Village of Arlington Heights
Plan Commission
Board Room
Arlington Heights Village Hall
33 S. Arlington Heights Road
Arlington Heights, IL 60005
March 28, 2018
7:30 PM

I. CALL TO ORDER

II. ROLL CALL

III APPROVAL OF MINUTES

A. 703-709, 715-723 W. Algonquin Rd. - 3/14/18

B. Olympic Park Swim Center - 3/14/18

C. South Arlington Heights Road Corridor Plan - 3/14/18

IV. PUBLIC HEARINGS

A. 703-709, 715-723 W. Algonquin Rd. - PC#17-013
PUD, Preliminary Plat of Subdivision

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: 703-709, 715-723 W. Algonquin Rd. - 3/14/18

Department: Planning & Community Development

ATTACHMENTS:

Description	Type
Minutes - 3/14/18	Minutes

PLAN
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_____
_____

COMMISSION

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

RE: 703-709, 715-723 WEST ALGONQUIN ROAD - PC#17-013
PUD, PRELIMINARY PLAT OF SUBDIVISION

REPORT OF PROCEEDINGS had before the Village of Arlington Heights Plan Commission Meeting taken at the Arlington Heights Village Hall, 33 South Arlington Heights Road, 3rd Floor Board Room, Arlington Heights, Illinois on the 14th day of March, 2018 at the hour of 7:30 p.m.

MEMBERS PRESENT:

TERRY ENNES, Chairman
LYNN JENSEN
JOE LORENZINI
BRUCE GREEN
JOHN SIGALOS
JAY CHERWIN

ALSO PRESENT:

SAM HUBBARD, Community Development Planner
BILL ENRIGHT, Community Development Deputy Director

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CHAIRMAN ENNES: Welcome, everyone. We're calling this meeting of the Plan Commission of Arlington Heights to order. Would you all please rise and join me in the pledge of allegiance?

(Pledge of allegiance recited.)

CHAIRMAN ENNES: Thank you. Sam, would you take the roll?

MR. HUBBARD: Commissioner Cherwin.

COMMISSIONER CHERWIN: Here.

MR. HUBBARD: Commissioner Dawson.

(No response.)

MR. HUBBARD: Commissioner Drost.

(No response.)

MR. HUBBARD: Commissioner Green.

COMMISSIONER GREEN: Here.

MR. HUBBARD: Commissioner Jensen.

COMMISSIONER JENSEN: Here.

MR. HUBBARD: Commissioner Lorenzini.

COMMISSIONER LORENZINI: Here.

MR. HUBBARD: Commissioner Sigalos.

COMMISSIONER SIGALOS: Here.

MR. HUBBARD: Commissioner Warskow.

(No response.)

MR. HUBBARD: Chairman Ennes.

CHAIRMAN ENNES: Present. Okay, we have three sets of minutes. Why don't we do those one at a time in case some of you haven't been there. Can I have a motion to approve the minutes from 703-709 West Algonquin Road?

COMMISSIONER LORENZINI: I'll make that motion.

COMMISSIONER GREEN: Second.

CHAIRMAN ENNES: All in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: Anyone opposed?

(No response.)

CHAIRMAN ENNES: Okay, and was everybody present? Okay, and actually the other two were on the same day, so let's do those again. Hearts Place and Sigwalt Apartments, can I have a motion to approve those?

COMMISSIONER SIGALOS: I'll make a motion to approve those minutes.

CHAIRMAN ENNES: And a second?

COMMISSIONER GREEN: Second.

CHAIRMAN ENNES: All in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: Anybody opposed? Or absent? Okay, so we'll move on to our first public hearing, and that is for the continuation of 703-709 West Algonquin, PC#17-013. I believe, Sam, we have a motion to continue that until they resolve a couple of issues?

MR. HUBBARD: Correct. We're still working with the Petitioner on some of the issues with the neighboring property owner Weber and with the city of Rolling Meadows.

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We're hoping to have those issues resolved by the 28th, so we're recommending a continuance until March 28th.

CHAIRMAN ENNES: Okay, and is there also an issue with the Illinois Department of Transportation?

MR. HUBBARD: Not really. They have applied for the IDOT comments, and approval from the Village would be conditional on complying with any IDOT requirements.

CHAIRMAN ENNES: Our next petition is for Olympic Park Swim Center.

COMMISSIONER GREEN: We need a motion to continue.

COMMISSIONER LORENZINI: I'd like to make a motion.

A motion to recommend to the Village Board of Trustees <u>continuance</u> of PC#17-013, a Planned Unit Development and Preliminary Plat of Subdivision to consolidate all lots into one lot for the property located at 703-709 and 715-723 West Algonquin Road <u>until the March 28th, 2018 Plan Commission meeting</u>.

COMMISSIONER JENSEN: Second.

CHAIRMAN ENNES: All in favor? Yes, I'm sorry, roll call vote?

MR. HUBBARD: Commissioner Cherwin.

COMMISSIONER CHERWIN: Yes.

MR. HUBBARD: Commissioner Green.

COMMISSIONER GREEN: Yes.

MR. HUBBARD: Commissioner Sigalos.

COMMISSIONER SIGALOS: Yes.

MR. HUBBARD: Chairman Ennes.

CHAIRMAN ENNES: Yes.

MR. HUBBARD: Commissioner Lorenzini.

COMMISSIONER LORENZINI: Yes.

MR. HUBBARD: Commissioner Jensen.

COMMISSIONER JENSEN: Yes.

(Whereupon, the above-mentioned petition was continued to March 28th at 7:33 p.m.)

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Item: Olympic Park Swim Center - 3/14/18

Department: Planning & Community Development

ATTACHMENTS:

Description	**Type**
Minutes - 3/14/18	Minutes

PLAN
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COMMISSION

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

RE: OLYMPIC PARK SWIM CENTER - 660 NORTH RIDGE AVENUE - PC#18-002
PUD AMENDMENT, PARKING VARIATION

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 14th day of March, 2018 at the hour of 7:33 p.m.

MEMBERS PRESENT:

TERRY ENNES, Chairman
LYNN JENSEN
JOE LORENZINI
BRUCE GREEN
JOHN SIGALOS
JAY CHERWIN

ALSO PRESENT:

SAM HUBBARD, Community Development Planner
BILL ENRIGHT, Community Development Deputy Director

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CHAIRMAN ENNES: Moving on to our next petition for Olympic Park Swim Center, PC#18-002, is the Petitioner here? Would you please come forward? I would like to swear you in. Will anyone else with your group be testifying or possibly testifying? Let's do this all at once.

(Witnesses sworn.)

CHAIRMAN ENNES: Okay, thank you.

MR. REA: You're welcome. I just want to introduce myself. My name is Ben Rea, I'm the director of Parks and Planning for Arlington Heights Park District.

CHAIRMAN ENNES: Would you spell your name for our court reporter please?

MR. REA: Ben, B-e-n, Rea, R-e-a.

CHAIRMAN ENNES: Okay, please go ahead, Ben.

MR. REA: I want to thank you all for taking the time tonight to review our submittal for the renovations to the Olympic Indoor Swim Center. I'd also like to specifically thank Sam and Steve from the Planning Department for all the assistance they've provided, guiding us through this process.

I'd like to give a little background on how we arrived with the Olympic Swim Center and the potential project for your review. It's always been kind of considered in the last few years as a potential site given its close proximity to the center of town and unique opportunities that it might present to the public for programming opportunities. To further exemplify why we think it's a unique site, for example, in the Recreation Park area, we have 4,842 of our total households in that area within one mile of the Olympic site which comprises about 24 percent of our total households. The Pioneer Park area also consists of 4,782 households which is about 23 percent of our total households, also within one mile of the Olympic Indoor Swim Center. Then the Frontier Park area consists of 3,607 households within 1.8 miles of the Olympic Indoor Swim Center which comprises about 18 percent of our total households that we represent. So, in total between those three sites, we have 65 percent of our households within less than two miles of the Olympic Indoor Swim Center.

So, to better understand if this would be an appropriate project for the community, in 2017 in September, the Park District enlisted the services of Ron Vine and Associates to conduct a random sample survey, a statistically valid survey of our residents to determine what their needs would be. When we conducted that survey, we were hoping to get back a minimum of 700 surveys to make sure it was a valid survey. We actually received near 1,200 back from the residents, so we had a really good return rate and at 95 percent accurate level. So, we're very satisfied with the responses that we got from the public.

Some of the things that were shared with us was that the public has an additional need for indoor walking and jogging spaces. They have a desire to see a fitness center be developed in the community. They are also looking for some additional opportunities for indoor swimming as well as indoor court space, whether that be for volleyball or basketball. They are also looking for increased amenities for our active aging adults, that was very clear from the survey. It was also very clear that Olympic was a site that they had a lot of interest. It was rated as our top site to have some attention take place to it in the very near or short term.

So, once we had that information, we decided it was appropriate to start the process where we had our community meetings with the public. We held three in

December at the Olympic site with residents. We had one on December 3rd, 5th, and 6th, and we also had one regularly scheduled board meeting on December 22nd where we did our best to address the concerns and the needs of the community that came to those meetings. We took from those meetings their input, they were all very positive meetings with the public, and took that information that they provided us and we put it into the plan that you see before you tonight.

We are very excited to have this proposal before you. We think it does provide a unique opportunity in the community. It's very centrally located and we're very excited to have this.

So, at this time, I'm going to present Dave Yandel with FGM Architects. He's going to take through the PowerPoint that's been provided for you tonight.

MR. YANDEL: Thanks, Ben. Again, my name is Dave Yandel, Y-a-n-d-e-l. I'm a principal with FGM Architects. So, we've put together just a brief presentation, some supplementary information to the package that you guys have received and reviewed to date.

First off, an overall aerial. Olympic located, again as Ben mentioned, near the center of town, directly north of Euclid bounded by Ridge and Salem. We're looking to expand the building to the north.

We've done a little bit of 3D modeling and sketch of it, we just took a couple of snapshots of kind of some contextual images. This is looking north and east, kind of across Euclid and Northwest Highway back at the main site. This is showing the addition to the north, the existing play fields ready for soccer, the adjacent buildings including commercial along Northwest Highway and Euclid, the Christian Liberty Academy kind of to the east of the existing building, residential neighborhood, the Montessori School a little bit to the north.

As you kind of zoom around the site, now we're kind of looking north and west past Christian Liberty towards the front, the current kind of front door of Olympic. As we move on, we're kind of flying around, now we're looking back to the southeast, kind of across the Montessori School, across Fernandez, across Salem, kind of looking at the new west elevation which is proposed to be the new front door to the facility fronting the park.

Kind of a closer look as we're coming over the top of Christian Liberty and the running track and the football field. A little view of what is, again the addition to the north, it's pretty much taking up the space of the existing skate park and tennis courts that are on the site now.

Finally, we're starting to zoom in a little bit closer. Here again, coming across Euclid, the new west elevation, the existing building kind of to the right of the addition, the white roof to the left. Another view a little bit closer as we come in off of Euclid. You know, one more shot again across from Christian Liberty, just kind of showing the massing and scale of the building not only in relation to the neighborhood but the adjacent school and commercial properties that are located nearby.

New west elevation as we start to get closer, what you're seeing in front of the building is new parking, and to the north of the addition is a new access road. This provides 363 access to the building not only for visitors but to our Fire Department, and it about doubles the size of the current parking capacity for the new facility.

Looking closer, this is the new addition. In the forefront is the new warm water pool, an activity pool, a therapy pool used for all ages from swim lessons all the way to seniors. The middle block is the new main entrance, it's for locker rooms, fully accessible locker rooms, and a second-story fitness center that's going to overlook the park and green

space, and then the gymnasium addition to the north.

This is kind of the overall site plan, north is to the right. The original Olympic Swim Center kind of located to the left half of the addition wraps around the west and then again to the north with the front entrance being right in the main center of the building. Again, surrounded by new parking, an expanded detention area to the southwest corner of the site. Basically, the other perimeter areas, the large green play space, the Safety Town, and the buffer to the neighborhood to the north stays fairly in tact. Right now, the north edge of the parking lot goes up to the existing sidewalk where the north edge of the tennis courts are. So, really the very north edge of the site remains pretty much in tact.

From our recommendation, today's variations that we're looking for, the biggest one being number one is reduction of code-required parking from 757 spaces to 291 spaces. Then the other two variations are with respect to fencing, one is number two, the 10-foot fence would only come into play if we stayed with the base bid which would be a single gym and a 10-foot tall fence would be requested around the basketball court that's shown on the north side of the site. Number three, allows up to an eight-foot tall fence. I believe the tallest fence we have outside of the tennis court is actually being shown as six feet tall right now, and that would be around a sundeck located on the west side of the site.

With respect to parking, this is the most recent parking plan or site plan that we've shown. It shows the total of 291 parking spots. It shows 274 initial parking spots with 17 spots landbanked on the very north, the area that we just talked about directly south of Safety Town. So, for those in the audience, these are 17 spots that would be landbanked, not necessarily built on day one, but then this is a little bit different than the initial site plan where we're maintaining more of the existing parking lot that happens on the southwest corner of the site. Then the shape of detention needs to be finalized but would draw a little bit to the north, still allowing for the large green play space you see striped in here as the size of a full size soccer pitch. A full-size soccer game is occasional on the site, mostly it's used for youth soccer games.

So, the questions and the comments that we've gotten from Staff to date really are parking related. Number one is working with the Park District, or the Park District will continue to work to make sure that major events such as a swim meet, a basketball tournament or something would not happen at the same time. Those are the two kind of big high demand activities, a swim meet and anything that might occupy the double gymnasium. So, scheduling would be key to make sure that those didn't happen at the same time, putting a high stress or demand on the parking lot. If the Village at any time determines that the additional 274 parking spots are not adequate, we agree to construct the 17 additional landbank parking spots as soon as possible. Then lastly, looking at any possible shared parking arrangements maybe with the neighbors including Christian Liberty Academy, there is not currently any formal agreement between any other groups located nearby, but the Park District is wide open to initiate those conversations and looking for opportunities to share parking with the neighbors.

With respect to traffic, long term, there is potential for increased traffic at the intersection of Euclid and Ridge. So, at the request of the Village, the Park District would either donate land or continue to work with them to resolve that conflict that may include an additional turn lane or other measures to reduce potential conflict at that intersection.

Then lastly, we had some comments with respect to landscaping and the landscape buffer to the residents to the north. It was really clarifying the species of trees and

plants on the north side and locating some additional trees that weren't shown on the initial submittal on the area north of Safety Town. In this sketch, that is these additional plantings here along the property line to help screen this residence directly north, these two residences directly north of Safety Town. These are mature trees, mature plantings that are here; adding evergreens directly north of parking or even in this buffer would probably restrictive. But adding these additional plants at the property line and changing these plants to evergreens was something that we've made for tonight's presentation.

This is just a quick snapshot view of that area currently that's looking west, residents to the north, and then this is that existing sidewalk that is going to be the north edge of the new parking or new drive aisle.

Lastly, we just put together a couple of before and after images. These are fresh off our meeting with the Design Commission last night. This is an existing view from Euclid looking at what is currently the main entrance in the south elevation. In this rendering, you can see the addition to the building rolling to the north or the right-hand side of the image. We're looking at a consistent color palette using similar bricks, similar colored for any precast concrete that might be painted to match both the dark brown brick color or the buff split-face block colors, as well as any accents with the aluminum metal panel. That's consistent through all these images.

Here now is a view halfway up Ridge at the current service entrance to the north part of the existing building. This is kind of where the addition begins, and we're showing landscape screening around the new transformer, a screen wall that enclose a generator and trash recycling. This will continue to be a service entrance to the building but cleaned up a little bit more in terms of landscaping.

This is a view looking back south and east, or I'm sorry, south and west pretty much from the steps of the gymnasium of the Christian Liberty Academy. This is a similar view from the same vantage point of the new gymnasium addition. The height of this gym is significantly lower than the neighboring gym, predominantly because that gym sits up about two flights of stairs, so about 15 feet higher than ours.

Walking around the building, this is starting to look at the new west elevation. This is again the gym addition, the playground space, and the foreground, it's bounded by the building and some fencing along the parking lot. To the right of this image is a new brick masonry mass that will be the new locker room, some new restrooms, and offices. Then to the right of that is the new main entrance.

Lastly, this is a view looking, kind of from Euclid looking back to the east. This is kind of the main view a lot of people see when they come across Northwest Highway across the train tracks, when they get past the little law building, this is kind of the first snapshot of the building. So, this is the new addition; in the center of the picture is the new warm water pool addition, and then to the left side is the new main entrance. Then kind of in the background you'll see the tail end of the gymnasium addition.

This is the existing west elevation now. It has some windows that look into the main lap pool. Otherwise, it's a large brick facade, and there's a sundeck which is used sometimes for storage.

This is the new west elevation, again with the therapy pool up front, the main entrance to the center, and second floor fitness again looking out over to those large windows across the park. Then this is the new main entrance to the facility looking due east at

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the west elevation. Large two-story space, light bright, bringing hopefully lots of natural light into the facility, really trying to welcome new visitors to the facility.

With that, any questions?

CHAIRMAN ENNES: Does that conclude your presentation?

MR. YANDEL: That concludes my presentation, thank you.

CHAIRMAN ENNES: Great. We're going to go to the Staff report, so if you want to have a seat? Thank you for your report. Sam, would you like to provide the Staff report?

MR. HUBBARD: Good evening to Chairman Ennes and the Plan Commission. I'll go through my Staff report this evening. As you've heard, the subject property is located at the intersection of Euclid and Ridge Avenue, address is 616 North Ridge Avenue. The current zoning of the property is P-L, that's Public Lands, that's the appropriate zoning district for this type of facility.

The Petitioner is before you this evening because they are requesting an amendment to a previously granted PUD. Originally, the PUD was granted in 1979 and was amended most recently in 2003 to allow a building addition and some changes to the parking lot. At that time, they were also granted a variation to reduce the parking requirement on the site. Based on the uses back then, there were 318 parking spaces required, and they were providing only 190 spaces.

Additionally, the Petitioner is before you this evening to request the issuance of a special use permit to allow a community center and recreation building. This use is classified as a special use in the P-L District. A formal special use permit was never granted for this. So, that's the reason for the request. There is no change in programming really or use here, it's going to remain as the Olympic Park and Swim Center. It's just going to formally add the special use permit if approved. Additionally, as you've heard, the Petitioner is requesting three variations, one to parking and two for fences on an exterior side yard and one in the rear yard.

So, there have been a number of actions that have led the Petitioner to the point this evening before the Plan Commission. First, on November 8th, 2017, the Petitioner appeared before the Conceptual Plan Review Committee. They were asked some general questions on traffic, parking, and potential for safety netting and fencing. The Conceptual Plan Review Committee encouraged the Petitioner to hold a neighborhood meeting to make nearby residents aware of the forthcoming project. So, on December 3rd, 5th, and 6th, the Petitioner held three neighborhood meetings with residents nearby. They sent out letters in the mail to nearby residents to inform them of this meeting, and a summary of the meeting was included in the packet to the Plan Commission.

Additionally, the Petitioner published info on the project on their website. They posted informational boards in the Olympic Park facility outlining some basic information on the project. They put out a press release to local press notifying them of what they were planning. They put Facebook and Twitter posts to keep residents informed of what was going on. Finally, they also discussed the project at the Arlington Heights Park District board meetings on December 12th and January 9th which are public meetings open to the public and just to try and help get the word out, get the blessing from the Park Board.

On February 13th, the Petitioner appeared before the Design Commission and that resulted in a continuance. I think there were some general concerns on

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the Design Commission's part relative to the use of precast concrete in the gymnasium addition. The Petitioner explored some alternatives and then reappeared last evening before the Design Commission and received a favorable vote of approval. There were some minor stipulations on some of the colors for the precast concrete on the gym, but overall it did result in a recommendation of approval from the Design Commission.

So, I just want to outline a few things for the Plan Commission. First of all, there's two aspects or there are two items that relate to this project that were included in the packet. That was the base bid versus the alternative bid. So, the base bid scenario includes this area as an exterior basketball court. The alternative bid, if bids are favorable, there will be a double gym addition. So, this is the single gym, and then this area here, the exterior basketball court, would basically be incorporated into the building under the alternative bid scenario.

Our analysis on the Village's end was under the alternative bid scenario which included the double gym. The site will remain essentially the same under both bids, but obviously the additional space within the building for the interior gym could result in a little bit more traffic and parking as there would be year-round ability to use that second gym. Our analysis was conservative in that approach so that if only the single gym was built, we still have analyzed the larger scenario and the zoning approval would still apply in both situations.

The other change I want to highlight for the Plan Commissioners is this is the plan that was submitted by the Petitioner and provided to the Plan Commission for your review. But due to some last minute concerns over the provided parking and whether or not there was enough parking on site and efforts by the Park District to incorporate additional parking areas, there were some last minute changes to the plans. So, I'm going to highlight those for you briefly.

First, you'll see here, this is, currently in that red box is where the existing parking lot for the facility exists. That parking lot was going to be removed to accommodate for the extension of the detention basin as you can see here. But the Park District has modified that a little bit and they are now proposing to keep the parking here which is going to shift the location of the detention basin a little bit. It's going to look, you know, more like this. That of course is going to shift the soccer field a little bit farther to the north. But what it does is it provides a little bit more parking and allows the Park District to landbank parking in this area here. So, this is 17 parking spaces originally proposed to be paved over, but now these spaces are going to be landbanked for future parking if necessary.

So, the original plans provided to the Plan Commission showed 266 parking spaces. This revision which includes the spaces here results in 274 spaces with an additional 17 landbank parking spaces on the north for a total of 291 parking spaces. So, if you watch the screen here, it's going to be a slow transition into the plan as currently proposed. If you keep your eye on both of the red aerials, you'll see the change specifically. So, you can see here now the parking lot is expanded, the detention basin is a little bit reconfigured, and the soccer field has shifted a little bit to the north. Then down here, these formerly paved parking spaces will remain as open space and will be created as parking if necessary.

So, I want to touch on, first of all, the fence variations. The first variation relates to fencing in what's called the exterior side yard. That's this fence here as proposed as an eight-foot tall chainlink fence with black vinyl coating. It's in between the soccer field and the detention basin primarily to keep soccer balls and sports equipment from going into that detention area. Code requires or limits fences here to five feet in height; at eight feet, a

variation is necessary.

The other variation is for the fence around the exterior basketball court. That fence is the same style fence, a black vinyl coated chainlink fence. This one would be 10 feet in height; again, code requires or limits fence heights to a maximum of five feet in the rear yard, and so a variation is needed. The second fence around the basketball court of course would only be built if the base bid moves forward. Obviously if the alternative bid is selected, the gym would be interior and there would be no more need for that fence or variation.

So, the Staff Development Committee analyzed it and is supportive of both variations. We believe the site to be unique and the public uses echo on here with the playing fields, with the balls going back and forth, with the youths and young children that could be using the site. The fences are really necessary and will facilitate public safety here. Obviously, it will prevent balls from going into the drive aisle from the basketball court, interfering with car traffic, and it will help prevent balls from going into the detention basin as well. So, we're supportive of both variations for the fences.

Relative to parking, as I mentioned earlier, there are 274 spaces proposed to be constructed with 17 additional landbank spaces resulting in 291 onsite spaces. Code requires a total of 757 parking spaces. As the Plan Commission is aware, the parking code as it's, you know, currently applied assumes pretty much a worst case scenario where all spaces in the facility are used to their maximum potential at the same time. So, in reality, we don't expect that to happen, but that's what our code requires. So, that results in a 466 space parking deficit.

The Petitioner submitted a parking study in conjunction with their application to try and forecast a realistic parking demand for the site. What they did was they surveyed the existing parking lot usage to establish a baseline for the demand of the current facility, and then they used parking forecasting methods to estimate the parking demand for just the additional new construction spaces, adding them both together. They estimated the peak parking demand to be 309 parking spaces at peak times. So, that peak time was estimated at 6:00 p.m. on weekdays, that's when the fitness facilities are going to be at peak use for people coming back from work and wanting to exercise as well as programming for practices in the gymnasium areas for youth sporting events.

So, with a peak demand of 309 spaces, 274 spaces provided on site, that results in a 35-space potential parking deficit at peak times. With the 17 landbank parking spaces that could be constructed at the request of the Village, that would reduce this peak deficit to about 18 spaces. Do note that, and the Petitioner has also noted, that there is available street parking on Ridge Avenue, so I just want to show you where this parking is.

Here is an aerial of the site. The subject property is outlined in red. Street parking on Ridge is available at two locations primarily. The first one is on the east side of Ridge, north of the Christian Liberty Academy facility. That allows two-hour parking. Then there is a small portion along the west side of Ridge which allows unlimited parking. In sum and total, there's about 45 spaces in these areas that could accommodate for the peak parking demand.

Parking south on -- I guess, here we go. Parking in this area is restricted. There is no parking allowed here. Parking is also restricted on the east side of Ridge adjacent to Christian Liberty. There is parking allowed for drop-off during school days, but the yellow areas are really the only street parking available on Ridge. Two-hour parking does exist on the west side of Salem, and four-hour parking exists on both sides of Ridge south of Euclid.

The Christian Liberty Academy does use the existing parking lot for drop-off and pickup operations during the school day, primarily in the morning and afternoon, and then dismissal times during the afternoon. There is no formal agreement between Christian Liberty and the Park District to do this, but the Park District has been gracious in allowing Christian Liberty to utilize their parking lot for these functions. There is a parking lot located in the Christian Liberty area outlined here in orange. So, we have requested the Petitioner reach out to Christian Liberty if necessary to coordinate, you know, if there can be some shared parking between the two users during peak times. If there are major events that could cause a large parking overflow, we suggest that the Park District work with Christian Liberty to see if they can get access to that parking lot if there are no corresponding events at the Christian Liberty facility.

So, Staff is supportive of the parking variation for several reasons, one of which being that the park will really function as a neighborhood park for those instances. A lot of the traffic will be foot or bicycle traffic, or will be parents dropping their children off there and leaving without parking. So, the parking demand may not be quite as projected due to the neighborhood characteristic of the park facility here. Additionally, the Petitioner is providing a substantial amount of additional bike parking racks. There will be a total of 52 bicycle parking spaces that will encourage non-motorized access to the site and reduce parking and automobile traffic. Additionally, the Park District has acknowledged that major events should not overlap and they will make a conscious effort to make sure that doesn't occur so that parking doesn't create a crunch and overflow significantly into the surrounding neighborhood.

Compliance with the parking regulations, providing 727 spaces would basically eliminate all of the green space on the site, so we don't think complying with the strict requirements of the code are really practical in this instance. Finally, I'd note that the variation is similar in extent to other facilities. In 2013, both Frontier Park and Camelot Park received parking variations to a similar extent, and in 2006, Pioneer Park also received a substantial parking variation. So, the parking code requirements just don't really capture the adequate demand for the parking on the site.

So, there were also some traffic issues I want to highlight in relation to this project. The Petitioner did submit a traffic study, and Staff did analyze that. One of the things that we noted in the study is that there are some issues with the intersection of Ridge and Euclid. So, this is looking at the southeast corner of the site. Here is the intersection of Ridge and Euclid. The intersection currently operates at a level of service E on the southbound approach, meaning that traffic frequently waits between 30 seconds and a minute to clear through that intersection during peak times. As a result of the addition, the southbound movements to this intersection are downgraded to a level of service F with a delay that will increase during peak times to over two minutes.

So, what that means is that as cars start to stack up at the intersection, they'll begin to block access into the site. So, cars that are going northbound on Ridge Road trying to take a left into the facility won't be able to get in if cars are stacked up. Eventually, what could happen is additional cars will start backing up here and then potentially be backing up onto Euclid Avenue creating a hazardous condition. This stacking and level of delay isn't necessarily atypical for a local street that intersects with a secondary arterial like Euclid Avenue that's only under stop sign control. But it is a problem that we have identified and that the Petitioner needed to address.

So, there were several solutions proposed by the Petitioner. First is kind of a best case scenario in that incoming traffic would utilize the new northbound entrance into the site. So, here is the stacked up cars, and if the intersection into the Olympic facility site is blocked, cars could continue northbound on Ridge Road and access the site through the northbound entrance. This is kind of assuming a fix-yourself scenario where traffic just automatically organizes itself to avoid this problem. But if that's not good enough, the Park District and the Village of Arlington Heights will have to work to coordinate a Do Not Block Driveway sign here. Hopefully, that would keep cars from stacking up and blocking the driveway. Additionally, pavement markings could be put on the pavement that would identify that this is an area where cars should stack. But finally, if that doesn't work, the Village may ask that the Park District restrict the southern entrance to an exit only so cars would only be able to exit from the southern entrance and all cars would have to enter through the northern entrance.

Staff believes that these restrictions and solutions to the traffic problem are suitable, and we do recommend approval of the application subject to several conditions. I'll just go through those briefly.

The first one relates to parking, and as you've heard, you know, the Village wants a little oversight in working with the Park District to adjust scheduling so that major events don't overlap which could potentially include a reduction in some programming if it's determined that, you know, that a parking problem can't be avoided. Additionally, we're asking the Park District to agree to install the 17 landbank parking spaces within 90 days upon the request of the Village. We also ask that they explore a shared parking agreement with Christian Liberty.

Relative to traffic, the first condition addresses kind of a worst case scenario where future roadway improvements are needed to the Ridge Avenue and Euclid Avenue intersection. This would be a much larger project and would take coordination with the Village, the Park District, Christian Liberty, and the Cook County Department of Highways. So, if we continue to monitor traffic at that intersection and it's determined that some sort of larger scale improvement is needed and a right-of-way is needed for that, we just ask the Park District to agree to dedicate that right-of-way.

The second condition relates to the restrictions on the southbound entrance, it's restricted to exit only. Then as you've heard, there are some minor conditions on some changes to the landscape plan, and then our kind of boilerplate condition on complying with all codes. So, that concludes my presentation and I'm happy to answer any questions.

CHAIRMAN ENNES: Sam, thank you. Have all notices been sent out for this petition?

MR. HUBBARD: They have.

CHAIRMAN ENNES: They have. Thank you very much. Can we have a motion to approve the Staff report?

COMMISSIONER SIGALOS: I'll make that motion to approve the Staff report.

CHAIRMAN ENNES: And a second?

COMMISSIONER CHERWIN: I'll second.

CHAIRMAN ENNES: All in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: Any opposed?

(No response.)

CHAIRMAN ENNES: Okay, thank you. So, I would like to ask the Petitioner to come back up and allow the Commissioners to ask any questions they may have. Also, Mr. Rea, are you aware of the conditions that were just referenced?

MR. REA: We are aware.

CHAIRMAN ENNES: You're aware, and those are, and you're agreeable to those?

MR. REA: We are agreeable.

CHAIRMAN ENNES: Okay, thank you.

MR. REA: You're welcome.

CHAIRMAN ENNES: Commissioner Jensen, any questions?

COMMISSIONER JENSEN: Well, I was in Conceptual Plan Review Committee, and you've done a good job of filling out the things that you discussed tonight. So, I don't have too many questions.

I was going to ask you if you thought you had addressed all of the neighbors' concerns, but since we've got a full audience here I'm going to let them speak for themselves. So, I won't ask you that.

Just a couple of minor things. Did you consider any netting like you have in Sunset Park between the soccer field and your detention pond? Do you feel it might be needed? Eight-foot doesn't really seem like, it might not catch all of the balls that come out of the soccer field.

MR. REA: We did have discussions and there was, you know, talk with the neighborhoods trying to reduce the amount of fencing that we had around the park. For example, there was fencing originally proposed on the west side of the park. Through those discussions with the public, they felt that that wasn't necessary to have that fencing. We still have an existing backstop to the north side of the property in the northwest corner which will help capture some of the soccer balls that are in close proximity to that home that is there. So, that was a major point before with one of the residents that lives over there, that that remain in place just to protect their home.

We did talk about, you know, soccer balls ending up in the detention space. It didn't seem to be a large issue. There was not a lot of concern either about soccer balls ending on Salem as well. So, could it be possible in the future? Possibly. If it's something that after we start using the site, if there is a determination that we need it, we would definitely at that point in time consider it and take the appropriate steps to begin that process.

COMMISSIONER JENSEN: Great, and I assume, I'll ask Sam, there's no need for them to come back to anybody if they need to put netting up if it turns out that the eight-foot fence isn't really doing what it needs to do?

MR. HUBBARD: If they want to put up safety netting, they would be required to come back, that would comply with code requirements unless it's, you know, within the variances granted this evening.

COMMISSIONER JENSEN: So, would it make sense to try to incorporate something in here so they don't have to come back through this whole process again if they did decide to put netting in?

MR. HUBBARD: Well, I think it's tough to really know what that netting would look like, where it would go, and how tall it would be. You know, I'd be a little bit hesitant

to grant a blanket approval for something that we don't really know what it's going to look like.

COMMISSIONER JENSEN: My other question was even your traffic engineer's report showed that you could hit a level where you would be exceeding the peak, the numbers, the spaces that you have for parking. What are the circumstances that would generate that? How frequently do you think you might have a situation where the peak demand exceeds even by a few regards, you know, the number of spaces you have there?

MR. MEYER: I'll introduce myself. I'm Brian Meyer, B-r-i-a-n M-e-y-e-r. I'm the director of Recreation and Facilities. To answer your question, mostly that peak time would be most likely be evening if we have, you know, basketball practices going on, the fitness center is full. It could also come into play Saturday afternoons if we have a swim meet which could usually draw about 250 people. We also have some people in the fitness center, possibly some things in the gym. So, those would probably be the peak times.

But as we stated earlier, we would definitely make sure we're not having a basketball tournament while we're having a swim meet. So, we would be very conscious of what is going on in the facility.

COMMISSIONER JENSEN: Thank you. The only other suggestion I would make, your traffic engineer's report is quite interesting, 153 pages, although most of them is technical appendices. I would recommend before you go to the Board that you actually have an executive summary of a couple of pages. Because you had 16 pages, no executive summary, it's a little hard to get down to the bottom line of what the finding was. So, that's something you might want to do before you go to the Board. That's all I have at this point.

MR. REA: Just for the record, our traffic engineer is here today if there are any specific questions.

COMMISSIONER JENSEN: It's a good report, I just think it needs an executive summary.

MR. REA: Sure.

CHAIRMAN ENNES: Commissioner Lorenzini?

COMMISSIONER LORENZINI: Sam, what leverage would the Village have if swim meets and basketball tournaments became a regular thing that's happening?

MR. HUBBARD: Well, there's a condition of approval that gives us kind of a little bit of authority over some of the programming. We would be able to work with the Park District to help restrict programming if it becomes problematic relative to parking.

COMMISSIONER LORENZINI: Okay, and on the aerial, can you show me how far north is --

MR. HUBBARD: How far north what building?

COMMISSIONER LORENZINI: The new building that was shown.

MR. HUBBARD: The new building? Let's see.

COMMISSIONER LORENZINI: Yes, right there.

MR. HUBBARD: So, essentially, I believe it would go up to here. If the double gym is built, probably somewhere down here, just --

COMMISSIONER LORENZINI: Even if the single gym wasn't built, you'd still have that area as a basketball court to the north.

MR. HUBBARD: Right, this area would be basketball, exterior basketball courts.

COMMISSIONER LORENZINI: All right. When do you expect to go out to

bid for this project?

MR. REA: We're all going to be out to bid by the end of next month. So, April.

COMMISSIONER LORENZINI: And how long to build?

MR. REA: We're projecting it to actually be finished in September 2019.

COMMISSIONER LORENZINI: I know you have to competitively bid this, correct?

MR. REA: Correct.

COMMISSIONER LORENZINI: So, you don't want to give out the estimate?

MR. REA: The estimate for the project right now?

COMMISSIONER LORENZINI: Yes, for the project.

MR. REA: Well, the project was originally estimated in September at $16 million. Right now, if we were to construct the double gym, we're looking at closer to 18.

COMMISSIONER LORENZINI: All right, that's all I have. Thank you.

MR. REA: You're welcome.

CHAIRMAN ENNES: Commissioner Green?

COMMISSIONER GREEN: I just have a question for you, Sam, I think. The 17 landbank parking spaces, did I hear that correct, is an existing parking lot?

MR. HUBBARD: No. It was under the plans that were shown to the Plan Commission, they were shown as to be constructed. But in the last minute revisions that the Park District made, they're actually going to landbank those parking spots.

COMMISSIONER GREEN: Okay, because I just have a question about the landbank because you're coming up short on the peak demand. I'm going to hold off any other questions until I hear from the audience.

CHAIRMAN ENNES: Commissioner Cherwin?

COMMISSIONER CHERWIN: Thank you. Yes, I was in the Conceptual Review Committee as well. I think it's a great project overall. My major concerns, you know, to the extent I have concerns, Sam, I think the biggest one you addressed. You know, you guys also obviously recognized in the Euclid-Ridge intersection, you know, the stacking issue, the potential traffic. You know, left-in, potentially a left-out there I guess, you know, my thought was would you have to go to almost a one-way entrance only to the north? It looks like you guys were looking at all of that. That would be probably my biggest concern in this whole thing is that traffic congestion.

The other thing though related to that is circulation within. The parking lot, because obviously we're going to have a lot of kids here, we'll have a lot of cars going every which way and, you know, these peak load timeframes are going to be really, you know, I could see a lot of cars going a lot of different directions in this lot. That concerns me a little bit. So, you know, I would like probably some thought into maybe some circulation control within the lot that, you know, some thought around that, you know, because we do have kind of a funnel. We're going to be adding a lot of parking and it really does funnel into several different directions and different layers.

So, it's not, you know, probably my worst nightmare is AllState Arena, it's like the most terrible parking situation, and then I realized I don't think we're going to get to that one. But you know, this on a smaller scale, because we've got so many different

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directions, I would hope you can put some thought into circulation and be mindful about that. Certainly, you know, I guess you guys, I did hear tonight, the entrance limitations and the exit limitations and that makes a lot of sense.

The other thing that Commissioner Jensen brought up was at the top of my list, too, which is the fencing. I seem to spend half my life in these soccer games when I'm not in youth football games, and you know, you're going to have a lot of balls in the detention. That's just, it's going to happen. An eight-foot fence isn't going to stop a lot of them.

The nature of the retention area, is it dry bottom? Is it going to be sort of a wild, you know, plants and everything? Or how is it going to look? Or is it going to be just grass?

MR. REA: It will be a dry bottom but we'll have some natural plantings in it so it will be more naturalized.

COMMISSIONER CHERWIN: There's going to be a lot of youth soccer players going there to get balls. So, whatever you're, you know, putting up there, you know, I kind of agree with Commissioner Jensen, given the experience we had at Sunset Meadows, I would have thought that we would at least have the option here to put something up that would prevent that. If we don't put up, if we don't have an approval now, you know, we don't have a safety issue that we had at Sunset Meadows, right, where balls are going to the street, but there's going to be a lot of traversing so we just have to keep that in mind, whether it's a gate in there or whatever. Just going to be a lot of kids going in there and get soccer balls.

There are as well on Salem, I mean I go to a lot of games in this area, that's not a very dangerous area because there's no one on Salem, but balls do go onto the streets quite a bit. I'm not concerned obviously about the north, that's really not an issue.

Then the other issue I guess I was thinking about was Ridge Avenue. Is there any flexibility on the Village's part to help support, if we do have, you know, not only that we, when you talk about in the reality maybe a deficit of about 35 spaces, some of that being addressed with the landbanking if we need it, but also allowing some of the on-street parking more southerly here on Ridge Avenue, say on the east side of Ridge Avenue by Christian Liberty, even if it's, you know, say after 4:00 o'clock or something, after the school day is over. Is that realistic? Is that something that, Sam, I'd ask you, that the Village would maybe consider to help alleviate some of the parking?

MR. HUBBARD: We can certainly explore it. I don't know the rationale for that parking restriction currently, you know, but it's something we can explore with our traffic engineer. I mean there could be a good reason why parking is restricted there, I just don't know.

COMMISSIONER CHERWIN: Yes, and if we do have stacking, you know, if there is heavier traffic here, it might even be less feasible to do that. But I think it would be at least something to think about. Those are my issues. Thank you.

CHAIRMAN ENNES: Thank you. Commissioner Sigalos?

COMMISSIONER SIGALOS: Well, Commissioner Cherwin just stated a couple of my questions. Again, on Ridge Avenue, I'm concerned with the traffic there and the stacking that's going to occur at that entry into the parking lot. Christian Liberty School, do they typically have activities on the weekends or not?

MR. HUBBARD: I don't know. I would imagine that occasionally they do. Maybe the Park District can respond to that.

MR. MEYER: If we do, one thing, sometimes we've had some soccer

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practices over there, most recently you might remember District 214 had basketball games on a Friday night at Christian Liberty, and what they did, they communicated with the Park District. We worked with them, the park in our lot to ease congestion around Christian Liberty.

COMMISSIONER SIGALOS: Just to pick up on what Commissioner Cherwin's point, on the east side of Ridge, right now there is no parking allowed on the east side of Ridge as I understood it, but if let's say after 4:00 o'clock or after 5:00 o'clock on the weekends, if parking was allowed on that east side of Ridge just immediately east of Olympic Park, that would help ease traffic and parking that may occur farther north on Ridge. Again, it's not a question to you, but if the Village would consider some type of parking signage there that would allow evening parking on the east side of Ridge and weekend parking on the east side of Ridge, that may help the situation.

My other thought was I thought I saw somewhere in the report that there was an existing curb cut on Euclid Avenue and IDOT wanted that removed. Could that, is there any consideration to an entrance off of Euclid Avenue into the parking lot and not have that eastern entrance, the southeast corner into the parking lot on Ridge? Where you could just have entry into Euclid or at the very northeast entry into the parking lot?

CHAIRMAN ENNES: Euclid is a state route, right? Euclid is a state route.

COMMISSIONER SIGALOS: Is that a consideration?

MR. HUBBARD: That's something they'd have to work with the Cook County Department of Highways on.

COMMISSIONER SIGALOS: I understand that.

MR. HUBBARD: Euclid Avenue is under their jurisdiction. I don't know if there would be concerns on the Cook County Department's part relative to proximity to Northwest Highway. I believe that would be only right-in/right-out type of entrance.

COMMISSIONER SIGALOS: It probably would be, but I would assume that most of the people that come from Arlington Heights to use Olympic Park come from the east, so they would be traveling westbound on Euclid, I'm guessing. That would allow an entry into the parking lot off of Euclid and avoid or not even have that entrance at the southeast corner of Ridge and Euclid. Just a thought if that would help alleviate, I could see a problem in stacking in front of that entrance on southbound Ridge. That's my major concern.

The other thing, can we go to a site plan that showed where that landbank area was proposed? Okay, that area there where you're marking it now, that's going to be paved anyhow, is that correct?

MR. HUBBARD: On their landbank scenario, it would be left as green space.

COMMISSIONER SIGALOS: Why don't we just build those right now? I mean I get it, I'm not in favor of losing a lot of green space, but that's not a significant amount of green space there. Why don't we build those 17 parking spaces now? Because I just always, everybody have landbank parking, I don't recall if the Village ever comes back and requires the owners to construct the parking necessary. Being that it's right there adjacent to the drive, I would suggest that those be constructed now.

MR. HUBBARD: I think it's a balance between trying to preserve green space and paving over with parking.

COMMISSIONER SIGALOS: I understand that.

MR. HUBBARD: I think the thought is you can always see what the actual

demand is generated here, and if demand exceeds supply, then we have the option for 17 other spaces. But if we pave them and demand doesn't get there, then we've paved over a green space that is now going to be --

COMMISSIONER SIGALOS: Well, again it sounds like the demand is going to be there and it's going to alleviate people parking on Ridge which I would be concerned about. Anyway, that's my comment.

COMMISSIONER CHERWIN: I would just add to that, John, besides, you know, green space, you may also have traffic flow issues from those spaces, you know, where you have cars pulling in and out.

COMMISSIONER SIGALOS: I understand.

COMMISSIONER CHERWIN: Where it's going to affect more stacking potentially on Ridge. So, if we can avoid spaces there, I think, I mean I don't know, maybe that's not true but --

COMMISSIONER SIGALOS: No, I certainly see that. My last question, you mentioned your budgets that you have or estimates for this, that's prepared by your construction manager?

MR. REA: Yes.

COMMISSIONER SIGALOS: How likely are you, knowing what he prepared for you and the funds you have on hand, how likely are you to go with the base bid versus the alternate with the additional gymnasium?

MR. REA: The direction of our board is to try and, if we can afford it, to go for the second gym, that is the desired option at this point in time.

COMMISSIONER SIGALOS: So, knowing what the preliminary estimate is, you think that that's the more likely scenario, that you'll go with the double gymnasium?

MR. REA: Right now, yes. I mean obviously it all depends on how the bids come back maybe next month once we see them to make that final decision and the board will have to weigh in at that point in time.

COMMISSIONER SIGALOS: Okay, thank you. That's all I have.

MR. REA: You're welcome.

CHAIRMAN ENNES: Thank you, John. I have a couple of questions. On that same line of questioning, have you done an estimate of what it would cost to put in this 17 landbank parking spots now?

MR. REA: We haven't done an estimate. This was, as Sam mentioned, this is kind of a late development. Generally speaking, it may be fairly cost effective because they're directly adjacent to the drive aisle or next to. But there would be a cost to it.

CHAIRMAN ENNES: But wasn't part of the parking going to be up where the detention pond was?

MR. REA: Correct. The original scheme was to actually cut the existing parking lot back, kind of lose that last double row. Correct, thanks, Sam. In an effort to get the large detention area as far south as we can. There are some cost savings --

CHAIRMAN ENNES: As far north?

MR. REA: That's right. There are some cost savings to maintaining that area of existing parking, so there's a cost positive. The negative would be that it pushes the detention area a little bit farther north slightly reducing the amount of green space, play green space.

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CHAIRMAN ENNES: Why it would be nice to see an estimate would be because the negative is if you find out you need more parking and have to do it later, the cost is going to be higher I would anticipate. But that's your internal issue I think, that if it's 17 spaces with the deficiency, and I realize we have approved some huge deficiencies with some of the Park District properties in the past, but I would rather see the parking in just to minimize the amount that overflows onto the neighborhood streets.

Sam, were you in Staff when a couple of years ago, actually probably more than a couple of years ago, we approved the restaurant across Euclid from the park? Big Ange?

MR. HUBBARD: I was not, but I am aware that there is some shared parking agreement between that facility and the Park District taking, it's for like six spaces.

CHAIRMAN ENNES: Okay, I may have misunderstood. I thought you said there were no parking agreements, and I know one of the concerns we had with that restaurant was they don't have adequate parking. They had indicated, or at least it was my understanding that they had indicated to us that they had an agreement with the Park District to use some parking.

MR. REA: To clarify, with Christian Liberty Academy we have no parking agreements. That's to clarify that statement.

CHAIRMAN ENNES: Okay, but do you have -- wait, I'm sorry. So, there is an agreement with Christian Liberty Academy?

MR. REA: No, there isn't. That's why I'm saying there is no parking agreement with the Christian Liberty Academy. That's where I think the confusion --

CHAIRMAN ENNES: Oh, okay. But there is something with the restaurant?

MR. REA: Yes.

CHAIRMAN ENNES: Okay, okay. So, is that a written agreement or is that verbal?

MR. REA: It is a written agreement.

CHAIRMAN ENNES: Oh, it is, okay. I did think that. The air conditioning and heating equipment that will be on the roof?

MR. REA: Yes.

CHAIRMAN ENNES: Is that near any residential property?

MR. REA: No, it's quite a distance away.

CHAIRMAN ENNES: So, that's up against the school, Christian Liberty Academy?

MR. REA: Yes, and then we'll have --

CHAIRMAN ENNES: It's on that side of this?

MR. REA: Same type of screening that we presently have on the building to hide it and to --

CHAIRMAN ENNES: To block that?

MR. REA: Yes.

CHAIRMAN ENNES: Okay, that is all I have. So, if you want to be seated?

Can I see a show of hands for the number of people in the audience that might want to make a comment? Okay, so we have a few. I'm going to ask you each to come up, we'll start in the back row and we'll move from the outside in, and then move up to the

next row. I'm going to ask just to conserve time, if somebody else has also brought up the issue that you're going to address or is one of the issues you want to address, if you could just say I agree with that, unless there's another point you want to bring up? But just so that we can move this hearing along. We want to hear from all of you, want to hear all your concerns. But if we could proceed from that basis, that will help us.

We'll go through everybody that wants to speak. We'll hear what you have to say. When we're done, we'll close the public hearing and then the Commissioners will do their final deliberation. So, if we can start in that back row on the outside, was there anybody in that row who would like to come forward? Sorry to put you up first. But again, when you come up, would you please state your name and spell it? You're not required to tell us where you live but it can help us to understand what your concerns are.

QUESTIONS FROM AUDIENCE

MS. BYRON: My name is Linda Byron, B-y-r-o-n. I live on Salem Avenue across the street from the park. I have a number of concerns, one of which is I don't see a playground on the plans and it looks like you eliminated the playground. So, do I pause or do I just list all --

CHAIRMAN ENNES: No, make your statement and we can address that later.

MS. BYRON: Okay. The other one is we are concerned about the losing of green space and outdoor activities. So, I would definitely prefer having the basketball court an outdoor basketball court, because then it's more for the neighborhood kids so that they have some place to play.

My third question was is the baseball back lot, I'm not sure what to call it, still going to be there in the northwest corner of the park? Because it looks like it is going to eliminated from the plans here, and that's a really nice area for kids to play when there's no soccer games going on. It is definitely used.

CHAIRMAN ENNES: Okay.

MS. BYRON: Those are my comments. So, now do I sit down?

CHAIRMAN ENNES: Please. She raised a couple of questions. Mr. Rea, would you like to comment on those?

MR. REA: Sure. There is a playground and Sam had highlighted the area where the playground will be established. We'll have a four-foot fence around it for safety for the children that use it. The backstop --

CHAIRMAN ENNES: So, that will still be there?

MR. REA: Yes, it will be there. The backstop that was referenced is actually still in this depiction up there, and the plans are to leave that on the site.

CHAIRMAN ENNES: Okay. Who is next? Anybody else in the back row? Second to the back row? Thank you.

MR. LOCH: My name is Tom Loch, L-o-c-h. I live on the northwest corner of Olympic Park in the brick house that's two feet 10 inches away from --

CHAIRMAN ENNES: Did you say Sam?

MR. LOCH: Tom.

CHAIRMAN ENNES: Tom, oh, I'm sorry.

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MR. LOCH: Yes, Tom Loch. My concern is also with the loss of green space. Right now, Olympic Park is a hybrid of a community park for the entire town, but it's also the only neighborhood park in the area that has a field to play in. The next closest field to play in for our kids would be all the way over in Virginia Terrace up by Thomas and Wilke and Yale, whatever, and the other one is Hasbrook. So, we're giving up a lot of green space and we'd like to try and keep as much as possible.

So, from that respect, I kind of support the idea of as little parking as possible because it's really consuming, we're paving paradise and putting up a parking lot. Because there's so much green space there, that's getting eaten up by this parking lot and there's no other green space of that magnitude and size anywhere in your lot. Kids aren't going to cross Euclid and the train tracks to go to Volz Park, that's just not a neighborhood park for us to use on the north side of the tracks. Let's see.

CHAIRMAN ENNES: So, what I'm hearing you say, you'd rather have some periodic parking on the streets as opposed to giving up more green space for parking?

MR. LOCH: Well, the apartments do it all the time for soccer games. So, I would support the reduced parking concept only because it's eating up a lot of green space.

In terms of the backstop, I'm glad they're keeping it up. In terms of the concern of, I am someone who lives on Salem and I coach soccer, I was a soccer referee in the youth program. Four of my sons play soccer. In watching all the games that go on over there which I enjoy to watch, there's a big set of trees all along on the east side of Salem Avenue that act as a pretty good buffer for balls that go up in the air. It's been my experience driving down Salem whenever a ball bounces onto Salem Avenue, it's usually because of little siblings playing on the side, they're kicking balls around the side, that's why it rolls into the street. It's not the stuff that comes around from the games.

CHAIRMAN ENNES: So, there is traffic on Salem?

MR. LOCH: There is, well, people live there and we drive on the street.

CHAIRMAN ENNES: I'm just teasing.

MR. LOCH: Well, he mentioned there was no one on Salem, I want you to know there's a whole bunch of people on Salem. I'm one of them.

CHAIRMAN ENNES: You didn't notice their smiles on the back when you said that.

MR. LOCH: Let's see. If there is a double gym, I think there should be a place for outdoor basketball because, like I said, a lot of the neighborhood amenities that are there right now are going to be reduced or eliminated. We want to try and keep as much of that as possible. People use that park for other things, kite flying, people go out there and shoot off rockets. They play drones and things like that. That's a big space for people to use and it's not going to be there anymore if you turn it into a parking lot.

I support the idea of, in fact I suggested because I attended two of the meetings when we had them at the park, and I also attended two of the board meetings and wrote letters to the board, and they've listened to a lot of things that I've said. They've been good about that. My big concern is about, I told them I'd come and support the idea of reduced parking because I think it helps with the green space so I'm good to do that.

Also, for the entrance on Euclid, I think that would be something, there's a curb cut already there. They used to allow traffic there. I know there's a median in there to keep you from making a left turn. But right turn in and a right turn out I think would be a

way to reduce some of the traffic backup on Ridge.

I've lived in the area for 32 years. I've lived in that spot for 32 years, I've lived in Arlington Heights for 55 years. I'm very familiar with the area. I've had several kids who went to Arlington High School. I've been driving around here for a long time. I think that would help if you have a right turn in and right turn out on Euclid. I think that would help reduce the traffic on Ridge.

Oh, one other thing. Is there a possibility perhaps to increase parking closer to Euclid and get some other spaces that are not eating up as much green space if the retention pond was made deeper? Because that's a pretty high area, it's about 720 feet above sea level at that point. If you made the retention area deeper so it would have the same capacity, it would have a smaller footprint and allow for more parking. That's a pretty high part of the town still over there. I think you might be able to consider getting more parking space by making the retention area deeper. Just a thought.

CHAIRMAN ENNES: Thank you, Mr. Loch. Anybody else in that row? We're going to go from this. Ma'am, before you come up, does the Park District want to reply to that question?

MR. REA: Just real quick. Just with respect to basketball, one of the things that we have been talking about is having basketball hoops within the parking area. That could be striped off, what park is this? Yes, like Rec Park, yes, similar to what's occurring at Rec Park. Kind of the less used parking areas, just having outdoor basketball hoops to supplement the courts that are being lost.

Then with respect to the detention pond, we do have challenges with making it any deeper because of the existing outfalls and where it ties into downstream. Correct. So, that's one of the challenges we have is that the pipes that we're going to be tying into are fairly shallow.

CHAIRMAN ENNES: Okay, thank you.

COMMISSIONER JENSEN: Terry, a follow-up question on that point, on the hoops and so forth. How many months can you use that outdoor basketball court as opposed to if you had it indoors? What's the split between the outdoors versus indoors?

MR. REA: I'd say the second snow is out, you can use the outdoor courts very easily. So, any time maybe from mid to late March through December at some point in time when snowfall starts.

COMMISSIONER JENSEN: Really six months of the year.

MR. REA: Yes, there's some pretty dedicated people that would play anytime.

MS. SELESKI: That's my concern, so I'll say hi, I'm Maureen Seleski. I'm on Salem Avenue, another person who lives there. I'm just going to --

CHAIRMAN ENNES: Maureen, if you'd spell your last name please?

MS. SELESKI: S-e-l-e-s-k-i. You asked us not to be repetitive but I strongly encourage the basketball hoops outside. We don't want the kids to have to be inside all the time. That place is used all year-round unless there is snow on the ground, and you're already taking away other space for middle age kids and teenagers. We need to have an outside space. So, the hoops are important. Thank you.

CHAIRMAN ENNES: Okay.

COMMISSIONER CHERWIN: Terry, I just want to correct the record. I am

not an enemy of Salem. I should have qualified there's no through traffic on Salem. It's a beautiful street with lovely homes and awesome neighbors.

CHAIRMAN ENNES: My only point and I think our residents understood that is when you said that --

COMMISSIONER CHERWIN: I just want to make sure I'm not creating --

CHAIRMAN ENNES: He and I assume his wife were smiling in the background talking about they live on Salem.

COMMISSIONER CHERWIN: Okay, I love Salem. Thank you.

CHAIRMAN ENNES: Yes, the next person there. Good evening.

MS. HAAKER: Good evening. Thanks for the opportunity to speak.

CHAIRMAN ENNES: Sure.

MS. HAAKER: Cathy Haaker, H-a-a-k-e-r, Salem Avenue resident. Actually I'm in the last house that you would be looking at behind the retention pond. The conversations about the net, with the changes in the line of that retention pond, that net would be very, very unsightly and it would kind of run right in front of our home. I do agree with all of the other comments made by my neighbors. One exception though, if there is parking increased in that retention area, also that would end up in front of my home.

CHAIRMAN ENNES: Okay, thank you. Any, yes? Yes, sir. The gentleman behind you, yes. Good evening.

MR. LEWIS: Good evening. My name is John Lewis, last name L-e-w-i-s. I do not live on Salem so I'll break the streak. I live on Fremont across from Memorial Park. So, I use this facility quite a bit. Actually, I guess before I start, can I ask a question of Sam?

CHAIRMAN ENNES: No, direct it to us and we'll deal with that.

MR. LEWIS: Then my second question is could he go back to the slide where he showed the different parks with the deficiencies with the parking? Specifically Pioneer, I thought that would be instructive.

CHAIRMAN ENNES: Is that the one?

MR. LEWIS: My point was going to be, you know what, I use this facility probably 150-160 times a year to swim since 2004 after the last renovation. The parking is never full, and unless I'm missing something today, from what the Park District has said, there's really going to be no overlap between the events that are scheduled. I don't know if anybody has ever been to a swim meet, but there are hundreds of kids multiplied by two times the number of parents, basically take that and figure out the number of cars, and you're there the whole time, right? The facility is not filled with parking spots, at least I've never seen it in 14 years, 15 years, whenever it's going on.

So, I guess what I would say, I echo the concerns from the people on Salem that I think you're giving away a lot of green space. The code is the code, I'm a civil engineer by training and this required parking is absurd. I mean I understand that we're trying to argue and make justifications for why we should go down below, but if we're talking here proposed 62, Pioneer is 79, I've been to plenty events at Pioneer, sure, you have to search a little bit for space but I've never not been able to get a space at Pioneer either.

So, my comment would be I think you are, the comment about the landbank parking, absolutely not, don't build that parking. You don't need that. I would say that you could go at least to the percentage that you have for Pioneer and it looks like -- because these spots are never used. I mean this is an urban desert as it is right now, and unless I'm

DRAFT

missing something, you're not going to have a basketball tournament at the same time as a swim meet. I'm sure the parking study people can comment on this, but that's going to be the driving event for your parking demand.

If you're not going to schedule anything else with that, you don't need any more parking than what you have. If you want to add more to make yourself better relative to what's required with the code, go ahead. But I think you're overshooting it and I think you're going to regret it because that's just way too much parking. You don't need that in my opinion.

CHAIRMAN ENNES: Mr. Lewis, thank you. Anybody else in that row? Ma'am?

MS. BARAN: Hi.

CHAIRMAN ENNES: Hi.

MS. BARAN: My name is Lorie Baran, B-a-r-a-n. If you bring up the other picture that had the full park, I am on Fernandez. So, I'm on the forgotten street in the middle of the park that kind of leads into it where, I don't know if you can see the little circle where the cul de sac is.

CHAIRMAN ENNES: Okay.

MS. BARAN: Back to the picture we had, so we're on the cul de sac there. I guess I'm going to reiterate what everybody else has reiterated already today is the taking away of the green space that we have as a neighbor now. I have lived there for 30 plus years, have had a view of large, open green space. My concern right now is my view is going to be of a parking lot.

I know they've made some comments about some additional landscaping that is going to be put over there on the east side of the cul de sac. What about the circular and the west side of the cul de sac? Are we going to address the fact that our view right now is green, our view is going to be parking lot?

Then number two is the parking pattern on Ridge. Right now, with Christian Liberty using it in the morning, using it in the afternoon, using it in the evening, sometimes we wait on Euclid a minute, minute and a half to even be able to make a left-hand turn onto Ridge. We're kind of landlocked on our street, so that's pretty much our only way of getting to Fernandez.

CHAIRMAN ENNES: Okay.

MS. BARAN: So, I think that, I don't think we should gloss over the fact that we are going to have some real major traffic issues there. That's all I have to say.

CHAIRMAN ENNES: Okay, thank you. Mr. Rea, can you comment on --

MR. REA: The landscape issue?

CHAIRMAN ENNES: The landscape down by the cul de sac?

MR. REA: Yes, I mean if we need to provide some additional screening to the cul de sac, we would definitely consider that as part of the project.

CHAIRMAN ENNES: All right. Yes, ma'am. Good evening.

MS. DAPPER: Hi, Carmella Dapper, D-a-p-p-e-r. I also live on Fernandez. Can you put it back to the plain? I want to see the cul de sac where the playground is going to be. Our house is right on, my garden window is right off of the, I could see the playground right now. So, you're going to be putting the playground and taking it farther going towards Salem?

MR. REA: No.

MS. DAPPER: You're going to go back to the tennis courts. So, the cul de

sac is to that circular area right there?

MR. REA: Correct.

MS. DAPPER: So, how close then, so you're not going to be, from my understanding in the past is that it was going to be going closer to the cul de sac. So, am I incorrect?

MR. YANDEL: We moved it farther away from the cul de sac.

MS. DAPPER: Okay, so the children playing on the playground won't be by the cul de sac.

CHAIRMAN ENNES: Ms. Dapper, would you address your questions to us?

MS. DAPPER: So, they won't be closer to the cul de sac, they will be closer to the basketball courts. So, the children wouldn't be closer to the street. As well as when you're talking about the landscape, how much is that closer to where the Safety Town is right now or where the gravel is for this? Is the landscape going to be, again they're going to be coming closer to my house? Because I'm like, four feet off of my house is where the Park District playground starts. So, I would like to know how close --

CHAIRMAN ENNES: Four feet from your house?

MS. DAPPER: From where our fence is, four feet out back towards the Olympic Park is where my house still has space. So, how much closer would that landscape be to myself?

CHAIRMAN ENNES: Okay, did you have anything else?

MS. DAPPER: No.

CHAIRMAN ENNES: Okay, can someone address that?

MR. REA: So, the playground again is going to be on the west elevation of the proposed addition, and the landscaping would occur only on Park District property. So, it would be offset from the property line.

MR. YANDEL: Just as a kind of follow-up on that, so from the north edge of the new parking lot, basically the line that's there, the sidewalk that's directly north of the new parking is the existing sidewalk that's there on the west side of, I'm sorry, the south side of Safety Town. So, in essence, everything north of the existing sidewalk in that whole buffer zone remains unchanged from how it is today. So, we're trying to keep this large, fresh green space with the mature trees kind of, and I mentioned it earlier, intact, maintain that buffer between the new development and the residential neighborhood.

The existing playground happened about in the kind of northwest corner of the new parking area, so just to the north and west of where it's moving now. So, we're trying to get everything kind of closer and tucked to the building to maintain that large buffer between the neighborhood.

CHAIRMAN ENNES: So, Mr. Yandel?

MR. YANDEL: Yes?

CHAIRMAN ENNES: From the Park District's lot line by the cul de sac to the northern edge of the parking lot, about how far is that? I think that's what she was getting at.

MR. YANDEL: This dimension here is about 80 feet.

CHAIRMAN ENNES: About 80 feet, okay. Thank you. Yes, sir.

MR. HOUGHTON: My name is Allen Houghton, H-o-u-g-h-t-o-n.

CHAIRMAN ENNES: Welcome.

MR. HOUGHTON: Hi. One question no one has said anything is the high school site. They use that for a lot of events. I mean, it's the band, dances, drop-offs, I mean, and then when there's games at the football field. I mean Ridge is completely full, and then with the added, you'll see the mess.

CHAIRMAN ENNES: I know, I go over there. Thank you. I think we're to your row.

MR. COATES: Good evening. John Coates, C-o-a-t-e-s. Could I ask you to put up the slide that says Aerial at the top? It's the photograph versus the plans. I have just two points to make. There we go, there we go.

With respect to what's offered, two proposals, one as was mentioned earlier, right turn in, right turn out off of Euclid, it seems to be a way to relieve the chokepoint right over here to a substantial degree possibly, but to a moderate degree absolutely. Number two, Christian Liberty has a parking lot right here, and I'm going to guess you can get 80 cars in there. It would be my recommendation that the Plan Commission and the Park District engage with Christian Liberty in order to come to an agreement where when we have a spillover demand, that's probably not the right legal term, but when capacity for a swim event and a basketball event or whatever it happens to be and there's a requirement for additional parking, that people park right here.

I can say from experience over the years raising two kids, that's basically what we did when this parking lot was full. So, I would encourage the Park District to come to an agreement. It wouldn't have to be for a 30-year lease with X dollars per year. It could be to improve that parking lot from a structural standpoint, pave it, you know. It's, I don't want to say it's tired but it's seen better days. Maybe if the Park District improves the structure a lot, organizes it, and it exchange for that for 30 years we get the opportunity to park there if we had a need for additional spaces.

CHAIRMAN ENNES: They did indicate that they were going to talk to Christian Liberty about sharing.

MR. COATES: Exactly. I just want to reinforce that point, that I think that is truly the, in my opinion, the solution point that would bring compromise to all parties.

CHAIRMAN ENNES: Thank you. Anyone else on this side of the room? Okay, we'll move over to your right side, my left side. Anybody in the back row? Anybody on the left side that wants to make a comment? Okay, anybody else in the room that would like to make a comment?

Okay, we're going to close the public portion of our meeting and go back to our Commissioners. Commissioner Jensen?

COMMISSIONER JENSEN: Yes, I'd actually like to have the traffic engineer speak to the issue of parking versus green space. If you didn't have to deal with the Village Code, and it looks like we kind of dealt directly with it anyway because we didn't have large variances in the area, in the zone. But if you didn't have to be worried about that, what level of parking would you need and how much green space did you actually save?

CHAIRMAN ENNES: Can we ask you to identify yourself? And were you up in the original group to be sworn in?

MS. BYRON: Yes, I was sworn in. For the record, my name is Lyn Means, last name is M-e-a-n-s.

CHAIRMAN ENNES: Hi, Ms. Means.

MS. BYRON: I am a senior transportation engineer at Gewalt Hamilton. Related to the balance of parking versus green space, based on our current observations, as we noted, we did parking counts during typical weekday events and saw a minimal use of the current parking lot during those timeframes. There was I believe about 36 percent of the existing spaces occupied and well over 120 spaces unoccupied during typical observations of the existing facility. We did, however, observe a swim meet where all the parking spaces were occupied and there was minimal spillover on the adjacent street.

So, during those events, as we understand, they are infrequent and they only happen I believe 10 times a year. So, in general, we don't recommend design for those worst case scenarios. We typically like to accommodate your typical peak timeframes, and that's where the critical aspect is that everybody was talking about earlier within the Staff report as well as during the presentation. It's finding that balance of programming, and they don't like to schedule programming where you have that Armageddon of basketball-meet happens, et cetera. Obviously, they need to try to schedule things so you don't have the, you have a good turnover in between events as well, too, because sometimes you may get an overlap of events where they may not occur concurrently but you may have some overlap in between those things.

So, we feel that the number that's presented as right now without the landbanking can adequately accommodate regularly programmed scheduled events without the, and can accommodate the adjacent street, that minimal spillover during those peak events. So, we feel that parking demand that they have at 274 spaces to be adequate to accommodate regularly scheduled program as well as can accommodate a peak event that would occur, not obviously the whole building, but that would occur during your swim meet or basketball games, et cetera.

COMMISSIONER JENSEN: So, you wouldn't actually though reduce the amount of parking below what is recommended in the report?

MS. BYRON: I would, based on the information that we currently have from standards, would be to keep the parking as proposed.

COMMISSIONER JENSEN: And you've scaled that with the new activities?

MS. BYRON: Yes.

COMMISSIONER JENSEN: So, this report does meet the best balance that you, as you see it?

MS. BYRON: It is my opinion that it does meet the best balance.

COMMISSIONER JENSEN: Great.

CHAIRMAN ENNES: That's at the 274 spots?

MS. BYRON: That's 274 spaces, that's correct. Thank you.

COMMISSIONER JENSEN: I would ask Staff one question. It seems like we keep bumping up against this issue on Public Lands where we have, the code requirements are so far out of line with what we end up approving that it's really a little bit unnerving not only to the Commissioners but to the people, you know, in the audience. So, is there, you know, I'm not saying we'll do anything about it tonight, but I think we really need to take a look at how the code is set for those kinds of zones because the variances are so huge. So, that's just something I think that we need to take up in another forum. That's all I have.

CHAIRMAN ENNES: Mr. Lorenzini?

COMMISSIONER LORENZINI: Thank you. Sam, on that aerial again,

could you, you pointed out this before how far north the building essentially is going to go. But can you kind of outline how much green space is going to be taken up to the west with the new parking lot? So, out there.

MR. HUBBARD: So, it will approximately come like this, and then go down like that.

COMMISSIONER LORENZINI: Okay, and then you're going to have the playground just west of the new addition, and you're going to have the soccer field. Is there any other green space that will be left over after all this is done?

MR. HUBBARD: That's the major changes to the green space.

COMMISSIONER LORENZINI: So, the soccer field is going to, right now this drawing or the aerial, I find the soccer field on the west side. Is that going to be moved farther north?

MR. HUBBARD: Yes, the detention area will be expanded like this, and some of the soccer field will be pushed a little bit to the north.

COMMISSIONER LORENZINI: So, other than the soccer field and the playgrounds, really not much of a green space now.

MR. HUBBARD: Well, there's, yes, Safety Town, and then there's an open area here, and then there's the soccer field and then the detention pond.

COMMISSIONER LORENZINI: Okay, that seems reasonable. Maybe Ms. Means or whoever can explain, what rationale went into closing the entrance on Euclid?

MS. BYRON: That question was related to closing the entrance on Euclid?

COMMISSIONER LORENZINI: Yes.

MS. BYRON: I believe that was relative to safety aspect and to keep that area, I believe, as more of a pedestrian way along Euclid in itself. Just given the volume of traffic that goes through that multi-lane intersection along with the railroad crossing at that point there, that there is often queuing and blocking through there, or in the westbound direction as well, that even with it being a right-in/right-out, you still may have difficulties turning right in and right out to that access. There is also the possibility of folks wanting to turn right out that want to then get over into one of the farther lanes as well. So, there is a distance there within the weave.

So, that was, I believe, one of the premises for maintaining the closure of that access. As we did talk about before, we do acknowledge that there is the benefit of providing that additional pavement circulating around the building. It's to provide just a secondary access to relieve the pressure off of that existing access in such close proximity on Ridge to Euclid. So, getting that extra pavement in and the circulation around the building is a benefit in itself to safety at that location.

We did note that, you know, there's possibilities that if these alternatives with signing aren't successful, that the traffic can be managed adequately if that southern access were to be restricted to a right-in/right-out. You would have acceptable operations both at the north and the south access.

COMMISSIONER LORENZINI: Okay, so, yes, it seems kind of intuitive that it would make sense to close the entrance on a busy street because then you have fast cars slowing down that end. So, I guess that just needs some reinforcement on that.

But then also the entrance off of Ridge Avenue that is close to Euclid, there was talk about putting a sign there and maybe striping the pavement. I would

assume that should just be done.

MS. BYRON: The sign, yes.

COMMISSIONER LORENZINI: Yes, okay. All right, thank you. That's all I have.

CHAIRMAN ENNES: Commissioner Green?

COMMISSIONER GREEN: Well, the Park District must be doing an exceptionally great job here because this is the first time in a long time I've heard the neighbors want to keep the parking down to a minimum on the site. So, I would say leave the landbank parking for the future and go with what you have. Ms. Means, you just reinforced that for me. So, on top of being a great facility that you're going to build here, I think there's going to be plenty of parking. That's it.

CHAIRMAN ENNES: That's it?

COMMISSIONER GREEN: That's it.

CHAIRMAN ENNES: Mr. Green, you're kidding, that's it?

COMMISSIONER GREEN: That's it.

CHAIRMAN ENNES: Mr. Cherwin?

COMMISSIONER CHERWIN: I would just say real quick, if we could bring up the landscape plan, Sam? The reason I just say that is because, you know, we did have some comments from the public about the, you know, increased parking area from Fernandez. You know, I guess, is there anything more based on the comments, meaning Mr. Rea, the comments along the northern boundary there? We talked about screening. I mean is that feasible? It looks like there's probably some additional landscape screening that you could provide up there, and is that a reasonable request? I think it might be given, you know, some of the concerns with the increased pavement.

MR. REA: Yes, we want to be a good neighbor. If there is a request that we can fill with landscaping, we would definitely consider that.

MR. HUBBARD: I would add that that's what the Staff's condition of approval relative to landscaping relates to, the landscaping addition on the north property line.

COMMISSIONER CHERWIN: Oh, that specific, okay. Oh, yes, okay, good. All right, excellent.

Then, yes, then I would just say, you know, my final thought, too, would be if you're putting up that fence by the stormwater, just make it accessible so that when you go over there, like I said, there's not really a safety issue that would justify, you know, where you'd need a big, tall screen. But I do know that there will be balls going over there, so just make sure that it's, I guess, accessible to some extent for the kids going down there. That's it.

CHAIRMAN ENNES: That's it?

COMMISSIONER CHERWIN: That's it.

CHAIRMAN ENNES: Thank you, Jay. Mr. Sigalos?

COMMISSIONER SIGALOS: I would just like to reiterate that I am very much in favor of green space. So, after hearing the neighbors not being concerned of parking on the street and so forth, I'll take back my comments and suggest that the landbank spaces be just kept as landbank and not be constructed now as we have proposed.

The last question I had was working with the Christian Liberty School, I know I was at the Conceptual Plan Review Committee meeting, and at that time we suggested that to you. Have you had any dialogue with them regarding some type of agreement

to use their parking on the weekends or what have you when the school is not in session?

MR. REA: Up to this point, no. But it's definitely something, as Sam had mentioned, it would be a suggestion and more or less a requirement from the Village for us to approach Christian Liberty Academy to set some sort of a, you know, an agreement in place, a written agreement, so that if there is off-hour activities for the Park District that don't coincide with Christian Liberty Activities, we would seek to establish an agreement with them to use some of their parking space.

COMMISSIONER SIGALOS: I would suggest before you go to the full Board, the Village Board meeting, that maybe you do have that. That's what we suggested at the Conceptual Plan, even if you come to the- Plan Commission and say you didn't have any dialogue with them, I think it would be in your best interest if you do have some dialogue before you went to the Village Board.

MR. REA: Understood, we'll do so.

COMMISSIONER SIGALOS: Thank you.

COMMISSIONER CHERWIN: Could I, I'm sorry, while we have you, on that same topic, sorry to interrupt John, but is it my understanding that they're already using, I mean so there's already some informal relationship where they've been using the Park District property for some of their --

MR. REA: It's very informal. We don't have any verbal or written agreements. It's typically used by parents dropping off their children right now.

COMMISSIONER CHERWIN: So, I would, you know, I would hope that as a good neighbor, you know, in light of the benefit that you've been providing them, they would be receptive to reciprocity in terms of parking.

MR. REA: I'm sure we can come to some sort of agreement.

CHAIRMAN ENNES: John, were you done?

COMMISSIONER SIGALOS: That's all I have.

CHAIRMAN ENNES: Okay, I have nothing further. Can we have a motion?

COMMISSIONER JENSEN: There is one topic that we, that I meant to address, I can't read my own handwriting, which is the outdoor basketball court. It seems like you could go either way because you brought two plans before us. You heard some comment from the neighbors that the neighborhood kids would use the outdoor court, you said they could use it up to six months or so. What would swing the balance here so that you would keep it as an outdoor court, giving you a little bit more green space I suppose, and also making it more accessible to the kids who want to just use it informally? What would it take for you to swing in that direction I guess?

MR. REA: So, are you asking versus, one addition versus two?

COMMISSIONER JENSEN: Yes, because I mean that's what they're asking, that you would --

MR. REA: I understand that. I would think we would try and find a compromise in some way, that we had already talked about possibly creating a space like we had at Recreation Park to provide a couple of hoops for kids, maybe a stripe that's half court so I could picture it being on the north side of that parking lot, potentially having a pole or two where the kids will still have an opportunity to go out there and play and have a basketball opportunity outside, not inside in the proposed facility.

COMMISSIONER JENSEN: Good. So, I think you've heard the neighbors

that if you do go with the one where both courts are enclosed, you should make some accommodation.

MR. REA: We will try our best to do so.
CHAIRMAN ENNES: Okay. Is there a motion?
COMMISSIONER GREEN: Sure. I'd like to make a motion.

A motion to recommend to the Village Board of Trustees <u>approval</u> of PC#18-002, an amendment to Planned Unit Development (PUD) Ordinances #79-19 and #03-036, and a Special Use Permit to allow a community center, recreation building, and the following variations from Chapter 28 of the Municipal Code:

- **Variation to Section 11.4, *Schedule of Parking Requirements*, to reduce the required amount of off-site parking from 757 spaces to 291 spaces;**
- **Variation to Section 6.13-3(B), *Side and Rear Yards*, to allow a 10-foot fence in the rear yard where code limits fence heights to five feet; and**
- **Variation to Section 6.13-3(C), *Exterior Side Yards*, to allow an eight-foot tall fence in an exterior rear yard where code limits fence heights to five feet.**

This approval shall be subject to the following conditions:

<u>Parking Related</u>:

1. **The Arlington Heights Park District shall take the following actions if it is determined, at the sole discretion of the Village of Arlington Heights, that there is a shortage of onsite parking spaces on the subject property:**
   - **A. The Park District shall work with the Village to adjust scheduling so that major events do not overlap. This may include a reduction in the amount of programming that is allowed on the subject property.**
   - **B. The Park District shall construct all landbanked parking stalls, as identified in the plan prepared by Gewalt Hamilton Associates, Inc., within 90 days upon request of the Village.**
   - **C. The Park District will explore the ability for a shared parking agreement with the Christian Liberty Academy located to the east of the subject property (or other acceptable location), which agreement shall be subject to review by the Village.**

<u>Traffic Related</u>:

1. **If it is determined by the Village that future roadway improvements are feasible and necessary to connect traffic congestion at the intersection of Ridge Avenue and Euclid Avenue, the Park District shall dedicate the necessary land to facilitate such improvements.**
2. **At the request of the Village, the Park District will limit the southern entrance drive to restrict ingress into the subject property from northbound automobiles on Ridge Avenue.**

<u>General</u>:

1. **The Petitioner shall provide three-foot tall shrubs in the landscape island at the northeast corner of the site should the landbanked parking be constructed. Additionally, the Petitioner shall substitute the dogwood and**

nine bark shrubs proposed at the north side of the parking lot expansion with six-foot tall evergreens, and additional evergreens shall be added to the north of the parking lot expansion to conform with Section 6.15-1.2 of Chapter 28 of the Municipal Code.

2. The Petitioner shall comply with all federal, state, and Village codes, regulations and policies.

COMMISSIONER LORENZINI: I'll second that.
CHAIRMAN ENNES: Is there a second?
COMMISSIONER LORENZINI: Second.
CHAIRMAN ENNES: Can we have a roll call vote? Is there any discussion? Can we have a roll call vote, Sam?
MR. HUBBARD: Commissioner Cherwin.
COMMISSIONER CHERWIN: Yes.
MR. HUBBARD: Commissioner Jensen.
COMMISSIONER JENSEN: Yes.
MR. HUBBARD: Commissioner Sigalos.
COMMISSIONER SIGALOS: Yes.
MR. HUBBARD: Chairman Ennes.
CHAIRMAN ENNES: Yes.
MR. HUBBARD: Commissioner Lorenzini.
COMMISSIONER LORENZINI: Yes, with comment.
MR. HUBBARD: Commissioner Green.
COMMISSIONER GREEN: Yes.
CHAIRMAN ENNES: And your comment?
COMMISSIONER LORENZINI: My comment is, Sam, I think the Village should look at getting some evening and maybe weekend parking but no overnight parking on Ridge Avenue by Christian Liberty, so if there is any overflow, they can do that without having to build those landbank spots sometime in the future. That's all I have.
CHAIRMAN ENNES: Okay, you have a unanimous approval from the Plan Commission. Sam, is there a date for them to go before the Village Board?
MR. HUBBARD: They have a tentative date of April 2nd but subject to availability, so we will be in touch about that.
CHAIRMAN ENNES: Congratulations for a very well-documented plan. You gave us a lot of work to do.
MR. REA: Thank you.
CHAIRMAN ENNES: Thank you.

(Whereupon, the above-mentioned petition was adjourned at 9:15 p.m.)

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Item: South Arlington Heights Road Corridor Plan - 3/14/18

Department: Planning & Community Development

ATTACHMENTS:

Description	Type
Minutes - 3/14/18	Minutes

PLAN
_____
_____
_____

COMMISSION

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

RE: SOUTH ARLINGTON HEIGHTS ROAD CORRIDOR PLAN - PC#18-004

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 14th day of March, 2018 at the hour of 9:15 p.m.

MEMBERS PRESENT:

TERRY ENNES, Chairman
LYNN JENSEN
JOE LORENZINI
BRUCE GREEN
JOHN SIGALOS
JAY CHERWIN

ALSO PRESENT:

SAM HUBBARD, Community Development Planner
BILL ENRIGHT, Community Development Deputy Director

DRAFT

CHAIRMAN ENNES: Okay, we have one more item on our agenda. I believe, Mr. Enright, you're going to be presenting this?

MR. ENRIGHT: Yes.

CHAIRMAN ENNES: He's kicking you out of the seat, huh, Sam? Good evening, Bill.

MR. ENRIGHT: Good evening, Chairman Ennes and members of the Plan Commission, and the public. We have several members of the business community in the public here, so I want to kind of go through the presentation quickly so we can get any potential comments.

The South Arlington Heights Road Corridor was identified as a priority corridor by the Village Board when the 2015 Master Plan for the Village was updated. We have been working with the business community having, you know, we had a kickoff meeting in September of last year at the DoubleTree, and we did a community survey which we received over 600 responses to. We followed up with stakeholder meetings with individual property owners and some of the hotels, we reached out to all the hotels, with respect to the corridor study.

The corridor is basically the south end of Arlington Heights Road from I-90 to just north of Golf Road including off of each direction east and west on Algonquin and Golf Road as well. There are certainly great attributes to this corridor, great access of course to I-90, high traffic volumes, seven hotels which are kind of the economic engine of the area with 900 rooms plus. So, there's a large economic impact on employment in this corridor, actually with a lot of office uses like the OSHA facility which brings in a lot of people for training who then stay at the hotels and hopefully shop in the area. But also critically, there's a lot of development opportunities in this corridor, especially on the east side of the road.

The current Comprehensive Plan was, as I said, updated in 2015 and identified this as a priority corridor. At that time, we also did a survey of the community and 90 percent agreed that the appearance of corridors throughout the Village including this one could be enhanced in terms of development on the private side but also in the public portion of the streets. As I mentioned, we did a community outreach with the September presentation where we invited the businesses and the property owners in the corridor. We did the community survey, stakeholder meetings, and we sent out e-mail blast updates.

On the survey, we received 607 responses included in the results in the Novus packet which is online for the public and the Plan Commission. We asked the public whether or not they felt improvements were needed to this specific corridor. 85 percent of the respondents said yes, six percent said no, and eight percent not sure. Then we asked them to rate some of the various improvements just to get a feel for what the people think is important. We have our ideas but we want to know what to prioritize.

Landscape medians averaged 6.4 out of 10. Focal points 6.9, we'll get into a little bit about this as we move forward what these are, focal points 6.9 out of 10. Burying the ComEd utilities or possibly relocating them which traverse the west side of the road through the corridor, 6.8 out of 10, although that's a very expensive and probably realistically unfeasible. Development of parcels ranked very high, 7.9, because we have a lot of vacant parcels or underdeveloped parcels that we'll get into here in a second. Then pedestrian improvements was very critical, that also ranked a 7.9.

So, the nice thing about surveys like this is, obviously a lot of these things are going to cost money, at least the public part of it, but also the private investment that would be needed. But it really helps us kind of focus on some of the critical aspects of this. People may want to move about, pedestrians with all the hotels in that area and the restaurants, or well, the offices, there's a few restaurants, that was identified as a need as well as having more restaurants in the area, and there were a lot of other survey questions, I just kind of highlighted a few of them here. But this helps us prioritize certain aspects of the plan to meet the needs of the community that responded.

Some of the overall goals of the Comprehensive Plan, and I won't go through each one of them, but basically to improve upon the image of corridors, create better ingress and egress safety, coordinating parking lots so you reduce curb cuts on the roadways, and compatibility between uses as well, and pedestrian movements.

This specific corridor plan, some of the objectives outlined are development standards set up for land parcels along the east side of Arlington Heights Road, enhanced pedestrian access and walkability of the corridor. One thing that we would do with any new development is get the sidewalks off of the curb. Those sidewalks are carriage walks so they're right up against Arlington Heights Road where people are traveling in very high speed. Even though it's 40 miles an hour, people will exceed that, and it's not very comfortable to walk along there. So, we want to move the sidewalks at least eight to 10 feet off the curb and have landscape in medians in between as redevelopment occurs. That can be accomplished with redevelopment on the east side. It's a little tougher on the west side because we have so much built there. When I-90 was widened as part of the full interchange of I-90 about 22 years ago, the road moved very close to a lot of those buildings and parking areas, so there's really not a whole lot of room to do much right now on the west side with your sidewalks.

Enhance landscaping and gateway features, we're going to look at possible landscaping within the medians, certainly with redevelopment of parcels, having ample setbacks and ample landscaping buffers along the peripheral of the sites along Arlington Heights Road and the other side roads. This will help kind of reintroduce landscaping that used to exist in this corridor. Remember before Arlington Heights Road was widened that there were quite a few mature trees up and down both sides of the road, and that dramatically changed with the necessity to widen the road when the full access interchange was developed.

We want to work with the business community on the marketing plan for the area to give it an identity and a name. We have the uptown area which is Rand Road, we have downtown here of course. We tested through the survey the concept of possibly calling the area the gateway or gateway district or gateway to Arlington Heights. I would say it kind of had a lukewarm response. Some people thought it was a good idea, some people thought it was so-so. But we want to work with the hotels and the businesses down there and the property owners on trying to come up with a good identity from a marketing strategy standpoint so that people know this is a certain shopping district and mixed use district.

A critical component is these various funding mechanisms to implement the plan which we're going to do in a second, and also promoting sustainable development and the efficient use of land. One of the recommendations with the Comprehensive Plan is to, we have kind of a hodgepodge of uses here with offices and commercial and the school district is currently at that facility but they'll move at the end of the year, is to create a mixed use district along the east side of Arlington Heights Road through to

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Tonne Road from Seegers all the way down through to I-90. This will allow more land uses to consider, residential being part of it, also mixed use development. We want to see commercial fronting the major streets with possible residential behind or above. We would like to see more restaurants in the area as we think that's a need that was certainly identified through the survey and we've heard a lot about that from the hotel operators as a need. So, we want a little bit more flexibility with this corridor instead of the rigid zoning, the rigid Comprehensive Plan that says you can only do an office building over there, or you can only do commercial right there, you can't do residential here. We want it to be more fluid and responsive to the market.

One of the ways of doing that is on the left of the map we have a series of different zoning districts right now. We have Office-Transitional here at Seegers and Arlington Heights Road. That's a one-story office building, there's also another office building at the south end just north of the Holiday Inn. That's all that would be allowed there with the current zoning is office, and O-T only allows two floors. We would like to liberalize the zoning in the area by creating an overlay zoning district on the right which would mirror the Comprehensive Plan change. We would establish in this area kind of outlined in the light red, come up with specific zoning standards for this area for how it should look and setbacks and heights and things of that nature. That would be one of the first things we would do in implementing this plan is creating zoning that would better implement the idea of mixed use development in this area and more responsive to market demand again.

Components of the plan of course is establishing an identity for the area, landscaping and aesthetic improvements are important, improving the economic development and land use and new design guidelines for the area, enhancing pedestrian traffic movements, and then of course the funding mechanisms. Right now, we're in part of the approval process, we're at the Plan Commission hearing, this will then go before the Village Board. Of course, implementation is kind of two phases, there's a short-term phase, things that we can do pretty quickly, in less than a year to three years, and then longer term with redevelopment of parcels that can take, you know, depends on the market and the willingness of developers.

I will say though that of the parcels that we're looking to develop, of course at the north you have TIF 4 which we've been working on for years. I'm somewhat optimistic about that because we hired a consultant to do a market study, so we are working with International Plaza ownership to kind of reinvent this area and make it more mixed use. So, we're cautiously optimistic on that happening. Then you have the office complex that I mentioned before. Down here you have the School District 59's administrative offices, they're moving to Elk Grove. They bought the Wellington a couple of years ago, a few years ago, tore that building down, so they own those sites. But they have sold it to a developer who wants to do mixed uses with commercial and residential. We've already had preliminary discussions with that developer. Then just to the south of that, the former Yanni's site which would be a great site for a restaurant, there is an owner that wanted to do a food court with Asian cuisine. We haven't heard back from that developer in several months although they did present some concept plans, so we want to continue to try and foster that and see how we can assist that because we think that would be a good use there.

Then you see at the southeast corner of Algonquin and Arlington Heights Road several parcels here. Some of it is owned by, a big portion of it is owned by a developer who we met with on a couple of occasions that is looking to do mixed use here with

residential and commercial, and looking at all sorts of different uses. But it also includes potentially all the way down to the Daily Herald building as well, although this particular developer wouldn't necessarily be looking over at that direction, but we think there are opportunities for either retrofitting, you know, the Daily Herald site because, you know, they've been downsizing. We would also talk with one of the owners of the single-story office building at Tonne and Algonquin Road at the southeasterly portion of that.

So, you know, there's a real good opportunity here to have pretty extensive redevelopment of all these areas in shaded of various types of land uses. It would dramatically change the corridor for the better I believe. We don't want to overdo it either. You don't want, you know, 2,000 dwelling units here either. But I think part of it is going to be spurred by some residential, you know, potentially some degree of height particularly down at the south end and certainly in some of the parcels in the middle as well, but also that helps promote getting more commercial along the frontages and brings some people to patronize any future restaurants that might want to come in because there's great access with the hotels and visibility. So, you know, we want to be responsive and come up with a good overall vision for a variety of uses here and really stimulate the development in the area.

You know, some of the redevelopment opportunities I won't go through. I just pointed those out. These are just aerials of the potential. You know, these buildings are just examples that are six to eight stories roughly. I'm not saying that would be everywhere on the east side of Arlington Heights, but we'd consider some sort of density in the area as long as ingress and egress works and the traffic and parking works out which all of that gets evaluated, you know, on a case by case basis.

We want to make aesthetic improvements to the area. We have a potential gateway sign. We have one already, this is at the tollway exit. This is looking north at Arlington Heights Road and I-90. We have a little bit of a sign here that's, you know, okay, it's not the best. We'd like to enhance that and make a real nice gateway feature here welcoming people to Arlington Heights. We would work with the Tollway Authority, we'd need an easement from them to do this.

We also want to reach out to the Tollway Authority about their cloverleaf ramps. When they redid I-90, they dumped a lot of soil there, there's detention there. They're not, you know, much of an amenity in terms of green space. But interestingly, late last year or early this year, I read an article in the Daily Herald that the Tollway Authority has budgeted I think $50 or $60 million on improving their cloverleafs throughout the area, and we want to reach out to them and see if this is a priority for them hopefully or get it at the top of the list so that those cloverleafs can be nice entryways as you get off the highway and could be very nicely landscaped. But we also want to do things up and down the corridor as well.

Landscape medians, we want to look at, you know, medians in strategic locations along Arlington Heights Road. Obviously, we've got to maintain access for the businesses and visibility. These types of improvements are subject to the Illinois Department of Transportation. We do want to, with redevelopment along the east side of the corridor, require developers to coordinate their parking areas so there are cross access easements, so that you can limit the number of curb cuts. When you limit the number of curb cuts, then you can gear traffic to go in and out at certain locations. Right now, there's a dual left-turn lane up and down Arlington Heights Road and it's kind of a free-for-all for cars, you know, and then you add in cars going 55 miles an hour, you know, at times it can be a little unnerving. So, one of the

benefits of landscaped islands is obviously the aesthetic part of it, but it's also to funnel traffic to make turning movements at appropriate locations rather than more helter-skelter.

One of the ideas, too, is to make big, wide crosswalks, not just five feet wide but, you know, eight, 10, 12-foot wide crosswalks with stamped concrete at the major intersections, and also look at the timing of any pedestrian-activated signals. It's really difficult and it really always will be difficult to get through the Algonquin and Arlington Heights Road intersection. There's just so many lanes of traffic. There's nine lanes when you include the turning lanes. So, it makes it very difficult to cross here but we want to do what we can to enhance that and make motorists aware of it.

But one of the components of this plan is to approach IDOT with redevelopment in front of the Wellington site, this blue dot here on the image of a new intersection, it's a traffic signal. There's a traffic signal on Algonquin Road in front of the hotels about the same proximity west of Arlington Heights Road as this would be north of Algonquin Road. We think IDOT could be supportive of this because it then funnels traffic to a certain location. We would encourage all these properties here as they redevelop to have cross access so that a lot of the traffic could be funneled through a signal. Of course the signal then gets timed with the signals here so that the traffic still flows. This would also allow for the opportunity, again it's six lanes of traffic up here plus the center turning lane, to introduce crosswalks that are stamped concrete. That could help with pedestrians crossing and I believe it's safer at the busy intersection. It's still a long distance to travel for pedestrians.

This shows it a little bit better. You know, we'd want to work with the hotels. There's two hotels on the west side. We've met with the owner of the two hotels, one owner owns both Red Roof and Comfort Inn, to look at maintaining access for that hotel with this concept here, and then to the right would be the new development contemplated on District 59-Wellington site by the developers who bought that property.

Looking at various funding options, state grants, not optimistic about that. But general fund, obviously the Village has funded other projects throughout the community with general fund. Special assessment or special service area, that's an additional tax on property owners, but it has to be approved by the property owners 51 percent. So, that's a process of negotiating and deciding whether or not it's something that would be acceptable. Another mechanism that the Village has used sparingly but very effectively is tax increment financing, although there are concerns, you know, with the school districts on using that financing tool. But we want to explore all options as we move forward with the implementation of development projects both public and private.

Recommendations, you know, regarding sidewalks, traffic signal, pedestrian crossings, the decorative banners, the focal points. Focal points meaning, you know, major intersections, we want to enhance the appearance of each of the corners as property gets developed. Funding options and amending the land use plan as well as an overlay zoning district to be adaptive to market conditions. Coordinate with IDOT and ComEd. The utility lines, burying them is very costly and probably not feasible, maybe relocating them to behind the properties might be a better option. But you know, we're going to take our best shot at it but it's very expensive and I don't want to make any promises on that one. Landscaped island and medians, an identity for the area and branding, working with the business community on that, and promoting the area with developers and businesses and bringing in new businesses that will complement what's there now, and of course coordinate with the tollways I mentioned earlier.

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Next steps would be go to Village Board hopefully in April. After that, we have a capital improvement plan which is five years advanced of budgeting items on a preliminary basis for public improvements. That's the first step of getting things budgeted, things that the Village might do here in the public way. Obviously, developer proposals, we've already met with three developers of the property on the east side of Arlington Heights Road, and I think they're all very active developers that want to do something relatively quickly. Then funding sources, some of these funding sources, you know, do require public processes or public input.

At that point, I'd like to conclude. I know we've got some members of the public, we did receive a nice letter of support from Jeffrey Bernstein from Bradford Allen who is one of the main property owners at the south end of this corridor. At that point, I'll turn it over to the Plan Commission.

CHAIRMAN ENNES: Thank you, Director Enright. Do we have a motion to accept the director's report?

COMMISSIONER JENSEN: I'll so move.

COMMISSIONER GREEN: Second.

CHAIRMAN ENNES: All in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: Okay. How many people in the audience would like to comment? Let's start with you over here. We'll start in the front this time. If you'll come up, state your name and spell it again? We'd like to hear your comments.

QUESTIONS FROM AUDIENCE

MR. COATES: Yes, good evening. John Coates, C-o-a-t-e-s. From a high level standpoint, I endorse the plan. But I think for future work, we need to consider some of the effects that are going to drive success to the plan.

The first one concerns mode. There's three principal modes of transport: pedestrian mode, automobile mode, and mass transit mode. Mass transit is off the table. Right now this is an automobile/truck corridor. So, anything done is not necessarily going to increase the alternative which is pedestrian traffic. In order to increase pedestrian traffic, we need an origin of where those pedestrians will start and where they're going to go to. So, if we increase the sidewalk space, et cetera, cosmetically, absolutely. Okay, if we put in what I call creature comforts, and I mean that in a positive way, you know, with cityscaping and things like that, it will look great. But we're not going to alter the fundamental pieces that are there.

What I do support is what was mentioned earlier, and that is a residential environment. We need a residential environment to support whatever pedestrian changes we make. With the rhetorical comments over the last 10, 15, 20 years about Arlington Heights not having sufficient residential space for the low income and some of the low median income families, this is an excellent opportunity to make headway in that social commitment. Independent of what those prices are, the idea is whatever residential properties originate, they should be in keeping with what the rest of Arlington Heights is.

Arlington Heights, with the exception of downtown and Rand is six, eight, 10, 14 stories, okay. The rest of the buildings are two stories, maybe three stories. It's my suggestion and my opinion that we can find the area from the tollway to "the Algonquin intersection." Whether that cascades 50 feet or 100 feet, that's insignificant. That should be the

highest area commercially driven. As you move forward north, what we presently have is an environment that is not green space. It is presently parking lots, open spaces, and any green space is going to go away with development.

For that reason, what I suggest we do is concentrate two and three-story structures going from north of Algonquin to Golf Road and have that as an area for residential. Residential will support whatever pedestrian improvements we want to make in terms of streetscape and crossings and things of that nature. As we go farther from Golf, that area to the left and to the right as you go north has always been "underutilized," okay, and I'm being polite by that. We know what it looks like on the east side. On the west side by Jewel parking lot, you know, I have yet to see that parking lot full in the last 20 years.

So, what we need to do is really spend time, if we've got an 80,000 foot view right now which I personally think is fantastic, when we get to the 60,000 foot view, what we need to do is concentrate on residential origins, whatever they happen to be and whatever the destinations are, whether it's restaurants, et cetera. Because right now, anybody driving from the tollway to north of Golf, it's an automobile environment. People don't park their car in Jewel and walk across to the International Harbor Place. They get in their car and go. So, we need to consider that.

The last piece that I would offer for support is whatever we do with streetscaping, we need to consider is that a one time investment or is that part of an ongoing investment? Okay, this project is huge. It's going to cost a fortune to do it right. It's not going to be some Taj Mahal, it's going to be looking and blocking and tackling elements that we need to include in order to make it attractive.

My vision that I see in this is as you exit the toll road and go north, there are some six 10-story office buildings, whatever the sizes, they're not 14 or 20 stories, but they're there, and as you proceed north they drop down with residential properties left and right. You get up to Golf Road and north of Golf Road you have a continuation on the east side of the medical offices that are one or two stories tall. North of Golf, the height does not exceed that dimension, and with appropriate cityscaping it will be an attractive area.

The last point I'd like to make is utilities. Costs are a consequence. Costs should not drive a decision of should we do it or not. Those poles that are out there now are awful. If anybody has been to Southern California, this looks like the valley. That area from Golf Road south to the toll road looks like the San Fernando Valley, the drive through it. If you don't have the opportunity to go to California, go to Orland Park and drive on Lagrange Road, same thing. It's a place built for automobiles.

Arlington Heights is not a place built for automobiles. It's a place built for residences, and that being our invitation to come on in. This is where I see the planning efforts need to be. Just as information, I'm happy to volunteer and help the Plan Commission in any way to make this, you know, make it go forward or whatever. But again, that's just an offer. I'm not saying it's a requirement.

But I'm passionate for it. I've been here for 35 years and we need to make this the attraction that it is. That's all.

CHAIRMAN ENNES: Mr. Coates, right? Thank you for your comments. Bill, our gateway plan that we did a number of years ago, the whole area around --

MR. ENRIGHT: STAR line Master Plan?

CHAIRMAN ENNES: Yes.

MR. ENRIGHT: Well, that was predicated on a Metra line coming up I-90. That's probably not going to happen, at least not in the near future if at all. But that did look at the southeast quadrant of Algonquin, mostly Bradford Allen's property but also through the Daily Herald property and even east as you go through some of the industrial one story buildings, to change that whole quadrant to a very high density mixed use development. But again, a lot of that, you know, you have, you know, people still drive in the suburbs unless there's an alternative mode of transportation which there isn't down here. I mean there is a bus line, there are bus routes, but you know, buses are somewhat limited in scope and use in the surrounding areas out here.

So, that plan really only makes sense if there was a Metra line. Again, that doesn't appear that that's going to be, I mean maybe it will down the road but that's probably --

CHAIRMAN ENNES: That's long term in view.

MR. ENRIGHT: So, the idea, and the gentleman speaking I think is very spot on, is to have taller buildings potentially south of Algonquin. Then as you go farther north, you kind of get down to maybe, you know, a little bit lower than that, maybe four, maybe five stories. But you know, we want to work on that as part of an overlay zone and figure out what's right and work with the property owners that own these properties, respond to what they want to do. But you know, if it's not, if it's a, you know, a requirement that we think is out of the scope of this plan, we wouldn't recommend it.

CHAIRMAN ENNES: Right.

MR. ENRIGHT: But in our conversations with the developers that we've met with so far, what they want to do is consistent with what we think the vision is for this area. Of course, each of those projects would have to go through public hearing process.

As far as housing, the Village has an affordable housing policy. So, any new residential doesn't mean, you know, it doesn't have to provide affordable housing, it can provide a fee in lieu of. Most of the developments that we've seen recently either built or proposed, except for Park View Apartments that's just finishing up on the north side of downtown, contribute a fee to our trust fund to promote affordable housing in different areas of the Village. We don't have enough money in that trust fund yet to do anything with it, but we're going to be building it up if these developments occur.

So, you know, there wouldn't be affordable housing concentrated necessarily in this area, but certainly a developer could set aside a certain percentage of units like 10 or 15 percent or pay a fee in lieu of in your trust fund. So, really it goes developer by developer.

CHAIRMAN ENNES: Okay, thank you. Do you have a comment? Would you come forward?

MR. WADA: Hi.

CHAIRMAN ENNES: Hi, please.

MR. WADA: My name is Chris Wada, last name is W-a-d-a. I represent the property owner for the OSHA building. My question related to that building is where would the new intersection be, you said related to the Comfort Inn? I couldn't tell from the picture that was shown where that was in relation to the OSHA building.

Then my next question was regarding the removal of the middle turn lane that runs up Arlington Heights Road. Would there still be turn lanes into the buildings so

that you can, if you're driving north on Arlington Heights Road from the highway, you could still get into the OSHA building or the other locations that are there? Or would you have to go farther down and make a U-turn just to get back to the building?

Then sort of unrelated to the building was I've noticed that nothing was really mentioned about bike friendliness. Will there be bike lanes or would people riding their bike be able to ride on that sidewalk? It's just thinking about it in general. Would you want people riding their bikes down to Busse Woods? It seems like that would be a major feature for new residential units or people north of this area who want to travel to Busse Woods maybe riding a bike. If there were some means of making that friendly so that they don't have to ride on Arlington Heights Road, I thought that would also be useful for the people who may come to visit the OSHA building. They may be there for a long weekend or a long week, and walking over to Busse Woods may be something they want to do.

I don't know how feasible that is considering once you go south of the highway there is not really any sidewalks along Arlington Heights Road. That's all I have, thank you.

CHAIRMAN ENNES: So, Mr. Wada, are you on the Bicycle Commission?

MR. WADA: No, just as a resident of a suburb in the area, I noticed the whole suburban area is not bike friendly. I think it would be helpful if --

CHAIRMAN ENNES: It is something we've been working on a long time.

MR. ENRIGHT: Well, let me answer his questions.

CHAIRMAN ENNES: Yes.

MR. ENRIGHT: The proposed intersection would be by the Comfort Inn here at the blue dot. OSHA is way up here.

MR. WADA: Yes.

MR. ENRIGHT: So, this would not affect you. As far as landscaped medians, we want to work with all the property owners because we don't want to just start cutting off access to everybody and making people do U-turns. It has to be reasonable. So, it may be more limited, I mean ideally it would be great if we could have it up and down the whole stretch. But even if we did landscaped islands, even under this scenario, there would be a left-turn lane so that people can get in to the hotel and then vice versa coming south to get into the school's 59 location.

So, any medians that we put in, we try and fill in the gaps in between curb cuts because we're not going to start cutting off everybody's properties. So, we'd have to design that with engineers and work with all the business owners and property owners there so that we're not eliminating that. So, that's certainly maybe more difficult.

Regarding bike paths, there will not be a bike path through Arlington Heights Road south unfortunately. With the tollway, the new interchange, with the rebuild of I-90, they didn't have any accommodation for movements underneath the tollway at I-90. Our Bike Commission has developed a new master plan that was adopted by the Plan Commission and Village Board last year in 2017. There are new bike routes to the east on Goebbert as well to the north on Golf Road to go east-west or north-south, but not to Busse Woods here because of the constraints of the tollway.

There is a connection to Busse Woods but it's circuitous and difficult to get to but it's kind of at the southwest corner of Arlington Heights Road. That's where the Bike Commission focused their attention to improve that access at that location, because once you

get over to Busse Woods at that point, there's connections to their bike paths.

CHAIRMAN ENNES: Thanks, Bill. Who would like to come up next? Good evening.

MR. PARULO: Good evening, gentlemen. My name is Dave Parulo, D-a-v-e P-a-r-u-l-o. Professionally, I'm president of Meet Chicago Northwest. We are the convention business bureau for the Village of Arlington Heights in the northwest suburbs.

Just coming here, I want to give a little bit of historical background on this project and also to thank the Village for moving this project forward. The convention bureau is very much in support of this project. With us tonight are several hotel operators.

In that corridor is a bit of a historic, a recent history. The operators convened with members of the Plan Commission, members of Village Staff to express concern with the current condition of the intersection. The operators represent 700 hotel rooms within 700 feet, it's very interesting. Our concern, and we're so glad to hear, is that it is a gateway activity of greeting folks to the Village of Arlington Heights. As business owners, the feeling was that the visitor was not feeling a connection to the Village or welcoming. So, we're very excited about the welcome concept.

In regard to the current curb appeal and things of that sort, we're very delighted with the aspects of road improvements, of greenery coming. We're also very happy about the ideas of the sidewalk and things of that sort. Historically, one of the issues that we brought to the Village to consider was that the current lack of feeling a connection to the Village of Arlington Heights is kind of leading to visitors exiting the Village and going into Rolling Meadows and the Village of Schaumburg for shopping and for dining purchases. One of the hopes is that as the corridor project moves on, that it develops a wayfaring type of feeling with the hope of additional restaurants but also to have a welcoming corridor leading towards the downtown entertainment district and posing that a little bit closer as the other gentleman had mentioned.

The discussion about adding sidewalks and safe passage, beyond just an aesthetic point of view and life safety, what's very important in regard to our hotel operators is that there are two established business destinations that people come to that we find that we want to support the visitors to visit. One is the Guitar Center, believe it or not it's a hugely important destination for folks to get over to. Maybe perhaps more importantly, a safe passage to the International Market Place and Mitsuwa, particularly the hotels have international travelers coming in to go there, folks coming from across the United States and locally, and they really kind of view it as their bread and butter business.

Additionally, the discussion we think is really germane in regard to changing the safety in regard to the sidewalks and things of that sort that are buyers, people who are using our hotels, their demographic is beginning to change over time and their desirability to have outside activities and walking and things of that sort is increasing. As the other gentleman had mentioned, yes, Arlington Heights was really developed in that corridor as a driving location. As times are changing, buyers are kind of looking for a different type of opportunity.

The last thing I think is important is the conversation in regard to the aesthetic flags and things of that sort. We really feel that it's important from the business point of view that it is a welcoming situation but also that it develops a sense of place. You know, we feel that it's almost a hotel corridor for the Village and we think it's an important economic engine. Once again, we're very pleased that this project is moving forward and getting attention

from the Village.

CHAIRMAN ENNES: Thank you, Mr. Parulo.

MR. PARULO: Thank you.

CHAIRMAN ENNES: Anyone else? Yes. Welcome.

MS. SKRODZIUK: Good evening. My name is Carolina Skrodziuk, S-k-r-o-d-z-i-u-k, and I'm the general manager of Arlington Heights South Courtyard Marriott. The one comment I want to make about the name of this district, I think if we will be naming this complicated, it's not going to drive attention. This is a hotel district. If we will just call it hotel district, I mean when you guys are marketing it and you are trying to market to developers, the moment they hear hotels here at the hotel district, my restaurant is going to pick up because there are hotels, it's a hotel district. My store is going to have an attention because people from the hotels are going to be going out.

If we will be calling it a gateway or whatever it is, I think that it will be harder to sell for the developers around. It's seven hotels within 700 feet. So, if we will call it hotel district, I think it will grab better attention when it comes to further development in this area. It's just a suggestion of course.

The other thing I want to talk about is when I saw that presentation and I saw just putting those trees in the middle of the street, I was disoriented. I didn't know where that intersection is. So, I started sharing that with my colleagues and people in the area. Just putting those trees in the middle of the street makes such a difference. It makes, you know, I know that burying of course the lines and everything is very expensive and, you know, I don't know if within the next 10 years we will have enough money to do this. But just putting these trees, these trees will distract from the hanging lines. Not only that, it will create this natural stop when you cross the street. So, maybe we can make there a stop for the pedestrians in case, you know, there is light issue or something.

I think that it's something that we should really focus in trying to make it happen because it is changing the appearance of this entire place. I thought it's just my opinion so I shared that picture with my colleagues, and everybody was like where is it? It looks so nice. Nobody recognized that that's our intersection. So, you know, I don't know how expensive that is and what are the obstacles, but I think that that's something that is worth to put on top of the priority. Then of course the crossways are extremely important because as much as we can call it a hotel district and we can have pretty trees there, but if those guests are not able to cross to the developments, to the Mitsuwa, to the Guitar Center, then it's all for nothing because we will have nice trees but we want to help those businesses to grow and would likely drive the revenue.

One idea, I know that it's another one huge project like that IDOT lights, when we are talking about the sidewalks, I completely understand the idea of moving them away from the street. But that should be the idea for the bike route straight to Arlington Heights Downtown. There is a huge trend right now in the hotels that hotels are renting bikes. In the suburbs, if you guys go check by Deerfield, Highland Park, these hotels rent bikes because all of this new generation, Generation Y, they come and look for bikes and this is the cool thing to do.

So, if you guys will think, I don't know if we need to widen the sidewalks because I don't know if we will ever have enough traffic to go all the way from us to Arlington Heights. But if you guys will think about putting that bike route there, that is a different

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story because you will have, this is what's going to drive the traffic to Arlington Heights, because these kids, they don't get on the bikes right now. For us, it could be a fantastic attraction. If we can, and I don't know if I would be renting mine, I would just have it to keep my guests happy so they can get the bikes and go straight downtown. Think about this type of development because I think it would make a great difference.

Then as we will improve the traffic, the bike traffic towards Arlington Heights, I think that it will also help the entire corridor because now you have these bikers who are stopping by, right? Now you have the families biking down, so that may help the businesses alongside to downtown. So, that's the suggestion.

I want to say that I greatly appreciate the attention to this because it's seven of us there and it's a very unique situation. We are predators to each other. We keep stealing business from each other, going after each other. We are a competition and it's very rare for seven general managers and seven owners to come together and acknowledge we have all one problem, meet and spend so much time on discussing it and having to really speak. So, I think that, so I just want to say thank you for listening and for even considering that.

CHAIRMAN ENNES: So, you're a strong supporter of the improvements.

MS. SKRODZIUK: Absolutely.

CHAIRMAN ENNES: And you think it really will increase your occupancy rates?

MS. SKRODZIUK: Yes, and this is a real story which I shared on the very first meeting. So, I had a situation where my guest was coming back from a run from the outside and I'm standing there eating with a bottle of water and I was smiling and I'm asking so how was your run? He thinks about it and he's like, well, my run was fine but that is not a very safe neighborhood. There was nothing dangerous that happened there, it was just the perception.

So, but the intersection is already cleaned up a lot. We appreciate that. There was some tiny landscaping improvement, but there was a lot of, you know, that Yanni's Restaurant's old garbage is gone. That makes a huge difference just this little thing. But if we can, you know, back to trees, so that guests when they are arriving, they don't feel that they are arriving to the end of the world. So, I think that that would help us a lot.

CHAIRMAN ENNES: Thank you. Anyone else?

MR. BERNSTEIN: My name is Jeff Bernstein, B-e-r-n-s-t-e-i-n. I'm with Bradford Allen, and as Bill was talking about, we own the site for, we have several of the sites on the southeast corner of Arlington Heights Road and Algonquin Road.

I can't say that we started out, when we first bought the office building, with this thought that this would be a development site. But over time, we've seen the potential. We've continued to acquire more sites in that area. It is a very rare opportunity for alignment of interests between property owners and the Village to be able to do something special here.

Whether we call it a gateway development or some other name, I think it's less important. I think it's the opportunity to create a more pedestrian-friendly area, to be able to create greater density in the area, to create critical mass in the area. Obviously, we have self interest in this. This is our site and so it's, you know, it's definitely in our best interest to see a higher density development there. But I still think that the attributes of what could be done there and the plan that's been developed is very comprehensive, I think very enlightened. We fully support it.

While we are in the business of trying to make money, we are also part of the community and we want to, the best interests of the community is also in our hearts, too. I think this is just a moment in time and hopefully it won't be squandered. The street level improvements I think have to go in, but I think it has to be part of the Comprehensive Plan. I think that as a local business owner and an owner of that property, that we can assist with that. In any way that we can support the initiatives by the Village, we're here to do that.

CHAIRMAN ENNES: You're a man of vision.

MR. BERNSTEIN: Excuse me?

CHAIRMAN ENNES: You're a man of vision and we're glad you're investing in our community.

MR. BERNSTEIN: Actually, I would say that Arlington Heights is a Village with vision. We develop all over the country and this is very rare to see what's happening here. I would also say that one of the big negatives that we've seen over the years, what's referred to as a hodgepodge of development is actually opportunity. Had it been built up in different ways over the years, I don't think this opportunity would present itself. I think that this particular area is a perfect bookend to what has been done downtown and I think that if this critical mass is continued, I think the Village, the stakeholders, all the residents and future residents would definitely benefit from it.

CHAIRMAN ENNES: Thank you.

MR. BERNSTEIN: Thank you very much.

CHAIRMAN ENNES: Anyone else? Good evening.

MR. SOBCZEK: Good evening, gentlemen. My name is Lucas Sobczek, S-o-b-c-z-e-k. I'm a director of sales at DoubleTree Arlington Heights. I do support this project.

I also want to just come and mention about slowing down the traffic at the intersection. After living for 25 years in Downtown Chicago, this is the only intersection I'm afraid to cross. Honestly, I've never seen anything like that. I believe that guests from our hotels wouldn't mind walking somewhere five to 10 minutes if they could, but it's just this area doesn't seem safe at all because of that, because of the traffic. So, that's the main thing I wanted to mention. Thank you.

CHAIRMAN ENNES: Thank you. Anyone else? No? Okay, that closes the public portion of our meeting. Do any of the Commissioners have comments or questions?

COMMISSIONER LORENZINI: One quick question. Refresh my memory, how will the overlay zoning district work in this case?

MR. ENRIGHT: You know, the Village wants to work with the property owners in coming up with development standards that are going to be flexible but also within reason, but also addressing the desires of building up the area in a reasonable manner. The overlay zone is something that's drafted by Staff and it goes through a process. But that process would start with the property owners that are directly impacted by the overlay zone. It would then go through the Plan Commission review process which you have a subcommittee, the Ordinance Review Committee which then reports to this full Plan Commission. You'll then hold a public hearing and then make a recommendation to the elected officials, the Village Board, who will make the ultimate decision to approve an overlay zone.

We have several overlay zones in the Village because as you know, the B-2 zoning is scattered throughout the town. But every area of town is really unique or different, and the vision for different areas of town can be unique or different. That's what we

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want to do here. We want our zoning to be able to be adaptive to that. Right now it's not.

COMMISSIONER LORENZINI: All right, Bill, thank you.

COMMISSIONER JENSEN: Yes, just a comment. First of all, I think it's a great report, Bill. I think the report has been getting better and better by Staff and I think it's a great report on how to develop this area. You and the Staff should get the kudos as well as the committee that worked on it.

I just have a couple of questions and another comment. You mentioned sales tax a couple of times in a couple of different ways. One is sales tax revenue sharing and the other is a sales tax for this area as you develop it. Are they two different things?

MR. ENRIGHT: Yes. You know, the Village has used sales tax revenue sharing for large sales tax generators like auto dealerships, or large like Lowe's, we have an agreement with them and several auto dealerships at the north end of town where the developer puts in the improvements and we share some of the subsequent revenue over a 10-year time period that comes in the sales tax revenue. So, that's a possibility here. But I don't necessarily see car dealerships coming here or necessarily big box users, and I'm not sure that's what we want either, at least not, I don't want to say never on either of those items but, you know, I think that's not quite in the vision. So, that's what I'm talking about with the sales tax revenue sharing.

There is also a business district that can be created which is an area designated and it has to be approved through the, by the Village Board which is an increase in sales tax in a specific area of one percent. Those I don't think are, I think those are almost counterproductive because, you know, the area then gets stigmatized with an extra sales tax on top of the, you know, relatively high sales tax already. So, I don't think that's a real option. It doesn't generally generate a lot of money.

So, I think realistically, you know, you're looking at a combination of general fund, potentially tax increment financing if any of these areas qualify, and potentially a special service area which would be an additional tax over a 10-year period on property owners that would directly benefit from any improvements. Again, that requires 51 percent of the property owners to approve it, so that's really in the hands of the property owners and we work with them on such a process to see if it makes sense to them because they're the ones that would have to approve it.

COMMISSIONER JENSEN: Yes. Actually, I don't need to say anymore. You've said what I thought needed to be said, especially about the sales tax. I think that's counterproductive and would not be a good idea and I'd hope you'd rule that out. That was actually the point that I wanted to make.

The only other comment I want to make is about the survey. Surveys given a small one is impressionistic, I wouldn't go to the bank with everything that's in it. What I found more useful than anything was the volume of comments, because even the comments, they started getting to funding issues and a variety of other things and opportunity costs and tradeoffs. So, what I would put some effort into is what I think George Drost asked at the committee meeting at least according to the minutes is some more analysis of those open-ended questions, because I thought there is a lot of gold there that could be mined. I don't put quite frankly that much confidence in the actual quantitative analysis that comes out of these questions because they're just not representative of a city our size when you have 600 people and you don't know who responded actually, but I do think that the survey does shed some light if you spend some time with those comments.

MR. ENRIGHT: Just to address that, we did summarize the open-ended question responses.

COMMISSIONER JENSEN: No, I saw that. You summarized them but, for example, you didn't say whether the comment was either a positive or a minus, you just put it into a category.

MR. ENRIGHT: Right.

COMMISSIONER JENSEN: You need to break the category bar because two-thirds may have been opposed to it and a third might have been in favor it. When you just read that's the number in that category, you have no sense on that. So, it needs more work but there's a lot in there and I thought it was very useful.

MR. ENRIGHT: Okay, we can do that.

CHAIRMAN ENNES: Anyone else?

COMMISSIONER LORENZINI: Well, I just want to say that the young lady from Courtyard made a lot of good points about bikes. Yes, the younger generation, they definitely like the bikes, so if there is some way we can work that in or accommodate it, I think it would be worthwhile.

COMMISSIONER CHERWIN: I think Mary Jo would appreciate that as well perhaps. The other thing I'd say, you know, first of all, I think to the Staff, you know, great job, I commend you and the committee working on it. I've lived in this area since 1984 and so I've driven by it, you know, thousands of times. It does need some work. I'm glad to see Bradford Allen who's got a big chunk there, I'm sure they'll do a great job with their space and the developers to the north.

Yes, I'm supportive of it. I guess the one thing I'd say, Bill, is really I would try to do whatever you can to hold on to that utility because I do think that's a big, you know, I think that's going to always kind of be there in the background and detract. Maybe it's, you know, don't let it hold you up or anything, but maybe as we plan, who knows, you know, it could be a 15-year goal if you can get it. But if we kind of put aside a little bit as an investment and when we do all our restructuring here, we kind of do it with a vision that that would eventually be a part of it, I really think that would be worth the wait even if we had to wait long for it. So, that would be my one input, but otherwise, yes, I think it's great. I'm looking forward to it. Thank you.

CHAIRMAN ENNES: Jay, you're talking about burying the power lines?

COMMISSIONER CHERWIN: Yes, I'm sorry. Burying the overhead lines.

CHAIRMAN ENNES: Yes, absolutely. I think that's critical.

COMMISSIONER CHERWIN: Really, yes.

CHAIRMAN ENNES: Anyone else?

COMMISSIONER SIGALOS: I would agree that you've done a great job with this, Bill, you and the Staff in developing this plan. I would go along with what Jay was saying as far as making a priority to get these utility lines buried because no matter what you do, they're still an eyesore. But everything else looks great.

CHAIRMAN ENNES: It really does. It beautifies the area; it really opens it up.

COMMISSIONER GREEN: I think you've got to put them underground, too.

CHAIRMAN ENNES: Absolutely.

COMMISSIONER GREEN: Because if you move them to the back of the

property, then you have the next group of neighbors that are going to complain about the power lines because you're just shifting the problem. So, underground, I agree, Jay, good point.

CHAIRMAN ENNES: Do we have a motion?

COMMISSIONER JENSEN: Sure. I'm going to move approval.

A motion to recommend to the Village Board of Trustees <u>approval</u> of PC#18-004, the South Arlington Heights Road Corridor Plan.

COMMISSIONER SIGALOS: I'll second that.

CHAIRMAN ENNES: Can we have a roll call vote?

MR. ENRIGHT: Commissioner Cherwin.

COMMISSIONER CHERWIN: Yes.

MR. ENRIGHT: Commissioner Green.

COMMISSIONER GREEN: Yes.

MR. ENRIGHT: Commissioner Jensen.

COMMISSIONER JENSEN: Yes, with comment.

MR. ENRIGHT: Commissioner Lorenzini.

COMMISSIONER LORENZINI: Yes.

MR. ENRIGHT: Commissioner Sigalos.

COMMISSIONER SIGALOS: Yes.

MR. ENRIGHT: Chairman Ennes.

CHAIRMAN ENNES: Yes, absolutely.

COMMISSIONER JENSEN: Let me finish comment, just a brief one. Once again, I think as others have said as well, good job and Staff really needs to be recognized for doing that. The last point I want to make is I think that Mr. Coates made a lot of good points. I hope that, I know they will be in the minutes but I think he made a lot of points that we ought to consider and attention ought to be drawn to them, to the Board with respect to those remarks.

CHAIRMAN ENNES: Thank you. Okay, good job.

MR. ENRIGHT: I'm not sure when this will go to the Board. Maybe April 16th, depending upon, you know, how packed the agenda is for the Board that night. Otherwise it would be early May, but hopefully the 16th.

CHAIRMAN ENNES: Maybe some of us will show up there.

MR. ENRIGHT: Certainly please check with me, you know, by the 10th or 11th of April.

CHAIRMAN ENNES: Thank you.

MR. ENRIGHT: Thank you.

CHAIRMAN ENNES: Okay, can we have a motion to adjourn?

COMMISSIONER JENSEN: So moved.

COMMISSIONER GREEN: Second.

CHAIRMAN ENNES: All in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: We're out of here, okay. Thank you very much. Thank you all for coming and your comments.

(Whereupon, the above-petition was adjourned at 10:15 p.m.)

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Item: 703-709, 715-723 W. Algonquin Rd. - PC#17-013

Department: Planning & Community Development

Requested Action

1. Planned Unit Development.

2. Preliminary Plat of Subdivision to consolidate all lots into one lot.

Variations Identified

None.

Recommendation

The Staff Development Committee reviewed the application and recommends approval of the requested PUD and Preliminary Plat of Subdivision, subject to the conditions as outlined below.

Final Plat of Subdivision:
1. Final Plat of Subdivision approval shall be required. Prior to Final Plat of Subdivision approval, the following items shall be required:

a. IDOT review and approval of the proposed development.

b. Petitioner shall be responsible for design, construction, and installation of all off-site roadway improvements required by the proposed development. This may include, but shall not limited to, proportional contributions towards any improvements required to Meijer Drive as determined necessary by the Village of Arlington Heights.

c. Petitioner shall work with the Village of Arlington Heights to resolve issues raised by the City of Rolling Meadows, to the satisfaction of the Village of Arlington Heights.

Site Plan:
2. The petitioner shall install a decorative fence around any detention area as

requested by the Public Works Department.

3. The petitioner shall install a paved waiting area for PACE customers in the Right-of-Way adjacent to Algonquin Road. The location of such paved waiting area shall be determined in coordination with PACE and the Village of Arlington Heights.

4. The petitioner shall revise the site plan to incorporate greenspace and a shade tree within the parking lot island located at the southwest corner of the Phase II building.

5. The petitioner shall revise the site plan to remove the two parking spaces in the southwest corner of the site that encroach into the shared access drive easement.

Outlot A:
6. The petitioner shall take the following actions relative to Outlot A:

a. If ownership of Outlot A has been transferred to the petitioner prior to Final Plat of Subdivision approval, the petitioner shall incorporate Outlot A within the subdivision area.

b. Prior to issuance of a building permit, the petitioner shall cause to be recorded an amendment to, or abrogation of, the stormwater easement over Outlot A to accommodate for the proposed driveway improvements within the easement area, if the Village determines such amendment or abrogation is needed.

Shared Private Access Drive:
7. The petitioner shall either reconstruct or repave, as determined by the Village, the entire portion of the existing approx. 22’ wide shared access driveway that is located on the Weber Packaging Solutions property, only if approved by Weber Packaging Solutions. This reconstruction/repavement shall be to a standard suitable to accommodate heavy truck traffic, for review and approval by the Village of Arlington Heights.

8. The petitioner shall continue to work with the Weber Packaging Solution and the Village of Arlington Heights on acceptable improvements, as determined by the Village of Arlington Heights, to the shared private access roadway to provide for adequate passenger vehicle/truck traffic separations. This may include, but is not limited to, striping of the access driveway and landscape barriers to separate and protect vehicular movements.

Meijer Drive Improvements:
9. If approved by the City of Rolling Meadows, the petitioner shall install an

extension to the raised barrier median in the center of Meijer Drive located adjacent to the subject property, as well as certain improvements to the sidewalk on Meijer Drive adjacent to the subject property. If the City of Rolling Meadows does not grant approval for such barrier median extension and sidewalk improvements, then the extension and sidewalk improvements will not be required at this time. However, the petitioner shall be required to install the barrier median extension and sidewalk improvements, upon request of the Village, when jurisdiction of Meijer Drive (within the corporate limits of Arlington Heights) is transferred to Arlington Heights.

General:
10. The Petitioner shall comply with all applicable Federal, State, and Village codes, regulations, and policies.

ATTACHMENTS:

Description	Type
Staff Memo 3/23/18	Memorandum
Additional Correspondence - Hamilton Weber Village	Correspondence
Additional Correspondence - Rolling Meadows & Arlington Heights	Correspondence
Staff Report	Board or Commission Report
PC Minutes 1/24/18	Minutes
Public Notice	Exhibits
Aerial	Exhibits
Plat & Sub Minutes - 3/22/17	Minutes
DC Staff Report	Board or Commission Report
DC Minutes 11/28/17	Minutes
Project Narrative	Correspondence
IDOT Comments	Correspondence
Rolling Meadows - Preliminary Review Letter	Correspondence
Petitioner response to Rolling Meadows	Correspondence
Architectural Plans	Exhibits
Construction Staging Plan & Schedule	Exhibits
Engineering Plans	Exhibits
EOPC	Exhibits
Landscape EOPC	Exhibits
Fire Truck Turn Exhibit	Exhibits
Light Fixtures Spec Sheets	Exhibits
Landscape & Tree Preservation Plan	Exhibits
Material List	Exhibits
Photometric Plan	Exhibits
Plat of Survey	Exhibits
Preliminary Plat of Consolidation	Exhibits
Stormwater Report	Exhibits
Traffic Study	Exhibits

Department Comments - Round 1	Exhibits
Petitioner Response to Department Comments - Round 1	Exhibits
Department Comments - Round 2	Exhibits
Petitioner Response to Department Comments - Round 2	Exhibits
Department Comments - Round 3	Exhibits
Petitioner Response to Comments - Round 3	Exhibits
Department Comments - Round 4	Exhibits
Petitioner Response to Comments - Round 4	Exhibits

Memorandum

To: Chairman Ennes and Members of the Plan Commission

CC: Randy Recklaus, Village Manager

All Department Heads

From: Sam Hubbard, Development Planner

Date: 3/23/2018

Re: PC #17-013: Hamilton Partners Distribution Facility, 703-709 & 715-723 W. Algonquin Rd. – Plan Commission Hearing March 14, 2018

On January 24, 2018, the Plan Commission voted to continue application #17-013 until the February 28th meeting to allow the petitioner additional time to address three primary issues:

1. Coordination between the petitioner and the owner of Weber Packaging Solutions (711 W. Algonquin Rd.), which is located immediately to the west of the subject property and shares a common access drive with the subject property.

2. Incorporation of required changes by IDOT relative to restricted egress from the driveway along Algonquin Road and changes to the traffic study to evaluate the proposed timing modifications for the traffic signal at Meijer Drive and Algonquin Road.

3. Village coordination with staff from the City of Rolling Meadows, who raised concerns about truck traffic on Meijer Drive and its impact on that street relative to traffic and maintenance.

The application was continued again February 28th, and again on March 14th to allow additional time to address the above issues.

Since the original Plan Commission hearing on January 24, the Village has had several internal meetings to discuss the project, and has held separate meetings with the City of Rolling Meadows, the petitioner, and Weber Packaging Solutions.

Relative to item #1 above, staff has added several conditions of approval and modified some of the original recommended conditions of approval.

Regarding item #2, the petitioner has made changes to the site plan and traffic study as required by IDOT and has submitted these changes to IDOT for a secondary review. While IDOT has not yet provided their secondary review comments, staff believes that the petitioners' changes to the plans address the primary concerns raised by IDOT. Furthermore, Village approval will be conditioned upon IDOT approval, and staff believes that item #2 has been addressed.

Staff has also met to discuss the issues raised by the City of Rolling Meadows. The Village has responded to their initial concerns and will continue dialogue with the City of Rolling Meadows relative to the Intergovernmental Agreement (IGA), traffic on Meijer Drive, and the ongoing maintenance of Meijer Drive. These discussions can take place independent of the requested zoning action on the subject property, and staff believes that these discussions should not prevent the application from moving forward.

Recommendation:

The Staff Development Committee reviewed the application and recommends approval of the requested PUD and Preliminary Plat of Subdivision, subject to the conditions as outlined below.

Final Plat of Subdivision:

1. Final Plat of Subdivision approval shall be required. Prior to Final Plat of Subdivision approval, the following items shall be required:
    a. IDOT review and approval of the proposed development.
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ADDITIONAL CORRESPONDENCE BETWEEN THE VILLAGE, WEBER PACKAGING SOLUTIONS, AND HAMILTON PARTNERS

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To:	Village of Arlington Heights Plan Commission
Submitted By:	The Winkler Group LLC 1699 E. Woodfield Road, Ste. 400 Schaumburg, IL 60173
On Behalf of:	Weber Packaging Solutions, Inc.
Date:	March 2, 2018
Matter:	Hamilton Partners proposed project for the property known as 703-709 W. Algonquin Road, Arlington Heights

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Concerns re: Proposed Project (703-709 W. Algonquin Road)

Weber Marking Systems, Inc. d/b/a Weber Packaging Solutions ("WPS") remains committed to communicating its concerns regarding the Hamilton Partners proposed project eventually consisting of a 330,720 square foot distribution center with 64 exterior doors and 4 drive-in doors ("Proposed Project") to be located on the property at 703-709 W. Algonquin Road ("Subject Property").

The five major concerns that have not yet been adequately addressed and/or resolved by Hamilton Partners in connection with the Proposed Project can be summarized as follows:

(A.) Inadequacy of Traffic Operations Analysis ("Operational Issues");

(B.) Uncertainty of Legal Access ("Legal Issues");

(C.) Overburdening Traffic congestion in and around the Golf Road, Algonquin Road and Meijer Drive public access streets ("Traffic Congestion");

(D.) Failure to address relocating utilities ("Utility Relocation"); and

(E.) Inadequate Water Management Planning ("Water Management Concerns").

The Proposed Project has many unresolved, yet interrelated issues. Accordingly, it is not suggested that the above five concerns contain all of the issues relating to the Proposed Project. As a proposed solution to one issue is recommended, other issues could be impacted or created. Accordingly, WPS requests that a more careful,

comprehensive review of the Proposed Project be undertaken by the Village of Arlington Heights and/or Hamilton Partners prior to its approval of the Proposed Project by the Plan Commission. Some of the unresolved issues concern, in part, significant safety issues to both vehicles and pedestrian traffic.

The issues identified above are more fully discussed in detail below, with the lettered paragraphs corresponding to the five (5) concerns summarized above.

(A.) <u>Inadequacy of Traffic Operation Analysis ("Operational Issues")</u>

The Proposed Project will significantly and adversely affect traffic flows in and on the 44' foot cross easement private access road ("Private Cross Easement"). Summarily, it appears that trucks entering and leaving the Proposed Project will almost certainly be slowing down, stopping and/or turning on the Private Cross Easement.

The issues involving the adequacy of the Private Cross Easement have been a major topic since the inception of the Proposed Project.

At a meeting of The Plat and Subdivision Committee on March 22, 2017, the following comment was recorded in the minutes:

> "**Mr. Hubbard** mentioned that the subject property shared a private drive aisle with the property to the west, and staff did not know if a formal reciprocal easement agreement or cross access easement was established for this shared drive aisle. If not, then this must be recorded during the PUD process. **It would be important for the applicant to take this into consideration during the design of the site, and information would be required on the functionality of this shared access this during the Plan Commission process." [our emphasis]**

Later, at the same meeting, Commissioner Jensen identified this issue and commented as follows:

> **"Commissioner Jensen** said the traffic study should **assess the ability of the shared drive**, Meijer Drive, and the intersection of Algonquin Road and Meijer Drive, **to determine their ability to accommodate the traffic that could be generated by this development**. He asked if access to the site could come from Algonquin Road". [our emphasis]

Finally, after further discussion on the Subject Property, Commissioner Jensen still seemed unconvinced that the access issue was resolved and stated as follows:

> "Commissioner Jensen said he was a little concerned about the number of trucks and the conditions of the roads".

Contrary to the warnings from Arlington Heights staff and the Board Commissioners, the Proposed Project went forward without any resolution to the access issues.

At the Plan Commission meeting held on January 24, 2018, the Commissioners asked Mr. Wauterlek (of Hamilton Partners) about "flipping" the design of the building so that access to the truck docks would be from the <u>east</u> side, thereby essentially eliminating this serious access issue. Mr. Wauterlek's reply, paraphrasing, was that such a change would not be made since it would require "some government approvals." It was not specified what "government approvals" were needed.

Following the January 24, 2018 Plan Commission meeting, Hamilton Partners was apparently asked to prepare an "Operational Analysis" demonstrating that the Private Cross Easement would accommodate the building design. The request resulted in a single "Truck Routing Exhibit" which is attached. The analysis lacks detail, specifically and, most importantly seems to support WPS's concerns that the Private Cross Easement cannot adequately support the truck traffic to be created by the Proposed Project.

WPS retained Christopher B. Burke Engineering, Ltd. ("CBBEL") to provide a comprehensive review and analysis relating to the Operational Issues. A letter from CBBEL summarizing the issues is attached. The major concerns outlined by CBBEL are as follows:

1. The Developer should demonstrate with truck turning templates that large multi-unit vehicles (WB-65 and/or WB-67) will not encroach onto WPS's parking lot.
2. The Truck Routing Exhibit should be expanded to demonstrate adequate space for truck maneuvering with trucks already docked.
3. The Developer should demonstrate with truck turning templates that the above referenced trucks will not encroach onto the Private Common Easement when accessing the loading docks. The failure to demonstrate same would create serious safety concerns.
4. A pavement assessment should be performed to determine the pavement's suitability to withstand the weight of the trucks.
5. The IDOT comments contained in their December 19, 2017 letter should all be addressed to IDOT's satisfaction.

All of the above concerns should be adequately resolved prior to consideration of approval by the Plan Commission.

(B.) <u>Uncertainty of Legal Access ("Legal Issues")</u>

The WPS plant located at 711 W. Algonquin Road, which is located immediately west of and contiguous to the Subject Property, was built by WPS approximately 50 years ago ("WPS Property").

Members of the Weber family personally acquired and developed the south portion of the Subject Property and built a commercial building often referred to as the "Weber Atrium" building. The Weber Atrium building was recently acquired by Hamilton Partners. It continues to be in operation leasing space to many commercial tenants. At the time of the construction of the Weber Atrium, private cross easements

were established (in 1977 and 1978) so that vehicular traffic could access both the Weber Atrium and the WPS plant from the Private Cross Easement.

At the time of the construction of the Meijer store in approximately 2004, an Easement Agreement (recorded with the Cook County Recorder of Deeds as Document Number 0608244082) was entered into (among WPS and the owners of the Subject Property) which abrogated some of the prior easements and created a 44' cross easement between the Weber Property and the Subject Property ("Easement Agreement"). WPS contributed 22' to the Private Cross Easement, and the Subject Property (then owned by members of the Weber family) contributed 22' to the Private Cross Easement. The Easement Agreement provides that the Private Cross Easement would be maintained by WPS <u>at its sole cost and expense</u> (WPS is referred to as WMS in the document). The precise language contained in the Easement Agreement is as follows:

> "11. <u>Maintenance of Private Road</u>. WMS agrees to repair and maintain, at its sole cost and expense, the private road…"

According to a cost analysis and impact study performed internally by WPS personnel, it would cost approximately $250,000 in order for the Private Cross Easement to be improved to withstand the additional truck traffic and stress to the driveway foundation. <u>It is fundamentally unfair for the Village to approve a project which places such an enormous financial burden on a third party having no financial interest in the Proposed Project</u>.

The Private Cross Easement establishes mutual rights to both the dominant estate holder and the servient estate holder. These mutual rights run with the land, per the terms of the Easement Agreement, and allow the easement holder to take reasonable action to enjoy the purposes for which the easement was granted. These mutual rights may be terminated should an undue burden be placed on the easement holder's use of the easement.

In determining the scope of the easement, recognition that an implied easement is the product of the intention of the parties to the conveyance is crucial. *Emanuel v. Hernandez*, 313 Ill. App. 3d 192, 196, 728 N.E. 2d 1249, 1252 (2000). An undue burden may arise through a variety of circumstances which "hamper the servient owner's control or use of the land by going beyond what is reasonable use of the easement." *Doan v. Allgood*, 310 Ill. 381, 141 N.E. 779 (1923). The question of reasonableness is one of fact in the circumstances.

Seymour v. Harris Trust & Savings Bank, 264 Ill. App. 3d 583, 596 (1994). At the time of the execution of the Easement Agreement, the Private Cross Easement established a 44' strip to be used as a way of access for employees of WPS and for tenants of the Weber Atrium. The Private Cross Easement was intended to be used and has been used for both automobile traffic and pedestrian traffic, not heavy commercial vehicle traffic. The addition of heavy commercial traffic to the roadway on the Private Cross Easement, which will increase the maintenance costs solely born by WPS, directly contradicts the intention of the parties who established the easement and creates an undue burden on WPS.

In the event that the facts and circumstances demonstrate an undue burden is placed on WPS, several legal remedies are available to the easement holder. These legal remedies may include, but are not limited to, removal of an obstruction to the easement, compensatory damages or extinguishment of the easement in whole.

Importantly, the Easement Agreement contains language stating that a Party's use of the Private Common Easement "shall not unreasonably interfere with any **one of the Party's uses thereof…" [our emphasis]**

The intent of the Private Cross Easement as reflected in the Easement Agreement could be determined to be contrary to the uses contemplated by the Proposed Project. The uncertainty of the effects of this Proposed Project and a potential undue burden on the easement holder creates a legal uncertainty if the Proposed Project is approved without further analysis.

(C.) <u>Overburdening Traffic Congestion in and around the Golf Road, Algonquin Road and Meijer Drive Public Access Streets ("Traffic Congestion")</u>

Hamilton Partners retained KLOA to prepare a traffic study of the area in and around the Proposed Project.

The accuracy of certain aspects of that study have been questioned. For example, the City of Rolling Meadows in a letter to the Village of Arlington Heights dated January 17, 2018 raised the following question:

> "Why is the Weber Marking Systems traffic never mentioned in the Traffic Impact Study? It is as if the facility is not even there."

The response from KLOA dated January 18, 2018, the very next day, is as follows:

> "It's included."

After careful review of the KLOA Study, the "inclusion" of the WPS plant was never found.

Furthermore, WPS, through counsel, raised the issue of the projections set forth in the traffic study relating to the Proposed Project. For example, the following language appears in the KLOA traffic study:

> "Overall, the development will have a low impact On the surrounding roadway network." (p. 1)

WPS questions the conclusion of KLOA that the Proposed Project will generate a "low impact" on traffic. Page 14 of the KLOA report references Table 1 which estimates daily truck and passenger vehicle trips to the Proposed Project. <u>Table 1 estimates 276 daily truck trips and 1,104 daily passenger vehicle trips</u>. Given the nature of the Proposed Project, these figures don't seem accurate, nor can they be described as "low impact". Pages 14 and 17 of the KLOA report are attached.

The traffic projections appear to be wildly inaccurate. It was previously suggested, and suggested again, that the actual operations of properties similar to the Proposed Project be observed and analyzed to either support or contradict the traffic projections which seem to underestimate the amount of truck traffic to be created by the Proposed Project.

(D.) <u>Failure to address relocating utilities ("Utility Relocation")</u>

WPS personnel performed a visual inspection of the Private Cross Easement area. There are utility easements broadly granted over, above, under and upon the Private

Cross Easement. It was observed that some or all of the utility companies may have wires, pipes, conduits and/or other equipment actually in place on or immediately adjacent to the Private Cross Easement. There has been, to WPS's knowledge, no adequate plan to address the Utility Relocation and, if necessary, how such work can or will be performed in order to minimize any interference with WPS's operation and equally important, as to who will pay the cost of such Utility Relocation. As stated before, the Easement Agreement would burden WPS with all such costs.

The ALTA Survey contained in Hamilton Partner's submittals was prepared by Gentile and Associates, Inc. The ALTA survey clearly shows a 12" Water Main in the Private Cross Easement. Furthermore, parts of the Storm and Sanitary Sewer Structure lie within the Private Cross Easement. As relates to underground utilities, these have not been specifically identified in the surveys. In fact, the ALTA survey (Sheet 3 of 3) contains the following specific warning relating to the location of underground utilities:

"NOTES:

THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVE GROUND STRUCTURES AND RECORD DRAWINGS PROVIDED THE SURVEYOR. LOCATIONS OF UNDERGROUND UTILITIES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. BEFORE ANY EXCAVATION BEGINS ALL UTILITY COMPANIES SERVING THE PROPERTY SHOULD BE CONTACTED FOR VERIFICATION OF FIELD LOCATION."

Obviously, some major concerns of WPS include who would pay for the fees and costs and, in the event of a collapse of a pipe due to heavy truck traffic, who would pay for such repair.

(E.) <u>Inadequate Water Management Planning ("Water Management Concerns")</u>

At the time of the Meijer development, significant water detention issues were raised and, following significant study and analysis, were adequately addressed. The resolution of the Water Management Concerns involved establishing two (2) additional large water detention areas and numerous easements. The Water Management Concerns were professionally analyzed and adequately addressed a substantial cost to the City of Rolling Meadows, Meijer, WPS and the Weber family.

WPS and the Weber family have personally stated to the Plan Commission that significant Water Management Concerns exist in connection with the Proposed Project. These concerns are set forth in a letter prepared by CBBEL and previously submitted to staff of the Village of Arlington Heights. A copy of that letter is attached. The concerns raised have not been adequately addressed to the knowledge of WPS.

<u>Recommended Actions.</u>

WPS and the Weber family recommends that approval of the Proposed Project by the Plan Commission be withheld at this time. At a minimum, the following actions should be undertaken, at the cost of Hamilton Partners, in order to satisfy all interested entities that approving the Projected Project is prudent:

(A.) Obtain a thorough, independent study addressing the Operational Issues;

(B.) Address the Legal Issues (or, as an alternative, Hamilton Partners should engage in good faith negotiations with WPS and the Weber family regarding the construction and maintenance issues relating to the Private Cross Easement);

(C.) Obtain a separate, independent Traffic Study addressing more fully the Traffic Congestion issues;

(D.) Obtain a thorough analysis of all issues relating to the relocation of utilities located on the Private Common Easement;

(E.) Address the Water Management Concerns to show that the Proposed Project will not create water flow and detention/retention issues on the WPS Property or the Subject Property; and

(F.) Obtain the unqualified approval from IDOT as set forth in the IDOT letter dated December 19, 2017.

Without the foregoing actions, WPS believes that it is unwise and reckless for the Plan Commission to approve the Proposed Project. If the Plan Commission approves the Proposed Project, the myriad of unresolved issues will be simply transferred to the Village Board for resolution.

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 West Higgins Road Suite 600 Rosemont, Illinois 60018 TEL (847) 823-0500 FAX (847) 823-0520

March 1, 2018

Weber Packaging Solutions, Inc.
711 West Algonquin Road
Arlington Heights, IL 60005

Attention: Douglas A. Weber

Subject: Traffic Operations analysis of proposed development of a warehouse distribution center located at 703-723 W. Algonquin Road in Arlington Heights, Illinois by Hamilton Partners (the "Developer") ("Proposed Development")

Dear Mr. Weber:

As you are aware, I am an Illinois licensed engineer and a Vice President of Christopher B. Burke Engineering Ltd. ("CBBEL"). I am the head of the Traffic Operations Department at CBBEL. I have been employed in such capacity for approximately 23 years. Prior to being the department head of the Traffic Operations Department, I worked as a transportation engineer for approximately 10 years. My full biographical information is attached.

CBBEL has prepared a preliminary review of the traffic operations analysis with regards to the Proposed Development on the property to the east of the Weber Packaging Solutions, Inc. ("WPS") facility (hereinafter referred to as "Subject Property"). We have been provided a conceptual site plan of the Subject Property prepared by Ware Malcomb dated January 9, 2018 as well as copies of various correspondence regarding the project.

You informed me that WPS operates a two shift per day manufacturing facility. There are approximately 90 vehicles entering and leaving the WPS facility during the morning 8-hour shift and approximately 50% of that number during the second shift. I have been told that the hours of the two shifts are from 7 a.m. to 3:30 p.m. and from 3:30 p.m. to 1:00 a.m.

In addition, WPS has 4 truck dock doors on the north side of the WPS building which are receiving docks. There are 4 additional dock doors on the east side of the building which is the shipping area.

All the automobile traffic as well as most of the shipping trucks utilize the "Cross Easement" property for ingress and egress. The Cross Easement property is the 44' wide area located between the WPS property and the Subject Property, with each property contributing 22' to the 44' area.

Based upon our review of the information and documentation provided to us, there are a number of concerns relating to the Proposed Development. Five of the most significant initial concerns are summarized as follows:

1. The conceptual plan indicates there will eventually be a total of 68 truck docks facing the Cross Easement drive and WPS's main parking lot. Prior to the approval of the Proposed Development, the Developer should demonstrate that trucks entering and exiting the truck dock area will not encroach on the WPS's parking lot. This should be illustrated using truck turning templates for large multi-unit vehicles (WB-65 and/or WB-67) and should include trucks entering and exiting the loading docks. The encroachment of the trucks onto WPS's parking lot would create a hazardous situation particularly to automobiles and pedestrian traffic.

2. The truck turning diagram that was provide shows only one truck at the loading docks. The turning analysis should illustrate trucks already parked at the dock and how trucks entering are able to maneuver with trucks parked at the dock. Further the analysis should reflect trucks entering/exiting the entire length of the Cross Easement and not just in front of the docks to reflect travel paths, etc.

3. We presume that the Proposed Development will operate 24 hours a day. Interaction between the warehouse traffic (both cars and trucks) and WPS's existing employee traffic creates significant concerns from a safety perspective. To alleviate some concerns, the Developer should provide an operational drawing, including truck turning templates, to show that trucks attempting to access the loading docks stage from the private access road will not encroach upon the Cross Easement drive thereby encumbering overall traffic operations.

4. The Cross Easement drive will be impacted by the significant amount of heavy trucks and vehicles that will be generated by the proposed development. A pavement assessment of the Cross Easement drive should be performed by the Developer to determine if it needs to be repaved and/or reconstructed as part of the Proposed Development.

   I have been informed that the existing Cross Easement drive is approximately 50 years old. Based upon the roads age, condition and intended us for automobile traffic, it is unlikely that it is suitable for withstand the stress of heavy truck traffic.

5. The Illinois Department of Transportation ("IDOT") had several review comments based upon its December 19, 2017 letter to the developer's engineer regarding site access, drainage, ADA requirements and the traffic impact study that was prepared for the

development. These comments evidence some serious concerns relating to the proposed project. At a minimum, prior to approval of the Proposed Development, these concerns should be addressed by the developer and approval received from IDOT.

The above comments should not be construed as an exhaustive list of all issues, comments and concerns relating to traffic operations at the Proposed Development. The above comments represent CBBEL's preliminary evaluation following a review of the information and documentation provided by you and The Winkler Group LLC.

If you have questions concerning our review, please let me know.

Sincerely,

G. Michael Ziegler, PE, PTOE
Vice-President
Head, Traffic Operations Department

cc: Thomas W. Winkler, JD, CPA – The Winkler Group LLC

GMZ/kar
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G. MICHAEL ZIEGLER, PE, PTOE

Vice President, Head, Traffic Operations Department

Mr. Ziegler is a professional engineer experienced in transportation engineering. His background includes transportation studies and the design of numerous infrastructure improvements for State agencies, counties and several local municipalities. In addition, his experience includes serving as an adviser to our municipal clients on various traffic and transportation committees. Through his municipal experience, he understands the dynamics associated with municipal transportation systems and the need to balance modal demands. This includes accommodating pedestrian and bicyclists as well as a robust public transportation system.

SPECIALTY STUDIES

IDOT V. Short Stack Illinois, LLC: LaGrange Road

White Castle Rest: 6059 S. LaGrange Road

Strip Center: 130-134 W. Irving Park Road

IDOT V. Abrahim Suliman

Parcel 0DU0049: Des Plaines River Road

Parcel 0DU0064: Des Plaines River Road

Parcel 0DU0073: Des Plaines River Road

Parcel 0DU0064: Des Plaines River Road

EO-1A-12-048 Infinity Broadcasting: IL Route 53

Parcel NW-7A-12-011: I-90 & Elmhurst Road)

Parcel NW-7A-12-036: I-90 & Elmhurst Road)

Parcel 1JV006: Round Lake Beach

ILLINOIS DEPARTMENT OF TRANSPORTATION

Signal Coordination and Timing (SCAT):

- Central Office, PTB 172-029 Various/Various
- Central Office, PTB 162-035
- Central Office, PTB 158-038

Traffic Signal Design Services:

- District 1, PTB 164-010: Various/Various

Specialty Engineering Reports, District 1: Land Acquisition, Various/Various

HSIP Pedestrian and Bicyclists Assessment, McHenry and Kane Counties: PTB 149-004

Wood Street Reconstruction and Traffic Signal Modernization: PTB 173-001; 138th Street to 159th Street

LAKE COUNTY DIVISION OF TRANSPORTATION

Gilmer Road (Midlothian Road to IL Route 176): Phase I and II Adaptive Traffic Signal System, Traffic Signal Modernization and Ethernet System Improvements (PASSAGE)

Aptakisic Road (Brandywyn Lane to Park): Phase II Adaptive Traffic Signal System

Cedar Lake Road (Hart Road to Rollins Road): Phase I and II Traffic Signal System, Traffic Signal Modernization and Ethernet System Improvements (PASSAGE)

IL Route 83 (North Avenue to Millstone Drive): Phase I and II Traffic Signal System Fiber Optic Interconnect and Ethernet System Improvements (PASSAGE)

Peterson Road (Midlothian Road to IL Route 60): Phase I and II Roadway, Traffic Signal and Fiber Optic Interconnect and Ethernet System Improvements (PASSAGE)

YEARS EXPERIENCE: 33
YEARS WITH CBBEL: 23

EDUCATION
Bachelor of Science, 1984
Civil Engineering,
North Carolina State University

PROFESSIONAL REGISTRATION
Professional Engineer, IL, 062.045853, 1990
Professional Engineer, IN, PE10910736, 2009
Professional Engineer, WI, 40597-006, 2009

CERTIFICATIONS
Professional Traffic Operations Engineer

Traffic Signal Technician Level II, IMSA

Fiber Optics Technician, Level I

PROFESSIONAL DEVELOPMENT
2009 IDOT/ACEC Traffic Signal Design Guidelines (Developed and Presented)

2002 IDOT District 1 Traffic Signal Design Guidelines Seminar, CECI (Developed and Presented)

1999 IDOT District 1 Traffic Signal Design Guidelines Seminar, CECI (Developed and Presented)

PROFESSIONAL AFFILIATIONS
American Society of Civil Engineers

Institute of Transportation Engineers

International Municipal Signal Association

US Route 12 (Rand Road) - IL 176 to Miller Road: Phase I and II Traffic Signal System and Ethernet System Improvements (PASSAGE)

IL Route 120 (Belvidere Road) - IL 134 to US 45: Phase I and II Traffic Signal System and Ethernet System Improvements (PASSAGE)

Wadsworth Road and Green Bay Road: Phase I and II, Intersection Design Studies, Temporary and Permanent Signal Improvements, Video Detection System and Ethernet System Improvements

COOK COUNTY DEPARTMENT OF TRANSPORTATION AND HIGHWAYS
Traffic Signal and Electrical Engineering Design Services:

- 12-8TSDS-12-ES
- 09-8TSDS-08-ES

KANE COUNTY DIVISION OF TRANSPORTATION
Stearns Road-McLean Road to IL Route 25 Contract 4: Traffic signal plans in accordance with the Intersection Design Study

Randall Road (Dean Street to Main Street): Traffic Signal Modifications, Fiber Optic Interconnect and Ethernet Improvements

Randall Road (Red Haw to Binnie Road): Traffic Signal Modifications, Fiber Optic Interconnect and Ethernet Improvements

Randall Road Highway Safety Improvements: Traffic Signal Modernization Plans and ADA Improvements

MCHENRY COUNTY DIVISION OF TRANSPORTATION
Randall Road (Harnish Drive to Miller Road): Signal Coordination and Timing Study

Traffic Signal Timing Assistance and Review: Various

OTHER PROJECTS
Balmoral Avenue (Des Plaines River Road to N. Pearl Street), Rosemont: New Traffic Signal Installations, Fiber Optic Interconnect and Video Monitoring Improvements

Des Plaines River Road and I-90 WB Ramps/CTA Station Entrance, Rosemont: Phase I and II Intersection Design and Traffic Signal Modernization

Coordinated Signal System Upgrade, DeKalb: Phase I and II Traffic Signal System Replacement

Finley Road and IL Route 38 (Mariano's Entrance), Lombard: Phase I and II Intersection Design and Traffic Signal Modernization

Fountain Square Traffic Signal Modernization, Evanston: Sherman Avenue, Orrington Avenue, Davis Street, and Grove Street

Village-wide EVP Improvements, Crestwood

Central Traffic Management Systems (Washington Street), Naperville: Phase I and II

Adaptive Traffic Signal System (Washington Street and Aurora Avenue), Naperville: Phase I and II

TRAFFIC IMPACT STUDIES
Holly Brook Court Senior Living Center, Brazil, IN

Road Ranger, Tipton, IN

ComEd Site Redevelopment, Chicago

Downtown Bartlett Traffic Assessment

Downtown Algonquin IL 31 Bypass Traffic Study

Fashion Outlets of Chicago Traffic Analysis and Assessment, Rosemont

Nowell Park Recreation Center, Joliet

RAILROAD QUIET ZONE STUDIES

- Bartlett - Spaulding Road (Milwaukee District West Service)
- Chicago Ridge - Ridgeland Avenue to Chicago Ridge Metra Station (Metra Southwest Service)
- Elmwood Park - Harlem Avenue to Grand Avenue (Metra Milwaukee District West Service)
- North Riverside/Riverside/Berwyn - 1st Avenue to Riverside Drive (Chicago Central and Pacific Line)
- New Lenox - Gougar Road to School House Road (EJ&E Line)
- Oak Lawn - Central Avenue to Kilbourn Avenue (Metra Southwest Service)
- Roselle – Rodenburg Road (Metra Milwaukee District West Service)
- Wayne – Army Trail Road (EJ&E Line)

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 West Higgins Road Suite 600 Rosemont, Illinois 60018 TEL (847) 823-0500 FAX (847) 823-0520

January 24, 2018

Weber Packaging Solutions, Inc.
711 West Algonquin Road
Arlington Heights, IL 60005

Attention: Douglas A Weber

Subject: Stormwater Review of Proposed Development of Arlington Heights Industrial Development at 703-723 W. Algonquin Road in Arlington Heights, IL

Dear Mr. Weber:

Christopher B. Burke Engineering, Ltd. (CBBEL) has prepared this preliminary review of the stormwater information provided to us with regards to the proposed warehouse development on the property to the east of your Weber Packaging Solutions, Inc. facility. We have been provided a report titled "Project Narrative and Storm Drainage Analysis for Arlington Heights Industrial, 703-723 Algonquin Road, Arlington Heights, IL." The report was prepared by RWG Engineering, LLC (RWG) and dated October 18, 2017.

Based on our review of the RWG report, we offer the following comments/concerns:

1. The existing property allows overland flow between the buildings and away from the Weber site. The overland flow path does not exist in the proposed conditions because of one long building. The overland flow routes should be illustrated on the plans. We believe they are taking the flow north and south but it is not clearly illustrated.
2. Is the area tributary to each pond maintained?
3. Where is the underground storage placed and what is the tributary area to it?
4. The overtop elevation of the south detention basin (along I-90) is to be raised from 715 to 715.4 which will raise the elevations in ponds not solely on the property to be developed.
5. The high water elevation of 715.4 is assumed for all detention calculations as a level pool. The head associated with the 10-year design pipes and overland flow should be determined in each depressional area.
6. The existing depressional storage is not addressed.
7. It is not noted where the permeable pavement is located.
8. Open water is accounted for in the RCN calculations but not included in the Modified Rational Method calculations.
9. No freeboard is proposed at the 2 detention ponds along Meijer Drive. IDOT required the ponds to have 2 feet of freeboard when they approved Meijer Drive.
10. The existing restrictors are modeled as 30 foot long pipes but it is not clear why this is assumed.
11. The reported allowable outflow rate applied in determining the proposed detention appear higher than would be allowed for the tributary areas.
12. The storage areas should be modeled independently based on their tributary areas.

A hydraulic model of the entire drainage system should be provided to check the assumptions.

The above comments should not be construed as an exhaustive list of all issues, comments and concerns relating to stormwater detention relating to the proposed project. The above comments represent CBBEL's analysis following a preliminary review of the RWG report which was provided to us one (1) week ago.

If you have questions concerning our review, please let me know.

Sincerely,

Thomas T. Burke, Jr, PhD, PE
Vice-President
Head, Water Resources Department

cc: Thomas W. Winkler, JD, CPA – The Winkler Group LLC

TTB/
N:\Arlington Heights\180033\Water\Docs\Weber_Stormwater Review_012418.docx

MORGAN / HARBOUR
CONSTRUCTION

March 9, 2018

Attn: Sam Hubbard
Development Planner
Department of Planning and Community Development
Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL 60005

Tel: 847-368-5223

Re: 703-723 W. Algonquin Road Project – Planning Commission – Response Letter – Weber Packaging Solutions, Inc.

Mr. Hubbard,

The following is our Planning Commission Response Letter addressing the comments as outlined in the Review Letter as prepared by The Winkler Group LLC on behalf of Weber packaging Solutions, Inc. dated March 02, 2018 regarding the aforementioned project:

A. WEBER CONCERN: Inadequacy of Traffic Operations Analysis ("Operational Issues")

- **MHC RESPONSE: Traffic Operations – Truck maneuvers, including a WB-67, accessing the proposed docks will be within the 44' easement area and will not encroach onto the WPS parking lot area outside the 44' Ingress-Egress Easement area.**
- **Please refer to the attached Truck Routing Exhibit dated 03/09/18 as prepared by RWG Engineering. - (3) Sheets**

B. Uncertainty of Legal Access ("Legal Issues")

- **Please refer to the attached Memorandum dated 03/07/18 as prepared by Bruce E. Garner from the Law Office of Schirott, Luetkehans & Garner, L.L.C. - (20) pages**

C. *WEBER CONCERN: Overburdening Traffic congestion in and around the Golf Road, Algonquin Road and Meijer Drive public access streets ("Traffic Congestion")*

- **MHC RESPONSE: The traffic study was conducted in compliance with IDOT and Village of Arlington Heights standards. The traffic capacity analyses were conducted using the accepted Synchro/Sim Traffic capacity analysis software. Vehicle trip generation rates were calculated using ITE Trip Generation data, which is an accepted publication.**
- **Please refer to the Traffic Study dated 02/05/18 as prepared by KLOA. – (96) pages.**

D. *WEBER CONCERN:* *Failure to address relocating utilities ("Utility Relocation")*

- **MHC RESPONSE: Utility Relocations – The cost for any proposed utility relocations necessitated solely by the Proposed Project will be the responsibility of the Owners of the Proposed Project. Construction for any work within the WPS parcel will be coordinated with WPS and sequenced in a manner to minimize disruptions to WPS operations.**
- **Please refer to the attached Easement Overview Exhibit dated 03/09/18 as prepared by RWG Engineering. - (1) Sheet**
- **Please refer to email dated 01/31/18 as sent by Paul Leder of RWG Engineering to Doug Weber of Weber Packaging.**

E. *WEBER CONCERN:* *Inadequate Water Management Planning ("Water Management Concerns")*

- **MHC RESPONSE: Storm Water Management – The proposed storm water management improvements have no negative impact to the WPS Property and actually reduce release rates from the Proposed Project parcel. The storm water management improvements for the Proposed Project will be in accordance with applicable local codes and ordinances, including the Village of Arlington Heights, MWRD, and IDOT.**

Please contact me directly if any of these responses are insufficient or if any further clarification is required in order to obtain approval.

Sincerely,

Joshua Spinks
Senior Project Manager
Morgan / Harbour Construction, L.L.C.

MEMORANDUM

TO: Village of Arlington Heights
Plan Commission

FROM: Hamilton Partners, Inc., by its Counsel:

Bruce E. Garner
Law Office of Schirott, Luetkehans & Garner, LLC
105 East Irving Park Road
Itasca, IL 60143
(630) 773-8500

SUBJECT: Petition No. PC 17-013
Hamilton Partners, Inc.'s Petition for approval of a PUD and Subdivision
Subject Property: 703-723 West Algonquin Road, Arlington Heights, IL

DATE: March 7, 2018

LEGAL ACCESS – "LEGAL ISSUES".

On March 2, 2018, the Winkler Group LLC ("Winkler") submitted a Memorandum to the Village of Arlington Heights Plan Commission (the "Village") on behalf of Weber Packaging Solutions, Inc. ("Weber"). Section B of the Memorandum is entitled "Uncertainty of Legal Access ('Legal Issues')". However, contrary to the title of that Memorandum's Section B, and as detailed below, there is no doubt as to the certainty of the legal access granted to Hamilton Partners, Inc.'s ("Hamilton") property.

As indicated in Weber's Memorandum, access to both the Weber property and the Hamilton property from Meijer Drive is guaranteed by a perpetual Easement Agreement (the "Agreement") recorded in the Cook County Recorder of Deeds Office on March 23, 2006 as Document No. 0608244082. A copy of the Agreement is attached hereto as Exhibit A. The Agreement was drafted by Thomas W. Winkler, the same attorney who prepared Weber's Memorandum to the Village on March 2, 2018. In the Agreement, Winkler ensured that the benefits and burdens of the Easement would "run with the land", as paragraph 12 provides that:

> All provisions of this Agreement, including the benefits and burdens, run with the land and are binding upon and inure to the heirs, assigns, successors, tenants, and personal representatives of the Parties hereto.

Accordingly, when Hamilton succeeded to the ownership interest in the subject property, it also succeeded to the easement interests recorded in the Agreement.

As explained in Weber's Memorandum, Weber and Hamilton both derive their access to their respective properties through a mutual easement - a 22-foot strip of land running in a north-south direction along the boundary of each parcel of property from Meijer Drive all the way to the southern border of the Weber and Hamilton parcels (the "Easement"). Each party benefits from the use of 22 feet of the other's parcel and is likewise burdened by the other's use of 22 feet of their parcel. However, as recognized by Weber in its Memorandum, the Agreement provides that Weber is solely responsible for the repair and maintenance of that private road which was constructed in the Easement. (*See* Ex. A, ¶ 11)

A. <u>Easement Not Confined to Present Uses</u>.

In its Memorandum, Weber complains that the use contemplated by Hamilton's plans is unreasonable and places an undue burden on Weber, since it must maintain and repair the Easement. Weber states that the Easement was "intended to be used and has been used for both automobile traffic and pedestrian traffic, not heavy commercial vehicle traffic" and that the use planned by Hamilton Partners "…directly contradicts the intention of the parties who established the easement and creates an undue burden on [Weber]". However, in making this argument, Weber conveniently ignores seminal terms in the Agreement drafted by Weber's counsel. Paragraph 5 of the Agreement clearly states:

> 5. **<u>Use of Easement Premises</u>.**
>
> The use of the Easement Premises referred to in paragraphs 1, 2, 3, and 4 above ***are not confined to present uses*** of the Weber parcel, the Oak Pointe Property, the WMS Plant and/or Weber Atrium ***or to present means of transportation***.

Exhibit A, ¶ 5, emphasis added.

Contrary to Weber's assertion, by the very terms of the Agreement, the Easement is not confined to that use as of the date of execution of the Agreement, or any other historical use, but rather, may be expanded upon by the parties benefiting from the Easement. Illinois law is clear that if the language of an easement agreement is clear and free from doubt, that language is not the subject of interpretation, and no resort to facts and circumstances outside of the agreement may be made to modify the clear terms of the easement. *Duresa v. Commonwealth Edison Co.*, 348 Ill. App. 3d 90, 101 (1st Dist. 2004). Here, the Agreement is clear – the parties' use of the easement is not confined to the present uses or present means of transportation and may therefore be used in any way the parties see fit to use it. Contrary to the case of *Emanuel v. Hernandez*, cited by Weber, this is not a case of an implied easement where the scope of the use of the easement must be determined by looking at the circumstances surrounding the grant of the easement because the easement agreement is not in writing. Illinois law holds that when there is a written easement agreement, the intention of the parties is determined from the language used in the agreement itself, without resort to facts and circumstances outside of those written terms. *Rivers Edge Homeowners' Assoc. v. City of Naperville*, 353 Ill. App. 3d 874, 878 (2d Dist. 2004). In other words, rather than determining the proper scope of use of the Easement by looking at its use at the time of execution of the Agreement or some other historical period, the Easement here is determined strictly by the words used in the Agreement itself. Those words indicate that a perpetual easement is granted for ingress and egress over, under and across the Weber and Hamilton properties. Further, the use of that Easement is **"not confined to present uses . . . or to present means of transportation."** Ex. A, ¶ 5.

Accordingly, Hamilton is not confined to the use made of the Easement at the time the Agreement was executed and may lawfully expand upon that use pursuant to the terms of the Agreement. The cases of *Doan v. Allgood* and *Seymour v. Harris Trust & Savings Bank*, cited by Weber, are not applicable as no examination of the burden on Weber or reasonableness of the scope are applicable in this instance. However, the *Seymour* case is instructive in that it makes clear that under Illinois law, the rights of the holder of an easement (here, Hamilton) are paramount to the extent necessary to carry out the purpose of the easement agreement. 264 Ill. App. 3d 583, 595 (1st Dist. 1994).

B. <u>Hamilton Partners Has Negotiated In Good Faith</u>.

Weber's Memorandum contains a Section at the end of same entitled "Recommended Actions" in which Weber requests that Hamilton engage in good faith negotiations with Weber regarding the construction and maintenance of the Easement area. (Memorandum, p. 9) Hamilton and its counsel met with Doug Weber at Weber's offices on January 31, 2018 to discuss Hamilton's development. During that meeting, Mike Wauterlek of Hamilton Partners offered to split the future maintenance and repair costs of the Easement roadway 50/50 after the construction of Hamilton's development. Hamilton has heard no response from Weber since this offer. As demonstrated above, under the terms of the Agreement, Weber has the duty to pay for 100% of the maintenance and repair of the Easement roadway. Hamilton Partners' offer to split equally the maintenance and repair obligations is extremely generous given the terms of the Easement Agreement. Accordingly, Weber should accept Hamilton Partners' offer before it is rescinded.

C. <u>Hamilton Partners is Repaving Their Portion of the Easement</u>

As part of Hamilton's plans for construction submitted to the Village, Hamilton will be paving their 22' of the Easement private roadway during their development of the subject property. This, coupled with the offer to pay 50% of the overall maintenance costs of the Easement addresses any claims of increased costs to Weber. As with the offer to pay 50% of the maintenance costs of the Easement, Hamilton is not obligated to pave its portion of the Easement, but is doing same in an effort to be a good neighbor to surrounding property owners.

<u>CONVEYANCE OF OUT LOT A</u>.

An issue raised by the Village Staff is that Village Ordinance No. 02-094 conditioned the approval of construction of Meijer Drive in 2002 on the conveyance of the ownership of "Out Lot A", which is adjacent (and Northwest) to the Hamilton property, to the then owner of the Hamilton property. To date, this has not been done by Weber. As Weber should have conveyed Out Lot A several years ago, Village Staff has requested that the lot be conveyed to Hamilton now. At the meeting with Doug Weber on January 31, 2018, Hamilton offered to receive such a conveyance of the ownership of Out Lot A from Weber. Again, Hamilton has received no response from Weber to this request.

<u>CONCLUSION</u>

The February 14, 2018 Recommendations by the Village Planning & Community Development Department Staff directed Hamilton to "…work with Weber Packaging Solutions property owner to ensure that the easements governing the shared access drive are suitable to accommodate the proposed development on the subject property". Feb. 14, 2018 Recommendations, para. 10. As

demonstrated above, Hamilton Partners has attempted to work with Weber, and was generous in its overtures. Instead of responding to Hamilton's generous offers, Weber chose to send a misleading memorandum to the Village in an apparent attempt to thwart Hamilton's development. Weber's arguments regarding the shared Easement have been shown to be meritless. But more to the point, Hamilton has shown that it has unrestricted legal access to Meijer Drive through the Easement Agreement. That Weber would like to restrict the development of those parcels around them smacks of nothing more than complaints of "Not in my backyard". This is illustrated by the fact that Weber's own loading docks are adjacent to the subject Easement and truck traffic coming to and from Weber utilize the Easement roadway, just as Hamilton has planned. In any event, Weber's complaints do not affect the merits of Hamilton's requested PUD and subdivision and same should be approved.

EXHIBIT A

303 West Madison Street, #1700

Prepared by:
Thomas W. Winkler
Leff, Cohen & Winkler, Ltd.
~~233 South Wacker Drive, Suite 9750~~
Chicago, IL 60606

After Recording Return to:
Thomas W. Winkler

Leff, Cohen & Winkler, Ltd.

303 West Madison Street, #1700

Chicago, IL 60606

0608244082

Doc#: 0608244082 Fee: $62.50
Eugene "Gene" Moore RHSP Fee:$10.00
Cook County Recorder of Deeds
Date: 03/23/2006 01:33 PM Pg: 1 of 20

PARCEL "1 E"

EASEMENT AGREEMENT

This Easement Agreement is made and entered into by and between **Joseph A. Weber, Jr., Trustee of the Joseph A. Weber, Jr. Declaration of Trust, originally dated May 1, 1975, as amended**, (hereinafter referred to as "***Weber***"), **Arlington Oak Pointe L.L.C.**, an Illinois limited liability company (hereafter referred to as "***Oak Pointe***"), **Weber Marking Systems, Inc.**, an Illinois corporation (hereinafter referred to as "***WMS***"), and ~~**LaSalle National Association, Successor Trustee to LaSalle National Bank and Trust Company of Chicago,**~~ **as Trustee under Trust Agreement #795, not personally, but solely as Trustee** (hereinafter referred to as "***LaSalle***"). The following recitals are a material part of this Agreement:

*LaSalle Bank National Association as Successor Trustee to American National Bank and Trust Company of Chicago

Recorder's Stamp

A. Weber is the owner of a tract of vacant land located adjacent to Algonquin Road consisting of approximately 3.997 acres, legally described as follows and referred to

G:\WINKLER,TOM\EASEMENT AGREEMENT-REVISED.DOC

herein as the "***Weber Parcel***": See Exhibit A attached hereto and made a part hereof.

B. Oak Pointe is the owner of a parcel of land containing approximately 306,387 square feet and located immediately to the east of the Weber Parcel adjacent to Algonquin Road, improved with a commercial building containing approximately 97,000 square feet, and legally described as follows and referred to herein as the "***Oak Pointe Property***": See Exhibit B attached hereto and made a part hereof.

C. WMS is the owner of a parcel of land containing approximately 643,500 square feet and located immediately to the south of the Weber Parcel, improved with an industrial building, and legally described as follows and referred to herein as the "***WMS Plant***": See Exhibit C attached hereto and made a part hereof.

D. LaSalle is the owner of a parcel of land containing approximately 355,706 square feet and located immediately to the south of the Oak Pointe Building, improved with a commercial building, and legally described as follows and referred to herein as "***Weber Atrium***": See Exhibit D attached hereto and made a part hereof.

E. Weber, Oak Pointe, WMS, and LaSalle desire to grant easements upon the terms and conditions herein set forth.

F. The easements being granted herein are for the benefit of Weber, Oak Pointe, WMS, and LaSalle and subject to the conditions herein set forth.

NOW, THEREFORE, in consideration of the foregoing recitals and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the following is hereby agreed to by all of the parties hereto (sometimes referred to singularly as a "***Party***" and collectively as the "***Parties***"):

1. **Grant by Weber**. Weber hereby grants to Oak Pointe, WMS, and LaSalle as an easement appurtenant to the Oak Pointe Property, the WMS Plant, and Weber Atrium, a perpetual easement for ingress and egress over, under and across the Weber Easement Premises. The Weber Easement Premises is commonly referred to as "Outlot B" in Weber's Resubdivision and that property located southeast of Outlot B and identified as a "Non-Exclusive Ingress and Egress Easement" on the Weber's Resubdivision Plat (but not included within the boundaries of Weber's Resubdivision).

2. **Grant by Oak Pointe**. Oak Pointe hereby grants to Weber, WMS, and LaSalle, as an easement appurtenant to the Weber Parcel, the WMS Plant, and Weber Atrium, a perpetual easement for ingress and egress over, under and across the Oak Pointe Easement Premises. The Oak Pointe Easement Premises is approximately 22' x 189' and identified as a "***Non-Exclusive Ingress and Egress Easement***" on the Oak Pointe Plat of Dedication.

3. **Grant by WMS**. WMS hereby grants to Weber, Oak Pointe, and LaSalle as an easement appurtenant to the Weber Parcel, the Oak Pointe Property, and Weber Atrium, a

perpetual easement for ingress and egress over, under and across the WMS Easement Premises. The WMS Easement Premises commences on the southerly line of Outlot B of Weber's Resubdivision and continues southeasterly approximately 225' in the manner depicted on the Weber's Resubdivision Plat and identified on said Plat as a "Non-Exclusive Ingress and Egress Easement" (the "***Stub Portion***") and then continuing south to the southerly line of the WMS Plant (the "***South Portion***"). The South Portion of the WMS Easement Premises is 22' wide, the easterly boundary being the easterly property line of the WMS Plant.

4. **Grant by LaSalle.** LaSalle hereby grants to Weber, Oak Pointe, and WMS as an easement appurtenant to the Weber Parcel, the Oak Pointe Property, and the WMS Plant, a perpetual easement for ingress and egress over, under and across the LaSalle Easement Premises. The LaSalle Easement Premises commences on the southerly line of the Stub Portion and continues south to the southerly line of the Weber Atrium. The LaSalle Easement Premises is 22' wide, the westerly boundary being the westerly boundary line of the Weber Atrium.

5. **Use of Easement Premises.** The use of the Easement Premises referred to in Paragraphs 1, 2, 3, and 4 above are not confined to present uses of the Weber Parcel, the Oak Pointe Property, the WMS Plant and/or Weber Atrium or to present means of transportation. The installation or maintenance by any of the Parties of pipes, conduits or wires, under, upon or over the Easement Premises is forbidden; provided, however, that Weber's Resubdivision Plat shall provide public utility easements intended to enable the City of Rolling Meadows to install and the Village of Arlington Heights to own and maintain, to the benefit of Weber, Oak Pointe, WMS, LaSalle and other properties, sanitary sewer and potable water facilities. The public utility easement shall also permit the installation and maintenance of other facilities such as electric, gas, telephone and cable by the respective providers. Exclusive use of the Easement Premises is not granted to any Party. The right to use each and all of the Easement Premises for ingress or egress is expressly reserved to the respective grantors and their successors, assigns, heirs, tenants and invitees. In addition, each respective grantor reserves the right to use the Easement Premises on its own property for any and all purposes whatsoever which shall not unreasonably interfere with any one of the Party's uses thereof in accordance with the easements granted.

6. **Division of Dominant Tenement and/or Servient Estate.** If the Weber Parcel, the Oak Pointe Property, the WMS Plant and/or Weber Atrium is hereafter divided into two (2) or more parts by separation of ownership, by lease or otherwise, the persons or entities owning, leasing or otherwise occupying such separated parcels shall enjoy the benefits of the easements hereby created.

7. **Parking.** The Parties covenant that vehicles shall not be parked on any of the Easement Premises.

8. **Condition.** This Agreement shall be of no force and effect unless: (i) prior to December 31, 2002, the City of Rolling Meadows acquires the fee title to that property

commonly referred to as the "Public Access Drive" (or "***PAR***") which is to be located on the Weber Parcel pursuant to that certain Economic Development Agreement dated September 25, 2001 by and among the City of Rolling Meadows, an Illinois municipal corporation; WMS; Weber; Bradford Property Corporation, an Illinois corporation; and Meijer Stores Limited Partnership, a Michigan limited partnership (the "***Economic Development Agreement***") and (ii) the City of Rolling Meadows completes all improvements contemplated in that certain City of Rolling Meadows/Oak Pointe Development Agreement dated January 22, 2002, as amended simultaneous herewith, within the timeframes set forth therein.

9. **Release of Prior Obligations.** WMS and Oak Pointe waive and release each other (and their predecessors and successors) from any and all maintenance fees or other costs otherwise required to be paid by either of them pursuant to the following: (i) the two documents each called "22 Foot Easement Grant" dated October 20, 1977 and recorded with the Cook County Recorder of Deeds as Document numbers 24176553 and 24176555 and (ii) the easements recorded as Document Numbers 199417611 and 24176551 (the "***Existing Easements***").

10. **Construction of Private Road.** (a) The Parties acknowledge that the City of Rolling Meadows is responsible for the construction of (i) the PAR to be known as Meijer Drive which will link Algonquin Road and Golf and (ii) that part of the private road which is primarily described in Paragraph 1 of this Easement Agreement (with a small portion of this private road being located on the property described in Paragraph 2); as well as installation of sanitary sewer and potable water facilities for the benefit of Oak Pointe, Weber, WMS, LaSalle and other properties. The obligations of the City of Rolling Meadows are set forth more precisely in the Economic Development Agreement and the Rolling Meadows/Oak Pointe Development Agreement, as amended simultaneous herewith. Since the engineering, planning, and construction of the PAR and the private road identified above (the "***Construction Activities***") are all being controlled or performed by the City of Rolling Meadows, or its agents or representatives, the Parties hereto hereby release each other from any and all claims, actions or damages which may be incurred, suffered or asserted by any Party allegedly or actually arising in connection with the Construction Activities, except that the foregoing release shall not apply to protect any Party from its own negligent or willful acts.

(b) The Parties acknowledge that the Existing Easements are being abrogated pursuant to the Weber's Subdivision Plat and Oak Pointe Plat of Dedication. Until the Construction Activities are completed (but in no event later than December 31, 2003), the Parties hereto agree to abide by the terms and conditions which are set forth in the Existing Easements.

(c) Effective upon the completion of the Construction Activities (but in no event later than December 31, 2003), the Parties hereto agree to abrogate any rights they have with respect to ingress and egress rights which are set forth in the document captioned "25 Foot Easement Grant" dated October 20, 1977 and recorded with the Cook County Recorder of Deeds as document 24176554.

11. **Maintenance of Private Road.** WMS agrees to repair and maintain, at its sole cost and expense, the private road which is to be located on the Easement Premises referred to in Paragraphs 1, 2, 3, and 4 of this Easement Agreement as well as provide snow and ice removal from the same when reasonably necessary, and keep the same clean, sightly, safe, unobstructed, and in good and usable condition consistent with past practice. With regard to the foregoing, WMS shall comply with any and all applicable federal, state and local zoning and other ordinances, statutes, guidelines, requirements and regulations with which it has knowledge.

All maintenance and repair of the private road shall be made so as to interfere as little as reasonably practicable with the operations of any of the owners of the Weber Parcel, the WMS Plant, the Oak Pointe Property and the Weber Atrium, or their employees, agents, tenants, invitees or licensees; provided, however, that all parties acknowledge and agree that maintenance and repairs will probably be performed during normal business hours and that some reasonable interference with operations is unavoidable.

In the event of an emergency requiring maintenance or repair of the private roadway, if WMS does not undertake the same within a period of time which is reasonable under the circumstances or it does not reasonably appear that WMS will, or will be able to, undertake such maintenance or repair within a reasonable period of time, any other Party hereto may, at its option, and at its sole cost and expense, perform such maintenance or repair and pay any and all costs and charges associated therewith (subject to reimbursement consistent with the second to last grammatical paragraph of this Section 11).

In the event that a failure by WMS to maintain and repair the private roadway as WMS is required to do pursuant to this Agreement results in a material interference with the rights granted to the other Parties by this Agreement or in a material interference with the use or operation of the other Parties' Parcels or the improvements located thereon from time to time, but does not result in an emergency, any of the other Parties may advise WMS in writing of such failure. In the event that WMS fails to remedy such default within ten (10) days after receipt of such notice or, if such default cannot be cured within ten (10) days, in the event that WMS fails to commence the cure of such default within such ten (10) day period and diligently pursue such cure to completion, any other Party may, at its option, perform the obligation which WMS has failed to properly perform hereunder and pay any and all costs and charges associated therewith.

In any event described in the preceding two (2) paragraphs of this Section 11, the performing Party shall be entitled to recover from WMS the reasonable charges, fees, costs and expenses incurred by the performing party (including, if WMS is in default, reasonable attorneys' fees) in connection therewith, together with interest thereon at the prime rate of interest most recently published in the Wall Street Journal plus four percent (4%) from the date of payment. Such charges, fees, costs, expenses and interest shall be paid by WMS within ten (10) days after receipt of a statement thereof from the performing Party.

Each Party which performs any maintenance or repair on the Parcel to which another party holds title shall restore the area affected by such maintenance or repair to the condition existing prior thereto or prior to any damage or disrepair necessitating such maintenance or repair, and any failure to do so shall give the Party which holds title to such area the rights of a non-defaulting Party pursuant to this Section 11.

12. **Running of Benefits and Burdens.** All provisions of this Agreement, including the benefits and burdens, run with the land and are binding upon and inure to the heirs, assigns, successors, tenants, and personal representatives of the Parties hereto.

13. **Modifications.** No provision of this Agreement shall be modified or amended except by an instrument, in writing, duly executed by the Parties hereto.

14. **Invalidity.** If any provision, covenant, agreement or portion of this Agreement or its application to any person, entity or property is held invalid, such invalidity shall not affect the application or validity of any other provisions, covenants, agreements and the remaining portions of this instrument which shall be considered to be severable and enforceable.

15. **Notices.** All notices and other communications given pursuant to this Easement Agreement shall be in writing and shall be deemed properly received if delivered on the first day following delivery to an overnight courier service or on the second business day after deposit in the U.S. mail as registered or certified mail, return receipt requested, postage prepaid, as follows:

If to Weber: Mr. Joseph A. Weber, Jr.
Weber Marking Systems, Inc.
711 West Algonquin Road
Arlington Heights, IL 60005

If to Oak Pointe: Arlington Oak Pointe, L.L.C.
220 Honey Lake Court
North Barrington, IL 60010

If to WMS: Weber Marking Systems, Inc.
711 West Algonquin Road
Arlington Heights, IL 60005
Attention: President

If to LaSalle: ~~LaSalle National Association, Successor Trustee to LaSalle National Bank and Trust Company of Chicago,~~ as Trustee under Trust Agreement #795, not personally, but solely as Trustee

LaSalle Bank National Association as Successor Trustee to American National Bank and Trust Company of Chicago

Land Trust Division
135 South LaSalle Street, Suite 2500
Chicago, IL 60603

16. **Recording**. This Easement Agreement shall be recorded with the Cook County Recorder of Deeds, following the execution by all Parties. The documents herein referred to as Weber's Resubdivision and the Oak Pointe Plat of Dedication will also be recorded with the Cook County Recorder of Deeds.

[SIGNATURE PAGE FOLLOWS]

EXHIBIT A

WEBER PARCEL

(LEGAL DESCRIPTION SET FORTH ON NEXT PAGE.)

EXHIBIT A

P.I.N. 08-16-102-033

THAT PART OF LOT 2 IN CAUDILL'S SUBDIVISION OF PART OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED OCTOBER 19, 1943 AS DOCUMENT 13160398 AND PART OF VACATED ELK GROVE ROAD PER INSTRUMENT RECORDED SEPTEMBER 30, 1993 AS DOCUMENT 93782809 AND PART OF LOT 'B' IN WEBER ATRIUM RESUBDIVISION IN THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED NOVEMBER 21, 1978 AS DOCUMENT 24731232 DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWESTERLY CORNER OF SUB-LOT 1 IN BORKE'S SUBDIVISION OF LOT 1 IN HEISE'S SUBDIVISION OF PART OF THE NORTHWEST 1/4 OF SECTION 16 AFORESAID; THENCE NORTH 80 DEGREES, 34 MINUTES, 25 SECONDS WEST ALONG THE WESTERLY EXTENSION OF THE SOUTH LINE THEREOF TO THE WESTERLY LINE OF LOT 2 IN CAUDILL'S SUBDIVISION AFORESAID, BEING ALSO THE WESTERLY LINE OF ELK GROVE ROAD (NOW VACATED); THENCE SOUTH 19 DEGREES, 00 MINUTE, 00 SECOND WEST, 385.00 FEET ALONG SAID WESTERLY LINE TO THE POINT OF BEGINNING; THENCE SOUTH 71 DEGREES, 00 MINUTE, 00 SECOND EAST, 562.89 FEET TO THE EASTERLY LINE OF LOT 'B' IN WEBER ATRIUM RESUBDIVISION AFORESAID; THENCE NORTH 19 DEGREES, 13 MINUTES, 41 SECONDS EAST, 377.30 FEET ALONG SAID EASTERLY LINE TO THE WEST LINE OF ALGONQUIN ROAD, STATE ROUTE 62, AS WIDENED PER DOCUMENT 11195782; THENCE NORTHWESTERLY, 117.59 FEET ALONG SAID WEST LINE BEING THE ARC OF A CURVE CONVEX SOUTHWESTERLY WITH A RADIUS OF 9499.34 FEET TO THE SOUTHERLY LINE OF ELK GROVE ROAD, AS DEDICATED PER DOCUMENT 19756910; THENCE NORTH 80 DEGREES, 34 MINUTES, 25 SECONDS WEST, 431.75 FEET ALONG SAID SOUTHERLY LINE TO THE EASTERLY LINE OF ELK GROVE ROAD (NOW VACATED); THENCE NORTH 19 DEGREES, 00 MINUTE, 00 SECOND EAST, 33.47 FEET ALONG SAID EASTERLY LINE TO THE NORTHERLY LINE OF LOT 2 AFORESAID; THENCE NORTH 80 DEGREES, 34 MINUTES, 25 SECONDS WEST ALONG SAID NORTHERLY LINE, 10.82 FEET TO THE POINT OF BEGINNING IN COOK COUNTY, ILLINOIS.

EXHIBIT B

OAK POINTE BUILDING

(LEGAL DESCRIPTION SET FORTH ON NEXT PAGE.)

EXHIBIT B

P.I.N. 08-16-102-008
08-16-102-026
08-16-102-027
08-16-102-030

THAT PART OF LOT 10 IN COUNTY CLERKS DIVISION, BEING A SUBDIVISION OF THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED IN COOK COUNTY, ILLINOIS, (ANTE-FIRE), AND THAT PART OF LOT 2 IN CAUDILL'S SUBDIVISION BEING A SUBDIVISION IN THAT PART OF THE NORTHWEST QUARTER OF SAID SECTION 16, ACCORDING TO THE PLAT THEREOF RECORDED OCTOBER 18, 1943 AS DOCUMENT NO. 13160398.; DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWESTERLY CORNER OF WEBER ATRIUM SUBDIVISION, BEING A SUBDIVISION IN THAT PART OF THE NORTHWEST QUARTER OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED NOVEMBER 21, 1978 AS DOCUMENT NO. 24731232 IN COOK COUNTY, ILLINOIS; THENCE SOUTHEASTERLY ALONG THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF ALGONQUIN ROAD (IL. ROUTE 62) AS RECORDED FEBRUARY 2, 1933 AS DOCUMENT NUMBERS 11195785 AND 1119782, SAID SOUTHWESTERLY RIGHT-OF-WAY LINE BEING A TANGENTIAL CURVE CONCAVE TO THE NORTHEAST RADIUS 9499.34 FEET, CENTRAL ANGLE 01 DEGREES 02 MINUTES 14 SECONDS, 171.96 FEET, (THE CHORD BEARS A ILLINOIS EAST GRID BEARING OF SOUTH 45 DEGREES 31 MINUTES 18 SECONDS WEST 171.96 FEET) TO THE NORTHEASTERLY CORNER OF LOT "B" IN SAID WEBER ATRIUM SUBDIVISION, SAID NORTHEASTERLY CORNER, BEING THE POINT OF BEGINNING; THENCE SOUTH 18 DEGREES 41 MINUTES 30 SECONDS WEST 46.26 FEET ALONG SAID EASTERLY LINE; THENCE NORTH 72 DEGREES 30 MINUTES 06 SECONDS EAST TO A POINT OF INTERSECTION WITH THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF SAID ALGONQUIN ROAD (IL. ROUTE 62); THENCE NORTHWESTERLY ALONG SAID SOUTHWESTERLY RIGHT-OF-WAY LINE BEING A TANGENTIAL CURVE CONCAVE TO THE NORTHEAST RADIUS 9499.34 FEET, CENTRAL ANGLE 00 DEGREES 15 MINUTES 13 SECONDS, 42.04 FEET, (THE CHORD BEARS NORTH 44 DEGREES 52 MINUTES 35 SECONDS WEST 42.04 FEET), TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

EXHIBIT C

WMS PLANT

(LEGAL DESCRIPTION SET FORTH ON NEXT PAGE.)

EXHIBIT C

P.I.N. 08-16-102-034

THAT PART OF LOT 2 IN CAUDILL'S SUBDIVISION OF PART OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED OCTOBER 19, 1943 AS DOCUMENT 13160398 AND PART OF VACATED ELK GROVE ROAD PER INSTRUMENT RECORDED SEPTEMBER 30, 1993 AS DOCUMENT 93782809 AND PART OF LOT 'B' IN WEBER ATRIUM RESUBDIVISION IN THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED NOVEMBER 21, 1978 AS DOCUMENT 24731232 DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWESTERLY CORNER OF SUB-LOT 1 IN BOREE'S SUBDIVISION OF LOT 1 IN HEISE'S SUBDIVISION OF PART OF THE NORTHWEST 1/4 OF SECTION 16 AFORESAID; THENCE NORTH 80 DEGREES, 34 MINUTES, 25 SECONDS WEST ALONG THE WESTERLY EXTENSION OF THE SOUTH LINE THEREOF TO THE WESTERLY LINE OF LOT 2 IN CAUDILL'S SUBDIVISION AFORESAID, BEING ALSO THE WESTERLY LINE OF ELK GROVE ROAD (NOW VACATED); THENCE SOUTH 19 DEGREES, 00 MINUTE, 00 SECOND WEST, 385.00 FEET ALONG SAID WESTERLY LINE TO THE POINT OF BEGINNING; THENCE SOUTH 71 DEGREES, 00 MINUTE, 00 SECOND EAST, 562.89 FEET TO THE EASTERLY LINE OF LOT 'B' IN WEBER ATRIUM RESUBDIVISION AFORESAID; THENCE SOUTH 19 DEGREES, 13 MINUTES, 41 SECONDS EAST, 1207.81 FEET ALONG SAID EASTERLY LINE TO THE SOUTHEAST CORNER OF LOT 'B' AFORESAID; THENCE NORTH 57 DEGREES, 59 MINUTES, 29 SECONDS WEST ALONG THE SOUTHERLY LINE OF LOT 'B', 572.79 FEET TO THE WESTERLY LINE OF ELK GROVE ROAD (NOW VACATED); THENCE NORTH 19 DEGREES, 00 MINUTE, 00 SECOND EAST, 1078.07 FEET ALONG AS DOCUMENT WESTERLY LINE TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

EXHIBIT D

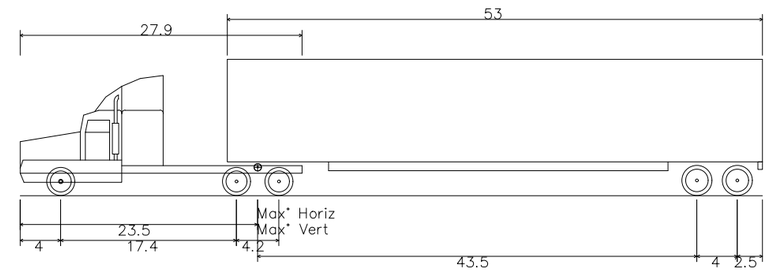
WEBER ATRIUM

(LEGAL DESCRIPTION SET FORTH ON NEXT PAGE.)

EXHIBIT D

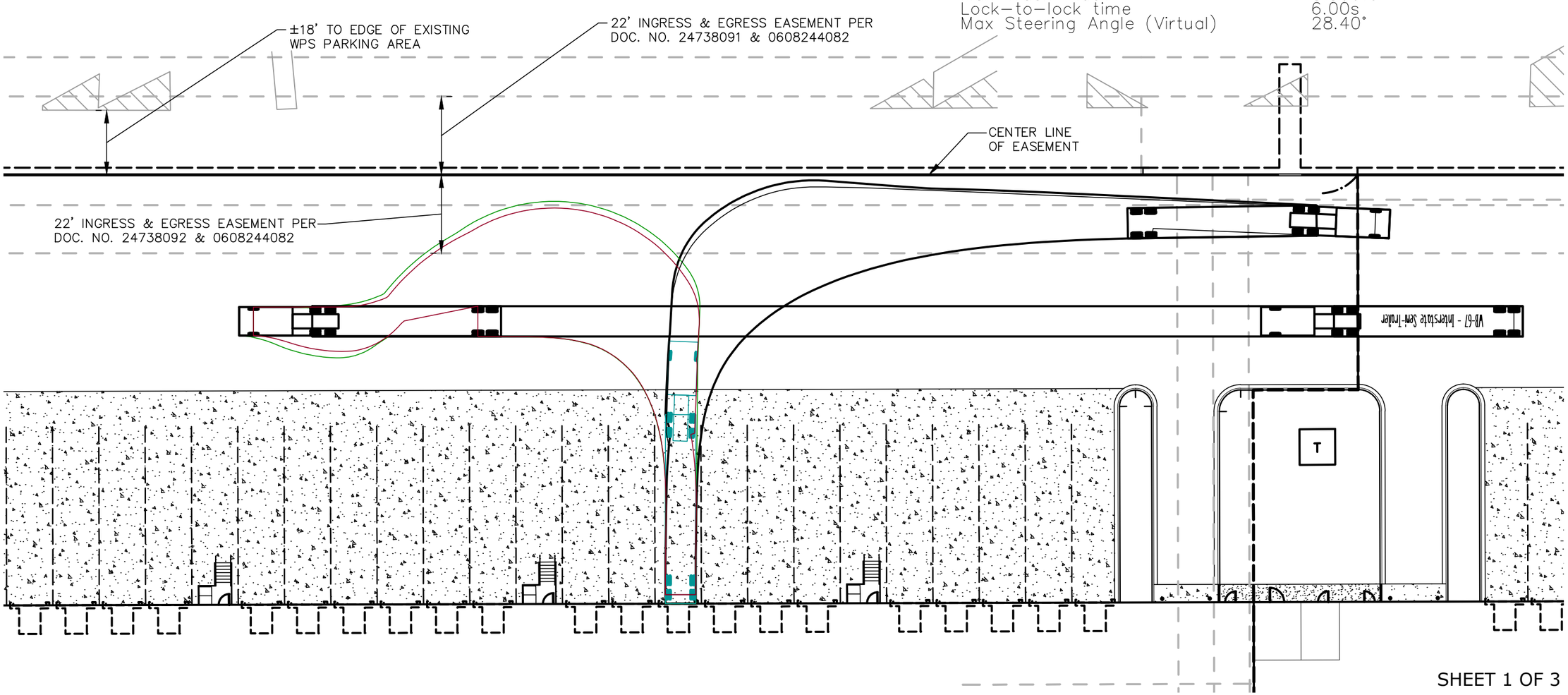
P.I.N. 08-16-102-028

LOT "A" IN WEBER ATRIUM RESUBDIVISION IN THE EAST 1/2 OF THE NORTH WEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, RECORDED NOVEMBER 21, 1978 AS DOCUMENT NUMBER 24731232, IN COOK COUNTY, ILLINOIS.



WB-67 – Interstate Semi-Trailer

Overall Length	73.500ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°



SHEET 1 OF 3

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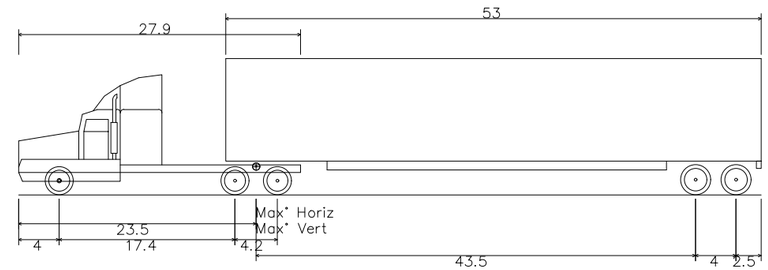
PROJECT NO. 32212717
DATE 03/09/18
SCALE 1"=30'
PROJ. MGR. PDL
PROJ. ASSOC. RWG

ARLINGTON HEIGHTS INDUSTRIAL

ARLINGTON HEIGHTS, ILLINOIS

TRUCK ROUTING EXHIBIT

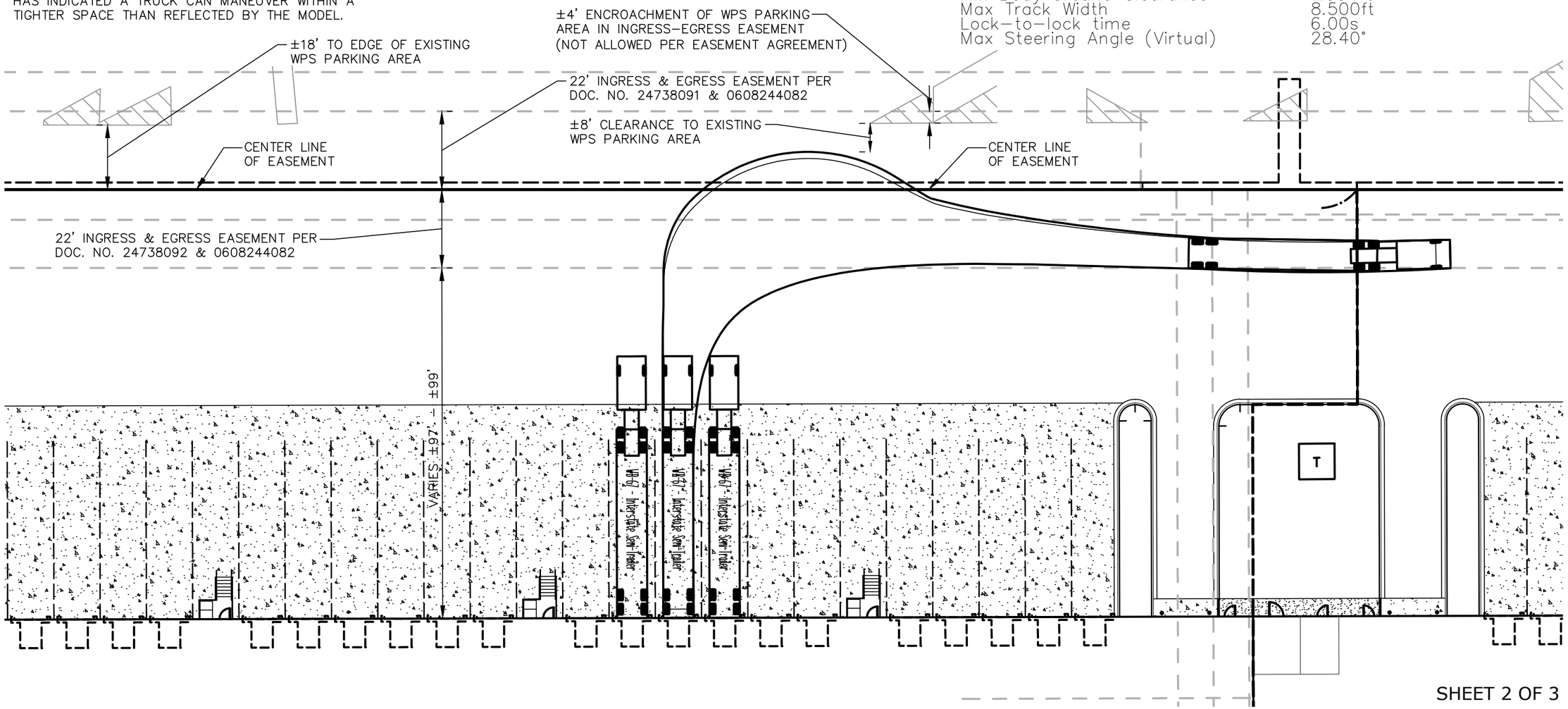
RWG Engineering, LLC
Civil Engineering ◆ Real Estate Consulting ◆ Project Management
975 E. 22nd St, Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com



WB-67 – Interstate Semi-Trailer

Overall Length	73.500ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°

NOTE: EXHIBIT REFLECTS A WORST CASE CONDITION WITH A CONSERVATIVE DESIGN MODEL. FIELD EXPERIENCE HAS INDICATED A TRUCK CAN MANEUVER WITHIN A TIGHTER SPACE THAN REFLECTED BY THE MODEL.



SHEET 2 OF 3

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PROJECT NO. 32212717
DATE 03/09/18
SCALE 1"=30'
PROJ. MGR. PDL
PROJ. ASSOC. RWG

ARLINGTON HEIGHTS INDUSTRIAL

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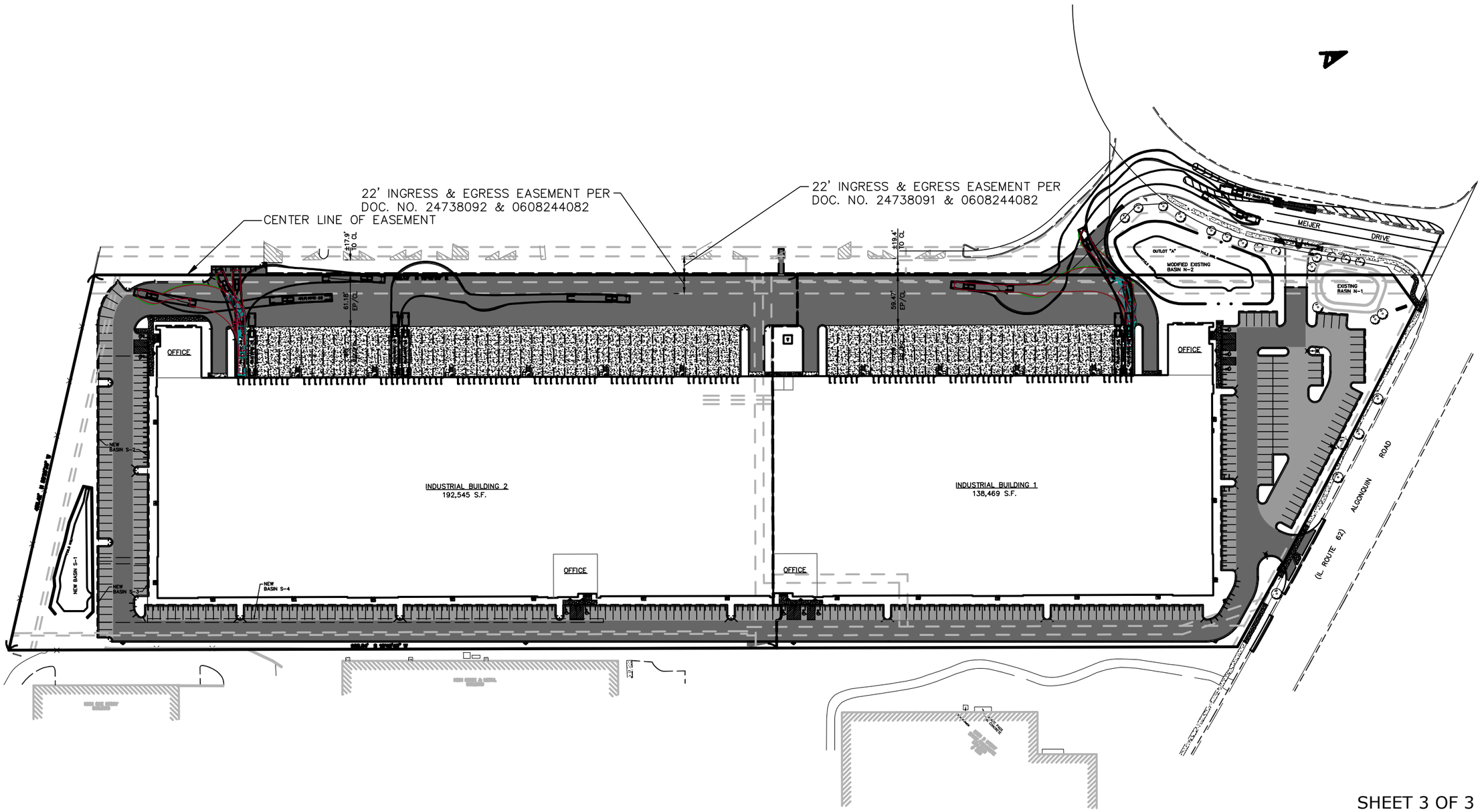

SHEET 3 OF 3

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PROJECT NO. 32212717
DATE 03/09/18
SCALE 1"=120'
PROJ. MGR. PDL
PROJ. ASSOC. RWG

ARLINGTON HEIGHTS INDUSTRIAL

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TRUCK ROUTING EXHIBIT

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Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

VERIFY NO ACCESS ISSUES WITH THESE 2 PARKING SPACES WITHIN EXISTING INGRESS-EGRESS EASEMENT.
ALTHOUGH PROBABLY OK PER EXISTING EASEMENT AGREEMENTS, COULD REMOVE THESE 2 PARKING SPACES TO AVOID THE ISSUE AND ADDRESS VILLAGE COMMENTS & CONCERNS.

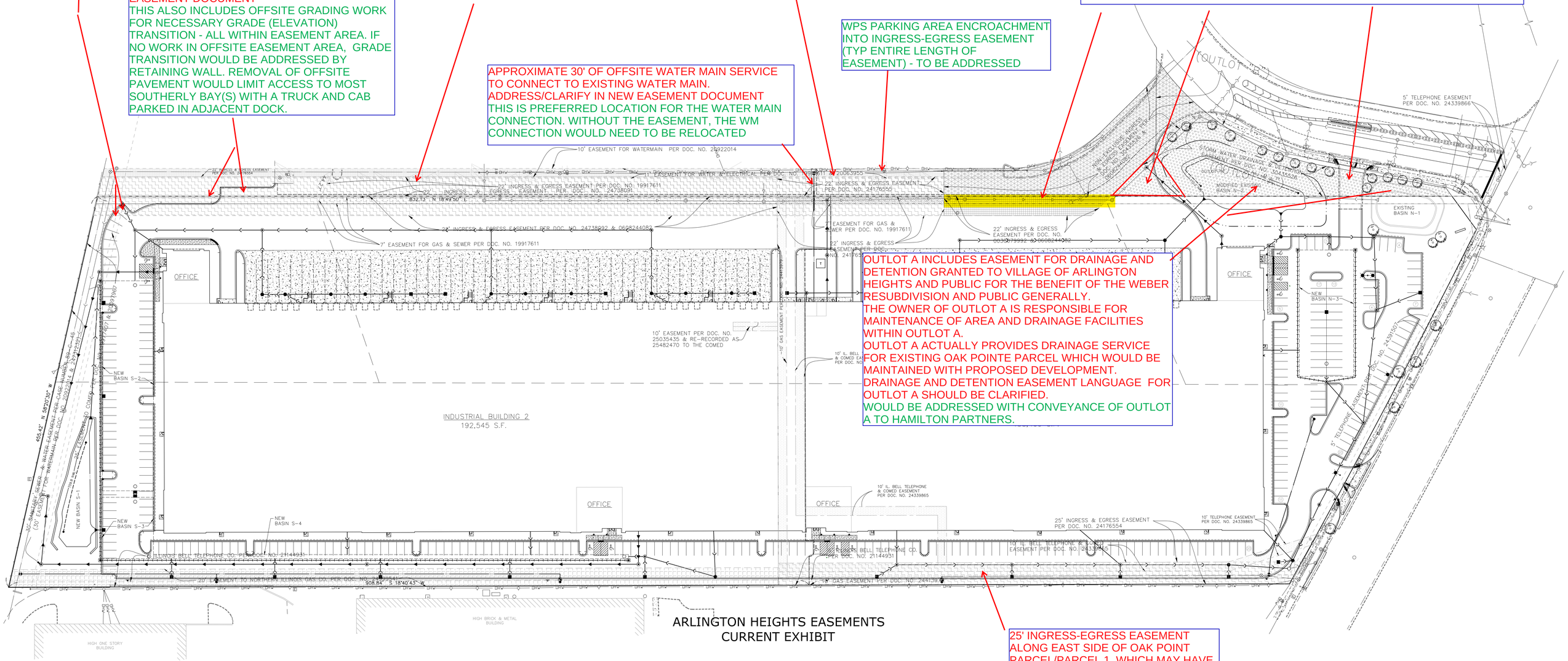
APPROXIMATE 10' X 65' OFFSITE PAVEMENT EXTENSION FOR TRUCK ACCESS TO PROPOSED DOCK AREA. ADDRESS/CLARIFY IN NEW EASEMENT DOCUMENT
THIS ALSO INCLUDES OFFSITE GRADING WORK FOR NECESSARY GRADE (ELEVATION) TRANSITION - ALL WITHIN EASEMENT AREA. IF NO WORK IN OFFSITE EASEMENT AREA, GRADE TRANSITION WOULD BE ADDRESSED BY RETAINING WALL. REMOVAL OF OFFSITE PAVEMENT WOULD LIMIT ACCESS TO MOST SOUTHERLY BAY(S) WITH A TRUCK AND CAB PARKED IN ADJACENT DOCK.

THERE ARE A NUMBER OF EASEMENTS ALONG THE COMMON DRIVEWAY GRANTED AT VARIOUS TIMES THRU THE YEARS, SOME OF WHICH HAVE BEEN VACATED OR PARTIALLY VACATED, RESULTING IN A COMPLEX SITUATION WHICH IS DIFFICULT TO FOLLOW. THE VILLAGE IS REQUESTING THIS SITUATION BE ADDRESSED/CLEANED-UP.
IT IS SUGGESTED THE VARIOUS EXISTING EASEMENTS BE VACATED AND A NEW EASEMENT AGREEMENT (WITH PLAT/EXHIBIT CLARIFING LOCATIONS) BE EXECUTED OUTLINING THE RIGHTS TO THE RESPECTIVE PARTIES ALONG THE COMMON DRIVE BASED ON CURRENT CONDITIONS.
USE OF 22' EASEMENT ON WPS PARCEL ADDDRESSED PER BRUCE GARNER'S MEMO OF MARCH 7, 2018

APPROXIMATE 30' OF OFFSITE WATER MAIN SERVICE TO CONNECT TO EXISTING WATER MAIN. ADDRESS/CLARIFY IN NEW EASEMENT DOCUMENT
THIS IS PREFERRED LOCATION FOR THE WATER MAIN CONNECTION. WITHOUT THE EASEMENT, THE WM CONNECTION WOULD NEED TO BE RELOCATED

WPS PARKING AREA ENCROACHMENT INTO INGRESS-EGRESS EASEMENT (TYP ENTIRE LENGTH OF EASEMENT) - TO BE ADDRESSED

WITH THE DEDICATION OF MEIJER DR AND THE WEBER'S RESUBDIVISION, AS WELL AS THE OAK POINTE PLAT OF DEDICATION, THE INGRESS-EGRESS EASEMENTS AND THE EASEMENT FOR GAS AND SEWERS WERE VACATED AND NOT REGRANTED FOR OUTLOT A OR THE SECTION OF SANITARY SEWER HIGHLITED IN YELLOW. CLARIFY APPROPRIATE EASEMENTS ARE IN PLACE FOR INGRESS-EGRESS FOR THE EXISTING DRIVEWAY THRU OUTLOT A, THE HIGHLITED SECTION OF SANITARY SEWER, AS WELL AS THE PROPOSED PAVEMENT AND SANITARY SEWER AT THE SOUTHERLY CORNER OF OUTLOT A. WOULD BE ADDRESSED WITH CONVEYANCE OF OUTLOT A, EXCEPT FOR PORTION OF SANITARY SEWER HIGHLITED IN YELLOW, WHICH IS POSSIBLY MORE OF AN ISSUE FOR WPS AND THE VILLAGE THAN FOR HAMILTON PARTNERS.



ARLINGTON HEIGHTS EASEMENTS
CURRENT EXHIBIT

OUTLOT A INCLUDES EASEMENT FOR DRAINAGE AND DETENTION GRANTED TO VILLAGE OF ARLINGTON HEIGHTS AND PUBLIC FOR THE BENEFIT OF THE WEBER RESUBDIVISION AND PUBLIC GENERALLY.
THE OWNER OF OUTLOT A IS RESPONSIBLE FOR MAINTENANCE OF AREA AND DRAINAGE FACILITIES WITHIN OUTLOT A.
OUTLOT A ACTUALLY PROVIDES DRAINAGE SERVICE FOR EXISTING OAK POINTE PARCEL WHICH WOULD BE MAINTAINED WITH PROPOSED DEVELOPMENT.
DRAINAGE AND DETENTION EASEMENT LANGUAGE FOR OUTLOT A SHOULD BE CLARIFIED.
WOULD BE ADDRESSED WITH CONVEYANCE OF OUTLOT A TO HAMILTON PARTNERS.

25' INGRESS-EGRESS EASEMENT ALONG EAST SIDE OF OAK POINT PARCEL/PARCEL 1, WHICH MAY HAVE BEEN VACATED PREVIOUSLY. CLARIFY VACATION OF THIS EASEMENT
THIS MAY NOT BE AN ISSUE AND PROBABLY NOT A PRIMARY ITEM.

EASEMENT OVERVIEW EXHIBIT

COMMENTS IN RED FONT -- 01-18-2018
AND SUBMITTED TO WPS -- 01-31-2018
COMMENTS IN GREEN FONT, UPDATED & STATUS WITH WPS -- 03-09-2018

Planning & Community Development Dept. Review

March 20, 2018

SUPPLEMENTAL PROJECT REVIEW

Project: 703-723 W. Algonquin Rd
Hamilton Partners Distribution Facility

Case Number: PC 17-013

1. The traffic study used ITE traffic generation rates to estimate that the proposed development would generate 1,380 daily trips. Furthermore, the study states that "*based on other studies of warehouse/distribution centers, it is estimated that approximately 10 to 20 percent of the traffic approaching and departing the development during the peak hours of the day will be trucks, with the remaining 80 to 90 percent being passenger vehicles*". Please provide details on these additional studies. If other developments were studied to determine this breakdown of truck traffic vs. passenger vehicle traffic, please provide the data for our review. The estimated daily volume of truck traffic for a 331,014 sq. ft. distribution facility with 64 loading bays appears low.

2. Hamilton Partners has developed three similar facilities in the Chicagoland area over the last several years. Please provide details on these facilities (such as number of loading spaces, size of building, general usage, location, and occupancy of each facility), as well as details on the existing traffic volumes at these facilities (both passenger vehicles and trucks) to further clarify the estimated traffic impact of the proposed development.

3. Please clarify the need for 305 passenger vehicle parking spaces. It is our experience that warehouse facilities generally involve low passenger vehicle volumes, however, the traffic study estimates that the proposed site will generate 1,104 passenger vehicle trips per day.

4. The Truck Routing Exhibit, dated 3/9/18 (showing a WB-67 truck accessing a loading space when there are trucks already parking in the loading spaces on each side) did not show how that truck would back into the space. Please provide a separate exhibit showing how trucks will back into the loading spaces when there are existing trucks parked on both sides.

5. Would Hamilton Partners be willing to take pavement borings on the Weber site within the existing shared private drive, to determine what extent repairs would be needed? This would help to understand if resurfacing that drive would be adequate to accommodate for the increased truck traffic, or if a complete reconstruction of the driveway is necessary to accommodate for the increased volume of trucks that will be traveling down Weber's portion of the access drive.

6. On any future plans or exhibits, please clearly indicate the bounds of the shared private drive easement, both on your property and on the Weber property.

7. Please prepare a separate exhibit showing the Weber parking/loading area in relation to the proposed facility, which also clearly indicates the bounds of the shared private drive easement.

8. Please prepare a plan which outlines potential site improvement that would help to address cross access site circulation and eliminate passenger/truck conflicts.

9. Please provide a written response outlining why flipping the building is not feasible.

10. Please explore options to maintain all truck movements within the subject property.

MORGAN / HARBOUR
CONSTRUCTION

March 22, 2018

Attn: Sam Hubbard
Development Planner
Department of Planning and Community Development
Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL 60005

Tel: 847-368-5223

Re: 703-723 W. Algonquin Road Project – Planning Commission – Response Letter – Supplemental Project Review (Case No. PC 17-013)

Mr. Hubbard,

The following is our Planning Commission Response Letter addressing the comments as outlined in the VAH Supplemental Project Review dated March 20, 2018 regarding the aforementioned project:

PLANNING & COMMUNITY DEVELOPMENT DEP. – From Sam Hubbard, dated March 20, 2018:

1. *VAH COMMENT: The traffic study used ITE traffic generation rates to estimate that the proposed development would generate 1,380 daily trips. Furthermore, the study states that "based on other studies of warehouse/distribution centers, it is estimated that approximately 10 to 20 percent of the traffic approaching and departing the development during the peak hours of the day will be trucks, with the remaining 80 to 90 percent being passenger vehicles". Please provide details on these additional studies. If other developments were studied to determine this breakdown of truck traffic vs. passenger vehicle traffic, please provide the data for our review. The estimated daily volume of truck traffic for a 331,014 sq. ft. distribution facility with 64 loading bays appears low.*

   MHC RESPONSE: The other studies is what is mentioned in the ITE Trip Generation handbook. The 20% truck rate was chosen from the range of these studies, which was found to be 10 to 20 percent, to provide for a conservative estimate with respect to the number of trucks that would approach/depart on a daily basis, as well as the morning and afternoon peak hours. It is important to note that ITE Land Use Code 150 (Warehousing) has been used and accepted by other municipalities for determining traffic generation for developments similar to the proposed subject development.

2. *<u>VAH COMMENT:</u> Hamilton Partners has developed three similar facilities in the Chicagoland area over the last several years. Please provide details on these facilities (such as number of loading spaces, size of building general usage, location, and occupancy of each facility), as well as details on the existing traffic volumes at these facilities (both passenger vehicles and trucks) to further clarify the estimated traffic impact of the proposed development.*

   <u>MHC RESPONSE:</u> Please refer to Mike Wauterlek email to Sam Hubbard dated 03/22/18.

3. *<u>VAH COMMENT:</u> Please clarify the need for 305 passenger vehicle parking spaces. It is our experience that warehouse facilities generally, involve low passenger vehicle volumes, however, the traffic study estimates that the proposed site will generate 1,104 passenger vehicle trips per day.*

   <u>MHC RESPONSE:</u> The (305) parking spaces represents what a potential tenant may or may not need, but more likely what will be required per municipal code once the project is complete.

4. *<u>VAH COMMENT:</u> The Truck Routing Exhibit, dated 3/9/18 (showing a WB-67 truck accessing a loading space when there are trucks already parking in the loading spaces on each side) did not show how that truck would back into the space. Please provide a separate exhibit showing how trucks will back into the loading spaces when there are existing trucks parked on both sides.*

   <u>MHC RESPONSE:</u> (See Attached Exhibit)

5. *<u>VAH COMMENT:</u> Would Hamilton Partners be willing to take pavement borings on the Weber site within the existing shared private drive, to determine what extent repairs would be needed? This would help to understand if resurfacing that drive would be adequate to accommodate for the increased truck traffic, or if a complete reconstruction of the driveway is necessary to accommodate for the increased volume of trucks that will be traveling down Weber's portion of the access drive.*

   <u>MHC RESPONSE:</u> Hamilton Partners would not be willing to take boring samples on the Weber property. Hamilton Partners would gladly share the existing borings taken on its property if it would be helpful to Weber in making their own assessment. Conversely, if Weber agreed to compensate Hamilton Partners for costs associated with due diligence of this issue as it pertains specifically to Weber's property, Hamilton Partners would be willing to assist.

6. *<u>VAH COMMENT:</u> On any future plans or exhibits, please clearly indicate the bounds of the shared private drive easement, both on your property and on the Weber property.*

   <u>MHC RESPONSE:</u> (See attached Exhibit showing bounds of the easement)

7. *<u>VAH COMMENT:</u> Please prepare a separate exhibit showing the Weber parking/loading area in relation to the proposed facility, which also clearly indicates the bounds of the shared private drive easement.*

   <u>MHC RESPONSE:</u> (See Attached Exhibit)

8. *VAH COMMENT:* *Please prepare a plan which outlines potential site improvement that would help to address cross access site circulation and eliminate passenger/truck conflicts.*

RESPONSE: **With the dedication of Meijer Drive and the associated improvements, this shared access easement was clearly intended to be the main access route for both the Weber and Hamilton Partners parcels. The attached exhibit reflects circulation from Meijer Drive and striping the access easement. As intended with the original Meijer Drive dedication documents, there will be an in-bound lane(s) on the Weber portion of the easement and outbound lanes on the HP parcel. To properly accommodate the inbound lanes on the Weber parcel, the existing striping for Weber's parking within the access easement will need to be modified to remove the parking within the easement and minimize potential traffic conflicts. (See attached Exhibit)**

9. *VAH COMMENT:* *Please provide a written response outlining why flipping the building is not feasible.*

RESPONSE: **Hamilton Partners is the owner of the subject property and thus should be able to place the building in any orientation it desires so long as it conforms with municipal code. The proposed property does conform with municipal code and was approved by the design committee. Furthermore, "flipping" the building would result in a greatly reduced building footprint that would make the project unfeasible economically.**

Additionally, IDOT warrants would not allow for an additional traffic signal at the NE corner of the property given the close proximity of the existing traffic signal at Meijer and Algonquin Road. This would result in a "right in right out" for truck traffic at the NE corner of the property without a traffic signal that would make the project and property unfeasible all together for redevelopment to a use conforming with its current M2 zoning due to lack of access to necessary roadways. With the Meijer Drive improvements and the associated regional planning, the primary access for the Hamilton Partners parcel was to be from Meijer Drive, not the easterly secondary access from Algonquin Road. This was approved by both Weber and the Village of Arlington Heights at the time of the Meijer Drive right of way dedication.

10. *VAH COMMENT:* *Please explore options to maintain all truck movements within the subject property.*

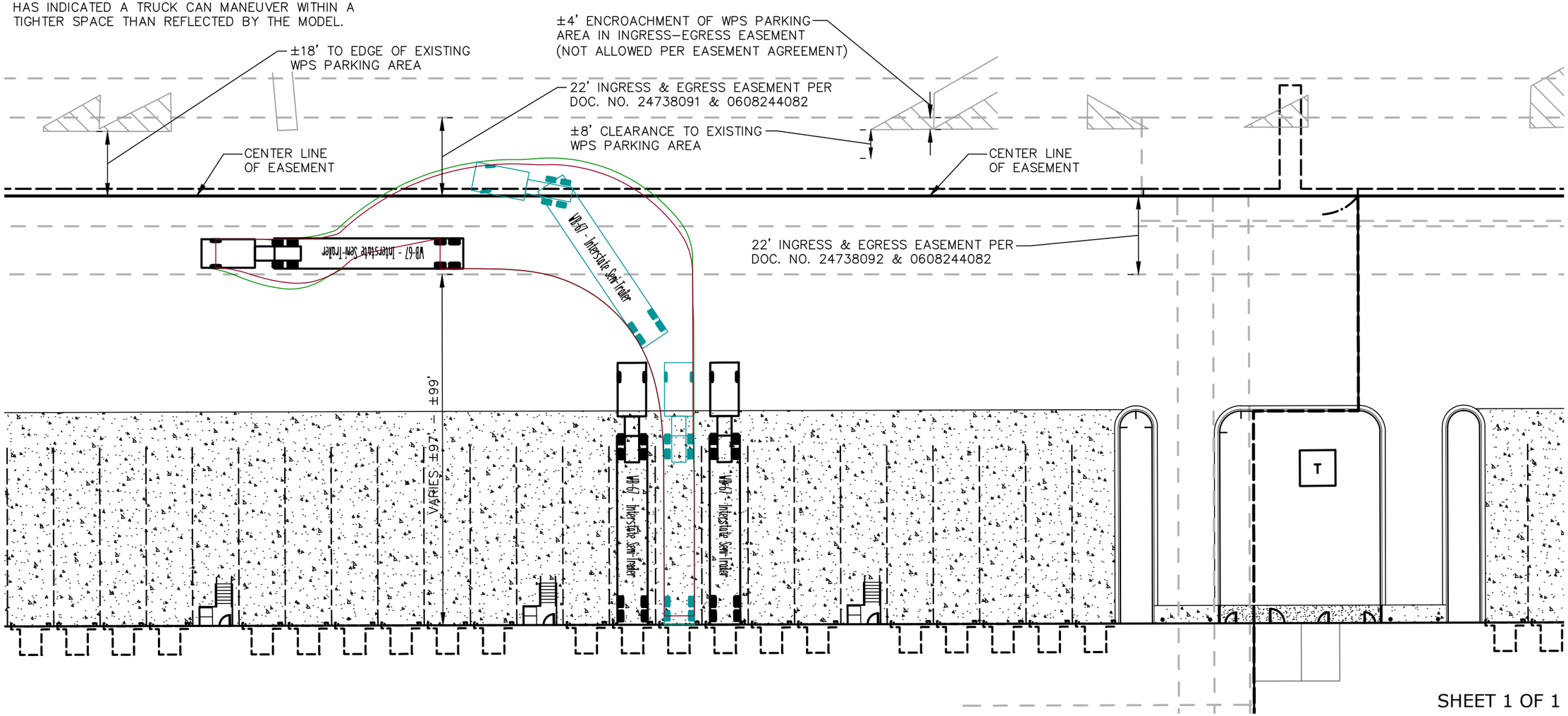
RESPONSE: **Hamilton Partners is legally permitted to use the access drive per the easement documents. There are no legal grounds for modification of the access rights that were granted by Weber for the enjoyment of our property.**

Please contact me directly if any of these responses are insufficient or if any further clarification is required in order to obtain jurisdictional approval.

Sincerely,

Joshua Spinks
Senior Project Manager
Morgan / Harbour Construction, L.L.C.

NOTE: EXHIBIT REFLECTS A WORST CASE CONDITION WITH A CONSERVATIVE DESIGN MODEL. FIELD EXPERIENCE HAS INDICATED A TRUCK CAN MANEUVER WITHIN A TIGHTER SPACE THAN REFLECTED BY THE MODEL.



SHEET 1 OF 1

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PROJECT NO. 32212717
DATE 03/22/18
SCALE 1"=30'
PROJ. MGR. PDL
PROJ. ASSOC. RWG

ARLINGTON HEIGHTS INDUSTRIAL

ARLINGTON HEIGHTS, ILLINOIS

TRUCK ROUTING EXHIBIT

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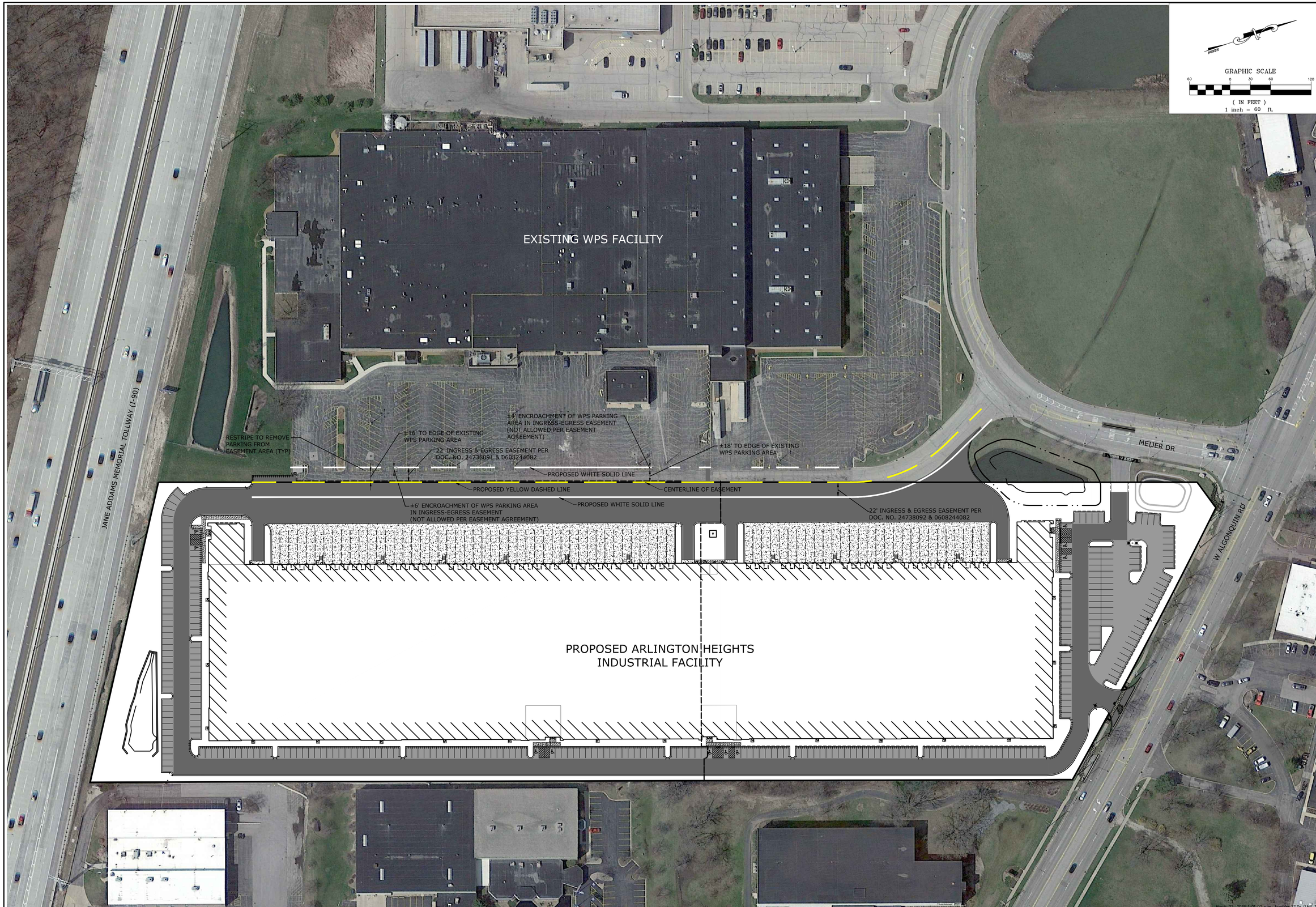

Drawing: S:\32212717 – HP ARLINGTON HEIGHTS INDUSTRIAL\300_ENGINEERING\310_CADD\EXHIBITS\322_BASE_EXHIBIT.DWG

DATE	REVISIONS	DRAWN BY

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ARLINGTON HEIGHTS INDUSTRIAL

ARLINGTON HEIGHTS, ILLINOIS

PRIVATE DRIVE ACCESS EASEMENT EXHIBIT

RWG Engineering, LLC
Civil Engineering ♦ Real Estate Consulting ♦ Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 32212717
DATE 03/22/18
SCALE 1"=60'
PROJ. MGR. PDL
PROJ. ASSOC. RWG
DRAWN BY AVS

SHEET 1 OF 1

Hubbard, Sam

From: Mike Wauterlek <MWauterlek@hamiltonpartners.com>
Sent: Thursday, March 22, 2018 4:05 PM
To: Hubbard, Sam; Joshua Spinks (jspinks@morganharbour.com)
Subject: Response to question #2
Attachments: Hamilton Partners recent industrial development projects.pdf; Hamilton Partners existing property truck court analysis.pdf

Sam,
I hope you're well. Please see the attached in response to question #2 in the village memo dated 3/20/18. We do not have traffic studies on any of our past projects, but I would be happy to talk through anything else related to the past projects.

The Bensenville project was completed late 2016 and is 100% occupied by two different tenants (Zurn a subsidiary of Rexnord, and Geib Industries). This property was designed to be a high velocity distribution center given its close proximity to O'Hare cargo entrances. This is evidenced by the high loading dock to building square foot ratio (1 dock per each 3,100 square feet) and the 51 trailer parking stalls. At the end of the day we ended up leasing the building to two light distributors and only 25% of the dock positions are being utilized.

1235 Mittel is under construction and scheduled to be delivered by the end of 2018. It is currently not leased.

720 Northgate in Wheeling was completed in late 2017. We ended up selling the property to another industrial developer. I have heard it is half leased. The loading dock to square foot ratio is lower (1 dock per each 5,100 feet) and does not have trailer parking. It has many similarities to our proposed development in Arlington Heights, as the purpose of the property is light distribution.

I've included a second attachment that depicts truck court dimensions of some other properties we own and have owned for several decades. My goal is to convince the village that our proposed design is not only safe, but functional. I could easily include another 50 properties that would illustrate the same point. As proposed, the distance of our truck court from edge of dock to edge of easement is 139'. I've included a combination of properties with shared truck courts and exclusive truck courts as I would describe our proposed development as a hybrid of the two. All three of our previous new developments have truck courts with shorter distances and thus less maneuverability than our proposed project (Wood Dale 130', Bensenville 125', and Wheeling 111' to edge of car stall). I've also included aerials of 3 properties with varying vintages ranging from the late 70's to the mid 90's. While only 3 properties are included, the 3 properties are very much representative of the design of the 30 million plus square feet of industrial real estate we have developed locally. All 3 properties have a combination of both truck and car traffic, but lack the dedicated access drive of our property. Over the course of the multiple decades of ownership, we are not aware of any accidents that have occurred at these properties within drive ways or truck courts.

Off topic, but we take great pride in our work. Not only does this property have exposure off of a major expressway, but with our headquarters in Itasca it is right in our back yard. Once completed, it will certainly be a great point of pride for us and hopefully for the village as well. We have made a significant investment in the Village of Arlington Heights based upon your good reputation and the quality of the individuals we have met with. It is very reasonable to believe that this could be the first of many such collaborations between the Village of Arlington Heights and Hamilton Partners. With all of this said, I'm very hopeful that the village will approve our project as proposed.

Thank you

Mike Wauterlek

Hamilton Partners
Office 630.250.9700
Mobile 773.623.9819
Fax 630.250.8521

mw@hpre.com

Bensenville Corporate Center

340 County Line Road
Bensenville, IL

HAMILTON PARTNERS

Building Specs

Available Space: 184,000 SF (Divisible)
Office: To Suit
Construction: Pre-cast Concrete
Available Date: Delivery in 2014
Site Size: 11.51 Acres
Ceiling Height: 32'
Car Parking: 159 Stalls
Trailer Parking: 51 Stalls
Bay Sizes: 50' x 50' (Speed bay of 60')
Loading: 44 Exterior Docks (West Facing)
15 Exterior Docks (East Facing)
2 Grade Level Drive-in Doors
Sprinkler System: ESFR
Lease Rate: Subject To Offer
Sale Price: Subject To Offer
Comments:

- DuPage County Real Estate Taxes
- Cross Dock Design
- Proximity to Planned Taft Avenue Connector and Franklin Avenue/Green Street interchange along I-294 West Bypass

CBRE

Matt Mulvihill
Senior Vice President
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847 706 4964

Kevin Segerson
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HAMILTON PARTNERS

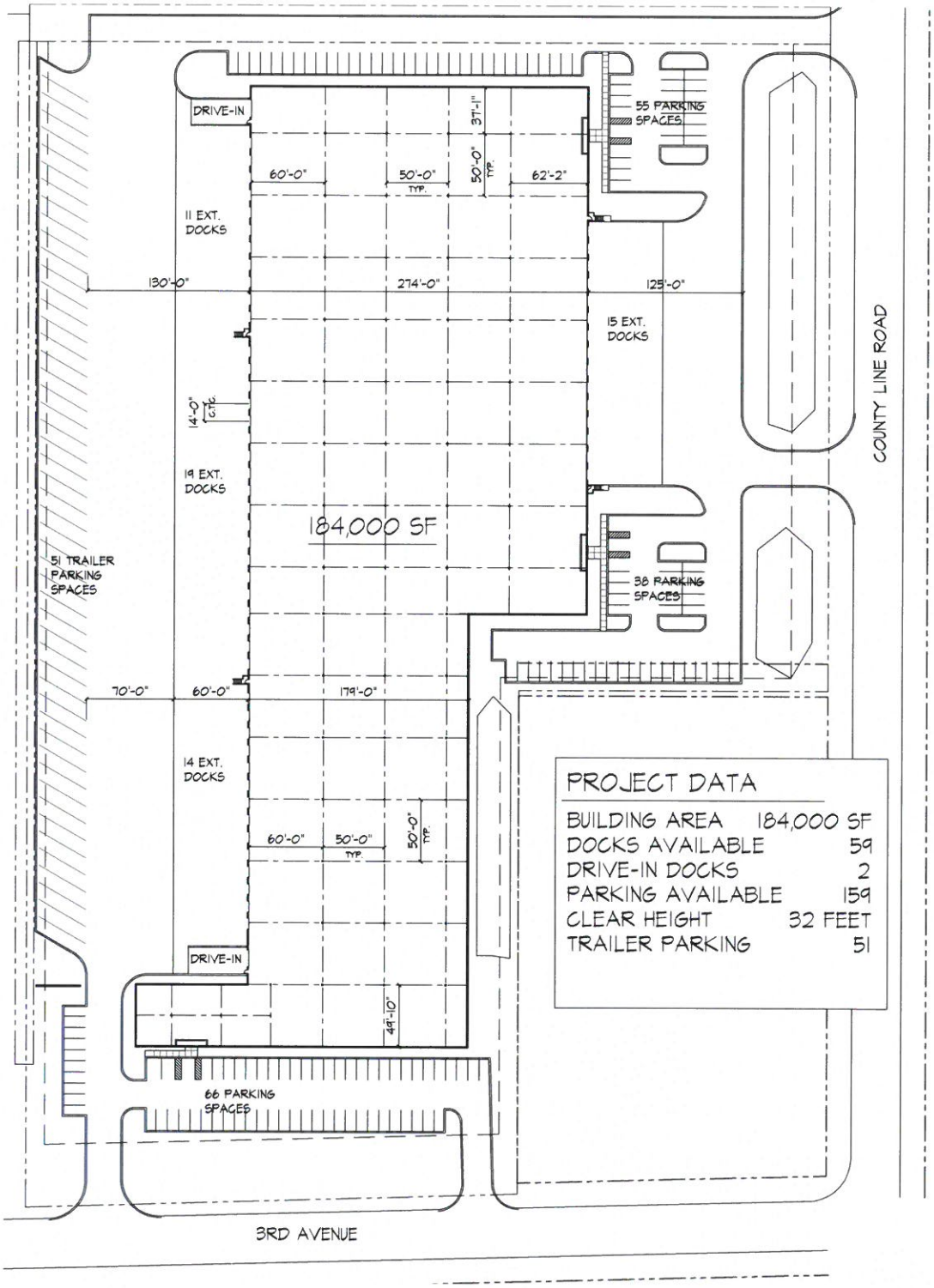
Hamilton Partners Industrial Division
Industrial@hamiltonpartners.com
630 250 8521

Bensenville Corporate Center

340 County Line Road
Bensenville, IL

HAMILTON PARTNERS

Site Plan



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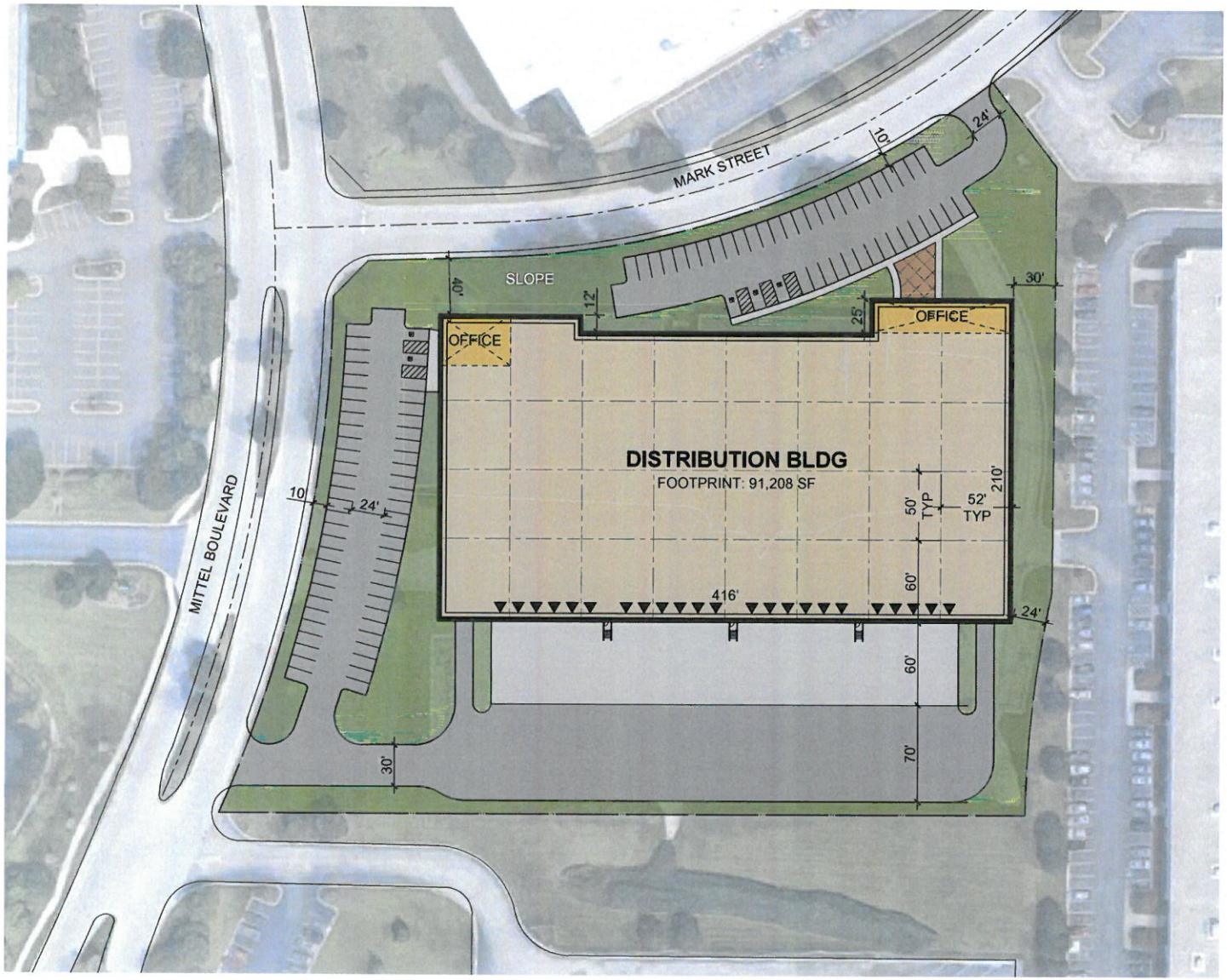


PROJECT DATA:

SITE AREA:		
GROSS:		5.47 AC
		238,338 SF
DETENTION:	@ 0%	0 SF
SLOPE:		0 SF
NET:		5.47 AC
		238,338 SF
BUILDING FOOTPRINT:		91,208 SF
BUILDING USE:		
WAREHOUSE		86,684 SF
OFFICE	@ 5%	4,524 SF
FAR:		
GROSS:		0.38
NET:		0.38
PARKING REQUIRED:		
WAREHOUSE	1/1430 SF	61 STALLS
OFFICE	1/333 SF	14 STALLS
TOTAL		74 STALLS
PARKING PROVIDED:		
AUTO:		101 STALLS
		@1.11/1000 SF
REQ. ACCESSIBLE		*5 STALLS*
TRAILER:		0 STALLS
TRUCK DOCKS:		
▲ DOCK-HIGH DOORS		23
O GRADE-LEVEL DOORS		2

DEVELOPMENT STANDARDS

ZONING:	I-1
MAX. F.A.R.:	n/a
MAX. COVERAGE:	80%
BUILDING SETBACKS:	
FRONT:	40 FT
SIDE:	20 FT
REAR:	20 FT
LANDSCAPE SETBACKS:	
FRONT:	n/a
SIDE:	n/a
REAR:	n/a
LANDSCAPE REQ.:	n/a
OFF-STREET PARKING:	
STANDARD:	9x18
COMPACT:	n/a
COMPACT %:	n/a
DRIVE AISLE:	24 FT
FIRE LANE:	20 FT
OVERHANG:	n/a
TREE WELL:	7x7
REQ. PARKING RATIO BY USE:	
WAREHOUSE:	1/1430 SF
OFFICE:	1/333 SF

NOTES:

1 Where a parking lot is located in or adjacent to front or corner side yard, not in a residential district, continuous landscaping shall be provided equaling not less than sixty percent (60%) of the parking lot frontage

2 Where a parking lot is located in a yard adjacent a non-residential property, landscaping shall be provided equal to not less than fifty percent (50%) of that portion of the parking lot abutting the property line

1" = 30'

0 15 30 60 150

NORTH

HAMILTON PARTNERS

scheme: 06

Conceptual Site Plan

1235 Mittel
1235 North Mittel Boulevard, Wood Dale, IL 60191, USA

WARE MALCOMB

CH11n-0227-00
11.23.2016

SHEET
1

HAMILTON PARTNERS

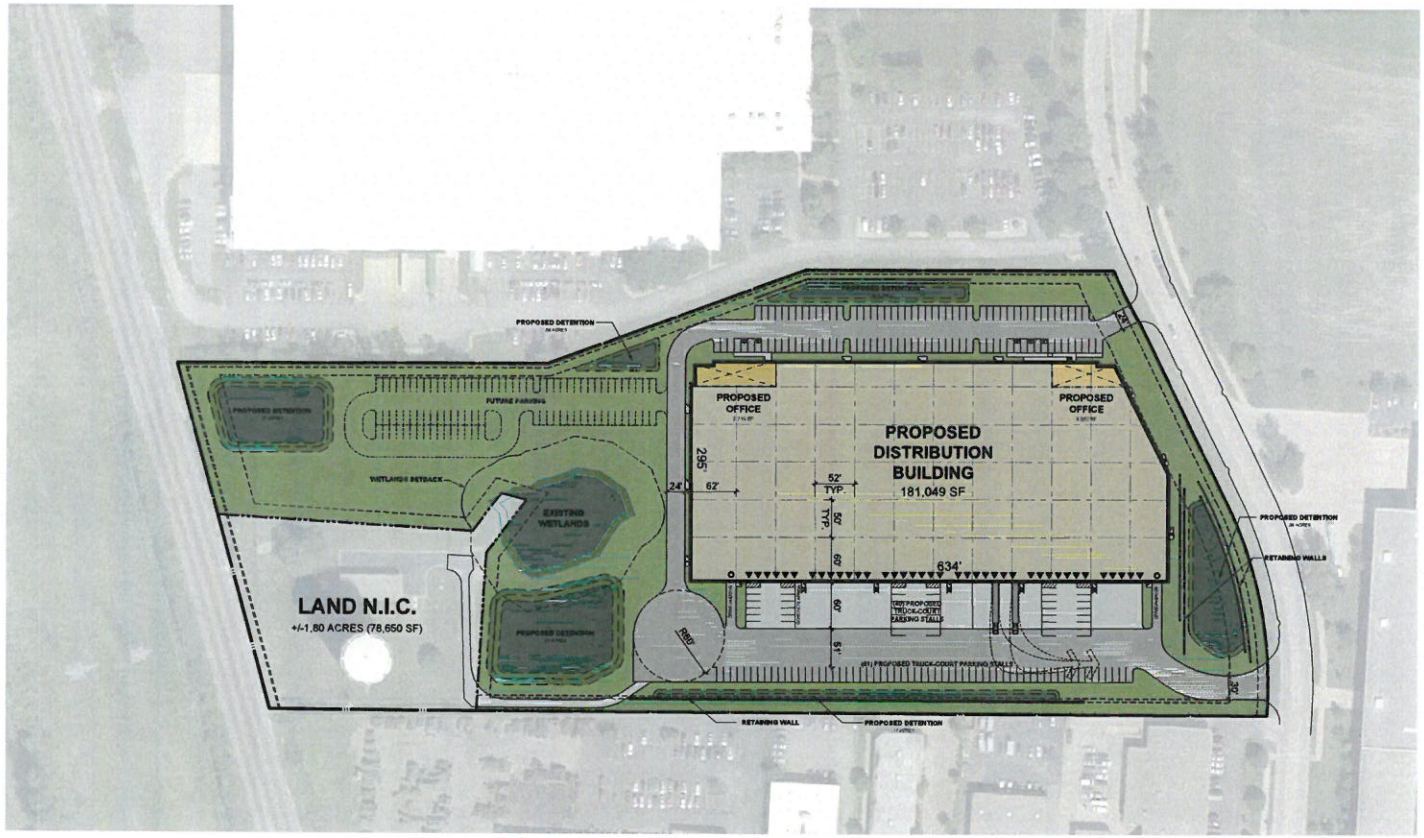
Wheeling Distribution Center Conceptual Building Design

750 NORTHGATE PARKWAY
WHEELING, IL

CHI16-0026-00
CONCEPTUAL DESIGN
10.31.**2016**

WARE MALCOMB

architecture | planning | interiors
graphics | civil engineering



PROJECT DATA:

SITE AREA:	
GROSS:	13.95 AC (607,585 SF)
DETENTION:	1.57 AC (68,431 SF) @11%
NET:	12.4 AC (539,154 SF)
	(LESS WETLANDS, DETENTION & AREA N.I.C.)
TOTAL BUILDING AREA:	181,049 SF
COVERAGE:	33.58% (NET)
AUTO PARKING:	
PROPOSED:	97 STALLS
FUTURE:	90 STALLS
FUTURE TOTAL:	187 STALLS
DRIVE-IN DOORS:	2 POSITIONS
DOCK DOORS:	35 POSITIONS

◄ DOCK HIGH TRUCK DOOR

O GRADE LEVEL TRUCK DOOR

NORTH

HAMILTON PARTNERS

SCHEME : B

Proposed Site Plan

WHEELING DISTRIBUTION CENTER

WHEELING, IL

WARE MALCOMB

CH16-0026-00

10.31.2016

SHEET

2

North West Building Perspective

KEY NOTES

1. STRUCTURAL PRE-CASET CONCRETE PANELS WITH 3/4" REVEALS TYPICAL. ANTI GRAFFITI SEAL / PAINT 1, PAINT 2, ACCENT COLOR PAINT 3
2. DUAL HIGH PERFORMANCE VISION GLASS CLEARSTORY GLAZING
3. DUAL HIGH PERFORMANCE VISION GLASS
4. STOREFRONT WINDOW WITH 2" ANODIZED ALUMINUM MULLIONS (ARCADIA AB-1)

North East Building Perspective

HAMILTON PARTNERS

SCHEME : 1

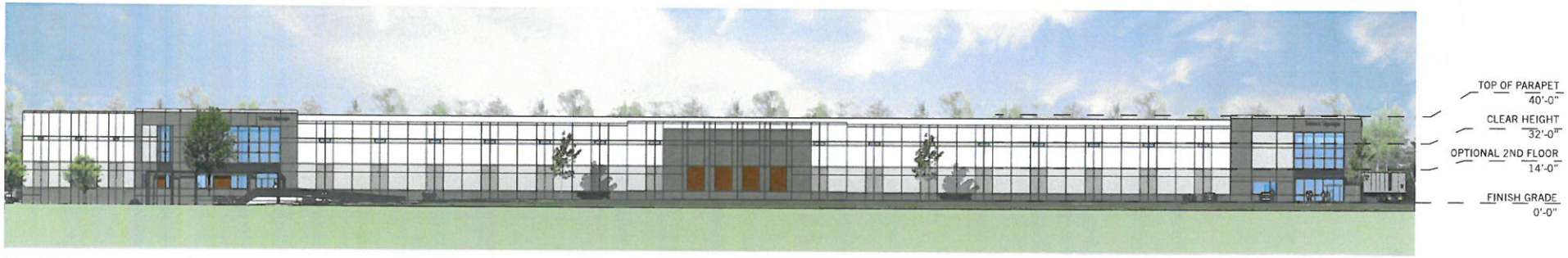
Proposed Building Design

WHEELING DISTRIBUTION CENTER
WHEELING, IL

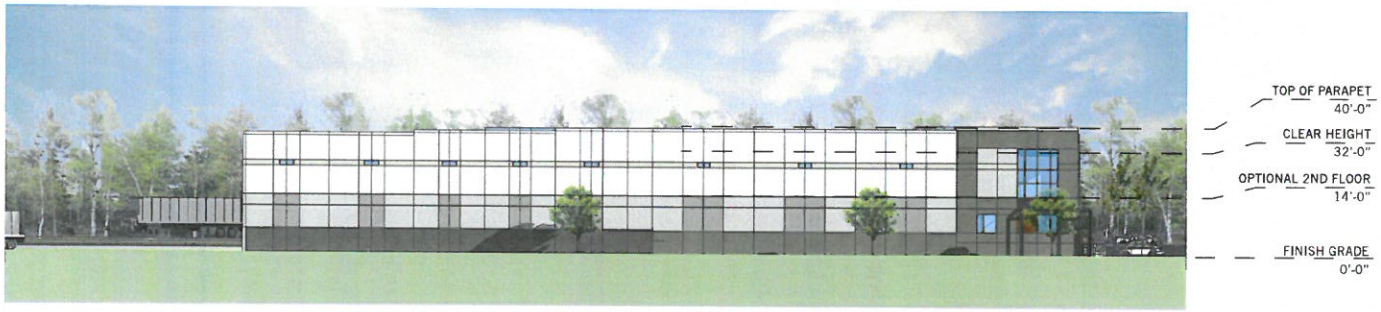
WARE MALCOMB

CH16-0026-00
10.31.2016

SHEET
4



North Building Elevation



East Building Elevation

HAMILTON PARTNERS

SCHEME : 1

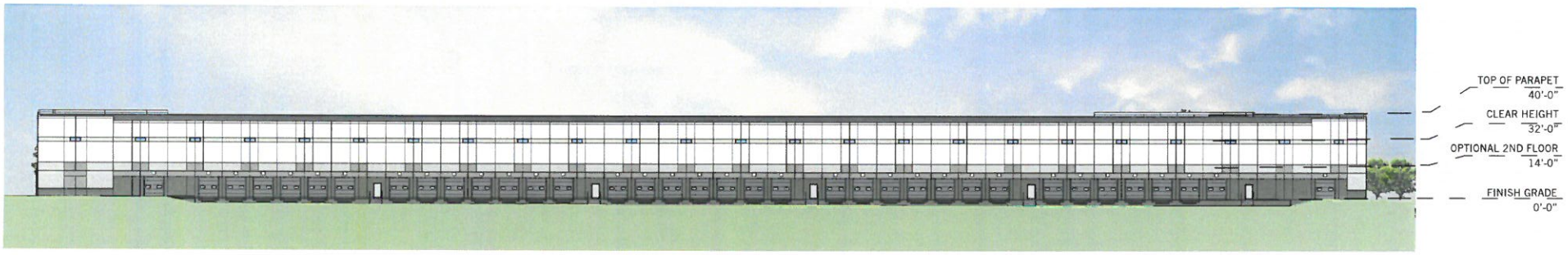
Proposed Building Elevations

WHEELING DISTRIBUTION CENTER
WHEELING, IL

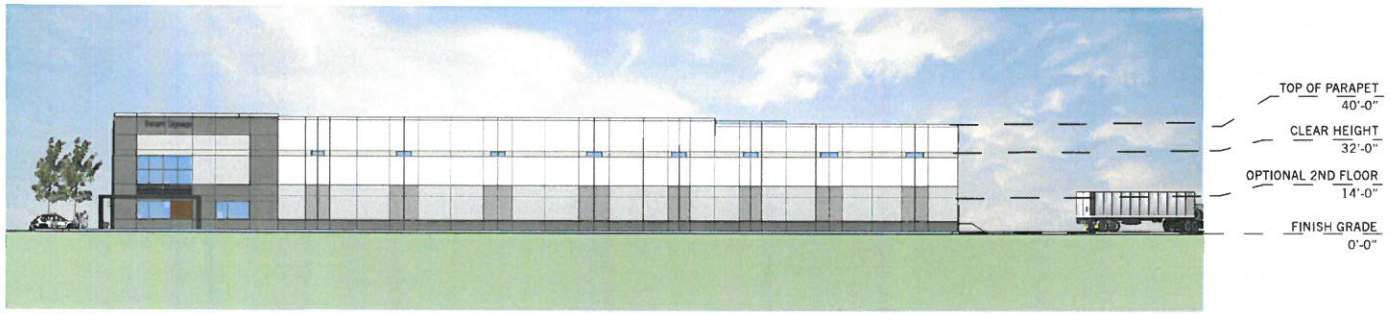
WARE MALCOMB

CH16-0026-00
10.31.2016

SHEET
5



South Building Elevation



West Building Elevation

HAMILTON PARTNERS

SCHEME : 1

Proposed Building Elevations

WHEELING DISTRIBUTION CENTER
WHEELING, IL

WARE MALCOMB

CHI16-0026-00
10.31.2016

SHEET
6

800 Mark Street Elk Grove Village
800 Mark St
170'
shared
truck court

Bensenville
Industrial
Park
120' truck court assuming car parking is not utilized
Supreme Dr
Thorndale Ave
© 2018 Google

1121 North Wood Dale Road
170' truck court
1121 N Wood Dale Rd
110' from dock position to end of car stall

TABLE OF CONTENTS

ADDITIONAL CORRESPONDENCE BETWEEN THE VILLAGE OF ARLINGTON HEIGHTS AND THE CITY OF ROLLING MEADOWS

Page 2 – 3: Traffic Report Review Memo (via Christopher B. Burke Engineering) provided by City of Rolling Meadows

Page 4 – 5: Village of Arlington Heights Response to traffic concerns raised by City of Rolling Meadows

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 West Higgins Road Suite 600 Rosemont, Illinois 60018 TEL (847) 823-0500 FAX (847) 823-0520

January 22, 2018

City of Rolling Meadows
Community Development Department
3900 Berdnick Street
Rolling Meadows, IL 60008

Attention: Fred Vogt

Subject: 703-723 West Algonquin Road
Arlington Heights Industrial Development
Traffic Impact Study
1st Review
(CBBEL Project No. 980361.L315)

Dear Fred:

We have reviewed the Traffic Impact Study, dated 10/25/17, (received January 16,2018) prepared by KLOA, Inc. Our comments are contained below.

A. Traffic Impact Study

1. The heavy vehicle directional distribution shown on Figure 7 for the right turn onto Meijer Drive via IL Route 58 (Golf Road) seems high at 25%. Based on our brief observation period on a weekday in the mid-morning, several semi-trucks were observed using the traffic signal at IL Route 62 (Algonquin Road) and Meijer Drive. Site truck access along Meijer Drive via IL Route 58 (Golf Road) should be discouraged or restricted as that portion of Meijer Drive is winding and has many driveway access points. By contrast, the segment of Meijer Drive via IL Route 62 (Algonquin Road) is relatively straight and provides easy access to the site.

2. The lane configuration analyzed in Synchro at Meijer Drive and IL Route 62 (Algonquin Road) does not match the lane configuration shown in Figure 3, Existing Roadway Characteristics. Specifically, the Synchro analyzes the southeast bound approach on IL Route 62 (Algonquin Road) as having an exclusive left turn lane, two through lanes and an exclusive right turn lane. The northeast bound approach (Meijer Drive) is analyzed with an exclusive left turn lane, a combined left turn/through lane and an exclusive right turn lane.

3. The southeast-bound right turn lane on IL Route 62 (Algonquin Road) at Meijer Drive does not operate with a right turn overlap. The Synchro analysis should be revised.

4. An exclusive right turn lane northbound on Meijer Drive at IL Route 62 (Algonquin Road) is recommended. This right turn movement should also operate as an overlap. The existing geometry in the field has a shared through/right turn lane. However, the Synchro was analyzed with an exclusive right turn lane, but not with the right turn overlap.

5. AutoTurns exhibits for all turning movements should be prepared utilizing WB-67 design vehicle and included in the TIS for IL Route 62 (Algonquin Road) & Meijer Drive, for IL Route 58 (Golf Road) & Meijer Drive, and for Meijer Drive & Continental Towers access driveway. The City is concerned that a WB-67 design vehicle traveling straight through on Meijer Drive may have difficulty navigating the curve at the intersection of Meijer Drive & Continental Towers without crossing the centerline and encroaching oncoming lanes.

6. IDOT approval of this TIS may be required since the east site access drive intersects with IL Route 62 (Algonquin Road). The IDOT approval letter should be included in the TIS submittal.

B. Site

1. The outbound direction of the west leg of the Meijer/Algonquin intersection should be restriped to provide an exclusive left, shared left/thru and exclusive right turn lane. (Since the existing traffic signal operates as a split phase, changing the lane use will not affect signal operation).

2. Due to the numerous access points, curvilinear alignment and especially the sharp corner at the entrance to Continental Towers, truck deliveries to the Arlington Heights Industrial Development should not be allowed on Meijer Drive from Golf Road. All trucks must use Meijer Drive off of Algonquin Road.

Sincerely,

Gary Rozwadowski, PE
Assistant City Engineer

cc: Rob Horne - Pubic Works
Keith Anderson - Community Development
Elizabeth Payne, Community Development
Robert Jungwirth – CBBEL

GR/mv
N:\ROLLINGMEADOWS\980361.L's\L300's\980361L315\Admin\L1.012218.doc

Village of Arlington Heights

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

March 21, 2018

Fred Vogt
Director of Public Works & Community Development
City of Rolling Meadows
3900 Berdnick St.
Rolling Meadows, IL 60008

RE: Proposed Development 703-709 W. Algonquin Rd. – PC#17-013

Thank you for meeting with the Village of Arlington Heights representatives recently and for your communication of March 9, 2018. While many of the technical questions regarding the above project were discussed at our meeting, you had specifically requested a response to certain items outlined below.

Supplemental Responses to Initial Comments

3. The traffic study notes the Meijer Drive abutting the proposed development is within the corporate boundaries of the Village of Arlington Heights. The Village of Arlington Heights acknowledges that this portion of Meijer Drive, although within the corporate boundaries of Arlington Heights, is subject to an Intergovernmental Agreement (IGA) with the City of Rolling Meadows, and maintenance currently rests with the City.
9. The Village of Arlington Heights acknowledges the City of Rolling Meadows desire to limit truck traffic along Meijer Drive. However, with only 25% of the truck traffic projected to use the Golf Road/Meijer Drive intersection, the vast majority of inbound truck traffic anticipated by the development will enter from the Meijer Drive/Algonquin Road intersection. It is not reasonable to restrict truck traffic at Golf Road/Meijer Drive, and it should be noted that Meijer truck traffic is not restricted from using the Algonquin Road/Meijer Drive intersection located in Arlington Heights. The IGA calls for the public access road to remain two-way traffic from Golf Road to Algonquin Road.
10. Left turns out of the private drive are projected to be minimal and movements will be predominantly to the signalized intersection. Please note that 25% of the outbound truck traffic is projected to travel westbound on Golf, which can only be accessed via the Algonquin/Meijer intersection since westbound egress from Meijer Drive at Golf Road is restricted. Additionally, 30% of the outbound truck traffic will result in final truck movements continuing northwest bound on Algonquin Road. Movements in this direction are more logical from a left hand turn from the Algonquin/Meijer intersection, as opposed to travelling a longer distance down Meijer Drive, waiting for an opportunity to enter traffic at the stop sign controlled intersection at Golf/Meijer, then making a left turn at the Golf/Algonquin intersection. Finally, as stated in the response to #9 above, Meijer generated truck traffic, both inbound and outbound, is not restricted from using the intersection of Algonquin/Meijer Drive in the Village of Arlington Heights.
13. The Village has held discussions with the City of Rolling Meadows on the IGA, as requested.
14. The Village is evaluating this request. However, it should be noted that cost sharing for roadway maintenance with private developers is rarely requested by the Village. It should also be noted that the need for pavement resurfacing in the very near future has been accelerated by the lack of maintenance on the portion of Meijer Drive within the Village of Arlington Heights under the maintenance responsibility of the City of Rolling Meadows per the IGA.

Additional Comments

The additional comments contained in your March 9th communication and the attached Christopher Burke letter have been forwarded to the petitioner and the Village's Engineering and Public Works Departments for review and comment.

A response to the City of Rolling Meadows request to renegotiate the Intergovernmental Agreement (IGA) will be provided separately.

In the meantime, if you should have any further questions regarding this matter, please do not hesitate to contact me.

Sincerely,

Charles Witherington-Perkins, AICP
Director of Planning & Community Development

c: Randy Recklaus, Village Manager
Chris Papierniak, Assistant Director Public Works
Robin Ward, In-House Counsel
Jim Massarelli, Director Engineering
Bill Enright, Deputy Director Planning
Sam Hubbard, Development Planner

VILLAGE OF ARLINGTON HEIGHTS

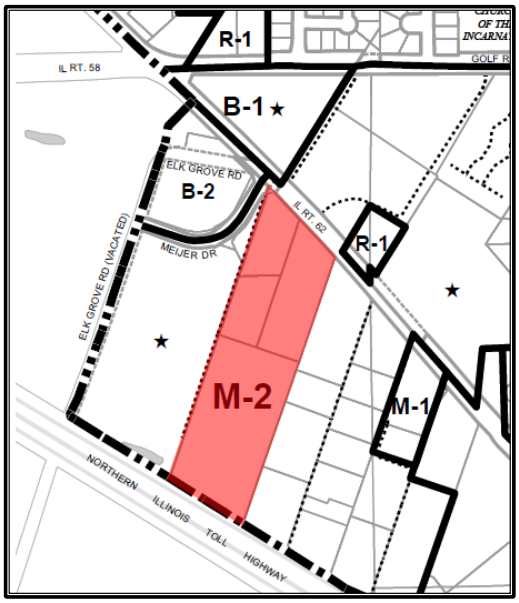
STAFF DEVELOPMENT COMMITTEE REPORT

***Project Number**: PC 17-013*
***Project Title**: 703-723 W. Algonquin Rd. PUD*
***Address**: 703-723 W. Algonquin Rd.*
***PIN**: Multiple PIN's*

***To**: Plan Commission*
***Prepared By**: Sam Hubbard, Development Planner*
***Meeting Date**: January 24, 2018*
***Date Prepared**: January 19, 2018*

***Petitioner**: Joshua Spinks*
***Address**: Morgan/Harbor Construction, LLC*
7510 S. Madison Street
Willowbrook, IL 60527

***Existing Zoning**: M-2, Limited Heavy Manufacturing District*



SURROUNDING LAND USES

Direction	Existing Zoning	Existing Use	Comprehensive Plan
North	M-2	Multi-tenant office/light industrial building	R&D, Mfg, Warehousing
South	Elk Grove Village – Forest Preserve		
East	M-2	Self-Storage facility, 2 light industrial/office buildings	R&D, Mfg, Warehousing
West	M-2	Light industrial/office building (Weber Packaging Solutions)	R&D, Mfg, Warehousing

Requested Action:

1. Planned Unit Development.
2. Preliminary Plat of Subdivision to consolidate all lots into one lot.

Variations Identified:

1. None.

Project Background:

The subject property is a composed of multiple lots of record totaling 15.4 acres in size. The site is occupied by two light industrial/office building, one on the northern half of the site and one on the southern half of the site. There are two driveway entrances along Meijer Drive and one full access driveway along W. Algonquin Rd. The intersection of Meijer Drive and W. Algonquin Road is a full access lighted intersection. To the south, the property abuts the I-90 Toll Road and the property is within the M-2, Limited Heavy Manufacturing zoning district.

Hamilton Partners has proposed the site and is proposing a two phase development on the subject property. Phase I would involve the demolition of the north building, which is currently vacant, and the construction of an approximately 138,469 square foot distribution facility with 26 loading spaces and 151 parking spaces. Phase II would involve the demolition of the southern building and include a 167,250 square foot addition to the Phase I building, for a total of 331,014 square feet for distribution/warehousing. The total amount of on-site parking provided would increase to 305 surface parking spaces and 4 interior bay parking spaces.

The entire development would include up to 66 exterior truck docking bays, which would line the western elevation of the building. Access to the truck bays would come from an existing shared private drive owned by the subject property and the Weber Packaging Solutions property to the west. The petitioner estimates 130 full time employees working out of the warehouse once both phases are occupied. The site would likely operate around-the-clock.

The subject property would be built on speculation and no anchor tenant has signed on to lease space. The building would be designed to allow the interior to be demised into 40,000 square foot spaces. The petitioner believes that proximity to I-90 and Algonquin Road will make the site attractive to distribution and logistics companies.

Zoning and Comprehensive Plan

Warehousing and distribution facilities are allowed as a permitted uses within the M-2 District and therefore no special use permit is required for the proposed development. However, if tenants other than warehouse/distribution businesses are located for the building, a special use permit may be required in the future depending on the proposed use by the tenant. Additionally, all developments on property over 4 acres in size and within the M-2 District are required to obtain Planned Unit Development (PUD) approval. As the property is 15.4 acres in size, PUD approval is needed.

The Comprehensive Plan designates the subject property as appropriate for "Research & Development, Manufacturing, and Warehousing." The proposed use and PUD is consistent with this designation.

Additionally, the petitioner has proposed a Preliminary Plat of Subdivision to consolidate the subject property into one lot to accommodate the singular building that will occupy the site. Final Plat of Subdivision approval will come at a later date when the petitioner has provided the necessary documents for Final Plat of Subdivision review and approval. Since the project will proceed with zoning approvals for both Phase I and Phase II at the same time, approval of the lot consolidation is also required as part of the PUD process.

All developments within the M-2 District are required to conform to the Industrial Performance Standards as identified within Section 5.1-18.2 of Chapter 28, which does mostly with odor, noise, vibrations, and other physical impacts that an industrial development can have on neighboring properties. Although the general classification of use as a distribution and warehouse facility does not have issues relative to compliance with

these standards, all future tenants within the building must adhere to the Industrial Performance Standards as outlined within the M-2 District.

Staff has reviewed the plans and determined that no variations will be required.

Site & Building

Both phases of development conform to all setback and bulk standards within the M-2 District. As identified above, the petitioner will proceed with Phase I and will not begin Phase II until all leases for tenants within the existing building on the southern portion of the site have expired. The building is compatible in both height and architecture to other buildings in the proximity.

The building design has received approval from the Design Commission, which met on November 28, 2017. The Commission required additional greenspace with foundation plantings be added to the northeast corner of the building, and additional landscape planting be added to the foundation of the building at other locations. The attached plans incorporate these required changes.

Easements

The site is encumbered with multiple easements relating to utilities, access agreements, and stormwater detention areas. Some of the proposed improvements fall within these easement areas, and staff has been working with the petitioner to outline whether the provisions of each easement allow for the proposed improvements within. Prior to Final Plat of Subdivision approval, the petitioner shall provide a written analysis of all relative easement documents and cite within these documents that provisions that allow for each proposed encroachment.

Relative to the site, the petitioner shall coordinate with the property owner located to the west (Weber Packaging Solutions) on the shared use of the private access drive that both properties share where they touch along the western edge of the subject property and eastern edge of the Weber property. This private access drive has been established through several easements that have been recorded over the years, and the petitioner must coordinate the proposed improvements with Weber to ensure that the existing easements allow for the proposed used and expected truck traffic on the shared private road. To date, staff has been contacted by an attorney representing Weber who had some concerns regarding the proposed development and its impact on the shared access drive. At the time that this staff report was prepared, it was uncertain if there are any issues regarding the proposed developments impact on this shared private drive.

The petitioner is proposing alterations to the existing off-site detention basin to the northwest of the site ("Outlot A") and a new detention basin will be installed within the southeast corner of the subject property. Because Outlot A is owned by Weber, the petitioner shall verify that the provisions of the easement that governs the detention basin give them the right to make the proposed improvements within the easement area (which includes paving for a portion of their driveway). When Meijer Drive was created in 2002, a condition of approval required Weber to transfer ownership of Outlot A to the subject property. As it appears that this has not been done, the petitioner shall initiate this process and, prior to building permit approval, will be required to alter the language of the easement governing Outlot A if it is determined that alterations to the easement provisions are needed to accommodate for the petitioners' proposed improvements. Finally, the Public Works Dept. has required the installation of a fence on the outside of detention basin "N-2" due to the 2'-3' drop inside of its retaining walls.

Landscaping

The petitioner has submitted a tree preservation plan and landscape plan in conjunction with their application. Per the plan, 129 trees are presently on the subject property. As a result of the development, 108 of these trees will be removed and 21 trees will be saved. 235 new trees will be planted during the proposed development.

At the request of staff, additional landscape plantings have been added to the foundation of the building and code required shade trees were added to parking lot landscape islands. However, there is one landscape island located in the southwest corner of the site that must incorporate greenspace and a shade tree. A condition of approval to accommodate for this has been included.

Intergovernmental Agreement

When Meijer Drive was created in 2002, the Village entered into an Intergovernmental Agreement (IGA) with the City of Rolling Meadows as part of the overall Meijer development. Per the terms of this agreements, the segment of Meijer Drive that is within the Village of Arlington Heights was to be under the jurisdiction of the City of Rolling Meadows, which would pay to maintain this road until such time as the vacant piece of land fronting Algonquin Road within the Village of Arlington Heights was developed. Once the property was developed, jurisdiction and maintenance of the road would be transferred to the Village of Arlington Heights. As this property still remains undeveloped, Meijer Drive is under the jurisdiction of Rolling Meadows.

On January 17, 2017, the City of Rolling Meadows provided a preliminary review of the proposed development (attached). Based on their review, they've asked for additional clarifications on certain items and revisions to the KLOA traffic study. They've also asked the Village to consider accepting the jurisdiction and maintenance responsibilities for Meijer Drive due to the impact of heavy truck traffic generated by the proposed development, which action may require an amendment to the previously approved IGA. The petitioner provided a preliminary response to Rolling Meadows on January 18, but staff has not had the opportunity to respond to Rolling Meadows.

Staff notes that the IGA includes a provision that limits the ability of Rolling Meadows to challenge or protest zoning and/or development plans within Arlington Heights on the subject property, provided that the proposed development was substantially compliant with the IGA. Staff has reviewed the IGA and believes the proposed development to be in substantial compliance, however, staff believes that the issues raised by Rolling Meadows warrant further consideration by both the Village and the petitioner.

Traffic and Parking

The petitioner has provided a traffic and parking study prepared by Kenig, Lindgren, O'Hara, Alboona, Inc. (KLOA). The study has found that the proposed development will result in 32 truck trips during the morning peak (7:30am-8:30am) and 25 trips during the evening peak (4:30pm-5:30pm). 25% of the trucks entering the site will enter from Golf Road to Meijer Drive from the west (located in Rolling Meadows) and 75% will enter from Algonquin Road to Meijer Drive to the east (located in Arlington Heights). All trucks leaving the site will utilize the existing traffic signal at Algonquin Road and Meijer Drive.

In order to ensure that this signal has proper timing to relieve all queued traffic awaiting egress from Meijer Drive onto Algonquin Road, the KLOA study recommended that 3 seconds be added to the signal for exiting traffic. As this intersection and signal are under the jurisdiction of IDOT, their review and approval of this change will be required. IDOT has conducted a preliminary review and requested additional information within the traffic study prior to opining on the proposal.

The site currently has a full access driveway with Algonquin Road located at the northeast of the site. The site plan proposes no change to this existing intersection, which per the traffic study, accommodates 45% of the peak morning passenger vehicle traffic to make a left from Algonquin Road into the site. However, in the preliminary review from IDOT, this driveway entrance will need to be modified so that it is a right-in and right-out only driveway, which will prohibit the 45% of peak inbound passenger vehicles that currently use this driveway. The petitioner should modify their site and traffic study to accommodate for the preliminary review comments from IDOT and submit to staff for further review.

The subject property conforms to allow parking requirements. The table below shows these requirements relative to the proposed development.

PHASE	PARKING CODE USE	NUMBER OF EMPLOYEES	NUMBER OF VEHICLES	SQUARE FEET	PARKING RATIO	PARKING REQUIRED
Phase I	Office	N/A	N/A	5,460	1 space per classroom plus two space per employee	18.2
	Warehouses and Storage	65	26	N/A	1 space per vehicle plus 1 space per every two employees	58.5
Phase II	Office	N/A	N/A	5,460	1 space per classroom plus two space per employee	18.2
	Warehouses and Storage	65	42	N/A	1 space per vehicle plus 1 space per every two employees	74.5
					Total Parking Required	169
					Total Parking Provided	309
					Parking **Surplus**/(Deficit)	140

Note: Phase I provides 151 parking spaces and two interior bay spaces, Phase II provides 154 spaces and two interior bay spaces.

The parking requirements are based, in part, on the number of employees within each business of the building. Since no tenants have been signed, the petitioner has provided their estimates on the number of employees and acknowledged that additional parking may be required depending upon the ultimate number of employees per tenant. Finally, staff notes that two spaces may be lost as a result of the outstanding easement encroachments, and the petitioner will need to adjust the site plan accordingly. The overall number of parking spaces would still exceed code requirements and staff believes the proposed parking capacity will be sufficient.

RECOMMENDATION

The Staff Development Committee is supportive of the project and believes that the subject property is a suitable location for distribution/warehouse uses. However, there are three primary issues that remain unresolved relative to this petition:

1. There needs to be better coordination between the subject property and the Weber property to the west. These properties share a common private access drive, and the easements that govern this private drive need to be further studied to ensure that the proposed use will not have a negative impact on the shared drive and that the easement documents include the necessary permissions for use of the drive by trucks from the subject property.
2. The required changes from IDOT have not been incorporated within the plan and traffic study. The petitioner should incorporate the IDOT revisions and update the traffic study accordingly to

determine the effect of these changes. If possible, the petitioner should obtain a second preliminary review from IDOT to determine if they are supportive of the timing change for the signal at Meijer Drive and Algonquin Road.

3. The Village of Rolling Meadows has raised some issues about the truck traffic on Meijer Drive and its impact to the street relative to traffic and maintenance.

Due to these issues staff recommends a continuance until the February 28th Plan Commission for application #17-013, a Planned Unit Development and Preliminary Plat of Subdivision to allow the additional time to address the aforementioned issues.

Should the Plan Commission determine that approval of this application is warranted, staff recommends the following conditions:

1. Final Plat of Subdivision approval shall be required.
2. IDOT review and approval shall be required.
3. Prior to Final Plat of Subdivision approval, the petitioner shall provide a written analysis of all relative easement documents, which analysis shall cite the provisions within these documents that that allow for any proposed improvement within the easement area.
4. Prior to Final Plat of Subdivision approval, the petitioner shall work with the Village to resolve issues raised by the City of Rolling Meadows.
5. The petitioner shall install a fence around any detention area as requested by the Public Works Department.
6. The petitioner shall revise the site plan to incorporate greenspace and a shade tree within the parking lot island located at the southwest corner of the Phase II building.
7. Compliance with the Design Commission motion from November 28, 2017, shall be required.
8. The petitioner shall pursue ownership of "Outlot A" located to the northwest of the subject property.
9. Prior to issuance of a building permit, the petitioner shall cause to be recorded and amendment to the stormwater easement over "Outlot A" should any modifications to easement provisions be needed to accommodate for the proposed improvements.
10. The petitioner shall work with the Weber Packaging Solutions property owner to ensure that the easements governing the shared access drive are suitable to accommodate the proposed development on the subject property.
11. The Petitioner shall comply with all applicable Federal, State, and Village codes, regulations, and policies

_____ January 19, 2017
Bill Enright, Deputy Director of Planning and Community Development

Cc: Randy Recklaus, Village Manager
All Department Heads

APPROVED

PLAN
_____
_____
_____

COMMISSION

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

RE: 703-723 WEST ALGONQUIN ROAD - PC#17-013
PUD, PRELIMINARY PLAT OF SUBDIVISION

REPORT OF PROCEEDINGS had before the Village of Arlington Heights Plan Commission Meeting taken at the Arlington Heights Village Hall, 33 South Arlington Heights Road, 3rd Floor Board Room, Arlington Heights, Illinois on the 24th day of January, 2018 at the hour of 7:30 p.m.

MEMBERS PRESENT:

TERRY ENNES, Chairman
LYNN JENSEN
JOE LORENZINI
BRUCE GREEN
GEORGE DROST
SUSAN DAWSON
JOHN SIGALOS
JAY CHERWIN

ALSO PRESENT:

SAM HUBBARD, Village Planner

APPROVED

CHAIRMAN ENNES: I'm calling this meeting of the Arlington Heights Plan Commission to order. Could I ask you to all please stand and join us in the pledge of allegiance?

(Pledge of allegiance recited.)

CHAIRMAN ENNES: Thank you. Sam, would you take the roll please?

MR. HUBBARD: Commissioner Cherwin.

COMMISSIONER CHERWIN: Here.

MR. HUBBARD: Commissioner Dawson.

(No response.)

MR. HUBBARD: Commissioner Drost.

COMMISSIONER DROST: Here.

MR. HUBBARD: Commissioner Green.

COMMISSIONER GREEN: Here.

MR. HUBBARD: Commissioner Jensen.

COMMISSIONER JENSEN: Here.

MR. HUBBARD: Commissioner Lorenzini.

COMMISSIONER LORENZINI: Here.

MR. HUBBARD: Commissioner Sigalos.

COMMISSIONER SIGALOS: Here.

MR. HUBBARD: Commissioner Warskow.

(No response.)

MR. HUBBARD: Chairman Ennes.

CHAIRMAN ENNES: Here. Sam, were all the public notices sent out for the hearing this evening?

MR. HUBBARD: Yes, they were.

CHAIRMAN ENNES: We have the minutes from our last public meeting, from the Chapter 28 Text Amendment and the Annual Review of Comprehensive Plan. Could I have a motion to approve those minutes if you were here?

COMMISSIONER DROST: Yes, I'll make that motion.

COMMISSIONER GREEN: I'll second it.

CHAIRMAN ENNES: All in favor?

(Chorus of ayes.)

COMMISSIONER JENSEN: I just want to mention I wasn't at that meeting, so I abstain.

COMMISSIONER CHERWIN: Neither was I, I'll abstain.

CHAIRMAN ENNES: Okay. Is our Petitioner here for Algonquin Road?

MR. HUBBARD: Yes, they are.

CHAIRMAN ENNES: Then I would ask the Petitioner to please come forward and anybody who is going to speak before the Plan Commission this evening and we'll swear you all in. Please raise your hand.

(Witnesses sworn.)

CHAIRMAN ENNES: Please proceed. If the Petitioner can give us a recap of your project?

Sam, in case you didn't notice, Commissioner Dawson joined us.

MR. HUBBARD: Thank you.

MR. WAUTERLEK: My name is Mike Wauterlek, and I'm with Hamilton Partners. Our proposed redevelopment is a light distribution building. If approved --

CHAIRMAN ENNES: Spell your name for the reporter.

MR. WAUTERLEK: Sure. It's W-a-u-t-e-r-l-e-k. So, our proposed redevelopment is a light distribution building. If approved, it would be the fourth such project we've undertaken locally over the past three years. Our intention would be to begin construction of phase one of the projects this spring, and to complete phase one of the project at the end of this year. The first phase is approximately 140,000 square feet, and it has the ability to accommodate two or more tenants. At a later date, it's our intention to expand the building to a total of approximately 330,000 square feet. The second phase also has the ability to accommodate two or more tenants. The interior of the building itself is 32-foot clear and it's state of the art in every way.

For some details on the construction of the building, I'm going to ask that Julie with Ware Malcomb, our architect comes in and fills you in.

CHAIRMAN ENNES: Julie, would you please state your name and spell it for the reporter also?

MS. DALGA: Sure. My name is Julie Dalga, D-a-l-g-a. I'm with Ware Malcomb Architects. Can you go to the next slide?

So, this is just an image of one of the corner offices for our building. It's going to be predominantly precast with the three-tone gray paints to help break up the building and accentuate some of the corners in the office areas. So, there will be reveals kind of dividing up these different painted areas and precast, and then form liner on some of these darker gray panels near the entry to help emphasize that area. Then we have the true grain composite wood siding to help highlight the four potential office corners or office areas at the building and help guide guests and visitors to these areas and enhance the look of the office space.

MR. LEDER: Good evening. My name is Paul Leder, that's spelled L-e-d-e-r. I'm with RWG Engineering. We're involved in the civil, site civil aspects to this project. I was going to take just a couple of minutes and review the drainage characteristics of the property.

The site currently is comprised of two office warehouse buildings. The drainage for the site is split. The office building to the north drains to the north and connects to a storm sewer in Algonquin Road. The existing building to the south drains to the south and connects, well, actually it discharges to the Illinois Tollway along the south property line.

Our proposal for drainage will contain those existing drainage areas. Basically, phase one is consistent with the north parcel which will drain to the north. The phase two area will drain to the south. So, the drainage divide works very well with the phasing of the parcel.

For the proposed stormwater management characteristics, the existing condition is composed, for the north of stormwater management, in those two small basins that you can see along Meijer Drive, plus surface storage in the existing parking area. The storage for the phase two area is all in the, excuse me, all in the existing parking area. Our proposal is to use for the north those two basins along Meijer Drive. The one smaller one more to the north would be left in its existing condition. The second one, the little larger one, would be modified slightly. So, we will be using those basins, plus we would be providing them an

underground vault or storage area. In a worst case condition, there will be some storage, excuse me, within the truck dock areas. That's the worst case condition.

For the south or the phase two, again there will be some storage in the dock area, worst case condition, an underground storage vault, and a new basin constructed between the parking area and the tollway, basically containing the existing drainage and actually reducing the amount of, reducing the release rate of water to the existing systems, both to the north and to the south.

MR. HUBBARD: That concludes the Petitioner's presentation this evening.

CHAIRMAN ENNES: Can I ask the Petitioner, do you know that Staff had recommended a continuance on this hearing? You're aware of that?

MR. WAUTERLEK: Yes.

CHAIRMAN ENNES: The 11 conditions on the application. Have you seen those, are you familiar with those?

MR. WAUTERLEK: I am.

CHAIRMAN ENNES: And are you acceptable?

MR. WAUTERLEK: Yes.

CHAIRMAN ENNES: Thank you. Sam, would you give the Staff report?

MR. HUBBARD: Sure. So, the property in question is in the M-2 Zoning District which is the Limited Heavy Manufacturing Zoning District. Warehouse and distribution facilities are permitted uses within that district, so relative to zoning, the proposal is compliant. The Petitioner is requesting two approvals this evening, and that would be planned unit development which is required for any M-2 property greater than four acres in size. As the overall property is a little over 15 acres, a planned unit development is required.

Additionally, Petitioner is requesting a plat of subdivision to consolidate the lots into one which is also required. At this point in this hearing, only preliminary plat of subdivision is requested, which means that a future appearance before the Plan Commission would be required for final plat of subdivision approval. In addition, there are no variations proposed within this development.

The Comprehensive Plan designates the subject property as suitable for Research & Development, Manufacturing & Warehousing uses. So, the proposed distribution warehousing facility is compliant with the Comprehensive Plan designation.

There are two actions to date relative to this project. On March 22nd, the Petitioner met with what was at that time called the Plat & Subdivision Committee but what we now know and call today the Conceptual Plan Review Committee. I would say there was some discussion on the amount of truck traffic, but overall I would characterize that meeting as positive and the Plat & Subdivision Committee encouraged the Petitioner to move forward.

On November 28th, the Petitioner went before the Design Commission that resulted in a positive recommendation of approval. There was one requirement by the Design Commission, and that was to add additional greenscape, greenspace and foundation plantings at the northeast corner of the building. Petitioner has since incorporated that into their plans, and the plans that were sent to the Plan Commission do reflect the required changes by the Design Commission.

So, here is an aerial of the property. You can see the subject property is outlined in red. To the west, you see Weber Packaging Solutions, and well farther west of that is Meijer which is actually in the Village of Rolling Meadows. To the north is an

industrial office development. To the east is a self storage warehouse facility and two industrial buildings. To the south of the subject property is the Illinois Tollway, and across from that is a forest preserve.

So, as you can see, the site is currently occupied by two, I would characterize them as industrial office flex buildings, the northern building being currently vacant which would be the site of phase one of the development. Phase two development, as I understand, would commence once all of the leases on the southern building have terminated and, therefore, is vacant in all of them before redevelopment.

As you can see from the aerial, the site currently has access from Meijer Drive. It's got a right-in and right-out on Meijer Drive located right here. Then there is also a full access intersection and a driveway with Algonquin Road. Finally, there is the shared private access drive along here. So, it currently has three points of access. Additionally, the site can access Golf Road west of Meijer Drive. I will mention that Golf Road and Meijer Drive is a right-in/right-out intersection, so cars using that intersection can only enter it traveling eastbound on Golf Road and can only leave eastbound on Golf Road.

So, the view here is a little flipped just to make it fit the whole site plan into the slide. Weber Packaging Solutions is on the north, and on the right-hand side of the screen is actually north, Weber Packaging Solutions is on the top of the screen. As I mentioned, with the site, there are no required variations. As you've heard, they are modifying the detention pond located right here, and they are going to be keeping the detention pond that's right here as it currently stands today.

I will mention that this is an outlot, this is not currently part of the subject site, and to our knowledge is not owned by the subject property. There are some easements in the area and I'll get into those later. But I also point out the southern detention area here and then there is a large underground detention vault proposed I believe right here.

They are proposing to keep the same access points as currently provided on the site. So, that's going to be the existing full access point here, as well as the right-in/right-out on Meijer Drive, and most notably they're going to keep that shared access drive as a private means of access to the trucking portion of the site.

So, I want to get into the easements a little bit because there are multiple easements that are part of this property. Some of the pretty significant easements are right here and that's the stormwater detention easement on this outlot parcel that is not owned by the Petitioner. The Petitioner has proposed some paving in that area as you can see right here in the orange. This area, as I mentioned, is a stormwater easement, and so we're not entirely certain that the provisions of the easement allow for its paving. That's one thing that we would like a little further correspondence on.

Additionally, there is a large reciprocal shared access easement, as you can see here in green. Half of that roughly falls on the subject property and the other half on the Weber Packaging Solutions property to the west. Since we received this application, we did receive a call from individuals at Weber Packaging Solutions. They did have a little bit of concern relative to this easement and whether or not it provided the rights for the use with all the truck traffic proposed in conjunction with this development. The ability to use that easement is critical to the viability of the site as proposed. So, we would like to see a little bit of coordination between the current property owner and the property owner of Weber to resolve any outstanding issues over the use of this private shared access drive.

There is, as I mentioned, easements that do outline which parties have what rights to the easement. But I think maintenance is somewhat of a concern given the number of trucks that are going to be traveling as a result of this development. Again, without the ability to use that easement, the site as proposed is probably not viable.

Finally, there is another easement located at the very south of the site. It's a 30-foot easement for a sewer main. There is also a water main in that location. As you can see, some of the parking area is proposed on that easement, and part of the grading for that detention area also falls a little bit into the easement. So, we just are awaiting further communications from our Public Works Department to make sure that the parking and the grading of that detention area overlapping with the easement won't interfere with any future maintenance of the storm sewer main and water main.

Back in 2002 before the Meijer was developed and in the process of developing the Meijer, the Village entered into an intergovernmental agreement with the City of Rolling Meadows. I'd like to discuss that a little bit. Back in, well, first, I've got something to show you here. This blue line represents the boundary between Arlington Heights and the City of Rolling Meadows.

So, back in 2002, Weber Packaging Solutions was all one property as you can see outlined in the yellow line. In order to get Meijer to be developed, I believe that Meijer also wanted access to Algonquin Road, and so Meijer Drive had to be constructed to facilitate that connection. In order for Meijer Drive to be constructed, the Weber Packaging Solutions site had to be subdivided, and it was approximately subdivided as shown into three lots. There was actually a fourth lot but relatively small, but these were the three primary lots. On the north side you see the green lot which is currently vacant, on the south is the yellow lot which is the current lot for Weber, and then that orange lot on the side which is the detention facility previously mentioned.

In the intergovernmental agreement, in order to facilitate this road connection to the Village of Arlington Heights, the City of Rolling Meadows agreed to take jurisdiction and maintenance responsibilities for that portion of Meijer Drive that falls in the Village which is outlined in red on the PowerPoint presentation. As part of the review process, we did notify the City of Rolling Meadows that this application is pursuing forward, and they did provide the Village with some preliminary review comments which were included in the packets to the Plan Commission. They had some concerns about potential truck traffic on Meijer Drive and they asked the Village if we would be willing to accept jurisdiction control and maintenance of that portion of Meijer Drive which is in the Village currently maintained by the City of Rolling Meadows.

Per the intergovernmental agreement, jurisdiction and maintenance responsibility of that portion of Meijer Drive isn't triggered until that vacant lot on the north right here is developed. So, that's really what would trigger it, but as a result of this pretty significant redevelopment that would bring a fair amount of truck traffic on Meijer Drive, I think the village of Rolling Meadows is interested in asking Arlington Heights if we would be willing to consider taking that jurisdiction as a result of this development.

So, Staff has had some internal conversations about this and we've got some research that we need to do in order to analyze if this is something that would be viable. But we haven't had the opportunity to sit down with Rolling Meadows and discuss this. So, we would like that opportunity prior to moving forward with this development.

Relative to parking, the site conforms to all parking requirements. Basically, it's divided up between the warehouse uses and the office uses. Because the building is to be built on spec, there are no signed-on tenants and there are no floor plans outlining what the exact size of the office area and number of employees would be, which is what our parking requirements are based on. So, the Petitioner has provided us with their best guess of what they anticipate these to be. Based on these estimates, we've calculated the parking requirement to be 169 spaces; a total of 309 spaces would be within the development on the completion of both phases, so that represents 140-space surplus. We don't believe that parking is going to be a problem here. However, I would note that if the number of employees or the size of the office spaces for the actual uses that are located in this building are different, that's going to change the parking requirements.

Relative to the traffic, the Petitioner submitted a traffic analysis in conjunction with their application. The study found that the development would have a fairly low impact on the surrounding roadway network. Specifically, there's kind of three major intersections that were analyzed. First one is the intersection of Golf Road and Meijer Road which, as I mentioned previously, is a right-in/right-out on the intersection. During the morning a.m. peak, the traffic study estimated that the development would create 26 inbound cars, and six inbound cars during the p.m. peak.

At the current full access driveway intersection, the northeast corner of the site which intersects with Algonquin Road, the traffic study estimated that there would be 75 inbound cars during the morning peak, and I want to note that 60 percent of those 75 cars would be traveling westbound on Algonquin Road and would have to take a left into the site and cross outgoing traffic on Algonquin Road. The traffic study also estimated 20 inbound cars during the p.m. peak, eight outbound cars during the a.m. peak and 27 outbound during the p.m. peak.

Finally, probably the most heavily used intersection would be the intersection of Meijer Drive and Algonquin Road. The traffic study estimated 18 outbound cars during the a.m. peak and 15 outbound cars during the p.m. peak. So, the number of trips that would be generated by the proposed development relative to automobiles are apparently low. It would actually probably be higher if the site was used as office space as it's currently built out. So, relative to automobile traffic, Staff doesn't see this to be a big issue with the proposed development.

Relative to truck traffic, there were only two intersections that are going to be primary footers for this truck traffic. The first intersection is again the intersection of Golf Road and Meijer Drive. The traffic study estimated that about 25 percent of inbound truck traffic will use this intersection. That correlates to seven inbound trucks during the a.m. peak, and one inbound truck during the p.m. peak. The other intersection analyzed was the intersection of Meijer and Algonquin Road, and all outbound truck traffic will utilize this intersection which will result in 18 trucks during the a.m. peak, inbound trucks, and five inbound trucks during the p.m. peak. Again, as I mentioned before, all trucks will use this site to exit.

The traffic study found that the Meijer Drive and Algonquin Road intersection had the capacity to handle the peak exiting truck traffic. However, they did recommend that a change to the timing on the signal here be approved by IDOT which would add I think three additional seconds to exiting traffic from Meijer Drive onto Algonquin Road. Additionally, the traffic study analyzed the Algonquin Road and Golf Road intersections, and the

Algonquin Road and Arlington Heights Road intersections, and found that they had the capacity to handle the increase in truck traffic associated with this development.

So, IDOT did review this development and they've provided a preliminary review letter to the Petitioner which was provided to Staff as well. They did have some issues. They didn't really quite say if they supported the change in signal timing, they didn't, you know, categorically deny it, but I think they asked for additional modifications to the traffic study in order to analyze that. They also asked for some improvements to the right of way to bring the sidewalks up to current ADA standards. Most notably, they requested that the, or required that the full access driveway on Algonquin Road be changed to a right-in/right-out only access point. So, as I previously mentioned, 60 percent of inbound car traffic uses that intersection, and once it's changed to a right-in/right-out, it's not going to be able to accommodate for that traffic. So, the traffic study staff would request that the traffic study be revised to reflect that change that IDOT is requesting so that we can have a chance to analyze that.

Finally, the Staff Development Committee recommends that this project be continued until the February 28th Plan Commission meeting. We're certainly supportive of the concept and we believe that the subject property is suitable for the proposed use. But there are three primary issues that we think should be addressed before this project is brought again before the Plan Commission. They relate to the easement between Weber and the subject property, the changes required by IDOT and then the corresponding changes to the traffic study, and the issues raised by Rolling Meadows about truck traffic on Meijer Drive and its impact to the street and the jurisdiction and maintenance of that street.

So, that concludes the Staff presentation.

CHAIRMAN ENNES: Thank you, Sam. Do we have a motion to accept the Staff report?

COMMISSIONER DAWSON: So moved.

COMMISSIONER DROST: I'll second.

CHAIRMAN ENNES: Second. All in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: Anybody opposed?

(No response.)

CHAIRMAN ENNES: I see we have a couple of people in the audience this evening. Just to give you an idea of how we're going to proceed, the Commissioners will ask the Petitioner and Staff any questions that they may have. After they have gone through that, anybody in the audience that would be interested in making comments about this application can come forward and make those comments. Following that, the Commissioners will close the public portion of the meeting and the Commissioners will get to ask any additional questions and make their deliberations. So, that's the way we're going to proceed.

So, Commissioner Cherwin, if you would like to start with questions?

COMMISSIONER CHERWIN: Sure, thanks. I saw this earlier last year in the Conceptual Committee which was then I think the Plat & Subcommittee. So, I'm familiar with the project. You know, I think it's a good overall use. I like it, but I think one of the concerns I had then was some of those screening and landscaping plan along Algonquin Road just given the size of the structure and all.

I looked at the landscaping notes in here. I think you said that there

were some enhancements made, Sam. But I'd just like to ask you, I didn't see in the plan necessarily a visual of how it fits the elevation. I mean I get that the Staff is satisfied on the Algonquin Road frontage, that there is sufficient plantings. Just next to the building or I mean the parking, along the right of way? Where are those?

MR. HUBBARD: They have both. They have plantings within the parking lot along Algonquin. They have foundation plantings right in front of the building. I believe they also have some plantings in between the parking lot and the right of way to screen it.

COMMISSIONER CHERWIN: You know, I think for the most part, you know, given what I saw in the project earlier, I'm comfortable with it. I think that, you know, you raised good issues. The issues with, you know, Rolling Meadows, we certainly want to make sure that we come to an agreement that is reasonable with Rolling Meadows. Has there been any talk of potentially, you know, if Arlington Heights was going to be on the hook for Meijer Drive once the development in that outlot took place? Has there been any discussion with the proposed owner with Arlington Heights accepting that obligation but having some sort of cost sharing from the owner until the development of that site? Or how would you envision, you know, and maybe you guys haven't talked enough about it yet to know, but I'm just wondering if there's a way to get the owner to somehow accommodate the Village?

MR. HUBBARD: I don't know if the owner of that vacant would be --

COMMISSIONER CHERWIN: No, I mean the owner of this project in order to facilitate the sort of temporary --

MR. HUBBARD: You know, it's something that the Village could ask for. I don't think we very often do it, I think it's really rare. You know, we have kicked around the idea, it was something that Rolling Meadows also raised in their review comments. But you know, I mean we're still realizing all options here.

COMMISSIONER CHERWIN: Okay, and the rest of the issues, I'll just defer them and see how those turn out. But I would agree with them having to resolve obviously the IDOT issues and the Weber Packaging Solutions, but thank you.

CHAIRMAN ENNES: Thank you, Jay. Commissioner Sigalos?

COMMISSIONER SIGALOS: I have a question of the developer. Is this building being built almost like a speculation since you don't have a tenant signed up for phase one?

MR. WAUTERLEK: That is correct.

COMMISSIONER SIGALOS: I saw your schedule there of construction. You're hoping to start in May and be completed at this fall. Will phase two start immediately or would that start only after phase one is leased and occupied?

MR. WAUTERLEK: It would be at a later date. The second building, as Sam had referenced, is currently occupied.

COMMISSIONER SIGALOS: Right.

MR. WAUTERLEK: So, once that building is vacated, our intention would then be to expand the building.

COMMISSIONER SIGALOS: Irregardless of phase one being fully occupied?

MR. WAUTERLEK: Correct.

COMMISSIONER SIGALOS: The other question, I was out at this site earlier today, that shared access drive between Weber and your property currently seems to be

in a pretty sad condition. Is there some kind of agreement as far as the maintenance of that access drive with your truck traffic and their traffic?

MR. WAUTERLEK: There is an agreement currently. We're planning on discussing that agreement with the owner next week, so I think it would be premature to speak as to what the outcome of that discussion will be. But we are planning on having a discussion. We are planning on owning that property for many, many years and we do want a harmonious relationship with our neighbor. So, we're very hopeful we'll be able to figure something out.

COMMISSIONER SIGALOS: Yes, and I would think that would be important to you to come to some agreement for the maintenance of that road. That's all I have right now. Thank you.

CHAIRMAN ENNES: Commissioner Dawson?

COMMISSIONER DAWSON: I have a question for you. Why are you pushing forward, why not continue?

MR. WAUTERLEK: So, we had this meeting originally scheduled, and these issues came up recently. So, from our perspective, it made sense to keep this meeting on the books, sort out what we could, and address the rest of the items later since they did pop up fairly recently. I guess we could have done it the other way but that's what we decided to do.

COMMISSIONER DAWSON: So, what items are you hoping to address tonight and sort out?

MR. WAUTERLEK: I guess if any items were to come up today, it would give us more time in theory to sort those items out prior to construction season. So, it's really just the benefit of having more time to address any sort of concerns that the Village might have.

MR. HUBBARD: To clarify, I don't know if the Petitioner is strongly pushing to move forward tonight. I certainly think they would love to move forward tonight, but I think they are also agreeable to a continuance in order to resolve some of these issues.

COMMISSIONER DAWSON: So, I was just going to restate, it seems almost as if you're asking for a second conceptual plan with the full board to make sure there aren't any other issues that are going to come out.

MR. WAUTERLEK: Correct, yes.

COMMISSIONER DAWSON: Okay, all right. I understand that, why you're here tonight. The property, are they currently, they're not vacant, the second building is occupied, what about the first building?

MR. WAUTERLEK: The first building is completely vacant. The second building is 50 percent occupied.

COMMISSIONER DAWSON: How long has the first building been vacant?

MR. WAUTERLEK: Many, many years, I'm not sure exactly. So, the prior owner owned the building, as I understand it, for five or six years. I don't know that he's ever had more occupancy than what is currently there, unfortunately. You know, and we're one of the best real estate markets that I think anyone has maybe seen in quite a while or maybe will for a while. So, I don't know that there's really much potential for future leasing in the current property as it is.

COMMISSIONER DAWSON: The use seems very appropriate for where the market is going right now. I don't have any issues with the use. There's just so many open issues, I don't even know where to begin with my questions tonight, but I'm very supportive of the concept as long as you can work it out. That's all.

CHAIRMAN ENNES: Commissioner Drost.

COMMISSIONER DROST: Yes, I concur with Commissioner Dawson. Looking at the items three, four, nine and 10, those are, again they need to be clarified or condensed and put into some sort of packet. But you know, it sounds like a good project but there's just too many moving parts here to really, you know, give you an approval right now. We could say, all right, go to the Board of Trustees, let them work it out when you get more information, but it seems like you've had some time from when you were at Conceptual Review which was in March of last year. What went on with all those --

MR. WAUTERLEK: Some of these issues are quite new, to be honest with you. You know, so the IDOT issue, we made our submittals to IDOT, as I understand it, based upon the Village engineers, and it takes so long for IDOT to respond. Once we did receive that feedback, you know, we've responded to IDOT in kind and we've tried to address their issues.

As it pertains to the easements with Weber, legally we reviewed the current easements and we felt very comfortable with the one that's been reported. We still feel that way today. You know, I think there's been concerns, and justly so, they have been raised by people at the Village and at Weber, and those concerns were raised fairly recently which is why we haven't had a chance to address those issues. But we do have a meeting set up next week with our neighbor, and hopefully we'll have a positive outcome.

But to answer your questions, because these are new issues.

COMMISSIONER DROST: New in the sense, you knew Weber was there, you knew the easements were there, you knew that IDOT is still running Algonquin Road, it just mystifies me.

MR. WAUTERLEK: For what it's worth, we had met with an individual at Weber about two months ago just to familiarize them with the project and then, you know, get his blessing and his feedback was very positive.

COMMISSIONER DROST: Again, the project sounds really good, but there's just I think too many moving parts here that are unanswered. I'm going to defer to the rest of the Commission who may have some opinion, and there might be some folks in the audience that may shed some more light on this rather than kind of --

CHAIRMAN ENNES: Thanks, George. Commissioner Jensen?

COMMISSIONER JENSEN: Yes. I was in the Conceptual Plan Review meetings as well, and it seems to me that some of the issues we raised there around traffic and the use of the road and so forth haven't been well addressed here either. I share the view of Commissioners Drost and Dawson. In fact, I need to ask Sam, you mentioned a couple of things that may have even called into question the viability of this project around the easement issues. Did I hear you correctly?

MR. HUBBARD: The viability as currently proposed, if for some reason, you know, the shared private drive is not viable for the truck traffic as proposed, then they'd have to find some other way to fit that to the site.

COMMISSIONER JENSEN: Well, it seems to me, and then there is one question with the Village and as with I guess Rolling Meadows, which is how are you going to handle the maintenance upkeep and so forth on that piece of Meijer Drive that's in Arlington Heights but has been under the jurisdiction of Rolling Meadows? Isn't that really a decision for the Village? And the financing of that is something you're either going to have to assume or you're going to have to work out something with the Petitioner. So, that's something that's kind

of left open as well.

MR. HUBBARD: Right.

COMMISSIONER JENSEN: So, to me these are just too many large issues that are open for us to even further deliberate on in my opinion because you need to get the best answers you can to these various questions on what IDOT is expecting you to do, what's going to happen between the two villages' intergovernmental agreement, and with your neighbor, because all of those are just essential to this project going forward.

Having said that though, I strongly support this project as I did in the Conceptual Plan Review. I think it's a great use of the property. I think it will be a great addition to Arlington Heights. I'd love to see it come back when you've worked out all those details so we can have a short meeting and give it a stamp of approval.

MR. WAUTERLEK: Thank you.

COMMISSIONER LORENZINI: Could the civil engineer come up please? Could you pull up the area plan, Sam? So, the sewer that's going to drain at the north end goes to the Algonquin Road, that's all in order?

MR. LEDER: Well, actually it's an IDOT storm sewer that would be in the Algonquin Road.

COMMISSIONER LORENZINI: And you're okay with that?

MR. LEDER: Yes, sir, that's where it goes now.

COMMISSIONER LORENZINI: Then you drain to the south into an underground detention basin which is going to mitigate -- will flow on to the south. But where is it going on to, the tollway property?

MR. LEDER: Yes. It drains now to an open ditch on the north side of the tollway.

COMMISSIONER LORENZINI: So, you're basically just continuing that?

MR. LEDER: We are continuing that, yes, it is an existing condition. What we are doing is putting a restrictor in the existing manhole to slow the rate of release down.

COMMISSIONER LORENZINI: This underground detention vault, is there a life expectancy on these? Because I would think it has to --

MR. LEDER: Well, they do need maintenance. But if they're maintained properly, they don't need a lot of maintenance, but if they are maintained, they don't silt up and it's like any underground storm sewer system. There's a pretty long-term life expectancy to them.

COMMISSIONER LORENZINI: Okay, thank you. Could the Petitioner, the other gentleman come back up please? So, the north building is going to where, on that vacant, where is the north building going to go? Well, in relation to those existing buildings.

MR. WAUTERLEK: So, the first phase of the project is over the currently vacant northern building.

COMMISSIONER LORENZINI: All right, so it's in the vacant lot, okay.

MR. WAUTERLEK: Correct.

COMMISSIONER LORENZINI: Then the south is going to go, I believe the Staff report says the south is going to when the other buildings are vacated. Is there a timing for that?

MR. WAUTERLEK: There is not a time for that. So, there are lease expirations and there are options for existing tenants to renew potentially.

COMMISSIONER LORENZINI: Okay. All right, then going on to the intergovernmental agreement section, Staff has reviewed the IGA and believes that the proposed development would be in substantial compliance; however, Staff believes that the issues raised by Rolling Meadows warrant further consideration. Are you talking about the maintenance of the road --

MR. HUBBARD: Maintenance and jurisdiction of the road, yes.

COMMISSIONER LORENZINI: So, right now, Rolling Meadows is responsible for that road until that other parcel is developed which isn't happening now. So, I mean legally it's still their responsibility now?

MR. HUBBARD: Correct.

COMMISSIONER LORENZINI: Then we've got the IDOT review comment. So, I agree with what our Commissioners have said. There's a lot of outstanding issues here. But I think we all agree that this is a good project and we want it to go forward. So, even though there are lot of issues here with the board, with Sam and the Planning Department, et cetera, with the Petitioner, you know, for their satisfaction, I don't know that it needs to be continued. But it's certainly up to everybody's opinion on it. That's all I have.

CHAIRMAN ENNES: Thanks, Joe. Commissioner Green?

COMMISSIONER GREEN: My question for the Petitioner here is if we were to push this thing forward, these three main outstanding issues would have to be answered before you could move on from our recommendation. Do you see a time situation that would keep you from not starting in May as you would like to, the time required to answer these three questions?

MR. WAUTERLEK: It's a difficult question to answer because some of those issues are potentially legal issues. You know, so depending on how different individuals who have the ability to make decisions in the process responded to things, then --

COMMISSIONER GREEN: But you see my question is that you can't move forward until these questions are answered. So, if you get approval here tonight, you still have to answer these three main issues.

MR. WAUTERLEK: That's correct.

COMMISSIONER GREEN: Does tonight's approval in any way help you or hurt you as far as getting these three main areas --

MR. WAUTERLEK: I believe it would help us. At that point, we at least know what the outstanding items are. If we're able to resolve those items, then we're certainly closer to being able to move forward on construction season, so I believe it would be a large positive for us.

COMMISSIONER GREEN: Because I agree with Commissioner Lorenzini, I think that no matter what, these issues have to be addressed to the satisfaction of the Village and the Staff. But if it will help move the project forward, you know, I don't think I would be against doing that tonight. I guess that's my, I'll wait to see what the public comment might be.

CHAIRMAN ENNES: I was not at the Plat & Sub, and I have some concern with this Meijer Drive. Sam, do you know anything about the history of the development of the Meijer Drive? Was that basically for them so that the Meijer development could move into Rolling Meadows?

MR. HUBBARD: That's my understanding, yes.

CHAIRMAN ENNES: So, this was done and it was a big plus for Rolling

Meadows, which is probably why they picked up the liability for the drive. They wanted this to go in there. What were you saying, if something triggered, that would make us responsible for the maintenance of the part of Meijer Drive that's in Arlington Heights?

MR. HUBBARD: Yes. So, when the green lot shown there is developed which is currently vacant, then we would take over the jurisdiction and maintenance responsibilities for all of Meijer Drive that is to the right of that blue dash line in the Village of Arlington Heights.

CHAIRMAN ENNES: I don't know if you can answer this. But this Meijer Drive was put into the industrial area, is it in fairly good shape?

MR. HUBBARD: It is, yes. It's in fairly good shape. It's about 15 or so years old, and it may need some maintenance in the next maybe five to 10 years. But that's one of the items that we are trying to further analyze in order to have a discussion with Rolling Meadows about that.

CHAIRMAN ENNES: Is there any reason for us to believe that that road wasn't improved to carry heavy truck traffic? It's in an industrial zone there.

MR. HUBBARD: It was built to commercial standards, so that would be specifically to allow it to support trucks.

CHAIRMAN ENNES: So, why would we want to pick up this on the Village, I mean the road was built for this, until that use of land is developed, I don't see the incentive for why Arlington Heights would want to pick it up if that's the way the agreement was originally drafted?

MR. HUBBARD: I mean I think at the time that the agreement was drafted, it was probably anticipated that that outlot portion in green which is fronting on Algonquin Road would probably develop fairly quickly. I don't know if we anticipated that we weren't going to hold on to it for this many years.

CHAIRMAN ENNES: How long had it been --

MR. HUBBARD: 2003-2004 maybe.

CHAIRMAN ENNES: Okay. So, before the recession.

MR. HUBBARD: Yes.

CHAIRMAN ENNES: Because there still would have been, had the subject property been fully developed, 50 percent of the actual -- there still would have been a lot of traffic --

MR. HUBBARD: If it was fully developed and used as office uses that it's built to you mean?

CHAIRMAN ENNES: Well, for whatever it was built for.

MR. HUBBARD: Right, there would be substantial car traffic.

CHAIRMAN ENNES: Okay. That's all I have on that. I'm going to open the meeting to any public comment. Is there anybody in the audience that would like to make a statement? Let's start over here on the right in the front. If you would please come up, state your name. If you are with a taxing body, then let us know that, and you may proceed.

QUESTIONS FROM AUDIENCE

MR. WEBER: Good evening. I'm Doug Weber, part owner of Weber Packaging, W-e-b-e-r.

MR. WINKLER: Tom Winkler, attorney with the Winkler Group in Schaumburg, here on behalf of Weber Packaging Solutions and the Joseph A. Weber Union Trust.

Weber Packaging Systems, as you can see, owns the property directly west and contiguous to the, I've referred to it as the subject parcel many times which is the parcel in question tonight. The Weber property is located at 711 West Algonquin Road, of course in Arlington Heights. Weber Packaging Solutions was built about 50 years ago, has a worldwide employee count of about 900 individuals. Its worldwide headquarters is in Arlington Heights in that building, employs about 150 individuals in Arlington Heights, making it one of the largest employers in the Village of Arlington Heights.

Just for a clarification note, the public notices that I've seen identified the subject property as 703 to 723 West Algonquin Road. Our address is in that range, but we're certainly not part of the PUD request or the plat of subdivision request.

The Weber Trust owns the, what's been noted the vacant land north of Weber Packaging, and it is about a four-acre parcel just to the south of Algonquin Road. I guess where Meijer Drive is, there north of Meijer Drive and west of Meijer Drive.

Doug Weber who is here is the president of Weber Marketing Systems. Joseph Weber, Jr. is the principal shareholder, controlling shareholder at this time. Both Doug and Joe have lived most of their adult lives here in Arlington Heights.

Weber Packaging Solutions is a very, very important asset to the Weber family and its employees, vendors, contractors, customers, truck drivers, and affiliates. The business was started by Joseph Weber, Sr., and is now in its third generation of Weber ownership and management. The family has a vested critical interest in being involved in the subject property and make certain that it doesn't unreasonably impact Weber Packaging Solutions in a material and significant manner.

A little bit of history is relevant. The Weber Trust owned the 22-acre site which is now improved with the Weber property and Meijer property. This property was sold to Meijer and it was closed in 2002. I was the attorney at that time representing the Weber Trust and Weber Packaging Solutions in that transaction. I accept the criticism or the credit for the many access or drainage easements affecting the subject property, the Weber property, the Meijer property, or the Weber Trust property. I was the principal drafter of all those documents. Furthermore, the Weber Trust built about 50 years ago the Weber Atrium building which is the south building on the subject property and is a subject of this hearing.

The Meijer building project was about a two-year-plus project which began around 1999 or 2000, involving in part, I can't remember all the parties, the Village of Arlington Heights, the City of Rolling Meadows, Oakpoint which is the north building, Meijer of course, Paddock Shopping Center, Continental Towers, the Arby's Restaurant, Pearl Vision, Mike's Muffler, IDOT, all the utility providers, and former Pappadeaux's Restaurant owners. The coordination required among all those interested parties was absolutely enormous. For a time, there were monthly meetings held at the City of Rolling Meadows village hall, and there was probably no fewer than 25 people involved in each of those meetings. The three primary issues involved in that project, which coincidentally are the issues mentioned in the Staff Development report, were as follows: (1) traffic concerns; (2) access concerns; (3) stormwater management and detention.

Our clients, Weber Packaging Solutions which is the pseudonym of

Weber Marketing Systems, and the Weber Trust, do not appear at this meeting necessarily to be opposed to the project. However, because of the lack of information, due diligence, and discussion of the project, neither Weber Packaging Solutions nor the Weber Trust is in the position to support the project either. We are here to voice our concerns on the project and ask that more due diligence be conducted.

Our client did not get notice of the meeting. Joe Weber called me after the sign was erected on the subject property, and that was about two weeks ago. He called me on a Thursday, I met with him on a Friday. Joe did not express either opposition or support for the project; he just had concerns.

I will briefly discuss the three primary issues, although my comments shouldn't be interpreted as being exhaustive of all the issues on the project. First and foremost is access. The legal access to the subject property is from Meijer Drive via an easement agreement. I was the principal drafter of that easement agreement back in 2002. This easement agreement is often referred to in the context of public documents as the shared drive. The initial access as you see from Meijer Drive, what we often called the stub parcel, is completely on Weber Packaging Solutions property. There is a cross easement allowing access to the subject property. The cross easement is actually 22 feet running from north to south on the western boundary of the subject parcel, 22 feet on each parcel.

The easement is referenced in the traffic report which is in the public records prepared by KLOA. However, very importantly, it fails to reference the fact that Weber Packaging Solutions is solely responsible, solely responsible for the repair and maintenance of the shared drive. Accordingly, any changes or modifications to the road including changes to the existing curb cuts need to be approved and are the financial responsibility of our client. Furthermore, and importantly, the language in the easement agreement states that the use of the easement by any party "shall not unreasonably interfere with any of the parties' uses thereof." Weber has not been provided sufficient information to make a determination whether any of these proposed uses unreasonably interferes with its use. The financial responsibility imposed upon the Weber Packaging Solutions for the maintenance and repair of the road is also significant since the use being proposed is substantially different than the current use.

The road itself, the shared drive which also refer to as Weber Drive, was initially constructed about 50 years ago. Someone referred to it as being a little bit in rough condition. There are no reports that I have seen discussing any of the construction characteristics of that road, i.e., can withstand the semi-trailer traffic that's being proposed. It does, however, appear, and a couple of you have mentioned this tonight, that this very issue was raised at the Plat and Subdivision Committee meeting back on March 22nd. But the concern seemed to have been dismissed.

The following are just short quotes from that meeting. One of the Commissioners said that the traffic study should asses the ability of the shared drive, Meijer Drive, and the intersection of Algonquin Road and Meijer Drive, to determine their ability to accommodate the traffic that could be generated by the developer. He asked if access to the site could come from Algonquin Road. Later, another Commissioner, I'm sorry, that same Commissioner said that he was "a little concerned about the number of trucks and the condition of the roads." Then finally, near the end of the meeting, another Commissioner responded that he believes the roads were built to accommodate heavy truck traffic.

The foregoing reflects the concerns which we have. The

Commissioners were asking the right questions, I don't think the correct answers were yet obtained because of the analysis not being complete. We suggest the characteristics of the existing road is a significant issue which requires some analysis since our client is financially responsible for those costs.

Issue number two, water management detention. The proposed project, the Weber Packaging Solutions parcel, the Weber Trust parcel, and the Meijer parcel all suffer, all of them, from significant long-term water management detention issues. The result of the water management studies performed over the Meijer parcel was approved and ultimately resulted in the construction of two water detention ponds, a water drainage pipe permitting water discharge into the pond in front of the Weber Packaging Solutions' main entrance near the tollway, a stormwater detention agreement between Meijer and Weber Trust, and a drainage easement between Weber Packaging Solutions and Meijer. All of the foregoing were done with the approval and mutual cooperation of the Village of Arlington Heights and the City of Rolling Meadows.

During the past week, Weber Packaging Solutions retained Christopher Burke Engineering to consult in connection with the water management and detention issues. A preliminary review was made of the RWG report. Christopher Burke issued a letter with 12 separate points just in connection with the RWG report. I won't read this report into the report but simply say it raises some very significant water retention and management issues on the parcel.

Issue number three, the traffic impact study. The traffic impact study was finalized on December 15th of 2017 and is in the record. The study referenced the access agreement but does not discuss any of the terms of the easement agreement. It also fails to mention the approval needed from Weber Packaging Solutions to construct and change the shared drive in any manner.

On page eight of the report, a section is captioned Existing Roadway System Characteristics, and the Weber Packaging Solutions plant is not even mentioned. In a letter to the Village of Arlington Heights from the City of Rolling Meadows Division of Public Works and Community Development, which was just sent on January 17th, the letter notes the following comment, it's comment number four: "Why is the existing Weber Marketing Systems traffic never mentioned in the traffic impact study? It is as if the facility is not even there."

The response from Morgan/Harbor which is the general contractor dated January 18th, 2018 simply states, "It's included." Well, I've reviewed the traffic impact study more than a few times and was unable to find any reference at all to Weber Marketing Systems' operation. The report fails to even consider basic questions such as how many available shifts are now operating at the company, how many employees are employed in Arlington Heights, how many automobiles use the easement, or how many trucks go in and out on a daily basis to the Weber facility.

The traffic impact statements of the Petitioner's other projects which are similar to this would also be extremely helpful for us to look at and review in connection with this project. We just heard this tonight, that the proposal I guess includes a right-in/right-out at, if I heard it right, at Meijer Road and Algonquin Road. That would very, very significantly -- let me back up a little bit. That may significantly impact access in and out of the Weber facility. Our client has not retained a traffic consultant, but in the event the traffic report does not more accurately reflect the impact upon the entire traffic system in a very, very busy area, it will

probably need to retain somebody to take a look at that report, to conduct more of their own analysis.

In conclusion, our client is not anti-development. Our client is not here to stop this development. Our client, however, does not have enough information to provide any support for this project. It's important that the process of proving a project as proposed be deliberative and that the due diligence be exhaustive, complete, and thorough. At minimum, the three issues discussed, being access, traffic, and water management detention, have to be more fully analyzed and properly vetted in connection with the project. We encourage the Plan Commission to require a more thorough, deep dive analysis into those issues. Our client being a 50-year corporate partner with Arlington Heights and the surrounding community welcomes the opportunity to be a participant in that process. Thank you.

MR. WEBER: Thank you.

CHAIRMAN ENNES: I can sure appreciate your concerns, and thank you for your statement. I suspect you haven't seen the conditions, the 11 conditions that were placed on this application if we were to vote for approval tonight. But let me just read one of the conditions because obviously the issue that you were raising is something that the Village is concerned about. That condition is the Petitioner shall work with Weber Packaging Solutions' property owner to ensure that the easements governing the shared access drive are suitable to accommodate the proposed development on the subject property.

So, they need to come to an agreement with you. I think a lot of what you have stated here today is really the business that needs to be addressed between you and the Petitioner and come to a resolution. If, you know, I don't know, I'd have to defer to the developers and/or architects on the Commission, but if that access drive can't be accommodated and the developer still wants to go ahead, they might need to move their building and put a driveway in. But this is something that I believe should be worked out between you.

COMMISSIONER DROST: Yes, and I think the evening is pretty short as far as working that out. It sounds like you're going to start fresh on those items, and there's more to this as you unpack it. I don't think we're ready.

COMMISSIONER CHERWIN: Could I just, Terry, could I ask for a clarification to something Mr. Winkler just said. I just want to make sure for the record and everything we're talking about the same thing. I think the last statement you mentioned about the right-in/right-out potentially for IDOT, I think we're talking not about the, I think you might have mentioned the Meijer intersection which I agree would be pretty prohibitive. But I think we're talking about where Sam is pointing which would be direct access into the site. Is that -- okay, I just wanted to clarify.

COMMISSIONER LORENZINI: You also expressed a drainage concern? What brought that up?

MR. WEBER: In the 20 years, it floods in the two properties. It's always flooding.

MR. WINKLER: The Oakpoint Shopping Center, the building to the north, was, you know, flooded very, very often. I mean lots and lots of water. I think, as we mentioned, they owned the Weber Atrium building for 50 years, there was always significant flooding problems on that property. When you're driving down the tollway, you can just take a look at how the property crests, canalled by the Meijer, and it is a significant issue. The drainage pond to the north which is just on the, as I'm looking at the map there, just on the Rolling Meadows

side of the Old Elk Grove Road, was required to be installed.

The other drainage is on what you call the Outlot A right here, it is what is required to be installed. Then the drainage pipe I was referring to goes into the front pond, it's right off the tollway in the front of the Weber building. There is a drainage pipe that goes through the Meijer property to the west into that pond. These were all very significant issues.

At that time, it was actually Christopher Burke that was involved in that because they did work for the City of Rolling Meadows. Not on our behalf but on Rolling Meadows' behalf.

COMMISSIONER JENSEN: Are you saying that these measures did not fully or satisfactorily resolve the water issues?

MR. WINKLER: You know, I think that they have. I think that to a great extent they have. I don't know about, I think they've taken care of the Meijer property there.

COMMISSIONER JENSEN: So, flooding right now is not a problem with the properties outside of the subject property?

MR. WINKLER: But again, Doug, you could answer the issues that continue at the Atrium down there.

MR. WEBER: There's a lot of standing water.

CHAIRMAN ENNES: Is the Atrium the building on the subject that's 50 percent occupied?

MR. WEBER: Yes.

MR. WINKLER: The issues that, honestly, the engineer at Christopher Burke mentioned, if I read them I wouldn't understand them anyway. But again, it just raises issues that I think should be addressed in connection with it, and they have not looked at this for more than a week at this point.

CHAIRMAN ENNES: Can you provide a copy of that engineering report to the Planning Department?

MR. WINKLER: Absolutely. Absolutely, this is a copy, Sam, you can have it.

MR. WEBER: Like many of you, this came up real quick and, you know, we were contacted but we didn't see any of these plans until really late in the game, up until about two weeks ago. There's a lot of issues as Tom alludes to, the easements, traffic, and water.

CHAIRMAN ENNES: Okay.

MR. WINKLER: Thank you.

CHAIRMAN ENNES: Is there anybody else in the audience that would like to make a comment? Would you please come forward and state your name and spell it for the reporter?

MR. VOGT: Good evening. My name is Fred Vogt, spelled V-o-g-t. I'm the Director of Public Works and Community Development from the City of Rolling Meadows. I appreciate being here. In regards to some of our concerns, Mr. Hubbard certainly expressed a lot of those. Mr. Winkler added on to that.

Just for the record, our concerns are primarily that of Meijer Drive in regards to the maintenance of it. As Mr. Hubbard indicated, about 15 years ago, when Meijer Drive was built for primary access to the Meijer store, the City of Rolling Meadows agreed to maintain the road within the corporate limits of Arlington Heights all the way out to and inclusive

of maintaining the traffic signal at Algonquin and Meijer Drive. We're perfectly good with that continuing understanding that the intergovernmental agreement that was executed made reference to the four acres to the north and west of Meijer Drive in terms of development. We talked a little bit back then, because I was here at that time, about curb cuts and it was agreed on all sides that that was in the best interest at that time when it would be developed, to turn the road over to Arlington Heights.

Certainly in the spirit of back in 2002, with the Oakpoint and the Weber Atrium land uses being as they were, there wasn't a lot of truck traffic if any. It's significant to note that parcel which is the subject parcel you're considering tonight was certainly from Weber Packaging which was Weber Marketing at the time, but the proposal that you have certainly makes a significant increase into the traffic or the impact on the Meijer Drive with regards to the trucks and the, as we all know, one truck whether loaded or unloaded is significant compared to several other cars.

We're certainly not opposed to the site as proposed for redevelopment. But certainly we'd appreciate having the opportunity to discuss with the Village of Arlington Heights Staff about what we can agree to or get together with regards to the future maintenance of Meijer Drive given this increase with the heavy truck traffic that's proposed, whether or not the Village of Arlington Heights would be willing at this time upon this redevelopment to take over the maintenance of all of Meijer Drive or a portion of it that's impacted by this proposed development, or at least develop some sort of a cost sharing that would be in fairness to both the Village and the to the City of Rolling Meadows.

We, too, only received the information regarding this proposal a couple of weeks ago. So, we did act in some haste to have our traffic engineer review the proposed site traffic analysis. They do have some concerns I won't go into tonight with regards to potential for looking at lane modifications and the operation of the intersection of Meijer Drive and Algonquin Road. I'd certainly be happy to get into that further discussion in the future with the Village of Arlington Heights Staff.

So, we appreciate the concern; we just wanted to make sure that you know of our concerns. If there's any questions regarding the City of Rolling Meadows' position, I'll be happy to take them.

CHAIRMAN ENNES: Thank you, Mr. Vogt.

MR. VOGT: Thank you.

CHAIRMAN ENNES: Is there anybody else who would like to make a comment? Then we'll close the public portion of the meeting and go back to the Commissioners for any additional questions or deliberations.

COMMISSIONER JENSEN: I'd like to actually ask the Petitioner a couple of questions. If I understand this project correctly, you're going to ultimately raze all the structures that are there now?

MR. WAUTERLEK: Just the northern structure.

COMMISSIONER JENSEN: And the southern one you're never going to raze, you're going to basically just repurpose it?

MR. WAUTERLEK: We will eventually demolish that building as well.

COMMISSIONER JENSEN: That's what I've said.

MR. WAUTERLEK: Oh, yes.

COMMISSIONER JENSEN: Ultimately, you will be razing all of the

structures there?

MR. WAUTERLEK: That is correct.

COMMISSIONER JENSEN: If you're going to do that, why would you not consider having a better access to the east rather than trying to have a longer access coming through these existing roads which, you know, there are some substantial issues with that, things that need to be worked through? Why would you not think about running your own access road where you're not having to use a shared road and have all of these other issues that encumber that?

MR. WAUTERLEK: To do that, it would just trigger various governmental agencies and incur further cost that would then make the project unfeasible from both the timing and I guess just financial standpoint.

COMMISSIONER JENSEN: Well, you've already triggered the interest of a couple of governmental agencies, the Village of Arlington Heights, Rolling Meadows, and also the Weber family and their various holdings. So, I mean you've got a big set of issues already. I don't know what it would do to costs but what I've heard just causes me a lot of concern trying to basically squeeze more uses into these roads that really haven't been vetted and haven't worked out well.

COMMISSIONER DROST: Yes, and I would think, I'm going to sort of divide this up a little bit. This is a kind of a petition that I think probably deserves a continuance because I don't think we can push it up to the Board of Trustees at this point, because there's just too many --

COMMISSIONER JENSEN: I agree completely.

COMMISSIONER DROST: Too many items that are loose ends. Rather than trying to grab the individual issues, and the points were all well made that we want to concentrate on these three principal issues that Attorney Winkler had set forth, and I think that kind of brings the issue for Hamilton Partners here in the condition and basically to get to work and come back on February 28th.

MR. WAUTERLEK: Right.

COMMISSIONER SIGALOS: I agree with that, I agree.

COMMISSIONER DAWSON: Shall we make a motion on that?

COMMISSIONER DROST: Yes, I can make the motion but I want to defer to the --

COMMISSIONER LORENZINI: There's just one other thing, one other thing. Lynn made a good point about having a brand new road, but I mean if you're going to go for the expensive building a brand new road, why not just rework an existing one --

To the Weber team, as far as drainage goes, any development to come before us requires a drainage study. We don't just take their word for it, the Engineering Department also looks at it. So, I can say with fairly good confidence that what they're putting in is probably going to make it better. It probably won't solve every flood that ever happens, but it certainly would probably make it better than what is there now.

COMMISSIONER DROST: **Then I'll make the motion to recommend to the Village Board of Trustees the <u>continuance</u> of PC#17-013, a Planned Unit Development and Preliminary Plat of Subdivision to consolidate all lots into one lot for the property**, and we'll get these addresses again to the issue that Attorney Winkler had raised, **703-723 West Algonquin Road until the <u>February 28th Plan Commission meeting</u>.**

COMMISSIONER GREEN: I'll second that.
CHAIRMAN ENNES: Do we have a voice vote, Sam?
MR. HUBBARD: No, roll call.
CHAIRMAN ENNES: Roll call, yes.
MR. HUBBARD: Commissioner Cherwin.
COMMISSIONER CHERWIN: Yes.
MR. HUBBARD: Commissioner Dawson.
COMMISSIONER DAWSON: Yes.
MR. HUBBARD: Commissioner Jensen.
COMMISSIONER JENSEN: Yes.
MR. HUBBARD: Commissioner Lorenzini.
COMMISSIONER LORENZINI: Yes.
MR. HUBBARD: Commissioner Sigalos.
COMMISSIONER SIGALOS: Yes, with comment.
MR. HUBBARD: Chairman Ennes.
CHAIRMAN ENNES: Yes.
MR. HUBBARD: Commissioner Green.
COMMISSIONER GREEN: Yes.
MR. HUBBARD: Commissioner Drost.
COMMISSIONER DROST: Aye.
COMMISSIONER SIGALOS: My comment to Sam is that we're continuing this specifically to the February 28th Plan Commission hearing. Are we, can we be sure that these issues would be addressed by that time? That's only four weeks away.
MR. WAUTERLEK: I'm not looking to waste the Village's time and go through the process if you don't believe the issues have been resolved to the Village's satisfaction. So, if that's the case, prior to the meeting, we'll certainly notify you and keep working at it. But we're hopeful that we will resolve those items by then.
COMMISSIONER SIGALOS: That's the point I was making, not to come back on February 28th if you're in the same position you are tonight.
MR. WAUTERLEK: Right.
COMMISSIONER DROST: Technically, we've got a meeting on the 28th anyway.
MR. HUBBARD: We do, yes.
COMMISSIONER DROST: So, if there are delays, those can be addressed at that meeting.
MR. HUBBARD: Right, if for some reason --
COMMISSIONER DROST: Raise them at that time. But you have to get to work. It sounds like you have to get going.
MR. WAUTERLEK: Thank you.
CHAIRMAN ENNES: Thank you, good luck.
COMMISSIONER DROST: But good project.
CHAIRMAN ENNES: Do we have any other business?
COMMISSIONER LORENZINI: Motion to adjourn.
CHAIRMAN ENNES: We have a motion, do we have a second?
COMMISSIONER JENSEN: Second.

APPROVED

CHAIRMAN ENNES: Those in favor?
(Chorus of ayes.)
CHAIRMAN ENNES: We're adjourned.
(Whereupon, the above-petition was adjourned at 8:53 p.m.)

CERTIFICATE OF PUBLICATION

Paddock Publications, Inc.

Northwest Suburbs

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 **Northwest Suburbs DAILY HERALD**. That said **Northwest Suburbs DAILY HERALD** is a secular newspaper, published in Arlington Heights and has been circulated daily in the Village(s) of:
Arlington Heights, Barrington, Barrington Hills, Bartlett, Buffalo Grove, Deer Park, Des Plaines, Elk Grove, Hanover Park, Hoffman Estates, Inverness, Mt Prospect, Palatine, Prospect Heights, Rolling Meadows, Schaumburg, South Barrington, Streamwood, Wheeling

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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 Northwest Suburbs DAILY HERALD is a newspaper as defined in "an Act to revise the law in relation to notices" as amended in 1992 Illinois Compiled Statutes, Chapter 715, Act 5, Section 1 and 5. That a notice of which the annexed printed slip is a true copy, was published January 9, 2018
in said Northwest Suburbs 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 Paula Baltzer
Designee of the Publisher and Officer of the Daily Herald

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703-723 W. Algonquin Rd - Aerial

March 17, 2017

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REPORT OF THE PROCEEDINGS OF

THE PLAT & SUBDIVISION COMMITTEE

OF THE VILLAGE OF ARLINGTON HEIGHTS PLAN COMMISSION

HELD AT VILLAGE HALL ON: March 22, 2017

Project Title: 703-723 W Algonquin Industrial Development

Address: 703-723 W. Algonquin Rd.

Petitioner: Mike Wauterlek
Hamilton Partners Real Estate
300 Park Blvd. – Suite 201
Itasca, IL 60143

Requested Action:

1. Preliminary Planned Unit Development.
2. Plat of Subdivision to Consolidate the Lots.

Variations Required:

- None Identified at this Time.

Attendees: Mike Wauterlek, Petitioner
Bruce Green, Plan Commissioner
Lynn Jensen, Plan Commissioner
Jay Cherwin, Plan Commissioner
Sam Hubbard, Development Planner

Project Summary:

The subject property is a composed of multiple lots of record comprising a total of 15.4 acres in area. The site is occupied by two light industrial/office building, one on the northern half of the site and one on the southern half of the site. There are two driveway entrances along Meijer Drive and one full access driveway along W. Algonquin Rd. The intersection of Meijer Drive and W. Algonquin Road is a full access lighted intersection. On the southern end, the subject property abuts the I-90 Toll Road.

The applicant has proposed to purchase the site and redevelop the subject property in two phases. Phase I would involve the demolition of the north building and the redevelopment of an approximately 131,750 square foot distribution facility with 28 loading spaces and 187 parking spaces. Phase II would involve the demolition of the southern building and a 167,250 square foot addition to the Phase I building, for a total of 299,000 square feet for distribution/warehousing. The total amount of on-site parking provided would increase to 363 parking spaces.

Meeting Discussion:

Mr. Wauterlek introduced himself and provided a description of who Hamilton Partners is, and their interest in Arlington Heights. He mentioned the Hamilton Partners has not done a development yet in Arlington Heights. He explained that the subject property is two separate parcels of land and owned by separate individuals. One of the properties has multiple tenants, and the other property has a vacant building. Hamilton Partners was interested in developing a 300,000 square foot light distribution facility on the two properties. The development would occur in two phases, the first phase being a 131,000 square foot building on the property with the vacant building, then eventually expanding that building onto the second property in the future to achieve the full 300,000 square feet.

Commissioner Green asked if the southern building would be torn down during phase I or phase II.

Mr. Wauterlek responded that the southern building would not be torn down until phase II was ready to proceed.

Commissioner Jensen asked if the southern building would only come down when the first building was to be expanded?

Mr. Wauterlek confirmed that the south building would not come down until they were ready to expand the first building. He explained that one of the tenants within the southern building had a lease that was set to expire at the end of the year. It was the developer's intention to renew their lease so that it would be "co-terminus" with the lease for the State of Illinois facility and another tenant, so all lease obligations would expire around 2020. At that point, the developer would analyze if the time was right to move forward with phase II. He said if all parties within the southern building were willing to negotiate out of their lease, Hamilton Partners would consider doing the entire development up front, but if this is not possible, being able to start phase I immediately meant that they were in a good position regardless.

Mr. Hubbard explained that the subject property was located within the M-2 Zoning Districts and that light distribution uses were permitted uses within the M-2 Zoning District. The Zoning Code requires that any development within the M-2 District and was located on a property that was greater than 4 acres in size, must obtain PUD approval, and so the subject property, at over 15 acres, was required to develop as a PUD. The Comprehensive Plan classifies the subject property as appropriate for "Research, Development, Manufacturing, and Warehousing", and so the proposed PUD was consistent with the Comprehensive Plan.

Mr. Hubbard said that the fact the property was composed of at least two lots of record, when the building was extended over the lot lines, it would create a non-conforming situation. Therefore, consolidation of the lots would be required during the PUD process and phase I approval. Approval of both phase I and phase II could occur simultaneously. As part of the PUD process, a market analysis would be required, and the applicant had already done some time of market study to determine that there was a demand for light-distribution facilities of this size in this location.

Mr. Hubbard mentioned that the subject property shared a private drive aisle with the property to the west, and staff did not know if a formal reciprocal easement agreement or cross access easement was established for this shared drive aisle. If not, then this must be recorded during the PUD process. It would be important for the applicant to take this into consideration during the design of the site, and information would be required on the functionality of this shared access this during the Plan Commission process

Mr. Hubbard stated that there may be an opportunity for more greenspace in the rear of the development, and all MWRD stormwater and local stormwater requirements must be met. He encouraged additional landscaping at the rear of the site, not only to buffer the building from the tollway, but also to provide an attractive appearance from this heavily travelled corridor.

Mr. Wauterlek said that they often put a lot of money into attractive design of the building exterior, but then also extensively landscape the site, which landscaping sometimes blocks the architecture of the building.

Mr. Hubbard mentioned that landscaping also had air quality and environmental benefits. He explained that the code requires a traffic and parking study for the property, and the Village would want to make sure that the existing road network is capable of handling the increase in truck traffic that would be generated by this development. He mentioned that Algonquin Rd. was under IDOT jurisdiction, so the applicant could be required to obtain certain IDOT reviews and/or approvals. Relative to parking requirements, it would be based off the size of the individual build-outs, the number of employees, and the uses of each future tenant. The number of parking spaces proposed complies with code requirements, however, the actual size and use of each future tenant may mean that there are future parking restrictions or users/tenants. He summarized that staff was supportive of this concept on a preliminary basis.

Commissioner Jensen asked if Weber Packing Solutions was the tenant to the west.

Mr. Hubbard confirmed that it was.

Commissioner Jensen asked where truck traffic would go during phase I.

Mr. Wauterlek replied that trucks would use Mejier Drive, and then access the shared drive aisle between Weber and the subject property. He stated that this is how access to the "phase I" property is currently configured.

Commissioner Jensen asked what volume or measure of truck traffic would be increased by the proposed development.

Mr. Wauterlek replied he did not have a formal traffic analysis, but that generally truck traffic would be increasing. If he were to move to the Plan Commission, he could hire somebody to study traffic.

Commissioner Jensen said the traffic study should assess the ability of the shared drive, Meijer Drive, and the intersection of Algonquin Road and Meijer Drive, to determine their ability to accommodate the traffic that could be generated by this development. He asked if access to the site could come from Algonquin Road.

Mr. Wauterlek replied that Algonquin Road abutted the development, and access was from Meijer Drive.

Commissioner Jensen asked about landscape requirements.

Mr. Hubbard replied that landscaping was required along the southern property line as all parking lots had to be screened from a public Right-of-Way, regardless of if that ROW was a local street, major arterial, or expressway.

Commissioner Cherwin asked about the number of loading bays.

Mr. Wauterlek replied that it would be built to suit, although they had estimated that there would be around 74 loading bays.

Commissioner Cherwin asked about the features of the building.

Mr. Wauterlek responded that access to both I-90 and I-53 would be attractive to any light distribution/logistics company. Given exposure off of I-90 and Algonquin Road, this site could also be viable for a distribution company or wholesaler with a showroom. Also, the property is in close proximity to O'Hare Airport, so logistics companies could also take advantage of that location. He said that ceiling heights would be 32' tall, whereas the average building heights in the area were probably 18' to 24'. The lighting and heat exchange units would be energy efficient. Parking for the building would be higher per floor area than nearby buildings. Finally, the turning radius for the trucks would be 131', which could accommodate larger over-the-road hauling vehicles.

Commissioner Cherwin he said that landscaping along the rear of the building would be nice, but that he was more concerned with landscaping in the front of the building to provide screening along Algonquin Road.

Commissioner Jensen asked if the property had been purchased yet.

Mr. Wauterlek responded that the property was not yet owned by them.

Commissioner Green he said that he thought it was a good use for the property and he supported a two phased development. He said that he was not too concerned with landscaping on the rear of the property by the expressway as he believed that the expressway was elevated in this location and landscaping would not be effective due to the grade.

Commissioner Jensen said he was a little concerned about the number of trucks and the conditions of the roads.

Mr. Hubbard stated that he believed Meijer Drive was a local street under Arlington Heights jurisdiction.

Commissioner Jensen asked the other commissioners if they were concerned about conditions of the roads to support such heavy truck traffic.

Commissioner Green responded that he believe they were built to accommodate heavy truck traffic.

Commissioner Cherwin said he suspected that the road was already successfully handled truck traffic from Meijer.

Commissioner Green encouraged the applicant to move forward.

RECOMMENDATION
The Plat & Subdivision Committee provided their feedback to the petitioner and advised petitioner to proceed forward as they saw fit.

Bruce Green, Chair
PLAT & SUBDIVISION COMMITTEE
Sam Hubbard, Recorder

STAFF DESIGN COMMISSION REPORT

PROJECT INFORMATION:		PETITIONER INFORMATION:	
Project Name:	703-723 W. Algonquin Road	DC Number:	17-138
Project Address:	703-723 W. Algonquin Road	Petitioner Name:	Joshua Spinks, Morgan Harbour Construction
Prepared By:	Steve Hautzinger	Petitioner Address:	7510 S. Madison Street Willowbrook, IL 60527
Date Prepared:	November 15, 2017	Meeting Date:	November 28, 2017

Requested Action(s):

1. Approval of the proposed design for a new warehouse facility.

ANALYSIS

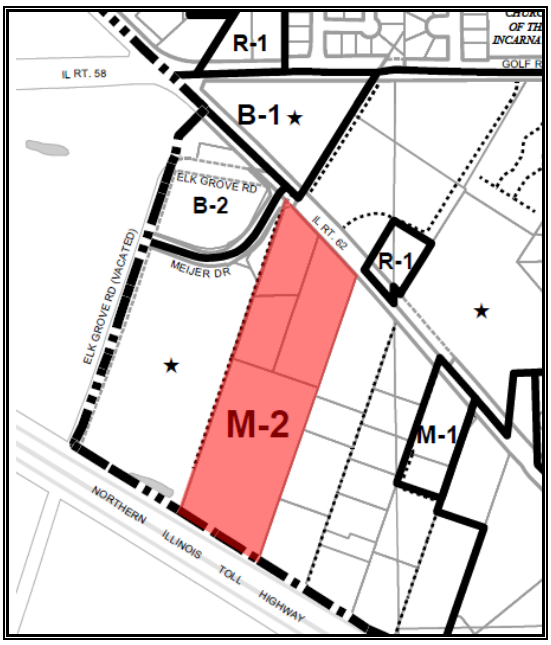
Summary:

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 petitioner is proposing to demolish two existing single-story light industrial/office buildings to build a new 330,720 sf single-story, warehouse facility. The building is proposed to be constructed in two phases. Phase One will be 138,320 sf on the north end of the site, and Phase Two will be 192,400 sf on the south end of the site. The scope of the project includes a complete redevelopment of the site with 308 parking spaces, 68 loading docks, and landscaping. The site area is 15.4 acres. The property is zoned M-2, Limited Heavy Manufacturing District, and this proposal requires review by the Plan Commission and approval by the Village Board as a Planned Unit Development and for Lot Consolidation. There are no zoning variations requested.

Site:

Aerial View of Subject Site



Zoning Map

Surrounding Land Uses:

Direction	*Existing Zoning*	*Existing Use*
North	M-2, Limited Heavy Manufacturing District (M-2)	Multi-tenant office/light industrial building
East	M-2, Limited Heavy Manufacturing District (M-2)	Self-Storage facility, two light industrial/office buildings
South	Elk Grove Village	
West	M-2, Limited Heavy Manufacturing District (M-2)	Weber Packagaing Solutions (light industrial/office building)

Architectural Design:

The proposed building will be constructed of precast concrete panels with a painted finish. Horizontal reveals and vertical panel joints will create shadow lines to give the building a panelized appearance. White, medium gray, and dark gray paint colors are nicely distributed across the building façade to create interest in the design and break down the scale of the walls. The design includes four office areas that are detailed with clear anodized aluminum storefronts, composite wood siding, and precast panels with tightly spaced formliner horizontal reveals. The combination of colors, materials, and textures at the office areas creates a very nice modern aesthetic and focal points for the design.

Overall, the design is very nicely done. The only comment is to consider adding more architectural detail at the northeast and southeast corners of the building using the composite wood siding and formliner precast panels to enhance the building's appearance where visible from the roadways.

Mechanical Unit Screening:

The building includes multiple rooftop mechanical units, some of which will be visible from the adjacent roads. The Village Design Guidelines require that all mechanical equipment be screened from public view. The rooftop units need to be screened from view by parapet walls, mechanical screens, or moving the units towards the middle of the roof to cut off the sight lines of the units. The petitioner should provide sight line diagram studies, and include mechanical screening where needed.

Landscaping:

As part of the zoning approval process, Staff and the Plan Commission will perform a detailed review of the landscaping and tree preservation plans. The petitioner is required to comply with code requirements for 4" caliper shade trees in all parking islands, a continuous three-foot high parking lot screening along the roadways, and landscaping around the detention basins.

In regards to the landscape design, additional foundation plantings should be provided adjacent to the proposed building, especially along the north and south building walls adjacent to the roadways. The proposed plantings are minimal and should include a layering of understory trees, shrubs, and perennials.

Signage:

The Site Plan indicates a monument sign facing Algonquin Road, but at this point, the design for the sign has not been provided. It is recommended that the sign be a low, code-compliant monument style enhanced with landscaping.

In addition to the ground sign, generic wall signage is indicated above each office entrance as a place holder for the future tenants.

All signs are required to comply with Chapter 30, Sign Code, and separate sign permits will be required for each sign.

RECOMMENDATION:

It is recommended that the Design Commission approve the proposed warehouse design to be located at 703-723 W. Algonquin Road. This recommendation is subject to compliance with the plans received 10/31/17, Design Commission recommendations, compliance with all applicable Federal, State, and Village codes regulations and policies, the issuance of all required permits, and the following:

1. Consider adding more architectural detail at the northeast and southeast corners of the building using the composite

wood siding and formliner precast panels.

2. Provide sight line diagram studies of the rooftop mechanical units from the roads, and include mechanical screening where needed.
3. Provide additional foundation plantings adjacent to the proposed building, especially along the north and south building walls adjacent to the roadways. The plantings should include layering of understory trees, shrubs, and perennials.
4. The ground sign should be a low, monument style sign.
5. All signage must meet code, Chapter 30.
6. 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, building, signage or any other reviews. In addition to the normal technical review, permit drawings will be reviewed for consistency with the Design Commission and any other Commission or Board approval conditions. It is the architect/homeowner/builder's responsibility to comply with the Design Commission approval and ensure that building permit plans comply with all zoning code, building permit and signage requirements.

_____ November 15, 2017

Steve Hautzinger AIA, Design Planner
Department of Planning and Community Development

Cc: Charles Witherington Perkins, Director of Planning and Community Development, Bill Enright, Deputy Director of Planning and Community Development, Sam Hubbard, Development Planner, Derek Mach, Landscape Planner, Petitioner, DC File 17-138

APPROVED

MINUTES OF
THE VILLAGE OF ARLINGTON HEIGHTS
DESIGN COMMISSION MEETING
HELD AT THE ARLINGTON HEIGHTS MUNICIPAL BUILDING
33 S. ARLINGTON HEIGHTS RD.
NOVEMBER 28, 2017

Chair Fitzgerald called the meeting to order at 6:30 p.m.

Members Present:	John Fitzgerald, Chair Aaron Coon Ted Eckhardt
Members Absent:	Kirsten Kingsley Jonathan Kubow
Also Present:	Joshua Spinks, Morgan Harbour Construction for *703-723 W. Algonquin Rd.* Mike Wauterlek, Hamilton Partners for *703-723 W. Algonquin Rd.* Grant Brandenburg & Julie Dalga, Ware Malcomb for *703-723 W. Algonquin Rd.* Jay Zumbahlen, Wingren Landscape for 703-723 W. Algonquin Rd. Joe Favia for *Favia Dental* Steve Hautzinger, Staff Liaison

REVIEW OF MEETING MINUTES FROM NOVEMBER 14, 2017

A MOTION WAS MADE BY COMMISSIONER ECKHARDT, SECONDED BY COMMISSIONER COON, TO APPROVE THE MEETING MINUTES OF NOVEMBER 14, 2017. ALL WERE IN FAVOR. MOTION CARRIED.

ITEM 1. COMMERCIAL REVIEW

DC#17-138 – 703-723 W. Algonquin Rd.

Joshua Spinks, representing *Morgan Harbour Construction,* Mike Wauterlek, representing *Hamilton Partners*, Grant Brandenburg & Julie Dalga, representing *Ware Malcomb*, and Jay Zumbahlen, representing *Wingren Landscape,* were present on behalf of the project.

Mr. Hautzinger presented Staff comments. The petitioner is proposing to demolish two existing single-story light industrial/office buildings to build a new 330,720 sf single-story, warehouse facility. The building is proposed to be constructed in two phases. Phase One will be 138,320 sf on the north end of the site, and Phase Two will be 192,400 sf on the south end of the site. The scope of the project includes a complete redevelopment of the site with 308 parking spaces, 68 loading docks, and landscaping. The site area is 15.4 acres. The property is zoned M-2, Limited Heavy Manufacturing District, and this proposal requires review by the Plan Commission and approval by the Village Board as a Planned Unit Development and for Lot Consolidation. There are no zoning variations requested.

The proposed new building will be constructed of precast concrete panels with a painted finish. Horizontal reveals and vertical panel joints will create shadow lines to give the building a panelized appearance. White, medium gray, and dark gray paint colors are nicely distributed across the building façade to create interest in the design and break down the scale of the walls. The design includes four office areas that are detailed with clear anodized aluminum storefronts, composite wood siding, and precast panels with tightly spaced form liner horizontal reveals. The combination of colors, materials, and textures at the office areas creates a very nice modern aesthetic and focal points for the design.

Overall, Staff felt the design is very nicely done. The only comment is to consider adding more architectural detail at the northeast and southeast corners of the building using the composite wood siding and form liner precast panels to enhance the building's appearance where visible from the roadways.

With regards to the rooftop mechanical units, they should be screened from view by parapet walls or mechanical screens, or the units moved towards the middle of the roof to cut off the sight lines of the units. The petitioner should provide sight line diagram studies, and include mechanical screening where needed.

As part of the zoning approval process, Staff and the Plan Commission will perform a detailed review of the landscaping and tree preservation plans. The petitioner is required to comply with code requirements for 4" caliper shade trees in all parking islands, a continuous three-foot high parking lot screening along the roadways, and landscaping around the detention basins. In regards to the landscape design, additional foundation plantings should be provided adjacent to the proposed building, especially along the north and south building walls adjacent to the roadways. The proposed plantings are minimal and should include a layering of understory trees, shrubs, and perennials.

With regards to signage, the site plan indicates a monument sign facing Algonquin Road, but at this point, the design for the sign has not been provided. It is recommended that the sign be a low, code-compliant monument style enhanced with landscaping. In addition to the ground sign, generic wall signage is indicated above each office entrance as a place holder for the future tenants. All signs are required to comply with Chapter 30, Sign Code, and separate sign permits will be required for each sign.

Staff recommends approval of the proposed warehouse design, with these comments and suggestions summarized in the Staff report.

The petitioner had no comments at this time.

Commissioner Eckhardt reviewed the paint samples and other materials and colors being proposed. He asked if the rooftop equipment will be screened, and Mr. Brandenburg, stated that site line studies were done for the mechanical equipment. Commissioner Eckhardt explained the intent of rooftop screening is to screen the units from the

surrounding areas, not just from the property itself, which is a code requirement, and Mr. Brandenburg replied that any visible rooftop equipment will be screened, and landscaping provided as well. Mr. Hautzinger added that screening requirements are from the street, and because this is a corner site, it should be screened from both Algonquin Road and Meijer Road. Commissioner Eckhardt really liked the composite wood material being proposed at all the office entries, and felt the elevations were nicely articulated with the 3 paint colors. He commented that the loading dock elevation was a bit bland, and Mr. Brandenburg explained that the offices were extended out on the west elevation to help conceal the view of those docks from the rest of the property.

Commissioner Coon pointed out that the composite wood product shown represented in the rendering has more variation than the small sample presented, and Mr. Brandenburg explained that the composite wood product is stained just like wood; however, it is a resin product that will last longer than wood. Commissioner Coon asked if there will be slight variation from panel to panel to make it look less monochromatic, and the petitioner said yes; the product is produced with a raw color, and stain is applied to it on site.

Commissioner Coon was also concerned about how close the north side of the building would be to Algonquin Road, and it does not allow for a lot of landscaping to buffer it from the street; there will be a large wall of stained precast very close to the road. He suggested recessing the northeast corner of the building or creating some kind of a feature there. He liked the integration of the wood product on the office portions of the building, but felt that the northeast corner of the building will be too stark on Algonquin Road. He wanted to see something done with that, other than just stained precast; perhaps find a way to integrate more of the wood siding into it to tie it in with the office elements. He also pointed out the building located east of the site that has a large landscape feature in front of it as a buffer to Algonquin Road. He felt there was an opportunity to create more of a gracious buffer from Algonquin Road to this plain corner of the building.

Commissioner Coon felt the rest of the building looked fine and he was curious to see what the south elevation in Phase 1 would look like, which Mr. Brandenburg said would be the same as the rest of the building. Commissioner Coon also agreed with the comments previously made about the screening of the rooftop equipment; site lines from the expressway and from Algonquin Road should be studied.

Chair Fitzgerald liked the project and he liked the composite wood feature used only at the office areas, because it is nice to know where the entrances to such a large building will be. He also liked the materials, and he agreed with Staff's comments about the landscaping.

Commissioner Eckhardt said that he was considering asking the petitioner to add more detail decoration at the corner of the building that is so close to Algonquin Road because he felt the top right of the northeast elevation was very nice, but the left corner that sits close to the street looks like a warehouse. He agreed with Chair Fitzgerald about the wayfinding aspect of the wood material, in terms of identifying the front entries, and he asked what the end wall will look like as the corner of the building closest to Algonquin Road turns the corner. Mr. Brandenburg replied that as the building turns the corner, the horizontal banding between the two offices will be continued and there will be no clerestories. Commission Eckhardt was torn with the comments made by Commissioner Coon about the corner of the building, which he understood; however, he felt it was logical how the corner detailing is wrapped around, and he agreed that the wood composite material should be at the entrances to the offices only.

Commissioner Coon clarified that he was okay with the building in terms of the architecture, but felt the building was just too close to the curb and felt like it is squeezing itself into a tight situation with the curb that close to the building, as well as a lack of landscaping. He was in support of finding a way to slide the building to the south to create more space from the street; there is a lot crammed into that corner. Mr. Wauterlek explained that at the east end of the property, there is a large tree line that extends the length of the property that can be cleaned out; he completely agrees with Commissioner Coon and is willing to invest some money into that corner; however, as it stands now, he felt that most people will see the new building going eastbound on Algonquin Road, whereas the corner being referenced by the commissioners will not be seen until you are right on top of the building, past the tree line, and already to where

the wood siding material is. Their goal is to build a nice looking building, which is why they are investing in the materials being proposed; this is a high profile location that could attract higher end tenants.

Commissioner Coon replied that he believed the answer was not the architecture, but more the landscaping and more space. He felt there was an opportunity to pull one or two bays in, and create a pocket for landscaping to help soften the corner. He was okay with the way the panels are delineated, and he agreed that the wood product should be kept at the office entries; however, he felt that if the building was not pulled back from the curb, it would feel forced in, and feel like the building is driving the site. He suggested bringing the drive aisle closer to Algonquin Road to create more green space between the curb and the building, which the petitioner was not opposed to doing.

Chair Fitzgerald pointed out that a unanimous vote was needed from all 3 commissioners tonight for approval.

A MOTION WAS MADE BY COMMISSIONER COON, SECONDED BY COMMISSIONER ECKHARDT, TO APPROVE THE PROPOSED WAREHOUSE DESIGN TO BE LOCATED AT *703-723 W. ALGONQUIN ROAD*. THIS APPROVAL IS SUBJECT TO COMPLIANCE WITH THE PLANS RECEIVED 10/31/17, DESIGN COMMISSION RECOMMENDATIONS, COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE, AND VILLAGE CODES, REGULATIONS, AND POLICIES, THE ISSUANCE OF ALL REQUIRED PERMITS, AND THE FOLLOWING:

1. A REQUIREMENT FOR A MINIMUM OF 8-FEET OF SPACE BETWEEN THE CURB AND THE NEW BUILDING AT THE CORNER CLOSEST TO ALGONQUIN ROAD, TO PROVIDE FOR MORE LANDSCAPE AT THAT CORNER, EVEN IF A FEW PARKING SPACES ARE LOST.
2. THIS REVIEW DEALS WITH ARCHITECTURAL DESIGN ONLY AND SHOULD NOT BE CONSTRUED TO BE AN APPROVAL OF, OR TO HAVE ANY OTHER IMPACT ON, NOR REPRESENT ANY TACIT APPROVAL OR SUPPORT FOR THE PROPOSED LAND USE OR ANY OTHER ZONING AND/OR LAND USE ISSUES OR DECISIONS THAT STEM FROM ZONING, BUILDING, SIGNAGE OR ANY OTHER REVIEWS. IN ADDITION TO THE NORMAL TECHNICAL REVIEW, PERMIT DRAWINGS WILL BE REVIEWED FOR CONSISTENCY WITH THE DESIGN COMMISSION AND ANY OTHER COMMISSION OR BOARD APPROVAL CONDITIONS. IT IS THE PETITIONER'S RESPONSIBILTY 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.

Chair Fitzgerald questioned whether the commissioners could require 8-feet of space at this corner, and how much space currently exists there. The petitioner said there is approximately 5-feet from the building corner to the edge of the curb.

COON, AYE; ECKHARDT, AYE; FITZGERALD, AYE.
ALL WERE IN FAVOR. MOTION CARRIED.

Mr. Hautzinger clarified that the motion included a requirement to add a minimum of 8-feet between the curb line and the building wall on Algonquin Road, and Commissioner Coon added that it should allow enough room for an ornamental tree and some shrubs. Mr. Hautzinger also pointed out that the motion did not include any of the other recommendations in the Staff report including the comments regarding landscaping.

A MOTION WAS MADE BY COMMISSIONER COON, SECONDED BY COMMISSIONER ECKHARDT, TO AMEND THE MOTION TO ADD THE FOLLOWING:

3. PROVIDE ADDITIONAL FOUNDATION LANDSCAPING ADJACENT TO THE PROPOSED BUILDING, ESPECIALLY ALONG THE NORTH AND SOUTH BUILDING WALLS ADJACENT TO THE ROADWAYS. THE PLANTINGS SHOULD INCLUDE LAYERING OF UNDERSTORY TREES, SHRUBS, AND PERENNIALS.

ECKHARDT, AYE; COON, AYE; FITZGERALD, AYE.
ALL WERE IN FAVOR. MOTION CARRIED.

MORGAN / HARBOUR
CONSTRUCTION

October 31, 2017

Attn: Sam Hubbard

Development Planner
Department of Planning and Community Development
Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL 60005

Tel: 847-368-5223

Re: 703-723 W. Algonquin Road Project – Planning Commission – PROJECT DESCRIPTION

Mr. Hubbard,

The existing property located at 703-723 W. Algonquin Road has (2) existing buildings that will be demolished to create (1) light distribution building that will be approximately 330,000 sf in total.

We will utilize standard construction practices to construct this new 1-story precast building. The interior structure will consist of structural steel, joist, and metal decking. The interior clear height of the building will be set at 32'-0" in height. The top of precast wall panels will be at 39'-0" in total height. The precast panels will be 12'-0" – 13'-0" wide insulated load bearing panels with a painted finish. The composite wood siding will be at various entryways. The aluminum storefront framing will be clear anodized finish with 1" insulated, low-e, grey tinted glazing. The Make-Up Air Units will be 80/20 units to take advantage of some efficiencies that are common with these types of units. The gas consumption is much less due to the fact that only 20% of the air will be heated during the normal cycle.

The project is intended to be a phased construction project where Phase 1 (North Half) will be the main building starting construction in Spring of 2018 and with a scheduled completion by the end of the year 2018.

The Phase 2 (South Half) will be constructed as an addition to the Phase 1 (North Building) and at a time to be determined at a later date and should take between 8-10 months to construct assuming normal conditions.

The intent for the new structure is to improve this site with a new light distribution facility that will accommodate 1-5 tenants with 308 new parking spaces.

Sincerely,

Joshua Spinks
Senior Project Manager
Morgan / Harbour Construction, L.L.C.

Illinois Department of Transportation

Office of Highways Project Implementation / Region 1 / District 1
201 West Center Court / Schaumburg, Illinois 60196-1096

PERMITS
Location: IL 62 (Algonquin Road) at Meijer Road (SEC)
Municipality: Village of Arlington Heights, Cook County
Re: Arlington Heights Industrial Redevelopment
Reference No.: 016-78885

December 19, 2017

Mr. Paul Leder, P.E.
RWG Engineering, LLC
975 E. 22nd St.
Suite 400
Wheaton, IL 60189

Dear Mr. Leder:

Our Bureaus of Traffic and Programming have completed their cursory review of your preliminary engineering plans and Traffic Impact Study for the subject location. Our comments are marked in red on the enclosed plan set. This marked set must be returned with your next submittal.

Traffic Permits Comments:

1. Clearly label State right of way lines on all plan sheets.
2. Revise your plans to label roadways as the State-designated route followed by the marked route in parentheses [e.g. IL 62 (Algonquin Road)]
3. Remove the Limitation of Warranty on your Cover Sheet.
4. Revise your plans to include driveway apron removal and replacement, depressed curb and gutter removal and replacement, pavement patching, and sidewalk/ramp removal and replacement. Dimension the SF/LF of all items to be removed and/or replaced in State right of way on your Demolition Plan – Phase 1 sheet.
5. Two of the Department's main goals in granting access to a property include the safety of all pedestrian and vehicular traffic affected by a development and the efficient and effective flow of traffic to serve such development and the surrounding area; as such, modify the existing full access of your site to a right-in/right-out/left-in. The enclosed detail may be used as an example for signing, striping, and barrier island design.
6. The southeast corner of the intersection of IL 62 and Meijer Drive should be brought into ADA/PROWAG compliance.
7. Please provide separate ADA ramp details for roadway crossings along IL 62. Please see attached template for reference.
8. All ADA related items shall be designed and installed in accordance with the "ADA Standard for Accessible Design" guidebook. Provide the information and signature required on the enclosed Municipality Sidewalk and ADA Acceptance Letter form.
9. In order to comply with ADA/PROWAG requirements, continue the sidewalk through all proposed driveways, and provide spot grades where necessary.
10. Include at least 24" of pavement patching adjacent to all areas of curb & gutter removal and replacement per the enclosed Pavement Patching at Curb and Gutter Removal detail; additionally, include this detail in your plans.
11. It appears the driveway access along IL 62 encroaches upon the neighboring property to the southeast; as such, either redesign the driveway with a minimum of 3' between the end of flare and the property or complete and return a signed and executed copy of the enclosed Lot Line Agreement for all parties involved.

12. Show the emergency overflow route on your Grading Plan; note that per the IDOT Drainage Connection Checklist Section 2-f-2, "The access drive(s) must not be used as an overland flow flood path."
13. Provide local approval from all applicable agencies in acceptance of the drainage improvements for your site.
14. Complete the enclosed IDOT Drainage Connection Checklist.
15. Include all applicable IDOT Highway Standards including: 424001, 424026, 606001, 701101, 701602, 701701, 701801, and 701901.
16. Revise your Plat of Subdivision to label roadways as the State-designated route followed by the marked route in parentheses [e.g. IL 62 (Algonquin Road)]
17. Add the following to your Plat of Subdivision:
    This plat has been approved by the Illinois Department of Transportation with respect To roadway access pursuant of Paragraph 2 of "An Act to revise the law in relation to plats," as amended. A plan that meets the requirements contained in the Department's "Policy on Permits for Access Driveways to State Highways" will be required by the Department.

    Anthony J. Quigley, P.E.
    Region One Engineer
18. Add the following to your Plat of Subdivision:
    Vehicular Access Notes:
    1. There shall be, at most, one restricted vehicular access to IL Route 62 (Algonquin Road) from Lot 1 as shown hereon.
    2. All other access shall be via internal circulation.

Programming – Geometric Comments:

1. Please analyze both phases of the development together, not just the final phase.
2. The report does not state when this improvement is to be built. Please state the year of completion in the report. Also, label the proposed and existing years of analysis throughout the report. The proposed year of analysis should be 5 years after the completion of the development.
3. On Page 8 of the Traffic Impact Study, it is stated that IL 62 is not an SRA; however, IL 62 is classified as an SRA at the north leg of the intersection with IL 58. IL 58 is also an SRA at the east leg of the intersection with IL 62. Please clarify these classifications in the report.
4. Please provide Red-Time-Queue calculations for all movements of each intersection in the next submittal. Follow the formatting in the attached template.
5. The full access drive on Algonquin Road, east of Meijer Drive should have a minimum width of 24' edge to edge. The 26.6' back-to-back with C&G shown for this driveway is below this minimum. Please provide a redesigned driveway extending to Algonquin Road with a width of 24'-35' and a maximum longitudinal slope of 6%. Also, ensure the cross slope of the sidewalk through the drive is a maximum of 1.5% and provide detectable warnings and ADA grading details at the junction of the sidewalk and driveway.
6. For yellow times, please use 3.5 seconds for all left-turn movements (see markups in the appendix for specific locations).
7. The total lost time should be 6 seconds for through movements. Several locations show 6.5 seconds. When the all red time is 2 seconds, change yellow time should be 4 seconds (see markups in the appendix for specific locations).
8. For the intersection of Meijer and Algonquin, the northeast left shows 0' storage length and 1 storage lane. The existing condition has dual lefts with approximately 190' of storage per lane. Please revise the capacity analysis per the existing conditions.

Traffic Programs – Studies Comments:

1. Include an exhibit in the Traffic Impact Study depicting the relative distance along IL Route 62 between Meijer Drive and the proposed full access.
2. What is the relative distance of the proposed full access along Meijer Drive from IL Route 62? Include this distance on an exhibit.
3. Access along IL Route 62 should be managed as part of this redevelopment. The proposed full access along IL Route 62 should be restricted to full ingress with right-out only egress (right-in/right-out/northwest bound left-In only).
4. The outbound left-turn movement volume is very small from this driveway and can easily be accommodated as a left-turn from Meijer Drive at IL Route 62. Place a raised barrier channelizing island (i.e. ½ pork chop) to physically restrict outbound left-turns at the proposed access driveway along IL Route 62. Reassign outbound left-turns from the full access to Meijer Drive accordingly in the Traffic Impact Study.
5. The capacity analyses for IL Route 62 at Arlington Heights Road, AM and PM plus existing and future conditions is incorrect. With the recent improvements at the Interstate 90 and Arlington Heights Road interchange, a southbound auxiliary lane (4th southbound lane) was developed from IL Route 62 to the eastbound Interstate 90 On-Ramp. With the completion of this lane, the southbound approach of Arlington Heights Road at IL Route 62 now operates with a dual left-turn lane and 4 southbound through lanes. The former southbound right-turn lane operates as a shared through and right-turn lane today. Revise capacity analyses for IL Route 62 and Arlington Heights Road accordingly.
6. Submit a revised Traffic Impact Study accordingly to continued review.
7. Submit concept roadway plans for a restricted access along IL Route 62 east of Meijer Drive.

Please revise your plans in accordance with the above comments and resubmit three (3) revised Traffic Impact Studies and three (3) sets of revised 11"x17" engineering plans and one (1) Drainage Connection Checklist along with a written disposition to all comments to continue the review process.

If you have any questions regarding this matter, please contact Abigail Robinson at (847) 705-4541.

Very truly yours,

Anthony J. Quigley, P.E.
Region One Engineer

By:

Thomas G. Gallenbach, P.E.
Traffic Permit Engineer

cc: Jim Masarelli - Village of Arlington Heights

City of Rolling Meadows

"PROGRESS THRU PARTICIPATION"

Community Development Department

3600 Kirchoff Road • Rolling Meadows, Illinois 60008 • 847-506-6030 • Fax: 847-483-0365 • www.cityrm.org/rmcd

January 17, 2018

Mr. Bill Enright, Deputy Director of Planning and Community Development
Village of Arlington Heights
33 S. Arlington Heights Rd.
Arlington Heights, IL 60005

Dear Mr. Enright:

RE: Proposed Redevelopment, 703-723 Algonquin Rd.

Based upon the receipt of a Traffic Impact Study, prepared by KLOA and dated October 25, 2017, and received by the City of Rolling Meadows January 11, 2018, for a proposed "Arlington Heights Industrial" redevelopment located at 703-723 West Algonquin Road (a.k.a. "Oak Pointe"), the following staff questions and comments are provided.

1) The City of Rolling Meadows Engineer is being requested to review the Traffic Impact Study, and received this report yesterday. Additional questions and comments may be forthcoming.
2) Verify that no realignment of existing intersections is planned (Weber Road, on the east side of Weber Marking Systems, and the driveway serving Oak Pointe approximately 300 feet south of Algonquin Road).
3) Page 8 of the Traffic Impact Study states that Meijer Drive is the jurisdiction of the Village of Arlington Heights. Please clarify what this means, versus maintenance responsibility (as in the 2001 Intergovernmental Agreement).
4) Why is the existing Weber Marking Systems traffic never mentioned in the Traffic Impact Study? It is as if that facility is not even there.
5) Is there any data available on pre-existing traffic counts, when the Oak Pointe buildings were all occupied? We would like to be able to compare <u>that</u> traffic impact on Meijer Drive (primarily passenger vehicles) as opposed to re-development.
6) Why are only "Phase 2" traffic counts provided in the Traffic Impact Study? Where are "Phase 1" traffic counts, or are they included with "Phase 2" data?
7) Page 10 of the Traffic Impact Study discusses the PACE facility on Algonquin Road, and references that police officers control afternoon peak hour traffic there, creating "additional gaps". What would be the effect on traffic at the p.m. rush hour in the event that the police traffic control activity were to cease?
8) Please confirm, per figure 4 and 5 on pages 11 and 12 in the Traffic Impact Study, that there is currently <u>no</u> heavy truck traffic servicing the <u>existing</u> Oak Pointe property.
9) On page 16, the schematic shows a 25% amount of traffic approaching the subject site from the west, presumably utilizing Meijer Drive from Golf Road. This is not desirable. Efforts should be made to eliminate all heavy truck traffic accessing this proposed redevelopment from the west as possible, as such traffic was not anticipated on the section of Meijer Drive in the corporate limits of Rolling Meadows. We have concerns for maintenance and future accelerated repair needs.
10) The same schematic, on page 16, shows 100% amount of traffic exiting the site to the north. How will this be controlled and enforced? No reference to signage control (i.e. right-turn only) was seen in the Traffic Impact Study for this driveway.

11) Figure 9 on page 20 shows "estimated development-generated traffic volumes of 31 vehicles entering the proposed development site, but only 26 vehicles exiting the site. Please explain.
12) Will any changes to stormwater management, detention, and release rates be made? Information should be provided for review (i.e. impacts to Meijer Drive drainage, existing detention plans, etc.).
13) The Intergovernmental Development Agreement between the City of Rolling Meadows and the Village of Arlington Heights, dated December 18, 2001, makes reference to the development on the four acres of vacant land as the trigger for conveyance of the maintenance of Meijer Drive (that portion within the corporate limits of the Village of Arlington Heights) from Rolling Meadows to Arlington Heights. The agreement was silent as to any other development or redevelopment in the area as to having an effect on Meijer Drive use and condition. This proposed redevelopment will have an effect on Meijer Drive. The City of Rolling Meadows requests that discussions take place with the Village of Arlington Heights on this matter, as this type of land use change was not previously anticipated and in consideration of 15 years having passed since the construction and opening of Meijer Drive. The City does not believe that it should, upon this proposed redevelopment, any longer be solely responsible for the maintenance of Meijer Drive within the corporate boundaries of the Village of Arlington Heights.
14) Discussions should also include the existing pavement condition of Meijer Drive, between Algonquin Road and the Weber Marking Systems driveway. It appears that pavement resurfacing may need to be considered in the next five years. Would it be appropriate to consider having this developer participate in said pavement resurfacing costs, given the proposed impact to Meijer Drive?

We are willing to meet to discuss these comments and questions at your convenience.

Sincerely,

Fred Vogt
Director of Public Works and Community Development

Cc: B. Krumstok, City Manager
R. Horne, Assistant Director of Public Works and Community Development
G. Rozwadowski, City Engineer

MORGAN / HARBOUR
CONSTRUCTION

January 18, 2018

Attn: Sam Hubbard
Development Planner
Department of Planning and Community Development
Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL 60005

Tel: 847-368-5223

Re: 703-723 W. Algonquin Road Project – Response Letter – (ROLLING MEADOWS)

Mr. Hubbard,

The following is our Response Letter addressing the comments as outlined in the ROLLING MEADOWS Review Letter dated January 17, 2018 regarding the aforementioned project:

ROLLING MEADOWS - COMMUNITY DEVELOPMENT DEPT. From Fred Vogt, dated Jan 17, 2018

1. Noted.
2. No realignment of existing access drives to Meijer Drive are proposed.
3. **Village of Arlington Heights**
4. It's Included.
5. We do not have pre-existing traffic counts. The traffic study uses existing peak hour traffic volumes as a base to project traffic volumes that includes the full buildout of the proposed warehouse development (Phase II), as well as regional growth in traffic unattributed to a particular planned development in the area.
6. Only Phase 2 was studied since this represents the planned maximum buildout of the development, thereby providing a conservative analysis.
7. As a result of IDOT comments, the proposed access drive on Algonquin Road is being modified to prohibit left-turns out. As such, any influence in traffic gaps coming from the PACE facility traffic officers is no longer relevant.
8. The existing traffic counts reflect heavy vehicles utilizing Meijer Drive.
9. **Village of Arlington Heights**
10. **Village of Arlington Heights**

11. Figure 9 (page 20 of the report) shows the development traffic assignment for heavy vehicles, which comes from Table 1 on page 17. The figure shows 25 and 6 heavy vehicles entering the site during the weekday morning and evening peak hours, respectively, as well as 7 and 19 heavy vehicles exiting the development during the respective peak hours.
12. Existing site drains to Northeast and will be maintained by the proposed development with no impact to Rolling Meadows.
13. **Village of Arlington Heights**
14. **Village of Arlington Heights**

Please contact me directly if any of these responses are insufficient or if any further clarification is required in order to obtain jurisdictional approval.

Sincerely,

Joshua Spinks
Senior Project Manager
Morgan / Harbour Construction, L.L.C.

City of Rolling Meadows

"PROGRESS THRU PARTICIPATION"

Community Development Department

3600 Kirchoff Road • Rolling Meadows, Illinois 60008 • 847-506-6030 • Fax: 847-483-0365 • www.cityrm.org/rmcd

January 17, 2018

Mr. Bill Enright, Deputy Director of Planning and Community Development
Village of Arlington Heights
33 S. Arlington Heights Rd.
Arlington Heights, IL 60005

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We are willing to meet to discuss these comments and questions at your convenience.

Sincerely,

Fred Vogt
Director of Public Works and Community Development

Cc: B. Krumstok, City Manager
R. Horne, Assistant Director of Public Works and Community Development
G. Rozwadowski, City Engineer

HAMILTON PARTNERS

W Algonquin Road

ARLINGTON HEIGHTS, IL

CHI16-0313-00
SCHEMATIC DESIGN
01.09.2018

WARE MALCOMB

architecture | planning | interiors | branding | civil

PROJECT DATA:

BUILDING FOOTPRINT:		331,014 SF
BUILDING USE:		
WAREHOUSE		320,094 SF
OFFICE	@ 3%	10,920 SF
PARKING PROVIDED:		
AUTO:		308 STALLS @0.93/1000 SF
TRAILER:		0 STALLS
TRUCK DOCKS:		
▲ DOCK-HIGH DOORS		64
O GRADE-LEVEL DOORS		4

Phase 1

	M-2 District Code Required	Proposed
Setbacks		
North (front)	15'	54.88'
South (rear)	15'	132.47' from existing building to south property line 81.73' between phase 1 and existing building
East (side)	10' or 10% of lot width (whichever is less)	60'
West (side)	10' or 10% of lot width (whichever is less)	56.94'
South (rear – parking areas)	15'	N/A - existing conditions
F.A.R.	2.50 maximum	.38
Building Lot Coverage	No zoning requirement, refer to building code for additional requirements	38.24%
Impervious Surface Coverage	No zoning requirement, refer to building code for additional requirements	81.58%
Building Height	No zoning requirement, refer to building code for additional requirements	39'-0"
Off-street Parking Spaces	77 (new building only)	152 (new building only)

Phase 1 and 2

	M-2 District Code Required	Proposed
Lot Size	N/A	671,453 SF (15.41 AC)
Lot Width	N/A	441.74'
Setbacks		
North (front)	15'	54.88'
South (rear)	15'	84.18'
East (side)	10' or 10% of lot width (whichever is less)	60'
West (side)	10' or 10% of lot width (whichever is less)	56.94'
South (rear-parking areas)	15'	15.45'
F.A.R.	2.50 maximum	.49
Building Lot Coverage	No zoning requirement, refer to building code for additional requirements	49.30%
Impervious Surface Coverage	No zoning requirement, refer to building code for additional requirements	88.55%
Building Height	No zoning requirement, refer to building code for additional requirements	39'-0"
Off-street Parking Spaces	169	308

This conceptual design is based upon a preliminary review of entitlement requirements and on unverified and possibly incomplete site and/or building information, and is intended merely to assist in exploring how the project might be developed.

0 30 60 150 300

NORTH

SCHEME 12

Conceptual Site Plan

W ALGONQUIN ROAD
ARLINGTON HEIGHTS, IL

HAMILTON PARTNERS

This conceptual design is based upon a preliminary review of entitlement requirements and on unverified and possibly incomplete site and/or building information, and is intended merely to assist in exploring how the project might be developed.

WARE MALCOMB

CHI16-0313-00
01.09.2018

SHEET
1

KEY NOTES

1. PRECAST CONCRETE PANELS WITH REVEALS AND PAINT, TYP.
2. CONCRETE PRECAST WITH FORMLINER REVEALS
3. STOREFRONT WITH HIGH PERFORMANCE GLAZING SYSTEM
4. TRUGRAIN COMPOSITE WOOD SIDING
5. POTENTIAL LOCATION FOR TENANT BRANDING
6. CLERESTORY WINDOW FOR WAREHOUSE

This conceptual design is based upon a preliminary review of entitlement requirements and on unverified and possibly incomplete site and/or building information, and is intended merely to assist in exploring how the project might be developed.

HAMILTON PARTNERS

SCHEME 06

Northwest Perspective

W ALGONQUIN ROAD
ARLINGTON HEIGHTS, IL

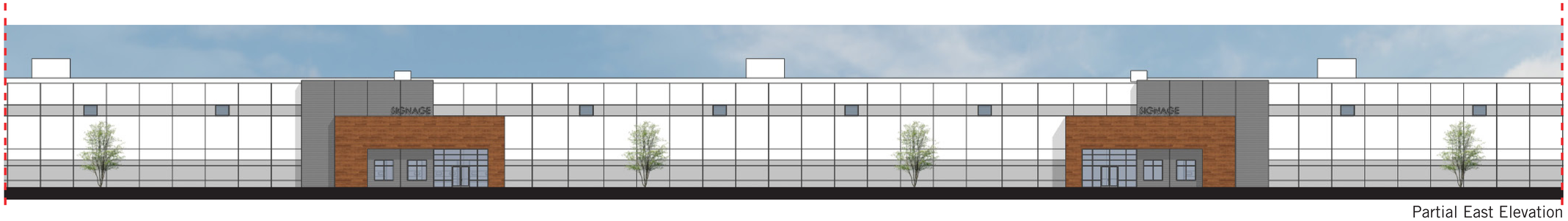
WARE MALCOMB

CHI16-0313-00
01.09.2018

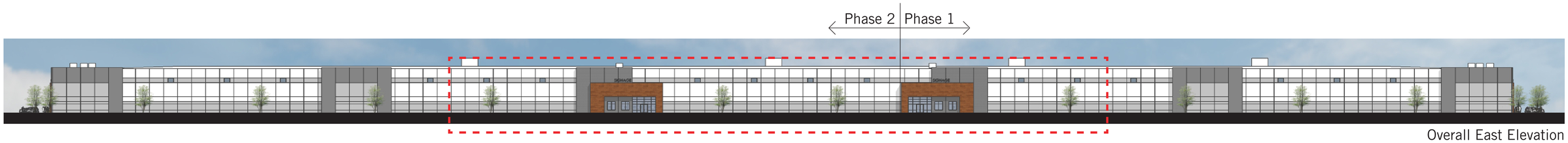
SHEET
2

North Elevation

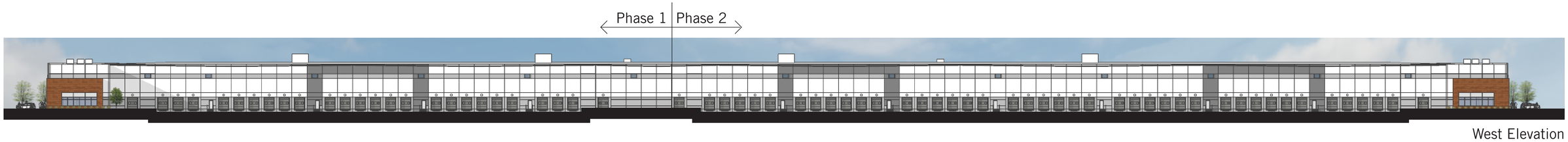
South Elevation



Partial East Elevation



Overall East Elevation



West Elevation

This conceptual design is based upon a preliminary review of entitlement requirements and on unverified and possibly incomplete site and/or building information, and is intended merely to assist in exploring how the project might be developed.

HAMILTON PARTNERS

SCHEME 06

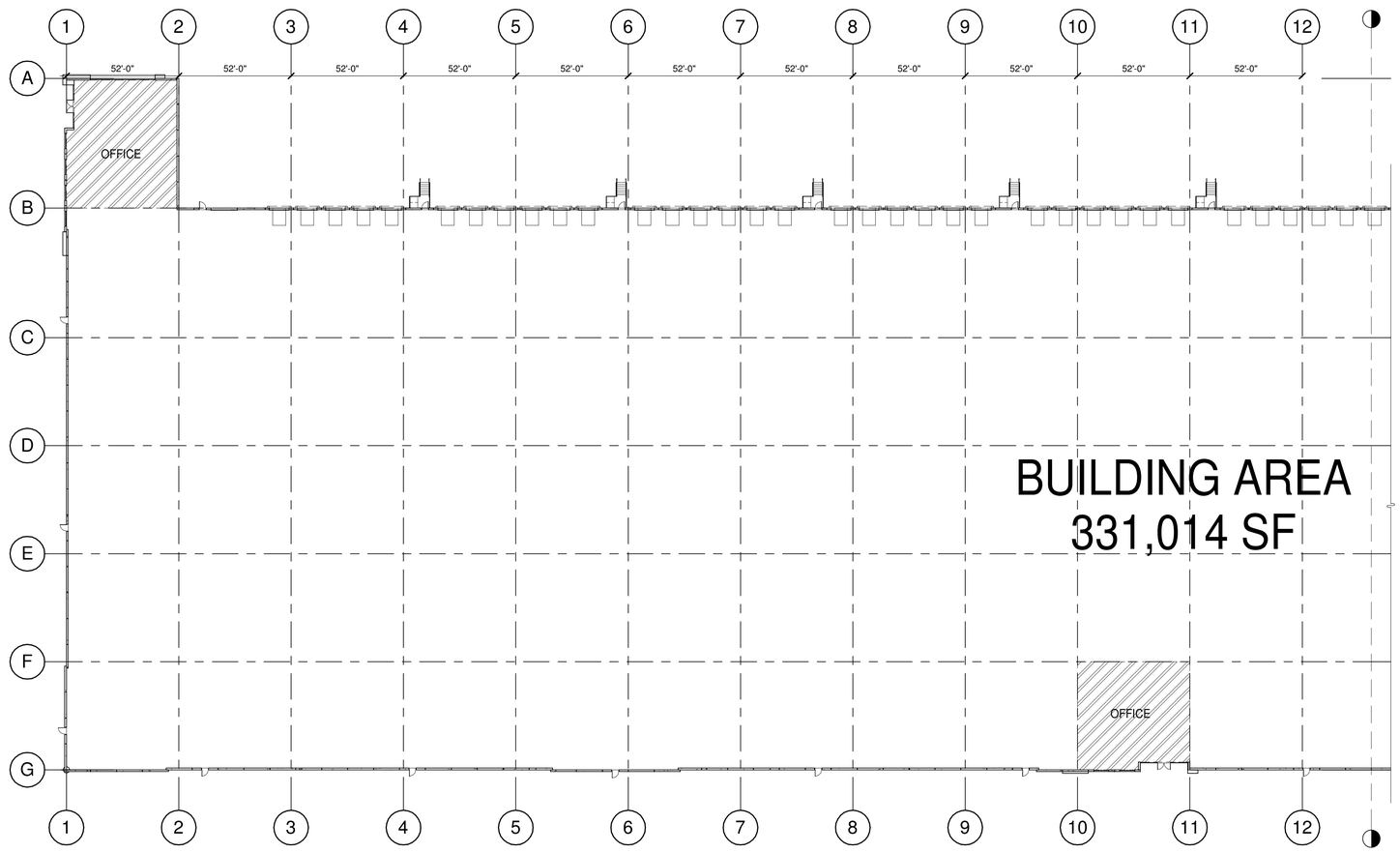
Conceptual Exterior Elevations

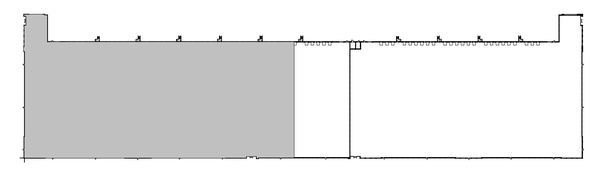
W ALGONQUIN ROAD
ARLINGTON HEIGHTS, IL

WARE MALCOMB

CHI16-0313-00
01.09.2018

SHEET
3





1/32"=1'-0"
0 8' 16' 32' 64'

NORTH

HAMILTON PARTNERS

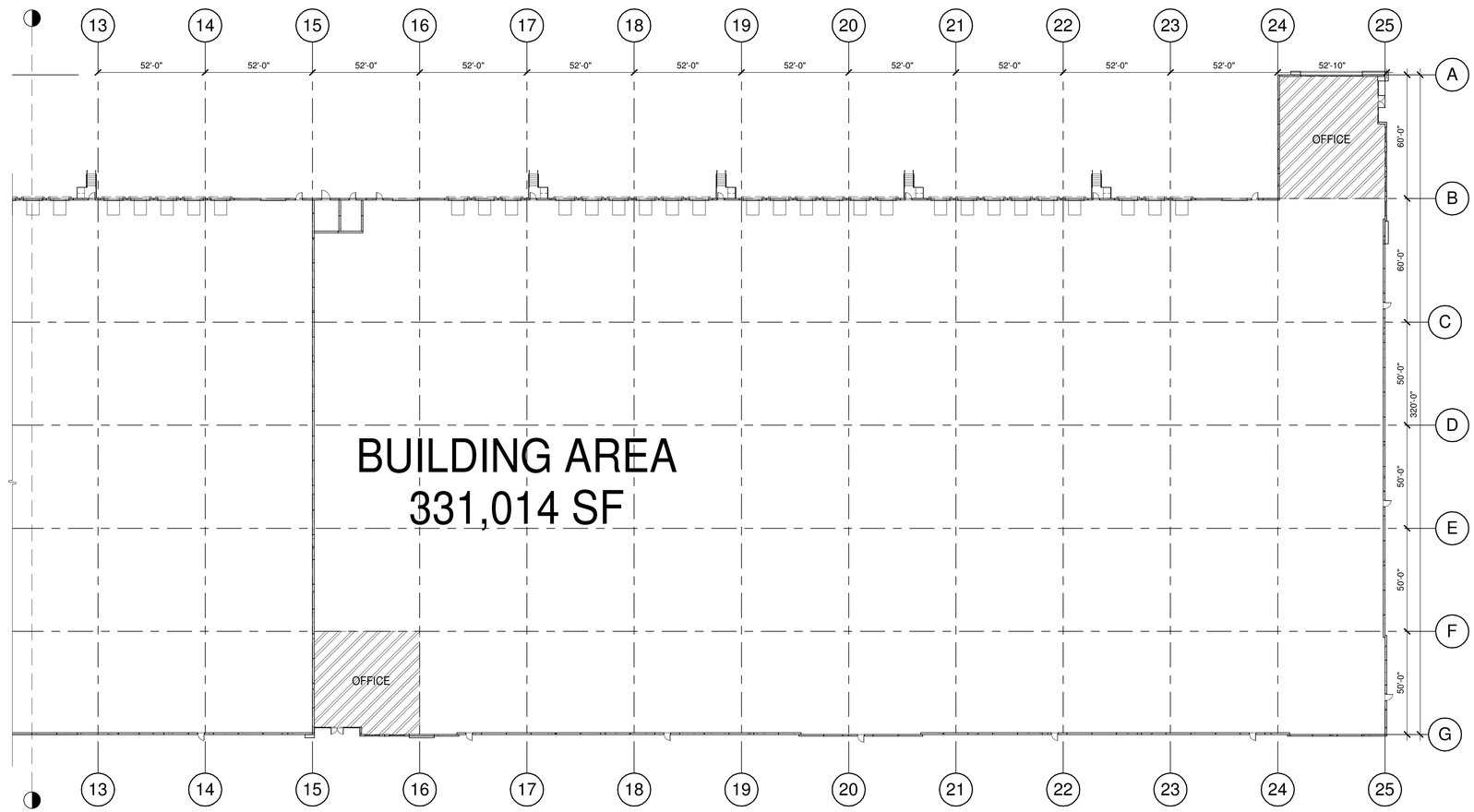
PROPOSED PARTIAL FLOOR PLAN

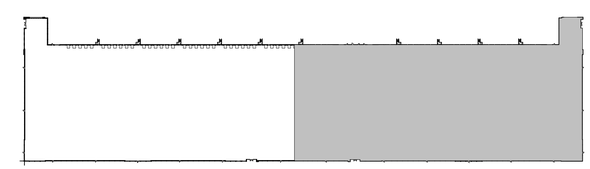
W ALGONQUIN ROAD
703-723 W. ALGONQUIN RD.
ARLINGTON HEIGHTS, IL

WARE MALCOMB

CHI16-0313-00
12/06/17

SHEET
1a





1/32"=1'-0"
0 8' 16' 32' 64'

NORTH

HAMILTON PARTNERS

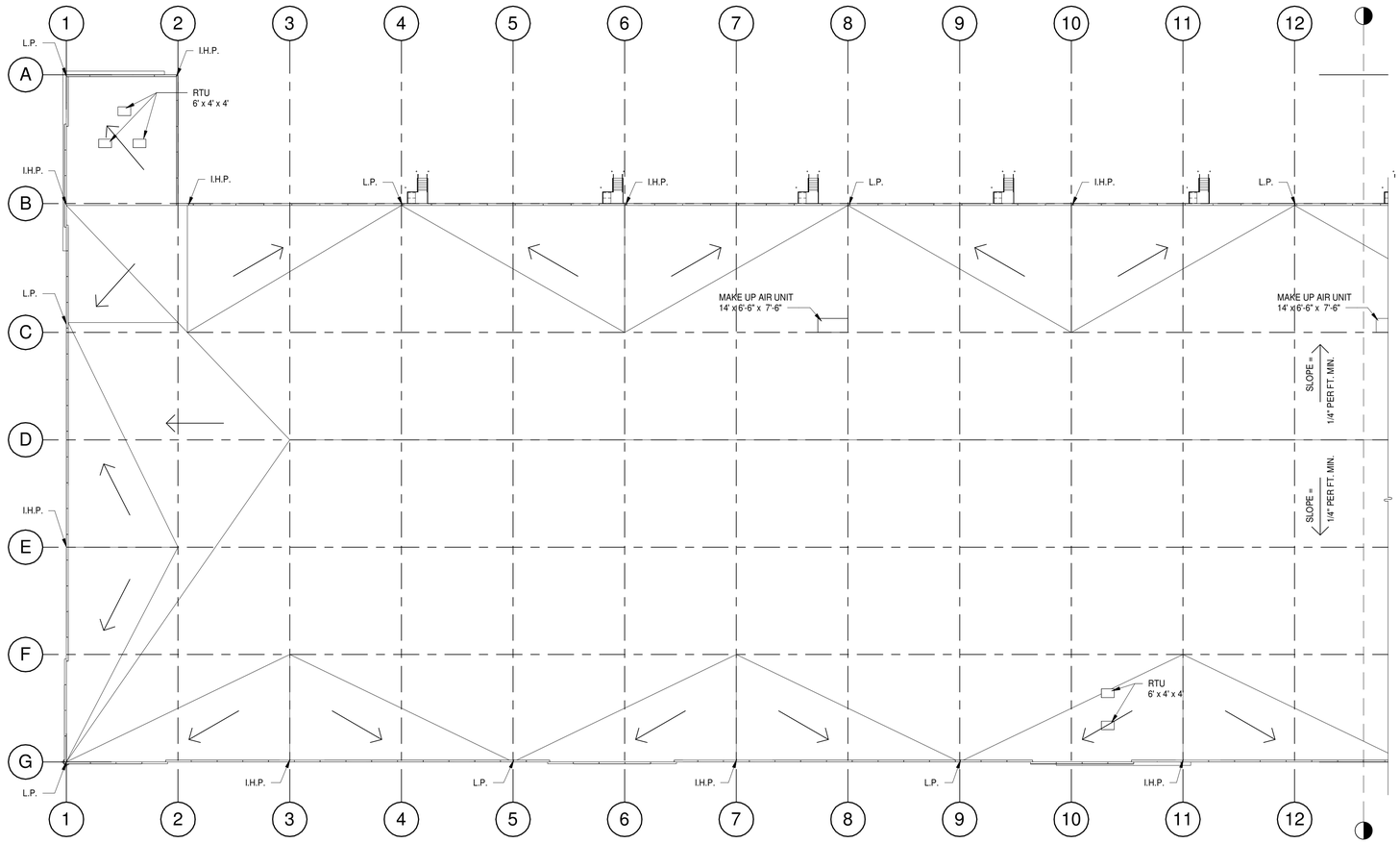
PROPOSED PARTIAL FLOOR PLAN

W ALGONQUIN ROAD
703-723 W. ALGONQUIN RD.
ARLINGTON HEIGHTS, IL

WARE MALCOMB

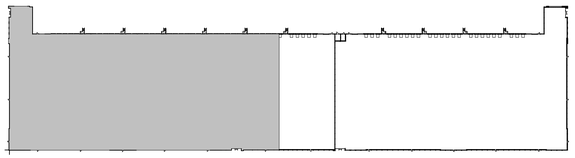
CHI16-0313-00
12/06/17

SHEET
1b



ROOF ELEVATION KEY

RIDGE/HIGH POINT:	39'-10"
INTERMEDIATE HIGH POINT:	37'-8"
LOW POINT:	36'-8"



1/32"=1'-0"
0 8' 16' 32' 64'

NORTH

HAMILTON PARTNERS

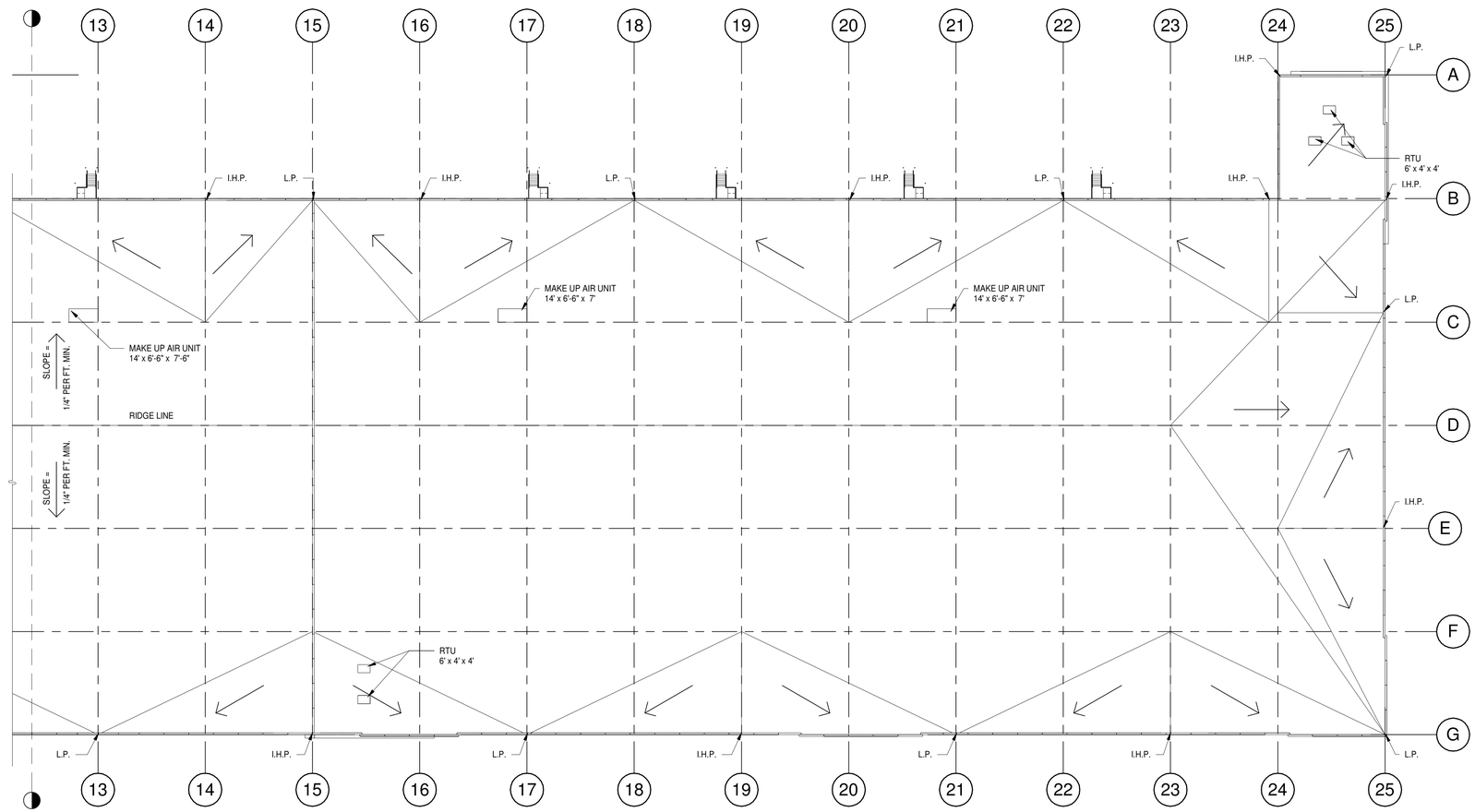
PROPOSED PARTIAL ROOF PLAN

W ALGONQUIN ROAD
703-723 W. ALGONQUIN RD.
ARLINGTON HEIGHTS, IL

WARE MALCOMB

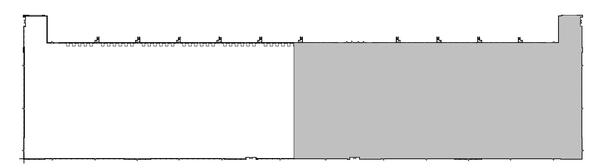
CHI16-0313-00
12/06/17

SHEET
2a



ROOF ELEVATION KEY

RIDGE/HIGH POINT:	39'-10"
INTERMEDIATE HIGH POINT:	37'-8"
LOW POINT:	36'-8"



1/32"=1'-0"
0 8' 16' 32' 64'

NORTH

HAMILTON PARTNERS

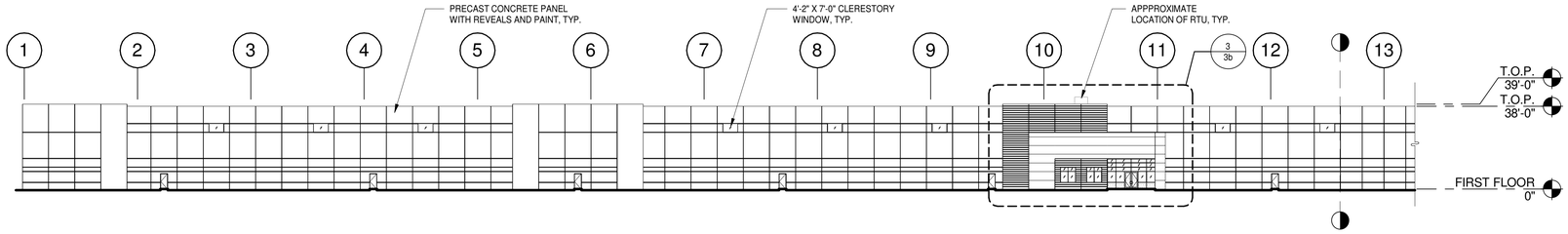
PROPOSED PARTIAL ROOF PLAN

W ALGONQUIN ROAD
703-723 W. ALGONQUIN RD.
ARLINGTON HEIGHTS, IL

WARE MALCOMB

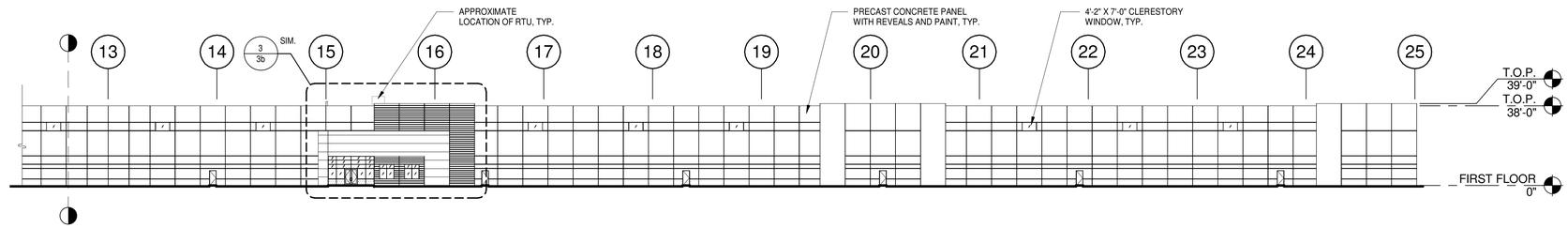
CHI16-0313-00
12/06/17

SHEET
2b



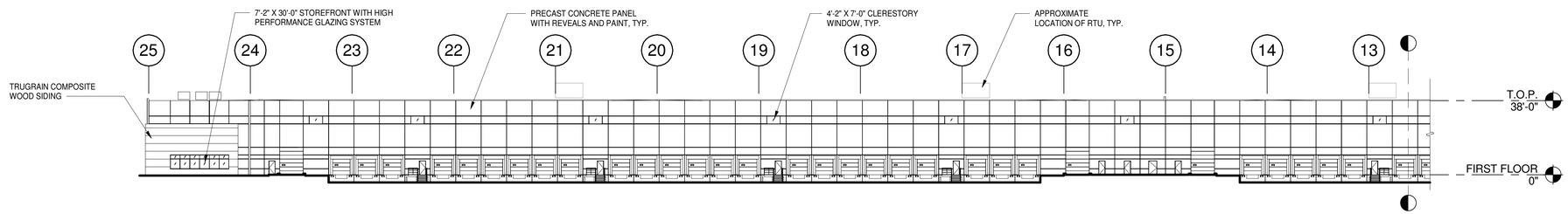
PARTIAL EAST EXTERIOR ELEVATION (1)

SCALE: 1/32" = 1'-0"



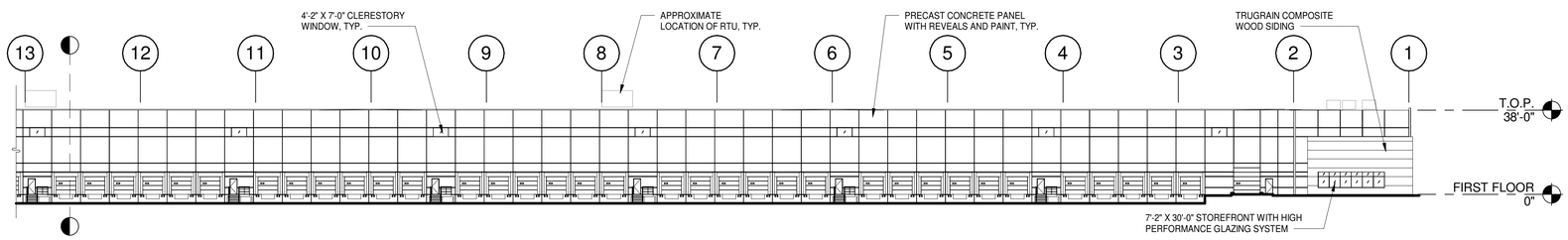
PARTIAL EAST EXTERIOR ELEVATION (2)

SCALE: 1/32" = 1'-0"



PARTIAL WEST EXTERIOR ELEVATION (3)

SCALE: 1/32" = 1'-0"



PARTIAL WEST EXTERIOR ELEVATION (4)

SCALE: 1/32" = 1'-0"

1/32"=1'-0"

0 8' 16' 32' 64'

HAMILTON PARTNERS

PROPOSED EXTERIOR ELEVATIONS

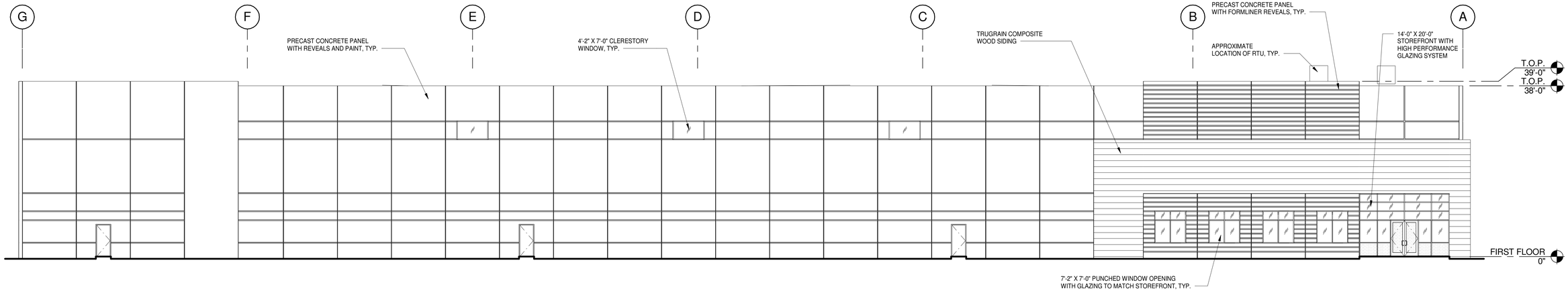
W ALGONQUIN ROAD

703-723 W. ALGONQUIN RD.
ARLINGTON HEIGHTS, IL

WARE MALCOMB

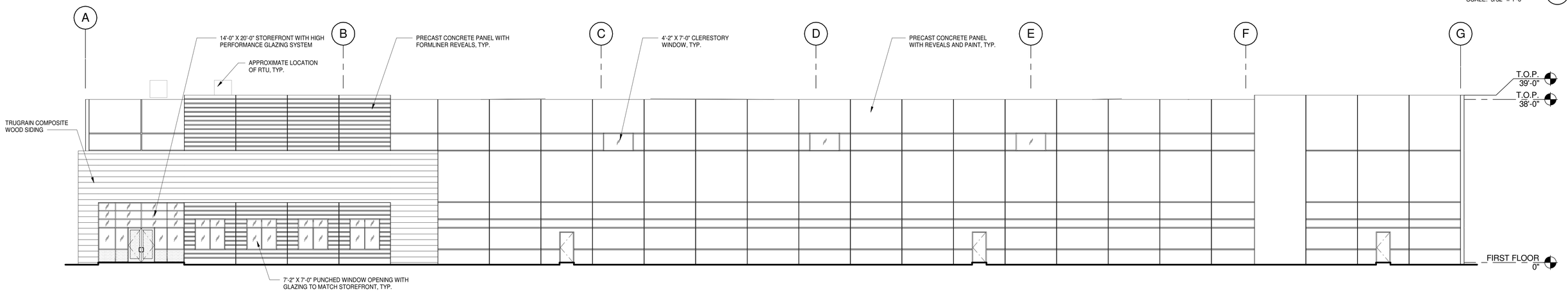
CHI16-0313-00
12/06/17

SHEET
3a



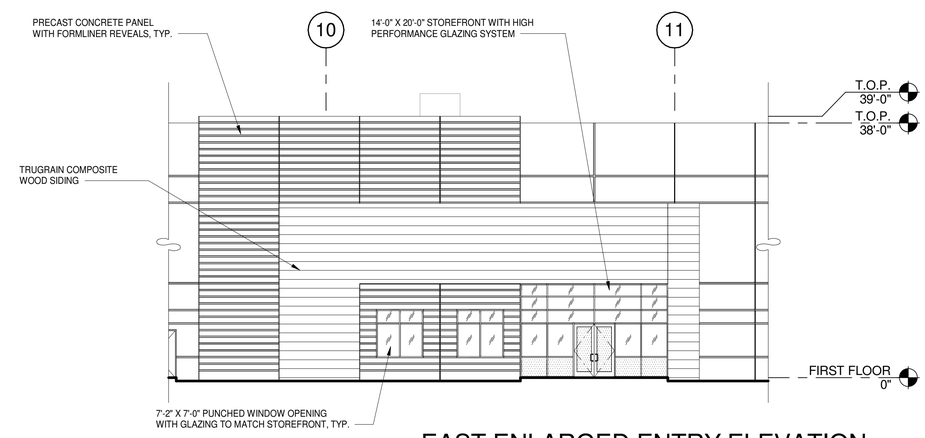
NORTH EXTERIOR ELEVATION (1)

SCALE: 3/32" = 1'-0"



SOUTH EXTERIOR ELEVATION (2)

SCALE: 3/32" = 1'-0"



EAST ENLARGED ENTRY ELEVATION (3)

SCALE: 3/32" = 1'-0"

3/32"=1'-0"
0 4' 8' 16' 20'

HAMILTON PARTNERS

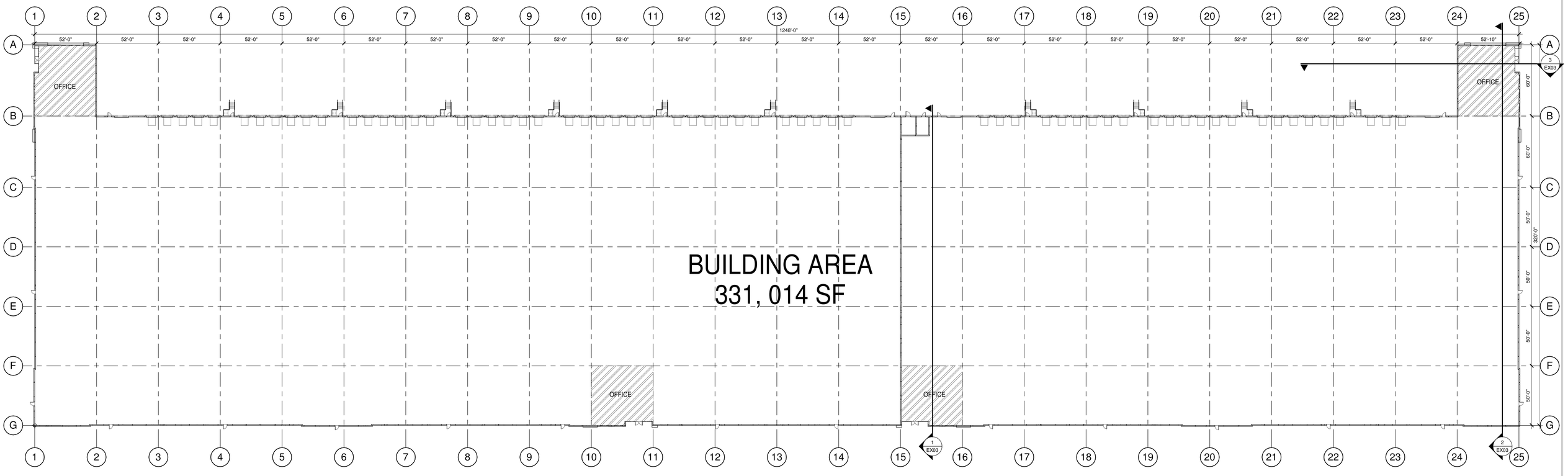
PROPOSED EXTERIOR ELEVATIONS

W ALGONQUIN ROAD
703-723 W. ALGONQUIN RD.
ARLINGTON HEIGHTS, IL

WARE MALCOMB

CHI16-0313-00
12/06/17

SHEET
3b



HAMILTON PARTNERS

1/32" = 1'-0"
0 8' 16' 32' 64'

NORTH

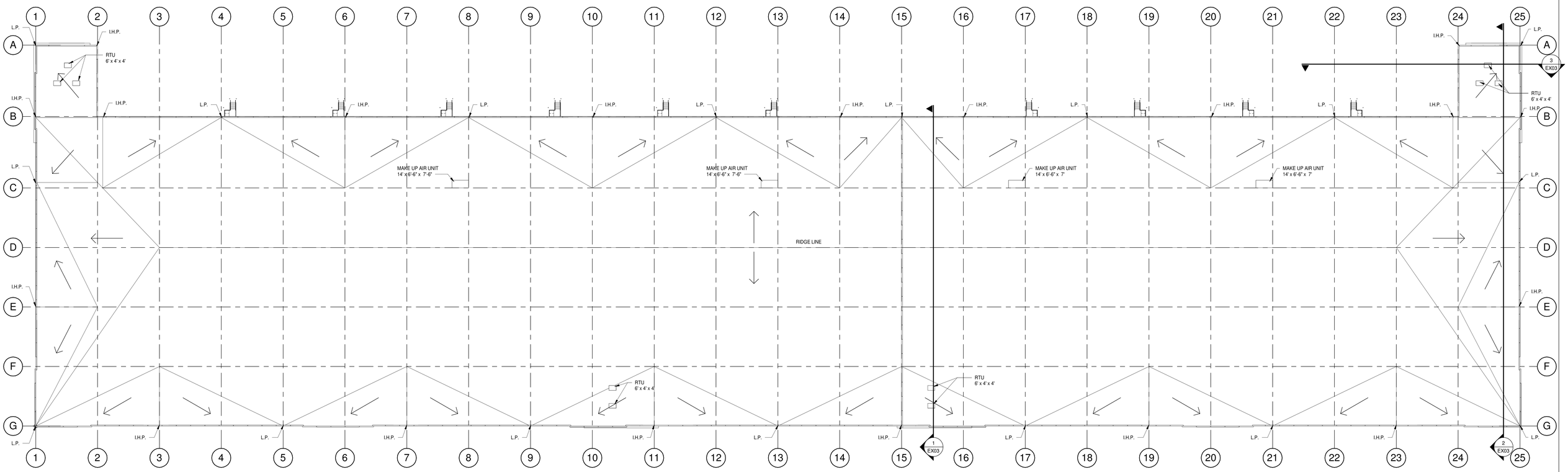
FLOOR PLAN

W ALGONQUIN ROAD
703-723 W. ALGONQUIN RD.
ARLINGTON HEIGHTS, IL

WARE MALCOMB

CHI16-0313-00
12/06/17

SHEET
EX01



1/32" = 1'-0"

0 8' 16' 32' 64'

NORTH

HAMILTON PARTNERS

ROOF PLAN

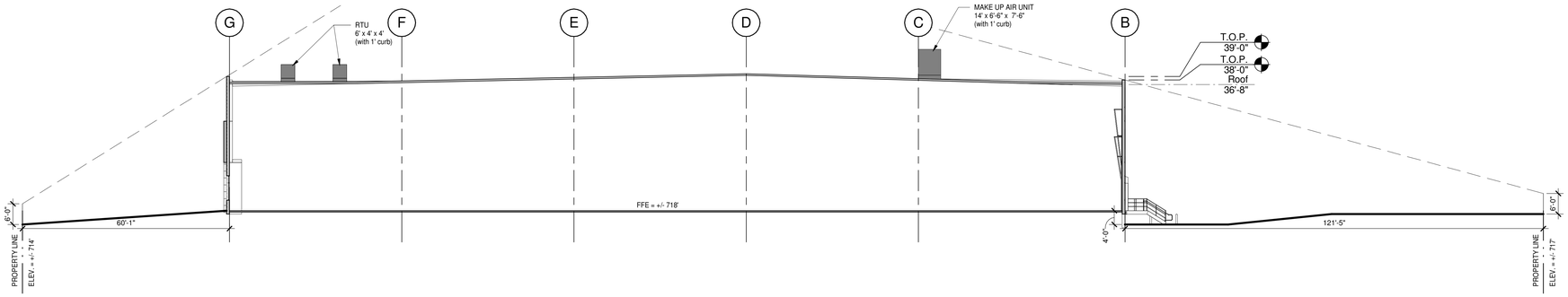
W ALGONQUIN ROAD

703-723 W. ALGONQUIN RD.
ARLINGTON HEIGHTS, IL

WARE MALCOMB

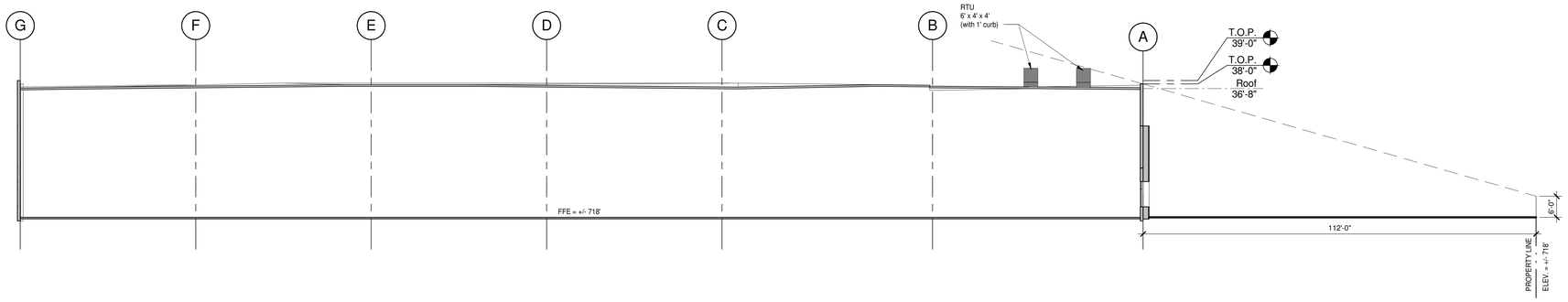
CHI16-0313-00
12/06/17

SHEET
EX02



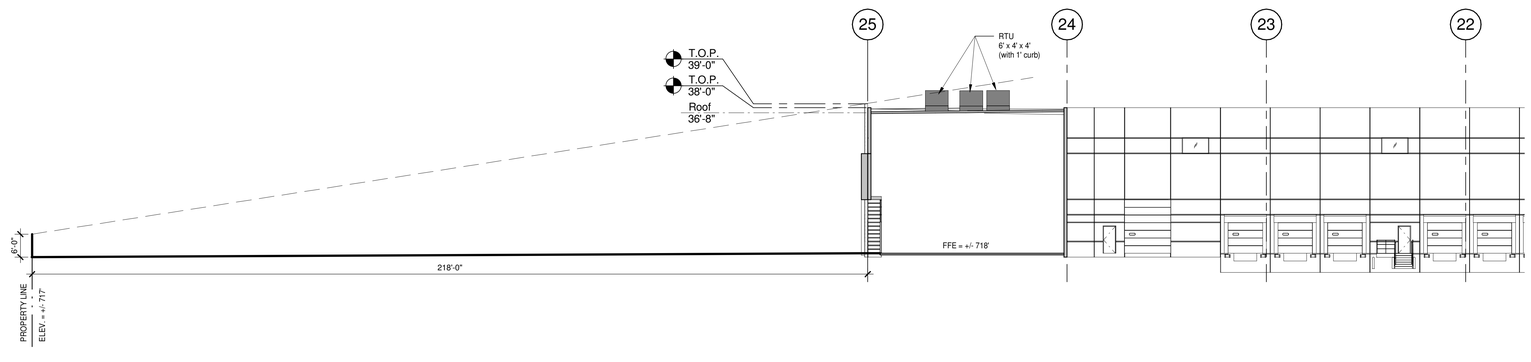
SECTION 1 (1)

SCALE: 1/16" = 1'-0"



SECTION 2 (2)

SCALE: 1/16" = 1'-0"



SECTION 3 (3)

SCALE: 1/16" = 1'-0"

1/16"=1'-0"
0 8' 16' 32'

HAMILTON PARTNERS

SIGHT LINE SECTIONS

W ALGONQUIN ROAD
703-723 W. ALGONQUIN RD.
ARLINGTON HEIGHTS, IL

WARE MALCOMB

CHI16-0313-00
12/06/17

SHEET
EX03

C Glazing

B Composite Wood Siding

A1 Paint for Precast Panel - White

A2 Paint for Precast Panel - Medium Grey

A3 Paint for Precast Panel - Dark Grey

D Aluminum Storefront Framing

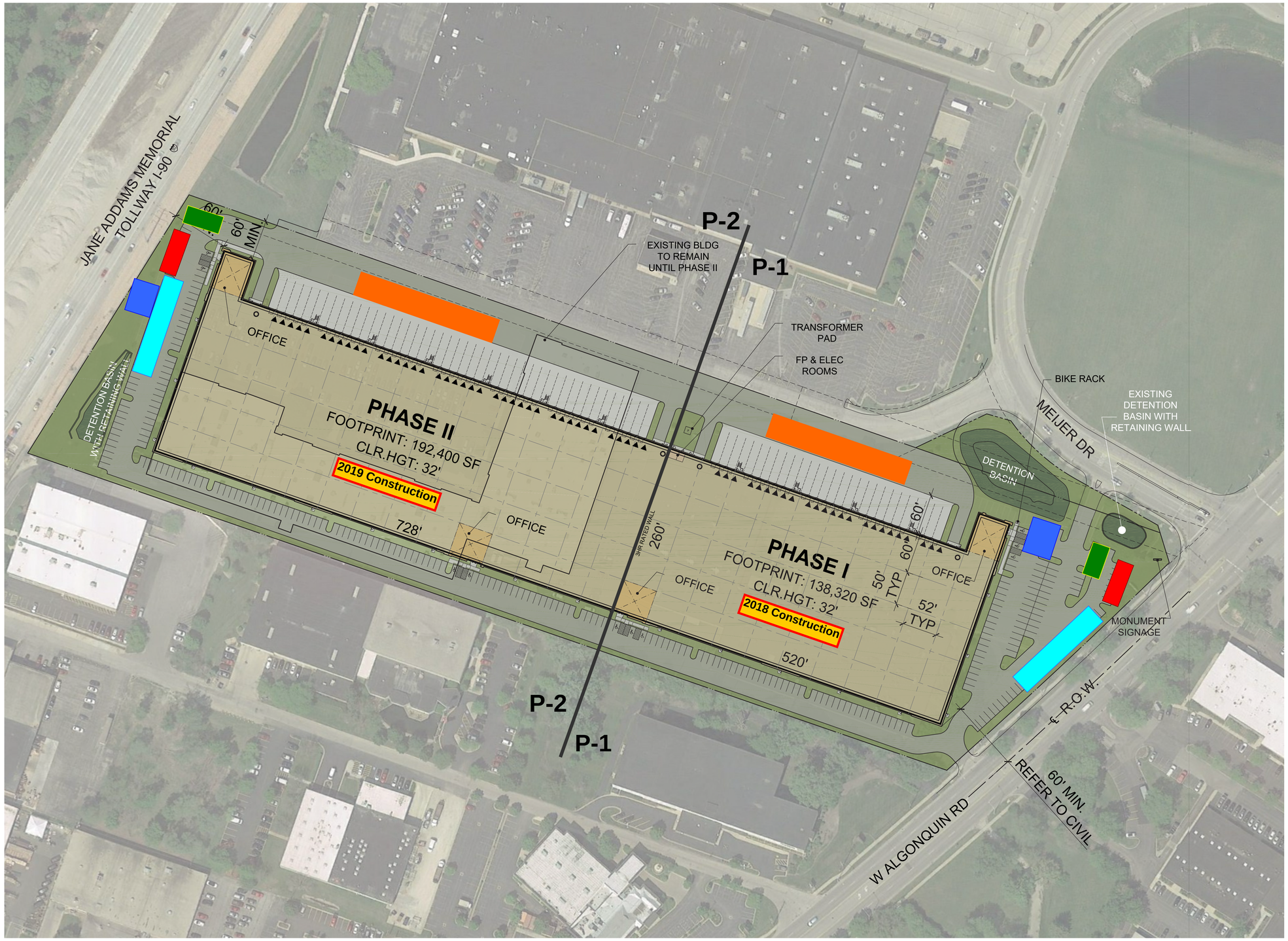
HAMILTON PARTNERS

Exterior Material Board

W ALGONQUIN ROAD
ARLINGTON HEIGHTS, IL

WARE MALCOMB

CHI16-0313-00
12.06.2017



PROJECT DATA:		
BUILDING FOOTPRINT:		330,720 SF
BUILDING USE:		
WAREHOUSE		319,800 SF
OFFICE	@ 3%	10,920 SF
PARKING PROVIDED:		
AUTO:		305 STALLS @0.92/1000 SF
TRAILER:		0 STALLS
TRUCK DOCKS:		
▲ DOCK-HIGH DOORS		64
O GRADE-LEVEL DOORS		4
FAR:		.49

Dumpster Area

Material Storage

Construction Trailer

Construction Worker's Parking + / - 30

Construction Vehicle Staging + / - 10

- **Crane – Precast**
- **Trucking – Precast**
- **Concrete Trucks**
- **Dump Trucks**
- **Excavation Equipment**
- **Material Trucks**
- **Lifts**
- **Lulls**
- **Light Duty Trucks**
- **Trenchers**

This conceptual design is based upon a preliminary review of entitlement requirements and on unverified and possibly incomplete site and/or building information, and is intended merely to assist in exploring how the project might be developed.

0 30 60 150 300

NORTH

This conceptual design is based upon a preliminary review of entitlement requirements and on unverified and possibly incomplete site and/or building information, and is intended merely to assist in exploring how the project might be developed.

HAMILTON PARTNERS

SCHEME 12

Conceptual Site Plan

W ALGONQUIN ROAD
ARLINGTON HEIGHTS, IL

WARE MALCOMB

CHI16-0313-00
12.06.2017

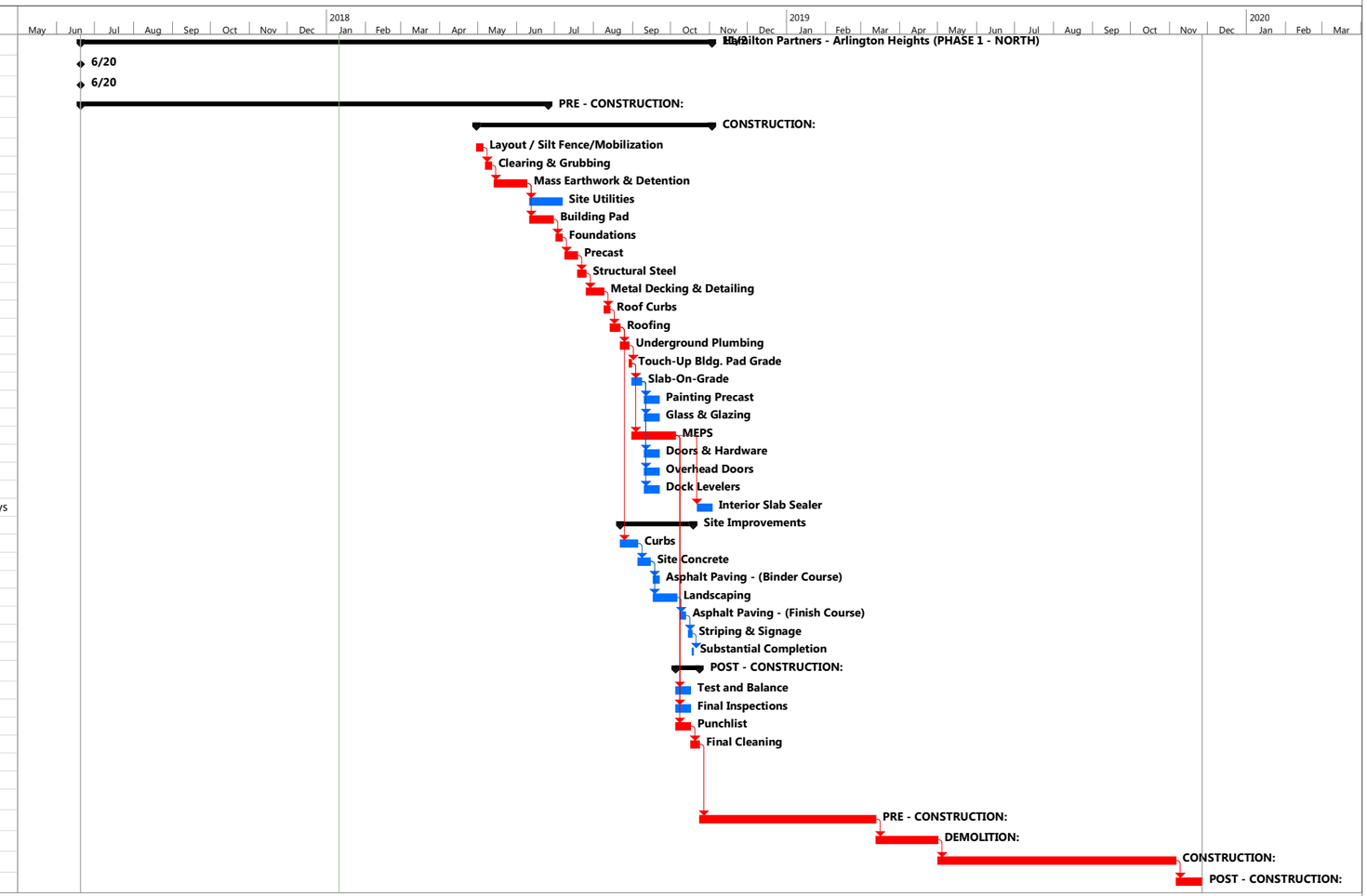
SHEET
1

HAMILTON PARTNERS

Hamilton Partners - Arlingtion Heights Development
North Half - (Phase 1)
703-723 W. Algonquin Road
Arlington Heights, Illinois 60005

MHC MORGAN / HARBOUR CONSTRUCTION

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors
1		**Hamilton Partners - Arlington Heights (PHASE 1 - NORTH)**	**359 days**	**Tue 6/20/17**	**Fri 11/2/18**	
2		**HP Land Closing**	**0 days**	**Tue 6/20/17**	**Tue 6/20/17**	
3		**Owner Release to MHC**	**0 days**	**Tue 6/20/17**	**Tue 6/20/17**	
4		**PRE - CONSTRUCTION:**	**265 days**	**Tue 6/20/17**	**Mon 6/25/18**	
28		**CONSTRUCTION:**	**135 days**	**Mon 4/30/18**	**Fri 11/2/18**	
29		Layout / Silt Fence/Mobilization	5 days	Mon 4/30/18	Fri 5/4/18	22,27
30		Clearing & Grubbing	5 days	Mon 5/7/18	Fri 5/11/18	29
31		Mass Earthwork & Detention	20 days	Mon 5/14/18	Fri 6/8/18	30
32		Site Utilities	20 days	Mon 6/11/18	Fri 7/6/18	31
33		Building Pad	15 days	Mon 6/11/18	Fri 6/29/18	31
34		Foundations	5 days	Mon 7/2/18	Fri 7/6/18	33
35		Precast	8 days	Mon 7/9/18	Wed 7/18/18	34
36		Structural Steel	5 days	Thu 7/19/18	Wed 7/25/18	35
37		Metal Decking & Detailing	10 days	Thu 7/26/18	Wed 8/8/18	36
38		Roof Curbs	3 days	Thu 8/9/18	Mon 8/13/18	37
39		Roofing	6 days	Tue 8/14/18	Tue 8/21/18	38
40		Underground Plumbing	5 days	Wed 8/22/18	Tue 8/28/18	39
41		Touch-Up Bldg. Pad Grade	2 days	Wed 8/29/18	Thu 8/30/18	40
42		Slab-On-Grade	6 days	Fri 8/31/18	Fri 9/7/18	41
43		Painting Precast	10 days	Mon 9/10/18	Fri 9/21/18	42
44		Glass & Glazing	10 days	Mon 9/10/18	Fri 9/21/18	42
45		MEPS	25 days	Fri 8/31/18	Thu 10/4/18	41
46		Doors & Hardware	10 days	Mon 9/10/18	Fri 9/21/18	42
47		Overhead Doors	10 days	Mon 9/10/18	Fri 9/21/18	42
48		Dock Levelers	10 days	Mon 9/10/18	Fri 9/21/18	42
49		Interior Slab Sealer	10 days	Mon 10/22/18	Fri 11/2/18	45FS+11 days
50		**Site Improvements**	**42 days**	**Wed 8/22/18**	**Thu 10/18/18**	
51		Curbs	10 days	Wed 8/22/18	Tue 9/4/18	39
52		Site Concrete	8 days	Wed 9/5/18	Fri 9/14/18	51
53		Asphalt Paving - (Binder Course)	5 days	Mon 9/17/18	Fri 9/21/18	52
54		Landscaping	15 days	Mon 9/17/18	Fri 10/5/18	52
55		Asphalt Paving - (Finish Course)	5 days	Mon 10/8/18	Fri 10/12/18	54
56		Striping & Signage	3 days	Mon 10/15/18	Wed 10/17/18	55
57		**Substantial Completion**	1 day	Thu 10/18/18	Thu 10/18/18	56
58		**POST - CONSTRUCTION:**	**13 days**	**Fri 10/5/18**	**Tue 10/23/18**	
59		Test and Balance	8 days	Fri 10/5/18	Tue 10/16/18	45
60		Final Inspections	8 days	Fri 10/5/18	Tue 10/16/18	45
61		Punchlist	8 days	Fri 10/5/18	Tue 10/16/18	45
62		Final Cleaning	5 days	Wed 10/17/18	Tue 10/23/18	61
63						
64						
65		**Hamilton Partners - Arlington Heights (PHASE 2 - SOUTH)**				
66		**PRE - CONSTRUCTION:**	100 days	Wed 10/24/18	Tue 3/12/19	62
67		**DEMOLITION:**	35 days	Wed 3/13/19	Tue 4/30/19	66
68		**CONSTRUCTION:**	135 days	Wed 5/1/19	Tue 11/5/19	67
69		**POST - CONSTRUCTION:**	15 days	Wed 11/6/19	Tue 11/26/19	68



12.14.17 - 703-723 W. Algonquin Rd - SCHEDULE - PLAN COMM
Date Printed: Thu 1/11/18

Task | Split | Milestone | Summary | Project Summary | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | External Tasks | External Milestone | Deadline | Critical | Critical Split | Progress | Manual Progress

JS/MHC

RWG ENGINEERING, LLC
CIVIL ENGINEERING – REAL ESTATE CONSULTING – PROJECT MANAGEMENT
ILLINOIS PROFESSIONAL DESIGN FIRM #184–006370

LIMITATION OF WARRANTY OF ENGINEER'S INSTRUMENTS OF SERVICE

THE ENGINEER AND HIS CONSULTANTS DO NOT WARRANT OR GUARANTEE THE ACCURACY AND COMPLETENESS OF THE DELIVERABLES HEREIN BEYOND A REASONABLE DILIGENCE. IF ANY MISTAKES, OMISSIONS, OR DISCREPANCIES ARE FOUND TO EXIST WITHIN THE DELIVERABLES, THE ENGINEER SHALL BE PROMPTLY NOTIFIED SO THAT HE MAY HAVE THE OPPORTUNITY TO TAKE WHATEVER STEPS NECESSARY TO RESOLVE THEM. FAILURE TO PROMPTLY NOTIFY THE ENGINEER OF SUCH CONDITIONS SHALL ABSOLVE THE ENGINEER FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES OF SUCH FAILURE. ACTIONS TAKEN WITHOUT THE KNOWLEDGE AND CONSENT TO THE ENGINEER, OR IN CONTRADICTION TO THE ENGINEER'S DELIVERABLES OR RECOMMENDATIONS, SHALL BECOME THE RESPONSIBILITY NOT OF THE ENGINEER BUT OF THE PARTIES RESPONSIBLE FOR TAKING SUCH ACTION.

FINAL ENGINEERING PLANS

FOR

ARLINGTON HEIGHTS INDUSTRIAL
703-723 W. ALGONQUIN ROAD

ARLINGTON HEIGHTS, IL

PLANS PREPARED FOR

MORGAN HARBOUR CONSTRUCTION LLC
7510 SOUTH MADISON STREET
WILLOWBROOK, ILLINOIS 60527
(630)734-7737

LEGEND

	EXISTING	PROPOSED
SANITARY MANHOLE		
STORM MANHOLE		
CATCH BASIN		
INLET		
PRECAST FLARED END SECTION		
CONCRETE HEADWALL		
VALVE VAULT		
VALVE BOX		
FIRE HYDRANT		
BUFFALO BOX		
CLEANOUT		
SANITARY SEWER		
FORCE MAIN		
STORM SEWER		
WATER MAIN		
CONSTRUCT WATER MAIN UNDER SEWER		
GRANULAR TRENCH BACKFILL		
STREET LIGHT		
ELECTRICAL CABLE	E	E
2" CONDUIT ENCASEMENT		
ELECTRICAL TRANSFORMER OR PEDESTAL	E	
POWER POLE		
STREET SIGN		
GAS MAIN	G	G
TELEPHONE LINE	T	T
CONTOUR	749	749
SPOT ELEVATION	×(750.00)	×750.00
WETLANDS		
FLOODWAY		
FLOODPLAIN		
HIGH WATER LEVEL (HWL)		
NORMAL WATER LEVEL (NWL)		
DIRECTION OF SURFACE FLOW		
DITCH OR SWALE		
OVERFLOW RELIEF ROUTING		
SLOPE BANK		
TREE WITH TRUNK SIZE	6" 6"	
SOIL BORING	B-5	B-1
TOPSOIL PROBE	P-0	P-1
FENCE LINE, WIRE OR SILT		
FENCE LINE, CHAIN LINK OR IRON		
FENCE LINE, WOOD OR PLASTIC		
CONCRETE SIDEWALK		
CURB AND GUTTER		
DEPRESSED CURB		
REVERSE PITCH CURB & GUTTER		
EASEMENT LINE		

ABBREVIATIONS

BL	BASE LINE	NWL	NORMAL WATER LEVEL
C	LONG CHORD OF CURVE	PC	POINT OF CURVATURE
C & G	CURB AND GUTTER	PT	POINT OF TANGENCY
CB	CATCH BASIN	PVI	POINT OF VERTICAL INTERSECTION
CL	CENTERLINE	R	RADIUS
D	DEGREE OF CURVE	ROW	RIGHT–OF–WAY
EP	EDGE OF PAVEMENT	SAN	SANITARY SEWER
FF	FINISHED FLOOR	ST	STORM SEWER
FG	FINISHED GRADE	T	TANGENCY OF CURVE
FL	FLOW LINE	TB	TOP OF BANK
FP	FLOODPLAIN	TC	TOP OF CURB
FR	FRAME	TF	TOP OF FOUNDATION
FW	FLOODWAY	TP	TOP OF PIPE
HWL	HIGH WATER LEVEL	TS	TOP OF SIDEWALK
INV	INVERT	TW	TOP OF WALK
L	LENGTH OF CURVE	WM	WATER MAIN
MH	MANHOLE	Δ	INTERSECTION ANGLE

811 Know what's below. Call before you dig.

Formerly JULIE 1–800–892–0123

NOTE:
COORDINATES AT PROPERTY CORNERS SHOWN HEREON ARE REFERENCED TO ILLINOIS STATE PLANE SYSTEM COORDINATES, EAST ZONE, AS NOTED BELOW.

NORTHWEST CORNER AT ALGONQUIN RD.:
N 1960854.81, E 1077063.33

NORTHWEST CORNER AT MEIJER DR.:
N 1960840.82, E 1077018.74

SOUTHWEST CORNER:
N 1959385.52, E 1076522.46

SOUTHEAST CORNER:
N 1959146.50, E 1076910.11

NORTHEAST CORNER:
N 1960524.02, E 1077375.80

CONTACTS

VILLAGE OF ARLINGTON HEIGHTS
Community Development: 847–368–5200
33 S. Arlington Heights Road
Arlington Heights

Public Works Department: 847–368–5800
222 N. Ridge Ave.
Arlington Heights

J.U.L.I.E.
Underground Utility Locations
1–800–892–0123
811

LOCATION MAP

GENERAL NOTES

1. The contractor shall notify the following governmental agencies at least two working days prior to commencement of construction:
   - Village of Arlington Heights Public Works Department (847–368–5800)
   - MWRD local sewer systems Field Office (708–588–4055)
2. The contractor shall notify all utility companies and arrange for their facilities to be located prior to work in any easement, right–of–way, or suspected utility location. Repair of any damage to existing facilities shall be the responsibility of the contractor. Utility locations shown herein are for graphic illustration only and are not to be relied upon.
3. Elevations shown herein reflect NAVD 1988 datum.
4. The boundary and topographic survey data for this project is based on a field survey prepared by Gentile and Associates, dated August 9, 2017. The contractor shall verify existing conditions prior to commencing construction and shall immediately notify the engineer in writing of any differing conditions.
5. RWG Engineering, LLC, it's employees and agents are not responsible for the safety of any party at or on the construction site. Safety is the sole responsibility of the contractor, and any other entity performing work at the site. Neither the owner nor the engineer assumes any responsibility for job site safety or for the means, methods or sequences of construction.
6. Prior to commencement of any offsite construction, the contractor shall secure written authorization that all offsite easements have been secured, and that permission has been granted to enter onto private property.
7. Except where modified by the contract documents, all work proposed hereon shall be in accordance with the following specifications, which are hereby made a part hereof:
   A. "Standard Specifications for Road and Bridge Construction in Illinois," as prepared by I.D.O.T. latest edition.
   B. "Standard Specifications for Water and Sewer Main Construction in Illinois," latest edition.
   C. "Illinois Recommended Standards for Sewage Works," as published by the I.E.P.A., latest edition.
   D. The subdivision and development codes and standards of the Village of Arlington Heights, as published by the Municipality.
   E. "Illinois Accessibility Code" as published by the State of Illinois Capital Development Board, effective April 24, 1997.
   F. The National Electric Code.
   G. "Illinois Urban Manual" as prepared by the U.S. Dept. of Agriculture latest edition.
   H. Standards and specifications of the Metropolitan Water Reclamation District (MWRD) – Local sewer systems section.
8. The Village of Arlington Heights "A Manual of Practice for the Design of Public & Private Improvements" and Development Ordinance and the MWRD requirements shall take precedence if a conflict in project specifications occurs.

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2. EXISTING CONDITIONS PLAN – PHASE 1
3. EXISTING CONDITIONS PLAN – PHASE 2
4. DEMOLITION PLAN – PHASE 1
5. DEMOLITION PLAN – PHASE 2
6. MASTER DEVELOPMENT PLAN – PHASE 1 & 2
7. SITE GEOMETRIC AND PAVING PLAN – PHASE 1
8. SITE GEOMETRIC AND PAVING PLAN – PHASE 2
9. SOIL EROSION & SEDIMENT CONTROL (SESC) PLAN – PHASE 1
10. SOIL EROSION & SEDIMENT CONTROL (SESC) PLAN – PHASE 2
11. SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS
12. GRADING PLAN – PHASE 1
13. GRADING PLAN – PHASE 2
14. GRADING DETAILS – PHASE 1 & 2
15. UTILITY PLAN – PHASE 1
16. UTILITY PLAN – PHASE 2
17. PLAN AND PROFILE – PHASE 1 & 2
18. PROJECT NOTES AND SPECIFICATIONS
19. CONSTRUCTION DETAILS AND STANDARDS
20. CONSTRUCTION DETAILS AND STANDARDS

ATTACHMENTS

1. UNDERGROUND DETENTION SYSTEM NOTES AND DETAILS

BENCHMARKS

BASIS OF BEARING:
ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE.

BENCHMARK: NGS PID DM3900

SURVEY DISK SET ON THE TOP OF THE SOUTH END OF THE EAST ABUTMENT OF THE GOLF ROAD BRIDGE NO 016–0349 OVER SALT CREEK, APPROXIMATELY 0.3 MI (0.5 KM) WEST OF THE INTERSECTION OF GOLF ROAD WITH NEW WILKE ROAD, 3 FT (0.9 M) SOUTH OF A CHAIN LINK FENCE.
THE STATION IS LOCATED ABOUT 7.4 MI (11.9 KM) SOUTHWEST OF WHEELING, 4.3 MI (6.9 KM) SOUTH–SOUTHEAST OF PALATINE AND 3.0 MI (4.8 KM) SOUTH–SOUTHWEST OF ARLINGTON HEIGHTS. OWNERSHIP––ROAD RIGHT–OF–WAY.

ELEV. =695.85 (NAVD 88 DATUM)

SITE BENCHMARK:

CROSS CUT IN WALK ON THE SOUTH SIDE OF ALGONQUIN ROAD IN FRONT OF SUBJECT PROPERTY.

ELEV. = 616.17

PRELIMINARY FOR REVIEW ONLY
NOT FOR CONSTRUCTION

EXPIRATION DATE: 11/30/19

DATE	REVISIONS	DRAWN BY
1 12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
2 01/09/18	VILLAGE ROUND TWO COMMENTS	TLM

ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
TITLE SHEET

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Civil Engineering ◆ Real Estate Consulting ◆ Project Management
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Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 32212717
DATE 10/17/17
SCALE NONE
PROJ. MGR. PDL
PROJ. ASSOC. RWG
DRAWN BY TLM

SHEET
1 OF 20

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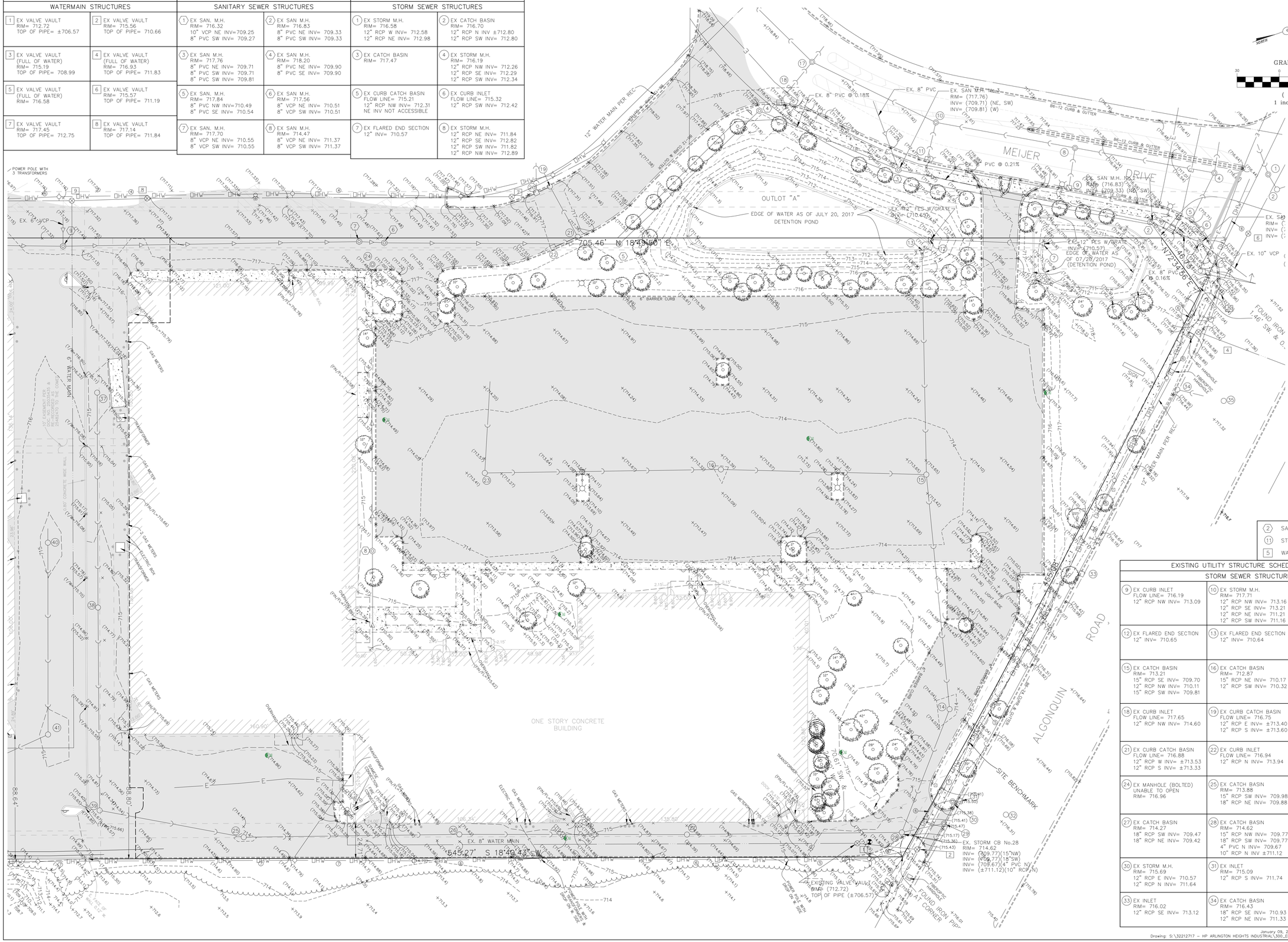
EXISTING UTILITY STRUCTURE SCHEDULE	
WATERMAIN STRUCTURES	
1 EX VALVE VAULT RIM= 712.72 TOP OF PIPE= ±706.57	2 EX VALVE VAULT RIM= 715.56 TOP OF PIPE= 710.66
3 EX VALVE VAULT (FULL OF WATER) RIM= 715.19 TOP OF PIPE= 708.99	4 EX VALVE VAULT (FULL OF WATER) RIM= 716.93 TOP OF PIPE= 711.83
5 EX VALVE VAULT (FULL OF WATER) RIM= 716.58	6 EX VALVE VAULT RIM= 715.57 TOP OF PIPE= 711.19
7 EX VALVE VAULT RIM= 717.45 TOP OF PIPE= 712.75	8 EX VALVE VAULT RIM= 717.14 TOP OF PIPE= 711.84

EXISTING UTILITY STRUCTURE SCHEDULE (CONT.)	
SANITARY SEWER STRUCTURES	
1 EX SAN. M.H. RIM= 716.32 10" VCP NE INV=709.25 8" PVC SW INV= 709.27	2 EX SAN M.H. RIM= 716.83 8" PVC NE INV= 709.33 8" PVC SW INV= 709.33
3 EX SAN M.H. RIM= 717.76 8" PVC NE INV= 709.71 8" PVC SW INV= 709.71 8" PVC SW INV= 709.81	4 EX SAN M.H. RIM= 718.20 8" PVC NE INV= 709.90 8" PVC SE INV= 709.90
5 EX SAN. M.H. RIM= 717.84 8" PVC NW INV=710.49 8" PVC SE INV= 710.54	6 EX SAN M.H. RIM= 717.56 8" VCP NE INV= 710.51 8" VCP SW INV= 710.51
7 EX SAN. M.H. RIM= 717.70 8" VCP NE INV= 710.55 8" VCP SW INV= 710.55	8 EX SAN M.H. RIM= 714.47 8" VCP NE INV= 711.37 8" VCP SW INV= 711.37

EXISTING UTILITY STRUCTURE SCHEDULE (CONT.)	
STORM SEWER STRUCTURES	
1 EX STORM M.H. RIM= 716.58 12" RCP W INV= 712.58 12" RCP NE INV= 712.98	2 EX CATCH BASIN RIM= 716.70 12" RCP N INV ±712.80 12" RCP SW INV= 712.80
3 EX CATCH BASIN RIM= 717.47	4 EX STORM M.H. RIM= 716.19 12" RCP NW INV= 712.26 12" RCP SE INV= 712.29 12" RCP SW INV= 712.34
5 EX CURB CATCH BASIN FLOW LINE= 715.21 12" RCP NW INV= 712.31 NE INV NOT ACCESSIBLE	6 EX CURB INLET FLOW LINE= 715.32 12" RCP SW INV= 712.42
7 EX FLARED END SECTION 12" INV= 710.57	8 EX STORM M.H. 12" RCP NE INV= 711.84 12" RCP SW INV= 711.82 12" RCP NW INV= 712.89



2 SANITARY STRUCTURE NUMBER

11 STORM STRUCTURE NUMBER

5 WATERMAIN STRUCTURE NUMBER

EXISTING UTILITY STRUCTURE SCHEDULE (CONT.)		
STORM SEWER STRUCTURES		
9 EX CURB INLET FLOW LINE= 716.19 12" RCP NW INV= 713.09	10 EX STORM M.H. RIM= 717.71 12" RCP NW INV= 713.16 12" RCP SE INV= 713.21 12" RCP NE INV= 711.21 12" RCP SW INV= 711.16	11 EX CURB INLET FLOW LINE= 717.03 12" RCP NW INV= 713.83
12 EX FLARED END SECTION 12" INV= 710.65	13 EX FLARED END SECTION 12" INV= 710.64	14 EX CATCH BASIN RIM= 713.58 15" RCP SE INV= 710.03 15" RCP NW INV= 710.03
15 EX CATCH BASIN RIM= 713.21 15" RCP SE INV= 709.70 12" RCP NW INV= 710.11 15" RCP SW INV= 709.81	16 EX CATCH BASIN RIM= 712.87 15" RCP NE INV= 710.17 12" RCP SW INV= 710.32	17 EX STORM M.H. RIM= 718.60 18" RCP NE INV= 710.95 18" RCP SW INV= 710.90 12" RCP SE INV= 713.90 12" RCP NW INV= 713.40
18 EX CURB INLET FLOW LINE= 717.65 12" RCP NW INV= 714.60	19 EX CURB CATCH BASIN FLOW LINE= 716.75 12" RCP E INV= ±713.40 12" RCP S INV= ±713.60	20 EX INLET RIM= 716.90 12" RCP N INV= 713.70 12" RCP S INV= 713.60 12" RCP NW INV= 713.70
21 EX CURB CATCH BASIN FLOW LINE= 716.88 12" RCP W INV= ±713.53 12" RCP S INV= ±713.33	22 EX CURB INLET FLOW LINE= 716.94 12" RCP N INV= 713.94	23 EX CATCH BASIN RIM= 713.14 4" DRAINTILE NW INV= 710.84 12" RCP NE INV= 710.49
24 EX MANHOLE (BOLTED) UNABLE TO OPEN RIM= 716.96	25 EX CATCH BASIN RIM= 713.88 15" RCP SW INV= 709.98 18" RCP NE INV= 709.88	26 EX CATCH BASIN RIM= 714.18 18" RCP SW INV= 709.83 18" RCP NE INV= 709.78
27 EX CATCH BASIN RIM= 714.27 18" RCP SW INV= 709.47 18" RCP NE INV= 709.42	28 EX CATCH BASIN RIM= 714.62 15" RCP NW INV= 709.77 18" RCP SW INV= 709.77 4" PVC N INV= 709.67 10" RCP N INV ±711.12	29 EX STORM M.H. RIM= 715.49 18" RCP SE INV= ±709.39 18" RCP NW INV= ±709.69 4" PVC S INV= 709.74 10" RCP S INV= 711.75
30 EX STORM M.H. RIM= 715.69 12" RCP E INV= 710.57 12" RCP N INV= 711.64	31 EX INLET RIM= 715.09 12" RCP S INV= 711.74	32 EX CATCH BASIN RIM= 716.29 FULL OF DEBRIS
33 EX INLET RIM= 716.02 12" RCP SE INV= 713.12	34 EX CATCH BASIN RIM= 716.43 18" RCP SE INV= 710.93 12" RCP NE INV= 711.33	35 EX CATCH BASIN RIM= 717.29 FULL OF DEBRIS

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ARLINGTON HEIGHTS, ILLINOIS
EXISTING CONDITIONS PLAN - PHASE 1

RWG Engineering, LLC
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630.480.7889
www.rwg-engineering.com

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PROJ. ASSOC. RWG
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EXISTING UTILITY STRUCTURE SCHEDULE	
WATERMAIN STRUCTURES	
9 EX VALVE VAULT RIM= 717.12 TOP OF PIPE= 712.12	10 EX VALVE VAULT RIM= 717.00 TOP OF PIPE= 709.70
11 EX VALVE VAULT RIM= 717.05 TOP OF PIPE= 709.40	12 EX VALVE VAULT RIM= 715.24 TOP OF PIPE= 707.24
SANITARY SEWER STRUCTURES	
9 EX SAN. M.H. RIM= 717.19 8" VCP NE INV= 711.04 8" VCP SE INV= 711.04 6" VCP NW INV= 711.69	10 EX SAN. M.H. RIM= 717.29 8" VCP NE INV= 711.37 8" VCP SW INV= 711.37

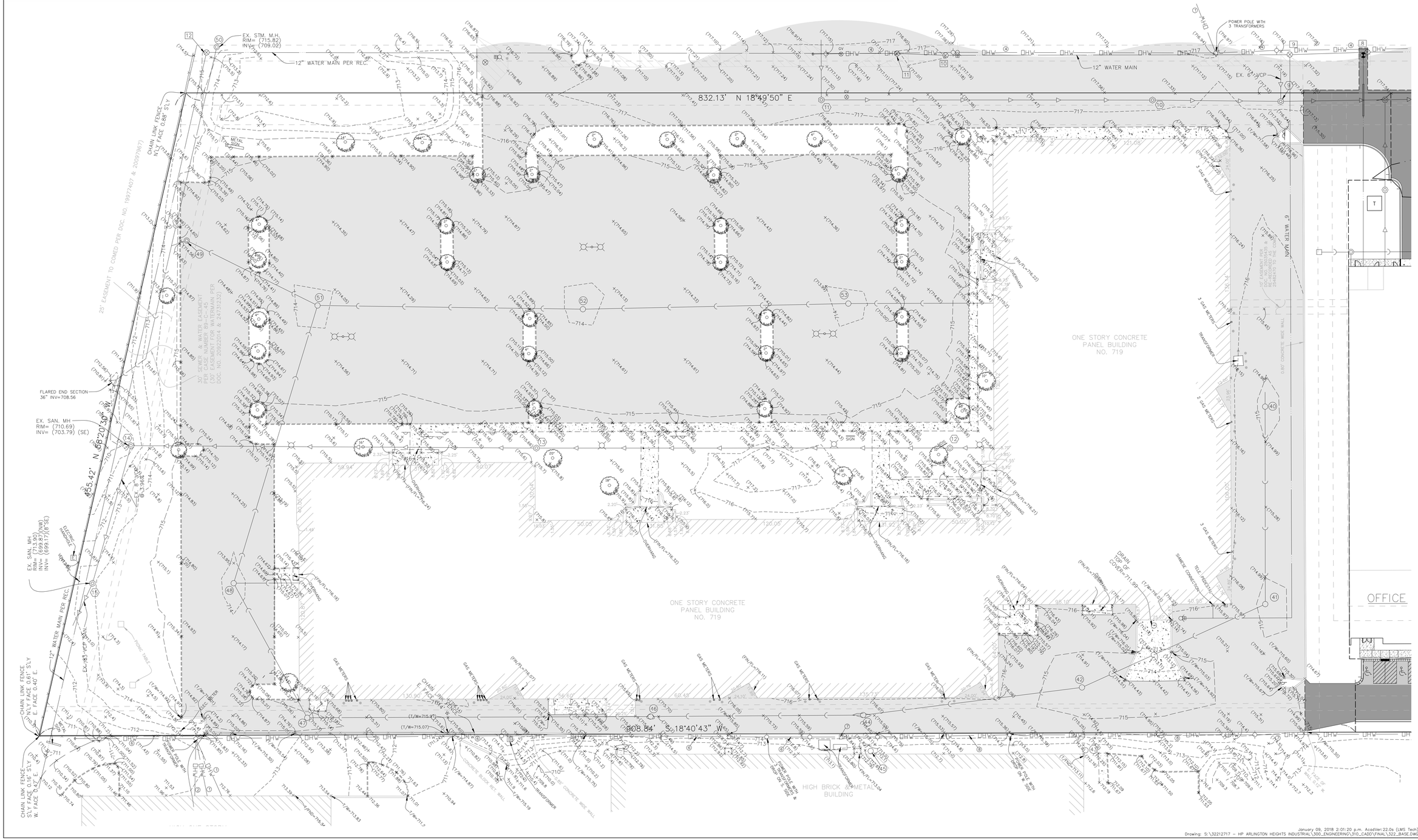
EXISTING UTILITY STRUCTURE SCHEDULE (CONT.)	
SANITARY SEWER STRUCTURES	
11 EX SAN M.H. RIM= 717.22 8" VCP NE INV= 712.02 8" VCP NW INV= 712.02	12 EX SAN M.H. RIM= 715.63 6" VCP NE INV= 710.14 6" VCP SW INV= 710.11
13 EX SAN. M.H. RIM= 715.49 8" VCP NE INV= 707.69 8" VCP SW INV= 707.69	14 EX SAN M.H. RIM= 710.69 8" VCP NE INV= 703.84 8" VCP SE INV= 703.79
15 EX SAN. M.H. RIM= 713.90 8" VCP NW INV= 699.87 8" VCP SE INV= 699.17	

EXISTING UTILITY STRUCTURE SCHEDULE (CONT.)	
STORM SEWER STRUCTURES	
37 EX CATCH BASIN RIM= 714.48 12" RCP SE INV= 710.88	38 EX CATCH BASIN RIM= 714.27 NW INV NOT ACCESSIBLE 15" RCP SE INV= 710.62
39 EX CATCH BASIN RIM= 714.23 15" RCP NW INV= 710.18 15" RCP NE INV= 709.88	40 EX CATCH BASIN RIM= 714.66 6" PVC NW INV= 711.56 15" RCP SE INV= 711.11
41 EX CATCH BASIN RIM= 714.66 15" RCP NW INV= 711.01 15" RCP S INV= 711.21	42 EX CATCH BASIN RIM= 714.11 18" RCP NW INV= 710.51 18" RCP SW INV= 710.51

EXISTING UTILITY STRUCTURE SCHEDULE (CONT.)	
STORM SEWER STRUCTURES	
43 EX CATCH BASIN RIM= 712.21	44 EX CATCH BASIN FULL OF DEBRIS
45 EX CATCH BASIN RIM= 712.09	46 EX CATCH BASIN RIM= 714.91 18" RCP NE INV= 709.71 18" RCP SW INV= 709.86
47 EX CATCH BASIN RIM= 714.69 18" RCP NE INV= 709.84 18" RCP SW INV= 709.86 4" DUCTILE NW INV=712.09	48 EX CATCH BASIN RIM= 713.75 18" RCP NE INV= 710.15 (WITH DEBRIS) 21" RCP NW INV= 710.30 18" RCP NE INV= 710.10

EXISTING UTILITY STRUCTURE SCHEDULE (CONT.)	
STORM SEWER STRUCTURES	
49 EX STORM M.H. (RESTRICTOR M.H.) RIM= 714.57 18" RCP SE INV= 709.75 18" RCP NE INV= 709.75	50 EX STORM M.H. RIM= 715.82 36" RCP SE INV= 709.02
51 EX CATCH BASIN RIM= 713.62 18" RCP SW INV= 709.62 21" RCP SE INV= 709.52 18" RCP NE INV= 709.52	52 EX CATCH BASIN RIM= 713.72 18" RCP NE INV= 709.97 18" RCP SW INV= 709.90
53 EX CATCH BASIN RIM= 713.70 18" RCP SW INV= ±710.95 (PIPE COLLAPSED) 12" RCP NE INV= 710.30	

(2) SANITARY STRUCTURE NUMBER
(11) STORM STRUCTURE NUMBER
[5] WATERMAIN STRUCTURE NUMBER



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ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
EXISTING CONDITIONS PLAN - PHASE 2

RWG Engineering, LLC
Civil Engineering ◆ Real Estate Consulting ◆ Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 32212717
DATE 10/17/17
SCALE 1" = 30'
PROJ. MGR. PDL
PROJ. ASSOC. RWG
DRAWN BY TLM

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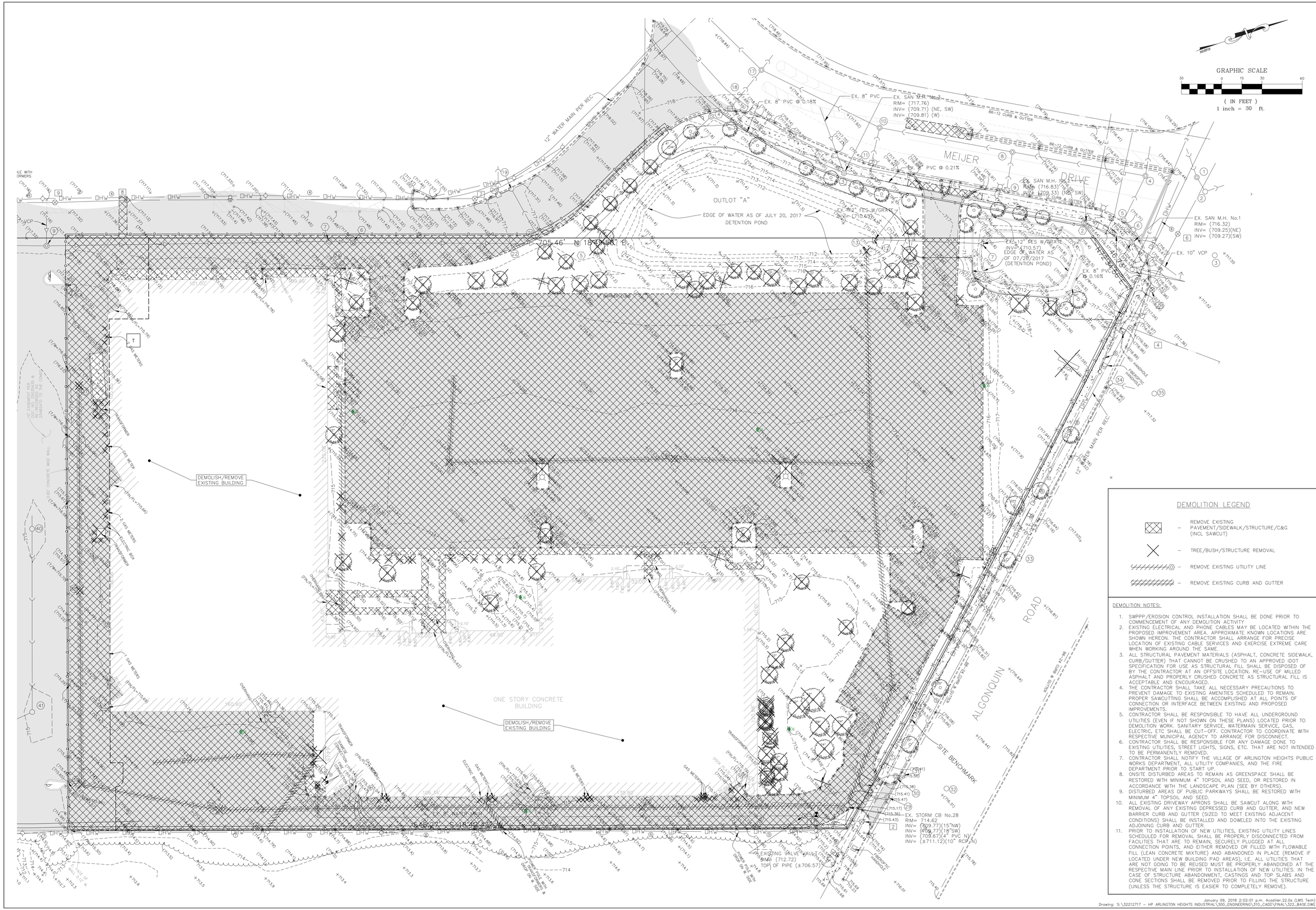

DEMOLITION LEGEND

- REMOVE EXISTING PAVEMENT/SIDEWALK/STRUCTURE/C&G (INCL SAWCUT)
- TREE/BUSH/STRUCTURE REMOVAL
- REMOVE EXISTING UTILITY LINE
- REMOVE EXISTING CURB AND GUTTER

DEMOLITION NOTES:

1. SWPPP/EROSION CONTROL INSTALLATION SHALL BE DONE PRIOR TO COMMENCEMENT OF ANY DEMOLITION ACTIVITY
2. EXISTING ELECTRICAL AND PHONE CABLES MAY BE LOCATED WITHIN THE PROPOSED IMPROVEMENT AREA. APPROXIMATE KNOWN LOCATIONS ARE SHOWN HEREON. THE CONTRACTOR SHALL ARRANGE FOR PRECISE LOCATION OF EXISTING CABLE SERVICES AND EXERCISE EXTREME CARE WHEN WORKING AROUND THE SAME.
3. ALL STRUCTURAL PAVEMENT MATERIALS (ASPHALT, CONCRETE SIDEWALK, CURB/GUTTER) THAT CANNOT BE CRUSHED TO AN APPROVED IDOT SPECIFICATION FOR USE AS STRUCTURAL FILL SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN OFFSITE LOCATION. RE-USE OF MILLED ASPHALT AND PROPERLY CRUSHED CONCRETE AS STRUCTURAL FILL IS ACCEPTABLE AND ENCOURAGED.
4. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO EXISTING AMENITIES SCHEDULED TO REMAIN. PROPER SAWCUTTING SHALL BE ACCOMPLISHED AT ALL POINTS OF CONNECTION OR INTERFACE BETWEEN EXISTING AND PROPOSED IMPROVEMENTS.
5. CONTRACTOR SHALL BE RESPONSIBLE TO HAVE ALL UNDERGROUND UTILITIES (EVEN IF NOT SHOWN ON THESE PLANS) LOCATED PRIOR TO DEMOLITION WORK. SANITARY SERVICE, WATERMAIN SERVICE, GAS, ELECTRIC, ETC SHALL BE CUT-OFF. CONTRACTOR TO COORDINATE WITH RESPECTIVE MUNICIPAL AGENCY TO ARRANGE FOR DISCONNECT.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO EXISTING UTILITIES, STREET LIGHTS, SIGNS, ETC. THAT ARE NOT INTENDED TO BE PERMANENTLY REMOVED.
7. CONTRACTOR SHALL NOTIFY THE VILLAGE OF ARLINGTON HEIGHTS PUBLIC WORKS DEPARTMENT, ALL UTILITY COMPANIES, AND THE FIRE DEPARTMENT PRIOR TO START UP.
8. ONSITE DISTURBED AREAS TO REMAIN AS GREENSPACE SHALL BE RESTORED WITH MINIMUM 4" TOPSOIL AND SEED, OR RESTORED IN ACCORDANCE WITH THE LANDSCAPE PLAN (SEE BY OTHERS).
9. DISTURBED AREAS OF PUBLIC PARKWAYS SHALL BE RESTORED WITH MINIMUM 4" TOPSOIL AND SEED.
10. ALL EXISTING DRIVEWAY APRONS SHALL BE SAWCUT ALONG WITH REMOVAL OF ANY EXISTING DEPRESSED CURB AND GUTTER, AND NEW BARRIER CURB AND GUTTER (SIZED TO MEET EXISTING ADJACENT CONDITIONS) SHALL BE INSTALLED AND DOWELED INTO THE EXISTING ADJOINING CURB AND GUTTER.
11. PRIOR TO INSTALLATION OF NEW UTILITIES, EXISTING UTILITY LINES SCHEDULED FOR REMOVAL SHALL BE PROPERLY DISCONNECTED FROM FACILITIES THAT ARE TO REMAIN, SECURELY PLUGGED AT ALL CONNECTION POINTS, AND EITHER REMOVED OR FILLED WITH FLOWABLE FILL (LEAN CONCRETE MIXTURE) AND ABANDONED IN PLACE (REMOVE IF LOCATED UNDER NEW BUILDING PAD AREAS), I.E. ALL UTILITIES THAT ARE NOT GOING TO BE REUSED MUST BE PROPERLY ABANDONED AT THE RESPECTIVE MAIN LINE PRIOR TO INSTALLATION OF NEW UTILITIES. IN THE CASE OF STRUCTURE ABANDONMENT, CASTINGS AND TOP SLABS AND CONE SECTIONS SHALL BE REMOVED PRIOR TO FILLING THE STRUCTURE (UNLESS THE STRUCTURE IS EASIER TO COMPLETELY REMOVE).

	DATE	REVISIONS	DRAWN BY
1	12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
2	01/09/18	VILLAGE ROUND TWO COMMENTS	TLM

ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
DEMOLITION PLAN - PHASE 1

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PROJ. ASSOC. RWG
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SHEET 4 OF 20

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5. CONTRACTOR SHALL BE RESPONSIBLE TO HAVE ALL UNDERGROUND UTILITIES (EVEN IF NOT SHOWN ON THESE PLANS) LOCATED PRIOR TO DEMOLITION WORK. SANITARY SERVICE, WATERMAIN SERVICE, GAS, ELECTRIC, ETC SHALL BE CUT-OFF. CONTRACTOR TO COORDINATE WITH RESPECTIVE MUNICIPAL AGENCY TO ARRANGE FOR DISCONNECT.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO EXISTING UTILITIES, STREET LIGHTS, SIGNS, ETC. THAT ARE NOT INTENDED TO BE PERMANENTLY REMOVED.
7. CONTRACTOR SHALL NOTIFY THE VILLAGE OF ARLINGTON HEIGHTS PUBLIC WORKS DEPARTMENT, ALL UTILITY COMPANIES, AND THE FIRE DEPARTMENT PRIOR TO START UP.
8. ONSITE DISTURBED AREAS TO REMAIN AS GREENSPACE SHALL BE RESTORED WITH MINIMUM 4" TOPSOIL AND SEED, OR RESTORED IN ACCORDANCE WITH THE LANDSCAPE PLAN (SEE BY OTHERS).
1. DISTURBED AREAS OF PUBLIC PARKWAYS SHALL BE RESTORED WITH MINIMUM 4" TOPSOIL AND SEED.
10. ALL EXISTING DRIVEWAY APRONS SHALL BE SAWCUT ALONG WITH REMOVAL OF ANY EXISTING DEPRESSED CURB AND GUTTER, AND NEW BARRIER CURB AND GUTTER (SIZED TO MEET EXISTING ADJACENT CONDITIONS) SHALL BE INSTALLED AND DOWELED INTO THE EXISTING ADJOINING CURB AND GUTTER.
11. PRIOR TO INSTALLATION OF UTILITIES, EXISTING UTILITY LINES SCHEDULED FOR REMOVAL SHALL BE PROPERLY DISCONNECTED FROM FACILITIES THAT ARE TO REMAIN, SECURELY PLUGGED AT ALL CONNECTION POINTS, AND EITHER REMOVED OR FILLED WITH FLOWABLE FILL (LEAN CONCRETE MIXTURE) AND ABANDONED IN PLACE (REMOVE IF LOCATED UNDER NEW BUILDING PAD AREAS), I.E. ALL UTILITIES THAT ARE NOT GOING TO BE REUSED MUST BE PROPERLY ABANDONED AT THE RESPECTIVE MAIN LINE PRIOR TO INSTALLATION OF NEW UTILITIES. IN THE CASE OF STRUCTURE ABANDONMENT, CASTINGS AND TOP SLABS AND CONE SECTIONS SHALL BE REMOVED PRIOR TO FILLING THE STRUCTURE (UNLESS THE STRUCTURE IS EASIER TO COMPLETELY REMOVE).

DEMOLITION LEGEND

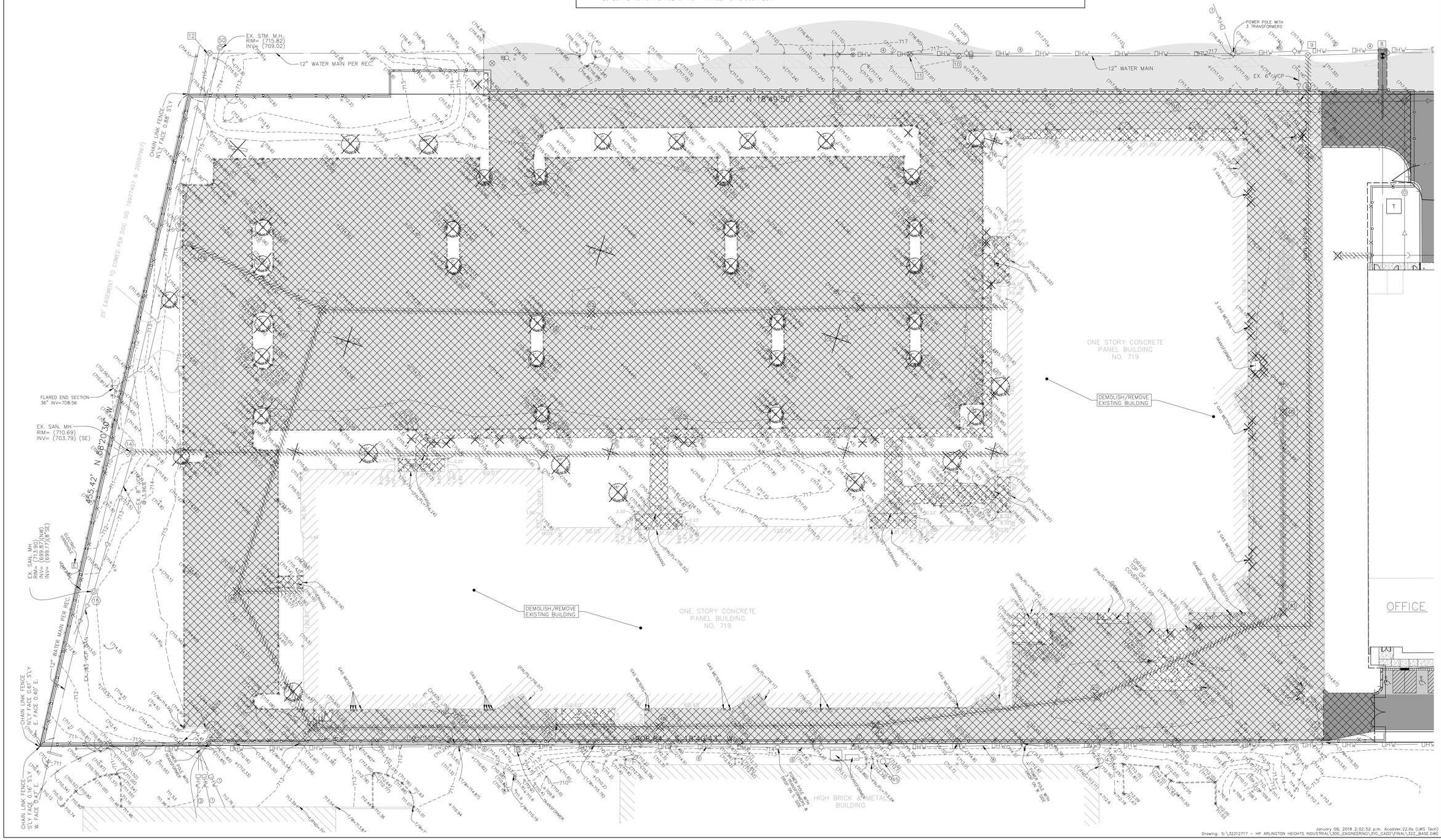
- REMOVE EXISTING PAVEMENT/SIDEWALK/STRUCTURE/C&G (INCL SAWCUT)
- TREE/BUSH/STRUCTURE REMOVAL
- REMOVE EXISTING UTILITY LINE
- REMOVE EXISTING CURB AND GUTTER

NORTH

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30 ft.



REVISIONS			DRAWN BY
1	12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
2	01/09/18	VILLAGE ROUND TWO COMMENTS	TLM

ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
DEMOLITION PLAN - PHASE 2

RWG Engineering, LLC
Civil Engineering • Real Estate Consulting • Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 32212717
DATE 10/17/17
SCALE 1"=30'
PROJ. MGR. PDL
PROJ. ASSOC. RWG
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TOTAL SITE (PHASE 1&2 BUILDOUT):

TOTAL LOT SIZE	= 671,453 S.F. (15.41 AC)
PROPOSED SITE CONDITIONS:	
PROPOSED BUILDING 1&2 FOOTPRINT	= 331,014 S.F. (49.30%)
PROPOSED PAVT./SIDEWALK	= 263,546 S.F. (39.25%)
PROPOSED GREENSPACE	= 76,893 S.F. (11.45%)
PROPOSED CONDITION IMPERVIOUS AREA	= 594,560 S.F. (13.65 AC)
PROPOSED PARKING SUMMARY:	
REGULAR STALLS	= 300
PHASE 2 ADA ACCESSIBLE STALLS	= 8
TOTAL STALLS PROVIDED	= 308 (0.93/1,000 SF)

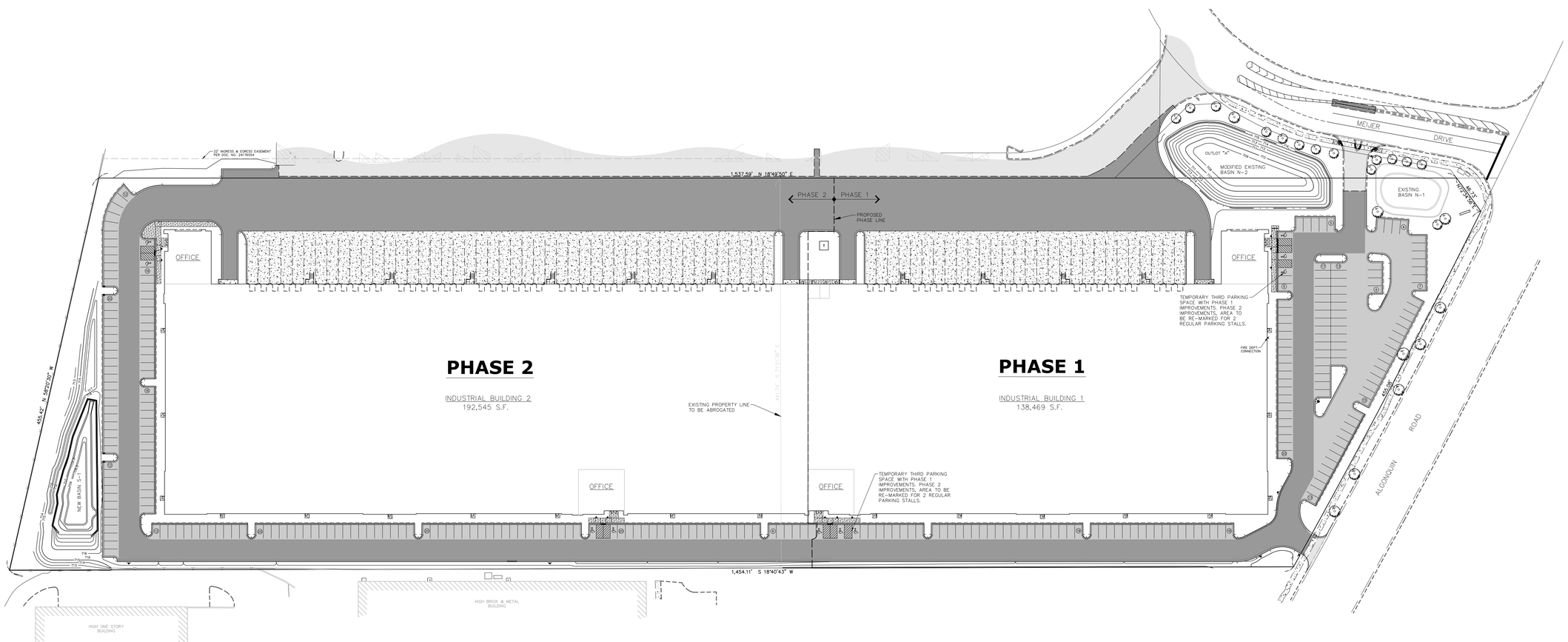
NORTH

GRAPHIC SCALE

60 0 30 60 120

(IN FEET)
1 inch = 60 ft.

MASTER DEVELOPMENT PLAN PROVIDED FOR GENERAL REFERENCE ONLY.
FOR DETAILS, SEE FOR RESPECTIVE PHASE.



DATE	REVISIONS	DRAWN BY
1 12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
2 01/09/18	VILLAGE ROUND TWO COMMENTS	TLM

ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
MASTER DEVELOPMENT PLAN - PHASE 1 & 2

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DATE 10/17/17
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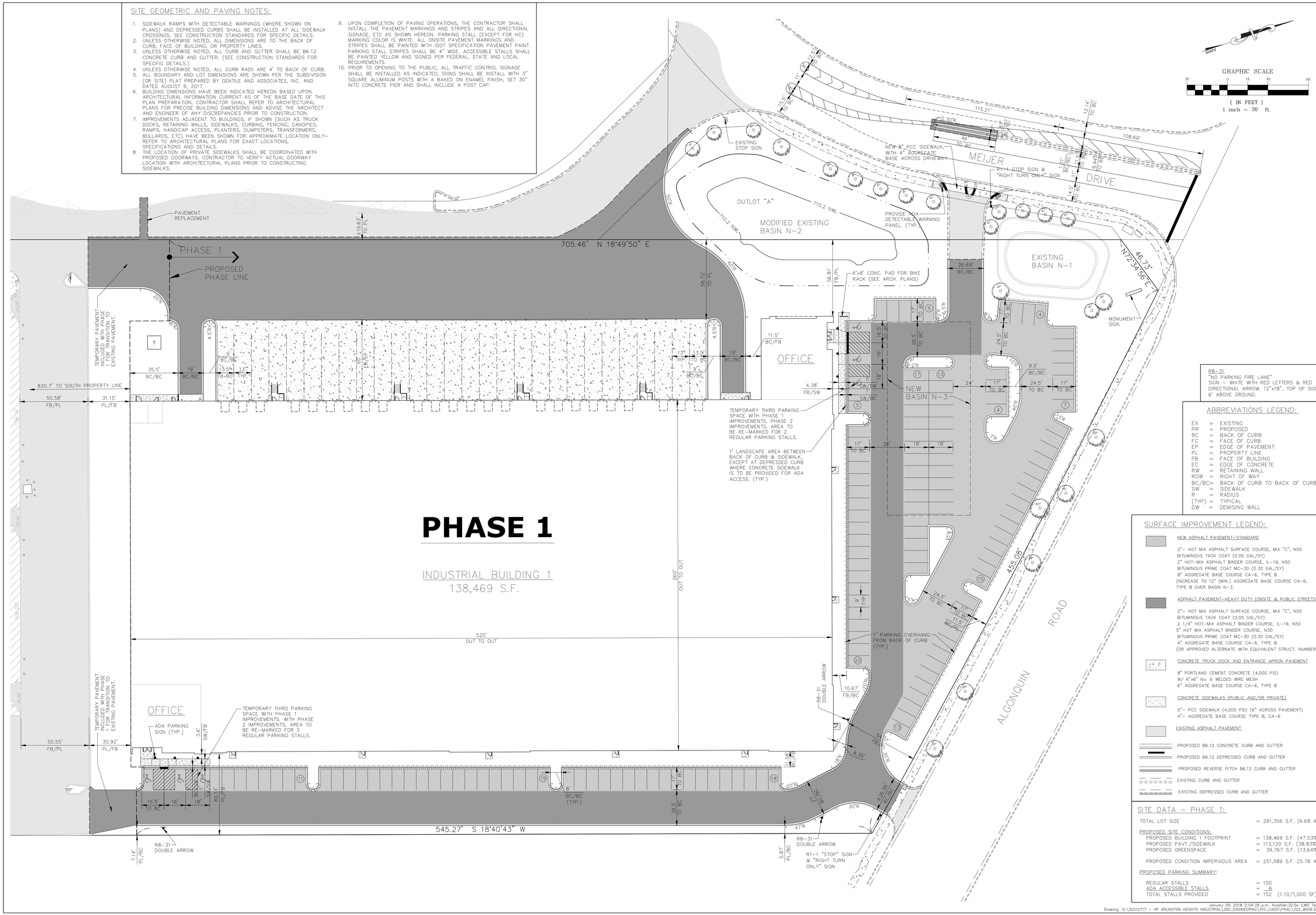
SITE GEOMETRIC AND PAVING NOTES:

1. SIDEWALK RAMPS WITH DETECTABLE WARNINGS (WHERE SHOWN ON PLANS) AND DEPRESSED CURBS SHALL BE INSTALLED AT ALL SIDEWALK CROSSINGS. SEE CONSTRUCTION STANDARDS FOR SPECIFIC DETAILS.
2. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE TO THE BACK OF CURB, FACE OF BUILDING, OR PROPERTY LINES.
3. UNLESS OTHERWISE NOTED, ALL CURB AND GUTTER SHALL BE B6.12 CONCRETE CURB AND GUTTER. (SEE CONSTRUCTION STANDARDS FOR SPECIFIC DETAILS.)
4. UNLESS OTHERWISE NOTED, ALL CURB RADII ARE 4' TO BACK OF CURB.
5. ALL BOUNDARY AND LOT DIMENSIONS ARE SHOWN PER THE SUBDIVISION (OR SITE) PLAT PREPARED BY GENTILE AND ASSOCIATES, INC. AND DATED AUGUST 9, 2017.
6. BUILDING DIMENSIONS HAVE BEEN INDICATED HEREON BASED UPON ARCHITECTURAL INFORMATION CURRENT AS OF THE BASE DATE OF THIS PLAN PREPARATION. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS AND ADVISE THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
7. IMPROVEMENTS ADJACENT TO BUILDINGS, IF SHOWN (SUCH AS TRUCK DOCKS, RETAINING WALLS, SIDEWALKS, CURBING, FENCING, CANOPIES, RAMPS, HANDICAP ACCESS, PLANTERS, DUMPSTERS, TRANSFORMERS, BOLLARDS, ETC) HAVE BEEN SHOWN FOR APPROXIMATE LOCATION ONLY– REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS, SPECIFICATIONS AND DETAILS.
8. THE LOCATION OF PRIVATE SIDEWALKS SHALL BE COORDINATED WITH PROPOSED DOORWAYS. CONTRACTOR TO VERIFY ACTUAL DOORWAY LOCATION WITH ARCHITECTURAL PLANS PRIOR TO CONSTRUCTING SIDEWALKS.
9. UPON COMPLETION OF PAVING OPERATIONS, THE CONTRACTOR SHALL INSTALL THE PAVEMENT MARKINGS AND STRIPES AND ALL DIRECTIONAL SIGNAGE, ETC AS SHOWN HEREON. PARKING STALL (EXCEPT FOR HC) MARKING COLOR IS WHITE. ALL ONSITE PAVEMENT MARKINGS AND STRIPES SHALL BE PAINTED WITH IDOT SPECIFICATION PAVEMENT PAINT. PARKING STALL STRIPES SHALL BE 4" WIDE. ACCESSIBLE STALLS SHALL BE PAINTED YELLOW AND SIGNED PER FEDERAL, STATE AND LOCAL REQUIREMENTS.
10. PRIOR TO OPENING TO THE PUBLIC, ALL TRAFFIC CONTROL SIGNAGE SHALL BE INSTALLED AS INDICATED, SIGNS SHALL BE INSTALL WITH 3" SQUARE ALUMINUM POSTS WITH A BAKED ON ENAMEL FINISH, SET 30" INTO CONCRETE PIER AND SHALL INCLUDE A POST CAP.



R8-31
"NO PARKING FIRE LANE"
SIGN – WHITE WITH RED LETTERS & RED DIRECTIONAL ARROW. 12"x18", TOP OF SIGN 6' ABOVE GROUND.

ABBREVIATIONS LEGEND:

EX	=	EXISTING
PR	=	PROPOSED
BC	=	BACK OF CURB
FC	=	FACE OF CURB
EP	=	EDGE OF PAVEMENT
PL	=	PROPERTY LINE
FB	=	FACE OF BUILDING
EC	=	EDGE OF CONCRETE
RW	=	RETAINING WALL
ROW	=	RIGHT OF WAY
BC/BC	=	BACK OF CURB TO BACK OF CURB
SW	=	SIDEWALK
R	=	RADIUS
(TYP)	=	TYPICAL
DW	=	DEMISING WALL

SURFACE IMPROVEMENT LEGEND:

NEW ASPHALT PAVEMENT–STANDARD

2"– HOT MIX ASPHALT SURFACE COURSE, MIX "C", N50
BITUMINOUS TACK COAT (0.05 GAL/SY)
2" HOT–MIX ASPHALT BINDER COURSE, IL–19, N50
BITUMINOUS PRIME COAT MC–30 (0.30 GAL/SY)
8" AGGREGATE BASE COURSE CA–6, TYPE B
(INCREASE TO 12" (MIN.) AGGREGATE BASE COURSE CA–6, TYPE B OVER BASIN N–3.

ASPHALT PAVEMENT–HEAVY DUTY (ONSITE & PUBLIC STREETS)

2"– HOT MIX ASPHALT SURFACE COURSE, MIX "C", N50
BITUMINOUS TACK COAT (0.05 GAL/SY)
2 1/4" HOT–MIX ASPHALT BINDER COURSE, IL–19, N50
5" HOT MIX ASPHALT BINDER COURSE, N30
BITUMINOUS PRIME COAT MC–30 (0.30 GAL/SY)
4" AGGREGATE BASE COURSE CA–6, TYPE B
(OR APPROVED ALTERNATE WITH EQUIVALENT STRUCT. NUMBERS)

CONCRETE TRUCK DOCK AND ENTRANCE APRON PAVEMENT

8" PORTLAND CEMENT CONCRETE (4,000 PSI)
W/ 6"x6" No. 6 WELDED WIRE MESH
6" AGGREGATE BASE COURSE CA–6, TYPE B

CONCRETE SIDEWALKS (PUBLIC AND/OR PRIVATE)

5"– PCC SIDEWALK (4,000 PSI) (6" ACROSS PAVEMENT)
4"– AGGREGATE BASE COURSE TYPE B, CA–6

EXISTING ASPHALT PAVEMENT

PROPOSED B6.12 CONCRETE CURB AND GUTTER
PROPOSED B6.12 DEPRESSED CURB AND GUTTER
PROPOSED REVERSE PITCH B6.12 CURB AND GUTTER
EXISTING CURB AND GUTTER
EXISTING DEPRESSED CURB AND GUTTER

SITE DATA – PHASE 1:

TOTAL LOT SIZE	= 291,356 S.F. (6.68 AC)
PROPOSED SITE CONDITIONS:	
PROPOSED BUILDING 1 FOOTPRINT	= 138,469 S.F. (47.53%)
PROPOSED PAVT./SIDEWALK	= 113,120 S.F. (38.83%)
PROPOSED GREENSPACE	= 39,767 S.F. (13.64%)
PROPOSED CONDITION IMPERVIOUS AREA	= 251,589 S.F. (5.78 AC)
PROPOSED PARKING SUMMARY:	
REGULAR STALLS	= 150
ADA ACCESSIBLE STALLS	= 6
TOTAL STALLS PROVIDED	= 152 (1.10/1,000 SF)

DATE	REVISIONS	DRAWN BY
1 12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
2 01/09/18	VILLAGE ROUND TWO COMMENTS	TLM

ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
SITE GEOMETRIC AND PAVING PLAN - PHASE 1

RWG Engineering, LLC
Civil Engineering ◆ Real Estate Consulting ◆ Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 32212717
DATE 10/17/17
SCALE 1"=30'
PROJ. MGR. PDL
PROJ. ASSOC. RWG
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SITE GEOMETRIC AND PAVING NOTES:

1. SIDEWALK RAMPS WITH DETECTABLE WARNINGS (WHERE SHOWN ON PLAN) AND DEPRESSED CURBS SHALL BE INSTALLED AT ALL SIDEWALK CROSSINGS. SEE CONSTRUCTION STANDARDS FOR SPECIFIC DETAILS.
2. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE TO THE BACK OF CURB, FACE OF BUILDING, OR PROPERTY LINES.
3. UNLESS OTHERWISE NOTED, ALL CURB AND GUTTER SHALL BE B6.12 CONCRETE CURB AND GUTTER. (SEE CONSTRUCTION STANDARDS FOR SPECIFIC DETAILS.)
4. UNLESS OTHERWISE NOTED, ALL CURB RADII ARE 4' TO BACK OF CURB.
5. ALL BOUNDARY AND LOT DIMENSIONS ARE SHOWN PER THE SUBDIVISION (OR SITE) PLAT PREPARED BY GENTILE AND ASSOCIATES, INC. AND DATED AUGUST 9, 2017.
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10. PRIOR TO OPENING TO THE PUBLIC, ALL TRAFFIC CONTROL SIGNAGE SHALL BE INSTALLED AS INDICATED, SIGNS SHALL BE INSTALL WITH 3" SQUARE ALUMINUM POSTS WITH A BAKED ON ENAMEL FINISH, SET 30" INTO CONCRETE PIER AND SHALL INCLUDE A POST CAP.

SURFACE IMPROVEMENT LEGEND:

NEW ASPHALT PAVEMENT–STANDARD

2"– HOT MIX ASPHALT SURFACE COURSE, MIX "C", N50
BITUMINOUS TACK COAT (0.05 GAL/SY)
2" HOT–MIX ASPHALT BINDER COURSE, IL–19, N50
BITUMINOUS PRIME COAT MC–30 (0.30 GAL/SY)
8" AGGREGATE BASE COURSE CA–6, TYPE B
(INCREASE TO 12" (MIN.) AGGREGATE BASE COURSE CA–6, TYPE B OVER BASINS S–2, S–3, AND S–4.

ASPHALT PAVEMENT–HEAVY DUTY (ONSITE & PUBLIC STREETS)

2"– HOT MIX ASPHALT SURFACE COURSE, MIX "C", N50
BITUMINOUS TACK COAT (0.05 GAL/SY)
2 1/4" HOT–MIX ASPHALT BINDER COURSE, IL–19, N50
5" HOT MIX ASPHALT BINDER COURSE, N30
BITUMINOUS PRIME COAT MC–30 (0.30 GAL/SY)
4" AGGREGATE BASE COURSE CA–6, TYPE B
(OR APPROVED ALTERNATE WITH EQUIVALENT STRUCT. NUMBER)

CONCRETE TRUCK DOCK AND ENTRANCE APRON PAVEMENT

8" PORTLAND CEMENT CONCRETE (4,000 PSI)
W/ 6"x6" No. 6 WELDED WIRE MESH
6" AGGREGATE BASE COURSE CA–6, TYPE B

CONCRETE SIDEWALKS (PUBLIC AND/OR PRIVATE)

5"– PCC SIDEWALK (4,000 PSI) (6" ACROSS PAVEMENT)
4"– AGGREGATE BASE COURSE TYPE B, CA–6

EXISTING ASPHALT PAVEMENT

PROPOSED B6.12 CONCRETE CURB AND GUTTER
PROPOSED B6.12 DEPRESSED CURB AND GUTTER
PROPOSED REVERSE PITCH B6.12 CURB AND GUTTER
EXISTING CURB AND GUTTER
EXISTING DEPRESSED CURB AND GUTTER

ABBREVIATIONS LEGEND:

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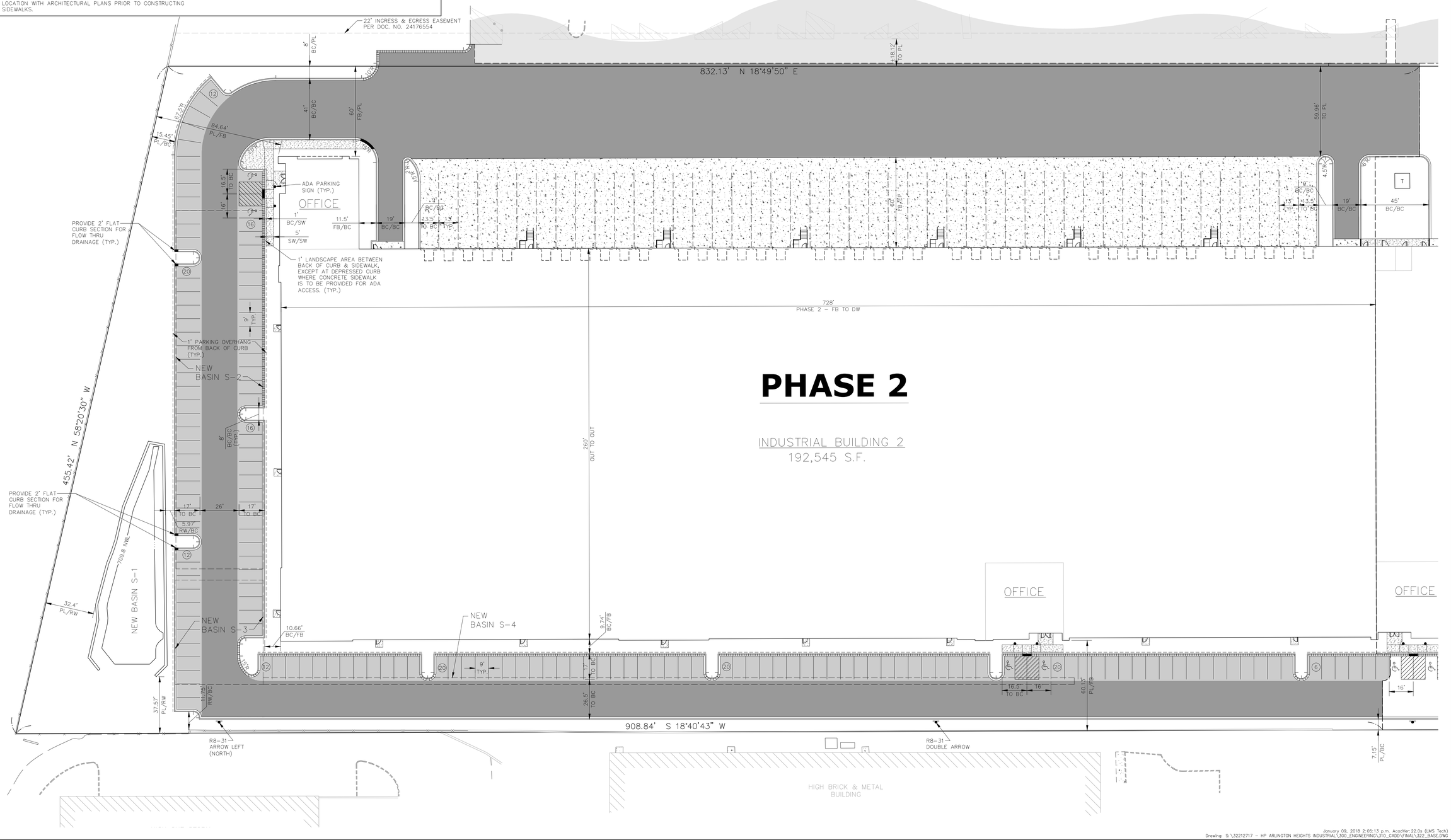
PL	=	PROPERTY LINE
FB	=	FACE OF BUILDING
EC	=	EDGE OF CONCRETE
RW	=	RETAINING WALL
ROW	=	RIGHT OF WAY
BC/BC	=	BACK OF CURB TO BACK OF CURB
SW	=	SIDEWALK
R	=	RADIUS
(TYP)	=	TYPICAL
DW	=	DEMISING WALL

SITE DATA – PHASE 2:

TOTAL LOT SIZE	= 380,097 S.F. (8.73 AC)
PROPOSED SITE CONDITIONS:	
PROPOSED BUILDING 2 FOOTPRINT	= 192,545 S.F. (50.66%)
PROPOSED PAVT./SIDEWALK	= 141,957 S.F. (37.34%)
PROPOSED GREENSPACE	= 45,595 S.F. (12.00%)
PROPOSED CONDITION IMPERVIOUS AREA	= 334,502 S.F. (7.68 AC)
PROPOSED PARKING SUMMARY:	
REGULAR STALLS	= 150
PHASE 2 ADA ACCESSIBLE STALLS	= 4
TOTAL STALLS PROVIDED	= 154 (0.80/1,000 SF)

NORTH

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.



PHASE 2

INDUSTRIAL BUILDING 2
192,545 S.F.

DATE	REVISIONS	DRAWN BY
1 12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
2 01/09/18	VILLAGE ROUND TWO COMMENTS	TLM

ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
SITE GEOMETRIC AND PAVING PLAN - PHASE 2

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DATE 10/17/17
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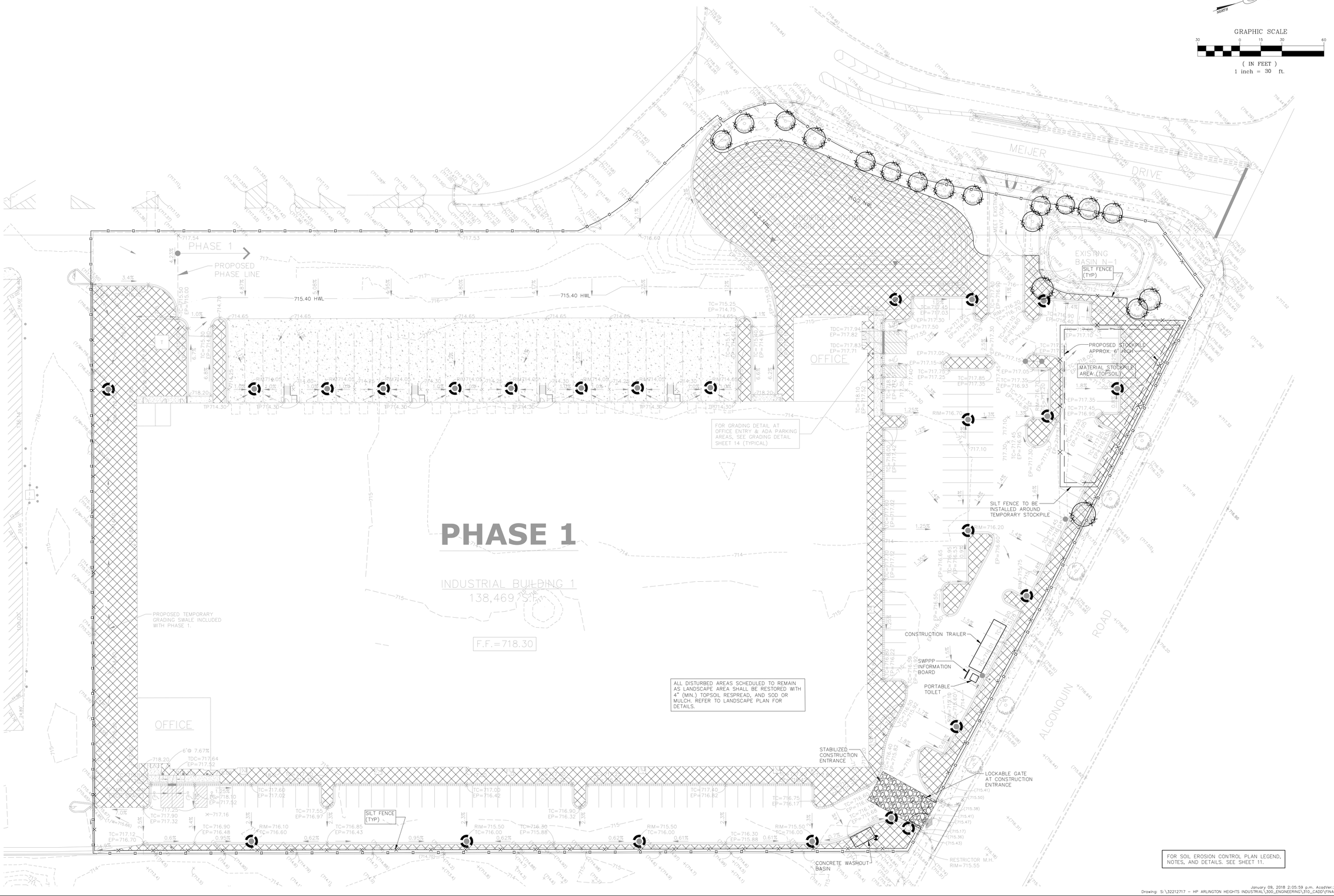

FOR SOIL EROSION CONTROL PLAN LEGEND, NOTES, AND DETAILS. SEE SHEET 11.

January 09, 2018 2:05:59 p.m. AcadVer:22.0s (LMS Tech)
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REVISIONS			DRAWN BY:
1	12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
2	01/09/18	VILLAGE ROUND TWO COMMENTS	TLM

ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
SOIL EROSION & SEDIMENT CONTROL (SESC) PLAN - PHASE 1

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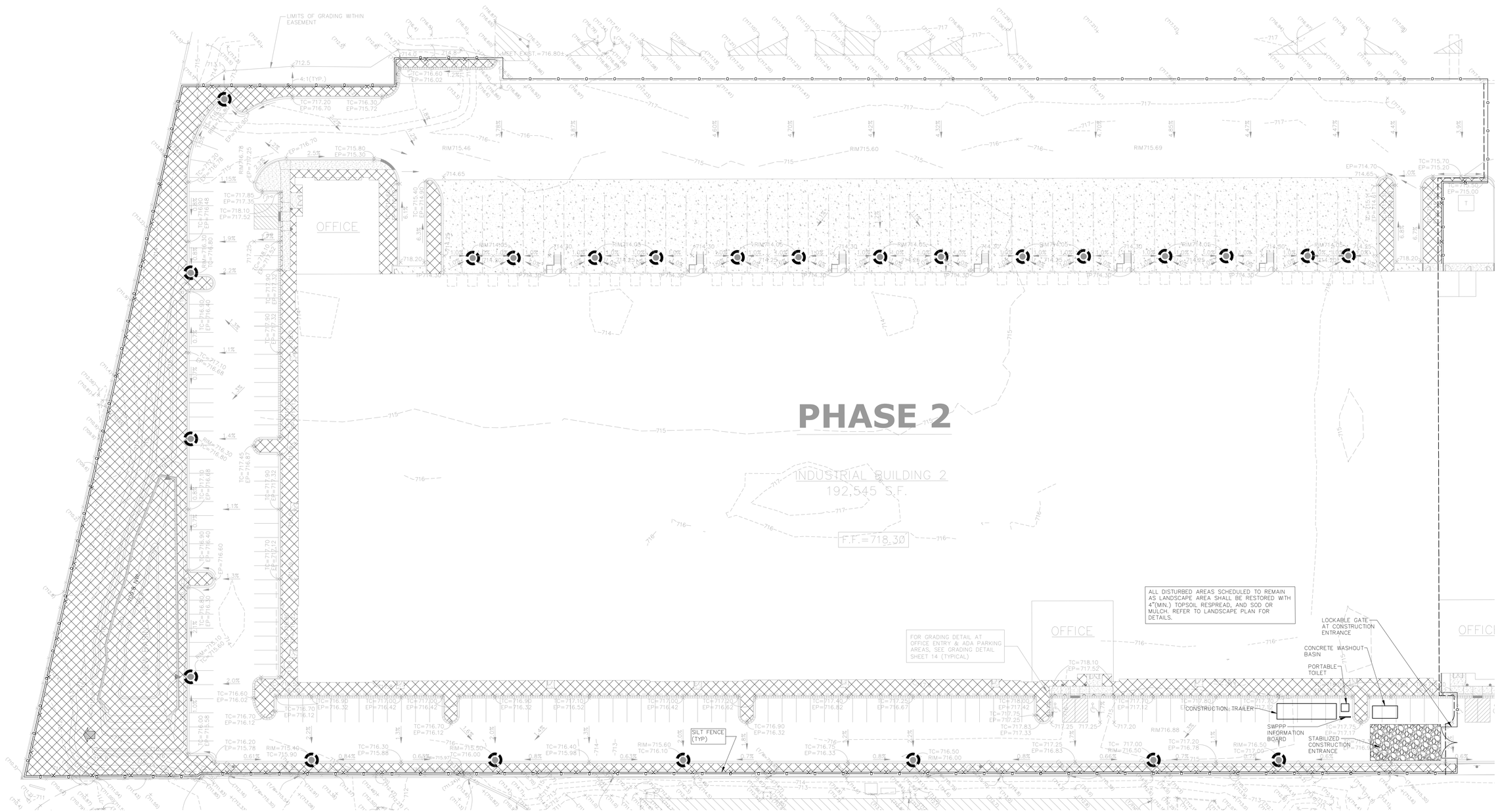

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30 ft.

FOR SOIL EROSION CONTROL PLAN LEGEND, NOTES, AND DETAILS. SEE SHEET 11.

REVISIONS			DRAWN BY
1	12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
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ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
SOIL EROSION & SEDIMENT CONTROL (SESC) PLAN - PHASE 2

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10 OF 20

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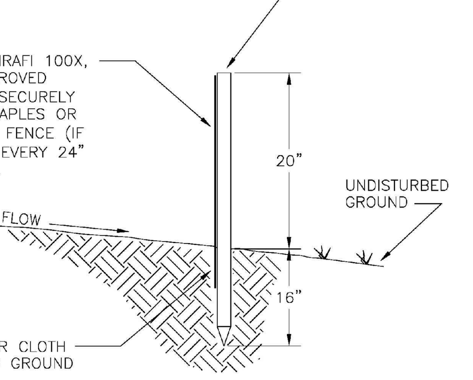
SPECIAL CONCRETE WASHOUT NOTE:

CONCRETE WASHOUT SHALL BE CONTAINED AT ALL TIMES. WASHOUT MATERIAL SHALL NOT BE ALLOWED TO ENTER STORM SEWERS OR LEACH INTO THE SOIL UNDER ANY CIRCUMSTANCES. ALL WASTE SHALL BE DISPOSED OF PROPERLY AND THE LOCATION OF THE WASHOUT SHALL BE DESIGNATED WITH PROPER SIGNAGE (SEE PLAN).

SILT FENCE



SILT FENCE SHALL BE INSTALLED AND INSPECTED BY [redacted]NEL PRIOR TO ANY OTHER CONSTRUCTION

WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.

TOPSOIL STOCKPILES SHALL HAVE DIVERSION DITCHES PLACED AROUND THEM WITH A SILT TRAP BUILT AT THE LOW POINT OF THE DITCHES

SILT FENCE TO BE PROVIDED AROUND ENTIRE PERIMETER OF ALL WETLAND AREAS PRIOR TO MASS EARTHWORK START.

MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN SILT FENCE.

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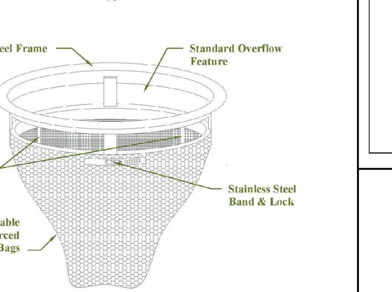
CATCH-ALL

Inlet Protection Device

HANES® GEO COMPONENTS™ A Leggett & Platt COMPANY

Catch-All is a storm drain system inlet protection device designed to filter most construction site pollutants from stormwater runoff before they enter the drain system. Custom fitted to meet virtually any structure and inlet casting/grate combination, the sturdy metal frame fits under the grate without appreciably changing the grate height – no concerns for street cleaning and plowing crews. The durable frame is reusable – project after project. The filter bag has two layers: a high flow, small pore-opening, non-woven geotextile inner layer, supported by a strong, polyester net outer layer. A stainless band with a worm-screw clamp secures the reusable, replaceable filter bag to the lower frame ring. Unique and critically important, the two-ring frame design provides an overflow capacity greater than the grate flow rate, all but eliminating any potential for a water back-up and site flooding condition, even with a fully loaded filter.



Installed Catch-All: Note little vertical grate displacement

Installed Catch-All: Note overflow opening

Catch-All Features:

- Low initial cost for reusable metal frame, filter bag with integral band
- Easy to install and maintain
- Filter bags are replaceable
- Overflow capacity exceeds grate inlet flow rate
- Minimum 2 cubic feet of pollutant storage capacity
- Initial filtration down to 70 microns, with a flow rate of 145 gal/min/ft²

CATCH-ALL GEOTEXTILE CHARACTERISTICS

Property	Test Method	Units	MARV
Grab Tensile	ASTM D-4632	lbs	100
Grab Elongation	ASTM D-4632	%	50
Trap Tear	ASTM D-4533	lbs	45
Puncture	ASTM D-4833	lbs	65
Mullen Burst	ASTM D-3786	psi	225
Permittivity	ASTM D-4491	sec^{-1}	2.0
Water Flow	ASTM D-4491	gpm/ft²	145
AOS	ASTM D-4751	U.S. Std	70
UV Resistance	ASTM D-4355	%/hrs	70/500

The information presented herein is, to the best of our knowledge, true and accurate. No warranty or guarantee, expressed or implied, is made regarding the performance of any product, since the manner of use and handling are beyond the control of Hanes Geo Components. Nothing contained herein is to be construed as permission or as a recommendation to infringe on a patent.

HanesGeo.com

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Metro Detroit, MI
29165 Wall Street, Wixom, MI 48393-3525
Toll free: 866.960.4300

SOIL EROSION CONTROL CONSTRUCTION SCHEDULE:

1. INSTALL SEDIMENT CONTROL MEASURES
   STABILIZED CONSTRUCTION ENTRANCE
2. SITE DEMOILOTION WORK (AS NOTED ON PLAN)
   PAVEMENT, SIDEWALKS, CURBS CONCRETE SLABS
3. SITE CONSTRUCTION WORK
   GRADE SITE, STOCKPILE TOPSOIL
   INSTALL STORMWATER MANAGEMENT MEASURES
   PREPARE SUBGRADE FOR BLDG FLOOR SLAB AND PAVEMENT AREAS
   TEMPORARY VEGETATIVE STABILIZATION OF CONTROL MEASURES-AS APPLICABLE
   INSTALL STORM SEWER, SITE UTILITIES
   PROVIDE INLET BASKETS/BARRIER FILTERS
   INSTALL BASE COURSE MATERIALS
   INSTALL CURB & GUTTER, PAVING, SIDEWALKS
4. PERMENANT VEGETATIVE STABILIZATION OF DISTURBED AREAS
   SPREAD TOPSOIL
   MULCH/SEED AS SPECIFIED
5. CLEANUP/RESTORTATION
   REMOVE INLET BASKETS/BARRIER FILTERS

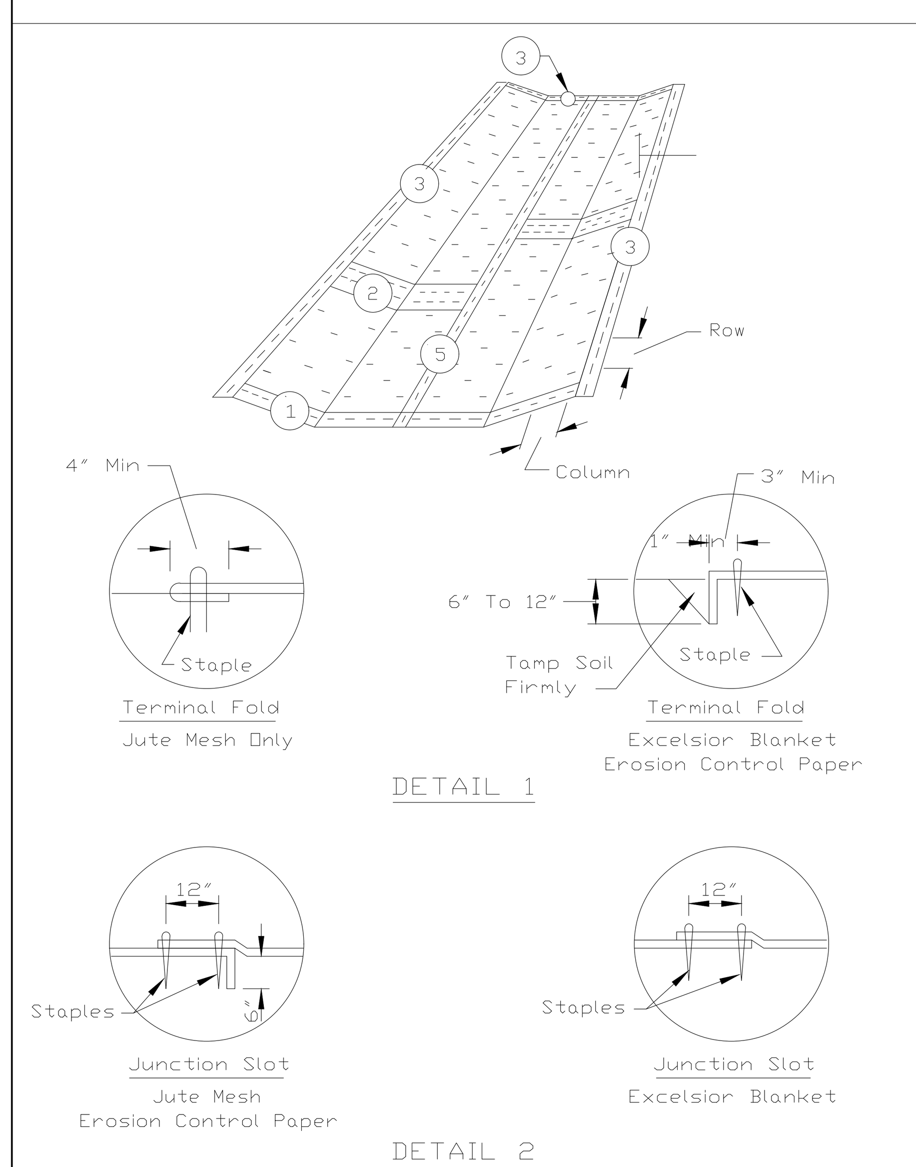
SESC INSPECTION SCHEDULE:

1. DIVERSION AND DRAINAGE STRUCTURES – WILL BE INSPECTED AT 7 DAY INTERVALS AND AFTER EVERY ½" RAIN
2. SEDIMENT BASINS AND PONDS – WILL BE CHECKED AFTER EACH MAJOR PHASE OF THE DEVELOPMENT FOR SEDIMENT ACCUMULATION
3. VEGETATIVE PLANTINGS – SPRING PLANTINGS WILL BE CHECKED DURING SUMMER OR EARLY FALL
4. REPAIRS – ANY EROSION CONTROL MEASURES, STRUCTURAL MEASURES OF OTHER RELATED ITEMS IN NEED OF REPAIR WILL BE MADE WITHIN 15 DAYS OF EARLIER IF POSSIBLE BASED ON FIELD CONDITIONS
5. MOWING – DRAINAGEWAYS, DITCHES AND OTHER AREAS THAT SUPPORT A DESIGNATED FLOW OF WATER WILL BE MOWED REGULARLY TO MAINTAIN THAT FLOW
6. FERTILIZATION – SEEDED AREAS WHERE THE SEED HAS NOT PRODUCED A GOOD COVER WILL BE INSPECTED AND FERTILIZED AS NECESSARY

SOIL EROSION AND SEDIMENT CONTROL NOTES:

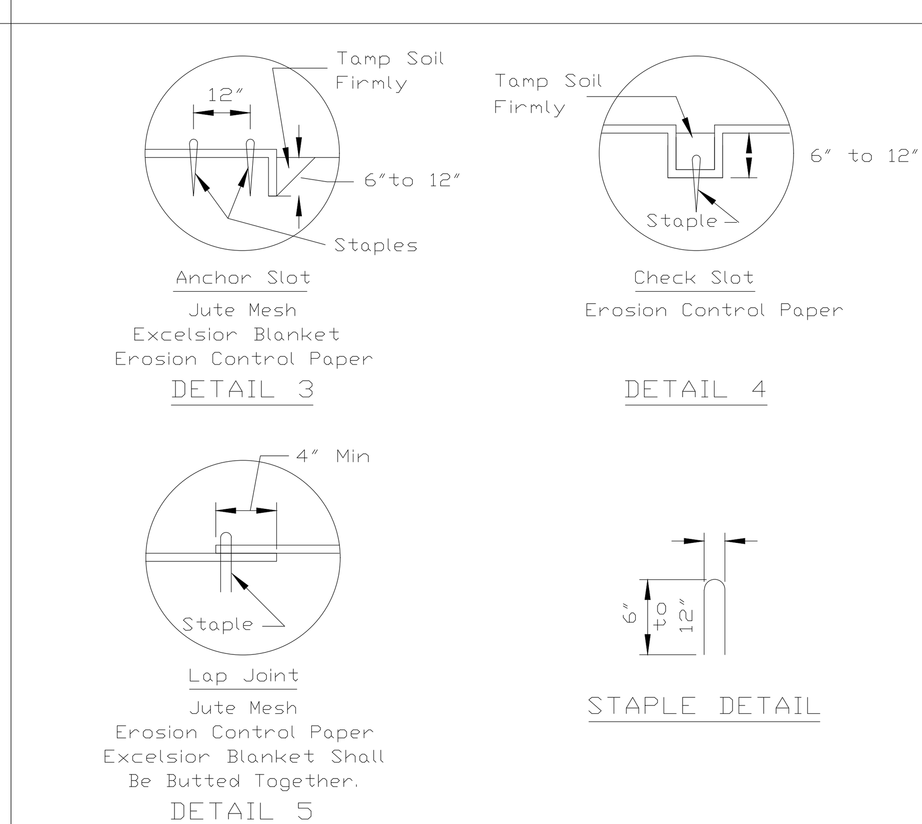
1. VEGETATIVE AND STRUCTURAL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH SPECIFICATIONS AS OUTLINED IN THE "ILLINOIS URBAN MANUAL.
2. EROSION CONTROL MEASURES SHALL BE MAINTAINED AND FUNCTIONAL THROUGHOUT THE CONSTRUCTION PROJECT (MAINTENANCE AND/OR REPLACEMENT COST IS INCIDENTAL).
3. EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT COMPLIANCE WITH CONSTRUCTION SEQUENCE (SEE SCHEDULE).
4. ALL SITE RUNOFF SHALL BE ROUTED THROUGH TRAPS AND SILTATION CONTROL DEVICES PRIOR TO DISCHARGE DOWNSTREAM/OFFSITE.
5. INLET PROTECTION FILTER BASKETS SHALL BE INSTALLED UNDER THE GRATING OF EACH DRAINAGE STRUCTURE.
6. ALL DEWATERING OPERATIONS SHALL BE DISCHARGED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING DISCHARGE DIRECTLY INTO FIELD TILE OR STORM SEWER IS PROHIBITED.
7. CONTRACTOR TO TAKE PROVISIONS TO ENSURE THAT ALL DUMPSTER'S & MATERIAL PILES DURING CONSTRUCTION DO NOT DRAIN INTO DITCHES OR DETENTION BASINS.
8. DUST CONTROL SHALL BE PERFORMED ON A DAILY BASIS USING EQUIPMENT SPECIFICALLY DESIGNED FOR THAT PURPOSE.
9. SEDIMENT REACHING A PUBLIC ROAD SHALL BE REMOVED ON A DAILY BASIS.
10. LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF ANY GUTTER OR DRAINAGE DITCH SHALL BE REMOVED ON A DAILY BASIS.
11. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES AT LEAST ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS AFTER A STORM EVENT OF 0.5 INCHES OR GREATER (OR THE EQUIVALENT SNOWFALL). REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF SAID MEASURES SHALL BE IMMEDIATE.
12. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH JURISDICTIONAL GOVERNMENTAL AGENCY REQUIREMENTS WITHIN THIRTY (30) DAYS OF FINAL SITE STABILIZATION.

EROSION BLANKET PLAN



REFFERENCE		STANDARD DWG. NO.
Project ______	NRCS Natural Resources Conservation Service	IL-530
Designed ______ Date ______		SEEET 1 OF 2
Checked ______ Date ______		DATE 5-24-94
Approved ______ Date ______		

EROSION BLANKET PLAN

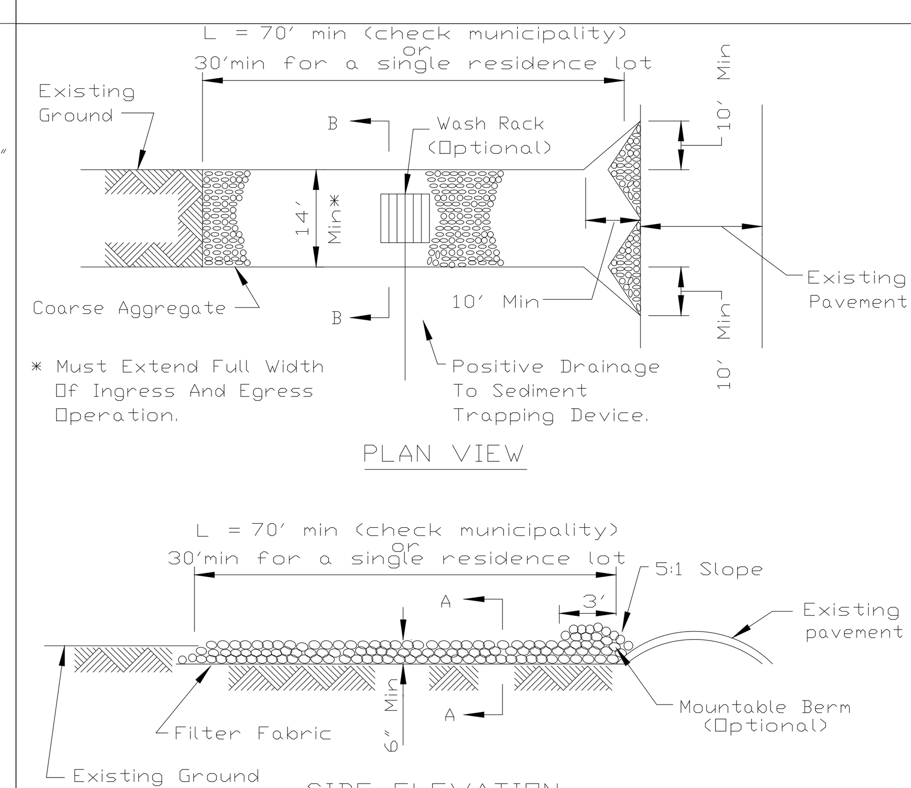


NOTES:

1. On erosion control paper, check slots, in ditch channel shall be spaced so that one occurs within each 50' on slopes of more than 4% and less than 6%. On slopes of 6% or more, they shall be spaced so that one occurs within each 25'.
2. Staples are to be placed alternately, in columns approximately 2' apart and in rows approximately 3' apart. Approximately 175 staples are required per 4'x 225' roll of material and 125 staples are required per 4'x 150' roll of material.
3. Erosion control material shall be placed loosely over ground surface. Do not stretch.
4. All terminal ends and transverse laps shall be stapled at approximately 12" intervals.

REFFERENCE		STANDARD DWG. NO.
Project ______	NRCS Natural Resources Conservation Service	IL-530
Designed ______ Date ______		SHEET 2 OF 2
Checked ______ Date ______		DATE 3-1-95
Approved ______ Date ______		

STABILIZED CONSTRUCTION ENTRANCE PLAN

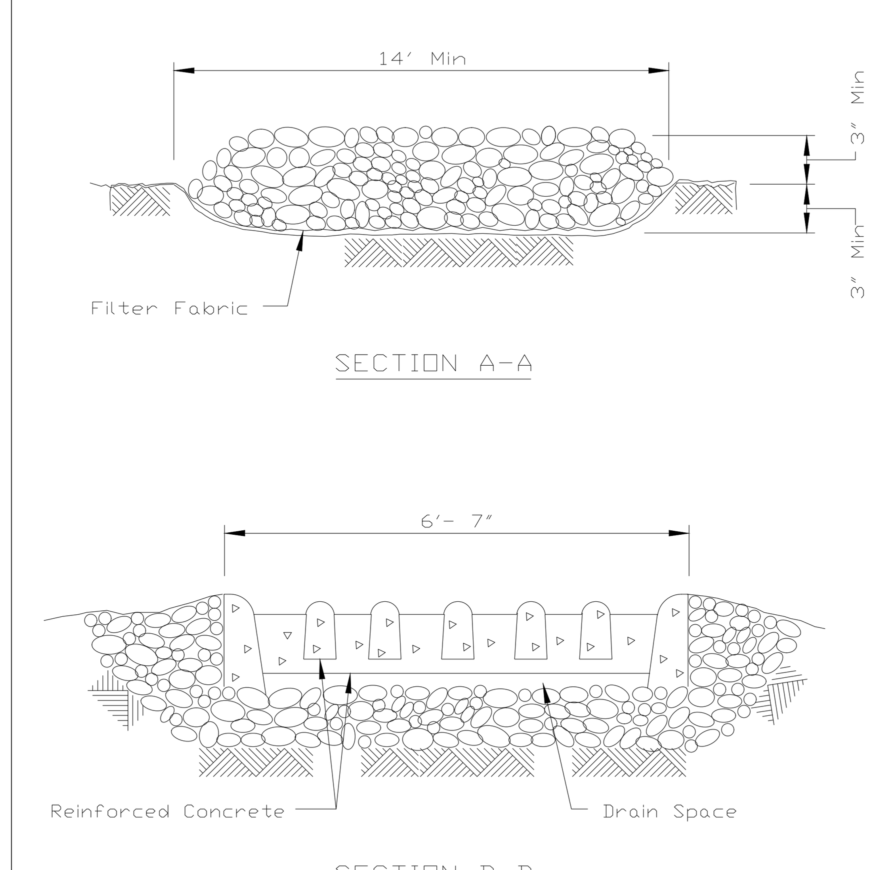


NOTES:

1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table I or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
4. If wash racks are used they shall be installed according to the manufacturer's specifications.

REFERENCE		STANDARD DWG. NO.
Project ______	NRCS Natural Resources Conservation Service	IL-630A
Designed ______ Date ______		SHEET 1 OF 2
Checked ______ Date ______		DATE 8-18-94
Approved ______ Date ______		

STABILIZED CONSTRUCTION ENTRANCE PLAN



REFERENCE		STANDARD DWG. NO.
Project ______	NRCS Natural Resources Conservation Service	IL-630B
Designed ______ Date ______		SHEET 2 OF 2
Checked ______ Date ______		DATE 8-18-94
Approved ______ Date ______		

EROSION CONTROL LEGEND

- STORM DRAINAGE STRUCTURE
- INLET PROTECTION
- TREE PROTECTION FENCE
- SILT FENCE & CHAIN-LINK FENCE
- PERMANENT SEEDING AND LANDSCAPING (LANDSCAPING PER PLAN BY OTHERS)

PLAN ABBREVIATION LEGEND
(IN ADDITION TO TITLE SHEET)

P	=	PAVEMENT
R	=	RIM (OR RADIUS)
TC	=	TOP OF CURB
SW	=	WALK (OR TOP OF WALK)
FF	=	FINISHED FLOOR
EP	=	EDGE OF PAVEMENT
FL	=	FLOW LINE
TW	=	TOP OF WALL ELEV
BW	=	BOTTOM OF WALL (GRADE) ELEV
TDC	=	TOP OF DEPRESSED CURB

January 09, 2018 2:07:05 p.m. AcadVer: 22.0s (LMS Tech)
Drawing: S:\32212717 – HP ARLINGTON HEIGHTS INDUSTRIAL\300_ENGINEERING\310_CADD\FINAL\322_BASE.DWG

	DATE	REVISIONS	DRAWN BY
1	12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
2	01/09/18	VILLAGE ROUND TWO COMMENTS	TLM

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SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS

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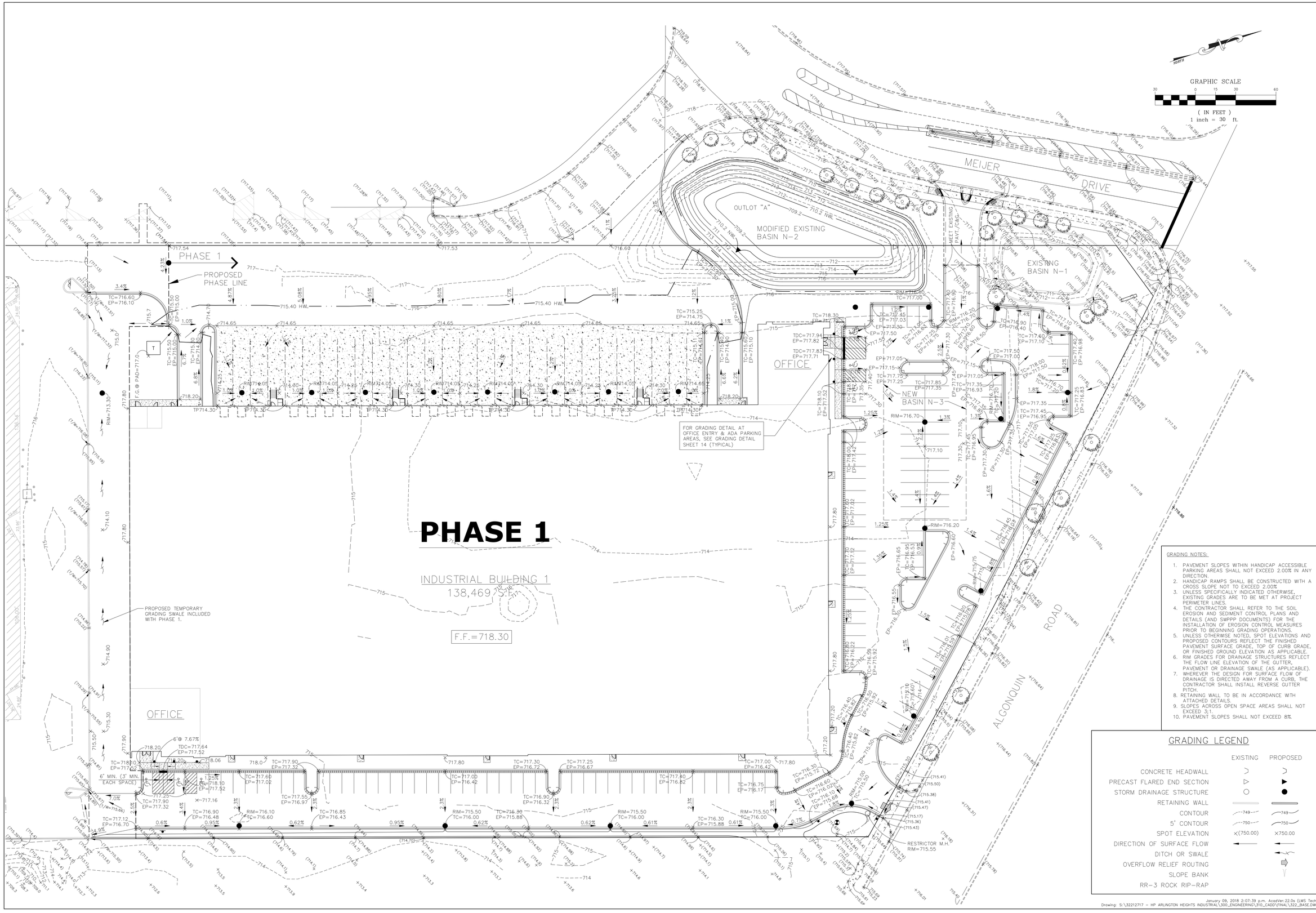
PROJECT NO.	32212717
DATE	10/17/17
SCALE	NONE
PROJ. MGR.	PDL
PROJ. ASSOC.	RWG
DRAWN BY	TLM



GRADING NOTES:

1. PAVEMENT SLOPES WITHIN HANDICAP ACCESSIBLE PARKING AREAS SHALL NOT EXCEED 2.00% IN ANY DIRECTION.
2. HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A CROSS SLOPE NOT TO EXCEED 2.00%
3. UNLESS SPECIFICALLY INDICATED OTHERWISE, EXISTING GRADES ARE TO BE MET AT PROJECT PERIMETER LINES.
4. THE CONTRACTOR SHALL REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLANS AND DETAILS (AND SWPPP DOCUMENTS) FOR THE INSTALLATION OF EROSION CONTROL MEASURES PRIOR TO BEGINNING GRADING OPERATIONS.
5. UNLESS OTHERWISE NOTED, SPOT ELEVATIONS AND PROPOSED CONTOURS REFLECT THE FINISHED PAVEMENT SURFACE GRADE, TOP OF CURB GRADE, OR FINISHED GROUND ELEVATION AS APPLICABLE.
6. RIM GRADES FOR DRAINAGE STRUCTURES REFLECT THE FLOW LINE ELEVATION OF THE GUTTER, PAVEMENT OR DRAINAGE SWALE (AS APPLICABLE).
7. WHEREVER THE DESIGN FOR SURFACE FLOW OF DRAINAGE IS DIRECTED AWAY FROM A CURB, THE CONTRACTOR SHALL INSTALL REVERSE GUTTER PITCH.
8. RETAINING WALL TO BE IN ACCORDANCE WITH ATTACHED DETAILS.
9. SLOPES ACROSS OPEN SPACE AREAS SHALL NOT EXCEED 3:1.
10. PAVEMENT SLOPES SHALL NOT EXCEED 8%.

GRADING LEGEND

	EXISTING	PROPOSED
CONCRETE HEADWALL		
PRECAST FLARED END SECTION		
STORM DRAINAGE STRUCTURE		
RETAINING WALL		
CONTOUR	749	749
5' CONTOUR	750	750
SPOT ELEVATION	×(750.00)	×750.00
DIRECTION OF SURFACE FLOW		
DITCH OR SWALE		
OVERFLOW RELIEF ROUTING		
SLOPE BANK		
RR-3 ROCK RIP-RAP		

DATE	REVISIONS	DRAWN BY
1 12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
2 01/09/18	VILLAGE ROUND TWO COMMENTS	TLM

ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
GRADING PLAN - PHASE 1

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PROJECT NO. 32212717
DATE 10/17/17
SCALE 1"=30'
PROJ. MGR. PDL
PROJ. ASSOC. RWG
DRAWN BY TLM

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12 OF 20

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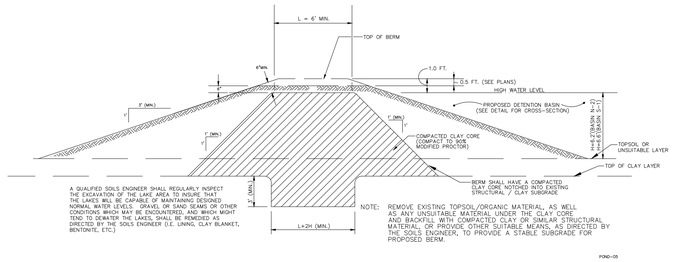
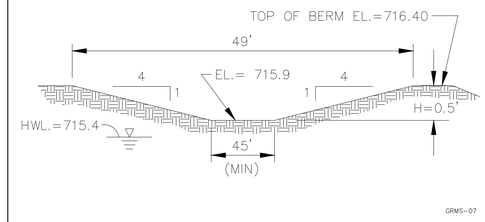


DETENTION BASIN BERM SECTION



DETENTION BASIN S-1 OVERFLOW AREA

GRADING LEGEND

	EXISTING	PROPOSED
CONCRETE HEADWALL		
PRECAST FLARED END SECTION		
STORM DRAINAGE STRUCTURE		
RETAINING WALL		
CONTOUR	749	749
5' CONTOUR	750	750
SPOT ELEVATION	×(750.00)	×750.00
DIRECTION OF SURFACE FLOW		
DITCH OR SWALE		
OVERFLOW RELIEF ROUTING		
SLOPE BANK		
RR-3 ROCK RIP-RAP		

GRADING NOTES:

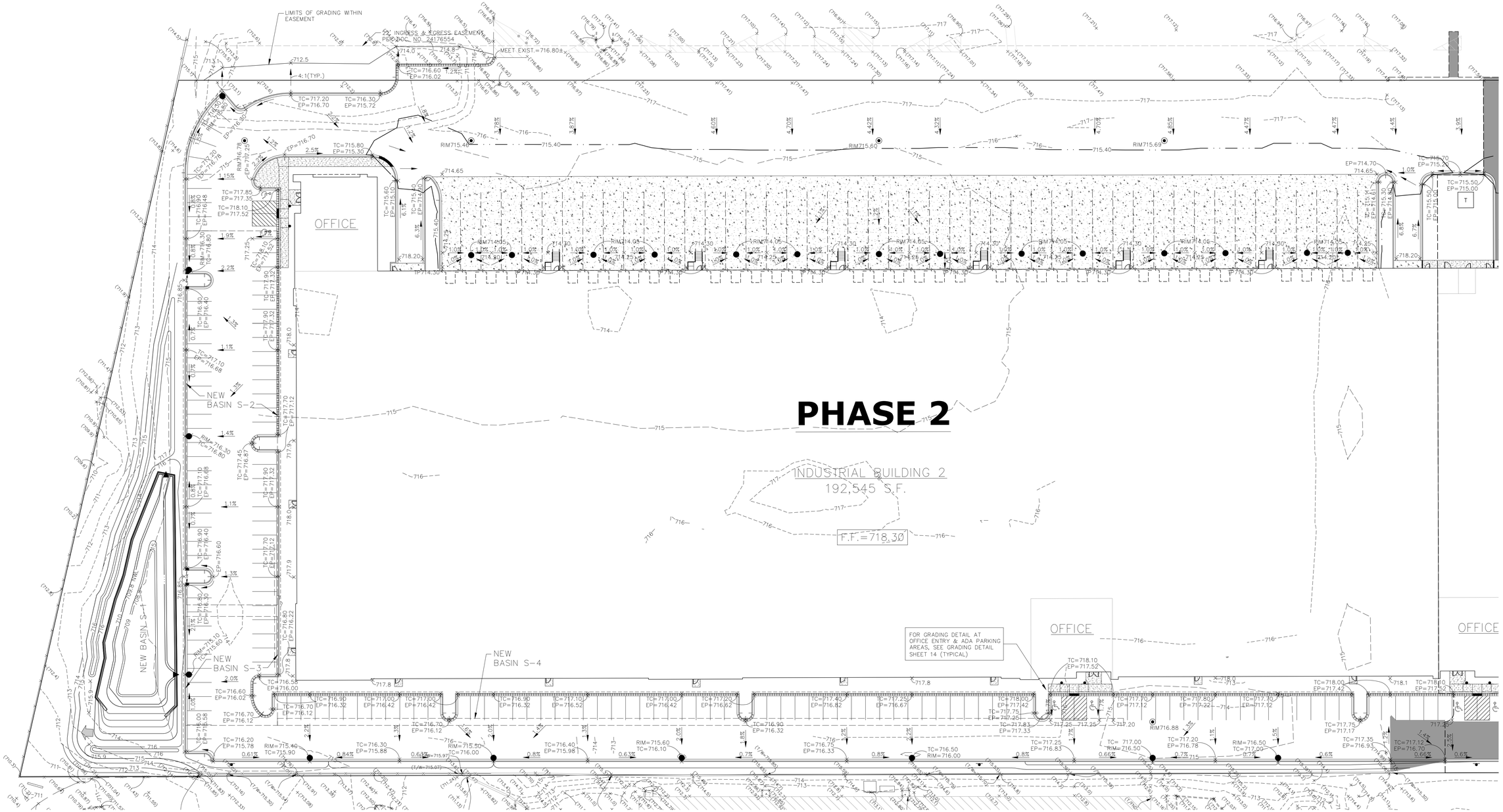
1. PAVEMENT SLOPES WITHIN HANDICAP ACCESSIBLE PARKING AREAS SHALL NOT EXCEED 2.00% IN ANY DIRECTION.
2. HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A CROSS SLOPE NOT TO EXCEED 2.00%
3. UNLESS SPECIFICALLY INDICATED OTHERWISE, EXISTING GRADES ARE TO BE MET AT PROJECT PERIMETER LINES.
4. THE CONTRACTOR SHALL REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLANS AND DETAILS (AND SWPPP DOCUMENTS) FOR THE INSTALLATION OF EROSION CONTROL MEASURES PRIOR TO BEGINNING GRADING OPERATIONS.
5. UNLESS OTHERWISE NOTED, SPOT ELEVATIONS AND PROPOSED CONTOURS REFLECT THE FINISHED PAVEMENT SURFACE GRADE, TOP OF CURB GRADE, OR FINISHED GROUND ELEVATION AS APPLICABLE.
6. RIM GRADES FOR DRAINAGE STRUCTURES REFLECT THE FLOW LINE ELEVATION OF THE GUTTER, PAVEMENT OR DRAINAGE SWALE (AS APPLICABLE).
7. WHEREVER THE DESIGN FOR SURFACE FLOW OF DRAINAGE IS DIRECTED AWAY FROM A CURB, THE CONTRACTOR SHALL INSTALL REVERSE GUTTER PITCH.
8. RETAINING WALL TO BE IN ACORDANCE WITH ATTACHED DETAILS.
9. SLOPES ACROSS OPEN SPACE AREAS SHALL NOT EXCEED 3;1.
10. PAVEMENT SLOPES SHALL NOT EXCEED 8%.

NORTH

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30 ft.



DATE	REVISIONS	DRAWN BY
1 12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
2 01/09/18	VILLAGE ROUND TWO COMMENTS	TLM

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GRADING PLAN - PHASE 2

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PROJECT NO. 32212717
DATE 10/17/17
SCALE 1"=30'
PROJ. MGR. PDL
PROJ. ASSOC. RWG
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13 OF 20

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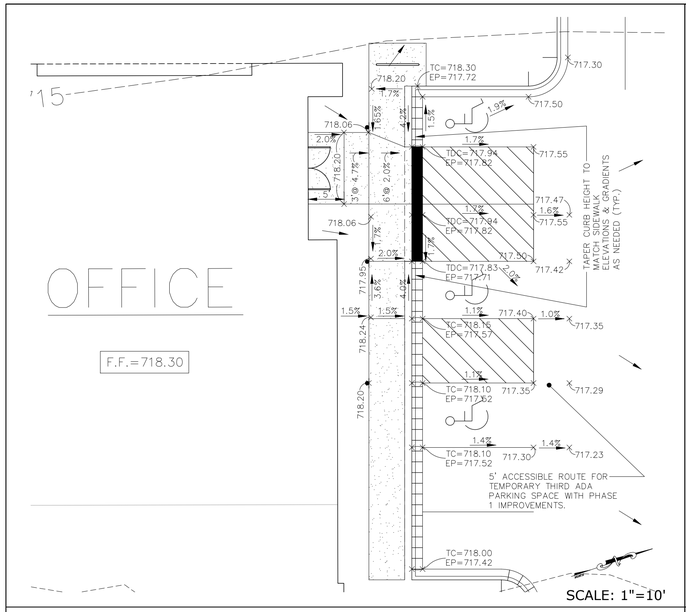
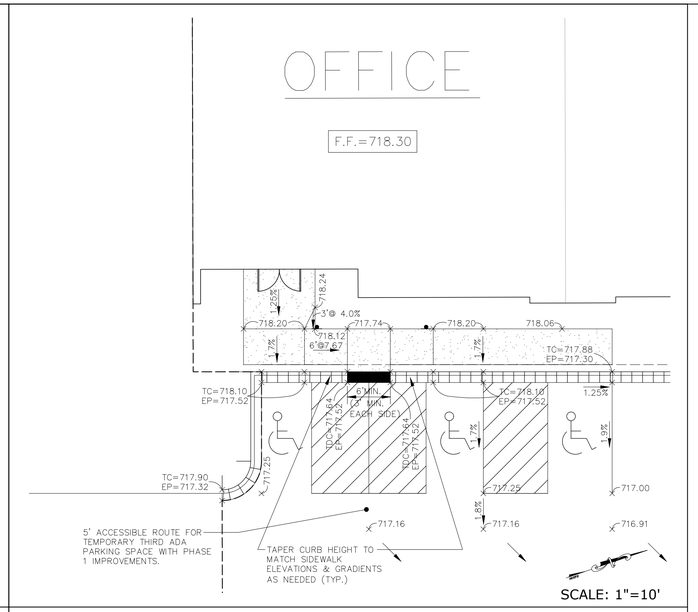
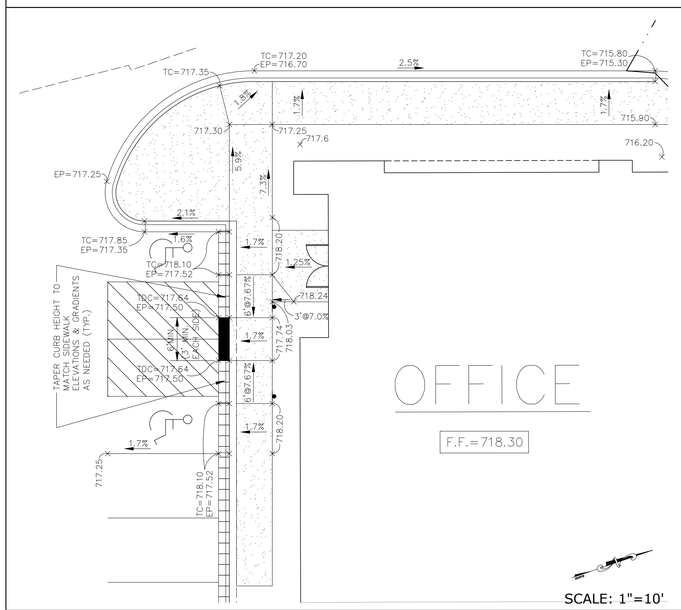


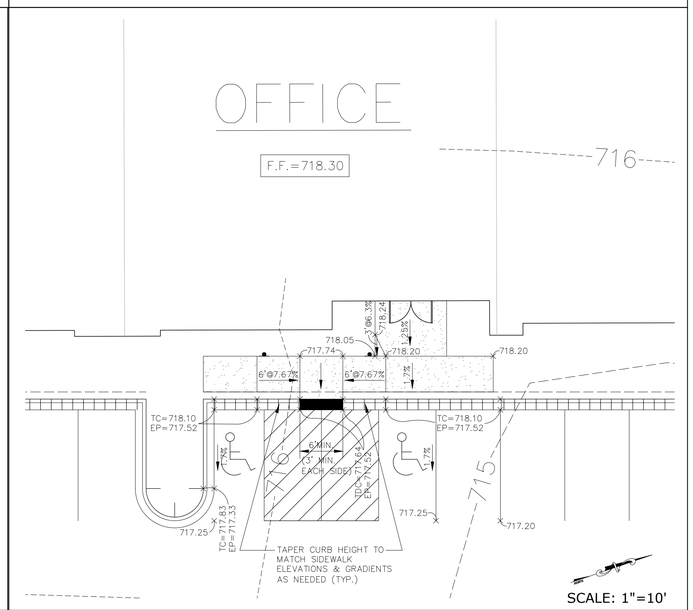
ENLARGED GRADING PLAN - NORTHWEST CORNER OF PHASE 1 BUILDING



ENLARGED GRADING PLAN - SOUTHEAST CORNER OF PHASE 1 BUILDING



ENLARGED GRADING PLAN - SOUTHWEST CORNER OF PHASE 2 BUILDING



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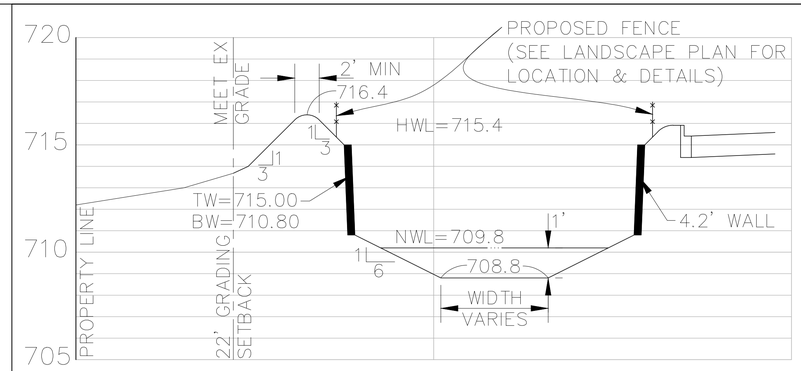
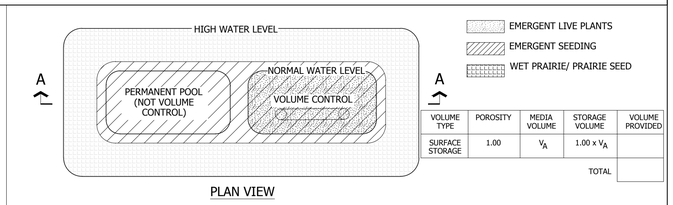
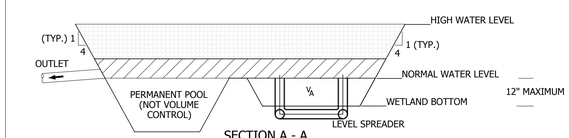


BASIN S-1 CROSS SECTION
(NOT TO SCALE)



VOLUME TYPE	POROSITY	MEDIA VOLUME	STORAGE VOLUME	VOLUME PROVIDED
SURFACE STORAGE	1.00	V_A	$1.00 \times V_A$	
			TOTAL	

PLAN VIEW

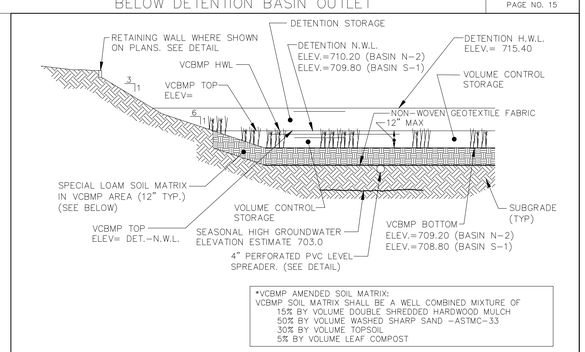


SECTION A - A

NOTES:
1) BOTTOM OF VOLUME CONTROL FACILITY SHALL BE AS FLAT AS POSSIBLE. BOTTOM SLOPES SHALL NOT EXCEED 20:1
2) LEVEL SPREADER PERFORATED 4-INCH DIAMETER PIPE MUST BE INSTALLED TO DISTRIBUTE STORMWATER OVER THE ENTIRE VOLUME CONTROL FACILITY .
3) DEPTH BELOW OUTLET SHALL NOT EXCEED 12 INCHES.
4) DETENTION BASIN SIDE SLOPES SHALL BE 3:1 MINIMUM.
5) FOLLOW THE REQUIRED PRETREATMENT MEASURES LISTED ON THE VOLUME CONTROL PRETREATMENT MEASURES DETAIL (PAGE 17).

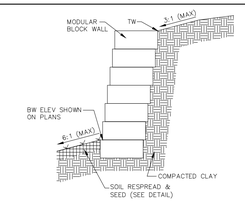
NOT TO SCALE

TECHNICAL GUIDANCE MANUAL — APRIL 2016
TYPICAL VOLUME CONTROL STORAGE BELOW DETENTION BASIN OUTLET — STD. DWG. NO.14 — PAGE NO. 15



*VCBMP AMENDED SOIL MATRIX:
VCBMP SOIL MATRIX SHALL BE A WELL COMBINED MIXTURE OF
15% BY VOLUME DOUBLE SHREDDED HARDWOOD MULCH
50% BY VOLUME WASHED SHARP SAND -ASTMC-33
30% BY VOLUME TOPSOIL
5% BY VOLUME LEAF COMPOST

VCBMP / DETENTION BASIN CROSS SECTION
(NOT TO SCALE)



MODULAR BLOCK RETAINING WALL
BASIN S-1

NOTE: RETAINING WALL DETAILS ARE CONCEPTUAL AND SCHEMATIC ONLY. THE CONTRACTOR MUST SUBMIT INFORMATION ON THE PRODUCT CHOSEN (I.E. "KEYSTONE" OR EQUIVALENT) INCLUDING PLANS SIGNED & SEALED BY A STRUCTURAL ENGINEER AND A STATEMENT FROM THE MANUFACTURER THAT THE PRODUCT IS SUITABLE FOR THE PROPOSED APPLICATION. THIS INFORMATION SHALL BE SUBMITTED TO THE OWNER, THE ENGINEER AND THE MUNICIPAL ENGINEER FOR REVIEW, PRIOR TO CONSTRUCTION. THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR AND MANUFACTURER OF RESPONSIBILITY FOR THE WALL. THE CONTRACTOR SHALL ADHERE STRICTLY TO THE MANUFACTURER'S SPECIFICATIONS AND DESIGN REQUIREMENTS DURING CONSTRUCTION.

DATE	REVISIONS	DRAWN BY
12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
01/09/18	VILLAGE ROUND TWO COMMENTS	TLM

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ARLINGTON HEIGHTS, ILLINOIS
GRADING DETAILS - PHASE 1 & 2

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PROJECT NO. 32212717
DATE 10/17/17
SCALE NONE
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PROJ. ASSOC. RWG
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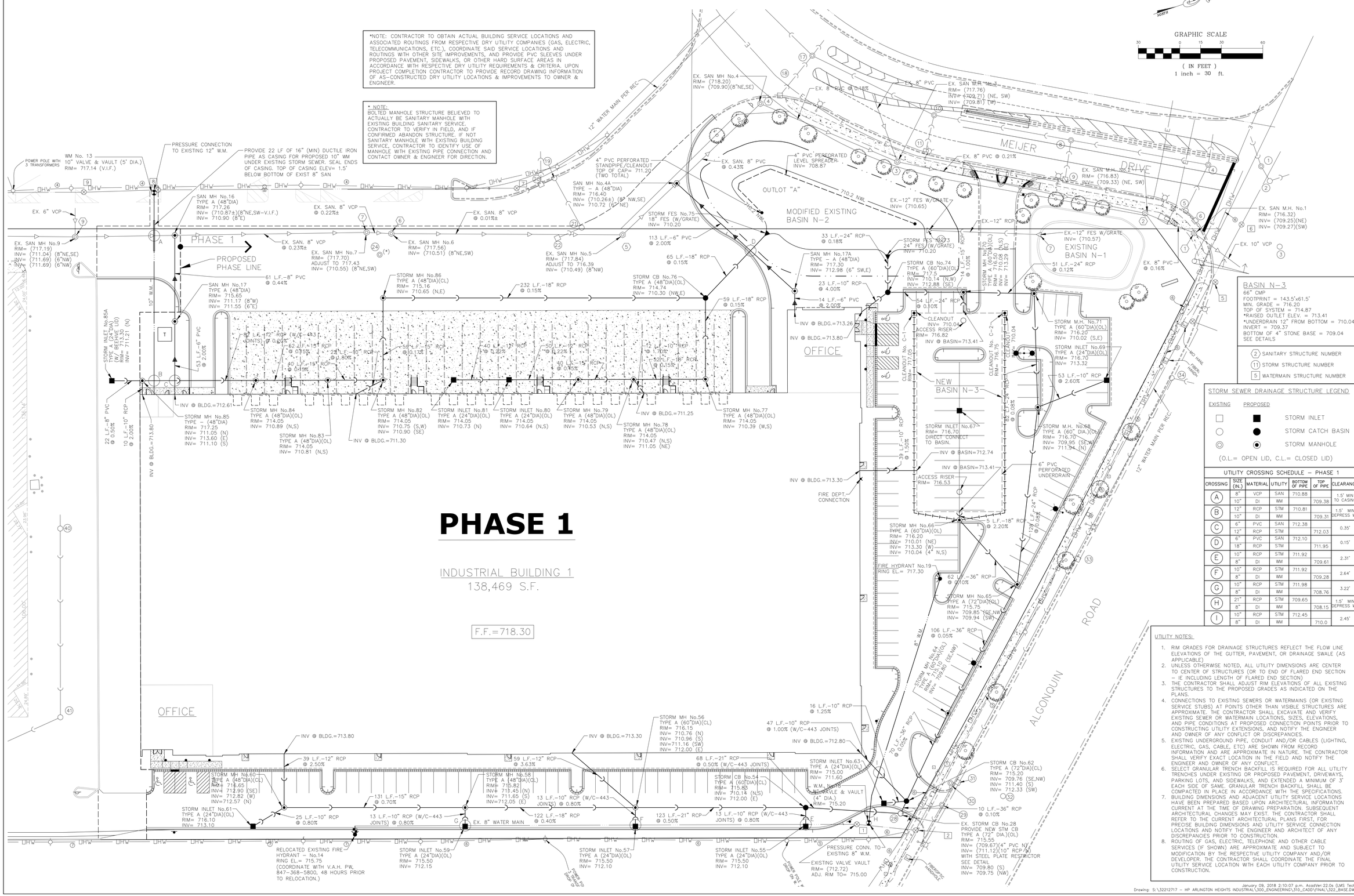
*NOTE: CONTRACTOR TO OBTAIN ACTUAL BUILDING SERVICE LOCATIONS AND ASSOCIATED ROUTINGS FROM RESPECTIVE DRY UTILITY COMPANIES (GAS, ELECTRIC, TELECOMMUNICATIONS, ETC.), COORDINATE SAID SERVICE LOCATIONS AND ROUTINGS WITH OTHER SITE IMPROVEMENTS, AND PROVIDE PVC SLEEVES UNDER PROPOSED PAVEMENT, SIDEWALKS, OR OTHER HARD SURFACE AREAS IN ACCORDANCE WITH RESPECTIVE DRY UTILITY REQUIREMENTS & CRITERIA. UPON PROJECT COMPLETION CONTRACTOR TO PROVIDE RECORD DRAWING INFORMATION OF AS-CONSTRUCTED DRY UTILITY LOCATIONS & IMPROVEMENTS TO OWNER & ENGINEER.

* NOTE:
BOLTED MANHOLE STRUCTURE BELIEVED TO ACTUALLY BE SANITARY MANHOLE WITH EXISTING BUILDING SANITARY SERVICE. CONTRACTOR TO VERIFY IN FIELD, AND IF CONFIRMED ABANDON STRUCTURE. IF NOT SANITARY MANHOLE WITH EXISTING BUILDING SERVICE, CONTRACTOR TO IDENTIFY USE OF MANHOLE WITH EXISTING PIPE CONNECTION AND CONTACT OWNER & ENGINEER FOR DIRECTION.



PHASE 1

INDUSTRIAL BUILDING 1
138,469 S.F.

F.F.=718.30

BASIN N-3

66" CMP
FOOTPRINT = 143.5'x61.5'
MIN. GRADE = 716.20
TOP OF SYSTEM = 714.87
*RAISED OUTLET ELEV. = 713.41
*UNDERDRAIN 12" FROM BOTTOM = 710.04
INVERT = 709.37
BOTTOM OF 4" STONE BASE = 709.04
SEE DETAILS

(2) SANITARY STRUCTURE NUMBER
(11) STORM STRUCTURE NUMBER
[5] WATERMAIN STRUCTURE NUMBER

STORM SEWER DRAINAGE STRUCTURE LEGEND

EXISTING	PROPOSED	
□	■	STORM INLET
○	●	STORM CATCH BASIN
◎	◉	STORM MANHOLE

(O.L.= OPEN LID, C.L.= CLOSED LID)

UTILITY CROSSING SCHEDULE – PHASE 1

CROSSING	SIZE (IN.)	MATERIAL	UTILITY	BOTTOM OF PIPE	TOP OF PIPE	CLEARANCE
A	8"	VCP	SAN	710.88		1.5' MIN TO CASING
	10"	DI	WM		709.38	
B	12"	RCP	STM	710.81		1.5' MIN DEPRESS WM
	10"	DI	WM		709.31	
C	6"	PVC	SAN	712.38		0.35'
	12"	RCP	STM		712.03	
D	6"	PVC	SAN	712.10		0.15'
	18"	RCP	STM		711.95	
E	10"	RCP	STM	711.92		2.31'
	8"	DI	WM		709.61	
F	10"	RCP	STM	711.92		2.64'
	8"	DI	WM		709.28	
G	10"	RCP	STM	711.98		3.22'
	8"	DI	WM		708.76	
H	21"	RCP	STM	709.65		1.5' MIN DEPRESS WM
	8"	DI	WM		708.15	
I	10"	RCP	STM	712.45		2.45'
	8"	DI	WM		710.0	

UTILITY NOTES:

1. RIM GRADES FOR DRAINAGE STRUCTURES REFLECT THE FLOW LINE ELEVATIONS OF THE GUTTER, PAVEMENT, OR DRAINAGE SWALE (AS APPLICABLE)
2. UNLESS OTHERWISE NOTED, ALL UTILITY DIMENSIONS ARE CENTER TO CENTER OF STRUCTURES (OR TO END OF FLARED END SECTION – IE INCLUDING LENGTH OF FLARED END SECTION)
3. THE CONTRACTOR SHALL ADJUST RIM ELEVATIONS OF ALL EXISTING STRUCTURES TO THE PROPOSED GRADES AS INDICATED ON THE PLANS.
4. CONNECTIONS TO EXISTING SEWERS OR WATERMAINS (OR EXISTING SERVICE STUBS) AT POINTS OTHER THAN VISIBLE STRUCTURES ARE APPROXIMATE. THE CONTRACTOR SHALL EXCAVATE AND VERIFY EXISTING SEWER OR WATERMAIN LOCATIONS, SIZES, ELEVATIONS, AND PIPE CONDITIONS AT PROPOSED CONNECTION POINTS PRIOR TO CONSTRUCTING UTILITY EXTENSIONS, AND NOTIFY THE ENGINEER AND OWNER OF ANY CONFLICT OR DISCREPANCIES.
5. EXISTING UNDERGROUND PIPE, CONDUIT AND/OR CABLES (LIGHTING, ELECTRIC, GAS, CABLE, ETC) ARE SHOWN FROM RECORD INFORMATION AND ARE APPROXIMATE IN NATURE. THE CONTRACTOR SHALL VERIFY EXACT LOCATION IN THE FIELD AND NOTIFY THE ENGINEER AND OWNER OF ANY CONFLICT.
6. SELECT GRANULAR TRENCH BACKFILL IS REQUIRED FOR ALL UTILITY TRENCHES UNDER EXISTING OR PROPOSED PAVEMENT, DRIVEWAYS, PARKING LOTS, AND SIDEWALKS, AND EXTENDED A MINIMUM OF 3' EACH SIDE OF SAME. GRANULAR TRENCH BACKFILL SHALL BE COMPACTED IN PLACE IN ACCORDANCE WITH THE SPECIFICATIONS.
7. BUILDING DIMENSIONS AND ADJACENT UTILITY SERVICE LOCATIONS HAVE BEEN PREPARED BASED UPON ARCHITECTURAL INFORMATION CURRENT AT THE TIME OF DRAWING PREPARATION. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. THE CONTRACTOR SHALL REFER TO THE CURRENT ARCHITECTURAL PLANS FIRST, FOR PRECISE BUILDING DIMENSIONS AND UTILITY SERVICE CONNECTION LOCATIONS AND NOTIFY THE ENGINEER AND ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
8. ROUTING OF GAS, ELECTRIC, TELEPHONE AND OTHER CABLE SERVICES (IF SHOWN) ARE APPROXIMATE AND SUBJECT TO MODIFICATION BY THE RESPECTIVE UTILITY COMPANY AND/OR DEVELOPER. THE CONTRACTOR SHALL COORDINATE THE FINAL UTILITY SERVICE LOCATION WITH EACH UTILITY COMPANY PRIOR TO CONSTRUCTION.

DATE	REVISIONS	DRAWN BY
1 12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
2 01/09/18	VILLAGE ROUND TWO COMMENTS	TLM

ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
UTILITY PLAN - PHASE 1

RWG Engineering, LLC
Civil Engineering ◆ Real Estate Consulting ◆ Project Management
975 E. 22nd St, Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 32212717
DATE 10/17/17
SCALE 1"=30'
PROJ. MGR. PDL
PROJ. ASSOC. RWG
DRAWN BY TLM

SHEET
15 OF 20

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January 09, 2018 2:10:07 p.m. AcadVer:22.0s (LMS Tech)
Drawing: S:\32212717 – HP ARLINGTON HEIGHTS INDUSTRIAL\300_ENGINEERING\310_CADD\FINAL\322_BASE.DWG

BASIN S-2
66" CMP
FOOTPRINT = 238.5'x58.0'
MIN. GRADE = 715.96
TOP OF SYSTEM = 714.63
*RAISED OUTLET ELEV. = 711.84
*UNDERDRAIN 12" FROM BOTTOM = 709.80
INVERT = 709.13
BOTTOM OF 4" STONE BASE = 708.80
SEE DETAILS

BASIN S-3
54" CMP
FOOTPRINT = 69.5'x58.5'
MIN. GRADE = 714.96
TOP OF SYSTEM = 713.63
*OUTLET ELEV. = 709.80
*UNDERDRAIN 12" FROM BOTTOM = 709.80
INVERT = 709.13
BOTTOM OF 4" STONE BASE = 708.80
SEE DETAILS

BASIN S-4
54" CMP
FOOTPRINT = 539.5'x4.5'
MIN. GRADE = 714.96
TOP OF SYSTEM = 713.63
*OUTLET ELEV. = 709.80
*UNDERDRAIN 12" FROM BOTTOM = 709.80
INVERT = 709.13
BOTTOM OF 4" STONE BASE = 708.80
SEE DETAILS

UTILITY CROSSING SCHEDULE – PHASE 2

CROSSING	SIZE (IN.)	MATERIAL	UTILITY	BOTTOM OF PIPE	TOP OF PIPE	CLEARANCE
A	36"	RCP	STM	709.49		0.50'
	6"	PVC	SAN		708.99	
B	36"	RCP	STM	708.67		0.78'
	8"	PVC	SAN		707.89	
C	10"	RCP	STM	710.11		1.2'
	8"	PVC	SAN		708.91	
D	10"	RCP	STM	710.13		1.5' MIN DEPRESS WM
	8"	DI	WM		708.63	
E	10"	RCP	STM	711.17		1.42'
	8"	PVC	SAN		709.75	
F	10"	RCP	STM	711.19		1.5' MIN DEPRESS WM
	8"	DI	WM		709.69	
G	10"	RCP	STM	711.89		1.41'
	8"	PVC	SAN		710.48	
H	10"	RCP	STM	711.91		1.74'
	8"	DI	WM		710.17	
I	10"	RCP	STM	712.58		1.22'
	8"	PVC	SAN		711.36	
J	10"	RCP	STM	712.49		2.07'
	8"	DI	WM		710.42	
K	18"	RCP	STM	712.89		0.64'
	6"	PVC	SAN		712.25	

UTILITY NOTES:

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(2) SANITARY STRUCTURE NUMBER
(11) STORM STRUCTURE NUMBER
(5) WATERMAIN STRUCTURE NUMBER

STORM SEWER DRAINAGE STRUCTURE LEGEND

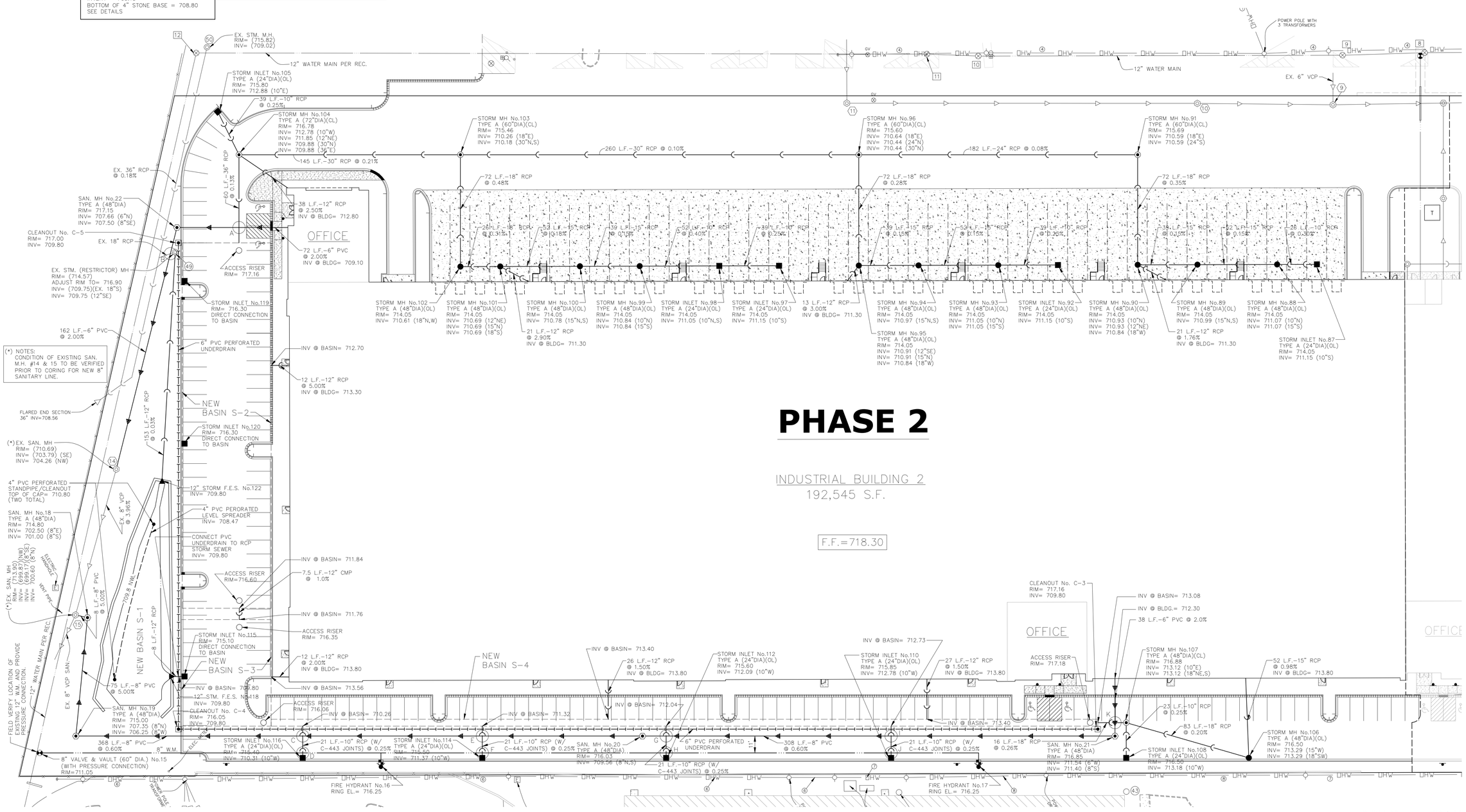
EXISTING	PROPOSED	
□	■	STORM INLET
○	●	STORM CATCH BASIN
◎	◉	STORM MANHOLE

(O.L.= OPEN LID, C.L.= CLOSED LID)

*NOTE: CONTRACTOR TO OBTAIN ACTUAL BUILDING SERVICE LOCATIONS AND ASSOCIATED ROUTINGS FROM RESPECTIVE DRY UTILITY COMPANIES (GAS, ELECTRIC, TELECOMMUNICATIONS, ETC.), COORDINATE SAID SERVICE LOCATIONS AND ROUTINGS WITH OTHER SITE IMPROVEMENTS, AND PROVIDE PVC SLEEVES UNDER PROPOSED PAVEMENT, SIDEWALKS, OR OTHER HARD SURFACE AREAS IN ACCORDANCE WITH RESPECTIVE DRY UTILITY REQUIREMENTS & CRITERIA. UPON PROJECT COMPLETION CONTRACTOR TO PROVIDE RECORD DRAWING INFORMATION OF AS-CONSTRUCTED DRY UTILITY LOCATIONS & IMPROVEMENTS TO OWNER & ENGINEER.

NORTH

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.



DATE	REVISIONS	DRAWN BY
1 12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
2 01/09/18	VILLAGE ROUND TWO COMMENTS	TLM

ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
UTILITY PLAN - PHASE 2

RWG Engineering, LLC
Civil Engineering ◆ Real Estate Consulting ◆ Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

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PROJECT NO. 32212717
DATE 10/17/17
SCALE 1"=30'
PROJ. MGR. PDL
PROJ. ASSOC. RWG
DRAWN BY TLM

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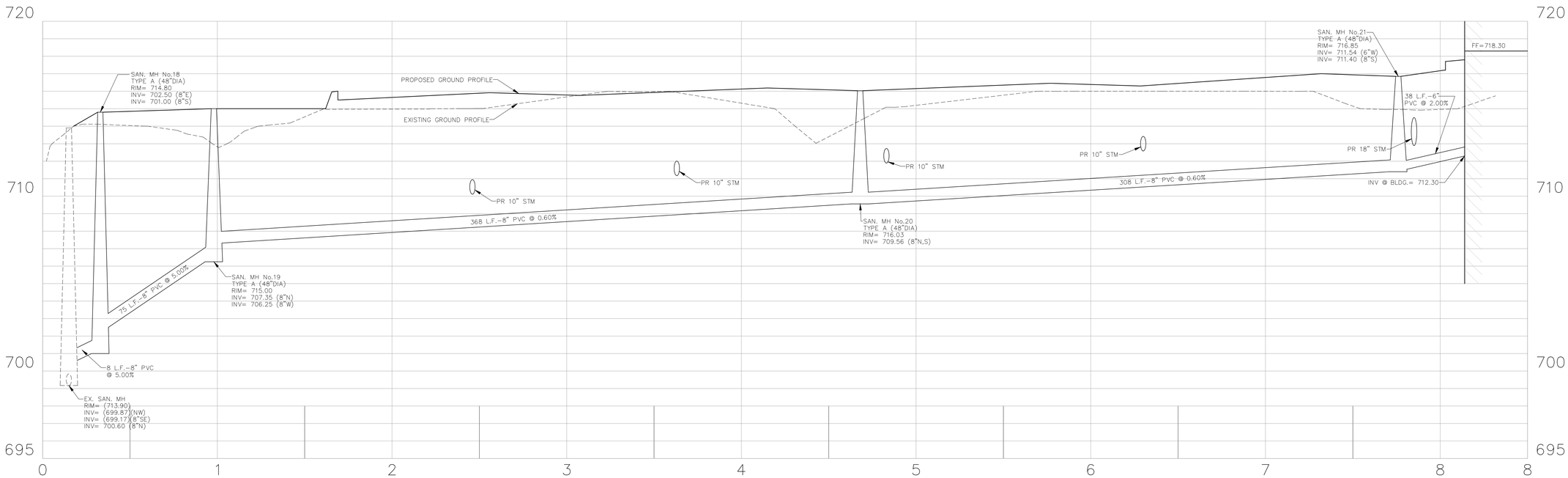
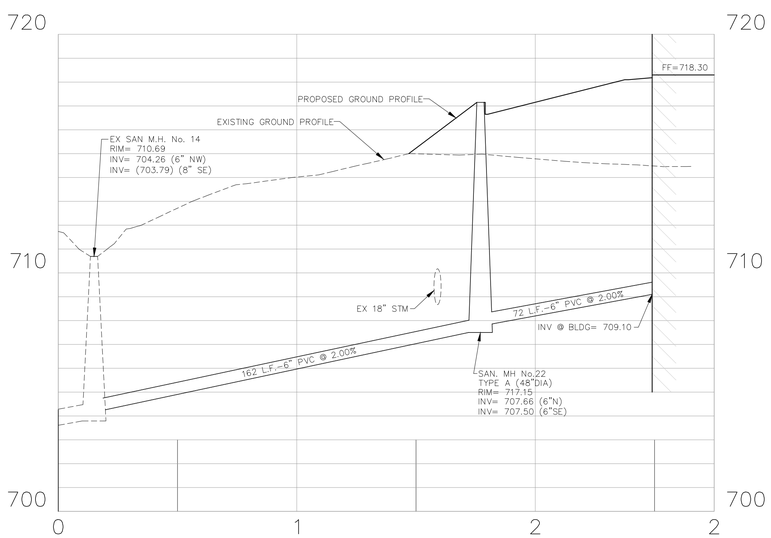
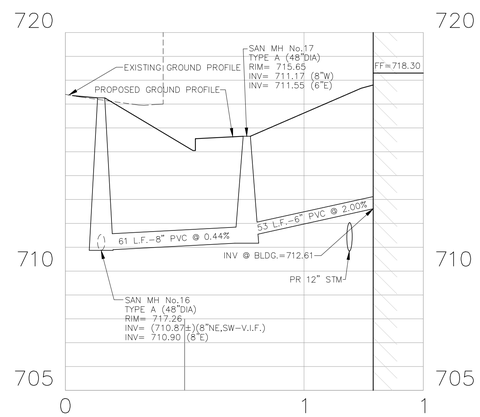


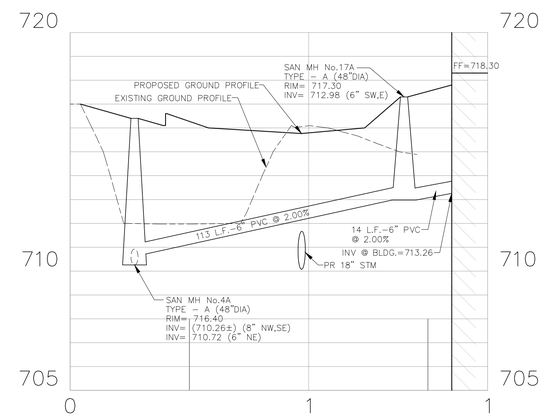
PHASE 2 - EAST SANITARY SERVICE
SCALE: 1"=30' HOR
1"= 3' VER



PHASE 2 - SOUTH SANITARY SERVICE
SCALE: 1"=30' HOR
1"= 3' VER



PHASE 1 - SOUTH SANITARY SERVICE
SCALE: 1"=30' HOR
1"= 3' VER



PHASE 1 - NORTH SANITARY SERVICE
SCALE: 1"=30' HOR
1"= 3' VER

	DATE	REVISIONS	DRAWN BY
1	12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
2	01/09/18	VILLAGE ROUND TWO COMMENTS	TLM

ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
PLAN AND PROFILE - PHASE 1 & 2

RWG Engineering, LLC
Civil Engineering ◆ Real Estate Consulting ◆ Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 32212717
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17 OF 20

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RWG ENGINEERING, LLC
PROJECT SPECIFICATIONS

GENERAL CONDITIONS

CONTRACT DOCUMENTS
The Standard Specifications listed on the title sheet, these Improvement Plans, the Special Provisions, General Conditions, and Subsequent Details are all part of the Contract Documents. Incidental items or accessories necessary to complete the work may not be specifically noted, but are to be considered a part of the contract.

USE OF IMPROVEMENT PLANS
No Improvement Plans shall be used for construction unless specifically marked "For Construction." Prior to commencement of construction, the contractor shall verify all dimensions and conditions affecting their work with the actual conditions at the job site. If there are discrepancies from what is shown on the construction plans, the contractor shall immediately report same to the engineer before doing any work, otherwise the contractor assumes full responsibility. In the event of disagreement between the construction plans, standard specifications, and/or special details, the contractor shall secure written instructions from the engineer prior to proceeding with any part of the work impacted by omissions or discrepancies. Failing to secure such instruction, the contractor will be considered to have proceeded at his own risk and expense. In the event of any doubt or question with respect to the true meaning of the construction plans or specifications, the decision of the engineer shall be final and conclusive.

HIGHWAY/ROADWAY CONSTRUCTION PERMITS
The contractor shall be responsible for obtaining all required permits for construction along or across existing streets or highways, including the use and access to existing streets. The contractor shall make arrangements for proper bracing, shoring, and other required protection of all roadways before construction begins. The contractor shall be responsible for any damage to streets or roadways and associated structures, and shall make repairs as necessary to the satisfaction of the engineer and applicable governmental agency.

EXISTING UTILITIES
Easements for existing utilities within public right-of-way are shown on the plans according to available records. The contractor shall be responsible for determining the exact location in the field of such utility lines and their protection from damage during construction. If existing utility lines of any nature are encountered which conflict in location or elevation with new construction, the contractor shall notify the engineer immediately so that the conflict may be resolved.

PROJECT IMPROVEMENTS AND QUANTITIES
The contractor shall review the construction documents and determine all required improvements and verify all quantities as may be provided by the engineer or owner for bidding purposes, and report any discrepancies to the engineer. The contract price submitted by the contractor shall be considered as lump sum for the completed project unless there is a plan revision or written change to the scope of work.

INCIDENTAL CONSTRUCTION
Whenever the performance of work is indicated on the plans and no item is included in the contract for payment, the work shall be considered incidental to the contract and no additional compensation will be provided.

MAINTENANCE OF SITE DRAINAGE
During construction operations, any loose material that is deposited in the flow line of gutters, drainage structures, ditches, etc. and obstructs the natural drainage flow line shall be removed at the close of each working day by the responsible party. The contractor shall be responsible for keeping the site free of debris. Drainage may be achieved by ditching, pumping, or any other acceptable method. Failure to provide positive drainage will preclude any possible added compensation requested due to delays or unsuitable materials created as a result thereafter. At the conclusion of construction operations all drainage structures and flow lines shall be free from dirt and debris. This work shall be considered incidental to the contract.

TRAFFIC CONTROL
The contractor is responsible for the installation and maintenance of adequate signage, traffic control, and warning devices to inform and protect the public during all phases of construction. All barricades and warning signs shall be provided in accordance with the IDOT Standard Specifications. Adequate lighting shall be maintained from dusk to dawn. In all locations where construction operations are performed on streets designated by the engineer or applicable governmental agency. Traffic control items shall be in accordance with the IDOT "Manual on Uniform Traffic Control Devices."

PAVEMENT REMOVAL/REPLACEMENT
Existing permanent type pavements or other permanent improvements which abut or otherwise interfere with proposed improvements and must be removed shall be saw cut full depth prior to removal. Items so removed shall be replaced with similar construction materials to original condition or better. Payment for saw cutting shall be included in the removal cost and replacement will be paid under the respective item in the contract, unless otherwise indicated. Removed pavement, sidewalk, curb, etc. shall be disposed of by the contractor at his own expense at an offsite dump site. - (If not reused onsite (see demolition notes).

TREE PROTECTION
Existing trees not scheduled for removal shall be protected from damage. Trimming and sealing shall be in accordance with IDOT Standard Specifications.

EXISTING SIGNAGE & MAIL BOXES
Existing signage and mail boxes that interfere with construction shall be removed, stored, and replaced/reset by the contractor in accordance with the IDOT Standard Specifications. Damage to these items shall be repaired/replaced by the contractor at his expense. Temporary mailbox facilities shall be provided as an incidental cost.

EXISTING FIELD TILE
Field tile encountered during construction shall be connected to proposed storm sewer or extended to outlet into a proposed drainage way. If this is not possible, then existing tile shall be repaired with new pipe of same size and material (or better) and restored in acceptable operating condition at the original grade. Records of location and elevation shall be made by the contractor and furnished to the engineer upon project completion.

CONSTRUCTION DEBRIS CLEAN-UP
The contractor is responsible for removal and disposal of all excess material and debris resulting from his construction operations at no expense to the owner.

CONSTRUCTION RECORD
The contractor shall keep a set of approved construction plans on the jobsite, and shall maintain a legible record on said plans of field tile encountered, modifications/alterations to alignment/installation of proposed improvements, etc. Upon completion of the contractor's work, said record documents shall be provided to the engineer. Final payments shall not come due until this information is provided to the engineer.

SAFETY & CONSTRUCTION EXECUTION
The contractor shall comply with the rules and regulations of OSHA and appropriate authorities regarding jobsite safety provisions. The engineer and owner are not responsible for the construction means, methods, techniques, sequences or procedures, time for performance, programs, or for any safety precautions used by the contractor. The contractor is solely responsible for execution of his work in accordance with the contract documents.

INSURANCE
Contractors responsible for construction shall purchase insurance for the benefit of the engineer, naming RWG Engineering, LLC as an additional insured to cover claims and expenses, including cost of defense, asserted against engineer, it's agents, employees, and consultants for bodily injury, sickness, disease or death caused by any negligent act or omission of the contractor, any subcontractor, anyone directly or indirectly employed by them or anyone for whose acts may be liable. Provide such insurance shall state that "The coverage afforded the additional insured's shall be primary insurance for the additional insured with respect to claims arising out of operations performed by or on behalf of the contractor." A certificate shall be issued to the engineer prior to the start of work. Applicable insurance maintained by RWG Engineering, LLC shall be considered secondary and on an excess or contingent basis.

PROJECT SPECIFICATIONS

I. SOIL EROSIONS AND SEDIMENT CONTROL

GENERAL STANDARDS
Unless specifically modified below, all soil erosion and sediment control work shall be done in accordance with NPDES General Permit No. ILR10 and the "Illinois Urban Manual." The contractor shall conform to all requirements of this general permit including maintenance and inspection of erosion control measures and filing applicable certifications and reports. A copy of the notification of coverage letter shall be posted at the site in a prominent place for public viewing. Any control measures in addition to those outlined in these plans which are deemed necessary by the owner, engineer, or applicable governmental agency shall be immediately implemented by the contractor. Maintenance and replacement of erosion control items shall be considered incidental.

SWPPP
A copy of the Stormwater Pollution Prevention Plan (SWPPP) shall be kept onsite with all supplemental material as required per NPDES General Permit No. ILR10. Construction operations shall conform to permit requirements.

SITE PREPARATION
Prior to clearing and grading, perimeter silt fence shall be installed, and onsite sediment control measures shall be constructed and functional per the soil erosion and sediment control plan. The contractor shall construct ditches, swales, sediment traps, and siltation control measures to intercept surface waters prior to conveyance onto adjacent properties, routing surface flow to onsite treatment facilities.

STABILIZED CONSTRUCTION ENTRANCE
Temporary gravel construction entrances shall be installed and maintained to prevent sediment from being trucked offsite. Sediment reaching a public road shall be removed by shoveling or street sweeping at the end of each work day. Loose material deposited in the flow line of any gutter or drainage structure shall be removed at the end of each work day.

TOPSOIL STOCKPILES
Topsoil stockpiles shall be seeded within seven (7) calendar days of completion for erosion control, unless they will be distributed within fourteen (14) calendar days. Stockpiles shall be encompassed with a silt fence.

DUST CONTROL
Dust control shall be performed on a daily basis using water dispersed from a truck mounted tank with a standard discharge header for uniform application rate.

DE-WATERING
During de-watering operations water shall be pumped into sediment basins or silt traps. De-watering directly into field tile or stormwater structures is not permitted. Water pumped during construction operations shall be filtered.

STABILIZATION
Disturbed areas shall be stabilized by seeding within seven (7) days of completion of disturbance unless the area will be disturbed within fourteen (14) days. Temporary seed mixtures shall be applied at a rate of 64 lbs/acre.

SEDIMENT BASINS
When stormwater is routed through proposed detention basins to allow for settlement of suspended silt and debris, the basins shall be constructed at the start of the project. Basins shall be sufficiently over-excavated to provide appropriate volume for sediment collection.

STRUCTURE FILTER FABRIC
Filter fabric or inlet protection devices shall be installed in each onsite drainage structure. Fabric shall be cut large enough such that the entire grate is covered with a 24" minimum "basket" to collect sediment.

DRAINAGE SYSTEM MAINTENANCE
All storm sewers, catch basins, sumps, and detention basins provided with this project shall be cleaned at construction completion and prior to final acceptance. Cleaning may also be required during construction if the traps are not functioning properly.

INSPECTIONS
The contractor shall inspect all erosion control measures at least once every seven (7) calendar days, and within 24 hours of a storm event of 0.5 inches or greater (or equivalent snowfall) and in accordance with NPDES guidelines. Necessary repairs or clean up to maintain the effectiveness of the control measures shall be done immediately.

CLEANUP
All erosion and sediment control measures shall be removed and disposed of in accordance with applicable governmental agency requirements within 30 days of final site stabilization.

II. EXCAVATION AND GRADING - (EARTHWORK)

GENERAL STANDARDS
Unless specifically modified below, all excavation and grading - (earthwork) shall be done in accordance with the applicable sections of the "Standard Specifications for Road and Bridge Construction in Illinois," as published by IDOT, Latest Edition.

SITE PREPARATIONS
Prior to onset of operations, the contractor shall become familiar with the soil erosion control specifications. The establishment of erosion control procedures and the placement of filter fencing, etc. to protect adjacent property shall occur before mass grading begins, and in accordance with the implementation schedule.

Tree protection fencing shall be placed around any trees designated to be preserved within the construction zone. Fencing shall be placed in a circle centered around the tree, such that the entire drip zone (extent of furthest extended branches) shall be within the fence limits. The existing grade within the fenced area shall remain undisturbed.

DEMOLITION
Demolition of existing structures, pavements, curbs, flatwork, utilities, etc. shall be disposed of at an offsite dump site provided by the contractor - (if not reused onsite (see demolition notes). Existing water wells shall be closed and capped in accordance with the Illinois Water Well Construction Code, as published by the Department of Public Health. Existing septic tanks and grease traps shall have all liquids and solids removed by a licensed waste hauler prior to structure removal or filling by the contractor.

CLEARING AND GRUBBING
Unless noted for preservation, all vegetative growth including trees and tree stumps shall be removed from the construction area.

TOPSOIL REMOVAL
Topsoil shall be stripped from all roadway, driveway, parking area, right-of-way, building pad and other designated topsoil areas. Stockpiling of topsoil for respread shall be at locations as directed by the owner. Topsoil stockpiled for future use shall be free from large roots, sticks, weeds, brush, stones larger than one inch diameter, and other litter or waste products not conducive to plant growth. Failure to properly sequence stockpiling operations shall not constitute a claim for additional compensation. No material shall be stockpiled in front yards, drainage swales, flood routing areas, utility locations, utility easements or right-of-way.

UNSUITABLE MATERIAL
Unsuitable subgrade material shall be removed from roadway, driveway, parking lot, building pad, and any other designated areas. Obviously soft underlying soil shall be removed from all structural improvement areas, areas to receive clay fill, and wherever else designated on the site. If underlying structural subgrade soils run deeper than one inch under construction equipment or if the moisture content exceeds that needed for proper compaction, the soil shall be scarified, dried, and recompacted to the required specifications.

EXCAVATION AND EMBANKMENT
Upon completion of topsoil removal, the contractor shall perform excavation and embankment (fill) operations in accordance with the improvement plans.

Structural embankment material shall be placed in level uniform layers so that the compacted thickness is approximately six inches. Each layer shall be thoroughly mixed during spreading to insure uniformity.

Embankment material within roadway, driveway, parking areas, and other structural clay fill areas shall be compacted to a minimum of ninety percent (90%) of maximum density (modified proctor method), or to such other density as determined appropriate by the soils engineer. Embankment for building pads shall be compacted to a minimum of ninety-five percent (95%) of maximum density (modified proctor method), or to such other density as determined appropriate by the soils engineer.

Embankment material within non-structural fill areas (random fill) shall be compacted to a minimum of eighty-five percent (85%) of maximum density (modified proctor method), or to such other density as determined appropriate by the soils engineer.

Embankment material within non-structural fill areas (random fill) required to raise the ground surface to or above the base (100 year) flood elevation shall be compacted to a minimum of ninety percent (90%) of maximum density (modified proctor method).

All subgrades for proposed street and pavement areas shall be proof-rolled by the contractor and any unstable areas shall be removed and replaced as directed by the soils engineer.

BACKFILLING CURBS, PAVEMENT, ETC.
Curbs, pavements, sidewalks, etc. shall be backfilled by the contractor after installation in accordance with the improvement plan grades.

TOPSOIL RESPREAD
Except where otherwise noted, the contractor shall respread a minimum four (4) inch layer of topsoil on all designated open space, parkway, landscape, and other non-structural areas.

EXCESS MATERIAL
Unless otherwise approved by the owner, the contractor shall remove from the site any excess or unsuitable earth material.

SEEDING
Upon completion of topsoil respread, the contractor shall install seed and fertilizer as indicated on these improvement plans or per owner provided landscape plans.

INSPECTION BY THE SOILS ENGINEER
The owner provided soils engineer shall closely supervise and inspect the grading operations, particularly during the removal of unsuitable material and the construction of embankments or building pads. All testing, inspection and supervision of embankment quality, unsuitable removal and replacement, and other soils related operations shall be entirely the responsibility of the soils engineer.

GRADING TOLERANCE
Building pad elevations, subgrades for pavement, driveways and sidewalks, and all yard/open space areas shall be completed within a tolerance of plus or minus 0.1 foot of design subgrade elevations.

UTILITY INSTALLATION PREPARATION
Prior to utility construction, proposed pavement areas, building pads, driveway and sidewalk areas, and yard/open space areas shall be rough graded to plus or minus one foot of design subgrade elevations.

NOTE REGARDING PLAN GRADES
Grade elevations shown on the improvement plans are finished grades. Pavement and/or topsoil respread thicknesses must be subtracted to determine subgrade elevations.

SITE DRAINAGE MAINTENANCE
Grading and site improvement construction shall not cause ponding of stormwater. All areas adjacent to improvements shall be graded to provide positive site drainage.

RIP RAP MATERIAL
Stone Rip-Rap material provided shall conform to IDOT specification criteria.

SUBGRADE DESIGN CRITERIA
Pavement subgrade shall have a minimum IBR of 3.0 as determined by the soils engineer. The proposed pavement design has been based on a minimum IBR of 3.0. If areas of pavement subgrade are encountered which do not meet the minimum IBR requirement, subgrade remedial work or pavement design revisions will be ordered by the owner to obtain equivalent pavement strength.

III. UNDERGROUND UTILITIES - UNIVERSAL

GENERAL STANDARDS
All sewer and water main improvements shall be constructed in accordance with the "Standard Specifications for Water and Sewer Main Construction in Illinois," Latest Edition, along with applicable sections of the "Standard Specifications for Road and Bridge Construction in Illinois," as published by IDOT, Latest Edition, and the construction details and specifications of the applicable governmental agency.

GENERAL WORK SCOPE
Underground utility construction shall include trenching or augering; installation of pipe, structures and castings; backfilling of trenches with compaction; and testing as required. Fittings and accessories necessary to complete the work may not be specified, but shall be considered incidental to the cost of the contract.

GRADE PREPARATION
Rough grading to within one foot of finished subgrade shall be completed by the earthwork contractor prior to commencement of underground utility construction.

DE-WATERING
The contractor is responsible for dewatering any excavation for the installation of sewer or water systems. Dewatering will be considered incidental to the respective underground utility construction.

SHEETING AND BRACING
Any anticipated costs for sheeting and bracing shall be reflected in the contract amounts. Additional costs for sheeting and bracing will not be allowed.

SELECT GRANULAR BACKFILL
All utility trenches beneath existing or proposed pavement, driveways and sidewalks, and existing or proposed utilities (ie. crossings), and for a distance of three (3) feet either side of same (or more for deeper utilities as noted on the plans), and/or wherever else shown on the plans shall be backfilled with select granular material and firmly compacted in accordance with the construction standard details.

EXCESS TRENCH MATERIAL
The contractor shall respread excess excavated trench material adjacent to the trenches in an orderly fashion so as not to create a hazard or obstruction, and to maintain the site in a workable condition.

DISSIMILAR MATERIALS/PIPE CONNECTIONS
"Band-Seal" or similar flexible type couplings shall be used when connecting sewer pipes of dissimilar materials. When connection to an existing sewer main by means other than an existing wye, tee, or an existing structure, one of the following methods shall be used:
- Circular coring of sewer main with proper tools ("Sewer-Tap" machine or similar) and installation of hub-wye or hub-tee saddle.
- Remove entire section of pipe (breaking only the top of one bell) and replace with precast wye or tee branch section.
- Using a pipe cutter, neatly and accurately cut out desired length of pipe for insertion of proper fitting, using a non-shear tension coupling to hold assembly firmly in place

UTILITY STRUCTURE SELECT BACKFILL
Where select granular bedding and backfill is required around utility structures, the cost for same shall be merged into the structure cost.

STRUCTURE CASTINGS
Frames and lids (or grates) for sanitary, water main and storm sewer structures shall be as indicated on the plans, and the cost of same shall be integrated into the respective structure cost.

ADJUSTING RINGS
All structures shall incorporate a minimum of three (3) inches and a maximum of eight (8) inches of adjusting rings (two (2) rings maximum).

STRUCTURE ADJUSTMENT
All top of frames for utility structures (including B-Boxes) shall be adjusted to meet final finished grade upon completion of finished grading and final inspection (cost incidental). The contractor shall insure that roadway, curb, and pavement inlets or structures (frames and grates) are at finished grade.

HORIZONTAL AND VERTICAL SEPARATION OF WATER AND SEWER MAINS
Horizontal and vertical separation between water and sewer mains shall be maintained in accordance with the Standard Specifications for Water and Sewer Main Construction in Illinois and said specifications standard drawings 18, 19, 20, 21, 22, 23, and 24.

FLOOR DRAINS AND FOOTING DRAINS
All floor drains and floor drain sump pumps shall discharge into the sanitary sewer. All downspouts, footing drains and subsurface stormwaters shall discharge into the storm sewer or onto the ground - not into the sanitary sewer.

RIP RAP MATERIAL
Rip Rap material provided in conjunction with underground utility improvements shall conform to IDOT specifications.

CONSTRUCTION RECORD
The contractor shall maintain a legible record on a set of construction plans information concerning all manholes, wyes and services, valve boxes, curb boxes, etc. such that they can be field located in a manner acceptable to the owner and applicable governmental agencys.

IV. UNDERGROUND UTILITIES - SANITARY SEWER

SANITARY SEWER PIPE
Sanitary sewers and services (or combined sewers in combined sewer areas) shall be constructed of one or more of the following materials as specified on the plans:

- PVC gravity sewer pipe conforming to ASTM D-3034 (for pipe diameters of 4 inch to 15 inch, or conforming to ASTM F-679 (for pipe diameters of 18 inch to 48 inch, with minimum SDR of 26, and with Elastomeric gasket joints conforming to ASTM D-3212. The gasket shall comply with ASTM F-477. Sanitary services shall conform to ASTM D-2680 and D-2751 with solvent welded joints conforming to same.
- Cement-lined ductile iron pipe class 52, conforming to AWWA C-151 (ANSI A21.51) with push-on joints conforming to AWWA C-111 (ANSI A21.11)

SANITARY SEWER BEDDING
Sanitary sewers shall be installed on compacted granular crushed stone bedding, 1/4 inch to 3/4 inch in size (IDOT gradation CA-11 or CA-13), with a minimum thickness of one fourth of the outside pipe diameter, but not less than 4 inches nor more than 8 inches. Bedding shall extend upward to the springline of the pipe for all sanitary sewer and services. Cost for bedding shall be merged into lineal footage cost for the respective sewer pipe.

SANITARY PIPE MANHOLE CONNECTIONS
Sanitary sewer manhole connections shall be made with a flexible water-tight boot precast into the structure (see construction standard detail). Refer to ASTM C-923.

SERVICE CONNECTIONS TO MAINLINE SEWER
Service connections to mainline sewer shall be done with pre-cast wyes or tees manufactured for that purpose, and shall be of the same material as the mainline sewer.

SANITARY SERVICES
Services shall be laid to a minimum grade of 1.0 percent. The end of the service shall be sealed with a water-tight plug.

SERVICE LOCATIONS
Sanitary services shall be installed in a separate trench from water services, with a minimum horizontal separation of 10 feet.

V. UNDERGROUND UTILITIES - WATER MAIN

WATER MAIN PIPE
Water main shall be cement-lined ductile iron pipe class 52 conforming to AWWA C-151 (ANSI A21.51). Rubber gasket joints shall conform to AWWA C-111 (ANSI A21.11). Push-On pipe joints shall incorporate "Field Lock Gaskets" by U.S. Pipe or Series 1700 Mega-Lug. Ductile iron fittings shall conform to AWWA C-110 (ANSI A21.10). Cement lining shall conform to AWWA C-104 (ANSI A21.4). Protective wrapping is required. It shall conform to AWWA C105-99, minimum thickness 8 mil polyethylene tube such as Clow type (F-19) or equal, and shall completely encase and seal the main, fittings, and accessories per manufacturer's directions.

FITTINGS
Water main fittings (bends, elbow, tees, increasers, reducers, etc.) may or may not be specifically referenced on the plans and quantities - if not, they shall be considered incidental and included in the lineal footage cost for the water main.

DEPTH OF COVER - MAIN AND SERVICES
Minimum depth of cover from finished grade to top of water main or water service pipe shall be five and one half (5.5) feet.

THRUST BLOCKING
Thrust blocking shall be installed with water mains at all bends, tees, elbows, etc. (see construction standard detail). Retainer glands or megalug fittings may be substituted if permitted by the applicable governmental agency. Cost of either to be merged into lineal footage cost for the water main.

WATER MAIN BEDDING
Water main shall be installed on compacted granular crushed stone bedding, 1/4 inch to 3/4 inch in size (IDOT gradation CA-6), a minimum of 4 inches below the bottom of the pipe and extending upward to the springline (1/2 the pipe diameter). Cost for bedding shall be merged into lineal footage cost for the water main.

WATER VALVES
Unless specifically noted otherwise, gate valves in accordance with the applicable governmental standard shall be used wherever valves are called for. Valves shall be iron body, bronze mounted, parallel resilient seat valves per AWA C-509. Valves shall be rated for 300 psi test pressure and 200 psi working pressure.

VALVE VAULTS
Valve vaults shall be used at all valve locations. Vaults shall be precast reinforced concrete structures, diameter as noted on the plans. Vaults shall include appropriate frames and lids (see construction standard details).

PRESSURE TAPS
Where indicated on the plan, pressure tap operations shall be done while maintaining system pressure in the existing main. The existing main shall be cleaned prior to installation of the tapping sleeve. Tapping valve shall conform to AWWA C-500. Vault, supports, frame, and lid shall conform to the construction standard detail.

FIRE HYDRANTS
Hydrants shall be of the manufacture and equipped with auxiliary valves and valve boxes in accordance with the applicable governmental agency's standard. Hydrants shall be equipped with two 2 1/2 inch hose nozzle connections and one 4 1/2 inch pumper port. Hose threads shall be the standard of the applicable governmental agency. Hydrants shall open left (counter-clockwise). Hydrants shall generally be located three (3) feet clear of the back of curb.

SERVICE LOCATIONS
Water services shall be installed in a separate trench from sanitary (or storm) services, with a minimum horizontal separation of 10 feet.

TESTING AND DISINFECTION
Water mains shall be subject to a pressure test by the contractor. Hydrostatic pressure test and leakage shall be based on 150 psi for 2 hours. Chlorination for disinfection shall be in accordance with the Standard Specifications. Testing and chlorination of existing water mains (where connections are indicated on the plans) shall be considered incidental. In the event testing of existing mains fail, and such failures are attributable to pre-existing conditions not under the contractor's control, the contractor is entitled to additional payment to correct the deficiencies in the existing system.

VI. UNDERGROUND UTILITIES - STORM SEWER

STORM SEWER PIPE
Storm sewers and services shall be constructed of one or more of the following materials as specified on the plans:

- Reinforced concrete pipe class III unless otherwise indicated on the plans, conforming to ASTM C-76 with trowel applied bituminous mastic compound per ASTM C-76. Where noted on the plan the joints and pipe shall incorporate flexible gaskets conforming to ASTM C-443 or ASTM C-361 in lieu of mastic (typically at water main crossings).
- Cement-lined ductile iron pipe class 52, conforming to AWWA C-151 (ANSI 21.51) with push-on joints conforming to AWWA C-111 (ANSI A21.11).
- PVC gravity sewer pipe conforming to ASTM D-3034 (for pipe diameters of 4 inch to 15 inch) or conforming to ASTM F-679 (for pipe diameters of 18 inch to 48 inch). All pipe shall be SDR 35 or stronger, with elastomeric gasket joints conforming to ASTM D-3212.

STORM SEWER BEDDING
Storm sewers shall be installed on compacted granular crushed stone bedding, 1/4 inch to 3/4 inch in size (IDOT gradation CA-6), with a minimum thickness of one fourth of the outside pipe diameter, but not less than 4 inches nor more than 8 inches. Bedding shall extend upward to the springline of the pipe for concrete and ductile iron pipe, and one foot over the top of the pipe for PVC pipe and CMP pipe. Cost for bedding shall be merged into lineal footage cost for the respective sewer pipe.

INLETS, CATCH BASINS, AND MANHOLES
All structures shall be pre-cast reinforced concrete (see construction standard details). Structure sections and adjusting rings shall be securely sealed to each other with flexible bituminous mastic. Gaps at pipe connections shall be filled and securely sealed with non-shrink hydraulic cement mortar. Frames and grates (or lids) shall be as noted on the plans and shall be securely grouted with non-shrink hydraulic cement mortar.

FLARED END SECTIONS
End sections shall be pre-cast reinforced concrete flared end sections with an end block footing in accordance with the construction standard details (or CMP metal end section as appropriate). Flared end sections for sewers 12 inches or greater shall include a safety grating per the construction standard details.

SPECIAL STRUCTURES
If called for on the plans, special structures (headwalls, boxes, etc.) shall be in accordance with the construction standard details.

VII. PAVEMENT, CURBS, AND SIDEWALKS

GENERAL STANDARDS
Unless specifically modified below, all pavement, curb, and sidewalk construction shall be done in accordance with the applicable sections of the "Standard Specifications for Road and Bridge Construction in Illinois," as published by IDOT, Latest edition.

SUBGRADE PREPARATION
The subgrade for roadways, pavement, and/or curbs and walks shall be finished by the excavation contractor to within 0.1 foot of the plan elevation. The paving contractor shall confirm the proper preparation of the rough subgrade, or notify the owner and engineer in writing of any discrepancies. Prior to placement of base material, the paving contractor shall fine grade the subgrade to insure proper thicknesses for all base and pavement courses.

BITUMINOUS PAVEMENT
Bituminous Pavement shall consist of the sub-base course, base course, hot-mix asphalt binder course, and hot-mix asphalt surface course, of the thickness and materials as specified on the plans. The maximum size aggregate for the hot-mix asphalt surface course mixture shall be 3/8 inches. A prime coat shall be applied to the sub-base course (or base course) as indicated on the plans. A tack coat shall be applied to the binder course prior to surface course placement.

WEATHER REQUIREMENTS FOR BITUMINOUS PAVING
Hot-mix binder shall be placed only when the ambient air temperature is at least 40 degrees Fahrenheit and the forecast is for rising temperatures. Hot-mix surface shall be placed when the ambient air temperature is at least 45 degrees Fahrenheit and the forecast is for rising temperatures.

BITUMINOUS PAVEMENT INSTALLATION
After installation of the base course, all traffic shall be kept off the base until the binder course is placed. After installation of the binder course (and for public improvements after the binder course has been in place for one winter), and upon completion of inspection and approval by the applicable governmental agency and owner, the binder shall be cleaned, a tack coat shall be applied at a rate of 0.05 gal/square yard (cost incidental), and the surface course shall be placed. All damaged areas in the binder, base or curb shall be repaired prior to surface replacement.

REINFORCED CONCRETE PAVEMENT
Concrete pavement and base course shall be of the thickness as shown on the plans. All concrete pavement shall be reinforced with 6 inch x 6 inch No. 6 welded wire mesh. Pavement joints shall be broom finished. Construction joints shall be sawcut immediately after pavement installation and initial curing.

CONCRETE PAVEMENT JOINTING
Joints for concrete pavement shall be determined by contractor in the field using best practices. Maximum distance between joints shall be 15 feet. Jointing shall follow the American Concrete Pavement Association Publication "Proper use of Isolation and Expansion Joints in Concrete Pavements."

CONCRETE CURB AND GUTTER
Combination curb and gutter shall be as detailed on the plans, underlain with the specified base course. Pre-molded fiber expansion joints (3/4 inch thick with 2 inch x 18 inch dowels) and contraction joints shall be installed at 60 foot intervals and at all P.C.'s, P.T.'s, curb returns, and at the end of each pour. Alternate ends of the dowel bars shall be greased and fitted with metal expansion tubes. Fiber expansion joints 3/4 inch shall also be used wherever sidewalk abuts the curb. Contraction joints shall be sawcut at (1/5 foot intervals. Two (2) reinforcing bars (No. 4), 10 feet long, shall be installed wherever curb and gutter crosses utility trenches or service lines. Curbs shall be depressed at all locations where public walks or pedestrian paths intersect curb lines (ADA Requirements - see construction standard details). Concrete curb and gutter shall be placed and vibrated to eliminate any honey-combing.

CONCRETE SIDEWALKS
Sidewalks and base course shall be of the thickness and dimensions as shown on the plans. Sidewalks crossing driveways shall be reinforced with 6 inch x 6 inch No. 6 welded wire mesh. Sidewalks crossing utility trenches shall be reinforced with three (3) No. 4 reinforcing bars 10 feet long, centered over the trench crossing.

CONCRETE CURING
Curing and weather protection of all concrete surfaces (pavement, curb, sidewalk) shall be per the standard specifications.

TESTING
Testing of all pavement courses, curbs, and concrete shall be done by a qualified testing firm employed by the owner.

PAINTED PAVEMENT MARKINGS
Painted pavement markings and symbols shall be installed in the color and location as shown on the plan, and conforming to the standard specifications. Markings and symbols shall only be applied when the temperature is 50 degrees Fahrenheit or above.

THERMOPLASTIC PAVEMENT MARKINGS
Thermoplastic pavement markings and symbols, of the type and color as noted on the plans, shall be installed on public roadways. Thermoplastic shall only be applied when the air temperature is 55 degrees Fahrenheit or greater, and no later than November 1st or earlier than April 15th.

VIII. RWRD GENERAL NOTES

A. REFERENCED SPECIFICATIONS
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED
HEREIN OR ON THE PLANS:
* STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
* STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
* VILLAGE OF ARLINGTON HEIGHTS MUNICIPAL CODE;
* THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;
* IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

B. NOTIFICATIONS

1. THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055).

2. THE VILLAGE OF ARLINGTON HEIGHTS ENGINEERING DEPARTMENT AND PUBLIC WORKS MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.

3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL JULIE AT 1-800-892-0123.

C. GENERAL NOTES

1. ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

2. MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.

3. THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.

4. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.

5. LOCATIONS OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.

6. ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

7. MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.

8. THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.

9. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.

10. RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.

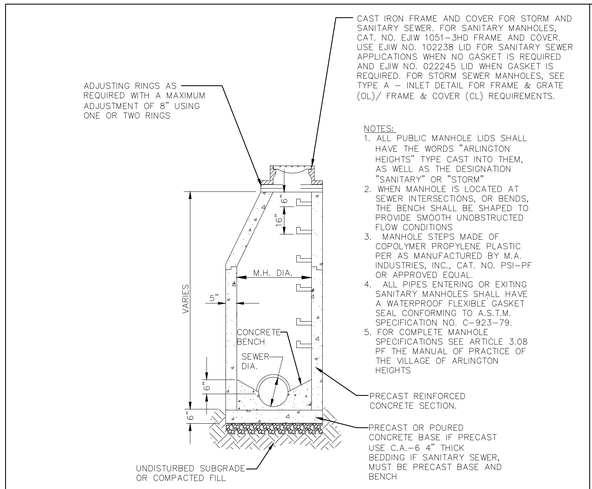
D. SANITARY SEWER

1. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.

2. A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.

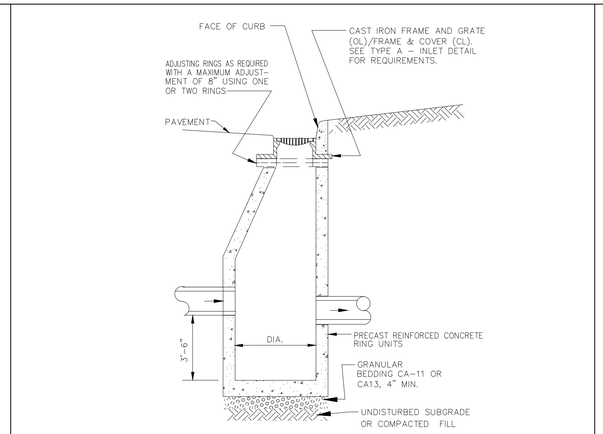
3. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.

4. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD S



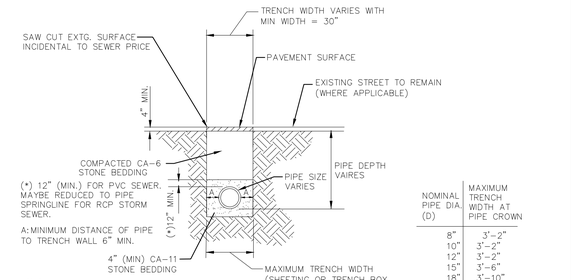
TYPE A – MANHOLE

MH–01



TYPE A – CATCH BASIN

CB–01



NOMINAL PIPE DIA. (D)	MAXIMUM TRENCH WIDTH AT PIPE CROWN
8"	3'–2"
10"	3'–2"
12"	3'–2"
15"	3'–6"
18"	3'–10"
21"	4'–4"
24"	4'–8"
27"	4'–11"
30"	5'–3"
33"	6'–0"
36"	6'–4"

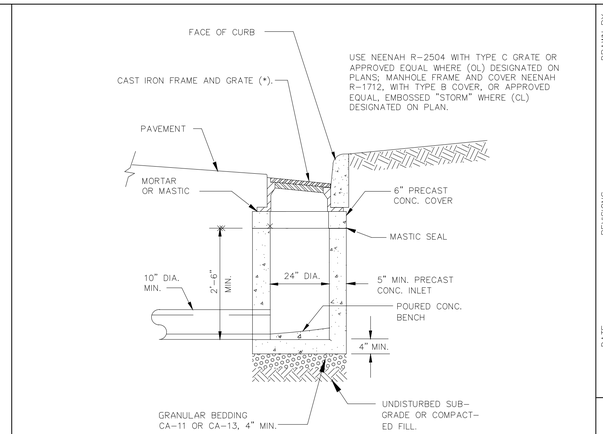
Notes:
WHEN PREPARING FOR STREET SUBGRADE REMOVAL OF COMPACTED STONE SUBGRADE SHALL BE INCLUDED WITH EARTH EX. REMOVAL

NO SEPARATE PAYMENT WILL BE MADE FOR FITTINGS REQUIRED FOR DIVERTING SANITARY SEWER LINES AROUND PROPOSED SEWERS. THIS COST OF FITTINGS WILL BE INCIDENTAL TO THE COST OF THE STORM SEWER PIPE.

COST OF STONE BEDDING MATERIAL AS SHOWN SHALL BE INCIDENTAL TO SEWER PAY ITEMS

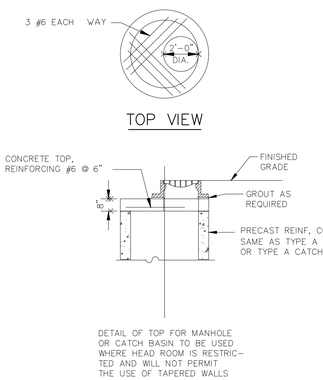
SEWER TRENCH DETAIL

TRENCH–01



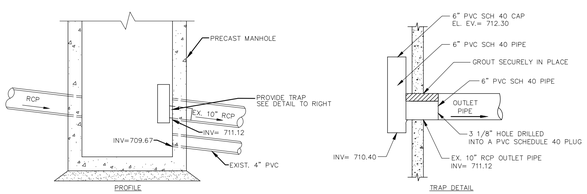
TYPE A – INLET

IN–01



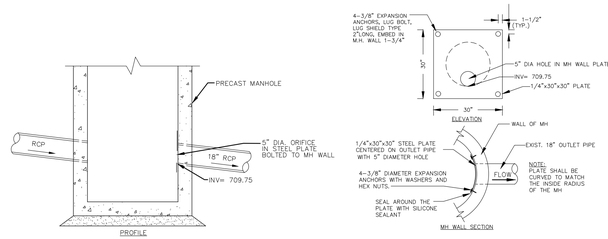
RESTRICTED DEPTH MANHOLE / CATCH BASIN

MH/CB–01



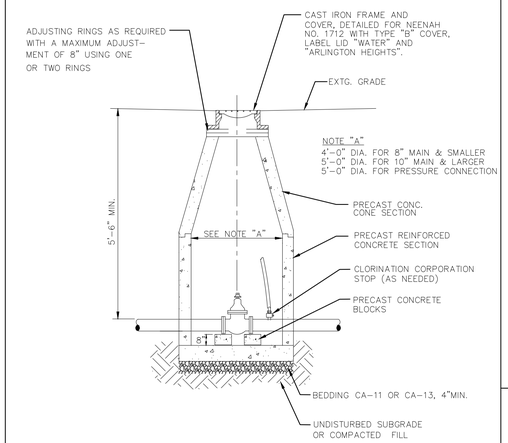
RESTRICTOR DETAIL – C.B. No.28 (PHASE 1 – NORTH)

RESTR_04



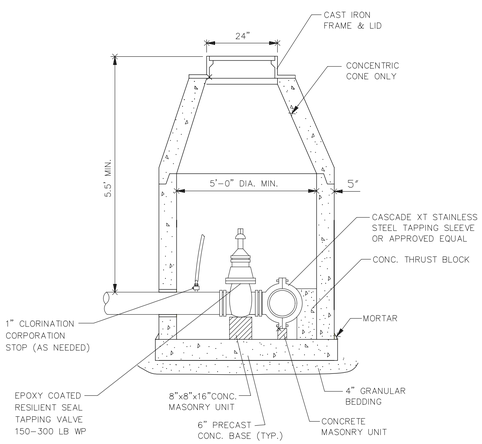
RESTRICTOR DETAIL – EX. M.H. No.49 (PHASE 2 – SOUTH)

RESTR_04



VALVE VAULT

VV–01

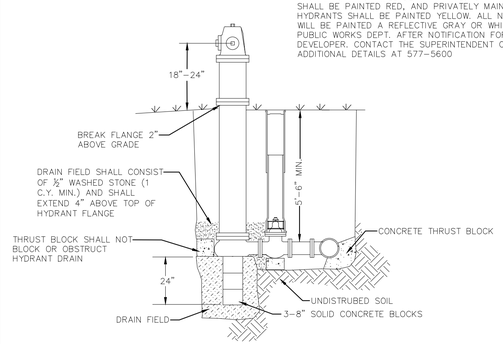


VALVE VAULT, TYPE A W/ PRESSURE CONNECTION

VV–02

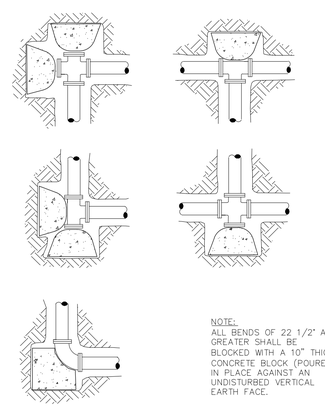
FIRE HYDRANTS SHALL MEET AWWA C–502 AND BE EAST JORDAN 5 BR, OR APPROVED EQUAL WITH ONE 5 ¼" VALVE OPENING, TWO 2 ½" HOSE NOZZLES AND ONE 5" PUMPER NOZZLE. THREADS SHALL CONFORM WITH NATIONAL STANDARD SPECIFICATIONS. EACH HYDRANT SHALL BE EQUIPPED WITH AN AUXILIARY RESILIENT SEAL GATE VALVE COMPLETE WITH ROADWAY BOX, TYLER 6850 SERIES, ITEM 658–S. FIRE HYDRANTS MUST HAVE THEIR DISCHARGE AT LEAST 18" BUT NOT MORE THAN 24" FROM THE SURFACE OF THE ADJACENT GROUND. HYDRANTS SHALL BE INSTALLED NO CLOSER THAN 3 FEET AND NO MORE THAN 8 FEET FROM THE BACK OF CURVE OR EDGE OF PAVEMENT TO THE 5" STEAMER NUT. NO BARRIERS, TREES, BUSHES, WALLS OR OTHER OBSTACLES WHICH MAY HIDE OR IMPEDE THE USE OF A FIRE HYDRANT SHALL BE INSTALLED, MAINTAINED CONSTRUCTED OR ENLARGED WITHIN 48" OF A FIRE HYDRANT.

HYDRANTS WHICH WILL BE MAINTAINED BY THE VILLAGE SHALL BE PAINTED RED, AND PRIVATELY MAINTAINED HYDRANTS SHALL BE PAINTED YELLOW. ALL NOZZLE CAPS WILL BE PAINTED A REFLECTIVE GRAY OR WHITE BY THE PUBLIC WORKS DEPT. AFTER NOTIFICATION FORM THE DEVELOPER. CONTACT THE SUPERINTENDENT OF UTILITIES FOR ADDITIONAL DETAILS AT 577–5600



FIRE HYDRANT

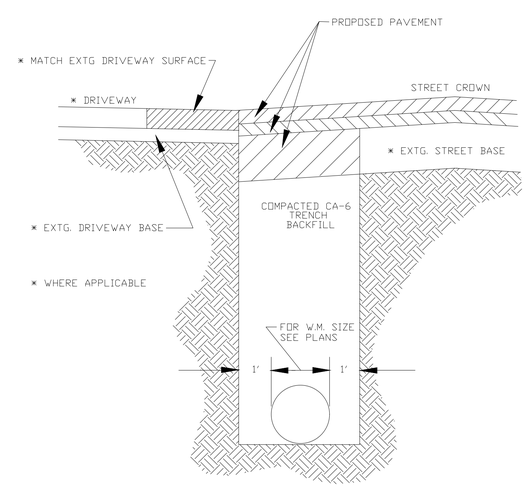
FH–01



NOTE:
ALL BENDS OF 22 1/2" AND GREATER SHALL BE BLOCKED WITH A 10" THICK CONCRETE BLOCK (POURED IN PLACE AGAINST AN UNDISTURBED VERTICAL EARTH FACE.

THRUST BLOCK INSTALLATIONS

TB–01



WATER MAIN TRENCH DETAIL PAVEMENT SECTION

DATE	REVISIONS	DRAWN BY
1 12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
2 07/09/18	VILLAGE ROUND TWO COMMENTS	TLM

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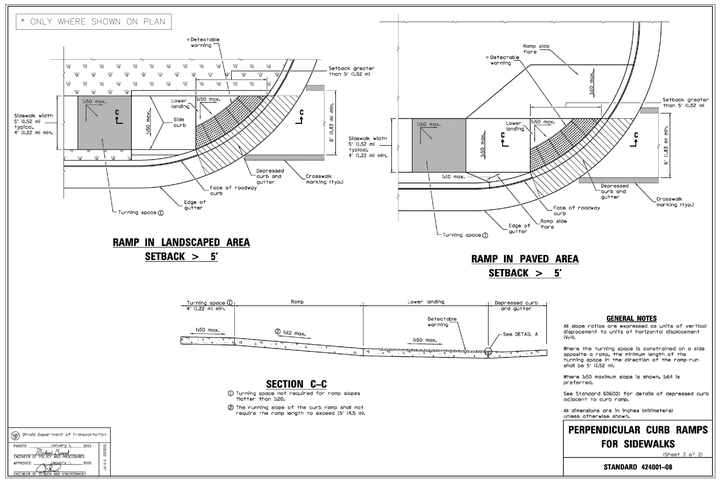
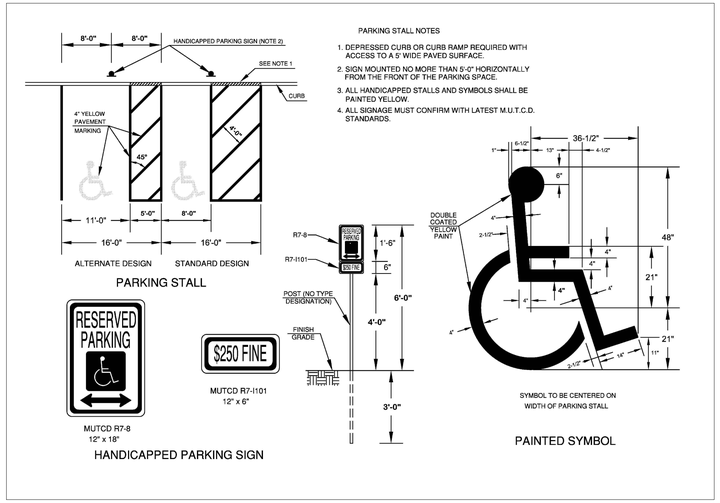
ARLINGTON HEIGHTS, ILLINOIS
CONSTRUCTION DETAILS AND STANDARDS

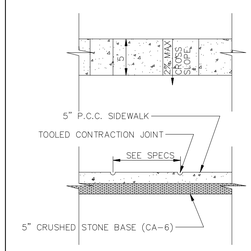
RWG Engineering, LLC
Civil Engineering ♦ Real Estate Consulting ♦ Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 32212717
DATE 10/17/17
SCALE NONE
PROJ. MGR. PDL
PROJ. ASSOC. RWG
DRAWN BY TLM

SHEET
19 OF 20

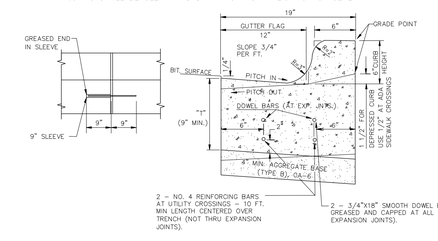




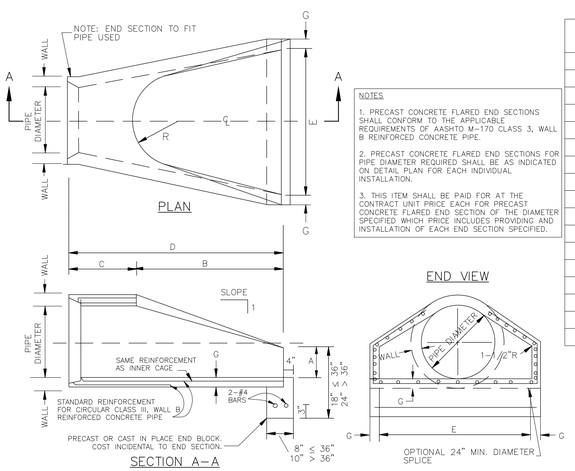


CONCRETE SIDEWALK
NO SCALE

NOTES:
1. EXPANSION JOINTS W/ ¾" PREFORMED EXPANSION JOINT MATERIAL & TWO (2) DOWEL BARS WITH GREASE CAPS SHALL BE PLACED:
   a. AT ENDS OF INTERSECTION RADII, P.C.'S, RADIUS POINTS
   b. 5 FT. ON EACH SIDE OF DRAINAGE STRUCTURES
   c. MAX. OF 60 FT. INTERVALS
   d. WHERE NEW CURB MEETS EXISTING CURB, EXISTING CONCRETE, OR COLD JOINT
2. TOOL OR SAWCUT CONTRACTION JOINTS AS 15 FT. INTERVALS
3. SAWCUTS SHALL BE MADE WITHIN TWENTY FOUR (24) HRS. AND SEALED W/ JOIN SEALANT, JOINTS SHALL BE CLEAN AND DRY PRIOR TO APPLICATION OF SEALANT.



B6.12 CONCRETE CURB & GUTTER
NO SCALE



NOTES

1. PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS 3, WALL B REINFORCED CONCRETE PIPE.

2. PRECAST CONCRETE FLARED END SECTIONS FOR PIPE DIAMETER REQUIRED SHALL BE AS INDICATED ON DETAIL PLAN FOR EACH INDIVIDUAL INSTALLATION.

3. THIS ITEM SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR PRECAST CONCRETE FLARED END SECTION OF THE DIAMETER SPECIFIED WHICH PRICE INCLUDES PROVIDING AND INSTALLATION OF EACH END SECTION SPECIFIED.

PIPE DIA.	APPROX. QTY. (lbs)	WALL (in)	A (in)	B (in)	C (in)	D (in)	E (in)	G (in)	R (in)	APPROX. SLOPE
12"	530	2	4	24	4'-0 7/8"	6'-0 7/8"	24	2	9	1:2.4
15"	740	2 1/4	6	27	3'-10"	6'-1"	30	2 1/4"	11	1:2.4
18"	990	2 1/2	9	27	3'-10"	6'-1"	36	2 1/2	12	1:2.4
21"	1280	2 3/4	9	35	38	6'-1"	3'-6"	2 3/4	13	1:2.4
24"	1520	3	9 1/2	3'-7 1/2"	30	6'-1 1/2"	4'-0"	3	14	1:2.5
27"	1930	3 1/4	10 1/2	4'-0"	25 1/2	6'-1 1/2"	4'-6"	3 1/4	14 1/2	1:2.4
30"	2190	3 1/2	12	4'-6"	19 3/4	6'-1 3/4"	5'-0"	3 1/2	15	1:2.5
33"	3200	3 3/4	13 1/2	4'-10 1/2"	39 1/4	8'-1 3/4"	5'-6"	3 3/4	17 1/2	1:2.5
36"	4100	4	15	5'-3"	34 3/4	8'-1 3/4"	6'-0"	4	20	1:2.5
42"	5380	4 1/2	21	5'-3"	35	8'-2"	6'-6"	4 1/2	22	1:2.5
48"	6550	5	24	6'-0"	26	8'-2"	7'-0"	5	22	1:2.5
54"	8240	5 1/2	27	5'-5"	35	8'-4"	7'-6"	5 1/2	24	1:2.0
60"	8730	6	35	5'-0"	39	8'-3"	8'-0"	5	*	1:1.9
66"	10710	6 1/2	30	6'-0"	27	8'-3"	8'-6"	5 1/2	*	1:1.7
72"	12520	7	36	6'-6"	21	8'-3"	9'-0"	6	*	1:1.8
78"	14770	7 1/2	36	7'-6"	21	9'-3"	9'-6"	6 1/2	*	1:1.8
84"	18160	8	36	7'-6 1/2"	21	9'-3 1/2"	10'-0"	6 1/2	*	1:1.6

* RADIUS AS FURNISHED BY MANUFACTURER

NOTE: GRATES, WHERE SPECIFIED, SHALL BE PROVIDED FOR ALL PRECAST REINFORCED CONCRETE FLARED END SECTIONS.

PRECAST REINFORCED CONCRETE FLARED END SECTION

DATE	REVISIONS	DRAWN BY
12/06/17	VILLAGE ROUND ONE COMMENTS	TLM
01/09/18	VILLAGE ROUND TWO COMMENTS	TLM

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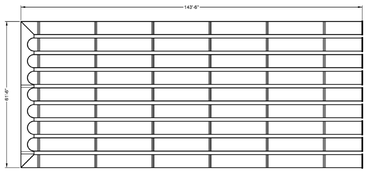
630.480.7889
www.rwg-engineering.com

PROJECT NO. 32212717
DATE 10/17/17
SCALE NONE
PROJ. MGR. PDA
PROJ. ASSOC. RWG
DRAWN BY TLM

SHEET
20 OF 20

BASIN N-3



ASSEMBLY
SCALE: 1" = 20'

PROJECT SUMMARY

CALCULATION DETAILS
- LENGTH PER BARREL = 138.FT
- LENGTH PER HEADER = 61.50 FT
- LOADING = H20 & H25
- APPROX. CMP FOOTAGE = 1,204 FT

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED 39,204 CF
- PIPE STORAGE = 30,988 CF
- STRUCTURAL BACKFILL STORAGE = 8,253 CF
- TOTAL STORAGE PROVIDED = 39,222 CF

PIPE DETAILS
- DIAMETER = 66 IN
- CORRUGATION = 5" X 1" OR 3" X 1"
- GAGE = 16
- COATING = ALUMINIZED STEEL TYPE 2 (ALT2)
- WALL TYPE = SOLID WALL WITH EXFILTRATION JOINTS
- BARREL SPACING = 18 IN

BACKFILL DETAILS
- WIDTH AT ENDS = 12 IN
- ABOVE PIPE = 0 IN
- WIDTH AT SIDES = 12 IN
- BELOW PIPE = 4 IN

NOTES
- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 20" x 8" CORRUGATION AND 16 GAUGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN. QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.

NOTE:
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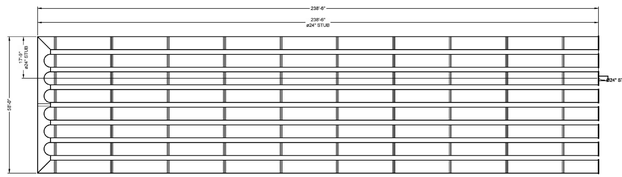
CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYODS - 5257-1-0
PROJECT NAME: Arlington Heights Industrial
Arlington Heights, IL
DESCRIPTION: NORTH SYSTEM - PHASE 1

PROJECT NO.	REV. NO.	DATE
5257-1	0	10/5/2017
DRAWING CREATED: DYODS	DRAWING APPROVED: DYODS	
SHEET NO.: D1		

BASIN S-2



ASSEMBLY
SCALE: 1" = 20'

PROJECT SUMMARY

CALCULATION DETAILS
- LENGTH PER BARREL = 233 FT
- LENGTH PER HEADER = 58 FT
- LOADING = H20 & H25
- APPROX. CMP FOOTAGE = 1,922 FT

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED 88,527 CF
- PIPE STORAGE = 45,663 CF
- STRUCTURAL BACKFILL STORAGE = 13,954 CF
- TOTAL STORAGE PROVIDED = 59,527 CF

PIPE DETAILS
- DIAMETER = 96 IN
- CORRUGATION = 5" X 1" OR 3" X 1"
- GAGE = 16
- COATING = ALUMINIZED STEEL TYPE 2 (ALT2)
- WALL TYPE = SOLID WALL WITH EXFILTRATION JOINTS
- BARREL SPACING = 24 IN

BACKFILL DETAILS
- WIDTH AT ENDS = 12 IN
- ABOVE PIPE = 0 IN
- WIDTH AT SIDES = 12 IN
- BELOW PIPE = 4 IN

NOTES
- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 20" x 8" CORRUGATION AND 16 GAUGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
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MARK	DATE	REVISION DESCRIPTION	BY

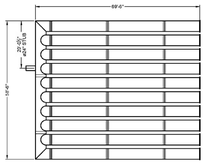
CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYODS - 5308-2-0
PROJECT NAME: Arlington Heights Industrial
Arlington Heights, IL
DESCRIPTION: SOUTH SYSTEM - PHASE 2 - 66" PORTION

PROJECT NO.	REV. NO.	DATE
5308-2	0	10/11/2017
DRAWING CREATED: DYODS	DRAWING APPROVED: DYODS	
SHEET NO.: D1		

BASIN S-3



ASSEMBLY
SCALE: 1" = 20'

PROJECT SUMMARY

CALCULATION DETAILS
- LENGTH PER BARREL = 65 FT
- LENGTH PER HEADER = 58.50 FT
- LOADING = H20 & H25
- APPROX. CMP FOOTAGE = 709 FT

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED 14,675 CF
- PIPE STORAGE = 11,265 CF
- STRUCTURAL BACKFILL STORAGE = 3,408 CF
- TOTAL STORAGE PROVIDED = 14,676 CF

PIPE DETAILS
- DIAMETER = 54 IN
- CORRUGATION = 5" X 1" OR 3" X 1"
- GAGE = 16
- COATING = ALUMINIZED STEEL TYPE 2 (ALT2)
- WALL TYPE = SOLID WALL WITH EXFILTRATION JOINTS
- BARREL SPACING = 18 IN

BACKFILL DETAILS
- WIDTH AT ENDS = 12 IN
- ABOVE PIPE = 0 IN
- WIDTH AT SIDES = 9 IN
- BELOW PIPE = 4 IN

NOTES
- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 20" x 8" CORRUGATION AND 16 GAUGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
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800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYODS - 5309-2-0
PROJECT NAME: Arlington Heights Industrial
Arlington Heights, IL
DESCRIPTION: SOUTH SYSTEM - PHASE 2 - 54" PORTION

PROJECT NO.	REV. NO.	DATE
5309-2	0	10/11/2017
DRAWING CREATED: DYODS	DRAWING APPROVED: DYODS	
SHEET NO.: D1		

BASIN S-4

ASSEMBLY
SCALE: 1" = 50'

PROJECT SUMMARY

CALCULATION DETAILS
- LENGTH PER BARREL = 539.50 FT
- LENGTH PER HEADER = 0 FT
- LOADING = H20 & H25
- APPROX. CMP FOOTAGE = 540 FT

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED 11,810 CF
- PIPE STORAGE = 8,580 CF
- STRUCTURAL BACKFILL STORAGE = 3,035 CF
- TOTAL STORAGE PROVIDED = 11,615 CF

PIPE DETAILS
- DIAMETER = 54 IN
- CORRUGATION = 5" X 1" OR 3" X 1"
- GAGE = 16
- COATING = ALUMINIZED STEEL TYPE 2 (ALT2)
- WALL TYPE = SOLID WALL WITH EXFILTRATION JOINTS
- BARREL SPACING = 18 IN

BACKFILL DETAILS
- WIDTH AT ENDS = 12 IN
- ABOVE PIPE = 0 IN
- WIDTH AT SIDES = 12 IN
- BELOW PIPE = 4 IN

NOTES
- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 20" x 8" CORRUGATION AND 16 GAUGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN. QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.

NOTE:
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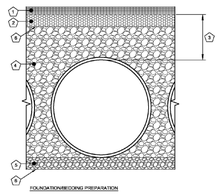
CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYODS - 5310-1-0
PROJECT NAME: Arlington Heights Industrial
Arlington Heights, IL
DESCRIPTION: SOUTHEAST SYSTEM - PHASE 2 - 54" RUN

PROJECT NO.	REV. NO.	DATE
5310-1	0	10/10/2017
DRAWING CREATED: DYODS	DRAWING APPROVED: DYODS	
SHEET NO.: D1		



KEY
1) RIGID OR FLEXIBLE PAVEMENT
2) GRANULAR ROAD BASE
3) 12" MIN. FOR DIAMETERS THROUGH 96" 18" MIN. FOR DIAMETERS FROM 102" AND LARGER MEASURED TO TOP OF RIGID OR BOTTOM OF FLEXIBLE PAVEMENT.
4) FREE DRAINING ANGULAR WASHED STONE 3/4" - 2" MIN. PARTICLE SIZE.
5) GRANULAR BEDDING, ROUGHLY SHAPED TO FIT THE BOTTOM OF PIPE, 4"- 9" IN DEPTH.
6) CONTECH C-40 OR C-45 NON-WOVEN GEOTEXTILE REQUIRED, WRAPPING TRENCH ONLY.
7) ORIGINAL GROUND
8) EXCAVATION
9) PIPE

FOUNDATION/BEDDING PREPARATION

PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER. ONCE THE FOUNDATION PREPARATION IS COMPLETE, THE FIRST LIFT OF A WELL-GRADED GRANULAR MATERIAL SHALL BE PLACED AS THE BEDDING.

BACKFILL

THE BACKFILL MATERIAL SHALL BE FREE-DRAINING ANGULAR WASHED STONE 3/4" - 2" PARTICLE SIZE. MATERIAL SHALL BE PLACED IN 8"-10" MAXIMUM LIFTS. MATERIAL SHALL BE WORKED INTO THE PIPE haunches BY MEANS OF SHOVEL-SLICING, RODDING, AIR-TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS COMPACTION IS CONSIDERED ADEQUATE WHEN NO FURTHER YIELDING OF THE BACKFILL MATERIAL UNDER THE EQUIPMENT IS OBSERVED. IF THE PROJECT ENGINEER OR HIS REPRESENTATIVE IS SATISFIED WITH THE LEVEL OF COMPACTION, INADEQUATE COMPACTION CAN LEAD TO EXCESSIVE DEFLECTIONS WITHIN THE SYSTEM AND SETTLEMENT OF THE SOILS OVER THE SYSTEM. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO-LIFT DIFFERENTIAL BETWEEN THE SIDES OF ANY PIPE AT ANY TIME DURING THE BACKFILL PROCESS. BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON ANY PIPES IN THE SYSTEM.

EQUIPMENT USED TO PLACE AND COMPACT THE BACKFILL SHALL BE OF A SIZE AND TYPE THAT WILL NOT DAMAGE THE PIPE. CARE SHOULD BE TAKEN AND ATTENTION MUST BE GIVEN TO PROVIDING ADEQUATE MINIMUM COVER FOR SUCH EQUIPMENT AND MAINTAINING BALANCED LOADING ON ALL PIPES IN THE SYSTEM, DURING ALL SUCH OPERATIONS.

OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS. REFER TO TYPICAL BACKFILL DETAIL FOR MATERIAL REQUIRED.

BACKFILL DETAIL
SCALE: N.T.S.

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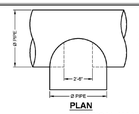
800-338-1122 513-645-7000 513-645-7993 FAX

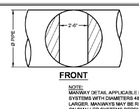
CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYODS - 5257-1-0
Arlington Heights Industrial
Arlington Heights, IL
UNDERGROUND DETENTION SYSTEM

PROJECT NO.	REV. NO.	DATE
5257-1	0	10/5/2017
DRAWING CREATED: DYODS	DRAWING APPROVED: DYODS	
SHEET NO.: D2		



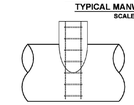
PLAN



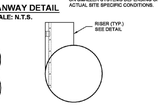
FRONT

NOTE:
MANWAY DETAIL APPLICABLE FOR CMP SYSTEMS WITH DIAMETERS 48" AND LARGER. MANWAYS MAY BE REQUIRED ON SMALLER SYSTEMS DEPENDING ON ACTUAL SITE SPECIFIC CONDITIONS.

TYPICAL MANWAY DETAIL
SCALE: N.T.S.



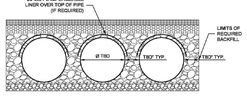
ELEVATION



END

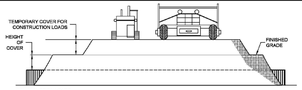
NOTE:
LADDERS ARE OPTIONAL; AND ARE NOT REQUIRED FOR ALL SYSTEMS.

TYPICAL RISER DETAIL
SCALE: N.T.S.



TYPICAL SECTION VIEW
LINER OVER ROWS
SCALE: N.T.S.

NOTE: IF BALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, A GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GEOMEMBRANE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE ENVIRONMENT WITHIN THE ZONE OF INFLUENCE OF THE SYSTEM DUE TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.



CONSTRUCTION LOADS

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS MEET FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-108	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM
SCALE: N.T.S.

SPECIFICATION FOR DESIGNED DETENTION SYSTEM

SCOPE
THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE DESIGNED DETENTION SYSTEM DETAILED IN THE PROJECT PLANS.

MATERIAL
THE MATERIAL SHALL CONFORM TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-274 OR ASTM A-92.

THE GALVANIZED STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-218 OR ASTM A-929.

THE POLYMER COATED STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-246 OR ASTM A-742.

THE ALUMINUM COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-197 OR ASTM B-744.

CONSTRUCTION LOADS
CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURER'S OR NCSPA GUIDELINES.

PIPE
THE PIPE SHALL BE MANUFACTURED IN ACCORDANCE TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2: AASHTO M-36 OR ASTM A-760

GALVANIZED: AASHTO M-36 OR ASTM A-760

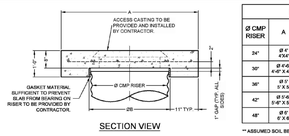
POLYMER COATED: AASHTO M-245 OR ASTM A-762

ALUMINUM: AASHTO M-196 OR ASTM B-745

HANDLING AND ASSEMBLY
SHALL BE IN ACCORDANCE WITH NCSPS (NATIONAL CORRUGATED STEEL PIPE ASSOCIATION) FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL; SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS FOR ALUMINUM PIPE.

INSTALLATION
SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 26 (FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL) OR ASTM B-788 (FOR ALUMINUM PIPE) AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

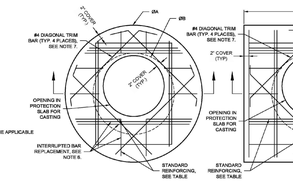
IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.



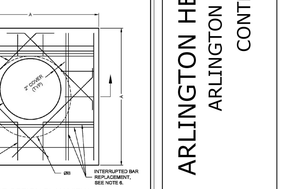
SECTION VIEW

REINFORCING TABLE				
Ø CMP RISER	A	Ø B	REINFORCING	**BEARING PRESSURE (PSF)
24"	Ø 4' 4'x4'	36"	#5 @ 12" OCEW	2,410
			#6 @ 12" OCEW	1,780
30"	Ø 4'-6" 4'-6" X 4'-6"	32"	#5 @ 12" OCEW	2,130
			#6 @ 12" OCEW	1,530
36"	Ø 5' 5' X 5'	38"	#5 @ 12" OCEW	1,890
			#6 @ 10" OCEW	1,350
42"	Ø 5'-6" 5'-6" X 5'-6"	44"	#5 @ 12" OCEW	1,720
			#6 @ 9" OCEW	1,210
48"	Ø 6' 6' X 6'	50"	#5 @ 9" OCEW	1,600
			#6 @ 8" OCEW	1,050

** ASSUMED SOIL BEARING CAPACITY



ROUND OPTION PLAN VIEW



SQUARE OPTION PLAN VIEW

NOTE:
1. DESIGN IN ACCORDANCE WITH AASHTO, 17TH EDITION.
2. DESIGN LOAD HS25.
3. EARTH COVER = 1' MAX.
4. CONCRETE STRENGTH = 3,500 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING. BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON, NY.

MANHOLE CAP DETAIL
SCALE: N.T.S.

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800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYODS - 5257-1-0
Arlington Heights Industrial
Arlington Heights, IL
UNDERGROUND DETENTION SYSTEM

PROJECT NO.	REV. NO.	DATE
5257-1	0	10/5/2017
DRAWING CREATED: DYODS	DRAWING APPROVED: DYODS	
SHEET NO.: D3		

DATE	REVISIONS	DRAWN BY

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ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
CONTECH DETAILS

RWG Engineering, LLC
Civil Engineering ◆ Real Estate Consulting ◆ Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 32212717
DATE 10/17/17
SCALE NONE
PROJ. MGR. PDL
PROJ. ASSOC. RWG
DRAWN BY TLM

SHEET
1 OF 1

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Civil Engineering • Real Estate Consulting • Project Management

975 E. 22nd Street, Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST
for
703-723 W. ALGONQUIN ROAD BUILDING
ARLINGTON HEIGHTS, IL

ARLINGTON HEIGHTS, ILLINOIS
(BASED ON PLANS BY RWG ENGINEERING, LLC, LATEST DATE 12/06/17)

DATE: 12/7/2017 FILE: 322-127-17

PHASE 1

ITEM	DESCRIPTION		UNIT		UNIT PRICE		EXTENSION
I.	**DEMOLITION, EXCAVATION, GRADING & EROSION CONTROL**						
1.	SILT FENCE	1,821	L.F.	$	2.50	$	4,552.50
2.	CONSTRUCTION ENTRANCE	1	EA.	$	2,500.00	$	2,500.00
3.	REMOVE EXISTING ONSITE PAVT/SIDEWALK	16,520	S.Y.	$	8.00	$	132,160.00
4.	REMOVE EXISTING CURB & GUTTER	2741	L.F.	$	8.50	$	23,298.50
5.	REMOVE/ABANDON EXISTING UTILITY LINES	1805	L.F.	$	25.00	$	45,125.00
6.	REMOVE/ASBANDON EXISTING UTILITY STRUCTURES	12	EA.	$	400.00	$	4,800.00
7.	REMOVE EXISTING BUIDLING	1	EA.	$	152,000.00	$	152,000.00
8.	SITE CLEARING, EXISTING TREE REMOVAL	1	LS	$	30,000.00	$	30,000.00
9.	TREE PROTECTION FENCE	18	EA.	$	90.00	$	1,620.00
10.	SITE EXCAVATION, GRADING (PAD PREP)	7.4	AC.	$	15,000.00	$	111,000.00
11.	SOIL EROSION CONTROL MAINTENANCE	1	LS	$	2,500.00	$	2,500.00
12.	TOPSOIL RESPREAD	5,936	S.Y.	$	2.00	$	11,872.00
13.	INLET PROTECTION FILTER BASKETS	24	EA.	$	250.00	$	6,000.00
	TOTAL SCHEDULE I					**$**	**527,428.00**
II.	**UNDERGROUND IMPROVEMENTS**						
	A. SANITARY SEWER IMPROVEMENTS						
1.	6" PVC SANITARY SEWER - SDR 26	180	L.F.	$	35.00	$	6,300.00
2.	8" PVC SANITARY SEWER - SDR 26	61	L.F.	$	40.00	$	2,440.00
3.	48" MANHOLE TYPE A W/FRAME & LID	2	EA.	$	2,500.00	$	5,000.00
4.	48" MANHOLE TYPE A W/FRAME & LID - CONSTRUCT OVER EXIST SAN SEWER	2	EA.	$	4,500.00	$	9,000.00
5.	ADJUST EXISTING SANITARY MANHOLE RIM	2	EA.	$	350.00	$	700.00
6.	SELECT GRANULAR TRENCH BACKFILL (CA-6)	98	L.F.	$	30.00	$	2,940.00
7.	TELEVISE SEWER POST CONSTRUCTION	241	L.F.	$	3.00	$	723.00
	SUBTOTAL A					**$**	**27,103.00**
	B. WATERMAIN IMPROVEMENTS						
1.	8" DUCTILE IRON WATERMAIN, INCL FITTINGS AND POLYETHYLENE	185	L.F.	$	45.00	$	8,325.00
2.	10" DUCTILE IRON WATERMAIN, INCL FITTINGS AND POLYETHYLENE	148	L.F.	$	55.00	$	8,140.00
3.	RELOCATE EX FIRE HYDRANT w/AUX VALVE	1	EA.	$	2,000.00	$	2,000.00
4.	FIRE HYDRANT w/AUX VALVE	1	EA.	$	4,500.00	$	4,500.00
5.	16" DUCTILE IRON CASING PIPE	22	L.F.	$	80.00	$	1,760.00
6.	DIRECT CONNECTION TO EXISTING 8" WM	1	EA.	$	1,500.00	$	1,500.00
7.	8" VALVE & VAULT (4' DIA)	1	EA.	$	3,000.00	$	3,000.00
8.	10" VALVE IN 60" VAULT PRESSURE CONNECTION	1	EA.	$	7,500.00	$	7,500.00
9.	ADJUST EXISTING VAULT RIM	1	EA.	$	350.00	$	350.00

10.	SELECT GRANULAR TRENCH BACKFILL (CA-6)	255	L.F.	$	25.00	$ 6,375.00
11.	WATER PRESSURE TEST & CHLORINATION	1	L.S.	$	1,000.00	$ 1,000.00
	SUBTOTAL B					**$ 44,450.00**
	C. STORM SEWER IMPROVEMENTS					
1.	4" PVC PERFORATED LEVEL SPREADER (w/STANDPIPE)	165	L.F.	$	22.00	$ 3,630.00
2.	6" PVC PERFORATED UNDERDRAIN	355	L.F.	$	22.00	$ 7,810.00
3.	8" PVC STORM SEWER	22	L.F.	$	25.00	$ 550.00
4.	10" RCP CL IV STORM SEWER	200	L.F.	$	25.00	$ 5,000.00
5.	10" RCP CL IV STORM SEWER (w/C-443 JOINTS)	86	L.F.	$	28.00	$ 2,408.00
6.	12" RCP CL IV STORM SEWER	189	L.F.	$	30.00	$ 5,670.00
7.	12" RCP CL IV STORM SEWER (w/C-443 JOINTS)	82	L.F.	$	33.00	$ 2,706.00
8.	15" RCP CL IV STORM SEWER	336	L.F.	$	35.00	$ 11,760.00
9.	18" RCP CL IV STORM SEWER	535	L.F.	$	40.00	$ 21,400.00
10.	21" RCP CL IV STORM SEWER	123	L.F.	$	45.00	$ 5,535.00
11.	21" RCP CL IV STORM SEWER (w/C-443 JOINTS)	68	L.F.	$	50.00	$ 3,400.00
12.	24" RCP CL IV STORM SEWER	348	L.F.	$	50.00	$ 17,400.00
13.	36" RCP CL IV STORM SEWER	248	L.F.	$	60.00	$ 14,880.00
14.	18" FES (w/GRATE)	1	EA.	$	1,800.00	$ 1,800.00
15.	24" FES (w/GRATE)	1	EA.	$	2,400.00	$ 2,400.00
16.	STORM CLEANOUT	2	EA.	$	700.00	$ 1,400.00
17.	24" DIA STORM INLET	10	EA.	$	900.00	$ 9,000.00
18.	48" DIA STORM MANHOLE	10	EA.	$	2,000.00	$ 20,000.00
19.	60" DIA STORM MANHOLE	6	EA.	$	2,400.00	$ 14,400.00
20.	72" DIA STORM MANHOLE	2	EA.	$	3,500.00	$ 7,000.00
21.	48" DIA STORM CATCH BASIN	1	EA.	$	2,250.00	$ 2,250.00
22.	60" DIA STORM CATCH BASIN	2	EA.	$	2,700.00	$ 5,400.00
23.	72" DIA STORM CATCH BASIN	1	EA.	$	3,900.00	$ 3,900.00
24.	CONNECT TO EXISTING STORM SEWER	2	EA.	$	750.00	$ 1,500.00
25.	STEEL ORIFICE PLATE RESTRICTOR BOLTED TO MANHOLE WALL	1	EA.	$	800.00	$ 800.00
26.	UNDERGROUND DETENTION VAULT	1	LS	$	210,000.00	$ 210,000.00
27.	SELECT GRANULAR TRENCH BACKFILL (CA-6)	2,592	L.F.	$	25.00	$ 64,800.00
	SUBTOTAL C					**$ 446,799.00**
	TOTAL SCHEDULE II					**$ 518,352.00**
III.	**PAVING, CURB, SIDEWALK, LIGHTING IMPROVEMENTS**					
1.	B6.12 CONCRETE CURB & GUTTER	3,340	L.F.	$	18.00	$ 60,120.00
2.	2" BITUMINOUS SURFACE COURSE (N50)	10,095	S.Y.	$	11.00	$ 111,045.00
3.	BITUMINOUS TACK COAT (0.05 gal/sy)	505	GAL	$	2.50	$ 1,261.88
4.	2 " BITUMINOUS BINDER COURSE (N50)	3,675	S.Y.	$	10.00	$ 36,750.00
5.	2 1/4" BITUMINOUS BINDER COURSE (N50)	6,420	S.Y.	$	11.25	$ 72,225.00
6.	5" BITUMINOUS BINDER COURSE (N30)	6,420	S.Y.	$	22.00	$ 141,240.00
7.	4" AGGREGATE BASE COURSE	6,420	S.Y.	$	6.00	$ 38,520.00
8.	8" AGGREGATE BASE COURSE	3,062	S.Y.	$	12.00	$ 36,744.00
9.	12" AGGREGATE BASE COURSE	613	S.Y.	$	18.00	$ 11,034.00
10.	BITUMINOUS PRIME COAT (0.30 gal/sy)	3,029	GAL	$	2.50	$ 7,572.50
11.	8" PCC PAVT ON 6" AGGREGATE BASE (CA-6)	2,436	S.Y.	$	45.00	$ 109,620.00
12.	PAVEMENT MARKING & SIGNAGE	1	L.S.	$	5,000.00	$ 5,000.00
13.	CONCRETE SIDEWALK (5" PCC ON 4" AGG CA-6)	1,373	S.F.	$	5.00	$ 6,865.00
14.	SITE LIGHTING (BUDGET FROM CONTRACTOR/HINSDALE ELECTRIC CO.)	1	L.S.	$	43,200.00	$ 43,200.00
	TOTAL SCHEDULE III					**$ 681,197.38**
IV.	**LANDSCAPE IMPROVEMENTS**					
1.	BUDGET FROM WINGREN LANDSCAPE	1	LS	$	108,162.12	$ 108,162.12
	TOTAL SCHEDULE IV					**$ 108,162.12**

PHASE 1 SUMMARY

I. DEMOLITION, EXCAVATION, GRADING & EROSION CONTROL			$	527,428.00
II. UNDERGROUND IMPROVEMENTS			$	518,352.00
A. SANITARY SEWER IMPROVEMENTS	$	27,103.00		
B. WATERMAIN IMPROVEMENTS	$	44,450.00		
C. STORM SEWER IMPROVEMENTS	$	446,799.00		
III. PAVING, CURB, SIDEWALK, LIGHTING IMPROVEMENTS			$	681,197.38
IV. LANDSCAPE IMPROVEMENTS			$	108,162.12
TOTAL			**$**	**1,835,139.50**

PHASE 2

ITEM	DESCRIPTION		UNIT		UNIT PRICE		EXTENSION
I.	**DEMOLITION, EXCAVATION, GRADING & EROSION CONTROL**						
1.	SILT FENCE	1,667	L.F.	$	2.50	$	4,167.50
2.	CONSTRUCTION ENTRANCE	1	EA.	$	2,500.00	$	2,500.00
3.	REMOVE EXISTING ONSITE PAVT/SIDEWALK	20,618	S.Y.	$	8.00	$	164,944.00
4.	REMOVE EXISTING CURB & GUTTER	2933	L.F.	$	8.50	$	24,930.50
5.	REMOVE/ABANDON EXISTING UTILITY LINES	3104	L.F.	$	25.00	$	77,600.00
6.	REMOVE/ABANDON EXISTING UTILITY STRUCTURES	14	EA.	$	400.00	$	5,600.00
7.	EXIST PAVEMENT REMOVE & REPLACE TO DISCONNECT WAT SERVICE FROM EX MAIN	1	EA.	$	2,000.00	$	2,000.00
8.	REMOVE EXISTING BUILDING	1	EA.	$	170,000.00	$	170,000.00
9.	SITE CLEARING/EXISTING TREE REMOVAL	1	LS	$	20,000.00	$	20,000.00
10.	SITE EXCAVATION, GRADING (PAD PREP)	8.6	AC.	$	15,000.00	$	129,000.00
11.	MODULAR BLOCK RETAINING WALL (WITH LANDSCAPE ITEMS)		S.F.			$	-
12.	SOIL EROSION CONTROL MAINTENANCE	1	LS	$	2,500.00	$	2,500.00
13.	TOPSOIL RESPREAD	5,040	S.Y.	$	2.00	$	10,080.00
14.	INLET PROTECTION FILTER BASKETS	24	EA.	$	250.00	$	6,000.00
	TOTAL SCHEDULE I					**$**	**619,322.00**
II.	**UNDERGROUND IMPROVEMENTS**						
	A. SANITARY SEWER IMPROVEMENTS						
1.	6" PVC SANITARY SEWER - SDR 26	272	L.F.	$	35.00	$	9,520.00
2.	8" PVC SANITARY SEWER - SDR 26	759	L.F.	$	40.00	$	30,360.00
3.	48" MANHOLE TYPE A W/FRAME & LID	5	EA.	$	2,500.00	$	12,500.00
4.	CONNECT TO EXISTING SANITARY MANHOLE	2	EA.	$	1,500.00	$	3,000.00
5.	SELECT GRANULAR TRENCH BACKFILL (CA-6)	728	L.F.	$	30.00	$	21,840.00
6.	TELEVISE SEWER POST CONSTRUCTION	1031	L.F.	$	3.00	$	3,093.00
	SUBTOTAL A					**$**	**80,313.00**
	B. WATERMAIN IMPROVEMENTS						
1.	8" DUCTILE IRON WATERMAIN, INCL FITTINGS AND POLYETHYLENE	616	L.F.	$	45.00	$	27,720.00
2.	FIRE HYDRANT w/AUX VALVE	2	EA.	$	4,500.00	$	9,000.00
3.	8" VALVE IN 60" VAULT PRESSURE CONNECTION	1	EA.	$	7,000.00	$	7,000.00
4.	SELECT GRANULAR TRENCH BACKFILL (CA-6)	520	L.F.	$	25.00	$	13,000.00
5.	WATER PRESSURE TEST & CHLORINATION	1	L.S.	$	1,000.00	$	1,000.00
	SUBTOTAL B					**$**	**57,720.00**
	C. STORM SEWER IMPROVEMENTS						
1.	4" PVC PERFORATED LEVEL SPREADER (w/STANDPIPE)	105	L.F.	$	22.00	$	2,310.00
2.	6" PVC PERFORATED UNDERDRAIN	918	L.F.	$	22.00	$	20,196.00

3.	10" RCP CL IV STORM SEWER	218	L.F.	$	25.00	$ 5,450.00
4.	10" RCP CL IV STORM SEWER (w/C-443 JOINTS)	84	L.F.	$	28.00	$ 2,352.00
5.	12" RCP CL IV STORM SEWER	332	L.F.	$	30.00	$ 9,960.00
6.	12" CMP STORM SEWER	8	L.F.	$	30.00	$ 240.00
7.	15" RCP CL IV STORM SEWER	325	L.F.	$	35.00	$ 11,375.00
8.	18" RCP CL IV STORM SEWER	341	L.F.	$	40.00	$ 13,640.00
9.	24" RCP CL IV STORM SEWER	182	L.F.	$	50.00	$ 9,100.00
10.	30" RCP CL IV STORM SEWER	405	L.F.	$	55.00	$ 22,275.00
11.	36" RCP CL IV STORM SEWER	60	L.F.	$	60.00	$ 3,600.00
12.	12" FES (w/GRATE)	2	EA.	$	1,300.00	$ 2,600.00
13.	STORM CLEANOUT	3	EA.	$	700.00	$ 2,100.00
14.	24" DIA STORM INLET	13	EA.	$	900.00	$ 11,700.00
15.	48" DIA STORM MANHOLE	12	EA.	$	2,000.00	$ 24,000.00
16.	60" DIA STORM MANHOLE	3	EA.	$	2,400.00	$ 7,200.00
17.	72" DIA STORM MANHOLE	1	EA.	$	3,500.00	$ 3,500.00
18.	CONNECT TO EXISTING STORM SEWER	1	EA.	$	750.00	$ 750.00
19.	STEEL ORIFICE PLATE RESTRICTOR BOLTED TO MANHOLE WALL	1	EA.	$	900.00	$ 900.00
20.	UNDERGROUND DETENTION VAULT	1	LS	$	460,000.00	$ 460,000.00
21.	SELECT GRANULAR TRENCH BACKFILL (CA-6)	2,678	L.F.	$	25.00	$ 66,950.00
	SUBTOTAL C					**$ 680,198.00**
	TOTAL SCHEDULE II					**$ 818,231.00**
III.	**PAVING, CURB, SIDEWALK, LIGHTING IMPROVEMENTS**					
1.	B6.12 CONCRETE CURB & GUTTER	3,236	L.F.	$	18.00	$ 58,248.00
2.	2" BITUMINOUS SURFACE COURSE (N50)	11,128	S.Y.	$	11.00	$ 122,408.00
3.	BITUMINOUS TACK COAT (0.05 gal/sy)	556	GAL	$	2.50	$ 1,390.00
4.	2 " BITUMINOUS BINDER COURSE (N50)	2,586	S.Y.	$	10.00	$ 25,860.00
5.	2 1/4" BITUMINOUS BINDER COURSE (N50)	8,542	S.Y.	$	11.25	$ 96,097.50
6.	5" BITUMINOUS BINDER COURSE (N30)	8,542	S.Y.	$	22.00	$ 187,924.00
7.	4" AGGREGATE BASE COURSE	8,542	S.Y.	$	6.00	$ 51,252.00
8.	8" AGGREGATE BASE COURSE	1,444	S.Y.	$	12.00	$ 17,328.00
9.	12" AGGREGATE BASE COURSE	1,142	S.Y.	$	18.00	$ 20,556.00
10.	BITUMINOUS PRIME COAT (0.30 gal/sy)	3,338	GAL	$	2.50	$ 8,345.00
11.	8" PCC PAVT ON 6" AGGREGATE BASE (CA-6)	3,999	S.Y.	$	45.00	$ 179,955.00
12.	PAVEMENT MARKINGS & SIGNAGE	1	L.S.	$	5,000.00	$ 5,000.00
13.	CONCRETE SIDEWALK (5" PCC ON 4" AGG CA-6)	1,822	S.F.	$	5.00	$ 9,110.00
14.	SITE LIGHTING (BUDGET FROM CONTRACTOR/HINSDALE ELECTRIC CO)	1	L.S.	$	37,600.00	$ 37,600.00
	TOTAL SCHEDULE III					**$ 821,073.50**
IV.	**LANDSCAPE IMPROVEMENTS**					
1.	BUDGET FROM WINGREN LANDSCAPE	1	LS	$	187,265.33	$ 187,265.33
	TOTAL SCHEDULE IV					**$ 187,265.33**

PHASE 2 SUMMARY

I. DEMOLITION, EXCAVATION, GRADING & EROSION CONTROL			$	619,322.00
II. UNDERGROUND IMPROVEMENTS			$	818,231.00
A. SANITARY SEWER IMPROVEMENTS	$	80,313.00		
B. WATERMAIN IMPROVEMENTS	$	57,720.00		
C. STORM SEWER IMPROVEMENTS	$	680,198.00		
III. PAVING, CURB, SIDEWALK, LIGHTING IMPROVEMENTS			$	821,073.50
IV. LANDSCAPE IMPROVEMENTS			$	187,265.33
TOTAL			**$**	**2,445,891.83**

TOTAL SUMMARY - PHASE 1 & 2

	PHASE 1	PHASE 2	TOTAL
I. DEMOLITION, EXCAVATION, GRADING & EROSION CONTROL	$ 527,428.00	$ 619,322.00	$ 1,146,750.00
II. UNDERGROUND IMPROVEMENTS	$ 518,352.00	$ 818,231.00	$ 1,336,583.00
III. PAVING, CURB, SIDEWALK, LIGHTING IMPROVEMENTS	$ 681,197.38	$ 821,073.50	$ 1,502,270.88
IV. LANDSCAPE IMPROVEMENTS	$ 108,162.12	$ 187,265.33	$ 295,427.45
TOTALS	**$ 1,835,139.50**	**$ 2,445,891.83**	**$ 4,281,031.33**

NOTES:

1. EXISTING TOTAL SITE AREA = 15.41 +/- AC. PROPOSED DISTURBANCE BY PHASE (TO INCLUDE MISC WORK IN OFFSITE EAEMENT AREAS): PH1 = 7.4 +/- ACS; PH2 = 8.6 +/- ACS

2 THIS ENGINEER'S OPINION OF PROBABLE COST HAS BEEN PREPARED BASED ON THE ENGINEER'S EXPERIENCE AS A DESIGN PROFESSIONAL AND IS FURNISHED FOR INFORMATION ONLY. IT DOES NOT CONSTITUTE A GUARANTEE OF ACTUAL CONSTRUCTION COSTS.

WINGREN LANDSCAPE
ALL THINGS OUTDOOR

Morgan Harbour Construction
7510 S. Madison Street
Willowbrook, IL 60527

703-723 Algonquin Rd Phase 1
703-723 Algonquin Rd.
Arlington Heights, IL
Proposal # **19722**

Commercial Construction
Proposal

Scope

PH 1 Plant Material w/ Mulch to Code			**$79,841.12**
7.00	6.00ft	Amelanchier Grandiflora	
15.00	6.00ft	Malus 'Prairifire'	
3.00	2.50in	Syringa Reticulata 'Ivory Silk'	
5.00	6 ft. BB	Acer ginnala	
6.00	2.50in	Carpinus Betulus 'Fastigiata'	
9.00	6.00ft	Viburnum Prunifolium	
7.00	4.00in	Quercus Bicolor	
6.00	4.00in	Gleditsia Triacan. Inerm 'Skyline'	
4.00	4.00in	Acer X Freemanii 'Autumn Blaze'	
4.00	6.00ft	Thuja Occ. 'Emerald Green'	
45.00	6.00ft	Thuja Occidentalis 'Techny'	
20.00	#5 POT	Juniperus Chinensis 'Sea Green'	
61.00	30"w	Taxus x media 'Densiformis' (Bergi strain)	
18.00	2.50ft	Cotoneaster Acutifolius	
22.00	#5 POT	Hydrangea Arborenscens 'Annabelle'	
17.00	#5 POT	Hydrangea Macrophylla 'Bailmer'	
53.00	#3 POT	Rosa 'Radrazz'	
5.00	30.00in	Spiraea X Bumalda 'Goldflame'	
71.00	36.00in	Syringa Patula 'Miss Kim'	
20.00	3.00ft	Viburnum Dentatum 'Synnestvedt'	
15.00	#5 POT	Viburnum Dentatum 'Christom'	
144.00	#1	Coreopsis v. 'Zagreb'	
132.00	#1	Hemerocallis 'Happy Returns'	
8.00	#1	Hosta 'Sum and Substance'	
13.00	#1	Hosta sieboldiana 'Frances Williams'	
	#1	Perovskia atriplicifolia	

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18.00		
61.00	#1	Salvia x s. 'May Night'
6.00	24ct Plug Standard	Sedum kamtschaticum
29.00	#1	Geranium 'Rozanne' PP12175
25.00	#1	Heuchera 'Palace Purple' (micrantha var. diversifolia)
7.00	#1	Hosta 'Krossa Regal'
114.00	#1	Calamagrostis a. 'Karl Foerster'
58.00	#1	Schizachyrium scoparium (aka Andropogon scoparius)
25.00	#1 POT	Panicum Virgatum 'Northwind'
35.00	#1	Carex m. 'Ice Dance'
8.00	#1	Panicum v. 'Cheyenne Sky' PP23209

PH 1 Seed and Blanket			**$9,408.00**
35,600.00	SF	Grading, Topsoil, Seed & Blanket	
PH 1 Native Seeding			**$18,549.00**
16,900.00	SF	Native Seed and Blanket	
3.00	YR	Native Monitoring & Maintenance	
PH 1 Gravel Strip			**$368.00**
92.00	SF	1' Wide DG Strip	
Project Total			**$108,166.12**

Sincerely,
Wingren Landscape, Inc.

James Zumbahlen Jr.

James Zumbahlen Jr.
Project Manager

Acceptance

Signature Date

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WINGREN LANDSCAPE
ALL THINGS OUTDOOR

Morgan Harbour Construction
7510 S. Madison Street
Willowbrook, IL 60527

703-723 Algonquin Rd Phase 2
703-723 Algonquin Rd.
Arlington Heights, IL
Proposal # **19787**

Commercial Construction
Proposal

Scope

PH 2 Plant Material w/ Mulch to Code			**$54,659.33**
2.00	2.50in	Acer X Freemanii 'Autumn Blaze'	
14.00	6.00ft	Amelanchier Grandiflora	
2.00	2.50in	Celtis Occidentalis	
4.00	2.50in	Gleditsia Triacan. Inerm 'Skyline'	
2.00	2.50in	Tilia Americana 'Redmond'	
4.00	6.00ft	Malus 'Prairifire'	
6.00	2.50in	Syringa Reticulata 'Ivory Silk'	
6.00	6.00ft	Thuja Occ. 'Emerald Green'	
50.00	6.00ft	Thuja Occidentalis 'Techny'	
10.00	30.00in	Buxus X 'Green Velvet'	
20.00	#5 POT	Juniperus Chinensis 'Sea Green'	
42.00	30"w	Taxus x media 'Densiformis' (Bergi strain)	
40.00	2.50ft	Cotoneaster Acutifolius	
5.00	#5 POT	Hydrangea Arborenscens 'Annabelle'	
21.00	#5 POT	Hydrangea Macrophylla 'Bailmer'	
32.00	#3 POT	Rosa 'Radrazz'	
56.00	36.00in	Syringa Patula 'Miss Kim'	
21.00	3.00ft	Viburnum Dentatum 'Synnestvedt'	
31.00	#1	Coreopsis v. 'Zagreb'	
21.00	#1	Geranium 'Rozanne' PP12175	
39.00	#1	Hemerocallis 'Happy Returns'	
26.00	#1	Salvia x s. 'May Night'	
28.00	#1	Panicum v. 'Northwind'	

PH 2 Seed and Blanket			**$7,470.00**
41,500.00	SF	Seed and Blanket	

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PH 2 Native Seeding			**$16,836.00**
11,600.00	SF	Native Seed and Blanket	
3.00	YR	Native Monitoring & Maintenance	
PH 2 Retaining Wall			**$107,980.00**
4,560.00	SFF	Retaining Wall	
1.00	LS	Engineering Fees	
PH 2 Gravel Strip			**$320.00**
80.00	SF	1' Wide DG Strip	
Project Total			**$187,265.33**

Sincerely,
Wingren Landscape, Inc.

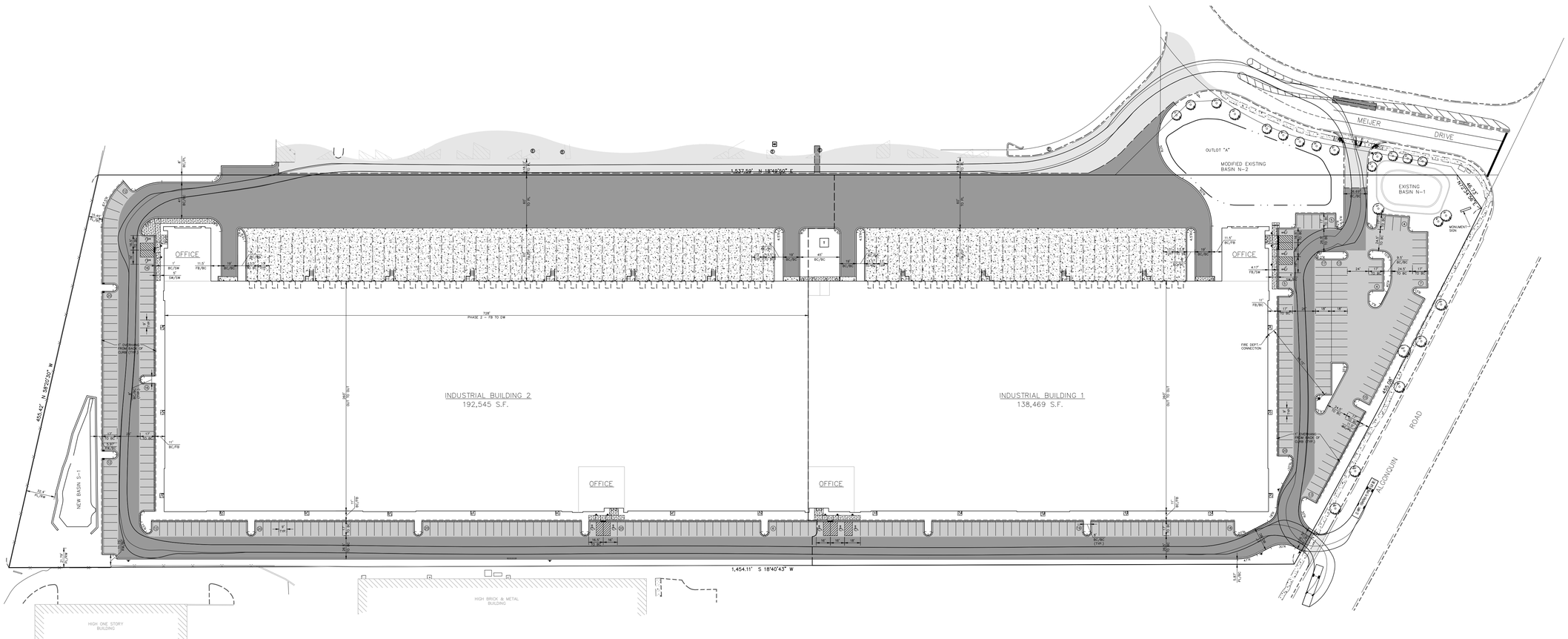
James Zumbahlen Jr.

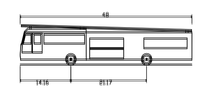
James Zumbahlen Jr.
Project Manager

Acceptance

Signature Date

5126 Walnut Avenue Downers Grove, IL 60515 TEL 630-759-8100 FAX 630-759-8155 WWW.WINGRENLANDSCAPE.COM FACEBOOK.COM/WINGREN.LANDSCAPE





E-ONE HP95 Mid Mount for ArlingtonHots - Ladder 131

Overall Length	48.00Ft
Overall Width	8.500Ft
Overall Body Height	11.500Ft
Min Body Ground Clearance	1.500Ft
Track Width	8.333Ft
Lock-to-lock time	6.0Sec
Max Wheel Angle	40.00°

DRAWN BY

REVISIONS

DATE

ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
FIRE TRUCK MANEUVERING EXHIBIT

RWG Engineering, LLC
Civil Engineering ◆ Real Estate Consulting ◆ Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 32212717
DATE 01/09/18
SCALE 1"=60'
PROJ. MGR. PDL
PROJ. ASSOC. RWG
DRAWN BY TLM

SHEET
1 OF 2

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January 09, 2018 2:23:06 p.m. AcadVer:22.0s (LMS Tech)
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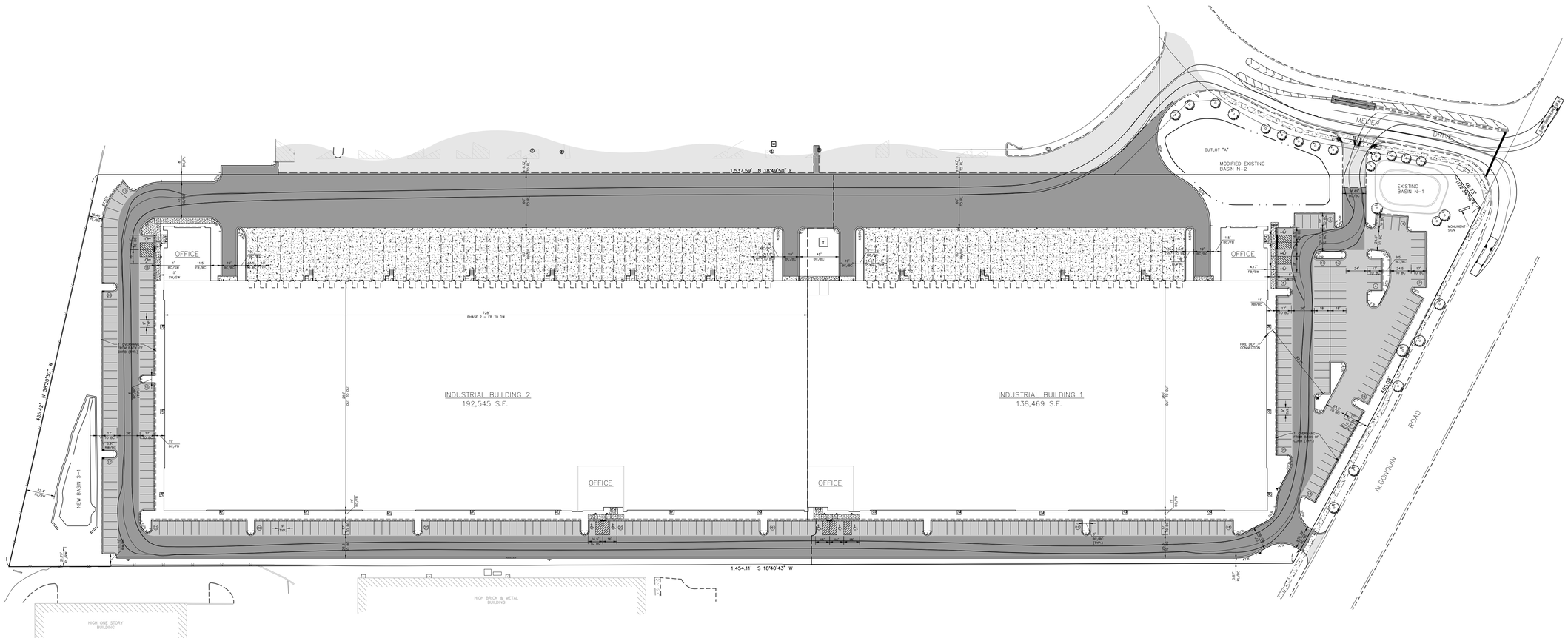

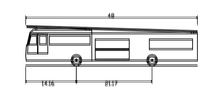

E-ONE HP95 Mid Mount for ArlingtonHeis - Ladder 131

Overall Length	48.00ft
Overall Width	8.500ft
Overal Body Height	11.000ft
Min Body Ground Clearance	1.333ft
Track Width	8.333ft
Lock-to-lock time	6.0s
Max Wheel Angle	40.00°

DRAWN BY

REVISIONS

DATE

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ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
FIRE TRUCK MANEUVERING EXHIBIT

RWG Engineering, LLC
Civil Engineering ◆ Real Estate Consulting ◆ Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 32212717
DATE 01/09/18
SCALE 1"=60'
PROJ. MGR. PDL
PROJ. ASSOC. RWG
DRAWN BY TLM

SHEET
2 OF 2

January 09, 2018 2:24:26 p.m. AcadVer:22.0s (LMS Tech)
Drawing: S:\32212717 - HP ARLINGTON HEIGHTS INDUSTRIAL\300_ENGINEERING\310_CADD\FINAL\322_BASE.DWG

D-Series Size 0
LED Area Luminaire

Catalog Number

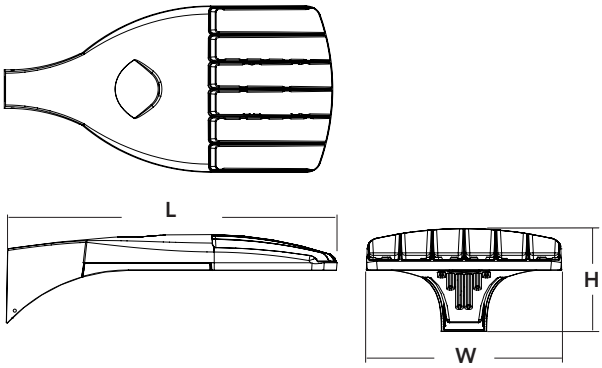
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	0.95 ft² (.09 m²)
Length:	26″ (66.0 cm)
Width:	13″ (33.0 cm)
Height:	7″ (17.8 cm)
Weight (max):	16 lbs (7.25 kg)



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM®X or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSX0 LED 40C 1000 40K T3M MVOLT SPA DDBXD

DSX0 LED

Series	LEDs	Drive current	Color temperature	Distribution		Voltage	Mounting
DSX0 LED	**Forward optics** 20C 20 LEDs (one engine) 40C 40 LEDs (two engines) **Rotated optics** 30C 30 LEDs (one engine)[1]	530 530 mA 700 700 mA 1000 1000 mA (1 A)	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted[2]	T1S Type I short T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium T5VS Type V very short	T5S Type V short T5M Type V medium T5W Type V wide BLC Backlight control[2,3] LCCO Left corner cutoff[2,3] RCCO Right corner cutoff[2,3]	MVOLT[4] 120[5] 208[5] 240[5] 277[5] 347[5,6] 480[5,6]	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor[7] RPUMBA Round pole universal mounting adaptor[7] **Shipped separately** KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)[8]

Control options			Other options	Finish *(required)*	
Shipped installed		BL30 Bi-level switched dimming, 30%[14,15]	**Shipped installed**	DDBXD Dark bronze	
PER NEMA twist-lock receptacle only (control ordered separate)[9]		BL50 Bi-level switched dimming, 50%[14,15]	HS House-side shield[18]	DBLXD Black	
PER5 Five-wire receptacle only (control ordered separate)[9,10]		PNMTDD3 Part night, dim till dawn[16]	SF Single fuse (120, 277, 347V)[5]	DNAXD Natural aluminum	
PER7 Seven-wire receptacle only (control ordered separate)[9,10]		PNMT5D3 Part night, dim 5 hrs[16]	DF Double fuse (208, 240, 480V)[5]	DWHXD White	
DMG 0-10V dimming extend out back of honsing for external control (no controls)(leads exit fixture)[11]		PNMT6D3 Part night, dim 6 hrs[16]	L90 Left rotated optics[1]	DDBTXD Textured dark bronze	
PIR Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc[12,13]		PNMT7D3 Part night, dim 7 hrs[16]	R90 Right rotated optics[1]	DBLBXD Textured black	
PIRH Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc[12,13]		FAO Field adjustable output[17]	DDL Diffused drop lens[18]	DNATXD Textured natural aluminum	
PIR1FC3V Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[12,13]			BS Bird spikes	DWHGXD Textured white	
PIRH1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[12,13]					

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Ordering Information Cont.

Accessories

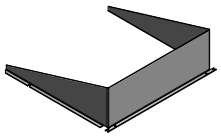
Ordered and shipped separately.

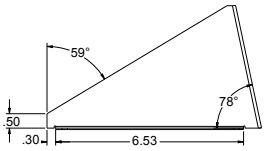
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V)[19]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V)[19]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V)[19]
DSHORT SBK U	Shorting cap[19]
DSX0EGS DDBXD U	External glare shield
DSX0HS 20C U	House-side shield for 20 LED unit[18]
DSX0HS 30C U	House-side shield for 30 LED unit[18]
DSX0HS 40C U	House-side shield for 40 LED unit[18]
DSX0DDL U	Diffused drop lens (polycarbonate)[18]
PUMBA DDBXD U*	Square and round pole universal mounting bracket adaptor (specify finish)[20]
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [8]

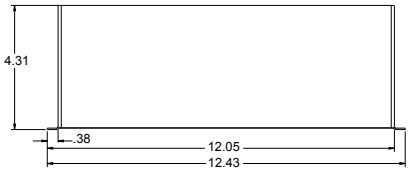
For more control options, visit DTL and ROAM online.

NOTES
1 30 LEDs (30C option) and rotated options (L90 or R90) only available together.
2 AMBPC is not available with BLC, LCCO or RCCO.
3 Not available with HS or DDL.
4 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
5 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
6 Not available in 20C or 30C at 530mA. Not available with BL30, BL50 or PNMT options.
7 Existing drilled pole only. Available as a separate combination accessory; for retrofit use only: PUMBA (finish) U; 1.5 G vibration load rating per ANCI C136.31.
8 Must order fixture with SPA mounting. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8″ mast arm (not included).
9 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
10 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Shorting Cap included.
11 DMG option for 347V or 480V requires 1000mA.
12 Reference Motion Sensor table on page 3.
13 Reference PER Table on page 3 to see functionality.
14 Requires (2) separately switched circuits.
15 Not available with 347V, 480V, PNMT, PIR1FC3V or PIRH1FC3V. For PER5 or PER7 see PER Table on page 3.
16 Not available with 347V, 480V, PNMT, PIR1FC3V or PIRH1FC3V. For PER5 or PER7 see PER Table on page 3. Separate Dusk to Dawn required.
17 Not available with other controls options.
18 Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
19 Requires luminaire to be specified with PER option. See PER Table.
20 For retrofit use only.

External Glare Shield

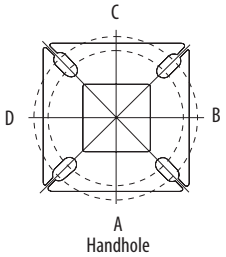




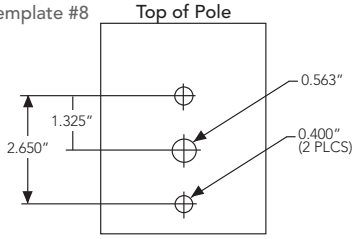


Drilling

HANDHOLE ORIENTATION



Template #8



Tenon Mounting Slipfitter **

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8″	AST20-190	AST20-280	AST20-290			
2-7/8″	AST25-190	AST25-280	AST25-290			
4″	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

Pole drilling nomenclature: # of heads at degree from handhole (default side A)					
DM19AS	DM28AS	DM29AS	DM32AS	DM39AS	DM49AS
1 @ 90°	2 @ 280°	2 @ 90°	3 @ 120°	3 @ 90°	4 @ 90°
Side B	Side B & D	Side B & C	Round pole only	Side B, C, & D	Sides A, B, C, D
Note: Review luminaire spec sheet for specific nomenclature					

Pole top or tenon O.D.	4.5" @ 90°	4" @ 90°	3.5" @ 90°	3" @ 90°	4.5" @ 120°	4" @ 120°	3.5" @ 120°	3" @ 120°
DSX SPA	Y	Y	Y	N	-	-	-	-
DSX RPA	Y	Y	N	N	Y	Y	Y	Y
DSX SPUMBA	Y	N	N	N	-	-	-	-
DSX RPUMBA	N	N	N	N	Y	Y	Y	N
					*3 fixtures @120 require round pole top/tenon.			

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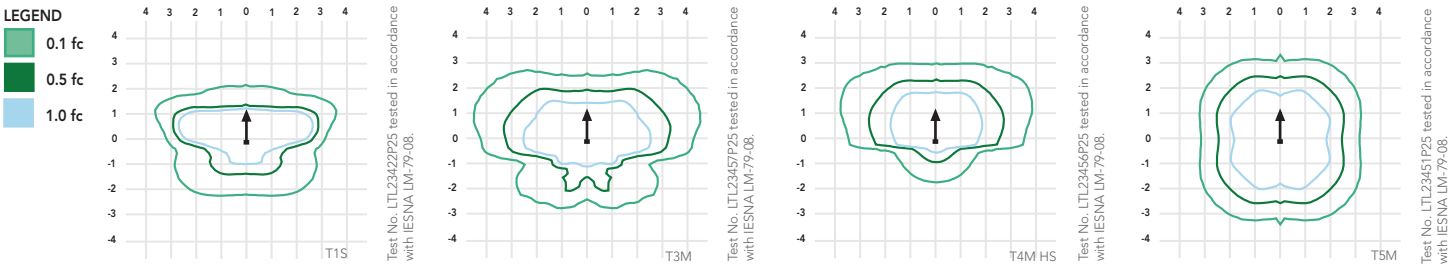
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 0 homepage.

Isofootcandle plots for the DSX0 LED 40C 1000 40K. Distances are in units of mounting height (20').



Performance Data

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	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.99

Electrical Load

			Current (A)					
Number of LEDs	Drive Current (mA)	System Watts	120	208	240	277	347	480
20C	530	35	0.34	0.22	0.21	0.20	--	--
	700	45	0.47	0.28	0.24	0.22	0.18	0.14
	1000	72	0.76	0.45	0.39	0.36	0.36	0.26
30C	530	52	0.51	0.31	0.28	0.25	--	--
	700	70	0.72	0.43	0.37	0.34	0.25	0.19
	1000	104	1.11	0.64	0.56	0.49	0.47	0.34
40C	530	68	0.71	0.41	0.36	0.33	0.25	0.19
	700	91	0.94	0.55	0.48	0.42	0.33	0.24
	1000	138	1.45	0.84	0.73	0.64	0.69	0.50

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	DSX0 LED 20C 1000			
	1	0.98	0.96	0.93
	DSX0 LED 40C 1000			
	1	0.98	0.95	0.90
	DSX0 LED 40C 700			
	1	0.99	0.99	0.99

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Phototcell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*for use with Inline Dusk to Dawn or timer.

PER Table						
Control	PER (3 wire)	PER5 (5 wire)		PER7 (7 wire)		
			Wire 4/Wire5		Wire 4/Wire5	Wire 6/Wire7
Photocontrol Only (On/Off)	✔	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM	⊘	✔	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM with Motion (ROAM on/off only)	⊘	⚠	Wires Capped inside fixture	⚠	Wires Capped inside fixture	Wires Capped inside fixture
Future-proof*	⊘	⚠	Wired to dimming leads on driver	✔	Wired to dimming leads on driver	Wires Capped inside fixture
Future-proof* with Motion	⊘	⚠	Wires Capped inside fixture	✔	Wires Capped inside fixture	Wires Capped inside fixture

✔ Recommended
⊘ Will not work
⚠ Alternate

*Future-proof means: Ability to change controls in the future.

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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. Contact factory for performance data on any configurations not shown here.

Forward Optics

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
20C (20 LEDs)	530 mA	35 W	T1S	4,079	1	0	1	117	4,380	1	0	1	125	4,408	1	0	1	126	2,541	1	0	1	73
			T2S	4,206	1	0	1	120	4,516	1	0	1	129	4,544	1	0	1	130	2,589	1	0	1	74
			T2M	4,109	1	0	1	117	4,413	1	0	1	126	4,440	1	0	1	127	2,539	1	0	1	73
			T3S	4,104	1	0	1	117	4,407	1	0	1	126	4,435	1	0	1	127	2,558	1	0	1	73
			T3M	4,142	1	0	1	118	4,447	1	0	2	127	4,475	1	0	2	128	2,583	1	0	1	74
			T4M	4,198	1	0	1	120	4,508	1	0	2	129	4,536	1	0	1	130	2,570	1	0	1	73
			TFTM	4,135	1	0	1	118	4,440	1	0	1	127	4,468	1	0	1	128	2,540	1	0	1	73
			T5VS	4,368	2	0	0	125	4,691	2	0	0	134	4,720	2	0	0	135	2,650	1	0	0	76
			T5S	4,401	2	0	2	126	4,725	2	0	0	135	4,755	2	0	0	136	2,690	1	0	0	77
			T5M	4,408	2	0	1	126	4,734	3	0	1	135	4,763	3	0	1	136	2,658	2	0	0	76
			T5W	4,344	3	0	1	124	4,664	3	0	1	133	4,693	3	0	1	134	2,663	2	0	1	76
			BLC	3,071	1	0	1	88	3,297	1	0	1	94	3,318	1	0	1	95					
			LCCO	2,983	1	0	1	85	3,204	1	0	1	92	3,224	1	0	1	92					
			RCCO	2,983	1	0	1	85	3,204	1	0	1	92	3,224	1	0	1	92					
	700 mA	45 W	T1S	5,181	1	0	1	115	5,563	1	0	1	124	5,598	1	0	1	124	3,144	1	0	1	70
			T2S	5,342	1	0	1	119	5,736	1	0	1	127	5,772	1	0	1	128	3,203	1	0	1	71
			T2M	5,219	1	0	2	116	5,605	1	0	2	125	5,640	1	0	2	125	3,141	1	0	1	70
			T3S	5,213	1	0	1	116	5,598	1	0	1	124	5,633	1	0	1	125	3,165	1	0	1	70
			T3M	5,260	1	0	2	117	5,649	1	0	2	126	5,684	1	0	2	126	3,196	1	0	1	71
			T4M	5,332	1	0	2	118	5,725	1	0	2	127	5,761	1	0	2	128	3,179	1	0	1	71
			TFTM	5,252	1	0	2	117	5,640	1	0	2	125	5,675	1	0	2	126	3,143	1	0	1	70
			T5VS	5,548	2	0	0	123	5,958	2	0	0	132	5,995	2	0	0	133	3,278	2	0	0	73
			T5S	5,589	2	0	0	124	6,002	2	0	0	133	6,039	2	0	0	134	3,328	2	0	0	74
			T5M	5,599	3	0	1	124	6,012	3	0	1	134	6,050	3	0	1	134	3,288	2	0	1	73
			T5W	5,517	3	0	1	123	5,924	3	0	1	132	5,961	3	0	2	132	3,295	2	0	1	73
			BLC	3,909	1	0	1	87	4,198	1	0	1	93	4,224	1	0	1	94					
			LCCO	3,798	1	0	1	84	4,078	1	0	1	91	4,104	1	0	1	91					
			RCCO	3,798	1	0	1	84	4,078	1	0	1	91	4,104	1	0	1	91					
	1000 mA	72 W	T1S	7,085	2	0	2	98	7,608	2	0	2	106	7,656	2	0	2	106					
			T2S	7,305	2	0	2	101	7,845	2	0	2	109	7,894	2	0	2	110					
			T2M	7,138	2	0	2	99	7,665	2	0	2	106	7,713	2	0	2	107					
			T3S	7,129	1	0	2	99	7,656	2	0	2	106	7,704	2	0	2	107					
			T3M	7,194	2	0	2	100	7,725	2	0	2	107	7,773	2	0	2	108					
			T4M	7,292	2	0	2	101	7,830	2	0	2	109	7,879	2	0	2	109					
			TFTM	7,183	1	0	2	100	7,713	2	0	2	107	7,761	2	0	2	108					
			T5VS	7,588	3	0	0	105	8,148	3	0	0	113	8,199	3	0	0	114					
			T5S	7,644	3	0	0	106	8,208	3	0	0	114	8,259	3	0	0	115					
			T5M	7,657	3	0	2	106	8,222	3	0	2	114	8,274	3	0	2	115					
			T5W	7,545	3	0	2	105	8,102	3	0	2	113	8,153	3	0	2	113					
			BLC	5,162	1	0	1	72	5,543	1	0	1	77	5,578	1	0	1	77					
			LCCO	5,015	1	0	2	70	5,386	1	0	2	75	5,419	1	0	2	75					
			RCCO	5,015	1	0	2	70	5,386	1	0	2	75	5,419	1	0	2	75					

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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. Contact factory for performance data on any configurations not shown here.

Forward Optics

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
40C (40 LEDs)	530 mA	68 W	T1S	7,926	2	0	2	117	8,511	2	0	2	125	8,564	2	0	2	126	4,878	1	0	1	72
			T2S	8,172	2	0	2	120	8,775	2	0	2	129	8,830	2	0	2	130	4,969	1	0	1	73
			T2M	7,985	2	0	2	117	8,574	2	0	2	126	8,628	2	0	2	127	4,874	1	0	1	72
			T3S	7,975	2	0	2	117	8,564	2	0	2	126	8,617	2	0	2	127	4,910	1	0	1	72
			T3M	8,047	2	0	2	118	8,642	2	0	3	127	8,696	2	0	3	128	4,958	1	0	2	73
			T4M	8,157	2	0	2	120	8,759	2	0	2	129	8,813	2	0	2	130	4,932	1	0	2	73
			TFTM	8,035	2	0	2	118	8,628	2	0	2	127	8,682	2	0	2	128	4,876	1	0	2	72
			T5VS	8,488	3	0	0	125	9,115	3	0	1	134	9,172	3	0	1	135	5,086	2	0	0	75
			T5S	8,550	3	0	1	126	9,182	4	0	2	135	9,239	3	0	1	136	5,163	2	0	0	76
			T5M	8,565	3	0	2	126	9,198	3	0	2	135	9,255	3	0	2	136	5,102	3	0	1	75
			T5W	8,440	4	0	2	124	9,063	3	0	2	133	9,120	4	0	2	134	5,112	3	0	1	75
			BLC	6,142	1	0	2	90	6,595	1	0	2	97	6,636	1	0	2	98					
			LCCO	5,967	1	0	2	88	6,407	1	0	2	94	6,447	1	0	2	95					
			RCCO	5,967	1	0	2	88	6,407	1	0	2	94	6,447	1	0	2	95					
	700 mA	91 W	T1S	10,066	2	0	2	111	10,810	2	0	2	119	10,877	2	0	2	120	6,206	2	0	2	68
			T2S	10,379	2	0	2	114	11,145	2	0	2	122	11,215	2	0	2	123	6,322	2	0	2	69
			T2M	10,141	2	0	2	111	10,890	2	0	2	120	10,958	2	0	2	120	6,201	2	0	2	68
			T3S	10,129	2	0	2	111	10,877	2	0	2	120	10,945	2	0	2	120	6,247	1	0	2	69
			T3M	10,221	2	0	3	112	10,975	2	0	3	121	11,044	2	0	3	121	6,308	2	0	2	69
			T4M	10,359	2	0	3	114	11,124	2	0	3	122	11,194	2	0	3	123	6,275	1	0	2	69
			TFTM	10,205	2	0	2	112	10,958	2	0	2	120	11,027	2	0	2	121	6,203	1	0	2	68
			T5VS	10,781	3	0	1	118	11,576	3	0	1	127	11,649	3	0	1	128	6,671	2	0	0	73
			T5S	10,860	3	0	1	119	11,662	3	0	1	128	11,734	3	0	1	129	6,569	2	0	0	72
			T5M	10,879	4	0	2	120	11,682	4	0	2	128	11,755	4	0	2	129	6,491	3	0	1	71
			T5W	10,719	4	0	2	118	11,511	4	0	2	126	11,583	4	0	2	127	6,504	3	0	2	71
			BLC	7,819	1	0	2	86	8,396	1	0	2	92	8,448	1	0	2	93					
			LCCO	7,596	1	0	2	83	8,157	1	0	2	90	8,208	1	0	2	90					
			RCCCO	7,596	1	0	2	83	8,157	1	0	2	90	8,208	1	0	2	90					
	1000 mA	138 W	T1S	13,767	3	0	3	100	14,783	3	0	3	107	14,876	3	0	3	108					
			T2S	14,194	3	0	3	103	15,242	3	0	3	110	15,338	3	0	3	111					
			T2M	13,869	3	0	3	101	14,893	3	0	3	108	14,986	3	0	3	109					
			T3S	13,852	2	0	2	100	14,875	3	0	3	108	14,968	3	0	3	108					
			T3M	13,978	3	0	3	101	15,028	3	0	3	109	15,104	3	0	3	109					
			T4M	14,168	3	0	3	103	15,214	3	0	3	110	15,309	3	0	3	111					
			TFTM	13,956	2	0	3	101	14,987	2	0	3	109	15,080	2	0	3	109					
			T5VS	14,744	4	0	1	107	15,832	4	0	1	115	15,931	4	0	1	115					
			T5S	14,852	4	0	1	108	15,948	4	0	1	116	16,048	4	0	1	116					
			T5M	14,878	4	0	2	108	15,976	4	0	2	116	16,076	4	0	2	116					
			T5W	14,660	4	0	2	106	15,742	4	0	2	114	15,840	4	0	2	115					
			BLC	10,325	1	0	2	75	11,087	1	0	2	80	11,156	1	0	2	81					
			LCCO	10,031	2	0	2	73	10,771	2	0	3	78	10,839	2	0	3	79					
			RCCO	10,031	2	0	2	73	10,771	2	0	3	78	10,839	2	0	3	79					

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L90 and R90 Rotated Optics

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30C (30 LEDs)	530 mA	52 W	T1S	6,130	2	0	2	118	6,583	2	0	2	127	6,624	2	0	2	127	3,841	2	0	2	74
			T2S	6,321	2	0	2	122	6,787	2	0	2	131	6,830	2	0	2	131	3,912	2	0	2	75
			T2M	6,176	3	0	3	119	6,632	3	0	3	128	6,673	3	0	3	128	3,837	2	0	2	74
			T3S	6,168	3	0	3	119	6,624	3	0	3	127	6,665	3	0	3	128	3,866	2	0	2	74
			T3M	6,224	3	0	3	120	6,684	3	0	3	129	6,726	3	0	3	129	3,904	2	0	2	75
			T4M	6,309	3	0	3	121	6,775	3	0	3	130	6,817	3	0	3	131	3,884	2	0	2	75
			TFTM	6,215	3	0	3	120	6,673	3	0	3	128	6,715	3	0	3	129	3,839	2	0	2	74
			T5VS	6,565	2	0	0	126	7,050	3	0	0	136	7,094	3	0	0	136	4,005	2	0	0	77
			T5S	6,613	2	0	0	127	7,102	2	0	0	137	7,146	2	0	0	137	4,065	2	0	0	78
			T5M	6,625	3	0	1	127	7,114	3	0	1	137	7,159	3	0	1	138	4,017	2	0	1	77
			T5W	6,528	3	0	2	126	7,010	3	0	2	135	7,054	3	0	2	136	4,025	3	0	1	77
			BLC	4,747	2	0	2	91	5,098	2	0	2	98	5,130	2	0	2	99					
			LCCO	4,612	1	0	2	89	4,953	1	0	2	95	4,984	1	0	2	96					
			RCCO	4,612	1	0	2	89	4,953	1	0	2	95	4,984	1	0	2	96					
	700 mA	70 W	T1S	7,786	3	0	3	111	8,361	3	0	3	119	8,413	3	0	3	120	4,783	2	0	2	68
			T2S	8,028	3	0	3	115	8,620	3	0	3	123	8,674	3	0	3	124	4,873	2	0	2	70
			T2M	7,844	3	0	3	112	8,423	3	0	3	120	8,476	3	0	3	121	4,779	2	0	2	68
			T3S	7,834	3	0	3	112	8,413	3	0	3	120	8,465	3	0	3	121	4,815	2	0	2	69
			T3M	7,905	3	0	3	113	8,489	3	0	3	121	8,542	3	0	3	122	4,862	3	0	3	69
			T4M	8,013	3	0	3	114	8,604	3	0	3	123	8,658	3	0	3	124	4,837	3	0	3	69
			TFTM	7,893	3	0	3	113	8,476	3	0	3	121	8,529	3	0	3	122	4,781	3	0	3	68
			T5VS	8,338	3	0	0	119	8,954	3	0	0	128	9,010	3	0	0	129	4,988	2	0	0	71
			T5S	8,400	3	0	0	120	9,020	3	0	1	129	9,076	3	0	1	130	5,063	2	0	0	72
			T5M	8,414	3	0	2	120	9,036	3	0	2	129	9,092	3	0	2	130	5,003	3	0	1	71
			T5W	8,291	4	0	2	118	8,903	4	0	2	127	8,959	4	0	2	128	5,013	3	0	1	72
			BLC	6,044	2	0	2	86	6,490	3	0	3	93	6,530	3	0	3	93					
			LCCO	5,872	1	0	2	84	6,305	1	0	2	90	6,345	1	0	2	91					
			RCCO	5,872	1	0	2	84	6,305	1	0	2	90	6,345	1	0	2	91					
	1000 mA	104 W	T1S	10,648	3	0	3	102	11,434	3	0	3	110	11,506	3	0	3	111					
			T2S	10,979	3	0	3	106	11,789	3	0	3	113	11,863	3	0	3	114					
			T2M	10,727	3	0	3	103	11,519	3	0	3	111	11,591	3	0	3	111					
			T3S	10,714	3	0	3	103	11,505	3	0	3	111	11,577	3	0	3	111					
			T3M	10,812	3	0	3	104	11,610	4	0	4	112	11,682	4	0	4	112					
			T4M	10,958	4	0	4	105	11,767	4	0	4	113	11,841	4	0	4	114					
			TFTM	10,795	3	0	3	104	11,592	4	0	4	111	11,664	4	0	4	112					
			T5VS	11,404	3	0	0	110	12,245	3	0	1	118	12,322	3	0	1	118					
			T5S	11,487	3	0	1	110	12,336	3	0	1	119	12,413	3	0	1	119					
			T5M	11,508	4	0	2	111	12,357	4	0	2	119	12,434	4	0	2	120					
			T5W	11,339	4	0	2	109	12,176	4	0	2	117	12,252	4	0	2	118					
			BLC	7,981	3	0	3	77	8,570	3	0	3	82	8,624	3	0	3	83					
			LCCO	7,754	1	0	2	75	8,326	2	0	2	80	8,378	2	0	2	81					
			RCCO	7,754	1	0	2	75	8,326	2	0	2	80	8,378	2	0	2	81					

FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Size 0 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and pedestrian areas.

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (0.95 ft^2) for optimized pole wind loading.

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. Available in both textured and non-textured finishes.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K or 5000 K (70 CRI) or optional 3000 K (70 minimum CRI) or 5000 K (70 CRI) configurations. The D-Series Size 0 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) configurations consist of 20, 30 or 40 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L99/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV or 6kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 0 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 0 utilizes the AERIS™ series pole drilling pattern (template #8). Optional terminal block and NEMA photocontrol receptacle are also available.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

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.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on all products on this page utilizing 3000K color temperature only.

WARRANTY
5-year limited warranty. Complete 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.

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D-Series Size 0
LED Area Luminaire

Catalog Number

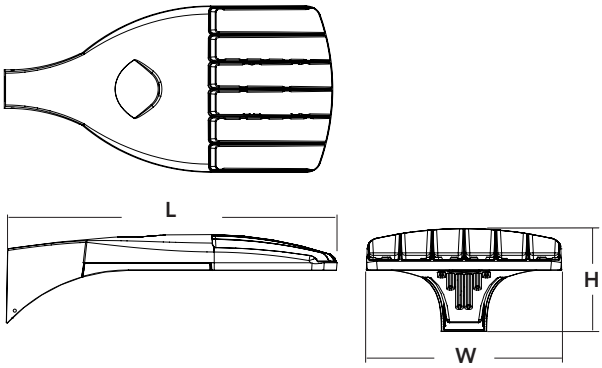
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	0.95 ft² (.09 m²)
Length:	26″ (66.0 cm)
Width:	13″ (33.0 cm)
Height:	7″ (17.8 cm)
Weight (max):	16 lbs (7.25 kg)



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM®X or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSX0 LED 40C 1000 40K T3M MVOLT SPA DDBXD

DSX0 LED

Series	LEDs	Drive current	Color temperature	Distribution		Voltage	Mounting
DSX0 LED	**Forward optics** 20C 20 LEDs (one engine) 40C 40 LEDs (two engines) **Rotated optics** 30C 30 LEDs (one engine)[1]	530 530 mA 700 700 mA 1000 1000 mA (1 A)	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted[2]	T1S Type I short T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium T5VS Type V very short	T5S Type V short T5M Type V medium T5W Type V wide BLC Backlight control[2,3] LCCO Left corner cutoff[2,3] RCCO Right corner cutoff[2,3]	MVOLT[4] 120[5] 208[5] 240[5] 277[5] 347[5,6] 480[5,6]	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor[7] RPUMBA Round pole universal mounting adaptor[7] **Shipped separately** KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)[8]

Control options			Other options	Finish *(required)*	
Shipped installed		BL30 Bi-level switched dimming, 30%[14,15]	**Shipped installed**	DDBXD Dark bronze	
PER NEMA twist-lock receptacle only (control ordered separate)[9]		BL50 Bi-level switched dimming, 50%[14,15]	HS House-side shield[18]	DBLXD Black	
PER5 Five-wire receptacle only (control ordered separate)[9,10]		PNMTDD3 Part night, dim till dawn[16]	SF Single fuse (120, 277, 347V)[5]	DNAXD Natural aluminum	
PER7 Seven-wire receptacle only (control ordered separate)[9,10]		PNMT5D3 Part night, dim 5 hrs[16]	DF Double fuse (208, 240, 480V)[5]	DWHXD White	
DMG 0-10V dimming extend out back of honsing for external control (no controls)(leads exit fixture)[11]		PNMT6D3 Part night, dim 6 hrs[16]	L90 Left rotated optics[1]	DDBTXD Textured dark bronze	
PIR Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc[12,13]		PNMT7D3 Part night, dim 7 hrs[16]	R90 Right rotated optics[1]	DBLBXD Textured black	
PIRH Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc[12,13]		FAO Field adjustable output[17]	DDL Diffused drop lens[18]	DNATXD Textured natural aluminum	
PIR1FC3V Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[12,13]			BS Bird spikes	DWHGXD Textured white	
PIRH1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[12,13]					

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Ordering Information Cont.

Accessories

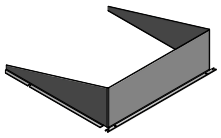
Ordered and shipped separately.

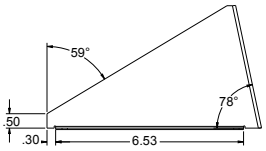
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V)[19]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V)[19]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V)[19]
DSHORT SBK U	Shorting cap[19]
DSX0EGS DDBXD U	External glare shield
DSX0HS 20C U	House-side shield for 20 LED unit[18]
DSX0HS 30C U	House-side shield for 30 LED unit[18]
DSX0HS 40C U	House-side shield for 40 LED unit[18]
DSX0DDL U	Diffused drop lens (polycarbonate)[18]
PUMBA DDBXD U*	Square and round pole universal mounting bracket adaptor (specify finish)[20]
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [8]

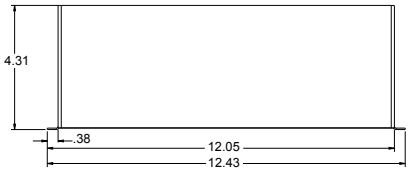
For more control options, visit DTL and ROAM online.

NOTES
1 30 LEDs (30C option) and rotated options (L90 or R90) only available together.
2 AMBPC is not available with BLC, LCCO or RCCO.
3 Not available with HS or DDL.
4 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
5 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
6 Not available in 20C or 30C at 530mA. Not available with BL30, BL50 or PNMT options.
7 Existing drilled pole only. Available as a separate combination accessory; for retrofit use only: PUMBA (finish) U; 1.5 G vibration load rating per ANCI C136.31.
8 Must order fixture with SPA mounting. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8″ mast arm (not included).
9 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
10 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Shorting Cap included.
11 DMG option for 347V or 480V requires 1000mA.
12 Reference Motion Sensor table on page 3.
13 Reference PER Table on page 3 to see functionality.
14 Requires (2) separately switched circuits.
15 Not available with 347V, 480V, PNMT, PIR1FC3V or PIRH1FC3V. For PER5 or PER7 see PER Table on page 3.
16 Not available with 347V, 480V, PNMT, PIR1FC3V or PIRH1FC3V. For PER5 or PER7 see PER Table on page 3. Separate Dusk to Dawn required.
17 Not available with other controls options.
18 Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
19 Requires luminaire to be specified with PER option. See PER Table.
20 For retrofit use only.

External Glare Shield

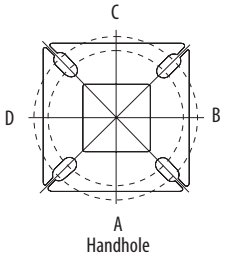




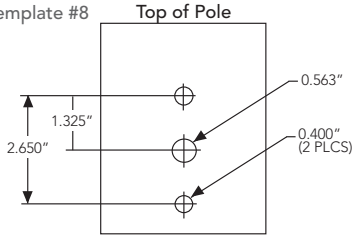


Drilling

HANDHOLE ORIENTATION



Template #8



Tenon Mounting Slipfitter **

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8″	AST20-190	AST20-280	AST20-290			
2-7/8″	AST25-190	AST25-280	AST25-290			
4″	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

Pole drilling nomenclature: # of heads at degree from handhole (default side A)					
DM19AS	DM28AS	DM29AS	DM32AS	DM39AS	DM49AS
1 @ 90°	2 @ 280°	2 @ 90°	3 @ 120°	3 @ 90°	4 @ 90°
Side B	Side B & D	Side B & C	Round pole only	Side B, C, & D	Sides A, B, C, D
Note: Review luminaire spec sheet for specific nomenclature					

Pole top or tenon O.D.	4.5" @ 90°	4" @ 90°	3.5" @ 90°	3" @ 90°	4.5" @ 120°	4" @ 120°	3.5" @ 120°	3" @ 120°
DSX SPA	Y	Y	Y	N	-	-	-	-
DSX RPA	Y	Y	N	N	Y	Y	Y	Y
DSX SPUMBA	Y	N	N	N	-	-	-	-
DSX RPUMBA	N	N	N	N	Y	Y	Y	N
					*3 fixtures @120 require round pole top/tenon.			

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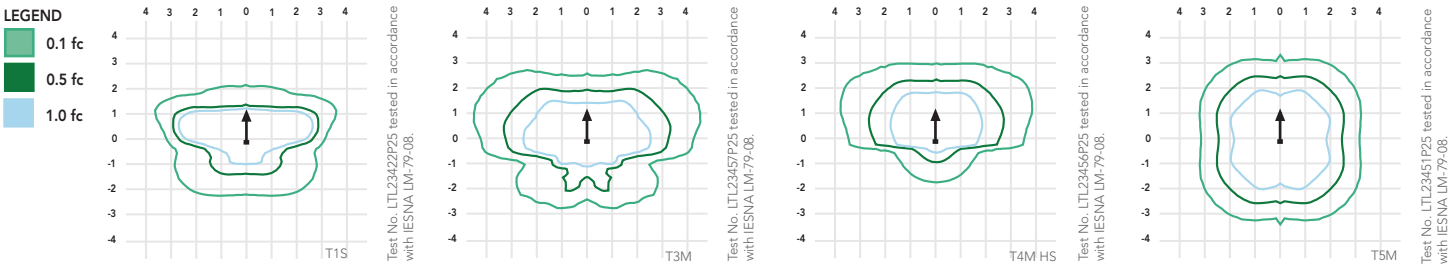
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 0 homepage.

Isofootcandle plots for the DSX0 LED 40C 1000 40K. Distances are in units of mounting height (20').



Performance Data

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	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.99

Electrical Load

			Current (A)					
Number of LEDs	Drive Current (mA)	System Watts	120	208	240	277	347	480
20C	530	35	0.34	0.22	0.21	0.20	--	--
	700	45	0.47	0.28	0.24	0.22	0.18	0.14
	1000	72	0.76	0.45	0.39	0.36	0.36	0.26
30C	530	52	0.51	0.31	0.28	0.25	--	--
	700	70	0.72	0.43	0.37	0.34	0.25	0.19
	1000	104	1.11	0.64	0.56	0.49	0.47	0.34
40C	530	68	0.71	0.41	0.36	0.33	0.25	0.19
	700	91	0.94	0.55	0.48	0.42	0.33	0.24
	1000	138	1.45	0.84	0.73	0.64	0.69	0.50

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	DSX0 LED 20C 1000			
	1	0.98	0.96	0.93
	DSX0 LED 40C 1000			
	1	0.98	0.95	0.90
	DSX0 LED 40C 700			
	1	0.99	0.99	0.99

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Phototcell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*for use with Inline Dusk to Dawn or timer.

PER Table						
Control	PER (3 wire)	PER5 (5 wire)		PER7 (7 wire)		
			Wire 4/Wire5		Wire 4/Wire5	Wire 6/Wire7
Photocontrol Only (On/Off)	✔	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM	⊘	✔	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM with Motion (ROAM on/off only)	⊘	⚠	Wires Capped inside fixture	⚠	Wires Capped inside fixture	Wires Capped inside fixture
Future-proof*	⊘	⚠	Wired to dimming leads on driver	✔	Wired to dimming leads on driver	Wires Capped inside fixture
Future-proof* with Motion	⊘	⚠	Wires Capped inside fixture	✔	Wires Capped inside fixture	Wires Capped inside fixture

✔ Recommended
⊘ Will not work
⚠ Alternate

*Future-proof means: Ability to change controls in the future.

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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. Contact factory for performance data on any configurations not shown here.

Forward Optics

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
20C (20 LEDs)	530 mA	35 W	T1S	4,079	1	0	1	117	4,380	1	0	1	125	4,408	1	0	1	126	2,541	1	0	1	73
			T2S	4,206	1	0	1	120	4,516	1	0	1	129	4,544	1	0	1	130	2,589	1	0	1	74
			T2M	4,109	1	0	1	117	4,413	1	0	1	126	4,440	1	0	1	127	2,539	1	0	1	73
			T3S	4,104	1	0	1	117	4,407	1	0	1	126	4,435	1	0	1	127	2,558	1	0	1	73
			T3M	4,142	1	0	1	118	4,447	1	0	2	127	4,475	1	0	2	128	2,583	1	0	1	74
			T4M	4,198	1	0	1	120	4,508	1	0	2	129	4,536	1	0	1	130	2,570	1	0	1	73
			TFTM	4,135	1	0	1	118	4,440	1	0	1	127	4,468	1	0	1	128	2,540	1	0	1	73
			T5VS	4,368	2	0	0	125	4,691	2	0	0	134	4,720	2	0	0	135	2,650	1	0	0	76
			T5S	4,401	2	0	2	126	4,725	2	0	0	135	4,755	2	0	0	136	2,690	1	0	0	77
			T5M	4,408	2	0	1	126	4,734	3	0	1	135	4,763	3	0	1	136	2,658	2	0	0	76
			T5W	4,344	3	0	1	124	4,664	3	0	1	133	4,693	3	0	1	134	2,663	2	0	1	76
			BLC	3,071	1	0	1	88	3,297	1	0	1	94	3,318	1	0	1	95					
			LCCO	2,983	1	0	1	85	3,204	1	0	1	92	3,224	1	0	1	92					
			RCCO	2,983	1	0	1	85	3,204	1	0	1	92	3,224	1	0	1	92					
	700 mA	45 W	T1S	5,181	1	0	1	115	5,563	1	0	1	124	5,598	1	0	1	124	3,144	1	0	1	70
			T2S	5,342	1	0	1	119	5,736	1	0	1	127	5,772	1	0	1	128	3,203	1	0	1	71
			T2M	5,219	1	0	2	116	5,605	1	0	2	125	5,640	1	0	2	125	3,141	1	0	1	70
			T3S	5,213	1	0	1	116	5,598	1	0	1	124	5,633	1	0	1	125	3,165	1	0	1	70
			T3M	5,260	1	0	2	117	5,649	1	0	2	126	5,684	1	0	2	126	3,196	1	0	1	71
			T4M	5,332	1	0	2	118	5,725	1	0	2	127	5,761	1	0	2	128	3,179	1	0	1	71
			TFTM	5,252	1	0	2	117	5,640	1	0	2	125	5,675	1	0	2	126	3,143	1	0	1	70
			T5VS	5,548	2	0	0	123	5,958	2	0	0	132	5,995	2	0	0	133	3,278	2	0	0	73
			T5S	5,589	2	0	0	124	6,002	2	0	0	133	6,039	2	0	0	134	3,328	2	0	0	74
			T5M	5,599	3	0	1	124	6,012	3	0	1	134	6,050	3	0	1	134	3,288	2	0	1	73
			T5W	5,517	3	0	1	123	5,924	3	0	1	132	5,961	3	0	2	132	3,295	2	0	1	73
			BLC	3,909	1	0	1	87	4,198	1	0	1	93	4,224	1	0	1	94					
			LCCO	3,798	1	0	1	84	4,078	1	0	1	91	4,104	1	0	1	91					
			RCCO	3,798	1	0	1	84	4,078	1	0	1	91	4,104	1	0	1	91					
	1000 mA	72 W	T1S	7,085	2	0	2	98	7,608	2	0	2	106	7,656	2	0	2	106					
			T2S	7,305	2	0	2	101	7,845	2	0	2	109	7,894	2	0	2	110					
			T2M	7,138	2	0	2	99	7,665	2	0	2	106	7,713	2	0	2	107					
			T3S	7,129	1	0	2	99	7,656	2	0	2	106	7,704	2	0	2	107					
			T3M	7,194	2	0	2	100	7,725	2	0	2	107	7,773	2	0	2	108					
			T4M	7,292	2	0	2	101	7,830	2	0	2	109	7,879	2	0	2	109					
			TFTM	7,183	1	0	2	100	7,713	2	0	2	107	7,761	2	0	2	108					
			T5VS	7,588	3	0	0	105	8,148	3	0	0	113	8,199	3	0	0	114					
			T5S	7,644	3	0	0	106	8,208	3	0	0	114	8,259	3	0	0	115					
			T5M	7,657	3	0	2	106	8,222	3	0	2	114	8,274	3	0	2	115					
			T5W	7,545	3	0	2	105	8,102	3	0	2	113	8,153	3	0	2	113					
			BLC	5,162	1	0	1	72	5,543	1	0	1	77	5,578	1	0	1	77					
			LCCO	5,015	1	0	2	70	5,386	1	0	2	75	5,419	1	0	2	75					
			RCCO	5,015	1	0	2	70	5,386	1	0	2	75	5,419	1	0	2	75					

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Lumen Output

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Forward Optics

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
40C (40 LEDs)	530 mA	68 W	T1S	7,926	2	0	2	117	8,511	2	0	2	125	8,564	2	0	2	126	4,878	1	0	1	72
			T2S	8,172	2	0	2	120	8,775	2	0	2	129	8,830	2	0	2	130	4,969	1	0	1	73
			T2M	7,985	2	0	2	117	8,574	2	0	2	126	8,628	2	0	2	127	4,874	1	0	1	72
			T3S	7,975	2	0	2	117	8,564	2	0	2	126	8,617	2	0	2	127	4,910	1	0	1	72
			T3M	8,047	2	0	2	118	8,642	2	0	3	127	8,696	2	0	3	128	4,958	1	0	2	73
			T4M	8,157	2	0	2	120	8,759	2	0	2	129	8,813	2	0	2	130	4,932	1	0	2	73
			TFTM	8,035	2	0	2	118	8,628	2	0	2	127	8,682	2	0	2	128	4,876	1	0	2	72
			T5VS	8,488	3	0	0	125	9,115	3	0	1	134	9,172	3	0	1	135	5,086	2	0	0	75
			T5S	8,550	3	0	1	126	9,182	4	0	2	135	9,239	3	0	1	136	5,163	2	0	0	76
			T5M	8,565	3	0	2	126	9,198	3	0	2	135	9,255	3	0	2	136	5,102	3	0	1	75
			T5W	8,440	4	0	2	124	9,063	3	0	2	133	9,120	4	0	2	134	5,112	3	0	1	75
			BLC	6,142	1	0	2	90	6,595	1	0	2	97	6,636	1	0	2	98					
			LCCO	5,967	1	0	2	88	6,407	1	0	2	94	6,447	1	0	2	95					
			RCCO	5,967	1	0	2	88	6,407	1	0	2	94	6,447	1	0	2	95					
	700 mA	91 W	T1S	10,066	2	0	2	111	10,810	2	0	2	119	10,877	2	0	2	120	6,206	2	0	2	68
			T2S	10,379	2	0	2	114	11,145	2	0	2	122	11,215	2	0	2	123	6,322	2	0	2	69
			T2M	10,141	2	0	2	111	10,890	2	0	2	120	10,958	2	0	2	120	6,201	2	0	2	68
			T3S	10,129	2	0	2	111	10,877	2	0	2	120	10,945	2	0	2	120	6,247	1	0	2	69
			T3M	10,221	2	0	3	112	10,975	2	0	3	121	11,044	2	0	3	121	6,308	2	0	2	69
			T4M	10,359	2	0	3	114	11,124	2	0	3	122	11,194	2	0	3	123	6,275	1	0	2	69
			TFTM	10,205	2	0	2	112	10,958	2	0	2	120	11,027	2	0	2	121	6,203	1	0	2	68
			T5VS	10,781	3	0	1	118	11,576	3	0	1	127	11,649	3	0	1	128	6,671	2	0	0	73
			T5S	10,860	3	0	1	119	11,662	3	0	1	128	11,734	3	0	1	129	6,569	2	0	0	72
			T5M	10,879	4	0	2	120	11,682	4	0	2	128	11,755	4	0	2	129	6,491	3	0	1	71
			T5W	10,719	4	0	2	118	11,511	4	0	2	126	11,583	4	0	2	127	6,504	3	0	2	71
			BLC	7,819	1	0	2	86	8,396	1	0	2	92	8,448	1	0	2	93					
			LCCO	7,596	1	0	2	83	8,157	1	0	2	90	8,208	1	0	2	90					
			RCCCO	7,596	1	0	2	83	8,157	1	0	2	90	8,208	1	0	2	90					
	1000 mA	138 W	T1S	13,767	3	0	3	100	14,783	3	0	3	107	14,876	3	0	3	108					
			T2S	14,194	3	0	3	103	15,242	3	0	3	110	15,338	3	0	3	111					
			T2M	13,869	3	0	3	101	14,893	3	0	3	108	14,986	3	0	3	109					
			T3S	13,852	2	0	2	100	14,875	3	0	3	108	14,968	3	0	3	108					
			T3M	13,978	3	0	3	101	15,028	3	0	3	109	15,104	3	0	3	109					
			T4M	14,168	3	0	3	103	15,214	3	0	3	110	15,309	3	0	3	111					
			TFTM	13,956	2	0	3	101	14,987	2	0	3	109	15,080	2	0	3	109					
			T5VS	14,744	4	0	1	107	15,832	4	0	1	115	15,931	4	0	1	115					
			T5S	14,852	4	0	1	108	15,948	4	0	1	116	16,048	4	0	1	116					
			T5M	14,878	4	0	2	108	15,976	4	0	2	116	16,076	4	0	2	116					
			T5W	14,660	4	0	2	106	15,742	4	0	2	114	15,840	4	0	2	115					
			BLC	10,325	1	0	2	75	11,087	1	0	2	80	11,156	1	0	2	81					
			LCCO	10,031	2	0	2	73	10,771	2	0	3	78	10,839	2	0	3	79					
			RCCO	10,031	2	0	2	73	10,771	2	0	3	78	10,839	2	0	3	79					

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L90 and R90 Rotated Optics

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30C (30 LEDs)	530 mA	52 W	T1S	6,130	2	0	2	118	6,583	2	0	2	127	6,624	2	0	2	127	3,841	2	0	2	74
			T2S	6,321	2	0	2	122	6,787	2	0	2	131	6,830	2	0	2	131	3,912	2	0	2	75
			T2M	6,176	3	0	3	119	6,632	3	0	3	128	6,673	3	0	3	128	3,837	2	0	2	74
			T3S	6,168	3	0	3	119	6,624	3	0	3	127	6,665	3	0	3	128	3,866	2	0	2	74
			T3M	6,224	3	0	3	120	6,684	3	0	3	129	6,726	3	0	3	129	3,904	2	0	2	75
			T4M	6,309	3	0	3	121	6,775	3	0	3	130	6,817	3	0	3	131	3,884	2	0	2	75
			TFTM	6,215	3	0	3	120	6,673	3	0	3	128	6,715	3	0	3	129	3,839	2	0	2	74
			T5VS	6,565	2	0	0	126	7,050	3	0	0	136	7,094	3	0	0	136	4,005	2	0	0	77
			T5S	6,613	2	0	0	127	7,102	2	0	0	137	7,146	2	0	0	137	4,065	2	0	0	78
			T5M	6,625	3	0	1	127	7,114	3	0	1	137	7,159	3	0	1	138	4,017	2	0	1	77
			T5W	6,528	3	0	2	126	7,010	3	0	2	135	7,054	3	0	2	136	4,025	3	0	1	77
			BLC	4,747	2	0	2	91	5,098	2	0	2	98	5,130	2	0	2	99					
			LCCO	4,612	1	0	2	89	4,953	1	0	2	95	4,984	1	0	2	96					
			RCCO	4,612	1	0	2	89	4,953	1	0	2	95	4,984	1	0	2	96					
	700 mA	70 W	T1S	7,786	3	0	3	111	8,361	3	0	3	119	8,413	3	0	3	120	4,783	2	0	2	68
			T2S	8,028	3	0	3	115	8,620	3	0	3	123	8,674	3	0	3	124	4,873	2	0	2	70
			T2M	7,844	3	0	3	112	8,423	3	0	3	120	8,476	3	0	3	121	4,779	2	0	2	68
			T3S	7,834	3	0	3	112	8,413	3	0	3	120	8,465	3	0	3	121	4,815	2	0	2	69
			T3M	7,905	3	0	3	113	8,489	3	0	3	121	8,542	3	0	3	122	4,862	3	0	3	69
			T4M	8,013	3	0	3	114	8,604	3	0	3	123	8,658	3	0	3	124	4,837	3	0	3	69
			TFTM	7,893	3	0	3	113	8,476	3	0	3	121	8,529	3	0	3	122	4,781	3	0	3	68
			T5VS	8,338	3	0	0	119	8,954	3	0	0	128	9,010	3	0	0	129	4,988	2	0	0	71
			T5S	8,400	3	0	0	120	9,020	3	0	1	129	9,076	3	0	1	130	5,063	2	0	0	72
			T5M	8,414	3	0	2	120	9,036	3	0	2	129	9,092	3	0	2	130	5,003	3	0	1	71
			T5W	8,291	4	0	2	118	8,903	4	0	2	127	8,959	4	0	2	128	5,013	3	0	1	72
			BLC	6,044	2	0	2	86	6,490	3	0	3	93	6,530	3	0	3	93					
			LCCO	5,872	1	0	2	84	6,305	1	0	2	90	6,345	1	0	2	91					
			RCCO	5,872	1	0	2	84	6,305	1	0	2	90	6,345	1	0	2	91					
	1000 mA	104 W	T1S	10,648	3	0	3	102	11,434	3	0	3	110	11,506	3	0	3	111					
			T2S	10,979	3	0	3	106	11,789	3	0	3	113	11,863	3	0	3	114					
			T2M	10,727	3	0	3	103	11,519	3	0	3	111	11,591	3	0	3	111					
			T3S	10,714	3	0	3	103	11,505	3	0	3	111	11,577	3	0	3	111					
			T3M	10,812	3	0	3	104	11,610	4	0	4	112	11,682	4	0	4	112					
			T4M	10,958	4	0	4	105	11,767	4	0	4	113	11,841	4	0	4	114					
			TFTM	10,795	3	0	3	104	11,592	4	0	4	111	11,664	4	0	4	112					
			T5VS	11,404	3	0	0	110	12,245	3	0	1	118	12,322	3	0	1	118					
			T5S	11,487	3	0	1	110	12,336	3	0	1	119	12,413	3	0	1	119					
			T5M	11,508	4	0	2	111	12,357	4	0	2	119	12,434	4	0	2	120					
			T5W	11,339	4	0	2	109	12,176	4	0	2	117	12,252	4	0	2	118					
			BLC	7,981	3	0	3	77	8,570	3	0	3	82	8,624	3	0	3	83					
			LCCO	7,754	1	0	2	75	8,326	2	0	2	80	8,378	2	0	2	81					
			RCCO	7,754	1	0	2	75	8,326	2	0	2	80	8,378	2	0	2	81					

FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Size 0 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and pedestrian areas.

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (0.95 ft^2) for optimized pole wind loading.

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. Available in both textured and non-textured finishes.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K or 5000 K (70 CRI) or optional 3000 K (70 minimum CRI) or 5000 K (70 CRI) configurations. The D-Series Size 0 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) configurations consist of 20, 30 or 40 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L99/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV or 6kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 0 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 0 utilizes the AERIS™ series pole drilling pattern (template #8). Optional terminal block and NEMA photocontrol receptacle are also available.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

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.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on all products on this page utilizing 3000K color temperature only.

WARRANTY
5-year limited warranty. Complete 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.

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d#series

D-Series Size 2
LED Area Luminaire

Catalog Number

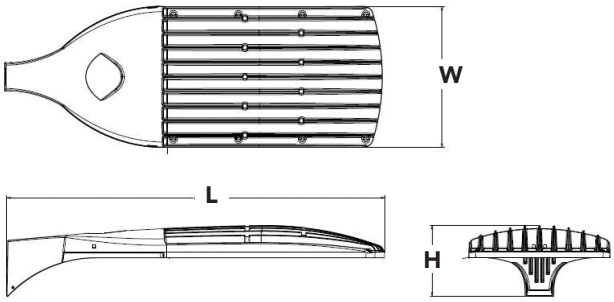
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.1 ft² (0.10 m²)
Length:	40″ (101.6 cm)
Width:	15″ (38.1 cm)
Height:	7-1/4″ (18.4 cm)
Weight (max):	36 lbs (16.3 kg)



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM®X or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSX2 LED 80C 1000 40K T4M MVOLT SPA DDBXD

DSX2 LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting
DSX2 LED	**Forward optics** 80C 80 LEDs (four engine) 100C 100 LEDs (four engines) **Rotated optics** 90C 90 LEDs[1]	530 530 mA 700 700 mA 1000 1000 mA (1 A) 1200 1200 mA[2,3] (1.2 A)	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted[3,4]	T1S Type I Short T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium T5VS Type V Very Short T5S Type V Short T5M Type V Medium T5W Type V Wide BLC Backlight control[2,3,5] LCCO Left corner cutoff[2,3,5] RCCO Right corner cutoff[2,3,5]	MVOLT[6] 120[7] 208[7] 240[7] 277[7] 347[7] 480[7]	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor[8] RPUMBA Round pole universal mounting adaptor[8] **Ordered and shipped separately** KMA8 DDBXD U Mast arm mounting bracket adaptor (See accessories)[9]

Control options		Other options	Finish *(required)*
Shipped installed		**Shipped installed**	
PER NEMA twist-lock receptacle only (controls ordered separate)[10]	PIRH1FC3V Bi-level, motion sensor, 15'-30' mounting height, ambient sensor enabled at 1fc[15]	HS House-side shield[19]	DDBXD Dark bronze
PER5 Five-wire receptacle only (controls ordered separate)[10,11]	BL30 Bi-level switched dimming, 30%[13,16]	SF Single fuse (120, 277, 347V)[7]	DBLXD Black
PER7 Seven-wire receptacle only (controls ordered separate)[10,11]	BL50 Bi-level switched dimming, 50%[13,16]	DF Double fuse (208, 240, 480V)[7]	DNAXD Natural aluminum
DMG 0-10V dimming extend out back of housing for external control (leads exit fixture)[12]	PNMTDD3 Part night, dim till dawn[17]	L90 Left rotated optics[1]	DWHXD White
DS Dual switching[13,14]	PNMT5D3 Part night, dim 5 hrs[17]	R90 Right rotated optics[1]	DDBTXD Textured dark bronze
PIRH Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enable at 5fc[15]	PNMT6D3 Part night, dim 6 hrs[17]	BS Bird spikes	DBLBXD Textured black
	PNMT7D3 Part night, dim 7 hrs[17]		DNATXD Textured natural aluminum
	FAO Field Adjustable Output[18]		DWHGXD Textured white

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Ordering Information Cont.

Accessories

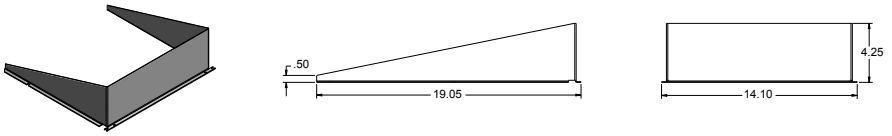
Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V)[20]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V)[20]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V)[20]
DSHORT SBK U	Shorting cap[20]
DSX2EGS DDBXD U	External glare shield
DSX2HS 80C U	House-side shield for 80 LED unit[2]
DSX2HS 90C U	House-side shield for 90 LED unit[2]
DSX2HS 100C U	House-side shield for 100 LED unit[2]
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish)[21]
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish)[19]

For more control options, visit DTL and ROAM online.

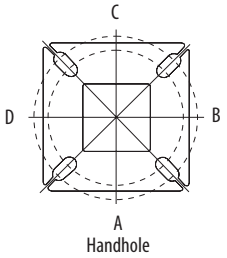
NOTES
1 Rotated optics option (L90 or R90) required for 90C.
2 1200mA not available with AMBPC, BLC, LCCO, RCCO or HS.
3 Not available with HS.
4 AMBPC is not available with BLC, LCCO or RCCO.
5 Not available with 1200mA.
6 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
7 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
8 Existing drilled pole only. Available as a separate combination accessory; for retrofit use only: PUMBA (finish) U; 1.5 G vibration load rating per ANCI C136.31.
9 Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" mast arm (not included).
10 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option. Shorting Cap be order for correct operation when photocontrol is present. Shorting Cap included.
11 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Not available with DCR. Node with integral dimming. Shorting Cap included.
12 DMG option for 347V or 480V requires 1000mA.
13 Requires (2) separately switched circuits. See Outdoor Control Technical Guide for details.
14 Provides 50/50 fixture operation via (2) independent drivers. Not available with PER, PER5, PER7, PIR or PIRH.
15 Reference Motion Sensor table.
16 Not available with 347V, 480V,DS,PIR1FC3V or PIRH1FC3V. For PER5 or PER7 see PER Table on page 3.
17 Not available with 347V, 480V, DS, BL30, BL50, PIR1FC3V or PIRH1FC3V. For PER5 or PER7 see PER Table on page 3. Separate Dusk to Dawn required.
18 Not available with other controls options.
19 Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
20 Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item from Acuity Brands Controls.
21 For retrofit use only.

External Glare Shield



Drilling

HANDHOLE ORIENTATION

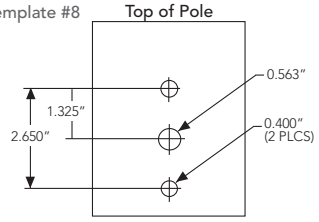


Tenon Mounting Slipfitter **

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	AST20-190	AST20-280	AST20-290			
2-7/8"	AST25-190	AST25-280	AST25-290			
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

Pole drilling nomenclature: # of heads at degree from handhole (default side A)					
DM19AS	DM28AS	DM29AS	DM32AS	DM39AS	DM49AS
1 @ 90°	2 @ 280°	2 @ 90°	3 @ 120°	3 @ 90°	4 @ 90°
Side B	Side B & D	Side B & C	Round pole only	Side B, C, & D	Sides A, B, C, D
Note: Review luminaire spec sheet for specific nomenclature					

Template #8 Top of Pole



Pole top or tenon O.D.	4.5" @ 90°	4" @ 90°	3.5" @ 90°	3" @ 90°	4.5" @ 120°	4" @ 120°	3.5" @ 120°	3" @ 120°
DSX SPA	Y	Y	Y	N	-	-	-	-
DSX RPA	Y	Y	N	N	Y	Y	Y	Y
DSX SPUMBA	Y	N	N	N	-	-	-	-
DSX RPUMBA	N	N	N	N	Y	Y	Y	N
					*3 fixtures @120 require round pole top/tenon.			

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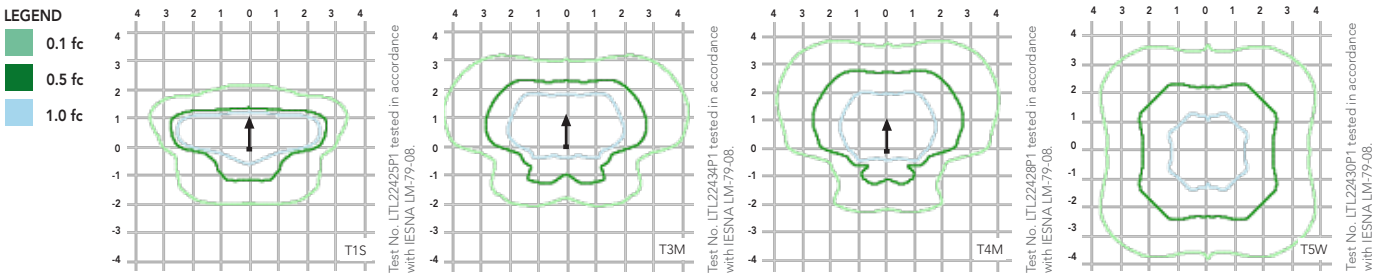
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 2 homepage.

Isofootcandle plots for the DSX2 LED 80C 1000 40K. Distances are in units of mounting height (30').



Performance Data

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	1.04
10°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
40°C	104°F	0.97

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	DSX2 LED 80C 1200			
	1.0	0.98	0.95	0.90
	DSX2 LED 100C 1000			
	1.0	0.98	0.95	0.90
	DSX2 LED 100C 1200			
	1.0	0.97	0.94	0.88

Electrical Load

			Current (A)					
LEDs	Drive Current (mA)	System Watts	120	208	240	277	347	480
80	530	137W	1.15	0.66	0.53	0.51	0.39	0.28
	700	188W	1.58	0.92	0.81	0.73	0.55	0.41
	1000	282W	2.37	1.35	1.18	1.04	0.83	0.61
100	530	175W	1.47	0.86	0.76	0.68	0.51	0.38
	700	232W	1.95	1.13	0.99	0.88	0.67	0.49
	1000	360W	3.03	1.72	1.49	1.3	1.05	0.77

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Phototcell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min
*for use with Inline Dusk to Dawn or timer.						

PER Table						
Control	PER (3 wire)	PER5 (5 wire)		PER7 (7 wire)		
			Wire 4/Wire5		Wire 4/Wire5	Wire 6/Wire7
Photocontrol Only (On/Off)	✔	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM	⊘	✔	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM with Motion (ROAM on/off only)	⊘	⚠	Wires Capped inside fixture	⚠	Wires Capped inside fixture	Wires Capped inside fixture
Future-proof*	⊘	⚠	Wired to dimming leads on driver	✔	Wired to dimming leads on driver	Wires Capped inside fixture
Future-proof* with Motion	⊘	⚠	Wires Capped inside fixture	✔	Wires Capped inside fixture	Wires Capped inside fixture

✔ Recommended
⊘ Will not work
⚠ Alternate

*Future-proof means: Ability to change controls in the future.

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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. Contact factory for performance data on any configurations not shown here.

Forward Optics

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
80C (80 LEDs)	530 mA	137 W	T1S	15,779	3	0	3	115	16,599	3	0	3	121	16,701	3	0	3	122	10,578	2	0	2	77
			T2S	16,270	3	0	3	119	17,115	3	0	3	125	17,220	3	0	3	126	10,554	2	0	2	77
			T2M	15,897	3	0	3	116	16,723	3	0	3	122	16,826	3	0	3	123	10,571	2	0	2	77
			T3S	15,877	3	0	3	116	16,702	3	0	3	122	16,805	3	0	3	123	10,548	2	0	2	77
			T3M	16,021	3	0	3	117	16,854	3	0	3	123	16,958	3	0	3	124	10,569	2	0	3	77
			T4M	16,239	3	0	3	119	17,083	3	0	3	125	17,188	3	0	3	125	10,547	2	0	3	77
			TFTM	15,996	3	0	3	117	16,827	3	0	3	123	16,931	3	0	3	124	10,741	2	0	2	78
			T5VS	16,899	4	0	1	123	17,776	4	0	1	130	17,886	4	0	1	131	11,155	3	0	1	81
			T5S	17,024	4	0	1	124	17,908	4	0	1	131	18,019	4	0	1	132	11,149	3	0	1	81
			T5M	17,053	4	0	2	124	17,939	4	0	2	131	18,050	4	0	2	132	11,096	4	0	2	81
			T5W	16,802	5	0	3	123	17,675	5	0	3	129	17,784	5	0	3	130	10,957	4	0	2	80
			BLC	12,283	1	0	2	90	13,190	1	0	2	96	13,272	2	0	2	97					
			LCCO	11,933	2	0	3	87	12,814	2	0	3	94	12,894	2	0	3	94					
			RCCO	11,933	2	0	3	87	12,814	2	0	3	94	12,894	2	0	3	94					
	700 mA	188 W	T1S	20,018	3	0	3	106	21,058	3	0	3	112	21,188	3	0	3	113	13,147	3	0	3	70
			T2S	20,640	3	0	3	110	21,712	3	0	3	115	21,846	3	0	3	116	13,116	3	0	3	70
			T2M	20,167	3	0	3	107	21,215	3	0	3	113	21,346	3	0	3	114	13,138	3	0	3	70
			T3S	20,142	3	0	3	107	21,188	3	0	3	113	21,319	3	0	3	113	13,110	2	0	2	70
			T3M	20,325	3	0	4	108	21,381	3	0	4	114	21,513	3	0	4	114	13,135	3	0	3	70
			T4M	20,601	3	0	4	110	21,672	3	0	4	115	21,805	3	0	4	116	13,108	2	0	3	70
			TFTM	20,293	3	0	4	108	21,348	3	0	4	114	21,479	3	0	4	114	13,349	2	0	3	71
			T5VS	21,438	4	0	1	114	22,551	4	0	1	120	22,690	4	0	1	121	13,864	4	0	1	74
			T5S	21,596	4	0	1	115	22,718	4	0	1	121	22,859	4	0	1	122	13,856	3	0	1	74
			T5M	21,634	5	0	3	115	22,758	5	0	3	121	22,898	5	0	3	122	13,790	4	0	2	73
			T5W	21,316	5	0	3	113	22,423	5	0	3	119	22,561	5	0	3	120	13,617	4	0	2	72
			BLC	15,637	2	0	2	83	16,791	2	0	3	89	16,896	2	0	3	90					
			LCCO	15,192	2	0	3	81	16,313	2	0	3	87	16,415	2	0	3	87					
			RCCO	15,192	2	0	3	81	16,313	2	0	3	87	16,415	2	0	3	87					
	1000 mA	282 W	T1S	27,547	3	0	3	98	28,978	3	0	3	103	29,157	3	0	3	103	17,833	3	0	3	63
			T2S	28,403	3	0	3	101	29,879	4	0	4	106	30,063	4	0	4	107	17,791	3	0	3	63
			T2M	27,753	3	0	4	98	29,195	3	0	4	104	29,375	3	0	4	104	17,821	3	0	3	63
			T3S	27,718	3	0	4	98	29,158	3	0	4	103	29,338	3	0	4	104	17,782	3	0	3	63
			T3M	27,970	3	0	5	99	29,423	4	0	5	104	29,605	4	0	5	105	17,817	3	0	3	63
			T4M	28,350	3	0	4	101	29,823	3	0	5	106	30,007	3	0	5	106	17,779	3	0	3	63
			TFTM	27,927	3	0	4	99	29,377	3	0	4	104	29,559	3	0	4	105	18,107	3	0	3	64
			T5VS	29,501	5	0	1	105	31,034	5	0	1	110	31,225	5	0	1	111	18,805	4	0	1	67
			T5S	29,720	5	0	2	105	31,264	5	0	2	111	31,457	5	0	2	112	18,794	4	0	1	67
			T5M	29,772	5	0	3	106	31,318	5	0	3	111	31,512	5	0	3	112	18,705	4	0	2	66
			T5W	29,333	5	0	4	104	30,857	5	0	4	109	31,048	5	0	4	110	18,470	5	0	3	65
			BLC	20,649	2	0	3	73	22,174	2	0	3	79	22,313	2	0	3	79					
			LCCO	20,061	3	0	3	71	21,542	3	0	3	76	21,677	3	0	3	77					
			RCCO	20,061	3	0	3	71	21,542	3	0	3	76	21,677	3	0	3	77					
	1200 mA	322 W	T1S	30,431	3	0	3	95	32,011	4	0	4	99	32,209	4	0	4	100					
			T2S	31,376	4	0	4	97	33,006	4	0	4	103	33,210	4	0	4	103					
			T2M	30,658	4	0	4	95	32,251	4	0	4	100	32,450	4	0	4	101					
			T3S	30,620	3	0	4	95	32,210	3	0	4	100	32,409	3	0	4	101					
			T3M	30,898	4	0	5	96	32,503	4	0	5	101	32,703	4	0	5	102					
			T4M	31,318	3	0	5	97	32,945	3	0	5	102	33,148	3	0	5	103					
			TFTM	30,850	3	0	4	96	32,452	3	0	5	101	32,652	3	0	5	101					
			T5VS	32,589	5	0	1	101	34,282	5	0	1	106	34,494	5	0	1	107					
			T5S	32,830	5	0	2	102	34,536	5	0	2	107	34,749	5	0	2	108					
			T5M	32,888	5	0	4	102	34,596	5	0	4	107	34,810	5	0	4	108					
			T5W	32,404	5	0	4	101	34,087	5	0	4	106	34,297	5	0	4	107					

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Lumen Output

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Forward Optics (continued)

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
100C (100 LEDs)	530 mA	175 W	T1S	19,856	3	0	3	113	20,887	3	0	3	119	21,016	3	0	3	120	12,889	3	0	3	74
			T2S	20,473	3	0	3	117	21,537	3	0	3	123	21,670	3	0	3	124	12,859	3	0	3	73
			T2M	20,004	3	0	3	114	21,043	3	0	3	120	21,173	3	0	3	121	12,881	3	0	3	74
			T3S	19,979	3	0	3	114	21,017	3	0	3	120	21,147	3	0	3	121	12,853	2	0	2	73
			T3M	20,161	3	0	4	115	21,208	3	0	4	121	21,339	3	0	4	122	12,878	3	0	3	74
			T4M	20,435	3	0	4	117	21,496	3	0	4	123	21,629	3	0	4	124	12,851	2	0	3	73
			TFTM	20,129	3	0	3	115	21,175	3	0	4	121	21,306	3	0	4	122	13,088	2	0	3	75
			T5VS	21,264	4	0	1	122	22,369	4	0	1	128	22,507	4	0	1	129	13,592	4	0	1	78
			T5S	21,422	4	0	1	122	22,535	4	0	1	129	22,674	4	0	1	130	13,584	3	0	1	78
			T5M	21,459	5	0	3	123	22,574	5	0	3	129	22,713	5	0	3	130	13,520	4	0	2	77
			T5W	21,143	5	0	3	121	22,242	5	0	3	127	22,379	5	0	3	128	13,350	4	0	2	76
			BLC	19,032	2	0	3	109	20,438	2	0	3	117	20,565	2	0	3	118					
			LCCO	18,490	2	0	3	106	19,856	3	0	3	113	19,980	3	0	3	114					
			RCCO	18,490	2	0	3	106	19,856	3	0	3	113	19,980	3	0	3	114					
	700 mA	232 W	T1S	25,219	3	0	3	109	26,529	3	0	3	114	26,692	3	0	3	115	16,176	3	0	3	70
			T2S	26,002	3	0	3	112	27,353	3	0	3	118	27,522	3	0	3	119	16,138	3	0	3	70
			T2M	25,407	3	0	4	110	26,727	3	0	4	115	26,892	3	0	4	116	16,165	3	0	3	70
			T3S	25,375	3	0	3	109	26,693	3	0	4	115	26,858	3	0	4	116	16,130	3	0	3	70
			T3M	25,606	3	0	4	110	26,936	3	0	4	116	27,102	3	0	4	117	16,161	3	0	3	70
			T4M	25,954	3	0	4	112	27,302	3	0	4	118	27,471	3	0	4	118	16,127	3	0	3	70
			TFTM	25,566	3	0	4	110	26,894	3	0	4	116	27,060	3	0	4	117	16,425	3	0	3	71
			T5VS	27,007	5	0	1	116	28,410	5	0	1	122	28,797	5	0	2	124	17,058	4	0	1	74
			T5S	27,207	5	0	2	117	28,621	5	0	2	123	28,797	5	0	2	124	17,048	4	0	1	73
			T5M	27,255	5	0	3	117	28,671	5	0	3	124	28,848	5	0	3	124	16,967	4	0	2	73
			T5W	26,854	5	0	4	116	28,249	5	0	4	122	28,423	5	0	4	123	16,754	5	0	3	72
			BLC	24,229	2	0	3	104	26,018	2	0	4	112	26,181	2	0	4	113					
			LCCO	23,539	3	0	4	101	25,277	3	0	4	109	25,435	3	0	4	110					
			RCCCO	23,539	3	0	4	101	25,277	3	0	4	109	25,435	3	0	4	110					
	1000 mA	360 W	T1S	34,490	4	0	4	96	36,281	4	0	4	101	36,505	4	0	4	101	21,838	3	0	3	61
			T2S	35,561	4	0	4	99	37,409	4	0	4	104	37,640	4	0	4	105	21,787	3	0	3	61
			T2M	34,747	4	0	4	97	36,552	4	0	4	102	36,778	4	0	4	102	21,824	3	0	3	61
			T3S	34,704	3	0	4	96	36,507	4	0	4	101	36,732	4	0	4	102	21,776	3	0	3	60
			T3M	35,019	4	0	5	97	36,838	4	0	5	102	37,065	4	0	5	103	21,819	3	0	4	61
			T4M	35,495	4	0	5	99	37,339	4	0	5	104	37,569	4	0	5	104	22,175	3	0	4	62
			TFTM	34,964	3	0	5	97	36,781	3	0	5	102	37,008	3	0	5	103	21,773	3	0	4	60
			T5VS	36,936	5	0	1	103	38,855	5	0	1	108	39,095	5	0	1	109	23,029	4	0	1	64
			T5S	37,209	5	0	2	103	39,142	5	0	2	109	39,384	5	0	2	109	23,016	4	0	1	64
			T5M	37,274	5	0	4	104	39,211	5	0	4	109	39,453	5	0	4	110	22,906	5	0	3	64
			T5W	36,726	5	0	4	102	38,634	5	0	4	107	38,872	5	0	4	108	22,619	5	0	3	63
			BLC	31,996	3	0	4	89	34,358	3	0	4	95	34,573	3	0	4	96					
			LCCO	31,085	3	0	4	86	33,380	3	0	4	93	33,588	3	0	4	93					
			RCCO	31,085	3	0	4	86	33,380	3	0	4	93	33,588	3	0	4	93					
	1200 mA	400 W	T1S	37,667	4	0	4	94	39,623	4	0	4	99	39,868	4	0	4	100					
			T2S	38,837	4	0	4	97	40,855	4	0	4	102	41,107	4	0	4	103					
			T2M	37,948	4	0	5	95	39,919	4	0	5	100	40,166	4	0	5	100					
			T3S	37,901	4	0	4	95	39,869	4	0	4	100	40,116	4	0	4	100					
			T3M	38,244	4	0	5	96	40,231	4	0	5	101	40,480	4	0	5	101					
			T4M	38,765	4	0	5	97	40,778	4	0	5	102	41,030	4	0	5	103					
			TFTM	38,185	3	0	5	95	40,169	4	0	5	100	40,417	4	0	5	101					
			T5VS	40,338	5	0	1	101	42,434	5	0	1	106	42,696	5	0	1	107					
			T5S	40,637	5	0	2	102	42,748	5	0	2	107	43,012	5	0	2	108					
			T5M	40,708	5	0	4	102	42,823	5	0	4	107	43,087	5	0	4	108					
			T5W	40,109	5	0	5	100	42,192	5	0	5	105	42,453	5	0	5	106					

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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. Contact factory for performance data on any configurations not shown here.

L90 and R90 Rotated Optics

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
90C (90 LEDs)	530 mA	150 W	T1S	17,539	4	0	4	117	18,451	4	0	4	123	18,564	4	0	4	124	11,475	3	0	3	77
			T2S	18,084	4	0	4	121	19,024	4	0	4	127	19,141	4	0	4	128	11,448	3	0	3	76
			T2M	17,670	4	0	4	118	18,588	4	0	4	124	18,703	4	0	4	125	11,467	3	0	3	76
			T3S	17,648	4	0	4	118	18,565	4	0	4	124	18,680	4	0	4	125	11,442	3	0	3	76
			T3M	17,808	4	0	4	119	18,734	4	0	4	125	18,849	4	0	4	126	11,464	4	0	4	76
			T4M	18,051	4	0	4	120	18,988	4	0	4	127	19,106	4	0	4	127	11,440	4	0	4	76
			TFTM	17,781	4	0	4	119	18,704	4	0	4	125	18,820	4	0	4	125	11,651	4	0	4	78
			T5VS	18,783	4	0	1	125	19,759	4	0	1	132	19,881	4	0	1	133	12,288	3	0	1	82
			T5S	18,923	4	0	1	126	19,906	4	0	1	133	20,028	4	0	1	134	11,978	3	0	1	80
			T5M	18,956	4	0	2	126	19,940	4	0	2	133	20,063	4	0	2	134	12,301	4	0	2	82
			T5W	18,677	5	0	3	125	19,647	5	0	3	131	19,768	5	0	3	132	12,109	4	0	2	81
			BLC	16,949	4	0	4	113	18,200	4	0	4	121	18,314	4	0	4	122					
			LCCO	16,466	5	0	5	110	17,682	5	0	5	118	17,793	5	0	5	119					
			RCCO	16,466	3	0	3	110	17,682	3	0	3	118	17,792	3	0	3	119					
	700 mA	206 W	T1S	22,323	4	0	4	108	23,483	4	0	4	114	23,628	4	0	4	115	14,387	3	0	3	70
			T2S	23,017	4	0	4	112	24,213	4	0	4	118	24,362	4	0	4	118	14,354	3	0	3	70
			T2M	22,490	4	0	4	109	23,658	4	0	4	115	23,804	4	0	4	116	14,378	4	0	4	70
			T3S	22,462	4	0	4	109	23,629	4	0	4	115	23,774	4	0	4	115	14,347	4	0	4	70
			T3M	22,666	5	0	5	110	23,843	5	0	5	116	23,990	5	0	5	116	14,374	4	0	4	70
			T4M	22,974	5	0	5	112	24,167	5	0	5	117	24,317	5	0	5	118	14,344	4	0	4	70
			TFTM	22,630	4	0	4	110	23,806	5	0	5	116	23,953	5	0	5	116	15,408	4	0	1	75
			T5VS	23,906	5	0	1	116	25,148	5	0	1	122	25,304	5	0	1	123	15,019	4	0	1	73
			T5S	24,084	4	0	2	117	25,335	5	0	2	123	25,491	5	0	2	124	15,424	4	0	2	75
			T5M	24,126	5	0	3	117	25,379	5	0	3	123	25,536	5	0	3	124	14,609	4	0	4	71
			T5W	23,770	5	0	3	115	25,005	5	0	4	121	25,160	5	0	4	122	15,182	4	0	2	74
			BLC	21,577	4	0	4	105	23,170	4	0	4	112	23,315	4	0	4	113					
			LCCO	20,963	5	0	5	102	22,510	5	0	5	109	22,651	5	0	5	110					
			RCCO	20,962	3	0	3	102	22,510	3	0	3	109	22,650	3	0	3	110					
	1000 mA	320 W	T1S	30,621	4	0	4	96	32,212	5	0	4	101	32,411	5	0	4	101	19,288	4	0	4	60
			T2S	31,573	5	0	4	99	33,213	5	0	4	104	33,418	5	0	4	104	19,243	4	0	4	60
			T2M	30,850	5	0	5	96	32,453	5	0	5	101	32,653	5	0	5	102	19,275	4	0	4	60
			T3S	30,812	5	0	5	96	32,412	5	0	5	101	32,612	5	0	5	102	19,233	4	0	4	60
			T3M	31,091	5	0	5	97	32,706	5	0	5	102	32,908	5	0	5	103	19,270	4	0	4	60
			T4M	31,514	5	0	5	98	33,151	5	0	5	104	33,356	5	0	5	104	19,230	4	0	4	60
			TFTM	31,043	5	0	5	97	32,656	5	0	5	102	32,857	5	0	5	103	19,585	4	0	4	61
			T5VS	32,793	5	0	1	102	34,497	5	0	1	108	34,710	5	0	1	108	20,656	4	0	1	65
			T5S	33,036	5	0	2	103	34,752	5	0	2	109	34,967	5	0	2	109	20,134	4	0	1	63
			T5M	33,094	5	0	4	103	34,813	5	0	4	109	35,028	5	0	4	109	20,677	4	0	2	65
			T5W	32,607	5	0	4	102	34,301	5	0	4	107	34,512	5	0	4	108	20,354	5	0	3	64
			BLC	28,493	4	0	4	89	30,597	5	0	4	96	30,788	5	0	4	96					
			LCCO	27,682	3	0	4	87	29,726	5	0	5	93	29,912	5	0	5	93					
			RCCO	27,682	3	0	4	87	29,725	3	0	4	93	29,911	3	0	4	93					
	1200 mA	363 W	T1S	33,523	5	0	4	92	35,265	5	0	5	97	35,483	5	0	5	98					
			T2S	34,565	5	0	4	95	36,361	5	0	5	100	36,585	5	0	5	101					
			T2M	33,774	5	0	5	93	35,528	5	0	5	98	35,748	5	0	5	98					
			T3S	33,732	5	0	5	93	35,484	5	0	5	98	35,703	5	0	5	98					
			T3M	34,038	5	0	5	94	35,806	5	0	5	99	36,027	5	0	5	99					
			T4M	34,501	5	0	5	95	36,293	5	0	5	100	36,517	5	0	5	101					
			TFTM	33,985	5	0	5	94	35,750	5	0	5	98	35,971	5	0	5	99					
			T5VS	35,901	5	0	1	99	37,766	5	0	1	104	37,999	5	0	1	105					
			T5S	36,167	5	0	2	100	38,046	5	0	2	105	38,281	5	0	2	105					
			T5M	36,230	5	0	4	100	38,112	5	0	4	105	38,348	5	0	4	106					
			T5W	35,697	5	0	4	98	37,551	5	0	4	103	37,783	5	0	4	104					

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FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Area Size 2 reflects the embedded high performance LED technology. It is ideal for applications like car dealerships and large parking lots adjacent to malls, transit stations, grocery stores, home centers, and other big-box retailers.

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.1 ft^2) for optimized pole wind loading.

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. Available in both textured and non-textured finishes.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K, or 5000 K (70 CRI) configurations. The D-Series Size 2 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 configurations consist of 80, 90 or 100 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L90/100,000 hrs at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily-serviceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 2 to withstand up to a 2.0 G vibration load rating per ANSI C136.31. The D-Series Size 2 utilizes the AERIS™ series pole drilling pattern (Template #8). NEMA photocontrol receptacle is available.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D670,857 S. International patent pending.

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.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on all products on this page utilizing 3000K color temperature only.

WARRANTY
5-year limited warranty. Complete 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.

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D-Series Size 0
LED Area Luminaire

Catalog Number

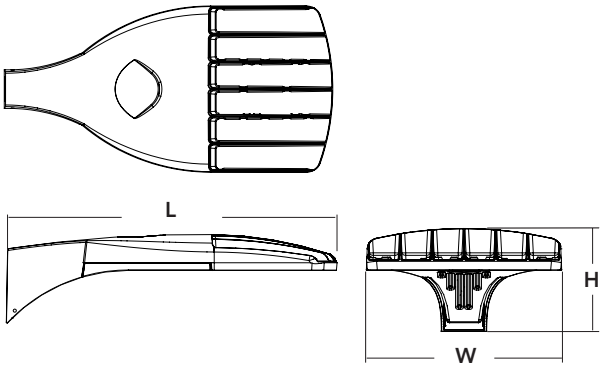
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	0.95 ft² (.09 m²)
Length:	26″ (66.0 cm)
Width:	13″ (33.0 cm)
Height:	7″ (17.8 cm)
Weight (max):	16 lbs (7.25 kg)



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM®X or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSX0 LED 40C 1000 40K T3M MVOLT SPA DDBXD

DSX0 LED

Series	LEDs	Drive current	Color temperature	Distribution		Voltage	Mounting
DSX0 LED	**Forward optics** 20C 20 LEDs (one engine) 40C 40 LEDs (two engines) **Rotated optics** 30C 30 LEDs (one engine)[1]	530 530 mA 700 700 mA 1000 1000 mA (1 A)	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted[2]	T1S Type I short T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium T5VS Type V very short	T5S Type V short T5M Type V medium T5W Type V wide BLC Backlight control[2,3] LCCO Left corner cutoff[2,3] RCCO Right corner cutoff[2,3]	MVOLT[4] 120[5] 208[5] 240[5] 277[5] 347[5,6] 480[5,6]	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor[7] RPUMBA Round pole universal mounting adaptor[7] **Shipped separately** KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)[8]

Control options			Other options	Finish *(required)*	
Shipped installed		BL30 Bi-level switched dimming, 30%[14,15]	**Shipped installed**	DDBXD Dark bronze	
PER NEMA twist-lock receptacle only (control ordered separate)[9]		BL50 Bi-level switched dimming, 50%[14,15]	HS House-side shield[18]	DBLXD Black	
PER5 Five-wire receptacle only (control ordered separate)[9,10]		PNMTDD3 Part night, dim till dawn[16]	SF Single fuse (120, 277, 347V)[5]	DNAXD Natural aluminum	
PER7 Seven-wire receptacle only (control ordered separate)[9,10]		PNMT5D3 Part night, dim 5 hrs[16]	DF Double fuse (208, 240, 480V)[5]	DWHXD White	
DMG 0-10V dimming extend out back of honsing for external control (no controls)(leads exit fixture)[11]		PNMT6D3 Part night, dim 6 hrs[16]	L90 Left rotated optics[1]	DDBTXD Textured dark bronze	
PIR Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc[12,13]		PNMT7D3 Part night, dim 7 hrs[16]	R90 Right rotated optics[1]	DBLBXD Textured black	
PIRH Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc[12,13]		FAO Field adjustable output[17]	DDL Diffused drop lens[18]	DNATXD Textured natural aluminum	
PIR1FC3V Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[12,13]			BS Bird spikes	DWHGXD Textured white	
PIRH1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[12,13]					

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Ordering Information Cont.

Accessories

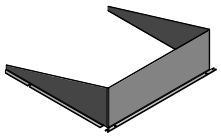
Ordered and shipped separately.

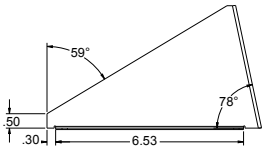
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V)[19]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V)[19]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V)[19]
DSHORT SBK U	Shorting cap[19]
DSX0EGS DDBXD U	External glare shield
DSX0HS 20C U	House-side shield for 20 LED unit[18]
DSX0HS 30C U	House-side shield for 30 LED unit[18]
DSX0HS 40C U	House-side shield for 40 LED unit[18]
DSX0DDL U	Diffused drop lens (polycarbonate)[18]
PUMBA DDBXD U*	Square and round pole universal mounting bracket adaptor (specify finish)[20]
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [8]

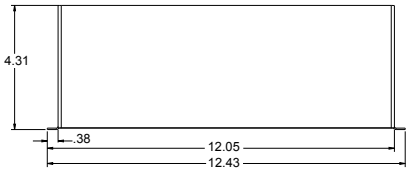
For more control options, visit DTL and ROAM online.

NOTES
1 30 LEDs (30C option) and rotated options (L90 or R90) only available together.
2 AMBPC is not available with BLC, LCCO or RCCO.
3 Not available with HS or DDL.
4 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
5 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
6 Not available in 20C or 30C at 530mA. Not available with BL30, BL50 or PNMT options.
7 Existing drilled pole only. Available as a separate combination accessory; for retrofit use only: PUMBA (finish) U; 1.5 G vibration load rating per ANCI C136.31.
8 Must order fixture with SPA mounting. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8″ mast arm (not included).
9 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
10 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Shorting Cap included.
11 DMG option for 347V or 480V requires 1000mA.
12 Reference Motion Sensor table on page 3.
13 Reference PER Table on page 3 to see functionality.
14 Requires (2) separately switched circuits.
15 Not available with 347V, 480V, PNMT, PIR1FC3V or PIRH1FC3V. For PER5 or PER7 see PER Table on page 3.
16 Not available with 347V, 480V, PNMT, PIR1FC3V or PIRH1FC3V. For PER5 or PER7 see PER Table on page 3. Separate Dusk to Dawn required.
17 Not available with other controls options.
18 Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
19 Requires luminaire to be specified with PER option. See PER Table.
20 For retrofit use only.

External Glare Shield

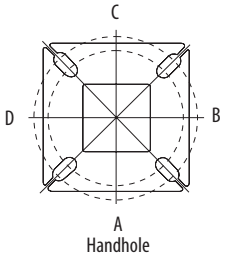




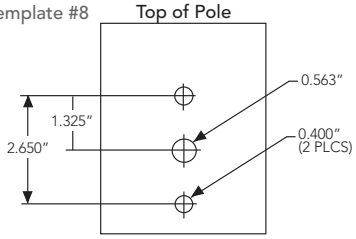


Drilling

HANDHOLE ORIENTATION



Template #8



Tenon Mounting Slipfitter **

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8″	AST20-190	AST20-280	AST20-290			
2-7/8″	AST25-190	AST25-280	AST25-290			
4″	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

Pole drilling nomenclature: # of heads at degree from handhole (default side A)					
DM19AS	DM28AS	DM29AS	DM32AS	DM39AS	DM49AS
1 @ 90°	2 @ 280°	2 @ 90°	3 @ 120°	3 @ 90°	4 @ 90°
Side B	Side B & D	Side B & C	Round pole only	Side B, C, & D	Sides A, B, C, D
Note: Review luminaire spec sheet for specific nomenclature					

Pole top or tenon O.D.	4.5" @ 90°	4" @ 90°	3.5" @ 90°	3" @ 90°	4.5" @ 120°	4" @ 120°	3.5" @ 120°	3" @ 120°
DSX SPA	Y	Y	Y	N	-	-	-	-
DSX RPA	Y	Y	N	N	Y	Y	Y	Y
DSX SPUMBA	Y	N	N	N	-	-	-	-
DSX RPUMBA	N	N	N	N	Y	Y	Y	N
					*3 fixtures @120 require round pole top/tenon.			

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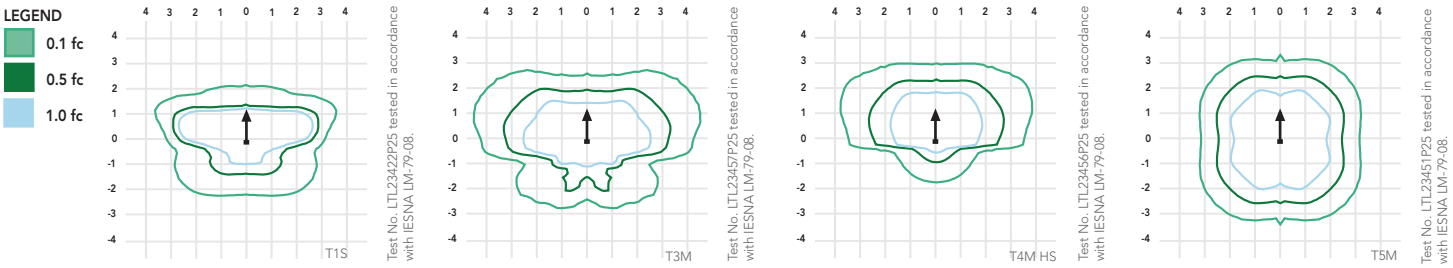
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 0 homepage.

Isofootcandle plots for the DSX0 LED 40C 1000 40K. Distances are in units of mounting height (20').



Performance Data

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	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.99

Electrical Load

			Current (A)					
Number of LEDs	Drive Current (mA)	System Watts	120	208	240	277	347	480
20C	530	35	0.34	0.22	0.21	0.20	--	--
	700	45	0.47	0.28	0.24	0.22	0.18	0.14
	1000	72	0.76	0.45	0.39	0.36	0.36	0.26
30C	530	52	0.51	0.31	0.28	0.25	--	--
	700	70	0.72	0.43	0.37	0.34	0.25	0.19
	1000	104	1.11	0.64	0.56	0.49	0.47	0.34
40C	530	68	0.71	0.41	0.36	0.33	0.25	0.19
	700	91	0.94	0.55	0.48	0.42	0.33	0.24
	1000	138	1.45	0.84	0.73	0.64	0.69	0.50

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	DSX0 LED 20C 1000			
	1	0.98	0.96	0.93
	DSX0 LED 40C 1000			
	1	0.98	0.95	0.90
	DSX0 LED 40C 700			
	1	0.99	0.99	0.99

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Phototcell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*for use with Inline Dusk to Dawn or timer.

PER Table						
Control	PER (3 wire)	PER5 (5 wire)		PER7 (7 wire)		
			Wire 4/Wire5		Wire 4/Wire5	Wire 6/Wire7
Photocontrol Only (On/Off)	✔	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM	⊘	✔	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM with Motion (ROAM on/off only)	⊘	⚠	Wires Capped inside fixture	⚠	Wires Capped inside fixture	Wires Capped inside fixture
Future-proof*	⊘	⚠	Wired to dimming leads on driver	✔	Wired to dimming leads on driver	Wires Capped inside fixture
Future-proof* with Motion	⊘	⚠	Wires Capped inside fixture	✔	Wires Capped inside fixture	Wires Capped inside fixture

✔ Recommended
⊘ Will not work
⚠ Alternate

*Future-proof means: Ability to change controls in the future.

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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. Contact factory for performance data on any configurations not shown here.

Forward Optics

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
20C (20 LEDs)	530 mA	35 W	T1S	4,079	1	0	1	117	4,380	1	0	1	125	4,408	1	0	1	126	2,541	1	0	1	73
			T2S	4,206	1	0	1	120	4,516	1	0	1	129	4,544	1	0	1	130	2,589	1	0	1	74
			T2M	4,109	1	0	1	117	4,413	1	0	1	126	4,440	1	0	1	127	2,539	1	0	1	73
			T3S	4,104	1	0	1	117	4,407	1	0	1	126	4,435	1	0	1	127	2,558	1	0	1	73
			T3M	4,142	1	0	1	118	4,447	1	0	2	127	4,475	1	0	2	128	2,583	1	0	1	74
			T4M	4,198	1	0	1	120	4,508	1	0	2	129	4,536	1	0	1	130	2,570	1	0	1	73
			TFTM	4,135	1	0	1	118	4,440	1	0	1	127	4,468	1	0	1	128	2,540	1	0	1	73
			T5VS	4,368	2	0	0	125	4,691	2	0	0	134	4,720	2	0	0	135	2,650	1	0	0	76
			T5S	4,401	2	0	2	126	4,725	2	0	0	135	4,755	2	0	0	136	2,690	1	0	0	77
			T5M	4,408	2	0	1	126	4,734	3	0	1	135	4,763	3	0	1	136	2,658	2	0	0	76
			T5W	4,344	3	0	1	124	4,664	3	0	1	133	4,693	3	0	1	134	2,663	2	0	1	76
			BLC	3,071	1	0	1	88	3,297	1	0	1	94	3,318	1	0	1	95					
			LCCO	2,983	1	0	1	85	3,204	1	0	1	92	3,224	1	0	1	92					
			RCCO	2,983	1	0	1	85	3,204	1	0	1	92	3,224	1	0	1	92					
	700 mA	45 W	T1S	5,181	1	0	1	115	5,563	1	0	1	124	5,598	1	0	1	124	3,144	1	0	1	70
			T2S	5,342	1	0	1	119	5,736	1	0	1	127	5,772	1	0	1	128	3,203	1	0	1	71
			T2M	5,219	1	0	2	116	5,605	1	0	2	125	5,640	1	0	2	125	3,141	1	0	1	70
			T3S	5,213	1	0	1	116	5,598	1	0	1	124	5,633	1	0	1	125	3,165	1	0	1	70
			T3M	5,260	1	0	2	117	5,649	1	0	2	126	5,684	1	0	2	126	3,196	1	0	1	71
			T4M	5,332	1	0	2	118	5,725	1	0	2	127	5,761	1	0	2	128	3,179	1	0	1	71
			TFTM	5,252	1	0	2	117	5,640	1	0	2	125	5,675	1	0	2	126	3,143	1	0	1	70
			T5VS	5,548	2	0	0	123	5,958	2	0	0	132	5,995	2	0	0	133	3,278	2	0	0	73
			T5S	5,589	2	0	0	124	6,002	2	0	0	133	6,039	2	0	0	134	3,328	2	0	0	74
			T5M	5,599	3	0	1	124	6,012	3	0	1	134	6,050	3	0	1	134	3,288	2	0	1	73
			T5W	5,517	3	0	1	123	5,924	3	0	1	132	5,961	3	0	2	132	3,295	2	0	1	73
			BLC	3,909	1	0	1	87	4,198	1	0	1	93	4,224	1	0	1	94					
			LCCO	3,798	1	0	1	84	4,078	1	0	1	91	4,104	1	0	1	91					
			RCCO	3,798	1	0	1	84	4,078	1	0	1	91	4,104	1	0	1	91					
	1000 mA	72 W	T1S	7,085	2	0	2	98	7,608	2	0	2	106	7,656	2	0	2	106					
			T2S	7,305	2	0	2	101	7,845	2	0	2	109	7,894	2	0	2	110					
			T2M	7,138	2	0	2	99	7,665	2	0	2	106	7,713	2	0	2	107					
			T3S	7,129	1	0	2	99	7,656	2	0	2	106	7,704	2	0	2	107					
			T3M	7,194	2	0	2	100	7,725	2	0	2	107	7,773	2	0	2	108					
			T4M	7,292	2	0	2	101	7,830	2	0	2	109	7,879	2	0	2	109					
			TFTM	7,183	1	0	2	100	7,713	2	0	2	107	7,761	2	0	2	108					
			T5VS	7,588	3	0	0	105	8,148	3	0	0	113	8,199	3	0	0	114					
			T5S	7,644	3	0	0	106	8,208	3	0	0	114	8,259	3	0	0	115					
			T5M	7,657	3	0	2	106	8,222	3	0	2	114	8,274	3	0	2	115					
			T5W	7,545	3	0	2	105	8,102	3	0	2	113	8,153	3	0	2	113					
			BLC	5,162	1	0	1	72	5,543	1	0	1	77	5,578	1	0	1	77					
			LCCO	5,015	1	0	2	70	5,386	1	0	2	75	5,419	1	0	2	75					
			RCCO	5,015	1	0	2	70	5,386	1	0	2	75	5,419	1	0	2	75					

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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. Contact factory for performance data on any configurations not shown here.

Forward Optics

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
40C (40 LEDs)	530 mA	68 W	T1S	7,926	2	0	2	117	8,511	2	0	2	125	8,564	2	0	2	126	4,878	1	0	1	72
			T2S	8,172	2	0	2	120	8,775	2	0	2	129	8,830	2	0	2	130	4,969	1	0	1	73
			T2M	7,985	2	0	2	117	8,574	2	0	2	126	8,628	2	0	2	127	4,874	1	0	1	72
			T3S	7,975	2	0	2	117	8,564	2	0	2	126	8,617	2	0	2	127	4,910	1	0	1	72
			T3M	8,047	2	0	2	118	8,642	2	0	3	127	8,696	2	0	3	128	4,958	1	0	2	73
			T4M	8,157	2	0	2	120	8,759	2	0	2	129	8,813	2	0	2	130	4,932	1	0	2	73
			TFTM	8,035	2	0	2	118	8,628	2	0	2	127	8,682	2	0	2	128	4,876	1	0	2	72
			T5VS	8,488	3	0	0	125	9,115	3	0	1	134	9,172	3	0	1	135	5,086	2	0	0	75
			T5S	8,550	3	0	1	126	9,182	4	0	2	135	9,239	3	0	1	136	5,163	2	0	0	76
			T5M	8,565	3	0	2	126	9,198	3	0	2	135	9,255	3	0	2	136	5,102	3	0	1	75
			T5W	8,440	4	0	2	124	9,063	3	0	2	133	9,120	4	0	2	134	5,112	3	0	1	75
			BLC	6,142	1	0	2	90	6,595	1	0	2	97	6,636	1	0	2	98					
			LCCO	5,967	1	0	2	88	6,407	1	0	2	94	6,447	1	0	2	95					
			RCCO	5,967	1	0	2	88	6,407	1	0	2	94	6,447	1	0	2	95					
	700 mA	91 W	T1S	10,066	2	0	2	111	10,810	2	0	2	119	10,877	2	0	2	120	6,206	2	0	2	68
			T2S	10,379	2	0	2	114	11,145	2	0	2	122	11,215	2	0	2	123	6,322	2	0	2	69
			T2M	10,141	2	0	2	111	10,890	2	0	2	120	10,958	2	0	2	120	6,201	2	0	2	68
			T3S	10,129	2	0	2	111	10,877	2	0	2	120	10,945	2	0	2	120	6,247	1	0	2	69
			T3M	10,221	2	0	3	112	10,975	2	0	3	121	11,044	2	0	3	121	6,308	2	0	2	69
			T4M	10,359	2	0	3	114	11,124	2	0	3	122	11,194	2	0	3	123	6,275	1	0	2	69
			TFTM	10,205	2	0	2	112	10,958	2	0	2	120	11,027	2	0	2	121	6,203	1	0	2	68
			T5VS	10,781	3	0	1	118	11,576	3	0	1	127	11,649	3	0	1	128	6,671	2	0	0	73
			T5S	10,860	3	0	1	119	11,662	3	0	1	128	11,734	3	0	1	129	6,569	2	0	0	72
			T5M	10,879	4	0	2	120	11,682	4	0	2	128	11,755	4	0	2	129	6,491	3	0	1	71
			T5W	10,719	4	0	2	118	11,511	4	0	2	126	11,583	4	0	2	127	6,504	3	0	2	71
			BLC	7,819	1	0	2	86	8,396	1	0	2	92	8,448	1	0	2	93					
			LCCO	7,596	1	0	2	83	8,157	1	0	2	90	8,208	1	0	2	90					
			RCCCO	7,596	1	0	2	83	8,157	1	0	2	90	8,208	1	0	2	90					
	1000 mA	138 W	T1S	13,767	3	0	3	100	14,783	3	0	3	107	14,876	3	0	3	108					
			T2S	14,194	3	0	3	103	15,242	3	0	3	110	15,338	3	0	3	111					
			T2M	13,869	3	0	3	101	14,893	3	0	3	108	14,986	3	0	3	109					
			T3S	13,852	2	0	2	100	14,875	3	0	3	108	14,968	3	0	3	108					
			T3M	13,978	3	0	3	101	15,028	3	0	3	109	15,104	3	0	3	109					
			T4M	14,168	3	0	3	103	15,214	3	0	3	110	15,309	3	0	3	111					
			TFTM	13,956	2	0	3	101	14,987	2	0	3	109	15,080	2	0	3	109					
			T5VS	14,744	4	0	1	107	15,832	4	0	1	115	15,931	4	0	1	115					
			T5S	14,852	4	0	1	108	15,948	4	0	1	116	16,048	4	0	1	116					
			T5M	14,878	4	0	2	108	15,976	4	0	2	116	16,076	4	0	2	116					
			T5W	14,660	4	0	2	106	15,742	4	0	2	114	15,840	4	0	2	115					
			BLC	10,325	1	0	2	75	11,087	1	0	2	80	11,156	1	0	2	81					
			LCCO	10,031	2	0	2	73	10,771	2	0	3	78	10,839	2	0	3	79					
			RCCO	10,031	2	0	2	73	10,771	2	0	3	78	10,839	2	0	3	79					

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L90 and R90 Rotated Optics

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30C (30 LEDs)	530 mA	52 W	T1S	6,130	2	0	2	118	6,583	2	0	2	127	6,624	2	0	2	127	3,841	2	0	2	74
			T2S	6,321	2	0	2	122	6,787	2	0	2	131	6,830	2	0	2	131	3,912	2	0	2	75
			T2M	6,176	3	0	3	119	6,632	3	0	3	128	6,673	3	0	3	128	3,837	2	0	2	74
			T3S	6,168	3	0	3	119	6,624	3	0	3	127	6,665	3	0	3	128	3,866	2	0	2	74
			T3M	6,224	3	0	3	120	6,684	3	0	3	129	6,726	3	0	3	129	3,904	2	0	2	75
			T4M	6,309	3	0	3	121	6,775	3	0	3	130	6,817	3	0	3	131	3,884	2	0	2	75
			TFTM	6,215	3	0	3	120	6,673	3	0	3	128	6,715	3	0	3	129	3,839	2	0	2	74
			T5VS	6,565	2	0	0	126	7,050	3	0	0	136	7,094	3	0	0	136	4,005	2	0	0	77
			T5S	6,613	2	0	0	127	7,102	2	0	0	137	7,146	2	0	0	137	4,065	2	0	0	78
			T5M	6,625	3	0	1	127	7,114	3	0	1	137	7,159	3	0	1	138	4,017	2	0	1	77
			T5W	6,528	3	0	2	126	7,010	3	0	2	135	7,054	3	0	2	136	4,025	3	0	1	77
			BLC	4,747	2	0	2	91	5,098	2	0	2	98	5,130	2	0	2	99					
			LCCO	4,612	1	0	2	89	4,953	1	0	2	95	4,984	1	0	2	96					
			RCCO	4,612	1	0	2	89	4,953	1	0	2	95	4,984	1	0	2	96					
	700 mA	70 W	T1S	7,786	3	0	3	111	8,361	3	0	3	119	8,413	3	0	3	120	4,783	2	0	2	68
			T2S	8,028	3	0	3	115	8,620	3	0	3	123	8,674	3	0	3	124	4,873	2	0	2	70
			T2M	7,844	3	0	3	112	8,423	3	0	3	120	8,476	3	0	3	121	4,779	2	0	2	68
			T3S	7,834	3	0	3	112	8,413	3	0	3	120	8,465	3	0	3	121	4,815	2	0	2	69
			T3M	7,905	3	0	3	113	8,489	3	0	3	121	8,542	3	0	3	122	4,862	3	0	3	69
			T4M	8,013	3	0	3	114	8,604	3	0	3	123	8,658	3	0	3	124	4,837	3	0	3	69
			TFTM	7,893	3	0	3	113	8,476	3	0	3	121	8,529	3	0	3	122	4,781	3	0	3	68
			T5VS	8,338	3	0	0	119	8,954	3	0	0	128	9,010	3	0	0	129	4,988	2	0	0	71
			T5S	8,400	3	0	0	120	9,020	3	0	1	129	9,076	3	0	1	130	5,063	2	0	0	72
			T5M	8,414	3	0	2	120	9,036	3	0	2	129	9,092	3	0	2	130	5,003	3	0	1	71
			T5W	8,291	4	0	2	118	8,903	4	0	2	127	8,959	4	0	2	128	5,013	3	0	1	72
			BLC	6,044	2	0	2	86	6,490	3	0	3	93	6,530	3	0	3	93					
			LCCO	5,872	1	0	2	84	6,305	1	0	2	90	6,345	1	0	2	91					
			RCCO	5,872	1	0	2	84	6,305	1	0	2	90	6,345	1	0	2	91					
	1000 mA	104 W	T1S	10,648	3	0	3	102	11,434	3	0	3	110	11,506	3	0	3	111					
			T2S	10,979	3	0	3	106	11,789	3	0	3	113	11,863	3	0	3	114					
			T2M	10,727	3	0	3	103	11,519	3	0	3	111	11,591	3	0	3	111					
			T3S	10,714	3	0	3	103	11,505	3	0	3	111	11,577	3	0	3	111					
			T3M	10,812	3	0	3	104	11,610	4	0	4	112	11,682	4	0	4	112					
			T4M	10,958	4	0	4	105	11,767	4	0	4	113	11,841	4	0	4	114					
			TFTM	10,795	3	0	3	104	11,592	4	0	4	111	11,664	4	0	4	112					
			T5VS	11,404	3	0	0	110	12,245	3	0	1	118	12,322	3	0	1	118					
			T5S	11,487	3	0	1	110	12,336	3	0	1	119	12,413	3	0	1	119					
			T5M	11,508	4	0	2	111	12,357	4	0	2	119	12,434	4	0	2	120					
			T5W	11,339	4	0	2	109	12,176	4	0	2	117	12,252	4	0	2	118					
			BLC	7,981	3	0	3	77	8,570	3	0	3	82	8,624	3	0	3	83					
			LCCO	7,754	1	0	2	75	8,326	2	0	2	80	8,378	2	0	2	81					
			RCCO	7,754	1	0	2	75	8,326	2	0	2	80	8,378	2	0	2	81					

FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Size 0 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and pedestrian areas.

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (0.95 ft^2) for optimized pole wind loading.

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. Available in both textured and non-textured finishes.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K or 5000 K (70 CRI) or optional 3000 K (70 minimum CRI) or 5000 K (70 CRI) configurations. The D-Series Size 0 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) configurations consist of 20, 30 or 40 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L99/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV or 6kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 0 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 0 utilizes the AERIS™ series pole drilling pattern (template #8). Optional terminal block and NEMA photocontrol receptacle are also available.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

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.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on all products on this page utilizing 3000K color temperature only.

WARRANTY
5-year limited warranty. Complete 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.

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LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

Outdoor General Purpose

OLW

LED WALL PACK

FEATURES & SPECIFICATIONS

INTENDED USE

Provides maintenance-free general illumination for outdoor use in residential and commercial applications such as retail, education, multi-unit housing and storage. Ideal for lighting building facades, parking areas, walkways, garages, loading areas and any other outdoor space requiring reliable security lighting.

CONSTRUCTION

Sturdy weather-resistant aluminum housing with a dark bronze finish.

High performance LEDs are powered by an MVOLT driver providing 2720 and 3970 delivered lumens at 5000K. 100,000 hours LED lifespan based on IESNA LM-80-08 results and calculated per IESNA TM-21-11 methodology. Fixture is maintenance-free.

Rated for outdoor installations -40°C minimum ambient.

Adjustable Dusk-to-Dawn, photocell standard automatically turns light on at dusk and off at dawn for convenience and energy savings.

Photocell can be disabled by rotating the photocell cover.

OPTICS

Precision-molded acrylic lenses provide optimal luminaire spacing with Type 3 distribution.

Nighttime Friendly™ full cutoff above 90° angle, standard.

INSTALLATION

Wall or arm mount (mounting arm sold separately).

All mounting hardware included.

LISTINGS

UL Certified to US safety standards. C-UL Certified to Canadian safety standards. Wet location listed.

Tested in accordance with IESNA LM-79 and LM-80 standards. DLC qualified product.

WARRANTY

5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

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.

NOTE: Specifications are subject to change without notice.

NIGHTTIME FRIENDLY™ — Consistent with LEED® goals & Green Globes™ criteria for light pollution reduction

DLC QPL LISTED

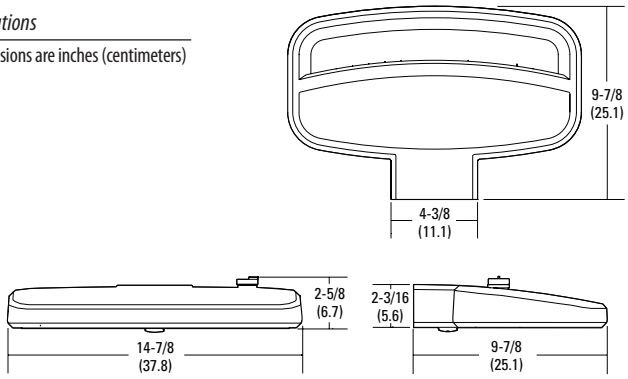
c UL us LISTED

LED

LED lighting facts — LED Product Partner

Specifications

All dimensions are inches (centimeters)



ORDERING INFORMATION For shortest lead times, configure products using **bolded options**.

Example: OLW 23

OLW				
Series	**Lumens / Color temperature (CCT)**	**Voltage**	**Features**	**Finish**
OLW LED Wall Light	**23** 2720 delivered lumens / 5000K[1] **31** 3970 delivered lumens / 5000K[1]	**(blank)** MVOLT (120V-277V)	**(blank)** Photocell included	**(blank)** DDB Dark Bronze

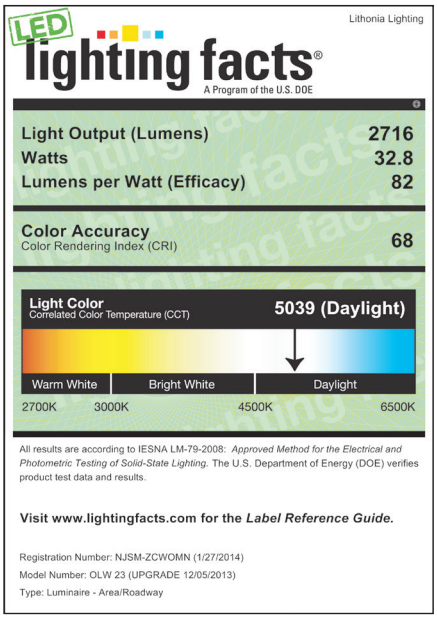
Accessories: *Order as separate catalog number.*	
OMA 18 DDB U	18" Steel mounting arm

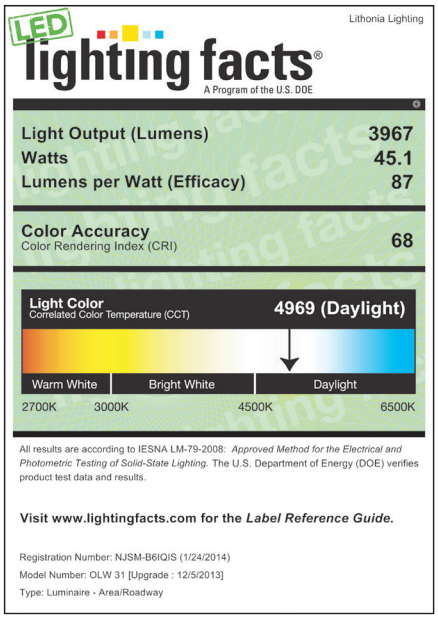
Notes

1 Correlated Color Temperature (CCT) shown is nominal per ANSI C78,377-2008.

PHOTOMETRICS

Full photometric data report available within 2 weeks from request. Consult factory.
Tested in accordance with IESNA LM-79 and LM-80 standards.





LITHONIA LIGHTING®
An AcuityBrands Company
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PHILIPS LIGHTOLIER

Downlighting

SlimSurface LED

5" and 7" round aperture surface mount downlight

SlimSurface LED is a 5/8" thick surface mounted luminaire with the appearance of a recessed downlight. Easy to install into most standard j-boxes, the SlimSurface LED round apertures are available as a 5" 650 lm & 7" 1000 lm fixture.

Project:

Location:

Cat.No:

Type:

Lamps: Qty:

Notes:

Ordering guide

example: S5R830K7AL

Family	CRI	CCT	Lumens	Finish	Dimming
S5R SlimSurface 5" Round	**8** 80 **9** 90[1]	**27K** 2700K **30K** 3000K **35K** 3500K **40K** 4000K	**7** 650 lm	**blank** White **AL** Aluminum **BK** Black	**blank** ELV / Triac (120V)
				W White **AL** Aluminum **BK** Black	**Z10U** 0-10V (120V-277V)
S7R SlimSurface 7" Round	**8** 80 **9** 90[1]	**27K** 2700K **30K** 3000K **35K** 3500K **40K** 4000K	**10** 1000 lm	**blank** White **AL** Aluminum **BK** Black	**blank** ELV / Triac (120V)
				W White **AL** Aluminum **BK** Black	**Z10U** 0-10V (120V-277V)

1. Configurations using 90 CRI are only available with 2700K and 3000K CCT.

White

Black

Aluminum

Features

1. **Flange:** One piece plastic flange. Injection molded white, applied aluminum or black.
2. **Lens:** High transmittance lens allowing for smooth, comfortable light pattern.
3. **Power supply:** Integral class 2 driver. Factory wired electronic LED driver (see Electrical section for specifications)
4. **LED Strip:** Utilizes Philips LEDs.
5. **Lifetime:** Expected lifetime 50,000 hours and backed by a 5-year warranty (see Philips.com/warranties for details).
6. **Compliance:** Non-conductive fixture for shower light application.

Electrical

Electronic power supply: RoHS compliant. Class 2 power unit. Unit tolerates sustained open circuit and short circuit output conditions without damage.

Dimming: Intended for ELV/Triac (120V) or 0-10V dimming (120V-277V) based on the configuration. Min 90°C supply conductors.

Labels

cULus listed.
Wall-mounted: damp location only.
Ceiling-mounted: wet location.
Title 24 (JA8-2016) on 90CRI S7R models.
ENERGY STAR® certified.

Electrical specifications	Dimming	Input volts	Input frequency	Input current	Input Power	THD Factor	Power Factor	Minimum Operating Temp.
Slim 5" 650lm	Triac	120V	50/60Hz	0.08A	9.5W	<15%	>0.9	-20°C
	0-10V	120V	50/60Hz	0.09A	10.1W	<20%	>0.9	-20°C
		277V	50/60Hz	0.04A	10.2W	<20%	>0.9	-20°C
Slim 7" 1000lm	Triac	120V	50/60Hz	0.13A	14.2W	<15%	>0.9	-20°C
	0-10V	120V	50/60Hz	0.12A	14.4W	<20%	>0.9	-20°C
		277V	50/60Hz	0.06A	14.7W	<20%	>0.9	-20°C

Fore more details, please see LED-Dim spec sheet.

S5R & S7R SlimSurface LED

5″ and 7″ round aperture surface mount downlight

Compatibility

Installs into standard J-box applications:

3½″ round (plastic)

4″ square (plastic)

Not compatible with S5R

4″ octagonal (metal)

4″ square (metal)

Not compatible with S5R

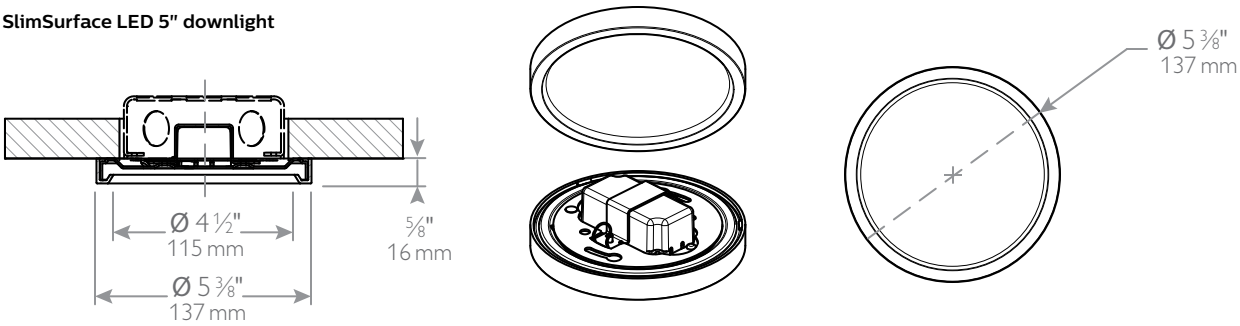
Fire rated J-box

Fire rated classification is per the ceiling and junction box ratings.

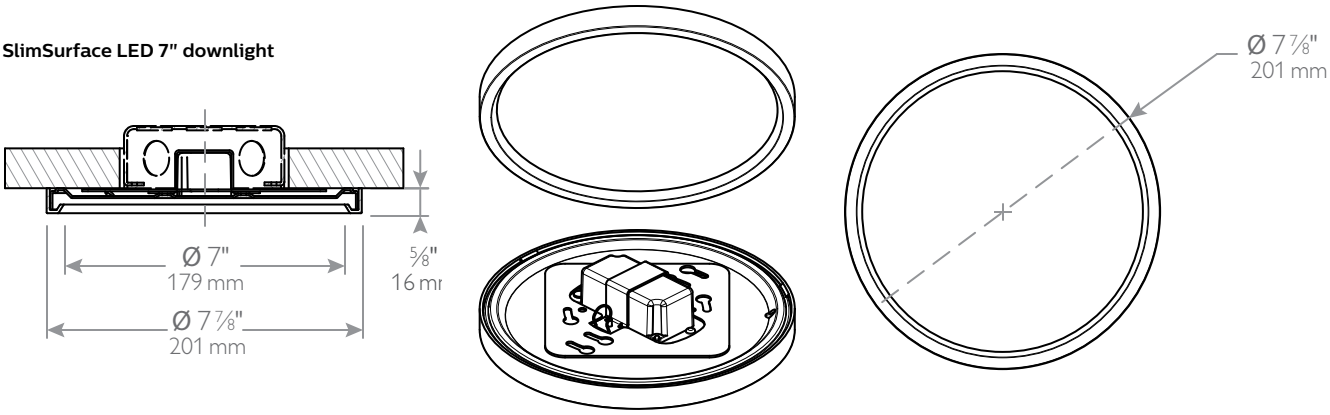
Note: A 2 1/8″ deep octagon junction box is recommended for through circuit wiring applications.

Dimensions

SlimSurface LED 5″ downlight



SlimSurface LED 7″ downlight

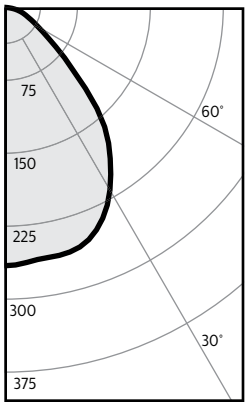


S5R & S7R SlimSurface LED

5″ and 7″ round aperture surface mount downlight

S5R927K7 • 10 W LED, 90 CRI, 2700 K

Candela Curves



Angle	Mean CP	Lumens
0	266	
5	263	25
10	261	
15	260	736
20	254	
25	239	110
30	217	
35	190	118
40	160	
45	118	91
50	81	
55	55	51
60	40	
65	30	31
70	23	
75	18	18
80	11	
85	4	5
90	0	

Report[1]: 1053GFR

Output lumens:	523 lms	Efficacy:	57.4 lm/w
Spacing Criterion:	1.2	CCT[3]:	2700 K
Beam Angle:	87°	CRI:	90 min
Input Watts[2]:	9.1 W		

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5′	11	6.0′
6′	7	7.2′
7′	5	8.4′
8′	4	9.6′
9′	3	10.8′

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5′	21.8	0.40
6′	14.2	0.26
7′	10.2	0.19
8′	8.5	0.16
9′	6.8	0.13

38′x38′x10′ Room, Workplane 2.5′ above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%										
Room Cavity Ratio 0	119	119	119	119	116	116	111	111	106	106	100
1	111	107	103	100	105	98	100	95	97	92	88
2	102	96	90	85	94	84	90	82	87	80	77
3	95	86	79	73	84	73	82	72	79	70	67
4	88	78	70	64	76	64	74	63	72	62	60
5	82	71	63	57	70	57	68	56	66	56	53
6	76	64	57	51	64	51	62	50	60	50	48
7	71	59	51	46	58	46	57	45	56	45	43
8	67	54	47	42	54	41	53	41	51	41	39
9	63	50	43	38	50	38	49	38	48	37	36
10	59	47	40	35	46	35	45	34	44	34	33

Zonal lumens & percentages

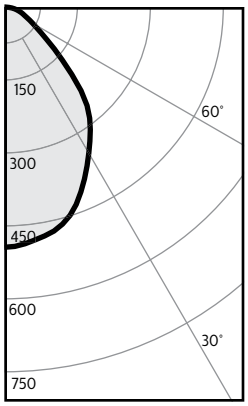
Zone	Lumens	%Luminaire
0-30	208	39.8%
0-40	326	62.5%
0-60	469	89.7%
0-90	522	100.0%

CRI and CCT adjustment factors

90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

S7R927K10 • 14 W LED, 90 CRI, 2700 K

Candela Curves



Angle	Mean CP	Lumens
0	496	
5	490	46
10	479	
15	464	130
20	433	
25	391	180
30	348	
35	309	193
40	265	
45	197	152
50	135	
55	92	85
60	68	
65	51	52
70	40	
75	30	32
80	21	
85	9	10
90	0	

Report[1]: 962GFR

Output lumens:	880 lms	Efficacy:	65.2 lm/w
Spacing Criterion:	1.1	CCT[3]:	2700 K
Beam Angle:	83°	CRI:	90 min
Input Watts[2]:	13.5 W		

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5′	20	5.5′
6′	14	6.6′
7′	10	7.7′
8′	8	8.8′
9′	6	9.9′

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5′	21.8	2.89
6′	14.2	1.90
7′	10.2	1.35
8′	8.5	1.13
9′	6.8	0.90

38′x38′x10′ Room, Workplane 2.5′ above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%										
Room Cavity Ratio 0	119	119	119	119	116	116	111	111	106	106	100
1	111	107	103	100	104	98	100	95	96	92	88
2	102	96	90	85	94	84	90	82	87	80	77
3	95	86	79	74	85	73	82	72	79	71	67
4	88	78	70	65	77	64	74	63	72	62	60
5	82	71	63	57	70	57	68	56	66	56	53
6	76	65	57	51	64	51	62	51	61	50	48
7	71	59	52	46	59	46	57	46	56	45	43
8	67	55	47	42	54	42	53	42	52	41	39
9	63	51	43	38	50	38	49	38	48	38	36
10	59	47	40	35	47	35	46	35	45	35	33

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	356	40.5%
0-40	549	62.4%
0-60	786	89.3%
0-90	880	100.0%

CRI and CCT adjustment factors

90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

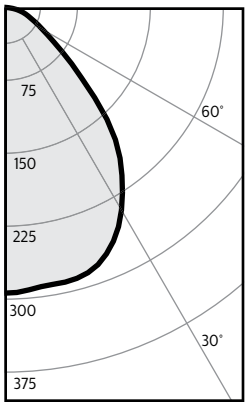
1. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
2. Wattage: controlled to within 5%
3. Correlated Color Temperature: within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

S5R & S7R SlimSurface LED

5″ and 7″ round aperture surface mount downlight

S5R827K7 • 10 W LED, 80 CRI, 2700 K

Candela Curves



Angle	Mean CP	Lumens
0	294	
5	291	28
10	289	
15	288	81
20	281	
25	265	121
30	241	
35	211	131
40	178	
45	131	102
50	91	
55	62	57
60	45	
65	34	34
70	26	
75	20	21
80	13	
85	4	5
90	0	

Report[1]: 1054GFR

Output lumens:	581 lms	Efficacy:	62.5 lm/w
Spacing Criterion:	1.2	CCT[3]:	2700 K
Beam Angle:	87°	CRI:	80 min
Input Watts[2]:	9.3 W		

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5′	12	6.0′
6′	8	7.2′
7′	6	8.4′
8′	5	9.6′
9′	4	10.8′

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5′	24.2	2.77
6′	15.8	1.82
7′	11.3	1.30
8′	9.5	1.08
9′	7.5	0.87

38′x38′x10′ Room, Workplane 2.5′ above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%										
Room Cavity Ratio 0	119	119	119	119	116	116	111	111	106	106	100
1	111	107	103	100	105	105	100	95	97	92	88
2	102	96	90	85	94	94	90	82	87	80	77
3	95	86	79	73	84	84	82	72	79	70	67
4	88	78	70	64	76	76	74	63	72	62	60
5	82	71	63	57	70	70	68	56	66	56	53
6	76	64	57	51	64	64	62	50	60	50	48
7	71	59	51	46	58	58	57	45	56	45	43
8	67	54	47	42	54	54	53	41	51	41	39
9	63	50	43	38	50	50	49	38	48	37	36
10	59	47	40	35	46	46	45	34	44	34	33

Zonal lumens & percentages

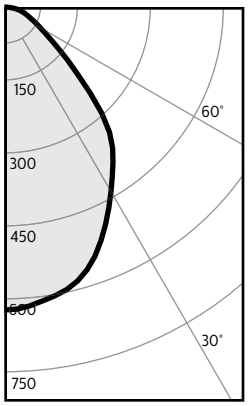
Zone	Lumens	%Luminaire
0-30	231	39.7%
0-40	362	62.3%
0-60	521	89.6%
0-90	581	100.0%

CRI and CCT adjustment factors

90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

S7R827K10 • 14 W LED, 80 CRI, 2700 K

Candela Curves



Angle	Mean CP	Lumens
0	625	
5	618	59
10	604	
15	584	164
20	546	
25	494	227
30	440	
35	390	244
40	337	
45	250	193
50	170	
55	117	108
60	85	
65	65	65
70	51	
75	39	41
80	27	
85	12	13
90	0	

Report[1]: 964GFR

Output lumens:	1113 lms	Efficacy:	83.1 lm/w
Spacing Criterion:	1.1	CCT[3]:	2700 K
Beam Angle:	83°	CRI:	80 min
Input Watts[2]:	13.4 W		

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5′	25	5.5′
6′	17	6.6′
7′	13	7.7′
8′	10	8.8′
9′	8	9.9′

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5′	24.2	3.68
6′	15.8	2.42
7′	11.3	1.73
8′	9.5	1.44
9′	7.5	1.15

38′x38′x10′ Room, Workplane 2.5′ above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%										
Room Cavity Ratio 0	119	119	119	119	116	116	111	111	106	106	100
1	111	107	103	100	104	98	100	95	96	92	88
2	102	96	90	85	94	84	90	82	87	80	77
3	95	86	79	74	85	73	82	72	79	71	67
4	88	78	70	65	77	64	74	63	72	62	60
5	82	71	63	57	70	57	68	56	66	56	53
6	76	65	57	51	64	51	62	51	61	50	48
7	71	59	52	46	59	46	57	46	56	45	43
8	67	55	47	42	54	42	53	42	52	41	39
9	63	51	43	38	50	38	49	38	48	38	36
10	59	47	40	35	47	35	46	35	45	35	33

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	449	40.4%
0-40	693	62.3%
0-60	994	89.3%
0-90	1113	100.0%

CRI and CCT adjustment factors

90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

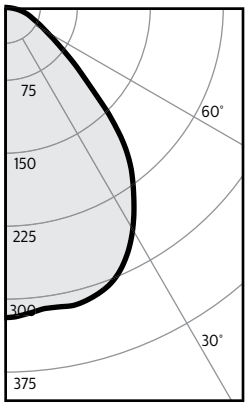
1. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
2. Wattage: controlled to within 5%
3. Correlated Color Temperature: within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

S5R & S7R SlimSurface LED

5″ and 7″ round aperture surface mount downlight

S5R830K7 • 10 W LED, 80 CRI, 3000 K

Candela Curves



Angle	Mean CP	Lumens
0	319	
5	315	30
10	313	
15	313	88
20	306	
25	290	131
30	264	
35	231	142
40	197	
45	146	109
50	100	
55	69	62
60	50	
65	38	37
70	29	
75	22	22
80	15	
85	6	6
90	0	

Report[1]: 1055GFR

Output lumens:	628 lms	Efficacy:	69.0 lm/w
Spacing Criterion:	1.2	CCT[3]:	3000 K
Beam Angle:	87°	CRI:	80 min
Input Watts[2]:	9.1 W		

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5′	13	6.0′
6′	9	7.2′
7′	7	8.4′
8′	5	9.6′
9′	4	10.8′

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5′	26.2	3.06
6′	17.1	2.01
7′	12.2	1.43
8′	10.2	1.19
9′	8.1	0.96

38′x38′x10′ Room, Workplane 2.5′ above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%										
Room Cavity Ratio 0	119	119	119	119	116	116	111	111	106	106	100
1	111	107	103	100	105	98	100	95	97	92	88
2	102	96	90	85	94	84	90	82	87	80	77
3	95	86	79	73	84	73	82	72	79	70	67
4	88	78	70	64	76	64	74	63	72	62	60
5	82	71	63	57	70	57	68	56	66	56	53
6	76	64	57	51	64	51	62	50	60	50	48
7	71	59	51	46	58	46	57	45	56	45	43
8	67	54	47	42	54	41	53	41	51	41	39
9	63	50	43	38	50	38	49	38	48	37	36
10	59	47	40	35	46	35	45	34	44	34	33

Zonal lumens & percentages

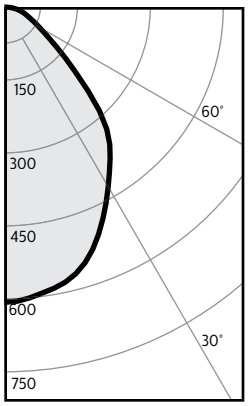
Zone	Lumens	%Luminaire
0-30	249	39.7%
0-40	391	62.3%
0-60	562	89.6%
0-90	628	100.0%

CRI and CCT adjustment factors

90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

S7R830K10 • 14 W LED , 80 CRI, 3000 K

Candela Curves



Angle	Mean CP	Lumens
0	607	
5	601	57
10	588	
15	568	159
20	531	
25	480	221
30	427	
35	379	237
40	328	
45	243	187
50	165	
55	113	105
60	83	
65	63	63
70	49	
75	37	39
80	26	
85	12	13
90	0	

Report[1]: 961GFR

Output lumens:	1081 lms	Efficacy:	80.0 lm/w
Spacing Criterion:	1.1	CCT[3]:	3000 K
Beam Angle:	83°	CRI:	80 min
Input Watts[2]:	13.5 W		

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5′	24	5.5′
6′	17	6.6′
7′	12	7.7′
8′	9	8.8′
9′	7	9.9′

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5′	26.2	3.55
6′	17.1	2.33
7′	12.2	1.66
8′	10.2	1.39
9′	8.1	1.11

38′x38′x10′ Room, Workplane 2.5′ above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%										
Room Cavity Ratio 0	119	119	119	119	116	116	111	111	106	106	100
1	111	107	103	100	104	98	100	95	96	92	88
2	102	96	90	85	94	84	90	82	87	80	77
3	95	86	79	74	85	73	82	72	79	71	67
4	88	78	70	65	77	64	74	63	72	62	60
5	82	71	63	57	70	57	68	56	66	56	53
6	76	65	57	51	64	51	62	51	61	50	48
7	71	59	52	46	59	46	57	46	56	45	43
8	67	55	47	42	54	42	53	42	52	41	39
9	63	51	43	38	50	38	49	38	48	38	36
10	59	47	40	35	47	35	46	35	45	35	33

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	437	40.4%
0-40	674	62.3%
0-60	966	89.4%
0-90	1081	100.0%

CRI and CCT adjustment factors

90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

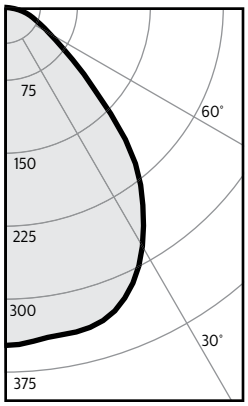
1. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
2. Wattage: controlled to within 5%
3. Correlated Color Temperature: within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

S5R & S7R SlimSurface LED

5″ and 7″ round aperture surface mount downlight

S5R835K7 • 10 W LED, 80 CRI, 3500 K

Candela Curves



Angle	Mean CP	Lumens
0	347	
5	344	33
10	341	
15	340	96
20	332	
25	312	143
30	283	
35	248	155
40	209	
45	154	119
50	107	
55	74	68
60	53	
65	41	41
70	31	
75	23	25
80	15	
85	5	7
90	0	

Report[1]: 1056GFR

Output lumens:	685 lms	Efficacy:	75.3 lm/w
Spacing Criterion:	1.2	CCT[3]:	3500 K
Beam Angle:	87°	CRI:	80 min
Input Watts[2]:	9.1 W		

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5′	14	6.0′
6′	10	7.2′
7′	7	8.4′
8′	5	9.6′
9′	4	10.8′

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5′	28.6	3.34
6′	18.7	2.19
7′	13.3	1.56
8′	11.2	1.30
9′	8.9	1.04

38′x38′x10′ Room, Workplane 2.5′ above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%										
Room Cavity Ratio 0	119	119	119	119	116	116	111	111	111	106	100
1	111	107	103	100	105	98	100	95	95	92	88
2	102	96	90	85	94	84	90	82	82	80	77
3	95	86	79	73	84	73	82	72	72	70	67
4	88	78	70	64	76	64	74	63	63	62	60
5	82	71	63	57	70	57	68	56	56	56	53
6	76	64	57	51	64	51	62	50	50	50	48
7	71	59	51	46	58	46	57	45	45	45	43
8	67	54	47	42	54	41	53	41	41	41	39
9	63	50	43	38	50	38	49	38	38	37	36
10	59	47	40	35	46	35	45	34	34	34	33

Zonal lumens & percentages

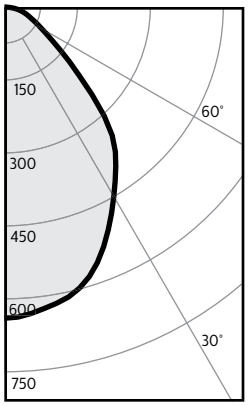
Zone	Lumens	%Luminaire
0-30	272	39.6%
0-40	426	62.2%
0-60	613	89.5%
0-90	685	100.0%

CRI and CCT adjustment factors

90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

S7R835K10 • 14 W LED, 80 CRI, 3500 K

Candela Curves



Angle	Mean CP	Lumens
0	639	
5	632	60
10	618	
15	597	167
20	558	
25	505	232
30	449	
35	399	249
40	345	
45	255	197
50	174	
55	120	111
60	88	
65	67	67
70	52	
75	40	42
80	28	
85	12	13
90	0	

Report[1]: 965GFR

Output lumens:	1139 lms	Efficacy:	84.4 lm/w
Spacing Criterion:	1.1	CCT[3]:	3500 K
Beam Angle:	83°	CRI:	80 min
Input Watts[2]:	13.5 W		

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5′	26	5.5′
6′	18	6.6′
7′	13	7.7′
8′	10	8.8′
9′	8	9.9′

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5′	28.6	3.74
6′	18.7	2.45
7′	13.3	1.75
8′	11.2	1.46
9′	8.9	1.17

38′x38′x10′ Room, Workplane 2.5′ above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%										
Room Cavity Ratio 0	119	119	119	119	116	116	111	111	106	106	100
1	111	107	103	100	104	98	100	95	96	92	88
2	102	96	90	85	94	84	90	82	87	80	77
3	95	86	79	74	85	73	82	72	79	71	67
4	88	78	70	65	77	64	74	63	72	62	60
5	82	71	63	57	70	57	68	56	66	56	53
6	76	65	57	51	64	51	62	51	61	50	48
7	71	59	52	46	59	46	57	46	56	45	43
8	67	55	47	42	54	42	53	42	52	41	39
9	63	51	43	38	50	38	49	38	48	38	36
10	59	47	40	35	47	35	46	35	45	35	33

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	459	40.3%
0-40	708	62.2%
0-60	1016	89.2%
0-90	1139	100.0%

CRI and CCT adjustment factors

90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

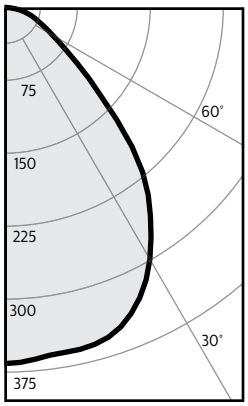
1. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
2. Wattage: controlled to within 5%
3. Correlated Color Temperature: within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

S5R & S7R SlimSurface LED

5″ and 7″ round aperture surface mount downlight

S5R840K7 • 10 W LED, 80 CRI, 4000 K

Candela Curves



Angle	Mean CP	Lumens
0	366	
5	363	35
10	360	
15	359	101
20	350	
25	329	151
30	299	
35	262	163
40	221	
45	163	126
50	113	
55	79	72
60	57	
65	44	44
70	34	
75	25	27
80	16	
85	6	7
90	0	

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5′	15	6.0′
6′	10	7.2′
7′	7	8.4′
8′	6	9.6′
9′	5	10.8′

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5′	30.3	3.54
6′	19.8	2.32
7′	14.1	1.66
8′	11.8	1.38
9′	9.4	1.10

38′x38′x10′ Room, Workplane 2.5′ above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%										
Room Cavity Ratio 0	119	119	119	119	116	116	111	111	106	106	100
1	111	107	103	100	105	98	100	95	97	92	88
2	102	96	90	85	94	84	90	82	87	80	77
3	95	86	79	73	84	73	82	72	79	70	67
4	88	78	70	64	76	64	74	63	72	62	60
5	82	71	63	57	70	57	68	56	66	56	53
6	76	64	57	51	64	51	62	50	60	50	48
7	71	59	51	46	58	46	57	45	56	45	43
8	67	54	47	42	54	41	53	41	51	41	39
9	63	50	43	38	50	38	49	38	48	37	36
10	59	47	40	35	46	35	45	34	44	34	33

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	286	39.5%
0-40	450	62.0%
0-60	648	89.3%
0-90	726	100.0%

CRI and CCT adjustment factors

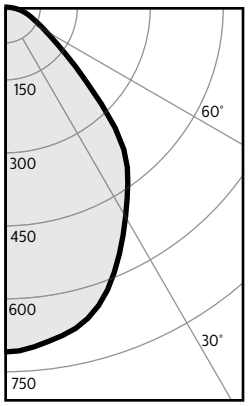
90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

Report[1]: 1057GFR

Output lumens:	726 lms	Efficacy:	79.8 lm/w
Spacing Criterion:	1.2	CCT[3]:	4000 K
Beam Angle:	87°	CRI:	80 min
Input Watts[2]:	9.1 W		

S7R840K10 • 14 W LED, 90 CRI, 2700 K

Candela Curves



Angle	Mean CP	Lumens
0	710	
5	702	66
10	686	
15	663	186
20	620	
25	560	258
30	499	
35	443	276
40	382	
45	283	218
50	193	
55	133	122
60	97	
65	74	74
70	57	
75	44	46
80	30	
85	14	15
90	0	

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5′	28	5.5′
6′	20	6.6′
7′	14	7.7′
8′	11	8.8′
9′	9	9.9′

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5′	30.3	4.17
6′	19.8	2.74
7′	14.1	1.96
8′	11.8	1.63
9′	9.4	1.30

38′x38′x10′ Room, Workplane 2.5′ above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%										
Room Cavity Ratio 0	119	119	119	119	116	116	111	111	106	106	100
1	111	107	103	100	104	98	100	95	96	92	88
2	102	96	90	85	94	84	90	82	87	80	77
3	95	86	79	74	85	73	82	72	79	71	67
4	88	78	70	65	77	64	74	63	72	62	60
5	82	71	63	57	70	57	68	56	66	56	53
6	76	65	57	51	64	51	62	51	61	50	48
7	71	59	52	46	59	46	57	46	56	45	43
8	67	55	47	42	54	42	53	42	52	41	39
9	63	51	43	38	50	38	49	38	48	38	36
10	59	47	40	35	47	35	46	35	45	35	33

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	510	40.4%
0-40	786	62.3%
0-60	1127	89.3%
0-90	1262	100.0%

CRI and CCT adjustment factors

90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

Report[1]: 963GFR

Output lumens:	1262 lms	Efficacy:	94.2 lm/w
Spacing Criterion:	1.1	CCT[3]:	4000 K
Beam Angle:	83°	CRI:	80 min
Input Watts[2]:	13.4 W		

1. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
2. Wattage: controlled to within 5%
3. Correlated Color Temperature: within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

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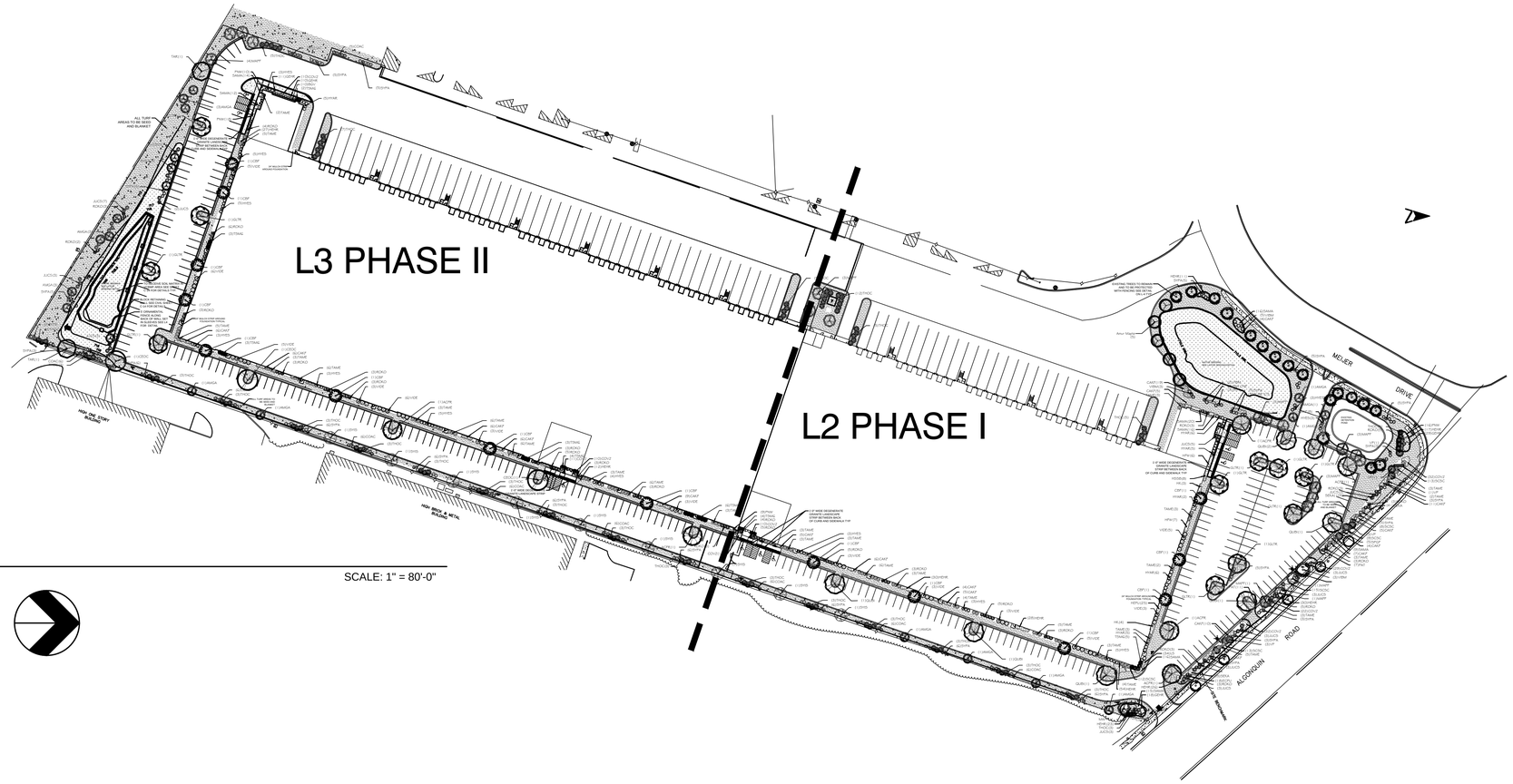
Tel. 800-668-9008

All base information & dimensions are approximate only. All layout to be verified in the field.

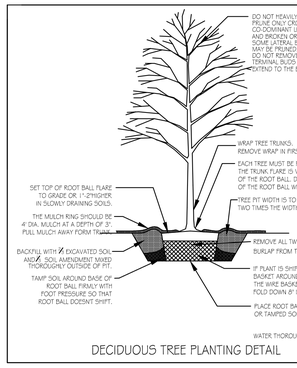
This plan is PRELIMINARY ONLY. It is subject to change pending final design and review with Owner.



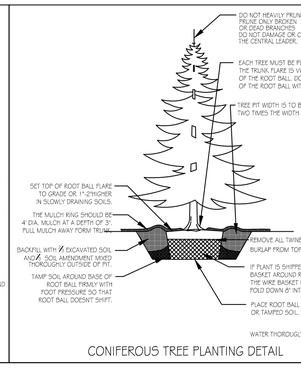
OVERALL PLAN

SCALE: 1" = 80'-0"

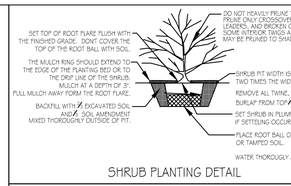
0 40 80 160



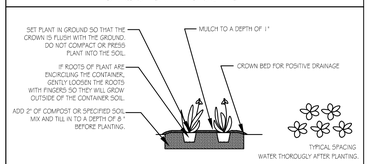
DECIDUOUS TREE PLANTING DETAIL



CONIFEROUS TREE PLANTING DETAIL



SHRUB PLANTING DETAIL



PERENNIAL AND GROUNDCOVER PLANTING DETAIL

1. Species and sizes of plants listed in the plant list are subject to availability at time of installation. If substitutions are necessary, the landscape contractor shall submit all requests to the owner for approval.
2. All underground utilities are to be located prior to digging. If utilities or other obstructions are discovered to conflict with grading or plant placement, notify the landscape architect so that adjustments can be made.
3. Backfill trees and shrubs with amended topsoil mixed thoroughly outside of the planting pit. Mulch trees and shrubs with 3" hardwood mulch and pull mulch away from the base.
4. Perennial and groundcover beds are to be amended with 2" planting mix and tilled in to a depth of 8". Perennials and groundcovers are to be top dressed with 1" mulch.
5. Provide positive drainage flow. Do not obstruct the natural or engineered drainage flow patterns. Notify the landscape architect or owner of any drainage concerns.
6. The landscape contractor shall take all precautions to protect existing plants, lawn, and paved areas to remain. Any damage to these areas shall be repaired or replaced by the landscape contractor. Damaged lawn areas are to be re-graded and restored with sod.
7. All bed edges are to be well shaped 'spade cut' edges, 3" deep, formed in lines or curves as shown on the drawings.
8. Apply a pre-emergent for grassy and broadleaf weeds to all shrub beds and tree rings. Do not apply pre-emergent to beds of groundcovers or annuals.
9. The contractor is to provide finished grade to a tenth of a foot with sufficient quality top soil. Topsoil to be 4" min. in all lawn areas. The landscape contractor is to provide fine grade only.

GENERAL NOTES

ADDITIONAL NOTES
1. ALL TURF AREAS TO BE SEED AND BLANKET
2. ALL TREES SHALL NOT BE PLANTED WITHIN 10' OF UTILITY STRUCTURES.

DATE: 8.15.17
JOB: P-
SCALE:
BY:JZ/EB
SHEET L1 OF 4

SHEET TITLE:
OVERALL LANDSCAPE PLAN

REVISIONS:
REVISED PER UPDATED PLAN 10.25.17
REVISED PER CITY COMMENTS
REVISED PER CITY COMMENTS
REVISED PER CITY COMMENTS
REVISED PER CITY COMMENTS

703-723 Alqonquin Rd.

Arlington Heights, IL

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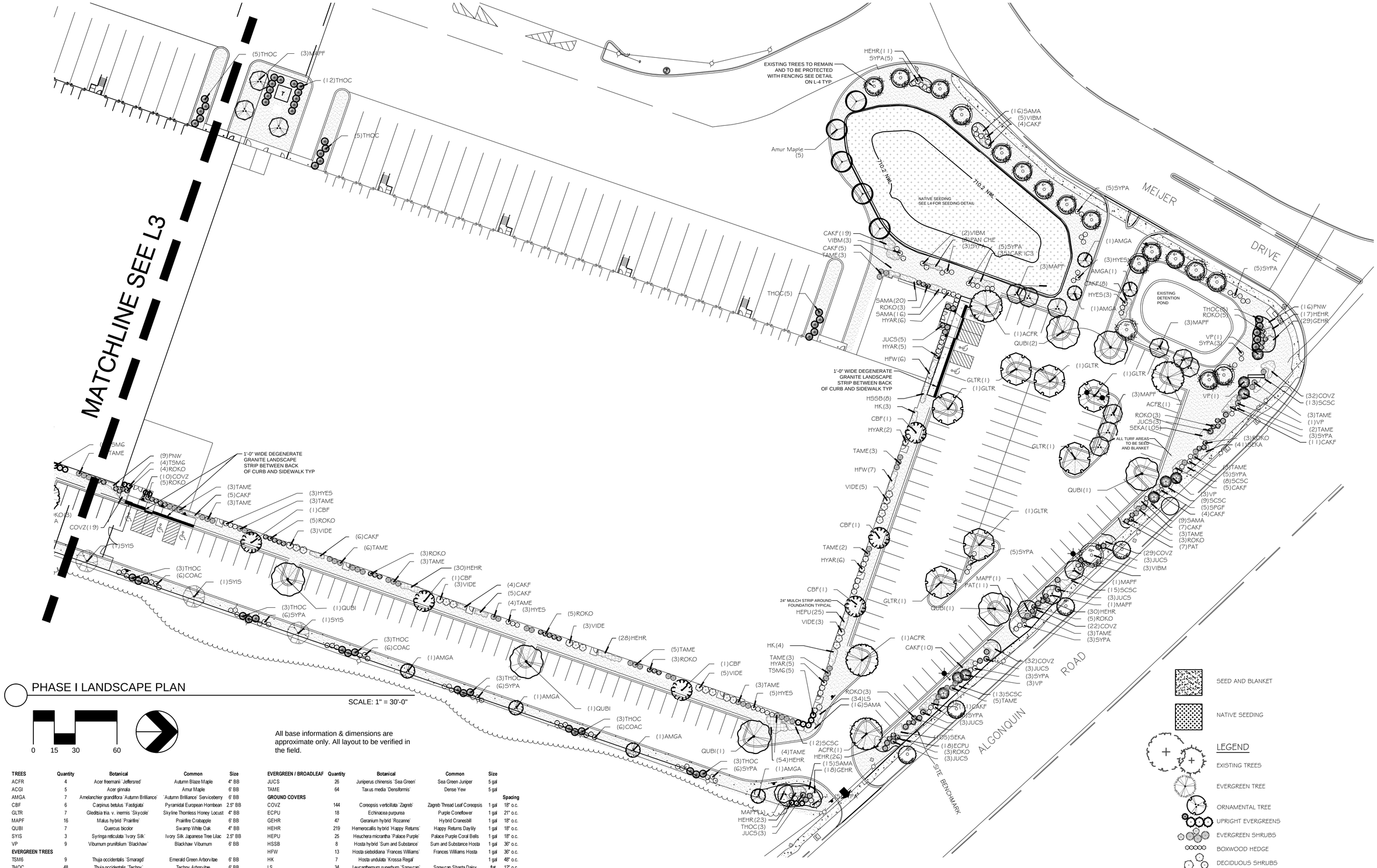
WINGREN LANDSCAPE
ALL THINGS OUTDOOR



PHASE I LANDSCAPE PLAN

SCALE: 1" = 30'-0"

0 15 30 60

All base information & dimensions are approximate only. All layout to be verified in the field.

TREES	Quantity	Botanical	Common	Size
ACFR	4	Acer freemanii 'Jeffersred'	Autumn Blaze Maple	4" BB
ACGI	5	Acer ginnala	Amur Maple	6' BB
AMGA	7	Amelanchier grandiflora 'Autumn Brilliance'	'Autumn Brilliance' Serviceberry	6' BB
CBF	6	Carpinus betulus 'Fastigiata'	Pyramidal European Hornbean	2.5" BB
GLTR	7	Gleditsia tria. v. inermis 'Skycole'	Skyline Thornless Honey Locust	4" BB
MAPF	16	Malus hybrid 'Prairifire'	Prairifire Crabapple	6' BB
QUBI	7	Quercus bicolor	Swamp White Oak	4" BB
SYIS	3	Syringa reticulata 'Ivory Silk'	Ivory Silk Japanese Tree Lilac	2.5" BB
VP	9	Viburnum prunifolium 'Blackhaw'	Blackhaw Viburnum	6' BB
EVERGREEN TREES				
TSM6	9	Thuja occidentalis 'Smaragd'	Emerald Green Arborvitae	6' BB
THOC	48	Thuja occidentalis 'Techny '	Techny Arborvitae	6' BB
SHRUBS				
COAC	18	Cotoneaster acutifolius	Peking Cotoneaster	5 gal
HYAR	24	Hydrangea arborescens 'Annabelle'	Annabelle Smooth Hydrangea	5 gal
HYES	17	Hydrangea macrophylla 'Endless Summer'	Bailmer Hydrangea	5 gal
ROKO	53	Rosa x 'Radrazz'	Knock Out Shrub Rose	3 gal
SPGF	5	Spiraea x bumalda 'Goldflame'	Goldflame Spirea	5 gal
SYPA	71	Syringa patula 'Miss Kim'	Miss Kim Lilac	5 gal
VIBM	13	Viburnum dentatum 'Blue Muffin'	Southern Arrowwood	5 gal
VIDE	22	Viburnum dentatum 'Chicago Luster'	Chicago Luster Arrowwood	5 gal

EVERGREEN / BROADLEAF	Quantity	Botanical	Common	Size	
JUCS	26	Juniperus chinensis 'Sea Green'	Sea Green Juniper	5 gal	
TAME	64	Taxus media 'Densiformis'	Dense Yew	5 gal	
GROUND COVERS					**Spacing**
COVZ	144	Coreopsis verticillata 'Zagreb'	Zagreb Thread Leaf Coreopsis	1 gal	18" o.c.
ECPU	18	Echinacea purpurea	Purple Coneflower	1 gal	21" o.c.
GEHR	47	Geranium hybrid 'Rozanne'	Hybrid Cranesbill	1 gal	18" o.c.
HEHR	219	Hemerocallis hybrid 'Happy Returns'	Happy Returns Daylily	1 gal	18" o.c.
HEPU	25	Heuchera micrantha 'Palace Purple'	Palace Purple Coral Bells	1 gal	18" o.c.
HSSB	8	Hosta hybrid 'Sum and Substance'	Sum and Substance Hosta	1 gal	36" o.c.
HFW	13	Hosta sieboldiana 'Frances Williams'	Frances Williams Hosta	1 gal	36" o.c.
HK	7	Hosta undulata 'Krossa Regal'		1 gal	48" o.c.
LS	34	Leucanthemum superbum 'Snowcap'	Snowcap Shasta Daisy	flat	12" o.c.
PAT	18	Perovskia atriplicifolia	Russian Sage	1 gal	30" o.c.
SAMA	92	Salvia nemorosa 'May Night'	May Night Salvia	1 gal	18" o.c.
SEKA	113	Sedum kamtschaticum		flat	12" o.c.
ORNAMENTAL GRASSES					
CAKF	104	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	1 gal	30" o.c.
CARIC3	35	Carex x 'Ice Dance'	Ice Dance Sedge	1 gal	18" o.c.
PAN CHE	8	Panicum virgatum 'Cheyenne Sky'	Switch Grass	1 gal	24" o.c.
PNW	25	Panicum virgatum 'Northwind'	Northwind Switch Grass	1 gal	18" o.c.
SCSC	70	Schizachyrium scoparium	Little Bluestem Grass	1 gal	24" o.c.

SEED AND BLANKET

NATIVE SEEDING

LEGEND

EXISTING TREES

EVERGREEN TREE

ORNAMENTAL TREE

UPRIGHT EVERGREENS

EVERGREEN SHRUBS

BOXWOOD HEDGE

DECIDUOUS SHRUBS

SHRUB ROSES

PERENNIALS, ORN. GRASSES GROUNDCOVERS & ANNUALS

DATE: 8.15.17
JOB: P-
SCALE: 1"=30'
BY:JZ/EB
SHEET L2 OF 4

SHEET TITLE:
PHASE I LANDSCAPE PLAN

REVISIONS:
REVISED PER UPDATED PLAN 08.30.17
REVISED PER CITY COMMENTS
REVISED PER CITY COMMENTS
REVISED PER CITY COMMENTS
REVISED PER CITY COMMENTS
A.K.W.

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Arlington Heights, IL

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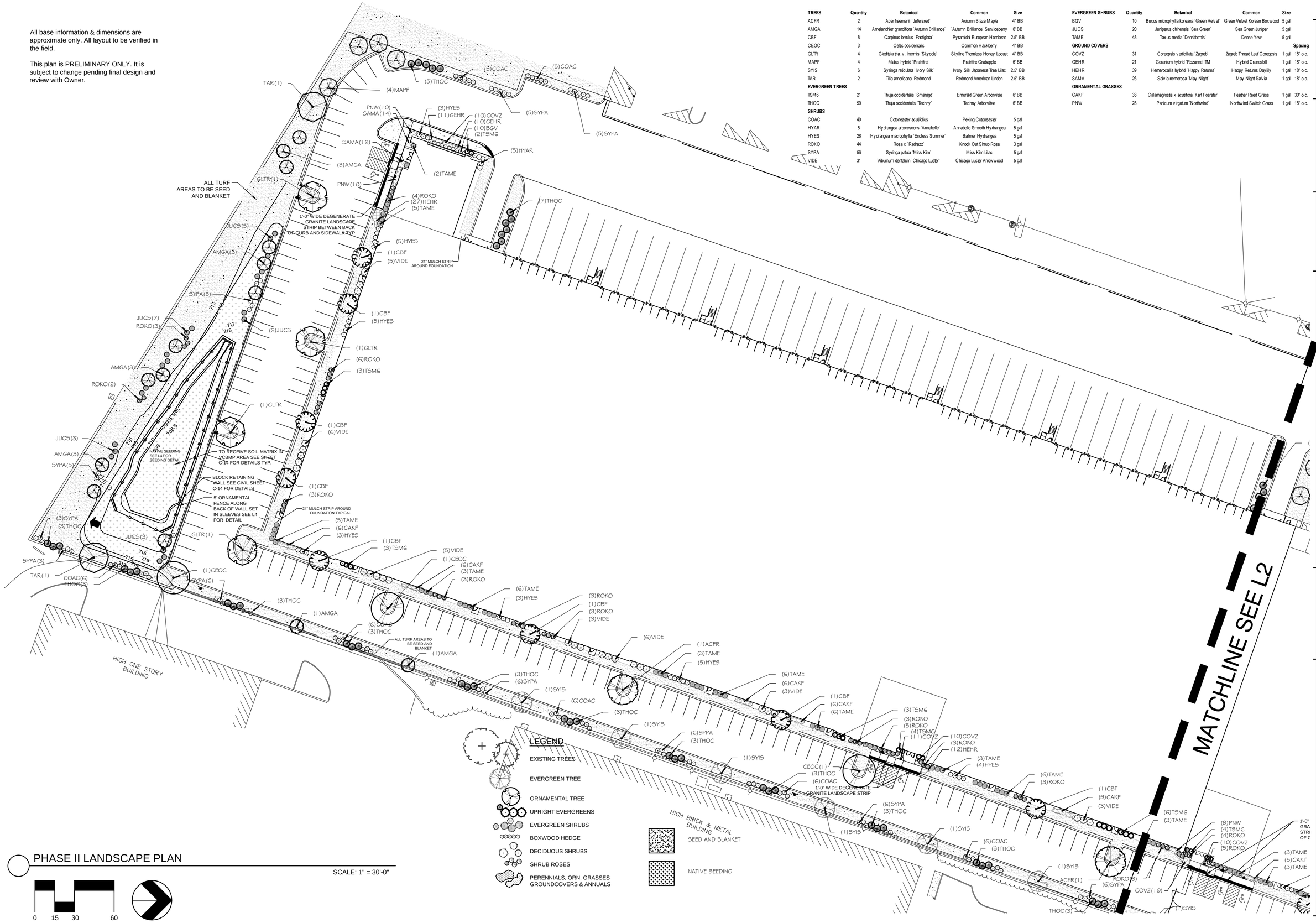
WINGREN LANDSCAPE
ALL THINGS OUTDOOR

All base information & dimensions are approximate only. All layout to be verified in the field.

This plan is PRELIMINARY ONLY. It is subject to change pending final design and review with Owner.

TREES	Quantity	Botanical	Common	Size
ACFR	2	Acer freemanii 'Jeffersred'	Autumn Blaze Maple	4" BB
AMGA	14	Amelanchier grandiflora 'Autumn Brilliance'	'Autumn Brilliance' Serviceberry	6' BB
CBF	8	Carpinus betulus 'Fastigiata'	Pyramidal European Hornbean	2.5" BB
CEOC	3	Celtis occidentalis	Common Hackberry	4" BB
GLTR	4	Gleditsia tria. v. inermis 'Skycole'	Skyline Thornless Honey Locust	4" BB
MAPF	4	Malus hybrid 'Prairifire'	Prairifire Crabapple	6' BB
SYIS	6	Syringa reticulata 'Ivory Silk'	Ivory Silk Japanese Tree Lilac	2.5" BB
TAR	2	Tilia americana 'Redmond'	Redmond American Linden	2.5" BB
EVERGREEN TREES				
TSM6	21	Thuja occidentalis 'Smaragd'	Emerald Green Arborvitae	6' BB
THOC	50	Thuja occidentalis 'Techny'	Techny Arborvitae	6' BB
SHRUBS				
COAC	40	Cotoneaster acutifolius	Peking Cotoneaster	5 gal
HYAR	5	Hydrangea arborescens 'Annabelle'	Annabelle Smooth Hydrangea	5 gal
HYES	28	Hydrangea macrophylla 'Endless Summer'	Bailmer Hydrangea	5 gal
ROKO	44	Rosa x 'Radrazz'	Knock Out Shrub Rose	3 gal
SYPA	56	Syringa patula 'Miss Kim'	Miss Kim Lilac	5 gal
VIDE	31	Viburnum dentatum 'Chicago Luster'	Chicago Luster Arrowwood	5 gal

EVERGREEN SHRUBS	Quantity	Botanical	Common	Size	
BGV	10	Buxus microphylla koreana 'Green Velvet'	Green Velvet Korean Boxwood	5 gal	
JUCS	20	Juniperus chinensis 'Sea Green'	Sea Green Juniper	5 gal	
TAME	48	Taxus media 'Densiformis'	Dense Yew	5 gal	
GROUND COVERS					**Spacing**
COVZ	31	Coreopsis verticillata 'Zagreb'	Zagreb Thread Leaf Coreopsis	1 gal	18" o.c.
GEHR	21	Geranium hybrid 'Rozanne' TM	Hybrid Cranesbill	1 gal	18" o.c.
HEHR	39	Hemerocallis hybrid 'Happy Returns'	Happy Returns Daylily	1 gal	18" o.c.
SAMA	26	Salvia nemorosa 'May Night'	May Night Salvia	1 gal	18" o.c.
ORNAMENTAL GRASSES					
CAKF	33	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	1 gal	30" o.c.
PNW	28	Panicum virgatum 'Northwind'	Northwind Switch Grass	1 gal	18" o.c.



PHASE II LANDSCAPE PLAN

SCALE: 1" = 30'-0"

0 15 30 60

DATE: 8.15.17
JOB: P-
SCALE: 1"=30'
BY:JZ/EB
SHEET L3 OF 4

SHEET TITLE:
PHASE II
LANDSCAPE
PLAN

REVISIONS:
REVISED PER UPDATED PLAN 10.25.17
REVISED PER CITY COMMENTS 11.13.17
REVISED PER CITY COMMENTS 12.12.17
REVISED PER CITY COMMENTS 1.5.18

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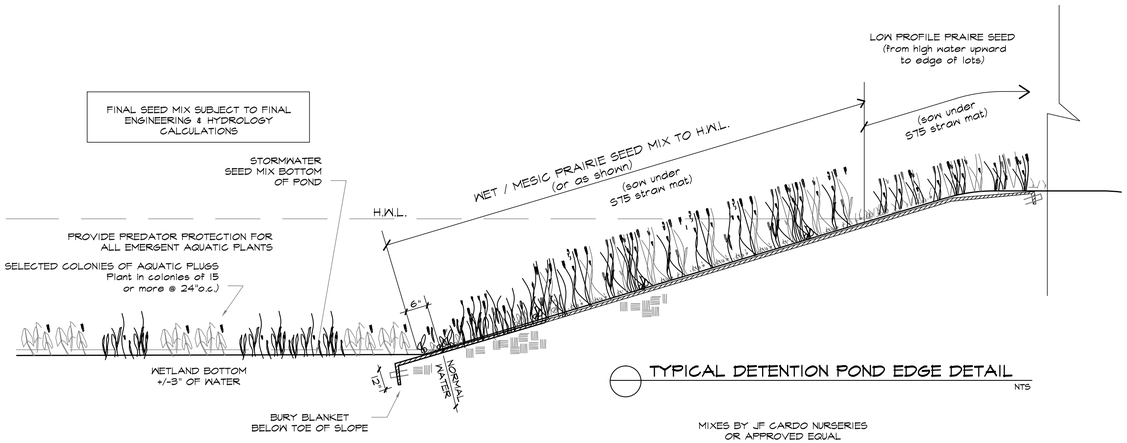
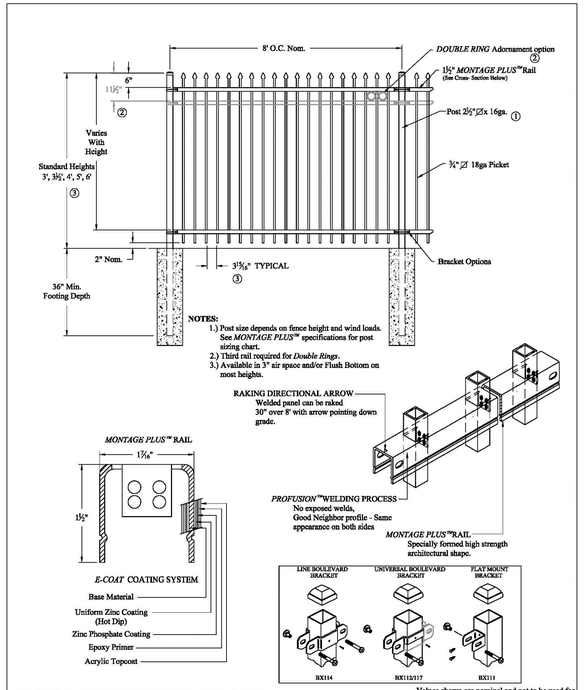
WINGREN LANDSCAPE
ALL THINGS OUTDOOR

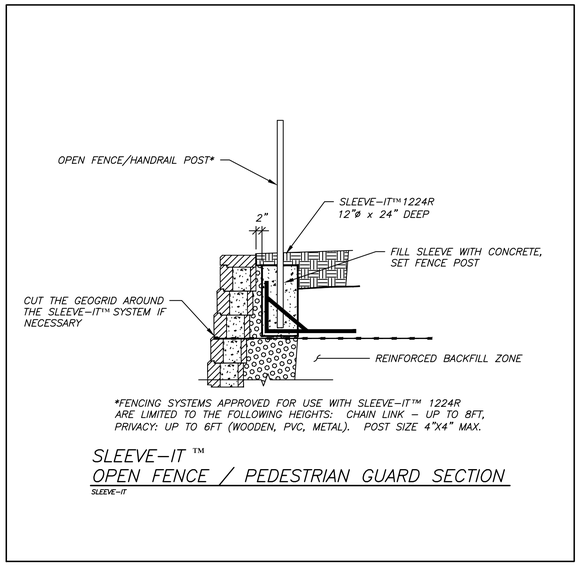


TYPICAL DETENTION POND EDGE DETAIL

NTS

MIXES BY JF CARDO NURSERIES OR APPROVED EQUAL





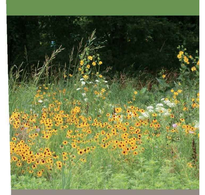
SLEEVE-IT ™
OPEN FENCE / PEDESTRIAN GUARD SECTION
SLEEVE-IT

Wet-To-Mesic Prairie

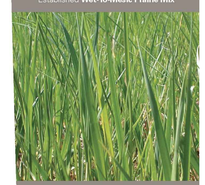
This prairie seed mix offers a broad spectrum of prairie grasses, sedges, and wildflowers for sites with medium-to-wet soils. This dynamic grouping of plants features a variety of colors and textures while tolerating a wide range of conditions with several *Silphium* and *Solidago* species to provide late-season food sources for native pollinators. This seed mix includes at least 8 of 10 native permanent grass and sedge species and 26 of 33 forb species. Apply at 36.88 PLS pounds per acre.

Botanical Name	Common Name	PLS Oz/Acre
Permanent Grasses/Sedges		
Andropogon gerardii	Big Bluestem	20.00
Calamagrostis canadensis	Bluejoint Grass	1.00
Carex spp.	Prairie Sedge Mix	4.00
Carex lurida	Bottlebrush Sedge	3.00
Carex vulpinoidea	Brown Fox Sedge	1.00
Elymus virginicus	Virginia Wild Rye	24.00
Panicum virgatum	Switch Grass	2.00
Scirpus cyperinus	Wool Grass	0.50
Sorghastrum nutans	Indian Grass	6.00
Spartina pectinata	Prairie Cord Grass	3.00
	Total	64.50
Temporary Cover		
Avena sativa	Common Oat	360.00
Lolium multiflorum	Annual Rye	100.00
	Total	460.00
Forbs		
Asclepias syriaca	Common Milkweed	2.00
Baptisia alba	White Wild Indigo	0.75
Chamaecrista fasciculata	Partridge Pea	12.00
Coreopsis lanceolata	Sand Coreopsis	3.50
Coreopsis tripteris	Tall Coreopsis	3.00
Desmodium illinoense	Illinois Tick Trefoil	0.50
Echinacea purpurea	Broad-Leaved Purple Coneflower	3.50
Eryngium yuccifolium	Rattlesnake Master	2.00
Helenium autumnale	Sneezeweed	2.50
Helianthus grosseserratus	Sawtooth Sunflower	0.50
Lespedeza capitata	Round-Headed Bush Clover	1.50
Liatris spicata	Marsh Blazing Star	1.00
Monarda fistulosa	Wild Bergamot	1.00
Oligoneuron rigidum	Stiff Goldenrod	1.00
Parthenium integrifolium	Wild Quinine	1.00
Physostegia virginiana	Obedient Plant	0.25
Pycnanthemum virginianum	Common Mountain Mint	1.00
Ratibida pinnata	Yellow Coneflower	5.00
Rudbeckia hirta	Black-Eyed Susan	4.00
Rudbeckia laciniata	Wild Golden Glow	1.00
Rudbeckia subtomentosa	Sweet Black-Eyed Susan	0.50
Senna hebecarpa	Wild Senna	2.25
Silphium integrifolium	Rosin Weed	1.00
Silphium laciniatum	Compass Plant	2.00
Silphium perfoliatum	Cup Plant	1.00
Silphium terebinthinaceum	Prairie Dock	6.00
Solidago juncea	Early Goldenrod	0.25
Solidago rugosa	Rough Goldenrod	0.25
Symphyotrichum novae-angliae	New England Aster	0.25
Tradescantia ohiensis	Common Spiderwort	1.25
Vernonia spp.	Ironweed Mix	3.00
Veronicastrum virginicum	Culver's Root	0.25
Zizia aurea	Golden Alexanders	0.50
	Total	65.50

Prairie Seed Mixes



Established **Wet-To-Mesic Prairie Mix**



Spartina pectinata, **Prairie Cord Grass**

Echinacea purpurea, **Broad-Leaved Purple Coneflower**

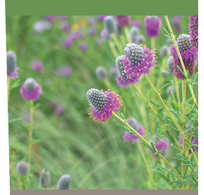
For current pricing, availability, and information on our full installation and management services, visit **cardnonativeplantnursery.com**

Low-Profile Prairie

This prairie seed mix provides a wide range of shorter prairie grass, sedge, and wildflower species. Most species will grow to 4 feet or less, making this an ideal mix for areas where taller forbs and grasses are not appropriate. Once established, this wildflower community displays a variety of colors, blooming from early spring to fall, creating a diverse habitat for birds, butterflies, moths, and other pollinators. This seed mix is suitable for medium-to-dry sites. This seed mix includes at least 5 of 6 native permanent grass and sedge species and 29 of 34 native forb species. Apply at 38.67 PLS pounds per acre.

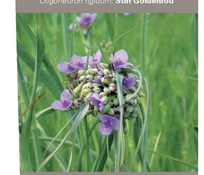
Botanical Name	Common Name	PLS Oz/Acre
Permanent Grasses/Sedges		
Bouteloua curtipendula	Side Oats Grama	16.00
Carex spp.	Prairie Sedge Mix	4.00
Elymus canadensis	Canada Wild Rye	32.00
Koeleria pyramidata	June Grass	1.00
Panicum virgatum	Switch Grass	1.00
Schizachyrium scoparium	Little Bluestem	36.00
	Total	90.00
Temporary Cover		
Avena sativa	Common Oat	360.00
Lolium multiflorum	Annual Rye	100.00
	Total	460.00
Forbs		
Amorpha canescens	Lead Plant	0.50
Anemone cylindrica	Thimbleweed	0.50
Asclepias syriaca	Common Milkweed	2.00
Asclepias tuberosa	Butterfly Weed	2.00
Baptisia alba	White Wild Indigo	2.00
Chamaecrista fasciculata	Partridge Pea	12.00
Coreopsis lanceolata	Sand Coreopsis	5.00
Coreopsis palmata	Prairie Coreopsis	1.00
Dalea candida	White Prairie Clover	1.50
Dalea purpurea	Purple Prairie Clover	1.50
Desmanthus illinoensis	Illinois Sensitive Plant	3.00
Echinacea purpurea	Broad-Leaved Purple Coneflower	7.00
Eryngium yuccifolium	Rattlesnake Master	3.00
Lespedeza capitata	Round-Head Bush Clover	2.00
Liatris aspera	Rough Blazing Star	0.50
Lupinus perennis	Wild Lupine	4.00
Monarda fistulosa	Wild Bergamot	0.75
Oligoneuron rigidum	Stiff Goldenrod	1.00
Parthenium integrifolium	Wild Quinine	1.00
Penstemon digitalis	Foxglove Beard Tongue	0.50
Penstemon hirsutus	Hairy Beard Tongue	0.50
Pycnanthemum virginianum	Common Mountain Mint	1.00
Ratibida pinnata	Yellow Coneflower	4.00
Rudbeckia hirta	Black-Eyed Susan	5.00
Rudbeckia subtomentosa	Sweet Black-Eyed Susan	1.00
Silphium terebinthinaceum	Prairie Dock	0.50
Solidago speciosa	Showy Goldenrod	0.50
Symphyotrichum ericoides	Heath Aster	0.25
Symphyotrichum laeve	Smooth Blue Aster	1.00
Symphyotrichum novae-angliae	New England Aster	0.50
Tradescantia ohiensis	Common Spiderwort	0.75
Verbena stricta	Hoary Vervain	1.00
Vernonia spp.	Ironweed Mix	1.75
Veronicastrum virginicum	Culver's Root	0.25
	Total	68.75

Prairie Seed Mixes



Dalea purpurea, **Purple Prairie Clover**

Oligoneuron rigidum, **Stiff Goldenrod**



Tradescantia ohiensis, **Common Spiderwort**

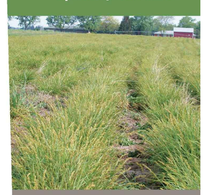
For current pricing, availability, and information on our full installation and management services, visit **cardnonativeplantnursery.com**

Stormwater

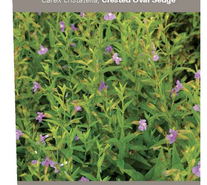
A wetland seed mix for saturated soils in a detention pond or for seeding a saturated basin, this mix will tolerate highly fluctuating water levels and poor water quality associated with urban stormwater wetlands and ponds. For detention basins that experience long, dry periods, use the Economy Prairie seed mix in the upper third to half of the basin area in combination with this mix. This seed mix includes at least 10 of 12 native permanent grass and sedge species and 12 of 16 native forb species. Apply at 32.81 PLS pounds per acre.

Botanical Name	Common Name	PLS Oz/Acre
Permanent Grasses/Sedges		
Bolboschoenus fluviatilis	River Bulrush	0.25
Carex cristatella	Crested Oval Sedge	2.00
Carex lurida	Bottlebrush Sedge	3.00
Carex vulpinoidea	Brown Fox Sedge	6.00
Elymus virginicus	Virginia Wild Rye	13.50
Glyceria striata	Fowl Manna Grass	1.25
Juncus effusus	Common Rush	2.00
Leersia oryzoides	Rice Cut Grass	1.00
Panicum virgatum	Switch Grass	2.00
Schoenoplectus tabernaemontani	Softstem Bulrush	3.00
Scirpus atrovirens	Dark Green Rush	2.00
Scirpus cyperinus	Wool Grass	1.00
	Total	37.00
Temporary Cover		
Avena sativa	Common Oat	360.00
Lolium multiflorum	Annual Rye	100.00
	Total	460.00
Forbs		
Alisma spp.	Water Plantain Mix	4.25
Asclepias incarnata	Swamp Milkweed	1.50
Bidens spp.	Bidens Mix	2.00
Helenium autumnale	Sneezeweed	2.00
Iris virginica	Blue Flag	4.00
Lycopus americanus	Common Water Horehound	0.25
Mimulus ringens	Monkey Flower	1.00
Oligoneuron riddellii	Riddell's Goldenrod	0.50
Penthorum sedoides	Ditch Stonecrop	0.50
Polygonum spp.	Pinkweed Mix	4.00
Rudbeckia subtomentosa	Sweet Black-Eyed Susan	1.00
Rudbeckia triloba	Brown-Eyed Susan	1.50
Sagittaria latifolia	Common Arrowhead	1.00
Senna hebecarpa	Wild Senna	1.00
Symphyotrichum novae-angliae	New England Aster	1.50
Thalictrum dasycarpum	Purple Meadow Rue	2.00
	Total	28.00

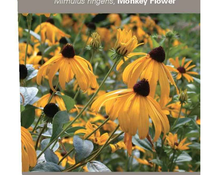
Specialty Seed Mixes



Carex cristatella, **Crested Oval Sedge**



Mimulus ringens, **Monkey Flower**



Rudbeckia subtomentosa, **Sweet Black-Eyed Susan**

For current pricing, availability, and information on our full installation and management services, visit **cardnonativeplantnursery.com**

DATE: 8.15.17
JOB: P-
SCALE:
BY:JZ/EB
SHEET L4 OF 4

SHEET TITLE:
NATIVE SEEDING/ DETAILS

REVISIONS:
REVISED PER UPDATED PLAN 10.25.18
REVISED PER CITY COMMENTS
REVISED PER CITY COMMENTS
REVISED PER CITY COMMENTS
REVISED PER CITY COMMENTS
A.S.M.

703-723 Algonquin Rd.

Arlington Heights, IL

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WINGREN LANDSCAPE
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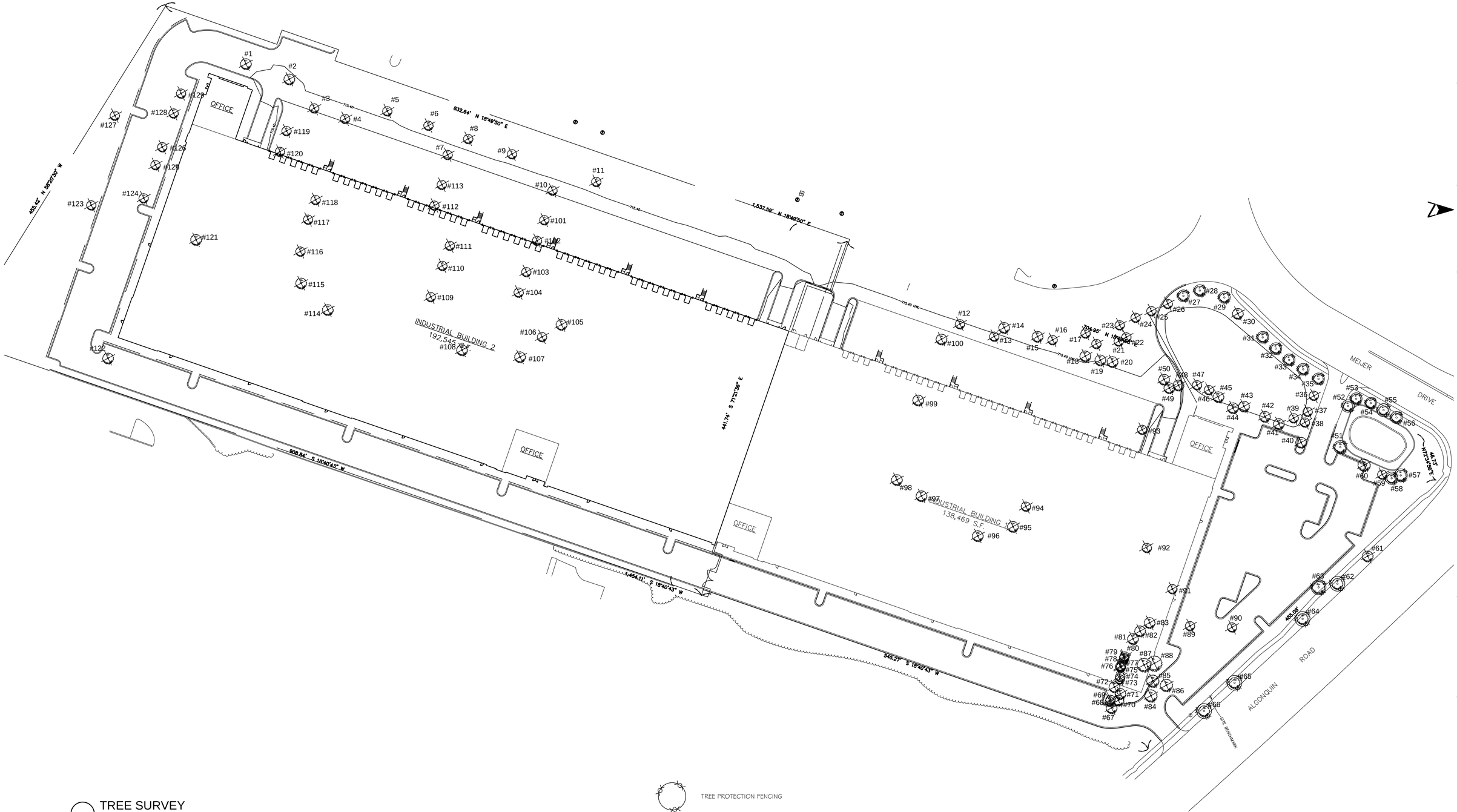

TREE SURVEY

SCALE: 1" = 30'-0"

0 15 30 60

TREE PROTECTION FENCING

TREES TO BE REMOVED

DATE: 10.31.17
JOB: P-
SCALE: 1"=30'
BY:JZ/EB
SHEET T1

SHEET TITLE:
TREE SURVEY

REVISIONS:
REVISED PER CITY COMMENTS
REVISED PER CITY COMMENTS
1.8.18

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TREE PRESERVATION NOTES

ALL WORK MUST BE PERFORMED ACCORDING TO THE APPROVED TREE PRESERVATION PLAN.

AN APPROVED TREE PRESERVATION PLAN MUST BE AVAILABLE ON THE BUILDING SITE.

NO TRENCHING SHALL BE DONE WITHIN THE TREE PROTECTION ZONES FOR INSTALLATION OF SILT FENCING. THE SILT FENCE SHOULD BE SECURED WITH SAND BAGS OR HAY BALES WITHIN THE TPZ.
INSTALL TREE PROTECTION FENCE AND PERFORM ROOT PRUNING PER PLAN FOR ALL PROTECTED TREES PRIOR TO ANY CONSTRUCTION ACTIVITY.

SHOULD IT BE NECESSARY TO TRENCH WITHIN THE TPZ FOR UTILITIES, INCLUDING DISCONNECTION OR CAPPING OF EXISTING UTILITIES , ALL TRENCHES SHALL BE HAND DUG. NO ROOTS LARGER THAN TWO INCHES (2") SHALL BE CUT UNLESS NO OTHER ALTERNATIVE IS FEASIBLE. ALL SMALLER ROOTS THAT REQUIRE CUTTING SHALL BE CUT WITH PRUNING SAWS. CUTS SHALL BE MADE FLUSH WITH THE SIDE OF THE TRENCH. IF AT ANY TIME TWENTY-FIVE PERCENT (25%) OF THE AREA WITHIN THE TPZ IS BEING SEPARATED FROM THE TREE BY A TRENCH, THEN THE LINE SHALL EITHER BE RELOCATED OR INSTALLED BY USING TRENCHLESS METHODS.

REMOVAL OF ANY HARDSCAPE AND/OR EXCAVATION WITHIN THE TREE PROTECTION ZONE(S) WILL BE DONE BY HAND. ALL ROOTS LARGER THAN 2" WILL NOT BE CUT UNLESS THERE IS NO ALTERNATIVE. CUTS WILL BE MADE WITH A SHARP PRUNING SAW TO AVOID TEARING AND WILL BE FLUSH WITH THE TREE SIDE OF THE TRENCH.

TREE PROTECTION ZONE(S) SHOULD BE MULCHED DURING CONSTRUCTION TO IMPROVE THE GROWING CONDITIONS FOR TREE ROOTS BY REDUCING COMPACTION, IMPROVE AERATION, ENHANCE MOISTURE RETENTION, AND REDUCE TEMPERATURE EXTREMES.

NO TRENCHING SHALL BE DONE WITHIN THE TREE PROTECTION ZONES FOR ANY CONSTRUCTION ACTIVITY UNLESS PRE-APPROVED BY BUILDING DEPARTMENT AND FORESTRY STAFF.

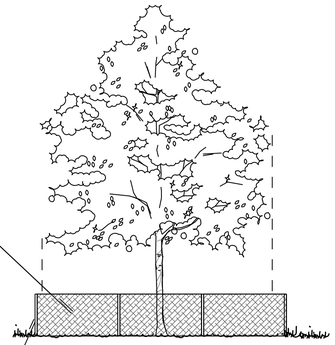
NO GRADE CHANGES SHOULD BE DONE WITHIN THE TREE PROTECTION ZONES OF PARKWAY TREES FOR ANY CONSTRUCTION ACTIVITY.

LOCATE THE PROPOSED WATER AND SEWER LINES OUTSIDE OF THE TREE PROTECTION ZONE OR INSTALL THE SEWER AND WATER UTILITIES USING TRENCH-LEWSS METHODS: AUGER THROUGH THE ENTIRE TREE PROTECTION ZONE, LOCATE PITS OUTSIDE OF THE TREE PROTECTION ZONE.

NO MECHANIZED EQUIPMENT, MATERIALS, OR SUPPLIES SHOULD BE ALLOWED WITHIN THE TREE PROTECTION ZONES OF PROTECTED TREES IN ORDER TO MINIMIZE DAMAGE THROUGHOUT THE CONSTRUCTION PROCESS (IF APPLICABLE).

NO EQUIPMENT SHALL BE DRIVEN OVER OR MATERIAL STORED ON THE CRITICAL ROOT ZONES OF PROTECTED TREES.

ALL REQUIRED TREE PRESERVATION FENCING SHALL REMAIN IN PLACE UNTIL THE TIME OF FINISH GRADING AND LANDSCAPING.



SEE DRAWINGS FOR LOCATION OF TREE PROTECTIVE FENCING
PLASTIC SAFETY FENCING SHALL BE 4' HIGH AND ATTACHED TO STEEL DRIVEN POSTS SET NO FARTHER THAN 8' O.C.
IF POSSIBLE IT SHALL BE INSTALLED AT THE PERIPHERY OF THE DRIP LINE OF EXISTING PLANT MATERIAL OR BEYOND TO PREVENT STORAGE OF VEHICALS OR MATERIALS AND THE ENCROACHMENT OF GRADING AND CONSTRUCTION

CONSTRUCTION FENCING SHALL BE ERECTED PRIOR TO ANY GRADING OR CONSTRUCTION ACTIVITES-PREVENTING COMPACTION OF ROOT SYSTEMS OF EXISTING TREES AND SHRUBS. THE FENCING SHALL ENCLOSE THE AREA BENEATH THE DRIPLINE OF THE TREE CANOPY AND SHALL REMAIN IN PLACE UNTILL ALL CONSTRUCTION IS COMPLETED. NO PARKING, MATERIAL STORAGE OR CONSTRUCTION ACTIVITIES SHALL BE PERMITTED WITHIN THE FENCED AREA.

ORANGE POLYETHYLENE SAFETY FENCING
PLACED AT OR BEYOND DRIP-LINE

TREE PRESERVATION DETAIL

NTS

Tree #	Common Name	Scientific Name	Dia./Size	Condition	Action
1	Norway Maple	Acer platanoides	14"	Poor	REMOVE
2	Norway Maple	Acer platanoides	14"	Poor	REMOVE
3	Bradford Pear	Pyrus calleryana	6"	Poor	REMOVE
4	Locust	Gleditsia triacanthos	2"	Good	REMOVE
5	Locust	Gleditsia triacanthos	2"	Good	REMOVE
6	Locust	Gleditsia triacanthos	2"	Good	REMOVE
7	Red Maple	Acer rubrum	6"	Poor	REMOVE
8	Locust	Gleditsia triacanthos	2"	Good	REMOVE
9	Locust	Gleditsia triacanthos	4"	Good	REMOVE
10	Red Maple	Acer rubrum	6"	Good	REMOVE
11	Locust	Gleditsia triacanthos	2"	Fair	REMOVE
12	Locust	Gleditsia triacanthos	2"	Poor	REMOVE
13	Locust	Gleditsia triacanthos	2"	Poor	REMOVE
14	Scots Pine	Pinus sylvestris	10"	Dead	REMOVE
15	Austrian Pine	Pinus nigra	10"	Fair	REMOVE
16	Austrian Pine	Pinus nigra	8"	Fair	REMOVE
17	Serviceberry	Amelanchier grandiflora	2"	Dead	REMOVE
18	Austrian Pine	Pinus nigra	10"	Poor	REMOVE
19	Austrian Pine	Pinus nigra	10"	Poor	REMOVE
20	Locust	Gleditsia triacanthos	16"	Fair	REMOVE
21	Colorado Spruce	Picea pungens	6"	Poor	REMOVE
22	Colorado Spruce	Picea pungens	8"	Fair	REMOVE
23	Serviceberry	Amelanchier grandiflora	2"	Poor	REMOVE
24	Serviceberry	Amelanchier grandiflora	4"	Poor	REMOVE
25	Serviceberry	Amelanchier grandiflora	4"	Poor	REMOVE
26	Serviceberry	Amelanchier grandiflora	4"	Poor	REMOVE
27	Serviceberry	Amelanchier grandiflora	4"	Fair	SAVE
28	Serviceberry	Amelanchier grandiflora	4"	Fair	SAVE
29	Red Maple	Acer rubrum	6"	Fair	SAVE
30	Green Ash	Fraxinus pennsylvanica	10"	Dead	REMOVE
31	Freeman Maple	Acer x freemanii	8"	Fair	SAVE
32	Freeman Maple	Acer x freemanii	8"	Fair	SAVE
33	Swamp White Oak	Quercus bicolor	6"	Good	SAVE
34	Swamp White Oak	Quercus bicolor	8"	Good	SAVE
35	Red Maple	Acer rubrum	6"	Good	SAVE
36	Swamp White Oak	Quercus bicolor	4"	Good	REMOVE
37	Swamp White Oak	Quercus bicolor	8"	Good	REMOVE
38	Locust	Gleditsia triacanthos	2"	Fair	REMOVE
39	Colorado Spruce	Picea pungens	4"	Poor	REMOVE
40	Washington Hawthorn	Crataegus phaenopyrum	14"	Poor	REMOVE
41	Austrian Pine	Pinus nigra	12"	Poor	REMOVE
42	Norway Maple	Acer platanoides	10"	Fair	REMOVE
43	Austrian Pine	Pinus nigra	10"	Poor	REMOVE
44	Austrian Pine	Pinus nigra	12"	Poor	REMOVE
45	Washington Hawthorn	Crataegus phaenopyrum	12"	Poor	REMOVE
46	Colorado Spruce	Picea pungens	8"	Poor	REMOVE
47	Colorado Spruce	Picea pungens	8"	Poor	REMOVE
48	Austrian Pine	Pinus nigra	10"	Poor	REMOVE
49	Austrian Pine	Pinus nigra	12"	Poor	REMOVE
50	Austrian Pine	Pinus nigra	12"	Poor	REMOVE
51	Norway Maple	Acer platanoides	12"	Good	SAVE
52	Red Maple	Acer rubrum	6"	Good	SAVE
53	Red Maple	Acer rubrum	4"	Good	SAVE
54	Red Maple	Acer rubrum	6"	Good	SAVE
55	Swamp White Oak	Quercus bicolor	6"	Good	SAVE
56	Swamp White Oak	Quercus bicolor	6"	Good	SAVE
57	Colorado Spruce	Picea pungens	10"	Fair	SAVE
58	Colorado Spruce	Picea pungens	8"	Fair	SAVE
59	Colorado Spruce	Picea pungens	8"	Fair	REMOVE
60	Locust	Gleditsia triacanthos	24"	Good	REMOVE
61	Green Ash	Fraxinus pennsylvanica	20"	Dead	REMOVE
62	Locust	Gleditsia triacanthos	16"	Fair	SAVE
63	Locust	Gleditsia triacanthos	22"	Fair	SAVE
64	Locust	Gleditsia triacanthos	18"	Fair	SAVE
65	Locust	Gleditsia triacanthos	20"	Fair	SAVE
66	Locust	Gleditsia triacanthos	20"	Fair	SAVE
67	Amur Maple	Acer ginnala	10"	Poor	REMOVE
68	Amur Maple	Acer ginnala	6"	Poor	REMOVE
69	Amur Maple	Acer ginnala	6"	Poor	REMOVE
70	Amur Maple	Acer ginnala	20"	Poor	REMOVE
71	Amur Maple	Acer ginnala	12"	Poor	REMOVE
72	Amur Maple	Acer ginnala	10"	Poor	REMOVE
73	Amur Maple	Acer ginnala	6"	Poor	REMOVE
74	Amur Maple	Acer ginnala	6"	Poor	REMOVE
75	Amur Maple	Acer ginnala	6"	Poor	REMOVE
76	Amur Maple	Acer ginnala	6"	Poor	REMOVE
77	Amur Maple	Acer ginnala	6"	Poor	REMOVE
78	Amur Maple	Acer ginnala	4"	Poor	REMOVE
79	Amur Maple	Acer ginnala	4"	Poor	REMOVE
80	Amur Maple	Acer ginnala	8"	Poor	REMOVE
81	Amur Maple	Acer ginnala	12"	Poor	REMOVE
82	Amur Maple	Acer ginnala	12"	Poor	REMOVE
83	Amur Maple	Acer ginnala	14"	Poor	REMOVE
84	Burr Oak	Quercus macrocarpa	24"	Good	REMOVE
85	Burr Oak	Quercus macrocarpa	28"	Good	REMOVE
86	Burr Oak	Quercus macrocarpa	24"	Good	REMOVE
87	Burr Oak	Quercus macrocarpa	32"	Good	REMOVE
88	Burr Oak	Quercus macrocarpa	42"	Good	REMOVE
89	Red Maple	Acer rubrum	6"	Poor	REMOVE
90	Red Maple	Acer rubrum	6"	Poor	REMOVE
91	Locust	Gleditsia triacanthos	4"	Fair	REMOVE
92	Locust	Gleditsia triacanthos	2"	Fair	REMOVE
93	Locust	Gleditsia triacanthos	2"	Fair	REMOVE
94	Locust	Gleditsia triacanthos	6"	Dead	REMOVE
95	Washington Hawthorn	Crataegus phaenopyrum	12"	Poor	REMOVE
96	Norway Spruce	Picea abies	20"	Poor	REMOVE
97	Norway Maple	Acer platanoides	10"	Dead	REMOVE
98	Norway Maple	Acer platanoides	14"	Poor	REMOVE
99	European Alder	Alnus glutinosa	12"	Poor	REMOVE
100	Norway Maple	Acer platanoides	14"	Fair	REMOVE
101	Locust	Gleditsia triacanthos	2"	Fair	REMOVE
102	Locust	Gleditsia triacanthos	2"	Fair	REMOVE
103	Locust	Gleditsia triacanthos	4"	Good	REMOVE
104	Locust	Gleditsia triacanthos	4"	Good	REMOVE
105	Norway Maple	Acer platanoides	10"	Poor	REMOVE
106	Locust	Gleditsia triacanthos	4"	Fair	REMOVE
107	Horse Chestnut	Aesculus hippocastanum	10"	Fair	REMOVE
108	Norway Maple	Acer platanoides	16"	Good	REMOVE
109	Locust	Gleditsia triacanthos	4"	Fair	REMOVE
110	Locust	Gleditsia triacanthos	2"	Fair	REMOVE
111	Locust	Gleditsia triacanthos	4"	Fair	REMOVE
112	Locust	Gleditsia triacanthos	4"	Fair	REMOVE
113	Locust	Gleditsia triacanthos	4"	Fair	REMOVE
114	Norway Maple	Acer platanoides	18"	Fair	REMOVE
115	Norway Maple	Acer platanoides	20"	Fair	REMOVE
116	Locust	Gleditsia triacanthos	2"	Poor	REMOVE
117	Locust	Gleditsia triacanthos	4"	Poor	REMOVE
118	Locust	Gleditsia triacanthos	4"	Poor	REMOVE
119	Locust	Gleditsia triacanthos	2"	Poor	REMOVE
120	Locust	Gleditsia triacanthos	2"	Poor	REMOVE
121	Locust	Gleditsia triacanthos	16"	Fair	REMOVE
122	European Alder	Alnus glutinosa	10"	Poor	REMOVE
123	Locust	Gleditsia triacanthos	4"	Good	REMOVE
124	Locust	Gleditsia triacanthos	2"	Good	REMOVE
125	Locust	Gleditsia triacanthos	4"	Good	REMOVE
126	Locust	Gleditsia triacanthos	4"	Good	REMOVE
127	Locust	Gleditsia triacanthos	4"	Good	REMOVE
128	Locust	Gleditsia triacanthos	4"	Good	REMOVE
129	Locust	Gleditsia triacanthos	4"	Fair	REMOVE

DATE: 10.31.17
JOB: P-
SCALE: 1"=30'
BY:JZ/EB
SHEET T2

SHEET TITLE:
TREE SURVEY

REVISIONS:
REVISED PER CITY COMMENTS 10.30.18
REVISED PER CITY COMMENTS 4.9.19

703-723 Algonquin Rd.

Arlington Heights, IL

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WINGREN LANDSCAPE
ALL THINGS OUTDOOR

Sample Material List

1. Petitioner Name: Joshua Spinks, Morgan/Harbour Construction LLC
2. Date: 12/06/2017
3. Project: Hamilton Partners 703-723 W. Algonquin Road Industrial Building
4. Location: 703-723 W. Algonquin Road, Arlington Heights, IL

Commercial/Industrial Building:

A.	Precast Concrete Panels:	12′ and 13′ wide insulated load bearing panels, painted finish
B.	Composite Wood Siding:	TruGrain 6″ planks in color stain Mahagony C64
C.	Glazing:	1″ insulated low-e with grey tint
D.	Aluminum Storefront Framing:	Clear anodized finish

Schedule

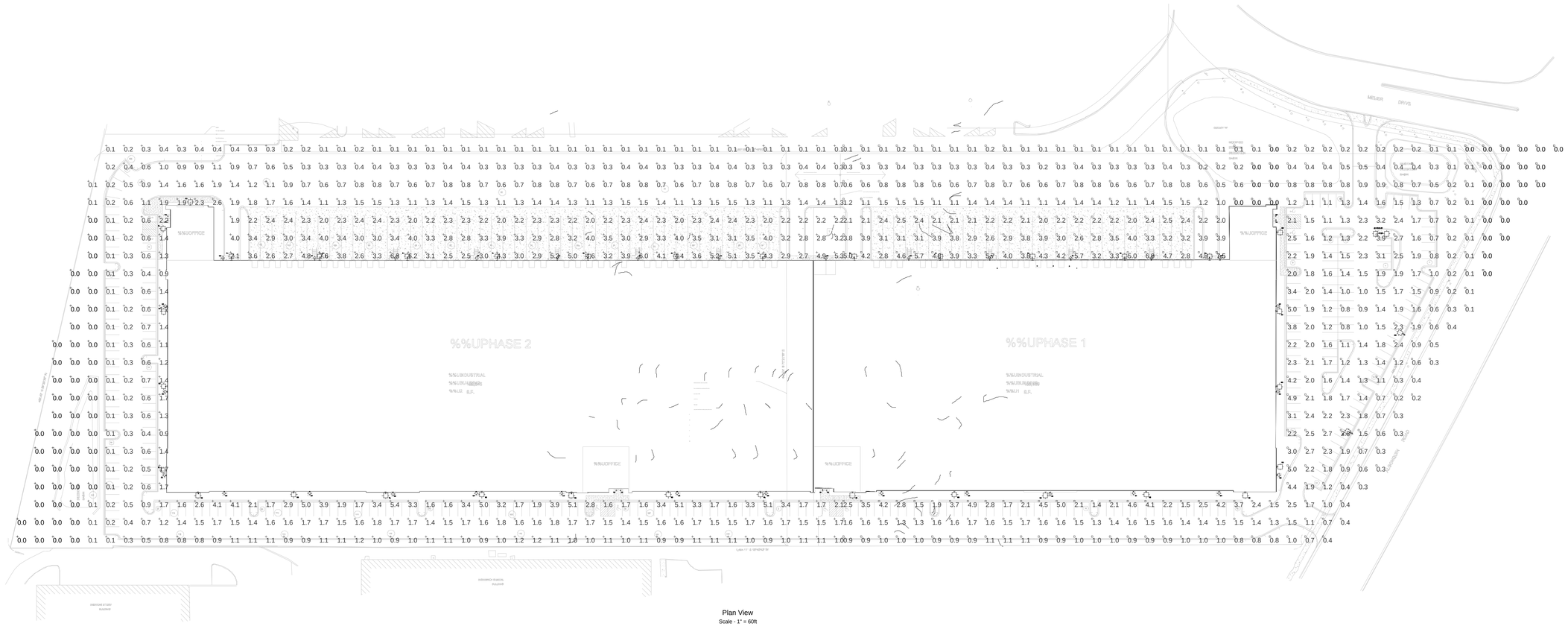
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	S1	12	Lithonia Lighting	DSX2 LED 80C 1000 50K TFTM MVOLT	DSX2 LED WITH 80 LEDs @1000mA, 5000K, TYPE FORWARD THROW MEDIUM OPTICS	LED	1	DSX2_LED_80C_1000_50K_TFTM_MVOLT.ies	29557	0.95	282
	S2	23	Lithonia Lighting	DSX0 LED 40C 1000 50K T3M MVOLT	DSX0 LED with 40 LEDs @1000 mA , 5000K, Type 3 Medium Optics	LED	1	DSX0_LED_40C_1000_50K_T3M_MVOLT.ies	15103	0.95	138
	S3	2	Lithonia Lighting	DSX0 LED 40C 1000 50K T3M MVOLT	DSX0 LED with 40 LEDs @1000 mA , 5000K, Type 3 Medium Optics	LED	1	DSX0_LED_40C_1000_50K_T3M_MVOLT.ies	15103	0.95	138
	S3T	1	Lithonia Lighting	DSX0 LED 40C 1000 50K T3M MVOLT	DSX0 LED with 40 LEDs @1000 mA , 5000K, Type 3 Medium Optics	LED	1	DSX0_LED_40C_1000_50K_T3M_MVOLT.ies	15103	0.95	276
	S4	30	Lithonia Lighting	OLW 23	Wall mounted LED updated optics	LED	1	OLW_23.ies	2613	0.95	32.98
	S5	11	Lithonia Lighting	KBA8 LED 12C 350 50K ASY MVOLT	KBA8 WITH 3 LIGHT BOARDS (12 LEDs), 350mA DRIVER, 5000K COLOR TEMP, AND ASYMMETRIC OPTIC	LED	1	KBA8_LED_12C_350_50K_ASY_MVOLT.ies	870	0.95	16

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone Phase 1		1.5 fc	7.5 fc	0.0 fc	N/A	N/A
Calc Zone Phase 2		1.4 fc	7.6 fc	0.0 fc	N/A	N/A

Luminaire Locations

		Location				
No.	Label	X	Y	MH	Orientation	Tilt
1	S3T	635.00	311.50	27.00	90.00	0.00
1	S1	346.55	283.35	28.00	0.00	0.00
2	S1	242.60	283.35	28.00	0.00	0.00
3	S1	138.65	283.10	28.00	0.00	0.00
4	S1	42.05	283.35	28.00	0.00	0.00
5	S1	441.80	283.35	28.00	0.00	0.00
6	S1	-60.95	283.35	28.00	0.00	0.00
7	S1	-157.95	283.35	28.00	0.00	0.00
8	S1	-257.95	283.35	28.00	0.00	0.00
9	S1	-359.95	283.35	28.00	0.00	0.00
1	S2	202.95	271.80	28.00	0.00	0.00
2	S2	292.75	271.70	28.00	0.00	0.00
8	S2	518.00	224.00	28.00	90.00	0.00
9	S2	518.00	139.50	28.00	90.00	0.00
1	S3	602.77	85.93	27.00	299.06	0.00
2	S3	661.77	197.18	27.00	299.06	0.00
1	S5	11.35	22.25	3.50	180.00	0.00
2	S5	6.50	22.40	3.50	180.00	0.00
4	S5	247.95	274.30	3.50	0.00	0.00
5	S5	266.25	274.30	3.50	0.00	0.00
6	S5	284.15	274.20	3.50	0.00	0.00
7	S5	516.75	326.40	3.50	90.00	0.00
8	S5	516.75	331.40	3.50	90.00	0.00
9	S5	-220.90	21.75	3.50	180.00	0.00
10	S1	-460.95	283.35	28.00	0.00	0.00
11	S1	-559.95	283.35	28.00	0.00	0.00
12	S1	-658.95	283.35	28.00	0.00	0.00
10	S2	518.75	49.00	28.00	90.00	0.00
11	S2	482.00	19.50	28.00	180.00	0.00
12	S2	370.50	20.25	28.00	180.00	0.00
13	S2	257.25	19.50	28.00	180.00	0.00
14	S2	154.75	20.25	28.00	180.00	0.00
15	S2	39.75	19.50	28.00	180.00	0.00
16	S2	519.00	313.00	28.00	90.00	0.00
17	S2	-63.25	19.50	28.00	180.00	0.00
18	S2	-167.25	19.50	28.00	180.00	0.00
19	S2	-276.25	18.50	28.00	180.00	0.00
20	S2	-377.25	19.50	28.00	180.00	0.00
21	S2	-485.25	18.50	28.00	180.00	0.00
22	S2	-589.25	19.50	28.00	180.00	0.00
23	S2	-696.25	18.50	28.00	180.00	0.00
24	S2	-705.25	345.50	28.00	0.00	0.00
25	S2	-734.25	45.00	28.00	90.00	0.00
26	S2	-733.25	139.00	28.00	90.00	0.00
27	S2	-733.25	223.00	28.00	90.00	0.00
28	S2	-734.25	316.00	28.00	90.00	0.00
10	S4	9.75	282.70	10.00	0.00	0.00
11	S4	103.30	282.75	10.00	0.00	0.00
12	S4	194.15	282.85	10.00	0.00	0.00
13	S4	285.50	282.90	10.00	0.00	0.00
14	S4	376.50	282.90	10.00	0.00	0.00
15	S4	453.50	282.90	10.00	0.00	0.00
16	S4	517.75	229.75	10.00	90.00	0.00
17	S4	517.75	133.75	10.00	90.00	0.00
18	S4	518.50	39.75	10.00	90.00	0.00
19	S4	356.25	20.50	10.00	180.00	0.00
20	S4	262.25	19.50	10.00	180.00	0.00
21	S4	168.75	20.50	10.00	180.00	0.00
22	S4	72.50	20.50	10.00	180.00	0.00
23	S4	452.50	20.50	10.00	180.00	0.00
24	S4	-110.25	282.70	10.00	0.00	0.00
25	S4	-201.25	282.70	10.00	0.00	0.00
26	S4	-292.25	282.70	10.00	0.00	0.00
27	S4	-474.25	282.70	10.00	0.00	0.00
28	S4	-565.25	282.70	10.00	0.00	0.00
29	S4	-668.25	282.70	10.00	0.00	0.00
30	S4	-57.50	20.50	10.00	180.00	0.00
31	S4	-157.50	20.50	10.00	180.00	0.00
32	S4	-287.50	20.50	10.00	180.00	0.00
33	S4	-383.50	20.50	10.00	180.00	0.00
34	S4	-477.50	19.50	10.00	180.00	0.00
35	S4	-571.50	20.50	10.00	180.00	0.00
36	S4	-667.50	20.50	10.00	180.00	0.00
37	S4	-732.50	38.75	10.00	90.00	0.00
38	S4	-731.50	132.75	10.00	90.00	0.00
39	S4	-731.50	228.75	10.00	90.00	0.00
10	S5	-225.75	21.90	3.50	180.00	0.00
11	S5	-730.75	325.65	3.50	270.00	0.00
12	S5	-730.60	330.50	3.50	270.00	0.00



Plan View
Scale - 1" = 60ft

DATE 12/06/2017

PURPOSE PER PERMIT REVIEW

REV. 1

703-723 W. ALGONQUIN RD
PHASE 1 & 2

Designer
D. MIROW
Date
10/06/2017
Scale
Not to Scale
Drawing No.

Summary

ALTA/NSPS LAND TITLE SURVEY

Table "A" Notes

1. MONUMENTS HAVE BEEN PLACED, AS SHOWN HERON.

2. SITE ADDRESS: 703, 705, 707 AND 709 ALGONQUIN ROAD, ARLINGTON HTS, IL. 60005.

3. THIS PROPERTY IS LOCATED WITHIN ZONE "X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO MAP NUMBER 17005602 11J, HAVING AN EFFECTIVE DATE OF AUGUST 19TH, 2008.

4. AREA OF PROPERTY SURVEYED: 306,870 SQ. FT., 7.04 ACRES

6. PROPERTY IS ZONED M-2, LIMITED HEAVY MANUFACTURING DISTRICT
SETBACKS PER VILLAGE OF ARLINGTON HEIGHTS ZONING OFFICE
FRONT: 15'
SIDE: 10'
REAR: 30'
MAX BUILDING HEIGHT=17'
PARKING REQUIREMENTS: 1 SPACE PER 2 EMPLOYEES PLUS ONE PER COMPANY VEHICLE.

7(a): EXTERIOR DIMENSIONS OF BUILDING SHOWN HEREON
7(b): SQUARE FOOTAGE OF BUILDING = 98,726 SQ. FT.
7(c): BUILDING HEIGHT = 17 FEET

8: SUBSTANTIAL VISIBLE IMPROVEMENTS SHOWN HEREON

9: PARKING SUMMARY = 309 REGULAR SPACES AND 8 HANDICAP SPACES.

11. VISIBLE UTILITIES AND UNDERGROUND UTILITIES MARKED BY JULIE, HAVE BEEN SHOWN HEREON.

13: NAMES OF ADJOINING OWNERS SHOWN HEREON

14: NEAREST INTERSECTING STREET SHOWN HEREON

16: THERE IS NO EVIDENCE OF RECENT EARTH MOVING WORK OR BUILDING CONSTRUCTION

17: THERE ARE NO PROPOSED CHANGES TO STREET RIGHT OF WAY LINES PER DEPARTMENT OF TRANSPORTATION, DISTRICT 1, ARLINGTON HEIGHTS AREA PROGRAMMER (847)-705-4000 OPTION 7.

18: NO FIELD DELINEATION OF WETLANDS WERE PERFORMED.

Statement of encroachments

(A) WALL FALLS ON PROPERTY BY AT MOST 2.3'.

(B) SIDEWALK CROSSES ONTO PROPERTY BY AT MOST 1.2'.

PARCEL 1:

"A":

A PORTION OF LOT 2 IN CAUDILL'S SUBDIVISION OF PART OF THE NORTHWEST ¼ OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE SOUTHWESTERLY LINE OF ALGONQUIN ROAD, AS DEDICATED BY INSTRUMENT RECORDED FEBRUARY 2, 1933 AS DOCUMENT 11195785; AND THE NORTHERLY LINE OF LOT 10 IN THE DIVISION OF THE EAST ½ OF SAID NORTHWEST ¼; THENCE NORTHWESTERLY ON SAID NORTHERLY LINE, BEING IDENTICAL WITH A BOUNDARY LINE OF SAID LOT 2, 36.36 FEET TO THE WESTERLY LINE OF SAID LOT 10; BEING ALSO THE EASTERLY LINE OF SAID LOT 2; THENCE SOUTHWESTERLY ON SAID LINE AND CONTINUING ALONG THE WESTERLY LINE OF LOT 11 IN SAID DIVISION, 784.12 FEET; THENCE NORTHWESTERLY ALONG A LINE, THAT FORMS AN ANGLE OF 90 DEGREES, 09 MINUTES WITH THE LAST DESCRIBED COURSE, AS MEASURED FROM NORTHEAST TO NORTHWEST, 8.50 FEET; THENCE NORTHEASTERLY 812.46 FEET TO SAID SOUTHWESTERLY LINE OF ALGONQUIN ROAD; THENCE SOUTHEASTERLY ON SAID LINE, BEING CURVED AND CONVEX TO THE NORTH AND HAVING A RADIUS OF 9499.34 FEET, A DISTANCE OF 50.04 FEET TO THE PLACE OF BEGINNING, IN COOK COUNTY, ILLINOIS (EXCEPTING THEREFROM THAT PORTION DEDICATED FOR ROAD PURPOSES, DESCRIBED BELOW)

"B":

A PORTION OF LOTS 10 AND 11 IN THE DIVISION OF THE EAST ½ OF THE NORTHWEST ¼ OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, AND ALSO, A PORTION OF LOT 7 IN JOSEPH A. BARNES' FARM IN SECTION 9, 15, AND 16 TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWEST CORNER OF LOT 1 IN ENGELHARDT'S SUBDIVISION OF PART OF SAID LOT 7; THENCE SOUTHWESTERLY ON THE WESTERLY LINE OF SAID LOT, 580.24 FEET; THENCE NORTHWESTERLY AT RIGHT ANGLES TO SAID LINE, 433.08 FEET TO THE WESTERLY LINE OF AFORESAID LOT 11; THENCE NORTHEASTERLY ON SAID LINE AND CONTINUING ON THE WESTERLY LINE OF SAID LOT 10, 784.12 FEET TO THE NORTHERLY LINE OF SAID LOT 10; THENCE SOUTHEASTERLY ON SAID LINE, 36.36 FEET TO THE SOUTHEASTERLY LINE OF ALGONQUIN ROAD AS DEDICATED BY INSTRUMENT RECORDED FEBRUARY 2, 1933, AS DOCUMENT 11195785; THENCE SOUTHEASTERLY ON SAID LINE, BEING CURVED AND CONVEX TO THE NORTH AND HAVING A RADIUS OF 9499.34 FEET, A CHORD DISTANCE OF 447.46 FEET, TO THE PLACE OF BEGINNING, IN COOK COUNTY, ILLINOIS. (EXCEPTING FROM SAID PARCELS "A" AND "B" THAT PORTION DEDICATED FOR ROAD PURPOSES BY PLAT OF DEDICATION RECORDED JANUARY 16, 2003 AS DOCUMENT 0030079992, DESCRIBED AS FOLLOWS: THAT PART OF LOT 10 IN COUNTY CLERKS DIVISION, BEING A SUBDIVISION OF THE EAST ½ OF THE NORTHWEST ¼ OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, AND THAT PART OF LOT 2 IN CAUDILL'S SUBDIVISION, BEING A SUBDIVISION IN THAT PART OF THE NORTHWEST ¼ OF SAID SECTION 16; DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWESTERLY CORNER OF WEBER ATRIUM SUBDIVISION, BEING A SUBDIVISION IN THAT PART OF THE NORTHWEST ¼ OF SAID SECTION 16; THENCE SOUTHEASTERLY ALONG THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF ALGONQUIN ROAD (IL. ROUTE 62) AS RECORDED FEBRUARY 2, 1933 AS DOCUMENT 11195785 AND 1119782, SAID SOUTHWESTERLY RIGHT-OF-WAY LINE BEING A TANGENTIAL CURVE CONCAVE TO THE NORTHEAST RADIUS 9499.34 FEET, CENTRAL ANGLE 01 DEGREES 02 MINUTES, 14 SECONDS, 171.96 FEET (THE CHORD BEARS A ILLINOIS EAST GRID BEARING OF SOUTH 45 DEGREES 31 MINUTES 18 SECONDS WEST 171.96 FEET) TO THE NORTHEASTERLY CORNER OF LOT "B" IN WEBER ATRIUM SUBDIVISION, SAID NORTHEASTERLY CORNER, BEING THE POINT OF BEGINNING; THENCE SOUTH 18 DEGREES 41 MINUTES 30 SECONDS WEST 46.26 FEET ALONG SAID EASTERLY LINE; THENCE SOUTH 72 DEGREES 30 MINUTES 06 SECONDS EAST TO A POINT OF INTERSECTION WITH THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF SAID ALGONQUIN ROAD (IL. ROUTE 62); THENCE NORTHWESTERLY ALONG SAID SOUTHWESTERLY RIGHT-OF-WAY LINE BEING A TANGENTIAL CURVE CONCAVE TO THE NORTHEAST RADIUS 9499.34 FEET, CENTRAL ANGLE 00 DEGREES 15 MINUTES 13 SECONDS, 42.04 FEET, (THE CHORD BEARS NORTH 44 DEGREES 52 MINUTES 35 SECONDS WEST 42.04 FEET) TO THE POINT OF BEGINNING).

"C":

PERPETUAL EASEMENT FOR THE BENEFIT OF PARCELS "A" AND "B", FOR INGRESS AND EGRESS, CREATED BY GRANT MADE BY WEBER MARKING SYSTEMS, INC., A CORPORATION OF ILLINOIS TO CENTRAL NATIONAL BANK IN CHICAGO, AS TRUSTEE UNDER TRUST NUMBER 22481 AND WEBER ADDRESSING MACHINE COMPANY, INC., A CORPORATION OF ILLINOIS DATED OCTOBER 20, 1977 AND RECORDED NOVEMBER 2, 1977 AS DOCUMENT 24176555 AND MODIFIED BY EASEMENT MODIFICATION RECORDED MARCH 26, 1982 AS DOCUMENT 26183698 OVER, UNDER, ACROSS THE FOLLOWING LAND: THE EAST 22 FEET OF THE FOLLOWING DESCRIBED LAND: THAT PART OF LOT 2 IN CAUDILL'S SUBDIVISION OF PART OF THE NORTHWEST ¼ OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, LYING WESTERLY OF THE SOUTHWESTERLY LINE OF ALGONQUIN ROAD, AS WIDENED, EXCEPT THAT PART THEREOF DEDICATED FOR PUBLIC STREET BY DOCUMENT 19756910 AND ALSO EXCEPT THAT PART LYING SOUTHERLY OF THE FOLLOWING DESCRIBED LINE: BEGINNING AT A POINT IN THE EASTERLY LINE OF THE NORTHERLY PART OF SAID LOT 2, 784.12 FEET SOUTHWESTERLY OF THE NORTHERLY CORNER THEREOF; THENCE NORTHWESTERLY ALONG A LINE THAT FORMS AN ANGLE OF 90 DEGREES, 09 MINUTES WITH THE LAST DESCRIBED COURSE (AS MEASURED FROM NORTH TO WEST) TO THE WESTERLY LINE OF SAID LOT 2; ALSO EXCEPTING THAT PART OF SAID LOT DESCRIBED AS FOLLOWS: BEGINNING AT SAID POINT IN THE EASTERLY LINE OF THE NORTHERLY PART OF SAID LOT 2, 784.12 FEET SOUTHWESTERLY OF THE NORTHERLY CORNER THEREOF; THENCE NORTHWESTERLY ALONG SAID LINE, THAT FORMS AN ANGLE OF 90 DEGREES, 09 MINUTES, AFORESAID, A DISTANCE OF 8.50 FEET; THENCE NORTHEASTERLY 812.46 FEET TO A POINT IN THE SAID SOUTHWESTERLY LINE OF ALGONQUIN ROAD; THENCE SOUTHEASTERLY ON SAID LINE, BEING CURVED AND CONVEX TO THE NORTH AND HAVING A RADIUS OF 9499.34 FEET, A DISTANCE OF 50.04 FEET TO A POINT IN THE NORTHERLY LINE OF LOT 10 IN THE DIVISION OF THE EAST 1/2 OF SAID NORTHWEST ¼; THENCE NORTHWESTERLY ON SAID LINE, BEING IDENTICAL WITH A BOUNDARY LINE OF SAID LOT 2, 36.36 FEET TO THE NORTHERLY CORNER OF THE SAID EASTERLY LINE OF THE NORTHERLY PART OF SAID LOT; THENCE SOUTHWESTERLY ON SAID LINE, 784.12 FEET TO THE POINT OF BEGINNING, ALL IN COOK COUNTY, ILLINOIS.

"D":

NON-EXCLUSIVE EASEMENT FOR THE BENEFIT OF PARCELS A AND B FOR STORM WATER DRAINAGE, DETENTION AND RETENTION IN, OVER, UNDER, ACROSS, ALONG, THROUGH AND UPON OUTLOT A IN THE FINAL WEBER'S RESUBDIVISION RECORDED AS DOCUMENT 0030435526.

"E":

NON-EXCLUSIVE EASEMENT FOR THE BENEFIT OF PARCELS A AND B FOR INGRESS AND EGRESS OVER AND UPON OUTLOT B AND A PORTION OF LOT 2 AS CREATED AND DEPICTED ON THE FINAL WEBER'S RESUBDIVISION RECORDED AS DOCUMENT 0030435526 AND AS GRANTED IN THE EASEMENT AGREEMENT RECORDED AS DOCUMENT 0608244082.

THIS SURVEY ADDRESSES ONLY THOSE MATTERS OF RECORD AS DISCLOSED IN CHICAGO TITLE INSURANCE COMPANY COMMITMENT NO. 17006767NS, HAVING AN EFFECTIVE DATE OF APRIL 18TH, 2017.

Schedule "B" Notes

(20) — RESERVATION OF AN EASEMENT FOR THE USE OF SANITARY SEWERS PRESENTLY LOCATED ON PARCEL "A" TO WEBER MARKING SYSTEMS, INC., GRANTOR IN THE WARRANTY DEED TO JOHN E. ROBERTS, RECORDED NOVEMBER 2, 1977 AS DOCUMENT 24176551, AS DISCLOSED BY SAID DEED OF CONVEYANCE. (BLANKET IN NATURE OVER EXISTING SANITARY SEWER LOCATED ON PARCEL A)

(21) — EASEMENT RECORDED NOVEMBER 2, 1977 AS DOCUMENT 24176554 MADE BY CENTRAL NATIONAL BANK IN CHICAGO, AS TRUSTEE UNDER TRUST NUMBER 22481 TO WEBER ADDRESSING MACHINE COMPANY, INC., TO WEBER MARKING SYSTEMS, INC., OF A PERPETUAL EASEMENT FOR INGRESS AND EGRESS OVER, UNDER AND ACROSS THE EAST 25 FEET OF PARCEL "B" AND THE CONDITIONS CONTAINED THERE IN. (AS SHOWN)

(22) — EASEMENT RECORDED NOVEMBER 2, 1977 AS DOCUMENT 24176553 MADE BY CENTRAL NATIONAL BANK IN CHICAGO, AS TRUSTEE UNDER TRUST NUMBER 22481 TO WEBER MARKING SYSTEMS, INC., AND WEBER ADDRESSING MACHINE COMPANY, INC., OF AN EASEMENT FOR INGRESS AND EGRESS OVER, UNDER AND ACROSS THE WEST 22 FEET OF PARCELS "A" AND "B", AS A TRACT AND THE CONDITIONS AND RESTRICTIONS CONTAINED THERE IN. (AS SHOWN)

(23) — EASEMENT IN FAVOR OF THE ILLINOIS BELL TELEPHONE COMPANY AND THE COMMONWEALTH EDISON COMPANY, AND THEIR RESPECTIVE SUCCESSORS AND ASSIGNS, TO INSTALL, OPERATE AND MAINTAIN ALL EQUIPMENT NECESSARY FOR THE PURPOSE OF SERVING THE LAND AND OTHER PROPERTY, TOGETHER WITH THE RIGHT OF ACCESS TO SAID EQUIPMENT, AND THE PROVISIONS RELATING THERETO CONTAINED IN THE GRANT RECORDED AS DOCUMENT 24339865, AFFECTING THE NORTH 10 FEET OF THE SOUTH 30 FEET (EXCEPT THE EAST 79 FEET THEREOF) AND; ALSO THE WEST 10 FEET OF THE EAST 89 FEET OF THE SOUTH 191 FEET (EXCEPT THE SOUTH 30 FEET THEREOF) AND; ALSO THE NORTH 10 FEET OF THE SOUTH 191 FEET OF THE EAST 79 FEET (EXCEPT THE EAST 25 FEET THEREOF) AND; ALSO THE WEST 10 FT OF THE EAST 25 FEET (EXCEPT THE NORTH 67.5 FEET, AS MEASURED ON THE EAST LINE OF SAID PROPERTY) AND; ALSO A STRIP OF LAND 10 FEET IN WIDTH, THE EAST LINE BEGINNING AT A POINT MEASURED 15 FEET WEST OF THE EAST LINE AND 67.5 FEET SOUTH OF THE NORTHEAST CORNER: THENCE EXTENDING IN A NORTHWESTERLY DIRECTION TO A POINT IN THE NORTHERLY LINE 50 FEET NORTHWESTERLY OF THE NORTHEAST CORNER OF THE LAND. (AS SHOWN)

(24) — EASEMENT IN FAVOR IF THE ILLINOIS BELL TELEPHONE COMPANY AND THE COMMONWEALTH EDISON COMPANY, AND THEIR RESPECTIVE SUCCESSORS AND ASSIGNS, TO INSTALL, OPERATE AND MAINTAIN ALL EQUIPMENT NECESSARY FOR THE PURPOSE OF SERVING THE LAND AND OTHER PROPERTY, TOGETHER WITH THE RIGHT OF ACCESS TO SAID EQUIPMENT, AND THE PROVISIONS RELATING THERETO CONTAINED IN THE GRANT RECORDED AS DOCUMENT 24391507, AFFECTING A STRIP OF LAND 5 FEET IN WIDTH ADJACENT TO PARALLEL WITH AND LYING SOUTHWESTERLY OF THE SOUTHWESTERLY RIGHT OF WAY LINE OF ALGONQUIN ROAD. (AS SHOWN)

(25) — EASEMENT IN FAVOR OF NORTHERN ILLINOIS GAS COMPANY, AND ITS SUCCESSORS AND ASSIGNS, TO INSTALL, OPERATE AND MAINTAIN ALL EQUIPMENT NECESSARY FOR THE PURPOSE OF SERVING THE LAND AND OTHER PROPERTY, TOGETHER WITH THE RIGHT OF ACCESS TO SAID EQUIPMENT, AND THE PROVISIONS RELATING THERETO CONTAINED IN THE GRANT RECORDED AS DOCUMENT 24413979, AFFECTING THE SOUTHERLY 10 FEET OF PARCEL "A" AND THE SOUTHERLY 10 FEET AND THE EASTERLY 10 FEET OF PARCEL "B" OF THE LAND. (AS SHOWN)

(26) — EASEMENT RECORDED AUGUST 16, 1966 AS DOCUMENT 19917611 AS CONTAINED IN THE PLAT OF SURVEY OVER: THAT PART OF LOT 2 IN CAUDULL'S SUBDIVISION AFORESAID LYING NORTH OF THE NORTH LINE OF ILLINOIS TOLL HIGHWAY AND WESTERLY OF THE WEST LINE OF ALGONQUIN ROAD, STATE ROUTE NO. 62, WIDENED PER DOCUMENT 11195782, BEGINNING AT A POINT ON THE NORTH LINE OF LOT 2 WITH THE INTERSECTION OF THE SOUTHWESTERLY LINE OF ALGONQUIN ROAD, AS WIDENED; THENCE SOUTHEASTERLY ALONG SAID SOUTHWESTERLY LINE OF ALGONQUIN ROAD, A DISTANCE OF 126.40 FEET FOR A POINT OF BEGINNING; THENCE CONTINUING SOUTHEASTERLY ALONG SAID SOUTHWESTERLY LINE OF ALGONQUIN ROAD A DISTANCE OF 44.27 FEET TO THE EASTERLY LINE OF SAID LOT 2, EXTENDED NORTH, THENCE SOUTHWESTERLY ALONG SAID EASTERLY LINE OF LOT 2 A DISTANCE OF 1335.07 FEET TO AN ANGLE POINT IN SAID LOT, THENCE NORTHWESTERLY ALONG A LINE PARALLEL WITH THE SOUTHEASTERLY LINE OF SAID LOT 2 A DISTANCE OF 1335.07 FEET TO THE POINT OF BEGINNING; THENCE SOUTHEASTERLY 7 FEET (MEASURED AT RIGHT ANGLES) OF DESCRIBED LAND TO BE AN EASEMENT FOR GAS AND SEWERS, THE NORTHWESTERLY 22 FEET OF THE SOUTHEASTERLY 29 FEET (BOTH MEASURED AT RIGHT ANGLES) OF DESCRIBED LAND TO BE AN EASEMENT FOR INGRESS AND EGRESS AND NORTHWESTERLY 11 FEET (MEASURED AT RIGHT ANGLES) OF DESCRIBED LAND TO BE AN EASEMENT FOR WATER AND ELECTRIC. (AS SHOWN)

(27) — EASEMENTS, TERMS, PROVISIONS AND CONDITIONS CONTAINED IN THE EASEMENT AGREEMENT EXECUTED BY AND BETWEEN JOSEPH A WEBER, JR., TRUSTEE OF THE JOSEPH A. WEBER, JR. DECLARATION OF TRUST DATED MAY 1, 1975, AS AMENDED; ARLINGTON OAK POINTE L.L.C., AN ILLINOIS LIMITED LIABILITY COMPANY; WEBER MARKING SYSTEMS, INC., AN ILLINOIS CORPORATION AND LASALLE BANK NATIONAL ASSOCIATION, AS SUCCESSOR TRUSTEE TO AMERICAN NATIONAL BANK AND TRUST COMPANY OF CHICAGO. AS TRUSTEE KNOWN AS TRUST NUMBER 795, RECORDED MARCH 23, 2006 AS DOCUMENT 0608244082. (AS SHOWN)

STATE OF ILLINOIS)
)SS
COUNTY OF KENDALL)

DTS PROPERTIES, LLC, AN ILLINOIS LIMITED LIABILTY COMPANY,
ARLINGTON HEIGHTS 1, LLC, AN ILLINOIS LIMITED LIABILITY COMPANY
AND CHICAGO TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 6A, 7A, 7B, 7C, 8, 9, 11, 13, 14, 16, 17 AND 18 OF TABLE A THEREOF. FIELDWORK WAS COMPLETED ON MAY 11TH, 2017.

WITNESS MY HAND AND SEAL AT OSWEGO, ILLINOIS THIS 7TH DAY OF JUNE, 2017.

L. A. Doogs

LESLIE AARON DOOGS
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3833
LICENSE EXPIRATION DATE: NOVEMBER 30TH, 2018

PROFESSIONAL LAND SURVEYOR
LESLIE AARON DOOGS
035-003833
OSWEGO
ILLINOIS
STATE OF ILLINOIS

JADE SURVEYORS LLC
License No. 184006622
304 Orchard Ave.
Oswego, IL 60543
(630) 986-7230

Client: Dowd, Dowd & Mertes, Ltc.

File No: 50732

GREMLEY & BIEDERMANN

A DIVISION OF
PLCS Corporation
LICENSE NO. 184-005332

PROFESSIONAL LAND SURVEYORS

4505 NORTH ELSTON AVENUE, CHICAGO, IL 60630
TELEPHONE: (773) 685-5102 FAX: (773) 286-4/84 EMAIL: INFO@PLCS-SURVEY.COM

ALTA / NSPS Land Title Survey

PARCEL 2:
"1":
LOT "A" IN WEBER ATRIUM RESUBDIVISION IN THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

CONTAINING 364,483 SQUARE FEET OR 8.367 ACRES MORE OR LESS.

"2":
EASEMENTS FOR THE BENEFIT OF PARCEL 2, CREATED BY GRANTS MADE BY CENTRAL NATIONAL BANK IN CHICAGO, AS TRUSTEE UNDER TRUST NO. 22931 TO WEBER MARKETING SYSTEMS, INCORPORATED DATED OCTOBER 20, 1977 AND RECORDED NOVEMBER 2, 1977 AS DOCUMENTS 24176553 AND 24176554 OVER, UNDER AND ACROSS THE FOLLOWING LAND:

THE EAST 25.00 FEET OF THE FOLLOWING DESCRIBED PREMISES:

A PORTION OF LOTS 10 AND 11 IN THE DIVISION OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN; AND ALSO,

A PORTION OF LOT 7 IN JOSEPH A. BARNES' FARM IN SECTIONS 9, 15 AND 16, ALL IN TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 1 IN ENGELHARDT'S SUBDIVISION OF PART OF SAID LOT 7; THENCE SOUTHWESTERLY ON THE WESTERLY LINE OF SAID LOT, A DISTANCE OF 580.24 FEET; THENCE NORTHWESTERLY AT RIGHT ANGLES TO SAID LINE, A DISTANCE OF 433.02 FEET TO THE WESTERLY LINE OF AFORESAID LOT 11; THENCE NORTHEASTERLY ON SAID LINE AND CONTINUING ON THE WESTERLY LINE OF SAID LOT 10, A DISTANCE OF 784.12 FEET TO THE NORTHERLY LINE OF SAID LOT 10; THENCE SOUTHEASTERLY ON SAID LINE, A DISTANCE OF 36.36 FEET TO THE SOUTHWESTERLY LINE OF ALGONQUIN ROAD, AS DEDICATED BY INSTRUMENT RECORDED FEBRUARY 2, 1933 AS DOCUMENT 13195785; THENCE SOUTHEASTERLY ON SAID LINE, BEING CURVED AND CONVEX TO THE NORTH AND HAVING A RADIUS OF 9499.34 FEET, A CHORD DISTANCE OF 447.46 FEET TO THE PLACE OF BEGINNING, IN COOK COUNTY, ILLINOIS;

ALSO,

THE WEST 22.00 FEET OF THE FOLLOWING DESCRIBED PREMISES:

PARCEL "A":
A PORTION OF LOT 2 IN CAUDILL'S SUBDIVISION OF PART OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE SOUTHWESTERLY LINE OF ALGONQUIN ROAD, AS DEDICATED BY INSTRUMENT RECORDED FEBRUARY 2, 1933 AS DOCUMENT 11195785 AND NORTHERLY LINE OF LOT 10 IN THE DIVISION OF THE EAST 1/2 OF SAID NORTHWEST 1/4; THENCE NORTHWESTERLY ON SAID NORTHERLY LINE, BEING IDENTICAL WITH A BOUNDARY LINE OF SAID LOT 2, A DISTANCE OF 36.36 FEET TO THE WESTERLY LINE OF SAID LOT 10; BEING ALSO THE EASTERLY LINE OF SAID LOT 2; THENCE SOUTHWESTERLY ON SAID LINE AND CONTINUING ALONG THE WESTERLY LINE OF LOT 11 IN SAID DIVISION, A DISTANCE OF 784.12 FEET; THENCE NORTHWESTERLY ALONG A LINE THAT FORMS AN ANGLE OF 90 DEGREES, 09 MINUTES WITH THE LAST DESCRIBED COURSE, AS MEASURED FROM NORTHEAST TO NORTHWEST, A DISTANCE OF 8.50 FEET; THENCE NORTHEASTERLY, A DISTANCE OF 812.46 FEET TO THE SAID SOUTHWESTERLY LINE OF ALGONQUIN ROAD; THENCE SOUTHEASTERLY ON SAID LINE, BEING CURVED AND CONVEX TO THE NORTH AND HAVING A RADIUS OF 9499.34 FEET, A DISTANCE OF 50.04 FEET TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

PARCEL "B":
A PORTION OF LOTS 10 AND 11 IN THE DIVISION OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN; AND ALSO, A PORTION OF LOT 7 IN JOSEPH A. BARNES' FARM IN SECTIONS 9, 15 AND 16, ALL IN TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 1 IN ENGELHARDT'S SUBDIVISION OF PART OF SAID LOT 7; THENCE SOUTHWESTERLY ON THE WESTERLY LINE OF SAID LOT, A DISTANCE OF 580.24 FEET; THENCE NORTHWESTERLY AT RIGHT ANGLES TO SAID LINE, A DISTANCE OF 430.08 FEET TO THE WESTERLY LINE OF AFORESAID LOT 11; THENCE NORTHEASTERLY ON SAID LINE AND CONTINUING ON THE WESTERLY LINE OF SAID LOT 10, A DISTANCE OF 784.12 FEET TO THE NORTHERLY LINE OF SAID LOT 10; THENCE SOUTHEASTERLY ON SAID LINE, A DISTANCE OF 36.36 FEET TO THE SOUTHWESTERLY LINE OF ALGONQUIN ROAD, AS DEDICATED BY INSTRUMENT RECORDED FEBRUARY 2, 1933 AS DOCUMENT 11195785; THENCE SOUTHEASTERLY ON SAID LINE, BEING CURVED AND CONVEX TO THE NORTH AND HAVING A RADIUS OF 9499.34 FEET, A CHORD DISTANCE OF 447.46 FEET TO THE PLACE OF BEGINNING, IN COOK COUNTY, ILLINOIS.

"3" :
A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS FOR THE BENEFIT OF PARCEL 2 AS CREATED BY THE GRANT DATED OCTOBER 20, 1977 AND RECORDED NOVEMBER 2, 1977 AS DOCUMENT NUMBER 24176553, AND AS AMENDED FROM TIME TO TIME, OVER AND ACROSS THE WEST 22 FEET OF THE FOLLOWING TWO PARCELS TAKEN AS A TRACT:

PARCEL "A":
A PORTION OF LOT 2 IN CAUDILL'S SUBDIVISION OF PART OF NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE SOUTHWESTERLY LINE OF ALGONQUIN ROAD AS DEDICATED BY THE INSTRUMENT RECORDED FEBRUARY 2, 1933 AS DOCUMENT NUMBER 11195785 AND THE NORTHERLY LINE OF LOT 10 IN THE DIVISION OF EAST 1/2 OF SAID NORTHWEST 1/4; THENCE NORTHWESTERLY ON SAID NORTHERLY LINE, BEING IDENTICAL WITH A BOUNDARY LINE OF SAID LOT 2, 36.36 FEET TO THE WESTERLY LINE OF SAID LOT 10; BEING ALSO THE EASTERLY LINE OF SAID LOT 2; THENCE SOUTHWESTERLY ON SAID LINE AND CONTINUING ALONG THE WESTERLY LINE OF LOT 11 IN SAID DIVISION, 784.12 FEET; THENCE NORTHWESTERLY ALONG A LINE THAT FORMS AN ANGLE OF 90 DEGREES 09 MINUTES WITH THE LAST DESCRIBED COURSE, AS MEASURED FROM NORTHEAST TO NORTHWEST, 8.50 FEET; THENCE NORTHEASTERLY 812.46 FEET TO THE SAID SOUTHWESTERLY LINE OF ALGONQUIN ROAD; THENCE SOUTHEASTERLY ON SAID LINE, BEING CURVED AND CONVEX TO THE NORTH AND HAVING A RADIUS OF 9,499.34 FEET A DISTANCE OF 50.04 FEET TO THE PLACE OF BEGINNING;

PARCEL "B":
A PORTION OF LOTS 10 AND 11 IN THE DIVISION OF EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, AND ALSO, A PORTION OF LOT 7 IN JOSPEH A. BARNES FARM IN SECTIONS 9, 15 AND 16, TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWEST CORNER OF LOT 1 IN ENGELHARDT'S SUBDIVISION OF PART OF SAID LOT 7; THENCE SOUTHWESTERLY ON THE WESTERLY LINE OF SAID LOT, 580.24 FEET; THENCE NORTHWESTERLY AT RIGHT ANGLES TO SAID LINE, 430.08 FEET TO THE WESTERLY LINE OF AFORESAID LOT 11; THENCE NORTHEASTERLY ON SAID LINE AND CONTINUING ON THE WESTERLY LINE OF SAID LOT 10, 784.12 FEET TO THE NORTHERLY LINE OF SAID LOT 10; THENCE SOUTHEASTERLY ON SAID LINE, 36.36 FEET TO THE SOUTHWESTERLY LINE OF ALGONQUIN ROAD AS DEDICATED BY INSTRUMENT RECORD FEBRUARY 2, 1933 AS DOCUMENT NUMBER 11195785; THENCE SOUTHEASTERLY ON SAID LINE, BEING CURVED AND CONVEX TO THE NORTH AND HAVING A RADIUS OF 9,499.34 FEET, A CHORD DISTANCE OF 447.46 FEET TO THE PLACE OF BEGINNING, IN COOK COUNTY, ILLINOIS.

"4":
A NON-EXCLUSVIE EASEMENT FOR INGRESS AND EGRESS FOR THE BENEFIT OF PARCEL 2 AS CREATED BY THE GRANT DATED OCTOBER 20, 1977 AND RECORDED NOVEMBER 2, 1977 AS DOCUMENT NUMBER 24176555, AND AS AMENDED FROM TIME TO TIME, OVER AND ACROSS THE EAST 22 FEET OF THE FOLLOWING DESCRIBED PREMISES:

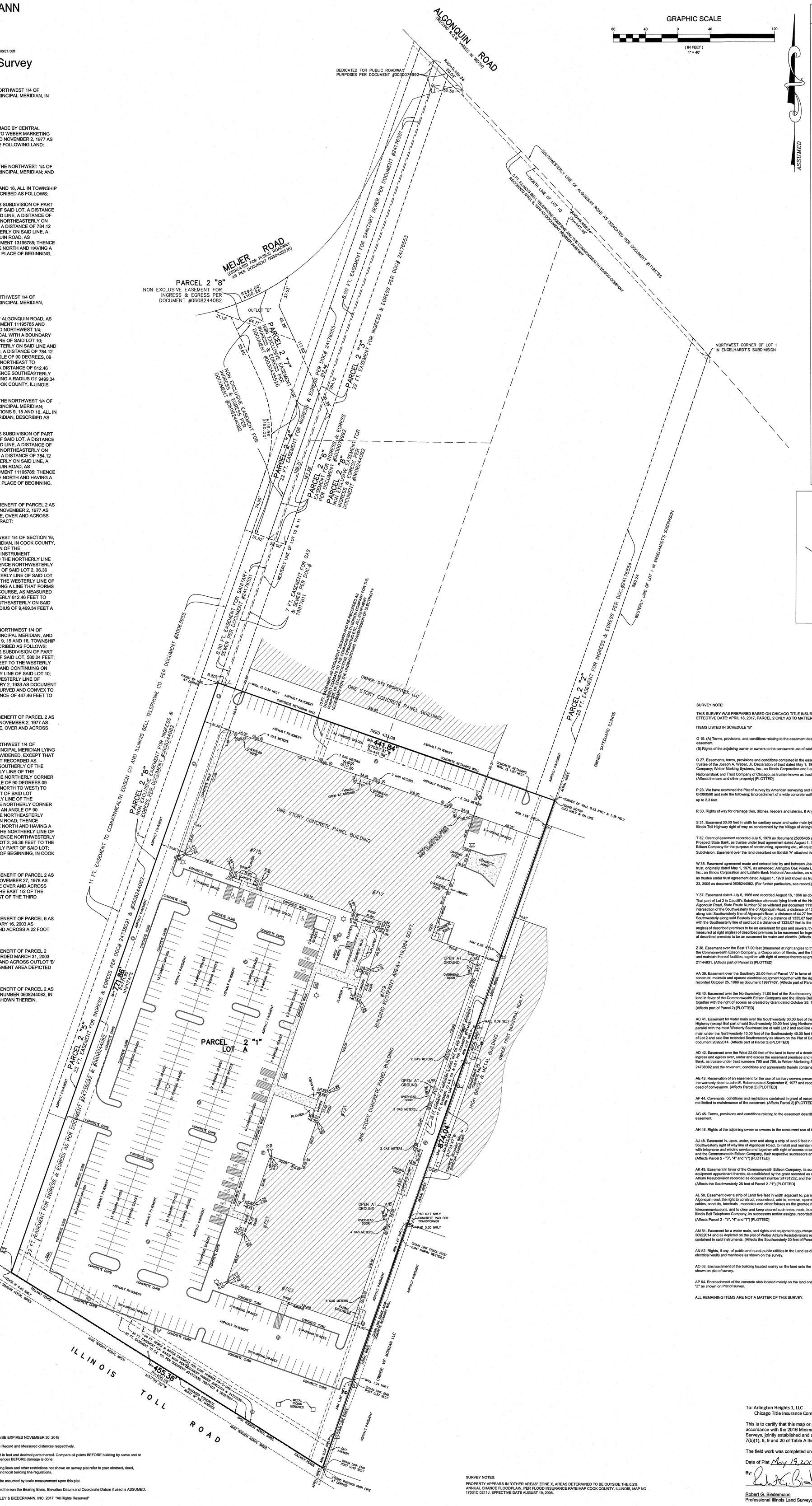
THAT PART OF LOT 2 IN CAUDILL'S SUBDIVISION OF PART OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN LYING WESTERLY OF THE SOUTHWESTERLY LINE OF ALGONQUIN ROAD AS WIDENED, EXCEPT THAT PART THEREOF DEDICATED FOR PUBLIC STREET BY THE INSTRUMENT RECORDED AS DOCUMENT NUMBER 19756910 AND ALSO EXCEPT THAT PART LYING SOUTHERLY OF THE FOLLOWING DESCRIBED LINE: BEGINNING AT A POINT IN THE EASTERLY LINE OF THE NORTHERLY PART OF SAID LOT, 784.12 FEET SOUTHWESTERLY OF THE NORTHERLY CORNER THEREOF; THENCE NORTHERLY ALONG A LINE THAT FORMS AN ANGLE OF 90 DEGREES 09 MINUTES WITH THE LAST DESCRIBED COURSE (AS MEASURED FROM NORTH TO WEST) TO THE WESTERLY LINE OF SAID LOT 2; AND ALSO EXCEPTING THAT PART OF SAID LOT DESCRIBED AS FOLLOWS: BEGINNING AT SAID POINT IN THE EASTERLY LINE OF THE NORTHERLY PART OF SAID LOT, 784.12 FEET SOUTHEASTERLY OF THE NORTHERLY CORNER THEREOF; THENCE NORTHWESTERLY ALONG SAID LINE THAT FORMS AN ANGLE OF 90 DEGREES 09 MINUTES AFORESAID, A DISTANCE OF 8.50 FEET; THENCE NORTHEASTERLY 812.46 FEET TO A POINT IN THE SOUTHWESTERLY LINE OF ALGONQUIN ROAD; THENCE SOUTHEASTERLY ON SAID LINE, BEING CURVED AND CONVEX TO THE NORTH AND HAVING A RADIUS OF 9,499.34 FEET, A DISTANCE OF 50.04 FEET TO A POING IN THE NORTHERLY LINE OF LOT 10 IN THE DIVISION OF THE EAST 1/2 OF SAID NORTHWEST 1/4; THENCE NORTHWESTERLY ON SAID LINE, BEING IDENTICAL WITH THE BOUNDARY LINE OF SAID LOT 2, 36.36 FEET TO THE NORTHERLY CORNER OF THE SAID EASTERLY LINE OF THE NORTHERLY PART OF SAID LOT; THENCE SOUTHWESTERLY ON SAID LINE, 784.12 FEET TO THE PLACE OF BEGINNING, IN COOK COUNTY, ILLINOIS.

"5":
A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS FOR THE BENEFIT OF PARCEL 2 AS CREATED BY THE GRANT DATED OCTOBER 4, 1978 AND RECORDED NOVEMBER 27, 1978 AS DOCUMENT NUMBER 24738091, AND AS AMENDED FROM TIME TO TIME OVER AND ACROSS THE EAST 22 FEET OF LOT "B" IN WEBER ATRIUM RESUBDIVISION IN THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

"6":
A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS FOR THE BENEFIT OF PARCEL 6 AS CREATED BY THE OAK POINT PLAT OF DEDICATION RECORDED JANUARY 16, 2003 AS DOCUMENT NUMBER 0030079992, IN COOK COUNTY ILLINOIS. OVER AND ACROSS A 22 FOOT WIDE STRIP AS SHOWN THEREIN.

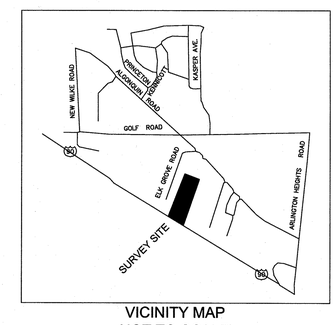
"7":
A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS FOR THE BENEFIT OF PARCEL 2 CREATED BY THE PLAT OF THE FINAL WEBER'S RESUBDIVISION RECORDED MARCH 31, 2003 AS DOCUMENT NUMBER 0030435526, IN COK COUNTY ILLINOIS, OVER AND ACROSS OUTLOT 'B' AND THE 60 FOOT WIDE NON-EXCLUSIVE INGRESS AND EGRESS EASEMENT AREA DEPICTED THEREIN.

"8":
A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS FOR THE BENEFIT OF PARCEL 2 AS CREATED BY THE GRANT RECORDED MARCH 23, 2006 AS DOCUMENT NUMBER 0608244082, IN COOK COUNTY, ILLINOIS, OVER AND ACROSS VARIOUS PARCELS AS SHOWN THEREIN.



Legend:

- Storm MH
- Storm CB
- Storm Inlet
- Storm Inlet
- San MH
- San Storm Combo 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
- Electric MH
- Electric Vault
- Electric Hand Hole
- Electric Pad
- Electric Meter
- Electric Pedestal
- Electric Light Pole
- Electric Traffic Signal
- Electric Light Pole with Traffic Signal
- Electric Traffic Control Box
- Electric Traffic Vault
- Electric Ground Light
- Electric Mounted Wall Light
- Gas Buffalo Box
- Gas Hand Hole
- Gas Meter
- Gas Valve
- Gas MH
- Gas Vault
- Cable TV Pedestal
- Tree – Deciduous
- Tree – Evergreen
- Parking Meter
- Parking Pay Box
- Sign Post
- Mail Box
- Bumper Post
- Bike Rack
- Soil Boring
- Unclassified Manhole
- Auto Sprinkler
- Hose Connection
- Fire Alarm
- Flag Pole
- Monitoring Well



VICINITY MAP
NOT TO SCALE

SURVEY NOTE:

THIS SURVEY WAS PREPARED BASED ON CHICAGO TITLE INSURANCE COMPANY COMMITMENT ORDER NO.: 17006767NS EFFECTIVE DATE: APRIL 18, 2017, PARCEL 2 ONLY AS TO MATTERS OF RECORD.

ITEMS LISTED IN SCHEDULE "B"

G 19. (A) Terms, provisions, and conditions relating to the easement described as Parcel 'C' contained in the instrument creating said easement.
(B) Rights of the adjoining owner or owners to the concurrent use of said easement.

O 27. Easements, terms, provisions and conditions contained in the easement agreement executed by and between Joseph A. Weber, Jr., trustee of the Joseph A. Weber, Jr. Declaration of trust dated May 1, 1975, as amended; Arlington Oak Pointe L.L.C., an Illinois Limited Liability Company; Weber Marking Systems, Inc., an Illinois Corporation and LaSalle Bank National Association, as Successor Trustee to American National Bank and Trust Company of Chicago, as trustee known as trust number 795, recorded March 23, 2006 as document 0608244082. (Affects the land and other property) [PLOTTED]

P 28. We have examined the Plat of survey by American surveying and mapping dated November 12, 2009 and revised April 16, 2010, number 0R090590 and note the following; Encroachment of a wide concrete wall located mainly on the property Easterly and adjoining, onto land by up to 2.3 feet.

R 30. Rights of way for drainage tiles, ditches, feeders and laterals, If Any.

S 31. Easement 30.00 feet in width for sanitary sewer and water main lying parallel with and adjoining the Northeasterly line of the Northern Illinois Toll Highway right of way as condemned by the Village of Arlington Heights Municipality Corporation, in case no. 69CO45. [PLOTTED]

T 32. Grant of easement recorded July 5, 1979 as document 25035435 and re-recorded June 10, 1980 as document 25482470 made by Mount Prospect State Bank, as trustee under trust agreement dated August 1, 1978 and known as trust nos. 795 and 796 to the Commonwealth Edison Company for the purpose of constructing, operating etc., all equipment necessary for the underground transmission of electricity for the Subdivision. Easement over the land described on Exhibit 'A' attached thereto. (Affects the land and other property) [PLOTTED]

W 35. Easement agreement made and entered into by and between Joseph A. Weber, Jr., trustee of the Joseph A. Weber, Jr. Declaration of trust, originally dated May 1, 1975, as amended; Arlington Oak Pointe L.L.C., an Illinois Limited Liability Company; Weber Marking Systems, Inc., an Illinois Corporation and LaSalle Bank National Association, as successor Trustee to Mount Prospect State Bank, a corporation of Illinois, as trustee under trust agreement dated August 1, 1978 and known as trust number 795 recorded March 23, 2006 as document 0608244082. (For further particulars, see record.) (Affects the land and other property) [PLOTTED]

Y 37. Easement dated July 6, 1966 and recorded August 16, 1966 as document 19917611 as contained in the Plat of Survey over:
That part of Lot 2 in Caudill's Subdivision aforesaid lying North of the North line of Illinois Toll Highway and Westerly of the West line of Algonquin Road, State Route Number 62 as widened per document 11195782, beginning at a point on the North line of Lot 2 with the intersection of the Southwesterly line of Algonquin Road, a distance of 136.40 feet for a point of beginning; thence continuing Southeasterly along said Southwesterly line of Algonquin Road, a distance of 44.27 feet to the Easterly line of said Lot 2, extended North; thence Southwesterly along said Easterly line of Lot 2 a distance of 1335.07 feet to an angle point in said lot; thence Northwesterly along a line parallel with the Southeasterly line of said Lot 2 a distance of 1335.07 feet to the point of beginning; thence Southeasterly 7.00 feet (measured at right angles) of described premises to be an easement for gas and sewers, the Northwesterly 22.00 feet of the Southeasterly 29.00 feet (both measured at right angles) of described premises to be easement for ingress and egress and Northwesterly 11.00 feet (measured at right angles) of described premises to be an easement for water and electric. (Affects part of Parcel 2) [PLOTTED]

Z 38. Easement over the East 17.00 feet (measured at right angles to the Easterly line of that part of the Land falling in Parcel "B") in favor of the Commonwealth Edison Company, a Corporation of Illinois, and the Illinois Bell Telephone Company, a corporation of Illinois, to construct and maintain thereof facilities, together with right of access thereto as granted by instrument recorded April 26, 1970 as document 21144931. (Affects part of Parcel 2) [PLOTTED]

AA 39. Easement over the Southerly 25.00 feet of Parcel "A" in favor of the Commonwealth Edison Company, a Corporation of Illinois, to construct, maintain and operate electrical equipment together with the right of access thereto as created by grant dated October 14, 1966 and recorded October 25, 1966 as document 19977407. (Affects part of Parcel 2) [PLOTTED]

AB 40. Easement over the Northwesterly 11.00 feet of the Southeasterly 40.00 feet measured at right angles to the Southeasterly line of the land in favor of the Commonwealth Edison Company and the Illinois Bell Telephone Company, to construct, maintain and operate their facilities together with the right of access as created by Grant dated October 26, 1966 and recorded February 15, 1967 as document 20063955. (Affects part of Parcel 2) [PLOTTED]

AC 41. Easement for water main over the Southwesterly 30.00 feet of that part of the Northeasterly right of way line of the Northern Illinois Toll Highway (except that part of said Southwesterly 30.00 feet lying Northwesterly of and adjoining a line drawn 40.00 feet Northwesterly of and parallel with the most Westerly Southeast line of said Lot 2 and said line extended Southwesterly) also an easement for water main under the Northwesterly 10.00 feet of the Southeasterly 40.00 feet lying Northwesterly of and adjoining the most Westerly Southeast line of Lot 2 and said line extended Southwesterly as shown on the Plat of Easement Dated July 21, 1968 and recorded August 8, 1969 as document 20922014. (Affects part of Parcel 2) [PLOTTED]

AD 42. Easement over the West 22.00 feet of the land in favor of a dominent tenement described as Lot "B", in Weber Atrium Resubdivision for ingress and egress over, under and across the easement premises and incidental purposes, as created by grant made by Mount Prospect State Bank, as trustee under trust numbers 795 and 796, to Weber Marketing Systems, Inc., recorded November 27, 1978 as document 24738092 and the covenant, conditions and agreements therein contained. (Affects part of Parcel 2) [PLOTTED]

AE 43. Reservation of an easement for the use of sanitary sewers presently located on Parcel "A" to Weber Marketing Systems, Inc., grantor in the warranty deed to John E. Roberts dated September 8, 1977 and recorded November 2, 1977 as document 24176551, as disclosed by said deed of conveyance. (Affects Parcel 2) [PLOTTED]

AF 44. Covenants, conditions and restrictions contained in grant of easement recorded November 2, 1977 as document 24176553 including but not limited to maintenance of the easement. (Affects Parcel 2) [PLOTTED]

AG 45. Terms, provisions and conditions relating to the easement described as Parcel No. 2 contained in the instrument creating such easement.

AH 46. Rights of the adjoining owner or owners to the concurrent use of the easement.

AJ 48. Easement in, upon, under, over and along a strip of land 5 feet in width adjoined to and parallel with and lying Southwesterly of the Southwesterly right of way line of Algonquin Road, to install and maintain all equipment for the purpose of serving the land and other property with telephone and electric service and together with right of access to said equipment as created by grant to Illinois Bell Telephone Company and the Commonwealth Edison Company, their respective successors and assigns, recorded April 6, 1978 as document number 24391507. (Affects Parcel 2 - "3", "4" and "7") [PLOTTED]

AK 49. Easement in favor of the Commonwealth Edison Company, its successors and/or assigns, for public utility purposes, and rights and equipment appurtenant thereto, as estalbished by the grant recorded as document number 19977407 and as depicted on the plat of Weber Atrium Resubdivision recorded as document number 24731232, and the terms and provisions contained in said instruments.
(Affects the Southwesterly 25 feet of Parcel 2 -"1") [PLOTTED]

AL 50. Easement over a strip of Land five feet in width adjacent to, parallel with and lying Southwesterly of the Southwesterly right of way line of Algonquin road, the right to construct, reconstruct, add to, remove, operate and maintain its communications system, consisting of such wires, cables, conduits, terminals , manholes and other fixtures as the grantee may from time to time require for the purpose of telecommunications, and to clear and keep cleared such trees, roots, bushes and other obstructions from the easement, as created Sy Grant to Illinois Bell Telephone Company, its successors and/or assigns, recorded February 24, 1978 as document number 24339866.
(Affects Parcel 2 - "3", "4" and "7") [PLOTTED]

AM 51. Easement for a water main, and rights and equipment appurtenant thereto, as estalbished by the grant recorded as document number 20922014 and as depicted on the plat of Weber Atrium Resubdivisions recorded as document number 24731232, and the terms and provisions contained in said instruments. (Affects the Southwesterly 30 feet of Parcel 2 - "1") [PLOTTED]

AN 52. Rights, if any, of public and quasi-public utilities in the Land as disclosed by storm catch basins, storm manholes, sanitary manholes, electrical vaults and manholes as shown on the survey.

AO 53. Encroachment of the building located mainly on the land onto the easement shown herein at exception reference letter(s) "U" and "Z" as shown on plat of survey.

AP 54. Encroachment of the concrete slab located mainly on the land onto the easement shown herein at exception reference letter(s) "U" and "Z" as shown on Plat of survey.

ALL REMAINING ITEMS ARE NOT A MATTER OF THIS SURVEY.

ORDERED BY: DOWD DOWD & MERTES LTD.	CHECKED: RL	DRAWN: JM
ADDRESS: 715-723 W. ALGONQUIN RD.		

GREMLEY & BIEDERMANN
A DIVISION OF
PLCS, CORPORATION
LICENSE NO. 184-005332
PROFESSIONAL LAND SURVEYORS
4505 NORTH ELSTON AVENUE, CHICAGO, IL 60630
TELEPHONE: (773) 685-5102 FAX: (773) 286-4/84 EMAIL: INFO@PLCS-SURVEY.COM

ORDER NO.	DATE: MAY 9, 2017	PAGE NO.
2017-23961-001	SCALE: 1 INCH = 40 FEET	1 OF 1

G:\CAD\2017\2017-23961\2017-23961-001.dwg

SURVEY NOTES:

SURVEYOR'S LICENSE EXPIRES NOVEMBER 30, 2018

Note R. & 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 BEFORE damage is done.

For easements, building lines and other restrictions not shown on survey plat refer to your abstract, deed, contract, title policy and local building line regulations.

NO dimensions shall be assumed by scale measurement upon this plat.

Unless otherwise noted hereon the Bearing Basis, Elevation Datum and Coordinate Datum if used is ASSUMED.

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SURVEY NOTES:

PROPERTY APPEARS IN "OTHER AREAS" ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER FLOOD INSURANCE RATE MAP COOK COUNTY, ILLINOIS, MAP NO. 17031C 0211J, EFFECTIVE DATE AUGUST 19, 2008.

To: Arlington Heights 1, LLC
Chicago Title Insurance Company

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 7(a), 7(b)(1), 8, 9 and 20 of Table A thereof.

The field work was completed on MAY 9, 2017.

Date of Plat May 19, 2017

By: Robert G. Biedermann

Robert G. Biedermann
Professional Illinois Land Surveyor No. 2802

ROBERT G. BIEDERMANN
2802
PROFESSIONAL LAND SURVEYOR
STATE OF ILLINOIS
CHICAGO, ILLINOIS

BOUNDARY AND TOPOGRAPHIC SURVEY

BY

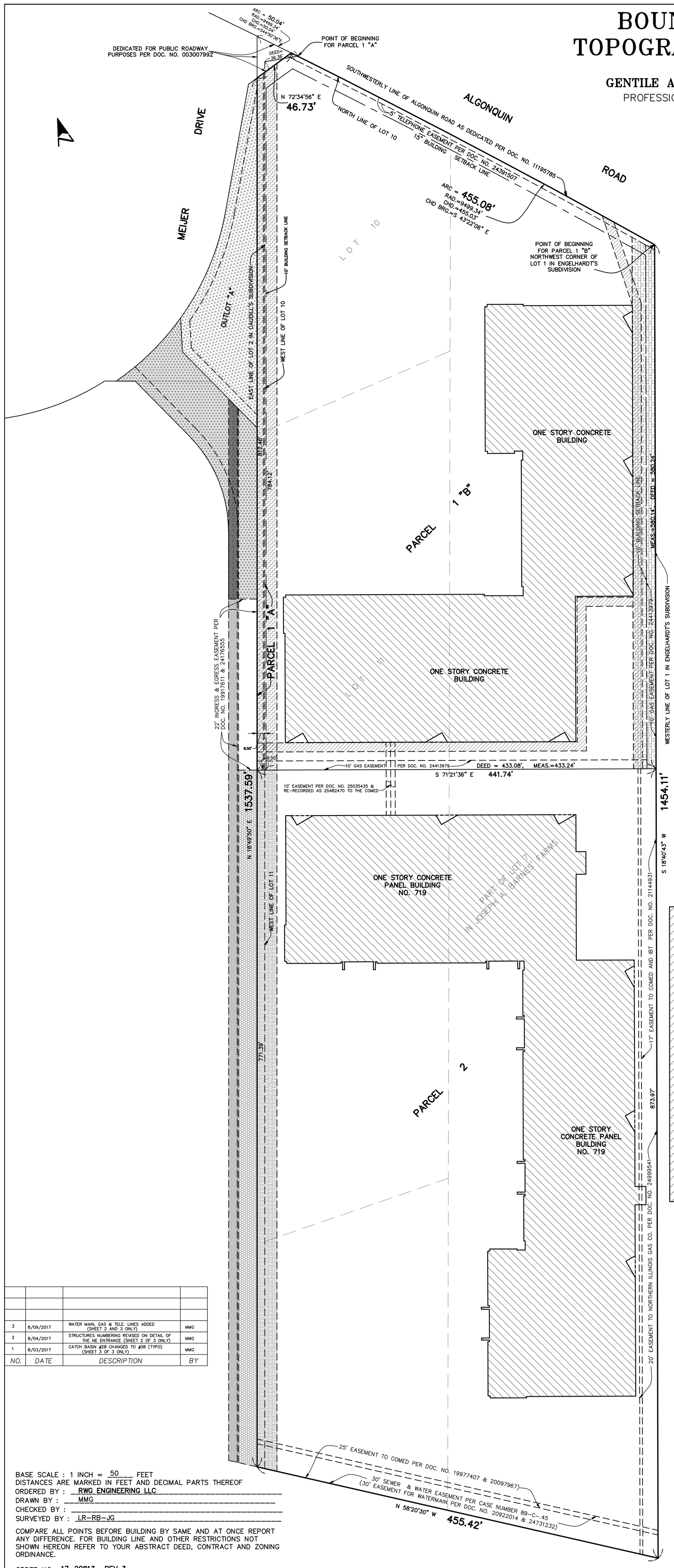
GENTILE AND ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



PARCEL 1:
"A":
A PORTION OF LOT 2 IN CAUDILL'S SUBDIVISION OF PART OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE SOUTHWESTERLY LINE OF ALGONQUIN ROAD, AS DEDICATED BY INSTRUMENT RECORDED FEBRUARY 2, 1933 AS DOCUMENT 11195785; AND THE NORTHERLY LINE OF LOT 10 IN THE DIVISION OF THE EAST 1/2 OF SAID NORTHWEST 1/4; THENCE NORTHWESTERLY ON SAID NORTHERLY LINE, BEING IDENTICAL WITH A BOUNDARY LINE OF SAID LOT 2, 36.36 FEET TO THE WESTERLY LINE OF SAID LOT 10; BEING ALSO THE EASTERLY LINE OF SAID LOT 2; THENCE SOUTHWESTERLY ON SAID LINE AND CONTINUING ALSO THE WESTERLY LINE OF LOT 11 IN SAID DIVISION, 784.12 FEET; THENCE NORTHWESTERLY ALONG A LINE, THAT FORMS AN ANGLE OF 90 DEGREES,09 MINUTES WITH THE LAST DESCRIBED COURSE, AS MEASURED FROM NORTHWEST, 8.50 FEET; THENCE NORTHEASTERLY 812.46 FEET TO SAID SOUTHWESTERLY LINE OF ALGONQUIN ROAD; THENCE SOUTHEASTERLY ON SAID LINE, BEING CURVED AND CONVEX TO THE NORTH AND HAVING A RADIUS OF 9499.34 FEET, A DISTANCE OF 50.04 FEET TO THE PLACE OF BEGINNING, IN COOK COUNTY, ILLINOIS (EXCEPTING THEREFROM THAT PORTION DEDICATED FOR ROAD PURPOSES).
"B":
A PORTION OF LOTS 10 AND 11 IN THE DIVISION OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, AND ALSO, A PORTION OF LOT 7 IN JOSEPH A, BARNES' FARM IN SECTIONS 9, 15, AND 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWEST CORNER OF LOT 1 IN ENGELHARDT'S SUBDIVISION OF PART OF SAID LOT 7; THENCE SOUTHWESTERLY ON THE WESTERLY LINE OF SAID LOT, 580.24 FEET; THENCE NORTHWESTERLY AT RIGHT ANGLES TO SAID LINE, 433.08 FEET TO THE WESTERLY LINE OF AFORESAID LOT 11; THENCE NORTHEASTERLY ON SAID LINE AND CONTINUING ON THE WESTERLY LINE OF SAID LOT 10, 784.12 FEET TO THE NORTHERLY LINE OF SAID LOT 10; THENCE SOUTHEASTERLY ON SAID LINE, 36.36 FEET TO THE SOUTHEASTERLY LINE OF ALGONQUIN ROAD AS DEDICATED BY INSTRUMENT RECORDED FEBRUARY 2, 1933 AS DOCUMENT 11195785; THENCE SOUTHEASTERLY ON SAID LINE, BEING CURVED AND CONVEX TO THE NORTH AND HAVING A RADIUS OF 9499.34 FEET, A CHORD DISTANCE OF 447.46 FEET, TO THE PLACE OF BEGINNING, IN COOK COUNTY, ILLINOIS. (EXCEPTING FROM SAID PARCEL "A" AND "B" THAT PORTION DEDICATED FOR ROAD PURPOSES BY PLAT OF DEDICATION RECORDED JANUARY 16, 2003 AS DOCUMENT 0030079992, DESCRIBED AS FOLLOWS: THAT PART OF LOT 10 IN COUNTY CLERKS DIVISION, BEING A SUBDIVISION OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, AND THAT PART OF LOT 2, IN CAUDILL'S SUBDIVISION, BEING A SUBDIVISION IN THAT PART OF THE NORTHWEST 1/4 OF SAID SECTION 16; DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWESTERLY CORNER OF WEBER ATRIUM SUBDIVISION, BEING A SUBDIVISION IN THAT PART OF THE NORTHWEST 1/4 OF SAID SECTION 16; THENCE SOUTHEASTERLY ALONG THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF ALGONQUIN ROAD (IL. ROUTE 62) AS RECORDED FEBRUARY 2, 1933 AS DOCUMENT 11195785 AND 1119782, SAID SOUTHWESTERLY RIGHT-OF-WAY LINE BEING A TANGENTIAL CURVE CONCAVE TO THE NORTHEAST RADIUS 9499.34 FEET, CENTRAL ANGLE 01 DEGREES 02 MINUTES, 14 SECONDS 171.96 FEET (THE CHORD BEARS A ILLINOIS EAST GRID BEARING OF SOUTH 45 DEGREES 31 MINUTES 18 SECONDS WEST 171.96 FEET) TO THE NORTHEASTERLY CORNER OF LOT "B" IN WEBER ATRIUM SUBDIVISION, SAID NORTHEASTERLY CORNER, BEING THE POINT OF BEGINNING; THENCE SOUTH 18 DEGREES 41 MINUTES 30 SECONDS WEST 46.26 FEET ALONG SAID EASTERLY LINE; THENCE SOUTH 72 DEGREES 30 MINUTES 06 SECONDS EAST TO A POINT OF INTERSECTION WITH THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF SAID ALGONQUIN ROAD (IL. ROUTE 62); THENCE NORTHWESTERLY ALONG SAID SOUTHWESTERLY RIGHT-OF-WAY LINE BEING A TANGENTIAL CURVE CONCAVE TO THE NORTHEAST RADIUS 9499.34 FEET, CENTRAL ANGLE 00 DEGREES 15 MINUTES 13 SECONDS, 42.04 FEET, (THE CHORD BEARS NORTH 44 DEGREES 52 MINUTES 35 SECONDS WEST 42.04 FEET) TO THE POINT OF BEGINNING).

PARCEL 2:
LOT "A" IN WEBER ATRIUM RESUBDIVISION IN THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY ILLINOIS.

CONTAINING: 671,461.46 sq. ft. (15.41 acres)

LEGEND

- TREE WITH TRUNK DIAM. SIZE
- UTILITY POLE
- LIGHT POLE
- SIGN POST
- UTILITY PEDESTAL
- CLOSED COVER DRAINAGE STRUCTURE
- FIRE HYDRANT
- OPEN COVER DRAINAGE STRUCTURE
- SANITARY SEWER MANHOLE
- WATER SHUTOFF VALVE WITH 8" CASING
- CURB INLET/CATCH BASIN
- GAS SERVICE SHUTOFF VALVE
- TELEPHONE SERVICE VAULT
- TRAFFIC SIGNAL LIGHT
- TRAFFIC SIGNAL CONTROL VAULT
- GUY WIRE (ANCHOR)
- BOLLARD
- SOIL BORING
- OVERHEAD WIRES (# OF WIRES)
- UNDERGROUND ELECTRIC
- STORM SEWER
- SANITARY SEWER
- WATER MAIN

XXX.X GROUND ELEVATION
XXX.XX PAVEMENT ELEVATION
FIN/FL = FINISHED FLOOR ELEVATION
T/FDN = TOP OF FOUNDATION ELEVATION
T/W = TOP OF WALL

- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- 11' EASEMENT FOR WATER & ELECTRICAL PER DOC. NO. 19917611, COMED & ILLINOIS BEL TELEPHONE PER DOC. NO. 20063955 & 10' EASEMENT FOR WATERMAIN PER DOC. NO. 20922014
- NON-EXCLUSIVE INGRESS & EGRESS EASEMENT PER DOC. NO. 30435526 & 0608244082
- 7' EASEMENT FOR GAS & SEWER PER DOC. NO. 19917611
- 22' INGRESS & EGRESS EASEMENT PER DOC. NO. 24176553
- 22' INGRESS & EGRESS EASEMENT PER DOC. NO. 24738091 & 0608244082
- 10' TELEPHONE EASEMENT PER DOC. NO. 24339865
- 25' INGRESS & EGRESS EASEMENT PER DOC. NO. 24176554
- 22' INGRESS & EGRESS EASEMENT PER DOC. NO. 24738091 & 0608244082
- STORM WATER DRAINAGE & DETENTION EASEMENT PER DOC. NO. 30435526 **(OUTLOT "A")**

NO.	DATE	DESCRIPTION	BY
3	8/09/2017	WATER MAIN, GAS & TELE. LINES ADDED (SHEET 2 AND 3 ONLY)	MMG
2	8/04/2017	STRUCTURES NUMBERING REVISED ON DETAIL OF THE NE ENTRANCE (SHEET 2 OF 3 ONLY)	MMG
1	8/03/2017	CATCH BASIN #28 CHANGED TO #38 (TYPO) (SHEET 3 OF 3 ONLY)	MMG

BASE SCALE : 1 INCH = 50 FEET
DISTANCES ARE MARKED IN FEET AND DECIMAL PARTS THEREOF
ORDERED BY : RWG ENGINEERING LLC
DRAWN BY : MMG
CHECKED BY :
SURVEYED BY : LR-RB-JG

COMPARE ALL POINTS BEFORE BUILDING BY SAME AND AT ONCE REPORT ANY DIFFERENCE. FOR BUILDING LINE AND OTHER RESTRICTIONS NOT SHOWN HEREON REFER TO YOUR ABSTRACT DEED, CONTRACT AND ZONING ORDINANCE.

ORDER NO. 17-20813- REV 3
SHEET 1 OF 3

STATE OF ILLINOIS
COUNTY OF DuPAGE S.S.

WE, GENTILE AND ASSOCIATES, INC,. HEREBY CERTIFY THAT A SURVEY HAS BEEN MADE AT AND UNDER MY DIRECTION, OF THE PROPERTY DESCRIBED ABOVE, AND THAT THE PLAT HEREON DRAWN IS A CORRECT REPRESENTATION OF SAID SURVEY. THIS PLAT CONFORMS TO THE MINIMUM STANDARD REQUIREMENTS FOR A BOUNDARY SURVEY.

JULY 27, A.D. 2017

BY :
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 2925
MY LICENSE EXPIRES NOVEMBER 30, 2018
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184.002870

BOUNDARY AND TOPOGRAPHIC SURVEY

BY

GENTILE AND ASSOCIATES, INC.

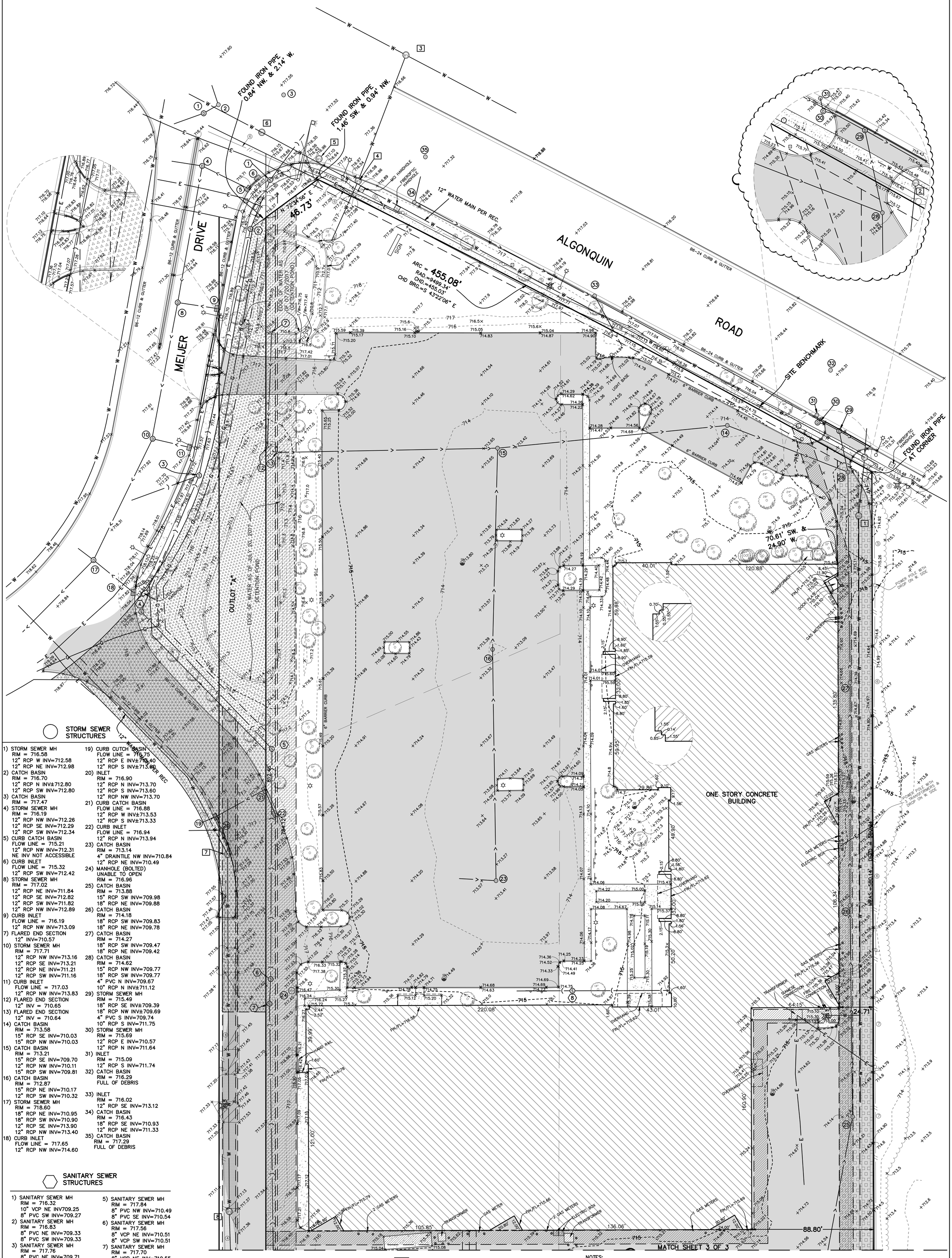
PROFESSIONAL LAND SURVEYORS

550 E. ST. CHARLES PLACE
LOMBARD, ILLINOIS 60148
PHONE : (630) 916-6262

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.



STORM SEWER STRUCTURES

1) STORM SEWER MH
RIM = 716.58
12" RCP W INV=712.58
12" RCP NE INV=712.98
2) CATCH BASIN
RIM = 716.70
12" RCP N INV±712.80
12" RCP SW INV=712.80
3) CATCH BASIN
RIM = 717.47
4) STORM SEWER MH
RIM = 716.19
12" RCP NW INV=712.26
12" RCP SE INV=712.29
12" RCP SW INV=712.34
5) CURB CATCH BASIN
FLOW LINE = 715.21
12" RCP NW INV=712.31
NE INV NOT ACCESSIBLE
6) CURB INLET
FLOW LINE = 715.32
12" RCP SW INV=712.42
8) STORM SEWER MH
RIM = 717.02
12" RCP NE INV=711.84
12" RCP SE INV=712.82
12" RCP SW INV=711.82
12" RCP NW INV=712.89
9) CURB INLET
FLOW LINE = 716.19
12" RCP NW INV=713.09
7) FLARED END SECTION
12" INV=710.57
10) STORM SEWER MH
RIM = 717.71
12" RCP NW INV=713.16
12" RCP SE INV=713.21
12" RCP NE INV=711.21
12" RCP SW INV=711.16
11) CURB INLET
FLOW LINE = 717.03
12" RCP NW INV=713.83
12) FLARED END SECTION
12" INV = 710.65
13) FLARED END SECTION
12" INV = 710.64
14) CATCH BASIN
RIM = 713.58
15" RCP SE INV=710.03
15" RCP NW INV=710.03
15) CATCH BASIN
RIM = 713.21
15" RCP SE INV=709.70
12" RCP NW INV=710.11
15" RCP SW INV=709.81
16) CATCH BASIN
RIM = 712.87
15" RCP NE INV=710.17
12" RCP SW INV=710.32
17) STORM SEWER MH
RIM = 718.60
18" RCP NE INV=710.95
18" RCP SW INV=710.90
12" RCP SE INV=713.90
12" RCP NW INV=713.40
18) CURB INLET
FLOW LINE = 717.65
12" RCP NW INV=714.60
19) CURB CUTCH BASIN
FLOW LINE = 716.75
12" RCP E INV±714.40
12" RCP S INV±713.80
20) INLET
RIM = 716.90
12" RCP N INV=713.70
12" RCP S INV=713.60
12" RCP NW INV=713.70
21) CURB CATCH BASIN
FLOW LINE = 716.88
12" RCP W INV±713.53
12" RCP S INV±713.33
22) CURB INLET
FLOW LINE = 716.94
12" RCP N INV=713.94
23) CATCH BASIN
RIM = 713.14
4" DRAINTILE NW INV=710.84
12" RCP NE INV=710.49
24) MANHOLE (BOLTED)
UNABLE TO OPEN
RIM = 716.96
25) CATCH BASIN
RIM = 713.88
15" RCP SW INV=709.98
18" RCP NE INV=709.88
26) CATCH BASIN
RIM = 714.18
18" RCP SW INV=709.83
18" RCP NE INV=709.78
27) CATCH BASIN
RIM = 714.27
18" RCP SW INV=709.47
18" RCP NE INV=709.42
28) CATCH BASIN
RIM = 714.62
15" RCP NW INV=709.77
18" RCP SW INV=709.77
4" PVC N INV=709.67
10" RCP N INV±711.12
29) STORM SEWER MH
RIM = 715.49
18" RCP SE INV±709.39
18" RCP NW INV±709.69
4" PVC S INV=709.74
10" RCP S INV=711.75
30) STORM SEWER MH
RIM = 715.69
12" RCP E INV=710.57
12" RCP N INV=711.64
31) INLET
RIM = 715.09
12" RCP S INV=711.74
32) CATCH BASIN
RIM = 716.29
FULL OF DEBRIS
33) INLET
RIM = 716.02
12" RCP SE INV=713.12
34) CATCH BASIN
RIM = 716.43
18" RCP SE INV=710.93
12" RCP NE INV=711.33
35) CATCH BASIN
RIM = 717.29
FULL OF DEBRIS

SANITARY SEWER STRUCTURES

1) SANITARY SEWER MH
RIM = 716.32
10" VCP NE INV709.25
8" PVC SW INV=709.27
2) SANITARY SEWER MH
RIM = 716.83
8" PVC NE INV=709.33
8" PVC SW INV=709.33
3) SANITARY SEWER MH
RIM = 717.76
8" PVC NE INV=709.71
8" PVC SW INV=709.71
8" PVC SW INV=709.81
4) SANITARY SEWER MH
RIM = 718.20
8" PVC NE INV=709.90
8" PVC SE INV=709.90
5) SANITARY SEWER MH
RIM = 717.84
8" PVC NW INV=710.49
8" PVC SE INV=710.54
6) SANITARY SEWER MH
RIM = 717.56
8" VCP NE INV=710.51
8" VCP SW INV=710.51
7) SANITARY SEWER MH
RIM = 717.70
8" VCP NE INV=710.55
8" VCP SW INV=710.55
8) SANITARY SEWER MH
RIM = 714.47
8" VCP NE INV=711.37
6" VCP SW INV=711.37

WATER VALVE VAULT

1) WATER VALVE VAULT
RIM = 712.72
TOP OF PIPE ± 706.57
2) WATER VALVE VAULT
RIM = 715.56
TOP OF PIPE = 710.66
3) WATER VALVE VAULT
(FULL OF WATER)
RIM = 715.19
TOP OF PIPE = 708.99
4) WATER VALVE VAULT
(FULL OF WATER)
RIM = 716.93
TOP OF PIPE = 711.83
5) WATER VALVE VAULT
(FULL OF WATER)
RIM = 716.58
6) WATER VALVE VAULT
RIM = 715.57
TOP OF PIPE = 711.19
7) WATER VALVE VAULT
RIM = 717.45
TOP OF PIPE = 712.75
8) WATER VALVE VAULT
RIM = 717.14
TOP OF PIPE = 711.84

NO.	DATE	DESCRIPTION	BY
3	8/09/2017	WATER MAIN, GAS & TELE. LINES ADDED (SHEET 2 AND 3 ONLY)	MMG
2	8/04/2017	STRUCTURES NUMBERING REVISED ON DETAIL OF THE NE ENTRANCE (SHEET 2 OF 3 ONLY)	MMG
1	8/03/2017	CATCH BASIN #28 CHANGED TO #38 (TYPO) (SHEET 3 OF 3 ONLY)	MMG

ORDER NO. 17-20813- REV 3

SHEET 2 OF 3

NOTES:

THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVE GROUND STRUCTURES AND RECORD DRAWINGS PROVIDED THE SURVEYOR. LOCATIONS OF UNDERGROUND UTILITIES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. BEFORE ANY EXCAVATION BEGINS ALL UTILITY COMPANIES SERVING THE PROPERTY SHOULD BE CONTACTED FOR VERIFICATION OF FIELD LOCATION.

BASIS OF BEARING:
ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE.

BENCHMARK: NGS PID DM3900

SURVEY DISK SET ON THE TOP OF THE SOUTH END OF THE EAST ABUTMENT OF THE GOLF ROAD BRIDGE NO 016-0349 OVER SALT CREEK, APPROXIMATELY 0.3 MI (0.5 KM) WEST OF THE INTERSECTION OF GOLF ROAD WITH NEW WILKE ROAD, 3 FT (0.9 M) SOUTH OF A CHAIN LINK FENCE. THE STATION IS LOCATED ABOUT 7.4 MI (11.9 KM) SOUTHWEST OF WHEELING, 4.3 MI (6.9 KM) SOUTH-SOUTHEAST OF PALATINE AND 3.0 MI (4.8 KM) SOUTH-SOUTHWEST OF ARLINGTON HEIGHTS. OWNERSHIP--ROAD RIGHT-OF-WAY.

ELEV. =695.85 (NAVD 88 DATUM)

SITE BENCHMARK:

CROSS CUT IN WALK ON THE SOUTH SIDE OF ALGONQUIN ROAD IN FRONT OF SUBJECT PROPERTY.

ELEV. = 616.17

BOUNDARY AND TOPOGRAPHIC SURVEY

BY

GENTILE AND ASSOCIATES, INC.

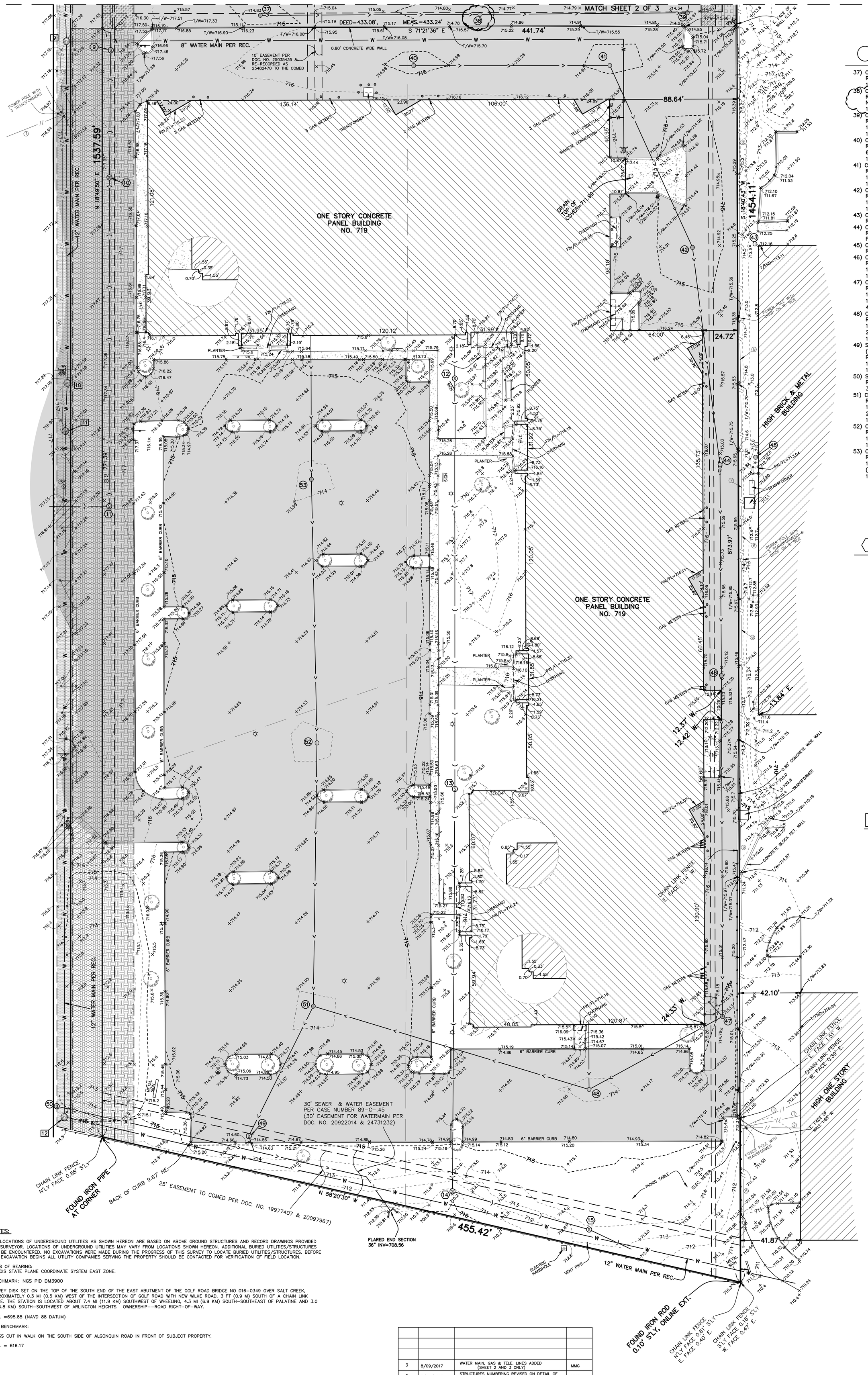
PROFESSIONAL LAND SURVEYORS

550 E. ST. CHARLES PLACE
LOMBARD, ILLINOIS 60148
PHONE : (630) 916-6262

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.



STORM SEWER STRUCTURES

37) CATCH BASIN
RIM = 714.48
12" RCP SE INV=710.88

38) CATCH BASIN
RIM = 714.27
NW INV NOT ACCESSIBLE
15" RCP SE INV=710.62

39) CATCH BASIN
RIM = 714.23
15" RCP NW INV=710.18
15" RCP NE INV=709.88

40) CATCH BASIN
RIM = 714.66
6" PVC NW INV=711.56
15" RCP SE INV=711.11

41) CATCH BASIN
RIM = 714.66
15" RCP NW INV=711.01
15" RCP S INV=711.21

42) CATCH BASIN
RIM = 714.11
18" RCP NW INV=710.51
18" RCP SW INV=710.51

43) CATCH BASIN
RIM = 712.21

44) CATCH BASIN
RIM = 714.88
FULL OF DEBRIS

45) CATCH BASIN
RIM = 712.09

46) CATCH BASIN
RIM = 714.91
18" RCP NE INV=709.71
18" RCP SW INV=709.86

47) CATCH BASIN
RIM = 714.69
18" RCP NE INV=709.84
18" RCP SW INV=709.89
4" DUCTILE NW INV=712.09

48) CATCH BASIN
RIM = 713.75
18" RCP NE INV=710.15 (WITH DEBRIS)
21" RCP NW INV=710.30
18" RCP NE INV=710.10

49) STORM SEWER MH
(RESTRICTOR MH)
RIM =714.57
18" RCP SE INV=709.75
18" RCP NE INV=709.75

50) STORM SEWER MH
RIM = 715.82
36" RCP SE INV=709.02

51) CATCH BASIN
RIM = 713.62
18" RCP SW INV=709.62
21" RCP SE INV=709.52
18" RCP NE INV=709.52

52) CATCH BASIN
RIM = 713.72
18" RCP NE INV=709.97
18" RCP SW INV=709.90

53) CATCH BASIN
RIM = 713.70
18" RCP SW INV±710.10
(PIPE COLLAPSED)
12" RCP NE INV=710.30

SANITARY SEWER STRUCTURES

9) SANITARY SEWER MH
RIM = 717.19
8" VCP NE INV=711.04
8" VCP SE INV=711.04
6" VCP NW INV=711.69

10) SANITARY SEWER MH
RIM = 717.29
8" VCP NE INV=711.37
8" VCP SW INV=711.37

11) SANITARY SEWER MH
RIM = 717.22
8" VCP NE INV=712.02
8" VCP NW INV=712.02

12) SANITARY SEWER MH
RIM = 715.63
6" VCP NE INV=710.14
6" VCP SW INV=710.11

13) SANITARY SEWER MH
RIM = 715.49
8" VCP NE INV=707.69
8" VCP SW INV=707.69

14) SANITARY SEWER MH
RIM = 710.69
8" VCP NE INV=703.84
8" VCP SE INV=703.79

15) SANITARY SEWER MH
RIM = 713.90
8" VCP NW INV=699.87
8" VCP SE INV=699.17

WATER VALVE VAULT

9) WATER VALVE VAULT
RIM = 717.12
TOP OF PIPE = 712.12

10) WATER VALVE VAULT
RIM = 717.00
TOP OF PIPE = 709.70

11) WATER VALVE VAULT
RIM = 717.05
TOP OF PIPE = 709.40

12) WATER VALVE VAULT
RIM = 715.24
TOP OF PIPE = 707.24

NOTES:

THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVE GROUND STRUCTURES AND RECORD DRAWINGS PROVIDED THE SURVEYOR. LOCATIONS OF UNDERGROUND UTILITIES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. BEFORE ANY EXCAVATION BEGINS ALL UTILITY COMPANIES SERVING THE PROPERTY SHOULD BE CONTACTED FOR VERIFICATION OF FIELD LOCATION.

BASIS OF BEARING:
ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE.

BENCHMARK: NGS PID DM3900

SURVEY DISK SET ON THE TOP OF THE SOUTH END OF THE EAST ABUTMENT OF THE GOLF ROAD BRIDGE NO 016-0349 OVER SALT CREEK, APPROXIMATELY 0.3 MI (0.5 KM) WEST OF THE INTERSECTION OF GOLF ROAD WITH NEW WILKE ROAD, 3 FT (0.9 M) SOUTH OF A CHAIN LINK FENCE. THE STATION IS LOCATED ABOUT 7.4 MI (11.9 KM) SOUTHWEST OF WHEELING, 4.3 MI (6.9 KM) SOUTH-SOUTHEAST OF PALATINE AND 3.0 MI (4.8 KM) SOUTH-SOUTHWEST OF ARLINGTON HEIGHTS. OWNERSHIP--ROAD RIGHT-OF-WAY.

ELEV. =695.85 (NAVD 88 DATUM)

SITE BENCHMARK:

CROSS CUT IN WALK ON THE SOUTH SIDE OF ALGONQUIN ROAD IN FRONT OF SUBJECT PROPERTY.

ELEV. = 616.17

NO.	DATE	DESCRIPTION	BY
3	8/09/2017	WATER MAIN, GAS & TELE. LINES ADDED (SHEET 2 AND 3 ONLY)	MMG
2	8/04/2017	STRUCTURES NUMBERING REVISED ON DETAIL OF THE NE ENTRANCE (SHEET 2 OF 3 ONLY)	MMG
1	8/03/2017	CATCH BASIN #28 CHANGED TO #38 (TYPO) (SHEET 3 OF 3 ONLY)	MMG

ORDER NO. 17-20813- REV 3
SHEET 3 OF 3

PRELIMINARY PLAT

HAMILTON PARTNERS–ARLINGTON HEIGHTS SUBDIVISION

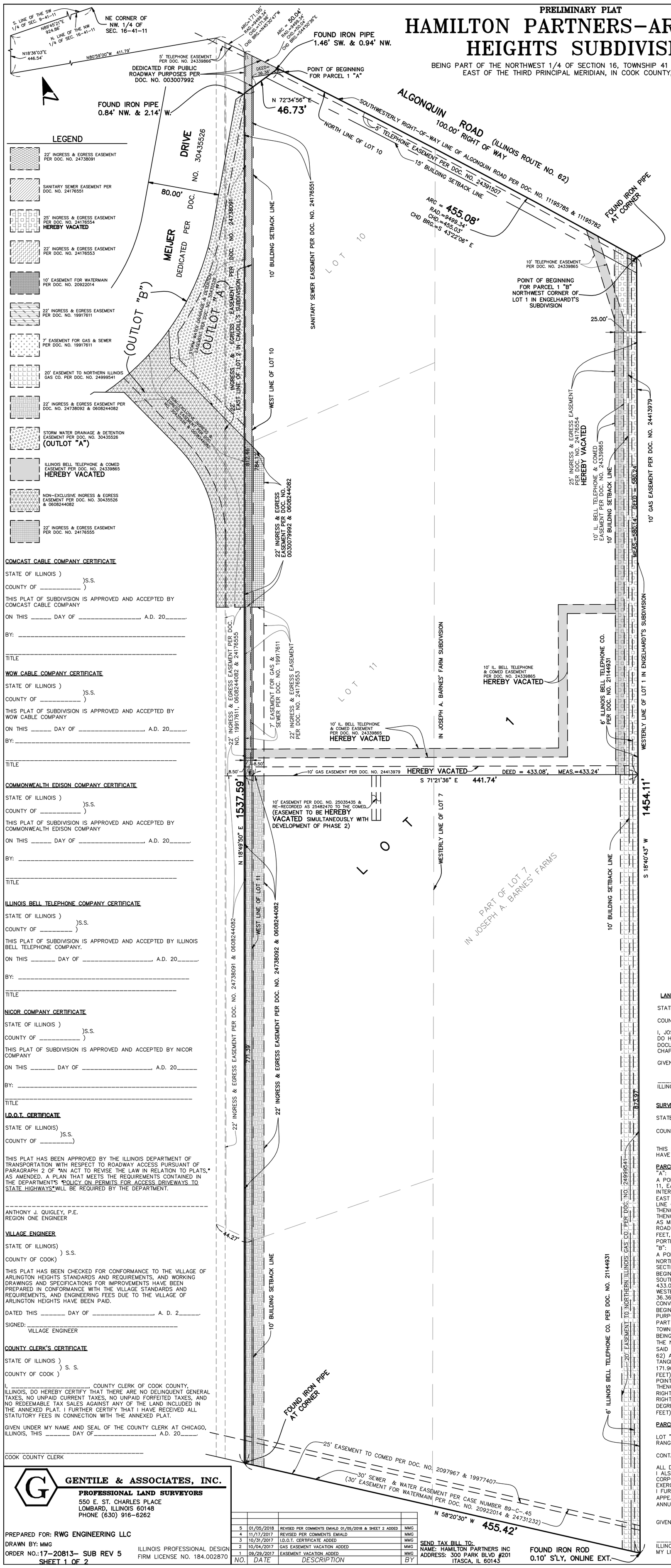
BEING PART OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS,

P.I.N.: 08–16–102–008–0000
–026–0000
–027–0000
–028–0000
–030–0000

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



LEGEND

- 22' INGRESS & EGRESS EASEMENT PER DOC. NO. 24738091
- SANITARY SEWER EASEMENT PER DOC. NO. 24176551
- 25' INGRESS & EGRESS EASEMENT PER DOC. NO. 24176554 **HEREBY VACATED**
- 22' INGRESS & EGRESS EASEMENT PER DOC. NO. 24176553
- 10' EASEMENT FOR WATERMAIN PER DOC. NO. 20922014
- 22' INGRESS & EGRESS EASEMENT PER DOC. NO. 19917611
- 7' EASEMENT FOR GAS & SEWER PER DOC. NO. 19917611
- 20' EASEMENT TO NORTHERN ILLINOIS GAS CO. PER DOC. NO. 24999541
- 22' INGRESS & EGRESS EASEMENT PER DOC. NO. 24738092 & 0608244082
- STORM WATER DRAINAGE & DETENTION EASEMENT PER DOC. NO. 30435526 **(OUTLOT "A")**
- ILLINOIS BELL TELEPHONE & COMED EASEMENT PER DOC. NO. 24339865 **HEREBY VACATED**
- NON–EXCLUSIVE INGRESS & EGRESS EASEMENT PER DOC. NO. 30435526 & 0608244082
- 22' INGRESS & EGRESS EASEMENT PER DOC. NO. 24176555

COMCAST CABLE COMPANY CERTIFICATE

STATE OF ILLINOIS)
)S.S.
COUNTY OF _____)

THIS PLAT OF SUBDIVISION IS APPROVED AND ACCEPTED BY COMCAST CABLE COMPANY

ON THIS _____ DAY OF _____, A.D. 20_____.

BY: _____

_____
TITLE

WOW CABLE COMPANY CERTIFICATE

STATE OF ILLINOIS)
)S.S.
COUNTY OF _____)

THIS PLAT OF SUBDIVISION IS APPROVED AND ACCEPTED BY WOW CABLE COMPANY

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

BY: _____

_____
TITLE

COMMONWEALTH EDISON COMPANY CERTIFICATE

STATE OF ILLINOIS)
)S.S.
COUNTY OF _____)

THIS PLAT OF SUBDIVISION IS APPROVED AND ACCEPTED BY COMMONWEALTH EDISON COMPANY

ON THIS _____ DAY OF _____, A.D. 20_____.

BY: _____

_____
TITLE

ILLINOIS BELL TELEPHONE COMPANY CERTIFICATE

STATE OF ILLINOIS)
)S.S.
COUNTY OF _____)

THIS PLAT OF SUBDIVISION IS APPROVED AND ACCEPTED BY ILLINOIS BELL TELEPHONE COMPANY.

ON THIS _____ DAY OF _____, A.D. 20_____.

BY: _____

_____
TITLE

NICOR COMPANY CERTIFICATE

STATE OF ILLINOIS)
)S.S.
COUNTY OF _____)

THIS PLAT OF SUBDIVISION IS APPROVED AND ACCEPTED BY NICOR COMPANY

ON THIS _____ DAY OF _____, A.D. 20_____

BY: _____

_____
TITLE

I.D.O.T. CERTIFICATE

STATE OF ILLINOIS)
)S.S.
COUNTY OF _____)

THIS PLAT HAS BEEN APPROVED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION WITH RESPECT TO ROADWAY ACCESS PURSUANT OF PARAGRAPH 2 OF "AN ACT TO REVISE THE LAW IN RELATION TO PLATS," AS AMENDED. A PLAN THAT MEETS THE REQUIREMENTS CONTAINED IN THE DEPARTMENT'S "POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS" WILL BE REQUIRED BY THE DEPARTMENT.

_____
ANTHONY J. QUIGLEY, P.E.
REGION ONE ENGINEER

VILLAGE ENGINEER

STATE OF ILLINOIS)
) S.S.
COUNTY OF COOK)

THIS PLAT HAS BEEN CHECKED FOR CONFORMANCE TO THE VILLAGE OF ARLINGTON HEIGHTS STANDARDS AND REQUIREMENTS, AND WORKING DRAWINGS AND SPECIFICATIONS FOR IMPROVEMENTS HAVE BEEN PREPARED IN CONFORMANCE WITH THE VILLAGE STANDARDS AND REQUIREMENTS, AND ENGINEERING FEES DUE TO THE VILLAGE OF ARLINGTON HEIGHTS HAVE BEEN PAID.

DATED THIS _____ DAY OF _____, A. D. 2_____.

SIGNED: _____
VILLAGE ENGINEER

COUNTY CLERK'S CERTIFICATE

STATE OF ILLINOIS)
) S. S.
COUNTY OF COOK)

I, _____, COUNTY CLERK OF COOK COUNTY, ILLINOIS, DO HEREBY CERTIFY THAT THERE ARE NO DELINQUENT GENERAL TAXES, NO UNPAID CURRENT TAXES, NO UNPAID FORFEITED TAXES, AND NO REDEEMABLE TAX SALES AGAINST ANY OF THE LAND INCLUDED IN THE ANNEXED PLAT. I FURTHER CERTIFY THAT I HAVE RECEIVED ALL STATUTORY FEES IN CONNECTION WITH THE ANNEXED PLAT.

GIVEN UNDER MY NAME AND SEAL OF THE COUNTY CLERK AT CHICAGO, ILLINOIS, THIS _____ DAY OF_____, A.D. 20_____.

_____
COOK COUNTY CLERK

SCHOOL DISTRICT CERTIFICATE

STATE OF ILLINOIS)
) S.S.
COUNTY OF COOK)

GRADE SCHOOL DISTRICT # 59 ADDRESS: 2123 S. ARLINGTON HEIGHTS ROAD, ARLINGTON HEIGHTS, IL 60005
HIGH SCHOOL DISTRICT # 214 ADDRESS: 2121 S GOEBBERT RD, ARLINGTON HEIGHTS, IL 60005
JR. COLLEGE DISTRICT # 512 ADDRESS:1200 WEST ALGONQUIN ROAD, PALATINE, IL 60067

ON THIS _____ DAY OF _____, A.D. 20_____.

BY: _____, TITLE: _____

ATTEST: _____, TITLE: _____

OWNER'S CERTIFICATE

STATE OF _____)
) S.S.
COUNTY OF _____)

THIS IS TO CERTIFY THAT ARLINGTON HEIGHTS 1, LLC, AN ILLINOIS LIMITED COMPANY, IS THE RECORD OWNER OF THE PROPERTY DESCRIBE IN THE SURVEYOR'S CERTIFICATE AFFIXED HEREON, AND DOES HEREBY CONSENT TO THE GRANT OF EASEMENT DEPICTED HEREON.

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

_____
SIGNATURE
PLEASE TYPE/PRINT THE AUTHORIZED INDIVIDUAL'S NAME, TITLE, CORPORATION/COMPANY NAME, AND ADDRESS:

_____

_____

NOTARY CERTIFICATE

STATE OF _____)
)S.S.
COUNTY OF _____)

I, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE AFORESAID COUNTY AND STATE, DO HEREBY CERTIFY THAT THE FOREGOING SIGNATURE OF THE OWNER'S CERTIFICATE IS PERSONALLY KNOWN TO ME TO BE THE SAME PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND THAT SAID INDIVIDUAL APPEARED AND DELIVERED SAID INSTRUMENT AS A FREE AND VOLUNTARY ACT OF THE CORPORATION AND THAT SAID INDIVIDUAL DID ALSO THEN AND THERE ACKNOWLEDGE THAT HE OR SHE IS A CUSTODIAN OF THE CORPORATE SEAL OF SAID CORPORATION AND DID AFFIX SAID SEAL OF SAID CORPORATION TO SAID INSTRUMENT AS HIS OR HER OWN FREE AND VOLUNTARY ACT AND AS THE FREE AND VOLUNTARY ACT OF SAID CORPORATION, AS OWNER, FOR THE USES AND PURPOSES THEREIN SET FORTH IN THE AFORESAID INSTRUMENT.

GIVEN UNDER MY HAND AND NOTARIAL SEAL THIS _____ DAY OF

_____, A.D., 20_____.

_____
NOTARY

_____
PLEASE TYPE/PRINT NAME

VILLAGE CERTIFICATE

STATE OF ILLINOIS)
) S.S.
COUNTY OF COOK)

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

APPROVED BY THE PLAN COMMISSION AT A MEETING HELD _____

_____
CHAIRMAN

_____
SECRETARY

APPROVED BY THE VILLAGE BOARD OF TRUSTEES AT A MEETING HELD _____

_____
PRESIDENT

_____
VILLAGE CLERK

APPROVED BY THE VILLAGE COLLECTOR

_____
VILLAGE COLLECTOR

APPROVED BY THE DIRECTOR OF ENGINEERING

_____
VILLAGE DIRECTOR OF ENGINEERING

LAND SURVEYOR'S AUTHORIZATION

STATE OF ILLINOIS)
SS
COUNTY OF DU PAGE)

I, JOSEPH F. GENTILE, AN ILLINOIS PROFESSIONAL LAND SURVEYOR OF THE STATE OF ILLINOIS, LICENSE NUMBER 2925, DO HEREBY AUTHORIZE THE _____, ITS STAFF OR AUTHORIZED AGENT TO PLACE THIS DOCUMENT OF RECORD IN THE COUNTY RECORDER'S OFFICE IN MY NAME AND IN COMPLIANCE WITH ILLINOIS STATUTES CHAPTER 109 PARAGRAPH 2, AS AMENDED.

GIVEN UNDER MY HAND AND SEAL AT LOMBARD, ILLINOIS, THIS 22ND DAY OF SEPTEMBER A.D. 2017.

_____
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 2925

SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS)
) S.S.
COUNTY OF COOK)

THIS IS TO CERTIFY THAT I, _____, ILLINOIS PROFESSIONAL LAND SURVEYOR, NUMBER _____, HAVE SURVEYED AND CONSOLIDATED THE FOLLOWING DESCRIBED PROPERTY :

PARCEL 1:

"A":

A PORTION OF LOT 2 IN CAUDILL'S SUBDIVISION OF PART OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE SOUTHWESTERLY LINE OF ALGONQUIN ROAD AND THE NORTHERLY LINE OF LOT 10 IN THE DIVISION OF THE EAST 1/2 OF SAID NORTHWEST 1/4; THENCE NORTHWESTERLY ON SAID NORTHERLY LINE, BEING IDENTICAL WITH A BOUNDARY LINE OF SAID LOT 2, 36.36 FEET TO THE WESTERLY LINE OF SAID LOT 10; BEING ALSO THE EASTERLY LINE OF SAID LOT 2; THENCE SOUTHWESTERLY ON SAID LINE AND CONTINUING ALSO THE WESTERLY LINE OF LOT 11 IN SAID DIVISION, 784.12 FEET; THENCE NORTHWESTERLY ALONG A LINE, THAT FORMS AN ANGLE OF 90 DEGREES,09 MINUTES WITH THE LAST DESCRIBED COURSE, AS MEASURED FROM NORTHWEST, 8.50 FEET; THENCE NORTHEASTERLY 812.46 FEET TO SAID SOUTHWESTERLY LINE OF ALGONQUIN ROAD; THENCE SOUTHEASTERLY ON SAID LINE, BEING CURVED AND CONVEX TO THE NORTH AND HAVING A RADIUS OF 9499.34 FEET, A DISTANCE OF 50.04 FEET TO THE PLACE OF BEGINNING, IN COOK COUNTY, ILLINOIS (EXCEPTING THEREFROM THAT PORTION DEDICATED FOR ROAD PURPOSES).

"B":

A PORTION OF LOTS 10 AND 11 IN THE DIVISION OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, AND ALSO, A PORTION OF LOT 7 IN JOSEPH A, BARNES' FARM IN SECTIONS 9, 15, AND 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWEST CORNER OF LOT 1 IN ENGELHARDT'S SUBDIVISION OF PART OF SAID LOT 7; THENCE SOUTHWESTERLY ON THE WESTERLY LINE OF SAID LOT, 580.24 FEET; THENCE NORTHWESTERLY AT RIGHT ANGLES TO SAID LINE, 433.08 FEET TO THE WESTERLY LINE OF AFORESAID LOT 11; THENCE NORTHEASTERLY ON SAID LINE AND CONTINUING ON THE WESTERLY LINE OF SAID LOT 10, 784.12 FEET TO THE NORTHERLY LINE OF SAID LOT 10; THENCE SOUTHEASTERLY ON SAID LINE, 36.36 FEET TO THE SOUTHEASTERLY LINE OF ALGONQUIN ROAD; THENCE SOUTHEASTERLY ON SAID LINE, BEING CURVED AND CONVEX TO THE NORTH AND HAVING A RADIUS OF 9499.34 FEET, A CHORD DISTANCE OF 447.46 FEET, TO THE PLACE OF BEGINNING, IN COOK COUNTY, ILLINOIS. (EXCEPTING FROM SAID PARCEL "A" AND "B" THAT PORTION DEDICATED FOR ROAD PURPOSES BY PLAT OF DEDICATION RECORDED JANUARY 16, 2003 AS DOCUMENT 0030079992, DESCRIBED AS FOLLOWS: THAT PART OF LOT 10 IN COUNTY CLERKS DIVISION, BEING A SUBDIVISION OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, AND THAT PART OF LOT 2, IN CAUDILL'S SUBDIVISION, BEING A SUBDIVISION IN THAT PART OF THE NORTHWEST 1/4 OF SAID SECTION 16; DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWESTERLY CORNER OF WEBER ATRIUM SUBDIVISION, BEING A SUBDIVISION IN THAT PART OF THE NORTHWEST 1/4 OF SAID SECTION 16; THENCE SOUTHEASTERLY ALONG THE SOUTHWESTERLY RIGHT–OF–WAY LINE OF ALGONQUIN ROAD (IL. ROUTE 62) AS RECORDED FEBRUARY 2, 1933 AS DOCUMENT 11195785 AND 1119782, SAID SOUTHWESTERLY RIGHT–OF–WAY LINE BEING A TANGENTIAL CURVE CONCAVE TO THE NORTHEAST RADIUS 9499.34 FEET, CENTRAL ANGLE 01 DEGREES 02 MINUTES, 14 SECONDS 171.96 FEET (THE CHORD BEARS A ILLINOIS EAST GRID BEARING OF SOUTH 45 DEGREES 31 MINUTES 18 SECONDS WEST 171.96 FEET) TO THE NORTHEASTERLY CORNER OF LOT "B" IN WEBER ATRIUM SUBDIVISION, SAID NORTHEASTERLY CORNER, BEING THE POINT OF BEGINNING; THENCE SOUTH 18 DEGREES 41 MINUTES 30 SECONDS WEST 46.26 FEET ALONG SAID EASTERLY LINE; THENCE SOUTH 72 DEGREES 30 MINUTES 06 SECONDS EAST TO A POINT OF INTERSECTION WITH THE SOUTHWESTERLY RIGHT–OF–WAY LINE OF SAID ALGONQUIN ROAD (IL. ROUTE 62); THENCE NORTHWESTERLY ALONG SAID SOUTHWESTERLY RIGHT–OF–WAY LINE BEING A TANGENTIAL CURVE CONCAVE TO THE NORTHEAST RADIUS 9499.34 FEET, CENTRAL ANGLE 00 DEGREES 15 MINUTES 13 SECONDS, 42.04 FEET, (THE CHORD BEARS NORTH 44 DEGREES 52 MINUTES 35 SECONDS WEST 42.04 FEET) TO THE POINT OF BEGINNING).

PARCEL 2:

LOT "A" IN WEBER ATRIUM RESUBDIVISION IN THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY ILLINOIS.

CONTAINING: 671,461.46 sq. ft. (15.41 acres)

ALL DISTANCES ARE SHOWN IN FEET AND DECIMAL PARTS THEREOF.
I ALSO CERTIFY THAT THE LAND IS WITHIN THE VILLAGE OF ARLINGTON HEIGHTS OR WITHIN ONE AND A HALF MILES OF THE CORPORATE LIMITS OF THE VILLAGE OF ARLINGTON HEIGHTS WHICH HAS ADOPTED A COMPREHENSIVE PLAN AND MAP AND IS EXERCISING THE SPECIAL POWERS AUTHORIZED BY DIVISION 12 OF ARTICLE 11 OF THE ILLINOIS MUNICIPAL CODE AS AMENDED.
I FURTHER CERTIFY UPON INSPECTION OF FLOOD INSURANCE RATE MAP NO. 17031C0181J, EFFECTIVE DATE AUGUST 19, 2008, IT APPEARS THAT ALL OF THE SUBJECT PROPERTY SHOWN HEREON LIES WITH ZONE "X" (AREAS DETERMINED TO BE OUTSIDE 0.2% ANNUAL CHANCE FLOOD).

GIVEN UNDER MY HAND AND SEAL THIS 22ND DAY OF SEPTEMBER A.D. 2017.

_____
ILLINOIS PROFESSIONAL LAND SURVEYOR NO.
MY LICENSE EXPIRES NOVEMBER 30, 2018

GENTILE & ASSOCIATES, INC.
PROFESSIONAL LAND SURVEYORS
550 E. ST. CHARLES PLACE
LOMBARD, ILLINOIS 60148
PHONE (630) 916–6262

PREPARED FOR: RWG ENGINEERING LLC
DRAWN BY: MMG
ORDER NO.:17–20813– SUB REV 5
SHEET 1 OF 2

ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184.002870

NO.	DATE	DESCRIPTION	BY
5	01/05/2018	REVISED PER COMMENTS EMIALD 01/05/2018 & SHEET 2 ADDED	MMG
4	11/17/2017	REVISED PER COMMENTS EMIALD	MMG
3	10/31/2017	I.D.O.T. CERTIFICATE ADDED	MMG
2	10/04/2017	GAS EASEMENT VACATION ADDED	MMG
1	09/29/2017	EASEMENT VACATION ADDED	MMG

SEND TAX BILL TO:
NAME: HAMILTON PARTNERS INC
ADDRESS: 300 PARK BLVD #201
ITASCA, IL 60143

PRELIMINARY PLAT

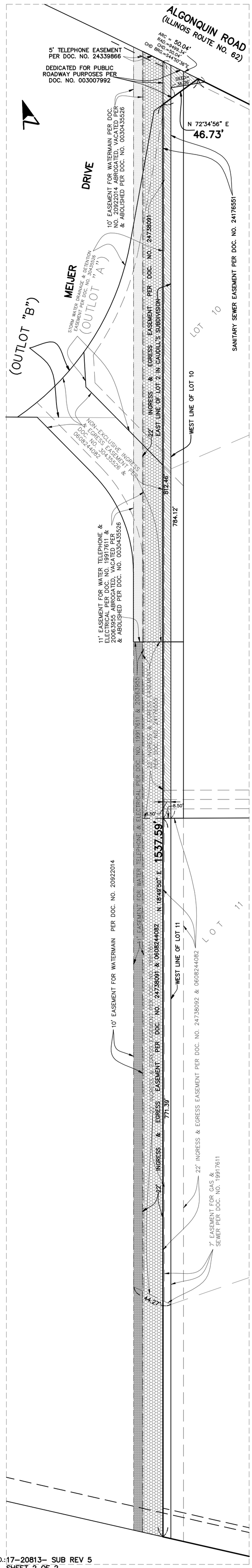
HAMILTON PARTNERS–ARLINGTON HEIGHTS SUBDIVISION

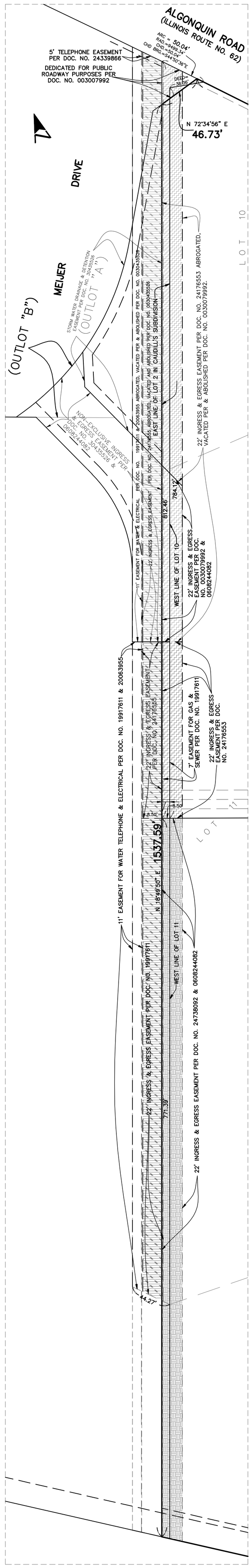
P.I.N.: 08–16–102–008–0000
–026–0000
–027–0000
–028–0000
–030–0000

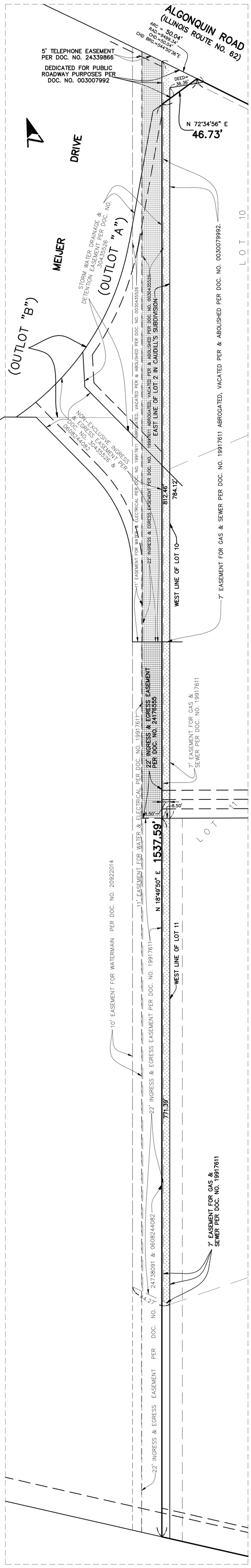
GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.







ORDER NO.: 17–20813– SUB REV 5
SHEET 2 OF 2

RWG Engineering, LLC

PROJECT NARRATIVE

AND

STORM DRAINAGE ANALYSIS

FOR

ARLINGTON HEIGHTS INDUSTRIAL
703-723 ALGONQUIN ROAD
ARLINGTON HEIGHTS, IL

PREPARED FOR:

MORGAN/HARBOUR CONSTRUCTION LLC
7510 SOUTH MADISON STREET
WILLOWBROOK, IL 60527
630-734-7737

PREPARED BY:

RWG Engineering, LLC

975 E. 22nd Street
Suite 400
Wheaton, Illinois 60189
(630) 480-7889

JOB# 322-127-17-301
OCTOBER 18, 2017

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- Arlington Heights Storage Volume Calculation Sheets With Allowable Release Rate -- Ph 1 Temporary, Ph 1 Build-Out & Ph 2 (3 pages)
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- Proposed Master Drainage Area Exhibit (1 – 11x17 page)

RWG Engineering, LLC
Civil Engineering • Real Estate Consulting • Project Management

975 E. 22nd Street, Suite 400,
Wheaton IL 60189
630.480.7889
www.rwg-engineering.com

October 18, 2017
File: 322-127-17

Arlington Heights Industrial

703-723 Algonquin Road
Arlington Heights, IL
15.41 Acre Property

Narrative Description of Proposed Development
(Refer Also to Final Engineering Plans, Notes and Exhibits.)

General:
The subject parcel is located southeasterly of Algonquin Road and Meijer Drive in Arlington Heights, Illinois. The Jane Adams Memorial Tollway (I-90) is along the southern boundary of the property. Currently, two light industrial/office buildings are on the site. The northern building is on existing Parcel 1, which consists of 7.04 acres. The southern building is on existing Parcel 2, which consists of 8.37 acres. The proposed improvements include one building of approximately 331,000 sq ft for warehousing/distribution. Construction is to proceed in two phases. The first phase would be on existing Parcel 1, during which time the existing building on Parcel 2 would remain operational. With the Phase 2 improvements, the Phase 1 building would extend into the Parcel 2 area. Since the site currently consists of two parcels, a Plat of Subdivision combining the site into one lot is proposed.

Stormwater Management:
The existing Parcel 1 drains to the north with a storm drain connection at the northeast corner of the parcel to the existing 18" storm sewer along the southerly side of Algonquin Road. Storm water discharge from the site is controlled by an existing 4" PVC pipe, as well as a secondary 10" RCP pipe at a higher elevation. The existing overland flow from Parcel 1 to Algonquin Rd is within the easterly driveway at an approximate elevation of 715.43. No improvements to this existing driveway are proposed within the Algonquin Rd right-of- way. Therefore, for design purposes an overflow elevation of 715.4 is used. At the 715.4 elevation, the existing 4" PVC has a release of approximately 0.69 cfs and the 10" RCP has a release of 4.44 cfs, for a total of 5.13 cfs.

The existing Parcel 2 drains to the south, via an existing 18" RCP pipe, which connects to an existing 36" storm sewer with discharge to an open waterway along the north side of I-90. No restrictor was located within the existing 18" RCP storm sewer. The existing overland flow from parcel 2 is to the south at an approximate elevation of 715.0. At this 715.0 overflow elevation, the existing release thru the 18" RCP is approximately 21.17". Since there is no offsite area tributary to Parcel 2 which would be impacted by a slight rise in the overflow elevation, a 715.4 high water level (HWL)/overflow elevation is used for both the Phase 1 and Phase 2 site improvements.

Stormwater detention requirements were reviewed for both the Village of Arlington Heights, and the Metropolitan Water Reclamation District of Greater Chicago (MWRD) criteria. Also, the MWRD volume control requirements were reviewed. Since there are some slight deviations in the Phase 2 improvements draining to the north from the proposed site improvements with Phase 1, both conditions were reviewed. In consideration of the worst case scenario, the proposed design implements the more restrictive criteria. A Drainage Summary Sheet, Table 1, is attached which provides a summary of the allowable release rate, as well as the detention, and volume control requirements for the various scenarios.

For the north drainage area in the proposed condition, the existing 4" PVC is to remain, and a 3-1/8" orifice plate is to be provided in the existing 10" RCP. This results in a total release of 1.21 cfs at the 715.4 elevation. For the south drainage area, a 5" orifice plate is proposed for the 18" RCP, restricting the release to 1.53 cfs at the 714.4 HWL.

The detention volumes associated with the above design release rates were reviewed. Per the attached calculations, using these design release rates, the detention storage volume for the north area would be 2.69 ac-ft, and 3.16 ac-ft for the south, phase 2 area.

A Summary of Storage Provided, Table 2, is attached outlining the storage volumes provided in the respective basins and locations. Although, there may be some minor refinement of allocations between detention and volume control storage in the underground basins, the total volumes provided are appropriate based on both the Village of Arlington Heights and the MWRD criteria. As noted, stormwater storage is provided in a combination of areas, including vegetated/open water basins, underground storage, pipe storage, and surface ponding in the truck dock areas. It is noted the ponding in the truck dock areas will occur during the more intense storms only, with the proposed rims at a 714.05 elevation. Therefore, at the upper elevations of the detention storage system, a maximum water depth of 1.35' would be expected at the 715.4 HWL/overflow elevation.

10/12/2017

TABLE 1 -- ARLINGTON HEIGHTS INDUSTRIAL - DRAINAGE SUMMARY SHEET

VILLAGE OF ARLINGTON HEIGHTS CRITERIA:

	Temp. DRAINAGE AREA (Ac.)	Offsite DRAINAGE AREA (Ac.)	Temp.TOTAL AREA (Ac.)	DRAINAGE AREA (Ac.)	Offsite DRAINAGE AREA (Ac.)	TOTAL AREA (Ac.)	IMPERVIOUS AREA (Ac.) onsite only	IMPERVIOUS AREA (Ac.) Total w/ offsite	% Impervious	COMPOSITE "C"	ALLOWABLE RELEASE (cfs)	Detention Required (ac-ft)
PHASE 1: first phase only (temporary condition)	7.04	0.396	7.436				5.843	5.902	80%	0.86	1.33	2.60
PHASE 1: full build out				6.875	0.396	6.934	5.957	6.016	87%	0.89	1.24	2.55
PHASE 2: full build out				8.540	0.016	8.556	7.498	7.514	88%	0.90	1.54	3.16

MWRD CRITERIA:

	Temp. DRAINAGE AREA (Ac.)	Offsite DRAINAGE AREA (Ac.)	Temp.TOTAL AREA (Ac.)	DRAINAGE AREA (Ac.)	Offsite DRAINAGE AREA (Ac.)	TOTAL AREA (Ac.)	IMPERVIOUS AREA (Ac.) onsite only	IMPERVIOUS AREA (Ac.) Total w/ offsite	% Impervious	COMPOSITE "CN"	ALLOWABLE RELEASE (cfs)	Detention Required (ac-ft)
PHASE 1: first phase only (temporary condition)	7.04	0.396	7.436				5.843	5.902	80%	93	2.23	1.75
PHASE 1: full build out				6.875	0.396	6.934	5.957	6.016	87%	95	2.08	1.70
PHASE 2: full build out				8.540	0.016	8.556	7.498	7.514	88%	95	2.57	2.09

MWRD VOLUME CONTROL:

PHASE 1	(full build out-max impervious)	**1" of volume over total impervious area of ----------**	**6.016**	**Ac**	**Required Volume =**	**0.50 Ac-Ft**
PHASE 2	(full build out)	**1" of volume over total impervious area of ----------**	**7.514**	**Ac**	**Required Volume =**	**0.63 Ac-Ft**

RESTRICTIVE CULVERT WORKSHEET

JOB DATA:

Job Name:	**ALGONQUIN RD IBDUSTRIAL-PH 1**
Job Number:	**322-127-17**
Designer:	**PDL**
Description	**EXIST STORM OUTFALL-4" PRIMARY**

FLOWS ARE BASED ON THE FOLLOWING EQUATION:

$$Q = A\sqrt{\frac{H}{\frac{K_e + K_o}{2g} + \frac{2.87(n)^2 L}{\sqrt[3]{\phi^4}}}}$$

Q = FLOW (cfs)
A = AREA (sqr.ft.)
H = Head (ft.)
K_e & Ko = Entrance & Outlet Loss Coefficients
n = Manning's Roughness Coeficient
g = 32.2 ft/sec^2
ϕ = diameter

PIPE DATA:

Pipe Diameter (feet)	**0.33**	ft.
Pipe Area (sqr. ft)	0.087	sqr. ft.
Slope (ft./ft.)	**-0.0023**	
Length of Pipe (ft.)	**30**	ft.
Existing Invert Elevation	**709.67**	ft.
Backwater Elevation	**710.07**	ft. (Top of 4" pipe @ outlet)
Manning's "n" value	**0.013**	
Entrance Loss Coefficient	**0.50**	
Outlet Loss Coefficient	**1.00**	

RATING TABLE:

Water Elevation (ft.)*	Head (ft.)	Q (cfs)
715.00	**4.93**	**0.66**
715.10	**5.03**	**0.67**
715.20	**5.13**	**0.67**
715.30	**5.23**	**0.68**
715.40	**5.33**	**0.69**
715.50	**5.43**	**0.69**
715.60	**5.53**	**0.70**
715.70	**5.63**	**0.70**
715.80	**5.73**	**0.71**
715.90	**5.83**	**0.72**
716.00	**5.93**	**0.72**

*Water elevation must be higher than backwater elevation.

RESTRICTIVE CULVERT WORKSHEET

JOB DATA:

Job Name:	**ALGONQUIN RD IBDUSTRIAL-PH 1**
Job Number:	**322-127-17**
Designer:	**PDL**
Description	**EXIST STM OUTFALL-10" SECONDARY**

FLOWS ARE BASED ON THE FOLLOWING EQUATION:

$$Q = A\sqrt{\frac{H}{\frac{K_e + K_o}{2g} + \frac{2.87(n)^2 L}{\sqrt[3]{\phi^4}}}}$$

Q = FLOW (cfs)
A = AREA (sqr.ft.)
H = Head (ft.)
K_e & Ko = Entrance & Outlet Loss Coefficients
n = Manning's Roughness Coeficient
g = 32.2 ft/sec^2
ϕ = diameter

PIPE DATA:

Pipe Diameter (feet)	**0.83**	ft.
Pipe Area (sqr. ft)	0.541	sqr. ft.
Slope (ft./ft.)	**-0.021**	
Length of Pipe (ft.)	**30**	ft.
Existing Invert Elevation	**711.12**	ft.
Backwater Elevation	**712.58**	ft. (Ttop of 10" pipe @ outlet)
Manning's "n" value	**0.013**	
Entrance Loss Coefficient	**0.50**	
Outlet Loss Coefficient	**1.00**	

RATING TABLE:

Water Elevation (ft.)*	Head (ft.)	Q (cfs)
715.00	**2.42**	**4.11**
715.10	**2.52**	**4.19**
715.20	**2.62**	**4.28**
715.30	**2.72**	**4.36**
715.40	**2.82**	**4.44**
715.50	**2.92**	**4.51**
715.60	**3.02**	**4.59**
715.70	**3.12**	**4.67**
715.80	**3.22**	**4.74**
715.90	**3.32**	**4.81**
716.00	**3.42**	**4.89**

*Water elevation must be higher than backwater elevation.

RESTRICTIVE CULVERT WORKSHEET

JOB DATA:

Job Name:	**ALGONQUIN RD IBDUSTRIAL-PH 2**
Job Number:	**322-127-17**
Designer:	**PDL**
Description	**EXIST STM OUTFALL-18"**

FLOWS ARE BASED ON THE FOLLOWING EQUATION:

$$Q = A\sqrt{\frac{H}{\frac{K_e + K_o}{2g} + \frac{2.87(n)^2 L}{\sqrt[3]{\phi^4}}}}$$

Q = FLOW (cfs)
A = AREA (sqr.ft.)
H = Head (ft.)
K_e & Ko = Entrance & Outlet Loss Coefficients
n = Manning's Roughness Coeficient
g = 32.2 ft/sec^2
ϕ = diameter

PIPE DATA:

Pipe Diameter (feet)	**1.50**	ft.
Pipe Area (sqr. ft)	1.767	sqr. ft.
Slope (ft./ft.)	**0**	
Length of Pipe (ft.)	**10**	ft.
Existing Invert Elevation	**709.75**	ft.
Backwater Elevation	**711.25**	ft. (Top of 18" pipe)
Manning's "n" value	**0.013**	
Entrance Loss Coefficient	**0.50**	
Outlet Loss Coefficient	**1.00**	

RATING TABLE:

Water Elevation (ft.)*	Head (ft.)	Q (cfs)
714.60	**3.35**	**20.01**
714.70	**3.45**	**20.31**
714.80	**3.55**	**20.60**
714.90	**3.65**	**20.89**
715.00	**3.75**	**21.17**
715.10	**3.85**	**21.45**
715.20	**3.95**	**21.73**
715.30	**4.05**	**22.00**
715.40	**4.15**	**22.27**
715.50	**4.25**	**22.54**
715.60	**4.35**	**22.80**

*Water elevation must be higher than backwater elevation.

ORIFICE WORKSHEET

Job Name:	**ALGONQUIN RD INDUSTRIAL-PH 1**
Job Number:	**322-127-17**
Designer:	**PDL**
Description	**PROPOSED ORIFICE IN EXIST 10" RCP**

FLOWS ARE BASED ON THE FOLLOWING EQUATION:

$$Q = AC\sqrt{2gH}$$

Q = FLOW (cfs)
A = AREA (sqr.ft.)
C = Orifice Coefficient
g = 32.2 ft/sec^2
H = Head (ft.)

ORIFICE DATA:

Orifice diameter(inches)	**3.125**	inches
Orifice area(square feet)	0.053	sqr. ft.
Proposed invert elevation	**711.12**	ft.
Centerline of flow	711.25	ft
Orifice coeficient	**0.6**	

RATING TABLE:

Water Elevation (ft.)*	Head (ft.)	Q (cfs)
715.00	3.75	0.50
715.10	3.85	0.50
715.20	3.95	0.51
715.30	4.05	0.52
715.40	4.15	0.52
715.50	4.25	0.53
715.60	4.35	0.53
715.70	4.45	0.54
715.80	4.55	0.55
715.90	4.65	0.55
716.00	4.75	0.56
716.10	4.85	0.56

*Water elevation must be higher than centerline of flow

ORIFICE WORKSHEET

Job Name:	**ALGONQUIN RD INDUSTRIAL-PH 2**
Job Number:	**322-127-17**
Designer:	**PDL**
Description	**PROPOSED ORIFICE IN EXIST 18" RCP**

FLOWS ARE BASED ON THE FOLLOWING EQUATION:

$$Q = AC\sqrt{2gH}$$

Q = FLOW (cfs)
A = AREA (sqr.ft.)
C = Orifice Coefficient
g = 32.2 ft/sec^2
H = Head (ft.)

ORIFICE DATA:

Orifice diameter(inches)	**5.000**	inches
Orifice area(square feet)	0.136	sqr. ft.
Proposed invert elevation	**709.75**	ft.
Centerline of flow	709.96	ft
Orifice coeficient	**0.6**	

RATING TABLE:

Water Elevation (ft.)*	Head (ft.)	Q (cfs)
715.00	5.04	1.47
715.10	5.14	1.49
715.20	5.24	1.50
715.30	5.34	1.52
715.40	5.44	1.53
715.50	5.54	1.55
715.60	5.64	1.56
715.70	5.74	1.57
715.80	5.84	1.59
715.90	5.94	1.60
716.00	6.04	1.61
716.10	6.14	1.63

*Water elevation must be higher than centerline of flow

RWG ENGINEERING, LLC.
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Detention Calculator
Modified Rational Method

TELEPHONE (630) 774-9501

DESCRIPTION: Arlington Heights - BASIN CALCULATION SHEETS
Technical Bulletin 70 (7.58 in. - 100 Year Rainfall)
STORAGE VOLUME WITH ALLOWABLE RELEASE RATE-PHASE 1 TEMPORARY

DURATION (HOURS)	TIME (MIN)	100 YR. INT (IN/HR)	INFLOW RATE (CFS)	STORED RATE (CFS)	VOLUME (ACRE-FT)		
0.50	30	5.60	35.81	34.48	1.44		
0.67	40	4.92	31.46	30.13	1.67		
0.83	50	4.24	27.11	25.78	1.79		
1.00	60	3.56	22.77	21.44	1.79		
1.50	90	2.90	18.55	17.22	2.15		
2.00	120	2.24	14.32	12.99	2.17		
3.00	180	1.62	10.36	9.03	2.26		
4.00	240	1.40	8.93	7.60	2.53		
5.00	300	1.17	7.50	6.17	2.57		
6.00	360	0.95	6.08	4.75	2.37		
7.00	420	0.88	5.65	4.32	2.52		
8.00	480	0.82	5.22	3.89	2.60		
9.00	540	0.75	4.80	3.47	2.60	<===	
10.00	600	0.68	4.37	3.04	2.53		
11.00	660	0.62	3.94	2.61	2.40		
12.00	720	0.55	3.52	2.19	2.19		
13.00	780	0.52	3.35	2.02	2.18		
14.00	840	0.50	3.18	1.85	2.15		
15.00	900	0.47	3.01	1.68	2.09	Phase 1:	
16.00	960	0.44	2.84	1.51	2.01	Total Tributary Area after Phase 1 = 7.436 ac.	
17.00	1020	0.42	2.66	1.33	1.89	Release rate = 1.33 cfs	
18.00	1080	0.39	2.49	1.16	1.75		
19.00	1140	0.38	2.42	1.09	1.72		
20.00	1200	0.37	2.34	1.01	1.69		
21.00	1260	0.36	2.27	0.94	1.65		
22.00	1320	0.34	2.20	0.87	1.59		
23.00	1380	0.33	2.12	0.79	1.52		
24.00	1440	0.32	2.05	0.72	1.43		

	Area of site in acres:	7.44
	Trapped water area in acres:	0.00
	Net area for release computation in acres:	0.00
	Allowable release rate in CFS:	1.33
	Unrestricted release rate in CFS:	0.00
	Bypass release rate in CFS:	0.00
	Total allowable release in CFS:	1.33
	Developed runoff coefficient:	0.86
	Maximum volume in Acre-Ft =	**2.60**

	% of site	"C" Factor	Composite "C"
Open Water Area	0.00	1.00	0.00
Impervious Area	80.00	0.95	0.76
Pervious Area	20.00	0.50	0.10
Total :	**100.00**		**0.86**

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TELEPHONE (630) 774-9501 DESCRIPTION Arlington Heights - BASIN CALCULATION SHEETS
Technical Bulletin 70 (7.58 in. - 100 Year Rainfall)
STORAGE VOLUME WITH ALLOWABLE RELEASE RATE-PHASE 1 BUILD-OUT

DURATION (HOURS)	TIME (MIN)	100 YR. INT (IN/HR)	INFLOW RATE (CFS)	STORED RATE (CFS)	VOLUME (ACRE-FT)			
							Area of site in acres:	6.93
							Trapped water area in acres:	0.00
0.50	30	5.60	34.62	33.38	1.39		Net area for release computation in acres:	0.00
0.67	40	4.92	30.41	29.17	1.62		Allowable release rate in CFS:	1.24
0.83	50	4.24	26.21	24.97	1.73		Unrestricted release rate in CFS:	0.00
1.00	60	3.56	22.01	20.77	1.73		Bypass release rate in CFS:	0.00
1.50	90	2.90	17.93	16.69	2.09		Total allowable release in CFS:	1.24
2.00	120	2.24	13.85	12.61	2.10		Developed runoff coefficient:	0.89
3.00	180	1.62	10.01	8.77	2.19			
4.00	240	1.40	8.63	7.39	2.46			
5.00	300	1.17	7.25	6.01	2.51		**Maximum volume in Acre-Ft =**	**2.55**
6.00	360	0.95	5.87	4.63	2.32			
7.00	420	0.88	5.46	4.22	2.46			
8.00	480	0.82	5.05	3.81	2.54			
9.00	540	0.75	4.64	3.40	2.55	<===		
10.00	600	0.68	4.22	2.98	2.49			
11.00	660	0.62	3.81	2.57	2.36			
12.00	720	0.55	3.40	2.16	2.16			
13.00	780	0.52	3.24	2.00	2.16			
14.00	840	0.50	3.07	1.83	2.14			
15.00	900	0.47	2.91	1.67	2.08		Phase 1:	
16.00	960	0.44	2.74	1.50	2.00		Total Tributary Area after development = 6.934 ac.	
17.00	1020	0.42	2.58	1.34	1.89		Release rate = 1.24 cfs	
18.00	1080	0.39	2.41	1.17	1.76			
19.00	1140	0.38	2.34	1.10	1.74			
20.00	1200	0.37	2.27	1.03	1.71			
21.00	1260	0.36	2.19	0.95	1.67			
22.00	1320	0.34	2.12	0.88	1.62			
23.00	1380	0.33	2.05	0.81	1.55			
24.00	1440	0.32	1.98	0.74	1.48			

	% of site	"C" Factor	Composite "C"
Open Water Area	0.00	1.00	0.00
Impervious Area	87.00	0.95	0.83
Pervious Area	13.00	0.50	0.07
Total :	**100.00**		**0.89**

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DESCRIPTION: Arlington Heights - BASIN CALCULATION SHEETS
Technical Bulletin 70 (7.58 in. - 100 Year Rainfall)
STORAGE VOLUME WITH ALLOWABLE RELEASE RATE-PHASE 2

DURATION (HOURS)	TIME (MIN)	100 YR. INT (IN/HR)	INFLOW RATE (CFS)	STORED RATE (CFS)	VOLUME (ACRE-FT)			
							Area of site in acres:	8.56
							Trapped water area in acres:	0.00
0.50	30	5.60	42.93	41.39	1.72		Net area for release computation in acres:	0.00
0.67	40	4.92	37.72	36.18	2.01		Allowable release rate in CFS:	1.54
0.83	50	4.24	32.50	30.96	2.15		Unrestricted release rate in CFS:	0.00
1.00	60	3.56	27.29	25.75	2.15		Bypass release rate in CFS:	0.00
1.50	90	2.90	22.23	20.69	2.59		Total allowable release in CFS:	1.54
2.00	120	2.24	17.17	15.63	2.61		Developed runoff coefficient:	0.90
3.00	180	1.62	12.42	10.88	2.72			
4.00	240	1.40	10.71	9.17	3.06			
5.00	300	1.17	8.99	7.45	3.11		**Maximum volume in Acre-Ft =**	**3.16**
6.00	360	0.95	7.28	5.74	2.87			
7.00	420	0.88	6.77	5.23	3.05			
8.00	480	0.82	6.26	4.72	3.15			
9.00	540	0.75	5.75	4.21	3.16	<===		
10.00	600	0.68	5.24	3.70	3.08			
11.00	660	0.62	4.73	3.19	2.92			
12.00	720	0.55	4.22	2.68	2.68			
13.00	780	0.52	4.01	2.47	2.68			
14.00	840	0.50	3.81	2.27	2.65			
15.00	900	0.47	3.60	2.06	2.58		Phase 2:	
16.00	960	0.44	3.40	1.86	2.48		Total Tributary Area after development = 8.556 ac.	
17.00	1020	0.42	3.19	1.65	2.34		Release rate = 1.54 cfs	
18.00	1080	0.39	2.99	1.45	2.17			
19.00	1140	0.38	2.90	1.36	2.15			
20.00	1200	0.37	2.81	1.27	2.12			
21.00	1260	0.36	2.72	1.18	2.07			
22.00	1320	0.34	2.63	1.09	2.00			
23.00	1380	0.33	2.54	1.00	1.92			
24.00	1440	0.32	2.45	0.91	1.83			

	% of site	"C" Factor	Composite "C"
Open Water Area	0.00	1.00	0.00
Impervious Area	88.00	0.95	0.84
Pervious Area	12.00	0.50	0.06
Total :	**100.00**		**0.90**

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DESCRIPTION: Arlington Heights - BASIN CALCULATION SHEETS
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STORAGE VOLUME WITH DESIGN RELEASE RATE-PHASE 1 TEMPORARY

DURATION (HOURS)	TIME (MIN)	100 YR. INT (IN/HR)	INFLOW RATE (CFS)	STORED RATE (CFS)	VOLUME (ACRE-FT)			
							Area of site in acres:	7.44
							Trapped water area in acres:	0.00
0.50	30	5.60	35.81	34.60	1.44		Net area for release computation in acres:	0.00
0.67	40	4.92	31.46	30.25	1.68		Design release rate in CFS:	1.21
0.83	50	4.24	27.11	25.90	1.80		Unrestricted release rate in CFS:	0.00
1.00	60	3.56	22.77	21.56	1.80		Bypass release rate in CFS:	0.00
1.50	90	2.90	18.55	17.34	2.17		Total allowable release in CFS:	1.21
2.00	120	2.24	14.32	13.11	2.19		Developed runoff coefficient:	0.86
3.00	180	1.62	10.36	9.15	2.29			
4.00	240	1.40	8.93	7.72	2.57			
5.00	300	1.17	7.50	6.29	2.62		**Maximum volume in Acre-Ft =**	**2.69**
6.00	360	0.95	6.08	4.87	2.43			
7.00	420	0.88	5.65	4.44	2.59			
8.00	480	0.82	5.22	4.01	2.68			
9.00	540	0.75	4.80	3.59	2.69	<===		
10.00	600	0.68	4.37	3.16	2.63			
11.00	660	0.62	3.94	2.73	2.51			
12.00	720	0.55	3.52	2.31	2.31			
13.00	780	0.52	3.35	2.14	2.31			
14.00	840	0.50	3.18	1.97	2.29			
15.00	900	0.47	3.01	1.80	2.24		Phase 1:	
16.00	960	0.44	2.84	1.63	2.17		Total Tributary Area after Phase 1 = 7.436 ac.	
17.00	1020	0.42	2.66	1.45	2.06		Release rate = 1.21 cfs	
18.00	1080	0.39	2.49	1.28	1.93			
19.00	1140	0.38	2.42	1.21	1.91			
20.00	1200	0.37	2.34	1.13	1.89			
21.00	1260	0.36	2.27	1.06	1.86			
22.00	1320	0.34	2.20	0.99	1.81			
23.00	1380	0.33	2.12	0.91	1.75			
24.00	1440	0.32	2.05	0.84	1.67			

	% of site	"C" Factor	Composite "C"
Open Water Area	0.00	1.00	0.00
Impervious Area	80.00	0.95	0.76
Pervious Area	20.00	0.50	0.10
Total :	**100.00**		**0.86**

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DESCRIPTION: Arlington Heights - BASIN CALCULATION SHEETS
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STORAGE VOLUME WITH DESIGN RELEASE RATE-PHASE 1 BUILD-OUT

DURATION (HOURS)	TIME (MIN)	100 YR. INT (IN/HR)	INFLOW RATE (CFS)	STORED RATE (CFS)	VOLUME (ACRE-FT)			
							Area of site in acres:	6.93
							Trapped water area in acres:	0.00
0.50	30	5.60	34.62	33.41	1.39		Net area for release computation in acres:	0.00
0.67	40	4.92	30.41	29.20	1.62		Design release rate in CFS:	1.21
0.83	50	4.24	26.21	25.00	1.74		Unrestricted release rate in CFS:	0.00
1.00	60	3.56	22.01	20.80	1.73		Bypass release rate in CFS:	0.00
1.50	90	2.90	17.93	16.72	2.09		Total allowable release in CFS:	1.21
2.00	120	2.24	13.85	12.64	2.11		Developed runoff coefficient:	0.89
3.00	180	1.62	10.01	8.80	2.20			
4.00	240	1.40	8.63	7.42	2.47			
5.00	300	1.17	7.25	6.04	2.52		**Maximum volume in Acre-Ft =**	**2.57**
6.00	360	0.95	5.87	4.66	2.33			
7.00	420	0.88	5.46	4.25	2.48			
8.00	480	0.82	5.05	3.84	2.56			
9.00	540	0.75	4.64	3.43	2.57	<===		
10.00	600	0.68	4.22	3.01	2.51			
11.00	660	0.62	3.81	2.60	2.39			
12.00	720	0.55	3.40	2.19	2.19			
13.00	780	0.52	3.24	2.03	2.19			
14.00	840	0.50	3.07	1.86	2.17			
15.00	900	0.47	2.91	1.70	2.12		Phase 1:	
16.00	960	0.44	2.74	1.53	2.04		Total Tributary Area after development = 6.934 ac.	
17.00	1020	0.42	2.58	1.37	1.93		Release rate = 1.21 cfs	
18.00	1080	0.39	2.41	1.20	1.80			
19.00	1140	0.38	2.34	1.13	1.79			
20.00	1200	0.37	2.27	1.06	1.76			
21.00	1260	0.36	2.19	0.98	1.72			
22.00	1320	0.34	2.12	0.91	1.67			
23.00	1380	0.33	2.05	0.84	1.61			
24.00	1440	0.32	1.98	0.77	1.54			

	% of site	"C" Factor	Composite "C"
Open Water Area	0.00	1.00	0.00
Impervious Area	87.00	0.95	0.83
Pervious Area	13.00	0.50	0.07
Total :	**100.00**		**0.89**

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Modified Rational Method

TELEPHONE (630) 774-9501 DESCRIPTION Arlington Heights - BASIN CALCULATION SHEETS
Technical Bulletin 70 (7.58 in. - 100 Year Rainfall)
STORAGE VOLUME WITH DESIGN RELEASE RATE-PHASE 2

DURATION (HOURS)	TIME (MIN)	100 YR. INT (IN/HR)	INFLOW RATE (CFS)	STORED RATE (CFS)	VOLUME (ACRE-FT)			
							Area of site in acres:	8.56
							Trapped water area in acres:	0.00
0.50	30	5.60	42.93	41.40	1.73		Net area for release computation in acres:	0.00
0.67	40	4.92	37.72	36.19	2.01		Design release rate in CFS:	1.53
0.83	50	4.24	32.50	30.97	2.15		Unrestricted release rate in CFS:	0.00
1.00	60	3.56	27.29	25.76	2.15		Bypass release rate in CFS:	0.00
1.50	90	2.90	22.23	20.70	2.59		Total allowable release in CFS:	1.53
2.00	120	2.24	17.17	15.64	2.61		Developed runoff coefficient:	0.90
3.00	180	1.62	12.42	10.89	2.72			
4.00	240	1.40	10.71	9.18	3.06			
5.00	300	1.17	8.99	7.46	3.11		**Maximum volume in Acre-Ft =**	**3.16**
6.00	360	0.95	7.28	5.75	2.88			
7.00	420	0.88	6.77	5.24	3.06			
8.00	480	0.82	6.26	4.73	3.15			
9.00	540	0.75	5.75	4.22	3.16	<===		
10.00	600	0.68	5.24	3.71	3.09			
11.00	660	0.62	4.73	3.20	2.93			
12.00	720	0.55	4.22	2.69	2.69			
13.00	780	0.52	4.01	2.48	2.69			
14.00	840	0.50	3.81	2.28	2.66			
15.00	900	0.47	3.60	2.07	2.59		Phase 2:	
16.00	960	0.44	3.40	1.87	2.49		Total Tributary Area after development = 8.556 ac.	
17.00	1020	0.42	3.19	1.66	2.36		Release rate = 1.53 cfs	
18.00	1080	0.39	2.99	1.46	2.19			
19.00	1140	0.38	2.90	1.37	2.17			
20.00	1200	0.37	2.81	1.28	2.13			
21.00	1260	0.36	2.72	1.19	2.09			
22.00	1320	0.34	2.63	1.10	2.02			
23.00	1380	0.33	2.54	1.01	1.94			
24.00	1440	0.32	2.45	0.92	1.85			

	% of site	"C" Factor	Composite "C"
Open Water Area	0.00	1.00	0.00
Impervious Area	88.00	0.95	0.84
Pervious Area	12.00	0.50	0.06
Total :	**100.00**		**0.90**

Runoff Curve Number

Project:	Phase 1 - Final	By:	mrm	Date:	10/12/2017
Location:	Arlington Heights, Cook County, IL	Checked:	mrm	Date:	10/12/2017
File:	CN 101217.xlsx				

Circle One: Present **Developed** Description: 7.436-Acre Site - Phase 1 - temp cond

Soil Name and Hydrologic Group (Appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	Curve Number	Area [X] acres [ ] sq. mi. [ ] %	Product of Curve Number and Area
C	Pervious Area - Open Space, Good Condition	74	1.534	113.516
C	Permeable Pavement	91	0.000	0
C	Impervious Area - Building	98	5.848	573.104
C	Impervious Area - Open Water	100	0.054	5.4
		Totals =	7.436	692.02

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{692.02}{7.436} = \underline{93.063}$$

Use CN = **93**

RUNOFF CURVE NUMBER ADJUSTMENT CALCULATOR

Site Information:

Total Site Area, A_w (ac) = 7.436

Total Impervious Area, A_I (ac) = 5.902

Runoff, R (in) = 6.75

P = rainfall depth (in) = 7.58

CN = 93

S = 0.75

Runoff Volume Over Watershed, V_w (ac-ft) = 4.18

Volume of GI Provided:

Volume Control Storage, V_R = 0.49 ac-ft — 1" of volume over impervious area

Additional Volume, V_{GI} = 0.00 ac-ft — Additional volume over the required 1"

Adjusted Volume Over Watershed, $V_{ADJ} = V_W - V_R - V_{GI}$

V_{ADJ} (ac-ft) = 3.69

Adjusted Runoff Over Watershed, $R_{ADJ} = \frac{V_{ADJ}}{A_W}$

R_{ADJ} (in) = 5.95

S_{ADJ} = 1.60

Adjusted CN for detention calcs, CN_{ADJ} = 86.22

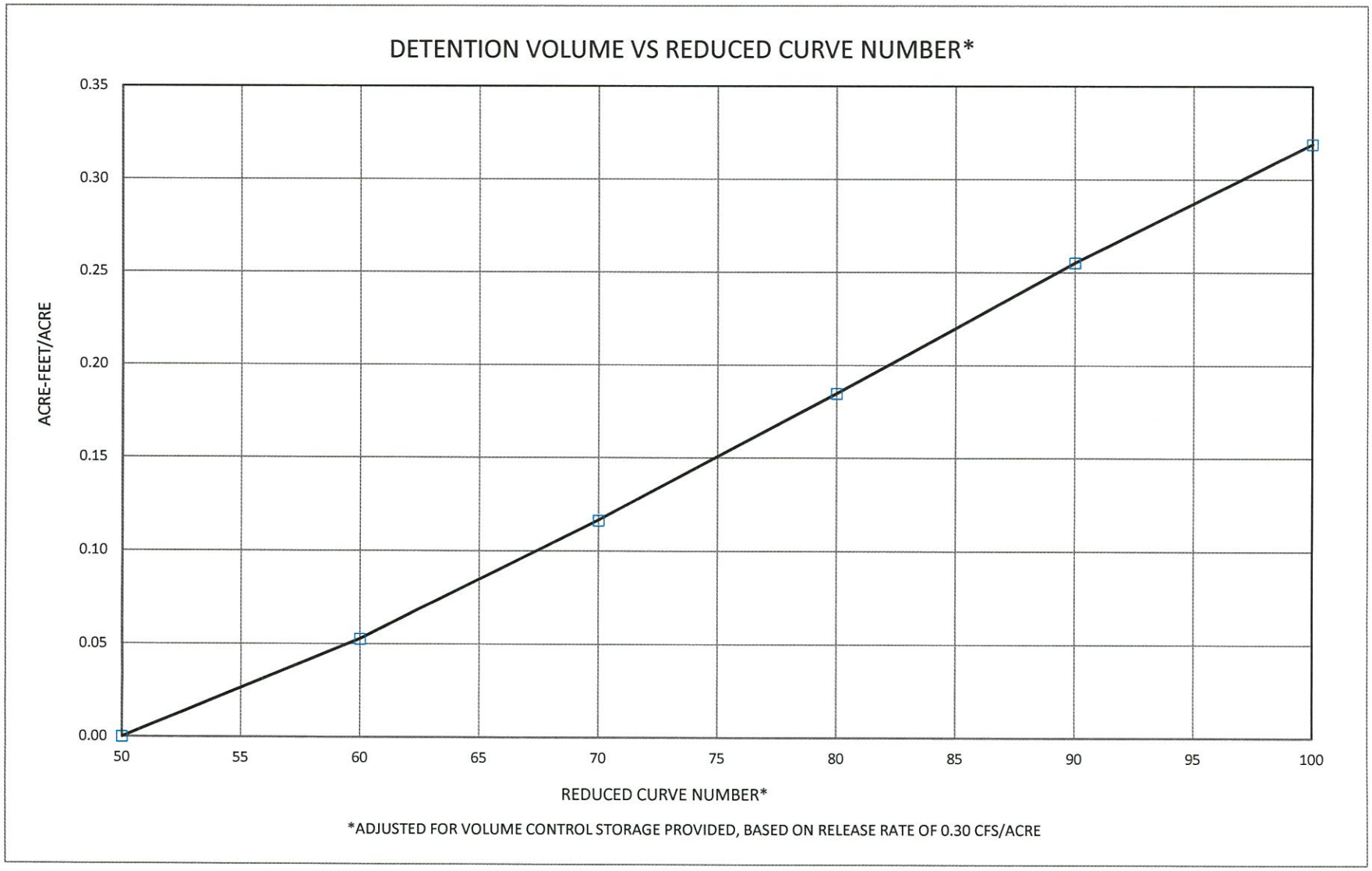
*Blue values are entered by user

Enter Site Area: 7.436 acres

*Blue Values are entered by user

Enter Reduced Curve Number for Site: 86.22

Estimated Required Detention Volume: **1.75** acre-feet



Runoff Curve Number

Project:	Phase 1 - Final	By:	mrm	Date:	10/12/2017
Location:	Arlington Heights, Cook County, IL	Checked:	mrm	Date:	10/12/2017
File:	CN 101217.xlsx				

Circle One: Present **Developed** Description: 6.934-Acre Site - Phase 1 - build out

Soil Name and Hydrologic Group (Appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	Curve Number	Area [X] acres [ ] sq. mi. [ ] %	Product of Curve Number and Area
C	Pervious Area - Open Space, Good Condition	74	0.918	67.932
C	Permeable Pavement	91	0.000	0
C	Impervious Area - Building	98	5.962	584.276
C	Impervious Area - Open Water	100	0.054	5.4
		Totals =	6.934	657.608

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{657.608}{6.934} = \underline{94.838}$$

Use CN = **95**

RUNOFF CURVE NUMBER ADJUSTMENT CALCULATOR

Site Information:

Total Site Area, A_w (ac) =	6.934	Total Impervious Area, A_I (ac) =	6.016
Runoff, R (in) =	6.98		
P = rainfall depth (in) =	7.58		
CN =	95		
S =	0.53		
Runoff Volume Over Watershed, V_w (ac-ft) =	4.04		

Volume of GI Provided:

Volume Control Storage, V_R =	0.50	ac-ft	1" of volume over impervious area
Additional Volume, V_{GI} =	0.00	ac-ft	Additional volume over the required 1"

Adjusted Volume Over Watershed, $V_{ADJ} = V_W - V_R - V_{GI}$

V_{ADJ} (ac-ft) = 3.53

Adjusted Runoff Over Watershed, $R_{ADJ} = \frac{V_{ADJ}}{A_W}$

R_{ADJ} (in) = 6.12

S_{ADJ} = 1.41

Adjusted CN for detention calcs, CN_{ADJ} = 87.68

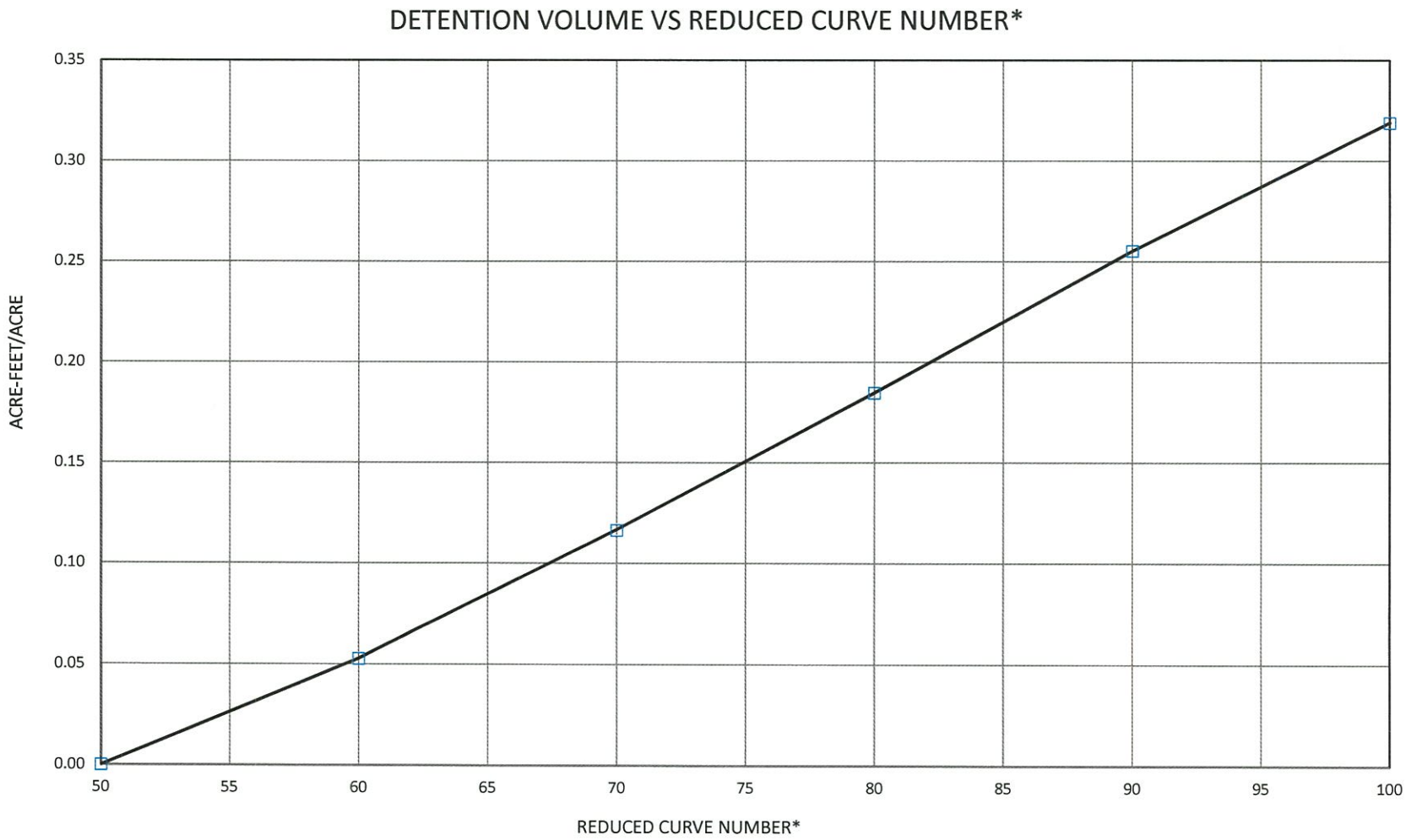
*Blue values are entered by user

Enter Site Area: 6.934 acres

*Blue Values are entered by user

Enter Reduced Curve Number for Site: 87.68

Estimated Required Detention Volume: **1.70** acre-feet



*ADJUSTED FOR VOLUME CONTROL STORAGE PROVIDED, BASED ON RELEASE RATE OF 0.30 CFS/ACRE

Runoff Curve Number

Project:	Phase 2 - Final	By:	mrm	Date:	10/12/2017
Location:	Arlington Heights, Cook County, IL	Checked:	mrm	Date:	10/12/2017
File:	CN 101217.xlsx				

Circle One: Present **Developed** Description: 8.556-Acre Site - Phase 2 - build out

Soil Name and Hydrologic Group (Appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	Curve Number	Area [X] acres [ ] sq. mi. [ ] %	Product of Curve Number and Area
C	Pervious Area - Open Space, Good Condition	74	1.042	77.108
C	Permeable Pavement	91	0.000	0
C	Impervious Area - Building	98	7.514	736.372
C	Impervious Area - Open Water	100	0.000	0
		Totals =	8.556	813.48

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{813.48}{8.556} = \underline{95.077}$$

Use CN = **95**

RUNOFF CURVE NUMBER ADJUSTMENT CALCULATOR

Site Information:

Total Site Area, A_w (ac) =	8.556	Total Impervious Area, A_I (ac) =	7.514
Runoff, R (in) =	6.98		
P = rainfall depth (in) =	7.58		
CN =	95		
S =	0.53		
Runoff Volume Over Watershed, V_w (ac-ft) =	4.98		

Volume of GI Provided:

Volume Control Storage, V_R =	0.63	ac-ft	1" of volume over impervious area
Additional Volume, V_{GI} =	0.00	ac-ft	Additional volume over the required 1"

Adjusted Volume Over Watershed, $V_{ADJ} = V_W - V_R - V_{GI}$

V_{ADJ} (ac-ft) =	4.35

Adjusted Runoff Over Watershed, $R_{ADJ} = \frac{V_{ADJ}}{A_W}$

R_{ADJ} (in) =	6.10
S_{ADJ}=	1.43
Adjusted CN for detention calcs, CN_{ADJ} =	87.51

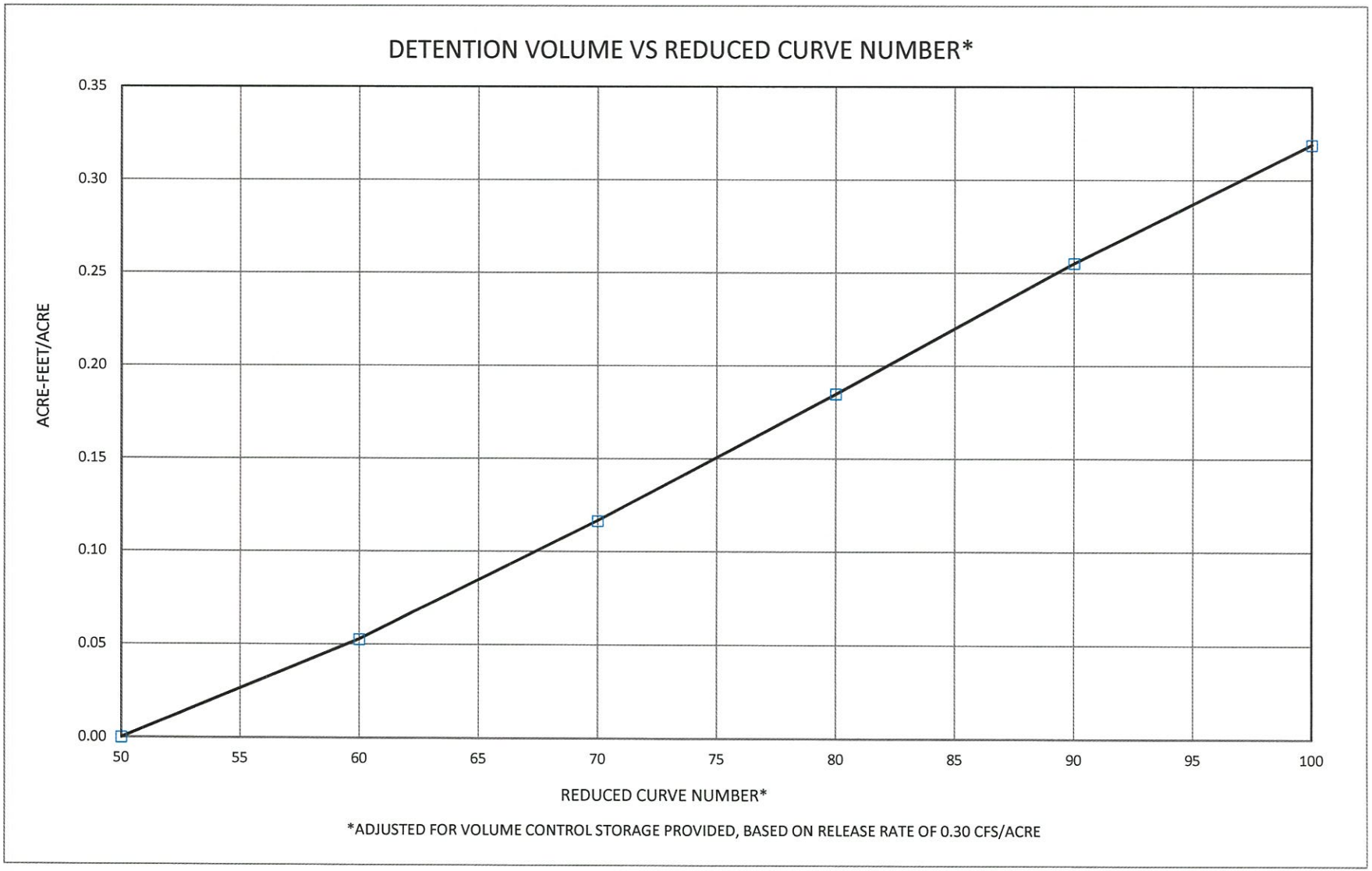
*Blue values are entered by user

Enter Site Area: 8.556 acres

*Blue Values are entered by user

Enter Reduced Curve Number for Site: 87.51

Estimated Required Detention Volume: **2.09** acre-feet



*ADJUSTED FOR VOLUME CONTROL STORAGE PROVIDED, BASED ON RELEASE RATE OF 0.30 CFS/ACRE

No. 322-127-17
12-Oct-17

TABLE 2
ARLINGTON HEIGHTS INDUSTRIAL
SUMMARY OF STORMWATER STORAGE PROVIDED

PHASE 1 - NORTH

Basin	Description	Det Storage (Ac-Ft)	Volume Control Storage (Ac-Ft
N-1	Existing Pond	0.370	0
N-2	Modified Pond	1.115	0.095
N-3	Underground	0.500	0.400
N-4?	Truck Dock Area	0.579	0
	Pipe Storage	0.117	0
	Total Volume:	2.681	0.495

PHASE 2 - SOUTH

Basin	Description	Det Storage (Ac-Ft)	Volume Control Storage (Ac-Ft
S-1	New Pond	0.704	0.049
S-2	Underground-W	0.938	0.429
S-3	Underground-SE	0.286	0.051
S-4	Underground-E	0.226	0.041
	Truck Dock Area	0.953	0
	Pipe Storage	0.101	0
	Total Volume:	3.208	0.569

Cut/Fill Report -- STORAGE VOLUMES PROVIDED

Generated: 2017-10-18 09:59:53

By user: RWGENGSTA07

Drawing: S:\32212717 - HP Arlington Heights Industrial\300_Engineering\310_CADD\Exhibits\S:\32212717 - HP Arlington Heights Industrial\300_Engineering\310_CADD\Exhibits\322_BASE_Basin.dwg

Volume Summary

Name	Type	Cut Factor	Fill Factor	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)	Ac - Ft.
EX Basin N-1 (Det) NWL 710.65	full	0.000	1.000	4405.29	0.00*	597.51	597.51*	0.370
Basin N-2 (Det) NWL 710.2	full	0.000	1.000	12790.21	0.00*	1798.88	1798.88*	1.115
Basin N-2 (Vol Control)	full	0.000	1.000	5316.58	0.00*	152.88	152.88*	0.095
North Truck Dock	full	0.000	1.000	52639.96	0.00*	934.61	934.61*	0.579
Basin S-1 (Det) NWL 709.8	full	0.000	1.000	9218.35	0.00*	1134.98	1134.98*	0.704
Basin S-1 (Vol Control)	full	0.000	1.000	3112.46	0.00*	78.87	78.87*	0.049
South Truck Dock	full	0.000	1.000	85783.42	0.00*	1537.32	1537.32*	0.953

Totals

	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
Total	173266.27	0.00*	6235.04	6235.04*

* Value adjusted by cut or fill factor other than 1.0

No. 322-127-17
12-Oct-17

ARLINGTON HEIGHTS INDUSTRIAL
DETENTION STORAGE IN STORM SEWER SYSTEM
BELOW 715.4 HWL

PHASE 1 - NORTH

Pipe Storage:

Pipe Size (Inches)	Length (Feet)	Area (Sq Ft)	Volume (Cu Ft)
10	284	0.545	154.819
12	353	0.785	277.105
15	334	1.227	409.672
18	535	1.766	944.944
21	191	2.404	459.176
24	348	3.140	1092.720
30	0	4.906	0.000
36	251	7.065	1773.315
	Total Pipe Storage:		5111.751	0.117 Ac-Ft

PHASE 2 - SOUTH

Pipe Storage:

Pipe Size (Inches)	Length (Feet)	Area (Sq Ft)	Volume (Cu Ft)
10	302	0.545	164.632
12	301.5	0.785	236.678
15	325	1.227	398.633
18	341	1.766	602.291
21	0	2.404	0.000
24	182	3.140	571.480
30	405	4.906	1987.031
36	60	7.065	423.900
	Total Pipe Storage:		4384.645	0.101 Ac-Ft

Proj No. 322-127-17
Date: 10-12-2017

WEIR FLOW CALCULATIONS
ARLINGTON HEIGHTS INDUSTRIAL

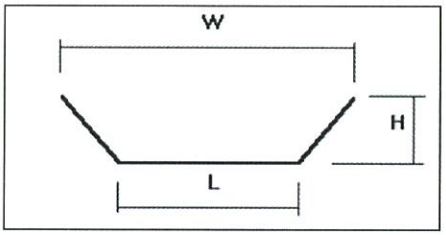
Designer:	**PDL**
Description:	**100 YEAR-PHASE 1**

BASED ON THE FOLLOWING EQUATION:

$$Q = \left[K \times 2/3 \times L \times (2g)^{0.5} \times H^{1.5}\right] + \frac{1}{2}\left[K \times 8/15 \times (2g)^{0.5} \times S_1 \times H^{2.5}\right] + \frac{1}{2}\left[K \times 8/15 \times (2g)^{0.5} \times S_2 \times H^{2.5}\right]$$

WHERE:

Q = DISCHARGE IN CFS
K = WEIR COEFFICIENT
L = LENGTH IN FEET
g = 32.2 FT/SEC
H = HEAD IN FEET
S1 = LEFT SIDE SLOPE
S2 = RIGHT SIDE SLOPE



WEIR DATA: OVERFLOW CHANNEL AA-AA

1.	LENGTH, L	26.0	FEET
2.	WEIR COEFFICIENT, K (K<1.0)	0.57	
3.	LEFT SIDE SLOPE, S (H:V)	1	: 1
4	RIGHT SIDE SLOPE, S (H:V)	1	: 1

5 RATING TABLE

HEAD (FEET)	DISCHARGE (CFS)
0.20	7.14
0.25	9.99
0.30	13.15
0.35	16.59
0.40	20.31
0.45	24.27
0.50	28.46
0.55	32.89
0.60	37.53
0.65	42.38

Proj No. 322-127-17
Date: 10-12-2017

WEIR FLOW CALCULATIONS
ARLINGTON HEIGHTS INDUSTRIAL

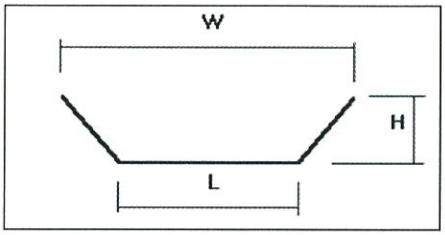
Designer:	**PDL**
Description:	**100 YEAR-PHASE 2**

BASED ON THE FOLLOWING EQUATION:

$$Q = \left[K \times 2/3 \times L \times (2g)^{0.5} \times H^{1.5}\right] + \frac{1}{2}\left[K \times 8/15 \times (2g)^{0.5} \times S_1 \times H^{2.5}\right] + \frac{1}{2}\left[K \times 8/15 \times (2g)^{0.5} \times S_2 \times H^{2.5}\right]$$

WHERE:

Q = DISCHARGE IN CFS
K = WEIR COEFFICIENT
L = LENGTH IN FEET
g = 32.2 FT/SEC
H = HEAD IN FEET
S1 = LEFT SIDE SLOPE
S2 = RIGHT SIDE SLOPE



WEIR DATA: OVERFLOW CHANNEL AA-AA

1.	LENGTH, L	20.0	FEET
2.	WEIR COEFFICIENT, K (K<1.0)	0.50	
3.	LEFT SIDE SLOPE, S (H:V)	1	: 4
4	RIGHT SIDE SLOPE, S (H:V)	1	: 4

5 RATING TABLE

HEAD (FEET)	DISCHARGE (CFS)
0.30	8.90
0.35	11.23
0.40	13.75
0.45	16.44
0.50	19.29
0.55	22.30
0.60	25.46
0.65	28.77
0.70	32.21
0.75	35.79
0.80	39.51
0.85	43.35
0.90	47.32
0.95	51.42
1.00	55.64

STORM SEWER WORKSHEET

Designer:	**PDL**	**Date: 09-22-17**
		Update:10-12-17
Description:	**PROPOSED ALGONQUIN ROAD**	
	INDUSTRIAL PARCEL-PH 1 (NORTH)	
	ARLINGTON HEIGHTS, IL	

FREQUENCY: 10 YR.* ROUGH. COEFF. 0.013 RUNOFF COEFF: Varies (See Below)

* TYPICAL 10 YR FREQUENCY, EXCEPT RUN FROM EX STR 28 TO UNDERGROUND BASIN WHICH IS A 100 YEAR FREQUENCY-SEE BELOW

MH-MH	ADDED "C"	ADDED AREA AC	TOTAL "C"	TOTAL AREA AC	C X A	TIME FLOW MIN	TIME T/C MIN	I IN/HR	Q CFS	PIPE DIA IN	PIPE SLOPE %	VEL FPS	L FT	CAP CFS	COMMENTS
East Run															
60-61	0.87	0.208	0.87	0.208	0.18	0.1	10.0	5.88	1.06	10.00	0.80	3.59	25	1.96	N13-Build-Out (Ph 2)
58-60	0.95	0.717	0.93	0.925	0.86	0.5	10.1	5.88	5.07	15.00	0.70	4.40	131	5.40	Add B8
56-58	0.85	0.201	0.92	1.126	1.03	0.5	10.6	5.88	6.07	18.00	0.40	3.76	122	6.64	N12/Str 59
54-56	0.84	0.153	0.91	1.279	1.16										N11/Str57
	0.95	0.719	0.92	1.998	1.84	0.4	11.2	5.68	10.48	21.00	0.50	4.66	123	11.20	Add B7
Ex28-54	0.83	0.098	0.92	2.096	1.93	0.2	11.6	5.68	10.94	21.00	0.50	4.66	68	11.20	N10/Str 55
Tributary Lateral Runs From South Curb Line															
58-59	0.85	0.201	0.85	0.201	0.171	0.1	10.0	5.88	1.00	10.00	0.80	3.59	13	1.96	N12
56-57	0.84	0.153	0.84	0.153	0.129	0.1	10.0	5.88	0.76	10.00	0.80	3.59	13	1.96	N11
54-55	0.83	0.098	0.83	0.098	0.081	0.1	10.0	5.88	0.48	10.00	0.80	3.59	13	1.96	N10
62-63	0.78	0.093	0.78	0.093	0.073	0.1	10.0	5.88	0.43	10.00	1.25	4.49	16	2.45	N9
North Parking Area-Restrictor MH to Basin N-2 -10 Year Frequency															
Ex 28-62	0.92	2.096	0.92	2.096	1.93	0.1	11.6	5.68	10.94	36.00	0.03	1.63	10	11.55	From Str 54
62-64	0.77	0.093	0.91	2.189	2.00										N9
	0.95	0.261	0.92	2.450	2.25	0.6	11.7	5.68	12.75	36.00	0.04	1.89	70	13.34	Add B11
64-65	0.82	0.283	0.91	2.733	2.48	0.8	12.3	5.47	13.55	36.00	0.05	2.11	106	14.91	N8
65-68	0.84	0.186	0.90	2.919	2.63	0.5	13.2	5.26	13.85	24.00	0.38	4.44	128	13.95	N6
68-71	0.82	0.054	0.90	2.973	2.68										N4
	0.76	0.096	0.90	3.069	2.75	0.3	13.6	5.26	14.47	24.00	0.41	4.61	82	14.49	Add N1
71-70	0.93	0.088	0.90	3.157	2.83	0.2	13.9	5.26	14.90	24.00	0.44	4.78	51	15.01	N2
70-74	0.89	0.086	0.90	3.243	2.91	0.2	14.1	5.05	14.69	24.00	0.44	4.78	54	15.01	N3
74-73	0.95	0.073	0.90	3.316	2.98	0.1	14.3	5.05	15.04	24.00	0.45	4.83	33	15.18	Add B9
North Parking Area-Restrictor MH to Basin N-3 -100 Year Frequency															
Ex 28-62	0.92	2.096	0.92	2.096	1.93	0.1	11.6	9.66	18.60	36.00	0.08	2.67	10	18.86	From Str 54
62-64	0.77	0.093	0.91	2.189	2.00										N9
	0.95	0.261	0.92	2.450	2.25	0.4	11.7	9.66	21.69	36.00	0.11	3.13	70	22.12	Add B11
64-65	0.82	0.283	0.91	2.733	2.48	0.5	12.0	9.29	23.02	36.00	0.12	3.27	106	23.10	N8
65-66	0.84	0.186	0.90	2.919	2.63	0.3	12.6	9.29	24.47	36.00	0.13	3.40	65	24.05	N6
66-Basins	0.88	0.215	0.90	3.134	2.82		12.9	9.29	26.23	18.00	6.25	14.86	5	26.26	N7

Req'd H	Total H	Elev	
0.003	1.517	713.72	OK, Rim @ 715.55
	1.514	713.71	
0.028	1.514	713.71	OK, Rim @ 715.20
0.053	1.486	713.69	
0.486	1.433	713.63	(Flow to Basin N-3 Begins at 713.41-
	0.947	713.15	Would Reduce Flow To Basin N-2
0.336	0.947	713.15	Not Considered)
0.224	0.611	712.81	
0.238	0.386	712.59	
0.149	0.149	712.35	712.20 (Pipe Crown @ FES)

Req'd H	Total H	Elev	
0.008	0.609	715.48	OK, Rim @ 715.55
	0.601	715.47	
0.077	0.601	715.47	Rim @ 715.20 (Overflow @ 715.4)
0.127	0.524	715.39	
0.085	0.397	715.27	
0.313	0.313	715.18	714.87 Crown Basin N-3

RWG ENGINEERING, LLC.
WHEATON, IL

Proj #: 276-114-16

FREQUENCY: 10 YR.* ROUGH. COEFF. 0.013 RUNOFF COEFF: Varies (See Below)

* TYPICAL 10 YR FREQUENCY, EXCEPT RUN FROM EX STR 28 TO UNDERGROUND BASIN WHICH IS A 100 YEAR FREQUENCY-SEE BELOW

MH-MH	ADDED "C"	ADDED AREA AC	TOTAL "C"	TOTAL AREA AC	C X A	TIME FLOW MIN	TIME T/C MIN	I IN/HR	Q CFS	PIPE DIA IN	PIPE SLOPE %	VEL FPS	L FT	CAP CFS	COMMENTS
North Parking-Tributary lateral Runs From Curb Line															
68-69	0.76	0.096	0.76	0.096	0.07	0.1	10.0	5.88	0.43	10.00	2.60	6.48	53	3.53	N1
Str 67	0.93	0.119	0.93	0.119	0.11		10.0	5.88	0.65						N5-Direct to Basin
West Dock - Parallel Run (Design Gradients)															
85-85A	0.50	0.230	0.50	0.230	0.12	0.1	10.0	5.88	0.68	8.00	0.50	2.45	22	0.85	N22-Temp-Ph 1 only
84-85	0.95	0.131	0.66	0.361	0.24	0.7	10.0	5.88	1.41	12.00	0.20	2.03	82	1.59	Add B6-Temp
84-85	0.95	0.262	0.95	0.262	0.25	0.7	10.0	5.88	1.46	12.00	0.20	2.03	82	1.59	B6 Build Out-Use
83-84	0.89	0.363	0.92	0.625	0.57	0.4	10.7	5.88	3.36	15.00	0.15	2.04	52	2.50	N21
82-83	0.95	0.120	0.92	0.745	0.69	0.3	11.1	5.68	3.90	15.00	0.15	2.04	40	2.50	N20
86-82	0.95	0.130	0.93	0.875	0.81										N19
	0.95	0.524	0.93	1.399	1.31	0.5	11.4	5.68	7.43	15.00	0.17	2.17	59	2.66	Add B7
76-86									7.43	18.00	0.15	2.30	232	4.07	
80-81	0.95	0.121	0.95	0.121	0.11	0.3	10.0	5.88	0.68	12.00	0.22	2.13	40	1.67	N18
79-80	0.95	0.130	0.95	0.251	0.24	0.4	10.3	5.88	1.40	12.00	0.22	2.13	50	1.67	N17
78-79	0.95	0.122	0.95	0.373	0.35	0.3	10.7	5.88	2.08	15.00	0.15	2.04	40	2.50	N16
77-78	0.95	0.168	0.95	0.541	0.51										N15
	0.95	0.485	0.95	1.026	0.97	0.4	11.0	5.68	5.54	18.00	0.15	2.30	52	4.07	Add B8
76-77	0.92	0.210	0.94	1.236	1.17	0.4	11.4	5.68	6.63	18.00	0.15	2.30	59	4.07	N14
75-76	0.87	1.498	0.90	2.734	2.47	0.5	11.8	5.68	14.04	18.00	0.15	2.30	65	4.07	Add Run 76-86
West Dock - Parallel Run (Required Gradients)															
84-85	0.95	0.262	0.95	0.262	0.25	0.7	10.0	5.88	1.46	12.00	0.17	1.87	82	1.47	B6 Bild Out- Use
83-84	0.89	0.363	0.92	0.625	0.57	0.3	10.7	5.88	3.36	15.00	0.27	2.74	52	3.36	N21
82-83	0.95	0.120	0.92	0.745	0.69	0.2	11.0	5.68	3.90	15.00	0.37	3.20	40	3.93	N20
86-82	0.95	0.130	0.93	0.875	0.81										N19
	0.95	0.524	0.93	1.399	1.31	0.2	11.3	5.68	7.43	15.00	1.33	6.07	59	7.45	Add B2
76-86									7.43	18.00	0.50	4.20	232	7.43	
80-81	0.95	0.121	0.95	0.121	0.11	0.7	10.0	5.88	0.68	12.00	0.04	0.91	40	0.71	N18
79-80	0.95	0.130	0.95	0.251	0.24	0.5	10.7	5.88	1.40	12.00	0.16	1.81	50	1.43	N17
78-79	0.95	0.122	0.95	0.373	0.35	0.4	11.2	5.68	2.01	15.00	0.10	1.66	40	2.04	N16
77-78	0.95	0.168	0.95	0.541	0.51										N15
	0.95	0.485	0.95	1.026	0.97	0.3	11.6	5.68	5.54	18.00	0.28	3.15	52	5.56	Add B3

Above worst case. Allowabe/design release rate from site, as well as flow to Basin N-2 via 24" RCP not deducted from above flow review to Basin N-3

Req'd H	Total H	Elev	
0.140	2.202	713.90	OK, Rim @ 714.05
0.148	2.062	713.76	
0.000	1.914	713.61	
0.785	1.914	713.61	
	1.129	712.83	(Str 76 below)
0.016	1.646	713.35	
0.080	1.630	713.33	
0.040	1.550	713.25	
0.000	1.510	713.21	
0.146	1.510	713.21	

RWG ENGINEERING, LLC.
WHEATON, IL

Proj #: 276-114-16

FREQUENCY: 10 YR.* ROUGH. COEFF. 0.013 RUNOFF COEFF: Varies (See Below)

* TYPICAL 10 YR FREQUENCY, EXCEPT RUN FROM EX STR 28 TO UNDERGROUND BASIN WHICH IS A 100 YEAR FREQUENCY-SEE BELOW

MH-MH	ADDED "C"	ADDED AREA AC	TOTAL "C"	TOTAL AREA AC	C X A	TIME FLOW MIN	TIME T/C MIN	I IN/HR	Q CFS	PIPE DIA IN	PIPE SLOPE %	VEL FPS	L FT	CAP CFS	COMMENTS				
76-77	0.92	0.210	0.94	1.236	1.17	0.3	11.9	5.68	6.63	18.00	0.40	3.76	59	6.64	N14	0.236	1.365	713.06	
75-76	0.87	1.498	0.90	2.734	2.47	0.1	12.1	5.47	13.52	18.00	1.66	7.66	68	13.53	Add Run 76-86	1.129	1.129	712.83	711.70 (Pipe Crown @FES)
Review Full Flow Velocity (Design Gradients) For Min 2.0 fps Velocity:										12.00	0.20	2.03		1.59					
										15.00	0.15	2.04		2.50					
										18.00	0.15	2.30		4.07					
										24.00	0.10	2.28		7.15					
										36.00	0.10	2.98		21.09					
Roof Drains																			
B6	0.95	0.131	0.95	0.131	0.124	0.0	10.0	5.88	0.73	10.00	2.00	5.68	10	3.10					
B7	0.95	0.524	0.95	0.524	0.498	0.1	10.0	5.88	2.93	10.00	1.80	5.39	22	2.94					
B8	0.95	0.485	0.95	0.485	0.461	0.0	10.0	5.88	2.71	10.00	1.70	5.24	12	2.86					
B9	0.95	0.073	0.95	0.073	0.069	0.0	10.0	5.88	0.41	10.00	4.00	8.03	23	4.38					
B10	0.95	0.270	0.95	0.270	0.257	0.1	10.0	5.88	1.51	10.00	1.50	4.92	37	2.68					
B11	0.95	0.261	0.95	0.261	0.248	0.2	10.0	5.88	1.46	10.00	1.00	4.02	47	2.19					
B12	0.95	0.719	0.95	0.719	0.683	0.1	10.0	5.88	4.02	12.00	3.57	8.57	60	6.73					
B13	0.95	0.717	0.95	0.717	0.681	0.1	10.0	5.88	4.01	12.00	2.50	7.17	39	5.63					

STORM SEWER WORKSHEET

Designer:
Description: **Phase 2 East Section**

FREQUENCY: 10 YR. ROUGH. COEFF. 0.013 RUNOFF COEFF: 0.50

MH-MH	ADDED "C"	ADDED AREA AC	TOTAL "C"	TOTAL AREA AC	C X A	TIME FLOW MIN	TIME T/C MIN	I IN/HR	Q CFS	PIPE DIA IN	PIPE SLOPE %	VEL FPS	L FT	CAP CFS	UPPER MH RIM	UPPER MH CROWN	UPPER MH INV	LOWER MH RIM	LOWER MH CROWN	LOWER MH INV	COMMENTS
B14-106	0.95	0.718																			
106-107	0.84	0.140	0.93	0.858	0.800	0.5	10.0	5.88	4.70	18	0.20	2.66	83	4.70	716.50	714.79	713.29	716.88	714.62	713.12	
108-107	0.86	0.114	0.86	0.114	0.098	0.2	10.5	5.88	0.58	10	0.25	2.01	21	1.10	716.50	714.01	713.18	716.88	713.96	713.12	
107- S-4	0.00	0.000	0.92	0.972	0.898	0.1	10.7	5.88	5.28	18	0.26	3.03	16	5.36	716.88	714.62	713.12		714.58	713.08	
110-S-4	0.86	0.180	0.86	0.180	0.155	0.2	10.0	5.88	0.91	10	0.25	2.01	21	1.10	715.85	713.61	712.78		713.56	712.73	
112-S-4	0.85	0.206	0.85	0.206	0.175	0.2	10.0	5.88	1.03	10	0.25	2.01	21	1.10	715.60	712.92	712.09		712.87	712.04	
114-S-4	0.84	0.150	0.84	0.150	0.126	0.2	10.0	5.88	0.74	10	0.25	2.01	21	1.10	715.50	712.20	711.37		712.15	711.32	
116-S-4	0.86	0.118	0.86	0.118	0.101	0.2	10.0	5.88	0.60	10	0.25	2.01	21	1.10	715.40	711.14	710.31		711.09	710.26	

tc	i
10	5.88
11	5.68
12	5.47
13	5.26
14	5.05
15	4.84
16	4.74
17	4.63
20	4.33

STORM SEWER WORKSHEET

Designer:
Description: **Phase 2 West Section**

FREQUENCY: 10 YR. ROUGH. COEFF. 0.013 RUNOFF COEFF: 0.50

MH-MH	ADDED "C"	ADDED AREA AC	TOTAL "C"	TOTAL AREA AC	C X A	TIME FLOW MIN	TIME T/C MIN	I IN/HR	Q CFS	PIPE DIA IN	PIPE SLOPE %	VEL FPS	L FT	CAP CFS	UPPER MH RIM	UPPER MH CROWN	UPPER MH INV	LOWER MH RIM	LOWER MH CROWN	LOWER MH INV	COMMENTS
87-88	0.87	0.230	0.87	0.230	0.200	0.2	10	5.88	1.18	10.00	0.30	2.20	26	1.20	714.05	711.98	711.15	714.05	711.90	711.07	
88-89	0.95	0.116	0.90	0.346	0.310	0.4	10.2	5.88	1.82	15.00	0.15	2.04	52	2.50	714.05	712.32	711.07	714.05	712.24	710.99	
89-90	0.95	0.117	0.91	0.463	0.421	0.3	10.6	5.88	2.48	15.00	0.15	2.04	39	2.50	714.05	712.24	710.99	714.05	712.18	710.93	
B5-90	0.95	0.524																			
90-91	0.95	0.134	0.93	1.121	1.047	0.3	10.9	5.88	6.15	18.00	0.35	3.52	72	6.21	714.05	712.34	710.84	715.69	712.09	710.59	
91-96	0.00	0.000	0.93	1.121	1.047			5.88	6.15	24.00	0.08	2.04	182	6.40	715.69	712.59	710.59	715.60	712.44	710.44	
92-93	0.95	0.117	0.95	0.117	0.111	0.3	10	5.88	0.65	10.00	0.25	2.01	39	1.10	714.05	711.98	711.15	714.05	711.88	711.05	
93-94	0.95	0.134	0.95	0.251	0.238	0.4	10.3	5.88	1.40	15.00	0.15	2.04	52	2.50	714.05	712.30	711.05	714.05	712.22	710.97	
94-95	0.95	0.117	0.95	0.368	0.350	0.3	10.7	5.88	2.06	15.00	0.15	2.04	39	2.50	714.05	712.22	710.97	714.05	712.16	710.91	
B4-95	0.95	0.524																			
95-96	0.95	0.134	0.95	1.026	0.975	0.4	11.1	5.68	5.54	18.00	0.28	3.15	72	5.56	714.05	712.34	710.84	715.60	712.14	710.64	
96-103	0.00	0.000	0.94	2.147	2.021	1.6	11.4	5.68	11.48	30.00	0.10	2.64	260	12.97	715.60	712.94	710.44	715.46	712.68	710.18	
97-98	0.95	0.115	0.95	0.115	0.109	0.3	10	5.88	0.64	10.00	0.25	2.01	39	1.10	714.05	711.98	711.15	714.05	711.88	711.05	
98-99	0.95	0.134	0.95	0.249	0.237	0.3	10.3	5.88	1.39	10.00	0.40	2.54	52	1.39	714.05	711.88	711.05	714.05	711.68	710.84	
99-100	0.95	0.117	0.95	0.366	0.348	0.3	10.7	5.88	2.04	15.00	0.15	2.04	39	2.50	714.05	712.09	710.84	714.05	712.03	710.78	
100-101	0.95	0.134	0.95	0.500	0.475	0.4	11.0	5.68	2.70	15.00	0.18	2.23	52	2.74	714.05	712.03	710.78	714.05	711.94	710.69	
B3-101	0.95	0.486																			
101-102	0.95	0.099	0.95	1.085	1.031	0.1	11.4	5.68	5.85	18.00	0.31	3.31	26	5.85	714.05	712.19	710.69	714.05	712.11	710.61	
102-103	0.89	0.269	0.94	1.354	1.270	0.3	11.5	5.68	7.21	18.00	0.48	4.12	72	7.28	714.05	712.11	710.61	715.46	711.76	710.26	
103-104	0.00	0.000	0.94	3.501	3.291	0.6	11.8	5.68	18.70	30.00	0.21	3.83	145	18.80	715.46	712.68	710.18	716.78	712.38	709.88	
105-104	0.95	0.082	0.95	0.082	0.078	0.3	10	5.88	0.46	10.00	0.25	2.01	39	1.10	715.88	713.71	712.88	716.78	713.62	712.78	
B1-104	0.95	0.073																			
104-V	0.00	0.000	0.94	3.656	3.439	0.3	12.4	5.47	18.81	36.00	0.13	3.40	60	24.05	716.78	712.88	709.88	N/A	712.80	**709.80**	

tc	i
10	5.88
11	5.68
12	5.47
13	5.26
14	5.05
15	4.84
16	4.74
17	4.63
20	4.33

BOUNDARY AND TOPOGRAPHIC SURVEY

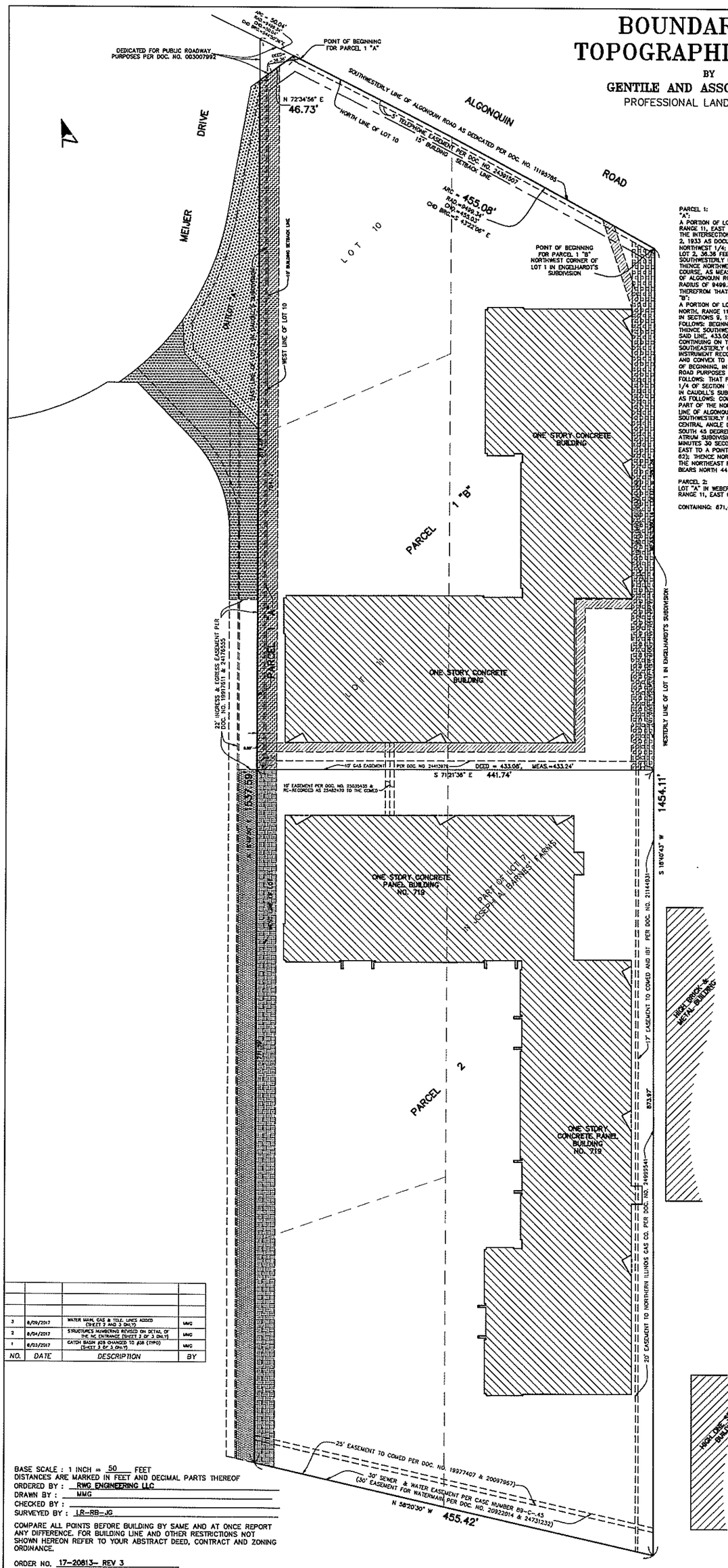
BY

GENTILE AND ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

GRAPHIC SCALE

(IN FEET)
1 inch = 60 ft.



PARCEL 1:
"A":
A PORTION OF LOT 2 IN CAUDILL'S SUBDIVISION OF PART OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE SOUTHWESTERLY LINE OF ALGONQUIN ROAD, AS DEDICATED BY INSTRUMENT RECORDED FEBRUARY 2, 1933 AS DOCUMENT 11195785; AND THE NORTHERLY LINE OF LOT 10 IN THE DIVISION OF THE EAST 1/2 OF SAID NORTHWEST 1/4; THENCE NORTHWESTERLY ON SAID NORTHERLY LINE, BEING IDENTICAL WITH A BOUNDARY LINE OF SAID LOT 2, 36.36 FEET TO THE WESTERLY LINE OF SAID LOT 10; BEING ALSO THE EASTERLY LINE OF SAID LOT 2; THENCE SOUTHWESTERLY ON SAID LINE AND CONTINUING ALSO THE WESTERLY LINE OF LOT 11 IN SAID DIVISION, 784.73 FEET; THENCE NORTHWESTERLY ALONG A LINE, THAT FORMS AN ANGLE OF 90 DEGREES,09 MINUTES WITH THE LAST DESCRIBED COURSE, AS MEASURED FROM NORTHWEST, 8.50 FEET; THENCE NORTHEASTERLY 812.48 FEET TO SAID SOUTHWESTERLY LINE OF ALGONQUIN ROAD; THENCE SOUTHEASTERLY ON SAID LINE, BEING CURVED AND CONVEX TO THE NORTH AND HAVING A RADIUS OF 9499.34 FEET, A DISTANCE OF 50.04 FEET TO THE PLACE OF BEGINNING, IN COOK COUNTY, ILLINOIS (EXCEPTING THEREFROM THAT PORTION DEDICATED FOR ROAD PURPOSES).
"B":
A PORTION OF LOTS 10 AND 11 IN THE DIVISON OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, AND ALSO, A PORTION OF LOT 7 IN JOSEPH A. BARNET FARM IN SECTIONS 9, 15, AND 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWEST CORNER OF LOT 1 IN ENGELHARDT'S SUBDIVISION OF PART OF SAID LOT 7; THENCE SOUTHWESTERLY ON THE WESTERLY LINE OF SAID LOT, 580.24 FEET; THENCE NORTHWESTERLY AT RIGHT ANGLES TO SAID LINE, 433.08 FEET TO THE WESTERLY LINE OF APOKESAD LOT 11; THENCE NORTHEASTERLY ON SAID LINE AND CONTINUING ON THE WESTERLY LINE OF SAID LOT 10, 784.12 FEET TO THE NORTHERLY LINE OF SAID LOT 10; THENCE SOUTHEASTERLY ON SAID LINE, 36.36 FEET TO THE SOUTHEASTERLY LINE OF ALGONQUIN ROAD AS DEDICATED BY INSTRUMENT RECORDED FEBRUARY 2, 1933 AS DOCUMENT 11195785; THENCE SOUTHEASTERLY ON SAID LINE, BEING CURVED AND CONVEX TO THE NORTH AND HAVING A RADIUS OF 9499.34 FEET, A CHORD DISTANCE OF 447.46 FEET, TO THE PLACE OF BEGINNING, IN COOK COUNTY, ILLINOIS. (EXCEPTING FROM SAID PARCEL "A" AND "B" THAT PORTION DEDICATED FOR ROAD PURPOSES BY PLAT OF DEDICATION RECORDED JANUARY 16, 2003 AS DOCUMENT 0030079992, DESCRIBED AS FOLLOWS: THAT PART OF LOT 10 IN COUNTY CLERKS DIVISION, BEING A SUBDIVISION OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, AND THAT PART OF LOT 2, IN CAUDILL'S SUBDIVISON, BEING A SUBDIVISION IN THAT PART OF THE NORTHWEST 1/4 OF SAID SECTION 16; DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWESTERLY CORNER OF WEBER ATRIUM SUBDIVISION, BEING A SUBDIVISION IN THAT PART OF THE NORTHWEST 1/4 OF SAID SECTION 16; THENCE SOUTHEASTERLY ALONG THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF ALGONQUIN ROAD (IL. ROUTE 62) AS RECORDED FEBRUARY 2, 1933 AS DOCUMENT 11195785 AND 11197782, SAID SOUTHWESTERLY RIGHT-OF-WAY LINE BEING A TANGENTIAL CURVE CONCAVE TO THE NORTHEAST RADIUS 9499.34 FEET, CENTRAL ANGLE 01 DEGREES 02 MINUTES, 14 SECONDS 171.98 FEET (THE CHORD BEARS A ILLINOIS EAST GRID BEARING OF SOUTH 45 DEGREES 31 MINUTES 18 SECONDS WEST 171.96 FEET) TO THE NORTHEASTERLY CORNER OF LOT "B" IN WEBER ATRIUM SUBDIVISION, SAID NORTHEASTERLY CORNER, BEING THE POINT OF BEGINNING; THENCE SOUTH 18 DEGREES 41 MINUTES 30 SECONDS WEST 48.26 FEET ALONG SAID EASTERLY LINE; THENCE SOUTH 72 DEGREES 30 MINUTES 06 SECONDS EAST TO A POINT OF INTERSECTION WITH THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF SAID ALGONQUIN ROAD (IL. ROUTE 62); THENCE NORTHWESTERLY ALONG SAID SOUTHWESTERLY RIGHT-OF-WAY LINE BEING A TANGENTIAL CURVE CONCAVE TO THE NORTHEAST RADIUS 9499.34 FEET, CENTRAL ANGLE 00 DEGREES 15 MINUTES 13 SECONDS, 42.04 FEET, (THE CHORD BEARS NORTH 44 DEGREES 52 MINUTES 35 SECONDS WEST 42.04 FEET) TO THE POINT OF BEGINNING).

PARCEL 2:
LOT "A" IN WEBER ATRIUM RESUBDIVISION IN THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY ILLINOIS.

CONTAINING: 671,461.46 sq. ft. (15.41 acres)

LEGEND

- TREE WITH TRUNK DIAM. SIZE
- UTILITY POLE
- LIGHT POLE
- SIGN POST
- UTILITY PEDESTAL
- CLOSED COVER DRAINAGE STRUCTURE
- FIRE HYDRANT
- OPEN COVER DRAINAGE STRUCTURE
- SANITARY SEWER MANHOLE
- WATER SHUTOFF VALVE WITH 8" CASING
- CURB INLET/CATCH BASIN
- GAS SERVICE SHUTOFF VALVE
- TELEPHONE SERVICE VAULT
- TRAFFIC SIGNAL LIGHT
- TRAFFIC SIGNAL CONTROL VAULT
- GUY WIRE (ANCHOR)
- BOLLARD
- SOIL BORING
- OVERHEAD WIRES (# OF WIRES)
- UNDERGROUND ELECTRIC
- STORM SEWER
- SANITARY SEWER
- WATER MAIN

XXX.X GROUND ELEVATION
XXX.XX PAVEMENT ELEVATION
FIN/FL = FINISHED FLOOR ELEVATION
T/FDN = TOP OF FOUNDATION ELEVATION
T/W = TOP OF WALL

- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- 11' EASEMENT FOR WATER & ELECTRICAL PER DOC. NO. 19971611, COMED & ILLINOIS BELL TELEPHONE PER DOC. NO. 20062059 & 10' EASEMENT FOR WATERMAIN PER DOC. NO. 20922014
- NON-EXCLUSIVE INGRESS & EGRESS EASEMENT PER DOC. NO. 30455226 & 0608244082
- 7' EASEMENT FOR GAS & SEWER PER DOC. NO. 19971611
- 25' INGRESS & EGRESS EASEMENT PER DOC. NO. 24176553
- 22' INGRESS & EGRESS EASEMENT PER DOC. NO. 24730091 & 0608244082
- 10' TELEPHONE EASEMENT PER DOC. NO. 24328863
- 25' INGRESS & EGRESS EASEMENT PER DOC. NO. 24176554
- 22' INGRESS & EGRESS EASEMENT PER DOC. NO. 24730091 & 0608244082
- STORM WATER DRAINAGE & DETENTION EASEMENT PER DOC. NO. 20932529 (OUTLOT "A")

NO.	DATE	DESCRIPTION	BY
3	8/09/2017	WATER MAIN, GAS & TELE. LINES ADDED (SHEET 2 AND 3 ONLY)	MMG
2	8/04/2017	STRUCTURE NUMBERING REVISED ON DETAIL OF THE N. ENTRANCE (SHEET 2 OF 3 ONLY)	MMG
1	8/03/2017	CATCH BASIN #28 CHANGED TO #38 (TYPO) (SHEET 3 OF 3 ONLY)	MMG

BASE SCALE : 1 INCH = 50 FEET
DISTANCES ARE MARKED IN FEET AND DECIMAL PARTS THEREOF
ORDERED BY : RWG ENGINEERING LLC
DRAWN BY : MMG
CHECKED BY :
SURVEYED BY : LR-RB-JG

COMPARE ALL POINTS BEFORE BUILDING BY SAME AND AT ONCE REPORT ANY DIFFERENCE. FOR BUILDING LINE AND OTHER RESTRICTIONS NOT SHOWN HEREON REFER TO YOUR ABSTRACT DEED, CONTRACT AND ZONING ORDINANCE.

ORDER NO. 17-20813- REV 3
SHEET 1 OF 3

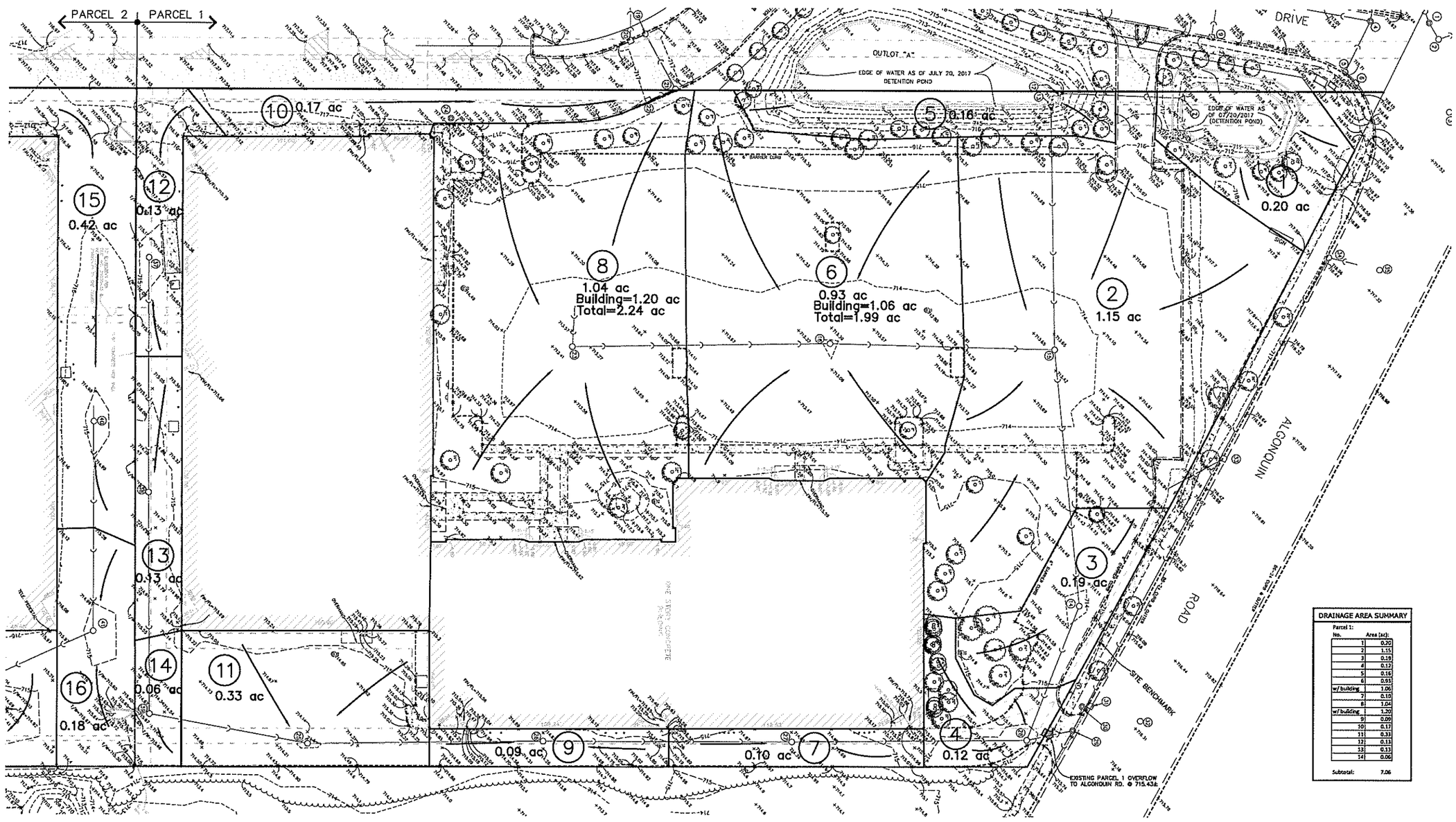
STATE OF ILLINOIS
COUNTY OF DuPAGE S.S.

WE, GENTILE AND ASSOCIATES, INC., HEREBY CERTIFY THAT A SURVEY HAS BEEN MADE AT AND UNDER MY DIRECTION, OF THE PROPERTY DESCRIBED ABOVE, AND THAT THE PLAT HEREON DRAWN IS A CORRECT REPRESENTATION OF SAID SURVEY. THIS PLAT CONFORMS TO THE MINIMUM STANDARD REQUIREMENTS FOR A BOUNDARY SURVEY.

JULY 27, A.D. 2017

BY :

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 2925
MY LICENSE EXPIRES NOVEMBER 30, 2018
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184.002870



GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

DRAINAGE AREA SUMMARY

Parcel 1:

No.	Area (ac):
1	0.20
2	1.15
3	0.19
4	0.12
5	0.16
6	0.93
w/ building	1.06
7	0.10
8	1.04
w/ building	1.20
9	0.09
10	0.17
11	0.33
12	0.13
13	0.13
14	0.06
Subtotal:	7.06

DATE	REVISIONS	DRAWN BY

HAMILTON PARTNERS ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
EXHISTING DRAINAGE EXHIBIT - PARCEL 1 / PHASE 1

RWG Engineering, LLC
Civil Engineering • Real Estate Consulting • Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.460.7889
www.rwg-enginteering.com

PROJECT NO. 3221271
DATE 10/18/17
SCALE 1"=30'
PROJ. MGR. PDL
PROJ. ASSOC. RWG
DRAWN BY TLM

SHEET
1 OF 2

© COPYRIGHT 2017

October 18, 2017 9:31:53 a.m. AcadVer:22.0s (LMS Tech)
Drawing: S:\3221271 - HP ARLINGTON HEIGHTS INDUSTRIAL\300_ENGINEERING\310_CADD\MEUM\329_BASE_EXISTING_DRAINAGE_EXHIBIT.DWG

DRAINAGE AREA SUMMARY			
Parcel 2:			
No.	Area (ac):	Parcel 2: (cont.)	
15	0.42	22	1.11
16	0.18	23	0.16
17	0.34	24	0.11
18	0.07	w/ building	1.07
19	0.09	25	0.41
20	1.20	w/ building	0.45
w/ building	1.21	26	0.47
21	1.07	Subtotal:	8.36

GRAPHIC SCALE

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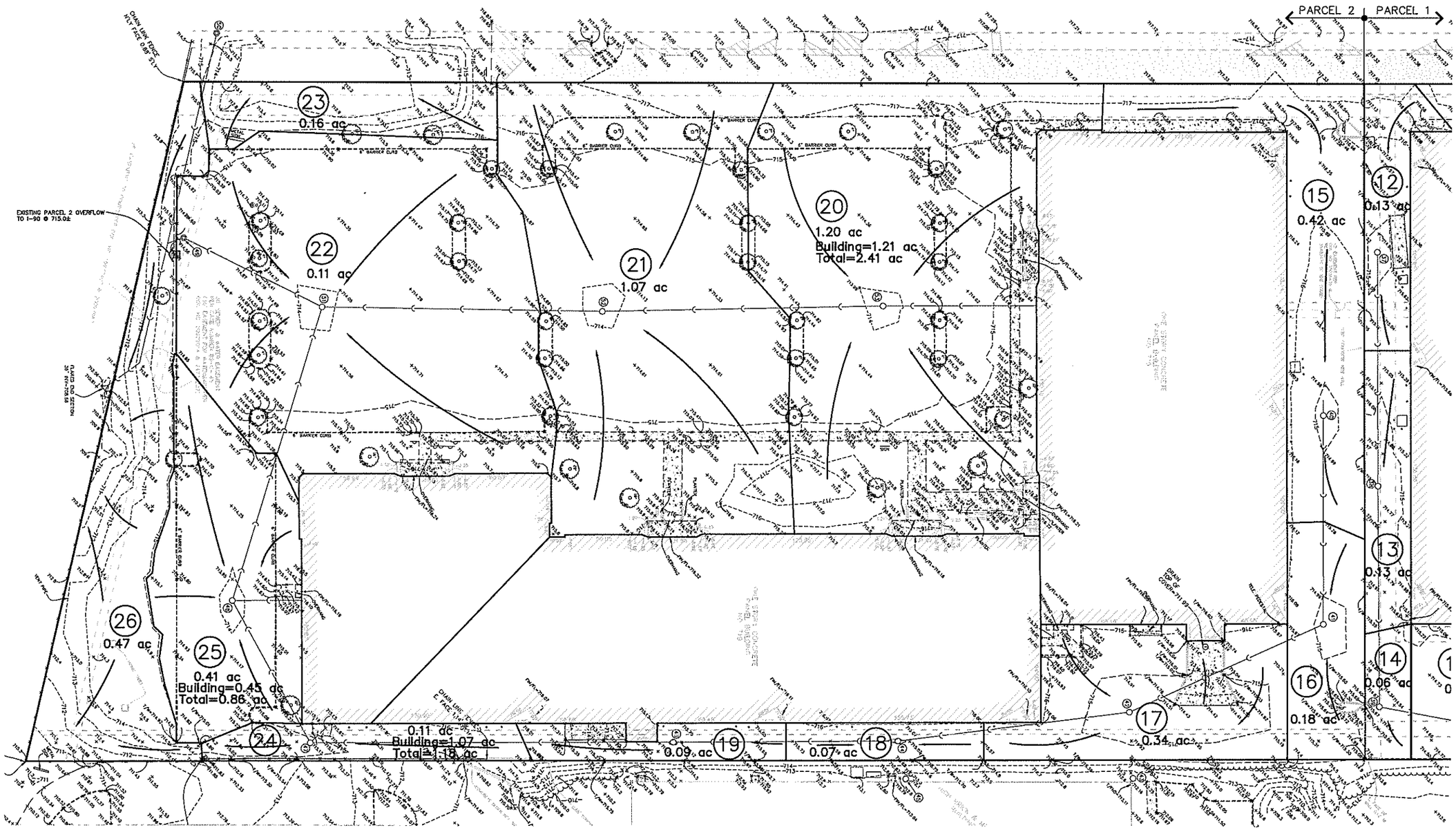
(IN FEET)
1 inch = 30 ft.



DRAWN BY

REVISIONS

DATE

HAMILTON PARTNERS ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
EXISTING DRAINAGE EXHIBIT - PARCEL 2 / PHASE 2

RWG Engineering, LLC
Civil Engineering • Real Estate Consulting • Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 22212717
DATE 10/18/17
SCALE 1"=30'
PROJ. MGR. PDL
PROJ. ASSOC. RWG
DRAWN BY TLM

SHEET
2 OF 2

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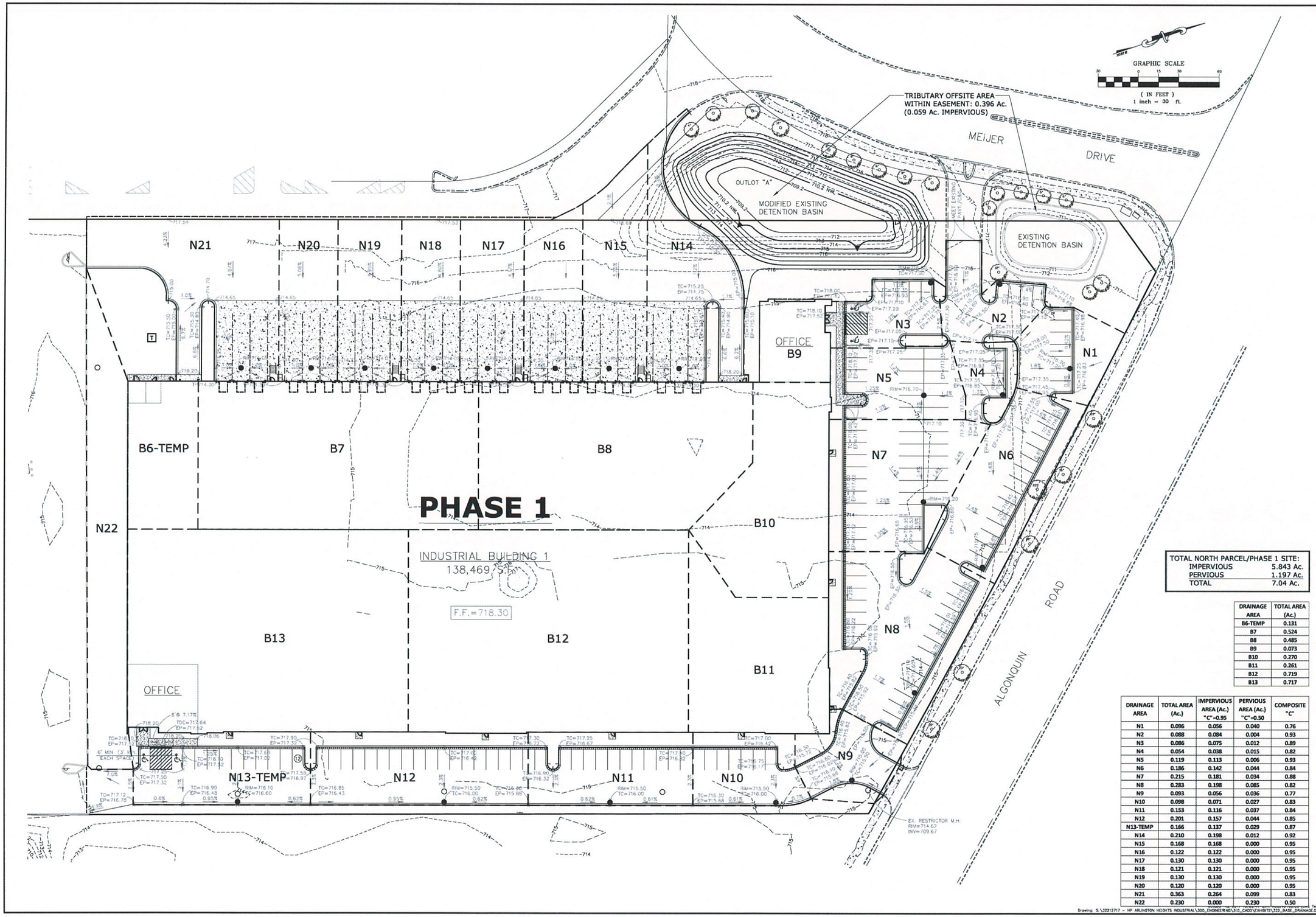
Drawing: S:\22212717 - HP ARLINGTON HEIGHTS INDUSTRIAL\300_ENGINEERING\310_CADD\PRELIM\372_BASE_EXISTING_DRAINAGE_EXHIBIT.DWG



TOTAL NORTH PARCEL/PHASE 1 SITE:	
IMPERVIOUS	5.843 Ac.
PERVIOUS	1.197 Ac.
TOTAL	7.04 Ac.

DRAINAGE AREA	TOTAL AREA (Ac.)
B6-TEMP	0.131
B7	0.524
B8	0.485
B9	0.073
B10	0.270
B11	0.261
B12	0.719
B13	0.717

DRAINAGE AREA	TOTAL AREA (Ac.)	IMPERVIOUS AREA (Ac.) "C"=0.95	PERVIOUS AREA (Ac.) "C"=0.50	COMPOSITE "C"
N1	0.096	0.056	0.040	0.76
N2	0.088	0.084	0.004	0.93
N3	0.086	0.075	0.012	0.89
N4	0.054	0.038	0.015	0.82
N5	0.119	0.113	0.006	0.93
N6	0.186	0.142	0.044	0.84
N7	0.215	0.181	0.034	0.88
N8	0.283	0.198	0.085	0.82
N9	0.093	0.056	0.036	0.77
N10	0.098	0.071	0.027	0.83
N11	0.153	0.116	0.037	0.84
N12	0.201	0.157	0.044	0.85
N13-TEMP	0.166	0.137	0.029	0.87
N14	0.210	0.198	0.012	0.92
N15	0.168	0.168	0.000	0.95
N16	0.122	0.122	0.000	0.95
N17	0.130	0.130	0.000	0.95
N18	0.121	0.121	0.000	0.95
N19	0.130	0.130	0.000	0.95
N20	0.120	0.120	0.000	0.95
N21	0.363	0.264	0.099	0.83
N22	0.230	0.000	0.230	0.50

Drawing: S:\32212717 - HP ARLINGTON HEIGHTS INDUSTRIAL\300_ENGINEERING\310_CADD\EXHIBITS\322_BASE_DRAINAGE.DWG (Tech)

DRAWN BY
REVISIONS
DATE

ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
PHASE 1 (NORTH) DRAINAGE AREA EXHIBIT

RWG Engineering, LLC
Civil Engineering ♦ Real Estate Consulting ♦ Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 32212717
DATE 09/22/17
SCALE 1"=30'
PROJ. MGR. PDL
PROJ. ASSOC. RWG
DRAWN BY AVS

SHEET 1 OF 1

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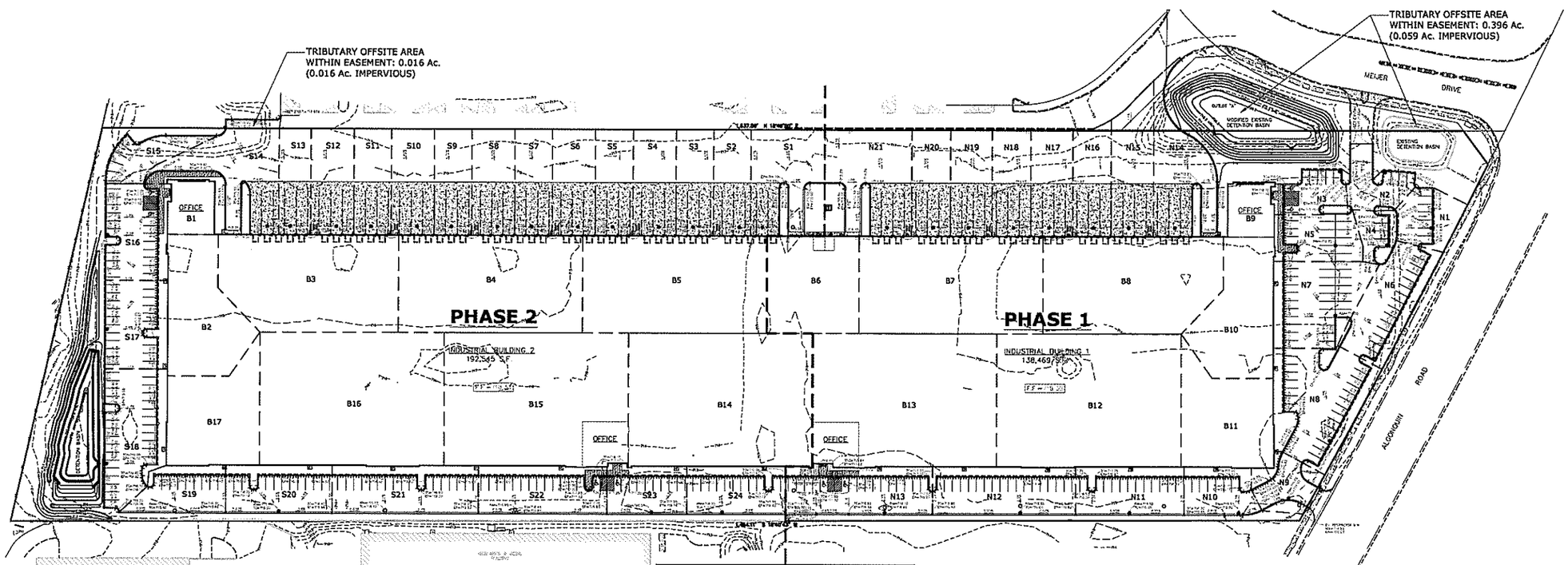
DRAINAGE AREA	TOTAL AREA (Ac.)	IMPERVIOUS AREA (Ac.) "C"=0.95	PERVIOUS AREA (Ac.) "C"=0.50	COMPOSITE "C"
N1	0.096	0.056	0.040	0.76
N2	0.088	0.084	0.004	0.93
N3	0.086	0.075	0.012	0.89
N4	0.054	0.038	0.015	0.82
N5	0.119	0.113	0.006	0.93
N6	0.186	0.142	0.044	0.84
N7	0.215	0.181	0.034	0.88
N8	0.283	0.198	0.085	0.82
N9	0.093	0.056	0.036	0.77
N10	0.098	0.071	0.027	0.83
N11	0.153	0.116	0.037	0.84
N12	0.201	0.157	0.044	0.85
N13	0.208	0.168	0.039	0.87
N14	0.210	0.198	0.012	0.92
N15	0.168	0.168	0.000	0.95
N16	0.122	0.122	0.000	0.95
N17	0.130	0.130	0.000	0.95
N18	0.121	0.121	0.000	0.95
N19	0.130	0.130	0.000	0.95
N20	0.120	0.120	0.000	0.95
N21	0.271	0.232	0.039	0.88

DRAINAGE AREA	TOTAL AREA (Ac.)	IMPERVIOUS AREA (Ac.) "C"=0.95	PERVIOUS AREA (Ac.) "C"=0.50	COMPOSITE "C"
S1	0.230	0.190	0.040	0.87
S2	0.116	0.116	0.000	0.95
S3	0.117	0.117	0.000	0.95
S4	0.134	0.134	0.000	0.95
S5	0.117	0.117	0.000	0.95
S6	0.134	0.134	0.000	0.95
S7	0.117	0.117	0.000	0.95
S8	0.134	0.134	0.000	0.95
S9	0.117	0.117	0.000	0.95
S10	0.134	0.134	0.000	0.95
S11	0.117	0.117	0.000	0.95
S12	0.134	0.134	0.000	0.95
S13	0.099	0.099	0.000	0.95
S14	0.269	0.236	0.033	0.89
S15	0.082	0.082	0.000	0.95
S16	0.178	0.153	0.025	0.89
S17	0.163	0.132	0.031	0.86
S18	0.226	0.188	0.038	0.87
S19	0.118	0.093	0.024	0.86
S20	0.150	0.114	0.037	0.84
S21	0.206	0.159	0.046	0.85
S22	0.180	0.145	0.036	0.86
S23	0.114	0.092	0.023	0.86
S24	0.140	0.105	0.035	0.84

DRAINAGE AREA	TOTAL AREA (Ac.)
B1	0.073
B2	0.269
B3	0.486
B4	0.524
B5	0.524
B6	0.262
B7	0.524
B8	0.485
B9	0.073
B10	0.270
B11	0.261
B12	0.719
B13	0.717
B14	0.718
B15	0.717
B16	0.719
B17	0.261

GRAPHIC SCALE

(IN FEET)
1 inch = 60 ft.



TOTAL SITE AREA:		
NORTH		
IMPERVIOUS	259,489 SF	(5.957 Ac.)
PERVIOUS	39,983 SF	(0.918 Ac.)
TOTAL	299,472 SF	(6.875 Ac.)
SOUTH		
IMPERVIOUS	326,595 SF	(7.498 Ac.)
PERVIOUS	45,394 SF	(1.042 Ac.)
TOTAL	371,989 SF	(8.540 Ac.)

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REVISIONS

DATE

ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
MASTER DRAINAGE AREA EXHIBIT

RWG Engineering, LLC
Civil Engineering • Real Estate Consulting • Project Management
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630.481.7689
www.rwg-engineering.com

PROJECT NO. 32212717
DATE 09/22/17
SCALE 1"=60'
PROJ. MGR. PDL
PROJ. ASSOC. RHG
DRAWN BY AVS

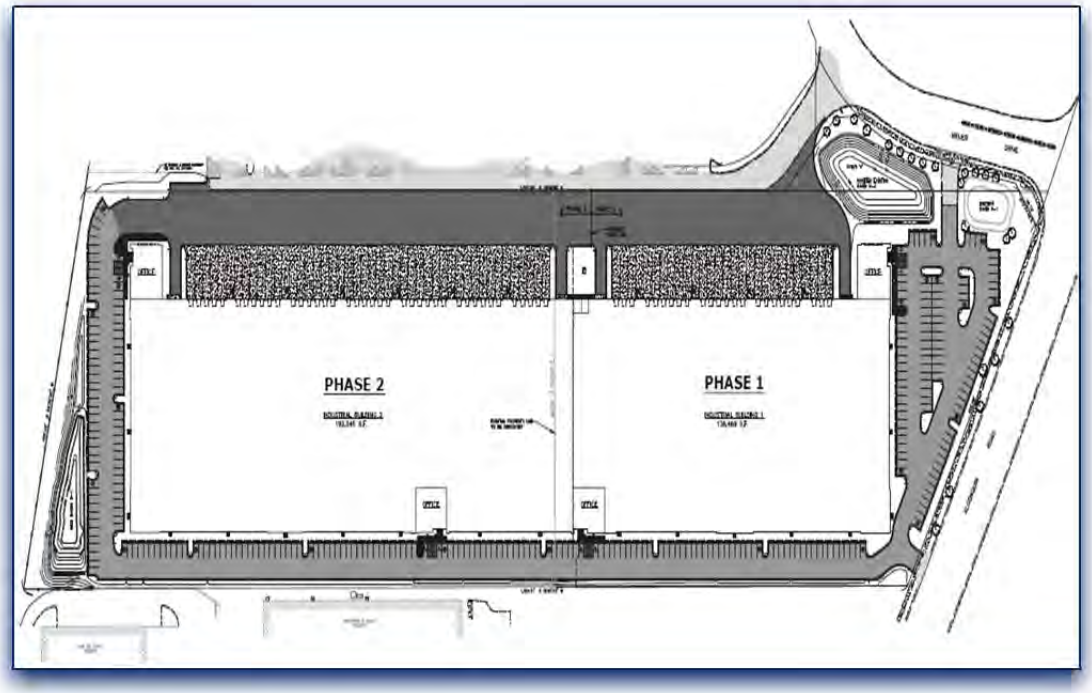
SHEET
1 OF 1

October 18, 2017 10:11:24 a.m. AccuWin 22.0a (LMS Tech)
Drawing: S:\32212717 - HP ARLINGTON HEIGHTS INDUSTRIAL\300_ENGINEERING\310_CADD\EXHIBITS\22_BASE_DRAINAGE.DWG

Traffic Impact Study

Proposed Arlington Heights Industrial

Arlington Heights, Illinois



Prepared for

HAMILTON PARTNERS

Prepared by

KLOA
Kenig, Lindgren, O'Hara, Aboona, Inc.

October 25, 2017
Revised December 15, 2017

Executive Summary

A traffic impact study was conducted for the proposed Arlington Heights Industrial development to be located in the southeast quadrant of the signalized intersection of Algonquin Road (IL 62) and Meijer Drive in Arlington Heights, Illinois.

The plans call for the site to be developed in two phases, with the ultimate/final phase to include an approximate 331,014 square-foot warehouse/distribution center. For the purposes of this study, only the final phase of the site development was analyzed.

Truck access to the development will be from a proposed full access drive on Meijer Drive. Access to the development for passenger vehicles will be from a restricted access drive on Meijer Drive, as well as from an existing full access drive on Algonquin Road, east of Meijer Drive.

Traffic projections include the existing weekday morning and weekday afternoon peak hour traffic volumes, and the traffic estimated to be generated by the proposed ultimate buildout of the development.

Based on the proposed development and the related traffic capacity analyses, the findings and recommendations of this study are outlined below.

- Overall, the development will have a low impact on the surrounding roadway network.

- The traffic generated by the existing land uses on the site was retained in the projected traffic volumes, thereby providing for a conservative analysis.

- IL 62 (Algonquin Road), IL 58 (Golf Road), and Arlington Heights Road are all established truck routes and all are under the jurisdiction and maintained by IDOT. Truck traffic will primarily be oriented along IL 62 to the north of Golf Road (IL 58) and to the east of Arlington Heights Road. Further, truck traffic is anticipated to arrive to/from the west on IL 58 and to/from the south on Arlington Heights Road. This derived directional distribution is supported by existing truck traffic counts conducted as part of this study and further supported by IDOT truck traffic volume ADTs on surrounding roadways.

- The traffic signals along IL 62 that includes the intersections at IL 58, Meijer Drive, and Arlington Heights Road, are part of a traffic signal interconnect network that includes 21 traffic signals/intersections and is maintained by the Illinois Department of Transportation (IDOT). The IL 62/Arlington Heights Road traffic signal is the master controller of this system.

- The signalized intersections on IL 62 at IL 58 and Arlington Heights Road will continue to operate at the same level of service and delay under existing conditions. As such, no traffic control or roadway improvements are recommended or needed at these two intersections in conjunction with the proposed development.

- At the signalized intersection of IL 62 and Meijer Drive, it is recommended that three additional seconds of green time be given to Meijer Drive for both peak hour periods. The three seconds can be taken from the access drive located on the east side of IL 62 in alignment with Meijer Drive that operates under a split-phase condition and has a low volume of exiting traffic during the peak hours. Reallocation of greentime from the minor approaches does not typically require the recalibration and optimization of the traffic signal interconnect system along IL 62. The three additional seconds of greentime is shown to improve the level of service and reduce the exiting queue for the dual left-turn lanes on Meijer Drive.

- Meijer Drive at IL 58 is restricted to right-turn only exiting movements onto eastbound IL 58; however, traffic observations show that left-turn and through traffic movements are occurring during peak hours from both Meijer Drive and the access on the north side of IL 58, which is also restricted to right-out only turning movements. No improvements are recommended at this intersection in conjunction with the proposed development.

- The proposed full access drive on IL 62, east of Meijer Drive will serve passenger vehicles only. The access should provide one lane inbound and one lane outbound under stop sign control. No improvements are recommended on IL 62. On IL 62, there is an existing center lane striped as a continuous two-way left-turn lane to accommodate the proposed northbound left-turning vehicles. Based on the projected right-turn volumes, a right-turn lane on IL 62 is neither warranted nor needed.

- The proposed southerly access drive on Meijer Drive will be for truck usage and should provide one lane inbound and one lane outbound under stop sign control. There is an existing left-turn lane on Meijer Drive at the location of this proposed access drive. A northbound right-turn lane is not needed given the low volume of peak hour turning volumes anticipated.

- The proposed northerly access drive on Meijer Drive will be for passenger vehicles only. Further, the access should be designed to restrict turning movements to right-in/right-out only because of the access drive's close proximity to IL 62, in addition to the dual left-turn lanes on Meijer Drive at its approach to IL 62. The access drive should provide one lane inbound and one lane outbound under stop sign control. No improvements on Meijer Drive at this intersection are needed.

Introduction

A traffic impact study was conducted for the proposed Arlington Heights Industrial development to be located in the southeast quadrant of the signalized intersection of Algonquin Road (IL 62) and Meijer Drive in Arlington Heights, Illinois.

The plans call for the site to be developed in two phases, with the ultimate/final phase to include an approximate 331,014 square-foot warehouse/distribution center. For the purposes of this study, only the final phase of the site development was analyzed.

Truck access to the development will be from a proposed full access drive on Meijer Drive. Access to the development for passenger vehicles will be from a restricted access drive on Meijer Drive, as well as from an existing full access drive on Algonquin Road, east of Meijer Drive.

The following sections of this report present the following.

- Existing roadway conditions including vehicle, pedestrian, and bicycle traffic volumes for the weekday morning and weekday afternoon peak hours
- A detailed description of the proposed development
- Vehicle trip generation for the proposed development
- Directional distribution of development-generated traffic
- Future transportation conditions including access to and from the development

Traffic capacity analyses were conducted for the weekday morning and weekday afternoon peak hours for the following two conditions.

1. Existing Condition - Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.
2. Future Condition – Traffic projections include the existing peak hour traffic volumes and the traffic estimated to be generated by the proposed development.

The purpose of this study is as follows:

- Determine the existing vehicular (passenger vehicle and heavy vehicle), pedestrian, and bicycle conditions in the study area to establish a base condition.
- Assess the impact that the proposed development will have on transportation conditions in the area.
- Determine any roadway, traffic control, or access improvements that may be necessary to effectively accommodate and mitigate future conditions.

Existing Conditions

Transportation conditions in the vicinity of the site were inventoried to obtain a basis for projecting future conditions. Three components of existing conditions were considered:

1. The geographic location of the site

2. The characteristics of the adjacent roadway system, including lane geometry and intersection traffic controls

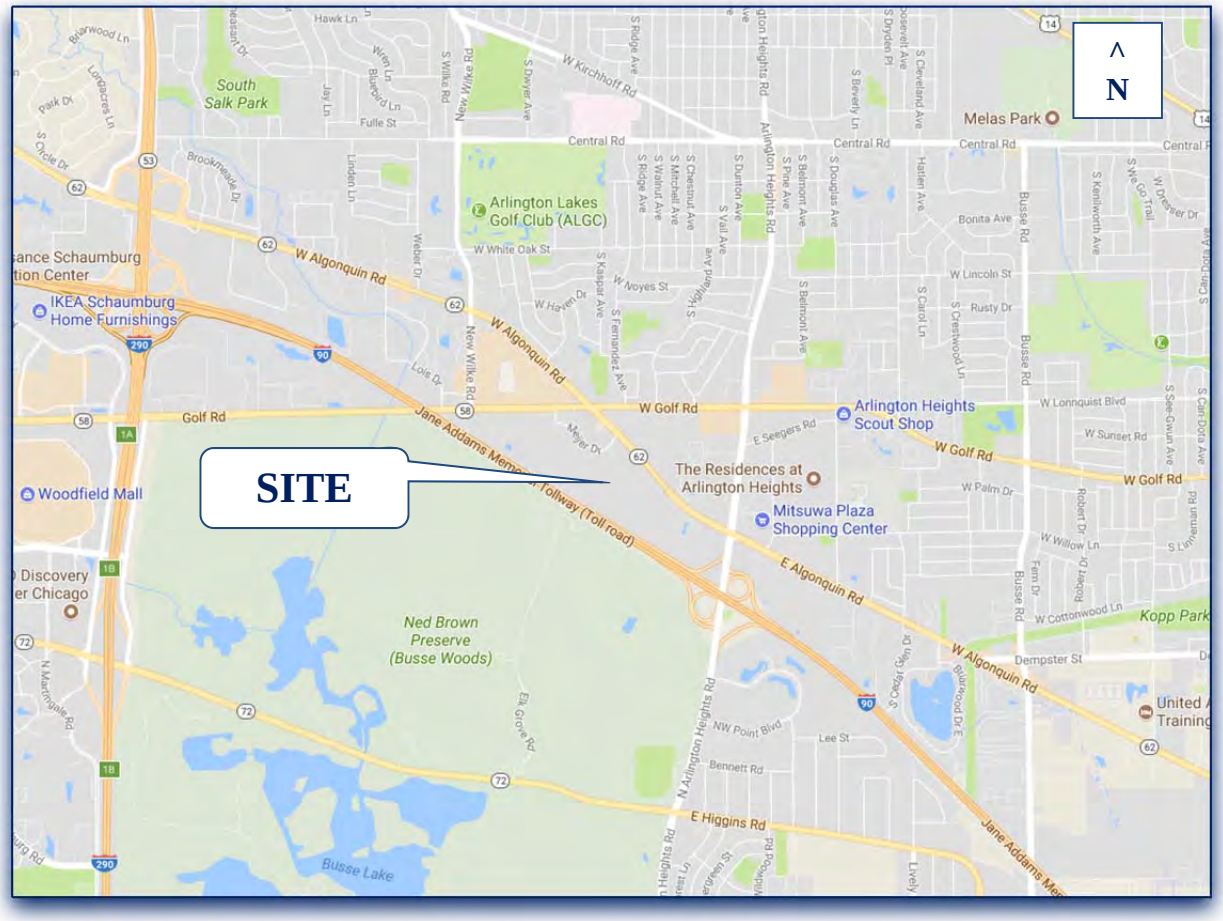
3. The weekday peak-hour vehicle (passenger vehicles and trucks), bicycle, and pedestrian traffic volumes at the study intersections

Site Location

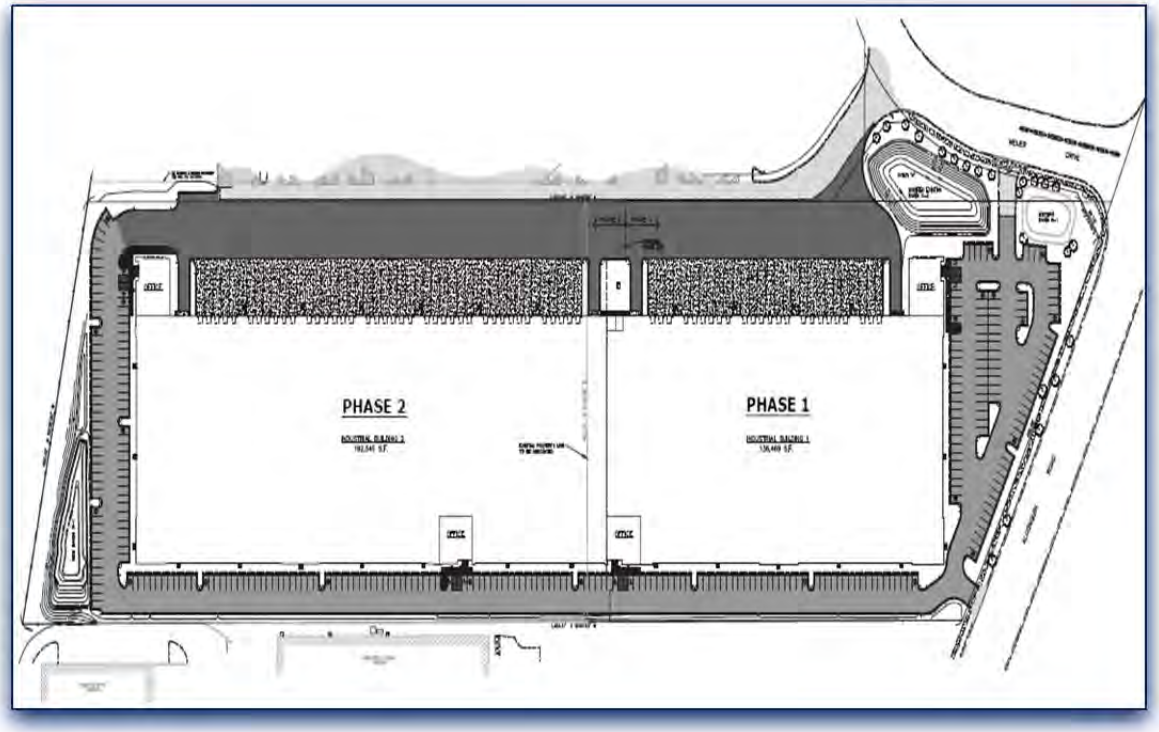
The development site is located in the southeast quadrant of the signalized intersection of Meijer Drive and IL 62 in Arlington Heights, Illinois. The site is currently developed as office/industrial space, and approximately half of the space is currently vacant. As noted, the phased development will result in an ultimate buildout of razing all of the existing structures on the site.

Figure 1 shows the site location on an aerial with respect to the surrounding roadway system.

Figure 2 shows the conceptual site plan for ultimate buildout. The site plan is also included in the Appendix of this report.



SITE LOCATION **Figure 1**



CONCEPTUAL SITE PLAN **Figure 2**

Existing Roadway System Characteristics

The characteristics of the existing roadways in the study area are illustrated in **Figure 3** and described below.

Algonquin Road (IL 62). IL 62 is a four-lane, northwest/southeast major arterial roadway that is under the jurisdiction of IDOT and is not classified as a Strategic Regional Arterial (SRA). The posted speed limit is 35 mph, and parking is restricted on both sides of the roadway. According to IDOT's website, IL 62 carries an average daily traffic (ADT) volume of 29,900 in the vicinity of Meijer Drive.

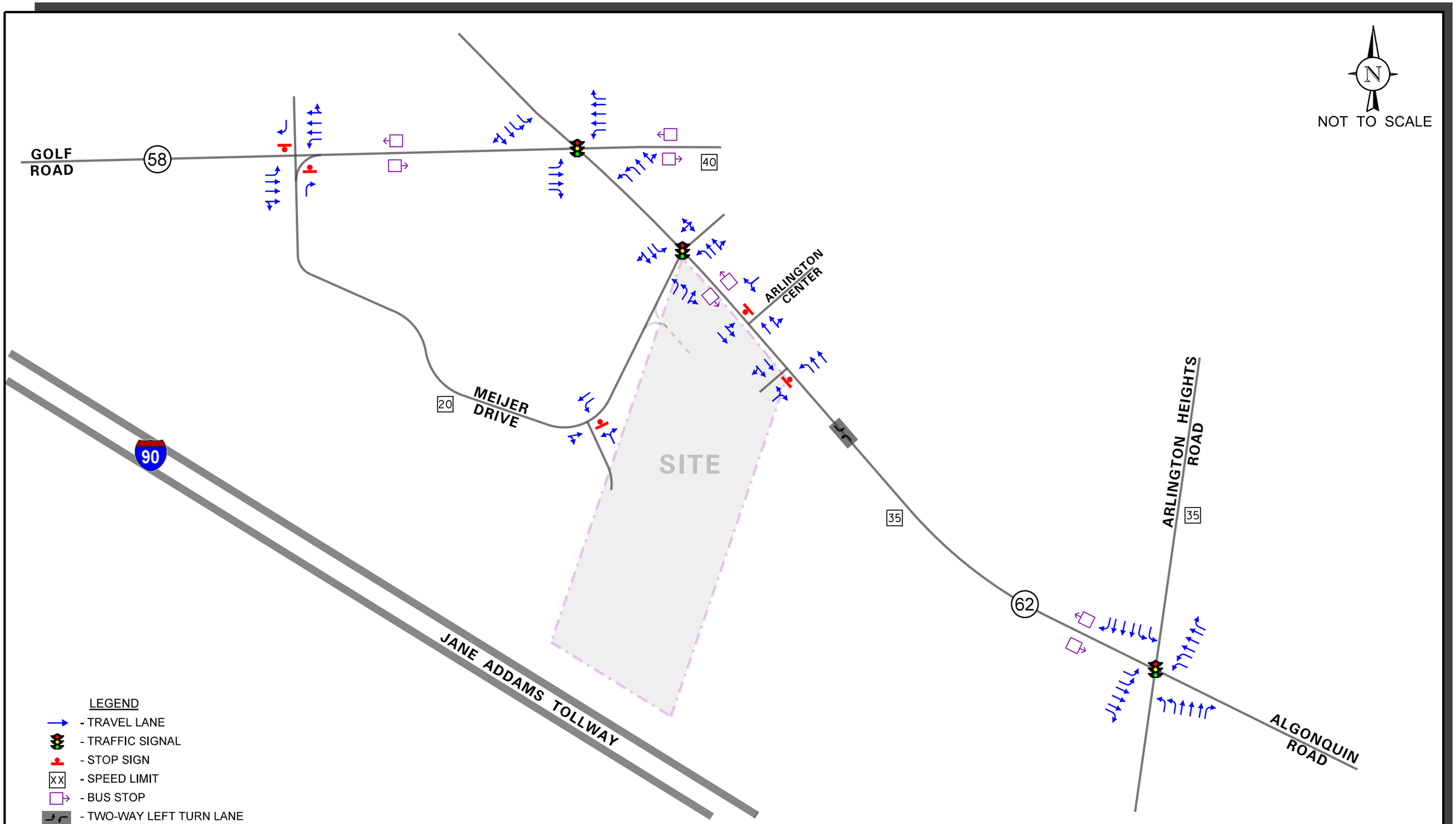
Golf Road (IL 58) is a six-lane, east-west major arterial that is under the jurisdiction of IDOT and is not classified as a SRA. The posted speed limit is 40 mph in the vicinity of IL 62, and parking is restricted on both sides of the roadway. According to IDOT's website, IL 58 carries an ADT volume of 30,900 vehicles in the vicinity of IL 62.

Arlington Heights Road is a six-lane north-south major arterial roadway that is a non-numbered route and is maintained by IDOT. It is not classified as a SRA. The posted speed limit is 35 mph, and parking is restricted on both sides of the roadway. According to IDOT's website, Arlington Heights Road carries an ADT volume of 25,700 vehicles in the vicinity of IL 62.

Meijer Drive is a three-lane boulevard that extends between IL 58 to the north/west to IL 62 to the east/south. The boulevard provides one lane in each direction with a center lane striped as a continuous two-way left-turn lane. Parking is restricted on both sides of the roadway and the posted speed limit is 20 mph. At its stop sign controlled intersection with Golf Road, vehicles are restricted to right-in/right-out/left-in turning movements only. Dual left-turn lanes and a right-turn lane are provided on its eastbound approach with its signalized intersection with IL 62. Meijer Drive and the access drive on the east side of IL 62 in alignment with Meijer Drive operate as a split-phase condition when the respective approaches receive greentime successively rather than concurrently. Meijer Drive provides access to the retail outlots fronting IL 58 and IL 62, the Meijer store, and the existing/remaining warehouse/industrial developments behind the Meijer store. Meijer Drive is under the jurisdiction of the Village of Arlington Heights.

Traffic Signal Interconnect

The traffic signals along IL 62 that includes the intersections at IL 58, Meijer Drive, and Arlington Heights Road, are part of a traffic signal interconnect network that includes 21 traffic signals/intersections and is maintained by IDOT. The IL 62/Arlington Heights Road traffic signal is the master controller of this system.



ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS

EXISTING ROADWAY CHARACTERISTICS

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.
Job No: 17-173
Figure: 3

Existing Traffic Volumes

Turning movement vehicle (passenger, truck, and bus), pedestrian, and bicycle traffic counts were conducted during the morning (7:00 to 9:00 A.M.), and the afternoon (4:00 to 6:00 P.M.) on Tuesday, July 25, 2017 at the following five intersections.

1. Golf Road (IL 58) and Algonquin Road (IL 62) (signalized)
2. Meijer Drive and IL 62 (signalized)
3. Arlington Heights Road and IL 62 (signalized)
4. Meijer Drive and IL 58 (unsignalized)
5. Arlington Center Access Drive and IL 62 (unsignalized)

From the turning movement count data, it was determined that the weekday morning peak hour generally occurs between 7:30 and 8:30 A.M. and the weekday afternoon peak hour generally occurs between 4:30 and 5:30 P.M. These two respective peak hours will be used for the traffic capacity analyses and are presented later in this report. Pedestrian and bicycle activity was observed and was reported to be relatively low at the study intersections.

The existing peak hour vehicle traffic volumes (all vehicles) are shown in **Figure 4**.

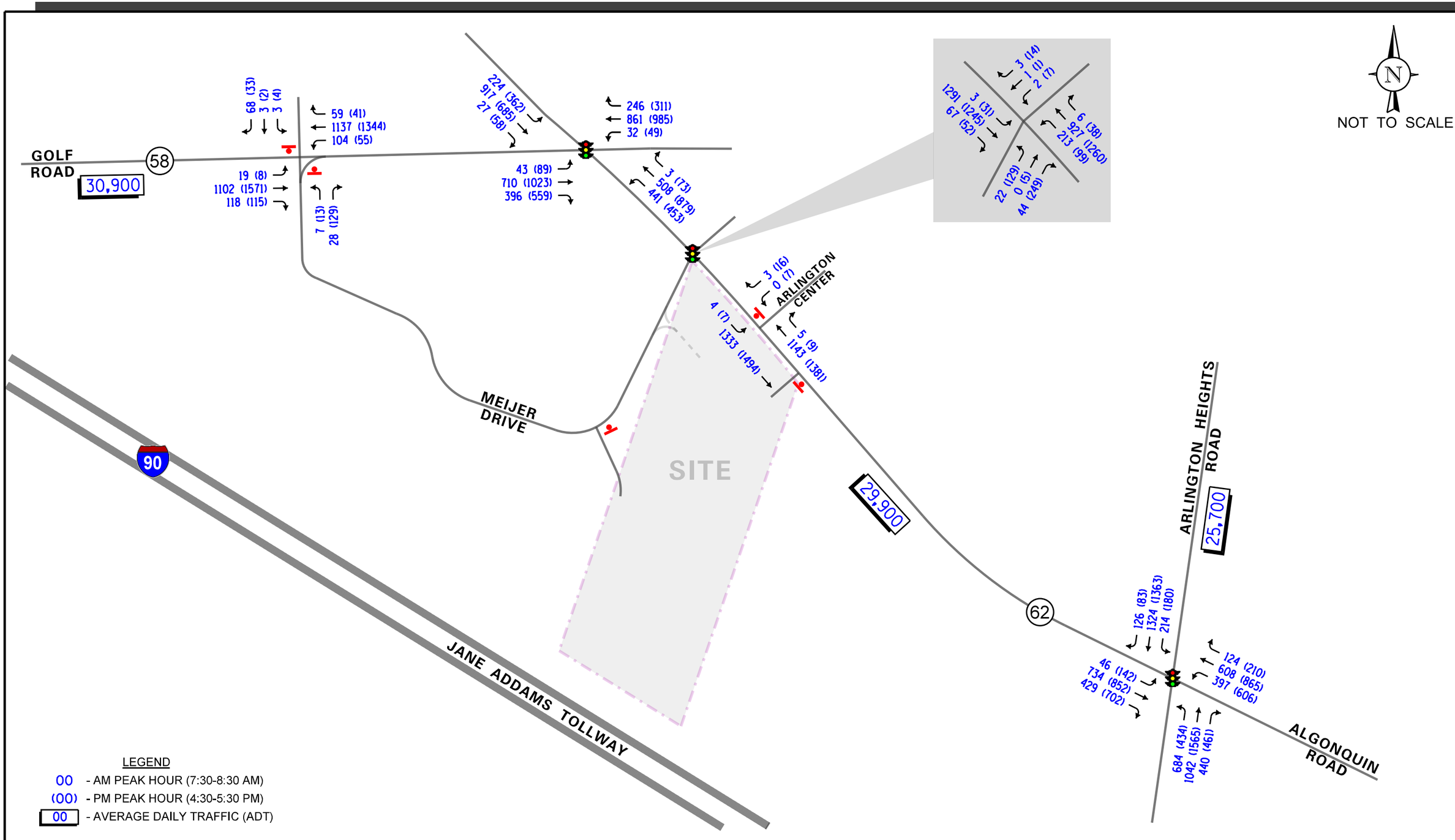
The existing peak hour truck traffic (heavy vehicles) volumes are shown in **Figure 5**.

Observations

Based on a review of the existing traffic volumes and field reconnaissance of the surrounding environs, the following observations are noted.

- Meijer Drive at IL 58 is restricted to right-turn only exiting movements onto eastbound IL 58; however, traffic observations show that left-turn and through traffic movements are occurring during peak hours from both Meijer Drive and the access on the north side of IL 58, which is also restricted to right-out only turning movements.

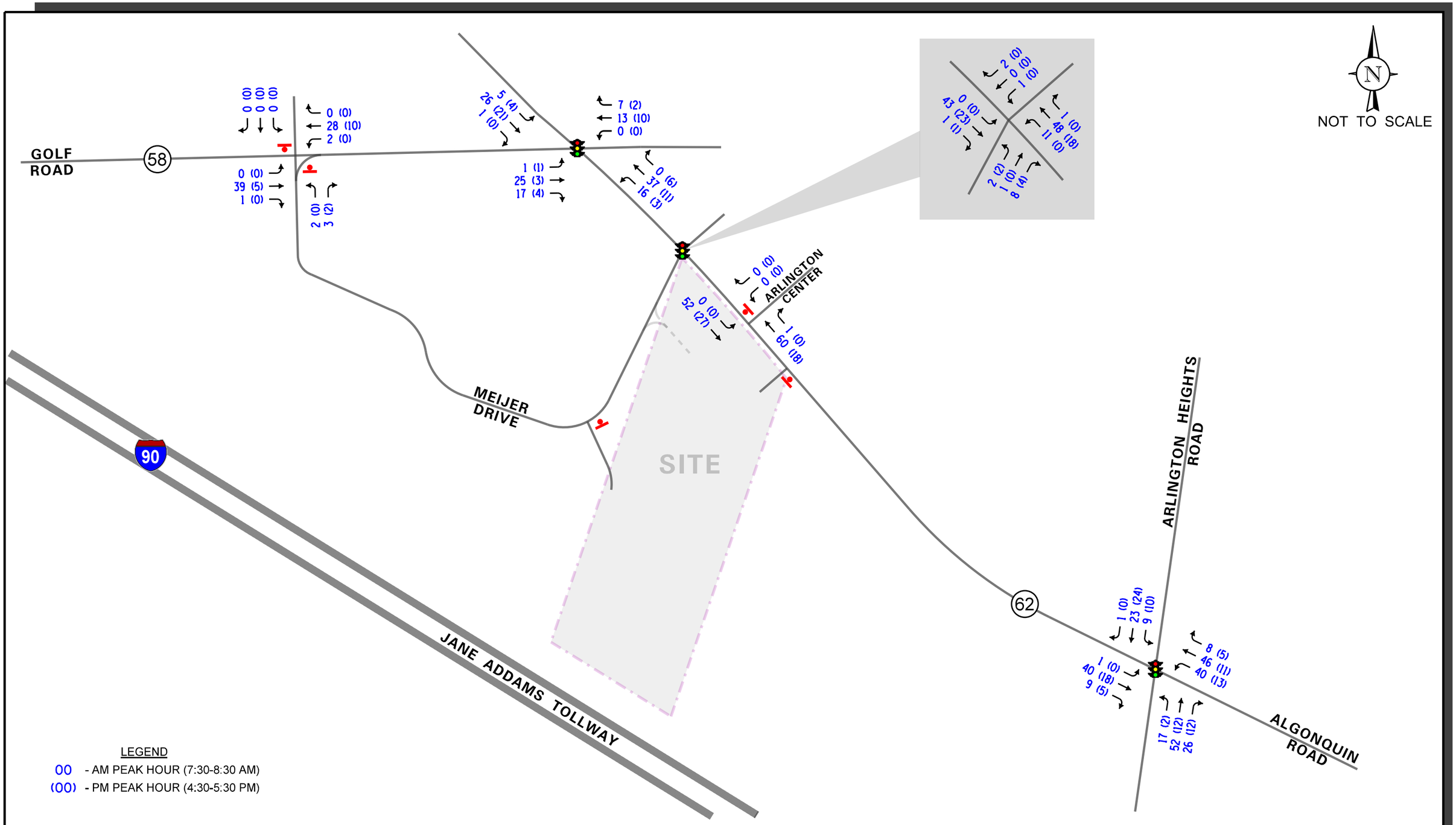
- The access driveway to the PACE corporate building on IL 62, located approximately 635 feet southeast from the proposed access drive to the subject development and approximately one-fourth of a mile from Meijer Drive is under police officer traffic control to facilitate the exiting traffic during the weekday afternoon peak hours. Officers stop the through traffic on IL 62 in both directions to allow exiting traffic protected passage onto IL 62. Although stopping the vehicles on IL 62 results in a temporary queuing of vehicles, southeastbound through vehicles on IL 62 were not observed to extend to the proposed full access serving the subject development. Further, stopping the through traffic at this access drive results in additional gaps in through traffic along IL 62 at the proposed access drive.



ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS

EXISTING TRAFFIC VOLUMES
(ALL VEHICLES)

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.
Job No: 17-173
Figure: 4



LEGEND

00 - AM PEAK HOUR (7:30-8:30 AM)

(00) - PM PEAK HOUR (4:30-5:30 PM)

ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS

EXISTING TRAFFIC VOLUMES
(HEAVY VEHICLES)

KLOA
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Job No: 17-173

Figure: 5

Traffic Characteristics of Proposed Development

To evaluate the impact of the subject development on the area roadway system, it was necessary to quantify the number of vehicle trips the overall site will generate during the weekday morning and weekday afternoon peak hours and then determine the directions from which this traffic will approach and depart the site.

Proposed Site and Development Plan

The plans call for the site to be developed in two phases, with the ultimate/final phase to include an approximate 331,014 square-foot warehouse/distribution center. For the purposes of this study, only the final phase of the site development was analyzed.

Truck (Heavy Vehicle) Access

The proposed southerly access drive on Meijer Drive will be for truck usage and should provide one lane inbound and one lane outbound under stop sign control. There is an existing left-turn lane on Meijer Drive at the location of this proposed access drive.

Passenger Vehicle Access

Two access drives are proposed to serve passenger vehicles, as described below.

Full Access and IL 62. Located east of Meijer Drive, this access will serve passenger vehicles only. The access should provide one lane inbound and one lane outbound under stop sign control. On IL 62, there is an existing center lane striped as a continuous two-way left-turn lane to accommodate the proposed northbound left-turning vehicles.

Restricted Access and Meijer Drive. The proposed northerly access drive on Meijer Drive should be designed to restrict turning movements to right-in/right-out only because of its close proximity to IL 62, in addition to the dual left-turn lanes on Meijer Drive at its approach to IL 62. The access drive should provide one lane inbound and one lane outbound under stop sign control.

Directional Distribution of Development-Generated Traffic

Two separate directional distributions were prepared: one for the truck traffic, and one for the private passenger vehicle traffic. The respective directional distributions of how development traffic will approach and depart the site was estimated based on a combination of existing travel patterns (both passenger vehicle and truck traffic), the location of the site relative to arterial roadways in the area, and the orientation and physical restrictions of the surrounding roadway system.

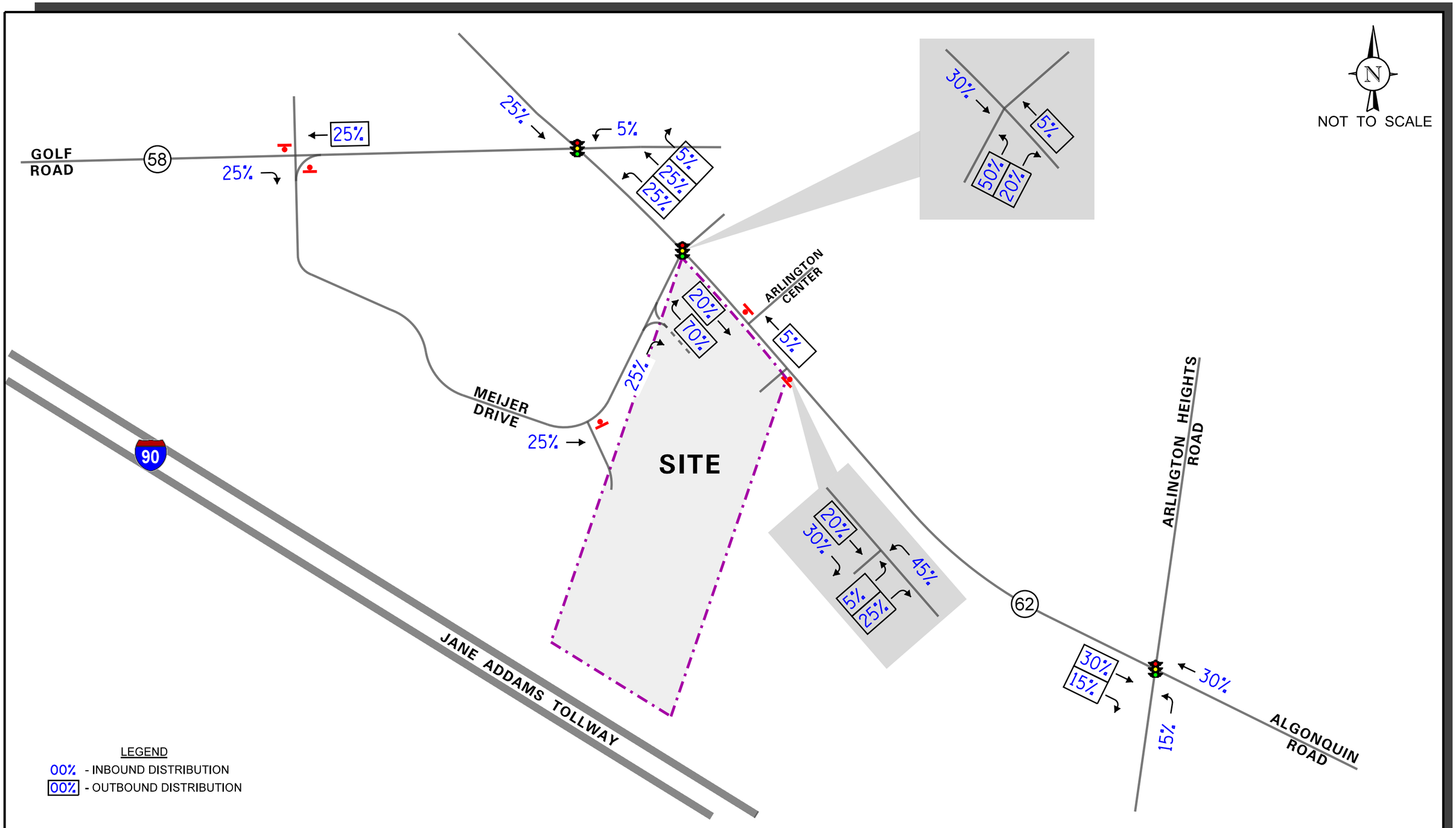
The passenger vehicle estimated directional distribution for the proposed development is illustrated in **Figure 6**.

The truck, or heavy vehicle, estimated directional distribution for the proposed development is illustrated in **Figure 7**.

Development Traffic Generation

The estimates of traffic to be generated by the development are based upon the proposed land use type and size using data published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition. Further, based on other studies of warehouse/distribution centers, it is estimated that approximately 10 to 20 percent of the traffic approaching and departing the development during the peak hours of the day will be trucks, with the remaining 80 to 90 percent being passenger vehicles.

Table 1 shows the truck and passenger vehicle trips estimated to be generated for the proposed ultimate buildout of the development during the weekday morning and weekday afternoon peak hours, in addition to the weekday daily (two-way) volumes.



ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS

ESTIMATED DIRECTIONAL DISTRIBUTION
(PASSENGER VEHICLES)

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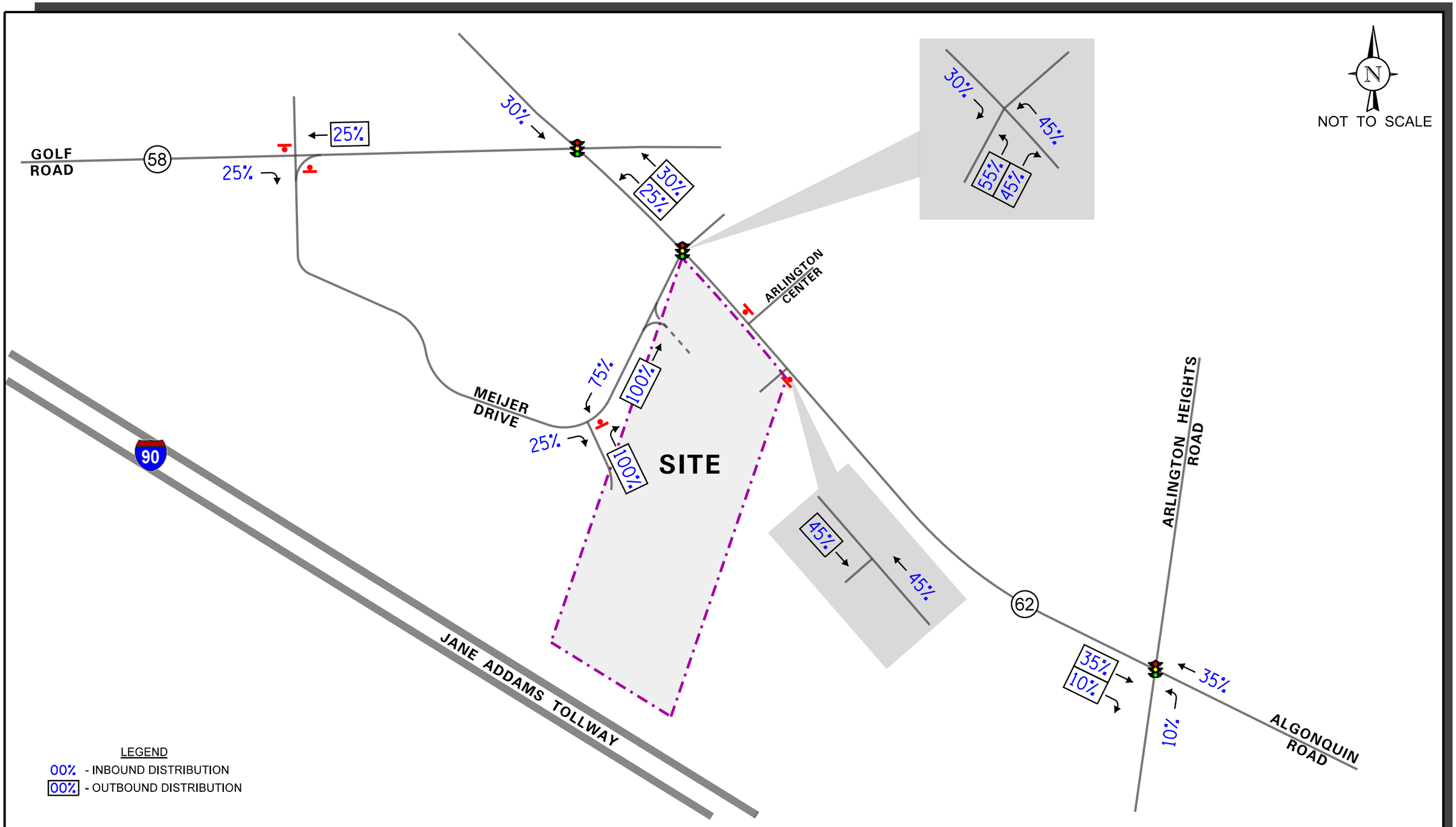
Job No: 17-173
Figure: 6



ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS

ESTIMATED DIRECTIONAL DISTRIBUTION
(HEAVY VEHICLES)

KLOA
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Job No: 17-173
Figure: 7

Table 1
ESTIMATED VEHICLE TRIP GENERATION FOR PROPOSED DEVELOPMENT

	Weekday A.M. Peak Hour		Weekday P.M. Peak Hour		Weekday
Development	In	Out	In	Out	Daily
Warehouse/Distribution 331,014 s.f. (LUC 150) TOTAL	**126**	**33**	**32**	**96**	**1,380**
Truck Traffic (20%)[1]	25	7	6	19	276
Passenger Vehicle Traffic (80%)	101	26	26	77	1,104

[1]Maximum 20 percent assumed in study for conservative analysis purposes.

Development Traffic Assignment

The peak hour traffic volumes projected to be generated by the proposed development (refer to Table 1) were assigned to the area roadways based on the directional distributions established (Figure 6).

Figure 8 shows the assignment of the development-generated passenger traffic volumes.

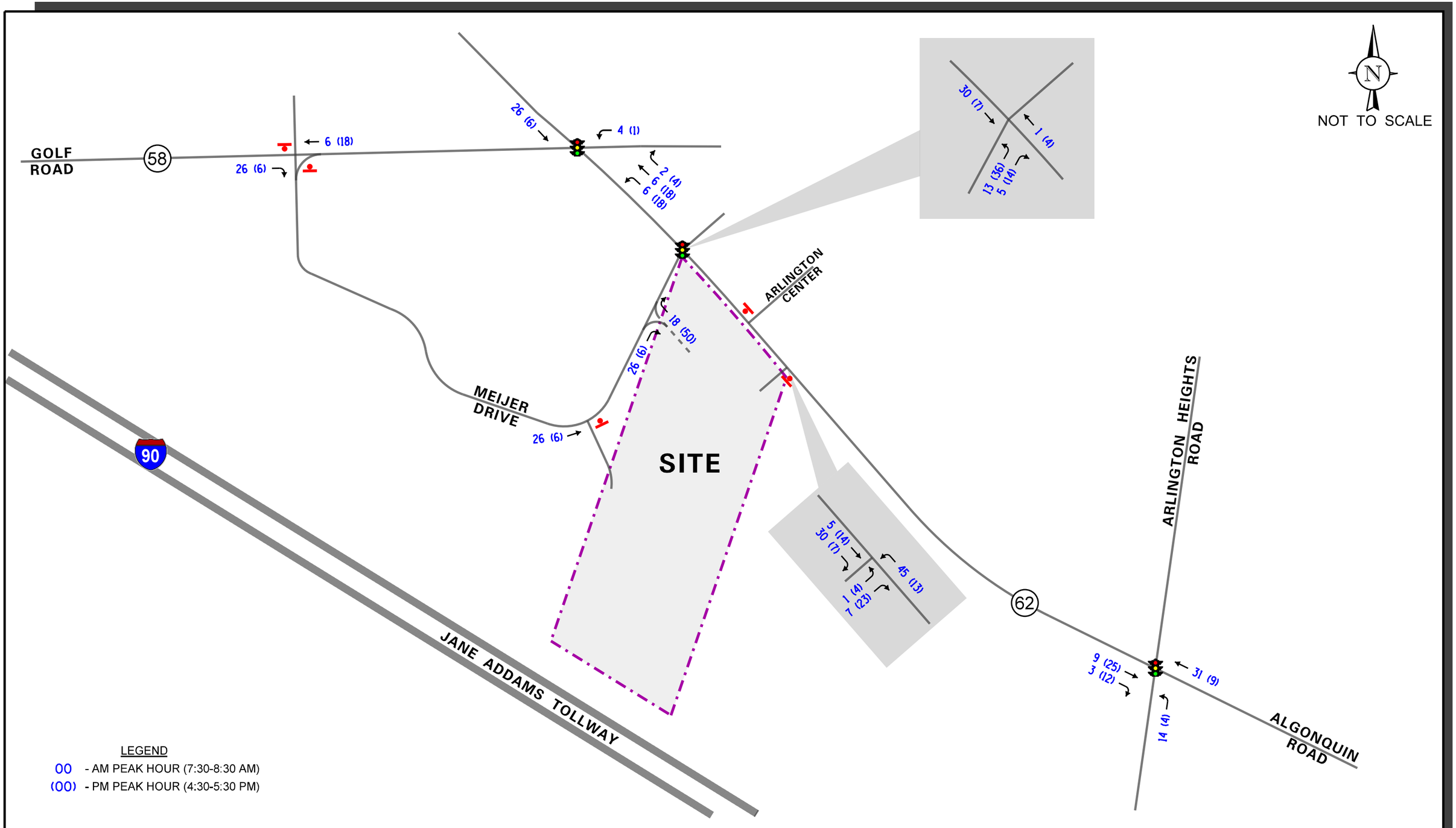
Figure 9 shows the assignment of the development-generated truck traffic volumes.

Total Projected Traffic Conditions

Traffic projections include the existing weekday morning and weekday afternoon peak hour traffic volumes (Figure 4), and the traffic estimated to be generated by the proposed ultimate buildout of the development (Figure 8 and Figure 9).

Based on Year 2040 traffic projections received by the Chicago Metropolitan Area for Planning (CMAP), the average daily traffic volumes (ADT) on the surrounding roadways are anticipated to see a slight decline from existing ADTs due to the resulting add-lanes on the Jane Addams Tollway (I-90). As such, no increase in regional growth was applied to the existing peak hour traffic volumes.

Figure 10 shows the total projected traffic volume conditions. As noted, the traffic currently generated by the existing land uses on the site was not redacted from the existing peak hour traffic volumes to provide for a conservative study.



ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS

ESTIMATED DEVELOPMENT-GENERATED TRAFFIC VOLUMES
(PASSENGER VEHICLES)

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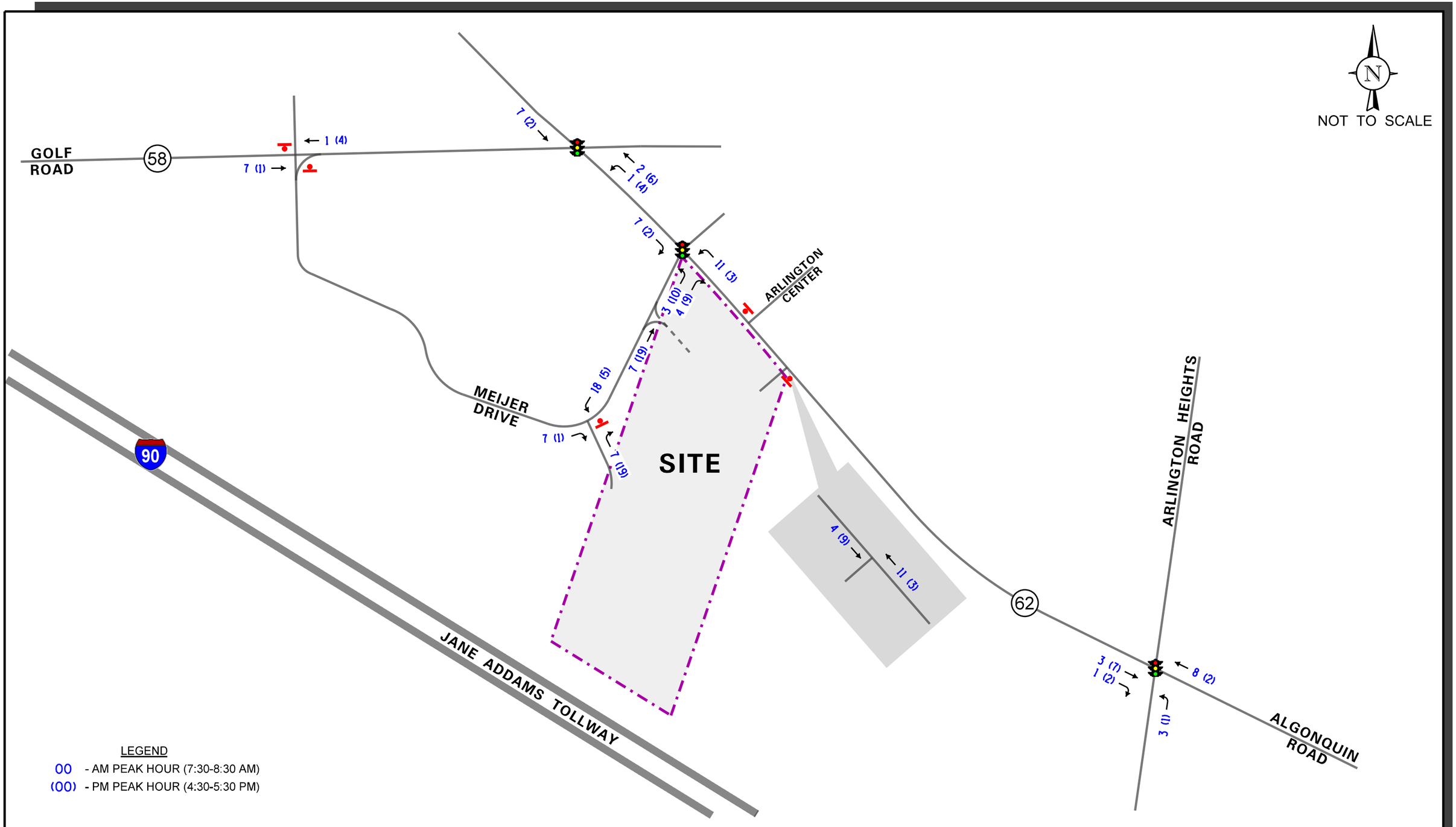
Figure: 8



ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS

ESTIMATED DEVELOPMENT-GENERATED TRAFFIC VOLUMES
(HEAVY VEHICLES)

KLOA
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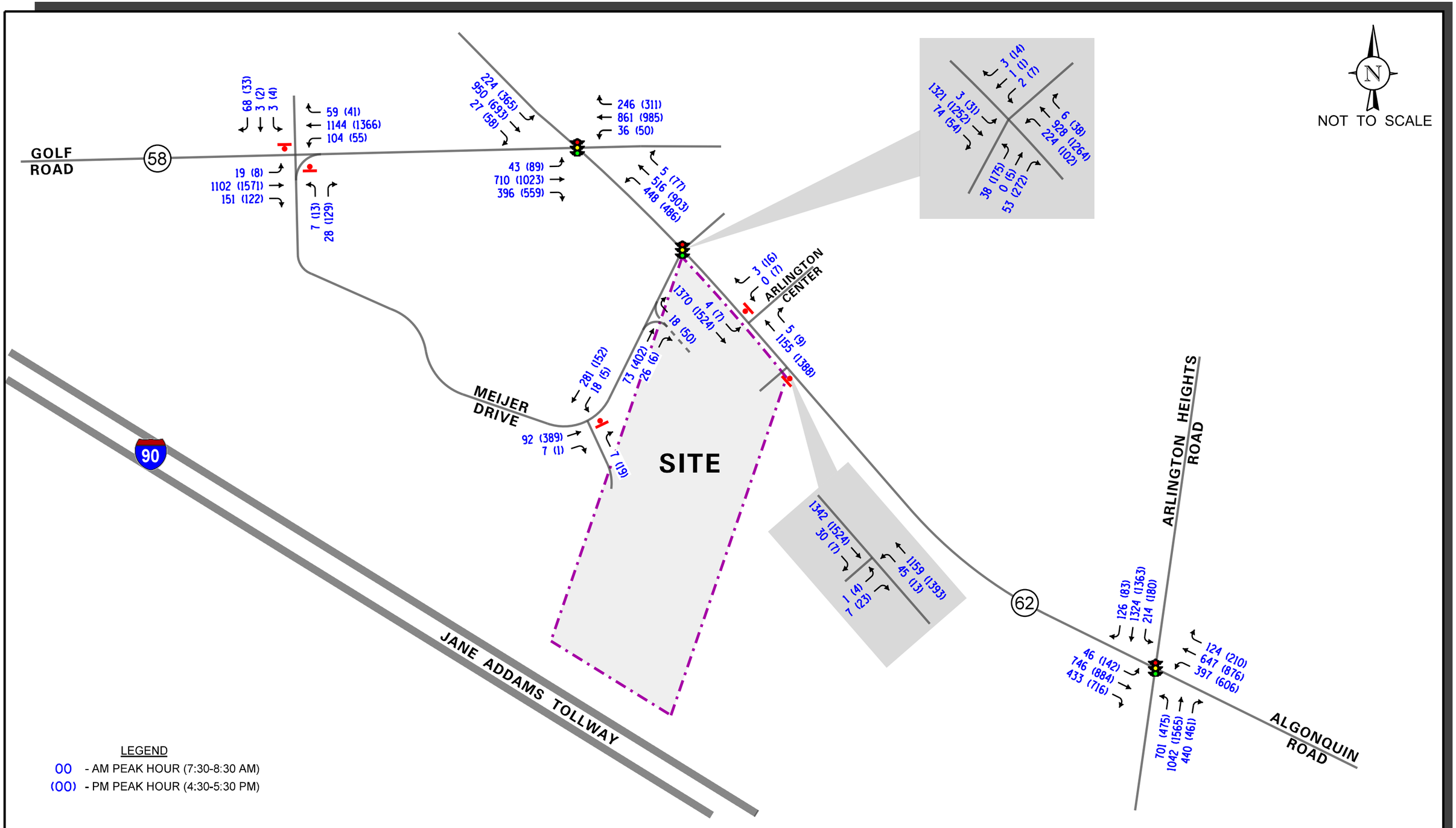
Job No: 17-173
Figure: 9



ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS

TOTAL PROJECTED TRAFFIC VOLUMES

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Job No: 17-173 Figure: 10

Traffic Analysis and Recommendations

Capacity analyses were performed for the key intersections included in the study area to determine the ability of the existing roadway system to accommodate existing and future traffic demands. Analyses were performed for the weekday morning and weekday afternoon peak hours for both existing and future conditions.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 2010* and using Synchro-SimTraffic analysis software.

The analysis for the traffic-signal controlled intersections along IL 62 were completed using existing cycle lengths (150 seconds for both weekday morning and weekday afternoon), phasings, and offsets to determine the average overall vehicle delay, volume-to-capacity ratios, and levels of service.

The analyses for the unsignalized intersections determine the average control delay to vehicles at an intersection. Control delay is the elapsed time from a vehicle joining the queue at a stop sign (includes the time required to decelerate to a stop) until its departure from the stop sign and resumption of free flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter from A to F based on the average control delay experienced by vehicles passing through the intersection. The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for signalized intersections and unsignalized intersections are included in the Appendix of this report.

A summary of the level of service/delay results for both existing and future conditions for each analyzed intersection are presented in **Tables 2 through 6**, respectively.

A discussion of the capacity analysis results and recommendations follows.

Table 2
CAPACITY ANALYSES RESULTS – MEIJER DRIVE AND ALGONQUIN ROAD (IL 62)

Peak Hour	Condition	Operating Conditions by Approach												Overall
		Eastbound Meijer Drive			Westbound Access Drive			Northbound IL 62			Southbound IL 62			
		L	T	R	L	T	R	L	T	R	L	T	R	
Wkdy AM	Existing	E 70.6	E 70.9	A 7.0	--	E 57.7	--	C 21.8	A 5.0	--	A 4.3	B 18.1	A 7.8	B – 13.7
		B – 17.5			E – 57.7			C – 28.2			A – 8.1			
	Future[1]	E 78.6	E 78.6	B 10.9	--	E 57.7	--	C 28.7	A 5.2	--	A 6.0	C 22.8	B 10.5	B – 17.4
		D – 39.1			E – 57.7			C – 22.1			A – 9.7			
Wkdy PM	Existing	F 96.5	F 95.3	C 28.0	--	D 44.3	--	A 7.9	B 11.8	--	A 5.7	B 16.7	A 6.7	B – 18.6
		D – 51.8			D – 44.3			B – 11.5			B – 16.0			
	Future[1]	F 94.1	F 94.3	D 42.7	--	D 45.9	--	A 9.8	B 12.6	--	A 6.6	B 18.3	A 6.3	C – 21.9
		E – 63.5			D – 45.9			B – 12.4			B – 17.5			

[1]Includes reallocation of greentime of 3 additional seconds for eastbound approach; 3 less seconds for westbound approach.

Table 3
CAPACITY ANALYSES RESULTS – GOLF ROAD (IL 58) AND ALGONQUIN ROAD (IL 62)

Peak Hour	Condition	Operating Conditions by Approach												Overall
		Eastbound IL 58			Westbound IL 58			Northbound IL 62			Southbound IL 62			
		L	T	R	L	T	R	L	T	R	L	T	R	
Wkdy AM	Existing	E 78.4	E 62.9	C 26.5	E 76.7	E 55.4	C 33.6	E 68.2	C 26.3	--	E 68.2	E 59.8	--	D – 52.7
		D – 50.2			D – 50.6			E – 61.4			D – 45.7			
	Future	E 78.4	E 62.0	C 26.1	E 77.2	D 54.6	C 33.0	E 67.9	C 26.7	--	E 68.1	E 67.8	--	D – 54.1
		D – 50.2			D – 50.6			E – 67.9			D – 45.8			
Wkdy PM	Existing	F 80.6	D 48.7	C 33.3	E 79.0	D 44.6	C 27.4	E 79.1	D 48.5	--	F 117.4	E 56.3	--	D – 54.9
		D – 45.3			D – 41.9			E – 58.5			E – 76.0			
	Future	F 80.6	D 48.8	C 33.4	E 78.9	D 44.6	C 27.4	E 79.4	D 48.8	--	F 137.1	E 57.1	--	E – 57.2
		D – 45.3			D – 41.9			E – 58.7			F – 83.6			

Table 4
CAPACITY ANALYSES RESULTS – ARLINGTON HEIGHTS ROAD AND ALGONQUIN ROAD (IL 62)

Peak Hour	Condition	Operating Conditions by Approach												Overall
		Eastbound IL 62			Westbound IL 62			Northbound Arlington Heights Rd			Southbound Arlington Heights Rd			
		L	T	R	L	T	R	L	T	R	L	T	R	
Wkdy AM	Existing	E 60.5	D 39.2	D 41.1	F 300.8	C 33.6	C 21.5	F 100.7	D 43.5	D 36.3	F 95.9	F 161.3	D 41.3	F – 91.0
		D – 38.2			F – 126.2			E – 60.1			F – 143.8			
	Future	E 60.9	C 34.6	D 42.1	F 300.8	C 34.0	C 21.5	F 108.6	D 43.5	D 36.3	F 95.9	F 161.3	D 41.3	F – 91.0
		D – 38.2			F – 126.4			E – 63.0			F – 143.8			
Wkdy PM	Existing	E 66.6	E 58.1	D 36.5	F 430.8	D 38.0	C 26.5	E 71.9	D 52.0	C 33.1	F 99.7	F 94.5	C 32.4	F – 88.6
		D – 49.9			F – 178.1			D – 51.9			F – 91.9			
	Future	E 66.5	E 58.5	D 37.6	F 430.8	D 38.1	C 26.5	E 75.2	D 52.0	C 33.1	F 99.7	F 101.9	C 32.7	F – 89.8
		D – 50.1			F – 178.5			D – 52.9			F – 98.1			

Table 5
CAPACITY ANALYSIS RESULTS FOR EXISTING CONDITIONS
UNSIGNALIZED INTERSECTIONS

Intersection	Weekday Morning Peak Hour		Weekday Afternoon Peak Hour	
	LOS	Delay	LOS	Delay
Meijer Drive and Golf Road (IL 58) (two-way stop)				
• Eastbound IL 58 Left-turn	A	9.7	B	10.8
• Westbound IL 58 Left-turn	B	13.3	C	17.7
• Northbound Meijer Right-turn	B	12.1	C	17.2
• Southbound Access Right-turn	A	9.2	A	9.0
Delay is measured in seconds.				

Table 6
CAPACITY ANALYSIS RESULTS FOR FUTURE CONDITIONS
UNSIGNALIZED INTERSECTIONS

	Weekday Morning Peak Hour		Weekday Afternoon Peak Hour	
Intersection	**LOS**	**Delay**	**LOS**	**Delay**
Meijer Drive and Golf Road (IL 58) (two-way stop)				
• Eastbound IL 58 Left-turn	A	9.8	B	10.9
• Westbound IL 58 Left-turn	B	13.6	C	17.8
• Northbound Meijer Right-turn	B	12.3	C	17.3
• Southbound Access Right-turn	A	9.2	A	9.0
Access and Algonquin Road (IL 62) (two-way stop)				
• Eastbound Access Approach	B	11.6	B	14.8
• Northbound IL 62 Left-turn	B	12.5	B	13.7
Truck Access and Meijer Drive (two-way stop)				
• Westbound Meijer Left-turn	A	8.5	A	8.2
• Northbound Truck Access Approach	A	9.9	B	10.9
Restricted Access and Meijer Drive (two-way stop)				
• Northbound Access Right-turn	A	8.8	B	11.3
Delay is measured in seconds.				

Discussion and Recommendations

The following summarizes how the intersections within the study area currently operate and are projected to operate assuming the total projected traffic volumes. It will also identify any roadway and traffic control improvements and/or modifications necessary to accommodate the projected traffic volumes.

Meijer Drive and Algonquin Road (IL 62)

This intersection will continue to operate at an overall acceptable LOS and delay under future projected conditions. As noted, dual left-turn lanes and a right-turn lane are provided on its eastbound approach with its signalized intersection with IL 62. The capacity analysis shows that the outbound queue during the weekday evening peak hour extends to the existing/proposed access drive that will be restricted to right-in/right-out turning movements. The future capacity analysis takes into consideration the addition of the trucks from the proposed facility by having increased the heavy vehicle percentages for the turning movements at this signalized intersection.

Meijer Drive and the access drive opposite Meijer Drive operate as a split phase operation where each receives greentime successively, rather than concurrently. Further, the cycle length is 150 seconds during the weekday evening peak hour. As such, the combination of a long cycle length, split phase operation, and the limited greentime given to Meijer Drive all contribute to the less than desirable LOS/delay for the outbound movements on Meijer Drive, particularly during the weekday evening peak hour. It is recommended that three additional seconds of green time be given to Meijer Drive for both peak hour periods. The three seconds can be taken from the access drive greentime since the access drive has a low volume of exiting traffic during the peak hours. Reallocation of greentime from the minor approaches does not typically require the recalibration and optimization of the traffic signal interconnect system along IL 62. The three additional seconds of greentime as shown in Table 2 above, is shown to improve the level of service and reduce the exiting queue for the dual left-turn lanes on Meijer Drive. Further, the traffic simulation shows that vehicles (a combination of both passenger vehicles and heavy vehicles) will be able to exit Meijer Drive without extensive queuing.

No further roadway or traffic control improvements are needed or recommended at this intersection in conjunction with the proposed development.

Golf Road (IL 58) and Algonquin Road (IL 62)

The signalized intersection of two major arterial highways results in a high volume of traffic traversing through this intersection. A comparison of the existing and future traffic capacity analysis results shows that this intersection will continue to operate at the same overall LOS and delay with the addition of the subject development. As such, no roadway or traffic control improvements are needed or recommended at this intersection in conjunction with the proposed development.

Arlington Heights Road and Algonquin Road (IL 62)

Similar to its intersection at Golf Road (IL 58), this signalized intersection of two major arterial highways results in a high volume of traffic traversing through this intersection. The intersection provides dual left-turn lanes, three through lanes, and a right-turn lane on all four approaches. The intersection currently operates at an undesirable LOS and delay during the peak hours, which can be attributed to the high cycle length (150 seconds), the high volume of vehicles traversing the intersection from all directions and therefore demanding equal greentime, and the protected-only left-turn movements, which receive limited greentime. A comparison of the existing and future traffic capacity analysis results shows that this intersection will continue to operate at the same overall LOS and delay with the addition of the subject development traffic. Further, the subject development traffic represents approximately one percent of the total traffic traversing this intersection during the peak hours and will have a low impact on the overall operations at this intersection. As such, no roadway or traffic control improvements are needed or recommended at this intersection in conjunction with the proposed development.

Meijer Drive and Golf Road (IL 58)

Meijer Drive and the access drive to the north, are restricted to right-in/right-out/left-in exiting movements only. Exiting left-turn movements onto Golf Road are restricted via a shallow raised median and posted signage. Traffic observations show that left-turn and through traffic movements are occurring during peak hours from both Meijer Drive and the access on the north side of IL 58. The intersection will continue to operate at an acceptable LOS and delay under projected traffic conditions. No roadway or traffic control improvements are needed or recommended at this intersection in conjunction with the proposed development.

Full Access and Algonquin Road (IL 62)

The proposed full access drive on IL 62, southeast of Meijer Drive will serve passenger vehicles only. The access should provide one lane inbound and one lane outbound under stop sign control. No improvements are recommended on IL 62. On IL 62, there is an existing center lane striped as a continuous two-way left-turn lane to accommodate the proposed northbound left-turning vehicles. Based on the projected right-turn volumes, a right-turn lane on IL 62 is neither warranted nor needed.

As noted, the police-controlled intersection at the PACE access drive during the weekday afternoon peak periods helps create additional gaps in through traffic on IL 62 in the vicinity of the proposed access drive. As such, between this traffic regulator and the traffic signal at Meijer Drive, effective gaps in traffic were observed at the location of this proposed access drive, which will allow left-turning movements to occur with minimal delay.

Truck Access and Meijer Drive

The proposed southerly access drive on Meijer Drive will be for truck usage and should provide one lane inbound and one lane outbound under stop sign control. There is an existing left-turn lane on Meijer Drive at the location of this proposed access drive. A northbound right-turn lane is not needed given the low volume of peak hour turning volumes anticipated.

Passenger Vehicle Access and Meijer Drive

The proposed northerly access drive on Meijer Drive will be for passenger vehicles only. The capacity analyses show that the eastbound queue on Meijer Drive at its signalized intersection with IL 62 will extend beyond the location of this proposed access drive during the weekday peak hours. Further, there are dual left-turn lanes on Meijer Drive, which are difficult to crossover. As such, the access should be designed to restrict turning movements to right-in/right-out only. The existing access drive that served the former development on the site was designed to also restrict turning movements to right-in/right-out only turning movements. The access drive should provide one lane inbound and one lane outbound under stop sign control. No improvements on Meijer Drive at this intersection are needed.

Truck Routes

IL 62 (Algonquin Road), IL 58 (Golf Road), and Arlington Heights Road are all established truck routes and all are under the jurisdiction and maintained by IDOT. Truck traffic will primarily be oriented along IL 62 to the north of Golf Road (IL 58) and to the east of Arlington Heights Road. Further, truck traffic is anticipated to arrive to/from the west on IL 58 and to/from the south on Arlington Heights Road. This derived directional distribution is supported by existing truck traffic counts conducted as part of this study and further supported by IDOT truck traffic volume ADTs on surrounding roadways.

Conclusion

A traffic impact study was conducted for the proposed Arlington Heights Industrial development to be located in the southeast quadrant of the signalized intersection of Meijer Drive and Algonquin Road (IL 62) in Arlington Heights, Illinois. The plans call for the site to be developed in two phases, with the ultimate/final phase to include an approximate 331,014 square-foot warehouse/distribution center. For the purposes of this study, only the final phase of the site development was analyzed.

Based on the preceding analyses and recommendations, the following conclusions have been made.

- Overall, the development will have a low impact on the surrounding roadway network.

- The traffic generated by the existing land uses on the site was retained in the projected traffic volumes, thereby providing for a conservative analysis.

- IL 62 (Algonquin Road), IL 58 (Golf Road), and Arlington Heights Road are all established truck routes and all are under the jurisdiction and maintained by IDOT. Truck traffic will primarily be oriented along IL 62 to the north of Golf Road (IL 58) and to the east of Arlington Heights Road. Further, truck traffic is anticipated to arrive to/from the west on IL 58 and to/from the south on Arlington Heights Road. This derived directional distribution is supported by existing truck traffic counts conducted as part of this study and further supported by IDOT truck traffic volume ADTs on surrounding roadways.

- The traffic signals along IL 62 that includes the intersections at IL 58, Meijer Drive, and Arlington Heights Road, are part of a traffic signal interconnect network that includes 21 traffic signals/intersections and is maintained by the Illinois Department of Transportation (IDOT). The IL 62/Arlington Heights Road traffic signal is the master controller of this system.

- The signalized intersections on IL 62 at IL 58 and Arlington Heights Road will continue to operate at the same level of service and delay under existing conditions. As such, no traffic control or roadway improvements are recommended or needed at these two intersections in conjunction with the proposed development.

- At the signalized intersection of IL 62 and Meijer Drive, it is recommended that three additional seconds of green time be given to Meijer Drive for both peak hour periods. The three seconds can be taken from the access drive located on the east side of IL 62 in alignment with Meijer Drive that operates under a split-phase condition and has a low volume of exiting traffic during the peak hours. Reallocation of greentime from the minor approaches does not typically require the recalibration and optimization of the traffic signal interconnect system along IL 62. The three additional seconds of greentime is shown to improve the level of service and reduce the exiting queue for the dual left-turn lanes on Meijer Drive.

- Meijer Drive at IL 58 is restricted to right-turn only exiting movements onto eastbound IL 58; however, traffic observations show that left-turn and through traffic movements are occurring during peak hours from both Meijer Drive and the access on the north side of IL 58, which is also restricted to right-out only turning movements. No improvements are recommended at this intersection in conjunction with the proposed development.

- The proposed full access drive on IL 62, east of Meijer Drive will serve passenger vehicles only. The access should provide one lane inbound and one lane outbound under stop sign control. No improvements are recommended on IL 62. On IL 62, there is an existing center lane striped as a continuous two-way left-turn lane to accommodate the proposed northbound left-turning vehicles. Based on the projected right-turn volumes, a right-turn lane on IL 62 is neither warranted nor needed.

- The proposed southerly access drive on Meijer Drive will be for truck usage and should provide one lane inbound and one lane outbound under stop sign control. There is an existing left-turn lane on Meijer Drive at the location of this proposed access drive. A northbound right-turn lane is not needed given the low volume of peak hour turning volumes anticipated.

- The proposed northerly access drive on Meijer Drive will be for passenger vehicles only. Further, the access should be designed to restrict turning movements to right-in/right-out only because of the access drive's close proximity to IL 62, in addition to the dual left-turn lanes on Meijer Drive at its approach to IL 62. The access drive should provide one lane inbound and one lane outbound under stop sign control. No improvements on Meijer Drive at this intersection are needed.

Appendix

Site Plan

TOTAL SITE (PHASE 1&2 BUILDOUT):

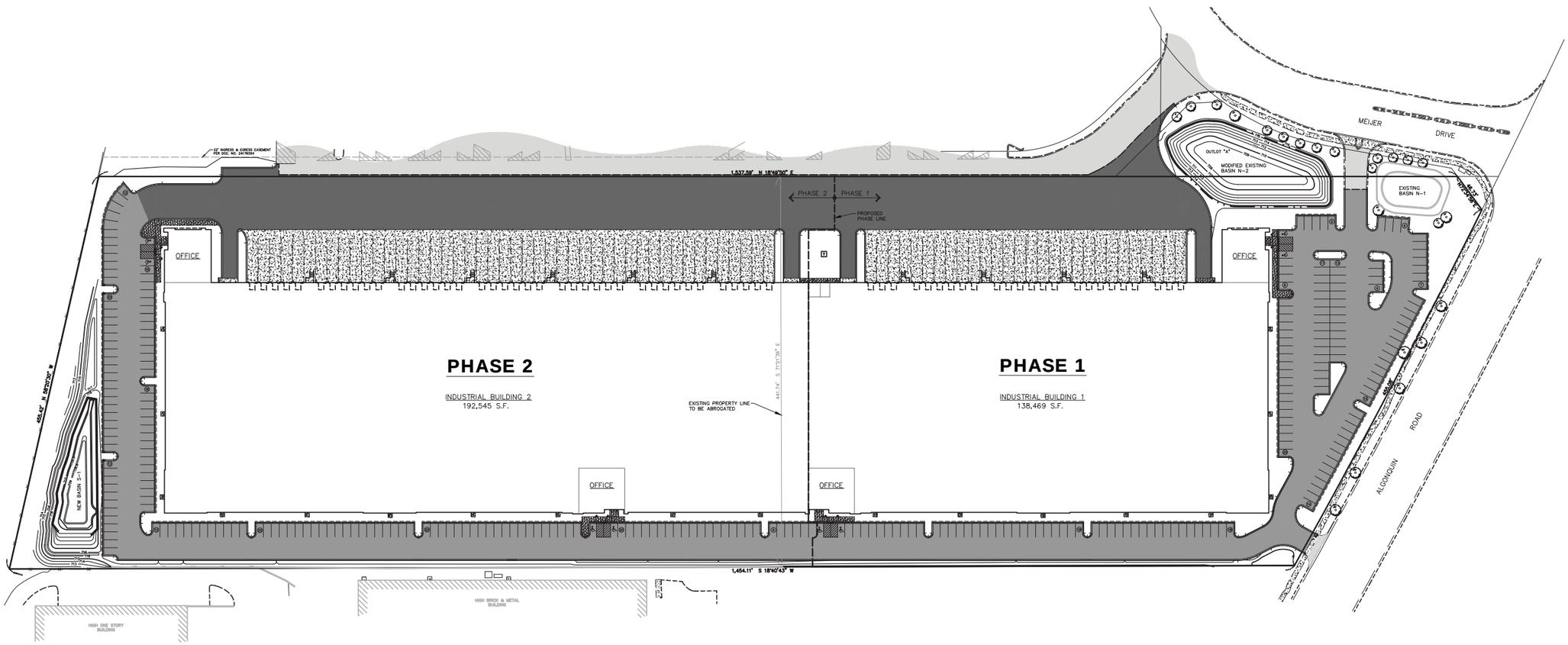
TOTAL LOT SIZE	= 671,453 S.F. (15.41 AC)
PROPOSED SITE CONDITIONS:	
PROPOSED BUILDING 1&2 FOOTPRINT	= 331,014 S.F. (49.30%)
PROPOSED PAVT./SIDEWALK	= 263,778 S.F. (39.28%)
PROPOSED GREENSPACE	= 76,661 S.F. (11.42%)
PROPOSED CONDITION IMPERVIOUS AREA	= 594,792 S.F. (13.65 AC)
PROPOSED PARKING SUMMARY:	
REGULAR STALLS	= 300
PHASE 2 ADA ACCESSIBLE STALLS	= 8
TOTAL STALLS PROVIDED	= 308 (0.93/1,000 SF)

GRAPHIC SCALE

60 0 30 60 120

(IN FEET)
1 inch = 60 ft.

MASTER DEVELOPMENT PLAN PROVIDED FOR GENERAL REFERENCE ONLY.
FOR DETAILS, SEE FOR RESPECTIVE PHASE.



DATE	REVISIONS	DRAWN BY

ARLINGTON HEIGHTS INDUSTRIAL

ARLINGTON HEIGHTS, ILLINOIS

MASTER DEVELOPMENT PLAN - PHASE 1 & 2

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630.480.7889
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PROJECT NO. 32212717
DATE 10/17/17
SCALE 1"=60'
PROJ. MGR. PDL
PROJ. ASSOC. RWG
DRAWN BY TLM

SHEET
6 OF 20

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October 17, 2017 4:29:12 p.m. AcadVer:22.0s (LMS Tech)
Drawing: S:\32212717 – HP ARLINGTON HEIGHTS INDUSTRIAL\300_ENGINEERING\310_CADD\FINAL\322_BASE.DWG

Traffic Count Data

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Algonquin and Golf
Site Code:
Start Date: 07/25/2017
Page No: 1

Turning Movement Data

Start Time	Golf Road Eastbound						Golf Road Westbound						Algonquin Road Northbound					Algonquin Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	0	4	160	78	0	242	0	8	139	47	0	194	0	74	103	0	177	0	42	185	8	0	235	848
7:15 AM	2	7	179	99	0	287	0	6	187	48	0	241	0	102	112	0	214	0	54	223	7	0	284	1026
7:30 AM	0	11	170	95	0	276	0	5	216	65	0	286	0	111	141	0	252	0	58	223	6	0	287	1101
7:45 AM	1	10	165	124	0	300	0	8	238	64	0	310	0	104	124	0	228	0	61	251	8	0	320	1158
Hourly Total	3	32	674	396	0	1105	0	27	780	224	0	1031	0	391	480	0	871	0	215	882	29	0	1126	4133
8:00 AM	0	8	183	97	0	288	0	10	195	53	0	258	0	109	123	0	232	0	54	240	7	0	301	1079
8:15 AM	0	13	192	80	0	285	0	9	212	64	0	285	0	117	120	0	237	0	51	203	6	0	260	1067
8:30 AM	0	4	174	80	0	258	0	6	199	57	0	262	0	97	130	0	227	0	68	185	7	1	260	1007
8:45 AM	1	11	177	72	0	261	0	11	178	75	0	264	0	76	133	0	209	0	67	179	8	0	254	988
Hourly Total	1	36	726	329	0	1092	0	36	784	249	0	1069	0	399	506	0	905	0	240	807	28	1	1075	4141
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	2	15	221	148	0	386	0	6	234	91	0	331	0	132	216	0	348	2	95	163	13	0	273	1338
4:15 PM	0	27	281	126	0	434	0	14	267	105	0	386	0	142	211	0	353	0	77	152	16	0	245	1418
4:30 PM	2	28	217	157	0	404	0	16	232	86	0	334	0	127	197	0	324	2	78	159	15	0	254	1316
4:45 PM	1	21	272	150	0	444	0	15	262	76	1	353	0	101	218	1	319	1	85	167	16	0	269	1385
Hourly Total	5	91	991	581	0	1668	0	51	995	358	1	1404	0	502	842	1	1344	5	335	641	60	0	1041	5457
5:00 PM	4	17	252	148	0	421	0	5	236	71	0	312	0	114	229	0	343	0	101	179	12	0	292	1368
5:15 PM	3	13	282	104	0	402	0	13	255	78	0	346	0	111	235	0	346	0	95	180	15	0	290	1384
5:30 PM	2	21	226	101	0	350	0	14	268	85	0	367	0	110	209	0	319	0	94	181	15	0	290	1326
5:45 PM	0	20	204	100	1	324	1	6	270	92	0	369	0	105	214	0	319	0	108	161	11	1	280	1292
Hourly Total	9	71	964	453	1	1497	1	38	1029	326	0	1394	0	440	887	0	1327	0	398	701	53	1	1152	5370
Grand Total	18	230	3355	1759	1	5362	1	152	3588	1157	1	4898	0	1732	2715	1	4447	5	1188	3031	170	2	4394	19101
Approach %	0.3	4.3	62.6	32.8	-	-	0.0	3.1	73.3	23.6	-	-	0.0	38.9	61.1	-	-	0.1	27.0	69.0	3.9	-	-	-
Total %	0.1	1.2	17.6	9.2	-	28.1	0.0	0.8	18.8	6.1	-	25.6	0.0	9.1	14.2	-	23.3	0.0	6.2	15.9	0.9	-	23.0	-
Lights	18	226	3284	1698	-	5226	1	149	3526	1138	-	4814	0	1688	2612	-	4300	5	1171	2931	169	-	4276	18616
% Lights	100.0	98.3	97.9	96.5	-	97.5	100.0	98.0	98.3	98.4	-	98.3	-	97.5	96.2	-	96.7	100.0	98.6	96.7	99.4	-	97.3	97.5
Buses	0	0	15	19	-	34	0	1	12	0	-	13	0	16	13	-	29	0	1	4	0	-	5	81
% Buses	0.0	0.0	0.4	1.1	-	0.6	0.0	0.7	0.3	0.0	-	0.3	-	0.9	0.5	-	0.7	0.0	0.1	0.1	0.0	-	0.1	0.4
Single-Unit Trucks	0	2	44	32	-	78	0	1	35	16	-	52	0	19	60	-	79	0	5	67	0	-	72	281
% Single-Unit Trucks	0.0	0.9	1.3	1.8	-	1.5	0.0	0.7	1.0	1.4	-	1.1	-	1.1	2.2	-	1.8	0.0	0.4	2.2	0.0	-	1.6	1.5
Articulated Trucks	0	2	12	10	-	24	0	1	15	3	-	19	0	9	30	-	39	0	11	29	1	-	41	123
% Articulated Trucks	0.0	0.9	0.4	0.6	-	0.4	0.0	0.7	0.4	0.3	-	0.4	-	0.5	1.1	-	0.9	0.0	0.9	1.0	0.6	-	0.9	0.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Algonquin and Golf
Site Code:
Start Date: 07/25/2017
Page No: 2

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Golf Road Eastbound						Golf Road Westbound						Algonquin Road Northbound					Algonquin Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	11	170	95	0	276	0	5	216	65	0	286	0	111	141	0	252	0	58	223	6	0	287	1101
7:45 AM	1	10	165	124	0	300	0	8	238	64	0	310	0	104	124	0	228	0	61	251	8	0	320	1158
8:00 AM	0	8	183	97	0	288	0	10	195	53	0	258	0	109	123	0	232	0	54	240	7	0	301	1079
8:15 AM	0	13	192	80	0	285	0	9	212	64	0	285	0	117	120	0	237	0	51	203	6	0	260	1067
Total	1	42	710	396	0	1149	0	32	861	246	0	1139	0	441	508	0	949	0	224	917	27	0	1168	4405
Approach %	0.1	3.7	61.8	34.5	-	-	0.0	2.8	75.6	21.6	-	-	0.0	46.5	53.5	-	-	0.0	19.2	78.5	2.3	-	-	-
Total %	0.0	1.0	16.1	9.0	-	26.1	0.0	0.7	19.5	5.6	-	25.9	0.0	10.0	11.5	-	21.5	0.0	5.1	20.8	0.6	-	26.5	-
PHF	0.250	0.808	0.924	0.798	-	0.958	0.000	0.800	0.904	0.946	-	0.919	0.000	0.942	0.901	-	0.941	0.000	0.918	0.913	0.844	-	0.913	0.951
Lights	1	41	681	376	-	1099	0	32	846	239	-	1117	0	419	468	-	887	0	219	890	26	-	1135	4238
% Lights	100.0	97.6	95.9	94.9	-	95.6	-	100.0	98.3	97.2	-	98.1	-	95.0	92.1	-	93.5	-	97.8	97.1	96.3	-	97.2	96.2
Buses	0	0	4	3	-	7	0	0	2	0	-	2	0	6	3	-	9	0	0	1	0	-	1	19
% Buses	0.0	0.0	0.6	0.8	-	0.6	-	0.0	0.2	0.0	-	0.2	-	1.4	0.6	-	0.9	-	0.0	0.1	0.0	-	0.1	0.4
Single-Unit Trucks	0	1	20	13	-	34	0	0	8	7	-	15	0	10	26	-	36	0	2	18	0	-	20	105
% Single-Unit Trucks	0.0	2.4	2.8	3.3	-	3.0	-	0.0	0.9	2.8	-	1.3	-	2.3	5.1	-	3.8	-	0.9	2.0	0.0	-	1.7	2.4
Articulated Trucks	0	0	5	4	-	9	0	0	5	0	-	5	0	6	11	-	17	0	3	8	1	-	12	43
% Articulated Trucks	0.0	0.0	0.7	1.0	-	0.8	-	0.0	0.6	0.0	-	0.4	-	1.4	2.2	-	1.8	-	1.3	0.9	3.7	-	1.0	1.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Algonquin and Golf
Site Code:
Start Date: 07/25/2017
Page No: 3

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Golf Road Eastbound						Golf Road Westbound						Algonquin Road Northbound					Algonquin Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:30 PM	2	28	217	157	0	404	0	16	232	86	0	334	0	127	197	0	324	2	78	159	15	0	254	1316
4:45 PM	1	21	272	150	0	444	0	15	262	76	1	353	0	101	218	1	319	1	85	167	16	0	269	1385
5:00 PM	4	17	252	148	0	421	0	5	236	71	0	312	0	114	229	0	343	0	101	179	12	0	292	1368
5:15 PM	3	13	282	104	0	402	0	13	255	78	0	346	0	111	235	0	346	0	95	180	15	0	290	1384
Total	10	79	1023	559	0	1671	0	49	985	311	1	1345	0	453	879	1	1332	3	359	685	58	0	1105	5453
Approach %	0.6	4.7	61.2	33.5	-	-	0.0	3.6	73.2	23.1	-	-	0.0	34.0	66.0	-	-	0.3	32.5	62.0	5.2	-	-	-
Total %	0.2	1.4	18.8	10.3	-	30.6	0.0	0.9	18.1	5.7	-	24.7	0.0	8.3	16.1	-	24.4	0.1	6.6	12.6	1.1	-	20.3	-
PHF	0.625	0.705	0.907	0.890	-	0.941	0.000	0.766	0.940	0.904	-	0.953	0.000	0.892	0.935	-	0.962	0.375	0.889	0.951	0.906	-	0.946	0.984
Lights	10	78	1019	548	-	1655	0	48	971	309	-	1328	0	445	864	-	1309	3	355	663	58	-	1079	5371
% Lights	100.0	98.7	99.6	98.0	-	99.0	-	98.0	98.6	99.4	-	98.7	-	98.2	98.3	-	98.3	100.0	98.9	96.8	100.0	-	97.6	98.5
Buses	0	0	1	7	-	8	0	1	4	0	-	5	0	5	4	-	9	0	0	1	0	-	1	23
% Buses	0.0	0.0	0.1	1.3	-	0.5	-	2.0	0.4	0.0	-	0.4	-	1.1	0.5	-	0.7	0.0	0.0	0.1	0.0	-	0.1	0.4
Single-Unit Trucks	0	0	1	3	-	4	0	0	8	1	-	9	0	2	5	-	7	0	2	13	0	-	15	35
% Single-Unit Trucks	0.0	0.0	0.1	0.5	-	0.2	-	0.0	0.8	0.3	-	0.7	-	0.4	0.6	-	0.5	0.0	0.6	1.9	0.0	-	1.4	0.6
Articulated Trucks	0	1	2	1	-	4	0	0	2	1	-	3	0	1	6	-	7	0	2	8	0	-	10	24
% Articulated Trucks	0.0	1.3	0.2	0.2	-	0.2	-	0.0	0.2	0.3	-	0.2	-	0.2	0.7	-	0.5	0.0	0.6	1.2	0.0	-	0.9	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Meijer and Algonquin
Site Code:
Start Date: 07/25/2017
Page No: 1

Turning Movement Data

Start Time	Meijer Drive Eastbound						Access Drive Westbound						Algonquin Road Northbound						Algonquin Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	0	7	0	13	1	20	0	0	0	0	0	0	0	25	183	1	0	209	0	0	262	10	0	272	501
7:15 AM	0	1	0	16	0	17	0	0	0	0	0	0	0	41	212	1	0	254	0	0	314	9	0	323	594
7:30 AM	0	5	0	9	1	14	0	0	0	0	1	0	0	53	259	0	1	312	0	0	317	12	0	329	655
7:45 AM	0	6	1	9	0	16	0	1	1	1	0	3	0	59	234	4	0	297	1	1	355	9	0	366	682
Hourly Total	0	19	1	47	2	67	0	1	1	1	1	3	0	178	888	6	1	1072	1	1	1248	40	0	1290	2432
8:00 AM	0	5	0	13	0	18	0	0	0	1	0	1	0	48	207	0	0	255	1	0	323	20	0	344	618
8:15 AM	0	6	0	13	0	19	0	1	0	1	0	2	0	53	227	2	1	282	0	0	296	26	0	322	625
8:30 AM	0	4	0	17	0	21	0	0	0	1	0	1	0	34	220	0	0	254	0	1	263	11	0	275	551
8:45 AM	0	2	0	10	0	12	0	0	0	0	0	0	0	51	206	1	0	258	1	0	250	11	0	262	532
Hourly Total	0	17	0	53	0	70	0	1	0	3	0	4	0	186	860	3	1	1049	2	1	1132	68	0	1203	2326
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	25	2	54	2	81	0	2	0	6	0	8	0	34	345	5	0	384	1	5	303	18	0	327	800
4:15 PM	0	22	2	50	0	74	0	6	1	2	2	9	0	29	318	4	0	351	1	4	269	16	0	290	724
4:30 PM	0	28	2	60	0	90	0	2	0	7	0	9	0	24	297	6	0	327	1	2	307	17	0	327	753
4:45 PM	0	30	0	58	0	88	0	2	0	4	0	6	0	20	309	10	1	339	1	10	310	14	0	335	768
Hourly Total	0	105	6	222	2	333	0	12	1	19	2	32	0	107	1269	25	1	1401	4	21	1189	65	0	1279	3045
5:00 PM	0	44	3	76	0	123	0	1	1	2	1	4	0	27	313	6	0	346	0	8	333	9	0	350	823
5:15 PM	0	27	0	55	0	82	0	2	0	1	2	3	0	28	341	16	0	385	2	7	295	12	0	316	786
5:30 PM	0	15	0	47	0	62	0	1	1	4	2	6	0	23	321	12	0	356	0	8	286	12	0	306	730
5:45 PM	0	23	0	45	1	68	0	4	1	5	3	10	0	24	304	7	0	335	2	5	256	11	2	274	687
Hourly Total	0	109	3	223	1	335	0	8	3	12	8	23	0	102	1279	41	0	1422	4	28	1170	44	2	1246	3026
Grand Total	0	250	10	545	5	805	0	22	5	35	11	62	0	573	4296	75	3	4944	11	51	4739	217	2	5018	10829
Approach %	0.0	31.1	1.2	67.7	-	-	0.0	35.5	8.1	56.5	-	-	0.0	11.6	86.9	1.5	-	-	0.2	1.0	94.4	4.3	-	-	-
Total %	0.0	2.3	0.1	5.0	-	7.4	0.0	0.2	0.0	0.3	-	0.6	0.0	5.3	39.7	0.7	-	45.7	0.1	0.5	43.8	2.0	-	46.3	-
Lights	0	245	9	516	-	770	0	20	5	32	-	57	0	547	4137	71	-	4755	11	51	4581	212	-	4855	10437
% Lights	-	98.0	90.0	94.7	-	95.7	-	90.9	100.0	91.4	-	91.9	-	95.5	96.3	94.7	-	96.2	100.0	100.0	96.7	97.7	-	96.8	96.4
Buses	0	0	0	1	-	1	0	1	0	0	-	1	0	1	33	2	-	36	0	0	27	0	-	27	65
% Buses	-	0.0	0.0	0.2	-	0.1	-	4.5	0.0	0.0	-	1.6	-	0.2	0.8	2.7	-	0.7	0.0	0.0	0.6	0.0	-	0.5	0.6
Single-Unit Trucks	0	1	0	9	-	10	0	1	0	3	-	4	0	6	78	2	-	86	0	0	96	3	-	99	199
% Single-Unit Trucks	-	0.4	0.0	1.7	-	1.2	-	4.5	0.0	8.6	-	6.5	-	1.0	1.8	2.7	-	1.7	0.0	0.0	2.0	1.4	-	2.0	1.8
Articulated Trucks	0	4	1	18	-	23	0	0	0	0	-	0	0	19	48	0	-	67	0	0	35	2	-	37	127
% Articulated Trucks	-	1.6	10.0	3.3	-	2.9	-	0.0	0.0	0.0	-	0.0	-	3.3	1.1	0.0	-	1.4	0.0	0.0	0.7	0.9	-	0.7	1.2
Bicycles on Road	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	0.2	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	5	-	-	-	-	-	11	-	-	-	-	-	3	-	-	-	-	-	2	-	-

% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Meijer and Algonquin
Site Code:
Start Date: 07/25/2017
Page No: 3

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Meijer Drive Eastbound						Access Drive Westbound						Algonquin Road Northbound						Algonquin Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	5	0	9	1	14	0	0	0	0	1	0	0	53	259	0	1	312	0	0	317	12	0	329	655
7:45 AM	0	6	1	9	0	16	0	1	1	1	0	3	0	59	234	4	0	297	1	1	355	9	0	366	682
8:00 AM	0	5	0	13	0	18	0	0	0	1	0	1	0	48	207	0	0	255	1	0	323	20	0	344	618
8:15 AM	0	6	0	13	0	19	0	1	0	1	0	2	0	53	227	2	1	282	0	0	296	26	0	322	625
Total	0	22	1	44	1	67	0	2	1	3	1	6	0	213	927	6	2	1146	2	1	1291	67	0	1361	2580
Approach %	0.0	32.8	1.5	65.7	-	-	0.0	33.3	16.7	50.0	-	-	0.0	18.6	80.9	0.5	-	-	0.1	0.1	94.9	4.9	-	-	-
Total %	0.0	0.9	0.0	1.7	-	2.6	0.0	0.1	0.0	0.1	-	0.2	0.0	8.3	35.9	0.2	-	44.4	0.1	0.0	50.0	2.6	-	52.8	-
PHF	0.000	0.917	0.250	0.846	-	0.882	0.000	0.500	0.250	0.750	-	0.500	0.000	0.903	0.895	0.375	-	0.918	0.500	0.250	0.909	0.644	-	0.930	0.946
Lights	0	20	0	34	-	54	0	1	1	1	-	3	0	202	866	4	-	1072	2	1	1244	66	-	1313	2442
% Lights	-	90.9	0.0	77.3	-	80.6	-	50.0	100.0	33.3	-	50.0	-	94.8	93.4	66.7	-	93.5	100.0	100.0	96.4	98.5	-	96.5	94.7
Buses	0	0	0	1	-	1	0	0	0	0	-	0	0	0	13	1	-	14	0	0	4	0	-	4	19
% Buses	-	0.0	0.0	2.3	-	1.5	-	0.0	0.0	0.0	-	0.0	-	0.0	1.4	16.7	-	1.2	0.0	0.0	0.3	0.0	-	0.3	0.7
Single-Unit Trucks	0	0	0	1	-	1	0	1	0	2	-	3	0	2	28	1	-	31	0	0	31	1	-	32	67
% Single-Unit Trucks	-	0.0	0.0	2.3	-	1.5	-	50.0	0.0	66.7	-	50.0	-	0.9	3.0	16.7	-	2.7	0.0	0.0	2.4	1.5	-	2.4	2.6
Articulated Trucks	0	2	1	7	-	10	0	0	0	0	-	0	0	9	20	0	-	29	0	0	12	0	-	12	51
% Articulated Trucks	-	9.1	100.0	15.9	-	14.9	-	0.0	0.0	0.0	-	0.0	-	4.2	2.2	0.0	-	2.5	0.0	0.0	0.9	0.0	-	0.9	2.0
Bicycles on Road	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	2.3	-	1.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

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Count Name: Meijer and Algonquin
Site Code:
Start Date: 07/25/2017
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Turning Movement Peak Hour Data (4:30 PM)

Start Time	Meijer Drive Eastbound						Access Drive Westbound						Algonquin Road Northbound						Algonquin Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:30 PM	0	28	2	60	0	90	0	2	0	7	0	9	0	24	297	6	0	327	1	2	307	17	0	327	753
4:45 PM	0	30	0	58	0	88	0	2	0	4	0	6	0	20	309	10	1	339	1	10	310	14	0	335	768
5:00 PM	0	44	3	76	0	123	0	1	1	2	1	4	0	27	313	6	0	346	0	8	333	9	0	350	823
5:15 PM	0	27	0	55	0	82	0	2	0	1	2	3	0	28	341	16	0	385	2	7	295	12	0	316	786
Total	0	129	5	249	0	383	0	7	1	14	3	22	0	99	1260	38	1	1397	4	27	1245	52	0	1328	3130
Approach %	0.0	33.7	1.3	65.0	-	-	0.0	31.8	4.5	63.6	-	-	0.0	7.1	90.2	2.7	-	-	0.3	2.0	93.8	3.9	-	-	-
Total %	0.0	4.1	0.2	8.0	-	12.2	0.0	0.2	0.0	0.4	-	0.7	0.0	3.2	40.3	1.2	-	44.6	0.1	0.9	39.8	1.7	-	42.4	-
PHF	0.000	0.733	0.417	0.819	-	0.778	0.000	0.875	0.250	0.500	-	0.611	0.000	0.884	0.924	0.594	-	0.907	0.500	0.675	0.935	0.765	-	0.949	0.951
Lights	0	127	5	245	-	377	0	6	1	14	-	21	0	99	1235	37	-	1371	4	27	1214	51	-	1296	3065
% Lights	-	98.4	100.0	98.4	-	98.4	-	85.7	100.0	100.0	-	95.5	-	100.0	98.0	97.4	-	98.1	100.0	100.0	97.5	98.1	-	97.6	97.9
Buses	0	0	0	0	-	0	0	1	0	0	-	1	0	0	7	1	-	8	0	0	8	0	-	8	17
% Buses	-	0.0	0.0	0.0	-	0.0	-	14.3	0.0	0.0	-	4.5	-	0.0	0.6	2.6	-	0.6	0.0	0.0	0.6	0.0	-	0.6	0.5
Single-Unit Trucks	0	1	0	2	-	3	0	0	0	0	-	0	0	0	13	0	-	13	0	0	15	1	-	16	32
% Single-Unit Trucks	-	0.8	0.0	0.8	-	0.8	-	0.0	0.0	0.0	-	0.0	-	0.0	1.0	0.0	-	0.9	0.0	0.0	1.2	1.9	-	1.2	1.0
Articulated Trucks	0	1	0	2	-	3	0	0	0	0	-	0	0	0	5	0	-	5	0	0	8	0	-	8	16
% Articulated Trucks	-	0.8	0.0	0.8	-	0.8	-	0.0	0.0	0.0	-	0.0	-	0.0	0.4	0.0	-	0.4	0.0	0.0	0.6	0.0	-	0.6	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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Count Name: Algonquin Road and Arlington Heights Road
Site Code:
Start Date: 07/25/2017
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Turning Movement Data

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						Arlington Heights Road Northbound						Arlington Heights Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	1	8	139	86	0	234	0	88	108	27	0	223	3	112	220	111	0	446	0	41	262	30	1	333	1236
7:15 AM	0	8	212	103	0	323	0	91	131	36	0	258	0	160	207	123	0	490	0	35	322	17	0	374	1445
7:30 AM	0	13	189	108	0	310	0	137	157	33	0	327	0	167	251	101	0	519	0	51	317	32	0	400	1556
7:45 AM	1	10	194	112	1	317	0	86	151	29	0	266	2	189	279	126	0	596	0	67	356	37	1	460	1639
Hourly Total	2	39	734	409	1	1184	0	402	547	125	0	1074	5	628	957	461	0	2051	0	194	1257	116	2	1567	5876
8:00 AM	0	14	185	110	0	309	0	90	133	35	1	258	1	153	237	102	0	493	0	42	330	24	2	396	1456
8:15 AM	0	8	166	99	0	273	0	84	167	27	0	278	2	170	275	111	0	558	0	54	321	33	0	408	1517
8:30 AM	0	13	175	84	0	272	0	69	147	45	0	261	0	143	256	118	0	517	1	47	248	25	0	321	1371
8:45 AM	3	12	141	77	0	233	0	69	133	46	0	248	0	138	253	90	0	481	1	55	266	26	1	348	1310
Hourly Total	3	47	667	370	0	1087	0	312	580	153	1	1045	3	604	1021	421	0	2049	2	198	1165	108	3	1473	5654
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	4	31	194	191	1	420	0	154	225	45	1	424	0	114	280	107	1	501	0	40	333	23	1	396	1741
4:15 PM	2	26	191	156	1	375	0	150	222	43	1	415	3	97	358	89	2	547	0	49	388	30	0	467	1804
4:30 PM	3	36	200	184	0	423	0	147	198	54	0	399	0	106	345	104	0	555	0	46	374	25	1	445	1822
4:45 PM	2	34	229	165	2	430	0	142	210	42	0	394	1	102	431	106	0	640	0	45	300	18	1	363	1827
Hourly Total	11	127	814	696	4	1648	0	593	855	184	2	1632	4	419	1414	406	3	2243	0	180	1395	96	3	1671	7194
5:00 PM	1	38	219	181	0	439	0	174	242	62	0	478	2	105	386	121	2	614	0	39	357	18	0	414	1945
5:15 PM	1	27	204	172	1	404	0	143	215	52	0	410	0	118	403	130	0	651	0	50	332	22	0	404	1869
5:30 PM	2	31	188	140	0	361	0	126	212	59	0	397	1	109	368	110	1	588	0	38	303	16	1	357	1703
5:45 PM	3	26	174	121	2	324	0	106	182	60	0	348	3	112	377	113	1	605	0	46	283	21	0	350	1627
Hourly Total	7	122	785	614	3	1528	0	549	851	233	0	1633	6	444	1534	474	4	2458	0	173	1275	77	1	1525	7144
Grand Total	23	335	3000	2089	8	5447	0	1856	2833	695	3	5384	18	2095	4926	1762	7	8801	2	745	5092	397	9	6236	25868
Approach %	0.4	6.2	55.1	38.4	-	-	0.0	34.5	52.6	12.9	-	-	0.2	23.8	56.0	20.0	-	-	0.0	11.9	81.7	6.4	-	-	-
Total %	0.1	1.3	11.6	8.1	-	21.1	0.0	7.2	11.0	2.7	-	20.8	0.1	8.1	19.0	6.8	-	34.0	0.0	2.9	19.7	1.5	-	24.1	-
Lights	23	327	2855	2055	-	5260	0	1763	2695	653	-	5111	18	2049	4795	1685	-	8547	2	708	4995	388	-	6093	25011
% Lights	100.0	97.6	95.2	98.4	-	96.6	-	95.0	95.1	94.0	-	94.9	100.0	97.8	97.3	95.6	-	97.1	100.0	95.0	98.1	97.7	-	97.7	96.7
Buses	0	2	29	2	-	33	0	4	29	6	-	39	0	10	3	3	-	16	0	3	2	3	-	8	96
% Buses	0.0	0.6	1.0	0.1	-	0.6	-	0.2	1.0	0.9	-	0.7	0.0	0.5	0.1	0.2	-	0.2	0.0	0.4	0.0	0.8	-	0.1	0.4
Single-Unit Trucks	0	4	64	20	-	88	0	41	61	30	-	132	0	25	71	33	-	129	0	22	72	5	-	99	448
% Single-Unit Trucks	0.0	1.2	2.1	1.0	-	1.6	-	2.2	2.2	4.3	-	2.5	0.0	1.2	1.4	1.9	-	1.5	0.0	3.0	1.4	1.3	-	1.6	1.7
Articulated Trucks	0	1	49	12	-	62	0	46	48	6	-	100	0	11	57	41	-	109	0	12	22	1	-	35	306
% Articulated Trucks	0.0	0.3	1.6	0.6	-	1.1	-	2.5	1.7	0.9	-	1.9	0.0	0.5	1.2	2.3	-	1.2	0.0	1.6	0.4	0.3	-	0.6	1.2
Bicycles on Road	0	1	3	0	-	4	0	2	0	0	-	2	0	0	0	0	-	0	0	0	1	0	-	1	7
% Bicycles on Road	0.0	0.3	0.1	0.0	-	0.1	-	0.1	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	8	-	-	-	-	-	3	-	-	-	-	-	7	-	-	-	-	-	9	-	-

% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Algonquin Road and Arlington Heights Road
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Turning Movement Peak Hour Data (7:30 AM)

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						Arlington Heights Road Northbound						Arlington Heights Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	13	189	108	0	310	0	137	157	33	0	327	0	167	251	101	0	519	0	51	317	32	0	400	1556
7:45 AM	1	10	194	112	1	317	0	86	151	29	0	266	2	189	279	126	0	596	0	67	356	37	1	460	1639
8:00 AM	0	14	185	110	0	309	0	90	133	35	1	258	1	153	237	102	0	493	0	42	330	24	2	396	1456
8:15 AM	0	8	166	99	0	273	0	84	167	27	0	278	2	170	275	111	0	558	0	54	321	33	0	408	1517
Total	1	45	734	429	1	1209	0	397	608	124	1	1129	5	679	1042	440	0	2166	0	214	1324	126	3	1664	6168
Approach %	0.1	3.7	60.7	35.5	-	-	0.0	35.2	53.9	11.0	-	-	0.2	31.3	48.1	20.3	-	-	0.0	12.9	79.6	7.6	-	-	-
Total %	0.0	0.7	11.9	7.0	-	19.6	0.0	6.4	9.9	2.0	-	18.3	0.1	11.0	16.9	7.1	-	35.1	0.0	3.5	21.5	2.0	-	27.0	-
PHF	0.250	0.804	0.946	0.958	-	0.953	0.000	0.724	0.910	0.886	-	0.863	0.625	0.898	0.934	0.873	-	0.909	0.000	0.799	0.930	0.851	-	0.904	0.941
Lights	1	43	688	420	-	1152	0	356	553	112	-	1021	5	660	988	413	-	2066	0	204	1301	124	-	1629	5868
% Lights	100.0	95.6	93.7	97.9	-	95.3	-	89.7	91.0	90.3	-	90.4	100.0	97.2	94.8	93.9	-	95.4	-	95.3	98.3	98.4	-	97.9	95.1
Buses	0	1	6	0	-	7	0	1	9	4	-	14	0	2	2	1	-	5	0	1	0	1	-	2	28
% Buses	0.0	2.2	0.8	0.0	-	0.6	-	0.3	1.5	3.2	-	1.2	0.0	0.3	0.2	0.2	-	0.2	-	0.5	0.0	0.8	-	0.1	0.5
Single-Unit Trucks	0	0	21	6	-	27	0	18	28	8	-	54	0	11	34	10	-	55	0	4	15	1	-	20	156
% Single-Unit Trucks	0.0	0.0	2.9	1.4	-	2.2	-	4.5	4.6	6.5	-	4.8	0.0	1.6	3.3	2.3	-	2.5	-	1.9	1.1	0.8	-	1.2	2.5
Articulated Trucks	0	1	19	3	-	23	0	22	18	0	-	40	0	6	18	16	-	40	0	5	8	0	-	13	116
% Articulated Trucks	0.0	2.2	2.6	0.7	-	1.9	-	5.5	3.0	0.0	-	3.5	0.0	0.9	1.7	3.6	-	1.8	-	2.3	0.6	0.0	-	0.8	1.9
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Algonquin Road and Arlington Heights Road
Site Code:
Start Date: 07/25/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						Arlington Heights Road Northbound						Arlington Heights Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:30 PM	3	36	200	184	0	423	0	147	198	54	0	399	0	106	345	104	0	555	0	46	374	25	1	445	1822
4:45 PM	2	34	229	165	2	430	0	142	210	42	0	394	1	102	431	106	0	640	0	45	300	18	1	363	1827
5:00 PM	1	38	219	181	0	439	0	174	242	62	0	478	2	105	386	121	2	614	0	39	357	18	0	414	1945
5:15 PM	1	27	204	172	1	404	0	143	215	52	0	410	0	118	403	130	0	651	0	50	332	22	0	404	1869
Total	7	135	852	702	3	1696	0	606	865	210	0	1681	3	431	1565	461	2	2460	0	180	1363	83	2	1626	7463
Approach %	0.4	8.0	50.2	41.4	-	-	0.0	36.0	51.5	12.5	-	-	0.1	17.5	63.6	18.7	-	-	0.0	11.1	83.8	5.1	-	-	-
Total %	0.1	1.8	11.4	9.4	-	22.7	0.0	8.1	11.6	2.8	-	22.5	0.0	5.8	21.0	6.2	-	33.0	0.0	2.4	18.3	1.1	-	21.8	-
PHF	0.583	0.888	0.930	0.954	-	0.966	0.000	0.871	0.894	0.847	-	0.879	0.375	0.913	0.908	0.887	-	0.945	0.000	0.900	0.911	0.830	-	0.913	0.959
Lights	7	134	825	696	-	1662	0	590	849	205	-	1644	3	428	1553	448	-	2432	0	170	1339	81	-	1590	7328
% Lights	100.0	99.3	96.8	99.1	-	98.0	-	97.4	98.2	97.6	-	97.8	100.0	99.3	99.2	97.2	-	98.9	-	94.4	98.2	97.6	-	97.8	98.2
Buses	0	1	7	1	-	9	0	1	5	0	-	6	0	1	0	1	-	2	0	0	0	2	-	2	19
% Buses	0.0	0.7	0.8	0.1	-	0.5	-	0.2	0.6	0.0	-	0.4	0.0	0.2	0.0	0.2	-	0.1	-	0.0	0.0	2.4	-	0.1	0.3
Single-Unit Trucks	0	0	12	3	-	15	0	5	8	5	-	18	0	2	5	6	-	13	0	7	21	0	-	28	74
% Single-Unit Trucks	0.0	0.0	1.4	0.4	-	0.9	-	0.8	0.9	2.4	-	1.1	0.0	0.5	0.3	1.3	-	0.5	-	3.9	1.5	0.0	-	1.7	1.0
Articulated Trucks	0	0	6	2	-	8	0	8	3	0	-	11	0	0	7	6	-	13	0	3	3	0	-	6	38
% Articulated Trucks	0.0	0.0	0.7	0.3	-	0.5	-	1.3	0.3	0.0	-	0.7	0.0	0.0	0.4	1.3	-	0.5	-	1.7	0.2	0.0	-	0.4	0.5
Bicycles on Road	0	0	2	0	-	2	0	2	0	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	4
% Bicycles on Road	0.0	0.0	0.2	0.0	-	0.1	-	0.3	0.0	0.0	-	0.1	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Golf and Meijer
Site Code:
Start Date: 07/25/2017
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Turning Movement Data

Start Time	Golf Road Eastbound						Golf Road Westbound						Meijer Drive Northbound						Access Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	0	9	238	19	0	266	0	16	195	14	0	225	0	0	0	4	1	4	0	0	5	9	0	14	509
7:15 AM	0	3	292	21	0	316	0	28	234	15	0	277	0	1	1	7	0	9	0	0	1	21	0	22	624
7:30 AM	0	6	297	30	0	333	0	23	293	15	0	331	0	1	0	6	0	7	0	0	0	19	0	19	690
7:45 AM	0	4	279	32	0	315	0	31	288	11	0	330	0	2	0	7	0	9	0	1	2	14	0	17	671
Hourly Total	0	22	1106	102	0	1230	0	98	1010	55	0	1163	0	4	1	24	1	29	0	1	8	63	0	72	2494
8:00 AM	0	4	267	31	0	302	0	24	266	18	0	308	0	0	0	6	0	6	0	0	0	17	0	17	633
8:15 AM	0	5	259	25	0	289	0	26	290	15	0	331	0	4	0	9	0	13	0	2	1	18	0	21	654
8:30 AM	0	9	254	18	1	281	0	23	245	15	0	283	0	2	1	10	0	13	0	1	1	12	0	14	591
8:45 AM	0	7	251	25	0	283	0	20	226	13	2	259	0	3	1	4	0	8	0	0	2	16	2	18	568
Hourly Total	0	25	1031	99	1	1155	0	93	1027	61	2	1181	0	9	2	29	0	40	0	3	4	63	2	70	2446
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	2	380	24	0	406	0	10	352	9	1	371	0	2	1	30	1	33	0	0	0	8	0	8	818
4:15 PM	0	0	380	21	0	401	0	18	401	7	0	426	0	2	0	36	1	38	0	1	0	6	1	7	872
4:30 PM	0	0	361	37	0	398	0	16	328	8	0	352	0	1	0	32	0	33	0	1	1	4	1	6	789
4:45 PM	0	4	406	25	0	435	1	9	336	13	0	359	0	1	3	29	0	33	0	1	0	8	2	9	836
Hourly Total	0	6	1527	107	0	1640	1	53	1417	37	1	1508	0	6	4	127	2	137	0	3	1	26	4	30	3315
5:00 PM	0	1	437	30	0	468	0	12	338	8	0	358	0	3	1	37	0	41	0	0	1	12	0	13	880
5:15 PM	0	3	367	23	0	393	0	17	342	12	0	371	0	4	0	31	0	35	0	2	0	9	0	11	810
5:30 PM	0	4	334	31	0	369	0	23	337	9	0	369	0	3	1	22	0	26	0	0	0	8	0	8	772
5:45 PM	0	2	342	30	0	374	2	21	334	16	0	373	0	1	1	24	1	26	0	0	1	4	0	5	778
Hourly Total	0	10	1480	114	0	1604	2	73	1351	45	0	1471	0	11	3	114	1	128	0	2	2	33	0	37	3240
Grand Total	0	63	5144	422	1	5629	3	317	4805	198	3	5323	0	30	10	294	4	334	0	9	15	185	6	209	11495
Approach %	0.0	1.1	91.4	7.5	-	-	0.1	6.0	90.3	3.7	-	-	0.0	9.0	3.0	88.0	-	-	0.0	4.3	7.2	88.5	-	-	-
Total %	0.0	0.5	44.7	3.7	-	49.0	0.0	2.8	41.8	1.7	-	46.3	0.0	0.3	0.1	2.6	-	2.9	0.0	0.1	0.1	1.6	-	1.8	-
Lights	0	62	5021	419	-	5502	3	309	4699	198	-	5209	0	27	8	286	-	321	0	9	15	185	-	209	11241
% Lights	-	98.4	97.6	99.3	-	97.7	100.0	97.5	97.8	100.0	-	97.9	-	90.0	80.0	97.3	-	96.1	-	100.0	100.0	100.0	-	100.0	97.8
Buses	0	0	31	0	-	31	0	1	24	0	-	25	0	1	0	0	-	1	0	0	0	0	-	0	57
% Buses	-	0.0	0.6	0.0	-	0.6	0.0	0.3	0.5	0.0	-	0.5	-	3.3	0.0	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	0.5
Single-Unit Trucks	0	1	76	3	-	80	0	5	54	0	-	59	0	2	0	3	-	5	0	0	0	0	-	0	144
% Single-Unit Trucks	-	1.6	1.5	0.7	-	1.4	0.0	1.6	1.1	0.0	-	1.1	-	6.7	0.0	1.0	-	1.5	-	0.0	0.0	0.0	-	0.0	1.3
Articulated Trucks	0	0	16	0	-	16	0	1	27	0	-	28	0	0	0	5	-	5	0	0	0	0	-	0	49
% Articulated Trucks	-	0.0	0.3	0.0	-	0.3	0.0	0.3	0.6	0.0	-	0.5	-	0.0	0.0	1.7	-	1.5	-	0.0	0.0	0.0	-	0.0	0.4
Bicycles on Road	0	0	0	0	-	0	0	1	1	0	-	2	0	0	2	0	-	2	0	0	0	0	-	0	4
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.3	0.0	0.0	-	0.0	-	0.0	20.0	0.0	-	0.6	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	4	-	-	-	-	-	6	-	-

% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

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Count Name: Golf and Meijer
Site Code:
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Turning Movement Peak Hour Data (7:30 AM)

Start Time	Golf Road Eastbound						Golf Road Westbound						Meijer Drive Northbound						Access Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	6	297	30	0	333	0	23	293	15	0	331	0	1	0	6	0	7	0	0	0	19	0	19	690
7:45 AM	0	4	279	32	0	315	0	31	288	11	0	330	0	2	0	7	0	9	0	1	2	14	0	17	671
8:00 AM	0	4	267	31	0	302	0	24	266	18	0	308	0	0	0	6	0	6	0	0	0	17	0	17	633
8:15 AM	0	5	259	25	0	289	0	26	290	15	0	331	0	4	0	9	0	13	0	2	1	18	0	21	654
Total	0	19	1102	118	0	1239	0	104	1137	59	0	1300	0	7	0	28	0	35	0	3	3	68	0	74	2648
Approach %	0.0	1.5	88.9	9.5	-	-	0.0	8.0	87.5	4.5	-	-	0.0	20.0	0.0	80.0	-	-	0.0	4.1	4.1	91.9	-	-	-
Total %	0.0	0.7	41.6	4.5	-	46.8	0.0	3.9	42.9	2.2	-	49.1	0.0	0.3	0.0	1.1	-	1.3	0.0	0.1	0.1	2.6	-	2.8	-
PHF	0.000	0.792	0.928	0.922	-	0.930	0.000	0.839	0.970	0.819	-	0.982	0.000	0.438	0.000	0.778	-	0.673	0.000	0.375	0.375	0.895	-	0.881	0.959
Lights	0	19	1056	117	-	1192	0	102	1104	59	-	1265	0	5	0	25	-	30	0	3	3	68	-	74	2561
% Lights	-	100.0	95.8	99.2	-	96.2	-	98.1	97.1	100.0	-	97.3	-	71.4	-	89.3	-	85.7	-	100.0	100.0	100.0	-	100.0	96.7
Buses	0	0	7	0	-	7	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	12
% Buses	-	0.0	0.6	0.0	-	0.6	-	0.0	0.4	0.0	-	0.4	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.5
Single-Unit Trucks	0	0	35	1	-	36	0	1	16	0	-	17	0	2	0	0	-	2	0	0	0	0	-	0	55
% Single-Unit Trucks	-	0.0	3.2	0.8	-	2.9	-	1.0	1.4	0.0	-	1.3	-	28.6	-	0.0	-	5.7	-	0.0	0.0	0.0	-	0.0	2.1
Articulated Trucks	0	0	4	0	-	4	0	1	12	0	-	13	0	0	0	3	-	3	0	0	0	0	-	0	20
% Articulated Trucks	-	0.0	0.4	0.0	-	0.3	-	1.0	1.1	0.0	-	1.0	-	0.0	-	10.7	-	8.6	-	0.0	0.0	0.0	-	0.0	0.8
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
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(847)518-9990

Count Name: Golf and Meijer
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Turning Movement Peak Hour Data (4:30 PM)

Start Time	Golf Road Eastbound						Golf Road Westbound						Meijer Drive Northbound						Access Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:30 PM	0	0	361	37	0	398	0	16	328	8	0	352	0	1	0	32	0	33	0	1	1	4	1	6	789
4:45 PM	0	4	406	25	0	435	1	9	336	13	0	359	0	1	3	29	0	33	0	1	0	8	2	9	836
5:00 PM	0	1	437	30	0	468	0	12	338	8	0	358	0	3	1	37	0	41	0	0	1	12	0	13	880
5:15 PM	0	3	367	23	0	393	0	17	342	12	0	371	0	4	0	31	0	35	0	2	0	9	0	11	810
Total	0	8	1571	115	0	1694	1	54	1344	41	0	1440	0	9	4	129	0	142	0	4	2	33	3	39	3315
Approach %	0.0	0.5	92.7	6.8	-	-	0.1	3.8	93.3	2.8	-	-	0.0	6.3	2.8	90.8	-	-	0.0	10.3	5.1	84.6	-	-	-
Total %	0.0	0.2	47.4	3.5	-	51.1	0.0	1.6	40.5	1.2	-	43.4	0.0	0.3	0.1	3.9	-	4.3	0.0	0.1	0.1	1.0	-	1.2	-
PHF	0.000	0.500	0.899	0.777	-	0.905	0.250	0.794	0.982	0.788	-	0.970	0.000	0.563	0.333	0.872	-	0.866	0.000	0.500	0.500	0.688	-	0.750	0.942
Lights	0	8	1557	115	-	1680	1	53	1326	41	-	1421	0	8	3	127	-	138	0	4	2	33	-	39	3278
% Lights	-	100.0	99.1	100.0	-	99.2	100.0	98.1	98.7	100.0	-	98.7	-	88.9	75.0	98.4	-	97.2	-	100.0	100.0	100.0	-	100.0	98.9
Buses	0	0	9	0	-	9	0	1	8	0	-	9	0	1	0	0	-	1	0	0	0	0	-	0	19
% Buses	-	0.0	0.6	0.0	-	0.5	0.0	1.9	0.6	0.0	-	0.6	-	11.1	0.0	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	0.6
Single-Unit Trucks	0	0	2	0	-	2	0	0	7	0	-	7	0	0	0	2	-	2	0	0	0	0	-	0	11
% Single-Unit Trucks	-	0.0	0.1	0.0	-	0.1	0.0	0.0	0.5	0.0	-	0.5	-	0.0	0.0	1.6	-	1.4	-	0.0	0.0	0.0	-	0.0	0.3
Articulated Trucks	0	0	3	0	-	3	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	6
% Articulated Trucks	-	0.0	0.2	0.0	-	0.2	0.0	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	25.0	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

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Count Name: Algonquin and Divided Access
Site Code:
Start Date: 07/25/2017
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Turning Movement Data

Start Time	Westbound Approach Westbound					Algonquin Northbound					Algonquin Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:00 AM	0	0	0	0	0	0	214	1	0	215	0	1	270	0	271	486
7:15 AM	0	0	1	0	1	0	263	3	0	266	0	2	336	0	338	605
7:30 AM	0	0	0	0	0	0	322	1	2	323	0	0	360	0	360	683
7:45 AM	0	0	0	0	0	0	309	1	0	310	0	2	367	0	369	679
Hourly Total	0	0	1	0	1	0	1108	6	2	1114	0	5	1333	0	1338	2453
8:00 AM	0	0	1	2	1	0	247	0	0	247	0	1	307	0	308	556
8:15 AM	0	0	2	0	2	0	313	3	0	316	0	1	302	0	303	621
8:30 AM	0	1	2	1	3	0	265	5	0	270	0	2	275	0	277	550
8:45 AM	0	0	1	2	1	0	256	1	0	257	0	3	230	0	233	491
Hourly Total	0	1	6	5	7	0	1081	9	0	1090	0	7	1114	0	1121	2218
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	4	2	4	0	378	3	0	381	0	1	364	0	365	750
4:15 PM	0	1	6	2	7	0	342	2	0	344	0	3	329	0	332	683
4:30 PM	0	2	6	0	8	0	351	0	0	351	0	2	376	0	378	737
4:45 PM	0	4	1	1	5	0	344	2	0	346	0	0	365	0	365	716
Hourly Total	0	7	17	5	24	0	1415	7	0	1422	0	6	1434	0	1440	2886
5:00 PM	0	1	3	0	4	0	374	4	0	378	0	3	429	0	432	814
5:15 PM	0	0	6	5	6	0	348	3	0	351	0	2	339	0	341	698
5:30 PM	0	3	10	1	13	0	339	0	0	339	0	3	312	0	315	667
5:45 PM	0	2	1	1	3	0	319	1	0	320	0	0	300	0	300	623
Hourly Total	0	6	20	7	26	0	1380	8	0	1388	0	8	1380	0	1388	2802
Grand Total	0	14	44	17	58	0	4984	30	2	5014	0	26	5261	0	5287	10359
Approach %	0.0	24.1	75.9	-	-	0.0	99.4	0.6	-	-	0.0	0.5	99.5	-	-	-
Total %	0.0	0.1	0.4	-	0.6	0.0	48.1	0.3	-	48.4	0.0	0.3	50.8	-	51.0	-
Lights	0	13	44	-	57	0	4781	29	-	4810	0	26	5070	-	5096	9963
% Lights	-	92.9	100.0	-	98.3	-	95.9	96.7	-	95.9	-	100.0	96.4	-	96.4	96.2
Buses	0	0	0	-	0	0	39	0	-	39	0	0	28	-	28	67
% Buses	-	0.0	0.0	-	0.0	-	0.8	0.0	-	0.8	-	0.0	0.5	-	0.5	0.6
Single-Unit Trucks	0	0	0	-	0	0	99	1	-	100	0	0	117	-	117	217
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	2.0	3.3	-	2.0	-	0.0	2.2	-	2.2	2.1
Articulated Trucks	0	0	0	-	0	0	65	0	-	65	0	0	45	-	45	110
% Articulated Trucks	-	0.0	0.0	-	0.0	-	1.3	0.0	-	1.3	-	0.0	0.9	-	0.9	1.1
Bicycles on Road	0	1	0	-	1	0	0	0	-	0	0	0	1	-	1	2
% Bicycles on Road	-	7.1	0.0	-	1.7	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	17	-	-	-	-	2	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Algonquin and Divided Access
Site Code:
Start Date: 07/25/2017
Page No: 2

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Westbound Approach Westbound					Algonquin Northbound					Algonquin Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:30 AM	0	0	0	0	0	0	322	1	2	323	0	0	360	0	360	683
7:45 AM	0	0	0	0	0	0	309	1	0	310	0	2	367	0	369	679
8:00 AM	0	0	1	2	1	0	247	0	0	247	0	1	307	0	308	556
8:15 AM	0	0	2	0	2	0	313	3	0	316	0	1	302	0	303	621
Total	0	0	3	2	3	0	1191	5	2	1196	0	4	1336	0	1340	2539
Approach %	0.0	0.0	100.0	-	-	0.0	99.6	0.4	-	-	0.0	0.3	99.7	-	-	-
Total %	0.0	0.0	0.1	-	0.1	0.0	46.9	0.2	-	47.1	0.0	0.2	52.6	-	52.8	-
PHF	0.000	0.000	0.375	-	0.375	0.000	0.925	0.417	-	0.926	0.000	0.500	0.910	-	0.908	0.929
Lights	0	0	3	-	3	0	1109	4	-	1113	0	4	1280	-	1284	2400
% Lights	-	-	100.0	-	100.0	-	93.1	80.0	-	93.1	-	100.0	95.8	-	95.8	94.5
Buses	0	0	0	-	0	0	10	0	-	10	0	0	4	-	4	14
% Buses	-	-	0.0	-	0.0	-	0.8	0.0	-	0.8	-	0.0	0.3	-	0.3	0.6
Single-Unit Trucks	0	0	0	-	0	0	44	1	-	45	0	0	39	-	39	84
% Single-Unit Trucks	-	-	0.0	-	0.0	-	3.7	20.0	-	3.8	-	0.0	2.9	-	2.9	3.3
Articulated Trucks	0	0	0	-	0	0	28	0	-	28	0	0	12	-	12	40
% Articulated Trucks	-	-	0.0	-	0.0	-	2.4	0.0	-	2.3	-	0.0	0.9	-	0.9	1.6
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	1	-	1	1
% Bicycles on Road	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.1	-	0.1	0.0
Pedestrians	-	-	-	2	-	-	-	-	2	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-

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Count Name: Algonquin and Divided Access
Site Code:
Start Date: 07/25/2017
Page No: 3

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Westbound Approach Westbound					Algonquin Northbound					Algonquin Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
4:30 PM	0	2	6	0	8	0	351	0	0	351	0	2	376	0	378	737
4:45 PM	0	4	1	1	5	0	344	2	0	346	0	0	365	0	365	716
5:00 PM	0	1	3	0	4	0	374	4	0	378	0	3	429	0	432	814
5:15 PM	0	0	6	5	6	0	348	3	0	351	0	2	339	0	341	698
Total	0	7	16	6	23	0	1417	9	0	1426	0	7	1509	0	1516	2965
Approach %	0.0	30.4	69.6	-	-	0.0	99.4	0.6	-	-	0.0	0.5	99.5	-	-	-
Total %	0.0	0.2	0.5	-	0.8	0.0	47.8	0.3	-	48.1	0.0	0.2	50.9	-	51.1	-
PHF	0.000	0.438	0.667	-	0.719	0.000	0.947	0.563	-	0.943	0.000	0.583	0.879	-	0.877	0.911
Lights	0	7	16	-	23	0	1389	9	-	1398	0	7	1476	-	1483	2904
% Lights	-	100.0	100.0	-	100.0	-	98.0	100.0	-	98.0	-	100.0	97.8	-	97.8	97.9
Buses	0	0	0	-	0	0	10	0	-	10	0	0	8	-	8	18
% Buses	-	0.0	0.0	-	0.0	-	0.7	0.0	-	0.7	-	0.0	0.5	-	0.5	0.6
Single-Unit Trucks	0	0	0	-	0	0	13	0	-	13	0	0	14	-	14	27
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.9	0.0	-	0.9	-	0.0	0.9	-	0.9	0.9
Articulated Trucks	0	0	0	-	0	0	5	0	-	5	0	0	11	-	11	16
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.4	0.0	-	0.4	-	0.0	0.7	-	0.7	0.5
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	6	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

Capacity Analyses – Existing Conditions

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	3	1291	67	213	927	6	22	0	44	2	1	3
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	85		140	275		0	0		0	0		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	130			185			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.999				0.850		0.932	
Flt Protected	0.950			0.950			0.950	0.950			0.984	
Satd. Flow (prot)	1805	3654	1583	1719	3365	0	1573	1573	1313	0	1158	0
Flt Permitted	0.292			0.153			0.950	0.950			0.984	
Satd. Flow (perm)	555	3654	1583	277	3365	0	1573	1573	1313	0	1158	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)									91		3	
Link Speed (mph)		35			35			20			20	
Link Distance (ft)		794			361			215			250	
Travel Time (s)		15.5			7.0			7.3			8.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	4%	2%	5%	7%	33%	9%	0%	23%	50%	2%	67%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	3	1359	71	224	982	0	11	12	46	0	6	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6	4	5	2		4	4		8	8	
Permitted Phases	6		6	2					4			
Detector Phase	1	6	4	5	2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	22.0	22.0	8.0	22.0		22.0	22.0	22.0	22.0	22.0	
Total Split (s)	13.0	90.0	26.0	16.0	93.0		26.0	26.0	26.0	18.0	18.0	
Total Split (%)	8.7%	60.0%	17.3%	10.7%	62.0%		17.3%	17.3%	17.3%	12.0%	12.0%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		4.5	4.5	4.5	4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5		1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		6.0	6.0	6.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None	None	None	C-Max		None	None	None	None	None	
Act Effct Green (s)	119.7	111.6	124.4	131.0	126.7		6.8	6.8	6.8		6.2	
Actuated g/C Ratio	0.80	0.74	0.83	0.87	0.84		0.05	0.05	0.05		0.04	
v/c Ratio	0.01	0.50	0.05	0.61	0.35		0.16	0.17	0.32		0.12	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Control Delay	4.3	17.6	7.8	21.8	5.0		70.6	70.9	7.0		57.7	
Queue Delay	0.0	0.4	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	4.3	18.1	7.8	21.8	5.0		70.6	70.9	7.0		57.7	
LOS	A	B	A	C	A		E	E	A		E	
Approach Delay		17.5			8.1			28.2			57.7	
Approach LOS		B			A			C			E	
Queue Length 50th (ft)	0	521	17	74	119		9	11	1		3	
Queue Length 95th (ft)	m1	674	m60	m113	m148		m23	m27	m4		19	
Internal Link Dist (ft)		714			281			135			170	
Turn Bay Length (ft)	85		140	275								
Base Capacity (vph)	536	2719	1452	384	2841		209	209	253		95	
Starvation Cap Reductn	0	770	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.01	0.70	0.05	0.58	0.35		0.05	0.06	0.18		0.06	

Intersection Summary	
Area Type: Other	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 39 (26%), Referenced to phase 2:NWTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 13.7	Intersection LOS: B
Intersection Capacity Utilization 62.4%	ICU Level of Service B
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Meijer Dr & Algonquin Rd (IL 62)

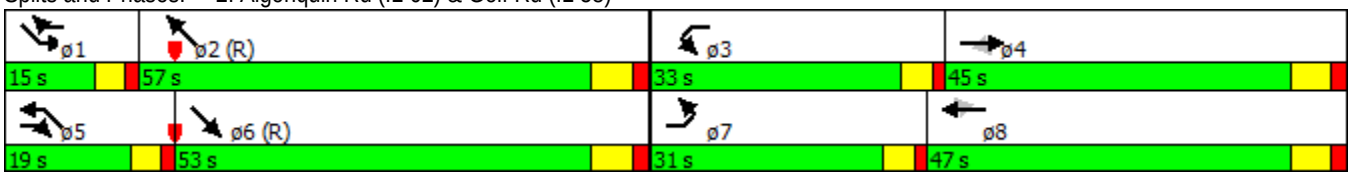
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	43	710	396	32	861	246	224	917	27	441	508	3
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	270		115	420		0	335		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	185			105			240			190		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.996			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3654	1538	1805	5353	1568	3433	3490	0	3335	3340	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3654	1538	1805	5353	1568	3433	3490	0	3335	3340	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			35	
Link Distance (ft)		707			953			921			794	
Travel Time (s)		12.1			16.2			17.9			15.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	4%	5%	0%	2%	3%	2%	3%	4%	5%	8%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	747	417	34	906	259	236	993	0	464	538	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	5	3	8	1	1	6		5	2	
Permitted Phases			4			8						
Detector Phase	7	4	5	3	8	1	1	6		5	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5		9.0	22.5	
Total Split (s)	31.0	45.0	19.0	33.0	47.0	15.0	15.0	53.0		19.0	57.0	
Total Split (%)	20.7%	30.0%	12.7%	22.0%	31.3%	10.0%	10.0%	35.3%		12.7%	38.0%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	9.2	36.5	79.4	8.3	35.7	60.2	18.0	47.9		36.4	66.3	
Actuated g/C Ratio	0.06	0.24	0.53	0.06	0.24	0.40	0.12	0.32		0.24	0.44	
v/c Ratio	0.42	0.84	0.51	0.34	0.71	0.41	0.57	0.89		0.57	0.36	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Control Delay	78.4	62.9	26.4	76.7	55.4	33.6	68.2	59.8		68.2	26.3	
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	78.4	62.9	26.5	76.7	55.4	33.6	68.2	59.8		68.2	26.3	
LOS	E	E	C	E	E	C	E	E		E	C	
Approach Delay		50.9			51.3			61.4			45.7	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	43	366	264	33	298	180	114	488		238	127	
Queue Length 95th (ft)	85	417	377	70	330	235	159	#620		#317	350	
Internal Link Dist (ft)		627			873			841			714	
Turn Bay Length (ft)	220			270		115	420			335		
Base Capacity (vph)	306	970	814	336	1460	629	411	1113		808	1475	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	24	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.15	0.77	0.53	0.10	0.62	0.41	0.57	0.89		0.57	0.36	

Intersection Summary	
Area Type: Other	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 127 (85%), Referenced to phase 2:NWT and 6:SET, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 52.7	Intersection LOS: D
Intersection Capacity Utilization 79.9%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Algonquin Rd (IL 62) & Golf Rd (IL 58)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	734	429	397	608	124	684	1042	440	214	1324	126
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	115		400	360		210	335		385	270		270
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	240			205			290			260		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	5151	1583	3183	5009	1468	3400	5200	1524	3335	5353	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	5151	1583	3183	5009	1468	3400	5200	1524	3335	5353	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1230			1043			925			1183	
Travel Time (s)		24.0			20.3			18.0			23.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	6%	2%	10%	9%	10%	3%	5%	6%	5%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	781	456	422	647	132	728	1109	468	228	1409	134
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	3	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5	9.0
Total Split (s)	31.0	58.0	36.0	18.0	45.0	17.0	36.0	57.0	18.0	17.0	38.0	31.0
Total Split (%)	20.7%	38.7%	24.0%	12.0%	30.0%	11.3%	24.0%	38.0%	12.0%	11.3%	25.3%	20.7%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	Max	None	None	Max	None
Act Effct Green (s)	7.6	52.0	89.0	13.0	57.4	75.4	31.0	51.0	70.0	12.0	32.0	45.6
Actuated g/C Ratio	0.05	0.35	0.59	0.09	0.38	0.50	0.21	0.34	0.47	0.08	0.21	0.30
v/c Ratio	0.29	0.44	0.49	1.53	0.34	0.18	1.04	0.63	0.66	0.86	1.23	0.28

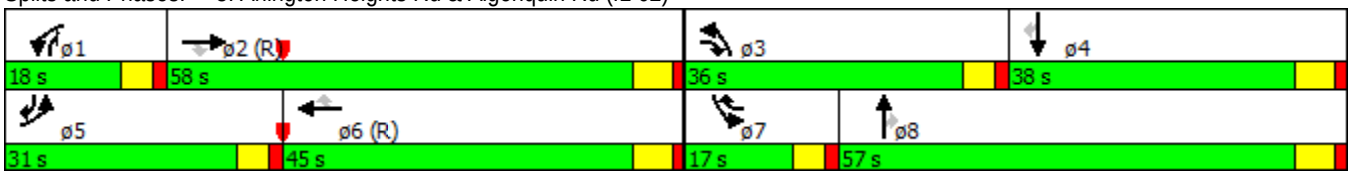
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	60.5	39.2	41.1	300.8	33.6	21.5	100.7	43.5	36.3	95.9	161.3	41.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.5	39.2	41.1	300.8	33.6	21.5	100.7	43.5	36.3	95.9	161.3	41.3
LOS	E	D	D	F	C	C	F	D	D	F	F	D
Approach Delay		40.7			126.2			60.1			143.8	
Approach LOS		D			F			E			F	
Queue Length 50th (ft)	25	273	413	~296	163	69	~393	333	347	115	~622	100
Queue Length 95th (ft)	41	302	571	#408	203	115	#522	384	479	#189	#720	157
Internal Link Dist (ft)		1150			963			845			1103	
Turn Bay Length (ft)	115		400	360		210	335		385	270		270
Base Capacity (vph)	583	1785	939	275	1916	737	702	1768	711	266	1141	675
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.44	0.49	1.53	0.34	0.18	1.04	0.63	0.66	0.86	1.23	0.20

Intersection Summary	
Area Type: Other	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.53	
Intersection Signal Delay: 91.0	Intersection LOS: F
Intersection Capacity Utilization 86.9%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Arlington Heights Rd & Algonquin Rd (IL 62)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	19	1102	118	104	1137	59	0	0	28	0	0	68
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	20	1148	123	108	1184	61	0	0	29	0	0	71
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					707							
pX, platoon unblocked	0.85						0.85	0.85		0.85	0.85	0.85
vC, conflicting volume	1246			1271			1931	2711	444	1883	2742	426
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	692			1271			1494	2407	444	1437	2443	0
tC, single (s)	4.1			4.1			8.1	6.5	7.1	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.8	4.0	3.4	3.5	4.0	3.3
p0 queue free %	97			80			100	100	95	100	100	92
cM capacity (veh/h)	780			542			43	22	537	64	21	932

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	20	459	459	352	108	474	474	298	29	71
Volume Left	20	0	0	0	108	0	0	0	0	0
Volume Right	0	0	0	123	0	0	0	61	29	71
cSH	780	1700	1700	1700	542	1700	1700	1700	537	932
Volume to Capacity	0.03	0.27	0.27	0.21	0.20	0.28	0.28	0.18	0.05	0.08
Queue Length 95th (ft)	2	0	0	0	18	0	0	0	4	6
Control Delay (s)	9.7	0.0	0.0	0.0	13.3	0.0	0.0	0.0	12.1	9.2
Lane LOS	A				B				B	A
Approach Delay (s)	0.1				1.1				12.1	9.2
Approach LOS									B	A

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	36.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (veh/h)	4	1333	1143	5	0	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	4	1433	1229	5	0	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	TWLTL			
Median storage veh)			2			
Upstream signal (ft)		361				
pX, platoon unblocked					0.82	
vC, conflicting volume	1234				1957	617
vC1, stage 1 conf vol					1232	
vC2, stage 2 conf vol					725	
vCu, unblocked vol	1234				1731	617
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	99				100	99
cM capacity (veh/h)	571				225	438

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1
Volume Total	482	956	819	415	3
Volume Left	4	0	0	0	0
Volume Right	0	0	0	5	3
cSH	571	1700	1700	1700	438
Volume to Capacity	0.01	0.56	0.48	0.24	0.01
Queue Length 95th (ft)	1	0	0	0	1
Control Delay (s)	0.2	0.0	0.0	0.0	13.3
Lane LOS	A				B
Approach Delay (s)	0.1		0.0		13.3
Approach LOS					B

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	31	1245	52	99	1260	38	129	5	249	7	1	14
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	85		140	275		0	0		0	0		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	130			185			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.996				0.850		0.912	
Flt Protected	0.950			0.950			0.950	0.956			0.985	
Satd. Flow (prot)	1805	3725	1583	1805	3524	0	1681	1694	1583	0	1637	0
Flt Permitted	0.164			0.166			0.950	0.956			0.985	
Satd. Flow (perm)	312	3725	1583	315	3524	0	1681	1694	1583	0	1637	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)									242		15	
Link Speed (mph)		35			35			20			20	
Link Distance (ft)		794			361			215			250	
Travel Time (s)		15.5			7.0			7.3			8.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	2%	0%	2%	3%	2%	0%	2%	14%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)							48%					
Lane Group Flow (vph)	33	1311	55	104	1366	0	71	70	262	0	23	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6	4	5	2		4	4		8	8	
Permitted Phases	6		6	2					4			
Detector Phase	1	6	4	5	2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	22.0	22.0	8.0	22.0		22.0	22.0	22.0	22.0	22.0	
Total Split (s)	13.0	100.0	16.0	18.0	105.0		16.0	16.0	16.0	16.0	16.0	
Total Split (%)	8.7%	66.7%	10.7%	12.0%	70.0%		10.7%	10.7%	10.7%	10.7%	10.7%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		4.5	4.5	4.5	4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5		1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		6.0	6.0	6.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None	None	None	C-Max		None	None	None	None	None	
Act Effct Green (s)	118.2	109.7	125.1	121.4	112.7		9.5	9.5	9.5		6.7	
Actuated g/C Ratio	0.79	0.73	0.83	0.81	0.75		0.06	0.06	0.06		0.04	
v/c Ratio	0.11	0.48	0.04	0.32	0.52		0.67	0.66	0.80		0.26	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Control Delay	5.7	16.3	6.7	7.9	11.8		96.5	95.3	28.0		44.3	
Queue Delay	0.0	0.3	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	5.7	16.7	6.7	7.9	11.8		96.5	95.3	28.0		44.3	
LOS	A	B	A	A	B		F	F	C		D	
Approach Delay		16.0			11.5			51.8			44.3	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	11	412	20	16	324		71	71	12		8	
Queue Length 95th (ft)	m16	457	m34	m43	375		m#138	m#135	m#135		39	
Internal Link Dist (ft)		714			281			135			170	
Turn Bay Length (ft)	85		140	275								
Base Capacity (vph)	347	2723	1326	402	2648		112	112	331		123	
Starvation Cap Reductn	0	722	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.10	0.66	0.04	0.26	0.52		0.63	0.63	0.79		0.19	

Intersection Summary	
Area Type: Other	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 59 (39%), Referenced to phase 2:NWTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 18.6	Intersection LOS: B
Intersection Capacity Utilization 66.4%	ICU Level of Service C
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Meijer Dr & Algonquin Rd (IL 62)

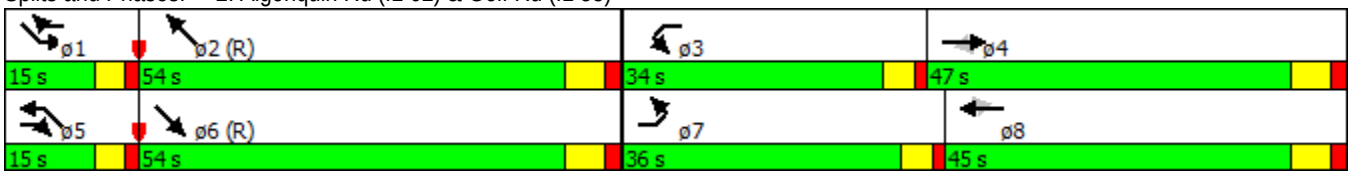
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	89	1023	559	49	985	311	362	685	58	453	879	73
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	270		115	420		0	335		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	185			105			240			190		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.988			0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3762	1583	1770	5406	1599	3433	3497	0	3467	3474	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1787	3762	1583	1770	5406	1599	3433	3497	0	3467	3474	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			35	
Link Distance (ft)		707			953			921			794	
Travel Time (s)		12.1			16.2			17.9			15.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	2%	2%	1%	1%	2%	2%	2%	1%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	91	1044	570	50	1005	317	369	758	0	462	971	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	5	3	8	1	1	6		5	2	
Permitted Phases			4			8						
Detector Phase	7	4	5	3	8	1	1	6		5	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5		9.0	22.5	
Total Split (s)	36.0	47.0	15.0	34.0	45.0	15.0	15.0	54.0		15.0	54.0	
Total Split (%)	24.0%	31.3%	10.0%	22.7%	30.0%	10.0%	10.0%	36.0%		10.0%	36.0%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	13.0	52.7	78.6	9.6	47.1	73.0	19.4	47.5		19.4	47.5	
Actuated g/C Ratio	0.09	0.35	0.52	0.06	0.31	0.49	0.13	0.32		0.13	0.32	
v/c Ratio	0.59	0.79	0.69	0.44	0.59	0.41	0.83	0.68		1.03	0.88	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Control Delay	80.6	48.7	33.3	79.0	44.6	27.4	79.1	48.5		117.4	56.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.6	48.7	33.3	79.0	44.6	27.4	79.1	48.5		117.4	56.3	
LOS	F	D	C	E	D	C	E	D		F	E	
Approach Delay		45.3			41.9			58.5			76.0	
Approach LOS		D			D			E			E	
Queue Length 50th (ft)	87	486	419	48	300	195	186	341		~256	530	
Queue Length 95th (ft)	144	547	600	92	337	295	#373	415		#475	#600	
Internal Link Dist (ft)		627			873			841			714	
Turn Bay Length (ft)	220			270		115	420			335		
Base Capacity (vph)	369	1321	829	342	1698	778	443	1107		447	1100	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.25	0.79	0.69	0.15	0.59	0.41	0.83	0.68		1.03	0.88	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 2 (1%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 54.9 Intersection LOS: D
Intersection Capacity Utilization 86.3% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Algonquin Rd (IL 62) & Golf Rd (IL 58)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	142	852	702	606	865	210	434	1565	461	180	1363	83
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	115		400	360		210	335		385	270		270
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	240			205			290			260		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	5301	1599	3400	5353	1583	3467	5406	1568	3335	5353	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	5301	1599	3400	5353	1583	3467	5406	1568	3335	5353	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1230			1043			925			1183	
Travel Time (s)		24.0			20.3			18.0			23.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	3%	1%	3%	2%	2%	1%	1%	3%	5%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	148	888	731	631	901	219	452	1630	480	188	1420	86
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	3	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5	9.0
Total Split (s)	33.0	57.0	31.0	20.0	44.0	15.0	31.0	58.0	20.0	15.0	42.0	33.0
Total Split (%)	22.0%	38.0%	20.7%	13.3%	29.3%	10.0%	20.7%	38.7%	13.3%	10.0%	28.0%	22.0%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	Max	None	None	Max	None
Act Effct Green (s)	11.8	51.0	81.4	15.0	54.2	70.2	24.4	52.0	73.0	10.0	37.6	55.4
Actuated g/C Ratio	0.08	0.34	0.54	0.10	0.36	0.47	0.16	0.35	0.49	0.07	0.25	0.37
v/c Ratio	0.55	0.49	0.84	1.86	0.47	0.30	0.80	0.87	0.63	0.85	1.06	0.15

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	66.6	58.1	36.5	430.8	38.0	26.5	71.9	52.0	33.1	99.7	94.5	32.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.6	58.1	36.5	430.8	38.0	26.5	71.9	52.0	33.1	99.7	94.5	32.4
LOS	E	E	D	F	D	C	E	D	C	F	F	C
Approach Delay		49.9			178.1			51.9			91.9	
Approach LOS		D			F			D			F	
Queue Length 50th (ft)	75	318	373	~481	247	130	219	546	341	95	~577	57
Queue Length 95th (ft)	m106	369	567	#606	301	201	282	610	468	#163	#675	96
Internal Link Dist (ft)		1150			963			845			1103	
Turn Bay Length (ft)	115		400	360		210	335		385	270		270
Base Capacity (vph)	647	1802	884	340	1935	741	600	1874	763	222	1341	755
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.49	0.83	1.86	0.47	0.30	0.75	0.87	0.63	0.85	1.06	0.11

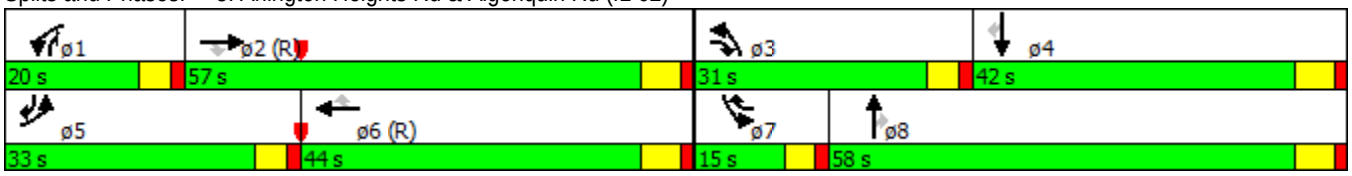
Intersection Summary	
Area Type: Other	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 77 (51%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.86	
Intersection Signal Delay: 88.6	Intersection LOS: F
Intersection Capacity Utilization 99.1%	ICU Level of Service F
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Arlington Heights Rd & Algonquin Rd (IL 62)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	1571	115	55	1344	41	0	0	129	0	0	33
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	9	1671	122	59	1430	44	0	0	137	0	0	35
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					707							
pX, platoon unblocked	0.85						0.85	0.85		0.85	0.85	0.85
vC, conflicting volume	1473			1794			2378	3340	618	2280	3379	498
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	931			1794			1998	3132	618	1882	3178	0
tC, single (s)	4.1			4.1			7.7	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			83			100	100	68	100	100	96
cM capacity (veh/h)	630			341			22	8	432	22	7	925

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	9	669	669	457	59	572	572	330	137	35
Volume Left	9	0	0	0	59	0	0	0	0	0
Volume Right	0	0	0	122	0	0	0	44	137	35
cSH	630	1700	1700	1700	341	1700	1700	1700	432	925
Volume to Capacity	0.01	0.39	0.39	0.27	0.17	0.34	0.34	0.19	0.32	0.04
Queue Length 95th (ft)	1	0	0	0	15	0	0	0	34	3
Control Delay (s)	10.8	0.0	0.0	0.0	17.7	0.0	0.0	0.0	17.2	9.0
Lane LOS	B				C				C	A
Approach Delay (s)	0.1				0.7				17.2	9.0
Approach LOS									C	A

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (veh/h)	7	1494	1381	9	7	16
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	8	1642	1518	10	8	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	TWLTL			
Median storage veh)			2			
Upstream signal (ft)		361				
pX, platoon unblocked					0.84	
vC, conflicting volume	1527				2359	764
vC1, stage 1 conf vol					1523	
vC2, stage 2 conf vol					836	
vCu, unblocked vol	1527				2235	764
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	98				95	95
cM capacity (veh/h)	442				158	351

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1
Volume Total	555	1095	1012	516	25
Volume Left	8	0	0	0	8
Volume Right	0	0	0	10	18
cSH	442	1700	1700	1700	256
Volume to Capacity	0.02	0.64	0.60	0.30	0.10
Queue Length 95th (ft)	1	0	0	0	8
Control Delay (s)	0.5	0.0	0.0	0.0	20.6
Lane LOS	A				C
Approach Delay (s)	0.2		0.0		20.6
Approach LOS					C

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		

Capacity Analyses- Future Conditions

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	3	1321	74	224	928	6	38	0	53	2	1	3
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	85		140	275		0	0		0	0		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	130			185			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.999				0.850		0.932	
Flt Protected	0.950			0.950			0.950	0.950			0.984	
Satd. Flow (prot)	1805	3654	1538	1641	3365	0	1491	1491	1262	0	1158	0
Flt Permitted	0.291			0.135			0.950	0.950			0.984	
Satd. Flow (perm)	553	3654	1538	233	3365	0	1491	1491	1262	0	1158	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)									91		3	
Link Speed (mph)		35			35			20			20	
Link Distance (ft)		794			361			194			250	
Travel Time (s)		15.5			7.0			6.6			8.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	4%	5%	10%	7%	33%	15%	0%	28%	50%	2%	67%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	3	1391	78	236	983	0	20	20	56	0	6	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6	4	5	2		4	4		8	8	
Permitted Phases	6		6	2					4			
Detector Phase	1	6	4	5	2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	22.0	22.0	8.0	22.0		22.0	22.0	22.0	22.0	22.0	
Total Split (s)	13.0	90.0	29.0	16.0	93.0		29.0	29.0	29.0	15.0	15.0	
Total Split (%)	8.7%	60.0%	19.3%	10.7%	62.0%		19.3%	19.3%	19.3%	10.0%	10.0%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		4.5	4.5	4.5	4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5		1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		6.0	6.0	6.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None	None	None	C-Max		None	None	None	None	None	
Act Effct Green (s)	113.4	105.3	118.9	130.2	125.8		7.6	7.6	7.6		6.2	
Actuated g/C Ratio	0.76	0.70	0.79	0.87	0.84		0.05	0.05	0.05		0.04	
v/c Ratio	0.01	0.54	0.06	0.62	0.35		0.27	0.27	0.37		0.12	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Control Delay	6.0	22.3	10.5	28.7	5.2		78.6	78.6	10.9		57.7	
Queue Delay	0.0	0.6	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	6.0	22.8	10.5	28.7	5.2		78.6	78.6	10.9		57.7	
LOS	A	C	B	C	A		E	E	B		E	
Approach Delay		22.1			9.7			39.1			57.7	
Approach LOS		C			A			D			E	
Queue Length 50th (ft)	1	559	26	94	119		18	18	1		3	
Queue Length 95th (ft)	m1	m709	m0	m148	m146		m43	m43	m10		19	
Internal Link Dist (ft)		714			281			114			170	
Turn Bay Length (ft)	85		140	275								
Base Capacity (vph)	511	2566	1377	378	2822		228	228	270		72	
Starvation Cap Reductn	0	681	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.01	0.74	0.06	0.62	0.35		0.09	0.09	0.21		0.08	

Intersection Summary	
Area Type: Other	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 39 (26%), Referenced to phase 2:NWTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 17.4	Intersection LOS: B
Intersection Capacity Utilization 63.8%	ICU Level of Service B
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 1: Meijer Dr & Algonquin Rd (IL 62)

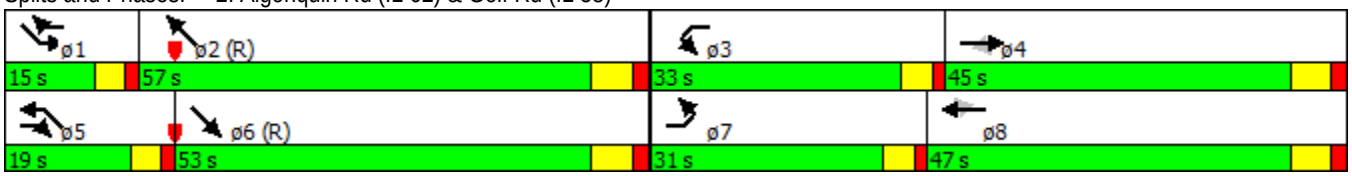
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	43	710	396	36	861	246	224	950	27	448	516	5
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	270		115	420		0	335		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	185			105			240			190		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.996			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3654	1538	1805	5353	1568	3433	3490	0	3335	3341	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3654	1538	1805	5353	1568	3433	3490	0	3335	3341	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			35	
Link Distance (ft)		707			953			921			794	
Travel Time (s)		12.1			16.2			17.9			15.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	4%	5%	0%	2%	3%	2%	3%	4%	5%	8%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	747	417	38	906	259	236	1028	0	472	548	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	5	3	8	1	1	6		5	2	
Permitted Phases			4			8						
Detector Phase	7	4	5	3	8	1	1	6		5	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5		9.0	22.5	
Total Split (s)	31.0	45.0	19.0	33.0	47.0	15.0	15.0	53.0		19.0	57.0	
Total Split (%)	20.7%	30.0%	12.7%	22.0%	31.3%	10.0%	10.0%	35.3%		12.7%	38.0%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	9.2	36.9	80.4	8.6	36.4	60.9	18.0	46.6		37.0	65.6	
Actuated g/C Ratio	0.06	0.25	0.54	0.06	0.24	0.41	0.12	0.31		0.25	0.44	
v/c Ratio	0.42	0.83	0.51	0.37	0.70	0.41	0.57	0.95		0.57	0.38	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Control Delay	78.4	62.0	25.9	77.2	54.6	33.0	68.1	67.8		67.9	26.7	
Queue Delay	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	78.4	62.0	26.1	77.2	54.6	33.0	68.1	67.8		67.9	26.7	
LOS	E	E	C	E	D	C	E	E		E	C	
Approach Delay		50.2			50.6			67.9			45.8	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	43	366	261	37	298	179	114	519		242	132	
Queue Length 95th (ft)	85	417	380	76	328	234	159	#657		#329	349	
Internal Link Dist (ft)		627			873			841			714	
Turn Bay Length (ft)	220			270		115	420			335		
Base Capacity (vph)	306	970	824	336	1464	636	412	1084		821	1460	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	55	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.15	0.77	0.54	0.11	0.62	0.41	0.57	0.95		0.57	0.38	

Intersection Summary	
Area Type: Other	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 127 (85%), Referenced to phase 2:NWT and 6:SET, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 54.1	Intersection LOS: D
Intersection Capacity Utilization 81.0%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Algonquin Rd (IL 62) & Golf Rd (IL 58)



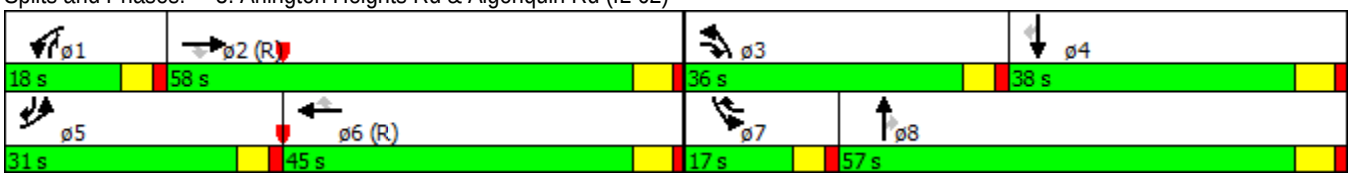
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	746	433	397	647	124	704	1042	440	214	1324	126
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	115		400	360		210	335		385	270		270
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	240			205			290			260		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	5151	1583	3183	5009	1468	3400	5200	1524	3335	5353	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	5151	1583	3183	5009	1468	3400	5200	1524	3335	5353	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1230			1043			925			1183	
Travel Time (s)		24.0			20.3			18.0			23.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	6%	2%	10%	9%	10%	3%	5%	6%	5%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	794	461	422	688	132	749	1109	468	228	1409	134
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	3	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5	9.0
Total Split (s)	31.0	58.0	36.0	18.0	45.0	17.0	36.0	57.0	18.0	17.0	38.0	31.0
Total Split (%)	20.7%	38.7%	24.0%	12.0%	30.0%	11.3%	24.0%	38.0%	12.0%	11.3%	25.3%	20.7%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	Max	None	None	Max	None
Act Effct Green (s)	7.6	52.0	89.0	13.0	57.4	75.4	31.0	51.0	70.0	12.0	32.0	45.6
Actuated g/C Ratio	0.05	0.35	0.59	0.09	0.38	0.50	0.21	0.34	0.47	0.08	0.21	0.30
v/c Ratio	0.29	0.44	0.49	1.53	0.36	0.18	1.07	0.63	0.66	0.86	1.23	0.28

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	60.9	34.6	42.1	300.8	34.0	21.5	108.6	43.5	36.3	95.9	161.3	41.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.9	34.6	42.1	300.8	34.0	21.5	108.6	43.5	36.3	95.9	161.3	41.3
LOS	E	C	D	F	C	C	F	D	D	F	F	D
Approach Delay		38.2			123.3			63.0			143.8	
Approach LOS		D			F			E			F	
Queue Length 50th (ft)	22	279	455	~296	175	69	~415	333	347	115	~622	100
Queue Length 95th (ft)	m40	253	578	#408	217	115	#545	384	479	#189	#720	157
Internal Link Dist (ft)		1150			963			845			1103	
Turn Bay Length (ft)	115		400	360		210	335		385	270		270
Base Capacity (vph)	583	1785	939	275	1916	737	702	1768	711	266	1141	675
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.44	0.49	1.53	0.36	0.18	1.07	0.63	0.66	0.86	1.23	0.20

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.53
Intersection Signal Delay: 91.0 Intersection LOS: F
Intersection Capacity Utilization 87.7% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Arlington Heights Rd & Algonquin Rd (IL 62)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	19	1102	151	104	1144	59	0	0	28	0	0	68
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	20	1148	157	108	1192	61	0	0	29	0	0	71
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					707							
pX, platoon unblocked	0.86						0.86	0.86		0.86	0.86	0.86
vC, conflicting volume	1253			1305			1951	2736	461	1890	2784	428
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	704			1305			1520	2438	461	1449	2494	0
tC, single (s)	4.1			4.1			8.1	6.5	7.1	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.8	4.0	3.4	3.5	4.0	3.3
p0 queue free %	97			79			100	100	94	100	100	92
cM capacity (veh/h)	772			526			41	21	523	62	20	933

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	20	459	459	387	108	477	477	300	29	71
Volume Left	20	0	0	0	108	0	0	0	0	0
Volume Right	0	0	0	157	0	0	0	61	29	71
cSH	772	1700	1700	1700	526	1700	1700	1700	523	933
Volume to Capacity	0.03	0.27	0.27	0.23	0.21	0.28	0.28	0.18	0.06	0.08
Queue Length 95th (ft)	2	0	0	0	19	0	0	0	4	6
Control Delay (s)	9.8	0.0	0.0	0.0	13.6	0.0	0.0	0.0	12.3	9.2
Lane LOS	A				B				B	A
Approach Delay (s)	0.1				1.1				12.3	9.2
Approach LOS									B	A

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	37.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (veh/h)	4	1370	1155	5	0	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	4	1473	1242	5	0	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	TWLTL			
Median storage veh)			2			
Upstream signal (ft)		361				
pX, platoon unblocked					0.79	
vC, conflicting volume	1247				1990	624
vC1, stage 1 conf vol					1245	
vC2, stage 2 conf vol					745	
vCu, unblocked vol	1247				1721	624
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	99				100	99
cM capacity (veh/h)	565				223	433

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1
Volume Total	495	982	828	419	3
Volume Left	4	0	0	0	0
Volume Right	0	0	0	5	3
cSH	565	1700	1700	1700	433
Volume to Capacity	0.01	0.58	0.49	0.25	0.01
Queue Length 95th (ft)	1	0	0	0	1
Control Delay (s)	0.2	0.0	0.0	0.0	13.4
Lane LOS	A				B
Approach Delay (s)	0.1		0.0		13.4
Approach LOS					B

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (veh/h)	1342	30	45	1159	1	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1413	32	47	1220	1	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)	550					
pX, platoon unblocked			0.79		0.79	0.79
vC, conflicting volume			1444		2133	722
vC1, stage 1 conf vol					1428	
vC2, stage 2 conf vol					705	
vCu, unblocked vol			1027		1901	111
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			91		99	99
cM capacity (veh/h)			530		209	726

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	NW 3	NE 1
Volume Total	942	502	47	610	610	8
Volume Left	0	0	47	0	0	1
Volume Right	0	32	0	0	0	7
cSH	1700	1700	530	1700	1700	554
Volume to Capacity	0.55	0.30	0.09	0.36	0.36	0.02
Queue Length 95th (ft)	0	0	7	0	0	1
Control Delay (s)	0.0	0.0	12.5	0.0	0.0	11.6
Lane LOS			B			B
Approach Delay (s)	0.0		0.5			11.6
Approach LOS						B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	48.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (veh/h)	0	7	92	8	18	281
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	7	97	8	19	296
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						374
pX, platoon unblocked	0.99					
vC, conflicting volume	435	101			105	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	423	101			105	
tC, single (s)	7.4	7.2			5.1	
tC, 2 stage (s)						
tF (s)	4.4	4.2			3.1	
p0 queue free %	100	99			98	
cM capacity (veh/h)	427	742			1046	

Direction, Lane #	NW 1	NE 1	SW 1	SW 2
Volume Total	7	105	19	296
Volume Left	0	0	19	0
Volume Right	7	8	0	0
cSH	742	1700	1046	1700
Volume to Capacity	0.01	0.06	0.02	0.17
Queue Length 95th (ft)	1	0	1	0
Control Delay (s)	9.9	0.0	8.5	0.0
Lane LOS	A		A	
Approach Delay (s)	9.9	0.0	0.5	
Approach LOS	A			

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	24.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (veh/h)	0	18	73	26	0	299
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	19	77	27	0	315
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						194
pX, platoon unblocked	0.97					
vC, conflicting volume	405	91			104	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	373	91			104	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	98			100	
cM capacity (veh/h)	610	967			1487	

Direction, Lane #	NW 1	NE 1	SW 1
Volume Total	19	104	315
Volume Left	0	0	0
Volume Right	19	27	0
cSH	967	1700	1700
Volume to Capacity	0.02	0.06	0.19
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.8	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.8	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	19.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	31	1252	54	102	1264	38	175	5	272	7	1	14
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	85		140	275		0	0		0	0		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	130			185			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.996				0.850		0.912	
Flt Protected	0.950			0.950			0.950	0.955			0.985	
Satd. Flow (prot)	1805	3725	1538	1719	3524	0	1633	1646	1538	0	1637	0
Flt Permitted	0.160			0.160			0.950	0.955			0.985	
Satd. Flow (perm)	304	3725	1538	290	3524	0	1633	1646	1538	0	1637	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)									219		15	
Link Speed (mph)		35			35			20			20	
Link Distance (ft)		794			361			183			250	
Travel Time (s)		15.5			7.0			6.2			8.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	5%	5%	2%	3%	5%	0%	5%	14%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)							49%					
Lane Group Flow (vph)	33	1318	57	107	1371	0	94	95	286	0	23	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6	4	5	2		4	4		8	8	
Permitted Phases	6		6	2					4			
Detector Phase	1	6	4	5	2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	22.0	22.0	8.0	22.0		22.0	22.0	22.0	22.0	22.0	
Total Split (s)	13.0	100.0	19.0	18.0	105.0		19.0	19.0	19.0	13.0	13.0	
Total Split (%)	8.7%	66.7%	12.7%	12.0%	70.0%		12.7%	12.7%	12.7%	8.7%	8.7%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		4.5	4.5	4.5	4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5		1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		6.0	6.0	6.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None	None	None	C-Max		None	None	None	None	None	
Act Effct Green (s)	115.7	107.1	125.2	119.3	110.4		12.2	12.2	12.2		6.2	
Actuated g/C Ratio	0.77	0.71	0.83	0.80	0.74		0.08	0.08	0.08		0.04	
v/c Ratio	0.11	0.50	0.04	0.35	0.53		0.71	0.71	0.88		0.28	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Control Delay	6.6	17.9	6.3	9.8	12.6		94.1	94.3	43.2		45.9	
Queue Delay	0.0	0.3	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	6.6	18.3	6.3	9.8	12.6		94.1	94.3	43.2		45.9	
LOS	A	B	A	A	B		F	F	D		D	
Approach Delay		17.5			12.4			63.5			45.9	
Approach LOS		B			B			E			D	
Queue Length 50th (ft)	13	417	19	22	338		93	94	58		8	
Queue Length 95th (ft)	m17	461	m32	m53	382		m#173	m#176	m#215		40	
Internal Link Dist (ft)		714			281			103			170	
Turn Bay Length (ft)	85		140	275								
Base Capacity (vph)	336	2659	1292	371	2593		141	142	333		90	
Starvation Cap Reductn	0	682	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.10	0.67	0.04	0.29	0.53		0.67	0.67	0.86		0.26	

Intersection Summary	
Area Type: Other	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 59 (39%), Referenced to phase 2:NWTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 21.9	Intersection LOS: C
Intersection Capacity Utilization 68.1%	ICU Level of Service C
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Meijer Dr & Algonquin Rd (IL 62)

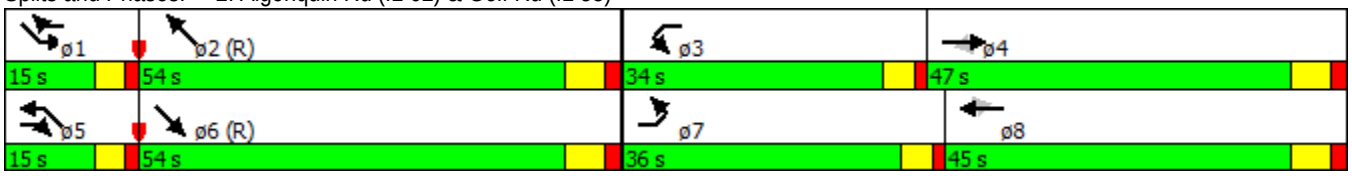
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	89	1023	559	50	985	311	362	693	58	486	903	77
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	270		115	420		0	335		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	185			105			240			190		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.988			0.988	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3762	1583	1770	5406	1599	3433	3497	0	3467	3471	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1787	3762	1583	1770	5406	1599	3433	3497	0	3467	3471	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			35	
Link Distance (ft)		707			953			921			794	
Travel Time (s)		12.1			16.2			17.9			15.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	2%	2%	1%	1%	2%	2%	2%	1%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	91	1044	570	51	1005	317	369	766	0	496	1000	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	5	3	8	1	1	6		5	2	
Permitted Phases			4			8						
Detector Phase	7	4	5	3	8	1	1	6		5	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5		9.0	22.5	
Total Split (s)	36.0	47.0	15.0	34.0	45.0	15.0	15.0	54.0		15.0	54.0	
Total Split (%)	24.0%	31.3%	10.0%	22.7%	30.0%	10.0%	10.0%	36.0%		10.0%	36.0%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	13.0	52.7	78.5	9.7	47.2	73.0	19.3	47.5		19.3	47.5	
Actuated g/C Ratio	0.09	0.35	0.52	0.06	0.31	0.49	0.13	0.32		0.13	0.32	
v/c Ratio	0.59	0.79	0.69	0.45	0.59	0.41	0.83	0.69		1.11	0.91	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Control Delay	80.6	48.8	33.4	78.9	44.6	27.4	79.4	48.8		137.1	57.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.6	48.8	33.4	78.9	44.6	27.4	79.4	48.8		137.1	57.0	
LOS	F	D	C	E	D	C	E	D		F	E	
Approach Delay		45.3			41.9			58.7			83.6	
Approach LOS		D			D			E			F	
Queue Length 50th (ft)	87	486	419	49	300	195	186	345		~294	546	
Queue Length 95th (ft)	144	548	602	94	337	295	#373	421		#512	#635	
Internal Link Dist (ft)		627			873			841			714	
Turn Bay Length (ft)	220			270		115	420			335		
Base Capacity (vph)	369	1320	828	342	1700	778	442	1107		446	1099	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.25	0.79	0.69	0.15	0.59	0.41	0.83	0.69		1.11	0.91	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 2 (1%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 57.2 Intersection LOS: E
Intersection Capacity Utilization 87.1% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Algonquin Rd (IL 62) & Golf Rd (IL 58)



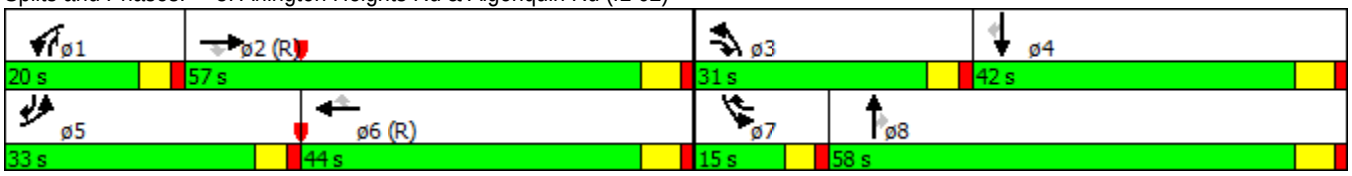
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	142	884	716	606	876	210	475	1565	461	180	1363	83
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	115		400	360		210	335		385	270		270
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	240			205			290			260		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	5301	1599	3400	5353	1583	3467	5406	1568	3335	5353	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	5301	1599	3400	5353	1583	3467	5406	1568	3335	5353	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1230			1043			925			1183	
Travel Time (s)		24.0			20.3			18.0			23.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	3%	1%	3%	2%	2%	1%	1%	3%	5%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	148	921	746	631	912	219	495	1630	480	188	1420	86
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	3	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5	9.0
Total Split (s)	33.0	57.0	31.0	20.0	44.0	15.0	31.0	58.0	20.0	15.0	42.0	33.0
Total Split (%)	22.0%	38.0%	20.7%	13.3%	29.3%	10.0%	20.7%	38.7%	13.3%	10.0%	28.0%	22.0%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	Max	None	None	Max	None
Act Effct Green (s)	11.8	51.0	82.2	15.0	54.2	70.2	25.2	52.0	73.0	10.0	36.8	54.6
Actuated g/C Ratio	0.08	0.34	0.55	0.10	0.36	0.47	0.17	0.35	0.49	0.07	0.25	0.36
v/c Ratio	0.55	0.51	0.85	1.86	0.47	0.30	0.85	0.87	0.63	0.85	1.08	0.15

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	66.5	57.5	37.8	430.8	38.2	26.5	75.2	52.0	33.1	99.7	101.9	32.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.5	57.5	37.8	430.8	38.2	26.5	75.2	52.0	33.1	99.7	101.9	32.7
LOS	E	E	D	F	D	C	E	D	C	F	F	C
Approach Delay		50.1			177.3			52.9			98.1	
Approach LOS		D			F			D			F	
Queue Length 50th (ft)	75	329	427	~481	251	130	243	546	341	95	~577	57
Queue Length 95th (ft)	m106	376	601	#606	305	201	#314	610	468	#163	#675	96
Internal Link Dist (ft)		1150			963			845			1103	
Turn Bay Length (ft)	115		400	360		210	335		385	270		270
Base Capacity (vph)	647	1802	884	340	1935	741	600	1874	763	222	1314	747
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.51	0.84	1.86	0.47	0.30	0.82	0.87	0.63	0.85	1.08	0.12

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 77 (51%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.86
Intersection Signal Delay: 89.8 Intersection LOS: F
Intersection Capacity Utilization 100.0% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Arlington Heights Rd & Algonquin Rd (IL 62)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	1571	122	55	1366	41	0	0	129	0	0	33
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	9	1671	130	59	1453	44	0	0	137	0	0	35
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					707							
pX, platoon unblocked	0.85						0.85	0.85		0.85	0.85	0.85
vC, conflicting volume	1497			1801			2390	3367	622	2303	3410	506
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	960			1801			2012	3164	622	1911	3215	0
tC, single (s)	4.1			4.1			7.7	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			83			100	100	68	100	100	96
cM capacity (veh/h)	615			338			22	7	430	21	7	925

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	9	669	669	464	59	581	581	334	137	35
Volume Left	9	0	0	0	59	0	0	0	0	0
Volume Right	0	0	0	130	0	0	0	44	137	35
cSH	615	1700	1700	1700	338	1700	1700	1700	430	925
Volume to Capacity	0.01	0.39	0.39	0.27	0.17	0.34	0.34	0.20	0.32	0.04
Queue Length 95th (ft)	1	0	0	0	15	0	0	0	34	3
Control Delay (s)	10.9	0.0	0.0	0.0	17.8	0.0	0.0	0.0	17.3	9.0
Lane LOS	B				C				C	A
Approach Delay (s)	0.1				0.7				17.3	9.0
Approach LOS									C	A

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (veh/h)	7	1524	1388	9	7	16
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	8	1675	1525	10	8	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	TWLTL			
Median storage veh)			2			
Upstream signal (ft)		361				
pX, platoon unblocked					0.83	
vC, conflicting volume	1535				2383	768
vC1, stage 1 conf vol					1530	
vC2, stage 2 conf vol					853	
vCu, unblocked vol	1535				2254	768
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	98				95	95
cM capacity (veh/h)	439				156	349

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1
Volume Total	566	1116	1017	518	25
Volume Left	8	0	0	0	8
Volume Right	0	0	0	10	18
cSH	439	1700	1700	1700	254
Volume to Capacity	0.02	0.66	0.60	0.30	0.10
Queue Length 95th (ft)	1	0	0	0	8
Control Delay (s)	0.5	0.0	0.0	0.0	20.8
Lane LOS	A				C
Approach Delay (s)	0.2		0.0		20.8
Approach LOS					C

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (veh/h)	1524	7	13	1393	4	23
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1604	7	14	1466	4	24
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)	550					
pX, platoon unblocked			0.83		0.83	0.83
vC, conflicting volume			1612		2368	806
vC1, stage 1 conf vol					1608	
vC2, stage 2 conf vol					761	
vCu, unblocked vol			1324		2237	351
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			97		97	95
cM capacity (veh/h)			429		159	535

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	NW 3	NE 1
Volume Total	1069	542	14	733	733	28
Volume Left	0	0	14	0	0	4
Volume Right	0	7	0	0	0	24
cSH	1700	1700	429	1700	1700	396
Volume to Capacity	0.63	0.32	0.03	0.43	0.43	0.07
Queue Length 95th (ft)	0	0	2	0	0	6
Control Delay (s)	0.0	0.0	13.7	0.0	0.0	14.8
Lane LOS			B			B
Approach Delay (s)	0.0		0.1			14.8
Approach LOS						B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	52.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (veh/h)	0	19	389	1	5	152
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	21	423	1	5	165
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						380
pX, platoon unblocked						
vC, conflicting volume	599	423			424	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	599	423			424	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	97			100	
cM capacity (veh/h)	462	631			1135	

Direction, Lane #	NW 1	NE 1	SW 1	SW 2
Volume Total	21	424	5	165
Volume Left	0	0	5	0
Volume Right	21	1	0	0
cSH	631	1700	1135	1700
Volume to Capacity	0.03	0.25	0.00	0.10
Queue Length 95th (ft)	3	0	0	0
Control Delay (s)	10.9	0.0	8.2	0.0
Lane LOS	B		A	
Approach Delay (s)	10.9	0.0	0.3	
Approach LOS	B			

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	30.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (veh/h)	0	50	402	6	0	157
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	53	423	6	0	165
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						183
pX, platoon unblocked	0.99					
vC, conflicting volume	592	426			429	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	583	426			429	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	92			100	
cM capacity (veh/h)	470	628			1130	

Direction, Lane #	NW 1	NE 1	SW 1
Volume Total	53	429	165
Volume Left	0	0	0
Volume Right	53	6	0
cSH	628	1700	1700
Volume to Capacity	0.08	0.25	0.10
Queue Length 95th (ft)	7	0	0
Control Delay (s)	11.3	0.0	0.0
Lane LOS	B		
Approach Delay (s)	11.3	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	31.5%	ICU Level of Service	A
Analysis Period (min)	15		

Village of Arlington Heights
Building & Life Safety Department

Interoffice Memorandum

To: Sam Hubbard, Development Planner, Planning and Community Development

From: Deb Pierce, Plan Reviewer, Building & Life Safety Department

Subject: 703-723 W Algonquin Rd., PUD Preliminary/Final Plat of Subdivision

PC#: 17-013 – Round 1

Date: November 16, 2017

Sam:

I have reviewed the documents for the project indicated above and have the following comments:

1. Provide the proposed construction type of the new buildings.

2. Provide details of the items to be stored, and the average length of time they will be stored. Based on the type of items and their packaging materials provide the Use Group of the warehouse (S-1 or S-2).

3. Provide a height and area calculation based on the construction type and Use.

4. Where the electrical room contains equipment rated 1,200 amps or more, there shall be two exits on opposite corners of the room. The doors and door hinges shall have a fire-rating equal to the rating of the electrical room. Doors shall swing out and have panic hardware. The electrical room shall have the same rating as the building.

5. Permanent roof access is required.

Village of Arlington Heights, IL
Department of Building & Life Safety

Fire Safety Division

Date: 11/2/2017 P.C. Number: 17-013

Project Name: Hamilton Partners PUD and Subdivision

Project Location: 703-723 W. Algonquin Rd.

Planning Department Contact: Sam Hubbard, Planning and Community Development

General Comments:

The information provided is conceptual only and subject to a formal plan review.

1. A complete NFPA-13 compliant fire suppression system is required.

2. Fire department connections shall be fully visible and located at the main front entrance of the building and within a maximum travel distance of 100 feet to the nearest fire hydrant.

3. An approved water supply capable of supplying the required fire flow for fire protection shall be provided.

4. Approved access shall be provided and maintained for all fire protection equipment to permit immediate safe operation and maintenance of such equipment.

5. Buildings or facilities having a gross building area of more than 62,000 square feet shall be provided with two separate and approved fire apparatus access roads.

6. A fully functional fire alarm shall be installed per NFPA 72. The alarm annunciator panel shall be located at the front entrance.

7. Shop drawings for fire alarm systems shall be submitted for review and approval prior to system installation.

8. Visible alarm notification appliances shall be provided in public areas and common areas. A visible exterior weatherproof alarm notification device shall be located within closest proximity to the front main entrance of the building or tenant space.

9. Fire protection equipment and service rooms shall be identified in an approved manner.

10. A zoning indicator panel and the associated controls, or, fire alarm control panel shall be located within the closest proximity to the front main entrance.

11. Buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building.

12. A key box (Know Box) shall be provided and contain keys to gain necessary access as required by the fire code official.

13. Fire pumps, if provided, shall be installed in accordance with the Fire Code and NFPA 20 and shall comply with all current code requirements.

14. Exit signs shall be illuminated at all times and have emergency power backup.

15. Indicate the maneuvering capability of the Fire Department Tower Truck to confirm that the truck can negotiate the turns on pavement avoiding any dead-ends and identify any overhead wires that may be within the airspace of the truck set-up.

16. Buildings or portions of buildings or facilities exceeding 30 feet in height above the lowest level of fire department vehicle access shall be provided with approved fire apparatus access roads capable of accommodating fire department aerial apparatus. Overhead utility and power lines shall not be located within the aerial fire apparatus access roadway.

17. Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet exclusive of shoulders, in the immediate vicinity of any building or portion of building more than 30 feet in height.

18. At least one of the required access routes meeting shall be located within a minimum of 15 feet and a maximum of 30 feet from the building, and shall be positioned parallel to one entire side of the building.

19. Buildings shall have approved address numbers.

20. Fire department connections shall be installed in accordance with the NFPA standard applicable to the system design. The location of fire department connections shall be approved.

21. Fire department connections shall be located on the street side of buildings, fully visible and recognizable from the street or nearest point of fire department vehicle access or as otherwise approved a visible Location.

22. Signs shall be posted on both sides of an approach of any fire lane stating NO PARKING – FIRE LANE". Signs shall have arrows indicating the area of parking restriction.

23. Fire lane signs shall be white with red three-inch letters. The dimensions of the sign shall be 12 inches horizontally and 18 inches vertically. These signs shall be installed so that the top of the sign is no less than 6 feet nor more than 6 feet above grade.

24. Tenant build-outs may result in additional requirements being met such as control rooms, storage of hazardous materials, etc.

25. Construction shall comply with all adopted codes.

Date November 2, 2017

Reviewed By: _____

Fire Safety Supervisor

Village of Arlington Heights
Public Works Department

Memorandum

To: Sam Hubbard, Planning and Community Development

From: Cris Papierniak, Assistant Director of Public Works

Date: November 10, 2017

Subject: 703-723 W Algonquin Rd, PC #17-013 Round 1

Regarding the proposed utility installation, PW has the following comments:

1. Verify the condition of the sidewalk fronting the property after the construction. If damage has occurred as a result of the construction, or drainage is not adequate (ponding), permittee must replace the affected squares.
2. The proposed 12" x 10" connection #8 must be a pressure connection.
3. The hydrant relocation #14 must be coordinated with VAHPW 847-368-5800, 48 hours prior to relocation.
4. All utilities that are not going to be reused must be properly abandoned at the respective main lines prior to installation of new utilities.
5. What is the potable water source for the proposed building at Phase 2?
6. There must be proper separation between the water service and the existing sewer line. Refer to the standard specifications of water and sewer installation for the State of Illinois 6th edition or newer.
7. All methods of construction and materials must conform to the most recent version of "A Manual of Practice for the Design of Public & Private Improvements" as published by the Village of Arlington Heights Engineering Department.
8. Water meter and RPZ's will be specified once architectural plans have been submitted.
9. A fence will be required around the detention facilities to protect public from a 4.2' fall.
10. Verify condition of manhole #15 prior to coring new 8" line.

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DEVELOPMENT DEPARTMENT

CC: Scott T. Shirley, Director of Public Works

ENGINEERING DEPARTMENT

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. 17-013
Petitioner: Morgan Harbour Construction, L.L.C.

Owner: Arlington Heights 1, LLC

Contact Person: Joshua Spinks
Address: 7510 S. Madison St. Willowbrook, IL 60527
Phone #: 630-601-8096
Fax #: 630-734-8099
E-Mail: jspinks@morganharbour.com

P.I.N.# 08-16-402 { -008-0000, -026-0000, -027-0000, -028-0000
Location: 703-723-W. Algonquin Rd
Rezoning: NO Current: M-2 Proposed: M-2
Subdivision: Consolidation
# of Lots: 2 Current: 2 Proposed: 1
PUD: YES For: Distribution
Special Use: — For: —
Land Use Variation: NO For: —
Land Use: Current: (Multi-tenant Off./industrial)
Proposed: Distribution
Site Gross Area: 15.41 Acres
# of Units Total:
1BR: 2BR: 3BR: 4BR:

(Petitioner: Please do not write below this line.)

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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		

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2. PERMITS REQUIRED OTHER THAN VILLAGE:
a. MWRDGC X b. IDOT X
c. ARMY CORP ___ d. IEPA ___
e. CCHD ___

	YES	NO	COMMENTS
3. R.O.W. DEDICATIONS?		X	
4. SITE PLAN ACCEPTABLE?		X	SEE COMMENTS
5. PRELIMINARY PLAT ACCEPTABLE?		X	
6. TRAFFIC STUDY ACCEPTABLE?		X	
7. STORM WATER DETENTION REQUIRED?	X		
8. CONTRIBUTION ORDINANCE EXISTING?	X		#66-111 PAID IN FULL IN 1978
9. FLOOD PLAIN OR FLOODWAY EXISTING?		X	
10. WETLAND EXISTING?		X	

GENERAL COMMENTS ATTACHED

PLANS PREPARED BY: RWG Engineering, LLC.
DATE OF PLANS: 10-17-17

Director 11/16/17 Date

PLAN COMMISSION PC #17-013
Hamilton Partners – Arlington Heights Subdivision
703-723 W. Algonquin Road
PUD, Prelim/Final Plat of Subdivision
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. Since a subdivision is being proposed the plans must meet all subdivision requirements. 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

14. The Final Plat of Subdivision must be reviewed and approved by the Engineering Department prior to final Plan Commission approval. The original signed mylar Final Plat of Subdivision, containing all non-Village signatures, shall be submitted one week before the scheduled date of the final Plan Commission meeting. Village Code Section 29-209 also requires a digital copy of the plat to be provided on disk to the Village. The petitioner shall acknowledge that they accept this understanding.

15. The proposed detention facilities will be a private system and as such will not be the Village's responsibility to maintain. The basins require a 1-foot freeboard with an overflow weir at the 6" line. An Onsite Utility Maintenance Agreement must be executed prior to final engineering

approval. See attachment. Contact the Engineering Department for an editable Word version of the document.

16. The stormwater report outlines the proposed detention facilities and satisfactorily addressed the Village's stormwater detention volume requirements: Phase 1 North provides 2.681 ac-ft., Phase 2 South provides 3.208 ac-ft. The total of 5.889 ac-ft exceeds the required 5.76 ac-ft by 0.129 ac-ft.

17. The plan shows proposed surface detention at the truck docks. It is our understanding that the drains from the dock area must go through an oil separator or triple basin. There are concerns about whether or not the oil separator or triple basin would function properly if, say, the stormwater flow happened to reverse through the basin. Check with the MWRD to see if they will allow this setup. The depth of water is not as concerning, given the height and length of semi-trucks.

18. The detail showing the restrictor catch basin for Phase 1 North does not show the existing 4" pipe as described in the stormwater report. Please revise.

19. The Fire Truck Maneuvering Exhibit does not utilize the Village's fire vehicle specifications. Show the turning path of the Fire Department's responding vehicle, in this case the tower truck. Exhibit must show front and rear wheel paths and the extent of the front and rear overhangs, as provided in an "Autoturn" exhibit. The vehicle shall be shown maneuvering through the site in all possible directions of travel. Attached are the specifications for the tower apparatus. The exhibit must show the vehicle driving down the aisle closest to the building along the north side of the building.

20. Fire lanes adjacent to buildings must have a minimum pavement width as directed by the Fire Department to accommodate the tower truck's outriggers. Fire lanes require a heavy duty pavement section. Asphalt pavement section to consist of: 2" Surface, 2-1/4" N-50 Binder, 5" N-30 Binder, and 4" CA-6 Stone Subbase. Concrete driveway apron to be 8" thick. Proposed heavy duty pavement cross section can be used if it can be demonstrated that the structural number of the proposed pavement section meets or exceeds the structural number of the Village's required pavement section.

21. Public sidewalk, 8" thick, to be established across the existing Meijer Drive driveway. Sidewalk takes precedence through the driveway, with curb stopping on either side of the sidewalk. Detectable warning panels are required for sidewalks at stop controlled driveways.

22. ADA requires a full 18' parking stall depth. Cannot specify 16.5' stall depth for handicap spaces.

23. The plans show offsite pavement improvements. Written permission, whether in the form of an existing easement that allows pavement construction or a letter from the property owner must be provided before this work can be allowed.

Traffic:

24. How is the proposed operation of this facility structured, on a 7:00 a.m. – 5:00 p.m. work day or will the building be operated in shifts around the clock?

25. The existing Meijer Drive pavement geometry at the intersection of Rt 62 provides a dual left turn bay and single through/right turn bay. What is the current occupancy of these lanes, and during the peak hour, are there loaded cycles where these lanes do not clear? Also with the introduction of tractor-trailer combination trucks in the traffic stream, this will displace passenger cars, possibly aggravating this condition. Please provide a capacity analysis to verify adequate storage length for the south leg of this intersection under the proposed condition.

26. The existing raised barrier median in the center of Meijer Drive must be extended to the end of the striped dual left turn bay markings. This will extend south of the right turn in/out passenger car driveway into the north parking lot of the site.

27. Please provide all proposed lighting photometric site illumination plans, along with catalog cuts for all parking lot pole fixtures, as well as any exterior lights proposed to be mounted to the exterior of the building.

28. Please clarify the orientation of the directions identified in the Capacity analyses tables 2-6 that better defines mainline, and cross traffic legs of the intersection.

29. How is the proposed recommendation to increase traffic signal cycle length along Route 62 being implemented? Have discussions with I.D.O.T. taken place, is there correspondence that the State has approved this request? Please provide documentation.

30. There is no discussion of the parking analysis for this site. Code required parking verses supplied parking should be identified. With the 308 stalls being provided, the projected arrival and departure of employees would seem to suggest much higher peak hour volumes. Is the site over capacity in the number of parking stalls being provided?

Final Plat of Subdivision:

31. Many of the easements shown on the ALTA surveys along Outlot A and Meijer Drive, continuing from the south, are not shown on the Final Plat.

32. There are public utilities (water mains, sanitary sewer) that do not appear to be located within public utility easements. Do any of the Ingress/Egress easements contain language to also allow public utilities? For clarity, please prepare a detail to larger scale of the easements and property lines in the vicinity of Outlot A and the access road off Meijer Drive.

33. Attached is the Final Plat of Subdivision Checklist. Please follow each item and modify the plat as necessary.

34. What are the Parcel designations for? It is unclear whether they are existing or proposed. Parcel 1 "A" is bold indicating proposed, but Parcel 1 "B" and Parcel 2 are not bold, indicating existing. Where is the demarcation line between the parcels?

35. Parcel 1 "A" is shown on the Sidwell Atlas as PIN 08-16-102-030-0000, which is not included in the list of PIN numbers shown on the Plat. Is this piece of property included in the proposed ownership/development?

James J. Massarelli, P.E. Date 11/16/17
Director of Engineering

Attachments:

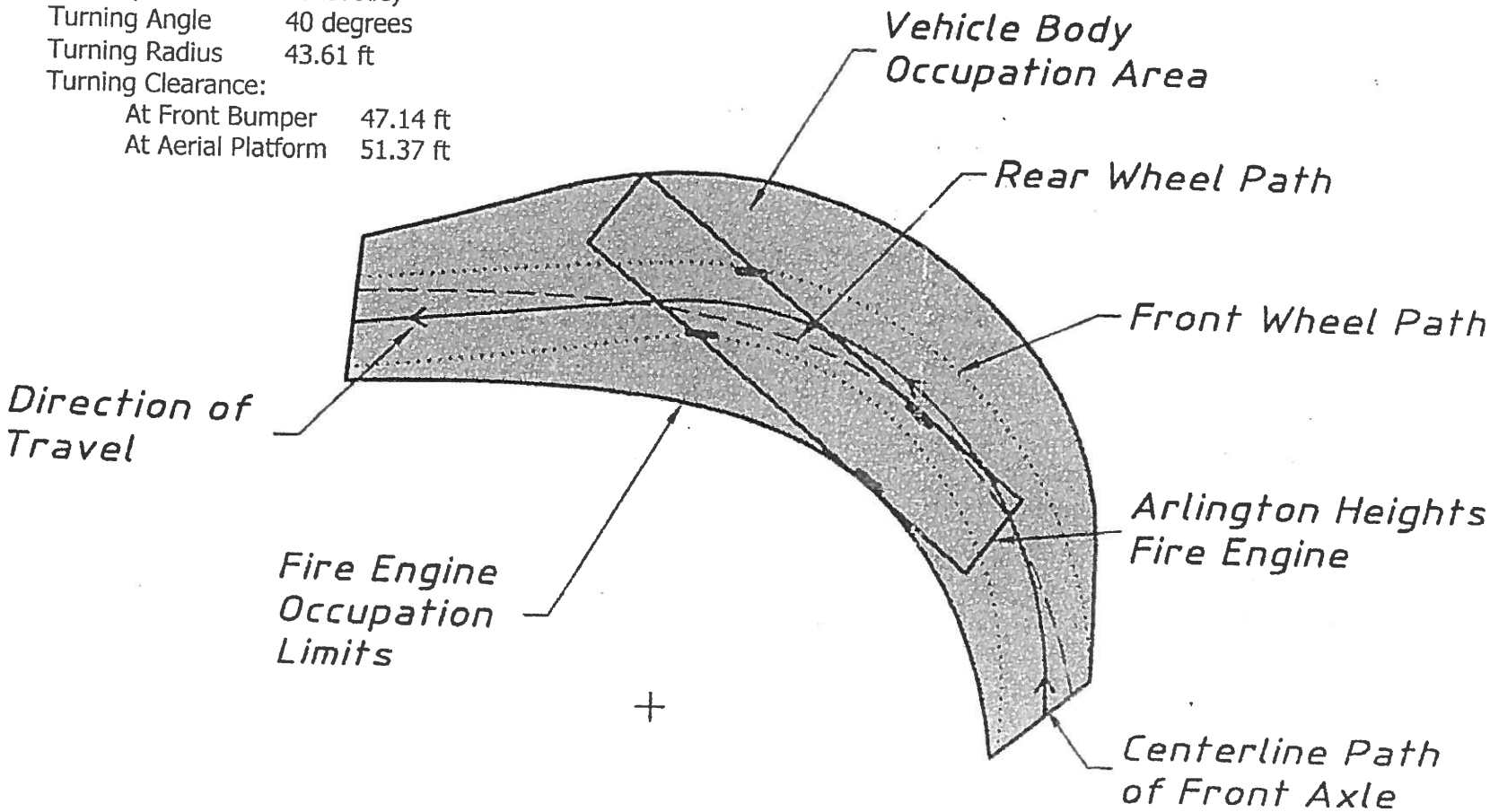
Fire Apparatus Tower 131 Specifications (1 page)
Final Plat of Subdivision Checklist (3 pages)
Contacts for Plat Signatures (1 page)
Sample Onsite Utility Maintenance Agreement (4 pages)

FIRE ENGINE TURNING TEMPLATE

Village of Arlington Heights Tower 131

Scale: 1″=15′

Overall Height	11 ft – 8 in
Overall Length	48 ft – 0 in
Overall Width	8 ft – 6 in
Overall Wheelbase	21 ft – 2 in
Front Overhang (Platform to Front Axle)	14 ft – 0 in
Turning Angle	40 degrees
Turning Radius	43.61 ft
Turning Clearance:	
At Front Bumper	47.14 ft
At Aerial Platform	51.37 ft



Final Plat of Subdivision Checklist
Municipal Code Section 29-209(a – t)

- ○ a. The date of preparation of the final plat and by whom prepared.
- ○ b. The boundary of the plat, based on accurate traverse, with angles and lineal dimensions.
- ○ c. All permanent survey monuments, markers and bench marks.
- ○ d. Exact location, width and name of all streets within and adjoining the plat, and the exact location and widths of all cross walkways.
- ○ e. True angles and distances to the nearest established street lines or official monuments, not less than three.
- ○ f. Municipal, township, county and section lines accurately tied to the lines of the subdivision by distances and angles.
- ○ g. Radii, internal angles, points and curvatures, tangent bearings and lengths of all arcs.
- ○ h. All easements for rights of way established for public use and utilities.
- ○ i. All lot numbers and lines, with accurate dimensions given in hundredths of feet.
- ○ j. Accurate outlines and legal descriptions of all areas dedicated or reserved for public use, with the proposed uses indicated thereon; and all areas to be reserved by deed covenant for the common use of all property owners; together with the proposed uses indicated thereon.
- ○ k. The text of protective covenants, approved by the Plan Commission, relating to the proposed subdivision.
- ○ l. An endorsement by the County Clerk in the form acceptable to Cook County, that there are no delinquent, forfeited, foreclosed or purchased general taxes, or unpaid current general taxes, against the land proposed to be subdivided.
- ○ m. A summary of all restrictions applicable to any part of such subdivision concerning building restrictions, use restrictions, building setback lines and similar matters.
- ○ n. A deed of dedication in the form set forth in Section 29-217(a):
  The Final plat shall contain a deed of dedication substantially as follows:

  "We, the undersigned, (Names), owners of the real estate shown and described herein, do hereby lay off, plat and subdivide said real estate in accordance with the within plat. This subdivision shall be known and designated as (Name), an addition to the Village of Arlington Heights, Cook County. All streets and alleys and public open spaces shown and not heretofore dedicated are hereby dedicated to the public. Front and side yard building setback lines are established as shown on this plat, between which lines and the property lines of the streets, there shall be erected or maintained no building or structure. There are strips of ground, (Number) feet in width, as shown on this plat and marked 'Easement' reserved for the use of public utilities for the installation of water and sewer mains, poles, ducts, lines and wires, subject at all times to the proper authorities and to the easement herein reserved. No permanent or other structures are to be erected or maintained upon

these strips of land, but owners of lots in this subdivision shall take their titles subject to the rights of the public utilities, and to the rights of the owners of other lots in this subdivision.

(Additional dedications and protective covenants, or private restrictions, would be inserted here upon the subdivider's initiative or the recommendation of the Plan Commission or Village Board; important provisions are those specifying the use to be made of the property and, in the case of residential use, the minimum habitable floor area.)

The foregoing covenants (or restrictions), are to run with the land and shall be binding on all parties and all persons claiming under them until January 1, 20____ [25 year period is suggested], at which time said covenants (or restrictions) shall be automatically extended for successive periods of ten years unless indicated otherwise by negative vote of a majority of the then owners of the building sites covered by these covenants (or restrictions), in whole or in part, which said vote will be evidenced by a petition in writing signed by the owners and duly recorded. Invalidation of any one of the foregoing covenants (or restrictions) by judgment or court order shall in no way affect any of the other various covenants (or restrictions), which shall remain in full force and effect.

The right to enforce these provisions by injunction, together with the right to cause the removal, by due process of law, of any structure or part thereof erected or maintained in violation, is hereby dedicated to the public, and reserved to the several owners of the several lots in this subdivision and to their heirs and assigns.

WITNESS our hands and seals this ____ day of _____, 20____.

STATE OF ILLINOIS)
COUNTY OF COOK) SS.

Before me the undersigned Notary Public, in and for the County and State aforesaid, personally appeared (Names), and each separately and severally acknowledged the execution of the foregoing instrument as his or her voluntary act and deed, for the purposes therein expressed.

WITNESS my hand and notarial seal this ____ day of 20 _____.

_____
Notary Public"

○ o. A blank certificate of approval in the form set forth in Section 29-217(b).
The Final plat shall contain a certificate of approval as follows:

"Under the authority provided by 65 ILCS 5/11-12 as amended by the State Legislature of the State of Illinois and Ordinance adopted by the Village Board of the Village of Arlington Heights, Illinois, this plat was given approval by the Village of Arlington Heights AND MUST BE RECORDED WITHIN SIX MONTHS OF THE DATE OF APPROVAL BY THE VILLAGE BOARD, OTHERWISE IT IS NULL AND VOID.

APPROVED by the Plan Commission at a meeting held _____

_____
Chairman

_____
Secretary

APPROVED by the Village Board of Trustees at a meeting held _____

_____
President

_____
Village Clerk

APPROVED by the Village Collector

_____

APPROVED by the Director of Engineering
_____"

○ p. A certification by a registered surveyor in the form set forth in Section 29-217(c). The Final plat shall contain a certificate signed by an Illinois Registered Land Surveyor in substantially the following form:

"I, (Name), hereby certify that I am an Illinois Registered Land Surveyor in compliance with the laws of the State of Illinois, and that this plat correctly represents a survey completed by me on (Date); that all monuments and markers shown thereon actually exist, and that I have accurately shown the materials that they are made of.

_____
Signature

(SURVEYOR'S SEAL)

Illinois Land Surveyor
No. _____"

○ q. A notarized statement from the owner indicating the school district in which each tract, parcel, lot or block lies.

○ r. A certificate in the form as required by the Illinois Department of Transportation or Cook County Highway Department, respectively, when any new street or new driveway will access one of these Department's streets.

○ s. The parcel index numbers of all lots contained within the plat shall be included on the plat of subdivision.

○ t. A block stating "Send Tax Bill To: (Name/Address)." The actual name and address shall be provided by the developer.

○ u. Provide a location to identify the address of each new lot.

The Village of Arlington Heights Municipal Code can be accessed over the internet at www.vah.com .

Contacts for Plat Signatures

Mr. Frank Gautier **Comcast Cable** 688 Industrial Drive Elmhurst, IL 60125	630/600-6348 frank_gautier@cable.comcast.com Alternate: Martha Gieras 630/600-6352 Martha_gieras@cable.comcast.net
Ms. Mark Cozzi **ComEd** Three Lincoln Center – 4th Floor Oakbrook Terrace, IL 60181	630/576-6530 Mark.Cozzi@ComEd.com
Ms. Kim Augustine **NICOR Gas** 300 W. Terra Cotta Avenue Crystal Lake, IL 60014	630/338-2976 kaugust@aglresources.com
Ms. Sue E. Manshum ROW Engineer **Ameritech** 2004 Miner, 1st Floor Des Plaines, IL 60016	847/759-5603 sm9231@att.com
Mr. Greg Argetsinger VPGM of Illinois **WOW Internet Cable** 1674 Frontenac Road Naperville, IL 60563-1757	630/536-3121 Tom Gebens 630/536-3153 Brian Herd 630/669-5227
Mr. Jonathan Karabowicz **IDOT** Permits 201 W. Center Court Schaumburg, IL 60196	847/705-4149
Mr. Michael Sterr, P.E. Permit Office **Cook County Highway Department** 69 West Washington Street 23rd Floor, Suite 2354 Chicago, IL 60602	312/603-1670

ONSITE UTILITY MAINTENANCE AGREEMENT

WHEREAS, _____, an (LLC? Corporation?), or its affiliates, ("RESPONSIBLE ENTITY") is the legal title holder of the following described real estate commonly referred to as _____*(address)*_____, Arlington Heights, Illinois, 6000_, containing _____ acres, more or less, situated in the Village of Arlington Heights, Illinois and legally described as follows: (the "PROPERTY"):

*** *Insert legal description, or attach as Exhibit A* ***

PIN Numbers: _____
_____
_____

WHEREAS, _____*(print name)*_____, ("OWNER") desires to develop the PROPERTY; and

WHEREAS, it is necessary to service said parcel with sanitary sewers, storm sewers and/or stormwater management facilities, domestic water mains; and

WHEREAS, the sanitary sewers, storm sewers and/or stormwater management facilities, and domestic water mains servicing the property are not located within public rights-of-way or dedicated easements; and

WHEREAS, the Village of Arlington Heights ("VILLAGE") does not maintain sanitary sewers, storm sewers and/or stormwater management facilities, or domestic water mains on privately owned property; therefore

1. It is hereby AGREED by the RESPONSIBLE ENTITY, its successors and assigns that at no expense to the VILLAGE, the RESPONSIBLE ENTITY, its successors and assigns shall:

   a. Maintain all sanitary sewers and appurtenances thereunto appertaining located upon said premises, all as shown on the Final Engineering Plans prepared by _____(Engineering Firm)_____ dated _____, and approved by the VILLAGE, or any amended plans as agreed to and approved by both parties, copies which are on file with the Engineering Department of the VILLAGE.

   b. Maintain all water mains and appurtenances located upon said premises from the master meter vaults.

   c. Maintain all storm sewers and appurtenances, including detention/retention basins, located upon said premises.

   d. Maintain the utilities as itemized above in accordance with the latest edition of the Village of Arlington Heights Municipal Code.

   e. Maintain all private roadways, parking areas, and pavement lighting facilities located on said premises as shown on said Final Engineering Plans in accordance with the latest edition of the Village of Arlington Heights Municipal Code.

2. It is further AGREED that should the RESPONSIBLE ENTITY not properly maintain the sanitary sewers or domestic water mains in accordance with the requirements of the VILLAGE, written notification shall be given to the RESPONSIBLE ENTITY advising that after ten (10) days if the RESPONSIBLE ENTITY is not in compliance with the applicable requirements, the VILLAGE is hereby authorized, but not required, to enter upon the property to correct deficiencies and to place a lien against said property until such time that the VILLAGE has been fully reimbursed for its expenses in correcting these deficiencies; and

3. It is further AGREED that should the RESPONSIBLE ENTITY not properly maintain the aforementioned storm sewers and/or stormwater management facilities in accordance with the requirements of the VILLAGE, or should they allow a public nuisance to exist, written notification shall be given to the RESPONSIBLE ENTITY advising that after ten (10) days if the RESPONSIBLE ENTITY is not in compliance with the applicable requirements, the VILLAGE is hereby authorized, but not required, to enter upon the property to correct deficiencies and to place a lien against said property until such time that the VILLAGE has been fully reimbursed for its expenses in correcting these deficiencies; and

4. It is further AGREED that the RESPONSIBLE ENTITY shall save the VILLAGE harmless from any and all claims for damages resulting from the VILLAGE interrupting service to the property due to the failure of the RESPONSIBLE ENTITY to perpetually maintain the systems as described above and any other claims or damages arising out of this Agreement and the ownership of the facilities described herein.

5. This Agreement shall be binding between all successors and assigns and shall be a covenant running with the land as here and before legally described.

6. This Agreement shall be recorded in Cook County, Illinois.

This Agreement is entered into the _____ day of _____, 20___.

For: _____

Name: _____

Signature: _____

Title: _____

State of Illinois)
) SS
County of Cook)

I, _____, a Notary in and for said County, in the State

aforesaid, CERTIFY that _____ personally known to me to be the same person whose name is subscribed on the foregoing instrument appeared before me this day in person and acknowledged that (s)he signed, sealed, and delivered said instrument as their free and voluntary act, and as the voluntary act of

_____, an (LLC? Corporation?), for the uses and purposes therein set forth.

GIVEN under my hand and Notarial seal this _____ day of _____, 20___.

_____
Notary Public

For: Village of Arlington Heights,
an Illinois municipal corporation

Name: _____

Signature: _____

Title: _____

State of Illinois)
) SS
County of Cook)

I, _____, a Notary in and for said County, in the State aforesaid, CERTIFY that _____ personally known to me to be the same person whose name is subscribed on the foregoing instrument appeared before me this day in person and acknowledged that (s)he signed, sealed, and delivered said instrument as their free and voluntary act, and as the voluntary act of the **Village of Arlington Heights, an Illinois municipal corporation**, for the uses and purposes therein set forth.

GIVEN under my hand and Notarial seal this _____ day of _____, 20___.

_____
Notary Public

Arlington Heights Fire Department
Plan Review Sheet

P. C. Number 17-013

Project Name Hamilton Partners PUD and Subdivision

Project Location 703-723 W. Algonquin Road

Planning Department Contact Sam Hubbard

General Comments

Round 1
General Comments:

1) Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet, exclusive of shoulders, in the immediate vicinity of any building or portion of the building more than 30 feet in height.

2)Building is to be sprinkled per code.

3) The Fire Department Connection shall be located at the main front entrance of the building and be fully visible. It shall located within a maximum travel distance of 100 feet to the nearest fire hydrant.

4) A Knox Box (key safe) shall be located at the main front entrance.

6) A fire alarm zoning indicator panel and associated controls or fire alarm control panel (full functioning auxiliary panel) shall be located within the closest proximity to the front main entrance of the building.

NOTE: PLAN IS CONCEPTUAL ONLY SUBJECT TO DETAILED PLAN REVIEW

Date November 14, 2017 Reviewed By: LT. Mark Aleckson

Arlington Heights Fire Department

RECEIVED
NOV 15 2017
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

ARLINGTON HEIGHTS POLICE DEPARTMENT

Community Services Bureau

DEPARTMENT PLAN REVIEW SUMMARY

703-723 W. Algonquin Rd.
PC#17-013

Round 1 Review Comments **11/13/2017**

1. **Character of use:**
   The character of use is consistent with the area and is not a concern.

2. **Are lighting requirements adequate?**
3. Lighting should be up to Village of Arlington Heights code. Special attention should be given to illuminating parking lot areas, and any secluded areas on the property. These areas should be illuminated especially during nighttime hours for safety, to deter criminal activity and increase surveillance/visibility- potentially reducing theft, trespassing, vandalism, underage drinking, drug use and other criminal activity.

4. **Present traffic problems?**
   There are no traffic problems at this location.

5. **Traffic accidents at particular location?**
   This is not a problem area in relation to traffic accidents.

6. **Traffic problems that may be created by the development.**
   There should be traffic control signage in the parking lot and right turn only designed exit lanes to discourage left turns onto Algonquin Road.

7. **General comments:**
   - Please ensure that there is an emergency information/contact card on file with the Arlington Heights Police Department and that it is up-to-date. Agent contact information must be provided to the Arlington Heights Police Department during all construction phases. The form is attached. Please complete and return. This allows police department personnel to contact an agent during emergency situations or for suspicious/criminal activity on the property during all hours.
   - Landscaping should provide open sightlines to increase natural surveillance and avoid creating ambush locations and havens for illegal activities- theft, trespassing, vandalism, underage drinking, drug use, etc.
   - Consider posting no trespassing / loitering/ no un-authorized use signage. The Arlington Heights Police Dept. has and utilizes trespass warning forms under qualifying circumstances when requested by property management.
   - Landscaping should provide open sightlines to increase natural surveillance and avoid creating ambush locations.
   -Install cameras (with recording capabilities) on the exterior and interior of building, to include a monitor at the reception/ or office area so employees have ability to monitor interior and exterior.

#272

Brandi Romag, Crime Prevention Officer
Community Services Bureau

Approved by:

D Hoyt #557

Supervisor's Signature

Arlington Heights Police Department

Emergency Information Card

Arlington Heights Police Department
200 E. Sigwalt Street
Arlington Heights, IL 60005-1499
Phone: 847/368-5300

1. Fill in all information by tabbing to each field.
2. When completed, save the form and send as an attachment to: policemail@vah.com.

Completed forms may also be printed and submitted in the following manner:

By Mail: Arlington Heights Police Department
200 E. Sigwalt Street, Arlington Heights, IL. 60005
Attention: Police Administration

By Fax: (847) 368-5970 - Attention: Police Administration

In Person: Dropped off at the Arlington Heights Police Department's front desk for forwarding to Police Administration.

Name (Firm or Residence)

Address/City

Telephone Number

Date Information Obtained

IN CASE OF EMERGENCY PLEASE CALL:

Contact #1

Name

Address/City

Telephone Number

Cell Number

Contact #2

Name

Address/City

Telephone Number

Cell Number

Alarm System

☐ No

☐ Yes Phone number:

Alarm Company Name

HEALTH SERVICES DEPARTMENT

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C.
Petitioner: Morgan Harbour Construction, LLC
Owner: Arlington Heights 1, LLC
Contact Person: Joshua Spinks
Address: 7510 W. Madison St. Willowbrook, IL 60527
Phone #: 630-601-8096
Fax #: 630-734-8099
E-Mail: jspinks@morganharbour.com

P.I.N.# 08-16-102 -008-0000 -026-0000 -027-0000 -028-0000
Location: 703-723 W. Algonquin Rd.
Rezoning: NO Current: M-2 Proposed: M-2
Subdivision: Consolidation
# of Lots: 2 Current: 2 Proposed: 1
PUD: YES For: Distribution
Special Use: — For: —
Land Use Variation: NO For: —
Land Use: Current: (multi-tenant off/industrial)
Proposed: Distribution
Site Gross Area: 15.41 Acres
# of Units Total:
1BR: 2BR: 3BR: 4BR:

(Petitioner: Please do not write below this line.)

1. GENERAL COMMENTS:

No comments

RECEIVED
OCT 31 2017
PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT

11-15-17
Environmental Health Officer Date

11/15/17
Director Date

Planning & Community Development Dept. Review

November 14, 2017

REVIEW ROUND 1

Project: 703-723 W. Algonquin Rd

Case Number: PC 17-013

General:

7. Please note that the Final Plat, as approved by the Engineering Dept., must be printed on mylar and submitted to the Village, with signatures obtained from all parties except those to be coordinated by the Village, no less than one week prior to the Plan Commission hearing date. If this requirement cannot be met, you can proceed with Preliminary Plat approval with Final Plat approval obtained at a future date (i.e. a separate Plan Commission meeting would be needed). No public notice is required for Final Plat of Subdivision approval. If you end up proceeding with Preliminary Plat approval only, a copy of the Plat which reads "Preliminary" will be required one week prior to the Plan Commission hearing.

8. Please note that final engineering must be approved by the Engineering Dept. no less than one week prior to appearance before the Plan Commission, which will include the payment of all engineering fees and the provision of all surety bonds, public improvement deposits, and engineering fee's. If this requirement cannot be met, you can proceed with Preliminary Plat approval with Final Plat approval obtained at a future date (i.e. a separate Plan Commission meeting would be needed). No public notice is required for Final Plat of Subdivision approval.

9. Section 5.1-17.2(d) of the Zoning Code restricts the storage of flammable and explosive materials. Please confirm that all materials stored within the warehouse potions of the building will comply with the regulations of Section 5.1-17.2(d).

10. Please provide a photometric plan and catalog cut sheet for all parking lot and wall mounted light fixtures.

11. Please provide an estimated number of employees that will be working out of the building in both Phase I and Phase II. Additionally, please provide the expected hours of operation of the facility.

12. Section 9.8(i) of the Zoning Code requires that all PUD's include a construction schedule and phasing plan. Please provide the required construction schedule, which includes information on the approximate date of construction start, the number of construction phases and the starting and completion date for each phase, as well as a construction staging plan. The construction phasing plan shall include the anticipated number of construction workers and where they will park during each phase of construction, the type and amount of construction vehicles per phase and where they will be staged, the location of material storage, and information on anticipated lane closures, including info on where the closures will take place and the timeframe for each closure.

13. Please ensure that all plans and/or studies to be resubmitted as a result of the Round 1 Department review comments include a revision date.

14. Please provide details on all proposed retaining walls, including information on maximum wall height and wall materials.

Easements

15. The southern parking row and detention area encroach on the 30' Water & Sewer easement as established in Document 20922014 & 24731232. Please clarify if the provisions of this easement allow for this encroachment.

16. The southwestern most parking spaces encroach into the 22' wide Access Easement as established in Document 24738091 & 0608244082. Please clarify if the provisions of this easement allow for parking spaces to be located within the easement area.

17. A 25' wide Access Easement exists on the northeast portion of the property. To whose benefit is this easement? If the easement is for the benefit of the 715-723 W. Algonquin property, it should be vacated as part of this subdivision as both properties will be consolidated and under unified ownership.

18. Development within Phase I proposes the expansion of the driveway/paved area into "Outlot A", which outlot is not owned by the petitioner. Please confirm that the provisions of Document 0030435526 allow for the use of this area for ingress/egress. Of note, Document 0030435526 appears to be a Stormwater and Drainage Detention Easement.

19. Please clarify if detention basin "N-1" serves only the subject property or whether it serves as a detention area for other properties. It is noted that this detention area falls outside of "Outlot A" and overlaps onto the privately owned subject property with no easement. If the detention area serves properties outside of the subject property, an easement for the benefit of those properties shall be required as part of this development.

20. The various access easements should be cleaned up as part of this subdivision. Please propose a solution to consolidate the five access easements on the western side of the property, which may include the modification of certain access easements that are no longer needed (such as the easement established via Document 24176553, which appears to traverse over one of the detention basins).

Site Plan

21. Please revise the architectural "Conceptual Site Plan" so that it is printed to-scale.

22. Please revise the architectural "Conceptual Site Plan" so that the table titled "Development Standards" includes another column outlining the proposed values for each of the code requirements (F.A.R., setbacks, and Off-Street parking) as based on the proposed development.

23. Please correct the following inconsistencies between the architectural site plan and the engineering site plans:

    a. The architectural site plan shows the setback of the rear parking area as 30' and the engineering site plan shows this setback area as 15.45'.
    b. There are retaining walls shown in basin "N-2" on the architectural site plan, which are not shown on the engineering plans.

24. Please include a measurement on the engineering Phase I and Phase II plans (sheets 7 and 8) that show the proposed setback of the building, at its closes point, to the north, south, east, and west property lines.

25. 17' deep stalls are allowed where a 1.5' overhang area is provided. However, when this overhang area encroaches on a servicewalk, the overhang is not allowed. Please revise the 17' deep parking stalls that include an overhang area encroaching on a servicewalk by either pushing back the servicewalk or providing the full depth for the parking stall.

26. Other than the transformer proposed on the west side of the building and the rooftop mechanical units, are any above ground utility or mechanical units proposed on the site (HVAC equipment, generators, utility pedestals, transformers, etc.).

27. Are any exterior dumpsters proposed, or will all dumpsters/refuse equipment be stored indoors?

Plat of Subdivision:

28. Is PIN 08-16-102-030 part of the subject property? Cook County records show this PIN is owned by Hamilton Partners. If this PIN is part of the subject property, please add it to the PIN list on the Plat of Subdivision.

29. Please extend the side yard setback lines to "Parcel 2" as delineated on the Plat of Subdivision.

30. Please clarify why the three parcels "1A, 1B, and 2" are delineated on the plat. They do not appear to be necessary on the Plat and should be removed if unnecessary as they may be construed as separate lots in the proposed subdivision. Alternatively, language can be added to the title to indicate that the Plat of Subdivision is to consolidate parcels 1A, 1B, and 2.

31. Please remove all references to the Village of Palatine.

32. Are any Covenants or Bylaws proposed in conjunction with the subdivision?

Landscaping:

33. There are two parking lot landscape islands proposed as concrete. These islands appear to contain a tree as required by code. Please clarify how a tree will be planted in the concrete landscape island.

Parking and Traffic:

34. The parking requirements are shown below. Please confirm that all data is accurate.

PHASE	PARKING CODE USE	NUMBER OF EMPLOYEES	NUMBER OF VEHICLES	SQUARE FEET	PARKING RATIO	PARKING REQUIRED
Phase I	Office	N/A	N/A	5,460	1 space per classroom plus two space per employee	18.2
	Warehouses and Storage	Unknown	45	N/A	1 space per vehicle plus 1 space per every two employees	45
Phase II	Office	N/A	N/A	5,460	1 space per classroom plus two space per employee	18.2
	Warehouses and Storage	Unknown	61	N/A	1 space per vehicle plus 1 space per every two employees	61
					Total Parking Required	142
					Total Parking Provided	308
					Parking **Surplus**/(Deficit)	166

Note: Phase I provides 154 parking spaces, but may be reduced to 153 based on the need to add 1 handicap accessible stall.

35. The parking requirement for warehouse/distribution uses is calculated based, in part, on the number of employees during peak shift. While it is understood that no tenants have been signed, please provide an estimated number of employees for both Phase I and Phase II. Additionally, please acknowledge that, pending the actual number of employees, a non-compliant parking situation may be created that the property owner would need to resolve.

36. Please acknowledge that the office areas generate their own parking requirement per the Zoning Code "Collective Provision", and a non-compliant parking situation may be created that the property owner would need to resolve should the actual size of the office spaces be larger than proposed.

37. Phase I must be self sufficient relative to handicap parking requirements. A parking lot with 150 parking stalls is required to provide 5 handicap accessible stalls. Please add an additional handicap accessible stall to Phase I. As the combination of Phase I and Phase II requires a total of 8 handicap accessible stalls, one handicap accessible stall can therefore be removed from Phase II.

38. Section 11.8 of the Zoning Code requires the provision of bicycle parking spaces in new development. The number of bicycle parking spaces is based on the overall number of employees within a warehouse/storage facility. Bicycle parking spaces are required at a rate of one space per every 40 employees, with a minimum of two bicycle parking spaces required. Please provide an estimated number of employees for both Phase I and Phase II and add the corresponding number of bicycle parking spaces to each phase.

39. The traffic study recommended the northern passenger vehicle access drive at Meijer Drive adjacent to detention basin N-2 be R-in and R-out only with a stop sign. The addition of a stop sign at this location will be required. Additionally, is the current configuration of the R-in/R-out suitable to control these movements, or does the porkchop curb need to be raised and/or the median on Mejier Drive extended south to prevent outbound left turn movements and inbound right turn movements?

40. A stop sign will be required for egress at the intersection of the full access drive and Algonquin Road.

41. Has IDOT been approached relative to their initial perspective on adjusting the signal timing at Meijer Drive and Algonquin Road? Please provide any correspondence with IDOT relative to this proposed change.

42. There appear to be errors in Table 2 relative to the overall LOS grade for each leg of the weekday AM future conditions for NB and SB movements. The level of delay is shown as increasing in the future conditions, however, the overall LOS grade for each leg is shown as improving despite the increase in delay time relative to the existing condition. Please correct this table or clarify why the LOS has improved given an increased delay.

43. In order to avoid an unsignalized left turn across Algonquin Road into the full access drive from westbound Algonquin Road, passenger vehicles may opt for the signalized intersection at Meijer Drive. As the northerly access drive is restricted to R-in movements only, these passenger vehicles may traverse thru the truck access drive to reach the southern, eastern and northern passenger parking areas. Did the traffic analysis consider this possibility? Would these movements be safe given the potential truck movements adjacent to the loading areas and truck access drive?

Prepared by: _____

Hamilton Partners PUD Subdivision
702-723 W. Algonquin Road
PC 17-013
November 15, 2017

Tree Preservation

1) There are five Bur Oak trees ranging in size from 24-42 inch caliper in the east corner of the site that are identified for removal. The Oak trees are in good condition.

Landscape Issues

2) The ends of all parking rows and every twenty spaces must include a landscape island which contains a 4" caliper shade tree. (Chapter 28, section 6.15-1.2b). Increase the size of the proposed trees from 2.5 inch to 4 inch caliper. In addition, provide trees in the island along the front elevation where the tree is absent.

3) Per Chapter 28, Section 6.15-1.2a, a three foot high screen must be provided in order to screen the parking/paved areas that are adjacent to the public way. Extend the proposed screen to the west in order to screen the northwest corner of the parking lot.

4) Per Chapter 28, landscaping must be provided at the perimeter of the detention basin. In addition to the proposed trees, include a mix of shrubs and perennials.

5) Provide foundation plantings adjacent to the proposed building. The proposed plantings are minimal and should consist of a mix of understory trees, shrubs and perennials. The plantings for the phase one building must be continuous at the base of the building along the front and side elevations.

6) Any utility meters or mechanical units must be screened with landscaping or another appropriate method of screening. Identify the location of any trash enclosures. The enclosure must be fully screened with a fence/wall and landscaping.

7) 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. In addition, a $4 tree fee is required for each lineal foot of frontage.

MORGAN / HARBOUR
CONSTRUCTION

December 14, 2017

Attn: Sam Hubbard
Development Planner
Department of Planning and Community Development
Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL 60005

Tel: 847-368-5223

RECEIVED
DEC 15 2017
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

Re: 703-723 W. Algonquin Road Project – Planning Commission – Response Letter

Mr. Hubbard,

The following is our Planning Commission Response Letter addressing the comments as outlined in the VAH Review Letter received on November 20, 2017 regarding the aforementioned project:

PUD PRELIMINARY/FINAL PLAT OF SUBDIVISION:

1. *Provide the proposed construction type of the new buildings.*

RESPONSE: Type IIB (load-bearing. insulated precast concrete panels with steel columns and bar joist roof framing)

2. *Provide details of the items to be stored, and the average length of time they will be stored. Based on the type of items and their packaging materials provide the Use Group of the warehouse (S-1 or S-2).*

RESPONSE: Exact items unknown until tenants selected. Designed to accommodate S-1 occupancy type in warehouse for high-pile storage.

3. *Provide a height and area calculation based on the construction type and Use.*

RESPONSE: Building designed as unlimited area building with minimum of 60' clear from building foundation wall to adjacent property line or centerline of public R.O.W. and an ESFR sprinkler system. Building Height is 2 stories or less and under 55' tall.

4. *Where the electrical room contains equipment rated 1,200 amps or more, there shall be two exits on opposite corners of the room. The doors and door hinges shall have a fire-rating equal to the rating of the electrical room. Doors shall swing out and have panic hardware. The electrical room shall have the same rating as the building.*

RESPONSE: Electrical equipment size unknown at this time, but anticipated to be less than 1200 amps. Design plans for panic hardware and rated walls/doors as required by code. If the size of equipment increases then a 2nd door will be added as required.

5. *Permanent roof access is required.*

RESPONSE: Roof access ladder and roof hatch to be located in Fire Sprinkler Room.

MORGAN HARBOUR

FIRE SAFETY:

1. *A complete NFPA-13 compliant fire suppression system is required.*

RESPONSE: ESFR sprinkler system planned for building – GC to provide design-build drawings for permit submittal.

2. *Fire department connections shall be fully visible and located at the main front entrance of the building and within a maximum travel distance of 100 feet to the nearest fire hydrant.*

RESPONSE: The fire department connection (FDC) is to be located on the front of the building (north side), a fire hydrant is provided within 100′ of the FDC ((easterly of the FDC location). Please see Engineering Plan Sheet 15.

3. *An approved water supply capable of supplying the required fire flow for fire protection shall be provided.*

RESPONSE: Refer to civil, plumbing and sprinkler drawings.

4. *Approved access shall be provided and maintained for all fire protection equipment to permit immediate safe operation and maintenance of such equipment.*

RESPONSE: Sprinkler/ FP room indicated on plans, fire ingress doors spaced at less than 100′ at high pile storage areas – Fire apparatus access is reflected on the site Final Engineering Plans (see Heavy Duty Pavement Section on Sheets 7 & 8), as well as the Fire Truck Exhibit.

5. *Buildings or facilities having a gross building area of more than 62,000 square feet shall be provided with two separate and approved fire apparatus access roads.*

RESPONSE: fire access accommodated on east and west side of site accessed from Algonquin Rd and Meijer Drive (referenced in No 4 above)

6. *A fully functioning fire alarm shall be installed per NFPA 72. The alarm annunciator panel shall be located at the front entrance.*

RESPONSE: will be provided (FA Contractor to submit dwgs).

7. *Shop drawings for fire alarm systems shall be submitted for review and approval prior to system installation.*

RESPONSE: will be provided (FA Contractor to submit dwgs).

8. *Visible alarm notification appliances shall be provided in public areas and common areas. A visible exterior weatherproof alarm notification device shall be located within closest proximity to the front main entrance of the building or tenant space.*

RESPONSE: will be provided (FA Contractor to submit dwgs).

9. *Fire protection equipment and service rooms shall be identified in an approved manner.*

RESPONSE: project will comply (FA Contractor to submit dwgs).

10. *A zoning indicator panel and the associated controls, or, fire alarm control panel shall be located within the closest proximity to the front main entrance.*

RESPONSE: project will comply (FA Contractor to submit dwgs).

11. *Buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building.*

RESPONSE: project will comply (FA Contractor to submit dwgs).

12. *A key box (Know Box) shall be provided and contain keys to gain necessary access as required by the fire code official.*

RESPONSE: project will comply (FA Contractor to submit dwgs).

13. *Fire pumps, if provided, shall be installed in accordance with the Fire Code and NFPA 20 and shall comply with all current code requirements.*

RESPONSE: project will comply (FA Contractor to submit dwgs).

14. *Exit signs shall be illuminated at all times and have emergency power backup.*

RESPONSE: project will comply (Design-Build Elec Engineer/Contractor to submit dwgs).

15. *Indicate the maneuvering capability of the Fire Department Tower Truck to confirm that the truck can negotiate the turns on pavement avoiding any dead-ends and identify any overhead wires that may be within the airspace of the truck set-up.*

RESPONSE: refer to civil engineering truck turn exhibits (Civil to respond) - See the Fire Truck Exhibit for maneuvering capability. Existing overhead utility lines are located along Algonquin Rd., which are not expected to be a concern. No overhead lines for the proposed building are anticipated.

16. *Buildings or portions of buildings or facilities exceeding 30 feet in height above the lowest level of fire department vehicle access shall be provided with approved fire apparatus access roads capable of accommodating fire department aerial apparatus. Overhead utility and power lines shall not be located within the aerial fire apparatus access road.*

RESPONSE: Civil to respond - Noted, see response to No 15 above.

17. *Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet exclusive of shoulders, in the immediate vicinity of any building or portion of building more than 30 feet in height.*

RESPONSE: Civil to respond - Noted, the fire apparatus access routes have an unobstructed width of 26'. See also above, as well as the Site Geometric and Paving Plans (Shts 7 & 8) of the Final Engineering Plans

18. *At least one of the required access routes meeting shall be located within a minimum of 15 feet and a maximum of 30 feet from the building, and shall be positioned parallel to one entire side of the building.*

RESPONSE: Civil to respond - Noted, please see response to above items, and the referenced Site Geometric and Paving Plans (Shts 7 & 8) of the Final Engineering Plans

19. *Building shall have approved address numbers.*

RESPONSE: Owner to respond – Noted and we will comply

20. *Fire department connections shall be installed in accordance with the NFPA standard applicable to the system design. The location of fire department connections shall be approved.*

RESPONSE: project will comply (FA Contractor to submit dwgs).

21. *Fire department connections shall be located on the street side of buildings, fully visible and recognizable from the street or nearest point of fire department vehicle access or as otherwise approved a visible location.*
RESPONSE: Civil to responds - Noted – please see Civil Drawings

22. *Signs shall be posted on both sides of an approach of any fire lane stating "NO PARKING – FIRE LANE". Signs shall have arrows indicating the area of parking restriction.*
RESPONSE: Civil to respond - Noted, see Sheets 7 & 8

23. *Fire lane signs shall be red with red three-inch letters. The dimensions of the sign shall be 12 inches horizontally and 18 inches vertically. These signs shall be installed so that the top of the sign is not less than 6 feet nor more than 6 feet above grade.*
RESPONSE: Civil to respond - Noted, see Sheets 7 & 8

24. *Tenant build-outs may result in additional requirements being met such as control rooms, storage of hazardous materials, etc.*
RESPONSE: Noted.

25. *Construction shall comply with all adopted codes.*
RESPONSE: Noted.

PUBLIC WORKS:

PUBLIC WORKS DEPT – From Cris Papierniak, dated Nov 10, 2017

RESPONSES:

1. Comment is noted; however, no construction activity is anticipated in the Algonquin Rd ROW, or offsite areas which would impact the existing sidewalk. As referenced in the comment, replacement of any existing sidewalk would be the result of projection construction, and the project contractor(s) are not responsible for the maintenance or repair of a pre-existing condition.

2. Noted, please see Utility Plan – Ph 1, Sht 15

3. Noted, a note has been added to the plans, please see Sht 15

4. Noted, there are only a couple situations where a utility will need to abandoned at the main line. Note 11 on the Demolition Plans, Shts 4 & 5, addresses this situation.

5. Internal. The Phase 2 portion of the building will be served from the water serviced to the building provided with the Phase 1 improvements.

6. Since there is not adequate depth for the water main to cross over the existing sanitary sewer it is to go below the sanitary sewer. For appropriate protection the water main is to be installed in a ductile iron casing 1.5′ minimum below the bottom of the existing sanitary sewer. Information in the Utility Crossing Schedule (Sht 15) has been updated to better clarify details of this crossing.

7. Noted, information has been added to Note No 8, on Sht 1 of the Engineering Plans specifically referencing this document.

8. Noted

9. Noted, reference to a proposed fence has been reflected on the S-1 Cross Section detail on Sht 14. Details of the fence are included with the Landscape Plans.

10. Noted, a note has been added to Sht 16 addressing this item for existing sanitary manhole nos. 14 & 1

PUD, RELIM/FINAL PLAT OF SUBDIVISION:

RESPONSES:

11. Noted

12. Noted-An Engineer's Opinion of Probable Construction Cost to be provided

13. Noted, information is reflected on the Cover Sheet of the Final Engineering Plans, Sht 1

14. Noted

15. Noted. The Onsite Utility Maintenance Agreement will follow. Per previous discussions, the north overflow with Phase 1 is located at the existing driveway and based on existing elevations of the driveway and surrounding Algonquin Rd, etc. The proposed elevations and width of the south overflow with Phase 2, located at Basin S-1, have been modified to reflect the requested criteria.

16. Noted

17. We are not aware of any criteria, including that of MWRD, requiring the external truck dock drains go thru an oil separator or a triple basin. The proposed design concept has been used on other recent projects elsewhere, and received the appropriate approvals, including the MWRD permits. Remaining items in this comment are noted.

18. The referenced detail, on Sht 19, has been updated to reflect the existing 4" pipe

19. Noted, see updated Fire Truck Exhibit

20. Noted, a 26' pavement width is provided for the fire lanes. The proposed heavy-Duty Pavement section has been modified to reflect the required section and designated for the applicable fire lanes.

21. Since this an offsite area with no proposed site improvements at this location, it is not believed this should be a requirement of this project.

22. The Illinois Accessibility Code is silent in regards to the depth of a parking stall depth. The Illinois Capital Development Board was contacted to check on a possible requirement for depth of an ADA parking stall. They indicated they have no depth requirement, only width to accommodate movements for the individual's accessibility to the vehicle. Based on this criterion, as well as the detrimental impact of changing the parking stall depth to site constructability, geometrics, and ADA parking area & accessible route grading, the proposed stall depths for the ADA parking spaces have not been modified.

23. Noted

TRAFFIC:

24. Hours of operation is 7:00 am – 5:00 pm but please note that this will be determined by future tenants at a later date.

25. **RESPONSE:**

- The capacity analysis shows that the outbound queue during the weekday evening peak hour extends to the existing/proposed access drive that will be restricted to right-in/right-out turning movements.
- Future capacity analysis takes into consideration the addition of the trucks from the proposed facility by having increased the heavy vehicle percentages for the turning movements at this signalized intersection.
- Meijer Drive and the access drive opposite Meijer Drive operate as a split phase operation where each receives greentime successively, rather than concurrently. Further, the cycle length is 150 seconds during the weekday evening peak hour. As such, the combination of a long cycle length, split phase operation, and the limited greentime given to Meijer Drive all contribute to the less than desirable LOS/delay for the outbound movements on Meijer Drive, particularly during the weekday evening peak hour.
- As noted, it is recommended to petition IDOT to increase the amount of greentime allocated to Meijer Drive to improve the outbound queuing. This reallocation will improve traffic operations on Meijer Drive while maintaining good levels of service for the through traffic flow along IL 62.
- The traffic simulation shows that vehicles (a combination of both passenger vehicles and heavy vehicles) will be able to exit Meijer Drive without extensive queuing.

26. **RESPONSE:**

- We will continue to work with Village staff as to whether extending the barrier median on Meijer Drive, or modifying the existing pork chop island on the access driveway is more beneficial because of emergency vehicle access feasibility.
- The access drive proposed on Meijer Drive to serve the passenger vehicles accessing the development will be restricted to right-in/right-out only turning movements.

27. Please see the Photometric drawing as prepared by Hinsdale Electric along with corresponding Spec. Sheets.

28. The study assumes an orientation of IL 62 being in a north-south orientation. The study will be revised accordingly.

29. The traffic study was submitted to IDOT for their review and coordination.

30. See page below that includes a table of Code required parking.

FINAL PLAT OF SUBDIVISION:

31. Per the certificate appended to the Final Weber's Resubdivision vacation note "B" those easements falling in Outlot "A" "are hereby abrogated, vacated and abolished upon the completion of the construction of Meijer Drive."

32. We find no language which calls for public utility easements in any of the documents creating the Ingress/Egress easements.

33. We have reviewed and addressed the Final Plat of Subdivision Checklist.

34. We have drawn leaders to hopefully clarify the limits of each parcel.

35. The PIN number has been added.

FIRE DEPARTMENT:

1. *Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet, exclusive of shoulders, in the immediate vicinity of any building or portion of the building more than 30 feet in height.*

RESPONSE: Civil to respond - Noted, a fire access road with a 26' unobstructed width is provided in the vicinity of the building. Please see previous comments and updated site engineering plans.

2. *Building is to be sprinkled per code.*

RESPONSE: Yes – project will comply.

3. *The Fire Department Connection shall be located at the main front entrance of the building to be fully visible. It shall be located within a maximum travel distance of 100 feet to the nearest fire hydrant.*

RESPONSE: Building will be subdivided into multiple tenants with multiple entrances – recommend locating centrally on building near sprinkler room. And still comply with proximity to hydrant spacing.

4. *A Knox Box (key safe) shall be located at the main front entrance.*

RESPONSE: Building will be subdivided into multiple tenants with multiple entrances – recommend locating centrally on building near sprinkler room.

6. *A fire alarm zoning indicator panel and associated controls or fire alarm control panel (full functioning auxiliary panel) shall be located within the closest proximity to the front main entrance of the building.*

RESPONSE: Building will be subdivided into multiple tenants with multiple entrances – recommend locating centrally on building near sprinkler room.

7. *Note: Plan is conceptual only subject to detailed plan review.*

RESPONSE: Noted – will comply with additional jurisdictional reviews during building permit submittal.

POLICE DEPARTMENT:

1. *Character of use: The character of use is consistent with the area and is not a concern.*

RESPONSE: Noted.

2. *Are lighting requirements adequate? Lighting should be up to Village of Arlington Heights code. Special attention should be given to illuminating parking lot areas, and any secluded areas on the property. These areas should be illuminated especially during nighttime hours for safety, to deter criminal activity and increase surveillance/visibility- potentially reducing theft, trespassing, vandalism, underage drinking, drug use and other criminal activity.*

RESPONSE: Building and site lighting will comply with code required minimum lighting levels.

4. *Present traffic problems? There are no traffic problems at this location.*

RESPONSE: Noted.

5. *Traffic accidents at particular location? This is not a problem area in relation to traffic accidents.*

RESPONSE: Noted.

6. *Traffic problems that may be created by the development. There should be traffic control signage in the parking lot and right turn only designed exit lanes to discourage left turns onto Algonquin Road.*

RESPONSE: Noted (refer to civil dwgs) - The existing access at the northeast corner of the parcel is currently a full access which functions appropriately, and is consistent with numerous other full access locations along Algonquin Road. With the proposed project, this access will serve passengers vehicles only. The traffic signal at Meijer Drive will allow appropriate gaps for left turn movements from this access location. In accordance with the Traffic Report and discussions with the Traffic Consultant, the overall traffic movements for the proposed project will function better if this remains a full access rather than limiting to right turn exit movements only.

7. *General Comments:*
    a. *Please ensure that there is an emergency information/contact card on file with the Arlington Heights Police Department and that it is up-to-date. Agent contact information must be provided to the Arlington Heights Police Department during all construction phases. The form is attached. Please complete and return. This allows police department personnel to contact an agent during emergency situations or for suspicious/criminal activity on the property during all hours.*

b. *Landscaping should provide open sightlines to increase natural surveillance and avoid creating ambush locations and havens for illegal activities- theft, trespassing, vandalism, underage drinking, drug use, etc.*
c. *Consider posting no trespassing/loitering/ no un authorized use signage. The Arlington Heights Police Dept. has and utilizes trespass warning forms under qualifying circumstances when requested by property management.*
d. *Landscaping should provide open sightlines to increase natural surveillance and avoid creating ambush locations.*
e. *Install cameras (with recording abilities) on the exterior and interior of buildings, to include a monitor and the reception/ or office area so employees have ability to monitor interior and exterior.*

RESPONSE:

a. Please see the completed (Arlington Police Department – Emergency Information Card)

b. Noted

c. Noted

d. Noted

e. Noted

PLANNING AND COMMUNITY DEVELOPMENT

GENERAL

7. *Please note that the Final Plat, as approved by the Engineering Dept., must be printed on Mylar and submitted to the Village, with signatures obtained from all parties except those to the coordinated by the Village, no less that one week prior to the Plan Commission hearing date. If this requirement cannot be met, you can proceed with Preliminary Plat approval with Final Plat approval obtained at a future date (i.e. a separate Plan Commission meeting would be needed). No public notice is required for Final Plat of Subdivision approval. If you end up proceeding with Preliminary Plat approval only, a copy of the Plat which reads "Preliminary" will be required one week prior to the Plan Commission hearing.*

RESPONSE: Noted

8. *Please note that final engineering must be approved by the Engineering Dept. no less than one week prior to appearance before the Plan Commission, which will include the payment of all engineering fees and the provision of all surety bonds, public improvement deposits, and engineering fee's. If this requirement cannot be met, you can proceed with Preliminary Plat approval with Final Plat approval obtained at a future date (i.e. a separate Plan Commission meeting would be needed). No public notice is required for Final Plat of Subdivision approval.*

RESPONSE: Noted.

9. *Section 5.1-17.2(d) of the Zoning Code restricts the storage of flammable and explosive materials. Please confirm that all materials stored within the warehouse portions of the building will comply with the regulations of Section 5.1-17.2(d).*

RESPONSE: Storage requirements of tenants is unknown until building occupied, but will comply with applicable codes.

10. *Please provide a photometric plan and catalog cut sheet for all parking lot and wall mounted light fixtures.*

RESPONSE: MEP to respond – Please see the Photometric Drawing as prepared by Hinsdale Electric along with the corresponding Spec. Sheets.

11. *Please provide an estimated number of employees that will be working out of the building in both Phase I and Phase II. Additionally, please provide the expected hours of operation of the facility.*

RESPONSE: Rough approximate of employees 60-65 in each phase of building (+/- 120-130 total). Exact number unknown until building to be occupied by future tenants. Hours of operation unknown – will comply with all Village code requirements and restrictions.

12. *Section 9.8(i) of the Zoning Code requires that all PUD's include a construction schedule and phasing plan. Please provide the required construction schedule, which includes information on the approximate date of construction start, the number of construction phases and the starting and completion date for each phase, as well as a construction staging plan. The construction phasing plan shall include the anticipated number of construction workers and where they will park during each phase of construction, the type and amount of construction vehicles per phase and where they will be staged, the location of material storage, and information on anticipated lane closures, including info on where the closures will take place and the timeframe for each closure.*

RESPONSE: GC to respond – Please see the attached Schedule and Staging/Phasing Plan.

13. *Please ensure that all plans and/or studies to be resubmitted as a result of the Round 1 Department review comments include a revision date.*

RESPONSE: Noted.

14. *Please provide details on all proposed retaining walls, including information on maximum wall height and wall materials.*

RESPONSE: Civil to respond - Information for the site related retaining wall at Detention Basin S-1 is reflected on Sht 14. As indicted the wall is to be modular block. As indicated with the Retaining Wall Detail, the contractor is to submit detailed information regarding the specific wall product chosen. The Municipal Engineer is to receive copies of this submittal information.

EASEMENTS:

15. *The southern parking row and detention area encroach on the 30' Water and Sewer easement as established in Document 20922014 & 24731232. Please clarify if the provisions of this easement allow for this encroachment.*

RESPONSE: Civil to respond - The referenced documents pertaining to the 30' Water & Sewer easement are not available at this time. Document 20922041 does not relate to the subject property and Document 24731232 is a cover sheet only. Additional information has been requested from the Title Company to clarify this matter; however, as of this date the additional items have not been received. 975 E. 22nd Street, Suite 400, Wheaton IL 60189 (630)480-7889 www.rwg-engineering.com The proposed parking is consistent with the existing use and existing parking within the easement. The proposed grading for the back side of the detention basin will not interfere with the operation of the existing water main and sewers within the easement.

16. *The southwestern most parking spaces encroach into the 22' wide Access Easement as established in Documents 24738091 & 0608244082. Please clarify if the provisions of this easement allow for parking spaces to be located within the easement area.*

RESPONSE: Civil to respond - The subject ingress and egress easements allow the owner of a parcel to use the easement on its own property for any and all purposes as long as it does not unreasonably interfere with another Party's use of easement for ingress and egress. The proposed couple of parking spaces at the far southwest corner of the parcel, adjacent to an offsite open space/stormwater management area, will not interfere with any intended ingress or egress for the adjoining parcel. The small amount of proposed offsite pavement within the easement is for truck ingress & egress purposes to the dock area and not for vehicle parking.

17. *A 25' wide Access Easement exists on the northeast portion of the property. To whose benefit is this easement? If the easement is for the benefit of the 715-723 W. Algonquin property, it should be vacated as part of this subdivision as both properties will be consolidated and under unified ownership.*

RESPONSE: Civil to respond - The referenced 25' Access Easement was granted per Document 24176554. The Grantees with this easement include parcels immediately to the west of the subject property, as well as portions of the south parcel of the subject property. It is noted the Parties to a sequent agreement, Document 0608244082, appear to have abrogated their rights in the subject Document 24176554.

18. *Development within Phase I proposes the expansion of the driveway/paved area into "Outlot A", which outlot is not owned by the petitioner. Please confirm that the provisions of Document 0030435526 allow for the use of this area for ingress/egress. Of note, Document 0030435526 appears to be a Stormwater and Drainage Detention Easement.*

RESPONSE: Civil to respond - The Property Owner is having discussions with the adjacent property owner to provide information regarding the proposed project and corresponding site improvements, as well as to confirm the adjacent property owner's concurrence with the proposed improvements in the Outlot A area.

19. *Please clarify if detention basin "N-1" serves only the subject property or whether it serves as a detention area for other properties. It is noted that this detention area falls outside of "Outlot A" and overlaps onto the privately owned subject property with no easement. If the detention area serves properties outside of the subject property, an easement for the benefit of those properties shall be required as part of this development.*

RESPONSE: Civil to respond - Extensive research and investigation to date indicates the subject basin N-1 serves only the subject parcel. Therefore, no additional easement for the benefit of an offsite parcel is necessary. It should also be noted, Basin N-2, as well as Basin N-1 serve only the subject parcel in both the existing and proposed conditions.

20. *The various access easements should be cleaned up as part of this subdivision. Please propose a solution to consolidate the five access easements on the western side of the property, which may include the modification of certain access easements that are no longer needed (such as the easement established via Document24176553, which appears to traverse over one of the detention basins).*

RESPONSE: Civil to respond - Discussions and coordination are proceeding to identify an appropriate approach to possibly "clean up" the various easements associated with this parcel.

It should be noted, modifications to the existing access easement documents involve parcels other than the subject site.

SITE PLAN:

21. *Please revise the architectural "Conceptual Site Plan" so that it is printed to-scale.*

RESPONSE: Noted – see revised architectural site plan.

22. *Please revise the architectural "Conceptual Site Plan" so that the table titled "Development Standards" includes another column outlining the proposed values for each of the code requirements (F.A.R., setbacks, and Off-Street parking) as based on the proposed development.*

RESPONSE: Noted – see revised architectural site plan.

23. *Please correct the following inconsistencies between the architectural site plan and the engineering site plans:*
    a. *The architectural site plan shows setback of the rear parking area as 30' and the engineering site plan shows this setback as 15.45'.*
    b. *There are retaining walls shown in basin "N-2" on the architectural site plan, which are not shown on the engineering plans.*

RESPONSE: Noted – see revised architectural & civil site plans. Civil - Item a-Not Applicable; Item b-there are not retaining walls included with the design of Basin N-2

24. *Please include a measurement on the engineering Phase I and Phase II plans (sheets 7 and 8) that show the proposed setback of the building, at its closest point, to the north, south, east and west property lines.*

RESPONSE: Building shall be no closer than 60' to any property line (or centerline of public R.O.W. to comply with unlimited area building code provisions - refer to civil dwgs.

25. *17' deep stalls are allowed where a 1.5' overhang area is provided. However, when this overhang area encroaches on a service walk, the overhang is not allowed. Please revise the 17' deep parking stalls that include an overhang encroaching on a service walk by either pushing back the service walk or providing the full depth for the parking stall.*

RESPONSE: Civil to respond - Where the parking overhang is provided, the proposed 6' sidewalk has been modified to a 5' walk and a 1' landscape median between the back of curb and the 5' service walk; therefore, there is no overhang over the proposed service walk. Please see Shts 12-14 of the Engineering Plans, and Landscape Plans.

26. *Other than the transformer proposed on the west side of the building and the rooftop mechanical units, are any above ground utility or mechanical units proposed on the site (HVAC equipment, generators, utility pedestals, transformers, etc.)*

RESPONSE: None are planned at this time.

27. *Are any exterior dumpsters proposed, or will all dumpsters/refuse equipment be stored indoors?*

RESPONSE: No – trash will be handled indoors.

MORGAN HARBOUR

PLAT OF SUBDIVISION:

28. *Is PIN 08-16-102-030 part of the subject property? Cook County records show this PIN is owned by Hamilton Partners. If this PIN is part of the subject property, please add it to the PIN list on the Plat of Subdivision.*

RESPONSE: Civil to respond – Gentile – PIN 08-16-102-030 was added

29. *Please extend the side yard setback lines to "Parcel 2" as delineated on the Plat of Subdivision.*

RESPONSE: Civil to respond – The side yard setback line shown on the first draft of the subdivision was inadvertently taken off a prior survey and has been removed. If it deemed necessary to add front, rear or side yard setbacks to the Plat of Subdivision then some direction as to the sizes will be required.

30. *Please clarify why the three parcels "1A, 1B, and 2" are delineated on the plat. They do not appear to be necessary on the Plan and should be removed if unnecessary as they may be construed as separate lots in the proposed subdivision. Alternatively, language can be added to the title to indicate that the Plat of Subdivision is to consolidate parcels 1A, 1B and 2.*

RESPONSE: Civil to respond – Labelling of parcels has been addressed.

31. *Please remove all references to the Village of Palatine.*

RESPONSE: Civil to respond – All references to the Village of Palatine have been removed.

32. *Are any Covenants or Bylaws proposed in conjunction with the subdivision?*

RESPONSE: Civil to respond – we are not aware of any Covenants or Bylaws.

LANDSCAPING:

33. *There are two parking lot landscape islands proposed as concrete. These islands appear to contain a tree as required by code. Please clarify how a tree will be planted in the concrete landscape island.*

RESPONSE: Concrete is proposed in these islands for pedestrian access from the parking area to the building. Please see modified Landscape Plans

MORGAN HARBOUR

PARKING AND TRAFFIC:

34. *The parking requirements are shown below. Please confirm that all data is accurate.*

Phase	*Parking Code Use*	*Number of Employees*	*Number of Vehicles*	*Square Feet*	*Parking Ratio*	*Parking Required*
Phase 1	*Office*	*N/A*	*N/A*	*5,460*	*1 space per classroom plus two spaces per employee*	*18.2*
Phase 1	*Warehouse*	*Unknown*	*45*	*N/A*	*1 space per vehicle plus 1 space per every two employees*	*45*
Phase 2	*Office*	*N/A*	*N/A*	*5,460*	*1 space per classroom plus two spaces per employee*	*18.2*
Phase 2	*Warehouse*	*Unknown*	*61*	*N/A*	*1 space per vehicle plus 1 space per every two employees*	*61*
					Total Parking Required	*142*
					Total Parking Provided	*308*
					Parking Surplus/(Deficit)	*166*

Note: Phase 1 provides 154 parking spaces, but may be reduced to 153 based on the need to add 1 handicap accessible stall.

RESPONSE: no classrooms anticipated, but agree with count for 1/300 SF parking for the proposed amount of office area shown (for speculative building prior to known tenant requirements) equal to 36 stalls total. One space for every dock door (vehicles used to conduct the enterprise) comes out to 68 parking spaces total. As for employee count in the warehouse/storage areas that is difficult to say until a tenant is identified. We assume approximately a maximum of 20-25 employees per tenant (building currently shown as 4 tenant split), but we do not anticipate ever exceeding the total number of parking spaces provided since the industry standard for this market is approximately 0.75/1000 to 1/1000 sf of total building area which would equal between 250-300 parking stalls. So, based on the city's requirements which are less, we don't think that any user that Hamilton Partner finds for the building will provide less parking than the Village Code requires.

35. *The parking requirement for warehouse/distribution uses is calculated based, in part, on the number of employees during peak shift. While it I understood that no tenants have been signed, please provide an estimated number of employees for both Phase 1 and Phase 2. Additionally, please acknowledge that, pending the actual number of employees, a non-compliant parking situation may be created that the property owner would need to resolve.*

RESPONSE: Noted. Rough approximate of employees 60-65 in each phase of building (+/- 120-130 total). Exact number unknown until building to be occupied by future tenants. Parking will comply for any tenant to occupy the building, even if that means stripping some stalls in the west truck court area along the dock wall and disabling some dock doors.

36. *Please acknowledge that the office areas generate their own parking requirement per the Zoning Code "Collective Provision", and a non-compliant parking situation may be created that the property owner would need to resolve should the actual size of the office spaces be larger than proposed.*

RESPONSE: Noted. Refer to item 35 response.

37. *Phase 1 must be self-sufficient relative to handicap parking requirements. A parking lot with 150 parking stalls is required to provide 5 handicap accessible stalls. Please add an additional handicap accessible stall to Phase 1. As the combination of Phase 1 and phase 2 requires a total of 8 handicap accessible stalls, one handicap accessible stall can therefore be removed from Phase 2.*

RESPONSE: Noted – project will comply – see civil dwgs.

38. *Section 11.8 of the Zoning Code required the provision of bicycle parking spaces in the new development. The number of bicycle parking spaces is based on the overall number of employees within a warehouse/storage facility. Bicycle parking spaces are required at a rate of one space per every 40 employees, with a minimum of two bicycle parking spaces required. Please provide an estimated number of employees for both Phase 1 and Phase 2 and add the corresponding number of bicycle parking spaces to each phase.*

RESPONSE: Rough estimate of total employees in building to be +/- 130 divided by 40 equals 3 bike stalls. Refer to revised architectural plan for proposed bike rack location.

39. *The traffic study recommended the northern passenger vehicle access drive at Meijer Drive adjacent to detention basin N-2 be R-in and R-out only with a stop sign. The addition of a stop sign at this location will be required. Additionally, is the current configuration of the R-in/R-out suitable to control these movements, or does the porkchop curb need to be raised and/or the median on Meijer Drive extended south to prevent outbound left turn movements and inbound right turn movements?*

RESPONSE: civil to respond - A Stop Sign is provided, as well as a "Right Turn Only" sign. Please see Sht 7

40. *A stop sign will be required for egress at the intersection of the full access drive and Algonquin Road.*

RESPONSE: civil to respond - A Stop Sign is provided, please see Sht 7

41. *Has IDOT been approached relative to their initial perspective on adjusting the signal timing at Meijer Drive and Algonquin Road? Please provide any correspondence with IDOT relative to this proposed change.*

RESPONSE: Civil to respond - IDOT has been contacted and information submitted to IDOT regarding the proposed project and adjustment to traffic signal timing at Meijer Drive and Algonquin Rd. A corresponding response is pending.

42. *There appear to be errors in Table 2 relative to the overall LOS grade for each leg of the weekday AM future conditions for NB and SB movements. The level of delay is shown as increasing in the future conditions, however, the overall LOS grade for each leg is shown as improving despite the increase in delay time relative to the existing condition. Please correct this table or clarify why the LOS has improved given any increased delay.*

RESPONSE: Civil to respond – Noted and table will be corrected.

43. *In order to avoid an un-signalized left turn across Algonquin Road into the full access drive from westbound Algonquin Road, passenger vehicles may opt for the signalized intersection at Meijer Drive. As the northerly access drive is restricted to R-in movements only, these passenger vehicles may traverse thru the truck access drive to reach the southern, eastern and northern passenger parking areas. Did the traffic analysis consider this possibility? Would these movements be safe given the potential truck movements adjacent to the loading areas and truck access drive?*

RESPONSE:

- **With the exception of the possibility of signage restricting access at the driveways or internally, there are no restrictions that would prevent 360-degree circulation of the building for passenger vehicles. Passenger vehicles may also choose to exit onto Meijer Drive via the truck access drive.**
- **Because a majority, if not all, of the traffic accessing the development are employees, they will be familiar with the site access and internal circulation.**
- **Truck activity represents approximately 20 percent or less of the total peak hour development-generated traffic.**
- **Truck turning movements within the site occur at low rates of speed.**
- **The developed scenario is similar to trucks and cars sharing turning movements at any roadway intersection.**

TREE PRESERVATION AND LANDSCAPE ISSUES:

Tree Preservation

1. There are five Bur Oak trees ranging in size from 24-42-inch caliper in the east corner of the site that are identified for removal. The Oak trees are in good condition.

RESPONSE: Under Review

Landscape Issues

2. The ends of all parking rows and every twenty spaces must include a landscape island which contains a 4" caliper shade tree. (Chapter 28, section 6.15-1.2b). Increase the size of the proposed trees from 2.5 inch to 4-inch caliper. In addition, provide trees in the island along the front elevation where the tree is absent.

RESPONSE: The proposed trees in the islands have been upsized to 4" cal., and trees in the islands could not be placed since these are continuous concrete islands used for pedestrian ingress & egress. We have relocated the trees next to the detention pond.

3. Per Chapter 28, Section 6.15-1.2a, a three-foot-high screen must be provided in order to screen the parking/paved areas that are adjacent to the public way. Extend the proposed screen to the west in order to screen the northwest corner of the parking lot.

RESPONSE: Additional plantings were added to provide a three-foot-high screen and additional plantings were also extended to the west to provide screening at NW corner of the parking lot.

4. Per Chapter 28, landscaping must be provided at the perimeter of the detention basin. In addition to the proposed trees, include a mix of shrubs and perennials.

RESPONSE: Additional trees, shrubs and perennials were added at the perimeter of the detention pond.

5. Provide foundation plantings adjacent to the proposed building. The proposed plantings are minimal and should consist of a mix of understory trees, shrubs and perennials. The plantings for the phase one building must be continuous at the base of the building along the front and side elevations.

RESPONSE: A continuous line of columnar trees, shrubs, and perennials have been added to the front and side foundation of the building.

6. Any utility meters or mechanical units must be screened with landscaping or another appropriate method of screening. Identify the location of any trash enclosures. The enclosure must be fully screened with a fence/wall and landscaping.

RESPONSE: Trash receptacle will be inside building.

7. 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. In addition, a $4 tree fee is required for each lineal foot of frontage.

RESPONSE: A landscape compliance bond and fees will be provided by owner.

Please contact me directly if any of these responses are insufficient or if any further clarification is required in order to obtain jurisdictional approval.

Sincerely,

Joshua Spinks
Senior Project Manager
Morgan / Harbour Construction, L.L.C.

Village of Arlington Heights
Building & Life Safety Department

Interoffice Memorandum

To: Sam Hubbard, Development Planner, Planning and Community Development

From: Deb Pierce, Plan Reviewer, Building & Life Safety Department

Subject: 703-723 W Algonquin Rd., PUD Preliminary/Final Plat of Subdivision

PC#: 17-013 – Round 2

Date: January 2, 2018

Sam:

I have reviewed the revised documents for the project indicated above and have no additional comments.

RECEIVED
JAN - 3 2018
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

Village of Arlington Heights, IL
Department of Building & Life Safety

Fire Safety Division

Date: 12/19/2017 P.C. Number: 17-013 Round 2

Project Name: Hamilton Partners PUD and Subdivision

Project Location: 703-723 W. Algonquin Rd.

Planning Department Contact: Sam Hubbard, Planning and Community Development

General Comments:

The information provided is conceptual only and subject to a formal plan review.

1. The site plan provided does not clearly show certain items because of the black and white rendition. A clear site plan showing the following is requested to be submitted for additional review:

   - The location of the FDC
   - Fire Department apparatus proposed access to the FDC
   - Location of the fire hydrant closest to the FDC and the distance.
   - Proposed width of the fire department apparatus travel lanes.

2. Placement of the electric (transformer) equipment on the proposed plan in front of the access door to the fire sprinkler/pump room is not acceptable: hydrants, driveways, buildings and landscaping, fire department connections shall be so located that fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus. The location of fire department connections shall be *approved* by the fire chief.

   A working space of not less than 36 inches in width, 36 inches in depth and 78 inches in height shall be provided and maintained in front of and to the sides of wall-mounted fire department connections and around the circumference of free-standing fire department connections, except as otherwise required or *approved* by the fire chief.

3. Indicate is emergency power systems for continuous operation of emergency systems will be provided and how it will be fueled

Date December 19, 2017 Reviewed By: _____

Fire Safety Supervisor

Village of Arlington Heights
Public Works Department

Memorandum

To: Sam Hubbard, Planning and Community Development

From: Cris Papierniak, Assistant Director of Public Works

Date: December 28, 2017

Subject: 703-723 W Algonquin Rd, PC #17-013 Round 2

Regarding the proposed utility installation, PW has the following comments:

1. The proposed hydrant addition on the north east corner of the property must originate from a pressure connection that is encompassed within a vault with a minimum diameter of 60".
2. Edit Note #11 on the demolition plans to specify "all utilities that are not going to be reused must be properly abandoned at the respective main lines prior to installation of new utilities". The revised note is not specific enough.
3. Remove the brand "Traverse City Hydrant" from the hydrant detail.
4. Ensure that all dumpsters and material piles during construction do not drain into ditches or detention basins.
5. Provide a maintenance plan for all existing and proposed detention systems.
6. Water meter and RPZ's will be specified once architectural plans have been submitted.

CC: Scott T. Shirley, Director of Public Works

RECEIVED
DEC 29 2017
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

PLAN COMMISSION PC #17-013
Hamilton Partners – Arlington Heights Subdivision
703-723 W. Algonquin Road
PUD, Prelim/Final Plat of Subdivision
Round 2

36. The response by the petitioner to comments #11-14, 16, 17, 20, 27-32 & 35 are acceptable.

37. The response provided by the petitioner to Comment #15 is acceptable. The OUMA must be provided by the petitioner and reviewed by the Village. The petitioner must then provide a signed original for the Village to execute and record. This signed original must be provided to the Engineering Department before any building permit will be approved.

38. The response provided by the petitioner to Comment #18 is acceptable. Per Village requirements, please add a trap for the upper restrictor, since it is less than 4" in diameter.

39. The response provided by the petitioner to Comment #19 is noted. Also provide an exhibit showing the vehicle entering in the Meijer Drive driveway and turning to the front entrance of the building, basically the reverse of what was provided.

40. The response provided by the petitioner to Comment #21 is not acceptable. The comment stands as a requirement for approval. To reiterate: Public sidewalk, 8" thick, to be established across the existing Meijer Drive driveway. Sidewalk takes precedence through the driveway, with curb stopping on either side of the sidewalk. Detectable warning panels are required for sidewalks at stop controlled driveways.

41. The response provided by the petitioner to Comment #22 is noted. We are following up internally about these requirements.

42. The response provided by the petitioner to Comment #23 is not acceptable. None of the required documents have been provided. To reiterate: The plans show offsite pavement improvements. Written permission, whether in the form of an existing easement that allows pavement construction or a letter from the property owner must be provided before this work can be allowed.

Traffic:

43. The response provided by the petitioner to Comment #24 is noted. Provide hours of operation once a tenant is selected.

44. The response provided by the petitioner to Comment #25 is not acceptable. Under full operation, is truck traffic going to result in lane storage being exceeded? Will the queue result in NB traffic stacking past the private Weber Drive driveway? What is the required storage length for the turn lanes? Provide updated capacity analysis.

RECEIVED
JAN 02 2018
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

45. The response provided by the petitioner to Comment #26 is not acceptable. The turning movement exhibits do not show any emergency vehicles entering the RIRO driveway from southbound Meijer Drive. To reiterate: The existing raised barrier median in the center of Meijer Drive must be extended to the end of the striped dual left turn bay markings.

46. Show the existing/proposed pavement striping on Meijer Drive on Sheet 7: Geometric and Paving. Include dimensioning for storage lengths, taper lengths, etc.

Final Plat of Subdivision:

47. The response provided by the petitioner to Comment #33 is noted. The following items from the Final Plat of Subdivision Checklist have not been satisfactorily addressed:
    h. Include signature blocks for Comcast and WOW cable.
    m. Include any building setback lines.
    n. Include the Deed of Dedication as provided.
    o. Include the Village certificate as provided. Eliminate duplicate certificates.
    t. Add a block stating "Send Tax Bill To:".

48. The response provided by the petitioner to Comment #34 is acceptable. One of the leader lines for Parcel 1 "B" overlaps Parcel 1 "A". Please fix.

1/2/18

James J. Massarelli, P.E. Date
Director of Engineering

Arlington Heights Fire Department
Plan Review Sheet

P. C. Number 17-013

Project Name Hamilton Partners PUD & Subdivision

Project Location 703-723 W. Algonquin Road

Planning Department Contact Sam Hubbard

General Comments

Round 2

1) Please provide an auto turn diagram using the specs that engineering provides for Tower 131.

2) The Fire Department Connection (FDC) shall be located at the main front entrance and be fully visible. A fire hydrant is to be located within 100' of the FDC.

3) A fully operational annunciator panel or alarm panel is to be located at the main front entrance.

4) A Knox Box is to be located at the main front entrance. In addition a Knox Box is to be located at each tenant entrance.

NOTE: PLAN IS CONCEPTUAL ONLY SUBJECT TO DETAILED PLAN REVIEW

Date Dec. 28, 2017 Reviewed By: LT. Mark Aleckson

Arlington Heights Fire Department

ARLINGTON HEIGHTS POLICE DEPARTMENT

Community Services Bureau

DEPARTMENT PLAN REVIEW SUMMARY

703-723 W. Algonquin Rd.
PC#17-013

Round 2 Review Comments **12/19/2017**

1. **Character of use:**
   The character of use is consistent with the area and is not a concern.

2. **Are lighting requirements adequate?**
   Nothing further.

3. **Present traffic problems?**
   There are no traffic problems at this location.

4. **Traffic accidents at particular location?**
   This is not a problem area in relation to traffic accidents.

5. **Traffic problems that may be created by the development.**
   There should be traffic control signage in the parking lot and right turn only designed exit lanes to discourage left turns onto Algonquin Road.

6. **General comments:**
   Nothing further.

#272

Brandi Romag, Crime Prevention Officer
Community Services Bureau

Approved by:

#557

Supervisor's Signature

Planning & Community Development Dept. Review

January 2, 2018

REVIEW ROUND 2

Project: 703-723 W. Algonquin Rd

Case Number: PC 17-013

44. The response to comments #9 - #11, #13 - #14, #16, #19, #21, #23 - #28, #31, #32, #36, #37, and #43 are acceptable.

45. The responses to #7 and #8 are noted. If the signed mylar and payment of all engineering fees and deposits cannot be provided one week prior to the scheduled Plan Commission meeting, an electronic and paper copy of the Plat document must be provided, which shall be revised to read "Preliminary Plat".

46. The response to #12 is noted. Please revise the construction staging plan to include information on construction entrances and construction fence locations.

47. The response to comment #15 is noted. Please provide a copy of documents #20922014, #24731232, #19977407, & #20097967 to verify that the provisions of the water and sewer easements allow the proposed parking lot and detention area encroachments. If the documentation provided does not clearly illustrate how these encroachments are permitted, a letter granting permission for these encroachments shall be required by the parties which hold rights to these easements.

48. The response to comment #17 is noted. Please provide document #24176554 and #0608244082 to verify that this easement has been abrogated. If the easement has already been abrogated, then why is it shown on the plat and Alta survey? If only the rights to the easement, but not the actual easement, have been abrogated, then the easement shall formally be vacated as part of this development, which would likely required all parties with rights to that easement to sign off on the Plat to authorize its vacation.

49. The response to comment #18 is noted. Since the existing easement provisions do not allow for the construction of pavement and vehicular travel within that easement, permission from the property owner to allow for the proposed improvements shall be required. Please provide this written permission.

50. The response to comment #20 is noted. Prior to appearing before the Plan Commission, the petitioner shall propose a solution to address the multitude access easements along the western edge of the property and immediately abutting the property to the west.

51. The response to comment #22 is not acceptable. The required table has not been added to the plan. Please add the following tables to the conceptual site plan and fill in the corresponding information.

Phase I

	M-2 District Code Required	Proposed
Setbacks		
North (front)		
South (rear)		
East (side)		

West (side)		
South (rear - parking areas)		
F.A.R.		
Building Lot Coverage	None	
Impervious Surface Coverage	None	
Building Height	None	
Off-street Parking Spaces		

Phase I and II

	M-2 District Code Required	Proposed
Lot Size		
Lot Width		
Setbacks		
North (front)		
South (rear)		
East (side)		
West (side)		
South (rear - parking areas)		
F.A.R.		
Building Lot Coverage	None	
Impervious Surface Coverage	None	
Building Height	None	
Off-street Parking Spaces		

52. The response to comment #29 is not acceptable. Section 29-201(b)12 of the Subdivision Code requires the setback lines be shown on all Plats of Subdivision. Please add setback lines showing the required front, side, and rear yard setbacks.

53. The response to comment #30 is not acceptable. There is no reason why the three parcels are shown on the Plat. The purpose of the Plat is to consolidate the entire property into one recorded lot. Therefore, showing these parcels obscures the Plat. Please remove these parcels from the Plat.

54. The response to comment #33 is not acceptable. Section 6.15-1.2(b) of the Zoning Code requires that all parking rows terminate with a landscape island that includes a shade tree. Please incorporate a shade tree into all parking lot islands.

55. The response to comment #34 is noted. The adjusted parking requirement is shown below.

PHASE	PARKING CODE USE	NUMBER OF EMPLOYEES	NUMBER OF VEHICLES	SQUARE FEET	PARKING RATIO	PARKING REQUIRED
Phase I	Office	N/A	N/A	5,460	1 space per 300 sq. ft.	18.2
	Warehouses and Storage	65	26	N/A	1 space per vehicle plus 1 space per every two employees	58.5

Phase II	Office	N/A	N/A	5,460	1 space per 300 sq. ft	18.2
	Warehouses and Storage	65	42	N/A	1 space per vehicle plus 1 space per every two employees	74.5
					Total Parking Required	169
					Total Parking Provided	308
					Parking **Surplus**/(Deficit)	139

56. The response to comment #35 is noted. Village review and approval would be required for any additional parking area proposed on the site.

57. The response to #38 is noted. The office portion of the development requires 2 bicycle parking spaces, the warehouse portion requires 5 bicycle parking spaces, for a total of 5 bicycle parking spaces. Please confirm that the proposed bicycle parking area on the plans has sufficient room for 5 bicycle parking spaces and please adjust the note on the plan to specify that the bicycle parking area will contain at least 5 bicycle parking spaces.

58. The response to comment #39 is noted. Please note that the Engineering Dept. is requiring a southern extension of the median curb within Meijer Dr.

59. The response to comment #41 is not acceptable. Prior to scheduling a meeting with the Plan Commission, staff must have record of correspondence with IDOT relative to their preliminary review of the timing change.

60. The response to comment #42 is noted. However, no revised traffic study/table was provided.

61. The proposed bike rack location is not shown on the civil plans or the landscape plans. Please revise those plans to incorporate the proposed bike rack.

62. The response to comment #9 from the Public Works Department indicates that there will be a fence around the retaining ponds, with a note that the fence is shown on the landscape plan. However, there is no fence shown on the landscape plan. Please show the location of the proposed fence on all applicable plans and provide a detail for said fence, including height, style, and materials.

63. Please revise plans to address the Design Commission motion from November 28, 2017 as follows: A requirement to provide a minimum of eight feet of space between the northeast corner of the building and the driveway curb to allow for more landscaping at the corner of the building. A requirement to provide additional foundation plantings adjacent to the building, especially along the north and south walls adjacent to the roadways. The plantings should include layering of understory trees, shrubs, and perennials.

Prepared by: SAM HUBBARD
1-2-18

Hamilton Partners PUD Subdivision
702-723 W. Algonquin Road
PC 17-013
December 22, 2017

Tree Preservation

1) There are five Bur Oak trees ranging in size from 24-42 inch caliper in the east corner of the site that are identified for removal. The Oak trees are in good condition.

Landscape Issues

2) The ends of all parking rows and every twenty spaces must include a landscape island which contains a 4" caliper shade tree. (Chapter 28, section 6.15-1.2b). Increase the size of the proposed trees from 2.5 inch to 4 inch caliper. In addition, provide trees in islands where the trees are absent.

3) Continue the code required three foot high screen to the east near the northeast corner adjacent to the drive aisle (west of the drive aisle). The landscaping should not obstruct site lines.

4) Provide foundation plantings adjacent to the proposed building. There are areas where the foundation plantings are absent. Infill any areas with shrubs and/or perennials along the base of the building.

MORGAN / HARBOUR
CONSTRUCTION

January 10, 2018

Attn: Sam Hubbard
Development Planner
Department of Planning and Community Development
Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL 60005

Tel: 847-368-5223

Re: 703-723 W. Algonquin Road Project – Planning Commission – Response Letter – (Round 2)

Mr. Hubbard,

The following is our Planning Commission Response Letter addressing the comments as outlined in the VAH Review Letter received on January 03, 2018 regarding the aforementioned project:

PLANNING & COMMUNITY DEVELOPMENT DEPT. From Sam Hubbard, dated Jan 2, 2018

44. Noted
45. Noted. The Plat document has been revised to read "Preliminary Plat"
46. Noted. Please see Soil Erosion and Sediment Control Plans (Shts 9 & 10) of the Final Engineering Plans for construction entrance and construction fence locations.
47. A copy of the requested documents is provided. The Owner is working on a plan that in conjunction with other applicable parties would clean-up and clarify these easement rights
48. A copy of the requested documents is provided. As indicated above the Owner is working on a plan that in conjunction with other applicable parties would clean-up and clarify these various easements
49. As noted above, the Owner is working a plan that would clarify/confirm the easement rights.
50. As noted above, the Owner is working on a plan that in conjunction with other applicable parties would clean-up and clarify these easement rights
51.

	M-2 District Code Required	*Proposed*
Setbacks		
North (front)	*15'*	*54.88'*
South (rear)	*15'*	*132.47' from existing building to south property line* *81.73' between phase 1 and existing building*
East (side)	*10' or 10% of lot width (whichever is less)*	*60'*
West (side)	*10' or 10% of lot width*	*56.94'*

	(whichever is less)	
South (rear – parking areas)	*15′*	*N/A - existing conditions*
F.A.R.	*2.50 maximum*	*.38*
Building Lot Coverage	*No zoning requirement, refer to building code for additional requirements*	*38.24%*
Impervious Surface Coverage	*No zoning requirement, refer to building code for additional requirements*	*81.58%*
Building Height	*No zoning requirement, refer to building code for additional requirements*	*39′-0″*
Off-street Parking Spaces	*77 (new building only)*	*152 (new building only)*

	M-2 District Code Required	***Proposed***
Lot Size	*N/A*	*671,453 SF (15.41 AC)*
Lot Width	*N/A*	*441.74′*
Setbacks		
North (front)	*15′*	*54.88′*
South (rear)	*15′*	*84.18′*
East (side)	*10′ or 10% of lot width (whichever is less)*	*60′*
West (side)	*10′ or 10% of lot width (whichever is less)*	*56.94′*
South (rear-parking areas)	*15′*	*15.45′*
F.A.R.	*2.50 maximum*	*.49*
Building Lot Coverage	*No zoning requirement, refer to building code for additional requirements*	*49.30%*
Impervious Surface Coverage	*No zoning requirement, refer to building code for additional requirements*	*88.55%*
Building Height	*No zoning requirement, refer to building code for additional requirements*	*39′-0″*
Off-street Parking Spaces	*169*	*308*

RESPONSE: Noted – see revised architectural site plan and tables above.

52. Copies of the (2) documents requested are included with this submittal. The easement was originally shown on the plat and most likely on the ALTA Surveys by others because it was listed as an exception in the title commitment.
53. Legal lines and labelling of parcels has been removed.
54. The concrete for pedestrian access has been removed and a shade tree provided (see Landscape Plan)
55.

Phase	*Parking Code Use*	*Number of Employees*	*Number of Vehicles*	*Square Feet*	*Parking Ratio*	*Parking Required*
Phase 1	*Office*	*N/A*	*N/A*	*5,460*	*1 space per 300 sq. ft.*	*18.2*
Phase 1	*Warehouse*	*65*	*26*	*N/A*	*1 space per vehicle plus 1 space per every two employees*	*58.5*
Phase 2	*Office*	*N/A*	*N/A*	*5,460*	*1 space per 300 sq. ft.*	*18.2*
Phase 2	*Warehouse*	*65*	*42*	*N/A*	*1 space per vehicle plus 1 space per every two employees*	*74.5*
					Total Parking Required	*169*
					Total Parking Provided	*308*
					Parking Surplus/(Deficit)	*139*

RESPONSE: Noted.

56. Noted
57. Noted-Final Engineering Plans updated for bicycle parking per latest Architectural Plan, which will provide minimum of (7) bicycle parking spaces in area noted on plans.
58. Noted. Engineering Plan updated per Engineering Dept. comment
59. Please see letter from IDOT, dated 12-19-2017, is attached for reference.
60. Please see the KLOA Traffic Study, dated 12-15-17, is attached for reference.
61. The concrete pad for the proposed bike rack is shown on the Final Engineering Plans-front of northwest office area. (Please see specifically sht 7)
62. Fence details to be included with landscape plans. When fence location is determined, it will be reflected on engineering plans for reference.
63. The plans were previously modified to obtain the requested additional space for landscaping at the northeast corner of the building. (A minimum distance of 8.35′ is provided.) Please see Final Engineering Plans, Sht 7 (Phase 1 Site Geometric Plan). Additional items with this comment to be addressed with Landscape Plans.

TREE PRESERVATION:

1. The trees have been reviewed by the project team and a significant portion of the building will impact the design and function of this building for its intended use.

LANDSCAPE ISSUES:

2. NOTED – Please reference Landscape Plans.
3. NOTED – Please reference Landscape Plans.
4. NOTED – Please reference Landscape Plans.

ENGINEERING DEPARTMENT – From James Massarelli, dated Jan 2, 2018

36. Noted
37. Noted. The OUMA will be provided
38. Noted. The Restrictor Detail for C.B. No. 28, on Sht 19, has been modified to include a trap
39. Noted. A second exhibit is provided reflecting the vehicle entering from Meijer Drive. To avoid the barrier median, the fire truck is shown entering the outbound lanes of Meijer Drive. The wheels are within the pavement area, with the overhang extending over the existing low height median within the driveway access to Meijer Dr.
40. The requested sidewalk is included with the updated Final Engineering Pans. Please see Sht 7, et al
41. Noted
42. Noted. The Owner is working on a plan that in conjunction with other applicable parties would clean-up and clarify these easement rights.
43. Noted and will comply.
44. The dual left-turn lanes on Meijer Drive at their approach to Algonquin Road provides approximately 190 feet of storage. Please refer to the attached capacity analyses for projected conditions, which assumes additional truck traffic on Meijer Drive as a result of the proposed development. The attached queue analysis shows that the exiting queue on Meijer Drive will not exceed the existing storage of 190 feet (36-foot 95th percentile queue in the weekday AM peak hour and 130-foot 95th percentile queue in the weekday PM peak hour). As such, the existing storage will not need to be extended to accommodate the proposed development.
45. The engineering plans have been updated to include the requested raised barrier median extension in the center of Meijer Drive.
46. The existing/proposed pavement striping on Meijer Drive and associated dimensions have been shown on Sht 7

Final Plat of Subdivision – Items 47, 48, the requested items have been addressed.

COMMUNITY SERVICES BUREAU

1. Noted
2. Noted
3. Noted
4. Noted
5. A "Right Turn Only Sign" has been included for the driveway access to Algonquin Rd. (It should be noted that pending comments by IDOT, additional restrictions to this driveway may be incorporated to make this a right-in, right-out, left-in access.)
6. Noted

FIRE DEPARTMENT - From Lt. Mark Aleckson, dated Dec 28, 2017

1. The vehicle used for the auto turn analysis as reflected on the attached Fire Truck Exhibit was prepared based on the specifications provided by the Village Engineering Dept. as reflected on the "Fire Engine Turning Template Village of Arlington Heights Tower 131"
2. The Fire Department Connection (FD) is located on the north side of the building, facing Algonquin Rd, and proposed Fire Hydrant No 19 is within 100' of the FDC location. Please see Sht 15 of the Final Engineering Plans, as well as the Fire Truck Maneuvering Exhibit
3. Noted and will comply.
4. Noted and will comply.

FIRE SAFETY DIVISION – From Don Lay, dated Dec 19, 2017

1. Please see attached Fire Truck Maneuvering Exhibit, which includes the requested information. For reference, the FDC is located on the north side of the building adjacent to Algonquin Rd.
2. To minimize possible obstructed access to the pump room, the proposed transformer location has been relocated more to the west (closer to the driveway and farther from the building.) If there are still questions regarding the transformer location, we will discuss and work with the Village to identify an acceptable location; however, it is noted that there are several constraints impacting the location of the electrical transformer pad.
3. The emergency lighting battery back-up system will be addressed during the building permit submittal.

PUBLIC WORKS DEPT – From Cris Papierniak, dated Dec 28, 2017

1. The referenced water main connection has been modified to a pressure connection. The Valve Vault with Pressure Connection Detail on Sht 19 reflects the minimum 60" diameter vault
2. The referenced Note 11 on the Demolition Plans has been updated as requested.
3. The reference to a "Traverse City Hydrant" has been removed from the detail.
4. Note 7 on Sht 11 (Soil Erosion & Sediment Control Notes & Details) has been included with the engineering plans to address this item.
5. A Maintenance Plan will be provided
6. Noted and will comply.

Please contact me directly if any of these responses are insufficient or if any further clarification is required in order to obtain jurisdictional approval.

Sincerely,

Joshua Spinks
Senior Project Manager
Morgan / Harbour Construction, L.L.C.

Village of Arlington Heights, IL
Department of Building & Life Safety

Fire Safety Division

Date: 1/11/2018 P.C. Number: 17-013 Round 3

Project Name: Hamilton Partners PUD and Subdivision

Project Location: 703-723 W. Algonquin Rd.

Planning Department Contact: Sam Hubbard, Planning and Community Development

General Comments:

No additional comments.

RECEIVED
JAN 12 2018
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

Date January 11, 2018

Reviewed By: _____

Fire Safety Supervisor

Village of Arlington Heights
Public Works Department

Memorandum

To: Sam Hubbard, Planning and Community Development

From: Cris Papierniak, Assistant Director of Public Works

Date: January 23, 2018

Subject: 703-723 W Algonquin Rd, PC #17-013 Round 3

Regarding the proposed utility installation, PW has the following comments:

1. As noted in 1/10/18 responses from MHC, please provide a maintenance plan for all existing and proposed detention systems.
2. As noted in 1/10/18 responses from MHC, VAHPW will specify Water Meter and RPZ's once architectural plans have been submitted.
3. The proposed sanitary line starting with sanitary manhole #22 to existing will be considered private. Therefore, the Village will not maintain it. It will be within an existing public easement.
4. The perforated drainage tile (starting with cleanout C-5) that runs within the existing public easement needs to be maintained by the owner.
5. Any future maintenance that disturbs curb or asphalt that lies within the existing 30' easement on the south side of the property adjacent to the tollway will result in the owners' responsibility to restore concrete, asphalt or landscaping.

CC: Scott T. Shirley, Director of Public Works

PLAN COMMISSION PC #17-013
Hamilton Partners – Arlington Heights Subdivision
703-723 W. Algonquin Road
PUD, Prelim/Final Plat of Subdivision
Round 3

49. The response by the petitioner to comments #37, 39, 43 & 45-48 are acceptable.

50. The response provided by the petitioner to Comment #38 is noted. The trap configuration shown is not recommended. The restrictor should be a drilled stainless steel plate, similar to the one proposed for MH#49. The trap should be a removable hood to provide easy maintenance of the restrictor opening. This can be finalized for the permit.

51. The response provided by the petitioner to Comment #40 is noted. Sidewalk takes precedence through the driveway, with curb stopping on either side of the sidewalk. This can be finalized for the permit.

52. The response provided by the petitioner to Comment #41 is acceptable. We obtained confirmation that the ADA rules do not specify the depth of the parking stall. A 16.5' depth is acceptable.

53. The response provided by the petitioner to Comment #42 is noted. The easement rights for the offsite pavement improvements must be cleared up before Plan Commission approval can be recommended.

Traffic:

54. The response provided by the petitioner to Comment #44 is noted. This comment is directly linked to some of the IDOT permit review comments dated December 19, 2017. Please provide us with copies of all correspondence to and from IDOT on this matter.

Final Plat of Subdivision:

55. The "Village Engineer" certificate can be removed, since the Director of Engineering signs in the Village certificate.

56. The plat provided is labeled "Preliminary Plat". Provide a final plat.

1/17/18

James J. Massarelli, P.E. Date
Director of Engineering

Items needed for Village permit:
OUMA
Provide hours of operation when tenant is selected

Arlington Heights Fire Department
Plan Review Sheet

P. C. Number 17-013

Project Name Hamilton Partners PUD & Subdivision

Project Location 703-723 W. Algonquin Road

Planning Department Contact Sam Hubbard

General Comments

Round 3

1) Please provide a signage for Fire Department Connection so that it can easily be located.

NOTE: PLAN IS CONCEPTUAL ONLY SUBJECT TO DETAILED PLAN REVIEW

Date January 11, 2018 Reviewed By: LT. Mark Aleckson

Arlington Heights Fire Department

Planning & Community Development Dept. Review

January 24, 2018

REVIEW ROUND 3

Project: 703-723 W. Algonquin Rd
Hamilton Partners Distribution Facility

Case Number: PC 17-013

64. The response to comments #44, #45, #51, #53, #55-57, #60, #61, #62 and #63 are acceptable.

65. The response to comment #46 is noted. Please coordinate with IDOT relative to the proposed construction entrance along Algonquin Road, as well as with Weber Marking Packaging Solutions (711 W. Algonquin Rd.) relative to the construction fence within the shared access drive.

66. Per approval Ordinance #02-094 (attached), approval condition #6 requires that the ownership and maintenance of "Outlot A" be transferred to Oak Pointe. Please reach out to Weber Packaging Solutions to arrange the transfer of this outlot.

67. The response to comments #47-#50 is not acceptable. Document #0608244082 states that no parking is allowed within the easement area. Therefore, please remove the two parking spaces that are proposed within the easement area at the southwest corner of the site.

    Prior to a building permit being issued for this development, the easement for "Outlot A" must be revised to allow the proposed driveway encroachment within the stormwater easement.

    The petitioner shall provide a written statement acknowledging that they have analyzed all of the easement agreements related to the subject property and proposed development and that the proposed development will comply with all applicable easement conditions and restrictions.

    Prior to Final Plat of Subdivision approval, the petitioner shall cite the provisions of all applicable easements that clearly outlines the allowance for any proposed improvement within the specific easement areas.

    It should be noted that the petitioner is proposing improvements that fall outside of the subject property and onto land owned by Weber Packaging Solutions. All improvements on their land shall be subject to their review and approval.

68. The response to comment #54 is noted. However, there is still one landscape island that is shown as concrete with no shade tree (located at the southwest corner of Phase II). This island shall be converted to greenspace and the required shade tree shall be incorporated.

69. The response to comment #58 is noted. Please note that Meijer Drive is under the jurisdiction of the Village of Rolling Meadows and any proposed improvements to the Meijer Drive ROW must be reviewed an approved by the City of Rolling Meadows and IDOT.

70. The response the comment #59 is noted. Final Plat of Subdivision approval will be conditioned upon IDOT's review and approval.

71. Please revise the traffic study and plans to reflect the changes required by IDOT in their preliminary review letter. In addition, please provide an update on the status of the IDOT review process, including information on when the revisions requested by IDOT were provided to IDOT for their further consideration.

72. Please provide a summary of the outcome of the meeting with Weber Packaging Solutions.

Prepared by: _____

(12/02/02 – Legal #3) Consent

City of Rolling Meadows
Meijer Drive
Weber's Resubdivision

0030279492
5487/0156 41 001 Page 1 of 7
2003-02-27 10:07:40
Cook County Recorder 36.50

0030279492

OK

AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE VILLAGE OF ARLINGTON HEIGHTS, GRANTING PRELIMINARY APPROVAL OF A PLANNED UNIT DEVELOPMENT AND GRANTING A PRELIMINARY APPROVAL OF A PLAT OF RESUBDIVISION

WHEREAS, the Plan Commission of the Village of Arlington Heights, in Petition Number 02-026, pursuant to notice, has on October 9, 2002, conducted a public hearing on a request for rezoning a portion of the property to a B-2 General Business District, preliminary approval of a planned unit development and preliminary approval of a plat of resubdivision, for the property located at 711 W. Algonquin Road, Arlington Heights, Illinois; and

WHEREAS, the President and Board of Trustees have considered the report and recommendations of the Plan Commission and have determined that authorizing and granting said requests, subject to certain conditions hereinafter described, would be in the best interests of the Village of Arlington Heights,

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

SECTION ONE: That the Zoning Ordinance of the Village of Arlington Heights be and it is hereby amended by reclassifying from an M-2 Limited Manufacturing District to a B-2 General Business District, the property legally described in Exhibit "A" attached hereto and made a part hereof, and commonly described as proposed Lot 1 in Weber's Resubdivision, Arlington Heights, Illinois.

SECTION TWO: That preliminary approval is hereby granted for a planned unit development to permit an existing industrial facility for the property legally described in Exhibit "B" attached hereto and made a part hereof. Said property is commonly known as proposed Lot 2 in Weber's Resubdivision, Arlington Heights, Illinois, which property is hereby designated as a planned unit development and the Zoning Map is hereby amended accordingly.

SECTION THREE: That a preliminary plat of resubdivision for Weber's Resubdivision, prepared by Christopher B. Burke Engineering, Ltd., Illinois registered land surveyors, dated January 31, 2002 with revisions through October 24, 2002, is hereby approved for the following property legally described in Exhibit "C," attached hereto and made a part hereof, and commonly known as 711 W. Algonquin Road, Arlington Heights, Illinois.

0030279492

02-094

RETURN TO:
BOX 111

LEGAL DEPARTMENT
VILLAGE OF ARLINGTON HEIGHTS
33 South Arlington Heights Rd.
Arlington Heights, IL 60005

02-094

SECTION FOUR: That development of the property shall be in substantial compliance with the following plans:

The following plans have been prepared by Christopher B. Burke Engineering, Ltd.:

Title Sheet, consisting of one sheet;
Summary of Quantities, dated October 1, 2002, consisting of sheet G-02;
General Notes, dated October 1, 2002, consisting of sheets G-03 & G-04;
Typical Sections, dated October 1, 2002, consisting of sheet TYP-1;
Meijer Drive Overall Plan, dated October 26, 2002, consisting of sheet PLN-01;
Meijer Road Existing Conditions and Removal Plan, dated October 1, 2002, consisting of sheets REM-01 & REM-02;
Meijer Drive Roadway Plan and Profile, dated October 11, 2002, consisting of sheet RPP-01;
Meijer Drive Roadway Plan and Profile, dated October 1, 2002, consisting of sheet RPP-02;
Meijer Drive Roadway Plan and Profile, dated October 26, 2002, consisting of sheet RPP-03;
Meijer Drive Roadway Plan and Profile, dated October 1, 2002, consisting of sheet RPP-04;
Weber Drive Roadway Plan and Profile, dated October 1, 2002, consisting of sheet RPP-05;
Meijer Drive Utility Plan and Profile, dated October 15, 2002, consisting of sheet DPP-01;
Meijer Drive Utility Plan and Profile, dated October 11, 2002, consisting of sheet DPP-02;
Meijer Drive Utility Plan and Profile, dated October 26, 2002, consisting of sheet DPP-03;
Meijer Drive Utility Plan and Profile, dated October 1, 2002, consisting of sheet DPP-04;
Weber Drive Utility Plan and Profile, dated October 1, 2002, consisting of sheet DPP-05;
Pond Plan and Grading, dated October 1, 2002, consisting of sheet GRA-01;
Proposed Landscaping Plan dated October 26, 2002, consisting of one sheet;
Tree Preservation Plan, dated September 30, 2002, consisting of one sheet;
Meijer Drive Lighting General Notes, dated September 27, 2002, consisting of sheet GE-01;
Meijer Drive Lighting Plan, dated September 27, 2002, consisting of sheets E-01, E-02, E-03 and E-04;
Meijer Drive Lighting Details, dated September 3, 2002, consisting of sheet EDET-01, EDET-02, EDET-03, and EDET-04;
Meijer Drive Construction Details, dated October 11, 2002, consisting of sheet DET-01;
Meijer Drive Construction Details, dated September 3, 2002, consisting of sheet DET-02;
Meijer Drive Cross-Sections, dated September 27, 2002, consisting of sheets XS-01 through XS-08;

0027994192

Intersection Design Study, dated June 24, 2002 with revisions through August 15, 2002, consisting of five sheets;
Geometric Plan – Weber Marking Systems, dated October 1, 2002 consisting of one sheet;
Geometric Plan – Pappadeaux, dated October 8, 2002, consisting of one sheet;
Geometric Plan – Oak Pointe Office Park, dated October 1, 2002 consisting of one sheet;
Golf/Algonquin & Meijer Drive Improvements Overall Exhibit, dated October 1, 2002, consisting of one sheet,

copies of which shall be on file and available for inspection in the Village Clerk's office.

SECTION FIVE: That the rezoning, preliminary approval of the planned unit development and preliminary plat of resubdivision granted by this ordinance are subject o the following conditions, to which the petitioner has agreed:

1. The petitioner shall submit for and obtain approval of a final plat of resubdivision.

2. The petitioner shall submit for and obtain approval of a final planned unit development for proposed Lot 2 of the resubdivision (Weber Marking).

3. Prior to Village Board approval of the final plat of resubdivision and final planned unit development, the Pearle Vision and Midas parcels shall be disconnected from the City of Rolling Meadows and annexed into the Village of Arlington Heights.

4. The petitioner shall submit for and obtain approval of a plat of dedication for the segment of Meijer Drive that is located on the Oak Pointe Office Center property.

5. Any future development on proposed Lot 1 of the resubdivision shall be required to be heard by the Plan Commission and approved by the Village Board of Trustees.

6. Ownership and maintenance responsibilities for Outlot A shall be conveyed to the owner(s) of the Oak Pointe Office Center located to the east.

7. Ownership and maintenance responsibilities for Outlot B shall be conveyed to the owner(s) of proposed Lot 2 (Weber Marking).

8. A non-exclusive cross-access easement shall be provided along the western property line of proposed Lot 2.

9. The petitioner shall provide a non-exclusive detention easement agreement so that the owner(s) of Lot 1 and the parcels pending annexation have perpetual access to the detention pond that is located immediately west of Lot 1 and located in the City of Rolling Meadows.

10. A detention easement along the western property line of Lot 1 shall be provided in order to accommodate the embankments of the adjacent detention pond.

0027994192

11. Prior to final engineering approval, the petitioner shall continue to work with the Village to attempt to minimize the amount of land area on Lot 1 needed for the detention embankments.

12. Prior to Village Board consideration, the landscape plan shall be revised as follows:

a. To include a three-foot high row of shrubs to screen the reconfigured parking lot near the northeast corner of proposed Lot 2 (Weber Marking) from Meijer Drive and the realigned private drive located on Outlot B.

b. To include one curbed island in the reconfigured row of parking and loading area located along the northern property line of proposed Lot 2 (Weber Marking). Each of the new islands on the proposed Lot 2 shall also include a four-inch caliper shade tree.

13. The petitioner shall comply with all applicable Federal, State, and Village codes, regulations, and policies, as well as the terms and conditions that are outlined in the intergovernmental agreement (R01-051/A01-036) between the City of Rolling Meadows and the Village of Arlington Heights.

SECTION SIX: That the approval of the preliminary plan granted in SECTION TWO of this ordinance shall continue in effect for a period of twelve months from the approval of this ordinance, during which period the petitioner may submit to the Plan Commission the materials required by the Zoning Ordinance for final approval of the planned unit development.

SECTION SEVEN: That the approval of the preliminary plat of resubdivision granted in SECTION THREE of this ordinance authorizes the submission and detailed plans for the proposed resubdivision and detailed plans and specifications for the public improvements therein; and further, that approval of the preliminary plat shall be effective for a period no longer than twelve months, unless extended by the President and Board of Trustees during that period.

SECTION EIGHT: That this ordinance shall be in full force and effect from and after its passage and approval in the manner provided by law and shall be recorded by the Village Clerk in the office of the Recorder of Cook County.

AYES: STENGREN, FARWELL, HAYES, ROSENBERG, TOLJANIC, JENSEN, KUCERA, DADAY, MULDER

NAYS: NONE

PASSED AND APPROVED this 2nd day of December, 2002.

Arlene J. Mulder
Village President

ATTEST:

Edwina Corso
Village Clerk

LEGLB:PUD.Rolling Meadows Meijer Dr.

EXHIBIT "A"

LEGAL DESCRIPTION
(PROPOSED WEBER RESUBDIVISION)

LOT 1:

THAT PART OF LOT "B" IN WEBER ATRIUM RESUBDIVISION, BEING A SUBDIVISION IN THAT PART OF THE NORTHWEST QUARTER OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED NOVEMBER 21, 1978 AS DOCUMENT NO. 24731232 IN COOK COUNTY, ILLINOIS, AND THAT PART OF (VACATED) ELK GROVE ROAD AS PER DOCUMENT NO. 93782809 RECORDED SEPTEMBER 30, 1993 IN COOK COUNTY, ILLINOIS; DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWEST CORNER OF SAID VACATED ELK GROVE ROAD (SAID NORTHWEST CORNER ALSO BEING THE NORTHEAST CORNER OF LOT 1 IN CAUDILL'S SUBDIVISION BEING A SUBDIVISION IN THAT PART OF SAID NORTHWEST QUARTER ACCORDING TO THE PLAT THEREOF RECORDED OCTOBER 18, 1943 AS DOCUMENT NO. 13160398.); THENCE SOUTHERLY ALONG THE WESTERLY LINE OF SAID (VACATED) ELK GROVE ROAD HAVING A ILLINOIS EAST ZONE GRID BEARING OF SOUTH 18 DEGREES 35 MINUTES 34 SECONDS WEST 365.77 FEET; THENCE SOUTHEASTERLY ALONG A TANGENTIAL CURVE CONCAVE TO THE NORTH RADIUS 217.00 FEET, CENTRAL ANGLE 01 DEGREES 45 MINUTES 35 SECONDS, 6.66 FEET, (THE CHORD BEARS SOUTH 70 DEGREES 31 MINUTES 56 SECONDS EAST 6.66 FEET); THENCE SOUTH 71 DEGREES 24 MINUTES 43 SECONDS EAST 233.49 FEET ALONG TANGENT; THENCE SOUTHEASTERLY ALONG A TANGENTIAL CURVE CONCAVE TO THE NORTHWEST RADIUS 217.00 FEET, CENTRAL ANGLE 43 DEGREES 10 MINUTES 08 SECONDS, 163.50 FEET, (THE CHORD BEARS NORTH 87 DEGREES 00 MINUTES 13 SECONDS EAST 159.66 FEET); THENCE NORTH 24 DEGREES 34 MINUTES 51 SECONDS WEST 7.00 FEET ALONG THE RADIAL OF SAID CURVE; THENCE NORTHEASTERLY ALONG A TANGENTIAL CURVE CONCAVE TO THE NORTHWEST RADIUS 210.00 FEET, CENTRAL ANGLE 36 DEGREES 29 MINUTES 37 SECONDS, 133.76 FEET, (THE CHORD BEARS NORTH 47 DEGREES 10 MINUTES 19 SECONDS EAST 131.51 FEET); THENCE NORTH 28 DEGREES 55 MINUTES 30 SECONDS EAST 189.79 FEET ALONG TANGENT; THENCE NORTH 08 DEGREES 17 MINUTES 44 SECONDS WEST 31.84 FEET; THENCE NORTHWESTERLY ALONG A TANGENTIAL CURVE CONCAVE TO THE SOUTHWEST RADIUS 9489.34 FEET, CENTRAL ANGLE 00 DEGREES 31 MINUTES 08 SECONDS, 85.95 FEET (THE CHORD BEARS NORTH 45 DEGREES 52 MINUTES 03 SECONDS WEST 85.95 FEET),TO A POINT OF INTERSECTION WITH THE SOUTHERLY LINE OF BORKE'S SUBDIVISION BEING A SUBDIVISION IN THE AFORESAID NORTHWEST QUARTER ACCORDING TO THE PLAT THEREOF RECORDED AUGUST 11, 1981 AS DOCUMENT NO. 25965232 (SAID SOUTHERLY LINE ALSO BEING THE SOUTHERLY LINE OF HEISE'S SUBDIVISION BEING A SUBDIVISION IN THAT PART OF THE AFORESAID NORTHWEST QUARTER, ACCORDING TO THE PLAT THEREOF RECORDED SEPTEMBER 23, 1971 AS DOCUMENT NO. 24119807); THENCE NORTH 80 DEGREES 59 MINUTES 29 SECONDS WEST 394.32 FEET ALONG SAID SOUTHERLY LINE TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

P.I.N. 08-16-102-033

EXHIBIT "B"

LEGAL DESCRIPTION
(PROPOSED WEBER RESUBDIVISION)

LOT 2:

THAT PART OF LOT "B" IN WEBER ATRIUM RESUBDIVISION, BEING A SUBDIVISION IN THAT PART OF THE NORTHWEST QUARTER OF SECTION 16, TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED NOVEMBER 21, 1978 AS DOCUMENT NO. 24731232 IN COOK COUNTY, ILLINOIS, AND THAT PART OF (VACATED) ELK GROVE ROAD AS PER DOCUMENT NO. 93782809 RECORDED SEPTEMBER 30, 1993 IN COOK COUNTY, ILLINOIS; DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID VACATED ELK GROVE ROAD (SAID NORTHWEST CORNER ALSO BEING THE NORTHEAST CORNER OF LOT 1 IN CAUDILL'S SUBDIVISION BEING A SUBDIVISION IN THAT PART OF SAID NORTHWEST QUARTER ACCORDING TO THE PLAT THEREOF RECORDED OCTOBER 18, 1943 AS DOCUMENT NO. 13160398.); THENCE SOUTHERLY ALONG THE WESTERLY LINE OF SAID (VACATED) ELK GROVE ROAD HAVING AN ILLINOIS EAST ZONE GRID BEARING OF SOUTH 18 DEGREES 35 MINUTES 34 SECONDS WEST 431.79 FEET, TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 18 DEGREES 35 MINUTES 34 SECONDS WEST 1029.83 FEET, TO A POINT OF INTERSECTION WITH THE NORTHERLY RIGHT OF WAY LINE OF INTERSTATE-90 TOLLWAY; THENCE SOUTH 58 DEGREES 25 MINUTES 06 SECONDS EAST 581.89 FEET, TO A POINT OF INTERSECTION WITH THE EASTERLY LINE OF SAID LOT "B"; THENCE NORTH 18 DEGREES 41 MINUTES 30 SECONDS EAST 773.63 FEET ALONG SAID EASTERLY LINE; THENCE NORTH 71 DEGREES 27 MINUTES 57 SECONDS WEST 8.50 FEET, ALONG SAID EASTERLY LINE; THENCE NORTH 18 DEGREES 41 MINUTES 30 SECONDS EAST 378.85FEET, ALONG SAID EASTERLY LINE; THENCE NORTH 25 DEGREES 52 MINUTES 33 SECONDS WEST 71.54 FEET; THENCE NORTH 70 DEGREES 58 MINUTES 11 SECONDS WEST 118.42 FEET, TO A POINT ON A 283.00 FEET CURVE, THE CENTER OF CIRCLE OF SAID CURVE BEARS NORTH 13 DEGREES 44 MINUTES 05 SECONDS WEST FROM SAID POINT; THENCE SOUTHWESTERLY ALONG SAID CURVE 159.65 FEET, CENTRAL ANGLE 32 DEGREES 19 MINUTES 22 SECONDS (THE CHORD BEARS NORTH 87 DEGREES 34 MINUTES 24 SECONDS WEST 157.54 FEET); THENCE NORTH 71 DEGREES 24 MINUTES 43 SECONDS WEST ALONG TANGENT 233.49 FEET; THENCE NORTHWESTERLY ALONG A TANGENTIAL CURVE CONCAVE TO THE NORTH RADIUS 283.00 FEET, CENTRAL ANGLE 01 DEGREES 21 MINUTES 01 SECONDS, 6.67 FEET, (THE CHORD BEARS NORTH 70 DEGREES 44 MINUTES 13 SECONDS WEST 6.67 FEET),TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

P.I.N. 08-16-102-033
08-16-102-034

EXHIBIT C

That part of Lot B in the Weber Atrium Resubdivision, being a subdivision in that part of the northwest quarter of Section 16, Township 41 North, Range 11 East of the third principal meridian, according to the plat thereof recorded November 21, 1978 as Document Number 24731232 in Cook County, Illinois, and that part of (vacated) Elk Grove Road as per Document Number 93782809 recorded September 30, 1993 in Cook County, Illinois; described as follows:

Beginning at the northwest corner of said vacated Elk Grove Road (said northwest corner also being the northeast corner of Lot 1 in Caudill's Subdivision being a subdivision in part of said northwest quarter according to the plat thereof recorded October 18, 1943 as Document Number 13160398.); thence southerly along the westerly line of said (vacated) Elk Grove Road having an Illinois east zone grid bearing south 18 degrees 35 minutes 34 seconds west 431.79 feet; thence southeasterly along a tangential curve concave to the north radius 283.00 feet, central angle 01 degrees 21 minutes 01 seconds, 6.67 feet, (the cord bears south 70 degrees 38 minutes 53 seconds east 6.67 feet); thence south 71 degrees 24 minutes 43 seconds east 233.49 feet along tangent; thence southeasterly along a tangential curve concave to the north radius 283.00 feet, central angle 32 degrees 19 minutes 22 seconds, 159.65 feet, (the cord bears south 87 degrees 34 minutes 24 seconds east 157.54 feet); thence south 70 degrees 58 minutes 11 seconds east 118.42 feet, along a not tangent line; thence south 25 degrees 52 minutes 33 seconds east 71.54 feet to a point intersection with the easterly line of said Lot B; thence north 18 degrees 41 minutes 30 seconds east 433.43 feet along said easterly line to a point of intersection with the southwesterly right of way line of Algonquin Road (Il. Route 62) as recorded February 2, 1933 as Document Numbers 11195785 and 1119782; thence northwesterly along said southwesterly right of way line being a tangential curve concave to the northeast radius 9499.34 feet, central angle 01 degrees 02 minutes 14 seconds, 171.96 feet, (the cord bears north 45 degrees 31 minutes 18 seconds west 171.96 feet) to a point of intersection with the southwesterly line of Borke's Subdivision being a subdivision in the aforesaid northwest quarter according to the plat thereof recorded August 11, 1981 as Document Number 25965232 (said southerly line also being the southerly line of Heise's Subdivision being a subdivision in that part of aforesaid northwest quarter according to the plat thereof recorded September 23, 1971 as Document Number 24119807); thence north 80 degrees 59 minutes 29 seconds west 411.79 feet along said southerly line to the point of beginning in Cook County, Illinois.

P.I.N. 08-16-102-031, -032, -033, -034

Hamilton Partners PUD Subdivision
702-723 W. Algonquin Road
PC 17-013
January 17, 2018

Landscape Comments

1) Must provide a four inch caliper shade tree in the island located in the southwest corner adjacent to the building.

2) A landscape compliance bond in the amount of 30% of the landscaping costs is required at time of building permit. In addition, a $4 tree fee is required for each lineal foot of frontage.

MHC

MORGAN / HARBOUR
CONSTRUCTION

RECEIVED
FEB 06 2018
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

February 06, 2018

Attn: Sam Hubbard
Development Planner
Department of Planning and Community Development
Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL 60005

Tel: 847-368-5223

Re: 703-723 W. Algonquin Road Project – Planning Commission – Response Letter – (Round 3)

Mr. Hubbard,

The following is our Planning Commission Response Letter addressing the comments as outlined in the VAH Review email received on January 25, 2018 regarding the aforementioned project:

FIRE SAFETY DIVISION – From Don Lay, dated Jan 11, 2018:
Noted- No additional comments

PUBLIC WORKS DEPT – From Cris Papierniak, dated Jan 23, 2018:

1. A Maintenance Plan is provided. (Please see Exhibit - R)
2. Noted
3. Noted
4. Noted
5. The existing easement document does not prohibit parking within the easement nor does it require the owner to be responsible for the restoration of landscaping, pavement, or curbs disturbed as a result of maintenance work on the existing public utilities. It is also noted the existing parking area is also within this easement and provides more of an obstruction to possible future maintenance than the proposed parking configuration. Ownership does not agree with this request.

ENGINEERING DEPARTMENT – From James Massarelli, dated Jan 17, 2018:

49. Noted
50. Noted-this will be coordinated at permit, or prior
51. Noted-this will be coordinated at permit or prior
52. Noted
53. Noted- easement rights are being discussed with property owner to the west

MORGAN HARBOUR CONSTRUCTION

Traffic:

54. A copy of a response letter to IDOT, dated Feb. 5, 2018, is attached.

Plat of Subdivision:

55. Noted-the "Village Engineer Certificate" has been removed
56. The project is still proceeding only with Preliminary Plat approval at this time; therefore, the plat is still labeled as "Preliminary Plat".

FIRE DEPARTMENT - From Lt. Mark Aleckson, dated Jan 11, 2018:

1. The requested signage for the Fire Department Connection is indicated on the Final Engineering Plans – see Shts 7 & 15

PLANNING & COMMUNITY DEVELOPMENT DEPT. From Sam Hubbard, dated Jan 24, 2018:

64. Noted
65. Noted
66. The referenced transfer of Outlot A has been discussed with Weber Packaging Solutions.
67. The project team for the subject parcel has a different understanding of the easement provisions and believes the two parking spaces are permissible within the easement. This item will be clarified, in addition to the other items outlined within this Comment # 67, in conjunctions with discussions with Weber Packaging Solutions.
68. Noted. The referenced island has been converted to greenspace
69. Noted
70. Noted
71. Please see revised Traffic Impact Study by KLOA, and attached response letter to IDOT dated Feb 5, 2018.
72. Arlington Heights 1, L.L.C. is currently working on these issues between their property and the Weber Property. Arlington Heights 1, L.L.C. will keep the Village of Arlington Heights – Planning & Community Development Department update throughout this process.

LANDSCAPE COMMENTS:

1. NOTED – We will comply
2. NOTED – We will comply

Please contact me directly if any of these responses are insufficient or if any further clarification is required in order to obtain jurisdictional approval.

Sincerely,

Joshua Spinks
Senior Project Manager
Morgan / Harbour Construction, L.L.C.

Village of Arlington Heights
Public Works Department

Memorandum

To: Sam Hubbard, Planning and Community Development

From: Cris Papierniak, Assistant Director of Public Works

Date: February 21, 2018

Subject: 703-723 W Algonquin Rd, PC #17-013 Round 4

Regarding the proposed utility installation, PW has the following comments:

1. As noted in 1/10/18 responses for MHC, VAHPW will specify Water Meter and RPZ's one architectural plans have been submitted.
2. Any future maintenance that disturbs curb or asphalt that lies within the existing 30' easement on the south side of the property adjacent to the tollway will result in the owners' responsibility to restore concrete, asphalt or landscaping. The Village is not responsible for any maintenance or restoration of improvements built within our easement. This will need to be added to final plat of survey.

C: file

PLAN COMMISSION PC #17-013
Hamilton Partners – Arlington Heights Subdivision
703-723 W. Algonquin Road
PUD, Prelim/Final Plat of Subdivision
Round 4

57. The response by the petitioner to comments #50-52, 55 & 56 are acceptable.

58. The response provided by the petitioner to Comment #53 is noted. The easement rights for the offsite pavement improvements must be cleared up before Plan Commission approval can be recommended.

59. Clearly show the site's drainage overflow routes for the north and south drainage areas. If the inlets were covered with leaves, where would water overflow? Designate primary overflow route for fully functional conditions, and designate secondary overflow for clogged conditions.

60. Sheet 12: Although not delineated, it appears that the overflow point for the north area is at the curb structure MH64, with a T/C elev of 715.60. It also appears that basin N-1 overflows to the south toward the truck docks, although the elevation is unclear. The pooling water at the truck docks appears to overflow to the south between the building phases at elev 715.20. Please clarify.

61. Sheet 13: The south basin (S-1) overflow elevation is 715.9 for the HWL=715.4. However, at the southeast corner of the Phase 2 building, there is a curb structure with a T/C elevation of 715.90. As the basin begins to overflow above elev 715.9, the curb will also overflow east toward the adjacent property. At elevation 716.0 there are multiple locations where the T/C is also 716.0, resulting in multiple spillover points at only 0.2 feet of head at the basin weir. This must be addressed to provide the 1-foot freeboard for the 100-yr flow.

Traffic:

62. The response provided by the petitioner to Comment #54 is not satisfactory. The following items need to be addressed:
    a. The question about allowing additional green time to the traffic signal at Algonquin Road and Meijer Drive has not been answered.
    b. According to the capacity analysis, the amount of lane stacking for the left turn and through movements for Meijer Drive at Algonquin Road is below standard. Address the impact this will have on the number of loaded cycles and the possible back-up across and blocking the shared driveway south to the Weber property.
    c. Address the possibility of lengthening the green extension times for Meijer Drive leg of the traffic signal to account for the increased gap times due to the high percentage of heavy truck traffic.

RECEIVED
FEB 13 2018
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

Preliminary Plat of Subdivision

63. According to Ordinance 02-094, Section 5(6), "Ownership and maintenance responsibilities for Outlot A shall be conveyed to the owner(s) of the Oak Pointe Office Center located to the east." The current project should not move forward until this condition is satisfied.

2/13/18

James J. Massarelli, P.E. Date
Director of Engineering

Items needed for Village permit:

- OUMA
- Provide hours of operation when tenant is selected
- Revise restrictor and trap
- Public sidewalk configuration

Arlington Heights Fire Department
Plan Review Sheet

P. C. Number _____

Project Name _____

Project Location _____

Planning Department Contact _____

General Comments

_____

_____

_____

_____

_____

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NOTE: PLAN IS CONCEPTUAL ONLY SUBJECT TO DETAILED PLAN REVIEW

Date _____ Reviewed By: _____

Arlington Heights Fire Department

Planning & Community Development Dept. Review

February 14, 2018

REVIEW ROUND 4

Project: 703-723 W. Algonquin Rd
Hamilton Partners Distribution Facility

Case Number: PC 17-013

73. The response to comments #64-66, and #68-72 are acceptable.

74. The response to comment #67 is not acceptable. Section #7 of Document #0608244082 clearly states that "The Parties covenant that vehicles shall not be parked on any of the Easement Premises." Please cite language within the agreement that supports the proposed parking spaces within the easement. These parking spaces shall be eliminated.

    Additionally, the petitioner shall provide a written statement acknowledging that they have analyzed all of the easement agreements related to the subject property and proposed development and that the proposed development will comply with all applicable easement conditions and restrictions.

    Prior to Final Plat of Subdivision approval, the petitioner shall cite the provisions of all applicable easements that clearly outlines the allowance for any proposed improvement within the specific easement areas.

    All improvements on the Weber Packaging Solution property shall be subject to their review and approval.

Prepared by: Sam Hubert

MORGAN / HARBOUR
CONSTRUCTION

February 20, 2018

Attn: Sam Hubbard
Development Planner
Department of Planning and Community Development
Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL 60005

Tel: 847-368-5223

Re: 703-723 W. Algonquin Road Project – Planning Commission – Response Letter – (Round 4)

Mr. Hubbard,

The following is our Planning Commission Response Letter addressing the comments as outlined in the VAH Review email received on February 15, 2018 regarding the aforementioned project:

ENGINEERING DEPARTMENT – From James Massarelli, dated February 13, 2018:

57. Noted
58. Noted
59. Noted and will be addressed with Village Engineer
60. Noted and will be addressed with Village Engineer
61. Noted and will be addressed with Village Engineer

Traffic:

62. The updated traffic study (dated February 5, 2018) that was included in the last submittal includes the information requested (parts a, b, and c). This updated study was submitted to IDOT for their further review and comments.

Plat of Subdivision:

63. Arlington Heights 1, LLC will comply with Ordinance 02-094, Section 5(6), "Ownership and maintenance responsibilities for Outlot A shall be conveyed to the owner (s) of the Oak Pointe Office Center located to the east.

MORGAN HARBOUR CONSTRUCTION

FIRE DEPARTMENT - From Lt. Mark Aleckson, dated February 14, 2018:

1. Noted – "The Fire Department has no comments at this time"

PLANNING & COMMUNITY DEVELOPMENT DEPT. From Sam Hubbard, dated February 14, 2018:

73. Noted – "The response to comments #64-66, and #68-72 are acceptable"
74. We will comply as appropriate.

Additional Email from Sam Hubbard dated 02.15.18 from the Director of Planning (PLEASE SEE EMAIL ATTACHED FOR REFERENCE)

- Please see the enclosed Table 'A' – "Estimated Vehicle Trip Generation Comparison" as prepared by KLOA
- Please see the enclosed Truck Turning Exhibit as prepared by RWG Engineering.

Please contact me directly if any of these responses are insufficient or if any further clarification is required in order to obtain jurisdictional approval.

Sincerely,

Joshua Spinks
Senior Project Manager
Morgan / Harbour Construction, L.L.C.

MHC MORGAN / HARBOUR CONSTRUCTION

February 26, 2018

Attn: Sam Hubbard
Development Planner
Department of Planning and Community Development
Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL 60005

Tel: 847-368-5223

Re: 703-723 W. Algonquin Road Project – Planning Commission – Response Letter – (Round 3) – PUBLIC WORKS DEPARTMENT

Mr. Hubbard,

The following is our Planning Commission Response Letter addressing the comments as outlined in the VAH Review memorandum dated on February 21, 2018 regarding the aforementioned project:

PUBLIC WORKS DEPT – Memorandum as prepared by Cris Papierniak, dated February 21, 2018:

1. Noted
2. Noted – Owner will comply with the additional language as it pertains to the Owner will be responsible for any maintenance or restoration of improvements built within the easement.

Please contact me directly if any of these responses are insufficient or if any further clarification is required in order to obtain jurisdictional approval.

Sincerely,

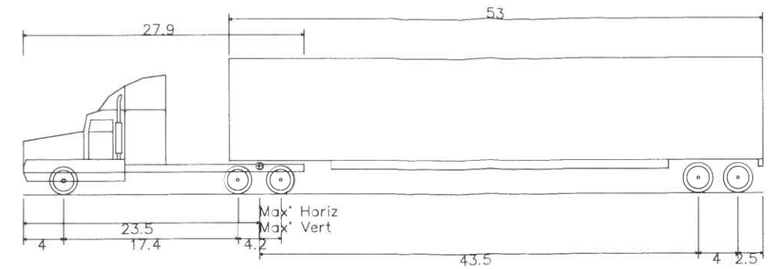
Joshua Spinks
Senior Project Manager
Morgan / Harbour Construction, L.L.C.

Table A

ESTIMATED VEHICLE TRIP GENERATION COMPARISON

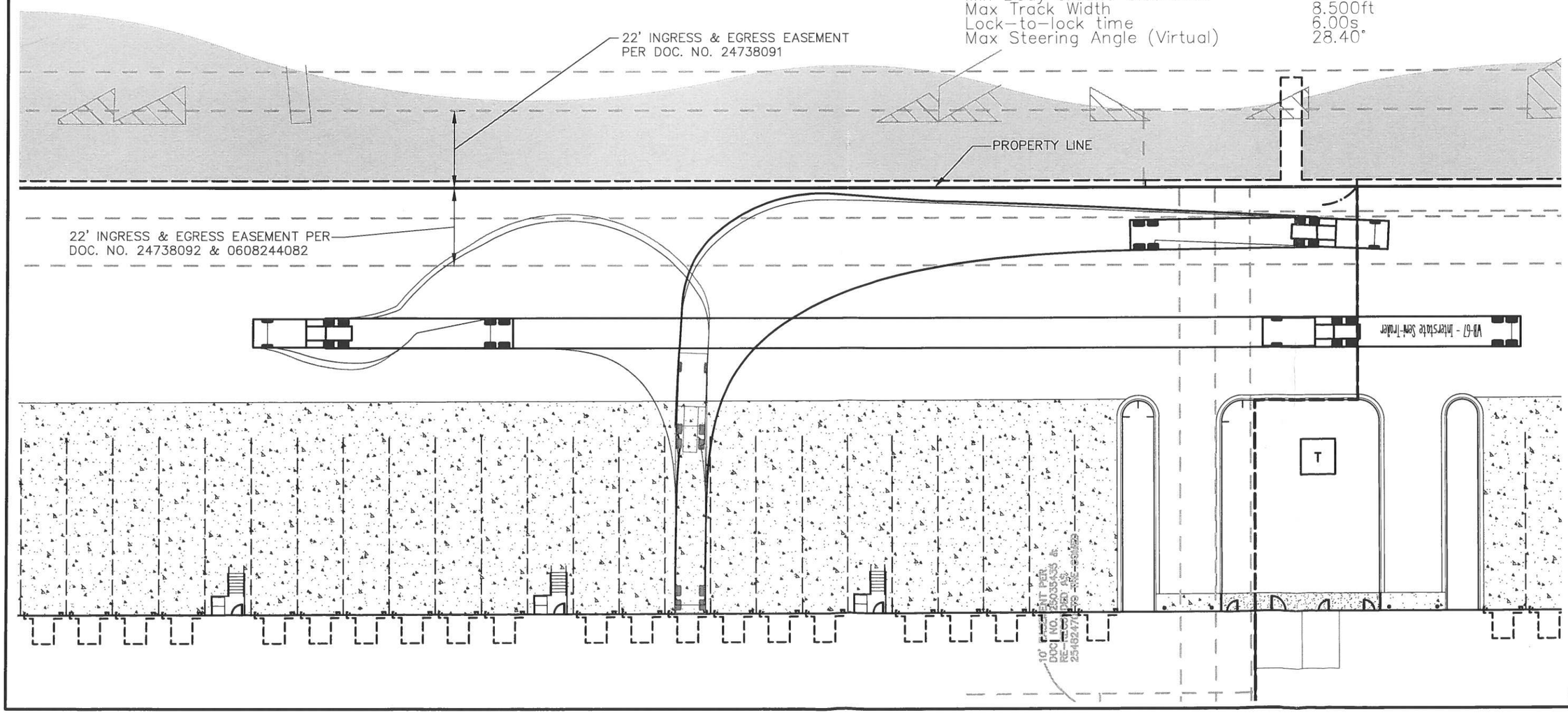
Development	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Weekday Daily
	In	Out	In	Out	
Proposed Warehouse/Distribution 331,014 s.f. (LUC 150) TOTAL	**126**	**33**	**32**	**96**	**1,380**
Existing Development 216,221 s.f. (LUC 710) TOTAL	**312**	**43**	**54**	**266**	**2,360**
Vehicle Trip Generation Difference[1]:	**+186**	**+10**	**+22**	**+170**	**+980**

[1]The existing development, at 100% occupancy, will generate more traffic during the weekday morning and weekday evening peak hours, as well as the weekday daily, compared to the total buildout of the proposed development.



WB-67 – Interstate Semi-Trailer

Overall Length	73.500ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°



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PROJECT NO. 32212717
DATE 02/20/18
SCALE 1"=30'
PROJ. MGR. PDL
PROJ. ASSOC. RWG

ARLINGTON HEIGHTS INDUSTRIAL

ARLINGTON HEIGHTS, ILLINOIS

TRUCK ROUTING EXHIBIT

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