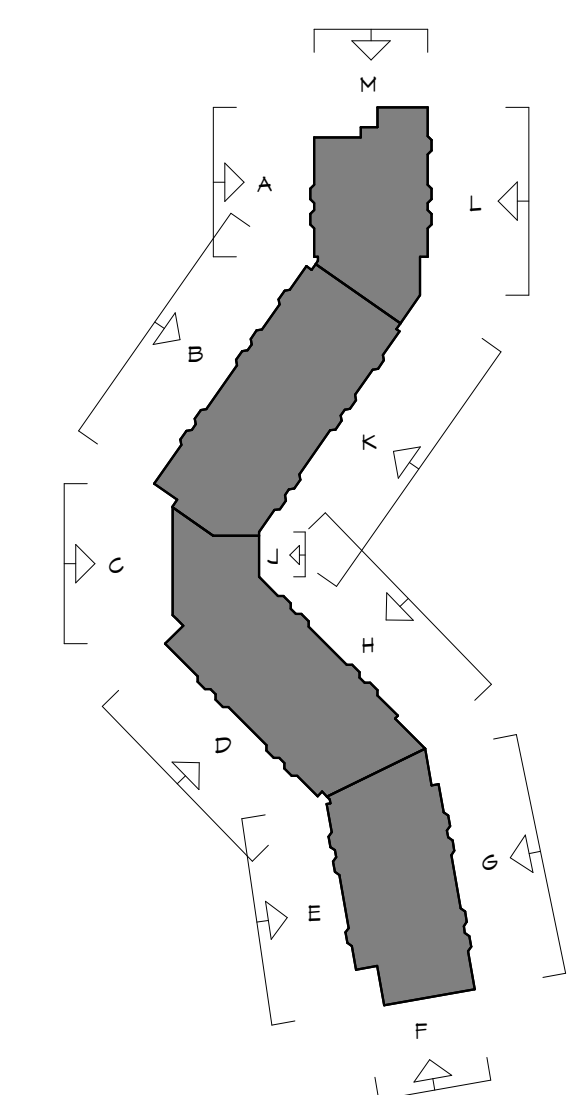
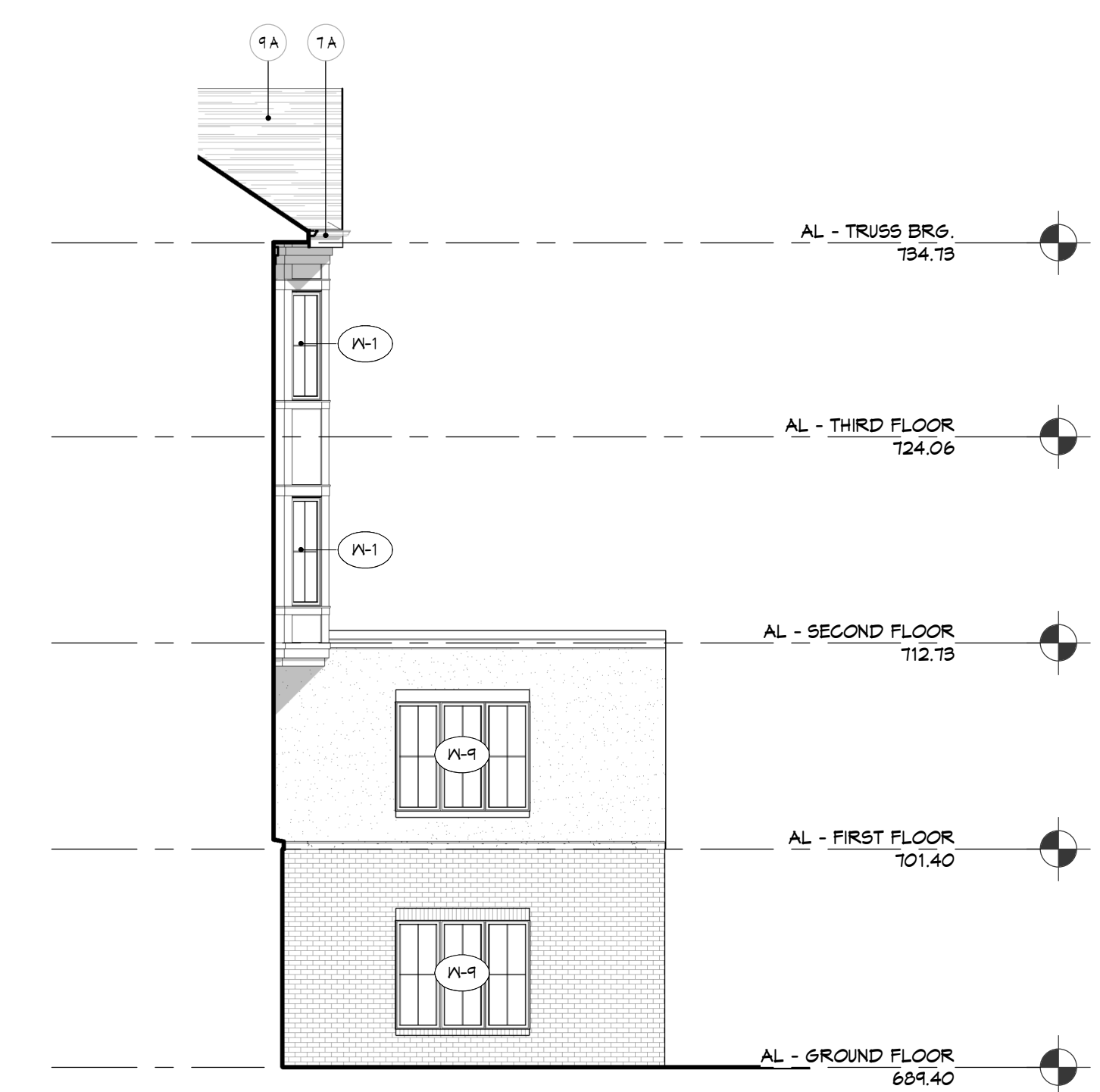
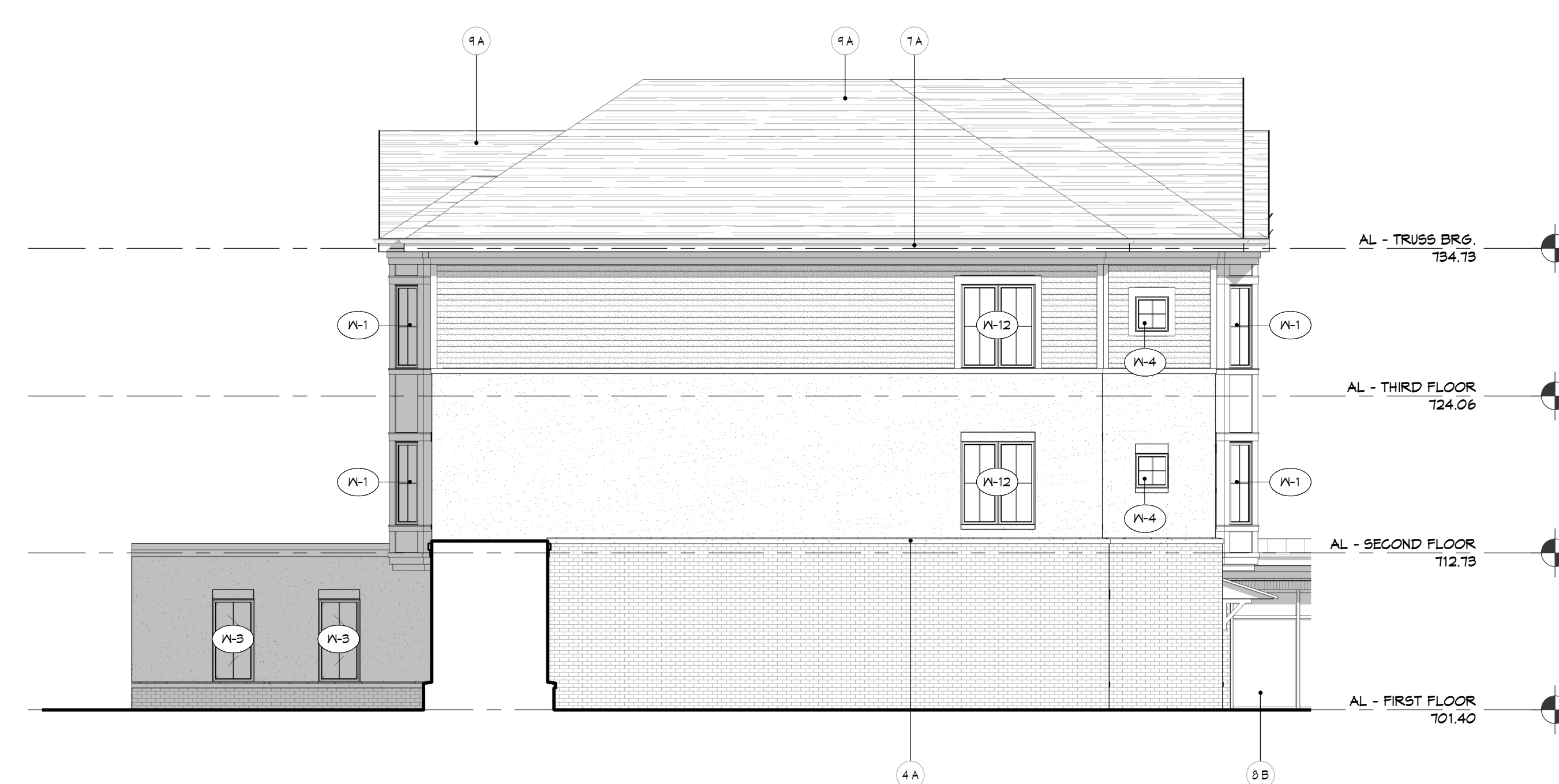
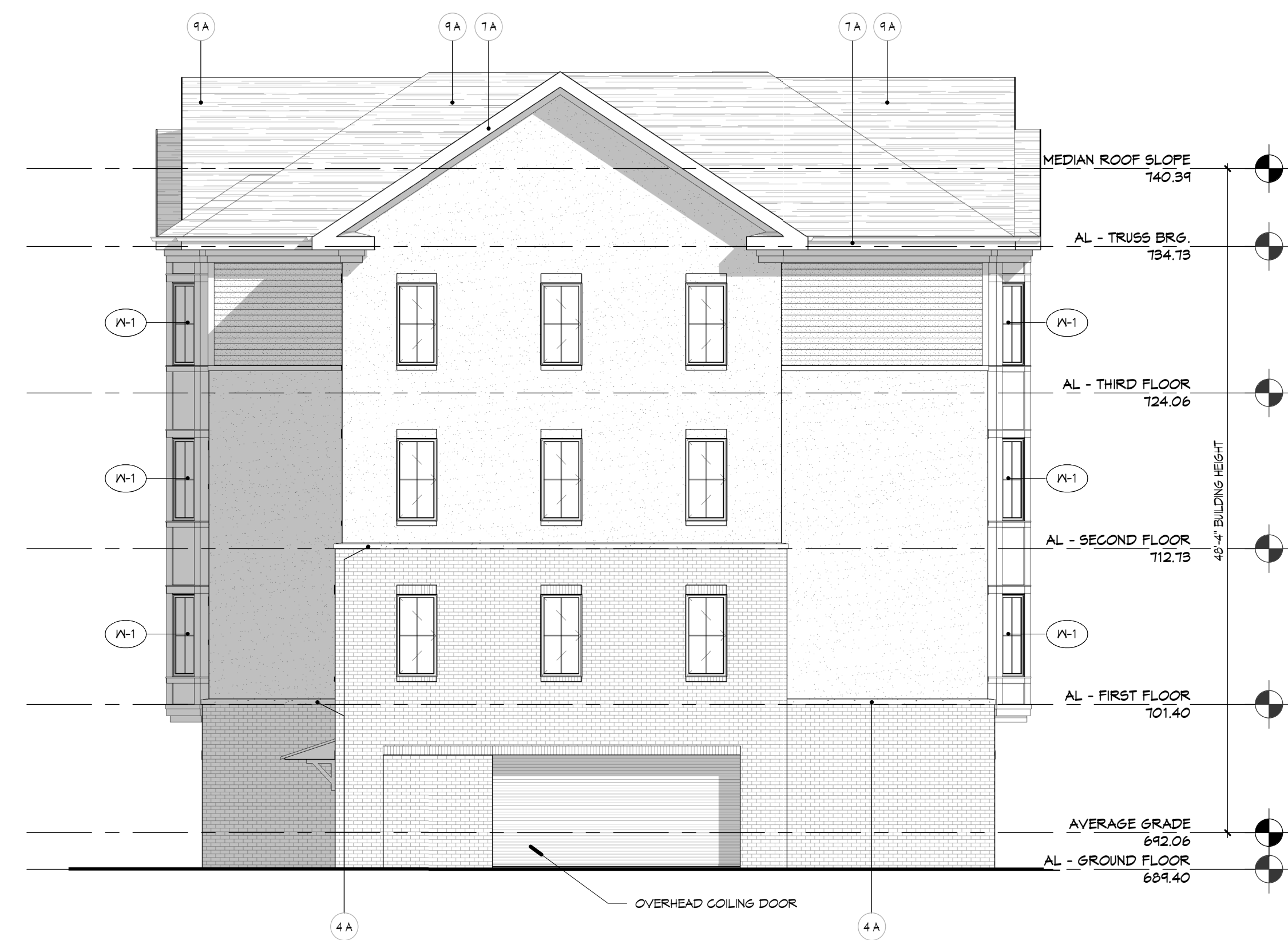
REVISIONS

NO.	DATE	DESCRIPTION

EXTERIOR ELEVATIONS

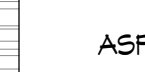
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ASSISTED LIVING
DRAWING NO. **A202**

COMMISSION NO. 2014104
SCALE: AS NOTED
DATE: 06/26/2015

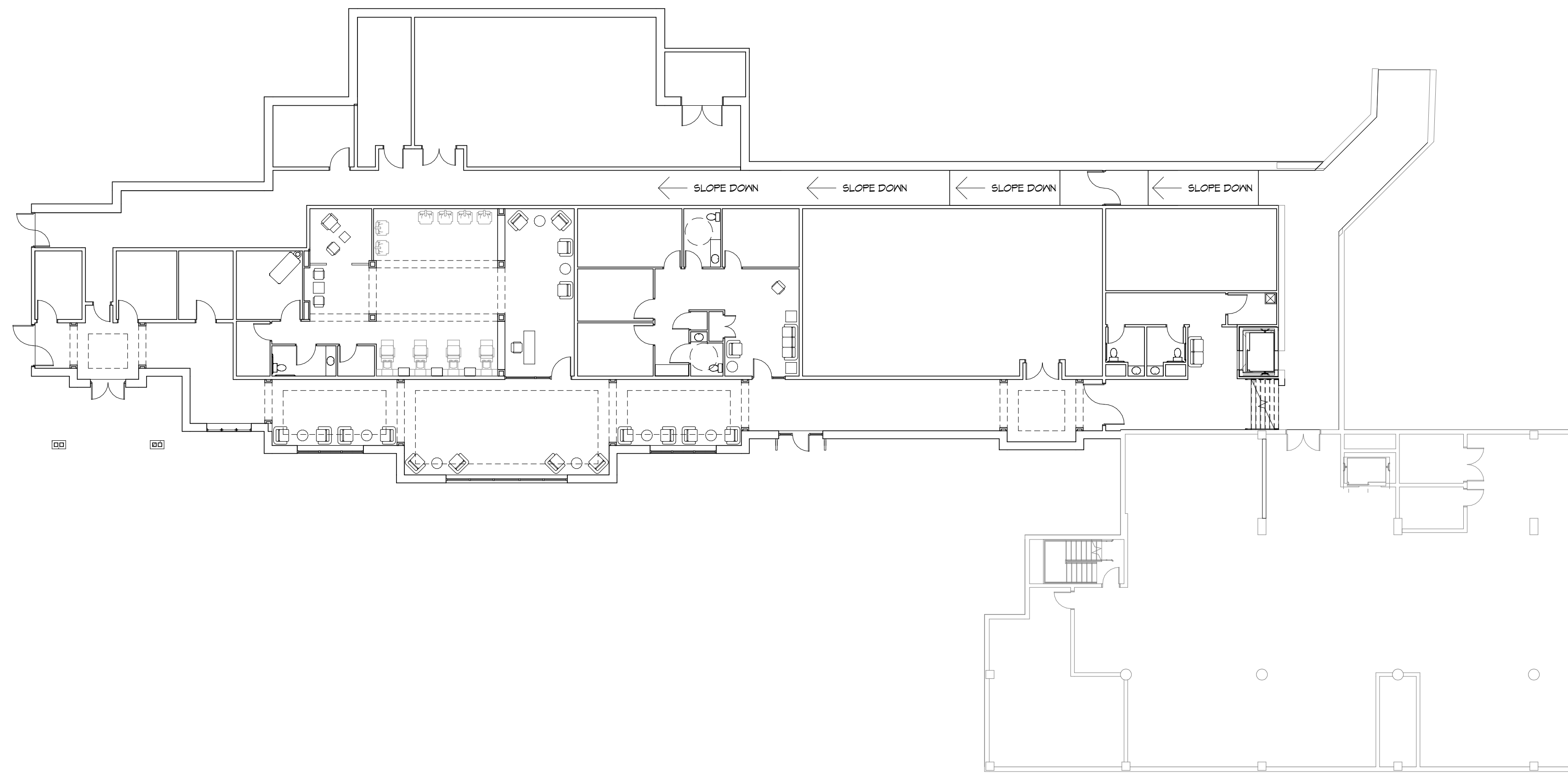


EXTERIOR ELEVATION KEYED NOTES

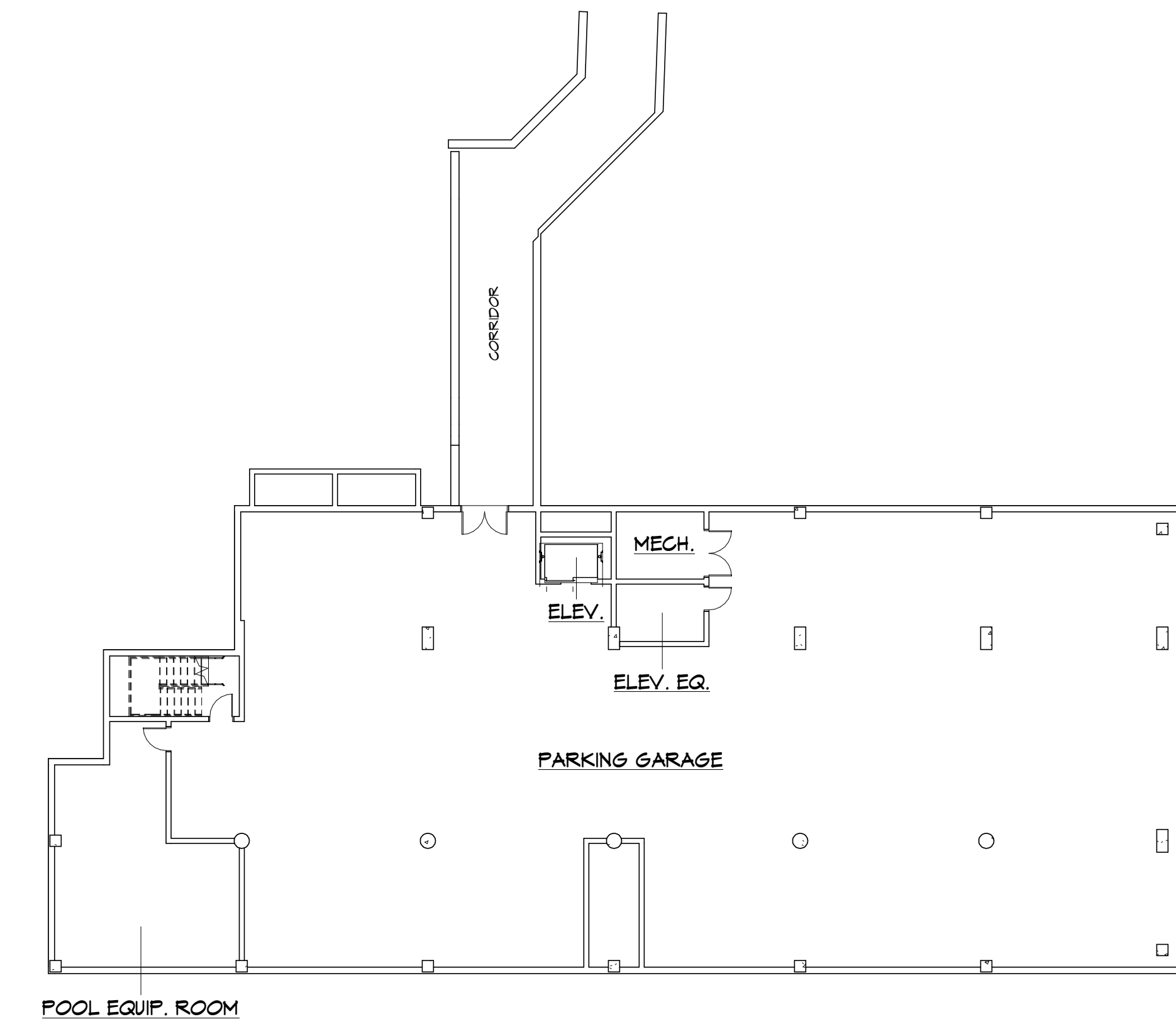
- 3 B STANDARD BRICK VENEER
- 4 A CAST STONE WATER TABLE
- 7 A ALUMINUM FASCIA
- 8 B ALUMINUM STOREFRONT SYSTEM
- 6 A ASPHALT SHINGLES
- 8 B RIDGE VENT
- 6 C STANDING SEAM METAL ROOF

EXTERIOR MATERIAL LEGEND			
	ASPHALT SHINGLES		BRICK TYPE - 1: STANDARD FACE BRICK
	STANDING SEAM ROOF		FIBER CEMENT SIDING - 1: 6" EXPOSURE
	EXTERIOR INSULATION FINISH SYSTEM		FIBER CEMENT SIDING - 2: 6" EXPOSURE
			FIBER CEMENT PANELS

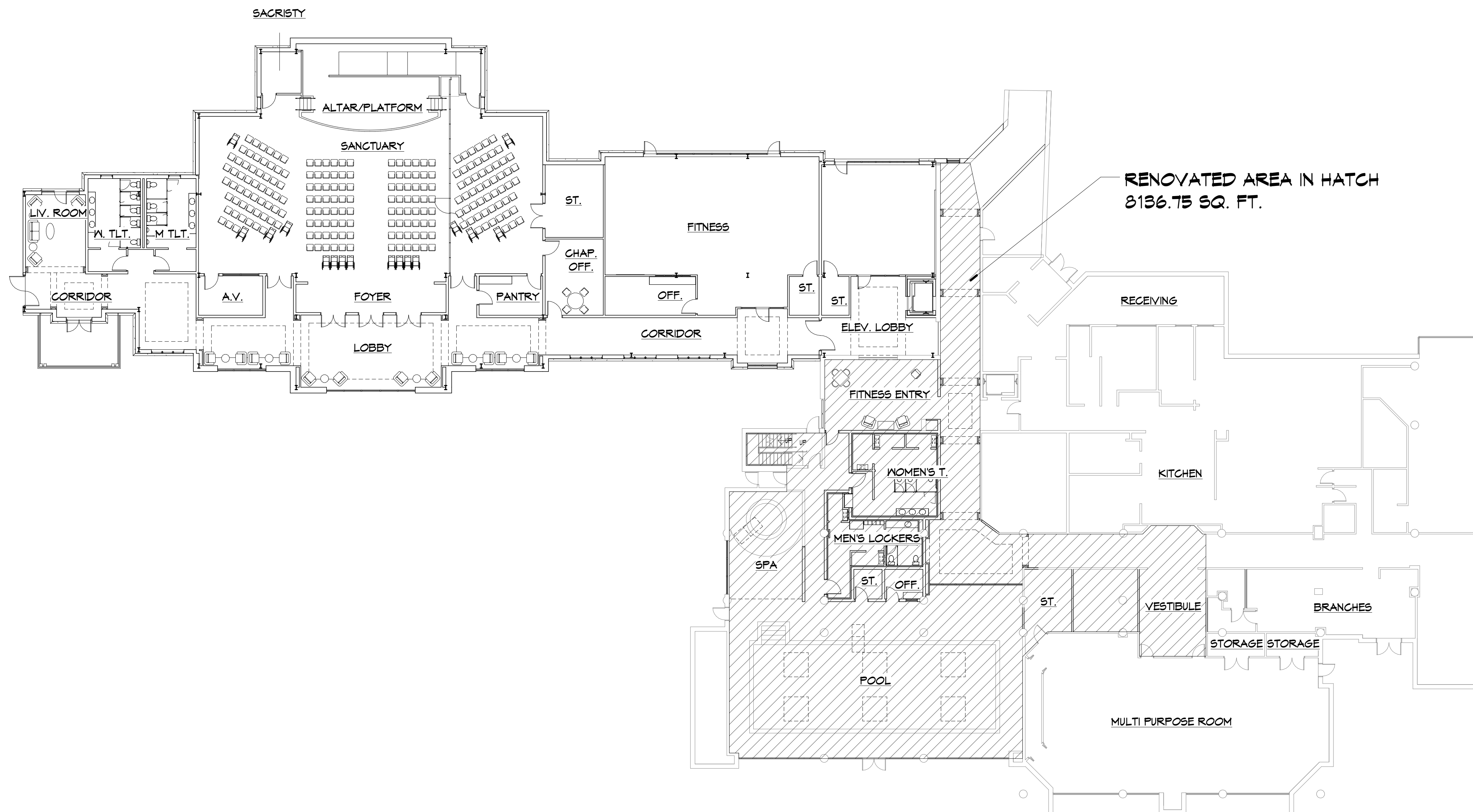
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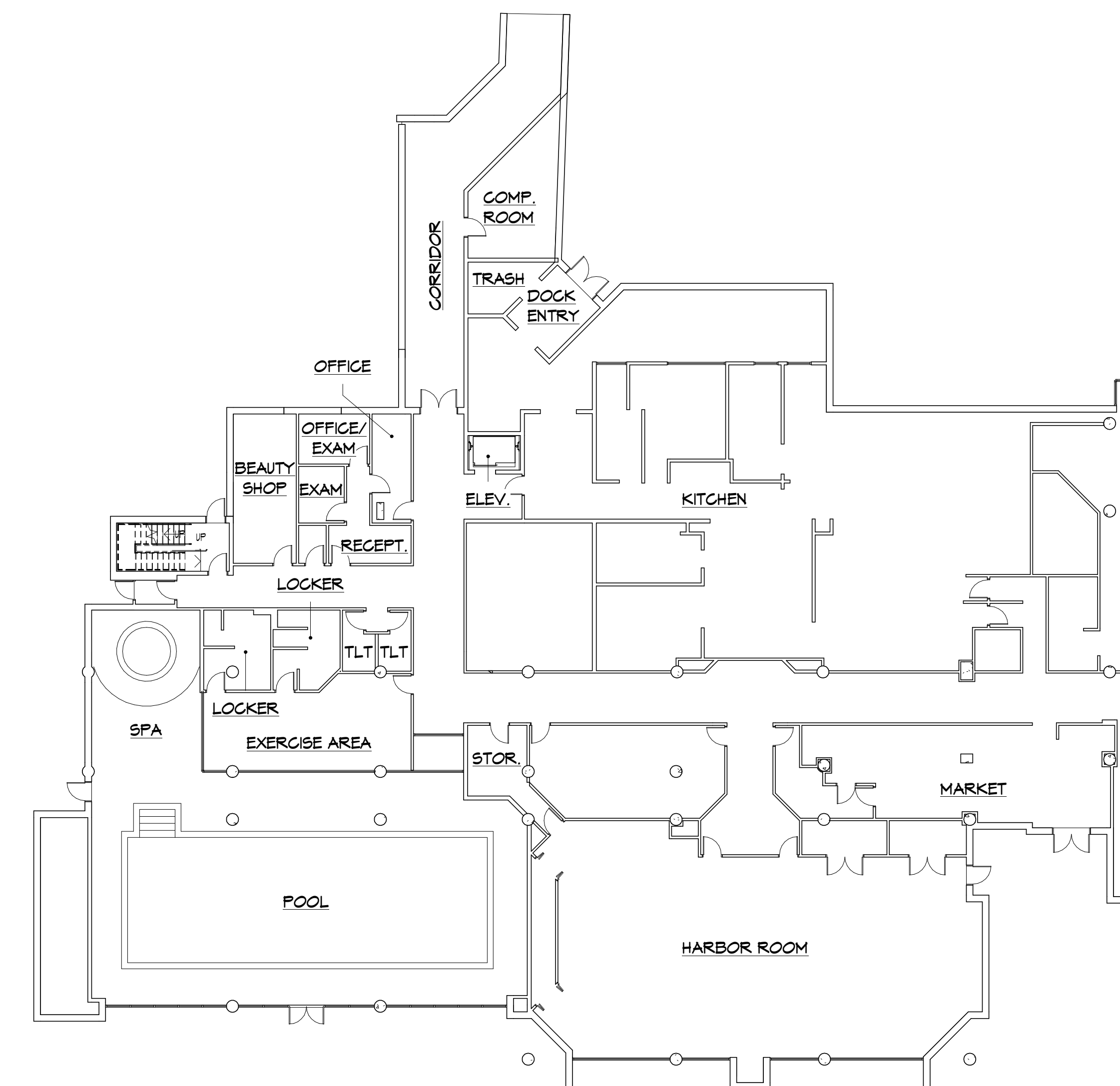
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1/16" = 1'-0"
TOTAL AREA: 13,100



4 EXISTING COMMONS GROUND FLOOR PLAN
1/16" = 1'-0"



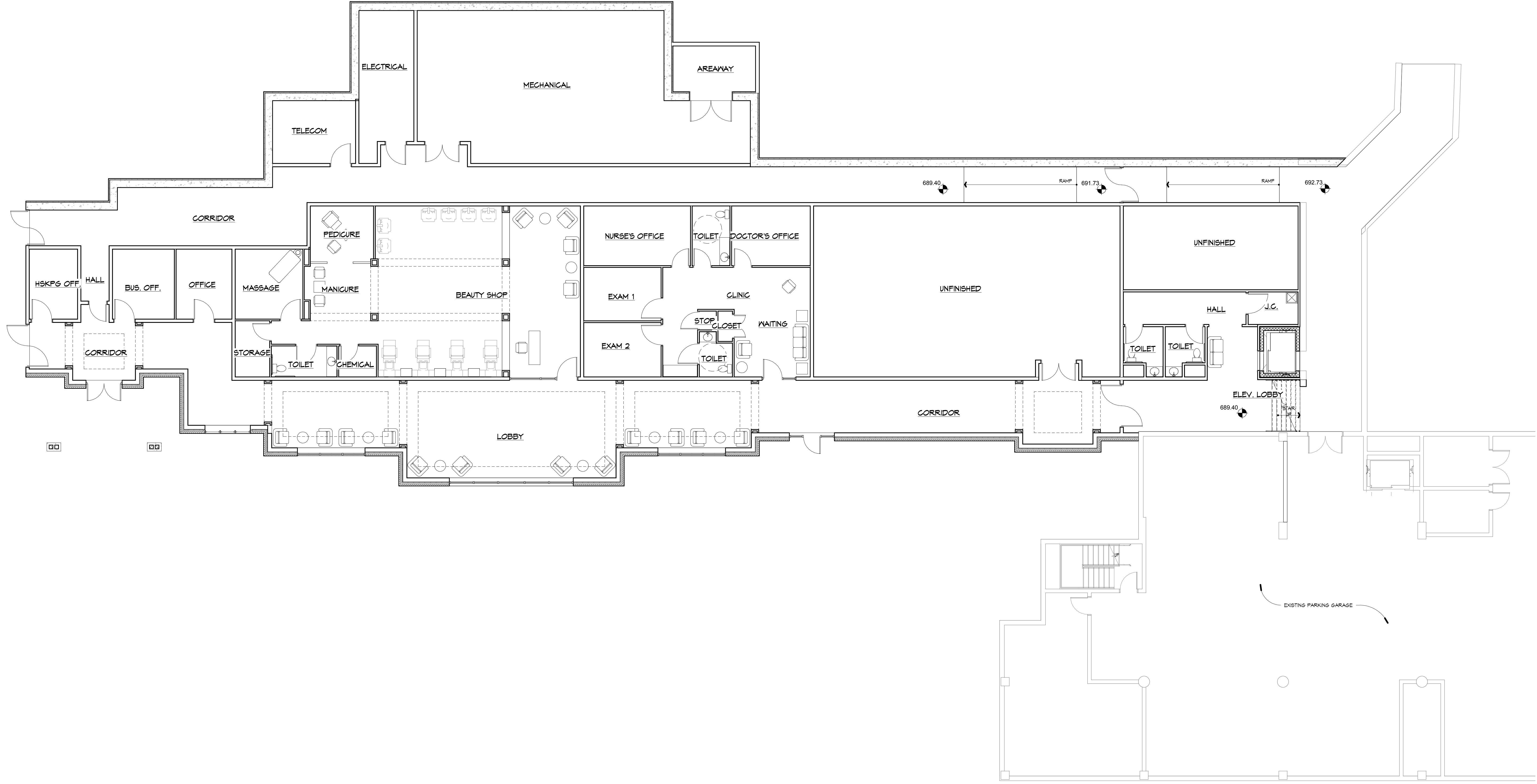
2 OVERALL FIRST FLOOR PLAN
1/16" = 1'-0"
TOTAL AREA: 13,600



3 EXISTING COMMONS FIRST FLOOR PLAN
1/16" = 1'-0"

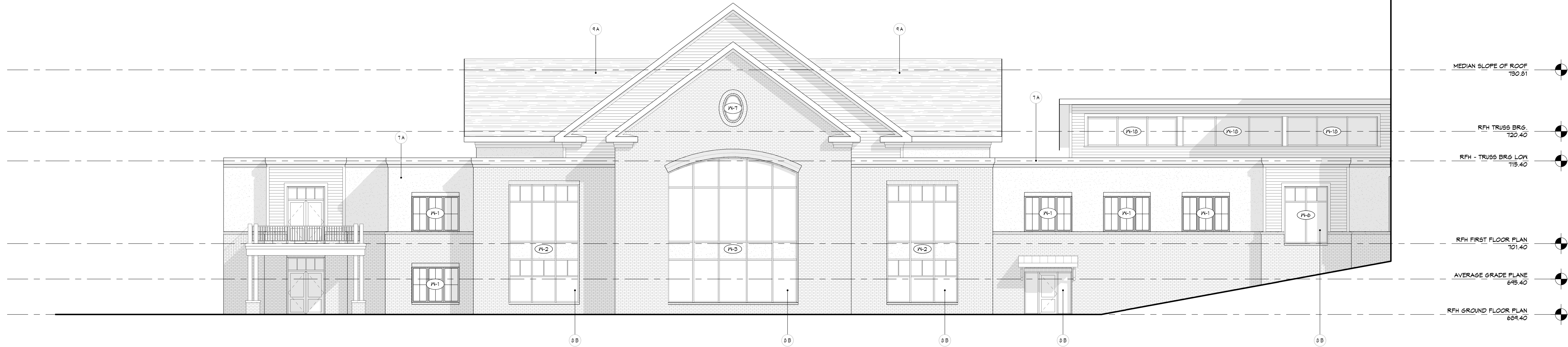
VOLUME III REF. & COMMONS DRAWING NO: A001 COMMISSION NO: 2014104		OVERALL FLOOR PLANS		REVISIONS		THE MOORINGS OF ARLINGTON HEIGHTS FOR PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005 DRAWN BY: S.J.M. CHECKED BY: J.H.H. APPROVED BY: C.P.K.		 rlps architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP		PLANNING COMMISSION SUBMISSION				THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF RLPS ARCHITECTS, LLP. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED WITHOUT THE ARCHITECT'S PERMISSION AND UNLESS OTHERWISE SPECIFIED, IT IS THE PROPERTY OF THE ARCHITECT. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.	
				NO. DATE DESCRIPTION											

2 RFH GROUND FLOOR PLAN
1/8" = 1'-0"

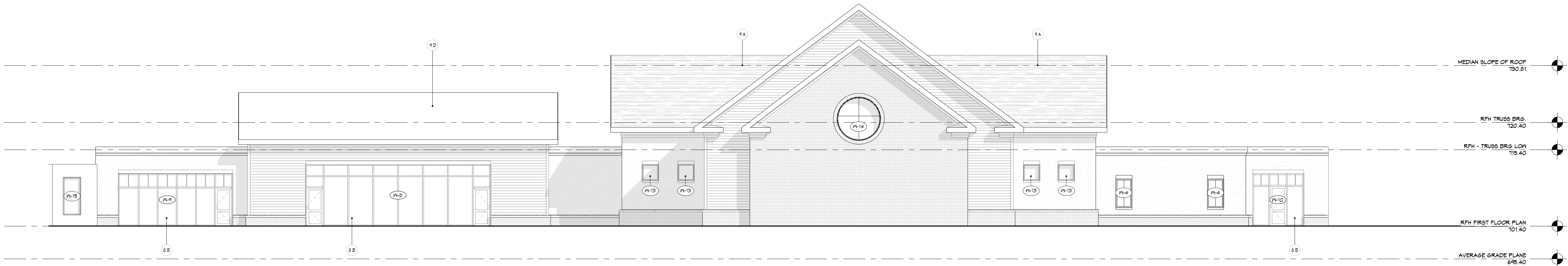


VOLUME III RFH & COMMONS DRAWING NO: A101 COMMISSION NO: 2014104		LOWER LEVEL PLAN		REVISIONS		THE MOORINGS OF ARLINGTON HEIGHTS FOR PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005 DRAWN BY: SJM COORDINATED BY: CS.L CHECKED BY: JFH APPROVED BY: CJK		 rlps architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP		PLANNING COMMISSION SUBMISSION					
DATE:		DATE:		NO.		DATE		DATE		DATE		DATE		DATE	
AS NOTED		06/26/2015													
SCALE:															
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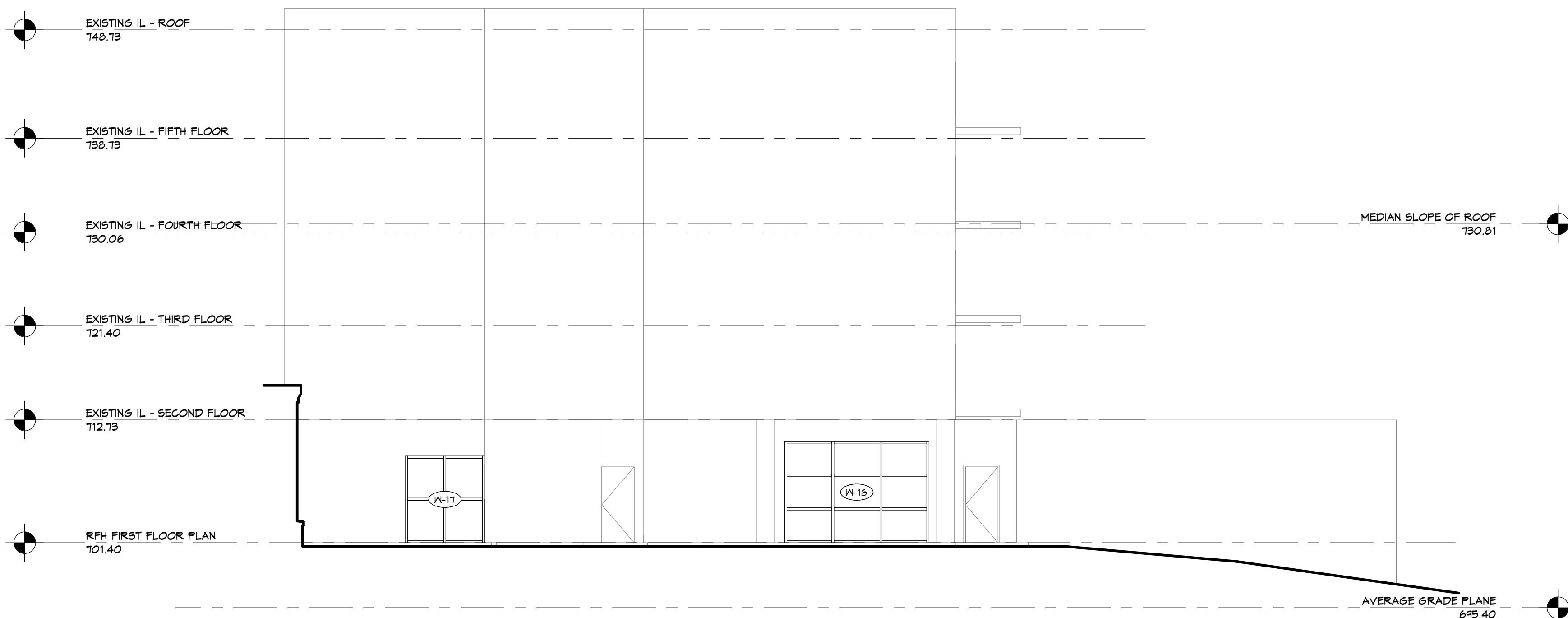




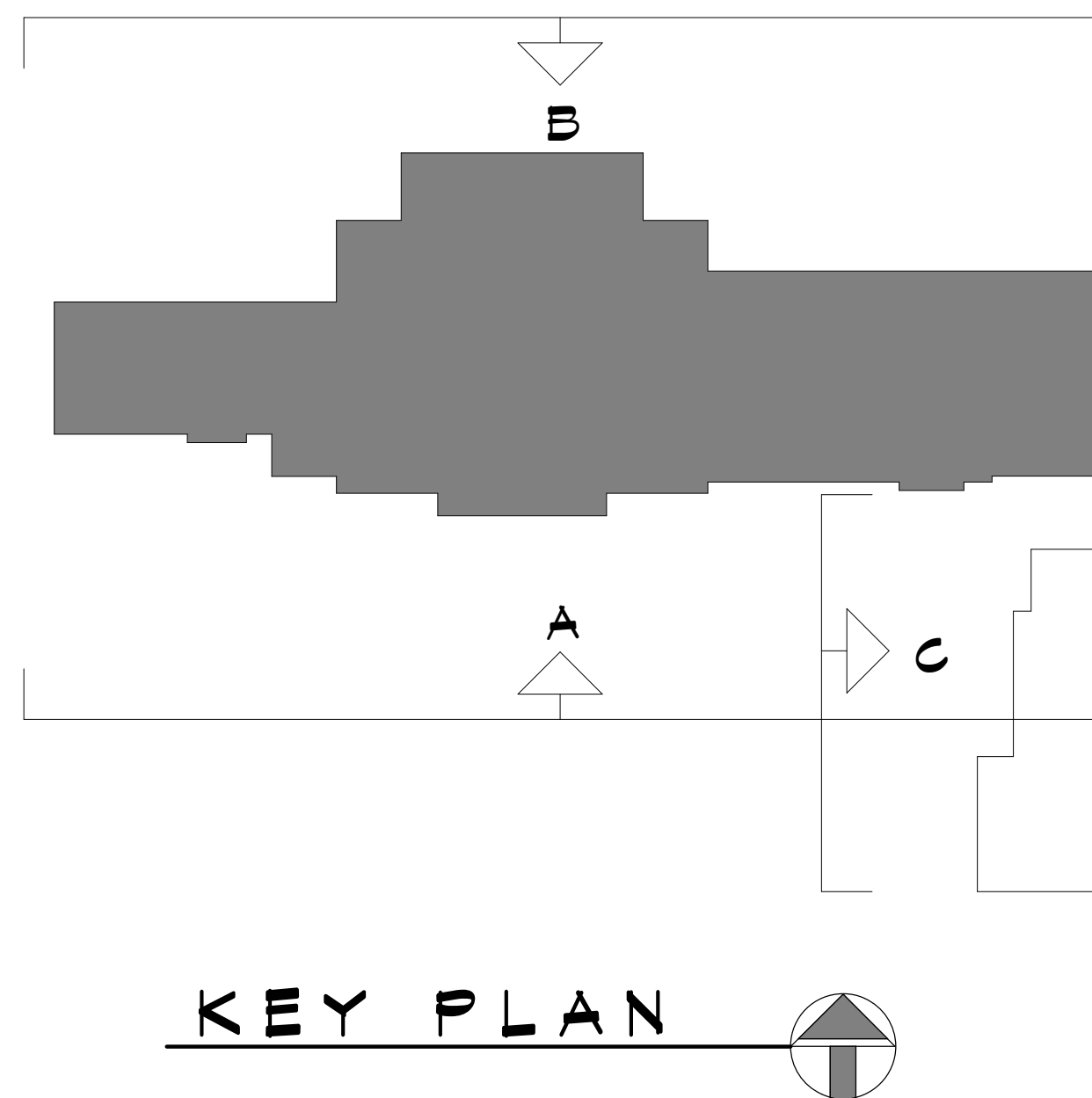
A SOUTH ELEVATION
1/8" = 1'-0"



B NORTH ELEVATION
1/8" = 1'-0"



C WEST - EXIST. COMMONS
1/8" = 1'-0"



KEY PLAN

EXTERIOR MATERIAL LEGEND

	ASPHALT SHINGLES		BRICK TYPE - 1: STANDARD FACE BRICK
	STANDING SEAM ROOF		FIBER CEMENT SIDING - 1: 6" EXPOSURE
	EXTERIOR INSULATION FINISH SYSTEM		FIBER CEMENT SIDING - 2: 6" EXPOSURE

EXTERIOR ELEVATION KEYED NOTES

- 4A CAST STONE WATER TABLE
- 1A ALUMINUM FASCIA
- 2B ALUMINUM STOREFRONT SYSTEM
- 9A ASPHALT SHINGLES
- 8B RIDGE VENT
- 9C STANDING SEAM METAL ROOF
- 10D EPDM ROOFING SYSTEM

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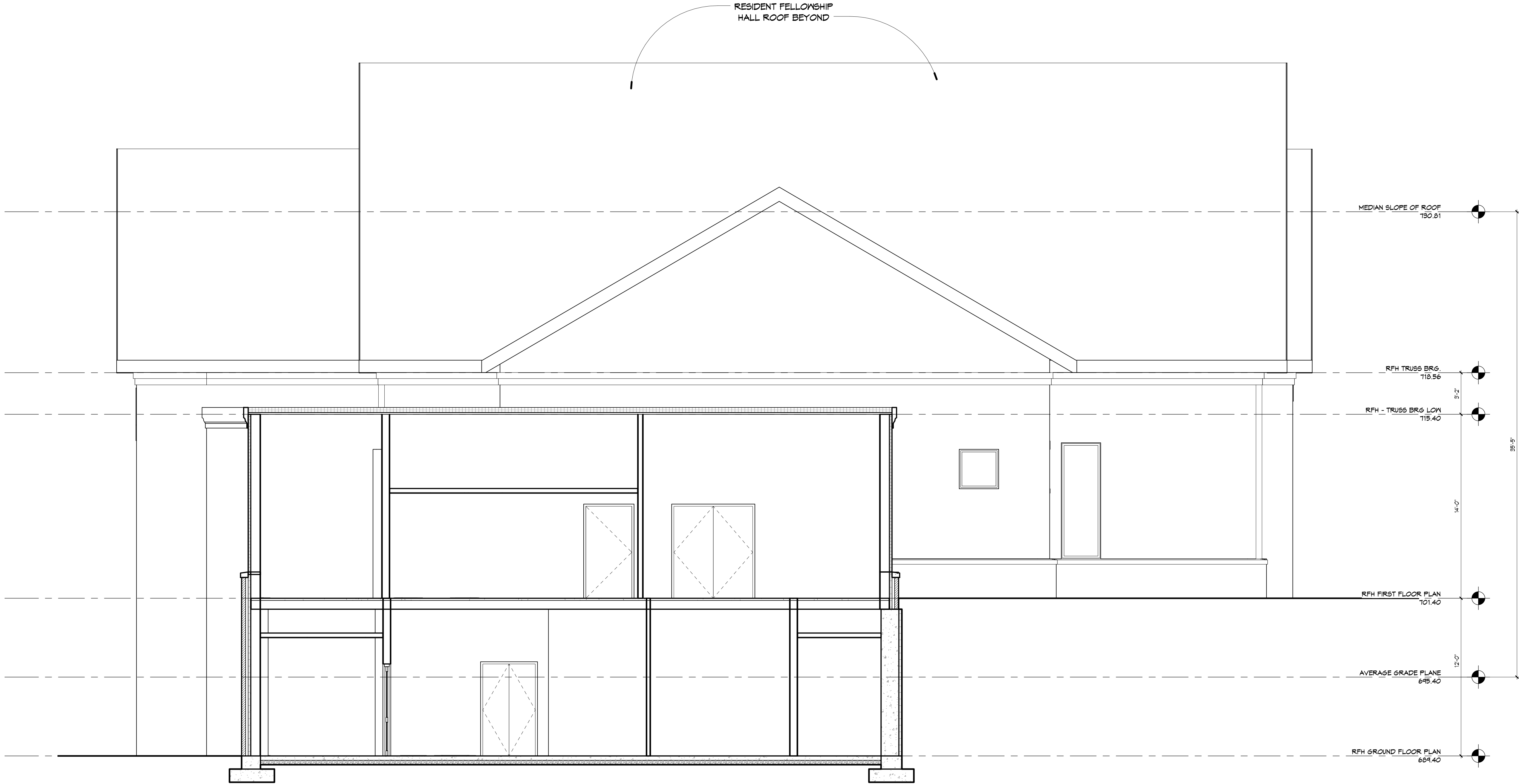
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RENOVATIONS & ADDITIONS TO:
THE MOORINGS OF ARLINGTON HEIGHTS
FOR
PRESBYTERIAN HOMES
811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005
DRAWN BY: SJM CHECKED BY: J.E.H. APPROVED BY: C.P.K.
COORDINATED BY: C.S.L.

REVISIONS	
NO.	DESCRIPTION

EXTERIOR ELEVATIONS

VOLUME III
REF. & COMMONS
DRAWING NO.
A201
COMMISSION NO.
2014104
SCALE
AS NOTED
DATE
06/26/2015



1 BUILDING SECTION
1/4" = 1'-0"

VOLUME III RFH & COMMONS DRAWING NO: A401 COMMISSION NO: 2014104	BUILDING SECTIONS		SCALE: AS NOTED	DATE: 06/26/2015	REVISIONS			RENOVATIONS & ADDITIONS TO: FOR THE MOORINGS OF ARLINGTON HEIGHTS PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005			rmps architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP	PLANNING COMMISSION SUBMISSION				THIS DRAWING AS AN INSTRUMENT OF SERVICE IS THE PROPERTY OF RMP ARCHITECTS, P.C. IT IS TO BE REPRODUCED WITHOUT THE ARCH- ITECT'S PERMISSION AND UNLESS SPECIFICALLY NOTED OTHERWISE THE NAME OF THE ARCHITECT
					NO.	DATE	DESCRIPTION	DRAWN BY: SJM	COORDINATED BY: CS.L	CHECKED BY: JH.H	APPROVED BY: C.P.K.					



MEMORY CARE VIEW FROM THE NORTH WEST

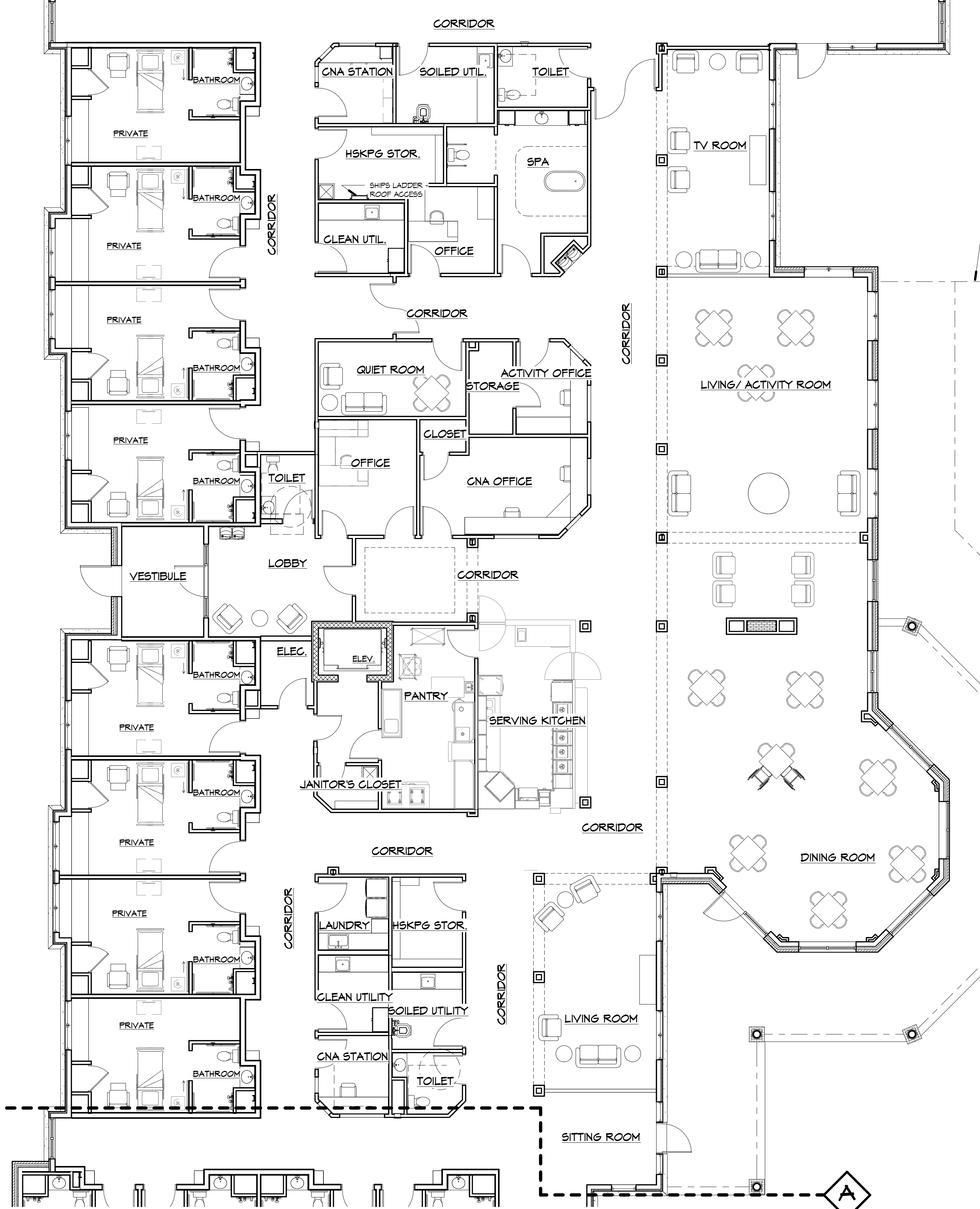
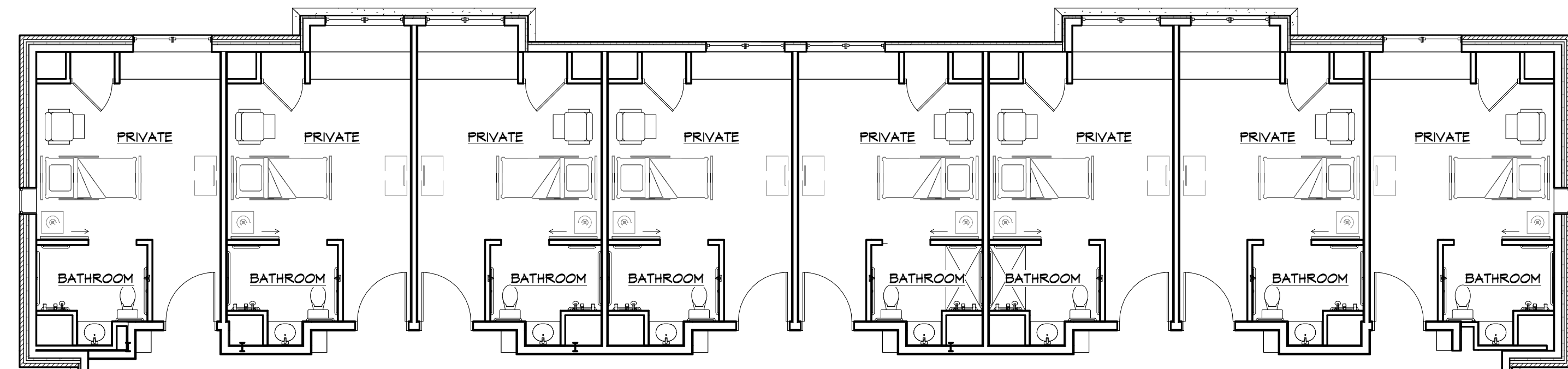
VOLUME IV ALL MEMORY CARE DRAWING NO: COMMISSION NO: 2014104		RENDERING AS NOTED DATE: 06/26/2015 SCALE:		REVISIONS NO. DATE DESCRIPTION		RENOVATIONS & ADDITIONS TO: FOR THE MOORINGS OF ARLINGTON HEIGHTS PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005 DRAWN BY: L.A.C. COORDINATED BY: C.S.L. CHECKED BY: J.F.H. APPROVED BY: C.P.K.		rlps architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP		PLANNING COMMISSION SUBMISSION		THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF RLPS ARCHITECTS, LLP. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED WITHOUT THE ARCHITECT'S PERMISSION AND UNLESS OTHERWISE SPECIFIED, IT IS THE PROPERTY OF THE ARCHITECT. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.	
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VOLUME # ALL INFORMATION CARE DRAWING NO:		OVERALL FLOOR PLANS		SCALE:		COMMISSION NO:		DATE:	
A001				AS NOTED		06/26/2015			
NO.		DATE		DESCRIPTION					
						REVISIONS			
THE MOORINGS OF ARLINGTON HEIGHTS						RENOVATIONS & ADDITIONS TO:			
FOR									
PRESBYTERIAN HOMES									
811 CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005									
DRAWN BY:		COORDINATED BY:		CHECKED BY:		APPROVED BY:			
I.A.C.		C.S.L.		J.P.H.		C.P.K.			
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SUBMISSION									

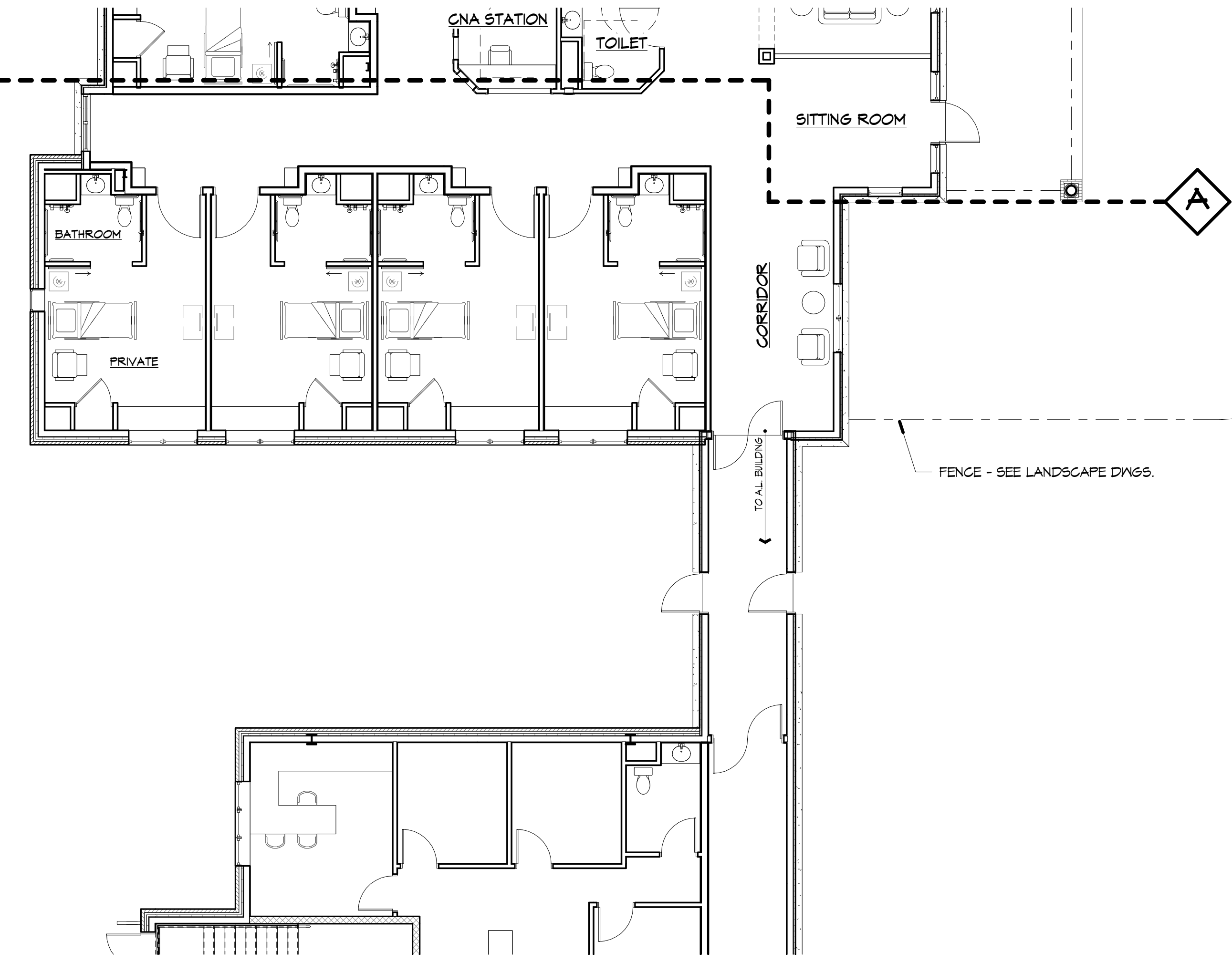


SHEET NO. DRAWING NO.		PROJECT NAME GROUND FLOOR PLAN		REVISIONS			REVISIONS TO FOR			THE MOORINGS OF ARLINGTON HEIGHTS PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005 DRAWN BY: C.S.L. COORDINATED BY: J.H.H. CHECKED BY: J.P.K. APPROVED BY: C.P.K.		 rllps architects® master planning • interior design architecture • construction management 2000 W. 12th Street, Suite 100 Arlington Heights, IL 60005 717-560-9501 FAX: 717-560-2373 RLLPS, LLP		PLANNING COMMISSION SUBMISSION						THIS DRAWING IS THE PROPERTY OF RLLPS ARCHITECTS, LLP. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY MANNER WITHOUT THE WRITTEN PERMIT OF RLLPS ARCHITECTS, LLP. IT IS THE PROPERTY OF THE ARCHITECT.	
SCALE: 2014/104		DATE: 06/26/2015		AS NOTED															CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE PROJECT LOCATION PRIOR TO BEGINNING WORK WITH THE WORK		



1 FIRST FLOOR PLAN - AREA A
1/8" = 1'-0"

EXISTING SKILLED CARE BUILDING



2 FIRST FLOOR PLAN - AREA B
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

- WHERE INDICATED, EXTERIOR WALLS OF THE BUILDING SHALL RECEIVE 5/8" GLASS MAT FACED & INS.
- REFER TO LARGE SCALE PLANS FOR RESIDENT ROOM DOOR NUMBERS.
- PROVIDE HANDRAIL IV BACKER CHAIRRAIL ON BOTH SIDES OF CORRIDORS. CONTINUE CHAIRRAIL WHERE HANDRAIL TERMINATES.

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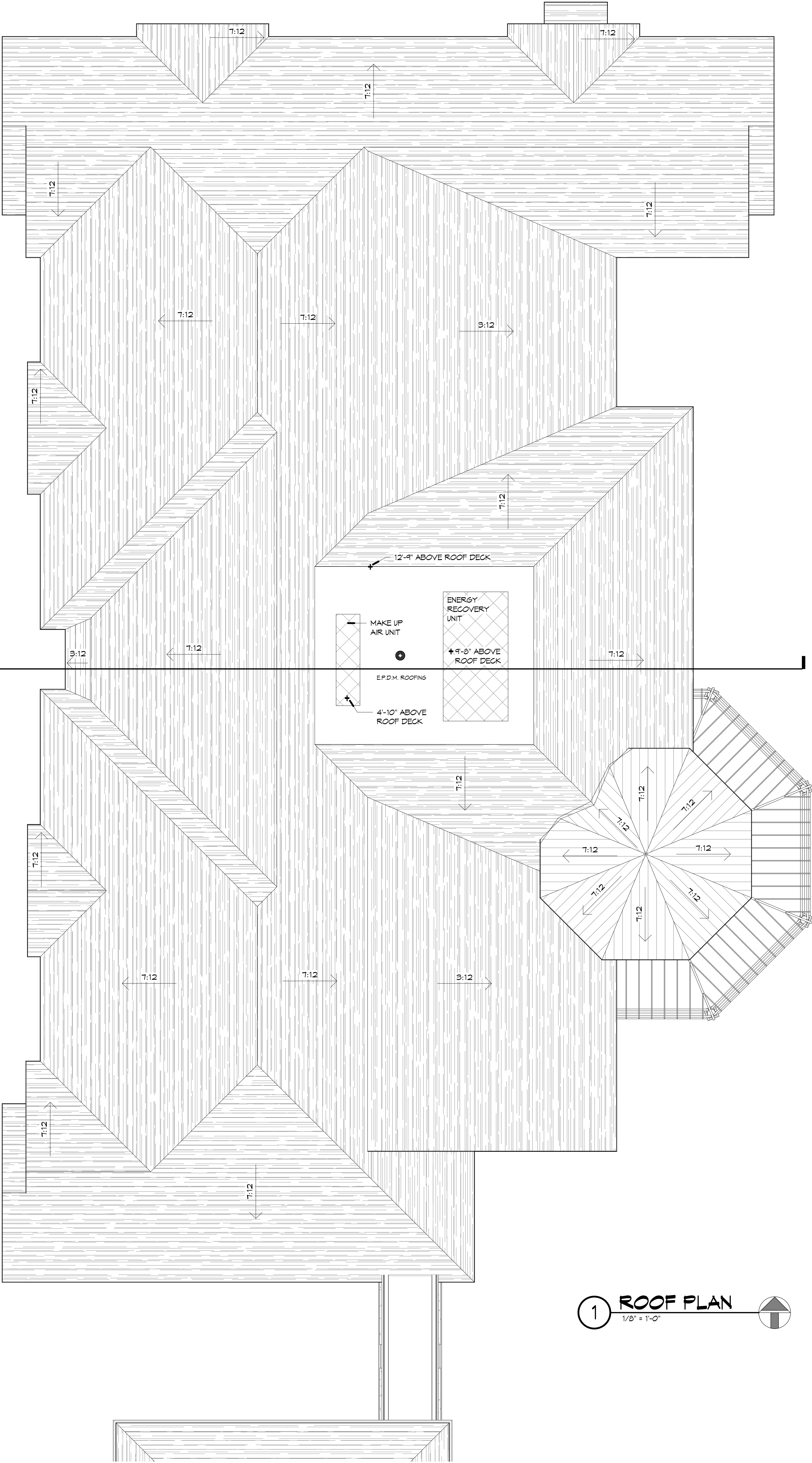
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RENOVATIONS & ADDITIONS TO:
FOR
THE MOORINGS OF ARLINGTON HEIGHTS
PRESBYTERIAN HOMES
811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005
DRAWN BY: L.A.C. CHECKED BY: J.F.H. APPROVED BY: C.P.K.

REVISIONS	
NO.	DESCRIPTION

FIRST FLOOR PLAN
DATE: 06/26/2015
SCALE: AS NOTED

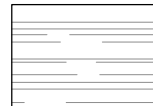
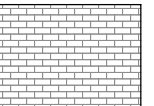
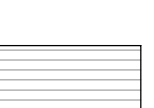
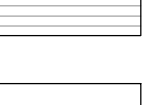
VOLUME IV
ALL MEMORY CARE
DRAWING NO:
COMMISSION NO: 2014104
A102

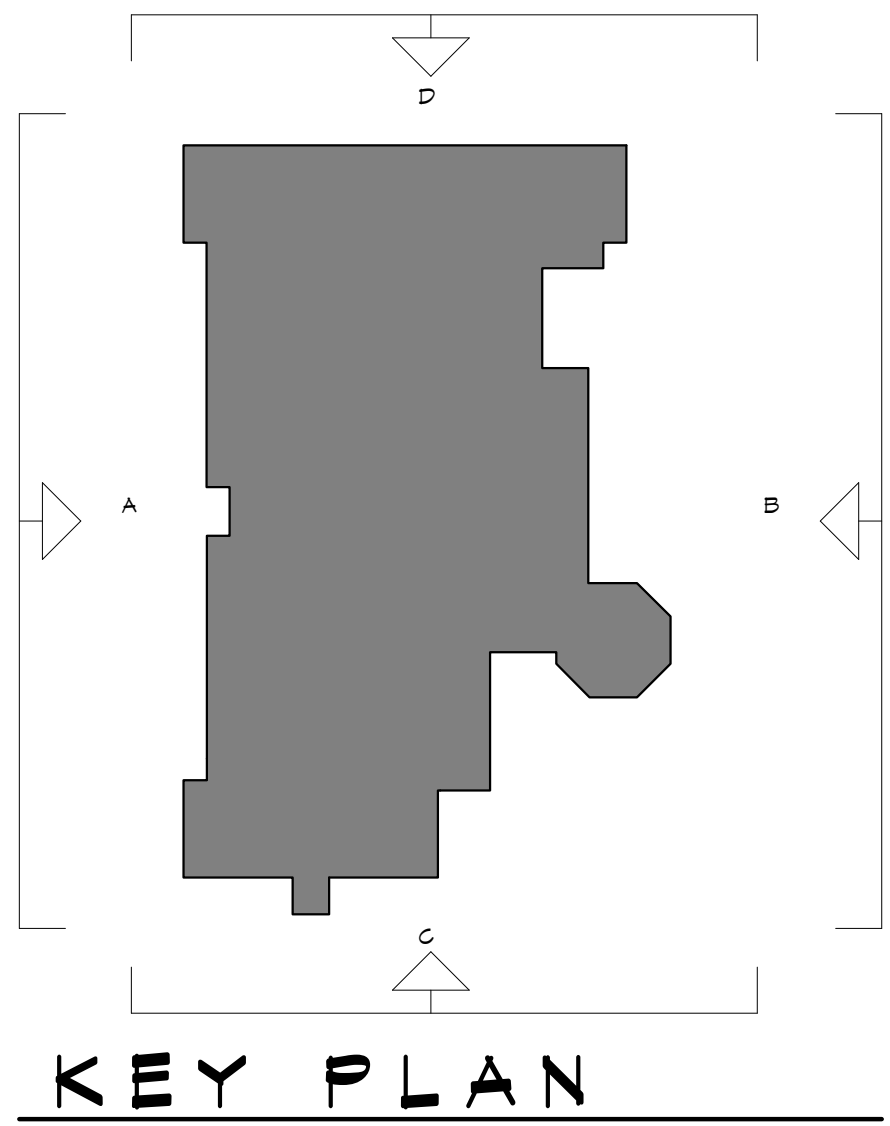


VOLUME IV A.L. MEMORY CARE DRAWING NO: A104		ROOF PLAN		REVISIONS			THE MOORINGS OF ARLINGTON HEIGHTS FOR PRESBYTERIAN HOMES			rlps architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP		PLANNING COMMISSION SUBMISSION				THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF RLPS ARCHITECTS, LLP. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED WITHOUT THE ARCHITECT'S PERMISSION AND UNLESS OTHERWISE NOTED, IT IS TO BE USED IN ITS ENTIRETY. THE NAME OF THE ARCHITECT.				
COMMISSION NO: 2014104		SCALE: AS NOTED		DATE: 06/26/2015		NO.		DATE		DESCRIPTION		DRAWN BY: L.A.C.		COORDINATED BY: C.S.L.			CHECKED BY: J.F.H.		APPROVED BY: C.P.K.	

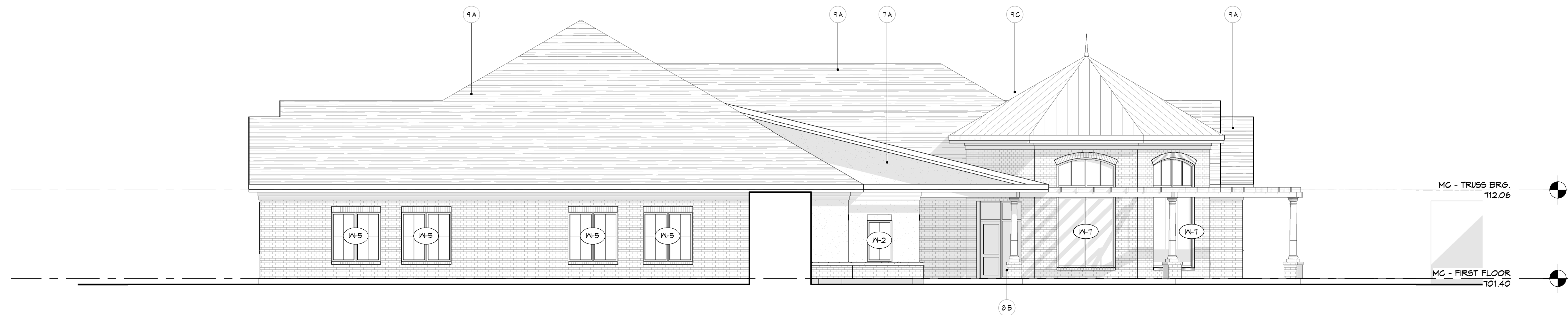


EXTERIOR MATERIAL LEGEND

	ASPHALT SHINGLES		BRICK TYPE - 1: STANDARD FACE BRICK
	STANDING SEAM ROOF		FIBER CEMENT SIDING - 1: 6\"
	EXTERIOR INSULATION FINISH SYSTEM		FIBER CEMENT PANELS



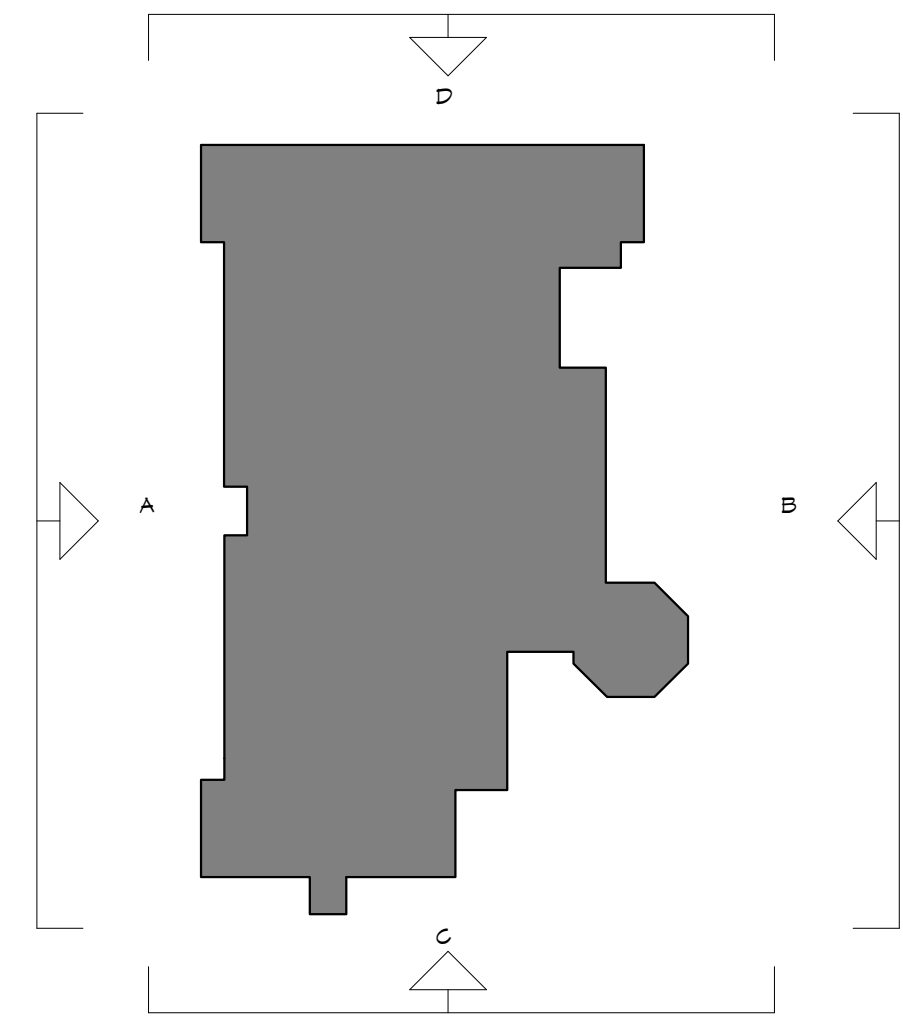
VOLUME IV ALL MEMORY CARE DRAWING NO:	A201 EXTERIOR ELEVATIONS		DATE: 06/26/2015
	COMMISSION NO: 2014104	SCALE: AS NOTED	



C SOUTH ELEVATION
1/8" = 1'-0"



D NORTH ELEVATION
1/8" = 1'-0"



KEY PLAN

EXTERIOR MATERIAL LEGEND

	ASPHALT SHINGLES		BRICK TYPE - 1: STANDARD FACE BRICK
	STANDING SEAM ROOF		FIBER CEMENT SIDING - 1: 6" EXPOSURE
	EXTERIOR INSULATION FINISH SYSTEM		FIBER CEMENT PANELS

EXTERIOR ELEVATION KEYED NOTES

- 4A CAST STONE WATER TABLE
- 1A ALUMINUM FASCIA
- 9B ALUMINUM STOREFRONT SYSTEM
- 9A ASPHALT SHINGLES
- 9B RIDGE VENT
- 9C STANDING SEAM METAL ROOF
- 9D EPDM ROOFING SYSTEM

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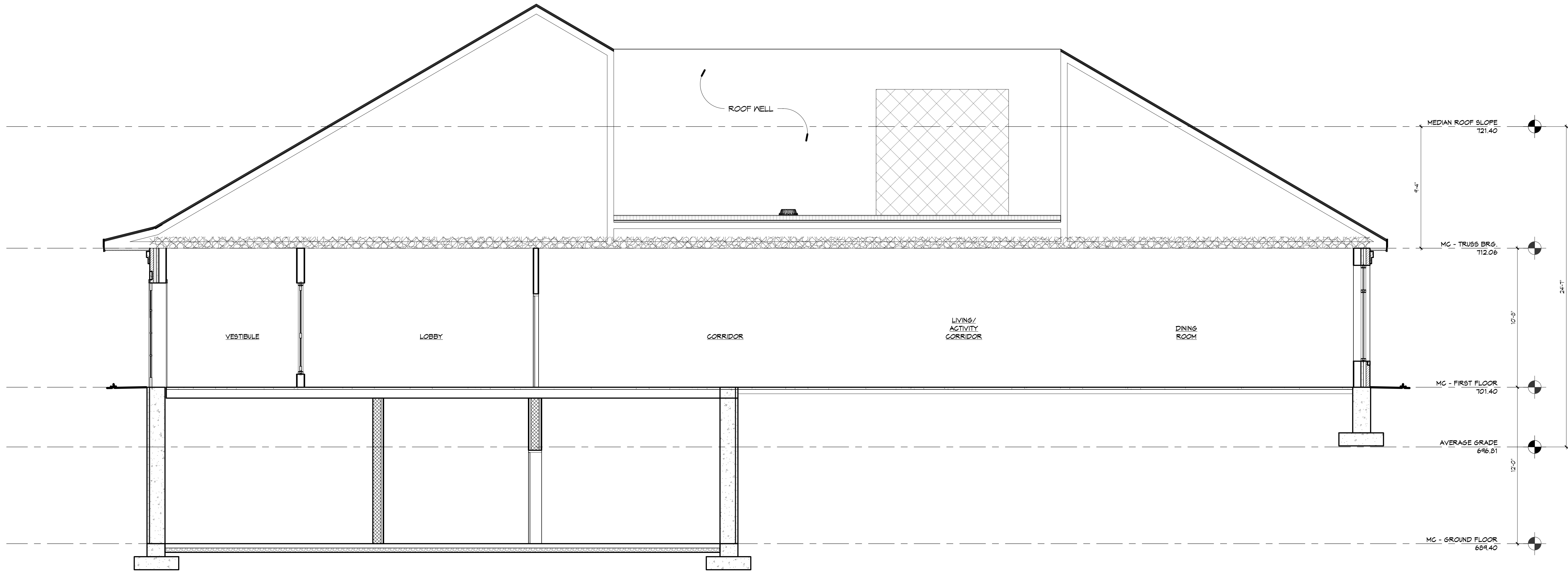
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RENOVATIONS & ADDITIONS TO:
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811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005
DRAWN BY: L.A.C. CHECKED BY: J.H.H. APPROVED BY: C.P.K.
COORDINATED BY: C.S.L.

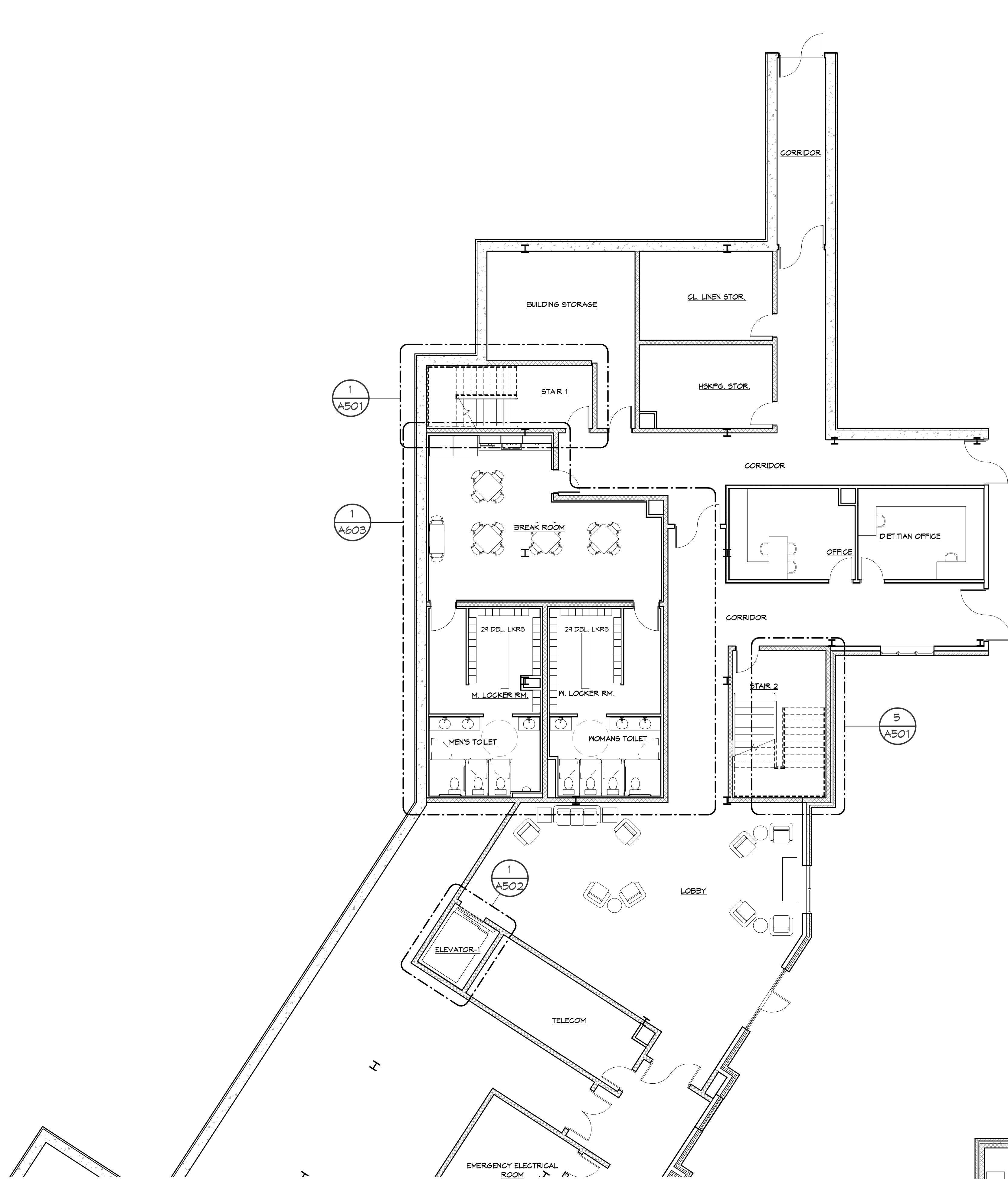
R E V I S I O N S	
NO.	DATE

EXTERIOR ELEVATIONS	
VOLUME IV ALL MEMORY CARE DRAWING NO: A202	DATE: 06/26/2015 SCALE: AS NOTED
COMMISSION NO: 2014104	



1 BUILDING SECTION
1/4" = 1'-0"

VOLUME IV ALL MEMORY CARE DRAWING NO: A401 COMMISSION NO: 2014104	BUILDING SECTIONS		REVISIONS		THE MOORINGS OF ARLINGTON HEIGHTS FOR PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005 DRAWN BY: L.A.C. COORDINATED BY: C.S.L. CHECKED BY: J.H.H. APPROVED BY: C.P.K.		rlps architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP	PLANNING COMMISSION SUBMISSION			THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF RLPS ARCHITECTS, LLP. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED WITHOUT THE ARCHITECT'S PERMISSION AND UNLESS OTHERWISE SPECIFIED, IT DOES NOT CONSTITUTE THE NAME OF THE ARCHITECT.	CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.
	SCALE: AS NOTED	DATE: 06/26/2015										



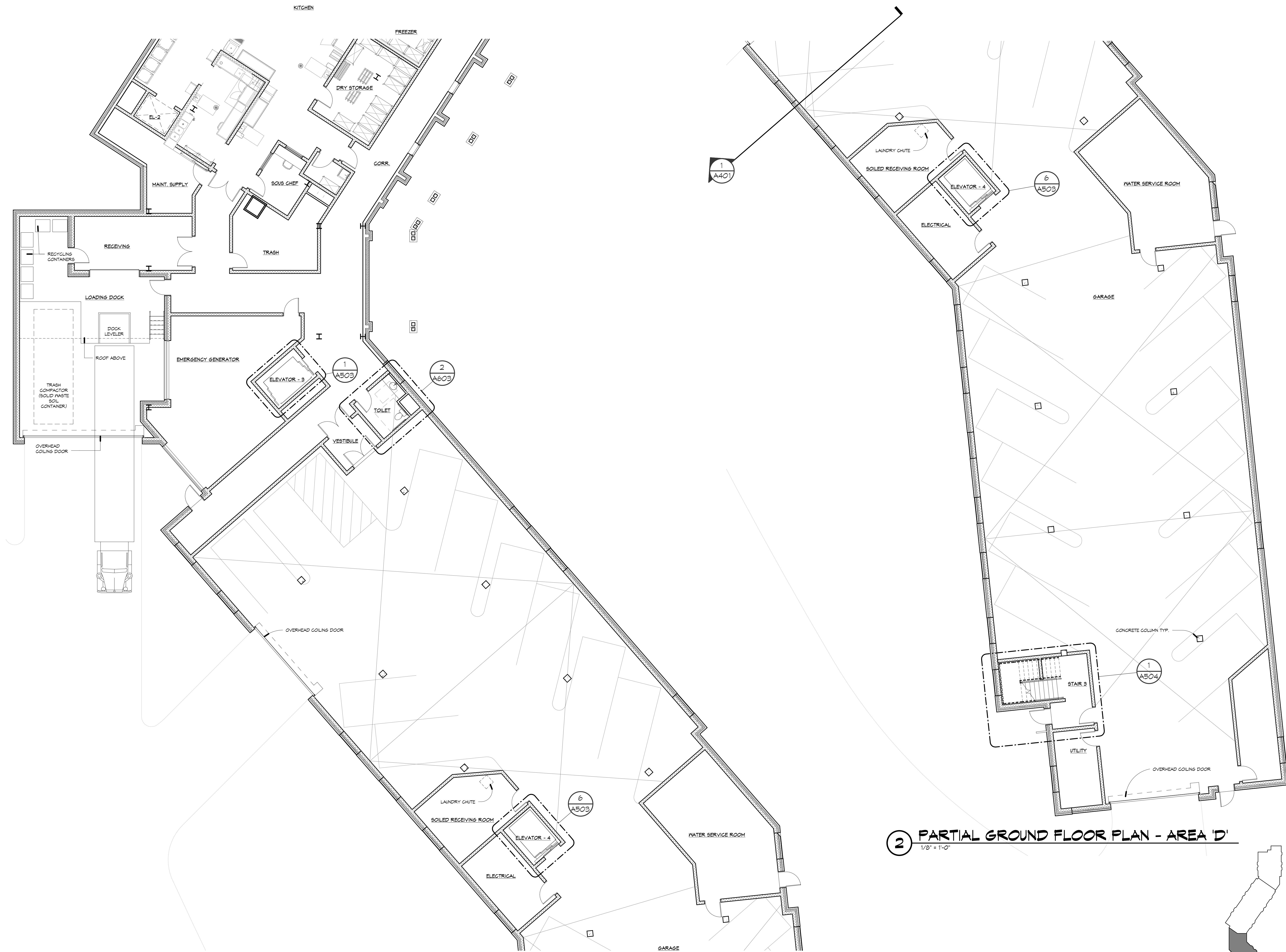
1 PARTIAL GROUND FLOOR PLAN - AREA 'A'
1/8" = 1'-0"



2 PARTIAL GROUND FLOOR PLAN - AREA 'B'
1/8" = 1'-0"



VOLUME II ASSISTED LIVING DRAWING NO: A101 COMMISSION NO: 2014104		PARTIAL GROUND FLOOR PLAN - AREAS 'A' & 'B' SCALE: AS NOTED DATE: 09/01/2015		<table><tr><th colspan="3">R E V I S I O N S</th></tr><tr><th>NO.</th><th>DATE</th><th>DESCRIPTION</th></tr><tr><td> </td><td> </td><td> </td></tr></table>		R E V I S I O N S			NO.	DATE	DESCRIPTION				RENOVATIONS & ADDITIONS TO: THE MOORINGS OF ARLINGTON HEIGHTS FOR PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005 DRAWN BY: SJM COORDINATED BY: CSJL CHECKED BY: JFH APPROVED BY: CJK		 rtps architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RPLS, LLP		PROGRESS SET - NOT FOR CONSTRUCTION				THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF RPLS, LLP. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED. IT IS NOT TO BE REPRODUCED WITHOUT THE ARCH- ITECT'S PERMISSION AND UNLESS OTHERWISE SPECIFIED, IT IS THE NAME OF THE ARCHITECT. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.	
R E V I S I O N S																								
NO.	DATE	DESCRIPTION																						

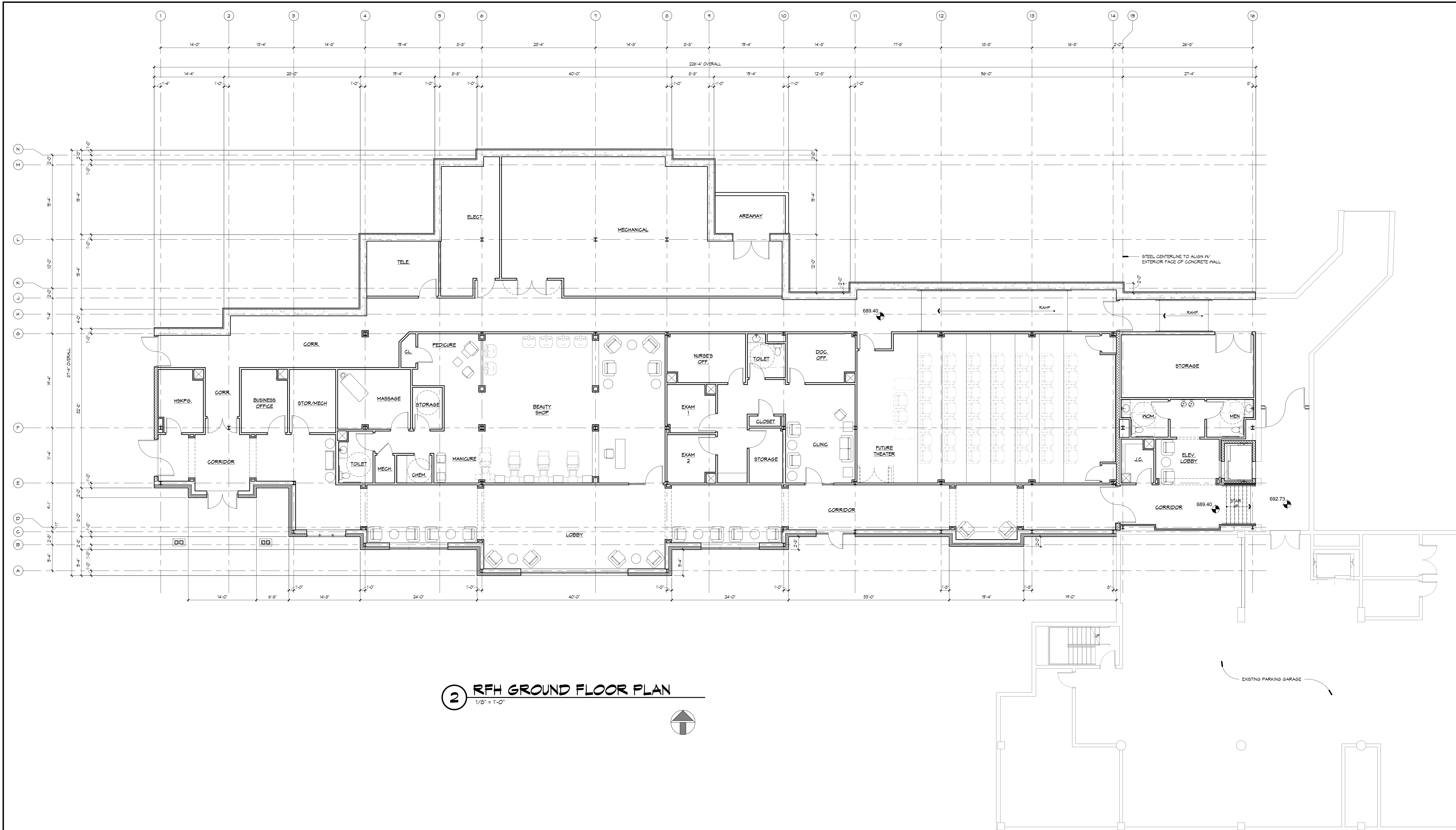


1 PARTIAL GROUND FLOOR PLAN - AREA 'C'
1/8" = 1'-0"

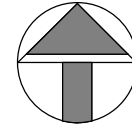
2 PARTIAL GROUND FLOOR PLAN - AREA 'D'
1/8" = 1'-0"



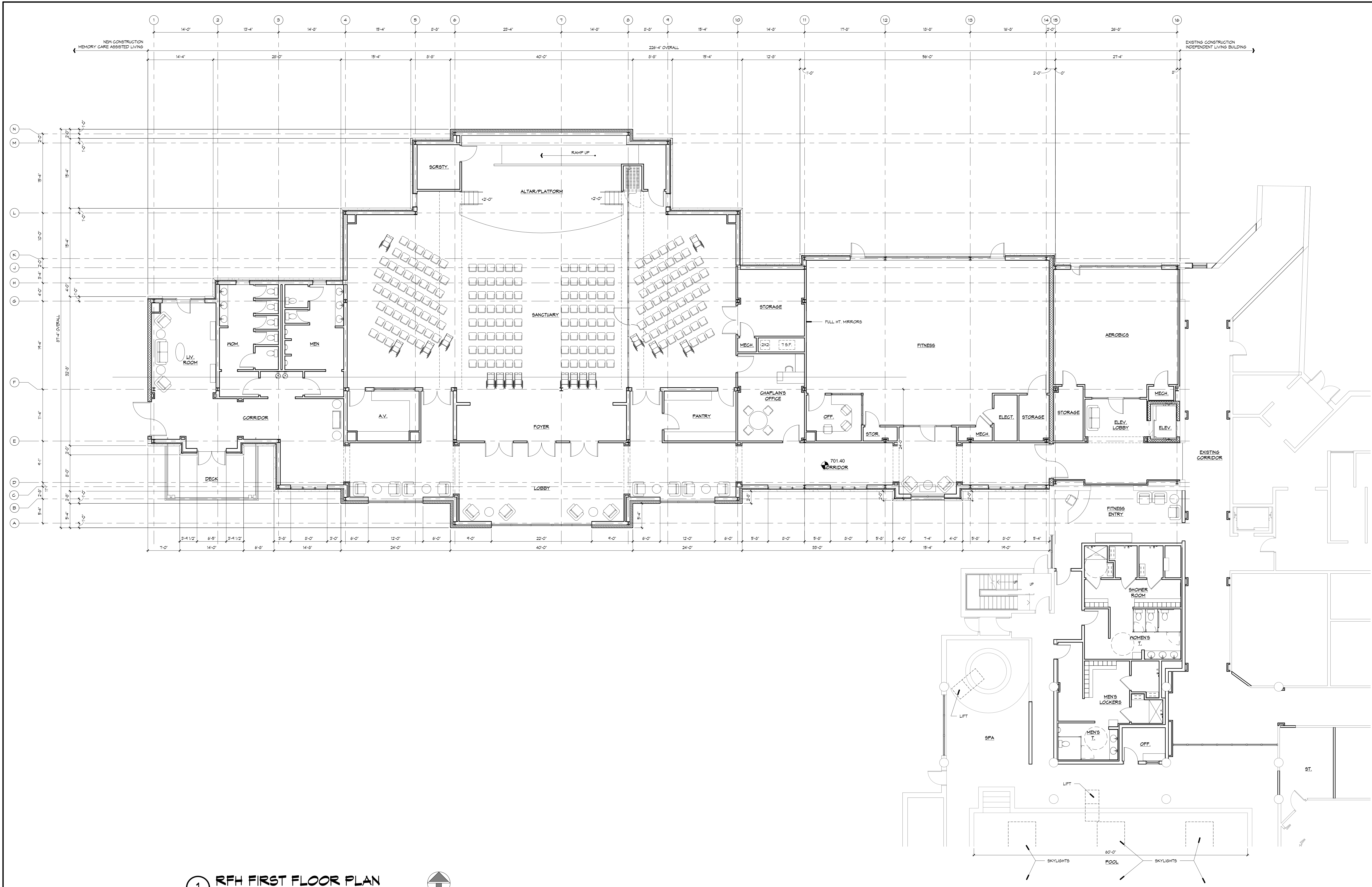
VOLUME II ASSISTED LIVING DRAWING NO: A102 COMMISSION NO: 2014104		PARTIAL GROUND FLOOR PLAN - AREAS 'C' & 'D'		SCALE: AS NOTED	DATE: 09/01/2015	REVISIONS		THE MOORINGS OF ARLINGTON HEIGHTS FOR PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005 DRAWN BY: S.J.M. COORDINATED BY: C.S.L. CHECKED BY: J.F.H. APPROVED BY: C.P.K.		 rlps architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP		PROGRESS SET - NOT FOR CONSTRUCTION				THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF THE ARCHITECT, AND MAY NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE ARCHITECT'S PERMISSION. THE ARCHITECT TAKES NO RESPONSIBILITY FOR CONSTRUCTION CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.	
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2 RFH GROUND FLOOR PLAN
1/8" = 1'-0"



VOLUME III RFH & COMMONS DRAWING NO: A101	COMMISSION NO: 2014104	LOWER LEVEL PLAN		REVISIONS		THE MOORINGS OF ARLINGTON HEIGHTS FOR PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005		rpls architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RPLS, LLP		PROGRESS SET - NOT FOR CONSTRUCTION	THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF RPLS ARCHITECTS, P.C. AND IS NOT TO BE REPRODUCED WITHOUT THE ARCH- ITECT'S PERMISSION AND UNLESS SPECIFICALLY NOTED OTHERWISE, IT REMAINS THE PROPERTY OF RPLS NAME OF THE ARCHITECT
		DATE: 09/01/2015	AS NOTED	NO.:	DATE:	DESCRIPTION:	NO.:	DATE:	DESCRIPTION:		



1 RFH FIRST FLOOR PLAN
1/8" = 1'-0"

VOLUME III RFH & COMMONS DRAWING NO: A102	COMMISSION NO: 2014104	SCALE: AS NOTED	DATE: 09/01/2015	FIRST FLOOR PLAN		REVISIONS		THE MOORINGS OF ARLINGTON HEIGHTS FOR PRESBYTERIAN HOMES 811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005 DRAWN BY: SJM COORDINATED BY: CS.L CHECKED BY: JFH APPROVED BY: CJK		rlps architects® architecture • master planning • interior design 250 VALLEYBROOK DRIVE, LANCASTER, PA 17601 717-560-9501 FAX: 717-560-2373 RLPS, LLP	PROGRESS SET - NOT FOR CONSTRUCTION	THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF RLPS ARCHITECTS, LLP. IT IS TO BE REPRODUCED WITHOUT THE ARCHITECT'S PERMISSION AND UNLESS OTHERWISE STATED THE NAME OF THE ARCHITECT CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK



D-Series LED Bollard



d-series

Specifications

Diameter: 8" Round
(20.3 cm)

Height: 42"
(106.7 cm)

Weight (max): 27 lbs
(12.25 kg)



SB1(A) & SB1(S)

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

The D-Series LED Bollard is a stylish, energy-saving, long-life solution designed to perform the way a bollard should—with zero uplight. An optical leap forward, this full cut-off luminaire will meet the most stringent of lighting codes. The D-Series LED Bollard's rugged construction, durable finish and long-lasting LEDs will provide years of maintenance-free service.

Ordering Information

EXAMPLE: DSXB LED 16C 700 40K SYM MVOLT DDBXD

DSXB LED								
Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Control options	Other options	Finish (required)
DSXB LED	Asymmetric	350 350 mA	30K 3000 K	ASY Asymmetric¹	MVOLT⁵	Shipped installed	Shipped installed	DWHXD White
	12C 12 LEDs¹	450 450 mA^{3,4}	40K 4000 K	SYM Symmetric²	120⁵	PE Photoelectric cell, button type	SF Single fuse (120, 277, 347V)^{4,7}	DNAXD Natural aluminum
		530 530 mA	50K 5000 K		208⁵	DMG 0-10V dimming driver (no controls)	DF Double fuse (208, 240V)^{4,7}	DDBXD Dark bronze
	Symmetric	700 700 mA	AMBPC Amber phosphor converted		240⁵	ELCW Emergency battery backup⁶	H24 24" overall height	DBLXD Black
	16C 16 LEDs²		AMBLW Amber limited wavelength^{3,4}		277⁵		H30 30" overall height	DBTDX Textured dark bronze
					347⁴		H36 36" overall height	DBLBXD Textured black
							FG Ground-fault festoon outlet	DNATXD Textured natural aluminum
							L/AB Without anchor bolts	DWHGXD Textured white
							L/AB4 4-bolt retrofit base without anchor bolts⁸	

SB1 (A) DSXB LED 12C 700 30K ASY

SB1 (S) DSXB LED 16C 350 30K SYM

Accessories

Ordered and shipped separately.

MRAB U Anchor bolts for DSXB⁸

NOTES

- Only available in the 12C, ASY version.
- Only available in the 16C, SYM version.
- Only available with 450 AMBLW version.
- Not available with ELCW.
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options), or photocontrol (PE option).
- Not available with 347V. Not available with fusing. Not available with 450 AMBLW.
- Single fuse (SF) requires 120, 277, or 347 voltage option. Double fuse (DF) requires 208 or 240 voltage option.
- MRAB U not available with L/AB4 option.



Performance Data

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Actual wattage may differ by +/- 8% when operating between 120-480V +/- 10%.

Light Engines	Drive Current	System Watts	3000 K					4000 K					5000 K					Limited Wavelength Amber				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
Asymmetric 3 Engines (12 LEDs)	350	16	715	45	1	0	1	889	56	1	0	1	953	60	1	0	1					
	530	22	985	45	1	0	1	1,239	56	1	0	1	1,334	61	1	0	1					
	700	31	1,263	41	1	0	1	1,588	51	1	0	1	1,712	55	1	0	1					
	Amber 450	16																348	22	1	0	1
Symmetric 4 Engines (16 LEDs)	350	20	923	46	1	0	1	1,161	58	1	0	1	1,251	63	1	0	1					
	530	28	1,274	46	1	0	1	1,603	57	1	0	1	1,726	62	1	0	1					
	700	39	1,634	42	1	0	1	2,055	53	1	0	1	2,215	57	1	0	1					
	Amber 450	20																419	21	1	0	1

Note: Available with phosphor-converted amber LED's (nomenclature AMBPC). These LED's produce light with 97+% >530 nm. Output can be calculated by applying a 0.7 factor to 4000 K lumen values and photometric files.

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.00	0.98	0.97	0.95

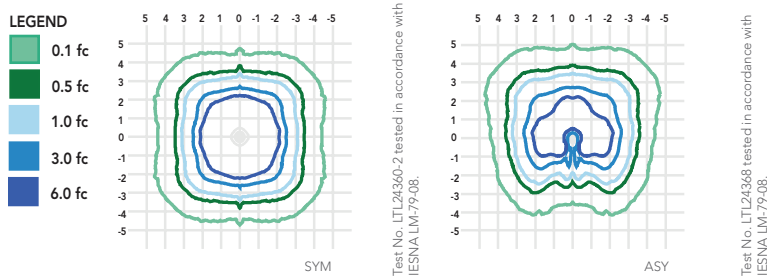
Electrical Load

Light Engines	Drive Current (mA)	System Watts	Current (A)				
			120	208	240	277	347
12C	350	16W	0.158	0.118	0.114	0.109	0.105
	530	22W	0.217	0.146	0.136	0.128	0.118
	700	31W	0.296	0.185	0.168	0.153	0.139
	Amber 450	16W	0.161	0.120	0.115	0.110	0.106
16C	350	20W	0.197	0.137	0.128	0.121	0.114
	530	28W	0.282	0.178	0.162	0.148	0.135
	700	39W	0.385	0.231	0.207	0.185	0.163
	Amber 450	20W	0.199	0.139	0.130	0.123	0.116

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [D-Series Bollard homepage](#).

Isofootcandle plots for the DSXB LED 700 40K. Distances are in units of mounting height (3').



FEATURES & SPECIFICATIONS

INTENDED USE

The rugged construction and maintenance-free performance of the D-Series LED Bollard is ideal for illuminating building entryways, walking paths and pedestrian plazas, as well as any other location requiring a low-mounting-height light source.

CONSTRUCTION

One-piece 8-inch-round extruded aluminum shaft with thick side walls for extreme durability, and die-cast aluminum reflector and top cap. Die-cast aluminum mounting ring allows for easy leveling even in uneven areas and full 360-degree rotation for precise alignment during installation. Three ½" x 11" anchor bolts with double nuts and washers and 3-5/8" max. bolt circle template ensure stability. Overall height is 42" standard.

FINISH

Exterior parts are protected by a zinc-infused super durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering for maximum retention of gloss and luster. A tightly controlled multi-stage process ensures a minimum 3-mil thickness for a finish that can withstand the elements without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS

Two 0% uplight optical distributions are available: symmetrical and asymmetrical. IP66 sealed LED light engine provides smoothly graduated illumination without uplight. Light engines are available in standard 4000 K (>70 CRI) or optional 3000 K (>80 CRI) or 5000 K (67 CRI). Limited-wavelength amber LEDs are also available.

ELECTRICAL

Light engines consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (L95/100,000 hours at 700mA at 25°C). Class 2 electronic drivers are designed for an expected life of 100,000 hours with < 1% failure rate. Electrical components are mounted on a removable power tray.

LISTINGS

CSA certified to U.S. and Canadian standards. Light engines are IP66 rated. Rated for -40°C minimum ambient. Cold-weather emergency battery backup rated for -20°C minimum ambient.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY

Five-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Specifications subject to change without notice.



APPLICATION

Small aperture medium distribution downlight is suitable for commercial, retail and institutional applications that require an energy saving, long life LED lamp source, high lumen output and excellent color rendering characteristics.

PRODUCT DATA

REFLECTOR: The parabolic reflector redirects spill light from the lamp, and eliminates high angle glare. A one half-inch overlap flange is standard. Supplied standard with Specular Clear Alzak, other reflector finishes are available in order to provide maximum flexibility to the designer.

DECORATIVE ACCESSORY: Round disc is fabricated from soda lime glass (ICE6) or borosilicate glass (ICE6BS) and is suspended from reflector by satin stainless hardware. Glass features a frosted center ring with center opening.

HOUSING: Heavy gauge galvanized steel housing provides a secure mounting platform for the electrical components and protects the optical assembly. Standard plaster flange allows one inch ceiling thickness with custom depth available. LED module is accessible from below.

MOUNTING: Universal Mounting brackets adjust vertically 5.5" and accept C-channel or rigid bars (see optional accessories).

ELECTRICAL: Standard 120 to 277 VAC, 50-60 Hz. Optional 347V (E3).

JUNCTION BOX: Heavy gauge galvanized junction box pre-wired with grounding pigtail. Easy access covers. Multiple conduit knockouts listed for through branch circuit wiring.

LED MODULE & DRIVER: LED Module and Driver are manufactured by Philips Lighting. Remote phosphor technology insures color consistency from fixture to fixture.

DIMMING: Standard product is compatible with 0-10 volt dimming controls. See below for additional options.

HEAT MANAGEMENT: Engineered heat sink provides passive cooling for optimum heat management of the LED engine.

6VLEDSP

Lumens	Wattage	Typical Delivered Lumens	Efficacy (LPW)
1100	16.3	935	57.4
1500	19.8	1275	64.4
2000	27.3	1700	62.3
3000	39	2550	65.4

• Expected lamp life to be 50,000 hours with 70% lumen maintenance when ambient temperatures do not exceed 45°C. Lower ambient temperatures yield longer lamp life.

6VLEDMD

Lumens	Wattage	Typical Delivered Lumens	Efficacy
1100	16.3	1012	62.1
1500	19.8	1380	69.7
2000	27.3	1840	67.4
3000	39	2760	70.8

CRI = 80. Specifications based on Fortimo GEN 4 LED module by Philips Lighting after 100 hours.

Catalog #:

6VLED

Example: 6VLED11004K

Fixture Series	Lumens	Color Temp.	Dimming
6VLED	1100	4K (4000K)	blank 0-10V, 10%
	1500	35K (3500K)	D8 0-10V, 1%
	2000	3K (3000K)	DE4 Lutron EcoSys 4 wire, 1%
	3000	27K (2700K)	D7 Lutron 3 wire, 1%
			D1 120V Trailing Edge, 10%
			DT1 120V Lutron 2 wire, 1%
			ELD Eldo LED 0-10V, 0%
			DAL Dali, 1%
			DMX DMX, 10% [^]
			DMX8 DMX, 1% [^]
			DMXELD DMX, 0% [^]

[^]interfaced through 0-10V driver

Optional Accessories

Hanger Bars (set of 2)

- ☐ 101782 = #520 Caddy Bars
- ☐ 9127 = 27" C-Channel
- ☐ 24CBH = 24" one-piece B-Line C-Channel hanger bar
- ☐ 26UBH = interlocking hanger bars expand to 26"
- ☐ 9152 = 52" C-Channel
- ☐ 27BH = 27" Solid Bar

SD1 - 6VLED 1500 3K - 6VLEDMSCLPF

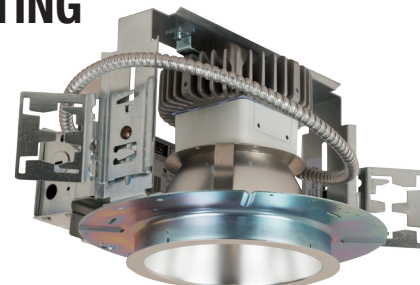
Coven
Architectural Series

SD1

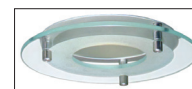
SERIES 6VLED Recessed LED Downlight 1100-3000 Lumen Fortimo DLM

CALIBER[®]
LED LIGHTING

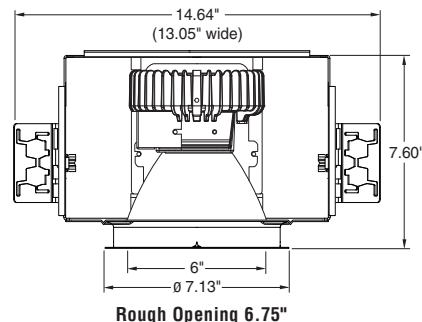
**5 Year
Warranty**



For Wet Location
Under Covered Ceiling



Available with
suspended
decorative
glass disc.



Series 6VLED - Recessed LED Downlight - 1100-3000 Lumen Fortimo DLM

6VLED

Example: 6VLEDMDSCCLPF

Trim	Trim Finish w/polished flange
6VLEDSP	Spot 42° Downlight Reflector
6VLEDMD	Medium 58° Downlight Reflector
	SCLPF - Soft Specular Clear Alzak
	HAZPF - Haze Alzak
	MWH - Matte White
	ICE6 - Decorative Glass Accessory

For white painted flange, drop "PF" from Catalog #.
For other finishes, consult reflector section.

Options

- ☐ EM[^] = Emergency Battery Pack w/remotely located Test Switch
- ☐ IEM[^] = EM Battery Pack w/ Integral Test Switch. (Not Available for Wet Location or Lensed Fixtures)
- ☐ E3[^] = 347V Input
- ☐ X = Provision for Suspended Glass Lens (ICE6)

[^] E3, DMX, DMX8 and DMXELD not compatible with Emergency Battery Option.

Manufactured and tested to UL#1598 and CSA standards.
Fixtures are not designed for direct contact with insulation.

All Pathway[®] products meet or exceed requirements as established by the National Electrical Code. Specifications subject to change without notice.
Alzak[®] is a registered trademark of Alcoa.

PATHWAY[®]
the Lighting Source

Pathway Lighting Products, Inc., P.O. Box 591, Old Saybrook, CT 06475-0591
voice 800.342.0592 • fax 800.207.0090 • www.pathwaylighting.com • e-mail: sales@pathwaylighting.com

LDF28.0
CAUEUR

PHOTOMETRIC DOWNLIGHT DISTRIBUTION

Catalog No. - 6VLED30003K/6VLEDSPSCLPF
Lumens - 3000 (2550 delivered)
Spacing Criteria - .72
Efficacy - 65.4 (delivered LPW)

Catalog No. - 6VLED30003K/6VLEDMDSCCLPF
Lumens - 3000 (2760 delivered)
Spacing Criteria - 1.00
Efficacy - 70.8 (delivered LPW)

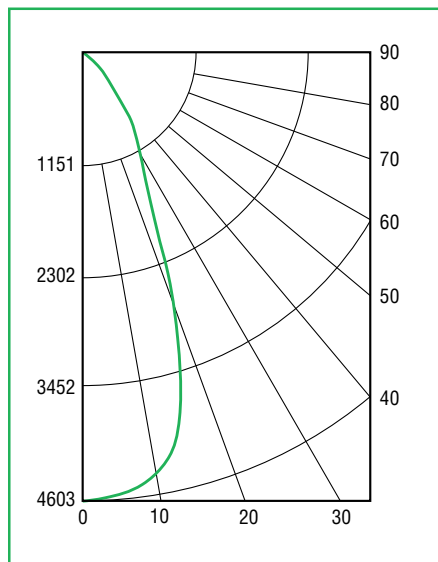
ZONAL LUMENS SUMMARY

ZONE	LUMENS	% OF LUMINAIRE
0-30	2011.15	80.70
0-40	2404.37	96.50
0-60	2492.23	100.00
0-80	2492.23	100.00
0-90	2492.23	100.00
90-180	0.05	0.00
0-180	2492.28	100.00

CANDELA

VERTICAL ANGLE	0
0	4603.068
5	4540.512
15	3832.232
25	1568.994
35	818.463
45	176.771
55	.597
65	0
75	0
85	0
90	0

CANDELA DISTRIBUTION



AVERAGE LUMINANCE

ANGLE	CD/M ²
45	13692
55	57
65	0
75	0
85	0

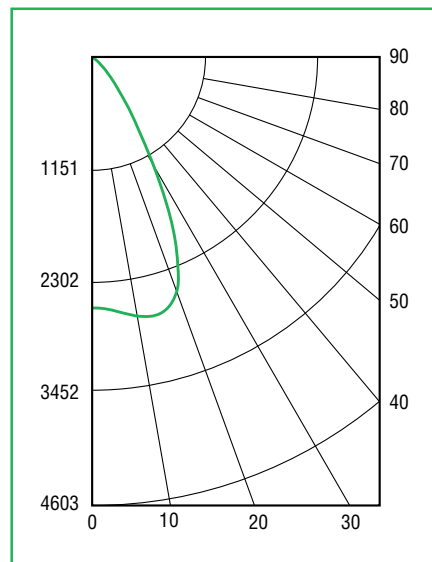
ZONAL LUMENS SUMMARY

ZONE	LUMENS	% OF LUMINAIRE
0-30	1904.22	78.30
0-40	2333.67	95.90
0-60	2430.95	99.90
0-80	2433.12	100.00
0-90	2433.26	100.00
90-180	0.00	0.00
0-180	2433.26	100.00

CANDELA

VERTICAL ANGLE	0
0	2576.276
5	2617.257
15	2719.308
25	2046.142
35	628.795
45	94.589
55	2.596
65	1.667
75	.506
85	.068
90	0

CANDELA DISTRIBUTION



AVERAGE LUMINANCE

ANGLE	CD/M ²
45	7326
55	248
65	216
75	107
85	43

1843 LED CARSON CITY SERIES

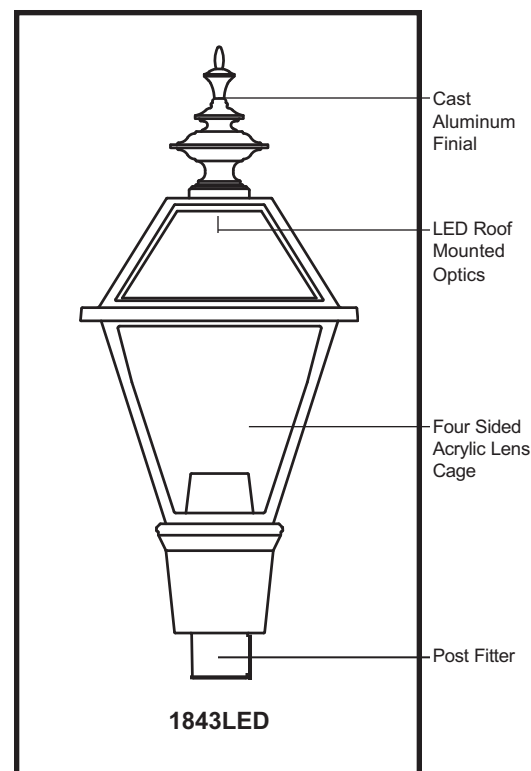
SP1 (III) & SP1 (V)

LUMINAIRE DESIGN

- The 1843 LED Carson City series is large scale, traditionally styled colonial fixture featuring a tapered four-sided cage and roof.
- The four-paneled roof shall be appointed with a decorative cast aluminum finial.
- The luminaire shall measure 18¹/₄" wide and 41³/₄" tall.
- The luminaire shall have a hinged roof for easy inside access.
- The luminaire shall be supplied with line-ground, line-neutral and neutral-ground electrical surge protection in accordance with IEEE/ANSI C62.41.2 guidelines.
- The luminaire shall be U.L. or E.T.L. listed in U.S. and Canada.

POST FITTER

- The fitter or base shall be heavy wall cast aluminum, alloy for high tensile strength.
- The fitter shall have an inside diameter opening to accept a 3" diameter pole or tenon. When ordered with a Sternberg aluminum pole, the fitter shall be secured to the pole top or tenon with set screws.



EPA = 3.77 (ft²)
WEIGHT = 55 LBS

DRIVER HOUSING

- The LED driver housing shall be heavy wall cast aluminum for high tensile strength.
- The LED driver shall be attached to the driver housing to ensure high capacity heat sinking of driver thermals, keeping the driver cooler and ensuring long life.
- The LED driver shall be supplied with a quick-disconnect electrical connector on the power supply, providing an easy power connection.

LIGHT SOURCES

- The luminaire shall use high output, high brightness LEDs.
- The LEDs shall be mounted in arrays, on printed circuit boards designed to maximize heat transfer to the heat sink surface.
- The LED arrays shall be mounted to minimize up-light.
- The LEDs shall be attached to the printed circuit board with not less than 90% pure silver to insure optimal electrical and thermal conductivity.
- The LEDs and printed circuit boards shall be protected from moisture and corrosion by a conformal coating of 1 to 3 mils.
- The LEDs and printed circuit board construction shall be environmentally friendly and 100% recyclable. They shall not contain lead, mercury or any other hazardous substances and shall be RoHS compliant.
- The LED life rating shall be determined in accordance with IESNA LM-80.

1843 LED CARSON CITY SERIES

SPECIFICATIONS

LIST NO.
1843 LED
CARSON CITY
SERIES

OPTICS

- The luminaire shall be provided with individual, acrylic, refractor type optics applied to each LED.
- The luminaire shall provide Type ____ (II, **III** or **V**) light distribution per the IESNA classifications. Testing shall be done in accordance with IESNA LM-79.

PERFORMANCE

- The LED arrays are built in series-parallel circuits which maintain overall light output in the event of single LED failures.
- The LEDs and LED driver shall operate over a -40°C (-40°F) to +50°C (122°F) ambient air temperature range.
- The High Performance white LEDs will have a life expectancy of approximately 70,000 hours with not less than 70% of original brightness (lumen maintenance), rated at 25°C.
- The High Brightness, High Output LED's shall be 4500K (3500K or 6000K option) color temperature with a minimum of 75 CRI.
- The luminaire shall have a minimum _____ (see table) initial delivered lumen rating when operated at steady state with an average ambient temperature of 25°C (77°F).

SP1 (V)

112 White Cree LEDs (6ARCS & 1RND) w/ Type V Optics/Heatsink roof top optic 1843 Luminaire w/prismatic acrylic lenses Advance driver #LEDINTA0700C21 0FO Elect: 120V 1.054A 126.2W

Light Source	Initial Delivered Lumens	Fixture Watts	Light Source	Initial Delivered Lumens	Fixture Watts
10A1R60T5	12500	189	10A1R60T3	11475	189
10A1R45T5	10325	189	10A1R45T3	9300	189
10A1R35T5	9180	189	10A1R35T3	8155	189
6A1R60T5	8800	125	6A1R60T3	7580	125
6A1R45T5	7360	125	6A1R45T3	6140	125
6A1R35T5	6600	125	6A1R35T3	5380	125
6ARC60T5	6715	97	6ARC60T3	5850	97
6ARC45T5	5615	97	6ARC45T3	4750	97
6ARC35T5	5035	97	6ARC35T3	4170	97
4ARC60T5	4170	66	4ARC60T3	3750	66
4ARC45T5	3660	66	4ARC45T3	3290	66
4ARC35T5	3430	66	4ARC35T3	3050	66
3ARC60T5	3470	52	3ARC60T3	2970	52
3ARC45T5	2920	52	3ARC45T3	2420	52
3ARC35T5	2630	52	3ARC35T3	2130	52

SP1 (III)

84 White Cree LEDs (6ARCS) w/ Type III Optics/Heatsink roof top optic 1843 Luminaire w/prismatic acrylic lenses Advance driver #LEDINTA0700C 210FO Elect: 120V 0.812A 97.2W

1843 LED CARSON CITY SERIES

SPECIFICATIONS

**LIST NO.
1843 LED
CARSON CITY
SERIES**

ELECTRONIC DRIVER

- The driver shall be U.L. or E.T.L. Recognized
- The driver shall have overload as well as short circuit protection.
- The driver shall be a DC voltage output, constant current design, 50/60HZ.
- The driver shall have a minimum efficiency of 90%.
- The driver shall be rated at full load with THD<20% and a power factor of greater than 0.90.
- The driver shall contain over-heat protection which reduces output to less than half rating if the case temperature reaches 85°C.

LUMINAIRIE HOUSING

- The luminaire shall be made of heavy wall cast aluminum alloy.
- The luminaire shall be provided with a cast aluminum roof with optimized heat sinks to provide maximum life and performance for the LED light sources.
- The lens panels shall be made of vandal resistant, clear seeded acrylic (CSA). Available in optional clear textured acrylic (CTA), prismatic acrylic (PA) or white acrylic (WA).

ARMS

- The arms shall be cast aluminum and/or extruded aluminum.
- Arms with decorative filigree shall have meticulously detailed scroll work and gracefully curved brackets.
- The arms shall be pre-wired for ease of installation.
- The arms shall be bolted to a post mount adaptor which is welded to the pole to ensure proper alignment to the base.
- (Twin TA and Twin 579 arms) The arms shall be attached to a decorative center hub which will fit the center tenon of the pole (not shown).

PHOTOCELL OPTIONS

Electronic Button Cell Option

- Photocells shall electronic button type.
- On single or multi-fixture poles, the photocell shall be mounted in the pole shaft on an access plate.

The photocell is not pre-wired since driver are mounted in the fitters and packaged separately.

- The photocell shall turn on at 1.5 foot-candle and turn off 5-10 seconds at no more than 2-3 foot-candles.
- The photocell is 120-277 volt.

1843 LED CARSON CITY SERIES**SPECIFICATIONS**

LIST NO.
1843 LED
CARSON CITY
SERIES

FINISH

- Prior to coating, the luminaire shall be chemically cleaned and etched in a 5-stage washing system which includes alkaline cleaning, rinsing, phosphoric etching, reverse-osmosis water rinsing and non-chrome sealing to ensure corrosion resistance and excellent adhesion for the finish coat.
- The finish coat shall be an electrostatically applied semi-gloss, super durable polyester powder coat, baked on at 400°F, to provide a durable, color retentive finish.
- *The optional _____ (Verde Green or Swedish Iron) finish shall be hand-brushed using a 3-step process. * (OPTION)

WARRANTY

- The luminaire shall be free from all defects in materials and workmanship for a period of seven (7) years from the date of manufacture.
- The luminaire manufacturer shall warrant the LED boards/system, during the stated warranty period, against failure defined as more than three (3) simultaneous non-operating LEDs.
- The driver shall be warranted for seven (7) years.

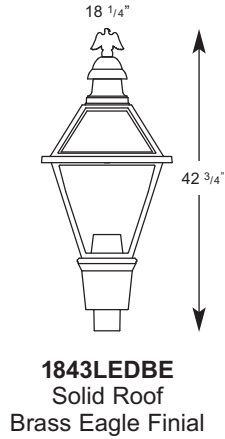
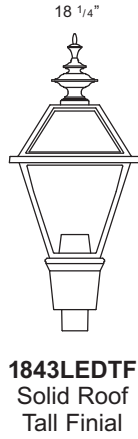
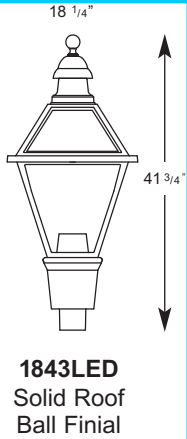


1843 LED CARSON CITY

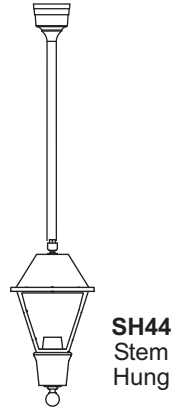
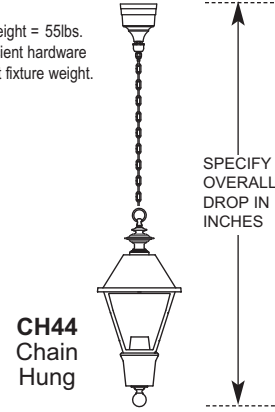
FIXTURES / FITTERS / ARMS PM - WB

FIXTURES

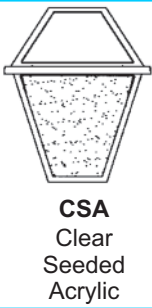
HANGING BRACKETS*



***NOTE:**
Fixture weight = 55lbs.
Use sufficient hardware
to support fixture weight.

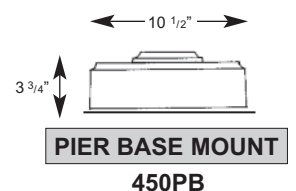
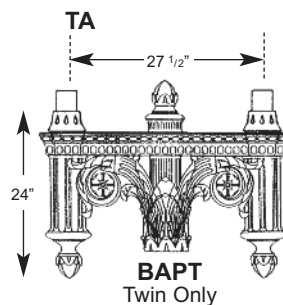
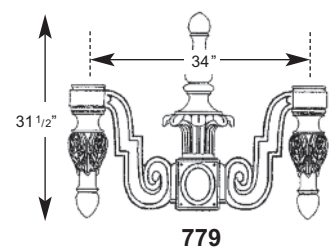
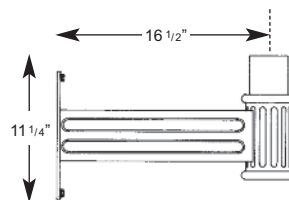
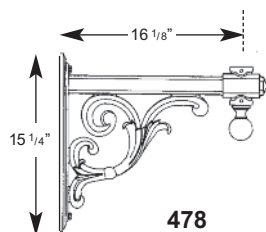
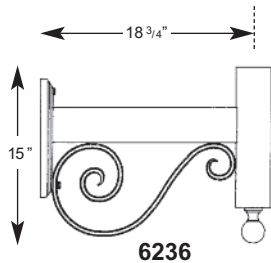
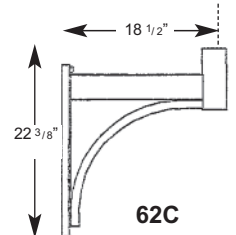
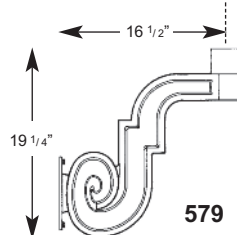
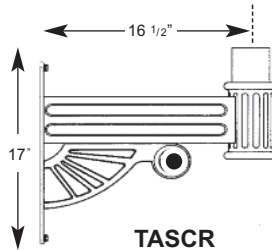
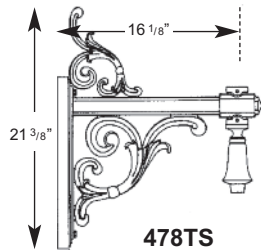
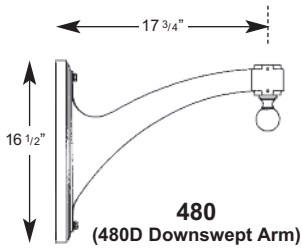


LENSES



ARMS - POST MOUNT (PM) or WALL BRACKETS (WB)

See Arms Section for more information



BUILDING A PART NUMBER

POST & ARM FIXTURES

ARM MOUNTED FIXTURE	CENTER POST TOP FIXTURE (PT)	POST	POST CAP	LIGHT SOURCE	DRIVER	LENS	OPTIONS	FINISH	
NO. OF ARMS FIXTURE / POSTARM ACORN / FITTER (See Post Section)									
□ — □	□	1843LED PT	3610FP4	□	16A1R45T5	ML	CSA	PEC	BKT

WALL FIXTURES

FIXTURE / WALLBRACKET	LIGHT SOURCE	DRIVER	LENS	OPTIONS	FINISH
1843LEDTF/480WB	6A1R45T5	ML	CSA	PEC	BKT

PIER BASE
Uses same information boxes as wall fixture

1843LEDBE/450PB

FIXTURE / PIER MOUNT

PART NUMBER SELECTIONS

FIXTURES

- 1843LED
- 1843LEDBE
- 1843LEDTF

LENSES

- CSA
- CTA
- PA
- WA

DRIVERS

- ML - 120-277
- MH - 347-480
- MDL - Dimming 120-277
- MDH - Dimming 347-480

POST ARMS

- 478PM
- 478TSPM
- 480PM
- 480DPM
- 62CPM
- 6236PM
- 579PT
- TAPT
- TASCRIPT
- 779PT
- BAPT
- Twin Only

HANGING TYPE

- CH44
- SH44

WALL BRACKET ARMS

- 478WB
- 478TSWB
- 480WB
- 480DWB
- 62CWB
- 6236WB
- 579WB
- TAWB
- TASCRTWB

PIER BASE

- 450PB

LIGHT SOURCES T5

- 10A1R60T5 189W, 6000K Type V Optics
- 10A1R45T5 189W, 4500K Type V Optics
- 10A1R35T5 189W, 3500K Type V Optics

- 6A1R60T5 125W, 6000K Type V Optics

- 6A1R45T5 125W, 4500K Type V Optics

- 6A1R35T5 125W, 3500K Type V Optics

- 6ARC60T5 97W, 6000K Type V Optics
- 6ARC45T5 97W, 4500K Type V Optics
- 6ARC35T5 97W, 3500K Type V Optics

- 4ARC60T5 66W, 6000K Type V Optics
- 4ARC45T5 66W, 4500K Type V Optics
- 4ARC35T5 66W, 3500K Type V Optics

- 3ARC60T5 52W, 6000K Type V Optics
- 3ARC45T5 52W, 4500K Type V Optics
- 3ARC35T5 52W, 3500K Type V Optics

LIGHT SOURCES T3

- 10A1R60T3 189W, 6000K Type III Optics
- 10A1R45T3 189W, 4500K Type III Optics
- 10A1R35T3 189W, 3500K Type III Optics

- 6A1R60T3 125W, 6000K Type III Optics

- 6A1R45T3 125W, 4500K Type III Optics

- 6A1R35T3 125W, 3500K Type III Optics

- 6ARC60T3 97W, 6000K Type III Optics

- 6ARC45T3 97W, 4500K Type III Optics

- 6ARC35T3 97W, 3500K Type III Optics

- 4ARC60T3 66W, 6000K Type III Optics
- 4ARC45T3 66W, 4500K Type III Optics
- 4ARC35T3 66W, 3500K Type III Optics

- 3ARC60T3 52W, 6000K Type III Optics
- 3ARC45T3 52W, 4500K Type III Optics
- 3ARC35T3 52W, 3500K Type III Optics

STANDARD FINISHES*

- BKT Black Textured
- WHT White Textured
- PGT Park Green Textured
- ABZT Architectural Medium Bronze Textured
- DBT Dark Bronze Textured

*Smooth Finishes are available upon request

CUSTOM FINISHES

- OI Old Iron
- RT Rust
- WBR Weathered Brown
- CD Cedar
- WBK Weathered Black
- TT Two Tone

STERNBERG SELECT FINISHES

- VG Verde Green
- SI Swedish Iron
- OWGT Old World Gray Textured

OPTIONS

- PEC Photocell-Electronic 120-277 Volt
- FHC Frosted Chimney (Not Lighted)
- FHD Dual Fuse and Holder-208, 240, 480 Volt
- BE Brass Eagle Finial
- BF Ball Finial or Font (TA, TASCRT)
- TF Tall Finial
- HL Hi-Low operation*

*Not available on 3ARC



WST LED

Architectural Wall Sconce



Inverted available with
WLU option only.



SW1

Catalog
Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

Luminaire

Height: 7-1/4"
(18.4 cm)

Width: 16-1/4"
(41.3 cm)

Depth: 9-1/8"
(23.2 cm)

Weight: 17 lbs
(7.7 kg)

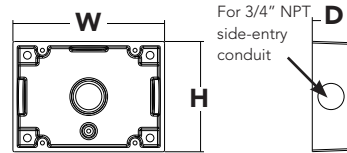


Optional Back Box (BBW)

Height: 4"
(10.2 cm)

Width: 5-1/2"
(14.0 cm)

Depth: 1-1/2"
(3.8 cm)



Introduction

The classic Architectural Wall Sconce is now available with the latest in LED technology. The result is a long-life, maintenance-free product with typical energy savings of 75% compared to metal halide versions. The integral battery backup option provides emergency egress lighting, without the use of a back-box or remote gear, so installations maintain their aesthetic integrity.

The WST LED is ideal for replacing existing 50 – 175W metal halide wall-mounted products. The expected service life is 20+ years of nighttime use.

Ordering Information

EXAMPLE: WST LED 2 10A700/40K SR3 MVOLT DDBTXD

SW1 WST LED 1 10A700/30K SR4 MVOLT

Series	Light Engines	Performance Package	Distribution	Voltage	Mounting	Options ³	Finish (required)
WST LED	1 One engine (10 LEDs)	700 mA options: 10A700/30K 3000K	SR2 Type II	MVOLT ¹	Shipped included	Shipped installed	DDBXD Dark bronze
	2 Two engines (20 LEDs)	10A700/40K 4000K 10A700/50K 5000K	SR3 Type III SR4 Type IV	120 ¹ 208 ¹ 240 ¹ 277 ¹ 347 480	(blank) Surface mount Shipped separately² BBW Surface-mounted back box UT5 Uptilt 5 degrees	PE Photoelectric cell, button type ^{4,5} SF Single fuse (120, 277, 347V) ⁴ DF Double fuse (208, 240, 480V) ⁴ DMG 0-10V dimming driver (no controls) ELCW Emergency battery backup ⁶ WLU Wet location door for up orientation ⁷ PIR Motion/ambient light sensor ⁸ DS Dual switching ⁹ Shipped separately VG Vandal guard WG Wire guard	DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone

Emergency Battery Operation

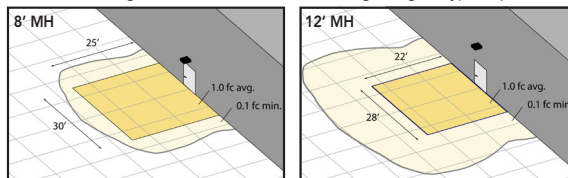
The emergency battery backup (ELCW option) is integral to the luminaire - no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product.

All ELCW configurations include an independent secondary driver with an integral relay to immediately detect AC power loss. Dual light engines are wired in parallel so both engines operate in emergency mode and provide additional component redundancy. These design features meet various interpretations of NFPA 70/NEC 2008 - 700.16

The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time supply power is lost, per International Building Code Section 1006 and NFPA 101 Life Safety Code Section 7.9, provided luminaires are mounted at an appropriate height and illuminate an open space with no major obstructions.

The examples below show illuminance of 1 fc average and 0.1 fc minimum of the single-engine Type IV product in emergency mode.

WST LED 1 10A700/40K SR4
MVOLT ELCW
10' x 10' Gridlines
8' and 12' Mounting Height



NOTES

- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with photocell (PE), fusing (SF, DF), or dual switching (DS).
- May also be ordered separately as an accessory. Ex: WSBW DDBXD U. Must specify finish.
- Must be ordered with fixture; cannot be field installed.
- Not available with MVOLT option. Button photocell (PE) can be ordered with a dedicated voltage option. Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
- Not available with 480V option. Not available with motion/ambient light sensor (PIR).
- Integral battery pack is rated for -20° to 60°C operating temperature. ELCW warranty is 3-year period. Not available with 347V or 480V. Not available with WLU.
- WLU not available with PIR or ELCW.
- Specifies the SensorSwitch SFOD-7-ODP control (photocell included); see Motion Sensor Guide for details. Includes ambient light sensor. Not available with "PE" option (button type photocell). Dimming driver standard. Not available with WLU, VG or WG.
- Provides 50/50 luminaire operation via two independent drivers and light engines on two separate circuits. Not available with one engine, MVOLT, ELCW, WLU, SF, or DF. Must specify voltage; voltage must be the same for both drivers. When ordered with photocell (PE) or motion sensor (PIR), only the primary power source leads will be controlled.



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WST-LED
Rev. 08/11/15

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts.

Light Engines	Drive Current (mA)	Performance Package	System Watts (MVOLT ¹)	Dist. Type	40K (4000K, 70 CRI)				
					Nominal Lumens	B	U	G	LPW
1 (10 LEDs)	700	10A700/-K	24W	SR2	2,005	1	0	1	84
				SR3	2,029	1	0	1	84
				SR4	1,959	1	0	1	82
2 (20 LEDs)	700	10A700/-K	47W	SR2	3,944	1	0	1	84
				SR3	4,028	1	0	1	86
				SR4	3,851	1	0	1	82

1 See electrical load chart for 347/480V system watts.

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.10
10°C	50°F	1.06
20°C	68°F	1.02
25°C	77°F	1.00
30°C	86°F	0.98
40°C	104°F	0.92

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **WST LED 2 10A700** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.94	0.88	0.77

Electrical Load

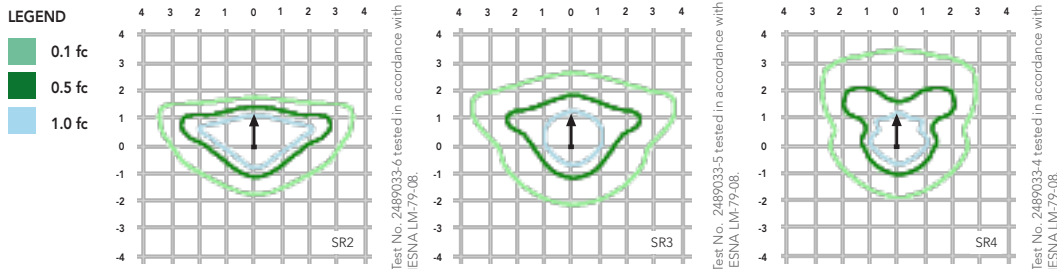
Light Engines	Drive Current (mA)	System Watts	Current (A)					
			120	208	240	277	347	480
1	700	24W	0.24	0.14	0.12	0.1	-	-
		29W ¹	-	-	-	-	0.09	0.07
2	700	47W	0.44	0.27	0.23	0.20	-	-
		53W ¹	-	-	-	-	0.17	0.12

1 Higher wattage is due to electrical losses from step-down transformer.

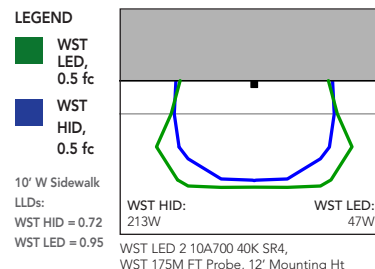
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [WST LED homepage](#).

Isfootcandle plots for the WST LED 2 10A700/40K SR2, SR3, and SR4. Distances are in units of mounting height (12').



Distribution overlay comparison to 175W metal halide.



FEATURES & SPECIFICATIONS

INTENDED USE

The classic architectural shape of the WST LED was designed for applications such as hospitals, schools, malls, restaurants, and commercial buildings. The long life LEDs and driver make this luminaire nearly maintenance-free.

CONSTRUCTION

The single-piece die-cast aluminum housing integrates secondary heat sinks to optimize thermal transfer from the internal light engine heat sinks and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP65 rating for the luminaire.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS

Precision-molded acrylic lenses are engineered for superior distribution, uniformity, and spacing in wall-mount applications. Light engines are 4000K (70 CRI). The WST LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine(s) consist of 10 high-efficacy LEDs mounted to a metal core circuit board and integral aluminum heat sinks to maximize heat dissipation and promote long life (100,000 hrs at 25°C, L77). Class 2 electronic driver has a power factor >90%, THD <20%. Easily-serviceable surge protection device meets a minimum Category B (per ANSI/IEEE C62.41.2).

INSTALLATION

A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections.

LISTINGS

CSA certified to U.S. and Canadian standards. Light engines are IP66 rated; luminaire is IP65 rated and suitable for wet locations when mounted with the lenses down. WLU option offers wet location listing in "up" orientation. Rated for -30°C minimum ambient.

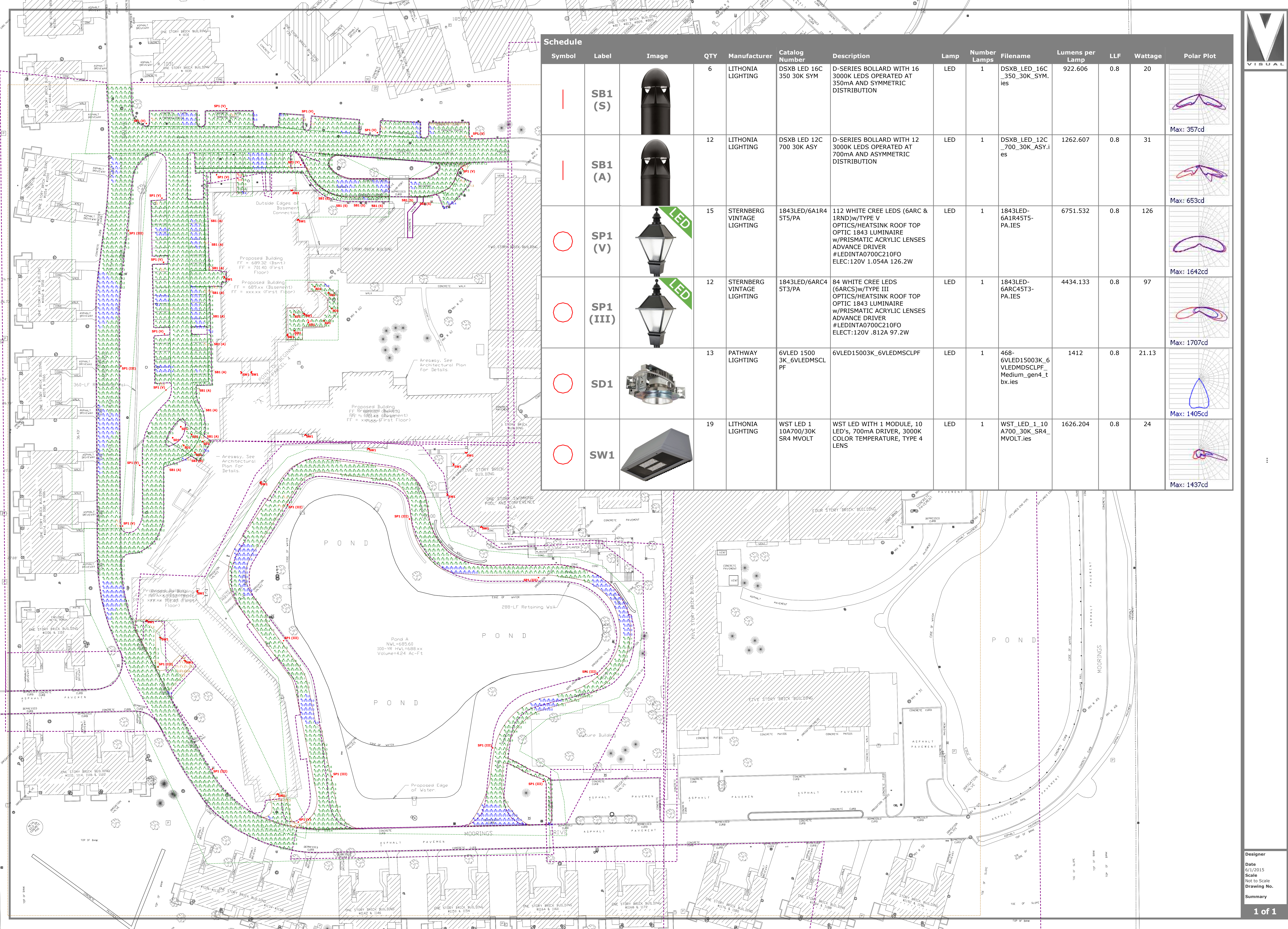
DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY

Five year limited warranty. Full warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

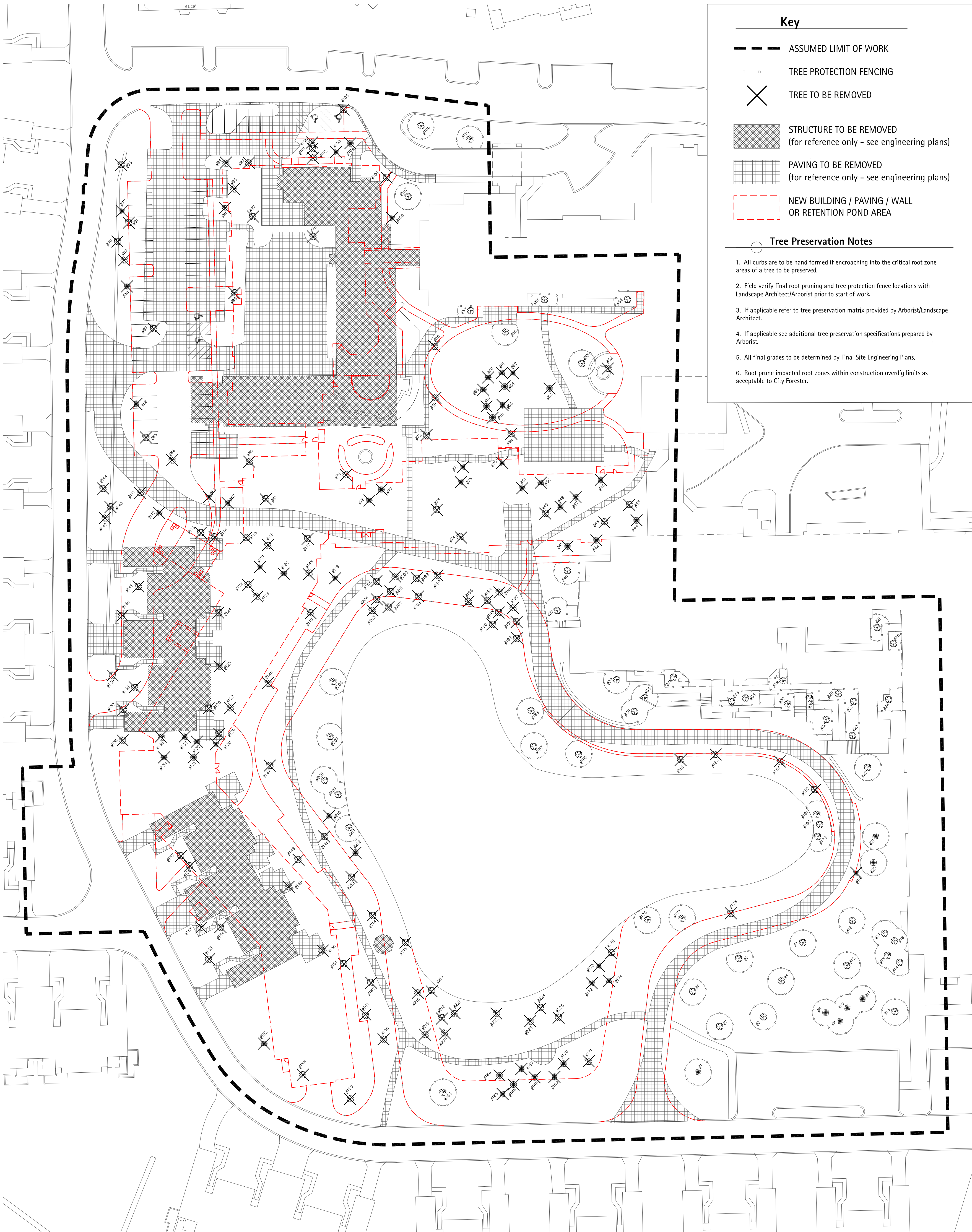
Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.





Schedule													
Symbol	Label	Image	QTY	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens per Lamp	LLF	Wattage	Polar Plot
	SB1 (S)		6	LITHONIA LIGHTING	DSXB LED 16C 350 30K SYM	D-SERIES BOLLARD WITH 16 3000K LEDS OPERATED AT 350mA AND SYMMETRIC DISTRIBUTION	LED	1	DSXB_LED_16C_350_30K_SYM.ies	922.606	0.8	20	 Max: 357cd
	SB1 (A)		12	LITHONIA LIGHTING	DSXB LED 12C 700 30K ASY	D-SERIES BOLLARD WITH 12 3000K LEDS OPERATED AT 700mA AND ASYMMETRIC DISTRIBUTION	LED	1	DSXB_LED_12C_700_30K_ASY.ies	1262.607	0.8	31	 Max: 653cd
○	SP1 (V)		15	STERNBERG VINTAGE LIGHTING	1843LED/6A1R4 5T5/PA	112 WHITE CREE LEDS (6ARC & 1RND)w/TYPE V OPTICS/HEATSINK ROOF TOP OPTIC 1843 LUMINAIRE w/PRISMATIC ACRYLIC LENSES ADVANCE DRIVER #LEDINTA0700C210FO ELEC:120V 1.054A 126.2W	LED	1	1843LED-6A1R45T5-PA.IES	6751.532	0.8	126	 Max: 1642cd
○	SP1 (III)		12	STERNBERG VINTAGE LIGHTING	1843LED/6ARC4 5T3/PA	84 WHITE CREE LEDS (6ARCS)w/TYPE III OPTICS/HEATSINK ROOF TOP OPTIC 1843 LUMINAIRE w/PRISMATIC ACRYLIC LENSES ADVANCE DRIVER #LEDINTA0700C210FO ELEC:120V .812A 97.2W	LED	1	1843LED-6ARC45T3-PA.IES	4434.133	0.8	97	 Max: 1707cd
○	SD1		13	PATHWAY LIGHTING	6VLED 1500 3K_6VLEDMSCL PF	6VLED15003K_6VLEDMSCLPF	LED	1	468-6VLED15003K_6VLEDMSCLPF_Medium_gen4_t bx.ies	1412	0.8	21.13	 Max: 1405cd
○	SW1		19	LITHONIA LIGHTING	WST LED 1 10A700/30K SR4 MVOLT	WST LED WITH 1 MODULE, 10 LED's, 700mA DRIVER, 3000K COLOR TEMPERATURE, TYPE 4 LENS	LED	1	WST_LED_1_10A700_30K_SR4_MVOLT.ies	1626.204	0.8	24	 Max: 1437cd





Key

- ASSUMED LIMIT OF WORK
- TREE PROTECTION FENCING
- ✕ TREE TO BE REMOVED
- STRUCTURE TO BE REMOVED (for reference only - see engineering plans)
- PAVING TO BE REMOVED (for reference only - see engineering plans)
- NEW BUILDING / PAVING / WALL OR RETENTION POND AREA

Tree Preservation Notes

- All curbs are to be hand formed if encroaching into the critical root zone areas of a tree to be preserved.
- Field verify final root pruning and tree protection fence locations with Landscape Architect/Arborist prior to start of work.
- If applicable refer to tree preservation matrix provided by Arborist/Landscape Architect.
- If applicable see additional tree preservation specifications prepared by Arborist.
- All final grades to be determined by Final Site Engineering Plans.
- Root prune impacted root zones within construction overdig limits as acceptable to City Forester.

TREE INVENTORY

Client: The Lakota Group
Location: The Moorings, 811 E. Central, Arlington Heights, IL
Date: March 27, 2015

Condition: 5 = Excellent 4 = Good 3 = Fair 2 = Poor 1 = Dead

Tag No.	Size (dbh)	Species	Condition	Location	Status
1	11"	Austrian Pine	5	SE at Green Canopy	Preserved
2	7"	Red Maple	5	SE at Green Canopy	Preserved
3	12"	Green Ash	3	SE at Green Canopy	Preserved
4	6"	Hybrid Maple	5	SE at Green Canopy	Preserved
5	3"	Norway Maple	5	SE at Green Canopy	Preserved
6	3"	Burr Oak	5	SE at Green Canopy	Preserved
7	6.0	Amur Maple	5	SE at Green Canopy	Preserved
8	12"	Scots Pine	5	SE at Green Canopy	Preserved
9	14"	Scots Pine	5	SE at Green Canopy	Preserved
10	12"	Austrian Pine	5	SE at Green Canopy	Preserved
11	13"	Scots Pine	5	SE at Green Canopy	Preserved
12	16"	Honey Locust	5	SE at Green Canopy	Preserved
13	17"	Elm	5	SE at Green Canopy	Preserved
14	6", 5", 6"	Amur Maple	5	SE at Green Canopy	Preserved
15	7", 7"	Amur Maple	5	SE at Green Canopy	Preserved
16	7", 7"	Amur Maple	5	SE at Green Canopy	Preserved
17	6", 5", 5"	Amur Maple	5	SE at Green Canopy	Preserved
18	10"	Maple	5	SE at Green Canopy	Preserved
19	13"	Scots Pine	5	SE at Green Canopy	Removed
20	10"	Scots Pine	5	SE at Green Canopy	Preserved
21	12"	Scots Pine	5	SE at Green Canopy	Preserved
22	7", 6", 8", 7"	Magnolia	5	Terrace	Preserved
23	6"	Bradford Pear	5	Terrace	Preserved
24	10", 5", 10"	Amur Maple	4	Terrace	Preserved
25	10"	Norway Maple	4	Terrace	Preserved
26	3", 3", 3", 3", 3"	Serviceberry	4	Terrace	Preserved
27	4"	Bradford Pear	5	Terrace	Preserved
28	6"	Bradford Pear	5	Terrace	Preserved
29	3", 3", 3", 3", 3"	Serviceberry	5	Terrace	Preserved
30	3", 3", 3", 3"	Japanese Tree Lilac	5	Terrace	Preserved
31	6" Multi-Stem	Magnolia	5	Terrace	Preserved
32	11"	Norway Maple	5	Terrace	Preserved
33	17" Multi-Stem	Amur Maple	5	Terrace	Preserved
34	3"	Weeping Cherry	5	Terrace	Preserved
35	12"	Crabapple	5	Terrace	Preserved
36	3", 3"	Magnolia	5	Terrace	Preserved
37	8"	Crabapple	4	Terrace	Preserved
38	16"	Norway Maple	5	Terrace	Preserved
39	18"	Norway Maple	5	West of Building - East of Lake	Preserved
40	14"	Norway Maple	4	West of Building - East of Lake	Preserved
41	11"	Scots Pine	5	West of Building - East of Lake	Removed
42	12"	Scots Pine	5	West of Building - East of Lake	Removed
43	15"	Norway Maple	5	West of Building - East of Lake	Removed
44	10"	Scots Pine	5	West of Building - East of Lake	Removed
45	13"	Norway Maple	5	West of Building - East of Lake	Removed
46	14"	Douglas Fir	5	West of Building - East of Lake	Removed
47	14"	Scots Pine	5	West of Building - East of Lake	Removed
48	11"	Scots Pine	5	West of Building - East of Lake	Removed
49	16"	Norway Maple	5	West of Building - East of Lake	Removed
50	17"	Douglas Fir	5	West of Building - East of Lake	Removed
51	11", 10"	Douglas Fir	5	West of Building - East of Lake	Removed
52	17"	Concolor Fir	5	West Patio - inside fenced area	Removed
53	31"	Norway Maple	4	West Patio - inside fenced area	Preserved
54	6", 4"	Crabapple	4	West Patio - inside fenced area	Preserved
55	6"	Crabapple	4	West Patio - inside fenced area	Preserved
56	7", 5", 6", 5"	Amur Maple	5	West Patio - inside fenced area	Preserved
57	4", 4", 4", 4"	Japanese Tree Lilac	5	West Patio - inside fenced area	Preserved
58	28"	Honey Locust	5	West Patio - inside fenced area	Removed
59	4", 3", 3", 4"	Japanese Tree Lilac	5	West Patio - inside fenced area	Removed
60	10"	Blue Spruce	4	West Patio - inside fenced area	Removed
61	10"	Blue Spruce	4	West Patio - inside fenced area	Removed
62	15"	Blue Spruce	4	West Patio - inside fenced area	Removed
63	13"	Blue Spruce	4	West Patio - inside fenced area	Removed
64	9"	Blue Spruce	4	West Patio - inside fenced area	Removed
65	11"	Blue Spruce	4	West Patio - inside fenced area	Removed
66	10"	Blue Spruce	4	West Patio - inside fenced area	Removed
67	10"	Blue Spruce	4	West Patio - inside fenced area	Removed
68	14"	Blue Spruce	4	West Patio - inside fenced area	Removed
69	25"	Sugar Maple	3	West Patio - inside fenced area	Removed
70	15"	Douglas Fir	4	West Patio - inside fenced area	Removed
71	10"	Douglas Fir	5	West Patio - inside fenced area	Removed
72	28"	Norway Maple	4	West Patio - inside fenced area	Removed
73	14"	Ginkgo	5	West of Building & Steel Shed	Removed
74	18"	Norway Maple	5	West of Building & Steel Shed	Removed
75	11"	Blue Spruce	5	West of Building & Steel Shed	Removed
76	18"	Norway Maple	5	West of Building & Steel Shed	Removed
77	14"	White Spruce	4	West of Building & Steel Shed	Removed
78	12", 10"	Austrian Pine	5	West of Building & Steel Shed	Removed
79	21"	Norway Maple	3	West of Building & Steel Shed	Removed
80	30"	Ash	4	West of Building & Steel Shed	Removed
81	22"	Silver Maple	4	West of Building & Steel Shed	Removed
82	8"	White Spruce	4	West of Building & Steel Shed	Removed
83	12"	White Spruce	4	West of Building & Steel Shed	Removed
84	20"	Elm	4	West of Building & Steel Shed	Removed
85	37"	Silver Maple	5	West of Building & Steel Shed	Removed
86	13"	Blue Spruce	5	West of Building & Steel Shed	Removed
87	11"	Norway Maple	5	West of Building & Steel Shed	Removed
88	12"	Austrian Pine	5	West of Building & Steel Shed	Removed
89	5", 5", 5"	Amur Maple	4	West of Building & Steel Shed	Removed
90	5", 5", 5", 5", 6"	Amur Maple	4	West of Building & Steel Shed	Removed
91	5", 5", 5"	Amur Maple	4	West of Building & Steel Shed	Removed
92	15"	Austrian Pine	5	West of Building & Steel Shed	Removed
93	16"	Norway Maple	5	West of Building & Steel Shed	Removed
94	29"	Honey Locust	5	West of Building & Steel Shed	Removed
95	6"	Japanese Tree Lilac	5	West of Building & Steel Shed	Removed
96	3"	Magnolia	4	West of Building & Steel Shed	Removed
97	7"	Red Maple	3	West of Building & Steel Shed	Removed
98	4"	Bradford Pear	5	West of Building & Steel Shed	Removed
99	3"	Crabapple	5	West of Building & Steel Shed	Removed
100	6", 4", 5"	Japanese Tree Lilac	5	North of Rehabilitation Services	Removed
101	4"	Japanese Tree Lilac	5	North of Rehabilitation Services	Removed
102	6", 5", 4"	Japanese Tree Lilac	5	North of Rehabilitation Services	Removed
103	20"	Austrian Pine	5	North of Rehabilitation Services	Removed
104	21"	Austrian Pine	5	North of Rehabilitation Services	Removed

105	24"	Elm	4	North of Rehabilitation Services	Removed
106	6", 7", 7"	Amur Maple	3	North of Rehabilitation Services	Removed
107	9"	Sugar Maple	4	North of Rehabilitation Services	Preserved
108	7", 3"	Hemlock	5	North of Rehabilitation Services	Removed
109	5"	Hawthorn	4	North of Rehabilitation Services	Preserved
110	5", 6", 5", 4"	Crabapple	5	North of Rehabilitation Services	Preserved
111	29"	Silver Maple	4	Northwest of Lake	Removed
112	3"	White Spruce	4	Northwest of Lake	Removed
113	29"	Honey Locust	5	Northwest of Lake	Removed
114	3" Multi-Stem	Serviceberry	5	Northwest of Lake	Removed
115	23"	Honey Locust	5	Northwest of Lake	Removed
116	4", 4", 4", 3", 3"	Crabapple	4	Northwest of Lake	Removed
117	26"	Silver Maple	4	Northwest of Lake	Removed
118	27"	Tamarack	4	Northwest of Lake	Removed
119	31"	Silver Maple	5	Northwest of Lake	Removed
120	9"	Blue Spruce	4	Northwest of Lake	Removed
121	16"	Austrian Pine	5	Northwest of Lake	Removed
122	6", 5"	Crabapple	4	Northwest of Lake	Removed
123	4", 4", 4", 5"	Crabapple	4	Northwest of Lake	Removed
124	8", 9", 8", 6", 7"	Crabapple	5	Northwest of Lake	Removed
125	16" Multi-Stem	Crabapple	5	Northwest of Lake	Removed
126	3"	Red Maple	5	Northwest of Lake	Preserved
127	4"	Sugar Maple	5	Northwest of Lake	Removed
128	3"	Pagoda Dogwood	5	Northwest of Lake	Preserved
129	16" Multi-Stem	Crabapple	5	Northwest of Lake	Removed
130	12"	Austrian Pine	5	Northwest of Lake	Removed
131	8"	Austrian Pine	2	Northwest of Lake	Removed
132	6", 6"	Mulberry	4	Northwest of Lake	Removed
133	7", 6"	Mulberry	4	Northwest of Lake	Removed
134	10"	Bald Cypress	5	Northwest of Lake	Removed
135	8"	Bradford Pear	4	Northwest of Lake	Removed
136	4"	Crabapple	5	Front of Unit 1085	Removed
137	4"	Crabapple	5	Front of Unit 1085	Removed
138	8" Multi-Stem	Serviceberry	5	Front of Unit 1085	Preserved
139	4"	Ginkgo	5	Front of Unit 1079	Removed
140	6", 4"	Crabapple	4	Front of Unit 1075	Preserved
141	7" Multi-Stem	Serviceberry	5	Front of Unit 1071	Removed
142	4", 6", 6", 5"	Crabapple	4	Front of Unit 1071	Removed
143	6", 3", 6", 4"	Crabapple	4	Front of Unit 1071	Removed
144	10"	Crabapple	4	Front of Unit 1071	Removed
145	4"	Blue Spruce	5	Back of Unit 1093	Removed
146	9", 8"	Hawthorn	5	Back of Unit 1093	Removed
147	6", 6"	Hawthorn	5	Back of Unit 1093	Removed
148	8"	Red Maple	5	Back of Unit 1097	Removed
149	7", 6", 8", 8"	Crabapple	4	Back of Unit 1097	Removed
150	18" Multi-Stem	Crabapple	5	Back of Unit 1097	Removed
151	17"	Elm	3	Back of Unit 1105	Removed
152	3"	Blue Spruce	3	Front of Unit 1105	Removed
153	7", 8", 6", 6", 6"	Crabapple	5	Front of Unit 1105	Removed
154	10"	Butternut	5	Front of Unit 1101	Removed
155	14"	Redbud	4	Front of Unit 1097	Removed
156	3", 3", 4"	Serviceberry	5	Front of Unit 1097	Removed
157	7" Multi-Stem	Serviceberry	4	Front of Unit 1093	Removed
158	3"	Beech	5	South of Unit 1105	Removed
159	3"	Red Oak	5	South of Unit 1105	Removed
160	18"	Honey Locust	5	South of Unit 1105	Removed
161	16"	Honey Locust	5	South of Unit 1105	Removed
162	11"	Honey Locust	5	South of Unit 1105	Removed
163	7"	Red Maple	5	Southwest of Lake at Road	Preserved
164	9"	Austrian Pine	4	Southwest of Lake at Road	Removed
165	11"	Austrian Pine	5	Southwest of Lake at Road	Removed
166	11"	Austrian Pine	5	Southwest of Lake at Road	Removed
167	10"	Austrian Pine	4	Southwest of Lake at Road	Removed
168	11"	Austrian Pine	5	Southwest of Lake at Road	Removed
169	12"	Austrian Pine	5	Southwest of Lake at Road	Removed
170	12"	Austrian Pine	5	Southwest of Lake at Road	Removed
171	4", 4", 4"	Crabapple	4	Southwest of Lake at Road	Removed
172	11"	Austrian Pine	4	Southwest of Lake	Removed
173	17"	Austrian Pine	5	Southeast of Lake	Removed
174	16"	Austrian Pine	5	Southeast of Lake	Removed
175	9"	Red Maple	5	Southeast of Lake	Removed
176	8"	Red Maple	3	Southeast of Lake	Preserved
177	8"	Red Maple	5	Southeast of Lake	Preserved
178	8"	Red Maple	5	Southeast of Lake	Removed
179	9"	Quaking Aspen	5	East of Pond	Preserved
180	7"	Quaking Aspen	5	East of Pond	Preserved
181	7"	Quaking Aspen	5	East of Pond	Preserved
182	13"	Ash	4	Northeast of Pond	Removed
183	13"	Ash	4	Northeast of Pond	Removed
184	13"	Ash	4	Northeast of Pond	Removed
185	14"	Ash	4	Northeast of Pond	Removed
186	13"	Norway Maple	2	North of Pond	Preserved
187	8"	Red Maple	4	North of Pond	Preserved
188	14"	Norway Maple	5	North of Pond	Preserved
189	14"	Honey Locust	5	North of Pond	Removed
190	8" Multi-Stem	Crabapple	5	North of Pond	Removed
191	8" Multi-Stem	Crabapple	5	North of Pond	Removed
192	8" Multi-Stem	Crabapple	5	North of Pond	Removed
193	7" Multi-Stem	Crabapple	5	North of Pond	Removed
194	7" Multi-Stem	Crabapple	5	North of Pond	Removed
195	7" Multi-Stem	Crabapple	5	North of Pond	Removed
196	6" Multi-Stem	Crabapple	4	North of Pond	Removed
197	12"	Honey Locust	5	Northwest of Pond	Removed
198	7" Multi-Stem	Crabapple	5	Northwest of Pond	Removed
199	7" Multi-Stem	Crabapple	5	Northwest of Pond	Removed
200	7" Multi-Stem	Crabapple	5	Northwest of Pond	Removed
201	7" Multi-Stem	Crabapple	5	Northwest of Pond	Removed
202	7" Multi-Stem	Crabapple	5	Northwest of Pond	Removed
203	7" Multi-Stem	Crabapple	5	Northwest of Pond	Removed
204	7" Multi-Stem	Crabapple	5	Northwest of Pond	Removed
205	7" Multi-Stem	Crabapple	5	Northwest of Pond	Removed
206	8"	Red Maple	4	Northwest of Pond	Preserved
207	8"	Red Maple	4	Northwest of Pond	Preserved
208	11"	Quaking Aspen	5	West of Pond	Preserved
209	8"	Red Maple	5	West of Pond	Preserved
210	12"	Austrian Pine	5	West of Pond	Removed
211	11"	Honey Locust	5	West of Pond	Preserved
212	17"	Austrian Pine	5	West of Pond	Removed
213	10"	Honey Locust	5	West of Pond	Removed
214	15"	Honey Locust	5	West of Pond	Removed
215	11"	Honey Locust	5	Southwest of Pond	Removed
216	6"	Crabapple	5	South of Pond	Removed
217	6"	Crabapple	5	South of Pond	Removed
218	5" Multi-Stem	Crabapple	5	South of Pond	Removed
219	5" Multi-Stem	Crabapple	5	South of Pond	Removed
220	6" Multi-Stem	Crabapple	5	South of Pond	Removed
221	7" Multi-Stem	Crabapple	5	South of Pond	Removed
222	7" Multi-Stem	Crabapple	5	South of Pond	Removed
223	5"	Bradford Pear	4	South of Pond	Removed
224	7" Multi-Stem	Crabapple	5	South of Pond	Removed
225	7" Multi-Stem	Crabapple	5	South of Pond	Removed

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Planning
Urban Design
Landscape Architecture
Community Engagement

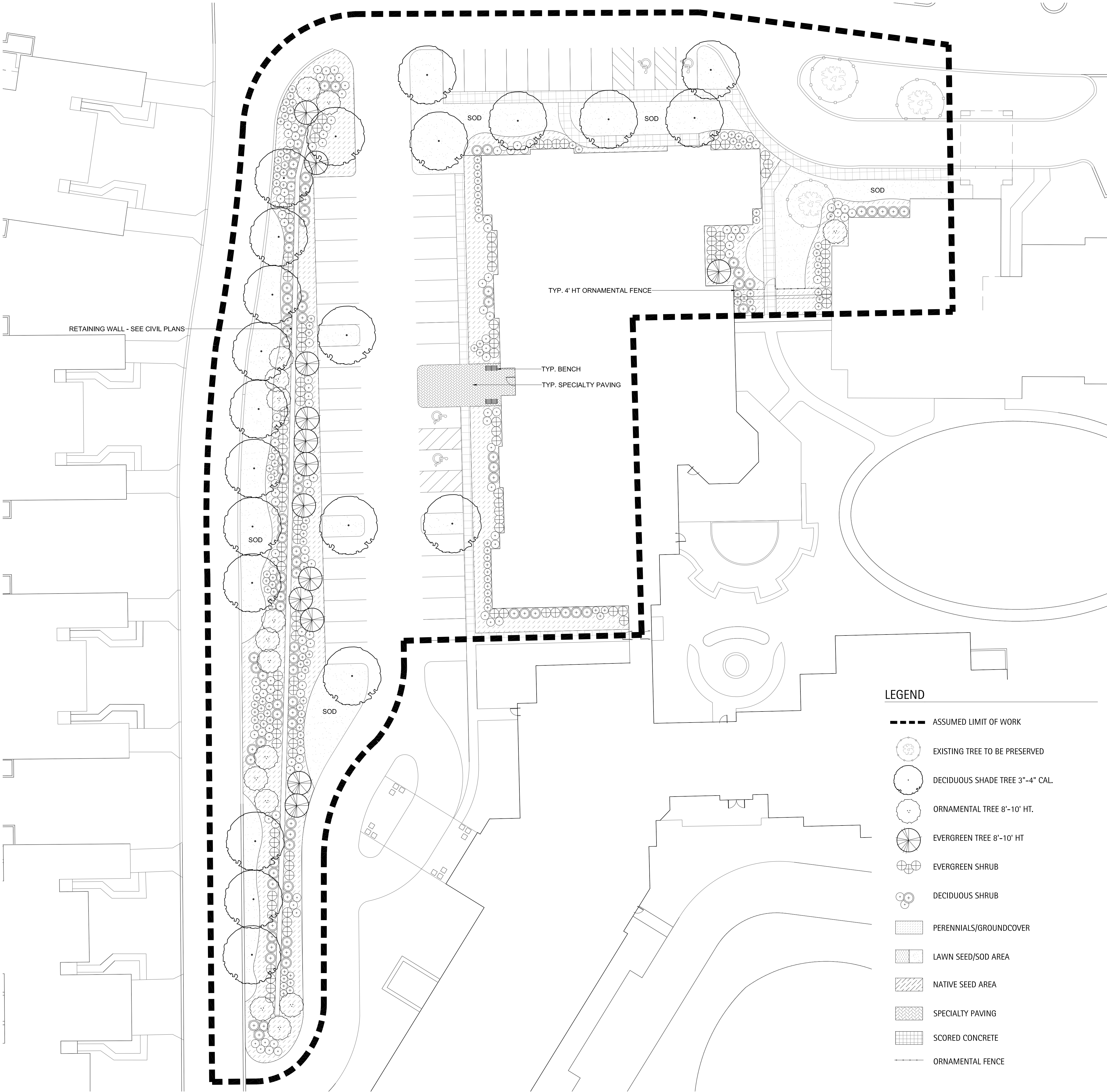
**THE MOORINGS
OF ARLINGTON
HEIGHTS**

Arlington Heights,
Illinois

**Presbyterian
Homes**

**PLAN
COMMISSION
8/21/2015
NOT FOR
CONSTRUCTION**

TREE SURVEY



ZONE A: AL MEMORY CARE LANDSCAPE PLAN					
ELEMENT	QUANTITY	UNIT	SIZE	REMARKS	SPACING
SITE PREPARATION	2,482	SY			
FINE GRADING	2,482	SY			
SOD	850	SY			
LANDSCAPE LAWN AND BED TOPSOIL COMPOST MIX	540	CY		12" Depth	
DECIDUOUS SHADE TREES	20	units			
Acer rubrum 'Red Sunset'		Red Sunset Red Maple	10' ht.	B&B, Multi-Stem	See Plans
Acer x freemanii 'Autumn Blaze'		Freemanii Maple	4" caliper	B&B	See Plans
Ginkgo biloba		Ginkgo (Male)	4" caliper	B&B	See Plans
Gleditsia triacanthos inermis 'Skyline'		Skyline Thornless Honeylocust	4" caliper	B&B	See Plans
Gleditsia triacanthos inermis 'Skyline'		Skyline Thornless Honeylocust	5" caliper	B&B	See Plans
Gymnocladus dioica		Kentucky Coffee Tree	4" caliper	B&B	See Plans
Pyrus calleryana 'Aristocrat'		Aristocrat Pear	3" caliper	B&B	See Plans
Quercus rubra		Red Oak	3" caliper	B&B	See Plans
Tilia cordata 'Greenspire'		Littledale Linden	14" ht.	B&B, Multi-Stem	See Plans
Ulmus 'Accolade'		Accolade Elm	3" caliper	B&B	See Plans
EVERGREEN TREES	13	units			
Abies Concolor		Concolor Fir	10' ht.	B&B	See Plans
Picea abies		Norway Spruce	10' ht.	B&B	See Plans
Picea glauca 'Densata'		Black Hills Spruce	8' ht.	B&B	See Plans
Picea glauca 'Densata'		Black Hills Spruce	10' ht.	B&B	See Plans
Picea pungens		Green Colorado Spruce	10' ht.	B&B	See Plans
Picea pungens 'Sloane'		Colorado Blue Spruce	12' ht.	B&B	See Plans
Pseudotsuga menziesii		Douglas Fir	8' ht.	B&B	See Plans
Pseudotsuga menziesii		Douglas Fir	10' ht.	B&B	See Plans
ORNAMENTAL TREES	15	units			
Amelanchier canadensis		Shadblow Serviceberry	8' ht.	B&B, Multi-Stem	See Plans
Betula nigra 'Heritage'		Heritage River Birch	8' ht.	B&B, Clump	See Plans
Betula nigra 'Heritage'		Heritage River Birch	10' ht.	B&B, Clump	See Plans
Carpinus caroliniana		American Hornbeam	6' ht.	B&B, Clump	See Plans
Cercis canadensis		Red Bud	8' ht.	B&B, Single Stem	See Plans
Cornus mas		Cornelian Cherry Dogwood	5' ht.	B&B or CG	See Plans
Cornus mas		Cornelian Cherry Dogwood	6' ht.	B&B	See Plans
Crataegus crusgalli 'Inermis'		Thornless Cockspur Hawthorn	8' ht.	B&B, Multi-Stem	See Plans
Magnolia stellata 'Royal Star'		Royal Star Magnolia	4' ht.	B&B, Multi-Stem	See Plans
Magnolia stellata 'Royal Star'		Royal Star Magnolia	5' ht.	B&B, Multi-Stem	See Plans
Magnolia x loebneri 'Merill'		Dr. Merrill Magnolia	5' ht.	B&B, Multi-Stem	See Plans
Magnolia x loebneri 'Merill'		Dr. Merrill Magnolia	8' ht.	B&B, Multi-Stem	See Plans
Malus sargenti x 'Tina'		Tina Sargent Crab 'Dwarf'	2" caliper	B&B, Single Stem	See Plans
Malus sargenti x 'Tina'		Tina Sargent Crab 'Dwarf'	5' ht.	B&B, Clump	See Plans
Malus x 'Snowdrift'		White Crabapple	8' ht.	B&B, Clump	See Plans
Malus x 'Snowdrift'		White Crabapple	10' ht.	B&B, Clump	See Plans
Malus x 'Snowdrift'		White Crabapple	10' ht.	B&B, Multi-Stem	See Plans
Syringa reticulata 'Ivory Silk'		Japanese Tree Lilac	10' ht.	B&B, Multi-Stem	See Plans
EVERGREEN SHRUBS	106	units			
Buxus microphylla 'Wintergreen'		Wintergreen Boxwood	3 gal.	B&B or CG	See Plans
Juniperus chinensis 'Sea Green'		Sea Green Juniper	5 gal.	B&B or CG	See Plans
Juniperus horizontalis 'Plumosa Compacta'		Youngstown Andorra Juniper	15-18" ht.	CG	See Plans
Pinus mugo 'Taco'		End Magic Pine	18-24" spr.	B&B or CG	See Plans
Taxus media 'Densiformis'		Dense Yew	36" spr.	B&B or CG	See Plans
Taxus media 'Hicks'		Hicks Yew	30" ht.	B&B or CG	See Plans
Thuja occidentalis 'Mission'		Mission Arborvitae	6' ht.	B&B	See Plans
DECIDUOUS SHRUBS	343	units			
Aronia melanocarpa		Glossy Black Chokeberry	24-30" ht.	B&B or CG or BR	See Plans
Berberis thunbergii 'Atropurpurea Nana'		Crimson Pygmy Barberry	5 gal.	B&B or CG	See Plans
Cornus alba 'marginala'		Variegated Tartarian Dogwood	36-42" ht.	B&B or CG	See Plans
Cornus sericea 'Kelsey'		Redtwig Dogwood 'Dwarf'	24-30" ht.	B&B or CG or BR	See Plans
Cotoneaster horizontalis 'Hesse'		Hess Rockgray Cotoneaster	5 gal.	B&B or CG	See Plans
Euonymus alata 'Compactus'		Dwarf Winged Euonymus	24-30" ht.	B&B or CG	See Plans
Euonymus alata 'Compactus'		Dwarf Winged Euonymus	30-36" ht.	B&B or CG	See Plans
Euonymus fortunei 'Emerald Gaiety'		Emerald Gaiety Euonymus	15-18" spr.	B&B	See Plans
Euonymus fortunei 'Emerald 'N Gold'		Emerald 'N Gold Euonymus	15-18" spr.	B&B	See Plans
Euonymus fortunei 'Sarcocoe'		Sarcocoe Euonymus	3 gal.	B&B or CG	See Plans
Fothergilla gardenii 'Beaver Creek'		Beaver Creek Dwarf Bottlebrush	3 gal.	B&B or CG	See Plans
Hamamelis virginiana		Common Witch Hazel	42" ht.	B&B or CG	See Plans
Hamamelis virginiana		Common Witch Hazel	42-48" ht.	B&B or CG	See Plans
Hamamelis virginiana		Common Witch Hazel	42-48" ht.	B&B or CG	See Plans
Hydrangea arborescens 'Annabelle'		Annabelle Smooth Hydrangea	5 gal.	B&B or CG	See Plans
Hydrangea paniculata 'Tardiva'		Tardiva Hydrangea	5 gal.	B&B or CG	See Plans
Kerria japonica 'Variegata'		Variegated Japanese Kerria	18-24" ht.	B&B or CG	See Plans
Prunus x cistena		Purple Sand Cherry	48"	B&B or CG	See Plans
Rhus aromatica 'Gro-Low'		Fragrant Sumac	5 gal.	B&B or CG	See Plans
Rhus typhina 'Laciniata'		Staghorn Sumac	5-6' ht.	B&B or CG	See Plans
Ribes alpinum 'Greenmound'		Greenmound Alpine Currant	15-18" spr.	B&B or CG	See Plans
Rosa 'Flower Carpet Pink'		Flower Carpet Pink Shrub Rose	5 gal.	CG	See Plans
Rosa 'Knockout'		Knockout Rose	5 gal.	CG	See Plans
Spiraea japonica 'Lemon Princess'		Lemon Princess Spirea	15-24" spr.	B&B or CG	See Plans
Syringa meyeri		Dwarf Korean Lilac	5 gal.	B&B or CG	See Plans
Syringa patula 'Ms. Kim'		Ms. Kim Lilac	18-24" ht.	B&B	See Plans
Viburnum carlesii		Korean Spice Viburnum	36" ht.	B&B or CG	See Plans
Viburnum dentatum		Arrowwood Viburnum	30-36" ht.	B&B	See Plans
Viburnum lentago		Nannyberry Viburnum	3' ht.	B&B	See Plans
Viburnum prunifolium		Blackhaw Viburnum	4' ht.	B&B	See Plans
Viburnum trilobum 'Hats'		Hats American Cranberrybush Viburnum	24-30" ht.	B&B or CG	See Plans
Viburnum trilobum 'Wentworth'		Wentworth American Cranberrybush	24-30" ht.	B&B or CG	See Plans
Weigela Florida 'Wine and Roses'		Wine and Roses Weigela	24-30" ht.	B&B or CG	See Plans
Weigela 'Java Red'		Red Java Weigela	24-30" ht.	B&B or CG	See Plans
PERENNIALS/GROUND COVERS	1,545	SF			
Achillea millefolium		Lady's Mantle	1 gal.	CG	18" o.c. spacing
Anemone dioica		Gior's Beard	1 gal.	CG	36" o.c. spacing
Aster novae-angliae		Purple Dome New England Aster	1 gal.	CG	18" o.c. spacing
Astilbe 'Peach Blossom'		Peach Blossom Astilbe	1 gal.	CG	18" o.c. spacing
Bergenia robtium		Rotblum Bergenia	1 gal.	CG	16" o.c. spacing
Brunnera macrophylla		Siberian Bugloss	1 gal.	CG	16" o.c. spacing
Calamagrostis x acutiflora 'Karl Foerster'		Feather Reed Grass	1 gal.	CG	24" o.c. spacing
Coreopsis verticillata 'Moonbeam'		Moonbeam Coreopsis	1 gal.	CG	18" o.c. spacing
Heim Dianthus		Dianthus 'Heidi'	1 gal.	CG	18" o.c. spacing
Echinacea purpurea 'Magnus Pink'		Purple Coneflower	1 gal.	CG	18" o.c. spacing
Eupatorium maculatum 'Gateway'		Joe Pye Weed	1 gal.	CG	36" o.c. spacing
Geranium sanguineum		Bloody Red Cranesbill	1 gal.	CG	18" o.c. spacing
Hemerocallis 'Happy Returns'		Happy Returns Daylily	1 gal.	CG	18" o.c. spacing
Hemerocallis 'Stella de Oro'		Yellow Daylily	1 gal.	CG	18" o.c. spacing
Heuchera micrantha 'Purple Palace'		Purple Palace Coral Bells	1 gal.	CG	18" o.c. spacing
Hosta 'Patriot'		Patriot Hosta	1 gal.	CG	36" o.c. spacing
Hosta sieboldiana 'Elegans'		Elegans Hosta	1 gal.	CG	50" o.c. spacing
Hosta sieboldiana 'Frances William'		Frances William Hosta	1 gal.	CG	50" o.c. spacing
Hosta Sum and Substance		Sum and Substance Hosta	1 gal.	CG	60" o.c. spacing
Iris siberica 'Caesar's Brother'		Caesar's Brother Iris	1 gal.	CG	18" o.c. spacing
Liatris spicata 'Kobold'		Purple Gayfeather	1 gal.	CG	24" o.c. spacing
Ligularia dentata 'Desdemona'		Leopard Plant	1 gal.	CG	24" o.c. spacing
Ligularia stenocephala 'The Rocket'		Rocket Ligularia	1 gal.	CG	24" o.c. spacing
Miscanthus sinensis 'Purpureascens'		Purple Maiden Grass	1 gal.	CG	24" o.c. spacing
Nepeta x faassenii 'Walkers Low'		Walkers Low Catmint	1 gal.	CG	24" o.c. spacing
Pennisetum amplexicaule 'Hamen'		Dwarf Fountain Grass	1 gal.	CG	24" o.c. spacing
Pennisetum amplexicaule 'Hamen'		Russian Sage	1 gal.	CG	24" o.c. spacing
Rudbeckia fulgida 'Goldstrum'		Black-eyed Susan	1 gal.	CG	18" o.c. spacing
Salvia nemorosa 'East Friesland'		East Friesland Salvia	1 gal.	CG	18" o.c. spacing
Sedum 'Autumn Joy'		Autumn Joy Sedum	1 gal.	CG	18" o.c. spacing
Sporobolus heterolepis		Prairie Dropseed	1 gal.	CG	24" o.c. spacing
Stachys byzantina 'Silver Carpet'		Lambear Silver Carpet	1 gal.	CG	18" o.c. spacing
Euonymus fortunei 'Colorata'		Purpleleaf Wintercreeper	3" pot	CG	10" o.c. spacing
Psychandra terminalis		Japanese Flowering Spurge	3" pot	CG	6" o.c. spacing
Vinca minor 'Bowles'		Bowles Periwinkle	3" pot	CG	8" o.c. spacing
Waldsteinia temata		Barren Strawberry	quart	CG	16" o.c. spacing
MULCH	135	CY		3" Depth	
BENCHES	2	units			
UPLIGHTS	2	units			
SPECIALTY PAVING	705	SF			
CONCRETE PAVING	560	SF			
DECORATIVE FENCING	42	LF			
GATE	1	unit			
STONE OUTCROPPING	10	TONS			
IRRIGATION	1	LUMP SUM			

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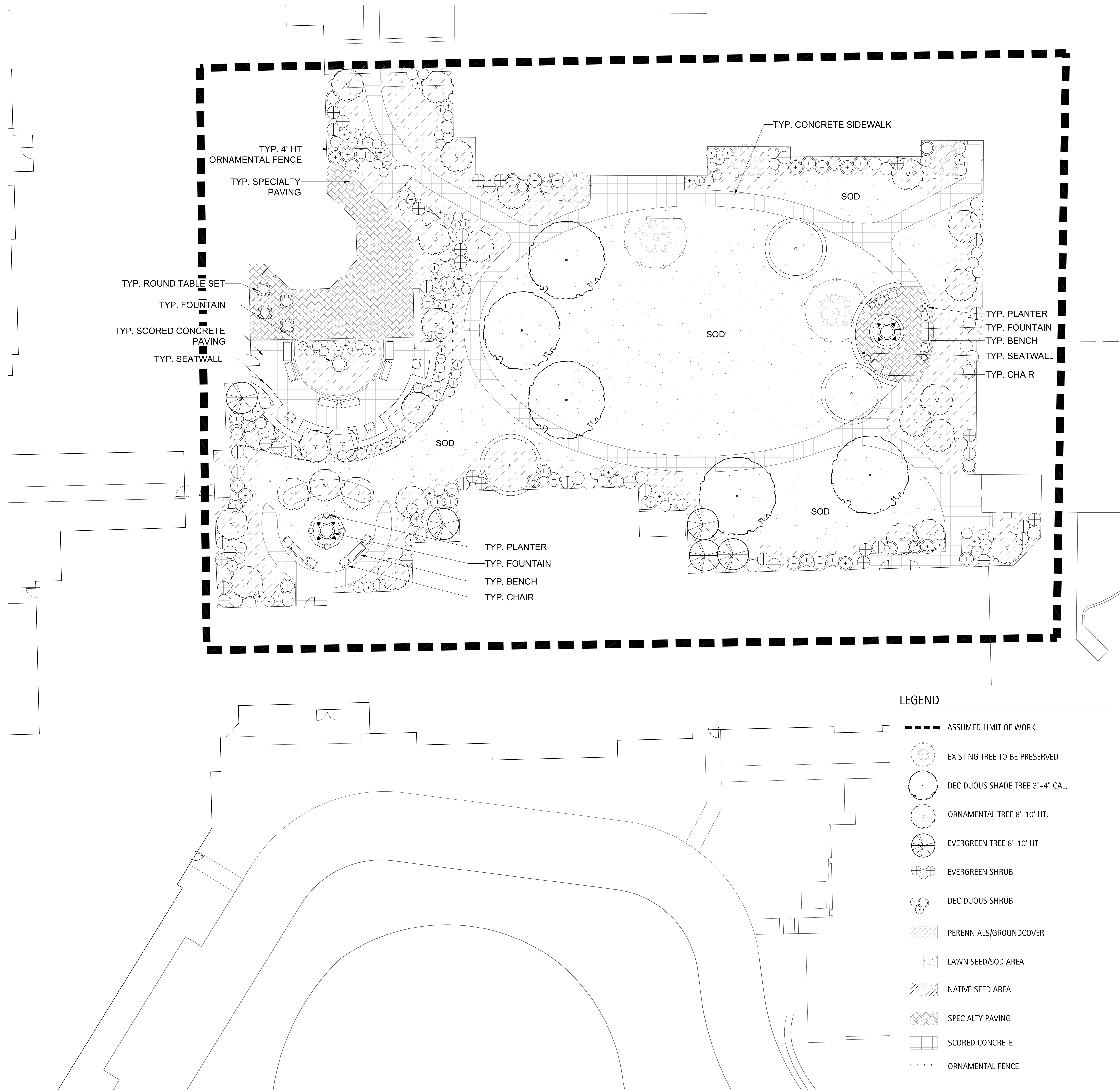
ZONE A -
AL MEMORY CARE
LANDSCAPE PLAN

Revisions
PLAN COMMISSION 06/22/15
PLAN COMMISSION 08/21/15

Date: 08/18/15
Drawn By: JW/MK
Checked By: SF

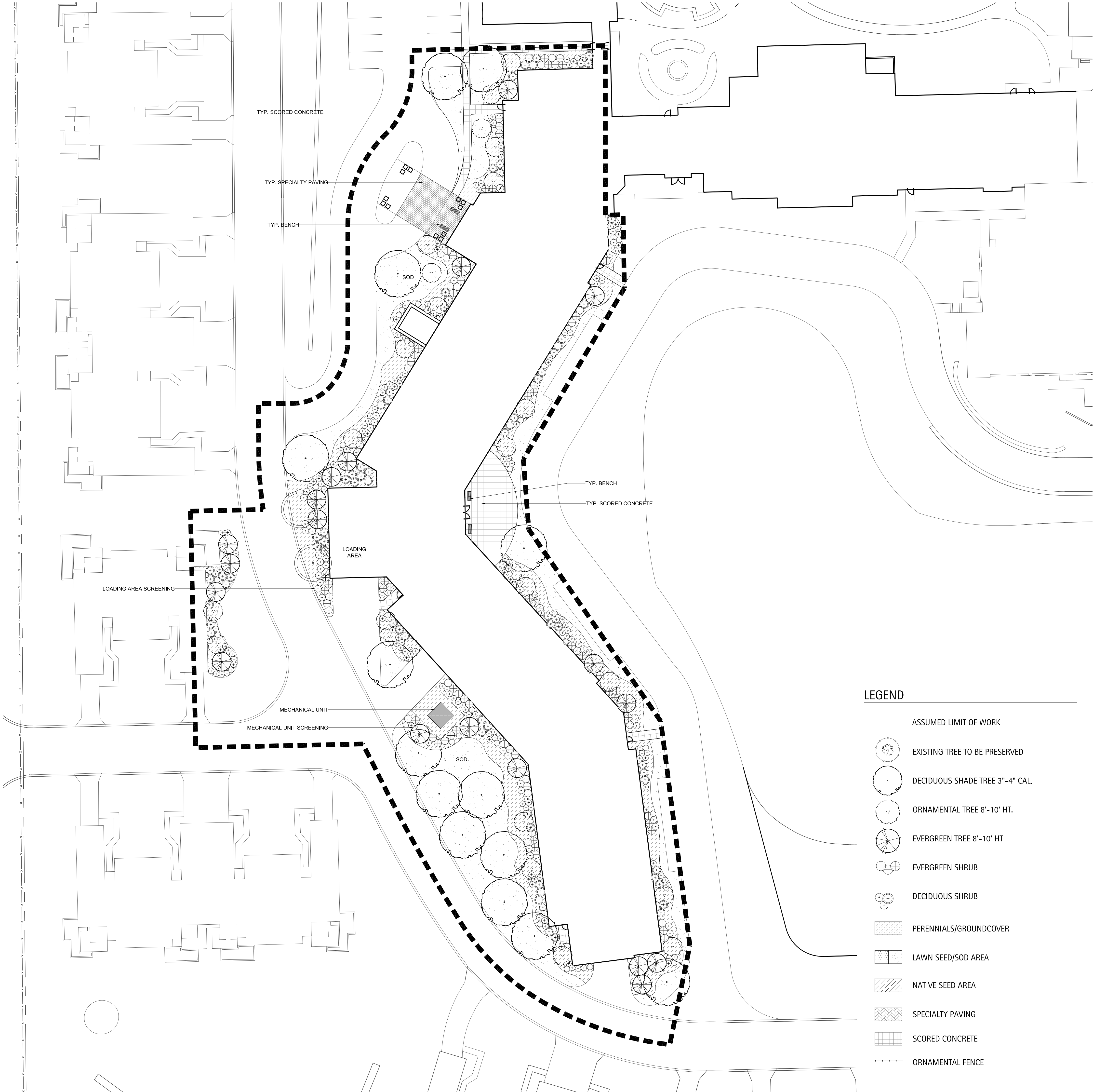
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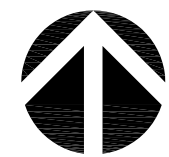
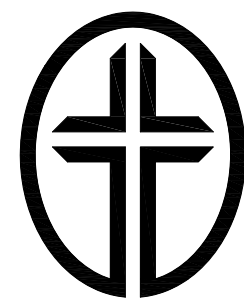


ZONE B: FELLOWSHIP HALL LANDSCAPE PLAN

ELEMENT		QUANTITY	UNIT		
MIDSCAPE LAWN AND BED TOPSOIL COMPOST MIX	SITE PREPARATION	2,640	SY		
	FINE GRADING	2,640	SY		
	SOD	1,451	SY		
		379	CY		
					12" Depth
DECIDUOUS SHADE TREES		5	units		
Acer rubrum 'Red Sunset'			Red Sunset Red Maple	10' ht.	B&B, Multi-Stem See Plans
Acer x freemanii 'Autumn Blaze'			Freemanii Maple	4' caliper	B&B See Plans
Ginkgo biloba			Ginkgo (Male)	4' caliper	B&B See Plans
Gleditsia triacanthos 'Inermis 'Skyline'			Skyline Thornless Honeylocust	4' caliper	B&B See Plans
Gleditsia triacanthos 'Inermis 'Skyline'			Skyline Thornless Honeylocust	5' caliper	B&B See Plans
Gymnocladus dioica			Kentucky Coffee Tree	4' caliper	B&B See Plans
Pyrus calleryana 'Aristocrat'			Aristocrat Pear	3' caliper	B&B See Plans
Quercus rubra			Red Oak	3' caliper	B&B See Plans
Tilia cordata 'Greenspire'			Littleleaf Linden	14' ht.	B&B, Multi-Stem See Plans
Ulmus 'Accolade'			Accolade Elm	3' caliper	B&B See Plans
EVERGREEN TREES		5	units		
Abies Concolor			Concolor Fir	10' ht.	B&B See Plans
Picea abies			Norway Spruce	10' ht.	B&B See Plans
Picea glauca 'Densata'			Black Hills Spruce	8' ht.	B&B See Plans
Picea glauca 'Densata'			Black Hills Spruce	10' ht.	B&B See Plans
Picea pungens			Green Colorado Spruce	10' ht.	B&B See Plans
Picea pungens 'Glauca'			Colorado Blue Spruce	12' ht.	B&B See Plans
Pseudotsuga menziesii			Douglas Fir	8' ht.	B&B See Plans
Pseudotsuga menziesii			Douglas Fir	10' ht.	B&B See Plans
ORNAMENTAL TREES		30	units		
Amelanchier canadensis			Shadlow Serviceberry	8' ht.	B&B, Multi-Stem See Plans
Betula nigra 'Heritage'			Heritage River Birch	8' ht.	B&B, Clump See Plans
Betula nigra 'Heritage'			Heritage River Birch	10' ht.	B&B, Clump See Plans
Carpinus caroliniana			American Hornbeam	6' ht.	B&B, Clump See Plans
Cercis canadensis			Red Bud	8' ht.	B&B, Single Stem See Plans
Cornus mas			Cornelian Cherry Dogwood	5' ht.	B&B, CG See Plans
Cornus mas			Cornelian Cherry Dogwood	6' ht.	B&B See Plans
Crataegus crusgalli 'Inermis'			Thornless Cockspur Hawthorn	8' ht.	B&B, Multi-Stem See Plans
Magnolia stellata 'Royal Star'			Royal Star Magnolia	4' ht.	B&B, Multi-Stem See Plans
Magnolia stellata 'Royal Star'			Royal Star Magnolia	5' ht.	B&B, Multi-Stem See Plans
Magnolia x betheni 'Meril'			Dr. Merill Magnolia	5' ht.	B&B, Multi-Stem See Plans
Magnolia x betheni 'Meril'			Dr. Merill Magnolia	8' ht.	B&B, Multi-Stem See Plans
Malus sargentii x 'Tina'			Tina Sargent Crab 'Dwarf'	2' caliper	B&B, Single Stem See Plans
Malus sargentii x 'Tina'			Tina Sargent Crab 'Dwarf'	5' ht.	B&B, Clump See Plans
Malus x 'Snowdrift'			White Crabapple	8' ht.	B&B, Clump See Plans
Malus x 'Snowdrift'			White Crabapple	10' ht.	B&B, Clump See Plans
Syringa reticulata 'Ivory Silk'			Japanese Tree Lilac	10' ht.	B&B, Multi Stem See Plans
EVERGREEN SHRUBS		65	units		
Buxus microphylla 'Wintergreen'			Wintergreen Boxwood	3' gal.	B&B or CG See Plans
Juniperus chinensis 'Sea Green'			Sea Green Juniper	5' gal.	B&B or CG See Plans
Juniperus horizontalis 'Plumosa Compacta'			Yungbluth's Andorra Juniper	15-18" sp.	B&B or CG See Plans
Pinus mugo 'Eric'			Eric Mugo Pine	18-24" sp.	B&B or CG See Plans
Taxus media 'Densiformis'			Dense Yew	36" sp.	B&B or CG See Plans
Taxus media 'Hicks'			Hicks Yew	30" ht.	B&B or CG See Plans
Thuja occidentalis 'Mission'			Mission Arborvitae	6' ht.	B&B See Plans
DECIDUOUS SHRUBS		169	units		
Aceria melanocarpa			Glossy Black Chalemyre	24-30" ht.	B&B or CG or BR See Plans
Berberis thunbergii 'Atropurpurea Nana'			Crimson Pinyin Barberry	5' gal.	B&B or CG See Plans
Cornus alba 'marginata'			Variiegated Tatarian Dogwood	36-42"	B&B or CG See Plans
Cornus sericea 'Kelsay'			Redtwig Dogwood 'Dwarf'	24-30" ht.	B&B or CG or BR See Plans
Cotoneaster horizontalis 'Hesse'			Hess Rockspur Cotoneaster	5' gal.	B&B or CG See Plans
Eunymus alata 'Compactus'			Dwarf Winged Euonymus	24-30" ht.	B&B or CG See Plans
Eunymus alata 'Compactus'			Dwarf Winged Euonymus	30-36" ht.	B&B or CG See Plans
Eunymus fortunei 'Emerald Gaiety'			Emerald Gaiety Euonymus	15-18" sp.	B&B See Plans
Eunymus fortunei 'Emerald 'N Gold'			Emerald 'N Gold Euonymus	15-18" sp.	B&B See Plans
Eunymus fortunei 'Sarcoxie'			Sarcoxie Euonymus	3' gal.	B&B or CG See Plans
Eunymus fortunei 'Beaver Creek'			Beaver Creek Dwarf Bottlebrush Fothergilla	5' gal.	B&B or CG See Plans
Hamamelis virginiana			Common Witch Hazel	42" ht.	B&B or CG See Plans
Hamamelis virginiana			Common Witch Hazel	42-48" ht.	B&B or CG See Plans
Hamamelis virginiana			Common Witch Hazel	42-48" ht.	B&B or CG See Plans
Hydrangea arborescens 'Annabelle'			Annabelle Smooth Hydrangea	5' gal.	B&B or CG See Plans
Hydrangea paniculata 'Tardiva'			Tardiva Hydrangea	5' gal.	B&B or CG See Plans
Kerria japonica 'Variegata'			Variegated Japanese Kerria	18-24" ht.	B&B or CG See Plans
Prunus x cistena			Purple Sand Cherry	48"	B&B or CG See Plans
Rhus aromatica 'Trio-low'			Fragrant Sumac	5' gal.	B&B or CG See Plans
Rhus typhina 'Laciniata'			Staghorn Sumac	5-6' ht.	B&B or CG See Plans
Ribes alpinum 'Greenmountain'			Greenmountain Alpine Currant	15-18" sp.	B&B or CG See Plans
Rosa 'Flower Carpet Pink'			Flower Carpet Pink Shrub Rose	5' gal.	CG See Plans
Rosa 'Knockout'			Knockout Rose	5' gal.	CG See Plans
Spiraea japonica 'Lemon Princess'			Lemon Princess Spirea	15-24" sp.	B&B or CG See Plans
Syringa meyeri			Dwarf Korean Lilac	5' gal.	B&B or CG See Plans
Syringa patula 'Ms. Kim'			Ms. Kim Lilac	18-24" ht.	B&B See Plans
Viburnum carlesii			Korean Spice Viburnum	36" ht.	B&B or CG See Plans
Viburnum dentatum			Aronwood Viburnum	30-36" ht.	B&B See Plans
Viburnum lentago			Nannyberry Viburnum	3' ht.	B&B See Plans
Viburnum prunifolium			Blackhaw Viburnum	3' ht.	B&B See Plans
Viburnum trilobum 'Halls'			Halls American Cranberrybush Viburnum	24-30" ht.	B&B or CG See Plans
Viburnum trilobum 'Winterwoth'			Winterwoth American Cranberrybush	24-30" ht.	B&B or CG See Plans
Weigelia florida 'Wine and Roses'			Wine and Roses Weigelia	24-30" ht.	B&B or CG See Plans
Weigelia 'Java Red'			Red Java Weigelia	24-30" ht.	B&B or CG See Plans
PERENNIALS/GROUNDCOVERS		3,070	SF		
Alchemilla mollis			Lady's Mantle	1' gal.	CG 18" occ. spacing
Anemone dioicus			Gaol's Beard	1' gal.	CG 36" occ. spacing
Aster novae-angliae			Purple Dome New England Aster	1' gal.	CG 18" occ. spacing
Astilbe 'Peach Blossom'			Peach Blossom Astilbe	1' gal.	CG 18" occ. spacing
Bergenia robium			Robtium Bergenia	1' gal.	CG 18" occ. spacing
Brunnera macrophylla			Siberian Bugloss	1' gal.	CG 16" occ. spacing
Calamagrostis x acutiflora 'Karl Foerster'			Feather Reed Grass	1' gal.	CG 24" occ. spacing
Coreopsis verticillata 'Moonbeam'			Moontbeam Coreopsis	1' gal.	CG 18" occ. spacing
Dianthus 'Wetzel'			Helen Dianthus	1' gal.	CG 18" occ. spacing
Echinacea purpurea 'Magnus Pink'			Purple Coneflower	1' gal.	CG 18" occ. spacing
Eupatorium maculatum 'Gateway'			Poc Yoc Weed	1' gal.	CG 36" occ. spacing
Geranium sanguineum			Bloody Red Cranesbill	1' gal.	CG 18" occ. spacing
Hemerocallis 'Happy Returns'			Happy Returns Daylily	1' gal.	CG 18" occ. spacing
Hemerocallis 'Stella de Oro'			Yellow Daylily	1' gal.	CG 18" occ. spacing
Heuchera micrantha 'Purple Palace'			Purple Purple Coral Bells	1' gal.	CG 18" occ. spacing
Hosta 'Parrot'			Parrot Hosta	1' gal.	CG 36" occ. spacing
Hosta sieboldiana 'Elegans'			Elegans Hosta	1' gal.	CG 50" occ. spacing
Hosta sieboldiana 'Frances William'			Frances William Hosta	1' gal.	CG 50" occ. spacing
Hosta Sum and Substance			Sum and Substance Hosta	1' gal.	CG 60" occ. spacing
Iris siberica 'Caesar's Brother'			Caesar's Brother Iris	1' gal.	CG 18" occ. spacing
Iris spicata 'Kobold'			Purple Gayfathier	1' gal.	CG 24" occ. spacing
Lupinus latifolius 'Desdemona'			Lupinus Plant	1' gal.	CG 24" occ. spacing
Lupinus latifolius 'The Rocket'			Rocket Lupinus	1' gal.	CG 24" occ. spacing
Miscanthus sinensis 'Purpureus'			Purple Maiden Grass	1' gal.	CG 24" occ. spacing
Nepeta x fassenii 'Walkers Low'			Walkers Low Catmint	1' gal.	CG 24" occ. spacing
Pennisetum aegyloides 'Hameln'			Dwarf Fountain Grass	1' gal.	CG 24" occ. spacing
Perovskia atriplicifolia			Russian Sage	1' gal.	CG 24" occ. spacing
Rudbeckia hirta 'Goldsturm'			Black-eyed Susan	1' gal.	CG 18" occ. spacing
Salvia nemorosa 'East Friesland'			East Friesland Salvia	1' gal.	CG 18" occ. spacing
Sedum 'Autumn Joy'			East Tmum Joy Sedum	1' gal.	CG 18" occ. spacing
Sporobolus heterolepis			Prairie Droopseed	1' gal.	CG 24" occ. spacing
Stachys byzantina 'Silver Carpet'			Lambsear Silver Carpet	1' gal.	CG 18" occ. spacing
Eunymus trilobum 'Colorado'			Purpleleaf Wintercreeper	3" pot	CG 18" occ. spacing
Pachysandra terminalis			Japanese Flowering Spurge	3" pot	CG 6" occ. spacing
Vinca minor 'Bowles'			Bowles Periwinkle	3" pot	CG 8" occ. spacing
Waldsteinia tomentosa			Barren Strawberry	3" quart	CG 18" occ. spacing
MULCH		95	CY		3" Depth
BENCHES		9	units		
ROUND TABLE SETS		4	units		
CHAIRS		13	units		
UPLIGHTS		8	units		
FOUNTAINS		3	units		
ELEVATED ROLLING PLANTER		4	units		
PATH LIGHTS		8	units		
SPECIALTY PAVING		2,056	SF		
CONCRETE PAVING		7,793	SF		
DECORATIVE FENCING		177	LF		
GATE		1	unit		
CURBS		155	LF		
STONE SEAT WALLS		185	LF		
STONE OUTCROPPING		10	TONS		
IRRIGATION		1	LUMP SUM		
UNDERDRAINAGE		1	LUMP SUM		



ZONE C: ASSISTED LIVING LANDSCAPE PLAN				
ELEMENT	QUANTITY	UNIT		
SITE PREPARATION	2,348	SY		
FINE GRADING	2,348	SY		
SOD	1,119	SY		
LANDSCAPE LAWN AND BED TOPSOIL COMPOST MIX	432	CY	12" Depth	
DECIDUOUS SHADE TREES	13	units		
Acer rubrum 'Red Sunset'		Red Sunset Red Maple	10' ht.	B&B, Multi-Stem See Plans
Acer x freemanii 'Autumn Blaze'		Freemanii Maple	4" caliper	B&B See Plans
Ginkgo biloba		Ginkgo (Male)	4" caliper	B&B See Plans
Gleditsia triacanthos inermis 'Skyline'		Skyline Thornless Honeylocust	4" caliper	B&B See Plans
Gleditsia triacanthos inermis 'Skyline'		Skyline Thornless Honeylocust	5" caliper	B&B See Plans
Gymnocladus dioica		Kentucky Coffee Tree	4" caliper	B&B See Plans
Pyrus calleryana 'Aristocrat'		Aristocrat Pear	3" caliper	B&B See Plans
Quercus rubra		Red Oak	3" caliper	B&B See Plans
Tilia cordata 'Greenspire'		Littleleaf Linden	14" ht.	B&B, Multi-Stem See Plans
Ulmus 'Accolade'		Accolade Elm	3" caliper	B&B See Plans
EVERGREEN TREES	19	units		
Abies Concolor		Corcolor Fir	10' ht.	B&B See Plans
Picea abies		Norway Spruce	10' ht.	B&B See Plans
Picea glauca 'Densata'		Black Hills Spruce	8' ht.	B&B See Plans
Picea glauca 'Densata'		Black Hills Spruce	10' ht.	B&B See Plans
Picea pungens		Green Colorado Spruce	10' ht.	B&B See Plans
Picea pungens 'Glaucia'		Colorado Blue Spruce	12" ht.	B&B See Plans
Pseudotsuga menziesii		Douglas Fir	8' ht.	B&B See Plans
Pseudotsuga menziesii		Douglas Fir	10' ht.	B&B See Plans
ORNAMENTAL TREES	27	units		
Amelanchier canadensis		Shadblow Serviceberry	8' ht.	B&B, Multi-Stem See Plans
Betula nigra 'Heritage'		Heritage River Birch	8' ht.	B&B, Clump See Plans
Betula nigra 'Heritage'		Heritage River Birch	10' ht.	B&B, Clump See Plans
Carpinus caroliniana		American Hornbeam	6' ht.	B&B, Clump See Plans
Cercis canadensis		Red Bud	8' ht.	B&B, Single Stem See Plans
Cornus mas		Cornelian Cherry Dogwood	5' ht.	B&B or CG See Plans
Cornus mas		Cornelian Cherry Dogwood	6' ht.	B&B See Plans
Crataegus crusgalli 'Inermis'		Thornless Cockspur Hawthorn	8' ht.	B&B, Multi-Stem See Plans
Magnolia stellata 'Royal Star'		Royal Star Magnolia	4' ht.	B&B, Multi Stem See Plans
Magnolia stellata 'Royal Star'		Royal Star Magnolia	5' ht.	B&B, Multi Stem See Plans
Magnolia x loebneri 'Merill'		Dr. Merrill Magnolia	5' ht.	B&B, Multi Stem See Plans
Magnolia x loebneri 'Merill'		Dr. Merrill Magnolia	8' ht.	B&B, Multi Stem See Plans
Malus sargentii x 'Tina'		Tina Sargent Crab Dwarf	2" caliper	B&B, Single Stem See Plans
Malus sargentii x 'Tina'		Tina Sargent Crab Dwarf	5' ht.	B&B, Clump See Plans
Malus x 'Snowdrift'		White Crabapple	8' ht.	B&B, Clump See Plans
Malus x 'Snowdrift'		White Crabapple	10' ht.	B&B, Clump See Plans
Syringa reticulata 'Vivory Sil'		Japanese Tree Lilac	10' ht.	B&B, Multi Stem See Plans
EVERGREEN SHRUBS	79	units		
Buxus microphylla 'Wintergreen'		Wintergreen Boxwood	3 gal.	B&B or CG See Plans
Juniperus chinensis 'Sea Green'		Sea Green Juniper	5 gal.	B&B or CG See Plans
Juniperus horizontalis 'Plumosa Compacta'		Youngstown Andorra Juniper	15-18" ht.	CG See Plans
Pinus mugo 'Eric'		Eric Mugo Pine	18-24" spr.	B&B or CG See Plans
Taxus media 'Densiformis'		Dense Yew	36" spr.	B&B or CG See Plans
Taxus media 'Hicks'		Hicks Yew	30" ht.	B&B or CG See Plans
Thuja occidentalis 'Mission'		Mission Arborvitae	6' ht.	B&B See Plans
DECIDUOUS SHRUBS	325	units		
Aronia melanocarpa		Glossy Black Chokeberry	24-30" ht.	B&B or CG or BR See Plans
Berberis thunbergii 'Atropurpurea Nana'		Crimson Pygmy Barberry	5 gal.	B&B or CG See Plans
Cornus alba 'marginata'		Variegated Tatarian Dogwood	36-42"	B&B or CG See Plans
Cornus sericea 'Kelsey'		Redtwig Dogwood Dwarf	24-30" ht.	B&B or CG or BR See Plans
Cotoneaster horizontalis 'Hessei'		Hess Rockspray Cotoneaster	5 gal.	B&B or CG See Plans
Eucornymus alata 'Compactus'		Dwarf Winged Eucornymus	24-30" ht.	B&B or CG See Plans
Eucornymus alata 'Compactus'		Dwarf Winged Eucornymus	30-36" ht.	B&B or CG See Plans
Eucornymus fortunei 'Emerald Gaiety'		Emerald Gaiety Eucornymus	15-18" spr.	B&B See Plans
Eucornymus fortunei 'Emerald 'N Gold'		Emerald 'N Gold Eucornymus	15-18" spr.	B&B See Plans
Eucornymus fortunei 'Sarcoxie'		Sarcoxie Eucornymus	3 gal.	B&B or CG See Plans
Fothergilla gardenii 'Beaver Creek'		Beaver Creek Dwarf Bottlebrush Fothergilla	5 gal.	B&B or CG See Plans
Hamamelis virginiana		Common Witch Hazel	42" ht.	B&B or CG See Plans
Hamamelis virginiana		Common Witch Hazel	42-48" ht.	B&B or CG See Plans
Hamamelis virginiana		Common Witch Hazel	42-48" ht.	B&B or CG See Plans
Hydrangea arborescens 'Annabelle'		Anrabelle Smooth Hydrangea	5 gal.	B&B or CG See Plans
Hydrangea paniculata 'Tardiva'		Tardiva Hydrangea	5 gal.	B&B or CG See Plans
Kerria japonica 'Variegata'		Variegated Japanese Kerria	16-24" ht.	B&B or CG See Plans
Prunus x cistena		Purple Sand Cherry	48"	B&B or CG See Plans
Rhus aromatica 'Gro-Low'		Fragrant Sumac	5 gal.	B&B or CG See Plans
Rhus typhina 'Laciniata'		Staghorn Sumac	6-8" ht.	B&B or CG See Plans
Ribes alpinum 'Greenmound'		Greenmound Alpine Currant	15-18" spr.	B&B or CG See Plans
Rosa 'Flower Carpet Pink'		Flower Carpet Pink Shrub Rose	5 gal.	CG See Plans
Rosa 'Knockout'		Knockout Rose	5 gal.	CG See Plans
Spiraea japonica 'Lemon Princess'		Lemon Princess Spirea	15-24" spr.	B&B or CG See Plans
Syringa meyeri		Dwarf Korean Lilac	5 gal.	B&B or CG See Plans
Syringa patula 'Ms. Kim'		Ms. Kim Lilac	16-24" ht.	B&B See Plans
Viburnum carlesii		Korean Spice Viburnum	36" ht.	B&B or CG See Plans
Viburnum dentatum		Arrowwood Viburnum	30-36" ht.	B&B See Plans
Viburnum lentago		Nannyberry Viburnum	3" ht.	B&B See Plans
Viburnum prunifolium		Blackhaw Viburnum	4" ht.	B&B See Plans
Viburnum trilobum 'Hahn'		Hahn American Cranberrybush Viburnum	24-30" ht.	B&B or CG See Plans
Viburnum trilobum 'Wentworth'		Wentworth American Cranberrybush	24-30" ht.	B&B or CG See Plans
Weigela Florida 'Wine and Roses'		Wine and Roses Weigela	24-30" ht.	B&B or CG See Plans
Weigela 'Java Red'		Red Java Weigela	24-30" ht.	B&B or CG See Plans
PERENNIALS/GROUNDCOVERS	3,500	SF		
Alchemilla mollis		Lady's Mantle	1 gal.	CG 18" o.c. spacing
Aruncus dioicus		Goat's Beard	1 gal.	CG 36" o.c. spacing
Aster novae-angliae		Purple Dome New England Aster	1 gal.	CG 18" o.c. spacing
Astilbe 'Peach Blossom'		Peach Blossom Astilbe	1 gal.	CG 18" o.c. spacing
Bergenia rotblum		Rotblum Bergenia	1 gal.	CG 16" o.c. spacing
Brunneria macrophylla		Siberian Bugloss	1 gal.	CG 16" o.c. spacing
Calamagrostis x acutiflora 'Karl Foerster'		Feather Reed Grass	1 gal.	CG 24" o.c. spacing
Coreopsis verticillata 'Moonbeam'		Moonbeam Coreopsis	1 gal.	CG 18" o.c. spacing
Dianthus 'Helen'		Helen Dianthus	1 gal.	CG 18" o.c. spacing
Echinacea purpurea 'Magnus Pink'		Purple Coneflower	1 gal.	CG 18" o.c. spacing
Eupatorium maculatum 'Gateway'		Joe Pye Weed	1 gal.	CG 36" o.c. spacing
Geranium sanguineum		Bloody Red Cranesbill	1 gal.	CG 18" o.c. spacing
Hemerocallis 'Happy Returns'		Happy Returns Daylily	1 gal.	CG 18" o.c. spacing
Hemerocallis 'Stella de Oro'		Yellow Daylily	1 gal.	CG 18" o.c. spacing
Heuchera micrantha 'Purple Palace'		Purple Palace Coral Bells	1 gal.	CG 18" o.c. spacing
Hosta 'Patriot'		Patriot Hosta	1 gal.	CG 36" o.c. spacing
Hosta sieboldiana 'Elegans'		Elegans Hosta	1 gal.	CG 50" o.c. spacing
Hosta sieboldiana 'Frances William'		Frances William Hosta	1 gal.	CG 50" o.c. spacing
Hosta Sum and Substance		Sum and Substance Hosta	1 gal.	CG 60" o.c. spacing
Iris siberica 'Caesar's Brother'		Caesar's Brother Iris	1 gal.	CG 18" o.c. spacing
Liatis spicata 'Kobold'		Purple Gayfeather	1 gal.	CG 24" o.c. spacing
Ligularia dentata 'Desdemona'		Leopard Plant	1 gal.	CG 24" o.c. spacing
Ligularia stenocephala 'The Rocket'		Rocket Ligularia	1 gal.	CG 24" o.c. spacing
Miscanthus sinensis 'Purpureascens'		Purple Maiden Grass	1 gal.	CG 24" o.c. spacing
Nepeta x faassenii 'Walkers Low'		Walkers Low Catmint	1 gal.	CG 24" o.c. spacing
Pennisetum alopecuroides 'Hamel'		Dwarf Fountain Grass	1 gal.	CG 24" o.c. spacing
Perovskia atriplicifolia		Russian Sage	1 gal.	CG 24" o.c. spacing
Rudbeckia fulgida 'Goldstrum'		Black-eyed Susan	1 gal.	CG 18" o.c. spacing
Salvia nemorosa 'East Friesland'		East Friesland Salvia	1 gal.	CG 18" o.c. spacing
Sedum 'Autumn Joy'		Autumn Joy Sedum	1 gal.	CG 18" o.c. spacing
Sporobolus heterolepis		Prairie Dropseed	1 gal.	CG 24" o.c. spacing
Stachys byzantina 'Silver Carpet'		Lambsear Silver Carpet	1 gas	CG 18" o.c. spacing
Euonymus fortunei 'Colorata'		Purpleleaf Wintercreeper	3" pot	CG 10" o.c. spacing
Pachysandra terminalis		Japanese Flowering Spurge	3" pot	CG 6" o.c. spacing
Vinca minor 'Bowles'		Bowles Periwinkle	3" pot	CG 8" o.c. spacing
Waldsteinia tenata		Barren Strawberry	quart	CG 16" o.c. spacing
MULCH	108	CY	3" Depth	
BENCHES	4	units		
URLIGHTS	2	units		
SPECIALTY PAVING	786	SF		
CONCRETE PAVING	2,155	SF		
STONE OUTCROPPING	60	TONS		
IRRIGATION	1	LUMP SUM		



LEGEND

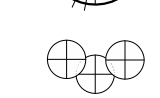
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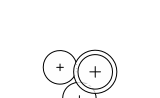
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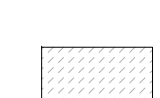
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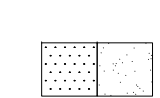
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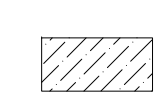
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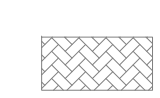
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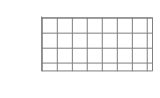
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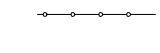
 PERENNIALS/GROUND COVER

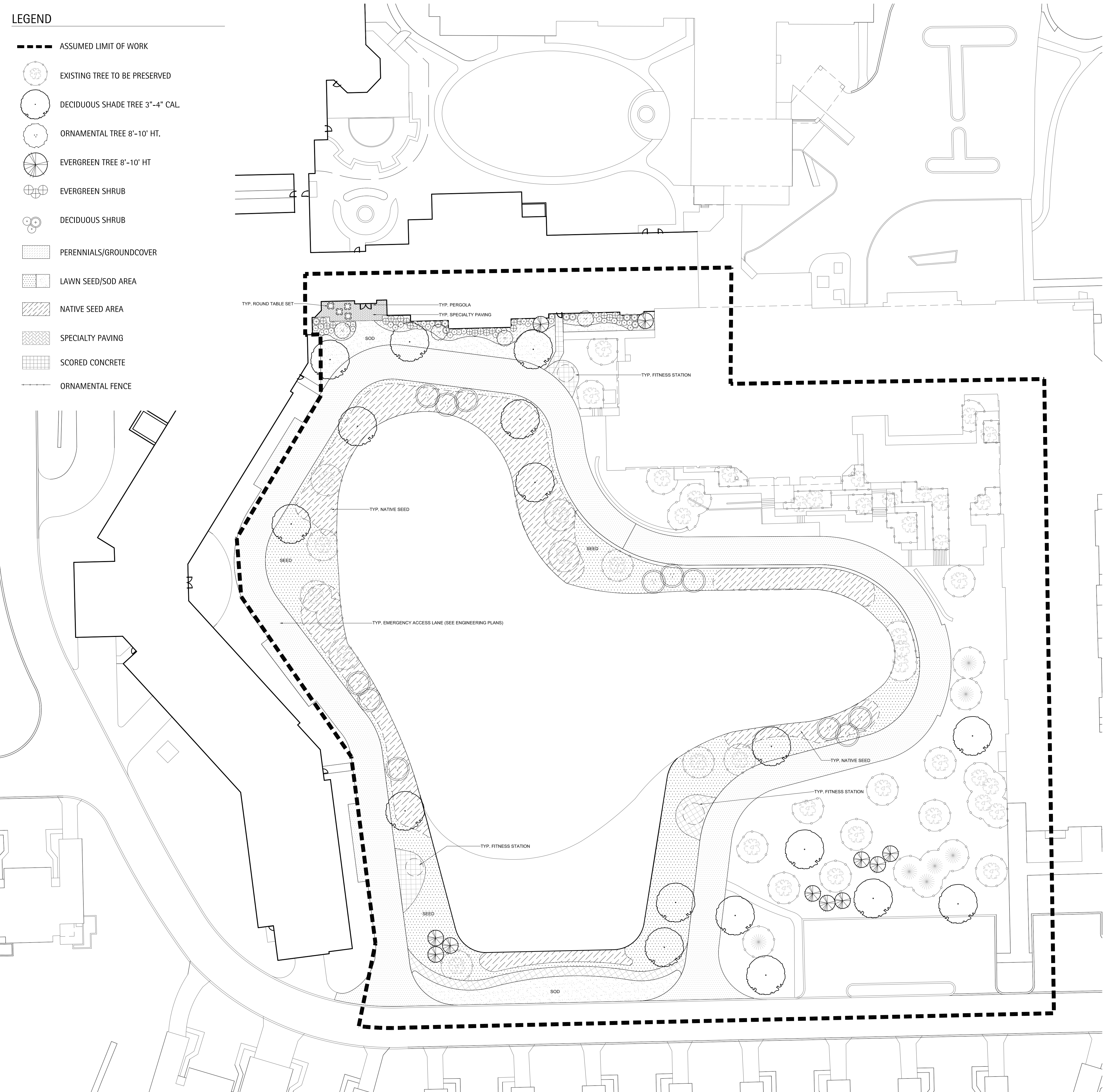
 LAWN SEED/SOD AREA

 NATIVE SEED AREA

 SPECIALTY PAVING

 SCORED CONCRETE

 ORNAMENTAL FENCE



ZONE D: RETENTION POND LANDSCAPE PLAN

ELEMENT	QUANTITY	UNIT			
SITE PREPARATION	1,773	SY			
FINE GRADING	1,773	SY			
SOD	498	SY			
LANDSCAPE LAWN AND BED TOPSOIL COMPOST MIX	63	CY		12" Depth	
NATIVE SEED	1,393	SY			
LAWN SEED	1,542	SY			
DECIDUOUS SHADE TREES	17	units			
Acer rubrum 'Red Sunset'		Red Sunset Red Maple	10' ht.	B&B, Multi-Stem	See Plans
Acer x freemanii 'Autumn Blaze'		Freemanii Maple	4" caliper	B&B	See Plans
Ginkgo biloba		Ginkgo (Male)	4" caliper	B&B	See Plans
Gleditsia triacanthos inermis 'Skyline'		Skyline Thornless Honeylocust	4" caliper	B&B	See Plans
Gleditsia triacanthos inermis 'Skyline'		Skyline Thornless Honeylocust	5" caliper	B&B	See Plans
Gymnocladus dioica		Kentucky Coffee Tree	4" caliper	B&B	See Plans
Pyrus calleryana 'Aristocrat'		Aristocrat Pear	3" caliper	B&B	See Plans
Quercus rubra		Red Oak	3" caliper	B&B	See Plans
Tilia cordata 'Greenspire'		Littleleaf Linden	14" ht.	B&B, Multi-Stem	See Plans
Ulmus 'Accolade'		Accolade Elm	3" caliper	B&B	See Plans
EVERGREEN TREES	11	units			
Abies Concolor		Concolor Fir	10' ht.	B&B	See Plans
Picea abies		Norway Spruce	10' ht.	B&B	See Plans
Picea glauca 'Densata'		Black Hills Spruce	10' ht.	B&B	See Plans
Picea glauca 'Densata'		Black Hills Spruce	10' ht.	B&B	See Plans
Picea pungens		Green Colorado Spruce	10' ht.	B&B	See Plans
Picea pungens 'Glauca'		Colorado Blue Spruce	12' ht.	B&B	See Plans
Pseudotsuga menziesii		Douglas Fir	8' ht.	B&B	See Plans
Pseudotsuga menziesii		Douglas Fir	10' ht.	B&B	See Plans
ORNAMENTAL TREES	16	units			
Amelanchier canadensis		Shadblow Serviceberry	8' ht.	B&B, Multi-Stem	See Plans
Betula nigra 'Heritage'		Heritage River Birch	8' ht.	B&B, Clump	See Plans
Betula nigra 'Heritage'		Heritage River Birch	10' ht.	B&B, Clump	See Plans
Carpinus caroliniana		American Hornbeam	6' ht.	B&B	See Plans
Cercis canadensis		Red Bud	8' ht.	B&B, Single Stem	See Plans
Cornus mas		Cornelian Cherry Dogwood	5' ht.	B&B or CG	See Plans
Cornus mas		Cornelian Cherry Dogwood	6' ht.	B&B	See Plans
Crataegus crusgalli 'Intermis'		Thornless Cockspur Hawthorn	8' ht.	B&B, Multi-Stem	See Plans
Magnolia stellata 'Royal Star'		Royal Star Magnolia	4' ht.	B&B, Multi-Stem	See Plans
Magnolia stellata 'Royal Star'		Royal Star Magnolia	5' ht.	B&B, Multi-Stem	See Plans
Magnolia x loebneri 'Merrill'		Dr. Merrill Magnolia	5' ht.	B&B, Multi-Stem	See Plans
Magnolia x loebneri 'Merrill'		Dr. Merrill Magnolia	8' ht.	B&B, Multi-Stem	See Plans
Malus sargentii x 'Tina'		Tina Sargent Crab 'Dwarf'	2" caliper	B&B, Single Stem	See Plans
Malus sargentii x 'Tina'		Tina Sargent Crab 'Dwarf'	5' ht.	B&B, Clump	See Plans
Malus x 'Snowdrift'		White Crabapple	8' ht.	B&B, Clump	See Plans
Malus x 'Snowdrift'		White Crabapple	10' ht.	B&B, Clump	See Plans
Syringa reticulata 'Ivory Silk'		Japanese Tree Lilac	10' ht.	B&B, Multi-Stem	See Plans
EVERGREEN SHRUBS	74	units			
Buxus microphylla 'Wintergreen'		Wintergreen Boxwood	3 gal.	B&B or CG	See Plans
Juniperus chinensis 'Sea Green'		Sea Green Juniper	5 gal.	B&B or CG	See Plans
Juniperus horizontalis 'Plumosa Compacta'		Youngstown Andorra Juniper	15-18" ht.	CG	See Plans
Pinus mugo 'Encel'		Pinus mugo 'Encel'	18-24" spr.	B&B or CG	See Plans
Taxus media 'Densiformis'		Dense Yew	36" spr.	B&B or CG	See Plans
Taxus media 'Hicks'		Hicks Yew	30" ht.	B&B or CG	See Plans
Thuja occidentalis 'Mission'		Mission Arborvitae	6' ht.	B&B	See Plans
DECIDUOUS SHRUBS	45	units			
Aronia melanocarpa		Glossy Black Chokeberry	24-30" ht.	B&B or CG or BR	See Plans
Berberis thunbergii		Ornison Pygmy Barberry	5 gal.	B&B or CG	See Plans
Cornus alba 'Munstead'		Variegated European Dogwood	36-42" ht.	B&B or CG	See Plans
Cornus sericea 'Kelsey'		Redtwig Dogwood 'Dwarf'	24-30" ht.	B&B or CG or BR	See Plans
Cotoneaster horizontalis 'Hesse'		Hess Rockspray Cotoneaster	5 gal.	B&B or CG	See Plans
Euonymus alata 'Compactus'		Dwarf Winged Euonymus	24-30" ht.	B&B or CG	See Plans
Euonymus alata 'Compactus'		Dwarf Winged Euonymus	30-36" ht.	B&B or CG	See Plans
Euonymus fortunei 'Emerald Gaiety'		Emerald Gaiety Euonymus	15-18" spr.	B&B	See Plans
Euonymus fortunei 'Emerald 'N' Gold'		Emerald 'N' Gold Euonymus	15-18" spr.	B&B	See Plans
Euonymus fortunei 'Sarcocoe'		Sarcocoe Euonymus	3 gal.	B&B or CG	See Plans
Fothergilla gardenii 'Beaver Creek'		Beaver Creek Dwarf Bottlebrush Fothergilla	5 gal.	B&B or CG	See Plans
Hamamelis virginiana		Common Witch Hazel	42" ht.	B&B or CG	See Plans
Hamamelis virginiana		Common Witch Hazel	42-48" ht.	B&B or CG	See Plans
Hamamelis virginiana		Common Witch Hazel	42-48" ht.	B&B or CG	See Plans
Hydrangea arborescens 'Annabelle'		Annabelle Smooth Hydrangea	5 gal.	B&B or CG	See Plans
Hydrangea paniculata 'Tardiva'		Tardiva Hydrangea	5 gal.	B&B or CG	See Plans
Kerria japonica 'Variegata'		Variegated Japanese Kerria	18-24" ht.	B&B or CG	See Plans
Prunus x cistena		Purple Sand Cherry	48"	B&B or CG	See Plans
Rhus aromatica 'Gro-Low'		Fragrant Sumac	5 gal.	B&B or CG	See Plans
Rhus typhina 'Laciniata'		Staghorn Sumac	5-6' ht.	B&B or CG	See Plans
Ribes alpinum 'Greenmound'		Greenmound Alpine Currant	15-18" spr.	B&B or CG	See Plans
Rosa 'Flower Carpet Pink'		Flower Carpet Pink Shrub Rose	5 gal.	CG	See Plans
Rosa 'Knockout'		Knockout Rose	5 gal.	CG	See Plans
Spiraea japonica 'Lemon Princess'		Lemon Princess Spirea	15-24" spr.	B&B or CG	See Plans
Syringa meyeri		Dwarf Korean Lilac	5 gal.	B&B or CG	See Plans
Syringa patula 'Ms. Kim'		Ms. Kim Lilac	18-24" ht.	B&B	See Plans
Viburnum carlesii		Korean Spice Viburnum	36" ht.	B&B or CG	See Plans
Viburnum dentatum		Arrowwood Viburnum	30-36" ht.	B&B	See Plans
Viburnum lentago		Nannyberry Viburnum	3' ht.	B&B	See Plans
Viburnum prunifolium		Blackhaw Viburnum	4" ht.	B&B	See Plans
Viburnum trilobum 'Hahs'		Hahs American Cranberrybush Viburnum	24-30" ht.	B&B or CG	See Plans
Viburnum trilobum 'Wentworth'		Wentworth American Cranberrybush	24-30" ht.	B&B or CG	See Plans
Weigela Florida 'Wine and Roses'		Wine and Roses Weigela	24-30" ht.	B&B or CG	See Plans
Weigela 'Java Red'		Red Java Weigela	24-30" ht.	B&B or CG	See Plans
PERENNIALS/GROUND COVERS	511	SF			
Alchemilla mollis		Lady's Mantle	1 gal.	CG	18" o.c. spacing
Anemone dioica		Goat's Beard	1 gal.	CG	36" o.c. spacing
Aster novae-angliae		Purple Dome New England Aster	1 gal.	CG	18" o.c. spacing
Asclepias 'Peach Blossom'		Peach Blossom Asilthe	1 gal.	CG	18" o.c. spacing
Bergenia robtium		Robtium Bergenia	1 gal.	CG	16" o.c. spacing
Brunnera macrophylla		Siberian Bugloss	1 gal.	CG	16" o.c. spacing
Calamagrostis x acutiflora 'Karl Foerster'		Feather Reed Grass	1 gal.	CG	24" o.c. spacing
Coreopsis verticillata 'Moonbeam'		Moonbeam Coreopsis	1 gal.	CG	18" o.c. spacing
Dianthus 'Helen'		Helen Dianthus	1 gal.	CG	18" o.c. spacing
Echinacea purpurea 'Magnus Pink'		Purple Coneflower	1 gal.	CG	18" o.c. spacing
Eupatorium maculatum 'Gateway'		Joe Pye Weed	1 gal.	CG	36" o.c. spacing
Oenothera sanguinea		Bloody Red Cranebill	1 gal.	CG	18" o.c. spacing
Hemerocallis 'Happy Returns'		Happy Returns Daylily	1 gal.	CG	18" o.c. spacing
Hemerocallis 'Stella de Oro'		Yellow Daylily	1 gal.	CG	18" o.c. spacing
Heuchera micrantha 'Purple Palace'		Purple Palace Coral Bells	1 gal.	CG	18" o.c. spacing
Hosta 'Patriot'		Patriot Hosta	1 gal.	CG	36" o.c. spacing
Hosta sieboldiana 'Elegans'		Elegans Hosta	1 gal.	CG	50" o.c. spacing
Hosta sieboldiana 'Frances William'		Frances William Hosta	1 gal.	CG	50" o.c. spacing
Hosta Sum and Substance		Sum and Substance Hosta	1 gal.	CG	60" o.c. spacing
Iris sibirica 'Caesar's Brother'		Caesar's Brother Iris	1 gal.	CG	18" o.c. spacing
Liatris spicata 'Kobold'		Purple Gayfeather	1 gal.	CG	24" o.c. spacing
Ligularia dentata 'Desdemona'		Leopard Plant	1 gal.	CG	24" o.c. spacing
Ligularia stenocephala 'The Rocket'		Rocket Ligularia	1 gal.	CG	24" o.c. spacing
Miscanthus sinensis 'Purpureascens'		Purple Maiden Grass	1 gal.	CG	24" o.c. spacing
Nepeta x fassenii 'Walkers Low'		Walkers Low Catmint	1 gal.	CG	24" o.c. spacing
Pennisetum apiculoides 'Hamel'		Dwarf Fountain Grass	1 gal.	CG	24" o.c. spacing
Perovskia atriplicifolia		Russian Sage	1 gal.	CG	24" o.c. spacing
Rubuskeia fulgida 'Goldstrum'		Black-eyed Susan	1 gal.	CG	18" o.c. spacing
Salvia nemorosa 'East Friesland'		East Friesland Salvia	1 gal.	CG	18" o.c. spacing
Sedum 'Autumn Joy'		Autumn Joy Sedum	1 gal.	CG	18" o.c. spacing
Sporobolus heterolepis		Prairie Dropseed	1 gal.	CG	24" o.c. spacing
Stachys byzantina 'Silver Carpet'		Lambear Silver Carpet	1 gal.	CG	18" o.c. spacing
Euonymus fortunei 'Colorata'		Purpleleaf Wintercreeper	3" pot	CG	10" o.c. spacing
Pachysandra terminalis		Japanese Flowering Spurge	3" pot	CG	6" o.c. spacing
Vinca minor 'Bowles'		Bowles Periwinkle	3" pot	CG	8" o.c. spacing
Waldsteinia ternata		Barren Strawberry	quart	CG	16" o.c. spacing
MULCH	16	CY		3" Depth	
ROUND TABLE SETS	4	units			
PERGOLA	1	allowance			
SPECIALTY PAVING	495	SF			
CONCRETE PAVING	2,533	SF			
STONE OUTCROPPING	30	TONS			
FITNESS STATIONS	3	units			
IRRIGATION	1	LUMP SUM			

LAKOTA

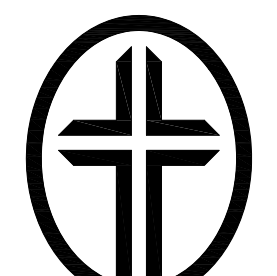
THE LAKOTA GROUP INC

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Planning
Urban Design
Landscape Architecture
Community Engagement

THE MOORINGS
OF ARLINGTON
HEIGHTS
Arlington Heights,
Illinois

Presbyterian
Homes



PLAN
COMMISSION
8/21/2015
NOT FOR
CONSTRUCTION



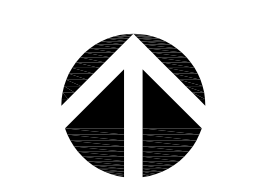
Joint
Utility
Locating
Information
for
Excavators

Call 48 hours before you dig
(including Sat, Sun & Holidays)

ZONE D -
RETENTION POND
LANDSCAPE PLAN

Revisions
PLAN COMMISSION 06/22/15
PLAN COMMISSION 08/21/15

Date: 08/18/15
Drawn By: JW/MK
Checked By: SF



0' 30' 60'

L-05

June 2015

The Moorings of Arlington Heights

Traffic and Parking Study



Prepared for:

**Presbyterian
Homes**

Eriksson Engineering Associates, Ltd.

145 Commerce Drive, Suite A

Grayslake, IL 60030

(847) 223-4804

601 W. Randolph St., Suite 500

Chicago, IL 60661

(312) 463-0551

1 - INTRODUCTION

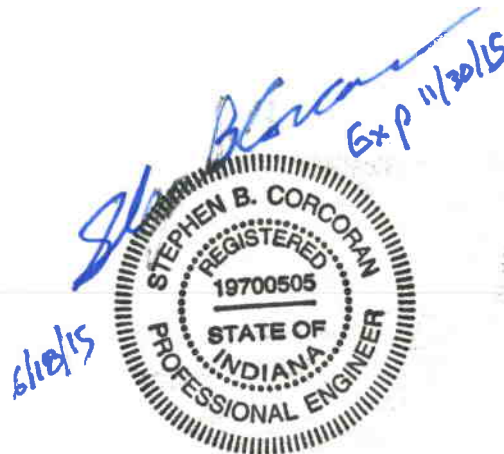
Eriksson Engineering Associates, Ltd. was retained by Presbyterian Homes to conduct a traffic and parking study for proposed changes at The Moorings of Arlington Heights, a congregate care retirement community. The proposed plan calls for construction of an assisted living and memory care facility along with a resident fellowship hall on the campus. Several resident cottages and the skilled care building will be removed to make way for the new buildings.

The purpose of the study was to observe the existing traffic patterns around the site, determine the traffic characteristics of the proposed development, review the parking needs, and develop roadway and parking recommendations.

Findings

The results of traffic and parking study found the following:

- The volume of traffic generated by the development is minimal (8 to 12 vehicles per hour) due to the nature of the use.
- The net change in area traffic volumes is nominal.
- The Mooring's driveway does not require any additional roadway improvements for the additional traffic volumes. Crash data does not support the need for traffic improvements.
- A traffic signal is not currently warranted at the Mooring's driveway and Dryden Place and will not be warranted with the development. When additional development occurs at the campus, the need for a traffic signal will be revisited.
- There is adequate parking at the campus.



2 - EXISTING CONDITIONS

Site Location and Area Land-Use

The subject site is located on the south side of Central Road in Arlington Heights, Illinois. It is occupied by the congregate care retirement community known as The Moorings of Arlington Heights. The campus is surrounded by single-family homes and a church to the north. **Figure 1** illustrates the site location and the surrounding land-uses and roads.

Bicycle, Pedestrian, and Public Transportation

Public sidewalks are located on both sides of Central Road and Dryden Place. The Moorings has an internal walking path system for their residents. PACE does not have bus service on Central Road. Elk Grove Township has a dial-a-ride bus service available to senior citizens. The Moorings provides shuttle services for their residents. No bike routes are located adjacent to the site.

Roadway Characteristics

A description of the area roadways providing access to the site is provided below:

Central Road is an east-west major arterial roadway extending through the southern portion of Arlington Heights, Illinois. It is under the jurisdiction of the Illinois Department of Transportation (IDOT) and has a speed limit of 40 miles per hour. In front of the site, it has two travel lanes in each direction with a painted left-turn median. The access drive to The Moorings is under stop sign control with one inbound lane and two outbound lanes (right and left-turn lanes)

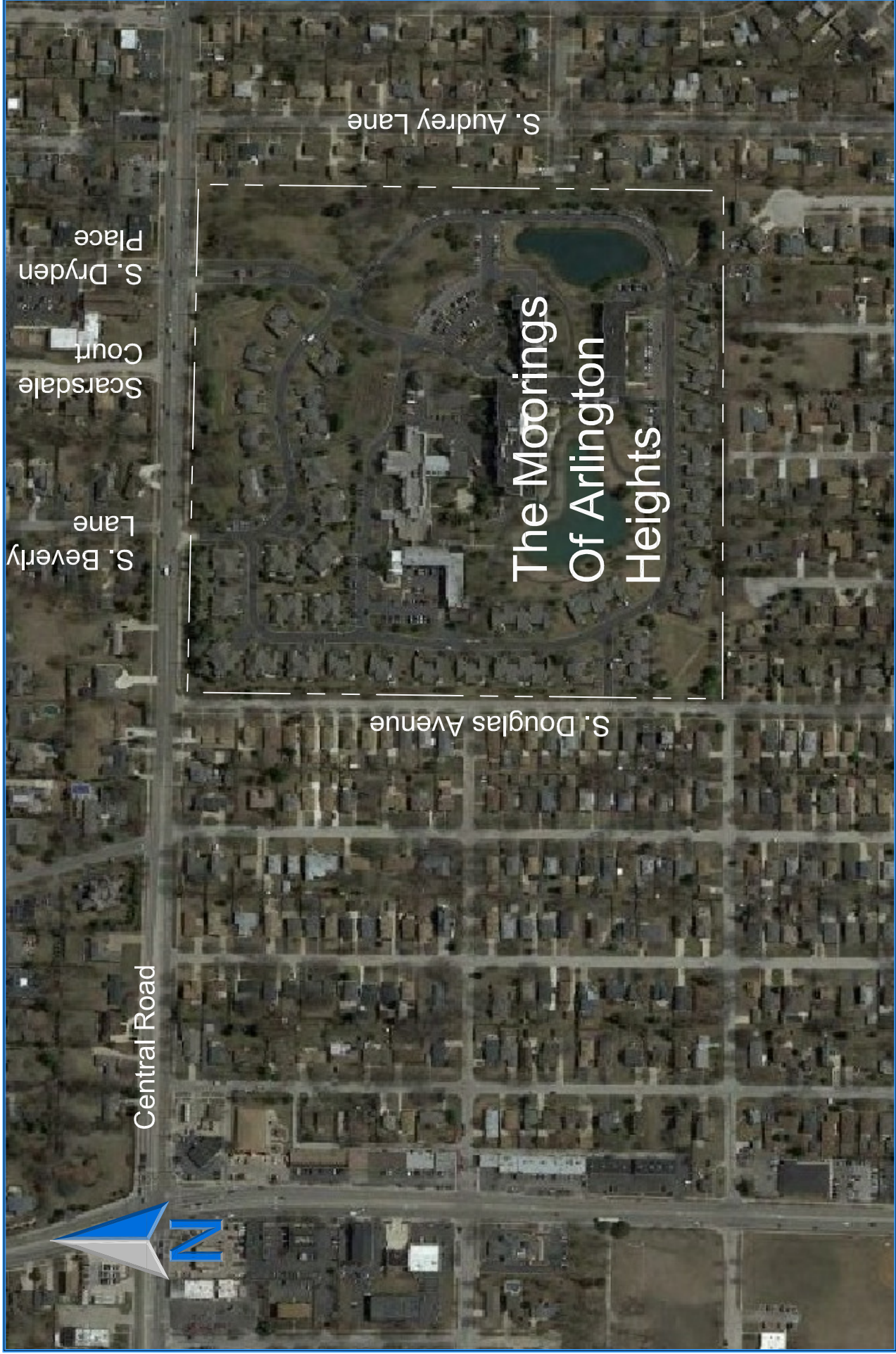
Dryden Place is a residential road that extends north from Central Road and provides access to single-family homes, a church, and an elementary school. At its intersection with Central Road, it has one lane in each direction and under stop sign control. On-street parking is prohibited near Central Road. It has a speed limit is 25 miles per hour and is under the jurisdiction of the Village of Arlington Heights.

Existing Traffic Volumes

Weekday morning (7:00 to 9:00 AM) and afternoon (4:00 to 6:00 PM) manual traffic counts were conducted in November, 2014 at the intersection of Central Road at Dryden Place and The Moorings' entrance. These counts showed the peak-hours of Central Road traffic occurring from 7:15 to 8:15 AM and 4:45 to 5:45 PM on a weekday. Peak-hour traffic going into and out of The Moorings occurred from 7:15-8:15 AM and 4:00-5:00 PM. The existing traffic volumes are shown in **Figure 2** and included in the **Appendix**.

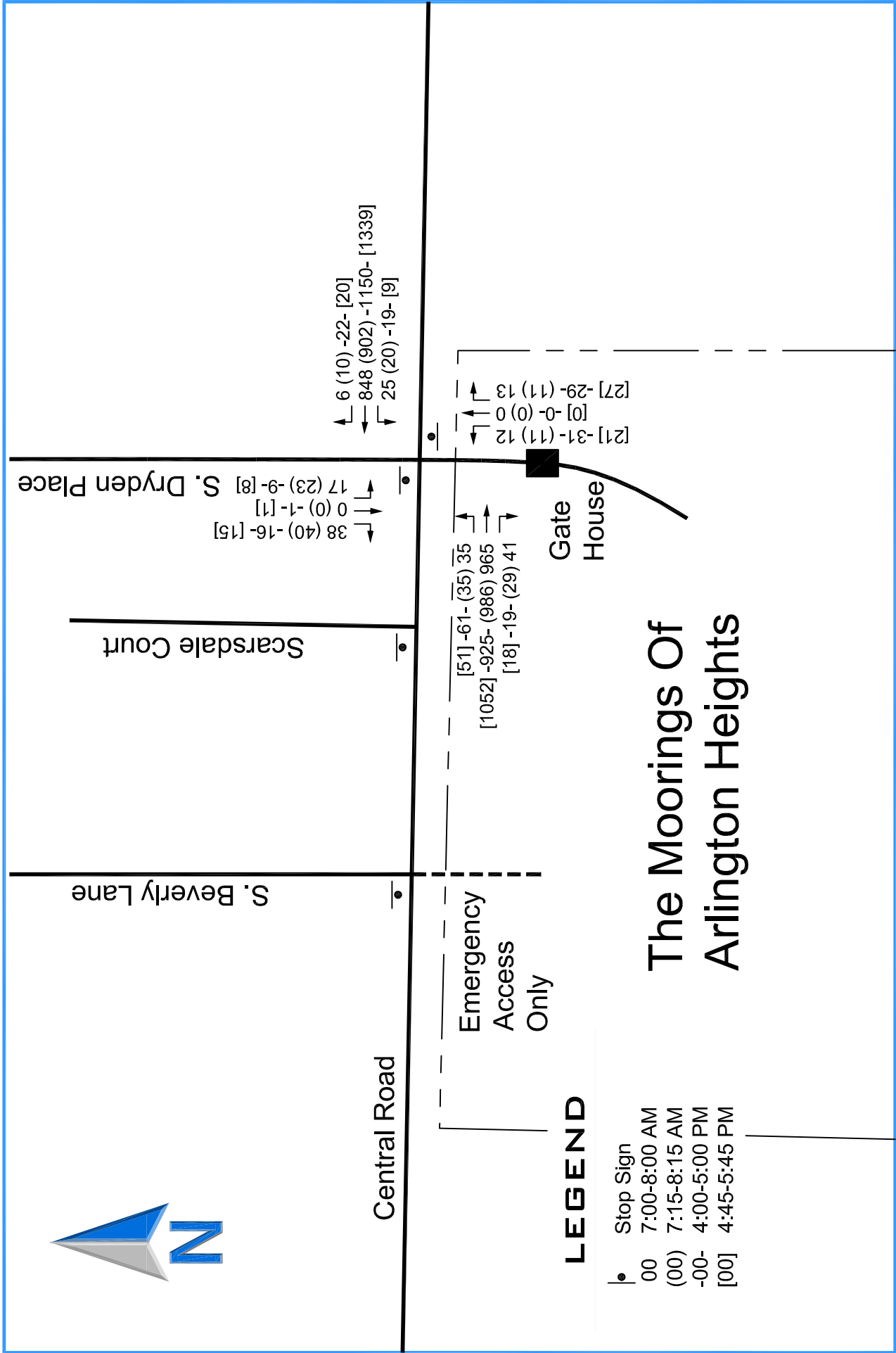
Existing Crash Data

Crash data was obtained for the intersection covering the last four years of available data (2009-2012). There were a total of five crashes over the four years (1.25 crashes/year). Only one crash in the four years involved a vehicle turning left out of The Moorings campus. One crash resulted in an injury and four others had property damage.



Site Location And Area Roadways

Figure 1



3 - SITE TRAFFIC CHARACTERISTICS

Site Plan

The plan calls for construction of an assisted living and memory care facility along with a resident fellowship hall on the campus. Several resident cottages and a skilled care building will be removed to make way for the buildings. Please note that The Moorings has an ongoing program to renovate and combine their independent living apartments to better meet their resident's needs. Over time, the total number of residential units on the campus has been decreasing. **Table 1** summarizes the campus residential units and skilled nursing beds in 2006, when the last traffic study was completed, the current 2014 unit count and occupancy levels, and the total units when completed.

Table 1
The Moorings of Arlington Heights
Existing and Proposed Unit Counts

Unit Type	Existing			Total Proposed	Change From 2006
	May 2006 ⁽¹⁾	November 2014			
		Units	Occupied		
Skilled Care	105	105	49	105	-
Sheltered Care	45	45	37	-	-45
Assisted Living	-	-	-	70	+70
Assisted Living Memory Care	-	-	-	20	+20
High Care Total	150	150	86	195	+45
Apartments	232	212	193	202	-30
Cottages	81	81	74	73	-8
Independent Living Total	313	293	267	275	-38
Total of All Units Types	463	443	353	470	+7

(1) Date of counts from prior traffic study

Trip Generation

Assisted-living/memory care facilities provide their residents with supervision and assistance with activities of daily living, coordination of their health care services; and monitoring of resident activities to help to ensure their health, safety, and well-being. Assistance may include the administration or supervision of medication, or personal care services provided by a trained staff person. No residents own or are able to drive a vehicle. Vehicle trips to and from these facilities consist of employee trips (56%), service or vendor trips (15%), and visitors (29%) according to the American Senior Housing Association.

Traffic estimates were based on the existing traffic volumes and trip rates for the occupied units on campus. These trip rates were then compared to senior housing and care data provided by the Institute of Transportation Engineer's Trip Generation 9th Ed. manual and found to be higher. The existing facility's trip rates were then applied to the vacant and

proposed units on the campus. The results are shown in **Tables 2 and 3**. The additional traffic generated by the net increase in units on the campus is minimal with 5 to 8 new trips an hour.

Table 2
The Moorings of Arlington Heights
Existing and Projected Morning Traffic Volumes

The Moorings	Number of Units	Morning Peak Periods					
		Mooring's Peak (7:00-8:00 AM)			Central Road Peak (7:15-8:15 AM)		
		In	Out	Total	In	Out	Total
Existing Occupied	353	66	25	91	49	22	71
Existing Vacant	90	17	6	23	12	6	18
Existing Subtotal	443	83	31	114	61	28	89
Net Units ⁽¹⁾	27	5	2	7	4	2	5
Total	470	88	33	121	65	30	95

(1) Net increase in units – See Table 1

Table 3
The Moorings of Arlington Heights
Existing and Projected Evening Traffic Volumes

The Moorings	Number of Units	Evening Peak Periods					
		Mooring's Peak (4:00-5:00 PM)			Central Road Peak (4:45-5:45 AM)		
		In	Out	Total	In	Out	Total
Existing Occupied Units	353	39	60	99	28	48	76
Existing Vacant Units	90	10	15	25	7	12	19
Existing Subtotal	443	49	75	124	35	60	95
Net Units ⁽¹⁾	27	3	5	8	2	4	6
Total	470	52	80	132	37	64	101

(2) Net increase in units – See Table 1

The proposed fellowship hall is for the use of the residents of the campus and would not generate additional trips on Central Road. It will be used by the residents for religious and other purposes that currently occur at The Moorings. The fellowship hall spaces will provide additional elbow room to simplify scheduling of activities.

Trip Distribution

The trip distribution for the development is based on the distribution of employees in the area, location of retail, restaurant, and entertainment venues, and the road network. The trip distribution for the site is shown on **Table 4** and **Figure 3** which was based on existing traffic pattern at the Moorings entrance.

Table 4
Directional Distribution

Direction	Inbound Percentage	Outbound Percentage
East on Central Road	40%	50%
West on Central Road	60%	50%
Total	100%	100%

Trip Assignment

The future vehicular trips that are generated by the development were distributed to the area roadways based on the directional distribution analysis and the proposed site plan. **Figure 4** displays the trip assignment for the projected site traffic volumes. **Figure 5** illustrates the existing traffic volumes with the existing development at full occupancy. **Figure 6** shows the Total Traffic volumes, which are the sum of the existing traffic volumes and the site traffic volumes.

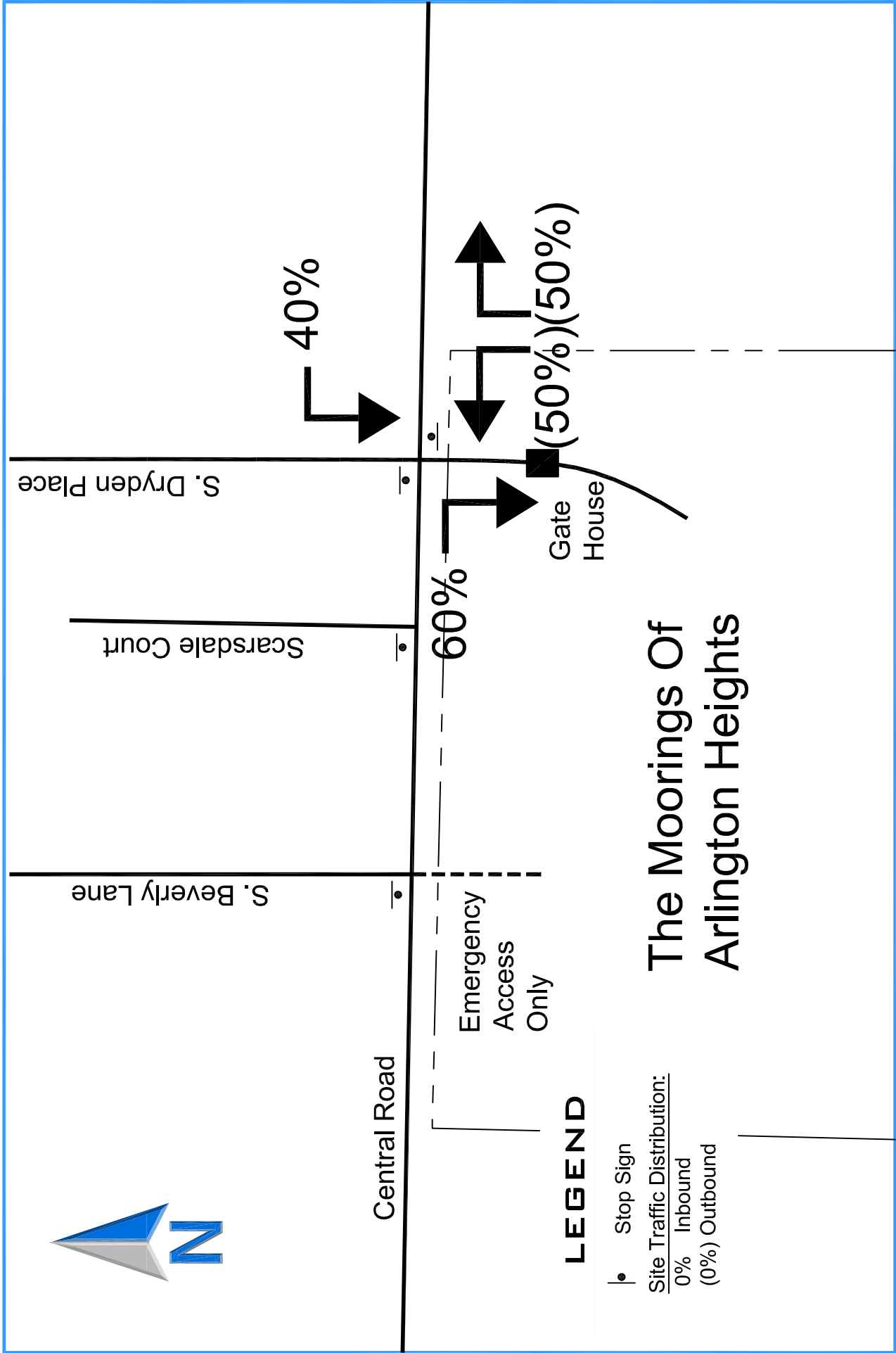
Intersection Capacity Analyses

An intersection's ability to accommodate traffic flow is based on the average control delay experienced by vehicles passing through the intersection. The intersection and individual traffic movements are assigned a level of service (LOS), ranging from A to F based on the control delay created by a traffic signal or stop sign. Control delay consists of the initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. LOS A has the best traffic flow and least delay. LOS E represents saturated or at capacity conditions. LOS F experiences oversaturated conditions and extensive delays. The Highway Capacity Manual definitions for levels of service and the corresponding control delay for both signalized and unsignalized intersections are shown in **Table 5**.

Table 5
Level of Service Criteria for Intersections

Level of Service	Description	Control Delay (seconds/vehicle)	
		Signals	Stop Signs
A	Minimal delay and few stops	<10	<10
B	Low delay with more stops	>10-20	>10-15
C	Light congestion	>20-35	>15-25
D	Congestion is more noticeable with longer delays	>35-55	>25-35
E	High delays and number of stops	>55-80	>35-50
F	Unacceptable delays and over capacity	>80	>50

Source: Highway Capacity Manual 2010





Central Road

S. Beverly Lane

Scarsdale Court

S. Dryden Place

← 2 (2) -1- [1]

Emergency
Access
Only

[1] -2- (2) 3 →

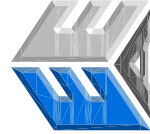
[2] -2- (1) 1
[2] -3- (1) 1

Gate
House

The Moorings Of Arlington Heights

LEGEND

- Stop Sign
- 00 7:00-8:00 AM
- (00) 7:15-8:15 AM
- 00- 4:00-5:00 PM
- [00] 4:45-5:45 PM



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Central Road

S. Beverly Lane

Scarsdale Court

S. Dryden Place

38 (40) -16- [15]

0 (0) -1- [1]

17 (23) -9- [8]

6 (10) -22- [20]

848 (902) -1150- [1339]

32 (25) -23- [12]

Emergency
Access
Only

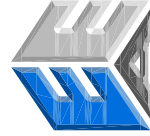
[51] -61- (35) 35
[1052] -925- (986) 965
[22] -25- (36) 51

Gate
House

LEGEND

- Stop Sign
- 00 7:00-8:00 AM
- (00) 7:15-8:15 AM
- 00- 4:00-5:00 PM
- [00] 4:45-5:45 PM

The Moorings Of Arlington Heights



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Existing Traffic Volumes At Full Occupancy

Figure 5



Central Road

S. Beverly Lane

Scarsdale Court

S. Dryden Place

38 (40) -16- [15]

0 (0) -1- [1]

17 (23) -9- [8]

6 (10) -22- [20]

848 (902) -1150- [1339]

34 (25) -27- [13]

Emergency
Access
Only

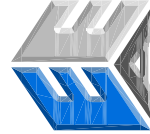
[51] -61- (35) 35
[1052] -925- (986) 965
[23] -27- (38) 54

Gate
House

LEGEND

- Stop Sign
- 00 7:00-8:00 AM
- (00) 7:15-8:15 AM
- 00- 4:00-5:00 PM
- [00] 4:45-5:45 PM

The Moorings Of Arlington Heights



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Total Traffic Volumes

Figure 6

Capacity analyses were conducted for the intersection using the computer program SYNCHRO to determine the existing operating conditions of the access system. These analyses were performed for the weekday peak-hours. Copies of the capacity analysis summaries are included in the **Appendix. Table 6 and 7** shows the existing and projected level of service results for each of the movements at the intersection. The movements are working well except for the northbound through/left-turn lane which works at Level of Service F in the evening peak-hours. This will not change with the proposed changes. Although this movement works poorly, the volume of traffic and queuing is low.

Based on the capacity analyses and the minimal amount of additional site traffic, no additional improvements are recommended for the intersection of Central Road at Dryden Place/the Moorings Access.

Table 6
Central Road/ Dryden Place/ Moorings Entrance
Morning Movement Level of Service and Delay

Movement	Mooring's Peak (7:00-8:00 AM)		Central Road Peak (7:15-8:15 AM)	
	Existing Volumes	Total Volumes	Existing Volumes	Total Volumes
Eastbound Left	LOS A – 3.6 sec	LOS A – 3.8 sec	LOS A – 4.3 sec	LOS A – 4.3 sec
Westbound Left	LOS A – 5.5 sec	LOS A – 6.0 sec	LOS A – 5.1 sec	LOS A – 5.2 sec
Northbound Thru/Left	LOS D – 29.9 sec	LOS D – 29.5 sec	LOS D – 34.4 sec	LOS D – 34.4 sec
Northbound Right	LOS A – 1.0 sec	LOS A – 1.0 sec	LOS A – 1.0 sec	LOS A – 1.0 sec
Southbound Dryden	LOS C – 18.1 sec	LOS C – 17.9 sec	LOS D – 31.4 sec	LOS D – 31.5 sec

Table 7
Central Road/ Dryden Place/ Moorings Entrance
Evening Movement Level of Service and Delay

Movement	Mooring's Peak (4:00-5:00 PM)		Central Road Peak (4:45-5:45 AM)	
	Existing Volumes	Total Volumes	Existing Volumes	Total Volumes
Eastbound Left	LOS A – 8.0 sec	LOS A – 8.2 sec	LOS A – 8.9 sec	LOS A – 8.8 sec
Westbound Left	LOS A – 5.6 sec	LOS A – 6.0 sec	LOS A – 5.6 sec	LOS A – 5.9 sec
Northbound Thru/Left	LOS F – 67.6 sec	LOS F – 63.1 sec	LOS F – 85.7 sec	LOS F – 125.2 sec
Northbound Right	LOS A – 1.8 sec	LOS A – 1.8 sec	LOS A – 1.8sec	LOS A – 5.0 sec
Southbound Dryden	LOS D – 32.1 sec	LOS D – 33.9 sec	LOS D – 28.8 sec	LOS D – 17.3 sec

4 - PARKING

Parking Requirements

The parking requirements for the existing development and addition were calculated based on the Village of Arlington Heights' Zoning Ordinance. Parking at assisted living and memory care facilities is primarily generated by employees and visitors. Residents of the facility do not drive. National parking data is available from the Institute of Transportation Engineers (ITE) in their publication *Parking Generation*, 4th Edition, for assisted living facilities (Land Use Code 254). **Tables 8** and **9** summarize the zoning code and ITE parking requirements for The Moorings campus.

Table 8
Zoning Code and ITE Requirements for
The Existing Mooring's Development

Unit Type	Units	Zoning Code Requirement	Total	ITE Parking Demand	Total
Senior Apartments	212	One Space per Unit	212.0	0.59 spaces per unit	125.1
Senior Villas	81	Two Spaces per Unit	162.0	0.59 spaces per unit	47.8
Skilled Care	105	One Space per Two Beds	52.5	0.35 spaces per bed	36.8
Sheltered Care	45	One Space per Two Beds	22.5	0.35 spaces per bed	15.8
Totals	443		449.0		225.5

Table 9
Zoning Code and ITE Requirements
Proposed Plan

Unit Type	Units	Zoning Code Requirement	Total	ITE Parking Demand	Total
Senior Apartments	202	One Space per Unit	202.0	0.59 spaces per unit	119.2
Senior Villas	73	Two Spaces per Unit	146.0	0.59 spaces per unit	43.1
Skilled Care	105	One Space per Two Beds	52.5	0.35 spaces per bed	36.8
Assisted Living	70	One Space per Two Beds	35.0	0.41 spaces per unit	28.7
Assisted Living: Memory Care	20	One Space per Two Beds	10.0	0.41 spaces per bed	8.2
Resident Fellowship hall	486 ⁽¹⁾ seats	One Space for each 5 Seats	97.2	0.20 spaces per seat ⁽²⁾	97.2
	470		542.7 (445.5)⁽³⁾		333.2 (236.0)⁽³⁾

(1) Approximately 3,400 sq. ft. at 7 sq. ft. per person = 486 seats

(2) Peak demand on a Sunday

(3) Requirement without Resident Fellowship hall

The zoning requirement calculations assume that the resident fellowship hall is used by off-campus visitors. However, this space will primarily serve and support only our on-site residents for various activities and programs which will not generate any significant traffic or parking need from off-campus visitors. The hall will, on occasion, be used for memorial services. The

Moorings's religious services team reports that most attendees of memorial services are from within the campus. In addition to on-site residents, memorial services typically draw 10-25 outside guests with a maximum of 20 vehicles. On very rare occasions (once every year or two) they see a few more visitors. The Moorings has an internal parking management team that oversees and manages parking during these types of events and does not believe that there is or will be a lack of available parking for these type of events. In conclusion our calculation of the number of seats shown for the resident fellowship hall (486 seats) is based on the building code capacity (1 seat per seven square feet) and does not reflect the proposed usage of the space.

Parking Inventory

The existing parking spaces on the campus are summarized below in **Table 10** along with the zoning requirements. The existing campus currently exceeds the zoning code parking requirements. Please note that the parking areas for the apartments are shared with the skilled care and assisted-living units.

Table 10
Moorings Existing Parking Inventory

Unit Type	Units	Location	Regular	Accessible	Total	Code Requirement	Diff.
Senior Apartments	212	Underground Garage Spaces	79		79		
		By Guard House	4		4		
		Surface Spaces South of Building	41	3	44		
		Surface Spaces by Entrance	70	3	73		
		subtotal	194	6	200	212	-12
Senior Villas	81	54 - One Car Garages	54		54		
		27 - Two Car Garages	54		54		
		Driveway Spaces	108		108		
		Off-Street Parking	12		12		
		subtotal	228		228	162	+66
Skilled Care Asstd. Living Memory Care	150	East of Building	18	1	19		
		Along Old Barn Road	31	2	33		
		West of Building	36	2	38		
		subtotal	85	5	90	75	+15
Totals	443		507	11	518	449	+69

The proposed parking supply is shown in **Table 11** along with the zoning requirements. Thirty eight existing surface parking spaces near the sheltered care building and the parking associated with 10 residential villas will be demolished for a total of 58 spaces. Those spaces will be replaced by 25 spaces under the south end of the new building, a new 40 space surface lot west of the building, and 13 additional spaces along the south side of Old Barn Road for a total of 78 new spaces. There will be a net gain of 20 spaces on-site. Without the resident fellowship hall parking requirement, the development will exceed the zoning requirement (538 vs 446).

Table 11
Proposed Parking Inventory

Unit Type	Units	Location	Regular	Accessible	Total	Code Requirement	Diff.
Senior Apartments	202	Underground Garage Spaces	79		79		
		By Guard House	4		4		
		Surface Spaces South of Building	41	3	44		
		Surface Spaces by Entrance	70	3	73		
		subtotal	194	6	200	202	-2
Senior Villas	73	48 - One Car Garages	48		48		
		25 - Two Car Garages	50		50		
		Driveway Spaces	98		98		
		Off-Street Parking	12		12		
		subtotal	208		208	146	+62
Skilled and Sheltered Care	195	East of Building	18	1	19		
		West of the Building	38	2	40		
		Along Old Barn Road	44	2	46		
		Under the Building	25		25		
		subtotal	125	5	130	98	+32
Totals	470		527	11	538	446	+92

Residential Auto Ownership

The Moorings of Arlington Heights provided resident vehicle ownership data for the apartments and villas on existing campus and is summarized in **Table 12**. As previously noted, residents in the skilled care and assisted living/memory care are not able to drive. Forty three percent of the residential units do not have a vehicle.

Table 12
Moorings Resident's Auto Ownership

Unit Type	Occupied Units ⁽¹⁾	Number of Units with			Total Vehicles	Average Vehicles per Unit
		0 veh.	1 veh.	2 veh.		
Senior Apartments	190	97	90	3	93	.49
Senior Villas	73	13	52	8	68	.85
Totals	263	110	142	11	161	.61

(1) March 2015 Data

Parking Demand Survey

Parking counts were conducted at the campus on Thursday November 13, 2014 and are summarized below in **Table 13**. The surveyed numbers were then adjusted to represent full occupancy.

Table 13
Existing Parking Survey

Unit Type	Spaces Available	Surveyed		Adjusted for Full Occupancy	
		Vehicles	%	Vehicles	%
Senior Apartments	200	161	71%	176	88%
Senior Villas	228	68	30%	74	33%
Skilled and Sheltered Care	90	66	73%	90	100%
Total	518	295	57%	340	67%

Table 14 shows the total parking demand based on the surveys which can be accommodated on the site. Please note that the employee parking can be shifted from the west of the new building to west of the existing building to balance out the total demand.

Table 14
Total Parking Demand
Based on Parking Surveys

Unit Type	Spaces Available	Demand	
		Vehicles	%
Senior Apartments	200	168	88%
Senior Villas	208	67	33%
Skilled and Sheltered Care	130	117	90%
Total	538	352	65%

5 - TRAFFIC SIGNAL WARRANT ANALYSIS

A traffic signal warrant study was conducted to determine if the intersection of The Mooring's entrance or Dryden Place with Central Road met the minimum requirements for a traffic signal. The investigation of the need for a traffic control signal shall include an analysis of factors related to the existing operation and safety at the study location and the potential to improve these conditions, and the applicable factors contained in the following traffic signal warrants:

- Warrant 1** - Eight-Hour Vehicular Volume
- Warrant 2** - Four-Hour Vehicular Volume
- Warrant 3** - Peak Hour Vehicular Volume
- Warrant 4** - Pedestrian Volume
- Warrant 5** - School Crossing
- Warrant 6** - Coordinated Signal System
- Warrant 7** - Crash Experience
- Warrant 8** - Roadway Network
- Warrant 9** - Intersection Near a Grade Crossing

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Warrant 1 – Eight-Hour Vehicular Volume (Condition A – Eight Hour Vehicular Volume)

This warrant is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a new traffic signal. Warrant 1A is satisfied if the following conditions are met for any eight hours of an average day, for a major street with a speed limit of 40 mph and two lanes at each major street approach and minor street approach with one or two lanes:

- 600 vehicles per hour on major street (total of both approaches)
- 150 vehicles per hour on minor street (Dryden Place – 1 lane)
- 200 vehicles per hour on minor street (The Moorings – 2 lanes)

For the major street approach, Central Road, there were at least eight hours that satisfy the conditions of Warrant 1A. However, there are no time periods in which the conditions of Warrant 1A are satisfied for either minor street approach. The highest hourly minor street volume found during the analysis period was vehicles between 84 vph on Dryden Place and 60 vph at the Moorings entrance, which is significantly below the volume threshold (150-200 vph) required for Warrant 1A. As a result, **Warrant 1A is NOT SATISFIED.**

Warrant 1 – Eight-Hour Vehicular Volume (Condition B – Interruption of Continuous Traffic)

This warrant is intended for application at locations where Condition A is not satisfied and where the traffic volume on the major street is so heavy that traffic on a minor intersection street suffers excessive delay or conflict in entering or crossing the major street. Warrant 1B is satisfied if the following conditions are met for any eight hours of an average day, for a major street with a speed limit of 40 mph and two lanes at each approach and minor street approach with one or two lanes:

- 900 vehicles per hour on major street (total of both approaches)
- 75 vehicles per hour on minor street (Dryden Place – 1 lane)
- 150 vehicles per hour on minor street (The Moorings – 2 lanes)

For the major street approach, there are eight hours that would satisfy the conditions of Warrant 1B. However, there is only one hour in which the conditions of Warrant 1B are satisfied for the minor street approach. The highest hourly volume found during the analysis period was 84 vehicles on Dryden Place which exceeds the 75 vph threshold for only one of the eight hours of the day. As a result, **Warrant 1B is NOT SATISFIED.**

Warrant 2 – Four-Hour Vehicular Volume

This warrant is intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal. Warrant 2 is satisfied if an engineering study finds that, for each of any four hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor street approach (one direction only) all fall above the applicable curve in Figure 4C-1 of the MUTCD, which is found in the Appendix. On the minor street, the higher volume is not required to be on the same approach during each of these four hours. The minor street approach volumes must exceed 80 vph, which is the lower threshold volume, which only occurs for one hour and not the four hours required. As a result, **Warrant 2 is NOT SATISFIED.**

Warrant 3 – Peak Hour

This warrant is intended for use at a location where traffic conditions are such that for a minimum of one hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street. This warrant is only to be applied in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. This warrant is satisfied if the following two categories are met:

- A. If all three of the following conditions exist for the same one hour (any four consecutive 15-minute periods) of an average day:
 - a. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds 5 vehicle-hours for a two-lane approach; and
 - b. The volume on the same minor street approach (one direction only) equals and exceeds 150 vehicles per hour for two moving lanes; and
 - c. The total entering volume serviced during the hour exceeds 650 vehicles per hour for intersections with three approaches.
- B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve on Figure 4C-3.

The minor street approach volume never exceeds 100 vehicles per hour minimum volume, thus this warrant is not satisfied. Thus, **Warrant 3 is NOT SATISFIED.**

Warrant 4 – Pedestrian Volume

This warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street. The need for a traffic control signal at an intersection shall be considered if an engineering study finds that one of the following criteria is met:

- A. For each of any four hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-6; or
- B. For one hour (any four consecutive 15-minute periods) of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) falls above the curve in Figure 4C-8.

The volume of pedestrians crossing at this intersection was zero during the traffic counts. Thus, **Warrant 4 is NOT SATISFIED.**

Warrant 5 – School Crossing

This warrant is intended for application where school children crossing the major street are the principal reason to consider installing a traffic control signal. For the purposes of this warrant, the word “schoolchildren” includes elementary through high school students.

Dryden Elementary School is located 1,300 feet to the north but no school children were observed crossing Central Road, thus **Warrant 5 is NOT SATISFIED.**

Warrant 6 – Coordinated Signal System

Progressive movement in a coordinated signal system sometimes necessitates installing traffic control signals at intersections where they would not otherwise be needed in order to maintain proper platooning of vehicles. The need for a traffic control signal in terms of this warrant should be considered if one of the following is met:

- A. On a one-way street or a street that has traffic predominately in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning.
- B. On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will provide a progressive operation.

Existing traffic signals are located 2,450 feet to the west at Arlington Heights Road and 1,300 feet to the east at Arthur Avenue. A traffic signal at this location would not improve traffic flow or platooning on Central Road. This warrant is not applicable, and thus **Warrant 6 is NOT SATISFIED.**

Warrant 7 – Crash Experience

The crash experience signal warrant conditions are intended for application where the severity and frequency of crashes are the principal reasons to consider installing a traffic control signal. The need for traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:

- A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and
- B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and
- C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 80 percent columns of Condition A in Table 4C-1 (see Section 4C.02), or the vph in both of the 80 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

There have only been five crashes in the last four years at the intersection. Thus, as there are not enough crashes to meet the minimum threshold for this warrant, **Warrant 7 is NOT SATISFIED**. Please note that only one crash involving a vehicle exiting the Moorings development occurred in those four years.

Warrant 8 – Roadway Network

This warrant is intended to determine if installing a traffic control signal will encourage concentration and organization of traffic flow on a roadway network. The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

- A. The intersection has a total existing, or immediately projected entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or
- B. The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday).

A major route as used in this signal warrant shall have at least one of the following characteristics:

- A. It is part of the street or highway system that serves as the principal roadway network for through traffic flow.
- B. It includes rural or suburban highways outside, entering, or traversing a city.
- C. It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study.

As was seen within the traffic volumes presented for the previous warrants, the traffic volumes both existing and what can reasonably be expected in the future are inadequate to meet the requirements of this warrant, thus **Warrant 8 is NOT SATISFIED.**

Warrant 9 – Intersection Near a Grade Crossing

This warrant is intended for use at a location where none of the conditions described in the other eight traffic signal warrants are met, but the proximity of the intersection to a grade crossing on an intersection approach controlled by a STOP or YIELD sign is the principal reason to consider installing a traffic signal control.

The nearest grade crossing is approximately 1.4 miles east of the intersection. As a result, this warrant is not applicable and thus **Warrant 9 is NOT SATISFIED.**

Conclusion

This traffic signal warrant study reveals that a signal at the intersection of Central Road at Dryden Place and The Moorings Entrance is not currently warranted. When additional development occurs at the campus, the need for a traffic signal will be revisited.

Copies of the crash data and HCS Warrant analysis are included in the **Appendix.**

6 - SUMMARY

This report summarizes the results of traffic and parking study for the expansion of the Moorings of Arlington Heights in Arlington Heights, Illinois. The findings of the study area:

- The volume of traffic generated by the development is minimal (8 to 12 vehicles per hour) due to the nature of the use.
- The net change in area traffic volumes is nominal.
- The Mooring's driveway does not require any additional roadway improvements for the additional traffic volumes. Crash data does not support the need for traffic improvements.
- A traffic signal is not currently warranted at the Mooring's driveway and Dryden Place and will not be warranted with the development. When additional development occurs at the campus, the need for a traffic signal will be revisited.
- There is adequate parking at the campus.
- The zoning requirement calculations assume that the resident fellowship hall is used by off-campus visitors. However, this space will primarily serve and support only our on-site residents for various activities and programs which will not generate any significant traffic or parking need from off-campus visitors.

Traffic and Parking Study Appendix

- **2014 Existing Traffic Counts**
- **2009-2012 Crash Data**
- **Capacity Analyses**
- **MUTCD Signal Warrants**



Intersection Traffic Counts

Central Road at Dryden Place and The Moorings Access

Arlington Heights, Illinois

Thursdays, November 13, 2014																							
Begin Time	Dryden Place Southbound				Central Road Westbound				Moorings Access Northbound				Central Road Eastbound				15 Minute Totals	60 Minute Totals	Peak Hour Factor	Mooring's Volumes		15 Minute Totals	60 Minute Totals
	Right Turn	Through	Left Turn	Turn	Right Turn	Through	Left Turn	Turn	Right Turn	Through	Left Turn	Turn	Right Turn	Through	Left Turn	Turn				IN	OUT		
7:00 AM	11	0	1		0	170	10		3	0	1		21	209	7	433	2000	0.88	31	4	35	91	
7:15 AM	12	0	5		2	208	9		4	0	6		8	248	8	510	2067	0.91	17	10	27	71	
7:30 AM	7	0	5		0	232	1		3	0	3		3	223	10	487	2052	0.90	4	6	10	58	
7:45 AM	8	0	6		4	238	5		3	0	2		9	285	10	570	2017	0.88	14	5	19	64	
8:00 AM	13	0	7		4	224	5		1	0	0		9	230	7	500	1961	0.95	14	1	15	65	
8:15 AM	7	0	5		7	225	6		1	0	2		5	232	5	495			11	3	14		
8:30 AM	9	0	0		11	213	2		1	0	2		11	194	9	452			13	3	16		
8:45 AM	34	0	9		12	218	10		3	0	2		5	199	22	514			15	5	20		
Total	101	0	38		40	1728	48		19	0	18		71	1820	78								
7:15-8:15 AM	40	0	23		10	902	20		11	0	11		29	986	35	2067			49	22	71		
7:00-8:00 AM	38	0	17		6	848	25		13	0	12		41	965	35	2000			66	25	91		
Thursdays, November 13, 2014																							
4:00 PM	7	0	3		5	264	3		8	0	12		5	205	11	523	2272	0.93	8	20	28	99	
4:15 PM	1	0	2		3	302	7		8	0	4		4	216	19	566	2409	0.91	11	12	23	92	
4:30 PM	5	0	2		3	276	5		6	0	8		6	247	12	570	2498	0.95	11	14	25	86	
4:45 PM	3	1	2		11	308	4		7	0	7		4	257	9	613	2571	0.97	9	14	23	76	
5:00 PM	5	0	3		4	345	3		5	0	7		6	266	16	660	2515	0.95	9	12	21	67	
5:15 PM	3	0	2		2	353	2		8	0	2		5	255	23	655			7	10	17		
5:30 PM	4	0	1		3	333	0		7	0	5		3	274	13	643			3	12	15		
5:45 PM	9	0	4		7	291	6		3	0	5		0	224	8	557			6	8	14		
Total	37	1	19		38	2472	30		52	0	50		33	1944	111								
4:45-5:45 PM	15	1	8		20	1339	9		27	0	21		18	1052	61	2571			28	48	76		
4:00-5:00 PM	16	1	9		22	1150	19		29	0	31		19	925	51	2272			39	60	99		

7:15-8:15 AM Central Road Street Morning Peak-Hour

7:00-8:00 AM Moorings Traffic Morning Peak-Hour

4:45-5:45 PM Central Road Street Evening Peak-Hour

4:00-5:00 PM Moorings Traffic Evening Peak-Hour

Illinois DOT

016 3751 Weekly Volume Report - Mon 06/21/2010 - Sun 06/27/2010

Location ID:	016 3751
Located On:	CENTRAL RD
From Road:	
Direction:	-
Community:	ARLINGTON HEIGHTS
AADT:	21200

Type:	LINK
To Road:	MP PW ENT
Period:	Mon 06/21/2010 - Sun 06/27/2010

Start Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Avg
12:00 AM				157				157
1:00 AM				88				88
2:00 AM				59				59
3:00 AM				37				37
4:00 AM				100				100
5:00 AM			358					358
6:00 AM			1183					1183
7:00 AM			1783					1783
8:00 AM			1709					1709
9:00 AM			1329					1329
10:00 AM			1134					1134
11:00 AM			1362					1362
12:00 PM			1507					1507
1:00 PM			1486					1486
2:00 PM			1556					1556
3:00 PM			1875					1875
4:00 PM			2124					2124
5:00 PM			2489					2489
6:00 PM			1596					1596
7:00 PM			1041					1041
8:00 PM			780					780
9:00 PM			650					650
10:00 PM			467					467
11:00 PM			291					291
Total	0	0	24720	441	0	0	0	
24HrTotal				25161				25161
AM Pk Hr								
AM Peak								0
PM Pk Hr								
PM Peak								0
% Peak Hr								
% Peak Hr				9.89%				9.89%



Coordinate Collision Diagram Report

1/1/2009 to 12/31/2012

For XCoordinate 2892791.562147 : YCoordinate 1974398.01617376 | Foot Tolerance : 30 | County : Cook | Intersection Related: Intersections | *See Notes at End of Report.

Date	Weather	Roadway	----- A	Injuries B	----- C	Killed	Type of Crash	Light Condition	Mile	XCoordinate YCoordinate	Vehicle Type	DIRP	Maneuver	Event 1	Loc 1	Event 2	Loc 2	Event 3	Loc 3	Unit
201101325661																				
8/26/2011 7:05 AM	Clear	Dry	0	0	0	0	Sideswipe Same Direction	Daylight	0.00	2892791.562147 1974398.01617376	Passenger	East	Straight Ahead	Motor Vehicle In Traffic	On Pavement (Roadway)	(UNK)	(UNK)	(UNK)	(UNK)	1
201001364660																				
10/12/2010 2:19 PM	Clear	Dry	0	0	0	0	Angle	Daylight	0.49	2892791.562147 1974398.01617376	Passenger	South	Straight Ahead	Motor Vehicle In Traffic	Intersection	(UNK)	(UNK)	(UNK)	(UNK)	1
201001363430																				
10/17/2010 5:42 PM	Clear	Dry	0	1	0	0	Turning	Daylight	0.49	2892791.0201856 1974397.90507906	Passenger	North	Turning Left	Motor Vehicle In Traffic	On Pavement (Roadway)	(UNK)	(UNK)	(UNK)	(UNK)	1
201001441743																				
12/3/2009 7:38 AM	Clear	Dry	0	0	0	0	Turning	Daylight	0.49	2892791.55671393 1974398.26486406	SUV	East	Straight Ahead	Motor Vehicle In Traffic	On Pavement (Roadway)	(UNK)	(UNK)	(UNK)	(UNK)	2
200901073311																				
1/30/2009 8:15 AM	Clear	Dry	0	0	0	0	Turning	Daylight	0.58	2892791.562147 1974398.01617376	Passenger	South	Turning Left	Motor Vehicle In Traffic	On Pavement (Roadway)	(UNK)	(UNK)	(UNK)	(UNK)	2
200901073311																				
1/30/2009 8:15 AM	Clear	Dry	0	0	0	0	Turning	Daylight	0.58	2892791.562147 1974398.01617376	Passenger	West	Slow/Stop In Traffic	Motor Vehicle In Traffic	Intersection	(UNK)	(UNK)	(UNK)	(UNK)	2
200901073311																				
1/30/2009 8:15 AM	Clear	Dry	0	0	0	0	Turning	Daylight	0.58	2892791.562147 1974398.01617376	Passenger	South	Turning Left	Motor Vehicle In Traffic	Intersection	(UNK)	(UNK)	(UNK)	(UNK)	1



Coordinate Collision Diagram Report

1/1/2009 to 12/31/2012

For XCoordinate 2892791.562147 : YCoordinate 1974398.01617376 | Foot Tolerance : 30 | County : Cook | Intersection Related: Intersections | *See Notes at End of Report.

Notes

Current year and previous year data are not yet complete and are subject to change as more information becomes available. Calendar date selections include data based on the date of the crash. Year selections include data based on the statistical year in which the crash was processed.

Lanes, Volumes, Timings

1: The Moorings/Dryden Place & Central Road

3/14/2015

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	965	51	32	848	10	15	0	16	17	0	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	265		0	150		0	75		75	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	175			125			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.998				0.850		0.906	
Flt Protected	0.950			0.950				0.950			0.985	
Satd. Flow (prot)	1770	3511	0	1770	3532	0	0	1770	1583	0	1662	0
Flt Permitted	0.950			0.950				0.950			0.985	
Satd. Flow (perm)	1770	3511	0	1770	3532	0	0	1770	1583	0	1662	0
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		663			590			372			430	
Travel Time (s)		11.3			10.1			10.1			11.7	
Peak Hour Factor	0.88	0.88	0.88	0.89	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	40	1097	58	36	964	11	17	0	18	19	0	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	1155	0	36	975	0	0	17	18	0	62	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			15			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			23			23	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 45.7% ICU Level of Service A

Analysis Period (min) 15

1: The Moorings/Dryden Place & Central Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	2.4	0.2	0.5	2.8	0.2	0.3	0.1	4.1	0.1	0.1	0.3
Total Del/Veh (s)	3.6	1.2	2.0	5.5	0.9	1.2	29.9	1.0	18.1	1.6	1.5

Queuing and Blocking Report
Existing Moorings AM Peak Hour (Full Occupancy)

3/14/2015

Intersection: 1: The Moorings/Dryden Place & Central Road

Movement	EB	WB	WB	NB	SB
Directions Served	L	L	TR	LT	LTR
Maximum Queue (ft)	28	47	44	53	53
Average Queue (ft)	16	12	1	13	17
95th Queue (ft)	36	34	14	40	48
Link Distance (ft)			570	319	377
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	265	150			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Lanes, Volumes, Timings

1: The Moorings/Dryden Place & Central Road

3/14/2015

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	965	54	34	848	10	16	0	17	17	0	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	265		0	150		0	75		75	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	175			125			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.998				0.850		0.906	
Flt Protected	0.950			0.950				0.950			0.985	
Satd. Flow (prot)	1770	3511	0	1770	3532	0	0	1770	1583	0	1662	0
Flt Permitted	0.950			0.950				0.950			0.985	
Satd. Flow (perm)	1770	3511	0	1770	3532	0	0	1770	1583	0	1662	0
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		663			590			372			430	
Travel Time (s)		11.3			10.1			10.1			11.7	
Peak Hour Factor	0.88	0.88	0.88	0.89	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	40	1097	61	38	964	11	18	0	19	19	0	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	1158	0	38	975	0	0	18	19	0	62	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			15			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			23			23	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 45.7% ICU Level of Service A

Analysis Period (min) 15

1: The Moorings/Dryden Place & Central Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	2.4	0.2	0.5	2.7	0.2	0.3	0.1	4.1	0.1	0.1	0.3
Total Del/Veh (s)	3.8	1.2	2.1	6.0	0.9	1.2	29.5	1.0	17.9	2.1	1.6

Queuing and Blocking Report
Total Moorings AM Peak Hour (with Phase 1)

3/14/2015

Intersection: 1: The Moorings/Dryden Place & Central Road

Movement	EB	WB	WB	NB	SB
Directions Served	L	L	TR	LT	LTR
Maximum Queue (ft)	28	47	44	53	54
Average Queue (ft)	17	11	1	15	18
95th Queue (ft)	36	33	14	42	49
Link Distance (ft)			570	319	377
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	265	150			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Lanes, Volumes, Timings

1: The Moorings/Dryden Place & Central Road

3/14/2015

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	986	36	25	902	10	14	0	14	23	0	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	265		0	150		0	75		75	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	175			125			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.998				0.850		0.914	
Flt Protected	0.950			0.950				0.950			0.982	
Satd. Flow (prot)	1770	3522	0	1770	3532	0	0	1770	1583	0	1672	0
Flt Permitted	0.950			0.950				0.950			0.982	
Satd. Flow (perm)	1770	3522	0	1770	3532	0	0	1770	1583	0	1672	0
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		663			590			372			430	
Travel Time (s)		11.3			10.1			10.1			11.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	38	1084	40	27	991	11	15	0	15	25	0	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	1124	0	27	1002	0	0	15	15	0	69	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			15			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			23			23	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 46.2% ICU Level of Service A

Analysis Period (min) 15

1: The Moorings/Dryden Place & Central Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	2.4	0.2	0.4	2.9	0.2	0.3	0.1	4.1	0.2	0.1	0.3
Total Del/Veh (s)	4.3	1.1	1.7	5.1	0.9	1.2	34.4	1.0	31.4	8.0	1.8

Queuing and Blocking Report
Central Existing AM Peak Hour (Full Occupancy)

3/14/2015

Intersection: 1: The Moorings/Dryden Place & Central Road

Movement	EB	WB	WB	NB	SB
Directions Served	L	L	TR	LT	LTR
Maximum Queue (ft)	49	28	44	53	72
Average Queue (ft)	17	6	1	15	26
95th Queue (ft)	38	24	14	41	61
Link Distance (ft)			570	319	377
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	265	150			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Lanes, Volumes, Timings

1: The Moorings/Dryden Place & Central Road

3/14/2015

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	986	38	27	902	10	15	0	15	23	0	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	265		0	150		0	75		75	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	175			125			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994			0.998				0.850		0.914	
Flt Protected	0.950			0.950				0.950			0.982	
Satd. Flow (prot)	1770	3518	0	1770	3532	0	0	1770	1583	0	1672	0
Flt Permitted	0.950			0.950				0.950			0.982	
Satd. Flow (perm)	1770	3518	0	1770	3532	0	0	1770	1583	0	1672	0
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		663			590			372			430	
Travel Time (s)		11.3			10.1			10.1			11.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	38	1084	42	30	991	11	16	0	16	25	0	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	1126	0	30	1002	0	0	16	16	0	69	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			15			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			23			23	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 46.2% ICU Level of Service A

Analysis Period (min) 15

SimTraffic Performance Report
Central Total AM Peak Hour (with Phase 1)

3/14/2015

1: The Moorings/Dryden Place & Central Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	2.4	0.2	0.4	3.0	0.2	0.3	0.1	4.1	0.2	0.1	0.3
Total Del/Veh (s)	4.3	1.1	1.7	5.2	0.9	1.2	34.4	1.0	31.5	8.0	1.8

Queuing and Blocking Report
Central Total AM Peak Hour (with Phase 1)

3/14/2015

Intersection: 1: The Moorings/Dryden Place & Central Road

Movement	EB	WB	WB	NB	SB
Directions Served	L	L	TR	LT	LTR
Maximum Queue (ft)	49	28	44	53	72
Average Queue (ft)	17	8	1	15	26
95th Queue (ft)	38	26	14	41	61
Link Distance (ft)			570	319	377
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	265	150			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Lanes, Volumes, Timings

1: The Moorings/Dryden Place & Central Road

3/14/2015

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	925	25	23	1150	22	38	0	37	9	1	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	265		0	150		0	75		75	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	175			125			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.997				0.850		0.918	
Flt Protected	0.950			0.950				0.950			0.982	
Satd. Flow (prot)	1770	3525	0	1770	3529	0	0	1770	1583	0	1679	0
Flt Permitted	0.950			0.950				0.950			0.982	
Satd. Flow (perm)	1770	3525	0	1770	3529	0	0	1770	1583	0	1679	0
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		663			590			372			430	
Travel Time (s)		11.3			10.1			10.1			11.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	66	995	27	25	1237	24	41	0	40	10	1	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	1022	0	25	1261	0	0	41	40	0	28	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			15			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			23			23	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 54.1% ICU Level of Service A

Analysis Period (min) 15

1: The Moorings/Dryden Place & Central Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	2.6	0.2	0.2	2.5	0.2	0.3	0.2	4.2	0.2	0.1	0.1	0.3
Total Del/Veh (s)	8.0	1.0	1.8	5.6	1.2	1.2	67.6	1.8	32.1	18.0	5.4	2.3

Queuing and Blocking Report
Moorings Existing Peak Hour (Full Occupancy)

3/14/2015

Intersection: 1: The Moorings/Dryden Place & Central Road

Movement	EB	WB	WB	NB	NB	SB
Directions Served	L	L	TR	LT	R	LTR
Maximum Queue (ft)	54	26	47	75	95	54
Average Queue (ft)	27	5	2	31	6	14
95th Queue (ft)	47	21	16	69	42	41
Link Distance (ft)			570	319		377
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	265	150			75	
Storage Blk Time (%)				1	0	
Queuing Penalty (veh)				0	0	

Lanes, Volumes, Timings

1: The Moorings/Dryden Place & Central Road

3/14/2015

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	925	27	24	1150	22	40	0	40	9	1	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	265		0	150		0	75		75	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	175			125			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.997				0.850		0.918	
Flt Protected	0.950			0.950				0.950			0.982	
Satd. Flow (prot)	1770	3525	0	1770	3529	0	0	1770	1583	0	1679	0
Flt Permitted	0.950			0.950				0.950			0.982	
Satd. Flow (perm)	1770	3525	0	1770	3529	0	0	1770	1583	0	1679	0
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		663			590			372			430	
Travel Time (s)		11.3			10.1			10.1			11.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	66	995	29	26	1237	24	43	0	43	10	1	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	1024	0	26	1261	0	0	43	43	0	28	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			15			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			23			23	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 54.1% ICU Level of Service A

Analysis Period (min) 15

SimTraffic Performance Report
Moorings Total PM Peak Hour (with Phase 1)

3/14/2015

1: The Moorings/Dryden Place & Central Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	2.5	0.2	0.2	2.0	0.2	0.2	0.2	4.2	0.2	0.1	0.1	0.3
Total Del/Veh (s)	8.2	1.0	2.1	6.0	1.2	1.2	63.1	1.8	33.9	18.0	5.1	2.3

Queuing and Blocking Report
Moorings Total PM Peak Hour (with Phase 1)

3/14/2015

Intersection: 1: The Moorings/Dryden Place & Central Road

Movement	EB	WB	WB	NB	NB	SB
Directions Served	L	L	TR	LT	R	LTR
Maximum Queue (ft)	54	27	47	73	79	54
Average Queue (ft)	26	5	2	33	3	14
95th Queue (ft)	47	21	16	68	26	42
Link Distance (ft)			570	319		377
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	265	150			75	
Storage Blk Time (%)				4	0	
Queuing Penalty (veh)				2	0	

Lanes, Volumes, Timings

1: The Moorings/Dryden Place & Central Road

3/14/2015

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	1052	22	12	1339	20	27	0	33	8	1	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	265		0	150		0	75		75	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	175			125			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.998				0.850		0.916	
Flt Protected	0.950			0.950				0.950			0.984	
Satd. Flow (prot)	1770	3529	0	1770	3532	0	0	1770	1583	0	1679	0
Flt Permitted	0.950			0.950				0.950			0.984	
Satd. Flow (perm)	1770	3529	0	1770	3532	0	0	1770	1583	0	1679	0
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		663			590			372			430	
Travel Time (s)		11.3			10.1			10.1			11.7	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	53	1085	23	12	1380	21	28	0	34	8	1	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	1108	0	12	1401	0	0	28	34	0	24	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			15			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			23			23	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 57.1%

ICU Level of Service B

Analysis Period (min) 15

1: The Moorings/Dryden Place & Central Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	2.3	0.2	0.3	2.6	0.3	0.3	0.4	4.0	0.1	0.1	0.1	0.3
Total Del/Veh (s)	8.9	1.0	1.9	5.6	1.3	1.3	85.7	1.8	28.8	17.3	0.5	2.3

Queuing and Blocking Report
Central Existing PM Peak Hour (Full Occupancy)

3/14/2015

Intersection: 1: The Moorings/Dryden Place & Central Road

Movement	EB	WB	NB	SB
Directions Served	L	L	LT	LTR
Maximum Queue (ft)	93	27	83	31
Average Queue (ft)	21	5	32	8
95th Queue (ft)	53	20	74	31
Link Distance (ft)			319	377
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	265	150		
Storage Blk Time (%)			4	
Queuing Penalty (veh)			1	

Lanes, Volumes, Timings

1: The Moorings/Dryden Place & Central Road

3/14/2015

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	1052	23	13	1339	20	29	0	35	8	1	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	265		0	150		0	75		75	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	175			125			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.998				0.850		0.916	
Flt Protected	0.950			0.950				0.950			0.984	
Satd. Flow (prot)	1770	3529	0	1770	3532	0	0	1770	1583	0	1679	0
Flt Permitted	0.950			0.950				0.950			0.984	
Satd. Flow (perm)	1770	3529	0	1770	3532	0	0	1770	1583	0	1679	0
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		663			590			372			430	
Travel Time (s)		11.3			10.1			10.1			11.7	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	53	1085	24	13	1380	21	30	0	36	8	1	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	1109	0	13	1401	0	0	30	36	0	24	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			15			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			23			23	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 57.1%

ICU Level of Service B

Analysis Period (min) 15

SimTraffic Performance Report
Central Total PM Peak Hour (with Phase 1)

3/14/2015

1: The Moorings/Dryden Place & Central Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	2.3	0.2	0.2	2.6	0.3	0.3	0.4	4.0	0.1	0.1	0.1	0.3
Total Del/Veh (s)	8.8	1.1	1.9	5.9	1.3	1.3	125.2	5.0	70.5	17.3	10.2	3.0

Queuing and Blocking Report
Central Total PM Peak Hour (with Phase 1)

3/14/2015

Intersection: 1: The Moorings/Dryden Place & Central Road

Movement	EB	WB	NB	NB	SB
Directions Served	L	L	LT	R	LTR
Maximum Queue (ft)	93	27	118	100	74
Average Queue (ft)	21	5	39	13	13
95th Queue (ft)	53	20	96	67	45
Link Distance (ft)			319		377
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	265	150		75	
Storage Blk Time (%)			16	0	
Queuing Penalty (veh)			5	0	

CHAPTER 4C. TRAFFIC CONTROL SIGNAL NEEDS STUDIES

Section 4C.01 Studies and Factors for Justifying Traffic Control Signals

Standard:

- 01 An engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location.
- 02 The investigation of the need for a traffic control signal shall include an analysis of factors related to the existing operation and safety at the study location and the potential to improve these conditions, and the applicable factors contained in the following traffic signal warrants:
- Warrant 1, Eight-Hour Vehicular Volume
 - Warrant 2, Four-Hour Vehicular Volume
 - Warrant 3, Peak Hour
 - Warrant 4, Pedestrian Volume
 - Warrant 5, School Crossing
 - Warrant 6, Coordinated Signal System
 - Warrant 7, Crash Experience
 - Warrant 8, Roadway Network
 - Warrant 9, Intersection Near a Grade Crossing

- 03 The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Support:

- 04 Sections 8C.09 and 8C.10 contain information regarding the use of traffic control signals instead of gates and/or flashing-light signals at highway-rail grade crossings and highway-light rail transit grade crossings, respectively.
- Guidance:*
- 05 A traffic control signal should not be installed unless one or more of the factors described in this Chapter are met.
- 06 A traffic control signal should not be installed unless an engineering study indicates that installing a traffic control signal will improve the overall safety and/or operation of the intersection.
- 07 A traffic control signal should not be installed if it will seriously disrupt progressive traffic flow.
- 08 The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count when evaluating the count against the signal warrants listed in Paragraph 2.
- 09 Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. The site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left-turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles.
- 10 Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.
- 11 At a location that is under development or construction and where it is not possible to obtain a traffic count that would represent future traffic conditions, hourly volumes should be estimated as part of an engineering study for comparison with traffic signal warrants. Except for locations where the engineering study uses the satisfaction of Warrant 8 to justify a signal, a traffic control signal installed under projected conditions should have an engineering study done within 1 year of putting the signal into stop-and-go operation to determine if the signal is justified. If not justified, the signal should be taken out of stop-and-go operation or removed.
- 12 For signal warrant analysis, a location with a wide median, even if the median width is greater than 30 feet, should be considered as one intersection.

Option:

- 13 At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher of the major-street left-turn volumes as the “minor-street” volume and the corresponding single direction of opposing traffic on the major street as the “major-street” volume.
- 14 For signal warrants requiring conditions to be present for a certain number of hours in order to be satisfied, any four sequential 15-minute periods may be considered as 1 hour if the separate 1-hour periods used in the warrant analysis do not overlap each other and both the major-street volume and the minor-street volume are for the same specific one-hour periods.
- 15 For signal warrant analysis, bicyclists may be counted as either vehicles or pedestrians.

Support:

- 16 When performing a signal warrant analysis, bicyclists riding in the street with other vehicular traffic are usually counted as vehicles and bicyclists who are clearly using pedestrian facilities are usually counted as pedestrians.

Option:

- 17 Engineering study data may include the following:
 - A. The number of vehicles entering the intersection in each hour from each approach during 12 hours of an average day. It is desirable that the hours selected contain the greatest percentage of the 24-hour traffic volume.
 - B. Vehicular volumes for each traffic movement from each approach, classified by vehicle type (heavy trucks, passenger cars and light trucks, public-transit vehicles, and, in some locations, bicycles), during each 15-minute period of the 2 hours in the morning and 2 hours in the afternoon during which total traffic entering the intersection is greatest.
 - C. Pedestrian volume counts on each crosswalk during the same periods as the vehicular counts in Item B and during hours of highest pedestrian volume. Where young, elderly, and/or persons with physical or visual disabilities need special consideration, the pedestrians and their crossing times may be classified by general observation.
 - D. Information about nearby facilities and activity centers that serve the young, elderly, and/or persons with disabilities, including requests from persons with disabilities for accessible crossing improvements at the location under study. These persons might not be adequately reflected in the pedestrian volume count if the absence of a signal restrains their mobility.
 - E. The posted or statutory speed limit or the 85th-percentile speed on the uncontrolled approaches to the location.
 - F. A condition diagram showing details of the physical layout, including such features as intersection geometrics, channelization, grades, sight-distance restrictions, transit stops and routes, parking conditions, pavement markings, roadway lighting, driveways, nearby railroad crossings, distance to nearest traffic control signals, utility poles and fixtures, and adjacent land use.
 - G. A collision diagram showing crash experience by type, location, direction of movement, severity, weather, time of day, date, and day of week for at least 1 year.
- 18 The following data, which are desirable for a more precise understanding of the operation of the intersection, may be obtained during the periods described in Item B of Paragraph 17:
 - A. Vehicle-hours of stopped time delay determined separately for each approach.
 - B. The number and distribution of acceptable gaps in vehicular traffic on the major street for entrance from the minor street.
 - C. The posted or statutory speed limit or the 85th-percentile speed on controlled approaches at a point near to the intersection but unaffected by the control.
 - D. Pedestrian delay time for at least two 30-minute peak pedestrian delay periods of an average weekday or like periods of a Saturday or Sunday.
 - E. Queue length on stop-controlled approaches.

Section 4C.02 Warrant 1, Eight-Hour Vehicular Volume

Support:

- 01 The Minimum Vehicular Volume, Condition A, is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal.
- 02 The Interruption of Continuous Traffic, Condition B, is intended for application at locations where Condition A is not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.
- 03 It is intended that Warrant 1 be treated as a single warrant. If Condition A is satisfied, then Warrant 1 is satisfied and analyses of Condition B and the combination of Conditions A and B are not needed. Similarly, if Condition B is satisfied, then Warrant 1 is satisfied and an analysis of the combination of Conditions A and B is not needed.

Standard:

04 The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:

- A. The vehicles per hour given in both of the 100 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or
- B. The vehicles per hour given in both of the 100 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.

Option:

05 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 70 percent columns in Table 4C-1 may be used in place of the 100 percent columns.

Guidance:

06 The combination of Conditions A and B is intended for application at locations where Condition A is not satisfied and Condition B is not satisfied and should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

Standard:

07 The need for a traffic control signal shall be considered if an engineering study finds that both of the following conditions exist for each of any 8 hours of an average day:

- A. The vehicles per hour given in both of the 80 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; and
- B. The vehicles per hour given in both of the 80 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

These major-street and minor-street volumes shall be for the same 8 hours for each condition; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A—Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

^a Basic minimum hourly volume

^b Used for combination of Conditions A and B after adequate trial of other remedial measures

^c May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

^d May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Option:

- 08 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 56 percent columns in Table 4C-1 may be used in place of the 80 percent columns.

Section 4C.03 Warrant 2, Four-Hour Vehicular Volume

Support:

- 01 The Four-Hour Vehicular Volume signal warrant conditions are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

Standard:

- 02 **The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in Figure 4C-1 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.**

Option:

- 03 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-2 may be used in place of Figure 4C-1.

Section 4C.04 Warrant 3, Peak Hour

Support:

- 01 The Peak Hour signal warrant is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street.

Standard:

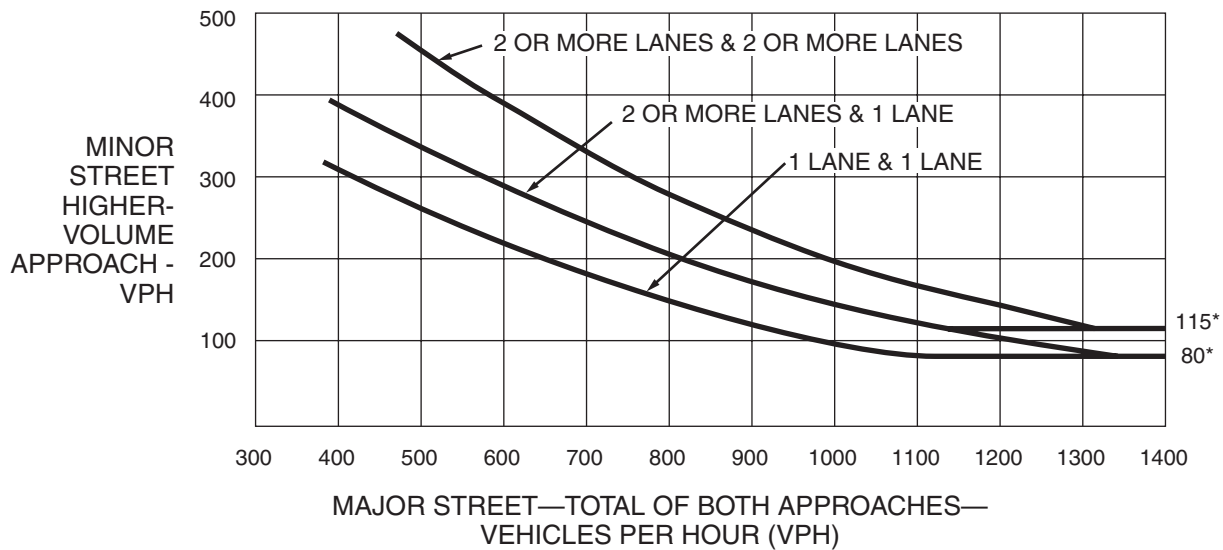
- 02 **This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.**
- 03 **The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:**
- A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:**
 - 1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and**
 - 2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and**
 - 3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.**
 - B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.**

Option:

- 04 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-4 may be used in place of Figure 4C-3 to evaluate the criteria in the second category of the Standard.
- 05 If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.

Guidance:

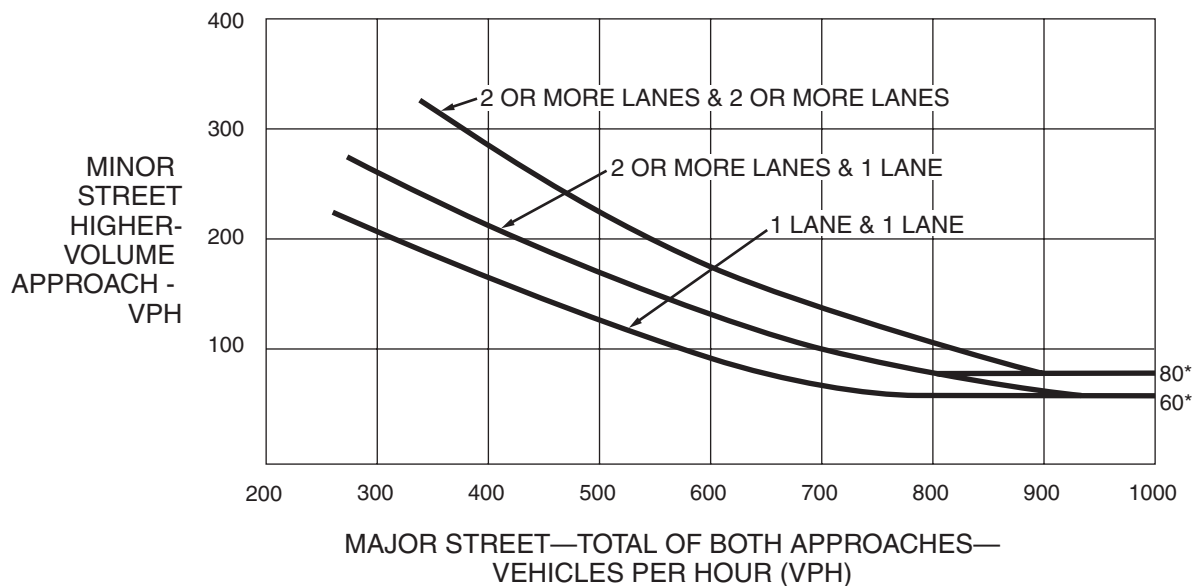
- 06 *If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal should be traffic-actuated.*

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume

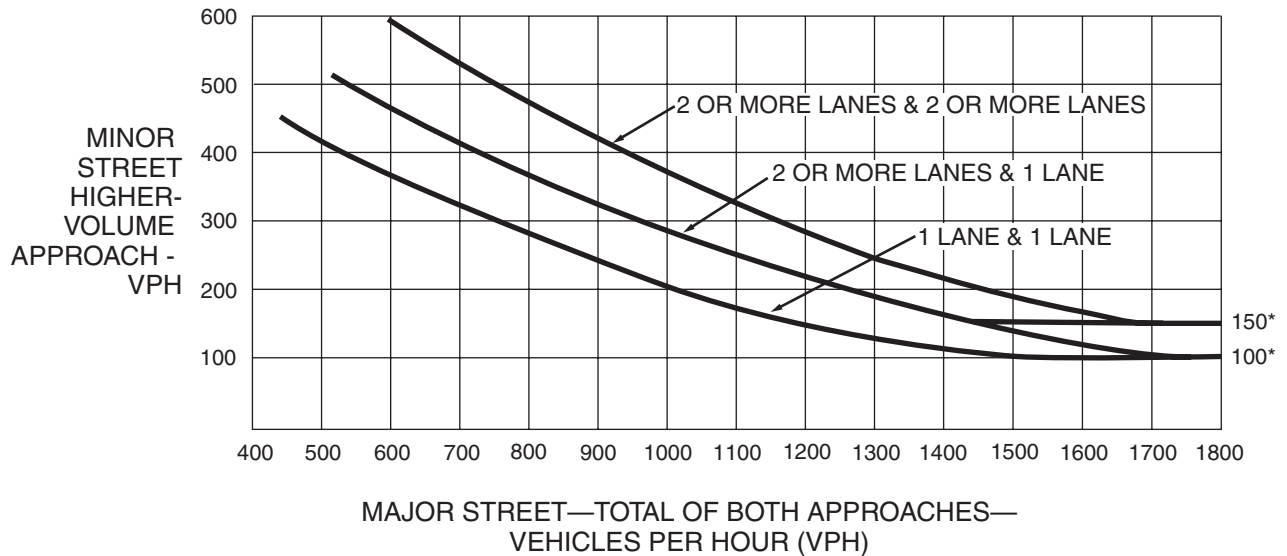
*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)

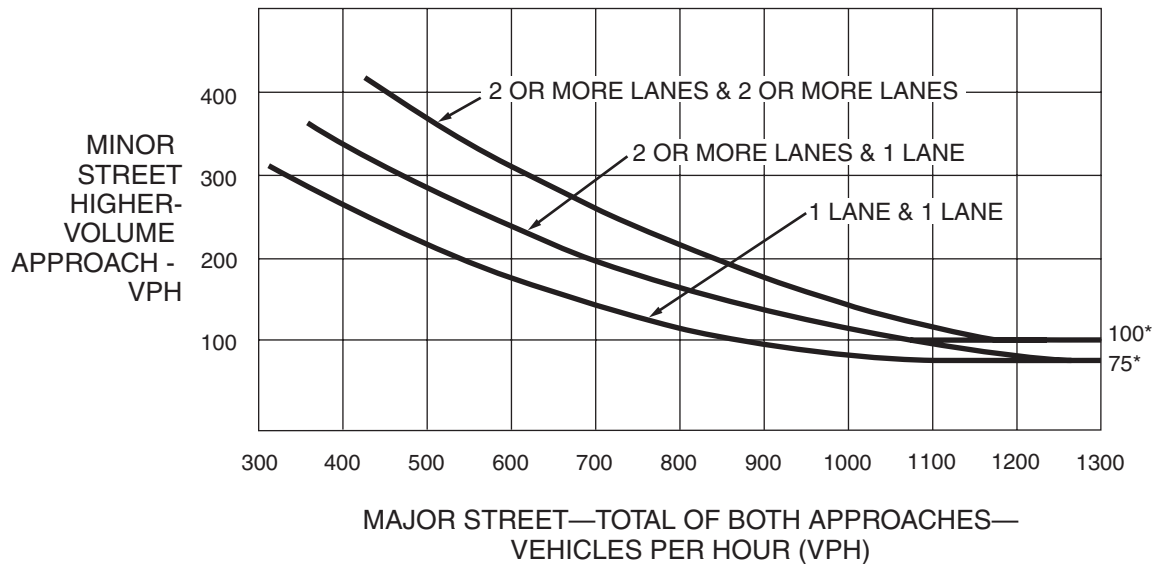


*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-3. Warrant 3, Peak Hour

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Section 4C.05 Warrant 4, Pedestrian Volume

Support:

- 01 The Pedestrian Volume signal warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street.

Standard:

- 02 **The need for a traffic control signal at an intersection or midblock crossing shall be considered if an engineering study finds that one of the following criteria is met:**
- A. For each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-5; or
 - B. For 1 hour (any four consecutive 15-minute periods) of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) falls above the curve in Figure 4C-7.

Option:

- 03 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 35 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-6 may be used in place of Figure 4C-5 to evaluate Criterion A in Paragraph 2, and Figure 4C-8 may be used in place of Figure 4C-7 to evaluate Criterion B in Paragraph 2.

Standard:

- 04 **The Pedestrian Volume signal warrant shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.**
- 05 **If this warrant is met and a traffic control signal is justified by an engineering study, the traffic control signal shall be equipped with pedestrian signal heads complying with the provisions set forth in Chapter 4E.**

Guidance:

- 06 *If this warrant is met and a traffic control signal is justified by an engineering study, then:*
- A. *If it is installed at an intersection or major driveway location, the traffic control signal should also control the minor-street or driveway traffic, should be traffic-actuated, and should include pedestrian detection.*
 - B. *If it is installed at a non-intersection crossing, the traffic control signal should be installed at least 100 feet from side streets or driveways that are controlled by STOP or YIELD signs, and should be pedestrian-actuated. If the traffic control signal is installed at a non-intersection crossing, at least one of the signal faces should be over the traveled way for each approach, parking and other sight obstructions should be prohibited for at least 100 feet in advance of and at least 20 feet beyond the crosswalk or site accommodations should be made through curb extensions or other techniques to provide adequate sight distance, and the installation should include suitable standard signs and pavement markings.*
 - C. *Furthermore, if it is installed within a signal system, the traffic control signal should be coordinated.*

Option:

- 07 The criterion for the pedestrian volume crossing the major street may be reduced as much as 50 percent if the 15th-percentile crossing speed of pedestrians is less than 3.5 feet per second.
- 08 A traffic control signal may not be needed at the study location if adjacent coordinated traffic control signals consistently provide gaps of adequate length for pedestrians to cross the street.

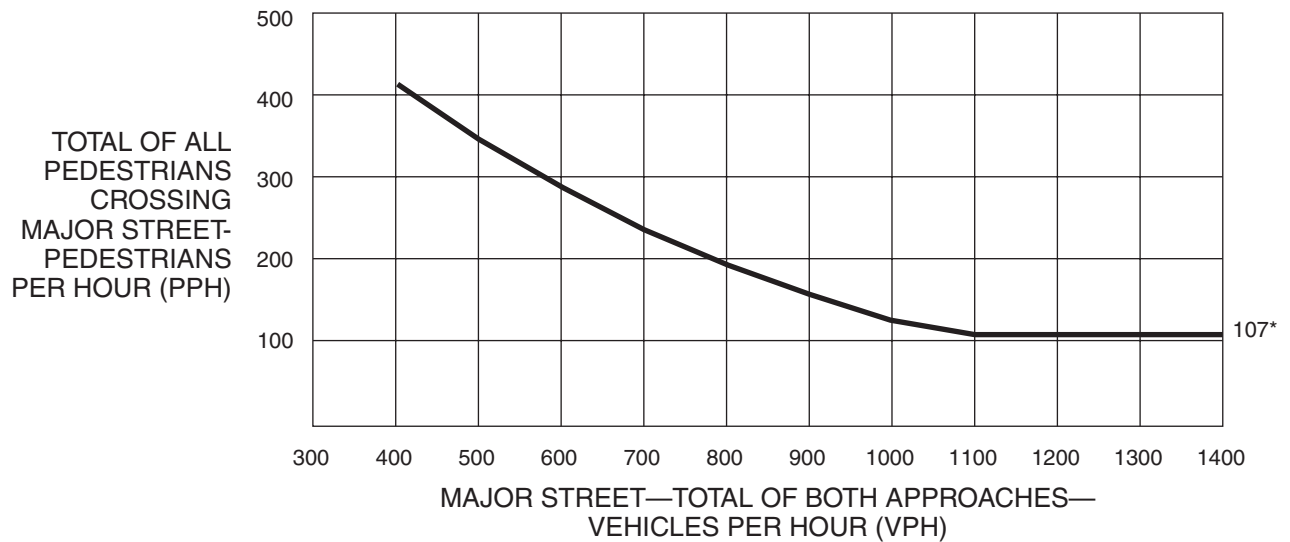
Section 4C.06 Warrant 5, School Crossing

Support:

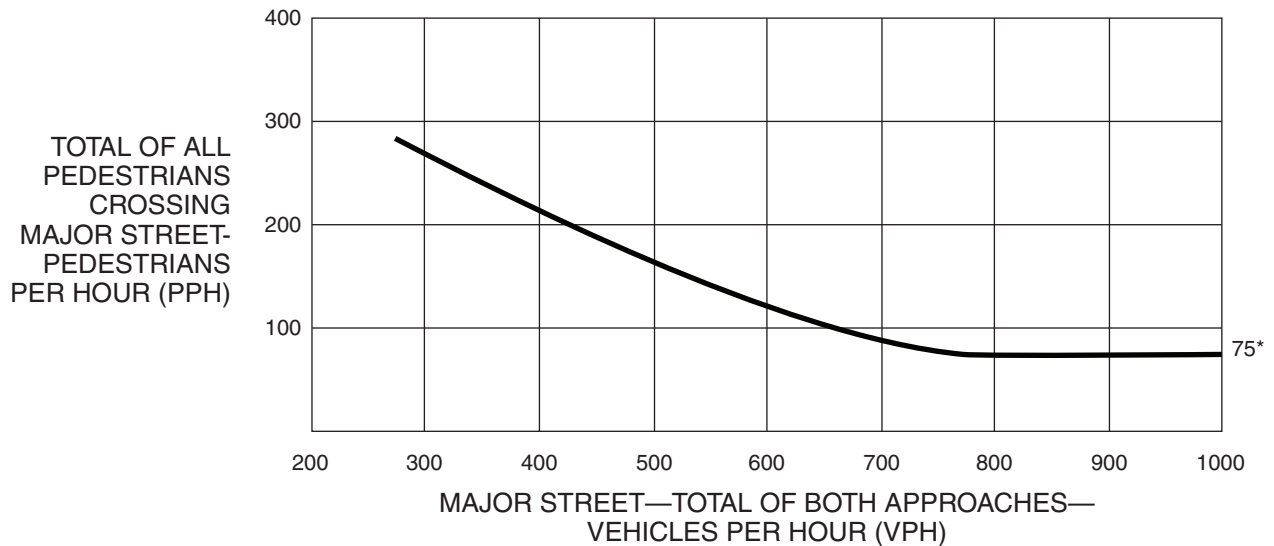
- 01 The School Crossing signal warrant is intended for application where the fact that schoolchildren cross the major street is the principal reason to consider installing a traffic control signal. For the purposes of this warrant, the word "schoolchildren" includes elementary through high school students.

Standard:

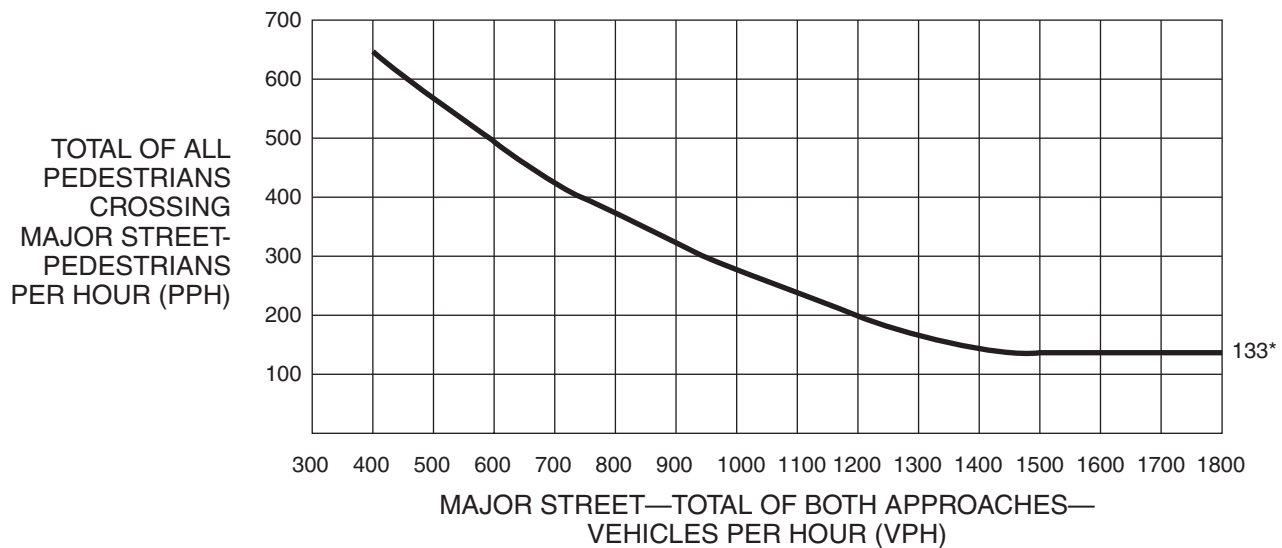
- 02 **The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of schoolchildren at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period (see Section 7A.03) and there are a minimum of 20 schoolchildren during the highest crossing hour.**

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume

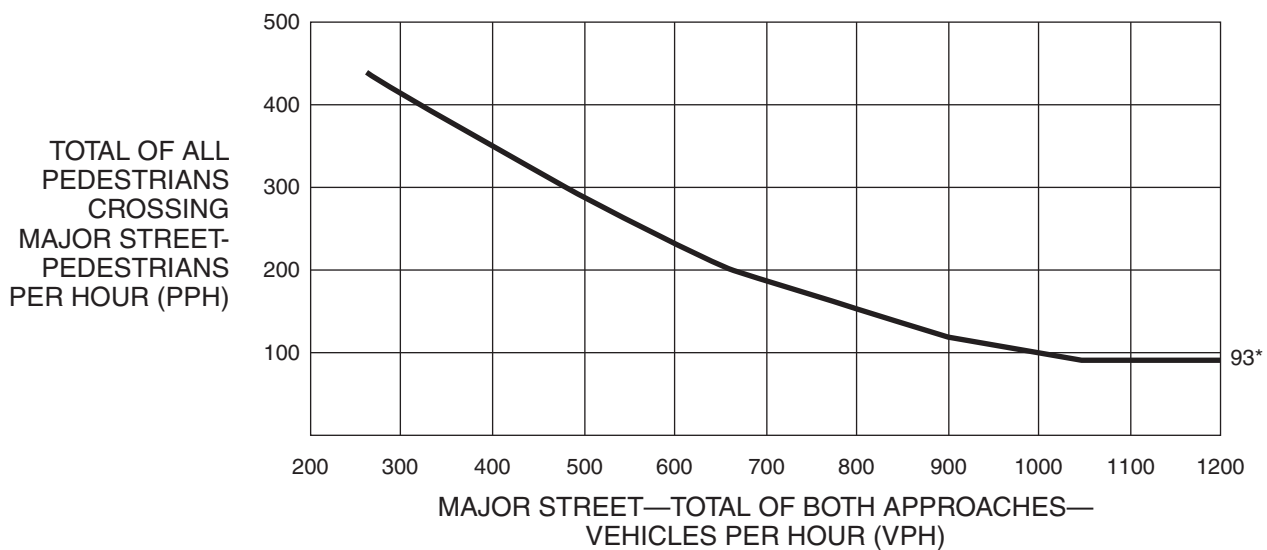
*Note: 107 pph applies as the lower threshold volume.

Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)

*Note: 75 pph applies as the lower threshold volume.

Figure 4C-7. Warrant 4, Pedestrian Peak Hour

*Note: 133 pph applies as the lower threshold volume.

Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)

*Note: 93 pph applies as the lower threshold volume.

- 03 **Before a decision is made to install a traffic control signal, consideration shall be given to the implementation of other remedial measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.**
- 04 **The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.**

Guidance:

- 05 *If this warrant is met and a traffic control signal is justified by an engineering study, then:*
- A. *If it is installed at an intersection or major driveway location, the traffic control signal should also control the minor-street or driveway traffic, should be traffic-actuated, and should include pedestrian detection.*
 - B. *If it is installed at a non-intersection crossing, the traffic control signal should be installed at least 100 feet from side streets or driveways that are controlled by STOP or YIELD signs, and should be pedestrian-actuated. If the traffic control signal is installed at a non-intersection crossing, at least one of the signal faces should be over the traveled way for each approach, parking and other sight obstructions should be prohibited for at least 100 feet in advance of and at least 20 feet beyond the crosswalk or site accommodations should be made through curb extensions or other techniques to provide adequate sight distance, and the installation should include suitable standard signs and pavement markings.*
 - C. *Furthermore, if it is installed within a signal system, the traffic control signal should be coordinated.*

Section 4C.07 Warrant 6, Coordinated Signal System

Support:

- 01 Progressive movement in a coordinated signal system sometimes necessitates installing traffic control signals at intersections where they would not otherwise be needed in order to maintain proper platooning of vehicles.

Standard:

- 02 **The need for a traffic control signal shall be considered if an engineering study finds that one of the following criteria is met:**
- A. **On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning.**
 - B. **On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.**

Guidance:

- 03 *The Coordinated Signal System signal warrant should not be applied where the resultant spacing of traffic control signals would be less than 1,000 feet.*

Section 4C.08 Warrant 7, Crash Experience

Support:

- 01 The Crash Experience signal warrant conditions are intended for application where the severity and frequency of crashes are the principal reasons to consider installing a traffic control signal.

Standard:

- 02 **The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:**
- A. **Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and**
 - B. **Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and**
 - C. **For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 80 percent columns of Condition A in Table 4C-1 (see Section 4C.02), or the vph in both of the 80 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.**

Option:

- 03 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 56 percent columns in Table 4C-1 may be used in place of the 80 percent columns.

Section 4C.09 Warrant 8, Roadway Network

Support:

- 01 Installing a traffic control signal at some intersections might be justified to encourage concentration and organization of traffic flow on a roadway network.

Standard:

- 02 **The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:**
- A. **The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or**
 - B. **The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday).**
- 03 **A major route as used in this signal warrant shall have at least one of the following characteristics:**
- A. **It is part of the street or highway system that serves as the principal roadway network for through traffic flow.**
 - B. **It includes rural or suburban highways outside, entering, or traversing a city.**
 - C. **It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study.**

Section 4C.10 Warrant 9, Intersection Near a Grade Crossing

Support:

- 01 The Intersection Near a Grade Crossing signal warrant is intended for use at a location where none of the conditions described in the other eight traffic signal warrants are met, but the proximity to the intersection of a grade crossing on an intersection approach controlled by a STOP or YIELD sign is the principal reason to consider installing a traffic control signal.

Guidance:

- 02 *This signal warrant should be applied only after adequate consideration has been given to other alternatives or after a trial of an alternative has failed to alleviate the safety concerns associated with the grade crossing. Among the alternatives that should be considered or tried are:*
- A. *Providing additional pavement that would enable vehicles to clear the track or that would provide space for an evasive maneuver, or*
 - B. *Reassigning the stop controls at the intersection to make the approach across the track a non-stopping approach.*

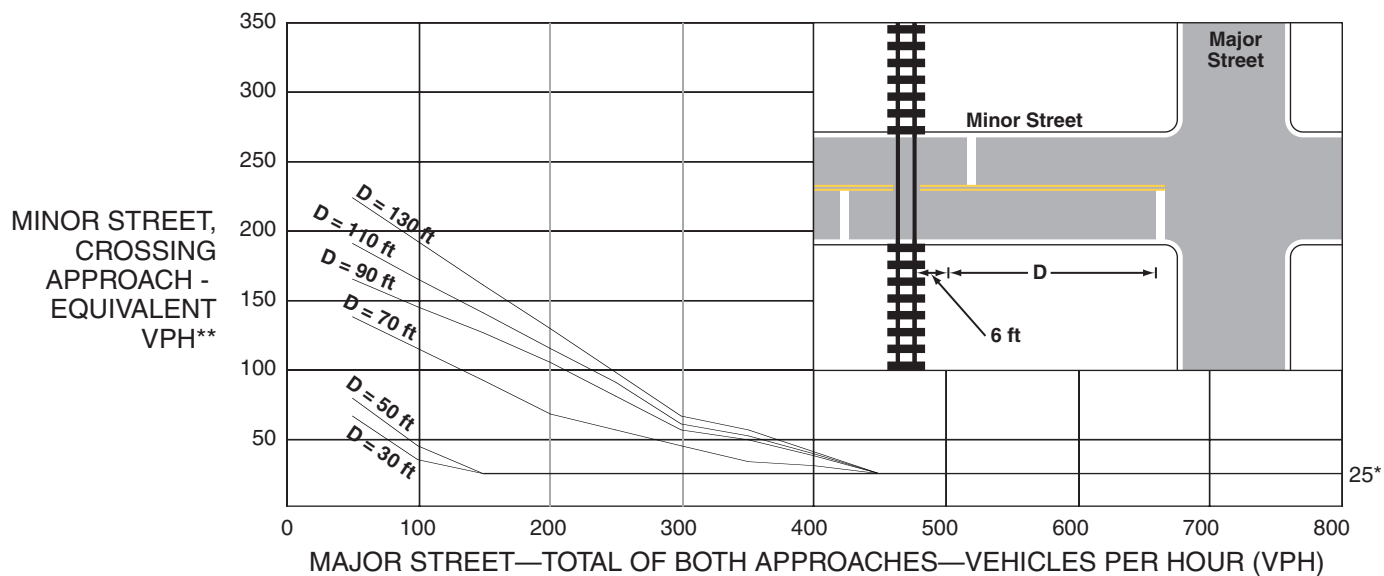
Standard:

- 03 **The need for a traffic control signal shall be considered if an engineering study finds that both of the following criteria are met:**
- A. **A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach; and**
 - B. **During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13.**

Guidance:

- 04 *The following considerations apply when plotting the traffic volume data on Figure 4C-9 or 4C-10:*
- A. *Figure 4C-9 should be used if there is only one lane approaching the intersection at the track crossing location and Figure 4C-10 should be used if there are two or more lanes approaching the intersection at the track crossing location.*

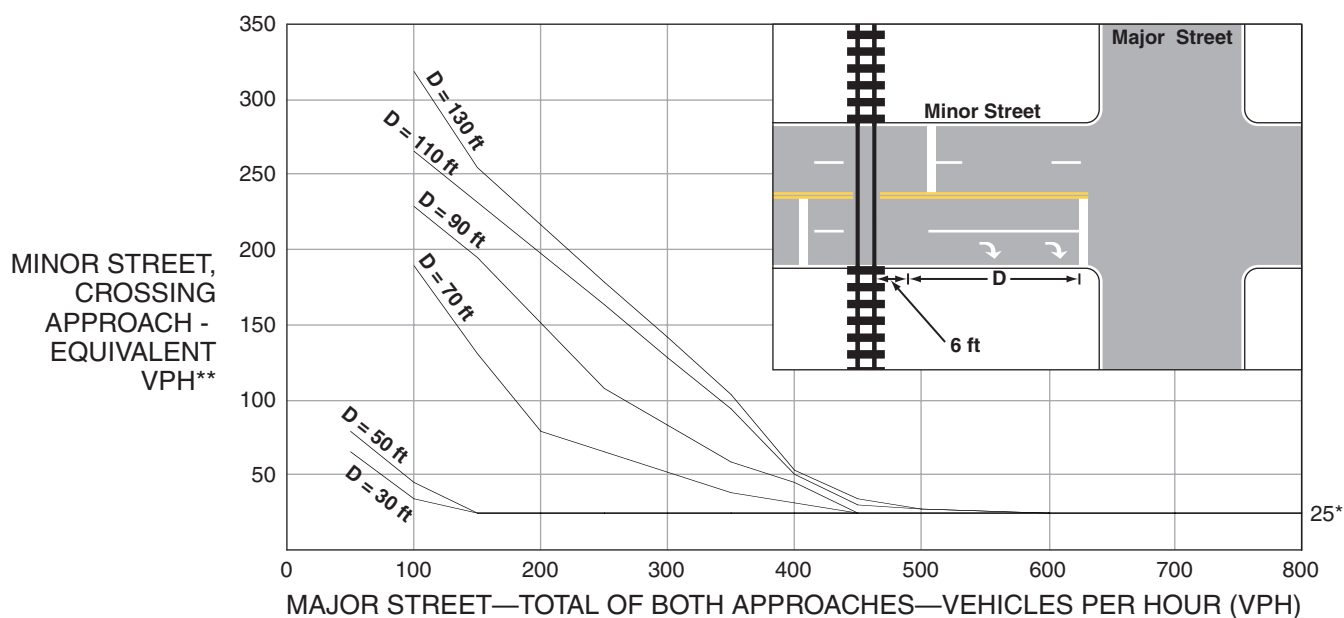
**Figure 4C-9. Warrant 9, Intersection Near a Grade Crossing
(One Approach Lane at the Track Crossing)**



* 25 vph applies as the lower threshold volume

** VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate

**Figure 4C-10. Warrant 9, Intersection Near a Grade Crossing
(Two or More Approach Lanes at the Track Crossing)**



* 25 vph applies as the lower threshold volume

** VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate

- B. After determining the actual distance D , the curve for the distance D that is nearest to the actual distance D should be used. For example, if the actual distance D is 95 feet, the plotted point should be compared to the curve for $D = 90$ feet.
- C. If the rail traffic arrival times are unknown, the highest traffic volume hour of the day should be used.

Option:

- 05 The minor-street approach volume may be multiplied by up to three adjustment factors as provided in Paragraphs 6 through 8.
- 06 Because the curves are based on an average of four occurrences of rail traffic per day, the vehicles per hour on the minor-street approach may be multiplied by the adjustment factor shown in Table 4C-2 for the appropriate number of occurrences of rail traffic per day.
- 07 Because the curves are based on typical vehicle occupancy, if at least 2% of the vehicles crossing the track are buses carrying at least 20 people, the vehicles per hour on the minor-street approach may be multiplied by the adjustment factor shown in Table 4C-3 for the appropriate percentage of high-occupancy buses.
- 08 Because the curves are based on tractor-trailer trucks comprising 10% of the vehicles crossing the track, the vehicles per hour on the minor-street approach may be multiplied by the adjustment factor shown in Table 4C-4 for the appropriate distance and percentage of tractor-trailer trucks.

Standard:

- 09 If this warrant is met and a traffic control signal at the intersection is justified by an engineering study, then:
- A. The traffic control signal shall have actuation on the minor street;
 - B. Preemption control shall be provided in accordance with Sections 4D.27, 8C.09, and 8C.10; and
 - C. The grade crossing shall have flashing-light signals (see Chapter 8C).

Guidance:

- 10 If this warrant is met and a traffic control signal at the intersection is justified by an engineering study, the grade crossing should have automatic gates (see Chapter 8C).

Table 4C-2. Warrant 9, Adjustment Factor for Daily Frequency of Rail Traffic

Rail Traffic per Day	Adjustment Factor
1	0.67
2	0.91
3 to 5	1.00
6 to 8	1.18
9 to 11	1.25
12 or more	1.33

Table 4C-3. Warrant 9, Adjustment Factor for Percentage of High-Occupancy Buses

% of High-Occupancy Buses* on Minor-Street Approach	Adjustment Factor
0%	1.00
2%	1.09
4%	1.19
6% or more	1.32

* A high-occupancy bus is defined as a bus occupied by at least 20 people.

Table 4C-4. Warrant 9, Adjustment Factor for Percentage of Tractor-Trailer Trucks

% of Tractor-Trailer Trucks on Minor-Street Approach	Adjustment Factor	
	D less than 70 feet	D of 70 feet or more
0% to 2.5%	0.50	0.50
2.6% to 7.5%	0.75	0.75
7.6% to 12.5%	1.00	1.00
12.6% to 17.5%	2.30	1.15
17.6% to 22.5%	2.70	1.35
22.6% to 27.5%	3.28	1.64
More than 27.5%	4.18	2.09

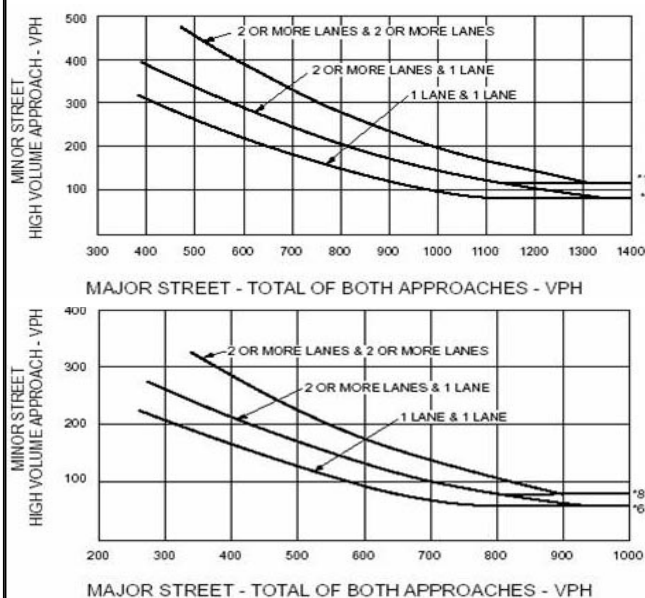
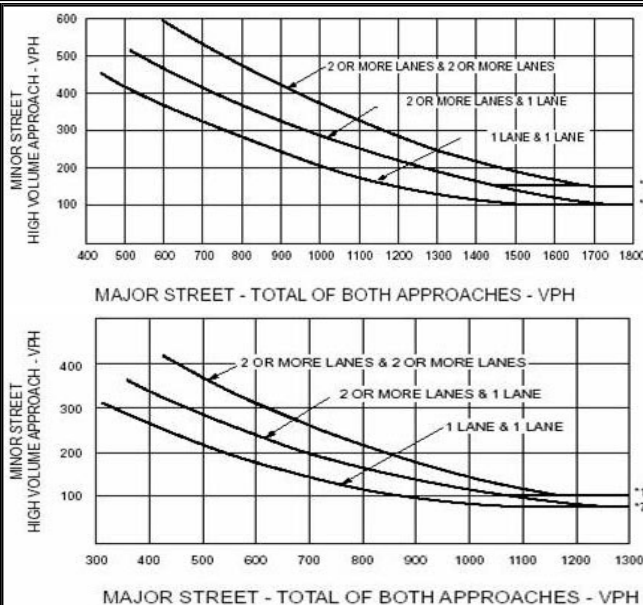
Warrants Volume			
Information			
Analyst	SBC	Intersection	Central/Dryden/Moorings
Agency/Co	Eriksson Engineering	Jurisdiction	IDOT/Arlington Hts/Private
Date Performed	3/15/2015	Units	U.S. Customary
Project ID		Time Period Analyzed	Total Traffic Volumes
East/West Street	Central Road	North/South Street	Dryden Place/Moorings Drive
File Name	Signal Analysis	Major Street	East-West
Project Description			

Warrant 1**Condition A—Minimum Vehicular Volume**

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

Warrant 2**Warrant 3****Volume Summary**

Major Street Lanes 2+		Minor Street Lanes 2+		Speed		Population		10000+		
Hours	Major Volume	Minor Volume	Total Volume	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)
07-08	1920	55	1999	No	No	No	No	No	No	No
08-09	1865	84	1961	No	No	No	Yes	No	No	No
09-10	1330	0	1330	No	No	No	No	No	No	No
10-11	1134	0	1134	No	No	No	No	No	No	No
11-12	1362	0	1362	No	No	No	No	No	No	No
12-13	1508	0	1508	No	No	No	No	No	No	No
13-14	1486	0	1486	No	No	No	No	No	No	No
14-15	1556	0	1556	No	No	No	No	No	No	No
15-16	1876	0	1876	No	No	No	No	No	No	No
16-17	2186	60	2272	No	No	No	No	No	No	No
17-18	2442	42	2515	No	No	No	No	No	No	No
18-19	1042	0	1042	No	No	No	No	No	No	No
Totals	19707	241	20041	0	0	0	1	0	0	0

Warrants Summary												
Information												
Analyst	SBC					Intersection	Central/Dryden/Moorings					
Agency/Co	Eriksson Engineering					Jurisdiction	IDOT/Arlington Hts/Private					
Date Performed	3/15/2015					Units	U.S. Customary					
Project ID						Time Period Analyzed	Total Traffic Volumes					
East/West Street	Central Road					North/South Street	Dryden Place/Moorings					
File Name	Signal Analysis					Major Street	Drive					
							East-West					
Project Description												
General							Roadway Network					
Major Street Speed (mph)	40	☐	Population < 10,000				Two Major Routes			☐		
Nearest Signal (ft)	1300	☐	Coordinated Signal System				Weekend Count			☐		
Crashes (per year)	2	☐	Adequate Trials of Alternatives				5-yr Growth Factor			0		
Geometry and Traffic	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N	1	2	0	1	2	0	0	1	1	0	1	0
Lane usage	L	TR		L	TR			LT	R		LTR	
Vehicle Volume Averages (vph)	15	784	8	6	820	6	6	0	5	4	0	11
Peds (ped/h) / Gaps (gaps/h)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Delay (s/veh) / (veh-hr)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Warrant 1: Eight-Hour Vehicular Volume												☐
1 A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--												☐
1 B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--												☐
1 (80%) Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)												☐
Warrant 2: Four-Hour Vehicular Volume												☐
2 A. Four-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												☐
Warrant 3: Peak Hour												☐
3 A. Peak-Hour Conditions (Minor delay --and-- minor volume --and-- total volume) --or--												☐
3 B. Peak- Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												☐
Warrant 4: Pedestrian Volume												☐
4 A. Four Hour Volumes --or--												☐
4 B. One-Hour Volumes												☐
Warrant 5: School Crossing												☐
5. Student Volumes --and--												☐
5. Gaps Same Period												☐
Warrant 6: Coordinated Signal System												☐
6. Degree of Platooning (Predominant direction or both directions)												☐
Warrant 7: Crash Experience												☐
7 A. Adequate trials of alternatives, observance and enforcement failed --and--												☐
7 B. Reported crashes susceptible to correction by signal (12-month period) --and--												☐

7 C. (80%) Volumes for Warrants 1A, 1B --or-- 4 are satisfied	☐
Warrant 8: Roadway Network	☐
8 A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2 or 3) --or--	☐
8 B. Weekend Volume (Five hours total)	☐
Warrant 9: Grade Crossing	☐
9 A. Grade Crossing within 140 ft --and--	☐
9 B. Peak-Hour Vehicular Volumes	☐

PARKING STUDY ANALYSIS - SUMMARY

The Moorings of Arlington Heights is a congregate care retirement community containing a mixture of villas, apartments, sheltered-care and assisted living units, and common community facilities. The proposed plan calls for the construction of a new assisted living and memory care facility along with a resident fellowship hall on the campus. Eight existing resident cottage units and the existing skilled care building will be removed to allow space for these new buildings.

The proposed plan provides a *cumulative on-site parking supply for 538 spaces*. This includes 11 accessible spaces, which meets the accessible parking requirements. Through the planned new facilities modifications to the site, (58) spaces will be **removed** in order to implement the proposed site plan. A total of (78) new spaces will be **added**, creating a *net cumulative gain of 20 new spaces provided on-site*.

The *Village ordinance-regulated parking requirement of 543 cumulative spaces* for the proposed plan was calculated based on the Village of Arlington Heights' *current Zoning Ordinance*. This calculation, detailed in the chart on the following page, includes all *campus* unit requirements and *Presbyterian Homes'* interpretation of the requirements for the proposed Resident Fellowship Hall. ***We believe a parking variation for the Resident Fellowship Hall is warranted based on our planned and historical use of this space as noted in our discussion below.***

Planned Resident Fellowship Hall Parking Demand

The Village of Arlington Heights parking requirement calculations assume that the proposed Resident Fellowship Hall is similar and consistent in all respects with a traditional chapel or religious facility land use. The current and planned Resident Fellowship Hall provides some of the same functions, however, it is solely for the use of on-site Moorings residents for various activities and programs which will not generate any significant traffic or parking need from off-campus visitors. And like many of the support facilities at this senior living community, it is designed to be connected and walkable (accessible) for the residents via an interconnected, internal pedestrian circulation system

The hall will, on occasion, be used for memorial services. The Mooring's religious services team reports that most attendees of memorial services are from within the campus. In addition to on-site residents, memorial services typically draw 10-25 outside guests with a maximum of 20 vehicles. On very rare occasions (once every year or two) we may see a few more visitors. The Moorings has an internal parking management team that oversees and manages parking during these types of events and does not believe that there is or will be a lack of available parking for these types of events.

In conclusion, our calculation of the number of seats shown for the proposed Resident Fellowship Hall (486 seats) is based on the building code capacity (1 seat per seven square feet of floor space) and does not accurately reflect the proposed usage of the space.

Additionally, the Moorings of Arlington Heights has provided resident vehicle ownership data for the apartments and villas on the existing campus which is currently 0.61 vehicles per unit. As previously noted, residents in the skilled care and assisted living/memory care are not able to drive. Forty-three percent of the residential units do not have a vehicle. A parking survey of the campus was also completed to better understand and anticipate demand. Based on the analysis, a total *cumulative site* parking demand of 352 vehicles is projected for the proposed additional development. This amount is well *below* both the 543 spaces *cumulative ordinance* required, and the 538 spaces proposed *within our current plan*. These conclusions and data support our belief that a parking variation for our resident fellowship hall use is warranted.

**Table 1: Zoning Code Requirements for
The Moorings Proposed Plan**

Unit Type	Units	Zoning Code Requirement	Total Spaces
Senior Apartments	202	One Space per Unit	202.0
Senior Villas	73	Two Spaces per Unit	146.0
Skilled Care	105	One Space per Two Beds	52.5
Assisted Living	70	One Space per Two Beds	35.0
Assisted Living: Memory Care	20	One Space per Two Beds	10.0
Resident Fellowship Hall	486 ⁽¹⁾ seats	One Space for each 5 Seats	97.2
	470		542.7 (445.5)⁽²⁾

(1) Approximately 3,400 sq. ft. at 7 sq. ft. per person = 486 seats

(2) Requirement without Resident Fellowship Hall

August 25, 2015

The Moorings of Arlington Heights – Drainage Study



Eriksson Engineering Associates, Ltd.

145 Commerce Drive, Suite A
Grayslake, IL 60030
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601 W. Randolph St., Suite 500
Chicago, IL 60661
312.463.0551

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Narrative

INTRODUCTION

Currently detention is provided for the campus in five separate detention basins: West Lake, Southwest Basin, North Basin, East Lake, and Southeast Basin and are permitted under MWRD Permit No. 87-787. Of the 7.75 acres being affected by the proposed improvements 6.57 acres are tributary to West Lake, the remaining 1.22 acres are tributary to the Southwest Basin.

EXISTING CONDITIONS

In its current state, West Lake outfalls from an existing 10" sewer that is tributary to the Southwest Basin. The release rate of this sewer is calculated to be 3.00 cfs, less than the permitted 3.50 cfs according to MWRD Permit No. 87-787. This release and the existing tributary area of 14.87 acres create a required storage volume of 3.78 acre-feet, less than the available 4.52 acre-feet at an elevation of 689.00. Overflow from West Lake is currently a grassed area to the south of the lake that conveys water to Moorings Drive and the Southwest Basin.

PROPOSED CONDITIONS

Improvements around West Lake will expand the tributary area to encompass 15.23 acres and increase the impervious area by approximately 1 acre. Per Arlington Heights allowable release of 0.18 cfs/acre and the revised tributary area for West Lake, the new allowable release will be 2.74 cfs. Including the new impervious area equates to a new required volume of 4.31 acre-feet. Although the existing lake provides adequate detention, in order to provide adequate freeboard to the proposed Finished Floor Elevations the existing High Water Level will be lowered from 689.00 to 688.25 and the existing footprint will be expanded. Overflow from West Lake will be provided for at weirs in both the Restrictor Manhole and as a 40' grass spillway on the surface to ensure water is directed away from the new Assisted Living building and Resident Fellowship Hall. Restricted flow and Overflow from West Lake will remain tributary to an existing Bypass Swale and Sewer that run along the south of the Site.

Additional flow to the Southwest Basin will be investigated but it is not anticipated that significant improvements will be required.

STORM SEWER

Currently storm water is conveyed to West Lake through two pipe networks. One located to the northwest of the lake that conveys storm water from the north end of the site and one that conveys runoff from the Skilled Care courtyard. Both systems will be impacted by the new building footprints and will be re-routed underneath the connection between the Assisted Living building and Resident Fellowship Hall.

The proposed buildings will also impact existing overland flow routes. New pipe systems tributary to West Lake will be sized to convey runoff from the 100-year rain event.

Calculations

Existing Calculations

DRAINAGE SUMMARY - EXISTING CONDITIONS

Prebysterian Homes - Site Study

05/15/15

By: C. Fish



West Lake - Existing

Total Tributary Area =	14.87	acres		
Wet Pond Area =	1.44	acres	$C_{pond} =$	1.00
Impervious Area =	6.74	acres	$C_{impervious} =$	0.95
Pervious Area =	6.69	acres	$C_{pervious} =$	0.50
Runoff Coefficient (C) =	0.75			

Per Arlington Heights Manual of Practice for The Design of Public and Private Improvements

Allowable Release Rate =	3.50	cfs	Per MWRD Permit No. 87-787
Actual Release Rate =	3.00	cfs	

100-Year Event, Bulletin 70 Rainfall Data

RUNOFF FACTOR	STORM DURATION (HRS)	RAINFALL INTENSITY (IN/HR)	DRAINAGE AREA (ACRES)	INFLOW RATE (CFS)	RELEASE RATE (CFS)	STORAGE RATE (CFS)	STORAGE REQUIRED (ACRE-FT)
0.75	0.08	11.40	14.87	127.54	3.00	124.55	0.86
0.75	0.17	9.82	14.87	109.87	3.00	106.87	1.47
0.75	0.25	8.20	14.87	91.74	3.00	88.74	1.83
0.75	0.50	5.60	14.87	62.65	3.00	59.66	2.47
0.75	1.00	3.56	14.87	39.83	3.00	36.83	3.04
0.75	2.00	2.23	14.87	24.95	3.00	21.95	3.63
0.75	3.00	1.61	14.87	18.01	3.00	15.02	3.72
0.75	6.00	0.95	14.87	10.63	3.00	7.63	3.78
0.75	12.00	0.55	14.87	6.14	3.00	3.14	3.12
0.75	18.00	0.39	14.87	4.36	3.00	1.37	2.03
0.75	24.00	0.31	14.87	3.47	3.00	0.47	0.93

Calculated
MWRD Permit No. 87-787
Elevation 689.00

Existing Storage Required =	3.78	acre-ft
Existing Storage Required =	2.15	acre-ft
Existing Storage Provided =	4.52	acre-ft

Culvert Capacity Calculations:

Prebysterian Homes - Site Study

By: C. Fish

05/15/15



Existing Culvert Size = 10 inch

Existing Pipe Slope = 0.03 ft/ft

Required Culvert Capacity = cfs

Cross Sectional Area:

$$a = \pi r^2 = 0.55 \text{ ft}^2$$

Pipe Flow Capacity (Flowing Full):

$$n = 0.013$$

$$Q = (1.49/n) * a * R_h^{2/3} * S^{1/2}$$
$$= 6.04 \text{ cfs}$$

$$\text{Capacity Of Pipe} = 6.04 \text{ cfs}$$

Pipe Flow Capacity (Including Vertical Head):

$$\text{Length of Pipe} = 268 \text{ ft.}$$

$$\text{Downstream Inv.} = 684$$

$$\text{hwl} = 689.00$$

$$\Delta h = \text{hwl} - \text{Inv.} = 5 \text{ ft.}$$

$$Q_{\text{cap}} = (1.49/n) * A * R_h^{2/3} * (h/L)^{1/2} = 3.00 \text{ cfs}$$

Storage Volume in Detention Pond

Prebysterian Homes - Site Study

05/15/15

By: C. Fish



Grade	Area (sq. ft.)	Volume (cu ft.)
685.5	51946	
		79830.56
687	54505	
		56511.48
688	58542	
		60701.54
689	62887	
		65770.61
690	68697	
		34348.50
690.5	68697	

Total Volume = 197043.58 cu ft.

Total Volume = 4.52 acre-ft

Proposed Calculations

DRAINAGE SUMMARY PROPOSED CONDITIONS

Presbyterian Homes
Moorings
CMF

06/15/15



Proposed Conditions

Total Property Area = acres
Total Watershed Area = 15.23 acres

Proposed	Impervious Area =	7.70 acres	CN _{impervious} =	98	VILLAGE	C _{impervious} =	0.95
	Wet Pond Area =	1.71 acres	CN _{gravel} =	100		C _{gravel} =	1.00
	Pervious Area =	5.82 acres	CN _{pervious} =	74		C _{pervious} =	0.50

	2-Year		CN =	89.1		C =	0.78
Allowable Release Rate =	-	0.18 cfs/acre	% Imp =	61.79%			
	-	2.74 cfs					

	2-YEAR	VILLAGE
MAXIMUM RESTRICTOR DIAMETER =	-	8.13 in
ACTUAL RESTRICTOR DIAMETER =	0.00	8.00 in
ALLOWABLE RELEASE RATE =	-	2.74 cfs
ACTUAL RELEASE RATE =	0.00	2.66 cfs
DETENTION VOLUME REQUIRED =		4.31 Acre*ft
DETENTION VOLUME PROVIDED =	0.00	4.29 Acre*ft

Restrictor Invert=	685.50	685.50
Basin High Water Elevation=	685.50	688.25
Basin Spill Elevation=		689.50 +/-

VILLAGE RESTRICTOR SIZING CALCULATIONS

Presbyterian Homes
Mooring
CMF

06/15/15

2-Year Restrictor

$$\begin{aligned} \text{2-year high water elevation} &= 685.50 \\ C_D &= 0.61 \quad (\text{constant}) \\ G &= 32.20 \quad \text{ft/sec}^2 \\ \text{Inv. restrictor} &= 685.50 \\ Q_{\text{allowable}} &= 0.00 \quad \text{cfs} \end{aligned}$$

$$\begin{aligned} \Delta h &= \text{hwe} - \text{Inv.} - 1/2 \text{ Dia.} \\ &= 0.00 \quad \text{ft.} \end{aligned}$$

$$\begin{aligned} Q &= C_D A (2gh)^{1/2} \\ A_{\text{restrictor}} &= (Q_{\text{allowable}}) / (C_D (2gh)^{1/2}) \\ A_{\text{restrictor}} &= 0.00 \quad \text{in}^2 \\ D_{\text{restrictor}} &= 0.000 \quad \text{in} \end{aligned}$$

=> Restrictor diameter = 0.000 inches

Release Rate Based on restrictor diameter

$$\begin{aligned} D_{\text{restrictor}} &= 0.00 \quad \text{in.} \\ A_{\text{restrictor}} &= 0.00 \quad \text{in}^2 \end{aligned}$$

$$Q = C_D A (2gh)^{1/2}$$

$$Q_{\text{release}} = 0.00 \quad \text{c.f.s.}$$

100-Year Restrictor

$$\begin{aligned} \text{100-year high water elevation} &= 688.25 \\ C_D &= 0.61 \quad (\text{constant}) \\ G &= 32.20 \quad \text{ft/sec}^2 \\ \text{Inv. restrictor} &= 685.50 \\ Q_{\text{allowable}} &= 2.74 \quad \text{cfs} \end{aligned}$$

$$\begin{aligned} Q_{2\text{year}} &= 0.00 \quad \text{cfs} \\ \text{Therefore: } Q_{\text{remaining}} &= 2.74 \quad \text{cfs} \end{aligned}$$

$$\begin{aligned} \Delta h &= \text{hwe} - \text{Inv.} - 1/2 \text{ Dia.} \\ &= 2.42 \quad \text{ft.} \end{aligned}$$

$$\begin{aligned} Q &= C_D A (2gh)^{1/2} \\ A_{\text{restrictor}} &= (Q_{\text{allowable}}) / (C_D (2gh)^{1/2}) \\ A_{\text{restrictor}} &= 51.87 \quad \text{in}^2 \\ D_{\text{restrictor}} &= 8.127 \quad \text{in} \end{aligned}$$

=> Restrictor diameter = 8.000 inches

Release Rate Based on restrictor diameter

$$\begin{aligned} D_{\text{restrictor}} &= 8.00 \quad \text{in.} \\ A_{\text{restrictor}} &= 50.24 \quad \text{in}^2 \end{aligned}$$

$$Q = C_D A (2gh)^{1/2}$$

$$Q_{\text{release}} = 2.66 \quad \text{c.f.s.}$$

BASIN VOLUME CALCULATIONS

Presbyterian Homes

06/15/15

Moorings

CMF

2 Year Restrictor

Dia= 0.000 in
 $C_d = 0.61$
 Inv. rest. = 685.50
 $g = 32.20 \text{ ft/sec}^2$
 $A_{rest} = 0.00 \text{ in}^2$

100 Year Restrictor

Dia= 8.000 in
 $C_d = 0.61$
 Inv. rest. = 685.50
 $g = 32.20 \text{ ft/sec}^2$
 $A_{rest} = 50.27 \text{ in}^2$

Pond

Elev	Area (sq. ft.)	Increm. Volume (cu ft.)	Increm. Volume (ac-ft)	Total Volume (ac-ft)		Q(2-Yr) (cfs)		Q(100-Yr) (cfs)		Q(Total) (cfs)
690	83808	81298.22	1.866	7.48		0.00		3.49		3.49
0	0	0.00	0.000	5.61		0.00		0.00		0.00
689	78814	57535.98	1.321	5.61		0.00		3.04		3.04
688.25	74634.25	18484.13	0.424	4.29		0.00		2.66		2.66
688	73241	70515.16	1.619	3.87		0.00		2.52		2.52
0	0	0.00	0.000	2.25		0.00		0.00		0.00
687	67824	98048.67	2.251	2.25		0.00		1.85		1.85
0	0	0.00	0.000	0.00		0.00		0.00		0.00
685.5	62938									

Site High Water Line =	685.50	688.25
100-Year Storage Volume =	0.00	4.29 acre-ft

VILLAGE DETENTION REQUIREMENTS 100-YEAR EVENT

Presbyterian Homes

06/15/15

Moorings

CMF

Total Tributary Area: 15.23 acre
 Total Impervious Area 9.41 acre
 Allowable Release Rate Per Acre: 0.18 cfs/acre
 Allowable Release Rate: 2.74 cfs
 Actual Release Rate: 2.66 cfs
 Runoff Coefficient (C): 0.78
 100 Year Intensity: 7.58 in Bul 70 100yr - 24hr

100-Year Event, Bulletin 70 Rainfall Data

RUNOFF FACTOR	STORM DURATION (HRS)	RAINFALL INTENSITY (IN/HR)	DRAINAGE AREA (ACRES)	INFLOW RATE (CFS)	RELEASE RATE (CFS)	STORAGE RATE (CFS)	STORAGE REQUIRED (ACRE-FT)
0.78	0.08	10.92	15.23	130.33	2.66	127.68	0.84
0.78	0.17	10.02	15.23	119.59	2.66	116.93	1.64
0.78	0.25	8.20	15.23	97.87	2.66	95.21	1.97
0.78	0.50	5.60	15.23	66.84	2.66	64.18	2.65
0.78	1.00	3.56	15.23	42.49	2.66	39.83	3.29
0.78	1.50	2.63	15.23	31.39	2.66	28.73	3.56
0.78	2.00	2.24	15.23	26.73	2.66	24.08	3.98
0.78	3.00	1.62	15.23	19.33	2.66	16.68	4.14
0.78	4.00	1.28	15.23	15.28	2.66	12.62	4.17
0.78	5.00	1.08	15.23	12.89	2.66	10.23	4.23
0.78	6.00	0.95	15.23	11.34	2.66	8.68	4.31
0.78	7.00	0.83	15.23	9.91	2.66	7.25	4.19
0.78	8.00	0.75	15.23	8.95	2.66	6.30	4.16
0.78	9.00	0.68	15.23	8.12	2.66	5.46	4.06
0.78	10.00	0.63	15.23	7.52	2.66	4.86	4.02
0.78	11.00	0.59	15.23	7.04	2.66	4.39	3.99
0.78	12.00	0.55	15.23	6.56	2.66	3.91	3.88
0.78	13.00	0.52	15.23	6.21	2.66	3.55	3.82
0.78	14.00	0.49	15.23	5.85	2.66	3.19	3.69
0.78	15.00	0.46	15.23	5.49	2.66	2.84	3.51
0.78	16.00	0.43	15.23	5.13	2.66	2.48	3.28
0.78	17.00	0.41	15.23	4.89	2.66	2.24	3.14
0.78	18.00	0.39	15.23	4.65	2.66	2.00	2.97
0.78	24.00	0.32	15.23	3.77	2.66	1.11	2.21

Required Storage: 4.31 acre-ft

Emergency Overflow Spillway Calculations

Presbyterian Homes

06/15/15

Moorings

CMF

100-year Rainfall Event

Tributary Area = 15.23 acre

Composite Runoff Coefficient = 0.78

100 year Rainfall Depth (Bulletin 70) = 7.58 inches

100-Year Runoff Rate = 11.34 cfs

Pond Overflow Type = [Grass Spillway](#)

Where: L (length) = [40.00](#) ft.

H (head) = [0.25](#) ft.

Pond Overflow Rate

Q = 13.00 cfs

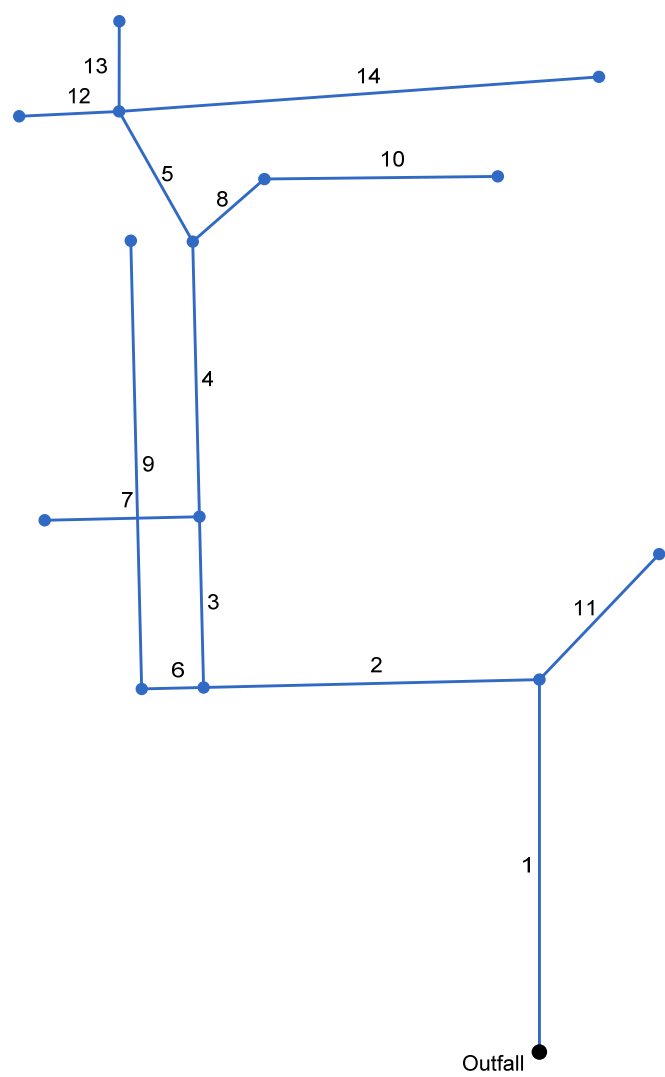
Weir Equation: $Q = 3.03 L H^{(3/2)}$ (Broad Crested Weir)

Concrete Wier Wall

Weir Equation: $Q = 2.60 L H^{(3/2)}$ (Broad Crested Weir)

Grass Spillway

Hydraflow Storm Sewers Extension for Autodesk® AutoCAD® Civil 3D® Plan



Project File: Moorings.stm	Number of lines: 14	Date: 6/24/2015
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Storm Sewer Tabulation

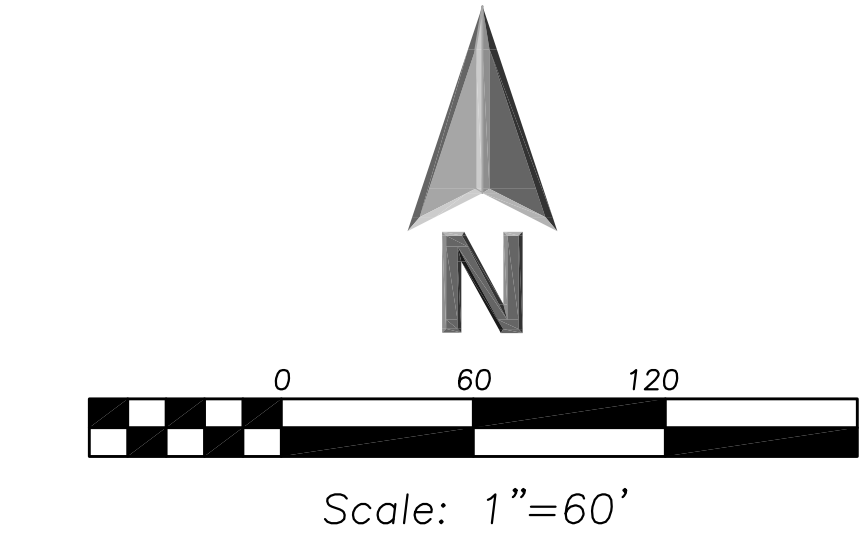
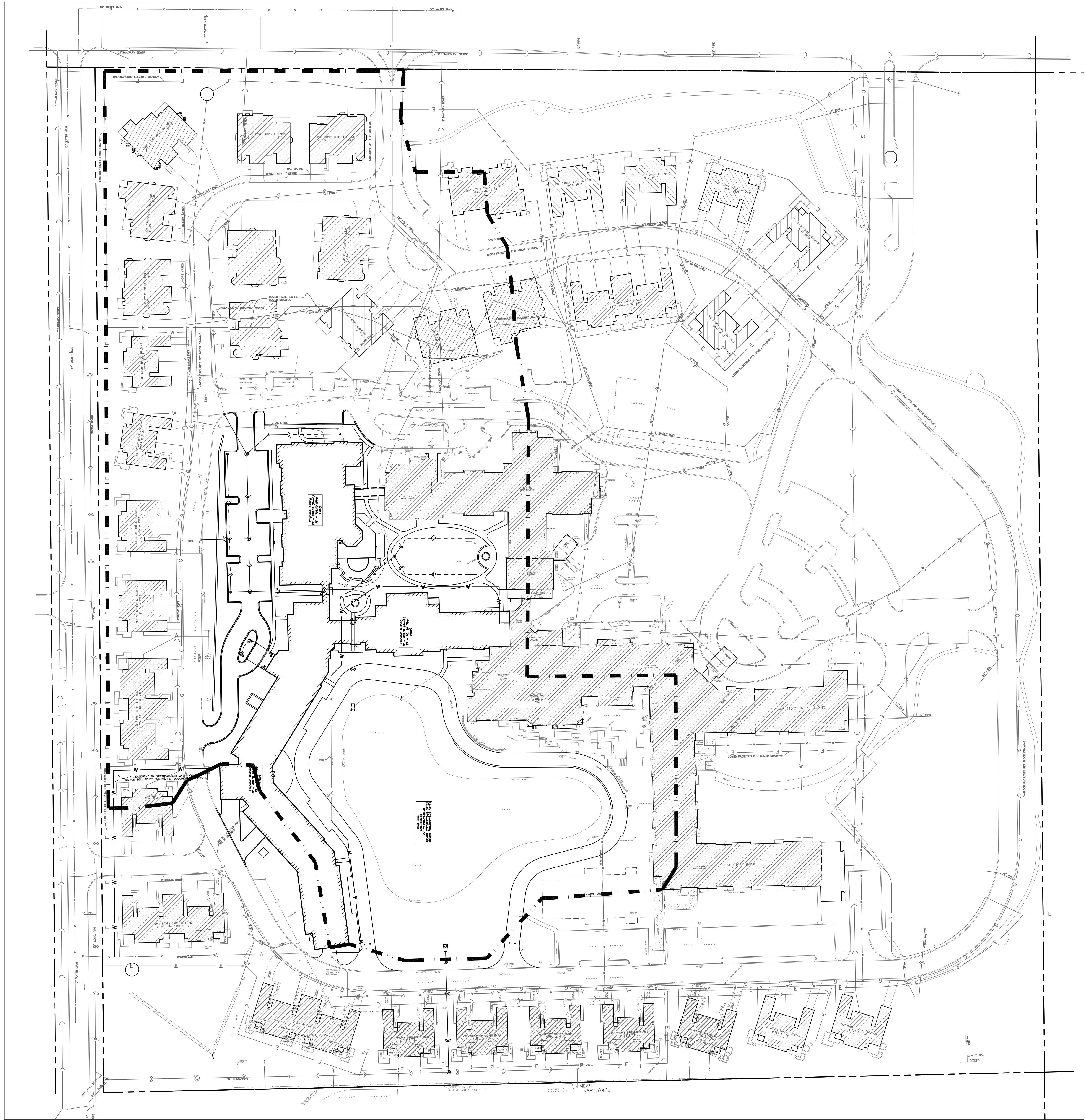
Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID	
Line	To Line		Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Dn	Up	Dn	Up	Dn	Up		
		(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)		
1	End	157.000	0.00	4.99	0.00	0.00	3.82	10.0	17.4	4.8	28.37	60.85	5.42	48	0.15	684.04	684.28	685.62	686.22	0.00	698.00	Ex.	
2		141.000	0.00	3.69	0.00	0.00	2.81	10.0	16.5	4.9	23.84	43.05	3.70	42	0.16	684.28	684.50	686.56	686.67	698.00	698.95		
3		72.000	0.00	2.93	0.00	0.00	2.14	10.0	16.1	4.9	20.69	32.98	3.49	36	0.21	684.50	684.65	686.89	686.94	698.95	698.95		
4		3	116.000	0.00	1.08	0.00	0.00	0.77	10.0	15.2	5.1	14.03	32.17	2.33	36	0.20	684.65	684.88	687.14	687.17	698.95		696.20
5		4	63.000	0.19	0.97	0.75	0.14	0.68	10.0	10.5	5.8	14.08	20.18	2.96	30	0.21	684.88	685.01	687.25	687.30	696.20		689.50
6		2	26.000	0.51	0.76	0.86	0.44	0.67	10.0	11.8	5.6	3.71	3.86	5.49	12	1.00	690.20	690.46	690.99	691.28	698.95		698.95
7		3	65.000	1.85	1.85	0.74	1.37	1.37	10.0	10.0	5.9	8.09	16.27	4.59	18	2.05	684.65	685.98	687.14	687.45	698.95		688.43
8		4	40.000	0.00	0.11	0.00	0.00	0.09	10.0	13.7	5.3	0.49	7.00	0.40	15	1.00	684.88	685.28	687.25	687.25	696.20		692.00
9		6	189.000	0.25	0.25	0.91	0.23	0.23	10.0	10.0	5.9	1.34	3.86	2.73	12	1.00	690.46	692.35	691.28	692.84	698.95		694.85
10		8	98.000	0.11	0.11	0.84	0.09	0.09	10.0	10.0	5.9	0.55	7.81	0.57	15	1.24	685.28	686.50	687.25	687.26	692.00		689.00
11		1	73.000	1.30	1.30	0.78	1.01	1.01	10.0	10.0	5.9	5.99	8.61	9.80	12	4.99	687.25	690.89	687.86	691.84	698.00		698.00
12		5	42.000	0.78	0.78	0.69	0.54	0.54	10.0	10.0	5.9	3.18	7.55	4.05	12	3.83	685.01	686.62	687.44	687.72	689.50		688.92
13	5	38.000	0.00	0.00	0.00	0.00	0.00	10.0	10.0	0.0	4.65	0.00	5.92	12	-1.11	685.01	684.59	687.44	687.99	689.50	689.49	Ex.	
14	5	202.000	0.00	0.00	0.00	0.00	0.00	10.0	10.0	0.0	5.47	5.46	6.97	12	2.00	685.01	689.05	687.44	691.50	689.50	692.95	Ex.	
Project File: Moorings.stm																Number of lines: 14				Run Date: 6/24/2015			
NOTES:Intensity = 144.66 / (Inlet time + 19.40) ^ 0.95; Return period =Yrs. 10 ; c = cir e = ellip b = box																							

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID	
Line	To Line		Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Dn	Up	Dn	Up	Dn	Up		
		(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)		
1	End	157.000	0.00	4.99	0.00	0.00	3.82	10.0	15.1	7.8	40.08	60.85	3.19	48	0.15	684.04	684.28	688.25	688.35	0.00	698.00	Ex.	
2	1	141.000	0.00	3.69	0.00	0.00	2.81	10.0	14.5	8.0	32.54	43.05	3.38	42	0.16	684.28	684.50	688.51	688.64	698.00	698.95		
3	2	72.000	0.00	2.93	0.00	0.00	2.14	10.0	14.2	8.1	27.37	32.98	3.87	36	0.21	684.50	684.65	688.82	688.92	698.95	698.95		
4	3	116.000	0.00	1.08	0.00	0.00	0.77	10.0	13.4	8.2	16.49	32.17	2.33	36	0.20	684.65	684.88	689.15	689.21	698.95	696.20		
5	4	63.000	0.19	0.97	0.75	0.14	0.68	10.0	10.5	9.0	16.24	20.18	3.31	30	0.21	684.88	685.01	689.28	689.36	696.20	689.50		
6	2	26.000	0.51	0.76	0.86	0.44	0.67	10.0	11.2	8.8	5.86	3.86	7.46	12	1.00	690.20	690.46	691.20	691.80	698.95	698.95		
7	3	65.000	1.85	1.85	0.74	1.37	1.37	10.0	10.0	9.1	12.51	16.27	7.08	18	2.05	684.65	685.98	689.15	689.94	698.95	688.43		
8	4	40.000	0.00	0.11	0.00	0.00	0.09	10.0	12.4	8.5	0.78	7.00	0.64	15	1.00	684.88	685.28	689.28	689.29	696.20	692.00		
9	6	189.000	0.25	0.25	0.91	0.23	0.23	10.0	10.0	9.1	2.08	3.86	2.82	12	1.00	690.46	692.35	692.67	693.18	698.95	694.85		
10	8	98.000	0.11	0.11	0.84	0.09	0.09	10.0	10.0	9.1	0.84	7.81	0.69	15	1.24	685.28	686.50	689.29	689.30	692.00	689.00		
11	1	73.000	1.30	1.30	0.78	1.01	1.01	10.0	10.0	9.1	9.26	8.61	11.80	12	4.99	687.25	690.89	688.51	692.72	698.00	698.00		
12	5	42.000	0.78	0.78	0.69	0.54	0.54	10.0	10.0	9.1	4.92	7.55	6.26	12	3.83	685.01	686.62	689.54	690.22	689.50	688.92		
13	5	38.000	0.00	0.00	0.00	0.00	0.00	10.0	10.0	0.0	4.65	0.00	5.92	12	-1.11	685.01	684.59	689.54	690.09	689.50	689.49	Ex.	
14	5	202.000	0.00	0.00	0.00	0.00	0.00	10.0	10.0	0.0	5.47	5.46	6.97	12	2.00	685.01	689.05	689.54	693.60	689.50	692.95	Ex.	
Project File: Moorings.stm																Number of lines: 14				Run Date: 6/24/2015			
NOTES:Intensity = 218.93 / (Inlet time + 19.10) ^ 0.94; Return period =Yrs. 100 ; c = cir e = ellip b = box																							

Appendix I

Tributary Area Exhibit



LEGEND

[] WEST LAKE TRIBUTARY AREA:
Area = 15.23 Ac.
Impervious = 7.70 Ac.
Pervious = 6.12 Ac.
Wet Pond Area = 1.41 Ac.



145 COMMERCE DRIVE, SUITE A
GRAYSLAKE, ILLINOIS 60030
PHONE (847) 223-4804
FAX (847) 223-4864
EMAIL: INFO@EEA-LTD.COM

WEST LAKE
TRIBUTARY
AREA

EX.
2014104

AS NOTED
DATE: 4/27/2015

REVISIONS	
NO.	DESCRIPTION
1	06/22/2015 PUD Application Submittal

FOR
THE MOORINGS OF ARLINGTON HEIGHTS
PRESBYTERIAN HOMES
811 EAST CENTRAL ROAD, ARLINGTON HEIGHTS, IL 60005
DRAWN BY: C.M.F. CHECKED BY: C.S.L. APPROVED BY: M.J.R.

rlps architects®
architecture • master planning • interior design
250 VALLEYBROOK DRIVE, LANCASTER, PA 17601
717-560-9501 FAX: 717-560-2373 RLPS, LLP

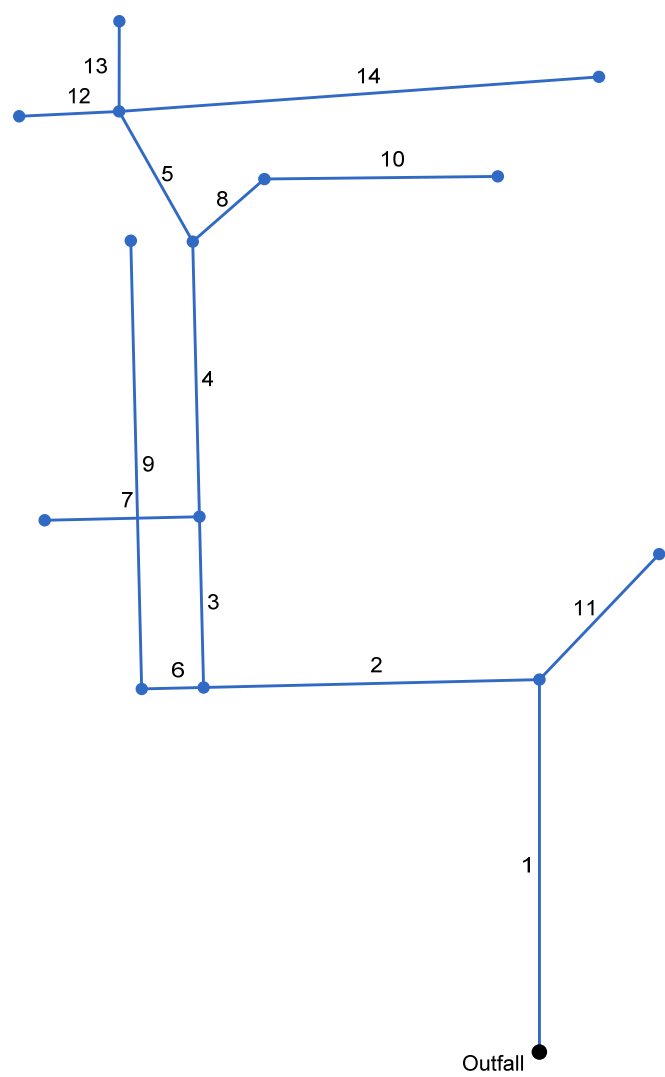
DESIGN PHASE

THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS THE PROPERTY OF THE ARCHITECT AND IS NOT TO BE REPRODUCED WITHOUT THE ARCHITECT'S PERMISSION AND WITHOUT THE NAME OF THE ARCHITECT. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.

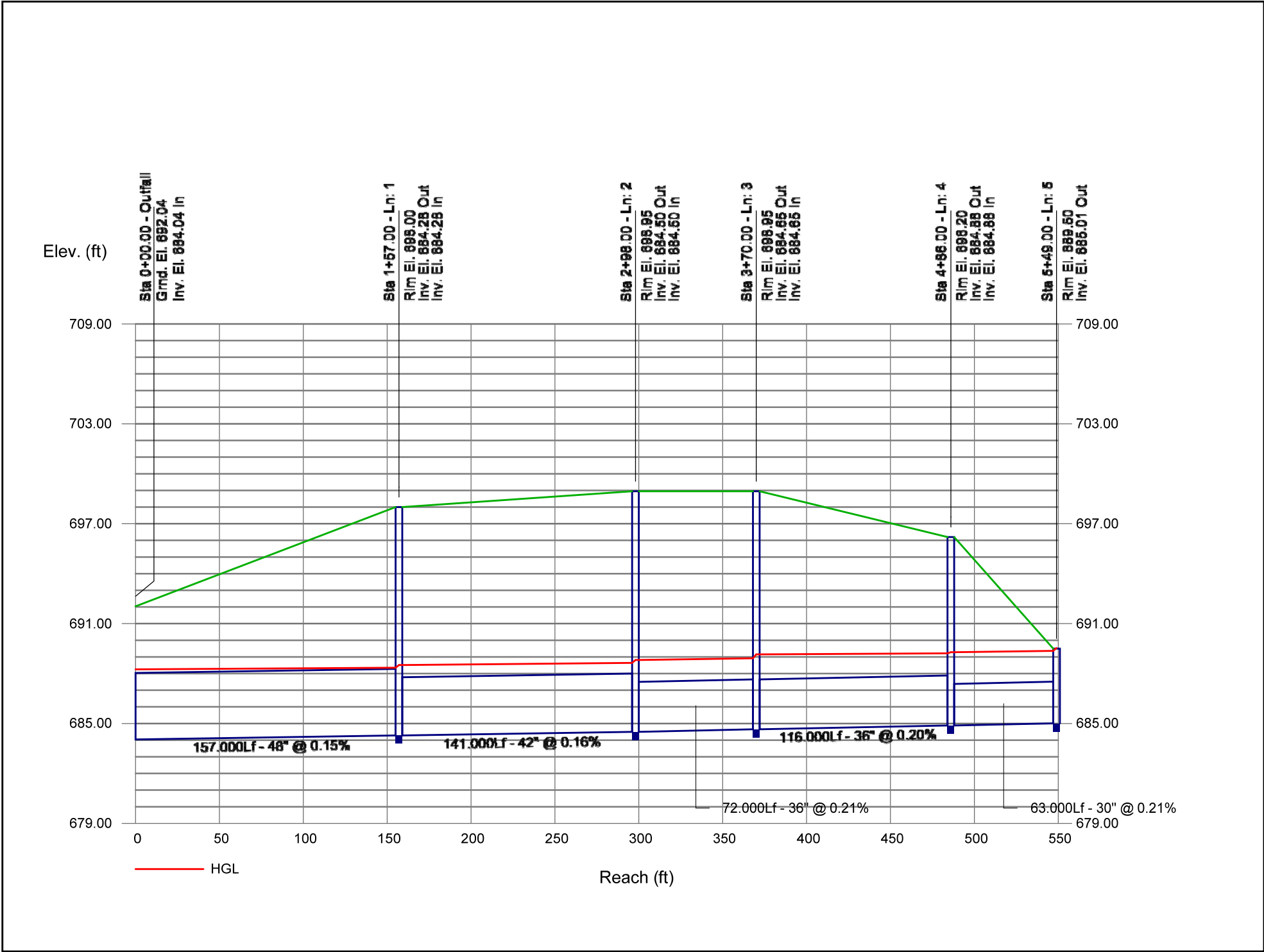
Appendix II

100-Yr HGL Profile

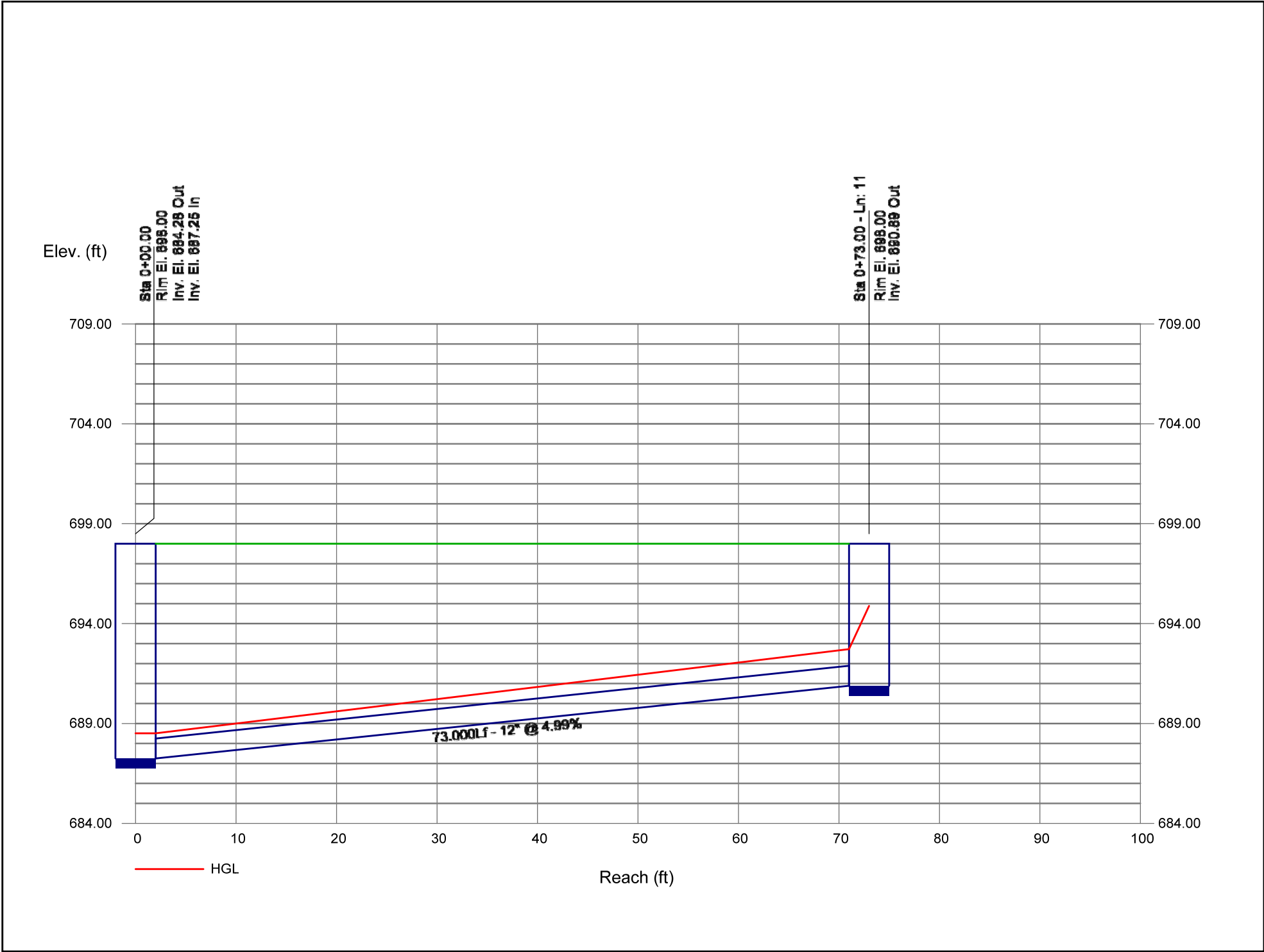
Hydraflow Storm Sewers Extension for Autodesk® AutoCAD® Civil 3D® Plan



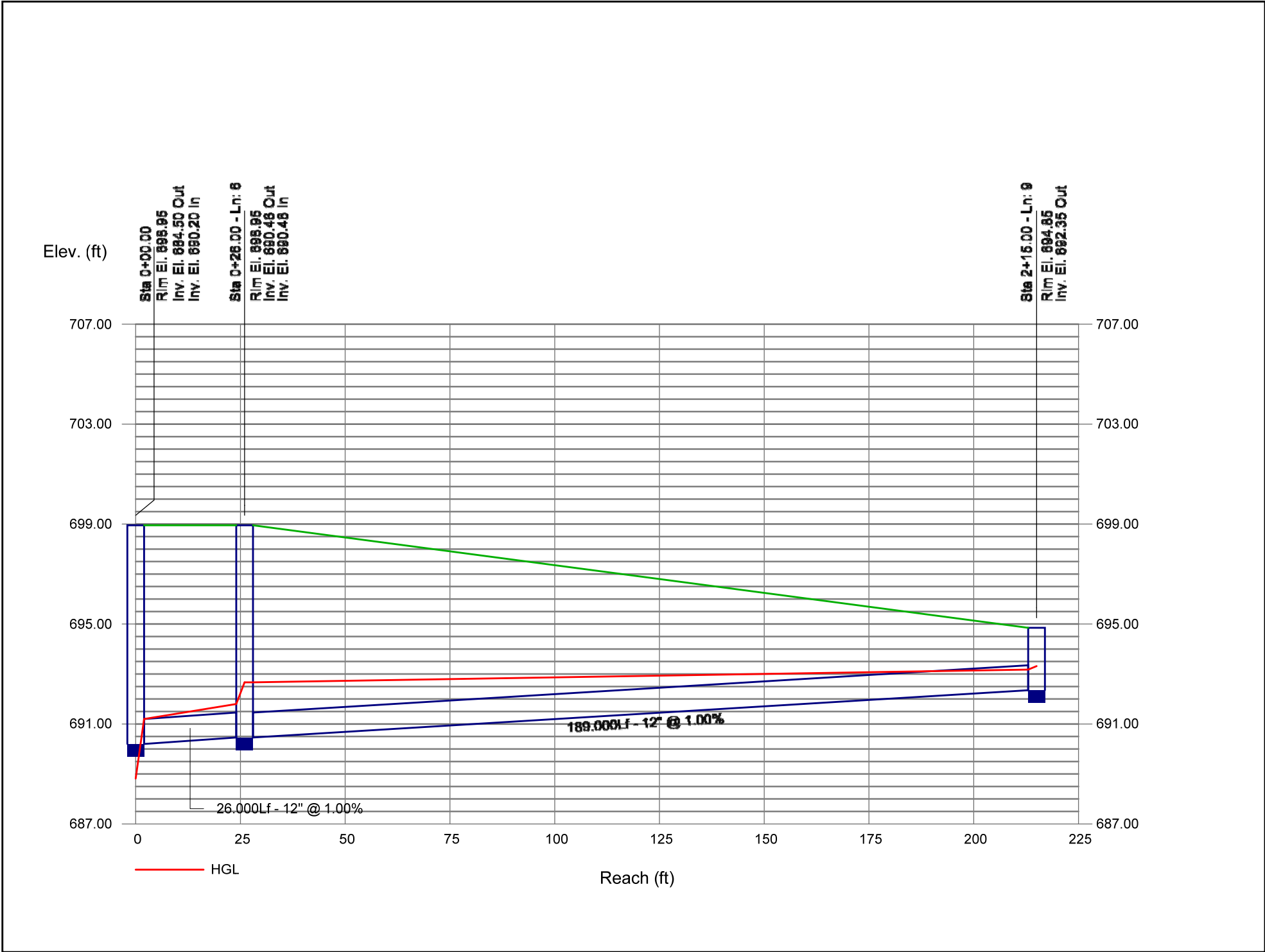
Storm Sewer Profile



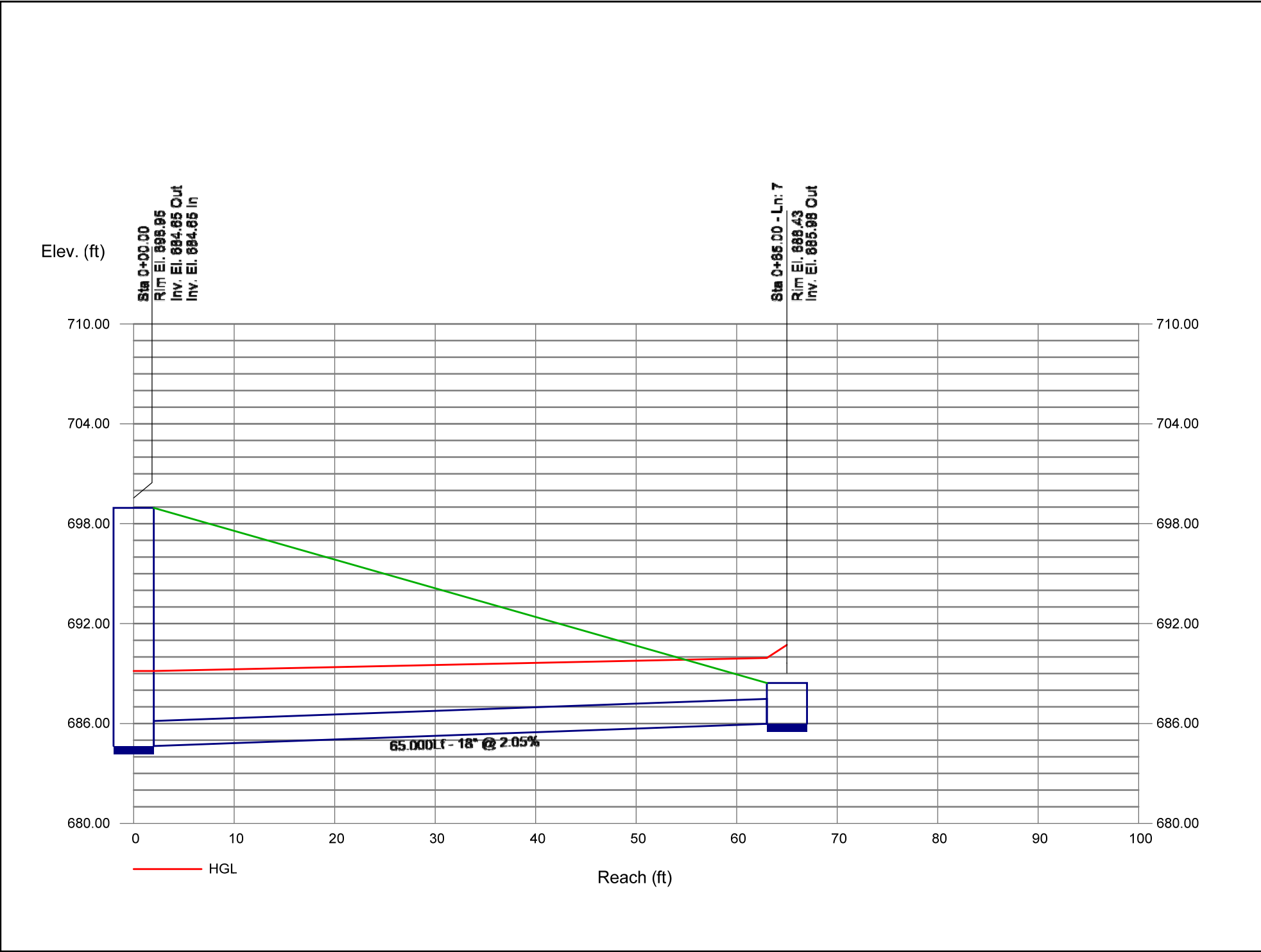
Storm Sewer Profile



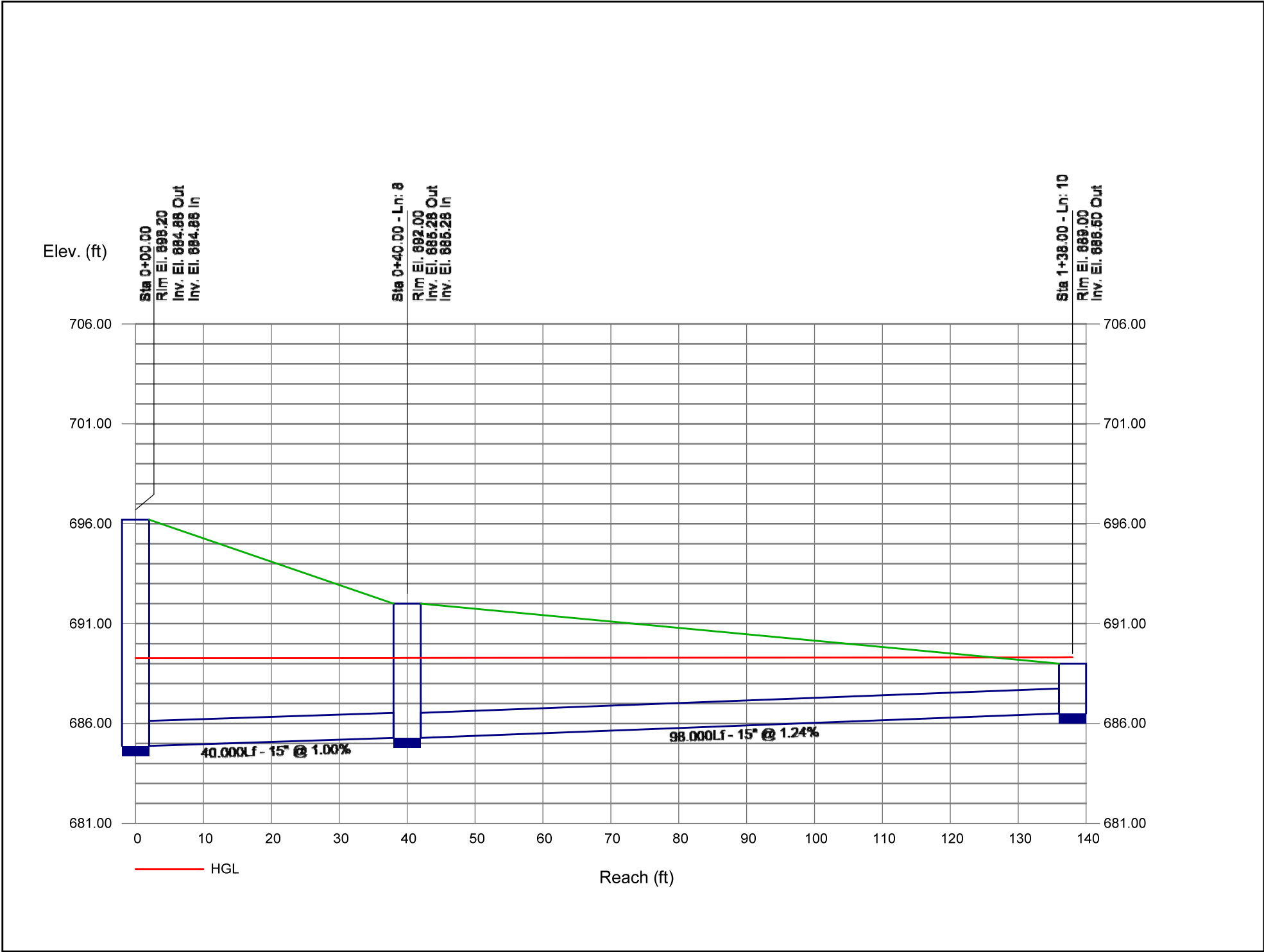
Storm Sewer Profile



Storm Sewer Profile



Storm Sewer Profile



Appendix III

MWRD Permit No. 787-87



OFFICE COPY

MSDGC Permit No.
IEPA Log No.ORIGINAL
87-787

SEWERAGE SYSTEM PERMIT

LOCAL SEWER SYSTEMS SECTION

NOV 12 AM 9:47

THE
METROPOLITAN SANITARY DISTRICT
OF GREATER CHICAGO
100 EAST ERIE, CHICAGO, ILLINOIS 60611 - 751-5600

INSTRUCTIONS FOR FILLING FORMS: Submit *typed* forms of permit and schedules in quadruplicate; complete all information or indicate non-applicability; do not leave any blank spaces; use "X" for checking applicable information. Submit four copies of location map, plans and all applicable schedules. Submit two copies of specifications, where applicable. Address all correspondence to Local Sewer Systems Section; for any inquiries or assistance, telephone 751-5789.

NAME AND LOCATION:Name of project (as shown on plans): The Moorings of Arlington Heights, IllinoisLocation of Project (street address or
with respect to two major streets): 801 Central RoadMunicipality (Township, if unincorporated) Arlington Heights, IllinoisSection 10, Township 41 N, Range 11 E.Is project in MSDGC combined sewer area Yes ☐ No ☒(OFFICE USE ONLY: X 10101413, Y 10101818, Code 101012.)Receiving STP and/or Lift Station North Side Sewage Treatment Works, Skokie.)**DOCUMENTS BEING SUBMITTED:** If project involves any of the items listed below, submit the corresponding schedule.

- | | |
|---|------------|
| ☒ Basic Information (Required in all cases) | Schedule A |
| ☒ Sewer Connection(s) | Schedule B |
| ☒ Sewer Extension(s) | Schedule C |
| ☒ Detention Facilities | Schedule D |
| ☐ Lift Station and/or Force Main | Schedule E |
| ☐ Characteristics of Waste Discharges | Schedule F |
| ☐ Treatment or Pre-treatment Facilities | Schedule G |
| ☐ Certification Relative to Compliance with Art. 4-1, 6-2d, and 6-3b | Schedule H |
| ☐ Affidavit Relative to Compliance with Art. 4-1, 6-2d, and 6-3b | Schedule J |
| ☒ Affidavit of Disclosure of Property Interest | Schedule K |
| ☐ Notice of Requirements for Storm Water Detention | Schedule L |
| ☐ Affidavit Relative to Compliance with Art. 6-4 | Schedule M |

OTHER DOCUMENTS: Indicate title, number of pages and originator:Plan sheets C-1 through C-13 entitled The Moorings of Arlington Hts., Il.
prepared by Austin Engineering Co. Inc., Peoria, Il.

1. **Adequacy of Design.** The schedules, plans, specifications and all other data and documents submitted for this permit are made a part hereof. The responsibility for the adequacy of the design shall rest solely with the Design Engineer and the issuing of this permit shall not relieve him of that responsibility. The issuance of this permit shall not be construed as approval of the concept or construction details of the proposed facilities and shall not absolve the Permittee, Co-Permittee or Design Engineer of their respective responsibilities.
2. **Joint Construction and Operation Permits.** Unless otherwise stated by the Special Conditions, the issuance of this permit shall be a joint construction and operation permit provided all General, Standard and Special Conditions are complied with.
3. **Allowable Discharges.** Discharges into the sanitary sewer system constructed under this permit shall consist of sanitary sewage only. Unless otherwise stated by the Special Conditions, there shall be no discharge of industrial wastes under this permit. Storm waters shall not be permitted to enter the sanitary sewer system. Without limiting the general prohibition of the previous sentence, roof and footing drains shall not be connected to the sanitary sewer system.
4. **Construction Inspection.** All sewer construction shall be inspected and approved by a Registered Professional Engineer acting on behalf of the Permittee or the owner of the project, or by a duly authorized and competent representative of the Professional Engineer. No sewer trenches shall be backfilled except as authorized by the Inspection Engineer after having inspected and approved the sewer installation.
5. **Maintenance.** The sewer connections, lines, systems or facilities constructed hereunder or serving the facilities constructed hereunder shall be properly maintained and operated at all times in accordance with all applicable requirements. It is understood that the responsibility for maintenance shall run as a joint and several obligation against the property served, the owner and/or the operator of the facilities, and said responsibility shall not be discharged nor in any way affected by change of ownership of said property.

MSDGC STANDARD CONDITIONS

6. **Indemnification.** The Permittee shall be solely responsible for and shall defend, indemnify and save harmless the Metropolitan Sanitary District of Greater Chicago (hereinafter MSDGC) from and against any and all claims, costs, damages, or expenses the MSDGC may suffer, incur, sustain or become liable for on account of any injury to, or death of, any person or persons, or any damage to, or destruction of, any real or personal property that may be caused by the construction, use, state of repair, operation and maintenance of the proposed facilities, arising out of or in consequence of the issuance of this permit. Without limiting the generality of the preceding sentence, the provisions of this paragraph shall extend to indemnify and save harmless the MSDGC from any claims or damages arising out of or in connection with the termination or revocation of this permit.
7. **Construction by MSDGC.** Permittee understands and acknowledges that the MSDGC has the right and power to construct and extend sewer service facilities and render such services within the area to be served by the project for which this permit is issued, and that by the MSDGC constructing and extending such sewer service facilities and rendering such services, the facilities constructed by the Permittee under this permit may decrease in value, become useless or of no value whatsoever, the Permittee may also sustain a loss of business, income and profits.

Therefore, by accepting this permit and acting thereon, the Permittee, for itself, its successors and assigns, does remise, release and forever discharge the MSDGC of any and all claims whatsoever which Permittee may now have or hereafter acquire and which Permittee's successors and assigns hereafter can, shall, or may have against the MSDGC for all losses and damages, either direct or indirect, claimed to have been incurred by reason of the construction or extension at any time hereafter by the MSDGC of sewer service facilities in the service area contemplated by this permit, the rendering of such services, which MSDGC facilities and services decrease the value of the facilities constructed by the Permittee under this permit, make same useless or of no value whatsoever, including but not limited to, any and all damages arising under Illinois Revised Statutes, Chapter 42, Section 339; the taking of private property for public use without due compensation; the interference with the contracts of Permittee; the interference with Permittee's use and enjoyment of its land; and the decrease in value of Permittee's land.

8. **Third Parties.** This permit does not grant the right or authority to the Permittee: (a) to construct or encroach upon any lands of the MSDGC or of any other parties, (b) to construct outside of the territorial boundaries of the MSDGC, (c) to construct or encroach upon the territorial boundaries of any units of local government within the MSDGC, (d) to connect to or discharge into or be served by (directly or indirectly) any sewer or sewer system owned or operated by third parties.
9. **Costs.** It is expressly stipulated and clearly understood that the sewerage system or facilities for which the permit is issued shall be constructed, operated and maintained at no cost to the MSDGC.

AFFIDAVIT OF DISCLOSURE OF PROPERTY INTEREST

STATE OF ILLINOIS)
) SS
COUNTY OF COOK)

Name of Project: The Moorings of Arlington Heights, Illinois

Location of Project: 801 Central Road, Arlington Heights, Illinois

A. Michael S. McCarthy, after first being duly
(Name of Affiant - Type or Print)

sworn under oath, states that he is (the owner and record titleholder), (a principal beneficiary of and Trustee of _____, held by _____ (Name of Trust Holder) as Trustee), (an Officer

Vice-President/Secretary of Parkside Development Corporation. (a
(official capacity) (Name of Corporation)

(official capacity) (Name of Corporation) Partnership, which is the record title holder of
~~XXXXXXXXXXXXXXXXXXXX~~ (Name of Partnership) XXXXXXXX, the entity financing the project

(Name of Partnership)

the property which is the subject of a certain sewerage system permit application (covering the project indicated and designated by the number shown above) filed with the Metropolitan Sanitary District of Greater Chicago, which property is shown on the attached plat of survey which together with the legal description of the property are attached hereto as Exhibit "A" and specifically incorporated by reference herein.

B. Affiant further states that said property described in Exhibit "A" has a total area of 43 acres and constitutes the total contiguous ownership of the owner, and that the portion of the property currently proposed for development consists of 43 acres, and the property is intended for use as described hereinafter: Continuing Care Retirement Community for older adults and related nursing home center.

*C. Affiant further states that, because of its size and intended use, the property described in Exhibit "A" comes under the requirements of the MSDGC with respect to the establishment of on-site storm water detention, and that such detention facilities will be provided as part of the project in accordance with the design and calculations furnished to satisfy said requirements with respect to the property described in Exhibit "A", and further states that:

1. The owner of the property or any beneficiary of a land trust, if any, which is the record title holder of the property has no present interest, nor had any interest at any time during the previous two years, in any lands contiguous to said property. (If such interest is or was held, detention must be provided for the total.)

2. No owner of any lands contiguous to the property and no beneficiary of a land trust, if any, which is the record title holder of any land contiguous to the property has any interest in the property. (If such interest is held, detention must be provided for the total.)

3. Affiant understands and agrees that any permit issued by MSDGC in reliance upon this affidavit shall be deemed to contain a special condition that if, within two years after the issuance of the permit, the owner or any beneficiary of a land trust, if any, which is the record title holder of the property, acquires any interest in lands contiguous to the property, the owner shall provide for storm water detention for such lands in which an interest is acquired, regardless of the size of such lands.

XX
XX
XX

[illegible]

(Affidavit to be submitted with all permit applications in separate sewer areas.)

Delete paragraph C if exemption is claimed. Delete paragraph D if no exemption is claimed.

Parcel One:

That part of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Sec. 10, T. 41 N., R. 11 E. of the 3rd P.M., described as follows: Commencing at the SW corner of said NE $\frac{1}{4}$ of the NW $\frac{1}{4}$; thence Easterly along the S. line thereof, 330.53' for a point of beginning; thence Northerly along a line, 330.5' E. of and parallel with the W. line of said NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ a distance of 192.66'; thence Easterly perpendicular to said W. line, 270.0'; thence Southeasterly along a line deflecting 45 degrees to the right from an extension of the last described line, 35.0'; thence Easterly along a line deflecting 45 degrees to the left from an extension of the last described line, 210.0'; thence Southerly parallel with said W. line, 25.0'; thence Easterly perpendicular to said W. line, 60.0'; thence Northerly parallel to said W. line, 97.48'; thence Westerly perpendicular to said W. line, 210.0'; thence Northwesterly along a line deflecting 45 degrees to the right from an extension of the last described line, 180.0'; thence Westerly parallel to said W. line of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$, a distance of 140.0'; thence Northerly parallel to said W. line, 130.0'; thence Northerly perpendicular to said W. line, 190.0'; thence Northerly parallel to said W. line, 135.84' to a point on a line 749.0' S. of and parallel to the S. line of Central Avenue; thence Easterly parallel to said S. line, 170.36'; thence Northerly perpendicular to said S. line 135.0'; thence Easterly parallel to said S. line, 200.0'; thence Northerly perpendicular to said S. line 70.0'; thence Westerly parallel to said S. line, 180.0'; thence Northerly perpendicular to said S. line, 95.0'; thence Westerly parallel with said S. line, 70.0'; thence Northerly perpendicular to said S. line, 135.0'; thence Northwesterly along a line deflecting 45 degrees to the left from an extension of the last described line, 141.42'; thence Westerly along a line deflecting 45 degrees to the left from an extension of the last described line, 175.0'; thence Southerly perpendicular to said S. line, 120.0'; thence Westerly parallel with said S. line, 434.0' to a point on the S. line of the aforesaid S. line of Central Avenue, 902.99' to a point on the E. line of said NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Sec. 10, said point being 50.0' S. of the NE corner thereof; thence Southerly along said E. line, 1368.57' to the SE corner of said NE $\frac{1}{4}$ of the NW $\frac{1}{4}$; thence Westerly along the S. line thereof, 991.0' to the point of beginning, containing 23.5198 acres, in Cook County, Illinois.

TRUE COPY

RECORDED
INDEXED
JUL 1 1907

Parcel Two: That part of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Sec. 10, T. 41 N., R. 11 E. of the 3rd P.M., described as follows: Commencing at the SW corner of said NE $\frac{1}{4}$ of the NW $\frac{1}{4}$; thence Easterly along the S. line thereof, 330.53'; thence Northerly along a line 330.50' E. of and parallel with the W. line of said NE $\frac{1}{4}$ of the NW $\frac{1}{4}$, a distance of 192.66' for a point of beginning; thence continuing Northerly along the last described line, a distance of 455.0' to a point on a line 749.0' S. of and parallel with the S. line of Central Avenue; thence Easterly along said parallel line, 287.50'; thence Southerly parallel with said W. line of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ a distance of 135.84'; thence Westerly perpendicular to said W. line, 190.0'; thence Southerly parallel with said W. line, 140.0'; thence Easterly perpendicular to said W. line, 130.0'; thence Southeasterly along a line deflecting 45 degrees to the right from an extension of the last described line, 180.0'; thence Easterly along a line deflecting 45 degrees to the left from an extension of the last described line, 210.0'; thence Southerly parallel with the aforesaid W. line of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Sec. 10, a distance of 97.48'; thence Westerly perpendicular to said W. line, 60.0'; thence Northerly parallel with said W. line 25.0'; thence Westerly perpendicular to said W. line, 210.0'; thence Northwesterly along a line deflecting 45 degrees to the right from an extension of the last described line, 35.0' thence Westerly along a line deflecting 45 degrees to the left from an extension of the last described line, 270.0' to the point of beginning, containing 2.8877 acres, in Cook County, Illinois.

3.0000

EXHIBIT A

Parcel Three:

That part of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Sec. 10, T. 41 N., R. 11 E. of the 3rd P.M., described as follows: Beginning at the SW corner of said NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Sec. 10; thence Northerly along the W. line thereof, 1406.13' to the Southerly line of Central Avenue, being a line 50.0' S. of and parallel with the N. line of said NE $\frac{1}{4}$ of the NW $\frac{1}{4}$; thence Easterly along said S. line of Central Avenue, 419.50'; thence Southerly perpendicular to said S. line, 434.0'; thence Westerly parallel with said S. line, 104.0'; thence Southerly perpendicular to said S. line 75.0'; thence Westerly parallel with said S. line, 30.0'; thence Southerly perpendicular to said S. line, 20.0'; thence Westerly parallel with said S. line, 56.0'; thence Southerly perpendicular to said S. line, 220.0' to a point on a line 749.0' S. of and parallel with the aforesaid S. line of Central Avenue; thence Easterly along said parallel line, 112.14' to a point on a line 330.50' E. of and parallel with the W. line of said NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Sec. 10; thence Southerly along said parallel line, 647.66' to a point on the S. line of said NE $\frac{1}{4}$ of the NW $\frac{1}{4}$, 330.53' E. of the point of beginning; thence Westerly along said S. line 330.53' to the point of beginning, containing 10.8645 acres, in Cook County, Illinois.

EXHIBIT A

87-787

Parcel Four:

That part of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Sec. 10, T. 41 N., R. 11 E. of the 3rd P.M., described as follows: Commencing at the SW corner of said NE $\frac{1}{4}$ of the NW $\frac{1}{4}$; thence Easterly along the S. line thereof, 330.53'; thence Northerly along a line 330.50' E. of and parallel with the W. line of said NE $\frac{1}{4}$ of the NW $\frac{1}{4}$, a distance of 647.66' for a point of beginning; thence Westerly parallel to the S. line of Central Avenue, a distance of 112.14'; thence Northerly perpendicular to said S. line, 220.0'; thence Easterly parallel to said S. line, 56.0'; thence Northerly perpendicular to said S. line 20.0'; thence Easterly parallel with said S. line, 159.0'; thence Northerly perpendicular to said S. line 75.0'; thence Easterly parallel 30.0'; thence Northerly perpendicular to said S. line 120.0'; thence Easterly parallel S. line, 159.0'; thence Northerly perpendicular to said S. line 120.0'; thence Easterly parallel with said S. line 175.0'; thence Southeasterly along a line deflecting 45 degrees to the right from an extension of the last described line, 141.42'; thence Southerly along a line deflecting 45 degrees to the right from an extension of the last described line, 135.0'; thence Easterly parallel with said S. line of Central Avenue, 70.0'; thence Southerly perpendicular to said S. line, 180.0'; thence Southerly perpendicular to said S. line 70.0'; thence Westerly parallel with said S. line, 200.0'; thence Southerly perpendicular to said S. line, 35.0'; thence Westerly parallel with said S. line, 457.86' to the point of beginning, containing 4.8239 acres, in Cook County, Illinois.

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87-282

EXHIBIT A

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MSDGC Permit No. 87-787
IEPA Log No. _____

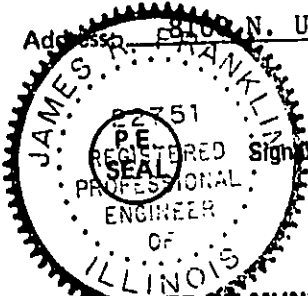
ENGINEERING CERTIFICATIONS

CERTIFICATE BY DESIGN ENGINEER: I hereby certify that the project described herein has been designed in accordance with the requirements set forth in this application and all applicable ordinances, rules, regulations, Local, State and Federal Laws, and design criteria of the issuing authority; that the storm drainage and sanitary sewer system designed for this project are proper and adequate; that, where the design involves one or more connections to an existing local sewer system, the capacity of said system has been examined and the system is found to be adequate to transport the wastewater that will be added through the proposed sewer without violating any provisions of the Illinois Environmental Protection Act or the rules and regulations thereunder.

Comments, if any: Bypass storm sewer & swale designed as dictated by Arlington Heights & Mt. Prospect.

Engineering Firm: Austin Engineering Co., Inc. Telephone: (309) 691-0224

Address: 810 N. University City: Peoria Zip: 61615



Signature [Signature] Date: September 21, 1987
(Name and Title)
James R. Franklin, P.E.
Vice President

CERTIFICATE BY MUNICIPAL OR SYSTEM ENGINEER: The application and the drawings, together with other data being submitted with this application, have been examined by me and are found to be in compliance with all applicable requirements. The manner of drainage is satisfactory and proper. The existing local sewer system to which the project discharges has been examined and the system is found to be adequate to transport the wastewater that will be added through the proposed sewer without violating any provisions of the Illinois Environmental Protection Act or the rules and regulations thereunder.

Comments, if any: _____

Owner of Local Sewer System Village of Arlington Heights, IL.

Acting Municipal Engineer: William C. Blecke Telephone: 312-577-5625

Address: 33 S. Arlington Heights Rd. City: Arlington Heights Zip: 60005



Signature [Signature] Date: 11-10-87
(Name and Title)

CERTIFICATE BY INSPECTION ENGINEER: I hereby certify that construction of the project will be in substantial compliance with the data and the plans submitted with this application; that approval will be obtained from the issuing authority prior to making any changes that would affect capacity, maintenance, design requirements, service area or the permit requirements; that a set of "As-Constructed" drawings, certified to be correct, over the signatures of both the Contractor and the Undersigned Engineer will be furnished to the MSDGC within sixty (60) days after testing and approval by the District of the completed work.

Engineering Firm: Donald Manhard & Associates Telephone: 1-312-634-1300

Address: 500 Knightsbridge Parkway Suite 150 City: Lincolnshire, IL Zip: 60069



Signature [Signature] Date: 10/28/87
(Name and Title)

SCHEDULE B - SEWER CONNECTIONS

BUILDING INFORMATION: Building sewer connections are [X], are not [] part of this permit; if part of this permit, complete the following:

- * 1. **TYPE OF CONSTRUCTION:** Residential [X], Commercial [], Light Industrial [], Manufacturing [], Recreational [], Existing Septic System to be abandoned [], Other _____.
2. **RESIDENTIAL BUILDINGS:** Single Family [], Multiple Family [X]. If single family: Total dwelling units _____; Estimated total population _____. If multiple family: Number of buildings 6; Number of dwelling units per building 251 Total; Total number of sewer connections 11; Estimated total population 542 + 50 employees (est.) *22 units / 112g*
3. **NON-RESIDENTIAL BUILDINGS:** Describe use of building None.
Product manufactured or process used _____.
Number of buildings to be served under this permit _____. Number of sewer connections under this permit _____.
Estimated number of employees _____. Estimated number of occupants (transients) _____. Estimated total flow _____ gpd. Population equivalent (If based on BOD, use IPCB basis) _____.
4. **BUILDING USE:** Use of building will involve the following: Food preparation Yes [X] No []; Food processing Yes [] No [X]; Auto Service Yes [] No [X]; Auto Wash Yes [] No [X]. If building involves any of these uses, indicate if sewer connections will receive domestic sewage only [], will receive other wastes (commercial, not industrial) [X]; if wastes other than domestic are discharged, indicate method of control being provided; Grease separator [X], Triple Basin [], Mud Basin [], other [] specify _____.
Indicate whether control is inside [X], or outside building []. Industrial waste is [], is not [X] produced by the intended use of the building. (Unless permitted under the special conditions, discharge of industrial waste is prohibited). If industrial waste is produced, submit Schedule F, indicate method of disposal N/A.
This project includes a swimming pool: Yes [X], No []; if yes, submit piping drawings.
(Future swimming pool)
5. Complete summary of Sanitary Sewers on Schedule C.
- * Apartments for rent

SCHEDULE C - SEWER EXTENSIONS

NATURE OF PROJECT: Project consists of single sewer extension to serve the building(s) indicated above (not ~~to be~~ ~~extended~~ [X]; Consists of a sewer system (to serve a subdivision) []; Consists of a trunk sewer only (outlet sewer with no proposed connections) to serve future development []. Project is publicly financed Yes [], No [X].

AREA AND POPULATION: Submit a map of service area and complete the following:

1. Area serviceable by the sewers covered by this permit (including area to be served hereunder) 23.3 acres; population 542 + 50 employees
2. Potential service area of sewers covered by this permit, including planned or anticipated extensions 28.9 acres; population 596 + 50 employees
3. Design flow: average (if based on other than 100 gpcpd) 61,350 gpcpd; Maximum design flow as percent of average 400%. (Use MSDGC Manual of Procedures, Article 3 - 7).
4. Basis of design for area zoned or planned for non-residential use: Average design flow N/A gpd/acre. Maximum design flow as percent of average _____

SUMMARY OF SANITARY SEWERS (INCLUDE ALL SEWERS IN COMBINED SEWER AREA): Include building service sewers (stubs or risers) if any.

Pipe size - inches	10"	8" ✓	6"	#1 VCP ASTM C-700		
Total length - feet	2078	210	304 352	#2 ASTM C-425 & D-1784		
Min. slope used - %	0.28	0.50	1.00	#3 D.I. ANSI A21.51		
Max. slope used - %	0.28	6.00	100*	#4 ANSI ANSI A21.11		
Pipe Material & Spec.	#1	#1 #3	#1	*Service riser		
Joint Material & Spec.	#2	#2 #4	#2			
Total Manholes	9					
Total Cleanouts	0	0	5			

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MSDGC Permit No.
IEPA L. No.

87-787

SCHEDULE D - DETENTION*

I. Project Information

Name of Project (as shown on plans) The Moorings of Arlington Heights, IllinoisLocation 801 Central Road, Arlington Heights, Illinois

Design criteria: MSDGC () ; Local Government () ; Other ()

II. Determination of Allowable Release Rate - Undeveloped Site:

NORTH DETENTION BASIN

1. Area of site	80	acres
2. Average ground slope	0.009	foot/foot
3. Overland flow distance	700	feet
4. Overland flow time of concentration	45	minutes
5. Average slope of channelized flow (See Note a)	-	foot/foot
6. Channelized flow distance (See Note a)	-	feet
7. Channelized flow time of concentration	-	minutes
8. Total time of concentration (Line 4 + Line 7)	45	minutes
9. Rainfall intensity for three-year storm	1.91	inches/hr.
10. Runoff coefficient (Use c=0.15 as maximum, see Article 6-4b(1) of the MSDGC Manual)	0.15	
11. Allowable release rate, (line 1 x line 9 x line 10: Q=cIA)	2.29	cfs.

Note a: For flow in a well defined channel determine time of concentration from measured lengths, cross-sections and slopes and submit necessary calculations and drawings.

III. Determination of Reservoir Size - Developed Site:

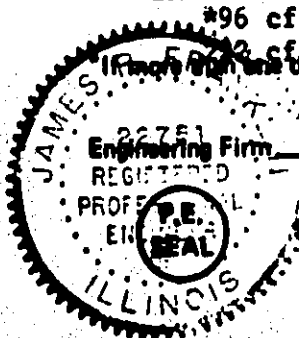
12. Impervious drainage area	3.1	acres
13. Pervious drainage area	4.9	acres
14. Composite runoff coefficient (c). (Submit calculations)	0.67	
15. Required reservoir capacity (Submit calculations)	1.14	acre-feet

IV. Permissible Bypass Rate through Development Site from Upstream Area:

16. Total area upstream	391	acres
17. Future/present impervious area (cross out inappropriate case)	-	acres
18. Future/present pervious area (cross out inappropriate case)	-	acres
19. Composite runoff coefficient (Must not be less than 0.35 per MSDGC Manual of Procedures Article 6-4b(2))	0.50	
20. Design storm frequency for the upstream area	5	year
(Design storm frequency shall be as determined by local ordinance; if no local requirement is established, use 5-yr. storm frequency.)		
21. Time of concentration for the upstream area at point of entry; upstream area to be considered as developed. (By same method as line 8)	92	minutes
22. Design storm intensity for above duration	2.06	inches/hour
23. Permissible bypass rate (line 16 x line 19 x line 22)	*96	cfs.

*96 cfs = max. rate into Mt. Prospect storm sewer as per Mt. Prospect

If more than one detention reservoir is provided, submit separate schedules and calculations as necessary.



Austin Engineering Co., Inc., Peoria, Illinois

Signature James R. Franklin
(Name and Title)

Date Oct. 20, 1987Rev. 2/10/88

James R. Franklin, P.E. Vice President

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MSDGC Permit No. 87 787
IEPA Log No. _____

SCHEDULE D - DETENTION

I. Project Information

Name of Project (as shown on plans) The Moorings of Arlington HeightsLocation 801 Central Road, Arlington Hts., ILDesign criteria: MSDGC [] ; Local Government [☒]; Other [] _____

II. Determination of Allowable Release Rate - Undeveloped Site:

Northeast Detention Basin

- | | | |
|---|-------------|------------|
| 1. Area of site | <u>2.10</u> | acres |
| 2. Average ground slope | _____ | foot/foot |
| 3. Overland flow distance | _____ | feet |
| 4. Overland flow time of concentration | <u>45</u> | minutes |
| 5. Average slope of channelized flow (See Note a) | _____ | foot/foot |
| 6. Channelized flow distance (See Note a) | <u>1</u> | feet |
| 7. Channelized flow time of concentration | _____ | minutes |
| 8. Total time of concentration (Line 4 + Line 7) | <u>45</u> | minutes |
| 9. Rainfall intensity for three-year storm | <u>1.91</u> | inches/hr. |
| 10. Runoff coefficient (Use $c=0.15$ as maximum, see Article 6-4b(1) of the MSDGC Manual) | <u>0.15</u> | |
| 11. Allowable release rate, (line 1 x line 9 x line 10: $Q=ciA$) | <u>0.60</u> | cfs. |

Note a: For flow in a well defined channel determine time of concentration from measured lengths, cross-sections and slopes and submit necessary calculations and drawings.

III. Determination of Reservoir Size - Developed Site:

- | | | |
|---|-------------|-----------|
| 12. Impervious drainage area | <u>0</u> | acres |
| 13. Pervious drainage area | <u>2.10</u> | acres |
| 14. Composite runoff coefficient (c). (Submit calculations) | <u>0.5</u> | |
| 15. Required reservoir capacity (Submit calculations) | <u>0.20</u> | acre-feet |

IV. Permissible Bypass Rate through Development Site from Upstream Area:

- | | | |
|--|-------|-------------|
| 16. Total area upstream | _____ | acres |
| 17. Future/present impervious area (cross out inappropriate case) | _____ | acres |
| 18. Future/present pervious area (cross out inappropriate case) | _____ | acres |
| 19. Composite runoff coefficient (Must not be less than 0.35 per MSDGC Manual of Procedures Article 6-4b(2)) | _____ | |
| 20. Design storm frequency for the upstream area | _____ | year |
| (Design storm frequency shall be as determined by local ordinance; if no local requirement is established, use 5-yr. storm frequency.) | | |
| 21. Time of concentration for the upstream area at point of entry; upstream area to be considered as developed. (By same method as line 8) | _____ | minutes |
| 22. Design storm intensity for above duration | _____ | inches/hour |
| 23. Permissible bypass rate (line 16 x line 19 x line 22) | _____ | cfs. |

If a detention reservoir is provided, submit separate schedules and calculations as necessary.

Donald Manhard Associates, Inc.



Signature _____

(Name and Title)

Proj. Eng. Date 2/10/88

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MSDGC Permit No.
IEPA Log No.

87 787

SCHEDULE D - DETENTION*

I. Project Information

Name of Project (as shown on plans) The Moorings of Arlington Heights, IllinoisLocation 801 Central Road, Arlington Heights, Illinois

Design criteria: MSDGC [] ; Local Government [] ; Other []

EAST LAKE

II. Determination of Allowable Release Rate - Undeveloped Site:

- | | | |
|---|--------|------------|
| 1. Area of site | 6.26 | acres |
| 2. Average ground slope | 0.014 | foot/foot |
| 3. Overland flow distance | 440 | feet |
| 4. Overland flow time of concentration | 45 | minutes |
| 5. Average slope of channelized flow (See Note a) | - | foot/foot |
| 6. Channelized flow distance (See Note a) | - | feet |
| 7. Channelized flow time of concentration | - | minutes |
| 8. Total time of concentration (Line 4 + Line 7) | 45 | minutes |
| 9. Rainfall intensity for three-year storm | 1.91 | inches/hr. |
| 10. Runoff coefficient (Use $c=0.15$ as maximum, see Article 6-4b(1) of the MSDGC Manual) | 0.15 | |
| 11. Allowable release rate, (line 1 x line 9 x line 10: $Q=ciA$) | * 1.79 | cfs. |

(USE 1.47 CFS AS PER VILLAGE

Note a: For flow in a well defined channel determine time of concentration from measured lengths, cross-sections RESTRICTIONS and slopes and submit necessary calculations and drawings.

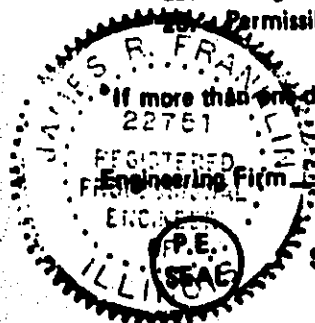
III. Determination of Reservoir Size - Developed Site:

- | | | |
|---|------|-----------|
| 12. Impervious drainage area | 2.84 | acres |
| 13. Pervious drainage area | 3.42 | acres |
| 14. Composite runoff coefficient (c). (Submit calculations) | 0.70 | |
| 15. Required reservoir capacity (Submit calculations) | 1.00 | acre-feet |

IV. Permissible Bypass Rate through Development Site from Upstream Area:

- | | | |
|--|--|-------------|
| 16. Total area upstream | | acres |
| 17. Future/present impervious area (cross out inappropriate case) | | acres |
| 18. Future/present pervious area (cross out inappropriate case) | | acres |
| 19. Composite runoff coefficient (Must not be less than 0.35 per MSDGC Manual of Procedures Article 6-4b(2)) | | |
| 20. Design storm frequency for the upstream area | | year |
| (Design storm frequency shall be as determined by local ordinance; if no local requirement is established, use 5-yr. storm frequency.) | | |
| 21. Time of concentration for the upstream area at point of entry; upstream area to be considered as developed. (By same method as line 8) | | minutes |
| 22. Design storm intensity for above duration | | inches/hour |
| 23. Permissible bypass rate (line 16 x line 19 x line 22) | | cfs. |

If more than one detention reservoir is provided, submit separate schedules and calculations as necessary.



Austin Engineering Co., Inc., Peoria, Illinois

Signature

(Name and Title)

James R. Franklin, P.E. Vice President

Date Oct. 20, 1987

Rev. 2/10/88

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MSDGC Permit ID
IEPA Log No.

87 787

SCHEDULE D - DETENTION*

I. Project Information

Name of Project (as shown on plans) The Moorings of Arlington Heights, IllinoisLocation 801 Central Road, Arlington Heights, Illinois

Design criteria: MSDGC [] ; Local Government [] ; Other []

SOUTHEAST DETENTION BASIN

II. Determination of Allowable Release Rate - Undeveloped Site:

- | | | |
|---|-------|------------|
| 1. Area of site | 4.17 | acres |
| 2. Average ground slope | 0.005 | foot/foot |
| 3. Overland flow distance | 950 | feet |
| 4. Overland flow time of concentration | 45 | minutes |
| 5. Average slope of channelized flow (See Note a) | - | foot/foot |
| 6. Channelized flow distance (See Note a) | - | feet |
| 7. Channelized flow time of concentration | - | minutes |
| 8. Total time of concentration (Line 4 + Line 7) | 45 | minutes |
| 9. Rainfall intensity for three-year storm | 1.91 | inches/hr. |
| 10. Runoff coefficient (Use $c=0.15$ as maximum, see Article 6-4b(1) of the MSDGC Manual) | 0.15 | |
| 11. Allowable release rate, (line 1 x line 9 x line 10: $Q=ciA$) | 1.19 | cfs. |

(USE 0.98 CFS AS PER VILLAGE RESTRICTIONS)

Note a: For flow in a well defined channel determine time of concentration from measured lengths, cross-sections and slopes and submit necessary calculations and drawings.

* 1.19 cfs + 1.79 cfs from lake

TOTAL RELEASE = 2.98 cfs (use 2.45 cfs as per Village restrictions)

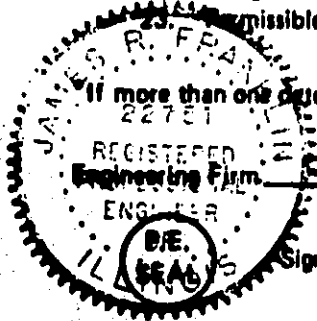
III. Determination of Reservoir Size - Developed Site:

- | | | |
|---|------|-----------|
| 12. Impervious drainage area | 1.21 | acres |
| 13. Pervious drainage area | 2.96 | acres |
| 14. Composite runoff coefficient (c). (Submit calculations) | 0.63 | |
| 15. Required reservoir capacity (Submit calculations) | 0.58 | acre-feet |

IV. Permissible Bypass Rate through Development Site from Upstream Area:

- | | | |
|--|--|-------------|
| 16. Total area upstream | | acres |
| 17. Future/present impervious area (cross out inappropriate case) | | acres |
| 18. Future/present pervious area (cross out inappropriate case) | | acres |
| 19. Composite runoff coefficient (Must not be less than 0.35 per MSDGC Manual of Procedures Article 6-4b(2)) | | |
| 20. Design storm frequency for the upstream area | | year |
| (Design storm frequency shall be as determined by local ordinance; if no local requirement is established, use 5-yr. storm frequency.) | | |
| 21. Time of concentration for the upstream area at point of entry; upstream area to be considered as developed. (By same method as line 8) | | minutes |
| 22. Design storm intensity for above duration | | inches/hour |
| 23. Permissible bypass rate (line 16 x line 19 x line 22) | | cfs. |

If more than one detention reservoir is provided, submit separate schedules and calculations as necessary.



Austin Engineering Co., Inc., Peoria, Illinois

Signature

(Name and Title)

James R. Franklin, P.E. Vice President

B C

Date Oct. 20, 1987

Rev. 2/10/88

SCHEDULE D - DETENTION*

I. Project Information

Name of Project (as shown on plans) The Moorings of Arlington Heights, Illinois

Location 801 Central Road, Arlington Heights, Illinois

Design criteria: MSDGC [] ; Local Government [] ; Other [] _____

II. Determination of Allowable Release Rate - Undeveloped Site:

WEST LAKE

1. Area of site	14.86	acres
2. Average ground slope	0.0033	foot/foot
3. Overland flow distance	1200	feet
4. Overland flow time of concentration	45	minutes
5. Average slope of channelized flow (See Note a)	-	foot/foot
6. Channelized flow distance (See Note a)	-	feet
7. Channelized flow time of concentration	-	minutes
8. Total time of concentration (Line 4 + Line 7)	45	minutes
9. Rainfall intensity for three-year storm	1.91	inches/hr.
10. Runoff coefficient (Use c=0.15 as maximum, see Article 6-4b(1) of the MSDGC Manual)	0.15	
11. Allowable release rate, (line 1 x line 9 x line 10: C=ciA)	4.26	cfs.

Note a: For flow in a well defined channel determine time of concentration from measured lengths, cross-sections and slopes and submit necessary calculations and drawings.

* use 3.50 cfs detention basin restriction

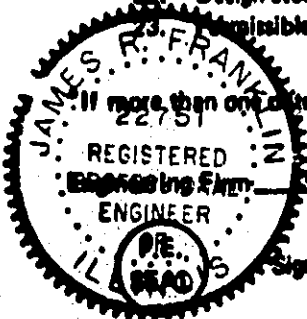
III. Determination of Reservoir Size - Developed Site:

12. Impervious drainage area	5.0	acres
13. Pervious drainage area	9.86	acres
14. Composite runoff coefficient (c). (Submit calculations)	0.65	
15. Required reservoir capacity (Submit calculations)	2.15	acre-feet

IV. Permissible Bypass Rate through Development Site from Upstream Area:

16. Total area upstream	_____	acres
17. Future/present impervious area (cross out inappropriate case)	_____	acres
18. Future/present pervious area (cross out inappropriate case)	_____	acres
19. Composite runoff coefficient (Must not be less than 0.35 per MSDGC Manual of Procedures Article 6-4b(2))	_____	
20. Design storm frequency for the upstream area	_____	year
(Design storm frequency shall be as determined by local ordinance; if no local requirement is established, use 5-yr. storm frequency.)		
21. Time of concentration for the upstream area at point of entry; upstream area to be considered as developed. (By same method as line 8)	_____	minutes
22. Design storm intensity for above duration	_____	inches/hour
Permissible bypass rate (line 16 x line 19 x line 22)	_____	cfs.

If more than one detention reservoir is provided, submit separate schedules and calculations as necessary.



Austin Engineering Co., Inc., Peoria, Illinois

Signature James R. Franklin
(Name and Title)

Date Oct. 20, 1987

Rev. 2/10/88

James R. Franklin, P.E. Vice President

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MSDGC Permit No.
IEPA Log No.

87 787

SCHEDULE D - DETENTION*

I. Project Information

Name of Project (as shown on plans) The Moorings of Arlington Heights, IllinoisLocation 801 Central Road, Arlington Heights, Illinois

Design criteria: MSDGC [] ; Local Government [] ; Other []

SOUTHWEST DETENTION BASIN

II. Determination of Allowable Release Rate - Undeveloped Site:

- | | | |
|---|--------|------------|
| 1. Area of site | 4.02 | acres |
| 2. Average ground slope | 0.0008 | foot/foot |
| 3. Overland flow distance | 600 | feet |
| 4. Overland flow time of concentration | 4.5 | minutes |
| 5. Average slope of channelized flow (See Note a) | - | foot/foot |
| 6. Channelized flow distance (See Note a) | - | feet |
| 7. Channelized flow time of concentration | - | minutes |
| 8. Total time of concentration (Line 4 + Line 7) | 4.5 | minutes |
| 9. Rainfall intensity for three-year storm | 1.91 | inches/hr. |
| 10. Runoff coefficient (Use $c=0.15$ as maximum, see Article 6-4b(1) of the MSDGC Manual) | 0.15 | |
| 11. Allowable release rate, (line 1 x line 9 x line 10: $Q=cIA$) | *1.45 | cfs. |

(USE 0.98 CFS AS PER VILLAGE RESTRICTION)

Note a: For flow in a well defined channel determine time of concentration from measured lengths, cross-sections and slopes and submit necessary calculations and drawings.

*1.15 + 4.26 from west lake
TOTAL RELEASE = 5.41 cfs (use 4.45 cfs as per Village restrictions)

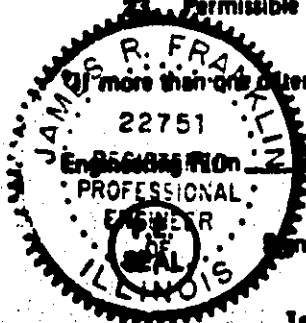
III. Determination of Reservoir Size - Developed Site:

- | | | |
|---|------|-----------|
| 12. Impervious drainage area | 1.39 | acres |
| 13. Pervious drainage area | 2.63 | acres |
| 14. Composite runoff coefficient (c). (Submit calculations) | 0.66 | |
| 15. Required reservoir capacity (Submit calculations) | 0.59 | acre-feet |

IV. Permissible Bypass Rate through Development Site from Upstream Area:

- | | | |
|--|--|-------------|
| 16. Total area upstream | | acres |
| 17. Future/present impervious area (cross out inappropriate case) | | acres |
| 18. Future/present pervious area (cross out inappropriate case) | | acres |
| 19. Composite runoff coefficient (Must not be less than 0.35 per MSDGC Manual of Procedures Article 6-4b(2)) | | |
| 20. Design storm frequency for the upstream area | | year |
| (Design storm frequency shall be as determined by local ordinance; if no local requirement is established, use 5-yr. storm frequency.) | | |
| 21. Time of concentration for the upstream area at point of entry; upstream area to be considered as developed. (By same method as line 8) | | minutes |
| 22. Design storm intensity for above duration | | inches/hour |
| 23. Permissible bypass rate (line 16 x line 19 x line 22) | | cfs. |

If more than one detention reservoir is provided, submit separate schedules and calculations as necessary.



Austin Engineering Co., Inc., Peoria, Illinois

Signature James R. Franklin
(Name and Title)

James R. Franklin, P.E. Vice President

Date Oct. 20, 1987

Rev. 2/10/88

SPECIAL CONDITIONS FOR PERMIT NO. 87-787

1. All waste containing grease shall be discharged to a grease interceptor or grease trap before discharge into the sewer with the exception of restaurant dishwashers, which shall have their discharge bypass the grease separator or grease trap and discharge to an open drain or directly to the sanitary sewer.
2. This permit is issued in reliance upon the Affidavit of Disclosure of Property Interest (Schedule K) submitted by the owner, and said Affidavit is incorporated herein and made a part hereof.
3. The storm water detention facilities shown on the plans are made a part of this permit. Construction of these facilities shall proceed prior to or concurrently with other construction on the project and shall be completed before any occupancy occurs. The detention is provided by two (2) lakes and four (4) detention basins with 6 outlet pipes as tabulated:

<u>Basin/Lake</u>	<u>Outlet Pipe Diameter (inches)</u>
North Basin	8
N.E. Basin	6
East Lake	8
S.E. Basin	6
West Lake	10
S.W. Basin	8

4. A swimming pool is not included under this permit. A new permit will be required for the swimming pool.

10. **Other Construction.** The MSDGC reserves the right, privilege and authority to permit others to reconstruct, change, alter and replace all sewers and appurtenances thereto at the point of connection of any sewerage system to an MSDGC interceptor and/or in public right-of-ways of MSDGC easements, and to introduce additional sewage flow through this connection into the intercepting sewer of said MSDGC.
11. **Change of Use.** This permit shall be incorporated in the Building and Occupancy Permit for the building or buildings served under this permit. The owner or occupant of any building served under this permit shall not cause, or permit, a change of use of the building to a use other than that indicated in this permit without first having obtained a written permission from the General Superintendent of the MSDGC.
12. **Interceptors Overloading.** The MSDGC hereby serves notice that its interceptors may flow full and may surcharge, and flooding of the proposed system may occur. The Permittee agrees that the proposed systems shall be constructed, operated and maintained at the sole risk of the Permittee.
13. **Non-Transferability.** This permit may not be assigned or transferred without the written consent of the General Superintendent of the MSDGC.
14. **Termination.** It is understood and agreed that in the event the Permittee shall default in or fail to perform and carry out any of the covenants, conditions and provisions of this permit and such default or violation shall continue for sixty (60) days after receipt or notice thereof in writing given by the General Superintendent of the MSDGC, then it shall be lawful for the MSDGC at or after the expiration of said sixty (60) days to declare said permit terminated. The Permittee agrees that immediately upon receipt of written notice of such termination it will stop all operations, discontinue any discharges and disconnect the sewerage system or facilities constructed under this permit. If the Permittee fails to do so, the MSDGC shall have the right to disconnect said system. The Permittee hereby agrees to pay for any costs incurred by the MSDGC for said disconnection. The various rights and remedies of the MSDGC contained in this permit shall be construed as cumulative, and no one of them shall be construed as exclusive of any one or more of the others or exclusive of any other rights or remedies allowed by applicable rules, regulations, ordinances and laws. An election by the MSDGC to enforce any one or more of its rights or remedies shall not be construed as a waiver of the rights of the MSDGC to pursue any other rights or remedies provided under the terms and provisions of this permit or under any applicable rules, regulations, ordinances or laws.
15. **Expiration.** This permit shall expire if construction has not started within one (1) year from the date of issue. Construction under an expired permit is deemed construction without a permit. All construction under this permit shall be completed within two (2) years after start of construction. If conditions so warrant, an extension may be granted. For publicly financed projects (e.g. special assessments) the one (1) year period indicated will be considered from the date of final court action.
16. **Revocation.** In issuing this permit, the MSDGC has relied upon the statements and representations made by the Permittee or his agent. Any incorrect statements or representations shall be cause for revocation of this permit, and all the rights of the Permittee hereunder shall immediately become null and void.
17. **Advance Notice.** Prior to commencement of construction under this permit, the Permittee shall give the MSDGC an advance notice of at least two working days. When advance notice is given, the Permittee shall provide the permit number, municipality and location.
18. **Compliance with Plans and Specifications.** All construction shall be in accordance with the plans and specifications submitted for this permit and made a part hereof. No changes in, or deviation from the plans and specifications which affect capacity, maintenance, design requirements, service area or permit requirements shall be permitted unless revised plans shall have been submitted to, and approved by, the MSDGC. The permit together with a set of the plans and specifications (revised plans and specifications, if any) shall be kept on the job site at all times during construction until final inspection and approval by the MSDGC.
19. **Testing and Approval.** All construction under this permit shall be subject to inspection, testing and approval by the MSDGC. All testing shall be made, or caused to be made, by the Permittee at no cost to the MSDGC and in the presence of the MSDGC representative. Upon satisfactory completion of construction, the Permittee and the owner shall submit, or cause to be submitted, a completion certificate and request for approval on the form prescribed by the MSDGC. No sewer or other facilities shall be put in service until all the conditions of the permit have been satisfactorily met.
20. **"As-Constructed Drawings."** Within sixty (60) days after final inspection and approval by the MSDGC, the Permittee shall furnish, or cause to be furnished to the MSDGC, a set of "As-Constructed" drawings, or a statement that the project was constructed in accordance with the original plans and specifications.
21. **Compliance with Rules and Regulations.** The Permittee hereby expressly assumes all responsibilities for meeting the requirements of all applicable rules, regulations, ordinances and laws of Local, State and Federal authorities. Issuance of this permit shall not constitute a waiver of any applicable requirements.

OFFICE COPY

MSDGC Permit No.

IEPA 87-787

SPECIAL CONDITIONS: This permit is issued subject to the MSDGC's General Conditions, Standard Conditions and the following Special Conditions:

ATTACHED HERETO IS ONE PAGE OF SPECIAL CONDITIONS MADE A PART HEREOF.

CERTIFICATE BY APPLICANTS: We have read and thoroughly understand the conditions and requirements of this permit application, and agree to conform to the permit conditions and other applicable requirements of the MSDGC. It is understood that construction hereunder, after the permit is granted, shall constitute acceptance by the applicants of any Special Conditions that may be placed hereon by the MSDGC. It is further understood that this application shall not constitute a permit until it is approved, signed and returned by the Chief Engineer of the MSDGC.

Title to permit premises is held in a land trust: Yes [] No [X]. If yes, disclosure of beneficiaries is required.

If permit is granted: please return two copies of the permit to the Permittee []/Please mail one copy to Permittee and one copy to the person designated below [X]:

Name James R. Franklin, P.E. Address Austin Engineering Co., Inc.
8100 N. University, Peoria, IL 61615

PERMITTEE

CO-PERMITTEE*

Municipality <u>Village of Arlington Heights, IL</u>	Owner <u>Parkside Development Corporation</u>
Address <u>33 S. Arlington Road</u>	Address <u>c/o Lutheran General Health Care System</u>
<u>Arlington Heights, IL Zip 60005</u>	<u>1775 Dempster St.</u>
Signature <u>William C. Blech</u>	Signature <u>Robert F. Underwood</u>
Name & Title <u>ACTING DIR. OF ENG.</u>	Name & Title <u>Associate Director</u>
Date <u>11-10-87</u> Phone <u>577 5625</u>	Date _____ Phone <u>312-696-7190</u>

*(As required by MSDGC Ordinance; in other cases, as requested by Permittee)



REVIEW AND APPROVAL BY THE MSDGC

Reviewed by

Raymond Dingle Jr.
(Local Sewer Systems)

Date

4.8.88

Approved for issue:

THE METROPOLITAN SANITARY DISTRICT
OF GREATER CHICAGO

Date of Issue:

APR - 8 1988

By:

F. E. Juliano
For the (Chief Engineer)

THIS AREA TO BE
A FUTURE EXT.
WITH A SEPARATE
SAN. SEWER CONN.

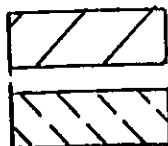
PHASE ①

DOUGLAS AVE.

FUTURE EXT. TO
PHASE ① TO BE
SERVED BY PHASE
① SAN. SEWERS

True copy of plans on file with
Metropolitan Sanitary District
of Greater Chicago Sewerage
Permit 87-7-87

OFFICE COPY



TOTAL PROPERTY AREA

42.1 ACRES

AREA OF PHASE ①

23.3 ACRES

FUTURE EXTENSION TO
PHASE ①

5.6 ACRES

REMAINING PROPERTY TO
BE SERVED BY SEPARATE
SAN. SEWER CONNECTION

13.2 ACRES

EXISTING 21"
SAN. SEWER
KIMBALL HULL
TO MSD INTER-
CEPTOR- UPPER
DESPLANES SEWER
CONT. II-B

MH 1

MH 2

MH 3

MH 4

MH 5

MH 6

MH 9

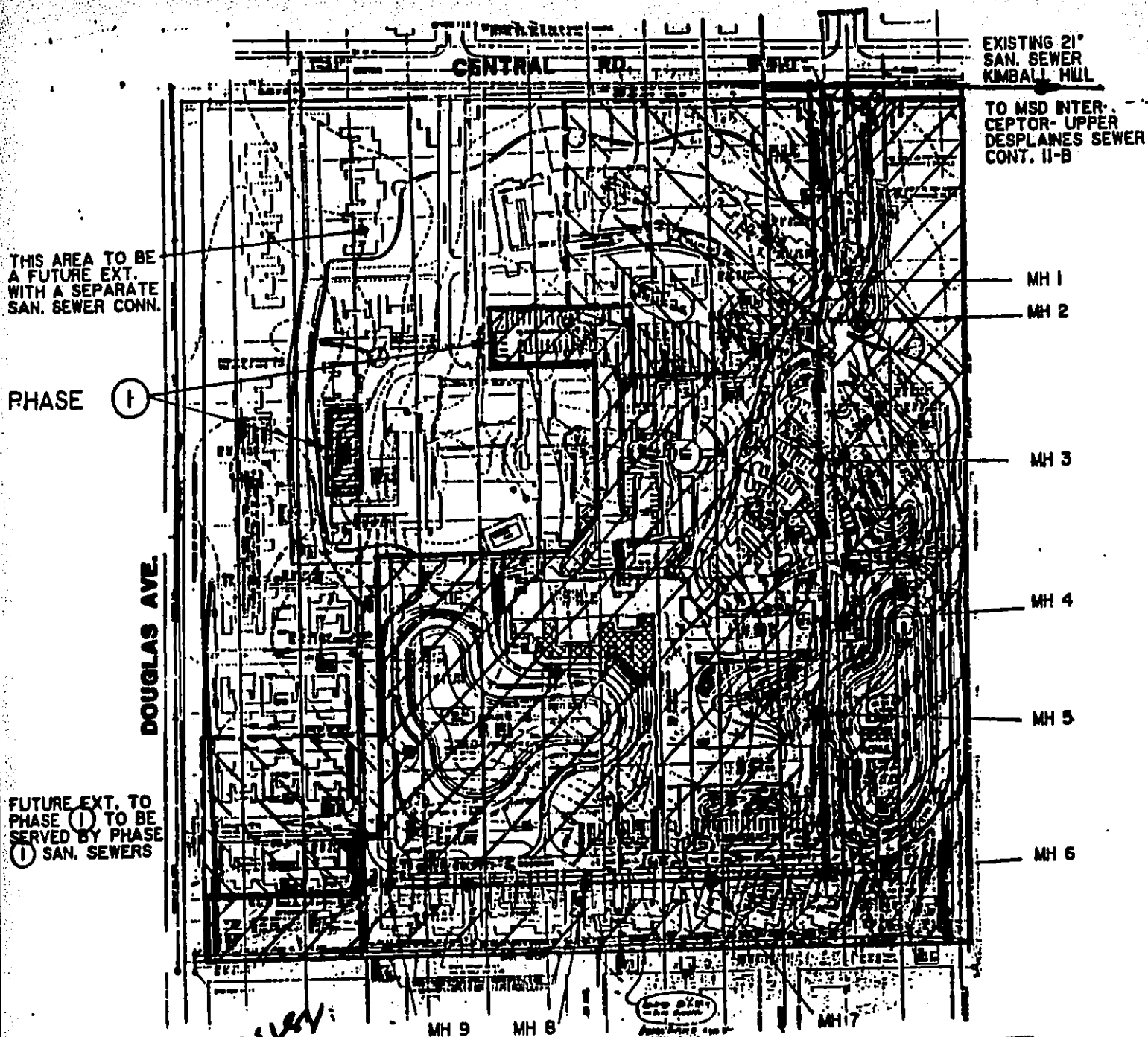
MH 8

MH 7



THE MOORINGS OF
ARLINGTON HEIGHTS, IL.

AUSTIN ENGINEERING CO., INC.



Revised 2/25/84

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87 787



TOTAL PROPERTY AREA

42.1 ACRES

AREA OF PHASE ①

23.3 ACRES

FUTURE EXTENSION TO PHASE ①

5.6 ACRES

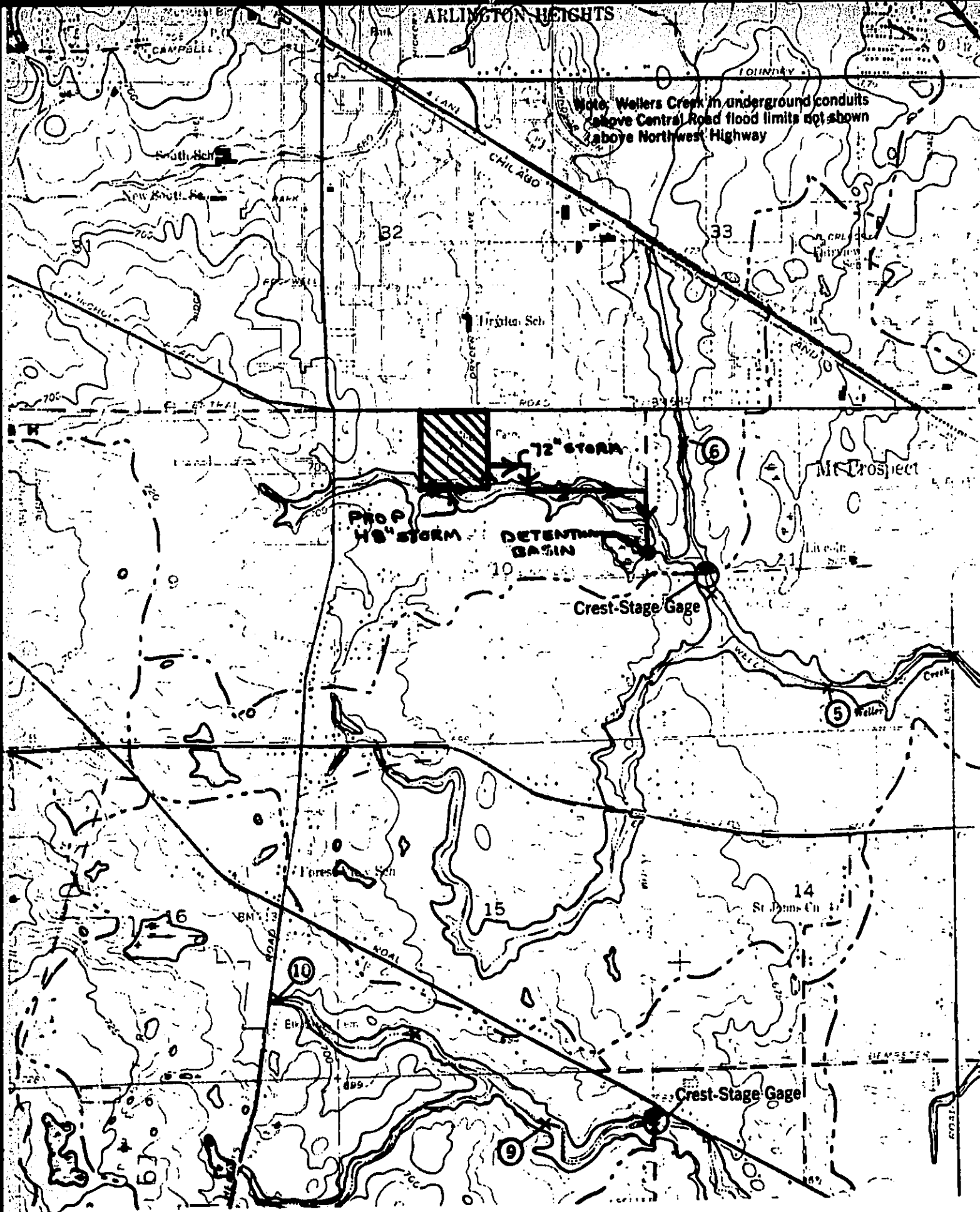
REMAINING PROPERTY TO BE SERVED BY SEPARATE SAN. SEWER CONNECTION

13.2 ACRES



THE MOORINGS OF
ARLINGTON HEIGHTS, IL.

AUSTIN ENGINEERING CO., INC.



ARLINGTON HEIGHTS QUADRANGLE MAP
USGS TOPOGRAPHY

OUTLET STORM SEWER ROUTING

87-787

SHEET 19A OF 19

Arlington Heights.

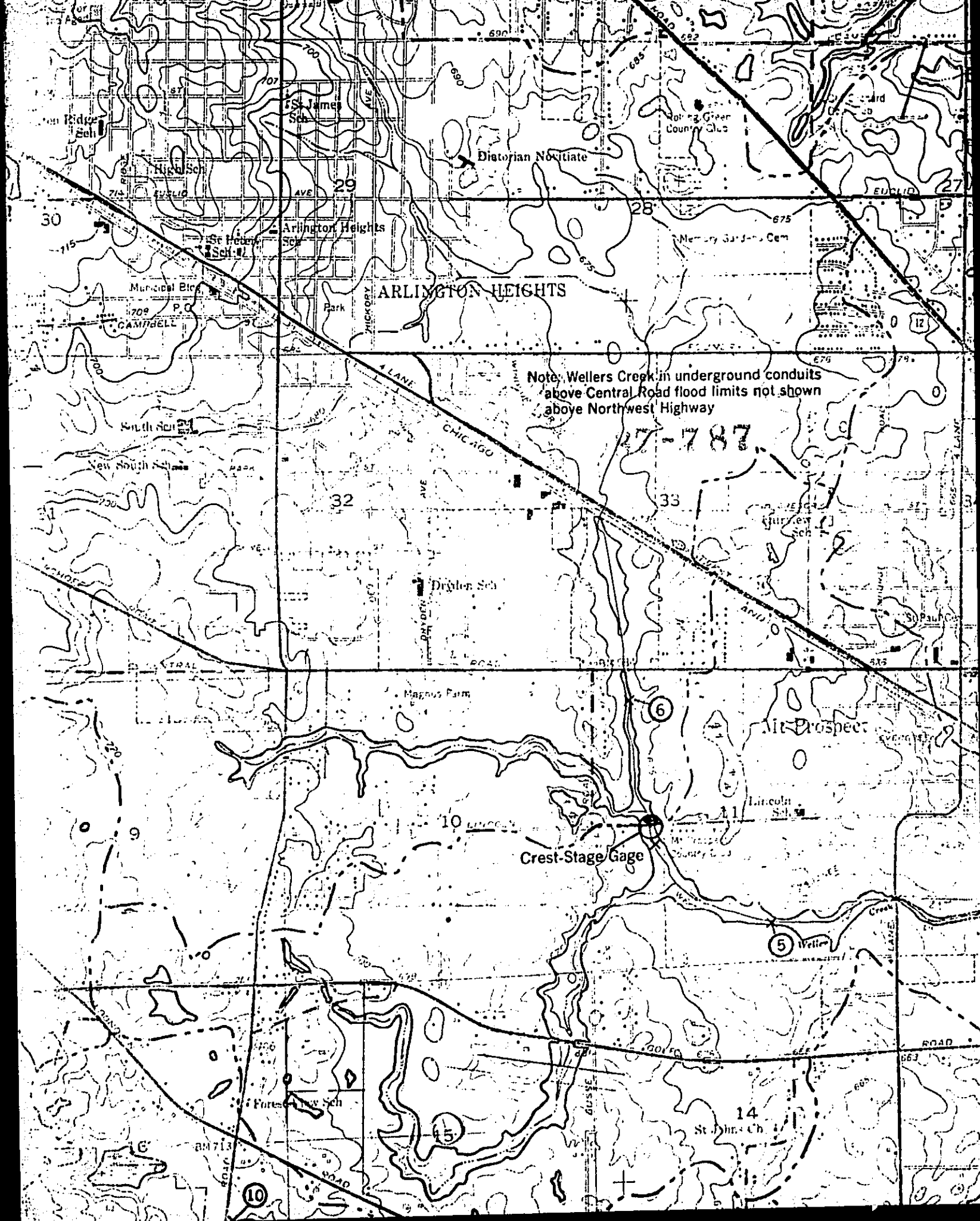
87 787

Regular. Project Area
Existing Improvements
prior to

OFFICE COPY

1972





DETENTION REVIEW SHEET

A. PROJECT

Permit No.

87 787

Date Received 11/12/88

Name of Project The Moorings of Arlington Hgts

Location 801 Central Road

B. Basic Information

1. Total Project Area 42.1 Acres

2. Impervious Area: (a) Existing 28; (b) New 11.0

APP 0 11/12/88

3. Runoff Coefficient See calculations

4. Project is: Residential ☒; Non-Residential ☐

5. Project is in flood plain area yes/no ☒

6. Building Connections are proposed under this permit ☒ yes/no

7. Detention is required for the project covered by this permit ☒ yes/no

8. Detention is provided under this permit ☒ yes/no

9. Detention criteria: MSD ☒; Other ☐

C. Non-Applicability

Detention requirements are not applicable for the reason(s) indicated:

1. Project is in combined sewer area ☐

2. Total contiguous ownership is less than 5 acres ☐

3. Remaining developable ownership as of 1/1/72 is less than 5 acres . ☐

4. Project is single family, residential and area is less than 10 acres ☐

5. Project consists of an outlet sewer only and no connections are proposed ☐

6. Project consists of sewer rehabilitation work only ☐

7. Buildings existing and currently served by septic system ☐

8. No new impervious area proposed ☐

9. Other ☐

D. Relation with Other Projects

1. Detention required for this project is provided by existing/ proposed detention facilities Facilities are covered by Permit No. ☐

D. Relation with Other Projects

2. Detention facilities provided under this permit are intended to serve other areas
If so, contributing area is _____ acres.
3. Project covered by permit receives drainage from another area and the flow is bypassed
4. This project is part of a previous development that exceeded five/ten acres and for which detention has been previously provided in full or in part
5. This project is part of a total contiguous land holding that exceeds five/ten acres and for which no detention has been provided
6. This project is part of an area previously encumbered for detention

E. Design Summary

	MSD Requirements	Project Design
1. Drainage area for which detention is provided under this permit	xxxx	39.41 acre
2. Detention requirements for area above	5.66 ac. ft.	10.94 ac. ft.
3. Detention requirements for this project	5.66 ac. ft.	10.94 ac. ft.
4. Release rate for drainage area (1) above	11.28 cfs	8.97 cfs
5. Bypass rate, if any (Bypass is routed thru the property without going thru the ponds)	284.0 cfs	284.00 cfs
6. Total discharge	295.28 cfs	292.97 cfs

F. Method of Detention

1. Method of Storage: Roof____, Ground____, Parking Lot____, Pond____, Other____

2. Method of Control: Roof Restrictor____, Weir____,
Pipe Outlet____, Size____, Length____,

Restrictor/Orifice____, Size____, Edge Type____

G. Other Comments

Tri-B. Area ACS	Panel	Vol. Req. ACS	Vol. Prev. ACS	MSD Allow Release cfs	Actual Rel. cfs	Req. Size	Village All. Rel. cfs
8.10	North Basin	1.14	1.15	2.29	2.23	8"-100' Long	
2.10	N. East Basin	0.2	0.20	0.60	0.60	6"-90' Long	
6.26	East Lake	1.0	2.73	1.79	2.98	8"-85' Long	1.47
4.17	S. East Basin	0.58	1.17	1.19	1.06	6"-40' Long	0.98
14.86	West Lake	2.15	5.04	4.26	3.25	10"-150' Long	3.5
4.02	S. West Basin	0.59	0.65	1.15	0.64	8"-30' Long	0.45
39.41		5.66	10.94	11.28	8.97		6.90

ACS

Reviewed: M.P. Date 4/7/84 Checked _____ Date _____

DETENTION RELEASE RATE SUMMARY

1. TOTAL SITE AREA = 42.1 ACRES

$$T_c = 45 \text{ MIN.} \quad I_3 = 1.91 \text{ in/hr}, \quad C = 0.15$$

$$\text{ALLOWABLE SITE RELEASE RATE} = (42.1)(1.91)(0.15) = 12.06 \text{ CFS}$$

2. AREA TRIBUTARY TO DETENTION BASINS

$$= 8.0 + 2.10 + 6.26 + 4.17 + 14.86 + 4.02 = 39.41 \text{ AC.}$$

3. UNDETAINED AREA = $42.10 - 39.41 = 2.69 \text{ AC.}$

Note:

IMPERVIOUS AREA = 0.48 AC

Existing Impervious

PERVIOUS AREA = 2.21 AC

area is approximately

2.8 ACs. for

$$C = \frac{(0.48 \times 0.95) + (2.21 \times 0.2)}{2.69} = 0.33$$

which det. is not

required. (developed prior

to 1972). Therefore $T_c = 45 \text{ MIN.}$ $I_{100} = 3.45 \text{ in/hr}$

credit could be from

for unrestricted release $Q_{UNR.}$ in equal area.

$$= (2.69)(3.45)(0.33) = 3.06 \text{ CFS}$$

4. ALLOWABLE DETENTION BASIN RELEASE = $12.06 - 3.06 = 9.00 \text{ CFS}$

$$\text{allowable release } 39.41 \times 1.91 \times 0.15 = 11.29 \text{ CFS.}$$

ACTUAL BASIN RELEASE RATES

NORTH 2.23 CFS ✓

NORTHEAST 0.60 CFS ✓

EAST & SOUTHWEST 2.25 CFS ✓

WEST & SOUTHWEST 3.89 CFS ✓

TOTAL BASIN RELEASE 8.97 CFS ✓ ≈ 11.29

etc.

12/19/80 59.81
 2.8 AC

NORTH DETENTION POND

87-787

VOLUME TO ELEV. 689.5

EL.	685.5	0	2664	318
1.33	686	5328	1906	3496
1.66	687	11664	9586	5747
2.09	688	17784		14724
3.92	689	19944		18864
3.97	689.5	21096		10360

Invert
684.81

$$50013 = 1.15 \text{ AC.Ft.}$$

$$\begin{aligned} \text{TOTAL} &= 55,108 \text{ CF} \\ &= 1.27 \text{ AF} \end{aligned}$$

ALLOWABLE REL. RATE = 2.29 SFS
 $H = 689.5 (\text{HWL}) - 685.47 (\text{TOP OF 8" PIPE}) = 4.08$
 ASSUME 8" PIPE

$$Q = (0.349) \left[\frac{4.08}{2(32.2)} + \frac{2.87(0.013)^2(100)}{(0.67)^{3/2}} \right]^{1/2} = 2.23$$

OK
2.26

∴ USE 8" PIPE

NORTH DETENTION BASIN

87-787

Attachment 1

A		B	C 5.36	D 2.29	E
Duration Time (Hrs.) (Min.)		Intensity for 100-Yr. Storm (In. / Hr.)	Inflow Rate (Line 1 x Line 14 x Col. B) (cfs)	Stored Rate (Col. C-Line 11) (cfs)	Reservoir Size (Col. A(Hrs.) x Col. D + 12) (Ac. -Ft.)
0.17	10	7.60	40.74	38.45	0.53
0.33	20	5.50	29.48	27.19	0.76
0.50	30	4.40	23.58	21.29	0.89
0.67	40	3.70	19.83	17.54	0.97
0.83	50	3.20	17.15	14.86	1.03
1.0	60	2.80	15.01	12.72	1.06
1.5	90	2.10	11.26	8.97	1.12
2.0	120	1.70	9.11	6.82	1.14
3.0	180	1.20	6.43	4.14	1.04
4.0	240	1.00	5.36	3.07	1.02

COMPOSITE 'C'

IMPERVIOUS AREA = 3.1 ACRES

PERVIOUS AREA = 4.9 ACRES

TOT. 8.0 ACRES

$$C = \frac{(3.1 \times 0.95) + (4.9 \times 0.5)}{8.0} = 0.67$$

87-787

NORTHEAST DETENTION BASIN

VOLUME TO ELEV 688.0

ELEV.	686.5	0	1494	996
	687	5977	7318	
	688	8659		

TOTAL 8812 CF 8314
 = 0.20 AF 119 ACFT.

ALLOWABLE RELEASE RATE = 0.60 CFS

$$H = 688 \text{ (HWL)} - 686.82 \text{ (TOP OF 6" PIPE)} = 1.18$$

ASSUME 6" PIPE

$$Q = (0.196) \left[\frac{1.18}{\frac{1+0.1}{2(32.2)} + \frac{2.87(0.013)^2(90)}{(0.5)^{4/3}}} \right]^{1/2} = 0.60 \text{ CFS } \checkmark$$

OK

∴ USE 6" PIPE

Attachment 1

87-787

A		B	C 1.05	D 0.60	E
Duration Time (Hrs.) (Min.)		Intensity for 100-Yr. Storm (In./Hr.)	Inflow Rate (Line 1 x Line 14 x Col. B) (cfs)	Stored Rate (Col. C-Line 11) (cfs)	Reservoir Size (Col. A(Hrs.)xCol. D + 12) (Ac.-Ft.)
0.17	10	7.60	7.98	7.38	0.10
0.33	20	5.50	5.78	5.18	0.14
0.50	30	4.40	4.62	4.12	0.17
0.67	40	3.70	3.89	3.29	0.18
0.83	50	3.20	3.36	2.76	0.19
1.0	60	2.80	2.94	2.34	0.20
1.5	90	2.10	2.21	1.61	0.20 ←
2.0	120	1.70	1.79	1.19	0.20
3.0	180	1.20	1.26	0.66	0.17
4.0	240	1.00	1.05	0.45	0.15

IMP. AREA = 0 AC.

PERV. AREA = 2.10 AC.

C = 0.50

87-787

EAST LAKE

VOLUME TO ELEV. 689

686	34,452 SF	39618(3) = 2.73 AF
689	44,784 SF	

TOTAL ALLOWABLE RELEASE TO 48" STORM
SEWER AS PER VILLAGE = 6.90 CFS

TOTAL TRIBUTARY AREA = 6.26 + 4.17 + 14.86 + 4.02
= 29.31 ACRES

ALLOWABLE RELEASE RATE (EAST LAKE =

$$= \frac{6.26}{29.31} \times 6.9 = 1.47 \text{ CFS}$$

$$Q = A \left[\frac{K_0 + K_1}{2g} + \frac{2.87 n^2 L}{D^{4/3}} \right]^{1/2}$$

$$Q = 1.47 \text{ CFS}$$

$$A = \text{RELEASE PIPE CROSS SECTION (8')} = 0.349 \text{ SF}$$

$$H = \text{HEAD} = 689 - 688 = 1.0' \quad (\text{DIFF IN MVL}) \quad \checkmark$$

$$L = \text{LENGTH OF PIPE} = 83'$$

$$K_0 = 1$$

$$K_1 = 0.1$$

$$G = 32.2$$

$$n = 0.013$$

$$D = \text{PIPE DIAMETER} = 0.67'$$

$$Q = (0.349) \left[\frac{1 + 0.1}{2(32.2)} + \frac{2.87 (0.013)^2 (83)}{(0.67)^{4/3}} \right]^{1/2} = 1.19 \text{ CFS} \quad \checkmark \quad \text{OK}$$

USE 8" PIPE

7 of 19

THE MOORINGS EAST LAKE

87-787

Attachment 1

A Duration Time (Hrs.) (Min.)		B Intensity for 100-Yr. Storm (In. / Hr.)	C 4.38 Inflow Rate (Line 1 x Line 14 x Col. B) (cfs)	D 1.47 Stored Rate (Col. C-Line 11) (cfs)	E Reservoir Size (Col. A(Hrs.) x Col. D ÷ 12) (Ac.-Ft.)
0.17	10	7.60	33.30	31.83	0.44
0.33	20	5.50	24.10	22.63	0.63
0.50	30	4.40	19.28	17.81	0.74
0.67	40	3.70	16.21	14.74	0.82
0.83	50	3.20	14.02	12.55	0.87
1.0	60	2.80	12.27	10.80	0.90
1.5	90	2.10	9.20	7.73 ^{8.01}	0.96
2.0	120	1.70	7.45	5.98 ^{6.26}	1.00 ^{1.00} ←
3.0	180	1.20	5.26	3.79 ^{4.27}	0.95
4.0	240	1.00	4.38	2.91 ^{3.19}	0.97

COMPOSITE "C"

IMP. AREA	2.84 AC
PER. AREA	3.42 AC
	<u>6.26 AC</u>

$$C = \frac{(2.84)(0.95) + (3.42)(0.5)}{6.26} = 0.70$$

87-787

SOUTHEAST DETENTION BASIN

VOLUME TO ELEV. 688

682	0	600
683	3600	5994
684	8388	19368
685	10980	24840
688	13860	

$$\begin{aligned} \text{TOTAL PROVIDED} &= 50,802 \text{ CF} \\ &= 1.17 \text{ AF} \end{aligned}$$

$$\text{ALLOWABLE RELEASE RATE} = \frac{4.17}{29.31} \times 6.90 = 0.98 \text{ CFS}$$

$$\text{TOTAL RELEASE RATE} = 0.98 + 1.47 \text{ (EAST LAKE)} = 2.45 \text{ CFS}$$

ASSUME 6" RELEASE PIPE

$$H = 688 \text{ (HWL)} - 679.30 \text{ (TOP OF 6 PIPE)} = 8.70'$$

$$D = 0.5' \quad A = 0.196 \text{ SF}$$

$$Q = (0.196) \left[\frac{8.70}{\frac{1+0.1}{2(32.2)} + \frac{2.87(0.013)^2(40)}{(0.50)^{4/3}}} \right]^{1/2} = 2.25 \text{ CFS}$$

2.25 < 2.45 OK

∴ USE 6" RELEASE PIPE

87-782

Attachment 1

A		B	C 2.63	D 0.98	E
Duration Time (Hrs.) (Min.)		Intensity for 100-Yr. Storm (In./Hr.)	Inflow Rate (Line 1 x Line 14 x Col. B) (cfs)	Stored Rate (Col. C-Line 11) (cfs)	Reservoir Size (Col. A(Hrs.) x Col. D + 12) (Ac.-Ft.)
0.17	10	7.60	19.99	19.01	0.26
0.33	20	5.50	14.47	13.49	0.37
0.50	30	4.40	11.57	10.59	0.44
0.67	40	3.70	9.73	8.75	0.49
0.83	50	3.20	8.42	7.44	0.51
1.0	60	2.80	7.36	6.38	0.53
1.5	90	2.10	5.52	4.54	0.57
2.0	120	1.70	4.47	3.49	0.58 ←
3.0	180	1.20	3.16	2.18	0.55
4.0	240	1.00	2.63	1.65	0.55

COMPOSITE "C"

$$\begin{aligned}
 \text{IMP. AREA} &= 1.21 \text{ AC} \\
 \text{PER. AREA} &= \frac{2.96 \text{ AC}}{4.17} \\
 &= 0.71 \text{ AC}
 \end{aligned}$$

$$C = \frac{(1.21 \times 0.95) + (2.96 \times 0.5)}{4.17} = 0.63$$

87-787

WEST LAKE

VOL. TO ELEV. 690

686	46296 SF	54,900(4)	= 5.04 AF
690	63504 SF		

$$\text{ALLOWABLE REL. RATE} = \frac{14.86}{29.31} \times 6.90 = 3.50 \text{ CFS}$$

$$H = 690 \text{ MWL} - 686.07 \text{ (TOP OF 10" PIPE)} = 3.93$$

ASSUME 10" PIPE

$$Q = \left[\frac{1 + 0.1}{2(37.2)} + \frac{2.87(0.013)^2 150}{(0.83)^{4/3}} \right]^{1/2} 3.93 = 3.25 \text{ CFS} \checkmark$$

OK

 $\therefore$ USE 10" PIPE

WEST LAKE

87-787

Attachment 1

A		B	C	D	E
Duration Time (Hrs.) (Min.)		Intensity for 100-Yr. Storm (In. / Hr.)	Inflow Rate (Line 1 x Line 14 x Col. B) (cfs)	Stored Rate (Col. C-Line 11) (cfs)	Reservoir Size (Col. A(Hrs.) x Col. D + 12) (Ac. -Ft.)
0.17	10	7.60	73.42	69.92	0.97
0.33	20	5.50	53.13	49.63	1.37
0.50	30	4.40	42.50	39.00	1.62
0.67	40	3.70	35.74	32.24	1.79
0.83	50	3.20	30.91	27.41	1.90
1.0	60	2.80	27.05	23.55	1.96
1.5	90	2.10	20.29	20.08 16.79	2.10 2.13
2.0	120	1.70	16.42	13.17 12.92	2.15 2.2
3.0	180	1.20	11.59	8.34 8.09	2.02 2.09
4.0	240	1.00	9.66	6.16	2.05

COMPOSITE 'C'

$$\begin{aligned}
 \text{IMP. AREA} &= 5.0 \text{ AC} \\
 \text{PERV. AREA} &= 9.86 \text{ AC} \\
 \text{Tot.} &= 14.86 \text{ AC.}
 \end{aligned}$$

$$C = \frac{(5.0 \times 0.95) + (9.86 \times 0.50)}{14.86} = 0.65$$

87-787

SOUTHWEST DETENTION POND

VOLUME TO ELEV. 688.0

684.65	0	235
685	2160	7182
686	12,204	13,302
687.5	15,516	20,790

$$\text{TOTAL} = 36,235 \text{ CF} = 0.65 \text{ AF} \checkmark$$

$$\text{ALLOWABLE RELEASE RATE} = \frac{4.02}{29.31} \times 6.90 = 0.95 \text{ CFS}$$

$$\text{TOTAL REL. RATE} = 0.95 + 3.50 (\text{FROM WEST LAKE}) = 4.45 \text{ CFS}$$

ASSUME 8" PIPE

$$H = 688 (\text{RWL}) - 682.58 (\text{TOP OF 8" PIPE}) = 5.42'$$

$$Q = 0.349 \left[\frac{1 + 0.1}{2 (32.2)} + \frac{2.97 (0.013)^2 (32)}{(0.67)^{4/3}} \right]^{1/2} = 3.89 \text{ CFS} \checkmark \text{ JK}$$

USE 8" PIPE

SOUTHWEST BASIN

87-787

Attachment 1

A		B	C 2.65	D 0.95	E
Duration Time (Hrs.) (Min.)		Intensity for 100-Yr. Storm (In./Hr.)	Inflow Rate (Line 1 x Line 14 x Col. B) (cfs)	Stored Rate (Col. C-Line 11) (cfs)	Reservoir Size (Col. A(Hrs.) x Col. D + 12) (Ac.-Ft.)
0.17	10	7.60	20.14	19.19	0.27
0.33	20	5.50	14.58	13.63	0.38
0.50	30	4.40	11.66	10.71	0.45
0.67	40	3.70	9.81	8.86	0.49
0.83	50	3.20	8.48	7.53	0.52
1.0	60	2.80	7.42	6.47	0.54 .62
1.5	90	2.10	5.57	4.62	0.57 0.65
2.0	120	1.70	4.51	3.56	0.59 0.64
3.0	180	1.20	3.18	2.23	0.56
4.0	240	1.00	2.65	1.70	0.57

COMPOSITE "C"

IMP. AREA 1.39 AC
 PER. AREA 2.63 AC
 4.02 AC

$$C = \frac{(1.39 \times 0.95) + (2.63 \times 0.50)}{4.02} = 0.66$$

87-782

THE MOORINGS

DESIGN CALCULATIONS FOR

THE BYPASS STORM SEWER SYSTEM

(SEE ATTACHED MAP)

EXISTING OUTLET STORM SEWER @ SOUTHEAST
CORNER OF THE PROJECT = 72" PIPE @ 0.20%

EXISTING INLET STORM SEWER FROM SOUTH
48" PIPE @ 0.27%

ADDITIONAL CONTRIBUTING AREA FROM SOUTH
OVERLAND INTO EXISTING FIELD TILES
 $A = 10$ ACRES, $L = 1200'$, $T_c = 40$ MIN., $I_s = 2.59''/HR$
 $C = 0.35$

CALCULATE ALLOWABLE BYPASS FROM THE WEST
ALONG THE PROJECT'S SOUTH PROPERTY LINE,
ASSUMING PIPES FLOWING FULL

EXISTING 72" PIPE @ 0.20% = 180 CFS

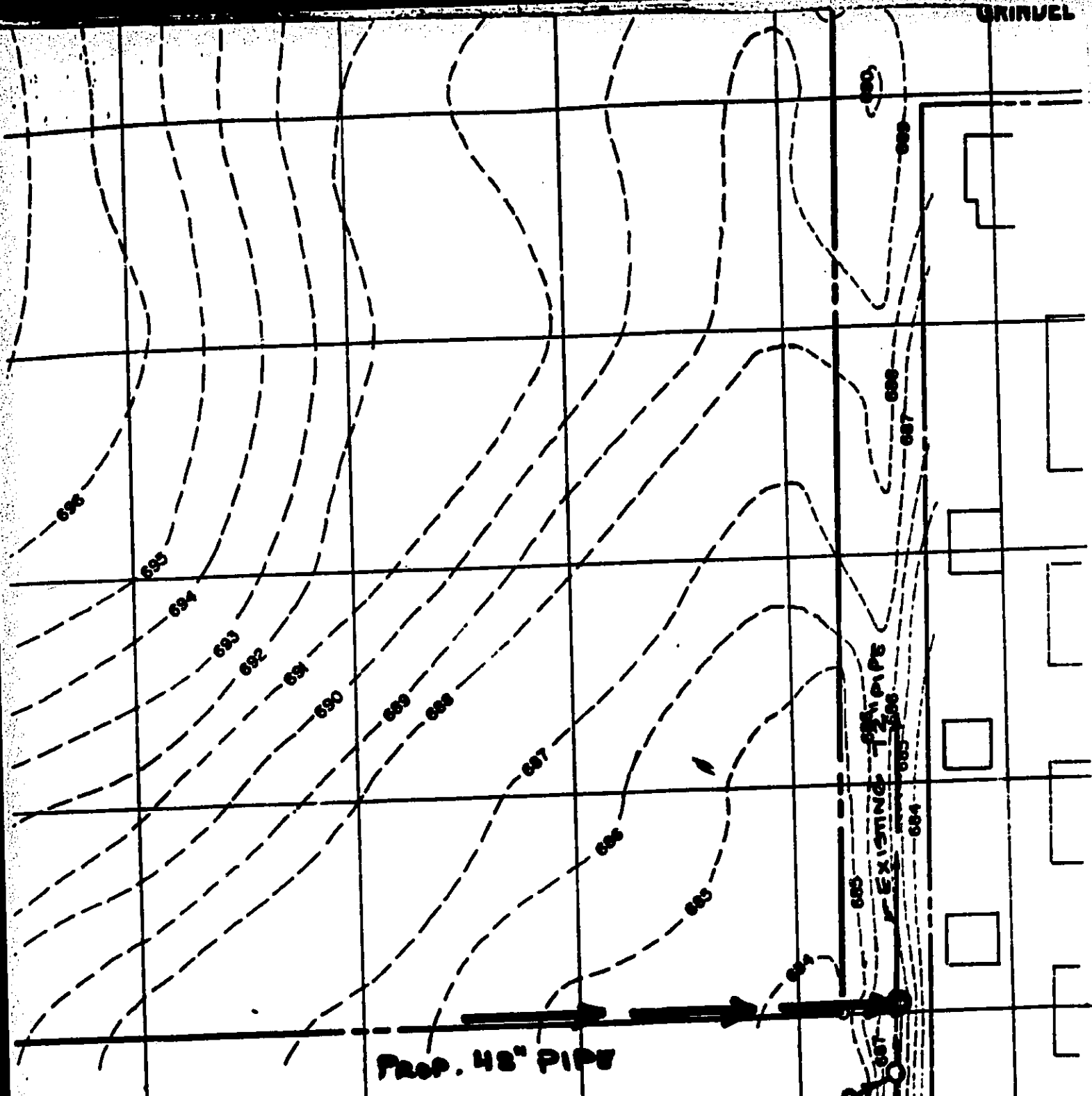
LESS EXISTING 48" PIPE @ 0.27% = - 75 CFS

LESS CONTRIBUTING AREA $Q = (0.35)(2.59)(10 AC) = - 9$ CFS

* ALLOWABLE BYPASS = 96 CFS
(AS REQUIRED BY MOUNT PROSPECT)

∴ USE 48" PIPE @ 0.48%

PREPARED BY:
DONALD MANNARO & ASSOC.
LINCOLNSHIRE, IL



PROP. 48" PIPE

EXISTING 48" PIPE

EXISTING 48" PIPE

PRAIRIE

2

87-787

10 ACRE
TRIBUTARY
AREA

ROOSEVELT

17

MAP OF EXISTING CONDITIONS
FOR BYRDS STORM SEWER
MO 10/14/87 DEN

MO
10/14/87
PEM

THE MOORINGS

87-782

DESIGN CALCULATIONS FOR

THE BYPASS DITCH ALONG S.P.L.

(SEE ATTACHED MAP)

C = COMPOSITE RUNOFF FACTOR FOR EXISTING
CONDITIONS OF ENTIRE TRIBUTARY AREA = 0.50

A = TRIBUTARY AREA TO BYPASS DITCH :

AREA 'A' = 0 ACRES (TRIBUTARY EAST OF PROPERTY)

AREA 'B-1' = 0 ACRES (TRIBUTARY EAST OF PROPERTY)

AREA 'B-2' = 0 ACRES, REL. RATE OF 6.9 CFS

AREA 'B-3' = 25 ACRES

AREA 'B-4' = 115 ACRES

AREA 'C-1' = 190 ACRES

AREA 'C-2' = 0 ACRES (TRIBUTARY CENTRAL AVE.)

AREA 'D' = 61 ACRES

TOTAL TRIBUTARY AREA = 391 ACRES

T_c = TIME OF CONCENTRATION = 92 MIN.

I_{100} = 100 YEAR RAINFALL INTENSITY = 2.06 IN/HR

Q_{100} = 100 YEAR TRIBUTARY RUNOFF = CIA
+ AREA B-2 REL. RATE
= $(0.50)(391)(2.06) + 6.9 = 410$ CFS

THIS QUANTITY WILL BE REDUCED BY THE
EXISTING 54" PIPE ON ARLINGTON HEIGHTS ROAD &
THE PROPOSED 48" PIPE ALONG THE SOUTH PROPERTY LINE.
AS FOLLOWS:

EXISTING 54" PIPE @ 0.48% = 126 CFS

PROPOSED 48" PIPE @ 0.48% = 96 CFS

TOTAL BYPASS = 222 CFS

DONALD MANHARD
48502
LITCHFIELD IL
11 OF 19

(∴ TOTAL REQUIRED BYPASS DITCH CAPACITY

$$Q_{\text{BYPASS}} = 410 \text{ cfs} - 222 \text{ cfs} = 188 \text{ cfs}$$

BYPASS DITCH DESIGN

87-787

$$S = \text{SLOPE} = 0.30\%$$

$$n = \text{COEFFICIENT OF ROUGHNESS} = 0.025$$

$$W_p = 10' + 6.7' + 6.7' = 23.4'$$

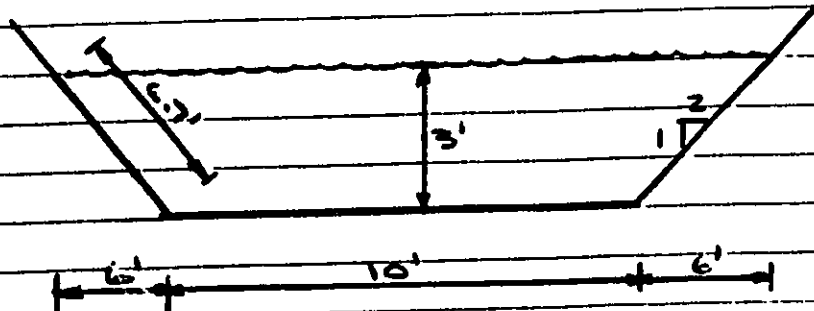
$$A = (2(\frac{1}{2} \times 6) + 10) 3 = 48 \text{ sf}$$

$$R = \text{HYD. RADIUS} = \frac{A}{W_p} = \frac{48}{23.4} = 2.05'$$

$$V = 5.2 \text{ FPS (SEE ATTACHED CHART)}$$

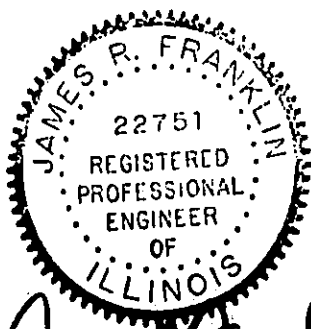
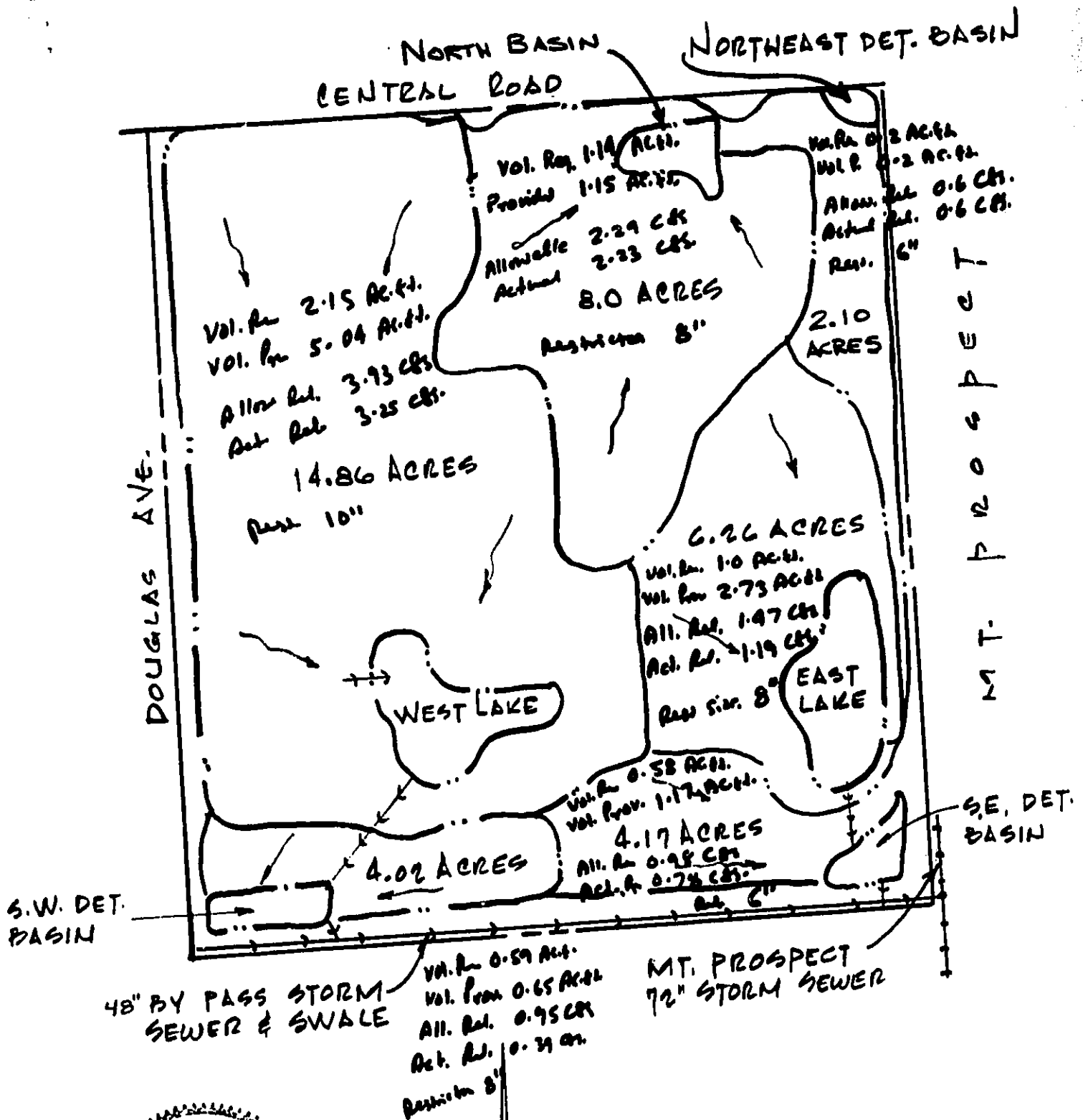
$$\therefore Q = AV = 48 \times 5.2 = 250 \text{ cfs} / > 188 \text{ cfs}$$

= MAX. PROPOSED CAPACITY > REQUIRED 100 YEAR BYPASS



TYPICAL DITCH CROSS-SECTION

DONALD MANHARD & Assoc.
LINCOLN, NE

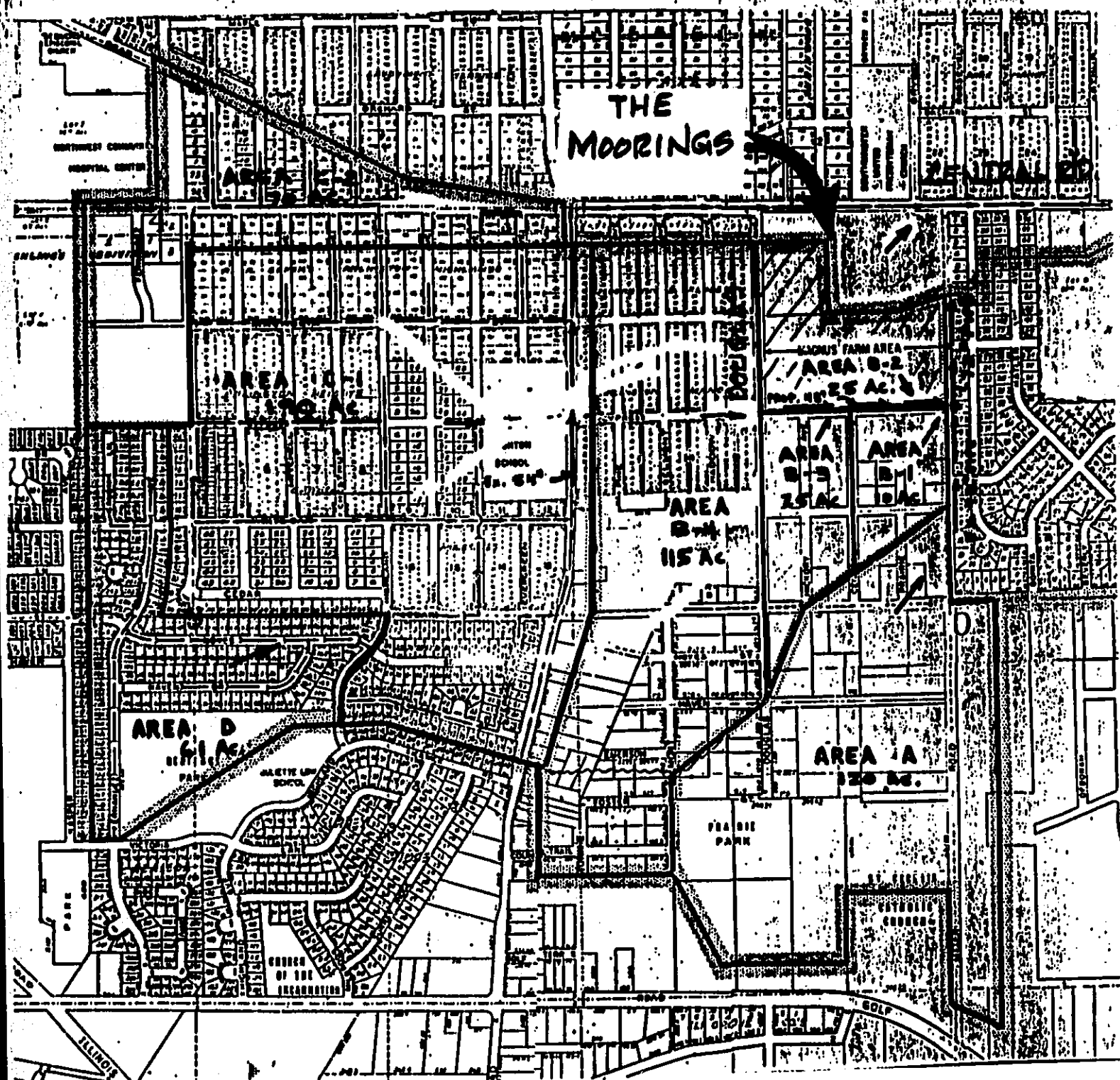


James R. Franklin
10/20/89

87 787

THE MOORINGS OF ARLINGTON HTS.
GENERAL DRAINAGE AREA MAP

REV 2/10/88



87-787

THE MOORINGS OF ARLINGTON HTS.
UPSTREAM DRAINAGE AREAS

87 787

For The Moorings of Arlington Heights
MSD Permit Number 87-787

SEWER LINE AGREEMENT

OFFICE COPY

SECTION
APR 29 PM 2:32

This Agreement made this 28th day of March, 1988, by and between PARKSIDE DEVELOPMENT CORPORATION d/b/a THE MOORINGS, a Delaware non-profit corporation, with its office and principal place of business at 1775 West Dempster Street, Park Ridge, Illinois 60068 (hereinafter referred to as "PDC") and KIMBALL HILL, an individual with his principal place of business at 900 Des Plaines Avenue, Des Plaines, Illinois 60016 (hereinafter referred to as "Kimball Hill").

WITNESSETH

WHEREAS Kimball Hill owns and maintains the sanitary sewer along Central Road in Arlington Heights, Illinois (hereinafter "Sewer");

WHEREAS PDC is the owner of a certain parcel of property upon which it is developing an older adult retirement facility and health care center located at 801 Central Road, Arlington Heights, Illinois, known as The Moorings (hereinafter referred to as "Facility"); and

WHEREAS PDC is desirous of connecting the Facility to the Sewer if the same is extended southerly toward the Facility.

NOW THEREFORE, the parties hereto, in consideration of the mutual covenants and agreements herein, do hereby agree as follows:

Section 1. Construction of Sewer Line

Subject to the terms and conditions of this Agreement, PDC is granted the perpetual non-exclusive right to construct a sanitary sewer line (the "Project") northerly across its property suitable for the Facility's connection to the Sewer at Central Road.

87-787

Section 2. Payment of the Tap-in Fee

PDC agrees to pay Kimball Hill upon the execution of this Agreement a one-time tap-in fee for the perpetual non-exclusive right to tap-on to and use the Sewer for the entire Facility's sanitary sewage needs.

Section 3. Notice to Governmental Authorities

Upon execution of this Agreement, Kimball Hill will, upon the request of PDC, notify the Metropolitan Sanitary District ("MSD"), the Village of Arlington Heights ("Village") and other appropriate parties of the grant by Kimball Hill to PDC to tap-in to the Sewer in accordance with the terms of this Agreement. PDC shall obtain all required governmental and other permits, licenses, approvals and other consents, and shall comply with all applicable laws, rules and regulations.

Section 4. Title to the Sewer Line

Title to the Sewer is vested in Kimball Hill. Neither PDC, the Village or MSD shall have any claim of ownership in or to the Sewer or the Project.

Section 5 Maintenance of the Sewer Line

Kimball Hill shall keep and maintain, or cause to be kept and maintained, the Sewer and its related systems in good operating condition, repair and working order, ordinary wear and tear excepted, and will provide, at its own expense, all maintenance and service and make all repairs necessary for such purpose.

27-787

Section 6. Indemnification

The parties agree to indemnify and hold each other harmless from any liability claim for personal injuries, deaths, mechanics liens, judgments, lawsuits, claims or other costs, including reasonable attorneys' fees, arising out of or in connection with the intentional or negligent acts of their respective employees and/or agents as a consequence of or resulting from, directly or indirectly, the tap-in or use of the Sewer.

Section 7. Termination for Breach of Contract.

If either party shall violate any of the covenants undertaken herein, or any of the duties imposed upon it by this Agreement, such violation shall entitle the other party to terminate this Agreement, provided that the party desiring to terminate for such cause shall give the offending party at least thirty (30) days written notice, specifying the particulars wherein it is claimed that there has been a violation hereof; and if at the end of such time the party notified has not removed the cause of complaint, or remedied the purported violation, then the termination of this Agreement shall be deemed complete.

Section 8. Specific Performance

The parties hereto each acknowledge and agree that in the event of any breach of this Agreement, the non-breaching party would be irreparably harmed and could not be made whole by monetary damages alone. It is accordingly agreed that such parties, in addition to any other remedy to which they may be entitled at law or in equity, shall

be entitled to compel specific performance of this Agreement in any action instituted in any Court of the United States or any state having subject matter jurisdiction.

Section 9. Amendments

This Agreement may be amended only by a written instrument signed by all parties to this Agreement.

Section 10. Law of the State of Illinois to Govern

This Agreement and the rights and obligations of the parties hereunder shall be governed by, and construed in accordance with, the laws of the State of Illinois.

Section 11. Successors and Assigns

This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their heirs, successors and assigns. This Agreement may not be assigned by any party without the consent of all the other parties.

Section 12. Interpretation of Agreement

The rule of strict construction does not apply to this grant. This grant shall be given a reasonable construction so that the intention of the parties to confer a commercially useable right of enjoyment to the Sewer is carried out.

Section 13. Notices

All notices and other communications shall be sufficiently given and shall be deemed to be given when hand delivered or mailed by registered or certified mail, postage prepaid, addressed as follows:



A Presentation of Findings
Market Research and Analysis
For Expansion Plans Within
The Moorings of Arlington Heights

April 2014



Prepared by



Tracy Cross & Associates, Inc.
1920 N. Thoreau Drive
Schaumburg, Illinois 60173



Objectives

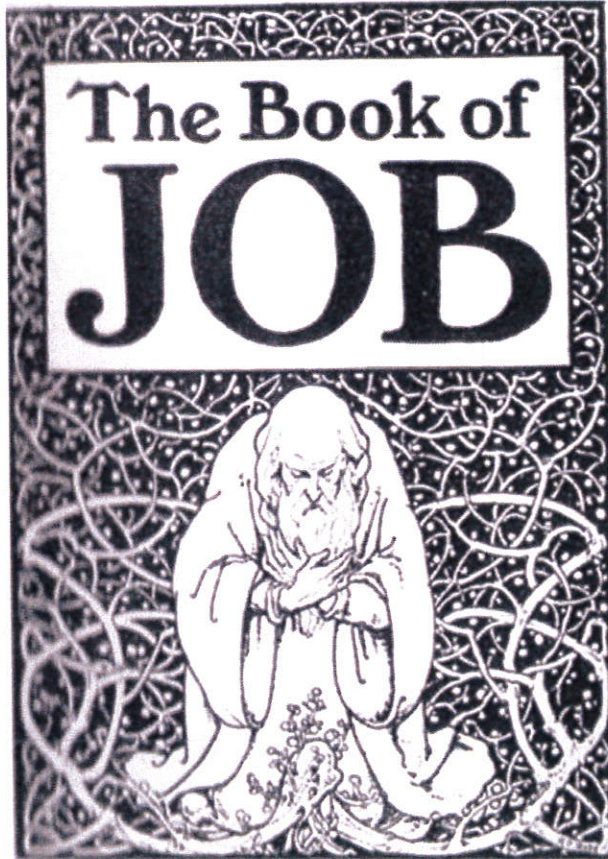


- ❑ Determine depth of market for CCRC development in the Arlington Heights area.
- ❑ Distribute demand estimates over the 2014 and 2019 time periods and extend estimates through 2040.
- ❑ Distribute demand estimates by product type, i.e., independent, assisted, and memory support living forms.
- ❑ Translate findings of market analysis and competitive evaluations into specific product recommendations.
- ❑ Provide entrance fee and service fee suggestions by product type.

Source: Tracy Cross & Associates, Inc.



Background to the Market -- Key Dependencies --

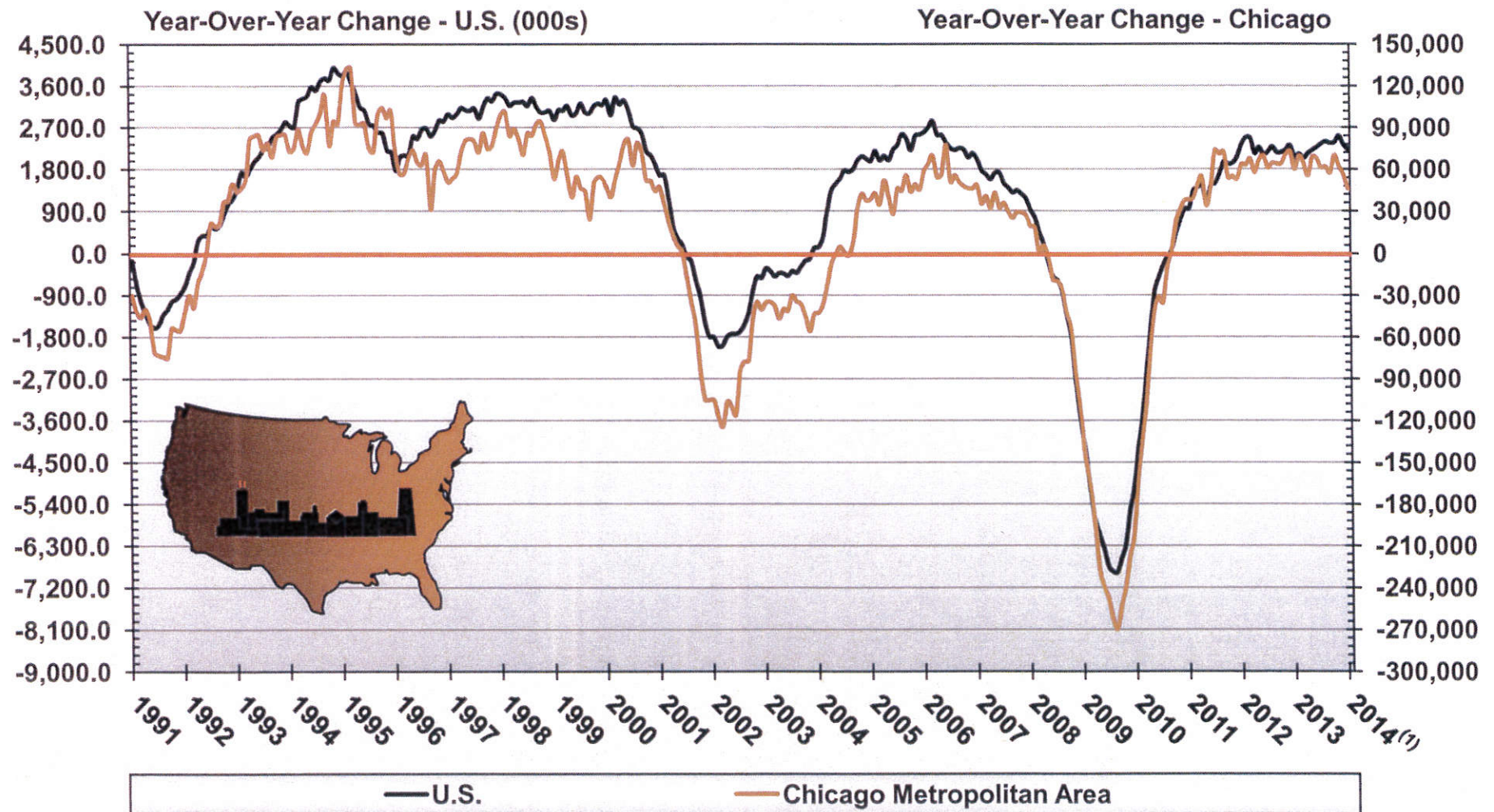


- ☐ Employment growth.
- ☐ Housing growth both volume and price.
- ☐ Population and household growth.
- ☐ Level of competition existing and future.

Source: Tracy Cross & Associates, Inc.



Trends in Nonfarm Employment -- Chicago Metropolitan Area and the U.S. --

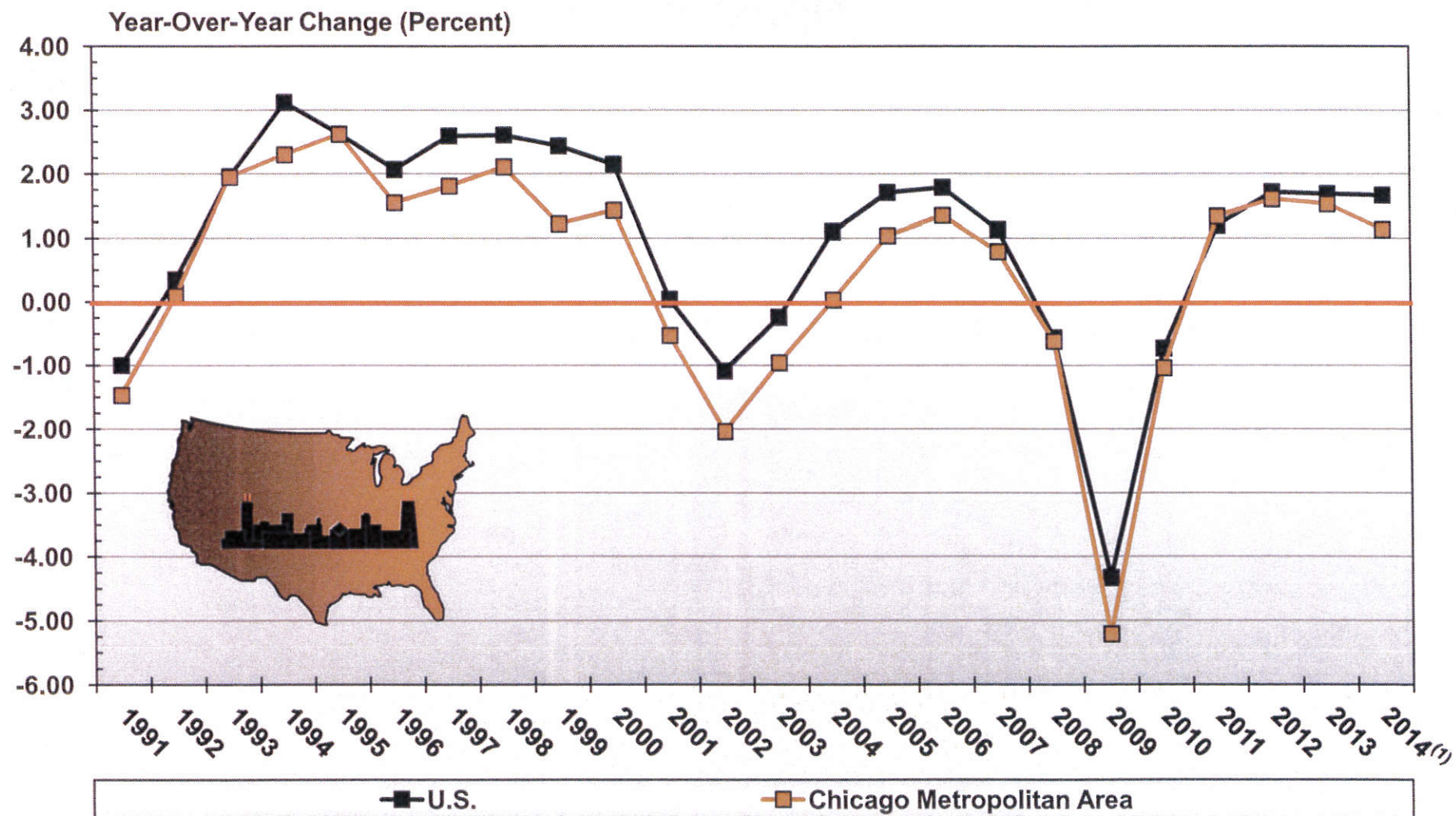


(1) YTD February.

Source: U.S. Department of Labor, Bureau of Labor Statistics



Nonfarm Employment Growth Comparisons -- Chicago Metropolitan Area and the U.S. --



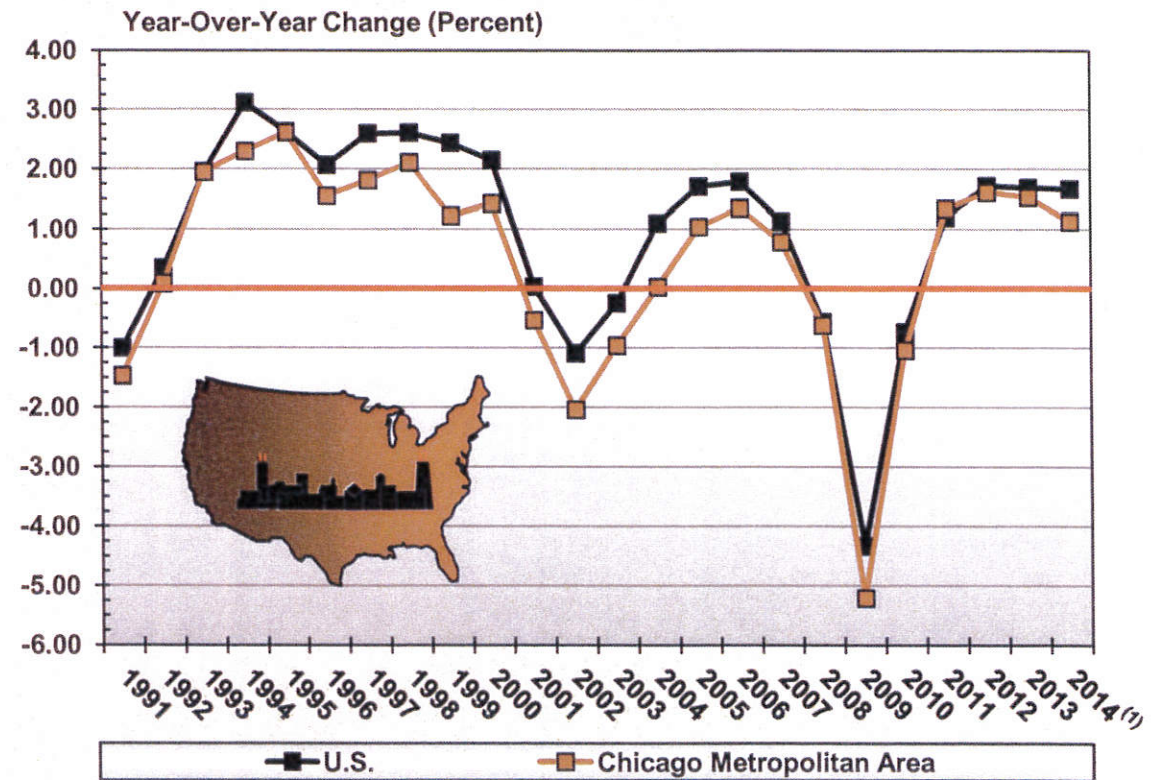
(1) YTD February.

Source: U.S. Department of Labor, Bureau of Labor Statistics



Nonfarm Employment Growth Comparisons -- Chicago Metropolitan Area and the U.S. --

<u>Year</u>	<u>U.S.</u>	<u>Chicago</u>
1991	-1.00	-1.47
1992	0.35	0.09
1993	1.96	1.95
1994	3.12	2.30
1995	2.63	2.62
1996	2.07	1.55
1997	2.60	1.81
1998	2.61	2.11
1999	2.44	1.22
2000	2.15	1.43
2001	0.04	-0.53
2002	-1.09	-2.04
2003	-0.24	-0.96
2004	1.10	0.03
2005	1.71	1.04
2006	1.79	1.35
2007	1.13	0.79
2008	-0.56	-0.62
2009	-4.33	-5.21
2010	-0.73	-1.04
2011	1.20	1.34
2012	1.72	1.61
2013	1.69	1.53
2014 ⁽¹⁾	1.67	1.13



(1) YTD February.

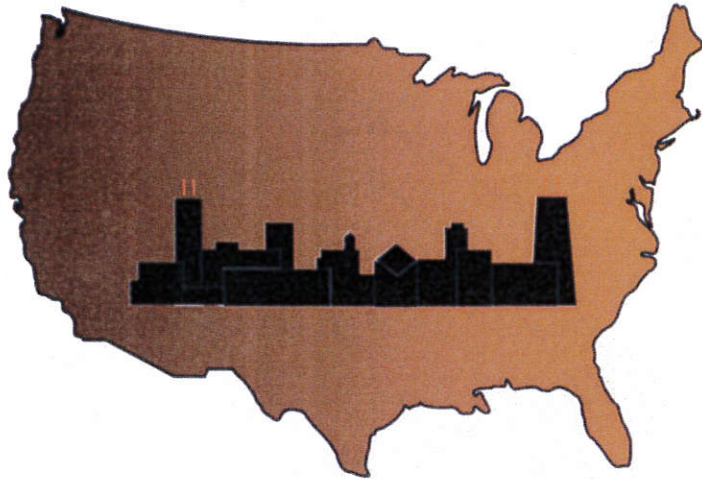
Source: U.S. Department of Labor, Bureau of Labor Statistics

(1) YTD February.

Source: U.S. Department of Labor, Bureau of Labor Statistics



Nonfarm Employment Comparisons -- Chicago Metropolitan Area and the U.S. --

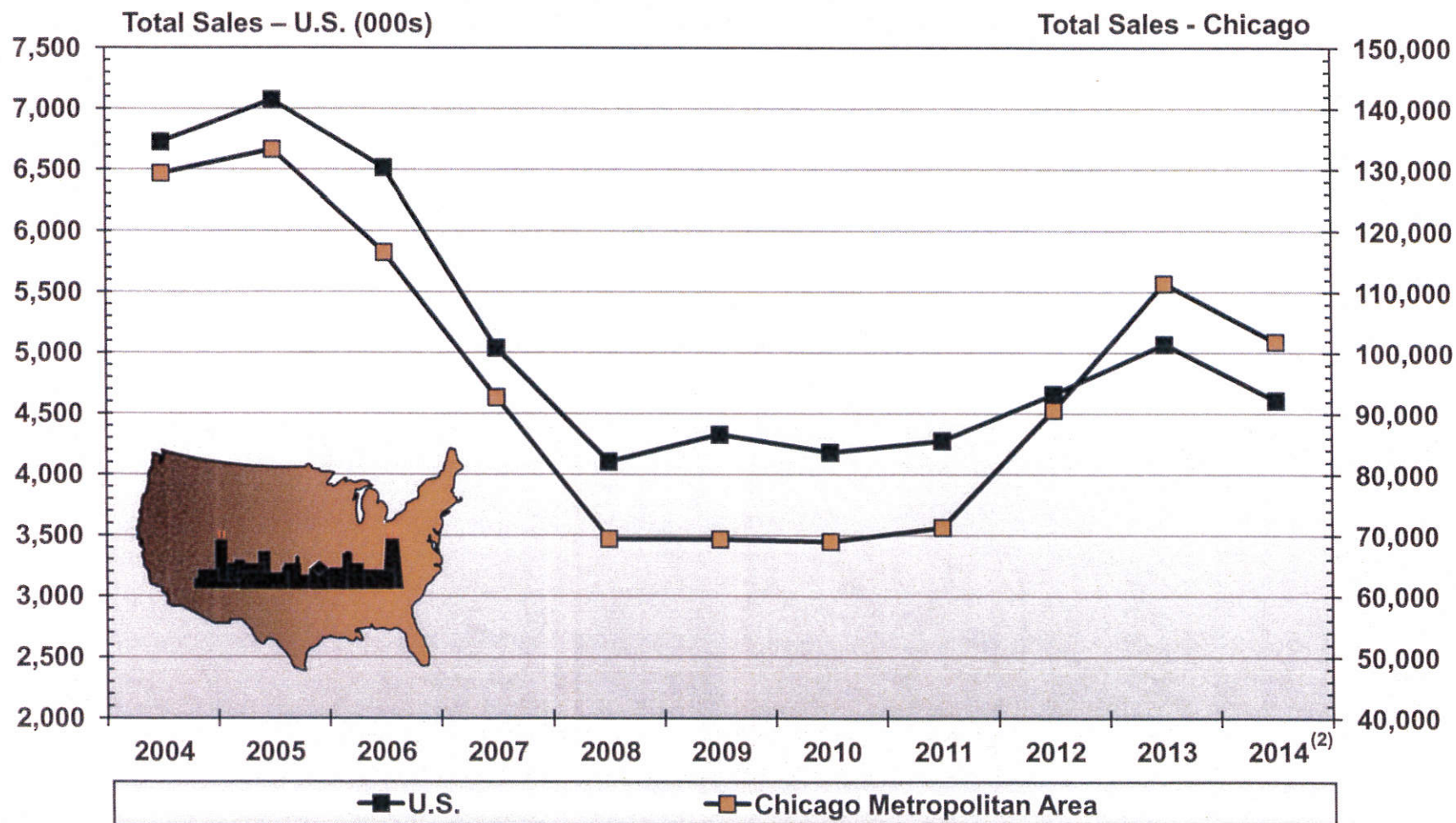


	<u>2000 - 2014</u>	
	<u>U.S.</u>	<u>Chicago</u>
Peak Employment	139,443,000 (Nov. 2007)	4,351,700 (Dec. 2000)
Feb. 2014 Employment	136,194,000	4,102,600
Percent Change from Peak	-2.33	-5.72

Source: U.S. Department of Labor, Bureau of Labor Statistics



Trends In Existing Home Sales: A Comparison -- Chicago Metropolitan Area⁽¹⁾ and the U.S. --



(1) Excludes Kenosha County, Wisconsin.

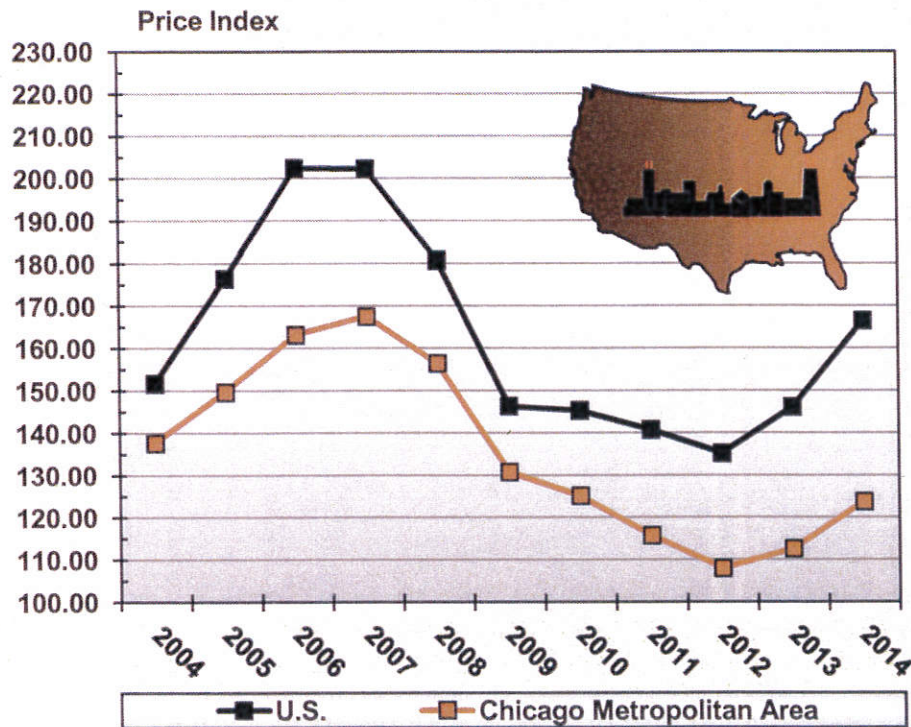
(2) Seasonally adjusted, annualized rate YTD February.

Sources: National Association of Realtors, Illinois Association of Realtors, and Tracy Cross & Associates, Inc.

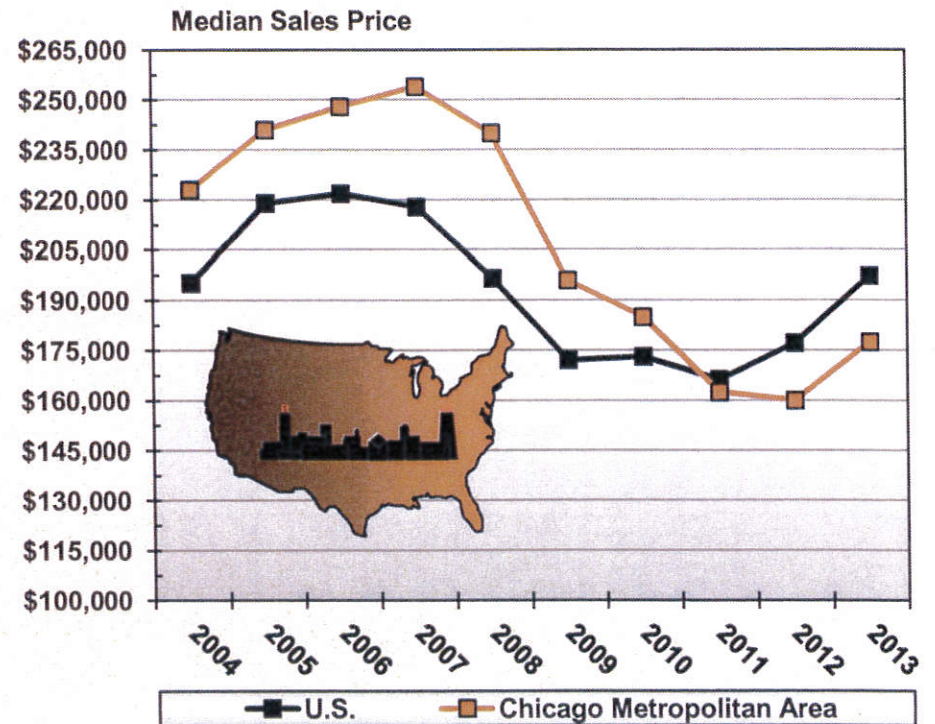


Trends in Existing Home Prices: A Comparison -- Chicago Metropolitan Area and the U.S. --

The Case-Shiller Index
(January 2000 = 100.00)



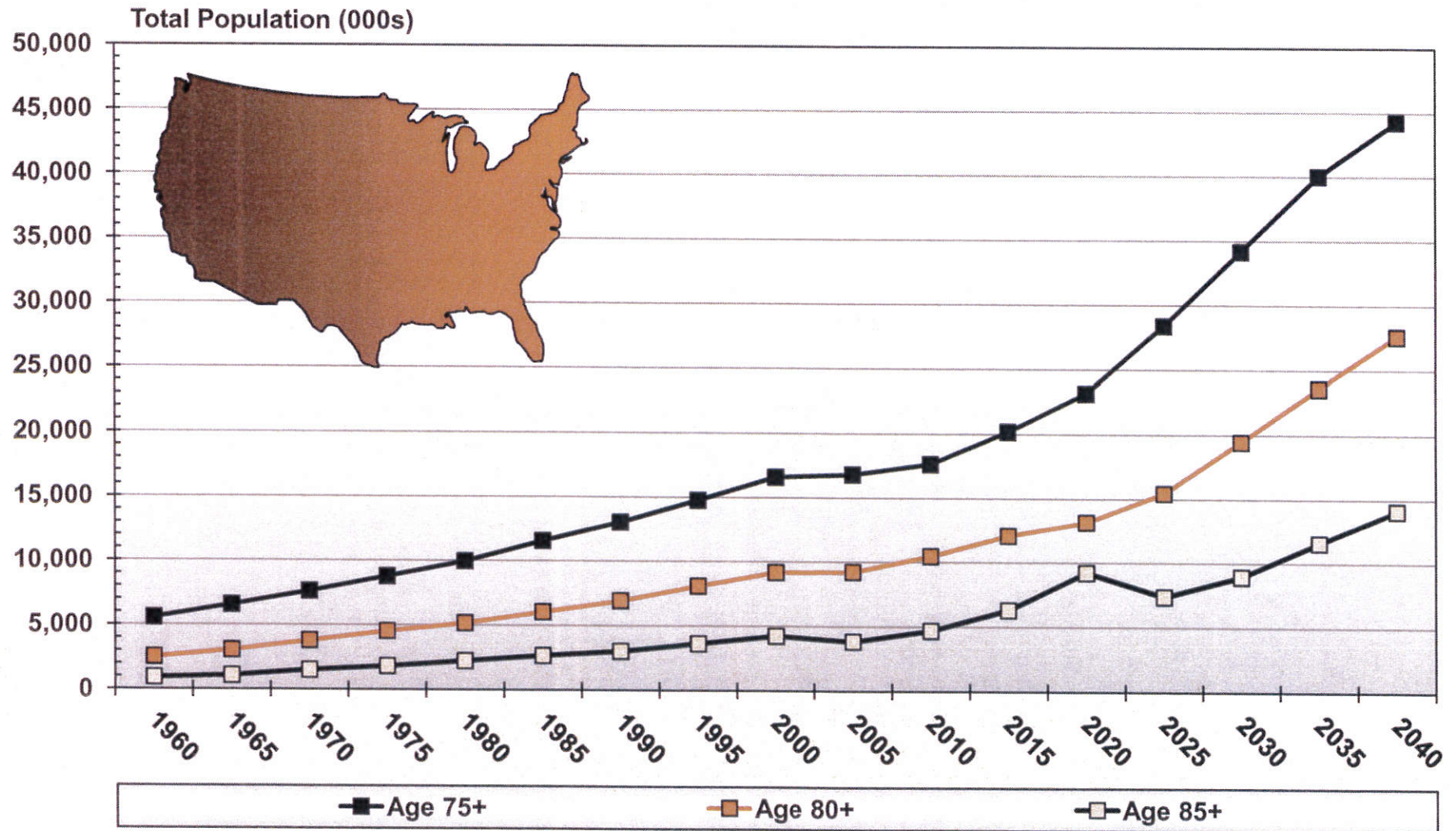
Association of Realtors



Sources: Standard & Poor's Case-Shiller Home Price Index, National Association of Realtors, Illinois Association of Realtors, and Tracy Cross & Associates, Inc.



The Older Population – Age 75+, 80+, and 85+ -- United States --



Source: U.S. Department of Commerce, Bureau of the Census



Occupancy Characteristics

-- Selected Independent Living and Assisted Living/Memory Care Communities --
Northwestern, Northern, And Western Suburbs

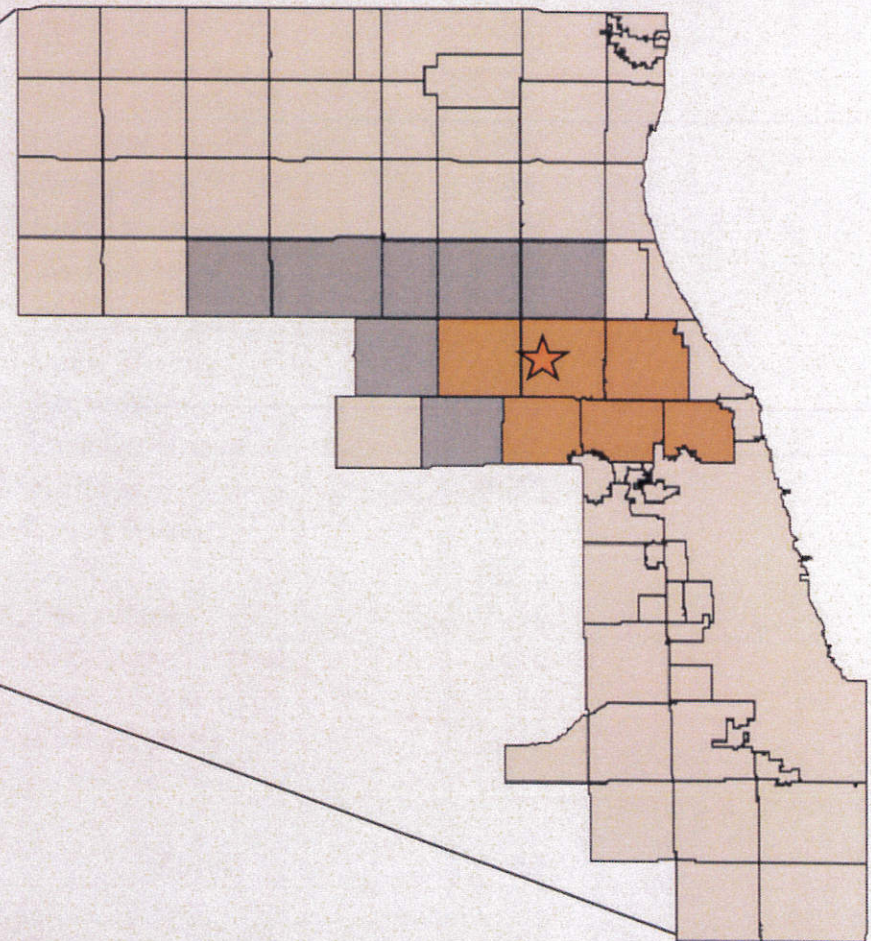


<u>Location</u>	<u>Number of Units</u>	<u>Number Vacant</u>	<u>Percent Vacant</u>
Independent Living			
<i>TOTAL ALL CORRIDORS</i>	<i>9,369</i>	<i>686</i>	<i>7.3</i>
Northwestern	2,478	188	7.6
Northern	4,171	265	6.4
Western	2,720	233	8.6
Assisted Living/Memory Care			
<i>TOTAL ALL CORRIDORS</i>	<i>2,190</i>	<i>121</i>	<i>5.5</i>
Northwestern	581	43	7.4
Northern	1,123	46	4.1
Western	486	32	6.6

Source: Tracy Cross & Associates, Inc.



Delineation of the Arlington Heights Market Area



Source: Microsoft Streets & Trips and Tracy Cross & Associates, Inc.



The Moorings of Arlington Heights -- Resident Point of Origin --

Primary Market Area		Secondary Market Area	
<u>Community</u>	<u>Percent</u>	<u>Community</u>	<u>Percent</u>
Arlington Heights	13.31	Huntley	3.57
Mount Prospect	10.55	Barrington ⁽²⁾	2.92
Park Ridge	6.17	Schaumburg	1.79
Palatine	5.68	Vernon Hills	0.65
Glenview ⁽¹⁾	3.90	Crystal Lake	0.49
Des Plaines	3.25	Lake Zurich	0.49
Rolling Meadows	2.60	Algonquin	0.32
Niles	2.11	Buffalo Grove	0.32
Northbrook	1.46	Kildeer	0.32
Prospect Heights	1.46	Long Grove	0.32
Skokie	1.30	Cary	0.16
Elk Grove Village	1.14	Deer Park	0.16
Morton Grove	0.97	Hoffman Estates	0.16
Inverness	0.65	Lake in the Hills	0.16
Wheeling	0.65	Lincolnshire	0.16
Northfield	0.32		
<i>Total</i>	<i>55.52</i>	<i>Total</i>	<i>11.99</i>

⁽¹⁾ Includes Golf.

⁽²⁾ Includes Barrington Hills and Lake Barrington.

⁽³⁾ Includes Harwood Heights and Norridge.

Source: Presbyterian Homes, Lead Count Analysis



The Moorings of Arlington Heights -- Resident Point of Origin --

All Other Areas			
<u>In State</u>	<u>Percent</u>	<u>Out of State</u>	<u>Percent</u>
Chicago ⁽³⁾	6.01	Florida	3.08
Other Chicago Suburbs	10.89	Arizona	1.79
Libertyville	0.65	California	1.14
Mundelein	0.65	Indiana	1.14
All Other	9.59	Wisconsin	1.14
Other Illinois	2.60	Other Out of State	4.70
<i>Total</i>	<i>19.50</i>	<i>Total</i>	<i>12.99</i>

(1) Includes Golf.

(2) Includes Barrington Hills and Lake Barrington.

(3) Includes Harwood Heights and Norridge.

Source: Presbyterian Homes, Lead Count Analysis



Population and Household Trends: Persons/Householders Age 75+ -- Arlington Heights Market Area --

Attribute/Area	2000	2010	2014	2019	Average Annual Change		
					2000 - 2010	2010 - 2014	2014 - 2019
Population							
Arlington Heights Market Area	64,652	78,207	80,459	85,870	1,355	563	1,082
Arlington Heights Primary Market Area	51,792	58,403	59,308	61,619	661	226	462
Village of Arlington Heights	6,129	6,882	6,876	7,002	75	-2	25
Remainder of Primary Market Area	45,663	51,521	52,432	54,617	586	228	437
Arlington Heights Secondary Market Area	12,860	19,804	21,151	24,251	694	337	620
Households							
Arlington Heights Market Area	39,182	51,133	52,597	55,822	1,195	366	645
Arlington Heights Primary Market Area	32,244	38,793	39,392	40,818	655	150	285
Village of Arlington Heights	3,884	4,748	4,779	4,915	86	8	27
Remainder of Primary Market Area	28,360	34,045	34,613	35,903	569	142	258
Arlington Heights Secondary Market Area	6,938	12,340	13,205	15,004	540	216	360

Sources: U.S. Department of Commerce, Bureau of the Census: *Census 2000* and *Census 2010*; The Nielsen Company: *Demographic Report 2014*; and Tracy Cross & Associates, Inc.



Population Change by Race/Hispanic or Latino: 2010 - 2014

-- Arlington Heights Market Area --

<u>Population</u>	<u>Arlington Heights Market Area</u>			<u>Arlington Heights Primary Market Area</u>			<u>Arlington Heights Secondary Market Area</u>		
	<u>2010</u>	<u>2014</u>	<u>Annual Change</u>	<u>2010</u>	<u>2014</u>	<u>Annual Change</u>	<u>2010</u>	<u>2014</u>	<u>Annual Change</u>
<i>Total Population</i>	1,101,310	1,114,660	3,337	686,285	697,953	2,916	415,025	416,707	421
White	859,650	853,531	-1,530	522,745	521,277	-367	336,905	332,254	-1,163
Black	26,039	26,750	178	16,653	16,942	72	9,386	9,808	106
American Indian & Alaskan Native	2,969	3,248	70	2,050	2,258	52	919	990	18
Asian	140,637	147,743	1,776	94,537	98,846	1,077	46,100	48,897	699
Hawaiian & Pacific Islander	285	332	12	189	214	6	96	118	6
All Other	71,730	83,056	2,831	50,111	58,416	2,076	21,619	24,640	755
<i>Hispanic or Latino</i>	128,471	144,190	3,930	89,879	101,094	2,804	38,592	43,096	1,126
Percent	11.67	12.94	---	13.10	14.48	---	9.30	10.34	---

Sources: U.S. Department of Commerce, Bureau of the Census: *Census 2010*; The Nielsen Company: *Demographic Report 2014*; and Tracy Cross & Associates, Inc.



Household Incomes - Householders Age 75+ -- Arlington Heights Market Area --

Income Range	Arlington Heights Market Area		Arlington Heights Primary Market Area		Village of Arlington Heights		Arlington Heights Secondary Market Area	
	2014	2019	2014	2019	2014	2019	2014	2019
Under \$15,000	8,324	8,336	6,335	6,295	684	667	1,989	2,041
15,000 - 24,999	10,930	10,994	8,362	8,330	1,006	957	2,568	2,664
25,000 - 34,999	8,712	9,008	6,737	6,836	690	708	1,975	2,172
35,000 - 49,999	8,242	8,741	6,150	6,371	719	728	2,092	2,370
50,000 - 74,999	7,474	8,062	5,545	5,811	798	842	1,929	2,251
75,000 - 99,999	3,583	4,120	2,515	2,785	423	452	1,068	1,335
100,000 - 124,999	2,113	2,495	1,498	1,698	202	248	615	797
125,000 - 149,999	1,073	1,333	806	957	89	113	267	376
150,000 - 199,999	1,081	1,296	739	848	86	98	342	448
200,000 and Over	1,065	1,437	705	887	82	102	360	550
Total	52,597	55,822	39,392	40,818	4,779	4,915	13,205	15,004
Median	\$33,086	\$34,529	\$32,544	\$33,460	\$35,197	\$37,586	\$35,524	\$38,996
Householders With Incomes of...								
\$50,000+	16,389	18,743	11,808	12,986	1,680	1,855	4,581	5,757
Percent	31.2	33.6	30.0	31.8	35.2	37.7	34.7	38.4
\$75,000+	8,915	10,681	6,263	7,175	882	1,013	2,652	3,506
Percent	16.9	19.1	15.9	17.6	18.5	20.6	20.1	23.4
\$100,000+	5,332	6,561	3,748	4,390	459	561	1,584	2,171
Percent	10.1	11.8	9.5	10.8	9.6	11.4	12.0	14.5

Source: The Nielsen Company: *Senior Life Report* and Tracy Cross & Associates, Inc.



Source: Tracy Cross & Associates, Inc.



Annual Fair Market Senior Housing Demand -- Arlington Heights Market Area -- 2019



<u>Product Type</u>	<u>Annual Net Absorption</u>		
	<u>Total Arlington Heights Market Area</u>	<u>Arlington Heights Primary Market Area</u>	<u>Arlington Heights Secondary Market Area</u>
	<u>2019</u>	<u>2019</u>	<u>2019</u>
Independent Living	102	79	23
Assisted Living	23	17	6
Memory Care as a Part	9	6	3
	<u>Annual Net Absorption With Added Impact From Tertiary Areas @ 15.0 Percent</u>		
Independent Living	117	91	26
Assisted Living	27	20	7
Memory Care as a Part	11	7	4

Source: Tracy Cross & Associates, Inc.



Annual Fair Market Senior Housing Demand -- Arlington Heights Market Area -- 2019 - 2040



<u>Product Type</u>	<u>Annual Net Absorption</u>					
	<u>Total Arlington Heights Market Area</u>		<u>Arlington Heights Primary Market Area</u>		<u>Arlington Heights Secondary Market Area</u>	
	<u>2019</u>	<u>2040</u>	<u>2019</u>	<u>2040</u>	<u>2019</u>	<u>2040</u>
Independent Living	102	223	79	173	23	50
Assisted Living	23	50	17	37	6	13
Memory Care as a Part	9	20	6	13	3	7

Source: Tracy Cross & Associates, Inc.



Occupancy Characteristics

-- Selected Assisted Living/Memory Care Communities --

Arlington Heights Market Area

<u>Location</u>	<u>Number of Units</u>	<u>Occupied</u>		<u>Vacant</u>	
		<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
TOTAL ARLINGTON HEIGHTS MARKET AREA	1,312	1,239	94.4	73	5.6
Arlington Heights Primary Market Area	704	661	93.9	43	6.1
Arlington Heights	183	176	96.2	7	3.8
Prospect Heights	104	86	82.7	18	17.3
Wheeling	61	55	90.2	6	9.8
Des Plaines	40	40	100.0	0	0.0
Glenview	156	150	96.2	6	3.8
Niles	35	31	88.6	4	11.4
Northbrook	75	75	100.0	0	0.0
Park Ridge	50	48	96.0	2	4.0
Arlington Heights Secondary Market Area	608	578	95.1	30	4.9
Hoffman Estates	28	23	82.1	5	17.9
Lake Barrington	42	40	95.2	2	4.7
Schaumburg	163	158	97.0	5	3.1
Buffalo Grove	168	164	97.6	4	2.4
Lincolnshire	38	29	76.3	9	23.7
Vernon Hills	169	164	97.0	5	3.0

Source: Tracy Cross & Associates, Inc.

Assisted Living (frail) and Assisted Living (memory support) The Moorings of Arlington Heights

Background:

The residents of independent living apartments and villas at The Moorings desire updated and modern accommodations within the continuum of care at the assisted living and memory support levels of care. Although occupancy is high, residents have complained about: the size of the current apartments and the distance to the elevator or dining venue.

It was determined that new assisted living and memory support apartments were needed, so Presbyterian Homes and The Moorings of Arlington Heights retained the professional services of Tracy Cross and Associates, a Schaumburg based market research and analysis consultant to determine the potential and associated demand for additional assisted living and memory support units on its campus at 811 East Central Road in Arlington Heights. With increasing internal demand and overall market growth, the findings clearly indicated that the resident population at The Moorings of Arlington Heights would respond to updated and enlarged accommodations for assisted living services and any additional available units would be in very high demand in the external marketplace. The final report was presented to Presbyterian Homes in April 2014 for consideration.

Findings:

The continued maturing of the independent living residents at The Moorings of Arlington Heights has created significant demand for not only assisted living services, but also memory support services in an assisted living environment. The current assisted living building (originally built in the 1950's) is totally inadequate for this aging campus population. The recommendation was to build new, modern assisted living apartments to serve the needs of our older adults.

In addition, the overall demand for all forms of senior's housing in the northwestern suburbs is very high, not only during the initial study period; from 2014-2019, but well beyond when projected through 2040. This project is designed to satisfy the demand of The Moorings contractual residents, but will also respond to the communities request for assisted living and memory support services if available.

[Type text]

Sources:

Tracy Cross and Associates, Inc. 2014
U.S. Department of Commerce, Bureau of the Census

BUILDING DEPARTMENT

1

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

08-10-113-002-0000

Petition #: P.C. 15-012
 Petitioner: Nancy Tolan, V.P. Facilities, Planning & Construction
3200 Grant Street
Evanston IL 60201
 Owner: Presbyterian Homes
3200 Grant Street
Evanston IL 60201
 Contact Person: Nancy A.H. Tolan
 Address: 3200 Grant Street
Evanston IL 60201
 Phone #: 1-847-570-3380
 Fax #: 1-847-570-3363
 E-Mail: ntolan@presbyterianhomes.org

P.I.N.# 08-10-113-003-0000, 08-10-113-004-0000
 Location: 811 E. Central Road Arlington Heights, IL.
 Rezoning: Current: Proposed:
 Subdivision: N/A
 # of Lots: Current: Proposed:
 PUD: ✓ For: amendment
 Special Use: N/A For:
 Land Use Variation: N/A For:
 Land Use: I-PUD Current: Senior Living
 Proposed: Senior Living
 Site Gross Area: 41 acres
 # of Units Total: 73 Assisted Liv, 20 Memory Care
 1BR: 2BR: 3BR: 4BR:

(Petitioner: Please do not write below this line.)

DO EXISTING STRUCTURES, IF ANY, MEET MINIMUM REQUIREMENTS OF THE FOLLOWING:

YES NO

- | | | | | |
|----|---------------|---------------|-------------|---------------|
| 1. | <u>✓</u> | <u> </u> | VILLAGE | BUILDING CODE |
| 2. | <u> </u> | <u> </u> | PRESENT | ZONING USE |
| 3. | <u> </u> | <u> </u> | REQUESTED | ZONING USE |
| 4. | <u> </u> | <u> </u> | SUBDIVISION | REQUIRED |
| 5. | <u> </u> | <u> </u> | SIGN | CODE |

6. GENERAL COMMENTS:

Deb Pierce 8-3-15
~~Director~~ PLAN REVIEWER Date

1A

08-10-113-002-0000

P.I.N.# 08-10-113-003-0000, 08-10-113-004-0000

Location: 811 E. Central Road Arlington Heights, IL.

Rezonning: _____ Current: _____ Proposed: _____

Subdivision: N/A

of Lots: _____ Current: _____ Proposed: _____

PUD: For: amendment

Special Use: N/A For: amendment

Land Use Variation: N/A For:

Land Use: I-PUD Current: Senior Living

Proposed: Senior Living

Site Gross Area: 41 acres

of Units Total: 73 Assisted Liv 20 Memory Care

1BR: 2BR: 3BR: 4BR:

(Petitioner: Please do not write below this line.)

The Moorings

Inspectional Services / Fire Protection Notes:

1. Existing Fire Sprinkler and Fire Alarm systems in all occupied buildings must be kept operative and accessible during all phases of construction.
2. Fire Sprinkler and Fire Alarm drawings required under separate submittals.
3. Barricade fencing required around all open excavations and active construction areas.


Director Date

PUBLIC WORKS DEPARTMENT

2

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

08-10-113-002-0000

Petition #: P.C. <u>15-012</u> Petitioner: <u>Nancy Tolan, V.P. Facilities, Planning & Construction</u> <u>3200 Grant Street</u> <u>Evanston IL 60201</u> Owner: <u>Presbyterian Homes</u> <u>3200 Grant Street</u> <u>Evanston IL 60201</u> Contact Person: <u>Nancy A.H. Tolan</u> Address: <u>3200 Grant Street</u> <u>Evanston IL 60201</u> Phone #: <u>1-847-570-3380</u> Fax #: <u>1-847-570-3363</u> E-Mail: <u>ntolan@presbyterianhomes.org</u>	P.I.N.# <u>08-10-113-003-0000, 08-10-113-004-0000</u> Location: <u>811 E. Central Road Arlington Heights, IL.</u> Rezoning: <u> </u> Current: <u> </u> Proposed: <u> </u> Subdivision: <u>N/A</u> # of Lots: <u> </u> Current: <u> </u> Proposed: <u> </u> PUD: <u>✓</u> For: <u>amendment</u> Special Use: <u>N/A</u> For: <u> </u> Land Use Variation: <u>N/A</u> For: <u> </u> Land Use: <u>I-PUD</u> Current: <u>Senior Living</u> Proposed: <u>Senior Living</u> Site Gross Area: <u>41 acres</u> # of Units Total: <u>73 Assisted Liv, 20 Memory Care</u> 1BR: <u> </u> 2BR: <u> </u> 3BR: <u> </u> 4BR: <u> </u>
---	---

(Petitioner: Please do not write below this line.)

	EXISTING IMPROVEMENT	REQUIRED IMPROVEMENT	COMMENTS
1. <u>UTILITIES:</u>			
Water	<u> </u>	<u>✓</u>	<u> </u>
Metering	<u> </u>	<u> </u>	<u> </u>
Backflow	<u> </u>	<u> </u>	<u> </u>
Sanitary Sewer	<u> </u>	<u>✓</u>	<u> </u>
Storm Sewer	<u> </u>	<u>✓</u>	<u> </u>
2. <u>SURFACE:</u>			
Pavement	<u> </u>	<u> </u>	<u> </u>
Curb & Gutter	<u> </u>	<u> </u>	<u> </u>
Sidewalks	<u> </u>	<u> </u>	<u> </u>
Street Lighting	<u> </u>	<u>✓</u>	<u> </u>
3. <u>GENERAL COMMENTS:</u>			

Director _____

Date _____

Memorandum

To: Latika Bhide, Planning and Community Development
From: Cris Papierniak, Assistant Director of Public Works 
Date: August 19, 2015
Subject: 811 E Central Rd, P.C. #15-012

With regard to the proposed PUD, I have the following comments:

1. The general description states that all sanitary sewer connections will be routed to the northeast off Central. Civil plans do not show any connections. It would be preferable to route newly generated sanitary sewer towards Douglas.
2. The general description states that hydrants will be added to the system. The civil utility plans do not show the locations.
3. A sewer segment (141 LF of 42" RCP, Pg C4.0) runs through building and does not show in casement.
4. Plans do not indicate detention pond overflow route.
5. All existing sewer that will be connected must have condition verified with an internal video inspection if it is going to be reused.

Thank you for the opportunity to comment on the plans. If you have any questions, please feel free to contact me.

C: file

LF

ENGINEERING DEPARTMENT

3

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

08-10-113-002-0000

Petition #: P.C. 15-012 P.I.N.# 08-10-113-003-0000, 08-10-113-004-0000
 Petitioner: Nancy Tolan, V.P. Facilities, Planning & Construction Location: 811 E. Central Road Arlington Heights, IL.
3200 Grant Street Rezoning: Current: Proposed:
Evanston IL 60201 Subdivision: N/A
 Owner: Presbyterian Homes # of Lots: Current: Proposed:
3200 Grant Street PUD: ✓ For: amendment
Evanston IL 60201 Special Use: N/A For:
 Contact Person: Nancy A.H. Tolan Land Use Variation: N/A For:
 Address: 3200 Grant Street Land Use: I-PUD Current: Senior Living
Evanston IL 60201 Proposed: Senior Living
 Phone #: 1-847-570-3380 Site Gross Area: 41 acres
 Fax #: 1-847-570-3363 # of Units Total: 73 Assisted Liv., 20 Memory Care
 E-Mail: ntolan@presbyterianhomes.org 1BR: 2BR: 3BR: 4BR:

(Petitioner: Please do not write below this line.)

1. PUBLIC IMPROVEMENTS

REQUIRED: YES NO COMMENTS

a. Underground Utilities

Water X Sanitary Sewer X Storm Sewer X

b. Surface Improvement

Pavement X Curb & Gutter X Sidewalks X Street Lighting X

c. Easements

Utility & Drainage X Access X

2. PERMITS REQUIRED OTHER THAN VILLAGE:

a. MWRDGC Xb. 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? X8. CONTRIBUTION ORDINANCE EXISTING? 9. FLOOD PLAIN OR FLOODWAY EXISTING? 10. WETLAND EXISTING?

YES

NO

COMMENTS

 XSEE ADDITIONAL COMMENTS N/A X X X X X

GENERAL COMMENTS ATTACHED

 PLANS PREPARED BY: ERIKSSON ENGINEERING
 DATE OF PLANS: 06-22-15
 8/5/15
 Director Date

PLAN COMMISSION PC #15-012

The Moorings 811 E. Central PUD Amendment 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 for all public improvements must be approved prior to the final approval. An Engineers estimate of construction cost for full site improvements is required to complete the calculation for plan review, inspection, and other fees. This estimate 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.
13. 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

Volume I – Civil

14. The exhibit showing the turning path of the Fire Department's responding vehicle is acceptable.
15. Consider including bicycle racks in development plan to encourage alternate modes of transportation for employees and patrons.
16. The stormwater detention information provided in the folder only shows calculations for the final condition. There is no information provided that describes the existing condition and how that was derived. Final approval will require a stormwater narrative describing the existing detention system, including any expansions over the years. Include the MWRD-required disturbed area exhibit, etc.
17. Sheet C7.0, Restrictor structure detail: How water tight is the sliding restrictor plate?

18. Plans are acceptable for preliminary approval only.

Volume II – Assisted Living

19. Sheet A002, Ground Floor Plan: When backing out of the first underground parking space, the garage door will need to open.

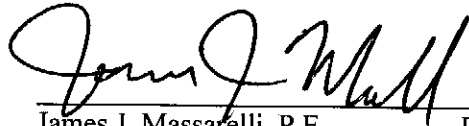
Volume III – Resident Fellowship Hall & Commons: No comments.

Volume IV – Assisted Living Memory Care: No comments.

Traffic Related Items:

20. The use of the Fellowship Hall for Sunday Services may attract relatives of residents wishing to attend services with patrons. Please provide information regarding attendance for this event.
21. Please provide a chart of events that would attract more off site attendance than just residents of the facility, days of the week and time of day that these activities would occur, and how many attendees would be anticipated.
22. Does the guard house keep any records of vehicle arrivals and departures by activity that the passengers may be participating in?
23. Please provide any list or sketch for the parking survey conducted that identified where on the property the cars were parked. Of particular interest is how many employees there are, where they park, and how patterns change with shift changes.
24. How many onsite physicians are employed by the Moorings versus numbers of visiting Physicians, nurses or hospital staff? Where do they park?
25. The traffic report Table 12 has a typo on the first line for number of 2 vehicle summary such that 3 units would contribute 6 total and not the 3 indicated for a total of 96 and not 93.
26. Please provide a parking plan for where future parking assignment will be identified for the new building structures and site development layout, as it is phased in, as well as the ultimate build out.
27. Please provide a parking plan that addresses the following:
 - a.) The reallocation of the 58 parking stalls that are going to be removed initially, and where the parking associated with these going to be relocated to?
 - b.) Identify a parking schedule to manage the requirements for workers to park during each of the building phases so that all construction parking is maintained on site.
28. Under the current ordinance, the property is required to participate in the proportionate cost of a traffic signal at Central Road if and when this traffic control device is warranted. The traffic report warrant analysis indicates that the current traffic data does not support a signal at this time. Although a traffic signal is currently not warranted, the new ordinance should keep intact the current ordinance requirement.

29. For the proposed new parking areas being built, there is possibility to allow front vehicle overhang into the landscaped area. The stall depth could be reduced to 16.5 ft. rather than the 18 ft. shown. This would permit more green space, and reduce pavement area and cost for installation.
30. Please explain what the widened areas adjacent to the fire lane surrounding the detention lake are being used for.
31. All lighting fixtures should be 'Night Sky' compliant. Provide the actual catalog cut sheets for all exterior lighting fixtures either pole mounted in the parking lots, or building mounted so they can be evaluated for glare.

 8/5/15
James J. Massarelli, P.E. Date
Director of Engineering



Arlington Heights Fire Department Plan Review Sheet

P. C. Number 15-012

Project Name The Morrings

Project Location 811 E. Central Rd.

Planning Department Contact Latika Bhide

General Comments

- 1) Building to be fully sprinkled.
- 2) Fire Department Connection (FDC) to be located at the main entrance.
- 3) Fully functional annunciator panel or alarm panel to be located inside the main entrance.
- 4) Fire hydrant located within 100' of the FDC.
- 5) Locate a Knox Box at the main front entrance.
- 6) Investigate providing hydrant access along the new fire lane.

RECEIVED

AUG 5 2015

PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

**NOTE: PLAN IS CONCEPTUAL ONLY
SUBJECT TO DETAILED PLAN REVIEW**

Date August 5, 2015 Reviewed By: LT. Andrew Larson

ARLINGTON HEIGHTS POLICE DEPARTMENT

Community Services Bureau

DEPARTMENT PLAN REVIEW SUMMARY

Presbyterian Homes – The Moorings
811 E. Central Rd.
PC 15-012
Round 1

Review Comments

08/11/2015

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.

3. Present traffic problems?

There are no apparent 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.

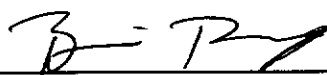
6. General comments:

Agent contact information must be provided to the Arlington Heights Police Department during all construction phases. Emergency contact cards can be filled out at the Village of Arlington Heights website (vah.com). This allows police department personnel to contact an agent during emergency situations or for suspicious/criminal activity on the property during all hours.

RECEIVED

AUG 11 2015

PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

 #272

Brandi Romag, Crime Prevention Officer
Community Services Bureau

Approved by:



Supervisor's Signature

HEALTH SERVICES DEPARTMENT

6

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

08-10-113-002-0000

Petition #: P.C. 15-012
Petitioner: Nancy Tolan, V.P. Facilities, Planning & Construction
3200 Grant Street
Evanston IL 60201
Owner: Presbyterian Homes
3200 Grant Street
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Contact Person: Nancy A.H. Tolan
Address: 3200 Grant Street
Evanston IL 60201
Phone #: 1-847-570-3380
Fax #: 1-847-570-3363
E-Mail: ntolan@presbyterianhomes.org

P.I.N.# 08-10-113-003-0000, 08-10-113-004-0000
Location: 811 E. Central Road Arlington Heights, IL.
Rezoning: Current: Proposed:
Subdivision: N/A
of Lots: Current: Proposed:
PUD: ✓ For: amendment
Special Use: N/A For:
Land Use Variation: N/A For:
Land Use: I-PUD Current: Senior Living
Proposed: Senior Living
Site Gross Area: 41 acres
of Units Total: 73 Assisted Liv. 20 Memory Care
1BR: 2BR: 3BR: 4BR:

(Petitioner: Please do not write below this line.)

1. GENERAL COMMENTS:

Solid waste storage sites must be provided for all new buildings.

Section 19-103(d). Solid waste storage sites for newly constructed or substantially remodeled multi-family residential, commercial or industrial establishments shall meet the following criteria:

1. 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;

2. 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 attached memo regarding accessibility comments.

Sean Freres

7/29/15

Environmental Health Officer

Date

RECEIVED

JUL 30 2015

PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

Sean Freres

7/29/15

Director

Date

Plan Review

Address: The Moorings
811 E. Central Rd.
Planned Unit Development
P.C. #15-012 Round 1

Submitted to: Latika Bhide, Planning and Community Development

Submitted by: David Robb, Disability Services Coordinator *David Robb*
(847) 368-5793

Date: July 29, 2015

Re: Illinois Accessibility Code (IAC), Effective April 1997
(<https://www.illinois.gov/cdb/business/codes/Pages/IllinoisAccessibilityCode.aspx>)

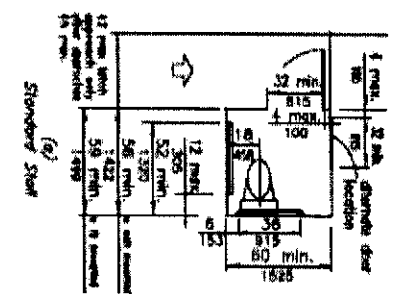
Residential Fellowship Hall & Commons

Sheet A101

1. The Single User Toilet Rooms lack adequate clear floor space maneuvering space for exiting each room per IAC Section 400.310(j)(5) and 400.Illustration B. Figures 25(c) Pull Side.

Sheet A102

2. In the Men's and Women's Toilet Rooms the wheelchair accessible "Standard Stall" door shall open opposite the clear floor space to allow adequate wheelchair maneuvering space within the stall, per IAC Section 400.Illustration B. Figure 30(a).



Assisted Living

Sheet A101

3. In the Men's and Women's Locker Rooms the wheelchair accessible "Standard Stall" door shall open opposite the clear floor space to allow adequate wheelchair maneuvering space within the stall, per IAC Section 400.Illustration B. Figure 30(a).

PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT

7

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

08-10-113-002-0000

Petition #: P.C. 15-012
 Petitioner: Nancy Tolan, V.P. Facilities, Planning & Construction
3200 Grant Street
Evanston IL 60201
 Owner: Presbyterian Homes
3200 Grant Street
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 Contact Person: Nancy A.H. Tolan
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 Phone #: 1-847-570-3380
 Fax #: 1-847-570-3363
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P.I.N.# 08-10-113-003-0000, 08-10-113-004-0000
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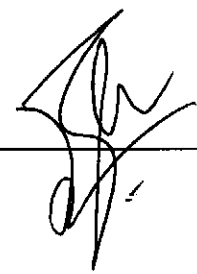
(Petitioner: Please do not write below this line.)

YES NO

1. ✓ COMPLIES WITH COMPREHENSIVE PLAN?
2. W/A 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 .

 8/6/15 Date

Planning Department Comments (PL15-012, The Moorings, 811 E. Central Road, Round 1)

7. The property at 811 E. Central Road is zoned I, Institutional. A Planned Unit Development Amendment and amendment to Ordinances 85-154, 88-015, 89-041, 91-108, 92-051, 93-051, 02-015 and 06-069 to allow a change in the approved site plan to allow the addition of an assisted living facility, memory care facility, and the addition of a chapel
8. A variation from the required number of parking spaces to allow 538 spaces is required. (Please see #19, #20, #21 below. The Code parking requirement will be higher as collective parking requirement for each of the different uses within the fellowship hall – beauty shop, doctor's office, office, etc. must be calculated, assisted living is calculated at 1 space per unit and the driveway spaces can be counted toward satisfying the parking requirement for the Villas, but cannot be counted towards general parking requirements.)
9. A variation from Section 5.1-8.11 from the requirement that inner courts are permitted for one and two story buildings to allow a 3-story building around the inner court.
10. A variation from Section 5.1-8.14, Minimum Distance from Building Wall to Paved Area, to allow the building wall for the Memory Care Assisted Living to be 2 feet from the sidewalk instead of the required 12 feet.
Please provide a written justification for the zoning variations #8, 9 and 10 above that addresses the following criteria:
 - a. The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone.
 - b. The plight of the owner is due to unique circumstances.
 - c. The variation, if granted, will not alter the essential character of the locality.
11. Please provide a copy of the market study that was completed for Presbyterian Homes in 2014.

Volume I, Civil

12. On Sheet L-02, the parking row on the west of the Memory Care Assisted Living is deficient 2 landscaping islands. Revise to include islands. Also, please clarify if there is a landscaping island at the south end of the east row of parking.
13. It appears that the opposing walls of inner courts are spaced at least 100 feet apart. Please confirm compliance with Section 5.1-8.11, Spacing between multi-family buildings, including court standards.

Fellowship Hall

14. As was indicated in the narrative, there are occasions when the fellowship hall will be used for memorial services and a maximum of 20 outside vehicles will use the facility. Where will the vehicles park?
15. Also, if Villa residents are using the fellowship hall, where will they park vehicles if they drive to the site?

Assisted Living

16. What is the height of the Assisted Living Facility to the highest point? Per Ordinance 85-154, a variation to permit the construction of buildings up to five stories in height, with an average of 49.5 feet at the highest point was granted. It appears that the assisted living facility is 48' 4" to the midpoint of the roof.
17. What is the square footage of the units? The minimum floor area per Section 5.1-8.9 for one-bedroom units is 650 SF.

Memory Care Assisted Living

18. The minimum floor area requirements (per Section 5.1-8.9) do not apply to memory care assisted living facilities as to be classified as a dwelling, a kitchen must be installed permanently.

Parking and Loading

19. The required parking for Assisted Living is calculated at 1 parking space per unit (not one space per 2 beds). Therefore, 70 spaces are required for the Assisted Living facility.
20. For the fellowship hall, the Code required parking demand is based on the collective parking requirement for each of the different uses within the facility (Chapter 28, Section 11.2-6, Collective Provision). Therefore, the Code required parking for the other uses must be added to the parking requirement for the Fellowship Hall:
- Beauty shop: 1,740 SF requires 1 space for every 250 SF floor area and will require **7** spaces
 Doctors office: (40 x 30) 1,200 SF requires 1 space for every 200 SF floor area and will require **6** spaces
 General Office: (22 x 12) 264 SF requires 1 space for every 200 SF floor area and will require **1** space
 Fitness: (54 x 40 + 28 x 28 + 28 x 20) 3,504 SF requires 1 space for every 250 SF floor area and will require **14** spaces
 Lobby: 1,301 SF requires 1 space for every 300 SF floor area and will require **4** spaces
 Chaplains office: 300 SF requires 1 space for every 300 SF floor area and will require **1** space
 * Please calculate and add any other areas/uses not listed above.
21. The parking available for the driveways for the villas can be counted towards to satisfying the parking requirement for the Villas, but cannot be counted towards general parking requirements.

The revised parking requirement is copied below:

Senior Apartments	212 apartments	1 per unit	212
Senior Villas	81 villas	2 per villa	162
Skilled Care	105 beds	1 per 2 beds	52
Assisted Living	70 beds	1 per unit	70
Memory Care	20 beds	1 per 2 beds	10
Fellowship Hall	486 seats + other uses	1 per 5 spaces + other spaces as above	130 (97+ 7 + 6 + 1 + 14 + 4 + 1)
		Total	636 spaces

Please provide a revised listing of the available parking. As stated above, the driveway parking for the villas can be counted towards satisfying the parking for the villas, but cannot be counted towards satisfying the general parking requirement.

22. Per Section 11.7, Schedule of Loading Requirements, Institutional Uses are required to provide one loading berth (10-ft x 35-ft) for 10,000-200,000 SF GFA. 123,889 SF of GFA is being added. Therefore, one loading berth will be needed. Revise to provide a loading berth.

The Moorings
811 E. Central Road
P.C. #15-012
August 7, 2015

Tree Preservation

- 1) Approximately 164 trees on the site are identified for removal. On the tree inventory on sheet L-01 please include the disposition for each tree. Also, on the plan increase the size of the tree number/tag so that it is legible.
- 2) Are there additional trees that could be preserved? It is recommended that additional trees be preserved adjacent to west lake and near the court yard (Zone B - Fellowship Hall). Please reevaluate the trees proposed for removal. Also, explore options for transplanting some of the trees elsewhere on the site.

Landscape Comments

- 3) The ends of all parking rows must include a 4" caliper shade tree. Provide 4" caliper shade trees at the south end of the parking lot and in the northeast corner at the end of the parking row (Zone A - Al Memory Care).
- 4) All mechanical units must be screened and located away from the front elevation.
- 5) It is recommended that options be evaluated for screening the loading area.
- 6) A landscape compliance bond in the amount of 30% of the landscaping costs will be required and a tree fee of \$200 is required for each tree identified for preservation at time of permit.

MEMO

DATE: August 7, 2015
TO: Latika Bhide, Development Planner
FROM: Steve Hautzinger, Design Planner
RE: The Moorings, PC #15-012
811 E. Central Road
PUD Amendment – Plan Commission Submittal Review

Design Commission review/approval is required for the new Assisted Living, Fellowship Hall, and Memory Care buildings, as well as the corresponding landscape design. Design Commission review is currently scheduled for August 25, 2015 at 6:30pm.

Preliminary Staff design review comments are as follows:

1. General Comments:
 - a. Overall, the proposed designs are very nicely done and will fit in well with the context of the existing Moorings property.
 - b. The overall material/color palette is nicely coordinated, and using the same materials on all three buildings works very well to tie the designs together.
2. Assisted Living building:
 - a. The overall composition is nicely done, but the application of EIFS and horizontal siding looks out of balance. Consider reversing the two materials so that the EIFS is on the top floor of the building and the gables as the accent material, and use the horizontal siding on the body of the building.
3. Fellowship Hall building:
 - a. No comments.
4. Memory Care building:
 - a. Overall, very nicely done, but the main entry is understated and hard to identify. Consider enhancing the design of the entrance with a covered portico.

The Moorings of Arlington Heights

Village of Arlington Heights – Plan Commission Response to Plan Commission Comments

September 10, 2015

The following comments are in response to the Plan Commission Department reviews.

Building Department - 1A

1. We will comply
2. We will submit Fire sprinkler and Fire Alarm drawings will be submitted under separate submittals.
3. We will comply

Engineering Department - 1A

1. No response required.
2. No response required.
3. No response required.
4. No response required.
5. No response required.
6. No response required.
7. No response required.
8. No response required.
9. No response required.
10. No response required.
11. We accept this understanding.
12. We will forward the updated cost estimate at the end of construction documents.

13. Engineering plans are based on the survey performed by Gremley and Beidermann on 5/19/2015. At this time Engineering Plans are georeferenced to the Arlington Heights Vertical Datum only. Final Engineering Plans will be georeferenced to the state plane coordinates as described.
14. No response required.
15. The campus administration will review and consider the implementation of bicycle racks.
16. The stormwater report has been revised for this submittal to include an existing conditions narrative and calculations. A Tributary Area Exhibit has been included in this submittal; an MWRD exhibit shall be included in the Final Report. The Original MWRD Permit No. 87-787 has been included in the stormwater report for reference.
17. The restrictor plate detail has been revised to show a concrete baffle wall. See sheet C7.0.
18. No response required.
19. The garage plan has been revised. See attached Assisted Living drawing A102.
20. The traffic and parking study (4 - Parking) outlines the occurrences when resident relatives attend memorial services. It is extremely rare for a family member to attend a regular Sunday service at the facility with a resident. There are no records for this type of attendance because it doesn't occur. More often the resident will go off campus with family members to attend the church the family attends.
21. There are no consistent additional events that attract more off site attendance than as outlined in the traffic and parking study. The parking on site is for residents and staff. Only on a very rare occasion, like a neighborhood meeting, would there be an event on campus.
22. There are no events so the guard house does not keep records.
23. From the traffic study, Table 10 lists the existing parking inventory and Table 13 the overall parking demand.

Table 10
Moorings Existing Parking Inventory

Unit Type	Units	Location	Regular	Accessible	Total	Code Requirement	Diff.
Senior Apartments	212	Underground Garage Spaces	79		79		
		By Guard House	4		4		
		Surface Spaces South of Building	41	3	44		
		Surface Spaces by Entrance	70	3	73		
		subtotal	194	6	200	212	-12
Senior Villas	81	54 - One Car Garages	54		54		
		27 - Two Car Garages	54		54		
		Driveway Spaces	108		108		
		Off-Street Parking	12		12		
		subtotal	228		228	162	+66
Skilled Care Asstd. Living Memory Care	150	East of Building	18	1	19		
		Along Old Barn Road	31	2	33		
		West of Building	36	2	38		
		subtotal	85	5	90	75	+15
Totals	443		507	11	518	449	+69

Table 13
Existing Parking Survey

Unit Type	Spaces Available	Surveyed		Adjusted for Full Occupancy	
		Vehicles	%	Vehicles	%
Senior Apartments	200	161	71%	176	88%
Senior Villas	228	68	30%	74	33%
Skilled and Sheltered Care	90	66	73%	90	100%
Total	518	295	57%	340	67%

The location of the parked vehicles is provided below.

Moorings Existing Parking Counts

Unit Type	Units	Location	Total Spaces	Spaces Occupied
Senior Apartments	212	Underground Garage Spaces	79	75
		By Guard House	4	2
		Surface Spaces South of Building	44	25
		Surface Spaces by Entrance	73	59
		subtotal	200	161
Senior Villas	81	54 - One Car Garages	54	58
		27 - Two Car Garages	54	
		Driveway Spaces	108	
		Off-Street Parking	12	10
		subtotal	228	68
Skilled Care Asstd. Living Memory Care	150	East of Building	19	12
		Along Old Barn Road	33	21
		West of Building	38	33
		subtotal	90	66
Totals	443		518	295

24. There are 1-2 staff positions for physicians. This staff is included in the count indicated in the parking and traffic study. There are no offsite physicians. The Moorings provide transportation for residents to make off site visits.
25. Table 12 will be corrected as noted.

Table 12
Moorings Resident's Auto Ownership

Unit Type	Occupied Units ⁽¹⁾	Number of Units with			Total Vehicles	Average Vehicles per Unit
		0 veh.	1 veh.	2 veh.		
Senior Apartments	190	97	90	3	96	.51
Senior Villas	73	13	52	8	68	.93
Totals	263	110	142	11	164	.62

(1) March 2015 Data

26. The Moorings of Arlington Heights will maintain its existing general policy on parking assignments. The policy is that the staff parks furthest away from the entry points of the buildings. The residents are to park closest to the entry points of the building.

27. a.) Twenty of the 58 parking spaces will be lost when the 8 villas are demolished to make way for the assisted living building and do not need to be replaced. The 38 spaces in the west parking lot will not be removed until after the construction of the assisted living building when the underground parking will be available (23 spaces).

b.) The Moorings has completed a number of construction projects at the campus and has managed the parking of construction vehicles and workers so it does not impact the campus and the adjacent neighborhood. A detailed plan will be developed as construction plans and phasing are developed.
28. So noted and agreed.
29. The owner would prefer the use larger stall size for their residents. The larger parking stalls provides for easier maneuvering of vehicles for the senior population.
30. Per discussions and with Mike Pagones and Andrew Larson, the widened areas are provided at strategic areas around the detention pond. The widened areas will allow a fire truck to deploy outriggers and provide a lane for other emergency vehicles to pass.
31. All light fixtures are "Night Sky" compliant. See attached revised site lighting drawing and catalog cut information.

Fire Department

1. The buildings are fully sprinkled.
2. Acknowledged, the plans will show FDC's at the Assisted Living and Memory Care Main Entrances.
3. Agreed.
4. A fire hydrant will be located within 100' of the FDC's. See revised plan C4.0.
5. Agreed.
6. In addition to the two existing hydrants, a hydrant has been added in front of the Fellowship Hall so that all building faces are located within 150 feet of a hydrant. See revised plans C4.0

Heath Services Department

General Comments

1. There is a solid waste soil container (compactor) included in the dock area. We've included an updated drawing noting this location. See Assisted Living drawing A102
 - a.) The area accommodates the compactor selected by the owner.
 - b.) The location of the container is in the dock area. The surface is concrete. The area slopes to a linear drain.
 - c.) The dock area is fully enclosed by walls and an overhead door.
2.
 - a.) There is sufficient space for a truck to access this area.
 - b.) This container is in the dock area. Sufficient clearance is provided for access vehicles.

Disability Services

1. The plans have been modified to to provide required clearance. See attached Resident Fellowship Hall drawing A101.
2. The stalls have been modified to provide required clearances. See attached Resident Fellowship Hall drawing A102.
3. The stalls have been modified to provide required clearances. See attached Assisted Living drawing A101.

Planning & Community Development

1. No response required.
2. No response required.
3. No response required.
4. No response required.
5. No response required.
6. No response required.
7. This comment is informational. We would like to clarify that we are using the term "Resident Fellowship Hall" instead of "Chapel".

8. See attached list of variation requests.
9. See attached list of variation requests.
10. See attached list of variation requests.
11. A copy of the market study is attached.
12. Sheet L-02 has been revised to incorporate landscaping islands that meet the standards set forth in the "Requirements for Landscape Approval" document supplied by the Village Planning Department. There is a landscaping island at the south end of the east row of parking. This island is shown on Sheet L-04.
13. Acknowledged, Sheet C2.0 has been updated to show the 100 foot dimension in the courtyard.
- 14./15. The vehicles for memorial services and from the villas will park in the Independent Living parking lot. This is located at the main entrance to the Independent Living and Commons building. There are 20 people net expected which translates to 12 cars.
16. The height of the building is 48'-4" as per the zoning regulations definitions. Reference 3.2-28 **Building Height**. The vertical distance measured from the sidewalk level or its equivalent established grade opposite the middle of the front of the building to the highest point of the roof in the case of a flat roof; to the deck line of a mansard roof; and to the mean height level between eaves and the ridge of a gable, hip or gambrel roof; provided that where buildings are set back from the street line, the building height may be measured from the average elevation of the finished lot grade at the front of the building.
17. See attached list of variation requests.
18. We agree with the assessment. The memory care units do not have a minimum S.F. requirement because they do not have a kitchen.
19. The Village of Arlington Heights Zoning Code does not list a parking requirement for assisted living units. The parking demand ratio of 1 space per 2 beds for nursing care was used based on the parking ratios consistent with the Institute of Transportation Engineers Parking Generation, 4th Edition parking data of 0.41 parking spaces per assisted living unit. However, the zoning calculations will be revised with one parking space per unit.
20. The additional uses listed within the Fellowship Hall are currently provided at The Moorings development and should be considered ancillary uses of the existing congregate care retirement community. These areas are replacement space and would not generate additional traffic or parking beyond what they currently generate.

21. Please see a revised Table 9 from the traffic study. Note that the number of villas was reduced by the eight units that will be demolished to make way for the assisted living building. The assisted living ratio was updated per Comment 19. The senior apartments increased to 212. The ancillary spaces within the Fellowship Hall were not included per response to Comment 20.

Table 9
Zoning Code and ITE Requirements for
The Moorings with Phase 1

Unit Type	Units	Zoning Code Requirement	Total	ITE Parking Demand	Total
Senior Apartments	212	One Space per Unit	212.0	0.59 spaces per unit	125.0
Senior Villas	73	Two Spaces per Unit	146.0	0.59 spaces per unit	43.1
Skilled Care	105	One Space per Two Beds	52.5	0.35 spaces per bed	36.8
Assisted Living	70	One Space per Unit	70.0	0.41 spaces per unit	28.7
Assisted Living: Memory Care	20	One Space per Two Beds	10.0	0.41 spaces per bed	8.2
Fellowship Hall	486 ⁽¹⁾ seats	One Space for each 5 Seats	97.2	0.20 spaces per seat ⁽²⁾	97.2
	480		587.7 (480.5)⁽³⁾		339.2 (241.8)⁽³⁾

(1) Approximately 3,400 sq. ft. at 7 sq. ft. per person = 486 seats

(2) Peak demand on a Sunday

(3) Requirement without Fellowship Hall

The proposed parking supply for the overall campus is 536 spaces (see table below) which is 42 spaces less than the overall zoning requirement of 578 spaces with the Fellowship Hall. However, the senior villa parking supply of 208 spaces (146 spaces required) is not available to the other users of the campus. The senior apartments, fellowship hall, and sheltered care/assisted living units share their overall parking supply. Removing the senior parking supply and zoning requirements, the remaining uses on the campus require 432 spaces and provide 328 spaces which **requires a parking variation of 104 parking spaces. The majority of the variation is due to the fellowship parking requirements (97 spaces) which serves the existing residents and will generate no additional parking demand.**

Proposed Parking Inventory

Unit Type	Units	Location	Regular	Accessible	Total
Senior Apartments	212	Underground Garage Spaces	79		79
		By Guard House	4		4
		Surface Spaces South of Building	41	3	44
		Surface Spaces by Entrance	70	3	73
		subtotal	194	6	200
Senior Villas	73	48 - One Car Garages	48		48
		25 - Two Car Garages	50		50
		Driveway Spaces	98		98
		Off-Street Parking	12		12
		subtotal	208		208
Skilled and Sheltered Care	195	East of Building	18	1	19
		West of the Building	38	2	40
		Along Old Barn Road	44	2	46
		Under the Building	23		23
		subtotal	123	5	128
Totals	480		525	11	536

22. The loading berth is provided in the Assisted Living building. See attached Assisted Living drawing A102.

TREE PRESERVATION

1. Sheet L-01 has been updated to reflect requested changes.
2. While most of the trees planned for removal fall within new building/paving/wall or retention pond areas, some additional trees outside of these areas may require removal due to proposed site grading. Opportunities for preservation of additional trees will be further evaluated as civil engineering and grading plans are refined through the design development and construction documentation process. Identification of potential transplants will also be explored during subsequent refinements to landscape plans.

LANDSCAPE COMMENTS

3. Additional trees have been added to the landscape plan at the south end and east end of the parking areas shown on Sheets L-02 & L-04.
4. Landscape screening has been identified on Sheet L-04 and mechanical units have been located away from the front elevation.

5. Landscape screening of the loading area has been identified on Sheet L-04.
6. All required fees and bonds will be provided at time of permit.

DESIGN PLANNER

1.
 - a. No response required.
 - b. No response required.
2.
 - a. We reviewed this issue with the Design Commission. We agreed to the following:
 - A requirement that the west elevation of the memory care building be enhanced with siding material in lieu of EIFS at the 2 bay projections underneath the gabled roofs.
 - A recommendation that the petitioner study the exterior color scheme to determine if a more contrasting hardi-board color is necessary
 - A recommendation to add detailing to break up the 2-story blank EIFS wall adjacent to the service/loading area.
3.
 - a. No response required.
4.
 - a. There has been a conscious revision in the program since our initial Design Commission meeting. The owner wants the entrance for Assisted Living to also be the entrance for Memory Care. The Assisted Living entrance reception desk will be occupied more than the Memory Care entrance. The Memory Care still has a front door but we are downplaying it so it doesn't compete with Assisted Living entry.

Police Department

1. No response required.
2. The lighting requirements meet the Village of Arlington Heights code.
3. No response required.
4. No response required.
5. No response required.
6. Agent contact information will be provided when the project reaches the construction phase.

Public Works Department

1. At this time the only planned connections will be service connections to the existing sanitary main installed in Moorings Drive. New sanitary mains are not planned at this time.
2. The plans have been revised to show a new hydrant within 100' of the Assisted Living Entrance in anticipation of a new FDC. In addition, a hydrant has been added on the north side of the new fire lane around West Lake. See C4.0
3. The plans have been revised to show all proposed sewer segments running beneath buildings to be encased. See C4.0
4. The overflow route from West Lake will be designed for two locations. The first will be over the baffle wall of the restrictor manhole and the second is an overland route that will pass over a grassed weir to the south of West Lake and flow thru the Southwest Basin.
5. Acknowledged, a note has been added to sheet C4.0 stating that existing sewer to remain must be televised prior to new sewer connection.

End of Response

The Moorings of Arlington Heights

Village of Arlington Heights – Plan Commission

Variance Requests

September 10, 2015

Variation Observation

Variation #1 and #3 are in part or in whole being required because the Village of Arlington Heights interprets that Assisted Living units are dwelling units. We do not agree that the intent of a licensed care Assisted Living building or its units meets the intent of a dwelling or dwelling unit. Assisted Living buildings do not meet the definition of a ‘dwelling’ because it is not residential occupancy, it is licensed care. An Assisted Living unit does not have a permanent cooking facility to meet the definition of a “Dwelling Unit”.

We are submitting the following variation requests as instructed by the Village of Arlington Heights.

1. Variation #1 – Parking

The proposed parking supply for the overall campus is 536 spaces (see Proposed Parking Inventory table below) which is 52 spaces less than the overall zoning requirement of 588 spaces with the Fellowship Hall (See Table 9). However, the senior villa parking supply of 208 spaces (146 spaces required) is not available to the other users of the campus. The senior apartments, fellowship hall, and sheltered care/assisted living units share their overall parking supply. Removing the senior villa parking supply and zoning requirements, the remaining uses on the campus require 442 spaces and provide 328 spaces which requires a parking variation of 114 parking spaces. The majority of the variation is due to the fellowship parking requirements (97 spaces) which serves the existing residents and will generate no additional parking demand. Additionally including A.L. units as dwelling units increased the parking count an additional 35 spaces.

We believe a parking variation for the Resident Fellowship Hall and Assisted Living units is warranted based on our planned and historical use of these spaces as noted in our discussion below.

Planned Resident Fellowship Hall Parking Demand

The Village of Arlington Heights parking requirement calculations assume that the proposed Resident Fellowship Hall is similar and consistent in all respects with a traditional chapel or religious facility land use. The current and planned Resident Fellowship Hall uniquely provides some of the same functions, however, it is intended solely for the use of on-site Moorings residents for various activities and programs which will not generate any significant traffic or parking need from off-campus visitors. Like many of the support facilities at this senior living community, it is designed to be connected and walkable (accessible) for the residents via an interconnected, internal pedestrian circulation system.

The hall will, on occasion, be used for memorial services. The Mooring's religious services team reports that most attendees of memorial services uniquely are from within the campus. In addition to on-site residents, memorial services typically draw 10-25 outside guests with a maximum of 20 vehicles. On very rare occasions (once every year or two) we may see a few more visitors. The Moorings has an internal parking management team that oversees and manages parking during these types of events and does not believe that there is, or will be, a lack of available parking for these types of events.

In conclusion, our calculation of the number of seats shown for the proposed Resident Fellowship Hall (486 seats) is based on the building code capacity (1 seat per seven square feet of floor space) and does not accurately reflect the proposed usage of the space and reasonable use of the project will be diminished if developed under the stated guidelines.

Additionally, the Moorings of Arlington Heights has provided resident vehicle ownership data for the apartments and villas on the existing campus which is currently 0.61 vehicles per unit. Residents in the skilled care and assisted living/memory care are not able to drive. Forty-three percent of the residential units do not have a vehicle. A parking survey of the campus was also completed to better understand and anticipate demand. Based on the analysis, a total *cumulative site* parking demand of 352 vehicles is projected for the proposed additional development. This amount is well *below* both the 588 spaces *cumulative ordinance* required, and the 536 spaces proposed *within our current plan*. These conclusions and data support our belief that a parking variation for our Resident Fellowship Hall use is warranted and will not alter the essential character of the locality for the parking of the vehicles solely contained within the perimeter of the Moorings.

Included with this discussion is the issue that Assisted Living residents rarely are capable of driving. The assignment of one parking space per Assisted Living unit is not representative of the resident's capabilities and not representative of the actual Assisted Living parking requirements.

Please see a revised Table 9 from the traffic study. Note that the number of villas was reduced by the eight units that will be demolished to make way for the assisted living building. The assisted living ratio was updated per Engineering Comment 19. The senior apartments increased to 212. The ancillary spaces within the Fellowship Hall were not included per response to Comment 20. Comments 19 and 20 are copied here for ease of reference:

19. *The Village of Arlington Heights Zoning Code does not list a parking requirement for assisted living units. The parking demand ratio of 1 space per 2 beds for nursing care was used based on the parking ratios consistent with the Institute of Transportation Engineers Parking Generation, 4th Edition parking data of 0.41 parking spaces per assisted living unit. However, the zoning calculations will be revised with one parking space per unit.*

20. The additional uses listed within the Fellowship Hall are currently provided at The Moorings development and should be considered ancillary uses of the existing congregate care retirement community. These areas are replacement space and would not generate additional traffic or parking beyond what they currently generate.

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The Moorings with Phase 1

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Assisted Living	70	One Space per Unit	70.0	0.41 spaces per unit	28.7
Assisted Living: Memory Care	20	One Space per Two Beds	10.0	0.41 spaces per bed	8.2
Fellowship Hall	486 ⁽¹⁾ seats	One Space for each 5 Seats	97.2	0.20 spaces per seat ⁽²⁾	97.2
	480		587.7 (480.5)⁽³⁾		339.0 (241.8)⁽³⁾

(1) Approximately 3,400 sq. ft. at 7 sq. ft. per person = 486 seats

(2) Peak demand on a Sunday

(3) Requirement without Fellowship Hall

Proposed Parking Inventory

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		By Guard House	4		4
		Surface Spaces South of Building	41	3	44
		Surface Spaces by Entrance	70	3	73
		subtotal	194	6	200
Senior Villas	73	48 - One Car Garages	48		48
		25 - Two Car Garages	50		50
		Driveway Spaces	98		98
		Off-Street Parking	12		12
		subtotal	208		208
Skilled and Sheltered Care	195	East of Building	18	1	19
		West of the Building	38	2	40
		Along Old Barn Road	44	2	46
		Under the Building	23		23
		subtotal	123	5	128
Totals	480		525	11	536

The petitioner is reviewing plans to “Land Bank” the 114 parking spaces outlined in the variation request. If parking becomes an issue in the future, the “Land Bank” parking spaces can be considered at that time. The location of the “Land Bank” parking spaces is an extension of the parking lot to the Northeast of the Independent Living / Commons entrance. This is at the main entrance to the facility.

2. Variation #2 – Inner Court Access

A Variation from Chapter 28, Section 5-8.11, a, requirement for a 12’ wide (minimum) direct access for an emergency vehicle into an inner court.

The current zoning requirement is to have a 12’ wide emergency vehicle access into the courtyard; however a corner of the courtyard is open and the courtyard cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone. At that unique location there is also an underground tunnel that connects the Memory Care lower level to the Skilled Care lower level and an emergency vehicle would compromise the structure of the tunnel if it drove over it.

The variation request for the inner court without 12’ wide emergency vehicle access will not alter the essential character of the locality on an internal courtyard and is based on the following conditions:

- a. All of the buildings (existing and proposed) that surround the inner court are a non-combustible construction type.
- b. All of the buildings (existing and proposed) that surround the inner court are fully sprinklered.
- c. The inner court is open on the northwest corner but the vehicle size / weight is restricted.
- d. All of the buildings that (existing and proposed) surround the inner court are accessible by a fire truck on the opposite side of the inner court buildings.
- e. The Village Fire Department did not state concerns or comments regarding this inner court.

3. Variation #3 – One Bedroom Dwelling Unit size

A variation from Chapter 28, Section 5-8.10 , c, requirement for a one bedroom dwelling unit to be a minimum of 650 square feet.

The current zoning requirement is that all one bedroom dwelling units are a minimum of 650 square feet. The one dwelling units in the Assisted Living building are less than 650 square feet. The typical proposed 1 bedroom unit is 585 square feet. The Assisted Living units uniquely function differently than a typical multi-family dwelling unit and unless granted, the Assisted Living cannot yield a reasonable return if permitted only as used under the conditions allowed in the code.

Assisted Living residents share common use spaces outside their units. This is why their units are typically smaller. Residents are encouraged to live outside their units and

enjoy interaction with their neighbors. 14 Assisted Living units make up a neighborhood within the building. The neighborhood and overall building common spaces include living rooms, activity rooms, dining rooms, terraces and laundry rooms as a few examples.

The variation request for a one bedroom assisted living unit to be less than 650 square feet is based on the following conditions:

- a. The residents in an Assisted Living unit function differently than a typical multi-family dwelling unit. The facility provides a level of assistance dependent on the residents' abilities. Residents share common spaces outside of their units allowing the units to be smaller.
- b. Residents are provided three meals a day in the dining room. The kitchenette in the Assisted Living unit is not a cooking kitchen. The function of the kitchenette is for residents to have access to drinks and snacks, not preparing meals.
- c. The average size assisted living unit across the country is less than 650 S.F. Units below 650 square feet retain the institutional structure will not alter the essential character of the locality.

Variation #4 – Minimum distance from building wall to paved area

A variation from Chapter 28, Section 5.1-8.14 Minimum distance from Building Wall to Paved Area.

The zoning requires a 12' minimum distance from a building wall to paved area. The new buildings (Resident Fellowship Hall, Assisted Living and Memory Care) are located adjacent to the existing skilled care and commons building for interconnectivity. The building circulation for both staff and residents is to be continuous between the buildings. The proposed buildings are uniquely located within the existing campus ring road (to facilitate this connectivity) and around the existing west pond. There's a limited amount of open space to place the new buildings and unless granted, the new buildings cannot yield a responsible return if only as used under the conditions allowed by the code. Some portions of the parking lot to the east of Memory Care and the Skilled Care drive to the northeast of the Memory Care encroach into this minimum setback distance and will not alter the essential character of the locality if granted.

The variation request for encroaching on this minimum distance is based on the following conditions:

- a. There is a uniquely minimum amount of space for the proposed buildings to fit in the space available to maintain required connectivity of the buildings.
- b. Landscaping on the west side of the Memory Care building (Between building and parking lot) will be increased.
- c. Landscaping will be added to the northeast corner of the Memory Care building between the building and the adjacent sidewalk / skilled care drive.

End of Variation Requests

From: Village of Arlington Heights <info@vah.com>
Sent: Friday, September 11, 2015 4:34 PM
To: Bhide, Latika
Subject: Village of Arlington Heights Contact Staff - Moorings/Presbyterian
HomesAssist Living Project

This form was submitted from the Village Website. Please review the information that was submitted below and reply to the e-mail address that is listed below.

Name: Ted Babicz
E-mail: [REDACTED]
Concerning: Latika Bhide
Address: [REDACTED]
City: Arlington Heights
State: IL
Zip: 60005-3251
Phone: [REDACTED]
Length of Residency: 38 Years

Comment: Ms Bhide, I am requesting to meet with you in person on either September. 16, 17 or 18, 2015, please let me know if these dates fit your schedule to meet with me. I am representing a number of concerned neighbors on the 1000 and 1100 block of South Douglas Avenue in Arlington Heights. Other residents and I attended a meeting on 9-9-2015 at the Moorings where the Presbyterian Homes presented an expansion of their facilities to include an Assisted Care Building. First, I need say that the Moorings have been and are good neighbors and have taken excellent care of their property. A bit of history, I was one of the members of the original residents on Douglas Ave that worked with (at the time) Lutheran General (Magnus Farms) , The Village of Arlington Heights and local residents to come to a successful agreement between all parties on the current PUD Moorings project. At that time we were told that no additional construction would be done other than the addition of the single story to a story and one half Villas on the North and Northwest corner of the property. As was presented at Wednesday's neighbor meeting the plan is to construct a 5 story (6 including the roof) on the west side of the property. The line of sight from Douglas Avenue would be the 5 story institutional structure. Today the Moorings integrates with the neighborhoods on all sides of the property with residents owning single and 2 story homes. This new institutional building will be located on the east side of the Moorings, Moorings Drive where structures that are integral with the surrounding properties will be torn down and the 5 story institutional structure will take their place. What is there today works! My case in particular is I am located on Douglas Ave, directly across from the emergency exit, my neighbors and I would be directly affected looking at this massive structure down the open street. There will be a definite devaluation of the property values on the 1000 and 1100 blocks of Douglas Ave and adjacent neighbors on the South and East sides or the Moorings Property. What I would like to receive from the meeting with you would be; - to discuss what is to be expected at the Plan Commission Meeting, - how do we represent ourselves, - what can the Plan Commission do to protect the Douglas Avenue residents - and potential next steps. Thank you, Respectfully, Ted Babicz [REDACTED] Arlington Heights, IL 60005 [REDACTED]













DOUGLAS
MAGNOLIA













S DOUGLAS AVE
MAGNOLIA









MaROUS & COMPANY

September 17, 2015

Ms. Nancy Tolan, Vice President
Presbyterian Homes
3200 Grant Street
Evanston, Illinois 60201

Subject: Market Impact Analysis
Amendment to Existing PUD
The Moorings of Arlington Heights
811 East Central Road
Arlington Heights, Illinois 60005

Dear Ms. Tolan:

In accordance with your request, the request for an amendment to the existing Planned Unit Development (PUD) and a variation from the parking requirements for The Moorings of Arlington Heights located at 811 East Central Road, Arlington Heights, Illinois, has been analyzed and this market impact analysis has been prepared.

MaRous & Company has conducted similar market impact studies for a variety of clients and for a number of different proposed developments over the last 30 years. Clients have ranged from municipalities, counties, and school districts, to corporations, developers, and citizen's groups. The types of proposals analyzed include: commercial developments such as shopping centers and big-box retail facilities; religious facilities such as mosques and mega-churches; residential developments such as high-density multifamily and congregate-care buildings and large single-family subdivisions; recreational uses such as skate parks and lighted high school athletic fields; industrial uses such as waste transfer stations, land-fills, and quarries; and utilities such as natural gas power plants, high-tension wires, and wind farms.

Projects specifically related to this project include the proposed development of an assisted living facility in Highland Park; the proposed development of a residential rehabilitation facility near St. Charles; a senior independent-living building in Grayslake; expansion of a continuing care community in Lake Forest; and two Presbyterian Homes facilities in Evanston, one new construction and one proposed redevelopment.

Purpose and Intended Use of the Study

The purpose of this appraisal assignment is to analyze the potential impact, if any, on the value of the surrounding residential properties of the approval of an amendment to the existing Planned Unit Development (PUD) and variations from the parking requirements, fire department access to the cloister courtyard, side yard set back for the memory care buildings, and assisted-living unit sizes. Specifically,

Ms. Nancy Tolan
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this study is designed to address Article 9.4-2 of the Arlington Heights zoning ordinance which states that variations “shall not exercise a detrimental influence on the surrounding neighborhood.” The report is intended specifically for the use of Presbyterian Homes as part of an application to the Village of Arlington Heights for an amendment to the existing PUD and variations. Any other use or user of this report is considered to be unintended.

Executive Summary

As a result of the market impact analysis undertaken, previous analysis of similar facilities in comparable communities, and based on my experience valuing properties the area, it is my opinion that the approval of the amendment to the existing PUD and a variation from the required on-site parking will not exercise a detrimental influence on the value of other properties in the neighborhood. Specifically:

- The proposed development is similar in height, building mass, and appearance to the previous development on this site, and the amount of anticipated traffic is comparable;
- The proposed development is located in the center of the facility campus and is marginally visible from adjoining single-family houses;
- The existing development and the development of similar facilities in Cary and Northbrook have not had a negative impact on the value of the surrounding residential properties; and
- Previous market impact studies conducted for developments in Evanston, Lake Forest, and Grayslake indicated that there was no measurable negative impact on the value of residential properties adjacent to assisted living facilities.

Definition of Market Value

When discussing market value, the following definition is used:

The most probable price a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- Buyer and seller are typically motivated;
- Both parties are well informed or well advised, and acting in what they consider their own best interests;
- A reasonable time is allowed for exposure in the open market;
- Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and

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- The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.¹

Scope of Work and Reporting Process

Information was gathered concerning the real estate market generally and the market of the area surrounding the proposed annexation and special use specifically. The uses in the surrounding area, as well as the proposed development, were considered. The following information has been reviewed.

- Village of Arlington Heights Zoning Ordinance and map;
- Village of Arlington Heights Comprehensive Plan;
- Application for amendment of the existing PUD and requests for variations from Presbyterian Homes, including supporting documents (Market Research and Analysis for Expansion Plans Within The Moorings of Arlington Heights, Tracy Cross & Associates; Visual Lighting Plan, June 1, 2015; Dakota Landscape Plans dated July 21, 2015; rlps architects, plans dated September 1, 2015; Drainage Study and drawings by Ericsson Engineering Associates dated August 25, 2015; and Traffic and Parking Study by Ericsson Engineering Associates dated June, 2015);
- Data on the community from the Site to do Business, STDB.com;
- Data on the market and for single-family houses in the immediate area of the proposed project from Midwest Real Estate Data (MRED), and other data sources; and
- An inspection of the subject property and the surrounding area was made by Michael S. MaRous, MAI, CRE, on August 7, 2015, and by Anita Rifkind on July 10, 2015.

This document is considered to conform to the requirements of the *Uniform Standards of Professional Appraisal Practice and Advisory Opinions* (USPAP). This letter is a brief recapitulation of the appraisal data, analyses, and conclusions; additional supporting documentation is retained in the MaRous and Company office file. There are no extraordinary assumptions or hypothetical conditions included in the market study.

In order to form a judgment concerning the potential impact, if any, on the value of the surrounding properties and on the trend of development in the area by the approval of the proposed special use, we have considered the following:

- The nature of, and the possible uses for which the land might be used under the Arlington Heights Comprehensive Plan and Zoning Ordinance;

¹ (12 C.F.R. Part 34.42(g); 55 Federal Register 34696, August 24, 1990, as amended at 57 Federal Register 12202, April 9, 1992; 59 Federal Register 29499, June 7, 1994)

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- The nature of the surrounding development; and
- The potential impact on the character and the value of the surrounding residential properties by the approval of the amendment to the existing PUD and variations.

Description of Property, Nearby Uses, and Proposed Development

Area Analysis

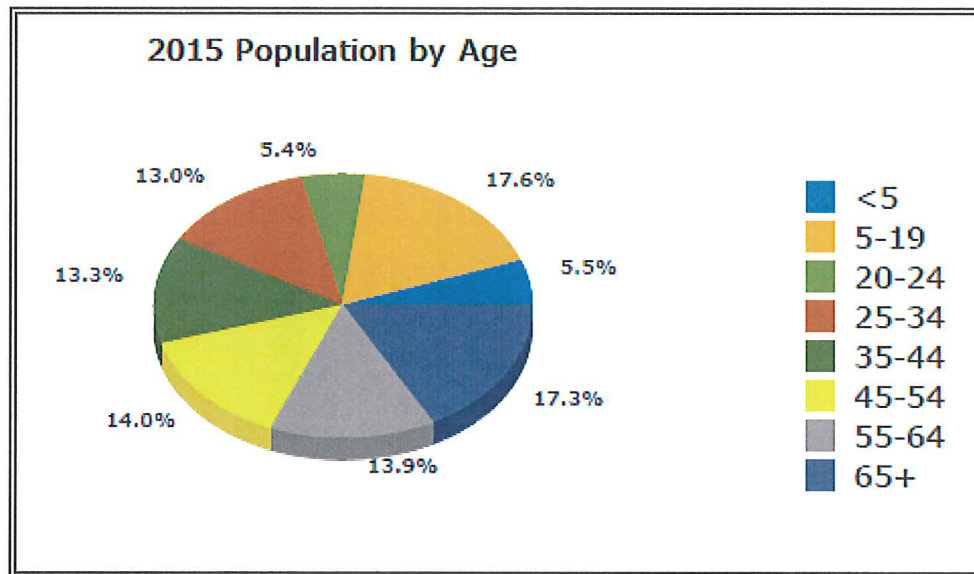
The subject property is located in the Village of Arlington Heights, Illinois, which is an established suburban community located in the northwest section of Cook County and within the Chicago metropolitan area. Distances to O'Hare International Airport and to Chicago's central business district are approximately 7 and 22 miles to the southeast respectively. The community is surrounded by the communities of Buffalo Grove and Long Grove, as well as the Buffalo Grove Forest Preserve to the north; by Elk Grove Village and the expansive Ned Brown Forest Preserve to the south; by Buffalo Grove, Wheeling, Prospect Heights, and Mount Prospect to the east; and by Palatine and Rolling Meadows to the west.

Arlington Heights is easily accessible via Interstates 53 and 90, located immediately west and south of the community, respectively. Arlington Heights is accessible from Interstate 90 via a full interchange at Arlington Heights Road and via Interstate 53 via full or partial interchanges at Lake Cook, Dundee, Rand, Palatine, and Algonquin roads; from Northwest Highway; and from Euclid Avenue.

Metra's Union Pacific Northwest commuter rail line operates between Chicago's Ogilvie Station and both the Harvard and McHenry stations with intermediate stops including both the Arlington Heights and Arlington Park stations.

As reported by esri.com, the estimated population in 2015 within a 5-mile radius of the property being appraised was 289,594 persons, of which 111,683 were older than 50 years of age. The following chart illustrates the breakdown in population by age group.

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As this chart illustrates, more than 30 percent of the population is older than 55 years, and more than 17 percent is older than 65 years.

There were 55,809 households with residents over 55 years of age in the 5-mile radius with a median household income of \$58,972 and an average household income of \$85,472. By 2020, the number of households with residents over 55 years of age is expected to increase to 59,312, with a median household income of \$69,439, and an average household income of \$98,395.

The total number of households in the area is expected to remain relatively stable, with the 116,500 households estimated in 2015, and 118,252 estimated for 2020.

Immediate Area

The subject property is located in the southeast corner of Arlington Heights in an area of primarily single family residential uses. To the immediate east is single-family development in Mount Prospect.

The following table summarizes sales of single-family houses in the area bounded by Central Road on the north, Lincoln Road on the south, Arlington Heights Road on the west, and Hatlen Avenue on the east.

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RECENT SINGLE-FAMILY SALES SUMMARY

NO.	LOCATION	SALE PRICE	SALE DATE	DAYS ON MARKET	SITE SIZE (SQ. FT.)	YEAR BUILT	BUILDING SIZE SQ. FT./RMS./BRS.	SALE PRICE PER SQ. FT. BLDG. AREA INCL. LAND
1	1215 S. Pine Ave. Arlington Heights	\$170,000	9/15	47	7,523	1931	1,220 6/3	\$139.34
2	1306 S. Pine Ave. Arlington Heights	\$607,000	9/15	32	10,289	1992	2,962 9/5	\$204.93
3	332 S. Helena Ave. Arlington Heights	\$460,000	8/15	5	11,095	1993	3,178 9/4	\$144.75
4	1003 S. Belmont Ave. Arlington Heights	\$232,000 (F)	7/15	46	8,910	1986	1,380 7/3	\$168.12
5	1041 S. Pine Ave. Arlington Heights	\$387,000	7/15	56	9,638	1958	1,700 7/3	\$227.65
6	341 S. Leonard Ln. Arlington Heights	\$393,000	7/15	35	9,900	1975	1,716 9/3	\$229.02
7	1140 S. Pine Ave. Arlington Heights	\$292,000 (F)	7/15	232	6,250	1990	2,108 8/4	\$138.52
8	9 S. Hatlen Ave. Mount Prospect	\$320,000	6/15	47	10,005	1957	1,513 7/3	\$211.50
9	202 S. Audrey Ln. Mount Prospect	\$310,000	6/15	10	11,000	1957	1,346 10/3	\$230.31
10	323 S. Beverly Ln. Mount Prospect	\$335,000	5/15	17	10,064	1958	1,215 7/3	\$275.72
11	1112 S. Belmont Ave. Arlington Heights	\$395,000	5/15	52	6,100	1974	1,550 9/3	\$254.84
12	218 S. Audrey Mount Prospect	\$312,000 (S)	5/15	31	11,000	1957	1,444 11/3	\$216.07
13	1080 S. Haddow Ave. Arlington Heights	\$281,100	4/15	5	12,100	1958	1,625 7/3	\$172.98
14	1907 W. Bonito Ave. Mount Prospect	\$313,500	4/15	20	10,080	1957	1,107 8/3	\$283.20
15	220 E. Cypress St. Arlington Heights	\$428,000	4/15	97	8,125	2007	2,800 9/4	\$152.86
16	323 S. Leonard Ln. Arlington Heights	\$350,000	2/15	3	10,064	1974	1,716 8/3	\$203.96
17	1021 S. Haddow Ave. Arlington Heights	\$239,000 (F)	1/15	10	7,500	1930	1,166 6/2	\$204.97
18	1112 S. Belmont Ave. Arlington Heights	\$255,000	1/15	125	6,100	1974	1,550 9/3	\$164.52
19	1217 S. Pine Ave. Arlington Heights	\$485,000	1/15	4	6,600	1997	2,162 7/3	\$224.33

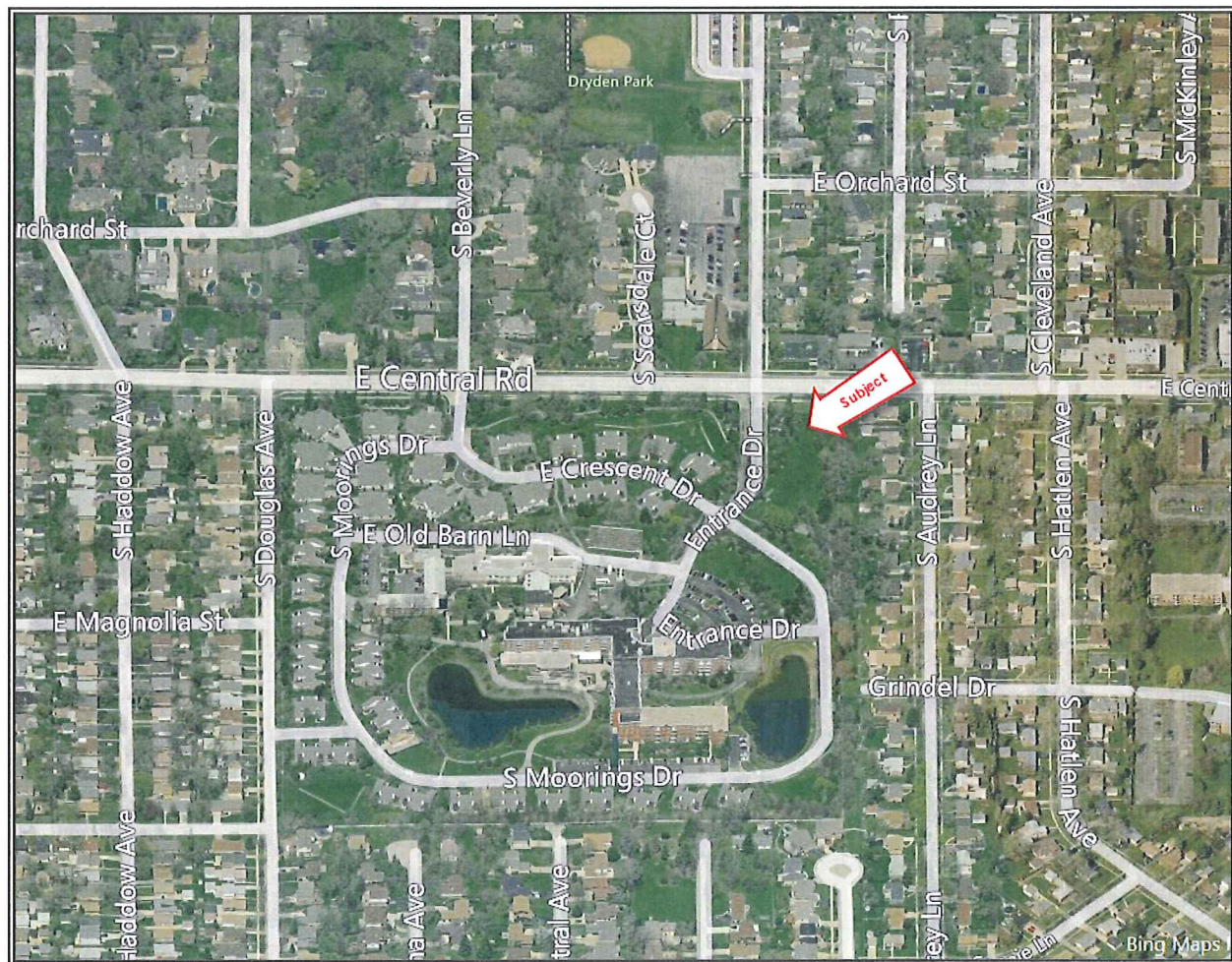
(F) Foreclosure

(S) Short sale

Source: MRED.com

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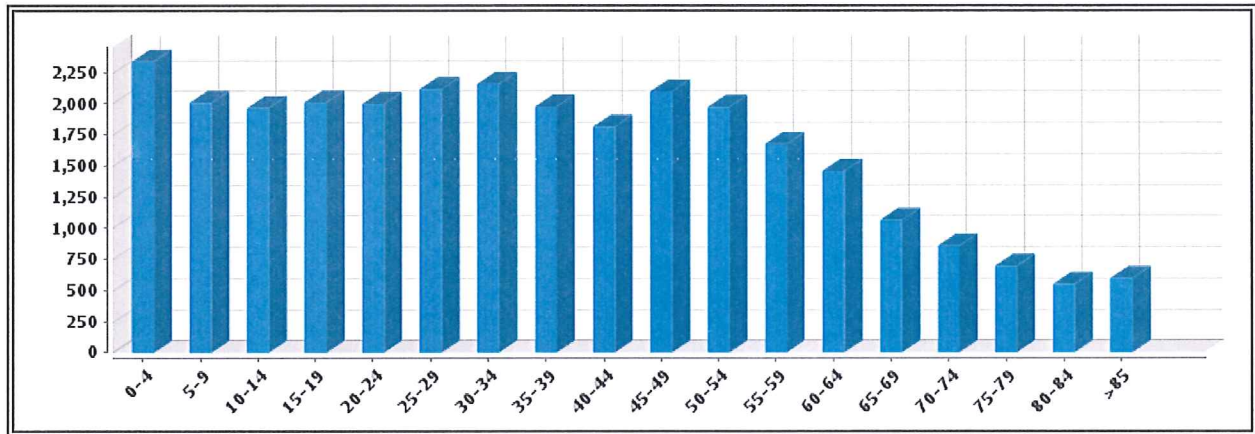
The following aerial location map illustrates the location of the existing improvements in relationship to the surrounding uses.



Market Conditions

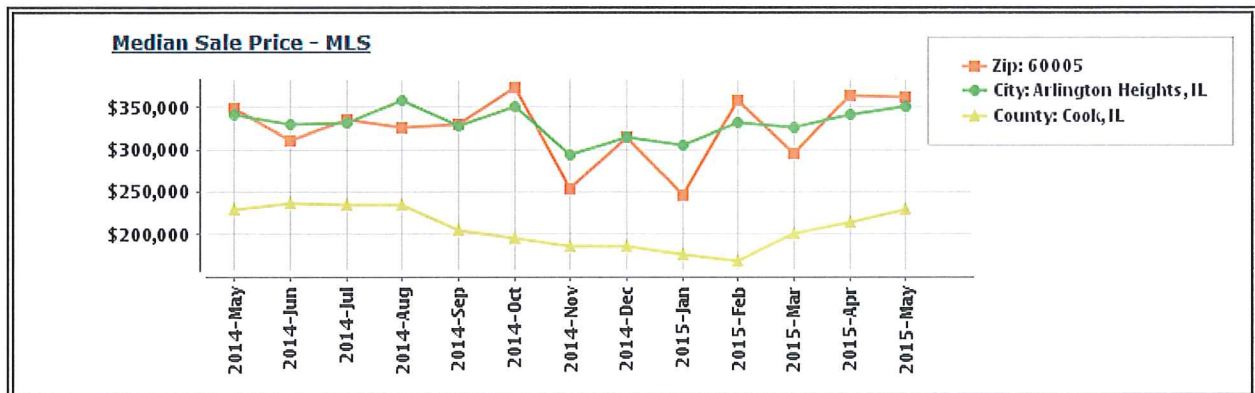
The following graph illustrates the spread in age of the population within the 60005 zip code.

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The average household income is \$99,455. The following graph illustrates the spread in household incomes within the 60005 zip code.

Median single-family house sales in the 60005 zip code mirror those of Arlington Heights as a whole, as the following graph illustrates. Except for some seasonal fluctuations, sale prices have been steady over the past 12 months.



Overall, the residential real estate market in Arlington Heights is considered to be stable.

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Proposed Development

The existing development on the 41-acre site consists of a variety of building types and sizes that are part of a continuing care retirement community. The perimeter of the site is comprised of 81 Villa Units, with an additional 212 apartment units in the center of the property. There are an additional 150 skilled nursing and sheltered care units also located in the center of the property. The existing development comprises 475,944 square feet.

The existing facility has been very successful. In addition to meeting the demand for such facilities in the immediate and broad market area, The Moorings contributes to the tax base of the community. In order to remain successful, on-going modernization and upgrading of the facility is necessary.

The redevelopment proposed for the subject property is demolition of the existing Sheltered Care building and two quad villas, and the development of a new four-story assisted living building, a one-story memory care building, and a two-story resident fellowship hall. Additional renovations to part of the Commons Building are also planned. The total number of parking spaces on site after the redevelopment will be 538, a net increase of 20 spaces. The net proposed construction totals 123,889 square feet, for a total for all buildings of 599,833 square feet. The estimated total project cost is approximately \$70,000,000.

The floor area ratio for the 599,833 square feet on 41 acres is 0.34 to 1.0. The allowed density for residential uses in single-family districts, R-1, R-2, R-3, and R-4 varies by lot size; however, the maximum FAR ranges between 0.30 and 0.45 of the land area or adjusted land area. The proposed development puts The Moorings at the low end of that range. The lot coverage for the net proposed construction is 304,455 square feet or 17 percent of the 41-acre site. The allowed lot coverage for the R-1, R-2, R-3, and R-4 single-family districts ranges between 35 and 55 percent. After the proposed development, The Moorings is below that range.

A copy of the site plan illustrating the proposed improvements in relationship to the surrounding uses is included in the addenda to this market impact study.

Highest and Best Use

In order to evaluate the potential impact, if any, on the value of the surrounding properties by the approval of the requested amendment to the existing PUD and a variations parking, we have briefly considered the highest and best use of the proposed property.

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The subject property currently is zoned I, Institutional, and was developed as a Residential PUD. The 2006 PUD approval allowed a total of 349 independent living units. There are currently 293 such units. In addition, there are currently 150 skilled nursing/sheltered care beds. The 1997 Comprehensive Plan identifies the subject property as an area of institutional development.

The demand for senior housing, especially continuing care retirement communities, is strong. There are few such facilities in the immediate area, and with an aging population, demand is likely to continue to increase. Given the existing development on the site, and the expected demand, the highest and best use of the site is continued use as a continuing care retirement facility, with development to the maximum allowed under the current zoning.

Market Impact Analysis

This market impact analysis is undertaken to develop an opinion as to whether the requested amendment to the existing PUD and variations will have a detrimental impact on the surrounding neighborhood, in particular a negative impact on property values. This analysis is based on the development of matched pairs analyzing the impact on value of residential properties proximate to the existing development at the subject location, as well as on the value of residential properties proximate to similar facilities in other suburban communities.

Matched Pair Analysis

A matched pair analysis is a methodology which analyzes the importance of a selected characteristic, in this instance proximity to a continuing care retirement community/assisted living facility, to the value of a property. This technique compares the sale of a property in proximity to the selected characteristic to the sale of a similar property in the same market area and under similar market conditions but without the proximity to the selected characteristic. An alternative is to review a sale and resale of the same property and to consider whether the proximity to the selected characteristic influenced value.

It is difficult to find properties that are identical except for proximity to a continuing care retirement community. However, there was a sale/resale of a property proximate to the subject development, and the sale of a property which was used as a target sale in a matched pair analysis. In addition, we have considered matched pairs near two similar developments, one of which is a continuing care retirement community and the other is an assisted living facility.

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Sale/Resale

The following table summarized the sale/resale of house at 1108 South Douglas Avenue in Arlington Heights that faces the rear of the villas along South Moorings Drive. The property was purchased by contractor who substantially renovated the property between August 2013, and the resale in April 2014. The property sold with \$20,000 in “structural repairs” required, and without central air conditioning. The renovation included opening up the interior; updating the kitchens and bathrooms, including heated floors; adding/refinishing hardwood floors; new windows and doors; finishing the basement; and installing central air conditioning.

This sale/resale is an indicator of the strength of the area adjoining the subject property, and illustrates that the subject property has not negatively impacted the trend of development in the immediate area.

SALE/RESALE - ARLINGTON HEIGHTS		
	SALE 1A	RESALE 1B
Address	1108 S. Douglas Ave.	1108 S. Douglas Ave.
Sale Date	July 2013	April 2014
Days on Market	8	28
Sale/List Price	\$190,000/\$200,000	\$360,000/\$398,900
Sale Price/Sq. Ft.	\$152.73	\$289.39
Year Built	1962	1962
Building Size	1,244 sq. ft.	1,244 sq. ft.
Lot Size	6,375 sq. ft.	6,375 sq. ft.
Style	Split-level; brick 6 rms., 3 bdrms. 2 ba.; 2-car detached garage	Split-level; brick 6 rooms, 3 bdrms.2 ba.; 2-car detached garage
Basement	Partially finished	Finished
Other	Window AC units	Open floor plan; central AC; heated floors in bathrooms; new windows & doors

Matched Pair - The Moorings, Arlington Heights

The first set of matched pairs compares a property that faces the southwest corner of The Moorings site, located at 1136 South Douglas Avenue, with two similar houses that also are located in Arlington Heights, but not proximate to a continuing care retirement community.

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MATCHED PAIR - ARLINGTON HEIGHTS

	PROXIMATE TO THE MOORINGS 2A	NOT PROXIMATE TO AN ASSISTED-LIVING FACILITY 2B	2C
Address	1136 S. Douglas Ave.	213 S. Dryden Pl.	706 S. McKinley Ave.
Sale Date	August 2013	July 2013	July 2013
Days on Market	19	59	30
Sale/ List Price	\$300,000/\$314,000	\$249,000/\$235,000	\$383,000/\$409,000
Sale Price/Sq. Ft.	\$172.12	\$144.77	\$189.04
Year Built	1962	1956	1968
Building Size	1,743 sq. ft.	1,720 sq. ft.	2,026 sq. ft.
Lot Size	6,375	5,306 sq. ft.	7,205 sq. ft.
Style	2-story Georgian 9 rms., 4 bdrms., 2 ba.; 2-car detached garage	2-story 8 rms, 4 bdrms., 2.1 ba.; 2-car detached garage	2-story Colonial 9 rooms, 4 bdrms., 2.1 ba.; 2-car detached garage
Basement	Partially finished	Crawl	Unfinished
Other		Rehabbed prior to sale	1st floor family room; updated bathrooms; patio

The house on Dryden Place is of slightly older construction than the house on Douglas Avenue and is inferior because of a smaller lot size and because it was constructed over a crawl space and not a full basement. This house has an extra powder room. The lower sale price of this house appears warranted considering these differences.

The house on McKinley Avenue is of slightly newer construction than the house on Douglas Avenue and is also superior because of the larger building size, the larger lot size, a patio, the extra powder room, and a first-floor family room. The higher sale price of this house appears justified by these superior amenities, and appears unrelated to the location of the Douglas Avenue property in proximity to The Moorings.

These matched pairs do not support a finding that proximity to The Moorings has had a negative influence on the value of the surrounding property.

Matched Pair - Covenant Village, Northbrook

The next set of matched pairs compares a sale of house in proximity to Covenant Village in Northbrook with similar houses not in proximity to either a continuing care retirement community or an assisted living facility. Covenant Village is a very large, continuing care retirement community that has a variety of living options for senior citizens, including villas and a variety independent living units in buildings

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ranging in height from one-story to three stories, an assisted-living building, and a nursing home. It is located on 55 acres wrapping the corner of the northwest quadrant of Pfingsten and Techny roads. A second three-story building recently was constructed on the site. Uses west of the facility on Techny Road include a YMCA and a church; all other uses surrounding the property are residential.

A house north across Techny Road from the existing three-story building and the construction site of the second three-story building, at 2619 Mulberry Lane, Northbrook, sold in October 2013 for \$465,000. There were sales that occurred in similar market conditions of houses in Northbrook that were not proximate to an assisted-living facility with which the sale price of this house could be compared. These houses are summarized in the following table.

MATCHED PAIRS - NORTHBROOK

	PROXIMATE TO COVENANT VILLAGE FACILITY 3A	NOT PROXIMATE TO AN ASSISTED-LIVING FACILITY 3B	3C
Address	2619 Mulberry Ln.	1826 Smith Rd.	870 Hawthorne Ln.
Sale Date	October 2013	July 2013	June 2013
Days on Market	60	8	13
Sale/List Price	\$465,000/\$679,000	\$525,500/\$549,000	\$510,000/\$525,000
Sale Price/Sq. Ft.	\$197.62	\$210.54	NA
Year Built	1973	1965	1960
Building Size	2,353 sq. ft.	2,496 sq. ft.	1,758 sq. ft.
Lot Size	12,044 sq. ft.	10,890 sq. ft.	12,000 sq. ft.
Style	Split-level; frame 9 rms., 4 bdrms., 2.3 ba.; 2-car attached garage	Split-level; brick/frame 9 rooms, 4 bdrms., 2.1 ba.; 2-car attached garage	Split-level; brick/frame 9 rooms, 4 bdrms., 2.1 ba.; 2-car attached garage
Basement	Finished	Finished	Partially finished
Other	Master bath; remodeled 2012 In-ground swimming pool	Master bath w/ whirlpool; Open floor plan; Remodeled and newer HVAC Wooded lot	Master bath; Remodeled; new roof, furnace and hot water heater in 2012

All three houses have a similar number of rooms, are of similar construction vintage, and have been updated. However, the houses at 1826 Smith Road and 870 Hawthorne Lane are brick construction with some areas of siding, compared to the house at 2619 Mulberry Lane, which is all frame. Brick construction is considered superior to frame construction in this market area.

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The site sizes are similar; however, the house at 2619 Mulberry Lane has a in-ground swimming pool. Generally, a swimming pool makes it more difficult to sell a house, and is not considered a positive amenity to most purchasers.

The house at 1826 Smith Road has been remodeled and the interior now has an open floor plan, considered superior in the general market. This house also is close to West Park, and within walking distance of the Northbrook central business district and the commuter train. The house at 870 Hawthorne Lane has a new roof, furnace, and water heater, all highly desirable improvements.

Taking into account the superior amenities of the house on Smith Road, and the difficulty of selling a house with an in-ground swimming pool, there does not appear to be any difference in value attributable to the location proximate to the Covenant Village senior citizen community for the house at 2619 Mulberry Lane.

Matched Pair - Spectrum Senior Living, Cary

The last set of matched pairs includes the sale of a house south adjacent to the Spectrum Senior Living facility located between Three Oaks Road and Patriot Lane on Silver Lake Road, in Cary Illinois. This facility is a recently constructed, two-story, masonry constructed building that has 88 units of which 65 are assisted living units and 23 are memory care units. The facility is approximately 98 percent occupied, and there are a total of 38 staff members per day, 23 at any given time. The facility opened in late 2012.

Uses along Silver Lakes Road are mixed; there are office and office/service uses on the west side of Silver Lake Road. On the east side of Silver Lake Road are single-family subdivisions, both north and south of Three Oaks Road.

A house located directly south adjacent to the assisted living facility at 452 Ann Street sold in October 2013, after completion and occupancy of the assisted living facility. There were sales that occurred in similar market conditions of similar houses in Cary that were not proximate to an assisted living facility with which the sale price of this house could be compared. These houses are summarized in the following table.

Ms. Nancy Tolan
The Moorings of Arlington Heights
September 17, 2015

MATCHED PAIR - CARY

	PROXIMATE TO SPECTRUM FACILITY 4A	NOT PROXIMATE TO AN ASSISTED-LIVING FACILITY 4B	4C
Address	454 Ann Street	325 Oriole Trail	550 Alida Dr.
Sale Date	October 2013	April 2012	May 2013
Days on Market	40	490	3
Sale/List Price	\$135,000/\$154,900	\$130,000/\$185,000	\$165,000/\$169,900
Sale Price/Sq. Ft.	\$110.84	\$86.67	\$89.19
Year Built	1961	1962	1975
Building Size	1,218 sq. ft.	1,500 sq. ft.	1,850 sq. ft.
Lot Size	7,840 sq. ft.	18,340 sq. ft.	10,454 sq. ft.
Style	Split-level; frame 6 rms., 3 bdrms., 2.0 ba.; 1-car attached garage	Split-level; frame 6 rooms, 3 bdrms., 2.0 ba.; 1-car attached garage	Split-level; frame 6 rooms, 3 bdrms., 2.0 ba.; 2-car attached garage
Basement	Sub-basement, unfinished	Sub-basement; unfinished	Sub-basement; unfinished
Other	Sold as-is	Some remodeling	Updated kitchen & baths

The house at 454 Ann Street has the same number of rooms, but is a smaller house situated on a smaller lot than either the house at 325 Oriole Trail or at 550 Alida Drive. The house at 550 Alida Drive also is superior because it is of somewhat newer construction, has a two-car garage, and had been substantially renovated. Nevertheless, the house at 454 Ann Street sold with a much higher unit sale price per square foot than either of the other two comparable sales. Market conditions are considered substantially similar for all three houses.

Taking into consideration the differences between these properties, it does not appear that the location of the house south adjacent to the Spectrum assisted living facility had any impact on the sale price of the property.

Other Market Impact Studies

In addition to this analysis, MaRous & Company has developed market impact studies for proposed developments or expansions of assisted living facilities in Evanston, Lake Forest, and Grayslake. These studies did not find measurable negative impact on the surrounding residential properties. The Presbyterian Homes properties in Evanston and Lake Forest were expansions of existing continuing care campus facilities. The studies conducted analyzed the impact of the existing developments on the surrounding residential properties. No measurable impact on values was evident.

Ms. Nancy Tolan
The Moorings of Arlington Heights
September 17, 2015

The development in Grayslake is a subsidized senior housing building. The three-story, 74,539-square-foot building is constructed of stone and siding, and has 63 one-bedroom and 7 one-bedroom plus den units. There are 50 on-site parking spaces. Sales of single-family houses in proximity to the site after the project was approved and publicized were analyzed and compared with sales of similar houses in the surrounding community. No measurable impact on values was found.

Conclusions of Market Value Impact Analysis

Taking into consideration the sales/resale and matched pair analysis undertaken for the subject facility as well as a similar continuing care retirement community in Northbrook, and an assisted living facility, as well as the market impact studies in Evanston, Lake Forest, and Grayslake previously conducted, the proximity of the single-family residential properties to such developments does not appear to have a negative impact on value or on the trend of development in the area.

Conclusions

After analyzing the proposed development, and after analyzing the impact on values of single-family residential properties adjoining similar facilities, and based on previous analysis of similar facilities in comparable suburban communities, and based on my experience valuing properties in Arlington Heights, it is my opinion that the approval of an amendment to the existing PUD and a variation from the parking requirements will not have a negative impact on the value of residential property or on the trend of development in the neighborhood. Specifically:

- The proposed development is similar in height, building mass, and appearance to the previous development on this site, and the amount of anticipated traffic is comparable;
- The proposed development is located in the center of the facility campus and is marginally visible from adjoining single-family houses;
- The existing development and the development of similar facilities in Cary and Northbrook have not had a negative impact on the value of the surrounding residential properties; and
- Previous market impact studies conducted for developments in Evanston, Lake Forest, and Grayslake indicated that there was no measurable negative impact on the value of residential properties adjacent to assisted living facilities.

Ms. Nancy Tolan
The Moorings of Arlington Heights
September 17, 2015

This report is based on market conditions existing as of August 7, 2015.

This market impact study has been prepared specifically for the use of Presbyterian Homes as part of an application to the Village of Arlington Heights for approval of an amendment to the existing Planned Unit Development (PUD) and a variation from the parking requirements for The Moorings of Arlington Heights. Any other use or user of this report is considered to be unintended.

Respectfully submitted,

MaRous & Company



Michael S. MaRous, MAI, CRE
Illinois Certified General - #553.000141 (9/17 expiration)

CERTIFICATION

I do hereby certify that, to the best of my knowledge and belief:

1. The statements of fact contained in this appraisal report are true and correct;
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions;
3. I have no present or prospective personal interest in the property that is the subject of this report and no personal interest with respect to the parties involved;
4. I have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment;
5. I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment;
6. My engagement in this assignment was not contingent upon developing or reporting predetermined results;
7. The compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal;
8. The reported analyses, opinions, and conclusions were developed, and this report has been prepared in conformity with the *Uniform Standards of Professional Appraisal Practice*;
9. I have personally inspected the interior and exterior of the subject property;
10. Anita Rifkind provided real property appraisal assistance to the person signing this certification;
11. The reported analysis, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Code of Professional Ethics and Standards of Professional Appraisal Practice of The Appraisal Foundation;
12. The use of the report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives; and
13. As of the date of this report, Michael S. MaRous, MAI, CRE, has completed the continuing education requirements for Designated Members of the Appraisal Institute.

MaRous & Company

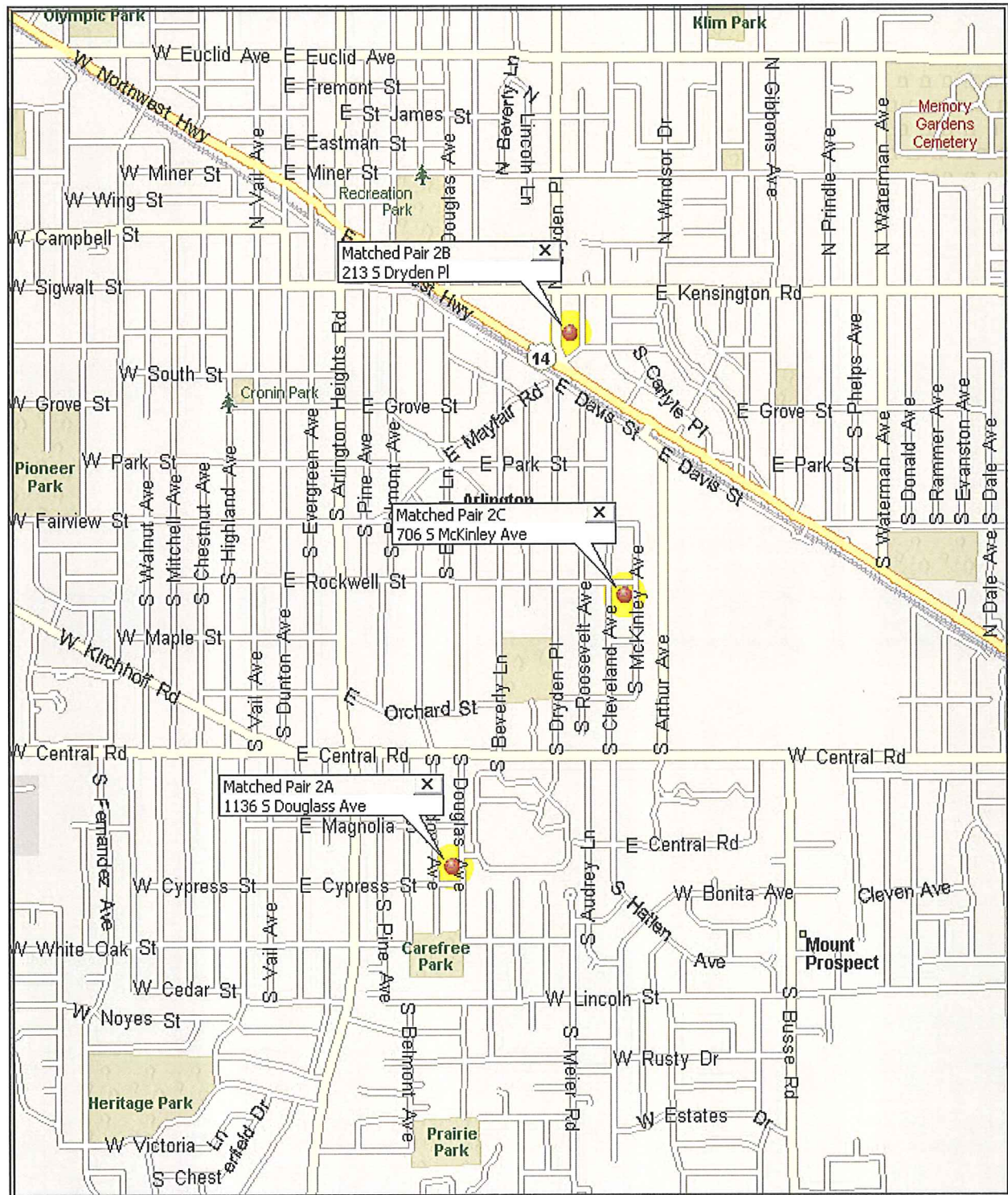

Michael S. MaRous, MAI, CRE

Illinois Certified - #553.000141 (9/17 expiration)

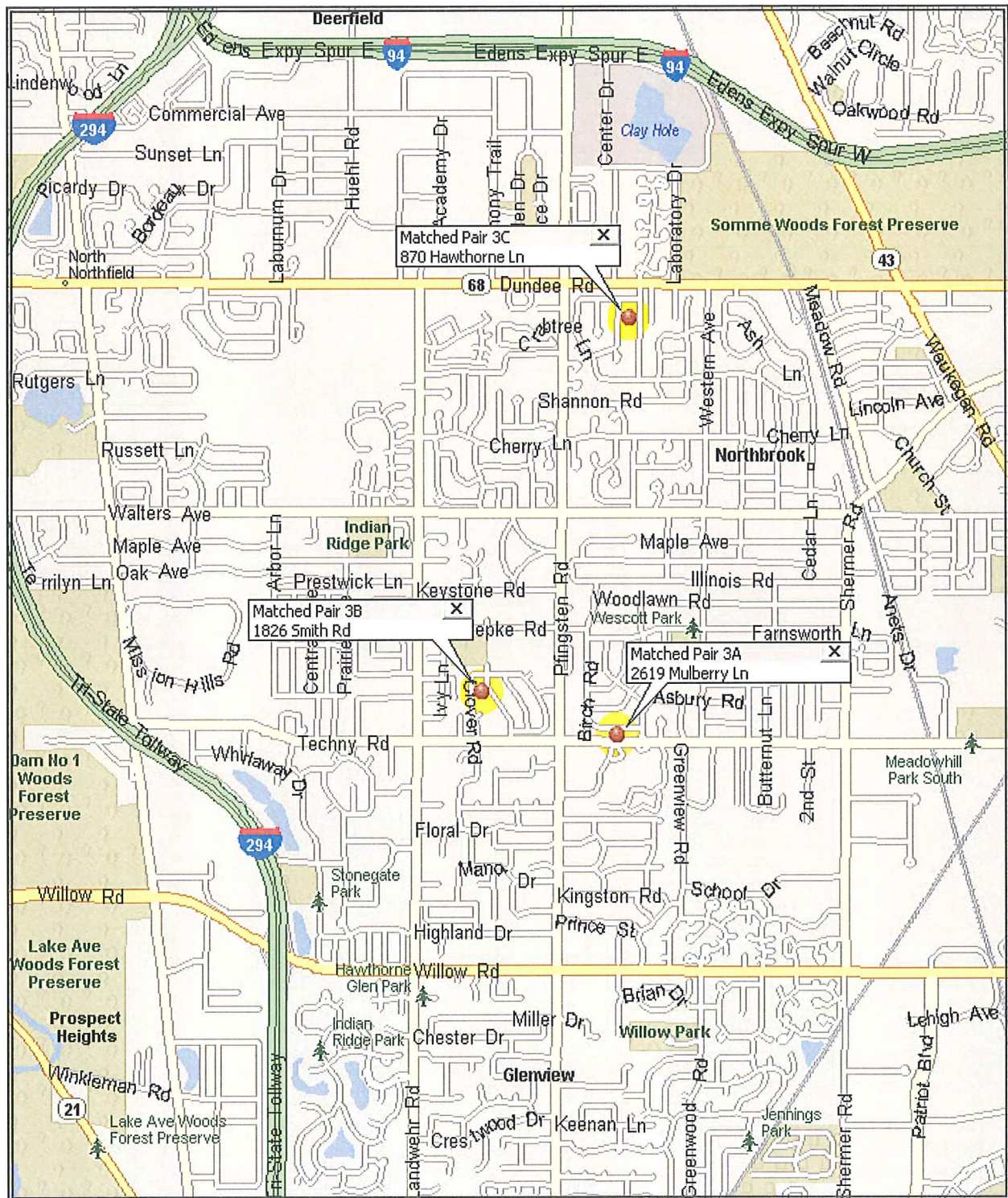
ADDENDA



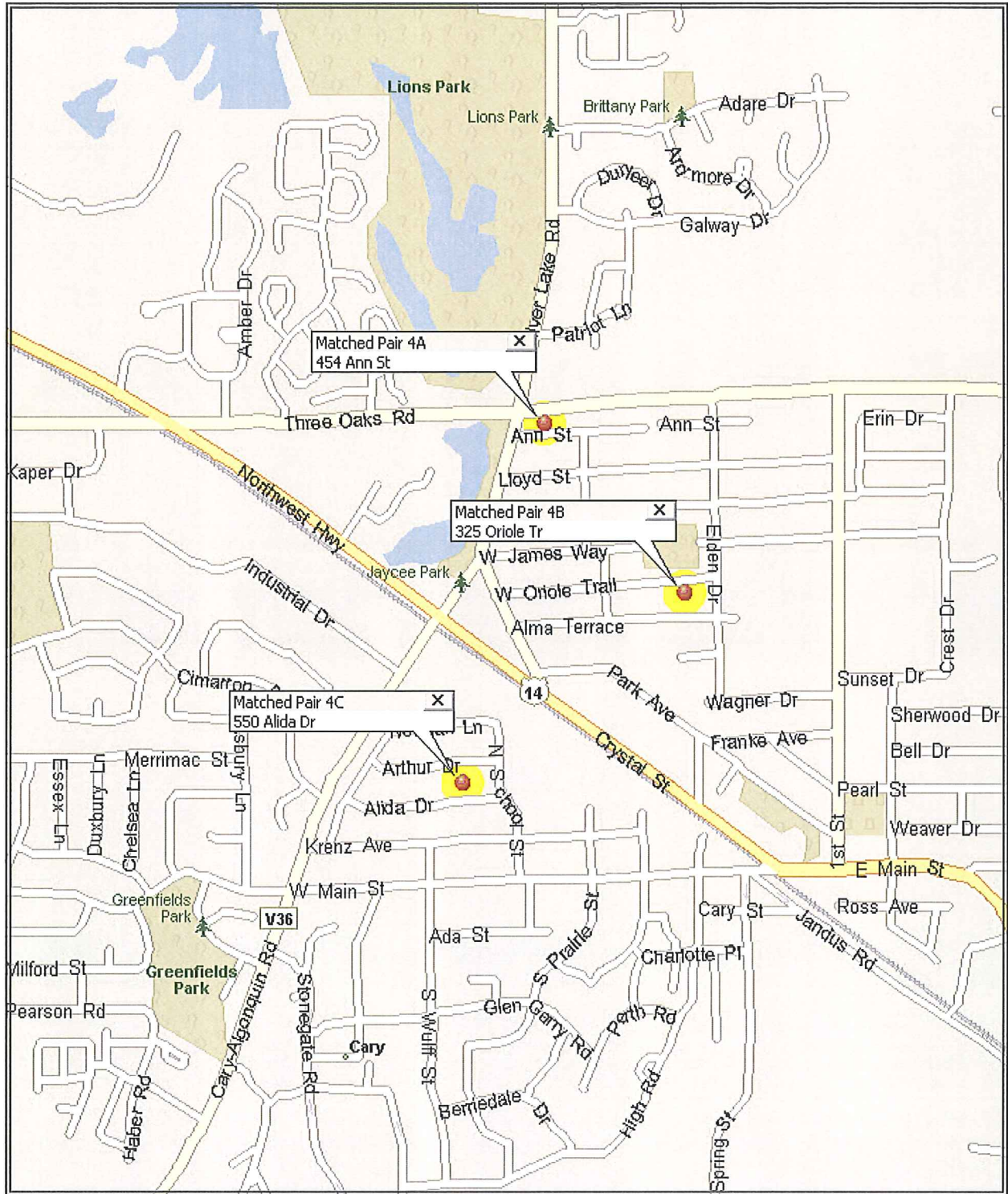
PROPOSED SITE PLAN



MATCHED PAIRS LOCATION MAP - THE MOORINGS, ARLINGTON HEIGHTS



MATCHED PAIRS LOCATION MAP - COVENANT VILLAGE, NORTHBROOK



MATCHED PAIRS LOCATION MAP - SPECTRUM PROJECT, CARY

PHOTOGRAPHS OF SUBJECT PROPERTY



SOUTH IN DOUGLAS AVENUE - THE MOORINGS AT LEFT



VIEW NORTHEAST AT THE SOUTHWEST CORNER OF CAMPUS



EXISTING DEVELOPMENT - NORTHERN ELEVATION



VIEW SOUTHEAST ACROSS SUBJECT SITE



VIEW WEST IN SOUTH MOORINGS DRIVE

MICHAEL S. MAROUS

STATEMENT OF QUALIFICATIONS

Michael S. MaRous, MAI, CRE, is president and owner of MaRous and Company. He has appraised more than \$15 billion worth of primarily investment-grade real estate in more than 25 states. In addition to providing documented appraisals, he has served as an expert witness in litigation proceedings for many law firms; financial institutions; corporations; builders and developers; architects; local, state, county, and federal governments and agencies; and school districts in the Chicago metropolitan area. His experience in partial interest, condemnation, damage impact, easement (including aerial and subsurface), marital dissolutions, bankruptcy proceedings, and other valuation issues is extensive. He has provided highest and best use, marketability, and feasibility studies for a variety of properties. Many of the largest redevelopment areas and public projects, including Interstate 355, the O'Hare International Airport expansion, the Midway Airport expansion, and the McCormick Place expansion, are part of Mr. MaRous' experience. Also, he purchases and develops real estate for his own account.

APPRAISAL AND CONSULTATION EXPERIENCE

Business Parks Distribution Centers	Industrial Properties Manufacturing Facilities Research Facilities	Self-storage Facilities Warehouses
	Commercial Properties Gasoline Stations Hotels and Motels Office Buildings	Restaurants Shopping Centers Theaters
Auto Sales/Service Facilities Banquet Halls Big Box Stores	Special-Purpose Properties Lumber Yards Nurseries Riverboat Gambling Facilities Schools Stadium Expansion Issues	Tank Farms Underground Gas Aquifers Utility Corridors Waste Transfer Facilities
Bowling Alleys Cemeteries Farms Golf Courses	Residential Properties Condominium Developments Single-family Residences	Subdivision Developments Townhouse Developments
Apartment Complexes Condominium Conversions	Vacant Land Easements Industrial Residential	Right of Ways Streets Vacations
Agricultural Alleys Commercial	Clients Law Firms Not-for-profit Associations	Private Parties Public Entities
Corporations Financial Institutions		

EDUCATION

B.S., Urban Land Economics, University of Illinois, Urbana-Champaign
Continuing education seminars and programs through the Appraisal Institute
and the American Society of Real Estate Counselors and real estate brokerage classes

PUBLIC SERVICE

Mayor, City of Park Ridge, Illinois (2003-2005)
Alderman, City of Park Ridge, including Liaison to the Zoning Board of Appeals and Planning and Zoning and
Chairman of the Finance and Public Safety Committees (1997-2005)

PROFESSIONAL AFFILIATIONS AND LICENSES

Appraisal Institute, MAI designation, Number 6159
American Society of Real Estate Counselors, CRE designation
Illinois Certified General Real Estate Appraiser, License Number 553.000141 (9/17)
Licensed Real Estate Broker (Illinois)

PROFESSIONAL ACTIVITIES

Mr. MaRous is past president of the Chicago Chapter of the Appraisal Institute. He is former chair and vice chair of the National Publications Committee and has sat on the board of *The Appraisal Journal*. In addition, he has served on and/or chaired more than fifteen other committees of the Appraisal Institute, the Society of Real Estate Appraisers, and the American Institute of Real Estate Appraisers.

Mr. MaRous served as chair of the Midwest Chapter of the American Society of Real Estate Counselors in 2006 and 2007. He has sat on the Chicago Chapter Board of Directors, the Editorial Board of *Real Estate Issues*, and on various other committees.

Mr. MaRous also is past president of the Illinois Coalition of Appraisal Professionals. He has sat on the board of directors, has held office, and has served on numerous committees of many other professional associations, including the National Association of Security Dealers, the International Research Council, the Chicago Real Estate Board, the Northwest Suburban Real Estate Board, the National Association of Real Estate Boards, and the Northern Illinois Commercial Association of Realtors.

PUBLICATIONS AND PROFESSIONAL RECOGNITION

Mr. MaRous has spoken at more than 20 programs and seminars related to real estate appraisal and valuation.

Author

- "Low-income Housing in Our Backyards," *The Appraisal Journal*, January 1996
- "The Appraisal Institute Moves Forward," *Illinois Real Estate Magazine*, December 1993
- "Chicago Chapter, Appraisal Institute," *Northern Illinois Real Estate Magazine*, February 1993
- "Independent Appraisals Can Help Protect Your Financial Base," *Illinois School Board Journal*, November-December 1990
- "What Real Estate Appraisals Can Do For School Districts," *School Business Affairs*, October 1990

Awards

- Chicago Chapter of the Appraisal Institute - F. Gregory Opelka Award, 2002
- Appraisal Institute - George L. Schmutz Memorial Award, 2001
- Chicago Chapter of the Appraisal Institute - Heritage Award, 2000
- Chicago Chapter of the Appraisal Institute - Herman O. Walther, 1987 (Distinguished Chapter Member)

Reviewer or Citation in the Following Books

- Appraisal of Real Estate*, Twelfth Edition, 2001
- Appraisal of Real Estate*, Thirteenth Edition, 2008
- Subdivision Valuation*, 2008
- Real Estate Damages*, 2008
- Valuation of Apartment Properties*, 2007
- Valuation of Billboards*, 2006
- Appraising Industrial Properties*, 2005
- Valuation of Market Studies for Affordable Housing*, 2005
- Valuing Undivided Interest in Real Property: Partnerships and Cotenancies*, 2004
- Analysis and Valuation of Golf Courses and Country Clubs*, 2003
- Dictionary of Real Estate Appraisal*, Fourth Edition, 2002
- Valuing Contaminated Properties: An Appraisal Institute Anthology*, 2002
- Hotels and Motels: Valuation and Market Studies*, 2001
- Land Valuation: Adjustment Procedures and Assignments*, 2001
- Appraisal of Rural Property*, Second Edition, 2000
- Capitalization Theory and Techniques, Study Guide*, Second Edition, 2000
- Guide to Appraisal Valuation Modeling Land*, 2000
- Appraising Residential Properties*, Third Edition, 1999
- Business of Show Business: The Valuation of Movie Theaters*, 1999
- GIS in Real Estate: Integrating, Analyzing and Presenting Locational Information*, 1998
- Market Analysis for Valuation Appraisals*, 1995

REPRESENTATIVE WORK OF MICHAEL S. MAROUS

Headquarters/Corporate Office Facilities in Illinois

Fortune 500 corporation facility, 200,000 sq. ft., Libertyville
Corporate headquarters, 300,000 sq. ft. and 500,000 sq. ft., Chicago
Fortune 500 corporation facility, 450,000 sq. ft., Northfield
Major airline headquarters, 1,100,000 million sq. ft. on 47 acres, Elk Grove Village
Former communications facility, 1,400,000 million sq. ft. on 62 acres, Skokie and Niles
Corporate Headquarters, 1,500,000+ sq. ft., Lake County
Former Sears Headquarters Redevelopment Project, Chicago

Office Buildings in Chicago

401 South LaSalle Street, 140,000 sq. ft.
134 North LaSalle Street, 260,000 sq. ft.
333 North Michigan Avenue, 260,000 sq. ft.
171 West Randolph Street, 360,000 sq. ft.
20 West Kinzie Street, 405,000 sq. ft.
55 East Washington Street, 500,000 sq. ft.
10 South LaSalle Street, 870,000 sq. ft.
222 West Adams, 1,000,000 sq. ft.
175 West Jackson Boulevard, 1,450,000 sq. ft.
227 West Monroe, 1,800,000 sq. ft.
10 South Dearborn Street, 1,900,000 sq. ft.

Hotels in Chicago

10 E. Grand Avenue (Hilton Garden Inn)
106 East Superior Street (Peninsula Hotel)
140 East Walton Place (The Drake Hotel)
676 North Michigan Avenue (Omni Chicago Hotel)
One West Wacker Drive (Renaissance Chicago Hotel)
320 North Dearborn Street (Westin Chicago River North)
505 North Michigan Avenue (Hotel InterContinental)

Large Industrial Properties in Illinois

Large industrial complexes, 400,000 sq. ft., 87th Street and Greenwood Avenue, Chicago
Distribution warehouse, 580,000 sq. ft. on 62 acres, Champaign
Publishing house, 700,000 sq. ft. on 195 acres, U.S. Route 45, Mattoon
AM Chicago International, 700,000± sq. ft. on 41 acres, 1800 West Central, Mt. Prospect
Nestlé distribution center, 860,000 sq. ft. on 153 acres, DeKalb
Fortune 500 company distribution center, 1,000,000 sq. ft., Elk Grove Village
U.S. Government Services Administration distribution facility, 860,000 sq. ft., 76th Street and Kostner Avenue, Chicago
Self-storage facilities, various Chicago metropolitan locations

Vacant Land in Illinois

15 acres, office, Northbrook	450 acres, residential, Wauconda
20 acres, residential, Glenview	475± acres, various uses, Lake County
25 acres, Hinsdale	650 acres, Hawthorne Woods
55 acres, mixed-use, Darien	650 acres, Waukegan/Libertyville
75 acres, I-88 at I-355, Downers Grove	800 acres, Woodridge
100± acres, various uses, Lake County	900 acres, Matteson
140 acres, Flossmoor	1,000± acres, Batavia area
142 acres, residential, Lake County	2,000± acres, Northern Lake County
160 acres, residential, Cary	5,000 acres, southwest suburban Chicago area
200 acres, mixed-use, Bartlett	Landfill expansion, Lake County
250 acres, Island Lake	

Business and Industrial Parks

Chevy Chase Business Park, 30 acres, Buffalo Grove
Carol Point Business Center, 300-acre industrial park, Carol Stream, \$125,000,000+ project
Internationale Centre, approximately 1,000 acre-multiuse business park, Woodridge

Retail Facilities

10 Community shopping centers, various Chicago, Metropolitan locations
Big-box uses, various Chicago metropolitan locations
Gasoline Stations, various Chicago metropolitan locations
More than 30 single-tenant retail facilities larger than 80,000 sq. ft., various Chicago metropolitan locations

Residential Projects

Federal Square townhouse development project, 118 units, \$15,000,000+ sq. ft. project, Dearborn Place, Chicago
Marketability and feasibility study, 219 East Lake Shore Drive, Chicago
Riverview II, Chicago, Old Town East and West, Chicago, Museum Park Lofts II, Museum Park Tower 4,
University Commons, Two River Place, River Place on the Park, Chicago

Market Studies

Impact of land fill on adjacent property values
Impact of low-income housing on adjacent residential property values
Impact of proposed quarry expansion on neighboring properties
Impact of commercial and parking uses on adjacent residential property values
Impact of significant zoning changes on residential property values
Sanitary sewer value impact study
Waste transfer facility impact study

Properties in Other States

330,000 sq. ft., Newport Beach, California
Former government depot/warehouse and distribution center, 2,500,000 sq. ft. on 100+ acres, Ohio
Shopping Center, St. Louis, Missouri
Office Building, Clayton, Missouri
Condominium Development, New York, New York

Airport Related Properties

Mr. MaRous has done valuations on more than 100 parcels in and around O'Hare International Airport,
Chicago Midway Airport, Palwaukee Municipal Airport, Chicago Aurora Airport, DuPage Airport,
and Lambert-St. Louis International Airport

REPRESENTATIVE CLIENT LISTING OF MICHAEL S. MAROUS

Law Firms

Botti Law Firm, P.C.
 Alschuler, Simantz & Hem, LLC
 Arnstein & Lehr LLP
 Steven B. Bashaw, P.C.
 Berger, Newmark & Fenchel P.C.
 Berger Schatz
 Carmody MacDonald P.C.
 Crane, Heyman, Simon, Welch & Clar
 Daley & Georges, Ltd.
 DLA Piper
 Drinker, Biddle & Reath LLP
 Figliulo & Silverman, P.C.
 Foley & Lardner LLP
 Foran, O'Toole & Burke LLC
 Franczek Radelet P.C.
 Freeborn & Peters LLP
 Goldberg Kohn
 Gould & Ratner LLP
 Graft & Jordan
 Greenberg Traurig LLP
 Helm & Wagner
 Robert Hill Law, Ltd.
 Hinshaw & Culbertson LLP

Holland & Knight LLP
 Jenner & Block
 Donald L. Johnson
 Kinnally, Flaherty, Krentz & Loran PC
 Kirkland & Ellis LLP
 Klein, Thorpe & Jenkins, Ltd.
 Locke Lord LLP
 McDermott, Will & Emery
 Mayer Brown
 McGuireWoods LLP
 Michael Best & Friedrich LLP
 Miller & Sweeney CO
 Morrison & Morrison, Ltd.
 Bryan E. Mraz & Associates
 Neal, Gerber & Eisenberg, LLP
 Neal & Leroy LLC
 O'Donnell Law Firm Ltd.
 O'Halloran Kosoff Geitner & Cook, LLC
 Owens, Owens & Rinn, Ltd.
 Prendergast & DelPrincipe
 Rathje & Woodward, LLC
 Raysa & Zimmermann, LLC
 Righimer, Martin & Cinquino, P.C.

Mary Riordan, Attorney
 Robbins, Salomon & Patt, Ltd.
 Rosenfeld Hafron Shapiro & Farmer
 Rosenthal, Murphey, Coblenz & Donahue
 Rubin & Norris, LLC
 Ryan and Ryan Attorneys at Law, P.C.
 Reed Smith LLP
 Sarnoff & Baccash
 Scariano, Himes & Petrarca, Chtd.
 Schiff Hardin LLP
 Schiller, DuCanto & Fleck LLP
 Schirott, Luetkehans & Garner, LLC
 Schuyler, Roche & Crisham, P.C.
 Sidley Austin LLP
 Sonnenschien, Nath & Rosenthal LLP
 Storino, Ramello & Durkin
 Thomas M. Tully & Associates
 Thompson Coburn, LLP
 Tuttle, Vedral & Collins, P.C.
 Vedder Price
 Wildman, Harrold, Allen & Dixon
 Winston & Strawn LLP
 Worsak & Vihon LLP

Financial Institutions

AmericaUnited Bank and Trust
 Charter One
 Citibank
 Cole Taylor Bank
 Covest Banc
 First Bank of Highland Park
 First Midwest Bank

First Northwest Bank
 Glenview State Bank
 Harris Bank
 Itasca Bank and Trust
 Lake Forest Bank & Trust
 MB Financial Bank
 Midwest Bank & Trust Company

Northern Trust Bank
 Northview Bank & Trust
 Private Bank & Trust Co.
 State Financial Bank
 Winfield Community Bank
 Wintrust Bank Group

Corporations

Advocate Health Care System
 American Stores Company
 Archdiocese of Chicago
 Arthur J. Rogers and Company
 BP Amoco Oil Company
 Christopher B. Burke Engineering,
 Ltd.
 Cambridge Homes
 Canadian National Railroad
 Capital Realty Services, Inc.
 Chicago Cubs
 Children's Memorial Hospital
 Chrysler Realty Corporation
 Citgo Petroleum Corporation

CorLands
 Edward R. James Partners, LLC
 Enterprise Development Corporation
 Enterprise Leasing Company
 Exxon Mobil Corporation
 Hamilton Partners
 Hewitt Associates LLC
 Hollister Corporation
 Imperial Realty Company
 Kenard Corporation
 Kimco Realty Corporation
 Kinder Morgan, Inc.
 Kmart Corporation
 Lakewood Homes

Loyola University Health System
 Marathon Oil Corporation
 Meijer, Inc.
 Mesirow Stein Real Estate, Inc.
 Prime Group Realty Trust
 Public Storage Corporation
 RREEF Corporation
 Shell Oil Company
 Stewart Warner Corporation
 Union Pacific Railroad Company
 United Airlines, Inc.
 United of America Insurance Company

Public Entities
Illinois Local Governments and Agencies

Village of Arlington Heights	Village of Glenview	Village of Orland Park
Village of Barrington	Glenview Park District	City of Palos Hills
Village of Bartlett	Village of Harwood Heights	City of Prospect Heights
Village of Bellwood	City of Highland Park	City of Rolling Meadows
Village of Brookfield	Village of Hinsdale	Village of Rosemont
Village of Burr Ridge	Village of Inverness	City of St. Charles
Village of Cary	Village of Kildeer	Village of Schaumburg
City of Chicago	Village of Lake Zurich	Village of Schiller Park
Village of Deer Park	Leyden Township	Village of Skokie
City of Des Plaines	Village of Lincolnshire	Village of South Barrington
Des Plaines Park District	Village of Lincolnwood	Village of Streamwood
Downers Grove Park District	Village of Morton Grove	Metropolitan Water Reclamation
City of Elgin	Village of Mount Prospect	District of Greater Chicago
Elk Grove Village	Village of North Aurora	City of Waukegan
City of Elmhurst	Village of Northbrook	Village of Wheeling
Village of Elmwood Park	City of North Chicago	Village of Wilmette
City of Evanston	Village of Northfield	Village of Willowbrook
Village of Forest Park	Northfield Township	Village of Winnetka
Village of Franklin Park	Village of Oak Brook	Village of Woodridge

County Governments and Agencies

Boone County State's Attorney's Office	Forest Preserve District of DuPage	Lake County
Forest Preserve of Cook County	County	Lake County Forest Preserve District
Cook County State's Attorney's Office	Kane County	Lake County State's Attorney's Office
DuPage County Board of Review	Kendall County Board of Review	

State and Federal Government Agencies

Federal Deposit Insurance Corporation	Illinois Housing Development Authority	Internal Revenue Service
U.S. General Services Administration	Illinois State Toll Highway Authority	The U.S. Postal Service

Schools

Argo Community High School	Consolidated High School	Morton College
District No. 217	District No. 230	Niles Elementary District No. 71
Arlington Heights District No. 25	Darien District No. 61	North Shore District No. 112,
Township High School District No.	DePaul University	Highland Park
214, Arlington Heights	Elmhurst Community Unit School	Northwestern University
Barrington Community Unit District	District No. 205	Rosalind Franklin University
No. 220	Indian Springs School District No. 109	Roselle School District No. 12
Chicago Board of Education	LaGrange School District No. 105	Schaumburg Community Consolidated
Chicago Ridge District No. 127½	Loyola University	District No. 54
College of Lake County	Lyons Township High School District	University of Illinois
Community Consolidated School	No. 204	Wheeling Community Consolidated
District No. 146	Maine Township High School District	District No. 21
	No. 207	Wilmette District No. 39



Item: Collision Damage Experts - 9 E. College Dr. - PC#15-018

Department: Planning & Community Development

Requested Action:

- A Land Use Variation to allow "Major Motor Vehicle Repair" in the M-1 district.

Variations Identified:

- Chapter 28, Section 11.4, Schedule of Parking Requirements, to allow a reduction in parking from the required 67 to 56, a variation of 11 parking spaces.
- Chapter 28, Section 5.1-17.1, Conditions of Use, from the requirement that all storage within 150 feet of a residence district must be in completely enclosed buildings or structures to allow vehicles to be stored outdoors and within 150 feet of a residence zoning district.

Recommendation

The Staff Development Committee is not supportive of the request for a Land Use Variation at this location and recommends denial of the petition for the following reasons:

1. The petitioner has not met the three land use variation criteria required to grant a land use variation;
2. Incompatibility of this use with the residential uses to the south;
3. Inconsistency with the Village Comprehensive Plan, specifically Land Use Goal #4 "Incompatible zoning should be avoided" and Land Use Goal #1: "To ensure that the general land use pattern and relationships of all land uses remain or become acceptable to the present and future community." Staff does not believe that this petition meets these goals related to land uses given the potential for noise, odors, outside storage of vehicles, towing operations.
4. Concerns with the outdoor storage of vehicles within 150 feet of a residential zoning district, which requires an additional variation from code;
5. Concerns with towing operations during early, late night and Sundays.;
6. The petitioner has provided information on the building and its structural ability to contain noise produced from activities related to a major auto repair facility, however staff is not fully convinced that given the proximity to residential and the multiple garage doors that would reasonably be expected to remain open during warmer months, that noise would be contained within the building and not disturb adjacent residents.

ATTACHMENTS:

Description

Staff Report
Legal Notification
Location Map
Plat & Sub Minutes
Narrative
Plat of Survey
Site Plan - Floor Plan
Circulation Plan
Landscape Plan
Materials
Traffic Study
Justification
Decibel Readings
Department Comments
Response to Department Comments
Objections to Business
Resident Objections
Resident Objection
Resident Objection_Kugler

Type

Report
Correspondence
Exhibits
Minutes
Correspondence
Exhibits
Exhibits
Exhibits
Exhibits
Exhibits
Correspondence
Exhibits
Correspondence
Correspondence
Correspondence
Correspondence
Correspondence
Correspondence

STAFF DEVELOPMENT COMMITTEE REPORT

To: Plan Commission
Prepared By: Bill Enright, Deputy Director of Planning & Community Development
Meeting Date: September 30, 2015
Date Prepared: September 25, 2015
Project Title: Collision Damage Experts
Address: 9 E. College Dr.

BACKGROUND INFORMATION

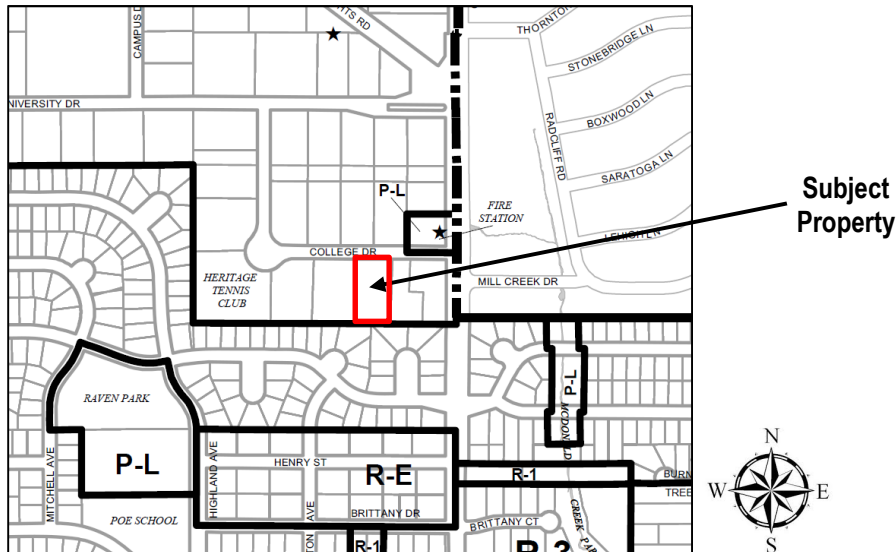
Petitioner: Chuck Freiberg
Address: 5710 S. Western Avenue
 Chicago, IL 60636
Existing Zoning: M-1, Research, Development, and Light Manufacturing District

Requested Action:

- A Land Use Variation to allow "Major Motor Vehicle Repair" in the M-1 district.

Variations Identified:

- Chapter 28, Section 11.4, Schedule of Parking Requirements, to allow a reduction in parking from the required 67 to 56, a variation of 11 parking spaces.
- Chapter 28, Section 5.1-17.1, Conditions of Use, from the requirement that all storage within 150 feet of a residence district must be in completely enclosed buildings or structures to allow vehicles to be stored outdoors and within 150 feet of a residence zoning district.



Surrounding Properties

Direction	Existing Zoning	Existing Use	Comprehensive Plan
North	M-1, Research, Development, and Light Manufacturing District	Industrial (vacant), Church	R&D, Mfg., Warehouse, Commercial
South	R-3, One-Family Dwelling District	Single Family Residential	Single Family Detached
East	M-1, Research, Development, and Light Manufacturing District	Industrial (Astrotech, Vimex, I-Cubed)	R&D, Mfg., Warehouse
West	M-1, Research, Development, and Light Manufacturing District	Office (vacant)	R&D, Mfg., Warehouse

Background

The subject property is approximately 1.34 acres in area with a free-standing building totaling approximately 24,700 square feet in area. The space within the building is currently divided into office space, production area and warehouse space. Collision Damage Experts intends on purchasing the property and occupying the entire building. The existing parking lot is located along the perimeter of the property on the east, south and west sides and has 56 parking spaces that are accessible via two driveways along College Drive.

The petitioner is interested in opening an Auto Body Repair center - Collision Damage Experts - at this location. This use is classified as "Major motor vehicle repair" which includes engine rebuilding or major reconditioning of worn or damaged motor vehicles or trailers; collision service, including body, frame or fender straightening or repair; and overall painting of vehicles. Since the use is not permitted in the M-1 district, a land use variation would be necessary to allow this use to operate at this location.

Collision Damage Experts is an automotive remanufacturing and finishing operator. The company remanufacturers and repaints vehicles and light trucks (such as pickup trucks) that have been damaged in either an automobile accident, weather related accident, tree failings and/or other accidents. CDE Collision Damage Experts services include replacement of damaged automotive parts (fenders, doors, hoods, bumpers, roof panels, etc.) and repainting of vehicles.

Collision Damage Experts plans to use the subject property for the following operations:

- Office use.
- Vehicle disassembly for assessment of damage.
- Vehicle staging for remanufacturing and refinishing.
- Remanufacturing and refinishing areas along with receiving areas for vehicle supplies and parts to only be used to remanufacturing vehicles on site.

The petitioner has indicated that if they relocate to the subject property, they expect the operations of the site will typically be from 7:00 am to 6:00 pm on Monday through Friday and typically 8:00 am to 2:00 pm on Saturday. The petitioner has indicated that they will employ approximately 15-22 (up to 25) people at this location. If successful, they expect to typically have approximately 20 daily customers at the property during the weekday and less on the Saturday. They have indicated that most of these customers will come to the property through an appointment, but there will be walk-ins for appraisal and costs estimates. There will also be typically a few small trucks visit the property daily on the weekdays to supply the site.

The petitioner has indicated that vehicles will be delivered to the site by towing companies. They have indicated that vehicles are typically not dropped off at the subject property on Saturday or Sunday; however, when they are, the vehicles will be dropped off at the property between 8 a.m. and 5 p.m. On weekdays, vehicles will be dropped off at the subject property no earlier than 7 am.

No vehicles will be available for sale on-site. The petitioner has indicated that all repair and refurbishing activity will be conducted indoors, the building is completely air conditioned and the overhead doors will remain closed. There is an existing loading dock for the building that will be filled in and serve as the paint booth.

The petitioner had previously indicated that there will be overhead doors along the perimeter of the building including along the south property line, adjoining residential property, however the plan indicates 5 overhead doors on the north (2), west (2) and east (1) facades, but the plans no longer have doors facing south as that faces the residential lots.

Zoning and Comprehensive Plan

The site is currently zoned M-1 Research, Development, & Light Manufacturing District. The Village's Comprehensive Plan designates this property as 'R&D, Mfg., Warehouse. The use is not permitted in the M-1 district; therefore a Land Use Variation is required. In order to approve the land use variation, the petitioner must address the three criteria for granting a land use variation. Attached in the packet is the petitioner's response to the following hardship criteria:

- The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone; and
- The plight of the owner is due to unique circumstances; and
- The variation, if granted, will not alter the essential character of the locality.

The Staff Development Committee does not support the proposed use at this location as this use is not compatible with the single family homes to the south. The Comprehensive Plan states: **Land Use Goal #4 “Incompatible zoning should be avoided”** and **Land Use Goal #1: “To ensure that the general land use pattern and relationships of all land uses remain or become acceptable to the present and future community.”** Staff does not believe that this petition meets these goals related to land uses.

Regarding the Land Use Variation Criteria, staff does not concur with the petitioner that the three criteria have been met for the following reasons:

- 1) Staff has concerns with the outdoor storage of vehicles within 150 feet of a residential zoning district, which requires an additional variation from code;
- 2) Staff also has concerns with towing operations during early, late night and Sundays;
- 3) The petitioner has provided information on the building and its structural ability to contain noise produced from activities related to a major auto repair facility, however staff is not fully convinced that given the proximity to residential and the multiple garage doors that would reasonably be expected to remain open during warmer months, that noise would be contained within the building and not disturb adjacent residents.

Plat & Subdivision Committee Meeting

The Plat and Subdivision Committee reviewed this project at their meeting on April 8, 2015. The Commission felt that if the petitioner could resolve issues pertaining to noise and odors and address neighbor concerns, they could have a viable use at this location. However there were various concerns expressed whether or not the petitioner could mitigate the concerns with this use adjacent to residential lots.

Neighborhood Meeting

The petitioner held a neighborhood meeting on Thursday, May 7th, 2015. The meeting was attended by approximately 9 to 12 neighboring residents. The residents expressed concerns about odors and toxic fumes, noise and (their) property values (being decreased because of this use). The residents were opposed to this use at this location.

Building, Site, and Landscape Related Issues

A Design Commission application was received for this project on August 8, 2015. Staff discussed the proposed exterior facade improvements with the project Architect and is in agreement with the proposed improvements. This project requires an Administrative Design review (which means that a formal Design Commission meeting would not be required), pending zoning approval by the Plan Commission and Village Board.

Any proposed spray booth must meet all applicable Code requirements, including but not limited to flammability and ventilation requirements. A triple basin will be required for this use. A MWRD permit will be required and must be and must be coordinated through the Village's Engineering Department. The Petitioner must comply with all applicable accessibility, building, health, noise, odor and life safety code requirements.

The distance between the building at 9 E. College Drive and the residences to the south (114 E. Burr Oak Dr. and 10 E. Burr Oak Dr.) is approximately 148 feet and 160 feet respectively to the homes. Any development must meet criteria such as: any noise generated by the use shall not exceed the decibels levels as outlined in Section 28-5.1-17.2 of the Village Code. Also, objectionable sounds of an intermittent nature which are not easily measured shall be controlled so as not to become a nuisance to adjacent uses. Staff would advise the Petitioner that it shall be unlawful to cause or to knowingly permit the emission of objectionable odors in quantities so as to be readily detectable by an observer at any point on the boundary line of any premises or beyond. If the Village determines that a use does not comply with the aforementioned code requirements, then additional measures and/or improvements that will address the noise and odor issues would be required.

Per Chapter 28, Section 6.15, the ends of all parking rows must include a 4" caliper shade tree within a landscaped island. The existing parking lot does not meet this requirement and does not have any landscape islands. This is considered non-conforming. Because the parking is existing and the site requires a variation from the required number of parking spaces, staff does not recommend eliminating parking to add islands. However, if approved the petitioner will need to upgrade the front yard landscaping as provide in the plan as well as provide a new fence along the south property line. The existing fence is in fair/poor condition and is semi-open (board on board). A new 8 foot high solid fence must be provided along the rear property line.

The petitioner has stated that typically no more than two to four 'total loss' vehicles stored on the exterior of the subject property at any one time. Each 'total loss' vehicle will be stored at exterior of the subject property for no more than 48 consecutive hours. The 'total loss' vehicles will be stored in the parking lot on the south side of the property. The petitioner proposed using the existing fence and simply add slats to convert the fence from semi open to solid, however staff finds that unacceptable as slats are not allowed and the fence is in fair to poor condition. Due to the outside storage of vehicles the following variation is required:

- **Chapter 28, Section 5.1-17.1, Conditions of Use, from the requirement that all storage within 150 feet of a residence district must be in completely enclosed buildings or structures to allow vehicles to be stored outdoors.**

Staff has concerns with the storage of vehicles outdoors within 150 feet of the residential properties to the south. There are 36 parking spaces on site which are within 150 feet of a residential zoning district. These 36 spaces constitute 64% of the total parking lot. Staff cannot support this variation given the close proximity to the residential district .

Traffic & Parking Analysis

Per the Zoning Regulations, office uses require 1 parking space for each 300 square feet of floor area. Automobile Service Stations are required to provide one space for each employee plus three spaces for each service bay. Although there is no parking code line item for motor vehicle repair, the code does state that if there is no line item for the specific use, then the use most similar shall be used. Therefore the auto service station ratio was used, which is consistent with the application of the Village parking code for other auto repair businesses. The traffic study indicated that there will be 8 service bays and a maximum of 25 employees at this site. Therefore, Collision Damage Experts would therefore require 67 parking spaces.

USE	CODE USE	SF/Employees/Bays	PARKING CALC (SF)	PARKING RATIO (1:X)	PARKING REQUIRED
Collision Damage Experts-Office	Office	5,400	5,400	1:300	18
Collision Damage Experts	Automobile Service Stations	25 employees, 8 service bays	NA	1/employee + 3/service bay	49
			Parking Required		67
			Parking Provided		56
			Surplus/(Deficit)		(11)

The following variations are requested:

- **Chapter 28, Section 11.4 Schedule of Parking Requirements, to allow a reduction in parking for the center from the required 67 to 56, a variation of 11 parking spaces.**

Staff has concerns that this use could potentially result in many autos and trucks being located on site beyond the required parking for employees and customers. The petitioner has not provided clear data on actual numbers of vehicles that they may expect that would be brought to the site. If the business is successful, staff has concerns that vehicles stored on site, even for

a short time period, may exceed parking spaces on site. The petitioners response to the parking variation does not include an analysis of projected demand for customer vehicles that are in the process of being stored, repaired, and ready for pick up.

The petitioner conducted a traffic study which indicates that the adjacent roadway can accommodate the projected traffic volumes. Staff concurs with this analysis, however staff's concerns relate to the hours that tow trucks would be delivering autos and trucks to the site beyond regular business hours. The petitioner indicates that tow trucks will at time deliver vehicles outside of their business hours but that they will request that the tow trucks don't deliver at late night or early hours. Staff has concerns that this will be enforceable and will the tow truck operators adhere to the hours stipulated by the petitioner.

Recommendation

The Staff Development Committee is not supportive of the request for a Land Use Variation at this location and recommends denial of the petition for the following reasons:

- 1) The petitioner has not met the three land use variation criteria required to grant a land use variation;
- 2) Incompatibility of this use with the residential uses to the south;
- 3) Inconsistency with the Village Comprehensive Plan, specifically Land Use Goal #4 "Incompatible zoning should be avoided" and Land Use Goal #1: "To ensure that the general land use pattern and relationships of all land uses remain or become acceptable to the present and future community." Staff does not believe that this petition meets these goals related to land uses given the potential for noise, odors, outside storage of vehicles, towing operations.
- 4) Concerns with the outdoor storage of vehicles within 150 feet of a residential zoning district, which requires an additional variation from code;
- 5) Concerns with towing operations during early, late night and Sundays.;
- 6) The petitioner has provided information on the building and its structural ability to contain noise produced from activities related to a major auto repair facility, however staff is not fully convinced that given the proximity to residential and the multiple garage doors that would reasonably be expected to remain open during warmer months, that noise would be contained within the building and not disturb adjacent residents.

September 25 , 2015

Bill Enright, Deputy Director of Planning and Community Development

C: Randy Recklaus, Village Manager
All Department Head

NOTICE OF PUBLIC HEARING
NOTICE IS HEREBY GIVEN THAT THE PLAN COMMISSION OF THE VILLAGE OF ARLINGTON HEIGHTS WILL CONDUCT A PUBLIC HEARING ON SEPTEMBER 30, 2015 AT 7:30 P.M. in the Municipal Building, 33 South Arlington Heights Road, Arlington Heights, Illinois to consider Petition No. 15-018, a Land Use Variation for Motor Vehicle Repair, Major and Variations.
The subject site is generally located on the east side of Arlington Heights Road, and on the south side of College Drive, at 9 E. College Drive, Arlington Heights, IL and legally described as:
Lot 7 in Resubdivision of Part of Lot 1 and all of the lots 2 through 5, both inclusive, in Arlington Industrial and Research Center Unit 1, being a subdivision in the northwest quarter of the southwest quarter and of the southwest quarter of the northwest quarter of Section 8, Township 42 North, Range 11, East of the Third Principal Meridian, in Cook County, Illinois.
As part of said request the petitioner is requesting the following variations from the Municipal Code:
1. Chapter 28, Section 11.4, Schedule of Parking Requirements, to allow a reduction in parking from the required 67 to 56, a variation of 11 parking spaces;
2. Chapter 28, Section 5.1-17.1, Conditions of Use from the requirement that all storage within 150 feet of a residence district must be in completely enclosed buildings or structures to allow storage of 'Total Loss' Vehicles on Exterior Area of the Subject Property for a Maximum of 48-Consecutive Hours.
And any other variations as determined necessary by the Plan Commission.
All persons desiring to be heard shall be given the opportunity to be heard. Should any individual need auxiliary aid or service, such as a sign language interpreter or materials in alternative formats, please contact the Health Department at 33 South Arlington Heights Road, Arlington Heights, Illinois 60005, (847) 368-5760; TDD# (847) 368-5794.
Joe Lorenzini, Chairman
ARLINGTON HEIGHTS PLAN COMMISSION
Published in Daily Herald September 15, 2015 (4419370)

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, Barrington, Barrington Hills, Lake Barrington, North Barrington, South Barrington, Bartlett, Batavia, Buffalo Grove, Burlington, Campton Hills, Carpentersville, Cary, Deer Park, Des Plaines, South Elgin, East Dundee, Elburn, Elgin, Elk Grove Village, Fox Lake, Fox River Grove, Geneva, Gilberts, Grayslake, Green Oaks, Gurnee, Hainesville, Hampshire, Hanover Park, Hawthorn Woods, Hoffman Estates, Huntley, Inverness, Island Lake, Kildeer, Lake Villa, Lake in the Hills, Lake Zurich, Libertyville, Lincolnshire, Lindenhurst, Long Grove, Mt. Prospect, Mundelein, Palatine, Prospect Heights, Rolling Meadows, Round Lake, Round Lake Beach, Round Lake Heights, Round Lake park, Schaumburg, Sleepy Hollow, St. Charles, Streamwood, Tower Lakes, Vernon Hills, Volo, Wauconda, Wheeling, West Dundee, Wildwood, Sugar Grove, North Aurora

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 7150, Act 5, Section 1 and 5. That a notice of which the annexed printed slip is a true copy, was published September 15, 2015 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 # 4419370

RECEIVED

SEP 21 2015

PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

NOTIFICATION AFFIDAVIT

I, Patrick Kilmer-Lipinski, Esq. hereby certify as follows:

1. That on the 11th day of September, 2015, affiant caused to be mailed in the Post Office of Chicago, Illinois, copies of the attached Notice of Public Hearing to all listed taxpayers of real estate within 250 feet, excluding all Public Right-of-Ways of the subject property and to the owners, or representatives, of property listed as exempt, and to all Condominium Associations whose property is within 250 feet of the subject site for which the hearing is being held..
2. That the parties to whom said notice was mailed are set forth on the attached list.
3. That the petitioner stated that the required sign(s) were erected as required by the Village of Arlington Heights.



Signature

Subscribed and Sworn to before me

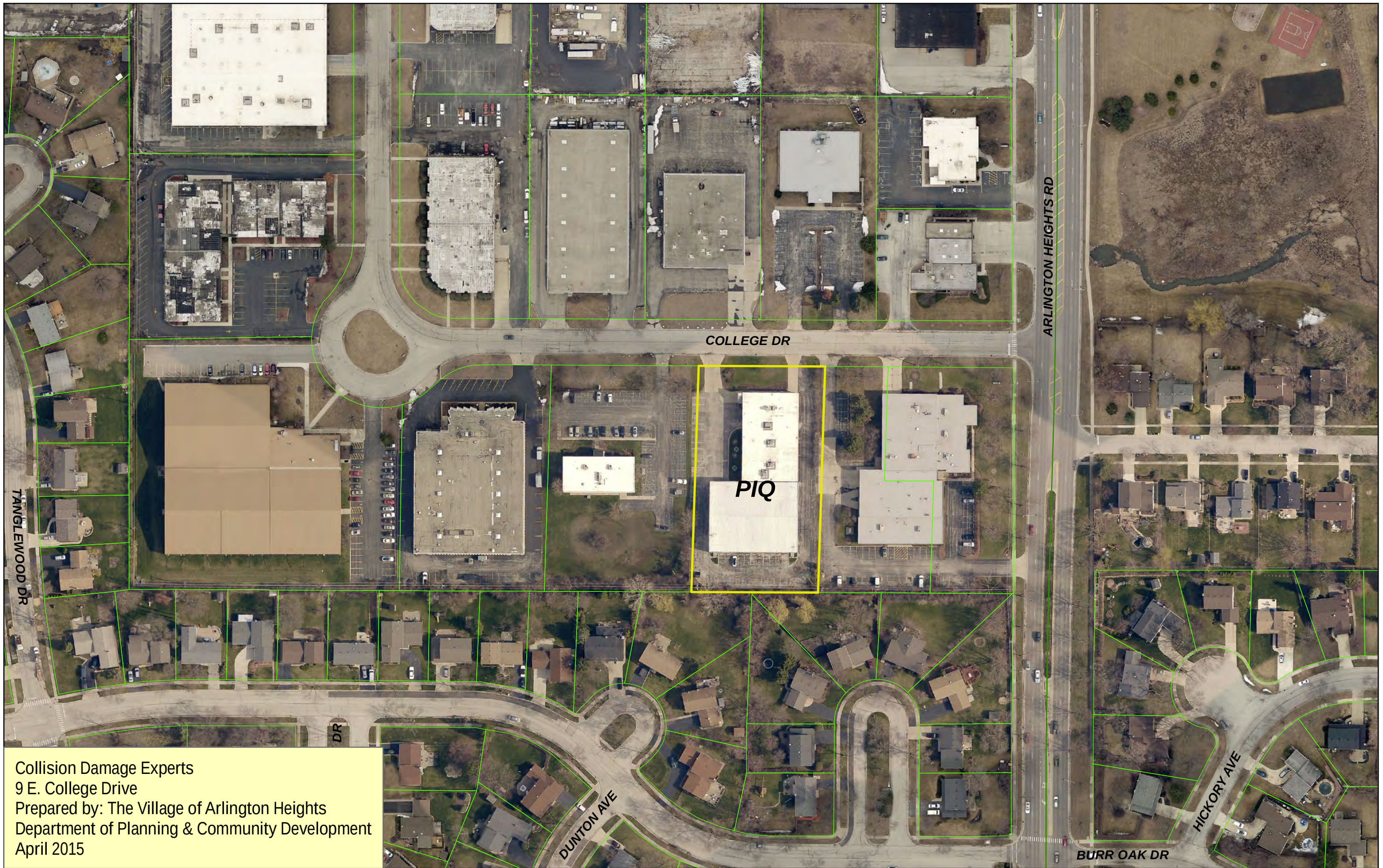
this 16th day of September, 2015.



Notary Public



BRENDA HERNANDEZ
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
April 16, 2018



Collision Damage Experts
9 E. College Drive
Prepared by: The Village of Arlington Heights
Department of Planning & Community Development
April 2015

**REPORT OF THE PROCEEDINGS OF
THE PLAT & SUBDIVISION COMMITTEE**
OF THE VILLAGE OF ARLINGTON HEIGHTS PLAN COMMISSION
HELD AT VILLAGE HALL ON:

April 8, 2015

Project Title: Collision Damage Experts
Address: 9 E. College Drive
Petitioner: Chuck Freiberg
Address: 5710 S. Western Avenue
Chicago, IL 60636
Requested Action:

1. A Land Use Variation to allow "Major Motor Vehicle Repair" in the M-1 district.

VARIATIONS IDENTIFIED:

- Chapter 28, Section 6.12-1(3) *Traffic Engineering Approval*, to waive the requirement for a traffic and parking analysis from a qualified professional Engineer.
- Chapter 28, Section 11.4 Schedule of Parking Requirements, to allow a reduction in parking from the required 64 to 43, a variation of 21 parking spaces.

Attendees: Chuck Freiberg, Collision Damage Experts
Sean Price, Attorney, Liston & Tsantilis, P.C.
Cheryl Nicksic, Collision Damage Experts
R. Fellers, Westway Inc.
Brendan Green, Colliers International
Bruce Green, Plan Commissioner
John Sigalos, Plan Commissioner
Latika Bhide, Development Planner

Project Summary

The subject property is approximately 1.34 acres in area with a free-standing building totaling approximately 24,700 square feet in area. The space within the building is divided into office space, production area and warehouse space. Collision Damage Experts will occupy the entire building. The existing parking lot is located along the perimeter of the property on the east, south and west sides and has 43 parking spaces that are accessible via two driveways along College Drive.

The petitioner is interested in opening an Auto Body Repair center - Collision Damage Experts - at this location. This use is classified as "Major motor vehicle repair" which includes engine rebuilding or major reconditioning of worn or damaged motor vehicles or trailers; collision service, including body, frame or fender straightening or repair; and overall painting of vehicles. Since the use is not permitted in the M-1 district, a land use variation would be necessary to allow this use to operate at this location.

The petitioner has indicated that vehicles are delivered to the site by towing companies. The towing company typically has keys to the yard and vehicles are delivered to the site including at night and over the weekend, but the towing company could be instructed not to deliver vehicles in the night. The petitioner has indicated that cars would not be stored outdoors unless they were deemed a "total loss". If stored outdoors, they would remain for no longer than 48 hours and the tow truck could come and remove them. No vehicles will be available for sale on-site. The petitioner has indicated that there will be overhead doors along the perimeter of the building including along the south property line, adjoining residential property. The petitioner has indicated that all repair and refurbishing activity will be conducted indoors, the building is completely air conditioned and the overhead doors will remain closed. There is an existing

loading dock for the building that will be filled in and serve as the paint booth. The petitioner has indicated that they will employ approximately 15-22 people at this location. The business will typically be open from 7:00 am to 6:00 pm on Monday through Friday and 8:00 am to 2:00 pm on Saturday. The petitioner anticipates 20 customers each day, mostly by appointment.

Meeting Discussion:

S. Price stated that they are requesting a land use variation for the property. He said that they believe that they meet the hardship criteria. He believes that the property cannot yield a reasonable return unless the variation is granted. It has been on the market for 2 years and there is no (other) buyer for the property. Collision Damage Experts (CDE) cannot operate out of the property without a variation. He stated that the plight of the owner is due to unique circumstances. The use is classified as major repair per Village Code, but it is a very specific use. The shop is immaculate, paint work is done inside booths and all the repairs are done indoors. CDE cannot operate without the variation and the use is consistent with other uses allowed in the M-1 district. Lastly, the use will not alter the character of the locality. He said the CDE has a history of operating close to residential properties without complaint. He stated that they have aerial images of various locations next to residential properties and recommendations from Mayors of some towns where CDE operates. There has never been a complaint from a residential property based on odors or noise and they have documents from the neighbors stating that. He stated that considering the nature of business and the nature of the building – it is extremely well insulated; he feels that there is little or no chance that resident's quality of life will be affected. He stated that the paint booths have considerable filters to mitigate any odors that might go out. He said that the character of the locality will not be altered. **L. Bhide** the petitioners were seeking a land use variation to allow major motor vehicle repair as well as a parking variation to allow 43 spaces instead of the required 67 spaces. She stated that the building was approximately 25,000 SF. Major motor vehicle repair is permitted in the B-3 and M-2 districts and since the property is zoned M-1 a land use variation is needed. She stated that the petitioner has indicated that all repair activity will be conducted indoors. Because the building is air conditioned, therefore overhead doors will not be kept open. She stated that the Staff Development Committee does not support this request as the use is incompatible with the residences to the south. She stated that staff would like more information regarding the spray booth and possible odors, etc. She said that there was minimal landscaping on the site and if the petitioner moved forward, staff would recommend that landscaping be added. She discussed the parking requirement based on the number of overhead doors and number of employees possible for this site and the variation that would be required. She stated that applicant has indicated the customers typically have appointments (not walk-ins) and that staff had recommended that a neighborhood meeting be held early in the development process. She stated that staff would like additional information on possible noise and odors generated, as well as the filtration and ventilation systems proposed. She said that staff would not support a variation to the requirement to provide a traffic study. She said that the study should include information on parking counts at the applicant's other locations, the number of vehicles stored outside on the site, the drop off times and days for vehicles that are delivered to the site, etc.

J. Sigalos asked about the site/ floor plan that was provided. **L. Bhide** said that she had included that for reference and that was the existing plan. **J. Sigalos** asked if there would be overhead doors on the south side of the building, where cars could be brought in to the shop, which would back up to residential properties. **C. Freiberg** stated that initially he had told staff that there would be overhead doors on the south side. However, he will work with the community and the Village and if they (doors) could not be on the south side then he would work with that. He showed photos of locations that are similar (Hammond, IN and Western Avenue in Chicago) to this site (next to residential). **J. Sigalos** stated that his concern was how this (use) will interface with the residences to the south. He said that there was the work happening within building and cars coming and going out, but also tow trucks that would be bringing vehicles and that could happen in middle of night and there would be noise. He said that he was happy to see the applicant come to the Village, but his concern was with what was happening in the back of the property. He asked if there are other properties in the industrial park that do not back up to residential. **C. Freiberg** said that he looked at a few, but they did not work from a cost perspective. He said that this building is virtually soundproof. **J. Sigalos** said that he was not concerned once the cars were inside the building, rather the operations outside. **C. Freiberg** stated that they do not need to put a door in the back. He said that the towing (companies) were directed by him and they could be instructed to take the cars back to their lot and bring them the next morning. He said that the cars could be dropped off on the side or the front and they (applicant) could move them inside the building. He said that currently there is an

overhead door along the front that is closed and there are also doors on the west side. **R. Fellers** explained the improvements that he had made to the building, including the soundproofing for the building. **J. Sigalos** said that he was more concerned with what was happening outside, rather than the activities inside. He said that there could possibly be a limitation that vehicles cannot be dropped off/brought in after certain hours. **B. Green** stated that he had the same concerns. **J. Sigalos** asked about how the paint booth was exhausted, and whether there would be fumes. **C. Freiberg** said that he would be happy to have someone from the paint booth company attend. He explained the paint booth operation and said that the booth is triple filtered and uses water based paint, so there is almost no odor to it. **J. Sigalos** asked if this (property) was next to property that was recently approved for a Food Commissary. **L. Bhide** said yes. **J. Sigalos** said that the neighbors were very concerned with odors and so he said that the neighbors and Board would have to be convinced about odors (coming from this use).

B. Green stated that he felt that the biggest obstacle would be the noise and the tow trucks (operations). He said that there have been some businesses involving tow trucks and wrecked cars that have not been good neighbors. He said that the lights, running engine, noise, etc. was something that would have to be 100 percent addressed and he felt that they (applicant) would have to reassure the neighbors. He stated that he felt that the (potential) noise would be the hardest sell, but that the building appeared to be soundproof, which would be a positive. **C. Freiberg** stated that he cared about the presentation but that he also cared about the environment. **B. Green** said if they could control the noise, they have a viable operation. **C. Freiberg** stated that they do not work on tractor trailers or heavy equipment. He said that the largest vehicle they work on is a F250 truck. **B. Green** said that they should set up the neighborhood meeting as soon as possible and receive feedback from neighborhood. **C. Freiberg** explained their involvement with the community. **C. Nicksic** said that they park all their vehicles inside at night. **B. Green** asked about the screening requirement. **L. Bhide** said that a 6 foot solid screen was required between the districts. **C. Freiberg** said that they would purchase and reface the building. He explained the shop floor layout and where the office would be.

RECOMMENDATION

The Plat & Subdivision Committee said that they should hold a neighborhood meeting. If they could resolve issues pertaining to noise and odors and address neighbor concerns, they could have a viable use at this location.

Bruce Green, Chair
PLAT & SUBDIVISION COMMITTEE
Latika Bhide, Recorder

About CDE Collision Damage Experts

9 East College Drive, Arlington Heights, Illinois

CDE Collision Damage Experts is seeking to purchase the subject property. This purchase will be through a related entity, Lake Kagon, LLC, with Lake Kagon, LLC taking title to the subject property after the purchase is complete.

CDE Collision Damage Experts is an automotive remanufacturing and finishing operator. It remanufacturers and repaints vehicles and light trucks (such as pickup trucks) that have been damaged in either an automobile accident, weather related accident, tree failings and/or other accidents. CDE Collision Damage Experts services include the following:

- Replacement of damaged automotive parts (fenders, doors, hoods, bumpers, roof panels, etc.).
- Repainting of vehicles.

CDE Collision Damage Experts has approximately 10 facilities throughout the Midwest. These facilities are located at the following:

- Illinois:
 - 5710 South Western Avenue, Chicago, Illinois 60636.
 - 3555 West Columbus Avenue, Chicago, Illinois 60652.
 - 7659 South Western Avenue, Chicago, Illinois 60620.
 - 19950 Stony Island Avenue, Lynwood, Illinois 60411.
 - 2735 Bernice Road, Lansing, Illinois 60438.
 - 635 West Lake Street, Addison, Illinois 60101.
- Indiana:
 - 7212 Indianapolis Boulevard, Hammond, Indiana 46324.
 - 1181 East Summit Street, Crown Point, Indiana 46307.
 - 6100 U.S. Highway 6, Portage, Indiana 46368.
- Michigan:
 - 4985 Belleville Road, Canton, Michigan 48118.

CDE Collision Damage Experts has been looking to expand its operations into the area for at least a year. The reason for this expansion is that based on several conversations with insurance carriers, there is a need for an automotive remanufacturer in the area. CDE Collision Damage Experts reviewed insurance claim volumes within 3, 5, 10 and 15 miles around the area along with looking at what automotive remanufacturer are already in the area (an important factor when reviewing possible locations to expand to is the distance or time it takes to drive to a remanufacturing facility). Based on the determination, CDE Collision Damage Experts believes a new remanufacturing facility at the subject property is needed.

CDE Collision Damage Experts currently has approximately 140 full-time employees and approximately 2 part-time employees. It plans to hire approximately 15 to 22 full-time employees to work at the subject property. The hiring plan for the site will consist of approximately 5 to 10 employees at the start of operations at the site, with the employee count growing 15 to 22 new employees.

The subject property consists of an approximately 24,700 square foot building on an approximately 58,370 square foot site. CDE Collision Damage Experts plans to use the subject property for the following operations:

- Office use.
- Vehicle disassembly for assessment of damage.
- Vehicle staging for remanufacturing and refinishing.
- Remanufacturing and refinishing areas along with receiving areas for vehicle supplies and parts to only be used to remanufacture vehicles on site.

If CDE Collision Damage Experts relocates to the subject property, it expects the operations of the site will typically be 7:00 am to 6:00 pm on Monday through Friday and typically 8:00 am to 2:00 pm on Saturday. If business is successful at the site, CDE Collision Damage Experts expects to typically have approximately 20 daily customers at the property during the weekday with less on the Saturday. Most of these customers will come to the property through an appointment, but there will be walk-ins for appraisal and cost estimates. There will also be typically a few small trucks visit the property daily on the weekdays to supply the site.

Benefit to the Village of Arlington Heights Resulting from CDE Collision Damage Experts Occupancy of the Site
--

9 East College Drive, Arlington Heights, Illinois

CDE Collision Damage Experts is seeking to purchase the subject property. This purchase will be through a related entity, Lake Kagon, LLC, with Lake Kagon, LLC taking title to the subject property after the purchase is complete.

CDE Collision Damage Experts purchase and occupancy of the subject property will bring many beneficial uses to the community:

Property Tax Revenue:

CDE Collision Damage Experts' rehabilitation and occupancy the subject property will increase real estate tax revenue generated at the site. The property has been vacant for approximately two years and is currently is receiving a full vacancy credit from the Cook County Assessor's Office. This vacancy credit is substantially reducing the property's real estate tax revenue. By investing approximately \$610,000 to improve the site and then occupying the same, CDE Collision Damage Experts will remove the vacancy reduction the property is receiving and substantially increase the market value of the property. This will increase real estate tax revenue generated at the property.

Sales Tax Revenue:

CDE Collision Damage Experts' occupancy of the subject property will also substantially increase sales tax revenue generated from the subject property. First, CDE Collision Damage Experts conservatively estimates that it will generate annually approximately \$45,000 in sale sales tax revenue at the site once it is fully operational at the same. This compares to the lack of sales tax generated at the site due to the property being vacant. Additionally, please keep in mind that most potential industrial users of the site would not generate sales tax revenue

Second, CDE Collision Damage Experts will also be bringing new employees and businesses to the Village, which will generate further sales tax revenue to the subject property. The Village of Arlington Heights can expect the CDE Collision Damage Experts employees at the site (approximately 15 to 22 full-time employees) to invest commercially back into the community by visiting local establishments such as restaurants, gas stations, grocery stores and more. The Village can also expect CDE Collision Damage Experts will attract business and various customers to the Village in the course of its operations that will also likely visit local establishments such as restaurants, gas stations, grocery stores and more.

Third, CDE Collision Damage Experts hold monthly meetings which require its consultants to fly into town, stay at nearby hotels and eat at local restaurants. These meetings occur for approximately 3 or 4 days a month and will increase the sales tax generated within the Village of Arlington Heights.

Increased Employment:

CDE Collision Damage Experts will be expanding its operations to the subject property. This will be an entirely new branch for CDE Collision Damage Experts. Accordingly, CDE Collision Damage Experts must hire new employees for the site. It plans to hire approximately 15 to 22 full-time employees to work at the subject property. CDE Collision Damage Experts will look to hire qualified Village of Arlington Heights residents for these and other future hires.

Good Neighbors:

CDE Collision Damage Experts has a reputation for being a good neighbor. For instance, of its 10 current facilities, 5 of the facilities are located adjacent to residential properties. None of these residential properties have made a complaint regarding CDE Collision Damage Experts' operations. In fact, many of these residences have written CDE Collision Damage Experts letters of recommendation.

CDE Collision Damage Experts' Facilities Located near Residential Properties

9 East College Drive, Arlington Heights, Illinois

CDE Collision Damage Experts is seeking to purchase the subject property. This purchase will be through a related entity, Lake Kagon, LLC, with Lake Kagon, LLC taking title to the subject property after the purchase is complete.

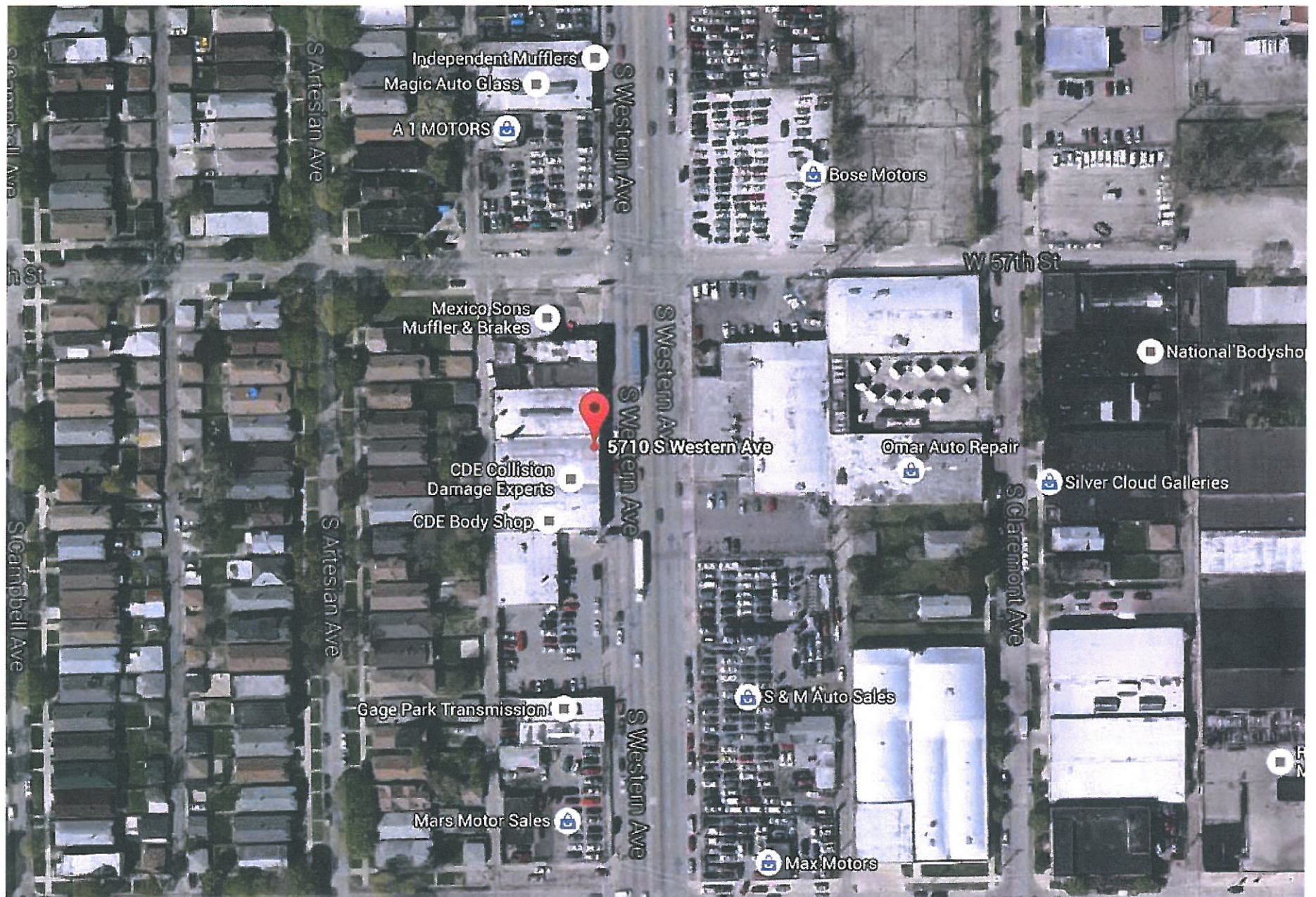
CDE Collision Damage Experts has approximately 10 facilities throughout the Midwest. These facilities are located at the following:

- Illinois:
 - 5710 South Western Avenue, Chicago, Illinois 60636.
 - 3555 West Columbus Avenue, Chicago, Illinois 60652.
 - 7659 South Western Avenue, Chicago, Illinois 60620.
 - 19950 Stony Island Avenue, Lynwood, Illinois 60411.
 - 2735 Bernice Road, Lansing, Illinois 60438.
 - 635 West Lake Street, Addison, Illinois 60101.
- Indiana:
 - 7212 Indianapolis Boulevard, Hammond, Indiana 46324.
 - 1181 East Summit Street, Crown Point, Indiana 46307.
 - 6100 U.S. Highway 6, Portage, Indiana 46368.
- Michigan:
 - 4985 Belleville Road, Canton, Michigan 48118.

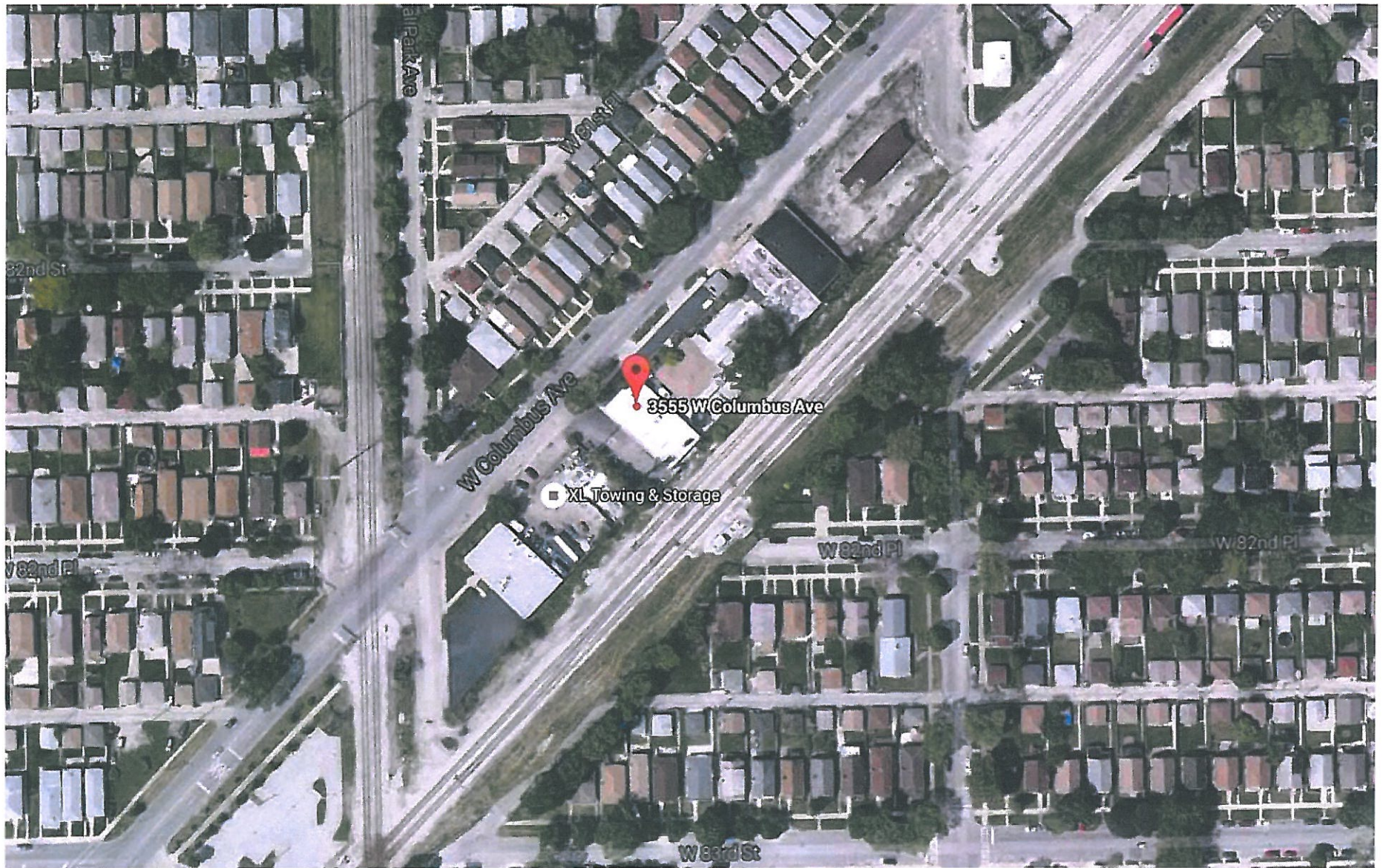
The following of the above facilities are located adjacent to residential properties:

- Illinois:
 - 5710 South Western Avenue, Chicago, Illinois 60636.
 - 3555 West Columbus Avenue, Chicago, Illinois 60652.
 - 7659 South Western Avenue, Chicago, Illinois 60620.
 - 635 West Lake Street, Addison, Illinois 60101.
- Indiana:
 - 7212 Indianapolis Boulevard, Hammond, Indiana 46324.

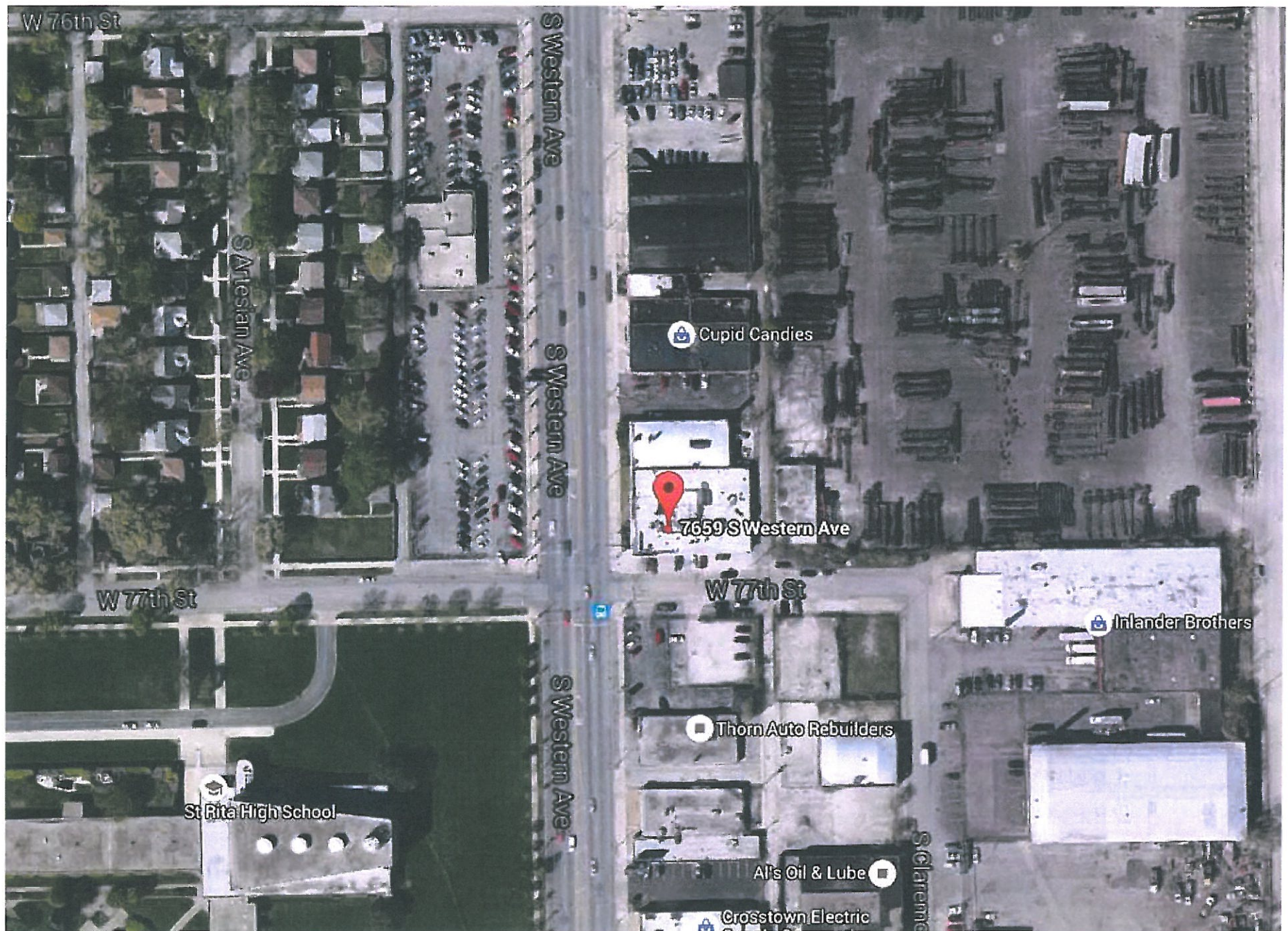
Please see the attached aerials of these properties showing the proximity to residential properties.



5710 South Western Avenue, Chicago, Illinois 60636



3555 West Columbus Avenue, Chicago, Illinois 60652



7659 South Western Avenue, Chicago, Illinois 60620



635 West Lake Street, Addison, Illinois 60101



7212 Indianapolis Boulevard, Hammond, Indiana 46324



6 Hunter's Path
Lisle, IL 60135

TOPOGRAPHICAL ALTA/ACSM BOUNDARY SUBDIVISIONS MORTGAGE CONDOMINIUM

Phone: (647) 458-1710
Fax: (647) 458-1712

ORDER NO.
15-0129

Jens K. Doe
Professional Land Surveyors, P.C.

ALTA/ACSM LAND TITLE SURVEY

LOT 7 IN RESUBDIVISION OF PART OF LOT 1 AND ALL OF LOTS 2 THROUGH 5, BOTH INCLUSIVE, IN ARLINGTON INDUSTRIAL AND RESEARCH CENTER UNIT 1, BEING A SUBDIVISION IN THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER AND OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 8, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

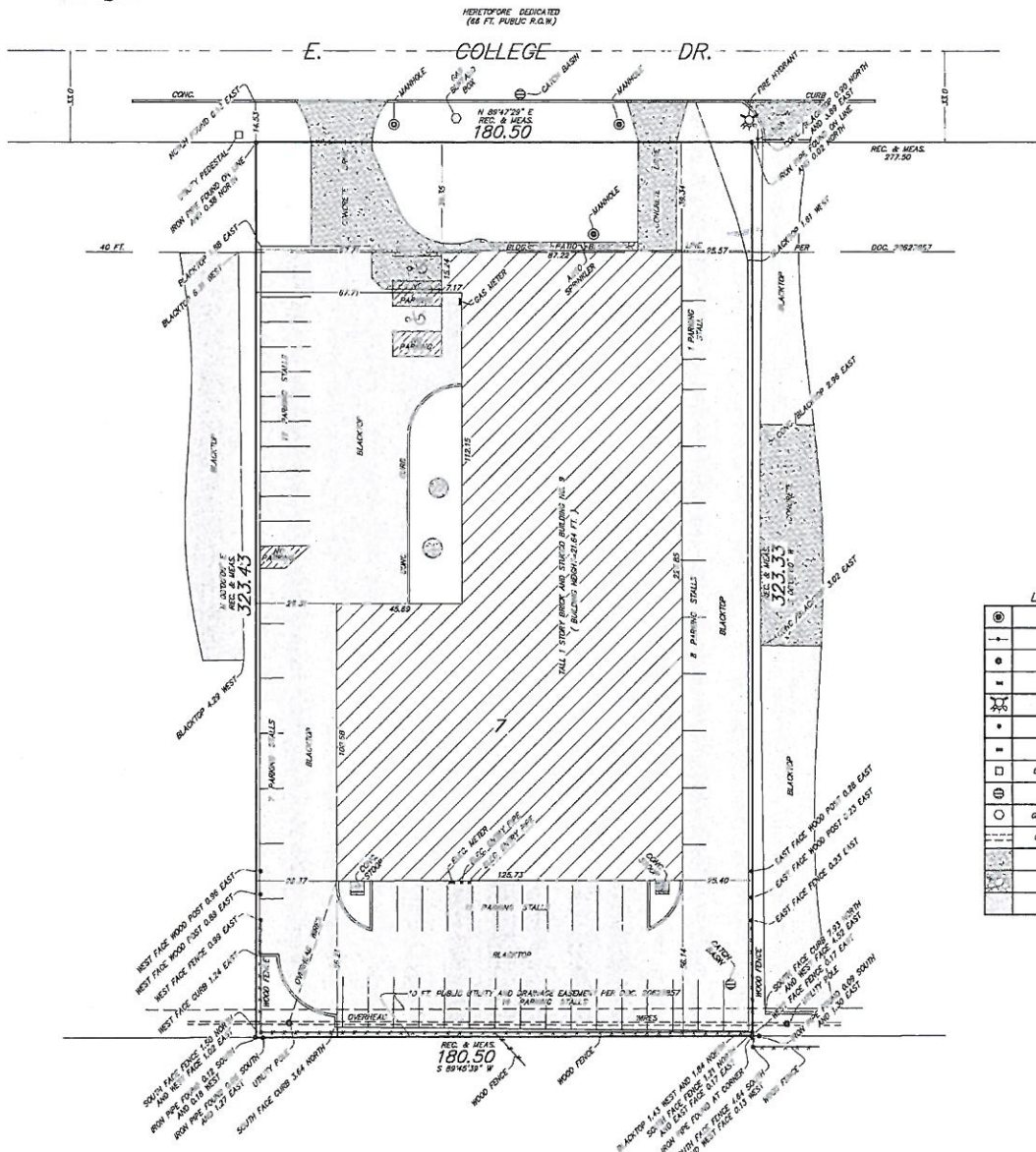
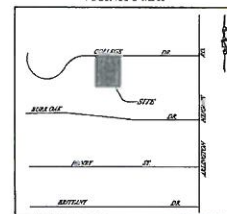
COMMONLY KNOWN AS: 9 E. COLLEGE DR., ARLINGTON HEIGHTS, IL.

Scale - 1 inch = 30 feet

"AREA OF PROPERTY"
SHOWN HEREON
58,369.70 SQ. FT.
OR 1.34 ACRES

"AREA OF EXTERIOR FOOTPRINT"
OF BUILDING SHOWN HEREON
22,948 SQ. FT.

VICINITY MAP



LEGEND:

⊙	MANHOLE
+	SIGN
•	UTILITY POLE
•	GAS METER
⊕	FIRE HYDRANT
•	FENCE POST
•	ELEC. METER
□	UTILITY PEDESTAL
⊕	CATCH BASIN
○	GAS BUFFALO BOX
—	OVERHEAD WIRES
▨	CONCRETE
▩	PAVED BLOCK
■	BLACKTOP

NOTE:

THE PROPERTY SHOWN HEREON REFLECTS MATTERS OF TITLE AS CONTAINED IN CHICAGO TITLE INSURANCE COMPANY COMMITMENT FOR TITLE INSURANCE COMMITMENT NO. 15FHW09032CL, EFFECTIVE DATE: MARCH 6, 2015.

THE PROPERTY SHOWN HEREON IS LOCATED IN ZONE "X" (AREA DETERMINED TO BE OUTSIDE THE 1% ANNUAL CHANCE FLOODPLAIN) PER FLOOD INSURANCE RATES MAP COMMUNITY PANEL NUMBER 1703100001, EFFECTIVE DATE: AUGUST 19, 2008.

TOTAL NUMBER OF STRIPED PARKING STALLS SHOWN HEREON - 57 WHICH INCLUDE 2 HANDICAP STALLS

THERE IS NO VISIBLE EVIDENCE OF THE PROPERTY SHOWN HEREON AS BEING USED AS A SOLID WASTE DUMP OR SANITARY LANDFILL.

THERE IS NO VISIBLE EVIDENCE OF ANY SIDEWALK OR STREET REPAIRS BEING PERFORMED ON THE DEDICATED RIGHT-OF-WAYS SHOWN HEREON.

THERE IS NO VISIBLE EVIDENCE OF ANY EARTH MOVING WORK OR EXTERIOR BUILDING CONSTRUCTION BEING PERFORMED ON THE PROPERTY SHOWN HEREON.

THERE ARE NO OFF-SITE EASEMENTS OR SERVICES BENEFITING THE PROPERTY SHOWN HEREON.

NOTE:

The legal description noted on this plan is a copy of the record survey under which the property is owned and is not to be construed as a deed.

Dimensions shown hereon are not to be construed as a deed.

Dimensions shown hereon are to be construed as a deed.

Field work completion date: April 4, 2015.

ORDERED BY:

MADSEN, SUGDEN & GOTTEMOLLER

STATE OF ILLINOIS
COUNTY OF COOK

JENS K. DOE PROFESSIONAL LAND SURVEYORS P.C. DOES HEREBY CERTIFY TO: LAKE RAGON, LLC, AND CHICAGO TITLE INSURANCE COMPANY THAT THIS MAP OR PLAN AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS *JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND CSRP, AND INCLUDES ITEMS 1, 2, 3, 4, 7 (a), 8, 9, 11 (a), 14, 16, 17, 18 AND 20 (a) OF TABLE "A" THEREOF.

THIS FIELD WORK WAS COMPLETED ON APRIL 4, 2015.

DATED THIS 21ST DAY OF APRIL, 2015.

KEVIN DUFFY

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 0156 DE ILLINOIS

MY LICENSE EXPIRES 11-30-16



**CDE COLLISION
DAMAGE EXPERTS**

9 E. COLLEGE DRIVE
ARLINGTON HEIGHTS, ILLINOIS 60004

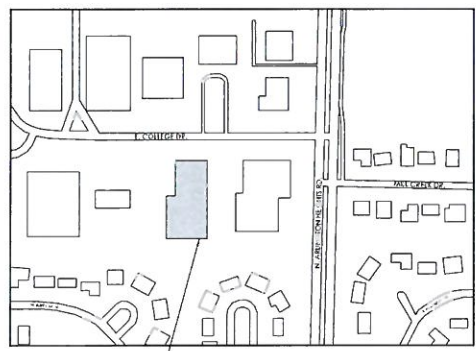
No.	Revised For Revision	Description	Date
1	1525.000.000		07/11/2013

Sheet Title:

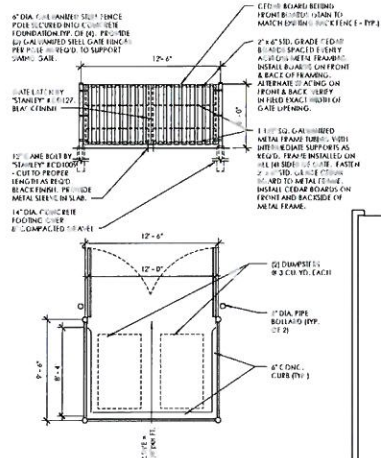
**PROPERTY MAP, SITE PLAN
AND CONSTRUCTION PLAN**

Sheet No:

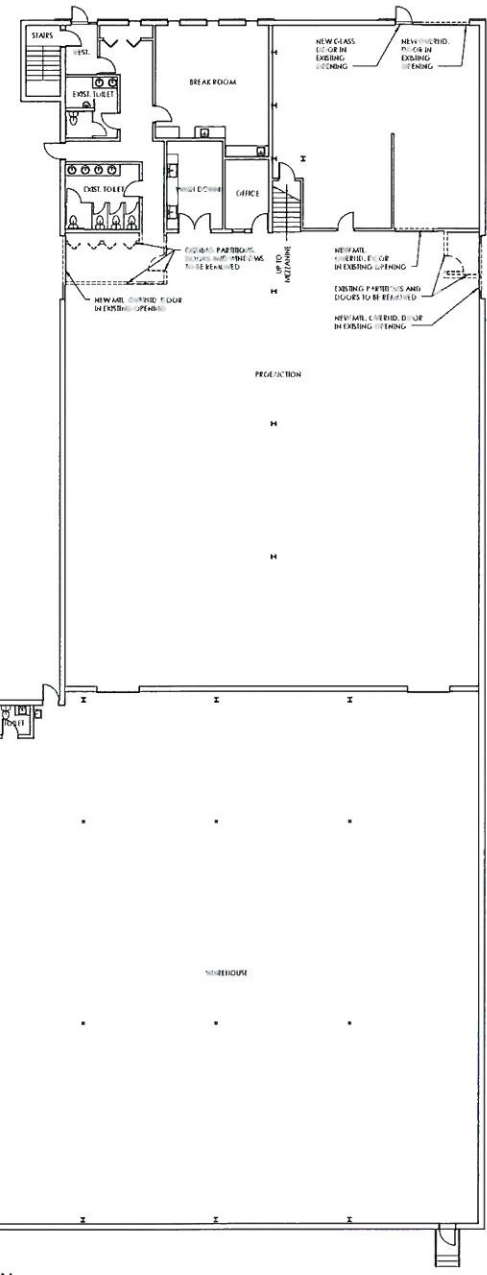
A-1



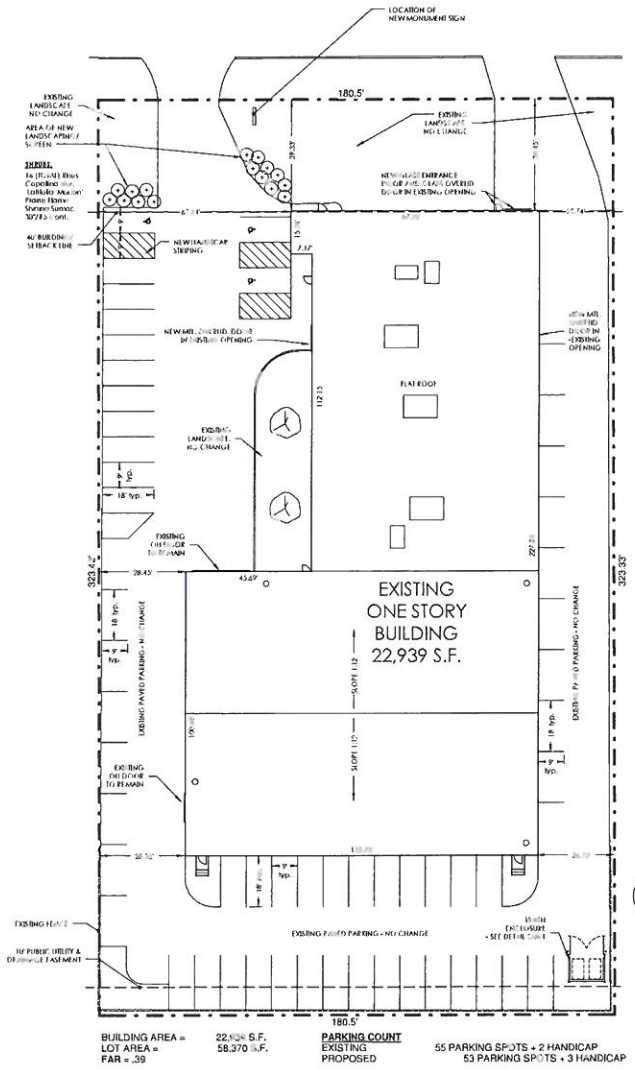
PROJECT LOCATION



3 TRASH ENCLOSURE
3/16\"/>



2 CONSTRUCTION PLAN
3/32\"/>

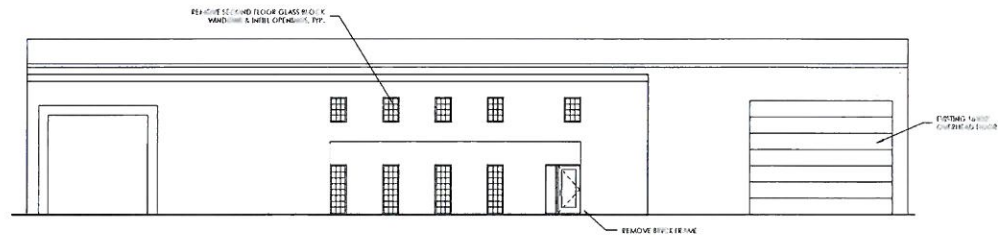


1 SITE PLAN
1\"/>

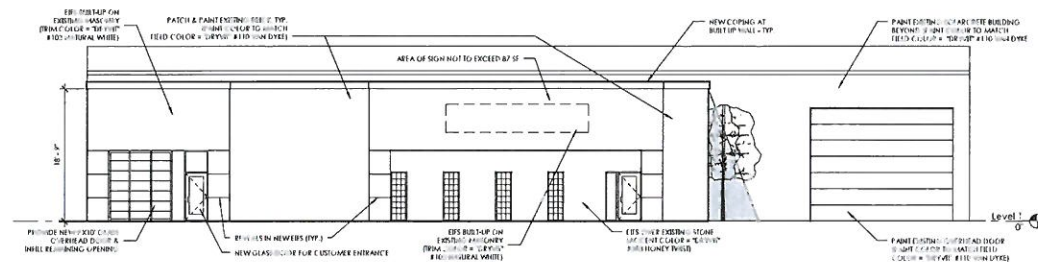
BUILDING AREA = 22,939 S.F.
LOT AREA = 58,370 S.F.
PARKING COUNT
EXISTING
PROPOSED
55 PARKING SPOTS + 2 HANDICAP
53 PARKING SPOTS + 3 HANDICAP

**CDE COLLISION
DAMAGE EXPERTS**

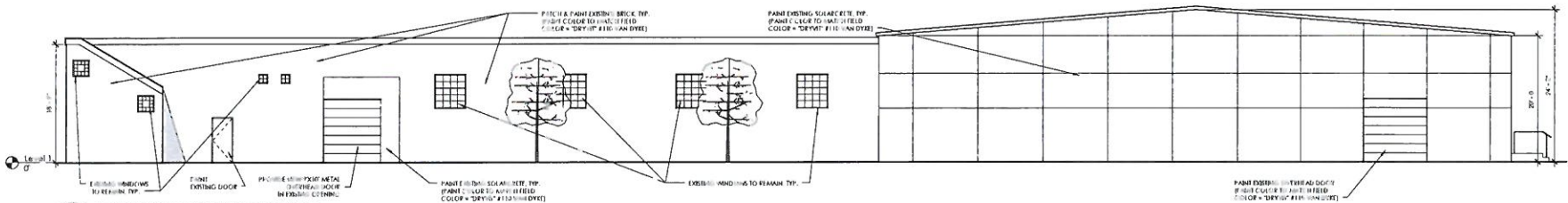
9 E. COLLEGE DRIVE
ARLINGTON HEIGHTS, ILLINOIS 60004



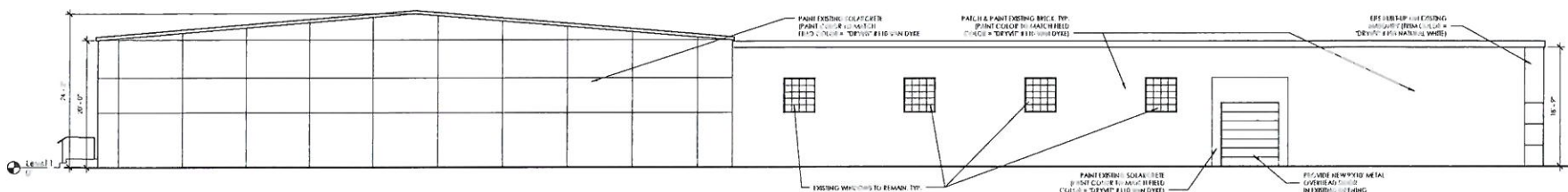
1 EXISTING NORTH ELEVATION
1/8" = 1'-0"



2 PROPOSED NORTH ELEVATION
1/8" = 1'-0"



3 PROPOSED WEST ELEVATION
1/8" = 1'-0"



4 PROPOSED EAST ELEVATION
1/8" = 1'-0"

1. **Project Name:** 1525.000.000
 2. **Project Number:** 1525.000.000
 3. **Project Description:** 1525.000.000
 4. **Project Manager:** 1525.000.000
 5. **Project Sponsor:** 1525.000.000
 6. **Project Stakeholders:** 1525.000.000
 7. **Project Objectives:** 1525.000.000
 8. **Project Scope:** 1525.000.000
 9. **Project Budget:** 1525.000.000
 10. **Project Timeline:** 1525.000.000
 11. **Project Risks:** 1525.000.000
 12. **Project Issues:** 1525.000.000
 13. **Project Deliverables:** 1525.000.000
 14. **Project Milestones:** 1525.000.000
 15. **Project Status:** 1525.000.000
 16. **Project Next Steps:** 1525.000.000
 17. **Project Comments:** 1525.000.000
 18. **Project Approval:** 1525.000.000
 19. **Project Sign-off:** 1525.000.000
 20. **Project Date:** 1525.000.000

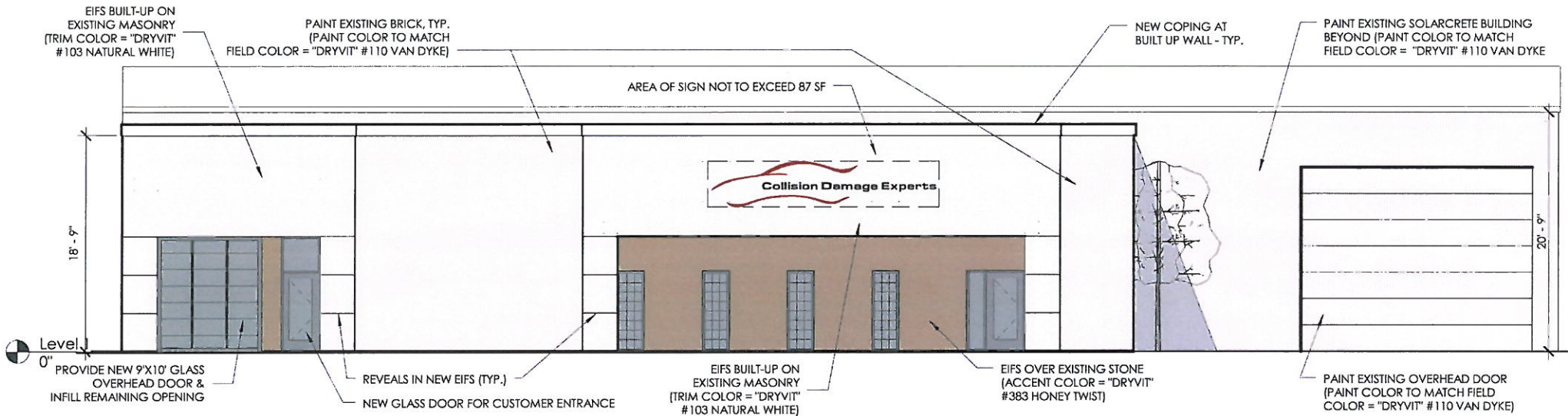
Sheet title:

ELEVATIONS

Sheet No:

A-2





1

(PROPOSED) NORTH ELEVATION

1/8" = 1'-0"

inter:work
architects

interwork architects incorporated
3200 sherman rd. northbrook, il 60062
t: 847-509-4070 f: 847-509-7604
www.interworkarchitects.com

PROPOSED NORTH ELEVATION

PROJECT CDE COLLISION DAMAGE EXPERTS

ADDRESS 9 E. COLLEGE DRIVE
ARLINGTON HEIGHTS, ILLINOIS
60004

REV

PROJ NO 1525.000.000

SCALE 1/8" = 1'-0"

AREA

DATE 07.29.15

SHEET SK2





	ISSUED FOR REVIEW	07-29-2015
No.	Description	Date

PROPERTY MAP, SITE PLAN AND CONSTRUCTION PLAN

A-1



ProTrim Enterprises, Ltd.

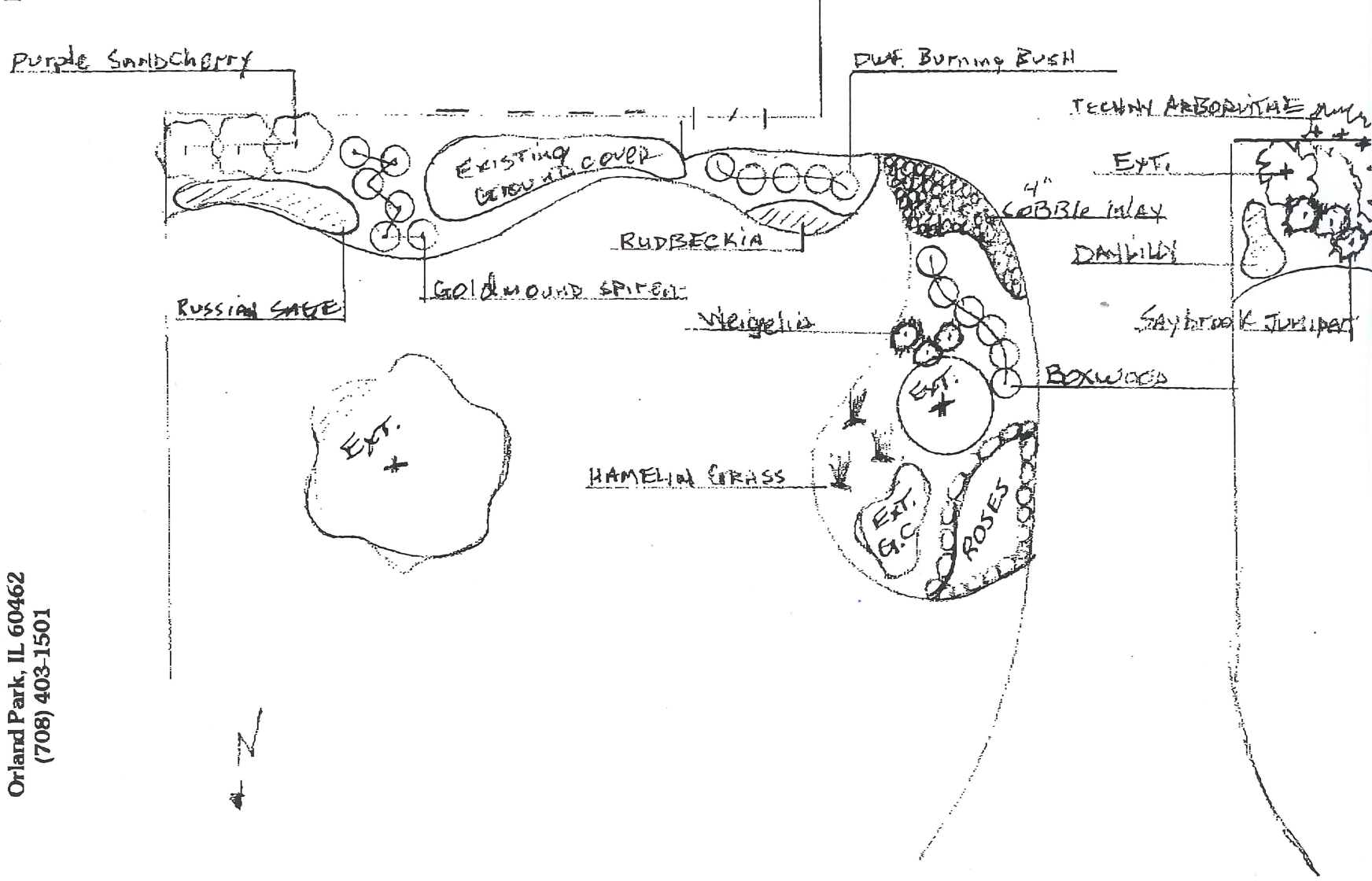
Lawn and Landscape Service

P.O. Box 990
Orland Park, IL 60462
(708) 403-1501

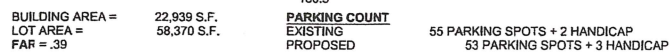
Fax (815) 932-5301

1199 Holly Ct.
Bradley, IL 60915
(815) 932-5034

C.D.E. - ARLINGTON HEIGHTS



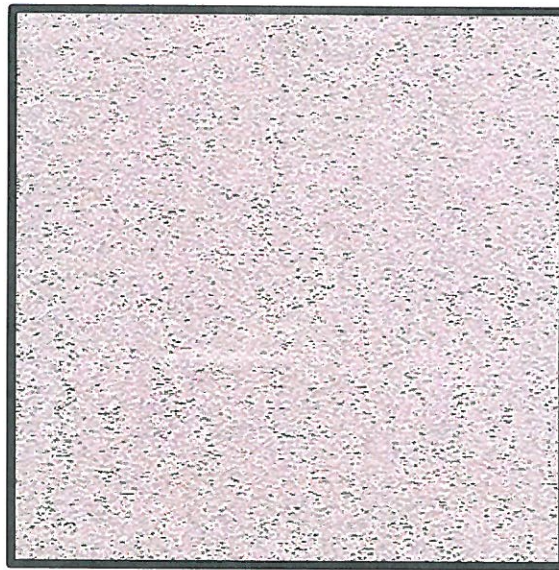
NOT TO SCALE



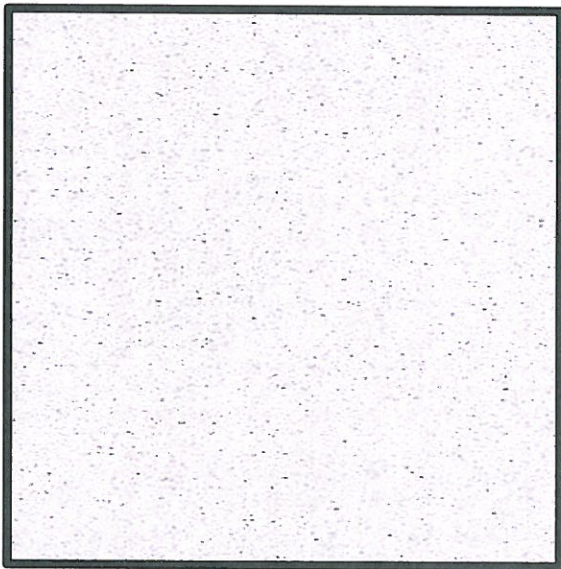
BUILDING AREA = 22,939 S.F.
LOT AREA = 58,370 S.F.
FAR = .39

PARKING COUNT	
EXISTING	PROPOSED

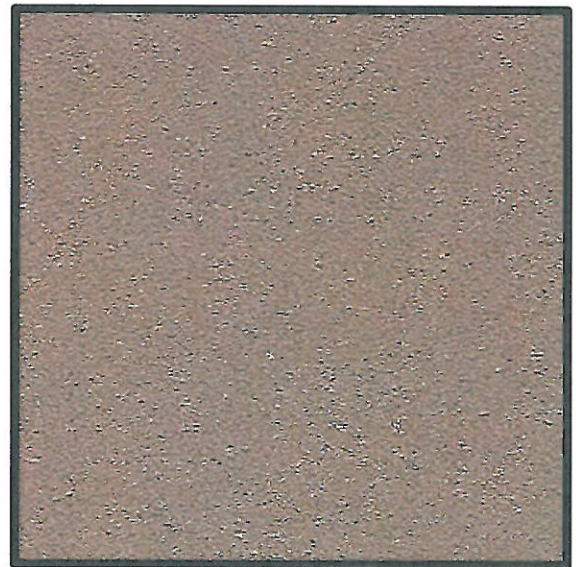
55 PARKING SPOTS + 2 HANDICAP
53 PARKING SPOTS + 3 HANDICAP



FIELD COLOR
 (AT EXISTING BRICK
 AND SOLARCRETE)
 MATCH "DRYVIT" #110 VAN DYKE



TRIM COLOR
 (AT EIFS BUILT-UP OVER
 EXISTING MASONRY)
 MATCH "DRYVIT" #103 NATURAL WHITE



ACCENT COLOR
 (AT EIFS BUILT-UP OVER
 EXISTING STONE)
 MATCH "DRYVIT" #383 HONEY TWIST

FACADE MATERIALS



1. FIELD COLOR at EXISTING METAL DOORS and EXISTING BRICK:
PAINT TO MATCH
"DRYVIT" #110 VAN DYKE

2. EIFS (TRIM)
COLOR TO MATCH
"DRYVIT" #103 NATURAL WHITE

3. EIFS (ACCENT)
COLOR TO MATCH
"DRYVIT" #383 HONEY TWIST

4. ALUMINUM COPING AT BUILT-UP WALL
COLOR = MATCH EXISTING

5. NEW OVERHEAD/ENTRANCE DOORS
COLOR = CLEAR ANODIZED ALUMINUM

inter:work

architects
interwork architects incorporated
1200 shermer rd. northbrook, il 60062
t: 847.509.4070 f: 847.509.9604
www.interworkarchitects.com

PROJECT
ADDRESS

MATERIALS LIST

CDE COLLISION DAMAGE EXPERTS
9 E. COLLEGE DRIVE
ARLINGTON HEIGHTS, ILLINOIS
60004

REV

PROJ NO 1525.000.000

SCALE

AREA

DATE 07.29.15

SHEET SK3



1. FIELD COLOR at EXISTING METAL DOORS and EXISTING BRICK:
PAINT TO MATCH
"DRYVIT" #110 VAN DYKE

2. EIFS (TRIM)
COLOR TO MATCH
"DRYVIT" #103 NATURAL WHITE

3. EIFS (ACCENT)
COLOR TO MATCH
"DRYVIT" #383 HONEY TWIST

4. ALUMINUM COPING AT BUILT-UP WALL
COLOR = MATCH EXISTING

5. NEW OVERHEAD/ENTRANCE DOORS
COLOR = CLEAR ANODIZED ALUMINUM

inter:work

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PROJECT

ADDRESS

MATERIALS LIST

CDE COLLISION DAMAGE EXPERTS
9 E. COLLEGE DRIVE
ARLINGTON HEIGHTS, ILLINOIS
60004

REV

PROJ NO 1525.000.000

SCALE

AREA

DATE 07.29.15

SHEET SK3



511/521

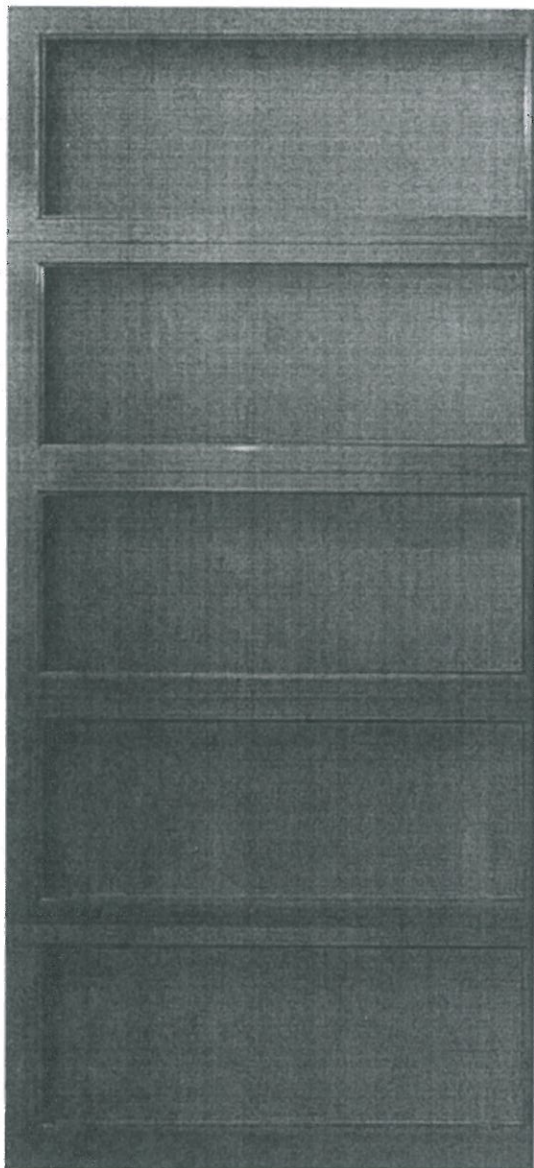
ALUMINUM Door Systems

ALUMINUM SECTIONAL DOORS

VISUAL ACCESS.
LIGHT INFILTRATION.
CONTEMPORARY LOOK.



INDUSTRY LEADING
COMMERCIAL & INDUSTRIAL SOLUTIONS



Cover image:

Model 521, clear anodized finish with clear glass.

Image above:

Model 521, powder coat green finish.

Standard features at a glance

Overhead Door Corporation aluminum sectional doors offer an attractive solution for commercial and industrial applications where visual access, light infiltration and aesthetics are key design considerations.

Durable construction for years of reliable operation

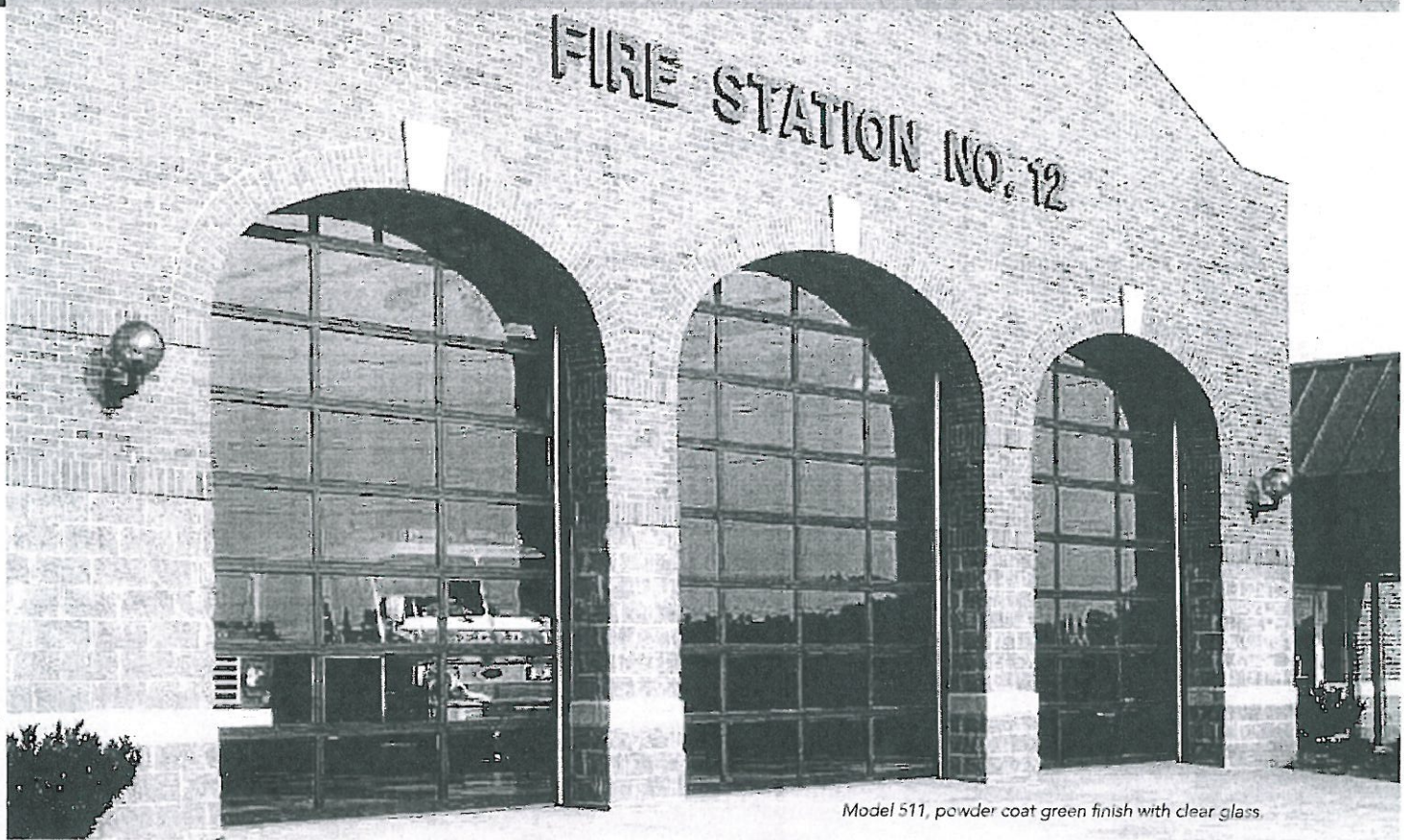
- 1 3/4" (45 mm) thick, corrosion-resistant 6063-T6 aluminum sections with galvanized fixtures and hinges promotes durability and trouble-free operation
- 1/4" (6 mm) diameter through-rods on all stiles and rails enhances strength and sturdiness
- Top-quality materials, excellent field service and optional maintenance program contribute to extended door life, low maintenance costs and maximum productivity

A variety of standard features and options

- Doors up to 26'2" (7976 mm) wide and 20'1" (6121 mm) high (Model 521)
- Glazing choices include DSB glass, acrylic, tempered glass, clear polycarbonate, multi-wall polycarbonate and wire glass
- Standard clear anodized finish for low-maintenance and corrosion-resistance
- Optional finishes include bronze anodization or a variety of standard powder coat paint colors
- Manual pull rope operation with optional chain hoist or electric motor operator

Available in 197 powder coat colors

Choose from a selection of 197 powder coat colors to match the aesthetic and design of your project. This color optional upgrade includes a hardening additive that provides an attractive and durable finish and easy-to-clean surface.

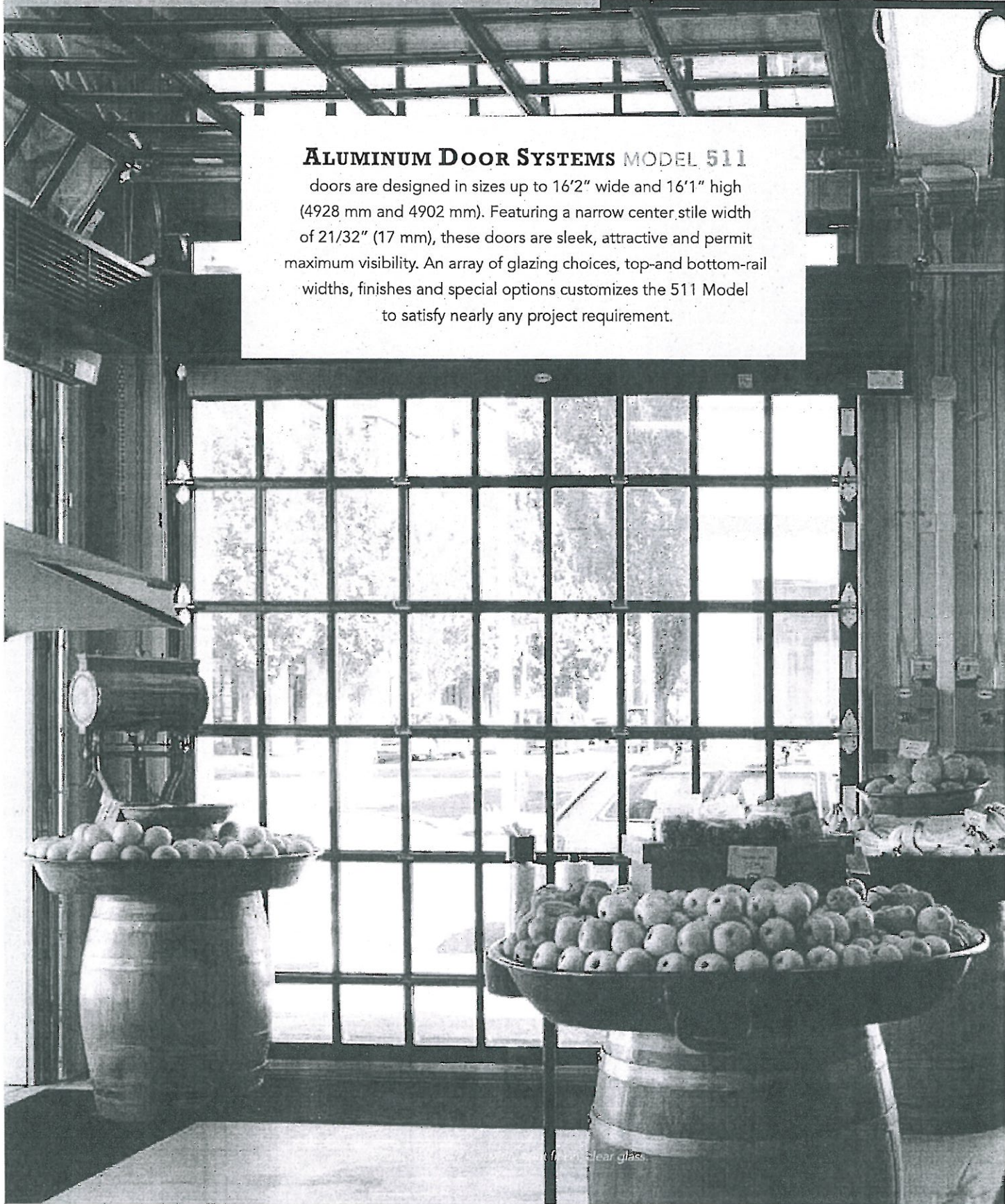


Model 511, powder coat green finish with clear glass.

General specifications	Model 511	Model 521	Available options	Model 511	Model 521
Panel thickness	1 3/4" (45 mm)	1 3/4" (45 mm)	1/8" (3 mm) DSB	•	•
Max. width	16'2" (4928 mm)	26'2" (4928 mm)	1/8" (3 mm) or 1/4" (6 mm) acrylic	•	•
Max. height	16'1" (4902 mm)	20'1" (6121 mm)	1/8" (3 mm) or 1/4" (6 mm) tempered	•	•
Rails standard material	6063-T6 aluminum	6063-T6 aluminum	1/8" (3 mm) or 1/4" (6 mm) clear polycarbonate	•	•
Rails standard finish	204R-1 clear anodized	204R-1 clear anodized	1/4" (6 mm) wire glass	•	•
Center stile widths	2 1/32" (17 mm)	2 11/16" (68 mm)	1/2" (12 mm) insulated glass	•	•
End stile widths	2 3/4" 2 3/4"	3 5/16" (85 mm)	Electric operator	•	•
Top rail widths	2 3/8", 3 3/4" (60 mm, 95 mm)	2 3/8", 3 3/4" (60 mm, 95 mm)	Bottom sensing edge	•	•
Intermediate rail pair widths	1 3/8" (40 mm)	3 11/16" (94 mm)	Chain hoist	•	•
Bottom rail widths	2 3/8", 3 3/4", 4 1/2" (60 mm/95 mm/114 mm)	3 3/4", 4 1/2" (95 mm/114 mm)	3" track	•	•
			Bracket mounting	•	•
			High-cycle springs	•	•
			Posi-tension drums	•	•
			Pass door		•
			Exhaust ports	•	•
			Bronze anodization	•	•
			Powder coat paint finish	•	•

ALUMINUM DOOR SYSTEMS MODEL 511

doors are designed in sizes up to 16'2" wide and 16'1" high (4928 mm and 4902 mm). Featuring a narrow center stile width of 21/32" (17 mm), these doors are sleek, attractive and permit maximum visibility. An array of glazing choices, top-and bottom-rail widths, finishes and special options customizes the 511 Model to satisfy nearly any project requirement.





Standard features at a glance

Panel thickness	1 3/4" (45 mm)
Maximum standard width	16' 2" (6147 mm)
Maximum standard height	16' 1" (4902 mm)
Material	6063-T6 aluminum
Standard finish	204R-1 clear anodized
Center stile width	21/32" (17 mm)
End stile width	2 3/4" (70 mm)
Top rail width	2 3/8" (60 mm) or 3 3/4" (95 mm)
Top intermediate rail width	3/4" (19 mm)
Bottom intermediate rail width	5/8" (16 mm)
Bottom rail width	2 3/8" (60 mm) or 3 3/4" (95 mm) or 4 1/2" (114 mm)
Weatherseals	Bottom, flexible PVC
Standard springs	10,000 cycle
Track	2" (51 mm)
Mounting	Angle
Operation	Manual pull rope
Hinges and fixtures	Galvanized steel
Lock	Galvanized, interior-mounted single unit
Color palette	197 powder coat finishes are available from your Overhead Door distributor
Warranty	12-month limited; 3-year powder coat finish

Options

Glazing options*: 1/8" (3 mm) DSB; 1/8" (3 mm) or 1/4" (6 mm) acrylic; 1/8" (3 mm) or 1/4" (6 mm) tempered; 1/8" (3 mm) or 1/4" (6 mm) clear polycarbonate; 1/4" (6 mm) and 3/8" twin-wall polycarbonate, 5/8" triple-wall polycarbonate; 1/4" (6 mm) 3/8" (10 mm) and 5/8" (16 mm) twin-wall polycarbonate, triple-wall polycarbonate 1/4" (6 mm) wire glass; 1/2" (12 mm) insulated glass

Electric operator or chain hoist

Bottom sensing edge

3' track

Bracket mounting (not available on full vertical door tracks)

Higher-cycle springs in 25k, 50k, 75k, 100k cycles

Panel schedule		Section schedule	
Door width	Number of panels	Door height	Number of sections
to 8'11" (2718 mm)	2	to 8'6" (2591 mm)	4
9'0" to 11'11" (2743 mm to 3632 mm)	3	8'7" to 10'11" (2616 mm to 3073 mm)	5
12'0" to 14'11" (3658 mm to 4547 mm)	4	10'2" to 12'11" (3099 mm to 3683 mm)	6
15'0" to 16'2" (4572 mm to 4928 mm)	5	12'2" to 14'11" (3708 mm to 4293 mm)	7
		14'2" to 16'11" (4318 mm to 4902 mm)	8

ALUMINUM DOOR SYSTEMS MODEL 521

is appropriate for environments where maximum light infiltration and/or visual access is required. Designed to fit openings up to 26'2" (7976 mm) wide and 20'1" (6121 mm) high, the 521 Model features a wide, 2 11/16" (68 mm) center stile, a 2 3/8" (60 mm) or 3 3/4" (95 mm) top rail, and 3 3/4" (95 mm) or 4 1/2" (114 mm) bottom rail. A variety of glazing choices, finishes and special options are available.

Model 521, white powder coat finish and clear glass.

ALUMINUM DOOR SYSTEMS MODELS 521



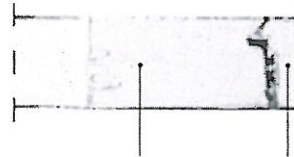
Standard features at a glance

Section thickness	1 3/4" (45 mm)
Maximum standard width	26'2" (7976 mm)
Maximum standard height	Interior or exterior face-of-wall
Material	2011 (6121 mm)
Standard finish	204R-1 clear anodized (painted white at no charge)
Center stile width	2 11/16" (68 mm)
End stile width	3 5/16" (85 mm)
Top rail width	2 3/8" (60 mm) or 3 3/4" (95 mm)
Top intermediate rail width	2 1/8" (54 mm)
Bottom intermediate rail width	1 19/32" (40 mm)
Bottom rail width	3 3/4" (95 mm) or 4 1/2" (114 mm)
Weatherseals	Bottom, flexible PVC
Standard springs	10,000 cycle
Track	2" (51 mm)
Mounting	Angle
Operation	Manual pull rope
Hinges and fixtures	Galvanized steel
Lock	Galvanized, interior-mounted single unit
Color palette	197 powder coat finishes

Warranty 12-month limited; 3-year powder coat finish

Optional polyurethane insulation for stiles and rails

Door size (ft)	R-value* of complete door (K m ² /W)
1/2" insulated glass	
10x10	2.92
12x12	2.84
14x14	2.84
1/2" insulated Low E glass	
10x10	3.84
12x12	3.4
14x14	3.4



Polyurethane filled rails and stiles add R-value of up to 4.13 (for 10 x10' door with Solar Ban glass).

*R-value: Overhead Door Corporation uses a calculated door section R-value for our insulated doors.

Options

Glazing options†: 1/8" (3 mm) DSB; 1/8" (3 mm) or 1/4" (6 mm) acrylic; 1/8" (3 mm) or 1/4" (6 mm) tempered; 1/8" (3 mm) or 1/4" (6 mm) clear polycarbonate; 1/4" (6 mm) and 3/8" twin-wall polycarbonate, 5/8" triple-wall polycarbonate; 1/4" (6 mm) 3/8" (10 mm) and 5/8" (16 mm) twin-wall polycarbonate, triple-wall polycarbonate 1/4" (6 mm) wire glass; 1/2" (12 mm) insulated glass

Electric operator or chain hoist

Bottom sensing edge

3' track

Bracket mounting (not available on full vertical door tracks)

Higher-cycle springs in 25k, 50k, 75k, 100k cycles

Exhaust ports

Four-section pass door

†Contact your local Overhead Door Distributor for special glazing requirements. Verify 1/4" (6 mm) glass applications with factory.

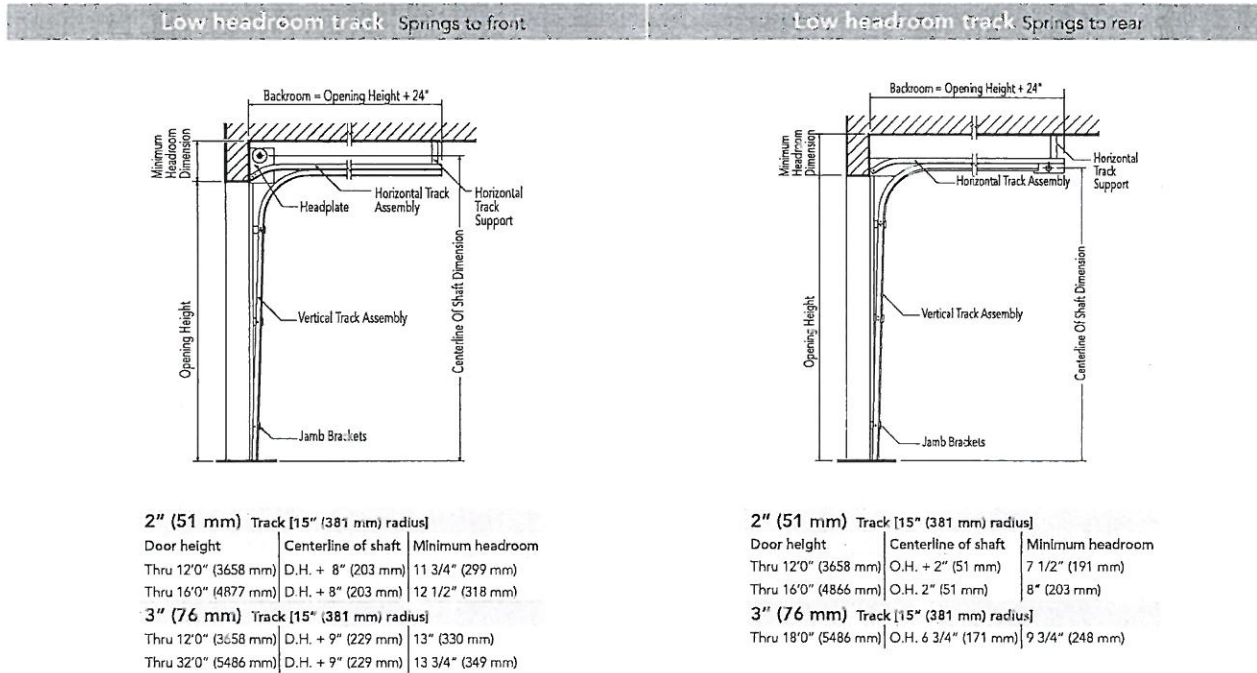
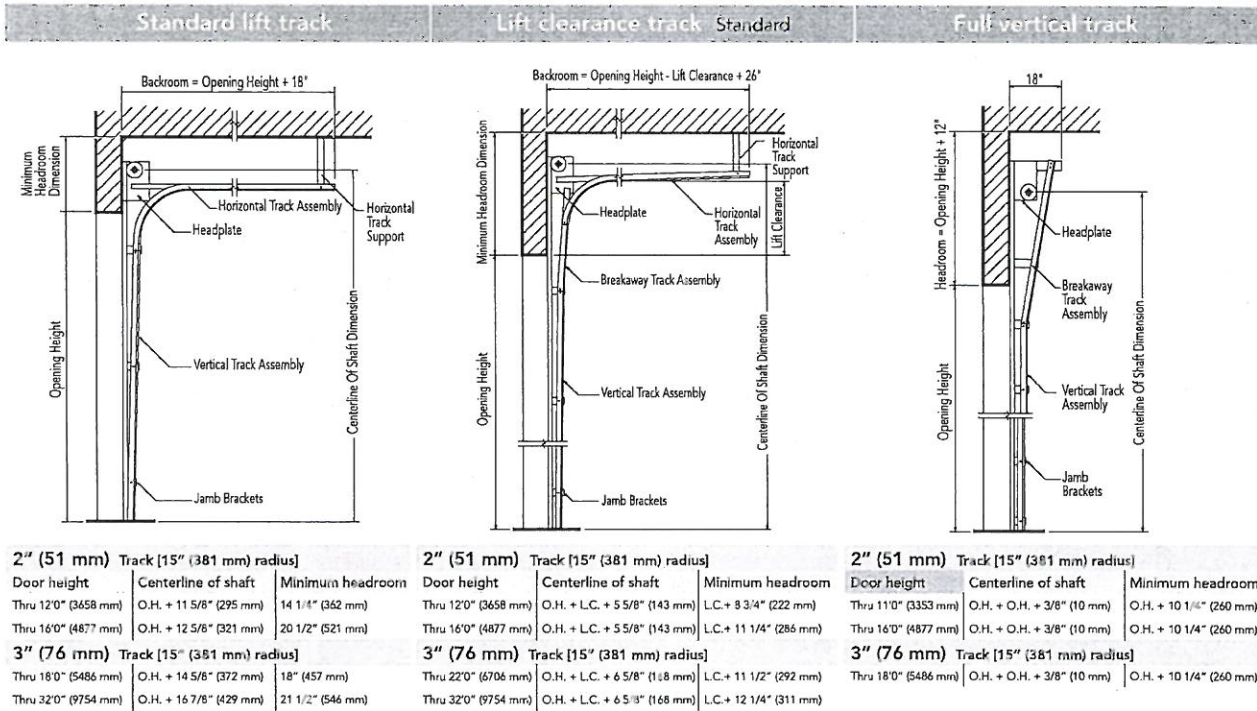
Panel schedule		Section schedule	
Door width	Number of panels	Door height	Number of sections
to 8'2" (to 2489 mm)	2	to 8'6" (2591 mm)	4
8'3" to 12'2" (2515 mm to 3708 mm)	3	8'7" to 10'1" (2616 mm to 3073 mm)	5
12'3" to 16'2" (3734 mm to 4953 mm)	4	10'2" to 12'1" (3099 mm to 3683 mm)	6
16'3" to 19'2" (4978 mm to 5842 mm)	5	12'2" to 14'1" (3708 mm to 4293 mm)	7
19'3" to 20'11" (5867 mm to 6375 mm)	6**	14'2" to 16'1" (4318 mm to 4902 mm)	8
21'0" to 23'11" (6401 mm to 7290 mm)	8**	16'2" to 18'1" (4928 mm to 5512 mm)	9
24'0" to 26'2" (7315 mm to 7976 mm)	10**	18'2" to 20'1" (5537 mm to 6121 mm)	10

**Special construction. Consult your local Overhead Door Distributor for additional information.

Track detail

Any of the following track configurations can be selected for 511 and 521 Aluminum door models.

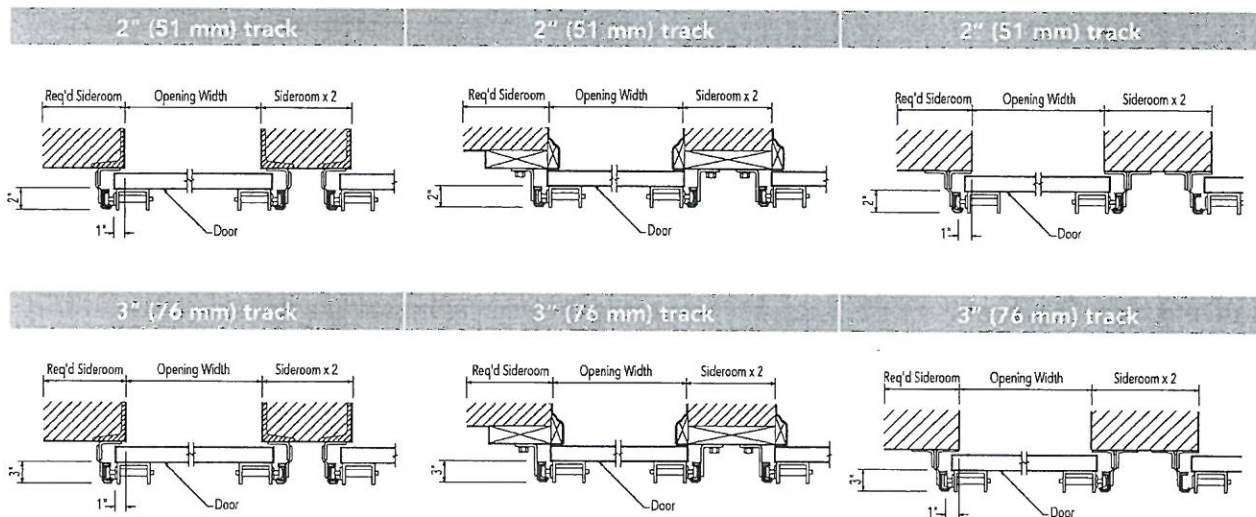
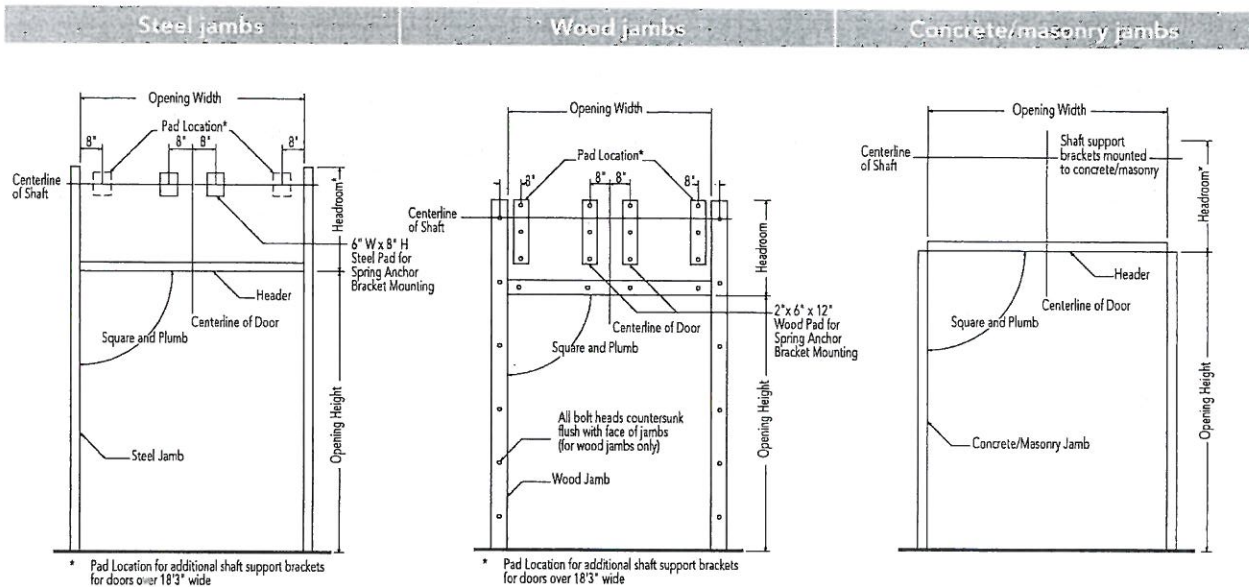
O.H.=Opening height L.C.=Lift clearance D.H.=Door height





Framing and pad detail

Framing and pad details for common installation of Aluminum doors in steel, wood, concrete and masonry jambs are provided here. If you require additional information or have special project requirements, refer to the Overhead Door Architectural Design Manual, (www.OverheadDoor.com/ADM/base.html) or consult with the Overhead Door Applications Engineering Group or your local Overhead Door distributor.



Minimum required sideroom

Track type	2" Track (51 mm)	3" Track (76 mm)
Standard lift	4 1/2" (114 mm)	6 1/2" (165 mm)
Low headroom	9" (229 mm)	10" (254 mm)
Lift clearance	4 1/2" (114 mm)	6 1/2" (165 mm)
Full vertical	4 1/2" (114 mm)	6 1/2" (165 mm)

Minimum required sideroom

Track type	2" Track (51 mm)	3" Track (76 mm)
Standard lift	3 1/2" (89 mm)	5 1/2" (140 mm)
Low headroom	8" (203 mm)	9" (229 mm)
Lift clearance	3 1/2" (89 mm)	5 1/2" (140 mm)
Full vertical	3 1/2" (89 mm)	5 1/2" (140 mm)

Minimum required sideroom

Track type	2" Track (51 mm)	3" Track (76 mm)
Standard lift	4 1/2" (114 mm)	6 1/2" (165 mm)
Low headroom	9" (229 mm)	10" (254 mm)
Lift clearance	4 1/2" (114 mm)	5 1/2" (140 mm)
Full vertical	4 1/2" (114 mm)	5 1/2" (140 mm)

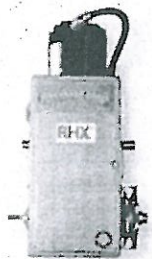
Electric operators

Overhead Door Corporation offers the broadest line of electric operators to suit new construction and retrofit applications, as well as unusual or special requirements. In order to improve safety and enhance door and motor life, industry quality assurance guidelines recommend the choice of a single manufacturer for both door and operator applications.

Overhead Door Corporation is one of the only national manufacturers to offer a full line of commercial and industrial doors and operators specifically designed for integral applications.

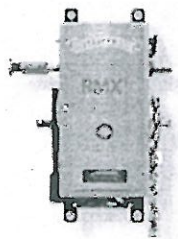
Model RHX®

Model RHX® is a heavy duty commercial operator designed to operate doors up to 24' (7315 mm) in height and 3696 pounds (1676 kg). Available as either a trolley, sidemount or centermount.



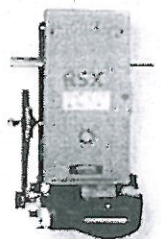
Model RMX®

Model RMX® is our newest, most advanced medium-duty operator. It is designed for quicker installation and hassle-free operation and operates doors up to 14' (4267 mm) in height and 620 pounds (282 kg). It is available as a trolley-type or side-mounted unit.



Model RSX®

Model RSX® is a standard duty commercial operator designed to operate doors up to 24' (7315 mm) in height and 1620 pounds (735 kg). It offers unique features like LimitLock®, SuperBelt™ and 16 digit menu setup.



Operator control options

- Push-button, key or combination stations; surface- or flush-mounted for interior and/or exterior locations
- Vehicle detectors, key card reader, photocell and door timer controls
- Treadle or pull switch stations
- Telephone entry and coded keyboard stations
- Universal programmable door timer
- Radio control systems (24 VAC or 120 VAC)
- Explosion and dust ignition-proof systems

Electric operator selection guide										
	Horsepower/ Newtons	Max. height of door	Max. weight of door	Super Belt™/ Polybelt	Worm gear	Adjustable clutch	Totally enclosed	Continuous duty	Explosion proof	Mounting type
RHX®	1/2 HP, 3/4 HP, 1 HP, 3 HP	24' (7315 mm)	3696 lbs (1676 kg)		•	•		•	•	T, S, C
RSX®	1/2 HP, 3/4 HP, 1 HP	24' (7315 mm)	1620 (735 kg)	•		•	•	•		T, S, C
RMX®	1/2 HP	14' (4267 mm)	620 (281 kg)	•						T, S

Mounting options:
T=Trolley S=Side mount C=Center mount

Safety recommendations

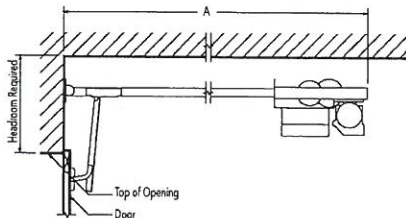
Overhead Door Corporation strongly recommends the use of a primary safety device as defined by UL325 2010. A primary safety device can be approved monitored photo-eyes or an approved monitored sensing edge. If a primary safety device is not installed, a constant contact control switch must be used to close the door. Contact Overhead Door for more information.



Mounting details

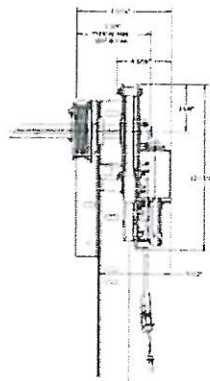
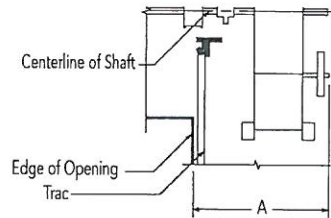
Trolley-type (Drawbar) RMX®, RSX®, RHX®

Trolley-type (Drawbar) operators feature a power unit mounted between, above and to the rear of the horizontal tracks. The drawbar drive provides positive control of the door at all times, making this operator the preferred choice whenever possible. Maximum door width is 20' per drawbar. Door width over 20' requires dual drawbar installation. Available on Models RMX®, RSX® and RHX®.



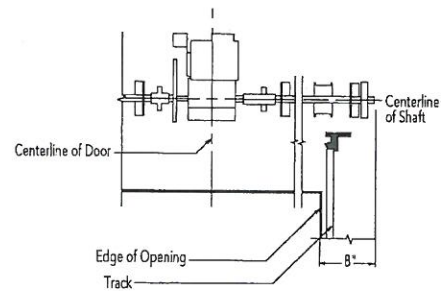
Side mount type (Jackshaft) RMX®, RSX®, RHX®

Side-mounted (Jackshaft) RMX®, RSX®, and RHX® operators feature a power unit mounted on the inside front wall and connected to the crosshead shaft, with an adjustable coupling or drive chain and sprockets.



Center mount type/Jackshaft RSX®, RHX®

Center-mounted (Jackshaft) operators feature a power unit on the front wall above the door opening. No additional backroom is required. Available on models RSX® and RHX®.



Minimum headroom requirements*		"A" dimension - minimum clearance		Minimum headroom requirements	
RMX®	Track requirements +4 1/2" (114 mm)	2" track (51 mm)	3" track (76 mm)	RSX®	Track requirements +14" (356 mm)
RSX®	Track requirements +5" (127 mm)	RMX® 18 1/2" (470 mm)	19 1/2" (495 mm)	RHX®	Track requirements +23 5/8" (600 mm)
RHX®	Track requirements +5" (127 mm)	RSX® 21" (533 mm)	22" (559 mm)		
		RHX® 21" (533 mm)	22" (559 mm)		
Depth requirements - "A" dimension to track					
RMX®	Door height +4' 0" (1219 mm)				
RSX®	Door height +4' 0" (1219 mm)				
RHX®	Door height +4' 10" (1219 mm)				



Model 511, white powder coat finish, clear and tempered glass.

Tools to help you
get the job done.

Architects Corner

A resource for commercial and residential architects, contains comprehensive technical and resource materials to support your project, including drawings for installing garage and overhead doors.

www.OverheadDoor.com

The original, innovative choice for unequalled quality and service.

Overhead Door Corporation pioneered the upward-acting door industry, inventing the first upward-acting door in 1921 and the first electric door operator in 1926. Today, we continue to be the industry leader through the strength of our product innovation, superior craftsmanship and outstanding customer support, underscoring a legacy of quality, expertise and integrity. That's why design and construction professionals specify Overhead Door Corporation products more often than any other brand. Our family of over 400 Overhead Door Distributors across the country not only share our name and logo, but also our commitment to excellence.



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Traffic Impact Study

To: Mr. Gary Hannemann – CDE Collision Centers

625 Forest Edge Drive, Vernon Hills, IL 60061

TEL 847.478.9700 ■ FAX 847.478.9701

From: Daniel P. Brinkman, PE, PTOE

www.gha-engineers.com

Date: July 31, 2015

Subject: Proposed Industrial Re-Use
CDE Collision Center
9 E. College Drive
Arlington Heights, Illinois

Part I. Project Context

Per your request, GEWALT HAMILTON ASSOCIATES, INC. (GHA) has conducted a traffic impact study for the above captioned project. The following report summarizes our findings and recommendations for your consideration. The Exhibits referenced throughout this report are conveniently located in the Technical Addendum at the end of this document.

CDE Collision Center, proposes to re-purpose the existing industrial / commercial building located at 9 E. College Drive in Arlington Heights into a new Auto Body repair facility. The existing 1.34-acre site is located west of Arlington Heights Road on the south side of E. College Avenue.

Part II. Summary Statement

Briefly summarizing, we believe that the adjacent roadway system can easily accommodate the additional traffic generated by CDE Collision Center without any additional improvements or modifications. Key reasons include:

- E. College Drive Avenue functions as a collector in the vicinity and already serves surrounding uses with more intense traffic demands than the proposed Auto Body Repair facility.
- Traffic estimates were based on a maximum number of employees on the site.
- The proposed parking supply will provide sufficient parking for the typical daily operations of the facility.

Part III. Background Conditions

Site Context and Photo Inventory

Exhibits 1 and 2 respectively provide a location map/aerial photograph and a street-level photo inventory of the site vicinity. Key conditions in the area are as follows:

- E. College Drive extends west from Arlington Heights Road then turns north to intersect E. University Drive. Adjacent to the subject site, E. College Drive provides a single travel lane in each direction. Parking is

permitted on the south side of E College along the subject site frontage but prohibited on the north side. No speed limit is posted on E. College Drive.

- E. College Drive intersects both E. University Drive and Arlington Heights Road at "T" intersections under Stop sign control. No separate turn lanes are provided on E. College Drive at either intersection. No turn lanes are provided on E. University Drive at E. College Drive. At Arlington Heights Road, northbound traffic can stage in the short portion of painted median before completing their left turn onto E. College Drive.
- The subject site has two driveways that are connected via a circulation aisle that encircles the existing building. The main entrance and apparent customer parking area is located along the western side of the site.

Existing Traffic Counts

Peak period traffic turning movement counts were conducted by GHA on Tuesday May 5, 2015 from 6:00–9:00 AM and 3:00–6:00 PM at the intersection of E College Drive and Arlington Heights Road. The observed Peak Hours occurred from 7:00-8:00 AM and 5:00-6:00 PM.

No unusual activities (e.g. roadway construction, or inclement weather) were observed during our counts that would be expected to impact traffic volumes or travel patterns in the vicinity.

Summaries of the existing traffic count can be found in *Appendix A*.

Part IV. Proposed Development

Site Plan

Attached as Exhibit 4 is the proposed Site Plan for CDE Collision Center dated July 29, 2015 and prepared by Interwork Architects. As can be seen, the existing building will be maintained. The existing driveway operations are also expected to be maintained, with the western drive functioning as a two-way drive and the eastern drive will function as a northbound, exit only drive. The site plan includes 56 parking spaces for employee and customer use.

Project Traffic Characteristics

Exhibit 5 – Part A tabulates the traffic generation calculations for the proposed Auto Body repair facility. Traffic generations for various uses are typically calculated by referencing trip generation rates published by the Institute of Transportation Engineers (ITE) in the 9th Edition of the Manual *Trip Generation*. However, there is limited data for Auto Body repair shops in the published data. To help ensure the maximum traffic impacts were tested we estimated traffic generations based on two separate criteria: A) Employees and B) Service bays or work stations. CDE has indicated that there will be 8 bays or work stations within the proposed building and a maximum of 25 employees on site. As can be seen, peak hour volumes (arriving + departing) are expected to range between 12-25 trips during the Morning and Evening Peak Hours. To help ensure the maximum impacts were tested, GHA will utilize the higher volumes associated with the maximum number (25) of employees expected at the site. Daily volumes for the proposed use are expected to range from 80-125 total depending upon the number of vehicle and parts deliveries as well as customer visits. Note – the majority of customer visits are by appointment.

Exhibit 5 – Part B provides the anticipated trip distribution for site traffic. This was estimated primarily on existing travel patterns and the May 2015 traffic counts and observations. Ultimately, travel volumes and patterns will be a function of where employees and customers live and work and their travel habits on the way to picking up or dropping off their vehicles.

Part V. Traffic Evaluation

Traffic Assignments

Exhibit 6 illustrates the site traffic assignment, which is based on the traffic characteristics summarized in Exhibit 5 (i.e. traffic generation and trip distribution) and assigned to the site access and area roadway network.

Site traffic was then combined with the Existing volumes in Exhibit 3 to produce the Total Traffic, which is illustrated in Exhibit 7.

Capacity Analysis

The analysis parameters are listed in Exhibit 8 Part A, as published in the Transportation research Board's (TRB) 2010 Highway Capacity Manual (HCM). At signalized intersections, Level of Service (LOS) "reports" traffic operations using the letter designations "A" (best) through "F" (worst) and measures the "control delay" per vehicle in seconds. LOS C is often referred to as intersection "design" guideline and LOS D is usually considered as providing the lower threshold of "acceptable" operations. LOS E and F are usually considered "unacceptable".

At unsignalized intersections, the HCM methodology reports the results differently for Two-Way Stop Controlled (TWSC) or All-Way Stop Controlled (AWSC) intersections. For TWSC intersections, LOS is reported for conflicting movements on the major street (i.e. left turns onto the minor approach) and for each movement on the stopped approach. Approach "control delay" is also reported in seconds per vehicle. Results of AWSC analyses are slightly different. LOS is reported for each stopped approach as well as an average overall intersection "control delay" in seconds per vehicle. LOS C and D continue to be considered "design" and "acceptable" operations respectively.

Exhibit 8 Part B summarizes the intersection capacity analysis results for the weekday Morning and Evening peak hours. As can be seen, all movements at the key Arlington Heights Road intersection with E. College Drive will continue to operate at or better than the "design" LOS C. In fact, all operations are expected to remain at LOS B, even after the introduction of additional traffic generated by CDE Collision Center.

The Highway Capacity Software (HCS) summary printouts are provided as *Appendix B* for reference.

Parking Discussion

The proposed site plan (refer to Exhibit 4) identifies 56 parking spaces. While the Village of Arlington Heights has no specific published parking standard for an Auto Body repair use, in the April 8, 2015 Staff report (accessed via the Village website and attached as *Appendix C*) parking for the subject site was calculated in accordance with the combined requirements of the Office – Professional and Automobile Service Station requirements. When combined this results in a requirement of 18 spaces for the office and 46 spaces for the Service Station component totaling 64 spaces, and resulting in Code shortage of 21 spaces from the original concept plan and a shortage of 8 on the current plan.

We feel that the calculations are too conservative and not truly in accordance with the Village's code based on the following:

The Village Code defines Automobile Service Station as follows:

3.2-18 Automobile Service Station. Any building or premises used for dispensing, sale or offering for sale at retail to the public, gasoline stored only in underground tanks, kerosene, lubricating oil or grease for the operation of automobiles and including the sale and installation of tires, batteries and other minor accessories and service for automobiles, but not including major automobile repairs; and including washing of automobiles where no production line methods are employed.

And also defines Major Automobile repair as follows:

3.2-149 Motor Vehicle Repair, Major. "Major motor vehicle repair" includes: engine rebuilding or major reconditioning of worn or damaged motor vehicles or trailers; collision service, including body, frame or fender straightening or repair; and overall painting of vehicles. 3.2-150 Motor Vehicle Repair, Minor. "Minor motor vehicle repair" includes: incidental repairs, replacement of parts, and motor service to motor vehicles, but does not include any operation specified under "Major Motor Vehicle Repairs."

It is our opinion that the proposed Auto Body Repair shop is, by definition, *not* an Automobile Service Station as defined by the code, and parking should not be calculated for the proposed site in that manner. As the Village has no published standard for Auto Body Repair shops or Major Vehicle Repair, we believe that the 56 spaces are appropriate as they provide parking in excess of the following ratios:

1 space for each 300 sf of office space (meets Village Standard)	18 spaces
1 space per each employee 25 spaces	<u>25</u> spaces
	43 spaces

It is important to recall that the proposed use:

- Expects a maximum number of 25 employees and will likely have closer to 18 at opening
- Does not have a significant customer parking demand as most customers arrive for scheduled appointments and estimates
- Generally does not store vehicles being repaired outside for periods beyond 48 hours.

Part VI. Conclusions and Recommendations

Our analyses conclude that the additional traffic generated by the proposed CDE Collision Center, represents a negligible impact on the adjacent roadway system. Furthermore, the proposed 56 parking spaces should be sufficient for the anticipated operations of the site. The existing access system for the site should be more than sufficient for the anticipated activity and operations of the Auto Body Repair facility and as such, no additional roadway improvements are required to help offset the impacts of the site.

Part VII. Technical Addendum

The following Exhibits and Appendices were previously referenced. They provide technical support for our observations, findings, and recommendations discussed in the text.

Exhibits

1. Site Context
2. Photographic Inventory
3. Existing Traffic
4. Site Plan
5. Project Traffic Characteristics
6. Site Traffic
7. Total Traffic
8. Intersection Capacity Analyses

Appendices

- A. *Traffic Count Summaries*
- B. *Capacity Analysis Worksheets*
- C. *Staff Development Committee Report*

TECHNICAL ADDENDUM



Proposed CDE Collision Center- 9 College Drive – Arlington Heights, IL



Looking east along College Drive from Subject Site approaching Arlington Heights Road



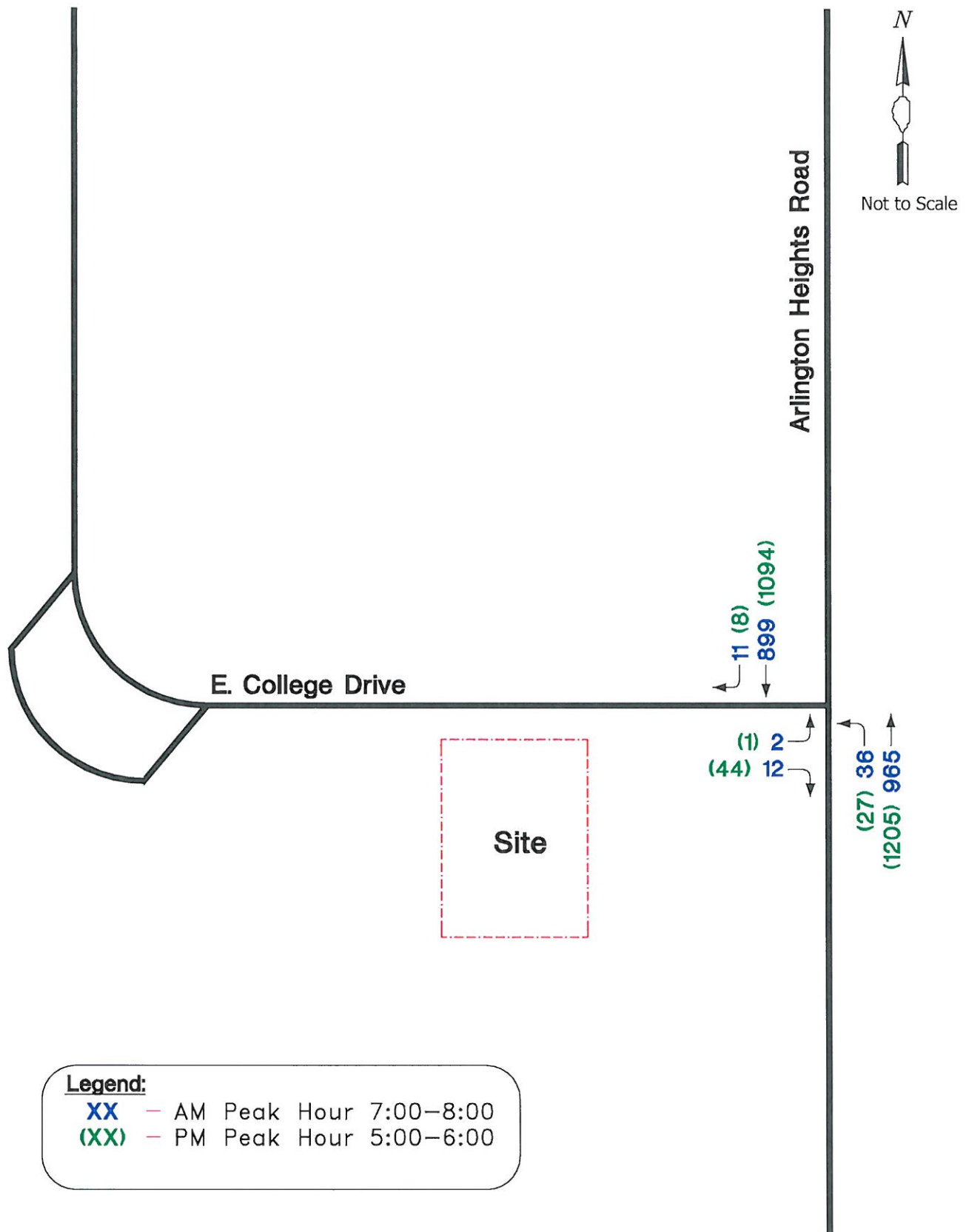
Looking west along College Drive approaching Subject Site from Arlington Heights Road



Looking south entering Subject Site from west access drive



Looking south entering Subject Site from east access drive



CDE COLLISION DAMAGE EXPERTS

9 E. COLLEGE DRIVE
ARLINGTON HEIGHTS, ILLINOIS 60004

Exhibit 4-Site Plan

REVISIONS		
No.	Description	Date
1	1525.000.000	

1525.000.000

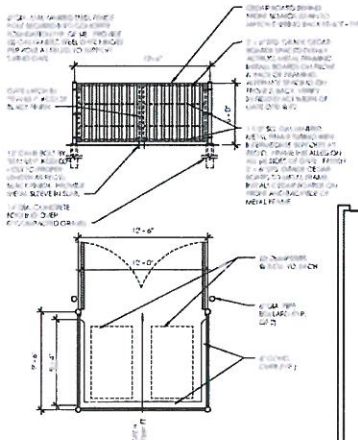
Drawn By:

PROPERTY MAP, SITE PLAN
AND CONSTRUCTION PLAN

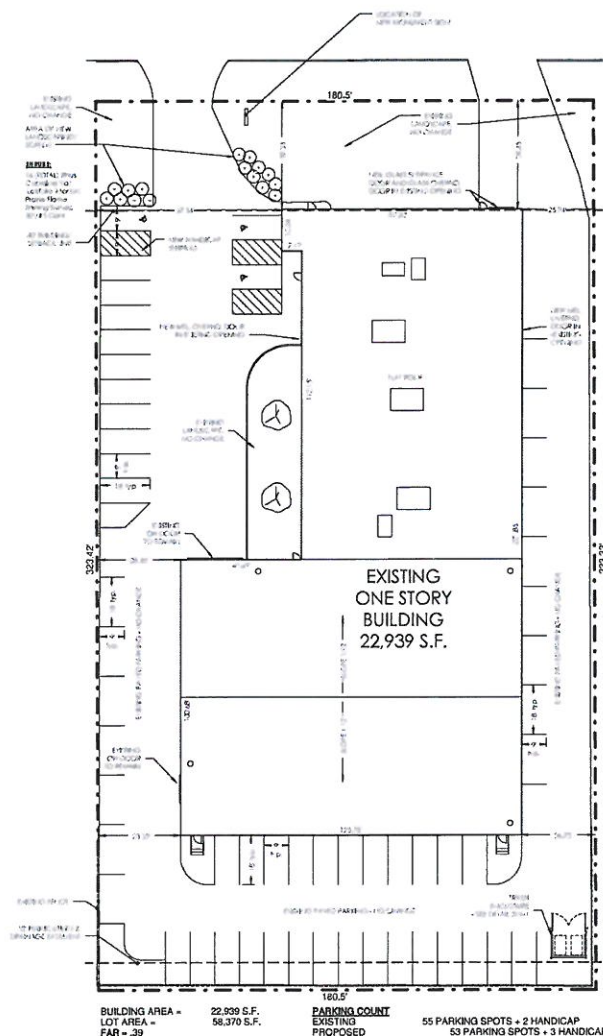
A-1



9 E. COLLEGE DRIVE
ARLINGTON HEIGHTS, IL 60004
PROJECT LOCATION



3 TRASH ENCLOSURE
3/16" = 1'-0"



1 SITE PLAN
1" = 20'-0"

2 CONSTRUCTION PLAN
3/32" = 1'-0"

Exhibit 5
Project Traffic Characteristics
Proposed CDE Collision Center - 9 E. Colleg Drive Arlington Heights, Illinois

Part A. Traffic Generation Calculations

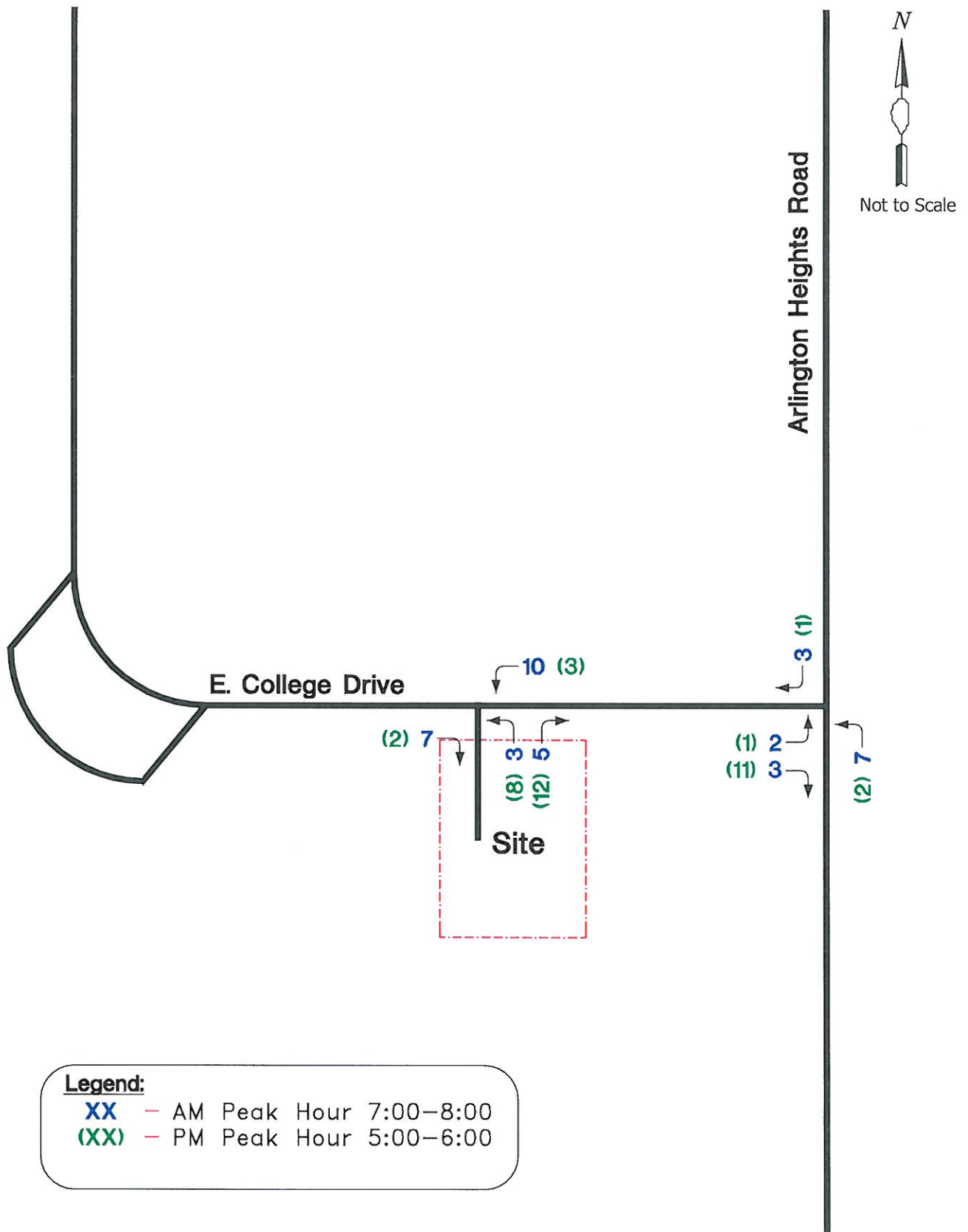
	ITE Code	Morning Peak Hour			Evening Peak Hour			Daily Sum
		In	Out	Sum	In	Out	Sum	
CDE Collision Center								
A. 25 employees (max)	942	17	8	25	5	20	25	125
B. 8 Service Bays	942	8	4	12	11	7	18	80

To be conservative use higher employee based calculations

Estimated Peak Hour Trips = **17 8 25 5 20 25 125**

Part B. Trip Distribution

Route & Direction	Percent Use By Route	
	Arriving	Departing
College Drive		
- North of Site	40%	50%
Arlington Heights Road		
- North of College Drive	20%	10%
- South of College Drive	40%	40%
Totals =	<u>100%</u>	<u>100%</u>



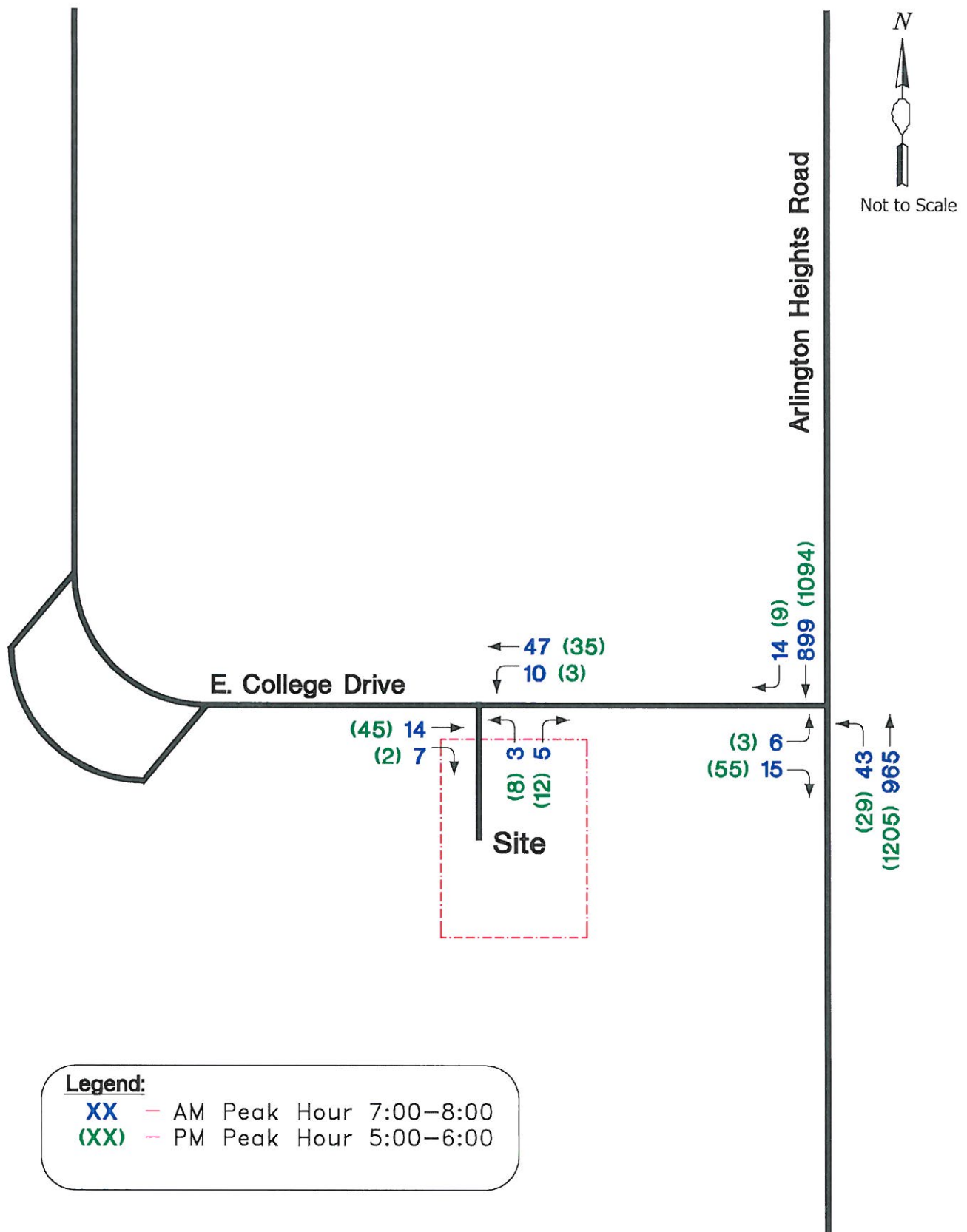


Exhibit 7
Total Traffic

Exhibit 8 Intersection Capacity Analyses

Proposed CDE Collision Center - 9 E. College Drive; Arlington Heights, Illinois

Part A. Parameters - Type of Traffic Control (Source: 2010 Highway Capacity Manual)

I. Traffic Signals

LOS	Delay (sec / veh)	Description
A	≤ 10	All signal phases clear waiting vehicles without delay
B	>10 and ≤ 20	Minimal delay experienced on select signal phases
C	>20 and ≤ 35	Some delay experienced on several phases; often used as design criteria
D	>35 and ≤ 55	Usually considered as the acceptable delay standard
E	>55 and ≤ 80	Very long delays experienced during the peak hours
F	>80	Unacceptable delays experienced throughout the peak hours

II. Stop Sign

LOS	Delay (sec / veh)
A	≤ 10
B	>10 and ≤ 15
C	>15 and ≤ 25
D	>25 and ≤ 35
E	>35 and ≤ 50
F	>50

Part B. Results

Part B. Results	Roadway Conditions	LOS Per Movement By Approach												Intersection / Approach	
		> = Shared Lane Critical or not Allowed Movement TRT - Shared Through/Right lane (with an additional Through lane) - = Non													
		Eastbound			Westbound			Northbound			Southbound			Delay	
		LT	TH	R	LT	TH	RT	LT	TH	TTR	LT	TH	TTR	(sec / veh)	LOS
Arlington Heights Road at E. College Drive	TWSC Eastbound Stops												Southbound Approach Delay		
A. Weekday Morning Peak Hour															
Existing Traffic (See Exhibit 3)	• Current	>	B	<	-	-	-	B	-	-	-	-	-	12.8	B
Total Traffic (See Exhibit 7)	• Current	>	B	<	-	-	-	B	-	-	-	-	-	14.6	B
B. Weekday Evening Peak Hour															
Existing Traffic (See Exhibit 3)	• Current	>	B	<	-	-	-	B	-	-	-	-	-	13.1	B
Total Traffic (See Exhibit 7)	• Current	>	B	<	-	-	-	B	-	-	-	-	-	13.9	B

APPENDICES

- A. *Traffic Count Summaries*
- B. *Capacity Analysis Worksheets*
- C. *Staff Development Committee Report*

4996.900 CDE Collision
Arl Hts Rd @ College Drive
6-9 & 4-7
GHA MIO

Gewalt Hamilton Associates Inc.
625 Forest Edge Drive
Vernon Hills, Illinois, United States 60061
(847) 478-9700 dbrinkman@gha-engineers.com

Count Name: Arlington Hieghts and College Dr.
Site Code:
Start Date: 05/05/2015
Page No: 1

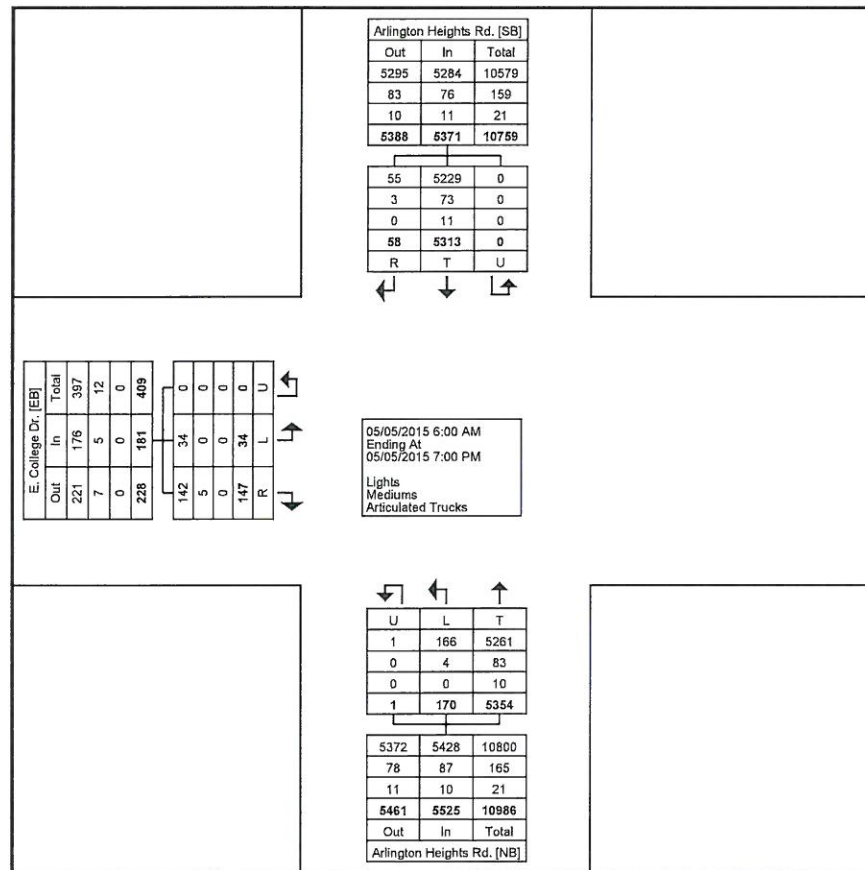
Turning Movement Data

Start Time	Arlington Heights Rd. Southbound				Arlington Heights Rd. Northbound				E. College Dr. Eastbound				Int. Total
	U-Turn	Thru	Right	App. Total	U-Turn	Left	Thru	App. Total	U-Turn	Left	Right	App. Total	
6:00 AM	0	82	2	84	0	1	91	92	0	1	1	2	178
6:15 AM	0	114	2	116	0	3	103	106	0	0	1	1	223
6:30 AM	0	141	3	144	0	5	126	131	0	2	5	7	282
6:45 AM	0	195	2	197	0	8	194	202	0	0	4	4	403
Hourly Total	0	532	9	541	0	17	514	531	0	3	11	14	1086
7:00 AM	0	172	2	174	0	7	284	291	0	0	2	2	467
7:15 AM	0	234	2	236	0	6	245	251	0	0	1	1	488
7:30 AM	0	265	5	270	0	7	181	188	0	1	4	5	463
7:45 AM	0	228	2	230	0	16	255	271	0	1	5	6	507
Hourly Total	0	899	11	910	0	36	965	1001	0	2	12	14	1925
8:00 AM	0	196	3	199	0	8	186	194	0	0	2	2	395
8:15 AM	0	194	1	195	0	12	219	231	0	1	3	4	430
8:30 AM	0	221	5	226	0	7	178	185	0	5	1	6	417
8:45 AM	0	215	5	220	0	15	206	221	0	2	2	4	445
Hourly Total	0	826	14	840	0	42	789	831	0	8	8	16	1687
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	253	0	253	0	3	219	222	0	2	5	7	482
4:15 PM	0	224	2	226	0	8	229	237	0	0	4	4	467
4:30 PM	0	288	5	293	1	7	250	258	0	1	13	14	565
4:45 PM	0	257	3	260	0	8	229	237	0	4	11	15	512
Hourly Total	0	1022	10	1032	1	26	927	954	0	7	33	40	2026
5:00 PM	0	296	2	298	0	7	293	300	0	1	17	18	616
5:15 PM	0	266	0	266	0	5	321	326	0	0	10	10	602
5:30 PM	0	300	1	301	0	4	261	265	0	0	9	9	575
5:45 PM	0	232	5	237	0	11	330	341	0	0	8	8	586
Hourly Total	0	1094	8	1102	0	27	1205	1232	0	1	44	45	2379
6:00 PM	0	307	2	309	0	5	255	260	0	5	18	23	592
6:15 PM	0	242	2	244	0	5	247	252	0	4	4	8	504
6:30 PM	0	195	1	196	0	4	231	235	0	2	8	10	441
6:45 PM	0	196	1	197	0	8	221	229	0	2	9	11	437
Hourly Total	0	940	6	946	0	22	954	976	0	13	39	52	1974
Grand Total	0	5313	58	5371	1	170	5354	5525	0	34	147	181	11077
Approach %	0.0	98.9	1.1	-	0.0	3.1	96.9	-	0.0	18.8	81.2	-	-
Total %	0.0	48.0	0.5	48.5	0.0	1.5	48.3	49.9	0.0	0.3	1.3	1.6	-
Lights	0	5229	55	5284	1	166	5261	5428	0	34	142	176	10888
% Lights	-	98.4	94.8	98.4	100.0	97.6	98.3	98.2	-	100.0	96.6	97.2	98.3
Mediums	0	73	3	76	0	4	83	87	0	0	5	5	168
% Mediums	-	1.4	5.2	1.4	0.0	2.4	1.6	1.6	-	0.0	3.4	2.8	1.5
Articulated Trucks	0	11	0	11	0	0	10	10	0	0	0	0	21
% Articulated Trucks	-	0.2	0.0	0.2	0.0	0.0	0.2	0.2	-	0.0	0.0	0.0	0.2

4996.900 CDE Collision
Arl Hts Rd @ College Drive
6-9 & 4-7
GHA MIO

Gewalt Hamilton Associates Inc.
625 Forest Edge Drive
Vernon Hills, Illinois, United States 60061
(847) 478-9700 dbrinkman@gha-engineers.com

Count Name: Arlington Heights and College Dr.
Site Code:
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Turning Movement Data Plot

4996.900 CDE Collision
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Site Code:
Start Date: 05/05/2015
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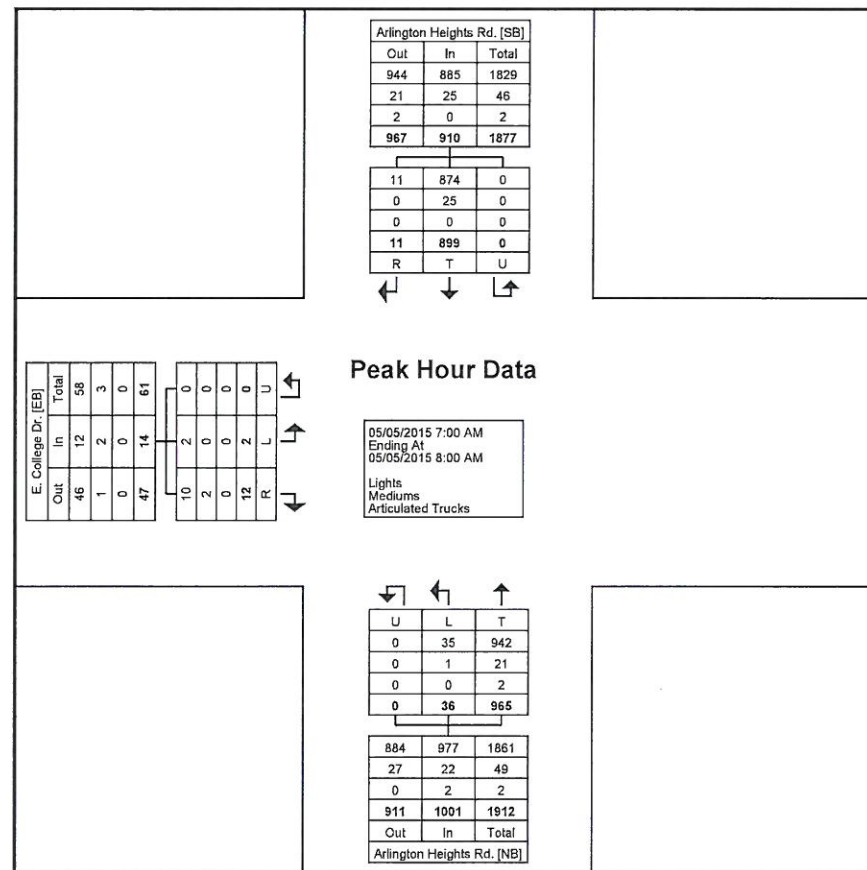
Turning Movement Peak Hour Data (7:00 AM)

Start Time	Arlington Heights Rd. Southbound				Arlington Heights Rd. Northbound				E. College Dr. Eastbound				Int. Total
	U-Turn	Thru	Right	App. Total	U-Turn	Left	Thru	App. Total	U-Turn	Left	Right	App. Total	
7:00 AM	0	172	2	174	0	7	284	291	0	0	2	2	467
7:15 AM	0	234	2	236	0	6	245	251	0	0	1	1	488
7:30 AM	0	265	5	270	0	7	181	188	0	1	4	5	463
7:45 AM	0	228	2	230	0	16	255	271	0	1	5	6	507
Total	0	899	11	910	0	36	965	1001	0	2	12	14	1925
Approach %	0.0	98.8	1.2	-	0.0	3.6	96.4	-	0.0	14.3	85.7	-	-
Total %	0.0	46.7	0.6	47.3	0.0	1.9	50.1	52.0	0.0	0.1	0.6	0.7	-
PHF	0.000	0.848	0.550	0.843	0.000	0.563	0.849	0.860	0.000	0.500	0.600	0.583	0.949
Lights	0	874	11	885	0	35	942	977	0	2	10	12	1874
% Lights	-	97.2	100.0	97.3	-	97.2	97.6	97.6	-	100.0	83.3	85.7	97.4
Mediums	0	25	0	25	0	1	21	22	0	0	2	2	49
% Mediums	-	2.8	0.0	2.7	-	2.8	2.2	2.2	-	0.0	16.7	14.3	2.5
Articulated Trucks	0	0	0	0	0	0	2	2	0	0	0	0	2
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	0.2	0.2	-	0.0	0.0	0.0	0.1

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Turning Movement Peak Hour Data Plot (7:00 AM)

4996.900 CDE Collision
Arl Hts Rd @ College Drive
6-9 & 4-7
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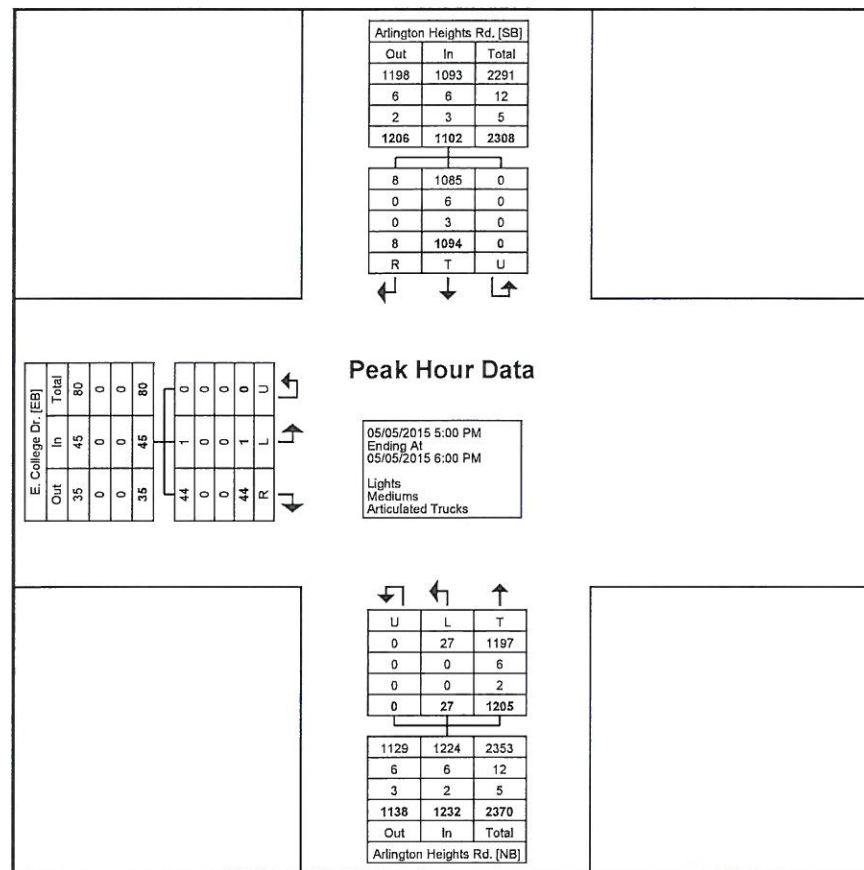
Turning Movement Peak Hour Data (5:00 PM)

Start Time	Arlington Heights Rd. Southbound				Arlington Heights Rd. Northbound				E. College Dr. Eastbound				Int. Total
	U-Turn	Thru	Right	App. Total	U-Turn	Left	Thru	App. Total	U-Turn	Left	Right	App. Total	
5:00 PM	0	296	2	298	0	7	283	300	0	1	17	18	616
5:15 PM	0	266	0	266	0	5	321	326	0	0	10	10	602
5:30 PM	0	300	1	301	0	4	261	265	0	0	9	9	575
5:45 PM	0	232	5	237	0	11	330	341	0	0	8	8	586
Total	0	1094	8	1102	0	27	1205	1232	0	1	44	45	2379
Approach %	0.0	99.3	0.7	-	0.0	2.2	97.8	-	0.0	2.2	97.8	-	-
Total %	0.0	46.0	0.3	46.3	0.0	1.1	50.7	51.8	0.0	0.0	1.8	1.9	-
PHF	0.000	0.912	0.400	0.915	0.000	0.614	0.913	0.903	0.000	0.250	0.647	0.625	0.966
Lights	0	1085	8	1093	0	27	1197	1224	0	1	44	45	2362
% Lights	-	99.2	100.0	99.2	-	100.0	99.3	99.4	-	100.0	100.0	100.0	99.3
Mediums	0	6	0	6	0	0	6	6	0	0	0	0	12
% Mediums	-	0.5	0.0	0.5	-	0.0	0.5	0.5	-	0.0	0.0	0.0	0.5
Articulated Trucks	0	3	0	3	0	0	2	2	0	0	0	0	5
% Articulated Trucks	-	0.3	0.0	0.3	-	0.0	0.2	0.2	-	0.0	0.0	0.0	0.2

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Turning Movement Peak Hour Data Plot (5:00 PM)

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Count Name: Arlington Hieghts and College Dr.
Site Code:
Start Date: 05/05/2015
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TWO-WAY STOP CONTROL SUMMARY

General Information			Site Information	
Analyst	DPB		Intersection	ARL HTS RD @ E COLLEGE
Agency/Co.	GHA		Jurisdiction	CCDOH
Date Performed	5/15/2015		Analysis Year	EXISTING
Analysis Time Period	AM PEAK			

Project Description CDE COLLISION - 9 E COLLEGE

East/West Street: E COLLEGE DRIVE

Intersection Orientation: North-South

North/South Street: ARLINGTON HTS ROAD

Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	36	965			899	11
Peak-Hour Factor, PHF	0.95	0.95	1.00	1.00	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	37	1015	0	0	946	11
Percent Heavy Vehicles	3	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	1	2	0	0	2	0
Configuration	L	T			T	TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	2		12			
Peak-Hour Factor, PHF	0.95	1.00	0.95	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	2	0	12	0	0	0
Percent Heavy Vehicles	3	0	3	0	0	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L						LR	
v (veh/h)	37						14	
C (m) (veh/h)	708						475	
v/c	0.05						0.03	
95% queue length	0.17						0.09	
Control Delay (s/veh)	10.4						12.8	
LOS	B						B	
Approach Delay (s/veh)	--	--				12.8		
Approach LOS	--	--				B		

TWO-WAY STOP CONTROL SUMMARY

General Information			Site Information	
Analyst	DPB		Intersection	ARL HTS RD @ E COLLEGE
Agency/Co.	GHA		Jurisdiction	CCDOH
Date Performed	5/15/2015		Analysis Year	TOTAL
Analysis Time Period	AM PEAK			

Project Description CDE COLLISION - 9 E COLLEGE

East/West Street: E COLLEGE DRIVE

North/South Street: ARLINGTON HTS ROAD

Intersection Orientation: North-South

Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	43	965			899	14
Peak-Hour Factor, PHF	0.95	0.95	1.00	1.00	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	45	1015	0	0	946	14
Percent Heavy Vehicles	3	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	1	2	0	0	2	0
Configuration	L	T			T	TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	6		15			
Peak-Hour Factor, PHF	0.95	1.00	0.95	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	6	0	15	0	0	0
Percent Heavy Vehicles	3	0	3	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L						LR	
v (veh/h)	45						21	
C (m) (veh/h)	706						396	
v/c	0.06						0.05	
95% queue length	0.20						0.17	
Control Delay (s/veh)	10.4						14.6	
LOS	B						B	
Approach Delay (s/veh)	--	--				14.6		
Approach LOS	--	--				B		

TWO-WAY STOP CONTROL SUMMARY

General Information			Site Information	
Analyst	DPB		Intersection	ARL HTS RD @ E COLLEGE
Agency/Co.	GHA		Jurisdiction	CCDOH
Date Performed	5/15/2015		Analysis Year	EXISTING
Analysis Time Period	PM PEAK			

Project Description CDE COLLISION - 9 E COLLEGE

East/West Street: E COLLEGE DRIVE

North/South Street: ARLINGTON HTS ROAD

Intersection Orientation: North-South

Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	27	1205			1094	8
Peak-Hour Factor, PHF	0.95	0.95	1.00	1.00	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	28	1268	0	0	1151	8
Percent Heavy Vehicles	3	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	1	2	0	0	2	0
Configuration	L	T			T	TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	1		44			
Peak-Hour Factor, PHF	0.95	1.00	0.95	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	1	0	46	0	0	0
Percent Heavy Vehicles	3	0	3	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L						LR	
v (veh/h)	28						47	
C (m) (veh/h)	593						490	
v/c	0.05						0.10	
95% queue length	0.15						0.32	
Control Delay (s/veh)	11.4						13.1	
LOS	B						B	
Approach Delay (s/veh)	--	--					13.1	
Approach LOS	--	--					B	

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	DPB
Agency/Co.	GHA
Date Performed	5/15/2015
Analysis Time Period	PM PEAK

Site Information

Intersection	ARL HTS RD @ E COLLEGE
Jurisdiction	CCDOH
Analysis Year	TOTAL

Project Description CDE COLLISION - 9 E COLLEGE

East/West Street: E COLLEGE DRIVE

North/South Street: ARLINGTON HTS ROAD

Intersection Orientation: North-South

Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	29	1205			1094	9
Peak-Hour Factor, PHF	0.95	0.95	1.00	1.00	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	30	1268	0	0	1151	9
Percent Heavy Vehicles	3	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	1	2	0	0	2	0
Configuration	L	T			T	TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	3		55			
Peak-Hour Factor, PHF	0.95	1.00	0.95	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	3	0	57	0	0	0
Percent Heavy Vehicles	3	0	3	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L						LR	
v (veh/h)	30						60	
C (m) (veh/h)	592						465	
v/c	0.05						0.13	
95% queue length	0.16						0.44	
Control Delay (s/veh)	11.4						13.9	
LOS	B						B	
Approach Delay (s/veh)	--	--					13.9	
Approach LOS	--	--					B	

Village of Arlington Heights Land Use Variation Questions Regarding “Major Motor Vehicle Repair”

9 East College Drive, Arlington Heights, Illinois

CDE Collision Damage Experts is seeking a land use variation for the subject property in order to operate a “Major Motor Vehicle Repair” facility at the site. Below are CDE Collision Damage Experts answers to the Village of Arlington Heights’ Land Use Variation Criteria.

LAND USE VARIATION CRITERIA QUESTION 1:

The property in question cannot yield a reasonable return if permitted to be used only under conditions allowed by the regulations in the zone.

CDE Collision Damage Experts is excited about purchasing the subject property. This purchase will be through a related entity, Lake Kagon, LLC, with Lake Kagon, LLC taking title to the subject property after the purchase is complete.

CDE Collision Damage Experts is an automobile remanufacturing and painting provider. It prides itself on running clean, innocuous and quiet facilities. CDE Collision Damage Experts remanufacturers and paints its automobiles within its facilities’ walls, ensuring that it does not disturb the neighboring properties. For instance, of its 10 current facilities, 5 of the facilities are located adjacent to residential properties. CDE Collision Damage Experts has never received a complaint from these neighboring homes.

Unfortunately, if the zoning regulations for the subject property are not revised, CDE Collision Damage Experts cannot purchase and expand to the site. After reviewing the Village of Arlington Heights Zoning Ordinance, the Village and CDE Collision Damage Experts have come to the conclusion that the best label for CDE Collision Damage Experts’ proposed use of the subject property would be “Major motor vehicle repair”. As the property is zoned as M-1 by the Village of Arlington Heights, the CDE Collision Damage Experts’ proposed use of the subject property would not be permitted at the site without a variance by the Village.

LAND USE VARIATION CRITERIA QUESTION 2:

The plight of the owner is due to unique circumstances.

The subject property consists of an approximately 24,700 square foot building on an approximately 58,370 square foot site. Due to the unique nature of the subject property, it has remained vacant and on the market for approximately two years. The property has many unique challenges for potential users, including but not limited to the following:

- In the current market, industrial users desire a ceiling clearance of at least 30 feet. The subject property’s ceiling clearance is between 15 feet and 20 feet. Such a low ceiling height impinges on an industrial user’s ability to install sufficient vertical stacking.
- Loading docks are a very important element of an industrial facility. The subject property has only two loading docks at the subject property. These loading docks are small, with inadequate room for workers to maneuver around trucks parked in the loading dock.

Due to vacancy of the subject property, the site and the building contained thereon has fallen into disrepair. CDE Collision Damage Experts has estimated that after it purchases the subject property, it will be forced to spend approximately \$610,000 to make the necessary improvements into the property. These improvements will consists of the following:

- Replace parking lot: Approximately \$100,000.
- Replace exterior of building: Approximately \$200,000
- Install new paint booth and equipment: Approximately \$280,000.
- Replace landscaping: Approximately \$30,000.

As shown above, Westway, Inc., the current owner of the subject property, has had great difficulty finding a buyer for the site. Besides CDE Collision Damage Experts, there are currently no other potential purchasers of the property. CDE Collision Damage Experts believes that if it is not able to purchase the subject property, the site will remain vacant for the foresee future.

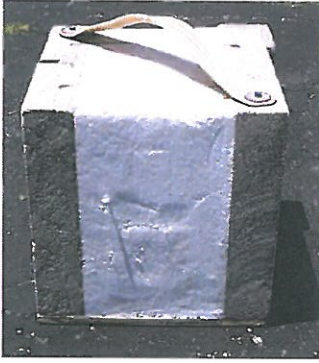
CDE Collision Damage Experts believes its request is unique in that its proposed use of the subject property does not meet the traditional image of a “Major motor vehicle repair” facility. As stated above, CDE Collision Damage Experts’ facilities are clean, innocuous and quiet. CDE Collision Damage Experts believes that its use of the subject property would not affect the neighboring properties. CDE Collision Damage Experts believes its use of the subject property will affect the neighboring properties similar to many of the permitted industrial uses of the M-1 district, such as “Tool & Die Shops”, “Beverage Bottling and Distributing” and “Wholesale, and Warehouse Facility”.

LAND USE VARIATOIN CRITERIA QUESTION 3:

The variation, if granted, will not alter the essential character of the locality.

Based on the structure of the building on the subject property and CDE Collision Damage Experts’ proposed use of the site, the Applicant believes there is little to no chance that the neighboring properties’ quality of life will be affected by the CDE Collision Damage Experts’ proposed use of the site.

The subject property was designed by the previous owner of the site to be extremely soundproof. The floors in the property’s production areas and warehouse areas are approximately 6 inch thick cement cealed. The building is insulated with both brick and Solarcrete. Pursuant to the Solarcrete website (www.solarcrete.com), Solarcrete is the following:



This insulated concrete wall system incorporates expanding polystyrene (EPS) foam board insulation for thermal energy efficiency, reinforcing steel for strength, new patent pending wall ties and high strength shotcrete to provide strength, safety and durability. The above photo is a sample that shows the cross section of what an actual finished wall would look like.

This design of the building at the subject property makes it extremely soundproof.

As stated in a previous question, the CDE Collision Damage Experts runs a very clean, quiet and innocuous operations. For instance, of its 10 current facilities, 5 of the facilities are located adjacent to residential properties. None of these residential properties have made a complaint regarding CDE Collision Damage Experts' operations. CDE Collision Damage Experts performs all of its vehicle maintenance and remanufacturing within its facilities' walls, not outside its facilities. Its paint booths are triple filtered and almost all of its paint products are water solvent. CDE Collision Damage Experts keeps its exterior operations in a clean and orderly fashion.

In order to fully address each concern, please find the following:

Odor and Toxic Fumes:

The Village of Arlington Heights has expressed some concerns that CDE Collision Damage Experts' use of the subject property will increase odor and toxic fumes at the neighboring properties. Though the Applicant understands these concern, these concerns are unwarranted.

These concerns stem mostly with CDE Collision Damage Experts proposed painting operations at the site. As part of its automotive remanufacturing operations, CDE Collision Damage Experts has vehicle painting operations at its facilities. The proposed painting operations at the subject property will not affect the surrounding properties for the following reasons:

- **Filtration System:** CDE Collision Damage Experts uses a professional triple filtration system in its paint booths. This filtration system ensures that no odors, fumes or dust will discharge from the facility at the subject property.

- Building Insulation: CDE Collision Damage Experts will be painting its vehicles within paint booths housed solely within the facility's walls. As stated above, the facility on the subject property is extremely insulated. If any paint fumes or odors were to escape the triple filtration system, these odors or fumes would not be able to leave the insulated walls of the facility.
- Paint Supply: CDE Collision Damage Experts' paint supply is almost completely water solvent. This water solvent paint is almost odorless. If for water reason the paint fumes from the paint booths made it past the property's triple filtration system and insulated walls, these fumes would not be toxic or noticeable to the neighboring property owners.

Noise:

The Village of Arlington Heights has expressed some concerns that CDE Collision Damage Experts' use of the subject property will create a nuisance of noise to the neighboring properties. Though the Applicant understands these concern, these concerns are unwarranted based on the following reasons:

- Hours of Operations: CDE Collision Damage Experts expects the hours of operations at the subject property to be typically 7:00 am to 6:00 pm on Monday through Friday and typically 8:00 am to 2:00 pm on Saturday. There are independent tow companies that bring vehicles to the property; however, these tow companies are directed by CDE Collision Damage Experts. CDE Collision Damage Experts will direct the tow companies to drop the vehicles off at the side or front of the building at the property (so that CDE Collision Damage Experts could then relocate the vehicles inside the facility) and also direct the tow companies to not drop the vehicles off at the property after 6:00 pm.
- Building Insulation: CDE Collision Damage Experts will solely be remanufacturing and painting its vehicles within the facility's walls. As stated above, the facility on the subject property is extremely insulated and soundproofed. The sounds of remanufacturing and the painting will not leave the facility's insulated walls. As the facility will be air conditioned, the facility doors will not be allowed to remain open.

Visual Aesthetic:

The Village of Arlington Heights has expressed some concerns that CDE Collision Damage Experts' use of the subject property will create a visually displeasing aesthetic at the subject property. Though the Applicant understands these concern, these concerns are unwarranted based on the following reasons:

- Screening: CDE Collision Damage Experts plans to have an opaque fence on the southern side of the subject property. This opaque fence will hide CDE Collision Damage Experts' operations to the neighboring residential properties on the south side of the property.
- Storage of Vehicles: CDE Collision Damage Experts does not plan to have the drivable vehicles it is remanufacturing and painting parked on the exterior on the subject property. These vehicles will be quickly brought into the facility at the subject property after being delivered to the site. CDE Collision Damage Experts may have some vehicles waiting for remanufacturing and repainting that have been deemed a "total loss"; however, CDE

Collision Damage Experts will ensure that these vehicles are screened and obscured from the neighboring residential properties on the south side of the property.

- Types of Vehicles: CDE Collision Damage Experts will only be remanufacturing and repainting automobiles (including light trucks) at the subject property. It will not be remanufacturing and repainting tractor trailers or heavy equipment at the site.
- Beautification of the Property: As stated in a previous question, the subject property has been vacant for approximately two years. It has currently fallen into disrepair. If the Applicant is able to purchase the subject property, it plans to beautify the site. For instance, the Applicant plans to do the following exterior improvements to the site:
 - New paving of the parking lot.
 - New landscaping on the north side of the property.
 - New glass entrance door and glass overhead.
 - New metal overhead door.
 - New signage.
 - New painting of exterior.
- Good Neighbors: As previously stated, of CDE Collision Damage Experts' 10 current facilities, 5 of the facilities are located adjacent to residential properties. Not only has CDE Collision Damage Experts not had complaints from these homes, many of these homes have written CDE Collision Damage Experts letters of recommendation. CDE Collision Damage Experts has obtained this reputation by working well with its neighbors. It will continue this tradition if it relocates the subject property.

Traffic:

The Village of Arlington Heights has expressed some concerns that CDE Collision Damage Experts' use of the subject property will increase traffic congestion at the neighboring properties. Though the Applicant understands these concern, these concerns are unwarranted. Gewalt Hamilton Associates, Inc., a traffic engineering firm, provided the enclosed Traffic Impact Study of CDE Collision Damage Experts' proposed used of the subject property. Gewalt Hamilton Associates, Inc. found that the "adjacent roadway system can easily accommodate the additional traffic generated by CDE Collision Center without any additional improvements or modifications." Gewalt Hamilton Associates, Inc.'s key reasons for this finding were the following:

- E. College Drive Avenue functions as a collector in the vicinity and already serves surrounding uses with more intense traffic demands than the proposed Auto Body Repair facility.
- Traffic estimates were based on maximum number of employees at the site.
- The proposed parking supply will provide sufficient parking for the typical daily operations of the facility.

Village of Arlington Heights Land Use Variation Questions Regarding Allowing a Reduction in Parking Required at the Subject Property from 64 Parking Space to 56 Parking Spaces

9 East College Drive, Arlington Heights, Illinois

CDE Collision Damage Experts is seeking a land use variation for the subject property in order to reduce the number of parking spaces required at the subject property from 64 parking space to 56 parking spaces. Below are CDE Collision Damage Experts' answers to the Village of Arlington Heights' Land Use Variation Criteria.

LAND USE VARIATION CRITERIA QUESTION 1:

The property in question cannot yield a reasonable return if permitted to be used only under conditions allowed by the regulations in the zone.

Based on CDE Collision Damage Experts' proposed use, the Village of Arlington Heights requires 64 parking spaces at the subject property. As there are not 64 parking spaces available at the subject property, CDE Collision Damage Experts would be in violation of the Village Zoning Code if it occupied the subject property. If zoning variation is obtained, CDE Collision Damage Experts would abandoned its attempts to purchase the subject property. The subject property would remain 100% vacant and unused as it has been for the last approximately two years.

LAND USE VARIATION CRITERIA QUESTION 2:

The plight of the owner is due to unique circumstances.

As discussed in the attached Traffic Impact Study created by Gewalt Hamilton Associates, Inc., the Village of Arlington Heights mistakenly used the wrong criteria when determining the number of parking spaces needed at the subject property. According to the enclosed, the requirement of 64 parking spaces was obtained by using the following criteria:

18 Parking Spaces – Using the “Office-Professional” parking standards.

46 Parking Spaces – Using the “Automobile Service Station” parking standards.

These two parking standards combined resulted in a total parking standards of 64 parking spaces.

Though CDE Collision Damage Experts agrees with using the standard of 18 parking spaces for an “Office-Professional” use for the property, it does believe an “Automotive Service Station” is the best description for CDE Collision Damage Experts' proposed use of the site. Using the conservatively high estimate of 25 employees at the subject property (the current projected employment at the subject property is being 15 to 22 employees once the site is fully operational), the parking space standard should be the following:

18 Parking Spaces – Using the “Office-Professional” parking standards.

25 Parking Spaces – One parking space for each employee.

43 Parking Spaces

As 56 parking space is in excess of 43 parking spaces, the Applicant believes 56 parking spaces will be adequate for the subject property and the Applicant's proposed use.

LAND USE VARIATION CRITERIA QUESTION 3:

The variation, if granted, will not alter the essential character of the locality.

In light of attached Traffic Impact Study, CDE Collision Damage Experts does not believe it is necessary to have 64 parking spaces at the subject property. Accordingly, since such high number of parking spaces are not needed, CDE Collision Damage Experts does not believe granting the variation would affect the character of the locality.

**Village of Arlington Heights Land Use Variation Questions Regarding Allowing Storage of
'Total Loss' Vehicles on Exterior Area of the Subject Property for a Maximum of 48-
Consecutive Hours**

9 East College Drive, Arlington Heights, Illinois

CDE Collision Damage Experts is seeking a land use variation for the subject property in order to allow 'total loss' vehicles on the exterior of the subject property for a maximum of 48-consecutive hours. Below are CDE Collision Damage Experts' answers to the Village of Arlington Heights' Land Use Variation Criteria.

LAND USE VARIATION CRITERIA QUESTION 1:

The property in question cannot yield a reasonable return if permitted to be used only under conditions allowed by the regulations in the zone.

Pursuant to the Village of Arlington Heights' municipal code, storage of "goods, materials, or personal property" cannot be placed and kept on the subject property for more than 24-consecutive hours. This will conflict with CDE Collision Damage Experts' business plan.

When a customer brings a vehicle to a CDE Collision Damage Experts' facility, a CDE Collision Damage Experts staff member inspects the vehicle for repair. If the staff member deems the vehicle as a 'total loss', the staff member must work with the customer's insurance carrier to certify the vehicle as 'total loss' and properly dispose of the vehicle. It can take 48 consecutive hours to go through the proper paper work, work with the insurance carrier, speak with the client and have a tow truck remove the vehicle from the property.

Though CDE Collision Damage Experts works diligently to process its 'total vehicles', the time to complete the process can take more than 24 consecutive hours. In order to allow for available space at its facilities, CDE Collision Damage Experts parks the 'total loss' vehicles in its parking lots. If CDE Collision Damage Experts cannot park 'total loss' vehicles on the property for 48 consecutive hours, it will not be able to properly handle a property when it is deemed a 'total loss'.

LAND USE VARIATION CRITERIA QUESTION 2:

The plight of the owner is due to unique circumstances.

CDE Collision Damage Experts' circumstances are unique in that CDE Collision Damage Experts will install and maintain ample screening on the southern parking lot. This screening will include an 8 foot opaque fence and shrubbery. The residential properties to the south of the property will not be able to view the 'total loss' vehicles parked in the southern parking lot.

LAND USE VARIATION CRITERIA QUESTION 3:

The variation, if granted, will not alter the essential character of the locality.

The 'total loss' vehicles will be stored in the parking lot on the south side of the property. CDE Collision Damage Experts will install and maintain ample screening on the southern parking lot. This screening will include an 8 foot opaque fence and shrubbery. The residential properties to the south of the property will not be able to view the 'total loss' vehicles parked in the southern parking lot.

Decibel Readings:

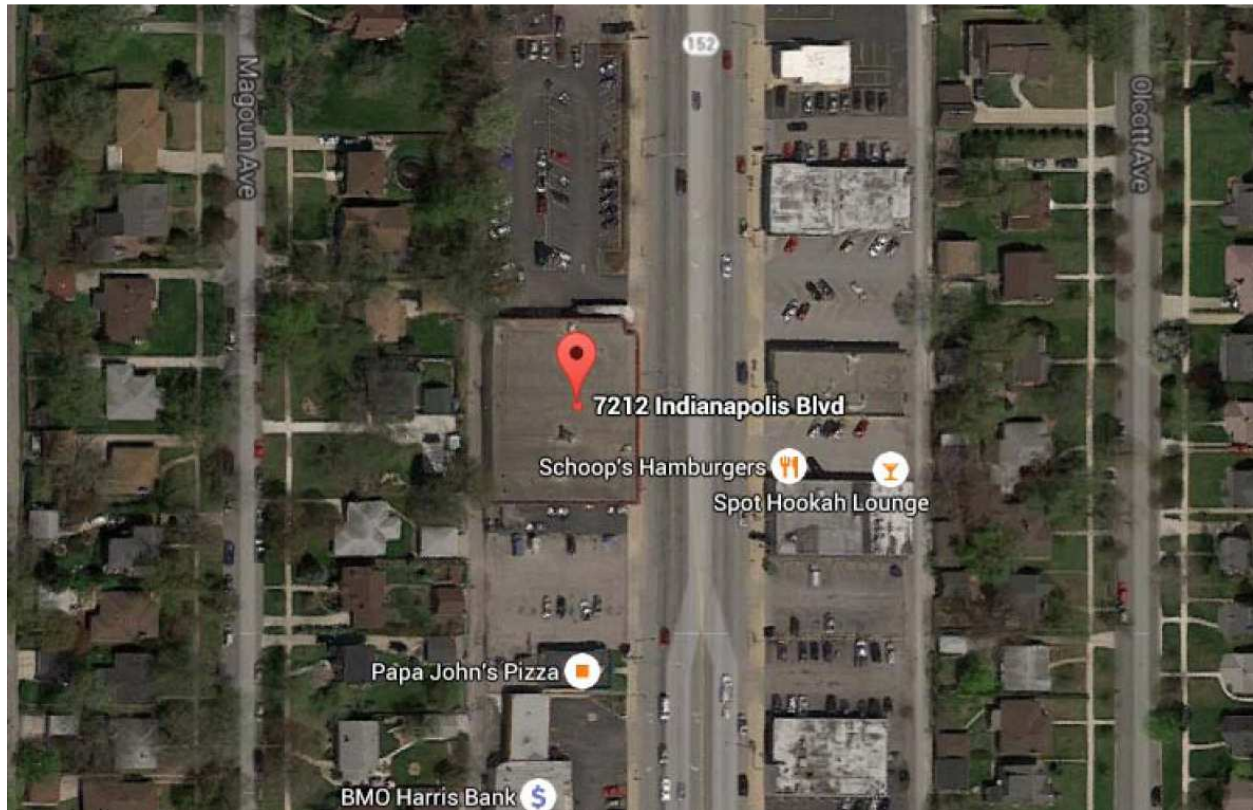
9 East College Drive, Arlington Heights, IL (Subject Property)



Location	Approximate Decibel Reading	Loud Sounds Occurring in Interior of Building	Exhibit
Interior of the subject property	54 Decibels	None	A
Northern exterior of subject property	60 Decibels	None	B
Southern exterior of the subject property	58 Decibels	None	C
Southern exterior of the subject property	68 Decibels	None	D
Southern exterior of the subject property	59 Decibels	None	E
Southern exterior of the subject property	61 Decibels	Constant car horn blaring in interior	F
Southern exterior of the subject property	60 Decibels	Constant car horn blaring in interior	G

7212 Indianapolis Boulevard, Hammond, IN 46324

- Applicant facility with residential neighbors.
- Does not have the same sound proof wall as subject property.



Location	Approximate Decibel Reading	Loud Sounds Occurring in Interior of Building	Exhibit
Exterior of the subject property near four lane road	71 Decibels	Applicant's work occurring within facility	H
Exterior of the subject property near residential homes and away from four lane road	52 Decibels	Applicant's work occurring within facility	I
Exterior of the subject property away from four lane road	59 Decibels	Applicant's work occurring within facility	J

Exhibits



Exhibit A



Exhibit B

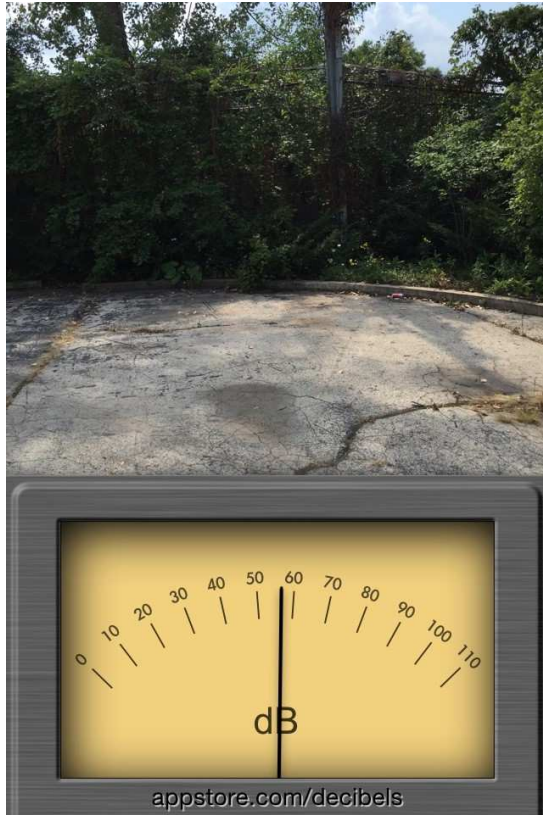


Exhibit C



Exhibit D

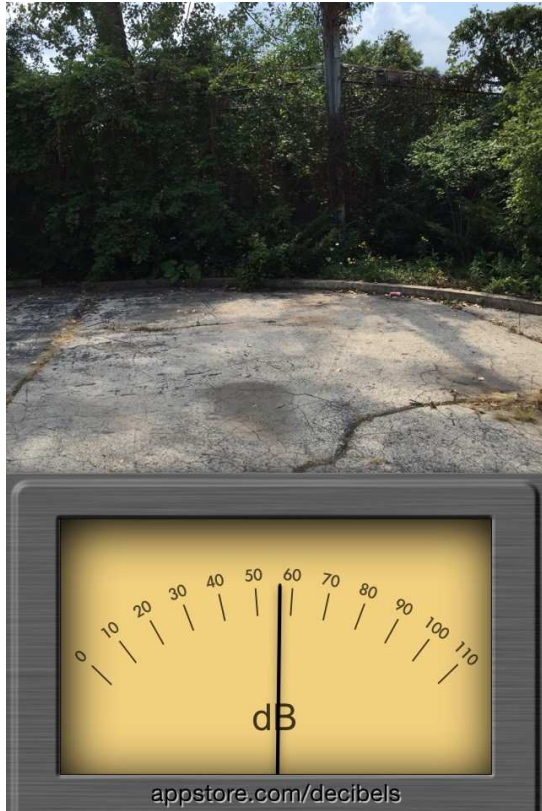


Exhibit E



Exhibit F



Exhibit G



Exhibit H



Exhibit I



Exhibit J

BUILDING DEPARTMENT

1

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C.
 Petitioner: Collision Damage Experts
12857 Oak Valley Trail
Homer Glen, Illinois 60491
 Owner: Westway, Inc.
860 West Blackhawk, Suite 2206
Chicago, Illinois 60642
 Contact Person: Charles Freiberg
 Address: 5710 South Western Avenue
Chicago, Illinois 60636
 Phone #: (708) 906-8606
 Fax #: (773) 432-2017
 E-Mail: cfeiberg@cdecollisioncenters.com

P.I.N.# 03-08-316-006-0000
 Location: 9 East College Drive, Arlington Heights, IL 60004
 Rezoning: n/a Current: M-1 Proposed: M-1
 Subdivision: n/a
 # of Lots: n/a Current: n/a Proposed: n/a
 PUD: n/a For: n/a
 Special Use: n/a For: n/a
 Land Use Variation: Yes For: Major Motor Vehicle Repair
in an M-1 District and Variance for Parking Requirement
 Land Use: Yes Current: Vacant
 Proposed: Major Motor Vehicle Repair
 Site Gross Area: 58,370 Square Feet
 # of Units Total: 1 Building
 1BR: 2BR: 3BR: 4BR:

(P P)

DO EXISTING STRUCTURES, IF ANY, MEET MINIMUM REQUIREMENTS OF THE FOLLOWING:

- | | <u>YES</u> | <u>NO</u> | |
|----|-------------------------------------|--------------------------|-----------------------|
| 1. | ☒ | ☐ | VILLAGE BUILDING CODE |
| 2. | ☐ | ☐ | PRESENT ZONING USE |
| 3. | ☐ | ☐ | REQUESTED ZONING USE |
| 4. | ☐ | ☐ | SUBDIVISION REQUIRED |
| 5. | ☐ | ☐ | SIGN CODE |

6. GENERAL COMMENTS:

NO COMMENTS

Deb Pierce 8-12-15
 Director-PLAN REVIEWER Date

BUILDING DEPARTMENT

1A

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

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 1BR: 2BR: 3BR: 4BR:

(P P

)

INSPECTIONAL SERVICES

Director

Date

8/11/15

P.D.

Fire Notes
9 East College Drive

1. Verify existing fire sprinkler design will be sufficient for new occupancy use.

PUBLIC WORKS DEPARTMENT

2

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

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(P

P

.)

EXISTING
IMPROVEMENTREQUIRED
IMPROVEMENTCOMMENTS1. UTILITIES:

Water
 Metering
 Backflow
 Sanitary Sewer
 Storm Sewer

 X

2. SURFACE:

Pavement
 Curb & Gutter
 Sidewalks
 Street Lighting

3. GENERAL COMMENTS:

RECEIVED

AUG 31 2015

PLANNING & COMMUNITY
 DEVELOPMENT DEPARTMENT

Director

Date

Memorandum

To: Latika Bhide, Planning and Community Development
From: Cris Papierniak, Assistant Director of Public Works
Date: August 28, 2015
Subject: 9 E. College, P.C. #15-018 Round 1



With regard to the proposed Land Use Variation, I have the following comments:

1. There needs to be a new RPZ installed on the incoming 6" line to protect the fire service and domestic service.
2. Please ensure measures are taken to restrict parking over the sewer collection line on the south side of the property 5' north of the fence (line runs west to east). All parked card must be able to be moved within 1 hour notice.
3. All interior floor drains need to be connected to a triple trap basin to ensure that accidental vehicle leaks are trapped prior to entering sewer system.

Thank you for the opportunity to comment on the plans. If you have any questions, please feel free to contact me.

C: file

LF

RECEIVED

AUG 31 2015

PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

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860 West Blackhawk, Suite 2206
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 1BR: 2BR: 3BR: 4BR:

(P P .)

1. PUBLIC IMPROVEMENTS

REQUIRED: YES NO COMMENTS

a. Underground Utilities

Water X

Sanitary Sewer X

Storm Sewer X

b. Surface Improvement

Pavement X

Curb & Gutter X

Sidewalks X

Street Lighting X

c. Easements

Utility & Drainage X

Access X

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

..... X

..... N/A

..... X

..... N/A

..... X

..... X

..... X

GENERAL COMMENTS ATTACHED

PLANS PREPARED BY: N/A

DATE OF PLANS: N/A

James F. Marshall 8/19/15
 Director Date

PLAN COMMISSION PC #15-018
Collision Damage Center
9 East College Drive
Land Use Variation
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. When 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.
13. Consider including bicycle racks in development plan to encourage alternate modes of transportation for employees and patrons.
14. The level of detail provided for the existing site plan in the submittal packet is not at a sufficient enough scale to be readable. Please supply a copy that is large enough to properly indicate scaled dimensions, and the proposed site conditions for the loading bays and site operations.
15. The configuration for the current site shows 58 existing parking spaces. The packet and Plat and Sub Committee minutes indicate a reduction to 43 stalls is being requested, however the traffic report plan with trash coral, etc. shows 56 on site stalls.
16. Provide a proposed site plan based upon the proposed building configuration. Show the proposed parking and provide a turning diagram of the tow truck maneuvering vehicles into the building.
17. The packet also indicates that two-way traffic is being proposed along the west side of the building. However, if one bay of parallel parking plus two moving traffic lanes are being proposed, by code a minimum of 33 ft. of pavement would have to be provided.
18. The meeting minutes also indicate that delivery of customer cars could be arriving at night, but that this could be stipulated to only be allowed during daytime hours. If 15-22 employees, plus 20-25 damaged cars arrive by tow truck delivery, plus customers either driving up or arriving by appointment are anticipated, it seems as though the potential exists to surpass available onsite parking.
19. Complaints about on street parking in front of the property have been registered with the Village on numerous occasions due to the configuration of the loading dock on the north side of College Drive needing extra space for those vehicles to get into those bays. Counting on any on street parking should not be assumed, as this condition may change.
20. Please provide the trip generation values for what this site could have provided based upon its previous use for comparison to the new use.

21. Since no clear ITE trip generation categories specifically match this proposed use, data of other similar stores to this one, based upon total square feet, or number of bays should be provided for comparison. Comparison of on-site parking occupancy at these similar facilities would be useful as well.

 8/19/15
James J. Massarelli, P.E. Date
Director of Engineering



Arlington Heights Fire Department Plan Review Sheet

P. C. Number 15-018

Project Name

Collision Damage Experts

Project Location

9 E. College Dr.

Planning Department Contact Latika Bhide

General Comments

Building to be fully sprinkled.

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AUG 28 2015

PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

**NOTE: PLAN IS CONCEPTUAL ONLY
SUBJECT TO DETAILED PLAN REVIEW**

Date Aug. 28, 2015

Reviewed By: LT. Andrew Larson

Arlington Heights Fire Department

ARLINGTON HEIGHTS POLICE DEPARTMENT

Community Services Bureau

DEPARTMENT PLAN REVIEW SUMMARY

Collision Damage Experts
9 E. College Dr.
PC 15-018
Round 1

Review Comments

08/11/2015

1. Character of use:

The character of use appears consistent with the area and is not a concern.

2. Are lighting requirements adequate?

Lighting should be up to Village of Arlington Heights code.

3. Present traffic problems?

There are no apparent traffic problems at this location.

4. Traffic accidents at particular location?

This is not a problem area in relation to traffic accidents.

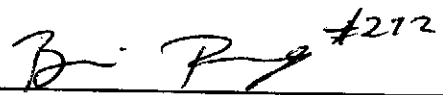
5. Traffic problems that may be created by the development.

This development should not create any additional traffic problems.

6. General comments:

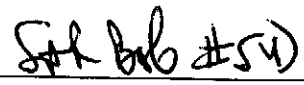
Agent contact information must be provided to the Arlington Heights Police Department during all construction phases. Emergency contact cards can be filled out at the Village of Arlington Heights website (vah.com). This allows police department personnel to contact an agent during emergency situations or for suspicious/criminal activity on the property during all hours.

RECEIVED
AUG 11 2015
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT



Brandi Romag, Crime Prevention Officer
Community Services Bureau

Approved by:



Supervisor's Signature

HEALTH SERVICES DEPARTMENT

6

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

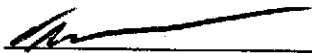
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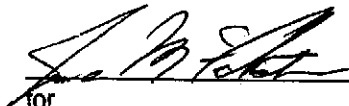
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PUD: n/a For: n/a
Special Use: n/a For: n/a
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Site Gross Area: 58,370 Square Feet
of Units Total: 1 Building
1BR: 2BR: 3BR: 4BR:

(P P .)

1. GENERAL COMMENTS:

No comments.


Environmental Health Officer 8-21-15 Date


Director 8/21/15 Date

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

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 Petitioner: Collision Damage Experts
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 in an M-1 District and Variance for Parking Requirement
 Land Use: Yes Current: Vacant
 Proposed: Major Motor Vehicle Repair
 Site Gross Area: 58,370 Square Feet
 # of Units Total: 1 Building
 1BR: 2BR: 3BR: 4BR:

(P P .)

YES NO

1. ☒ COMPLIES WITH COMPREHENSIVE PLAN?
2. N/A ☐ 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.

8/28/15

Date

Planning Department Comments, Collision Damage Experts (PL15-018, 9 E. College Drive, Round 1)

7. The property at 9 E. College Drive is zoned M-1. A Land Use Variation for 'Motor Vehicle Repair, Major' in the M-1 district is required. The Staff Development Committee does not support the proposed use at this location as this use is not compatible with the single family homes to the south.
8. The following variations are necessary:
 - a. Chapter 28, Section 11.4, Schedule of Parking Requirements, to allow a reduction in parking from the required 67 to 56, a variation of 11 parking spaces.

USE	CODE USE	SF/Employees/Bays	PARKING CALC (SF)	PARKING RATIO (1:X)	PARKING REQUIRED
Collision Damage Experts- Office	Office	5,400*	5,400	1:300	18
Collision Damage Experts	Automobile Service Stations	25 employees, 8 service bays^	NA	1/employee + 3/service bay	49
			Parking Required		67
			Parking Provided		56*
			Surplus/(Deficit)		(11)
*The applicant must confirm the square footage of the office area. The lower level appears to be 3,200 SF. However, the plan indicates a staircase to the mezzanine level. Please indicate the square footage of the mezzanine level. The 5,400 SF area is based on the previous square footage indicated by the applicant.					
^ The plan illustrates 5 overhead doors, however the traffic study references 8 service stations. Please confirm this is accurate.					

9. The total code required parking for this site is calculated as:
10. How many vehicles classified as 'total loss' will be stored on-site? How long and where will the vehicles be stored? Please note that per Chapter 28, Storage is defined as "a space or place where goods, materials, or personal property is placed and kept for more than 24-consecutive hours." In the M-1 district, all storage within 150 feet of a residence district must be in completely enclosed buildings or structures. If storage is located more than 150 feet away from a residence district, it may be open to the sky but shall be enclosed by solid walls or fences at least eight feet high, but in no case lower in height than the enclosed storage and suitably landscaped. Please indicate on the plan where the vehicles are proposed to be stored. If the requirements of the Ordinance cannot be met, then a variation will be necessary.
11. The application states that towing companies will be directed not to drop off vehicles at the property after 6:00 p.m. Will vehicles be dropped off on Saturday and Sunday? At what time can vehicles be dropped off in the morning?
12. Please indicate whether the proposed use will be in compliance with the Industrial Performance Standards in Section 5.1-17.2 (Noise, Smoke & Particulate matter, Vibration, Fire & Explosive Hazards, Odors)
13. What is the STC rating of the exterior wall? What decibel level of sound will be generated by the operation?
14. College Drive is a local street, therefore requiring a front yard setback of 40 feet. The existing building is setback 39.45 feet and does not meet the setback requirement. This is considered non-conforming and no action is required at this time.
15. Per Chapter 28, Section 6.15, the ends of all parking rows must include a 4" caliper shade tree within a landscaped island. The existing parking lot does not meet this requirement and does not have any landscape islands. This is considered non-conforming. Because the parking is existing and the site requires a variation from the required number of parking spaces, therefore, staff does not recommend eliminating parking to add islands. However, a landscape plan must be provided that provides additional landscaping on the front and sides.

16. Per Chapter 28, Section 6.15-2.2, screening is required between properties in the M district where a rear lot line abuts an adjacent residential district. Such screening must be 6-foot high and solid. The existing 8-foot high fence is semi-open and does not meet the requirements of the Ordinance. Screening meeting the Ordinance must be provided.
17. The parking on the west side of the building is proposed as two-way, however it does not meet the minimum aisle requirement of 24 feet. Similarly, from the plans provided, the south parking area does not appear to have the required 24-foot drive aisle. Both these are existing non-conforming and no action is needed at this time.
18. All signs shall meet the requirements of Chapter 30, Signs of the Municipal Code.
19. The traffic study (Exhibit 5) lists a daily sum of 125 trips generated by the employees and 80 trips based on the service bays. Please provide a tabulations of the 'in' and 'out' trips by the employees throughout the day to illustrate how the 125 trips and 80 trips are generated.
20. Provide details of the filtration system that is proposed to be used. Additional information must be provided regarding the odors that may be generated and how they are proposed to be mitigated. This should include information about ventilation systems proposed to be installed and how they would mitigate the odors.

Collision Damage Experts

9 E. College Drive

P.C. 15-018

August 25, 2015

- 1) Pursuant to Chapter 28, Section 5.1-17.1, Within 150 feet of a residence district, all storage shall be in completely enclosed buildings or structures, and storage located elsewhere in this district may be open to the sky but shall be enclosed by solid walls or fences (including solid doors or gates thereto) at least eight feet high, but in no case lower in height than the enclosed storage and suitably landscaped. The existing 8 foot high fence is in fair/poor condition and is semi-open (board on board). Therefore an 8 foot high solid fence must be provided along the rear property line.
- 2) The ends of all parking rows must include a 4" caliper shade tree within a landscape island (Chapter 28, section 6.15).
- 3) It is recommended that a detailed landscape plan be provided that includes a mix of shrubs and perennials along the front and side elevations.

MEMO

DATE: August 14, 2015
TO: Latika Bhide, Development Planner
FROM: Steve Hautzinger, Design Planner
RE: Collision Damage Experts, PC #15-018
9 E. College Drive
Land Use Variation- Plan Commission Submittal Review

A Design Commission application was received for this project on August 8, 2015. Staff discussed the proposed exterior façade improvements with the project Architect, Mr. David Woogarden at Interwork Architects, and Staff is in agreement with the proposed improvements. This project is favorable for an Administrative Design Approval (which means that a formal Design Commission meeting would not be required), pending zoning approval by the Plan Commission and Village Board.

Building Department Comments

Verify existing fire sprinkler design will be sufficient for new occupancy use.
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In order to meet FDA regulations, the current owner of the subject property installed a new sprinkler system at the property on or about 2007. The Applicant believes this sprinkler system will be more than adequate for its proposed use of the subject property.

Public Works Department Comments

There needs to be a new RPZ installed on the incoming 6" line to protect fire service and domestic service.

The subject property has already approximately two RPZ valves installed at the property. The applicant believes these valves. These valves were installed at the property in or about 2007.

Please ensure measures are taken to restrict parking over the sewer collection line on the south side of the property 5' north of the fence (line runs west to east). All parked cars must be able to be moved within 1 hour notice.

The Applicant will restrict parking over the sewer collection line on the south side of the property 5 feet north of the fence. The Applicant will obtain this goal by painting a yellow strip indicating no parking that measures five from the fence.

All interior floor drains need to be connected to a triple trap basin to ensure that accidental vehicle leaks are trapped prior to entering sewer system.

The Applicant confirms that the drains in the building at the subject property are connected to a triple basin.

Engineering Department Comments

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 governmental 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.

The Applicant confirms its understanding of the above.

When on-site lighting is proposed, provide a site photometric lighting diagram indicating lighting intensive, Also provide the associated catalog cuts for all roadway, parking lot, and building mounted luminaries. All fixtures must be flat bottom, sharp cut-off, and no wall pack style fixtures will be permitted.

The Applicant does not propose additional on-site lighting at this time. Accordingly a site photometric lighting diagram is not necessary at this time.

Consider including bicycle racks in development plan to encourage alternate modes of transportation for employees and patrons.

The Applicant confirms that it will install bicycle racks on the subject property in order to encourage alternative modes of transportation for its employees and patrons.

The level of detail provided for the existing site plan in the submittal packet is not as sufficient enough scale to be reasonable. Please supply a copy that is large enough to properly indicate scaled dimensions, and the proposed site conditions for the loading bays and site operations.

Please see the enclosed documentation.

The configuration for the current site shows 58 existing park spaces. The packet and Plat and Sub Committee minutes indicate a reduction to 43 stalls is being requested, however, the traffic report plan with trash coral, etc. shows 56 on site stalls.

The packet incorrectly states that there will be 43 parking stalls at the subject property. There will actually be 56 parking stalls at the subject property after the development is complete.

Provide a proposed site plan based upon the proposed building configuration. Show the proposed parking and provide a turning diagram of the tow truck maneuvering vehicles into the building.

Please see the enclosed documentation.

The packet also indicates that two-way traffic is being proposed along the west side of the building. However, if one bay of parallel parking plus two moving traffic lanes are being proposed, by a code a minimum 33 ft. of payment would have to be provided.

The driveway on the west side of the property serving the northern portion of the property will be two-way. The parking area on the north side of the property will customarily service customers/visitors who park their vehicles and then exit back out onto College Drive.

The driveways on the west side of the property and the east side of the property serving the southern portion of the property will be one-way. This parking area will customarily service employees/vehicles being serviced by the Applicant. The vehicles accessing the southern parking lot will enter on the parking lane to the west side of the property and will then exit on the lane to the east property.

The meeting minutes also indicate that delivery of customer cars could be arriving at night, but that this could be stipulated to only be allowed during daytime hours. If 15-22 employees, plus 20-25 damaged cars arrive by tow truck delivery, plus customers either driving up or arriving by appointment are anticipated, it seems as though the potential exists to surpass available onsite parking.

The Applicant does not believe there will be 20 to 25 damaged cars brought in daily. The Applicant believes there will typically be close to approximately ____ damaged cars brought to the property daily. Additionally, many of the damaged cars will be parked inside the building while be repaired. This will limit the damaged vehicles use of the exterior parking stalls.

Complaints about on street parking in front of the property have been registered with the Village on numerous occasions due to the configuration of the loading dock on the north side of College Drive needing extra space for those vehicles to get those bays. Counting on any on street parking should not be assumed, as this condition may change.

The Applicant confirms that it is not relying on the assumption of street parking in its planned use of the subject property.

Please provide the trip generation values for what this site could have provided based upon its previous use for comparison to the new use.

The Applicant's traffic consultant expects that the typical number of weekday daily vehicle visits to the subject property based on the Applicant's proposed use of the site will be the following:

- Morning Peak Hour: 25 Visits.
- Evening Peak Hour: 25 Visits.
- Daily Cumulative: 125 Visits.

Pursuant to the Applicant's traffic consultant, a 24,700 square foot building used for general light industrial would likely experience the following typical vehicle weekday daily visits:

- Morning Peak Hour: 23 Visits.
- Evening Peak Hour: 25 Visits.
- Daily Cumulative: 173 Visits.

Since no clear ITE trip generation categories specifically match this proposed use, data of other similar stores to this one, based upon total square feet, or number of bays should be provided for comparison. Comparison of on-site parking occupancy at these similar facilities would be useful as well.

Though the Applicant would like to work with the Village on this matter; unfortunately, based on our discussions with our traffic consultant, an on-site parking occupancy of comparison facilities would be cost prohibitive at this time.

Fire Department Comments

Building to be fully sprinkled.
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In order to meet FDA regulations, the current owner of the subject property installed a new sprinkler system at the property on or about 2007. The Applicant believes this sprinkler system will be more than adequate for the proposed use of the subject property.

Police Department Comments

Lighting should be up to Village of Arlington Heights code.

The Applicant confirms that the lighting on the property meets Village code.

Agent contact information must be provided to the Arlington Heights Police Department during all construction phases.

The Applicant confirms this will occur.

Planning & Community Development Department Comments

The property at 9 E. College Drive is zoned M-1. A Land Use Variation for “Motor Vehicle Repair, Motor” in the M-1 district is required. The Staff Development Committee does not support the proposed use at this location as this use is not compatible with the single family homes to the south.

The Applicant believes its use of the subject property would not disrupt the surrounding properties. It also believes its use will bring great benefits to the community.

The applicant must confirm the square footage of the office area. The lower level appears to be 3,200 SF. However, the plan indicates a staircase to the mezzanine level. Please indicate the square footage of the mezzanine level. The 5,400 SF area is based on the previous square footage indicate by the applicant.

The square footage of the mezzanine level is approximately 1,400 square feet; however, the Applicant has no plans to use the mezzanine level.

The Applicant calculates the lower level to be approximately 2,800 square feet as opposed to approximately 3,200 square feet listed. This approximately 2,800 square feet can be broken down into the following:

- Approximately 1,400 square feet for the break room/wash bay/ toilets.
- Approximately 1,400 square feet for the drive-in door and customer desk.

As half of the second approximately 1,400 square feet will be used for drive-in doors, the Applicant expects that the office square footage for this section will be approximately 7,000 square feet. Accordingly, the total office square footage of the subject property will be around 2,100 square feet. This number decrease the number of parking stalls necessary for the subject property.

How many vehicles classified ‘total loss’ will be stored on-site? How long and where will the vehicles be stored?

The Applicant does not believe there will typically be more than two to four ‘total loss’ vehicles stored on the exterior of the subject property at any one time. Each ‘total loss’ vehicle will be stored at exterior of the subject property for no more than 48 consecutive hours.

The applicant states that towing companies will be directed not to drop off vehicles at the property after 6:00 p.m. Will vehicles be dropped off on Saturday and Sunday? At what time can vehicles be dropped off in the morning?

Vehicles will typically not be dropped off at the subject property on Saturday or Sunday; however, when they are, the vehicles will be dropped off at the property between 8 am and 5 pm on Saturday or Sunday.

On weekdays, vehicles will be dropped off at the subject property no earlier than 7 am.

Please indicate whether the proposed use will be in compliance with the Industrial Performance Standards in Section 5.1-17.2 (Noises, Smoke & Particulate matter, Vibration, Fire & Explosive Hazards, Odors)

The Applicant confirms that its use of the subject property will meet the Industrial Performance Standards in Section 5.1-17.2.

What is the STC rating of the exterior wall? What decibel level of sound will be generated by the operation?

The subject property was designed by the previous owner of the site to be extremely soundproof. The floors in the property's production areas and warehouse areas are approximately 6 inch thick cement cealed. The building is insulated with both brick and Solarcrete. Pursuant to the Solarcrete website (www.solarcrete.com), Solarcrete is the following:



This insulated concrete wall system incorporates expanding polystyrene (EPS) foam board insulation for thermal energy efficiency, reinforcing steel for strength, new patent pending wall ties and high strength shotcrete to provide strength, safety and durability. The above photo is a sample that shows the cross section of what an actual finished wall would look like.

This design of the building at the subject property makes it extremely soundproof.

The STC rating for the brick masonry wall is approximately 50 to 60 STC. The STC rating for the Solarcrete insulating is 75 STC.

Regarding the decibel levels produced at the subject property, please see the enclosed documentation. Due to heavily insulated walls at the building on the property, a car horn blaring in the interior of the subject property is not noticeable on the exterior of the subject property. Additionally, the operations of a similar facility in Hammond, IN reflects the quietness of the Applicant's operations.

College Drive is a local street, therefore requiring a front yard setback of 40 feet. The existing building is setback 39.45 feet and does not meet the setback requirement. This considered non-conforming and no action is required at the time.

The Applicant confirms.

Landscape plan must be provided that provides additional landscaping on the front and sides.

The landscape plan will be provided shortly.

The existing 8-foot high fence is semi-open and does not meet the requirements of the Ordinance. Screening meeting the Ordinance must be provided.

The Applicant will be slotting the fence in order to make the fence opaque. The Applicant will work with the Village to ensure the neighboring residential property cannot see into the subject property.

The parking on the west side of the building is proposed as two-way, however it does not meet the minimum aisle requirement of 24 feet. Similarly, from the plans provided, the south parking area does not appear to have the required 24-foot drive aisle. Both these are existing non-conforming and no action is needed at this time.

The driveway on the west side of the property serving the northern portion of the property will be two-way. The parking area on the north side of the property will customarily service customers/visitors who park their vehicles and then exit back out onto College Drive.

The driveways on the west side of the property and the east side of the property serving the southern portion of the property will be one-way. This parking area will customarily service employees/vehicles being serviced by the Applicant. The vehicles accessing the southern parking lot will enter on the parking lane to the west side of the property and will then exit on the lane to the east property.

All signs shall meet the requirements of Chapter 30, Signs of Municipal Code.

The Applicant confirms that signs at the subject property will be meet the requirements of Chapter 30.

The traffic study (Exhibit 5) lists a daily sum of 125 trips generated by the employees and 80 trips based on the service bays. Please provide a tabulations of the ‘in’ and ‘out’ trips by the employees throughout the day to illustrate how the 125 trips and 80 trips are generated.

The traffic study provides two alternate calculations based on published data, one for the building base on the maximum number of employees and one for the building based on service bays. The employee-based number was higher; thus, to be conservative, the traffic study used this number. It is not meant to represent trips by the employees, but using the known number of employees as a variable to determine the number of trips to a building that has 25 employees.

Provide details of the filtration system that is proposed to be used. Additional information must be provided regarding the odors that may be generated and how they are proposed to be mitigated. This should include information about ventilation systems proposed to be installed and how they would mitigate the odors.

This documentation will be provided shortly.

Therefore an 8 foot high solid fence must be provided along the rear property line.

The Applicant will be slotting the fence in order to make the fence opaque. The Applicant will work with the Village to ensure the neighboring residential property cannot see into the subject property.

The ends of all parking rows must include a 4” caliper shade tree within a landscape island.

The landscape plan will be provided shortly.

It is recommended that a detailed landscape plan be provided that includes a mix of shrubs and perennials along the front and side elevations.

The landscape plan will be provided shortly.

[REDACTED]

From: Enright, Bill
Sent: Monday, September 28, 2015 8:49 AM
To: DiMatteo, Pat
Subject: FW: Object to auto body shop to open on college dr

Bill Enright
Deputy Director Planning & Community Development Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL 60005
847-368-5211

-----Original Message-----

From: Ann Guyton [REDACTED]
Sent: Sunday, September 27, 2015 6:29 PM
To: Enright, Bill
Subject: Object to auto body shop to open on college dr

I am opposed to having an auto body shop open at 9 E College Ave in the industrial park near my home. The noise will be awful.

Ann Guyton

[REDACTED]
AH 60004

[REDACTED]

From: Enright, Bill
Sent: Monday, September 28, 2015 8:49 AM
To: DiMatteo, Pat
Subject: FW: Objection to business

Bill Enright

*Deputy Director Planning & Community Development
Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL 60005
847-368-5211*

From: Jeffrey Crum [REDACTED]
Sent: Sunday, September 27, 2015 7:43 PM
To: Enright, Bill
Subject: Objection to business

Mr. Bill Enright
Deputy Director of Planning

This e-mail is to express my objection to a new auto body shop, Collision Damage Experts.

I feel there should not be a zoning change allowing this business to operate at 9 E. College Drive..

Since I will be working I will be unable to attend the Sept. 30 meeting.

I wanted to have my objection to this business opening on record.

Sincerely,

Jeff Crum

[REDACTED]
Arl. Hts., Il. 60004

From: [REDACTED]
Sent: Tuesday, September 29, 2015 8:20 AM
To: Enright, Bill
Subject: ZONING MEETING RE: 9 E. COLLEGE DRIVE

ATTN: BILL ENRIGHT

We can't attend the meeting Wednesday evening but please note our protest

I am emailing you to ask that you DO NO CHANGE THE ZONING FOR 9 E. COLLEGE DRIVE. We DO NOT WANT the company CDE to occupy this property as it is too close to the residential neighborhood.

Please be realistic...the Village of Arlington Heights need not do this. Do not use this property for this business. It is unfair to the homeowners on Tanglewood Drive. The VAH has abused the homeowners on Tanglewood Drive enough with other major issues.

Thank You

Bob & Debbie Mendralla
[REDACTED]
Arlingotn Heights, IL 60004

From: [REDACTED]
Sent: Tuesday, September 29, 2015 10:24 AM
To: Enright, Bill
Subject: Collision Damage Experts zoning meeting on September 30, 2015

Mr. Bill Enright, Deputy Director of Planning
Village of Arlington Heights, Illinois

We are Joseph and Karen Boyko, 45 year residents of Arlington Heights in the Berkeley Square Subdivision at [REDACTED]. Unfortunately, we are unable to attend the zoning meeting on September 30th but we do want to voice our opinion. We do not believe that the zoning in the industrial park on College Drive should be changed to allow CDE to open an auto body repair business behind our residential homes. We strongly object and protest to this change in the zoning because if an allowance is made for one business what about other businesses that will follow. This is totally unacceptable and we would hope that the village will deny this request. Thank you for your time.

Joseph and Karen Boyko
[REDACTED]
Arlington Heights, IL 60004

From: Michaela Brommel [REDACTED]
Sent: Tuesday, September 29, 2015 8:08 PM
To: Enright, Bill
Subject: Objection to the zoning change for 9 E. College Dr.

My daughter and I are residents of the Berkley Square subdivision living on Burr Oak Dr. We are unable to attend the hearing meeting on Wed. 9/30/15. I am writing to voice our objections to having an auto collision shop operated by Collision Damage Experts open a 9 E. College Drive. Backyards of single family homes on Burr Oak Dr. are directly behind this proposed site. I object to the Village of Arlington Heights making a zoning change to allow this type of business in the College Drive Industrial Park.

Michaela Brommel
Marissa Zawilenski

From: Helen Kugler [REDACTED]
Sent: Wednesday, September 30, 2015 4:17 PM
To: Enright, Bill; [REDACTED]
Subject: Changing Zoning Ordinances/Land Use variation at 9 E. College Drive Arlington Hts, IL

Dear Mr. Enright:

I am writing this e-mail shortly before the scheduled meeting is to take place regarding changing the Zoning Ordinance/Land Use Variations for the property at 9 E. College Drive. My husband and I live within the 250 Ft. that will be very much effected by any changes you plan to make. We had planned to attend the meeting in person this evening, but unfortunately my husband took ill and I have to stay with him.

It scares me and upsets me that the village of Arlington Heights would even consider changing zoning ordinances to allow an Auto Body Shop to be next to a residential area. We have a family member who owned a Auto Body shop in Palatine on Colfax Avenue. I was there numerous times and it is a busy, noisy, and dirty place that doesn't belong near people's homes and that's why Palatine has many of these types of businesses on Colfax Avenue west of their Post Office. We have lived in our home for almost 25 years. Our back yard borders the industrial park. We have had several "business" neighbors over the years. Some have been better neighbors than others, in regards to following the village rules and ordinances. I and my neighbors have had to call and make complaints many times, but at least these companies were not polluting our air directly as auto body shops do or making loud noises from early in the morning to late at night. I sincerely hope you remember we live in the Village of Arlington Heights and we do not want our neighborhood, community, or village to be diminished by poor choices of our villages leaders make.

Thank You,

Helen Kugler
[REDACTED]
Arlington Hts, Il 60004

[REDACTED]