



VILLAGE OF PALATINE

VILLAGE HALL - COUNCIL CHAMBERS 200 E. WOOD STREET
PALATINE, IL 60067-5339 – (847) 359-9050
<http://www.palatine.il.us>

PLAN COMMISSION

AGENDA • DECEMBER 8, 2020

Village Hall - Council Chambers

Regular Meeting

7:00 PM

I. CALL TO ORDER

II. APPROVAL OF MINUTES

1. Plan Commission - Regular Meeting - Sep 1, 2020 7:00 PM

III. PUBLIC HEARING

1. 200 E. Daniels Road, 300 E. Daniels Road, 350 E. Daniels Road, 200 S. Hicks Road, and 1 S. Sellstrom Drive (former Weber-Stephen property)

Preliminary Planned Development to permit two warehouse distribution buildings (approximately 275,388 square feet and 153,043 square feet) and associated office uses on one zoning lot.

IV. COMMUNICATIONS

V. ADJOURNMENT



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PLAN COMMISSION MINUTES • SEPTEMBER 1, 2020

Village Hall - Council Chambers

Regular Meeting

7:00 PM

I. CALL TO ORDER

Attendee Name	Title	Status	Arrived
Conrad Hansen	Plan Commissioner	Present	
Dennis Dwyer	Chairman	Present	
Jane Robins	Plan Commissioner	Present	
Patrick Noonan	Plan Commissioner	Present	
Teri Williams	Plan Commissioner	Present	
Eric Friedman	Plan Commissioner	Present	
Rodney Bettenhausen	Plan Commissioner	Present	
Robert Kolososki	Plan Commissioner	Absent	
Stephen Fedota	Plan Commissioner	Present	

Staff present: Mr. Ben Vyverberg

II. APPROVAL OF MINUTES

1. Plan Commission - Regular Meeting - Jul 7, 2020 7:00 PM - **Accepted as Amended**

Mr. Bettenhausen amended page 3 in the third paragraph the word time should have said type.

Mr. Noonan made a motion to approve the amended minutes of July 7, 2020; seconded By Mr. Friedman.

RESULT:	ACCEPTED AS AMENDED [UNANIMOUS]
MOVER:	Patrick Noonan, Plan Commissioner
SECONDER:	Eric Friedman, Plan Commissioner
AYES:	Hansen, Dwyer, Robins, Noonan, Williams, Friedman, Bettenhausen, Fedota
ABSENT:	Kolososki

Minutes Acceptance: Minutes of Sep 1, 2020 7:00 PM (Approval of Minutes)

III. CASE STAFF STATEMENTS

1. Preliminary and Final Plat of Subdivision to Permit a 3-lot Subdivision; Rezoning from R-1 to R-2 Single-family Residential, and a Variation to Permit an 8-foot fence, instead of the maximum permitted 6-foot fence in the residential district, pursuant to Section 6.03 (b) (1) of the Village of Palatine Zoning Ordinance, for the property at 501 W. Dundee Road - **Recommended to Approve**

Chairman Dwyer read the notice of public hearing that was published in the Daily Herald on August 17, 2020 and mailed to the owners of the surrounding properties.

The following petitioner's exhibits were introduced:

1. Public Notice
2. Petitions for Hearing
3. Proof of Ownership
4. Plat of Subdivision- Louise Lane
 5. Engineering Plans
 6. Email submitted for Public Hearing 20-11 501 W Dundee

**Sworn in petitioner: Jerome Pinderski- attorney -Pinderski & Pinderski LTD
115 W. Colfax Street Palatine, IL**

Timothy Saunders 214 Compton Lane Schaumburg, IL owner

Cliff Toberman- Engineer -115 S Wilke Rd Arlington Heights, IL

Dean Malicki- Builder -2802 Owl Lane Rolling Meadows, IL 60008

Mr. Pinderski explained the proposed Louise Lane subdivision is a small project involving a single lot created in cook county many decades ago. He spoke to the surrounding area consisting of Deer Grove forest preserve to the north, Palatine Park District trail system to the west, and two R2 compliant subdivisions both to the east and west of the trails. Mr. Pinderski stated the site is approx. 1.08 acres, which currently consists of a single-family home served by well and septic that is very poor condition. Mr. Pinderski explained the request is to rezone the property from R1 to R2 to effectively emulate the site development work that has been done on neighboring properties. He stated he is looking for approval for a 3-lot subdivision with a height variance for a fence along the Dundee Road border. Mr. Pinderski explained the intent is to build 3 custom homes that will enhance the immediate community and the town as a whole. Mr. Pinderski stated each lot meets or exceeds every R2 requirements. He spoke to the extensive Civil engineering documents explaining for a small subdivision they will be doing a lot of work in terms of storm water management and utility connections. He pointed out the property has sat for 5-6 decades with no storm water management so the proposed improvement will dramatically improve the storm water management of this property as well as the neighbors'. Mr. Pinderski spoke to the agreed improvements to Louise Lane, which is considered a substandard street. He explained they will be making significant widening improvements to bring up to Village code and will be adding curbing and other improvements that will enhance the roadway for their use as well as for the

properties to the south. Mr. Pinderski stated they seek to obtain recapture for some portion of roadway improvements from the properties to the south that stand to benefit.

Mr. Pinderski spoke to the only variance being requested for the height of the fence along Dundee road. He explained due to the topography they are requesting 8ft to create a reasonable barrier from traffic and noise of Dundee Road. He spoke to the northern edge of the property sloping to the east, which requires the variance to the pedestrian fence with a uniform height. Mr. Pinderski stated they spoke to staff about the possibility of some portions of the fence requiring up to 10ft planks to keep the fence uniform. He corrected the material of the fence will be vinyl not aluminum.

Cliff Toberman civil engineer

Mr. Toberman stated they have been working on this project for approx. 18 months. He spoke to the 8" water main located on the east side to allow connection to service. He explained the public main for the sanitary sewer would be extended along the east side of the right of way. He spoke to grade, sewer and topography of the property runs west to east on the site. Mr. Toberman stated Louise Lane is pretty flat with limited ditches and landscaping. He spoke to drainage system that forms a crown. He stated the west side drains into the park district ditch system that flows south, the east side drains into an easement area on adjacent property that have a 15" storm sewer and a catch basin that is tied into the lake drainage, northeast corner has an IDOPT storm sewer that takes drainage north to forest preserve for right of way water. He stated the IDOT system can handle any overflow if the other systems back up.

Mr. Toberman spoke to the design standpoint explaining the foundations were set 2 feet above Louise Lane, which is traditional for a subdivision. He explained since the rear of the property was lower it was obvious that is where the storm water detention would be located. Mr. Toberman stated they buried 5 feet off the property line to hold the water. He spoke to the required storm water detention for the 100-year storm event and the 2.5" restrictor that will force the water to be stored in the rear property basin. He further explained during a normal storm event there is 24" storm sewer that runs from the southeast corner up to the northeast corner. He spoke to corner the catch basins to catch drainage. Mr. Toberman stated there is no flood plain on the property. He spoke to the MWRD permit required and their requirements to infiltrate the first inch of water off the impervious area. He explained the underground pipe trench system in the rear yard would infiltrate the inch of water for the frequent rain events. Mr. Toberman spoke to the ditch drainage and culvert catch basin taking on any roadway water that discharges into IDOT storm sewer. He stated this is where the current water flows about will require an IDOT permit. Mr. Toberman pointed out the berm, which will ensure no water flows to the Subdivision to the east. He spoke to the extension on the Louise Lane roadway and the Dundee intersection, which requires an IDOT permit.

Mr. Hansen asked if the current home as well as the other properties to the south are served by well and septic

Mr. Toberman stated there is a separate sanitary line that runs from the lot to the

south.

Mr. Pinderski explained the home to the south was built as part of the subdivision to the east so it has water and sewer from that development. He further explained that are presently only five homes on Louise Lane. He stated the three homes on far southern end remain on well and septic.

Mr. Hansen asked if the proposed construction will allow the other homes to join or will they need separate lines.

Mr. Pinderski explained their improvements will not provide direct access.

Mr. Toberman explained they would tap to the line to the south.

Mr. Hansen clarified the proposal would not jeopardize any new development on the west side of Louise Lane.

Mr. Toberman answered that is correct

Mr. Bettenhausen asked about the detention pond and the emergency spillway. He asked if there would be any motion protection provided.

Mr. Toberman stated MWRD would review. He spoke to the overflow width requirements pointing out the site is only 1 acre.

Mr. Bettenhausen spoke to the detention pond stating the plans specify a 24" pipe but the catch basin are labeled as a 48" diameter. He stated according to the details it should be a 60" diameter catch basin.

Mr. Toberman stated it can done but it depends on the standards. He stated he would review.

Mr. Bettenhausen spoke to the proposed streetlights asking if the 8' bracket span will be over hanging in street

Mr. Toberman answered yes

Mr. Bettenhausen pointed out the street light detail shows only pedestal lights

Mr. Toberman stated the plan view could be incorrect. He stated the detail governs. He stated he would review.

Mr. Pinderski explained there is an overhang light at the intersection of Dundee and Louise Lane. He further explained their plan is to have a pedestal light that will not have an overhang to look more residential.

Chairman Dwyer asked Dundee Road is 2 or 4 lanes

Mr. Toberman stated it is 2 lanes with extra wide shoulder

Chairman Dwyer asked if the right of way is sized for 4 lanes

Discussion on Dundee Road lane-age and possibility of expansion.

Mr. Pinderski stated the plans do reflect the current public right of way

Mr. Friedman spoke to the fence request being nominally an 8ft fence up to 10ft. He asked how the board is to address this.

Mr. Vyverberg stated the notice was for an 8ft fence. He further explained staff would have to determine once they receive approval for location based upon the

final grade staff would have to determine if it complies with the established 8ft. He stated if the grade meanders and continues to set new grades where the fence exceed the 8ft a separate notice may be required.

Mr. Friedman asked Mr. Toberman about the grading.

Mr. Toberman stated it follows parallel to the grade line with a small change on the west end. He stated 95% of fence follows the grade.

Mr. Friedman clarified the property the east (Sanctuary Cove) also has a privacy fence that contours with the grade.

Mr. Toberman stated they are closer to the swale.

Mr. Friedman asked about the roadway design road pointing out the widening stops at the neighbor's driveway. He asked if there was any consideration to make the merge point a little more north or south to not affect the neighbor's driveway.

Referred to site plan slide to show location.

Mr. Friedman stated the Village Engineer may be concerned

Mr. Toberman acknowledged and agreed.

Chairman Dwyer pointed out Village staff would like the fence be moved 5ft to the south to allow for landscaping. He asked if the petitioner has any comments Mr. Pinderski stated they would prefer to retain fence location. He stated the fence will be determined once the final grades are set but do not want to commit until they see final product. Mr. Pinderski stated he would oppose staff recommendation being put in specific conditions of approval but rather part of their comments in engineering review based on final topography.

Chairman Dwyer asked where the fence at Sanctuary Cove is located. He asked if their fence would line up with it and if there is any landscaping to the north of it.

Tim Saunders- developer

Mr. Saunders explained they are trying to keep the line of site consistent. He explained the fence height is due to the concern at the east side where it takes in the water. He stated they want to shut that little portion off and not be noncompliant and keep the top consistent, so it appears consistent.

Mr. Hansen asked if it is the east side where it joins to Sanctuary Cove

Mr. Saunders stated they are not joining the fences, but want it to aesthetically blend and maintain its appearance.

Discussion on where the two fences meet

Mr. Pinderski stated variance specifically requested an 8-10 ft. fence in original request. He further explained they are not looking for a 10ft fence but rather need a few boards to be such to give the appearance of uniformity based on grade,

Mr. Bettenhausen clarified the intent of the fence is to maintain the top uniform and to extend the bottom to meet grade

Mr. Pinderski answered yes

Mr. Fedota asked is there is any fencing being proposed to the west side

Mr. Pinderski answered no pointing out they don't own that property so have no rights to build

Sworn in staff: Ben Vyverberg

Mr. Vyverberg gave a brief overview of the request stating the subject property is approximately 1.038 acres and is currently improved with one single-family residence. The Petitioner, contract purchaser of the Subject Property, is seeking to subdivide the lot into three lots, in order to create three lots and construct three new single-family homes. Therefore, the Petitioner is seeking approval of the following:

1. **Preliminary and Final Plat of Subdivision for a new 3-lot single-family residential development;**
2. **Rezoning from R-1 Single-Family Residential to R-2 Single-Family Residential; and**
3. **Variation to permit an 8-foot fence for the 3-lot Subdivision on the Dundee Road frontage, instead of the maximum allowed 6-foot fence, pursuant to Section 6.03 (b) (1) of the Village of Palatine Zoning Ordinance.**

ANALYSIS:

- The Village annexed the Subject Property into the Village in 1974 and it was platted as part of Enzo Giorgio Subdivision, in 1984. The property has frontage on Dundee Road, which is an IDOT controlled state route (IL-68) and Louise Lane, which is presently a substandard road at approximately 16 feet wide. Louise Lane provides access to Dundee Road for the five homes (including the 501 W. Dundee Road Property, which has access to both roads) along Louise Lane.
- The Cook County Forest Preserve's Deer Grove is located directly across Dundee Road and the Palatine Park District's Palatine Trails is located directly west of the Louise Lane Right of Way.
- One single-family home exists on the lot and the Petitioner intends to demolish the structure, and construct three new single-family homes.
- The proposal includes rezoning the property from R-1 to R-2 and the proposed lots meet and exceed all of the bulk and setback requirements for the R-2 district. The following table provides an analysis of the proposed lots:

	Proposed Lot Size (10,000 SF for corner lots and 9,000 SF required)	Lot Width (85 feet - corner; 75 feet interior required)	Lot Depth (110' required)
Lot 1	17,006 sq. ft.	108.49 feet	115 feet

Lot 2	13,155 sq. ft.	80 feet	152 feet
Lot 3	15,054 sq. ft.	80 feet	176 feet

- As part of the proposed improvements, Louise Lane will be widened to the required minimum Village standards, which includes a 9 foot 3 inch widening of Louise Lane along the frontage of the proposed three lots. Sidewalks would also be included in the right-of-way improvements.
- A storm water detention basin is proposed on the east sides of the lots and would be platted within a 40-foot detention area easement. A homeowners association and required declarations for the maintenance of the stormwater detention basin and any other required common improvements are required conditions of the proposed subdivision. The basin would be designed to the 100-year high water elevation of 772.5.
- In addition to the detention basin, approximately 530 LF of storm sewer will be installed, with the proposed engineering improvements. The stormwater improvements also include proposed drainage ditches in front of all three lots, which are located in between the concrete ribbon for Louise Lane and the sidewalk in the right-of-way. The drainage ditches will lower the existing elevations by approximately 2 feet and route the stormwater north, through grading for overland flow, to the detention basin behind the homes.
- Approximately 317 LF of sanitary sewer will be installed to connect to the existing sanitary sewer in the Dundee Road right of way.
- There is an existing water line running on the east side of Louise Lane, which connects to both the water line along Dundee Road and also loops to serve the Sanctuary Cove subdivision to the east. The existing water service would provide access connections for the proposed homes.
- As required by MWRD (Watershed Management Ordinance), volume control for the Subdivision is required, as the site is larger than 1-acre.
- Sidewalks and parkway trees would be installed as part of this proposal in accordance with the Subdivision Regulations. It should be noted that IDOT will not likely allow parkway trees in the IDOT right-o-way, due to the visibility concerns, the permitted speed limit, and the slight curvatures of Dundee Road.
- The Subdivision proposes approximately 92 linear feet of 8-foot tall interlocking aluminum picket fencing on the north side of the subdivision. The proposed fence is located 8 feet from the Dundee Road property line and within the proposed 20-foot drainage and utility easements. Its proposed location is directly south of a drainage swale.

Mr. Bettenhausen referred to the utility plan asking if the patio encroachment on site 1 in the detention easement is acceptable

Mr. Vyverberg explained any patio in the easement will need to be reviewed by the Village Engineer and based on grading it is unlikely they will not support.

Sworn in Mr. Greg Canella 1542 Pendleton Court

Mr. Canella expressed his concern about water drainage. He stated his sump

pump runs every day even in the middle of a drought.

Chairman Dwyer explained the idea of the detention basin is to hold water and not allow more runoff than present and most likely will improve. He further pointed out the Village Engineer will review to ensure it meets the standards.

Mr. Toberman explained the plan consists of a storm sewer at rear property line with underdrain. He stated they will cut the water off, berm it and put gravel trench amongst the 24" pipe and underdrain. He stated there may be more impervious surface but with the added drainage it will limit the drainage contribution from the site.

Mr. Canella asked where the proposed homes sump pumps will run to.

Mr. Toberman explained currently the plan shows the sump pumps on the south side and will discharge toward drainage system to the road.

Sworn in Mr. Al Maslowski 1552 Pendleton Ct

Mr. Maslowski spoke the property being below grade and how water sits there. He stated his basement has flooded due to the water issues in the area. He stated he thinks it is appropriate they bring the fence all the way to their current fence to look uniform.

Chairman Dwyer asked if the existing fence goes all the way to 1542.

Mr. Maslowski answered no.

Chairman Dwyer clarified in order to build together they would have to build on someone else's property.

Mr. Maslowski answered yes.

Chairman Dwyer discussion would have to be made with developer.

Mr. Maslowski pointed out the lake they are referring to is actually a run off from the park district on the golf course. He stated the 13 homes in Sanctuary Cove put private dollars to maintain that runoff/pond. He expressed concern if there is added water to the pond how it will affect the other properties that currently have their sump pump running there.

Mr. Toberman referred to the site plan slide to show existing ditch and where their proposed ditch that runs out to Dundee. He pointed out the added 24" storm sewer with gravel trench and under drain with a 2.5" restrictor basically will stop the water.

Sworn in Galena Menikhes 1542 Pendelton Ct.

Ms. Menikhes expressed concern with the corner of her property which she has to clean 2 times a year. She stated there is a hole under Dundee and due to the trees the hole gets blocked with leaves and the builds up and her basement floods.

Chairman Dwyer stated there will be less water runoff. He stated they will be storing the water on their property in the detention area and releasing slowly. Chairman Dwyer stated the drainage ditches do have problems and need to be cleaned out but that it is not up to the developer of property. He stated it is more up to IDOT to maintain drainage. Chairman Dwyer stated this is beyond the

scope of the Plan Commission.

Mr. Maslowski expressed concern with the lights being so significant that it will affect their ability to sleep. He asked what the price point of the properties

Mr. Malicki stated the price will be over \$600,000.

Discussion on the current fence on northern border and the possibility of connecting to the proposed,

Sworn in Vivek Babbar 1550 Louise Lane

Mr. Babbar asked if there will be a partition between the subject property and his. Mr. Pinderski stated there is no plans for fencing. He explained there will be landscaping but no barrier between lot 3 and his home.

Mr. Babbar expressed concern with the road expansion and the convergence at his driveway.

He stated he came to the city about the lighting and was told it is a private street and they will not take care of it.

Chairman Dwyer asked if the improved portion of Louise Lane be dedicated to the Village and be maintained by Village.

Mr. Vyverberg explained this will be addressed during the staff recommendation. He spoke to the history and development of the properties explaining the Village has no plans to update the roadway. He stated the petitioner is required as part of the subdivision development to make such improvements.

Chairman Dwyer asked if the Village will maintain the portion that is updated.

Mr. Vyverberg stated that is intention as long as it is in the right of way.

Mr. Pinderski stated Louise Lane is currently a dedicated public street. He stated it has been part of the Village for 42 years and the Village has an obligation to maintain.

Chairman Dwyer suggested Vivek to speak to his trustee as this is outside the scope of the Plan Commission

Mr. Babbar asked if there will be any hazards turning from Dundee to Louise Lane such as parking on one or both sides

Mr. Vyverberg stated typically if the upgrade is approved the Village Engineer and the Traffic Engineer will assess and additional traffic limitations.

Chairman Dwyer stated the Village traffic committee would be the appropriate place to determine these limitations.

Mr. Babbar expressed concern with drainage

Chairman Dwyer stated the testimony is the runoff would be less than what is currently

Mr. Babbar asked if it will affect the pond run-off that also has drainage under his

driveway.

Mr. Toberman referred to the utility plan slide to show the drainage run off

Mr. Babbar asked about the drainage in the front driveway

Mr. Toberman referred to the proposed ditch with culverts at each side

Mr. Babbar asked about the backflow.

Mr. Toberman explained where they are out letting there is a deep ditch with a pipe going under Dundee. He stated they have no control of IDOT but are improving the ditch with storm sewer and catch basins. Mr. Toberman stated it will be a major improvement.

Sworn in Mr. Leroy Finch 1511 Pendelton Ct

Mr. Finch spoke to the pond and how there is a concrete structure at the inlet but none at outlet which over the years has silted in. He stated the golf course used to dig the area out. He stated the fencing along golf course is under water because of elevation of pond. He spoke to times where water causes cones to restrict lane usage. He acknowledged there might be clogs in the pipe going into forest preserve. Mr. Finch stated the back end of his property is under waterway more than 1990. He asked if there is any additional flow going into the pond.

Mr. Toberman explained the outlet for the rear portion is right at the upper northeast corner connecting to an existing catch basin and easement.

Mr. Finch asked if it would be restricted

Mr. Toberman answered yes with a 2.5" restrictor. He stated there may be a problem with maintenance.

Mr. Finch spoke to the changes of grading and settling due to elevated pond levels. He stated he changes his sump pumps every other year. He spoke to the fence and berm along Dundee and asked if there is a plan for landscaping along north side of fence

Chairman Dwyer explained as currently planned there is no room for landscaping. He stated Village staff would like to move the fence moved south to allow landscaping.

Mr. Finch expressed concern that it will look inconsistent

Chairman Dwyer stated that will be discussed

Mr. Finch asked staff is detention will have a water proof liner

Mr. Toberman answered no

Mr. Finch asked how many feet of clay

Mr. Toberman explained there will top soil built on top of the clay. He spoke to the plans per Village and MWRD requirements.

Chairman Dwyer stated the elevation of the pond is outside of the scope of the hearing. He recommended contacting the Village Engineer.

Mr. Vyverberg stated staff will follow up with the Village Engineer on the questions that have been asked.

Mr. Pinderski spoke to the design of the proposed fence. He explained the design is to mirror visually the fence to the east pointing out if the fence is moved south it will not match up. He further explained the fence location is due to the contours for drainage that need to be kept unrestricted.

Chairman Dwyer spoke to the landscaping to soften the appearance of the fence. He asked if they would be willing to soften the appearance of fence

Mr. Vyverberg stated per Village code requirements landscape is required on the street side of the fence.

Chairman Dwyer stated this should be addressed before it goes to the Community Economic Development Committee

Sworn in Mr. Cliff Haslop 1501 Pendelton Ct

Mr. Haslop asked if the proposed homes would have a HOA.

Mr. Vyverberg explained the common area improvements including the catch basin and the drainage area on the east side would be required to be part of HOA declarations.

Mr. Haslop asked if there will be any restrictions on building fences on the rear of the property or south edge of property.

Mr. Vyverberg stated only if it is not conducive per the Village engineer review to be located in a drainage and detention easement.

Mr. Haslop spoke to the HOA to the east having a covenant restricting fences between property lines.

Mr. Pinderski stated they would be happy to include the restriction. He stated they could not put a fence on eastern border because it would negatively affect the engineering plans provided.

Discussion on fence restrictions.

Mr. Haslop asked what the square footage of the proposed homes is.

Mr. Malicki stated they would be approx. 2700 sq.ft. ranches.

Mr. Hansen asked about the proposed lot 2 and 3 showing the driveway in the middle of homes.

Mr. Malicki explained these are tentative drawings

STAFF RECOMMENDATIONS:

The subdivision and rezoning from R-1 to R-2 are consistent with the surrounding residential redevelopment patterns in the area. Sanctuary Cove (14-lot subdivision directly east of the Subject Property - approved as a Planned Development to the R-2 lot standards in 1989) and Sanctuary Trails (12-lot subdivision directly west of the Subject Property- approved as an R-2 zoned subdivision in 1990) are similar developments to the proposed 3-lot subdivision.

The Village Engineer has reviewed and approved the proposed engineering plans. All of the proposed lots exceed the minimum required R-2 bulk standards and comply with all of the setback requirements and minimum required lot depth per the Subdivision Ordinance.

Staff does not object to having a fence located on the north side of the Subdivision. Many of the surrounding developments have fencing located on their Dundee Road frontages, with landscaping included. Per Code, landscaping would be required on the Dundee Road side of the fence. Staff recognizes that the installation of landscaping would not be practical in the proposed location or within the adjacent drainage swale. In review of the proposed plans, Staff believes that the fencing could be relocated 5 feet to the south, where the ground levels and landscaping could be included. This would still provide screening for the homes and approximately a 9-foot separation from the home on Lot 1.

With the proposed subdivision, Louise Lane would serve seven homes in this area. In reviewing the existing lots along Louise Lane, there is potential for additional future subdivisions. The proposed subdivision is the first such on Louise Lane, since the annexation of these properties in 1974. As a condition of the proposed, the Village reserves the right to vacate, with a reservation of easements, any portion of the Louise Lane right-of-way in the future. The condition would require the property owners to be responsible for their proportionate share of costs relative to the street and its maintenance. Therefore, Staff recommends approval of the proposed request, subject to the following conditions:

1. **The development shall substantially conform to the Plat of Subdivision and the Engineering Plans by Norman J. Toberman & Associates, dated 01/03/19 last revised 07/01/2020, except as such plans may be revised to conform to Village Codes and Ordinances.**
2. **A Public Improvement letter of credit or appropriate security shall be submitted in a manner acceptable to the Village Engineer.**
3. **Review fees in the amount of 1.5% of the total project improvement costs (as defined in the Village Code) shall be submitted in a manner acceptable to the Village Engineer.**
4. **The Final Engineering Plans - Norman J. Toberman & Associates, LLC last revised on 07/01/20 and the Engineer's Estimate of Probable Cost shall be revised in a manner acceptable to the Village Engineer.**
5. **The Final Plat of Subdivision shall be submitted on Mylar and significantly conform to the Plat of Subdivision prepared by David Bycroft and attached hereto.**
6. **A Subdivision Improvement Agreement shall be submitted.**
7. **Prior to the issuance of a building permit for any home, the developer shall complete the detention basin installation and storm sewer extensions, with**

site development approval from the Village Engineer.

8. The HOA declarations shall be prepared and revised in a manner acceptable

to the Village Attorney, prior to the issuance of a building permit.

9. Pursuant to the Village Attorney approved declarations, a Homeowners Association shall be created and established to maintain the stormwater detention basin (east side of Lots 1-3) and any required common improvements. Said homeowners association shall be perpetually maintained by the property owner (s) or subsequent mortgage holders, in a manner acceptable to the Village Attorney.

10. In the event any portion of the existing Louise Lane Right-of-Way is vacated by the Village of Palatine, the Property Owner hereby agrees, by virtue of acquiring title to the property that is the subject of this restriction, that it will be responsible for its proportionate share of the ownership maintenance, repair, replacement and removal costs of the vacated Louise Lane. Said proportionate share shall be determined based upon the percentage of frontage of the vacated portion of Louise Lane.

11. Recording fees in the amount of \$300 shall be submitted.

12. Parkway trees shall be planted across the frontage at a spacing no greater than 40' on center in a manner acceptable to the Director of Planning and Zoning.

13. The elevations shall comply with the architectural design guidelines outlines in the Village's monotony code.

14. The final fencing plan shall be revised in a manner acceptable to the Village of Palatine.

15. Given the proximity to Dundee Road, a construction management schedule (including a contractor parking plan and material haulers) shall be submitted in a manner acceptable to the Village of Palatine, prior to the issuance of a building permit.

16. IDOT, MWRD, and NPDES permits are also required for this development.

Mr. Hansen asked about condition #10. He clarified this includes any area south of the property as well.

Mr. Vyverberg explained the intention is to reserve the right to vacate any portion of the right of way. He stated specific to the proposed 3 lots the homeowners will be reasonable. He stated if in the future any portion is redeveloped, it will be a similar circumstance for the other property owners affected by that.

Mr. Hansen asked if that should be specifically specified in the condition

Mr. Vyverberg stated it was drafted with the Village Attorney and forwarded to the petitioner's attorney prior to the hearing. He stated any revisions to wording will be worked out among them.

Chairman Dwyer stated he has 3 suggestions for revisions of recommendations.

He recommended the HOA declaration prohibit fences along the eastern property lines

Mr. Vyverberg clarified the request was for fences between the homes as well to be in conjunction with Sanctuary Cove.

Mr. Pinderski stated he will be happy to restrict the side fences running east and west because they will have nothing to connect with.

Chairman Dwyer clarified the wording should state prohibit fencing except for along Dundee Rd.

Mr. Vyverberg acknowledged the amendment

Chairman Dwyer recommended amending #12 for parkway trees adding the words and as permitted by IDOT.

Mr. Vyverberg stated it is unlikely IDOT will allow parkway trees given the curvature of Dundee Road and the speed of traffic. He explained this condition was more for Louise Lane. He stated if IDOT allows parkway trees it would be acceptable by staff.

Chairman Dwyer recommends amending #14 to state the fencing plan should be in accordance with discussion with the Village of Palatine to provide uniformity along Dundee Road.

Mr. Vyverberg added to include and the potential for landscaping.

Discussion on wording and how specific the uniformity should be.

Chairman Dwyer asked how the 8-10 ft. height uniform should be addressed.

Mr. Vyverberg stated staff will have a discussion the petitioner explaining with the deviation of grade it complies with the definition of measurement of fence if the grade is 95% consistent. He stated staff will review and if it doesn't comply with the notice a separate notice will need to be sent out.

Chairman Dwyer asked Mr. Friedman about his concern with the roadway expansion ending at the neighbor's driveway.

Mr. Friedman stated as long as it is reflected in the records for staff and the Village Engineer to further review with the project engineer.

Mr. Vyverberg stated he will follow up with the Village Engineer with all concerns. He pointed out the condition that all plans submitted must be acceptable by the Village Engineer.

Mr. Hansen asked Mr. Pinderski if he can and will comply with staff's conditions.

Mr. Pinderski answered yes if #14 was clarified. He pointed out it is out of the Village scope to make him build beyond his property line. He stated he is happy to work with staff. Mr. Pinderski further explained he is looking to build an 8ft fence but his request clearly indicated some of the fence may have to be up to 10ft to maintain uniformity. He asked for flexibility on condition #14 to be able to meet with staff.

Discussion on rewording #14

Mr. Vyverberg clarified the wording and indicated that Staff will work with the Petitioner regarding the final fencing setback, the inclusion of landscaping, within the final fencing and screening plans.

Mr. Pinderski stated the issue is to include that the developer has a say in how the final fence design comes together.

Mr. Vyverberg spoke to the landscaping that is required and agreed that staff and the developer can come up with a solution that takes all concerns in account.

Chairman Dwyer asked to make note in the minutes the petitioners concern with condition #14

Mr. Pinderski accepted staff's conditions with the note on #14.

Mr. Noonan made a motion to close the public hearing; seconded by Mr. Fedota.

DISCUSSION:

Chairman Dwyer recused himself from voting

Mr. Noonan spoke to the drainage concern. He pointed out the proposed is following both Village and MWRD requirements. He pointed out some conditions present concern.

Mr. Noonan made a motion to approve with staff's 16 conditions as revised; seconded by Mr. Friedman.

Chairman Dwyer summarized that this request has met the standards and was unanimously approved by a vote of 7-0-1. This item will tentatively go to the Community and Economic Development Committee of the Village Council on September 14, 2020

RESULT:	RECOMMENDED TO APPROVE [7 TO 0]
MOVER:	Patrick Noonan, Plan Commissioner
SECONDER:	Eric Friedman, Plan Commissioner
AYES:	Hansen, Robins, Noonan, Williams, Friedman, Bettenhausen, Fedota
ABSTAIN:	Dwyer
ABSENT:	Kolososki

2. Text amendment to Article 14 – Administration – Section 14.05 (b) Administrative Special Uses, Minor Special Uses, and Special Use Amendments - **Recommended to Approve**

Chairman Dwyer read the notice of public hearing that was published in the Daily Herald on August 17, 2020 and mailed to the owners of the surrounding properties.

The following petitioner's exhibits were introduced:

1. Public Notice
2. Proposed Text Amendments- Article 14- Pergolas and Gazebos

Mr. Vyverberg gave a brief overview of the text amendment explaining staff has noticed a prevailing circumstance regarding building permits over the past few years. He spoke to the current accessory structure regulations that apply to pergolas. He spoke to the setback from the principal structure stating people tend to put the pergolas on their patio and run into problems with the 10ft separation. He suggested amending the accessory structure requirements for administrative special use to allow pergolas and gazebos to be eligible for minor special use which is an administrative process should they not meet the 10ft. setback. Mr. Vyverberg stated the long term goal is to determine what the appropriate regulations for pergolas would need to be and will seek to place them in a position where they are permitted outright. Mr. Vyverberg explained this allows someone to go through a minor administrative process while still maintain the integrity of height limitation and minimum setback of rear and side yards. He stated staff recommends including pergolas and gazebos to be reviewed under minor special use according and recommend the board's approval.

Mr. Fedota asked what the administrative process for a minor special use includes.

Mr. Vyverberg explained this process is allowed for sheds that don't meet setback requirements. He explained it involves getting sign off approval from the surrounding property owners and is administratively approved and goes through the Village Council on a consent agenda format.

Mr. Friedman asked how do residents put these in place. He asked if a permit is what triggers the request.

Mr. Vyverberg explained the process.

Mr. Noonan made a motion to close the public hearing; seconded by Ms. Williams.

Mr. Noonan made a motion to accept the text amendments; Seconded by Mr. Hansen.

Chairman Dwyer summarized that this request has met the standards and was unanimously approved by a vote of 8-0. This item will tentatively go to the Community and Economic Development Committee of the Village Council on September 14, 2020

RESULT:	RECOMMENDED TO APPROVE [UNANIMOUS]
MOVER:	Patrick Noonan, Plan Commissioner
SECONDER:	Teri Williams, Plan Commissioner
AYES:	Hansen, Dwyer, Robins, Noonan, Williams, Friedman, Bettenhausen, Fedota
ABSENT:	Kolososki

IV. COMMUNICATIONS**V. ADJOURNMENT**

Minutes Acceptance: Minutes of Sep 1, 2020 7:00 PM (Approval of Minutes)

**VILLAGE OF PALATINE
Plan Commission**

SCHEDULED 12/08/20 07:00 PM

CASE STAFF STATEMENT (ID # 6432)

200 E. Daniels Road, 300 E. Daniels Road, 350 E. Daniels Road, 200 S. Hicks Road, and 1 S. Sellstrom Drive (former Weber-Stephen property)

CASE NUMBER: 20-47

PETITIONER: Midwest Industrial Funds – Mr. Pat Schaner

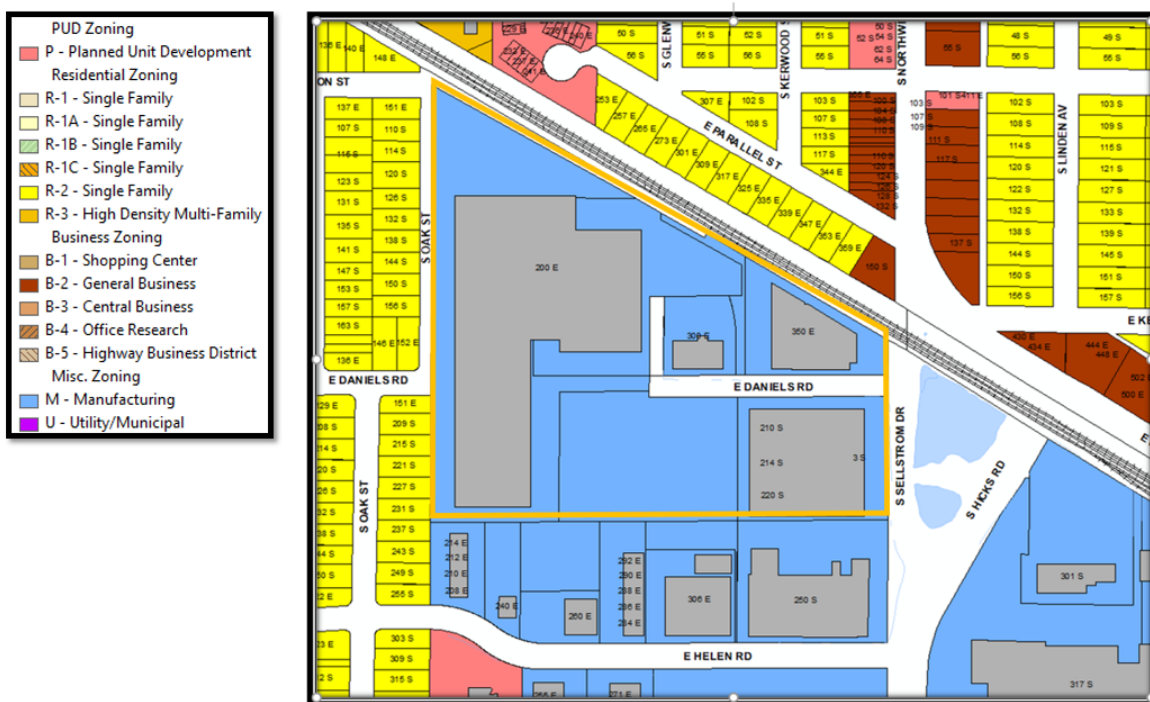
LOCATION: 200 E. Daniels Road, 300 E. Daniels Road, 350 E. Daniels Road, 200 S. Hicks Road, and 1 S. Sellstrom Drive

PROPOSAL: Preliminary Planned Development to permit the development of two office/warehouse buildings on one zoning lot, with associated parking and exterior loading docks between the buildings.

ZONING AND LAND USE: Manufacturing – former location of the Weber-Stephen Products LLC.

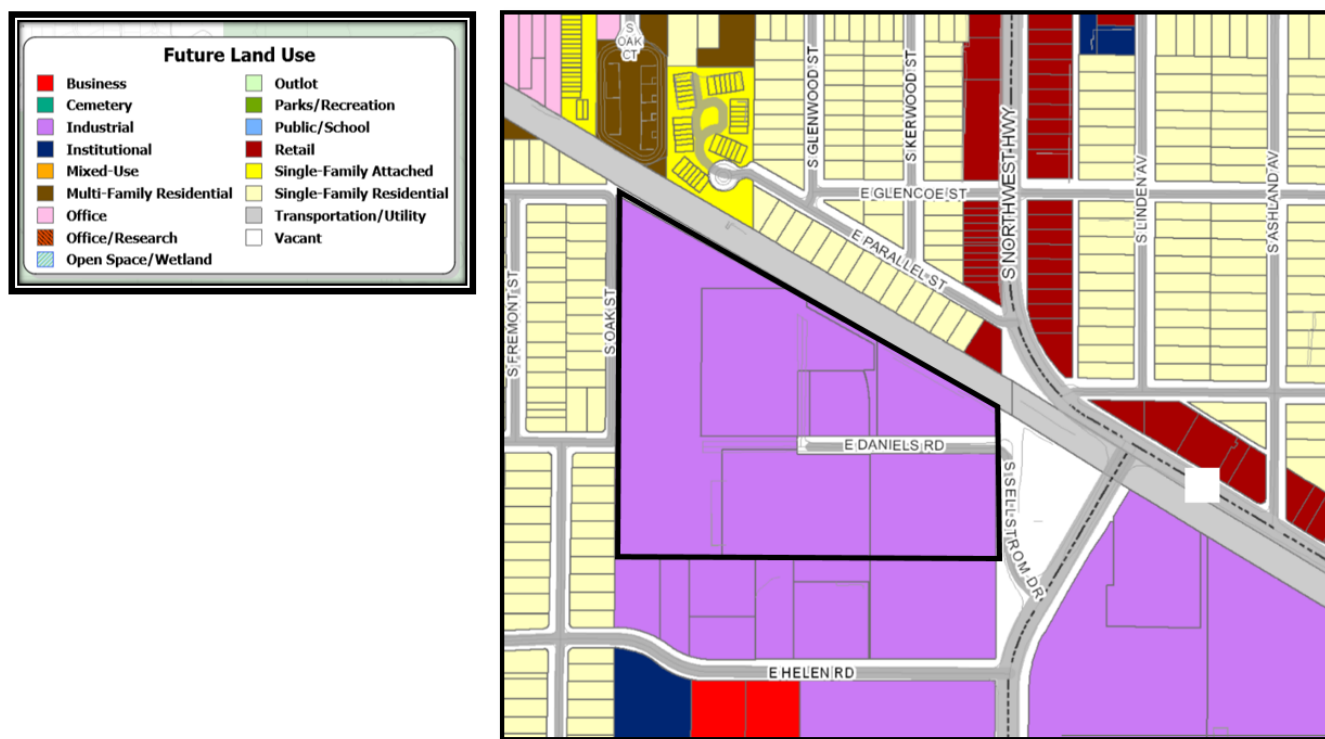
SURROUNDING ZONING AND USES:

North:	R-2 – single-family residential (E. Parallel Street), B-2 – general business (J.J. Twiggs restaurant), Planned Development – Maple Grove townhouses, and R-3 – S. Oak Court
South:	Manufacturing zoned business – various along E. Helen Road
East:	Manufacturing zoned businesses – Fels Tool and Manufacturing; AMAZON
West:	R-2 – single-family residential properties – S. Oak Street and E. Daniels Road



COMPREHENSIVE PLAN:

The Future Land Use maps recommends continued Industrial/manufacturing uses.



BACKGROUND:

- The Subject Property (approximately 25-acres) is zoned Manufacturing and was incorporated into the Village in 1869. It was subdivided, as part of Arthur T. McIntosh's & CO.'s Palatine light industrial district in 1951.
- Manufacturing business and uses have consistently operated at the property and

for many years, it served as a manufacturing and distribution location for Weber Stephen Products.

- The property owner marketed the land for sale and the Petitioner executed a contract to purchase the property in early 2020.
- The Petitioner - Midwest Industrial Funds - is a private industrial real estate developer, property owner, and manager in the Chicago Area and is proposing to redevelop the former Weber property with two office/warehouse buildings. The development includes associated exterior truck docks between the buildings and two passenger parking lots.

ANALYSIS:

Zoning and Site Design:

- The Subject Property is zoned Manufacturing and, in its current configuration contains 10 parcels and 3 manufacturing buildings. Access to the site comes from S. Sellstrom Drive, which also exits from and terminates at a signalized intersection at S. Hicks Road. Weber's previous long-term use of the site included manufacturing, distribution, and a retail component.
- The proposed Site Plan contemplates two office warehouse buildings, with a north-south orientation upon the site. Per Code, any petition for two buildings on one zoning lot requires Planned Development review.
- There are passenger parking lots on the west of the western building and east of the eastern building. Exterior truck docks are located in between the two buildings in the middle of the site.
- Access into the site is through a 30-foot access road on the south side of the property and a secondary 25-foot access on the north side of the property. Truck access will only come from the southern access road and the secondary access achieves compliance with the Fire Department's requirement for clear access to all sides of the buildings.
- As required by Code, the site plan contemplates an emergency (Palatine Fire or Police) only access on the west side of the property. This access will be screened, under gated control, and not available for any access or use outside of the instance of an emergency. It is required due to the square footage of the buildings, as indicated Fire Code requirements.
- The following table summarizes the bulk standards of the existing and proposed buildings:

Case Staff Statement (ID # 6432)
Meeting of December 8, 2020

	Existing – former Weber property	Proposed
<u>Building square footage and FAR (proposed):</u>	(1) 298,802 (western) (2) 40,439 (northwest) (3) 96,173 (southeast)	275,388 (west) – 14.42-acres; 43.8% (70% is maximum) 153,043 (east) – 10.96-acres; 32.07%
<u>Number of buildings:</u>	3	2
<u>Number of truck docks:</u>	25 total (eastern side of main building - 200 E. Daniels Road)	32 (+ 10 future) – west 28 - east
<u>Building height:</u> ** The proposed building heights comply with the maximum allowed in the M district (4-stories; 60 feet) & maximum abutting SFR (3-stories; 45 feet) – also cannot exceed 1/3 setback to residential property	21 feet - approximately	West building - 37 feet 3 inches (majority of bldg.) and 40 feet 3 inches – office parapet Eastern – 37 feet to 45 feet 4 inches – office parapet
Western building setback (west) to Oak Street properties:	62 feet	122 feet (including a 50-foot buffer yard, with berm)
Eastern building setback (north) to railroad ROW	20 feet	66 feet 3 inches
Total	435,414 square feet	428,431 square feet

Architecture:

- The building elevation materials are glass and stained precast concrete. The plans indicate that each building can accommodate 1-4 tenants. The elevations vary the façade panels along the expanse of the exterior sides of the buildings.

The western wall of the existing building is 864 feet along the S. Oak Street elevation and the proposed is approximately 866 feet.

- There are glassed entrances and elevations at the office areas (peripheries) of both buildings and at the mid-building areas of the exterior sides (Oak Street and Sellstrom Drive) of each building.
- The proposed height and FAR comply with the Zoning Ordinance requirements for Manufacturing zoned properties.

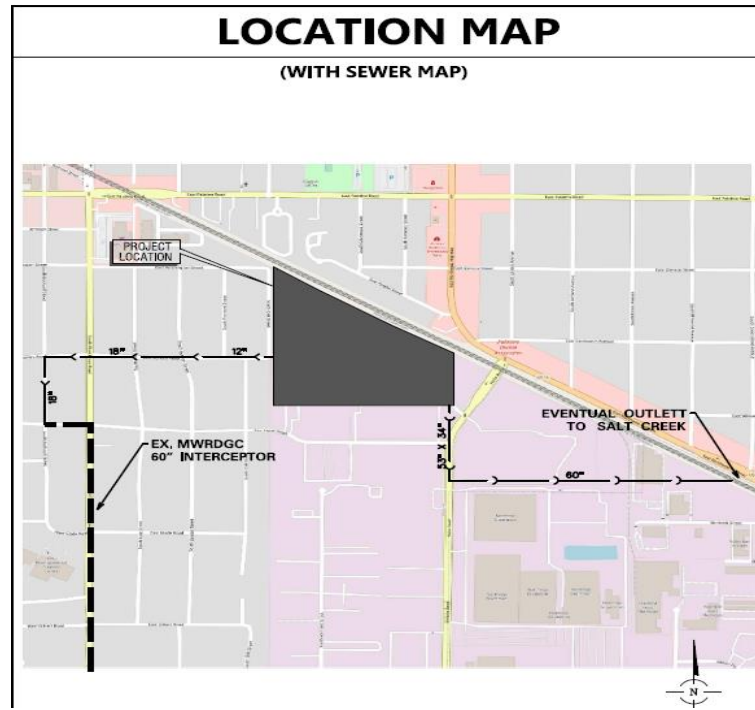
Landscaping and screening:

- In addition to parkway trees, parking lot and island landscaping, the Zoning Ordinance requires a 50-foot buffer area for all manufacturing properties that area within 200 feet of any residential land.
- The Manufacturing district requires a 50-foot buffer area on the west and north sides of the property. The S. Oak Street properties are buffered with a 50-foot wide buffer area utilizing an elevated berm for screening. The buffer area includes a combination of installed 8-foot evergreens (60), deciduous shade trees (14), additional ornamental trees, large and dwarf deciduous shrubs and a combination of ornamental grasses.
- A 50-foot landscaped berm is also required on the northern property line, as the residential properties along Parallel Street are approximately 102 feet from the northern property line. The 100-foot Chicago and Northwestern Railway ROW separates the Subject Property from the residentially zoned area.
- Within the ROW, there are numerous mature trees. The existing building (northeastern Weber building) is approximately 20 feet from the property line. In its existing condition, the existing property does not provide a 50-foot buffer area on the north side of the property and is non-conforming and there is a chain link fence with barbed wire on the property line.
- The proposed eastern building will be setback 66 feet from the property line. In lieu of a 50-foot buffer area on the north side of the property, the plans indicate a 14.5-foot (western 890 feet) to 33-foot (eastern 582 feet) buffer area, with 100 8-foot evergreen trees. The dimensional difference between buffer widths relates to a railroad easement from the Subject Property.

- Additionally, the plans were revised to include an 8-foot solid fence/screening wall in addition to the 8-foot tall evergreens, along the truck dock access drive – approximately 420 linear feet - (this would block the further block the noise and headlights from trucks driving north to access the docks). Also, a similar 8-foot solid fence/screening wall is planned for the eastern passenger vehicle parking lot – approximately 270 feet (this would further prevent headlight sweeps from glaring north).
- The existing mature trees throughout both sides of the ROW are also maintained and in addition to the proposed landscaping and screening plan. The cross section indicates that the railroad ROW is 4-5 feet higher than the residential properties.
- The Zoning Ordinance requires the perpetual maintenance of this buffer area for the life of the development. This includes maintaining the amount of landscaping within the buffer area and replacing and damaged or dead landscaping.

Engineering:

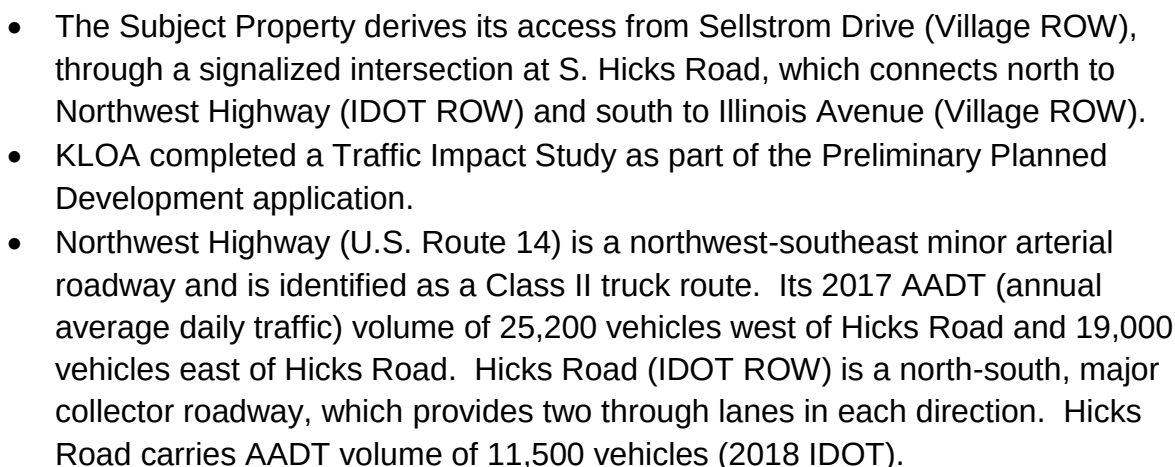
- The Subject Property is fully developed and an active manufacturing use for many years. Utilities and infrastructure exist throughout the site.



- Within the site, the preliminary engineering plans propose to manage stormwater, through four detention basins. The site generally grades from southwest to southeast, then east, and south to north, then east. The engineering plans increase the capacity of the detention basin in the northwest corner of the site (Detention Basin “A”) and lower it by approximately 6 feet. Starting at Daniels Road on the west side of the property, stormwater will be directed north to Basin A and then conveyed east along the northern property line, ultimately discharging south from the site and east to Salt Creek through a 60-inch storm sewer.
- Basin A will also accept stormwater from S. Oak Street and assist with flooding issues in the area. Finally, an existing stone box culvert in the railroad ROW, will be maintained and reconnected to Basin A. This will assist with stormwater constraints upstream and to the north of the railroad ROW.
- South of Daniels Road, the grade and swale will be refined and re-established to convey stormwater east to Detention Basin C, ultimately to discharge from the site and reach Salt Creek. Detention Basin B, between the truck docks captures stormwater coming from the building and docks through 12-inch storm sewers and conveys the water through an underdrain, north to the culvert on the north side of the property and exiting the site to Salt Creek.

- The sanitary sewer discharges west from the site and ultimately connects to a 60-inch MWRD interceptor heading south along S. Plum Grove Road.
- The Village Engineer has initially accepted, with conditions of review, the preliminary engineering plans. The proposed stormwater management plans improve the flooding issues in the area and renew the previously existing grades to convey stormwater to Salt Creek.

- ### Traffic Analysis:



- E. Helen Road (Village ROW) is a local east-west roadway, with a posted limit of 25 miles per hour. It is designated as a Class III truck route from Oak Street through Hicks Road. It provides truck access to the nine manufacturing zoned properties with frontage and access to E. Helen Road.
- The TIS indicates that the southern access drive will serve both truck and passenger vehicles and the northern access drive will primarily serve passenger vehicles. Further, it anticipates a direction distribution of 25% heading westbound on Northwest Highway, 45% eastbound on Northwest Highway, 20% south on S. Hicks Road, and 10% east on Illinois Avenue.
- The study concludes that there is capacity within the existing roadway system has "...sufficient reserve capacity to accommodate the development-generated traffic..."
- Staff requested a further evaluation for E. Helen Road to include an analysis regarding any impact from the development. The addendum includes this analysis and reviewed potential traffic calming measures along E. Helen Road. Its findings conclude that there would be low volume generation to E. Helen Road and notes that the current truck restrictions west of Oak Street on E. Helen Road prevent truck access from using E. Helen Road.
- Finally, it notes that the current property has no direct access to E. Helen Road and the current site has functioned as a manufacturing property approximately 60 years and the proposed development, which could have produced similar, if not higher traffic count than the proposed.

RECOMMENDATION:

The Subject Property is zoned for manufacturing uses and was consistently operating within those requirements, since, at least, the later 1950's. The initial subdivision envisioned its use to involve light industrial uses starting in 1951. The proposed redevelopment of the property conforms to the Future Land Use recommendation for manufacturing use of the property. The proposed site development and architectural plans conform to all of the Manufacturing district requirements and bulk standards.

The preliminary engineering plans will not only address existing stormwater issues on the subject property, the proposed improvements will further mitigate and improved off-

site flooding and upstream issues in the area.

The proposed landscaping and screening on the west side of the property comply with the required 50-foot bermed buffer area and nearly double the setback of the existing building to 122 feet.

The buffer area on the north side of the property increases from the existing conditions to a width of 14.5 feet to 33 feet and includes 8-foot fence along the truck and vehicle traffic areas adjacent to the buffer area. There is also 100-feet of railroad ROW separating the residential properties along E. Parallel Street from the site. Additionally, there is existing mature landscaping with the railroad ROW in addition to the proposed. The expanded buffer area on the north side of the property will greatly increase the existing onsite landscaping. With the Petitioners adding an 8-foot screening fence/wall along the truck and passenger vehicle activity areas and the landscaping/screening will be an improvement from the existing circumstances. Also, the 100-foot separation by the railroad ROW and existing mature landscaping within the ROW buttress the proposed additional screening.

Therefore, Staff recommends approval of the Preliminary Planned Development, subject to the following conditions:

- 1. The development shall substantially conform to the Preliminary Site Improvement Plans prepared by Spaceco Engineering Inc., dated 09/03/2020, last revised 10/22/2020, the Cross Section Exhibit prepared by Spaceco Engineering Inc., dated 10/13/20, the Architectural Site Plan prepared by Harris Architects, Inc. dated 07/07/2020, last revised 10/23/2020, Preliminary Architectural Elevations prepared by Harris Architects, Inc., dated 07/07/2020, last revised on 08/31/2020, the Preliminary Conceptual Architectural Rendering Elevation prepared by Harris Architects, Inc., and the Preliminary Landscaping Plans prepared by IRG Group, Inc., dated 07/08/2020, last revised on 12/01/20 except as such plans may be revised to conform to Village Codes and Ordinances.**
- 2. The Final Engineering Plans and stormwater report, including the televising of the storm sewer, shall be revised in a manner acceptable to the Village Engineer. The revisions shall also include a traffic calming engineering design along E. Helen Road at Oak or Benton Streets and submitted for Village review and consideration.**
- 3. An Engineer's Estimate of Probable Cost shall be submitted in a manner acceptable to the Village Engineer.**

4. Uses and all performance standards shall be governed by the Manufacturing district use lists in the Palatine Zoning Ordinance and Village Code. Sign plans shall follow the Manufacturing district sign regulations.
5. Review fees in the amount of 1.5% of total project improvement costs shall be submitted in a manner acceptable to the Village Engineer.
6. As a component of the Final Planned Development, a Planned Development letter of credit in an amount acceptable to the Village Council shall be submitted in a manner acceptable to the Director of Planning and Zoning.
7. A Public Improvement Letter of Credit shall be submitted to insure the completion of all public improvements, as defined within the Village Code, for an amount of 115% of the approved EEOC, along with a cash bond of 10% for the required one-year maintenance period.
8. The final landscape plan and screening plans shall be revised in a manner acceptable to the Director of Planning and Zoning and shall include additional landscaping around Detention Basin B to further screen the truck activities in the eastern building.
9. The final fencing/screening plan along the northern property line (proximate to the truck docks in the middle of the site and eastern parking lot) shall be revised in a manner acceptable to the Director of Planning and Zoning, to reduce any noise impact from trucks driving north between the buildings and headlight sweeps along the eastern parking lot.
10. The final photometric and lighting plan shall be revised in a manner acceptable to the Village Engineer. Light shields shall be required for all lights proximate to residential properties, at the determination of the Village Engineer.
11. The Petitioners shall submit a Subdivision Improvement Agreement in a manner acceptable to the Village Attorney.
11. MWRD/WMO, IEPA, and CCDD report, NCS& W permit shall be submitted in a manner acceptable to the Village Engineer.
12. The final traffic directional signage plan shall be submitted in a manner acceptable to the Village Engineer.
13. The Plat of Subdivision shall be revised in a manner acceptable to the Village Engineer and Director of Planning and Zoning. All utilities shall be

owned and maintained by the property owner. This shall be noted on the plat, along with the statement that the Village shall have the right, but not the obligation, to enter the site to repair a utility and change the property owner for the repair costs.

14. **Cross access easements, declarations and a Reciprocal Easement Agreement for the entire property governing the maintenance of access points, stormwater areas and any other common areas shall be submitted in a manner acceptable to the Village Attorney and Village Engineer as part of the Final Planned Development application process.**
15. **A Plat of Vacation for the portion of Sellstrom Drive adjoined with the Subject Property shall be submitted in a manner acceptable to the Village Engineer. If required, a Plat of Easement Vacation shall be submitted in a manner acceptable to the Village Engineer and Village Attorney, as part of the Final Planned Development application process.**
16. **The monotony code shall apply to all building elevations:**
Sec. 6-42.1 Exterior Building Design: When rear and side elevations are visible from public streets or neighboring properties, exterior building design and detail on all elevations shall be coordinated with regard to color, types of materials, number of materials, architectural form, and detailing to achieve harmony and continuity of design.
17. **The final dumpster locations and required screening materials shall be submitted in compliance with Village Code, pursuant to Sec. 6-42.2 Screening: (a)**

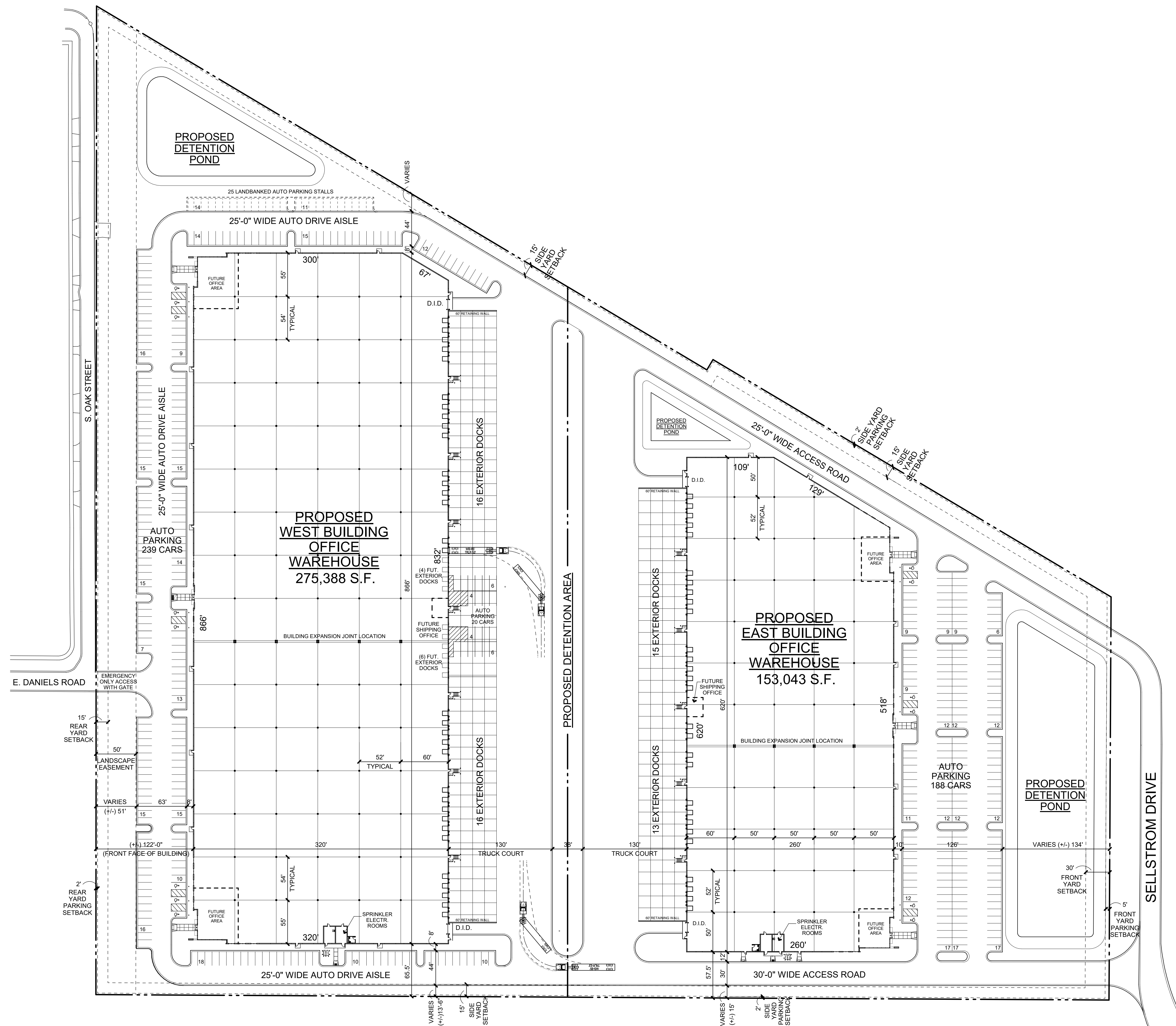
Trash containers and outdoor storage areas shall be screened from public streets, pedestrian areas, and neighboring properties. The screens should be designed to be compatible with the architectural character of the development. Trash screens shall also meet the requirements of Chapter 12 of this code. These screens shall be constructed of durable materials similar to those of the building and shall have solid (opaque) walls and doors, as part of the Final Planned Development application process. The final locations could also require the submission of a revised auto-turn, in a manner acceptable to the Director of Fire Prevention.
18. **All rooftop equipment shall be screened in compliance with Code:**
(b) Roof-top equipment screening: 1. New Construction. All mechanical equipment and other similar devices located on any roof shall be visually and acoustically screened on all sides. Design and detail of such screening on all elevations shall

be coordinated with regard to color, types of materials, number of materials, architectural form, and detailing to achieve harmony and continuity of design with the major portions of the building.

- 19. As part of the Final Planned Development and pursuant to the project narrative, the Petitioner shall submit the proposed business and operations' plans (identified tenants) for Staff review for compliance with the manufacturing use list and standards.**

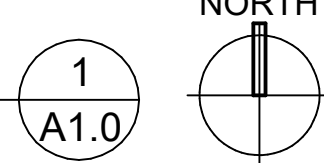
ATTACHMENTS:

- Architectural Site Plan
- Preliminary Site Improvement Plans
- Cross Section Exhibit - north and west property lines
- Preliminary Architectural Elevations - east and west buildings
- Preliminary Concept Architectural Rendering Elevation
- Revised Preliminary Landscape Plans
- Traffic Impact Study (dated 6-30-2020)
- Traffic Evaluation - W. Helen Road
- Preliminary Plat of Subdivision
- ALTA Survey
- Subject Property - Plat of Survey
- Preliminary Planned Development application- Midwest Industrial Funds
- Project Narrative (dated 12-02-20)
- Site Lighting Narrative
- Public Notice - Midwest Industrial Funds



PROJECT SITE PLAN

SCALE: 1" = 60'-0"



GENERAL SITE NOTES:

1. SEE CIVIL ENGINEERING DRAWINGS FOR OTHER NOTES AND DETAILS.
2. ALL DIMENSIONS ARE FROM BACK OF CURB OR BUILDING UNLESS NOTED OTHERWISE.
3. SEE CIVIL ENGINEERING DRAWINGS FOR EXTENT OF SITE DEMOLITION WORK.
4. EXACT LOCATION OR PLACEMENT OF NEW BLDG. INDICATED ABOVE SHALL BE DETERMINED BY LAND SURVEYOR HIRED BY G.C. AND SHALL COORDINATE & INFORM THE ARCHITECT OF ANY DISCREPANCY PRIOR TO STARTING WORK.

BUILDING YARD AND PAVEMENT SETBACK REQUIREMENTS

ZONING - "M" LIGHT MANUFACTURING

LIGHT MANUFACTURING YARD SETBACK REQUIREMENTS

FRONT YARD BUILDING SETBACK	30'-0"
SIDE YARD BUILDING SETBACK	15'-0"
REAR YARD BUILDING SETBACK	15'-0"

LIGHT MANUFACTURING PAVEMENT SETBACK REQUIREMENTS

FRONT YARD PAVEMENT SETBACK	5'-0"
SIDE YARD PAVEMENT SETBACK	2'-0"
REAR YARD PAVEMENT SETBACK	2'-0"

SITE DATA FOR EAST BUILDING

TOTAL SITE AREA (±25.39 AC.)	±1,105,841 S.F.
EAST SITE AREA (±10.96 AC.)	±477,212 S.F.

PROPOSED DETENTION TO BE DETERMINED

BUILDING AREA	
PROPOSED OFFICE AREA (2.0%)	3,060 S.F.
PROPOSED WAREHOUSE AREA	149,983 S.F.
TOTAL BUILDING AREA	153,043 S.F.

EXTERIOR DOCKS	
EXTERIOR DOCKS PROVIDED	28 DOCKS

DRIVE IN OVERHEAD DOORS	2 DOORS
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BUILDING HEIGHT	
BUILDING HEIGHT AT EAST DOCKS	37'-0" A.F.F.
BUILDING HEIGHT AT NORTH/SOUTH OFFICE PERIMETER	43'-0" A.F.F.
GENERAL BUILDING HEIGHT AT OFFICE PARAPET	45'-4" A.F.F.
BUILDING INTERIOR CLEAR HEIGHT	32'-0"

MAXIMUM FLOOR AREA RATIO (F.A.R.) ALLOWED	70%
FLOOR AREA RATIO (F.A.R.) PROVIDED	32.07%

CAR PARKING REQUIREMENTS

OFFICE USE REQUIREMENTS	
1 SPACES FOR EACH 300 S.F. (ASSUME 3,060 S.F.)	11 STALLS
MANUFACTURING, WAREHOUSE AND STORAGE USE REQUIREMENTS	
1 SPACE PER 1,000 S.F. WAREHOUSE GROSS FLOOR AREA (ASSUME 149,983 S.F. REMAINING WAREHOUSE AREA)	150 STALLS
TOTAL CAR PARKING REQUIRED	161 STALLS

CAR PARKING PROVIDED (INCLUDES 6 HC STALLS)	188 STALLS
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SITE DATA FOR WEST BUILDING

TOTAL SITE AREA (±25.39 AC.)	±1,105,841 S.F.
WEST SITE AREA (±14.43 AC.)	±628,629 S.F.

PROPOSED DETENTION TO BE DETERMINED

BUILDING AREA	
PROPOSED OFFICE AREA (2.0%)	5,512 S.F.
PROPOSED WAREHOUSE AREA	269,876 S.F.
TOTAL BUILDING AREA	275,388 S.F.

MAXIMUM FLOOR AREA RATIO (F.A.R.) ALLOWED	70%
FLOOR AREA RATIO (F.A.R.) PROVIDED	43.8%

EXTERIOR DOCKS	
EXTERIOR DOCKS PROVIDED	32 DOCKS
FUTURE DOCKS PROVIDED	10 DOCKS
TOTAL POTENTIAL EXTERIOR DOCKS	42 DOCKS
DRIVE IN OVERHEAD DOORS	2 DOORS

BUILDING HEIGHT	
BUILDING INTERIOR CLEAR HEIGHT	32'-0"
BUILDING HEIGHT AT EAST DOCK WALL	37'-3" A.F.F.
BUILDING HEIGHT AT NORTH/SOUTH OFFICE PARAPET	40'-3" A.F.F.
BUILDING HEIGHT ALONG NORTH/SOUTH ELEVATION	37'-3" A.F.F.
BUILDING HEIGHT ALONG WEST ELEVATION	
PER VILLAGE BUILDING HEIGHTS STANDARDS: EXCEPT FOR CHIMNEYS, VENTS, FLAG POLES OR COMMUNICATION DEVICES, NO PORTION OF ANY BUILDING OR STRUCTURE SHALL HAVE A VERTICAL DIMENSION FROM GROUND LEVEL TO ITS HIGHEST POINT GREATER THAN (1/3) THE DISTANCE FROM SAID PORTION OF THE BUILDING TO ANY RESIDENTIAL LAND.	

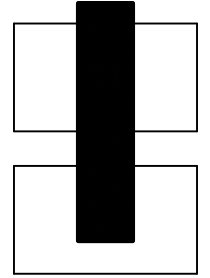
THE DISTANCE FROM THE RESIDENTIAL PROPERTY LINE TO THE WEST BUILDING FACADE IS 122'-0". THEREFORE THE MAXIMUM BUILDING HEIGHT ALONG THIS ELEVATION CAN BE (122'-0" x 0.33 = 40'-3")

PROPOSED BUILDING HEIGHT ALONG WEST ELEVATION	
HEIGHT ALONG MAJORITY OF WEST ELEVATION	37'-3" A.F.F.
HEIGHT AT NORTH/SOUTH OFFICE PARAPET	40'-3" A.F.F.

CAR PARKING REQUIREMENTS

OFFICE USE REQUIREMENTS	
1 SPACES FOR EACH 300 S.F. (ASSUME 5,512 S.F.)	19 STALLS
MANUFACTURING, WAREHOUSE AND STORAGE USE REQUIREMENTS	
1 SPACE PER 1,000 S.F. WAREHOUSE GROSS FLOOR AREA (ASSUME 270,046 S.F. REMAINING WAREHOUSE AREA)	270 STALLS
TOTAL CAR PARKING REQUIRED	289 STALLS

CAR PARKING PROVIDED (INCLUDES 8 HC STALLS)	259 STALLS
LANDBANKED CAR SPACES PROVIDED	25 STALLS
TOTAL CAR PARKING PROVIDED	284 STALLS



HARRIS ARCHITECTS INC.

4601 EMERSON AVENUE PALATINE, ILLINOIS 60067-2416 (847) 393-1105

MIDWEST INDUSTRIAL FUNDS
1211 W. 22ND STREET, SUITE 410
OAK BROOK, IL. 60523
PH: 630-230-6354

HARRIS ARCHITECTS, INC.
4801 EMERSON AVE #210
PALATINE, IL. 60067
PH: 847-624-7755

COUNTY COOK
CITY, TOWNSHIP PALATINE
SEC. & 1/4 SEC. NO. T42N, R10E, S23

ELEVATION:

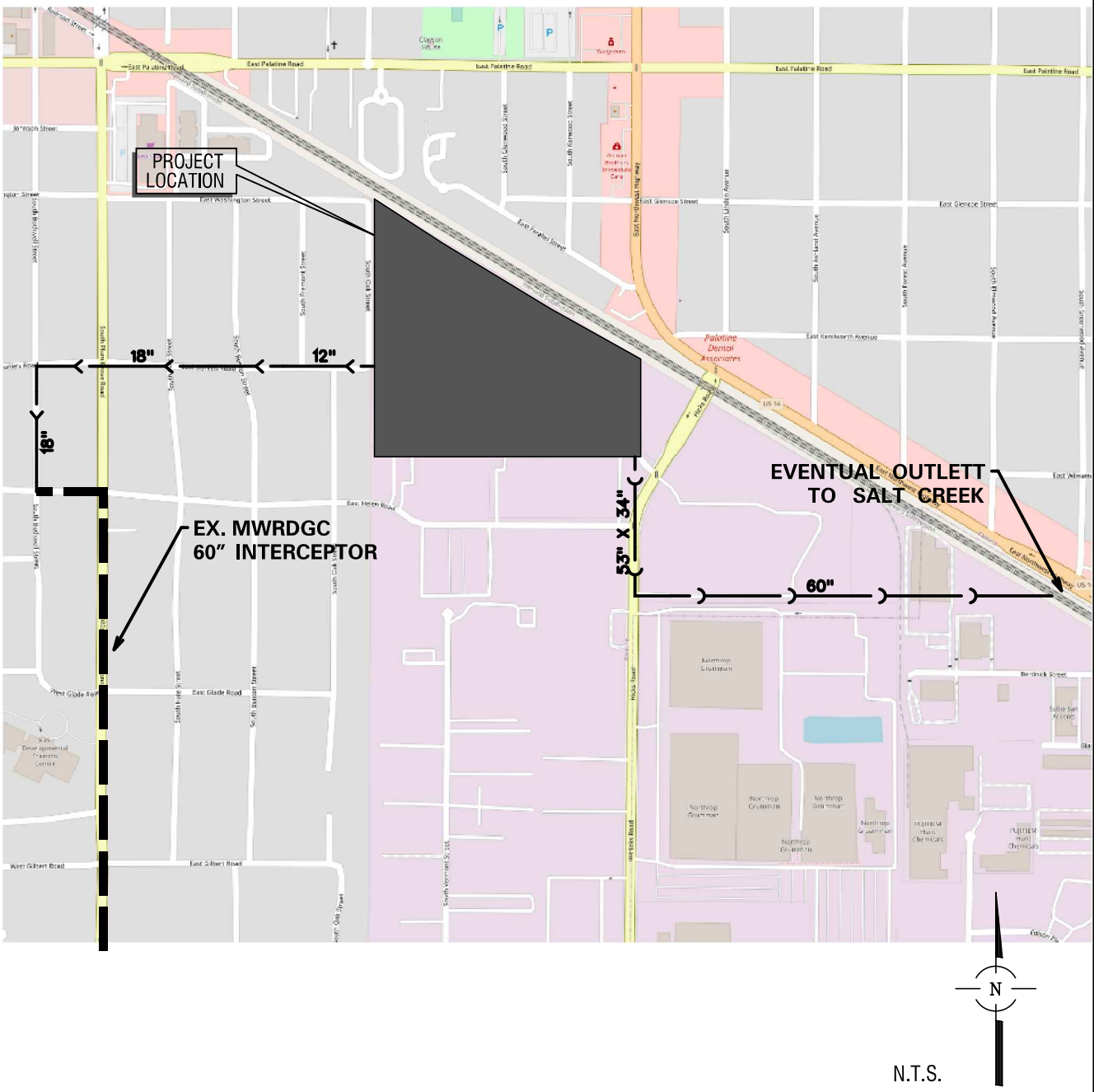
DESCRIPTION: SEE SHEET GN FOR
BENCHMARK INFORMATION

SPACECO, INC. IS TO BE NOTIFIED AT LEAST
THREE (3) DAYS PRIOR TO STARTING CONSTRUCTION
AND SHALL BE INCLUDED IN THE PRECONSTRUCTION MEETINGS

ORIGINAL PLAN DATE: JULY 1ST, 2020

[illegible]

(WITH SEWER MAP)



N.T.S.

10/22
DATE

PROFESSIONAL DESIGN FIRM NO.: 184-00115
EXPIRATION DATE: 04/30/2021

THESE PLANS OR ANY PART THEREOF SHALL BE CONSIDERED VOID WITHOUT THE SIGNATURE, SEAL, AND EXPIRATION DATE OF SEAL OF THE ENGINEER



**PALATINE CORPORATE
CENTER
PALATINE, ILLINOIS**

9575 W. Higgins Road, Suite 700, Rosemont, Illinois 60018
Phone: (847) 696-4060 Fax: (847) 696-4065

CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS



FILENAME
11061TITL

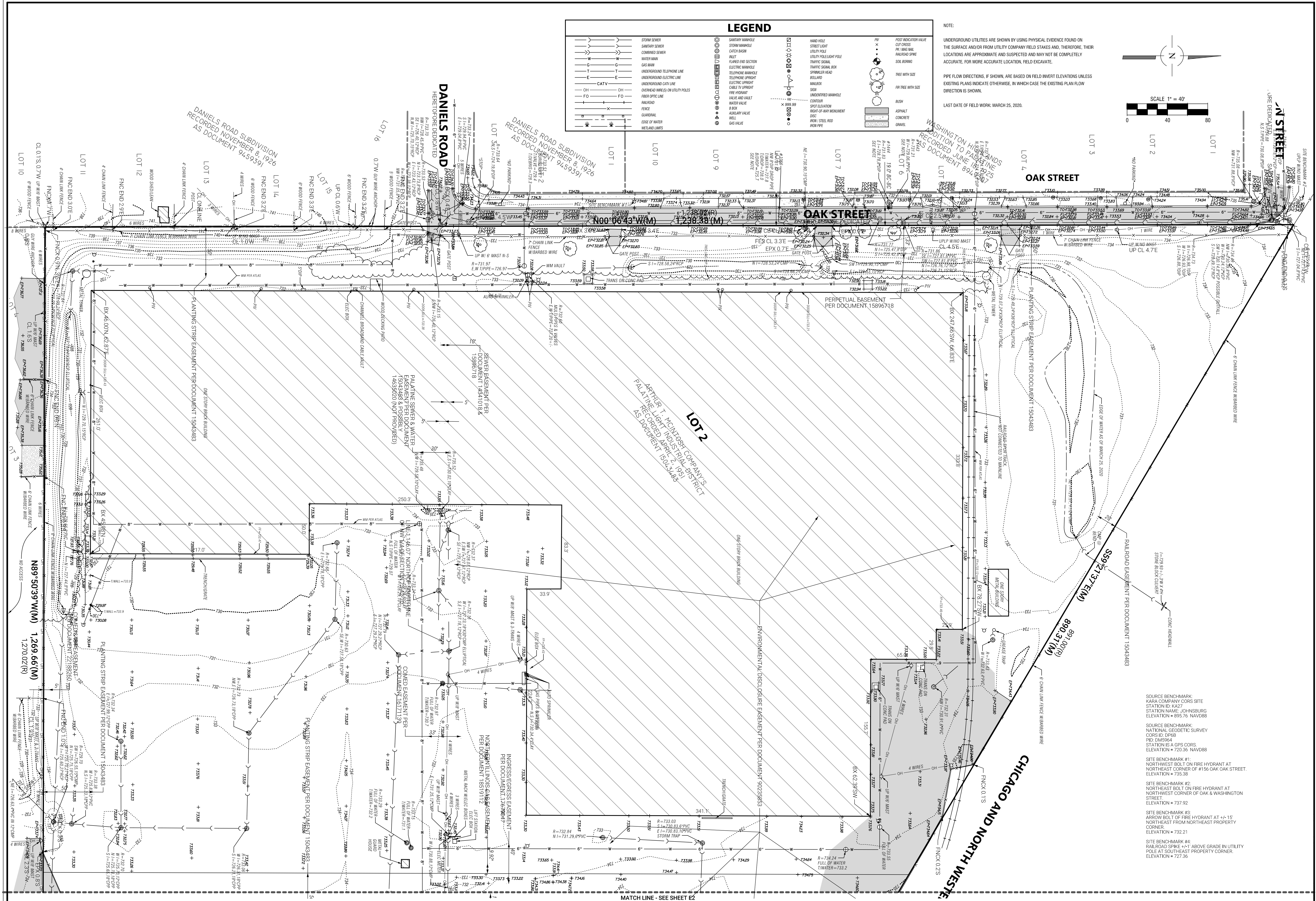
DATE:
7/01/2

JOB NO
11061

SHEET

C1

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NO.	DATE	REMARKS
1	09/03/20	PER VILLAGE COMMENTS
2	10/22/20	PER VILLAGE COMMENTS

NO.	DATE	REMARKS
1	09/03/20	PER VILLAGE COMMENTS
2	10/22/20	PER VILLAGE COMMENTS

EXISTING CONDITIONS

1 - 1

HICKS ROAD INDUSTRIAL

PALATINE, ILLINOIS

CONSULTING ENGINEERS

SITE DEVELOPMENT ENGINEERS

LAND SURVEYORS

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Rosemont, Illinois 60018
Phone: (647) 696-0600 Fax: (647) 696-4065

SPACECO INC.

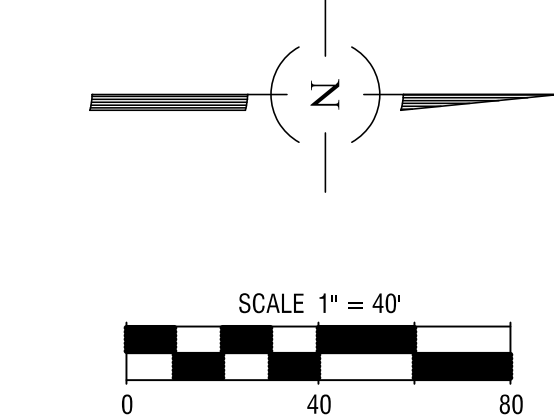
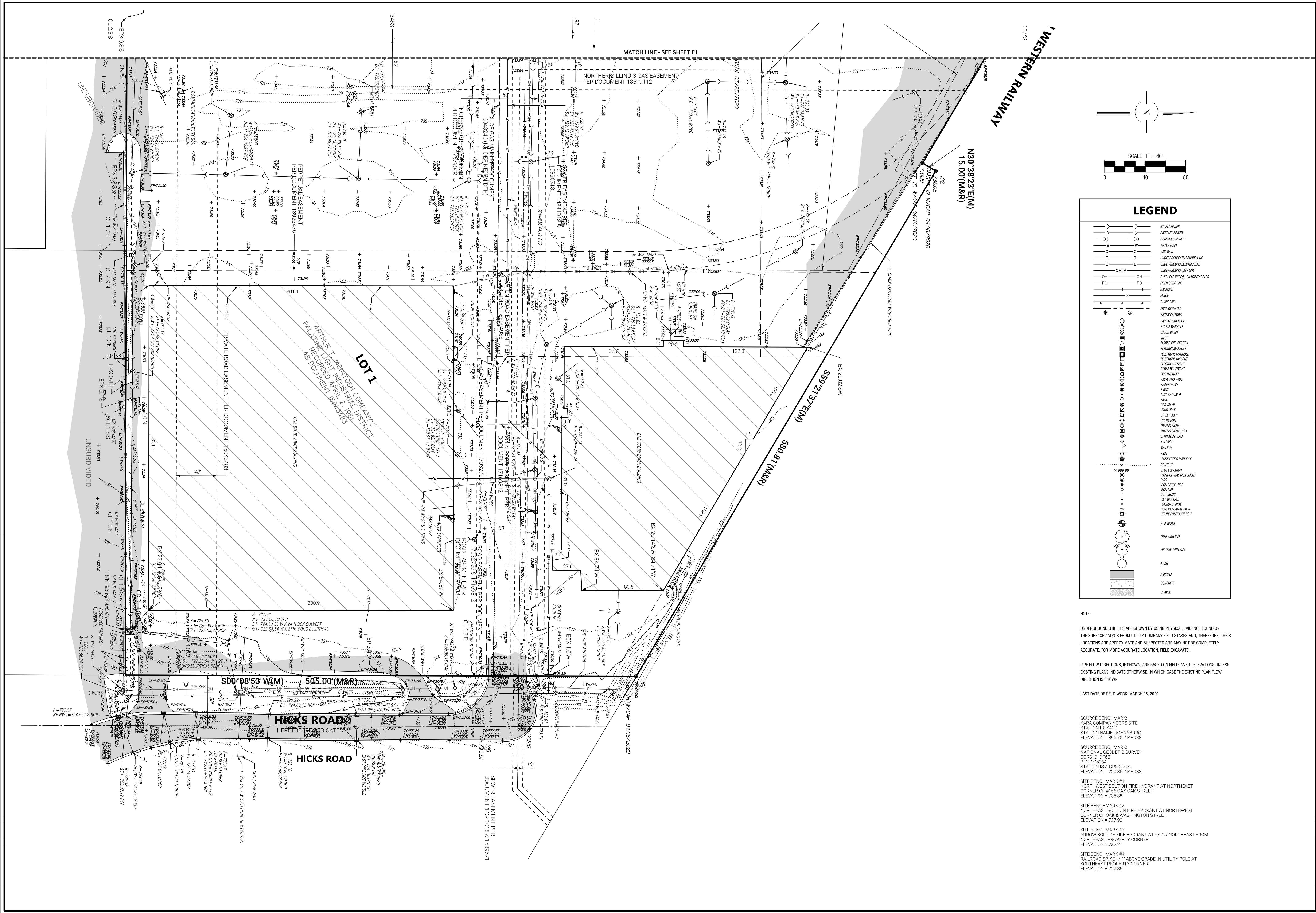
FILENAME:
11061ET-1

DATE:
07/01/20

JOB NO.
11061

SHEET
ET1

3 OF 8



LEGEND	
	STORM SEWER
	SANITARY SEWER
	COMBINED SEWER
	WATER MAIN
	GAS MAIN
	UNDERGROUND TELEPHONE LINE
	UNDERGROUND ELECTRIC LINE
	UNDERGROUND CATV LINE
	OVERHEAD WIRE(S) ON UTILITY POLES
	OVERHEAD LINE
	RAILROAD
	FENCE
	GUARDRAIL
	EDGE OF WATER
	WETLAND LIMITS
	SANITARY MANHOLE
	STORM MANHOLE
	CATCH BASIN
	INLET
	FLARED END SECTION
	ELECTRIC MANHOLE
	TELEPHONE MANHOLE
	TELEPHONE UPSHOT
	ELECTRIC UPSHOT
	CABLE TV UPSHOT
	FIRE HYDRANT
	VALVE AND VAULT
	WATER VALVE
	R BOX
	SANITARY VALVE
	WELL
	GAS VALVE
	HAND HOLE
	STREET LIGHT
	UTILITY POLE
	TRAFFIC SIGNAL
	TRAFFIC SIGNAL BOX
	SPRINKLER HEAD
	BELL BOX
	MAILBOX
	SIGN
	UNDERSIZED MANHOLE
	CONDUIT
	SPOT ELEVATION
	RIGHT-OF-WAY MONUMENT
	DITCH
	IRON/STEEL ROD
	IRON PIPE
	CUT CROSS
	PK MARK NAIL
	RAILROAD SPIKE
	POST INDICATOR VALVE
	UTILITY POLE LIGHT POLE
	SOIL BORING
	TREE WITH SIZE
	FIR TREE WITH SIZE
	BUSH
	ASPHALT
	CONCRETE
	GRAVEL

NOTE:

UNDERGROUND UTILITIES ARE SHOWN BY USING PHYSICAL EVIDENCE FOUND ON THE SURFACE AND/OR FROM UTILITY COMPANY FIELD STAKES AND, THEREFORE, THEIR LOCATIONS ARE APPROXIMATE AND SUSPECTED AND MAY NOT BE COMPLETELY ACCURATE. FOR MORE ACCURATE LOCATION, FIELD EXCAVATE.

PIPE FLOW DIRECTIONS, IF SHOWN, ARE BASED ON FIELD INVERT ELEVATIONS UNLESS EXISTING PLANS INDICATE OTHERWISE, IN WHICH CASE THE EXISTING PLAN FLOW DIRECTION IS SHOWN.

LAST DATE OF FIELD WORK: MARCH 25, 2020.

SOURCE BENCHMARK:
KARA COMPANY CORRS SITE
STATION ID: K227
STATION NAME: JOHNSBURG
ELEVATION = 895.76 NAVD88

SOURCE BENCHMARK:
NATIONAL GEODETIC SURVEY
CORRS ID: DP68
PID: DM5564
STATION IS A GPS CORRS
ELEVATION = 720.36 NAVD88

SITE BENCHMARK #1:
NORTHWEST BOLT ON FIRE HYDRANT AT NORTHEAST CORNER OF #156 OAK OAK STREET.
ELEVATION = 735.38

SITE BENCHMARK #2:
NORTHEAST BOLT ON FIRE HYDRANT AT NORTHWEST CORNER OF OAK & WASHINGTON STREET.
ELEVATION = 737.92

SITE BENCHMARK #3:
ARROW BOLT OF FIRE HYDRANT AT +/- 15' NORTHEAST FROM NORTHEAST PROPERTY CORNER.
ELEVATION = 732.21

SITE BENCHMARK #4:
RAILROAD SPIKE +/- ABOVE GRADE IN UTILITY POLE AT SOUTHEAST PROPERTY CORNER.
ELEVATION = 727.36

NO.	DATE	REMARKS
1	09/03/20	PER VILLAGE COMMENTS

NO.	DATE	REMARKS
1	09/03/20	PER VILLAGE COMMENTS

EXISTING CONDITIONS - 2

HICKS ROAD INDUSTRIAL
PALATINE, ILLINOIS

CONSULTING ENGINEERS

SITE DEVELOPMENT ENGINEERS

LAND SURVEYORS

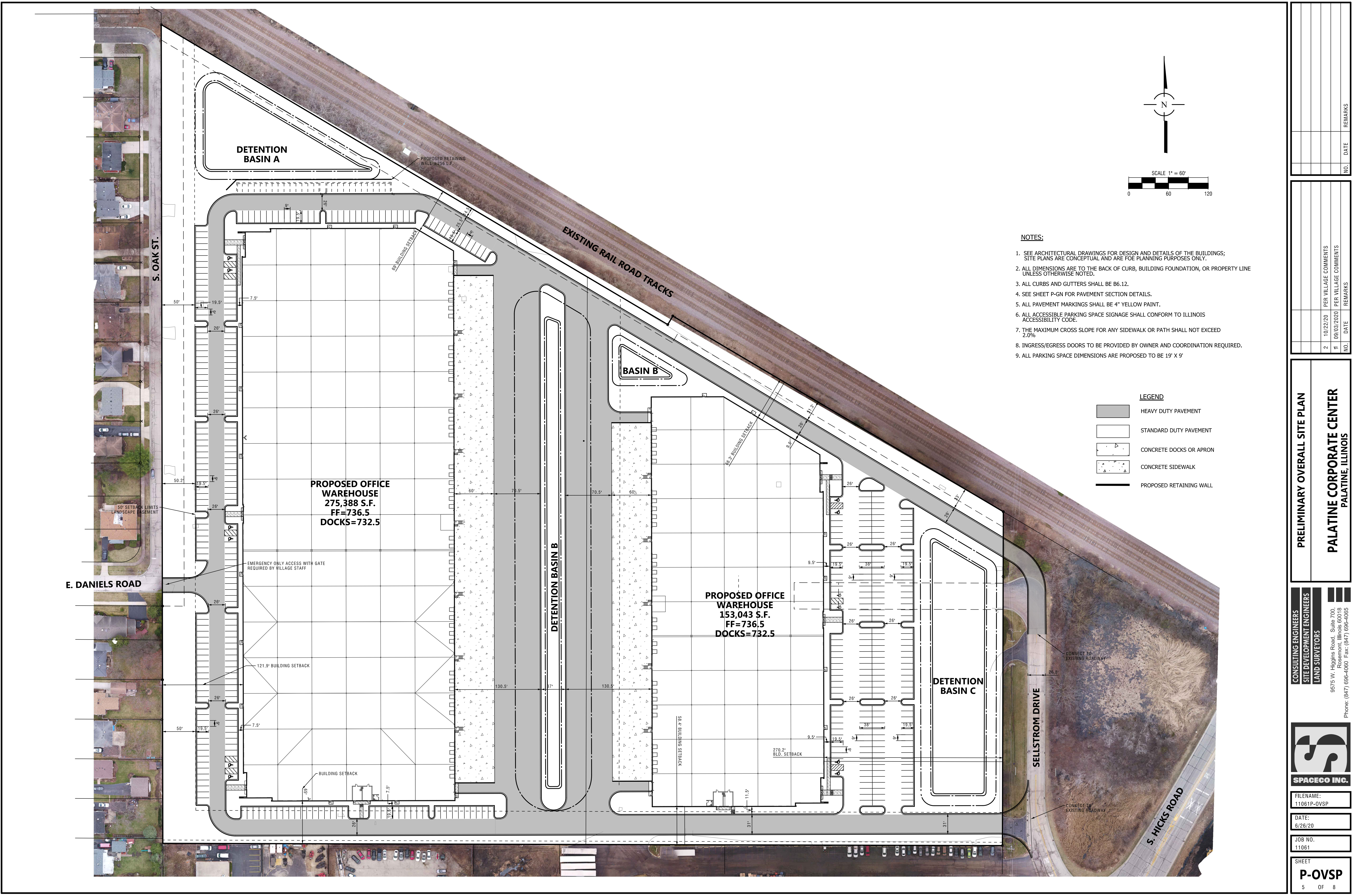
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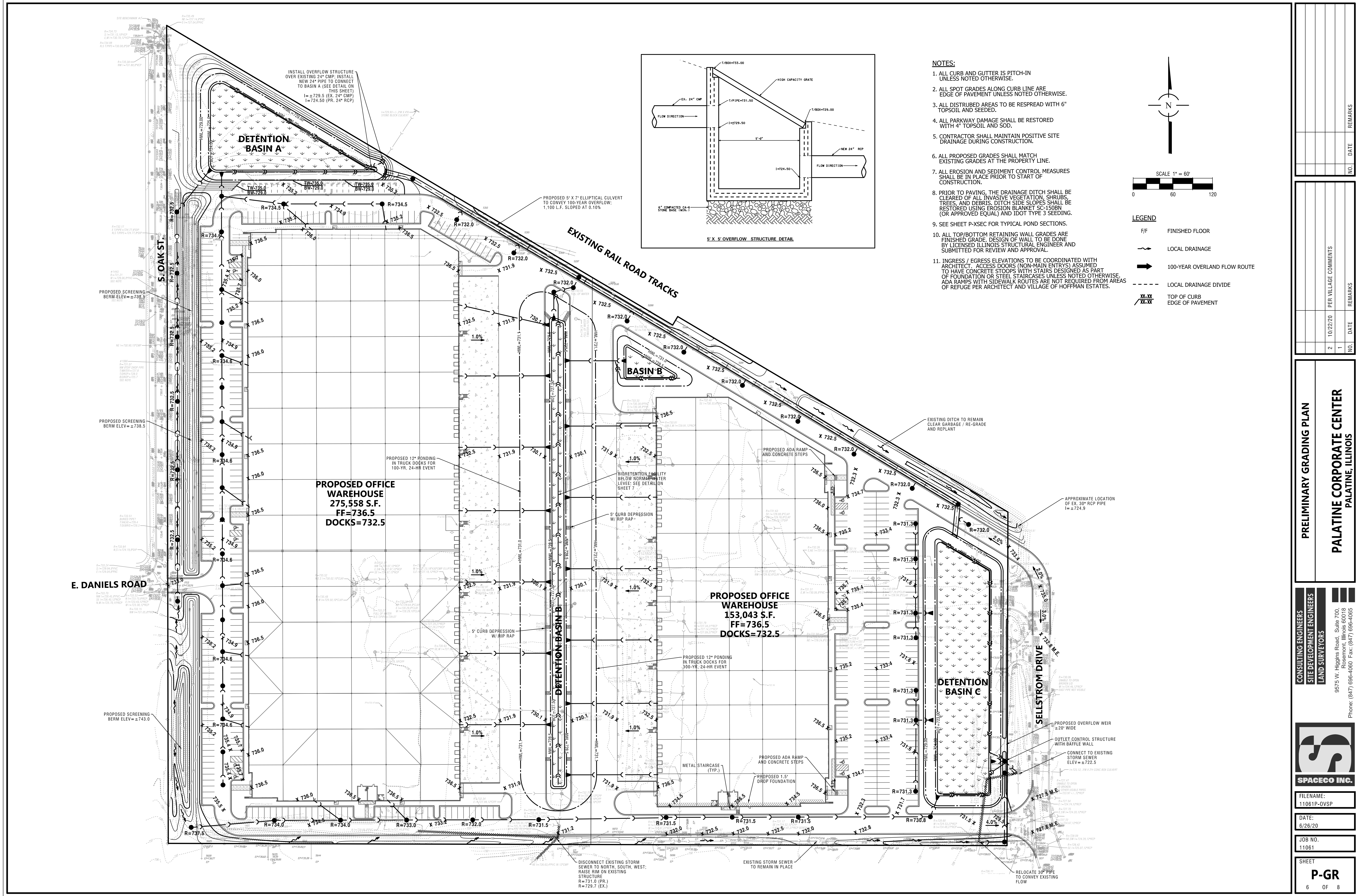
DATE:
07/01/20

JOB NO.
11061

SHEET
ET2

4 OF 8





- NOTES:**
1. ALL CURB AND GUTTER IS PITCH-IN UNLESS NOTED OTHERWISE.
 2. ALL SPOT GRADES ALONG CURB LINE ARE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.
 3. ALL DISTURBED AREAS TO BE RESPREAD WITH 6" TOPSOIL AND SEEDED.
 4. ALL PARKWAY DAMAGE SHALL BE RESTORED WITH 4" TOPSOIL AND SOD.
 5. CONTRACTOR SHALL MAINTAIN POSITIVE SITE DRAINAGE DURING CONSTRUCTION.
 6. ALL PROPOSED GRADES SHALL MATCH EXISTING GRADES AT THE PROPERTY LINE.
 7. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO START OF CONSTRUCTION.
 8. PRIOR TO PAVING, THE DRAINAGE DITCH SHALL BE CLEARED OF ALL INVASIVE VEGETATION, SHRUBS, TREES, AND DEBRIS. DITCH SIDE SLOPES SHALL BE RESTORED USING EROSION BLANKET SC-150BN (OR APPROVED EQUAL) AND IDOT TYPE 3 SEEDING.
 9. SEE SHEET P-XSEC FOR TYPICAL POND SECTIONS.
 10. ALL TOP/BOTTOM RETAINING WALL GRADES ARE FINISHED GRADE. DESIGN OF WALL TO BE DONE BY LICENSED ILLINOIS STRUCTURAL ENGINEER AND SUBMITTED FOR REVIEW AND APPROVAL.
 11. INGRESS / EGRESS ELEVATIONS TO BE COORDINATED WITH ARCHITECT. ACCESS DOORS (NON-MAIN ENTRIES) ASSUMED TO HAVE CONCRETE STOOPS WITH STAIRS DESIGNED AS PART OF FOUNDATION OR STEEL STAIRCASES UNLESS NOTED OTHERWISE. ADA RAMPS WITH SIDEWALK ROUTES ARE NOT REQUIRED FROM AREAS OF REFUGE PER ARCHITECT AND VILLAGE OF HOFFMAN ESTATES.

LEGEND

F/F FINISHED FLOOR

LOCAL DRAINAGE

100-YEAR OVERLAND FLOW ROUTE

LOCAL DRAINAGE DIVIDE

TOP OF CURB
EDGE OF PAVEMENT

SCALE 1" = 60'

0 60 120

PRELIMINARY GRADING PLAN

PALATINE CORPORATE CENTER
PALATINE, ILLINOIS

CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS

9575 W. Higgins Road, Suite 700,
Rosemont, Illinois 60018
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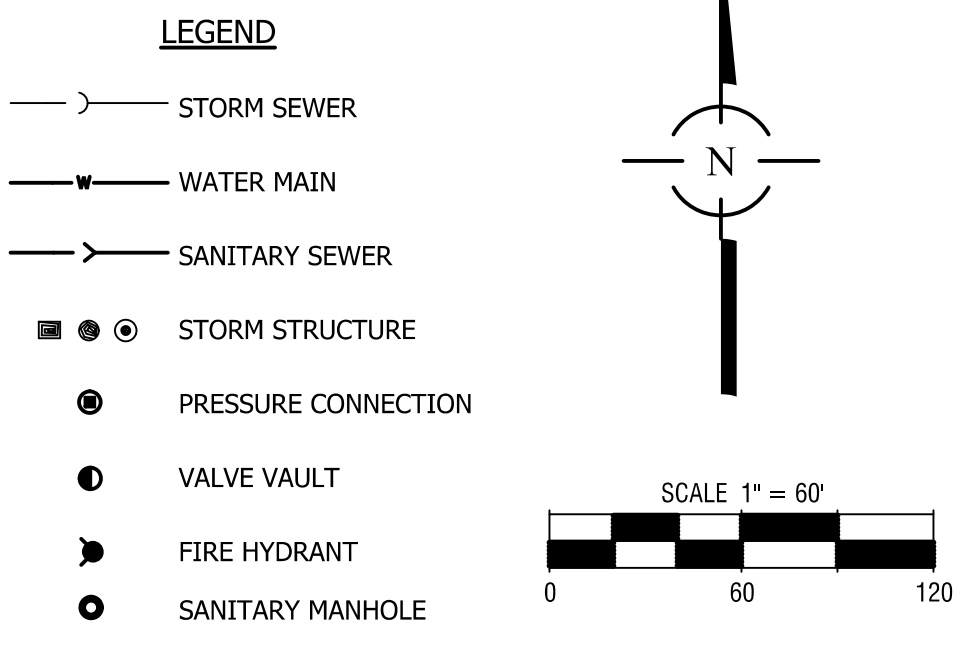


FILENAME:
11061P-OVSP

DATE:
6/26/20

JOB NO.
11061

SHEET
P-G R
6 OF 8



1. ALL STORM SEWERS SHALL BE RCP CL-IV UNLESS NOTED OTHERWISE. ALL STORM SEWER SIZES ARE PRELIMINARY.
2. ALL SANITARY SEWERS SHALL BE PVC SDR 26 UNLESS NOTED OTHERWISE.
3. ALL WATER MAINS SHALL BE D.I.P.-CLASS 52 UNLESS NOTED OTHERWISE.
4. FIRE HYDRANTS TO BE BREAK FLANGE TYPE MUELLER CENTURION OR KENNEDY WITH 5 1/4" VALVE OPENING, 2-2 1/2" HOSE CONNECTIONS, 1-4 1/2" STEEL DISCHARGE CONNECTION. EAST JORDAN 5BR250 MAY BE USED AS APPROVED EQUIVALENT.
5. ALL WATERMAIN TO BE INSTALLED WITH A MINIMUM 5.5' COVER FROM FINISHED GRADE TO THE TOP OF WATERMAIN.
6. ANY SEWER OR WATERMAIN CONSTRUCTED BELOW OR WITHIN 2' OF PROPOSED PAVEMENT SHALL HAVE TRENCH BACKFILL.
7. ALL RESTRAINED WATER MAIN JOINTS SHALL BE U.S. PIPE "FIELD LOCK" GASKET OR APPROVED EQUAL.
8.  INDICATES TRENCH BACKFILL REQUIRED. (TRENCH BACKFILL REQUIRED UNDER ALL PAVEMENTS. (TRENCH BACKFILL NOT SHOWN TO BE ADDED IN FINAL)
9. FRENCH DRAIN: ALL LOW POINT STRUCTURES ARE TO HAVE FOUR 1" DIAMETER WEEP HOLES PROVIDED 24" BELOW THE TOP OF LID. THE HOLES SHALL BE COVERED WITH A GEOTEXTILE FABRIC CEMENTED IN PLACE WITH BITUMINOUS MASTIC. THE DRAIN SHALL BE BACKFILLED WITH BEDDING (1/2" CRUSHED STONE TO TOP OF SUBGRADE OR BOTTOM OF TRENCH).
10. IF ANY PROPOSED SANITARY SEWER CROSSES ABOVE A WATERMAIN, SANITARY SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE OR WM QUALITY PVC (ASTM D-2241) AT LEAST TEN FEET (10') ON EACH SIDE OF CROSSING.
11. ALL PROPOSED STORM SEWER CROSSINGS OVER EXISTING OR PROPOSED WATERMAINS TO INSTALL CASING PIPE ON WATERMAIN FOR AT LEAST TEN FEET (10') ON BOTH SIDES OF WATERMAIN OR INSTALL GASKETED JOINT PER SPECIFICATION ASTM C-443.
12. CONTRACTOR TO VERIFY LOCATION OF ALL EX. UTILITIES PRIOR TO CONSTRUCTION TO VERIFY ANY CONFLICTS WITH THE EXISTING AND PROP. WATERMAIN & SANITARY SEWERS. PIPE LOCATIONS SHOWN ON THE FIELD SURVEY DESIGN DRAWINGS AND THE FIELD SURVEY OBSERVATIONS AND IS MEANT AS A GUIDE ONLY. CONTRACTOR TO VERIFY BUILDING SERVICE LOCATION WITH ARCH. PLANS PREPARED BY OTHERS.
13. EXISTING & PROPOSED DRY UTILITIES ARE SHOWN FOR REFERENCE ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATION OF EXISTING DRY UTILITIES AND TO COORDINATE THE REMOVAL OR ABANDONMENT OF DRY UTILITIES WITH THEIR CORRESPONDING OWNERS.
14. SEE MEP PLANS FOR ALL REQUIRED IMPROVEMENTS TO THE PUMP ROOM AND INTERNAL FIRE PROTECTION PREPARED BY OTHERS. SERVICE LOCATIONS ARE APPROXIMATE AND SHOULD BE VERIFIED WITH THE MEP DRAWINGS PRIOR TO CONSTRUCTION.
15. DESIGN OF PROPOSED LIGHT POLE TYPES, LOCATIONS, WIRING, AND CIRCUITRY OF LIGHTING WILL BE BY OTHERS.
16. ALL ON-SITE EXISTING OVERHEAD ELECTRICAL RELOCATION TO BE COORDINATED BY CLIENT.

PRELIMINARY UTILITY PLAN

PALATINE CORPORATE CENTER
PALATINE, ILLINOIS

CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
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Rosemont, Illinois 60018
Phone: (847) 696-4060 Fax: (847) 696-4065



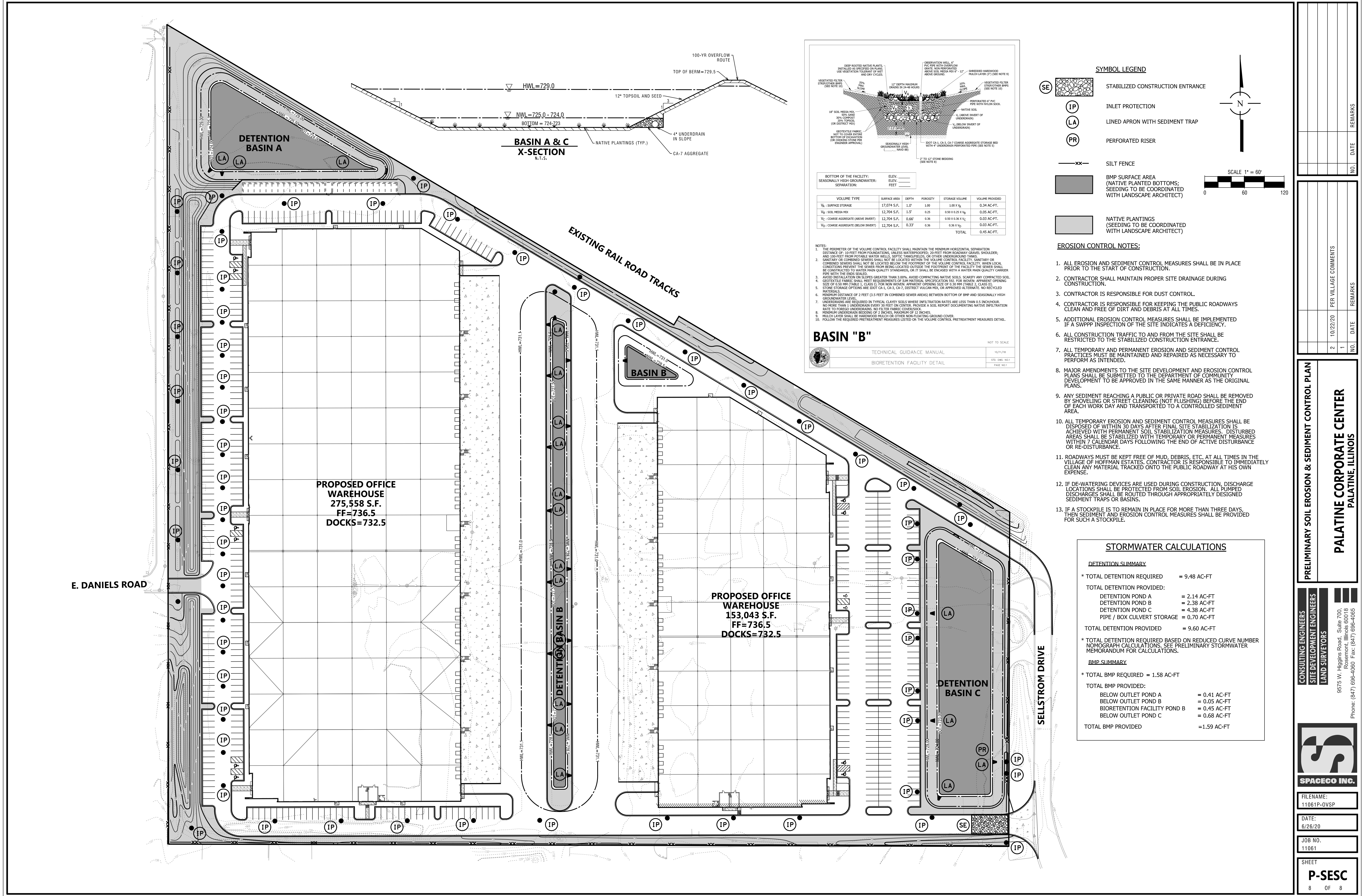
FILENAME:
11061P-OVSP

DATE:
6/26/20

JOB NO.
11061

SHEET

P-UT



PRELIMINARY SOIL EROSION & SEDIMENT CONTROL PLAN			
NO.	DATE	REMARKS	
1	10/22/20	PER VILLAGE COMMENTS	
2	11/06/21		

PALATINE CORPORATE CENTER
PALATINE, ILLINOIS

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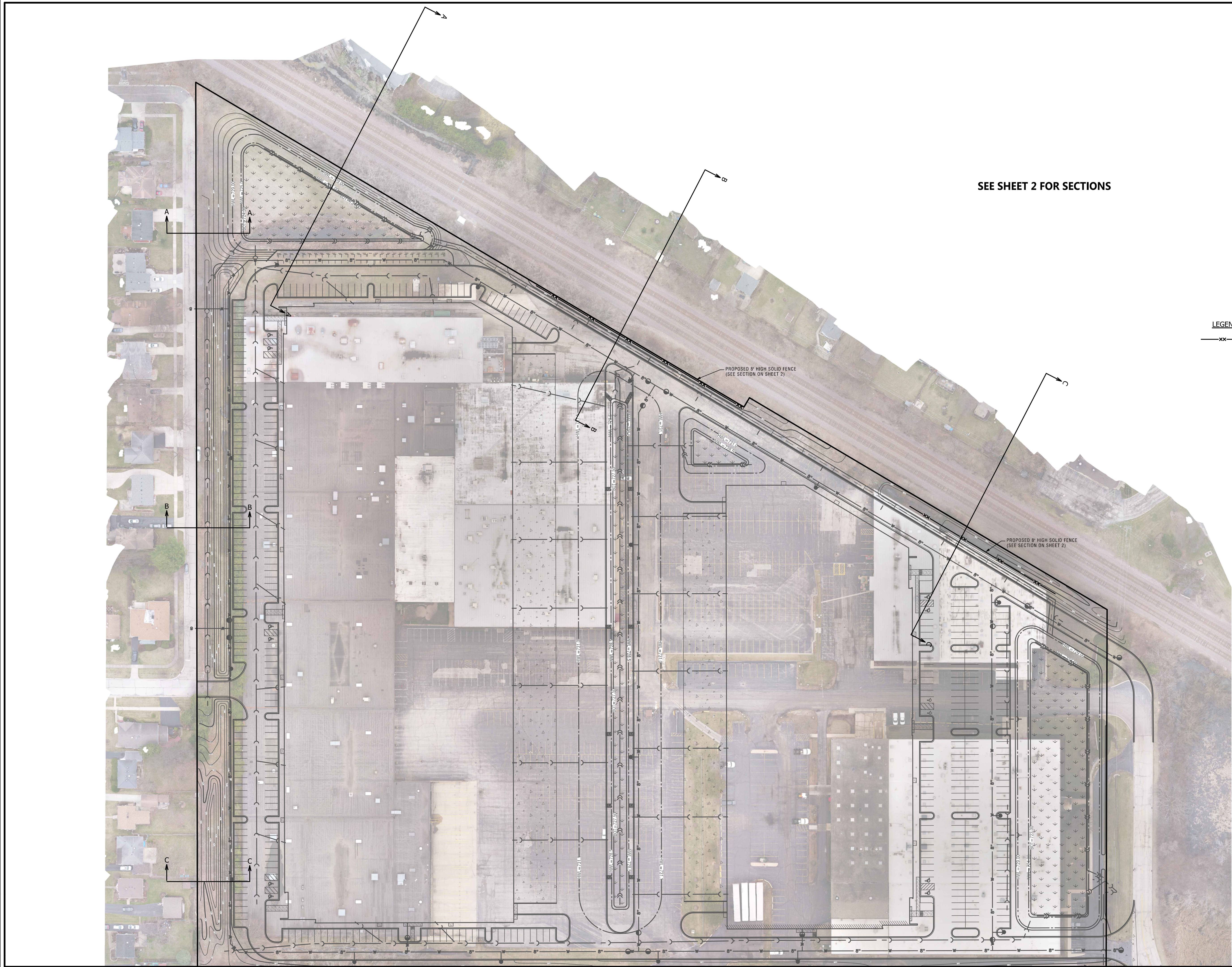
SPACECO INC.

FILENAME:
11061P-OVSP

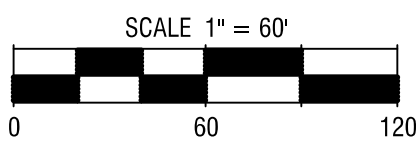
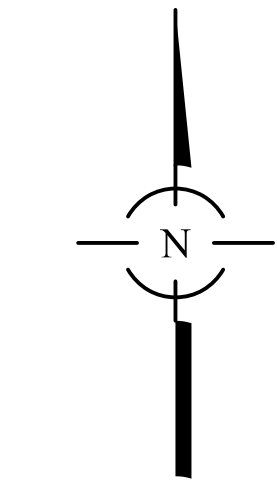
DATE:
6/26/20

JOB NO.
11061

SHEET
P-SESC
8 OF 8



SEE SHEET 2 FOR SECTIONS



LEGEND

—xx— PROPOSED 8' HIGH SOLID FENCE
(SEE SHEET 2 FOR SECTION)

NO.	DATE	REMARKS

NO.	DATE	REMARKS

CROSS SECTION EXHIBIT

PALATINE CORPORATE CENTER
PALATINE, ILLINOIS

CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS



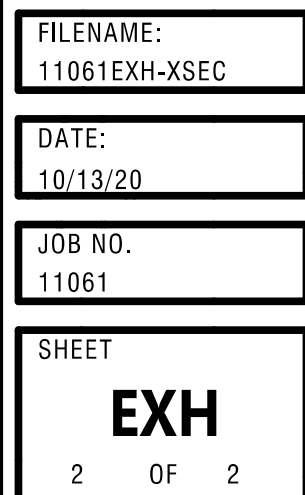
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DATE: 10/13/20
JOB NO. 11061
SHEET EXH 1 OF 2

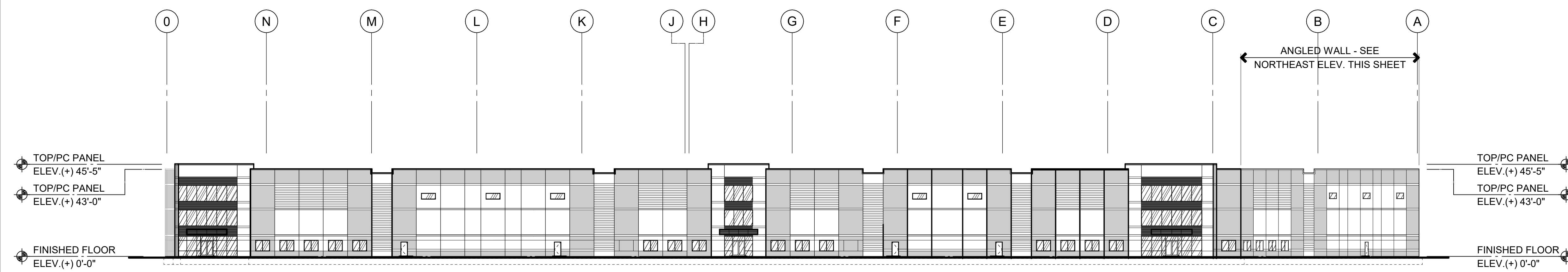
9575 W. Higgins Road, Suite 700,
Rosemont, Illinois 60018
Phone: (847) 696-4060 Fax: (847) 696-4065

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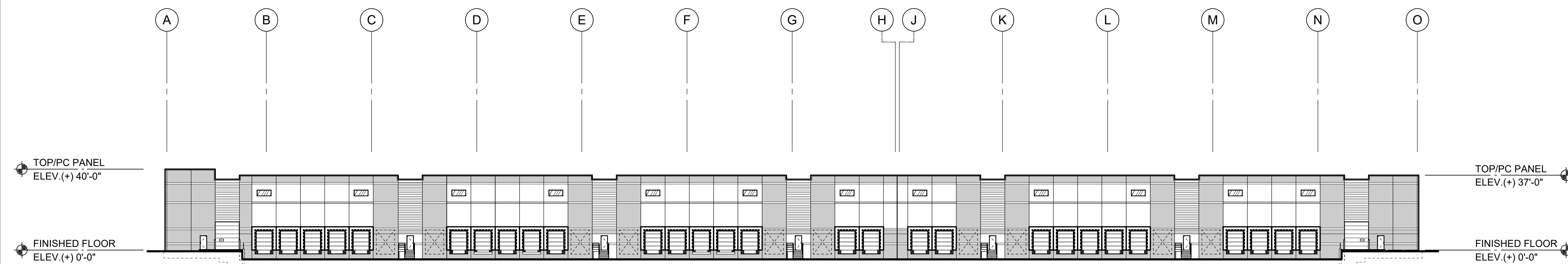
PALATINE CORPORATE CENTER
PALATINE, ILLINOIS

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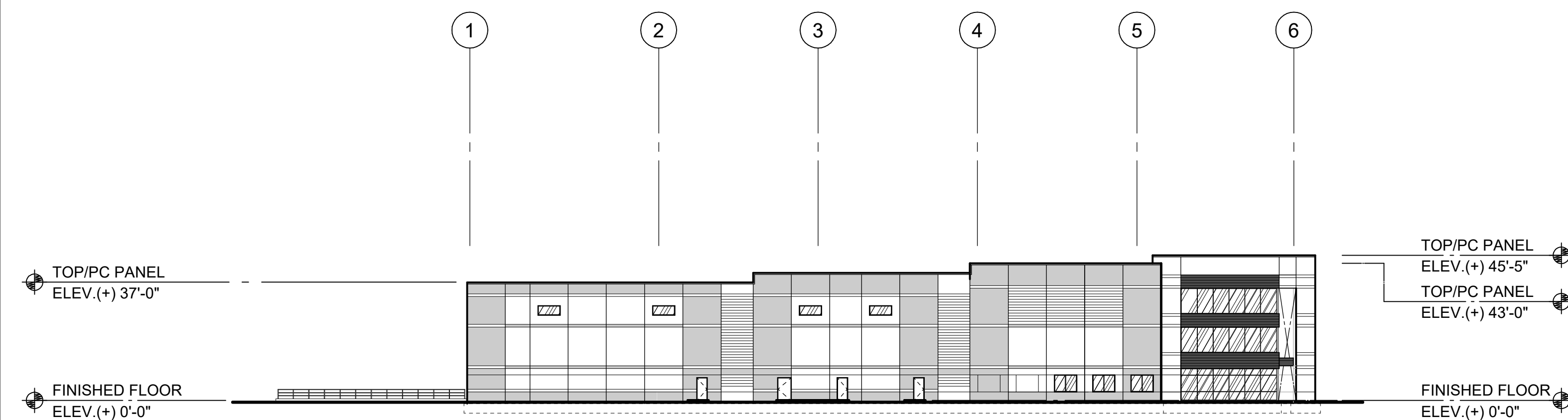


**EAST ELEVATION**

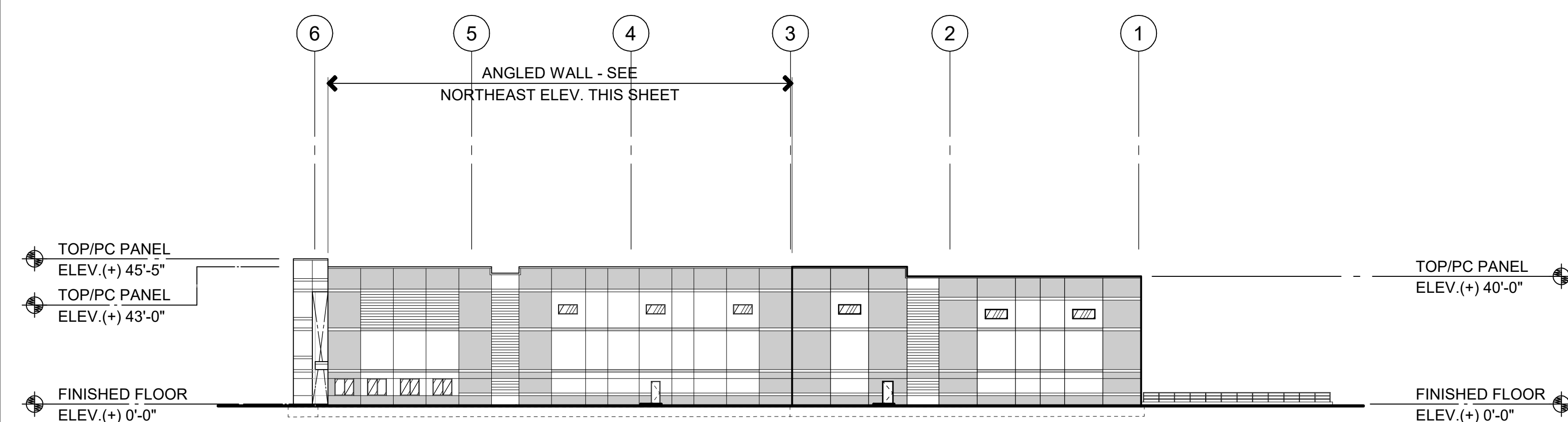
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**WEST ELEVATION**

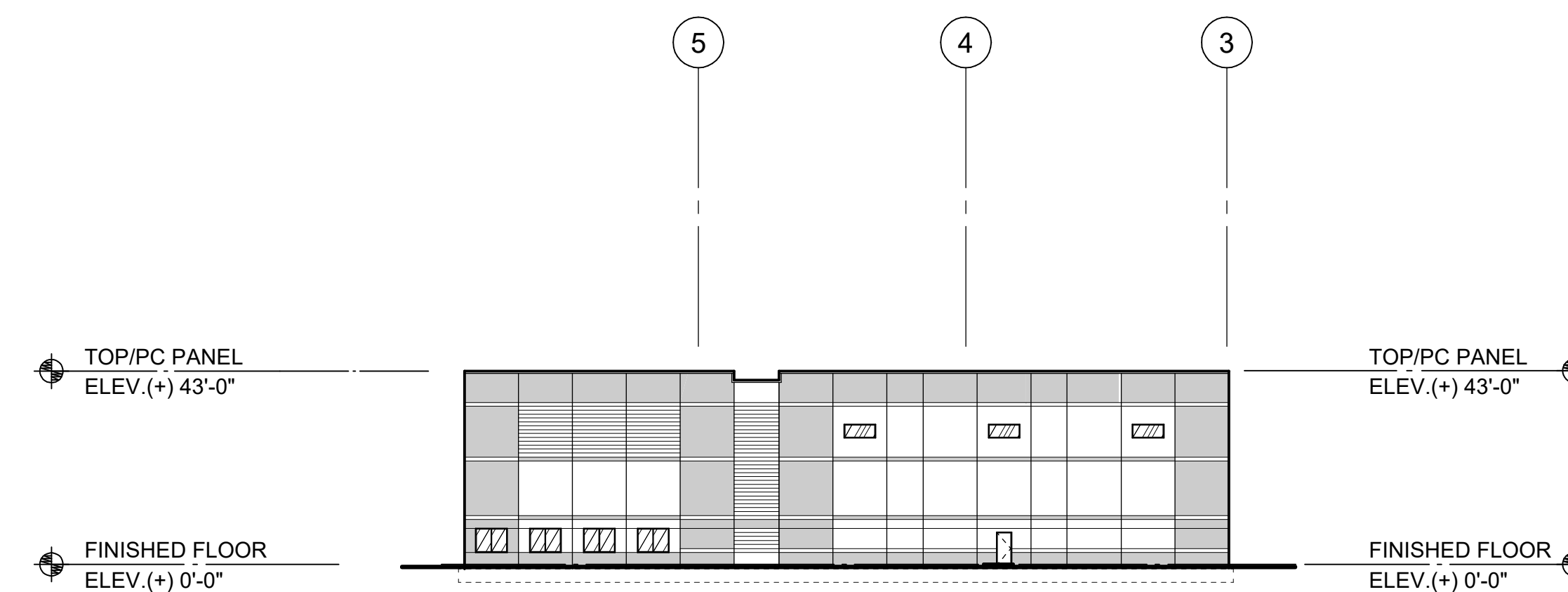
SCALE: 1" = 30'-0"

**SOUTH ELEVATION**

SCALE: 1" = 30'-0"

**NORTH ELEVATION**

SCALE: 1" = 30'-0"

**NORTHEAST ELEVATION**

SCALE: 1" = 30'-0"

COLOR LEGEND

EXTERIOR PRECAST TO BE COLORED WITH LOXON VERTICAL CONCRETE STAIN BY SHERWIN WILLIAMS. GENER CONTRACTOR TO MATCH SHERWIN WILLIAMS COLORS SELECTED BELOW.

	SABLE (PLD-6) CUSTOM COLOR
	STAMPED CONCRETE - SW 7655 SHERWIN WILLIAMS
	IRON ORE - (SW 7069) SHERWIN WILLIAMS

METAL COPING (STONE WHITE BY PAC-CLAD)

CURTAINWALL AND ENTRANCE DOOR SYSTEM
FRAMES - CLEAR ANODIZED ALUMINUM
INSUL. GLASS - GREY TINTED

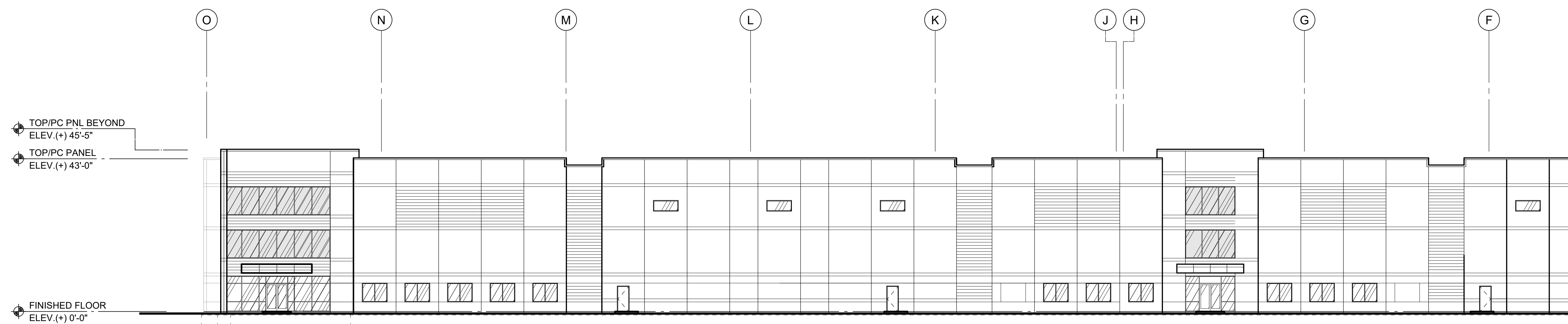
PUNCHED/CLEARSTORY WINDOWS
FRAMES - CLEAR ANODIZED ALUMINUM
INSUL. GLASS - GREY TINTED

INSUL. MTL. DOORS/FRAMES
FRAME - INCREDIBLE WHITE - SW7028
DOOR - INCREDIBLE WHITE - SW7028

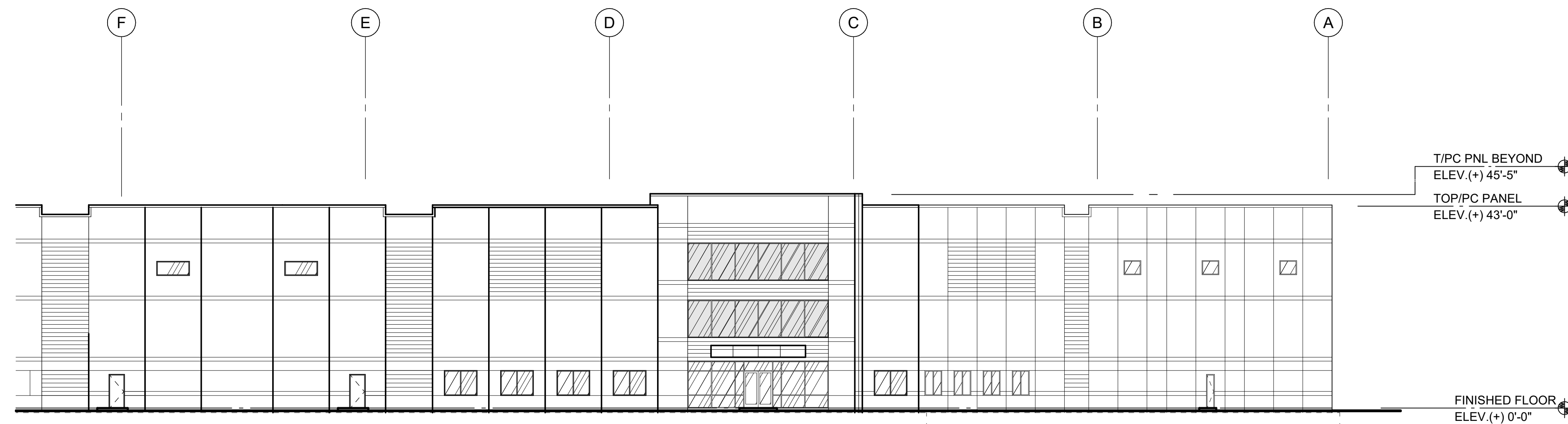
OVERHEAD DOORS
DRIVE-IN DOORS - PREFINISHED WHITE
DOCK DOORS - PREFINISHED WHITE

PIPE BOLLARDS
SAFETY YELLOW

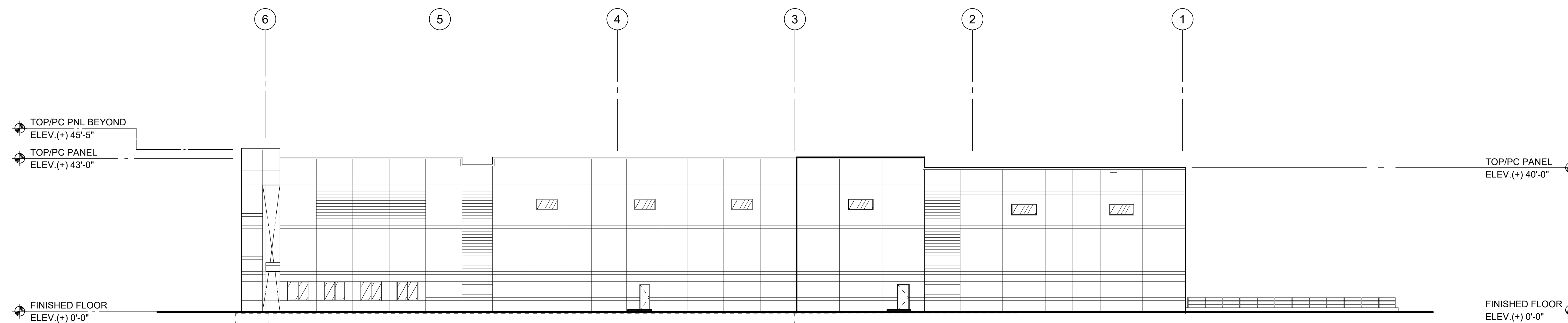
EAST BUILDING ELEVATIONS



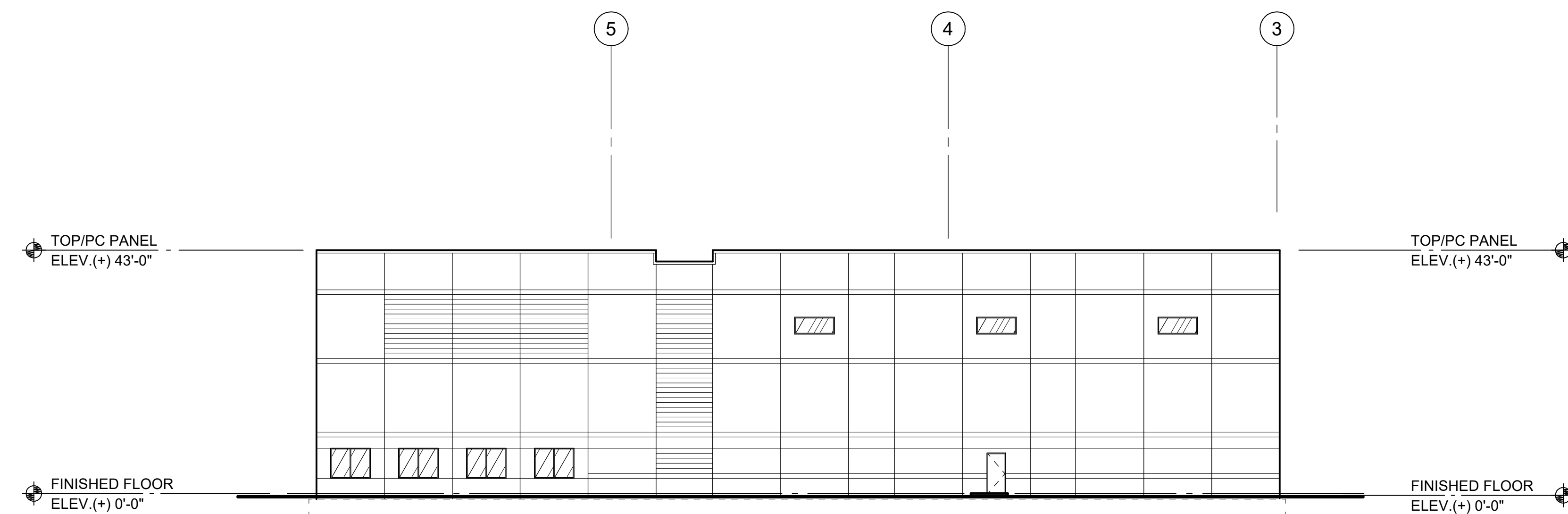
PARTIAL EAST ELEVATION
SCALE: 1/16" = 1'-0"



PARTIAL EAST ELEVATION
SCALE: 1/16" = 1'-0"



NORTH ELEVATION
SCALE: 1/16" = 1'-0"



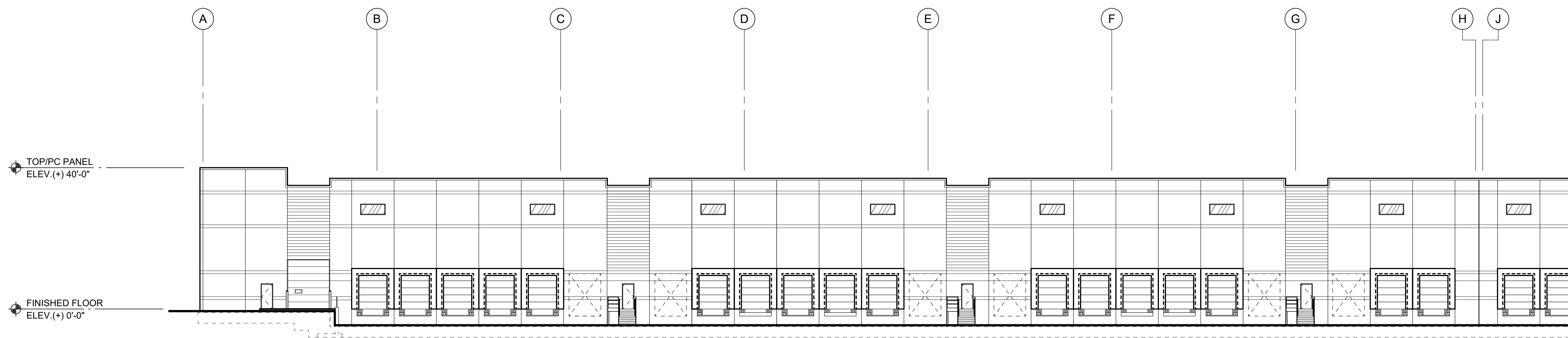
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SCALE: 1/16" = 1'-0"

**COMPONENTS & CLADDING FACTORED
WIND DESIGN WALL PRESSURES (PSF)**

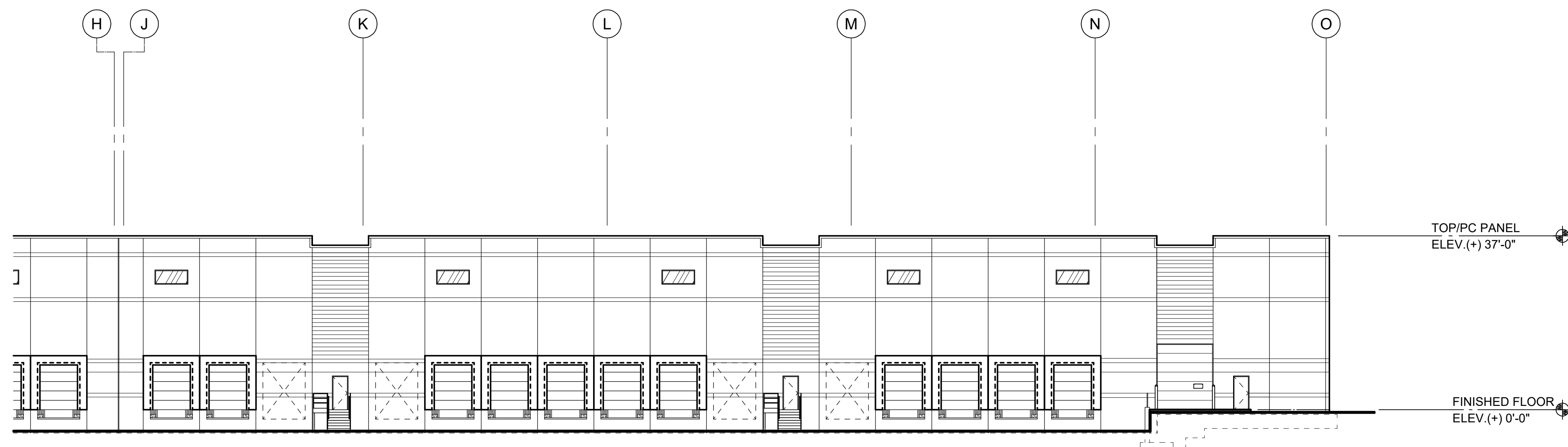
ZONE	EFFECTIVE WIND AREA (SQUARE FEET)				
	10	20	50	100	500
4	+35.3/-38.3	+33.8/-36.8	+31.7/-35.3	+29.9/-31.1	+26.3/-29.3
5	+35.3/-47.3	+33.8/-44.3	+31.7/-39.8	+29.9/-33.8	+26.3/-29.3

NOTE: ZONE 5 APPLIES WITHIN 16'-0" OF CORNERS, ZONE 4 APPLIES ELSEWHERE

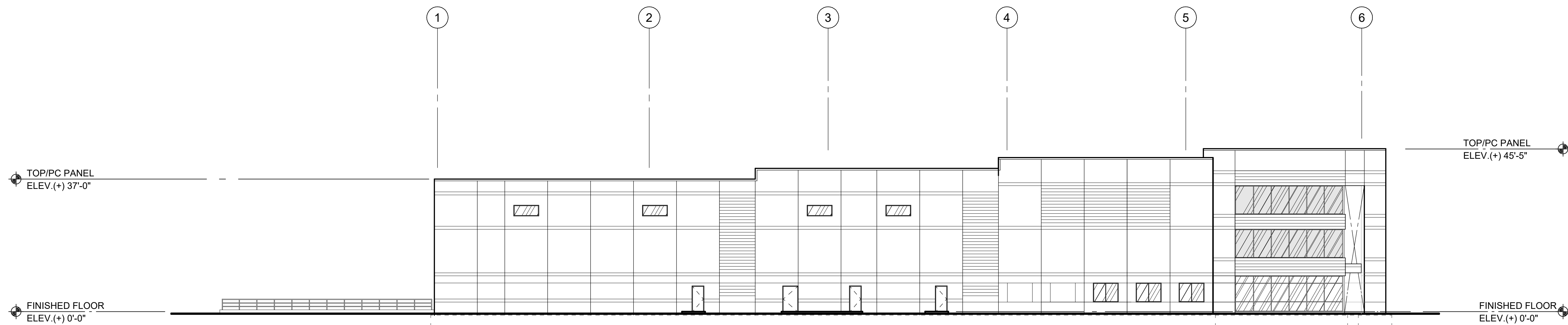
EAST BUILDING ELEVATIONS



PARTIAL WEST ELEVATION
SCALE: 1/16" = 1'-0"



PARTIAL WEST ELEVATION
SCALE: 1/16" = 1'-0"

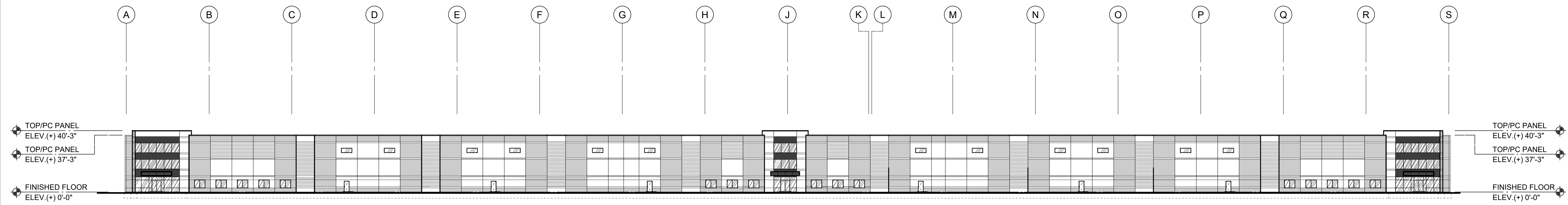


SOUTH ELEVATION
SCALE: 1/16" = 1'-0"

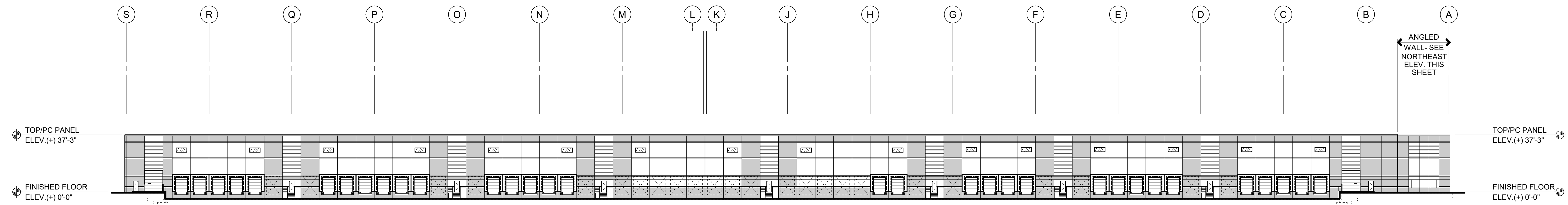
EAST BUILDING ELEVATIONS

COMPONENTS & CLADDING FACTORED WIND DESIGN WALL PRESSURES (PSF)					
ZONE	EFFECTIVE WIND AREA (SQUARE FEET)				
	10	20	50	100	500
4	+35.3/-38.3	+33.8/-36.8	+31.7/-35.3	+29.9/-31.1	+26.3/-29.3
5	+35.3/-47.3	+33.8/-44.3	+31.7/-39.8	+29.9/-33.8	+26.3/-29.3

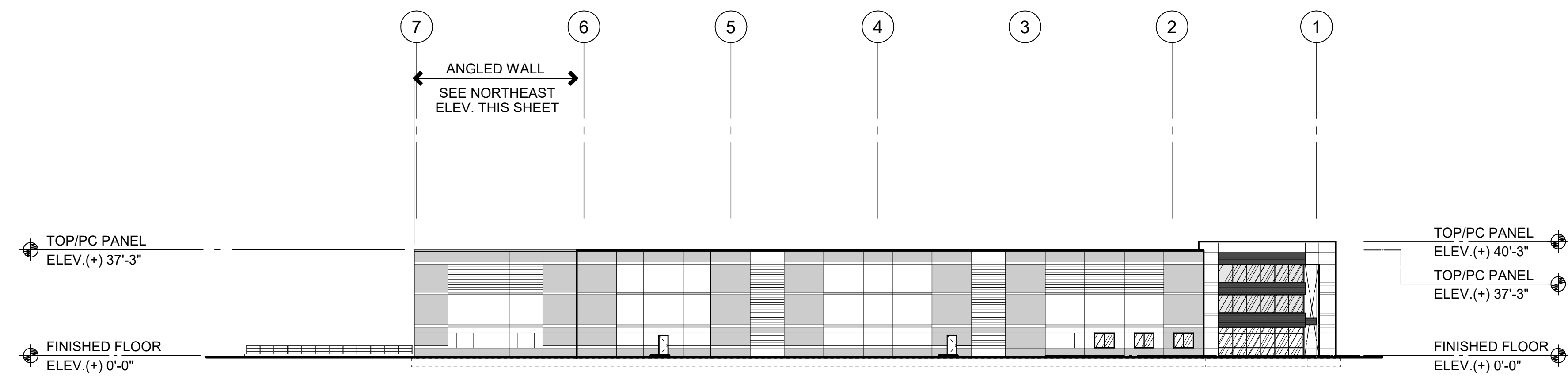
NOTE: ZONE 5 APPLIES WITHIN 16'-0" OF CORNERS, ZONE 4 APPLIES ELSEWHERE



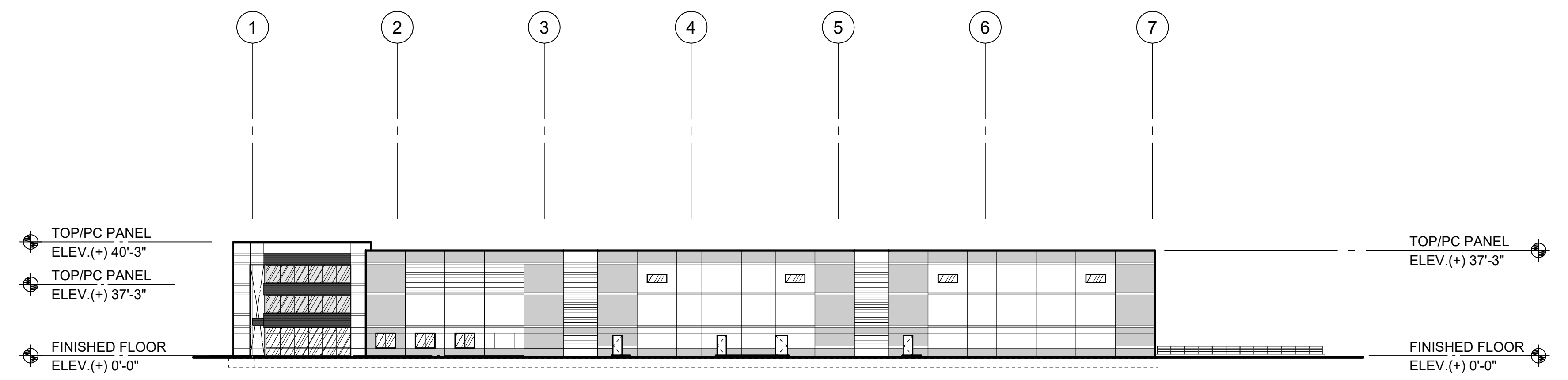
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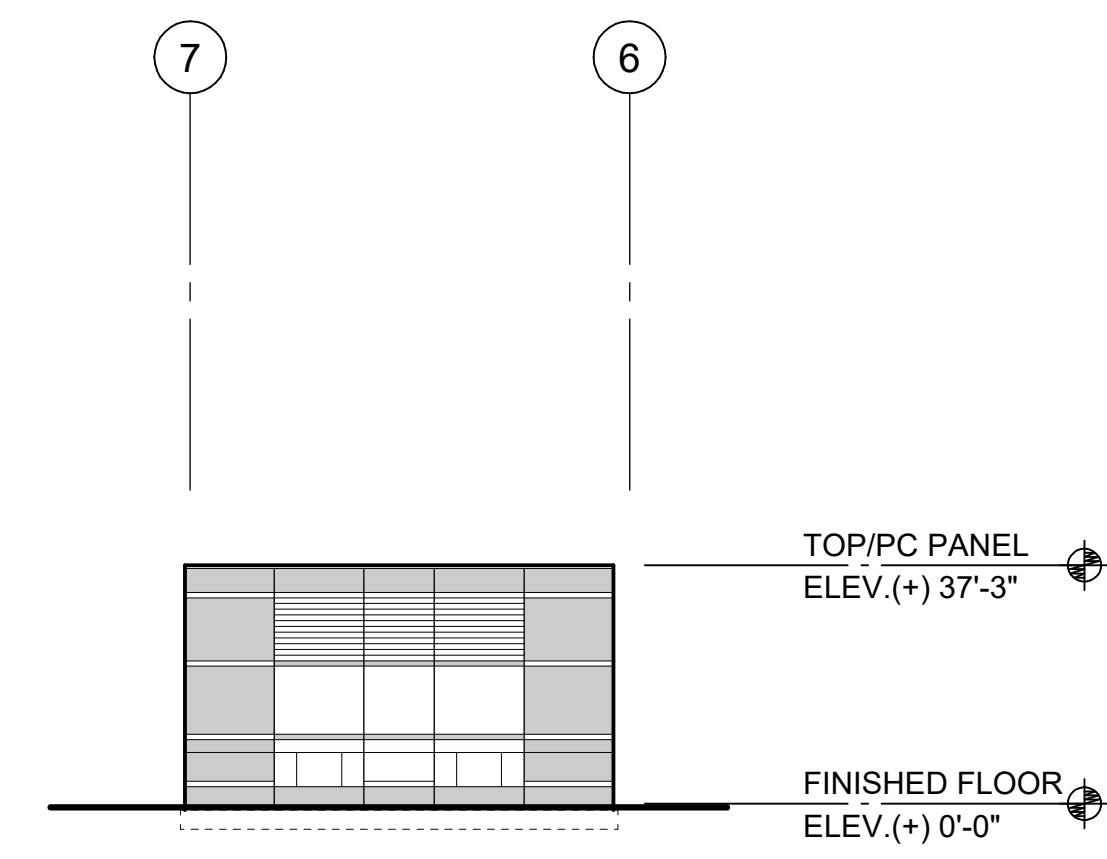
EAST ELEVATION
SCALE: 1" = 30'-0"



NORTH ELEVATION
SCALE: 1" = 30'-0"



SOUTH ELEVATION
SCALE: 1" = 30'-0"



NORTHEAST ELEVATION
SCALE: 1" = 30'-0"

COLOR LEGEND

EXTERIOR PRECAST TO BE COLORED WITH LOXON VERTICAL CONCRETE STAIN BY SHERWIN WILLIAMS. GENER CONTRACTOR TO MATCH SHERWIN WILLIAMS COLORS SELECTED BELOW.

- SABLE (PLD-6) CUSTOM COLOR
- STAMPED CONCRETE - SW 7655 SHERWIN WILLIAMS
- IRON ORE - (SW 7069) SHERWIN WILLIAMS

METAL COPING (STONE WHITE BY PAC-CLAD)

CURTAINWALL AND ENTRANCE DOOR SYSTEM
FRAMES - CLEAR ANODIZED ALUMINUM
INSUL. GLASS - GREY TINTED

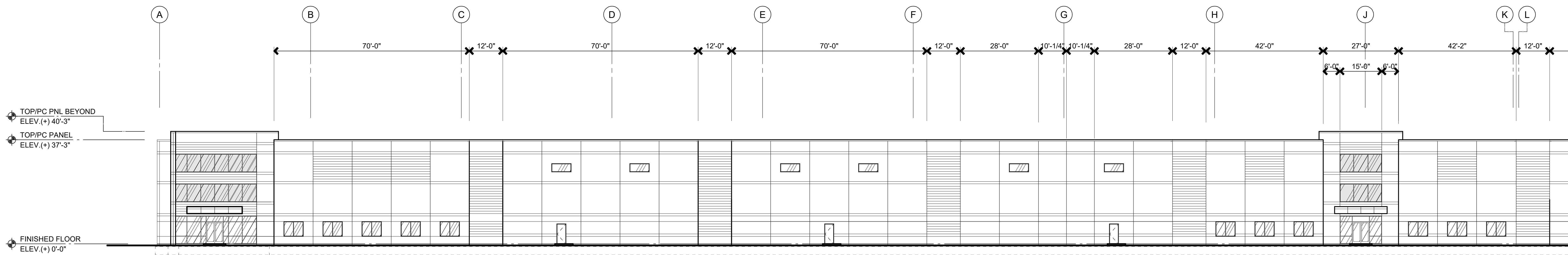
PUNCHED/CLEARSTORY WINDOWS
FRAMES - CLEAR ANODIZED ALUMINUM
INSUL. GLASS - GREY TINTED

INSUL. MTL. DOORS/FRAMES
FRAME - INCREDIBLE WHITE - SW7028
DOOR - INCREDIBLE WHITE - SW7028

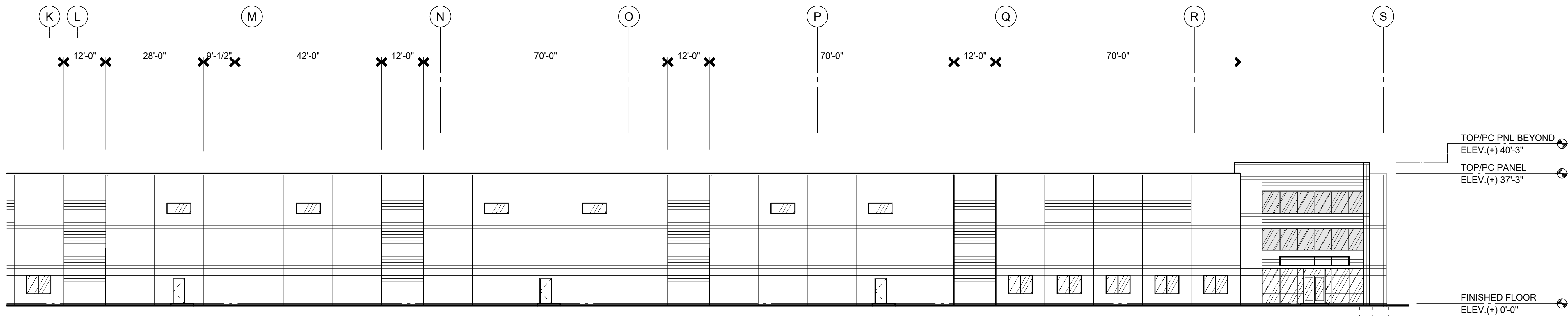
OVERHEAD DOORS
DRIVE-IN DOORS - PREFINISHED WHITE
DOCK DOORS - PREFINISHED WHITE

PIPE BOLLARDS
SAFETY YELLOW

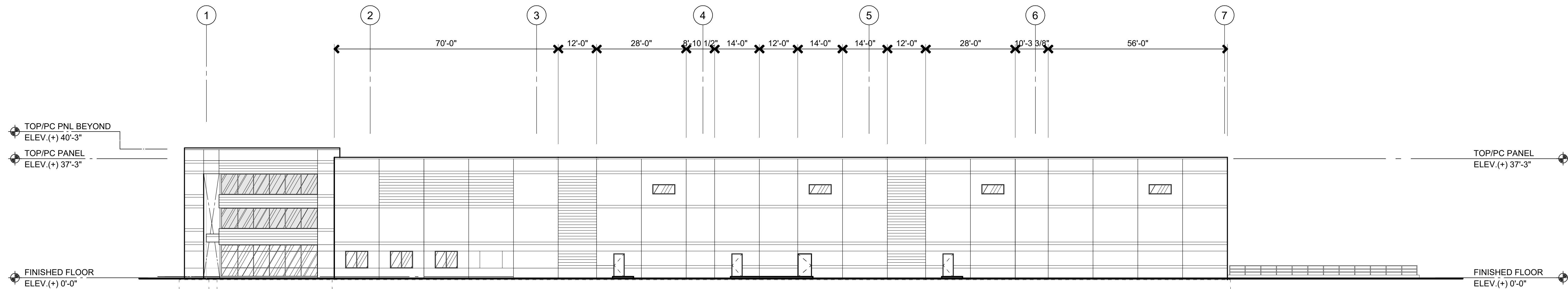
WEST BUILDING ELEVATIONS



PARTIAL WEST ELEVATION
SCALE: 1/16" = 1'-0"



PARTIAL WEST ELEVATION
SCALE: 1/16" = 1'-0"



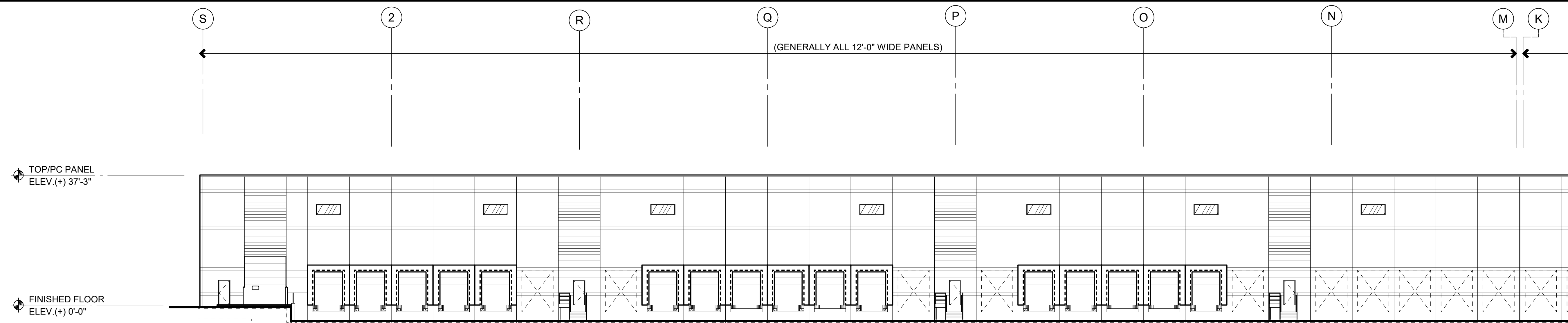
SOUTH ELEVATION
SCALE: 1/16" = 1'-0"

WEST BUILDING ELEVATIONS

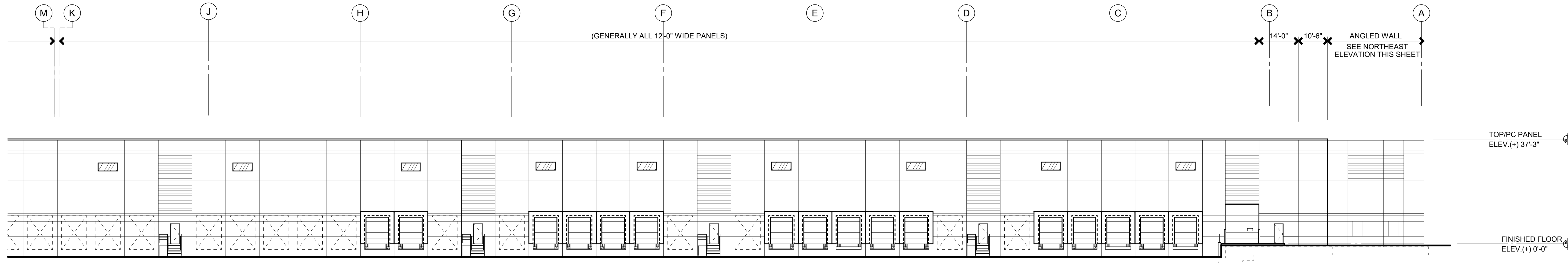
COMPONENTS & CLADDING FACTORED WIND DESIGN WALL PRESSURES (PSF)

ZONE	EFFECTIVE WIND AREA (SQUARE FEET)			
	10	20	50	100
4	+35.3/-38.3	+33.8/-36.8	+31.7/-35.3	+29.9/-31.1
5	+35.3/-47.3	+33.8/-44.3	+31.7/-39.8	+29.9/-33.8

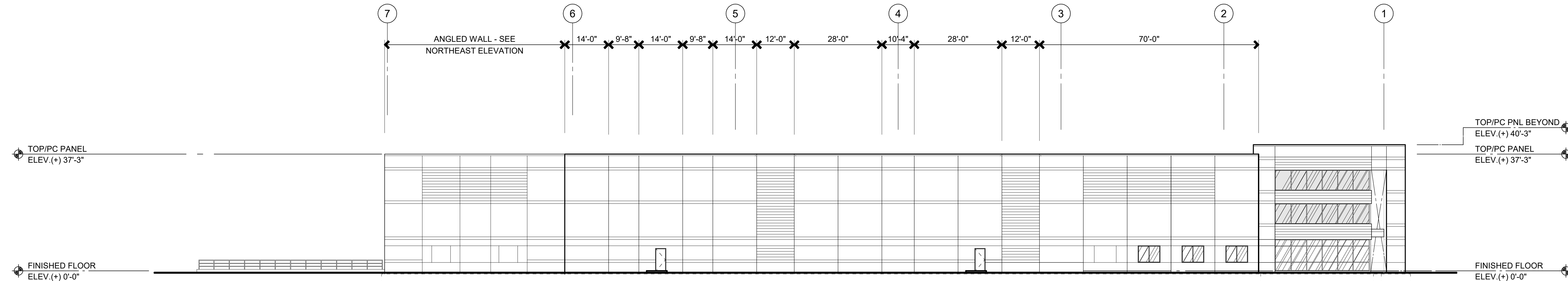
NOTE: ZONE 5 APPLIES WITHIN 16'-0" OF CORNERS, ZONE 4 APPLIES ELSEWHERE



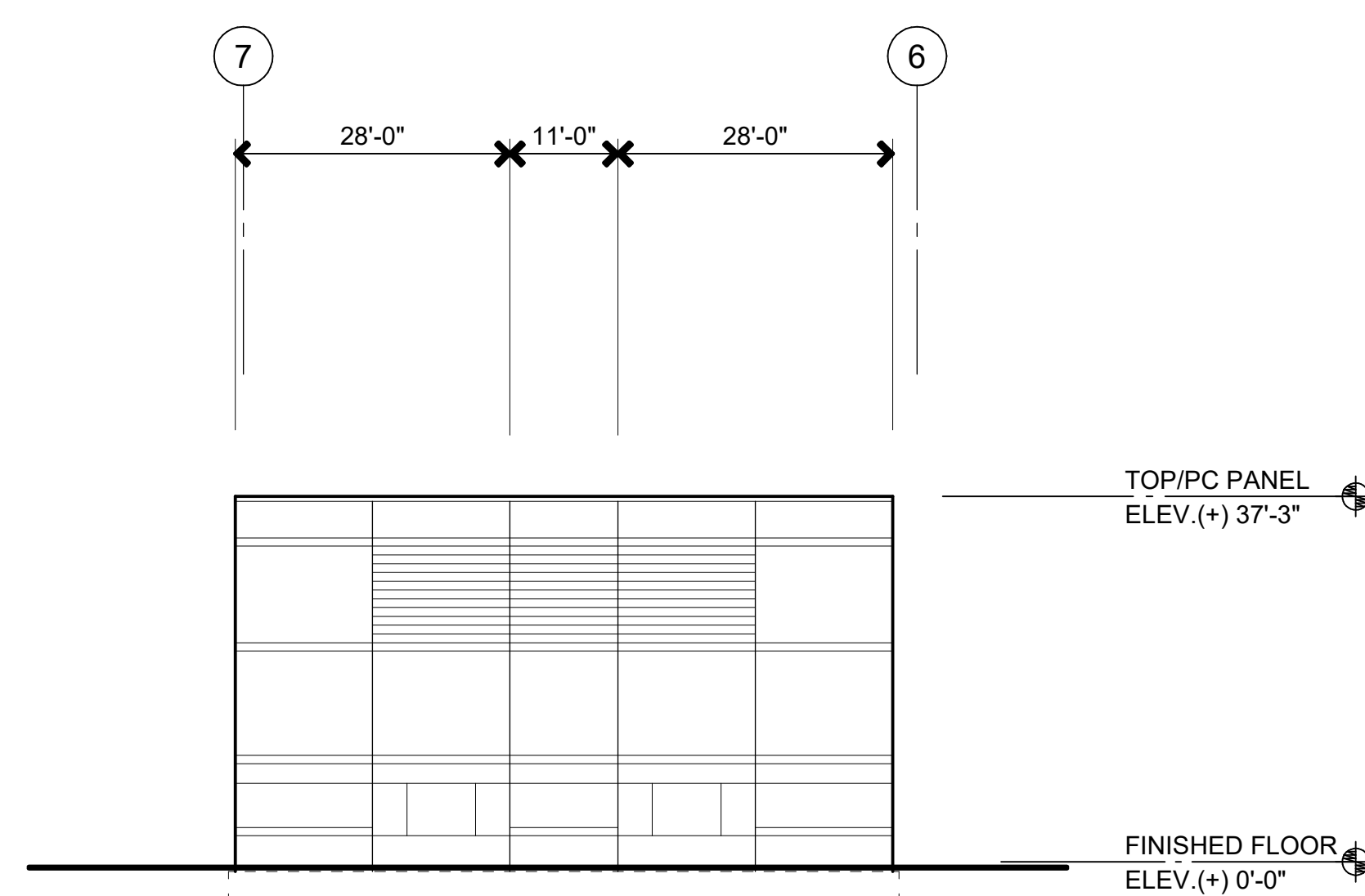
PARTIAL EAST ELEVATION
SCALE: 1/16" = 1'-0"



PARTIAL EAST ELEVATION
SCALE: 1/16" = 1'-0"



NORTH ELEVATION
SCALE: 1/16" = 1'-0"



NORTHEAST ELEVATION
SCALE: 1/16" = 1'-0"

WEST BUILDING ELEVATIONS

COMPONENTS & CLADDING FACTORED WIND DESIGN WALL PRESSURES (PSF)					
ZONE	EFFECTIVE WIND AREA (SQUARE FEET)				
	10	20	50	100	500
4	+35.3/-38.3	+33.8/-36.8	+31.7/-35.3	+29.9/-31.1	+26.3/-29.3
5	+35.3/-47.3	+33.8/-44.3	+31.7/-39.8	+29.9/-33.8	+26.3/-29.3

NOTE: ZONE 5 APPLIES WITHIN 16'-0" OF CORNERS, ZONE 4 APPLIES ELSEWHERE



CONCEPTUAL ARCHITECTURAL RENDERING

HICKS ROAD
PALATINE, IL

[illegible]

Attachment: Revised Preliminary Landscape Plans (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) - ppp)

SHEET
L-1

All plant material shall be guaranteed for one (1) year from the date of acceptance.

	DECIDUOUS SHADE TREE - 2.5"
	ORNAMENTAL TREE - 2.5"/8' clump
	EVERGREEN TREE - 8'
	LARGE DECIDUOUS SHRUB - 30"
	DWARF DECIDUOUS SHRUB - 18"
	EVERGREEN SHRUB - 24"
	ORNAMENTAL GRASSES
	PERENNIALS & GROUNDCOVERS

S&B TURF SEED & STRAW BLANKET

 SWALE SEED MIX

	NATIVE SEED MIX
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 AQUATIC PLUG ZONE

- PREPARED BACKFILL
OF 75% SOIL & 25%
PEAT OR COMPOST.

- DRAINAGE TUBING AND/OR DRAINAGE MATERIAL WHEN WETNESS OR DRAINAGE PROBLEMS ENCOUNTERED

NTS

OF 75% SOIL & 25%
PEAT OR COMPOST

NTS

3" OF SHREDDED
HARDWOOD MULCH

PREPARED BACKFILL
OF 75% SOIL & 25%
PEAT OR COMPOST.

NTS

PERENNIALS & ORN. GRASSES
SHALL BE TOPDRESSED WITH 2"
OF SHREDDED HARDWOOD MULCH

GROUNDCOVERS & ANNUALS
SHALL BE TOPDRESSED WITH 2"
OF SOUTHERN PINE BARK FINES

PLANTING SOIL:
MIN. OF 3" MUSHROOM COMPOST
ROTOTILLED INTO SOIL TO A MIN.
DEPTH OF 9". DO NOT COMPACT
UNNECESSARILY AFTER PLANTING

**APPLY 18-6-12 OSMOCOTE (270 DAY)
TIMED RELEASED FERTILIZER TO
GROUNDCOVER & PERENNIAL BEDS &
14-14-14 OSMOCOTE (120 DAY)
TIME RELEASED FERTILIZER TO
ANNUAL BEDS PER MFRS.
RECOMMENDATIONS.**

 FINISHED GR

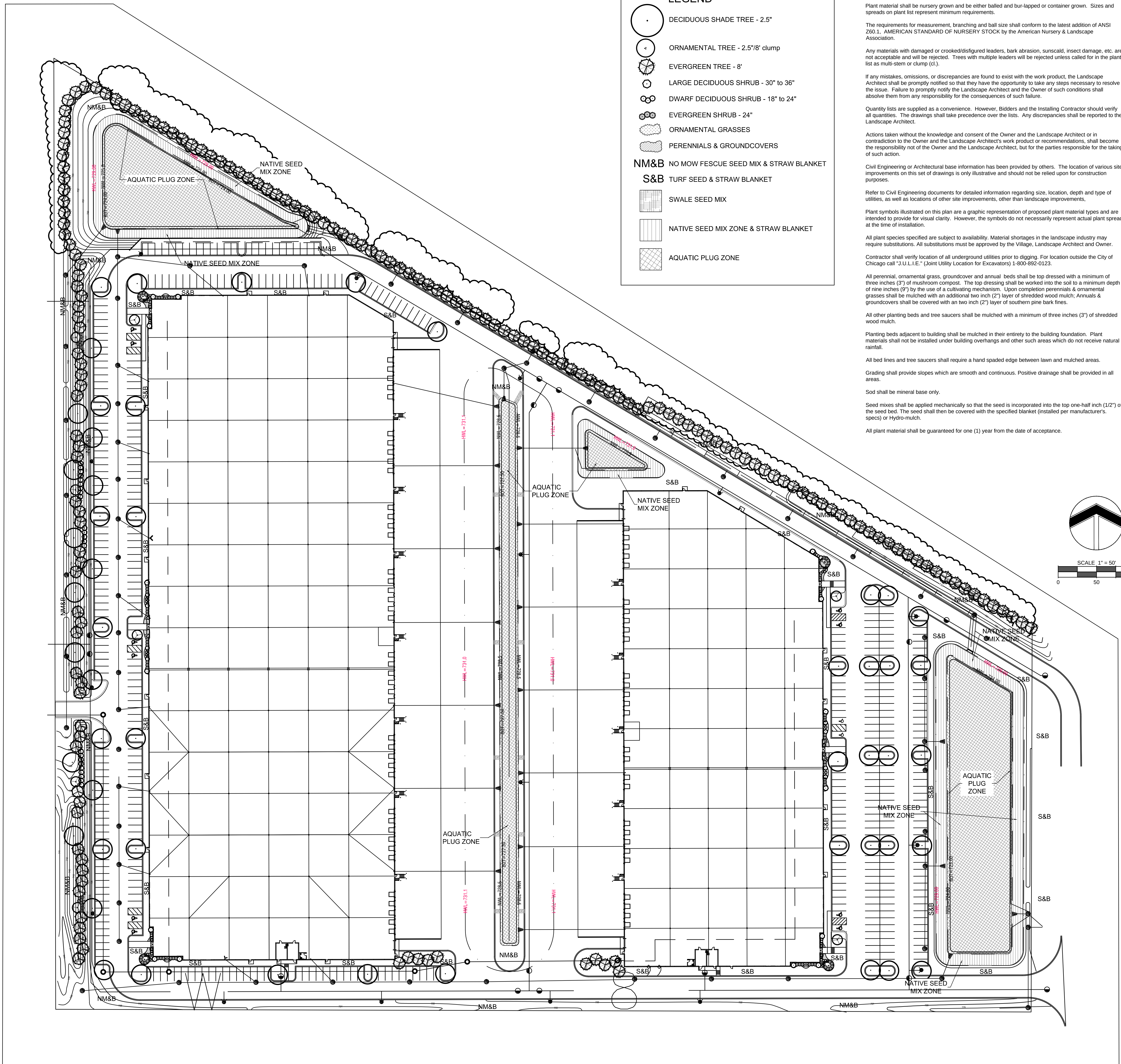
ALL BED PLANTINGS
SHALL BE INSTALLED
WITH TRIANGULAR
SPACING

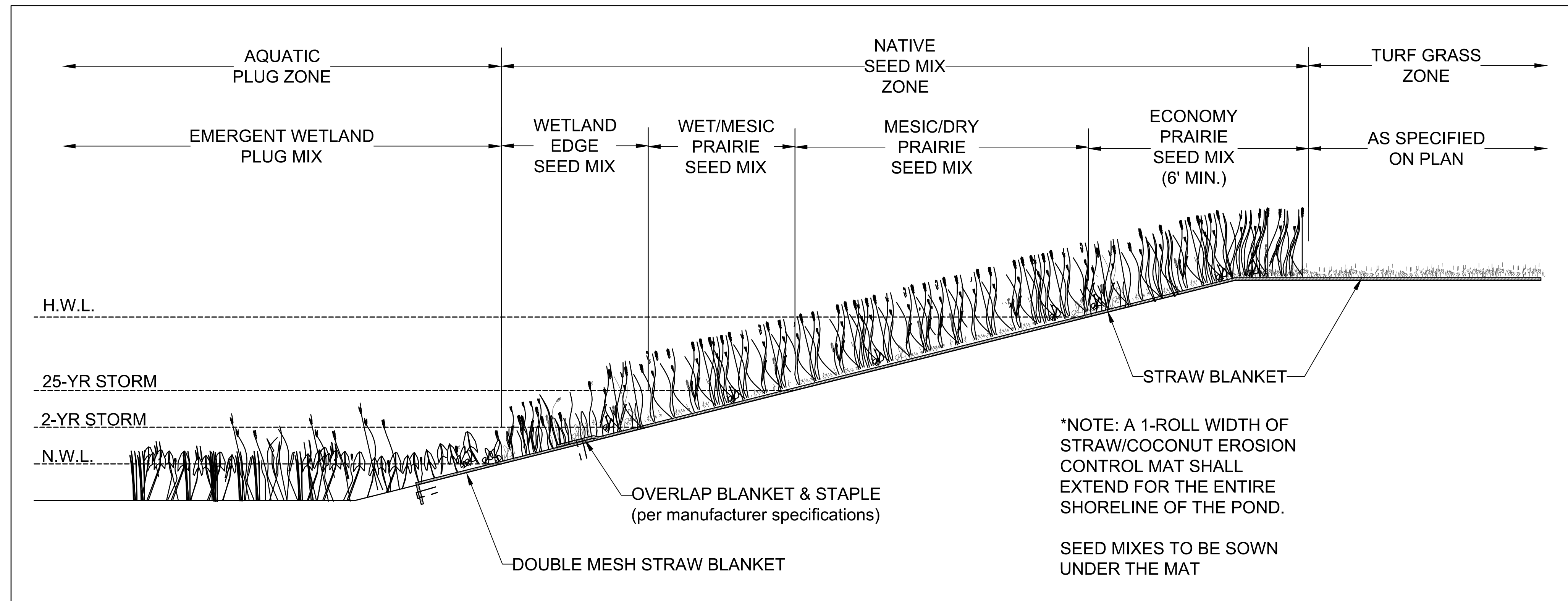
SEE SPECIFIC SPACING
DIMENSION ON DRAWINGS

CERTAIN BULBS/PERENNIALS MAY REQUIRE OTHER PLANTING DEPTHS. CONSULT BULB DISTRIBUTOR FOR PRECISE DEPTHS.

SLICE, CUT, OR SEPARATE
EXTERIOR ROOTS ON ROOT-BOUND
CONTAINER PLANTS TO PROMOTE
ROOT GROWTH.

(PERENNIALS, ORNAMENTAL GRASSES
VINES, GROUNDCOVERS & ANNUALS)





SECTION - TYPICAL NATURALIZED DETENTION BASIN LANDSCAPING (BASIN A & C)

ECONOMY PRAIRIE SEED MIX

Cardno - Apply at 37.5 PLS pounds per acre

BOTANICAL / (COMMON) NAME	PLS OZ/AC
PERMANENT MATRIX:	
Andropogon gerardi (Big Bluestem)	12.00
Bouteloua curtipendula (Side Oats Grama)	18.00
Carex spp. (Prairie Carex Mix)	3.00
Elymus canadensis (Canada Wild Rye)	24.00
Panicum virgatum (Prairie Switch Grass)	2.50
Schizachyrium scoparium (Little Bluestem)	28.00
Sorghastrum nutans (Indian Grass)	12.00
TOTAL	97.50

TEMPORARY COVER:

Avena sativa (Seed Oats)	360.00
Lolium multiflorum (Annual Rye)	100.00
TOTAL	460.00

FORBS:

Asclepias syriaca (Common Milk)	1.00
Asclepias tuberosa (Butterfly Weed)	1.00
Chamaecrista fasciculata (Partridge Pea)	9.00
Cercopsis lanceolata (Sand Coreopsis)	5.00
Echinacea purpurea (Purple Coneflower)	7.50
Helopsis helianthoides (False Sunflower)	0.25
Lupinus perennis (Wild Lupine)	1.00
Monarda fistulosa (Wild Bergamot)	0.50
Penstemon digitalis (Foxglove Beard Tongue)	1.00
Pycnanthemum virginianum (Common Mountain Mint)	0.50
Ratibida pinnata (Yellow Coneflower)	3.50
Rudbeckia hirta (Black-Eyed Susan)	1.00
Solidago speciosa (Showy Goldenrod)	1.00
Symphoricarum leave (Smooth Blue Aster)	0.50
Symphoricarum novae-angliae (New England Aster)	0.75
TOTAL	40.25

MESIC-DRY PRAIRIE SEED MIX

Cardno - Apply @38.8 PLS pounds per acre

BOTANICAL / (COMMON) NAME	PLS OZ/AC
PERMANENT MATRIX:	
Andropogon gerardi (Big Bluestem)	18.00
Bouteloua curtipendula (Side-Oats Grama)	8.00
Carex spp. (Prairie Sedge Mix)	4.00
Carex lurida (Bottlebrush Sedge)	3.00
Elymus canadensis (Canadian Wild Rye)	24.00
Panicum virgatum (Switch Grass)	4.00
Schizachyrium scoparium (Little Bluestem)	20.00
Sorghastrum nutans (Indian Grass)	20.00
TOTAL	101.00

TEMPORARY COVER:

Avena sativa (Seed Oats)	360.00
Lolium multiflorum (Annual Rye)	100.00
TOTAL	460.00

FORBS:

Anemone cylindrica (Thimbleweed)	0.50
Asclepias tuberosa (Butterfly Weed)	1.25
Aster laevis (Smooth Blue Aster)	0.75
Aster novae-angliae (New England Aster)	0.25
Aster obovatus (Sky-Blue Aster)	0.25
Baptisia bracteata (Cream Wild Indigo)	0.50
Baptisia lactea (White Wild Indigo)	2.00
Chamaecrista fasciculata (Partridge Pea)	13.00
Coreopsis lanceolata (Sand Coreopsis)	3.50
Coreopsis palmata (Prairie Coreopsis)	0.75
Desmanthus illinoensis (Illinois Sensitive Plant)	1.00
Desmodium illinoense (Illinois Tick Trefol)	0.50
Echinacea purpurea (Purple Coneflower)	6.50
Eryngium yuccifolium (Rattlesnake Master)	2.00
Lespedeza capitata (Round-Headed Bush Clover)	2.00
Liatris aspera (Rough Blazing Star)	1.00
Liatris pycnostachya (Prairie Blazing Star)	0.50
Lupinus perennis (Wild Lupine)	1.25
Monarda fistulosa (Wild Bergamot)	0.75
Parthenium integrifolium (Wild Quinine)	1.00
Potentilla arguta (Prairie Cinquefoil)	0.50
Pycnanthemum virginianum (Common Mountain Mint)	0.50
Ratibida pinnata (Yellow Coneflower)	3.50
Rudbeckia hirta (Black-Eyed Susan)	5.00
Silphium integrifolium (Rosin Weed)	3.00
Silphium laciniatum (Compass Plant)	2.00
Silphium terebinthaceum (Prairie Dock)	4.00
Solidago nemoralis (Old-Field Goldenrod)	0.25
Solidago rigida (Stiff Goldenrod)	2.00
Solidago speciosa (Showy Goldenrod)	0.50
Veronicastrum virginicum (Culver's Root)	0.25
Zizia aurea (Golden Alexanders)	0.50
TOTAL	62.25

WET-MESIC PRAIRIE SEED MIX

Cardno - Apply @36.88 PLS pounds per acre

BOTANICAL / (COMMON) NAME	PLS OZ/AC
PERMANENT MATRIX:	
Andropogon gerardi (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 pedunculatus (Red Bulrush)	0.50
Sorghastrum nutans (Indian Grass)	6.00
Spartina pectinata (Prairie Cord Grass)	3.00
TOTAL	64.50

TEMPORARY COVER:

Avena sativa (Seed Oats)	360.00
Lolium multiflorum (Annual Rye)	100.00
TOTAL	460.00

FORBS:

Asclepias syriaca (Common Milkweed)	2.00
Baptisia lactea (White Wild Indigo)	0.75
Chamaecrista fasciculata (Partridge Pea)	12.00
Coreopsis lanceolata (Sand Coreopsis)	3.50
Coreopsis tripteris (Tail Coreopsis)	3.00
Desmodium illinoense (Illinois Tick Trefol)	0.50
Echinacea purpurea (Purple Coneflower)	3.50
Eryngium yuccifolium (Rattlesnake Master)	2.00
Helianthus autumnalis (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
Parthenium integrifolium (Wild Quinine)	1.00
Physostegia virginiana (Obedient Plant)	0.25
Pycnanthemum virginianum (Common Mountain Mint)	1.00
Ololygonon rigidum (Stiff Goldenrod)	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 terebinthaceum (Prairie Dock)	6.00
Solidago juncea (Early Goldenrod)	0.25
Solidago rugosa (Rough Goldenrod)	0.25
Symphoricarum 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

NO MOW FESCUE SEED MIX

Prairie Nursery Westfield, WI

COMMON NAME	PERCENT	GERMINATION
SR150 Cheatings Fescue	23.52%	85%
Sheep Fescue	23.52%	85%
Dawson Red Fescue	11.76%	85%
SR100 Hard Fescue	11.76%	85%
Scalds Hard Fescue	11.76%	85%
Creeeping Red Fescue	11.70%	85%
Annual Ryegrass	3.88%	90%

Seed Rate 5 lbs per 100 sq. ft. or 220 lbs per acre

WETLAND EDGE SEED MIX

Cardno - Apply @ 32.83 PLS pounds per acre

BOTANICAL / (COMMON) NAME	PLS OZ/AC
PERMANENT MATRIX:	
Bolboschoenus fluviatilis (River Bulrush)	0.50
Carex comosa (Bristly Sedge)	1.00
Carex crinitata (Crested Oval Sedge)	2.00
Carex frankii (Bristly Cattail Sedge)	6.00
Carex vulpinoidea (Brown Fox Sedge)	3.00
Eleocharis palustris (Great Spike Rush)	0.50
Elymus virginicus (Virginia Wild Rye)	12.00
Glyceria striata (Fowl Manna Grass)	1.00
Juncus effusus (Common Rush)	1.00
Leersia oryzoides (Rice Cut Grass)	0.50
Schoenoplectus americanus (Charmaker's Rush)	1.00
Schoenoplectus tabernaemontani (Softstem Bulrush)	2.50
Scirpus atrovirens (Dark Green Bulrush)	1.00
Scirpus cyperinus (Wool Grass)	0.75
TOTAL	32.75

TEMPORARY COVER:

Avena sativa (Seed Oats)	360.00
Lolium multiflorum (Annual Rye)	100.00
TOTAL	460.00

FORBS:

Acorus calamus (Sweet Flag)	0.50
Allisma spp. (Water Plantain Mix)	2.00
Asclepias incarnata (Swamp Milkweed)	2.00
Bidens spp. (Bidens Mix)	2.00
Doellingeria umbellata (Flat-Topped Aster)	0.25
Eupatorium perfoliatum (Common Boneset)	1.00
Helianthus autumnalis (Sneezeweed)	2.00
Iris virginica (Blue Flag)	4.00
Lobelia cardinalis (Cardinal Flower)	0.10
Lobelia siphilitica (Great Blue Lobelia)	0.25
Lycopus americanus (Common Water Horehound)	0.25
Mimulus ringens (Monkey Flower)	1.50
Penthorum sedoides (Ditch Stonecrop)	0.50
Polygonum spp. (Pinkweed Mix)	0.50
Rudbeckia laciniata (Wild Golden Glow)	0.75
Sagittaria latifolia (Common Arrowhead)	2.00
Senna hebecarpa (Wild Senna)	2.00
Sparganium eurycarpum (Common Bur Reed)	4.00
Symphoricarum panicum (Swamp Aster)	1.00
Thalictrum dasycarpum (Purple Meadow Rue)	0.50
Verbena hastata (Blue Verain)	1.50
Verbesina alternifolia (Wingstem)	2.00
Vernonia spp. (Ironweed Mix)	2.00
TOTAL	32.80

Emergent Plug Mix (0" to 6" Depth)

Botanical Name	Common Name	%
Calamagrostis canadensis	Blue Joint Grass	1.50
Carex comosa	Bristly Sedge	5.00
Carex lacustris	Common Lake Sedge	2.00
Carex lupulina	Common Hoop Sedge	1.50
Carex stricta	Common Tussock Sedge	2.00
Carex trichocarpa	Hairy-fruited Lake Sedge	5.00
Carex vulpinoidea	Brown Fox Sedge	5.50
Juncus effusus	Common Rush	1.00
Leersia oryzoides	Rice Cut Grass	2.00
Schoenoplectus acutus	Hardstem Bulrush	1.00
Schoenoplectus tabernaemontani	Great Bulrush	3.00
Scirpus pungens	Chairmakers Rush	5.00
Scirpus atrovirens	Dark Green Rush	1.00
Scirpus cyperinus	Wool Grass Rush	2.00
Grass/Sedge/Rush Subtotal		37.50

Acorus calamus	Sweet Flag	3.00
Allisma subcordatum	Mud Plantain	1.00
Asclepias incarnata	Swamp Milkweed	3.00
Eutrochium maculatum	Spotted Joe Pye Weed	2.00
Hibiscus moscheutos	Swamp Rosemallow	3.00
Iris virginica shrevei	Blue Flag	12.00
Lobelia cardinalis	Cardinal Flower	2.00
Lycopus americanus	Waterhorehound	1.50
Lythrum alatum	Winged Loosestrife	2.00
Mimulus ringens	Monkey Flower	3.00
Pontederia cordata	Pickereelweed	2.00
Sagittaria latifolia	Common Arrowhead	13.00
Solidago rigida	Riddle's Goldenrod	2.00
Sparganium eurycarpum	Great Bur Reed	13.00
Wildflower Subtotal		62.50
SEED MIX TOTAL		100.00

Deep Emergent Plug Mix (6" to 18" Depth)

Botanical Name	Common Name	Type	%
Carex comosa	Bristly Sedge	Plug	11.50
Schoenoplectus acutus	Hardstem Bulrush	Plug	4.00
Schoenoplectus tabernaemontani	Great Bulrush	Plug	19.50
Scirpus pungens	Chairmakers Rush	Plug	11.50
Grass/Sedge/Rush Subtotal			46.50
Acorus calamus	Sweet Flag	Plug	8.00
Nymphaea odorata	White Water Lily	Bare Root	2.00
Persicaria amphibia	Water Smartweed	Bare Root	4.00
Persicaria coccinea	Scarlet Smartweed	Bare Root	8.00
Pontederia cordata	Pickereelweed	Plug	12.50
Potamogeton nodosus	Long-leaf Pondweed	Bare Root	1.50
Sagittaria latifolia	Common Arrowhead	Plug	5.00
Sparganium eurycarpum	Great Bur Reed	Plug	12.50
Wildflower Subtotal			53.50
SEED MIX TOTAL			100.00

"No-Mow" Maintenance Program

Mowing

"No-Mow" lawns may require occasional mowing during the first two (2) years of establishment to control weeds, especially with lawns that are seeded in spring. Most annual weeds can be controlled by mowing at a height of four inches (4") in the first growing season. If biennial weeds such as sweet clover, Queen Anne's Lace, burdock, etc. are a problem in the second year, they should be mowed at four inches (4") just as they begin to flower, usually around mid June. This carefully timed mowing will kill most biennials. A few may survive the mowing, and should be mowed at four inches (4") a second time when they re-bloom later in the season.

Once the "No-Mow" lawn is established there are four (4) basic mowing options *

- No mowing at all
- One late spring mowing, usually in early June when the seedheads appear
- Fall mowing with a mulching mower, especially in wooded areas to chop up fallen leaves
- Regular mowing, usually monthly, to maintain a more "cropped" appearance

No Mowing: This will result in a turf whose leaves grow to about six inches (6") in height that will drape over one another to create a low-growing meadow effect. Seedheads about two feet (2') tall will appear in early to mid June, creating a nice meadow effect. The seedheads will typically fall to the ground by late summer, and the lawn will revert to its normal height of about five to six inches.

Late Spring Mowing: Mowing the "No-Mow" lawn once a year in June when the seedheads appear at a height of four (4) to five (5) inches to remove the seedheads and the turf will re-grow to its normal height.

Fall Mowing: This is a good option for seedlings under or in open woodlands. The fescue grasses usually will not form seedheads when growing in shade, so June mowing is not required to maintain a normal height. However, leaves from deciduous trees must either be raked up and removed, or chopped up with a mulching mower in order to prevent smothering of the turf over winter.

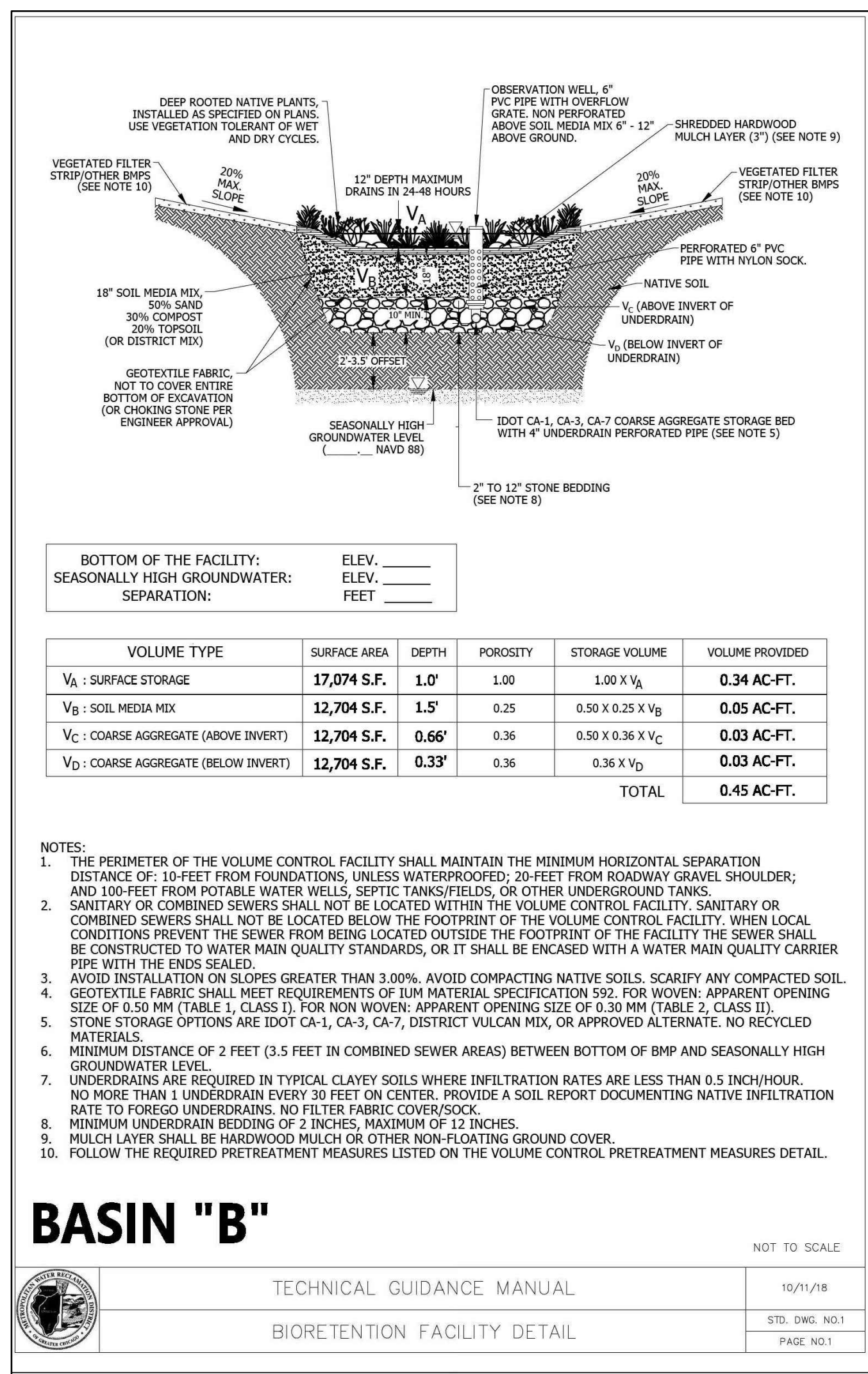
Regular Mowing: For a traditional manicured lawn look, regular mowing can be done every three (3) to four (4) weeks, or when the grass reaches a height of six inches (6"). Most fine fescues do not tolerate close mowing, and should be mowed no lower than 3.5 inches. Never remove more than one third of the total leaf material, or the turf will be damaged. Always cut grass with a sharp mower blade to minimize tearing of the leaves which will cause additional stress to the grass plant.

De-Thatching

Fine fescues tend to develop a thatch layer near the soil surface over time. Thatch is composed of dead grass that does not decompose. It can smother the growth of new grass shoots, reducing the density of the lawn and creating dead spots. The thatch layer also tends to retain moisture at the ground level, which can encourage the growth of fungal diseases. Thatch development is encouraged by high levels of soil nitrogen, and is more common in rich soils and lawns that are regularly fertilized. If thatch builds up to a point where dead grass is visible and grass begins to thin out, the lawn should be de-thatched.

De-thatching can be accomplished using a mechanical de-thatcher or power rake, or by hand using a de-thatching rake. Set mechanical de-thatchers to a depth where they lift the thatch without digging up the soil. If the thatch is particularly thick, the de-thatcher will need to be set deeper, and some soil disturbance will likely occur. The thatch should be raked out of the lawn and removed. If open soil is visible following de-thatching, the affected areas should then be over-seeded with "No-Mow" lawn mix.

Timing of de-thatching is very important. Cool season fescue lawns should be de-thatched in mid-spring after the grass has greened up and begun active growth. De-thatching in early spring before the lawn begins to grow tends to encourage weeds.



VOLUME TYPE	SURFACE AREA	DEPTH	POSS. LOSST	STORAGE VOLUME	VOLUME PROVIDED
V ₁ - SURFACE STORAGE	17,074 S.F.	1.0'	1.00	1.00 X V ₁	0.34 AC-FT.
V ₂ - COARSE AGGREGATE (ABOVE INVERT)	12,704 S.F.	1.5'	0.25	0.50 X 0.25 X V ₂	0.05 AC-FT.
V ₃ - COARSE AGGREGATE (BELOW INVERT)	12,704 S.F.	0.66'	0.36	0.50 X 0.36 X V ₃	0.03 AC-FT.
TOTAL					0.45 AC-FT.

Botanical Name	Common Name	Type	%
Carex comosa	Bristly Sedge	Plug	11.50
Schoenoplectus acutus	Hardstem Bulrush	Plug	4.00
Schoenoplectus tabernaemontani	Great Bulrush	Plug	19.50
Scirpus pungens	Chairmakers Rush	Plug	11.50
Grass/Sedge/Rush Subtotal			46.50
Acorus calamus	Sweet Flag	Plug	8.00
Nymphaea odorata	White Water Lily	Bare Root	2.00
Persicaria amphibia	Water Smartweed	Bare Root	4.00
Persicaria coccinea	Scarlet Smartweed	Bare Root	8.00
Pontederia cordata	Pickereelweed	Plug	12.50
Potamogeton nodosus	Long-leaf Pondweed	Bare Root	1.50
Sagittaria latifolia	Common Arrowhead	Plug	5.00
Sparganium eurycarpum	Great Bur Reed	Plug	12.50
Wildflower Subtotal			53.50
SEED MIX TOTAL			100.00

THREE-YEAR MANAGEMENT PERIOD ACTIVITIES

- The work consists of the Contractor conducting routine ecological management activities during the three-year management and monitoring period in the naturalized planting areas as shown on the landscape plan to assist the Contractor in meeting required performance standards.
- During the first two (2) growing seasons of the three-year period the Contractor shall high-mow the vegetation within the Native Seed Mix Zone several times during the growing season to ensure the vegetation does not exceed eighteen inches (18") in height. A rotary or flail type mower shall be used. During high-mowing, the vegetation shall be cut no lower than 6 to 9 inches so the native seeding are unharmed. Selective weed whipping can also be used if conditions are unfit (i.e., too wet) for a tractor, or if only small isolated areas of vegetation required cutting. In addition, cutting the inflorescence prior to seed set of many biennial species including teasel and sweet clover is an effective control method that can be utilized.
- The Contractor shall conduct chemical and/or mechanical weed control activities in all of the naturalized seeded areas for a three-year period following planting/seeding. The Contractor shall conduct four annual weed control application periods (total of twelve (12) for the three-year period). The Contractor is responsible to achieve a 95% kill of reed canary grass, purple loosestrife, thistle and common reed and 80% kill of other problematic, nuisance species to successfully complete each of the application periods specified below.
 - Application Period One (early spring): problematic species such as, but not limited to, reed canary grass, red/white cover, cattails.
 - Application Period Two (late spring to mid-summer): problematic species such as, but not limited to, reed canary grass, white/yellow sweet cover, cattails, wild carrot, purple loosestrife and common reed.
 - Application Period Three (mid to late summer): problematic species such as, but not limited to, reed canary grass, ragweed, cattails, purple loosestrife and common reed.
 - Application Period Four (late summer to early fall): problematic species such as, but not limited to, reed canary grass, red/white cover, common reed.

- Natural regeneration of cattails in the stormwater management facilities will likely occur following construction. As required by these planting specifications pre-planting weed control will be conducted if any problematic species are present. As for cattails, hand pulling cattails can be conducted when the cattails are small enough to ensure that the entire root is removed. Off-site disposal of cattails will be required. Larger cattails will require herbicide applications. Aggressive cattail control will be required after planting throughout the three-year management period to ensure plant establishment. After planting the hand-wick application method to control cattails shall be required.
- If permitted, the Contractor shall conduct a prescribed burn in the prairie areas during the third growing season. The Contractor shall obtain all the required burn permits from the Illinois Environmental Protection Agency

Traffic Impact Study Proposed Warehouse/Distribution Development

Palatine, Illinois



Prepared For:

MIDWEST
INDUSTRIAL FUNDS
REAL ESTATE INVESTMENT & DEVELOPMENT

KLOA
Kenig, Lindgren, O'Hara, Aboona, Inc.

June 30, 2020

Attachment: Traffic Impact Study (dated 6-30-2020) (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) -

1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed warehouse/distribution development to be located in Palatine, Illinois. The site, which is currently occupied by Weber-Stephen Products, is located on the west side of Hicks Road at Sellstrom Drive. As proposed, the site will be developed with two warehouse/distribution buildings that will include an approximate 275,558 square-foot building and an approximate 153,043 square-foot building for a total of 428,601 square feet of space. Access to the development will be provided via two access drives on Sellstrom Drive.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area, and determine if any roadway or access improvements are necessary to accommodate traffic generated by the proposed development.

Figure 1 shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site.

The sections of this report present the following:

- Existing roadway conditions
- A description of the proposed development
- Directional distribution of the development traffic
- Vehicle trip generation for the development
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning and weekday evening peak hours
- Recommendations with respect to adequacy of the site access and adjacent roadway system

Traffic capacity analyses were conducted for the weekday morning and weekday evening peak hours for the following conditions:

1. Existing Conditions – Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.
2. No-Build Conditions – Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes increased by an ambient area growth factor not attributable to any particular development and the traffic to be generated by the Amazon Last Mile distribution facility to be located immediately east of the site on the east side of Hicks Road at Sellstrom Drive.
3. Projected Conditions – Analyzes the capacity of the future roadway system using the projected traffic volumes that include the background traffic volumes and the net increase in traffic estimated to be generated by the proposed development.



Aerial View of Site

Figure 2

*Proposed Warehouse/Distribution Development
Palatine, Illinois*

2. Existing Conditions

Existing transportation conditions in the vicinity of the site were documented based on field visits conducted by KLOA, Inc. in order to obtain a database for projecting future conditions. The following provides a description of the geographical location of the site, physical characteristics of the area roadway system including lane usage and traffic control devices, and existing peak hour traffic volumes.

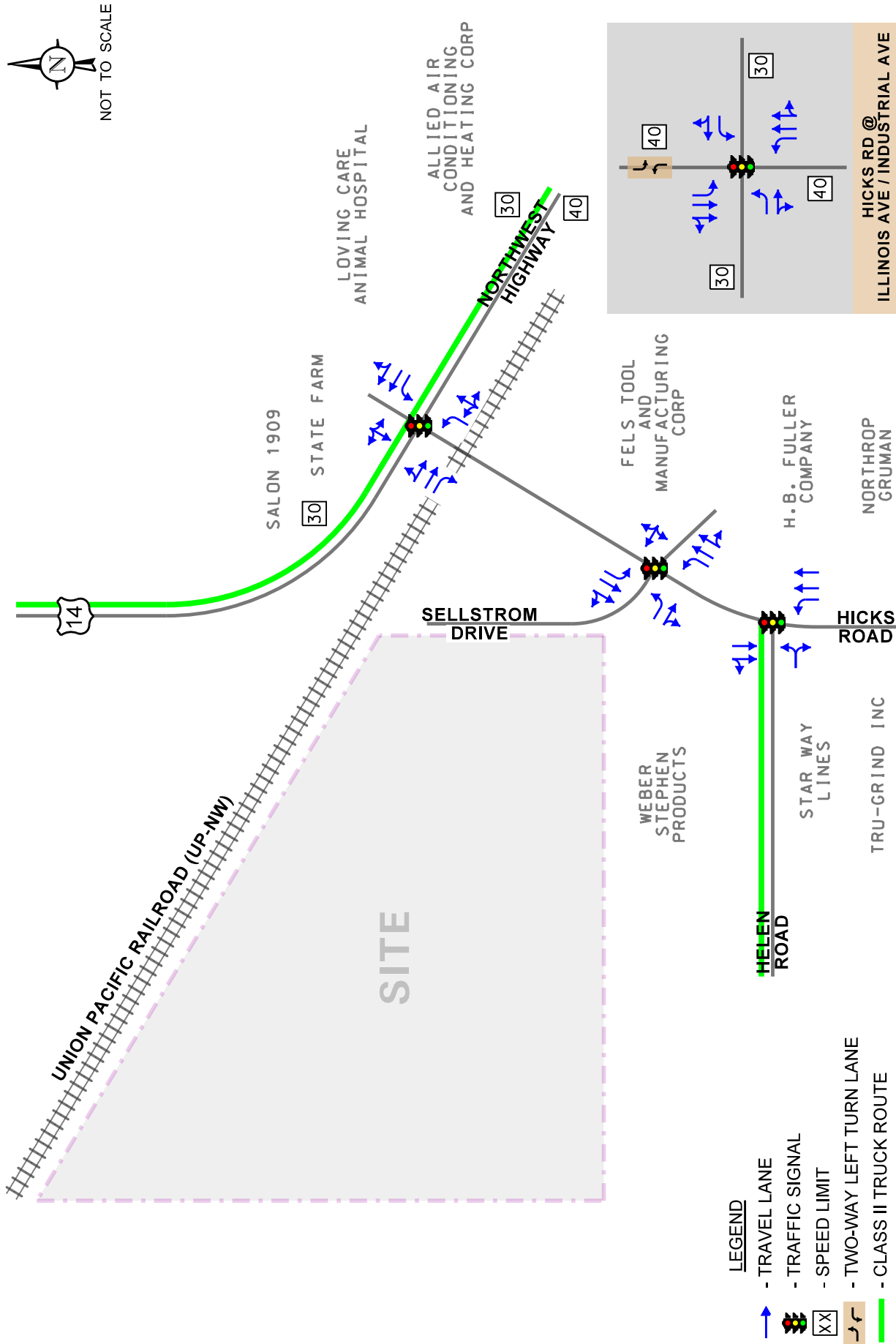
Site Location

The site, which is currently occupied by Weber-Stephen Products, is located on the west side of Hicks Road at Sellstrom Drive. Land uses in the vicinity of the site are primarily residential to the north and industrial to the east, west, and south and include Star Way Lines, Inc. to the south and Weber-Stephen Products to the east and south. It should be noted that the Amazon Last Mile distribution facility is proposed to be located on the east side of Hicks Road at Sellstrom Drive.

Existing Roadway System Characteristics

The characteristics of the existing roadways near the development are described below and illustrated in **Figure 3**.

Northwest Highway (U.S. Route 14) is a northwest-southeast, minor arterial roadway that provides two lanes in each direction. At its signalized intersection with Hicks Road, Northwest Highway provides a combined through/left-turn lane, a through lane, and an exclusive right-turn lane on the southeast-bound approach and an exclusive left-turn lane, a through lane, and a combined through/right-turn lane on the northwest-bound approach. Northwest Highway is under the jurisdiction of the Illinois Department of Transportation (IDOT) and is designated as a Class II Truck Route. Within the vicinity of the site, Northwest Highway has a posted speed limit of 30 miles per hour and is not designated as a Strategic Regional Arterial. Northwest Highway carries an AADT volume of 25,200 vehicles west of Hicks Road and 19,000 vehicles east of Hicks Road (IDOT 2017).



Existing Roadway Characteristics

Proposed Warehouse Development
Palatine, Illinois

Hicks Road is a north-south, major collector roadway that in the vicinity of the site provides two through lanes in each direction. South of Helen Road, Hicks Road is generally divided by a two-way left-turn lane. At its signalized intersection with Northwest Highway, Hicks Road provides an exclusive left-turn lane and a combined left-turn/through/right-turn lane on the northbound approach. The north leg of this intersection is an access drive that serves the commercial uses on the north side of Northwest Highway and provides a combined left-turn/through/right-turn lane. At its signalized intersection with Sellstrom Drive, Hicks Road provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on both approaches. Approximately 75 feet south of Northwest Highway, Hicks Road has an at-grade crossing with Union Pacific Railroad tracks which carry the UP-NW Metra Commuter rail line. The northbound stop bar on Hicks Road at its intersection with Northwest Highway is located south of this crossing to prevent vehicles from stopping on the tracks. At its signalized intersection with Illinois Avenue and Industrial Avenue, Hicks Road provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on both approaches. Hicks Road is under the jurisdiction of IDOT, carries an AADT volume of 11,500 vehicles (IDOT 2018), and has a posted speed limit of 35 miles per hour north of Helen Road and 40 miles per hour south of Helen Road.

Industrial Avenue is an east-west, major collector roadway that provides one through lane in each direction. At its signalized intersection with Hicks Road, where it forms the east leg of this intersection, Industrial Avenue provides an exclusive left-turn lane and a combined through/right-turn lane on the westbound approach and is aligned opposite Illinois Avenue. Industrial Avenue is under the jurisdiction of the Village of Rolling Meadows, carries an AADT volume of 5,600 vehicles (IDOT 2018), and has a posted speed limit of 30 miles per hour.

Illinois Avenue is an east-west local roadway that provides one through lane in each direction. At its signalized intersection with Hicks Road, where it forms the west leg of this intersection, Illinois Avenue provides an exclusive left-turn lane and a combined through/right-turn lane on the eastbound approach and is aligned opposite Industrial Avenue. Illinois Avenue is under the jurisdiction of the Village of Palatine, has a posted speed limit of 30 miles per hour, and is designated as a Class II Truck Route from Vermont Street to Hicks Road.

Helen Road is an east-west local roadway that extends from Hicks Road to its terminus approximately one mile to the west. At its signalized intersection with Hicks Road, Helen Road provides an exclusive left-turn lane and an exclusive right-turn lane. Helen Road is under the jurisdiction of the Village of Palatine, has a posted speed limit of 25 miles per hour, and is designated as a Class III Truck Route from Oak Street to Hicks Road.

Sellstrom Drive is a north-south local roadway that extends from Hicks Road to its terminus approximately 500 feet to the north. At its signalized intersection with Hicks Road, Sellstrom Drive provides an exclusive left-turn lane and a combined through/right-turn lane. The east leg of this intersection serves the Amazon Last Mile Distribution Facility and the H.B. Fuller/Fel's site and provides a combined left-turn/through/right-turn lane at its intersection with Sellstrom Drive. Sellstrom Drive is under the jurisdiction of the Village of Palatine.

Traffic Signal Interconnect

The intersection of Hicks Road with Northwest Highway is part of a 17-signal interconnect system that extends along Northwest Highway from Baldwin Road 2.5 miles south and then east to Wilke Road. The intersections of Hicks Road with Sellstrom Drive, Helen Road, the Northrop Grumman entrance, and Illinois Avenue/Industrial Avenue are part of a separate interconnect system.

Existing Traffic Volumes

In order to determine current traffic conditions within the study area, KLOA, Inc. conducted peak period traffic counts utilizing Miovision Scout Collection Units at the following intersections:

- Hicks Road with Northwest Highway
- Hicks Road with Sellstrom Drive
- Hicks Road with Industrial Avenue/Illinois Avenue

The traffic counts were conducted on Wednesday, April 3, 2019 during the weekday morning (6:00 A.M. to 9:00 A.M.) and weekday evening (3:00 P.M. to 6:30 P.M.) peak periods. The results of the traffic counts show that the peak hours of traffic generally occur between 7:15 A.M. and 8:15 A.M. during the morning peak period and between 4:30 P.M. and 5:30 P.M. during the evening peak period. Copies of the traffic count summary sheets are included in the Appendix. **Figure 4** illustrates the existing peak hour vehicle traffic volumes.

Train Operations

The at-grade train crossing of the UP-NW Metra Rail Line with Hicks Road was observed during the peak periods to determine how often passing trains obstructed traffic movements. It was observed that the at-grade crossing was blocked nine times during the weekday morning peak hour for an average of 61 seconds. Further, it was observed that the at-grade crossing was blocked five times during the weekday evening peak hour for an average of 65 seconds.

Given the proximity of the railroad crossing to the traffic signal at the intersection of Northwest Highway and Hicks Road, the crossing and signal are interconnected. During a train event, a preemptive northbound phase is provided in order to clear any cars that may be stopped on the railroad tracks followed by an eastbound-westbound through green phase on Northwest Highway during which the eastbound right turns and westbound left turns are prohibited.

Crash Analysis

KLOA, Inc. obtained accident data for the most recent available past five years (2013 to 2017) for the intersections of Hicks Road with Northwest Highway, Sellstrom Drive, and Illinois Avenue/Industrial Avenue. A review of the crash data revealed no fatalities were reported at any of the studied intersections during the review period. A summary of the crash data for the intersections is shown in **Tables 1 through 3.**¹

¹ IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. The author is responsible for any data analyses and conclusions drawn.

Table 1
HICKS ROAD WITH NORTHWEST HIGHWAY - CRASH SUMMARY

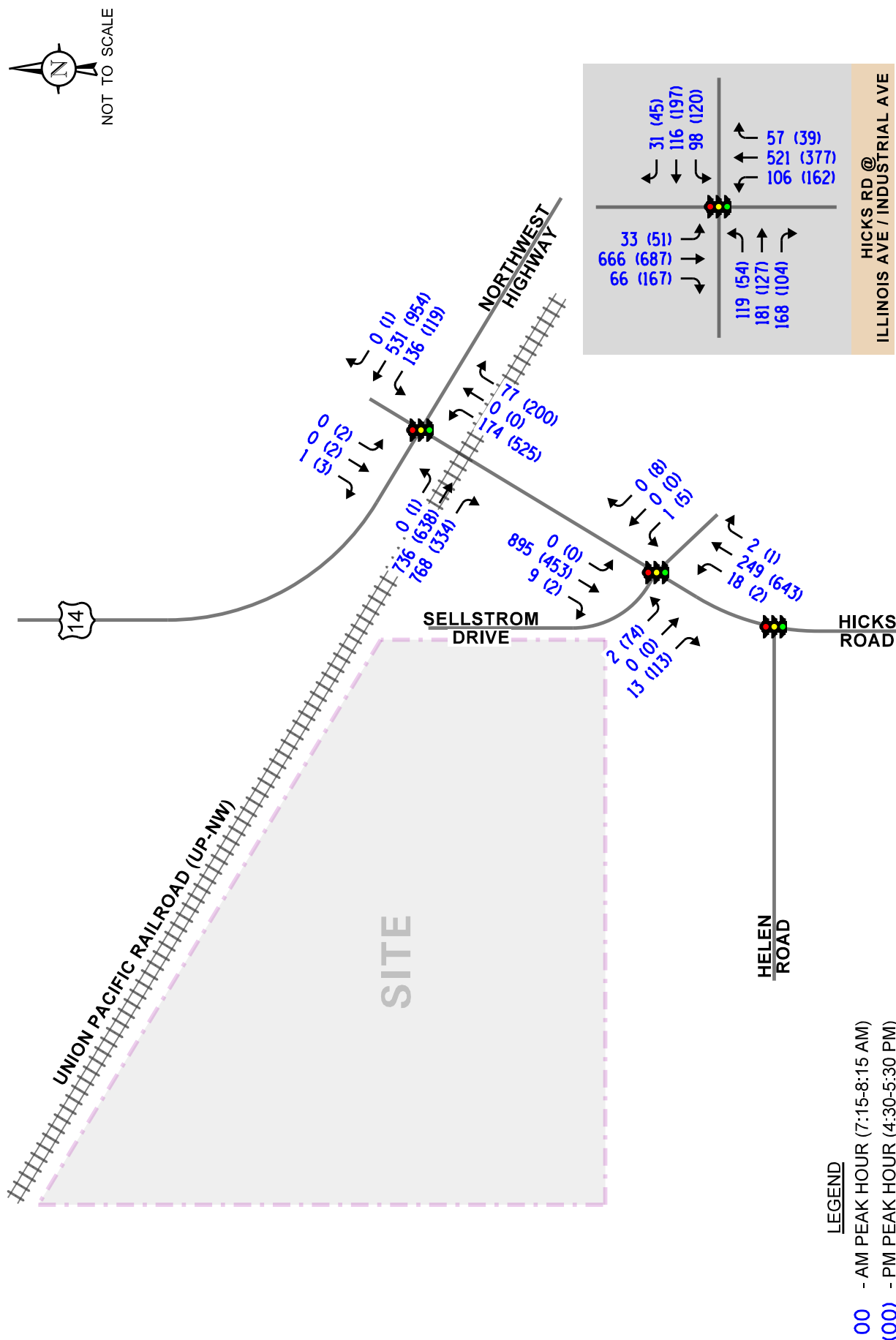
Year	Type of Accident Frequency						Total
	Angle	Object	Rear End	Sideswipe	Turning	Other	
2013	0	0	4	0	1	0	5
2014	0	0	2	1	2	0	5
2015	0	0	5	2	3	0	10
2016	0	0	5	0	1	0	6
2017	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>4</u>
Total	0	0	18	3	9	0	30
Average/Year	--	--	3.6	<1.0	1.8	--	6.0

Table 2
HICKS ROAD WITH SELLSTROM DRIVE/ACCESS ROAD - CRASH SUMMARY

Year	Type of Accident Frequency						Total
	Angle	Object	Rear End	Sideswipe	Turning	Other	
2013	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0
2016	0	1	1	0	0	0	2
2017	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>
Total	0	1	2	0	0	0	3
Average/Year	--	<1.0	<1.0	--	--	--	<1.0

Table 3
HICKS ROAD WITH ILLINOIS AVENUE/INDUSTRIAL AVENUE - CRASH SUMMARY

Year	Type of Accident Frequency						Total
	Angle	Object	Rear End	Sideswipe	Turning	Other	
2013	1	0	0	0	2	0	3
2014	4	0	2	1	0	0	7
2015	0	1	4	0	0	1	6
2016	1	0	2	0	1	0	4
2017	<u>2</u>	<u>0</u>	<u>3</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>5</u>
Total	8	1	11	1	3	1	25
Average/Year	1.6	<1.0	2.2	<1.0	<1.0	<1.0	5.0



3. Traffic Characteristics of the Proposed Development

In order to properly evaluate future traffic conditions in the surrounding area, it was necessary to determine the traffic characteristics of the proposed development, including the directional distribution and volumes of traffic that it will generate.

Proposed Site and Development Plan

As proposed, the site will be developed with two warehouse/distribution buildings as summarized below:

- An approximate 275,558 square-foot building that will have approximately 291 parking spaces and 42 exterior docks.
- An approximate 153,043 square-foot building that will have approximately 188 parking spaces and 28 exterior docks.

Overall, both warehouse buildings will provide of a total of 428,601 square feet of space including 8,572 square feet of office, 479 parking spaces, and 70 exterior docks.

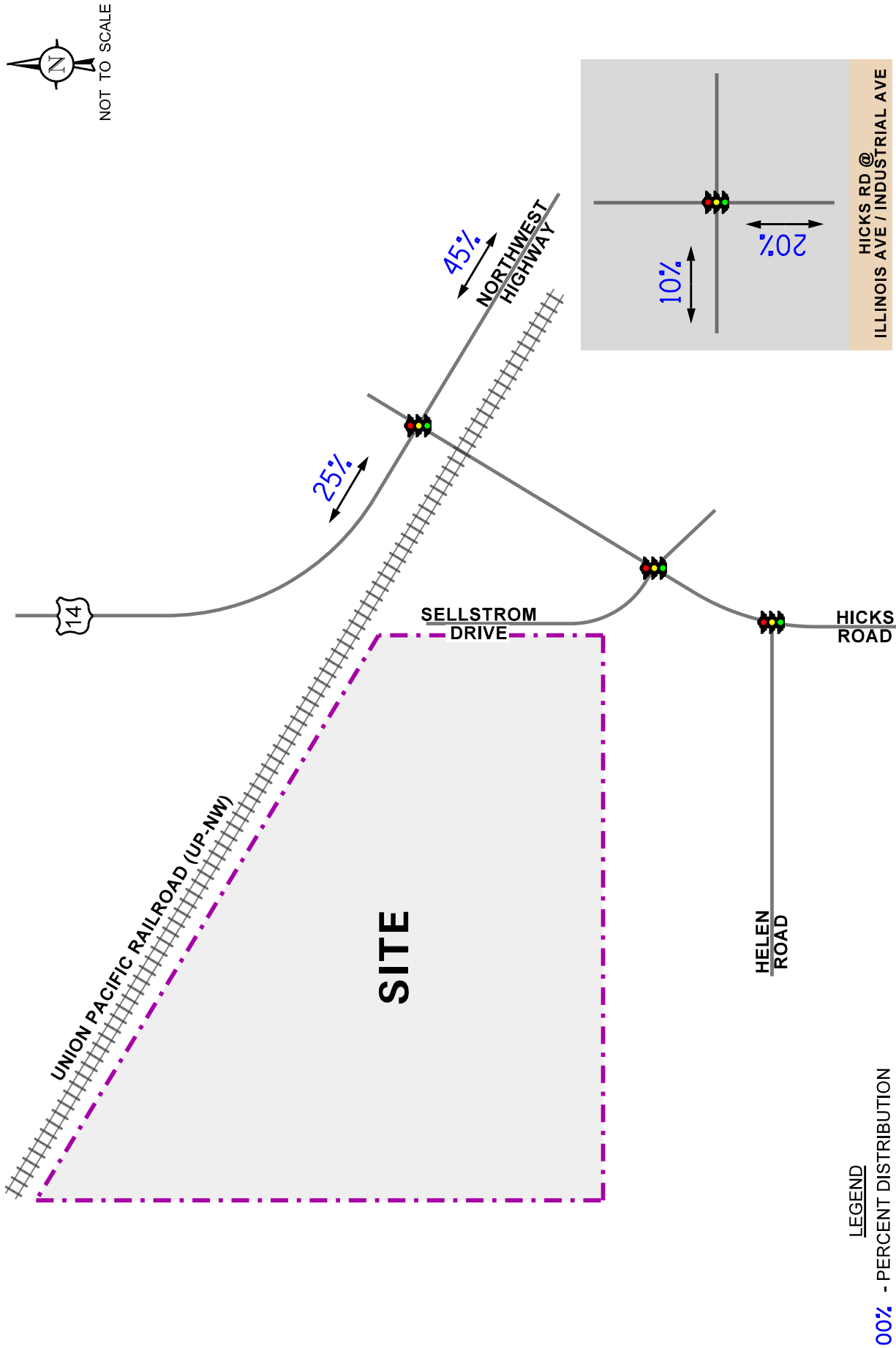
Access to the site will be provided via the following two access drives on Sellstrom Drive:

- The southern access drive will be located on the west side of Sellstrom Drive at the south end of the site and will serve both passenger vehicle and truck traffic. This access drive will provide one inbound lane and one outbound lane with the outbound lane under stop sign control. It should be noted that the access drive will be located just north of an existing access road. However, given the lower volume of traffic on Sellstrom Drive, currently using the existing access road, and projected to use the proposed access drive, the proximity of the access drive to the access road should not pose any operational issues.
- The northern access drive will be located on the west side of Sellstrom Drive at the north end of the site and at the terminus of Sellstrom Drive and will primarily serve passenger vehicle traffic. This access drive will provide one inbound lane and one outbound lane.

A copy of the preliminary site plan is included in the Appendix.

Directional Distribution

The directions from which traffic generated by the proposed warehouse/distribution development will approach and depart the site were estimated based on existing travel patterns, as determined from the traffic counts. **Figure 5** illustrates the directional distribution of the development-generated traffic.



Estimated Directional Distribution

Proposed Warehouse Development
Palatine, Illinois

Peak Hour Traffic Volumes

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*, 10th Edition. Land-Use Code 150 (Warehouse) was utilized for the proposed west building of approximately 275,558 square feet in size and the east building of approximately 153,043 square feet in size, totaling 428,601 square feet of space including office and maintenance areas. It should be noted that the site will provide a total of 479 car parking spaces and 70 exterior docks.

Table 4 shows the vehicle trips estimated to be generated by the proposed development during the weekday morning and weekday evening peak hours in addition to the weekday daily volumes. The ITE trip generation summary sheets are included in the Appendix.

Table 1

PROJECTED SITE-GENERATED TRAFFIC VOLUMES

ITE Land Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Weekday Daily
		In	Out	Total	In	Out	Total	
150	Warehouse (428,601 s.f.)	59	18	77	21	58	79	722

4. Projected Traffic Conditions

The total projected traffic volumes include the existing traffic volumes, increase in background traffic due to growth, and the traffic estimated to be generated by the proposed subject development.

Development Traffic Assignment

The estimated weekday morning and weekday evening peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution. **Figure 6** illustrates the assignment of the development-generated traffic volumes.

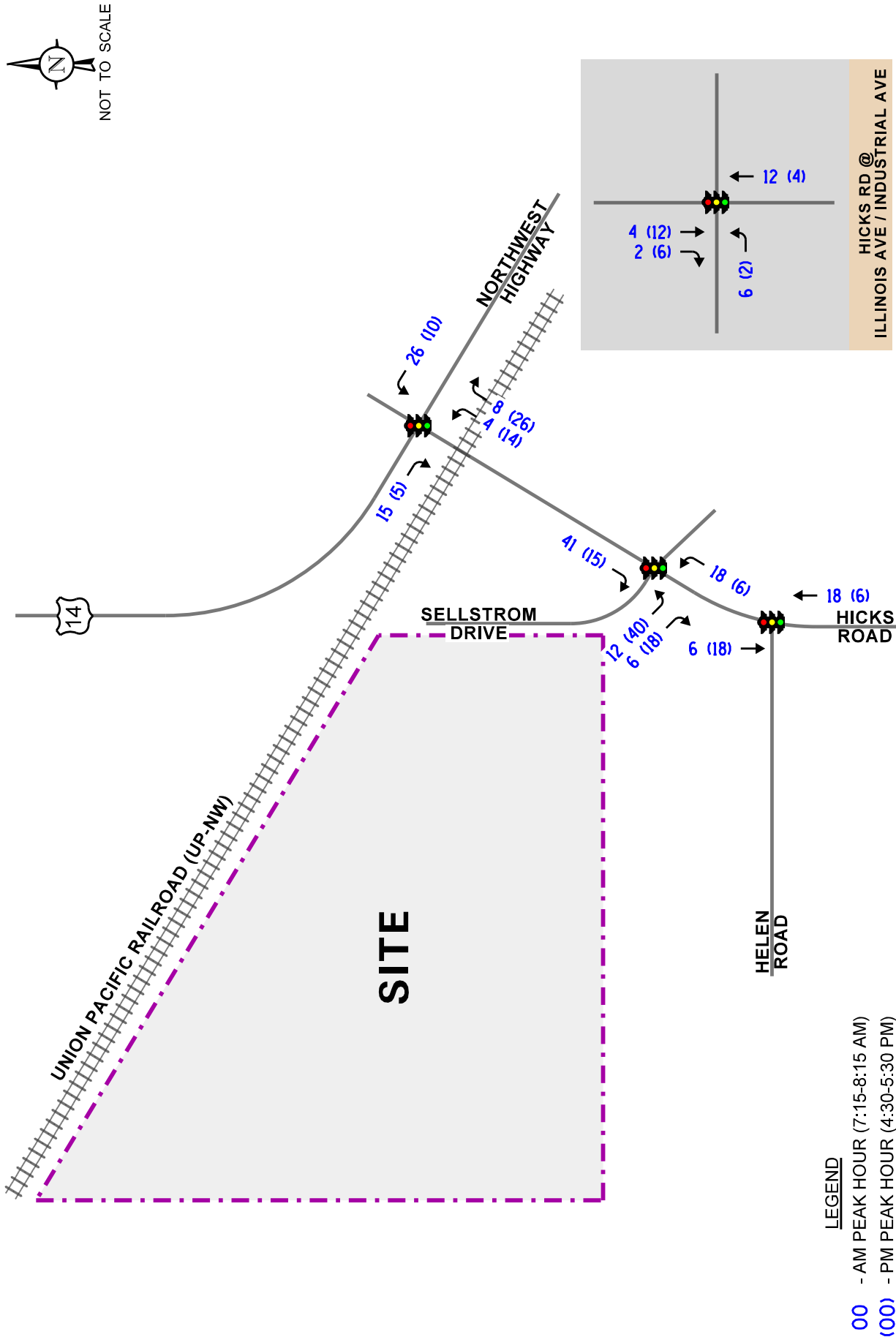
Background (No-Build) Traffic Conditions

The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on AADT projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes were increased by an annually compounded growth rate of 0.51 percent per year for six years (buildout year plus five years) for a total of 3.1 percent. A copy of the CMAP 2050 projections letter is included in the Appendix. In addition, the traffic to be generated by the Amazon Last Mile Distribution Facility to be located immediately east of the site on the east side of Hicks Road at Sellstrom Drive was included in the background traffic conditions based on the traffic study conducted for the Amazon Last Mile Distribution Facility.

The Year 2025 no-build traffic volumes are illustrated in **Figure 7**.

Total Projected Traffic Volumes

The development-generated traffic (Figure 6) was added to the Year 2025 no-build traffic volumes to determine the Year 2025 total projected traffic volumes, as shown in **Figure 8**.

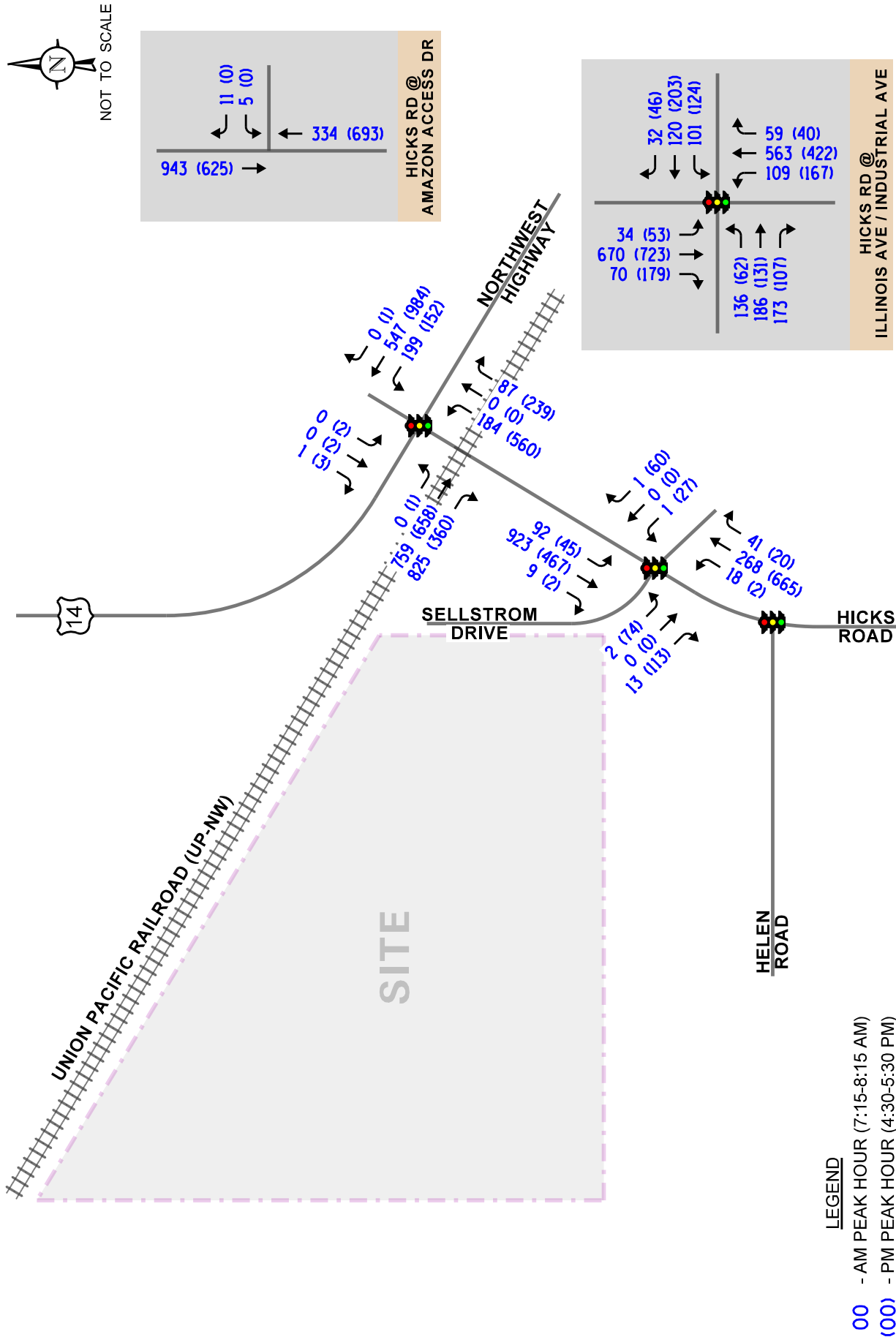


Job No: 20-126 Figure: 6

Estimated Site-Generated Traffic Volumes

Proposed Warehouse Development
Palatine, Illinois

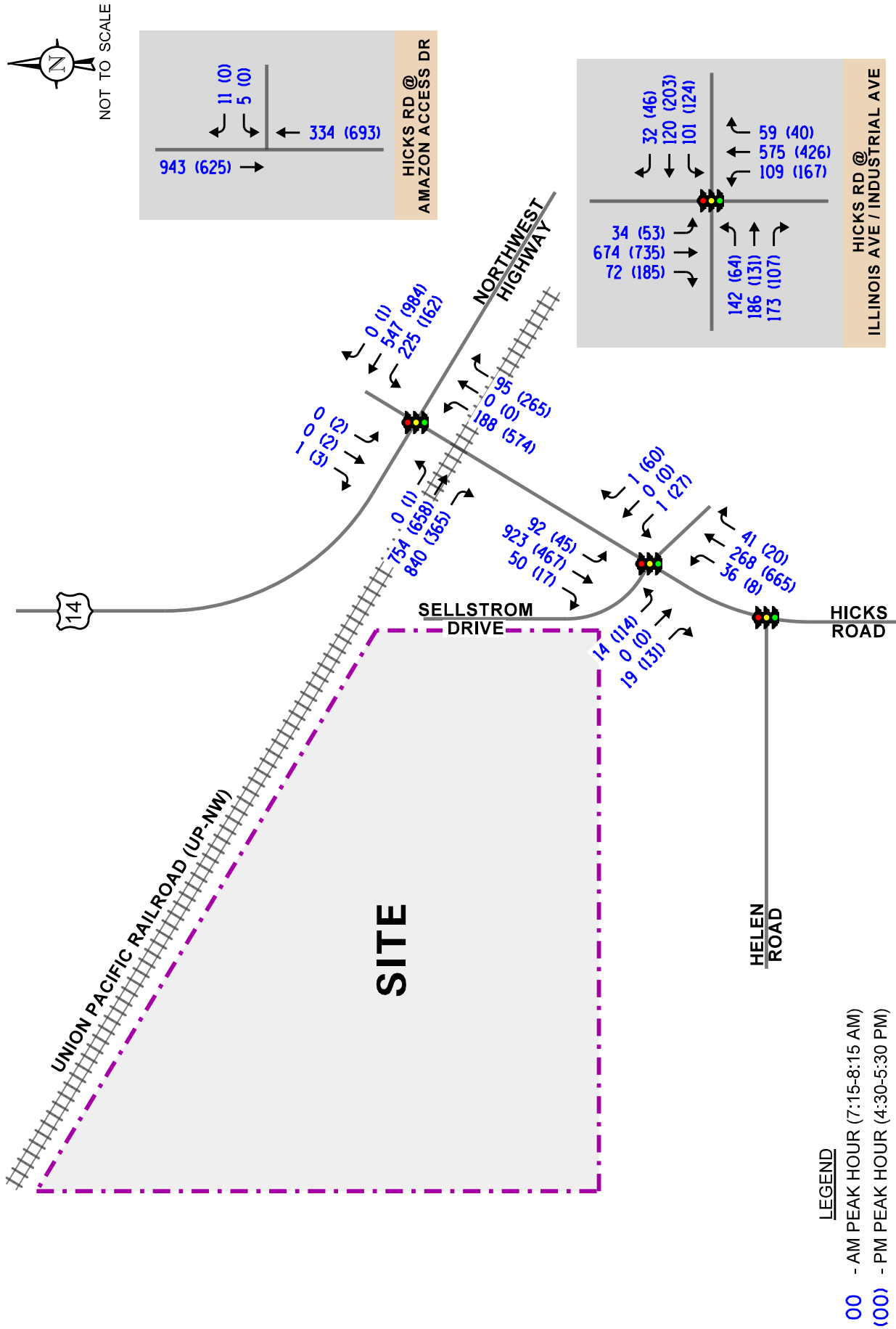
Attachment: Traffic Impact Study (dated 6-30-2020) (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) -



Job No: 20-126 Figure: 7

Year 2025 No-Build Traffic Volumes

Proposed Warehouse Development
Palatine, Illinois



Job No: 20-126 Figure: 8

Year 2025 Total Projected Traffic Volumes

Proposed Warehouse Development
Palatine, Illinois

Attachment: Traffic Impact Study (dated 6-30-2020) (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) -

5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning and weekday evening peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access drives are projected to operate and whether any roadway improvements or modifications are required.

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning and weekday evening peak hours for the existing (Year 2019), Year 2025 no-build, and Year 2025 total projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM)*, 6th Edition and analyzed using the Synchro/SimTraffic 10 software. The analysis for the traffic-signal controlled intersections were accomplished using field measured cycle lengths and phasings to determine the average overall vehicle delay 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.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing, Year 2025 no-build, and Year 2025 total projected conditions are presented in **Tables 5** through **8**. A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 5

CAPACITY ANALYSIS RESULTS – HICKS ROAD WITH NORTHWEST HIGHWAY – SIGNALIZED

	Peak Hour	Eastbound		Westbound		Northbound		Southbound	Overall
		L/T	R	L	T/R	L	L/T/R	L/T/R	
Year 2019 Existing Traffic Volumes	Weekday Morning Peak Hour	C 21.8	A 7.2	B 12.6	B 12.4	D 42.7	D 42.4	E 58.0	B 16.8
		B – 14.3		B – 12.4		D – 42.6			
	Weekday Evening Peak Hour	C 24.8	A 3.4	B 14.7	B 17.8	E 56.2	E 57.6	E 56.7	C 27.9
		B – 17.5		B – 17.5		E – 56.9			
Year 2025 No-build Traffic Volumes	Weekday Morning Peak Hour	C 25.0	B 10.4	B 17.2	B 13.2	D 42.9	D 42.7	E 58.0	B 19.1
		B – 17.4		B – 14.2		D – 42.8			
	Weekday Evening Peak Hour	C 28.9	A 4.0	B 17.7	C 20.3	D 53.8	E 56.3	E 56.7	C 29.5
		C – 20.1		B – 19.9		E – 55.0			
Year 2025 Projected Traffic Volumes	Weekday Morning Peak Hour	C 26.2	B 11.5	B 19.2	B 13.3	D 42.3	D 42.0	E 58.0	C 20.0
		B – 18.5		B – 15.1		D – 42.2			
	Weekday Evening Peak Hour	C 31.3	A 4.2	B 19.5	C 21.9	D 51.5	D 53.7	E 56.7	C 30.3
		C – 21.6		C – 21.5		D – 52.6			
Letter denotes Level of Service Delay is measured in seconds.		L – Left Turns R – Right Turns T – Through							

Table 6

CAPACITY ANALYSIS RESULTS – HICKS DRIVE WITH SELLSTROM DRIVE/ACCESS ROAD – SIGNALIZED

	Peak Hour	Eastbound		Westbound L/T/R	Northbound		Southbound		Overall
		L	T/R		L	T/R	L	T/R	
Year 2019 Existing Traffic Volumes	Weekday Morning Peak Hour	C 31.5	C 35.0	C 32.0	A 1.6	A 1.3	--	A 3.1	A 3.2
		C – 34.6			A – 1.4		A – 3.1		
	Weekday Evening Peak Hour	D 39.2	D 46.2	C 30.3	A 2.5	A 4.5	--	A 5.9	B 10.8
		D – 43.4			A – 4.5		A – 5.9		
Year 2025 No- build Traffic Volumes	Weekday Morning Peak Hour	C 31.5	C 35.0	C 32.0	A 1.4	A 3.6	A 1.3	A 3.2	A 3.5
		C – 34.6			A – 3.4		A – 3.0		
	Weekday Evening Peak Hour	D 41.9	D 48.4	D 44.3	A 2.0	A 7.3	A 3.6	A 5.8	B 13.8
		D – 45.8			A – 7.3		A – 5.6		
Year 2025 Projected Traffic Volumes	Weekday Morning Peak Hour	C 32.7	D 35.7	C 31.5	A 2.5	A 5.9	A 2.4	A 6.7	A 6.8
		C – 34.4			A – 5.5		A – 6.3		
	Weekday Evening Peak Hour	E 58.2	D 53.5	D 47.5	A 2.1	A 7.4	A 3.7	A 6.0	B 16.7
		E – 55.7			A – 7.3		A – 5.8		
Letter denotes Level of Service Delay is measured in seconds.		L – Left Turns R – Right Turns T – Through							

Table 7

CAPACITY ANALYSIS RESULTS – HICKS ROAD WITH ILLINOIS AVENUE AND INDUSTRIAL AVENUE - SIGNALIZED

	Peak Hour	Eastbound		Westbound		Northbound		Southbound		Overall
		L	T/R	L	T/R	L	T/R	L	T/R	
Year 2019 Existing Traffic Volumes	Weekday Morning Peak Hour	B 16.5	D 46.1	B 18.3	C 26.5	B 13.8	B 19.6	A 7.0	C 22.5	C 24.6
		D – 38.6		C – 23.2		B – 18.7		C – 21.8		
	Weekday Evening Peak Hour	B 15.6	D 36.3	B 18.9	C 34.9	C 26.1	B 18.9	B 10.7	C 34.5	C 29.1
		C – 32.3		C – 29.6		C – 20.9		C – 33.2		
Year 2025 No-build Traffic Volumes	Weekday Morning Peak Hour	B 16.9	D 44.6	B 18.5	C 27.9	B 14.3	B 20.5	A 7.0	C 23.0	C 24.8
		D – 37.0		C – 23.9		B – 19.6		C – 22.3		
	Weekday Evening Peak Hour	B 15.8	D 37.2	B 19.1	D 35.9	C 26.4	C 20.4	B 10.7	D 40.2	C 31.9
		C – 32.8		C – 30.3		C – 22.1		D – 38.6		
Year 2025 Projected Traffic Volumes	Weekday Morning Peak Hour	B 17.1	D 44.4	B 18.0	C 27.9	B 14.3	C 20.7	A 5.9	C 21.7	C 24.4
		D – 36.7		C – 24.0		B – 19.7		C – 21.0		
	Weekday Evening Peak Hour	B 15.9	D 37.2	B 19.1	D 36.1	C 26.4	C 20.5	B 10.7	D 42.0	C 32.7
		C – 32.7		C – 30.4		C – 22.1		D – 40.3		
Letter denotes Level of Service Delay is measured in seconds.		L – Left Turns R – Right Turns T – Through								

Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identifies any roadway and traffic control improvements necessary to accommodate the development-generated traffic.

Hicks Road with Northwest Highway

The results of the capacity analysis indicate that overall this intersection currently operates at Level of Service (LOS) B during the weekday morning peak hour and at LOS C during the weekday evening peak hour. Furthermore, the eastbound and westbound approaches currently operate at LOS B during both peak hours. However, the northbound approach operates at LOS D during the weekday morning peak hour and at LOS E during the weekday evening peak hour and the southbound approach operates at LOS E during both peak hours. The reduced level of service is due primarily to the long cycle length of 130 seconds, the split phase operation of the northbound and southbound approaches, and the allocation of the majority of the green time to Northwest Highway.

Under Year 2025 no-build conditions, this intersection is projected to continue operating at the same level of service during the weekday morning and weekday evening peak hours with increases in delay of approximately two seconds for both peak hours. The eastbound approach is projected to operate at LOS B during the weekday morning peak hour and LOS C during the weekday evening peak hour with increases in delay of approximately three seconds during both peak hours. All other approaches are projected to continue to operate at the same levels of service with increases in delay of approximately two seconds or less during both peak hours.

Under Year 2025 total projected conditions, this intersection will operate at LOS C during the weekday morning and evening peak hours with increases in delay of approximately one second over no-build conditions. Furthermore, all approaches are projected to continue to operate at a similar level of service during both peak hours with an increase in delay of approximately two seconds or less compared to no-build conditions. It should be noted that while a large percentage of the traffic generated by the proposed development will access the site by making a westbound left turn at this intersection, the westbound left-turn movement will continue to operate at the same level of service.

Under existing conditions, the northbound approach currently experiences 95th percentile queues of approximately 180 feet during the weekday morning peak hour and approximately 465 feet during the weekday evening peak hour. This confirms field observations conducted by KLOA, Inc. which found that northbound queues at this intersection extended to the intersection of Hicks Road with Sellstrom Drive zero times during the morning peak hour and ten times during the evening peak hour. It should be noted that six of the ten times, northbound traffic extended to the intersection of Hicks Road and Sellstrom Drive between 4:30 P.M. and 4:45 P.M. which can be partially attributed to the high volume of Weber-Stephens Products exiting traffic. It should be noted that while these queues do extend to the location of Sellstrom Drive during the evening peak hour, vehicles do not typically block the intersection, allowing vehicles to turn onto Hicks Road. These queues currently clear the intersection of Hicks Road and Sellstrom Drive within one cycle and the intersection of Hicks Road with Northwest Highway within two cycles and are projected to continue to do so.

In addition to the queueing caused by typical traffic patterns, the northbound approach is impacted when the UP-NW at-grade crossing is blocked by a commuter train. As previously indicated, the gates at the railroad crossing are down nine times during the weekday morning peak hour and four times during the weekday evening peak hour. However, given that the gates are down for an average of approximately one minute, northbound traffic is typically able to clear the Northwest Highway intersection within one green cycle during the weekday morning peak hour and one to two cycles during the weekday evening peak hour.

Hicks Road with Sellstrom Drive and the Access Road

The results of the capacity analysis indicate that overall this intersection currently operates at LOS A during the weekday morning peak hour and at LOS B during the weekday evening peak hour. Furthermore, the northbound and southbound approaches currently operate at LOS A during both peak hours and the westbound approach operates at LOS C during both peak hours. The eastbound approach currently operates at LOS C during the weekday morning peak hour and at LOS D during the weekday evening peak hour. As previously mentioned, northbound queues from the intersection of Hicks Road with Northwest Highway extend to and past this intersection during the evening peak hour. However, these queues typically clear the intersection within one cycle and vehicles are typically able to exit even when the northbound queue extends to or past this intersection, as queuing vehicles do not block the intersection.

Under Year 2025 no-build conditions, this intersection is projected to continue operating at the same levels of service during the weekday morning and weekday evening peak hours with increases in delay of approximately one second during the weekday morning peak hour and three seconds during the weekday evening peak hour. The westbound approach is projected to operate at LOS C during the weekday morning peak hour and LOS D during the weekday evening peak hour with increases in delay of less than one second and approximately 14 seconds during the weekday morning and weekday evening peak hours, respectively. The increase in delay is primarily due to the increase in traffic associated with the Amazon Last Mile Distribution Facility. All other approaches are projected to continue to operate at the same levels of service during both peak hours.

Under Year 2025 total projected conditions, this intersection is projected to continue operating at the same levels of service during the weekday morning and weekday evening peak hours with increases in delay of three seconds over no-build conditions. The eastbound approach will operate at LOS C during the weekday morning peak hour and LOS E during the weekday evening peak hour with increases in delay of less than one second during the weekday morning peak hour and approximately ten seconds during the weekday evening peak hour. All other approaches will continue to operate at the same acceptable levels of service with increases in delay of approximately three seconds during both peak hours over no-build conditions. In addition, the 95th percentile queues for the northbound left-turn movement are projected to be approximately 57 feet during the weekday morning peak hour (two to three vehicles in length) and 21 feet during the weekday evening peak hour (one vehicle in length) and, as such, will be accommodated by the existing northbound left-turn lane. As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the development and no roadway improvements and/or traffic control modifications are required.

Hicks Road with Illinois Avenue and Industrial Avenue

The results of the capacity analysis indicate that the intersection currently operates at LOS C during the weekday morning and evening peak hours. Further, all of the approaches operate at LOS D or better. Under Year 2025 no-build and total conditions, the intersection is projected to continue to operate at the same level of service during both peak hours with increases in delay of less than four seconds. In addition, all of the approaches are projected to continue to operate at LOS D or better. As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the development and no roadway improvements and/or traffic control modifications are required.

6. Conclusion

Based on the preceding analyses and recommendations, the following conclusions have been made:

- Access to the site will be provided via the following two access drives on Sellstrom Drive and its signalized intersection with Hicks Road:
 - The southern access drive will be located on the west side of Sellstrom Drive at the south end of the site and will serve both passenger vehicle and truck traffic. This access drive will provide one inbound lane and one outbound lane with the outbound lane under stop sign control. It should be noted that the access drive will be located just north of an existing access road. However, given the lower volume of traffic on Sellstrom Drive, currently using the existing access road, and projected to use the proposed access drive, the proximity of the access drive to the access road should not pose any operational issues.
 - The northern access drive will be located on the west side of Sellstrom Drive at the north end of the site and at the terminus of Sellstrom Drive and will primarily serve passenger vehicle traffic. This access drive will provide one inbound lane and one outbound lane.
- The two access drives will provide the development with efficient and orderly access with limited impact on Sellstrom Drive.
- The results of the capacity analyses have shown that the existing roadway system has sufficient reserve capacity to accommodate the development-generated traffic and that no roadway improvements and/or traffic control modifications are required.

Appendix

Traffic Count Summary Sheets
Preliminary Site Plan
ITE Trip Generation Worksheets
CMAP 2050 Projections Letter
Level of Service Criteria
Capacity Analysis Summary Sheets

Traffic Count Summary Sheets



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Count Name: S Hicks Rd with E Illinois Ave
Site Code:
Start Date: 04/03/2019
Page No: 1

Turning Movement Data

Start Time	E Illinois Ave Eastbound						Industrial Ave Westbound						S Hicks Rd Northbound						S Hicks Rd 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
6:00 AM	0	3	3	17	0	23	0	4	7	2	0	13	0	20	44	16	0	80	0	3	70	5	0	78
6:15 AM	0	11	15	19	0	45	0	6	9	1	0	16	0	25	88	10	0	123	0	4	89	9	0	102
6:30 AM	0	23	25	33	0	81	0	14	15	2	0	31	0	27	86	13	0	126	0	6	108	12	0	126
6:45 AM	0	19	50	32	0	101	0	4	21	7	0	32	0	41	120	20	0	181	0	12	90	15	0	117
Hourly Total	0	56	93	101	0	250	0	28	52	12	0	92	0	113	338	59	0	510	0	25	357	41	0	423
7:00 AM	0	25	39	40	0	104	0	19	16	6	0	41	0	31	117	19	0	167	0	5	145	23	0	173
7:15 AM	0	29	40	58	0	127	0	26	23	5	0	54	0	22	153	13	0	188	0	6	143	14	2	163
7:30 AM	0	29	44	38	0	111	0	25	31	11	0	67	0	31	127	17	0	175	0	12	183	11	0	206
7:45 AM	0	37	56	30	0	123	0	22	32	4	0	58	0	33	124	19	0	176	0	7	166	18	0	191
Hourly Total	0	120	179	166	0	465	0	92	102	26	0	220	0	117	521	68	0	706	0	30	637	66	2	733
8:00 AM	0	24	41	42	0	107	0	25	30	11	0	66	0	20	117	8	0	145	0	8	174	23	0	205
8:15 AM	0	24	25	50	0	99	0	18	28	6	0	52	0	33	97	13	0	143	0	14	147	21	0	182
8:30 AM	0	15	31	47	0	93	0	14	33	4	0	51	0	31	84	11	0	126	0	9	166	16	0	191
8:45 AM	0	16	20	47	1	83	0	18	24	8	0	50	0	40	92	8	0	140	0	7	131	20	0	158
Hourly Total	0	79	117	186	1	382	0	75	115	29	0	219	0	124	390	40	0	554	0	38	618	80	0	736
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	21	34	45	0	100	0	20	24	6	0	50	0	37	61	13	0	111	0	7	153	18	0	178
3:15 PM	0	15	26	44	0	85	0	13	27	3	0	43	0	39	85	5	0	129	0	8	96	21	0	125
3:30 PM	0	18	17	38	1	73	0	23	32	9	0	64	0	32	69	10	0	111	0	7	170	26	1	203
3:45 PM	0	12	29	28	0	69	0	12	42	4	0	58	0	41	87	11	0	139	0	8	148	24	0	180
Hourly Total	0	66	106	155	1	327	0	68	125	22	0	215	0	149	302	39	0	490	0	30	567	89	1	686
4:00 PM	0	16	32	47	0	95	0	16	54	13	0	83	0	53	87	10	0	150	0	12	158	28	0	198
4:15 PM	0	10	27	30	0	67	0	19	45	5	0	69	0	44	84	14	0	142	0	7	132	35	0	174
4:30 PM	0	11	35	24	0	70	0	38	61	10	0	109	0	32	95	12	0	139	0	13	246	53	0	312
4:45 PM	0	16	25	22	0	63	0	23	37	10	0	70	0	42	92	15	0	149	0	12	131	32	0	175
Hourly Total	0	53	119	123	0	295	0	96	197	38	0	331	0	171	358	51	0	580	0	44	667	148	0	859
5:00 PM	0	18	25	34	0	77	0	36	48	12	0	96	0	48	107	5	0	160	0	9	163	42	0	214
5:15 PM	0	9	42	24	0	75	0	23	51	13	0	87	0	40	83	7	0	130	0	17	147	40	0	204
5:30 PM	0	26	27	31	0	84	0	24	67	5	0	96	0	39	92	11	0	142	0	6	148	42	0	196
5:45 PM	0	16	34	37	0	87	0	35	67	1	0	103	0	44	98	16	2	158	0	7	121	25	0	153
Hourly Total	0	69	128	126	0	323	0	118	233	31	0	382	0	171	380	39	2	590	0	39	579	149	0	767
Grand Total	0	443	742	857	2	2042	0	477	824	158	0	1459	0	845	2289	296	2	3430	0	206	3425	573	3	4204
Approach %	0.0	21.7	36.3	42.0	-	-	0.0	32.7	56.5	10.8	-	-	0.0	24.6	66.7	8.6	-	-	0.0	4.9	81.5	13.6	-	-
Total %	0.0	4.0	6.7	7.7	-	18.3	0.0	4.3	7.4	1.4	-	13.1	0.0	7.6	20.6	2.7	-	30.8	0.0	1.9	30.8	5.1	-	37.8
Lights	0	410	711	787	-	1908	0	452	767	144	-	1363	0	783	2209	280	-	3272	0	190	3310	545	-	4045
% Lights	-	92.6	95.8	91.8	-	93.4	-	94.8	93.1	91.1	-	93.4	-	92.7	96.5	94.6	-	95.4	-	92.2	96.6	95.1	-	96.2
Buses	0	5	15	11	-	31	0	2	26	5	-	33	0	16	12	3	-	31	0	10	18	4	-	32

% Buses	-	1.1	2.0	1.3	-	1.5	-	0.4	3.2	3.2	-	2.3	-	1.9	0.5	1.0	-	0.9	-	4.9	0.5	0.7	-	0.8	1.1
Single-Unit Trucks	0	16	11	29	-	56	0	17	17	6	-	40	-	13	42	10	-	65	0	4	65	13	-	82	243
% Single-Unit Trucks	-	3.6	1.5	3.4	-	2.7	-	3.6	2.1	3.8	-	2.7	-	1.5	1.8	3.4	-	1.9	-	1.9	1.9	2.3	-	2.0	2.2
Articulated Trucks	0	11	3	29	-	43	0	6	9	3	-	18	-	33	26	3	-	62	0	2	32	10	-	44	167
% Articulated Trucks	-	2.5	0.4	3.4	-	2.1	-	1.3	1.1	1.9	-	1.2	-	3.9	1.1	1.0	-	1.8	-	1.0	0.9	1.7	-	1.0	1.5
Bicycles on Road	0	1	2	1	-	4	0	0	5	0	-	5	-	0	0	0	-	0	0	0	0	1	-	1	10
% Bicycles on Road	-	0.2	0.3	0.1	-	0.2	-	0.0	0.6	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.2	-	0.0	0.1
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: S Hicks Rd with E Illinois Ave
Site Code:
Start Date: 04/03/2019
Page No: 3

Turning Movement Peak Hour Data (7:15 AM)

Start Time	E Illinois Ave Eastbound						Industrial Ave Westbound						S Hicks Rd Northbound						S Hicks Rd 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
7:15 AM	0	29	40	58	0	127	0	26	23	5	0	54	0	22	153	13	0	188	0	6	143	14	2	163	532
7:30 AM	0	29	44	38	0	111	0	25	31	11	0	67	0	31	127	17	0	175	0	12	183	11	0	206	559
7:45 AM	0	37	56	30	0	123	0	22	32	4	0	58	0	33	124	19	0	176	0	7	166	18	0	191	548
8:00 AM	0	24	41	42	0	107	0	25	30	11	0	66	0	20	117	8	0	145	0	8	174	23	0	205	523
Total	0	119	181	168	0	468	0	98	116	31	0	245	0	106	521	57	0	684	0	33	666	66	2	765	2162
Approach %	0.0	25.4	38.7	35.9	-	-	0.0	40.0	47.3	12.7	-	-	0.0	15.5	76.2	8.3	-	-	0.0	4.3	87.1	8.6	-	-	-
Total %	0.0	5.5	8.4	7.8	-	21.6	0.0	4.5	5.4	1.4	-	11.3	0.0	4.9	24.1	2.6	-	31.6	0.0	1.5	30.8	3.1	-	35.4	-
PHF	0.000	0.804	0.808	0.724	-	0.921	0.000	0.942	0.906	0.705	-	0.914	0.000	0.803	0.851	0.750	-	0.910	0.000	0.688	0.910	0.717	-	0.928	0.967
Lights	0	108	175	149	-	432	0	88	104	24	-	216	0	99	499	55	-	653	0	30	647	65	-	742	2043
% Lights	-	90.8	96.7	88.7	-	92.3	-	89.8	89.7	77.4	-	88.2	-	93.4	95.8	96.5	-	95.5	-	90.9	97.1	98.5	-	97.0	94.5
Buses	0	0	2	3	-	5	0	1	5	2	-	8	0	1	1	0	-	2	0	2	2	1	-	5	20
% Buses	-	0.0	1.1	1.8	-	1.1	-	1.0	4.3	6.5	-	3.3	-	0.9	0.2	0.0	-	0.3	-	6.1	0.3	1.5	-	0.7	0.9
Single-Unit Trucks	0	4	2	10	-	16	0	8	5	3	-	16	0	2	13	0	-	15	0	1	9	0	-	10	57
% Single-Unit Trucks	-	3.4	1.1	6.0	-	3.4	-	8.2	4.3	9.7	-	6.5	-	1.9	2.5	0.0	-	2.2	-	3.0	1.4	0.0	-	1.3	2.6
Articulated Trucks	0	6	2	6	-	14	0	1	1	2	-	4	0	4	8	2	-	14	0	0	8	0	-	8	40
% Articulated Trucks	-	5.0	1.1	3.6	-	3.0	-	1.0	0.9	6.5	-	1.6	-	3.8	1.5	3.5	-	2.0	-	0.0	1.2	0.0	-	1.0	1.9
Bicycles on Road	0	1	0	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Bicycles on Road	-	0.8	0.0	0.0	-	0.2	-	0.0	0.9	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: S Hicks Rd with E Illinois Ave
Site Code:
Start Date: 04/03/2019
Page No: 4

Turning Movement Peak Hour Data (4:30 PM)

Start Time	E Illinois Ave Eastbound						Industrial Ave Westbound						S Hicks Rd Northbound						S Hicks Rd 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	11	35	24	0	70	0	38	61	10	0	109	0	32	95	12	0	139	0	13	246	53	0	312	630
4:45 PM	0	16	25	22	0	63	0	23	37	10	0	70	0	42	92	15	0	149	0	12	131	32	0	175	457
5:00 PM	0	18	25	34	0	77	0	36	48	12	0	96	0	48	107	5	0	160	0	9	163	42	0	214	547
5:15 PM	0	9	42	24	0	75	0	23	51	13	0	87	0	40	83	7	0	130	0	17	147	40	0	204	496
Total	0	54	127	104	0	285	0	120	197	45	0	362	0	162	377	39	0	578	0	51	687	167	0	905	2130
Approach %	0.0	18.9	44.6	36.5	-	-	0.0	33.1	54.4	12.4	-	-	0.0	28.0	65.2	6.7	-	-	0.0	5.6	75.9	18.5	-	-	-
Total %	0.0	2.5	6.0	4.9	-	13.4	0.0	5.6	9.2	2.1	-	17.0	0.0	7.6	17.7	1.8	-	27.1	0.0	2.4	32.3	7.8	-	42.5	-
PHF	0.000	0.750	0.756	0.765	-	0.925	0.000	0.789	0.807	0.865	-	0.830	0.000	0.844	0.881	0.650	-	0.903	0.000	0.750	0.698	0.788	-	0.725	0.845
Lights	0	52	123	95	-	270	0	118	187	42	-	347	0	154	371	38	-	563	0	45	673	161	-	879	2059
% Lights	-	96.3	96.9	91.3	-	94.7	-	98.3	94.9	93.3	-	95.9	-	95.1	98.4	97.4	-	97.4	-	88.2	98.0	96.4	-	97.1	96.7
Buses	0	0	0	0	-	0	0	0	2	1	-	3	0	0	1	1	-	2	0	3	3	0	-	6	11
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	1.0	2.2	-	0.8	-	0.0	0.3	2.6	-	0.3	-	5.9	0.4	0.0	-	0.7	0.5
Single-Unit Trucks	0	2	3	5	-	10	0	1	4	2	-	7	0	2	2	0	-	4	0	2	9	3	-	14	35
% Single-Unit Trucks	-	3.7	2.4	4.8	-	3.5	-	0.8	2.0	4.4	-	1.9	-	1.2	0.5	0.0	-	0.7	-	3.9	1.3	1.8	-	1.5	1.6
Articulated Trucks	0	0	1	4	-	5	0	1	2	0	-	3	0	6	3	0	-	9	0	1	2	3	-	6	23
% Articulated Trucks	-	0.0	0.8	3.8	-	1.8	-	0.8	1.0	0.0	-	0.8	-	3.7	0.8	0.0	-	1.6	-	2.0	0.3	1.8	-	0.7	1.1
Bicycles on Road	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	2
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	1.0	0.0	-	0.6	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Count Name: S Hicks Rd with Sellstorm Dr
Site Code:
Start Date: 04/03/2019
Page No: 1

Turning Movement Data

Start Time	Sellstorm Dr Eastbound					App. Total	Sellstorm Dr Westbound					S Hicks Rd Northbound					S Hicks Rd Southbound					Int. Total
	U-Turn	Left	Thru	Right	Peds		U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	
6:00 AM	0	1	0	3	0	4	0	0	0	0	0	0	0	3	18	0	0	0	0	0	95	120
6:15 AM	0	2	0	2	0	4	0	0	0	0	0	0	0	0	19	0	0	0	0	128	151	
6:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	2	30	0	0	0	0	141	174	
6:45 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	4	39	0	0	0	0	184	228	
Hourly Total	0	4	0	5	0	9	0	1	0	0	0	1	0	9	106	0	0	115	10	548	673	
7:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	8	45	0	0	53	7	226	280	
7:15 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	4	81	0	0	85	3	181	268	
7:30 AM	0	1	0	6	0	7	0	0	0	0	0	0	0	5	59	0	0	64	1	230	301	
7:45 AM	0	1	0	2	0	3	0	1	0	0	0	1	0	7	63	1	0	71	1	233	308	
Hourly Total	0	2	0	11	0	13	0	1	0	0	0	1	0	24	248	1	0	273	12	870	1157	
8:00 AM	0	0	0	3	1	3	0	0	0	0	0	0	0	2	46	1	0	49	4	259	311	
8:15 AM	0	0	0	1	0	1	0	0	0	1	0	1	0	2	56	0	0	58	2	212	272	
8:30 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	4	38	1	0	43	1	211	255	
8:45 AM	0	2	0	1	0	3	0	1	0	0	0	1	0	1	63	0	0	64	3	190	258	
Hourly Total	0	2	0	6	1	8	0	1	0	1	0	2	0	9	203	2	0	214	10	872	1096	
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3:00 PM	0	3	0	9	0	12	0	2	0	0	0	2	0	3	90	0	0	93	5	120	227	
3:15 PM	0	4	0	5	0	9	0	0	0	0	0	0	0	4	107	0	0	111	5	84	204	
3:30 PM	0	11	0	10	0	21	0	0	1	2	0	3	0	5	137	1	0	143	2	108	275	
3:45 PM	0	3	0	4	0	7	0	2	0	0	0	2	0	6	131	0	0	137	7	115	261	
Hourly Total	0	21	0	28	0	49	0	4	1	2	0	7	0	18	465	1	0	484	19	427	967	
4:00 PM	0	2	0	7	0	9	0	0	0	0	0	0	0	2	143	0	0	145	5	102	256	
4:15 PM	0	3	0	5	0	8	0	1	0	0	0	1	0	2	116	1	0	119	6	118	246	
4:30 PM	0	62	0	90	0	152	0	4	0	6	0	10	0	1	153	0	0	154	0	113	429	
4:45 PM	0	7	0	11	0	18	0	1	0	1	0	2	0	1	145	0	0	146	1	101	267	
Hourly Total	0	74	0	113	0	187	0	6	0	7	0	13	0	6	557	1	0	564	12	434	1198	
5:00 PM	0	4	0	9	0	13	0	0	0	0	0	0	0	0	179	1	0	180	0	112	305	
5:15 PM	0	1	0	3	0	4	0	0	0	1	0	1	0	0	157	0	0	157	1	129	291	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	159	0	0	159	0	115	274	
5:45 PM	0	0	0	1	1	1	0	0	0	0	0	0	0	1	144	0	0	145	0	98	244	
Hourly Total	0	5	0	13	1	18	0	0	0	1	0	1	0	1	639	1	0	641	1	454	1114	
Grand Total	0	108	0	176	2	284	0	13	1	11	0	25	0	67	2218	6	0	2291	64	3605	6205	
Approach %	0.0	38.0	0.0	62.0	-	-	0.0	52.0	4.0	44.0	-	-	0.0	2.9	96.8	0.3	-	-	1.8	-	-	
Total %	0.0	1.7	0.0	2.8	-	4.6	0.0	0.2	0.0	0.2	-	0.4	0.0	1.1	35.7	0.1	-	36.9	1.0	58.1	-	
Lights	0	104	0	156	-	260	0	9	1	9	-	19	0	47	2140	1	-	2188	55	3510	5977	
% Lights	-	96.3	-	88.6	-	91.5	-	69.2	100.0	81.8	-	76.0	-	70.1	96.5	16.7	-	95.5	85.9	97.4	96.3	
Buses	0	0	0	2	-	2	0	0	0	0	-	0	0	1	12	0	-	13	1	17	32	

[illegible]



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Count Name: S Hicks Rd with Sellstorm Dr
Site Code:
Start Date: 04/03/2019
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Turning Movement Peak Hour Data (7:15 AM)

Start Time	Sellstorm Dr Eastbound						Sellstorm Dr Westbound						S Hicks Rd Northbound						S Hicks Rd Southbound						Int. Total	
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total		
7:15 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	4	81	0	0	85	0	0	178	3	0	181	268	
7:30 AM	0	1	0	6	0	7	0	0	0	0	0	0	0	5	59	0	0	64	0	0	229	1	0	230	301	
7:45 AM	0	1	0	2	0	3	0	1	0	0	0	1	0	7	63	1	0	71	0	0	232	1	0	233	308	
8:00 AM	0	0	0	3	1	3	0	0	0	0	0	0	0	2	46	1	0	49	0	0	255	4	0	259	311	
Total	0	2	0	13	1	15	0	1	0	0	0	1	0	18	249	2	0	269	0	0	894	9	0	903	1188	
Approach %	0.0	13.3	0.0	86.7	-	-	0.0	100.0	0.0	0.0	-	-	0.0	6.7	92.6	0.7	-	-	0.0	0.0	99.0	1.0	-	-	-	
Total %	0.0	0.2	0.0	1.1	-	1.3	0.0	0.1	0.0	0.0	-	0.1	0.0	1.5	21.0	0.2	-	22.6	0.0	0.0	75.3	0.8	-	76.0	-	
PHF	0.000	0.500	0.000	0.542	-	0.536	0.000	0.250	0.000	0.000	-	0.250	0.000	0.643	0.769	0.500	-	0.791	0.000	0.000	0.876	0.563	-	0.872	0.955	
Lights	0	2	0	5	-	7	0	0	0	0	-	0	0	0	15	225	0	-	240	0	0	880	6	-	886	1133
% Lights	-	100.0	-	38.5	-	46.7	-	0.0	-	-	-	0.0	-	83.3	90.4	0.0	-	89.2	-	-	98.4	66.7	-	98.1	95.4	
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	3	0	-	3	4	
% Buses	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.4	0.0	-	0.4	-	-	0.3	0.0	-	0.3	0.3	
Single-Unit Trucks	0	0	0	3	-	3	0	1	0	0	-	1	0	1	15	2	-	18	0	0	7	2	-	9	31	
% Single-Unit Trucks	-	0.0	-	23.1	-	20.0	-	100.0	-	-	-	100.0	-	5.6	6.0	100.0	-	6.7	-	-	0.8	22.2	-	1.0	2.6	
Articulated Trucks	0	0	0	5	-	5	0	0	0	0	-	0	0	2	8	0	-	10	0	0	4	1	-	5	20	
% Articulated Trucks	-	0.0	-	38.5	-	33.3	-	0.0	-	-	-	0.0	-	11.1	3.2	0.0	-	3.7	-	-	0.4	11.1	-	0.6	1.7	
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	
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	0	-	-	
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



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Count Name: S Hicks Rd with Sellstorm Dr
Site Code:
Start Date: 04/03/2019
Page No: 4

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Sellstorm Dr Eastbound						Sellstorm Dr Westbound						S Hicks Rd Northbound						S Hicks Rd 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	62	0	90	0	152	0	4	0	0	6	10	0	1	153	0	0	154	0	0	113	0	0	113	429
4:45 PM	0	7	0	11	0	18	0	1	0	1	0	2	0	1	145	0	0	146	0	0	100	1	0	101	267
5:00 PM	0	4	0	9	0	13	0	0	0	0	0	0	0	0	179	1	0	180	0	0	112	0	0	112	305
5:15 PM	0	1	0	3	0	4	0	0	0	1	0	1	0	0	157	0	0	157	0	0	128	1	0	129	291
Total	0	74	0	113	0	187	0	5	0	8	0	13	0	2	634	1	0	637	0	0	453	2	0	455	1292
Approach %	0.0	39.6	0.0	60.4	-	-	0.0	38.5	0.0	61.5	-	-	0.0	0.3	99.5	0.2	-	-	0.0	0.0	99.6	0.4	-	-	-
Total %	0.0	5.7	0.0	8.7	-	14.5	0.0	0.4	0.0	0.6	-	1.0	0.0	0.2	49.1	0.1	-	49.3	0.0	0.0	35.1	0.2	-	35.2	-
PHF	0.000	0.298	0.000	0.314	-	0.308	0.000	0.313	0.000	0.333	-	0.325	0.000	0.500	0.885	0.250	-	0.885	0.000	0.000	0.885	0.500	-	0.882	0.753
Lights	0	74	0	111	-	185	0	5	0	7	-	12	0	2	629	0	-	631	0	0	438	2	-	440	1268
% Lights	-	100.0	-	98.2	-	98.9	-	100.0	-	87.5	-	92.3	-	100.0	99.2	0.0	-	99.1	-	-	96.7	100.0	-	96.7	98.1
Buses	0	0	0	2	-	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	-	1	3
% Buses	-	0.0	-	1.8	-	1.1	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	0.2	0.0	-	0.2	0.2
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	0	0	0	0	4	0	-	4	0	0	7	0	-	7	11
% Single-Unit Trucks	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.6	0.0	-	0.6	-	-	1.5	0.0	-	1.5	0.9
Articulated Trucks	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	1	-	1	0	0	7	0	-	7	9
% Articulated Trucks	-	0.0	-	0.0	-	0.0	-	0.0	-	12.5	-	7.7	-	0.0	0.0	100.0	-	0.2	-	-	1.5	0.0	-	1.5	0.7
Bicycles on Road	0	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	0.2	0.0	-	0.2	-	-	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Count Name: US 14 with S Hicks Rd
Site Code:
Start Date: 04/03/2019
Page No: 1

Turning Movement Data

Start Time	US 14 Eastbound						US 14 Westbound						S Hicks Rd Northbound						Parking Lot 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	
6:00 AM	0	0	98	90	0	188	0	10	51	0	0	61	0	14	0	3	0	17	0	0	0	0	0	0	0	266
6:15 AM	0	0	127	113	0	240	0	13	66	0	0	79	0	17	0	6	0	23	0	0	0	0	0	0	0	342
6:30 AM	0	0	171	121	0	292	0	18	80	0	0	98	0	20	0	9	0	29	0	0	0	0	0	0	0	419
6:45 AM	0	0	169	150	0	319	0	33	94	0	0	127	0	29	0	9	0	38	0	0	0	0	0	0	0	484
Hourly Total	0	0	565	474	0	1039	0	74	291	0	0	365	0	80	0	27	0	107	0	0	0	0	0	0	0	1511
7:00 AM	0	0	169	190	0	359	0	36	98	0	0	134	0	26	0	16	0	42	0	0	0	0	1	0	0	535
7:15 AM	0	0	176	160	0	336	0	24	110	0	0	134	0	48	0	25	0	73	0	0	0	0	0	0	0	543
7:30 AM	0	0	229	196	0	425	0	33	132	0	0	165	0	43	0	21	0	64	0	0	0	0	0	0	0	654
7:45 AM	0	0	174	190	0	364	0	37	156	0	0	193	0	52	0	15	0	67	0	0	0	0	0	0	0	624
Hourly Total	0	0	748	736	0	1484	0	130	496	0	0	626	0	169	0	77	0	246	0	0	0	0	1	0	0	2356
8:00 AM	0	0	157	222	0	379	0	42	133	0	0	175	0	30	0	16	0	46	0	0	0	1	0	1	0	601
8:15 AM	0	1	171	171	0	343	0	34	144	1	0	179	0	37	0	7	0	44	0	0	0	0	0	0	0	566
8:30 AM	0	0	178	195	0	373	0	21	154	2	0	177	0	38	0	5	0	43	0	0	0	0	0	0	0	593
8:45 AM	0	3	206	154	0	363	0	35	132	0	0	167	0	41	0	14	0	55	0	0	0	2	0	2	0	587
Hourly Total	0	4	712	742	0	1458	0	132	563	3	0	698	0	146	0	42	0	188	0	0	0	3	0	3	0	2347
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	0	147	91	0	238	0	20	203	0	0	223	0	63	0	21	0	84	0	0	0	0	0	0	0	545
3:15 PM	0	0	121	65	0	186	0	17	193	0	0	210	0	84	2	28	0	114	0	0	0	1	0	1	0	511
3:30 PM	0	0	130	90	0	220	0	24	250	0	0	274	1	99	0	47	0	147	0	0	1	1	0	2	0	643
3:45 PM	0	0	139	96	0	235	0	17	255	0	0	272	0	104	1	31	0	136	0	0	0	1	0	1	0	644
Hourly Total	0	0	537	342	0	879	0	78	901	0	0	979	1	350	3	127	0	481	0	0	1	3	0	4	0	2343
4:00 PM	0	0	157	72	0	229	0	28	247	0	0	275	0	106	0	32	0	138	0	0	1	2	0	3	0	645
4:15 PM	0	0	116	84	0	200	0	36	264	2	0	302	0	92	0	26	0	118	0	1	1	1	0	3	0	623
4:30 PM	0	1	162	95	0	258	0	22	237	1	0	260	0	162	0	62	0	224	0	1	1	2	0	4	0	746
4:45 PM	0	0	144	76	0	220	0	22	266	0	0	288	0	106	0	45	0	151	0	1	0	1	0	2	0	661
Hourly Total	0	1	579	327	0	907	0	108	1014	3	0	1125	0	466	0	165	0	631	0	3	3	6	0	12	0	2675
5:00 PM	0	0	140	61	0	201	0	37	252	0	0	289	0	120	0	47	0	167	0	0	1	0	0	1	0	658
5:15 PM	0	0	192	88	0	280	0	38	199	0	0	237	2	135	0	46	0	183	0	0	0	0	0	0	0	700
5:30 PM	0	0	128	90	0	218	0	24	250	0	0	274	0	117	0	36	0	153	0	2	0	1	0	3	0	648
5:45 PM	0	0	123	79	0	202	0	22	244	0	0	266	0	114	0	33	0	147	0	0	0	1	0	1	0	616
Hourly Total	0	0	583	318	0	901	0	121	945	0	0	1066	2	486	0	162	0	650	0	2	1	2	0	5	0	2622
Grand Total	0	5	3724	2939	0	6668	0	643	4210	6	0	4859	3	1697	3	600	0	2303	0	5	5	14	1	24	0	13854
Approach %	0.0	0.1	55.8	44.1	-	-	0.0	13.2	86.6	0.1	-	-	0.1	73.7	0.1	26.1	-	-	0.0	20.8	20.8	58.3	-	-	-	-
Total %	0.0	0.0	26.9	21.2	-	48.1	0.0	4.6	30.4	0.0	-	35.1	0.0	12.2	0.0	4.3	-	16.6	0.0	0.0	0.0	0.1	-	0.2	-	-
Lights	0	5	3597	2865	-	6467	0	621	4058	6	-	4685	3	1636	3	581	-	2223	0	5	5	14	-	24	0	13399
% Lights	-	100.0	96.6	97.5	-	97.0	-	96.6	96.4	100.0	-	96.4	100.0	96.4	100.0	96.8	-	96.5	-	100.0	100.0	100.0	-	100.0	0	96.7
Buses	0	0	24	18	-	42	0	1	19	0	-	20	0	10	0	2	-	12	0	0	0	0	-	0	0	74

% Buses	-	0.0	0.6	0.6	-	0.6	-	0.2	0.5	0.0	-	0.4	0.0	0.6	0.0	0.3	-	0.5	-	0.0	0.0	0.0	-	0.0	0.5
Single-Unit Trucks	0	0	60	43	-	103	0	7	88	0	-	95	0	36	0	12	-	48	0	0	0	0	-	0	246
% Single-Unit Trucks	-	0.0	1.6	1.5	-	1.5	-	1.1	2.1	0.0	-	2.0	0.0	2.1	0.0	2.0	-	2.1	-	0.0	0.0	0.0	-	0.0	1.8
Articulated Trucks	0	0	43	13	-	56	0	13	45	0	-	58	0	14	0	4	-	18	0	0	0	0	-	0	132
% Articulated Trucks	-	0.0	1.2	0.4	-	0.8	-	2.0	1.1	0.0	-	1.2	0.0	0.8	0.0	0.7	-	0.8	-	0.0	0.0	0.0	-	0.0	1.0
Bicycles on Road	0	0	0	0	-	0	0	1	0	0	-	1	0	1	0	1	-	2	0	0	0	0	-	0	3
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.2	0.0	0.0	-	0.0	0.0	0.1	0.0	0.2	-	0.1	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 abowen@kloainc.com

Count Name: US 14 with S Hicks Rd
Site Code:
Start Date: 04/03/2019
Page No: 3

Turning Movement Peak Hour Data (7:15 AM)

Start Time	US 14 Eastbound							US 14 Westbound							S Hicks Rd Northbound							Parking Lot 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
7:15 AM	0	0	176	160	0	336		0	24	110	0	0	134		0	48	0	25	0	73		0	0	0	0	0	0	543
7:30 AM	0	0	229	196	0	425		0	33	132	0	0	165		0	43	0	21	0	64		0	0	0	0	0	0	654
7:45 AM	0	0	174	190	0	364		0	37	156	0	0	193		0	52	0	15	0	67		0	0	0	0	0	0	624
8:00 AM	0	0	157	222	0	379		0	42	133	0	0	175		0	30	0	16	0	46		0	0	0	1	0	1	601
Total	0	0	736	768	0	1504		0	136	531	0	0	667		0	173	0	77	0	250		0	0	0	1	0	1	2422
Approach %	0.0	0.0	48.9	51.1	-	-		0.0	20.4	79.6	0.0	-	-		0.0	69.2	0.0	30.8	-	-		0.0	0.0	0.0	100.0	-	-	-
Total %	0.0	0.0	30.4	31.7	-	62.1		0.0	5.6	21.9	0.0	-	27.5		0.0	7.1	0.0	3.2	-	10.3		0.0	0.0	0.0	0.0	-	-	-
PHF	0.000	0.000	0.803	0.865	-	0.885		0.000	0.810	0.851	0.000	-	0.864		0.000	0.832	0.000	0.770	-	0.856		0.000	0.000	0.000	0.250	-	0.250	0.926
Lights	0	0	713	757	-	1470		0	130	501	0	-	631		0	151	0	74	-	225		0	0	0	1	-	1	2327
% Lights	-	-	96.9	98.6	-	97.7		-	95.6	94.4	-	-	94.6		-	87.3	-	96.1	-	90.0		-	-	-	100.0	-	100.0	96.1
Buses	0	0	3	3	-	6		0	0	0	0	-	0		0	1	0	0	-	1		0	0	0	0	-	0	7
% Buses	-	-	0.4	0.4	-	0.4		-	0.0	0.0	-	-	0.0		-	0.6	-	0.0	-	0.4		-	-	-	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	13	6	-	19		0	3	21	0	-	24		0	14	0	3	-	17		0	0	0	0	-	0	60
% Single-Unit Trucks	-	-	1.8	0.8	-	1.3		-	2.2	4.0	-	-	3.6		-	8.1	-	3.9	-	6.8		-	-	-	0.0	-	0.0	2.5
Articulated Trucks	0	0	7	2	-	9		0	3	9	0	-	12		0	7	0	0	-	7		0	0	0	0	-	0	28
% Articulated Trucks	-	-	1.0	0.3	-	0.6		-	2.2	1.7	-	-	1.8		-	4.0	-	0.0	-	2.8		-	-	-	0.0	-	0.0	1.2
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
Pedestrians	-	-	-	-	0	-		-	-	-	-	0	-		-	-	-	-	0	-		-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-		-	-	-	-	-	-		-	-	-	-	-	-		-	-	-	-	-	-	-



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Count Name: US 14 with S Hicks Rd
Site Code:
Start Date: 04/03/2019
Page No: 4

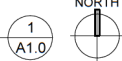
Turning Movement Peak Hour Data (4:30 PM)

Start Time	US 14 Eastbound							US 14 Westbound							S Hicks Rd Northbound							Parking Lot 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	1	162	95	0	258		0	22	237	1	0	260		0	162	0	62	0	224		0	1	1	2	0	4	746
4:45 PM	0	0	144	76	0	220		0	22	266	0	0	288		0	106	0	45	0	151		0	1	0	1	0	2	661
5:00 PM	0	0	140	61	0	201		0	37	252	0	0	289		0	120	0	47	0	167		0	0	1	0	0	1	658
5:15 PM	0	0	192	88	0	280		0	38	199	0	0	237		2	135	0	46	0	183		0	0	0	0	0	0	700
Total	0	1	638	320	0	959		0	119	954	1	0	1074		2	523	0	200	0	725		0	2	2	3	0	7	2765
Approach %	0.0	0.1	66.5	33.4	-	-		0.0	11.1	88.8	0.1	-	-		0.3	72.1	0.0	27.6	-	-		0.0	28.6	28.6	42.9	-	-	-
Total %	0.0	0.0	23.1	11.6	-	34.7		0.0	4.3	34.5	0.0	-	38.8		0.1	18.9	0.0	7.2	-	26.2		0.0	0.1	0.1	0.1	-	0.3	-
PHF	0.000	0.250	0.831	0.842	-	0.856		0.000	0.783	0.897	0.250	-	0.929		0.250	0.807	0.000	0.806	-	0.809		0.000	0.500	0.500	0.375	-	0.438	0.927
Lights	0	1	619	307	-	927		0	117	940	1	-	1058		2	521	0	195	-	718		0	2	2	3	-	7	2710
% Lights	-	100.0	97.0	95.9	-	96.7		-	98.3	98.5	100.0	-	98.5		100.0	99.6	-	97.5	-	99.0		-	100.0	100.0	100.0	-	100.0	98.0
Buses	0	0	3	2	-	5		0	0	0	0	-	0		0	1	0	1	-	2		0	0	0	0	-	0	7
% Buses	-	0.0	0.5	0.6	-	0.5		-	0.0	0.0	0.0	-	0.0		0.0	0.2	-	0.5	-	0.3		-	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	7	8	-	15		0	0	9	0	-	9		0	1	0	2	-	3		0	0	0	0	-	0	27
% Single-Unit Trucks	-	0.0	1.1	2.5	-	1.6		-	0.0	0.9	0.0	-	0.8		0.0	0.2	-	1.0	-	0.4		-	0.0	0.0	0.0	-	0.0	1.0
Articulated Trucks	0	0	9	3	-	12		0	2	5	0	-	7		0	0	0	1	-	1		0	0	0	0	-	0	20
% Articulated Trucks	-	0.0	1.4	0.9	-	1.3		-	1.7	0.5	0.0	-	0.7		0.0	0.0	-	0.5	-	0.1		-	0.0	0.0	0.0	-	0.0	0.7
Bicycles on Road	0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	1	-	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	-	0.5	-	0.1		-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-		-	-	-	-	0	-		-	-	-	-	-	-		-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-		-	-	-	-	-	-		-	-	-	-	-	-		-	-	-	-	-	-	-

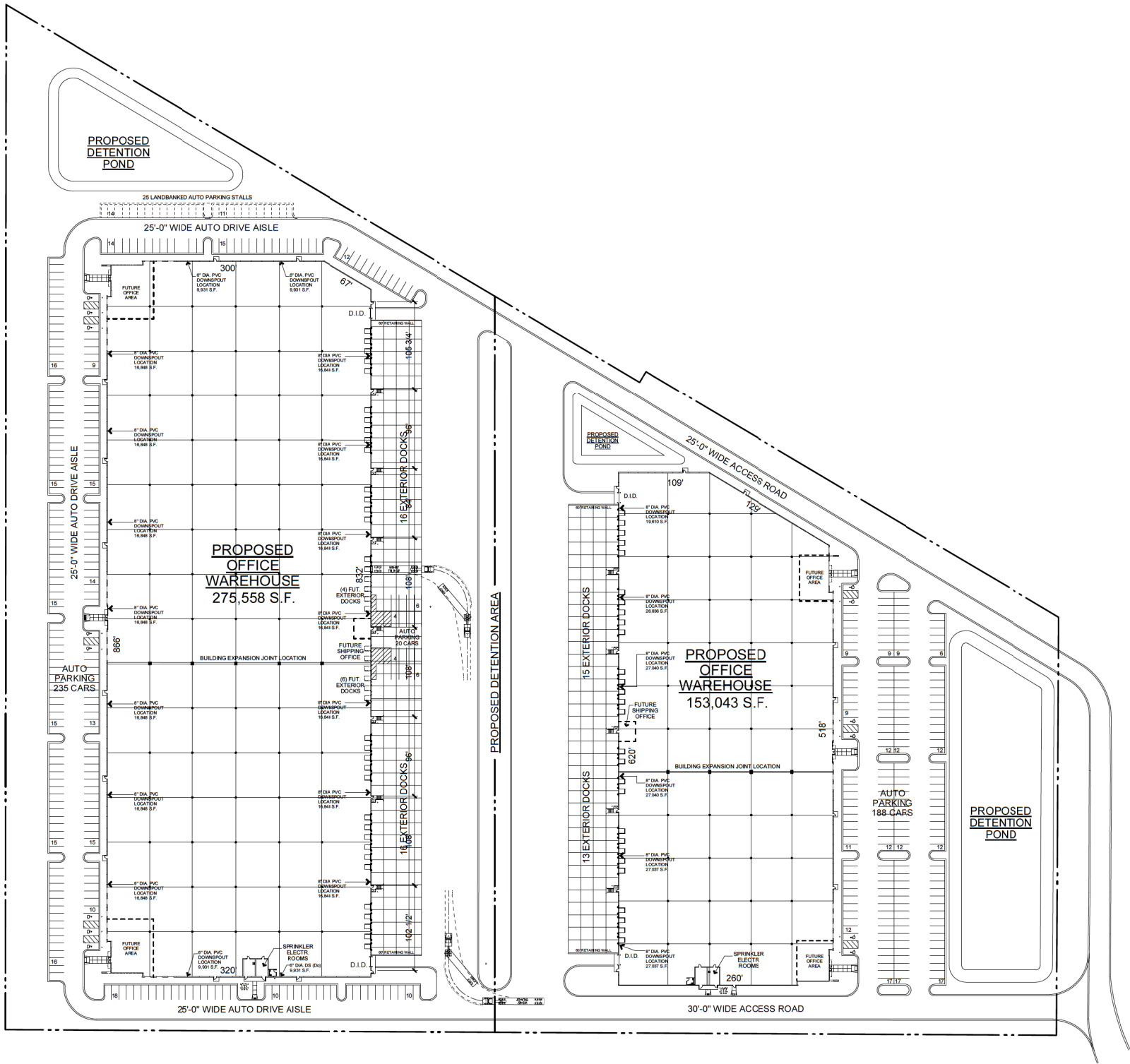
Preliminary Site Plan

PROJECT SITE PLAN

SCALE: 1" = 60'-0"



- GENERAL SITE NOTES:
1. SEE CIVIL ENGINEERING DRAWINGS FOR OTHER NOTES AND DETAILS.
 2. ALL DIMENSIONS ARE FROM BACK OF CURB OR BUILDING UNLESS NOTED OTHERWISE.
 3. SEE CIVL ENGINEERING DRAWINGS FOR EXTENT OF SITE DEMOLITION WORK.
 4. EXACT LOCATION OR PLACEMENT OF NEW BLDG. INDICATED ABOVE SHALL BE DETERMINED BY LAND SURVEYOR HIRED BY G.C. AND SHALL COORDINATE & INFORM THE ARCHITECT OF ANY DISCREPANCY PRIOR TO STARTING WORK.



BUILDING YARD AND PAVEMENT
SETBACK REQUIREMENTS

ZONING - 'M' LIGHT MANUFACTURING

LIGHT MANUFACTURING YARD SETBACK REQUIREMENTS	
FRONT YARD BUILDING SETBACK	30'-0"
SIDE YARD BUILDING SETBACK	15'-0"
REAR YARD BUILDING SETBACK	15'-0"

LIGHT MANUFACTURING PAVEMENT SETBACK REQUIREMENTS	
FRONT YARD PAVEMENT SETBACK	5'-0"
SIDE YARD PAVEMENT SETBACK	2'-0"
REAR YARD PAVEMENT SETBACK	2'-0"

SITE DATA FOR EAST BUILDING

TOTAL SITE AREA (±25.39 AC.)	±1,105,841 S.F.
EAST SITE AREA (±10.96 AC.)	±477,212 S.F.
PROPOSED DETENTION	TO BE DETERMINED

BUILDING AREA	
PROPOSED OFFICE AREA (2.0%)	3,060 S.F.
PROPOSED WAREHOUSE AREA	149,983 S.F.
TOTAL BUILDING AREA	153,043 S.F.

EXTERIOR DOCKS	
EXTERIOR DOCKS PROVIDED	28 DOCKS

DRIVE IN OVERHEAD DOORS	2 DOORS
-------------------------	---------

BUILDING HEIGHT	
GENERAL BUILDING HEIGHT AT PERIMETER	XX'-0" A.F.F.
GENERAL BUILDING HEIGHT AT OFFICE PARAPET	XX'-0" A.F.F.

BUILDING INTERIOR CLEAR HEIGHT	32'-0"
MAXIMUM FLOOR AREA RATIO (F.A.R.) ALLOWED	70%
FLOOR AREA RATIO (F.A.R.) PROVIDED	32.07%

CAR PARKING REQUIREMENTS

OFFICE USE REQUIREMENTS	
1 SPACES FOR EACH 300 S.F. (ASSUME 3,060 S.F.)	11 STALLS
MANUFACTURING, WAREHOUSE AND STORAGE USE REQUIREMENTS	
1 SPACE PER 1,000 S.F. WAREHOUSE GROSS FLOOR AREA (ASSUME 149,983 S.F. REMAINING WAREHOUSE AREA)	150 STALLS
TOTAL CAR PARKING REQUIRED	161 STALLS
CAR PARKING PROVIDED (INCLUDES 6 HC STALLS)	188 STALLS

SITE DATA FOR WEST BUILDING

TOTAL SITE AREA (±25.39 AC.)	±1,105,841 S.F.
WEST SITE AREA (±14.43 AC.)	±628,629 S.F.
PROPOSED DETENTION	TO BE DETERMINED

BUILDING AREA	
PROPOSED OFFICE AREA (2.0%)	5,512 S.F.
PROPOSED WAREHOUSE AREA	270,046 S.F.
TOTAL BUILDING AREA	275,558 S.F.

EXTERIOR DOCKS	
EXTERIOR DOCKS PROVIDED	32 DOCKS
FUTURE DOCKS PROVIDED	10 DOCKS
TOTAL POTENTIAL EXTERIOR DOCKS	42 DOCKS
DRIVE IN OVERHEAD DOORS	2 DOORS

BUILDING HEIGHT	
BUILDING HEIGHT AT EAST DOCKS	XX'-X" A.F.F.
BUILDING HEIGHT AT NORTH/SOUTH OFFICE PERIMETER	XX'-0" A.F.F.
GENERAL BUILDING HEIGHT AT OFFICE PARAPET	XX'-X" A.F.F.
BUILDING INTERIOR CLEAR HEIGHT	36'-0"

MAXIMUM FLOOR AREA RATIO (F.A.R.) ALLOWED	70%
FLOOR AREA RATIO (F.A.R.) PROVIDED	43.94%

CAR PARKING REQUIREMENTS

OFFICE USE REQUIREMENTS	
1 SPACES FOR EACH 300 S.F. (ASSUME 5,512 S.F.)	19 STALLS
MANUFACTURING, WAREHOUSE AND STORAGE USE REQUIREMENTS	
1 SPACE PER 1,000 S.F. WAREHOUSE GROSS FLOOR AREA (ASSUME 270,046 S.F. REMAINING WAREHOUSE AREA)	270 STALLS
TOTAL CAR PARKING REQUIRED	289 STALLS
CAR PARKING PROVIDED (INCLUDES 8 HC STALLS)	266 STALLS
LANDBANKED CAR SPACES PROVIDED	25 STALLS
TOTAL CAR PARKING PARKING	291 STALLS

HARRIS ARCHITECTS INC.
401 EMISSION AVENUE PALATINE, ILLINOIS 60067-5416, 630.303.1155
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PROPOSED OFFICE & WAREHOUSE BUILDINGS AT:
PALATINE CORPORATE CENTER
HICKS ROAD & NORTHWEST HIGHWAY PALATINE, ILLINOIS

ISSUED FOR OWNER REVIEW
05-05-2020
ISSUED FOR OWNER REVIEW
05-10-2020
ISSUED FOR CONSULTANT USE
05-15-2020
ISSUED FOR ROOF DRAIN LOCATIONS
05-22-2020

PROJECT NO.
220067
DRAWN BY:
DJK
DATABASE:
220067/PLAN.DB

SHEET NO.

A1.0

20

Packet Pg. 95

3.1.g

Attachment: Traffic Impact Study (dated 6-30-2020) (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) -

ITE Trip Generation Worksheets

Warehousing (150)

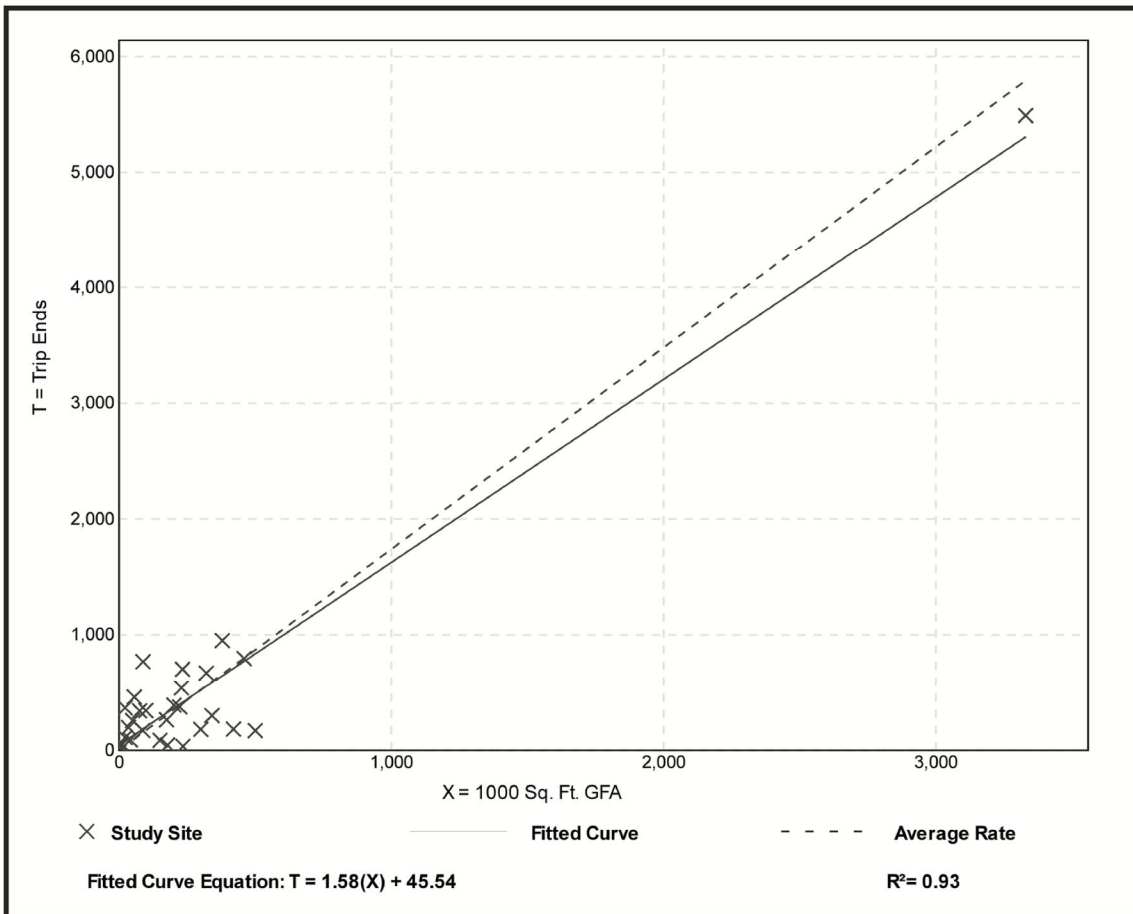
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 29
1000 Sq. Ft. GFA: 285
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.74	0.15 - 16.93	1.55

Data Plot and Equation



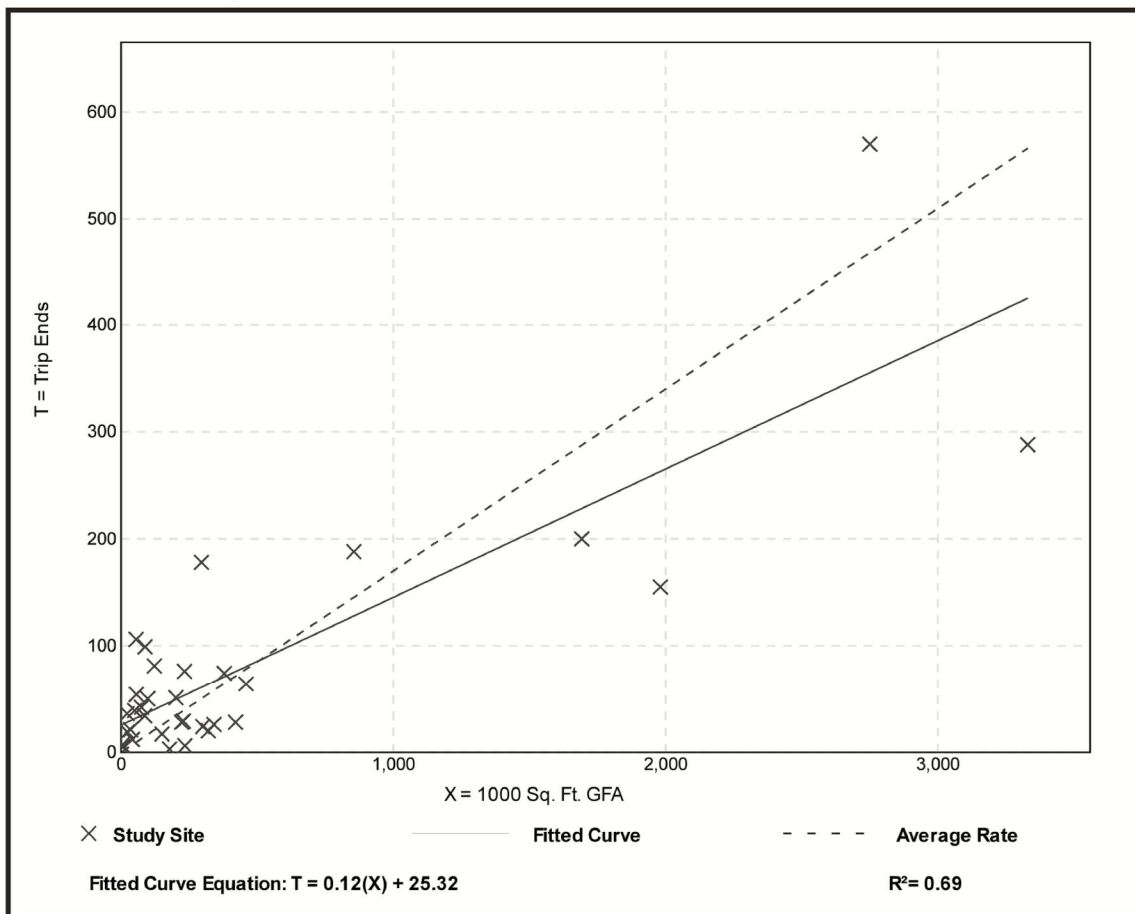
Warehousing (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 34
 1000 Sq. Ft. GFA: 451
 Directional Distribution: 77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.93	0.20

Data Plot and Equation



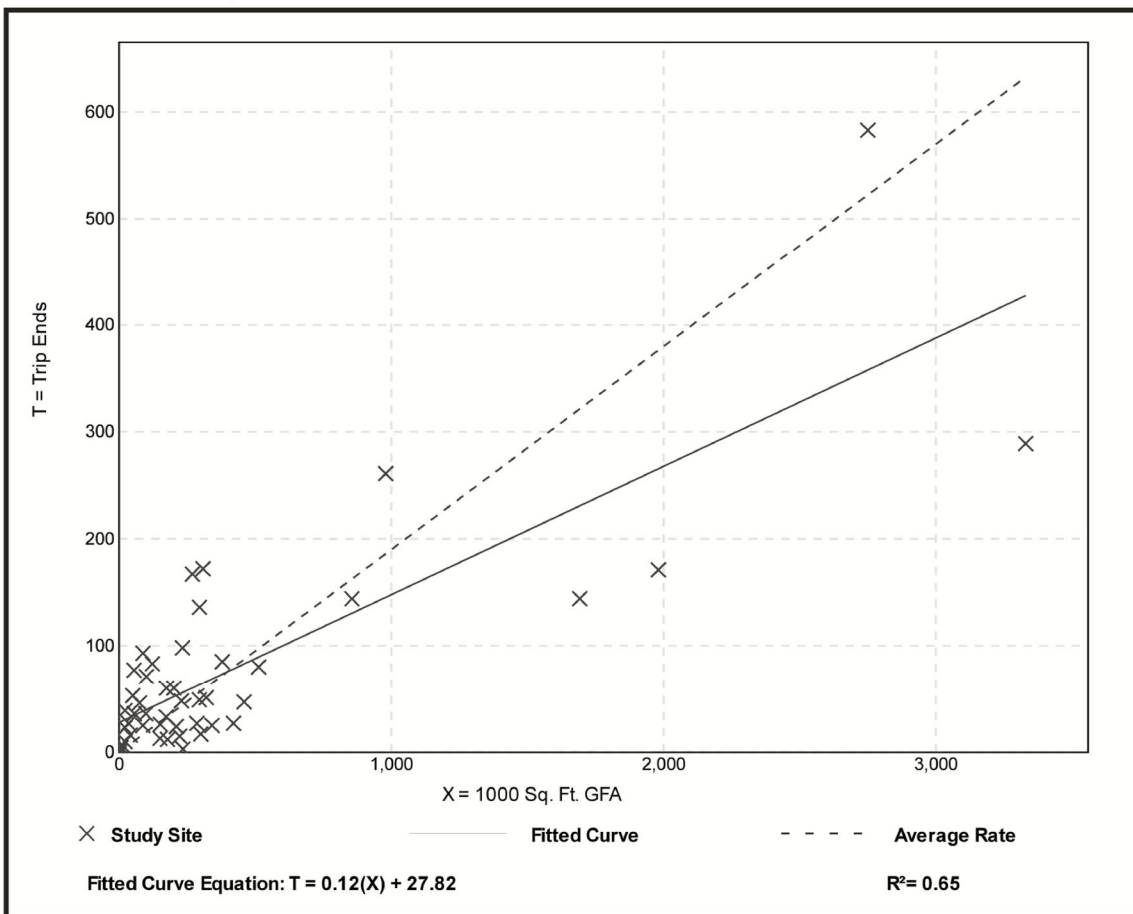
Warehousing (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 47
 1000 Sq. Ft. GFA: 400
 Directional Distribution: 27% entering, 73% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.19	0.01 - 1.80	0.18

Data Plot and Equation



CMAP 2050 Projections Letter



Chicago Metropolitan Agency for Planning

233 South Wacker Drive
Suite 800
Chicago, Illinois 60606

312 454 0400
www.cmap.illinois.gov

May 7, 2019

Andrew Bowen
Consultant
Kenig, Lindgren, O'Hara and Aboona, Inc.
9575 West Higgins Road
Suite 400
Rosemont, IL 60018

Subject: US 14 - Hicks Road - Industrial Avenue
IDOT

Dear Mr. Bowen:

In response to a request made on your behalf and dated May 6, 2019, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current Volumes	Year 2050 ADT
Industrial Ave, at Hicks Rd	5,600	6,600
Central Ave South of 63 rd St	11,500	13,600
US 14 west of Hicks Rd	25,300	29,800
63 rd St East of Central Ave	19,000	22,400

Traffic projections are developed using existing ADT data provided in the request letter and the results from the March 2019 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806.

Sincerely,

Jose Rodriguez, PTP, AICP
Senior Planner, Research & Analysis

cc: Quigley (IDOT)
S:\AdminGroups\ResearchAnalysis\2019_ForecastsTraffic\Palatine\ck-74-19\ck-74-19.docx

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of Service A.	>10 - 20
C	Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 - 35
D	The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable.	>35 - 55
E	Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent.	>55 - 80
F	The volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80.0
Unsignalized Intersections		
Level of Service	Average Total Delay (SEC/VEH)	
A	0 - 10	
B	> 10 - 15	
C	> 15 - 25	
D	> 25 - 35	
E	> 35 - 50	
F	> 50	

Source: *Highway Capacity Manual*, 2010.

Capacity Analysis Summary Sheets

Existing Weekday Morning Peak Hour Conditions

Lanes, Volumes, Timings

1: Hicks Road/Access Drice & US 14

05/29/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	736	768	136	531	0	174	0	77	0	0	1
Future Volume (vph)	0	736	768	136	531	0	174	0	77	0	0	1
Ideal Flow (vphpl)	1900	1900	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)	0		200	160		0	0		0	0		0
Storage Lanes	0		1	1		0	1		0	0		0
Taper Length (ft)	25			120			25			25		
Lane Util. Factor	0.95	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					0.904			0.865	
Flt Protected				0.950			0.950	0.982				
Satd. Flow (prot)	0	3505	1599	1736	3406	0	1517	1494	0	0	1644	0
Flt Permitted				0.252			0.950	0.982				
Satd. Flow (perm)	0	3505	1599	460	3406	0	1517	1494	0	0	1644	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			40			30	
Link Distance (ft)		358			1471			611			204	
Travel Time (s)		7.0			28.7			10.4			4.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	1%	4%	6%	0%	13%	0%	4%	0%	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 (%)							25%					
Lane Group Flow (vph)	0	791	826	146	571	0	140	130	0	0	1	0
Turn Type		NA	pm+ov	pm+pt	NA		Split	NA			NA	
Protected Phases		2	8	1	6		8	8			4	
Permitted Phases	2		2	6						4		
Detector Phase	2	2	8	1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0	8.0	3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	21.0	21.0	14.0	6.5	21.0		14.0	14.0		14.0	14.0	
Total Split (s)	58.5	58.5	32.5	23.4	81.9		32.5	32.5		15.6	15.6	
Total Split (%)	45.0%	45.0%	25.0%	18.0%	63.0%		25.0%	25.0%		12.0%	12.0%	
Yellow Time (s)	4.5	4.5	4.5	3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	0.0	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	
Total Lost Time (s)		6.0	6.0	3.5	6.0		6.0	6.0			6.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Min	C-Min	None	None	C-Min		None	None		None	None	
Act Effect Green (s)		65.7	106.6	81.6	79.1		36.1	36.1			8.0	
Actuated g/C Ratio		0.51	0.82	0.63	0.61		0.28	0.28			0.06	

Existing Morning Condition

Synchro 10 Report
Page 1

Lanes, Volumes, Timings

1: Hicks Road/Access Drice & US 14

05/29/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.45	0.63	0.38	0.28		0.33	0.31			0.01	
Control Delay		21.8	7.2	12.6	12.4		42.7	42.4			58.0	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay		21.8	7.2	12.6	12.4		42.7	42.4			58.0	
LOS		C	A	B	B		D	D			E	
Approach Delay		14.3			12.4			42.6			58.0	
Approach LOS		B			B			D			E	
Queue Length 50th (ft)		221	160	48	114		94	87			1	
Queue Length 95th (ft)		301	308	82	154		178	167			7	
Internal Link Dist (ft)		278			1391			531			124	
Turn Bay Length (ft)			200	160								
Base Capacity (vph)		1770	1314	483	2089		424	418			121	
Starvation Cap Reductn		0	0	0	0		0	0			0	
Spillback Cap Reductn		0	0	0	0		0	0			0	
Storage Cap Reductn		0	0	0	0		0	0			0	
Reduced v/c Ratio		0.45	0.63	0.30	0.27		0.33	0.31			0.01	

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 22.5 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 16.8

Intersection LOS: B

Intersection Capacity Utilization 83.9%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: Hicks Road/Access Drice & US 14



Existing Morning Condition

Synchro 10 Report
Page 2

Lanes, Volumes, Timings

2: Hicks Road & Sellstorm Drive/Access Road

05/29/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	13	1	0	0	18	249	2	0	895	9
Future Volume (vph)	2	0	13	1	0	0	18	249	2	0	895	9
Ideal Flow (vphpl)	1900	1900	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)	130		0	0		0	70		0	45		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	80			25			60			85		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.850						0.999			0.999	
Flt Protected	0.950				0.950		0.950					
Satd. Flow (prot)	1805	1003	0	0	902	0	1543	3281	0	1900	3525	0
Flt Permitted							0.280					
Satd. Flow (perm)	1900	1003	0	0	950	0	455	3281	0	1900	3525	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		537			178			238			611	
Travel Time (s)		12.2			4.0			4.1			10.4	
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 (%)	0%	0%	61%	100%	0%	0%	17%	10%	0%	0%	2%	33%
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)	2	14	0	0	1	0	19	261	0	0	941	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		6.5	21.0		6.5	21.0	
Total Split (s)	18.0	18.0		18.0	18.0		13.0	49.0		13.0	49.0	
Total Split (%)	22.5%	22.5%		22.5%	22.5%		16.3%	61.3%		16.3%	61.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	8.5	8.5			8.4		73.3	75.6			70.7	
Actuated g/C Ratio	0.11	0.11			0.10		0.92	0.94			0.88	

Existing Morning Condition

Synchro 10 Report
Page 3

Attachment: Traffic Impact Study (dated 6-30-2020) (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) -

Lanes, Volumes, Timings

2: Hicks Road & Sellstorm Drive/Access Road

05/29/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.01	0.13			0.01		0.04	0.08				0.30
Control Delay	31.5	35.0			32.0		1.6	1.3				3.1
Queue Delay	0.0	0.0			0.0		0.0	0.0				0.0
Total Delay	31.5	35.0			32.0		1.6	1.3				3.1
LOS	C	C			C		A	A				A
Approach Delay		34.6			32.0			1.4				3.1
Approach LOS		C			C			A				A
Queue Length 50th (ft)	1	7			0		1	0				0
Queue Length 95th (ft)	7	23			5		5	21				160
Internal Link Dist (ft)		457			98			158				531
Turn Bay Length (ft)	130						70					
Base Capacity (vph)	285	150			142		546	3101				3114
Starvation Cap Reductn	0	0			0		0	0				0
Spillback Cap Reductn	0	0			0		0	0				5
Storage Cap Reductn	0	0			0		0	0				0
Reduced v/c Ratio	0.01	0.09			0.01		0.03	0.08				0.30

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 3 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.30

Intersection Signal Delay: 3.2

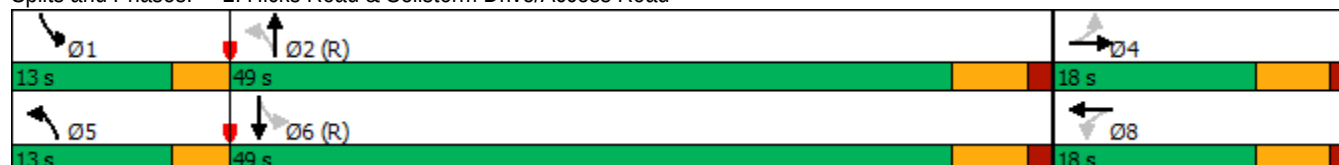
Intersection LOS: A

Intersection Capacity Utilization 41.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Hicks Road & Sellstorm Drive/Access Road



Existing Morning Condition

Synchro 10 Report
Page 4

Lanes, Volumes, Timings

4: Hicks Road & Illinois Avenue/Industrial Avenue

05/29/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	119	181	168	98	116	31	106	521	57	33	666	66
Future Volume (vph)	119	181	168	98	116	31	106	521	57	33	666	66
Ideal Flow (vphpl)	1900	1900	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)	155		0	140		0	140		0	140		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	180			170			175			185		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99		1.00	1.00							
Frt		0.928			0.968			0.985			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	1638	0	1641	1627	0	1687	3422	0	1656	3462	0
Flt Permitted	0.653			0.272			0.234			0.403		
Satd. Flow (perm)	1138	1638	0	469	1627	0	416	3422	0	702	3462	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55			16			15			13	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		939			1161			690			1966	
Travel Time (s)		18.3			22.6			10.5			29.8	
Confl. Peds. (#/hr)			2	2								
Confl. Bikes (#/hr)			1			1						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	3%	11%	10%	10%	23%	7%	4%	3%	9%	3%	1%
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)	123	360	0	101	152	0	109	596	0	34	755	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0		3.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	6.5	14.0		6.5	14.0		6.5	21.0		6.5	21.0	
Total Split (s)	13.0	25.0		13.0	25.0		13.0	29.0		13.0	29.0	
Total Split (%)	16.3%	31.3%		16.3%	31.3%		16.3%	36.3%		16.3%	36.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	28.2	18.5		27.7	18.2		41.4	33.5		37.9	30.1	
Actuated g/C Ratio	0.35	0.23		0.35	0.23		0.52	0.42		0.47	0.38	

Existing Morning Condition

Synchro 10 Report
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Lanes, Volumes, Timings

4: Hicks Road & Illinois Avenue/Industrial Avenue

05/29/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.27	0.86		0.36	0.40		0.32	0.41		0.08	0.58	
Control Delay	16.5	46.1		18.3	26.5		13.8	19.6		7.0	22.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.5	46.1		18.3	26.5		13.8	19.6		7.0	22.5	
LOS	B	D		B	C		B	B		A	C	
Approach Delay		38.6			23.2			18.7			21.8	
Approach LOS		D			C			B			C	
Queue Length 50th (ft)	36	143		29	56		29	122		10	193	
Queue Length 95th (ft)	70	#292		59	110		57	177		m10	267	
Internal Link Dist (ft)		859			1081			610			1886	
Turn Bay Length (ft)	155			140			140			140		
Base Capacity (vph)	467	436		304	400		367	1441		466	1310	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.26	0.83		0.33	0.38		0.30	0.41		0.07	0.58	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 54.5 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 24.6

Intersection LOS: C

Intersection Capacity Utilization 68.4%

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: 4: Hicks Road & Illinois Avenue/Industrial Avenue

					
Ø1	Ø2 (R)		Ø3	Ø4	
13 s	29 s		13 s	25 s	
					
Ø5	Ø6 (R)		Ø7	Ø8	
13 s	29 s		13 s	25 s	

Existing Morning Condition

Synchro 10 Report
Page 6

Capacity Analysis Summary Sheets

Existing Weekday Evening Peak Hour Conditions

Lanes, Volumes, Timings

1: Hicks Road/Access Drice & US 14

05/29/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	638	334	119	954	1	525	0	200	2	2	3
Future Volume (vph)	1	638	334	119	954	1	525	0	200	2	2	3
Ideal Flow (vphpl)	1900	1900	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)	0		200	160		0	0		0	0		0
Storage Lanes	0		1	1		0	1		0	0		0
Taper Length (ft)	25			120			25			25		
Lane Util. Factor	0.95	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					1.00							
Frt			0.850					0.915			0.942	
Flt Protected				0.950			0.950	0.979			0.986	
Satd. Flow (prot)	0	3505	1553	1770	3574	0	1698	1592	0	0	1765	0
Flt Permitted		0.954		0.294			0.950	0.979				
Satd. Flow (perm)	0	3344	1553	548	3574	0	1698	1592	0	0	1790	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			40			30	
Link Distance (ft)		358			1471			611			204	
Travel Time (s)		7.0			28.7			10.4			4.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	4%	2%	1%	0%	1%	0%	2%	0%	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 (%)							29%					
Lane Group Flow (vph)	0	687	359	128	1027	0	401	379	0	0	7	0
Turn Type	Perm	NA	pm+ov	pm+pt	NA		Split	NA		Perm	NA	
Protected Phases		2	8	1	6		8	8			4	
Permitted Phases	2		2	6						4		
Detector Phase	2	2	8	1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0	8.0	3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	21.0	21.0	14.0	6.5	21.0		14.0	14.0		14.0	14.0	
Total Split (s)	41.6	41.6	45.5	26.0	67.6		45.5	45.5		16.9	16.9	
Total Split (%)	32.0%	32.0%	35.0%	20.0%	52.0%		35.0%	35.0%		13.0%	13.0%	
Yellow Time (s)	4.5	4.5	4.5	3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	0.0	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	
Total Lost Time (s)		6.0	6.0	3.5	6.0		6.0	6.0			6.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Min	C-Min	None	None	C-Min		None	None		None	None	
Act Effect Green (s)		63.5	106.1	79.3	76.8		37.8	37.8			9.0	
Actuated g/C Ratio		0.49	0.82	0.61	0.59		0.29	0.29			0.07	

Existing Evening Condition

Synchro 10 Report
Page 1

Attachment: Traffic Impact Study (dated 6-30-2020) (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) -

Lanes, Volumes, Timings

1: Hicks Road/Access Drive & US 14

05/29/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.42	0.28	0.30	0.49		0.81	0.82			0.06	
Control Delay		24.8	3.4	14.7	17.8		56.2	57.6			56.7	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay		24.8	3.4	14.7	17.8		56.2	57.6			56.7	
LOS		C	A	B	B		E	E			E	
Approach Delay		17.5			17.5			56.9			56.7	
Approach LOS		B			B			E			E	
Queue Length 50th (ft)		188	42	42	246		320	303			6	
Queue Length 95th (ft)		318	82	95	398		#461	#463			22	
Internal Link Dist (ft)		278			1391			531			124	
Turn Bay Length (ft)			200	160								
Base Capacity (vph)		1634	1303	545	2111		532	499			150	
Starvation Cap Reductn		0	0	0	0		0	0			0	
Spillback Cap Reductn		0	0	0	0		0	0			0	
Storage Cap Reductn		0	0	0	0		0	0			0	
Reduced v/c Ratio		0.42	0.28	0.23	0.49		0.75	0.76			0.05	

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 22.5 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 27.9

Intersection LOS: C

Intersection Capacity Utilization 86.4%

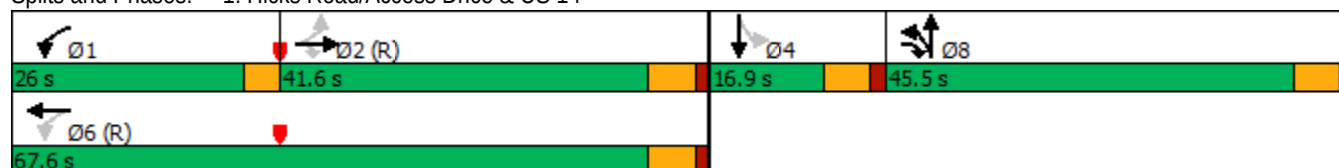
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Hicks Road/Access Drive & US 14



Existing Evening Condition

Synchro 10 Report
Page 2

Lanes, Volumes, Timings

2: Hicks Road & Sellstorm Drive/Access Road

05/29/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	0	113	5	0	8	2	643	1	0	453	2
Future Volume (vph)	74	0	113	5	0	8	2	643	1	0	453	2
Ideal Flow (vphpl)	1900	1900	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)	130		0	0		0	70		0	45		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	80			25			60			85		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor								1.00				
Frt		0.850			0.917						0.999	
Flt Protected	0.950				0.981		0.950					
Satd. Flow (prot)	1805	1583	0	0	1592	0	1805	3574	0	1900	3468	0
Flt Permitted	0.746				0.857		0.394					
Satd. Flow (perm)	1417	1583	0	0	1391	0	749	3574	0	1900	3468	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		537			178			238			611	
Travel Time (s)		12.2			4.0			4.1			10.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	2%	0%	0%	12%	0%	1%	0%	0%	4%	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)	99	151	0	0	18	0	3	858	0	0	607	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		6.5	21.0		6.5	21.0	
Total Split (s)	18.0	18.0		18.0	18.0		13.0	49.0		13.0	49.0	
Total Split (%)	22.5%	22.5%		22.5%	22.5%		16.3%	61.3%		16.3%	61.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	11.8	11.8			11.8		58.7	56.2			54.4	
Actuated g/C Ratio	0.15	0.15			0.15		0.73	0.70			0.68	

Existing Evening Condition

Synchro 10 Report
Page 3

Attachment: Traffic Impact Study (dated 6-30-2020) (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) -

Lanes, Volumes, Timings

2: Hicks Road & Sellstorm Drive/Access Road

05/29/2019

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.48	0.65			0.09		0.00	0.34				0.26
Control Delay	39.2	46.2			30.3		2.5	4.1				5.9
Queue Delay	0.0	0.0			0.0		0.0	0.4				0.0
Total Delay	39.2	46.2			30.3		2.5	4.5				5.9
LOS	D	D			C		A	A				A
Approach Delay		43.4			30.3			4.5				5.9
Approach LOS		D			C			A				A
Queue Length 50th (ft)	44	69			8		1	73				54
Queue Length 95th (ft)	76	107			22		m1	71				81
Internal Link Dist (ft)		457			98			158				531
Turn Bay Length (ft)	130						70					
Base Capacity (vph)	220	246			216		675	2510				2356
Starvation Cap Reductn	0	0			0		0	1035				0
Spillback Cap Reductn	0	0			0		0	0				0
Storage Cap Reductn	0	0			0		0	0				0
Reduced v/c Ratio	0.45	0.61			0.08		0.00	0.58				0.26

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 3 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 10.8

Intersection LOS: B

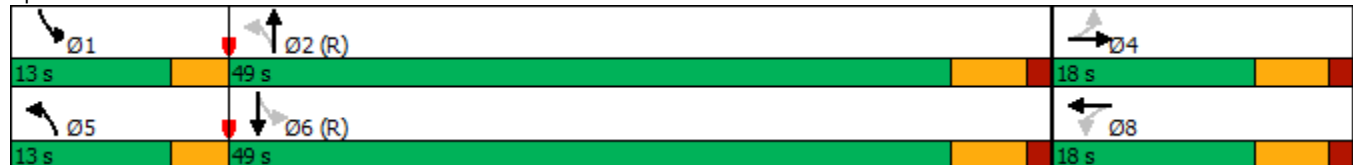
Intersection Capacity Utilization 36.9%

ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Hicks Road & Sellstorm Drive/Access Road



Existing Evening Condition

Synchro 10 Report
Page 4

Lanes, Volumes, Timings

4: Hicks Road & Illinois Avenue/Industrial Avenue

05/29/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	127	104	120	197	45	162	377	39	51	687	167
Future Volume (vph)	54	127	104	120	197	45	162	377	39	51	687	167
Ideal Flow (vphpl)	1900	1900	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)	155		0	140		0	140		0	140		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	180			170			175			185		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor					1.00							
Frt		0.932			0.972			0.986			0.971	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1675	0	1770	1748	0	1719	3486	0	1612	3423	0
Flt Permitted	0.484			0.349			0.132			0.473		
Satd. Flow (perm)	884	1675	0	650	1748	0	239	3486	0	802	3423	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		48			13			14			37	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		939			1161			690			1966	
Travel Time (s)		18.3			22.6			10.5			29.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)						2						
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	3%	9%	2%	5%	7%	5%	2%	3%	12%	2%	4%
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)	64	271	0	141	285	0	191	490	0	60	1004	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0		3.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	6.5	14.0		6.5	14.0		6.5	21.0		6.5	21.0	
Total Split (s)	13.0	25.0		13.0	25.0		13.0	29.0		13.0	29.0	
Total Split (%)	16.3%	31.3%		16.3%	31.3%		16.3%	36.3%		16.3%	36.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	25.7	15.9		29.0	19.1		41.4	33.0		37.0	27.4	
Actuated g/C Ratio	0.32	0.20		0.36	0.24		0.52	0.41		0.46	0.34	

Existing Evening Condition

Synchro 10 Report
Page 5

Attachment: Traffic Impact Study (dated 6-30-2020) (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) -

Lanes, Volumes, Timings

4: Hicks Road & Illinois Avenue/Industrial Avenue

05/29/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.18	0.73		0.39	0.67		0.66	0.34		0.14	0.84	
Control Delay	15.6	36.3		18.9	34.9		26.1	18.9		10.7	34.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.6	36.3		18.9	34.9		26.1	18.9		10.7	34.5	
LOS	B	D		B	C		C	B		B	C	
Approach Delay		32.3			29.6			20.9			33.2	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	19	103		44	124		50	93		19	256	
Queue Length 95th (ft)	38	165		73	190		#117	136		28	#362	
Internal Link Dist (ft)		859			1081			610			1886	
Turn Bay Length (ft)	155			140			140			140		
Base Capacity (vph)	409	434		370	440		303	1446		491	1195	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.16	0.62		0.38	0.65		0.63	0.34		0.12	0.84	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 54.5 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 29.1

Intersection LOS: C

Intersection Capacity Utilization 69.6%

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.

Splits and Phases: 4: Hicks Road & Illinois Avenue/Industrial Avenue

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13 s	29 s	13 s	25 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
13 s	29 s	13 s	25 s

Existing Evening Condition

Synchro 10 Report
Page 6

Capacity Analysis Summary Sheets

No-Build Weekday Morning Peak Hour Conditions

Lanes, Volumes, Timings

1: Hicks Road/Access Drice & US 14

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	759	825	199	547	0	184	0	87	0	0	1
Future Volume (vph)	0	759	825	199	547	0	184	0	87	0	0	1
Ideal Flow (vphpl)	1900	1900	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)	0		200	160		0	0		0	0		0
Storage Lanes	0		1	1		0	1		0	0		0
Taper Length (ft)	25			120			25			25		
Lane Util. Factor	0.95	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					0.899			0.865	
Flt Protected				0.950			0.950	0.984				
Satd. Flow (prot)	0	3505	1583	1687	3406	0	1517	1474	0	0	1644	0
Flt Permitted				0.227			0.950	0.984				
Satd. Flow (perm)	0	3505	1583	403	3406	0	1517	1474	0	0	1644	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			40			30	
Link Distance (ft)		358			1471			611			204	
Travel Time (s)		7.0			28.7			10.4			4.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	2%	7%	6%	0%	13%	0%	6%	0%	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 (%)							23%					
Lane Group Flow (vph)	0	816	887	214	588	0	152	140	0	0	1	0
Turn Type		NA	pm+ov	pm+pt	NA		Split	NA			NA	
Protected Phases		2	8	1	6		8	8			4	
Permitted Phases	2		2	6						4		
Detector Phase	2	2	8	1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0	8.0	3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	21.0	21.0	14.0	6.5	21.0		14.0	14.0		14.0	14.0	
Total Split (s)	58.5	58.5	32.5	23.4	81.9		32.5	32.5		15.6	15.6	
Total Split (%)	45.0%	45.0%	25.0%	18.0%	63.0%		25.0%	25.0%		12.0%	12.0%	
Yellow Time (s)	4.5	4.5	4.5	3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	0.0	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	
Total Lost Time (s)		6.0	6.0	3.5	6.0		6.0	6.0			6.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Min	C-Min	None	None	C-Min		None	None		None	None	
Act Effect Green (s)		61.6	103.9	80.2	77.7		37.5	37.5			8.0	
Actuated g/C Ratio		0.47	0.80	0.62	0.60		0.29	0.29			0.06	

No Build Morning Condition

Synchro 10 Report
Page 1

Lanes, Volumes, Timings

1: Hicks Road/Access Drice & US 14

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.49	0.70	0.58	0.29		0.35	0.33			0.01	
Control Delay		25.0	10.4	17.2	13.2		42.9	42.7			58.0	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay		25.0	10.4	17.2	13.2		42.9	42.7			58.0	
LOS		C	B	B	B		D	D			E	
Approach Delay		17.4			14.2			42.8			58.0	
Approach LOS		B			B			D			E	
Queue Length 50th (ft)		185	201	53	87		118	109			1	
Queue Length 95th (ft)		331	#552	119	160		192	178			7	
Internal Link Dist (ft)		278			1391			531			124	
Turn Bay Length (ft)			200	160								
Base Capacity (vph)		1687	1265	445	2135		437	425			121	
Starvation Cap Reductn		0	0	0	0		0	0			0	
Spillback Cap Reductn		0	0	0	0		0	0			0	
Storage Cap Reductn		0	0	0	0		0	0			0	
Reduced v/c Ratio		0.48	0.70	0.48	0.28		0.35	0.33			0.01	

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 22.5 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 19.1

Intersection LOS: B

Intersection Capacity Utilization 87.9%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Hicks Road/Access Drice & US 14



Lanes, Volumes, Timings

2: Hicks Road & Sellstorm Drive/Access Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	13	1	0	1	18	268	41	92	923	9
Future Volume (vph)	2	0	13	1	0	1	18	268	41	92	923	9
Ideal Flow (vphpl)	1900	1900	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)	130		0	0		0	70		0	45		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	80			25			60			85		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.850			0.932			0.980			0.999	
Flt Protected	0.950				0.976		0.950			0.950		
Satd. Flow (prot)	1805	1003	0	0	864	0	1543	3236	0	1787	3526	0
Flt Permitted							0.295			0.533		
Satd. Flow (perm)	1900	1003	0	0	885	0	479	3236	0	1003	3526	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		537			178			238			611	
Travel Time (s)		12.2			4.0			4.1			10.4	
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 (%)	0%	0%	61%	100%	0%	100%	17%	10%	5%	1%	2%	33%
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)	2	14	0	0	2	0	19	322	0	96	970	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		6.5	21.0		6.5	21.0	
Total Split (s)	18.0	18.0		18.0	18.0		13.0	49.0		13.0	49.0	
Total Split (%)	22.5%	22.5%		22.5%	22.5%		16.3%	61.3%		16.3%	61.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	8.5	8.5			8.4		70.2	64.3		72.2	70.7	
Actuated g/C Ratio	0.11	0.11			0.10		0.88	0.80		0.90	0.88	

No Build Morning Condition

Synchro 10 Report
Page 3

Attachment: Traffic Impact Study (dated 6-30-2020) (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) -

Lanes, Volumes, Timings

2: Hicks Road & Sellstorm Drive/Access Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.01	0.13			0.02		0.04	0.12		0.10	0.31	
Control Delay	31.5	35.0			32.0		1.4	3.4		1.3	3.2	
Queue Delay	0.0	0.0			0.0		0.0	0.2		0.0	0.0	
Total Delay	31.5	35.0			32.0		1.4	3.6		1.3	3.2	
LOS	C	C			C		A	A		A	A	
Approach Delay		34.6			32.0			3.4			3.0	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)	1	7			1		1	14		0	0	
Queue Length 95th (ft)	7	23			7		4	49		19	166	
Internal Link Dist (ft)		457			98			158			531	
Turn Bay Length (ft)	130						70			45		
Base Capacity (vph)	285	150			132		563	2602		1012	3115	
Starvation Cap Reductn	0	0			0		0	1464		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	44	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.01	0.09			0.02		0.03	0.28		0.09	0.32	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 3 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 3.5

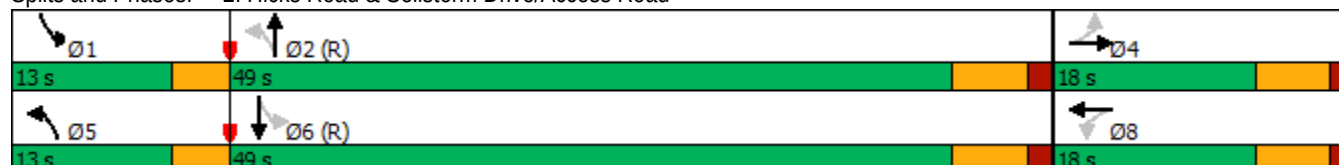
Intersection LOS: A

Intersection Capacity Utilization 49.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Hicks Road & Sellstorm Drive/Access Road



Lanes, Volumes, Timings

4: Illinois Avenue/Industrial Avenue & Hicks Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	186	173	101	120	32	109	563	59	34	670	70
Future Volume (vph)	136	186	173	101	120	32	109	563	59	34	670	70
Ideal Flow (vphpl)	1900	1900	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)	155		0	140		0	140		0	140		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	180			170			175			185		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99		1.00	1.00							
Frt		0.928			0.968			0.986			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1671	1638	0	1641	1627	0	1687	3396	0	1656	3462	0
Flt Permitted	0.600			0.295			0.223			0.368		
Satd. Flow (perm)	1056	1638	0	509	1627	0	396	3396	0	641	3462	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55			16			14			14	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		939			1161			690			1966	
Travel Time (s)		18.3			22.6			10.5			29.8	
Confl. Peds. (#/hr)			2	2								
Confl. Bikes (#/hr)			1			1						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	3%	11%	10%	10%	23%	7%	5%	3%	9%	3%	1%
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)	140	370	0	104	157	0	112	641	0	35	763	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0		3.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	6.5	14.0		6.5	14.0		6.5	21.0		6.5	21.0	
Total Split (s)	13.0	25.0		13.0	25.0		13.0	29.0		13.0	29.0	
Total Split (%)	16.3%	31.3%		16.3%	31.3%		16.3%	36.3%		16.3%	36.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	29.2	19.3		27.5	16.9		40.6	32.6		37.0	29.2	
Actuated g/C Ratio	0.36	0.24		0.34	0.21		0.51	0.41		0.46	0.36	

No Build Morning Condition

Synchro 10 Report
Page 5

Lanes, Volumes, Timings

4: Illinois Avenue/Industrial Avenue & Hicks Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.31	0.85		0.36	0.44		0.34	0.46		0.09	0.60	
Control Delay	16.9	44.6		18.0	27.9		14.3	20.5		7.0	23.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.9	44.6		18.0	27.9		14.3	20.5		7.0	23.0	
LOS	B	D		B	C		B	C		A	C	
Approach Delay		37.0			23.9			19.6			22.3	
Approach LOS		D			C			B			C	
Queue Length 50th (ft)	42	150		30	59		30	134		11	196	
Queue Length 95th (ft)	78	#305		61	113		58	193		m10	270	
Internal Link Dist (ft)		859			1081			610			1886	
Turn Bay Length (ft)	155			140			140			140		
Base Capacity (vph)	461	439		317	399		355	1392		434	1270	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.30	0.84		0.33	0.39		0.32	0.46		0.08	0.60	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 54.5 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 24.8

Intersection LOS: C

Intersection Capacity Utilization 69.5%

ICU Level of Service C

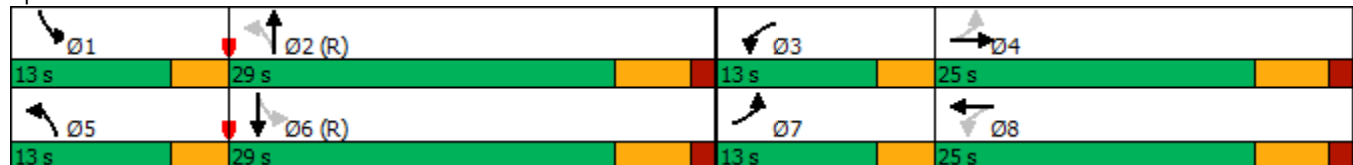
Analysis Period (min) 15

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: 4: Illinois Avenue/Industrial Avenue & Hicks Road



Capacity Analysis Summary Sheets

No-Build Weekday Evening Peak Hour Conditions

Lanes, Volumes, Timings

1: Hicks Road/Access Drice & US 14

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	658	360	152	984	1	560	0	239	2	2	3
Future Volume (vph)	1	658	360	152	984	1	560	0	239	2	2	3
Ideal Flow (vphpl)	1900	1900	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)	0		200	160		0	0		0	0		0
Storage Lanes	0		1	1		0	1		0	0		0
Taper Length (ft)	25			120			25			25		
Lane Util. Factor	0.95	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					1.00							
Frt			0.850					0.907			0.942	
Flt Protected				0.950			0.950	0.981			0.986	
Satd. Flow (prot)	0	3505	1553	1752	3574	0	1698	1552	0	0	1765	0
Flt Permitted		0.954		0.264			0.950	0.981				
Satd. Flow (perm)	0	3344	1553	487	3574	0	1698	1552	0	0	1790	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			40			30	
Link Distance (ft)		358			1471			611			204	
Travel Time (s)		7.0			28.7			10.4			4.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	4%	3%	1%	0%	1%	0%	5%	0%	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 (%)							26%					
Lane Group Flow (vph)	0	709	387	163	1059	0	445	414	0	0	7	0
Turn Type	Perm	NA	pm+ov	pm+pt	NA		Split	NA		Perm	NA	
Protected Phases		2	8	1	6		8	8			4	
Permitted Phases	2		2	6						4		
Detector Phase	2	2	8	1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0	8.0	3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	21.0	21.0	14.0	6.5	21.0		14.0	14.0		14.0	14.0	
Total Split (s)	41.6	41.6	45.5	26.0	67.6		45.5	45.5		16.9	16.9	
Total Split (%)	32.0%	32.0%	35.0%	20.0%	52.0%		35.0%	35.0%		13.0%	13.0%	
Yellow Time (s)	4.5	4.5	4.5	3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	0.0	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	
Total Lost Time (s)		6.0	6.0	3.5	6.0		6.0	6.0			6.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Min	C-Min	None	None	C-Min		None	None		None	None	
Act Effect Green (s)		58.1	104.5	75.5	73.0		41.6	41.6			9.0	
Actuated g/C Ratio		0.45	0.80	0.58	0.56		0.32	0.32			0.07	

No Build Evening Condition

Synchro 10 Report
Page 1

Attachment: Traffic Impact Study (dated 6-30-2020) (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) -

Lanes, Volumes, Timings

1: Hicks Road/Access Drice & US 14

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.47	0.31	0.41	0.53		0.82	0.83			0.06	
Control Delay		28.9	4.0	17.7	20.3		53.8	56.3			56.7	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay		28.9	4.0	17.7	20.3		53.8	56.3			56.7	
LOS		C	A	B	C		D	E			E	
Approach Delay		20.1			19.9			55.0			56.7	
Approach LOS		C			B			D			E	
Queue Length 50th (ft)		217	52	61	284		345	323			6	
Queue Length 95th (ft)		340	102	120	415		#566	#544			22	
Internal Link Dist (ft)		278			1391			531			124	
Turn Bay Length (ft)			200	160								
Base Capacity (vph)		1494	1263	501	2007		559	511			150	
Starvation Cap Reductn		0	0	0	0		0	0			0	
Spillback Cap Reductn		0	0	0	0		0	0			0	
Storage Cap Reductn		0	0	0	0		0	0			0	
Reduced v/c Ratio		0.47	0.31	0.33	0.53		0.80	0.81			0.05	

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 22.5 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 29.5

Intersection LOS: C

Intersection Capacity Utilization 89.9%

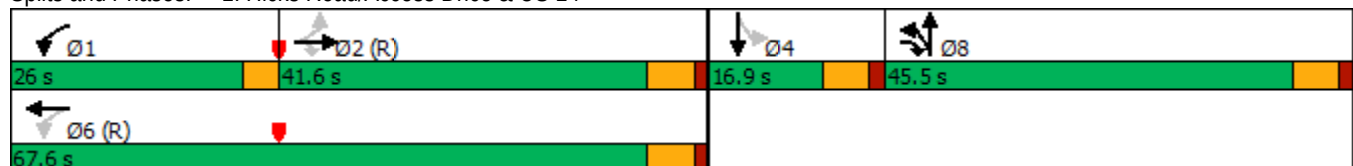
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Hicks Road/Access Drice & US 14



Lanes, Volumes, Timings

2: Hicks Road & Sellstorm Drive/Access Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	0	113	27	0	60	2	665	20	45	467	2
Future Volume (vph)	74	0	113	27	0	60	2	665	20	45	467	2
Ideal Flow (vphpl)	1900	1900	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)	130		0	0		0	70		0	45		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	80			25			60			85		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor								1.00				
Frt		0.850			0.907			0.996			0.999	
Flt Protected	0.950				0.985		0.950			0.950		
Satd. Flow (prot)	1805	1583	0	0	1697	0	1805	3559	0	1805	3468	0
Flt Permitted	0.710				0.819		0.414			0.263		
Satd. Flow (perm)	1349	1583	0	0	1411	0	787	3559	0	500	3468	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		537			178			238			611	
Travel Time (s)		12.2			4.0			4.1			10.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%	4%	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)	99	151	0	0	116	0	3	914	0	60	626	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		6.5	21.0		6.5	21.0	
Total Split (s)	18.0	18.0		18.0	18.0		13.0	49.0		13.0	49.0	
Total Split (%)	22.5%	22.5%		22.5%	22.5%		16.3%	61.3%		16.3%	61.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	11.4	11.4			11.4		56.4	50.6		58.7	54.8	
Actuated g/C Ratio	0.14	0.14			0.14		0.70	0.63		0.73	0.68	

No Build Evening Condition

Synchro 10 Report
Page 3

Attachment: Traffic Impact Study (dated 6-30-2020) (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) -

Lanes, Volumes, Timings

2: Hicks Road & Sellstorm Drive/Access Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.52	0.67			0.58		0.00	0.41		0.13	0.26	
Control Delay	41.9	48.4			44.3		2.0	6.8		3.6	5.8	
Queue Delay	0.0	0.0			0.0		0.0	0.5		0.0	0.0	
Total Delay	41.9	48.4			44.3		2.0	7.3		3.6	5.8	
LOS	D	D			D		A	A		A	A	
Approach Delay		45.8			44.3			7.3			5.6	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)	46	72			54		1	88		7	50	
Queue Length 95th (ft)	77	107			87		m1	95		12	83	
Internal Link Dist (ft)		457			98			158			531	
Turn Bay Length (ft)	130						70			45		
Base Capacity (vph)	202	237			211		699	2250		524	2375	
Starvation Cap Reductn	0	0			0		0	818		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.49	0.64			0.55		0.00	0.64		0.11	0.26	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 3 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 13.8

Intersection LOS: B

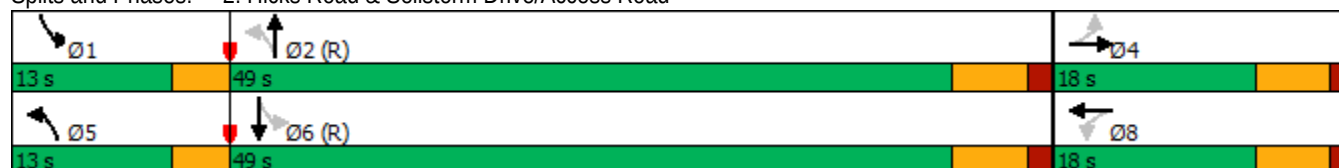
Intersection Capacity Utilization 47.5%

ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Hicks Road & Sellstorm Drive/Access Road



Lanes, Volumes, Timings

4: Illinois Person/Industrial Avenue & Hicks Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	131	107	124	203	46	167	402	40	53	723	179
Future Volume (vph)	62	131	107	124	203	46	167	402	40	53	723	179
Ideal Flow (vphpl)	1900	1900	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)	155		0	140		0	140		0	140		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	180			170			175			185		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor					1.00							
Frt		0.932			0.972			0.986			0.970	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1675	0	1770	1748	0	1719	3487	0	1612	3426	0
Flt Permitted	0.462			0.342			0.136			0.460		
Satd. Flow (perm)	844	1675	0	637	1748	0	246	3487	0	780	3426	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		48			13			13			38	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		939			1161			690			1966	
Travel Time (s)		18.3			22.6			10.5			29.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)						2						
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	3%	9%	2%	5%	7%	5%	2%	3%	12%	2%	3%
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)	73	280	0	146	293	0	196	520	0	62	1062	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0		3.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	6.5	14.0		6.5	14.0		6.5	21.0		6.5	21.0	
Total Split (s)	13.0	25.0		13.0	25.0		13.0	29.0		13.0	29.0	
Total Split (%)	16.3%	31.3%		16.3%	31.3%		16.3%	36.3%		16.3%	36.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	26.1	16.1		29.1	19.2		41.0	30.8		36.6	27.0	
Actuated g/C Ratio	0.33	0.20		0.36	0.24		0.51	0.38		0.46	0.34	

No Build Evening Condition

Synchro 10 Report
Page 5

Attachment: Traffic Impact Study (dated 6-30-2020) (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) -

Lanes, Volumes, Timings

4: Illinois Person/Industrial Avenue & Hicks Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.20	0.75		0.41	0.68		0.67	0.39		0.14	0.90	
Control Delay	15.8	37.2		19.1	35.9		26.4	20.4		10.7	40.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.8	37.2		19.1	35.9		26.4	20.4		10.7	40.2	
LOS	B	D		B	D		C	C		B	D	
Approach Delay		32.8			30.3			22.1			38.6	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	22	107		46	127		52	101		20	~304	
Queue Length 95th (ft)	42	171		75	197		#121	146		30	#396	
Internal Link Dist (ft)		859			1081			610			1886	
Turn Bay Length (ft)	155			140			140			140		
Base Capacity (vph)	402	434		367	440		305	1349		478	1180	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.18	0.65		0.40	0.67		0.64	0.39		0.13	0.90	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 54.5 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 31.9

Intersection LOS: C

Intersection Capacity Utilization 71.9%

ICU Level of Service C

Analysis Period (min) 15

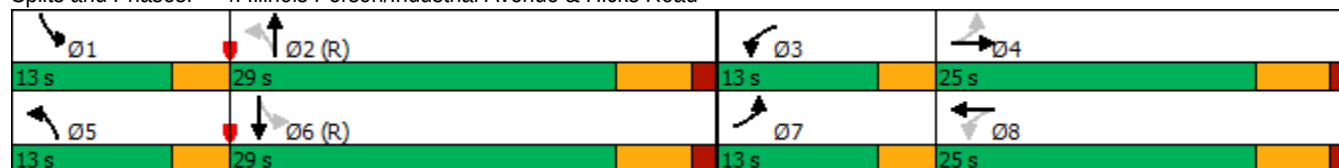
~ Volume exceeds capacity, queue is theoretically infinite.

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: 4: Illinois Person/Industrial Avenue & Hicks Road



Capacity Analysis Summary Sheets

Projected Weekday Morning Peak Hour Conditions

Lanes, Volumes, Timings

1: Hicks Road/Access Drice & US 14

06/30/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	754	840	225	547	0	188	0	95	0	0	1
Future Volume (vph)	0	754	840	225	547	0	188	0	95	0	0	1
Ideal Flow (vphpl)	1900	1900	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)	0		200	160		0	0		0	0		0
Storage Lanes	0		1	1		0	1		0	0		0
Taper Length (ft)	25			120			25			25		
Lane Util. Factor	0.95	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					0.895			0.865	
Flt Protected				0.950			0.950	0.985				
Satd. Flow (prot)	0	3505	1583	1687	3406	0	1517	1472	0	0	1644	0
Flt Permitted				0.223			0.950	0.985				
Satd. Flow (perm)	0	3505	1583	396	3406	0	1517	1472	0	0	1644	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			40			30	
Link Distance (ft)		358			1471			611			204	
Travel Time (s)		7.0			28.7			10.4			4.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	2%	7%	6%	0%	13%	0%	6%	0%	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 (%)							22%					
Lane Group Flow (vph)	0	811	903	242	588	0	158	146	0	0	1	0
Turn Type		NA	pm+ov	pm+pt	NA		Split	NA			NA	
Protected Phases		2	8	1	6		8	8			4	
Permitted Phases	2		2	6						4		
Detector Phase	2	2	8	1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0	8.0	3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	21.0	21.0	14.0	6.5	21.0		14.0	14.0		14.0	14.0	
Total Split (s)	58.5	58.5	32.5	23.4	81.9		32.5	32.5		15.6	15.6	
Total Split (%)	45.0%	45.0%	25.0%	18.0%	63.0%		25.0%	25.0%		12.0%	12.0%	
Yellow Time (s)	4.5	4.5	4.5	3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	0.0	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	
Total Lost Time (s)		6.0	6.0	3.5	6.0		6.0	6.0			6.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Min	C-Min	None	None	C-Min		None	None		None	None	
Act Effect Green (s)		59.8	102.7	79.6	77.1		38.1	38.1			8.0	
Actuated g/C Ratio		0.46	0.79	0.61	0.59		0.29	0.29			0.06	

Projected Morning Condition

Synchro 10 Report
Page 1

Lanes, Volumes, Timings

1: Hicks Road/Access Drice & US 14

06/30/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.50	0.72	0.64	0.29		0.36	0.34			0.01	
Control Delay		26.2	11.5	19.2	13.3		42.3	42.0			58.0	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay		26.2	11.5	19.2	13.3		42.3	42.0			58.0	
LOS		C	B	B	B		D	D			E	
Approach Delay		18.5			15.1			42.2			58.0	
Approach LOS		B			B			D			E	
Queue Length 50th (ft)		200	228	66	94		121	111			1	
Queue Length 95th (ft)		336	#650	134	160		200	187			7	
Internal Link Dist (ft)		278			1391			531			124	
Turn Bay Length (ft)			200	160								
Base Capacity (vph)		1631	1250	440	2106		444	431			121	
Starvation Cap Reductn		0	0	0	0		0	0			0	
Spillback Cap Reductn		0	0	0	0		0	0			0	
Storage Cap Reductn		0	0	0	0		0	0			0	
Reduced v/c Ratio		0.50	0.72	0.55	0.28		0.36	0.34			0.01	

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 22.5 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 20.0

Intersection LOS: C

Intersection Capacity Utilization 88.8%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Hicks Road/Access Drice & US 14



Projected Morning Condition

Synchro 10 Report
Page 2

Lanes, Volumes, Timings

2: Hicks Road & Sellstorm Drive/Access Road

06/30/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	0	19	1	0	1	36	268	41	92	923	50
Future Volume (vph)	14	0	19	1	0	1	36	268	41	92	923	50
Ideal Flow (vphpl)	1900	1900	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)	130		0	0		0	70		0	45		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	80			25			60			85		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.850			0.932			0.980			0.992	
Flt Protected	0.950				0.976		0.950			0.950		
Satd. Flow (prot)	1805	1003	0	0	864	0	1543	3236	0	1787	3457	0
Flt Permitted	0.757				0.832		0.267			0.542		
Satd. Flow (perm)	1438	1003	0	0	737	0	434	3236	0	1020	3457	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		537			178			238			611	
Travel Time (s)		12.2			4.0			4.1			10.4	
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 (%)	0%	0%	61%	100%	0%	100%	17%	10%	5%	1%	2%	33%
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)	15	20	0	0	2	0	38	322	0	96	1013	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		6.5	21.0		6.5	21.0	
Total Split (s)	18.0	18.0		18.0	18.0		13.0	49.0		13.0	49.0	
Total Split (%)	22.5%	22.5%		22.5%	22.5%		16.3%	61.3%		16.3%	61.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	8.8	8.8			8.8		64.0	57.9		65.6	61.3	
Actuated g/C Ratio	0.11	0.11			0.11		0.80	0.72		0.82	0.77	

Projected Morning Condition

Synchro 10 Report
Page 3

Attachment: Traffic Impact Study (dated 6-30-2020) (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) -

Lanes, Volumes, Timings

2: Hicks Road & Sellstorm Drive/Access Road

06/30/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.09	0.18			0.02		0.09	0.14		0.11	0.38	
Control Delay	32.7	35.7			31.5		2.5	5.8		2.4	6.7	
Queue Delay	0.0	0.0			0.0		0.0	0.1		0.0	0.0	
Total Delay	32.7	35.7			31.5		2.5	5.9		2.4	6.7	
LOS	C	D			C		A	A		A	A	
Approach Delay		34.4			31.5			5.5			6.3	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)	7	9			1		1	32		8	122	
Queue Length 95th (ft)	24	29			7		6	48		21	188	
Internal Link Dist (ft)		457			98			158			531	
Turn Bay Length (ft)	130						70			45		
Base Capacity (vph)	215	150			110		493	2340		946	2649	
Starvation Cap Reductn	0	0			0		0	1142		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.07	0.13			0.02		0.08	0.27		0.10	0.38	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 3 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 6.8

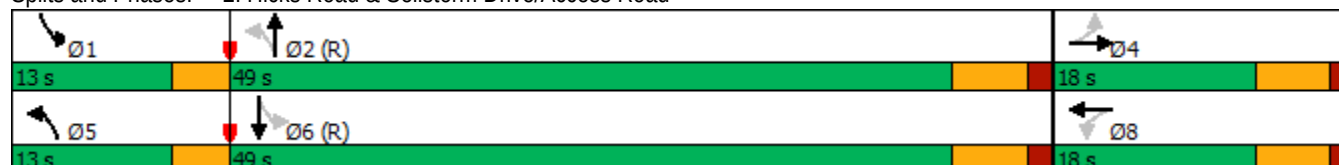
Intersection LOS: A

Intersection Capacity Utilization 50.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Hicks Road & Sellstorm Drive/Access Road



Projected Morning Condition

Synchro 10 Report
Page 4

Lanes, Volumes, Timings

4: Illinois Avenue/Industrial Avenue & Hicks Road

06/30/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	142	186	173	101	120	32	109	575	59	34	674	72
Future Volume (vph)	142	186	173	101	120	32	109	575	59	34	674	72
Ideal Flow (vphpl)	1900	1900	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)	155		0	140		0	140		0	140		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	180			170			175			185		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99		1.00	1.00							
Frt		0.928			0.968			0.986			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1671	1638	0	1641	1627	0	1687	3396	0	1656	3462	0
Flt Permitted	0.596			0.299			0.220			0.359		
Satd. Flow (perm)	1049	1638	0	516	1627	0	391	3396	0	626	3462	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55			16			14			14	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		939			1161			690			1966	
Travel Time (s)		18.3			22.6			10.5			29.8	
Confl. Peds. (#/hr)			2	2								
Confl. Bikes (#/hr)			1			1						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	3%	11%	10%	10%	23%	7%	5%	3%	9%	3%	1%
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)	146	370	0	104	157	0	112	654	0	35	769	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0		3.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	6.5	14.0		6.5	14.0		6.5	21.0		6.5	21.0	
Total Split (s)	13.0	25.0		13.0	25.0		13.0	29.0		13.0	29.0	
Total Split (%)	16.3%	31.3%		16.3%	31.3%		16.3%	36.3%		16.3%	36.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	29.3	19.4		27.5	16.8		40.6	32.6		37.0	29.1	
Actuated g/C Ratio	0.37	0.24		0.34	0.21		0.51	0.41		0.46	0.36	

Projected Morning Condition

Synchro 10 Report
Page 5

Lanes, Volumes, Timings

4: Illinois Avenue/Industrial Avenue & Hicks Road

06/30/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.32	0.85		0.36	0.44		0.34	0.47		0.09	0.61	
Control Delay	17.1	44.4		18.0	27.9		14.3	20.7		5.9	21.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.1	44.4		18.0	27.9		14.3	20.7		5.9	21.7	
LOS	B	D		B	C		B	C		A	C	
Approach Delay		36.7			24.0			19.7			21.0	
Approach LOS		D			C			B			C	
Queue Length 50th (ft)	44	150		30	59		30	138		5	198	
Queue Length 95th (ft)	81	#305		61	113		58	197		m10	273	
Internal Link Dist (ft)		859			1081			610			1886	
Turn Bay Length (ft)	155			140			140			140		
Base Capacity (vph)	460	439		319	398		353	1391		429	1269	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.32	0.84		0.33	0.39		0.32	0.47		0.08	0.61	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 54.5 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 24.4

Intersection LOS: C

Intersection Capacity Utilization 69.7%

ICU Level of Service C

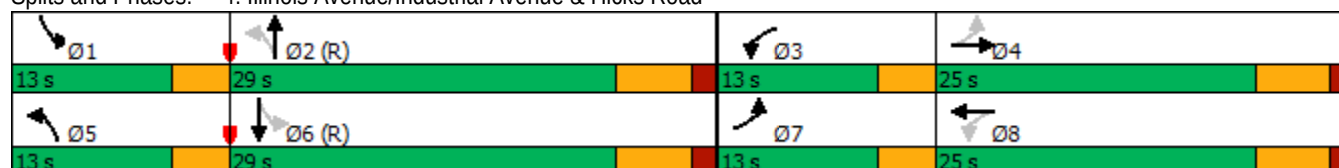
Analysis Period (min) 15

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: 4: Illinois Avenue/Industrial Avenue & Hicks Road



Projected Morning Condition

Synchro 10 Report
Page 6

Capacity Analysis Summary Sheets

Projected Weekday Evening Peak Hour Conditions

Lanes, Volumes, Timings

1: Hicks Road/Access Drice & US 14

06/30/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	658	365	162	984	1	574	0	265	2	2	3
Future Volume (vph)	1	658	365	162	984	1	574	0	265	2	2	3
Ideal Flow (vphpl)	1900	1900	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)	0		200	160		0	0		0	0		0
Storage Lanes	0		1	1		0	1		0	0		0
Taper Length (ft)	25			120			25			25		
Lane Util. Factor	0.95	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					1.00							
Frt			0.850					0.901			0.942	
Flt Protected				0.950			0.950	0.983			0.986	
Satd. Flow (prot)	0	3505	1553	1752	3574	0	1698	1543	0	0	1765	0
Flt Permitted		0.954		0.251			0.950	0.983				
Satd. Flow (perm)	0	3344	1553	463	3574	0	1698	1543	0	0	1790	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			40			30	
Link Distance (ft)		358			1471			611			204	
Travel Time (s)		7.0			28.7			10.4			4.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	4%	3%	1%	0%	1%	0%	5%	0%	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 (%)							24%					
Lane Group Flow (vph)	0	709	392	174	1059	0	469	433	0	0	7	0
Turn Type	Perm	NA	pm+ov	pm+pt	NA		Split	NA		Perm	NA	
Protected Phases		2	8	1	6		8	8			4	
Permitted Phases	2		2	6						4		
Detector Phase	2	2	8	1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0	8.0	3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	21.0	21.0	14.0	6.5	21.0		14.0	14.0		14.0	14.0	
Total Split (s)	41.6	41.6	45.5	26.0	67.6		45.5	45.5		16.9	16.9	
Total Split (%)	32.0%	32.0%	35.0%	20.0%	52.0%		35.0%	35.0%		13.0%	13.0%	
Yellow Time (s)	4.5	4.5	4.5	3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	0.0	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	
Total Lost Time (s)		6.0	6.0	3.5	6.0		6.0	6.0			6.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Min	C-Min	None	None	C-Min		None	None		None	None	
Act Effect Green (s)		54.9	103.8	73.0	70.5		44.1	44.1			9.0	
Actuated g/C Ratio		0.42	0.80	0.56	0.54		0.34	0.34			0.07	

Projected Evening Condition

Synchro 10 Report
Page 1

Attachment: Traffic Impact Study (dated 6-30-2020) (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) -

Lanes, Volumes, Timings

1: Hicks Road/Access Drice & US 14

06/30/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.50	0.32	0.46	0.55		0.82	0.83			0.06	
Control Delay		31.3	4.2	19.5	21.9		51.5	53.7			56.7	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay		31.3	4.2	19.5	21.9		51.5	53.7			56.7	
LOS		C	A	B	C		D	D			E	
Approach Delay		21.6			21.5			52.6			56.7	
Approach LOS		C			C			D			E	
Queue Length 50th (ft)		228	56	69	297		360	333			6	
Queue Length 95th (ft)		343	108	127	415		#611	#585			22	
Internal Link Dist (ft)		278			1391			531			124	
Turn Bay Length (ft)			200	160								
Base Capacity (vph)		1412	1247	483	1939		584	531			150	
Starvation Cap Reductn		0	0	0	0		0	0			0	
Spillback Cap Reductn		0	0	0	0		0	0			0	
Storage Cap Reductn		0	0	0	0		0	0			0	
Reduced v/c Ratio		0.50	0.31	0.36	0.55		0.80	0.82			0.05	

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 22.5 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 30.3

Intersection LOS: C

Intersection Capacity Utilization 91.1%

ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Hicks Road/Access Drice & US 14

					
Ø1	Ø2 (R)		Ø4	Ø8	
26 s	41.6 s		16.9 s	45.5 s	
					
Ø6 (R)					
67.6 s					

Projected Evening Condition

Synchro 10 Report
Page 2

Lanes, Volumes, Timings

2: Hicks Road & Sellstorm Drive/Access Road

06/30/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	114	0	131	27	0	60	8	665	20	45	467	17
Future Volume (vph)	114	0	131	27	0	60	8	665	20	45	467	17
Ideal Flow (vphpl)	1900	1900	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)	130		0	0		0	70		0	45		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	80			25			60			85		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor								1.00				
Frt		0.850			0.907			0.996			0.995	
Flt Protected	0.950				0.985		0.950			0.950		
Satd. Flow (prot)	1805	1583	0	0	1697	0	1805	3559	0	1805	3459	0
Flt Permitted	0.711				0.738		0.406			0.262		
Satd. Flow (perm)	1351	1583	0	0	1272	0	771	3559	0	498	3459	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		537			178			238			611	
Travel Time (s)		12.2			4.0			4.1			10.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%	4%	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)	152	175	0	0	116	0	11	914	0	60	646	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		6.5	21.0		6.5	21.0	
Total Split (s)	18.0	18.0		18.0	18.0		13.0	49.0		13.0	49.0	
Total Split (%)	22.5%	22.5%		22.5%	22.5%		16.3%	61.3%		16.3%	61.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	11.9	11.9			11.9		56.0	50.0		58.1	54.2	
Actuated g/C Ratio	0.15	0.15			0.15		0.70	0.62		0.73	0.68	

Projected Evening Condition

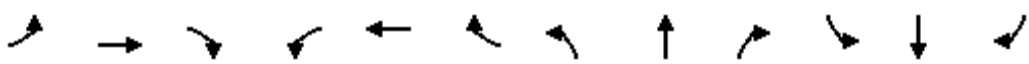
Synchro 10 Report
Page 3

Attachment: Traffic Impact Study (dated 6-30-2020) (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) -

Lanes, Volumes, Timings

2: Hicks Road & Sellstorm Drive/Access Road

06/30/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.76	0.74			0.61		0.02	0.41		0.13	0.28	
Control Delay	58.2	53.5			47.5		2.1	6.8		3.7	6.0	
Queue Delay	0.0	0.0			0.0		0.0	0.5		0.0	0.0	
Total Delay	58.2	53.5			47.5		2.1	7.4		3.7	6.0	
LOS	E	D			D		A	A		A	A	
Approach Delay		55.7			47.5			7.3			5.8	
Approach LOS		E			D			A			A	
Queue Length 50th (ft)	74	85			55		1	86		7	52	
Queue Length 95th (ft)	#121	#125			88		2	95		12	86	
Internal Link Dist (ft)		457			98			158			531	
Turn Bay Length (ft)	130						70			45		
Base Capacity (vph)	207	243			195		683	2226		520	2344	
Starvation Cap Reductn	0	0			0		0	808		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.73	0.72			0.59		0.02	0.64		0.12	0.28	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 3 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 16.7

Intersection LOS: B

Intersection Capacity Utilization 55.5%

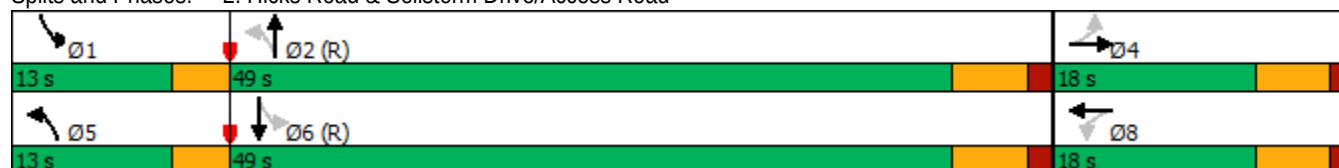
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Hicks Road & Sellstorm Drive/Access Road



Projected Evening Condition

Synchro 10 Report
Page 4

Lanes, Volumes, Timings

4: Illinois Person/Industrial Avenue & Hicks Road

06/30/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	131	107	124	203	46	167	406	40	53	735	185
Future Volume (vph)	64	131	107	124	203	46	167	406	40	53	735	185
Ideal Flow (vphpl)	1900	1900	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)	155		0	140		0	140		0	140		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	180			170			175			185		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor					1.00							
Frt		0.932			0.972			0.987			0.970	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1675	0	1770	1748	0	1719	3490	0	1612	3426	0
Flt Permitted	0.458			0.343			0.136			0.456		
Satd. Flow (perm)	837	1675	0	639	1748	0	246	3490	0	774	3426	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		48			13			13			39	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		939			1161			690			1966	
Travel Time (s)		18.3			22.6			10.5			29.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)						2						
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	3%	9%	2%	5%	7%	5%	2%	3%	12%	2%	3%
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)	75	280	0	146	293	0	196	525	0	62	1083	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0		3.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	6.5	14.0		6.5	14.0		6.5	21.0		6.5	21.0	
Total Split (s)	13.0	25.0		13.0	25.0		13.0	29.0		13.0	29.0	
Total Split (%)	16.3%	31.3%		16.3%	31.3%		16.3%	36.3%		16.3%	36.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	26.2	16.1		29.0	19.1		41.0	30.8		36.6	27.0	
Actuated g/C Ratio	0.33	0.20		0.36	0.24		0.51	0.38		0.46	0.34	

Projected Evening Condition

Synchro 10 Report
Page 5

Attachment: Traffic Impact Study (dated 6-30-2020) (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former Weber) -

Lanes, Volumes, Timings

4: Illinois Person/Industrial Avenue & Hicks Road

06/30/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.21	0.75		0.41	0.69		0.67	0.39		0.14	0.92	
Control Delay	15.9	37.2		19.1	36.1		26.4	20.5		10.7	42.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.9	37.2		19.1	36.1		26.4	20.5		10.7	42.0	
LOS	B	D		B	D		C	C		B	D	
Approach Delay		32.7			30.4			22.1			40.3	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	22	107		46	128		52	103		20	~315	
Queue Length 95th (ft)	43	171		75	197		#121	147		31	#407	
Internal Link Dist (ft)		859			1081			610			1886	
Turn Bay Length (ft)	155			140			140			140		
Base Capacity (vph)	401	434		367	439		305	1351		476	1181	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.19	0.65		0.40	0.67		0.64	0.39		0.13	0.92	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 54.5 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 32.7

Intersection LOS: C

Intersection Capacity Utilization 72.4%

ICU Level of Service C

Analysis Period (min) 15

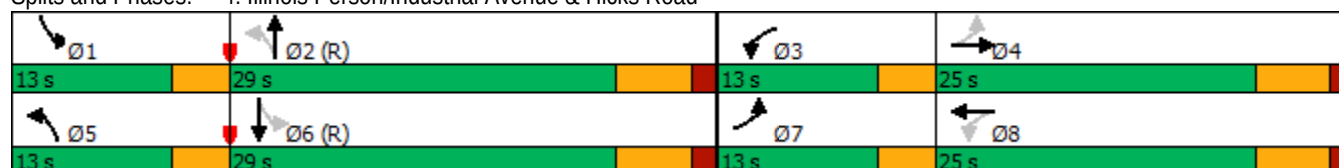
~ Volume exceeds capacity, queue is theoretically infinite.

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: 4: Illinois Person/Industrial Avenue & Hicks Road



Projected Evening Condition

Synchro 10 Report
Page 6

MEMORANDUM TO: Pat Schaner
Midwest Industrial Funds

FROM: Michael A. Werthmann, PE, PTOE
Principal

DATE: November 30, 2020

SUBJECT: Helen Road Traffic Evaluation
Village of Palatine

Per the request of the Village of Palatine, this memorandum summarizes the findings of an evaluation of the operation of Helen Road between Hicks Road and Plum Grove Road. The evaluation examined the existing daily traffic volumes and average and 85th percentile speeds on Helen Road. In addition, alternative traffic calming measures were developed to help mitigate any existing operational issues along the roadway.

Existing Conditions

Existing Roadway Conditions

Helen Road is an east-west, local road that extends approximately 1.5 miles from Hicks Road to Quentin Road and has an off-set intersection at Cedar Street. It has one lane in each direction with parking generally permitted on both sides of the road between Plum Grove Road and Oak Street and prohibited on both sides of the road between Oak Street and Hicks Road. At its signalized intersection with Hicks Road, Helen Road has an exclusive left-turn lane and an exclusive right-turn lane. At its intersection with Plum Grove Road, both approaches of Helen Road have a shared left-turn/through/right-turn lane that are under stop sign control. Helen Road is under the jurisdiction of the Village of Palatine, has a posted speed limit of 25 miles per hour, and is designated as a Class III Truck Route from Oak Street to Hicks Road. It should be noted that majority of Helen Road extends through residential areas except for the eastern portion of Helen Road that provides direct access to eight manufacturing, industrial, and/or warehouse uses.

Existing Daily Traffic Volumes and Speed Surveys

To determine the existing daily traffic volumes and the travel speeds along Helen Road, the Village of Palatine performed daily traffic counts and speed surveys at the following locations on Helen Road:

- The block between Plum Grove Road and Hale Street
- The block between Hale Street and Benton Street
- The block between Benton Street and Oak Street
- The block east of Oak Street

The daily traffic counts and speed surveys were generally performed on two different days in October 2020. **Table 1** shows the results of the daily traffic counts and speed surveys by direction.

Table 1

HELEN ROAD EXISTING DAILY TRAFFIC VOLUMES AND SPEED SURVEYS

	West of Hale	Hale to Benton	Benton to Oak	East of Oak
Daily Volumes				
Eastbound	709	754/778	774/802	782/845
Westbound	477	885/960	961/975	894/955
Total	1,186	1,639/1,738	1,735/1,777	1,676/1,800
Peak Hour Volumes				
Eastbound	26	26/28	26/29	26/35
Westbound	40	36/42	33/45	35/43
Total	66	62/70	59/74	61/78
Average Speed				
Eastbound	25	28/29	31/31	30/31
Westbound	27	29/30	28/29	27/30
85th Percentile Speed				
Eastbound	29	33/33	37/38	35/38
Westbound	32	32/33	32/37	32/38

It should be noted that the daily traffic counts/speed studies were performed during the Covid-19 pandemic. As such, the traffic volumes may be lower than normal conditions. The results of the daily traffic counts and speed studies revealed the following:

- According to *Residential Streets*¹, a residential local road has a daily traffic volume of 400 to 1,500 vehicles. Residential collector roads generally have a daily traffic volume that exceed 1,500 vehicles. As such, the daily traffic volumes on Helen Road exceed the residential local road traffic volumes by 139 to 330 vehicles per day. However, it is important to note that, due to the following, Helen Road functions more similar to collector road than a local road:
 - The eastern portion of Helen Road provides direct access to eight commercial and manufacturing uses that generate significantly more traffic than residential uses.

¹ *Residential Streets*, Third Edition, 2001 was developed by the National Association of Home Builders (NAHB), the American Society of Civil Engineers (ASCE), the Institute of Transportation Engineers (ITE), and the Urban Land Institute (ULI)

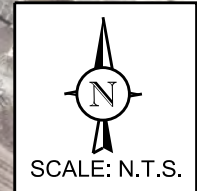
- Helen Road extends for approximately 1.5 miles between Hicks Road to Quentin Road and has access to a north-south major collector road (Hicks Road), a north-south minor arterial road (Plum Grove Road), and a north-south arterial road (Quentin Road). Further, it is the only east-west road that extends between Hicks Road and Cedar Street from Illinois Street on the south to Palatine Road on the north. In addition, it is under traffic signal control at its intersection with Hicks Road.
- The peak hour volumes on the road range from 59 to 74 vehicles per hour, which is low considering that each of the commuter morning and the evening peak hour volumes typically account for eight to 12 percent of the daily traffic volumes.
- The average speeds on Helen Road ranged between 25 to 31 mph, which is up to six mph over the 25-mph posted speed limit. Further, the 85th percentile speeds ranged between 29 and 38 mph, which is nine to 13 mph over the posted speed limit.

As such, it can be seen that the traffic volumes on Helen Road are generally appropriate or reasonable given the land uses along Helen Road and the function it serves within the existing roadway system. However, both the average speeds and the 85th percentile speeds are higher than the posted 25-mph speed limit.

Alternative Traffic Calming Measures

Per the request of the Village of Palatine, KLOA, Inc. examined potential traffic calming measures that can be implemented to address any issues along Helen Road. Given that the travel speeds as opposed to the traffic volumes is the primary issue, the proposed traffic calming measures focused on those that have the greatest impact on travel speeds. However, it is important to note that the traffic calming measures are effective in reducing traffic volumes. The following summarizes and **Figure 1** illustrates some of the alternative traffic calming measures for Helen Road:

- Install a skipped dash centerline on Helen Road between Plum Grove Road and Hicks Road which reduces the width of the lanes, making drivers feel more restricted and inducing lower travel speeds.
- Install larger speed limit signs and/or yellow bordered speed limit sign on each of the blocks between Plum Grove Road and Hicks Road except the block between Benton Street and Oak Street to notify and remind drivers of the legal speed limit.
- Install radar speed detection signs facing each direction on the block between Benton Street and Hale Street which will visually show motorists how fast they are traveling.
- Implement targeted speed enforcement along Helen Road to enforce the existing speed limits which can include police patrols and police patrol decoys.
- Install speed limit pavement markings on Helen Road which are numerals applied in the traffic lane to remind drivers of the regulatory speed limit.



LEGEND
- - - CENTERLINE



Cook County GIS D

PROPOSED WAREHOUSE
DEVELOPMENT
PALATINE, ILLINOIS

HELEN ROAD ALTERNATIVE TRAFFIC CALMING MEASURES

DRAWN: MD
DATE: 11-21-20
PROJECT # 20-126
FIGURE: A

CHECKED: MW
REV:



Impact of Warehouse/Distribution Development on Helen Road

Due to the following, it is anticipated that proposed warehouse/distribution development to be located on the west side of Hicks Road north of Helen Road will generate a low volume of traffic on Helen Road, which will minimize its impact on the operation of the road:

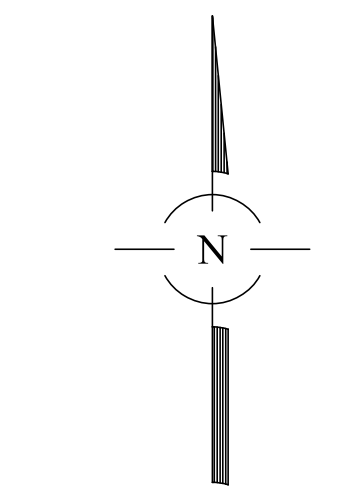
- The warehouse/distribution development will not have direct access to Helen Road. Access will only be provided via the signalized intersection on Hicks Road located north of Helen Road.
- Given the truck restrictions on Helen Road west of Oak Street, no truck traffic will be using Helen Road. Only passenger vehicle traffic generated by the warehouse/distribution development is permitted to use Helen Road.

It is important to note that the subject site is currently zoned Manufacturing (M) and has previously contained and is permitted by right to contain various manufacturing, industrial, and warehouse type uses that had in the past or could in the future generate a similar, if not higher, traffic volume than the proposed development. In addition, Hicks Road and Helen Road contain a number of manufacturing, industrial, and/or warehouse uses with eight buildings having direct access to Helen Road. As such, the impact of the subject warehouse/distribution development on Helen Road will be similar, if not, less than (1) the existing uses that previously occupied the subject site, (2) a number of uses that are permitted on the subject site under the current zoning, and (3) the other similar type of uses located along Hicks Road and Helen Road.

PRELIMINARY PLAT OF PALATINE SUBDIVISION

BEING A SUBDIVISION IN THE EAST 1/2 OF THE NORTH WEST 1/4 OF SECTION 23,
TOWNSHIP 42 NORTH, RANGE 10 EAST OF THE THIRD PRINCIPAL MERIDIAN.

LEGEND	
	RIGHT-OF-WAY MONUMENT
	IRON / STEEL ROD (IP)
	IRON PIPE (IP)
	DIP CROSS
	PK / MAG NAIL
	RAILROAD SPIKE
	SUBDIVISION LIMITS

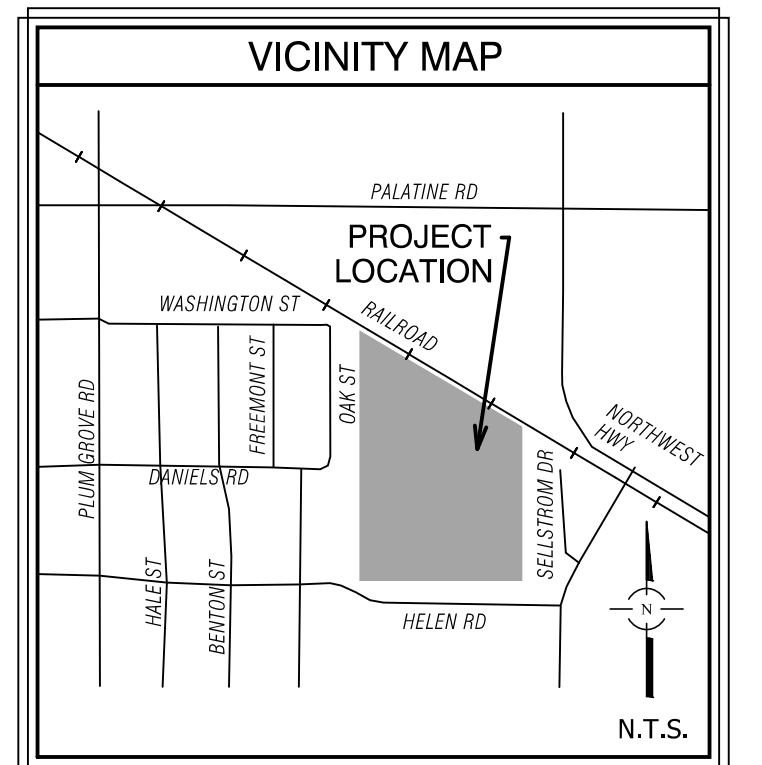


BASIS OF BEARINGS:
TRUE NORTH BASED ON GEODETIC
OBSERVATION IL EAST ZONE

NOTE: ALL BEARINGS AND DISTANCES ARE
MEASURED UNLESS OTHERWISE NOTED.

IR = IRON ROD
IP = IRON PIPE
(M) = MEASURED
(R) = RECORD
--- = SUBDIVISION LIMITS

NOTE:
ALL UNDERLYING EXISTING EASEMENTS TO BE
ABORGATED/VACATED BY SEPARATE DOCUMENT



WASHINGTON STREET
HERETOFORE DEDICATED

FOUND 5/8" IP
0.17N, 0.29W

LOT 1

FOUND 3/4" IP
ON-LINE, 0.49W

LOT 3

FOUND CROSS
ON-LINE, 1.937E

LOT 4

FOUND CROSS
ON-LINE, 1.94E

LOT 6

FOUND 3/4" IP
ON-LINE, 0.36E

LOT 7

FOUND 1/2" IP
AT CORNER

LOT 10

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PRELIMINARY PLAT OF PALATINE SUBDIVISION

BEING A SUBDIVISION IN THE EAST 1/2 OF THE NORTH WEST 1/4 OF SECTION 23,
TOWNSHIP 42 NORTH, RANGE 10 EAST OF THE THIRD PRINCIPAL MERIDIAN.

THIS IS A PRELIMINARY PLAT,
OF NO LEGAL EFFECT AND
NOT TO BE RECORDED

	AREA TABLE	
	SQ. FT.	ACRES
LOT 1	628,605	14.431
LOT 2	477,235	10.956
TOTAL	1,105,840	25.387

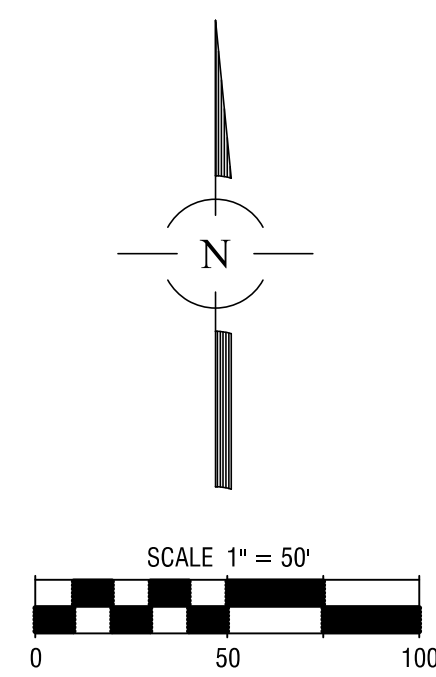
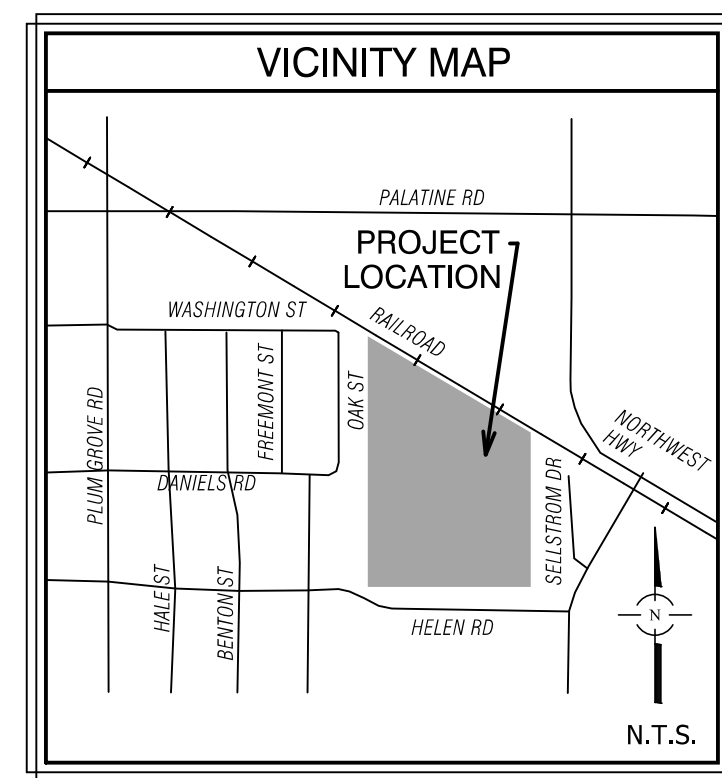
PLANNING AND ZONING BOARD
STATE OF ILLINOIS
COUNTY OF COOK

APPROVED BY THE PLANNING AND ZONING BOARD OF THE
VILLAGE OF PALATINE, COOK COUNTY, ILLINOIS AT A MEETING
HELD

THIS _____ DAY OF _____ A.D. 20____

SIGNED: CHAIRPERSON

ATTEST: SECRETARY



BASIS OF BEARINGS:
TRUE NORTH BASED ON GEODETIC
OBSERVATION ILL EAST ZONE
NOTE: ALL BEARINGS AND DISTANCES ARE
MEASURED UNLESS OTHERWISE NOTED.

IR = IRON ROD
IP = IRON PIPE
(M) = MEASURED
(R) = RECORD
--- = SUBDIVISION LIMITS

NOTES:

EXISTING CONDITIONS PER TOPOGRAPHIC SURVEY
PREPARED BY SPACECO, INC. DATED APRIL 20, 2020.
SPACECO PROJECT NO. 11061. TOPOGRAPHY BASED ON
FIELD WORK COMPLETED MARCH 25, 2020.

ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS
DERIVED FROM ACTUAL MEASUREMENTS OR PER ATLAS
SHEETS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT
LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE
THE ONLY UTILITIES IN THE AREA. FOR MORE ACCURATE
LOCATION, FIELD EXCAVATE.

PIPE FLOW DIRECTIONS, IF SHOWN, ARE BASED ON FIELD
INVERT ELEVATIONS UNLESS EXISTING PLANS INDICATE
OTHERWISE. IN WHICH CASE THE EXISTING PLAN FLOW
DIRECTION IS SHOWN.

SOURCE BENCHMARK:
KARA COMPANY CORP SITE
STATION ID: K427
STATION NAME: JOHNSBURG
ELEVATION = 895.76 NAVD88

SOURCE BENCHMARK:
NATIONAL GEODETIC SURVEY
CORS ID: DP68
PID: DM6864
STATION IS A GPS CORS.
ELEVATION = 720.36 NAVD88

SITE BENCHMARK #1:
NORTHWEST BOLT ON FIRE HYDRANT AT NORTHEAST
CORNER OF #156 OAK OAK STREET,
ELEVATION = 735.38

SITE BENCHMARK #2:
NORTHEAST BOLT ON FIRE HYDRANT AT NORTHWEST
CORNER OF OAK & WASHINGTON STREET,
ELEVATION = 727.32

SITE BENCHMARK #3:
ARROW BOLT OF FIRE HYDRANT AT +/- 15' NORTHEAST
FROM NORTHEAST PROPERTY CORNER,
ELEVATION = 722.21

SITE BENCHMARK #4:
RAILROAD SPIKE +/- 1' ABOVE GRADE IN UTILITY POLE AT
SOUTHEAST PROPERTY CORNER,
ELEVATION = 727.36

EXISTING	DESCRIPTION	PROPOSED
	DRAIN TILE	
	STORM SEWER	
	SANITARY SEWER	
	SANITARY TRUNK SEWER	
	WATER MAIN (WITH SIZE)	
	PIPE TRENCH BACKFILL	
	GAS MAIN	
	TELEPHONE LINES	
	ELECTRIC LINE	
	FENCE	
	RIGHT-OF-WAY	
	EASEMENT	
	PROPERTY LINE	
	SETBACK LINE	
	CENTERLINE	
	CONTOUR	
	SANITARY MANHOLE	
	STORM MANHOLE	
	CATCH BASIN	
	INLET	
	FIRE HYDRANT	
	PRESSURE CONNECTION	
	PIPE REDUCER	
	VALVE AND VAULT, VALVE	
	FLARED END SECTION	
	STREET LIGHT	
	UTILITY POLE	
	CONTROL POINT	
	SIGN	
	SPOT ELEVATION	
	SOIL BORING	
	OVERLAND FLOW ROUTE	
	DRAINAGE SLOPE	
	GUARDRAIL	
	WATER'S EDGE	
	CONCRETE	
	REVERSE PITCH CURB	
	TREE, FIR, TREE, BUSH, & PROPOSED TREE TO REMOVE	

PROPOSED BOUNDARY INFORMATION & CERTIFICATES

REVISIONS:
10/27/2020



CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS

DATE: 07/10/2020
JOB NO: 11061

FILENAME:
11061PRELAT-01

SHEET
2 OF 2

9575 W. Higgins Road, Suite 700,
Rosemont, Illinois 60018
Phone: (847) 696-4060 Fax: (847) 696-4065

FOR REVIEW
PURPOSES ONLY

WASHINGTON STREET
HERETOFORE DEDICATED

LOT 1
PUBLIC UTILITY EASEMENT
PROPOSED

LOT 2

LOT 3

LOT 4

LOT 5

LOT 6

LOT 7

LOT 8

LOT 9

LOT 10

LOT 11

LOT 12

LOT 13

LOT 14

LOT 15

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LOT 17

LOT 18

LOT 19

LOT 20

LOT 21

LOT 22

LOT 23

PREPARED FOR:
MIDWEST INDUSTRIAL FUNDS
1301 W. 22ND STREET, SUITE 711
OAK BROOK, IL 60523

A.L.T.A. / N.S.P.S. LAND TITLE SURVEY

WASHINGTON STREET
HERETOFORE DEDICATED

OAK STREET
HERETOFORE DEDICATED

DANIELS ROAD
HERETOFORE DEDICATED

HICKS ROAD
HERETOFORE DEDICATED

CHICAGO AND NORTH WESTERN RAILWAY

LOT 1
FOUND 2" IP AT CORNER
FOUND 5/8" IR
0.17N, 0.29W

LOT 2
FOUND 3/4" IP
ON-LINE, 0.49V

LOT 3
FOUND CROSS
ON-LINE, 1.09E

LOT 4
FOUND CROSS
ON-LINE, 1.94E

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LOT 6
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AT CORNER

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LOT 12
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LOT 14
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**FOR REVIEW
PURPOSES ONLY**

PREPARED FOR:
MIDWEST INDUSTRIAL FUNDS
1301 WEST 22ND STREET
SUITE 711
OAK BROOK, IL 60523

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Packet Pg. 153

[illegible]

TOWNSHIP OF ILLINOIS) COUNTY OF COOK)					
TO: CHICAGO TITLE INSURANCE COMPANY NO. TO: AMBERLYN PROPERTIES LLC, AS TO PARCEL 1 AND TO: WEBER-STEPHEN PRODUCTS LLC, A DELAWARE LIMITED LIABILITY COMPANY AS TO PARCELS 2 & 3					
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/SURPS AND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND SURPS, AND INCLUDES ITEMS 1, 2, 3, 4, 7(a), 8, 13, 14 & 16 OF TABLE "A" THEREOF. THE SURVEY WORK WAS COMPLETED ON MARCH 26, 2020.					
WITNESSED UNDER MY HAND AND SEAL, THIS ____ DAY OF _____, 2020 IN ROSEMONT, ILLINOIS.					
BRIAN J. LOUNSBURY, P.L.S., No. 035-2841 LICENSE EXPIRES: 11-30-2020 bounsbury@spaceoinc.com					
(VALID ONLY IF EMBOSSED SEAL AFFIXED)					
REVISIONS:					
CONSULTING ENGINEERS					
SITE DEVELOPMENT ENGINEERS					
LAND SURVEYORS					
9575 W. Higgins Road, Suite 700 Rosemont, Illinois 60018 Phone: (847) 696-4060 Fax: (847) 696-4065	<table border="1"><tr><td>DATE: 04/15/2020</td></tr><tr><td>JOB NO: 11061</td></tr><tr><td>FILENAME: 11061ALTA-D1</td></tr><tr><td>SHEET 1 OF 3</td></tr></table>	DATE: 04/15/2020	JOB NO: 11061	FILENAME: 11061ALTA-D1	SHEET 1 OF 3
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JOB NO: 11061					
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SHEET 1 OF 3					

CONSULTING ENGINEERS SITE DEVELOPMENT ENGINEERS LAND SURVEYORS	DATE: 04/15/2020
	JOB NO: 11061
	FILENAME: 11061ALTA-01
	SHEET 1 OF 3

9575 W. Higgins Road, Suite 700,
Rosemont, Illinois 60018
Phone: (847) 696-4060 Fax: (847) 696-4065

11061ALTA-01

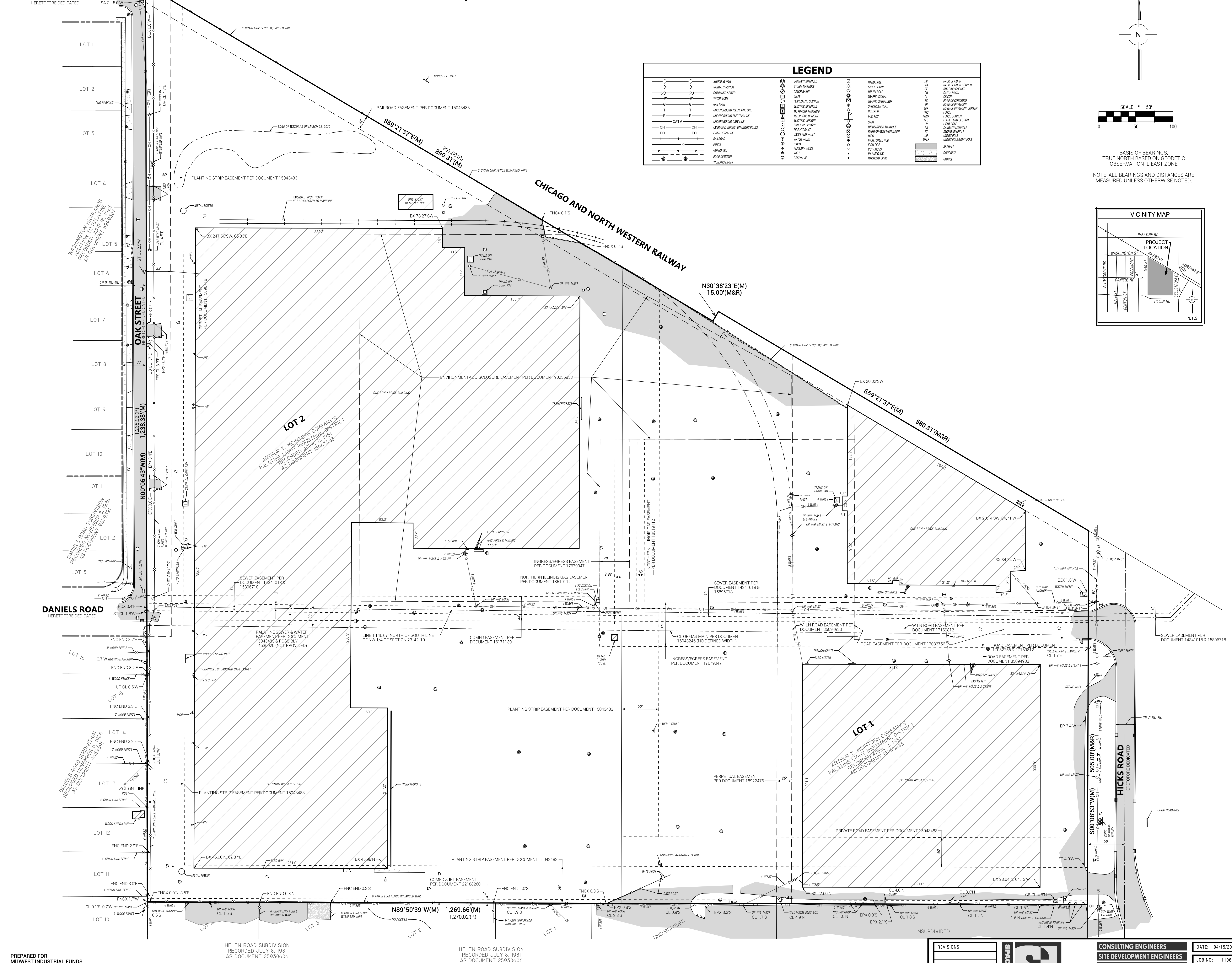
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1 OF 3

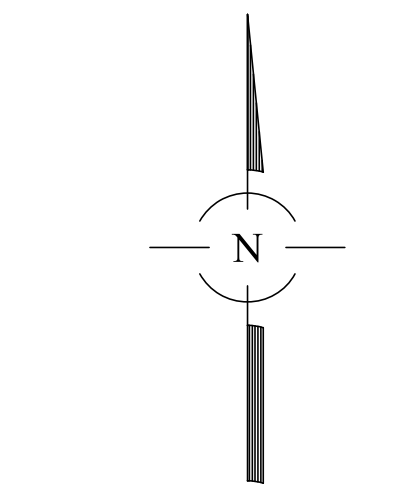
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A.L.T.A. / N.S.P.S. LAND TITLE SURVEY

WASHINGTON STREET
HERETOFORE DEDICATED

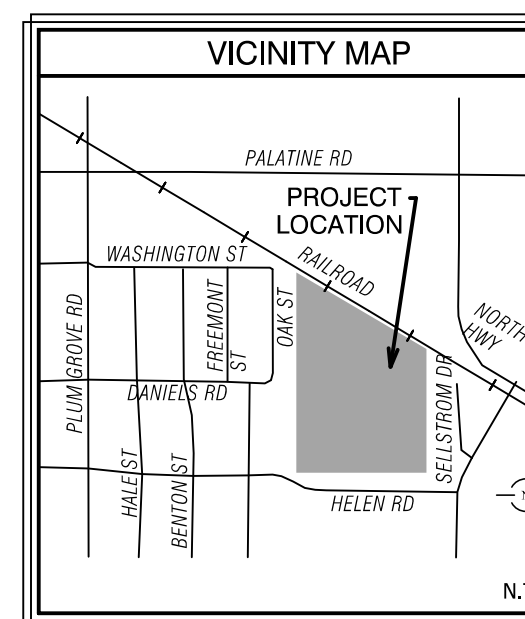


LEGEND			
	STORM SEWER		SANITARY MANHOLE
	SANITARY SEWER		STORM MANHOLE
	COMBINED SEWER		CATCH BASIN
	WATER MAIN		GAS MAIN
	UNDERGROUND TELEPHONE LINE		UNDERGROUND ELECTRIC LINE
	CATV		OVERHEAD CITY LINE
	OVERHEAD WIRES ON UTILITY POLES		FIBER OPTIC LINE
	RAILROAD		FENCE
	GUARDRAIL		EDGE OF WATER
	WETLAND LIMITS		SAFETY MANHOLE
	STORM MANHOLE		PLACED END SECTION
	ELECTRIC MANHOLE		TELEPHONE UPRIGHT
	CABLE TO UPRIGHT		FIRE HYDRANT
	VALVE AND VAULT		WATER VALVE
	BOX		GAS VALVE
	WELL		GAS VALVE
	BACK OF CURVE		BACK OF CURVE CORNER
	BACK OF CURVE CORNER		CATCH BASIN
	CATCH BASIN		CATCH BASIN CORNER
	CATCH BASIN CORNER		EDGE OF PAVEMENT
	EDGE OF PAVEMENT		EDGE OF PAVEMENT CORNER
	EDGE OF PAVEMENT CORNER		FENCE CORNER
	FENCE CORNER		FENCED AREA SECTION
	FENCED AREA SECTION		UTILITY POLE
	UTILITY POLE		UTILITY POLE SECTION
	UTILITY POLE SECTION		UTILITY POLE CORNER
	UTILITY POLE CORNER		ASPHALT
	ASPHALT		CONCRETE
	CONCRETE		GRAVEL



SCALE 1" = 50'

TRUE NORTH BASED ON GEODETIC
OBSERVATION IL EAST ZONE



PREPARED FOR:
MIDWEST INDUSTRIAL FUNDS
1301 WEST 22ND STREET
SUITE 711
OAK BROOK, IL 60523

HELEN ROAD SUBDIVISION
RECORDED JULY 8, 1981
AS DOCUMENT 25930606

HELEN ROAD SUBDIVISION
RECORDED JULY 8, 1981
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**FOR REVIEW
PURPOSES ONLY**

REVISIONS:



CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS

9575 W. Higgins Road, Suite 700,
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Phone: (847) 696-4060 Fax: (847) 696-4065

DATE: 04/15/2020

JOB NO: 11061

FILENAME:
11061ALTA-01

SHEET
2 OF 3





PRELIMINARY PLANNED DEVELOPMENT

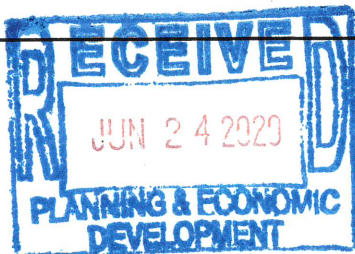
Department of Planning & Zoning
 200 E. Wood Street • Palatine, IL • 60067-5339
 Telephone: (847) 359-9047 • Fax (847) 963-6247
www.palatine.il.us

CONTACT INFORMATION WORKSHEET

PETITIONER(S)		Business Name (If applicable)	
Midwest Industrial Funds			
Address		City/State/Zip Code	
1211 W 22nd St, Suite 410		Oak Brook, IL 60523	
Telephone		Fax	
630-230-6354			
Email			
PSchaner@midwestindustrialfunds.com			
Subject Property Address			
1 Sellstrom Drive / 200 E Daniels Road / 350 East Daniels Road			
AUTHORIZED AGENT (if applicable)		Business Name (if applicable)	
Address		City/State/Zip Code	
Telephone		Fax	
Email			

I swear that the information contained herein and in any accompanying documents is accurate to the best of my knowledge.

Pat Schaner, Director of Development 6/18/20
 Signature Date



PALATINE

PRELIMINARY PLANNED DEVELOPMENT

Department of Planning & Zoning

200 E. Wood Street • Palatine, IL • 60067-5339

Telephone: (847) 359-9047 • Fax (847) 963-6247

www.palatine.il.us

Office Use Only	Project Planner	Zoning Case #
	Filing Fee	Notification Deadline
	PC Public Hearing Date	Village Council Date

date received

PLEASE TYPE OR PRINT IN INK:

- Name of Petitioner(s): Midwest Industrial Funds
- Authorized Agent of Petitioner (if different):
 Name: _____
 Address: _____
 Telephone No. _____ Business No. _____
 Email: _____
 Relationship to Petitioner: _____
- Property Interest of Petitioner(s): Contract Purchaser
 Owner, Lessee, Contract Purchaser, etc
- Address of the property for which this application is being filed:
1 Selstrom Drive / 200 E Daniels Road / 350 E Daniels Road
- All existing land use(s) on the property are: Industrial/Warehousing
- Current zoning of property: M2 Size of the property: 25.39 acres

- Briefly describe the proposed Planned Development with regards to types of uses proposed, number and types of units, development mix, amenities to be provided, etc.:

The existing 3 building manufacturing/warehousing complex is proposed to be demolished. The Petitioner proposes to construct two industrial/light manufacturing/warehousing buildings. The buildings are to be constructed of glass and precast concrete. Each building can accommodate one to four Tenants per building. Truck loading will be contained in the center of the development.

Page 7 of 20

8. Describe any Variations from the Village Ordinances which would be required if the proposed Planned Development were to be developed as a traditionally zoned project (if any):

None.

9. The attached Checklist of Documents outlines all required submittals before a project may be scheduled for the required public hearing before the Plan Commission. All required documents must be submitted with this Petition.

10. The petitioner's signature below indicates that the information contained in this application and on any accompanying documents is true and correct to the best of his/her knowledge.

Signature: _____

Date: _____

State of Illinois

County of Cook

This instrument was acknowledged before me on June 18, 2020 by _____

(Seal)



Christine Stoeckig

Notary Public

MIDWEST

INDUSTRIAL FUNDS

REAL ESTATE INVESTMENT & DEVELOPMENT

December 2, 2020

Ben Vyverberg – Director of Planning and Zoning
Village of Palatine

Re: Palatine Corporate Center (Former Weber-Stephens Property)
Project Narrative

Ben:

Midwest Industrial Funds (“MIF”) is excited to be presenting the redevelopment of the former Weber Stephens site located at Sellstrom and Daniels per the proposed Plat of Subdivision, to the Village of Palatine for preliminary plan approval. The total site as depicted on the proposed Plat of Subdivision consists of 25.3 acres.

The plan is to demolish the three existing, obsolete industrial buildings on site and construct new modern industrial buildings that are in demand in the market. The overall site will consist of two industrial lots. The overall property will be governed by a Reciprocal Easement Agreement (REA) document that will be forthcoming. Among other things the proposed REA document will set forth the easements for shared services (access roads, storm detention, signage etc.) for the benefit of each proposed lot as depicted on the submitted materials. The preliminary stormwater design has been provided showing three detention areas, a northwest pond, a center truck court area and an eastern detention area will be constructed to accommodate the stormwater needs of both proposed lots. The new stormwater design is a much better design than what currently exists on the site. First, given new/updated stormwater standards, the design will store significantly more stormwater and provide better means of conveyance than what currently occurs. Second, our stormwater design directs water away from the residential areas. Therefore, correcting many of the problems currently experienced by residents to the west along Oak Street and also residents to the north of the railroad tracks.

Two industrial buildings will be developed on a speculative basis by MIF per the proposed site plan included with the submittal. The two buildings total approximately 428,000 square feet and are each designed with maximum flexibility to accommodate one to four tenants, ranging in size from 40,000 square feet to 275,000 square feet. The buildings will be high image and feature exterior materials including precast concrete panels and glass office entrances. In addition, each building has ample car parking, three office entrances and truck loading. Special care has been taken during the design phase to ensure that all truck operations occur between the buildings away from the residential areas so noise will not be an issue. In addition, additional design features including berms, additional landscaping and fencing, have been provided as part of the design to help with screening of onsite car and truck lights, noise and sights for the residential areas to the west and north of proposed development.

The new development will be marketed to a wide range of potential users including, but not limited to distribution, manufacturing, light assembly and corporate headquarters. The project will have a positive impact on the Palatine Community by bringing in many quality jobs that have been lost over a number of years due to the obsolescence of the existing buildings. The ability to provide state of the art buildings will positively affect the tax base of the property over time without negatively impacting community services (school system, utility services, etc). The project is well located for transportation both private and public transportation options, including close proximity to two Metra stations and bus routes. In addition, the project’s location to the downtown Palatine area, including many food and entertainment options will be a definite plus for employers looking to locate in the area.

Midwest Industrial Funds is one of the largest, privately owned, industrial real estate owners, developers and managers in the Chicago area. We currently have three similar development projects going in Hodgkins, West Chicago and Joliet. In addition, we also own and manage approximately 40 existing buildings with over 90 Tenants.

Sincerely,

Midwest Industrial Funds Inc.

A handwritten signature in black ink that reads "Pat Schaner". The signature is written in a cursive, flowing style.

Pat Schaner
Director of Development

Midwest Industrial Funds
Site Lighting Narrative

The site lighting will consist mainly of building mounted LED lights. Included with this narrative is a cut sheet showing a typical building mounted light fixture. The fixtures will be positioned on all four exterior walls of each building and will be positioned in a manner that will allow sufficient lighting of car parking, truck courts and driveways. The design will be mounted so that light levels at all property lines will be zero to not adversely affect any neighboring properties. We anticipate providing a complete lighting photometric plan for the Final Approval process.

PUBLIC NOTICE
 A public hearing will be held before the Village of Palatine Plan Commission on Tuesday, December 8, 2020 at 7 P.M., relative to a request for the following:
 Preliminary Planned Development to permit two warehouse distribution buildings (approximately 275,388 square feet and 153,043 square feet) and associated office uses on one zoning lot. The property is commonly known as 200 E. Daniels Road, 300 E. Daniels Road, 350 E. Daniels Road, 200 S. Hicks Road, and 1 S. Sellstrom Drive (PIN #s - 02-23-114-010, 02-23-114-021, 02-23-114-022, 02-23-114-034, 02-23-114-035, 02-23-114-036, & 02-23-114-037).
 The Petitioner is requesting to redevelop the existing property and construct two new warehouse/distribution buildings, with associated parking and loading docks between the buildings. The property was previously occupied and operated by the Weber-Stephen Products Corporation.
 The above petition was filed by Pat Schaner of Midwest Industrial Funds Real Estate Investment & Development and is available for examination in the office of the Village Clerk 200 E. Wood Street.
 FILE #: 20-40
 VILLAGE OF PALATINE
 Dennis Dwyer, Chair
 Palatine Plan Commission
 DATED: This 19th day of November 2020.
 Published in Daily Herald November 23, 2020 (4554728)

CERTIFICATE OF PUBLICATION

Paddock Publications, Inc.

Daily Herald

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

I further certify that the DAILY HERALD is a newspaper as defined in "an Act to revise the law in relation to notices" as amended in 1992 Illinois Compiled Statutes, Chapter 715, Act 5, Section 1 and 5. That a notice of which the annexed printed slip is a true copy, was published 11/23/2020 in said DAILY HERALD.

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

PADDOCK PUBLICATIONS, INC.
 DAILY HERALD NEWSPAPERS

BY

Authorized Agent

Control # 4554728

Attachment: Public Notice - Midwest Industrial Funds (200, 300, and 350 E. Daniels Road, 200 S. Hicks Road, & 1 S. Sellstrom Dr. (former