AGENDA FOR REGULAR MEETING
VILLAGE OF TINLEY PARK
PLAN COMMISSION

June 1, 2023 – 7:00 P.M.
Council Chambers
Village Hall – 16250 S. Oak Park Avenue

Regular Meeting Called to Order
Pledge of Allegiance
Roll Call Taken
Communications
Approval of Minutes: Minutes of the May 18, 2023 Regular Meeting

ITEM #1 **WORKSHOP – GAS N WASH, 18301 LAGRANGE RD – SPECIAL USE, FINAL PLAT, VARIATIONS, AND SITE PLAN/ ARCHITECTURAL APPROVAL**

Consider recommending that the Village Board grant Leonard McEnery on behalf of Gas N Wash a Special Use for a Automobile Service Station and an Automobile Car Wash and Variations (Urban Design Overlay, Parking Minimum, Parking Minimum, Parking Locations, Wall/Ground Signs, etc.) to permit an gas station with a convenience store, car wash, and two drive-thru restaurant uses at the property located at 18301 LaGrange Road (SEC LaGrange Rd and 183rd St) in the B-3 (General Business and Commercial) zoning district. Site Plan and Final Plat approval are also being considered at the meeting.

Receive Comments from the Public
Good of the Order
Adjourn Meeting

MINUTES OF THE REGULAR MEETING OF THE PLAN COMMISSION, VILLAGE OF TINLEY PARK, COOK AND WILL COUNTIES, ILLINOIS

May 18, 2023

The meeting of the Plan Commission, Village of Tinley Park, Illinois, was held in the Council Chambers located in the Village Hall of Tinley Park, 16250 Oak Park Avenue, Tinley Park, IL on May 18, 2023.

CALL TO ORDER –CHAIRMAN GRAY called to order the Regular Meeting of the Plan Commission for May 18, 2023 at 7:00 p.m.

Lori Kosmatka, Associate Planner called the roll.

Present and responding to roll call were the following:

Chairman Gray
Donald Bettenhausen
James Gaskill
Terry Hamilton
Eduardo Mani
Andrae Marak
Steve Sepessy
Kurt Truxal

Absent Plan Commissioners: Angela Gatto

Village Officials and Staff: Dan Ritter, Community Development Director
Lori Kosmatka, Associate Planner
Michael O. Whalen, Associate Planner

Petitioners: Emmanuel Bistas, Healing Matters, Inc.
Janice Jordan
Anthony Jordan

Members of the Public: none

COMMUNICATIONS – Lori Kosmatka noted that Donald Bettenhausen was present and appointed to the Plan Commission, replacing Plan Commissioner Ken Shaw.

APPROVAL OF THE MINUTES - Minutes of the April 6, 2023, Regular Meeting of the Plan Commission were presented for approval. A motion was made by COMMISSIONER TRUXAL, seconded by COMMISSIONER GASKILL to approve the April 6, 2023, minutes as presented. CHAIRMAN GRAY asked for a voice vote; all were in favor. He declared the motion carried.

TO: **VILLAGE OF TINLEY PARK PRESIDENT AND BOARD OF TRUSTEES**

FROM: **VILLAGE OF TINLEY PARK PLAN COMMISSION**

SUBJECT: **MINUTES OF THE May 18, 2023 REGULAR MEETING**

ITEM #1: **PUBLIC HEARING – HEALING MATTERS, INC., 18440 THOMPSON COURT SUITE 102 – SPECIAL USE PERMIT**
Consider recommending that the Village Board grant Emmanuel Bistas a Special Use Permit to operate a Vocational Educational Facility at 18440 Thompson Court Suite 102 in the ORI PD (Office and Restricted Industrial, Hickory Creek) zoning district.

Present and responding to roll call were the following:

Chairman Gray
Donald Bettenhausen
James Gaskill
Terry Hamilton
Eduardo Mani
Andrae Marak
Steve Sepessy
Kurt Truxal

Absent Plan Commissioners: Angela Gatto

Village Officials and Staff: Dan Ritter, Community Development Director
Lori Kosmatka, Associate Planner
Michael O. Whalen, Associate Planner

Petitioners: Emmanuel Bistas, Healing Matters, Inc.

Members of the Public: none

CHAIRMAN GRAY introduced Item #1. He confirmed that certification of publication was received.

COMMISSIONER SEPESSY made a motion to open the public hearing; COMMISSIONER GASKILL seconded the motion. All agreed.

Michael O. Whalen, Associate Planner, presented the staff report.

Emmanuel Bistas, the Petitioner, was sworn in. He provided an overview of the business and the purpose for amending the existing Special Use Permit to allow students of the school to practice massage on the public at the Tinley Park location.

CHAIRMAN GRAY asked the Petitioner to confirm the number of people that will be present

during the massage practice sessions. The Petitioner stated approximately eight to twelve. CHAIRMAN GRAY asked about the operating hours of the massage practice sessions. The Petitioner stated that practice is proposed on weekends from 9:00 a.m. to 1:00-1:30 p.m.

CHAIRMAN GRAY called on COMMISSIONER HAMILTON for comment. He had none. COMMISSIONERS MANI, BETTENHAUSEN, MARAK, and GASKILL said they had no questions or comments.

COMMISSIONER TRUXAL asked if members of the public receiving massage at the school will pay for the massages. The Petitioner said that an hour massage will cost between $30-45 per hour. COMMISSIONER TRUXAL had no further questions or comments.

COMMISSIONER SEPESSY said he sympathizes with students of the school needing to receive clinical hours to receive certification. He said the recommendation for approval is a good idea.

CHAIRMAN GRAY said that he hopes approval of the amended Special Use Permit will allow the school to increase enrollment. He asked Staff to clarify that there would be no parking concerns; Michael O. Whalen confirmed none were anticipated.

COMMISSIONER HAMILTON asked if the practice subjects would be members of the public or other students of the school. The Petitioner confirmed that massages would be offered to members of the public and described how massages would be conducted.

CHAIRMAN GRAY asked how customers would sign up for massages. The Petitioner stated that massages are scheduled through the school's website.

CHAIRMAN GRAY asked if any members of the public wished to speak on the item. None were present.

COMMISSIONER MANI made a motion to close the public hearing. COMMISSIONER GASKILL seconded the motion. All agreed CHAIRMAN GRAY declared the public hearing closed.

Michael O. Whalen presented the standards for granting a Special Use.

CHAIRMAN GRAY entertained a motion for the item.

COMMISSIONER GASKILL made a motion to recommend that the Village Board grant the Petitioner, Emmanual Bistas, a Special Use Permit to operate a Vocational Educational Facility at 18440 Thompson Court Suite 102 in the ORI-PD (Office and Restricted Industrial, Hickory Creek PUD), according to the submitted plans and adopt the Findings of Fact as listed in the May 18, 2023 Staff Report. The motion was seconded by COMMISSIONER MANI.

CHAIRMAN GRAY called for a roll call vote.

Lori Kosmatka called the roll.

COMMISSIONER BETTENHAUSEN: Aye
COMMISSIONER GASKILL: Aye
COMMISSIONER HAMILTON: Aye
COMMISSIONER MANI: Aye
COMMISSIONER MARAK: Aye
COMMISSIONER SEPESSY: Aye
COMMISSIONER TRUXAL: Aye
CHAIRMAN GRAY: Aye

CHAIRMAN GRAY declared the motion carried (8-0). He added that the item will go before the Village Board on June 6, 2023.

TO: **VILLAGE OF TINLEY PARK PRESIDENT AND BOARD OF TRUSTEES**

FROM: **VILLAGE OF TINLEY PARK PLAN COMMISSION**

SUBJECT: **MINUTES OF THE MAY 18, 2023 REGULAR MEETING**

ITEM #1: **PUBLIC HEARING – 17127 ORIOLE AVE., ANTHONY & JANICE JORDAN – MINIMUM HOUSE SIZE VARIATION**
Consider recommending that the Village Board grant Anthony and Janice Jordan (Property Owner) a Variation from Section V.C.2 (Usable Floor Area Per Dwelling) of the Zoning Code at the property located at 17127 Oriole Avenue in the R-1 (Single Family Residential) zoning district. This Variation would permit a new residential home to be constructed with 2,430 square feet of Usable Floor Area, where the minimum required Usable Floor Area is 3,500 square feet.

Present and responding to roll call were the following:

Chairman Gray
Donald Bettenhausen
James Gaskill
Terry Hamilton
Eduardo Mani
Andrae Marak
Steve Sepessy
Kurt Truxal

Absent Plan Commissioners: Angela Gatto

Village Officials and Staff: Dan Ritter, Community Development Director
Lori Kosmatka, Associate Planner
Michael O. Whalen, Associate Planner

Petitioners: Janice Jordan
Anthony Jordan

Members of the Public: none

CHAIRMAN GRAY introduced Item #2. He confirmed that certification of publication was received.

COMMISSIONER TRUXAL made a motion to open the public hearing; COMMISSIONER GASKILL seconded the motion. All agreed.

Lori Kosmatka, Associate Planner, presented the staff report.

COMMISSIONER GASKILL asked how the square footage number was created if there are no houses in the neighborhood that meet it.

Dan Ritter, Community Development Director, responded that the square footage number historically appears to have been meant for subdivisions as a starting point for negotiations with builders. Exceptions were not really built into the code.

COMMISSIONER GASKILL noted that perhaps that needs to be done. He commented that the other than the 3,000 square foot house, this one proposed is almost the biggest.

COMMISSIONER TRUXAL concurred.

Lori Kosmatka, Associate Planner, noted the square footages regulated per the previous code amendments. In 1993, the minimum of 2,500 square feet was established with reasoning established as providing greater housing stock.

Dan Ritter, Community Development Director, commented that he thinks that's where it was headed especially in the early 2000's for bigger homes. Since then some people have realized they may not need such large homes. A lot has changed since then, and it may be something to look into for the future. He appreciated the Commission's feedback.

CHAIRMAN GRAY offered the Petitioners to speak.

Anthony and Janice Jordan, the Petitioners, were sworn in. Mr. Jordan noted they have lived in Tinley Park for many years. Due to his employment, he has to live in Cook County and prefers to stay in Tinley Park. Their children are moving on into college so their house size needs have changed. They want a ranch home. He was considering a lot to build on, and discovered the subject property for sale. He looked into it, research the zoning, and spoke with Staff. He noticed the 3,500 square feet requirement and that the property had been for sale about a year. He indicated that staff sounded like they may be supportive of the variation request, and just needed to see more detailed information. They purchased the property and decided to move on with getting the drawings printed.

COMMISSIONER GASKILL

COMMISSIONER MARAK commented that it looks nice.

COMMISSIONER SEPESSY thanked the Petitioners for choosing Tinley Park.

COMMISSIONER BETTENHAUSEN noted it will be a nice addition to the neighborhood.

COMMISSIONER MANI thanked then for re-looking into Tinley Park. He is also a long-time resident, having been in the Village for 22 years. The house looks beautiful, and the size meets their needs. The 3,500 square foot minimum code requirement should be looked at.

COMMISSIONER TRUXAL said it will be a positive addition to the neighborhood. The design looks great.

COMMISSIONER HAMILTON asked if the original building was already demolished.

Anthony Jordan responded it was already demolished.

COMMISSIONER HAMILTON noted it is a great idea, a nice addition to the neighborhood, and will infill the hole in the neighborhood.

CHAIRMAN GRAY echoed what Staff said. Page 3 of the Staff Report explained it all, where all the homes were shown with the square footage. This request seems reasonable, it fits the neighborhood, and per COMMISSIONER GASKILL and MANI's comments, perhaps this requirement should be looked into, at least for established neighborhoods.

COMMISSIONER HAMILTON noted it seemed like Staff guided the Petitioners when they inquired about the property, giving a clue that the 3,500 square feet may be overcomeable.

Anthony Jordan responded that he came in to get feedback from Staff on whether they'd say it's possible or not. He then purchased the property and came back and asked Staff further before investing additional money into $3900 cost of the prints. We now have the drawings showing what we want to accomplish.

COMMISSIONER HAMILTON commented he's glad we have Staff that's on top of things like that to give guidance. Otherwise people might just walk away.

Dan Ritter, Community Development Director, noted luckily there was some history there. If this was in Brookside Glen, it would be a different situation as the neighborhood might be larger. It has to be reasonable in the neighborhood's limits. It should at least fit with the neighborhood. This isn't the only neighborhood with this situation, he believes there are a couple others with smaller and older homes, such as lots on Ridgeland.

Anthony Jordan noted that he believes he recalls that R-1 zoning is the only one that has that big a house size for a ranch. A ranch typically costs a higher percentage, about 15-18% more, to build and take a larger area. If you look at R-2 or R-3, it's usually 200 or 300 square feet for ranch. R-1 just flat out requires 3,500 square feet.

Dan Ritter, Community Development Director, noted we want to promote new homes in infill development. Showing there's a good market and demand is good for property values.

CHAIRMAN GRAY commended the Petitioners for having the knowledge to see if it's doable before purchasing the property. He appreciated their respect, and that they used it beneficially. He asked if Commissioners had further comment.

COMMISSIONER MANI noted we need to look at these numbers in the code, tweak them to make Tinley Park attractive. The 3,500 square foot minimum will scare people away, as it may be unaffordable. He wondered if 2,400 square feet may, instead, be big enough. Tinley Park is a great place to live and raise your kids.

COMMISSIONER MARAK added that he's shared with staff some research on property development and density. This is a key factor going forward. People want more walkability and more density. Having huge homes and yards is counterproductive for this. Conceptually and in pricinple he's in favor of this type of work.

CHAIRMAN GRAY asked if any members of the public wished to speak on the item. None were present. He asked for a motion to close the public hearing.

COMMISSIONER SEPESSY made a motion to close the public hearing. COMMISSIONER BETTENHAUSEN seconded the motion. All agreed. CHAIRMAN GRAY declared the public hearing closed.

Lori Kosmatka, Associate Planner, presented the standards for granting a Variation.

CHAIRMAN GRAY entertained a motion for the item.

COMMISSIONER TRUXAL made a motion to recommend that the Village Board grant the Petitioners, Anthony and Janice Jordan, a Minimum House Size Variation from Section V.C.2. (Usable Floor Area Per Dwelling) of the Zoning Ordinance, to permit a new residential home to be constructed with 2,430 square feet of Usable Floor Area, where the minimum required Usable Floor Area is 3,500 square feet, at 17127 Oriole Avenue, in the R-1 (Single-Family Residential) Zoning District, consistent with the Submitted Plans and adopt Findings of Fact as proposed by Village Staff in the May 18, 2023 Staff Report.

The motion was seconded by COMMISSIONER MANI.

CHAIRMAN GRAY called for a roll call vote.

Lori Kosmatka called the roll.

COMMISSIONER BETTENHAUSEN: Aye
COMMISSIONER GASKILL: Aye
COMMISSIONER HAMILTON: Aye
COMMISSIONER MANI: Aye
COMMISSIONER MARAK: Aye
COMMISSIONER SEPESSY: Aye
COMMISSIONER TRUXAL: Aye
CHAIRMAN GRAY: Aye

CHAIRMAN GRAY declared the motion carried (8-0). He added that the item will go before the Village Board on June 6, 2023.

TO: **VILLAGE OF TINLEY PARK PRESIDENT AND BOARD OF TRUSTEES**

FROM: **VILLAGE OF TINLEY PARK PLAN COMMISSION**

SUBJECT: **MINUTES OF THE May 18, 2023 REGULAR MEETING**

ITEM #3: **PUBLIC HEARING – FENCE REGULATIONS – ZONING ORDINANCE TEXT AMENDMENT**
Consider recommending that the Village Board adopt a proposed text amendment to the Tinley Park Zoning Ordinance amending Section III.J. (fence Regulations).

Present and responding to roll call were the following:
Chairman Gray
Donald Bettenhausen
James Gaskill
Terry Hamilton
Eduardo Mani
Andrae Marak
Steve Sepessy
Kurt Truxal

Absent Plan Commissioners: Angela Gatto

Village Officials and Staff: Dan Ritter, Community Development Director
Lori Kosmatka, Associate Planner
Michael O. Whalen, Associate Planner

Petitioners: none

Members of the Public: none

CHAIRMAN GRAY introduced Item #3. He confirmed that certification of publication was received.

COMMISSIONER TRUXAL made a motion to open the public hearing; COMMISSIONER GASKILL seconded the motion. All agreed.

Michael O. Whalen, Associate Planner, presented the staff report.

CHAIRMAN GRAY called on Commissioners for questions or comments. COMMISSIONERS BETTENHAUSEN, SEPESSY, GASKILL, MANI, and HAMILTON said they had no questions or comments.

COMMISSIONER TRUXAL said he hopes the amendment will cut down on the number of variations. He had no further questions or comments. CHAIRMAN GRAY said he agrees with COMMISSIONER TRUXAL that the amendment will hopefully reduce the number of residential

fence variation requests, but acknowledged that the amendment will not eliminate all requests.

Dan Ritter said the amendment should help and that Staff can revisit the regulations if any other issues or solutions arise.

COMMISSIONER MANI commented on the distance between slats on fences.

COMMISSIONER TRUXAL asked how many variance requests last year would have been avoided with the amendment. Michael O. Whalen said two of the seven would not have needed a variance.

Dan Ritter said that some of the applicants may not have pursued variation requests if the proposed regulations were in place. Michael O. Whalen said that while the number of fence variation requests that come before the Commission are relatively low, Staff receives substantially more calls from people seeking to expand their yards. Dan Ritter added the proposed amendment will be easier for the public to understand and easier for Staff to implement.

CHAIRMAN GRAY thanked Dan Ritter for bringing the proposed amendment forward.

Dan Ritter thanked Lori and Michael.

CHAIRMAN GRAY asked if there were any addition questions or comments from the Commission. There were none.

CHAIRMAN GRAY asked if any members of the public wished to speak on the item. None were present.

COMMISSIONER TRUXAL made a motion to close the public hearing; COMMISSIONER MANI seconded the motion. All agreed.

CHAIRMAN GRAY entertained a motion on the item.

COMMISSIONER GASKILL made a motion to recommend that the Village Board adopt a proposed text amendment to the Tinley Park Zoning Ordinance amending Section III.J. (Fence Regulations). COMMISSIONER TRUXAL seconded.

CHAIRMAN GRAY called for a roll call vote.

Lori Kosmatka called the roll.

COMMISSIONER BETTENHAUSEN: Aye
COMMISSIONER GASKILL: Aye
COMMISSIONER HAMILTON: Aye
COMMISSIONER MANI: Nay
COMMISSIONER MARAK: Aye
COMMISSIONER SEPESSY: Aye

COMMISSIONER TRUXAL: Aye
CHAIRMAN GRAY: Aye

CHAIRMAN GRAY declared the motion carried (7-1). He added that the item will go before the Village Board on June 6, 2023 for a first reading.

Good of the Order

Dan Ritter, Community Development Director, provided status on the following projects:

- Planning Manager interviews started this week. COMMISSIONER HAMILTON asked if Dan Ritter would report to this position. Dan Ritter responded no, the Planning Manager position would be under the Director position. The Planning Manager position was his previous position.
- Comprehensive Plan will be starting. This was passed in the budget. Staff will be starting an RFP process. The Plan Commission will be heavily involved in the Comprehensive Plan project. The project will have charettes and several meetings. It is an exciting project. The community is likely in a different place than it was in 2000. We are no longer a community expanding into cornfields. This is an opportunity to enhance the community, otherwise it could go in the other direction. The plan will be a vision for everything we do. It will guide our text amendments as our Zoning Code is out-of-date, seen by the Plan Commission, Board, and residents. The Comprehensive Plan process can take a couple years to allow for enough public feedback to see where we want to go. The plan is bigger than just development. It also includes things like walkability, utilities, schools, parks, etc. He is excited for this plan and hopes the Plan Commission is as well. Other commissions will be able to work on the plan, such as the Sustainability Commission, and anyone else that wants to be involved with the public. COMMISSIONER TRUXAL asked if there will be consultants helping since there will be an RFP. Dan Ritter confirmed yes. Sometimes communities try to do it in-house and it may be that there are times when you have the staff and time, but then you don't. COMMISSIONER TRUXAL noted staff may also need some guidance. Dan Ritter noted that it seems we have experienced staff so that won't have to wholly rely on them. COMMISSIONER TRUXAL noted that it's a huge project to be able to manage into chunks and show progress. That is where the help will come in. He felt it was good. Dan Ritter stated we will go through the process to find the right consultant to help us and we will go from there. We will keep you up to date as we go through that.
- Harmony Square / North Street property/plaza: Development agreement and purchase agreements went to the Board on Tuesday. They are supposed to close soon possibly this week. The plaza is moving ahead. The private development around it which we are working with a private developer is also moving ahead. It will be a good project. COMMISSIONER MARAK asked if includes the second set of housing, condos or apartments. Dan Ritter responded yes, he believes the plan is for townhomes in the old Central Middle School site, and a Boulevard style mixed-use building on the east side of the plaza on North Street. That will have parking and commercial on the first floor and apartments above it. We are excited about this project. It has been talked about for the past 20 years.
- Odyssey: They were here at Plan Commission previously. A lot of the issues with that did get worked out at the Village Board vote. The developer and the association came to an agreement. All we need to do now is get it adopted, get their permits, and everything

will be resolved. He thanked everyone for their help on that project. A lot got hashed out here at Plan Commission before going to Board.

- Banging Gavel is moving along and they may open in June or July. They are working on staffing. You can see the outside is coming together and looking good. The brewery or ale-trail trolley may then be able to include this property when it operates this summer. Marketing has been working on this as a push.
- Vinny's Clam Bar (previously proposed as RJ's Seafood): They previously proposed a patio addition. They did not move ahead with that addition, but are thinking of that as a future phase while they focus on interior build-out. That project should be finishing up in June, and then they will do some training to hopefully open later in June or early July. They are part of the Francesca's group so they should do good work.
- Delta Sonic: They should be opening if not already. They are still working on the back detail center. They have been moving along in stages with the gas pumps then car wash. Hopefully the traffic will be improved with the changes.
- Loyola: They have been moving along to completion to June and opening soon after that.
- Magnuson: The apartments were controversial, but they received the permit and are under construction. It has taken them some time to start. There was some vandalism and pipes were filled with rocks and stones. They installed permanent security cameras on site and are working on utilities underground. Hopefully in less than a month we should see walls going up and other big improvements to the clubhouse and first residential building happening.
- Park Lawn: They are going in the old Montessori School and should be in there soon if not already. We're excited to have that vacancy filled.
- Springfort Hall: They are completely filled now. All spaces were filled up. Hawaii Fluid Art is the latest to move in there. The owner is excited to have this business here as it is unique with none other in the area. That will be another entertainment option downtown along with our escape room and restaurants. Love's Sweet Arrow is also moving in there down the street. They will have an expanded section of their bookstore.
- Downtown parking signs were updated. It makes it clear where there's free and or public parking. There was previously a lot of confusion since the old signs contradicted each other. Staff cleaned that up and attached it to the Village branding. That was phase one. We also plan on doing parking stations so you don't have to buy tokens or put dollars in. There are some other things we are working on downtown to have more clearly available parking such as maps indicating times to park.
- Dendrino's: They were annexed into the Village and will go into effect June 30th. Because it gets annexed in, it automatically gets zoned R-1. Eventually, in the future if someone wants to re-develop that for a restaurant or different type of bar, then they would have to come back for a rezoning/redevelopment.

Receive Comments from the Public

There were no comments from the public.

CHAIRMAN GRAY requested a motion to adjourn the meeting.

COMMISSIONER MANI made a motion to adjourn the Meeting. Second by COMMISSIONER SEPESSY. CHAIRMAN GRAY requested a voice vote. Hearing no opposition, he declared the Meeting Adjourned. Meeting was adjourned at 8:04 p.m.

PLAN COMMISSION STAFF REPORT

March 6, 2022 – Public Hearing

Gas N Wash La Grange Road

SEC 183rd Street and La Grange Road / 18301 La Grange Road

Petitioner
Leonard McEnery, on behalf of Lenny's Gas N Wash Tinley Park, LLC

Property Location
18301 La Grange Rd

PIN

27-33-401-013-0000

Zoning
B-3 (General Business and Commercial)

Approvals Sought
Special Use Permits
Variations
Site Plan Approval
Plat Approval

Project Planner
Michael O. Whalen, AICP
Associate Planner

EXECUTIVE SUMMARY

The Petitioner, Leonard McEnery on the behalf of Lenny's Gas N Wash Tinley Park, LLC, is requesting: Special Use Permits for an *Automobile Service Station* and an *Automobile Car Wash, When Attached to a Service Station*; Variations (Urban Design Overlay, Parking Minimums, Signage etc.); Site Plan/Architectural Approval; and Plat of Subdivision. The requests are to allow for the construction of a new gas station/truck stop with a carwash and a convenience store with two drive-thru tenants. The Petitioner is also pursuing a liquor license for the site.

A Special Use Permit is required to operate both an *Automobile Service Station* and an *Automobile Car Wash, When Attached to a Service Station* in the B-3 General Business and Commercial zoning district. The site is 8.759 acres and is currently undeveloped. The construction of this development will fill the vacant, high-profile corner of 183rd Street and La Grange Road with a gas station. The development will serve expressway traffic, as well as a number of existing and new hotels under construction in the vicinity.

The subject property is located within the Urban Design Overlay District, which is intended to promote pedestrian-oriented design and orient buildings onto the street, rather than onto parking lots. The nature of this development is generally incompatible with the intent of the Urban Design Overlay District. Because of its proximity to the Interstate-80 and La Grange Road interchange, variations from several Overlay District provisions may be appropriate.

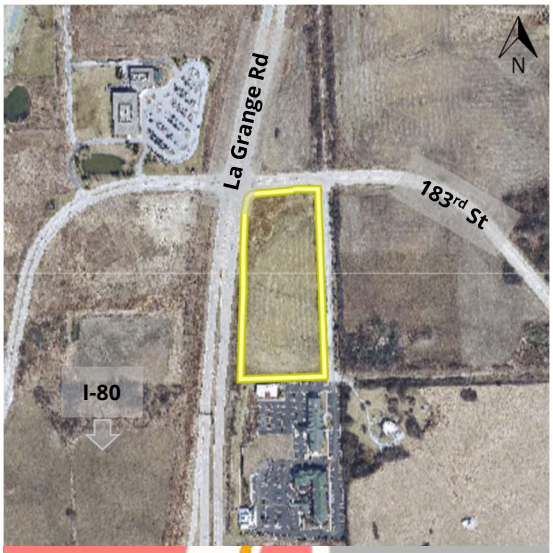
The proposed development will create substantial traffic impacts.

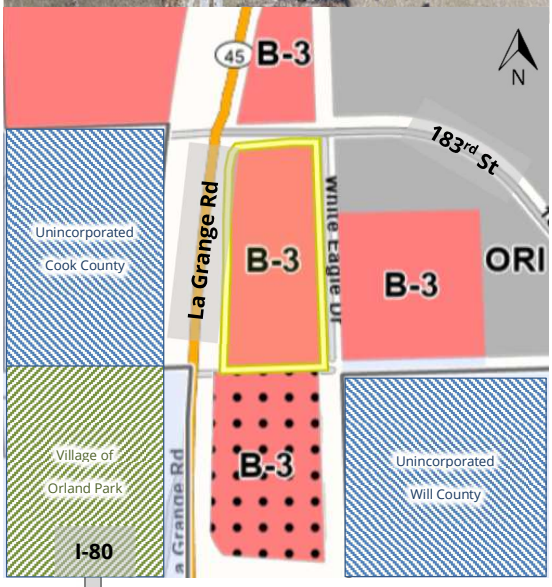
This will be the third Gas N Wash location in Tinley Park; there are twenty-one existing and under-construction locations throughout Chicagoland and downstate Illinois.

EXISTING SITE & HISTORY

The subject property is located at the southeast corner of 183rd Street and La Grange Road. The approximately 8.579-acre property is undeveloped and has a significant slope, with the southeast corner being approximately eighteen feet higher than the northwest corner.

The property was annexed into the Village in 1978 (Ord. No. 78-O-038).





Zoning Map

ZONING & NEARBY LAND USES

The property is designated B-3 (General Business and Commercial). The Zoning Ordinance states the B-3 zoning district "is designed to accommodate a wide range of specialized commercial uses, including highway-oriented services and commercial types of establishments to serve the needs of motorists. This district is intended to include those uses which would not be compatible in a neighborhood or community-type shopping center."

The property is also located in the UD-1 Urban Design Overlay District. The This Overlay District is "intended to promote specific design standards concerned with the character and placement of non-residential buildings, including parking and other accessory uses, as well as the role and nature of the spaces between the buildings and the public streets."

<u>Surrounding zoning:</u>

- South: B-3 PD (General Business and Commercial; Mid-Continent PUD), hotels and restaurant
- East: B-3 (General Business and Commercial), undeveloped land (future Marriott Hotels site)
- North: B-3 (General Business and Commercial), undeveloped land
- West: Unincorporated Cook County, undeveloped land

PROPOSED USE AND EXCEPTIONS

The proposed truck-stop/gas station and carwash will serve both local and interstate traffic. An 8,110 square foot convenience store with two drive-thru restaurant tenants and a car wash will also be developed on-site. The drive-thru tenants are not confirmed, and future tenants may generate a substantial amount of traffic. A Special Use Permit is required for both the gas station and car wash as described above. The Petitioner is also pursuing a liquor license for the site.

The nature of this development requires major Exceptions from the Zoning Ordinance, specifically almost all provisions of the Urban Design Overlay District. In addition, Exceptions relating to signage and parking are requested by the Petitioner. The Petitioner is also seeking waivers from the Landscape Ordinance due to the configuration and stormwater needs of the site. Exceptions and waivers are detailed below.

Open Item #1: Consider the appropriateness of granting two Special Use Permits to allow the development of an Automobile Service Station and a Car Wash when Attached to a Service Station.

FINAL PLAT OF SUBDIVISION

The Village received a signed plat of subdivision on May 19, 2023.

The proposed subdivision divides the property known as 18200 96th Avenue (PIN 27-33-401-013-0000). The proposed plat splits the property into two lots: the subject site and a southern lot owned by a separate entity.

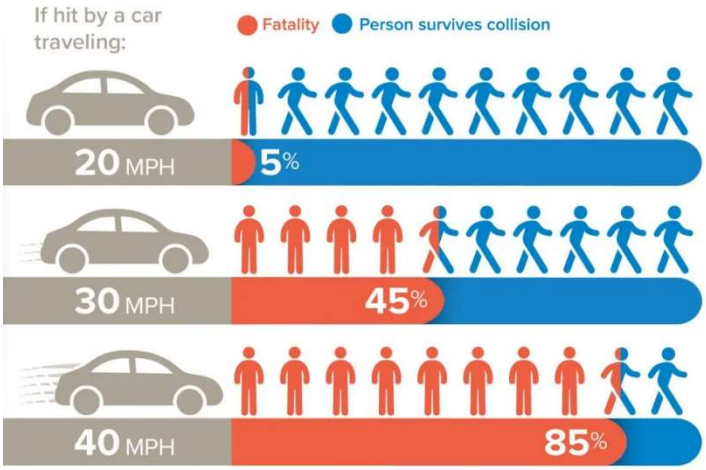
The proposed final plat of subdivision includes existing and proposed utility and access easements. The 26-foot access easement on the Gas N Wash site will parallel La Grange Road between the western property line and the stormwater pond. The Petitioner is not proposing building a cross-access driveway to the southern property line at this time, which is reasonable given the parcel to the south is undeveloped. A ten-foot utility easement is proposed (as required) on the south side of the Gas N Wash property line and on the north side of the undeveloped southern lot.

SITE AND NEIGHBORHOOD DESCRIPTION

Neighborhood.

North of the subject site is undeveloped commercially zoned land within the Village. Less than half a mile north are Moraine Valley Community College Southwest Education Center and the future Loyola Southwest Ambulatory Care Center. Northeast of the site is a residential pod neighborhood. Northwest of the site is Advocate Medical Campus South; a golf course and Orland Grassland nature preserve are further northwest. East of the site are two future hotels with single-family residential nearby. South of the site are undeveloped land, two hotels, and a restaurant. Further south is the I-80/La Grange Road interchange. Southwest of the site is the WLS radio transmission tower. West of the site is undeveloped, unincorporated land. Further west is undeveloped land within Orland Park; the land is zoned RMC Regional Mixed-Use Campus and BIZ General Business District.

Streets and Roads.



National Traffic Safety Board (2017) Reducing Speeding-Related Crashes Involving Passenger Vehicles. Available from: https://www.ntsb.gov/safety/safety-studies/Documents/SS1701.pdf

The subject site has three frontages—La Grange Road, 183rd Street, and White Eagle Drive.

La Grange in the vicinity is a high-speed, six-lane principal arterial road with wide lanes, wide shoulders, and an interchange to access Interstate-80. The speed limit on this segment of La Grange is signed as 45 miles per hour. The road is designed to safely accommodate and encourage substantially higher speeds and there is no infrastructure to encourage compliance with the posted speed limit. At the signalized intersection with 183rd Street, the road has nine lanes and is approximately 150 feet wide. The turn radii at the intersection are very wide to accommodate high-speed, free-flow right-turn traffic on all four corners, and curbs are only present near the intersection. There are no sidewalks, crosswalks, or bicycle facilities. This road, signed as US Highway 45, is owned and maintained by the Illinois Department of Transportation.

183rd Street in the vicinity is a four-lane, moderate speed collector road owned and maintained by the Cook County Department of Transportation and Highways. The road has wide lanes and turn radii, and the speed limit is signed as 35 miles per hour. The road is designed to safely accommodate and encourage higher speeds. At the intersection with La Grange Rd., 183rd Street is six lanes (with striped space for a seventh for a dual left turn) and is over 100 feet wide. There are no sidewalks, marked crosswalks, or bicycle facilities.

White Eagle Drive is a moderate speed local street owned and maintained by the Village. The street is 40 feet wide and does not have lane striping. The posted speed limit is 35 miles per hour but there is no infrastructure is present to encourage compliance. There are currently no sidewalks, crosswalks, or bicycle facilities, however as development occurs, sidewalk segments will be installed by each developer. White Eagle Drive terminates at a parking lot for a restaurant and hotels.

There are no existing or proposed public transportation routes in the vicinity.

In general, the roadways in this area create an uncomfortable, unsafe, and potentially deadly environment for pedestrians and cyclists. The site location, site use, and site design are not compatible with non-motorized travel as proposed.

Topography.

The subject site is sloped significantly. The high point at the southeast corner is approximately eighteen feet higher than the low point at the northwest corner. The Petitioner proposes a detention pond near the high point of the site—the southern property line. The topography and significant grading required to develop the site in the Petitioner's preferred configuration substantially constrain the site design.

PROPOSED SITE PLAN

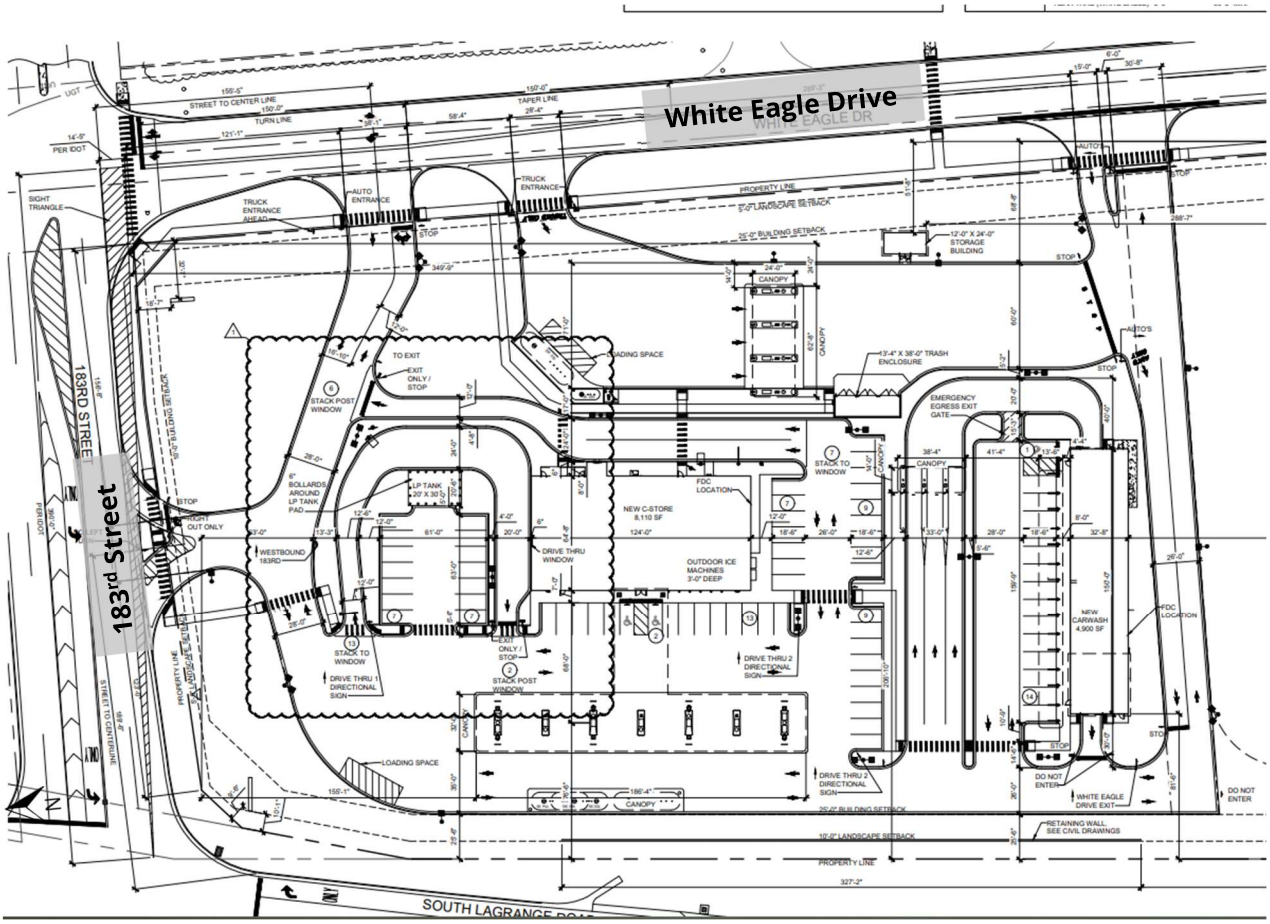
Transportation Infrastructure Additions.

As a part of this approval, the Village will require construction of six-foot sidewalks along the 183rd Street and White Eagle Drive frontages. The Village will not require a sidewalk along the La Grange Road frontage because the Village's Public Works department does not anticipate the Illinois Department of Transportation constructing a sidewalk or path through the I-80/La Grange Rd interchange.

There are two walkways connecting the to-be-constructed sidewalks to the convenience store. The walkway to 183rd Street is reasonably direct and is located on the western side of a right-in-right-out driveway. The location of this walkway will likely limit its utility to pedestrians as more direct routes through driveways are present. The walkway to the sidewalk along White Eagle Drive takes a circuitous route from the north side of the central right-and-left-out driveway in the center of the site. The location of this walkway will limit its utility to pedestrians as direct routes through driveways are present. Village Staff recommends the walkway along the eastern property line be relocated towards the southern end of the site to provide more useful pedestrian infrastructure. The Petitioner states the slope of the property make relocating the walkway unfeasible. There are five curb cuts of varying widths across the sidewalks on 183rd Street and White Eagle Drive.

The Petitioner is proposing five curb cuts for vehicle access: a right-in-right-out driveway (two cuts) onto eastbound 183rd Street; a right-in on White Eagle Drive (northernmost); a left-right out on White Eagle Drive (central); and a full access on White Eagle Drive (southernmost). The Urban Design Overlay District limits curb cuts to one per site and any curb-cut must not be greater than 30 feet in width. The curb cut width limit and quantity is intended to reduce pedestrian and motorist conflicts by slowing vehicles. While the driveways on 183rd Street encourage high-speed vehicle movements and pedestrian conflicts, the design may limit vehicle access backups. The site is somewhat constrained by having truck fueling, which is accompanied by very large turn radii, which widens intersections and facilitates and encourages higher speed automobile movements. The site is further constrained by the proposed automobile fueling location, the presence of two drive-thrus, a carwash, and on-site stormwater detention. These constraints require complicated routing of vehicles throughout the site. The proposed drive-thru restaurants have six and nine stacking spaces. A proposed fourteen space parking area dead-ends at the entrance of one of the two drive-thrus. The Petitioner's most recent zoning submittal did not provide an exhibit indicating whether any additional vehicle stacking is proposed. The proposed site plan accommodates semi-trailer, delivery, and fire trucks. A cross-

access easement is proposed at the southwestern corner of the site to potentially connect to the property to the south at some point in the future.



Building Orientation.

The convenience store is proposed at the center of the site, with fueling area canopies on the east and west sides of the building. The building is situated approximately 150 feet from La Grange, 200 feet from 183rd Street, and 150 feet from White Eagle Drive. The Urban Design Overlay District prescribes a build-to line between zero and twenty feet from the property line. The Zoning Ordinance (Sec. II.B: yard, front/primary front) defines the front lot line as the 183rd frontage—the narrowest frontage. This frontage is instead designed as the side of the property, with access driveways, a drive-thru queue, and parking lot between the building and the road.

The building will be addressed as 18301 La Grange Road, however there is no access from La Grange. The primary façade of the building and main entrance are oriented onto La Grange, which functions as the rear of the building for pedestrians. The north side of the convenience store building and drive-thru queueing are oriented onto the 183rd Street frontage. The rear of the convenience store building is oriented onto White Eagle Drive, no architectural detailing is present to indicate the entrance to pedestrians or people arriving by truck. The south side of the convenience store is oriented towards a parking area and the car wash. The convenience store building is substantially set back from the primary and secondary frontages of the site, and large driveway areas eliminate the possibility of creating some semblance of a streetscape with a street-wall—a primary goal of the Urban Design Overlay District. The overlay requires the primary frontage of the building, exclusive of driveways, cover at least one-third of the frontage. The Overlay also requires that drive-thrus and parking lots must be oriented to the side or rear of the building.

Fueling areas, a stormwater pond, parking lots, and drive-thru queues define the character of the site.

Drive-thrus and Queues.

The Petitioner is proposing two drive-thrus—the drive-thru tenants are not confirmed, and future tenants may generate a substantial or a negligible amount of traffic. It is important to consider the impacts of a high-volume tenant when considering the proposed site plan.

One drive-thru is proposed on the northern side of the building with the queue in a U-shaped configuration. The entrance to this drive-thru is near the right-in-right-out driveway on 183rd. The drive-thru queueing is not indicated on the most recent site plan submittal, however the traffic report indicates that this drive-thru will accommodate 13 vehicles. Queue space is typically indicated with small vehicles in a bumper-to-bumper configuration and not a real world configuration. In a suburban context in the vicinity of I-80, it may be likely this queueing space is insufficient during peak hours for a high-volume tenant. For the purposes of determining trip generation, the Petitioner's consultant KLOA considered one drive-thru tenant as a coffee-donut shop drive-thru and the other as a quick service restaurant drive-thru. Both of these trip generation uses can generate limited or heavy traffic. KLOA states that the ITE trip generation manual states that most traffic for gas stations and drive-thrus are local traffic. With this property being designed as a truck stop located very close to a major interchange with a heavily trafficked interstate expressway that sees both peak hour commute traffic and all-day interstate traffic, this assertion may be less accurate. The traffic report states that a previous survey of a coffee-donut shop drive-thru indicated that ten to eleven vehicle queueing spaces were needed at peak times. The report does not indicate where or when or which business was surveyed. There is potential for this drive-thru to generate enough traffic that access to the site backs up into drive aisles and at worst, onto 183rd street.

The second drive-thru is proposed on the rear façade of the building facing White Eagle Drive. The queue begins at the end of the parking lot on the south side of the building and wraps the south and east facades. The traffic report states that stacking for seven vehicles is provided, with additional potential stacking occurring in the parking lot. This drive-thru has stacking space for three spaces between the window and the order board and four spaces between the entrance and the order board, according to a previous submittal. If this drive-thru has insufficient queueing, which may occur if a high volume tenant moves in, vehicles may back up into parking areas. The currently proposed restaurant is a quick service restaurant and not a fast-food restaurant.

The queueing area for the car wash has space for 21 bumper-to-bumper vehicles across three lanes.

Open Item #2: Discuss the buildings deep setback from all roadways.

Open Item #3: Discuss pedestrian and vehicle circulation and conflicts. Are additional directional signs needed?

Open Item #4: Discuss the intent of the Urban Design Overlay District as it applies to this project and discuss the appropriateness of all variations needed.

TRAFFIC IMPACT

The Village Engineer states that the proposed development will cause significant backups to 183rd and La Grange intersection. Backups at this intersection are already a common occurrence. Backups on White Eagle Drive are also anticipated due to insufficient stacking space. Traffic may back up onto 183rd Street if the northern drive-thru stacks into the driveway. Vehicles exiting onto White Eagle Drive from the northern driveway may block traffic attempting to get into the northbound lanes. Directional signage and changing driveway ingress and egress may help reduce this issue. Additionally, White Eagle Drive needs to be repaired and resurfaced.

The Cook County Department of Transportation and Highways, the owner of 183rd Street, requested that the Petitioner provide an update to a previously submitted traffic study. A meeting with the County to discuss traffic impacts to 183rd Street is scheduled after this workshop.

The Village Engineer states that the amount of traffic generated by the proposed project will cause congestion and delays that will affect current and future patrons of the proposed and surrounding development arriving by vehicle.

The traffic report did not analyze pedestrian or cyclist traffic to the site.

ARCHITECTURE

The proposed architecture of the site is typical for the type of development. The front façade serves as the primary entrance for people arriving by car and includes glazing with both transparent and spandrel glass. The windows and false windows feature red mullions. The areas with spandrel glass are fenestrated with awnings; the rear-facing entrance features a red canopy with columns. The building is clad in brick veneer and the base of the building is clad in stone veneer. Bright red accents are present on all facades for trim and gutter downspouts. There is no façade articulation (except a bump-out for one drive-thru), however articulation would not add to the design of a building of this scale. The red color found throughout the site is a component of the developer's branding. Both buildings follow the same design language.

The rear façade of the site does not feature any entryway features. There is a small transparent glass door as the convenience store entrance. There are two service doors, a drive-thru window, and a roof access ladder. This façade

is designed as the rear of the building, as there are no treatments of this entrance, which serves as the primary entrance of pedestrians and people arriving by truck. The Urban Design Overlay requires that "the main entrance to [the] building shall be oriented towards the major street, be prominent, and pedestrian accessible". With no access to La Grange Road and the nature of the development, the building could be oriented onto White Eagle Drive or potentially 183rd Street. The proposed entrance is not prominent and requires that pedestrians cross both a three-pump truck fueling area and two drive-thru lanes. While gas stations are typically unwilling to orient buildings onto the street with vehicle fueling areas in the rear, this significantly more pedestrian friendly configuration is possible on the site. It is typical these claims are that the design is not feasible, or the gas station will attract fewer customers.

The architecture of the carwash building is similar in nature to the convenience store building and fueling canopies. It features a raised hipped roof (referred to as a tower in the plans) at the carwash tunnel entrance and awnings on all four sides. The carwash tunnel entrance and exit are enclosed with overhead garage doors. The south elevation features windows with mullions in the same red color found elsewhere. This elevation will be visible from the hotels to the south, so the glazing adds some visual interest to an otherwise typical building.

The car fueling area canopy is red with brick and stone veneer support columns. The car fueling area canopy connects to the "front" entrance of the building. The truck fueling area canopy is red with black support columns.

There is a trash enclosure and a storage building located in front of the building along White Eagle Drive. These structures will be designed in a manner compatible with the convenience store building. These structures must be located to the side or rear of the site (Sec. III.H.2.).

Open Item #5: Discuss the prominence of the rear/main pedestrian entrance to the building, and whether additional architectural treatments of this façade are desired and justified.

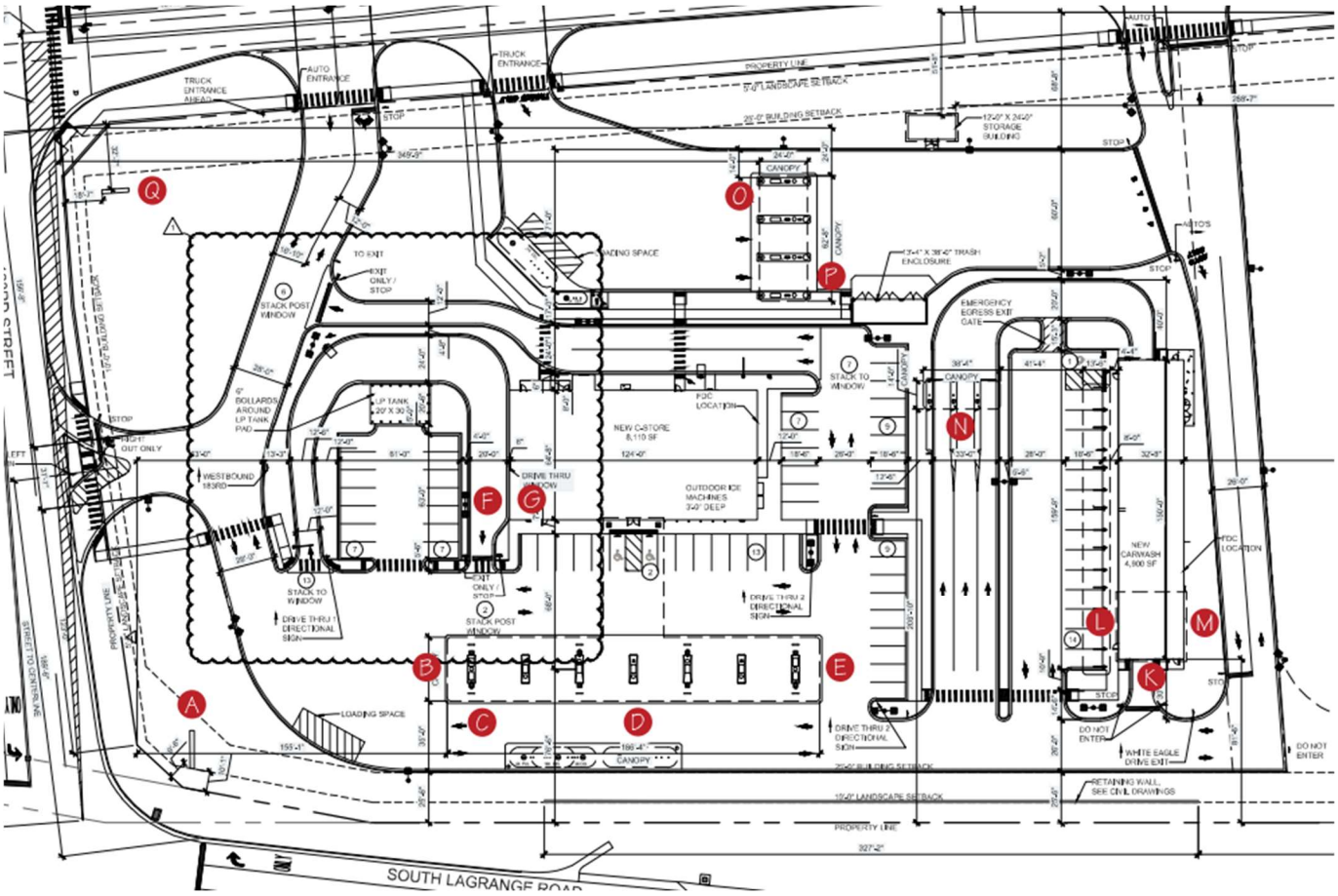
LANDSCAPE

The proposed landscape plan does a relatively good job of fulfilling the requirements prescribed in the Landscape Ordinance. Since the use and configuration of the site require excessive pavement, there is limited space to accommodate all required landscaping. The Petitioner is installing street trees and a landscape buffer which will mostly be comprised of canopy trees and will soften the appearance of the site. All areas not covered by pavement are receiving some landscape treatment. Building perimeter landscaping is absent on two facades of both the convenience store and the carwash building due to the nature of the development. It is both feasible and preferable to decrease the amount of unnecessary pavement to make space for more of the required landscaping.

SIGNAGE

The Petitioner is proposing 25 signs:

- Two ground signs;
- Three wall signs on the convenience store;
- Three signs on the carwash near the tunnel entry.
- Four signs on the automobile fueling canopy;
- Two signs on the truck fueling canopy;
- One sign on the carwash pay station;
- Three signs on the carwash vacuum station canopy; and
- Seven directional signs.



Freestanding Signs.

The proposed ground sign (Location A) at the 183rd and La Grange intersection is eighteen feet and nine inches wide by eleven feet two inches tall. The overall height exceeds the maximum height of ten feet—a Variation is required; however, Staff generally will not support this Variation from Sec. IX.D.l. The sign features materials compatible with the convenience store and carwash buildings, a red background, and signs for each of the three businesses on site: Gas N Wash, a coffee-donut shop drive-thru, and a quick service restaurant drive-thru. There is also an electronic pricing display for gas prices. The gasoline sales sign is not dimensioned. The maximum allowable size for a gasoline sales sign is twenty square feet in size. A Variation from Sec. IX.L.1.a. to increase the size of the gasoline sales sign may be needed—Staff would be generally supportive of this variation at this location. The overall sign area is fourteen foot two inches wide by seven foot six inches tall, or 106.25 square feet.

The second proposed ground sign (Location Q) at the 183rd and White Eagle Drive intersection is thirteen foot four inches wide by ten foot tall. The sign features materials compatible with the convenience store and carwash buildings, a red background, a sign for the car wash, and an electronic message center (EMC). The overall sign area is ten foot wide by seven foot wide, or 70 square feet. The EMC is seven foot wide by three foot tall, or twenty-one square feet. The EMC makes up 30 percent of the overall sign area—the Zoning Ordinance specifies a maximum ratio of twenty percent, so a Variation is needed. Staff is generally supportive of this Variation from Sec. IX.J.4. to allow for a larger EMC at this location.

Given the length of each of the three public frontages, two ground signs are allowed. The Zoning Ordinance specifies that ground signs are situated at least 300 feet apart—the two proposed ground signs are less than 300 feet apart, so a Variation is required. Staff is generally supportive of this Variation from Sec. IX.F.2. to allow the two ground signs to be situated less than 300 feet apart.

Wall Signs.

The convenience store building is proposed to have two wall signs—one on the northern façade and one on the western façade. The carwash building is proposed to have three wall signs—one on the northern façade, one on the western façade, and one on the southern façade.

The northern convenience store sign (Location F) is for the coffee-donut shop drive-thru. It is nine foot three inches wide by six foot four inches tall, or 58.5 square feet. The maximum allowed wall sign size for a tenant within another business (in this case, a coffee-donut shop located within a Gas N Wash convenience store) is fifteen square feet. Staff is generally supportive of this Variance from Sec. IX.D.f. to allow for a larger wall sign at this location.

The northwestern convenience store sign (Location G) is also for the coffee-donut drive-thru. This sign is twelve foot four inches wide by two foot six inches tall, or 31 square feet. The maximum allowed wall sign size for a tenant within another business is fifteen square feet. Staff is generally supportive of this Variance from Sec. IX.D.f. to allow for a larger wall sign at this location.

The southwestern convenience store sign is for the quick service restaurant drive-thru.

The northern carwash sign (Location L) is for the carwash. This sign is 23 feet wide by five foot five and a half inches tall, or 126 and a half square feet. The façade on which this sign is affixed is 150 linear feet. The maximum sign size allowance per building façade is one linear foot to one square foot up to a maximum of 120 square feet. Staff is generally supportive of this Variance from Sec. IX.F.1 to allow for a larger wall sign at this location.

The western carwash sign (Location K) is for the carwash. The sign is nine and a half foot wide by two foot three and a half inches tall, or 21.7 square feet. The façade on which this sign is affixed is 32.8 linear feet, which would allow up to 32.8 square feet for a sign.

The southern carwash sign (Location M) is for the car wash. This sign is 23 feet wide by five foot five and a half inches tall, or 126 and a half square feet. The façade on which this sign is affixed is 150 linear feet. The maximum sign size allowance per building façade is one linear foot to one square foot up to a maximum of 120 square feet. Staff is generally supportive of this Variance from Sec. IX.F.1 to allow for a larger wall sign at this location.

Canopy Signs.

The Petitioner is proposing eight canopy signs: four on the automobile fueling area canopy, two on the truck fueling area canopy, one on the carwash pay station canopy, and one on the carwash vacuum canopy.

On the northern side of the automobile fueling canopy, there is one sign (Location B) proposed for Gas N Wash. The sign on the north side of the automobile fueling canopy is fourteen foot eight inches wide by two foot eight inches tall, or 39.1 square feet. The north side of the canopy is 32 linear feet—based on this number, the maximum sign area for the north side of the canopy is sixteen square feet. A Variance is required. Staff is generally supportive of this Variance from Sec. IX.L.1.c. to allow a larger canopy sign at this location.

On the western side of the automobile fueling area canopy, two signs are proposed: one sign (Location D) for Gas N Wash and one sign (Location C) for the coffee-donut shop drive-thru. The Gas N Wash sign is twenty foot eight inches wide by three foot nine inches tall, or 77.5 square feet. The coffee-donut shop drive-thru sign on the west side of the automobile fueling canopy is twelve foot wide by two foot eight inches tall, or 32 square feet. The west side of the canopy is 186.4 linear feet—based on this number, the maximum sign area for the west side of the canopy is 93.2 square feet. A Variance is required. Staff is generally supportive of this Variances from Sec. IX.L.1.c. to allow for two larger canopy signs at this location.

On the southern side of the automobile fueling area canopy, there is one sign (Location E) for Gas N Wash. The sign is fourteen foot eight inches wide by two foot eight inches tall, or 39.1 square feet. The south side of the canopy is 32 linear feet—based on this number, the maximum sign area for the south side of the canopy is sixteen square feet. A Variance is required. Staff is generally supportive of a Variance from Sec. IX.L.1.c. to allow a larger canopy sign at this location.

The signs (Locations O & P) on the north and south sides of the truck fueling area canopy are identical. The signs are each eleven foot nine inches wide by two foot tall, or 23.5 square feet. The north and south sides of the canopy are each 63 linear feet—based on this number, the maximum sign area for the north and south sides of the canopy is eleven foot nine inches each. Two Variances are required—one for each sign. Staff is generally supportive of these two Variances from Sec. IX.L.1.c. to allow larger canopy signs at these locations.

The sign (Location N) on the west side of the carwash pay station canopy is seventeen foot ten inches wide by two foot tall, or 35.7 square feet. The west side of the canopy is 38.3 linear feet—based on this number, the maximum sign area for the west side of the canopy is 19.2 square feet. A Variance is required. Staff is generally supportive of a Variance from Sec. IX.L.1.c. to allow a larger canopy sign at this location.

Finally, the three signs (Location R) on the north side of the carwash vacuum station canopy are identical. Each is nine foot five inches wide by one foot tall, or 9.4 square feet. The signs total 28.2 square feet. The north side of the canopy is 145 linear feet—based on this number, the maximum sign area for the north side of this canopy is 72.5 square feet.

Directional Signs.

The Zoning Administrator or designee determines the quantity of directional signs allowed. This number allowed for this site is not determined; the Applicant has proposed seven.

Four directional signs are proposed to direct motorists to drive-thru entrances—three for the quick service restaurant drive-thru and one for the coffee-donut shop drive-thrus. The coffee-donut shop drive-thru customers are also alerted to the presence of the drive-thru by its proposed prominent location and oversized wall sign. One drive-thru exit/"do not enter" sign for the coffee-donut shop drive-thru is proposed. Finally there are two proposed drive-thru height clearance bar/drive-thru entrance signs.

Two signs for the quick service restaurant drive-thru have identical dimensions: two foot by three foot, or six square feet. The signs depict the tenants logo with a directional arrow. These signs are posted on a black pole with no height provided; the Zoning Ordinance prohibits signs of this type to exceed four feet in total height. The proposed location of these signs is along the western curbed area.

The other directional sign for the quick service restaurant drive-thru is located in a landscape island near the drive-thru entrance. It is two foot eleven and a half inches by one foot one inch, or 2.75 square feet. The height of this sign is four foot ten inches, which is over the maximum by ten inches. This sign is posted on a red pole/support. Staff is generally not supportive of a Variation from IX.L.2.d.i. to allow for greater directional sign height.

The directional sign for the coffee-donut shop drive-thru is located at the entrance to the drive-thru. It is two foot eleven and a half inches by one foot one inch, or 2.75 square feet. The height of this sign is four foot ten inches, which is over the maximum by ten inches. This sign is posted on an orange pole/support. Staff is generally not supportive of a Variation from IX.L.2.d.i. to allow for greater directional sign height.

The height clearance sign for the coffee-donut shop drive-thru has a projection above the support with pink text that says "DRIVE THRU". The bar is pink and white striped. These branding elements are not allowed. Staff is generally not supportive of a Variation from IX.L.3.c. to allow for branding elements on the height bar directional sign.

The height clearance sign for the quick service restaurant drive-thru will the logo for the restaurant and a red and white striped bar. These branding elements are not allowed. Staff is generally not supportive of a Variation from IX.L.3.c. to allow for branding elements on the height bar directional sign.

Several Variations are necessary for the project's signage to proceed as proposed. There are thirteen variations which Staff generally supports, and six variations which Staff generally does not support.

Open Item #6: Discuss quantity of sign variations needed with the current proposal. Discuss the appropriateness of recommending approval of these variations.

PARKING AND STACKING

Calculating parking requirements for the proposed project is complicated as four of the five proposed uses share the same space: the gas station, two drive-thru restaurant tenants, and the gaming area. The Table in Sec. VIII.A.10. does not prescribe a parking ratio for gaming seats.

The Petitioner is proposing 54 parking spaces for the gas station, car wash, and two drive-thru restaurants. The table in Sec. VIII.A.10. requires approximately 93 spaces. The number of spaces is difficult to calculate because there are so many different uses happening on site. An accurate number of required spaces cannot be determined with the information provided.

The latest provided site plan does not include an exhibit on vehicle queueing. In a previous submittal, the coffee-donut shop drive-thru proposes space for nine vehicles to queue and the quick service restaurant drive-thru proposes space for six vehicles to queue.

Open Item #7: Discuss whether 54 parking spaces adequate for this development.

LIGHTING

Exterior lighting is comprised of wall sconce lighting along the building and site light poles. There are four proposed site/parking light poles. Two are located near the northeast and northwest parts of the site near the parking lot. The third is located on the east side of the lot, and the fourth is at the south, near the trash enclosure. The proposed lights are downcast LED and mounted at 25'. The submitted photometric plan meets the code requirement of maximum 2.0 foot candles at the property lines.

VARIATIONS FOR THIS PROPOSAL

Variations from Urban Design Overlay District.

A typical highway serving gas station is not compatible with the Urban Design Overlay District, so several variations are required. The sales tax revenue generated by the gas station, convenience store, and two drive-thru restaurants may justify the nine variations from the Urban Design Overlay District required for the proposed type and configuration of the development.

- Sec. V.D.2.B.(2).a. requires that surface parking lots must be located to the side or rear of buildings. A Variation from this provision may be necessary given the configuration of the site if fueling areas are determined to be parking, as both are similar in nature and duration of use.

- Sec. V.D.2.B.(2).b. requires that drive-thru facilities be located to the side and rear of buildings. With the primary frontage being on White Eagle Drive, a Variation may be necessary given the configuration of the site.

- Sec. V.D.2.C.(2).c. requires that Direct access must be provided into the buildings via a walkway. Since the overwhelming majority of pedestrian traffic will come from the White Eagle Drive frontage, the poorly located walkway that routes through a truck fueling area is insufficient. A Variation may be necessary given the configuration of the site.

- Sec. V.D.2.C.(2).f. requires that only one curb cut is permitted per property. While granting all five curb cuts is discretionary and contingent on approvals from Cook County, the nature of the development, especially the truck fueling, requires at least two curb cuts. A Variation is necessary given the configuration of the site.

- Sec. V.D.2.C.(2).h. requires, among other things, that the maximum width of a curb cut is 30 feet. Three curb cuts proposed are wider than 30 feet. Narrower curb cuts are necessary to promote pedestrian safety by decreasing vehicle speeds; 30 feet may even be considered too wide to limit dangerous pedestrian-vehicle conflicts. It may be appropriate to grant a single wider curb cut to accommodate turning truck traffic. A Variation may be necessary given the anticipated vehicle circulation on site.

- The table in Sec. V.D.2.D.(2)., requires, among other things, that buildings be situated no more than twenty feet from the front yard property line. The Petitioner is proposing a front setback of approximately 150 feet from the front yard property line. A Variation may be necessary given the proposed building placement, site configuration, and nature of the use.

- Sec. V.D.2.E.(2).a. requires that the main entrance of the building much be oriented toward the major street, be prominent, and pedestrian accessible. The main entrance faces the rear of the site on La Grange Road. The entrance on White Eagle Drive is designed as a back door with no fenestration indicating the entrance, especially when compared to the La Grange Road entrance. The walkway to this entrance requires crossing a truck fueling area. A Variation may be required given the proposed configuration of the site.

- Sec. V.D.2.E.(2).b. requires that at least one third of the length of the front property line be occupied by a façade of the building. The front property line is several times wider than the 124 foot wide convenience store. A Variation is required given the nature of the use and proposed configuration of the site.

- Sec. V.D.2.E.(2).c. requires that the storefront oriented onto a public street be 75 percent transparent. The only transparent glass on the White Eagle Drive façade is a single door and a drive-thru window. The façade along La Grange Road is at least 75 percent transparent glass and also features spandrel glass on the north and south sides of the La Grange façade. A Variation may be required given the proposed building orientation.

Variations from Parking Requirements.

Calculating parking requirements for the proposed project is complicated as four of the five proposed uses share the same space: the gas station, two drive-thru restaurant tenants, and the gaming area. The Table in Sec. VIII.A.10. does not prescribe a parking ratio for gaming seats.

For each use, the table in Section VIII.A.10. prescribes:

- Automobile Service Stations: one space per employee plus three spaces for each service stall.
    - There are 31 service stalls proposed.
    - The Petitioner did not provide a typical number of employees for the convenience store. The car wash will have two to three employees working at any given time.
    - 93+ spaces are required.
- Eating or Drinking Place: one space per employee plus one space per three table seats.
    - The two drive-thru restaurant tenants share a seating area. There are twenty seats proposed.
    - The Petitioner did not provide a typical number of employees for either drive-thru business.
    - 7+ spaces are required.

An accurate number of required spaces cannot be determined with the information provided. The Petitioner is requesting a Variance from VIII.A.10. to allow 57 spaces.

Variations from Signage.

Staff is generally supportive of the following signage variations unless noted otherwise.

Freestanding Signs.

Sign A:

- Sec. IX.D.1.: Sign height exceeds the maximum height. *Staff does not support this variation.*
- Sec. IX.L.1.a.: Sign A electronic pricing display exceeds the maximum area by an undetermined area (no dimensions provided).

Sign Q: Sec. IX.J.4. EMC exceeds maximum area ratio.

Sign A & Q: Sec.IX.F.2. Ground signs are less than 300 feet apart by an undetermined amount (no dimensions provided).

Wall Signs.

Sign F: Sec. IX.D.f. Sign exceeds maximum area.
Sign G: Sec. IX.D.f. Sign exceeds maximum area.
Sign L: Sec. IX.F.1. Sign exceeds maximum area.
Sign M: Sec. IX.F.1. Sign exceeds maximum area.

Canopy Signs.

Sign B: Sec. IX.L.1.c. Sign exceeds maximum area.
Sign D & L: Sec. IX.L.1.c. Combined sign areas exceed maximum area.
Sign E: Sec. IX.L.1.c. Sign exceeds maximum area.
Sign O: Sec. IX.L.1.c. Sign exceeds maximum area.
Sign P: Sec. IX.L.1.c. Sign exceeds maximum area.
Sign N: Sec. IX.L.1.c. Sign exceeds maximum area.

Directional Signs.

Drive-thru 1 entrance sign: Sec. IX.L.2.d.i. Sign exceeds maximum height. *Staff does not support this variation.*
Drive-thru 2 entrance sign: Sec. IX.L.2.d.i. Sign exceeds maximum height. *Staff does not support this variation.*
Drive-thru 1 clearance bar: Sec. IX.L.3.c. Branding elements are not permitted. *Staff does not support this variation.*
Drive-thru 2 clearance bar: Sec. IX.L.3.c. Branding elements are not permitted. *Staff does not support this variation.*

STANDARDS FOR A SPECIAL USE

Section X.J.5. of the Zoning Ordinance lists standards that need to be considered by the Plan Commission. The Plan Commission is encouraged to consider these standards (listed below) when analyzing a Special Use request. Staff has provided draft Findings in the Staff Report for the Public Hearing.

X.J.5. Standards: No Special Use shall be recommended by the Plan Commission unless said Commission shall find:

a. That the establishment, maintenance, or operation of the Special Use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare;
b. That the Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood;
c. That the establishment of the Special Use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district;
d. That adequate utilities, access roads, drainage, and/or other necessary facilities have been or are being provided;
e. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets; and
f. That the Special Use shall, in all other respects, conform to the applicable regulations of the district in which it is located, except as such regulations may in each instance be modified by the Village Board pursuant to the recommendation of the Plan Commission. The Village Board shall impose such conditions and restrictions upon the premises benefited by a Special Use Permit as may be necessary to ensure compliance with the above standards, to reduce or minimize the effect of such permit upon other properties in the neighborhood, and to better carry out the general intent of this Ordinance. Failure to comply with such conditions or restrictions shall constitute a violation of this Ordinance.
g. The extent to which the Special Use contributes directly or indirectly to the economic development of the community as a whole.

STANDARDS FOR SITE PLAN APPROVAL

Section III.T.2. of the Zoning Ordinance requires that the conditions listed below must be met and reviewed for Site Plan approval. Specific findings are not required but all standards shall be considered to have been met upon review from the Plan Commission.

Architectural

a. Building Materials: The size of the structure will dictate the required building materials (Section V.C. Supplementary District Regulations). Where tilt-up or pre-cast masonry walls (with face or thin brick inlay) are allowed vertical articulation, features are encouraged to mask the joint lines. Concrete panels must incorporate architectural finishes that comply with "Building Articulation" (Section III.U.5.h.) standards. Cast in place concrete may be used as an accent alternate building material (no greater than 15% per façade) provided there is sufficient articulation and detail to diminish it's the appearance if used on large, blank walls.
b. Cohesive Building Design: Buildings must be built with approved materials and provide architectural interest on all sides of the structure. Whatever an architectural style is chosen, a consistent style of architectural composition and building materials are to be applied on all building facades.
c. Compatible Architecture: All construction, whether it be new or part of an addition or renovation of an existing structure, must be compatible with the character of the site, adjacent structures and streetscape. Avoid architecture or building materials that significantly diverge from adjacent architecture. Maintain the rhythm of the block in terms of scale, massing and setback. Where a development includes outlots they shall be designed with compatible consistent architecture with the primary building(s). Site lighting, landscaping and architecture shall reflect a consistent design statement throughout the development.
d. Color: Color choices shall consider the context of the surrounding area and shall not be used for purposes of "attention getting" or branding of the proposed use. Color choices shall be harmonious with the surrounding buildings; excessively bright or brilliant colors are to be avoided except to be used on a minor scale for accents.
e. Sustainable architectural design: The overall design must meet the needs of the current use without compromising the ability of future uses. Do not let the current use dictate an architecture so unique that it limits its potential for other uses (i.e. Medieval Times).
f. Defined Entry: Entrance shall be readily identifiable from public right-of-way or parking fields. The entry can be clearly defined by using unique architecture, a canopy, overhang or some other type of weather protection, some form of roof element or enhanced landscaping.
g. Roof: For buildings 10,000 sf or less a pitched roof is required or a parapet that extends the full exterior of the building. For buildings with a continuous roof line of 100 feet of more, a change of at least five feet in height must be made for every 75 feet.
h. Building Articulation: Large expanses of walls void of color, material or texture variation are to be avoided. The use of material and color changes, articulation of details around doors, windows, plate lines, the provision of architectural details such as "belly-bands" (decorative cladding that runs horizontally around the building), the use of recessed design elements, exposed expansion joints, reveals, change in texture, or other methods of visual relief are encouraged as a means to minimize the oppressiveness of large expanses of walls and break down the overall scale of the building into intermediate scaled parts. On commercial buildings, facades greater than 100 feet must include some form of articulation of the façade through the use of recesses or projections of at least 6 inches for at least 20% of the length of the façade. For industrial buildings efforts to break up the long façade shall be accomplished through a change in building material, color or vertical breaks of three feet or more every 250 feet.
i. Screen Mechanicals: All mechanical devices shall be screened from all public views.
j. Trash Enclosures: Trash enclosures must be screened on three sides by a masonry wall consistent with the architecture and building material of the building it serves. Gates must be kept closed at all times and constructed of a durable material such as wood or steel. They shall not be located in the front or corner side yard and shall be set behind the front building façade.

Site Design

a. Building/parking location: Buildings shall be located in a position of prominence with parking located to the rear or side of the main structure when possible. Parking areas shall be designed so as to provide continuous circulation avoiding dead-end parking aisles. Drive-through facilities shall be located to the rear or side of the structure and not dominate the aesthetics of the building. Architecture for canopies of drive-through areas shall be consistent with the architecture of the main structure.
b. Loading Areas: Loading docks shall be located at the rear or side of buildings whenever possible and screened from view from public rights-of-way.
c. Outdoor Storage: Outdoor storage areas shall be located at the rear of the site in accordance with Section III.O.1. (Open Storage). No open storage is allowed in front or corner side yards and are not permitted to occupy areas designated for parking, driveways or walkways.
d. Interior Circulation: Shared parking and cross access easements are encouraged with adjacent properties of similar use. Where possible visitor/employee traffic shall be separate from truck or equipment traffic.
e. Pedestrian Access: Public and interior sidewalks shall be provided to encourage pedestrian traffic. Bicycle use shall be encouraged by providing dedicated bikeways and parking. Where pedestrians or bicycles must cross vehicle pathways a cross walk shall be provided that is distinguished by a different pavement material or color.

MOTIONS TO CONSIDER

If the Plan Commission wishes to act on the Petitioner's requests, the appropriate wording of the motions are listed below. The protocol for the writing of a motion is to write it in the affirmative so that a positive or negative recommendation correlates to the Petitioner's proposal. By making a motion, it does not indicate a specific recommendation in support or against the plan, it only moves the request to a vote. The conditions listed below are recommended by staff but can be added to, changed, or removed by the Commission based on their discussion of the approval of recommendation.

Motions to be provided prior to the public hearing.

LIST OF REVIEWED PLANS

	Submitted Sheet Name	Prepared By	Date On Sheet
1	Application	Petitioner	3/8/22
2	Response to Standards	Petitioner	
3	Boundary/Topo Survey (4 sheets)	WT Group	11/7/22
4	Site Plan	WT Group	5/5/23
5	Landscaping – Sheet L001 Landscape Plan	WT Group	5/5/23
6	Landscaping – Sheets L002, LS-1, LS-2, LS-3, LS-4	WT Group	2/27/23
7	Lighting Photometric Plan	LSI Industries	2/22/23
8	Sign Location Plan	Van Bruggen Signs	8/15/22
9	Signage: Canopies, Indirect Cove Lighting, Monument, Wall, & Directional.	Van Bruggen Signs	8/15/22 & 8/16/22
10	Site Signage Plan	WT Group	5/5/23
11	Floor Plan C-Store	WT Group	2/22/23
12	Floor Plan Car Wash	WT Group	1/20/23
13	Color and Line Exterior Elevations: C-Store	WT Group	2/22/23
14	Color and Line Exterior Elevations: Car Wash	WT Group	1/20/23
15	Color Renderings of Site	WT Group	5/19/23
16	Updated Car Wash Monument Sign, 10' High w/ 7' EMC, Elevation and Foundation (2 sheets)	VanBruggen Signs	8/16/22
17	Signed Plat: White Eagle Drive Subdivision (3 sheets)	WMA *	n/a
18	Preliminary Engineering Drawings (29 sheets)	WT Group	5/5/23
19	Traffic Impact Study	KLOA	5/5/23

* WMA = Webster, McGrath, Ahlberg, Ltd.

Village of Tinley Park
Community Development Dept.
16250 S. Oak Park Ave.
Tinley Park, IL 60477
708-444-5100

VILLAGE OF TINLEY PARK, ILLINOIS

PLANNING AND ZONING GENERAL APPLICATION

REQUEST INFORMATION

*Additional Information is Required for Specific Requests as Outlined in Specific Addendums

- ☐ Special Use for: GAS STATION, CAR WASH, DRIVE UP FOOD
- ☐ Planned Unit Development (PUD) ☐ Concept ☐ Preliminary ☐ Final ☐ Deviation
- ☐ Variation ☐ Residential ☐ Commercial for _____
- ☐ Annexation
- ☐ Rezoning (Map Amendment) From _____ to _____
- ☐ Plat (Subdivision, Consolidation, Public Easement) ☐ Preliminary ☐ Final
- ☐ Site Plan
- ☐ Landscape Change Approval
- ☐ Other: _____

PROJECT & PROPERTY INFORMATION

Project Name: LENNY'S GAS N WASH

Project Description: GAS STATION, CONVENIENCE STORE, CAR WASH

Project Address: SEC 183RD & LAGRANGE

Property Index No. (PIN): 27-33-401-013-0000

Zoning District: B-3

Lot Dimensions & Area: 6,316

Estimated Project Cost: $ _____

OWNER OF RECORD INFORMATION

Please supply proper documentation of ownership and/or designated representative for any corporation.

Name of Owner: HF PROPERTY HOLDINGS, INC

Company: _____

Street Address: 2221 CAMDEN CT, STE 200

City, State & Zip: OAK BROOK, IL 60523

E-Mail Address: _____

Phone Number: _____

APPLICANT INFORMATION

☐ Same as Owner of Record

All correspondence and invoices will be sent to the applicant. If applicant is different than owner, "Authorized Representative Consent" section must be completed.

Name of Applicant: LEONARD MCENERY

Company: GAS N WASH

Relation To Project: DEVELOPER

Street Address: 8200 W 185TH ST., UNIT K

City, State & Zip: TINLEY PARK, IL 60487

E-Mail Address: [redacted]

Phone Number: [redacted]

Village of Tinley Park
Community Development Dept.
16250 S. Oak Park Ave.
Tinley Park, IL 60477
708-444-5100

VILLAGE OF TINLEY PARK, ILLINOIS

PLANNING AND ZONING GENERAL APPLICATION

Authorized Representative Consent

It is required that the property owner or his designated representative be present at all requests made to the Plan Commission and Zoning Board of Appeals. During the course of a meeting, questions may arise regarding the overall project, the property, property improvements, special conditions attached to recommendations among other aspects of any formal request. The representative present must have knowledge of the property and all aspects of the project. They must have the authority to make commitments related to the project and property. Failure to have the property owner or designated representative present at the public meeting can lead to substantial delays to the project approval. If the owner cannot be present or does not wish to speak at the public meeting, the following statement must be signed by the owner for an authorized repetitive.

I hereby authorize LEONARD MCENERY/ AND/OR AGENTS *(print clearly) to act on my behalf and advise that they have full authority to act as my/our representative in regards to the subject property and project, including modifying any project or request. I agree to be bound by all terms and agreements made by the designated representative.*

Property Owner Signature: [redacted]

Property Owner Name (Print): HF PROPERTY HOLDINGS, INC

Acknowledgements

- Applicant acknowledges, understands and agrees that under Illinois law, the Village President (Mayor), Village Trustees, Village Manager, Corporation Counsel and/or any employee or agent of the Village or any Planning and Zoning Commission member or Chair, does not have the authority to bind or obligate the Village in any way and therefore cannot bind or obligate the Village. Further, Applicant acknowledges, understands and agrees that only formal action (including, but not limited to, motions, resolutions, and ordinances) by the Board of Trustees, properly voting in an open meeting, can obligate the Village or confer any rights or entitlement on the applicant, legal, equitable, or otherwise.
- Members of the Plan Commission, Zoning Board of Appeals, Village Board as well as Village Staff may conduct inspections of subject site(s) as part of the pre-hearing and fact finding review of requests. These individuals are given permission to inspect the property in regards to the request being made.
- Required public notice signs will be obtained and installed by the Petitioner on their property for a minimum of 10 days prior to the public hearing. These may be provided by the Village or may need to be produced by the petitioner.
- The request is accompanied by all addendums and required additional information and all applicable fees are paid before scheduling any public meetings or hearings.
- Applicant verifies that all outstanding fees and monies owed to the Village of Tinley Park have been paid.
- Any applicable recapture, impact, engineering, contracted review or other required fees and donations shall be paid prior to issuance of any building permits, occupancy permits, or business licenses.
- The Owner and Applicant by signing this application certify that the above information and all supporting addendums and documentation is true and correct to [redacted]

Property Owner Signature: [redacted]

Property Owner Name (Print): HF PROPERTY HOLDINGS, INC

Applicant Signature:
(If other than Owner) [redacted]

Applicant's Name (Print): LEONARD MCENERY

Date: 3/8/2022

RETAIL PETROLEUM FACILITY

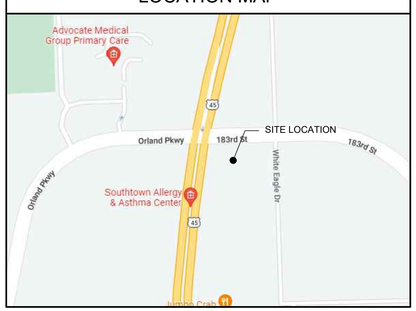
18301 LaGRANGE RD.
TINLEY PARK, IL 60487

05/05/2023 ZONING SUBMISSION

DRAWING INDEX

**** CIVIL ENGINEERING DRAWINGS ARE UNDER TITLE***

LOCATION MAP



SCOPE OF WORK

THIS IS A 8,110 SQUARE FOOT GAS AND WASH CONVENIENCE STORE WITH TWO DRIVE THRU WINDOWS, SEVEN-LINE AUTO CANOPY, THREE-BAY TRUCK CANOPY AND SINGLE 4,900 SQUARE FOOT TUNNEL CAR WASH.

AQUATIC \ CIVIL \ MECHANICAL \ ELECTRICAL \ PLUMBING \ TELECOMMUNICATION \ STRUCTURAL \ ACCESSIBILITY CONSULTING \ DESIGN & PROGRAM MANAGEMENT \ LAND SURVEYING

WT GROUP
Engineering with Precision, Place and Passion.
2675 Pratum Avenue | Hoffman Estates, IL 60192
T 224.293.0011 F 224.293.0444
wtengineering.com
IL License No: 184.007570.0015 Expires: 04.30.2023

RETAIL PETROLEUM FACILITY
18301 LAGRANGE ROAD
TINLEY PARK, IL 60487
GAS N WASH

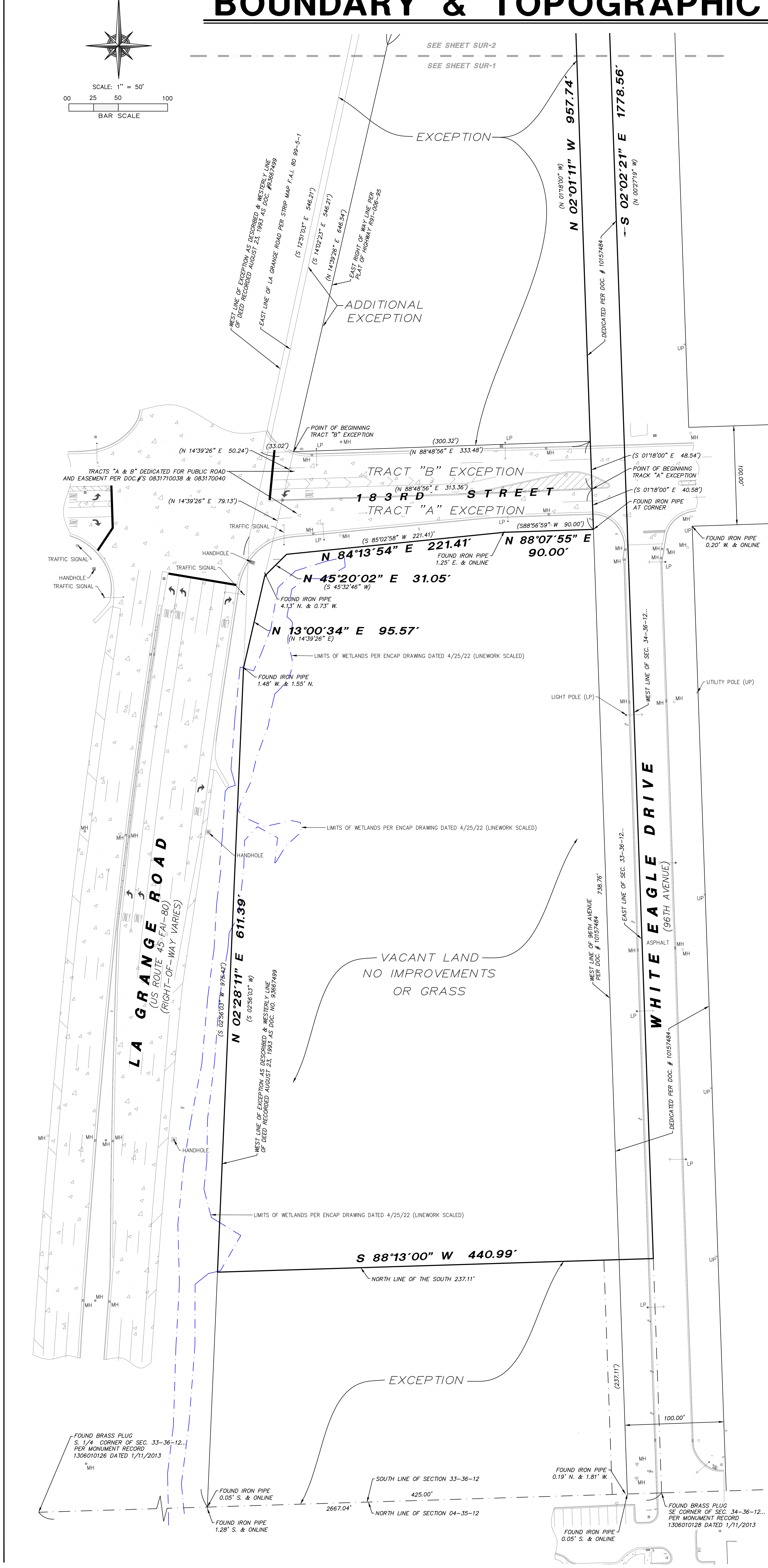
ISSUE

TO	DATE
ZONING	10/21/22
ZONING	01/06/23
ZONING	01/20/23
CLIENT	01/23/23
UPDATE SITE	02/21/23
ZONING	02/22/23
ZONING 1	05/05/23

CHECK:CP
DRAWN:KM
JOB:D220035

G001
COVER SHEET

BOUNDARY & TOPOGRAPHIC SURVEY



THAT PART OF THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT ON THE EAST LINE OF SAID SOUTHEAST 1/4 THAT IS 253.81 FEET SOUTH OF THE NORTHEAST CORNER THEREOF; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST, A DISTANCE OF 48.99 FEET; THENCE SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST, A DISTANCE OF 338.86 FEET; THENCE SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST, A DISTANCE OF 580.18 FEET; THENCE SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, A DISTANCE OF 546.21 FEET; THENCE SOUTH 02 DEGREES 56 MINUTES 03 SECONDS WEST, A DISTANCE OF 975.42 FEET MORE OR LESS, TO A POINT ON THE SOUTH LINE OF SAID SOUTHEAST 1/4; THENCE EASTERLY ALONG THE SOUTH LINE OF SAID SOUTHEAST 1/4 TO THE SOUTH EAST CORNER THEREOF; THENCE NORTHERLY ALONG THE EAST LINE OF SAID SOUTHEAST 1/4 TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM:
THAT PART OF THE EAST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID SOUTHEAST 1/4, THENCE SOUTH 01 DEGREE 19 MINUTES 04 SECONDS EAST, ALONG THE EAST LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 253.81 FEET, THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST 33.87 FEET TO THE WEST LINE OF 96TH AVENUE PER DOCUMENT NUMBER 10157484, RECORDED SEPTEMBER 26, 1928, FOR THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST 15.12 FEET TO THE WESTERLY LINE OF THE DEED RECORDED AUGUST 23, 1993 AS DOCUMENT 93667499; THENCE SOUTHERLY ALONG THE WESTERLY LINE OF SAID DEED, THE FOLLOWING THREE COURSES; SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST 338.86 FEET; SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST 580.18 FEET; SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST 447.03 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST 333.48 FEET TO SAID WEST LINE OF 96TH AVENUE; THENCE NORTH 01 DEGREES 18 MINUTES 00 SECONDS WEST, ALONG THE LAST DESCRIBED LINE 1328.76 FEET TO THE POINT OF BEGINNING, ALL IN COOK COUNTY, ILLINOIS,

FURTHER EXCEPTING THEREFROM THAT PART OF THE LAND BOUNDED AND DESCRIBED AS FOLLOWS:

THAT PART OF EAST 1/2 OF SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH RANGE 12 COMMENCING AT NORTHEAST CORNER OF SAID EAST 1/2 OF SOUTHEAST 1/4; THENCE ON AN ASSUMED BEARING OF SOUTH 00 DEGREES 27 MINUTES 19 SECONDS EAST 77.206 METERS (253.30 FEET) ALONG EAST LINE OF SAID EAST 1/2 OF SOUTHEAST 1/4 TO POINT OF BEGINNING AND EASTERLY RIGHT OF WAY OF FAI-80 EXTENDED; THENCE NORTH 89 DEGREES 44 MINUTES 27 SECONDS WEST 10.391 METERS (34.09 FT) ALONG SAID EASTERLY RIGHT OF WAY LINE OF FAI-80; THENCE SOUTH 15 DEGREES 11 MINUTES 32 SECONDS WEST 103.209 METERS (338.61 FT) ALONG SAID EASTERLY RIGHT OF WAY OF FAI-80; THENCE SOUTH 11 DEGREES 45 MINUTES 18 SECONDS WEST 176.838 METERS (580.18 FT) ALONG THE SAID EASTERLY RIGHT OF WAY LINE OF FAI-80; THENCE SOUTH 14 DEGREES 02 MINUTES 23 SECONDS WEST 166.486 METER (546.21 FT) ALONG SAID EASTERLY LINE OF FAI-80; THENCE SOUTH 04 DEGREES 07 MINUTES 21 SECONDS WEST 37.813 METERS (124.06 FT) ALONG SAID EASTERLY RIGHT OF WAY LINE OF FAI-80, TO A 5/8" REBAR WITH AN ALLIED CAP STAMPED, STATE OF ILLINOIS DIVISION OF HIGHWAYS RIGHT OF WAY CORNER IPLS 2017; THENCE NORTH 14 DEGREES 39 MINUTES 26 SECONDS EAST 197.066 METERS (646.54 FT) TO A 5/8" REBAR WITH AN ALLIED CAP STAMPED STATE OF ILLINOIS DIVISION OF HIGHWAYS RIGHT OF WAY CORNER IPLS 2017; THENCE NORTH 22 DEGREES 07 MINUTES 52 SECONDS EAST 179.492 METERS (588.88 FT) TO A POINT ON THE SAID EAST LINE OF EAST 1/2 OF SOUTHEAST 1/4; THENCE NORTH 00 DEGREES 27 MINUTES 19 SECONDS WEST 114.995 METERS (377.28 FT) ALONG SAID EAST LINE OF EAST 1/2 OF SOUTHEAST 1/4 TO POINT OF BEGINNING.

AND FURTHER EXCEPTING THEREFROM ALL OF THE FOLLOWING:
TRACT A: THAT PART OF THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID SOUTHEAST 1/4; THENCE ON AN ASSUMED BEARING OF SOUTH 01 DEGREE 19 MINUTES 04 SECONDS EAST ALONG THE EAST LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 253.81 FEET; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST, A DISTANCE OF 48.99 FEET; THENCE SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST, A DISTANCE OF 338.86 FEET; THENCE SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST, A DISTANCE OF 580.18 FEET; THENCE SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, A DISTANCE OF 447.03 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 33.02 FEET TO THE EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED); THENCE CONTINUING NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 300.32 FEET TO THE WEST LINE OF 96TH AVENUE; THENCE SOUTH 01 DEGREE 18 MINUTES 00 SECONDS EAST ALONG SAID WEST LINE OF 96TH AVENUE, A DISTANCE OF 48.54 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 01 DEGREE 18 MINUTES 00 SECONDS EAST ALONG SAID WEST LINE, A DISTANCE OF 40.58 FEET; THENCE SOUTH 88 DEGREES 56 MINUTES 59 SECONDS WEST, A DISTANCE OF 90.00 FEET; THENCE SOUTH 85 DEGREES 02 MINUTES 58 SECONDS WEST, A DISTANCE OF 221.41 FEET; THENCE SOUTH 45 DEGREES 32 MINUTES 46 SECONDS WEST, A DISTANCE OF 31.44 FEET TO THE AFORE SAID EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED); THENCE NORTHEASTERLY ALONG THE LAST DESCRIBED LINE A DISTANCE OF 79.14 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 313.36 FEET TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

TRACT B:
THAT PART OF THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID SOUTHEAST 1/4; THENCE ON AN ASSUMED BEARING OF SOUTH 01 DEGREE 19 MINUTES 04 SECONDS EAST ALONG THE EAST LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 253.81 FEET; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST, A DISTANCE OF 48.99 FEET; THENCE SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST, A DISTANCE OF 338.86 FEET; THENCE SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST, A DISTANCE OF 580.18 FEET; THENCE SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, A DISTANCE OF 447.03 FEET TO THE EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED) TO THE POINT OF BEGINNING; THENCE CONTINUING NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 300.32 FEET TO THE WEST LINE OF 96TH AVENUE; THENCE SOUTH 01 DEGREE 18 MINUTES 00 SECONDS EAST ALONG SAID WEST LINE OF 96TH AVENUE, A DISTANCE OF 48.54 FEET; THENCE SOUTH 88 DEGREES 48 MINUTES 56 SECONDS WEST, A DISTANCE OF 313.36 FEET TO THE AFORESAID EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED); THENCE NORTHEASTERLY ALONG THE LAST DESCRIBED LINE A DISTANCE OF 50.23 FEET TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS. AND FURTHER

EXCEPTING THEREFROM:
THE SOUTH 237.11 FEET AS MEASURED PERPENDICULAR FROM THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 33, ALL IN COOK COUNTY, ILLINOIS.

SURVEY NOTES:

1. SITE BENCHMARK #1 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 122' WEST OF WHITE EAGLE DRIVE AS SHOWN. ELEVATION=730.60' (NAVD88)

   SITE BENCHMARK #2 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 43' EAST OF LA GRANGE DRIVE AS SHOWN. ELEVATION=732.06' (NAVD88)

   SITE BENCHMARK #3 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE WEST SIDE OF WHITE EAGLE DRIVE, 505' SOUTH OF 183RD STREET AS SHOWN. ELEVATION=744.53' (NAVD88)

2. PERMANENT INDEX NUMBER (P.I.N. #): 27-33-401-013
3. THE LOCATION OF UNDERGROUND UTILITIES WAS DETERMINED BY FIELD OBSERVATION AND VISIBLE MARKINGS ONLY.
4. PROPERTY AREA: 334,651.47 SQUARE FEET (7.682 ACRES)
5. FIELD WORK COMPLETED ON 4/12/2022.
6. SURVEY WAS PREPARED WITH THE AID OF A TITLE COMMITMENT PREPARED BY CHICAGO TITLE INSURANCE COMPANY, COMMITMENT NUMBER 21023698WF, HAVING AN EFFECTIVE DATE OF SEPTEMBER 22, 2021.
7. SURVEY PREPARED FOR: GAS N WASH
8. BUILDING TIES & DIMENSIONS SHOWN ARE MEASURED FROM THE OUTSIDE FACE OF THE BUILDING.
9. BASIS OF BEARINGS IS TRUE NORTH BASED ON ILLINOIS STATE PLANE COORDINATE SYSTEM, ILLINOIS EAST 1201 ZONE.
10. ANY DISCREPANCIES FOUND WITHIN THIS DOCUMENT NEED TO BE REPORTED TO THE SURVEYOR AS SOON AS POSSIBLE.

STATE OF ILLINOIS)
) SS
COUNTY OF COOK)

WE THE W-T GROUP DO HEREBY DECLARE THAT WE HAVE SURVEYED THE ABOVE DESCRIBED PROPERTY AND THAT THIS PLAT IS A CORRECT REPRESENTATION OF SAID SURVEY. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY AND TOPOGRAPHIC SURVEY.

GIVEN UNDER OUR HAND AND SEAL THIS 7TH DAY OF NOVEMBER A.D. 2022 AT HOFFMAN ESTATES, ILLINOIS.

THE W-T GROUP, LLC

FRANJO I. MATICIC – PLS #035-003556 EXPIRES 11/30/2024
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184.007570-0015

PROFESSIONAL LAND SURVEYOR FRANJO I. MATICIC 035-003556 HOFFMAN ESTATES ILLINOIS STATE OF ILLINOIS

5/11/2022 – ISSUED SURVEY
7/11/2022 – RE-ISSUED SURVEY WITH ADJUSTED VIEW PORT TO SHOW WATER MANHOLES AT THE SE CORNER OF PROPERTY
9/14/2022 – RE-ISSUED SURVEY WITH ADJUSTED PROPERTY LINES
11/7/2022 – RE-ISSUED SURVEY WITH ADDITIONAL TOPOGRAPHIC FEATURES AT THE SE CORNER OF PROPERTY

LEGEND

PROPERTY LINE; CENTER LINE; EASEMENT LINE; BUILDING SETBACK; (XXX') RECORD DATA; SPOT GRADE (TOP OF CURB, WALL, ETC.; BOTTOM OF GROUND, GUTTER, ETC.); CONCRETE; EVERGREEN/DECIDUOUS; SHRUB/SHRUB LINE; MONITOR WELL; GAS VALVE; UTILITY MARKINGS (cable,elec,fiber) (tel,water,gas); MAILBOX; TOP FOUNDATION/THRESHOLD; TYPICAL SIGN; FLARED END SECTION; CLOSED MANHOLE; OPEN GRATE MANHOLE; BEEHIVE GRATE MANHOLE; GUTTER FRAME MANHOLE; VALVE VAULT; FIRE HYDRANT; B-BOX / SERVICE VALVE; POST LIGHT/GROUND LIGHT; AREA LIGHT/LIGHT POLE; STREET LIGHT; TRAFFIC SIGNAL; MAST ARM SIGNAL; HANDHOLE (electric/traffic); GAS METER; ELECTRIC METER; PEDESTAL(telco,elec,cable); SOIL BORING; TEL/ELEC MANHOLE; UTILITY POLE; GUARDRAIL; GUY WIRE ANCHOR; CONTOUR LINE; TREE LINE / HEDGE LINE; EDGE GRAVEL/STONE; FENCE LINE; STORM SEWER; SANITARY SEWER; COMBO SEWER; WATER SERVICE LINE; WATER MAIN; OVERHEAD LINE; FIBER OPTIC LINE; GAS LINE; U.G. TELCO LINE; U.G. ELECTRIC LINE

AQUATIC \ CIVIL \ MECHANICAL \ ELECTRICAL \ PLUMBING \ TELECOMMUNICATION \ STRUCTURAL \ ACCESSIBILITY CONSULTING \ DESIGN & PROGRAM MANAGEMENT \ LAND SURVEY

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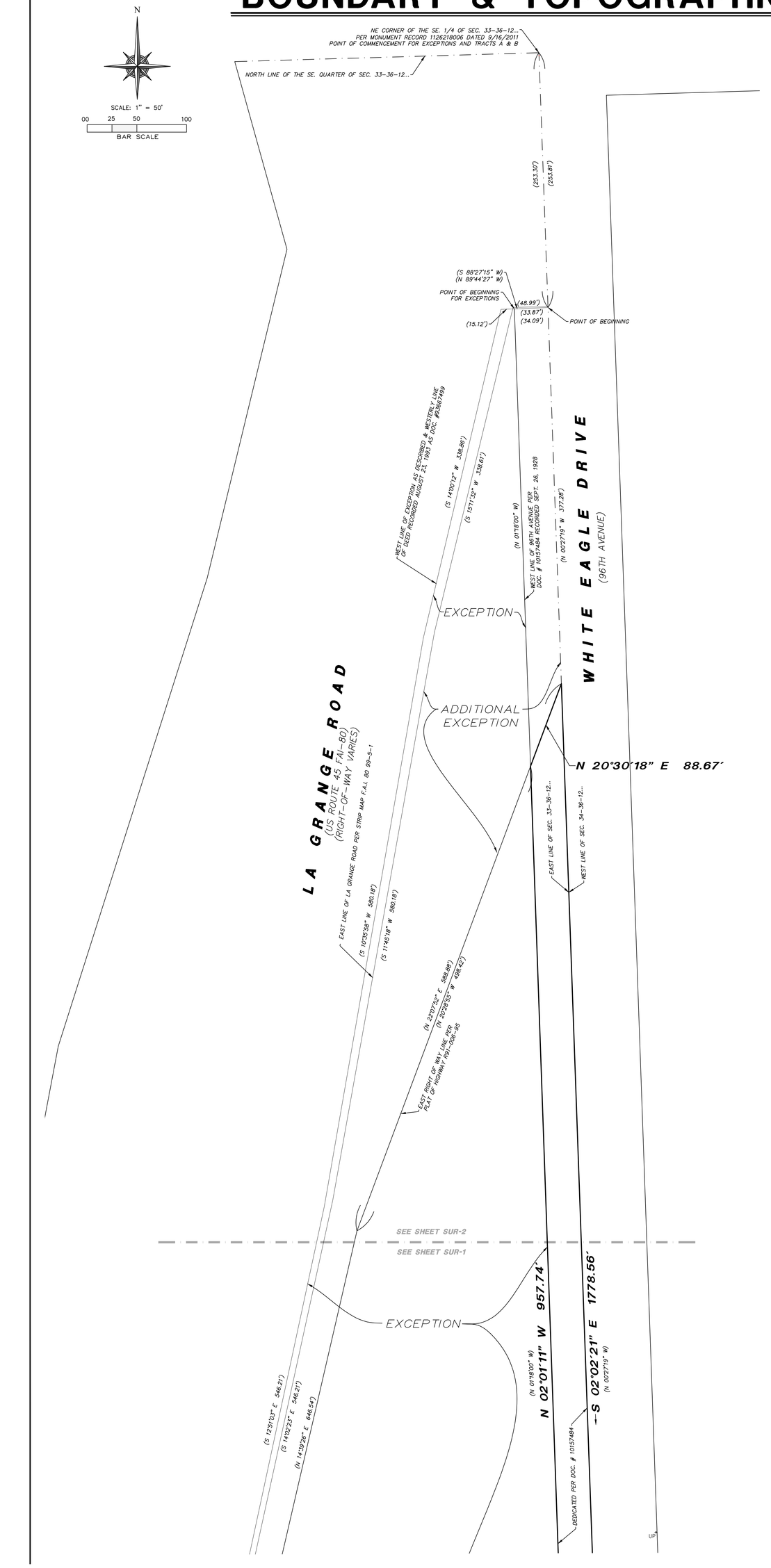
ISSUE

TO	DATE
CLIENT	5/11/22
CLIENT	7/11/22
CLIENT	9/14/22
CLIENT	11/07/22

CHECK:FIM
DRAWN:REM
JOB: D2200035

SUR-1
SHEET 1 OF 4
BOUNDARY & TOPOGRAPHIC SURVEY

BOUNDARY & TOPOGRAPHIC SURVEY



THAT PART OF THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT ON THE EAST LINE OF SAID SOUTHEAST 1/4 THAT IS 253.81 FEET SOUTH OF THE NORTHEAST CORNER THEREOF; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST, A DISTANCE OF 48.99 FEET; THENCE SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST, A DISTANCE OF 338.86 FEET; THENCE SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST, A DISTANCE OF 580.18 FEET; THENCE SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, A DISTANCE OF 546.21 FEET; THENCE SOUTH 02 DEGREES 56 MINUTES 03 SECONDS WEST, A DISTANCE OF 975.42 FEET MORE OR LESS, TO A POINT ON THE SOUTH LINE OF SAID SOUTHEAST 1/4; THENCE EASTERLY ALONG THE SOUTH LINE OF SAID SOUTHEAST 1/4 TO THE SOUTH EAST CORNER THEREOF; THENCE NORTHERLY ALONG THE EAST LINE OF SAID SOUTHEAST 1/4 TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM:
THAT PART OF THE EAST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID SOUTHEAST 1/4, THENCE SOUTH 01 DEGREE 19 MINUTES 04 SECONDS EAST, ALONG THE EAST LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 253.81 FEET, THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST 33.87 FEET TO THE WEST LINE OF 96TH AVENUE PER DOCUMENT NUMBER 10157484, RECORDED SEPTEMBER 26, 1928, FOR THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST 15.12 FEET TO THE WESTERLY LINE OF THE DEED RECORDED AUGUST 23, 1993 AS DOCUMENT 93667499; THENCE SOUTHERLY ALONG THE WESTERLY LINE OF SAID DEED, THE FOLLOWING THREE COURSES; SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST 338.86 FEET; SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST 580.18 FEET; SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST 447.03 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST 333.48 FEET TO SAID WEST LINE OF 96TH AVENUE; THENCE NORTH 01 DEGREES 18 MINUTES 00 SECONDS WEST, ALONG THE LAST DESCRIBED LINE 1328.76 FEET TO THE POINT OF BEGINNING, ALL IN COOK COUNTY, ILLINOIS,

FURTHER EXCEPTING THEREFROM THAT PART OF THE LAND BOUNDED AND DESCRIBED AS FOLLOWS:

THAT PART OF EAST 1/2 OF SOUTHEAST 1/4 OF SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH RANGE 12 COMMENCING AT NORTHEAST CORNER OF SAID EAST 1/2 OF SOUTHEAST 1/4; THENCE ON AN ASSUMED BEARING OF SOUTH 00 DEGREES 27 MINUTES 19 SECONDS EAST 77.206 METERS (253.30 FEET) ALONG EAST LINE OF SAID EAST 1/2 OF SOUTHEAST 1/4 TO POINT OF BEGINNING AND EASTERLY RIGHT OF WAY OF FAI-80 EXTENDED; THENCE NORTH 89 DEGREES 44 MINUTES 27 SECONDS WEST 10.391 METERS (34.09 FT) ALONG SAID EASTERLY RIGHT OF WAY LINE OF FAI-80; THENCE SOUTH 15 DEGREES 11 MINUTES 32 SECONDS WEST 103.209 METERS (338.61 FT) ALONG SAID EASTERLY RIGHT OF WAY OF FAI-80; THENCE SOUTH 11 DEGREES 45 MINUTES 18 SECONDS WEST 176.838 METERS (580.18 FT) ALONG THE SAID EASTERLY RIGHT OF WAY LINE OF FAI-80; THENCE SOUTH 14 DEGREES 02 MINUTES 23 SECONDS WEST 166.486 METER (546.21 FT) ALONG SAID EASTERLY LINE OF FAI-80; THENCE SOUTH 04 DEGREES 07 MINUTES 21 SECONDS WEST 37.813 METERS (124.06 FT) ALONG SAID EASTERLY RIGHT OF WAY LINE OF FAI-80, TO A 5/8" REBAR WITH AN ALLIED CAP STAMPED, STATE OF ILLINOIS DIVISION OF HIGHWAYS RIGHT OF WAY CORNER IPLS 2017; THENCE NORTH 14 DEGREES 39 MINUTES 26 SECONDS EAST 197.066 METERS (646.54 FT) TO A 5/8" REBAR WITH AN ALLIED CAP STAMPED STATE OF ILLINOIS DIVISION OF HIGHWAYS RIGHT OF WAY CORNER IPLS 2017; THENCE NORTH 22 DEGREES 07 MINUTES 52 SECONDS EAST 179.492 METERS (588.88 FT) TO A POINT ON THE SAID EAST LINE OF EAST 1/2 OF SOUTHEAST 1/4; THENCE NORTH 00 DEGREES 27 MINUTES 19 SECONDS WEST 114.995 METERS (377.28 FT) ALONG SAID EAST LINE OF EAST 1/2 OF SOUTHEAST 1/4 TO POINT OF BEGINNING.

AND FURTHER EXCEPTING THEREFROM ALL OF THE FOLLOWING:
TRACT A: THAT PART OF THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID SOUTHEAST 1/4; THENCE ON AN ASSUMED BEARING OF SOUTH 01 DEGREE 19 MINUTES 04 SECONDS EAST ALONG THE EAST LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 253.81 FEET; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST, A DISTANCE OF 48.99 FEET; THENCE SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST, A DISTANCE OF 338.86 FEET; THENCE SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST, A DISTANCE OF 580.18 FEET; THENCE SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, A DISTANCE OF 447.03 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 33.02 FEET TO THE EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED); THENCE CONTINUING NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 300.32 FEET TO THE WEST LINE OF 96TH AVENUE; THENCE SOUTH 01 DEGREE 18 MINUTES 00 SECONDS EAST ALONG SAID WEST LINE OF 96TH AVENUE, A DISTANCE OF 48.54 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 01 DEGREE 18 MINUTES 00 SECONDS EAST ALONG SAID WEST LINE, A DISTANCE OF 40.58 FEET; THENCE SOUTH 88 DEGREES 56 MINUTES 59 SECONDS WEST, A DISTANCE OF 90.00 FEET; THENCE SOUTH 85 DEGREES 02 MINUTES 58 SECONDS WEST, A DISTANCE OF 221.41 FEET; THENCE SOUTH 45 DEGREES 32 MINUTES 46 SECONDS WEST, A DISTANCE OF 31.44 FEET TO THE AFORE SAID EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED); THENCE NORTHEASTERLY ALONG THE LAST DESCRIBED LINE A DISTANCE OF 79.14 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 313.36 FEET TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

TRACT B:
THAT PART OF THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID SOUTHEAST 1/4; THENCE ON AN ASSUMED BEARING OF SOUTH 01 DEGREE 19 MINUTES 04 SECONDS EAST ALONG THE EAST LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 253.81 FEET; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST, A DISTANCE OF 48.99 FEET; THENCE SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST, A DISTANCE OF 338.86 FEET; THENCE SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST, A DISTANCE OF 580.18 FEET; THENCE SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, A DISTANCE OF 447.03 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 33.02 FEET TO THE EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED) TO THE POINT OF BEGINNING; THENCE CONTINUING NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 300.32 FEET TO THE WEST LINE OF 96TH AVENUE; THENCE SOUTH 01 DEGREE 18 MINUTES 00 SECONDS EAST ALONG SAID WEST LINE OF 96TH AVENUE, A DISTANCE OF 48.54 FEET; THENCE SOUTH 88 DEGREES 48 MINUTES 56 SECONDS WEST, A DISTANCE OF 313.36 FEET TO THE AFORESAID EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED); THENCE NORTHEASTERLY ALONG THE LAST DESCRIBED LINE A DISTANCE OF 50.23 FEET TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS. AND FURTHER

EXCEPTING THEREFROM:
THE SOUTH 237.11 FEET AS MEASURED PERPENDICULAR FROM THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 33, ALL IN COOK COUNTY, ILLINOIS.

SURVEY NOTES:

1. SITE BENCHMARK #1 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 122' WEST OF WHITE EAGLE DRIVE AS SHOWN. ELEVATION=730.60' (NAVD88)

SITE BENCHMARK #2 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 43' EAST OF LA GRANGE DRIVE AS SHOWN. ELEVATION=732.06' (NAVD88)

SITE BENCHMARK #3 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE WEST SIDE OF WHITE EAGLE DRIVE, 505' SOUTH OF 183RD STREET AS SHOWN. ELEVATION=744.53' (NAVD88)

2. PERMANENT INDEX NUMBER (P.I.N. #): 27-33-401-013

3. THE LOCATION OF UNDERGROUND UTILITIES WAS DETERMINED BY FIELD OBSERVATION AND VISIBLE MARKINGS ONLY.

4. PROPERTY AREA: 336,246.84 SQUARE FEET (7.719 ACRES)

5. FIELD WORK COMPLETED ON 11/03/2022.

6. SURVEY WAS PREPARED WITH THE AID OF A TITLE COMMITMENT PREPARED BY CHICAGO TITLE INSURANCE COMPANY, COMMITMENT NUMBER 21023698WF, HAVING AN EFFECTIVE DATE OF SEPTEMBER 22, 2021.

7. SURVEY PREPARED FOR: GAS N WASH

8. BUILDING TIES & DIMENSIONS SHOWN ARE MEASURED FROM THE OUTSIDE FACE OF THE BUILDING.

9. BASIS OF BEARINGS IS TRUE NORTH BASED ON ILLINOIS STATE PLANE COORDINATE SYSTEM, ILLINOIS EAST 1201 ZONE.

10. ANY DISCREPANCIES FOUND WITHIN THIS DOCUMENT NEED TO BE REPORTED TO THE SURVEYOR AS SOON AS POSSIBLE.

LEGEND

PROPERTY LINE	T/F T/T TOP FOUNDATION/THRESHOLD	SOIL BORING
CENTER LINE	TYPICAL SIGN	TEL/ELEC MANHOLE
EASEMENT LINE	FLARED END SECTION	UTILITY POLE
BUILDING SETBACK	CLOSED MANHOLE	GUARDRAIL
(XXX') RECORD DATA	OPEN GRATE MANHOLE	GUY WIRE ANCHOR
XXX.XX TOP OF CURB(WALL, ETC.) XXX.XX SPOT GRADE BOTTOM OF GRSWAL, GUTER,ETC.)	BEEHIVE GRATE MANHOLE	CONTOUR LINE
	GUTTER FRAME MANHOLE	TREE LINE / HEDGE LINE
CONCRETE	VALVE VAULT	EDGE GRAVEL/STONE
	FIRE HYDRANT	FENCE LINE
EVERGREEN/DECIDUOUS WITH SIZE IN INCHES	B-BOX / SERVICE VALVE	STORM SEWER
	POST LIGHT\GROUND LIGHT	SANITARY SEWER
SHRUB/SHRUB LINE	AREA LIGHT\LIGHT POLE	COMBO SEWER
	STREET LIGHT	WATER SERVICE LINE
MONITOR WELL	TRAFFIC SIGNAL	WATER MAIN
GAS VALVE	MAST ARM SIGNAL	OVERHEAD LINE
UTILITY MARKINGS (cable,elec,fiber) (tel,water,gas)	HANDHOLE (electric\traffic)	FIBER OPTIC LINE
	GAS METER	GAS LINE
	ELECTRIC METER	U.G. TELCO LINE
MAILBOX	PEDESTAL(telco,elec,cable)	U.G. ELECTRIC LINE

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SUR-2
SHEET 2 OF 4
BOUNDARY & TOPOGRAPHIC SURVEY

CHECK:FTM
DRAWN:REM
JOB: 012000035

ISSUE

TO	DATE
CLIENT	5/11/22
CLIENT	7/11/22
CLIENT	9/14/22
CLIENT	11/07/22

GAS N WASH TINLEY PARK
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IL License No: 184.007570-0015 Expires: 04.30.2023

BOUNDARY & TOPOGRAPHIC SURVEY

RIM=742.12' (STORM)
24" CONCRETE STRUCTURE
INV=738.40' (12" RCP E)

RIM=742.02' (STORM)
48" CONCRETE STRUCTURE
INV=737.27' (12" RCP E/W)

RIM=742.53' (STORM)
48" CONCRETE STRUCTURE
INV=737.16' (15" RCP N)
INV=736.98' (12" RCP W)

RIM=735.29' (STORM)
48" CONCRETE STRUCTURE
INV=730.07' (15" RCP N)
INV=731.10' (15" RCP S)
INV=730.22' (12" RCP W)

RIM=734.77' (STORM)
48" CONCRETE STRUCTURE
INV=730.27' (12" RCP E/W)

RIM=734.91' (STORM)
24" CONCRETE STRUCTURE
INV=731.05' (12" RCP E)

RIM=730.02' (STORM)
24" CONCRETE STRUCTURE
INV=727.13' (12" RCP N)

RIM=730.00' (STORM)
48" CONCRETE STRUCTURE
INV=727.20' (12" RCP E/S/W)
727.26' AT WATER LEVEL

RIM=730.53' (STORM)
48" CONCRETE STRUCTURE
INV=727.12' (18" RCP E)
INV=727.12' (15" RCP S)
INV=727.12' (12" RCP W)

RIM=731.20' (STORM)
48" CONCRETE STRUCTURE
INV=727.80' (18" RCP N/W)
INV=726.99' (18" RCP S)

RIM=731.12' (STORM)
72" CONCRETE STRUCTURE
INV=726.64' (30" RCP N/E/W)
INV=727.01' (18" RCP S)

RIM=729.82' (STORM)
48" CONCRETE STRUCTURE
INV=727.57' (12" RCP E/S)
727.66' AT WATER LEVEL

RIM=729.83' (STORM)
24" CONCRETE STRUCTURE
INV=727.63' (12" RCP N)

RIM=731.58' (STORM)
72" CONCRETE STRUCTURE
INV=727.14' (30" RCP N)
INV=726.98' (12" RCP SE)
INV=727.02' (30" RCP S)

RIM=729.76' (STORM)
48" CONCRETE STRUCTURE
INV=726.98' (12" RCP S)
727.18' AT WATER LEVEL

RIM=728.96' (STORM)
24" CONCRETE STRUCTURE
INV=726.34' (12" RCP SW)

RIM=731.28' (STORM)
48" CONCRETE STRUCTURE
INV=726.18' (12" RCP NE/S)

RIM=731.10' (STORM)
48" CONCRETE STRUCTURE
INV=725.50' (12" RCP N)
INV=725.58' (30" RCP SE)
725.70' AT WATER LEVEL

RIM=731.42' (STORM)
72" CONCRETE STRUCTURE
INV=725.28' (36" RCP E/S)
INV=725.28' (30" RCP NW)

RIM=729.89' (STORM)
48" CONCRETE STRUCTURE
INV=726.87' (12" RCP N/S)

RIM=730.59' (STORM)
72" CONCRETE STRUCTURE
INV=726.17' (12" RCP N)
INV=725.92' (30" RCP E)
INV=725.92' (36" RCP W)

RIM=731.73' (STORM)
48" CONCRETE STRUCTURE
INV=722.00' (12" RCP SE)
INV=720.45' (12" RCP NW)
720.45' AT WATER LEVEL

RIM=731.70' (STORM)
48" CONCRETE STRUCTURE
INV=727.54' (12" RCP SE)
INV=722.20' (12" RCP S)
INV=721.88' (12" RCP NW)
722.16' AT WATER LEVEL

RIM=731.52' (STORM)
24" CONCRETE STRUCTURE
INV=727.63' (12" RCP NW)

RIM=732.91' (STORM)
24" CONCRETE STRUCTURE
INV=729.31' (12" RCP SE)

RIM=733.07' (STORM)
48" CONCRETE STRUCTURE
INV=724.09' (12" RCP N)
INV=727.52' (12" RCP E/W)
INV=724.57' (12" RCP S)

RIM=732.89' (STORM)
24" CONCRETE STRUCTURE
INV=728.52' (12" RCP W)

RIM=733.99' (STORM)
48" CONCRETE STRUCTURE
INV=725.65' (12" RCP N)
INV=729.46' (12" RCP E/W)
INV=727.27' (12" RCP S)

RIM=729.35' (STORM)
24" CONCRETE STRUCTURE
INV=725.41' (12" RCP W)

RIM=730.83' (STORM)
48" CONCRETE STRUCTURE
INV=726.73' (12" RCP W)
727.84' AT WATER LEVEL
LINE TO EAST SIZE & MATERIAL UNKNOWN

RIM=731.08' (STORM)
48" CONCRETE STRUCTURE
INV=726.86' (12" RCP E)
727.90' AT WATER LEVEL

RIM=729.92' (STORM)
48" CONCRETE STRUCTURE
INV=725.27' (12" RCP E)
INV=723.86' (12" RCP W)

RIM=729.56' (STORM)
48" CONCRETE STRUCTURE
INV=722.46' (12" RCP E)
INV=720.36' (12" RCP W)
721.53' AT WATER LEVEL

RIM=741.71' (WATER)
60" CONCRETE STRUCTURE
736.02' AT TOP OF 12" DIP N/S

RIM=741.97' (WATER)
60" CONCRETE STRUCTURE
736.18' AT TOP OF 12" DIP N/S

RIM=742.32' (WATER)
60" CONCRETE STRUCTURE
734.62' AT TOP OF 12" DIP E/W

RIM=730.81' (UNKNOWN)
UNABLE TO OPEN

RIM=741.08' (STORM)
24" CONCRETE STRUCTURE
INV=737.80' (12" RCP E)

RIM=741.24' (STORM)
36" CONCRETE STRUCTURE
INV=737.27' (12" RCP E)
INV=736.97' (12" RCP W)
737.22' AT WATER LEVEL

RIM=741.80' (STORM)
48" CONCRETE STRUCTURE
INV=737.10' (12" CPP E CAPPED
INV=736.20' (15" RCP S)
INV=741.80' (12" RCP W)

RIM=738.57' (STORM)
48" CONCRETE STRUCTURE
INV=735.17' (15" RCP N)
INV=734.43' (18" RCP S)
INV=735.17' (10" PVC WNW)

RIM=741.56' (WATER)
60" CONCRETE STRUCTURE
735.56' AT TOP OF 6" DIP N/S

SCALE: 1" = 30'
00 15 30 60
BAR SCALE

183RD STREET

LA GRANGE ROAD

WHITE EAGLE DRIVE

SITE BENCHMARK #1
ELEV.=730.60'

SITE BENCHMARK #2
ELEV.=732.06'

SITE BENCHMARK #3
ELEV.=744.53'

SITE BENCHMARK #4
ELEV.=729.70'

INV=724.99' (36" RCP)

INV=726.24' (RCP)

INV=720.59' (24" RCP)

INV=716.16' (24" RCP)

INV=730.14' (18" RCP)

LIMITS OF WETLANDS PER ENCAP DRAWING DATED 4/25/22 (LINEWORK SCALED)

TOP OF ELEC. PIPE=727.49'

TOP OF ELEC. PIPE=734.38'

TOP OF ELEC. PIPE=740.55'

SEE SHEET SUR-4

SEE SHEET SUR-3

SURVEY NOTES:

1. SITE BENCHMARK #1 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 122' WEST OF WHITE EAGLE DRIVE AS SHOWN. ELEVATION=730.60' (NAVD88)

SITE BENCHMARK #2 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 43' EAST OF LA GRANGE DRIVE AS SHOWN. ELEVATION=732.06' (NAVD88)

SITE BENCHMARK #3 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE WEST SIDE OF WHITE EAGLE DRIVE, 505' SOUTH OF 183RD STREET AS SHOWN. ELEVATION=744.53' (NAVD88)

2. THE LOCATION OF UNDERGROUND UTILITIES WAS DETERMINED BY FIELD OBSERVATION AND VISIBLE MARKINGS ONLY.

3. FIELD WORK COMPLETED ON 11/3/2022.

4. SURVEY PREPARED FOR: GAS N WASH

5. ANY DISCREPANCIES FOUND WITHIN THIS DOCUMENT NEED TO BE REPORTED TO THE SURVEYOR AS SOON AS POSSIBLE.

LEGEND

PROPERTY LINE	T/F T/T	TOP FOUNDATION/THRESHOLD	SOIL BORING
CENTER LINE		TYPICAL SIGN	TEL/ELEC MANHOLE
EASEMENT LINE		FLARED END SECTION	UTILITY POLE
BUILDING SETBACK		CLOSED MANHOLE	GUARDRAIL
(XXX') RECORD DATA		OPEN GRATE MANHOLE	GUY WIRE ANCHOR
XXX.XX TOP OF CURB/WALL ETC. SPOT GRADE XXX.XX BOTTOM OF GROUND, GUTTER,ETC.)		BEEHIVE GRATE MANHOLE	CONTOUR LINE
CONCRETE		GUTTER FRAME MANHOLE	TREE LINE / HEDGE LINE
		VALVE VAULT	EDGE GRAVEL/STONE
		FIRE HYDRANT	FENCE LINE
EVERGREEN/DECIDUOUS WITH SIZE IN INCHES		B-BOX / SERVICE VALVE	STORM SEWER
		POST LIGHT\GROUND LIGHT	SANITARY SEWER
SHRUB/SHRUB LINE		AREA LIGHT\LIGHT POLE	COMBO SEWER
		STREET LIGHT	WATER SERVICE LINE
MONITOR WELL		TRAFFIC SIGNAL	WATER MAIN
GAS VALVE		MAST ARM SIGNAL	OVERHEAD LINE
UTILITY MARKINGS (cable,elec,fiber) (tel,water,gas)		HANDHOLE (electric\traffic)	FIBER OPTIC LINE
		GAS METER	GAS LINE
		ELECTRIC METER	U.G. TELCO LINE
MAILBOX		PEDESTAL(telco,elec,cable)	U.G. ELECTRIC LINE

WT GROUP
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AQUATIC \ CIVIL \ MECHANICAL \ ELECTRICAL \ PLUMBING \ TELECOMMUNICATION \ STRUCTURAL \ ACCESSIBILITY CONSULTING \ DESIGN & PROGRAM MANAGEMENT \ LAND SURVEY

GAS N WASH TINLEY PARK
18200 S. 96TH AVENUE
TINLEY PARK, ILLINOIS

ISSUE

TO	DATE
CLIENT	5/11/22
CLIENT	7/11/22
CLIENT	9/14/22
CLIENT	11/7/22

CHECK:FIM
DRAWN:REM
JOB: D2200035

SUR-3
SHEET 3 OF 4
BOUNDARY & TOPOGRAPHIC SURVEY

BOUNDARY & TOPOGRAPHIC SURVEY

1. RIM=742.12' (STORM)
24" CONCRETE STRUCTURE
INV=738.40' (12" RCP E)

2. RIM=742.02' (STORM)
48" CONCRETE STRUCTURE
INV=737.27' (12" RCP E/W)

3. RIM=742.53' (STORM)
48" CONCRETE STRUCTURE
INV=737.16' (15" RCP N)
INV=736.98' (12" RCP W)

4. RIM=735.29' (STORM)
48" CONCRETE STRUCTURE
INV=730.07' (15" RCP N)
INV=731.10' (15" RCP S)
INV=730.22' (12" RCP W)

5. RIM=734.77' (STORM)
48" CONCRETE STRUCTURE
INV=730.27' (12" RCP E/W)

6. RIM=734.91' (STORM)
24" CONCRETE STRUCTURE
INV=731.05' (12" RCP E)

7. RIM=730.02' (STORM)
24" CONCRETE STRUCTURE
INV=727.13' (12" RCP N)

8. RIM=730.00' (STORM)
48" CONCRETE STRUCTURE
INV=727.20' (12" RCP E/S/W)
727.26' AT WATER LEVEL

9. RIM=730.53' (STORM)
48" CONCRETE STRUCTURE
INV=727.12' (18" RCP E)
INV=727.12' (15" RCP S)
INV=727.12' (12" RCP W)

10. RIM=731.20' (STORM)
48" CONCRETE STRUCTURE
INV=727.80' (18" RCP N/W)
INV=726.99' (18" RCP S)

11. RIM=731.12' (STORM)
72" CONCRETE STRUCTURE
INV=726.64' (30" RCP N/E/W)
INV=727.01' (18" RCP S)

12. RIM=729.82' (STORM)
48" CONCRETE STRUCTURE
INV=727.57' (12" RCP E/S)
727.66' AT WATER LEVEL

13. RIM=729.83' (STORM)
24" CONCRETE STRUCTURE
INV=727.63' (12" RCP N)

14. RIM=731.58' (STORM)
72" CONCRETE STRUCTURE
INV=727.14' (30" RCP N)
INV=726.98' (12" RCP SE)
INV=727.02' (30" RCP S)

15. RIM=729.76' (STORM)
48" CONCRETE STRUCTURE
INV=726.98' (12" RCP S)
727.18' AT WATER LEVEL

16. RIM=728.96' (STORM)
24" CONCRETE STRUCTURE
INV=726.34' (12" RCP SW)

17. RIM=731.28' (STORM)
48" CONCRETE STRUCTURE
INV=726.18' (12" RCP NE/S)

18. RIM=731.10' (STORM)
48" CONCRETE STRUCTURE
INV=725.50' (12" RCP N)
INV=725.58' (30" RCP SE)
725.70' AT WATER LEVEL

19. RIM=731.42' (STORM)
72" CONCRETE STRUCTURE
INV=725.28' (36" RCP E/S)
INV=725.28' (30" RCP NW)

20. RIM=729.89' (STORM)
48" CONCRETE STRUCTURE
INV=726.87' (12" RCP N/S)

21. RIM=730.59' (STORM)
72" CONCRETE STRUCTURE
INV=726.17' (12" RCP N)
INV=725.92' (30" RCP E)
INV=725.92' (36" RCP W)

22. RIM=731.73' (STORM)
48" CONCRETE STRUCTURE
INV=722.00' (12" RCP SE)
INV=720.45' (12" RCP NW)
720.45' AT WATER LEVEL

23. RIM=731.70' (STORM)
48" CONCRETE STRUCTURE
INV=727.54' (12" RCP SE)
INV=722.20' (12" RCP S)
INV=721.88' (12" RCP NW)
722.16' AT WATER LEVEL

24. RIM=731.52' (STORM)
24" CONCRETE STRUCTURE
INV=727.63' (12" RCP NW)

25. RIM=732.91' (STORM)
24" CONCRETE STRUCTURE
INV=729.31' (12" RCP SE)

26. RIM=733.07' (STORM)
48" CONCRETE STRUCTURE
INV=724.09' (12" RCP N)
INV=727.52' (12" RCP E/W)
INV=724.57' (12" RCP S)

27. RIM=732.89' (STORM)
24" CONCRETE STRUCTURE
INV=728.52' (12" RCP W)

28. RIM=733.99' (STORM)
48" CONCRETE STRUCTURE
INV=725.65' (12" RCP N)
INV=729.46' (12" RCP E/W)
INV=727.27' (12" RCP S)

29. RIM=729.35' (STORM)
24" CONCRETE STRUCTURE
INV=725.41' (12" RCP W)

30. RIM=730.83' (STORM)
48" CONCRETE STRUCTURE
INV=726.73' (12" RCP W)
727.84' AT WATER LEVEL
LINE TO EAST SIZE &
MATERIAL UNKNOWN

31. RIM=731.08' (STORM)
48" CONCRETE STRUCTURE
INV=726.86' (12" RCP E)
727.90' AT WATER LEVEL

32. RIM=729.92' (STORM)
48" CONCRETE STRUCTURE
INV=725.27' (12" RCP E)
INV=723.86' (12" RCP W)

33. RIM=729.56' (STORM)
48" CONCRETE STRUCTURE
INV=722.46' (12" RCP E)
INV=720.36' (12" RCP W)
721.53' AT WATER LEVEL

34. RIM=741.71' (WATER)
60" CONCRETE STRUCTURE
736.02' AT TOP OF 12" DIP N/S

35. RIM=741.97' (WATER)
60" CONCRETE STRUCTURE
736.18' AT TOP OF 12" DIP N/S

36. RIM=742.32' (WATER)
60" CONCRETE STRUCTURE
734.62' AT TOP OF 12" DIP E/W

37. RIM=730.81' (UNKNOWN)
UNABLE TO OPEN

38. RIM=741.08' (STORM)
24" CONCRETE STRUCTURE
INV=737.80' (12" RCP E)

39. RIM=741.24' (STORM)
36" CONCRETE STRUCTURE
INV=737.27' (12" RCP E)
INV=736.97' (12" RCP W)
737.22' AT WATER LEVEL

40. RIM=741.80' (STORM)
48" CONCRETE STRUCTURE
INV=737.10' (12" CPP E CAPPED)
INV=736.20' (15" RCP S)
INV=741.80' (12" RCP W)

41. RIM=738.57' (STORM)
48" CONCRETE STRUCTURE
INV=735.17' (15" RCP N)
INV=734.43' (18" RCP S)
INV=735.17' (10" PVC WNW)

42. RIM=741.56' (WATER)
60" CONCRETE STRUCTURE
735.56' AT TOP OF 6" DIP N/S

SURVEY NOTES:

1. SITE BENCHMARK #1 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 122' WEST OF WHITE EAGLE DRIVE AS SHOWN. ELEVATION=730.60' (NAVD88)

SITE BENCHMARK #2 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 43' EAST OF LA GRANGE DRIVE AS SHOWN. ELEVATION=732.06' (NAVD88)

SITE BENCHMARK #3 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE WEST SIDE OF WHITE EAGLE DRIVE, 505' SOUTH OF 183RD STREET AS SHOWN. ELEVATION=744.53' (NAVD88)

2. THE LOCATION OF UNDERGROUND UTILITIES WAS DETERMINED BY FIELD OBSERVATION AND VISIBLE MARKINGS ONLY.

3. FIELD WORK COMPLETED ON 11/3/2022.

4. SURVEY PREPARED FOR: GAS N WASH

5. ANY DISCREPANCIES FOUND WITHIN THIS DOCUMENT NEED TO BE REPORTED TO THE SURVEYOR AS SOON AS POSSIBLE.

LEGEND

PROPERTY LINE	T/F T/T TOP FOUNDATION/THRESHOLD	SOIL BORING	
CENTER LINE	TYPICAL SIGN	TEL/ELEC MANHOLE	
EASEMENT LINE	FLARED END SECTION	UTILITY POLE	
BUILDING SETBACK	CLOSED MANHOLE	GUARDRAIL	
(XXX') RECORD DATA	OPEN GRATE MANHOLE	GUY WIRE ANCHOR	
XXX.XX TOP OF (CURB,WALL, ETC.) SPOT GRADE XXX.XX BOTTOM OF (GROUND, GUTTER,ETC.)	BEEHIVE GRATE MANHOLE	773 CONTOUR LINE	
CONCRETE	GUTTER FRAME MANHOLE	TREE LINE / HEDGE LINE	
EVERGREEN/DECIDUOUS WITH SIZE IN INCHES (12")	VALVE VAULT	EDGE GRAVEL/STONE	
SHRUB/SHRUB LINE	FIRE HYDRANT	FENCE LINE	
MONITOR WELL	B-BOX / SERVICE VALVE	STORM SEWER	
GAS VALVE	POST LIGHT\GROUND LIGHT	SANITARY SEWER	
UTILITY MARKINGS (cable,elec,fiber) (tel,water,gas)	AREA LIGHT\LIGHT POLE	COMBO SEWER	
MAILBOX	STREET LIGHT	WS WATER SERVICE LINE	
	TRAFFIC SIGNAL	WM WATER MAIN	
	MAST ARM SIGNAL	OHL OVERHEAD LINE	
	HANDHOLE (electric\traffic)	FO FIBER OPTIC LINE	
	GM GAS METER	G GAS LINE	
	EM ELECTRIC METER	UGT U.G. TELCO LINE	
	T E C PEDESTAL(telco,elec,cable)	UGE U.G. ELECTRIC LINE	

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GAS N WASH TINLEY PARK
18200 S. 96TH AVENUE
TINLEY PARK, ILLINOIS

ISSUE

TO	DATE
CLIENT	5/11/22
CLIENT	7/11/22
CLIENT	9/14/22
CLIENT	11/7/22

CHECK:FIM
DRAWN:REM
JOB: D2200035

SUR-4
SHEET 4 OF 4
BOUNDARY & TOPOGRAPHIC SURVEY

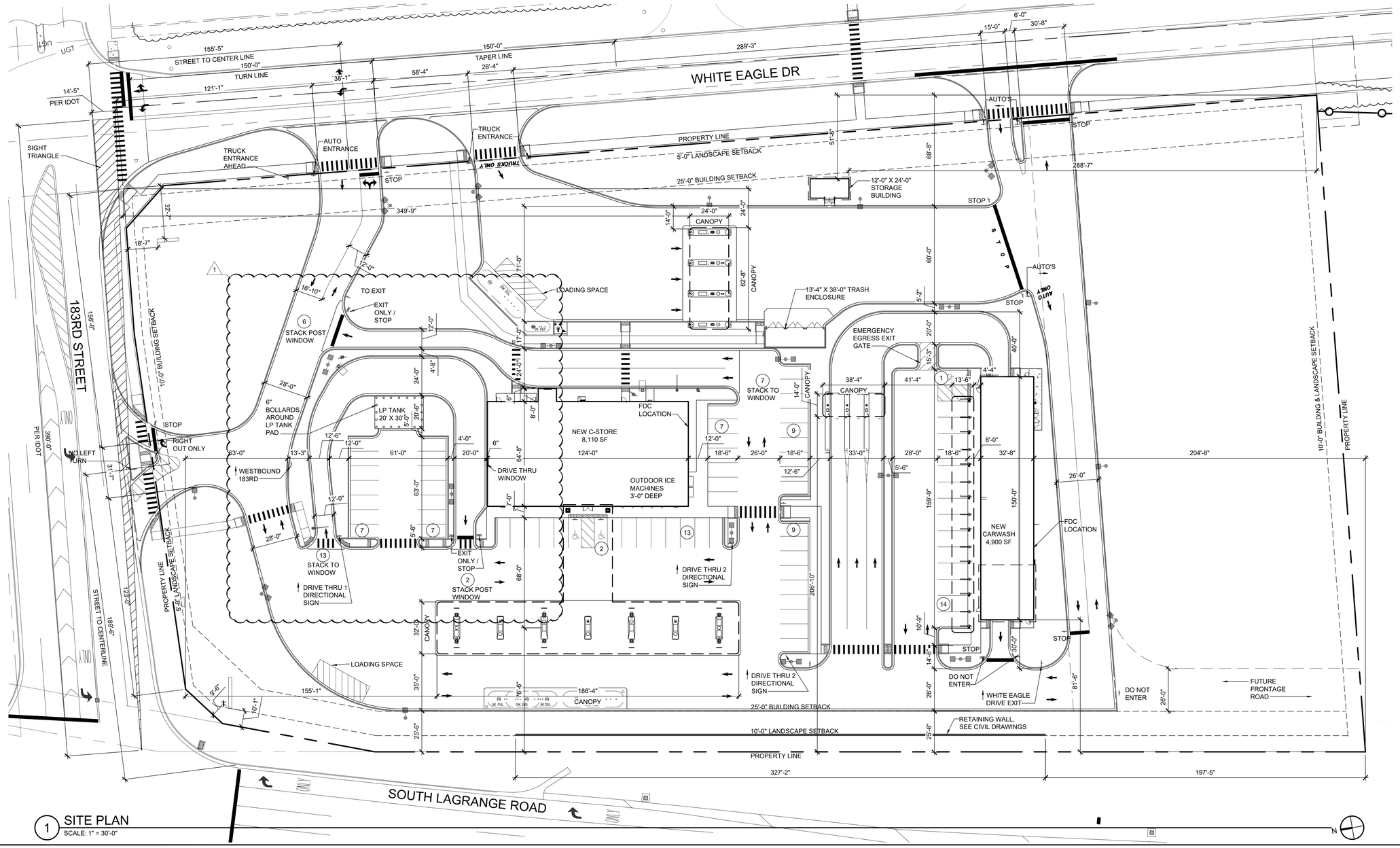
VARIANCE REQUESTS

1. REQUESTING A VARIANCE OF 1'-2" ON THE MONUMENT SIGN HEIGHT FROM THE 10'-0" MAX HEIGHT FOR THE C-STORE MONUMENT SIGN.
2. REQUESTING A VARIANCE OF 0'-8" ON THE MONUMENT SIGN HEIGHT FROM THE 10'-0" MAX HEIGHT FOR THE CARWASH MONUMENT SIGN.
3. REQUESTING A VARIANCE OF 10% ON THE ELECTRONIC MESSAGE CENTER FOR THE CARWASH SIGN FROM 20% OF SIGN MAX
4. REQUESTING A VARIANCE OF 34 SF ON THE GASOLINE SALES SIGN FROM THE 20 SF MAX FOR PRICER PORTION
5. REQUESTING A VARIANCE OF 12 SF ON THE NORTH AND SOUTH AUTO CANOPY SIGN FROM THE 16 SF MAX.
6. REQUESTING A VARIANCE OF 8.4 SF ON THE WEST CARWASH SIGN FROM THE 32.6 SF MAX.
7. REQUESTING A VARIANCE TO ALLOW SIGNAGE ON THE CARWASH PAY AND VAC CANOPY. 28.2 SF ON THE VAC CANOPY. 35.7 SF ON THE PAY CANOPY.
8. (1) REQUESTING A VARIANCE OF 2 PARKING SPACES FROM THE REQUIRED 57 PARKING SPACES.
9. REQUESTING A VARIANCE TO ALLOW FOR BRANDING ON DIRECTIONAL SIGNAGE

ZONING INFORMATION

SITE ZONING SECTION V SCHEDULE I	ZONING: B-3 GENERAL BUSINESS AND COMMERCIAL PERMITTED USES: RESTAURANTS INCLUDING DRIVE-THRU FACILITIES RETAIL STORES SPECIAL USES: AUTOMOBILE CAR WASHES		
SITE AREA SECTION V SCHEDULE II		REQUIRED	PROPOSED
	LOT AREA:	7,500	275,124 SF 6.31 ACRES
	FAR (FLOOR AREA RATIO):	1.0	0.05
BUILDING SETBACK SECTION V SCHEDULE II		REQUIRED	PROPOSED
	FRONT YARD: (LaGRANGE RD.)	25'-0"	81'-6" MIN.
	SIDE YARD: (183RD. STREET)	10'-0"	203'-0" MIN.
	REAR YARD: (WHITE EAGLE DR.)	25'-0"	144'-9" MIN.
BUILDING HEIGHT SECTION V SCHEDULE II		REQUIRED	PROPOSED
	MAIN BUILDING (C-STORE & CARWASH)	35'-0" MAX.	33'-6"
LANDSCAPE SETBACK CHAPTER 158 TABLE 1		REQUIRED	PROPOSED
	BUFFER YARDS:		
	FRONT YARD (LaGRANGE)	10'-0"	25'-6" MIN.
	SIDE YARD (183RD STREET)	5'-0"	51'-2" MIN.
	REAR YARD (WHITE EAGLE)	5'-0"	36'-5" MIN.

PARKING SECTION VIII 10 INCLUDING TABLE		REQUIRED	PROPOSED
	LOADING SPACE	1 REQUIRED 15'-0" X 35'-0"	2 PROVIDED 15'-0" X 35'-0"
	PARKING SPACE SIZE	9'-0" x 18'-6"	9'-0" X 18'-6" 10'-0" X 18'-0" VAC SPACE
	C-STORE: AREA BREAKDOWN: TOTAL BUILDING: 8,110 S.F. DRIVE THRU RESTAURANT: 2,168 S.F. C-STORE: 5,693 S.F. BUILDING MECHANICAL: 249 S.F.		
	RETAIL SPACE: (1) SPACE / 150 SF 5,693 SF / 150 =	38	35
	FAST FOOD, CARRY OUT : MIN. 5 SPACES + 1 PER EMPLOYEE =	8	8
	EATING ESTABLISHMENT: 1 PER 3 SEATS:	7	7
	GAMING AREA:	4	4
	CAR WASH	0	1
	TOTAL PARKING:	57	55 SPACES PROVIDED



1 SITE PLAN
SCALE: 1" = 30'-0"

N

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RETAIL PETROLEUM FACILITY
18301 LAGRANGE ROAD
TINLEY PARK, IL 60487

GAS N WASH

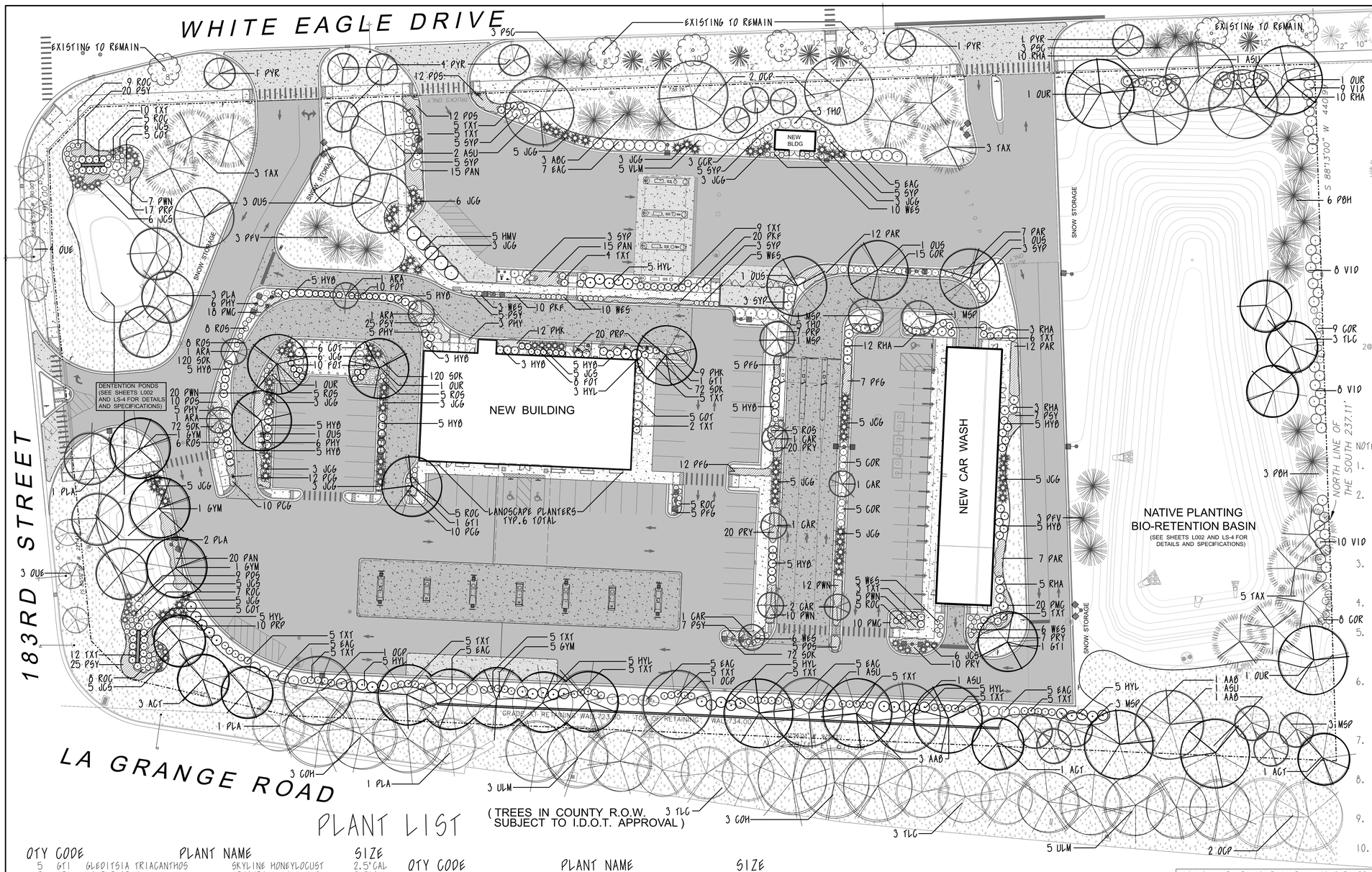
GAS N WASH

ISSUE

TO	DATE
ZONING	10/21/22
ZONING	01/06/23
ZONING	01/20/23
CLIENT	01/23/23
UPDATE SITE	02/21/23
ZONING	02/22/23
ZONING 1	05/05/23

CHECK:CP
DRAWN:KM
JOB:D220035

A001
SITE PLAN



PLANT LIST

QTY	CODE	PLANT NAME		SIZE
5	GTI	GLEDITSIA TRIACANTHOS	SKYLINE HONEYLOCUST	2.5"CAL
5	ARA	ACER RUBRUM	ARMSTRONG GOLD MAPLE	2.5"CAL
5	AAB	ACER FREEMANI	AUTUMN BLAZE MAPLE	2.5"CAL
3	ASU	ACER SACCHARUM	SUGAR MAPLE	2.5"CAL
5	AGT	ACER TRUNCATUM	CRIMSON SUNSET MAPLE	2.5"CAL
6	QUR	QUERCUS RUBRA	RED OAK	2.5"CAL
7	QUE	QUERCUS ROBAR	COLUMNAR ENGLISH OAK	3" CAL*
6	QUS	QUERCUS BICOLOR	SWAMP WHITE OAK	2.5"CAL
6	QCP	QUERCUS MUEHLENBERGII	CHINKAPIN OAK	2.5"CAL
8	ULM	ULMUS SPECIES	ACCOLADE HYBRID ELM	3" CAL*
11	TAX	TAXODIUM DISTICHUM	BALD CYPRESS	2.5"CAL
8	GYM	GYMNOCLADUS SPECIES	KENTUCKY COFFEE TREE	3" CAL*
6	COH	CELTIS OCCIDENTALIS	CHICAGOLAND HACKBERRY	2.5"CAL
9	TLC	TILIA CORDATA	LITTLE LEAF LINDEN	2.5"CAL
6	CAR	CARPINUS BETULUS	FRANS FONTAINE HORNBEAM	2.5"CAL
8	PLA	PLANTANUS ACERIFOLIA	MORTON LONDON PLANETREE	2.5"CAL
6	PSG	PINUS STROBUS	COLUMNAR WHITE PINE	6' HT
6	PFV	PINUS FLEXILIS	VANDERWOLF LIMBER PINE	6' HT
9	PBH	PICEA DENSATA	BLACK HILL SPRUCE	6' HT
3	ABC	ABIES CONCOLOR	CONCOLOR FIR	6' HT
7	PYR	PYRUS CALLERYANA	CHANTICLEER PEAR	2.5"CAL
3	CCR	CERSIS CANADENSIS	EASTERN REDBUD	8-9' HT
9	MSP	MALUS SPECIES	PRAIRIE FLAME CRAB	3" CAL*
8	THO	THUJA OCCIDENTALIS	TECHNEY ARBORVITAE	4' HT
116	TXT	TAXUS TAUTONI	TAUTON YEW	24"
33	JCS	JUNIPERUS CHINENSIS	SARGENT JUNIPER	24"
71	JCG	JUNIPERUS CHINENSIS	SEA GREEN JUNIPER	24"

* UPGRADED SIZE

QTY	CODE	PLANT NAME		SIZE
5	VLM	VIBURNUM LANTANA	MOHICAN VIBURNUM	4'HT
35	VID	VIBURNUM DENTATUM	BLUE MUFFIN VIBURNUM	36"
5	HMV	HAMAMELIS VERNALIS	VERNAL WITCHHAZEL	4' HT
37	EAC	EUONYMUS ALATUS	COMPACT BURNING BUSH	4' HT
35	SYP	SYRINGA PALIBINIANA	DWARF KOREAN LILAC	30"
39	WES	WEIGELA SPECIES	DARK HORSE WEIGELA	24"
21	COT	COTINUS COGGIGRIA WINECRAFT	BLACK SMOKEBUSH	24"
33	COR	CORNUS SERICEA	ARCTIC SUN DOGWOOD	24"
25	PHY	PHYSOCARPUS SPECIES	LITTLE DEVIL NINEBARK	24"
29	ROS	ROSA SPECIES	KNOCKOUT SHRUB ROSE	24"
44	ROC	ROSA SPECIES	CORAL CARPET ROSE	24"
38	FOT	FOTHERGILLA GARDENII	DWARF FOTHERGILLA	24"
43	RHA	RHUS COPPELIANA	PRAIRIE FLAME SUMAG	3' HT*
61	HYD	HYDRANGEA MACROPHYLLA	BLOOMSTRUCK HYDRANGEA	30"
37	HYL	HYDRANGEA SPECIES	LIMELIGHT HYDRANGEA	30"
456	SDK	SEDUM KAMTCHATICUM	YELLOW STONECROP	3"

PERENNIAL LIST

QTY	CODE	PLANT NAME		SIZE
38	PMG	COREOPSIS VERTICILLATA	ZARGREB COREOPSIS	1 GAL
69	PSY	HEMEROCALLIS SPECIES	GOING BANANAS DAYLILY	1 GAL
57	PRY	HEMEROCALLIS SPECIES	ROSEY RETURNS DAYLILY	1 GAL
47	PRP	HEUCHERA MIGRANTHA	GEORGIA PEACH CORALBELL	1 GAL
54	PWN	NEPETA RACEMOSA	WALKERS LOW CATMINT	1 GAL
42	PGG	GERANIUM SPECIES	MAX FREI GERANIUM	1 GAL
21	PHK	HAKONECHLOA MACRA	JAPANESE FOREST GRASS	1 GAL
50	PAN	PANICUM VIRGATUM	HEAVY METAL SWITCH GRASS	1 GAL
38	PAR	PANICUM SP.SHENANDOAH	RED SWITCH GRASS	1 GAL
29	PPG	PENNISETUM SPECIES	FOUNTAIN GRASS	1 GAL
30	PKF	CALAMAGROSTIS SPECIES	KARL FOERSTER GRASS	1 GAL
39	PDS	SPOROBOLUS SPECIES	PRAIRIE DROPSEED	1 GAL

NORTH

Landscape Plan

Scale 1"= 30'-0"

0 10 20 30 60 90 120 150

EAST BUFFERYARD 'B' REQUIREMENTS PER 100'

	REQUIRED	PROVIDED
CANOPY	15	15
UNDERSTORY	4	7
SHRUBS	74	74

SOUTH BUFFERYARD 'B' REQUIREMENTS PER 100'

	REQUIRED	PROVIDED
CANOPY	9	9
UNDERSTORY	3	12
SHRUBS	44	51

NORTH BUFFERYARD 'C' REQUIREMENTS PER 100'

	REQUIRED	PROVIDED
CANOPY	11	11
UNDERSTORY	5	0**
SHRUBS	41	52

** ADDITIONAL TREES LOCATED IN INTERIOR GREEN SPACE

WAIVER REQUIRED DUE TO SIGNAGE VISIBILITY AND LIMITED SPACE WITH DETENTION AREAS. ADDITIONAL TREES NOT REQUIRED ARE PROVIDED WITHIN INTERIOR GREEN SPACES TO COMPENSATE TOTALS.

WEST BUFFERYARD 'C' REQUIREMENTS PER 100'

	REQUIRED	PROVIDED
CANOPY	25	20*
UNDERSTORY	10	6*
SHRUBS	100	105

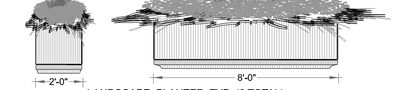
* TREE SIZES HAVE BEEN UPGRADED FROM 2.5"CAL TO 4"CAL FOR CANOPY & 3" CAL FOR UNDERSTORY.

WAIVER REQUIRED DUE TO FUTURE ROAD ACCESS LIMITING SPACE- ADDED SHRUBS & PERENNIALS ADDITIONAL TREES NOT REQUIRED ARE PROVIDED WITHIN INTERIOR GREEN SPACES TO COMPENSATE TOTALS.

Know what's **below.**
Note: **Call** before you dig.
Call 811 at least 48 hours, excluding weekends and holidays, before you dig.

Legend

- NEW DECIDUOUS AND EVERGREEN TREES
- NEW DECIDUOUS AND EVERGREEN SHRUBS
- GROUNDCOVERS
- PERENNIAL FLOWERS / ORNAMENTAL GRASSES
- BLENDED BLUEGRASS SOD OR SEED W/ EROSION BLANKET APPROX. 93,645 SQ' SEE SHEET LS-3 FOR SPECIFICATIONS
- EXISTING SHADE, ORNAMENTAL, EVERGREEN TREES TO REMAIN AND BE PRESERVED.



LANDSCAPE PLANTER TYP. (6 TOTAL)
NO SCALE ROTATE ANNUAL FLOWERS FOR SEASONAL COLOR

NOTE:

1. QUANTITY LISTS ARE SUPPLIED AS A CONVENIENCE. CONTRACTOR SHALL VERIFY ALL MATERIALS QUANTITIES ON SITE.
2. ALL PLANT MATERIAL TO BE LOCALLY GROWN. ALL PLANT MATERIAL WITH THE EXCEPTION OF LOW TYPE JUNIPER, GROUNDCOVERS, PERENNIALS, SHRUBS UNDER 36" SIZE, BE BALLED AND BURLAPPED 'B & B' UNLESS OTHERWISE SPECIFIED. PLANT MATERIAL TO BE GROWN IN ACCORDANCE TO STANDARDS SET BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. *A.N.L.A.*
3. ALL PLANTINGS SHALL BE WATERED THOROUGHLY IN THE FIRST 24 HOURS AFTER PLANTING.ENSURE ALL AIR POCKETS ARE REMOVED AROUND ROOT BALL.
4. CONTRACTOR TO GUARANTEE PLANT MATERIAL FOR ONE YEAR FROM TIME OF PLANTING.
5. ALL PLANT BED AREAS TO BE MULCHED WITH PREMIUM SHREDDED HARDWOOD MULCH 3" DEEP AND SHALL BE SEPARATED FROM LAWN AREAS WITH A SPADED EDGE. APPLY TREFLAN HERBICIDE PER MANUFACTURER SPECIFICATIONS TO ALL PLANT BED AREAS.
6. ALL NEW LAWN AREAS TO BE A BLENDED BLUEGRASS SOD OR BLENDED SEED WITH CURLEX BLANKET AS PER SEASONAL TIMING AND OWNER. CONTRACTOR TO MAINTAIN LAWNS UNTIL APPROVAL AND ACCEPTANCE BY OWNERS REPRESENTITIVE. RESTORE ALL OTHER DAMAGED LAWN AREAS DUE TO CONSTRUCTION *V.I.F.*.
7. IT IS CONTRACTORS OPTION TO STAKE TREES, BUT HIS RESPONSIBILITY TO ASSURE PLANTS REMAIN PLUMB UNTIL THE END OF GUARANTEE PERIOD.
8. PLANT SIZES LISTED ARE THE MINIMUM SIZE REQUIRED. PLANTS THAT DO NOT MEET THESE MINIMUM SIZES SHALL BE REJECTED AT CONTRACTORS EXPENSE.
9. NO PLANT SPECIES OR SIZES SHALL BE SUBSTITUTED WITHOUT PRIOR APPROVAL FROM LANDSCAPE ARCHITECT OR OWNERS REPRESENTITIVE.
10. SEE SHEETS LS-1, LS-2, LS-3, LS-4 FOR ADDITIONAL SPECIFICATIONS AND PLANTING DETAILS.

PARKWAY REQUIREMENTS

LAGRANGE ROAD 29 REQUIRED - 24 PROVIDED*
* UPGRADED 5 TREE SIZES FROM 2.5"CAL TO 4"CAL. CONTINGENT ON I.D.O.T. APPROVAL.

183 RD STREET 10 REQUIRED - 7 PROVIDED*
* UPRADE 7 TREE SIZES FROM 2.5"CAL TO 3"CAL.

WHITE EAGLE DRIVE 23 REQUIRED - 25 PROVIDED
LARGE CALIPER EXISTING PARKWAY TREES SUPPLEMENTED WITH 12 ADDITIONAL TREES IN KEEPING WITH EXISTING SPACING AND ARRANGEMENT.

Landscape Plans Prepared By:

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GAS N WASH

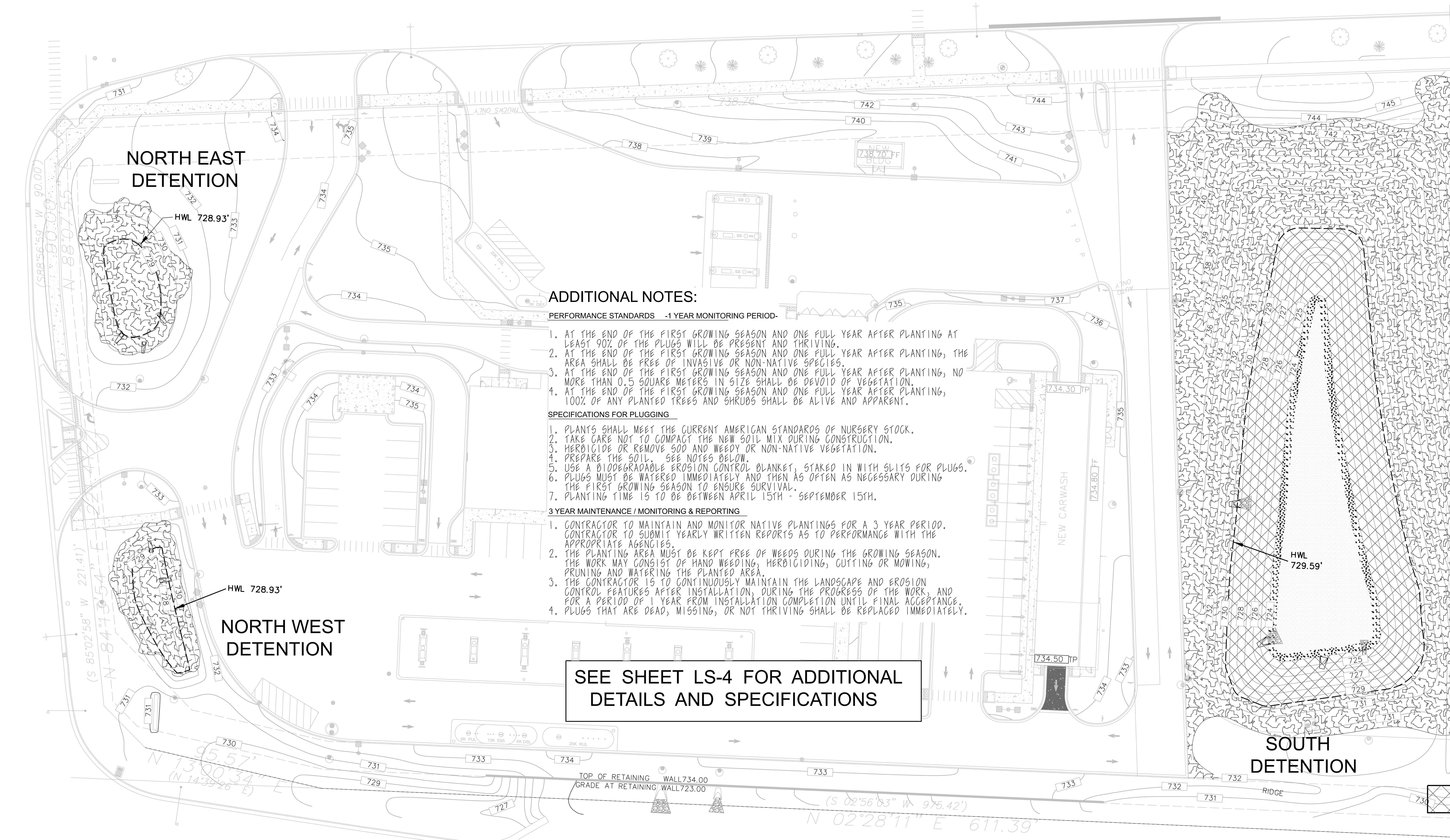
GAS N WASH

ISSUE

TO	DATE
ZONING	08/9/22
VILLAGE	01/6/23
VILLAGE	02/27/23
SITE PLAN	05/05/23

CHECK: CK
DRAWN: PAC
JOB:D220035

L001
LANDSCAPE PLAN



ADDITIONAL NOTES:

PERFORMANCE STANDARDS -1 YEAR MONITORING PERIOD-

1. AT THE END OF THE FIRST GROWING SEASON AND ONE FULL YEAR AFTER PLANTING AT LEAST 90% OF THE PLUGS WILL BE PRESENT AND THRIVING.
2. AT THE END OF THE FIRST GROWING SEASON AND ONE FULL YEAR AFTER PLANTING, THE AREA SHALL BE FREE OF INVASIVE OR NON-NATIVE SPECIES.
3. AT THE END OF THE FIRST GROWING SEASON AND ONE FULL YEAR AFTER PLANTING, NO MORE THAN 0.5 SQUARE METERS IN SIZE SHALL BE DEVOID OF VEGETATION.
4. AT THE END OF THE FIRST GROWING SEASON AND ONE FULL YEAR AFTER PLANTING, 100% OF ANY PLANTED TREES AND SHRUBS SHALL BE ALIVE AND APPARENT.

SPECIFICATIONS FOR PLUGGING

1. PLANTS SHALL MEET THE CURRENT AMERICAN STANDARDS OF NURSERY STOCK.
2. TAKE CARE NOT TO COMPACT THE NEW SOIL MIX DURING CONSTRUCTION.
3. HERBICIDE OR REMOVE SOD AND WEEDY OR NON-NATIVE VEGETATION.
4. PREPARE THE SOIL. SEE NOTES BELOW.
5. USE A BIODEGRADABLE EROSION CONTROL BLANKET, STAKED IN WITH SLITS FOR PLUGS.
6. PLUGS MUST BE WATERED IMMEDIATELY AND THEN AS OFTEN AS NECESSARY DURING THE FIRST GROWING SEASON TO ENSURE SURVIVAL.
7. PLANTING TIME IS TO BE BETWEEN APRIL 15TH - SEPTEMBER 15TH.

3 YEAR MAINTENANCE / MONITORING & REPORTING

1. CONTRACTOR TO MAINTAIN AND MONITOR NATIVE PLANTINGS FOR A 3 YEAR PERIOD. CONTRACTOR TO SUBMIT YEARLY WRITTEN REPORTS AS TO PERFORMANCE WITH THE APPROPRIATE AGENCIES.
2. THE PLANTING AREA MUST BE KEPT FREE OF WEEDS DURING THE GROWING SEASON. THE WORK MAY CONSIST OF HAND WEEDING, HERBICIDING, CUTTING OR MOWING, PRUNING AND WATERING THE PLANTED AREA.
3. THE CONTRACTOR IS TO CONTINUOUSLY MAINTAIN THE LANDSCAPE AND EROSION CONTROL FEATURES AFTER INSTALLATION, DURING THE PROGRESS OF THE WORK, AND FOR A PERIOD OF 1 YEAR FROM INSTALLATION COMPLETION UNTIL FINAL ACCEPTANCE.
4. PLUGS THAT ARE DEAD, MISSING, OR NOT THRIVING SHALL BE REPLACED IMMEDIATELY.

SEE SHEET LS-4 FOR ADDITIONAL DETAILS AND SPECIFICATIONS

SOUTH DETENTION
BIO RETENTION NATIVE PLUG LIST

SPECIES	COMMON NAME
CALAMAGROSTIS CANADENSIS	BLUE JOINT GRASS
CAREX LACUSTRIS	LAKE SEDGE
CAREX SLIPATA	AWL-FRUITED SEDGE
CARAX STRICTA	TUSSOCK SEDGE
CARAX VULPINOIDES	FOX SEDGE
ELEOCHARIS ACICULORIS	NEEDLE SPIKE RUSH
ELECOCHARIS OBTUSA	BLUNT SPIKE RUSH
ELYMUS CANADENSIS	WILD RYE
GLYCERIA STRIATA	FOWL MANNA GRASS
JUNCUS TENUIS	SLENDER RUSH
JUNCUS TORREYI	TORREY'S RUSH
LEERSIA ORYZOIDES	RICE CUT GRASS
PANICUM VIRGATUM	SWITCH GRASS
SCIRPUS ACUTUS	HARD STEM BULRUSH
SCRIPUS ATROVIRENS	DARK GREEN RUSH
SPARTINA PECTINATA	CORD GRASS
ASTER AZUREUS	SKY BLUE ASTER
COREOPSIS PALMATA	PRAIRIE COREOPSIS
LIATRIS ASPERA	ROUGH BLAZING STAR
RATIBIDA PINNATA	YELLOW CONEFLOWER
SOLIDAGO RIGIDA	RIGID GOLDENROD
VERONICASTRUN VIRGINICUM	CULVERSROOT

QUANTITY OF 1100 NATIVE PLUGS TOTAL
50 PLUGS OF EACH VARIETY PLANTED ON STAGGERED 18"CENTERS WITHIN 4' WIDE STRIP AND AS SHOWN FROM N.W.L.724 INWARD 4'

SOUTH DETENTION
BASIN BOTTOM - IDOT CLASS 4B WETLAND GRASS & SEDGE MIXTURE

COMMON NAME — AMOUNT / ACRE

PERMANENT MATRIX	SEED
44.64 % ANNUAL RYEGRASS	25 LBS.
44.64 % SPRING OATES	25 LBS.
10.72 % WETLAND GRASSES (BELOW)	6 LBS
	56 LBS. / ACRE

12 % BLUE JOINT GRASS
6 % LAKE-BANK SEDGE
6 % AWL-FRUITED SEDGE
6 % TUSSOCK SEDGE
6 % FOX SEDGE
3 % NEEDLE SPIKE RUSH
3 % BLUNT SPIKE RUSH
14 % FOWL MANNA GRASS
6 % COMMON RUSH
6 % SLENDER RUSH
6 % TORREY'S RUSH
10 % RICE CUT GRASS
3 % HARD-STEMMED BULRUSH
3 % DARK GREEN RUSH
3 % RIVER BULRUSH
3 % SOFTSTEM BULRUSH
4 % CORD GRASS

6,900 SQ' AREA =
10 LBS. SEED MIX REQUIRED
ENTIRE BOTTOM 724 INWARD

SOUTH DETENTION
LOWER SLOPE OF BASIN N.W.L TO H.W.L. WET MEADOW SEED MIXTURE

SPECIES	COMMON NAME	LB/ACRE
ASCLEPIAS INCARNATA	SWAMP MILKWEED	0.125
BIDENS CERNUA	NODDING BUR MARIGOLD	0.190
BOLTORIA ASTEROIDES	FALSE ASTER	0.031
CAREX BEBBII	BEBB'S SEDGE	0.250
CAREX BICKNELLII	BICKNELL'S OVAL SEDGE	0.125
CAREX BREVIOR	"SHORTER" SEDGE	0.250
CAREX CRISTATELLA	CRESTED SEDGE	0.060
CAREX MOLESTA	ROUNDED HEADED SEDGE	0.250
CAREX NORMALIS	NORMAL SEDGE	0.015
CAREX SCOPARIA	POINTED BROOM SEDGE	0.190
CAREX STIPATA	AWL-FRUITED SEDGE	0.060
CAREX VULPINOIDEA	FOX SEDGE	0.250
CHAMAECRISTA FASCICULATA	PARTRIDGE PEA	0.188
ELYMUS VERGINICUS	VIRGINIA WILD RYE	3.000
EUPATORIUM PERFOLIATUM	THOROUGHWORT	0.015
EUTHAMIA GRAMINIFOLIA	GRASS LEAFED GOLDENROD	0.300
GLYCERIA STRIATA	FOUL MANNA GRASS	0.130
HELENIUM AUTUMNALE	SNEEZEWEED	0.063
IRIS VIRGINICA SHREVEI	BLUE FLAG	1.000
JUNCUS DUDLEYI	DUDLEY'S RUSH	0.020
JUNCUS TORREYI	TORREY'S RUSH	0.031
LOBELIA SIPHILITICA	BLUE LOBELIA	0.031
MIMULUS RINGENS	MONKEY FLOWER	0.031
PANICUM VIRGATUM	PRAIRIE SWITCH GRASS	3.000
PYCNANTHEMUM VIRGINIANUM	COMMON MT MINT	0.063
RUDBECKIA SPECIOSA SULIVANTII	SHOWY BLACK EYED SUSAN	0.250
SCIRPUS ATROVIRENS	DARK GREEN RUSH	0.060
SCIRPUS CYPERINUS	WOLL GRASS	0.030
SYMPHYOTRICHUM NOVAE-ANGLIAE	NEW ENGLAND ASTER	0.250
ZIZIA AUREA	GOLDEN ALEXANDER	0.500
		10.75 LBS. / ACRE

12,300 SQ' AREA =
4.0 LBS. SEED MIX REQUIRED

NORTH EAST DETENTION
IDOT CLASS 3 NORTHERN ILLINOIS SLOPE MIXTURE

COMMON NAME — AMOUNT / ACRE

PERMANENT MATRIX	SEED
CANADA WILD RYEGRASS	5 LBS./ ACRE
PERENNIAL RYEGRASS	20 LBS./ ACRE
ALSIKE CLOVER	5 LBS./ ACRE
ILLINOIS BUNDLEFLOWER	2 LBS./ ACRE
LITTLE BLUESTEM	12 LBS./ ACRE
SIDE OATS GRAMA	10 LBS./ ACRE
FULT SALT GRASS	30 LBS./ ACRE
SPRINGS OATS	50 LBS / ACRE
SLENDER WHEAT GRASS	15 LBS / ACRE
BUFFALO GRASS BOWIE	5 LBS./ ACRE
	170 LBS./ ACRE

3230 SQ' AREA =
12 LBS. SEED MIX REQUIRED

NORTH WEST DETENTION
IDOT CLASS 3 NORTHERN ILLINOIS SLOPE MIXTURE

COMMON NAME — AMOUNT / ACRE

PERMANENT MATRIX	SEED
CANADA WILD RYEGRASS	5 LBS./ ACRE
PERENNIAL RYEGRASS	20 LBS./ ACRE
ALSIKE CLOVER	5 LBS./ ACRE
ILLINOIS BUNDLEFLOWER	2 LBS./ ACRE
LITTLE BLUESTEM	12 LBS./ ACRE
SIDE OATS GRAMA	10 LBS./ ACRE
FULT SALT GRASS	30 LBS./ ACRE
SPRINGS OATS	50 LBS / ACRE
SLENDER WHEAT GRASS	15 LBS / ACRE
BUFFALO GRASS BOWIE	5 LBS./ ACRE
	170 LBS./ ACRE

2415 SQ' AREA =
11 LBS. SEED MIX REQUIRED

Legend

- WET MEADOW SEED MIX N.W.L. TO H.W.L.
- NATIVE PLUGS FROM N.W.L. INWARD & OUTWARD 4'
- IDOT CLASS 4B SEED MIX ENTIRE BASIN BOTTOM
- IDOT CLASS 3 SEED MIX NORTHERN ILLINOIS SLOPE MIXTURE H.W.L. UPWARD TO LIMITS AS SHOWN

SOUTH DETENTION
UPPER NO MOW SLOPE- IDOT CLASS 3 NORTHERN ILLINOIS SLOPE MIXTURE

COMMON NAME — AMOUNT / ACRE

PERMANENT MATRIX	SEED
CANADA WILD RYEGRASS	5 LBS./ ACRE
PERENNIAL RYEGRASS	20 LBS./ ACRE
ALSIKE CLOVER	5 LBS./ ACRE
ILLINOIS BUNDLEFLOWER	2 LBS./ ACRE
LITTLE BLUESTEM	12 LBS./ ACRE
SIDE OATS GRAMA	10 LBS./ ACRE
FULT SALT GRASS	30 LBS./ ACRE
SPRINGS OATS	50 LBS / ACRE
SLENDER WHEAT GRASS	15 LBS / ACRE
BUFFALO GRASS BOWIE	5 LBS./ ACRE
	170 LBS./ ACRE

30,150 SQ' AREA =
120 LBS. SEED MIX REQUIRED

Landscape Plan

Bio-Retention Basin / Native planting — Scale 1"=30'-0"

0 10 20 30 60 90 120 150

NORTH

Landscape Plans Prepared By:

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PAUL A. COUTURE *157-000328 REGISTERED STATE OF ILLINOIS PROFESSIONAL LANDSCAPE ARCHITECT 2024

GAS N WASH

ISSUE	
TO	DATE
ZONING	08/9/22
VILLAGE	01/6/23
VILLAGE	02/27/23

CHECK: CK
DRAWN: PAC
JOB:D220035
JOB:D220035

L002
LANDSCAPE PLAN

LANDSCAPE SPECIFICATIONS

SECTION 0001

LANDSCAPE WORK

PART 1 GENERAL

1.01 DESCRIPTION

THESE GENERAL REQUIREMENTS APPLY TO ALL LANDSCAPE OPERATIONS. REFER TO SPECIFICATION SECTIONS FOR SPECIFIC GENERAL, PRODUCT, AND EXECUTION REQUIREMENTS.

1.02 QUALITY ASSURANCE

A. COMPLY WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REQUIREMENTS REGARDING MATERIALS, METHODS OF WORK, AND DISPOSAL OF EXCESS AND WASTE MATERIALS.
B. OBTAIN AND PAY FOR ALL REQUIRED INSPECTIONS, PERMITS, AND FEES. PROVIDE NOTICES REQUIRED BY GOVERNMENTAL AUTHORITIES.
C. OWNER SHALL APPOINT A QUALIFIED REPRESENTATIVE TO OVERSEE THE WORK AND ASSURE ITS ADHERENCE TO THE PLANS AND THESE SPECIFICATIONS. HENCEFORTH, THIS PERSON SHALL BE DESIGNATED AS OWNERS REPRESENTATIVE.
D. CONTRACTOR TO HAVE AN EXPERIENCED ENGLISH SPEAKING SUPERVISOR / FOREMAN ONSITE AT ALL TIMES THAT CAN ADEQUATELY COMMUNICATE WITH OWNERS REPRESENTATIVE WHEN NECESSARY, AND HAVE EXPERIENCED INSTALLERS WHO HAVE COMPLETED LANDSCAPING WORK SIMILAR IN MATERIAL, DESIGN, AND EXTENT AS TO THAT INDICATED FOR THIS PROJECT WITH A RECORD OF SUCCESSFUL LANDSCAPE ESTABLISHMENT.
E. CONTRACTORS WORKFORCE SHALL BE KNOWLEDGEABLE AND OR MAKE THEMSELVES KNOWLEDGEABLE OF ALL SAFETY REGULATIONS AND REQUIREMENTS PERTAINING TO THIS PROJECT INCLUDING WEARING ALL PROTECTIVE GEAR NEEDED TO COMPLY WITH THESE REQUIREMENTS. WORKMAN NOT IN COMPLIANCE CAN AND WILL BE DENIED ACCESS TO THE JOBSITE BY THE GENERAL CONTRACTOR . A SAFETY CLASS FOR WORKERS MAY BE REQUIRED BY THE GENERAL CONTRACTOR.

1.03 PROJECT CONDITIONS

A. LOCATE AND IDENTIFY EXISTING UNDERGROUND AND OVERHEAD SERVICES AND UTILITIES WITHIN CONTRACT LIMIT WORK AREAS. CONTACT UTILITY LOCATE AT 811. PROVIDE ADEQUATE MEANS OF PROTECTION OF UTILITIES AND SERVICES DESIGNATED TO REMAIN. REPAIR UTILITIES DAMAGED DURING SITE WORK OPERATIONS AT CONTRACTORS EXPENSE.
B. WHEN UNCHARTED OR INCORRECTLY CHARTED UNDERGROUND PIPING OR OTHER UTILITIES AND SERVICES ARE ENCOUNTERED DURING SITE WORK OPERATIONS, NOTIFY THE APPLICABLE UTILITY COMPANY IMMEDIATELY TO OBTAIN PROCEDURE DIRECTIONS. COOPERATE WITH THE APPLICABLE UTILITY COMPANY IN MAINTAINING ACTIVE SERVICES IN OPERATION.
C. LOCATE, PROTECT, AND MAINTAIN BENCHMARKS, MONUMENTS, CONTROL POINTS AND PROJECT ENGINEERING REFERENCE POINTS. RE-ESTABLISH DISTURBED OR DESTROYED ITEMS AT CONTRACTORS EXPENSE.
D. OBTAIN GOVERNING AUTHORITIES WRITTEN PERMISSION WHEN REQUIRED TO CLOSE OR OBSTRUCT STREET, WALKS AND ADJACENT FACILITIES. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS WHEN REQUIRED BY GOVERNING AUTHORITIES.
E. CONTROL DUST CAUSED BY THE WORK. DAMPEN SURFACES AS REQUIRED. COMPLY WITH POLLUTION CONTROL REGULATIONS OF GOVERNING AUTHORITIES. .
F. PROTECT EXISTING BUILDINGS, PAVING, AND OTHER SERVICES OR FACILITIES ON SITE AND ADJACENT TO THE SITE FROM DAMAGE CAUSED BY WORK OPERATIONS. COST OF REPAIR AND RESTORATION OF DAMAGED ITEMS AT CONTRACTORS EXPENSE.
G. PROTECT AND MAINTAIN STREETLIGHTS, UTILITY POLES AND SERVICES, TRAFFIC SIGNAL CONTROL BOXES, CURB BOXES, VALVES AND OTHER SERVICES, EXCEPT ITEMS DESIGNATED FOR REMOVAL. REMOVE OR COORDINATE THE REMOVAL OF TRAFFIC SIGNS, PARKING METERS AND POSTAL MAILBOXES WITH THE APPLICABLE GOVERNMENTAL AGENCY.
H. AT THE CONCLUSION OF EACH WORK DAY, THE CONTRACTOR IS RESPONSIBLE FOR LEAVING THE SITE IN A CLEAN AND SAFE CONDITION.

PART 2 PRODUCTS

2.01 MATERIALS AND EQUIPMENT

A. MATERIALS AND EQUIPMENT: AS SELECTED BY CONTRACTOR, EXCEPT AS INDICATED.
B. EQUIPMENT: IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
C. MATERIALS: IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

PART 3 EXECUTION

3.01 PREPARATION

A. EXAMINE THE AREAS AND CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED. DO NOT PROCEED WITH THE WORK UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.
B. CONSULT THE AVAILABLE RECORDS AND DRAWINGS OF ADJACENT WORK AND OF EXISTING SERVICES AND UTILITIES WHICH MAY AFFECT WORK OPERATIONS, AS PROVIDED BY OWNER.

END OF SECTION 0001

SECTION 0002

TREE AND SHRUB PLANTING

PART 1 GENERAL

1.01 DESCRIPTION

A. PROVIDE TREES AND SHRUBS AS SHOWN AND SPECIFIED. THE WORK INCLUDES:
1. SOIL PREPARATION.
2. TREES, SHRUBS.
3. PLANTING MIXES.
4. MULCH AND PLANTING ACCESSORIES.
5. EXISTING PLANT RELOCATION.

B. RELATED WORK:
1. SECTION 00000: EARTHWORK.
2. SECTION 00004: SEEDING.
3. SECTION 00005: SODDING.
4. SECTION 00003: PERENNIAL , ORNAMENTAL GRASS, GROUNDCOVER PLANTING.

1.02 QUALITY ASSURANCE

A. COMPLY WITH SECTION 00001 REQUIREMENTS.
B. COMPLY WITH SECTION 00003 REQUIREMENTS WHEN APPLICABLE .
C. PROVIDE STOCK TRUE TO BOTANICAL NAME. DO NOT SUBSTITUTE WITHOUT PERMISSION OF OWNER OR OWNERS REPRESENTATIVE. NONCONFORMING PLANTS WILL BE REJECTED AT CONTRACTORS EXPENSE.
D. COMPLY WITH SIZING AND GRADING STANDARDS OF THE LATEST EDITION OF 'AMERICAN STANDARD FOR NURSERY STOCK'. A PLANT SHALL BE DIMENSIONED AS IT STANDS IN ITS NATURAL POSITION. NONCONFORMING PLANTS WILL BE REJECTED AT CONTRACTORS EXPENSE.
E. ALL PLANTS SHALL BE LOCALLY GROWN UNDER CLIMATIC AND SOIL CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT.
F. STOCK FURNISHED SHALL BE AT LEAST THE MINIMUM SIZE INDICATED. LARGER STOCK IS ACCEPTABLE WITHIN REASON, AT NO ADDITIONAL COST TO OWNER. ROOT SYSTEMS MUST MEET ANLA STANDARDS AS SPECIFIED. PLANTS SHOULD NOT BE ALTERED BY PRUNING OR OTHER MEANS TO MEET SPECIFICATIONS.
G. PROVIDE 'SPECIMEN' PLANTS WITH A SPECIAL HEIGHT, SHAPE OR CHARACTER OF GROWTH. SPECIMEN TREES OR SHRUBS MAY BE TAGGED AT THE SOURCE OF SUPPLY. THE OWNER'S REPRESENTATIVE MAY CHOOSE TO INSPECT SPECIMEN SELECTIONS AT THE SOURCE OF SUPPLY FOR SUITABILITY AND ADAPTABILITY TO SELECTED LOCATION. WHEN SPECIMEN PLANTS CANNOT BE PURCHASED LOCALLY, PROVIDE SUFFICIENT PHOTOGRAPHS OF THE PROPOSED SPECIMEN PLANTS FOR APPROVAL IF SO REQUESTED. NO 'PARK GRADE' MATERIAL WILL BE ACCEPTED.
H. PLANTS MAY BE INSPECTED AND APPROVED AT THE PLACE OF GROWTH, FOR COMPLIANCE WITH SPECIFICATION REQUIREMENTS FOR QUALITY, SIZE AND VARIETY.

CONTINUE SECTION 0002 TREE AND SHRUB PLANTING

1.03 SUBMITTALS

A. SUBMIT THE FOLLOWING MATERIAL SAMPLES, IF REQUESTED:
1. MULCH -BULK OR BAGGED.
2. DECORATIVE STONE OR GRAVEL -BAG OR BULK

B. SUBMIT THE FOLLOWING MATERIALS CERTIFICATION, IF REQUESTED:
1. TOPSOIL SOURCE AND PH VALUE.
2. PEAT MOSS, COMPOST, OR OTHER ORGANIC SOIL AMENDMENTS
3. PLANT FERTILIZER.

1.04 DELIVERY, STORAGE, AND HANDLING

A. DELIVER FERTILIZER MATERIALS IN ORIGINAL, UNOPENED AND UNDAMAGED CONTAINERS SHOWING WEIGHT, ANALYSIS, AND NAME OF MANUFACTURER. STORE IN MANNER TO PREVENT WETTING AND DETERIORATION.
B. TAKE ALL PRECAUTIONS CUSTOMARY IN GOOD NURSERY PRACTICE TO PREPARE PLANTS FOR TRANSPORT. WORKMANSHIP, WHICH FAILS TO MEET THE HIGHEST STANDARDS, WILL BE REJECTED. SPRAY DECIDUOUS PLANTS IN FOLIAGE WITH AN APPROVED ANTI- DESICCANT IMMEDIATELY BEFORE DIGGING TO PREVENT DEHYDRATION WHEN IN LEAF. DIG, PACK, TRANSPORT, AND HANDLE PLANTS WITH CARE TO ENSURE PROTECTION AGAINST INJURY.
C. COVER PLANTS TRANSPORTED ON OPEN VEHICLES WITH A PROTECTIVE COVERING TO PREVENT WINDBURN.
D. MOISTEN ALL BURLAP ROOT BALL BEFORE TRANSPORTING. PREVENT SURFACE FROM DRYING DURING TRANSPORTING

1.05 PROJECT CONDITIONS

A. WORK NOTIFICATION: NOTIFY OWNERS REPRESENTATIVE AT LEAST TWO (2) WORKING DAYS PRIOR TO INSTALLATION OF PLANT MATERIAL.
B. PROTECT EXISTING UTILITIES, PAVING, AND OTHER FACILITIES FROM DAMAGE CAUSED BY LANDSCAPING OPERATIONS. CALL 811 TO MARK UNDERGROUND UTILITIES A MINIMUM OF 48 HOURS BEFORE DIGGING.
C. A COMPLETE LIST OF PLANTS, INCLUDING A SCHEDULE OF SIZES, QUANTITIES, AND OTHER REQUIREMENTS IS SHOWN ON THE DRAWINGS. IN THE EVENT THAT QUANTITY DISCREPANCIES OR MATERIAL OMISSIONS OCCUR IN THE PLANT MATERIALS LIST, THE PLANTING PLANS SHALL GOVERN. PAYMENT SHALL BE BASED ON ACTUAL INSTALLED PLANT COUNT.

1.06 WARRANTY

A. WARRANT PLANT MATERIAL TO REMAIN ALIVE AND BE IN A HEALTHY, VIGOROUS CONDITION FOR A PERIOD OF ONE (1) YEAR AFTER ACCEPTANCE, PROVIDED PLANTS ARE GIVEN PROPER CARE BY OWNER DURING THIS PERIOD.
1. CONTRACTOR TO CALL FOR FINAL INSPECTION OF PLANTS.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSPECT THE WATERING, CULTIVATION AND OTHER MAINTENANCE OPERATIONS PERFORMED BY THE OWNER DURING THE WARRANTY PERIOD.
3. ANY METHODS OR PRACTICES, WHICH THE CONTRACTOR CONSIDERS UNSATISFACTORY AND NOT IN ACCORD WITH STANDARD HORTICULTURAL PRACTICES SHALL BE REPORTED TO THE OWNER IN WRITING.

B. REMOVE AND IMMEDIATELY REPLACE ALL PLANTS, AS DETERMINED BY THE OWNERS REPRESENTATIVE, TO BE UNSATISFACTORY DURING THE INITIAL PLANTING INSTALLATION.
C. REPLACE ONCE, IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, ALL PLANTS THAT ARE DEAD OR, AS DETERMINED BY OWNER'S REPRESENTATIVE, ARE IN A SEVERELY UNHEALTHY CONDITION WITHIN WARRANTY PERIOD. REPLACEMENTS TO BE INSTALLED AT NEXT BEST PLANTING SEASON.
D. WARRANTY SHALL NOT INCLUDE DAMAGE OR LOSS OF TREES, PLANTS, OR GROUND COVERS CAUSED BY FIRES, FLOODS, DROUGHT, FREEZING RAINS, LIGHTNING STORMS, OR WINDS OVER 75 MILES PER HOUR, WINTER KILL CAUSED BY EXTREME COLD AND SEVERE WINTER CONDITIONS NOT TYPICAL OF PLANTING AREAS; ACTS OF VANDALISM, ANIMAL DESTRUCTION OR NEGLIGENCE ON THE PART OF THE OWNER. ANY REPLACEMENT ATTRIBUTED TO THESE CAUSES MUST BE IN ADDITION TO THE CONTRACT AMOUNT.

PART 2 PRODUCTS

2.01 MATERIALS

A. PLANTS: PROVIDE PLANTS TYPICAL OF THEIR SPECIES OR VARIETY; WITH NORMALLY DEVELOPED BRANCHES AND VIGOROUS ROOT SYSTEMS. PROVIDE ONLY SOUND, HEALTHY, VIGOROUS PLANTS FREE FROM DEFECTS, DISFIGURING KNOTS, SUNSCALD INJURIES, FROST CRACKS, ABRASIONS OF THE BARK, PLANT DISEASES, INSECT EGGS, BORERS, AND ALL FORMS OF INFESTATION.
1. DIG BALLED AND BURLAPPED PLANTS WITH FIRM, NATURAL BALLS OF EARTH OF SUFFICIENT DIAMETER AND DEPTH AS NECESSARY FOR FULL RECOVERY OF THE PLANT. PROVIDE BALL SIZES COMPLYING WITH THE LATEST EDITION OF THE 'AMERICAN STANDARD FOR NURSERY STOCK'. CRACKED OR MUSHROOMED BALLS ARE NOT ACCEPTABLE.
2. CONTAINER-GROWN STOCK SHALL HAVE GROWN IN A CONTAINER FOR SUFFICIENT LENGTH OF TIME FOR THE ROOT SYSTEM TO HAVE DEVELOPED TO HOLD ITS SOIL TOGETHER, FIRM AND WHOLE.

A. NO PLANTS SHALL BE LOOSE IN THE CONTAINER.
B. CONTAINER STOCK SHALL NOT BE POT BOUND.

3. IF THE USE OF LARGER THAN SPECIFIED PLANTS IS ACCEPTABLE, INCREASE THE SPREAD OF ROOTS OR ROOT BALL IN PROPORTION TO THE SIZE OF THE PLANT.
4. THE HEIGHT OF THE TREES, MEASURED FROM THE CROWN OF THE ROOTS TO THE TOP OF THE TOP BRANCH, SHALL NOT LESS THAN THE MINIMUM SIZE AND VARIETY DESIGNATED IN THE PLANT LIST AND ACCORDING TO THE ANLA STANDARDS FOR NURSERY STOCK.
5. SHRUBS AND SMALL PLANTS SHALL MEET THE REQUIREMENTS FOR SPREAD AND/OR HEIGHT INDICATED IN THE PLANT LIST AND BE IN ACCORDANCE WITH ANLA STANDARDS.

2.02 ACCESSORIES

A. TOPSOIL FOR PLANTING BEDS: FERTILE, FRIABLE, NATURAL TOPSOIL WITHOUT ADMIXTURE OF SUBSOIL MATERIAL, OBTAINED FROM A WELL-DRAINED ARABLE SITE, REASONABLY FREE FROM CLAY, LUMPS, COARSE SANDS, STONES, PLANTS, ROOTS, STICKS, AND OTHER FOREIGN MATERIALS, WITH ACIDITY RANGE OF BETWEEN PH 5.5 TO 6.0 AND BE TYPICAL OF THE AREA.
1. IDENTIFY SOURCE LOCATION OF TOPSOIL PROPOSED FOR USE ON THE PROJECT.
2. PROVIDE TOPSOIL FREE OF SUBSTANCES HARMFUL TO THE PLANTS WHICH WILL BE GROWN IN THE SOIL.

B. PEAT MOSS: BROWN TO BLACK IN COLOR, WEED AND SEED FREE GRANULATED RAW PEAT OR BALED PEAT, CONTAINING NOT MORE THAN 9% MINERAL ON A DRY BASIS.
C. ORGANIC MATTER- ORGANIC MATTER CAN BE FROM PEAT MOSS, COMPOST, OR LOCALLY AVAILABLE ORGANIC WASTE. ORGANIC MATTER SHOULD BE WELL COMPOSTED, FREE FROM DEBRIS, WEED SEEDS, AND INSECTS OR DISEASES WHICH MAY BE HARMFUL TO THE INTENDED PLANTING.
D. MULCH: DARK PREMIUM GRADE , DOUBLE PROCESSED SHREDDED HARDWOOD UNLESS OTHERWISE APPROVED BY OWNERS REPRESENTATIVE.
E. FERTILIZER:
1. PLANT FERTILIZER: COMMERCIAL TYPE APPROVED BY THE OWNERS REPRESENTATIVE, CONTAINING 10% NITROGEN, 10% PHOSPHORIC ACID AND 10% POTASH BY WEIGHT OR EQUIVALENT IN A SLOW RELEASED GRANULAR FORM.

F. PRE EMERGENT HERBICIDE: TREFLAN, RONSTAR-G OR APPROVED EQUIVALENT APPLIED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS TO ALL PLANT BED AREAS UNLESS OTHERWISE INDICATED.
G. ANTI-DESICCANT: PROTECTIVE FILM EMULSION PROVIDING A PROTECTIVE FILM OVER PLANT SURFACES; PERMEABLE TO PERMIT TRANSPIRATION. MIXED AND APPLIED IN ACCORDANCE WITH MANUFACTURER*S INSTRUCTIONS.
H. WATER: HOSES OR OTHER METHODS OF TRANSPORTATION TO BE FURNISHED BY CONTRACTOR. WATER TO BE PROVIDED BY THE OWNER AT THE SITE.
I. STAKES FOR STAKING: HARDWOOD, 2" X 2" 6-8' LONG 2X4 PINE IS PERMISSIBLE.
J. STAKES FOR GUYING: HARDWOOD, 2" X 2" X 24" LONG OR 'DUCKBILL' OR 'SPEED STAKE' EARTH ANCHORS.
K. GUYING/STAKING WIRE: 12- OR 14-GAUGE GALVANIZED WIRE.
1. TURNBUCKLES: GALVANIZED STEEL OF SIZE AND GAUGE REQUIRED TO PROVIDE TENSILE STRENGTH EQUAL TO THAT OF THE WIRE. TURNBUCKLE OPENINGS SHALL BE AT LEAST 3".

L. STAKING AND GUYING HOSE: TWO-PLY, REINFORCED GARDEN HOSE NOT LESS THAN 1/2" INSIDE DIAMETER. SHALL BE UNIFORM IN COLOR.
M. PLASTIC GUY MATERIAL NO LESS THAN 1/4". SHALL BE UNIFORM IN COLOR AND LEVEL AS APPLIED.
N. TWINE: TWO-PLY JUTE MATERIAL.
O. WEED CONTROL BARRIER: 'IF INDICATED' ROT RESISTANT POLYPROPYLENE FABRIC OR EQUIVALENT, WATER AND AIR PERMEABLE.

PART 3 EXECUTION

3.01 INSPECTION

A. EXAMINE PROPOSED PLANTING AREAS AND CONDITIONS BEFORE INSTALLATION. DO NOT START PLANTING WORK UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.

3.02 PREPARATION

A. COORDINATION AND SCHEDULING - TIME OF PLANTING
COORDINATE INSTALLATION OF PLANTING MATERIALS DURING NORMAL PLANTING SEASONS FOR EACH TYPE OF PLANT MATERIAL REQUIRED. NORMAL SEASONS FOR THE INSTALLATION OF PLANT MATERIAL SHALL BE AS FOLLOWS:
1. SPRING PLANTING: PERFORM FROM TIME SOIL BECOMES WORKABLE TO JUNE 15. INSTALL EVERGREEN TREES PRIOR TO NEW GROWTH BEGINNING IN THE SPRING.
2. FALL PLANTING: PERFORM FROM SEPTEMBER 1 TO NOVEMBER 15. PERENNIALS AND GROUND COVERS SHALL BE COMPLETED BY OCTOBER 15.
3. SUMMER PLANTING: PLANTING PERFORMED BETWEEN JUNE 15 AND AUGUST 31, SHALL BE CONSIDERED UNSEASONABLE AND WILL REQUIRE OWNER'S APPROVAL.

B. PLANTING SHALL BE PERFORMED ONLY BY EXPERIENCED WORKMEN FAMILIAR WITH PLANTING PROCEDURES UNDER THE SUPERVISION OF A QUALIFIED SUPERVISOR.

C. LOCATE PLANTS AS INDICATED ON DRAWINGS. IF OBSTRUCTIONS ARE ENCOUNTERED THAT ARE NOT SHOWN ON THE DRAWINGS, DO NOT PROCEED WITH PLANTING OPERATIONS UNTIL OWNER'S REPRESENTATIVE HAS SELECTED ALTERNATE PLANT LOCATIONS.

D. EXCAVATE CIRCULAR PLANT PITS WITH VERTICAL SIDES, EXCEPT FOR PLANTS SPECIFICALLY INDICATED TO BE PLANTED IN BEDS. PROVIDE SHRUB PITS AT LEAST TWICE AS WIDE AS THE ROOT SYSTEM AND 24" GREATER FOR TREES. DEPTH OF PIT SHALL BE NO GREATER THAN THE ROOT BALL DEPTH. SCARIFY BOTTOM OF THE PIT. REMOVE EXCESS EXCAVATED MATERIALS FROM THE SITE.

E. PLANTING MIXTURE FOR USE AROUND THE BALLS AND ROOTS OF TREES AND SHRUBS SHALL CONSIST OF FIVE (5) PARTS EXISTING SOIL TO ONE (1) PART PEAT MOSS AND LB. PLANT FERTILIZER FOR EACH CUBIC YARD OF MIXTURE OR EQUIVALENT. BAGGED BARK PROFESSIONAL MIXES ARE AN EQUIVALENT SUBSTITUTE FOR PEAT MOSS.

3.03 INSTALLATION

A. SET PLANT MATERIAL IN THE PLANTING PIT TO PROPER GRADE AND ALIGNMENT. SET PLANTS UPRIGHT, PLUM AND FACED TO GIVE THE BEST APPEARANCE OR RELATIONSHIP TO EACH OTHER OR ADJACENT STRUCTURE. SET PLANT MATERIAL NO LOWER THAN THE FINISH GRADE OR 2"-3" ABOVE FINISHED GRADE. NO FILLING WILL BE PERMITTED AROUND TRUNKS OR STEMS. BACK FILL THE PIT WITH EXISTING SOIL OR APPROVED TOP SOIL OR MIX. FORM A RING OF SOIL AROUND THE EDGE OF EACH PLANTING PIT TO RETAIN WATER.

B. AFTER PLANTS ARE SET, MUDDLE PLANTING SOIL MIXTURE AROUND BASES OF BALLS AND FILL ALL VOIDS.
1. REMOVE ALL SYNTHETIC BURLAP AND ROPES, AND WIRES FROM THE COLLAR OF BALLS.

C. SPACE PLANTS IN ACCORDANCE WITH SCALED DRAWINGS.

D. WATERING: WATER PLANTING THOROUGHLY TO PULL SOILS AGAINST ROOT BALL AND SETTLE AIR POCKETS. ADDITIONAL SOIL MAY BE NEEDED, WATER AGAIN TO ENSURE COMPLETE COMPACTION.

E. MULCHING: TREES AND SHRUBS SHALL HAVE MULCH APPLIED IMMEDIATELY AFTER PLANTING. AFTER WATERING, RAKE MULCH TO PROVIDE A UNIFORM FINISHED SURFACE.
1. MULCH TREES AND SHRUBS WITH REQUIRED MULCHING MATERIAL 3-4"
2. MULCH PERENNIAL BEDS 2- 3" DEEP
3. MULCH GROUND COVER BEDS TO A DEPTH OF 1-2" (NO MORE THAN 2") BEFORE INSTALLING GROUNDCOVER PLANTS. BRUSH MULCH OFF OF FOLIAGE.

F. WRAPPING, GUYING, STAKING: IT IS THE CONTRACTORS TO OPTION TO STAKE TREES, BUT HIS RESPONSIBILITY TO ASSURE PLANTS REMAIN PLUMB UNTIL END OF THE GUARANTEE PERIOD.
1. WRAPPING SHOULD BE DONE ONLY ON AN AS NEED BASIS.
2. STAKING/GUYING (IF NEEDED)

A. STAKE/GUY SHOULD ONLY BE USED WHEN TREES ARE LOOSE OR WEAK STEMMED.
SEE STAKING DETAILS ON THE DRAWINGS

G. PRUNING:
1. REMOVE OR CUT BACK BROKEN, DAMAGED AND ASYMMETRICAL GROWTH OF NEW WOOD.
2. UNLESS OTHERWISE DIRECTED, PRUNE EVERGREENS ONLY TO REMOVE BROKEN OR DAMAGED BRANCHES.

H. EXISTING PLANT RELOCATION:
1. TRANSPLANT TREES AND SHRUBS DESIGNATED FOR RELOCATION TO LOCATIONS SHOWN ON THE DRAWINGS. PRUNE, DIG, BALL AND BURLAP, MOVE AND PLANT IN ACCORDANCE WITH SPECIFIED TREE PLANTING REQUIREMENTS.
2. PRUNE, DIG, BALL AND BURLAP, AND MOVE DESIGNATED TREES FOR RELOCATION TO THE DESIGNATED PLANT STORAGE AREA FOR HEELING-IN OF MATERIALS UNTIL FINAL PLANTING AREAS ARE PREPARED, IF REQUIRED.

A. MAINTAIN PLANTS IN STORAGE AREAS BY BRACING PLANTS IN VERTICAL POSITION AND SETTING BALLS IN AN ENCLOSED BERM OF TOPSOIL OR BARK. WATER AS REQUIRED TO MAINTAIN ADEQUATE ROOT MOISTURE.
B. RE-BURLAP PLANT BALLS IF REQUIRED BEFORE FINAL TRANSPLANTING OPERATIONS.
C. MOVE TO FINAL LOCATIONS SHOWN ON THE DRAWINGS AND PLANT IN ACCORDANCE WITH SPECIFIED TREE PLANTING REQUIREMENTS.

3. TRANSPLANTS ARE NOT UNDER WARRANTY UNLESS INDICATED.

3.04 MAINTENANCE

A. MAINTENANCE OF INSTALLED AND ACCEPTED PLANTINGS WILL BE PERFORMED BY THE OWNER.
B. CONTRACTOR'S MAINTENANCE SHALL INCLUDE PRUNING, CULTIVATING, WEEDING, WATERING, AND APPLICATION OF APPROPRIATE INSECTICIDES AND FUNGICIDES NECESSARY TO MAINTAIN PLANTS FREE OF INSECTS AND DISEASE UNTIL ACCEPTANCE.
1. RE-SET SETTLED PLANTS TO PROPER GRADE AND POSITION. RESTORE PLANTING SAUCER AND ADJACENT MATERIAL AND REMOVE DEAD MATERIAL.
2. TIGHTEN AND REPAIR GUY WIRES AND STAKES AS REQUIRED, ONLY IF ORIGINALLY NEEDED.
3. CORRECT DEFECTIVE WORK AS SOON AS POSSIBLE AFTER DEFICIENCIES BECOME APPARENT AND WEATHER AND SEASON PERMIT.
4. WATER ALL PLANT MATERIAL AS NECESSARY .

3.05 ACCEPTANCE

A. PLANTED AREAS WILL BE INSPECTED AT COMPLETION OF INSTALLATION AND ACCEPTED SUBJECT TO COMPLIANCE WITH SPECIFIED MATERIALS AND INSTALLATION REQUIREMENTS.
B. INSPECTION UPON CONTRACTORS REQUEST TO DETERMINE ACCEPTANCE OF PLANTED AREAS WILL BE MADE BY THE OWNER'S REPRESENTATIVE.
1. PLANTED AREAS WILL BE ACCEPTED PROVIDED ALL REQUIREMENTS HAVE BEEN COMPLIED WITH AND PLANT MATERIALS ARE ALIVE AND IN A HEALTHY, VIGOROUS CONDITION.

C. SECTIONS OF THE WORK MAY BE ACCEPTED WHEN COMPLETE UPON AGREEMENT OF THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR.
D. UPON ACCEPTANCE, THE OWNER WILL ASSUME PLANT MAINTENANCE.

3.06 CLEANING

A. PERFORM CLEANING DURING INSTALLATION AND UPON COMPLETION OF THE WORK. REMOVE FROM SITE ALL EXCESS MATERIALS, SOIL, DEBRIS, AND EQUIPMENT. REPAIR DAMAGE RESULTING FROM PLANTING OPERATIONS.

END OF SECTION 0002

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ISSUE

TO	DATE
ZONING	08/9/22
VILLAGE	01/6/23
VILLAGE	02/27/23

CHECK: CK
DRAWN: PAC
JOB:D220035

LS-1
LANDSCAPE SPECIFICATIONS

LANDSCAPE SPECIFICATIONS

SECTION 0003

PERENNIALS - ORNAMENTAL GRASSES - GROUNDCOVER PLANTING

PART 1 GENERAL

1.01 DESCRIPTION

A. PROVIDE PERENNIALS, ORNAMENTAL GRASSES AND GROUND COVERS AS SHOWN AND SPECIFIED. THE WORK INCLUDES:
   1. SOIL PREPARATION.
   2. PERENNIAL, ORNAMENTAL GRASSES AND GROUNDCOVERS.
   3. PLANTING MIXES.
   4. MULCH AND PLANTING ACCESSORIES.

B. RELATED WORK:
   1. SECTION 00000: EARTHWORK.
   2. SECTION 00004: SEEDING.
   3. SECTION 00005: SODDING.
   4. SECTION 00002: TREE AND SHRUB PLANTING.

1.02 QUALITY ASSURANCE

A. COMPLY WITH SECTION 00001 REQUIREMENTS.
   COMPLY WITH SECTION 00002 WHEN APPLICABLE.
B. LANDSCAPE CONTRACTORS SHALL PROVIDE STOCK TRUE TO BOTANICAL NAME AND LEGIBLY TAGGED. DO NOT SUBSTITUTE WITHOUT PERMISSION OF LANDSCAPE ARCHITECT.
C. COMPLY WITH SIZING AND GRADING STANDARDS OF THE LATEST EDITION OF 'AMERICAN STANDARD FOR NURSERY STOCK'. A PLANT SHALL BE DIMENSIONED AS IT STANDS IN ITS NATURAL POSITION.
   1. SPECIFIED POT SIZES AND PLANT GRADES SHOULD COMPLY WITH THE STANDARDS ACCEPTED BY THE ANLA. THESE STANDARDS LIST MINIMUM DIMENSIONS FOR CONTAINERS IN VARIOUS CLASSES AND DEFINE MINIMUM STANDARDS FOR BARE ROOT LINERS, DIVISIONS, AND FIELD CLUMPS.
D. ALL PLANTS SHALL BE LOCALLY GROWN UNDER CLIMATIC AND SOIL CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT.
E. STOCK FURNISHED SHALL BE AT LEAST THE MINIMUM SIZE INDICATED. LARGER STOCK IS ACCEPTABLE WITHIN REASON, AT NO ADDITIONAL COST TO OWNER. ROOT SYSTEMS MUST MEET ANLA STANDARDS AS SPECIFIED. PLANTS SHOULD NOT BE ALTERED BY PRUNING OR OTHER MEANS TO MEET SPECIFICATIONS.
F. PLANTS MAY BE INSPECTED AND APPROVED AT THE PLACE OF GROWTH, FOR COMPLIANCE WITH SPECIFICATION REQUIREMENTS FOR QUALITY, SIZE AND VARIETY.

1.03 SUBMITTALS

A. AFTER PREPARATION, A SAMPLE OF THE PLANTING SOIL SHALL BE SUBMITTED TO THE LANDSCAPE IF REQUESTED, PRIOR TO INSTALLATION OF THE PLANTS. ADDITIONAL ORGANIC MATTER AND PREPARATION MAY BE REQUIRED BASED ON THE PHYSICAL PROPERTIES OF THE SAMPLE SUBMITTED. A SEPARATE SAMPLE FROM EACH PLANTING BED SHALL BE SUBMITTED IF REQUESTED.
B. A SAMPLE OF THE ORGANIC MATTER SPECIFIED SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO USE. A LABORATORY ANALYSIS MAY BE REQUESTED IF DEEMED NECESSARY.
C. PRIOR TO USE, LABELS OF ALL SOIL AMENDMENTS SHALL BE INSPECTED BY THE LANDSCAPE ARCHITECT TO VERIFY COMPLIANCE WITH THE DESIGN SPECIFICATIONS. SAMPLES MAY BE REQUESTED FOR LABORATORY ANALYSIS.
D. EACH SEPARATELY CONTAINERIZED PLANT BROUGHT TO THE SITE SHALL BE LABELED WITHIN REASON. FLATS OF THE SAME PLANTS MAY HAVE ONE LABEL PER FLAT. EACH BUNDLE OF BARE ROOT PLANTS SHALL BE LABELED. THESE LABELS MUST SHOW THE BOTANICAL NAME OF THE PLANT. THE LANDSCAPE ARCHITECT SHALL INSPECT THE LABELS, CONTAINER SIZES, AND DIVISION SIZES OF BARE ROOT PLANTS FOR COMPLIANCE TO THE DESIGN SPECIFICATIONS PRIOR TO PLANTING. THE LANDSCAPE ARCHITECT SHALL ALSO VERIFY THAT THE PLANTS DELIVERED TO THE SITE ARE LABELED TRUE TO NAME. UPON ACCEPTANCE OF THE PLANTS BY THE OWNER, THE LANDSCAPE CONTRACTOR SHALL PROVIDE WRITTEN MAINTENANCE PROCEDURES FOR MAINTENANCE OF THE PLANTS.
E. FOLLOWING THE INSTALLATION, THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE LANDSCAPE ARCHITECT WITH A COPY OF THE ORIGINAL PLAN NOTING ANY SITE ADJUSTMENTS TO THAT ORIGINAL PLAN

PART 2 PRODUCTS

2.01 MATERIALS

A. PLANTS: PROVIDE PLANTS TYPICAL OF THEIR SPECIES OR VARIETY; WITH NORMALLY DEVELOPED HABIT AND VIGOROUS ROOT SYSTEMS. PROVIDE ONLY SOUND, HEALTHY, VIGOROUS PLANTS FREE FROM DEFECTS, SUNSCALD INJURIES, PLANT DISEASES, INSECT EGGS, AND ALL FORMS OF INFESTATION.
   1. CONTAINER-GROWN STOCK SHALL HAVE GROWN IN A CONTAINER FOR SUFFICIENT LENGTH OF TIME FOR THE ROOT SYSTEM TO HAVE DEVELOPED TO HOLD ITS SOIL TOGETHER, FIRM AND WHOLE.
      A. NO PLANTS SHALL BE LOOSE IN THE CONTAINER.
      B. CONTAINER STOCK SHALL NOT BE POT BOUND.
   2. IF THE USE OF LARGER THAN SPECIFIED PLANTS IS ACCEPTABLE, INCREASE THE SPREAD OF ROOTS OR CONTAINER SIZE IN PROPORTION TO THE SIZE OF THE PLANT.
   3. PLANTS SHALL MEET THE REQUIREMENTS FOR SPREAD AND/OR HEIGHT INDICATED IN THE PLANT LIST AND BE IN ACCORDANCE WITH ANLA STANDARDS.

2.02 PLANT SPECIFICATIONS

A. PERENNIAL AND GROUNDCOVER PLANTS ARE SPECIFIED FOR DESIGN BY THE CONTAINER CLASS AND SIZE (I.E. 2" SQUARE CONTAINER OR 1 QUART CONTAINER, ETC.) OR, IF BARE ROOT, BY GRADE AS ACCEPTED BY ANLA STANDARDS FOR NURSERY STOCK AND THE PRODUCTION TRADE (I.E. 1-EYE DIVISION, 2-3 EYE DIVISION, FIELD CLUMP, ETC.).
B. PERENNIALS ARE SPECIFIED BY TYPE:
   1. CONTAINER-GROWN - GROWN TO A SPECIFIED SIZE IN A CONTAINER.
   2. BARE ROOT - PURCHASED FREE OF ANY GROWING MEDIUM REGARDLESS OF GROWING METHOD.
   3. FIELD-POTTED - FIELD-GROWN PLANTS WHICH ARE POTTED FOR DELIVERY AS THEY ARE DUG FROM THE FIELD.

2.03 SOIL REQUIREMENTS

DEPENDING ON EXISTING CONDITIONS OF TOPSOIL ONSITE, REQUIRED SOIL MIX MAY BE PREPARED ONSITE THROUGH MANUAL AND MECHANICAL MEANS, OR IN THE EVENT EXISTING SOIL IS IN UNACCEPTABLE CONDITION AND MAKEUP ; NEW TOPSOIL OR A COMPLETE MIX TO BE INSTALLED AFTER EXISTING SOIL IS EXCAVATED TO PROPER DEPTH AND REMOVED / DISPOSED OFFSITE.
FINAL SOIL COMPOSITION IN PERENNIAL , ORNAMENTAL GRASS AND GROUNDCOVER BEDS TO BE
40% TOPSOIL , 30% ORGANIC MATTER, 30% COARSE SAND, PLUS 1 LB. FERTILIZER PER CUBIC YARD OF SOIL MIX

A. SOIL FOR PERENNIAL BEDS SHOULD BE ROTOTILLED 8 INCHES DEEP MINIMUM. GROUNDCOVER BEDS AT 6" MINIMUM UNLESS OTHERWISE NOTED. TOP SOIL SHOULD BE DRY, LOOSE, AND FREE OF DEBRIS. WHERE HARDPAN EXISTS BENEATH THE PREPARED BED, DEEPER PREPARATION MAY BE SPECIFIED. ADDITIONALLY, THE LANDSCAPE CONTRACTOR SHOULD IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT IF ANY BEDS DO NOT DRAIN PROPERLY.
BAGGED BARK PROFESSIONAL MIXES ARE AN EQUIVALENT SUBSTITUTE FOR PEAT MOSS.

2.04 AMENDMENTS

A. TOPSOIL: TOPSOIL FOR PLANTING BEDS: FERTILE, FRIABLE, NATURAL TOPSOIL WITHOUT ADMIXTURE OF SUBSOIL MATERIAL, OBTAINED FROM A WELL-DRAINED ARABLE SITE, REASONABLY FREE FROM CLAY, LUMPS, COARSE SANDS, STONES, PLANTS, ROOTS, STICKS, AND OTHER FOREIGN MATERIALS, WITH ACIDITY RANGE OF BETWEEN PH 5.5 TO 6.0 AND BE TYPICAL OF THE AREA.
   1.IDENTIFY SOURCE LOCATION OF TOPSOIL PROPOSED FOR USE ON THE PROJECT.
   2.PROVIDE TOPSOIL FREE OF SUBSTANCES HARMFUL TO THE PLANTS WHICH WILL BE GROWN IN THE SOIL.

B. ORGANIC MATTER- ORGANIC MATTER CAN BE FROM PEAT MOSS, COMPOST, OR LOCALLY AVAILABLE ORGANIC WASTE. ORGANIC MATTER SHOULD BE WELL COMPOSTED, FREE FROM DEBRIS, WEED SEEDS, AND INSECTS OR DISEASES WHICH MAY BE HARMFUL TO THE INTENDED PLANTING

C. FERTILIZERS: TO BE DELIVERED TO THE JOB SITE IN THEIR ORIGINAL PACKAGING WITH LEGIBLE, INTACT LABELS INDICATING NUTRIENT CONTENT AND SOURCE. LABELS SHOULD BE CHECKED PRIOR TO USE AND A SAMPLE MAY BE REQUESTED FOR LABORATORY ANALYSIS.
   1. COMMERCIAL TYPE APPROVED BY THE OWNER'S REPRESENTATIVE, CONTAINING 10% NITROGEN, 10% PHOSPHORIC ACID AND 10% POTASH BY WEIGHT OR EQUIVALENT IN A SLOW RELEASED GRANULAR FORM.

D. COARSE SAND: GRADATION FA-2

PART 3 EXECUTION

3.01 PRE-PLANTING AND POST-PLANTING INSTRUCTIONS

A. PRE-PLANTING.
1. PLANTS SHALL BE BROUGHT TO THE SITE THE DAY THEY ARE TO BE INSTALLED, IF POSSIBLE. IF SITUATIONS ARISE WHERE EARLIER DELIVERY CANNOT BE AVOIDED OR IF PLANTING IS DELAYED AFTER THE PLANTS HAVE BEEN DELIVERED, THEY SHALL BE STORED WHERE THEY CAN BE PROPERLY WATERED, SHELTERED FROM DIRECT SUNLIGHT, AND PROTECTED FROM MECHANICAL DAMAGE BY CONSTRUCTION EQUIPMENT, ANIMALS, ETC. IF STORAGE NEEDS TO BE MORE THAN TWO DAYS, THE PLANTS SHALL BE SEPARATED FAR ENOUGH FROM EACH OTHER TO PROVIDE GOOD AIR CIRCULATION TO THEIR TOPS, REDUCING THE RISK OF FUNGUS. BARE ROOT PLANTS WHICH MUST BE HELD SHALL BE HEALED-IN WHERE THEY CAN BE WATERED AS NEEDED.
2. ALL PLANTS SHALL BE WATERED THOROUGHLY AND ALLOWED TO DRAIN PRIOR TO PLANTING.
3. WHILE PLANTING, BARE ROOT PLANTS MUST BE PROTECTED FROM HOT SUN AND DRYING WIND BY SHADING THEM WITH BURLAP, LANDSCAPE FABRIC, STRAW OR OTHER BREATHABLE MATERIAL. PLASTIC IS UNACCEPTABLE. CONTAINERIZED PLANTS MUST BE LEFT IN THEIR CONTAINERS UNTIL EACH IS PLANTED. THEY SHALL NOT BE REMOVED FROM THE CONTAINERS TO BE LAID OUT ON THE BED WHERE SUN AND WIND WILL DAMAGE THE ROOTS PRIOR TO PLANTING.
4. ANY DEAD OR DAMAGED PLANT PARTS SHALL BE REMOVED FROM THE PLANTS UPON PLANTING.
5. SPACING: SPACE GROUNDCOVERS AND PERENNIALS IN ACCORDANCE WITH DESIGNATED AREAS ON DRAWINGS. IN CASE OF AREA SIZE DISCREPANCIES , A TIGHTER SPACING IS PREFERRED .

B. POST-PLANTING
   1. MULCH: WHERE MULCHING IS SPECIFIED, THE MULCH MUST BE PULLED AWAY FROM THE STEMS AND CROWNS OF PERENNIALS AND GROUNDCOVERS TO REDUCE THE OCCURRENCE OF ROT OR RODENT DAMAGE. MULCH THICKNESS IN BED AREAS SHOULD BE 2-3" FOR PERENNIALS AND 1-2" FOR GROUNDCOVERS.
   2. PERENNIAL AND GROUNDCOVER BED AREAS TO BE THOROUGHLY WATERED IMMEDIATELY AFTER INSTALLATION AND CLEANUP.

3.02 MAINTENANCE

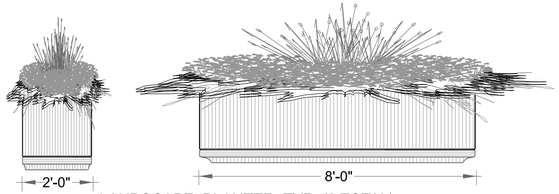
A. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF THE PERENNIALS FROM THE TIME THEY ARE BROUGHT ONTO THE JOB SITE UNTIL THEY ARE PLANTED AND ACCEPTED BY THE LANDSCAPE ARCHITECT .
1. PLANTS SHALL BE WATERED OFTEN ENOUGH TO PREVENT WILTING PRIOR TO PLANTING. AFTER PLANTING, THEY SHALL BE WATERED INITIALLY TO SETTLE THE SOIL, THEN TO PREVENT WILTING AND TO ALLOW THEM TO BECOME ESTABLISHED ON THE SITE.
2. THE BEDS SHALL BE FREE OF WEEDS AT PLANTING TIME AND SHALL BE MAINTAINED WEED FREE BY THE CONTRACTOR UNTIL THE PLANTING IS ACCEPTED BY THE CLIENT.
3. SHOULD INSECTS OR DISEASES ATTACK THE PLANTS AFTER INSTALLATION AND PRIOR TO ACCEPTANCE OF THE PLANTING, APPROPRIATE PESTICIDES SHALL BE PROPERLY APPLIED TO CORRECT THE SITUATION.
4. THE BEDS SHOULD BE CHECKED REGULARLY FOR SOIL SETTLING WHICH MAY EXPOSE THE ROOT BALLS OR OTHERWISE ENDANGER THE HEALTH OF THE PLANTING. SHOULD THIS OCCUR, THE CONTRACTOR SHALL CORRECT THE SETTLING PROBLEMS.
5. NEWLY PLANTED PERENNIALS AND GROUNDCOVERS MAY BE HEAVED OUT OF THE GROUND BY ALTERNATE FREEZES AND THAWS. SHOULD THIS OCCUR PRIOR TO ACCEPTANCE OF THE PLANTING, THE CONTRACTOR SHALL RE-SET THOSE AFFECTED PLANTS.
6. ANY NOTED DEFECTS, SUCH AS REVERSIONS, ERRANT GROWTH OR COLOR NOT TYPICAL FOR THE SPECIES OR CULTIVAR, SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. THE RECOMMENDATIONS OF THE LANDSCAPE ARCHITECT SHALL BE FOLLOWED TO CORRECT THE SITUATION. RECOMMENDATIONS MAY INCLUDE REMOVAL OF THE ENTIRE PLANT.

B. THE CLIENT OR THE CLIENT'S ASSIGNED AGENT BECOMES RESPONSIBLE FOR THE MAINTENANCE OF THE PLANTS AFTER THE PLANTING HAS BEEN ACCEPTED BY THE LANDSCAPE ARCHITECT. FAILURE TO PROPERLY MAINTAIN THE PLANTING SHALL VOID ANY WARRANTY.
1. THE CLIENT SHALL WATER THE PLANTS TO PREVENT WILTING. THE SCHEDULE WILL VARY WITH THE GROWTH OF THE PLANTS AND PREVAILING CLIMATE. GENERALLY, NEW PLANTINGS WILL NEED TO RECEIVE 1 INCH OF WATER PER WEEK. A RAIN GAUGE SHOULD BE PLACED IN THE PLANTING TO CATCH BOTH RAINFALL AND IRRIGATION WATER TO VERIFY THE AMOUNT OF APPLICATION.
2. THE CLIENT SHALL PROPERLY PINCH, PRUNE, AND DEADHEAD THE HERBACEOUS PERENNIALS AS NEEDED AND AS REQUIRED TO MEET THE AESTHETIC GOAL OF THE PLANTING.
3. THE CLIENT SHALL MAINTAIN THE PLANTING FREE FROM COMPETING WEEDS.
4. THE CLIENT SHALL REGULARLY INSPECT THE PLANTING FOR INSECTS AND DISEASES, NOTIFYING THE LANDSCAPE ARCHITECT OF ANY NOTED OCCURRENCES. IF PESTICIDES ARE DEEMED NECESSARY, THEY SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
5. AFTER THE ACCEPTANCE OF THE PLANTING, THE CLIENT IS RESPONSIBLE FOR CORRECTING ANY SETTLING OF THE PLANTING BEDS.
6. AFTER ACCEPTANCE, THE CLIENT IS RESPONSIBLE FOR SETTING ANY PLANTS WHICH ARE HEAVED OUT OF THE GROUND IN WHOLE OR IN PART BY CLIMATE CHANGES.
7. UNSATISFACTORY PERFORMANCE OF THE PERENNIALS AND GROUNDCOVERS NOTED BY THE CLIENT AFTER ACCEPTANCE OF THE PLANTING SHOULD IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.

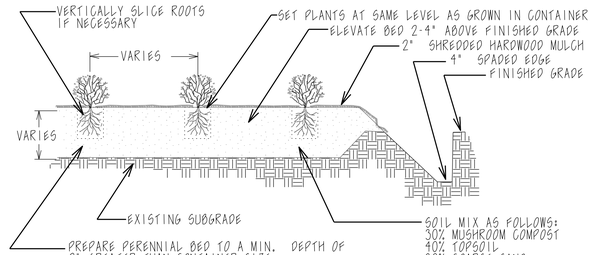
3.03 WARRANTY

ALL PLANTS WILL BE GUARANTEED TO BE TRUE TO NAME AS LABELED AND FREE FROM INSECTS, DISEASES, AND MECHANICAL DAMAGES WHEN DELIVERED TO THE SITE. ALL PLANTS WILL BE GUARANTEED TO RESUME ACTIVE GROWTH IN THE APPROPRIATE SEASON AND TO SURVIVE FOR A MINIMUM OF ONE YEAR AFTER ACCEPTANCE BY THE CLIENT, PROVIDED THE RECOMMENDED MAINTENANCE PROCEDURES ARE FOLLOWED BY THE CLIENT. MAINTENANCE INCLUDES, BUT IS NOT LIMITED TO WATERING, FERTILIZING, MULCHING, PRUNING, PROTECTING FROM UNSEASONABLE WEATHER AND ALL OTHER NORMAL CULTURAL PRACTICES.

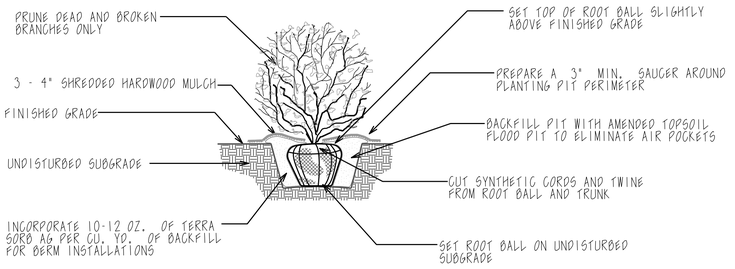
END OF SECTION 0003



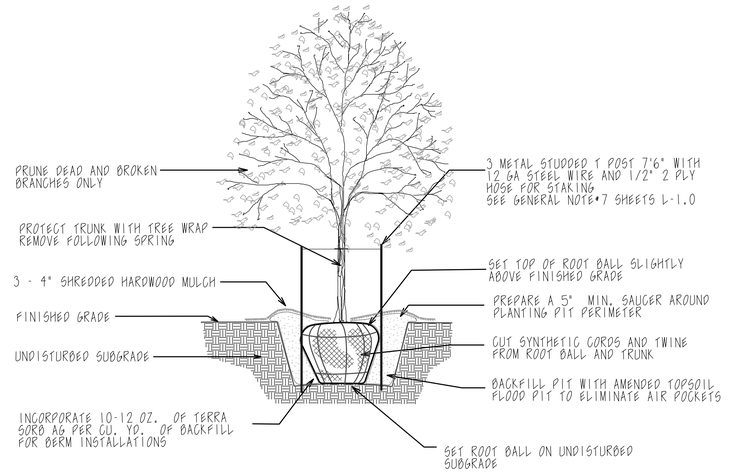
LANDSCAPE PLANTER TYP. (6 TOTAL)
NO SCALE ROTATE ANNUAL FLOWERS FOR SEASONAL COLOR



PERENNIAL PLANTING DETAIL
NOT TO SCALE USE ONLY LOCALLY GROWN NURSERY STOCK



SHRUB PLANTING DETAIL
NOT TO SCALE USE ONLY LOCALLY GROWN NURSERY STOCK



TREE PLANTING DETAIL
NOT TO SCALE USE ONLY LOCALLY GROWN NURSERY STOCK

Landscape Plans Prepared By:

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VILLAGE	01/6/23
VILLAGE	02/27/23

CHECK: CK
DRAWN: PAC
JOB:D220035

LS-2
LANDSCAPE SPECIFICATIONS

LANDSCAPE SPECIFICATIONS

SECTION 00004

SEEDING

PART 1 GENERAL

1.01 DESCRIPTION

A. PROVIDE SEEDED LAWNS AS SHOWN AND SPECIFIED. THE WORK INCLUDES:
   1. SOIL PREPARATION.
   2. SEEDING LAWNS, AND OTHER INDICATED AREAS.
   3. MULCHING.
   4. RECONDITIONING EXISTING LAWNS.
B. RELATED WORK:
   1. SECTION 00000: EARTHWORK.
   2. SECTION 00004: SODDING.
   3. SECTION 00002: TREES AND SHRUB PLANTING,
   4. SECTION 00003: PERENNIAL, ORNAMENTAL GRASS, GROUNDCOVER PLANTING

1.02 QUALITY ASSURANCE

A. COMPLY WITH SECTION 00001 REQUIREMENTS.
B. COMPLY WITH ALL ILLINOIS STATE CERTIFICATION SEED STANDARDS.

1.03 DELIVERY, STORAGE, AND HANDLING

A. DELIVER SEED AND FERTILIZER MATERIALS IN ORIGINAL UNOPENED CONTAINERS SHOWING WEIGHT, ANALYSIS, AND NAME OF MANUFACTURER. STORE IN SUCH A MANNER TO PREVENT WETTING AND DETERIORATION.

1.04 PROJECT CONDITIONS

A. WORK NOTIFICATION: NOTIFY OWNER'S REPRESENTATIVE AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF SEEDING OPERATIONS.
B. PROTECT EXISTING UTILITIES, PAVING, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SEEDING OPERATIONS.
C. PERFORM SEEDING WORK ONLY AFTER PLANTING AND OTHER WORK AFFECTING GROUND SURFACE HAS BEEN COMPLETED.
D. THE OWNER IS RESPONSIBLE FOR RESTRICTING TRAFFIC FROM LAWN AREAS UPON NOTIFICATION OF COMPLETION OF WORK.
E. PROVIDE HOSE AND LAWN WATERING EQUIPMENT AS REQUIRED. OWNER TO PROVIDE WATER ON SITE.

WARRANTY

A. THE CONTRACTOR WARRANTIES ALL SEEDED AREAS TO BE INSTALLED ACCORDING TO SPECIFICATIONS, UNTIL ACCEPTED BY OWNER'S REPRESENTATIVE.

B. DISCLAIMER - ACTS OF GOD AND OTHER CONDITIONS BEYOND THE LANDSCAPE CONTRACTOR'S CONTROL SUCH AS VANDALISM SHALL NOT BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. ANY OVER-SEEDING OR RE-GRADING CONTRIBUTED TO THIS MUST BE IN ADDITION TO THE CONTRACT AMOUNT.

PART 2 PRODUCTS

MATERIALS

A. LAWN SEED: RECOMMENDATION OF SEED MIX FROM LOCAL EXTENSION SERVICE FOR THAT AREA. FRESH, CLEAN, AND NEW CROP SEED MIXTURE.

B. SEED TYPE: AS SPECIFIED ON DRAWINGS OR RECOMMENDED FROM LOCAL EXTENSION SERVICE.

C. FERTILIZER:
   1. GRANULAR, NON-BURNING PRODUCT COMPOSED OF NOT LESS THAN 50% ORGANIC, SLOW ACTING, GUARANTEED ANALYSIS PROFESSIONAL FERTILIZER.
   2. STARTER FERTILIZER CONTAINING 5% NITROGEN, 20% PHOSPHORIC ACID, AND 20% POTASH BY WEIGHT, OR SIMILAR APPROVED COMPOSITION.

D. MULCH: TYPE / METHOD SPECIFIED ON DRAWING
   1. STRAW: CLEAN OAT OR WHEAT STRAW, WELL SEASONED BEFORE BALING, FREE FROM MATURE SEED-BEARING STALKS OR ROOTS OF PROHIBITED OR NOXIOUS WEEDS. SHOULD BE FREE OF ROT AND MILDEW.
   2. HYDRO-SEED :CELLION FIBER MULCH OR EQUAL.
   3. EROSION BLANKET: NORTH AMERICAN GREEN SC150, CURLEX, OR APPROVED EQUAL. TYPICAL ROLL 6'X90')720SQ'
E. WATER: FREE OF SUBSTANCE HARMFUL TO SEED GROWTH. HOSES OR OTHER METHODS OF TRANSPORTATION FURNISHED BY CONTRACTOR. WATER PROVIDED BY OWNER ON SITE.

PART 3 EXECUTION

3.01 INSPECTION

A. EXAMINE FINISH SURFACES, GRADES, TOPSOIL QUALITY, AND DEPTH. DO NOT START SEEDING WORK UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.

3.02 PREPARATION

A. LIMIT PREPARATION TO AREAS WHICH WILL BE IMMEDIATELY SEEDED.

B. LOOSEN TOPSOIL OF LAWN AREAS TO MINIMUM DEPTH OF 3", IF COMPACTED. REMOVE STONES OVER 1" IN ANY DIMENSION, STICKS, ROOTS, RUBBISH, AND EXTRANEOUS MATTER.

C. APPLY FERTILIZER TO INDICATED TURF AREAS AT A RATE EQUAL TO 1.0 LB. OF ACTUAL NITROGEN PER 1,000 SQ. FT.(220 LBS./ACRE)

D. GRADE LAWN AREAS TO A SMOOTH, FREE-DRAINING, EVEN SURFACE WITH A LOOSE, MODERATELY COARSE TEXTURE.

E. RESTORE PREPARED AREAS TO SPECIFIED CONDITION IF ERODED, SETTLED, OR OTHERWISE DISTURBED AFTER FINE GRADING AND PRIOR TO SEEDING.

3.03 INSTALLATION

A. SEEDING:
   1. SEED IMMEDIATELY AFTER PREPARATION OF BED. SPRING SEEDING BETWEEN APRIL 1 AND JUNE 15 AND FALL SEEDING BETWEEN AUGUST 15 AND OCTOBER 15, OR AT SUCH OTHER TIMES ACCEPTABLE TO THE OWNER'S REPRESENTATIVE.
   2. SEED INDICATED AREAS WITHIN CONTRACT LIMITS. AREAS OUTSIDE CONTRACT LIMITS DISTURBED AS A RESULT OF CONSTRUCTION OPERATIONS WILL BE CHARGED ACCORDING TO AREA AND IN ADDITION TO CONTRACT.
   3. APPLY SEED WITH A ROTARY OR DROP TYPE DISTRIBUTOR. INSTALL SEED EVENLY BY SOWING EQUAL QUANTITIES IN TWO(2) DIRECTIONS, AT RIGHT ANGLES TO EACH OTHER.
   4. SOW GRASS SEED AT A RATE RECOMMENDED BY TYPE OF SEED USED. TYPICAL BLUEGRASS BLEND -5 LB. PER 1000 SQ'
   5. INCORPORATE SEED INTO TOP 1/8" OF SOIL AND ROLL.
B. MULCHING:
   1. PLACE STRAW ,FIBER MULCH , OR EROSION BLANKET ON SEEDED AREAS WITHIN 24 HOURS AFTER SEEDING.
   2. (A). PLACE STRAW MULCH UNIFORMLY IN CONTINUOUS BLANKET AT THE RATE OF 2.5 TONS PER ACRE, OR 2 BALES PER 1,000 SQ. FT. OF AREA. A MECHANICAL BLOWER MAY BE USED FOR STRAW MULCH APPLICATION WHEN ACCEPTABLE TO THE OWNER'S REPRESENTATIVE.
      (B.) A CELLULOSE FIBER OR APPROVED EQUAL MAY BE USED IN ADJACENT MIXTURE AT THE RATE OF 1500 LBS./ACRE.
   3. SECURE STRAW TO SOIL BY APPROVED METHODS.
   4. SECURE EROSION BLANKET TO SOIL AS PER MANUFACTURERS SPECIFICATION.

CONTINUE SECTION 00004 - SEEDING

3.04 RECONDITIONING EXISTING LAWNS

A. ANALYZE THE CONDITION OF EXISTING TURF AREAS TO REMAIN, AND DETERMINE THE EXTENT OF NECESSARY RECONDITIONING. PROVIDE UNIT COST AND ESTIMATE OF WORK. OBTAIN OWNER'S APPROVAL PRIOR TO COMMENCEMENT OF WORK.
B. RECONDITION EXISTING LAWN AREAS DAMAGED BY CONTRACTOR'S OPERATIONS, INCLUDING STORAGE OF MATERIALS OR EQUIPMENT AND MOVEMENT OF CONSTRUCTION VEHICLES, AND EXISTING LAWN AREAS AS INDICATED.
C. PROVIDE FERTILIZER, SEED AND SOIL AMENDMENTS AS SPECIFIED FOR NEW LAWNS AND AS REQUIRED TO PROVIDE A SATISFACTORILY RECONDITIONED LAWN. PROVIDE TOPSOIL AS REQUIRED TO FILL LOW AREAS AND MEET NEW FINISHED GRADES.
D. CULTIVATE BARE AND COMPACTED AREAS THOROUGHLY.
E. REMOVE DISEASED OR UNSATISFACTORY LAWN AREAS. DO NOT BURY INTO SOIL. REMOVE TOPSOIL CONTAINING FOREIGN MATERIALS RESULTING FROM CONTRACTOR'S OPERATIONS, INCLUDING OIL DRIPPINGS, STONE, GRAVEL, AND OTHER CONSTRUCTION MATERIALS.
F. WHERE SUBSTANTIAL BUT THIN LAWN REMAINS, RAKE, AERATE IF COMPACTED, OR CULTIVATE SOIL; FERTILIZE AND SEED.

3.05 MAINTENANCE

A. MAINTENANCE OF INSTALLED AND ACCEPTED SEEDED LAWNS WILL BE PERFORMED BY THE OWNER.

3.06 ACCEPTANCE

A. SEEDED AREAS WILL BE INSPECTED AT COMPLETION OF INSTALLATION AND ACCEPTED SUBJECT TO COMPLIANCE WITH SPECIFIED MATERIALS AND INSTALLATION REQUIREMENTS.
B. SECTIONS OF THE WORK MAY BE ACCEPTED WHEN COMPLETE UPON AGREEMENT OF THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR.
C. UPON ACCEPTANCE, THE OWNER WILL ASSUME LAWN MAINTENANCE.

3.07 CLEANING

A. PERFORM CLEANING DURING INSTALLATION OF THE WORK AND UPON COMPLETION OF THE WORK. REMOVE FROM SITE ALL EXCESS MATERIALS, DEBRIS, AND EQUIPMENT. REPAIR DAMAGE RESULTING FROM SEEDING OPERATIONS.

END OF SECTION 00004

SECTION 00005

SODDING

PART 1 GENERAL

1.01 DESCRIPTION

A. PROVIDE SODDED LAWNS AS SHOWN AND SPECIFIED. THE WORK INCLUDES:
   1. SOIL PREPARATION.
   2. SODDING LAWNS.
B. RELATED WORK:
   1. SECTION 02200: EARTHWORK.
   2. SECTION 00004: SEEDING.
   3. SECTION 00002: TREES AND SHRUB PLANTING,
   4. SECTION 00003: PERENNIAL, ORNAMENTAL GRASS, GROUNDCOVER PLANTING

1.02 QUALITY ASSURANCE

A. COMPLY WITH SECTION 00001 REQUIREMENTS.
B. SOD: COMPLY WITH AMERICAN SOD PRODUCERS ASSOCIATION (ASPA) CLASSES OF SOD MATERIALS.

1.03 SUBMITTALS

A. SUBMIT SOD GROWER'S CERTIFICATION OF GRASS SPECIES. IDENTIFY SOURCE LOCATION.

1.04 DELIVERY, STORAGE, AND HANDLING

A. CUT, DELIVER AND INSTALL SOD WITHIN A 24-HOUR PERIOD.
   1. DO NOT HARVEST OR TRANSPORT SOD WHEN MOISTURE CONTENT MAY ADVERSELY AFFECT SOD SURVIVAL.
   2. PROTECT SOD FROM DEHYDRATION PRIOR TO INSTALLATION.

1.05 PROJECT CONDITIONS

A. WORK NOTIFICATION: NOTIFY OWNER'S REPRESENTATIVE AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF SODDING OPERATIONS.
B. PROTECT EXISTING UTILITIES, PAVING, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SODDING OPERATIONS.
C. PROVIDE HOSE AND LAWN WATERING EQUIPMENT AS REQUIRED. OWNER TO PROVIDE WATER ON SITE.

1.06 WARRANTY

A. DISCLAIMER - ACTS OF GOD AND OTHER CONDITIONS BEYOND THE LANDSCAPE CONTRACTOR'S CONTROL SUCH AS VANDALISM SHALL NOT BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. ANY RE-SODDING OR RE-GRADING CONTRIBUTED TO THIS MUST BE AN ADDITION TO THE CONTRACT AMOUNT.

PART 2 PRODUCTS

2.01 MATERIALS

A. SOD: TO BE HARVESTED FROM LOCAL SOD NURSERY AND UNLESS OTHERWISE INDICATED TO BE A(5) FIVE WAY MINIMUM BLUEGRASS BLEND. (FIVE VARIETIES OF BLUEGRASS)
B. PROVIDE WELL-ROOTED, HEALTHY SOD. PROVIDE SOD UNIFORM IN COLOR, LEAF TEXTURE, DENSITY AND DEVELOPMENT WHEN PLANTED.
   1. FURNISH SOD UNIFORMLY MACHINE-STRIPPED FROM 3/4" - 1 1/2" THICK WITH CLEAN CUT EDGES.
C. FERTILIZER:
   1. GRANULAR, NON-BURNING PRODUCT COMPOSED OF NOT LESS THAN 50% ORGANIC SLOW ACTING, GUARANTEED ANALYSIS PROFESSIONAL FERTILIZER.
   2. STARTER FERTILIZER CONTAINING 5% NITROGEN, 10% PHOSPHORIC ACID AND 10% POTASH BY WEIGHT, OR ACCORDING TO SPECIAL PROVISIONS.
D. WATER: FREE OF SUBSTANCE HARMFUL TO SOD GROWTH. HOSES OR OTHER METHODS OF TRANSPORTATION FURNISHED BY CONTRACTOR. WATER WILL BE PROVIDED BY THE OWNER ON SITE.

CONTINUE SECTION 00005 - SODDING

PART 3 EXECUTION

3.01 INSPECTION

A. EXAMINE FINISH SURFACES, GRADES, TOPSOIL QUALITY, AND DEPTH. DO NOT START SODDING WORK UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.

3.02 PREPARATION

A. LIMIT PREPARATION TO AREAS WHICH WILL BE IMMEDIATELY SODDED.
B. ROTOTILL TOPSOIL OF LAWN AREAS TO MINIMUM DEPTH OF 3", IF COMPACTED. REMOVE STONES OVER 1" IN ANY DIMENSION, STICKS, ROOTS, RUBBISH, AND EXTRANEOUS MATTER.
D. APPLY FERTILIZER AT THE RATE EQUAL TO 1.0 LB. OF ACTUAL NITROGEN PER 1,000 SQ. FT. (220 LBS./ACRE). APPLY FERTILIZER BY MECHANICAL ROTARY OR DROP TYPE DISTRIBUTOR; THOROUGHLY AND EVENLY INCORPORATE IT INTO THE SOIL TO A DEPTH OF 3" BY DISKING OR OTHER APPROVED METHODS. FERTILIZE AREAS INACCESSIBLE TO POWER EQUIPMENT WITH HAND TOOLS AND INCORPORATE IT INTO SOIL.
E. GRADE LAWN AREAS TO SMOOTH, FREE-DRAINING AND EVEN SURFACE WITH A LOOSE, UNIFORMLY FINE TEXTURE.
F. RESTORE PREPARED AREAS TO SPECIFIED CONDITION IF ERODED, SETTLED, OR OTHER WISE DISTURBED AFTER FINE GRADING AND PRIOR TO SODDING.

3.03 INSTALLATION

A. TIME OF INSTALLATION: THE ACCEPTABLE TIME TO INSTALL SOD AND BE CONSIDERED 'IN SEASON' ARE AS FOLLOWS.
   1. SPRING - FROM THE TIME THE SOIL IS WORKABLE AND SOD IS BEING HARVESTED, UNTIL JUNE 15TH.
   2. FALL - FROM AUGUST 15TH TO NOVEMBER 1ST.

   ALL OTHER TIMES ARE CONSIDERED 'OUT OF SEASON' AND ARE NOT ACCEPTABLE TO INSTALL SOD AT THIS TIME WITHOUT APPROVAL OF LANDSCAPE ARCHITECT (LA) AND WITH THE ADDITIONAL CONDITIONS AS FOLLOWS:
   1. JUNE 16TH TO AUGUST 14TH
      A. SOD TO BE IRRIGATED BY AUTOMATIC SPRINKLER SYSTEM OR
      B. SOD TO BE IRRIGATED BY MANUAL MEANS WITH SUFFICIENT QUANTITIES OF HOSE AND SPRINKLER HEADS SO AS TO KEEP SOD LUSH AND HEALTHY UNTIL TIME OF KNITTING AND MOWING MAINTENANCE HAS BEGUN. WATERING TO BE MONITORED DAILEY.
   2. AFTER NOVEMBER 1ST. SOD MAY ONLY BE INSTALLED WITH (LA) APPROVAL AND MILD TEMPERATURES / CONDITIONS EXIST. SOD MAY NOT BE INSTALLED ON FROZEN GROUND AND UNTIL FINAL (FINE) GRADING AND GROUND PREPARATION HAS BEEN APPROVED FOR SOD INSTALLATION BY LANDSCAPE ARCHITECT.

B. SODDING:
1. LAY SOD TO FORM A SOLID MASS WITH TIGHTLY-FITTED JOINTS. BUTT ENDS AND SIDES OF SOD STRIPS. DO NOT OVERLAY EDGES. STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES. REMOVE EXCESS SOD TO AVOID SMOTHERING OF ADJACENT GRASS. PROVIDE SOD PAD TOP FLUSH WITH ADJACENT CURBS, SIDEWALKS, DRAINS, AND SEEDED AREAS.
2. INSTALL INITIAL ROW OF SOD IN A STRAIGHT LINE, BEGINNING AT BOTTOM OF SLOPES, PERPENDICULAR TO DIRECTION OF THE SLOPED AREA. PLACE SUBSEQUENT ROWS PARALLEL TO AND LIGHTLY AGAINST PREVIOUSLY INSTALLED ROW.
3. TAMP OR ROLL WITH ROLLER TO ENSURE CONTACT WITH SUB- GRADE SOIL.
4. WATER SOD THOROUGHLY IMMEDIATELY AFTER LAYING.
5. STAKE SOD ON SLOPES OVER 2:1 TO ANCHOR.
C. SOD INDICATED AREAS WITHIN CONTRACT LIMITS. AREAS OUTSIDE CONTRACT LIMITS DISTURBED AS A RESULT OF CONSTRUCTION OPERATIONS ARE TO BE CHARGED ACCORDING TO SIZE OF AREA.

3.04 MAINTENANCE

A. MAINTENANCE OF INSTALLED AND ACCEPTED SODDED LAWNS WILL BE PERFORMED BY THE OWNER.

3.05 ACCEPTANCE

A. SODDED AREAS WILL BE INSPECTED AT COMPLETION OF INSTALLATION AND ACCEPTED SUBJECT TO COMPLIANCE WITH SPECIFIED MATERIALS AND INSTALLATION REQUIREMENTS.
B. INSPECTION TO DETERMINE ACCEPTANCE OF SODDED LAWNS WILL BE MADE BY THE OWNER'S REPRESENTATIVE, UPON CONTRACTOR'S REQUEST.
   1. SODDED AREAS WILL BE ACCEPTABLE PROVIDED ALL REQUIREMENTS HAVE BEEN COMPLIED WITH, AND A HEALTHY, EVEN-COLORED VIABLE LAWN IS PROVIDED.
C. SECTIONS OF THE WORK MAY BE ACCEPTED WHEN COMPLETE UPON AGREEMENT OF THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR.
D. UPON ACCEPTANCE, THE OWNER WILL ASSUME LAWN MAINTENANCE.

3.06 CLEANING

A. PERFORM CLEANING DURING INSTALLATION OF THE WORK AND UPON COMPLETION OF THE WORK. REMOVE FROM SITE ALL EXCESS MATERIALS, DEBRIS, AND EQUIPMENT. REPAIR DAMAGE RESULTING FROM SODDING OPERATIONS.

END OF SECTION 00005

END

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REGISTERED
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ARCHITECT
2024

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TO	DATE
ZONING	08/9/22
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LS-3
LANDSCAPE SPECIFICATIONS

SPECIFICATIONS

DETENTION AREA - NATIVE ECOSYSTEM

SPECIFICATIONS / MAINTENANCE

SPECIAL PROVISIONS

ALL APPLICABLE PROVISIONS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2002, HEREIN REFERRED TO AS THE STANDARD SPECIFICATIONS, SHALL GOVERN THE WORK EXCEPT AS AMENDED BY THESE SPECIAL PROVISIONS. IF A CONFLICT EXISTS BETWEEN THE SPECIAL PROVISIONS AND THE STANDARD SPECIFICATIONS, THEN THESE SPECIAL PROVISIONS SHALL GOVERN. THE WORDS "WETLAND CONSULTANT" SHALL REFER TO THE OWNER OR HIS DESIGNATED REPRESENTATIVE.

EXISTING UTILITIES

EXISTING UTILITIES ARE SHOWN ON THE PLANS ACCORDING TO INFORMATION OBTAINED FROM UTILITY COMPANIES, MUNICIPALITIES AND SURVEYS. HAMILTON PARTNERS AND THEIR CONSULTANTS DO NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THIS INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH THE EXISTENCE AND VERIFY THE LOCATION OF ALL UTILITIES. UTILITIES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED TO THE COUNTY'S SATISFACTION AT NO ADDITIONAL COST TO THE CONTRACT. NOTIFY JULIE 48 HOURS PRIOR TO COMMENCING THE WORK.

TOPSOIL / SPREADING

TOPSOIL TO BE LOCAL VIRGIN TOPSOIL •BLACK• APPROVED BY WETLAND CONSULTANT.

THE WORK SHALL CONFORM TO SECTION 211 OF THE STANDARD SPECIFICATIONS EXCEPT THAT THE MINIMUM LIFT FOR PLACEMENT SHALL BE 12" FOR TOPSOIL SPREADING. TOPSOIL SHALL BE PLACED WHERE REQUIRED IN AREAS OF EXCAVATION. EXCAVATED AREAS SHALL BE EXCAVATED TO 12" BELOW GRADE PRIOR TO TOPSOIL PLACEMENT. TOPSOIL PLACEMENT SHALL CONFORM TO FINAL GRADE AS INDICATED ON THE PLANS. TOPSOIL SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 8" UPON COMPLETION OF THE WORK. THE MATERIAL SHALL THEN BE "GIL"-RAKED AND ALL STONES SHALL BE REMOVED FROM THE SITE.

TOPSOIL SHALL MEET THE REQUIREMENTS OF SECTION 1081.05 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR MAY OBTAIN TOPSOIL FROM THE AREA OF DISTURBANCE AND FROM OTHER STOCKPILES SUBJECT TO COORDINATION WITH THE WETLAND CONSULTANT.

TOPSOIL PLACEMENT SHALL BE IN ACCORDANCE WITH SECTION 211.03, 211.04, 211.05 AND 211.06 OF THE STANDARD SPECIFICATIONS AS MODIFIED HEREIN. THE CONTRACTOR SHALL PLACE THE TOPSOIL IN SUCH A MANNER AS TO MINIMIZE COMPACTION OF TOPSOIL. TOPSOIL SHALL BE PLACED A MINIMUM OF 12" THICK. ONCE THE TOPSOIL HAS BEEN PLACED, NO VEHICLES, EXCEPT A SCARIFIER AND SEED INSTALLATION EQUIPMENT, WILL BE PERMITTED ON THE TOPSOIL. ALL TOPSOIL SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 8" UPON COMPLETION OF THE WORK. UPON COMPLETION OF THE SCARIFICATION, A 150 TO 200 POUND PERSON SHOULD SINK 1" TO 2" IN THE MATERIAL WHEN WALKING ACROSS THE TOP. TOPSOIL SPREADING MAY DEVIATE FROM THE LINES AND GRADES SHOWN ON THE PLANS BY +0.25 TO -0.20 FEET.

SEED BED PREPARATION

PRIOR TO SEEDING OPERATIONS IN AREAS WHERE TOPSOIL HAS NOT BEEN PLACED, THE CONTRACTOR WILL BE REQUIRED TO DISC OR TILL WHERE THE SURFACE HAS BECOME HARDENED OR CAKED AND TO TILL UNDER ANY EXISTING TEMPORARY SEEDING. IN ADDITION, THE CONTRACTOR WILL BE REQUIRED TO REPAIR ANY AREAS OF ERODED SOILS BY RAKING AND REWORKING THE SLOPE, SALVAGING EXISTING TOPSOIL FROM THE BOTTOM OF THE SLOPE WHERE NECESSARY.

THE BUFFER SEED BED SHALL BE SCARIFIED TO A DEPTH OF 6 INCHES. THE SURFACE OF THE SEED BED SHOULD BE PREPARED SO THAT NO CLODS OVER 1.5 INCHES IN DIAMETER, WEEDS, STICKS, CRUSTING OR GULLYING IS PRESENT. UPON COMPLETION OF THE SEED BED SCARIFICATION, A NORMAL WEIGHT •150-200 LB.• PERSON SHOULD SINK 1 TO 2 INCHES IN TO THE SEED BED.

SEEDING

THE WORK SHALL CONSIST OF PREPARING THE SEED BED AND PLACING THE SEED AND OTHER MATERIALS IN THE SEED BED.

THE AREA TO BE SEEDED MAY NEED PRESCRIBED BURNING PRIOR TO PLANTING.

THE AREA TO BE SEEDED SHALL BE WORKED TO A MINIMUM DEPTH OF 3 INCHES WITH A DISK TILLER OR OTHER EQUIPMENT APPROVED BY THE WETLAND CONSULTANT, REDUCING ALL SOIL PARTICLES TO A SIZE NOT LARGER THAN 1.5 INCHES IN THE LARGEST DIMENSION. THE PREPARED SURFACE SHALL BE RELATIVELY FREE FROM WEEDS, CLODS, STONES, RIVULETS, GULLIES, CRUSTING AND CAKING.

NO SEED SHALL BE SOWN DURING HIGH WINDS OR WHEN THE GROUND IS NOT IN PROPER CONDITION FOR SEEDING, NOR SHALL ANY SEED BE SOWN UNTIL THE PURITY TESTING HAS BEEN COMPLETE FOR THE SEEDS TO BE USED, AND SHOWS THE SEED MEETS THE NOXIOUS WEED REQUIREMENTS.

SEEDING SHALL OCCUR PRIOR TO ANY PLANTING. SEEDING SHALL BE ACCOMPLISHED BY UTILIZING A "NO TILL" ATTACHMENT MEETING THE SPECIFICATIONS OF THE WETLAND CONSULTANT OR A RANGELAND TYPE GRASS DRILL MEETING THE SPECIFICATIONS OF THE STANDARD SPECIFICATION 1101.08•6•. GRASSES AND FORB MIXTURES WILL BE SEEDED SEPARATELY. THE MACHINE USED TO SEED SHOULD BE RESET TO DRILL THE FORBS AT A DEPTH RECOMMENDED BY THE SEED SUPPLIER OR WETLAND CONSULTANT. GRASS AND FORB MIXTURES SHALL BE AS NOTED ON THE PLANS.

HYDRAULIC SEEDING OR HAND BROADCAST SEEDING WILL BE ALLOWED AS APPROVED BY THE WETLAND CONSULTANT AND ONLY FOR INACCESSIBLE AREAS WHERE THE USE OF THE EQUIPMENT SPECIFIED IS PHYSICALLY IMPOSSIBLE.

THE SEEDING SHALL BE COMPLETED BEFORE JUNE 15 OR AFTER NOVEMBER 1. PRIOR TO STARTING WORK SEEDERS SHALL BE CALIBRATED AND ADJUSTED TO SOW SEEDS AT THE REQUIRED SEEDING RATE AND TO THE PROPER DEPTH. EQUIPMENT SHALL BE OPERATED IN A MANNER TO ENSURE COMPLETE COVERAGE OF THE ENTIRE AREA TO BE SEEDED. THE WETLAND CONSULTANT SHALL BE NOTIFIED 48 HOURS PRIOR TO BEGINNING THE SEEDING OPERATION SO THAT THE WETLAND SPECIALIST MAY DETERMINE BY TRIAL RUNS THAT THE SEEDER WILL PROVIDE UNIFORM DISTRIBUTION.

SEEDING - CONTINUED

THE CLASSES OF SEED MIXTURES AND COMBINATIONS OF MIXTURES ARE DESIGNATED ON THE PLANS. SEED MIXTURES SPECIFIED TO BE INSTALLED IN THE SAME SEASON SHALL BE SEEDED WITHIN 3 DAYS OF EACH OTHER. VARIATIONS IN SEED MIXTURE MUST BE APPROVED IN WRITING BY THE WETLAND CONSULTANT.

SEED QUALITY MUST MEET THE APPLICABLE STANDARDS SET FORTH IN STANDARD SPECIFICATION 1081.04.

PERIOD OF ESTABLISHMENT. THE PERIOD OF ESTABLISHMENT SHALL BE 90 DAYS FOLLOWING SEEDING. NINETY PERCENT AERIAL COVER SHALL BE EVIDENT AT THE END OF THE 90 DAY PERIOD OF ESTABLISHMENT. THE WETLAND CONSULTANT SHALL MAKE THE COVER DETERMINATION.

THE OWNER MAY RETAIN 10% OF THE TOTAL INVOICE TO BE RELEASED UPON FULFILLMENT OF THE PERIOD OF ESTABLISHMENT.

PLANTING

NURSERY STOCK. THE CONTRACTOR SHALL FURNISH A SHIPPING TICKET OR LABEL DOCUMENTING PROVENANCE OF PLANT MATERIALS TO WETLAND SPECIALIST PRIOR TO INSTALLATION.

REPAIRS

CONTRACTOR SHALL BEAR ALL COSTS FOR REPAIRING ANY DAMAGES TO THE SITE SUCH AS EXISTING TURF AREAS, BRIDGES, TRAILS AND/OR ANY OTHER EXISTING SITE FEATURES.

MAINTENANCE

THE WORK MAY CONSISTS OF HAND WEEDING, HERBICIDING, CUTTING OR MOWING, PRUNING AND WATERING THE PLANTED AND AREAS. THE CONTRACTOR IS TO CONTINUOUSLY MAINTAIN THE LANDSCAPE AND EROSION CONTROL FEATURES AFTER INSTALLATION, DURING THE PROGRESS OF THE WORK, AND FOR A PERIOD OF 1 YEAR FROM INSTALLATION COMPLETION UNTIL FINAL ACCEPTANCE.

SUPPLEMENTAL WATERING. SUPPLEMENTAL WATERING SHALL BE CARRIED OUT IF RAINFALL IS LESS THAN 1" PER TWO WEEKS EXCEPT FOR THE SODDED AREAS WHICH REQUIRE DAILY WATERING.

WEED MANAGEMENT. WEED MANAGEMENT IS THE CONTROL OF PLANTS DEEMED TO BE UNDESIRABLE BY THE ENGINEER. SPOT TREATMENT WITH HERBICIDES WILL BE REQUIRED, PARTICULARLY FOR PURPLE LOOSESTRIFE, CATTAILS AND REED CANARY GRASS.

MOWING. MOWING OF ALL NATIVE UPLAND AREAS SHALL BE COMPLETED THREE TIMES DURING THE FIRST GROWING SEASON. MOWING SHALL BE DONE AT A HEIGHT BETWEEN 5 AND 6-INCHES.

PREDATOR GUARDS. ALL GOOSE GUARDS INSTALLED SHALL BE CONSCIENTIOUSLY MAINTAINED UNTIL THE PERFORMANCE CRITERIA ARE MET AT THE FINAL ACCEPTANCE. SHOULD THE CONTRACTOR FAIL TO MONITOR AND MAINTAIN THE GOOSE GUARD, THE OWNER SHALL HAVE THE RIGHT TO PERFORM THE WORK AND RECOVER ALL COSTS.

WETLAND MAINTENANCE SHALL BE DONE IN ACCORDANCE OF SECTION 253.15 EXCEPT THAT THE PERIOD OF ESTABLISHMENT SHALL BE 90 DAYS.

EROSION BLANKET TYPE II

THIS WORK SHALL CONSIST OF FURNISHING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY TO PLACE EROSION BLANKET IN ALL AREAS ABOVE NORMAL WATER TO TOP OF BERM IN DETENTION AREA, AND DRAINAGE SWALE PLANTED AND SEEDED AREAS OR AS DIRECTED BY THE ENGINEER.

EROSION BLANKET TYPE II •SPECIAL• SHALL BE NAG S75ON BLANKET ON UP-SLOPE NATIVE SEEDED AREAS INDICATED ON PLAN . MANUFACTURED BY NORTH AMERICAN GREEN OR AN APPROVED EQUAL.

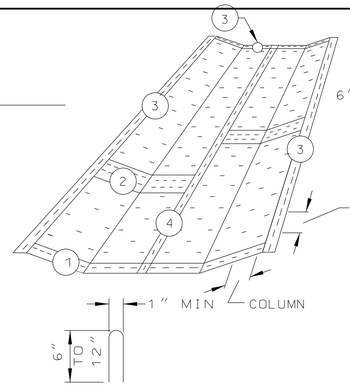
EROSION BLANKET TYPE II •SPECIAL• SHALL BE NAG SC-150 BLANKET IN DESIGNATED BIOFILTRATION SWAIL INDICATED ON PLAN. MANUFACTURED BY NORTH AMERICAN GREEN OR AN APPROVED EQUAL.

EROSION BLANKET TYPE II •SPECIAL• SHALL CONTAIN 100% STRAW AT 0.5 LBS./SQ.YD. OVERLAIN ON ONE SIDE BY A 100% BIODEGRADABLE MESH, AND SEWN WITH A BIODEGRADABLE THREAD.

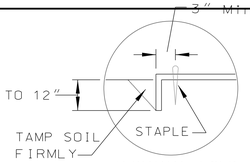
THE BLANKET SHALL BE PROVIDED IN ROLLS 6.67 FT. WIDE BY 108 FT. LONG. THE WEIGHT SHALL BE .58 LBS PER SQUARE YARD.

THE BLANKET SHALL BE PLACED WITHIN 24 HOURS AFTER SEEDING OPERATIONS HAVE BEEN COMPLETED ON THE AREAS SPECIFIED. PRIOR TO PLACING THE BLANKET, THE AREAS TO BE COVERED SHALL BE RELATIVELY FREE OF ALL ROCKS OR CLODS OVER 40 MM 1.5 INCH IN DIAMETER, AND ALL STICKS OR OTHER FOREIGN MATERIAL WHICH WILL PREVENT THE CLOSE CONTACT OF THE BLANKET WITH THE SEED BED. IF, AS A RESULT OF RAIN, THE PREPARED SEED BED BECOMES CRUSTED OR ERODED, OR IF ERODED PLACES, RUTS OR DEPRESSIONS EXIST FOR ANY REASON, THE CONTRACTOR WILL BE REQUIRED TO REWORK THE SOIL UNTIL IT IS SMOOTH AND TO RESEED SUCH AREAS WHICH ARE REWORKED. AFTER THE AREA HAS BEEN PROPERLY SHAPED AND SEEDED, THE BLANKET SHALL BE LAID OUT FLAT, EVENLY AND SMOOTHLY, WITHOUT STRETCHING THE MATERIAL. THE BLANKET SHALL BE PLACED HORIZONTAL TO THE SLOPE WITH THE NETTING ON TOP AND THE FIBERS IN CONTACT WITH THE SOIL OVER THE ENTIRE AREA. BUTT ENDS AND SIDES AND THEN STAPLE.

STAPLES SHALL BE PLACED AT A RATE OF 3.5 STAPLES PER SQUARE YARD. THE BLANKET SHALL OVERLAP BETWEEN 3" AND 4" WITH ADJACENT BLANKET.

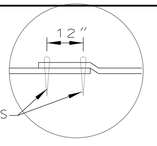


STAPLE DETAIL



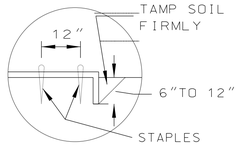
TERMINAL FOLD
EXCELSIOR BLANKET
EROSION CONTROL PAPER

DETAIL 1



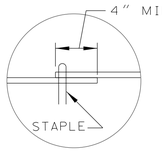
JUNCTION SLOT
EXCELSIOR BLANKET

DETAIL 2



ANCHOR SLOT
JUTE MESH
EXCELSIOR BLANKET
EROSION CONTROL PAPER

DETAIL 3



LAP JOINT
JUTE MESH
EROSION CONTROL PAPER
EXCELSIOR BLANKET SHALL BE BUTTED TOGETHER.

DETAIL 4

NOTES:

1. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X 225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X 150' ROLL OF MATERIAL.
2. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
3. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

EROSION BLANKET PLAN

NRCS IL-530
Natural Resources Conservation Service

SOUTH DETENTION POND
UPPER NO MOW SLOPE- IDOT CLASS 3
NORTHERN ILLINOIS SLOPE MIXTURE

COMMON NAME	AMOUNT / ACRE

PERMANENT MATRIX	SEED
CANADA WILD RYEGRASS	5 LBS./ ACRE
PERENNIAL RYEGRASS	20 LBS./ ACRE
ALSIKE CLOVER	5 LBS./ ACRE
ILLINOIS BUNDLEFLOWER	2 LBS./ ACRE
LITTLE BLUESTEM	12 LBS./ ACRE
SIDE OATS GRAMA	10 LBS./ ACRE
FULT SALT GRASS	30 LBS./ ACRE
SPRINGS OATS	50 LBS / ACRE
SLENDER WHEAT GRASS	15 LBS / ACRE
BUFFALO GRASS BOWIE	5 LBS./ ACRE
	170 LBS./ ACRE

30,150 SQ' AREA =
120 LBS. SEED MIX REQUIRED

LOWER SLOPE OF BASIN N.W.L TO H.W.L.
WET MEADOW SEED MIXTURE

SPECIES	COMMON NAME	LB/ACRE
ASCLEPIAS INCARNATA	SWAMP MILKWEED	0.125
BIDENS CERNUA	NODDING BUR MARIGOLD	0.190
BOLTORIA ASTEROIDES	FALSE ASTER	0.031
CAREX BEBBII	BEBB'S SEDGE	0.250
CAREX BICKNELLII	BICKNELL'S OVAL SEDGE	0.125
CAREX BREVIOR	"SHORTER" SEDGE	0.250
CAREX CRISTATELLA	CRESTED SEDGE	0.060
CAREX MOLESTA	ROUNDED HEADED SEDGE	0.250
CAREX NORMALIS	NORMAL SEDGE	0.015
CAREX SCOPARIA	POINTED BROOM SEDGE	0.190
CAREX STIPATA	AWL-FRUITED SEDGE	0.060
CAREX VULPINOIDEA	FOX SEDGE	0.250
CHAMAECRISTA FASCICULATA	PARTRIDGE PEA	0.188
ELYMUS VERGINICUS	VIRGINIA WILD RYE	3.000
EUPATORIUM PERFOLIATUM	THOROUGHWORT	0.015
EUTHAMIA GRAMINIFOLIA	GRASS LEAFED GOLDENROD	0.300
GLYCERIA STRIATA	FOUL MANNA GRASS	0.130
HELENIUM AUTUMNALE	SNEEZEWEED	0.063
IRIS VIRGINICA SHREVEI	BLUE FLAG	1.000
JUNCUS DUDLEYI	DUDLEY'S RUSH	0.020
JUNCUS TORREYI	TORREY'S RUSH	0.031
LOBELIA SIPHILITICA	BLUE LOBELIA	0.031
MIMULUS RINGENS	MONKEY FLOWER	0.031
PANICUM VIRGATUM	PRAIRIE SWITCH GRASS	3.000
PYCNANTHEMUM VIRGINIANUM	COMMON MT MINT	0.063
RUDBECKIA SPECIOSA SULIVANTII	SHOWY BLACK EYED SUSAN	0.250
SCIRPUS ATROVIRENS	DARK GREEN RUSH	0.060
SCIRPUS CYPERINUS	WOLL GRASS	0.030
SYMPHYOTRICHUM NOVAE-ANGLIAE	NEW ENGLAND ASTER	0.250
ZIZIA AUREA	GOLDEN ALEXANDER	0.500
	10.75 LBS. / ACRE	

12,300 SQ' AREA =
4.0 LBS. SEED MIX REQUIRED

NORTH WEST DETENTION - IDOT CLASS 3
NORTHERN ILLINOIS SLOPE MIXTURE

COMMON NAME	AMOUNT / ACRE

PERMANENT MATRIX	SEED
CANADA WILD RYEGRASS	5 LBS./ ACRE
PERENNIAL RYEGRASS	20 LBS./ ACRE
ALSIKE CLOVER	5 LBS./ ACRE
ILLINOIS BUNDLEFLOWER	2 LBS./ ACRE
LITTLE BLUESTEM	12 LBS./ ACRE
SIDE OATS GRAMA	10 LBS./ ACRE
FULT SALT GRASS	30 LBS./ ACRE
SPRINGS OATS	50 LBS / ACRE
SLENDER WHEAT GRASS	15 LBS / ACRE
BUFFALO GRASS BOWIE	5 LBS./ ACRE
	170 LBS./ ACRE

2,415 SQ' AREA =
11 LBS. SEED MIX REQUIRED

NORTH EAST DETENTION - IDOT CLASS 3
NORTHERN ILLINOIS SLOPE MIXTURE

COMMON NAME	AMOUNT / ACRE

PERMANENT MATRIX	SEED
CANADA WILD RYEGRASS	5 LBS./ ACRE
PERENNIAL RYEGRASS	20 LBS./ ACRE
ALSIKE CLOVER	5 LBS./ ACRE
ILLINOIS BUNDLEFLOWER	2 LBS./ ACRE
LITTLE BLUESTEM	12 LBS./ ACRE
SIDE OATS GRAMA	10 LBS./ ACRE
FULT SALT GRASS	30 LBS./ ACRE
SPRINGS OATS	50 LBS / ACRE
SLENDER WHEAT GRASS	15 LBS / ACRE
BUFFALO GRASS BOWIE	5 LBS./ ACRE
	170 LBS./ ACRE

3,230 SQ' AREA =
12 LBS. SEED MIX REQUIRED

PERFORMANCE STANDARDS

NATIVE PLANTING AREA PERFORMANCE CRITERIA FOR STORMWATER BMP'S

1ST YEAR:

BY THE END OF THE FIRST FULL GROWING SEASON, THE PLANTED AREAS SHOULD HAVE 90 PERCENT VEGETATION COVER. AT LEAST 90 PERCENT OF THE PLUGS, ROOT STOCK, AND TUBERS, AND 50 PERCENT OF THE SPECIES PLANTED AS SEED SHOULD BE PRESENT AND ALIVE. NO UPLAND AREA •I.E., NON-WETLAND• GREATER THAN 1 SQUARE FEET SHALL BE DEVOID OF VEGETATION.

2ND YEAR:

DURING THE SECOND GROWING SEASON, A MINIMUM OF 60 PERCENT OF THE PERMANENT SPECIES PLANTED IN SEED FORM SHOULD BE EVIDENT. NINETY PERCENT OR MORE OF SPECIES PLANTED AS PLUGS, ROOT STOCK, AND TUBERS SHALL HAVE PERSISTED INTO THE SECOND SEASON. IF THIS LEVEL OF VEGETATION ESTABLISHMENT FAILS TO OCCUR, A DETERMINATION MUST BE MADE AS TO WHY, AND A REMEDIAL ACTION PLAN SHALL BE NECESSARY. REMEDIATION SHALL INCLUDE OVERSEEDING AND/OR PLUGGING OF APPROPRIATE SPECIES. ALSO, UNDESIRABLE, INVASIVE PLANT SPECIES SHALL NOT BE PREVALENT IN THE NATURALLY LANDSCAPED OR RESTORED AREAS. MORE SPECIFICALLY, NO INVASIVE SPECIES, INCLUDING BY NOT LIMITED TO THOSE LISTED IN TABLE 1 SHEET LS-4, SHALL BE AMONG THE FIVE MOST DOMINANT PLANT SPECIES IN THE OVERALL VEGETATIVE COVER IN ANY PLANTING UNIT.

3RD YEAR:

AT THE END OF THE THIRD FULL GROWING SEASON, A MINIMUMOF 75 PERCENT OF THE SEEDED PERMANENT SPECIES AND 90 PERCENT OR MORE OF SPECIES PLANTED AS PLUGS, ROOT STOCK, AND TUBERS ARE EXPECTED TO BE ESTABLISHED. NATIVE PERENNIAL SPECIES THAT VOLUNTEER ON THE SITE, EXCLUDING UNDESIRABLE INVASIVE SPECIES, MAY ALSO BE COUNTED IN DETERMINING THE PREGEDING CRITERIA. COMMONLY, IF THE PLANTED SPECIES ARE NOT EVIDENT BY THE END OF THE THIRD SEASON, THE LIKELIHOOD OF SUBSEQUENT APPEARANCE IS REDUCED. ACCEPTABLE SPECIES DEFINED AS NATIVE TO THE REGION AND NOT INVASIVE •AS LISTED ABOVE AND IN THE NATIVE PLANT GUIDE FOR STREAMS AND STORMWATER FACILITIES IN NORTHEASTERN ILLINOIS•,SHALL PROVIDE AT LEAST 90 PERCENT OF THE RELATIVE AERIAL COVERAGE. ALSO, NO INVASIVE SPECIES, INCLUDING BUT NOT LIMITED TO THE SPECIES LISTED IN TABLE 1, SHALL BE AMONG THE FIVE MOST DOMINANT PLANT SPECIES IN THE OVERALL VEGETATIVE COVER IN ANY PLANTING UNIT. IF THE IDENTIFIED LEVEL OF SPECIES DEVELOPMENT FAILS TO OCCUR, A DETERMINATION MUST BE MADE AS TO WHY, AND A REMEDIAL ACTION PLAN MUST BE PREPARED AND SUBMITTED FOR APPROVAL. THE APPROVED REMEDIAL PLAN MUST BE IMPLEMENTED AND CONTINUED MONITORING WILL BE REQUIRED BEYOND THE THIRD GROWING SEASON UNTIL THESE PERFORMANCE CRITERIA ARE MET.

BIO RETENTION NATIVE PLUG LIST

SPECIES	COMMON NAME
CALAMAGROSTIS CANADENSIS	BLUE JOINT GRASS
CAREX LACUSTRIS	LAKE SEDGE
CAREX STIPATA	AWL-FRUITED SEDGE
CARAX STRICTA	TUSSOCK SEDGE
CAREX VULPINOIDES	FOX SEDGE
ELEOCHARIS ACICULORIS	NEEDLE SPIKE RUSH
ELEOCHARIS OBTUSA	BLUNT SPIKE RUSH
ELYMUS CANADENSIS	WILD RYE
GLYCERIA STRIATA	FOWL MANNA GRASS
JUNCUS TENUIS	SLENDER RUSH
JUNCUS TORREYI	TORREY'S RUSH
LEERSIA ORYZOIDES	RICE CUT GRASS
PANICUM VIRGATUM	SWITCH GRASS
SCIRPUS AGUTUS	HARD STEM BULRUSH
SCIRPUS ATROVIRENS	DARK GREEN RUSH
SPARTINA PECTINATA	CORD GRASS
ASTER AZUREUS	SKY BLUE ASTER
COREOPSIS PALMATA	PRAIRIE COREOPSIS
LIATRIS ASPERA	ROUGH BLAZING STAR
RATIBIDA PINNATA	YELLOW CONEFLOWER
SOLIDAGO RIGIDA	RIGID GOLDENROD
VERONICASTRUN VIRGINICUM	CULVERSROOT

QUANTITY OF 1100 NATIVE PLUGS TOTAL
50 PLUGS OF EACH VARIETY PLANTED ON STAGGERED 18"CENTERS WITHIN 4' WIDE STRIP AND AS SHOWN FROM N.W.L.724 INWARD 4'

BASIN BOTTOM - IDOT CLASS 40
WETLAND GRASS & SEDGE MIXTURE

COMMON NAME	AMOUNT / ACRE

PERMANENT MATRIX	SEED
44.64 % ANNUAL RYEGRASS	25 LBS.
44.64 % SPRING OATES	25 LBS.
10.72 % WETLAND GRASSES @BELOW)	6 LBS
	56 LBS. / ACRE
12 % BLUE JOINT GRASS	
6 % LAKE-BANK SEDGE	
6 % AWL-FRUITED SEDGE	
6 % TUSSOCK SEDGE	
6 % FOX SEDGE	
3 % NEEDLE SPIKE RUSH	
3 % BLUNT SPIKE RUSH	
14 % FOWL MANNA GRASS	
6 % COMMON RUSH	
6 % SLENDER RUSH	
6 % TORREY'S RUSH	
10 % RICE CUT GRASS	
3 % HARD-STEMMED BULRUSH	
3 % DARK GREEN RUSH	
3 % RIVER BULRUSH	
3 % SOFTSTEM BULRUSH	
4 % CORD GRASS	

6,900 SQ' AREA =
10 LBS. SEED MIX REQUIRED
ENTIRE BOTTOM 724 INWARD

Landscape Plans Prepared By:

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GAS N WASH

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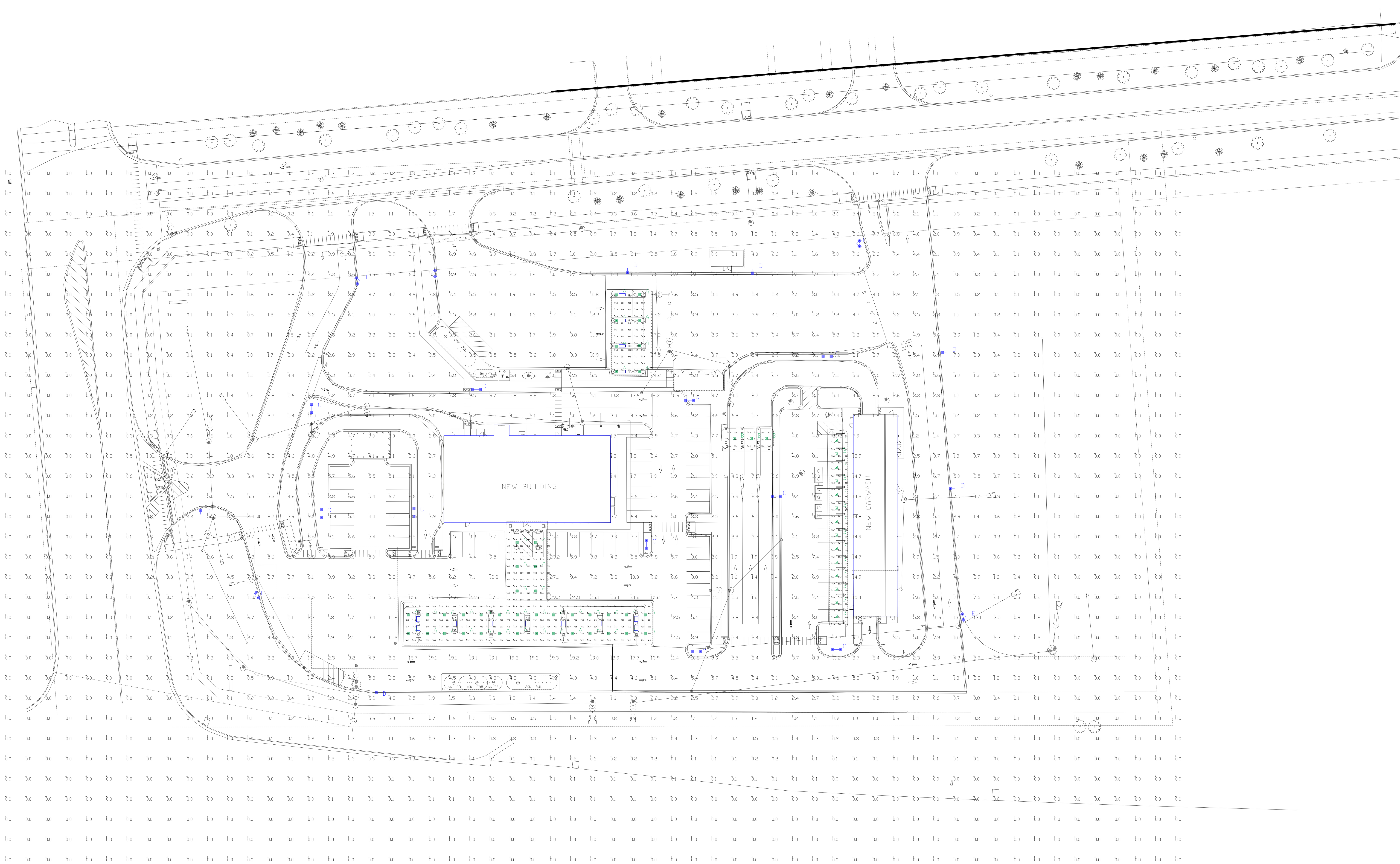
PAUL A. COUTURE
157-00328
REGISTERED
STATE OF ILLINOIS
PROFESSIONAL
LANDSCAPE
ARCHITECT
2024

ISSUE

TO	DATE
ZONING	08/9/22
VILLAGE	01/6/23
VILLAGE	02/27/23

CHECK: CK
DRAWN: PAC
JOB:D220035

LS-4
LANDSCAPE SPECIFICATIONS



Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
ALL CALC POINTS	Illuminance	Fc	2.16	39.3	0.0	N.A.	N.A.
DIESEL CANOPY	Illuminance	Fc	38.87	44.8	18.4	2.11	2.43
GAS CANOPY	Illuminance	Fc	57.22	78.6	16.8	3.41	4.68
PAY CANOPY	Illuminance	Fc	38.16	53.4	23.8	1.60	2.24
VACUUM CANOPY	Illuminance	Fc	46.61	60.4	21.1	2.21	2.86
INSIDE CURB	Illuminance	Fc	6.47	48.9	1.0	6.47	48.90

Luminaire Schedule

Symbol	Qty	Label	Arrangement	Description	LLD	LDD	LLF	Arr. Lum. Lumens	Arr. Watts
	42	A	SINGLE	CRUS-SC-HO-50 MTD @ 15' GAS, 18' DIESEL	1.000	1.000	1.000	19071	125
	17	B	SINGLE	CRUS-SC-LW-50 MTD @ 10' PAY & VACUUM	1.000	1.000	1.000	11148	73
	10	C	D180°	SLM-LED-18L-SIL-FT-50-70CRI-D180-20'POLE+2'BASE	1.000	1.000	1.000	37808	270
	6	D	SINGLE	SLM-LED-18L-SIL-FT-50-70CRI-SINGLE-20'POLE+2'BASE	1.000	1.000	1.000	18904	135
	5	E	2 @ 90°	SLM-LED-18L-SIL-FT-50-70CRI-D90-20'POLE+2'BASE	1.000	1.000	1.000	37808	270

PHOTOMETRIC EVALUATION
NOT FOR CONSTRUCTION

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine the applicability of the layout to existing or future field conditions.

This lighting plan represents illumination levels calculated from laboratory data taken under controlled conditions in accordance with The Illuminating Engineering Society (IES) approved methods. Actual performance of any manufacturer's luminaires may vary due to changes in electrical voltage, tolerance in lamps/LED's and other variable field conditions. Calculations do not include obstructions such as buildings, curbs, landscaping, or any other architectural elements unless noted. Fixture nomenclature noted does not include mounting hardware or poles. This drawing is for photometric evaluation purposes only and should not be used as a construction document or as a final document for ordering product.

Total Project Watts
Total Watts = 11351

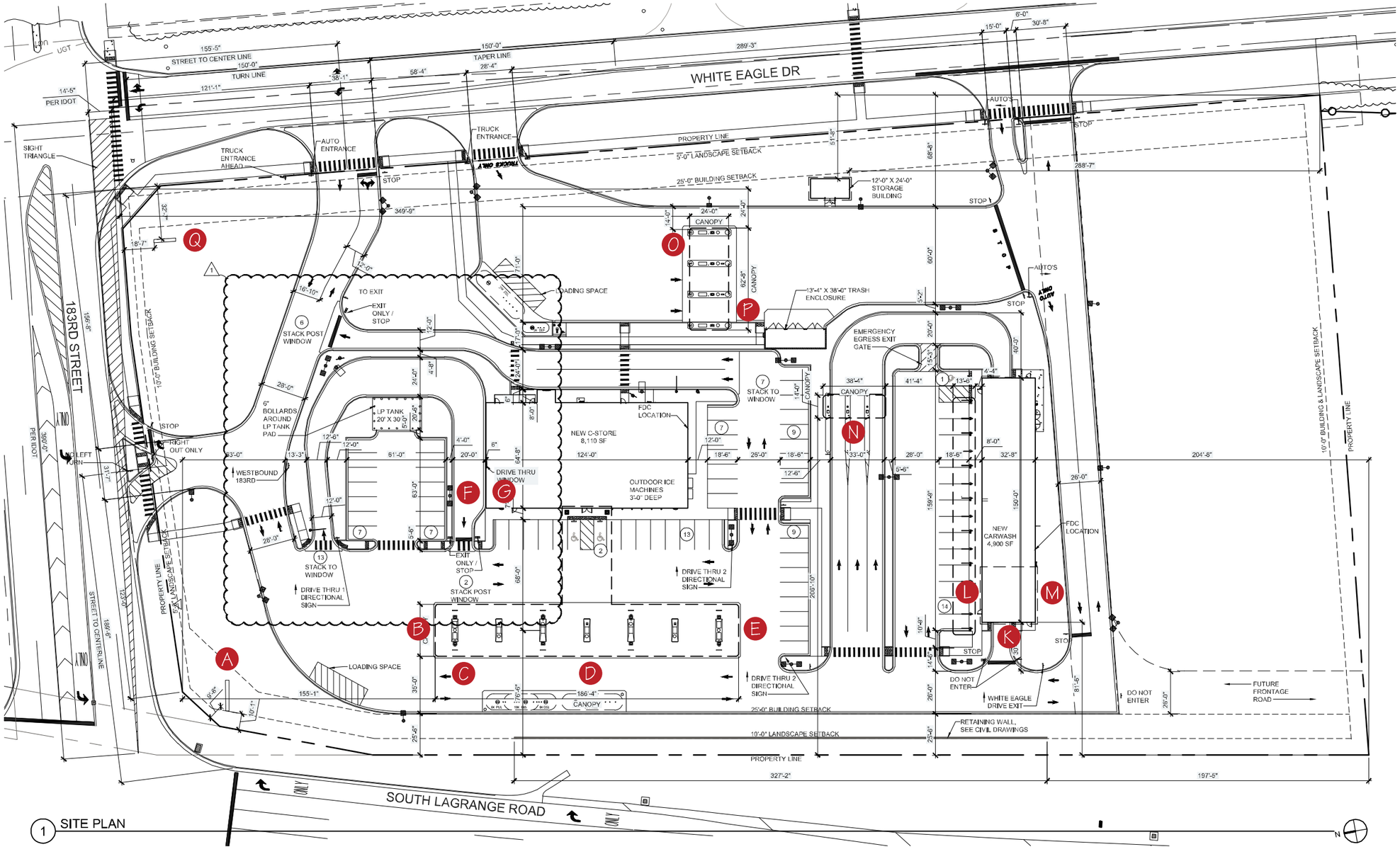
10000 ALLIANCE RD. CINCINNATI, OHIO 45242 USA
(513) 793-3200 • FAX (513) 793-6023

LIGHTING PROPOSAL LO-156421-2

GAS N WASH
WHITE EAGLE DRIVE
TINLEY PARK,IL

BY:AHK | DATE:08-11-22 | REV:2/22/23 | SHEET 1 OF 1

SCALE: 1"=40' 0 40



1 SITE PLAN

Van Bruggen SIGNS
Since 1925
13401 SOUTHWEST HWY.,
ORLAND PARK, ILLINOIS
708-448-0826 • vbsign.com

Approved

Date

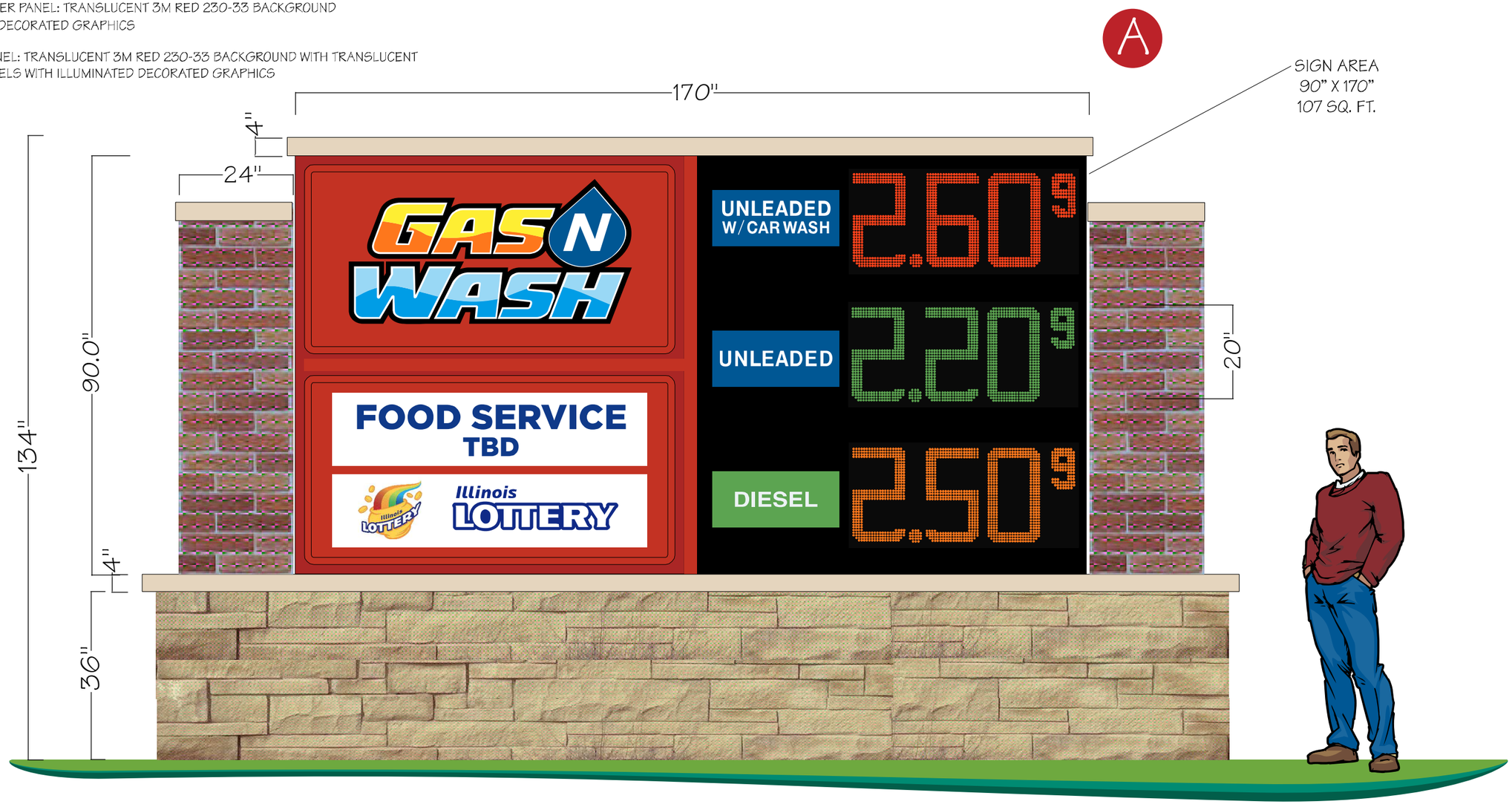
Scale	NTS	Title	GAS N WASH - TINLEY 183 WHITE EAGLE						
Date	8-15-22	Description	SIGN LOCATION PLAT						
Drawn By	ED	Revisions By	ED	ED	ED	D.S.	D.S.	Drawing No.	22-145.1C
		Date	1-18-23	1-23-23	2-22-23	5-3-23	5-5-23		

"GAS N WASH" UPPER PANEL: TRANSLUCENT 3M RED 230-33 BACKGROUND
WITH ILLUMINATED DECORATED GRAPHICS

TENANT LOWER PANEL: TRANSLUCENT 3M RED 230-33 BACKGROUND WITH TRANSLUCENT
WHITE TENANT PANELS WITH ILLUMINATED DECORATED GRAPHICS

A

SIGN AREA
90" X 170"
107 SQ. FT.



107 SQ. FT.

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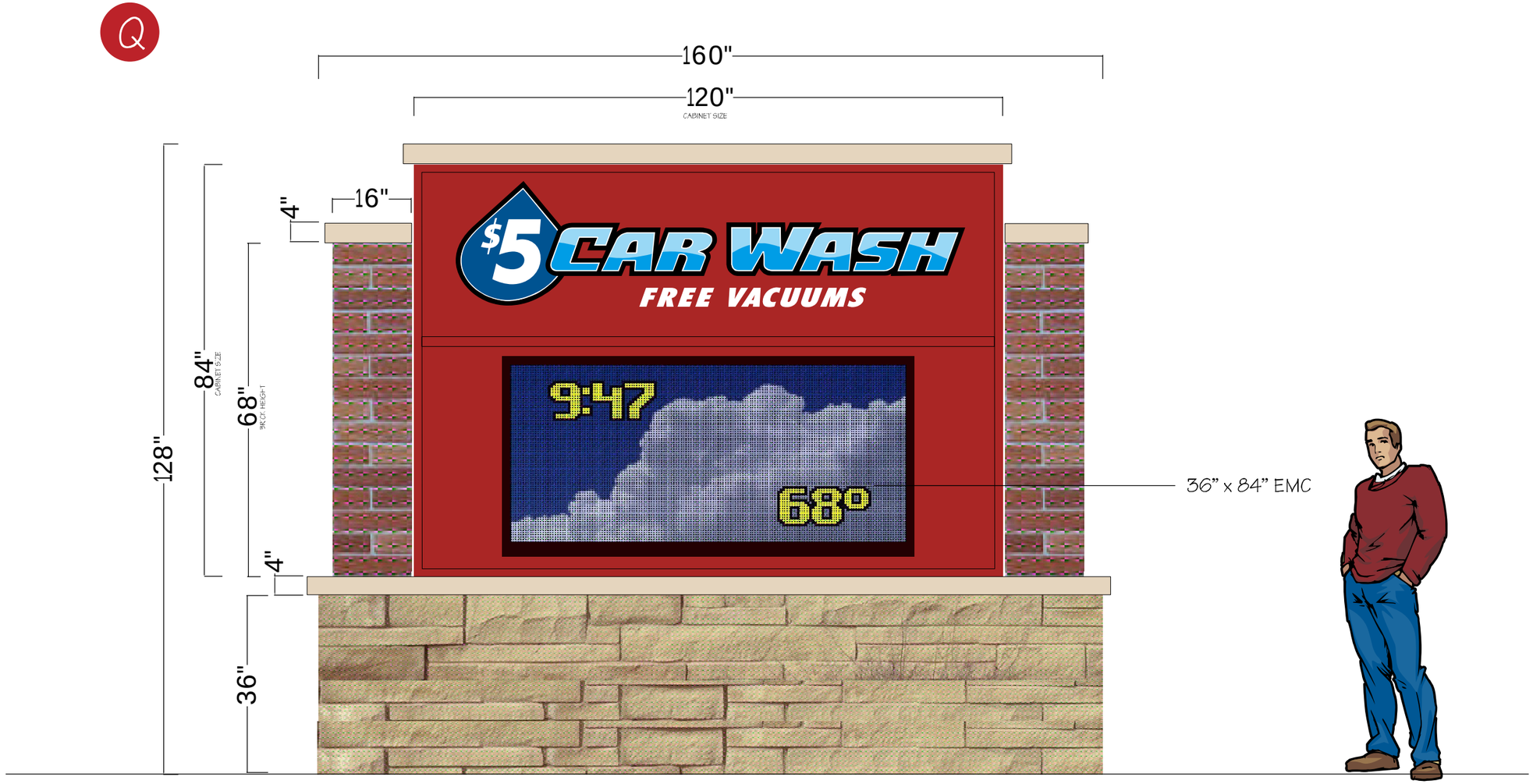
Approved		Scale	1/2"	Title	GAS N WASH - TINLEY 183 WHITE EAGLE			
Date		Date	8-15-22	Description	MAIN MONUMENT SIGN			
		Drawn By	ED	Revisions By	ED	ED		Drawing No. 22-145.2C
				Date	9-14-22	2-27-23		

Q



"GAS N WASH" UPPER PANEL: TRANSLUCENT 3M RED 230-33 BACKGROUND WITH ILLUMINATED DECORATED GRAPHICS

70 SQ. FT.

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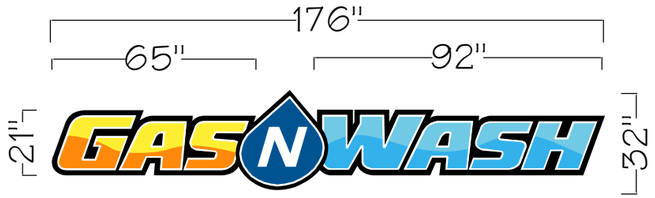
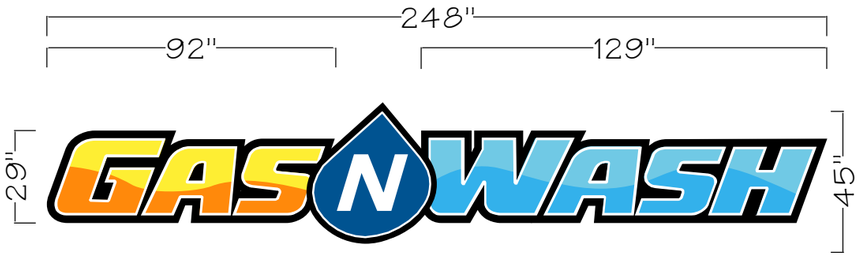
Approved	
Date	
Scale	1/2"
Date	8-16-22
Drawn By	ED
Title	GAS N WASH - TINLEY 183 WHITE EAGLE
Description	CAR WASH MONUMENT SIGN 7' EMC
Revisions By	
Date	
Drawing No.	22-145.10C

B

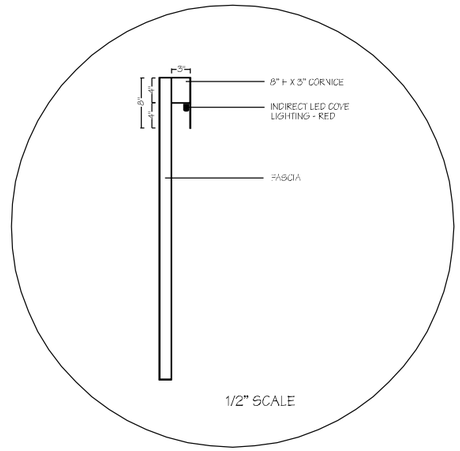


1/4" SCALE ILLUMINATED CHANNEL LETTER WITH BLACK CONTOUR OUTLINE BACKER 28 SQ. FT.

D



1/4" SCALE ILLUMINATED CHANNEL LETTER WITH BLACK CONTOUR OUTLINE BACKER 57.5 SQ. FT.

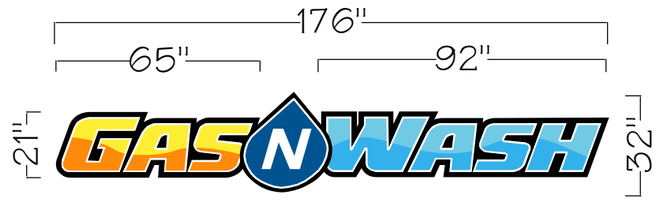


1/2" SCALE

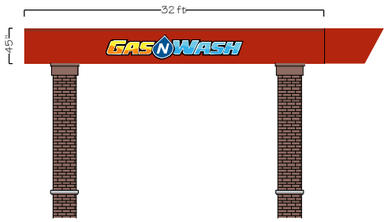
C

1/4" SCALE ILLUMINATED CHANNEL LETTER WITH WHITE BACKER 23 SQ. FT.

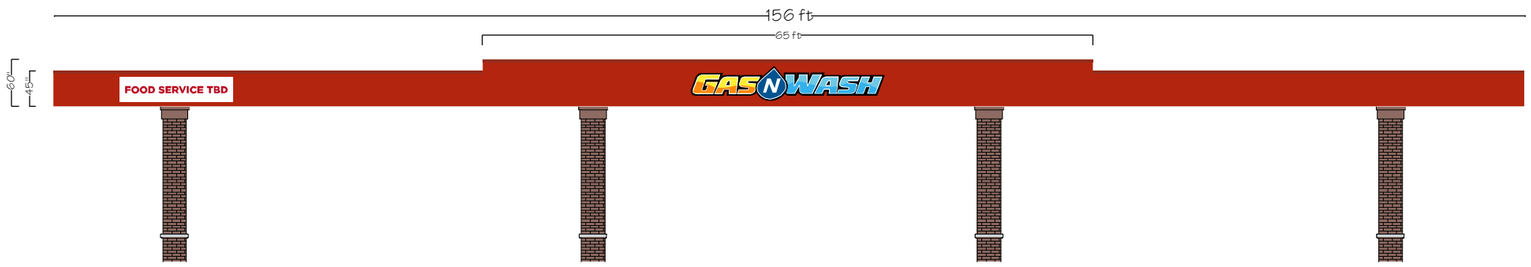
E



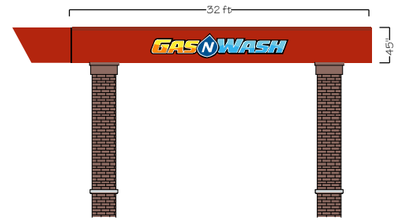
1/4" SCALE ILLUMINATED CHANNEL LETTER WITH BLACK CONTOUR OUTLINE BACKER 28 SQ. FT.



SOUTH ELEVATION 1/16" SCALE



WEST ELEVATION 1/16" SCALE



NORTH ELEVATION 1/16" SCALE

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Date	

Scale	NOTED	Title	GAS N WASH - TINLEY 183 WHITE EAGLE				
Date	8-15-22	Description	CAR WASH CANOPY SIGNAGE				
Drawn By	ED	Revisions By	D.S.				Drawing No. 22-145.3C
		Date	5-3-23				

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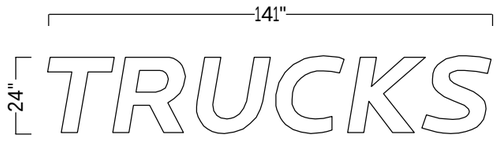
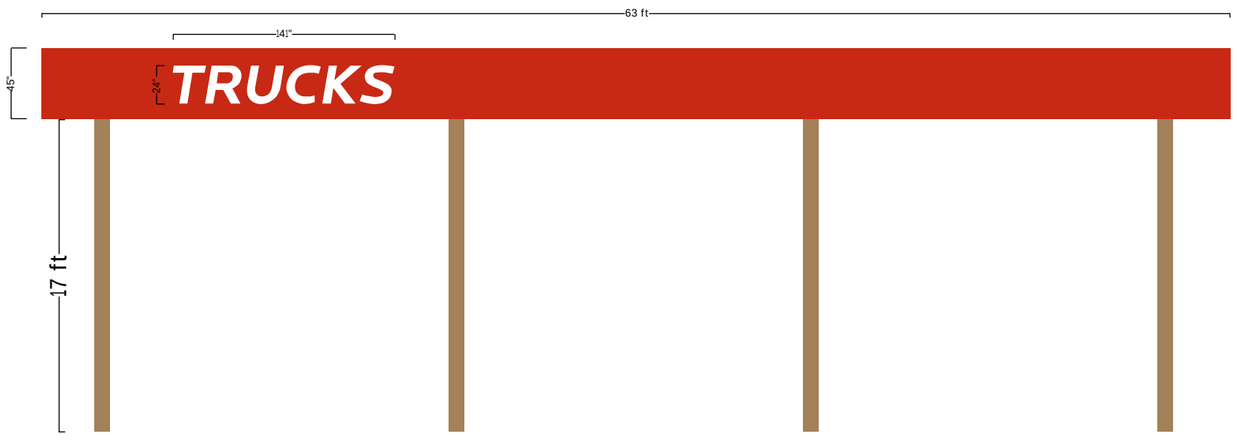
Date	

Scale	NOTED	Title	GAS N WASH - TINLEY 183 WHITE EAGLE
Date	8-15-22	Description	INDIRECT COVE LIGHTING
Drawn By	ED	Revisions By / Date	Drawing No. 22-145.3C LED

O

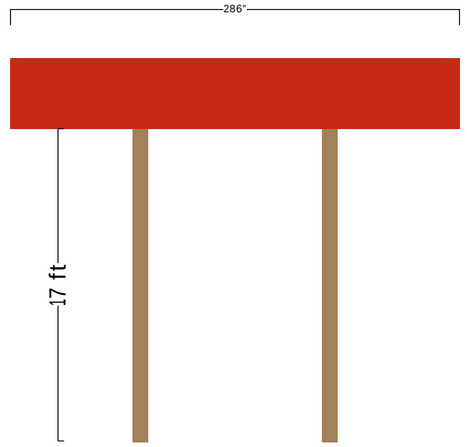


ILLUMINATED CHANNEL LETTERS 3/16" SCALE
23.5 SQ FT



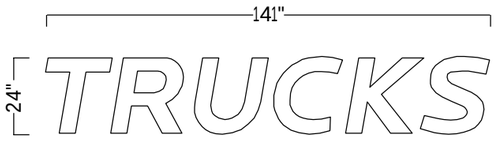
NORTH ELEVATION

1/8" SCALE

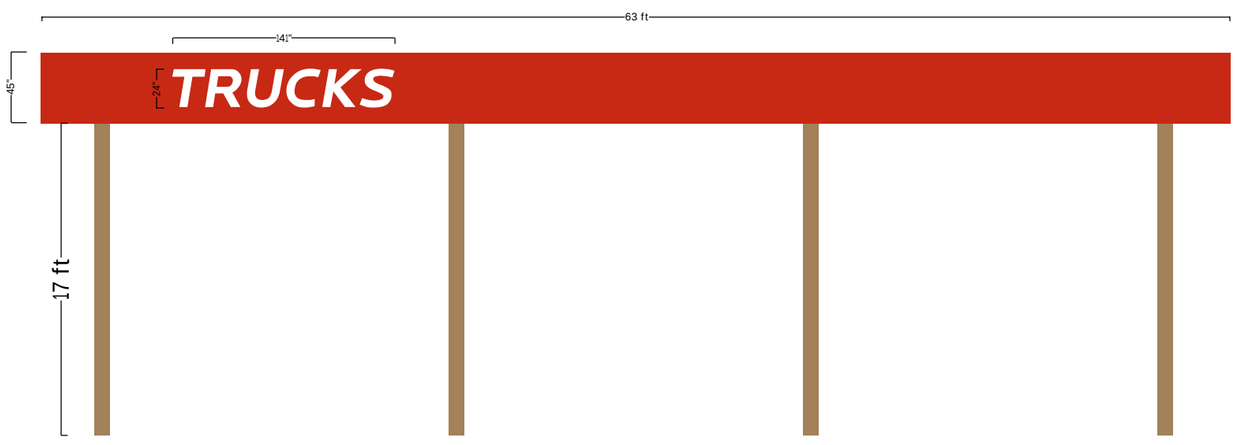


EAST ELEVATION

P

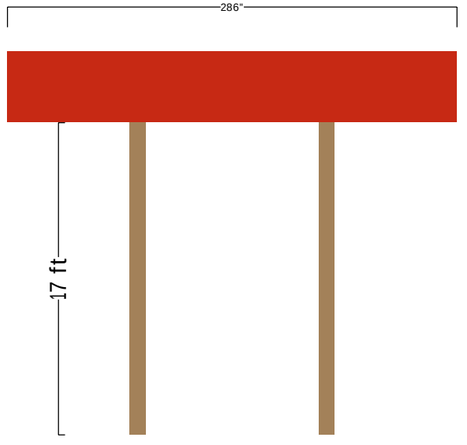


ILLUMINATED CHANNEL LETTERS 3/16" SCALE
23.5 SQ FT



SOUTH ELEVATION

1/8" SCALE



WEST ELEVATION

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Date	

Scale	NOTED	Title	GAS N WASH - TINLEY 183 WHITE EAGLE
Date	8-16-22	Description	TRUCK CANOPY
Drawn By	ED	Revisions By / Date	Drawing No. 22-145.9C

F

111"

76"

FOOD SERVICE TBD DRIVE THRU

NORTH ELEVATION

ILLUMINATED CHANNEL LETTER WITH WHITE BACKER

58.5 SQ. FT.

1/4" SCALE

G

148"

30"

FOOD SERVICE TBD

WEST ELEVATION

ILLUMINATED CHANNEL LETTER WITH WHITE BACKER

31 SQ. FT.

1/4" SCALE

H

SIGN DELETED

I

SIGN DELETED

J

SIGN DELETED

60"

36"

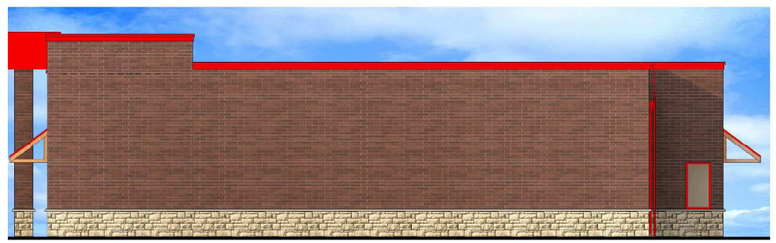
FOOD SERVICE TBD

15 SQ. FT.

NORTH ELEVATION 1/16" SCALE

WEST ELEVATION 1/16" SCALE

EAST ELEVATION 1/8" SCALE



SOUTH ELEVATION 1/8" SCALE

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Date

Scale: NOTED	Title: GAS N WASH - TINLEY 183 WHITE EAGLE		
Date: 8-15-22	Description: C-STORE SIGNAGE		
Drawn By: ED	Revisions By	ED	ED	ED	ED	D.S.	Drawing No.: 22-145.4C
	Date	9-1-22	1-25-23	2-14-23	7-27-23	8-3-23	

K

ILLUMINATED CHANNEL LETTER
WITH BLACK CONTOUR OUTLINE BACKER

1/8" SCALE 41 SQ. FT.

L

ILLUMINATED CHANNEL LETTER
WITH BLACK CONTOUR OUTLINE BACKER

1/8" SCALE 68 SQ. FT.

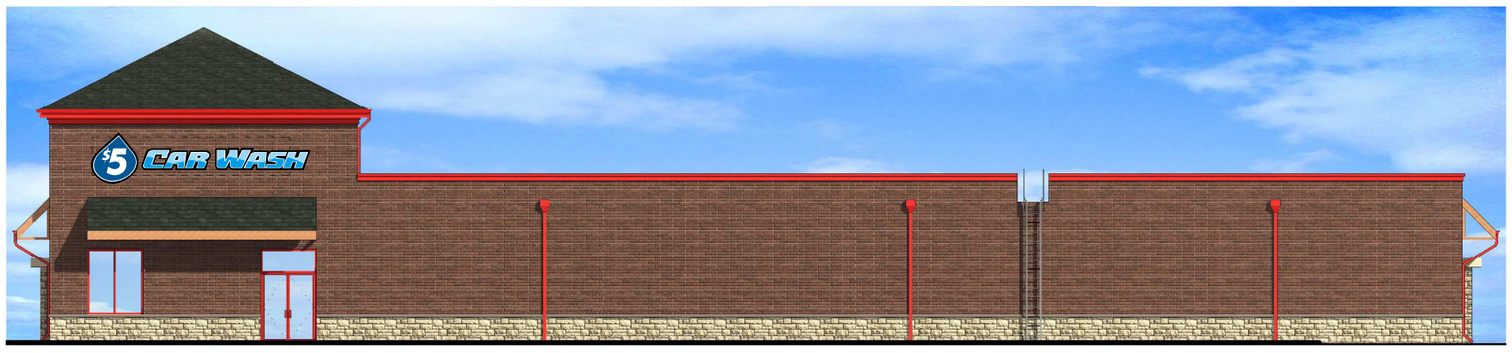
M

ILLUMINATED CHANNEL LETTER
WITH BLACK CONTOUR OUTLINE BACKER

1/8" SCALE 68 SQ. FT.

NORTH ELEVATION

WEST ELEVATION



SOUTH ELEVATION

EAST ELEVATION

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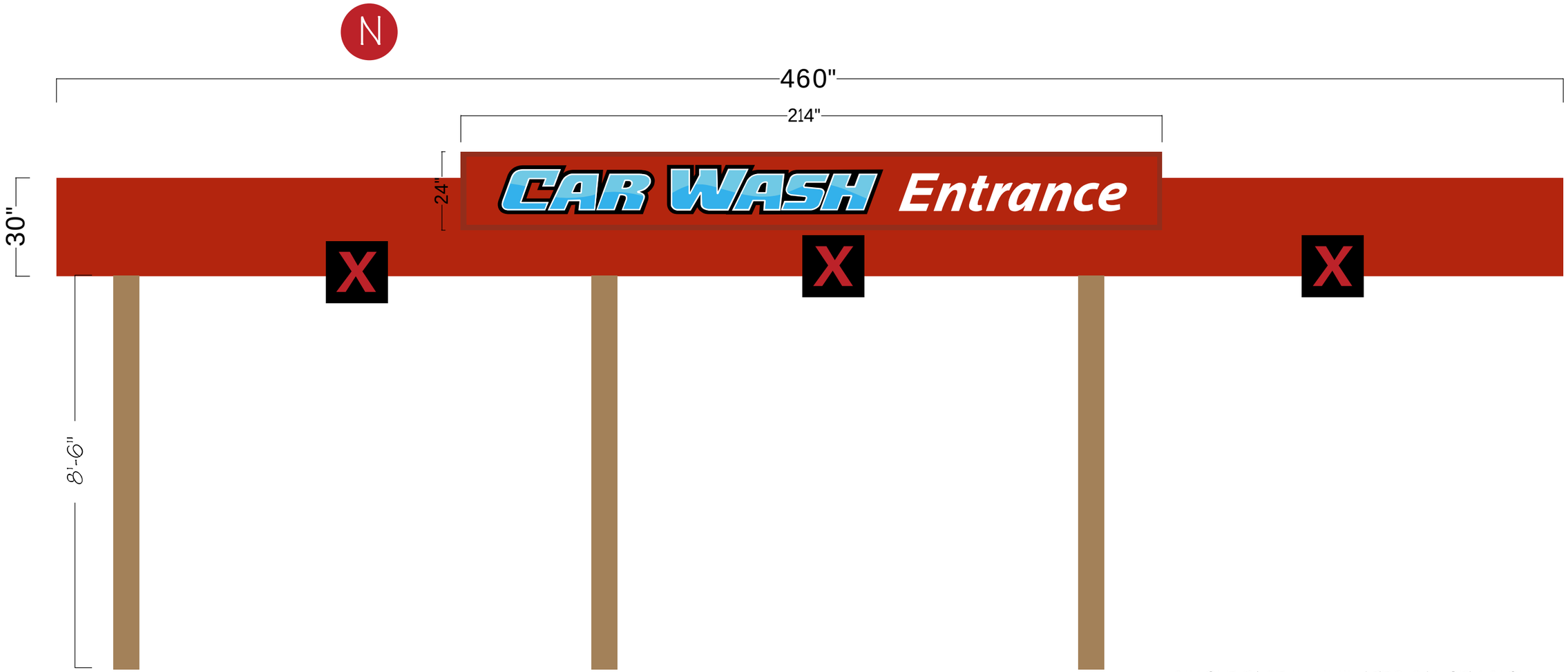
Date	

Scale NOTED	*Title* GAS N WASH - TINLEY 183 WHITE EAGLE							
Date 8-15-22	*Description* CAR WASH BLDG. SIGNAGE							
Drawn By ED	*Revisions By*	ED					*Drawing No.* 22-145.7C	
	Date	1-18-23						



SINGLE FACE ILLUMINATED CANOPY SIGN
35.7 SQ. FT.

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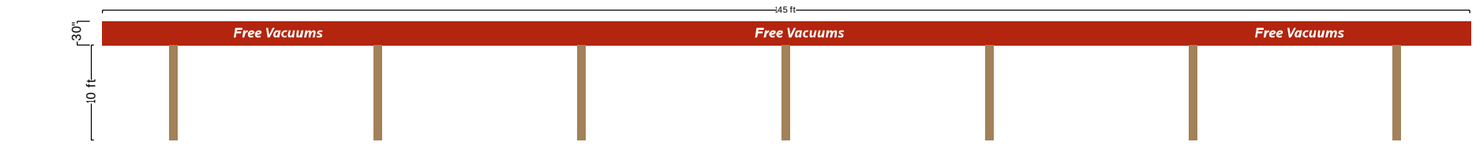
Approved	
Date	
Scale	NOTED
Date	8-16-22
Drawn By	ED
Title	GAS N WASH - TINLEY 183 WHITE EAGLE
Description	PAY CANOPY
Revisions By / Date	
Drawing No.	22-145.8C

1/2" SCALE

NON - ILLUMIINATED
HP DIE CUT VINYL GRAPHICS

9.4 SQ. FT.

TOTAL 28.2 SQ FT



VACUUM CANOPY 1/16" SCALE

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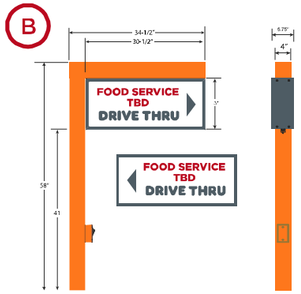
Date	

Scale	NTS	Title	GAS N WASH - TINLEY 183 WHITE EAGLE
Date	8-16-22	Description	VACUUM CANOPY
Drawn By	ED	Revisions By / Date	Drawing No. 22-145.11C

A

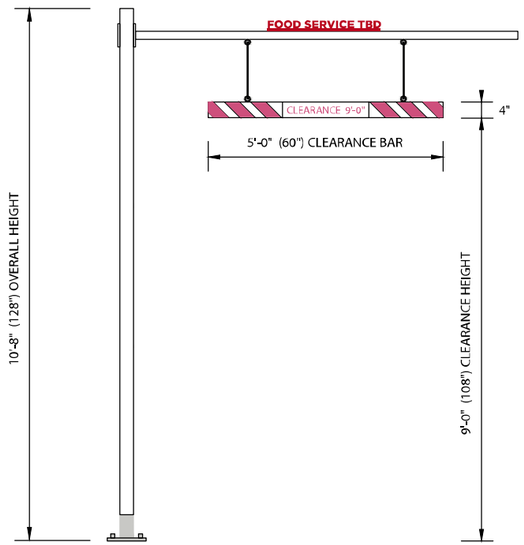
NON-ILLUMINATED
REFLECTIVE BACKGROUND
6 SQ. FT.

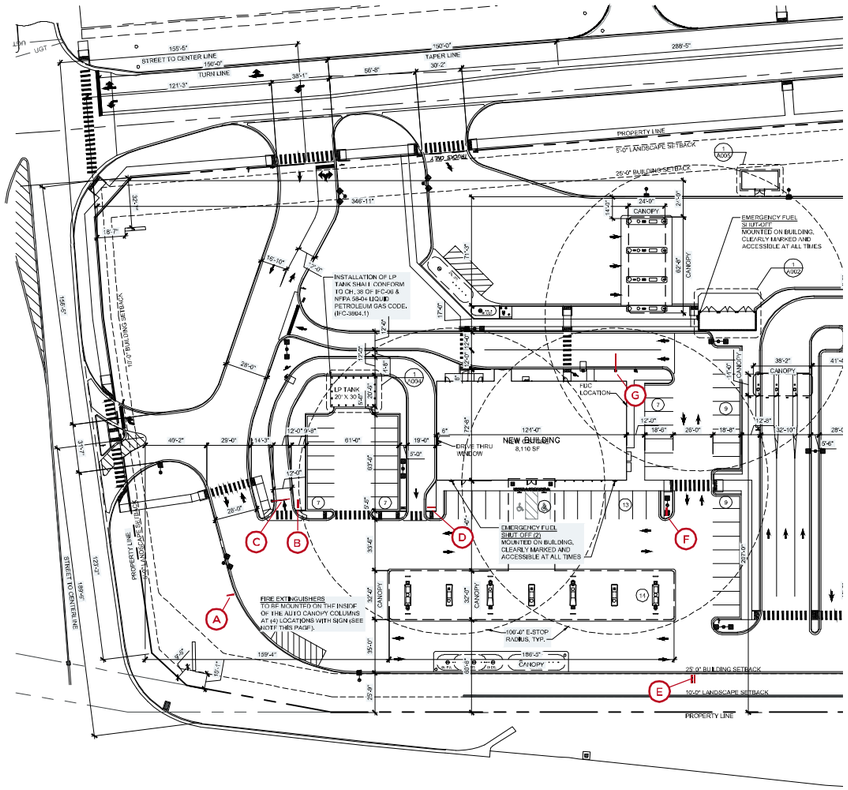
B



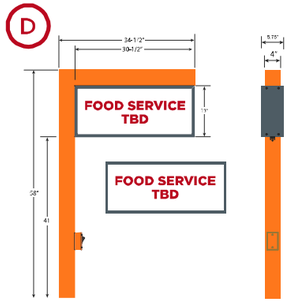
D/F
ILLUMINATED DIRECTIONAL SIGN FOR DRIVE THRU
2.7 SQ. FT.

C





D



D/F
ILLUMINATED DIRECTIONAL SIGN FOR DRIVE THRU
2.7 SQ. FT.

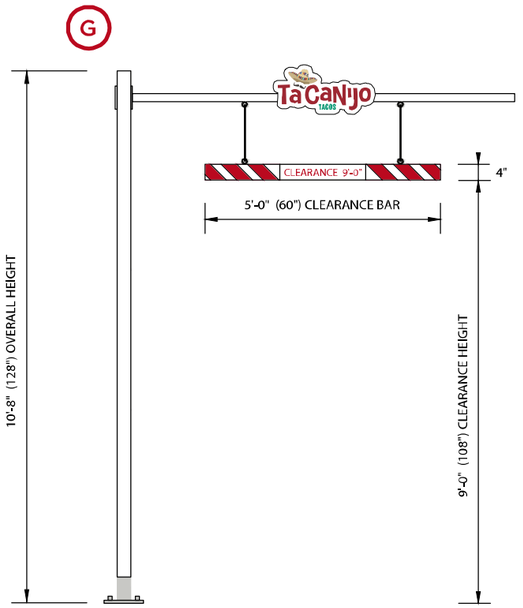
E

NON-ILLUMINATED
REFLECTIVE BACKGROUND
6 SQ. FT.

F

D/F
ILLUMINATED DIRECTIONAL SIGN FOR DRIVE THRU
2.7 SQ. FT.

G



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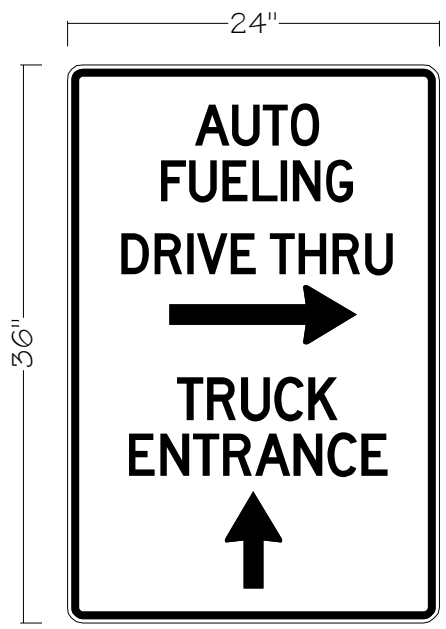
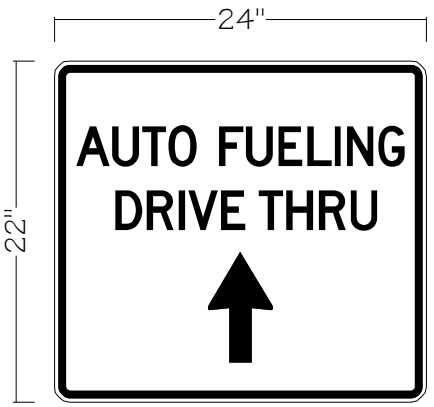
Approved	
Date	

Scale	NTS	Title	GAS N WASH - TINLEY 183 WHITE EAGLE				
Date	1-24-23	Description	DRIVE THRU DIRECTIONAL				
Drawn By	ED	Revisions By	ED	D.S.			Drawing No. 23-022.1C
		Date	2-22-23	5-3-23			


24"
36"
AUTO
FUELING
DRIVE THRU
EXIT


24"
36"
AUTO
FUELING
DRIVE THRU
TRUCK
ENTRANCE


24"
22"
AUTO FUELING
DRIVE THRU


24"
36"
EXIT TO
WHITE
EAGLE
DRIVE

VARIANCE REQUESTS

1. REQUESTING A VARIANCE OF 1'-2" ON THE MONUMENT SIGN HEIGHT FROM THE 10'-0" MAX HEIGHT FOR THE C-STORE MONUMENT SIGN.
2. REQUESTING A VARIANCE OF 0'-8" ON THE MONUMENT SIGN HEIGHT FROM THE 10'-0" MAX HEIGHT FOR THE CARWASH MONUMENT SIGN.
3. REQUESTING A VARIANCE OF 10% ON THE ELECTRONIC MESSAGE CENTER FOR THE CARWASH SIGN FROM 20% OF SIGN MAX
4. REQUESTING A VARIANCE OF 34 SF ON THE GASOLINE SALES SIGN FROM THE 20 SF MAX FOR PRICER PORTION
5. REQUESTING A VARIANCE OF 12 SF ON THE NORTH AND SOUTH AUTO CANOPY SIGN FROM THE 16 SF MAX.
6. REQUESTING A VARIANCE OF 8.4 SF ON THE WEST CARWASH SIGN FROM THE 32.6 SF MAX.
7. REQUESTING A VARIANCE TO ALLOW SIGNAGE ON THE CARWASH PAY AND VAC CANOPY, 28.2 SF ON THE VAC CANOPY, 35.7 SF ON THE PAY CANOPY.
8. REQUESTING A VARIANCE OF 2 PARKING SPACES FROM THE REQUIRED 57 PARKING SPACES.
9. REQUESTING A VARIANCE TO ALLOW FOR BRANDING ON DIRECTIONAL SIGNAGE

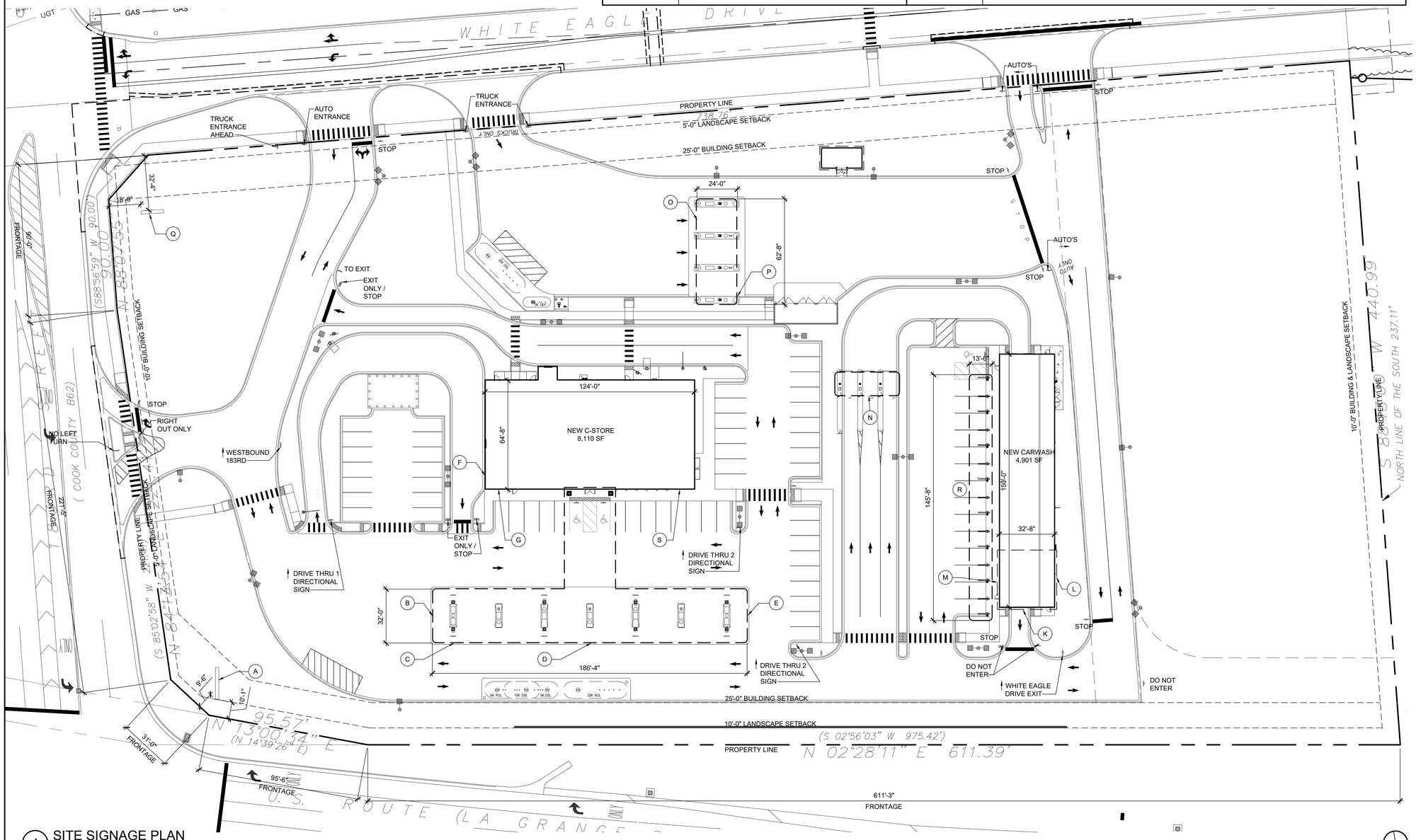
SIGNAGE INFORMATION

SIGN TYPE / QUANTITY SECTION X1, F, 1, 2	FREESTANDING SIGNS:	3 PER DIRECTLY ADJACENT PUBLIC FOOTAGE MIN. 300' APART	2 PROPOSED
FREESTANDING SIGN SIZE SECTION XI, F, 2 + SECTION X1, J, 4		ALLOWED	PROPOSED
	SIGN AREA:		
	C-STORE:	120 SF MAX	107 SF
	CAR WASH:	120 SF MAX	70 SF
	SIGN HEIGHT:		
	C-STORE:	10'-0" MAX	11'-2"
	CAR WASH:	10'-0" MAX	10'-8"
	ELECTRONIC MSG		
	C-STORE:	20% TOTAL SIGN	N/A
	CAR WASH:	20% TOTAL SIGN = 24 SF	30% OF SIGN 21 SF
	TOTAL: 1,049 LF /2.5 = 420 SF	360 SF *	177 SF
	* TOTAL FREESTANDING SIGN CAN NOT EXCEED 120 SF PER SIGN		
FREESTANDING SIGN SETBACK SECTION XI, F, 2		REQUIRED	PROPOSED
	SETBACK:	N/A	9'-6" MIN.
	VISION TRIANGLE:	N/A	N/A
ACCESSORY SIGN SECTION XI, L, 2	GASOLINE SALES SIGN:	20 SF MAX.	54 SF
	GAS CANOPY SIGNS:	1 SF PER 2 LF	

WALL SIGNS SECTION IX, F, 1

NUMBER ALLOWED: 1 PER TENANT FRONTAGE	ALLOWED 9	PROPOSED 9
SIGNAGE FACING NORTH:	ALLOWED	PROPOSED
- C-STORE	64.6 S.F. MAX	58.5 SF
- AUTO CANOPY:	16 S.F. MAX	28 SF
- DIESEL CANOPY:	31.3 S.F. MAX	23.5 SF
- CAR WASH:	150 S.F. MAX	68 SF
- CARWASH PAY CANOPY:	NONE	NA
- CARWASH VAC CANOPY:	NONE	28.2 SF
TOTAL:	261.9 SF	206.2 SF
SIGNAGE FACING EAST:		
- C-STORE	124 SF MAX	N/A
- AUTO CANOPY:	NONE	N/A
- DIESEL CANOPY:	12 SF MAX	N/A
- CAR WASH:	32.6 SF MAX	N/A
- CARWASH PAY CANOPY:	NONE	N/A
- CARWASH VAC CANOPY:	NONE	N/A
TOTAL:	138.6 SF	NONE

SIGNAGE FACING SOUTH:	ALLOWED	PROPOSED
- C-STORE:	NONE	N/A
- AUTO CANOPY:	16 SF MAX	28 SF
- DIESEL CANOPY:	31.3 SF MAX	23.5 SF
- CAR WASH:	NONE	N/A
- CARWASH PAY CANOPY:	NONE	N/A
- CARWASH VAC CANOPY:	NONE	N/A
TOTAL:	47.3 SF	51.5 SF
SIGNAGE FACING WEST:		
- C-STORE:	124 SF MAX	46 SF
- AUTO CANOPY:	93.2 SF MAX	80.5 SF
- DIESEL CANOPY:	12 SF MAX	N/A
- CAR WASH:	32.6 SF MAX	41 SF
- CARWASH PAY CANOPY:	NONE	35.7 SF
- CARWASH VAC CANOPY:	NONE	N/A
TOTAL:	261.8 SF	203.2 SF
OVERALL TOTAL:	709.6 SF	464.9 SF



1 SITE SIGNAGE PLAN
SCALE: 1" = 30'-0"

SIGNAGE KEY

A	"GAS N WASH" GROUND SIGN: INTERNALLY ILLUMINATED SIGN WITH ELECTRONIC MESSAGE, MASONRY BASE, 53.5 SF SIGN AND 53.5 SF ELECTRONIC PRICER (107 SF TOTAL SIGNAGE), SEE VAN BRUGGEN SIGN DRAWING 22-145.2C
B	"GAS N WASH" CANOPY DECAL: CANOPY DECAL, 28 SF, SEE VAN BRUGGEN SIGN DRAWING 22-145.3C
C	"TENANT" CANOPY DECAL: TENANT DECAL, 23 SF, SEE VAN BRUGGEN SIGN DRAWING 22-145.3C
D	"GAS N WASH" CANOPY DECAL: CANOPY DECAL, 57.5 SF, SEE VAN BRUGGEN SIGN DRAWING 22-145.3C
E	"GAS N WASH" CANOPY DECAL: CANOPY DECAL, 28 SF, SEE VAN BRUGGEN SIGN DRAWING 22-145.3C
F	"TENANT DRIVE THRU" WALL SIGN: TENANT WALL SIGN, 58.5 SF, SEE VAN BRUGGEN SIGN DRAWING 22-145.4C
G	"TENANT" " WALL SIGN: TENANT WALL SIGN, 31 SF, SEE VAN BRUGGEN SIGN DRAWING 22-145.4C
H	NOT USED
I	NOT USED
J	NOT USED
K	"CAR WASH" WALL SIGN: ILLUMINATED CHANNEL LETTERS, 41 SF, SEE VAN BRUGGEN SIGN DRAWING 22-145.7C
L	"CAR WASH" WALL SIGN: ILLUMINATED CHANNEL LETTERS, 68 SF, SEE VAN BRUGGEN SIGN DRAWING 22-145.7C
M	"CAR WASH" WALL SIGN: ILLUMINATED CHANNEL LETTERS, 68 SF, SEE VAN BRUGGEN SIGN DRAWING 22-145.7C
N	"CAR WASH ENTRANCE" CANOPY SIGN: ILLUMINATED CANOPY SIGN, 35.7 SF, SEE VAN BRUGGEN SIGN DRAWING 22-145.8C
O	"TRUCKS" CANOPY SIGN: CHANNEL LETTERS, 23.5 SF, SEE VAN BRUGGEN SIGN DRAWING 22-145.1C
P	"TRUCKS" CANOPY SIGN: CHANNEL LETTERS, 23.5 SF, SEE VAN BRUGGEN SIGN DRAWING 22-145.1C
Q	"CARWASH" GROUND SIGN: INTERNALLY ILLUMINATED SIGN WITH ELECTRONIC MESSAGE, MASONRY BASE, 49 SF SIGN AND 21 SF ELECTRONIC MESSAGE BOARD (70 SF TOTAL SIGNAGE), SEE VAN BRUGGEN SIGN DRAWING 22-145.10C
R	"FREE VACUUMS" CANOPY DECAL: CANOPY DECAL, 9.4 SF , 3 TOTAL (28.2 SF TOTAL) SEE VAN BRUGGEN SIGN DRAWING 22-145.11C
S	"FUTURE TENANT" WALL SIGN: TENANT WALL SIGN, 15 SF, SEE VAN BRUGGEN SIGN DRAWING 22-145.4C

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ZONING	01/06/23
ZONING	01/20/23
CLIENT	01/23/23
UPDATE SITE	02/21/23
ZONING	02/22/23
ZONING 1	05/05/23

CHECK:CP
DRAWN:KM
JOB:D220035

SI001
SITE SIGNAGE PLAN

FLOOR PLAN GENERAL NOTES

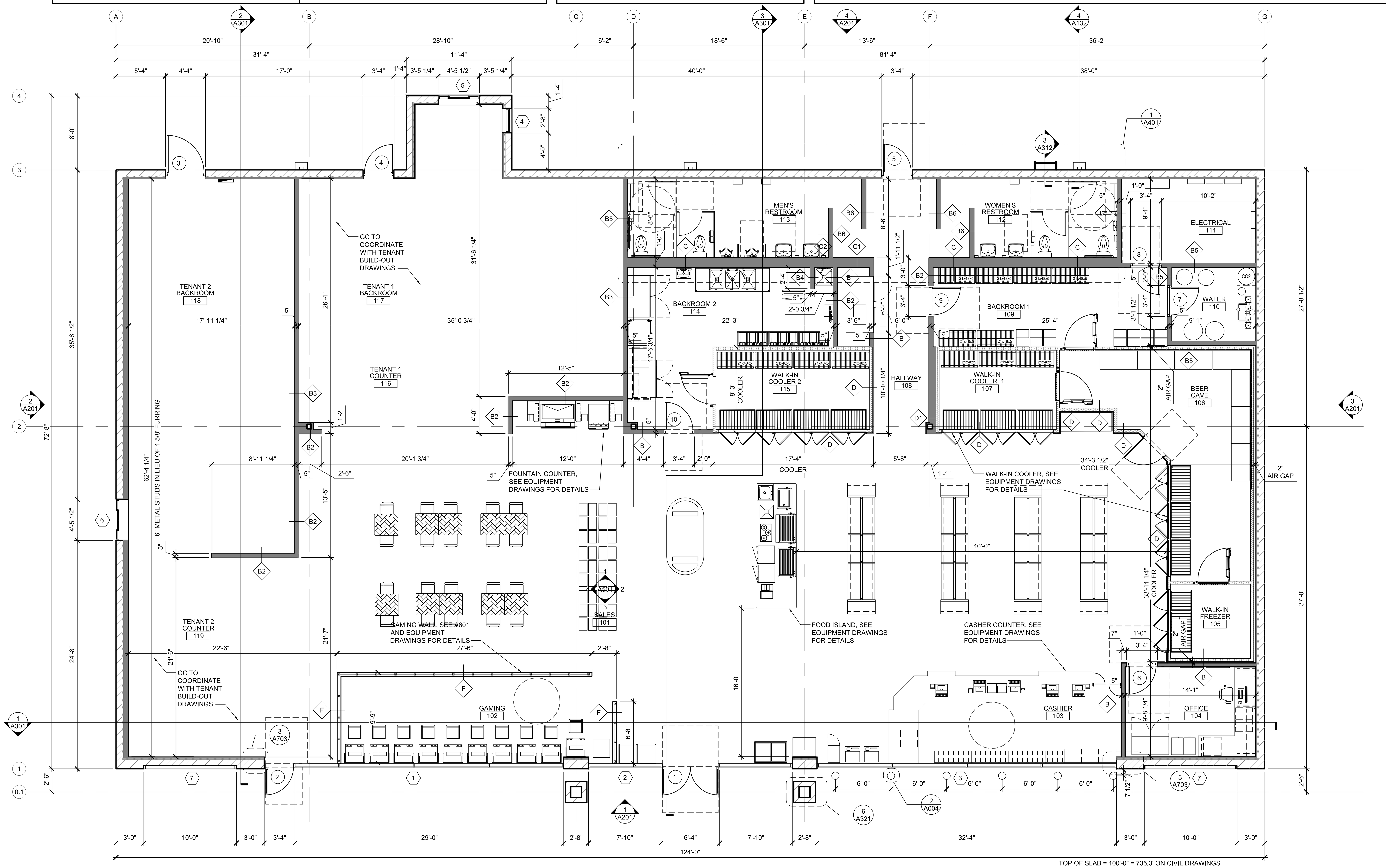
1. ALL CONTRACTORS TO VERIFY EXISTING SITE CONDITIONS AND DIMENSIONS BEFORE ANY WORK IS TO BEGIN. NOTIFY ARCHITECT OF DISCREPANCIES.
2. ALL WORK TO BE DONE IN ACCORDANCE WITH ALL GOVERNING STATE AND LOCAL CODES, ORDINANCES, AND AMENDMENTS.
3. WATER RESISTANT GYPSUM BOARD OR CEMENT BOARD SHALL BE USED AT ALL WALLS IN TOILET ROOM, BEHIND ALL PLUMBING FIXTURES, AND ANY WET LOCATIONS - SEE PARTITION SCHEDULE FOR MORE INFORMATION.
4. PROVIDE ALL REQUIRED IN WALL BLOCKING FOR ALL WALL MOUNTED EQUIPMENT, MILLWORK, SHELVING, AND ACCESSORIES.
5. MOUNT ALL FIXTURES & ACCESSORIES AT HEIGHTS CONFORMING WITH ALL GOVERNING CODES & ACCESSIBILITY REQUIREMENTS.
6. ALL WOOD BLOCKING AND PLYWOOD TO BE FIRE TREATED.
7. FIRE EXTINGUISHERS ARE SUPPLIED AND INSTALLED BY THE G.C. QUANTITIES AND LOCATIONS TO BE COORDINATED W/ THE LOCAL FIRE DEPARTMENT.
8. COORDINATE SIZE AND LOCATION OF ALL DUCT SHAFT OPENINGS IN WALLS AND FLOORS. SEE MECHANICAL AND ELECTRICAL DRAWINGS.
9. ALL DIMENSIONS ARE NOMINAL & ARE FROM FACE OF GYPSUM BOARD, SHEATHING, OR SUBSTRATE.
10. REFER TO THE EQUIPMENT PLAN AND EQUIPMENT SCHEDULE FOR MORE INFORMATION ON THE EQUIPMENT. EQUIPMENT SHOWN ON THIS PLAN IS FOR REFERENCE ONLY.
11. PROVIDE CONTINUOUS BEAD OF CLEAR SILICONE SEALANT AT INTERIOR SIDE OF ALL WALL TRANSITIONS. SEAL ALL OPENINGS IN FLOORS, STRUCTURAL DECK AND EXTERIOR WALLS IN ORDER TO PROVIDE A WEATHER TIGHT SEAL.
12. ALL WALLS ARE AT 90° UNLESS NOTED OTHERWISE.
13. PROPERLY PREPARE & CLEAN SUBSTRATES & SURFACES AS REQUIRED TO ACCEPT FINISHES, MATERIALS, TREATMENTS, ETC.
14. SHALL PROVIDE FINAL CLEANING OF STORE AT END OF CONSTRUCTION.

FLOOR PLAN LEGEND

- PARTIAL HEIGHT WALL CONSTRUCTION
- STUD WALL CONSTRUCTION
- MASONRY WALL CONSTRUCTION
- WALK-IN COOLER / FREEZER BOX PANEL
- CLEAR FLOOR AREA PER ACCESSIBILITY CODES
- X — PARTITION TAG, SEE PARTITION TYPES BELOW AND DETAILS ON SHEET A601
- X — DOOR TAG, SEE DOOR SCHEDULE ON SHEET A702
- X — WINDOW TAG, SEE WINDOW SCHEDULE ON SHEET A703

PARTITION TYPES

B	3 5/8" STUD WALL WITH 5/8" GYPSUM BOARD EACH SIDE UP TO BOTTOM OF DECK , SEE SHEET A601.
B1	3 5/8" STUD WALL WITH 5/8" CEMENT BOARD ON MOP SINK SIDE AND 5/8" GYPSUM BOARD ON THE OPPOSITE SIDE UP TO BOTTOM OF DECK , SEE SHEET A601.
B2	3 5/8" STUD WALL WITH 5/8" PLYWOOD ON ONE SIDE AND 5/8" GYPSUM BOARD ON THE SALES AREA SIDE UP TO BOTTOM OFDECK , SEE SHEET A601.
B3	3 5/8" STUD WALL WITH 5/8" PLYWOOD ON BOTH SIDES UP TO BOTTOM OF DECK , SEE SHEET A601.
B4	3 5/8" STUD WALL WITH 5/8" PLYWOOD ON ONE SIDE AND 5/8" CEMENT BOARD ON MOP SINK SIDE UP TO BOTTOM OF DECK , SEE SHEET A601.
B5	3 5/8" STUD WALL WITH 5/8" PLYWOOD ON ONE SIDE AND 5/8" WATER RESISTANT GYPSUM BOARD ON RESTROOM, WATER ROOM SIDE UP TO BOTTOM OF DECK, SEE SHEET A601.
B6	3 5/8" STUD WALL WITH 5/8" WATER RESISTANT GYPSUM BOARD BOTH SIDES UP TO BOTTOM OF DECK , SEE SHEET A601.
C	(2) 3 5/8" STUD WALL WITH 3 1/2" CHASE IN CENTER WITH SOUND ATTENUATION BATT INSULATION, 5/8" MOISTURE RESISTANT GYPSUM BOARD ON RESTROOM SIDE AND 5/8" PLYWOOD ON OPPOSITE SIDE, UP TO BOTTOM OF DECK, SEE SHEET A601.
C1	(2) 3 5/8" STUD WALL WITH 3 1/2" CHASE IN CENTER WITH SOUND ATTENUATION BATT INSULATION, 5/8" MOISTURE RESISTANT GYPSUM BOARD ON RESTROOM SIDE AND 5/8" GYPSUM BOARD ON OPPOSITE SIDE, UP TO BOTTOM OF DECK, SEE SHEET A601.
C2	(2) 3 5/8" STUD WALL WITH 3 1/2" CHASE IN CENTER WITH SOUND ATTENUATION BATT INSULATION, 5/8" MOISTURE RESISTANT GYPSUM BOARD ON RESTROOM SIDE AND 5/8" CEMENT BOARD ON MOP SINK SIDE, UP TO BOTTOM OF DECK, SEE SHEET A601.
D	1/2" GLASS MAT TILE BACKERBOARD APPLIED TO FACE OF COOLER. TO BOTTOM OF DECK, SEE SHEET A601.
D1	1/2" GLASS MAT TILE BACKERBOARD APPLIED TO FACE OF COOLER. 3 5/8" STUD WITH 5/8" GYPSUM BOARD ON OPPOSITE SIDE UP TO BOTTOM OF DECK, SEE SHEET A601.
F	PARTIAL HEIGHT 3 5/8" STUD WALL AT 4'-0" A.F.F., 5/8" GYPSUM BOARD EACH SIDE, 2"X2"X1/8" STEEL TUBE - AT EACH END OF WALL AND AT 4'-0" O.C., SEE SHEET A601.



1 FLOOR PLAN
SCALE: 3/16" = 1'-0"

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ZONING	02/22/23

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DRAWN:KM
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A101
C-STORE FLOOR PLAN

FLOOR PLAN LEGEND

(symbol)	PARTIAL HEIGHT WALL CONSTRUCTION
(symbol)	STUD WALL CONSTRUCTION
(symbol)	MASONRY WALL CONSTRUCTION
(symbol)	CLEAR FLOOR AREA PER ACCESSIBILITY CODES
⟨X⟩	PARTITION TAG, SEE PARTITION TYPES, THIS PAGE
(X)	DOOR TAG, SEE DOOR SCHEDULE
⟨X⟩	WINDOW TAG, SEE WINDOW SCHEDULE

FIRE EXTINGUISHER NOTES

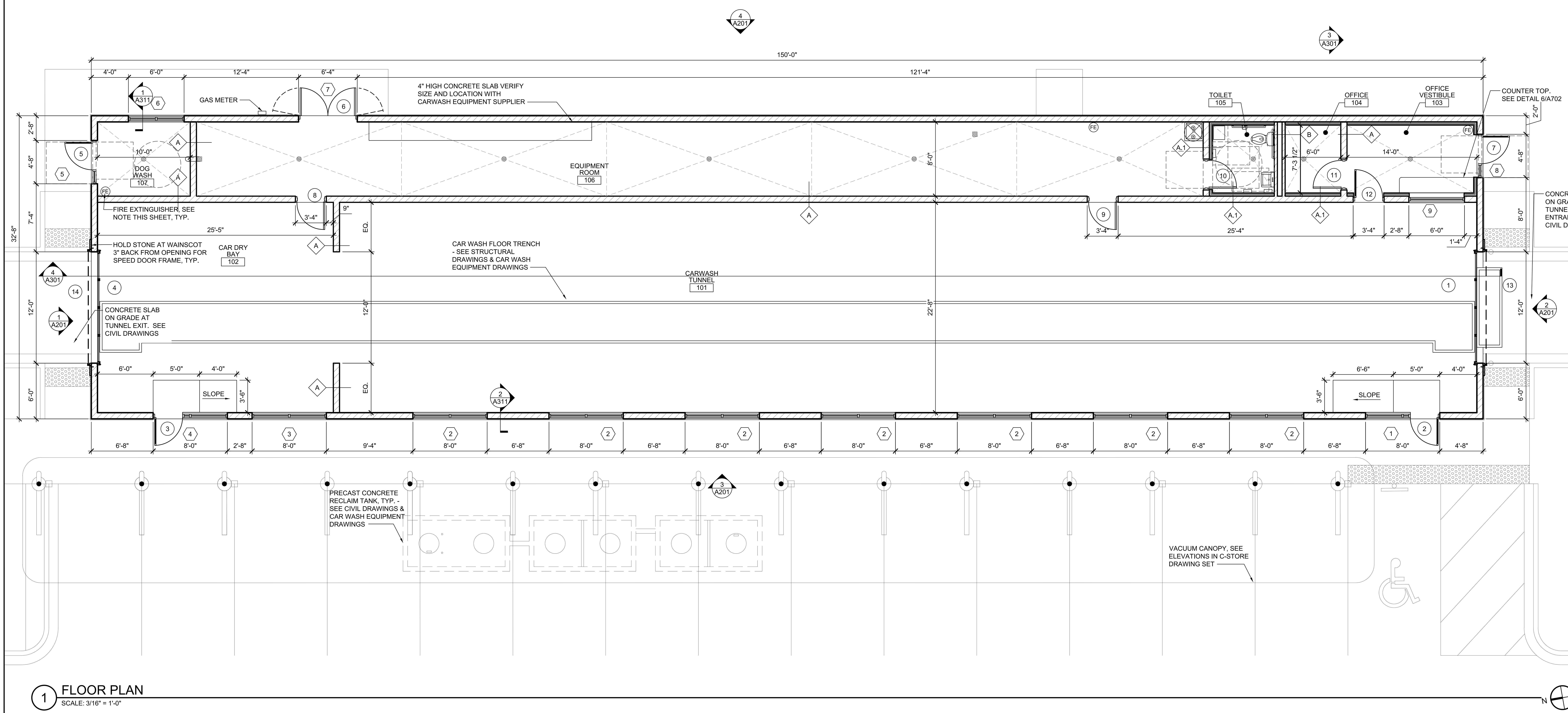
1. FIRE EXTINGUISHERS TO BE MIN. CLASS 3A (3A40BC) SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 10 STANDARD FOR PORTABLE FIRE EXTINGUISHERS (IFC-906.2 & NFPA 101-9.7.4.1) AND PER LOCAL FIRE CODE.
   A. ALL FIRE EXTINGUISHERS SHALL BE PROPERLY TAGGED AND MOUNTED. (IFC-906.9 & NFPA 10-D.2.3.1)
   B. ALL FIRE EXTINGUISHERS SHALL REMAIN IN CLEAR VIEW AND SHALL NOT BE OBSTRUCTED AT ANY TIME (IFC-906.6 & NFPA 10-1.5.10)
   C. ALL FIRE EXTINGUISHERS SHALL BE INSTALLED NO HIGHER THAN 5'-0" (AT HANDLE) AND NO LESS THAN 4" ABOVE THE FINISHED FLOOR (IFC-906.9 & NFPA 10-1.5.10)

PARTITION TYPES

- A — NON LOAD-BEARING 8" CONCRETE BLOCK WALL - SEE STRUCTURAL DRAWINGS.
- A.1 — 8" CONCRETE BLOCK WALL WITH 2" CONTINUOUS INSULATION, 1-5/8" METAL STUD FURRING (TO BE ANCHORED TO CMU THROUGH INSULATION), 5/8" WATER RESISTANT GYPSUM BOARD TO BOTTOM OF DECK. - SEE STRUCTURAL DRAWINGS.
- B — PLUMBING WALL: 6" SPACE WITH 4" CONCRETE BLOCK WALL ON BOTH SIDES TO EXTEND TO UNDERSIDE OF PRECAST PLANKS - SEE STRUCTURAL DRAWINGS.

FLOOR PLAN GENERAL NOTES

A. CONTRACTOR TO VERIFY WITH CAR WASH EQUIPMENT SUPPLIER LOCATION OF PIPES, CONVEYOR TRENCH, ETC.
B. ALL WORK TO BE DONE IN ACCORDANCE WITH ALL GOVERNING STATE AND LOCAL CODES, ORDINANCES, AND AMENDMENTS.
C. WATER RESISTANT GYPSUM BOARD OR CEMENT BOARD SHALL BE USED AT ALL WALLS IN TOILET ROOM, BEHIND ALL PLUMBING FIXTURES, AND ANY WET LOCATIONS - SEE PARTITION SCHEDULE FOR MORE INFORMATION.
D. PROVIDE ALL REQUIRED IN WALL BLOCKING FOR ALL WALL MOUNTED EQUIPMENT, MILLWORK, SHELVING, AND ACCESSORIES.
E. MOUNT ALL FIXTURES & ACCESSORIES AT HEIGHTS CONFORMING WITH ALL GOVERNING CODES & ACCESSIBILITY REQUIREMENTS.
F. ALL WOOD BLOCKING AND PLYWOOD TO BE FIRE TREATED.
G. FIRE EXTINGUISHERS ARE SUPPLIED AND INSTALLED BY THE G.C. QUANTITIES AND LOCATIONS TO BE COORDINATED W/ THE LOCAL FIRE DEPARTMENT.
H. COORDINATE SIZE AND LOCATION OF ALL DUCT SHAFT OPENINGS IN WALLS AND FLOORS. SEE MECHANICAL AND ELECTRICAL DRAWINGS.
I. ALL DIMENSIONS ARE NOMINAL & ARE FROM FACE OF GYPSUM BOARD, SHEATHING, OR SUBSTRATE.
J. REFER TO THE EQUIPMENT PLAN AND EQUIPMENT SCHEDULE FOR MORE INFORMATION ON THE EQUIPMENT. EQUIPMENT SHOWN ON THIS PLAN IS FOR REFERENCE ONLY.
K. PROVIDE CONTINUOUS BEAD OF CLEAR SILICONE SEALANT AT INTERIOR SIDE OF ALL WALL TRANSITIONS. SEAL ALL NEW AND EXISTING OPENINGS IN FLOORS, STRUCTURAL DECK AND EXTERIOR WALLS IN ORDER TO PROVIDE A WEATHER TIGHT SEAL.
L. ALL WALLS ARE AT 90° UNLESS NOTED OTHERWISE.
M. PROPERLY PREPARE & CLEAN SUBSTRATES & SURFACES AS REQUIRED TO ACCEPT FINISHES, MATERIALS, TREATMENTS, ETC.
N. G.C. SHALL PROVIDE FINAL CLEANING OF STORE AT END OF CONSTRUCTION.
O. WALL AND PARTITION DIMENSIONS SHOWN ON PLANS ARE NOMINAL DIMENSIONS.
P. POST BUILDING ADDRESS ON BUILDING / SITE AT ALL TIMES DURING CONSTRUCTION. NUMBERS TO BE VISIBLE FROM STREET.



1 FLOOR PLAN
SCALE: 3/16" = 1'-0"

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ZONING	07/08/22
ZONING	08/09/22
ZONING	01/20/23

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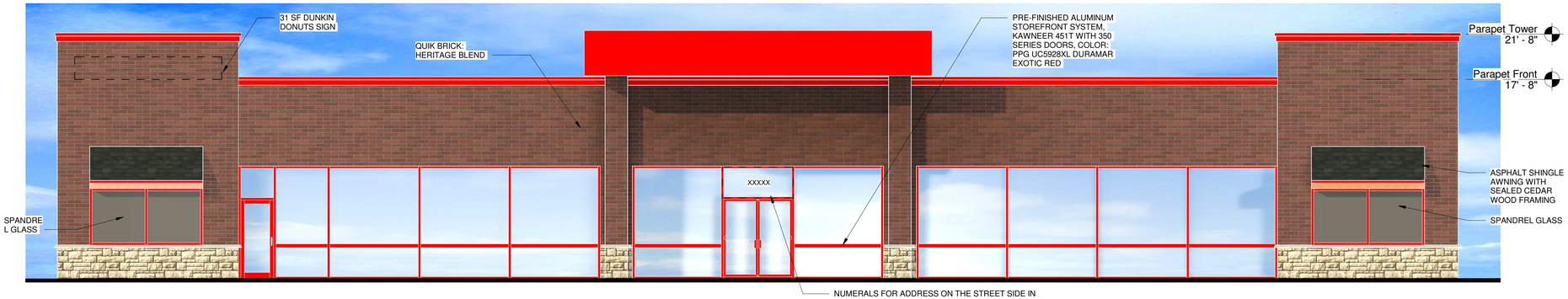
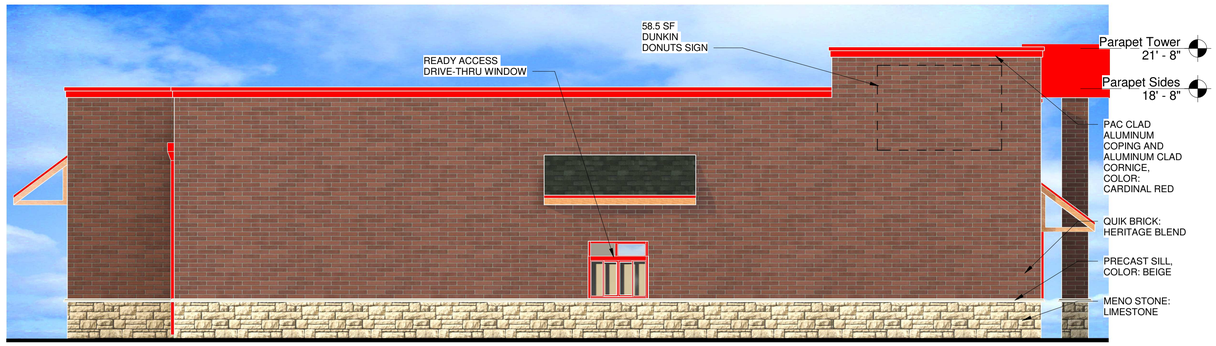
JOB:D220035

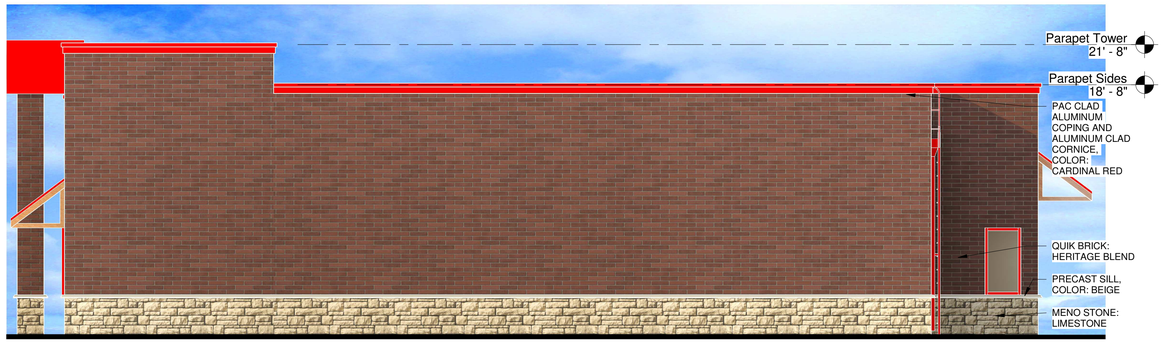
A102
CAR WASH FLOOR PLAN



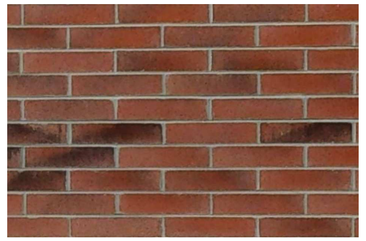
1 WEST ELEVATION
3/16" = 1'-0"



2 NORTH ELEVATION
3/16" = 1'-0"



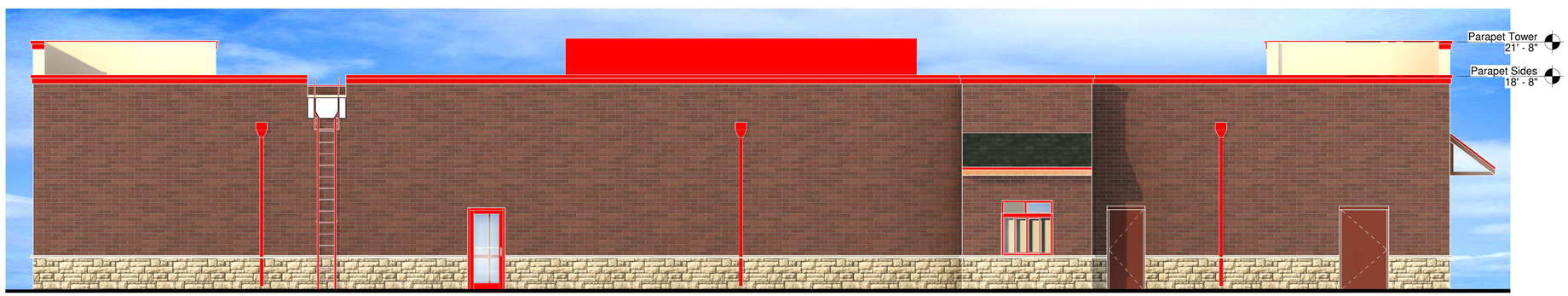
3 SOUTH ELEVATION
3/16" = 1'-0"



5 BRICK SAMPLE
N.T.S.

6 STONE SAMPLE
N.T.S.

7 AWNINGS/GLAZING/RED METAL
N.T.S.



4 EAST ELEVATION
3/16" = 1'-0"

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ZONING	02/22/23

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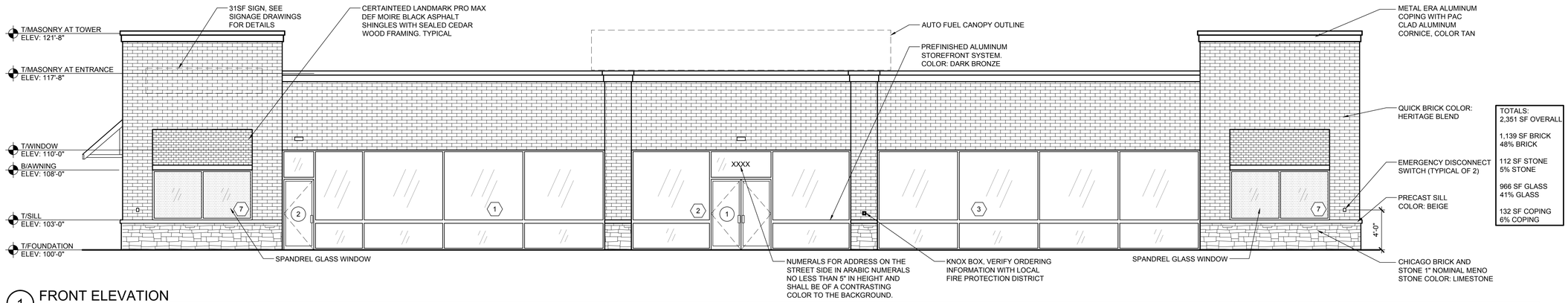
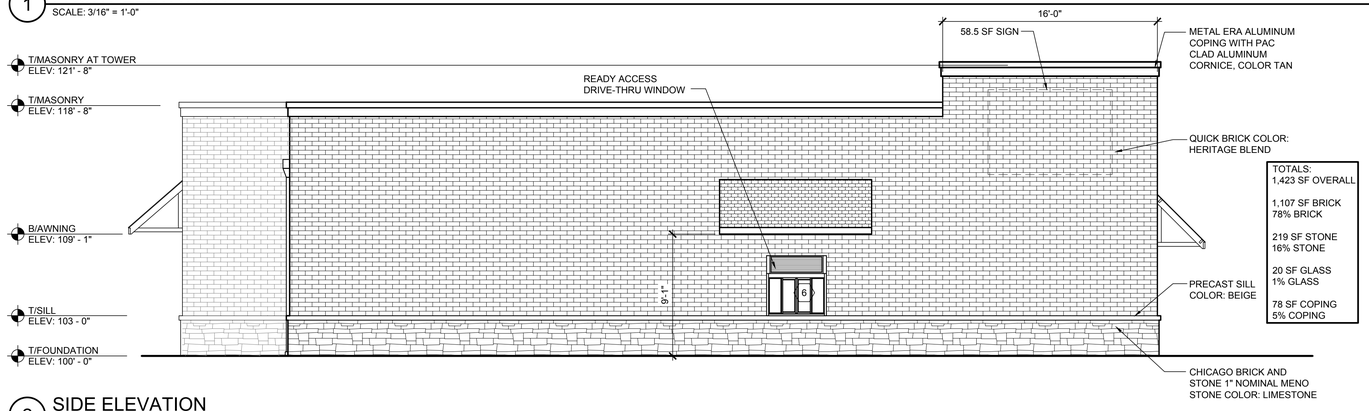
JOB:D2200035

A201C
COLORED C-STORE ELEVATIONS



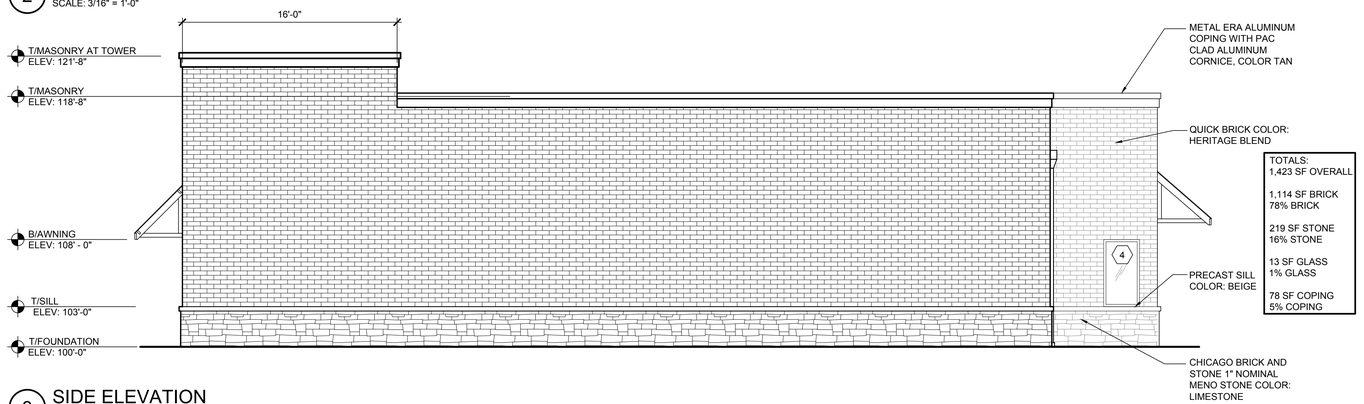
1 FRONT ELEVATION

SCALE: 3/16" = 1'-0"



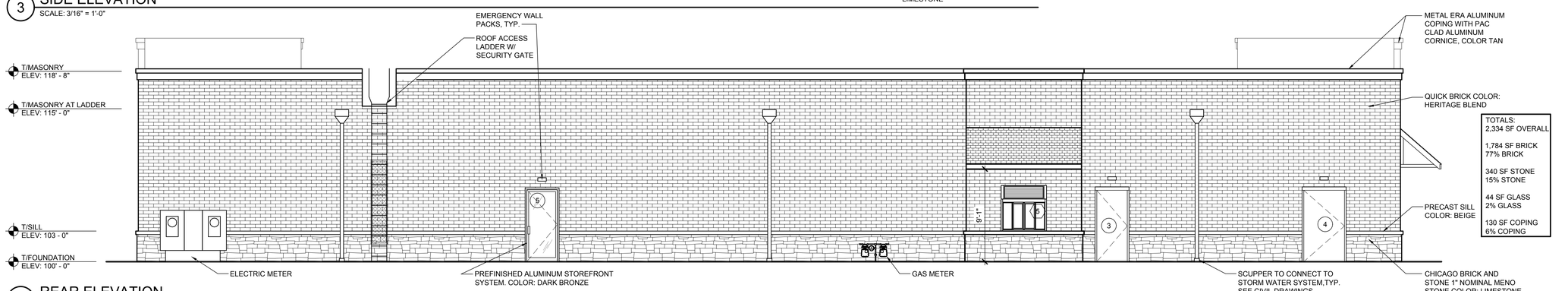
2 SIDE ELEVATION

SCALE: 3/16" = 1'-0"



3 SIDE ELEVATION

SCALE: 3/16" = 1'-0"



4 REAR ELEVATION

SCALE: 3/16" = 1'-0"

EXTERIOR ELEVATIONS LEGEND

(X)	DOOR TAG, SEE DOOR SCHEDULE ON SHEET A702
⬡X⬡	WINDOW TAG, SEE WINDOW SCHEDULE ON SHEET A703

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ZONING	02/22/23

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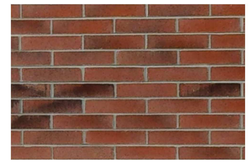
DRAWN:KM
JOB:D220035

A201
C-STORE EXTERIOR ELEVATIONS

1 WEST ELEVATION
3/16" = 1'-0"

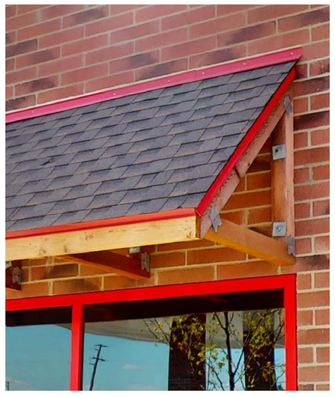
2 NORTH ELEVATION
3/16" = 1'-0"

3 SOUTH ELEVATION
3/16" = 1'-0"

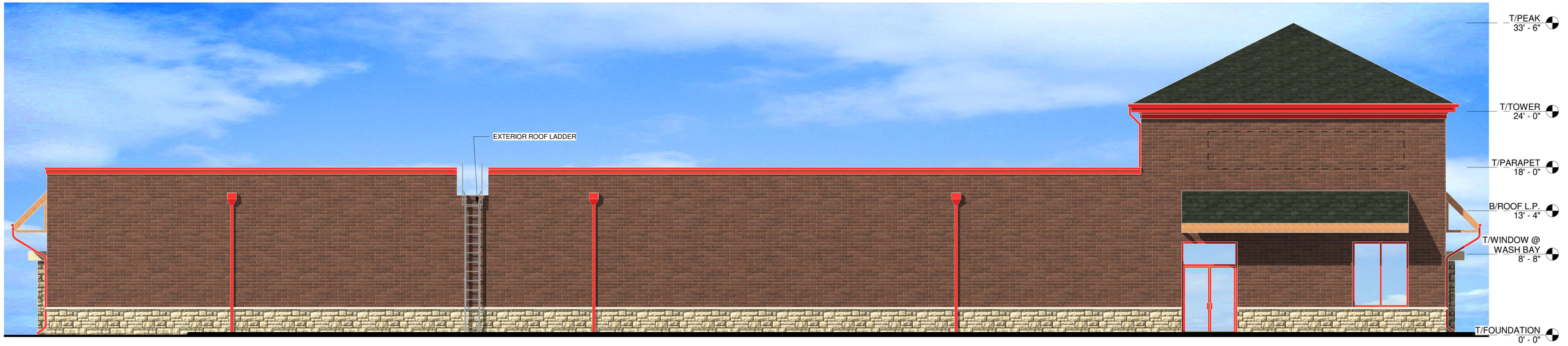


5 BRICK SAMPLE
N.T.S.

6 STONE SAMPLE
N.T.S.



7 AWNING/ GLAZING/ RED METAL
N.T.S.



4 EAST ELEVATION
3/16" = 1'-0"

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ZONING	01/20/23

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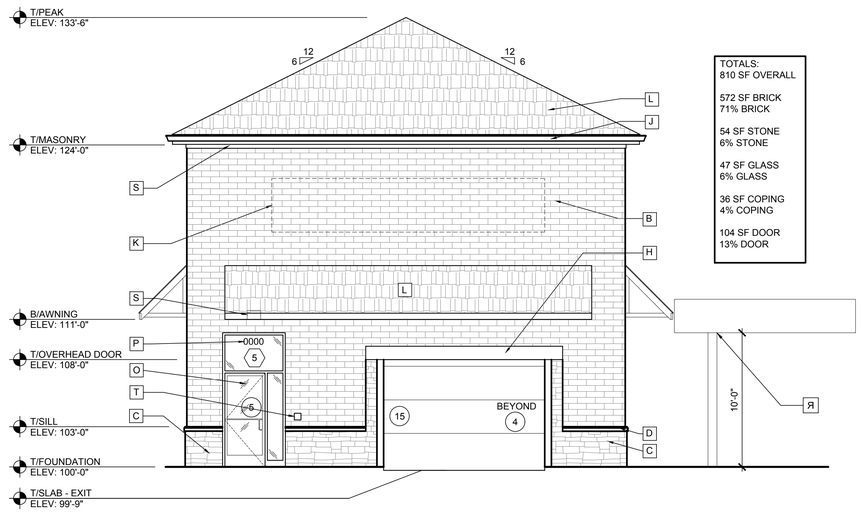
DRAWN:CP
JOB:D2200035

A202C
COLORED CAR WASH ELEVATIONS



TOTALS:
810 SF OVERALL

572 SF BRICK
71% BRICK

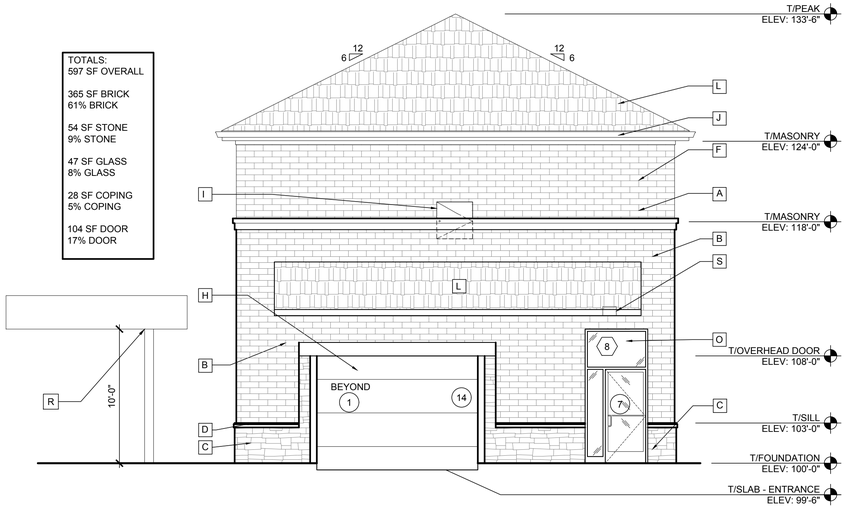
54 SF STONE
6% STONE

47 SF GLASS
6% GLASS

36 SF COPING
4% COPING

104 SF DOOR
13% DOOR

1 WEST ELEVATION (EXIT)
SCALE: 3/16" = 1'-0"



TOTALS:
597 SF OVERALL

365 SF BRICK
61% BRICK

54 SF STONE
9% STONE

47 SF GLASS
8% GLASS

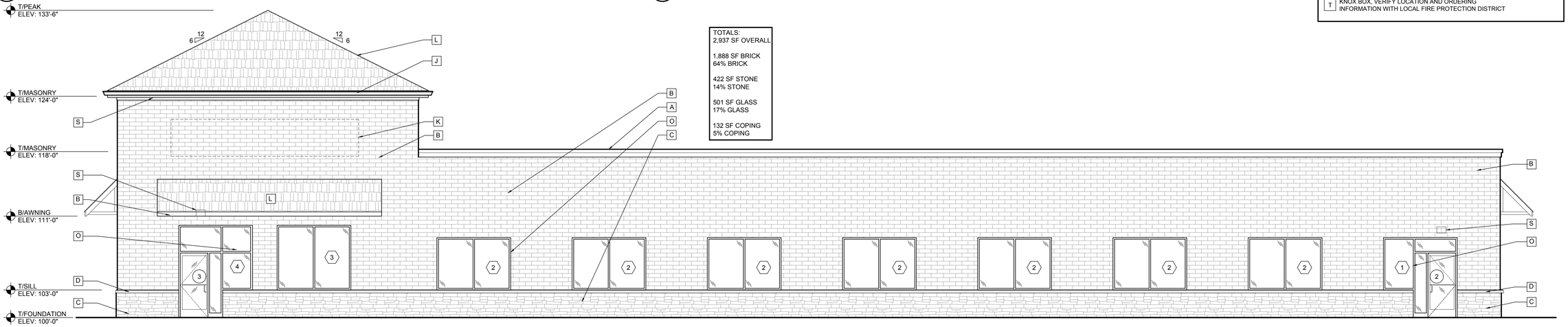
28 SF COPING
5% COPING

104 SF DOOR
17% DOOR

2 EAST ELEVATION (ENTRANCE)
SCALE: 3/16" = 1'-0"

ELEVATION KEY NOTES

A	PREFINISHED METAL CORNICE AND CAP, PAC CLAD COLOR: SIERRA TAN
B	8" QUIK BRIK, COLOR: HERITAGE BLEND
C	CHICAGO BRICK AND STONE 1" NOMINAL MENO STONE, COLOR: LIMESTONE
D	CAST STONE SILL, COLOR TO BE BEIGE (VERIFY WITH OWNER)
E	ROOF ACCESS LADDER W/ SECURITY GATE. COLOR: SHERWIN WILLIAMS #SM9500 SAFETY RED, TYP.
F	THIN BLOCK TO MATCH QUIK BRIK.
G	NOT USED
H	SPEED DOOR - SEE DOOR SCHEDULE
I	ATTIC ACCESS HATCH, SEE 1/A321 FOR DETAILS
J	PREFINISHED METAL GUTTERS TO CONNECT DOWN SPOUT. COLOR SIERRA TAN TO MATCH PARAPET CAP.
K	SIGNAGE LOCATION - FURNISHED & INSTALLED BY OTHERS, SEE SIGNAGE DRAWINGS FOR SPECS
L	CERTAINTEED LANDMARK PRO MAX DEF, COLOR MOIRE BLACK ASPHALT SHINGLES
M	GAS METER - (VERIFY LOCATION W/ UTILITY)
N	ELECTRICAL METER C/T (VERIFY LOCATION W/ UTILITY.)
O	STOREFRONT SYSTEM. SEE WINDOW SCHEDULE.
P	6" HIGH, WHITE VINYL ADDRESS NUMBERS APPLIED TO GLASS TO MEET REQUIREMENTS OF FIRE DEPARTMENT
Q	PREFINISHED METAL SCUPPER AND DOWN SPOUT, SEE 6/A132. DOWN SPOUT TO CONNECT TO STORM SEWER. COLOR: SHERWIN WILLIAMS #SM9500 SAFETY RED, TYP.
R	PREFINISHED METAL CANOPY FOR VACCUM STATIONS, SEE CANOPY MANUFACTURER DRAWINGS FOR DETAILS
S	LIGHTING FIXTURE - SEE ELECTRICAL DRAWINGS - TYP.
T	KNOX BOX, VERIFY LOCATION AND ORDERING INFORMATION WITH LOCAL FIRE PROTECTION DISTRICT



TOTALS:
2,937 SF OVERALL

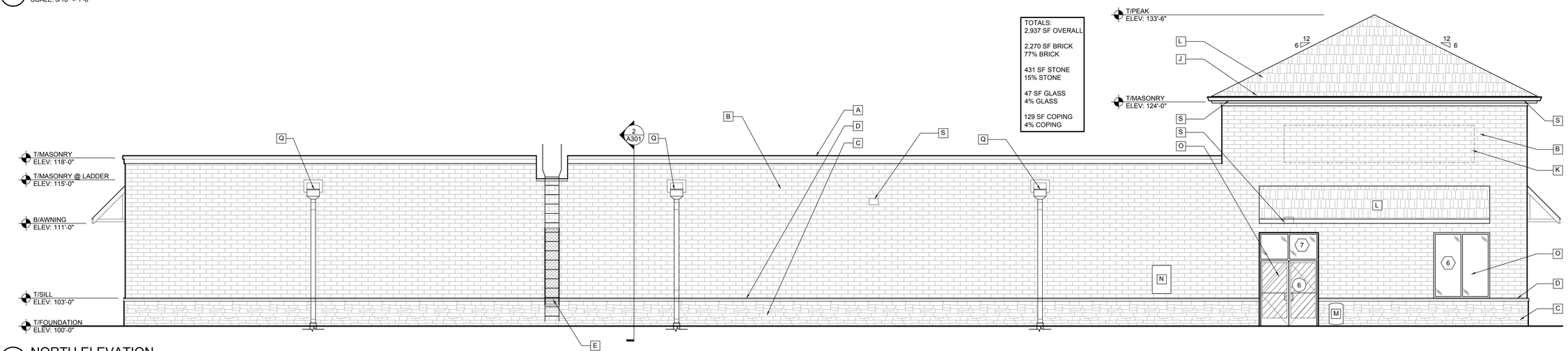
1,888 SF BRICK
64% BRICK

422 SF STONE
14% STONE

501 SF GLASS
17% GLASS

132 SF COPING
5% COPING

3 SOUTH ELEVATION
SCALE: 3/16" = 1'-0"



TOTALS:
2,937 SF OVERALL

2,270 SF BRICK
77% BRICK

431 SF STONE
15% STONE

47 SF GLASS
4% GLASS

129 SF COPING
4% COPING

4 NORTH ELEVATION
SCALE: 3/16" = 1'-0"

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2675 Pratum Avenue | Hoffman Estates, IL 60192
T 224.293.0051 F 224.293.0444
wtengineering.com

WT Group
Engineering • Design • Consulting

CARWASH
SEC LaGRANGE RD. & 183rd STREET
TINLEY PARK, IL 60487

GAS N WASH

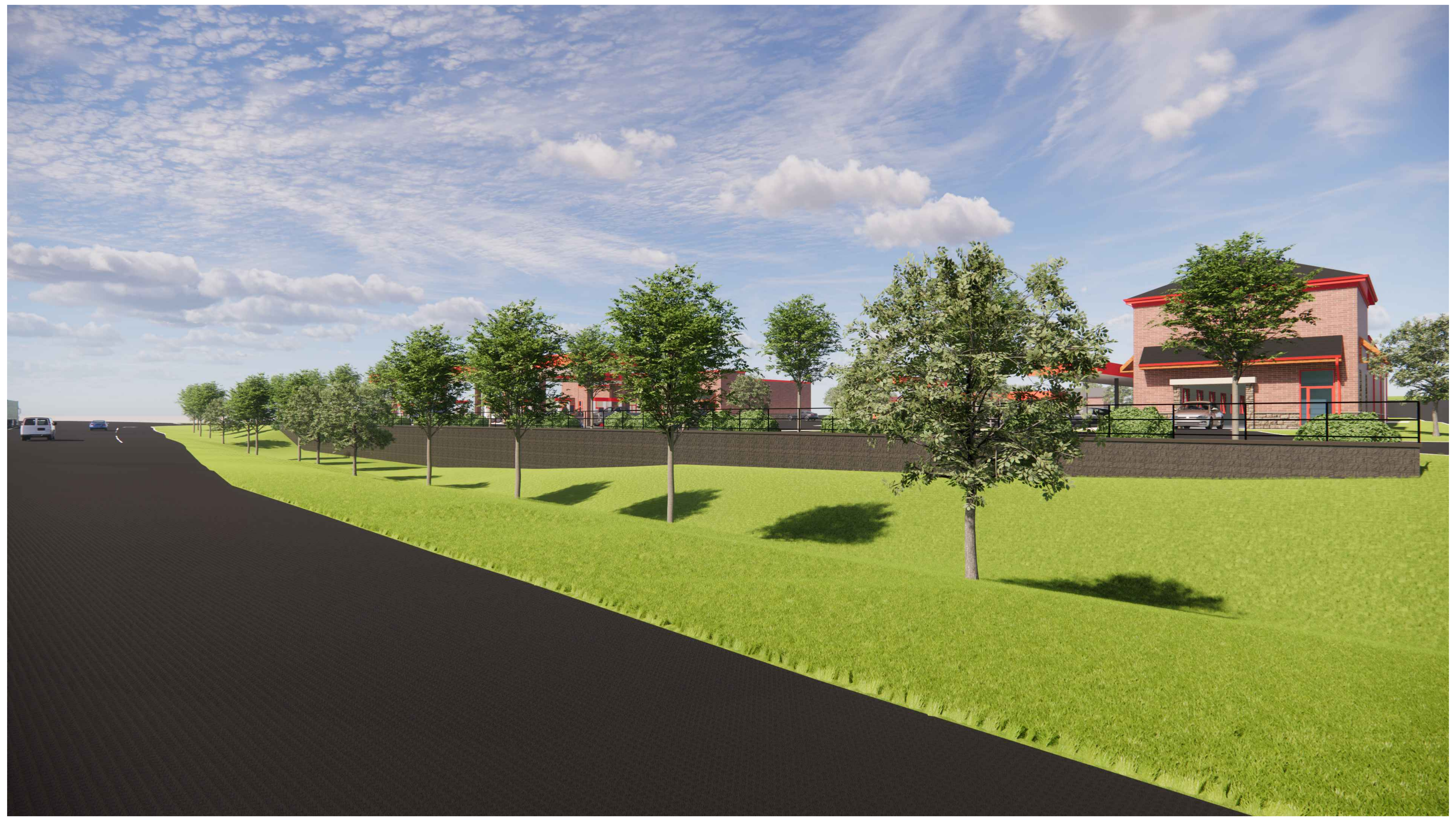
GAS N WASH

ISSUE

TO	DATE
ZONING	03/25/22
ZONING	04/04/22
ZONING	04/29/22
ZONING	07/08/22
ZONING	08/09/22
ZONING	01/20/23

CHECK:CP
DRAWN:KM
JOB:D220035

A202
CAR WASH ELEVATIONS



1 SITE RENDERING
SCALE: NTS

2 SITE RENDERING
SCALE: NTS

3 SITE RENDERING
SCALE: NTS

4 SITE RENDERING
SCALE: NTS

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wtengineering.com
IL. License No: 184.007570-0015 Expires: 04.30.2025

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RETAIL PETROLEUM FACILITY
18301 LAGRANGE ROAD
TINLEY PARK, IL 60487
GAS N WASH

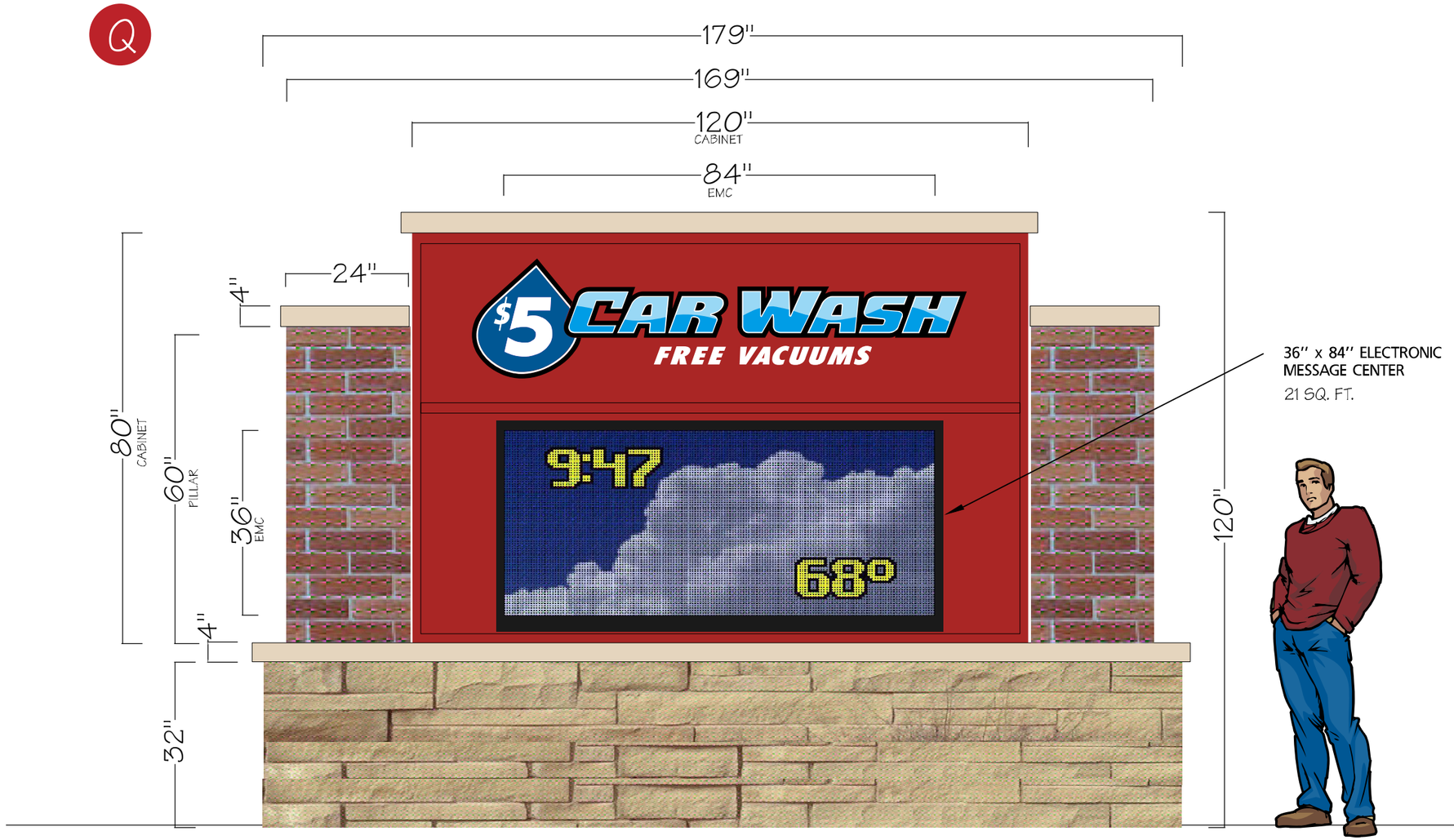
ISSUE

TO		DATE
ZONING		01/06/23
ZONING		01/20/23
CLIENT		01/23/23
UPDATE SITE		02/21/23
ZONING		02/22/23
ZONING	1	05/05/23
ZONING		05/19/23

CHECK:CP
DRAWN:KV
JOB:D220035

REN1
SITE RENDERINGS

Q

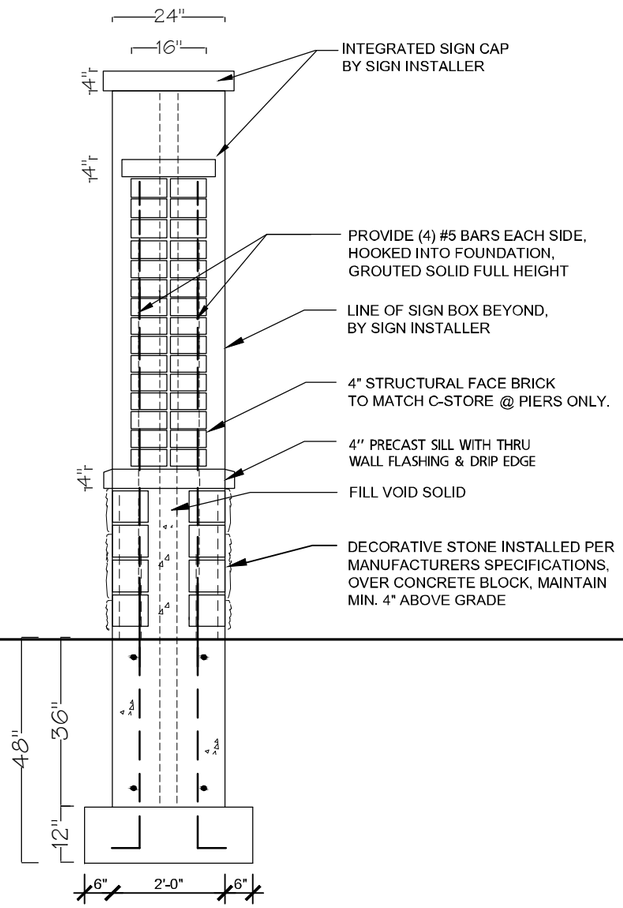


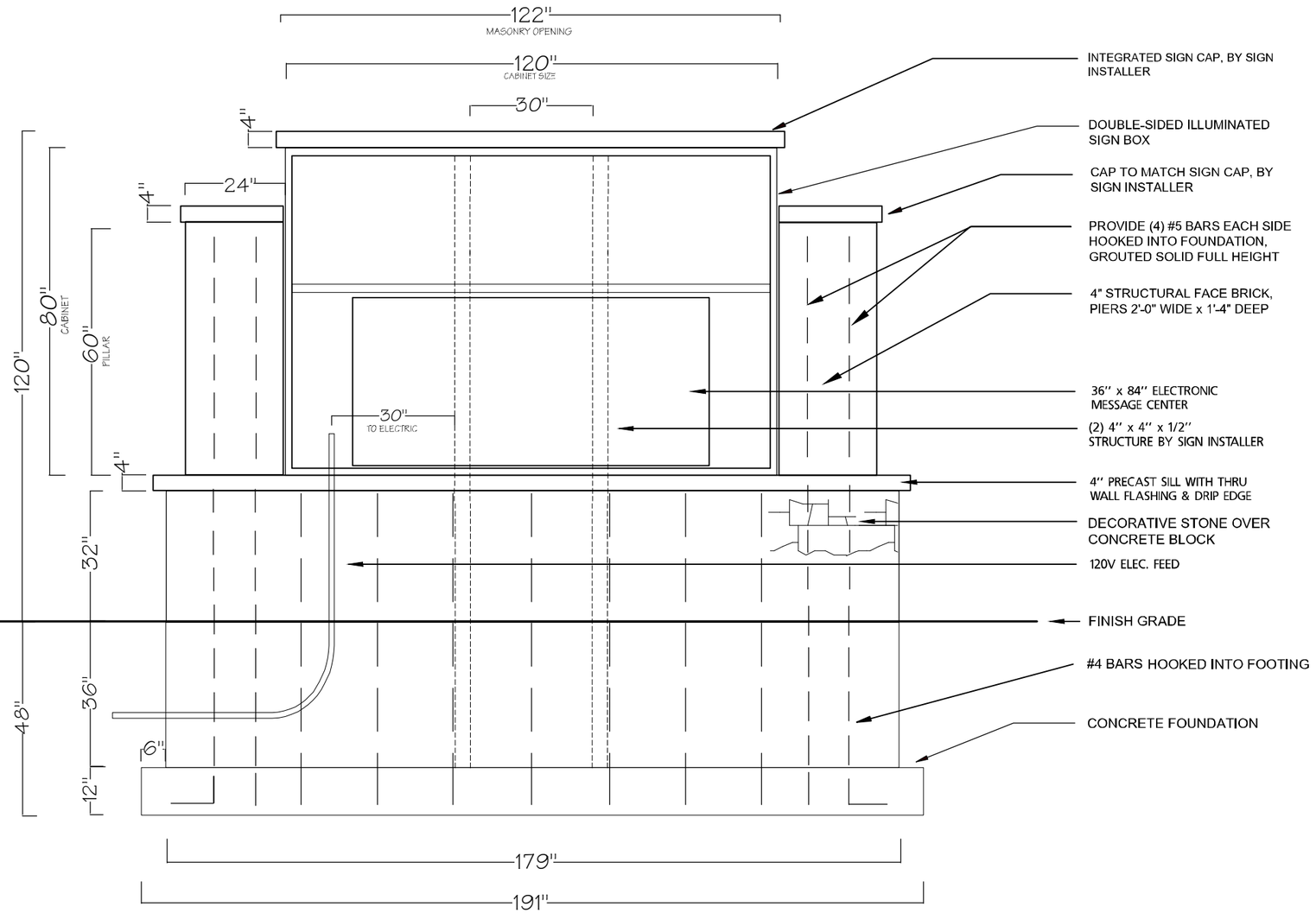
67 SQ. FT.

Van Bruggen SIGNS
Since 1925
13401 SOUTHWEST HWY.,
ORLAND PARK, ILLINOIS
708-448-0826 • vbsign.com

Approved	
Date	

Scale	1/2"	Title	GAS N WASH - TINLEY 183 WHITE EAGLE					
Date	8-16-22	Description	CAR WASH MONUMENT SIGN 7' EMC					
Drawn By	ED	Revisions By	ED					Drawing No. 22-145.10C
		Date	5-12-23					





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Approved	
Date	

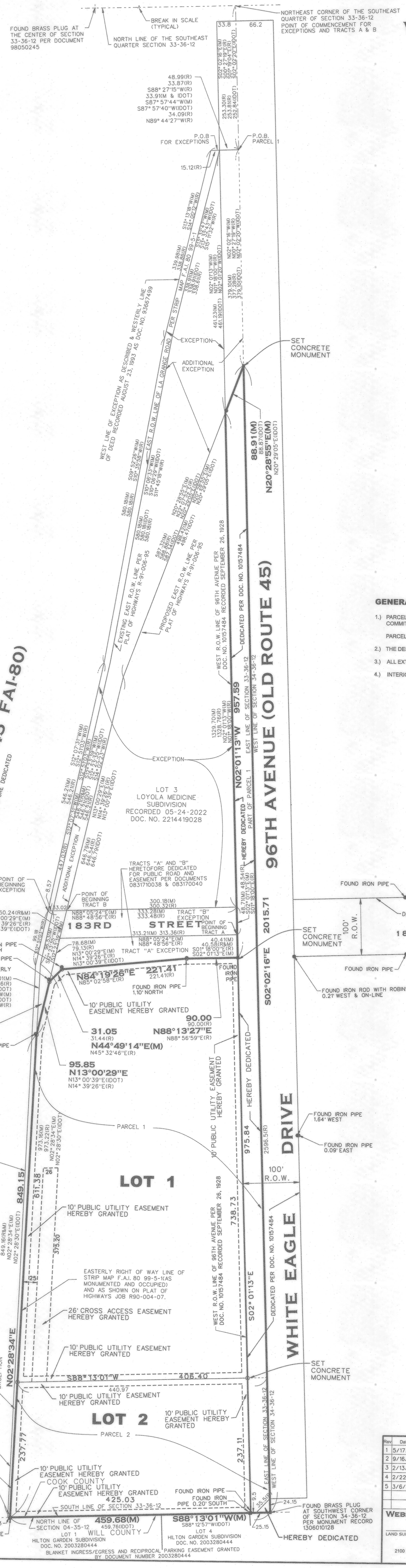
Scale	3/8"	Title	GAS N WASH - TINLEY 183 WHITE EAGLE					
Date	8-16-22	Description	CAR WASH MONUMENT FOUNDATION					
Drawn By	ED	Revisions By	ED					Drawing No. 22-145.10CS
		Date	5-12-23					

SHEET 1 OF 3

P.I.N. 27-33-401-013

WHITE EAGLE DRIVE SUBDIVISION

BEING A SUBDIVISION IN THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.



AREA OF SUBDIVISION

LOT 1: 275,124 SQUARE FEET = 6.316 ACRES

LOT 2: 98,570 SQUARE FEET = 2.263 ACRES

TOTAL = 373,694 SQUARE FEET = 8.579 ACRES

ACCESS NOTE

1. THERE SHALL BE NO DIRECT ACCESS TO LA GRANGE ROAD (US ROUTE 45 FAI-80)
2. ALL OTHER ACCESS SHALL BE FROM INTERNAL ACCESS OR ACCESS FORM 183RD STREET AND/OR WHITE EAGLE DRIVE.

GENERAL NOTES

1.) PARCEL 1 PREPARED FROM CHICAGO TITLE INSURANCE COMPANY COMMITMENT NUMBER21023698WF, WITH AN EFFECTIVE DATE OF SEPTEMBER 22, 2021.

PARCEL 2 FROM QUITCLAIM DEED PROVIDED TO THE SURVEYOR FROM THE CLIENT.

2.) THE DESCRIBED PROPERTY DOES FALL WITHIN CORPORATE LIMITS OF TINLEY PARK.

3.) ALL EXTERIOR CORNERS HAVE BEEN MONUMENTED PRIOR TO RECORDING OF THIS PLAT.

4.) INTERIOR CORNERS WILL BE SET AFTER ANY CONSTRUCTION IS COMPLETE.

LINE LEGEND

- BOUNDARY LINE
- LOT LINE
- EASEMENT LINE
- SECTION LINE

BASIS OF BEARINGS

ILLINOIS STATE PLANE, NAD83, EAST ZONE, AS DETERMINED BY TRIMBLE VRS NETWORK.

CROSS ACCESS EASEMENT PROVISIONS

A PERMANENT, NON-EXCLUSIVE ACCESS EASEMENT IS HEREBY GRANTED FOR ENTRANCE, INGRESS, EGRESS, AND PASSAGEWAY FOR VEHICULAR AND PEDESTRIAN TRAFFIC OVER, THROUGH AND ACROSS ANY AND ALL DRIVEWAYS, ROADWAYS, ACCESS POINTS AS DEPICTED HEREON AND REFERENCED AS "26' CROSS ACCESS EASEMENT" TO PROVIDE FOR THE PASSAGE OF MOTOR VEHICLES AND PEDESTRIANS BETWEEN ALL PORTIONS OF THE PROPERTY AND THE ADJACENT PROPERTY TO AND FROM ALL ABUTTING STREETS OF RIGHTS OF WAY FURNISHING ACCESS TO THE PROPERTY AND ADJACENT PROPERTY INCLUDING ALL SIDEWALKS, WALKWAYS, AND PEDWAYS (COLLECTIVELY, THE 26' CROSS ACCESS EASEMENT"). THE ACCESS EASEMENT SHALL BE FOR THE PURPOSE OF ACCESSING THE PROPERTIES FOR THE CONDUCT OF BUSINESS THEREUPON AND SHALL IN NO EVENT INCLUDE RIGHTS OR PARKING FOR DELIVERY OR TRUCK PARKING, EMPLOYEES OR CUSTOMER PARKING, OR OVERNIGHT PARKING OR STORAGE, OR SIMILAR PARKING PURPOSES EXCEPT IN DESIGNATED PARKING STALLS LOCATED ADJACENT TO THE ACCESS EASEMENT, AND THE RIGHTS GRANTED FOR THE BENEFIT OF THE PROPERTY ARE EXPRESSLY LIMITED TO THE MATTERS SET FORTH HEREIN. THE OWNER OF ANY PARCEL BURDENED BY THE ACCESS EASEMENT SHALL BE PERMITTED TO RELOCATE THAT PORTION OF THE ACCESS EASEMENT LOCATED UPON ITS PROPERTY AT SUCH PARTY'S SOLE COST AND EXPENSE, WITH PRIOR WRITTEN NOTICE TO THE OTHER BENEFITED PARTIES AND APPROVAL FROM THE APPROPRIATE GOVERNING AGENCIES.

PLAT SUBMITTED BY AND RETURN TO:
MIKE MACKINNON
5277 TRILLIUM BLVD.
HOFFMAN ESTATES, IL 60192
PHONE: (248) 496-2323

AFTER RECORDING SUBMIT TAX BILL TO:

Rev	Date	Description	By
1	5/17/22	ADDED CROSS ACCESS EASEMENT	BC
2	9/16/22	ADDRESSED CITY COMMENTS 9-9-2022	BC
3	2/13/23	REVISED CERTIFICATIONS	BC
4	2/22/23	REVISED PER COMMENTS	BC
5	3/6/23	REVISED PER COMMENTS	BC

PLAT OF SUBDIVISION

LOCATION: 18301 LAGRANGE ROAD, TINLEY PARK, IL 60477

PREPARED FOR: HEIDNER PROPERTIES, INC., 5277 TRILLIUM BLVD., HOFFMAN ESTATES, IL 60192, T: 248.496.2323

WEBSTER, MCGRATH & AHLBERG LTD.
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Over a Century of Service to our Clients
2100 Manchester Road, Building A, Suite 203 Wheaton, Illinois 60187
ph: (630)668-7603 web: www.wmaltd.com
Design Firm License No. 184-003101

JOB #:	DATE:	SCALE:
44578	04-27-2022	1"=80'
SURV: BC	DRAWN: BC	DESIGN:
FILE #: COOK CO. 33-36-12		SHEET #: 1 of 3

WHITE EAGLE DRIVE SUBDIVISION

BEING A SUBDIVISION IN THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

$TIME$

$DATE$

RECORDER'S CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF COOK) SS

I, THE UNDERSIGNED, AS THE RECORDER OF DEEDS FOR _____ COUNTY DO HEREBY CERTIFY THAT INSTRUMENT NUMBER _____ WAS FILED FOR RECORD IN THE RECORDER'S OFFICE OF _____ COUNTY, ILLINOIS, ON THE _____ DAY OF _____, A.D., 20_____ AT _____ O'CLOCK ___.M.

_____
RECORDER OF DEEDS

_____
PLEASE TYPE/PRINT NAME

OWNER AND NOTARY CERTIFICATE - PARCEL 1

STATE OF ILLINOIS)
COUNTY OF) SS

THIS IS TO CERTIFY THAT Tinley Park LaGrange Road LLC ARE THE OWNERS OF THE PROPERTY DESCRIBED IN THE ANNEXED PLAT, HAS CAUSED THE SAME TO BE PLATTED AS INDICATED HEREON, FOR THE USES AND PURPOSES THEREIN SET FORTH AND DOES HEREBY ACKNOWLEDGE AND ADOPT THE SAME UNDER THE STYLE AND TITLE THEREON INDICATED.

PURSUANT TO SECTION 1.005 OF THE PLAT ACT, 765 ILCS 205, THIS IS TO CERTIFY THAT THE UNDERSIGNED IS THE LEGAL OWNER OF THE LAND DESCRIBED IN THE ATTACHED PLAT AND BELIEVES SAID PROPERTY IS, TO THE BEST OF THEIR KNOWLEDGE, IN THE FOLLOWING SCHOOL DISTRICTS:

ELEMENTARY SCHOOL DISTRICT 140
CONSOLIDATED HIGH SCHOOL DISTRICT 230
MORAINE VALLEY COMMUNITY COLLEGE DISTRICT 524

DATED AT Hoffman Estates, ILLINOIS, THIS 21st DAY OF March A.D., 2023.

BY: _____
TITLE: Authorized Signatory

5277 Trillium Blvd
Hoffman Estates, IL 60192

ATTEST: _____
TITLE: Authorized Signatory

STATE OF ILLINOIS)
COUNTY OF Cook) SS

I, James J. Garner, A NOTARY PUBLIC IN AND FOR SAID COUNTY IN THE STATE AFORESAID, DO HEREBY CERTIFY THAT Rick E. Heidner AND Mike MacKinnon, OF Tinley Park LaGrange Road LLC PERSONALLY KNOWN TO ME TO BE THE SAME PERSONS WHOSE NAMES ARE SUBSCRIBED TO THE FOREGOING INSTRUMENT AS SUCH Authorized Signatory AND Authorized Signatory, APPEARED BEFORE ME THIS DAY IN PERSON AND ACKNOWLEDGED THAT THEY SIGNED AND DELIVERED THE SAID INSTRUMENT AS THEIR OWN FREE AND VOLUNTARY ACT AND AS THE FREE AND VOLUNTARY ACT OF SAID CORPORATION, FOR THE USES AND PURPOSES THEREIN SET FORTH AND THE SECRETARY DID ALSO THEN AND THERE ACKNOWLEDGE THAT HE, AS CUSTODIAN OF THE CORPORATE SEAL OF SAID CORPORATION, DID AFFIX SAID CORPORATE SEAL TO SAID INSTRUMENT AS HIS OWN FREE AND VOLUNTARY ACT AND AS THE FREE AND VOLUNTARY ACT OF SAID CORPORATION, FOR THE USES AND PURPOSES THEREIN SET FORTH.

GIVEN UNDER MY HAND AND NOTARIAL SEAL AT Hoffman Estates, ILLINOIS,

THIS 21st DAY OF March A.D., 20____.

BY: James J Garner
NOTARY PUBLIC

OFFICIAL SEAL
JAMES J GARNER
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 3/16/2026

3/16/2026
MY COMMISSION EXPIRES

OWNER AND NOTARY CERTIFICATE - PARCEL 2

STATE OF ILLINOIS)
COUNTY OF) SS

THIS IS TO CERTIFY THAT Lewisville Hotel Partners, LLC ARE THE OWNERS OF THE PROPERTY DESCRIBED IN THE ANNEXED PLAT, HAS CAUSED THE SAME TO BE PLATTED AS INDICATED HEREON, FOR THE USES AND PURPOSES THEREIN SET FORTH AND DOES HEREBY ACKNOWLEDGE AND ADOPT THE SAME UNDER THE STYLE AND TITLE THEREON INDICATED.

PURSUANT TO SECTION 1.005 OF THE PLAT ACT, 765 ILCS 205, THIS IS TO CERTIFY THAT THE UNDERSIGNED IS THE LEGAL OWNER OF THE LAND DESCRIBED IN THE ATTACHED PLAT AND BELIEVES SAID PROPERTY IS, TO THE BEST OF THEIR KNOWLEDGE, IN THE FOLLOWING SCHOOL DISTRICTS:

ELEMENTARY SCHOOL DISTRICT 140
CONSOLIDATED HIGH SCHOOL DISTRICT 230
MORAINE VALLEY COMMUNITY COLLEGE DISTRICT 524

DATED AT Naperville, ILLINOIS, THIS 11 DAY OF April A.D., 20 2023

BY: _____
TITLE: President

ATTEST: _____
TITLE: Accountant

STATE OF ILLINOIS)
COUNTY OF) SS

I, Charles R Burke, A NOTARY PUBLIC IN AND FOR SAID COUNTY IN THE STATE AFORESAID, DO HEREBY CERTIFY THAT Shawn Lakhani AND _____, OF Super Host Hospitality, Inc. Lewisville Hotel Partners, LLC PERSONALLY KNOWN TO ME TO BE THE SAME PERSONS WHOSE NAMES ARE SUBSCRIBED TO THE FOREGOING INSTRUMENT AS SUCH _____ AND Shawn Lakhani, APPEARED BEFORE ME THIS DAY IN PERSON AND ACKNOWLEDGED THAT THEY SIGNED AND DELIVERED THE SAID INSTRUMENT AS THEIR OWN FREE AND VOLUNTARY ACT AND AS THE FREE AND VOLUNTARY ACT OF SAID CORPORATION, FOR THE USES AND PURPOSES THEREIN SET FORTH AND THE SECRETARY DID ALSO THEN AND THERE ACKNOWLEDGE THAT HE, AS CUSTODIAN OF THE CORPORATE SEAL OF SAID CORPORATION, DID AFFIX SAID CORPORATE SEAL TO SAID INSTRUMENT AS HIS OWN FREE AND VOLUNTARY ACT AND AS THE FREE AND VOLUNTARY ACT OF SAID CORPORATION, FOR THE USES AND PURPOSES THEREIN SET FORTH.

GIVEN UNDER MY HAND AND NOTARIAL SEAL AT Naperville, ILLINOIS,

THIS 11th DAY OF April A.D., 2023.

BY: _____
NOTARY PUBLIC

CHARLES R BURKE
Official Seal
Notary Public - State of Illinois
My Commission Expires Mar 2, 2025

March 2, 2025
MY COMMISSION EXPIRES

VILLAGE ENGINEER

STATE OF ILLINOIS)
COUNTY OF COOK) SS

APPROVED BY THE VILLAGE ENGINEER FOR THE VILLAGE OF TINLEY PARK, COOK COUNTY, ILLINOIS.

DATED THIS _____ DAY OF _____, 2023.

_____
VILLAGE ENGINEER

ILLINOIS DEPARTMENT OF TRANSPORTATION CERTIFICATE

THIS PLAT HAS BEEN APPROVED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION WITH RESPECT TO ROADWAY ACCESS PURSUANT OF §2 OF "AN ACT TO REVISE THE LAW IN RELATION TO PLATS," AS AMENDED. A PLAN THAT MEETS THE REQUIREMENTS CONTAINED IN THE DEPARTMENT'S "POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS" WILL, BE REQUIRED BY THE DEPARTMENT.

_____
JOSE RIOS, P.E.
REGION ONE ENGINEER

ENGINEER'S SURFACE WATER DRAINAGE CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF) ss

THIS IS TO CERTIFY THAT I, A REGISTERED PROFESSIONAL ENGINEER, CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT DRAINAGE OF SURFACE WATERS WILL NOT BE CHANGED BY CONSTRUCTION OF SUCH SUBDIVISION OR ANY PART THEREOF, OR THAT IF SUCH SURFACE WATER DRAINAGE WILL BE CHANGED, ADEQUATE PROVISIONS HAVE BEEN MADE FOR COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO PUBLIC AREAS, OR DRAINS WHICH THE SUBDIVIDER HAS THE RIGHT TO USE, AND THAT SUCH SURFACE WATERS WILL NOT BE DEPOSITED ON THE PROPERTY OF ADJOINING LAND OWNERS IN SUCH CONCENTRATIONS AS MAY CAUSE DAMAGE TO THE ADJOINING PROPERTY BECAUSE OF THE CONSTRUCTION OF THE SUBDIVISION.

DATED THIS 9 DAY OF MAY, 2023

BY: JASON GREEN
WT GROUP, LLC

LICENSED PROFESSIONAL ENGINEER
JASON E. GREEN
062.059460
OF ILLINOIS

PLAN COMMISSION CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF) SS

APPROVED BY THE PLAN COMMISSION OF THE VILLAGE OF TINLEY PARK, COOK COUNTY, ILLINOIS.

DATED AT_____, ILLINOIS, THIS ___ DAY OF _____,20___.

_____
CHAIRMAN

ATTEST:

_____
SECRETARY

BOARD OF TRUSTEES CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF COOK) SS

APPROVED AND ACCEPTED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF TINLEY PARK, COOK COUNTY, ILLINOIS.

AT A MEETING HELD THIS ___ __DAY OF _____, 20___.

_____
PRESIDENT

ATTEST:

_____
VILLAGE CLERK

DIRECTOR OF TAX MAPPING

STATE OF ILLINOIS)
COUNTY OF COOK) SS

I, _____, DIRECTOR OF THE TAX MAPPING AND PLATTING OFFICE DO HEREBY CERTIFY THAT I HAVE CHECKED THE PROPERTY DESCRIPTION ON THIS PLAT AGAINST AVAILABLE COUNTY RECORDS AND FIND SAID DESCRIPTION TO BE TRUE AND CORRECT. THE PROPERTY HEREIN

DESCRIBED IS LOCATED ON TAX MAP # _____ REAL ESTATE TAX INDEX NUMBER (PIN)

_____

_____.

_____.

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

_____
DIRECTOR

COUNTY CLERK CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF COOK)SS

I, THE UNDERSIGNED, AS COUNTY CLERK OF COOK COUNTY, ILLINOIS, DO HEREBY CERTIFY THAT THERE ARE NO DELINQUENT GENERAL TAXES, NO UNPAID OR FORFEITED TAXES, AND NO REDEEMABLE TAX SALES AGAINST ANY OF THE LAND DEPICTED HEREON.

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

GIVEN UNDER MY HAND AND SEAL OF THE COUNTY CLERK AT _____, ILLINOIS, THIS _____ DAY

OF _____, A.D., 20_____.

_____
COUNTY CLERK

_____
PLEASE TYPE/PRINT NAME

COOK COUNTY DEPARTMENT OF TRANSPORTATION AND HIGHWAYS CERTIFICATE

STATE OF ILLINOIS)

COUNTIES OF COOK)SS

THIS PLAT HAS BEEN APPROVED BY THE COOK COUNTY DEPARTMENT OF TRANSPORTATION AND HIGHWAYS WITH RESPECT TO ROADWAY ACCESS PURSUANT TO 765 ILCS 205/2. HOWEVER, A HIGHWAY PERMIT, CONFORMING TO THE STANDARDS OF THE COOK COUNTY DEPARTMENT OF TRANSPORTATION AND HIGHWAYS IS REQUIRED BY THE OWNER OF THE PROPERTY FOR THIS ACCESS.

_____DAY OF _____, _____

_____
SUPERINTENDENT OF TRANSPORTATION AND HIGHWAYS

COOK COUNTY, ILLINOIS

EASEMENT PROVISIONS

AN EASEMENT FOR SERVING THE SUBDIVISION AND OTHER PROPERTY WITH ELECTRIC AND COMMUNICATION SERVICE IS HEREBY RESERVED FOR AND GRANTED TO THE VILLAGE OF TINLEY PARK, COMMONWEALTH EDISON COMPANY, SBC TELEPHONE COMPANY, AUTHORIZED C.A.T.V. FRANCHISE, GRANTEES, THEIR RESPECTIVE LICENSEES, SUCCESSORS AND ASSIGNS JOINTLY AND SEVERALLY, TO CONSTRUCT, OPERATE, REPAIR, MAINTAIN, MODIFY, RECONSTRUCT, REPLACE, SUPPLEMENT, RELOCATE AND REMOVE, FROM TIME TO TIME, POLES, GUYS, ANCHORS, WIRES, CABLES, CONDUITS, MANHOLES, TRANSFORMERS, PEDESTALS, EQUIPMENT CABINETS OR OTHER FACILITIES USED IN CONNECTION WITH OVERHEAD AND UNDERGROUND TRANSMISSION AND DISTRIBUTION OF ELECTRICITY, COMMUNICATIONS, SOUNDS AND SIGNALS IN, OVER, UNDER, ACROSS, ALONG AND UPON THE SURFACE OF THE PROPERTY SHOWN WITHIN THE DASHED OR DOTTED LINES (OR SIMILAR DESIGNATION) ON THE PLAT AND MARKED "EASEMENT", "UTILITY EASEMENT", "PUBLIC UTILITY EASEMENT", "P.U.E"(OR SIMILAR DESIGNATION), THE PROPERTY DESIGNATED IN THE DECLARATION OF CONDOMINIUM AND/OR ON THIS PLAT AS "COMMON ELEMENTS", AND THE PROPERTY DESIGNATED ON THE PLAT AS "COMMON AREA OR AREAS", AND THE PROPERTY DESIGNATED ON THE PLAT FOR STREETS AND ALLEYS, WHETHER PUBLIC OR PRIVATE, TOGETHER WITH THE RIGHTS TO INSTALL REQUIRED SERVICE CONNECTIONS OVER OR UNDER THE SURFACE OF EACH LOT AND COMMON AREA OR AREAS TO SERVE IMPROVEMENTS THEREON, OR ON ADJACENT LOTS, AND COMMON AREA OR AREAS, THE RIGHT TO CUT, TRIM OR REMOVE TREES, BUSHES, ROOTS AND SAPLINGS AND TO CLEAR OBSTRUCTIONS FROM THE SURFACE AND SUBSURFACE AS MAY BE REASONABLY REQUIRED INCIDENT TO THE RIGHTS HEREIN GIVEN, AND THE RIGHT TO ENTER UPON THE SUBDIVIDED PROPERTY FOR ALL SUCH PURPOSES. OBSTRUCTIONS SHALL NOT BE PLACED OVER GRANTEES' FACILITIES OR IN, UPON OR OVER THE PROPERTY WITHIN THE DASHED OR DOTTED LINES (OR SIMILAR DESIGNATION) MARKED "EASEMENT", "UTILITY EASEMENT", "PUBLIC UTILITY EASEMENT", "P.U.E"(OR SIMILAR DESIGNATION) WITHOUT THE PRIOR WRITTEN CONSENT OF GRANTEES. AFTER INSTALLATION OF ANY SUCH FACILITIES, THE GRADE OF THE SUBDIVIDED PROPERTY SHALL NOT BE ALTERED IN A MANNER SO AS TO INTERFERE WITH THE PROPER OPERATION AND MAINTENANCE THEREOF. THE TERM "COMMON ELEMENTS"SHALL HAVE THE MEANING SET FORTH FOR SUCH TERM IN THE "CONDOMINIUM PROPERTY ACT", CHAPTER 765 ILCS 605/2(C), AS AMENDED FROM TIME TO TIME. THE TERM "COMMON AREA OR AREAS"IS DEFINED AS A LOT, PARCEL OR AREA OF REAL PROPERTY, THE BENEFICIAL USE AND ENJOYMENT OF WHICH IS RESERVED IN WHOLE OR AS AN APPURTENANCE TO THE SEPARATELY OWNED LOTS, PARCELS OR AREAS WITHIN THE PLANNED DEVELOPMENT, EVEN THOUGH SUCH BE OTHERWISE DESIGNATED ON THE PLAT BY TERMS SUCH AS "OUTLOTS", "COMMON ELEMENTS", "OPEN SPACE", "OPEN AREA", "COMMON GROUND", "PARKING"AND "COMMON AREA". THE TERM "COMMON AREA OR AREAS", AND "COMMON ELEMENTS"INCLUDE REAL PROPERTY SURFACED WITH INTERIOR DRIVEWAYS AND WALKWAYS, BUT EXCLUDES REAL PROPERTY PHYSICALLY OCCUPIED BY A BUILDING, SERVICE BUSINESS DISTRICT OR STRUCTURES SUCH AS A POOL, RETENTION POND OR MECHANICAL EQUIPMENT. RELOCATION OF FACILITIES WILL BE DONE BY GRANTEES AT COST OF THE GRANTOR/LOT OWNER, UPON WRITTEN REQUEST.

MUNICIPAL UTILITY EASEMENTS

NON-EXCLUSIVE, PERPETUAL EASEMENTS ARE HEREBY RESERVED FOR AND GRANTED TO THE VILLAGE OF TINLEY PARK, ILLINOIS, ITS SUCCESSORS AND ASSIGNS OVER ALL AREAS MARKED "PUBLIC UTILITY AND DRAINAGE EASEMENT"ON THE PLAT FOR THE PERPETUAL RIGHT, PRIVILEGE AND AUTHORITY TO CONSTRUCT, RECONSTRUCT, INSTALL, REMOVE, REPAIR, INSPECT, MAINTAIN, AND OPERATE OVERLAND DRAINAGE SERVICES AND STORM WATER VOLUME CONTROL ROUTES, STORM AND/OR SANITARY SEWERS AND SERVICES, AND WATER MAINS AND SERVICES, TOGETHER WITH ANY AND ALL NECESSARY MANHOLES, CATCH BASINS, CONNECTIONS, APPLIANCES AND OTHER STRUCTURES AND APPURTENANCES AS MAY BE DEEMED NECESSARY BY SAID VILLAGE IN, OVER, UPON, ALONG, UNDER AND THROUGH SAID INDICATED EASEMENT, TOGETHER WITH RIGHT OF ACCESS ACROSS AND UPON THE PROPERTY FOR NECESSARY PERSONNEL AND EQUIPMENT TO DO ANY OF THE ABOVE WORK. THE RIGHT IS ALSO GRANTED TO CUT DOWN AND TRIM OR REMOVE ANY FENCES, TEMPORARY STRUCTURES, TREES, SHRUBS, ROOTS OR OTHER PLANTS AND APPURTENANCES WITHOUT OBLIGATION TO RESTORE OR REPLACE AND WITHOUT NEED FOR PROVIDING COMPENSATION THEREFORE ON THE EASEMENT THAT INTERFERE WITH THE OPERATION OF THE SEWERS, MAINS, AND SERVICES PROVIDED. NO PERMANENT BUILDINGS, STRUCTURES OR OTHER OBSTRUCTIONS SHALL BE PLACED ON SAID EASEMENTS WITHOUT THE PRIOR WRITTEN CONSENT OF THE VILLAGE, BUT SAME MAY BE USED AT THE RISK OF THE OWNER FOR GARDENS, SHRUBS, LANDSCAPING, AND OTHER PURPOSES THAT DO NOT THEN OR LATER INTERFERE WITH THE AFORESAID USES OR RIGHTS. WHERE AN EASEMENT IS USED FOR BOTH SEWER AND OTHER UTILITIES, THE OTHER UTILITY INSTALLATION SHALL BE SUBJECT TO THE ORDINANCES OF THE VILLAGE OF TINLEY PARK AND TO VILLAGE APPROVAL AS TO DESIGN AND LOCATION. AN EASEMENT IS HEREBY RESERVED FOR AND GRANTED TO

NI-COR GAS COMPANY

ITS RESPECTIVE SUCCESSORS AND ASSIGNS ("NI-COR") TO INSTALL, OPERATE, MAINTAIN, REPAIR, REPLACE AND REMOVE, FACILITIES USED IN CONNECTION WITH THE TRANSMISSION AND DISTRIBUTION OF NATURAL GAS IN, OVER, UNDER, ACROSS ALONG AND UPON THE SURFACE OF THE PROPERTY SHOWN ON THIS PLAT MARKED "PUBLIC UTILITY AND DRAINAGE EASEMENT," "COMMON AREA OR AREAS" AND STREETS AND ALLEYS, WHETHER PUBLIC OR PRIVATE, AND THE PROPERTY DESIGNATED IN THE DECLARATION OF CONDOMINIUM AND/OR ON THIS PLAT AS "COMMON ELEMENTS," TOGETHER WITH THE RIGHT TO INSTALL REQUIRED SERVICE CONNECTIONS OVER OR UNDER THE SURFACE OF EACH LOT AND COMMON AREA OR AREAS TO SERVE IMPROVEMENTS THEREON, OR ON ADJACENT LOTS, AND COMMON AREA OR AREAS, AND TO SERVE OTHER PROPERTY, ADJACENT OR OTHERWISE, AND THE RIGHT TO REMOVE OBSTRUCTIONS, INCLUDING BUT NOT LIMITED TO, TREES, BUSHES, ROOTS AND FENCES, AS MAY BE REASONABLY REQUIRED INCIDENT TO THE RIGHTS HEREIN GIVEN, AND THE RIGHT TO ENTER UPON THE PROPERTY FOR ALL SUCH PURPOSES. OBSTRUCTIONS SHALL NOT BE PLACED OVER NI-COR FACILITIES OR IN, UPON OR OVER THE PROPERTY IDENTIFIED ON THIS PLAT FOR UTILITY PURPOSES WITHOUT THE PRIOR WRITTEN CONSENT OF NI-COR. AFTER INSTALLATION OF ANY SUCH FACILITIES, THE GRADE OF THE PROPERTY SHALL NOT BE ALTERED IN A MANNER SO AS TO INTERFERE WITH THE PROPER OPERATION AND MAINTENANCE THEREOF. THE TERM "COMMON ELEMENTS" SHALL HAVE THAT MEANING SET FORTH FOR SUCH TERM IN SECTION 605/2(E) OF THE "CONDOMINIUM PROPERTY ACT" (ILLINOIS COMPILED STATUTES, CH. 765, SEC. 605/2(E)) AS AMENDED FROM TIME TO TIME. THE TERM "COMMON AREA OR AREAS" IS DEFINED AS A LOT, PARCEL OR AREA OF REAL PROPERTY, INCLUDING REAL PROPERTY SURFACED WITH INTERIOR DRIVEWAYS AND WALKWAYS, THE BENEFICIAL USE AND ENJOYMENT OF WHICH IS RESERVED IN WHOLE AS AN APPURTENANCE TO THE SEPARATELY OWNED LOTS, PARCELS OR AREAS WITHIN THE PROPERTY, EVEN THOUGH SUCH AREAS MAY BE DESIGNATED ON THIS PLAT BY OTHER TERMS.

Rev	Date	Description	By
1	5/17/22	ADDED CROSS ACCESS EASEMENT	BC
2	9/16/22	ADDRESSED CITY COMMENTS 9-9-2022	BC
3	2/13/23	REVISED CERTIFICATIONS	BC
4	2/22/23	REVISED PER COMMENTS	BC
5	3/6/23	REVISED PER COMMENTS	BC

WEBSTER, MCGRATH & AHLBERG LTD.
WMA
LAND SURVEYING - CIVIL ENGINEERING - LANDSCAPE ARCHITECTURE
Over a Century of Service to our Clients
2100 Manchester Road, Building A, Suite 203 Wheaton, Illinois 60187
ph: (630)668-7603 web: www.wmaltd.com
Design Firm License No. 184-003101

PLAT OF SUBDIVISION

LOCATION: 18301 LAGRANGE ROAD TINLEY PARK, IL 60477

PREPARED FOR: HEIDNER PROPERTIES, INC. 5277 TRILLIUM BLVD. HOFFMAN ESTATES, IL 60192 T: 248.496.2323

JOB #:	DATE:	SCALE:
44578	04-27-2022	1"=80'
SURV: BC	DRAWN: BC	DESIGN:
FILE #: COOK CO. 33-36-12		SHEET #: 2 of 3

$FILE$

E:\ACTIVE-PROJECTS\44578-333612-Cook\SURV-ICV\PLAT OF SUBDIVISION\44578-SUBDIVISION.dgn Model: REVISED PLAT OF SUBDIVISION Date: 3/15/2023

WHITE EAGLE DRIVE SUBDIVISION

BEING A SUBDIVISION IN THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

$TIME$

$DATE$

SURVEYOR CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF DUPAGE) SS

THIS IS TO CERTIFY THAT WEBSTER, McGRATH AND AHLBERG, LTD., HAVE SURVEYED AND SUBDIVIDED THE FOLLOWING DESCRIBED PROPERTY:

LEGAL DESCRIPTION:

PARCEL 1

THAT PART OF THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF SAID SOUTHEAST 1/4 THAT IS 253.81 FEET SOUTH OF THE NORTHEAST CORNER THEREOF; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST, A DISTANCE OF 48.99 FEET; THENCE SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST, A DISTANCE OF 338.86 FEET; THENCE SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST, A DISTANCE OF 580.18 FEET; THENCE SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, A DISTANCE OF 546.21 FEET; THENCE SOUTH 02 DEGREES 56 MINUTES 03 SECONDS WEST, A DISTANCE OF 975.42 FEET MORE OR LESS, TO A POINT ON THE SOUTH LINE OF SAID SOUTHEAST 1/4; THENCE EASTERLY ALONG THE SOUTH LINE OF SAID SOUTHEAST 1/4 TO THE SOUTHEAST CORNER THEREOF; THENCE NORTHERLY ALONG THE EAST LINE OF SAID SOUTHEAST 1/4 TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM:

THAT PART OF THE EAST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID SOUTHEAST 1/4; THENCE SOUTH 01 DEGREE 19 MINUTES 04 SECONDS EAST, ALONG THE EAST LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 253.81 FEET; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST 33.87 FEET TO THE WEST LINE OF 96TH AVENUE PER DOCUMENT NUMBER 10157484, RECORDED SEPTEMBER 26, 1928, FOR THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST 15.12 FEET TO THE WESTERLY LINE OF THE DEED RECORDED AUGUST 23, 1993 AS DOCUMENT 93667499; THENCE SOUTHERLY ALONG THE WESTERLY LINE OF SAID DEED, THE FOLLOWING THREE COURSES; SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST 338.86 FEET; SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST 580.18 FEET; SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST 447.03 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST 333.48 FEET TO SAID WEST LINE OF 96TH AVENUE; THENCE NORTH 01 DEGREES 18 MINUTES 00 SECONDS WEST, ALONG THE LAST DESCRIBED LINE 1328.76 FEET TO THE POINT OF BEGINNING, ALL IN COOK COUNTY, ILLINOIS.

ALSO EXCEPTING THEREFROM THAT PART OF THE LAND BOUNDED AND DESCRIBED AS FOLLOWS:

THAT PART OF THE EAST HALF OF THE SOUTHEAST QUARTER OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID SOUTHEAST QUARTER; THENCE ON AN ASSUMED BEARING OF SOUTH 01 DEGREE 19 MINUTES 04 SECONDS EAST ALONG THE EAST LINE OF SAID SOUTHEAST QUARTER, A DISTANCE OF 253.81 FEET; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST, A DISTANCE OF 48.99 FEET TO THE WESTERLY LINE OF DEED RECORDED AUGUST 23, 1993 AS DOCUMENT NUMBER 93667499; THENCE CONTINUING ALONG SAID WESTERLY LINE, SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST, A DISTANCE OF 338.86 FEET; THENCE CONTINUING ALONG SAID WESTERLY LINE, SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST, A DISTANCE OF 580.18 FEET; THENCE CONTINUING ALONG SAID WESTERLY LINE, SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, DISTANCE OF 447.03 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING ALONG SAID WESTERLY LINE, SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, A DISTANCE OF 99.18; THENCE CONTINUING ALONG SAID WESTERLY LINE, SOUTH 02 DEGREES 56 MINUTES 03 SECONDS WEST, A DISTANCE OF 975.42 FEET, MORE OR LESS, TO A POINT ON THE SOUTH LINE OF SAID SOUTHEAST QUARTER; THENCE EASTERLY ALONG SAID SOUTH LINE OF SAID SOUTHEAST QUARTER, A DISTANCE OF 4.03 FEET TO THE EASTERLY RIGHT OF WAY LINE OF STRIP MAP F.A.I. 80 99-5-1(AS MONUMENTED AND OCCUPIED) AND AS SHOWN ON PLAT OF HIGHWAYS JOB R90-004-07; THENCE CONTINUING ALONG SAID EAST LINE OF SAID STRIP MAP F.A.I. 80 99-5-1, NORTH 02 DEGREES 28 MINUTES 30 SECONDS EAST, A DISTANCE OF 973.16 FEET; THENCE CONTINUING ALONG SAID EAST LINE OF SAID STRIP MAP F.A.I. 80 99-5-1, NORTH 13 DEGREES 00 MINUTES 39 SECONDS EAST, A DISTANCE OF 96.53 FEET TO A POINT ON THE WESTERLY EXTENSION OF THE NORTH RIGHT OF WAY LINE OF 183RD STREET RECORDED AS DOCUMENTS 0831710040 AND 0831710038; THENCE SOUTH 88 DEGREES 48 MINUTES 56 SECONDS WEST, A DISTANCE OF 8.57 FEET TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

FURTHER EXCEPTING THEREFROM THAT PART OF THE LAND BOUNDED AND DESCRIBED AS FOLLOWS:

THAT PART OF EAST 1/2 OF SOUTHEAST 1/4 OF SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 COMMENCING AT NORTHEAST CORNER OF SAID EAST 1/2 OF SOUTHEAST 1/4; THENCE ON AN ASSUMED BEARING OF SOUTH 00 DEGREES 27' 19" EAST 77.206 METERS (253.30 FEET) ALONG EAST LINE OF SAID EAST 1/2 OF SOUTHEAST 1/4 TO POINT OF BEGINNING AND EASTERLY RIGHT OF WAY OF FAI-80 EXTENDED; THENCE NORTH 89 DEGREES 44 MINUTES 27 SECONDS WEST 10.391 METERS (34.09 FEET) ALONG SAID EASTERLY RIGHT OF WAY LINE OF FAI-80; THENCE SOUTH 15 DEGREES 11 MINUTES 32 SECONDS WEST 103.209 METERS (338.61 FEET) ALONG SAID EASTERLY RIGHT OF WAY OF FAI-80; THENCE SOUTH 11 DEGREES 45 MINUTES 18 SECONDS WEST 176.838 METERS (580.18 FEET) ALONG THE SAID EASTERLY RIGHT OF WAY LINE OF FAI-80; THENCE SOUTH 14 DEGREES 02 MINUTES 23 SECONDS WEST 166.486 METER (546.21 FEET) ALONG SAID EASTERLY LINE OF FAI-80; THENCE SOUTH 04 DEGREES 07 MINUTES 21 SECONDS WEST 37.813 METERS (124.06 FEET) ALONG SAID EASTERLY RIGHT OF WAY LINE OF FAI-80, TO A 5/8" REBAR WITH AN ALLIED CAP STAMPED, STATE OF ILLINOIS DIVISION OF HIGHWAYS RIGHT OF WAY CORNER IPLS 2017; THENCE NORTH 14 DEGREES 39 MINUTES 26 SECONDS EAST 197.066 METERS (646.54 FEET) TO A 5/8" REBAR WITH AN ALLIED CAP STAMPED STATE OF ILLINOIS DIVISION OF HIGHWAYS RIGHT OF WAY CORNER IPLS 2017; THENCE NORTH 22 DEGREES 07 MINUTES 52 SECONDS EAST 179.492 METERS (588.88 FEET) TO A POINT ON THE SAID EAST LINE OF EAST 1/2 OF SOUTHEAST 1/4; THENCE NORTH 00 DEGREES 27 MINUTES 19 SECONDS WEST 114.995 METERS (377.28 FEET) ALONG SAID EAST LINE OF EAST 1/2 OF SOUTHEAST 1/4 TO POINT OF BEGINNING.

AND FURTHER EXCEPTING THEREFROM ALL OF THE FOLLOWING:
TRACT A:

THAT PART OF THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID SOUTHEAST 1/4; THENCE ON AN ASSUMED BEARING OF SOUTH 01 DEGREE 19 MINUTES 04 SECONDS EAST ALONG THE EAST LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 253.81 FEET; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST, A DISTANCE OF 48.99 FEET; THENCE SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST, A DISTANCE OF 338.86 FEET; THENCE SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST, A DISTANCE OF 580.18 FEET; THENCE SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, A DISTANCE OF 447.03 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 33.02 FEET TO THE AFORESAID EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED); THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 300.32 FEET TO THE WEST LINE OF 96TH AVENUE; THENCE SOUTH 01 DEGREE 18 MINUTES 00 SECONDS EAST ALONG SAID WEST LINE OF 96TH AVENUE, A DISTANCE OF 48.54 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 01 DEGREE 18 MINUTES 00 SECONDS EAST ALONG SAID WEST LINE, A DISTANCE OF 40.58 FEET; THENCE SOUTH 88 DEGREES 56 MINUTES 59 SECONDS WEST, A DISTANCE OF 90.00 FEET; THENCE SOUTH 85 DEGREES 02 MINUTES 58 SECONDS WEST, A DISTANCE OF 221.41 FEET; THENCE SOUTH 45 DEGREES 32 MINUTES 46 SECONDS WEST, A DISTANCE OF 31.44 FEET TO THE AFORESAID EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED); THENCE NORTHEASTERLY ALONG THE LAST DESCRIBED LINE A DISTANCE OF 79.14 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 313.36 FEET TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

TRACT B:

THAT PART OF THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, BOUNDED AND DESCRIBED AS FOLLOWS:
COMMENCING AT THE NORTHEAST CORNER OF SAID SOUTHEAST 1/4; THENCE ON AN ASSUMED BEARING OF SOUTH 01 DEGREE 19 MINUTES 04 SECONDS EAST ALONG THE EAST LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 253.81 FEET; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST, A DISTANCE OF 48.99 FEET; THENCE SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST, A DISTANCE OF 338.86 FEET; THENCE SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST, A DISTANCE OF 580.18 FEET; THENCE SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, A DISTANCE OF 447.03 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 33.02 FEET TO THE EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED) TO THE POINT OF BEGINNING; THENCE CONTINUING NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 300.32 FEET TO THE WEST LINE OF 96TH AVENUE; THENCE SOUTH 01 DEGREE 18 MINUTES 00 SECONDS EAST ALONG SAID WEST LINE OF 96TH AVENUE, A DISTANCE OF 48.54 FEET; THENCE SOUTH 88 DEGREES 48 MINUTES 56 SECONDS WEST, A DISTANCE OF 313.36 FEET TO THE AFORESAID EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED); THENCE NORTHEASTERLY ALONG THE LAST DESCRIBED LINE A DISTANCE OF 50.23 FEET TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

AND FURTHERING EXCEPTING THEREFROM:

THE SOUTH 237.11 FEET AS MEASURED PERPENDICULAR FROM THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 33, ALL IN COOK COUNTY, ILLINOIS

PARCEL 2:

THE SOUTH 237.11 FEET AS MEASURED PERPENDICULAR FROM THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN OF THE FOLLOWING DESCRIBED PARCEL:

BEGINNING AT A POINT ON THE EAST LINE OF SAID SOUTHEAST 1/4 THAT IS 253.81 FEET SOUTH OF THE NORTHEAST CORNER THEREOF; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST, A DISTANCE OF 48.99 FEET; THENCE SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST, A DISTANCE OF 338.86 FEET; THENCE SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST, A DISTANCE OF 580.18 FEET; THENCE SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, A DISTANCE OF 546.21 FEET; THENCE SOUTH 02 DEGREES 56 MINUTES 03 SECONDS WEST, A DISTANCE OF 975.42 FEET MORE OR LESS, TO A POINT ON THE SOUTH LINE OF SAID SOUTHEAST 1/4; THENCE EASTERLY ALONG THE SOUTH LINE OF SAID SOUTHEAST 1/4 TO THE SOUTH EAST CORNER THEREOF; THENCE NORTHERLY ALONG THE EAST LINE OF SAID SOUTHEAST 1/4 TO THE POINT OF BEGINNING.

EXCEPT THAT PART LYING WESTERLY OF THE EASTERLY RIGHT OF WAY LINE OF STRIP MAP F.A.I. 80 99-5-1(AS MONUMENTED AND OCCUPIED) AND AS SHOWN ON PLAT OF HIGHWAYS JOB R90-004-07.

AS SHOWN BY THE ANNEXED PLAT, ALL DISTANCES ARE SHOWN IN FEET AND DECIMALS THEREOF.

WE FURTHER CERTIFY THAT THE PROPERTY SHOWN ON THE PLAT HEREON DRAWN IS WITHIN THE CORPORATE LIMITS OF THE VILLAGE OF TINLEY PARK, WHICH HAS AUTHORIZED A COMPREHENSIVE PLAN AND WHICH IS EXERCISING THE SPECIAL POWERS AUTHORIZED BY DIVISION 12 OF ARTICLE 11 OF THE ILLINOIS MUNICIPAL CODE AS HERETOFORE AND HEREAFTER AMENDED.

WE FURTHER CERTIFY THAT BY SCALE MEASUREMENT ONLY, BASED UPON THE FLOOD INSURANCE RATE MAP FOR WILL COUNTY, ILLINOIS, AND INCORPORATED AREAS, MAP NUMBER 17031C0711J WITH AN EFFECTIVE DATE OF AUGUST 19, 2008. THE SURVEYED PROPERTY LIES WITHIN NO SPECIAL FLOOD HAZARD AREA, PANEL NOT PRINTED.

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

GIVEN UNDER MY HAND AND CORPORATE SEAL AT WHEATON, ILLINOIS, THIS 15th

DAY OF MARCH, A.D., 2023.

WEBSTER, McGRATH AND AHLBERG, LTD.

PROFESSIONAL LAND SURVEYOR
JOEL C. VIETTI
035-003561
WHEATON
ILLINOIS
STATE OF ILLINOIS

BY: Joel C. Vietti

IL. PROF. LAND SURVEYOR NO. 3561
LICENSE EXPIRATION DATE: NOVEMBER 30, 2024
2100 MANCHESTER ROAD, SUITE 203,
WHEATON, ILLINOIS 60187
PHONE: (630) 668-7603

Rev	Date	Description	By
1	5/17/22	ADDED CROSS ACCESS EASEMENT	BC
2	9/16/22	ADDRESSED CITY COMMENTS 9-9-2022	BC
3	2/13/23	REVISED CERTIFICATIONS	BC
4	2/22/23	REVISED PER COMMENTS	BC
5	3/6/23	REVISED PER COMMENTS	BC

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2100 Manchester Road, Building A, Suite 203 Wheaton, Illinois 60187
ph: (630)668-7603 web: www.wmaltd.com
Design Firm License No. 184-003101

PLAT OF SUBDIVISION

LOCATION: 18301 LAGRANGE ROAD, TINLEY PARK, IL 60477

PREPARED FOR: HEIDNER PROPERTIES, INC.
5277 TRILLIUM BLVD.
HOFFMAN ESTATES, IL 60192
T: 248.496.2323

JOB #:	DATE:	SCALE:
44578	04-27-2022	1"=80'
SURV: BC	DRAWN: BC	DESIGN:
FILE #: COOK CO. 33-36-12		SHEET #: 3 of 3

$FILE1$

RETAIL PETROLEUM FACILITY
18301 LA GRANGE ROAD
TINLEY PARK, ILLINOIS 60487

DRAWING INDEX

SHEET	DESCRIPTION	DATE
T-1.0	TITLE SHEET	5-5-23
C-1.0	SITE GEOMETRIC PLAN	5-5-23
C-2.0	SITE GRADING PLAN	5-5-23
C-3.0 - C-3.1	SITE UTILITY PLAN	5-5-23
C-3.2 - C-3.5	SITE UTILITY DETAILS	5-5-23
C-4.0	PROJECT SPECIFICATIONS	5-5-23
C-4.1	MWRD GENERAL NOTES	5-5-23
C-4.2	COUNTY OF COOK HIGHWAY DEPARTMENT GENERL CONDITIONS	5-5-23
C-5.0 - C-5.1	CROSS SECTIONS - LA GRANGE ROAD	5-5-23
C-6.0	CROSS SECTIONS - 183RD STREET	5-5-23
C-7.0	STORMWATER POLLUTION PREVENTION PLAN	5-5-23
C-7.1	STORMWATER POLLUTION PREVENTION DETAILS	5-5-23
CIR-1.0 - CIR-1.5	CIRCULATION PLANS	5-5-23
EDP	EXISTING DRAINAGE PLAN	5-5-23
PDP	PROPOSED DRAINAGE PLAN	5-5-23
SUR-1 - SUR-4	BOUNDARY & TOPOGRAPHIC SURVEY (PREPARED BY WT GROUP)	11-7-22

BENCHMARKS:

SITE BENCHMARK #1 - SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 122' WEST OF WHITE EAGLE DRIVE AS SHOWN.
ELEVATION = 730.60' (NAVD88)

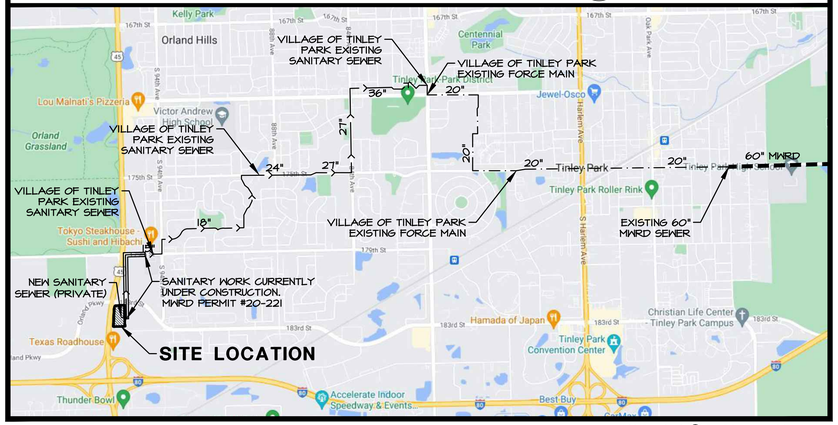
SITE BENCHMARK #2 - SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 43' EAST OF LA GRANGE DRIVE AS SHOWN.
ELEVATION = 732.06' (NAVD88)

SITE BENCHMARK #3 - SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE WEST SIDE OF WHITE EAGLE DRIVE, 505' SOUTH OF 183RD STREET AS SHOWN
ELEVATION = 744.53' (NAVD88)

NOTE: BEING THAT THIS PROJECT IS PERMITTED UNDER THE NEW WATERSHED MANAGEMENT ORDINANCE (WMO), THE MWRD REQUIRES 48 HOURS OF ADVANCE NOTIFICATION PRIOR TO ANY GROUND DISTURBANCE. THE MWRD WILL BE INSPECTING FOR APPLICABLE EROSION CONTROL AND SEDIMENT CONTROL MEASURES SUCH AS SILT FENCING, INLET PROTECTION, CONCRETE WASH, ETC., FOLLOWED BY SANITARY SEWER AND VOLUME CONTROL INSTALLATION INSPECTIONS. PLEASE REFER TO THE APPROVED PERMIT/PLANS AND HAVE THESE MEASURES IN PLACE IN ACCORDANCE WITH THE SPECIFICATIONS.

Contact the Metropolitan Water Reclamation District of Greater Chicago 2 days before starting work.
P (708) 588-4055
E WMOJobStart@mwrd.org

SITE LOCATION MAP



SCALE 1"=2500' MAP DATA © 2022 GOOGLE

SECTION 04
TOWNSHIP 35N
RANGE 12E

LEGEND
- SANITARY SEWER
- FORCE MAIN
- M.W.R.D. SEWERS

CALL JULIE
SIMPLY 811 OR TOLL FREE 1(800)892-0123
OPERATES 24 HOURS A DAY 365 DAYS A YEAR

CALL 1(800)892-0123
48 HOURS BEFORE YOU DIG

CONTRACTOR MUST LOCATE PRIVATE UTILITIES IN AREA OF CONSTRUCTION PRIOR TO PROCEEDING WITH WORK

CIVIL ENGINEERING STATEMENT AND SEAL

I, JASON E. GREEN, P.E., DULY LICENSED IN THE STATE OF ILLINOIS BY THE DEPARTMENT OF FINANCIAL AND PROFESSIONAL REGULATION, DO HEREBY STATE THAT THIS DOCUMENT HAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF DOES CONFORM TO THE APPLICABLE BUILDING CODES AND ORDINANCES, AND ARE IN COMPLIANCE WITH THE ENVIRONMENTAL BARRIERS ACT [410 ILCS 25] AND THE ILLINOIS ACCESSIBILITY CODE (71 ILL. ADM. CODE 400).

DATE: 5/5/23

JASON E. GREEN - P.E. # 062-059460
DATE OF EXPIRATION - NOVEMBER 30, 2023

NOTE: SIGNED AND SEALED FOR SHEETS T-1.0 THROUGH PDP

DRAINAGE CERTIFICATE:

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DRAINAGE OF SURFACE WATERS WILL NOT BE CHANGED BY THE PROPOSED DEVELOPMENT. IF ANY DRAINAGE PATTERNS WILL BE CHANGED, REASONABLE PROVISIONS HAVE BEEN MADE FOR THE COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO PUBLIC AREAS, OR DRAINS APPROVED FOR THE USE BY THE MUNICIPAL ENGINEER, AND THAT SUCH SURFACE WATERS ARE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES SO AS TO REDUCE THE LIKELIHOOD OF DAMAGES TO ADJOINING PROPERTIES.

DATED THIS 5TH DAY OF MAY, A.D. 2023

062-059460 EXP. DATE 11/30/23
DESIGN ENGINEER- JASON GREEN, P.E.

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ISSUE

TO	DATE
CITY	1-19-23
CCHD/IDOT	2-08-23
CITY	2-22-23
CITY	5-05-23

CHECK: JPG
DRAWN: VE
JOB:D2200035

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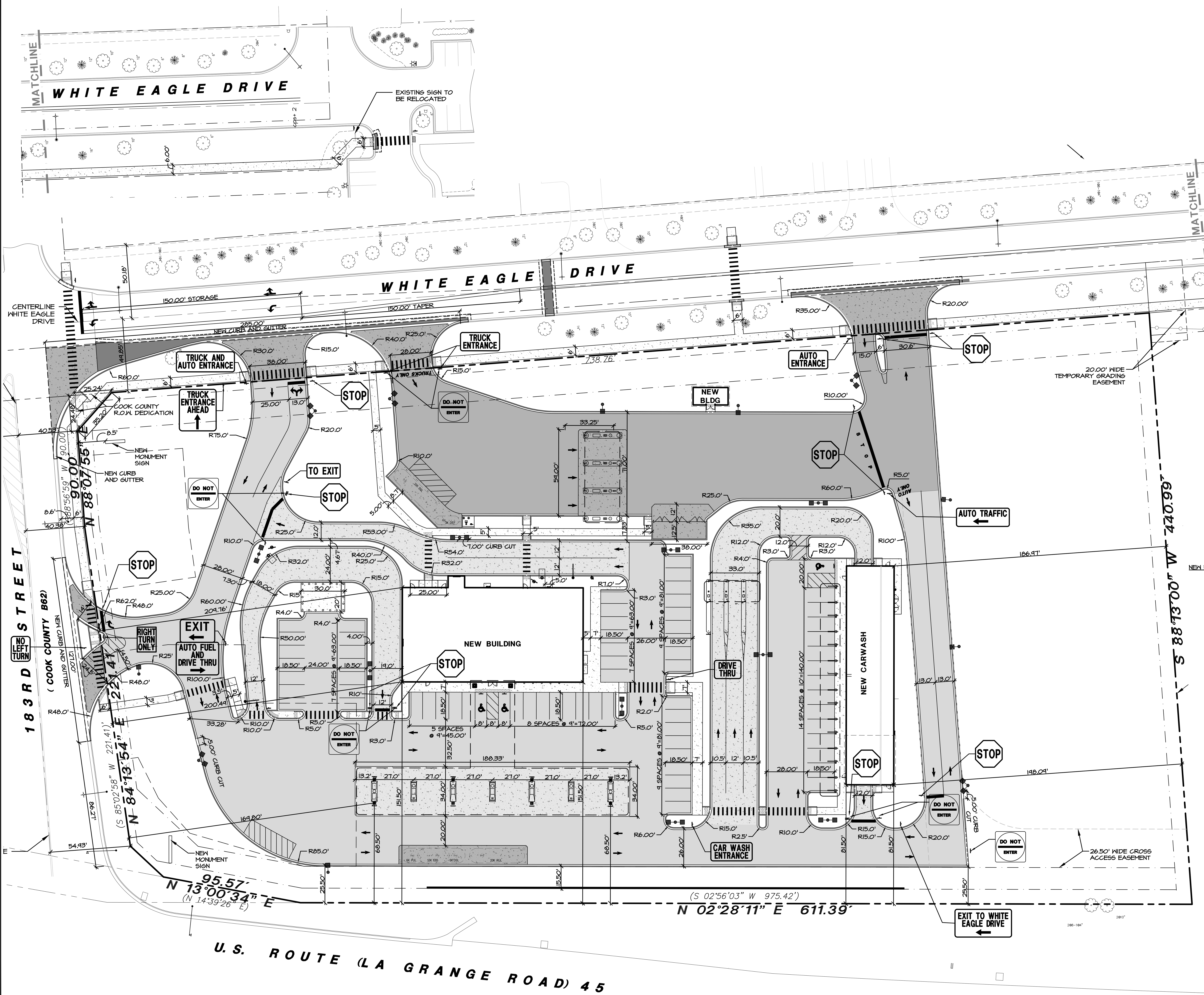
TITLE SHEET



PARKING SECTION VIII 10 INCLUDING TABLE

	REQUIRED	PROPOSED
LOADING SPACE	1 REQUIRED 15'-0" X 35'-0"	2 PROVIDED 15'-0" X 35'-0"
PARKING SPACE SIZE	9'-0" x 18'-6"	9'-0" X 18'-6" 10'-0" X 18'-6" VAC SPACE
C-STORE: AREA BREAKDOWN: TOTAL BUILDING: 8,110 S.F. DRIVE THRU RESTAURANT: 2,168 S.F. C-STORE: 5,693 S.F. BUILDING MECHANICAL: 249 S.F.		
(2) SPACES / PER ISLAND PUMP	0	14
RETAIL SPACE: (1) SPACE / 150 SF 5,693 SF / 150 =	38	35
FAST FOOD, CARRY OUT : MIN. 5 SPACES + 1 PER EMPLOYEE =	8	8
EATING ESTABLISHMENT: 1 PER 3 SEATS:	7	7
GAMING AREA:	4	4
CAR WASH	0	15
TOTAL PARKING:	57	83 SPACES PROVIDED

PAVEMENT SECTIONS

NEW 5" CONCRETE PAVEMENT
5" PORTLAND CEMENT CONCRETE
4" CA-6

NEW 6" CONCRETE PAVEMENT
6" PORTLAND CEMENT CONCRETE
4" CA-6

NEW 8" CONCRETE PAVEMENT
8" PORTLAND CEMENT CONCRETE
4" CA-6

NEW FULL DEPTH ASPHALT PAVEMENT
1-3/4" HMA SURFACE COURSE
2-1/4" HMA BINDER COURSE
10" CA-6

NEW FULL DEPTH HEAVY DUTY ASPHALT PAVEMENT
2-1/2" HMA SURFACE COURSE
3-1/2" HMA BINDER COURSE
12" CA-6

NEW FULL ROADWAY ASPHALT PAVEMENT
1-1/2" HMA SURFACE COURSE MIX D, N70
2-1/2" HMA BINDER COURSE IL 25.0, N70
9" PORTLAND CEMENT CONCRETE
3" TYPE B CA-6
6" TYPE B CA-1

SITE GEOMETRIC NOTES:

A. EXISTING CONDITIONS AND TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS PER THE BOUNDARY & TOPOGRAPHIC SURVEY LAST DATED 7-11-2022, PREPARED BY WT GROUP. CONTRACTOR SHALL FIELD VERIFY EXISTING ELEVATIONS AND CONDITIONS (INCLUDING BUT NOT LIMITED TO VERIFICATION OF CONTROL AND ALL UTILITIES WHETHER DEPICTED OR NOT) PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
B. ALL DIMENSIONS SHOWN ARE MEASURED FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT OR FACE OF CURB UNLESS OTHERWISE NOTED.
C. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES WITH THE ARCHITECTURAL PLANS.
D. SEE THE ARCHITECTURAL PLANS FOR THE DESIGN OF ALL BUILDING ENTRIES.
E. CONSTRUCTION SURVEY AND STAKEOUT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
F. CONTRACTOR SHALL HIRE A PRIVATE UTILITY LOCATOR TO LOCATE UTILITIES PRIOR TO CONSTRUCTION AND SHALL CONTACT THE SITE ENGINEER IF A CONFLICT EXISTS.
G. CONTRACTOR SHALL CONTACT J.U.L.I.E. (811 OR 1-800-892-0123) AND PRIVATE LOCATING SERVICE TO LOCATE ALL UNDERGROUND UTILITY LINES PRIOR TO STARTING ANY DEMOLITION AND/OR EXCAVATION. EXACT LOCATIONS OF ANY EXISTING ELECTRIC, GAS, TELEPHONE, ETC. LINES ARE UNKNOWN.
H. ASPHALT PAVEMENT MARKINGS SHALL BE MADE WITH HIGH QUALITY PAINT CONFORMING TO ARTICLE 1095.02 OF THE IDOT STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED.
I. THIS LAYOUT IS PARALLEL TO THE WEST PROPERTY LINE N 02°28'11" E.

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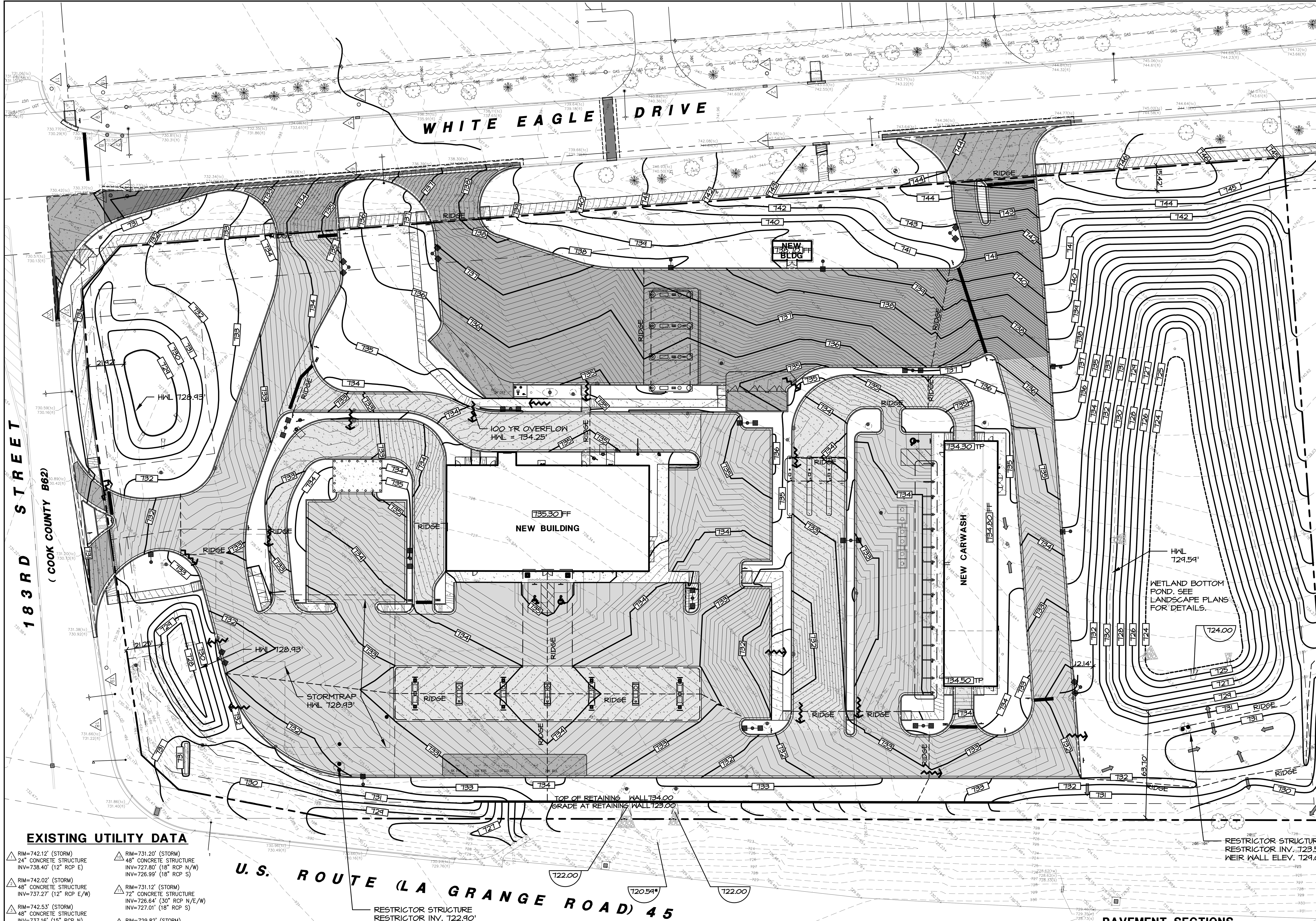
SITE GEOMETRIC PLAN



EXISTING UTILITY DATA

1. RIM=742.12' (STORM)
   24" CONCRETE STRUCTURE
   INV=738.40' (12" RCP E)
2. RIM=742.02' (STORM)
   48" CONCRETE STRUCTURE
   INV=737.27' (12" RCP E/W)
3. RIM=742.53' (STORM)
   48" CONCRETE STRUCTURE
   INV=737.16' (15" RCP N)
   INV=736.98' (12" RCP W)
4. RIM=735.29' (STORM)
   48" CONCRETE STRUCTURE
   INV=730.07' (15" RCP N)
   INV=731.10' (15" RCP S)
   INV=730.22' (12" RCP W)
5. RIM=734.77' (STORM)
   48" CONCRETE STRUCTURE
   INV=730.27' (12" RCP E/W)
6. RIM=734.91' (STORM)
   24" CONCRETE STRUCTURE
   INV=731.05' (12" RCP E)
7. RIM=730.02' (STORM)
   24" CONCRETE STRUCTURE
   INV=727.13' (12" RCP N)
8. RIM=730.00' (STORM)
   48" CONCRETE STRUCTURE
   INV=727.20' (12" RCP E/S/W)
   727.26' AT WATER LEVEL
9. RIM=730.53' (STORM)
   48" CONCRETE STRUCTURE
   INV=727.12' (18" RCP E)
   INV=727.12' (15" RCP S)
   INV=727.12' (12" RCP W)
10. RIM=731.20' (STORM)
    48" CONCRETE STRUCTURE
    INV=727.80' (18" RCP N/W)
    INV=726.99' (18" RCP S)
11. RIM=731.12' (STORM)
    72" CONCRETE STRUCTURE
    INV=726.64' (30" RCP N/E/W)
    INV=727.01' (18" RCP S)
12. RIM=729.82' (STORM)
    48" CONCRETE STRUCTURE
    INV=727.57' (12" RCP E/S)
    727.66' AT WATER LEVEL
13. RIM=729.83' (STORM)
    24" CONCRETE STRUCTURE
    INV=727.63' (12" RCP N)
18. RIM=731.10' (STORM)
    48" CONCRETE STRUCTURE
    INV=725.50' (12" RCP N)
    INV=725.58' (30" RCP SE)
    725.70' AT WATER LEVEL
19. RIM=731.42' (STORM)
    72" CONCRETE STRUCTURE
    INV=725.28' (36" RCP E/S)
    INV=725.28' (30" RCP NW)
20. RIM=729.89' (STORM)
    48" CONCRETE STRUCTURE
    INV=726.87' (12" RCP N/S)
21. RIM=730.59' (STORM)
    72" CONCRETE STRUCTURE
    INV=726.17' (12" RCP N)
    INV=725.92' (30" RCP E)
    INV=725.92' (36" RCP W)

PAVEMENT SECTIONS

NEW 5" CONCRETE PAVEMENT
5" PORTLAND CEMENT CONCRETE
4" CA-6

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6" PORTLAND CEMENT CONCRETE
4" CA-6

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1-3/4" HMA SURFACE COURSE
2-1/4" HMA BINDER COURSE
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2-1/2" HMA SURFACE COURSE
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NEW FULL ROADWAY ASPHALT PAVEMENT
1-1/2" HMA SURFACE COURSE MIX D, N70
2-1/2" HMA BINDER COURSE IL 25.0, N70
9" PORTLAND CEMENT CONCRETE
3" TYPE B CA-6
6" TYPE B CA-1

SITE GRADING NOTES:

A. EXISTING CONDITIONS AND TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS PER THE BOUNDARY AND TOPOGRAPHIC SURVEY LAST DATED 7-11-22, PREPARED BY WT GROUP. CONTRACTOR SHALL FIELD VERIFY EXISTING ELEVATIONS AND CONDITIONS (INCLUDING BUT NOT LIMITED TO VERIFICATION OF CONTROL AND ALL UTILITIES WHETHER DEPICTED OR NOT) PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
B. ALL PROPOSED GRADES ARE GIVEN TO FINISHED GRADE, I.E. TOP OF PROPOSED ASPHALT, CONCRETE, TOP OF PROPOSED CURB, ETC. SEE DETAILS FOR PAVEMENT THICKNESS.
C. CONTRACTOR SHALL CONTACT J.U.L.I.E. (811 OR 1-800-892-0123) AND PRIVATE LOCATING SERVICE TO LOCATE ALL UNDERGROUND UTILITY LINES PRIOR TO STARTING ANY DEMOLITION AND/OR EXCAVATION. EXACT LOCATIONS OF ANY EXISTING ELECTRIC, GAS, TELEPHONE, ETC. LINES ARE UNKNOWN.
D. CONTRACTOR SHALL ENSURE POSITIVE SITE DRAINAGE AT THE END OF EACH WORKING DAY DURING CONSTRUCTION OPERATIONS. FAILURE TO PROVIDE ADEQUATE DRAINAGE WILL PRECLUDE THE CONTRACTOR FROM ANY POSSIBLE COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT.
E. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS OUTSIDE OF CONSTRUCTION LIMITS TO ORIGINAL CONDITION OR BETTER.
F. CONTRACTOR SHALL REPAIR AT HIS EXPENSE ANY DAMAGE TO EXISTING ASPHALT, CONCRETE, CURBS, SIDEWALKS, ETC. RESULTING FROM CONSTRUCTION TRAFFIC AND/OR OPERATIONS. REPAIRS SHALL BE MADE TO THE SATISFACTION OF THE OWNER AND/OR ENGINEER.
G. CONTRACTOR TO UTILIZE CARE WHEN WORKING NEAR EXISTING UTILITIES TO REMAIN. ANY DAMAGE TO EXISTING UTILITIES NOT NOTED TO BE REMOVED SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER AND/OR ENGINEER.
H. ALL EXISTING TREES SHOWN ARE TO REMAIN UNLESS OTHERWISE NOTED.
I. ALL HANDICAP ACCESSIBLE ROUTES (SIDEWALKS, WALKWAYS, PAVEMENTS, ETC.) SHALL MAINTAIN A MAXIMUM CROSS SLOPE OF 2.00% AND A MAXIMUM LONGITUDINAL SLOPE OF 5.00%. ACCESSIBLE PARKING STALLS SHALL MAINTAIN A MAXIMUM SLOPE OF 2.00% IN ALL DIRECTIONS.
J. VOIDS LEFT BY ANY ITEM REMOVED UNDER ANY PROPOSED BUILDING, PAVEMENT, OR WALK OR WITHIN 24" THEREOF SHALL BE BACKFILLED WITH ENGINEERED FILL ACCORDING TO THE GEOTECHNICAL REPORT.
K. ALL FIRE ACCESS LANES WITHIN THE PROJECT AREA SHALL REMAIN IN SERVICE, CLEAN OF DEBRIS, AND ACCESSIBLE FOR USE BY EMERGENCY VEHICLES.
L. CONSTRUCTION ACCESS POINTS TO THE SITE SHALL BE PROTECTED IN SUCH A WAY AS TO PREVENT TRACKING OF MUD OR SOIL ONTO PUBLIC THOROUGHFARES. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
M. ALL EXISTING SUBGRADE TO BE SCARIFIED (DISKED) TO A DEPTH OF 12" AND RE-COMPACTED, AND THEN TESTED USING A DYNAMIC CONE PENETROMETER. SEE GEOTECHNICAL REPORT FOR ADDITIONAL REQUIREMENTS.
N. ALL EXCESS SOILS THAT CANNOT BE USED AS SUITABLE FILL SHALL BE HAULED FROM THE SITE AND LEGALLY DISPOSED OF.
O. CONTRACTOR TO PROVIDE SOIL TESTING SERVICES FOR COMPLETION OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S LPC-662 AND/OR LPC-663 FORMS AS PART OF THEIR CONTRACT.
P. PREPARE SUBGRADE AS SPECIFIED WITHIN THE SOIL INVESTIGATION REPORT DATED JULY 5TH, 2022 PREPARED BY EKKERT ENVIRONMENTAL SERVICES, INC.
Q. ALL TOPSOIL BENEATH PROPOSED STRUCTURES AND PAVEMENT SHALL BE REMOVED. REFER TO THE SOIL INVESTIGATION REPORT DATED JULY 5TH, 2022 PREPARED BY EKKERT ENVIRONMENTAL SERVICES, INC FOR EXISTING TOPSOIL DEPTHS.

GRADING LEGEND

- EXISTING SPOT GRADE
- PROPOSED SPOT GRADE
- INTERPOLATED SPOT GRADE
- PROPOSED RIM ELEVATION
- EXISTING CONTOUR LINE
- PROPOSED 1 FOOT CONTOUR LINE
- PROPOSED 0.1 FOOT CONTOUR LINE
- OVERLAND FLOW ARROW
- 100 YEAR OVERLAND FLOW ROUTE
- EMERGENCY OVERFLOW ARROW
- TP — TOP OF PAVEMENT ELEVATION
- TW — TOP OF SIDEWALK ELEVATION
- G — FINISHED GRADE ELEVATION
- FF — FINISHED FLOOR ELEVATION
- TC — TOP OF CURB ELEVATION
- FL — FLOW LINE ELEVATION
- ADJUST — ADJUST EXISTING RIM ELEVATION
- EXISTING CLOSED MANHOLE
- EXISTING OPEN GRATE MANHOLE
- EXISTING BEEHIVE GRATE MANHOLE
- EXISTING CURB INLET
- EXISTING FIRE HYDRANT
- EXISTING VALVE VAULT
- EXISTING B-BOX
- PROPOSED FIRE HYDRANT
- PROPOSED VALVE WITH VAULT
- PROPOSED INLET
- PROPOSED OPEN LID MANHOLE / CATCH BASIN
- PROPOSED CLOSED LID MANHOLE
- PROPOSED RESTRICTOR STRUCTURE
- PROPOSED FLARED END SECTION
- PROPOSED GREASE TRAP
- PROPOSED TRENCH DRAIN
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROPOSED TRIPLE SEPARATOR TANK

NORTH

1" = 30'

0 15 30 60 120

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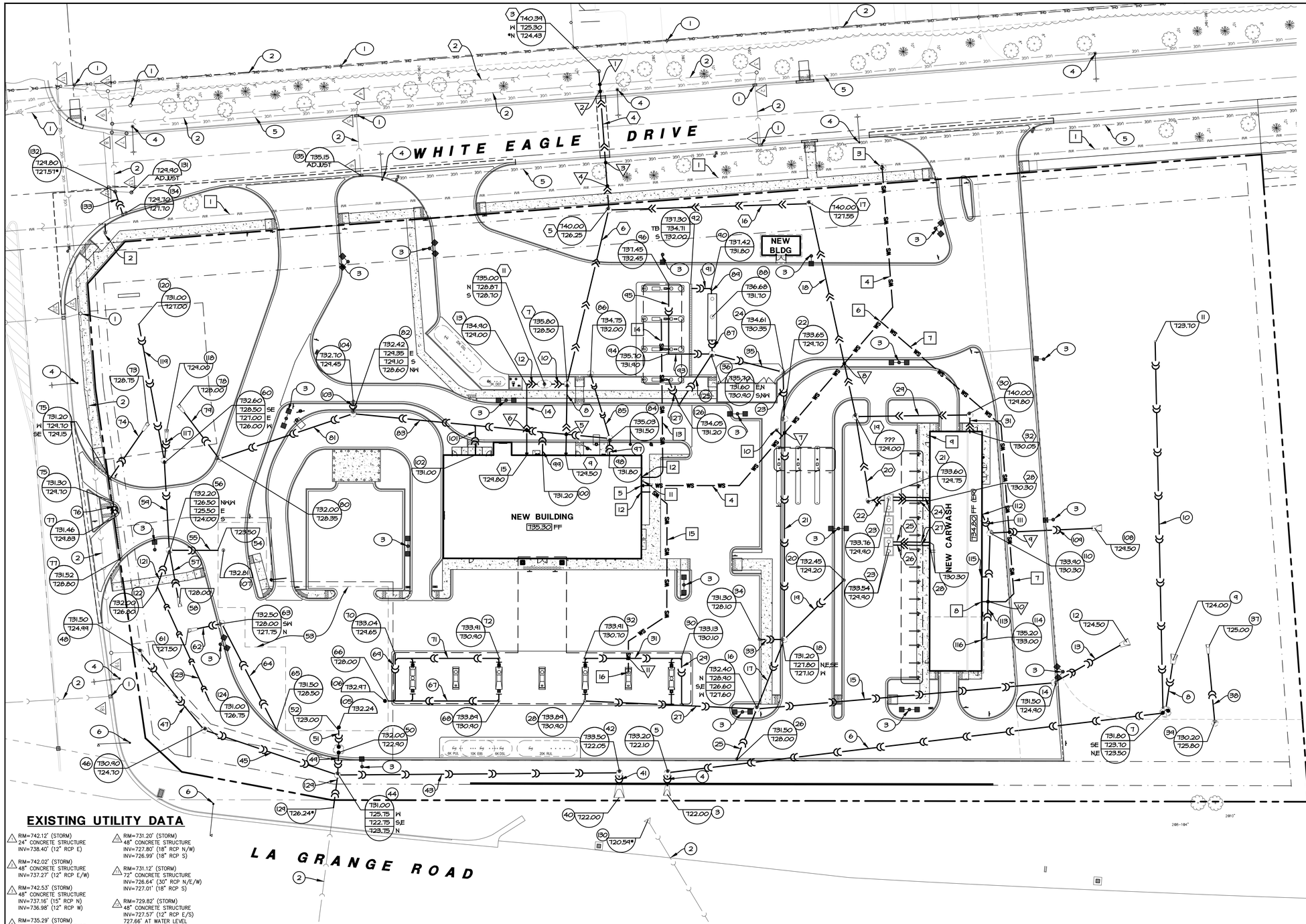
SITE GRADING PLAN



SITE UTILITY NOTES:

A. CONTRACTOR SHALL CONTACT J.U.L.I.E. (811 OR 1-800-892-0123) AND PRIVATE LOCATING SERVICE TO LOCATE ALL UNDERGROUND UTILITY LINES PRIOR TO STARTING ANY DEMOLITION AND/OR EXCAVATION. EXACT LOCATIONS OF ANY EXISTING ELECTRIC, GAS, TELEPHONE, ETC. LINES ARE UNKNOWN.
B. CONTRACTOR TO UTILIZE CARE WHEN WORKING NEAR EXISTING UTILITIES TO REMAIN. ANY DAMAGE TO EXISTING UTILITIES NOT NOTED TO BE REMOVED SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE OWNER AND/OR ENGINEER.
C. CONTRACTOR SHALL EXCAVATE AND VERIFY IN FIELD ALL EXISTING UTILITY LOCATIONS, SIZES, CONDITIONS AND ELEVATIONS AT PROPOSED POINTS OF CONNECTION PRIOR TO ANY UNDERGROUND CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO PROCEEDING WITH CONSTRUCTION.
D. REFER TO THE GENERAL NOTES AND SPECIFICATION SHEETS FOR ALL PIPE MATERIAL AND JOINT SPECIFICATIONS.
E. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS OUTSIDE OF CONSTRUCTION LIMITS TO ORIGINAL CONDITION OR BETTER.
F. CONTRACTOR SHALL VERIFY IN FIELD EXACT SIZE, MATERIAL, INVERT, PIPE ROUTING, AND SLOPE OF ALL EXISTING UTILITIES AND NOTIFY THE OWNER AND ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO CONSTRUCTION.
G. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF UTILITY TRENCHES DURING CONSTRUCTION AND SHALL PROVIDE TEMPORARY SHORING AND BRACING AS NECESSARY TO MAINTAIN STABILITY UNTIL CONSTRUCTION OF THE UTILITY IS COMPLETE IN ORDER TO MEET OSHA AND LOCAL CODES, AS WELL AS MANUFACTURER'S REQUIREMENTS.
H. ALL RCP STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE, CLASS IV, PER ASTM C-76 WITH FLEXIBLE (O-RING) GASKET JOINTS IN CONFORMANCE WITH ASTM C-443 AND SECTION 31-1.08 OF THE "STANDARD SPECIFICATIONS".
I. TRENCH BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR DENSITY (ASTM D-1557) OVER ALL UNDERGROUND UTILITIES WHICH ARE CONSTRUCTED UNDER OR WITHIN 2 FEET OF ANY PROPOSED OR EXISTING PAVEMENT OR SIDEWALKS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
J. ADJUST RIM ELEVATIONS OF EXISTING STRUCTURES IN PAVEMENT AS NECESSARY TO MEET PROPOSED FINISHED GRADE.
K. CONTRACTOR TO COORDINATE ALL CONNECTIONS TO VILLAGE UTILITIES AND STORM SEWERS WITH THE PUBLIC WORKS DEPARTMENT.
L. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AT EXISTING UTILITY LINES.
M. ALL STORM MANHOLES SHALL HAVE OPEN LIDS UNLESS OTHERWISE SPECIFIED.
N. ALL EXISTING UTILITIES TO BE ABANDONED IN PLACE SHALL BE CAPPED WITH 2' LONG (MIN.) NON-SHRINK CONCRETE MORTAR PLUGS AT BOTH ENDS.
O. PROVIDE RUBBER MISSION COUPLING OR SIMILAR CONNECTION BETWEEN PIPES OF DISSIMILAR SIZE OR MATERIAL.
P. ALL PVC SEWERS SHALL BE SDR 26 UNLESS OTHERWISE NOTED.

UTILITY LEGEND

- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING WATER MAIN
- PROPOSED WATER SERVICE
- EXISTING OVERHEAD LINES
- EXISTING UNDERGROUND ELECTRIC LINE
- PROPOSED UNDERGROUND ELECTRIC LINE
- EXISTING UNDERGROUND TELCO LINE
- 000.00 / 000.00 — PROPOSED RIM ELEVATION / PROPOSED INVERT ELEVATION
- VIF — VERIFY IN FIELD
- FF — FINISHED FLOOR ELEVATION
- ADJUST — ADJUST EXISTING RIM ELEVATION
- MATCH EXISTING
- EXISTING CLOSED MANHOLE
- EXISTING OPEN GRATE MANHOLE
- EXISTING BEEHIVE GRATE MANHOLE
- EXISTING CURB INLET
- EXISTING FIRE HYDRANT
- EXISTING VALVE VAULT
- EXISTING B-BOX
- PROPOSED FIRE HYDRANT
- PROPOSED VALVE WITH VAULT
- PROPOSED INLET OPEN AND CLOSED
- PROPOSED OPEN LID MANHOLE / CATCH BASIN
- PROPOSED CLOSED LID MANHOLE
- PROPOSED RESTRICTOR STRUCTURE
- PROPOSED FLARED END SECTION
- PROPOSED GREASE TRAP
- PROPOSED TRENCH DRAIN
- PROPOSED CLEANOUT
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROPOSED 6" X 4" REDUCER
- PROPOSED TRIPLE SEPARATOR TANK

EXISTING UTILITY DATA

△1 RIM=742.12' (STORM)
24" CONCRETE STRUCTURE
INV=738.40' (12" RCP E)

△2 RIM=742.02' (STORM)
48" CONCRETE STRUCTURE
INV=737.27' (12" RCP E/W)

△3 RIM=742.53' (STORM)
48" CONCRETE STRUCTURE
INV=737.16' (15" RCP N)
INV=736.98' (12" RCP W)

△4 RIM=735.29' (STORM)
48" CONCRETE STRUCTURE
INV=730.07' (15" RCP N)
INV=731.10' (15" RCP S)
INV=730.22' (12" RCP W)

△5 RIM=734.77' (STORM)
48" CONCRETE STRUCTURE
INV=730.27' (12" RCP E/W)

△6 RIM=734.91' (STORM)
24" CONCRETE STRUCTURE
INV=731.05' (12" RCP E)

△7 RIM=730.02' (STORM)
24" CONCRETE STRUCTURE
INV=727.13' (12" RCP N)

△8 RIM=730.00' (STORM)
48" CONCRETE STRUCTURE
INV=727.20' (12" RCP E/S/W)
727.26' AT WATER LEVEL

△9 RIM=730.53' (STORM)
48" CONCRETE STRUCTURE
INV=727.12' (18" RCP E)
INV=727.12' (15" RCP S)
INV=727.12' (12" RCP W)

△10 RIM=731.20' (STORM)
48" CONCRETE STRUCTURE
INV=727.80' (18" RCP N/W)
INV=726.99' (18" RCP S)

△11 RIM=731.12' (STORM)
72" CONCRETE STRUCTURE
INV=726.64' (30" RCP N/E/W)
INV=727.01' (18" RCP S)

△12 RIM=729.82' (STORM)
48" CONCRETE STRUCTURE
INV=727.57' (12" RCP E/S)
727.66' AT WATER LEVEL

△13 RIM=729.83' (STORM)
24" CONCRETE STRUCTURE
INV=727.63' (12" RCP N)

△14 RIM=731.10' (STORM)
48" CONCRETE STRUCTURE
INV=725.50' (12" RCP N)
INV=725.58' (30" RCP SE)
725.70' AT WATER LEVEL

△15 RIM=731.42' (STORM)
72" CONCRETE STRUCTURE
INV=725.28' (36" RCP E/S)
INV=725.28' (30" RCP NW)

△16 RIM=729.89' (STORM)
48" CONCRETE STRUCTURE
INV=726.87' (12" RCP N/S)

△17 RIM=730.59' (STORM)
72" CONCRETE STRUCTURE
INV=726.17' (12" RCP N)
INV=725.92' (30" RCP E)
INV=725.92' (36" RCP W)

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C-3.0
SITE UTILITY PLAN

PIPE CROSSING INFORMATION

CONTRACTOR TO FIELD VERIFY CROSSINGS. IF FIELD CONDITIONS PROHIBIT 18" OF CLEARANCE BETWEEN PROPOSED STORM SEWER AND EXISTING WATER MAIN, NOTIFY ENGINEER PRIOR TO PROCEEDING. FOLLOW IEPA WATER-SEWER SEPARATION REQUIREMENTS.
(* - VERIFY IN FIELD)

CROSSING NO.	GRADE ELEVATION (FT.)	UTILITY PIPE	PIPE SIZE (IN.)	ELEVATION (FT.)	
1	740.8	EX STORM	15	734.5*	INVERT
		SANITARY	6	726.1	TOP
2	740.7	EX ELECTRIC	-	738.5*	BOT
		SANITARY	6	726.1	TOP
3	741.0	EX ELECTRIC	-	738.5*	BOT
		SANITARY	6	726.6	TOP
4	741.0	EX WATER	12	735.5*	INVERT
		SANITARY	6	726.8	TOP
5	735.0	STORM	15	730.9	INVERT
		SANITARY	6	729.7	TOP
6	734.8	STORM	15	730.5	INVERT
		SANITARY	6	730.2	TOP
7	733.8	STORM	12	729.3	INVERT
		WATER	6	727.8	TOP
8	735.5	SANITARY	6	728.5	INVERT
		WATER	6	727.0	TOP
9	733.9	STORM	12	730.1	INVERT
		WATER	6	728.4	TOP
10	734.2	STORM	8	731.9	INVERT
		WATER	6	728.7	TOP
11	733.5	STORM	8	730.3	INVERT
		WATER	6	728.0	TOP

* CONTRACTOR TO VERIFY UTILITY ELEVATION IN FIELD PRIOR TO CONSTRUCTION

STORM SEWER

1. EXISTING STORM STRUCTURE AND ASSOCIATED PIPES TO REMAIN.
2. EXISTING STORM SEWER TO REMAIN.
3. NEW 30" RCP FLARED END SECTION WITH TRASH GRATE.
4. NEW 30" RCP, 8 LF @ 0.83% SLOPE.
5. NEW 60" DIA. PRECAST CONCRETE MANHOLE.
6. NEW 30" RCP, 314 LF @ 0.45% SLOPE.
7. NEW 72" DIA. PRECAST CONCRETE RESTRICTOR STRUCTURE.
8. NEW 36" RCP, 30 LF @ 1.00% SLOPE.
9. NEW 36" RCP FLARED END SECTION WITH TRASH GRATE.
10. NEW 4" PERFORATED PVC PIPE, 230 LF @ 0.00% SLOPE.
11. NEW OBSERVATION WELL.
12. NEW 24" RCP FLARED END SECTION WITH TRASH GRATE.
13. NEW 24" RCP, 46 LF @ 0.87% SLOPE.
14. NEW 48" DIA. PRECAST CONCRETE CATCH BASIN.
15. NEW 24" RCP, 187 LF @ 0.91% SLOPE.
16. NEW 72" DIA. PRECAST CONCRETE MANHOLE.
17. NEW 18" RCP, 47 LF @ 1.06% SLOPE.
18. NEW 84" DIA. PRECAST CONCRETE MANHOLE.
19. NEW 15" RCP, 53 LF @ 2.64% SLOPE.
20. NEW 24" DIA. PRECAST CONCRETE INLET.
21. NEW 15" RCP, 138 LF @ 1.20% SLOPE.
22. NEW 48" DIA. PRECAST CONCRETE MANHOLE.
23. NEW 12" RCP, 30 LF @ 2.17% SLOPE..
24. NEW 48" DIA. PRECAST CONCRETE CATCH BASIN.
25. NEW 12" RCP, 34 LF @ 1.18% SLOPE.
26. NEW 24" DIA. PRECAST CONCRETE INLET.
27. NEW 12" RCP, 108 LF @ 1.85% SLOPE.
28. NEW 24" DIA. PRECAST CONCRETE INLET WITH CLOSED LID.
29. NEW 8'x8' MYE AND NEW 8" PVC SDR 26, 30 LF @ 1.10% SLOPE.
30. NEW CLEAN OUT.
31. NEW 8'x8' MYE AND NEW 8" PVC SDR 26, 60 LF @ 1.00% SLOPE.
32. NEW CLEAN OUT.
33. NEW 12" RCP, 15 LF @ 2.00% SLOPE..
34. NEW 24" DIA. PRECAST CONCRETE INLET.
35. NEW 12" RCP, 46 LF @ 0.98% SLOPE.
36. NEW 48" DIA. PRECAST CONCRETE CATCH BASIN.
37. NEW 12" RCP FLARED END SECTION.
38. NEW 12" RCP, 48 LF @ 1.86% SLOPE.
39. NEW 36" DIA. PRECAST CONCRETE CATCH BASIN.
40. NEW 36" RCP FLARED END SECTION WITH TRASH GRATE
41. NEW 60" RCP, 12 LF @ 0.42% SLOPE.
42. NEW 84" DIA. PRECAST CONCRETE MANHOLE.
43. NEW 60" RCP, 176 LF @ 0.40% SLOPE.
44. NEW 84" DIA. PRECAST CONCRETE MANHOLE.
45. NEW 48" RCP, 88 LF @ 1.08% SLOPE.
46. NEW 60" DIA. PRECAST CONCRETE MANHOLE.
47. NEW 48" RCP, 63 LF @ 0.46% SLOPE.
48. NEW 60" DIA. PRECAST CONCRETE MANHOLE.
49. NEW 60" RCP, 14 LF @ 1.07% SLOPE.
50. NEW 72" DIA. PRECAST CONCRETE RESTRICTOR STRUCTURE.
51. NEW 24" RCP, 10 LF @ 1.00% SLOPE.
52. NEW CONNECTION TO STORMTRAP WITH ALL FITTINGS REQUIRED.
53. NEW 1 FOOT SINGLE UNIT STORMTRAP STRUCTURE.
54. NEW CONNECTION TO STORMTRAP WITH ALL FITTINGS REQUIRED.
55. NEW 24" RCP, 30 LF @ 1.85% SLOPE.
56. NEW 72" DIA. PRECAST CONCRETE CATCH BASIN.
57. NEW 24" RCP, 31 LF @ 4.84% SLOPE.
58. NEW 24" RCP FLARED END SECTION WITH TRASH GRATE.
59. NEW 24" RCP, 57 LF @ 0.88% SLOPE.
60. NEW 60" DIA. PRECAST CONCRETE MANHOLE.
61. NEW 18" RCP FLARED END SECTION WITH TRASH GRATE.
62. NEW 18" RCP, 15 LF @ 1.67% SLOPE.
63. NEW 48" DIA. PRECAST CONCRETE CATCH BASIN.
64. NEW 15" RCP, 75 LF @ 0.67% SLOPE.
65. NEW 24" DIA. PRECAST CONCRETE INLET.
66. NEW CONNECTION TO STORMTRAP WITH ALL FITTINGS REQUIRED.
67. NEW 8" PVC SDR 26, 64 LF @ 4.20% SLOPE.
68. NEW CLEAN OUT.
69. NEW 8'x8' MYE AND NEW 8" PVC SDR 26, 30 LF @ 4.93% SLOPE.
70. NEW CLEAN OUT.
71. NEW 8'x8' MYE AND NEW 8" PVC SDR 26, 67 LF @ 1.94% SLOPE.
72. NEW CLEAN OUT.
73. NEW 12" RCP FLARED END SECTION.
74. NEW 12" RCP, 38 LF @ 1.05% SLOPE.
75. NEW 12" WIDE TRENCH DRAIN, ACO S300K, 15 LF @ 1.00% SLOPE. PROVIDE CATCH BASIN BOX FOR DISCHARGE PIPE.
76. NEW 10" PVC SDR 26, 9 LF @ 1.44% SLOPE.
77. NEW 12' WIDE TRENCH DRAIN, ACO S300K, 27 LF @ 2.48% SLOPE.
78. NEW 21" RCP FLARED END SECTION.
79. NEW 21" RCP, 38 LF @ 0.92% SLOPE.
80. NEW 48" DIA. PRECAST CONCRETE CATCH BASIN.
81. NEW 21" RCP, 89 LF @ 0.28% SLOPE.
82. NEW 48" DIA. PRECAST CONCRETE MANHOLE.
83. NEW 15" RCP, 162 LF @ 1.48% SLOPE.
84. NEW 48" DIA. PRECAST CONCRETE MANHOLE.
85. NEW 15" RCP, 42 LF @ 1.19% SLOPE.
86. NEW 48" DIA. PRECAST CONCRETE MANHOLE.
87. NEW 8" D.I.P., 8 LF @ 1.25% SLOPE.
88. NEW 4000 GAL KLEERWATER OIL/WATER SEPARATOR.
89. NEW 8" D.I.P., 4 LF @ 2.50% SLOPE.
90. NEW CLEAN OUT.
91. NEW 8" D.I.P., 13 LF @ 1.54% SLOPE.
92. NEW 12' WIDE TRENCH DRAIN, ACO S300K, 58 LF @ 1.03% SLOPE.
93. NEW 8" D.I.P., 28 LF @ 1.07% SLOPE.
94. NEW CLEAN OUT.
95. NEW 8'x8' MYE AND NEW 8" D.I.P., 44 LF @ 1.25%.
96. NEW CLEAN OUT.
97. NEW 8" PVC SDR 26, 10 LF @ 3.00% SLOPE.
98. NEW DOWNSPOUT WITH CONNECTION TO PIPE #97.
99. NEW 8" PVC SDR 26, 14 LF @ 2.43% SLOPE.
100. NEW DOWNSPOUT WITH CONNECTION TO PIPE #99.
101. NEW 8" PVC SDR 26, 16 LF @ 3.44% SLOPE.
102. NEW DOWNSPOUT WITH CONNECTION TO PIPE#101.
103. NEW 12" RCP, 7 LF @ 2.14% SLOPE.
104. NEW 24" DIA. PRECAST CONCRETE INLET.
105. NEW 24" DIA. ACCESS CASTING TO STORMTRAP, CLOSED LID.
106. NEW 24" DIA. ACCESS CASTING TO STORMTRAP, CLOSED LID.
107. NEW 24" DIA. ACCESS CASTING TO STORMTRAP, OPEN LID.
108. NEW 12" RCP FES.
109. NEW 12" RCP, 63 LF @ 1.27%
110. NEW 48" DIA. PRECAST CONCRETE CATCH BASIN.
111. NEW 6" PVC SDR26, 13 LF @ MINIMUM 1.00% SLOPE.
112. NEW DOWNSPOUT WITH CONNECTION TO PIPE #111.
113. NEW 8" PVC SDR26, 66 LF @ 4.09% SLOPE.
114. NEW CLEAN OUT.
115. NEW DOWNSPOUT WITH CONNECTION TO PIPE #113.
116. NEW DOWNSPOUT WITH CONNECTION TO PIPE #113.
117. NEW 24" RCP, 15 LF @ 3.33% SLOPE.
118. NEW 24" RCP FLARED END SECTION WITH TRASH GRATE.
119. NEW 4" PERFORATED PVC SDR 26, 86 LF @ 0.00% SLOPE.
120. NEW OBSERVATION WELL.
121. NEW 4" PVC SDR26, 26 LF @ 1.15% SLOPE.
122. NEW CLEAN OUT.
123. NEW 4" PERFORATED PVC SDR 26, 78 LF @ 0.00% SLOPE.
124. NEW OBSERVATION WELL.
125. NEW 12" RCP, 31 LF @ 0.81% SLOPE, CONNECTED TO EXISTING PIPE.
126. NEW 24" DIA. PRECAST CONCRETE INLET.
127. NEW 4" PVC SDR 26, 16 LF @ 1.00% SLOPE.
128. NEW 12" RCP, 20 LF @ 0.56% SLOPE. CONNECT TO EXISTING 12" RCP AND EXTEND THE EXISTING PIPE AT SAME SLOPE TO NEW STRUCTURE #44.
129. NEW 12" RCP CONNECTED TO EXISTING PIPE. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING PIPE PRIOR TO CONNECTION.
130. EXISTING 24" RCP FLARED END SECTION TO REMAIN.
131. EXISTING STORM STRUCTURE TO REMAIN AND RIM TO BE ADJUSTED.
132. EXISTING STRUCTURE TO REMAIN AND RIM TO BE ADJUSTED. STRUCTURE TO BE CORED FOR NEW PIPE #133.
133. NEW 12" RCP, 15 LF @ 1.80% SLOPE. CONNECT WITH ALL FITTINGS REQUIRED TO EXISTING STRUCTURE.
134. NEW DOUBLE STRUCTURE WITH CURB FRAME.
135. EXISTING STRUCTURE TO REMAIN. PROVIDE NEW CURB FRAME.

GENERAL NOTES

- WATERMAIN QUALITY PIPES SHALL BE USED FOR SEWERS AT CROSSINGS WITH PROPOSED WATER SERVICE LINES.
- ALL STORM SEWERS SHALL BE SIZED TO CONVEY THE 100-YEAR STORM FLOWS.
- ALL SANITARY SEWERS SHALL BE DESIGNED WITH FLOW VELOCITY OF 2 FT/S MINIMUM AND HAVE MINIMUM 36" OF COVER.
- ALL STORM SEWERS SHALL BE DESIGNED WITH FLOW VELOCITY OF 2 FT/S MINIMUM.

SANITARY

1. EXISTING SANITARY STRUCTURE AND ASSOCIATED PIPES TO REMAIN. APPROXIMATE LOCATION OF SANITARY SEWER TO BE CONSTRUCTED BY THE VILLAGE.
2. EXISTING SANITARY SEWER TO REMAIN. APPROXIMATE LOCATION OF SANITARY SEWER TO BE CONSTRUCTED BY THE VILLAGE.
3. EXISTING STRUCTURE (INSTALLED BY VILLAGE) TO REMAIN. CORE OPENING FOR NEW 6" PVC PIPE. PROVIDE WATER TIGHT CONNECTION, CONFORMING TO ASTM C-443 AND C-923.
4. NEW 6" PVC SDR 26, 87 LF @ 1.09% SLOPE.
5. NEW 48" DIA. PRECAST CONCRETE MANHOLE.
6. NEW 6" PVC SDR 26, 113 LF @ 1.49% SLOPE.
7. NEW 48" DIA. PRECAST CONCRETE MANHOLE.
8. NEW 6" PVC SDR 26, 45 LF @ 2.22% SLOPE.
9. NEW BUILDING CONNECTION WITH 6"x4" REDUCER. SEE PLUMBING PLANS FOR CONTINUATION.
10. NEW 6" PVC SDR 26, 10 LF @ 2.00% SLOPE.
11. NEW 1000 GAL GREASE TRAP.
12. NEW 6" PVC SDR 26, 8 LF @ 1.63% SLOPE.
13. NEW CLEAN OUT.
14. NEW 6"x6" MYE, AND NEW 6" PVC SDR 26, 45 LF @ 1.78% SLOPE.
15. NEW BUILDING CONNECTION WITH 6"x4" REDUCER. SEE PLUMBING PLANS FOR CONTINUATION.
16. NEW 6" PVC SDR 26, 125 LF @ 1.04% SLOPE.
17. NEW 48" DIA. PRECAST CONCRETE MANHOLE.
18. NEW 6" PVC C-900, 136 LF @ 1.07% SLOPE.
19. NEW 48" DIA. PRECAST CONCRETE MANHOLE..
20. NEW 6" PVC SDR 26, 53 LF @ 1.42% SLOPE.
21. NEW 48" DIA. PRECAST CONCRETE MANHOLE.
22. NEW 6" PVC SDR 26, 10 LF @ 1.50% SLOPE.
23. NEW 1500 GAL TRIPLE SEPARATE TANK. SEE PLUMBING FOR DETAILS.
24. NEW 2" RECLAIM LINE (2 EACH). SEE PLUMBING PLANS FOR DETAILS.
25. NEW 6" PVC SDR 26, 23 LF @ 1.74% SLOPE.
26. NEW 6" PVC SDR 26, 23 LF @ 1.74% SLOPE.
27. NEW CLEAN OUT.
28. NEW BUILDING CONNECTION (2 EACH). SEE PLUMBING PLANS FOR CONTINUATION.
29. NEW 6" PVC SDR 26, 71 LF @ 1.13% SLOPE.
30. NEW 48" DIA. PRECAST CONCRETE MANHOLE
31. NEW 6" PVC SDR 26, 11 LF @ 2.27% SLOPE.
32. NEW BUILDING CONNECTION WITH 6"x4" REDUCER. SEE PLUMBING PLANS FOR CONTINUATION.

WATER

GENERAL WATER NOTES:
- ALL FITTINGS SHALL HAVE MECHANICAL JOINTS RESTRAINED BY MEGALUG GLANDS.
- CONTRACTOR SHALL COORDINATE WATER TAPS WITH THE VILLAGE PUBLIC WORKS DEPARTMENT PRIOR THE CONSTRUCTION.

1. EXISTING WATER MAIN TO BE INSTALLED BY VILLAGE. CONTRACTOR TO FIELD VERIFY LOCATION AFTER INSTALLATION.
2. NEW HYDRANT TO BE INSTALLED BY VILLAGE.
3. NEW 12"x6" PRESSURE CONNECTION WITH 60" DIA VALVE VAULT.
4. NEW 6" D.I.P. CLASS 52, 248 LF WITH ALL FITTINGS REQUIRED.
5. NEW BUILDING CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION.
6. NEW 6"x6" TEE, DIWM CLASS 52.
7. NEW 6" D.I.P. CLASS 52, 224 LF WITH ALL FITTINGS REQUIRED.
8. NEW BUILDING CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION.
9. NEW FIRE CONNECTION WITH ALL FITTINGS REQUIRED. SEE PLUMBING PLANS FOR CONTINUATION.
10. NEW HYDRANT WITH AUXILIARY VALVE WITH ALL FITTINGS REQUIRED.
11. NEW FIRE CONNECTION WITH ALL FITTINGS REQUIRED. SEE PLUMBING PLANS FOR CONTINUATION.
12. NEW BUILDING CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION.
13. NEW 1" WATER SERVICE, TYPE K COPPER, 90 LF. SEE PLUMBING PLANS FOR CONTINUATION.
14. NEW 3/4" WATER SERVICE, TYPE K COPPER, 19 LF. SEE PLUMBING PLANS FOR CONTINUATION.
15. NEW 6" D.I.P. CLASS 52, 138 LF WITH ALL FITTINGS REQUIRED.
16. NEW SPRINKLER CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION.

MISC. UTILITY

1. EXISTING UTILITY POLE AND ASSOCIATED OVERHEAD LINES TO REMAIN.
2. EXISTING OVERHEAD LINES TO REMAIN.
3. NEW AREA LIGHT. SEE ELECTRICAL PLANS FOR DETAILS.
4. EXISTING STREET LIGHT AND ASSOCIATED ITEMS TO REMAIN.
5. EXISTING UNDERGROUND ELECTRIC TO REMAIN.
6. EXISTING TRAFFIC SIGNAL AND ASSOCIATED ITEMS TO REMAIN.

AQUATIC \ CIVIL \ MECHANICAL \ ELECTRICAL \ PLUMBING \ TELECOMMUNICATION \ STRUCTURAL \ ACCESSIBILITY CONSULTING \ DESIGN & PROGRAM MANAGEMENT \ LAND SURVEY

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WT Group
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RETAIL PETROLEUM FACILITY
18301 LA GRANGE ROAD
TINLEY PARK, IL 60487

GAS N WASH

ISSUE

TO	DATE
CITY	1-19-23
CCHD/IDOT	2-08-23
CITY	2-22-23
CITY	5-05-23

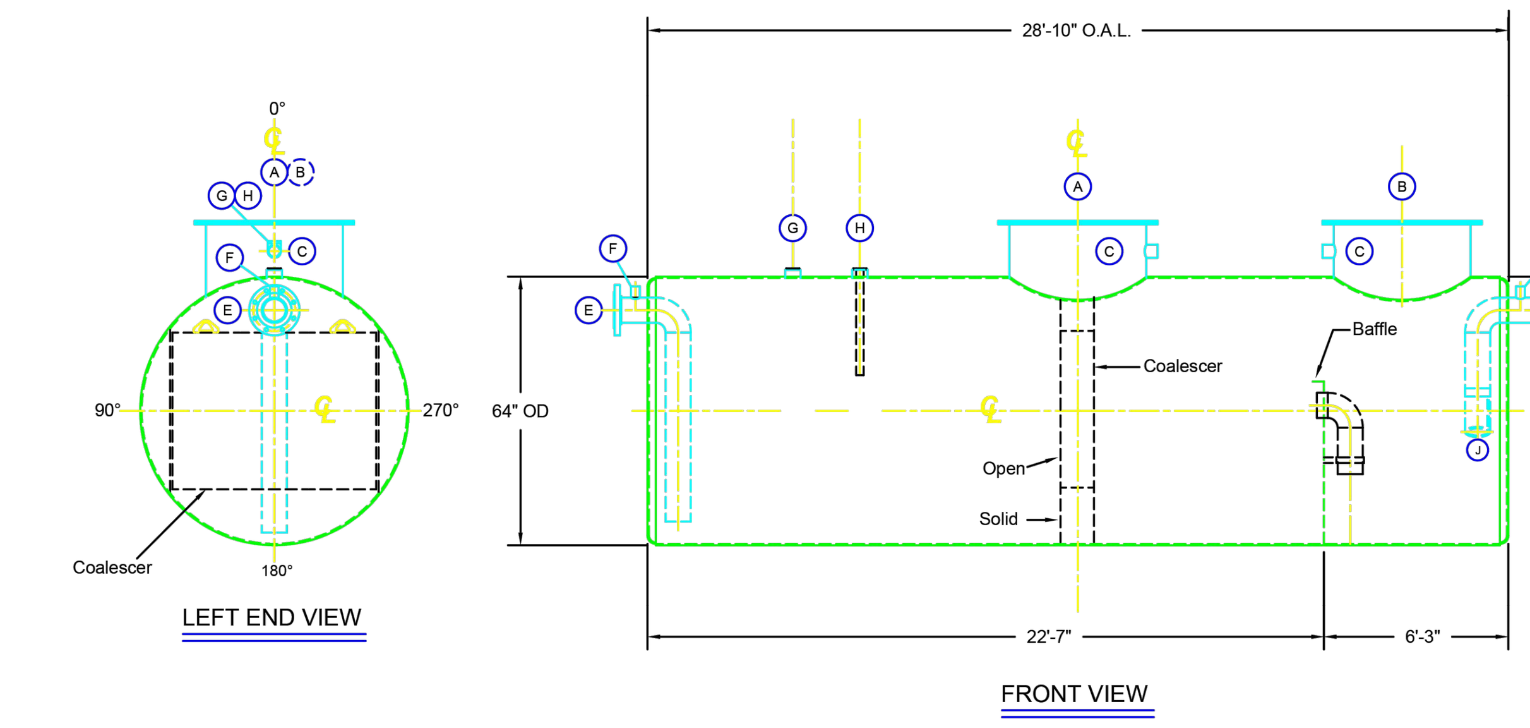
CHECK: JPG
DRAWN: VE
JOB:D2200035

C-3.1
SITE UTILITY PLAN

NOTES:
A. Quantity: _______ Oil Water Separator(s).
B. Material: Carbon Steel per UL-58.
C. Design & Operating Pressure: Atmospheric.
D. Design & Operating Temperature: 40 degrees to 120 degree F.
E. Separator to be Built & Labeled Per UL 2215.
F. Interior: Abrasive blast and lined with UL listed coating.
G. Exterior: Corrosion protection per UL1746.
H. Electronics: To be furnished by separator manufacturer as specified.
I. All Fittings to be Protected for Shipment.
J. Customer has the Responsibility to Verify all Dimensions.

NOZZLE SCHEDULE

QTY.	ITEM	SIZE	RATING	TYPE	MATL.	PROJ. IN	PROJ. OUT	NOTES
1	A	30"	PRESSED	MANWAY	C.S.	1/4"		VENT
1	B	24"	PRESSED	MANWAY	C.S.	1/4"	AS SHWN.	SLUDGE REMOVAL
2	C	2"	STD. NPT.	HF. CPLG.	C.S.	0"	AS SHWN.	VENT
1	D	8"	150# FLG.	S.O.R.F.	C.S.	1/4"	AS SHWN.	INLET
1	E	8"	150# FLG.	S.O.R.F.	C.S.	1/4"	AS SHWN.	OUTLET
2	F	2"	STD. NPT.	HF. CPLG.	C.S.	0"	AS SHWN.	VENT
1	G	2"	STD. NPT.	HF. CPLG.	C.S.	1/4"	AS SHWN.	OIL LEVEL CONTROL
1	H	2"	STD. NPT.	HF. CPLG.	C.S.	1/4"	AS SHWN.	OIL PUMP OUT
1	J	4"	STD. NPT.	"Y"	C.S.	0"	0"	DIFFUSER



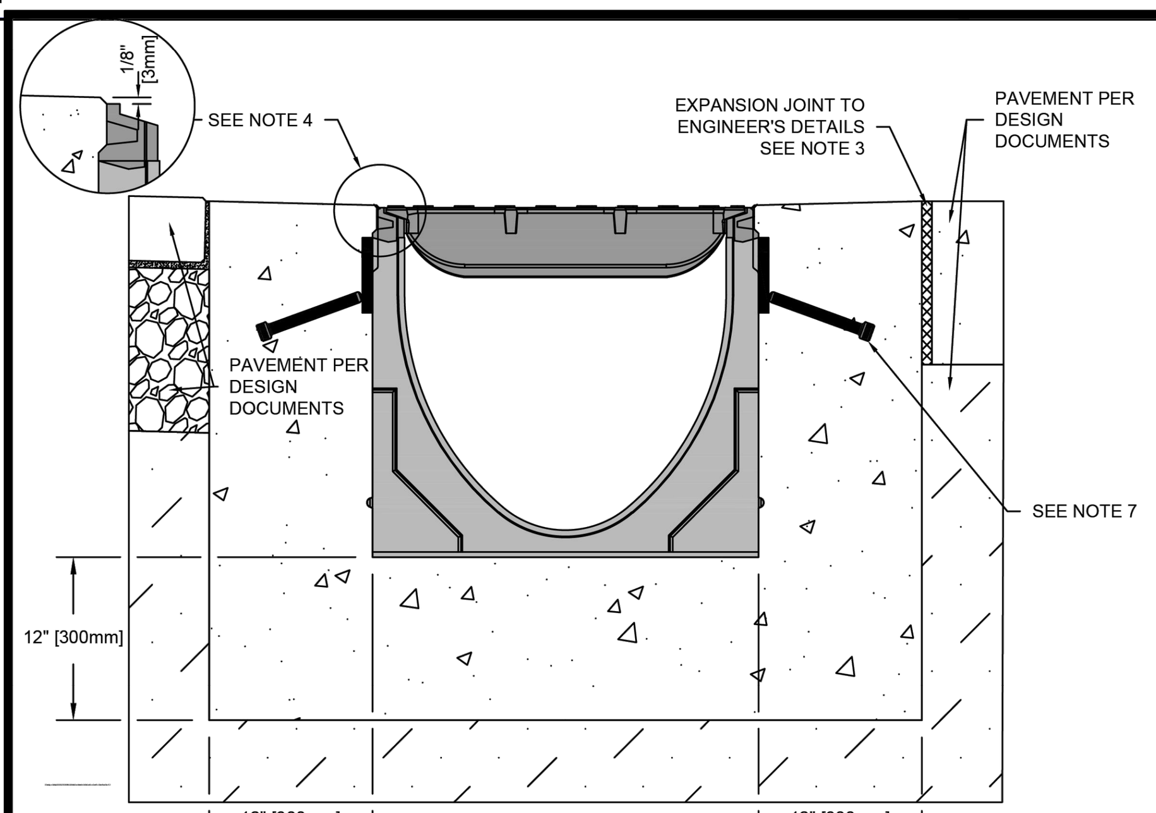
NO.	DESCRIPTION	DATE	NAME

REVISIONS

Modern Welding Company

VESSEL DESCRIPTION: 4000 Gallon KleerWater Oil Water Separator Tank
CUSTOMER:
DATE: | SCALE: N.T.S. | DWG.#: \OWS\4000KW

Disclaimer:
This drawing is provided for informational purposes only. Final size, flow rate, or efficiency will be determined at placement of order with the Modern Welding Company subsidiary which manufacturers the Kleerwater separator. User takes full responsibility of the use and application of this illustration.



NOTES:
1. IT IS NECESSARY TO ENSURE MINIMUM DIMENSIONS SHOWN ARE SUITABLE FOR EXISTING GROUND CONDITIONS. *ENGINEERING ADVICE MAY BE REQUIRED.*
2. MINIMUM CONCRETE STRENGTH OF 4,000 PSI IS RECOMMENDED. CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
3. EXPANSION AND CONTRACTION CONTROL JOINTS AND REINFORCEMENT ARE RECOMMENDED TO PROTECT CHANNEL AND CONCRETE SURROUND. *ENGINEERING ADVICE MAY BE REQUIRED.*
4. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" [3mm] ABOVE THE TOP OF THE CHANNEL EDGE.
5. CONCRETE BASE THICKNESS SHOULD MATCH SLAB THICKNESS. ENGINEERING ADVICE MAY BE REQUIRED TO DETERMINE PROPER LOAD CLASS.
6. REFER TO ACO'S LATEST INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.
7. ACO, INC. RECOMMENDS USING THE POWERDRAIN CONCRETE ANCHORS (PART #97496) FOR LOAD CLASS F APPLICATIONS. TWO ANCHORS REQUIRED PER HALF METER LENGTH.

SPECIFICATION CLAUSE

S300K POWERDRAIN - LOAD CLASS F

GENERAL
THE SURFACE DRAINAGE SYSTEM SHALL BE POLYMER CONCRETE S300K CHANNEL SYSTEM WITH DUCTILE IRON EDGE RAILS AS MANUFACTURED BY ACO, INC.

MATERIALS
CHANNELS SHALL BE MANUFACTURED FROM POLYESTER RESIN POLYMER CONCRETE WITH AN INTEGRALLY CAST-IN DUCTILE IRON EDGE RAIL. MINIMUM PROPERTIES OF POLYMER CONCRETE WILL BE AS FOLLOWS:

COMPRESSIVE STRENGTH:	14,000 PSI
FLEXURAL STRENGTH:	4,000 PSI
TENSILE STRENGTH:	1,500 PSI
WATER ABSORPTION:	0.07%
FROST PROOF	YES
DILUTE ACID AND ALKALI RESISTANT	YES
B117 SALT SPRAY TEST COMPLIANT	YES

THE SYSTEM SHALL BE 12" (300mm) NOMINAL INTERNAL WIDTH WITH A 14.2" (390mm) OVERALL WIDTH AND A BUILT-IN SLOPE OF 0.5%. CHANNEL INVERT SHALL HAVE DEVELOPED "V" SHAPE. ALL CHANNELS SHALL BE INTERLOCKING WITH A MALE/FEMALE JOINT.

THE COMPLETE DRAINAGE SYSTEM SHALL BE BY ACO, INC. ANY DEVIATION OR PARTIAL SYSTEM DESIGN AND/OR IMPROPER INSTALLATION WILL VOID ANY AND ALL WARRANTIES PROVIDED BY ACO, INC.

CHANNEL SHALL WITHSTAND LOADING TO PROPER LOAD CLASS AS OUTLINED BY EN 1433. GRATE TYPE SHALL BE APPROPRIATE TO MEET THE SYSTEM LOAD CLASS SPECIFIED AND INTENDED APPLICATION. GRATES SHALL BE SECURED USING EITHER THE 'POWERLOK' BOLTLESS LOCKING SYSTEM OR THE 4 BOLT LOCKING OPTION. CHANNEL AND GRATE SHALL BE CERTIFIED TO MEET THE SPECIFIED EN 1433 LOAD CLASS. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

SK3-F-EPP
ACO
DATE: 12/12/16

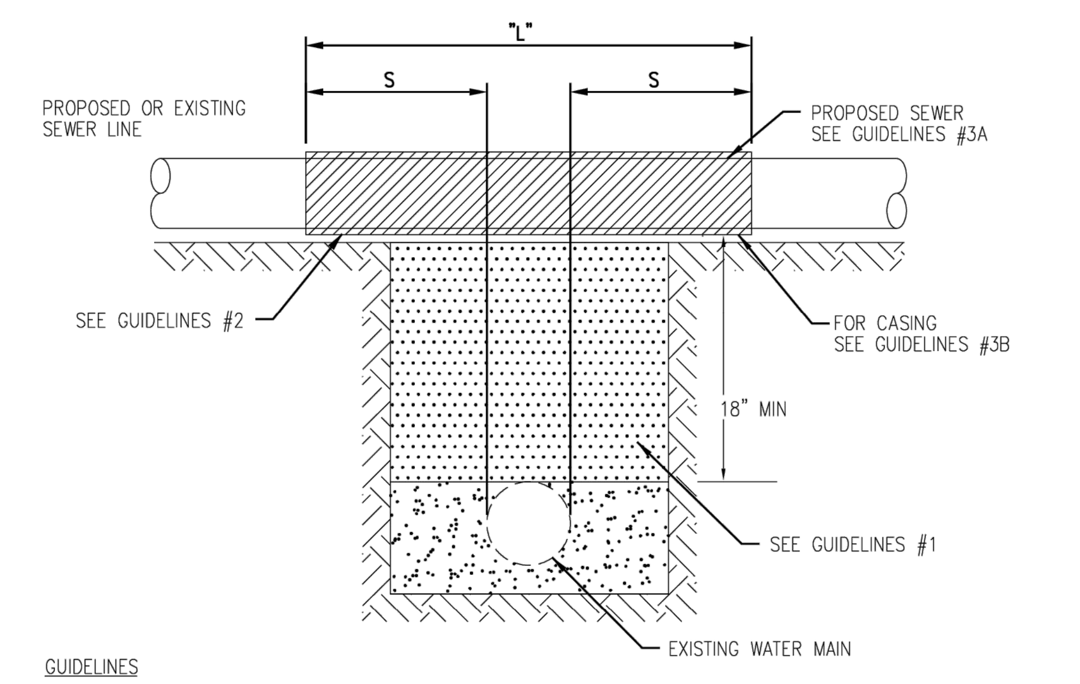
POWERDRAIN - S300K - LOAD CLASS: F
W/ OPTIONAL CONCRETE ANCHORS
Exposed Paver Pavement

INSTALLATION DRAWING - ACO DRAIN

ACO, Inc.

825 W. Beechcraft St Casa Grande, AZ 85122 Tel: 520-421-9988 Fax: 520-421-9899	9470 Pinecone Dr. Mentor, OH 44060 Tel: 440-639-7230 Fax: 440-639-7235	4211 Pleasant Rd. Fort Mill, SC 29708 Tel: 440-639-7230 Fax: 803-802-1063

PROPOSED SEWER LINE WITH 18" MINIMUM VERTICAL SEPARATION ABOVE EXISTING WATER MAIN

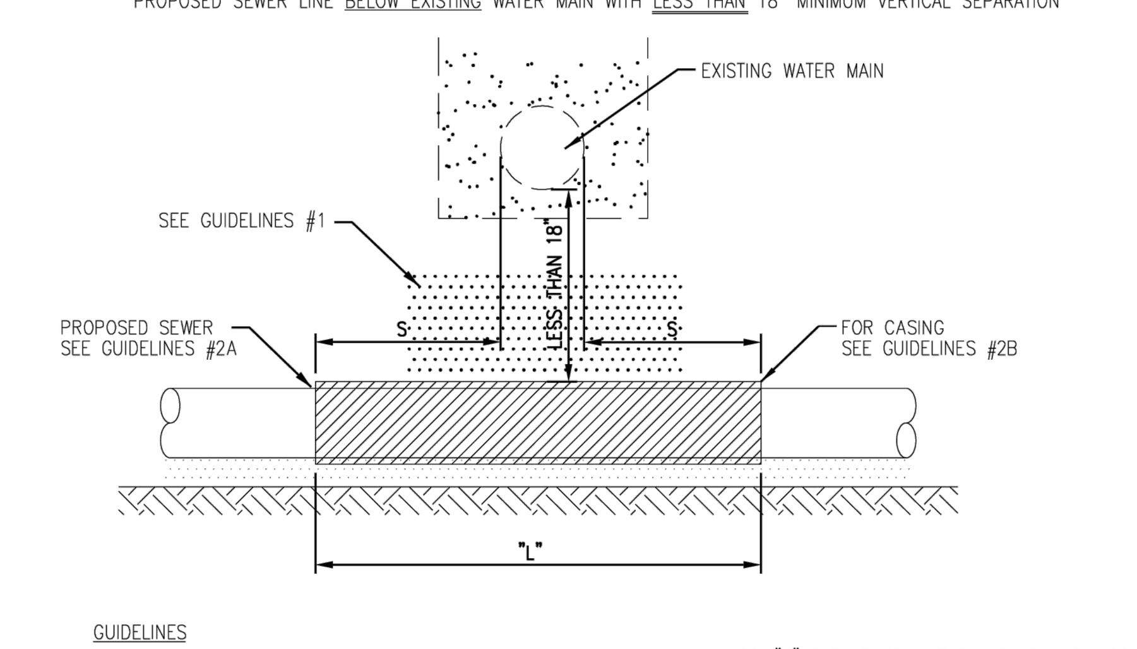


GUIDELINES
1. IF SELECT GRANULAR BACKFILL EXISTS: REMOVE WITHIN WIDTH OF PROPOSED SEWER TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT
2. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF SEWER AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L" FEET.
3. A) CONSTRUCT "L" FEET OF PROPOSED SEWER OF WATER MAIN MATERIAL AND PRESSURE TEST, OR;
B) USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED SEWER AND SEAL ENDS OF CASING.

NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING WATER MAIN

*BASED ON STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.

PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH LESS THAN 18" MINIMUM VERTICAL SEPARATION

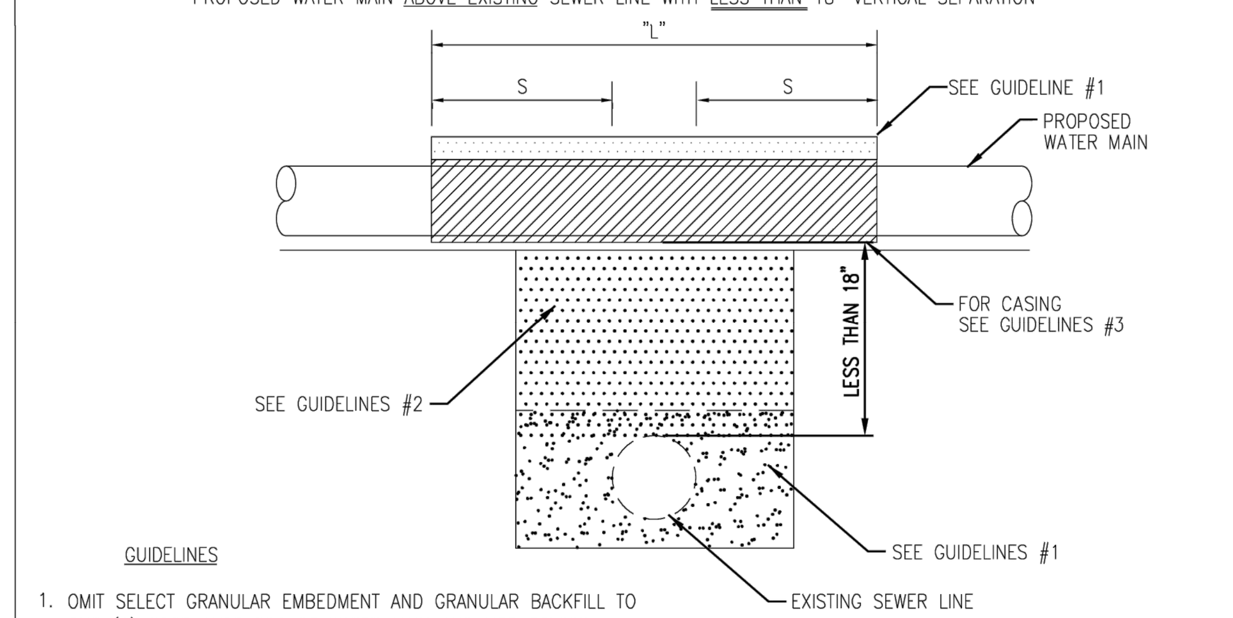


GUIDELINES
1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF SEWER AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT FOR "S" FEET ON EACH SIDE OF WATER MAIN.
2. A) CONSTRUCT "L" FEET OF PROPOSED SEWER OF WATER MAIN MATERIAL AND PRESSURE TEST, OR;
B) USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED SEWER AND SEAL ENDS OF CASING.
3. PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING WATER MAIN

*BASED ON STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.

PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE WITH LESS THAN 18" VERTICAL SEPARATION

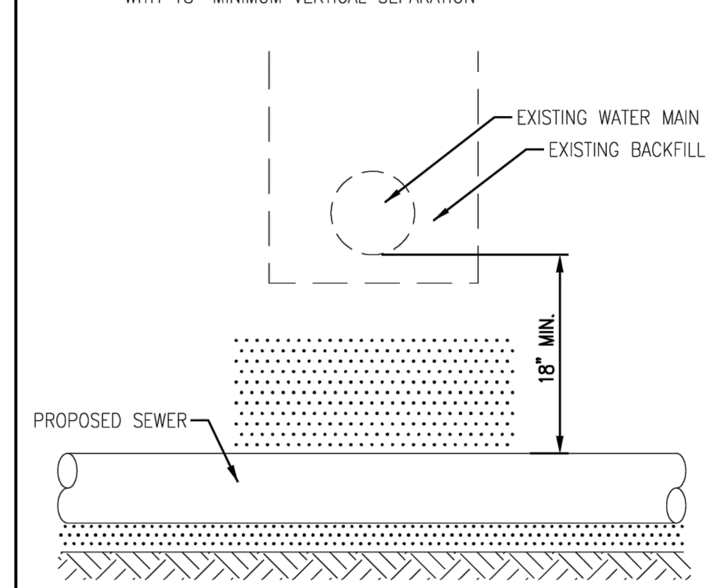


GUIDELINES
1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
3. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING.
4. POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN CASING AND SEWER

NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING SEWER LINE.

*BASED ON STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.

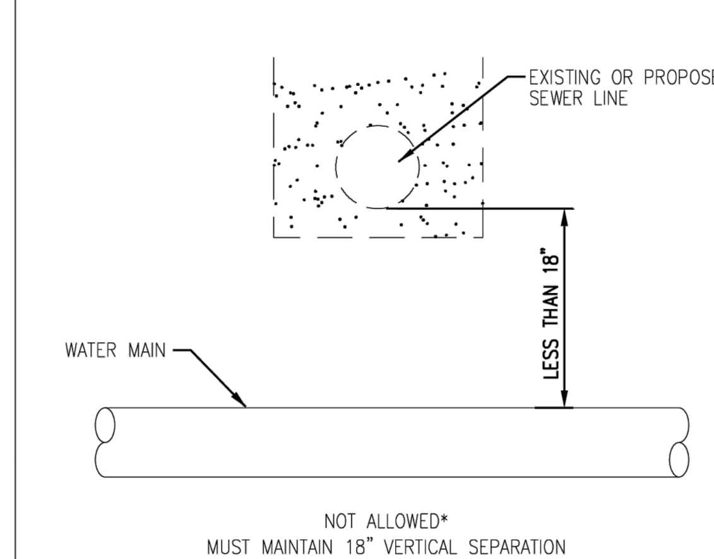
PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH 18" MINIMUM VERTICAL SEPARATION



GUIDELINES
1. PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH.

*BASED ON STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.

PLACEMENT OF WATER MAIN BELOW EXISTING OR PROPOSED SEWER LINE WITH LESS THAN 18" MINIMUM VERTICAL SEPARATION. **NOT ALLOWED.**



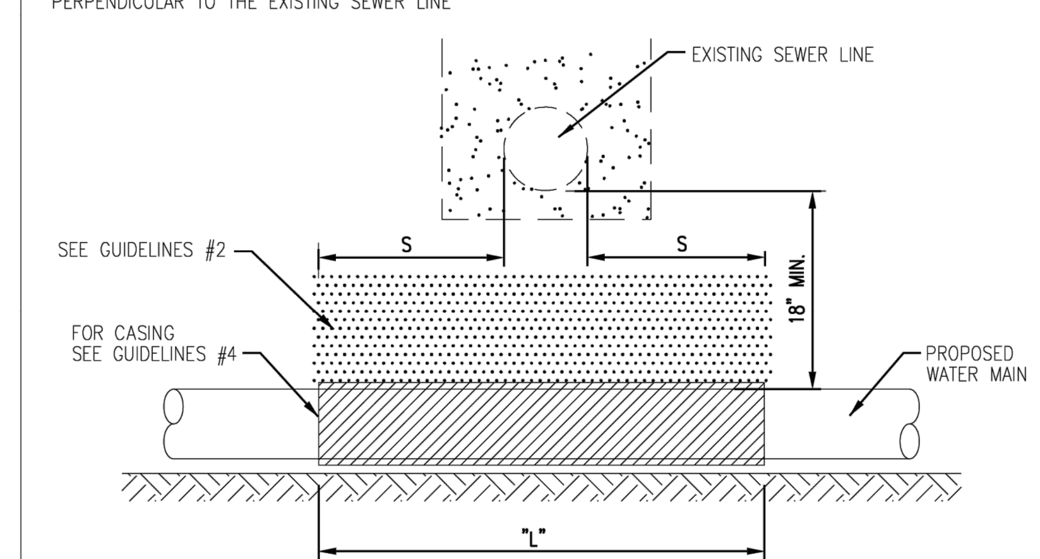
NOT ALLOWED*
MUST MAINTAIN 18" VERTICAL SEPARATION

*BASED ON STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.

PROPOSED WATER MAIN BELOW EXISTING SEWER LINE WITH 18" MINIMUM VERTICAL SEPARATION

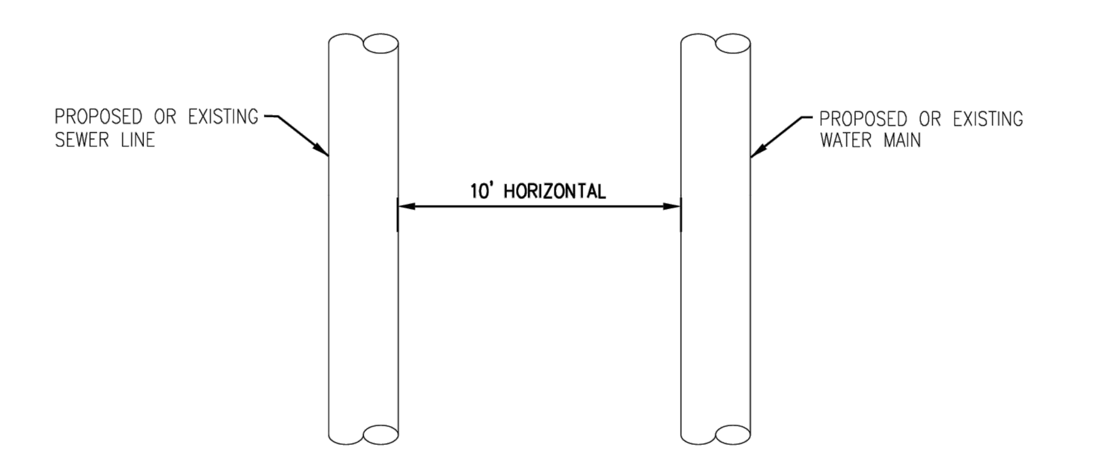
NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING SEWER LINE

*BASED ON STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.



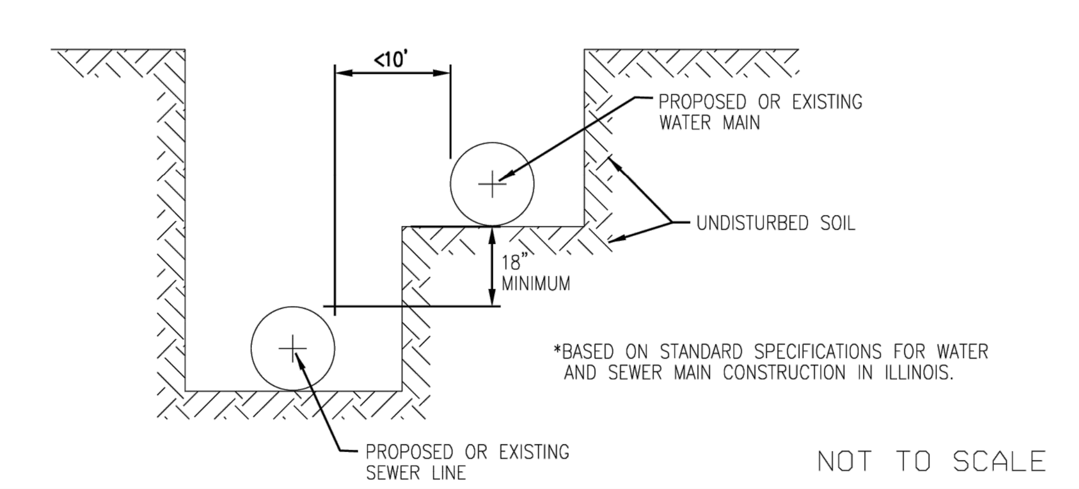
GUIDELINES
1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
3. PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT.
4. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING.

PER IEPA, WHEN **PROPOSED** SEWER (OR WATER) IS LOCATED 10 FEET OR MORE FROM EXISTING WATER (OR SEWER), NO SPECIAL CONSTRUCTION REQUIRED



PLAN VIEW

PER IEPA, WHEN **PROPOSED** SEWER (OR WATER) IS LOCATED **LESS THAN 10 FEET** FROM EXISTING WATER (OR SEWER), DETAILS BELOW SHALL APPLY

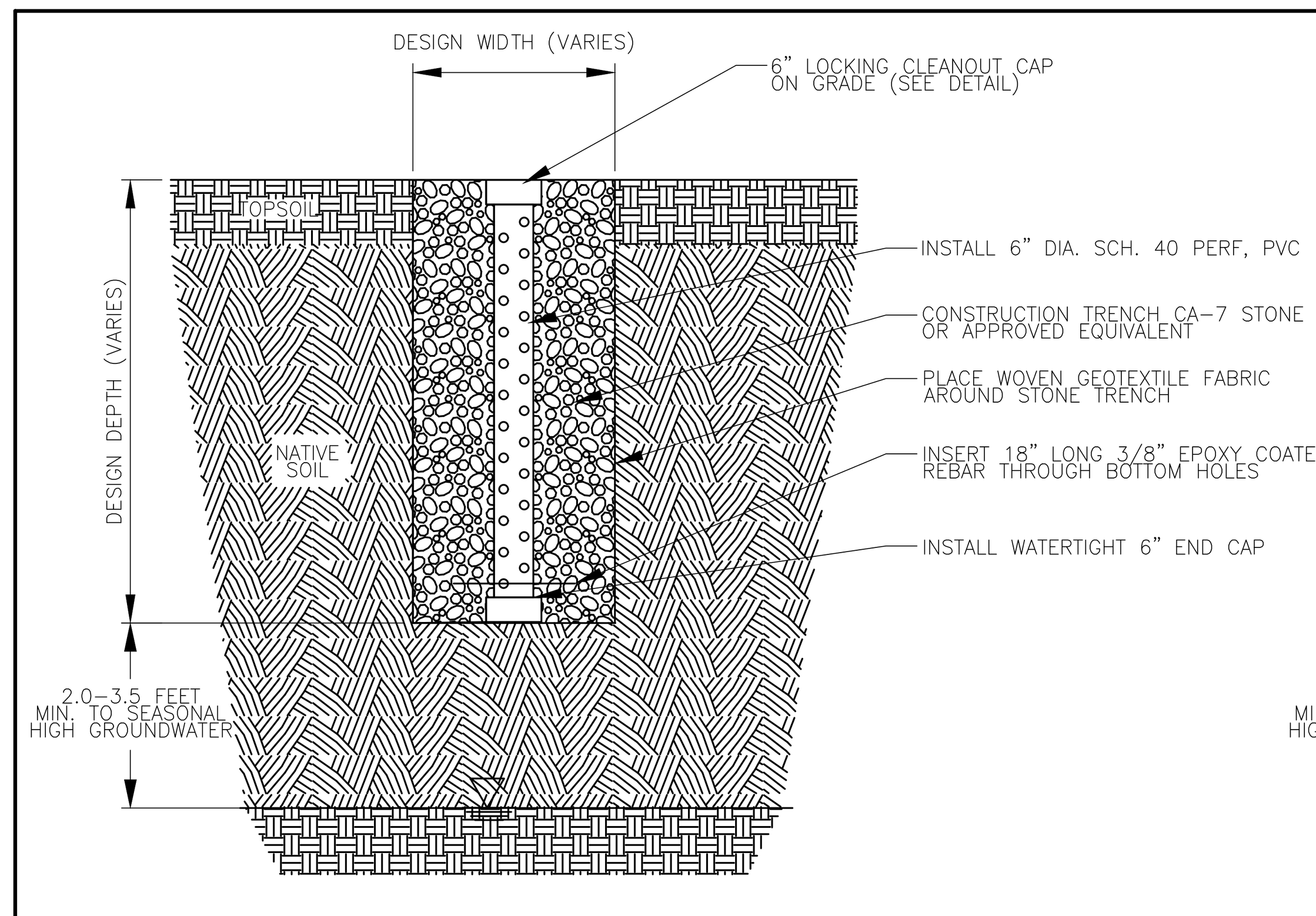


*BASED ON STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.

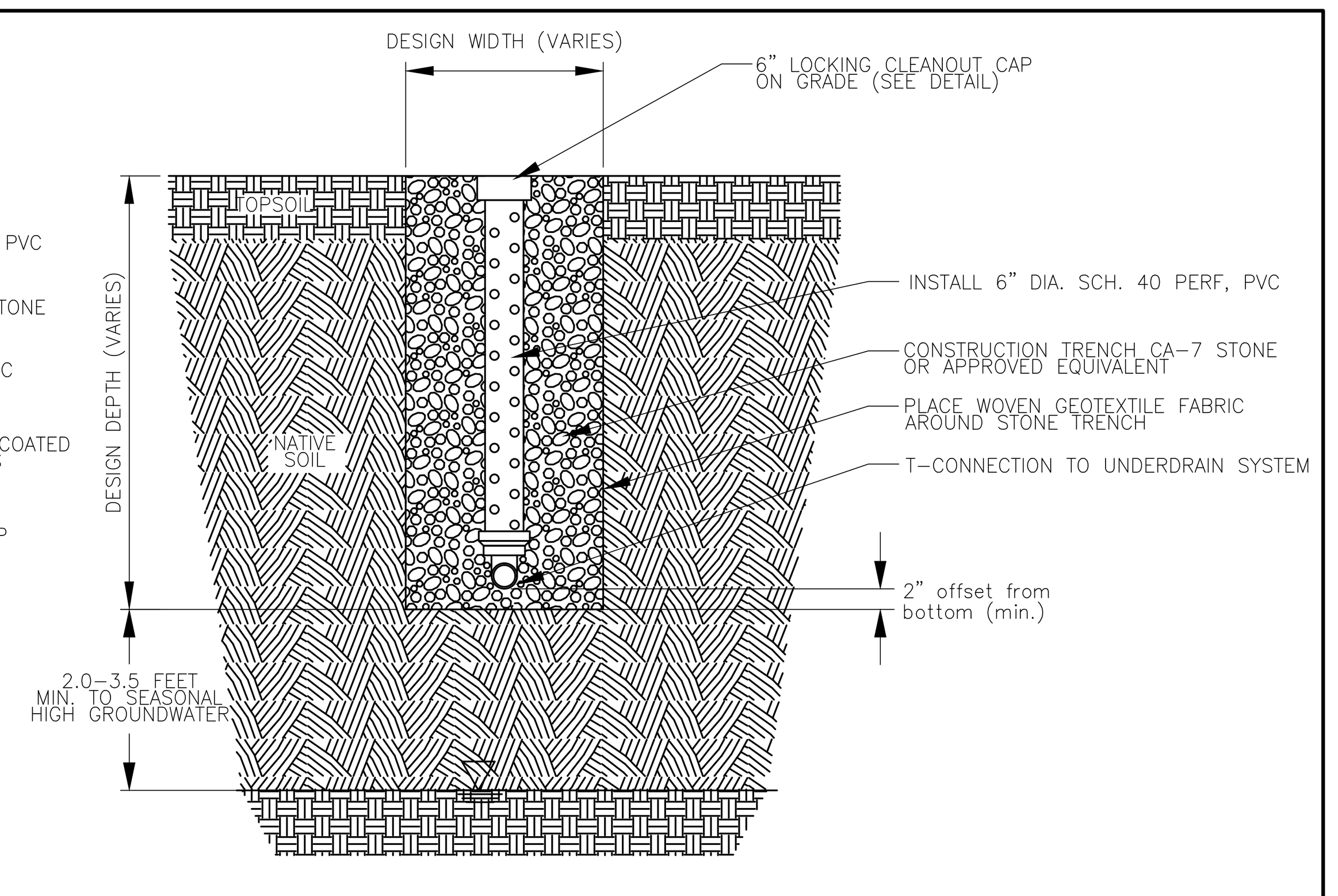
NOT TO SCALE

TECHNICAL GUIDANCE MANUAL — 7/1/15

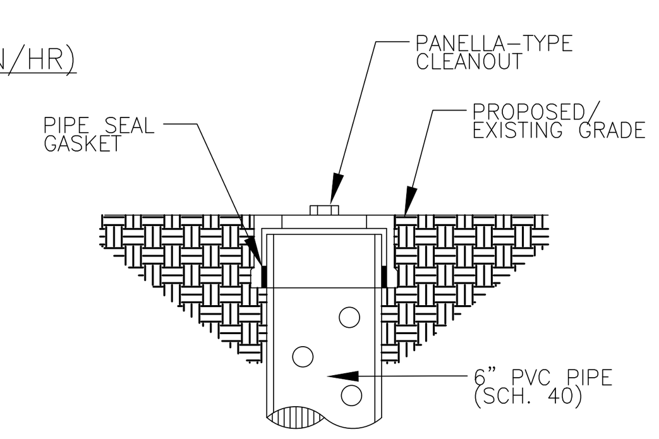
WATER AND SEWER SEPARATION REQUIREMENTS (PER IEPA) — STD. DWG. NO. 41 — PAGE NO. 42



WITHOUT UNDERDRAIN
(SOIL INFILTRATION CAPACITY ≥ 0.5 IN/HR)



WITH UNDERDRAIN
(SOIL INFILTRATION CAPACITY < 0.5 IN/HR)



OBSERVATION WELL CLEANOUT CAP DETAIL

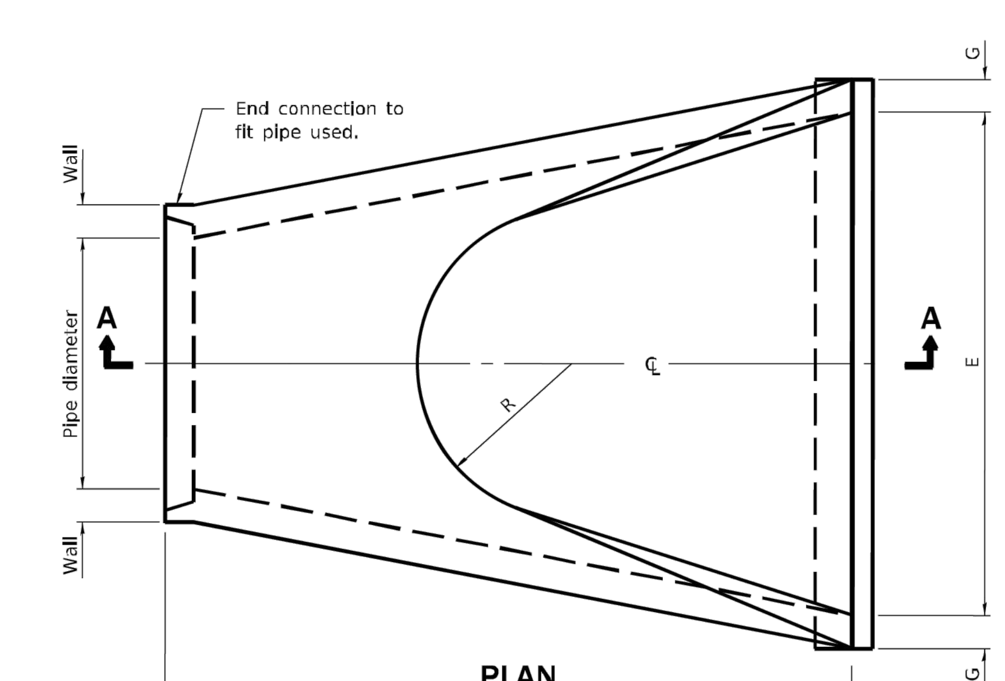
NOTES:
1) ONE OBSERVATION WELL SHALL BE INSTALLED PER 6,000 SQ. FT. OF SURFACE AREA.
2) PERFORATIONS SHALL BE 3/8" CIRCULAR HOLES, 4" ON CENTER, 90° AROUND PIPE.
3) OBSERVATION WELL FOR BIORETENTION FACILITIES SHALL EXTEND 6"-12" ABOVE GRADE AND CONTAIN AN OVERFLOW GRATE INSTEAD OF LOCKING CAP.
4) PIPES/FITTINGS SHALL BE SCHEDULE 40 PVC OR HIGHER QUALITY, 6" DIAMETER MINIMUM.

NOT TO SCALE

..\MWRD logo.jpg

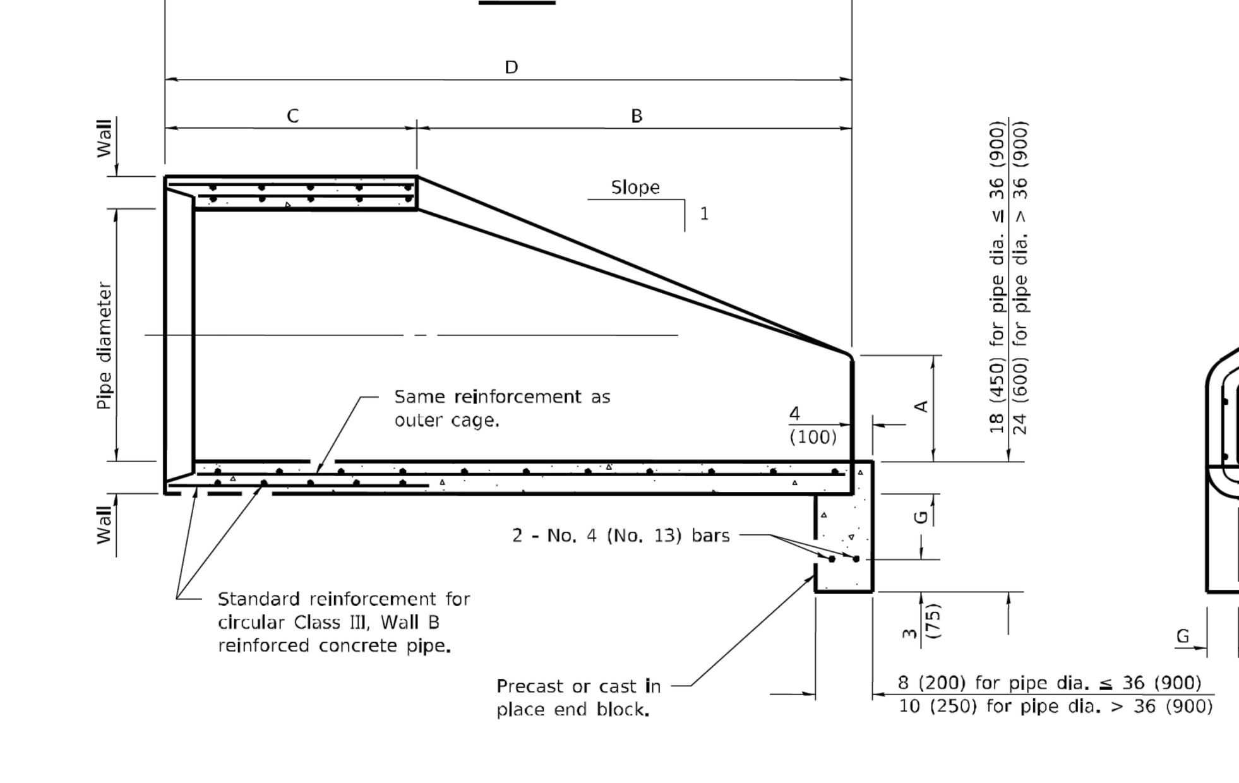
TECHNICAL GUIDANCE MANUAI — 10/11/18

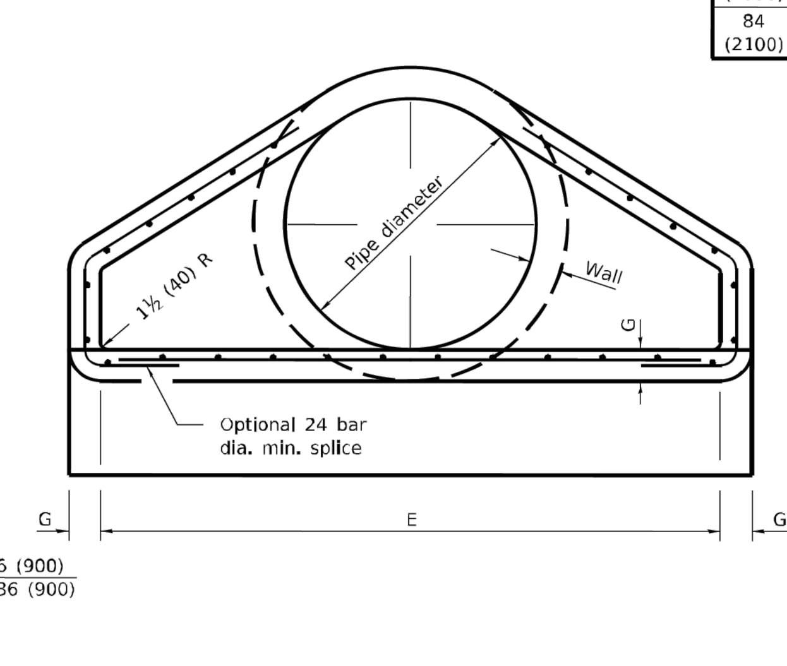
TYPICAL OBSERVATION WELL DETAIL — STD. DWG. NO.8 — PAGE NO. 9



PIPE DIA.	APPROX. QTY. lbs. (kg)	WALL	A	B	C	D	E	G	R	APPROX. SLOPE
12 (300)	530 (240)	2 (51)	4 (102)	24 (610)	4'-0⅞" (1.241 m)	6'-0⅞" (1.851 m)	24 (610)	2 (51)	9 (229)	1:2.4
15 (375)	740 (335)	2¼ (57)	6 (152)	27 (686)	3'-10" (1.168 m)	6'-1" (1.854 m)	30 (762)	2¼ (57)	11 (280)	1:2.4
18 (450)	990 (450)	2½ (64)	9 (229)	27 (686)	3'-10" (1.168 m)	6'-1" (1.854 m)	36 (914)	2½ (64)	12 (305)	1:2.4
21 (525)	1280 (580)	2¾ (70)	9 (229)	35 (889)	38 (965)	6'-1" (1.854 m)	3'-6" (1.067 m)	2¾ (70)	13 (330)	1:2.4
24 (600)	1520 (690)	3 (76)	9½ (241)	3'-7½" (1.105 m)	30 (762)	6'-1½" (1.867 m)	4'-0" (1.219 m)	3 (76)	14 (356)	1:2.5
27 (675)	1930 (875)	3¼ (83)	10½ (267)	4'-0" (1.219 m)	25½ (648)	6'-1½" (1.867 m)	4'-6" (1.372 m)	3¼ (83)	14½ (368)	1:2.4
30 (750)	2190 (995)	3½ (89)	12 (305)	4'-6" (1.375 m)	19¾ (502)	6'-1¾" (1.874 m)	5'-0" (1.524 m)	3½ (89)	15 (381)	1:2.5
33 (825)	3200 (1450)	3¾ (95)	13½ (343)	4'-10½" (1.486 m)	39¼ (997)	8'-1¾" (2.483 m)	5'-6" (1.676 m)	3¾ (95)	17½ (445)	1:2.5
36 (900)	4100 (1860)	4 (102)	15 (381)	5'-3" (1.6 m)	34¾ (883)	8'-1¾" (2.483 m)	6'-0" (1.829 m)	4 (102)	20 (508)	1:2.5
42 (1050)	5380 (2440)	4½ (114)	21 (533)	5'-3" (1.6 m)	35 (889)	8'-2" (2.489 m)	6'-6" (1.981 m)	4½ (114)	22 (559)	1:2.5
48 (1200)	6550 (2970)	5 (127)	24 (610)	6'-0" (1.829 m)	26 (660)	8'-2" (2.489 m)	7'-0" (2.134 m)	5 (127)	22 (559)	1:2.5
54 (1350)	8240 (3740)	5½ (140)	27 (686)	5'-5" (1.651 m)	35 (889)	8'-4" (2.54 m)	7'-6" (2.286 m)	5½ (140)	24 (610)	1:2.0
60 (1500)	8730 (3960)	6 (152)	35 (889)	5'-0" (1.524 m)	39 (991)	8'-3" (2.515 m)	8'-0" (2.438 m)	5 (127)	*	1:1.9
66 (1650)	10710 (4860)	6½ (165)	30 (762)	6'-0" (1.829 m)	27 (686)	8'-3" (2.515 m)	8'-6" (2.591 m)	5½ (140)	*	1:1.7
72 (1800)	12520 (5680)	7 (178)	36 (914)	6'-6" (1.981 m)	21 (533)	8'-3" (2.514 m)	9'-0" (2.743 m)	6 (152	*	1:1.8
78 (1950)	14770 (6700)	7½ (191)	36 (914)	7'-6" (2.286 m)	21 (533)	9'-3" (2.819 m)	9'-6" (2.896 m)	6½ (165)	*	1:1.8
84 (2100)	18160 (8240)	8 (203)	36 (914)	7'-6½" (2.299 m)	21 (533)	9'-3½" (2.832 m)	10'-0" (3.048 m)	6½ (165)	*	1:1.6

* Radius as furnished by manufacturer





GENERAL NOTES
All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation
APPROVED January 1, 2011 — ENGINEER OF BRIDGES AND STRUCTURES
APPROVED January 1, 2011 — ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
1-1-11	Clarified ref. to pipe dia. on Section A-A. Changed "inner" to "outer" cage ref.
1-1-09	Switched units to English (metric).

PRECAST REINFORCED CONCRETE FLARED END SECTION

STANDARD 542301-03

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Engineering • Design • Consulting

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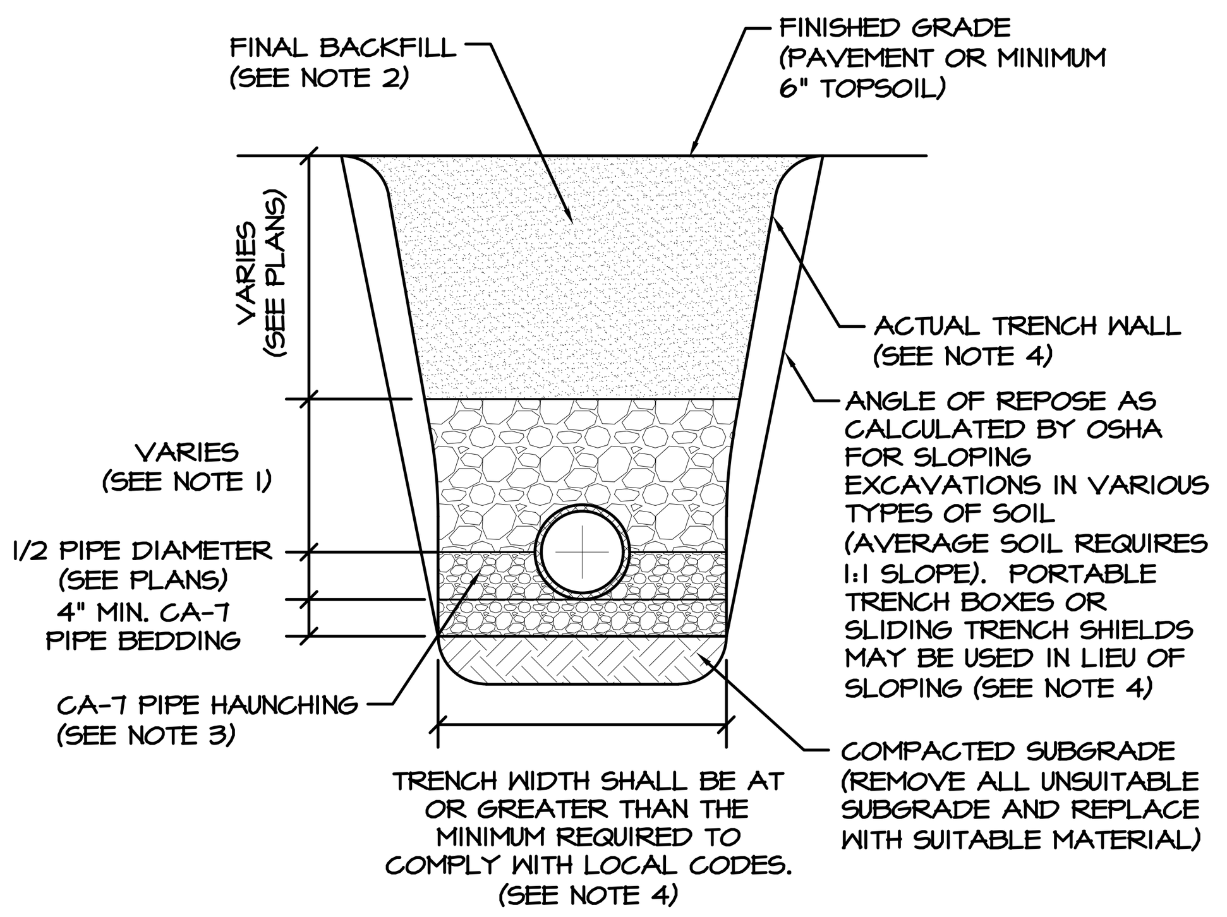
TINLEY PARK, IL 60487
GAS N WASH

ISSUE

TO	DATE
CITY	1-19-23
CCHD/IDOT	2-08-23
CITY	2-22-23
CITY	5-05-23

CHECK: JPG
DRAWN: VE
JOB:D2200035

C-3.2
SITE UTILITY DETAILS

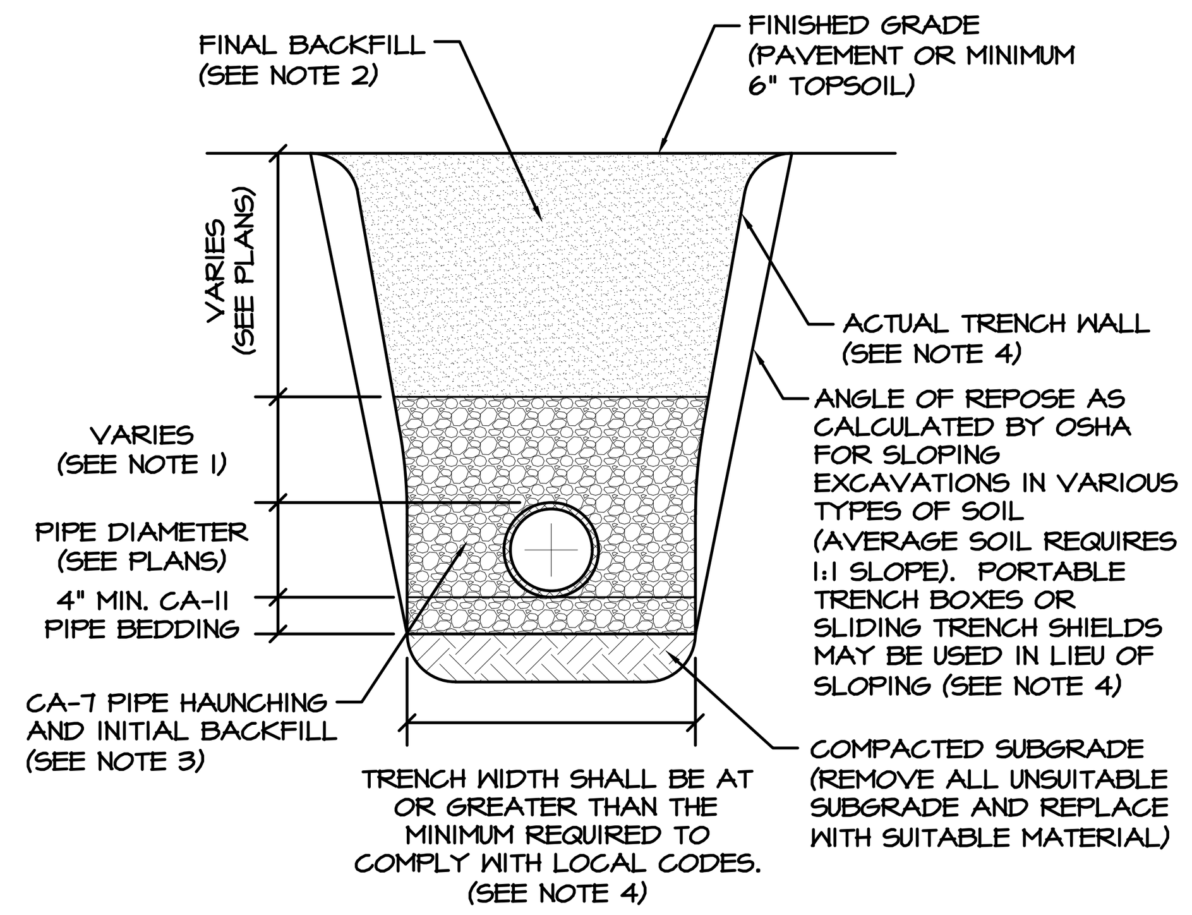


NOTES:

1. 12" MINIMUM CA-6 INITIAL BACKFILL REQUIRED OVER TOP OF PIPE.
2. BACKFILL TRENCH WITH INORGANIC EXCAVATED MATERIAL EXCEPT WHERE UNDER OR WITHIN 2' OF PAVEMENT WHERE CA-6 GRANULAR MATERIAL IS REQUIRED.
3. ALL BACKFILL MATERIALS SHALL BE PROPERLY COMPACTED ACCORDING TO THE "STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN ILLINOIS," SECTION 20-4.06.
4. ALL TRENCH EXCAVATIONS SHALL BE PROTECTED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS, LAWS AND RULES. AT A MINIMUM, THEY SHALL NOT BE LESS THAN THE STANDARDS AND REGULATIONS ESTABLISHED BY OSHA IN 29 CFR PART 1926.

DETAIL - RIGID PIPE TRENCH

NOT TO SCALE

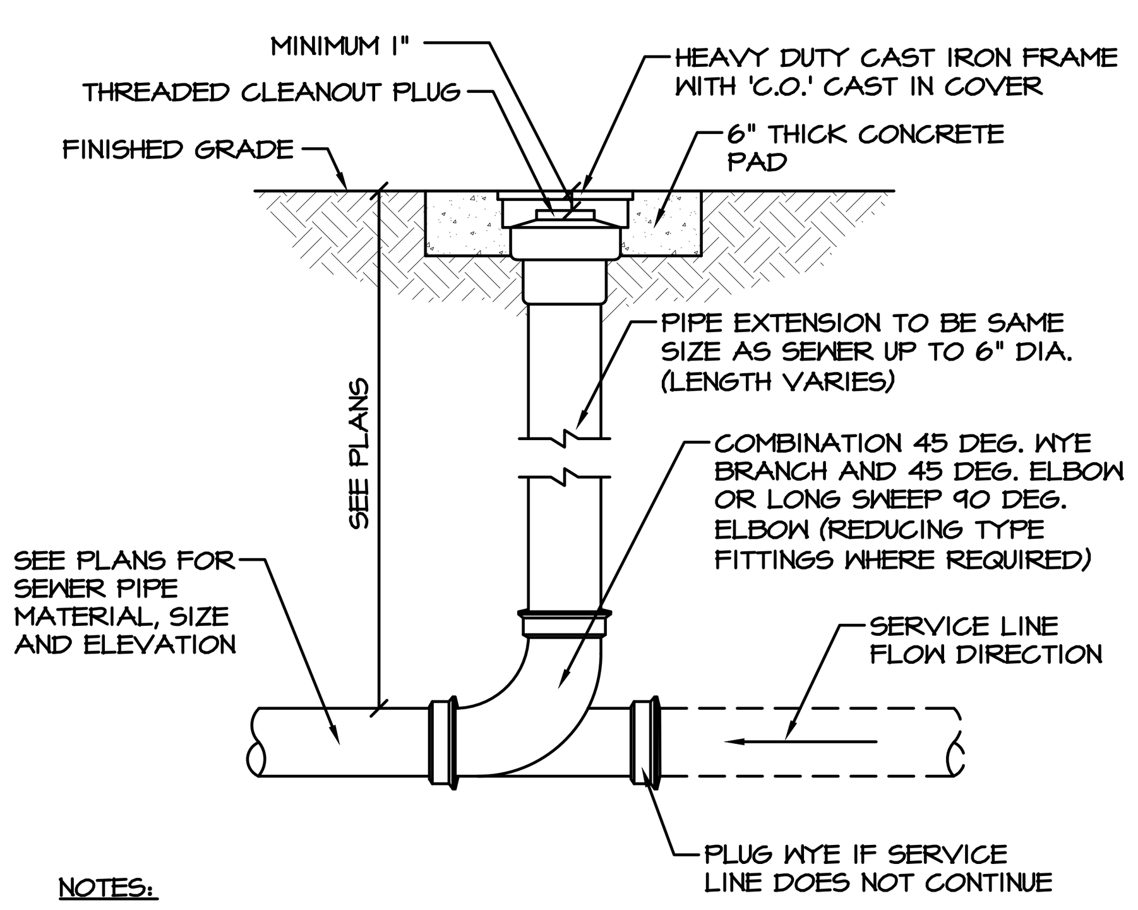


NOTES:

1. 12" MINIMUM CA-7 INITIAL BACKFILL REQUIRED FOR PIPE.
2. BACKFILL TRENCH WITH INORGANIC EXCAVATED MATERIAL EXCEPT WHERE UNDER OR WITHIN 2' OF PAVEMENT WHERE CA-6 GRANULAR MATERIAL IS REQUIRED.
3. ALL BACKFILL MATERIALS SHALL BE PROPERLY COMPACTED ACCORDING TO THE "STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN ILLINOIS," SECTION 20-4.06.
4. ALL TRENCH EXCAVATIONS SHALL BE PROTECTED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS, LAWS AND RULES. AT A MINIMUM, THEY SHALL NOT BE LESS THAN THE STANDARDS AND REGULATIONS ESTABLISHED BY OSHA IN 29 CFR PART 1926.

DETAIL - FLEXIBLE PIPE TRENCH

NOT TO SCALE

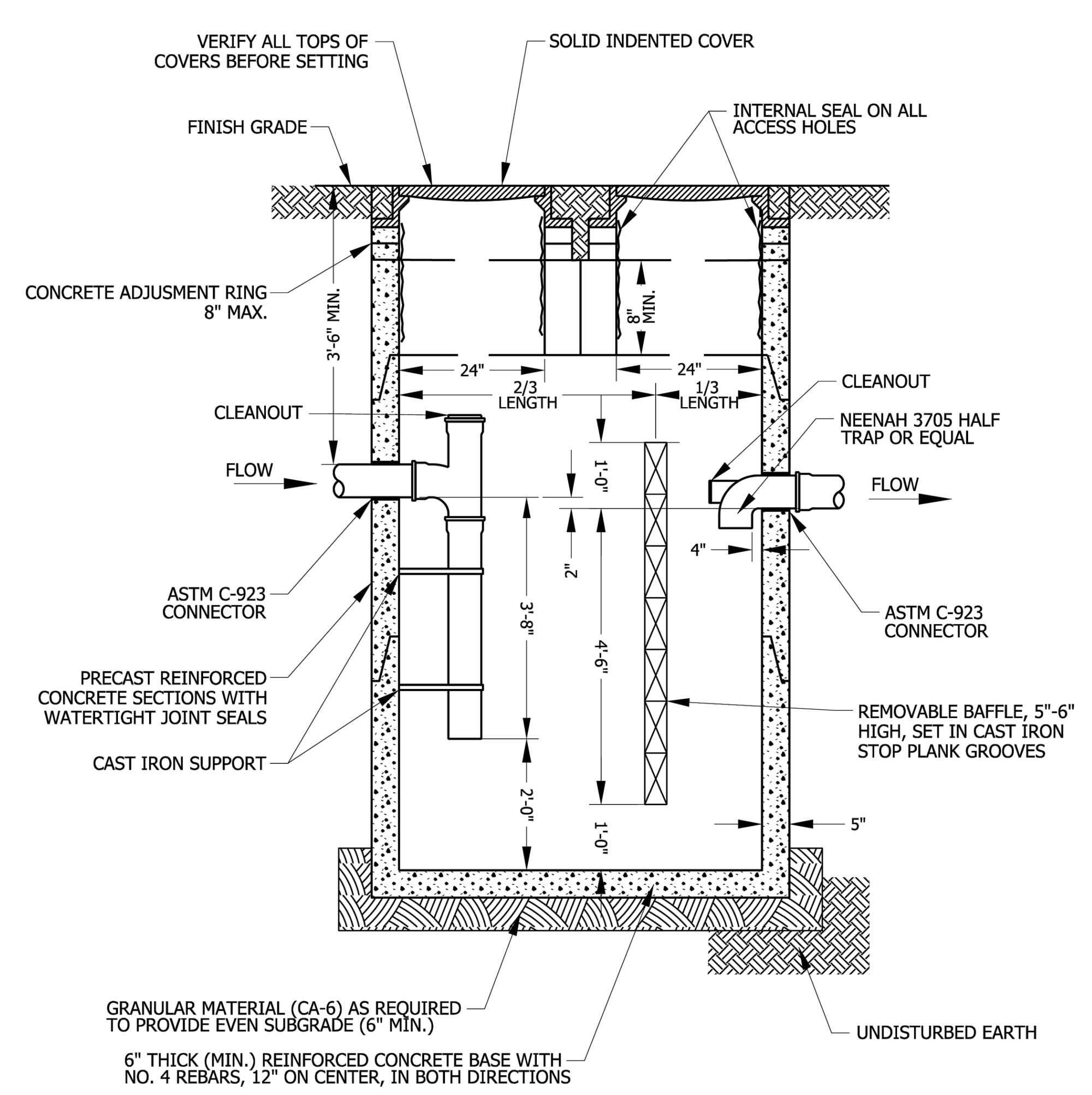


NOTES:

1. SEE APPLICABLE DETAIL FOR BEDDING AND BACKFILL REQUIREMENTS.

DETAIL - CLEAN OUT

NOT TO SCALE

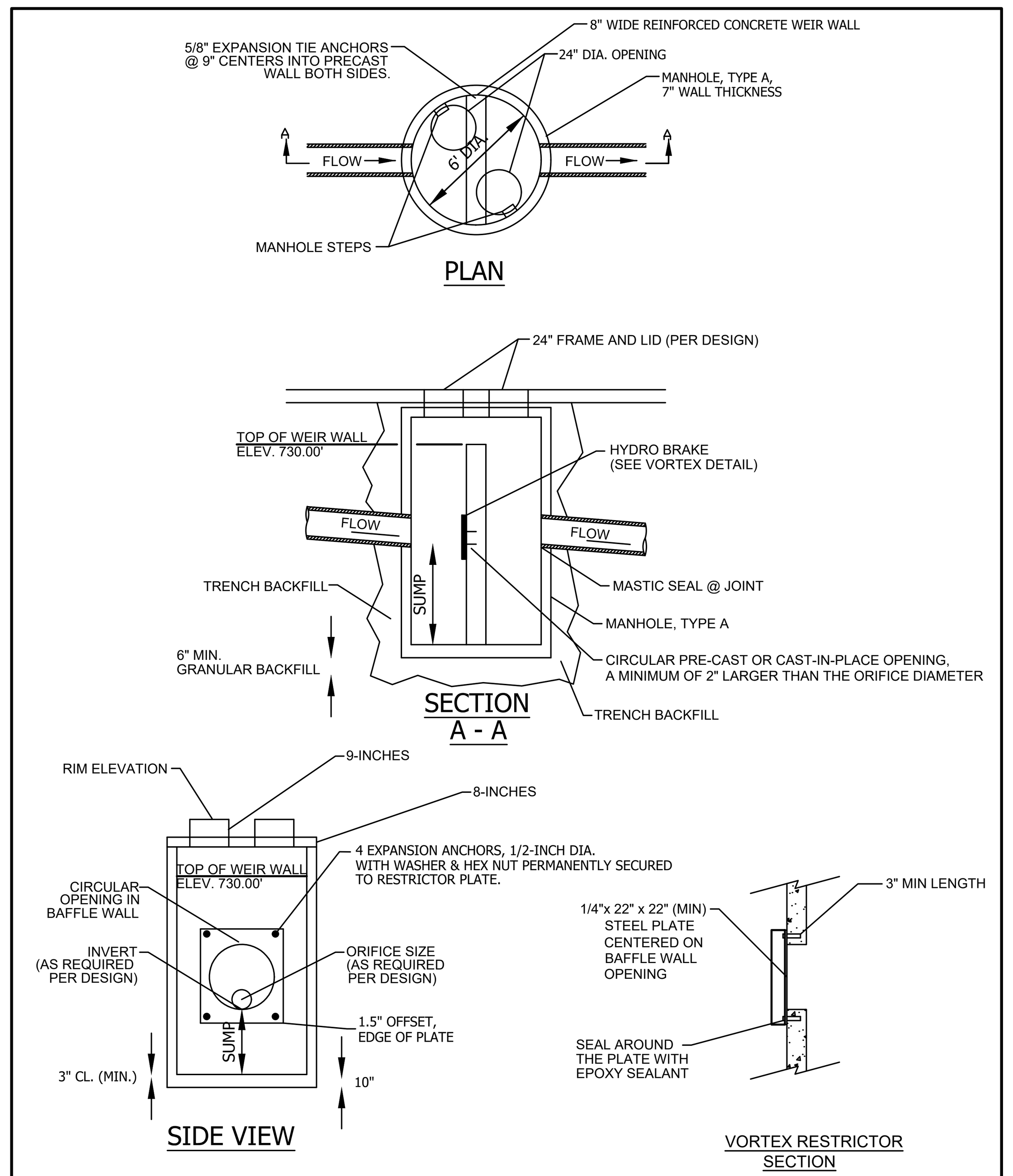


NOTES:

1. IF RIM ELEVATION IS LOWER THAN FLOOD PROTECTION ELEVATION, A WATERTIGHT FRAME WITH BOLTED DOWN LID SHALL BE USED.
2. DISHWASHER DISCHARGE SHALL BYPASS GREASE BASIN.
3. TRIPLE BASINS ARE ALSO ACCEPTABLE.

NOT TO SCALE

TECHNICAL GUIDANCE MANUAL	7/1/15
LARGE GREASE BASIN (>500 GALLONS)	STD. DWG. NO. 36
	PAGE NO. 37



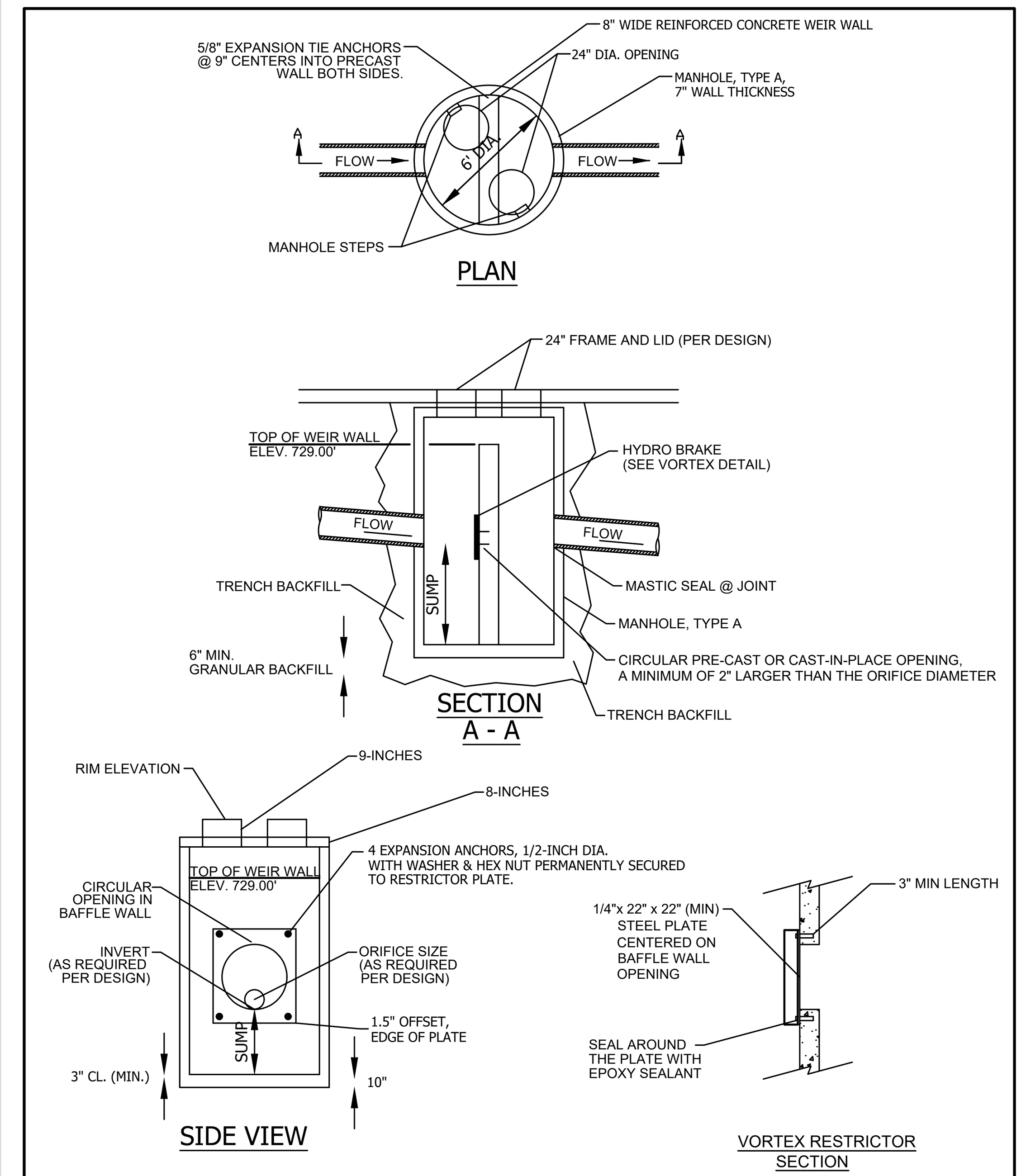
NOTES:

1. STRUCTURE AND BAFFLE WALL FABRICATED USING REINFORCED PORTLAND CEMENT CONCRETE.
2. RESTRICTORS LESS THAN 4" IN DIAMETER PROVIDE HOOD/SNOUT OR WIRE MESH
3. BAFFLE WALL PERMANENTLY INSTALLED AS PRECAST OR CAST-IN-PLACE
4. PIPE TO STRUCTURE CONNECTIONS SHALL BE ASTM C923 IN COMBINED SEWER AREAS.
5. CAUTION: 1/4-INCH STEEL PLATE DIMENSIONS TO BEST FIT PROPOSED STRUCTURE.
6. ANCHOR EMBEDMENT SHALL BE 3-INCHES MINIMUM.
7. SEE STRUCTURAL PLANS FOR REINFORCEMENT DETAILS.

NOT TO SCALE

TECHNICAL GUIDANCE MANUAL	10/04/2019
TYPICAL OUTLET CONTROL STRUCTURE (WALL) DETAIL	STD. DWG. NO.25
	PAGE NO. 26

DETAIL - 72" DIA RESTRICTOR STRUCTURE #50



NOTES:

1. STRUCTURE AND BAFFLE WALL FABRICATED USING REINFORCED PORTLAND CEMENT CONCRETE.
2. RESTRICTORS LESS THAN 4" IN DIAMETER PROVIDE HOOD/SNOUT OR WIRE MESH
3. BAFFLE WALL PERMANENTLY INSTALLED AS PRECAST OR CAST-IN-PLACE
4. PIPE TO STRUCTURE CONNECTIONS SHALL BE ASTM C923 IN COMBINED SEWER AREAS.
5. CAUTION: 1/4-INCH STEEL PLATE DIMENSIONS TO BEST FIT PROPOSED STRUCTURE.
6. ANCHOR EMBEDMENT SHALL BE 3-INCHES MINIMUM.
7. SEE STRUCTURAL PLANS FOR REINFORCEMENT DETAILS.

NOT TO SCALE

TECHNICAL GUIDANCE MANUAL	10/04/2019
TYPICAL OUTLET CONTROL STRUCTURE (WALL) DETAIL	STD. DWG. NO.25
	PAGE NO. 26

DETAIL - 72" DIA RESTRICTOR STRUCTURE #7

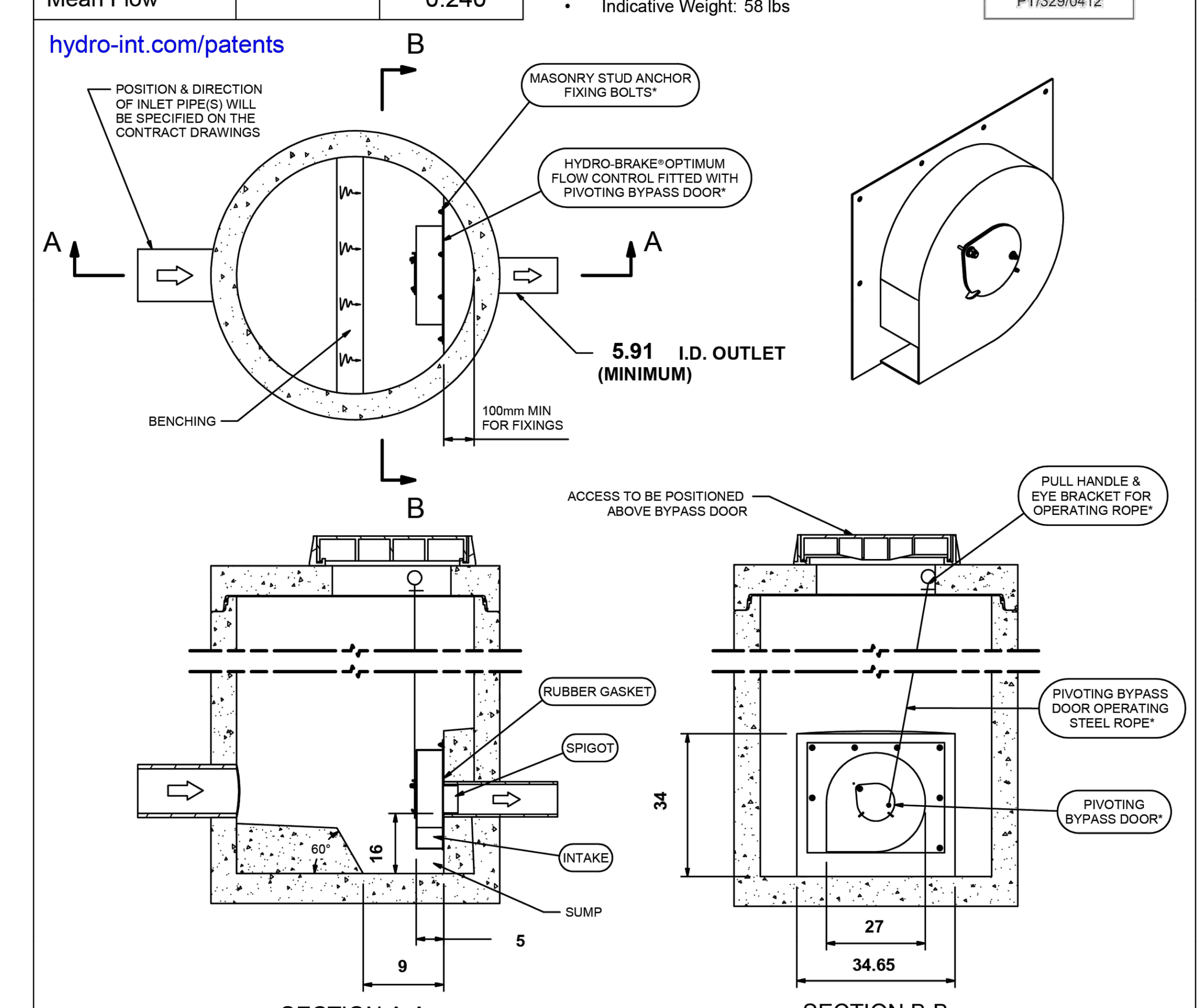
Technical Specification		
Control Point	Head (ft)	Flow (cfs)
Primary Design	7.100	0.290
Flush-Flo™	1.450	0.270
Kick-Flo®	3.256	0.202
Mean Flow		0.240

Hydro-Brake® Optimum Flow Control including:

- 0.118 grade 304L stainless steel
- Integral stainless steel pivoting by-pass door allowing clear line of sight through to outlet, c/w stainless steel operating rope
- Bead blasted finish to maximise corrosion resistance
- Stainless steel fixings
- Rubber gasket to seal outlet
- Indicative Weight: 58 lbs

PT/329/0412

hydro-int.com/patents



IMPORTANT: LIMIT OF HYDRO INTERNATIONAL SUPPLY. THE DEVICE WILL BE HANDED TO SUIT SITE CONDITIONS. FOR SITE SPECIFIC DETAILS AND MINIMUM CHAMBER SIZE REFER TO HYDRO INTERNATIONAL. ALL CIVIL AND INSTALLATION WORK BY OTHERS. * WHERE SUPPLIED. HYDRO-BRAKE® FLOW CONTROL & HYDRO-BRAKE® OPTIMUM FLOW CONTROL ARE REGISTERED TRADEMARKS FOR FLOW CONTROLS DESIGNED AND MANUFACTURED EXCLUSIVELY BY HYDRO INTERNATIONAL

THIS DESIGN LAYOUT IS FOR ILLUSTRATIVE PURPOSES ONLY. NOT TO SCALE.

DESIGN ADVICE: The head/flow characteristics of this SCL-0111-8212-2164-8212 Hydro-Brake® Optimum Flow Control are unique. Dynamic hydraulic modelling evaluates the full head/flow characteristic curve. **The use of any other flow control will invalidate any design based on this data and could constitute a flood risk.**

Hydro International

DATE	1/19/2023 2:10 PM	SCL-0111-8212-2164-8212
SITE	GNW Tinley Park	Hydro-Brake® Optimum
DESIGNER	Dhruv Chaudhari	
REF	50	

dchaudhari@wtgroup.com

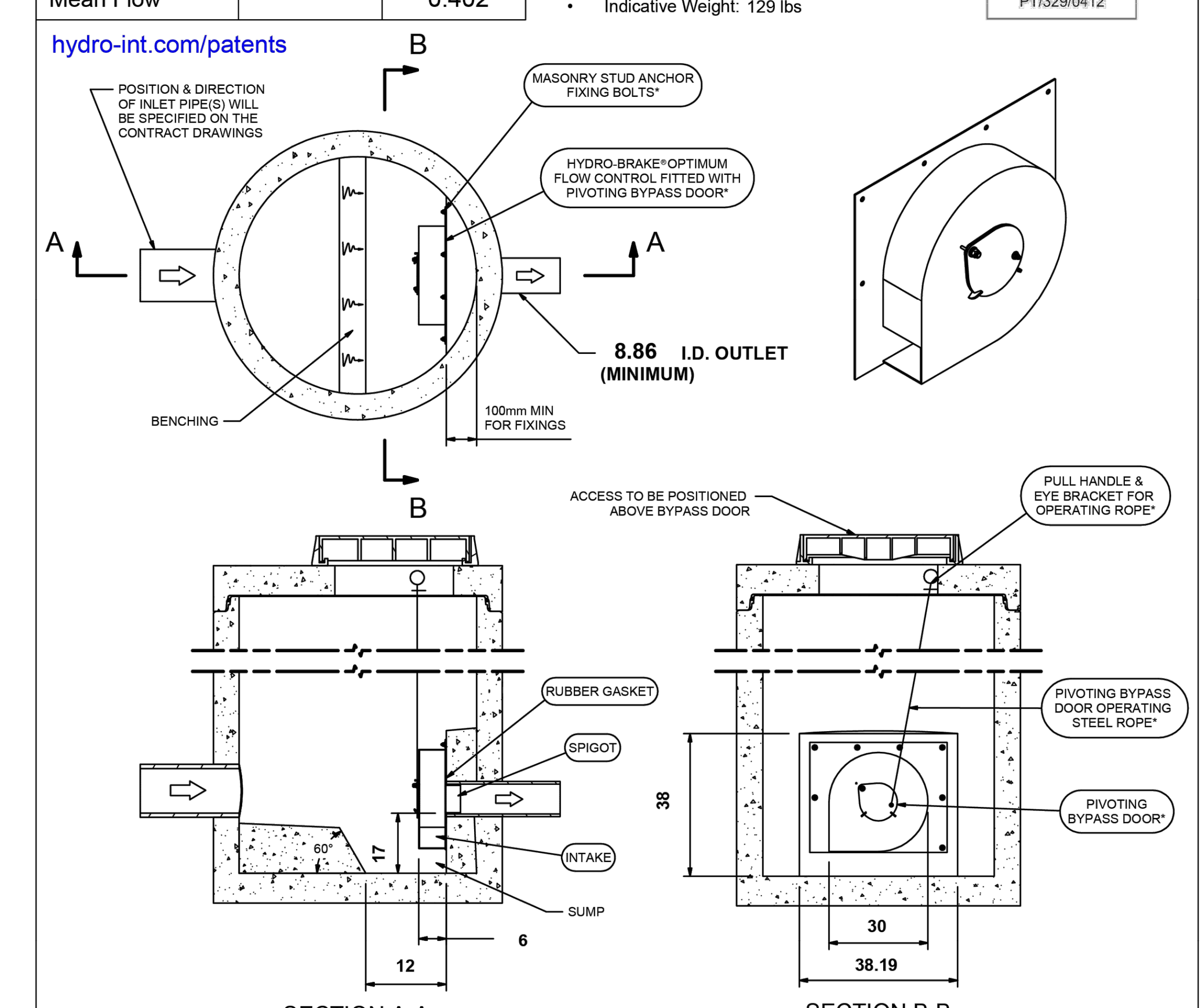
Technical Specification		
Control Point	Head (ft)	Flow (cfs)
Primary Design	6.500	0.470
Flush-Flo™	1.477	0.467
Kick-Flo®	3.429	0.348
Mean Flow		0.402

Hydro-Brake® Optimum Flow Control including:

- 0.196 grade 304L stainless steel
- Integral stainless steel pivoting by-pass door allowing clear line of sight through to outlet, c/w stainless steel operating rope
- Bead blasted finish to maximise corrosion resistance
- Stainless steel fixings
- Rubber gasket to seal outlet
- Indicative Weight: 129 lbs

PT/329/0412

hydro-int.com/patents



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THIS DESIGN LAYOUT IS FOR ILLUSTRATIVE PURPOSES ONLY. NOT TO SCALE.

DESIGN ADVICE: The head/flow characteristics of this SCL-0144-1330-1981-1330 Hydro-Brake® Optimum Flow Control are unique. Dynamic hydraulic modelling evaluates the full head/flow characteristic curve. **The use of any other flow control will invalidate any design based on this data and could constitute a flood risk.**

Hydro International

DATE	1/19/2023 2:09 PM	SCL-0144-1330-1981-1330
SITE	GNW Tinley Park	Hydro-Brake® Optimum
DESIGNER	Dhruv Chaudhari	
REF	7	

dchaudhari@wtgroup.com

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GAS N WASH

ISSUE

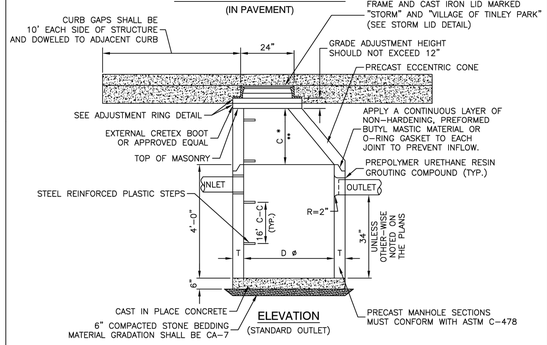
TO	DATE
CITY	1-19-23
CCHD/IDOT	2-08-23
CITY	2-22-23
CITY	5-05-23

CHECK: JPG
DRAWN: VE
JOB:D2200035

C-3.3
SITE UTILITY DETAILS

CATCH BASIN TYPE A

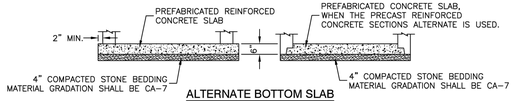
(IN PAVEMENT)



ALTERNATE MATERIALS FOR WALLS	D	C	T
PRECAST REINFORCED CONCRETE SECTION	4'-0" 5'-0"	2'-6" 3'-9"	4" 5"
CAST-IN-PLACE CONCRETE	4'-0" 5'-0"	2'-6" 3'-9"	6" 6"

* DIMENSION "C" FOR PRECAST REINFORCED CONCRETE SECTION MAY VARY FROM THE DIMENSION GIVEN ±6".

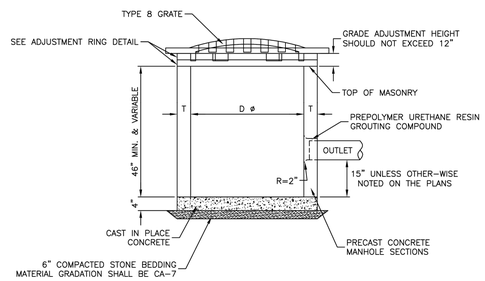
** SEE DETAIL FOR PRECAST REINFORCED CONCRETE FLAT SLAB TOP.



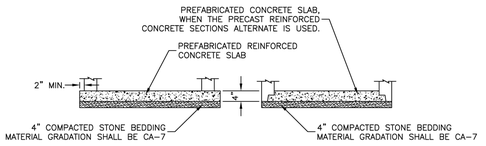
ALTERNATE BOTTOM SLAB

NOTES:
1. ALL CATCH BASINS SHALL BE 4'-0"ø UNLESS OTHERWISE NOTED ON THE PLANS.
2. USE ECCENTRIC CONES UNLESS OTHERWISE INDICATED ON THE DRAWINGS. FLAT SLAB TOPS PERMITTED ONLY FOR MANHOLES TOO SHALLOW FOR CONES.
3. USE THE TYPE OF FRAME AND COVER INDICATED ON THE DRAWINGS.
4. CAST-IN-PLACE STORM STRUCTURES WILL BE CONSIDERED BY THE VILLAGE, IF NECESSARY. SHOP DRAWINGS SHALL BE SUBMITTED AND APPROVED BY THE VILLAGE ENGINEER PRIOR TO THE START OF THE PROJECT.

CATCH BASIN TYPE C



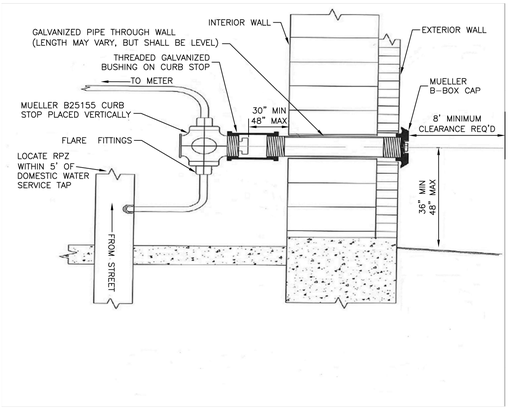
ALTERNATE MATERIALS FOR WALLS	D	T
PRECAST REINFORCED CONCRETE SECTION	2'-0"	3"
CAST-IN-PLACE CONCRETE	2'-0"	6"



ALTERNATE BOTTOM SLAB

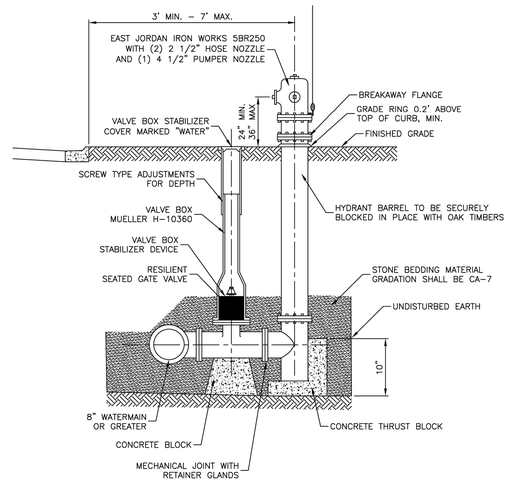
NOTE:
1. CAST-IN-PLACE STORM STRUCTURES WILL BE CONSIDERED BY THE VILLAGE, IF NECESSARY. SHOP DRAWINGS SHALL BE SUBMITTED AND APPROVED BY THE VILLAGE ENGINEER PRIOR TO THE START OF THE PROJECT.

COMMERCIAL PRIVATE WATER SERVICE DETAIL



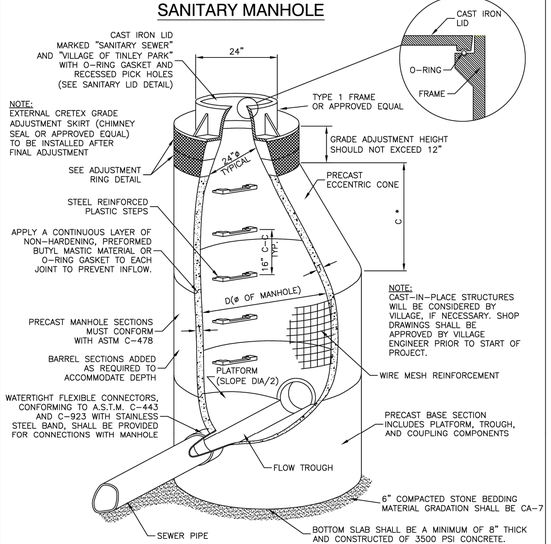
NOTES:
1. CURB STOP SHALL BE IN HEATED SPACE.
2. TYPICAL APPLICATION FOR RETROFIT OF SINGLE AND MULTI-UNIT COMMERCIAL OR MULTI-FAMILY RESIDENTIAL WITH MULTIPLE METERS SERVICED BY ONE EXTERIOR SUPPLY PIPE.
3. NON-ACCESSIBILITY WILL REQUIRE VILLAGE ACCESS INTO THE BUILDING.

FIRE HYDRANT INSTALLATION



NOTES:
1. HYDRANTS SHALL BE INSTALLED FACING TOWARD THE CURB. NO HYDRANT SHALL BE INSTALLED WITHIN 48" OF ANY OBSTRUCTION NOR SHALL ANY OBSTRUCTION BE PLACED WITHIN 48" OF A HYDRANT. ALL HYDRANTS SHALL BE PAINTED SAFETY YELLOW BY THE MANUFACTURER.
2. ALL VALVES SHALL OPEN COUNTER CLOCKWISE AND CLOSE CLOCKWISE WITH NON-RISING STEM.
3. HYDRANT DRAIN HOLE SHALL BE FREE OF CONCRETE.

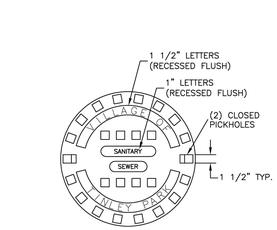
SANITARY MANHOLE

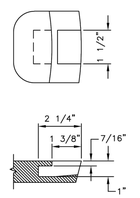


ALTERNATE WALL MATERIALS	D	C	T
PRECAST REINFORCED CONCRETE SECTION	4'-0" 5'-0"	2'-6" 3'-9"	4" 5"
CAST-IN-PLACE CONCRETE	4'-0" 5'-0"	2'-6" 3'-9"	6" 6"

* DIMENSION "C" FOR PRECAST REINFORCED CONCRETE SECTION MAY VARY FROM THE DIMENSION GIVEN ±6"

SPECIAL LETTERED SANITARY MANHOLE LID

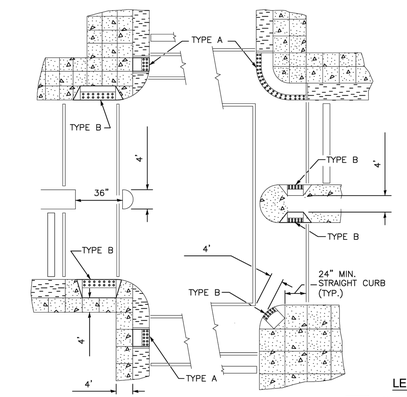




CLOSED PICKHOLE DETAIL

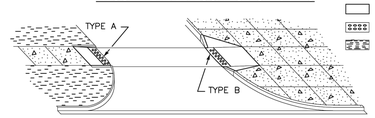
GROOVE DETAIL

SIDEWALK RAMP DETAILS



RECOMMENDED LOCATION OF RAMPS

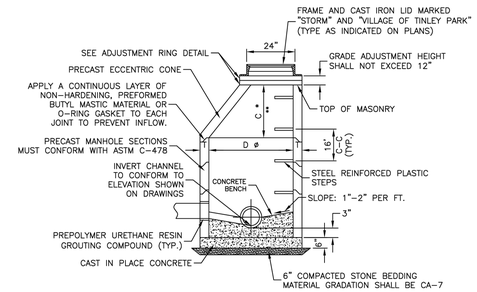
LEGEND
- SIDEWALK
- RAMP
- DETECTABLE WARNINGS
- NON WALKING AREA



RAMPS AT ALLEYS OR ENTRANCES

NOTES:
1. DETECTABLE WARNING SURFACES SHALL BE 2'X5' ARMOR-TILE, ADA SOLUTIONS OR APPROVED EQUAL CAST-IN-PLACE INLINE TRUNCATED DOME TILE, FEDERAL STANDARD COLOR 30166 BRICK RED. A ONE INCH MINIMUM; TWO INCH MAXIMUM SIDE BORDER IS REQUIRED WHEN INSTALLED ON FIVE FOOT WIDE SIDEWALKS. SHALL BE PERPENDICULAR TO ALIGNMENT OF SIDEWALK.
2. FOR ADDITIONAL DETAILS, SEE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD DRAWING 424001-10, 424011-03 & 424021-04 CURB RAMPS FOR SIDEWALKS.

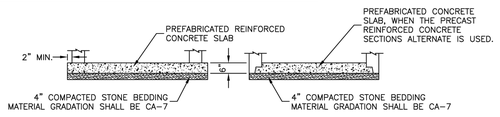
STORM MANHOLE



ALTERNATE MATERIALS FOR WALLS	D	C	T
PRECAST REINFORCED CONCRETE SECTION	4'-0" 5'-0"	2'-6" 3'-9"	4" 5"
CAST-IN-PLACE CONCRETE	4'-0" 5'-0"	2'-6" 3'-9"	6" 6"

* DIMENSION "C" FOR PRECAST REINFORCED CONCRETE SECTION MAY VARY FROM THE DIMENSION GIVEN ±6".

** SEE DETAIL FOR PRECAST REINFORCED CONCRETE FLAT SLAB TOP.



ALTERNATE BOTTOM SLAB

NOTES:
1. ECCENTRIC CONES REQUIRED, UNLESS OTHERWISE INDICATED ON DRAWINGS. FLAT SLAB TOPS PERMITTED ONLY FOR MANHOLES TOO SHALLOW FOR CONES.
2. USE 4'-0"ø FOR SEWER SIZES 8" THRU 21", 5'-0"ø FOR SEWER SIZES 24" THRU 33" UNLESS OTHERWISE NOTED.
3. CAST-IN-PLACE STORM STRUCTURES WILL BE CONSIDERED BY THE VILLAGE, IF NECESSARY. SHOP DRAWINGS SHALL BE SUBMITTED AND APPROVED BY THE VILLAGE ENGINEER PRIOR TO THE START OF PROJECT.

AQUATIC \ CIVIL \ MECHANICAL \ ELECTRICAL \ PLUMBING \ TELECOMMUNICATION \ STRUCTURAL \ ACCESSIBILITY CONSULTING \ DESIGN & PROGRAM MANAGEMENT \ LAND SURVEY

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RETAIL PETROLEUM FACILITY
18301 LA GRANGE ROAD
TINLEY PARK, IL 60487

GAS N WASH

ISSUE

TO	DATE
CITY	1-19-23
CCHD/IDOT	2-08-23
CITY	2-22-23
CITY	5-05-23

CHECK: JPG
DRAWN: VE
JOB:D2200035

C-3.4
SITE UTILITY DETAILS

RECOMMENDED ACCESS OPENING SPECIFICATION

1. A TYPICAL ACCESS OPENING FOR THE STORMTRAP SYSTEM ARE 2'-0" IN DIAMETER. ACCESS OPENINGS LARGER THAN 3'-0" IN DIAMETER NEED TO BE APPROVED BY STORMTRAP. ALL OPENINGS MUST RETAIN AT LEAST 1'-0" OF CLEARANCE FROM THE END OF THE STORMTRAP MODULE UNLESS NOTED OTHERWISE. ALL ACCESS OPENINGS TO BE LOCATED ON INSIDE LEG UNLESS OTHERWISE SPECIFIED.
2. PLASTIC COATED STEEL STEPS PRODUCED BY M.A. INDUSTRIES PART #PS3-PFC OR APPROVED EQUAL (SEE STEP DETAIL) ARE PROVIDED INSIDE ANY MODULE WHERE DEEMED NECESSARY. THE HIGHEST STEP IN THE MODULE IS TO BE PLACED A DISTANCE OF 1'-0" FROM THE INSIDE EDGE OF THE STORMTRAP MODULES. ALL ENSUING STEPS SHALL BE PLACED AT A DISTANCE BETWEEN 10" MIN AND 14" MAX BETWEEN THEM. STEPS MAY BE MOVED OR ALTERED TO AVOID OPENINGS OR OTHER IRREGULARITIES IN THE MODULE.
3. STORMTRAP LIFTING INSERTS MAY BE RELOCATED TO AVOID INTERFERENCE WITH ACCESS OPENINGS OR THE CENTER OF GRAVITY OF THE MODULE AS NEEDED.
4. STORMTRAP ACCESS OPENINGS MAY BE RELOCATED TO AVOID INTERFERENCE WITH INLET AND/OR OUTLET PIPE OPENINGS SO PLACEMENT OF STEPS IS ATTAINABLE.
5. ACCESS OPENINGS SHOULD BE LOCATED IN ORDER TO MEET THE APPROPRIATE MUNICIPAL REQUIREMENTS. STORMTRAP RECOMMENDS AT LEAST TWO ACCESS OPENINGS PER SYSTEM FOR ACCESS AND INSPECTION.
6. USE PRECAST ADJUSTING RINGS AS NEEDED TO MEET GRADE. STORMTRAP RECOMMENDS FOR COVER OVER 2' TO USE PRECAST BARREL OR CONE SECTIONS. (PROVIDED BY OTHERS)

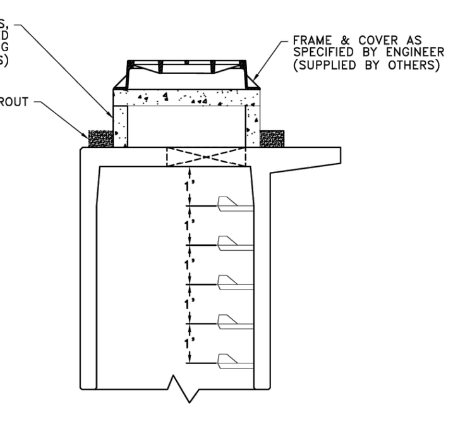
RECOMMENDED PIPE OPENING SPECIFICATION

1. MINIMUM EDGE DISTANCE FOR AN OPENING ON THE OUTSIDE WALL SHALL BE NO LESS THAN 1'-0".
2. MAXIMUM OPENING SIZE TO BE DETERMINED BY THE MODULE HEIGHT. PREFERRED OPENING SIZE IS ø 36" OR LESS. ANY OPENING NEEDED THAT DOES NOT FIT THIS CRITERIA SHALL BE BROUGHT TO THE ATTENTION OF STORMTRAP FOR REVIEW.
3. CONNECTING PIPES SHALL BE INSTALLED WITH A 1'-0" CONCRETE COLLAR, AND AN AGGREGATE CRADLE FOR AT LEAST ONE PIPE LENGTH (SEE PIPE CONNECTION DETAIL). A STRUCTURAL GRADE CONCRETE OR HIGH STRENGTH, NON-SHRINK GROUT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI SHALL BE USED.
4. THE ANNULAR SPACE BETWEEN THE PIPE AND THE HOLE SHALL BE FILLED WITH HIGH STRENGTH NON-SHRINK GROUT.

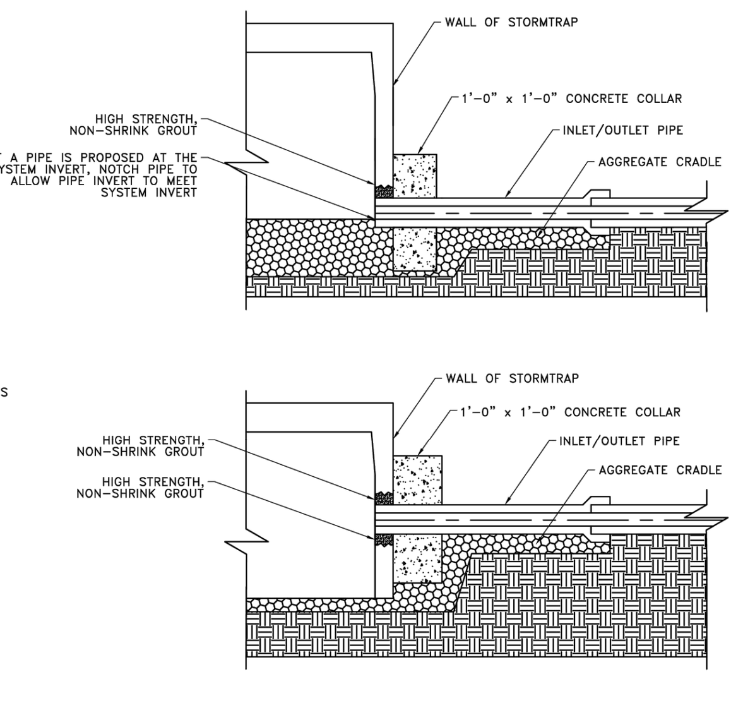
RECOMMENDED PIPE INSTALLATION INSTRUCTIONS

1. CLEAN AND LIGHTLY LUBRICATE ALL OF THE PIPE TO BE INSERTED INTO STORMTRAP.
2. IF PIPE IS CUT, CARE SHOULD BE TAKEN TO ALLOW NO SHARP EDGES. BEVEL AND LUBRICATE LEAD END OF PIPE.
3. ALIGN CENTER OF PIPE TO CORRECT ELEVATION AND INSERT INTO OPENING.

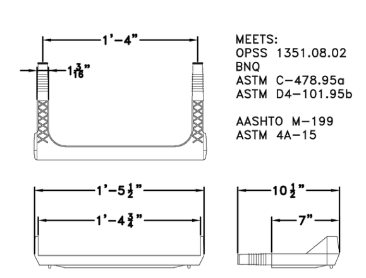
NOTE: ALL ANCILLARY PRODUCTS/SPECIFICATIONS RECOMMENDED AND SHOWN ON THIS SHEET ARE RECOMMENDATIONS ONLY AND SUBJECT TO CHANGE PER THE INSTALLING CONTRACTOR AND/OR PER LOCAL MUNICIPAL CODE/REQUIREMENTS.



RISER / STAIR DETAIL



PIPE CONNECTION DETAIL



STEP DETAIL

*** NOTICE *** 03-25-2022
DUE TO CURRENT INCONSISTENCIES IN THE 16" STEP SUPPLY, STORMTRAP MAY SUBSTITUTE THE 16" STEP WITH THE CLOSEST ALTERNATIVE LENGTH STEP UNTIL THE SUPPLY CHAIN ISSUE IS RESOLVED.

StormTrap®
PATENTS LISTED AT: [HTTP://STORMTRAP.COM/PATENT]
1287 WINDHAM PARKWAY
ROMEOVILLE, IL 60446
P:815-941-4549 / F:331-318-5347

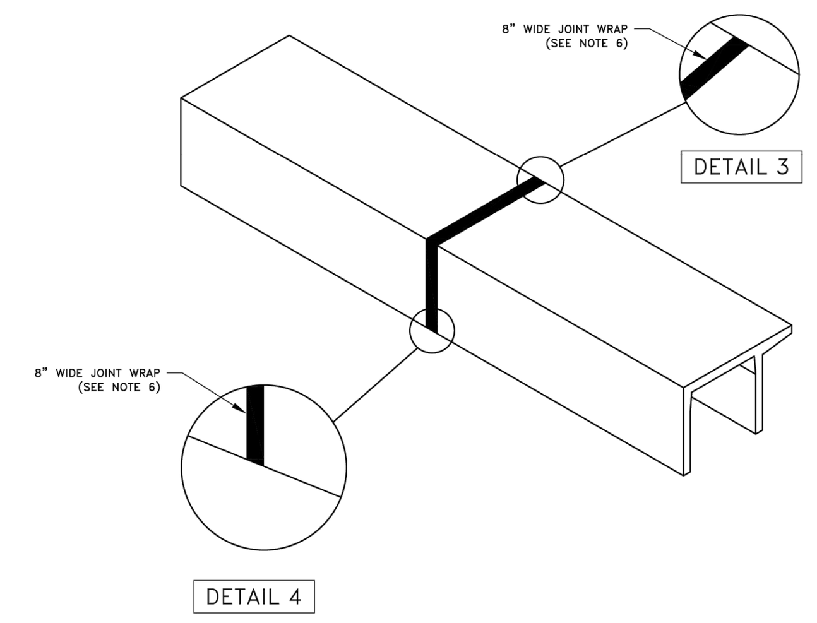
ENGINEER INFORMATION: WT GROUP, 2675 PRATUM AVENUE, Hoffman Estates, IL, 224-293-6333
PROJECT INFORMATION: GAS N WASH, TINLEY PARK, IL
CURRENT ISSUE DATE: 1/18/2023
ISSUED FOR: PRELIMINARY

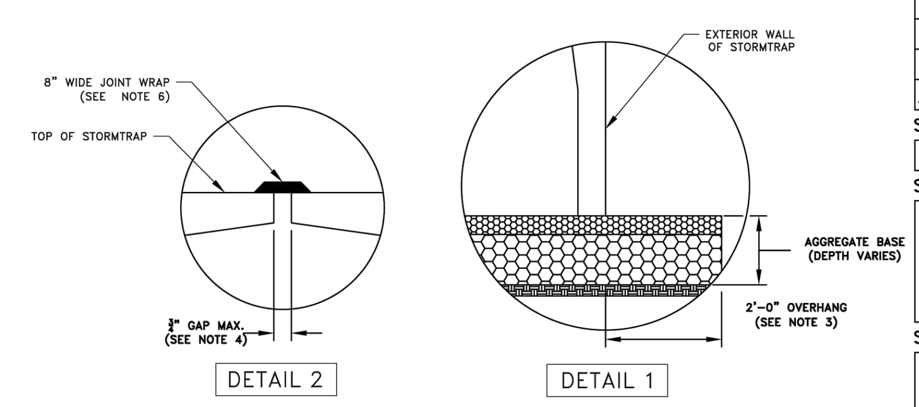
REV.	DATE:	ISSUED FOR:	DWN BY:
⚠	1/18/2023	PRELIMINARY	JH

SCALE: NTS
SHEET TITLE: RECOMMENDED PIPE / ACCESS OPENING SPECIFICATIONS
SHEET NUMBER: 5.0

STORMTRAP INSTALLATION SPECIFICATIONS

1. STORMTRAP SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C891 STANDARD PRACTICE FOR INSTALLATION OF UNDERGROUND PRE-CAST CONCRETE UTILITY STRUCTURES. THE FOLLOWING ADDITIONS AND/OR EXCEPTIONS SHALL APPLY:
2. IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT PROPER/ADEQUATE EQUIPMENT IS USED TO SET/INSTALL THE MODULES.
3. THE AGGREGATE FOUNDATION HAS BEEN DESIGNED BASED ON THE FOLLOWING ASSUMPTIONS. THESE ASSUMPTIONS WILL NEED TO BE VERIFIED BY A GEOTECHNICAL ENGINEER WHICH WILL NEED TO BE EMPLOYED BY THE OWNER.
   - 3.1. A QUALIFIED GEOTECHNICAL ENGINEER WILL BE EMPLOYED, BY OWNER, TO PROVIDE ASSISTANCE IN EVALUATING THE EXISTING SOIL CONDITIONS BELOW THE PROPOSED ENGINEERED STONE FOUNDATION. IF A STONE FOUNDATION DESIGN IS TO BE USED, THE BEARING PRESSURE OF THE SOILS BELOW THE STONE WILL NEED TO MEET OR EXCEED ALLOWABLE CAPACITY. IF THIS IS NOT POSSIBLE, THE STONE FOUNDATION MAY NOT BE AN OPTION FOR THIS LOCATION.
   - 3.2. A QUALIFIED GEOTECHNICAL ENGINEER WILL BE EMPLOYED, BY OWNER, TO EVALUATE A SOURCE OF STONE AGGREGATES THAT WILL BE PLACED ON PROPERLY COMPACTED SOILS (SEE SHEET 1.0 FOR SOIL BEARING CAPACITY REQUIREMENTS). THE AGGREGATE BASE COURSE FOR WHICH THE STORMTRAP SYSTEM WILL BEAR DIRECTLY ON SHALL CONSIST OF A 3" THICK BED OF 3/4" DIAMETER ANGULAR STONE, WELL COMPACTED AND SEATED, WITH NO FINES. AND A 1'-0" THICK BED OF 3" ANGULAR AGGREGATE (SEE SHEET 4.0 FOR FURTHER DESCRIPTION/EXPLANATION). PLEASE NOTE THAT THESE ARE ONLY MINIMUM RECOMMENDATIONS AND A QUALIFIED GEOTECHNICAL ENGINEER SHALL BE USED TO DETERMINE THE EXACT REQUIREMENTS FOR THE LOCATIONS THAT THE STORMTRAP SYSTEM IS TO BE LOCATED.
   - 3.3. THE CONTRACTOR SHALL REMOVE ANY AND ALL EXPANDABLE OR COLLAPSIBLE SOILS AT THE DIRECTION OF A QUALIFIED GEOTECHNICAL ENGINEER.
   - 3.4. THE AGGREGATE FOUNDATION SHALL BE INSTALLED SUCH THAT THE AGGREGATE EXTENDS A MINIMUM OF 2'-0" PAST THE OUTSIDE OF THE SYSTEM (SEE DETAIL 1).
   - 3.5. THE 3/4" AGGREGATE SHALL BE COMPACTED USING A VIBRATING ROLLER WITH ITS' FULL DYNAMIC FORCE APPLIED TO ACHIEVE A FLAT SURFACE.
   - 3.6. DISK, DRY AND COMPACT THE TOP 8" OF THE SUBGRADE SOILS TO 95% OF THE STANDARD DRY DENSITY AND 110% OPTIMUM MOISTURE CONTENT.
   - 3.7. AGGREGATE SHALL BE GRADED WITHIN +/- 1/4" OF THE GRADE SHOWN ON THE PLANS.
   - 3.8. MINIMUM SOIL BEARING CAPACITY LISTED ON SHEET 1.0 SHALL BE VERIFIED IN FIELD BY OTHERS.
4. THE STORMTRAP MODULES SHALL BE PLACED SUCH THAT THE MAXIMUM SPACE BETWEEN ADJACENT MODULES DOES NOT EXCEED 3/4" (SEE DETAIL 2). IF THE SPACE EXCEEDS 3/4", THE MODULES SHALL BE RESET WITH APPROPRIATE ADJUSTMENT MADE TO LINE AND GRADE TO BRING THE SPACE INTO SPECIFICATION.
5. STORMTRAP MODULES ARE NOT WATERTIGHT. IF A WATERTIGHT SOLUTION IS REQUIRED, CONTACT STORMTRAP FOR RECOMMENDATIONS. THE WATERTIGHT APPLICATION IS TO BE PROVIDED AND IMPLEMENTED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE SELECTED WATERTIGHT SOLUTION PERFORMS AS SPECIFIED BY THE MANUFACTURER.
6. ALL EXTERIOR ROOF AND EXTERIOR VERTICAL WALL JOINTS BETWEEN ADJACENT STORMTRAP MODULES SHALL BE SEALED WITH 8" WIDE PRE-FORMED, COLD-APPLIED, SELF-ADHERING ELASTOMERIC RESIN, BONDED TO A WOVEN , HIGHLY PUNCTURE RESISTANT POLYMER WRAP, CONFORMING TO ASTM C891 AND SHALL BE INTEGRATED WITH PRIMER SEALANT AS APPROVED BY STORMTRAP (SEE DETAILS 2, 3, & 4). THE JOINT WRAP DOES NOT PROVIDE A WATERTIGHT SEAL. THE SOLE PURPOSE OF THE JOINT WRAP IS TO PROVIDE A SILT AND SOIL TIGHT SYSTEM. THE ADHESIVE EXTERIOR JOINT WRAP SHALL BE INSTALLED ACCORDING TO THE FOLLOWING INSTALLATION INSTRUCTIONS:
   - 6.1. USE A BRUSH OR WET CLOTH TO THOROUGHLY CLEAN THE OUTSIDE SURFACE AT THE POINT WHERE THE JOINT WRAP IS TO BE APPLIED.
   - 6.2. A RELEASE PAPER PROTECTS THE ADHESIVE SIDE OF THE JOINT WRAP. PLACE THE ADHESIVE TAPE (ADHESIVE SIDE DOWN) AROUND THE STRUCTURE, REMOVING THE RELEASE PAPER AS YOU GO. PRESS THE JOINT WRAP FIRMLY AGAINST THE STORMTRAP MODULE SURFACE WHEN APPLYING.
7. IF THE CONTRACTOR NEEDS TO CANCEL ANY SHIPMENTS, THEY MUST DO SO 48 HOURS PRIOR TO THEIR SCHEDULED ARRIVAL AT THE JOB SITE. IF CANCELED AFTER THAT TIME, PLEASE CONTACT THE PROJECT MANAGER.
8. IF THE STORMTRAP MODULE(S) IS DAMAGED IN ANY WAY PRIOR, DURING, OR AFTER INSTALL, STORMTRAP, MUST BE CONTACTED IMMEDIATELY TO ASSESS THE DAMAGE AND TO DETERMINE WHETHER OR NOT THE MODULE(S) WILL NEED TO BE REPLACED. IF ANY MODULE ARRIVES AT THE JOBSITE DAMAGED DO NOT UNLOAD IT; CONTACT STORMTRAP, IMMEDIATELY. ANY DAMAGE NOT REPORTED BEFORE THE TRUCK IS UNLOADED WILL BE THE CONTRACTOR'S RESPONSIBILITY.
9. STORMTRAP MODULES CANNOT BE ALTERED IN ANY WAY AFTER MANUFACTURING WITHOUT WRITTEN CONSENT FROM STORMTRAP.





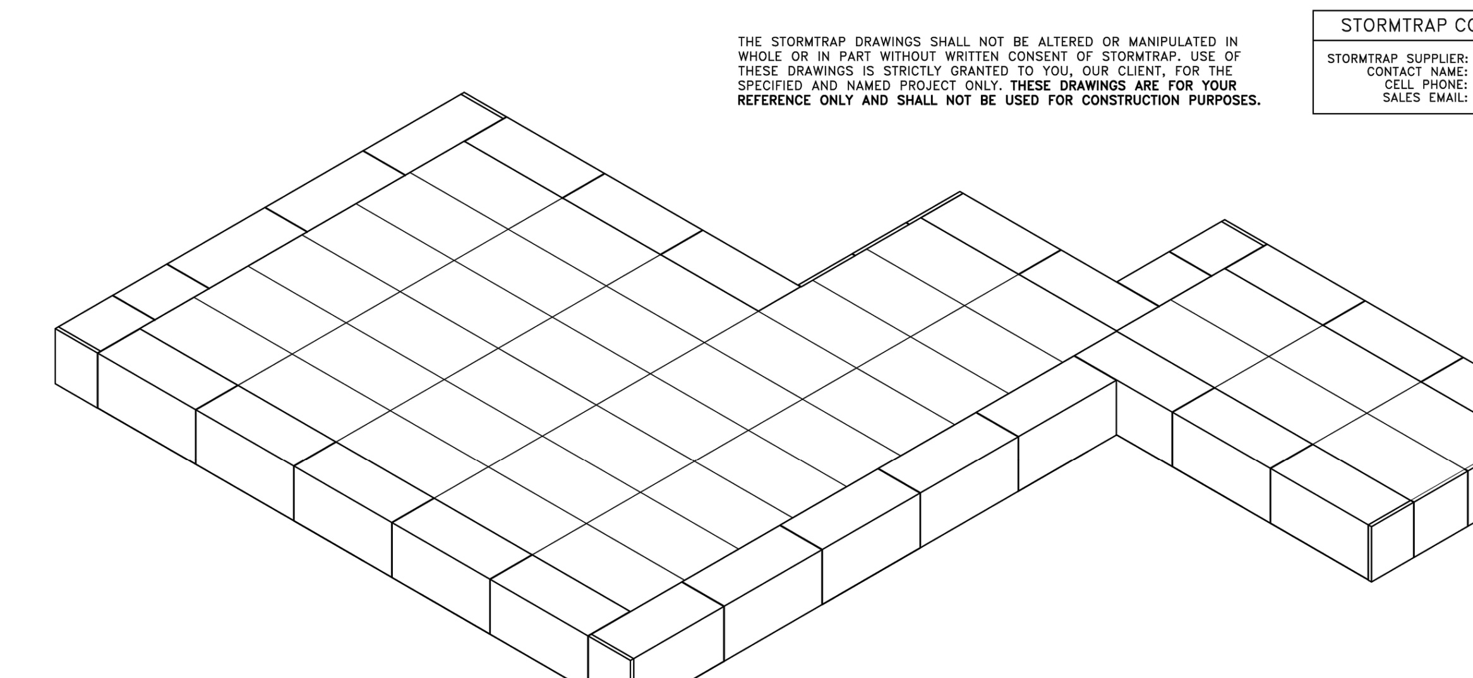
DETAIL 2 DETAIL 1

StormTrap® PATENTS LISTED AT: [HTTP://STORMTRAP.COM/PATENT] 1287 WINDHAM PARKWAY ROMEOVILLE, IL 60446 P:815-941-4549 / F:331-318-5347
ENGINEER INFORMATION: WT GROUP 2675 PRATUM AVENUE Hoffman Estates, IL 224-293-6333
PROJECT INFORMATION: GAS N WASH TINLEY PARK, IL
CURRENT ISSUE DATE: 1/18/2023 ISSUED FOR: PRELIMINARY
REV. DATE: ISSUED FOR: DWN BY: ⚠ 1/18/2023 PRELIMINARY JH
SCALE: NTS

SHEET TITLE: SINGLETRAP INSTALLATION SPECIFICATIONS
SHEET NUMBER: 3.0

StormTrap®
MODULAR CONCRETE STORMWATER MANAGEMENT

THE STORMTRAP DRAWINGS SHALL NOT BE ALTERED OR MANIPULATED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT OF STORMTRAP. USE OF THESE DRAWINGS IS STRICTLY GRANTED TO YOU, OUR CLIENT, FOR THE SPECIFIED AND NAMED PROJECT ONLY. **THESE DRAWINGS ARE FOR YOUR REFERENCE ONLY AND SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.**



GAS N WASH
TINLEY PARK, IL

STORMTRAP CONTACT INFORMATION
STORMTRAP SUPPLIER: STORMTRAP
CONTACT NAME: BRIAN RIEGER
CELL PHONE: 815-258-1261
SALES EMAIL: BRIEGER@STORMTRAP.COM

StormTrap® PATENTS LISTED AT: [HTTP://STORMTRAP.COM/PATENT] 1287 WINDHAM PARKWAY ROMEOVILLE, IL 60446 P:815-941-4549 / F:331-318-5347
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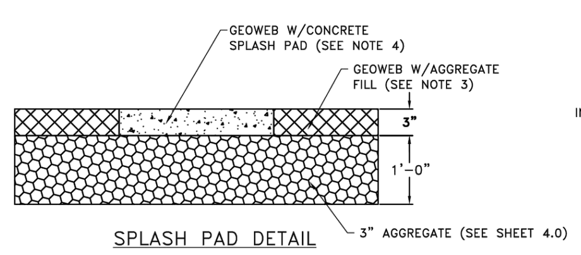
REV. DATE: ISSUED FOR: DWN BY: ⚠ 1/18/2023 PRELIMINARY JH
SCALE: NTS

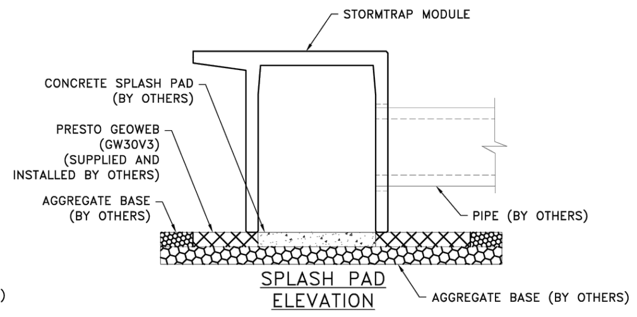
SHEET TITLE: COVER SHEET
SHEET NUMBER: 0.0

NOTES:

1. THE APPROVED GEOWEB SHALL BE PRESTO GEOWEB (GW30V3). THE GEOWEB NOMINAL DIMENSIONS SHALL BE 9-FT x 25-FT.
2. THE CONCRETE SPLASH PAD AND GEOWEB SHALL BE INSTALLED PRIOR TO INSTALLATION OF THE STORMTRAP MODULES.
3. THE GEOWEB INFILL MATERIAL SHALL BE #5 AGGREGATE.
4. THE CONCRETE SPLASH PAD SHALL BE INSTALLED WITHIN THE GEOWEB AND IS REQUIRED AT ALL PIPE ENTRY LOCATIONS.
5. THE GEOWEB EDGE SHALL BE INSTALLED 1-FT BEYOND THE OUTER PERIMETER OF THE STORMTRAP SYSTEM.
6. THE GEOWEB LONGITUDINAL DIMENSION (25-FT) SHALL BE INSTALLED PARALLEL TO THE STORMTRAP LEGS.
7. THE CONCRETE SPLASH PAD AND GEOWEB SHALL BE CENTERED AT THE PIPE PENETRATION.
8. REFER TO SPLASH PAD LAYOUT FOR CONCRETE SPLASH PAD DIMENSIONS.
9. IF ANY PRODUCT OTHER THAN PRESTO GEOWEB IS TO BE INSTALLED, THE PRODUCT MANUFACTURER IS REQUIRED TO SUBMIT A LETTER STATING THAT THE PRODUCT IS EQUAL OR BETTER THEN PRESTO GEOWEB, BOTH IN PERFORMANCE AND IN STRUCTURAL CAPACITY.
10. ALL GEOWEB AND SPLASH PADS TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
11. A CONCRETE SPLASH PAD IS REQUIRED AT ANY ACCESS OPENING THAT HAS AN OPEN GRATE FOR DRAINAGE. THE CONCRETE SPLASH PAD SHALL EXTEND BETWEEN THE UNIT LEG WALLS AND 3'-0" FROM THE CENTERLINE OF THE OPENING ON BOTH SIDES UNLESS SPECIFIED OTHERWISE ON THE SPLASH PAD LAYOUT. GEOWEB IS NOT REQUIRED UNDER ACCESS OPENINGS.

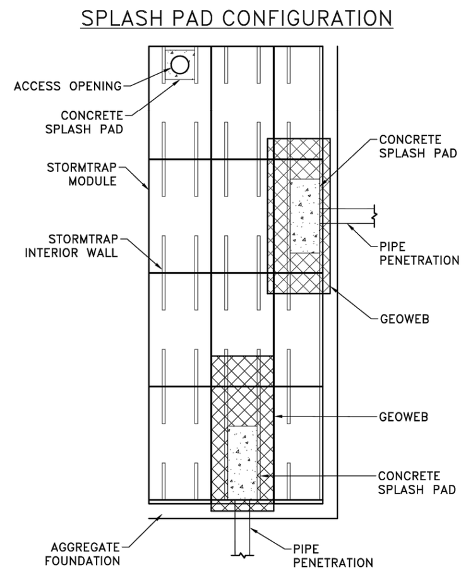


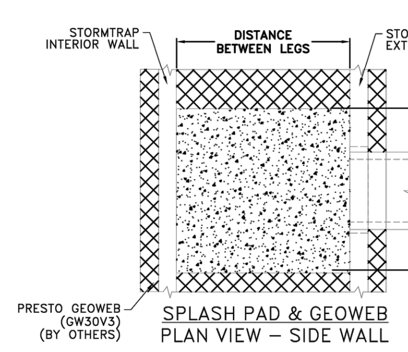
SPLASH PAD DETAIL



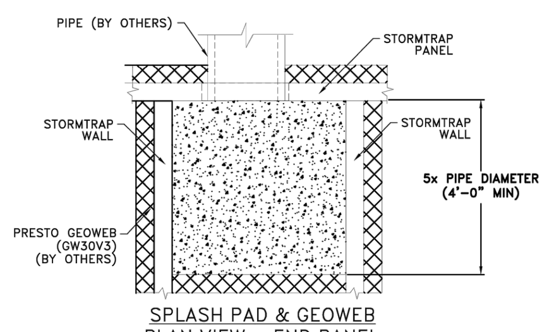
SPLASH PAD ELEVATION

SPLASH PAD CONFIGURATION





SPLASH PAD & GEOWEB PLAN VIEW – SIDE WALL



SPLASH PAD & GEOWEB PLAN VIEW – END PANEL

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ENGINEER INFORMATION: WT GROUP 2675 PRATUM AVENUE Hoffman Estates, IL 224-293-6333
PROJECT INFORMATION: GAS N WASH TINLEY PARK, IL
CURRENT ISSUE DATE: 1/18/2023 ISSUED FOR: PRELIMINARY
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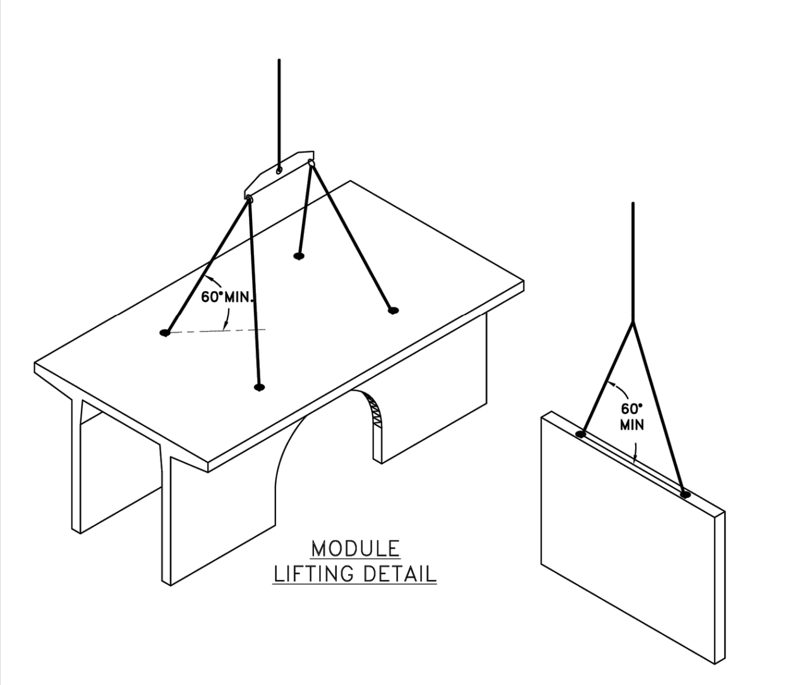
SCALE: NTS

SHEET TITLE: SPLASH PAD & GEOWEB DETAILS
SHEET NUMBER: 6.0

STORMTRAP MODULE LIFTING INSTALLATION NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL (4) CHAINS/CABLES ARE SECURED PROPERLY TO THE LIFTING ANCHORS AND IN EQUAL TENSION WHEN LIFTING THE STORMTRAP MODULE (SEE RECOMMENDATIONS 2 & 3).
2. MINIMUM 7'-0" CHAIN/CABLE LENGTH TO BE USED TO LIFT STORMTRAP MODULES (SUPPLIED BY CONTRACTOR).
3. CONTRACTOR TO ENSURE MINIMUM LIFTING ANGLE IS 60° FROM TOP SURFACE OF STORMTRAP MODULE. SEE DETAIL.
4. IT IS UNDERSTOOD AND AGREED THAT AT ALL TIMES DURING WHICH HOISTING AND RIGGING EQUIPMENT IS BEING SUPPLIED TO THE PURCHASER, OPERATOR OF SUCH EQUIPMENT SHALL BE IN CHARGE OF HIS ENTIRE EQUIPMENT AND SHALL AT ALL TIMES BE THE JUDGE OF THE SAFETY AND PROPERTY OF ANY SUGGESTION TO HIM FROM THE SELLER, ITS AGENTS OR EMPLOYEES. PURCHASER AGREES TO SAVE, INDEMNIFY AND HOLD HARMLESS SELLER FROM ALL LOSS, CLAIMS, DEMANDS OR CAUSES OF ACTION, WHICH MAY ARISE FROM THE EXISTENCE OR OPERATION OF SAID EQUIPMENT.

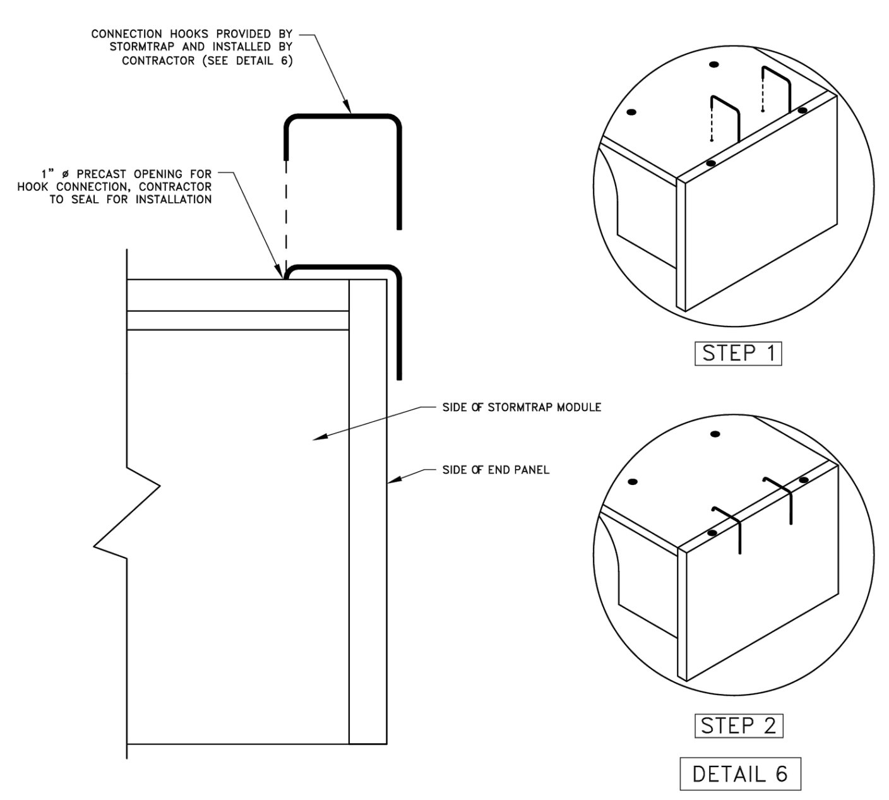


MODULE LIFTING DETAIL

END PANEL LIFTING DETAIL

END PANEL ERECTION/INSTALLATION NOTES

1. END PANELS WILL BE SUPPLIED TO CLOSE OFF OPEN ENDS OF ROWS.
2. PANELS SHALL BE INSTALLED IN A TILT UP FASHION DIRECTLY ADJACENT TO OPEN END OF MODULE (REFER TO SHEET 2.0 FOR END PANEL LOCATIONS).
3. CONNECTION HOOKS WILL BE SUPPLIED WITH END PANELS TO SECURELY CONNECT PANEL TO ADJACENT STORMTRAP MODULE (SEE PANEL CONNECTION ELEVATION VIEW).
4. ONCE CONNECTION HOOK IS ATTACHED, LIFTING CLUTCHES MAY BE REMOVED.
5. JOINT WRAP SHALL BE PLACED AROUND PERIMETER JOINT PANEL (SEE SHEET 3.0).



PANEL CONNECTION ELEVATION VIEW

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SHEET TITLE: SINGLETRAP INSTALLATION SPECIFICATIONS
SHEET NUMBER: 3.1

STRUCTURAL DESIGN LOADING CRITERIA

LIVE LOADING:	**AASHTO HS-20 HIGHWAY LOADING**
GROUND WATER TABLE:	710.00
SOIL BEARING PRESSURE:	4000PSF
SOIL DENSITY:	120 PCF
EQUIVALENT UNSATURATED LATERAL ACTIVE EARTH PRESSURE:	35 PSF / FT.
EQUIVALENT SATURATED LATERAL ACTIVE EARTH PRESSURE:	80 PSF/FT. (IF WATER TABLE PRESENT)
APPLICABLE CODES:	ASTM C857 ACI-318
BACKFILL TYPE:	SEE SHEET 4.0 FOR BACKFILL OPTIONS

STORMTRAP SYSTEM INFORMATION
UNIT HEADROOM: 7'-0" SINGLETRAP

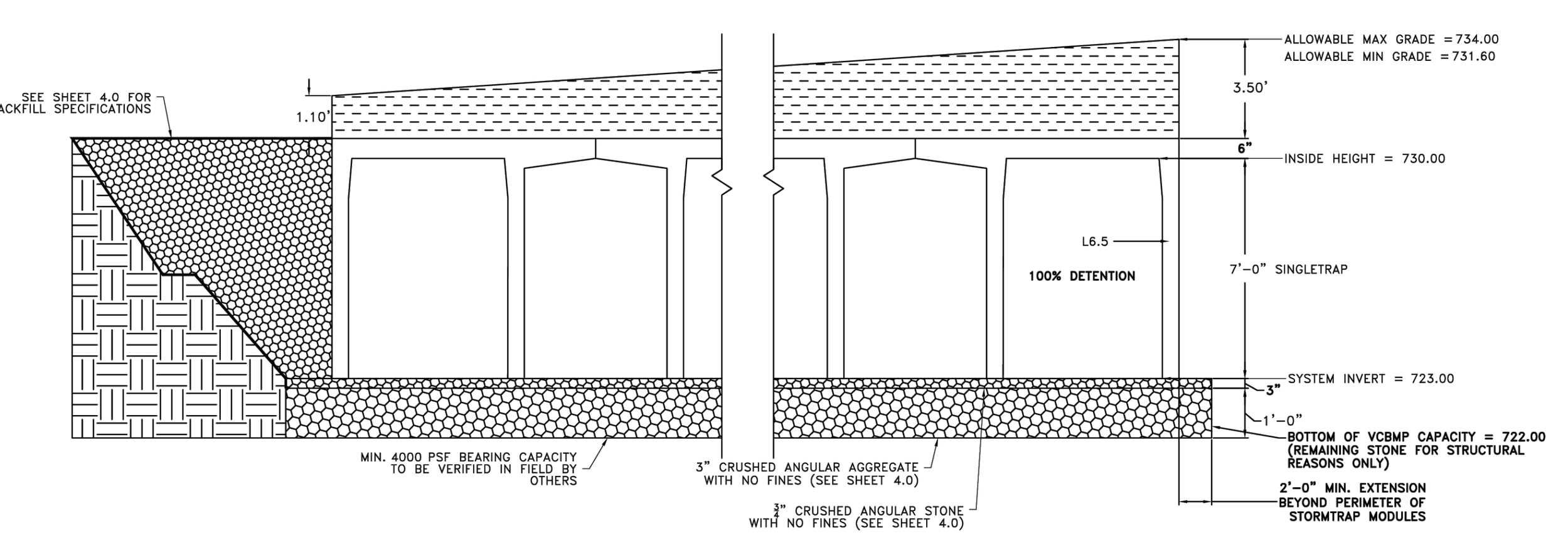
SITE SPECIFIC DESIGN CRITERIA

1. STORMTRAP UNITS SHALL BE MANUFACTURED AND INSTALLED ACCORDING TO SHOP DRAWINGS APPROVED BY THE INSTALLING CONTRACTOR AND ENGINEER OF RECORD. THE SHOP DRAWINGS SHALL INDICATE SIZE AND LOCATION OF ROOF OPENINGS AND INLET/ OUTLET PIPE TYPES, SIZES, INVERT ELEVATIONS AND SIZE OF OPENINGS.
2. COVER RANGE: MIN. 1.10' MAX. 3.50' CONSULT STORMTRAP FOR ADDITIONAL COVER OPTIONS.
3. ALL DIMENSIONS AND SOIL CONDITIONS, INCLUDING BUT NOT LIMITED TO GROUNDWATER AND SOIL BEARING CAPACITY ARE REQUIRED TO BE VERIFIED IN THE FIELD BY OTHERS PRIOR TO STORMTRAP INSTALLATION.
4. FOR STRUCTURAL CALCULATIONS THE GROUND WATER TABLE IS ASSUMED TO BE 710.00 IF WATER TABLE IS DIFFERENT THAN ASSUMED, CONTACT STORMTRAP.

VCBMP VOLUME CALCULATION
- –TOTAL VCBMP STORAGE REQUIRED = 2,440.00 CUBIC FEET
- –TOTAL VCBMP STORAGE PROVIDED = 3,297.67 CUBIC FEET (ELEV 723.00 – ELEV 722.00, 36% STONE VOID)

DETENTION VOLUME CALCULATION
- –TOTAL WATER STORAGE REQUIRED = 49,659.00 CUBIC FEET
- –TOTAL WATER STORAGE PROVIDED = 50,288.27 CUBIC FEET (ELEV 730.00 – ELEV 723.00, 100% IN SYSTEM)

SEASONAL HIGH WATER TABLE
- –SHWT = 710' (ELEVATION) *TO BE VERIFIED BY OTHERS
- –VCBMP BOTTOM TO SHWT = 12' (DISTANCE)
- –AMOUNT OF NATIVE SOIL ABOVE SHWT = 12' (DISTANCE)



7'-0" SINGLETRAP

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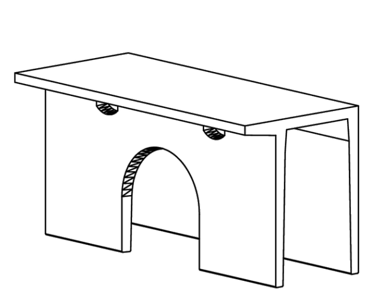
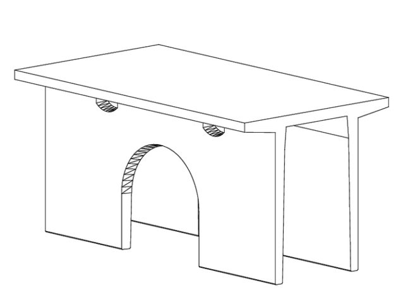
SHEET TITLE: SINGLETRAP DESIGN CRITERIA
SHEET NUMBER: 1.0


TYPE IV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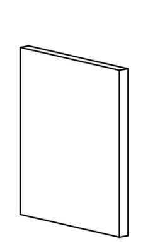
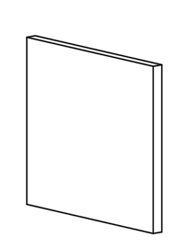

TYPE IV END PANEL


TYPE II END PANEL

NOTES:
1. OPENING LOCATIONS AND SHAPES MAY VARY.
2. SP – INDICATES A MODULE WITH MODIFICATIONS.
3. P – INDICATES A MODULE WITH A PANEL ATTACHMENT.
4. POCKET WINDOW OPENINGS ARE OPTIONAL.

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SHEET TITLE: SINGLETRAP MODULE TYPES
SHEET NUMBER: 7.0

ZONE CHART

ZONES	ZONE DESCRIPTIONS	REMARKS
ZONE 1 A	FOUNDATION AGGREGATE	#5 (3/4") STONE AGGREGATE (SEE NOTE 4)
ZONE 1 B	FOUNDATION AGGREGATE (INFILTRATION NOT ALLOWED)	3" RECYCLED CRUSHED CONCRETE (SEE NOTES 5 & 6)
	FOUNDATION AGGREGATE (INFILTRATION ALLOWED)	3" STONE AGGREGATE (SEE NOTE 5)
ZONE 2	BACKFILL	UNIFIED SOILS CLASSIFICATION (GW, GP, SW, SP) OR SEE BELOW FOR APPROVED BACKFILL OPTIONS
ZONE 3	FINAL COVER OVERTOP	MATERIALS NOT TO EXCEED 120 PCF

APPROVED ZONE 2 BACKFILL OPTIONS

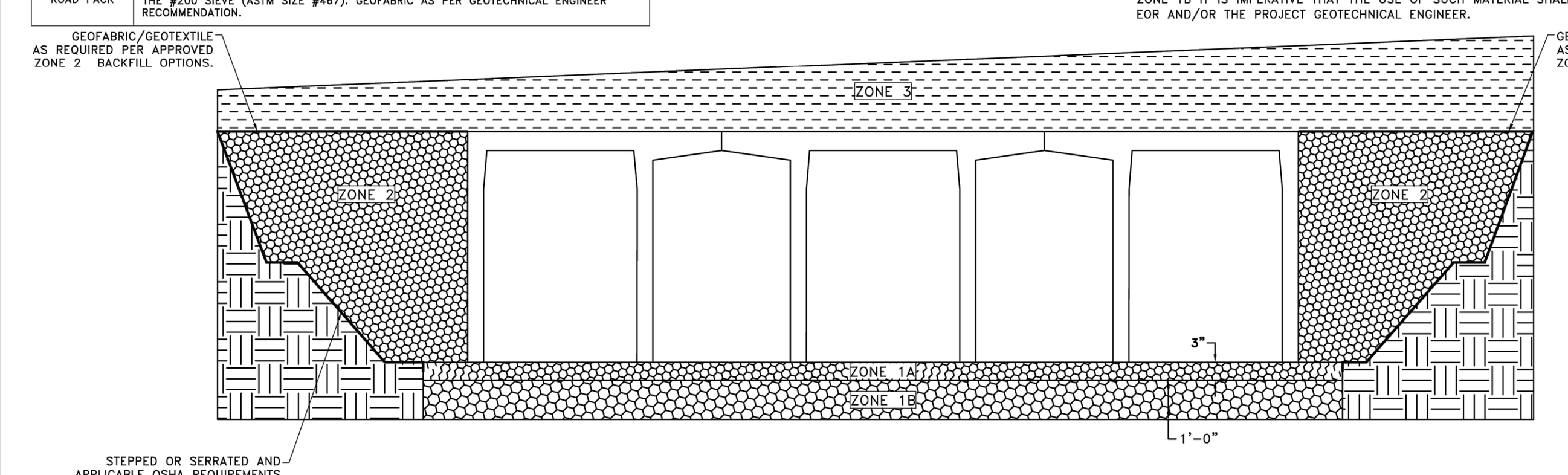
OPTION	REMARKS
3/4" STONE AGGREGATE	THE STONE AGGREGATE SHALL CONSIST OF CLEAN AND FREE DRAINING ANGULAR MATERIAL. THE SIZE OF THIS MATERIAL SHALL HAVE 100% PASSING THE 1" SIEVE WITH 0% TO 5% PASSING THE #8 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL (ASTM SIZE #57) AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
SAND	IMPORTED PURE SAND IS PERMITTED TO BE USED AS BACKFILL IF IT IS CLEAN AND FREE DRAINING. THE SAND USED FOR BACKFILLING SHALL HAVE LESS THAN 40% PASSING #40 SIEVE AND LESS THAN 5% PASSING #200 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE SAND BACKFILL.
CRUSHED CONCRETE AGGREGATE	CLEAN, FREE DRAINING CRUSHED CONCRETE AGGREGATE MATERIAL CAN BE USED AS BACKFILL FOR STORMTRAP'S MODULES. THE SIZE OF THIS MATERIAL SHALL HAVE 100% PASSING THE 1" SIEVE WITH 0% TO 5% PASSING THE #8 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL.
ROAD PACK	STONE AGGREGATE 100% PASSING THE 1-1/2" SIEVE WITH LESS THAN 12% PASSING THE #200 SIEVE (ASTM SIZE #467). GEOFABRIC AS PER GEOTECHNICAL ENGINEER RECOMMENDATION.

FILL DEPTH	TRACK WIDTH	MAX VEHICLE WEIGHT (KIPS)	MAX GROUND PRESSURE
12"	12"	51.8	1690 psf
	18"	56.1	1219 psf
	24"	68.1	1111 psf
	30"	76.7	1000 psf
	36"	85.0	924 psf

NOTE:
TRACK LENGTH NOT TO EXCEED 15'-4".
ONLY TWO TRACKS PER VEHICLE.

STORMTRAP ZONE INSTALLATION SPECIFICATIONS/PROCEDURES

1. THE FILL PLACED AROUND THE STORMTRAP MODULES MUST DEPOSITED ON BOTH SIDES AT THE SAME TIME AND TO APPROXIMATELY THE SAME ELEVATION. AT NO TIME SHALL THE FILL BEHIND ONE SIDE WALL BE MORE THAN 2'-0" HIGHER THAN THE FILL ON THE OPPOSITE SIDE. BACKFILL SHALL EITHER BE COMPACTED AND/OR VIBRATED TO ENSURE THAT BACKFILL AGGREGATE/STONE MATERIAL IS WELL SEATED AND PROPERLY INTER LOCKED. CARE SHALL BE TAKEN TO PREVENT ANY WEDGING ACTION AGAINST THE STRUCTURE, AND ALL SLOPES WITHIN THE AREA TO BE BACKFILLED MUST BE STEPPED OR SERRATED TO PREVENT WEDGING ACTION. CARE SHALL ALSO BE TAKEN AS NOT TO DISRUPT THE JOINT WRAP FROM THE JOINT DURING THE BACKFILL PROCESS. BACKFILL MUST BE FREE-DRAINING MATERIAL. SEE ZONE 2 BACKFILL CHART ON THIS PAGE FOR APPROVED BACKFILL OPTIONS. IF NATIVE EARTH IS SUSCEPTIBLE TO MIGRATION, CONFIRM WITH GEOTECHNICAL ENGINEER AND PROVIDE PROTECTION AS REQUIRED (PROVIDED BY OTHERS).
2. DURING PLACEMENT OF MATERIAL OVERTOP THE SYSTEM, AT NO TIME SHALL MACHINERY BE USED OVERTOP THAT EXCEEDS THE DESIGN LIMITATIONS OF THE SYSTEM. WHEN PLACEMENT OF MATERIAL OVERTOP, MATERIAL SHALL BE PLACED SUCH THAT THE DIRECTION OF PLACEMENT IS PARALLEL WITH THE OVERALL LONGITUDINAL DIRECTION OF THE SYSTEM WHENEVER POSSIBLE.
3. THE FILL PLACED OVERTOP THE SYSTEM SHALL BE PLACED AT A MINIMUM OF 6" LIFTS. AT NO TIME SHALL MACHINERY OR VEHICLES GREATER THAN THE DESIGN HS-20 LOADING CRITERIA TRAVEL OVERTOP THE SYSTEM WITHOUT THE MINIMUM DESIGN COVERAGE. IF TRAVEL IS NECESSARY OVERTOP THE SYSTEM PRIOR TO ACHIEVING THE MINIMUM DESIGN COVER, IT MAY BE NECESSARY TO REDUCE THE ULTIMATE LOAD/BURDEN OF THE OPERATING MACHINERY SO AS TO NOT EXCEED THE DESIGN CAPACITY OF THE SYSTEM. IN SOME CASES, IN ORDER TO ACHIEVE REQUIRED COMPACTION, HAND COMPACTION MAY BE NECESSARY IN ORDER NOT TO EXCEED THE ALLOTTED DESIGN LOADING. SEE CHART FOR TRACKED VEHICLE WIDTH AND ALLOWABLE MAXIMUM PRESSURE PER TRACK.
4. FREE DRAINING AGGREGATE – 80% AGGREGATE RETAINED ON 1/2" SIEVE MAJORITY OF AGGREGATE SIZE BETWEEN 1/2" AND 1" ONLY 5% OF MATERIAL PASSING #8 SIEVE.
5. FREE DRAINING, NO FINES, 3" AGGREGATE – MAJORITY OF STONE SIZE IN BETWEEN 1 1/2" AND 3" – VERY SIMILAR TO AASHTO (#1, #2, #3, & #24) STONE AGGREGATE GRADATION.
6. CRUSHED CONCRETE AGGREGATE IS KNOWN TO REACT WITH WATER AND CAN INCREASE THE PH VALUE OF THE GROUND WATER. PRIOR TO USING CRUSHED CONCRETE AGGREGATE IN ZONE 1B IT IS IMPERATIVE THAT THE USE OF SUCH MATERIAL SHALL BE VERIFIED BY THE EOR AND/OR THE PROJECT GEOTECHNICAL ENGINEER.



BACKFILL DETAIL

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SHEET TITLE: SINGLETRAP BACKFILL SPECIFICATIONS
SHEET NUMBER: 4.0

BILL OF MATERIALS

QTY.	UNIT TYPE	DESCRIPTION	WEIGHT
0	I	7'-0" SINGLETRAP	0
42	II	7'-0" SINGLETRAP	22754
0	III	7'-0" SINGLETRAP	0
23	IV	7'-0" SINGLETRAP	22267
0	VII	7'-0" SINGLETRAP	0
5	SPIV	7'-0" SINGLETRAP	VARIES
5	T2 PANEL	6" THICK PANEL	4734
6	T4 PANEL	6" THICK PANEL	3727
0	T7 PANEL	6" THICK PANEL	0
14	JOINTWRAP	150' PER ROLL	
0	JOINTTAPE	14.5' PER ROLL	
TOTAL PIECES = 70			
TOTAL PANELS = 11			
HEAVIEST PICK WEIGHT = 25,966			

LOADING DISCLAIMER:

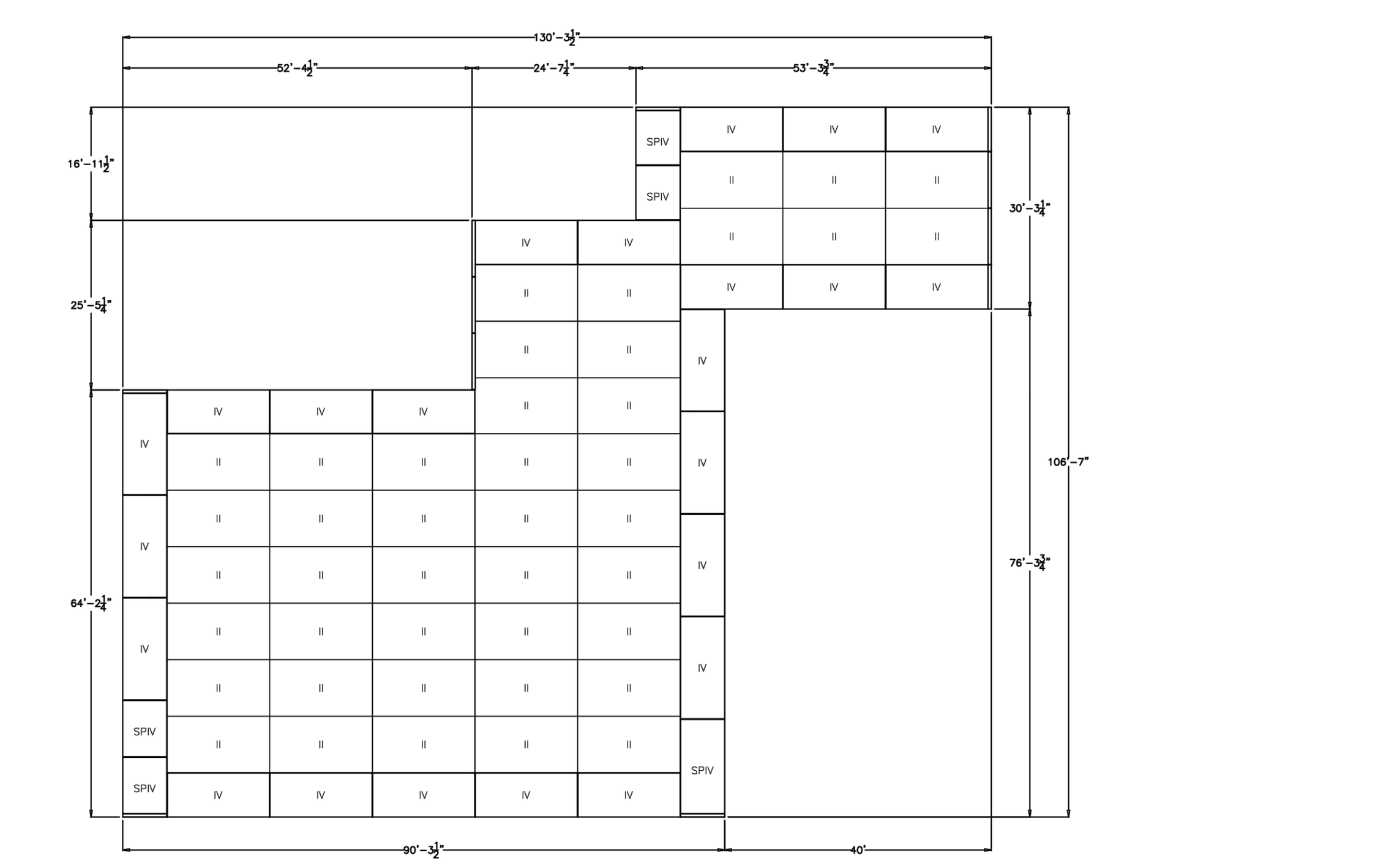
STORMTRAP IS NOT DESIGNED TO ACCEPT ANY ADDITIONAL LOADINGS FROM NEARBY STRUCTURES NEXT TO OR OVER THE TOP OF STORMTRAP. IF ADDITIONAL LOADING CONSIDERATIONS ARE REQUIRED FOR STRUCTURAL DESIGN OF STORMTRAP, PLEASE CONTACT STORMTRAP IMMEDIATELY.

TREE LOADING DISCLAIMER:

THE STORMTRAP SYSTEM HAS NOT BEEN DESIGNED TO SUPPORT THE ADDITIONAL WEIGHT OF ANY TREES. FURTHERMORE, THE ROOTS OF THE TREES MUST BE CONTAINED TO PREVENT FUTURE DAMAGE TO THE STORMTRAP SYSTEM. STORMTRAP ACCEPTS NO LIABILITY FOR DAMAGES CAUSED BY TREES OR OTHER VEGETATION PLACE AROUND OR ON TOP OF THE SYSTEM.

DESIGN CRITERIA
ALLOWABLE MAX GRADE = 734.00
ALLOWABLE MIN GRADE = 731.60
INSIDE HEIGHT ELEVATION = 730.00
SYSTEM INVERT = 723.00

NOTES:
1. DIMENSIONING OF STORMTRAP SYSTEM SHOWN BELOW ALLOW FOR A 3/4" GAP BETWEEN EACH MODULE.
2. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY OTHERS.
3. SEE SHEET 3.0 FOR INSTALLATION SPECIFICATIONS.
4. SEE SHEETS 6.0 & 6.1 FOR SPLASH PAD DETAILS AND LAYOUT.
5. SP – INDICATES A MODULE WITH MODIFICATIONS.
6. P – INDICATES A MODULE WITH A PANEL ATTACHMENT.
7. CONTRACTORS RESPONSIBILITY TO ENSURE CONSISTENCY/ACCURACY TO FINAL ENGINEER OF RECORD PLAN SET.



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SCALE: NTS

SHEET TITLE: SINGLETRAP LAYOUT DETAILS
SHEET NUMBER: 2.0

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ISSUE

TO	DATE
CITY	1-19-23
CCHD/IDOT	2-08-23
CITY	2-22-23
CITY	5-05-23

CHECK: JPG
DRAWN: VE
JOB:D2200035

C-3.5
SITE UTILITY DETAILS

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING:

1.1. ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," LATEST EDITION.

1.2. "STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS" LATEST EDITION.

1.3. "ILLINOIS URBAN MANUAL," LATEST EDITION.

1.4. BUILDING CODES AND ORDINANCES OF THE LOCAL GOVERNING AUTHORITIES.

1.5. UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS, 29 CFR PART 1926, "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION."

1.6. ILLINOIS DRAINAGE LAW.

1.7. ILLINOIS ENVIRONMENTAL BARRIERS ACT.

1.8. ILLINOIS ACCESSIBILITY CODE.

1.9. ILLINOIS ENVIRONMENTAL PROTECTION AGENCY REQUIREMENTS.

1.10. TITLE 35 OF THE ILLINOIS ADMINISTRATIVE CODE.

2. ALL REQUIRED PERMITS FROM THE APPROPRIATE GOVERNING AGENCY(S) SHALL BE OBTAINED FOR CONSTRUCTION ALONG OR ACROSS EXISTING STREETS OR HIGHWAYS. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHEETING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE ALL NECESSARY REPAIRS AT HIS EXPENSE AND TO THE SATISFACTION OF THE GOVERNING AGENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNAGE AND TRAFFIC CONTROL DEVICES TO INFORM AND PROTECT THE PUBLIC.

3. CONTRACTOR SHALL NOTIFY THE LOCAL ENGINEERING OR PUBLIC WORKS DEPARTMENT AND/OR OTHER GOVERNING AUTHORITY(S) 48 HOURS PRIOR TO COMMENCING CONSTRUCTION ON EACH MAJOR CATEGORY OF WORK, INCLUDING BUT NOT LIMITED TO, ANY PUBLIC IMPROVEMENTS, ROADWAY CLOSURES OR UTILITY INSTALLATIONS. 72 HOUR NOTICE SHALL BE GIVEN FOR ANY WORK ITEM THAT REQUIRES INSPECTION AND TESTING SUCH AS SANITARY SEWER OR WATER MAIN INSTALLATION.

4. BEING THAT THIS PROJECT IS PERMITTED UNDER THE NEW WATERSHED MANAGEMENT ORDINANCE (WMO), THE MWRD REQUIRES 48 HOURS OF ADVANCE NOTIFICATION PRIOR TO ANY GROUND DISTURBANCE. THE MWRD WILL BE INSPECTING FOR APPLICABLE EROSION CONTROL AND SEDIMENT CONTROL MEASURES SUCH AS SILT FENCING, INLET PROTECTION, CONCRETE WASH, ETC., FOLLOWED BY SANITARY SEWER AND VOLUME CONTROL INSTALLATION INSPECTIONS. PLEASE REFER TO THE APPROVED PERMIT/PLANS AND HAVE THESE MEASURES IN PLACE IN ACCORDANCE WITH THE SPECIFICATIONS.

5. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES (GAS, ELECTRIC, TELEPHONE, CABLE, ETC.) AND THE LOCAL MUNICIPALITY TO DETERMINE THE LOCATION OF UNDERGROUND UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION IN ORDER TO AVOID POTENTIAL CONFLICTS. CONTRACTOR SHALL CALL THE JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS (J.U.L.I.E.) AT 1-800-892-0123 OR BY DIALING 811. IT IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER INDICATED ON THE PLANS OR NOT AND TO HAVE THESE UTILITIES STAKED PRIOR TO CONSTRUCTION.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL PRIVATE AND PUBLIC UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE UTILITY OWNER.

7. ALL EASEMENTS FOR EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS PREPARED BY THE ENGINEER ACCORDING TO INFORMATION AVAILABLE FROM PUBLIC RECORDS OR VISIBLE FIELD MARKINGS. THE CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND FOR THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT IN LOCATION WITH THE PROPOSED CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER SO THE CONFLICT MAY BE RESOLVED.

8. ALL UTILITY CONNECTIONS TO EXISTING LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RULES AND REGULATIONS AND TO THE SATISFACTION OF THE APPLICABLE UTILITY OWNER(S).

9. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, COORDINATES AND ELEVATIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES SO THE CONFLICT MAY BE RESOLVED.

10. ALL PROPERTY MARKERS AND REFERENCE MARKERS SHALL BE CAREFULLY PRESERVED DURING CONSTRUCTION UNTIL THEIR LOCATION HAS BEEN WITNESSED OR OTHERWISE TIED IN BY AN AUTHORIZED AGENT OR PROFESSIONALLY LICENSED SURVEYOR.

11. THE SAFE AND ORDERLY PASSAGE OF TRAFFIC AND PEDESTRIANS SHALL BE PROVIDED WHERE CONSTRUCTION OPERATIONS ABUT PUBLIC THROUGH-FARES AND ADJACENT PROPERTY.

12. ALL AREAS DISTURBED BY THE GENERAL CONTRACTOR OR SUB-CONTRACTORS SHALL BE RETURNED TO THE ORIGINAL CONDITIONS OR BETTER, EXCEPT WHERE PROPOSED CONSTRUCTION IS INDICATED ON THE PLANS.

13. NO BURNING OR INCINERATION OF RUBBISH WILL BE PERMITTED ON SITE.

14. PRIOR TO INITIAL ACCEPTANCE BY THE OWNER(S) AND/OR GOVERNING AUTHORITY, ALL WORK SHALL BE INSPECTED AND APPROVED BY THE OWNER AND MUNICIPALITY ENGINEER OR HIS REPRESENTATIVE(S). THE CONTRACTOR SHALL GUARANTEE HIS WORK FOR A PERIOD OF 18 (EIGHTEEN) MONTHS FROM THE DATE OF SUBSTANTIAL COMPLETION AND SHALL BE HELD RESPONSIBLE FOR ANY DEFECTS IN MATERIAL OR WORKMANSHIP OF THIS WORK DURING THAT PERIOD AND UNTIL FINAL ACCEPTANCE IS MADE.

15. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE AND ADEQUATE WORKING CONDITIONS THROUGHOUT THE DURATION OF CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

16. CONTRACTOR SHALL KEEP THE PUBLIC STREET PAVEMENTS CLEAN OF DIRT AND DEBRIS AND, WHEN NECESSARY, CLEAN PAVEMENTS AT THE END OF EACH WORKING DAY.

17. ALL CONSTRUCTION STAKING, SCHEDULING AND PAYMENT IS THE RESPONSIBILITY OF THE CONTRACTOR.

18. THREE (3) ORIGINAL COPIES OF ALL SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR (BUT NOT LIMITED TO) THE FOLLOWING ITEMS:

18.1. ASPHALT PAVEMENT MIX DESIGN

18.2. CONCRETE MIX DESIGN

18.3. GRANULAR MATERIAL GRADATION

18.4. DETAILED PRECAST CONCRETE STRUCTURES (MANHOLES, INLETS, CATCH BASINS, VAULTS, ETC.)

18.5. WATER MAIN MATERIALS (VALVES, FIRE HYDRANTS, ETC.)

19. AFTER COMPLETION OF THE PROPOSED IMPROVEMENTS AND WHEN REQUIRED BY THE GOVERNING AUTHORITY(S), CONTRACTOR SHALL PROVIDE THE OWNER AND VILLAGE ENGINEER WITH AS-BUILT AND/OR RECORD DRAWINGS, SIGNED AND SEALED BY A PROFESSIONALLY LICENSED ENGINEER OR SURVEYOR AND SHALL INCLUDE AT A MINIMUM (WHERE APPLICABLE TO THE SCOPE OF WORK) THE FOLLOWING ITEMS:

19.1 TOPOGRAPHY AND SPOT GRADE ELEVATIONS OF ALL PROPOSED PERMANENT SITE FEATURES INCLUDING ANY STORM WATER FACILITIES OR MODIFICATIONS TO EXISTING STORM WATER FACILITIES.

19.2 HORIZONTAL AND VERTICAL LOCATION AND ALIGNMENT OF ALL PROPOSED ROADWAYS, PARKING LOTS, UTILITIES, BUILDINGS OR OTHER PERMANENT SITE FEATURES.

19.3 RIM AND INVERT AND/OR TOP OF PIPE ELEVATIONS FOR ALL PROPOSED UTILITIES.

19.4 AS-BUILT AND/OR RECORD DRAWING INFORMATION SHALL BE SHOWN ON THE APPROVED ENGINEERING PLANS ISSUED FOR CONSTRUCTION. ANY AND ALL DEVIATIONS FROM THESE APPROVED PLANS SHALL BE SHOWN BY MEANS OF STRIKING THROUGH THE PROPOSED INFORMATION AND CLEARLY INDICATING THE AS-BUILT LOCATIONS AND ELEVATIONS ON THE APPLICABLE PLAN SHEET.

SITE GRADING AND PAVING

1. ALL SITE WORK, GRADING, AND PAVING OPERATIONS WITHIN THE LIMITS OF THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," LATEST EDITION ("STANDARD SPECIFICATIONS"), ANY SPECIAL PROVISIONS, THE NOTES IN THE PLANS AND IN ACCORDANCE WITH THE CODES AND ORDINANCES OF THE GOVERNING AUTHORITIES. IN CASE OF CONFLICT, THE MORE STRINGENT CODE SHALL TAKE PRECEDENCE.

2. EARTH EXCAVATION SHALL INCLUDE CLEARING, STRIPPING AND STOCKPILING TOPSOIL, REMOVING UNSUITABLE MATERIALS, CONSTRUCTION OF EMBANKMENTS, NON-STRUCTURAL FILLS, FINAL SHAPING AND TRIMMING TO THE LINES, GRADES AND CROSS SECTIONS SHOWN ON THE PLANS. THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 200 OF THE "STANDARD SPECIFICATIONS." ALL UNSUITABLE OR EXCESS MATERIAL SHALL BE DISPOSED OF OFF-SITE OR AS DIRECTED BY THE PROJECT REPRESENTATIVE IN THE FIELD.

3. EXCAVATED TOPSOIL SHALL BE STOCKPILED ON THE SITE IN AREAS DESIGNATED BY THE PROJECT ENGINEER UNTIL SUCH TIME THAT THIS TOPSOIL CAN BE USED FOR FINAL GRADING. UNLESS OTHERWISE NOTED ON THE PLANS, A MINIMUM OF 6" TOPSOIL RE-SPREAD AND SEEDING FOR ALL DISTURBED AREAS IS REQUIRED.

4. THE SOILS INVESTIGATION REPORT FOR THE SITE AND ALL ADDENDA THERETO ARE SUPPORTING DOCUMENTS FOR THIS PROJECT. THE RECOMMENDATIONS AS STATED IN SAID REPORT ARE HEREBY INCORPORATED INTO THESE CONSTRUCTION NOTES BY REFERENCE AND SHALL BE FOLLOWED BY ALL CONTRACTORS. THE GRADING OPERATIONS ARE TO BE CLOSELY SUPERVISED AND INSPECTED, PARTICULARLY DURING THE REMOVAL OF UNSUITABLE MATERIAL AND THE CONSTRUCTION OF EMBANKMENTS OR BUILDING PADS, BY A SOILS ENGINEER OR HIS REPRESENTATIVE. FURTHER CONSTRUCTION OPERATIONS WILL NOT BE PERMITTED UNTIL THE SOILS ENGINEER ISSUES A WRITTEN STATEMENT THAT THE AREA IN QUESTION HAS BEEN SATISFACTORILY PREPARED AND IS READY FOR CONSTRUCTION.

5. CONTRACTOR RESPONSIBLE FOR COORDINATION / SCHEDULING AND HIRING ALL TESTING, INSPECTION AND SUPERVISION OF SOIL QUALITY, UNSUITABLE SOIL REMOVAL AND ITS REPLACEMENT, AND OTHER SOIL RELATED OPERATIONS.

6. THE CONTRACTOR SHALL USE CARE IN GRADING NEAR TREES, SHRUBS, AND BUSHES WHICH ARE NOT NOTED TO BE REMOVED SO AS NOT TO CAUSE INJURY TO ROOTS OR TRUNKS.

7. THE CONTRACTOR SHALL USE CARE IN GRADING OR EXCAVATING NEAR ANY AND ALL EXISTING ITEMS WHICH ARE NOT INDICATED TO BE REMOVED. ANY DAMAGE DONE TO THESE EXISTING ITEMS BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT HIS OWN EXPENSE.

8. REMOVED DRIVEWAY PAVEMENT, SIDEWALK, CURBS, TREES AND STUMPS SHALL BE DISPOSED OF LEGALLY OFF-SITE AT LOCATIONS DETERMINED BY THE CONTRACTOR.

9. ON AND OFF SITE PAVING AND CURBS TO REMAIN SHALL BE PROTECTED FROM DAMAGE, AND, IF DAMAGED, SHALL BE REPLACED PROMPTLY TO MEET STATE AND LOCAL STANDARD SPECIFICATIONS IN MATERIALS AND WORKMANSHIP.

10. PROPOSED ELEVATIONS INDICATE FINISHED GRADE CONDITIONS. FOR ROUGH GRADING ELEVATIONS ALLOW FOR THE THICKNESS OF THE PROPOSED PAVING (ROADS, WALKS, DRIVE, ETC.) SECTION OR TOPSOIL AS INDICATED ON THE PLANS.

11. CONTRACTOR SHALL PROVIDE SMOOTH VERTICAL CURVES THROUGH THE HIGH AND LOW POINTS INDICATED BY SPOT ELEVATIONS ON THE PLANS. CONTRACTOR SHALL PROVIDE UNIFORM SLOPES BETWEEN NEW AND EXISTING GRADES AND AVOID ANY RIDGES AND/OR DEPRESSIONS.

12. ALL PROPOSED GRADING, PAVEMENT, APRONS, CURBS, WALKS, ETC. SHALL MATCH EXISTING GRADES FLUSH.

13. ALL EXISTING AND PROPOSED TOP OF FRAME ELEVATIONS FOR STORM, SANITARY, WATER AND OTHER UTILITY STRUCTURES SHALL BE ADJUSTED TO MEET FINISHED GRADE WITHIN THE PROJECT LIMITS.

14. ALL CONCRETE POURED SHALL BE:

14.1. MINIMUM COMPRESSIVE STRENGTH:
14.1.1. 3,500 P.S.I. AT 14 DAYS (PER I.D.O.T.)
14.1.2. 4,500 P.S.I. AT 28 DAYS (PER A.C.I.)

14.2. MAX WATER-CEMENTITIOUS MATERIALS RATIO: 0.44 (AIR-ENTRAINED)

14.3. AIR CONTENT: 6%, +/- 1.5% AT POINT OF DELIVERY FOR EXPOSED CONCRETE

15. WHEN FIBER MESH REINFORCEMENT IS SPECIFIED, IT SHALL CONSIST OF FIBRIIIATED POLYPROPYLENE FIBERS ENGINEERED AND DESIGNED FOR USE IN CONCRETE PAVEMENT, COMPLYING WITH ASTM C 1116, TYPE III, $\frac{1}{2}$ TO $\frac{3}{4}$ INCHES LONG. FIBERS SHALL BE UNIFORMLY DISPERSED IN THE CONCRETE MIXTURE AT THE MANUFACTURER'S RECOMMENDED RATE, BUT NOT LESS THAN 1.5 LBS / CU. YD.

16. THE GRADING AND CONSTRUCTION OF THE PROPOSED PAVEMENT IMPROVEMENTS SHALL NOT CAUSE PONDING OF STORM WATER. ALL AREAS ADJACENT TO THESE IMPROVEMENTS SHALL BE GRADED TO ALLOW POSITIVE DRAINAGE AND MATCH EXISTING GRADES FLUSH.

17. CONTRACTOR SHALL ENSURE POSITIVE SITE DRAINAGE AT THE END OF EACH WORKING DAY DURING CONSTRUCTION OPERATIONS. FAILURE TO PROVIDE ADEQUATE DRAINAGE WILL PRECLUDE THE CONTRACTOR FROM ANY POSSIBLE COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT.

18. DRIVEWAYS SHALL BE CONSTRUCTED SO AS NOT TO IMPEDE THE SURFACE DRAINAGE SYSTEM.

19. TRAFFIC CONTROL DEVICES SHALL BE IN CONFORMANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARDS AND SHALL BE INSTALLED AND PROVIDED WHENEVER CONSTRUCTION FOR UTILITIES ARE WITHIN STREET AREAS. APPLICABLE ORDINANCES OF THE MUNICIPALITY, COUNTY OR STATE SHALL ALSO GOVERN THE TRAFFIC CONTROL REQUIREMENTS.

SOIL EROSION AND SEDIMENT CONTROL CONSTRUCTION SCHEDULE

1. OBTAIN NPDES AND OTHER APPLICABLE SITE PERMITS AND REVIEW PROJECT'S STORMWATER POLLUTION PREVENTION PLAN (SWPPP). CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND UPDATING THE SWPPP THROUGHOUT THE DURATION OF CONSTRUCTION AS NECESSARY UNTIL FINAL SITE STABILIZATION IS ACHIEVED.

2. INSTALL STABILIZED CONSTRUCTION ENTRANCE.

3. INSTALL PERIMETER SEDIMENT CONTROL MEASURES (E.G. SILT FENCE).

4. INSTALL PROTECTION DEVICES FOR EXISTING DRAINAGE INLET AND OUTLET STRUCTURES, IF APPLICABLE.

5. PERFORM STORMWATER POLLUTION PREVENTION SITE INSPECTIONS ON A WEEKLY BASIS AND WITHIN TWENTY-FOUR (24) HOURS OF THE END OF A RAINFALL EVENT THAT IS 0.5 INCH OR GREATER (OR EQUIVALENT SNOWFALL). AT A MINIMUM, THE INSPECTIONS SHALL INCLUDE THE DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED, ALL STRUCTURAL CONTROL MEASURES, LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE, AND ANY ADDITIONAL BEST MANAGEMENT PRACTICES IDENTIFIED IN THE SWPPP.

5.1. ALL SITE EROSION AND SEDIMENT CONTROL MEASURES AND BEST MANAGEMENT PRACTICES SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND SHALL BE CONTINUOUSLY MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION (SEE THE STORMWATER POLLUTION PREVENTION NOTES AND STORMWATER POLLUTION PREVENTION MAINTENANCE SCHEDULE FOR ADDITIONAL INFORMATION). CONTRACTOR SHALL MAKE AND COMPLETE THE REQUIRED REPAIRS WITHIN FORTY-EIGHT (48) HOURS OF THE INSPECTION.

5.2. CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL STRUCTURAL CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE SITE INSPECTIONS.

5.3. PERFORM STREET CLEANING OPERATIONS AND OTHER BEST MANAGEMENT PRACTICES AS NEEDED.

6. PERFORM SITE CLEARING AND GRUBBING AND REMOVE EXISTING VEGETATION AS NEEDED FOR INITIAL SITE GRADING OPERATIONS. VEGETATED SITE AREAS THAT ARE NOT INCLUDED WITH THE INITIAL GRADING SHALL REMAIN UNDISTURBED. ALL TOPSOIL STOCKPILES SHALL BE SURROUNDED WITH SILT FENCE AND STABILIZED WITHIN THREE (3) DAYS OF FORMING THE STOCKPILE.

7. REMOVE ALL ITEMS NOTED FOR REMOVAL IN THE DEMOLITION PLAN.

8. PERFORM ROUGH GRADING OPERATIONS, CONSTRUCT OVERFLOW ROUTES, AND STABILIZE ALL DISTURBED AREAS, INCLUDING BUT NOT LIMITED TO STEEP SLOPES, DRAINAGE CHANNELS AND SWALES (I.E. TEMPORARY AND PERMANENT SEEDING, EROSION CONTROL BLANKETS, RIP-RAP, CHECK DAMS, TEMPORARY DRAINAGE DIVERSIONS, ETC.).

9. INSTALL TEMPORARY CONCRETE WASHOUT FACILITY.

10. INSTALL BUILDING FOUNDATIONS AND BEGIN BUILDING CONSTRUCTION.

11. INSTALL DETENTION SYSTEMS, VOLUME CONTROL, STORM SEWERS AND OTHER SITE UTILITIES AND IMMEDIATELY INSTALL DRAINAGE INLET AND OUTLET PROTECTION DEVICES AS INDICATED ON THE PLANS.

12. PROVIDE TEMPORARY SEEDING AND/OR MULCHING FOR ALL DISTURBED SITE AREAS THAT WILL NOT BE WORKED ON FOR MORE THAN FOURTEEN (14) DAYS.

13. INSTALL CURBS AND BEGIN SITE PAVING OPERATIONS (I.E. DRIVEWAYS, SIDEWALKS, ETC.).

14. COMPLETE BUILDING CONSTRUCTION AND REMAINING SITE IMPROVEMENTS.

15. REMOVE TEMPORARY SITE EROSION AND SEDIMENT CONTROL MEASURES WITHIN THIRTY (30) DAYS OF FINAL SITE STABILIZATION.

16. SUBMIT A NOTICE OF TERMINATION (N.O.T.) TO THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY UPON COMPLETION OF ALL SITE CONSTRUCTION AND FINAL SITE STABILIZATION (I.E. OVER 70% VEGETATIVE COVER).

WATER MAINS AND SEWERS VERTICAL SEPARATION REQUIREMENTS

1. WATER MAINS SHALL BE SEPARATED FROM A SEWER SO THAT ITS INVERT IS A MINIMUM OF EIGHTEEN (18) INCHES ABOVE THE CROWN OF THE DRAIN OR SEWER WHENEVER WATER MAINS CROSS STORM SEWERS, SANITARY SEWERS, OR SEWER SERVICE CONNECTIONS. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATER MAIN LOCATED WITHIN TEN (10) FEET HORIZONTALLY OF ANY SEWER OR DRAIN CROSSED. A LENGTH OF WATER MAIN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANT FROM THE SEWER OR DRAIN.

2. BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE, ASBESTOS-CEMENT PRESSURE PIPE, PRE-STRESSED CONCRETE PIPE, OR PVC PIPE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION WHEN:

2.1. IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED IN 1 ABOVE; OR

2.2. THE WATER MAIN PASSES UNDER A SEWER OR DRAIN

3. A VERTICAL SEPARATION OF EIGHTEEN (18) INCHES BETWEEN THE INVERT OF THE SEWER OR DRAIN AND THE CROWN OF THE WATER MAIN SHALL BE MAINTAINED WHERE A WATER MAIN CROSSES UNDER A SEWER. THE SEWER OR DRAIN LINES SHALL BE SUPPORTED TO PREVENT SETTLING AND BREAKING OF THE WATER MAIN, AS SHOWN ON THE PLANS OR AS APPROVED BY THE ENGINEER.

4. CONSTRUCTION SHALL EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE PERPENDICULAR DISTANCE FROM THE WATER MAIN TO THE SEWER OR DRAIN LINE IS AT LEAST TEN (10) FEET.

WATER MAINS AND SEWERS HORIZONTAL SEPARATION REQUIREMENTS

1. WATER MAINS SHALL BE LOCATED AT LEAST TEN (10) FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED DRAIN, STORM SEWER, SANITARY SEWER, COMBINED SEWER, OR SEWER SERVICE CONNECTION.

2. WATER MAINS MAY BE LOCATED CLOSER THAN TEN (10) FEET TO A SEWER LINE WHEN:

2.1. LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF TEN (10) FEET; AND

2.2. THE WATER MAIN INVERT IS AT LEAST EIGHTEEN (18) INCHES ABOVE THE CROWN OF THE SEWER; AND

2.3. THE WATER MAIN IS EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON AN UNDISTURBED EARTH SHELF LOCATED TO ONE SIDE OF THE SEWER.

3. WHEN IT IS IMPOSSIBLE TO MEET 1) OR 2) ABOVE, BOTH THE WATER MAIN AND DRAIN OR SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE, ASBESTOS-CEMENT PRESSURE PIPE, PRE-STRESSED CONCRETE PIPE, OR PVC PIPE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION. THE DRAIN OR SEWER SHALL BE PRESSURE TESTED FOR THE MAXIMUM EXPECTED SURCHARGE HEAD PRIOR TO BACKFILLING.

STORMWATER POLLUTION PREVENTION NOTES

1. COPIES OF THE APPROVED STORM WATER POLLUTION PREVENTION PLANS SHALL BE MAINTAINED ON THE SITE AT ALL TIMES ALONG WITH THE PERMIT, INCIDENT OF NON-COMPLIANCE (I.O.N.) FORM AND INSPECTION FORMS.
2. CONTRACTOR SHALL PROVIDE COPIES OF ALL SWPPP REPORTS, FORMS, AND LOGS TO W-T CIVIL ENGINEERING ONCE THE SITE HAS BEEN STABILIZED. THE CONTRACTOR SHALL MAINTAIN THESE DOCUMENTS FOR A PERIOD OF 3 YEARS FROM THE FINAL STABILIZATION OF THE SITE.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL STORMWATER POLLUTION PREVENTION PLAN (SWPPP) INSPECTIONS, INSPECTION REPORTS, CORRECTIVE ACTION FORMS, SWPPP AMENDMENT LOGS, SUBCONTRACTOR CERTIFICATIONS/AGREEMENTS, GRADING AND STABILIZATION ACTIVITIES LOGS, SWPPP TRAINING LOGS, AND DELEGATION OF AUTHORITY FORMS FOR THE DURATION OF THE PROJECT.

3.1. ILLINOIS QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN TWENTY-FOUR (24) HOURS OF THE END OF A RAINFALL EVENT THAT IS 0.5 INCH OR GREATER (OR EQUIVALENT SNOWFALL). REQUIRED REPAIRS SHOULD BE COMPLETED WITHIN FORTY-EIGHT (48) HOURS OF THE INSPECTION.

3.2. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO INFORM ANY SUBCONTRACTOR(S) WHO MAY PERFORM WORK ON THIS PROJECT, OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THESE EROSION CONTROL PLANS AND THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS SET FORTH BY THE ILLINOIS EPA.

4. ALL EROSION AND SEDIMENTATION CONTROL MEASURES AND DEVICES SHALL BE INSTALLED AND FUNCTIONAL BEFORE THE SITE IS OTHERWISE DISTURBED. THEY SHALL BE KEPT OPERATIONAL AND MAINTAINED CONTINUOUSLY THROUGHOUT THE PERIOD OF LAND DISTURBANCE UNTIL PERMANENT SITE STABILIZATION HAS BEEN ACHIEVED.
5. PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAT INDICATED ON THESE PLANS (INCLUDING BUT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED FOR REVIEW.
6. THE GOVERNING AUTHORITIES HAVING JURISDICTION OVER THE PROJECT SITE MUST BE NOTIFIED ONE (1) WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE (1) WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, AND ONE (1) WEEK PRIOR TO THE FINAL INSPECTION.
7. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE GOVERNING AUTHORITY.
8. IF AFTER REPEATED FAILURE ON THE PART OF THE CONTRACTOR TO PROPERLY CONTROL EROSION, POLLUTION, AND/OR SILTATION, THE GOVERNING AUTHORITIES RESERVE THE RIGHT TO EFFECT NECESSARY CORRECTIVE MEASURES AND CHARGE ANY COSTS TO THE CONTRACTOR.
9. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL LATEST EDITION.
10. INLET PROTECTION SHALL BE INSTALLED AROUND EACH INLET OR CATCH BASIN. THESE SHALL BE MAINTAINED UNTIL THE TRIBUTARY DRAINAGE AREAS HAVE ADEQUATE GRASS COVER OR APPROPRIATE GROUND STABILIZATION.
11. ALL STREETS ADJACENT TO THE SITE SHALL BE KEPT FREE OF DIRT, MUD AND DEBRIS.
12. CONTRACTORS SHALL MINIMIZE BARE EARTH SURFACES DURING CONSTRUCTION.
13. ALL DISTURBED AREAS SHOULD BE SEEDED OR SODDED WITHIN THREE (3) DAYS OF FINAL DISTURBANCE.
14. WHENEVER DURING CONSTRUCTION OPERATIONS ANY LOOSE MATERIALS ARE DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, OR DITCHES SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THIS LOOSE MATERIAL SHALL BE REMOVED.
15. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY EXISTING STORM DRAINAGE SYSTEMS BY THE USE OF INLET PROTECTION OR OTHER APPROVED FUNCTIONAL METHODS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SEDIMENT RESULTING FROM CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT.
16. CONSTRUCTION ACCESS POINTS TO THE SITE SHALL BE PROTECTED IN SUCH A WAY AS TO PREVENT TRACKING OF MUD OR SOIL ONTO PUBLIC THOROUGHFARES. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
17. ALL CONSTRUCTION TRAFFIC SHALL ENTER AND EXIT THE SITE FROM THE PROPOSED CONSTRUCTION ENTRANCE. THE USE OF ANY OTHER ACCESSES IS PROHIBITED.
18. DURING DEWATERING OPERATIONS, WATER SHALL BE PUMPED OR OTHERWISE DISCHARGED FROM THE SITE INTO SEDIMENT BASINS, SILT TRAPS, DEWATERING BAGS OR POLYMER MIXING SWALE. DEWATERING DIRECTLY INTO FIELD TILES, WETLANDS, ADJACENT PROPERTIES, PUBLIC RIGHTS-OF-WAY, STREAMS, LAKES, PONDS, RIVERS, OR STORMWATER SYSTEMS IS PROHIBITED.
19. ALL STOCKPILES SHOULD BE STABILIZED WITHIN THREE (3) DAYS OF FORMING THE STOCKPILE.
20. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN SEVEN (7) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED AS FOLLOWS:

20.1. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 7TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES ON A PORTION OF THE SITE IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.

20.2. WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 14 DAYS FROM WHEN ACTIVITIES CEASED, (I..E. THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN 14 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE 7TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY CEASES.

21. EROSION CONTROL BLANKETS SHALL BE USED IN AREAS OF 6:1 SLOPE OR STEEPER AND AS SHOWN ON THE PLANS.
22. ALL DISTURBED GREEN SPACES WITHIN THE R.O..W. SHALL BE RESTORED WITH 6" OF TOPSOIL AND CLASS 2A SEEDING.
23. THE CONDITION OF THE CONSTRUCTION SITE FOR WINTER SHUTDOWN SHALL BE ADDRESSED EARLY IN THE FALL GROWING SEASON SO THAT THE SLOPES AND OTHER BARE EARTH AREAS MAY BE STABILIZED WITH TEMPORARY AND/OR PERMANENT VEGETATIVE COVER FOR PROPER EROSION AND SEDIMENT CONTROL. ALL OPEN AREAS THAT ARE TO REMAIN IDLE THROUGHOUT THE WINTER SHALL RECEIVE TEMPORARY EROSION CONTROL MEASURES INCLUDING TEMPORARY SEEDING, MULCHING AND/OR EROSION CONTROL BLANKET PRIOR TO THE END OF THE FALL GROWING SEASON. THE AREAS TO BE WORKED BEYOND THE END OF THE GROWING SEASON MUST INCORPORATE SOIL STABLIZATION MEASURES THAT DO NOT RELY ON VEGETATIVE COVER SUCH AS EROSION CONTROL BLANKET AND HEAVY MULCHING.
24. ONCE ALL UPSTREAM AREAS ARE STABILIZED WITH SEED AND BLANKET OR SOD AS SHOWN IN THE PLANS, SILT FENCING SHALL BE REMOVED AND THE TRENCH SHALL BE RESTORED WITH TOPSOIL, SEED, FERTILIZER AND BLANKETING. RESTORATION SHALL OCCUR IMMEDIATELY FOLLOWING THE REMOVAL OF THE SILT FENCE. RESTORATION SHALL BE COMPLETED THE SAME WORKING DAY AS ANY SILT FENCING REMOVAL AND AT LEAST 2 HOURS BEFORE ANY FORECASTED PRECIPITATION.
25. ALL TEMPORARY EROSION CONTROL AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE PROPERLY STABILIZED OR DISPOSED OFF BY THE CONTRACTOR.

AQUATIC \ CIVIL \ MECHANICAL \ ELECTRICAL \ PLUMBING \ TELECOMMUNICATION \ STRUCTURAL \ ACCESSIBILITY CONSULTING \ DESIGN & PROGRAM MANAGEMENT \ LAND SURVEY

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ISSUE

TO	DATE
CITY	1-19-23
CCHD/IDOT	2-08-23
CITY	2-22-23
CITY	5-05-23

CHECK: JPG
DRAWN: VE
JOB:D2200035

C-4.0
PROJECT SPECIFICATIONS

A. REFERENCED SPECIFICATIONS

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:
   * STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * VILLAGE OF TINLEY PARK MUNICIPAL CODE;
   * THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;
   * IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

B. NOTIFICATIONS

1. THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055 OR SEND EMAIL NOTIFICATION WITH PROJECT NAME, LOCATION AND PERMIT NUMBER TO WMOJOBSTART@MWRD.ORG).
2. THE VILLAGE OF TINLEY PARK ENGINEERING DEPARTMENT AND PUBLIC WORKS DEPARTMENT MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.
3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.

C. GENERAL NOTES

1. ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). CONVERSION FACTOR IS 0.0 FT.
2. MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.
3. THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.
4. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS. A COPY OF THE MOST UP TO DATE FOR CONSTRUCTION PLANS SHALL BE KEPT ON SITE AT ALL TIMES.
5. THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.
6. ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
7. MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.
8. THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.
9. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.
10. RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE VILLAGE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.

D. SANITARY SEWER

1. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.
2. A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.
3. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.
4. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).
5. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.
6. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.
7. ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
VITRIFIED CLAY PIPE	ASTM C-700	ASTM C-425
REINFORCED CONCRETE SEWER PIPE	ASTM C-76	ASTM C-443
CAST IRON SOIL PIPE	ASTM A-74	ASTM C-564
DUCTILE IRON PIPE	ANSI A21.51	ANSI A21.11
POLYVINYL CHLORIDE (PVC) PIPE		
6-INCH TO 15-INCH DIAMETER SDR 26	ASTM D-3034	ASTM D-3212
18-INCH TO 27-INCH DIAMETER F/DY=46	ASTM F-679	ASTM D-3212
HIGH DENSITY POLYETHYLENE (HDPE)	ASTM D-3350	ASTM D-3261,F-2620 (HEAT FUSION)
	ASTM D-3035	ASTM D-3212,F-477 (GASKETED)
WATER MAIN QUALITY PVC		
4-INCH TO 36-INCH	ASTM D-2241	ASTM D-3139
4-INCH TO 12-INCH	AWWA C900	ASTM D-3139
14-INCH TO 48-INCH	AWWA C905	ASTM D-3139

THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
POLYPROPYLENE (PP) PIPE		
12-INCH TO 24-INCH DOUBLE WALL	ASTM F-2736	D-3212, F-477
30-INCH TO 60-INCH TRIPLE WALL	ASTM F-2764	D3212, F-477

8. ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE ¼ " TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO ¼ THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.
9. NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.
10. ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID. AND VILLAGE OF TINLEY PARK, CAST INTO LID.
11. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
    a) A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SHEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE SADDLE OR HUB-TEE SADDLE.
    b) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
    c) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.
12. WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.
13. ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.
14. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.
15. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.
16. ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.
17. EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.
18. A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO ENSURE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

E. EROSION AND SEDIMENT CONTROL

1. THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
2. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.
3. ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
5. INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
    a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
    b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.
6. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.
7. A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
8. CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.
9. MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.
10. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.
11. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.
12. ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).
13. VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
14. SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.
15. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.
16. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.
17. THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.
18. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.
19. THE CONTRCTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMAINS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATERS SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.
20. ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.
21. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.
22. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.
23. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.

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AQUATIC \ CIVIL \ MECHANICAL \ ELECTRICAL \ PLUMBING \ TELECOMMUNICATION \ STRUCTURAL \ ACCESSIBILITY CONSULTING \ DESIGN & PROGRAM MANAGEMENT \ LAND SURVEY

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ISSUE

TO	DATE
CITY	1-19-23
CCHD/IDOT	2-08-23
CITY	2-22-23
CITY	5-05-23

CHECK: JPG
DRAWN: VE
JOB:D2200035

C-4.1
MWRD GENERAL NOTES

COUNTY OF COOK

TRANSPORTATION AND HIGHWAYS DEPARTMENT

General Conditions and CCDOTH Construction Notes for Permit Work

General Conditions

1. Definition of "Owner": The "Owner" is the Name/s listed on the Cook County Transportation and Highways Department (CCDOTH) Permit as "Owner/s". The "Owner" is the "Grantee" listed in the Public Way Regulatory Ordinance (the "Ordinance"), Chapter 66.

2. Capitalized terms used in this Permit and not otherwise defined herein shall have the meanings ascribed to them in the Public Way Regulatory Ordinance (the "Ordinance"), Chapter 66, Article III, and Sections 50 et seq. of the Cook County Code. Requirements set forth in these General Conditions are in addition to and not in limitation of the requirements of the Ordinance.

3. The CCDOTH Permit is only applicable for the work shown on the final approved submitted plans on Cook County Right of Way (ROW). The permit does not release the Owner from fulfilling the requirements of any other laws or other required permitting relating to the permitted work. It is the responsibility of the Owner to acquire all other applicable approvals and/or permits required for the proposed work in the submitted plans. Copies of the applicable approvals and/or permits shall be submitted to CCDOTH for the permit file.

4. The Owner shall fulfill all requirements set forth in the permit application and its instructions, including without limitation, permit fees, insurance and bonding are a condition of this Permit. Issuance of this Permit, without the fulfillment of all requirements by Owner shall not act as a waiver of Owner's obligation to comply with such requirements, unless approval in writing of such change is given by the Cook County Superintendent of Transportation and Highways.

5. The Permit can be revoked pursuant to the terms of the Ordinance or at the discretion of the Cook County Superintendent of Transportation and Highways.

6. The Owner shall provide two days advance notice prior to the start of work to the CCDOTH Permit Office. Email the notice to hwy.permits@cookcountyil.gov .

7. No changes, alterations, or revisions to the Permitted Work are allowed unless approved in writing by the Cook County Superintendent of Transportation and Highways or his designee.

8. If Owner discovers during the progress of the Permitted Work that subterranean conditions prohibit the construction of said improvement in and along the alignment as outlined in the plans, it is expressly understood that all Permitted Work shall cease until a proposed revised alignment has been approved by the CCDOTH and the Permit has been modified.

9. The Owner shall furnish all material to do all work required and pay all costs which may be incurred in connection with such work and shall prosecute the same diligently and without delay to completion. See Ordinance for additional requirements as to work in the Public Way.

10. All construction methods and construction materials shall be in accordance with the latest version of the Illinois Department of Transportation (IDOT) Standard Specifications for Road and Bridge Construction, IDOT Supplemental Specifications and Recurring Special Provisions, IDOT Standards, Cook County Special Provisions and Cook County Standards.

11. Upon completion of the Permitted Work, Owner shall in a timely manner, (but in no event more than 30 days unless another time frame is directed by the CCDOTH Permits Division) restore the Public Way substantially to the same condition in which it was before the Permitted Work started. The work includes but is not limited to removing all debris, rubbish, materials, apparatus, tools, and equipment, as well as all excess excavated materials, from the Public Way.

12. Should future construction and operation of the highways by CCDOTH require alteration or relocation of the Owner's Facilities, such change shall be made by the Owner, its successor or assigns upon the written request of the Superintendent of CCDOTH without expense to said County or State. Requirements for any such requested alteration or relocation are further detailed in the Ordinance.

13. The Owner, its successor and assigns, assume all risk and liability for accidents and damages that may accrue to persons and property, during the prosecution of the work or any time thereafter, by reason of the location, construction, installation, operation, maintenance, repair and work referred to herein, and the Owner, by acceptance of the Permit, agrees to indemnify and save harmless Cook County from any such claims for damages and from all costs and expenses incurred on account thereof and in connection therewith.

14. In accordance with the Ordinance, and agreement by the Owner, the Owner acknowledges and agrees that the Permit is null and void if the Owner is delinquent in the payment of any tax or fee administered by the Cook County.

15. The Owner shall furnish the CCDOTH Permits Division one as-built PDF in 22"x34" format. The issued permit plans and any issued addendum plans will become the as-built plans if the owner on this permit does not submit as-built plans by the expiration date of the permit or by the last permit extension date.

16. Notify CCDOTH Permits office in writing for final inspection. The letter can be emailed to hwy.permits@cookcountyil.gov

CCDOTH Construction Notes

Curb and Gutter (PCC)

1. PCC Pavement mix designs shall be per the IDOT Standard Specifications for Road and Bridge Construction art 1020.04

2. In the removal of curb and gutter, the use of any type of concrete breaker that will damage the underground structures will not be permitted.

3. Saw cut the full depth of curb and gutter at the limits of removal.

4. Construct curb and gutter in accordance with IDOT standard 606001. Provide a tied longitudinal construction joint in accordance with IDOT standard 420001, using 30" long #6 (3/4" Dia.) deformed epoxy coated tie bars at 36-inch centers.

Drainage

5. The drainage systems shall always be kept clean and free of debris.

6. The Owner shall be responsible for providing positive drainage.

7. CCDOTH reserves the right to make connections to the proposed storm sewer for the purpose of draining the highway.

8. As a condition of granting this permit, which includes the point discharge of storm water onto the Cook County Transportation and Highways Right Of Way, the Owner hereby grants permission to the Cook County Transportation and Highways Department to enter onto private property to inspect the detention control structure.

Erosion Control and Landscaping

9. The parkway shall always be kept clean and free of debris.

10. Any disturbed areas within Cook County ROW require erosion control blanket prior to final landscaping per current Illinois Environmental Protection Agency (IEPA) standards.

11. Cook County Right-of-Way to be restored with 4" topsoil, fertilizer and sod. This note supersedes any note in the plans.

Excavation and Backfill

12. The Owner shall manage the excavation, transport, and disposal of all excavated materials (i.e. soil, debris, etc.) in accordance with local, state, and federal regulations.

13. As a condition of this permit, the Owner shall request CCDOTH to identify sites in the Right-of-Way where a Highway Authority Agreement governs access to soil that exceeds the Tier 1 residential remediation objectives of 35 Ill. Adm. Code 742. The Owner shall take all measures necessary to protect human health (including worker safety) and the environment during and after any access to such soil.

14. All trenches within Cook County ROW shall be trench backfilled with FA-6 sand in accordance with Method 1 in accordance with Article 550.07 of the (IDOT) Standard Specifications for Road and Bridge Construction.

Median (PCC)

15. PCC Pavement mix designs shall be per the IDOT Standard Specifications for Road and Bridge Construction art 1020.04

16. In the removal of median, the use of any type of concrete breaker that will damage the underground structures will not be permitted.

17. Saw cut the full depth of median at the limits of removal.

18. Construct median in accordance with IDOT standard 606301. Provide a tied longitudinal construction joint in accordance with IDOT standard 420001, using 30" long #6 (3/4" Dia.) epoxy coated deformed tie bars at 36-inch centers.

Pavement, All

19. Saw cut the full depth of pavement at the limits of removal.

20. In the removal of pavement, the use of any type of concrete breaker that will damage the underground structures will not be permitted.

21. The pavement shall always be kept clean and free of debris.

22. Where a median opening is provided, the pavement shall be crowned at the centerline using a one percent cross slope.

23. Unless specified in the Permit, no equipment other than pneumatic-tired equipment used during the installation shall be permitted to stop or operate on the pavement nor shall any excavated materials be stored temporarily or otherwise on the CCDOTH pavement.

24. All pavement patch openings that are open to traffic shall be immediately surfaced with a temporary bituminous patch at least three inches in thickness. This patch then must be inspected daily and additional bituminous patch material must be placed, daily if necessary, to maintain the patched area at the same elevation as the adjacent undisturbed pavement for a period of not less than 30 days. After 30 days, permanent replacement in kind shall be made to the base course and pavement surface.

Pavement, Entrance (Driveways, Side Streets)

25. PCC Pavement mix designs shall be per the IDOT Standard Specifications for Road and Bridge Construction art 1020.04

26. HMA surface and binder course mix designs shall be per IDOT D1 Hot Mix Selection Table. Link:http://www.idot.illinois.gov/doing-business/procurements/engineering-architectural-professional-services/Consultants-Resources/highway-standards-and-district-specific-standards Path: /District Specific Standards/District 1/D1PavementDesign/HMA Selection Table(Most Recent Date)

27. For entrance installations, the Owner shall remove earth to its full depth, starting at the edge of the pavement, for the full dimensions of the proposed entrance, and replace with materials to be used in the construction of the entrance.

28. The entrance radius meeting the edge of shoulder or the back of curb must terminate 3' from the property line extended to the edge of shoulder or the back of curb. If this requirement cannot be met, a letter from the neighboring property authorizing the encroachment must be submitted.

29. The CCDOTH reserves the right to restrict access to permitted entrances on future roadway improvements.

30. The Owner acknowledges that if or when the County of Cook improves the highway the pavement composition at the above-mentioned entrance(s) may be substituted.

Pavement, Hot Mix Asphalt (HMA) Pavement, Patching, and Resurfacing

All

31. HMA surface and binder course mix designs shall be per IDOT D1 Hot Mix Selection Table. Link:http://www.idot.illinois.gov/doing-business/procurements/engineering-architectural-professional-services/Consultants-Resources/highway-standards-and-district-specific-standards Path: /District Specific Standards/District 1/D1PavementDesign/HMA Selection Table(Most Recent Date)

Pavement

32. HMA Full Depth Pavement thickness shall be 12-inch on a 12-inch thick aggregate subgrade improvement. The HMA Pavement shall be built per the IDOT Standard Specifications for Road and Bridge Construction Art 407. The aggregate subgrade improvement shall be built per the IDOT Bureau of Design and Environment (BDE) Special Provision Aggregate Subgrade Improvement. Link:https://idot.illinois.gov/doing-business/procurements/engineering-architectural-professional-services/Consultants-Resources/design-and-environment-bde-special-provisions Path:/Aggregate Subgrade Improvement.

Patching

33. HMA Patching shall match the existing pavement thickness. The length shall be the greater of 6 feet (measured parallel to the centerline) or 12 inches wider than the pavement opening. The patch width shall be the full lane width of each lane affected. The pavement opening shall be saw-cut to the full depth of the pavement at the limits of removal. The HMA Pavement Patch shall be in accordance with Section 442 Pavement Patching of the Standard Specifications. Class D Patches shall be used for HMA pavements and HMA bases.

34. For roadways with HMA surface regardless of HMA or PCC base, HMA surface shall be placed a minimum of 6 inches longer on each side of the pavement patch.

Resurfacing

35. HMA Mill and Resurface Pavement thickness shall be per the approved permit plans. HMA Resurfacing shall be built per the IDOT Standard Specifications for Road and Bridge Construction Art 406.

Pavement, Portland Cement Concrete (PCC) Pavement, Patching

All

36. PCC Pavement mix designs shall be per the IDOT Standard Specifications for Road and Bridge Construction art 1020.04

Pavement

37. PCC Pavement thickness shall be 10 inches on a 12-inch thick aggregate subgrade improvement. The PCC Pavement shall be built per the IDOT Standard Specifications for Road and Bridge Construction Art 420. The aggregate subgrade improvement shall be built per the IDOT BDE Special Provision Aggregate Subgrade Improvement. Link:https://idot.illinois.gov/doing-business/procurements/engineering-architectural-professional-services/Consultants-Resources/design-and-environment-bde-special-provisions Path:/Aggregate Subgrade Improvement.

38. Where the proposed pavement or median abuts the existing pavement, median or curb and gutter longitudinally, provide a tied longitudinal construction joint in accordance with IDOT standard 420001, using 30" long #6 (3/4" Dia.) epoxy coated deformed tie bars at 36 inch centers. Keyed joints as shown on standard 420001 shall not be allowed.

39. Provide transverse sawed contraction joints every 15 feet in accordance with IDOT standard 420001, using 18" long #12 (1-1/2" Dia.) smooth epoxy coated dowel bars at 12-inch centers and align proposed joints with existing joints. If a proposed joint is located less than 6 feet from an existing joint, then the existing pavement or median shall be removed and replaced up to the existing joint.

Patching

40. PCC Patching shall match the existing pavement thickness. The length shall be the greater of 6 feet (measured parallel to the centerline) or 12 inches wider than the pavement opening. The patch width shall be the full lane width of each lane affected. The pavement opening shall be saw-cut to the full depth of the pavement at the limits of removal. The PCC Pavement Patch shall be in accordance with Section 442 Pavement Patching of the Standard Specifications. Class B Patches shall be used for concrete pavement and concrete bases.

41. Pavement patches greater than or equal to 15SY shall use pavement fabric in accordance with IDOT standard 420701 and provide 3 ½ inches of clearance between the pavement surface and the top of the fabric.

42. Pavement patches longer than 11ft 3inches shall be tied longitudinally to the abutting existing pavement, median or curb and gutter provide using 30" long #6 (3/4" Dia.) epoxy coated deformed tie bars at 36-inch centers.

43. Where the proposed pavement or median abuts the existing PCC pavement or median transversally, provide a transverse joint in accordance with IDOT standard 442101, using 18" long #12 (1-1/2" Dia.) smooth epoxy coated dowel bars at 12 inch centers.

Pavement Marking

44. Modified Urethane Pavement Marking shall be used for the proposed pavement marking per IDOT Standard Specifications for Road and Bridge Construction Art 780 and 1095.

45. Water Blaster and Vacuum Recovery method shall be used for removal of pavement marking per IDOT Standard Specifications for Road and Bridge Construction Art 783 and 1101.

46. The Modified Urethane Pavement Marking installation shall be done no later than December 15 per IDOT Standard Specifications for Road and Bridge Construction Art 780.12. The minimum winter performance period extends to May 1 the next year. If pavement markings are in before Dec 15 and the permit work is not completed by May 1 the next year, the performance period will last until a request for final inspection is made. The Permits inspector will do the final pavement marking inspection during the final inspection for the whole permit. The permit cannot be closed out until this requirement is met.

Sidewalk and Bus Shelters

47. In the removal of sidewalk and bus shelter pads, the use of any type of concrete breaker that will damage the underground structures will not be permitted.

48. All proposed bus shelter and bus shelter pads must meet the current IDOT Bureau of Design and Environment (BDE) Manual and IDOT Bureau of Local Roads (BLR) Manual, Public Rights-of-Way Accessibility Guidelines (PROWAG) and Americans with Disabilities Act (ADA) requirements.

49. All proposed sidewalk (crosswalk) shall be ramped in compliance with the current IDOT BDE Manual, IDOT BLR Manual, PROWAG and ADA requirements.

50. All proposed curb ramps shall be inspected after construction. IDOT form D1 PD0031 (link: www.idot.illinois.gov/home/resources/Forms-Folder/d Path:/District 1/ D1 PD0031) shall be filled out for each location. If there are any deficiencies the deficiencies shall be fixed, and the form refilled out for the location until the curb ramp is compliant. A copy of the final form shall be submitted to the CCDOTH Permits office at hwy.permits@cookcountyil.gov for the permit file. CCDOTH Permits office will forward the completed forms to the Cook County ADA Coordinator for the Cook County ADA file.

51. All The following CCDOTH Special Provision shall apply to all sidewalk.
    - 310 Detectable Warnings (Special), Cast Iron. (provided in permit review)

52. The following CCDOTH Standard shall apply to all sidewalk.
    - C-9 Cook County PCC Sidewalk Construction (Expansion Joints) Detail (provided in permit review.)

53. Proposed sidewalk shall be 8" thick through driveways and at curb ramps.

54. Concrete sidewalks shall be continuous through all driveways with a maximum cross slope of 1.5%.

Traffic Control

55. Owner shall provide and maintain at its own expense, such temporary roads, and approaches, as may be necessary to provide access to driveways, houses, buildings, or other property abutting the site of the Permitted Work. Access shall not be blocked.

56. No temporary lane closures or temporary traffic detours relating to Permitted Work will be allowed between the hours of 6 a.m. to 9 a.m. and 3 p.m. to 6:30 p.m., (other than as allowed for emergency maintenance per the Ordinance).

57. All signs shall conform to the latest Manual on Uniform Traffic Control Devices (MUTCD) and Illinois Supplemental to the Manual on Uniform Traffic Control Devices (MUTCD)

58. All traffic control devices shall conform to the latest IDOT Standard Specifications for Road and Bridge Construction, IDOT Highway Standards, and the IDOT approved product list.

59. All lane closures shall be in accordance with the latest IDOT Highway Standards.

60. The Owner shall conduct its operations in a manner so as to insure the minimum hindrance to traffic, using the pavement and at no time shall its operations obstruct more than one half (1/2) of the available pavement width.

61. When existing traffic control signs such as stop signs, stop ahead signs, and crossroad signs are removed in the progress of the Permitted Work, said signs shall be immediately reset as close as possible to their original location. After the completion of the Permitted Work has been approved, said traffic control signs shall be restored to their original position and condition. If modifications are needed a revised signage plan can be submitted to Permits for review and approval.

Traffic Signals, Lighting, Other Electrical

62. To ensure proper installation, the owner shall hire an inspector for all electrical work. The inspector shall be independent from the contractors working on the permit. The inspector's purpose is to ensure the contractor is installing the electrical items per the plans and specifications. The inspector shall be familiar with the field installation inspection, material inspection and documenting requirements of the Cook County, IDOT, and/or Municipal electrical work items on the permit. The work items may include but are not limited to Traffic Signal items, Traffic Signal Interconnect items, Flashing Beacon items, Lighting items, etc.

63. Care is to be taken as not to damage any of the existing traffic signal conduits, fiber cables and equipment. If any of the traffic signal conduits, cables and/or equipment is damaged, the Contractor shall repair and/or replace the conduits, cables and/or equipment at no cost to the County.

64. Cook County is not a member of JULIE (Joint Utility Locating Information for Excavators). For location information on Cook County Traffic Signal equipment, Traffic Signal Interconnect equipment, Flashing Beacons equipment, Lighting equipment, etc., please contact the Mechanical, Electrical, Architectural and Landscaping (MELA) Division at 312-603-1734.

65. If this contract requires the services of an electrical contractor, the Contractor shall be responsible at his/her own expense for locating existing IDOT and CCDOTH facilities prior to performing any work. If this contract does not require the services of electrical contractor, the Contractor may request one free locate for existing IDOT and CCDOTH electrical facilities from the Electrical Maintenance Contractor(s) prior to the start of any work. Additional requests may be at the expense of the Contractor. The location of underground traffic facilities does not relieve the Contractor of their responsibility to repair any facilities damaged during construction at their expense.

Utilities, All

66. It shall be the responsibility of the Owner to co-ordinate with utility companies sharing the Cook County ROW and relocate the existing power poles, fire hydrants, guardrail and appurtenances as needed for the proposed permit work. There shall be no cost to the county.

67. As a requirement of this permit all utility owners (private and government) shall maintain a membership with J.U.L.I.E. locating service until the utility is completely removed from Cook County ROW.

Utilities, Aerial

68. All aerial lines crossings or parallel must have a minimum clearance of 18'3".

69. Pole owner permission is required for all cable, conduit, and other appurtenance connection to a pole.

70. Proposed aerial cable shall not block the existing traffic signal heads.

71. Proposed aerial cable shall not touch existing traffic signal equipment.

Utilities Underground

72. All auger pits and excavations shall be as far away from the edge of pavement or back of curb as possible, and wood or steel sheeting shall be used. Auger pits shall be protected with concrete barrier walls if within clear zones. The ends of the concrete barrier walls shall be protected with crash attenuators. The barrier wall and crash attenuators design shall meet IDOT BDE Manual and IDOT BLR Manual Design requirements. Open holes left overnight shall fenced off and covered.

73. All external casing voids shall be pressure grouted or filled with trench backfill using pumping or jetting outside of the casing. The inside of the casing shall be sealed or filled using the external void procedures.

74. A minimum depth of 42 inches shall be maintained from the ground surface to the top of the conduit, cable, or pipe and a minimum depth of 36 inches from the true flow line of the drainage ditch to the top of the conduit, cable or pipe.

75. Proposed underground utilities running parallel to existing water main or sanitary sewer shall adjust the alignment if the utility is within 5 feet of the outer wall of the water main or sanitary sewer. The proposed utility shall maintain 5 feet or greater while running parallel to the existing water main or sanitary sewer. The distance between parallel or crossing sanitary or storm sewer with water main shall meet IEPA requirements.

Winter Moratorium Condition

76. During the winter months, (November 1 through April 15) the CCDOTH imposes a moratorium for the open cutting of pavement due to snow removal and the scarcity of ready mixes required to properly restore the pavement. This includes observation holes over existing utility facilities while performing directional bore operations, as well as lane closures for manhole access.

77. Each request to open cut the pavement or require a lane closure will be decided on a case by case basis. Should the request be approved, the following measures will be taken and adhered to:

    • Unless it is a dire emergency, no lane closures will be set up or work performed within the pavement areas on days that snow is predicted, or if the snow has yet been removed from the pavement.

    • There will be no overnight lane closures, unless approved in advance by CCDOTH.

    • All restoration must be completed by the end of each workday or backfill is required. The use of steel plates is prohibited. The temporary pavement patch size shall be backfilled with flowable fill (per Section 1019 of the Standard Specifications for Road and Bridge Construction).

    • All temporary pavement restorations will be permanently restored in the following Spring.

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CITY	5-05-23

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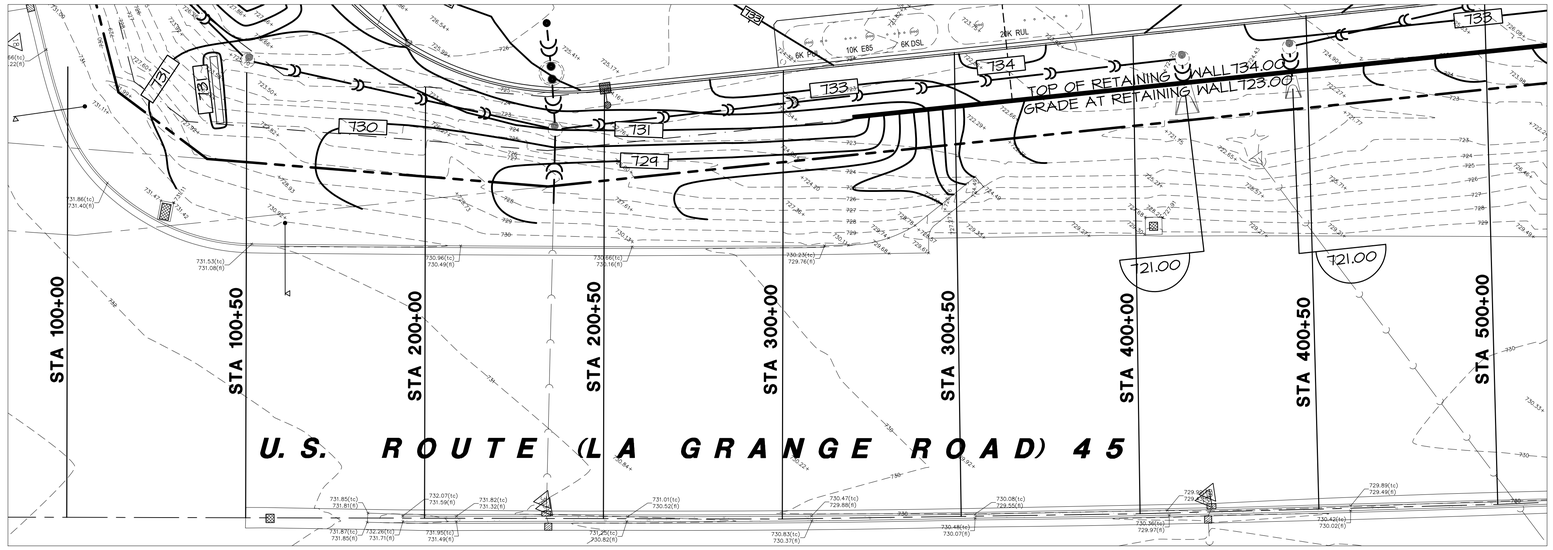
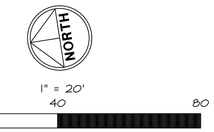
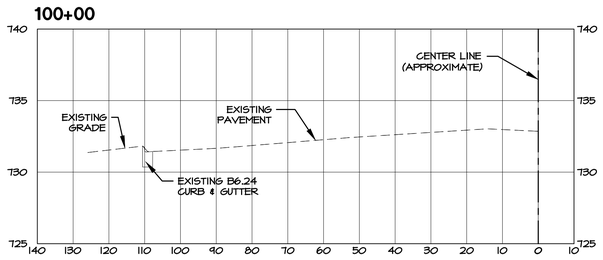
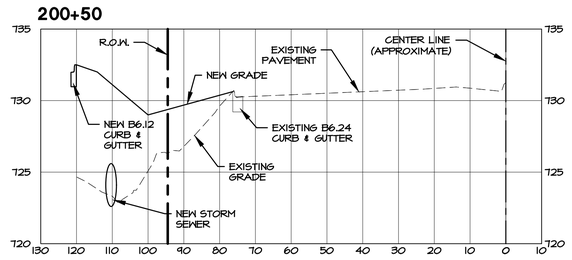
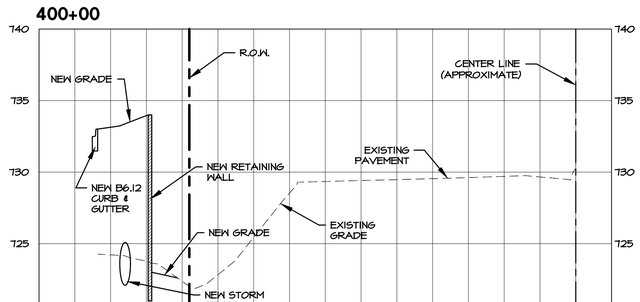
C-4.2
COUNTY OF COOK
HIGHWAY DEPARTMENT
GENERAL CONDITIONS

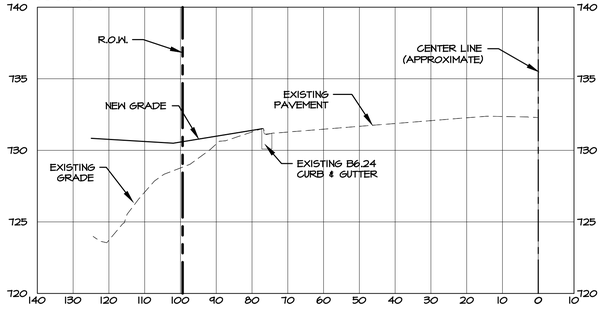


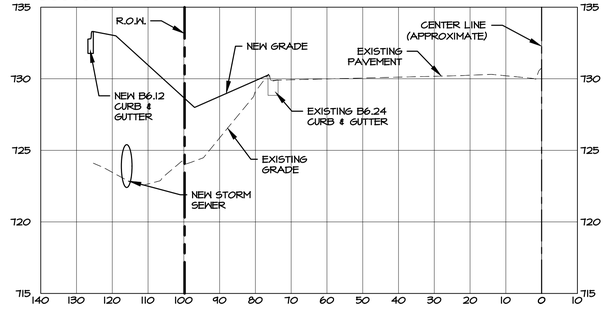


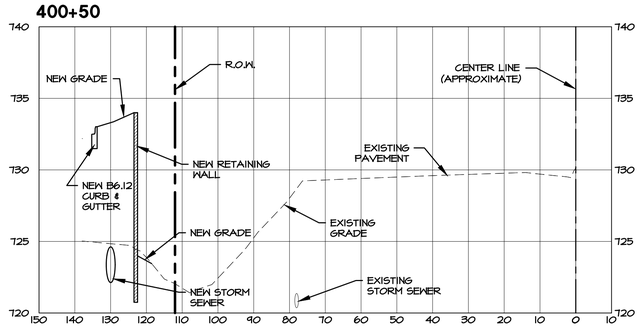


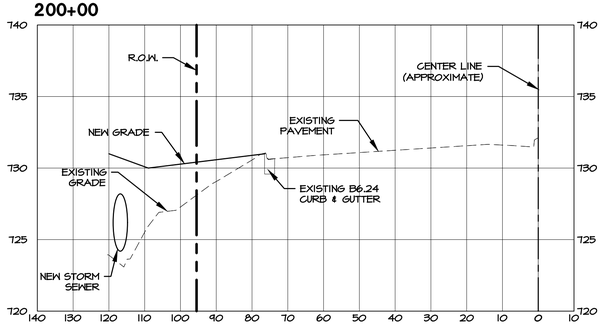


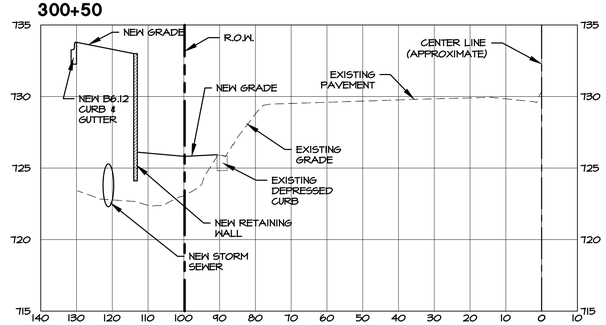


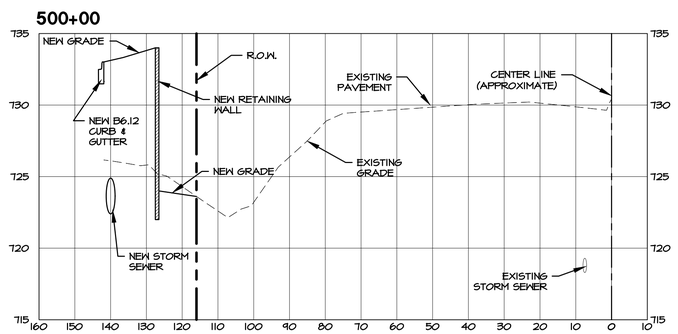












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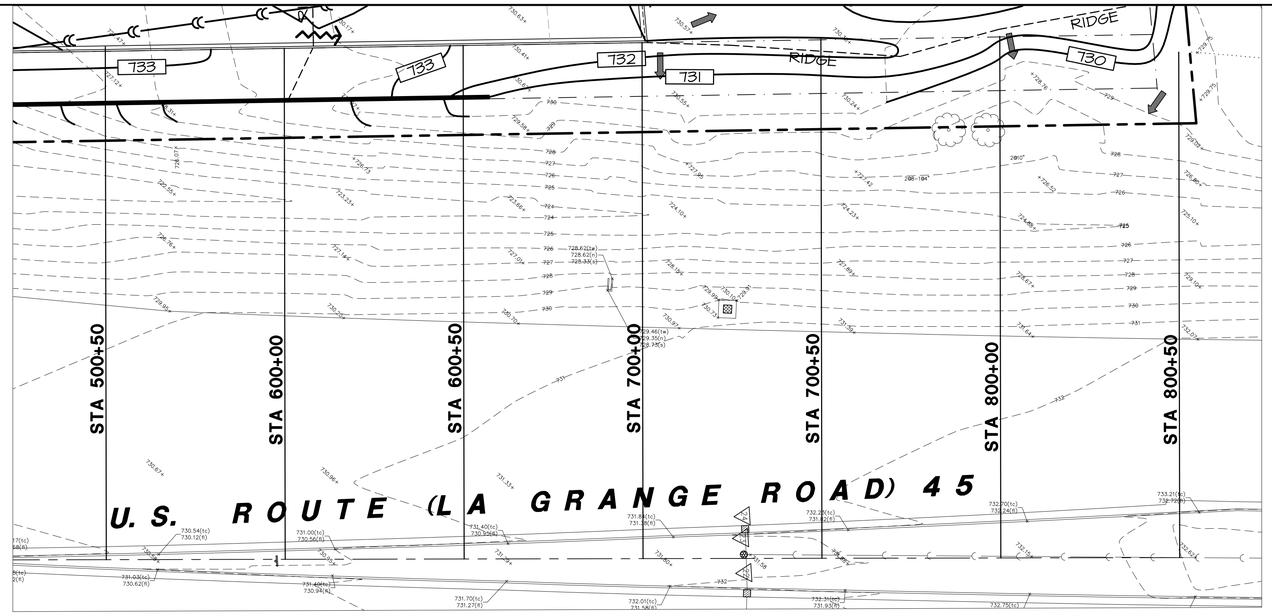

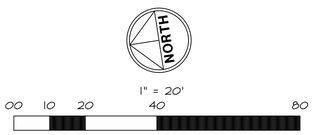

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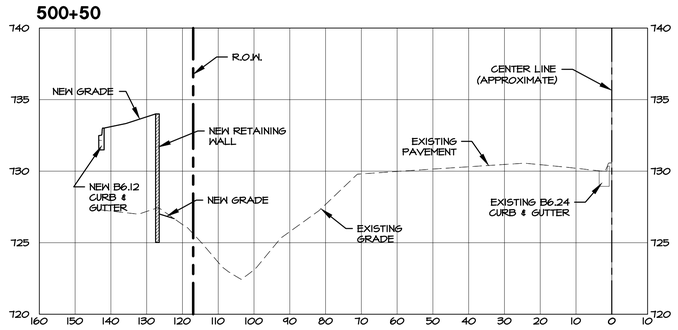

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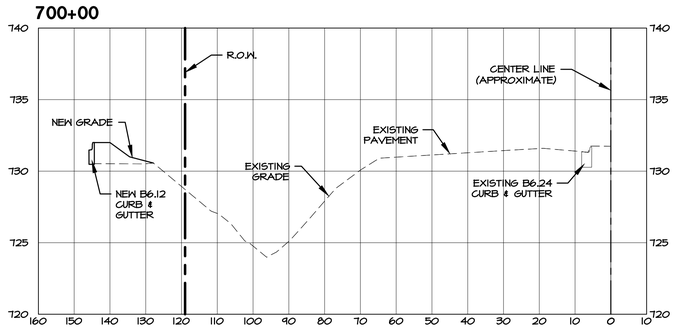

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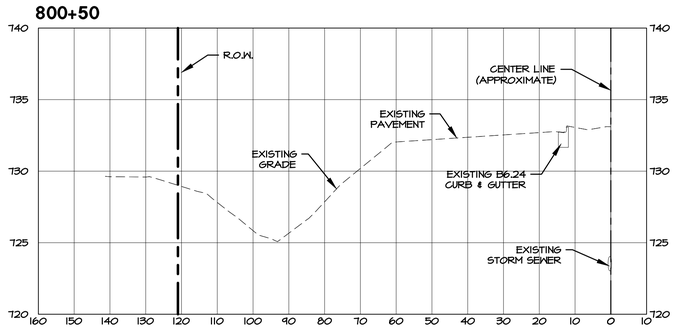

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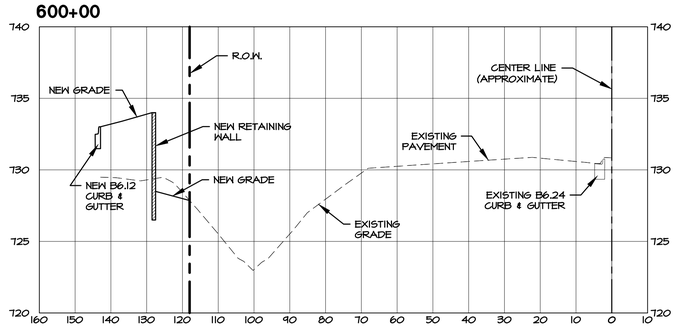

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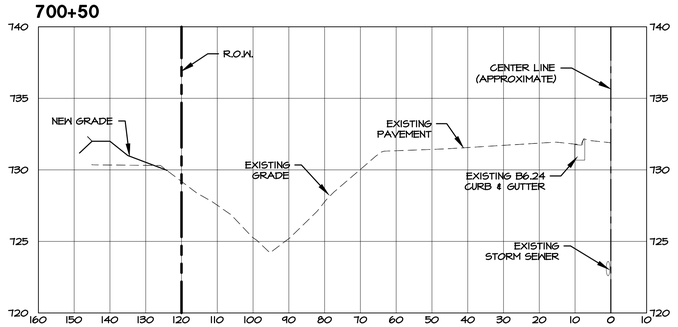

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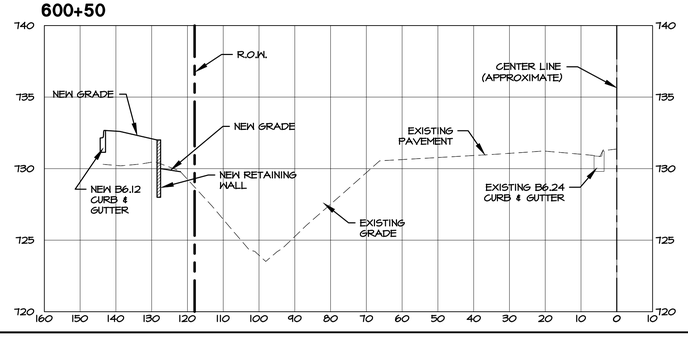

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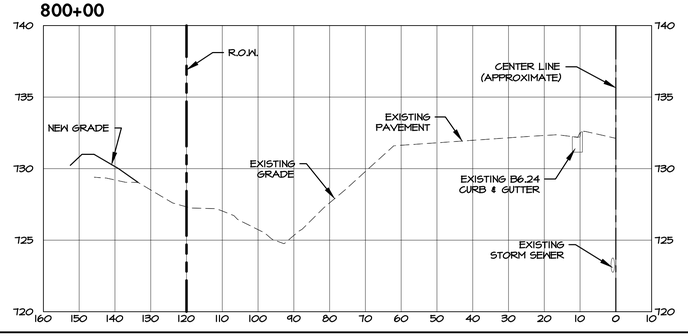

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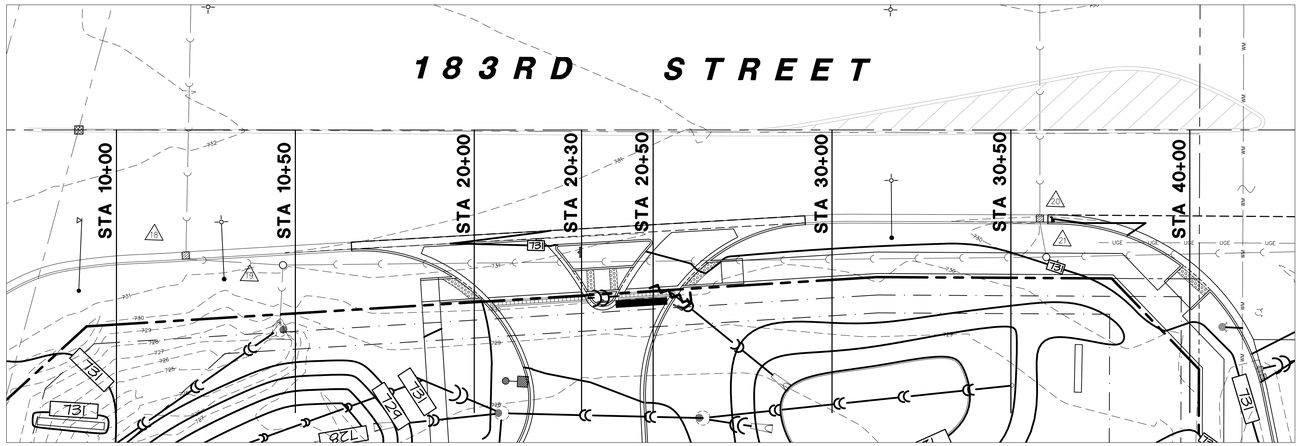

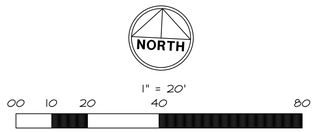

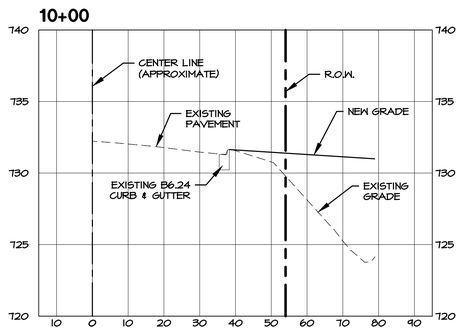

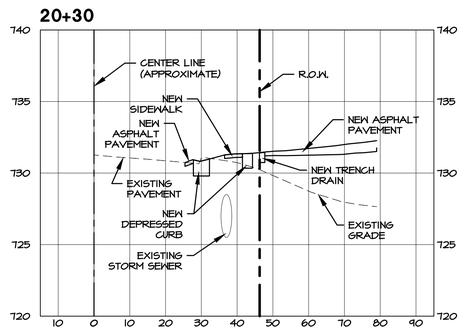

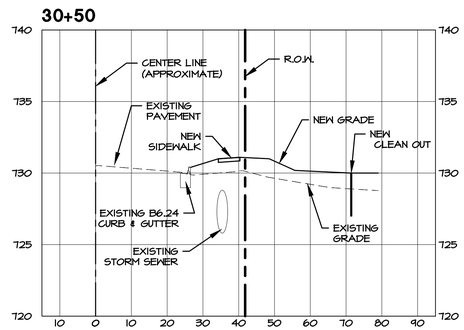

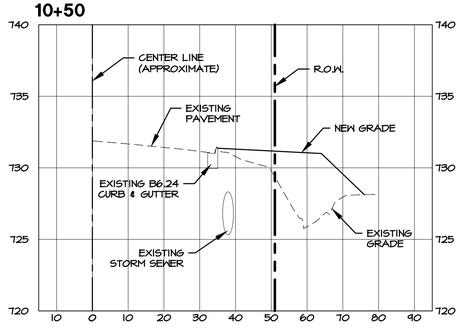

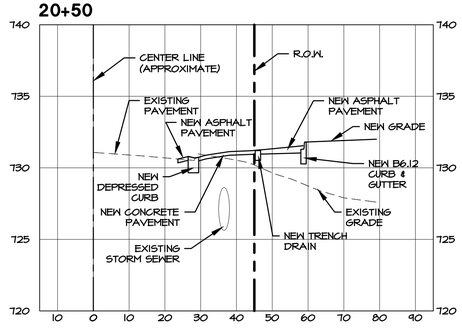

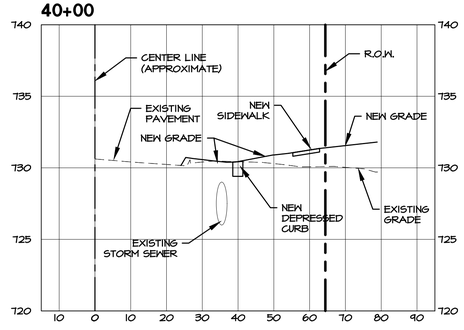

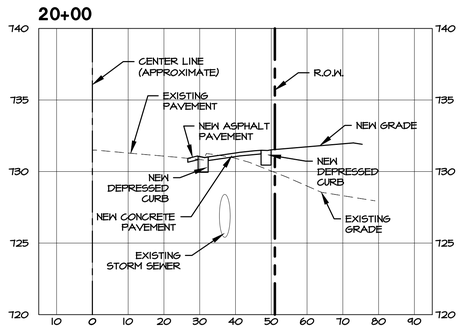

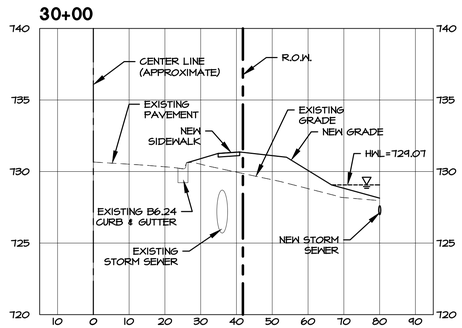

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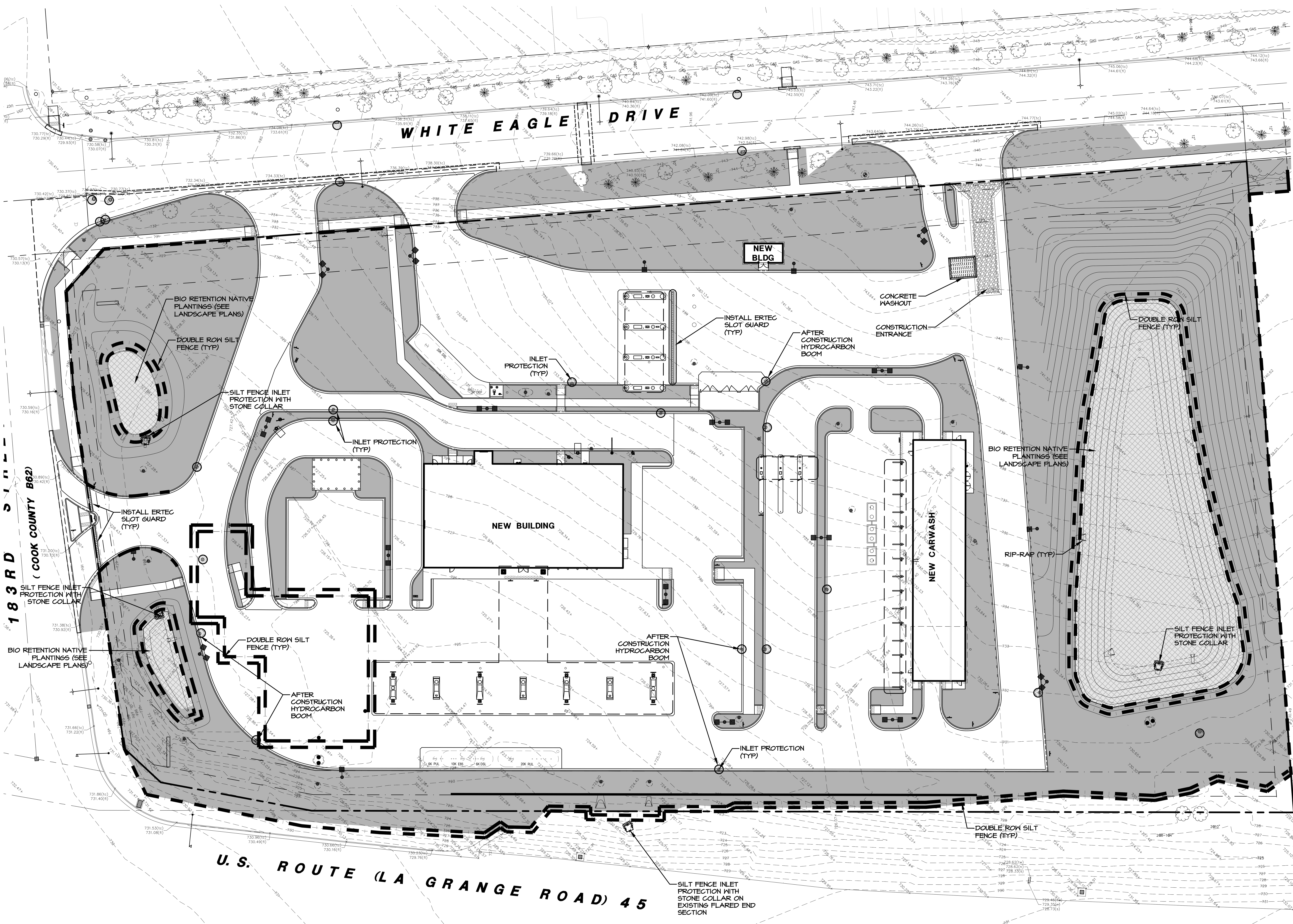
C-6.0
CROSS SECTIONS - 183RD STREET



SWPPP NOTES:

A. ALL DISTURBED GREEN SPACES ON THE SITE SHALL BE RESTORED ACCORDING TO THE SEED BED PREPARATION SPECIFICATIONS BELOW AND BLANKETED OR MATTED AS SHOWN ON THE PLANS.
B. TEMPORARY OR PERMANENT STABILIZATION SHALL OCCUR IMMEDIATELY WHENEVER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE. TEMPORARY STABILIZATION SHALL CONSIST OF THE INSTALLATION OF TEMPORARY SEEDING.
C. CONTRACTOR TO INSTALL TEMPORARY CONSTRUCTION ENTRANCES AS NECESSARY TO EXCAVATE AREAS AND HAUL SOILS ON-SITE. TRACKING OF DEBRIS ON SITE WILL NOT BE TOLERATED. ANY DEBRIS LEFT OUTSIDE OF THE PROJECT LIMITS MUST BE CLEANED IMMEDIATELY.
D. EROSION CONTROL BLANKETS AND TURF REINFORCEMENT MATS SHALL BE INSTALLED USING 6" BIO-STAKES AS MANUFACTURED BY NORTH AMERICAN GREEN. METAL STAKES AND STAPLES ARE PROHIBITED.
E. CONTRACTOR SHALL PROVIDE ALL NECESSARY MAINTENANCE FOR THE SEDIMENT AND EROSION CONTROL MEASURES FOR THE DURATION OF THE PROJECT.
F. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL STORMWATER POLLUTION PREVENTION PLAN (SWPPP) INSPECTIONS, INSPECTION REPORTS, CORRECTIVE ACTION FORMS, SWPPP AMENDMENT LOGS, SUBCONTRACTOR CERTIFICATIONS/AGREEMENTS, GRADING AND STABILIZATION ACTIVITIES LOGS, SWPPP TRAINING LOGS, AND DELEGATION OF AUTHORITY FORMS FOR THE DURATION OF THE PROJECT.
G. CONTRACTOR SHALL PROVIDE COPIES OF ALL SWPPP REPORTS, FORMS, AND LOGS TO THE WT GROUP ONCE THE SITE HAS BEEN STABILIZED. THE CONTRACTOR SHALL MAINTAIN THESE DOCUMENTS FOR A PERIOD OF 3 YEARS FROM THE FINAL STABILIZATION OF THE SITE.
H. FOLLOWING THE REMOVAL OF THE SILT FENCE, THE CONTRACTOR SHALL RESTORE THE THE SILT FENCE TRENCH WITH SOD.
I. CONTRACTOR SHALL INITIATE STABILIZATION OF ALL DISTURBED AREAS WITHIN ONE CALENDAR DAY.

SWPPP LEGEND

- EXISTING SPOT GRADE
- EXISTING CONTOUR LINE
- EXISTING CONTOURS PER RECORDS
- OVERLAND FLOW ARROW
- 100 YEAR OVERLAND FLOW ROUTE
- EMERGENCY OVERFLOW ARROW
- EXISTING CLOSED MANHOLE
- EXISTING OPEN GRATE MANHOLE
- EXISTING BEEHIVE GRATE MANHOLE
- EXISTING CURB INLET
- EXISTING FIRE HYDRANT
- EXISTING VALVE VAULT
- EXISTING B-BOX
- PROPOSED B-BOX
- PROPOSED INLET
- PROPOSED OPEN LID CATCH BASIN
- PROPOSED CLOSED LID MANHOLE
- PROPOSED RESTRICTOR STRUCTURE
- PROPOSED GREASE TRAP
- PROPOSED FLARED END SECTION
- SILT FENCE
- TEMPORARY FLEXSTORM CATCH-IT INLET PROTECTION DURING CONSTRUCTION. POST CONSTRUCTION, PROVIDE NEW FLEXSTORM CATCH-IT, WITH HYDROCARBON BOOMS WHERE SHOWN.
- ERTEC SLOT GUARD
- SILT FENCE INLET PROTECTION WITH STONE COLLAR
- TEMPORARY CONCRETE AND MORTAR WASHOUT FACILITY
- FINE GRADE, FERTILIZE, AND SEED. INSTALL S75BN EROSION CONTROL BLANKET WITH 6" BIO-STAKES AS MANUFACTURED BY NORTH AMERICAN GREEN. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS. *COORDINATE LIMITS OF BLANKET INSTALLATION WITH LANDSCAPE PLANS.
- NATIVE PLANTINGS. SEE LANDSCAPE PLANS.
- STABILIZED CONSTRUCTION ENTRANCE

NOTE: METAL PINS AND STAPLES ARE PROHIBITED

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TO	DATE
CITY	1-19-23
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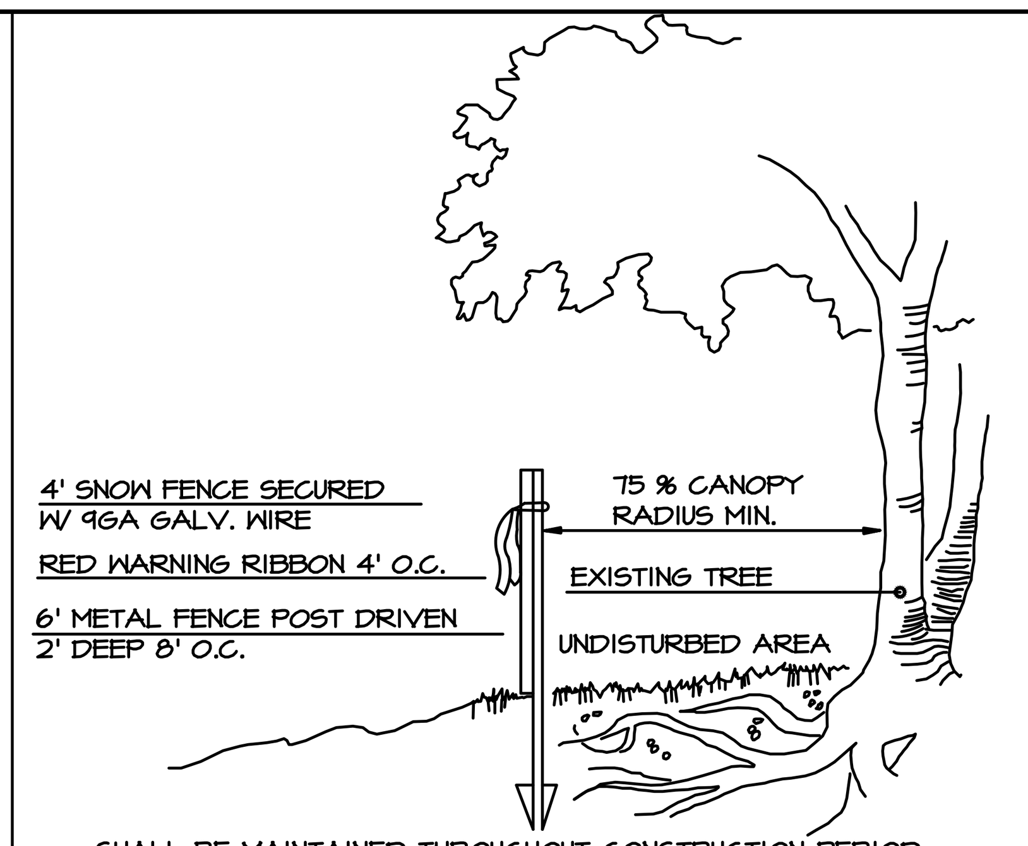
CITY	2-22-23
CITY	5-05-23

CHECK: JPG
DRAWN: VE
JOB:D2200035

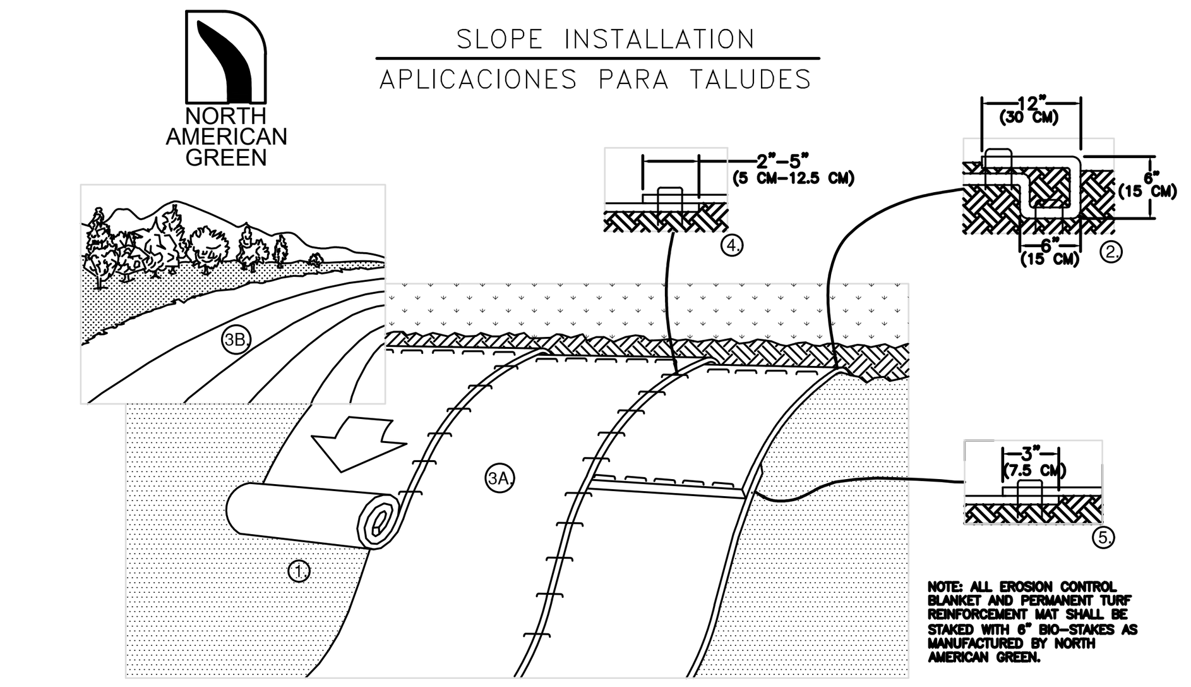
C-7.0
STORMWATER POLLUTION PREVENTION PLAN



SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD
FINAL PLACEMENT APPROVED BY OWNERS REPRESENTATIVE

DETAIL - ROOT ZONE PROTECTION FENCE

NOT TO SCALE



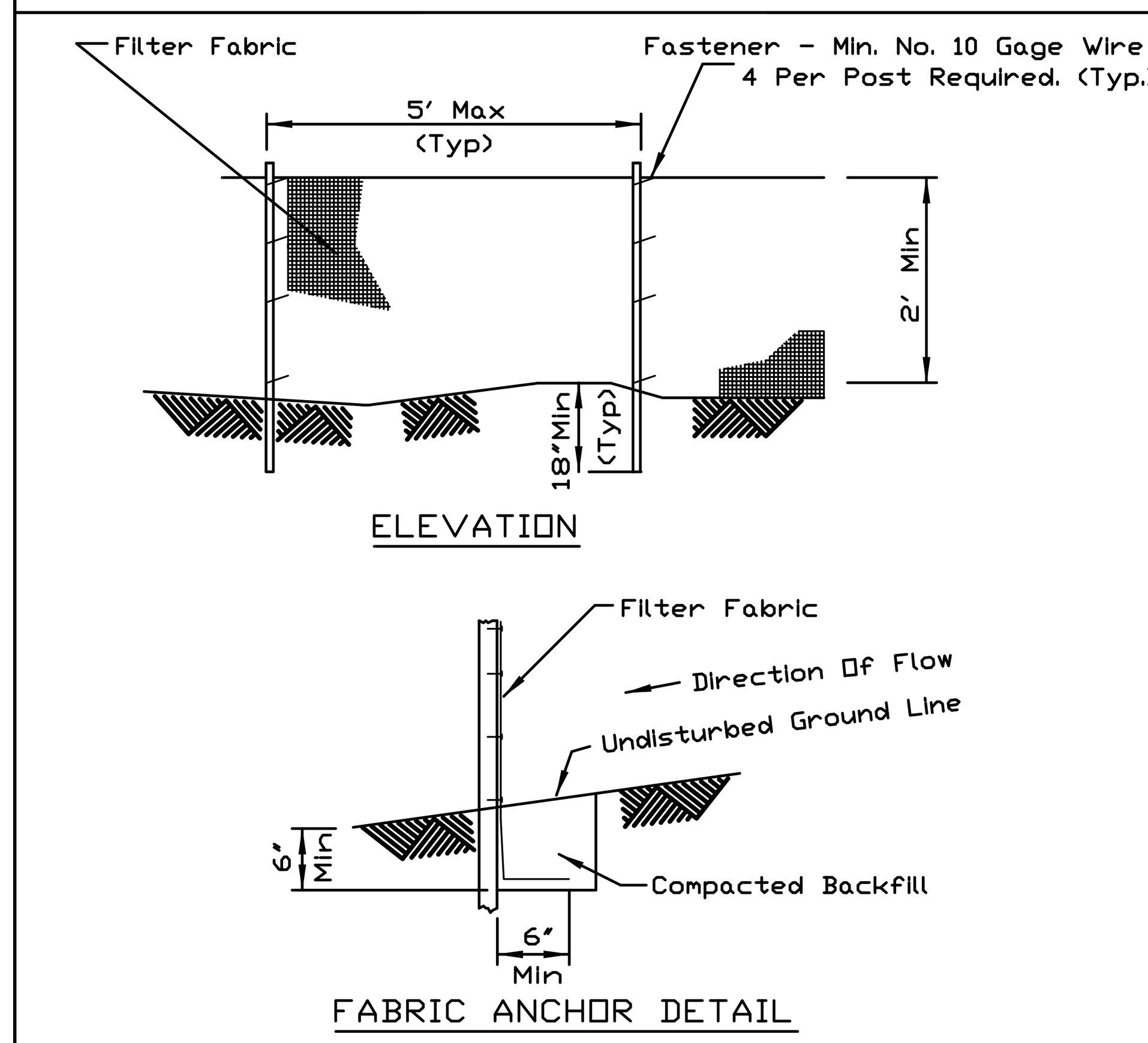
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM™, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON BLANKET TYPE.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE BLANKET WIDTH.

NOTE:
*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

DETAIL - EROSION CONTROL BLANKET

NOT TO SCALE

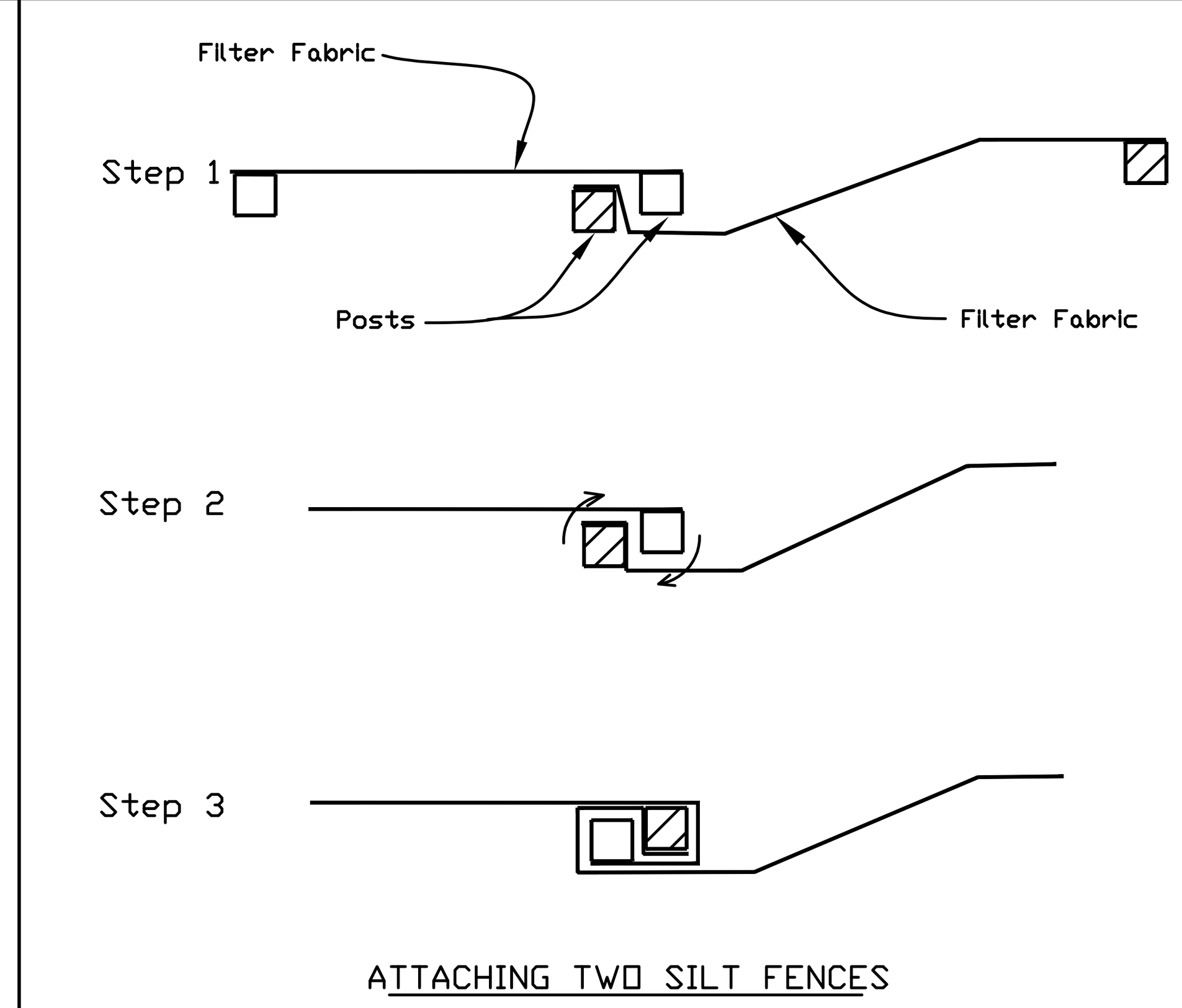
SILT FENCE PLAN



NOTES:
1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class I with equivalent opening size of at least 30 for nonwoven and 40 for woven.
3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

REFERENCE
Project
Designed ______ Date ______
Checked ______ Date ______
Approved ______ Date ______
STANDARD DWG. NO. IUM-620A
SHEET 1 OF 2
DATE 3-16-12

SILT FENCE - SPLICING TWO FENCES

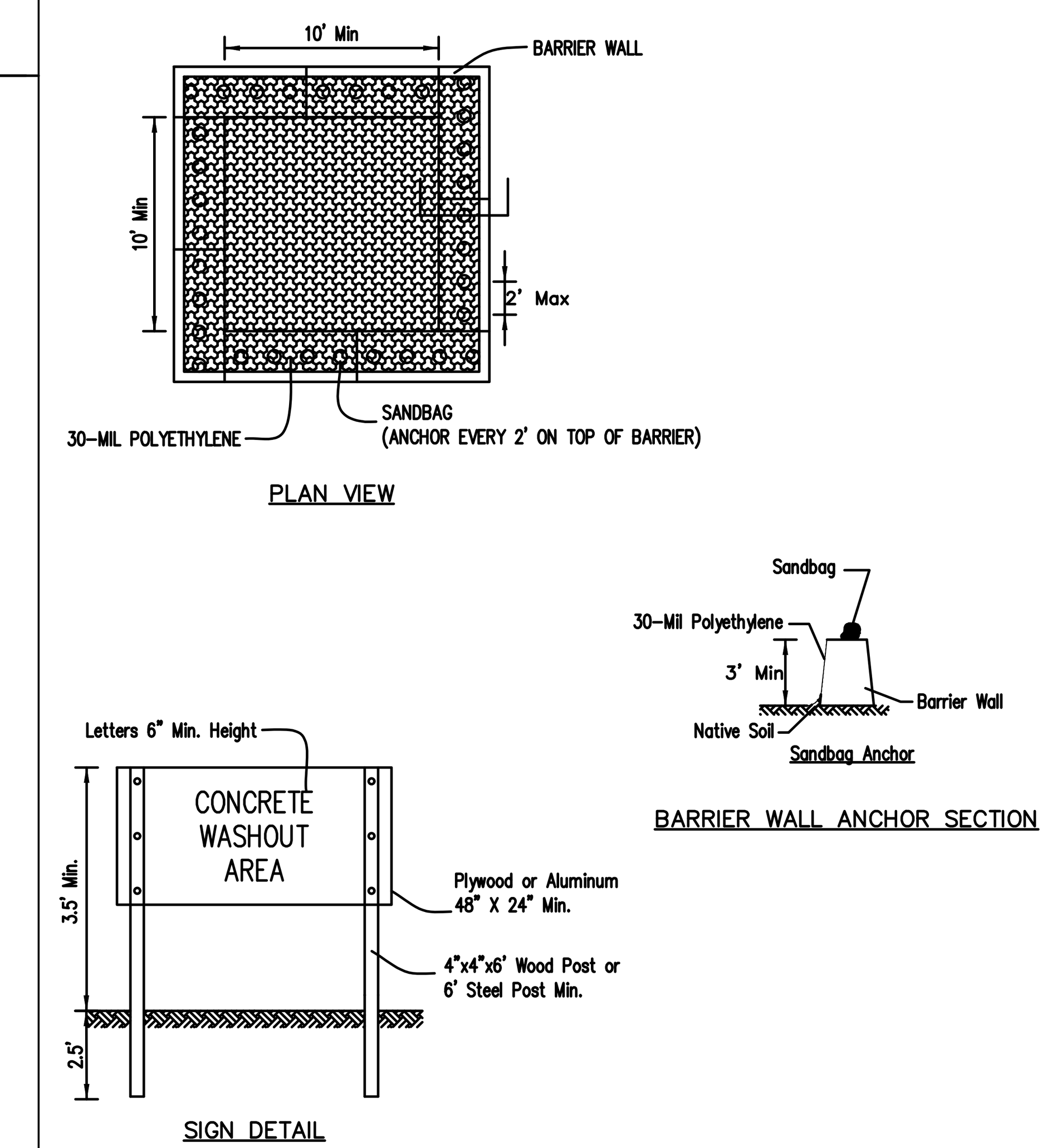


1. Place the end post of the second fence inside the end post of the first fence.
2. Rotate both posts at least 180 degrees in a clockwise direction to create a tight seal with the fabric material.
3. Cut the fabric near the bottom of the stakes to accommodate the 6" flap.
4. Drive both posts a minimum of 18 inches into the ground and bury the flap.
5. Compact backfill (particularly at splices) completely to prevent stormwater piping.

REFERENCE
Project
Designed ______ Date ______
Checked ______ Date ______
Approved ______ Date ______
STANDARD DWG. NO. IUM-620B(W)
SHEET 1 OF 1
DATE 2-06-2012

DETAIL - SILT FENCE

NOT TO SCALE

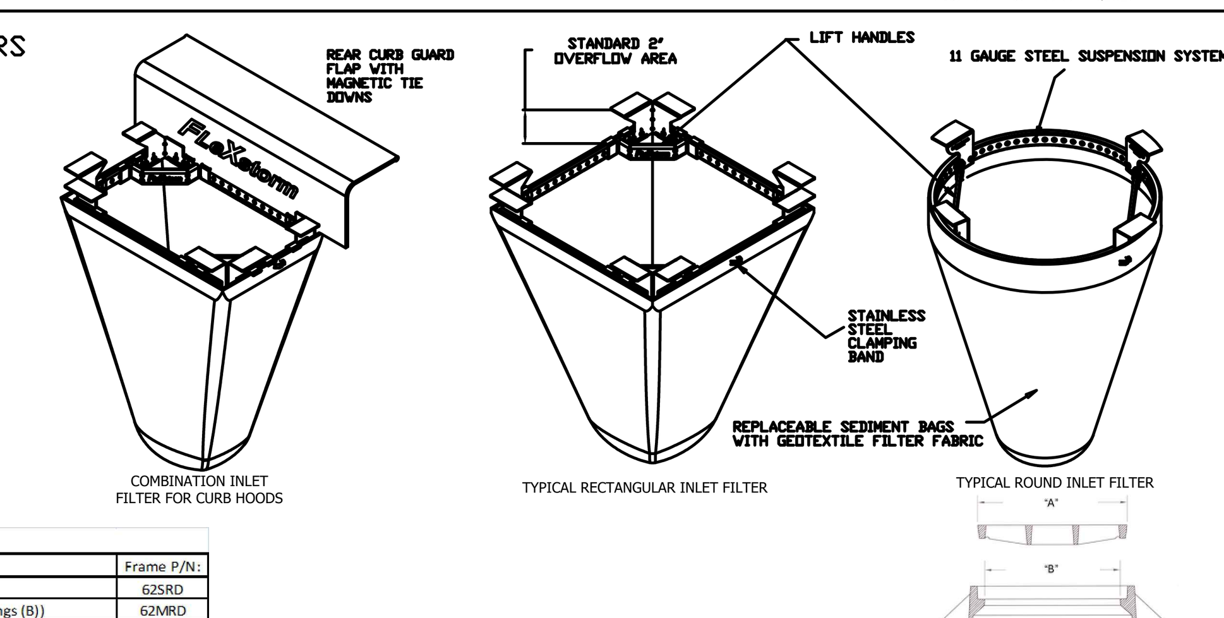


NOTES:
1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardend concrete and/or slurry and returning the faciliities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.

Sheet 3 of 3 | Drawing No. IUM-654BW | File No.
TEMPORARY CONCRETE WASHOUT FACILITY - BARRIER WALL
Designed ______ Date ______
Drawn B. JOHNSON 6/08
Checked ______
Approved ______

CONCRETE WASHOUT FACILITY

FLEXSTORM INLET FILTERS
PRODUCT SELECTION AND SPECIFICATION DRAWING

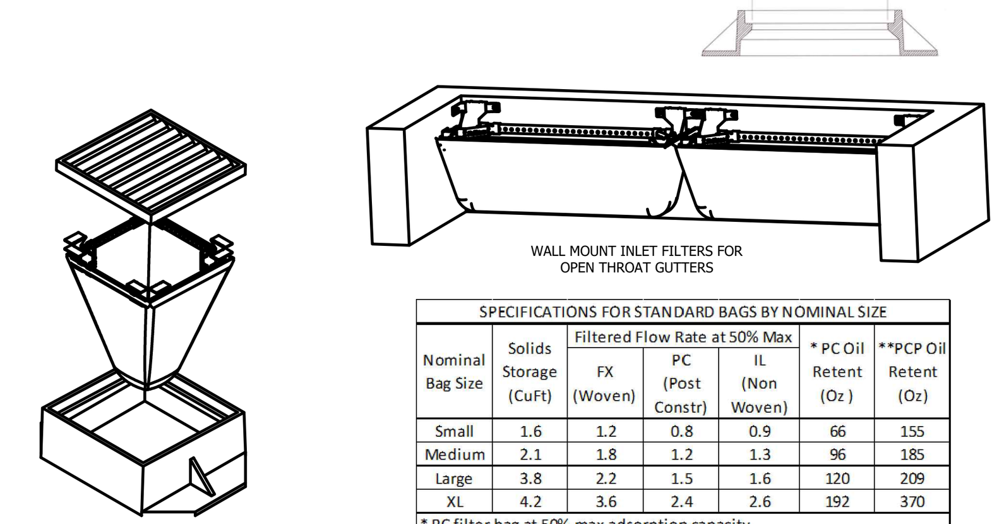


1. INDENTIFY YOUR FRAME STYLE, SIZE, AND MATERIAL

STYLE	FRAME STYLE AND SIZE	Frame P/N:
ROUND	Small Round (up to 20.0" dia grates (A) dim)	62SRD
	Med Round (20.1" - 26.0" dia grates (A) up to 25" dia openings (B))	62MRD
	Large Round (26.1" - 32.0" dia grates (A) up to 30" openings (B))	62LRD
	XL Round (32.1" dia - 39" dia grates (A) up to 37" dia openings (B))	62XLRD
RECT/ SQUARE	Small Rect / Square (up to 16" (B) x 16" (D) openings or 64" perimeter)	62SSQ
	Med Rect / Square (up to 24" (B) x 24" (D) openings or 96" perimeter)	62MSQ
	Large Rect / Square (up to 36" (B) x 24" (D) openings or 120" perimeter)	62LSQ
	XL Rect / Square (side by side 2 pc set to fit up to 48" (B) x 36" (D) openings)	62XLSQ
COMBO INLETS	Small Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62SCB
	Med Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62MCB
	Large Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62LCB
	XL Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62XLCB
NYLOPLAST	12" diameter Nyloplast castings (Stainless Steel Framing standard)	6212NY
	15" diameter Nyloplast castings (Stainless Steel Framing standard)	6215NY
	18"diameter Nyloplast castings (Stainless Steel Framing standard)	6218NY
	24" diameter Nyloplast castings (Stainless Steel Framing standard)	6224NY
	30" diameter Nyloplast castings (Stainless Steel Framing standard)	6230NY
WALL MOUNT	Open Throat Gutters - Curb Opening Size	
	Up to 4' (1 Filter and Mounting Hardware)	62WM1
	Between 4' and 8' (2 Filters and Mounting Hardware)	62WM2
	Between 8' and 12' (3 Filters and Mounting Hardware)	62WM3
	Between 12' and 16' (4 Filters and Mounting Hardware)	62WM4
UPGRADED FRAMING MATERIAL OPTIONS (STANDARD IS ZINC PLATED)		SUFFIX
CHROME PLATED FRAMING FOR HIGH SALT EXPOSURE		- CHR
STAINLESS STEEL FRAMING FOR HIGH SALT AND/OR CHEMICAL EXPOSURE		- SS

2. SELECT YOUR FILTER BAG PART NUMBER

FLEXSTORM FILTER BAGS	(22" depth) STD Bag P/N	(12" depth) Short Bag P/N	Clean Water Flow Rate (GPM/SqFt)	Min A.O.S. (US Sieve)
FX: Standard Woven Bag	FX	FX-S	200	40
FX+: Woven w/ MyCelx	FXP	FXP-S	200	40
FXO: Woven w/ Oil Boom	FXO	FXO-S	200	40
PC: Post Construction Bag	PC	PC-S	137	140
PC+: PC Bag w/ MyCelx	PCP	PCP-S	137	140
LL: Litter and Leaf Bag	LL	LL-S	High	3.5
IL: IDOT Non-Woven Bag	IL	IL-S	145	70



INSTALLATION:
1. REMOVE GRATE
2. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
3. REPLACE GRATE

SPECIFICATIONS FOR STANDARD BAGS BY NOMINAL SIZE						
Nominal Bag Size	Solids Storage (CuFt)	Filtered Flow Rate at 50% Max: FX (Woven)	PC (Post Constr)	IL (Non Woven)	* PC Oil Retent (Oz)	**PCP Oil Retent (Oz)
Small	1.6	1.2	0.8	0.9	66	155
Medium	2.1	1.8	1.2	1.3	96	185
Large	3.8	2.2	1.5	1.6	120	209
XL	4.2	3.6	2.4	2.6	192	370

* PC filter bag at 50% max adsorption capacity
** PC filter bag at 50% capacity and MyCelx skimmer at 100% capacity

3. CREATE YOUR FLEXSTORM INLET FILTER PART NUMBER

Frame P/N from Step 1.	Filter Bag P/N from Step 2.	-	Framing Material

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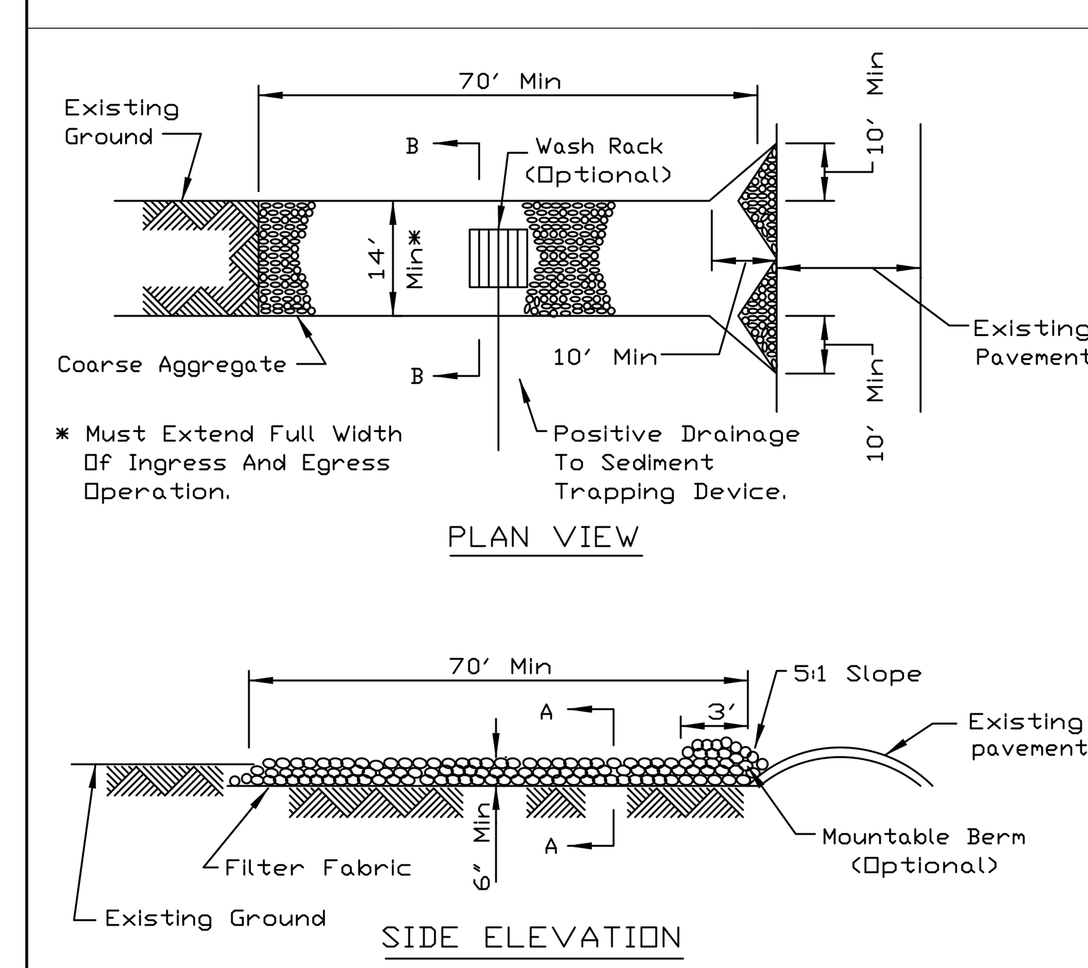
SIZE C | DWG NO IPP Flexstorm Specifications | REV
SCALE | SHEET 1 OF 1

DETAIL - FLEXSTORM INLET PROTECTION

NOT TO SCALE

STABILIZED CONSTRUCTION ENTRANCE PLAN



NOTES:
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table I or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufactures specifications.
4. If wash racks are used they shall be installed according to the manufactures specifications.

REFERENCE
Project
Designed ______ Date ______
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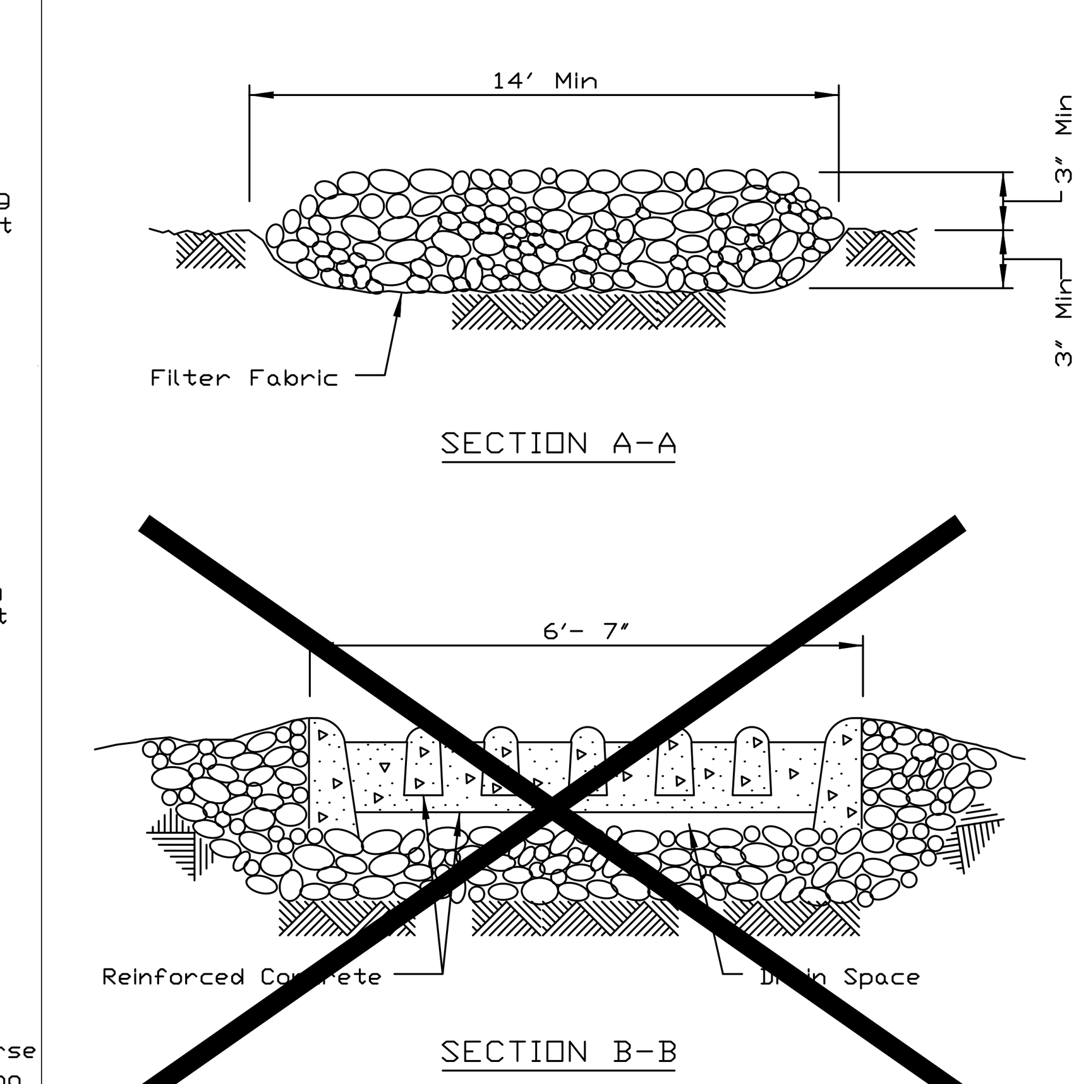
Approved ______ Date ______
U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
ILLINOIS
STANDARD DWG. NO. IL-630
SHEET 1 OF 2
DATE 8-18-94

STABILIZED CONSTRUCTION ENTRANCE PLAN



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Approved ______ Date ______
U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
ILLINOIS
STANDARD DWG. NO. IL-630
SHEET 2 OF 2
DATE 8-18-94

DETAIL - STABILIZED CONSTRUCTION ENTRANCE

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CCHD/IDOT	2-08-23
CITY	2-22-23
CITY	5-05-23

CHECK: JPG
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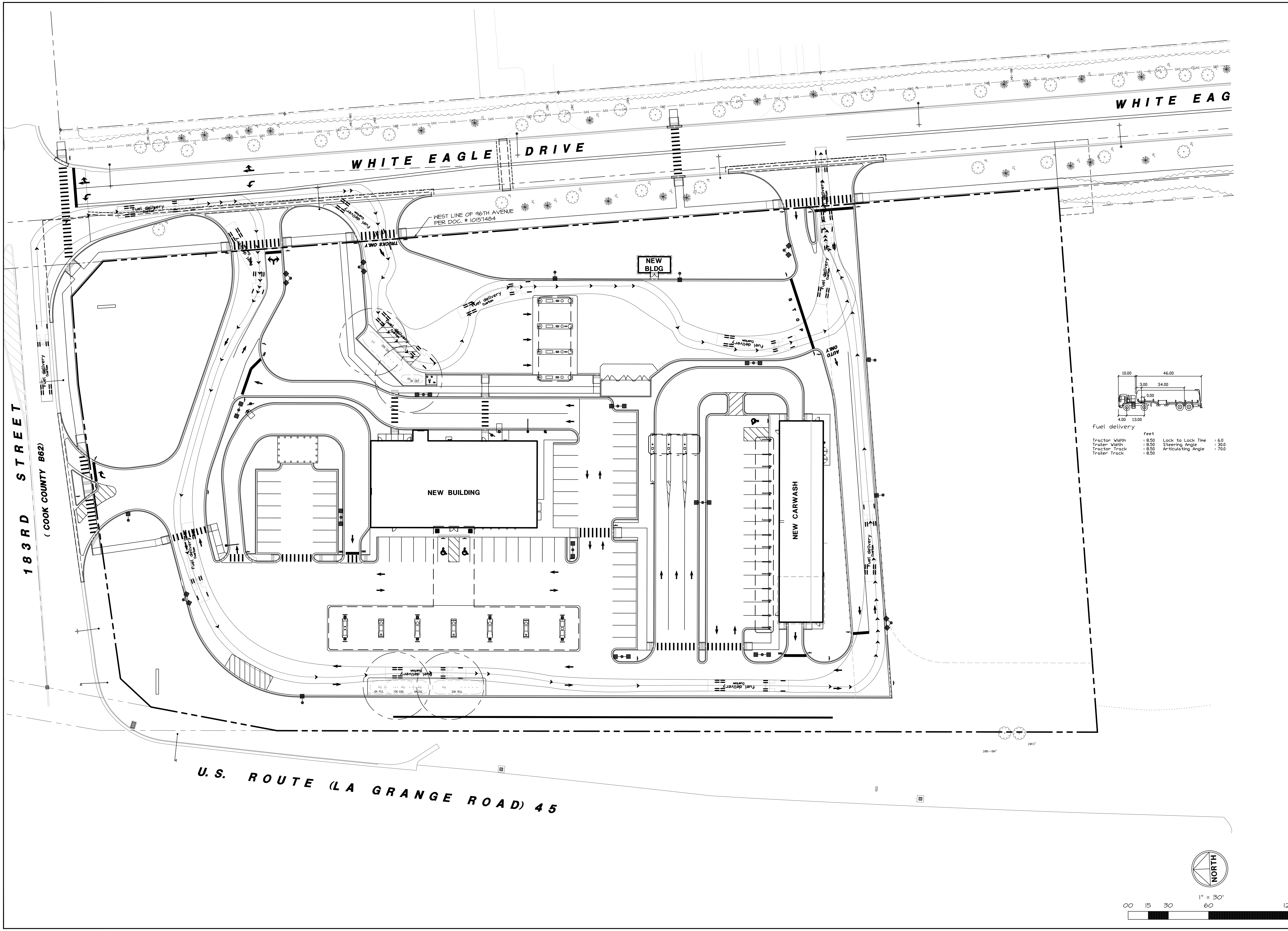
JOB:D2200035

C-7.1
STORMWATER POLLUTION PREVENTION PLAN DETAILS



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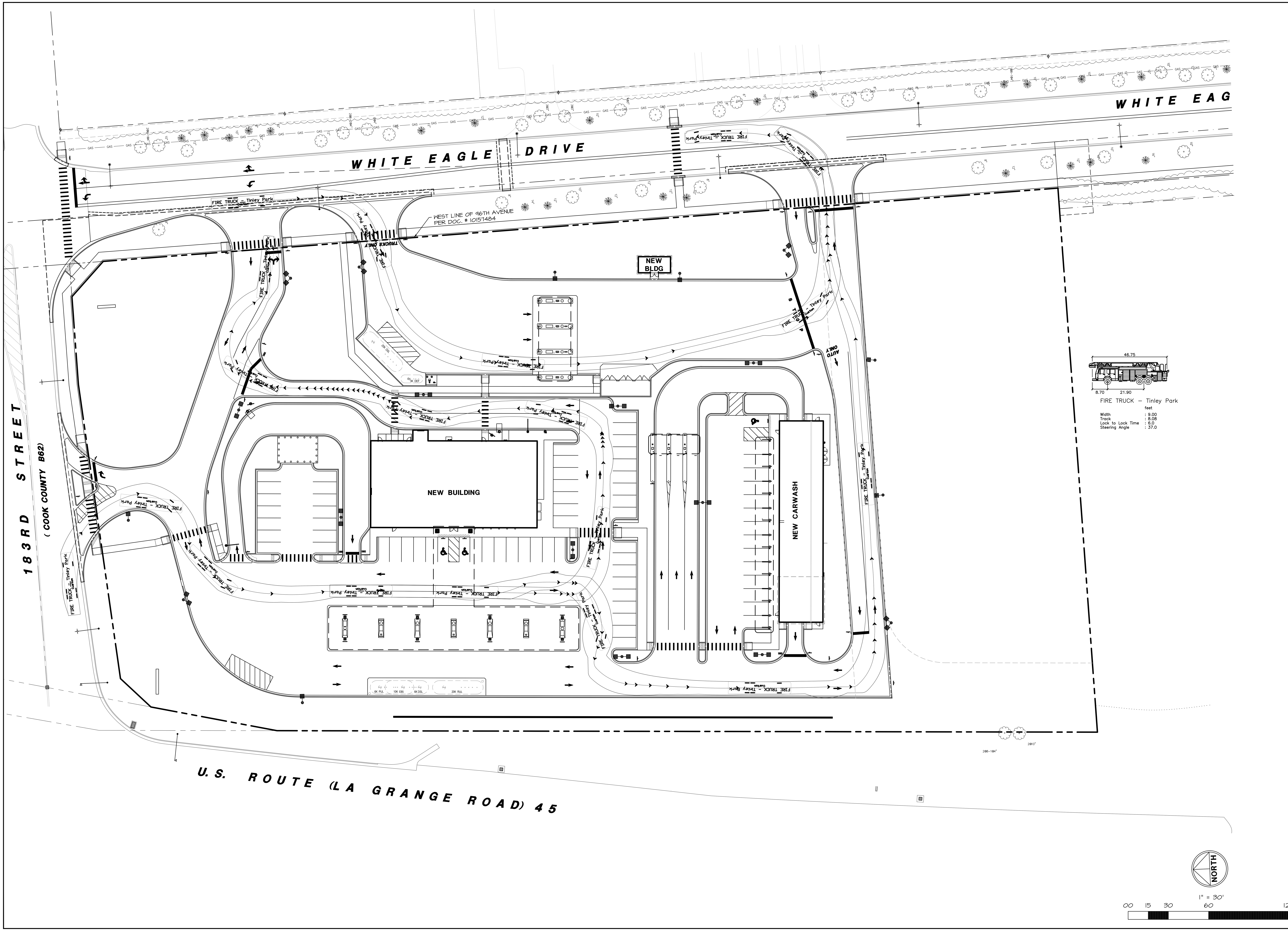
CIR-1.0
CIRCULATION PLAN
FUEL DELIVERY



FIRE TRUCK – Tinley Park

	feet
Width	: 9.00
Track	: 8.08
Lock to Lock Time	: 6.0
Steering Angle	: 37.0

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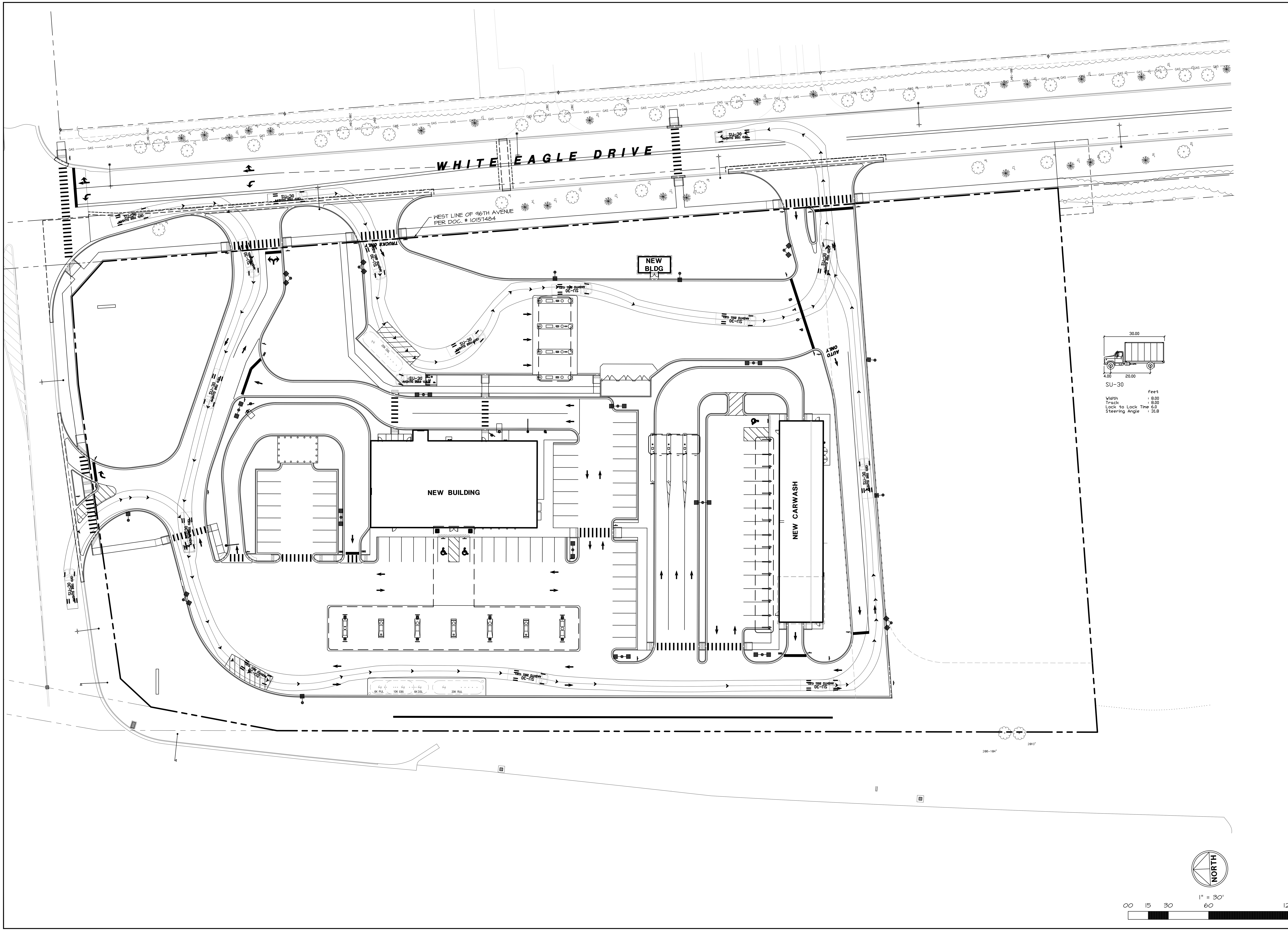
CIR-1.1
CIRCULATION PLAN
FIRE TRUCK



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CITY	2-22-23
CITY	5-05-23

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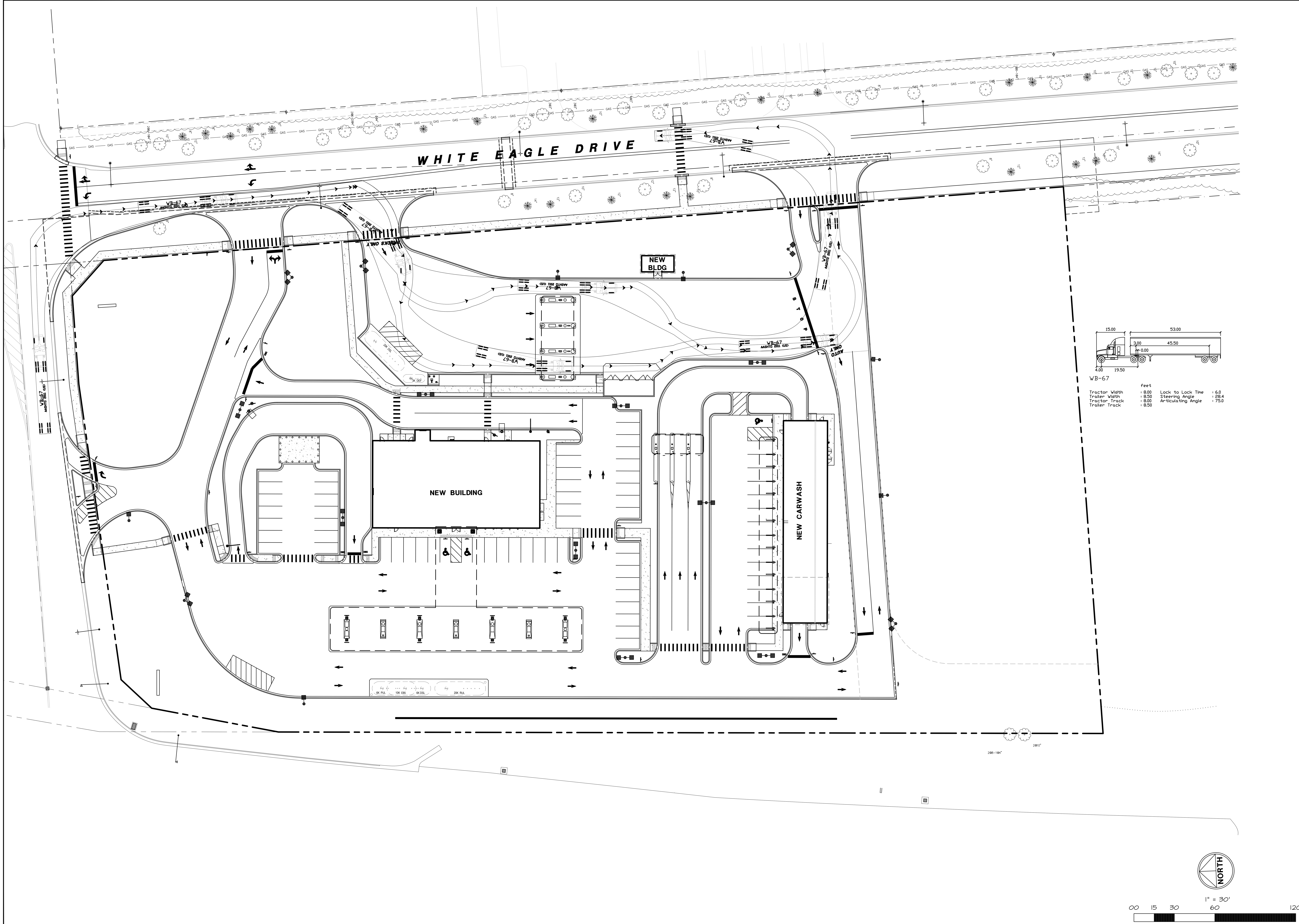
DRAWN: VE
JOB:D2200035

CIR-1.2
CIRCULATION PLAN
SINGLE UNIT DELIVERY



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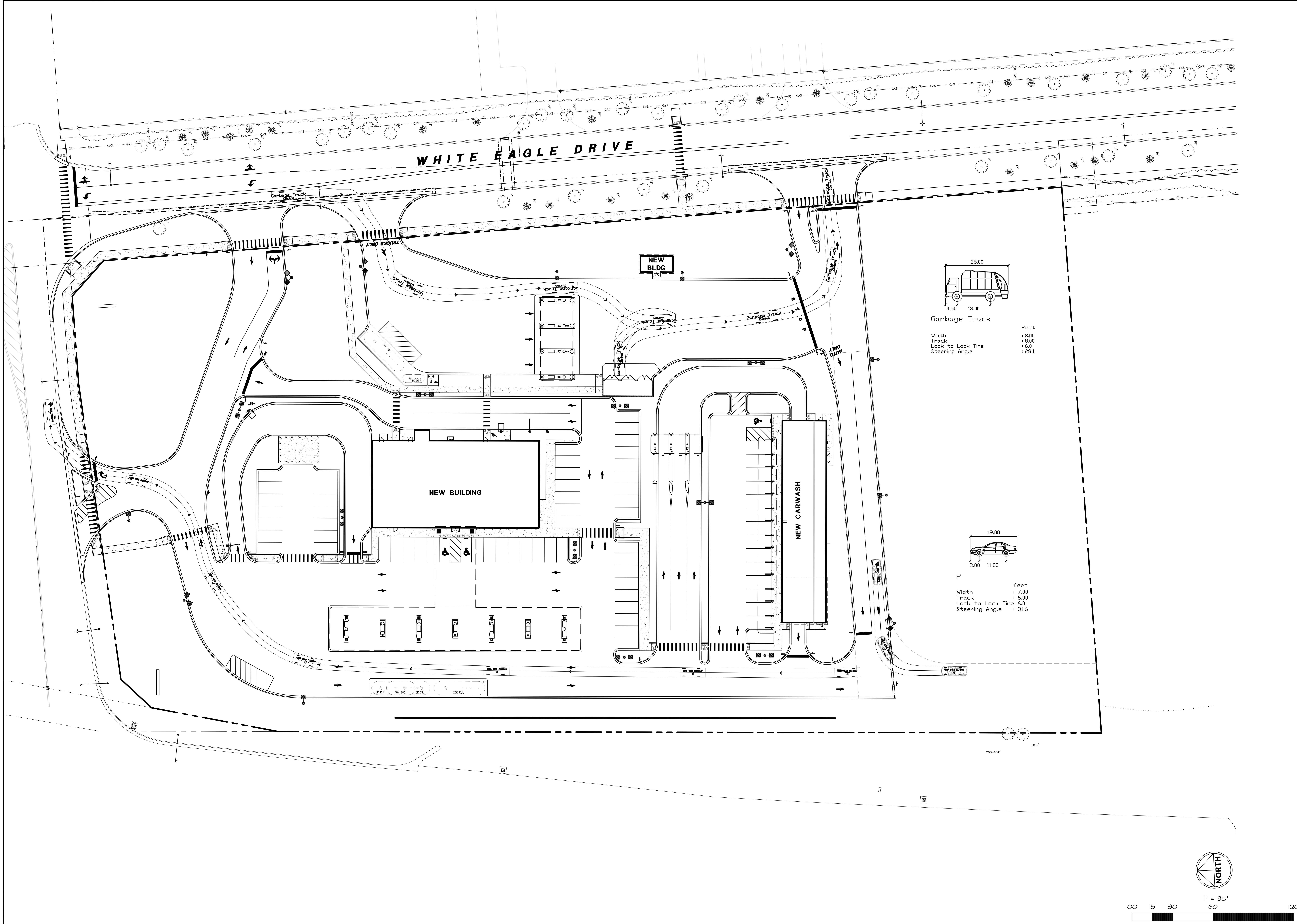
CIR-1.3
CIRCULATION PLAN
CFL FUELING



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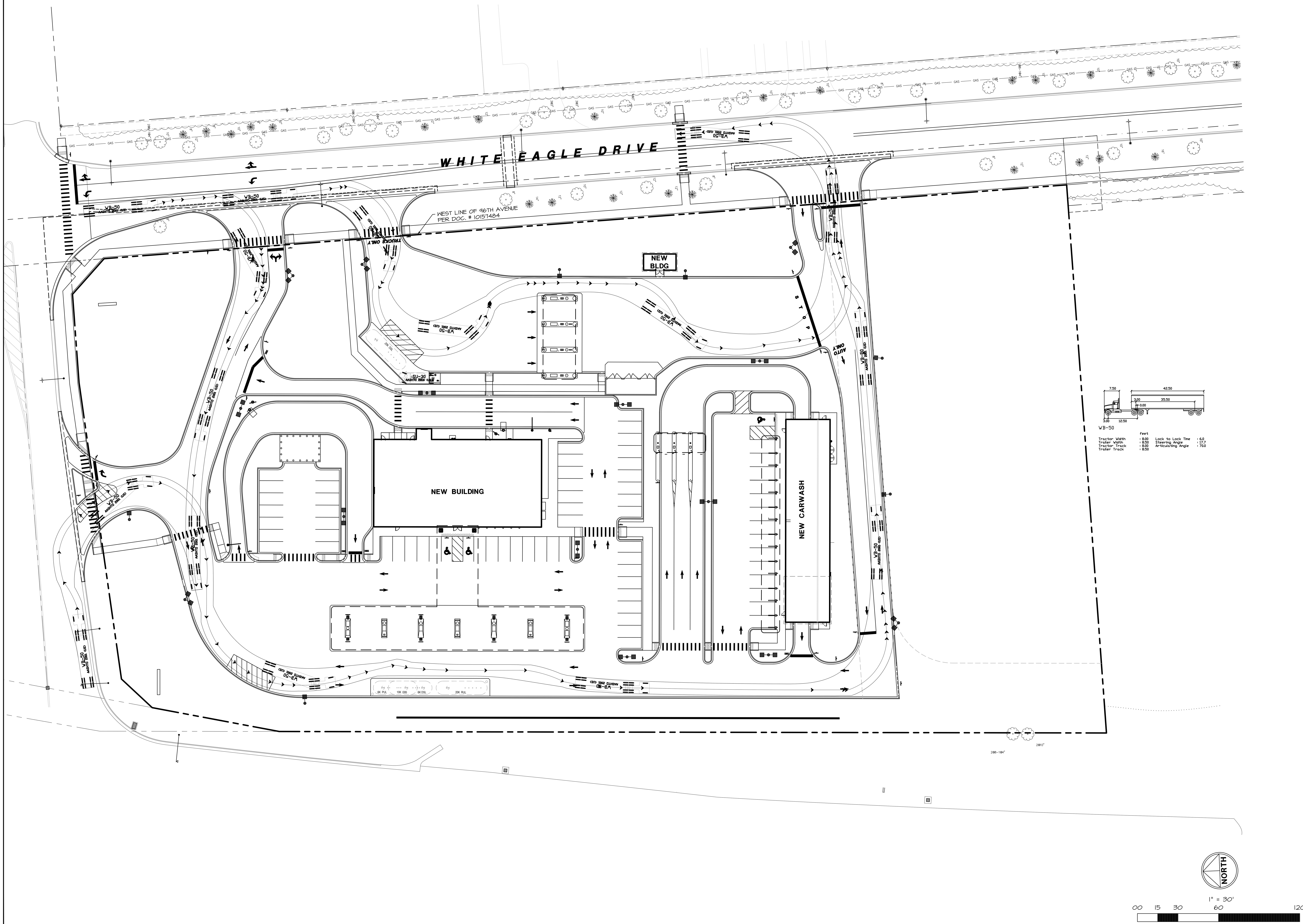
CIR-1.4
CIRCULATION PLAN
GARBAGE TRUCK



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TINLEY PARK, IL 60487

GAS N WASH

ISSUE

TO	DATE
CITY	1-19-23
CCHD/IDOT	2-08-23
CITY	2-22-23
CITY	5-05-23

CHECK: JPG
DRAWN: VE
JOB:D2200035

CIR-1.5
CIRCULATION PLAN
WB-50 DELIVERY

AREA	
IMPERVIOUS	
PERVIOUS (TYPE D)	
PERVIOUS (TYPE C)	

AQUATIC \ CIVIL \ MECHANICAL \ ELECTRICAL \ PLUMBING \ TELECOMMUNICATION \ STRUCTURAL \ ACCESSIBILITY CONSULTING \ DESIGN & PROGRAM MANAGEMENT \ LAND SURVEY

WT GROUP
Engineering with Precision, Pace and Passion.
2675 Pratum Avenue | Hoffman Estates, IL 60192
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RETAIL PETROLEUM FACILITY
18301 LA GRANGE ROAD
TINLEY PARK, IL 60487
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CITY	1-19-23
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DRAINAGE CERTIFICATE:

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DRAINAGE OF SURFACE WATERS WILL NOT BE CHANGED BY THE PROPOSED DEVELOPMENT. IF ANY DRAINAGE PATTERNS WILL BE CHANGED, REASONABLE PROVISIONS HAVE BEEN MADE FOR THE COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO PUBLIC AREAS, OR DRAINS APPROVED FOR THE USE BY THE MUNICIPAL ENGINEER, AND THAT SUCH SURFACE WATERS ARE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES SO AS TO REDUCE THE LIKELIHOOD OF DAMAGES TO ADJOINING PROPERTIES.

DATED THIS 5th DAY OF MAY , A.D. 2023

DESIGN ENGINEER- JASON GREEN, P.E. 062-059460 EXP. DATE 11/30/23

JASON GREEN 062-059460 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS

AREA	IMPERVIOUS (ACRES)	PERVIOUS TYPE C (ACRES)	PERVIOUS TYPE D (ACRES)	TOTAL (ACRES)
EX1 TO IDOT ROW	0	2.247	4.061	6.308

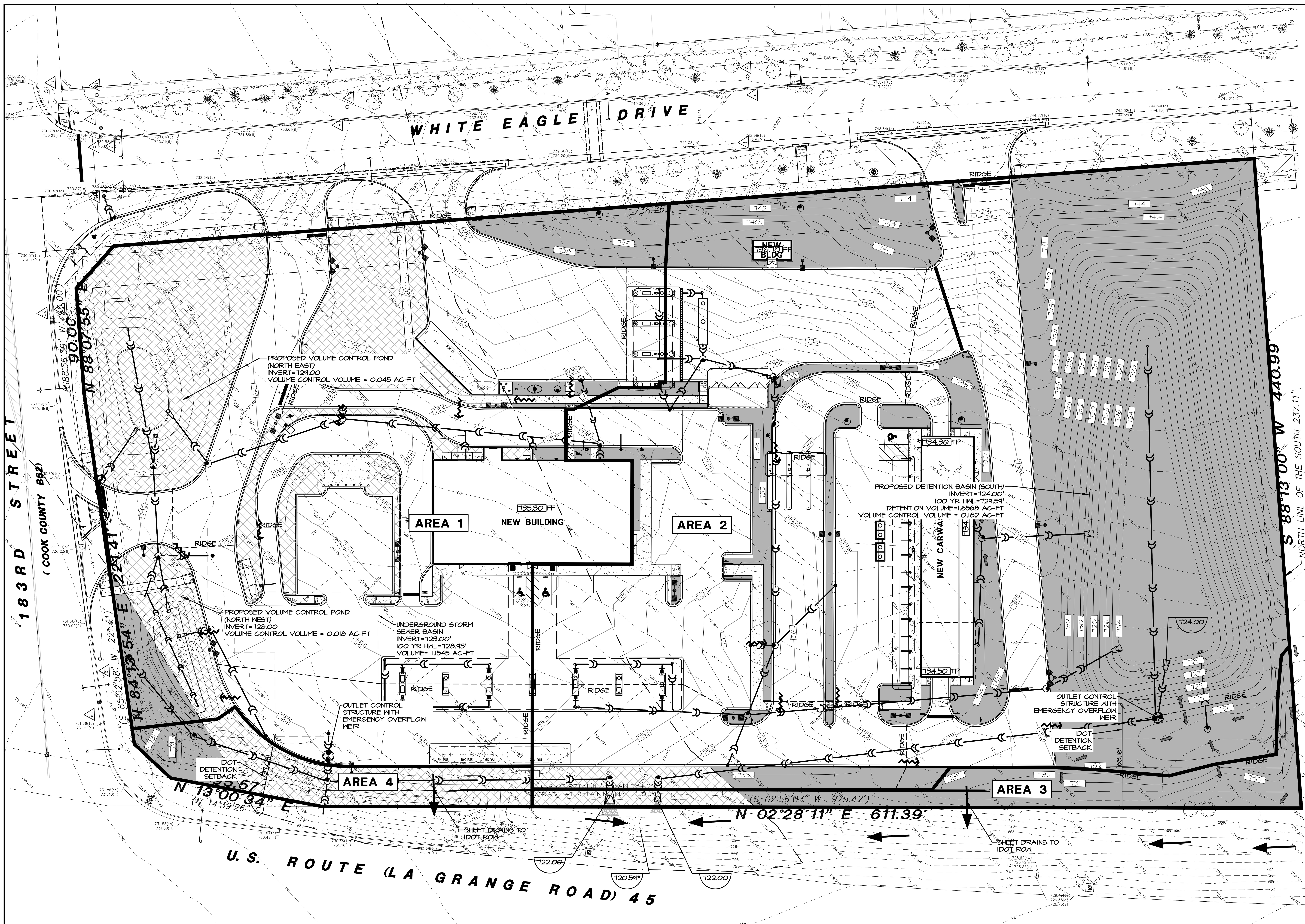
NORTH

1" = 30'

00 15 30 60 120

CHECK: JPG
DRAWN: VE
JOB:D2200035

EDP
EXISTING DRAINAGE PLAN



AREA	
IMPERVIOUS	
PERVIOUS (TYPE D)	(shaded)
PERVIOUS (TYPE C)	(crosshatched)

GRADING LEGEND

- EXISTING SPOT GRADE
- PROPOSED SPOT GRADE
- INTERPOLATED SPOT GRADE
- PROPOSED RIM ELEVATION
- EXISTING CONTOUR LINE
- PROPOSED 1 FOOT CONTOUR LINE
- PROPOSED 0.1 FOOT CONTOUR LINE
- OVERLAND FLOW ARROW
- 100 YEAR OVERLAND FLOW ROUTE
- EMERGENCY OVERFLOW ARROW
- TP — TOP OF PAVEMENT ELEVATION
- TW — TOP OF SIDEWALK ELEVATION
- G — FINISHED GRADE ELEVATION
- FF — FINISHED FLOOR ELEVATION
- TC — TOP OF CURB ELEVATION
- FL — FLOW LINE ELEVATION
- ADJUST — ADJUST EXISTING RIM ELEVATION
- EXISTING CLOSED MANHOLE
- EXISTING OPEN GRATE MANHOLE
- EXISTING BEEHIVE GRATE MANHOLE
- EXISTING CURB INLET
- EXISTING FIRE HYDRANT
- EXISTING VALVE VAULT
- EXISTING B-BOX
- PROPOSED FIRE HYDRANT
- PROPOSED VALVE WITH VAULT
- PROPOSED INLET
- PROPOSED OPEN LID MANHOLE / CATCH BASIN
- PROPOSED CLOSED LID MANHOLE
- PROPOSED RESTRICTOR STRUCTURE
- PROPOSED FLARED END SECTION
- PROPOSED GREASE TRAP
- PROPOSED TRENCH DRAIN
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROPOSED TRIPLE SEPARATOR TANK

DRAINAGE CERTIFICATE:

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DRAINAGE OF SURFACE WATERS WILL NOT BE CHANGED BY THE PROPOSED DEVELOPMENT. IF ANY DRAINAGE PATTERNS WILL BE CHANGED, REASONABLE PROVISIONS HAVE BEEN MADE FOR THE COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO PUBLIC AREAS, OR DRAINS APPROVED FOR THE USE BY THE MUNICIPAL ENGINEER, AND THAT SUCH SURFACE WATERS ARE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES SO AS TO REDUCE THE LIKELIHOOD OF DAMAGES TO ADJOINING PROPERTIES.

DATED THIS 5th DAY OF MAY , A.D. 2023

DESIGN ENGINEER- JASON GREEN, P.E. 062-059460 EXP. DATE 11/30/23

JASON GREEN 062-059460 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS

	AREA	IMPERVIOUS (ACRES)	PERVIOUS TYPE C (ACRES)	PERVIOUS TYPE D (ACRES)	TOTAL (ACRES)
DETAINED	AREA 1	1.428	0.738	0.165	2.331
	AREA 2	1.839	0.038	1.724	3.601
UNRESTRICTED	AREA 3	0	0.034	0.176	0.210
	AREA 4	0	0.128	0.039	0.167

NORTH

1" = 30'

00 15 30 60 120

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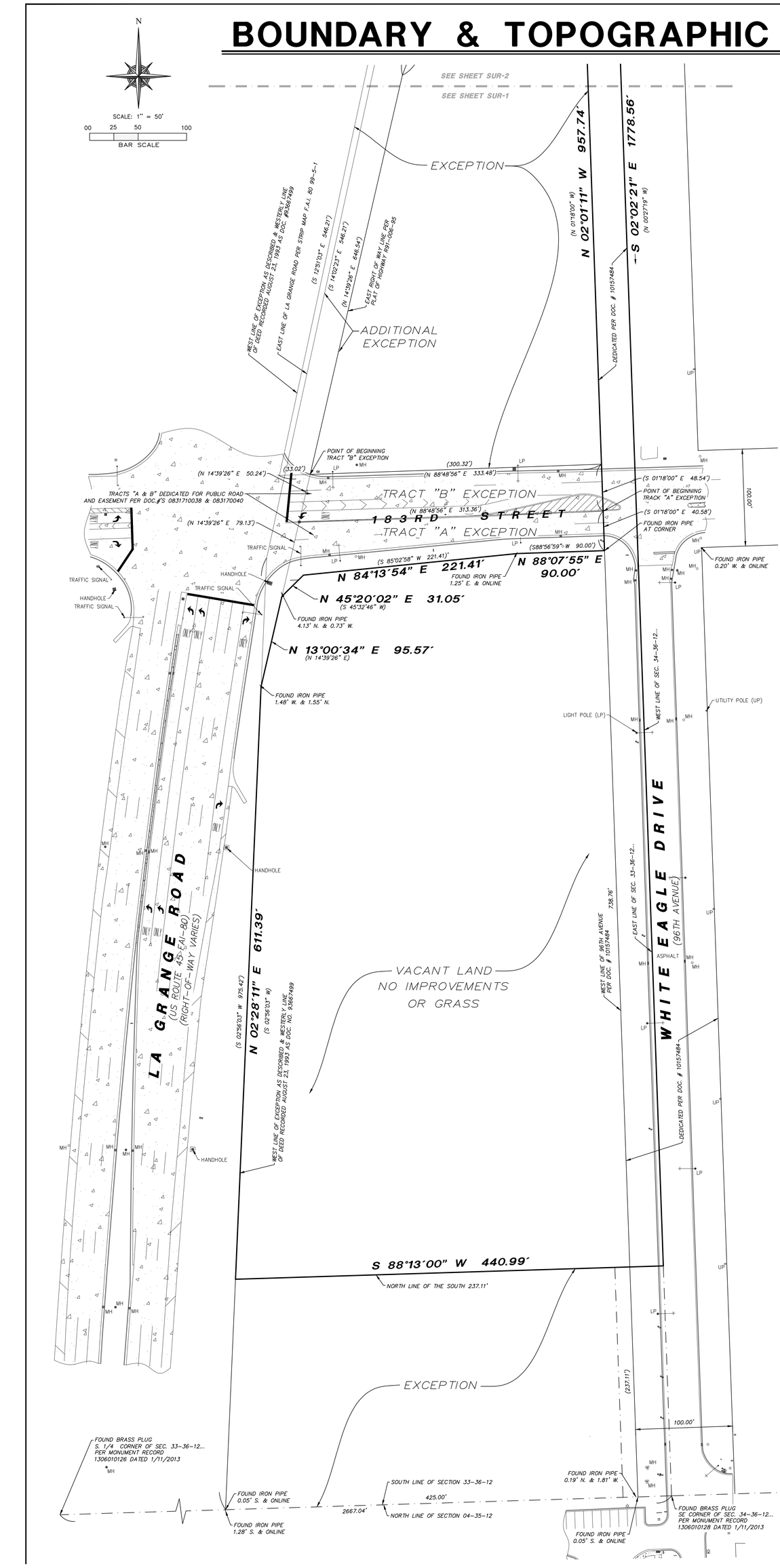
PDP
PROPOSED DRAINAGE PLAN

BOUNDARY & TOPOGRAPHIC SURVEY



THAT PART OF THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT ON THE EAST LINE OF SAID SOUTHEAST 1/4 THAT IS 253.81 FEET SOUTH OF THE NORTHEAST CORNER THEREOF; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST, A DISTANCE OF 48.99 FEET; THENCE SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST, A DISTANCE OF 338.86 FEET; THENCE SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST, A DISTANCE OF 580.18 FEET; THENCE SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, A DISTANCE OF 546.21 FEET; THENCE SOUTH 02 DEGREES 56 MINUTES 03 SECONDS WEST, A DISTANCE OF 975.42 FEET MORE OR LESS, TO A POINT ON THE SOUTH LINE OF SAID SOUTHEAST 1/4; THENCE EASTERLY ALONG THE SOUTH LINE OF SAID SOUTHEAST 1/4 TO THE SOUTH EAST CORNER THEREOF; THENCE NORTHERLY ALONG THE EAST LINE OF SAID SOUTHEAST 1/4 TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM:
THAT PART OF THE EAST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID SOUTHEAST 1/4, THENCE SOUTH 01 DEGREE 19 MINUTES 04 SECONDS EAST, ALONG THE EAST LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 253.81 FEET, THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST 33.87 FEET TO THE WEST LINE OF 96TH AVENUE PER DOCUMENT NUMBER 10157484, RECORDED SEPTEMBER 26, 1928, FOR THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST 15.00 FEET TO A POINT 48.54 FEET SOUTH OF THE NORTH LINE OF SAID EAST 1/2 OF THE SOUTHEAST 1/4; THENCE SOUTHERLY ALONG THE WESTERLY LINE OF SAID DEED, THE FOLLOWING THREE COURSES; SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST 338.86 FEET; SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST 580.18 FEET; SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST 447.03 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST 333.48 FEET TO SAID WEST LINE OF 96TH AVENUE; THENCE NORTH 01 DEGREES 18 MINUTES 00 SECONDS WEST, ALONG THE LAST DESCRIBED LINE 1328.76 FEET TO THE POINT OF BEGINNING, ALL IN COOK COUNTY, ILLINOIS,

FURTHER EXCEPTING THEREFROM THAT PART OF THE LAND BOUNDED AND DESCRIBED AS FOLLOWS:

THAT PART OF EAST 1/2 OF SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH RANGE 12 COMMENCING AT NORTHEAST CORNER OF SAID EAST 1/2 OF SOUTHEAST 1/4; THENCE ON AN ASSUMED BEARING OF SOUTH 00 DEGREES 27 MINUTES 19 SECONDS EAST 77.206 METERS (253.30 FEET) ALONG EAST LINE OF SAID EAST 1/2 OF SOUTHEAST 1/4 TO POINT OF BEGINNING AND EASTERLY RIGHT OF WAY OF FAI-80 EXTENDED; THENCE NORTH 89 DEGREES 44 MINUTES 27 SECONDS WEST 10.391 METERS (34.09 FT) ALONG SAID EASTERLY RIGHT OF WAY LINE OF FAI-80; THENCE SOUTH 15 DEGREES 11 MINUTES 32 SECONDS WEST 103.209 METERS (338.61 FT) ALONG SAID EASTERLY RIGHT OF WAY OF FAI-80; THENCE SOUTH 11 DEGREES 45 MINUTES 18 SECONDS WEST 176.838 METERS (580.18 FT) ALONG THE SAID EASTERLY RIGHT OF WAY LINE OF FAI-80; THENCE SOUTH 14 DEGREES 02 MINUTES 23 SECONDS WEST 166.486 METER (546.21 FT) ALONG SAID EASTERLY LINE OF FAI-80; THENCE SOUTH 04 DEGREES 07 MINUTES 21 SECONDS WEST 37.813 METERS (124.06 FT) ALONG SAID EASTERLY RIGHT OF WAY LINE OF FAI-80, TO A 5/8" REBAR WITH AN ALLIED CAP STAMPED, STATE OF ILLINOIS DIVISION OF HIGHWAYS RIGHT OF WAY CORNER IPLS 2017; THENCE NORTH 14 DEGREES 39 MINUTES 26 SECONDS EAST 197.066 METERS (646.54 FT) TO A 5/8" REBAR WITH AN ALLIED CAP STAMPED STATE OF ILLINOIS DIVISION OF HIGHWAYS RIGHT OF WAY CORNER IPLS 2017; THENCE NORTH 22 DEGREES 07 MINUTES 52 SECONDS EAST 179.492 METERS (588.88 FT) TO A POINT ON THE SAID EAST LINE OF EAST 1/2 OF SOUTHEAST 1/4; THENCE NORTH 00 DEGREES 27 MINUTES 19 SECONDS WEST 114.995 METERS (377.28 FT) ALONG SAID EAST LINE OF EAST 1/2 OF SOUTHEAST 1/4 TO POINT OF BEGINNING.

AND FURTHER EXCEPTING THEREFROM ALL OF THE FOLLOWING:
TRACT A: THAT PART OF THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID SOUTHEAST 1/4; THENCE ON AN ASSUMED BEARING OF SOUTH 01 DEGREE 19 MINUTES 04 SECONDS EAST ALONG THE EAST LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 253.81 FEET; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST, A DISTANCE OF 48.99 FEET; THENCE SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST, A DISTANCE OF 338.86 FEET; THENCE SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST, A DISTANCE OF 580.18 FEET; THENCE SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, A DISTANCE OF 447.03 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 33.02 FEET TO THE EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED); THENCE CONTINUING NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 300.32 FEET TO THE WEST LINE OF 96TH AVENUE; THENCE SOUTH 01 DEGREE 18 MINUTES 00 SECONDS EAST ALONG SAID WEST LINE OF 96TH AVENUE, A DISTANCE OF 48.54 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 01 DEGREE 18 MINUTES 00 SECONDS EAST ALONG SAID WEST LINE, A DISTANCE OF 40.58 FEET; THENCE SOUTH 88 DEGREES 56 MINUTES 59 SECONDS WEST, A DISTANCE OF 90.00 FEET; THENCE SOUTH 85 DEGREES 02 MINUTES 58 SECONDS WEST, A DISTANCE OF 221.41 FEET; THENCE SOUTH 45 DEGREES 32 MINUTES 46 SECONDS WEST, A DISTANCE OF 31.44 FEET TO THE AFORE SAID EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED); THENCE NORTHEASTERLY ALONG THE LAST DESCRIBED LINE A DISTANCE OF 313.36 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 313.36 FEET TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

TRACT B:
THAT PART OF THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID SOUTHEAST 1/4; THENCE ON AN ASSUMED BEARING OF SOUTH 01 DEGREE 19 MINUTES 04 SECONDS EAST ALONG THE EAST LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 253.81 FEET; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST, A DISTANCE OF 48.99 FEET; THENCE SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST, A DISTANCE OF 338.86 FEET; THENCE SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST, A DISTANCE OF 580.18 FEET; THENCE SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, A DISTANCE OF 447.03 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 33.02 FEET TO THE EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED) TO THE POINT OF BEGINNING; THENCE CONTINUING NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 300.32 FEET TO THE WEST LINE OF 96TH AVENUE; THENCE SOUTH 01 DEGREE 18 MINUTES 00 SECONDS EAST ALONG SAID WEST LINE OF 96TH AVENUE, A DISTANCE OF 48.54 FEET; THENCE SOUTH 88 DEGREES 48 MINUTES 56 SECONDS WEST, A DISTANCE OF 313.36 FEET TO THE AFORESAID EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED); THENCE NORTHEASTERLY ALONG THE LAST DESCRIBED LINE A DISTANCE OF 50.23 FEET TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS. AND FURTHER

EXCEPTING THEREFROM:
THE SOUTH 237.11 FEET AS MEASURED PERPENDICULAR FROM THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 33, ALL IN COOK COUNTY, ILLINOIS.

SURVEY NOTES:

1. SITE BENCHMARK #1 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 122' WEST OF WHITE EAGLE DRIVE AS SHOWN. ELEVATION=730.60' (NAVD88)

SITE BENCHMARK #2 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 43' EAST OF LA GRANGE DRIVE AS SHOWN. ELEVATION=732.06' (NAVD88)

SITE BENCHMARK #3 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE WEST SIDE OF WHITE EAGLE DRIVE, 505' SOUTH OF 183RD STREET AS SHOWN. ELEVATION=744.53' (NAVD88)

2. PERMANENT INDEX NUMBER (P.I.N. #): 27-33-401-013

3. THE LOCATION OF UNDERGROUND UTILITIES WAS DETERMINED BY FIELD OBSERVATION AND VISIBLE MARKINGS ONLY.

4. PROPERTY AREA: 334,651.47 SQUARE FEET (7.682 ACRES)

5. FIELD WORK COMPLETED ON 4/12/2022.

6. SURVEY WAS PREPARED WITH THE AID OF A TITLE COMMITMENT PREPARED BY CHICAGO TITLE INSURANCE COMPANY, COMMITMENT NUMBER 21023698WF, HAVING AN EFFECTIVE DATE OF SEPTEMBER 22, 2021.

7. SURVEY PREPARED FOR: GAS N WASH

8. BUILDING TIES & DIMENSIONS SHOWN ARE MEASURED FROM THE OUTSIDE FACE OF THE BUILDING.

9. BASIS OF BEARINGS IS TRUE NORTH BASED ON ILLINOIS STATE PLANE COORDINATE SYSTEM, ILLINOIS EAST 1201 ZONE.

10. ANY DISCREPANCIES FOUND WITHIN THIS DOCUMENT NEED TO BE REPORTED TO THE SURVEYOR AS SOON AS POSSIBLE.

STATE OF ILLINOIS)
) SS
COUNTY OF COOK)

WE THE W-T GROUP DO HEREBY DECLARE THAT WE HAVE SURVEYED THE ABOVE DESCRIBED PROPERTY AND THAT THIS PLAT IS A CORRECT REPRESENTATION OF SAID SURVEY. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY AND TOPOGRAPHIC SURVEY.

GIVEN UNDER OUR HAND AND SEAL THIS 7TH DAY OF NOVEMBER A.D. 2022 AT HOFFMAN ESTATES, ILLINOIS.

THE W-T GROUP, LLC

FRANJO I. MATICIC – PLS #035-003556 EXPIRES 11/30/2022
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184.007570-0015

PROFESSIONAL LAND SURVEYOR
FRANJO I. MATICIC
035-003556
HOFFMAN ESTATES
ILLINOIS
STATE OF ILLINOIS

5/11/2022 – ISSUED SURVEY
7/11/2022 – RE-ISSUED SURVEY WITH ADJUSTED VIEW PORT TO SHOW WATER MANHOLES AT THE SE CORNER OF PROPERTY
9/14/2022 – RE-ISSUED SURVEY WITH ADJUSTED PROPERTY LINES
11/7/2022 – RE-ISSUED SURVEY WITH ADDITIONAL TOPOGRAPHIC FEATURES AT THE SE CORNER OF PROPERTY

LEGEND

PROPERTY LINE	T/F T/T	TOP FOUNDATION/THRESHOLD	SOIL BORING
CENTER LINE		TYPICAL SIGN	TEL/ELEC MANHOLE
EASEMENT LINE		FLARED END SECTION	UTILITY POLE
BUILDING SETBACK		CLOSED MANHOLE	GUARDRAIL
(XXX') RECORD DATA		OPEN GRATE MANHOLE	GUY WIRE ANCHOR
XXX.XX TOP OF CURB/WALL, ETC. / XXX.XX BOTTOM OF GROUND, SUITABILITY		BEEHIVE GRATE MANHOLE	CONTOUR LINE
		GUTTER FRAME MANHOLE	TREE LINE / HEDGE LINE
CONCRETE		VALVE VAULT	EDGE GRAVEL/STONE
		FIRE HYDRANT	FENCE LINE
EVERGREEN/DECIDUOUS WITH SIZE IN INCHES		B-BOX / SERVICE VALVE	STORM SEWER
		POST LIGHT/GROUND LIGHT	SANITARY SEWER
SHRUB/SHRUB LINE		AREA LIGHT/LIGHT POLE	COMBO SEWER
		STREET LIGHT	WATER SERVICE LINE
MONITOR WELL		TRAFFIC SIGNAL	WATER MAIN
GAS VALVE		MAST ARM SIGNAL	OVERHEAD LINE
UTILITY MARKINGS (cable,wire,fiber) (tel,water,gas)		HANDHOLE (electric\traffic)	FIBER OPTIC LINE
		GAS METER	GAS LINE
MAILBOX		ELECTRIC METER	U.G. TELCO LINE
		PEDESTAL(telco,elec,cable)	U.G. ELECTRIC LINE

AQUATIC \ CIVIL \ MECHANICAL \ ELECTRICAL \ PLUMBING \ TELECOMMUNICATION \ STRUCTURAL \ ACCESSIBILITY CONSULTING \ DESIGN & PROGRAM MANAGEMENT \ LAND SURVEY

GAS N WASH TINLEY PARK
18200 S. 96TH AVENUE
TINLEY PARK, ILLINOIS

ISSUE	TO	DATE
CLIENT	CLIENT	5/11/22
CLIENT	CLIENT	7/11/22
CLIENT	CLIENT	9/14/22
CLIENT	CLIENT	11/07/22

SUR-1
SHEET 1 OF 4
BOUNDARY & TOPOGRAPHIC SURVEY

JOB: 022000035
DRAWN: REM
CHECK: FIM

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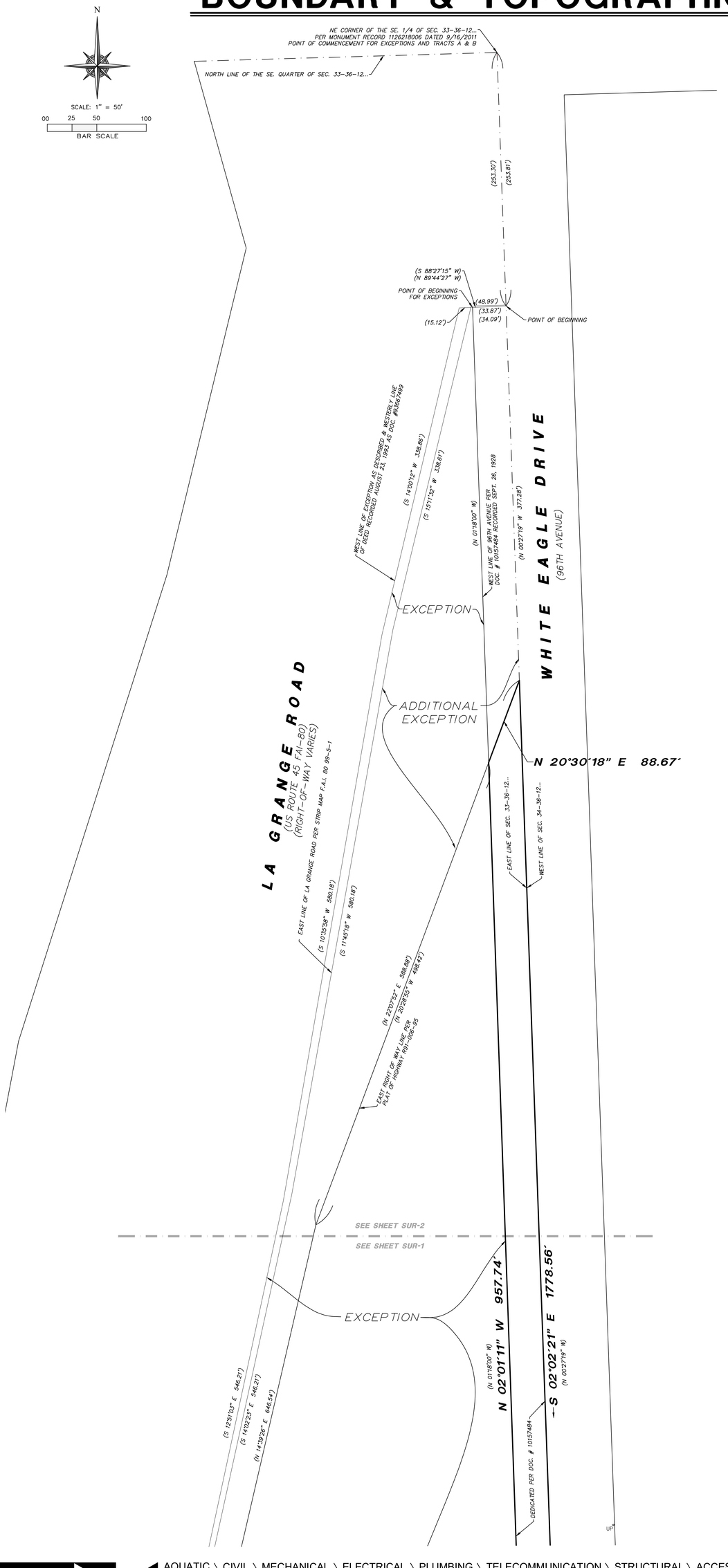
BOUNDARY & TOPOGRAPHIC SURVEY



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EXCEPTING THEREFROM:
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FURTHER EXCEPTING THEREFROM THAT PART OF THE LAND BOUNDED AND DESCRIBED AS FOLLOWS:

THAT PART OF EAST 1/2 OF SOUTHEAST 1/4 OF SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH RANGE 12 COMMENCING AT NORTHEAST CORNER OF SAID EAST 1/2 OF SOUTHEAST 1/4; THENCE ON AN ASSUMED BEARING OF SOUTH 00 DEGREES 27 MINUTES 19 SECONDS EAST 77.206 METERS (253.30 FEET) ALONG EAST LINE OF SAID EAST 1/2 OF SOUTHEAST 1/4 TO POINT OF BEGINNING AND EASTERLY RIGHT OF WAY OF FAI-80 EXTENDED; THENCE NORTH 89 DEGREES 44 MINUTES 27 SECONDS WEST 10.391 METERS (34.09 FT) ALONG SAID EASTERLY RIGHT OF WAY LINE OF FAI-80; THENCE SOUTH 15 DEGREES 11 MINUTES 32 SECONDS WEST 103.209 METERS (338.61 FT) ALONG SAID EASTERLY RIGHT OF WAY OF FAI-80; THENCE SOUTH 11 DEGREES 45 MINUTES 18 SECONDS WEST 176.838 METERS (580.18 FT) ALONG THE SAID EASTERLY RIGHT OF WAY LINE OF FAI-80; THENCE SOUTH 14 DEGREES 02 MINUTES 23 SECONDS WEST 166.486 METER (546.21 FT) ALONG SAID EASTERLY LINE OF FAI-80; THENCE SOUTH 04 DEGREES 07 MINUTES 21 SECONDS WEST 37.813 METERS (124.06 FT) ALONG SAID EASTERLY RIGHT OF WAY LINE OF FAI-80, TO A 5/8" REBAR WITH AN ALLIED CAP STAMPED, STATE OF ILLINOIS DIVISION OF HIGHWAYS RIGHT OF WAY CORNER IPLS 2017; THENCE NORTH 14 DEGREES 39 MINUTES 26 SECONDS EAST 197.066 METERS (646.54 FT) TO A 5/8" REBAR WITH AN ALLIED CAP STAMPED STATE OF ILLINOIS DIVISION OF HIGHWAYS RIGHT OF WAY CORNER IPLS 2017; THENCE NORTH 22 DEGREES 07 MINUTES 52 SECONDS EAST 179.492 METERS (588.88 FT) TO A POINT ON THE SAID EAST LINE OF EAST 1/2 OF SOUTHEAST 1/4; THENCE NORTH 00 DEGREES 27 MINUTES 19 SECONDS WEST 114.995 METERS (377.28 FT) ALONG SAID EAST LINE OF EAST 1/2 OF SOUTHEAST 1/4 TO POINT OF BEGINNING.

AND FURTHER EXCEPTING THEREFROM ALL OF THE FOLLOWING:
TRACT A: THAT PART OF THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID SOUTHEAST 1/4; THENCE ON AN ASSUMED BEARING OF SOUTH 01 DEGREE 19 MINUTES 04 SECONDS EAST ALONG THE EAST LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 253.81 FEET; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST, A DISTANCE OF 48.99 FEET; THENCE SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST, A DISTANCE OF 338.86 FEET; THENCE SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST, A DISTANCE OF 580.18 FEET; THENCE SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, A DISTANCE OF 447.03 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 33.02 FEET TO THE EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED); THENCE CONTINUING NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 300.32 FEET TO THE WEST LINE OF 96TH AVENUE; THENCE SOUTH 01 DEGREE 18 MINUTES 00 SECONDS EAST ALONG SAID WEST LINE OF 96TH AVENUE, A DISTANCE OF 48.54 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 01 DEGREE 18 MINUTES 00 SECONDS EAST ALONG SAID WEST LINE, A DISTANCE OF 40.58 FEET; THENCE SOUTH 88 DEGREES 56 MINUTES 59 SECONDS WEST, A DISTANCE OF 90.00 FEET; THENCE SOUTH 85 DEGREES 02 MINUTES 58 SECONDS WEST, A DISTANCE OF 221.41 FEET; THENCE SOUTH 45 DEGREES 32 MINUTES 46 SECONDS WEST, A DISTANCE OF 31.44 FEET TO THE AFORE SAID EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED); THENCE NORTHEASTERLY ALONG THE LAST DESCRIBED LINE A DISTANCE OF 79.14 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 313.36 FEET TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

TRACT B:
THAT PART OF THE EAST HALF OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID SOUTHEAST 1/4; THENCE ON AN ASSUMED BEARING OF SOUTH 01 DEGREE 19 MINUTES 04 SECONDS EAST ALONG THE EAST LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 253.81 FEET; THENCE SOUTH 88 DEGREES 27 MINUTES 15 SECONDS WEST, A DISTANCE OF 48.99 FEET; THENCE SOUTH 14 DEGREES 00 MINUTES 12 SECONDS WEST, A DISTANCE OF 338.86 FEET; THENCE SOUTH 10 DEGREES 35 MINUTES 58 SECONDS WEST, A DISTANCE OF 580.18 FEET; THENCE SOUTH 12 DEGREES 51 MINUTES 03 SECONDS WEST, A DISTANCE OF 447.03 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 33.02 FEET TO THE EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED) TO THE POINT OF BEGINNING; THENCE CONTINUING NORTH 88 DEGREES 48 MINUTES 56 SECONDS EAST, A DISTANCE OF 300.32 FEET TO THE WEST LINE OF 96TH AVENUE; THENCE SOUTH 01 DEGREE 18 MINUTES 00 SECONDS EAST ALONG SAID WEST LINE OF 96TH AVENUE, A DISTANCE OF 48.54 FEET; THENCE SOUTH 88 DEGREES 48 MINUTES 56 SECONDS WEST, A DISTANCE OF 313.36 FEET TO THE AFORESAID EASTERLY RIGHT OF WAY LINE OF FAI-80 (AS MONUMENTED AND OCCUPIED); THENCE NORTHEASTERLY ALONG THE LAST DESCRIBED LINE A DISTANCE OF 50.23 FEET TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS. AND FURTHER

EXCEPTING THEREFROM:
THE SOUTH 237.11 FEET AS MEASURED PERPENDICULAR FROM THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 33, ALL IN COOK COUNTY, ILLINOIS.

SURVEY NOTES:

1. SITE BENCHMARK #1 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 122' WEST OF WHITE EAGLE DRIVE AS SHOWN. ELEVATION=730.60' (NAVD88)

SITE BENCHMARK #2 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 43' EAST OF LA GRANGE DRIVE AS SHOWN. ELEVATION=732.06' (NAVD88)

SITE BENCHMARK #3 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE WEST SIDE OF WHITE EAGLE DRIVE, 505' SOUTH OF 183RD STREET AS SHOWN. ELEVATION=744.53' (NAVD88)

2. PERMANENT INDEX NUMBER (P.I.N. #): 27-33-401-013

3. THE LOCATION OF UNDERGROUND UTILITIES WAS DETERMINED BY FIELD OBSERVATION AND VISIBLE MARKINGS ONLY.

4. PROPERTY AREA: 336,246.84 SQUARE FEET (7.719 ACRES)

5. FIELD WORK COMPLETED ON 11/03/2022.

6. SURVEY WAS PREPARED WITH THE AID OF A TITLE COMMITMENT PREPARED BY CHICAGO TITLE INSURANCE COMPANY, COMMITMENT NUMBER 21023698WF, HAVING AN EFFECTIVE DATE OF SEPTEMBER 22, 2021.

7. SURVEY PREPARED FOR: GAS N WASH

8. BUILDING TIES & DIMENSIONS SHOWN ARE MEASURED FROM THE OUTSIDE FACE OF THE BUILDING.

9. BASIS OF BEARINGS IS TRUE NORTH BASED ON ILLINOIS STATE PLANE COORDINATE SYSTEM, ILLINOIS EAST 1201 ZONE.

10. ANY DISCREPANCIES FOUND WITHIN THIS DOCUMENT NEED TO BE REPORTED TO THE SURVEYOR AS SOON AS POSSIBLE.

LEGEND

PROPERTY LINE	T/F T/T	TOP FOUNDATION/THRESHOLD		SOIL BORING	
CENTER LINE		TYPICAL SIGN		TEL/ELEC MANHOLE	
EASEMENT LINE		FLARED END SECTION		UTILITY POLE	
BUILDING SETBACK		CLOSED MANHOLE		GUARDRAIL	
(XXX') RECORD DATA		OPEN GRATE MANHOLE		GUY WIRE ANCHOR	
XXX.XX TOP OF CURB(MILL ETC.) XXX.XX SPOT GRADE BOTTOM OF GRSWK, GUTER,ETC.)		BEEHIVE GRATE MANHOLE	775	CONTOUR LINE	
		GUTTER FRAME MANHOLE		TREE LINE / HEDGE LINE	
CONCRETE		VALVE VAULT		EDGE GRAVEL/STONE	
		FIRE HYDRANT		FENCE LINE	
EVERGREEN/DECDUOUS WITH SIZE IN INCHES		B-BOX / SERVICE VALVE		STORM SEWER	
		POST LIGHT\GROUND LIGHT		SANITARY SEWER	
SHRUB/SHRUB LINE		AREA LIGHT\LIGHT POLE		COMBO SEWER	
		STREET LIGHT	WS	WATER SERVICE LINE	
MONITOR WELL		TRAFFIC SIGNAL	WM	WATER MAIN	
GAS VALVE		MAST ARM SIGNAL	OHL	OVERHEAD LINE	
UTILITY MARKINGS (cable,elec,fiber) (tel,water,gas)		HANDHOLE (electric\traffic)	FO	FIBER OPTIC LINE	
		GAS METER	G	GAS LINE	
MAILBOX		ELECTRIC METER	UGT	U.G. TELCO LINE	
		PEDESTAL(telco,elec,cable)	UGE	U.G. ELECTRIC LINE	

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SUR-2
SHEET 2 OF 4
BOUNDARY & TOPOGRAPHIC SURVEY

CHECK:FTM
DRAWN:REM
JOB: D22000835

ISSUE

TO	DATE
CLIENT	5/11/22
CLIENT	7/11/22
CLIENT	9/14/22
CLIENT	11/07/22

GAS N WASH TINLEY PARK
18200 S. 96TH AVENUE
TINLEY PARK, ILLINOIS

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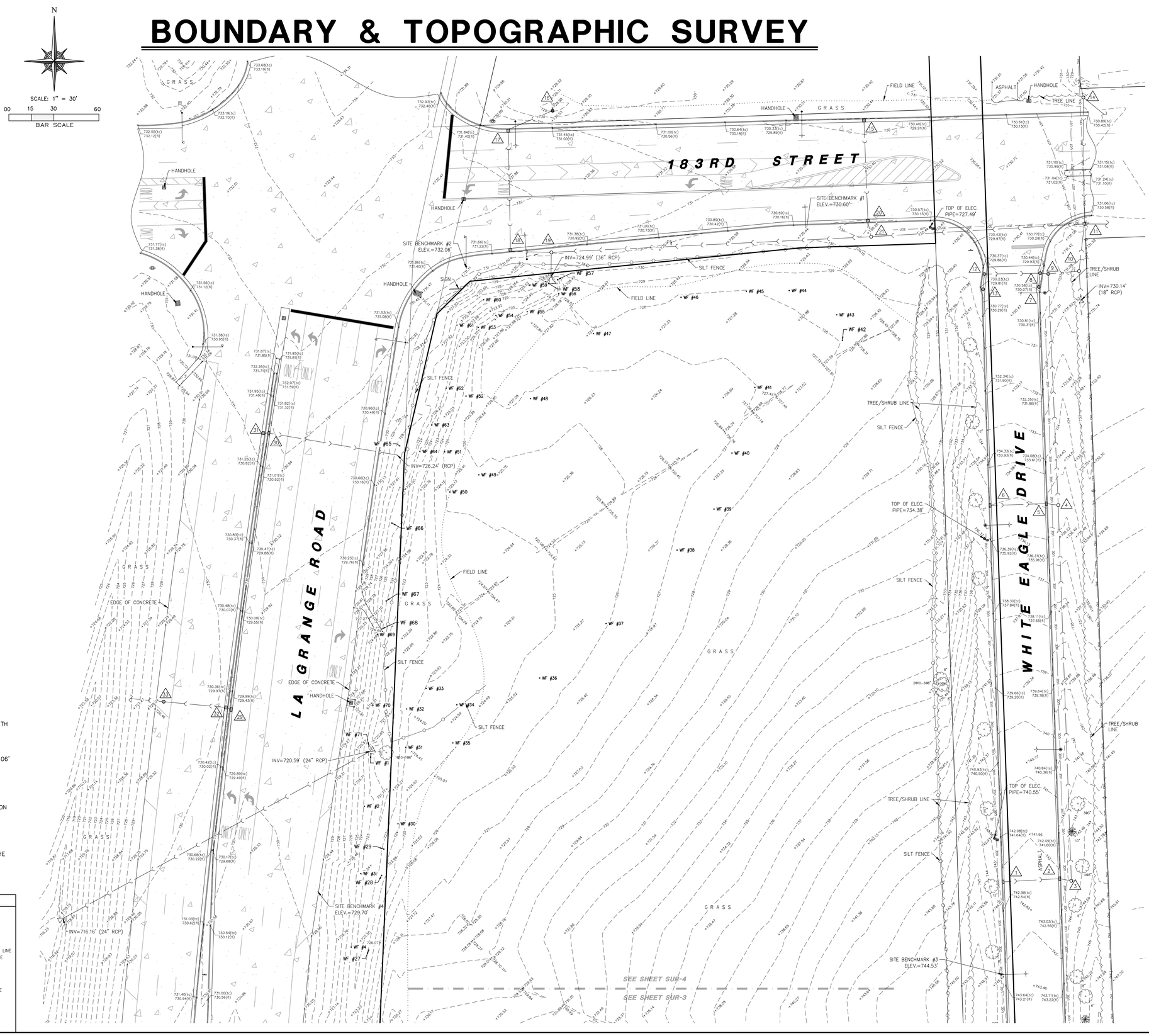
BOUNDARY & TOPOGRAPHIC SURVEY



N

SCALE: 1" = 30'

00 15 30 60

BAR SCALE

△1 RIM=742.12' (STORM)
24" CONCRETE STRUCTURE
INV=738.40' (12" RCP E)

△2 RIM=742.02' (STORM)
48" CONCRETE STRUCTURE
INV=737.27' (12" RCP E/W)

△3 RIM=742.53' (STORM)
48" CONCRETE STRUCTURE
INV=737.16' (15" RCP N)
INV=736.98' (12" RCP W)

△4 RIM=735.29' (STORM)
48" CONCRETE STRUCTURE
INV=730.07' (15" RCP N)
INV=731.10' (15" RCP S)
INV=730.22' (12" RCP W)

△5 RIM=734.77' (STORM)
48" CONCRETE STRUCTURE
INV=730.27' (12" RCP E/W)

△6 RIM=734.91' (STORM)
24" CONCRETE STRUCTURE
INV=731.05' (12" RCP E)

△7 RIM=730.02' (STORM)
24" CONCRETE STRUCTURE
INV=727.13' (12" RCP N)

△8 RIM=730.00' (STORM)
48" CONCRETE STRUCTURE
INV=727.20' (12" RCP E/S/W)
727.26' AT WATER LEVEL

△9 RIM=730.53' (STORM)
48" CONCRETE STRUCTURE
INV=727.12' (18" RCP E)
INV=727.12' (15" RCP S)
INV=727.12' (12" RCP W)

△10 RIM=731.20' (STORM)
48" CONCRETE STRUCTURE
INV=727.80' (18" RCP N/W)
INV=726.99' (18" RCP S)

△11 RIM=731.12' (STORM)
72" CONCRETE STRUCTURE
INV=726.64' (30" RCP N/E/W)
INV=727.01' (18" RCP S)

△12 RIM=729.82' (STORM)
48" CONCRETE STRUCTURE
INV=727.57' (12" RCP E/S)
727.66' AT WATER LEVEL

△13 RIM=729.83' (STORM)
24" CONCRETE STRUCTURE
INV=727.63' (12" RCP N)

△14 RIM=731.58' (STORM)
72" CONCRETE STRUCTURE
INV=727.14' (30" RCP N)
INV=726.98' (12" RCP SE)
INV=727.02' (30" RCP S)

△15 RIM=729.76' (STORM)
48" CONCRETE STRUCTURE
INV=726.98' (12" RCP S)
727.18' AT WATER LEVEL

△16 RIM=728.96' (STORM)
24" CONCRETE STRUCTURE
INV=726.34' (12" RCP SW)

△17 RIM=731.28' (STORM)
48" CONCRETE STRUCTURE
INV=726.18' (12" RCP NE/S)

△18 RIM=731.10' (STORM)
48" CONCRETE STRUCTURE
INV=725.50' (12" RCP N)
INV=725.58' (30" RCP SE)
725.70' AT WATER LEVEL

△19 RIM=731.42' (STORM)
72" CONCRETE STRUCTURE
INV=725.28' (36" RCP E/S)
INV=725.28' (30" RCP NW)

△20 RIM=729.89' (STORM)
48" CONCRETE STRUCTURE
INV=726.87' (12" RCP N/S)

△21 RIM=730.59' (STORM)
72" CONCRETE STRUCTURE
INV=726.17' (12" RCP N)
INV=725.92' (30" RCP E)
INV=725.92' (36" RCP W)

△22 RIM=731.73' (STORM)
48" CONCRETE STRUCTURE
INV=722.00' (12" RCP SE)
INV=720.45' (12" RCP NW)
720.45' AT WATER LEVEL

△23 RIM=731.70' (STORM)
48" CONCRETE STRUCTURE
INV=727.54' (12" RCP SE)
INV=722.20' (12" RCP S)
INV=721.88' (12" RCP NW)
722.16' AT WATER LEVEL

△24 RIM=731.52' (STORM)
24" CONCRETE STRUCTURE
INV=727.63' (12" RCP NW)

△25 RIM=732.91' (STORM)
24" CONCRETE STRUCTURE
INV=729.31' (12" RCP SE)

△26 RIM=733.07' (STORM)
48" CONCRETE STRUCTURE
INV=724.09' (12" RCP N)
INV=727.52' (12" RCP E/W)
INV=724.57' (12" RCP S)

△27 RIM=732.89' (STORM)
24" CONCRETE STRUCTURE
INV=728.52' (12" RCP W)

△28 RIM=733.99' (STORM)
48" CONCRETE STRUCTURE
INV=725.65' (12" RCP N)
INV=729.46' (12" RCP E/W)
INV=727.27' (12" RCP S)

△29 RIM=729.35' (STORM)
24" CONCRETE STRUCTURE
INV=725.41' (12" RCP W)

△30 RIM=730.83' (STORM)
48" CONCRETE STRUCTURE
INV=726.73' (12" RCP W)
727.84' AT WATER LEVEL
LINE TO EAST SIZE & MATERIAL UNKNOWN

△31 RIM=731.08' (STORM)
48" CONCRETE STRUCTURE
INV=726.86' (12" RCP E)
727.90' AT WATER LEVEL

△32 RIM=729.92' (STORM)
48" CONCRETE STRUCTURE
INV=725.27' (12" RCP E)
INV=723.86' (12" RCP W)

△33 RIM=729.56' (STORM)
48" CONCRETE STRUCTURE
INV=722.46' (12" RCP E)
INV=720.36' (12" RCP W)
721.53' AT WATER LEVEL

△34 RIM=741.71' (WATER)
60" CONCRETE STRUCTURE
736.02' AT TOP OF 12" DIP N/S

△35 RIM=741.97' (WATER)
60" CONCRETE STRUCTURE
736.18' AT TOP OF 12" DIP N/S

△36 RIM=742.32' (WATER)
60" CONCRETE STRUCTURE
734.62' AT TOP OF 12" DIP E/W

△37 RIM=730.81' (UNKNOWN)
UNABLE TO OPEN

△38 RIM=741.08' (STORM)
24" CONCRETE STRUCTURE
INV=737.80' (12" RCP E)

△39 RIM=741.24' (STORM)
36" CONCRETE STRUCTURE
INV=737.27' (12" RCP E)
INV=736.97' (12" RCP W)
737.22' AT WATER LEVEL

△40 RIM=741.80' (STORM)
48" CONCRETE STRUCTURE
INV=737.10' (12" CPP E CAPPED
INV=736.20' (15" RCP S)
INV=741.80' (12" RCP W)

△41 RIM=738.57' (STORM)
48" CONCRETE STRUCTURE
INV=735.17' (15" RCP N)
INV=734.43' (18" RCP S)
INV=735.17' (10" PVC WNW)

△42 RIM=741.56' (WATER)
60" CONCRETE STRUCTURE
735.56' AT TOP OF 6" DIP N/S

SURVEY NOTES:

1. SITE BENCHMARK #1 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 122' WEST OF WHITE EAGLE DRIVE AS SHOWN. ELEVATION=730.60' (NAVD88)

SITE BENCHMARK #2 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 43' EAST OF LA GRANGE DRIVE AS SHOWN. ELEVATION=732.06' (NAVD88)

SITE BENCHMARK #3 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE WEST SIDE OF WHITE EAGLE DRIVE, 505' SOUTH OF 183RD STREET AS SHOWN. ELEVATION=744.53' (NAVD88)

2. THE LOCATION OF UNDERGROUND UTILITIES WAS DETERMINED BY FIELD OBSERVATION AND VISIBLE MARKINGS ONLY.

3. FIELD WORK COMPLETED ON 11/3/2022.

4. SURVEY PREPARED FOR: GAS N WASH

5. ANY DISCREPANCIES FOUND WITHIN THIS DOCUMENT NEED TO BE REPORTED TO THE SURVEYOR AS SOON AS POSSIBLE.

LEGEND

PROPERTY LINE	T/F T/T	TOP FOUNDATION/THRESHOLD	SOIL BORING
CENTER LINE		TYPICAL SIGN	TEL/ELEC MANHOLE
EASEMENT LINE		FLARED END SECTION	UTILITY POLE
BUILDING SETBACK		CLOSED MANHOLE	GUARDRAIL
(XXX') RECORD DATA		OPEN GRATE MANHOLE	GUY WIRE ANCHOR
XXX.XX TOP OF (CURB/WALL ETC.) SPOT GRADE XXX.XX BOTTOM OF (GROUND, GUTTER,ETC.)		BEEHIVE GRATE MANHOLE	CONTOUR LINE
CONCRETE		GUTTER FRAME MANHOLE	TREE LINE / HEDGE LINE
		VALVE VAULT	EDGE GRAVEL/STONE
		FIRE HYDRANT	FENCE LINE
EVERGREEN/DECIDUOUS WITH SIZE IN INCHES		B-BOX / SERVICE VALVE	STORM SEWER
		POST LIGHT\GROUND LIGHT	SANITARY SEWER
		AREA LIGHT\LIGHT POLE	COMBO SEWER
SHRUB/SHRUB LINE		STREET LIGHT	WATER SERVICE LINE
MONITOR WELL		TRAFFIC SIGNAL	WATER MAIN
GAS VALVE		MAST ARM SIGNAL	OVERHEAD LINE
UTILITY MARKINGS (cable,elec,fiber) (tel,water,gas)		HANDHOLE (electric\traffic)	FIBER OPTIC LINE
		GAS METER	GAS LINE
		ELECTRIC METER	U.G. TELCO LINE
MAILBOX		PEDESTAL(telco,elec,cable)	U.G. ELECTRIC LINE

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GAS N WASH TINLEY PARK
18200 S. 96TH AVENUE
TINLEY PARK, ILLINOIS

ISSUE

TO	DATE
CLIENT	5/11/22
CLIENT	7/11/22
CLIENT	9/14/22
CLIENT	11/7/22

CHECK:FIM
DRAWN:REM
JOB: D2200035

SUR-3
SHEET 3 OF 4
BOUNDARY & TOPOGRAPHIC SURVEY

BOUNDARY & TOPOGRAPHIC SURVEY

1. RIM=742.12' (STORM)
24" CONCRETE STRUCTURE
INV=738.40' (12" RCP E)

2. RIM=742.02' (STORM)
48" CONCRETE STRUCTURE
INV=737.27' (12" RCP E/W)

3. RIM=742.53' (STORM)
48" CONCRETE STRUCTURE
INV=737.16' (15" RCP N)
INV=736.98' (12" RCP W)

4. RIM=735.29' (STORM)
48" CONCRETE STRUCTURE
INV=730.07' (15" RCP N)
INV=731.10' (15" RCP S)
INV=730.22' (12" RCP W)

5. RIM=734.77' (STORM)
48" CONCRETE STRUCTURE
INV=730.27' (12" RCP E/W)

6. RIM=734.91' (STORM)
24" CONCRETE STRUCTURE
INV=731.05' (12" RCP E)

7. RIM=730.02' (STORM)
24" CONCRETE STRUCTURE
INV=727.13' (12" RCP N)

8. RIM=730.00' (STORM)
48" CONCRETE STRUCTURE
INV=727.20' (12" RCP E/S/W)
727.26' AT WATER LEVEL

9. RIM=730.53' (STORM)
48" CONCRETE STRUCTURE
INV=727.12' (18" RCP E)
INV=727.12' (15" RCP S)
INV=727.12' (12" RCP W)

10. RIM=731.20' (STORM)
48" CONCRETE STRUCTURE
INV=727.80' (18" RCP N/W)
INV=726.99' (18" RCP S)

11. RIM=731.12' (STORM)
72" CONCRETE STRUCTURE
INV=726.64' (30" RCP N/E/W)
INV=727.01' (18" RCP S)

12. RIM=729.82' (STORM)
48" CONCRETE STRUCTURE
INV=727.57' (12" RCP E/S)
727.66' AT WATER LEVEL

13. RIM=729.83' (STORM)
24" CONCRETE STRUCTURE
INV=727.63' (12" RCP N)

14. RIM=731.58' (STORM)
72" CONCRETE STRUCTURE
INV=727.14' (30" RCP N)
INV=726.98' (12" RCP SE)
INV=727.02' (30" RCP S)

15. RIM=729.76' (STORM)
48" CONCRETE STRUCTURE
INV=726.98' (12" RCP S)
727.18' AT WATER LEVEL

16. RIM=728.96' (STORM)
24" CONCRETE STRUCTURE
INV=726.34' (12" RCP SW)

17. RIM=731.28' (STORM)
48" CONCRETE STRUCTURE
INV=726.18' (12" RCP NE/S)

18. RIM=731.10' (STORM)
48" CONCRETE STRUCTURE
INV=725.50' (12" RCP N)
INV=725.58' (30" RCP SE)
725.70' AT WATER LEVEL

19. RIM=731.42' (STORM)
72" CONCRETE STRUCTURE
INV=725.28' (36" RCP E/S)
INV=725.28' (30" RCP NW)

20. RIM=729.89' (STORM)
48" CONCRETE STRUCTURE
INV=726.87' (12" RCP N/S)

21. RIM=730.59' (STORM)
72" CONCRETE STRUCTURE
INV=726.17' (12" RCP N)
INV=725.92' (30" RCP E)
INV=725.92' (36" RCP W)

22. RIM=731.73' (STORM)
48" CONCRETE STRUCTURE
INV=722.00' (12" RCP SE)
INV=720.45' (12" RCP NW)
720.45' AT WATER LEVEL

23. RIM=731.70' (STORM)
48" CONCRETE STRUCTURE
INV=727.54' (12" RCP SE)
INV=722.20' (12" RCP S)
INV=721.88' (12" RCP NW)
722.16' AT WATER LEVEL

24. RIM=731.52' (STORM)
24" CONCRETE STRUCTURE
INV=727.63' (12" RCP NW)

25. RIM=732.91' (STORM)
24" CONCRETE STRUCTURE
INV=729.31' (12" RCP SE)

26. RIM=733.07' (STORM)
48" CONCRETE STRUCTURE
INV=724.09' (12" RCP N)
INV=727.52' (12" RCP E/W)
INV=724.57' (12" RCP S)

27. RIM=732.89' (STORM)
24" CONCRETE STRUCTURE
INV=728.52' (12" RCP W)

28. RIM=733.99' (STORM)
48" CONCRETE STRUCTURE
INV=725.65' (12" RCP N)
INV=729.46' (12" RCP E/W)
INV=727.27' (12" RCP S)

29. RIM=729.35' (STORM)
24" CONCRETE STRUCTURE
INV=725.41' (12" RCP W)

30. RIM=730.83' (STORM)
48" CONCRETE STRUCTURE
INV=726.73' (12" RCP W)
727.84' AT WATER LEVEL
LINE TO EAST SIZE &
MATERIAL UNKNOWN

31. RIM=731.08' (STORM)
48" CONCRETE STRUCTURE
INV=726.86' (12" RCP E)
727.90' AT WATER LEVEL

32. RIM=729.92' (STORM)
48" CONCRETE STRUCTURE
INV=725.27' (12" RCP E)
INV=723.86' (12" RCP W)

33. RIM=729.56' (STORM)
48" CONCRETE STRUCTURE
INV=722.46' (12" RCP E)
INV=720.36' (12" RCP W)
721.53' AT WATER LEVEL

34. RIM=741.71' (WATER)
60" CONCRETE STRUCTURE
736.02' AT TOP OF 12" DIP N/S

35. RIM=741.97' (WATER)
60" CONCRETE STRUCTURE
736.18' AT TOP OF 12" DIP N/S

36. RIM=742.32' (WATER)
60" CONCRETE STRUCTURE
734.62' AT TOP OF 12" DIP E/W

37. RIM=730.81' (UNKNOWN)
UNABLE TO OPEN

38. RIM=741.08' (STORM)
24" CONCRETE STRUCTURE
INV=737.80' (12" RCP E)

39. RIM=741.24' (STORM)
36" CONCRETE STRUCTURE
INV=737.27' (12" RCP E)
INV=736.97' (12" RCP W)
737.22' AT WATER LEVEL

40. RIM=741.80' (STORM)
48" CONCRETE STRUCTURE
INV=737.10' (12" CPP E CAPPED)
INV=736.20' (15" RCP S)
INV=741.80' (12" RCP W)

41. RIM=738.57' (STORM)
48" CONCRETE STRUCTURE
INV=735.17' (15" RCP N)
INV=734.43' (18" RCP S)
INV=735.17' (10" PVC WNW)

42. RIM=741.56' (WATER)
60" CONCRETE STRUCTURE
735.56' AT TOP OF 6" DIP N/S

SURVEY NOTES:

1. SITE BENCHMARK #1 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 122' WEST OF WHITE EAGLE DRIVE AS SHOWN. ELEVATION=730.60' (NAVD88)

SITE BENCHMARK #2 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE SOUTH SIDE OF 183RD STREET, 43' EAST OF LA GRANGE DRIVE AS SHOWN. ELEVATION=732.06' (NAVD88)

SITE BENCHMARK #3 – SQUARE CUT IN CONCRETE LIGHT POLE BASE ON THE WEST SIDE OF WHITE EAGLE DRIVE, 505' SOUTH OF 183RD STREET AS SHOWN. ELEVATION=744.53' (NAVD88)

2. THE LOCATION OF UNDERGROUND UTILITIES WAS DETERMINED BY FIELD OBSERVATION AND VISIBLE MARKINGS ONLY.

3. FIELD WORK COMPLETED ON 11/3/2022.

4. SURVEY PREPARED FOR: GAS N WASH

5. ANY DISCREPANCIES FOUND WITHIN THIS DOCUMENT NEED TO BE REPORTED TO THE SURVEYOR AS SOON AS POSSIBLE.

LEGEND

PROPERTY LINE	T/F T/T TOP FOUNDATION/THRESHOLD	SOIL BORING
CENTER LINE	TYPICAL SIGN	TEL/ELEC MANHOLE
EASEMENT LINE	FLARED END SECTION	UTILITY POLE
BUILDING SETBACK	CLOSED MANHOLE	GUARDRAIL
(XXX') RECORD DATA	OPEN GRATE MANHOLE	GUY WIRE ANCHOR
XXX.XX / XXX.XX SPOT GRADE (TOP OF (CURB,WALL, ETC.) / BOTTOM OF (GROUND, GUTTER,ETC.))	BEEHIVE GRATE MANHOLE	773 CONTOUR LINE
CONCRETE	GUTTER FRAME MANHOLE	TREE LINE / HEDGE LINE
EVERGREEN/DECIDUOUS WITH SIZE IN INCHES (12" 12")	VALVE VAULT	EDGE GRAVEL/STONE
SHRUB/SHRUB LINE	FIRE HYDRANT	FENCE LINE
MONITOR WELL	B-BOX / SERVICE VALVE	STORM SEWER
GAS VALVE	POST LIGHT\GROUND LIGHT	SANITARY SEWER
UTILITY MARKINGS (cable,elec,fiber) (tel,water,gas)	AREA LIGHT\LIGHT POLE	COMBO SEWER
MAILBOX	STREET LIGHT	WS WATER SERVICE LINE
	TRAFFIC SIGNAL	WM WATER MAIN
	MAST ARM SIGNAL	OHL OVERHEAD LINE
	HANDHOLE (electric\traffic)	FO FIBER OPTIC LINE
	GM GAS METER	G GAS LINE
	EM ELECTRIC METER	UGT U.G. TELCO LINE
	T E C PEDESTAL(telco,elec,cable)	UGE U.G. ELECTRIC LINE

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GAS N WASH TINLEY PARK
18200 S. 96TH AVENUE
TINLEY PARK, ILLINOIS

ISSUE

TO	DATE
CLIENT	5/11/22
CLIENT	7/11/22
CLIENT	9/14/22
CLIENT	11/7/22

CHECK:FIM
DRAWN:REM
JOB: D2200035

SUR-4
SHEET 4 OF 4
BOUNDARY & TOPOGRAPHIC SURVEY

Traffic Impact Study
183rd Street Fuel Center

Tinley Park, Illinois

Prepared For:

GAS N WASH

KLOA

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

May 5, 2023

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 fuel center to be located in Tinley Park, Illinois. The site is located in the southeast quadrant of the intersection of LaGrange Road (US 45) with Orland Parkway/183rd Street. As proposed, the fuel center is to contain the following uses:

- Fourteen passenger vehicle fueling positions
- Three commercial fuel lanes (CFLs)
- A tunnel car wash
- An approximate 8,000 square-foot convenience store containing an approximate 1,000 square-foot coffee/donut store with drive-through facility and an approximate 900 square-foot quick service restaurant with drive-through facility

Access to the fuel center will be provided via two full-movement access drives and an inbound only access drive on White Eagle Drive and a right-in/right-out access drive on 183rd Street.

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

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 fuel center
- Directional distribution of the fuel center traffic
- Vehicle trip generation for the fuel center
- Future traffic conditions including access to the fuel center
- 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. Year 2028 No-Build Conditions – Analyzes the capacity of the existing roadway system using peak hour traffic volumes adjusted to represent the background growth of the area and including any traffic estimated to be generated by any area developments.

3. Year 2028 Total Projected Conditions – Analyzes the capacity of the future roadway system using the projected traffic volumes that include the existing traffic volumes, ambient traffic growth, additional area developments, and the traffic estimated to be generated by the full buildout of the proposed fuel center.

Site Location **Figure 1**

Aerial View of Site **Figure 2**

2. Existing Conditions

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

Site Location

The site, which is currently vacant, is located in the southeast quadrant of the intersection of LaGrange Road with Orland Parkway/183rd Street. Land uses in the immediate vicinity of the site are generally vacant with two hotels and two restaurants located to the south of the site. A development that is to contain two hotels has been approved immediately east of the site on the east side of White Eagle Drive. LaGrange Road has an interchange with Interstate 80 approximately one-half mile south of 183rd Street.

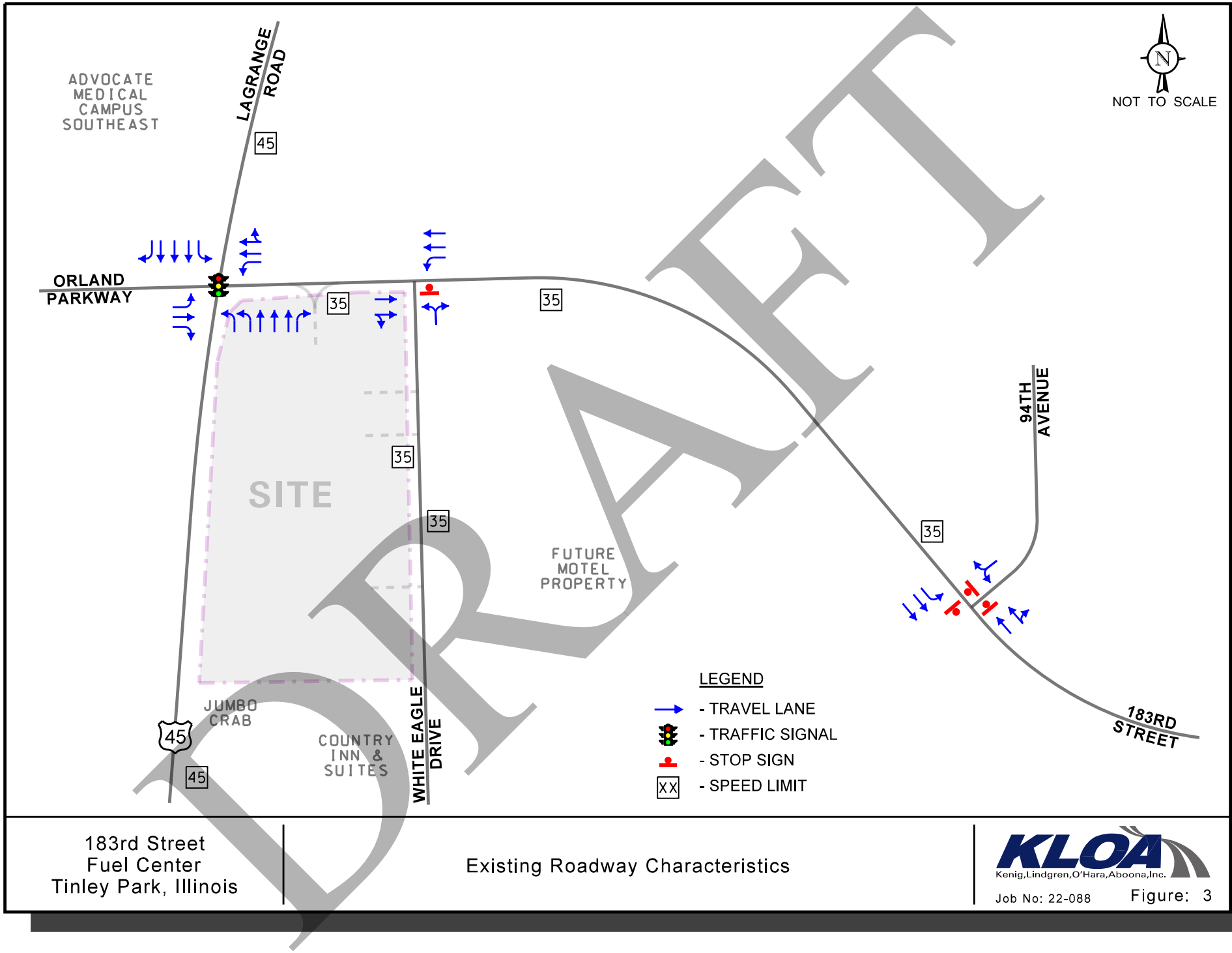
Existing Roadway System Characteristics

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

LaGrange Road (US 45) is a north-south, other principal arterial that provides three through lanes in each direction in the vicinity of the site. At its signalized intersection with Orland Parkway/183rd Street, LaGrange Road provides dual left-turn lanes, three through lanes, and a right-turn lane on the northbound approach and a left-turn lane, three through lanes, and a right-turn lane on the southbound approach. LaGrange Road is under the jurisdiction of the Illinois Department of Transportation (IDOT), carries an annual average daily traffic (AADT) volume of 43,100 vehicles (IDOT 2021), and has a posted speed limit of 45 miles per hour.

White Eagle Drive is a north-south, local roadway that extends from 183rd Street to the hotel/restaurant development located in the northwest quadrant of the I-80/LaGrange Road interchange The road provides one lane in each direction. At its unsignalized T-intersection with 183rd Street, White Eagle Drive provides a combined left-turn/right-turn lane on the northbound approach that is stop sign-controlled. White Eagle Drive is under the jurisdiction of the Village of Tinley Park and has a posted speed limit of 35 miles per hour.

94th Avenue is a north-south, local roadway that provides one lane in each direction. At its all-way stop sign-controlled T-intersection with 183rd Street, 94th Avenue provides a combined left-turn/right-turn lane on the southbound approach. 94th Avenue carries an AADT volume of 7,000 vehicles (IDOT 2018) and is under the jurisdiction of the Village of Tinley Park.



183rd Street
Fuel Center
Tinley Park, Illinois

Existing Roadway Characteristics

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Figure: 3

Orland Parkway/183rd Street is an east-west roadway that generally provides two lanes in each direction divided by a striped median. West of LaGrange Road, the roadway is designated as Orland Parkway and east of LaGrange Road it is designated as 183rd Street. Orland Parkway is classified as a local roadway and 183rd Street is classified as a major collector roadway. At its signalized intersection with LaGrange Road, Orland Parkway (eastbound approach) provides a left-turn lane, a through lane, and a right-turn lane and 183rd Street (westbound approach) provides a left-turn lane, a through lane, and a combined through/right-turn lane. At its unsignalized T-intersection with White Eagle Drive, 183rd Street provides a through lane and a combined through/right-turn lane on the westbound approach and a left-turn lane and two through lanes on the eastbound approach. At its all-way stop sign-controlled T-intersection with 94th Avenue, 183rd Street provides a left-turn lane and two through lanes on the eastbound approach and a through lane and a combined through/right-turn lane on the westbound approach. 183rd Street carries an AADT volume of 8,750 vehicles (IDOT 2018), is under the jurisdiction of the Village of Tinley Park, and has a posted speed limit of 35 miles per hour.

Existing Traffic Volumes

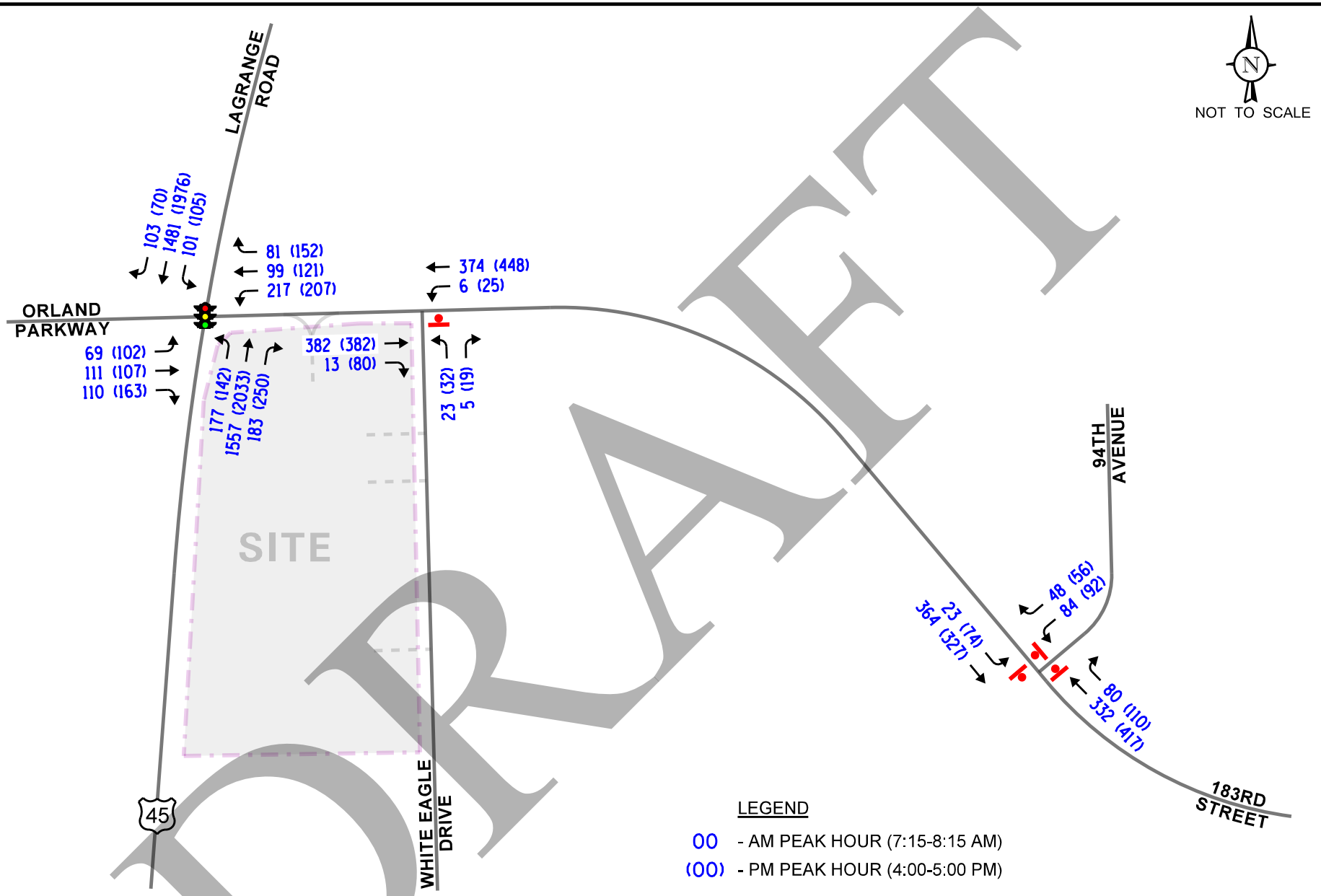
To determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period traffic counts on Tuesday, April 12, 2022 during the weekday morning (7:00 to 9:00 A.M.) and evening (4:00 to 6:00 P.M.) peak periods at the following intersections:

- LaGrange Road (US 45) with Orland Parkway/183rd Street
- 183rd Street with 94th Avenue
- 183rd Street with White Eagle Drive

The results of the traffic counts indicated that the weekday morning peak hour of traffic occurs from 7:15 A.M. to 8:15 A.M. and the weekday evening peak hour of traffic occurs from 4:00 P.M. to 5:00 P.M.

To ensure that the collected traffic volumes reflect normal traffic conditions, the volumes conducted in 2022 were compared with volumes available on the IDOT Traffic Count Database System (TCDS). The comparison showed that the 2022 traffic volumes were consistent with the IDOT traffic volumes and no traffic adjustments were required.

Figure 4 illustrates the existing peak hour traffic volumes. Copies of the traffic count summary sheets are included in the Appendix.



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Existing Traffic Volumes

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Figure: 4

Crash Data Summary

KLOA, Inc. obtained crash data from IDOT for the most recent past five years available (2017 to 2021) for the intersections of 183rd Street with LaGrange Road, 94th Avenue, and White Eagle Drive. A review of the crash data indicated that no fatalities were reported at any of the intersections[1]. **Tables 1** through **3** summarize the crash data.

Table 1
183RD STREET WITH LAGRANGE ROAD – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2017	2	0	1	8	0	1	0	12
2018	1	0	0	7	1	0	0	9
2019	0	0	1	16	1	7	0	25
2020	0	0	0	6	0	1	0	7
2021	1	0	0	4	2	1	0	8
Total	**4**	**0**	**2**	**41**	**4**	**10**	**0**	**61**
Average	**<1.0**	**0.0**	**<1.0**	**8.2**	**<1.0**	**2.0**	**0.0**	**12.2**

Table 2
183RD STREET WITH 94TH AVENUE – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2017	0	1	0	1	0	0	0	2
2018	0	0	1	0	0	0	0	1
2019	0	0	0	0	0	0	0	0
2020	0	0	1	0	0	1	0	2
2021	0	0	0	0	0	0	0	0
Total	**0**	**1**	**2**	**1**	**0**	**1**	**0**	**5**
Average	**0.0**	**<1.0**	**<1.0**	**<1.0**	**0.0**	**<1.0**	**0.0**	**1.0**

[1] IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s). Additionally, for coding years 2015 to present, the Bureau of Data Collection uses the exact latitude/longitude supplied by the investigating law enforcement agency to locate crashes. Therefore, location data may vary in previous years since data prior to 2015 was physically located by bureau personnel. The author is responsible for any data analyses and conclusions drawn.

Table 3
183RD STREET WITH WHITE EAGLE DRIVE – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2017	0	0	0	0	0	0	0	0
2018	1	0	0	0	0	0	0	1
2019	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
Total	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
Average	**<1.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**<1.0**

3. Traffic Characteristics of the Proposed Fuel Center

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

Proposed Site and Development Plan

As proposed, the plans call for developing the site with the following:

- A fuel center with 14 fueling positions for passenger vehicles and three CFLs
- An approximate 8,000 square-foot convenience store containing an approximate 1,000 square-foot coffee/donut store with drive-through and a 900 square-foot quick service restaurant with drive-through facility
- A tunnel car wash

Access to the development will be provided via two full-movement access drives and an inbound only access drive on White Eagle Drive and one right-turn in/right-turn out access drive on 183rd Street as summarized below:

- The White Eagle Drive south access drive will be located approximately 600 feet south of 183rd Street aligned opposite the southern access drive to the hotel development to be located on the east side of White Eagle Drive. The access drive will provide one inbound lane that will serve the entire fuel center and one outbound lane that will serve the entire fuel center except the commercial fueling positions. The outbound lane will be under stop sign control. The access drive will provide larger radii and a wider outbound lane in order to accommodate the inbound truck traffic.

- The White Eagle Drive middle access drive will be located approximately 275 feet south of 183rd Street and will provide inbound only access to the commercial fueling positions. The access drive will provide one wide inbound lane with larger radii in order to accommodate the inbound truck traffic.

- The White Eagle Drive north access drive will be located approximately 170 feet south of 183rd Street and will provide inbound and outbound access to the entire fuel center except for the commercial fueling positions. The 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 northbound queue from the White Eagle Drive intersection with 183rd Street will, at times, extend past this access drive. As such, appropriate signage and striping should be provided at this intersection directing White Eagle Drive northbound traffic and the traffic exiting the access drive to not block the intersection.

- The 183rd Street right-in/right-out access drive will be located approximately 240 feet east of LaGrange Road and will serve the entire fuel center except for the commercial fueling positions. This access drive will provide one inbound lane and one outbound lane channelized, signed, and striped to prohibit left-turn movements. The outbound lane should be under stop sign control.

A copy of the preliminary site plan depicting the proposed development and access is included in the Appendix.

183rd Street and White Eagle Drive Intersection Improvements

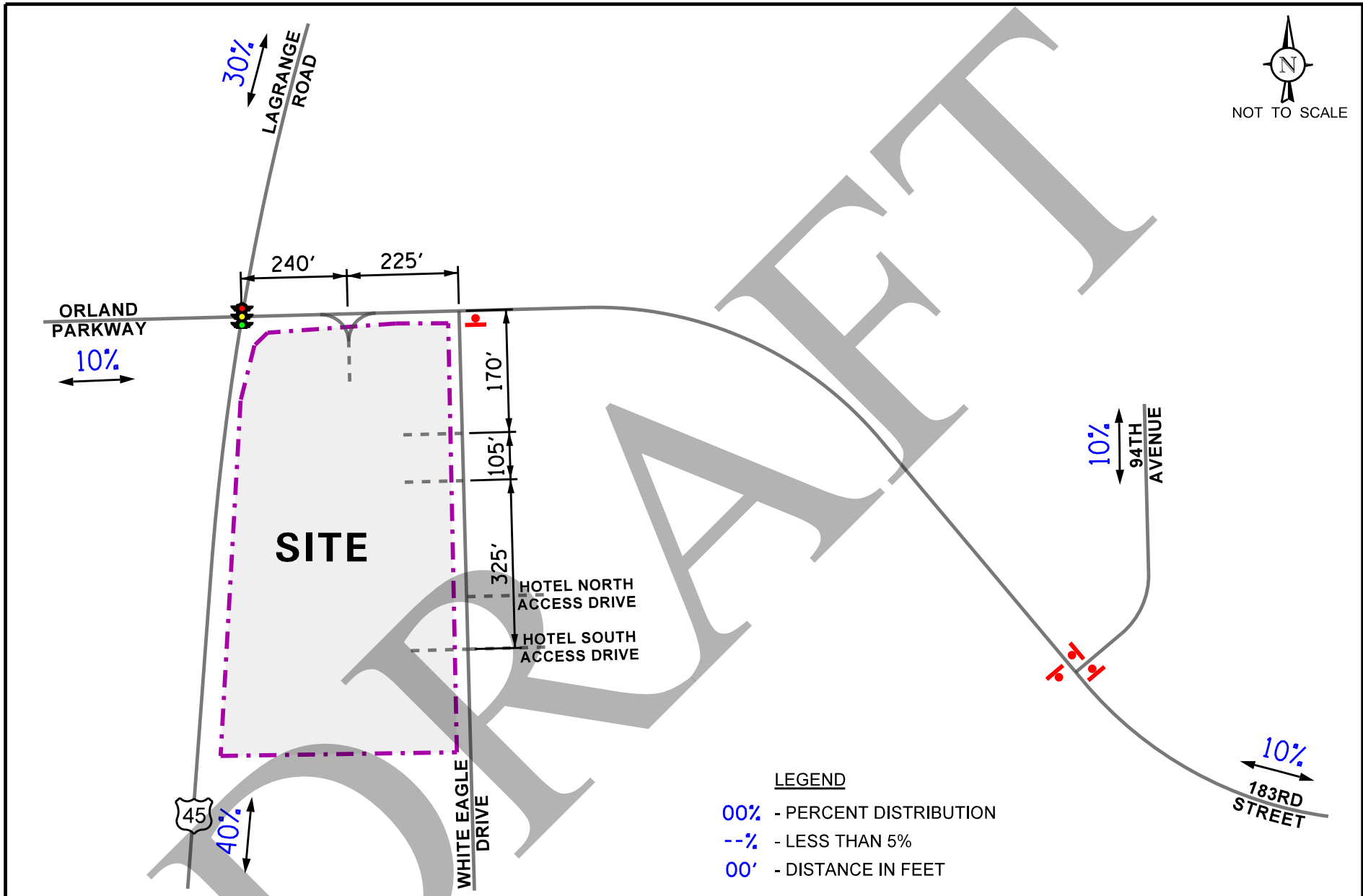
As part of the development, the following improvements are proposed at the intersection of 183rd Street with White Eagle Drive:

- The White Eagle Drive approach will be restriped to provide one southbound lane and two northbound lanes striped for a separate left-turn lane and a separate right-turn lane. The left-turn lane will provide approximately 150 feet of storage and a 150-foot taper.

- The radius on the southeast corner of the intersection will be enlarged in order to accommodate turning truck traffic.

Directional Distribution

The directions from which patrons and employees 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 fuel center-generated traffic.



183rd Street
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Directional Distribution

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Figure: 5

Peak Hour Traffic Volumes

The number of passenger vehicle peak hour trips estimated to be generated by the proposed fuel center was based on the rates contained in *Trip Generation Manual*, 11th Edition, published by the Institute of Transportation Engineers (ITE). Given the limited traffic generation data available for fuel stations specific to trucks, the number of truck peak hour trips estimated to be generated by the proposed development was based on the maximum number of trucks using the fueling lanes during the peak hour. This is estimated at four trucks per lane per hour.

It is important to note that surveys conducted by ITE have shown that approximately 60 percent of trips made to fueling centers are diverted from the existing traffic on the roadway system. Additionally, 70 percent of trips to drive-through coffee/donut stores and 30 percent of trips made to quick service restaurants are diverted from the existing traffic on the roadway system. This is particularly true during the weekday morning and evening peak hours when traffic is diverted from the home-to-work and work-to-home trips. Such diverted trips are referred to as pass-by traffic.

In addition, a 20 percent interaction reduction was applied to the trips estimated for the proposed restaurants and passenger fueling stations to take into account the interaction that will occur between the proposed uses. The interaction reduction is based on the ITE process for estimating mixed-use trip generation outlined in their *Trip Generation Handbook*, 3rd Edition. It should be noted that ITE methodology does not provide data specific to fuel centers and the fueling positions and convenience store are considered retail uses for the analysis. The results of the analysis indicated an interaction reduction of 10 percent during the weekday morning peak hour and 25 percent during the weekday evening peak hour. A flat 20 percent rate was used to reflect the average of these rates as well the increased interaction expected between these specific land uses.

Table 4 shows the site-generated traffic volumes for the proposed development.

Table 4
SITE-GENERATED TRIP ESTIMATES

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
		In	Out	Total	In	Out	Total
937	Coffee/Donut Shop with Drive-Through Window (1,000 S.F.)	44	42	86	19	20	39
935	Fast-Food Restaurant with Drive-Through Window and No Indoor Seating (1 Drive-Through Lane)	20	23	43	30	30	60
945	Convenience Store/Gas Station (14 Passenger Vehicle Fueling Stations)	221	221	442	188	189	377
--	3 Truck Fueling Positions	12	12	24	12	12	24
948	Automated Car Wash (1 Tunnel)	10	10	20	39	39	78
	Development Subtotal	***307***	***308***	***615***	***288***	***290***	***578***
	Interaction Reduction (20 percent)[1]	-15	-15	-30	-18	-18	-36
	Total Development Total Trips	***292***	***293***	***585***	***270***	***272***	***542***
	Pass-By Trips						
	Coffee/Donut Shop (70 percent)	*-24*	*-24*	*-48*	*-11*	*-11*	*-22*
	Fast Food Restaurant (50 percent)	*-9*	*-9*	*-18*	*-12*	*-12*	*-24*
	Convenience Store/Gas Station (60 percent)	*-133*	*-133*	*-266*	*-113*	*-113*	*-226*
	Total Pass-By Trips	**166**	**166**	**332**	**136**	**136**	**272**
	Total New Trips	**126**	**127**	**253**	**134**	**136**	**270**
	Total Pass-By Trips	**166**	**166**	**332**	**136**	**136**	**272**
	Total Development Trips	**292**	**293**	**585**	**270**	**272**	**542**

1 – Interaction reduction applied to coffee/donut shop, fast food restaurant, and car wash.

4. Projected Traffic Conditions

The total projected traffic volumes include the existing traffic volumes, increase in background traffic due to growth, traffic generated by additional area developments, and the traffic estimated to be generated by the proposed subject fuel center.

Fuel Center Traffic Assignment

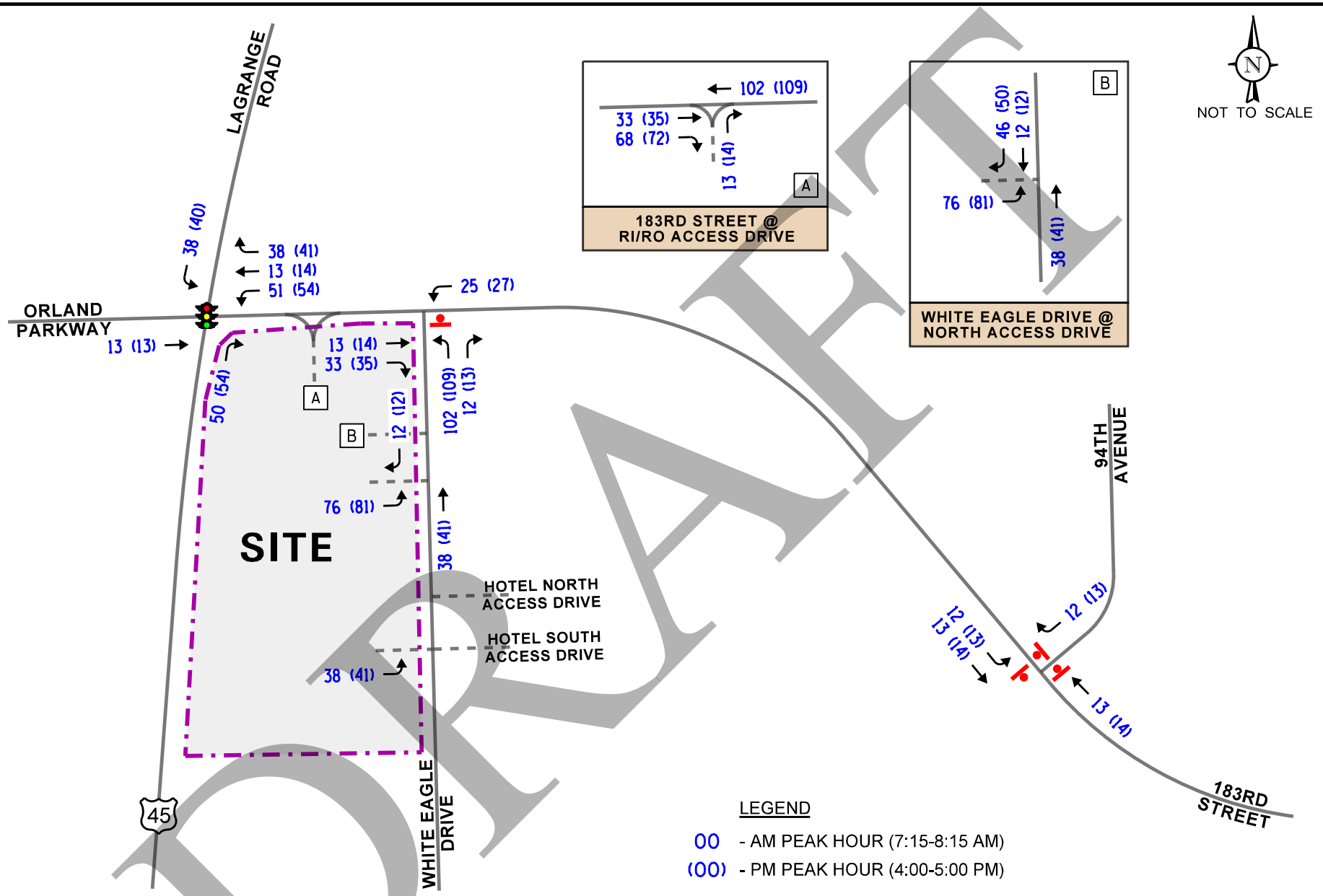
The estimated weekday morning and weekday evening peak hour traffic volumes that will be generated by the proposed fuel center were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). **Figure 6** illustrates the traffic assignment of the new passenger vehicle trips. As previously indicated, pass-by reductions of 70 percent, 60 percent, and 30 percent were applied to the drive-through coffee/donut store, passenger fueling positions, and drive-through quick service restaurant, respectively. **Figure 7** illustrates the traffic assignment of the pass-by trips.

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 Annual Average Daily Traffic (AADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP) in a letter dated September 7, 2022, the existing traffic volumes are projected to increase by a total of 5.0 percent (0.8 percent compounded annually) to represent Year 2028 no-build conditions (one-year buildout plus five years). In addition, the traffic estimated to be generated by the hotel development approved on the east side of White Eagle Drive was also included in the no-build traffic assignment. A copy of the CMAP projections letter is included in the Appendix. The Year 2028 no-build traffic volumes are illustrated in **Figure 8**.

Total Projected Traffic Volumes

The fuel center-generated traffic (Figures 6 and 7) was added to the existing traffic volumes increased by the regional growth factor with area development traffic (Figure 8) to determine the Year 2028 total projected traffic volumes, shown in **Figure 9**.



183rd Street
Fuel Center
Tinley Park, Illinois

Site-Generated Traffic Volumes

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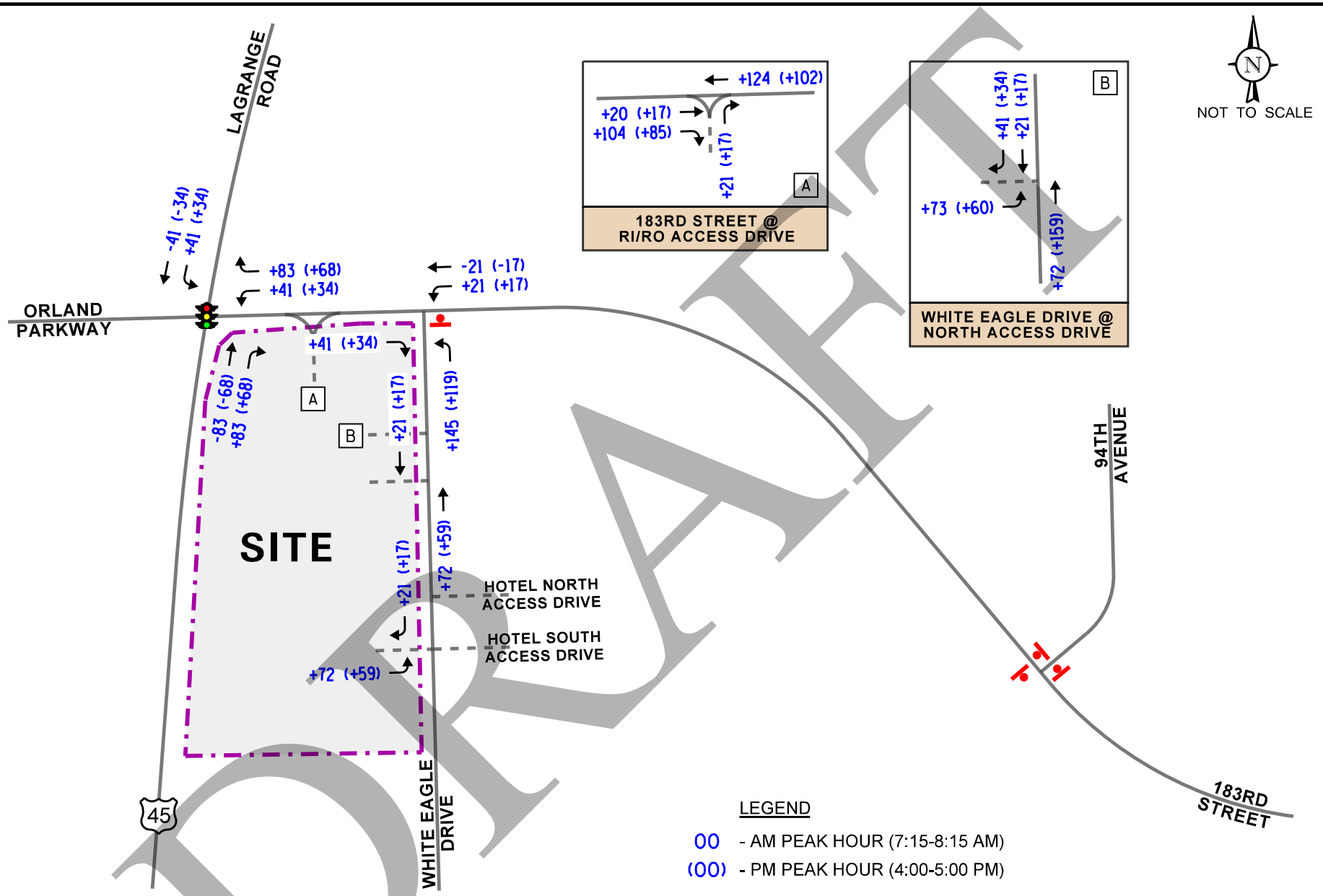
Figure: 6



183rd Street
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Pass-By Traffic Volumes

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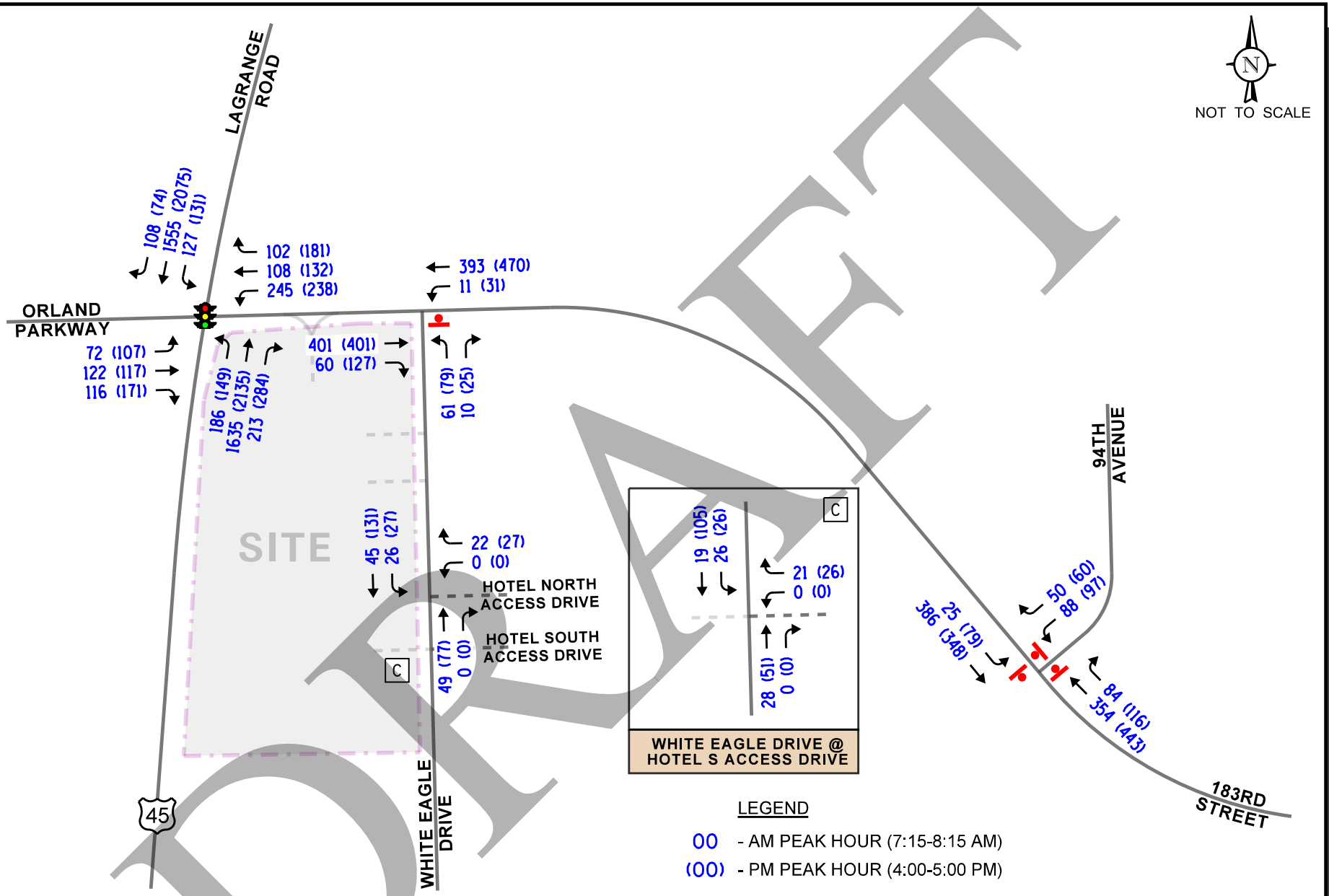
Figure: 7



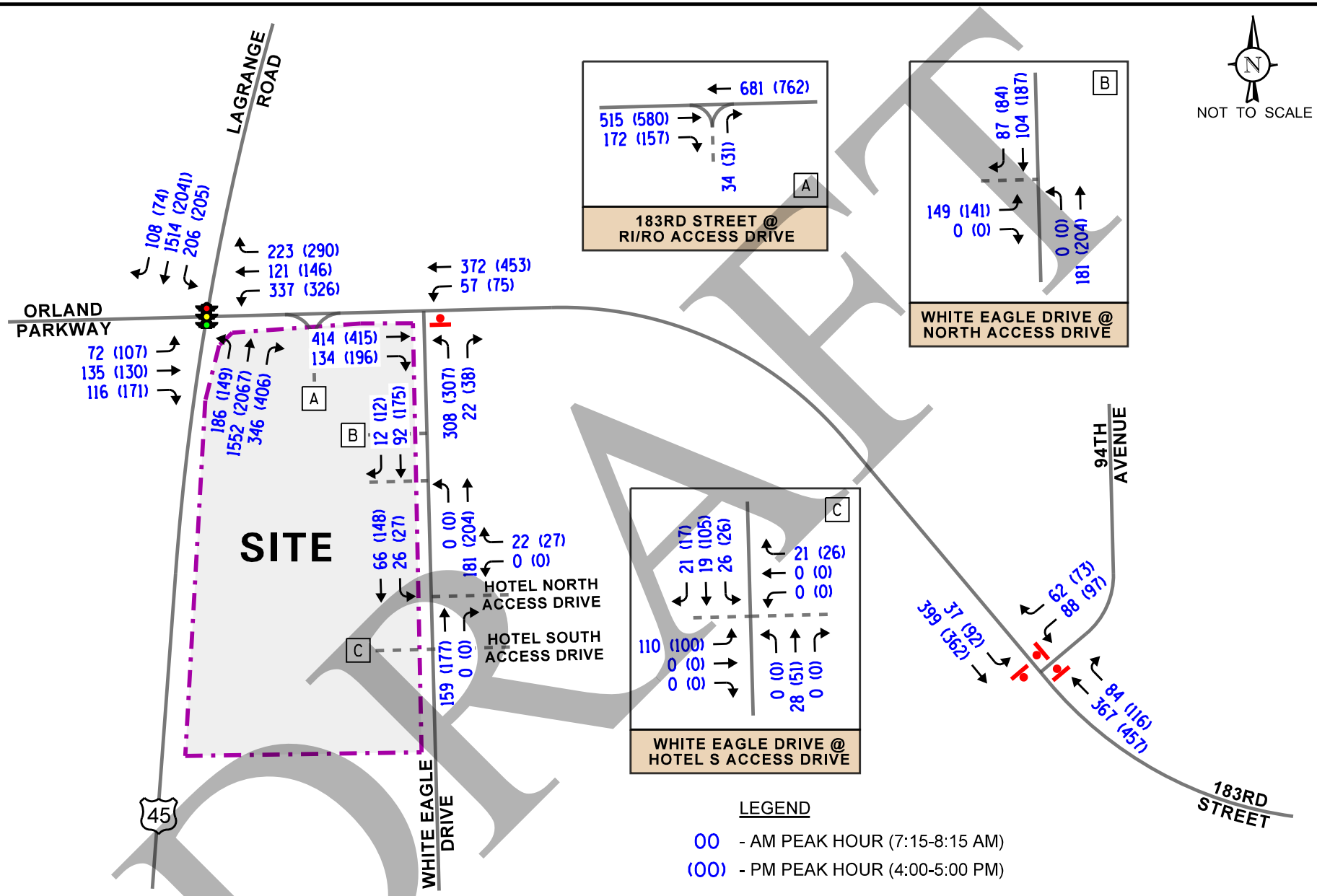
183rd Street
Fuel Center
Tinley Park, Illinois

Year 2028 No-Build Traffic Volumes

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

Job No: 22-088

Figure: 8



183rd Street
Fuel Center
Tinley Park, Illinois

Year 2028 Total Projected Traffic Volumes

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

Job No: 22-088

Figure: 9

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 evening peak hours for the existing (Year 2022), Year 2028 no-build, and Year 2028 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 Synchro/SimTraffic 11 software. The analysis for the traffic-signal controlled intersections were accomplished using actual cycle lengths and phasings to determine the average overall vehicle delay and levels of services.

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 (2022), Year 2028 no-build, and Year 2028 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
LAGRANGE ROAD WITH ORLAND PARKWAY/183RD STREET – SIGNALIZED

	Peak Hour	Eastbound			Westbound		Northbound			Southbound			Overall
		L	T	R	L	T/R	L	T	R	L	T	R	
Existing Conditions	Weekday Morning	D 38.9	E 68.0	D 42.1	D 51.4	D 52.1	E 62.9	C 21.8	A 7.3	E 78.7	C 22.3	A 9.5	C 28.9
		D – 51.2			D – 51.7		C – 24.2			C – 24.9			
	Weekday Evening	D 42.3	E 69.8	D 51.3	D 47.2	E 57.1	E 69.0	C 28.9	A 8.2	F 83.1	C 26.9	B 10.1	C 32.9
		D – 54.1			D – 52.8		C – 29.1			C – 29.1			
No-Build Conditions	Weekday Morning	D 39.0	E 70.2	D 41.9	E 58.3	D 53.0	E 62.9	C 23.3	A 7.7	F 89.3	C 23.5	A 9.7	C 30.9
		D – 52.3			E – 55.8		C – 25.3			C – 27.4			
	Weekday Evening	D 42.0	E 71.9	D 51.6	D 48.8	E 57.1	E 69.2	C 32.8	A 8.9	F 90.6	C 29.7	B 10.7	D 36.0
		E – 55.0			D – 53.5		C – 32.3			C – 32.5			
Projected Conditions	Weekday Morning	D 39.3	E 73.5	D 41.7	F 99+	E 60.5	E 62.9	C 23.4	A 9.3	F 99+	C 23.4	A 9.8	D 41.6
		D – 54.5			F – 90.5		C – 24.5			D – 40.4			
	Weekday Evening	D 41.6	E 74.2	D 51.2	E 60.8	E 60.7	E 69.2	D 35.7	B 10.6	F 99+	C 31.5	B 11.3	D 41.6
		E – 56.0			E – 60.7		C – 33.7			D – 41.7			

Letter denotes Level of Service L – Left Turn R – Right Turn
Delay is measured in seconds. T – Through

Table 6
CAPACITY ANALYSIS RESULTS
YEAR 2022 EXISTING CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
183rd Street with 94th Avenue[1]				
• Overall	B	11.4	B	12.1
• Eastbound Approach	A	9.7	A	9.5
• Westbound Approach	B	12.8	B	13.9
• Southbound Approach	B	12.2	B	12.5
183rd Street with White Eagle Drive[2]				
• Northbound Approach	B	12.7	B	13.1
• Westbound Left Turn	A	8.3	A	8.6

LOS = Level of Service
Delay is measured in seconds.
1 – All-way stop control
2 – Two-way stop control

Table 7
CAPACITY ANALYSIS RESULTS
YEAR 2028 NO-BUILD CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
183rd Street with 94th Avenue[1]				
• Overall	B	12.1	B	12.4
• Eastbound Approach	B	10.2	A	9.3
• Westbound Approach	B	13.7	B	14.1
• Southbound Approach	B	12.7	B	12.6
183rd Street with White Eagle Drive[2]				
• Northbound Approach	B	14.7	C	16.2
• Westbound Left Turn	A	8.6	A	8.9

LOS = Level of Service
Delay is measured in seconds.
1 – All-way stop control
2 – Two-way stop control

Table 8
CAPACITY ANALYSIS RESULTS
YEAR 2028 TOTAL PROJECTED CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
183rd Street with 94th Avenue[1]				
• Overall	B	12.5	B	13.4
• Eastbound Approach	B	10.4	B	10.2
• Westbound Approach	B	14.4	C	15.9
• Southbound Approach	B	13.2	B	13.6
183rd Street with White Eagle Drive[2]				
• Northbound Left Turn	F	85.9	F	99+
• Northbound Right Turn	B	10.6	B	11.0
• Westbound Left Turn	A	9.1	A	9.5
White Eagle Drive with South Access Drive and Hotel Entrance Drive[2]				
• Eastbound Approach	B	10.1	B	11.2
• Northbound Left Turn	--	--	--	--
• Southbound Left Turn	A	7.3	A	7.4
White Eagle Drive with North Access Drive[2]				
• Eastbound Approach	B	12.3	B	13.7
183rd Street with Right-In/Right-Out Access Drive[2]				
• Northbound Approach	B	10.2	B	10.4

LOS = Level of Service
Delay is measured in seconds.

1 – All-way stop control
2 – Two-way stop control

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 fuel center-generated traffic.

LaGrange Road with Orland Parkway/183rd Street

The results of the capacity analysis indicate that overall, this intersection currently operates at Level of Service (LOS) C during the weekday morning and weekday evening peak hours. All movements currently operate at LOS D or better during the peak hours except for the northbound and southbound left-turn movements and the eastbound through movement during both peak hours and the westbound through/right-turn movement during the weekday evening peak hour. The northbound and southbound left-turn movements operate at LOS E or F, which is due in part to the fact that they operate on a permitted (arrow) phase only and receive a limited amount of green time. The eastbound through and westbound through/right-turn movements operate at LOS E, which is due in part to the fact that Orland Parkway/183rd Street is the minor road at this intersection and receives a limited amount of green time.

Under Year 2028 no-build conditions, the intersection is projected to continue to operate at LOS C during the weekday morning peak hour and LOS D during the weekday evening peak hour. All movements are projected to continue operating at LOS D or better during the peak hours with the exception of the northbound and southbound left-turn movements and the eastbound and westbound movements.

Under Year 2028 total projected conditions, the intersection is projected to operate at LOS D during the weekday morning and weekday evening peak hours. Similar to no-build conditions, several of the left-turn movements and the eastbound and westbound through movements are projected to operate at LOS E or F. It should be noted that the operation of the westbound and eastbound movements can be enhanced with the reallocation of a few seconds of green time from LaGrange Road to Orland Parkway/183rd Street. As such, once the fuel center and approved hotel development are built and operating, the Village should request that IDOT reoptimize the traffic signal timings at this intersection.

Further, it should be noted that the west edge of White Eagle Drive is located approximately 350 feet east of the stop bar along the eastbound approach of 183rd Street at its intersection with LaGrange Road. Based on the results of the capacity analyses, the following summarizes the average and 95th percentile queue projected along the westbound approach of 183rd Street at it signalized intersection with LaGrange Road assuming the Year 2028 total projected traffic volumes and the existing signal timings:

- The westbound left-turn movement is projected to have an average queue of 300 feet and a 95th percentile queue of 440 feet.

- The westbound through/right-turn movement is projected to have an average queue of 205 feet and a 95th percentile queue of 270 feet.

As such, the average queues for both movements and the 95th queue for the through/right-turn movement will not extend to White Eagle Drive. However, the 95th percentile queue for the left-turn lane is projected to extend past White Eagle Drive. However, it is important to note that the queue is only expected to extend past the White Eagle Drive during the peak periods and only during certain times during the peak periods. Further, the westbound queues are anticipated to be reduced with the recommended re-optimization of the traffic signal timings.

183rd Street with 94th Avenue

The results of the capacity analysis indicate that overall, this intersection currently operates at LOS B during the weekday morning and weekday evening peak hours. The approaches currently operate at LOS B or better during the peak hours. Under Year 2028 no-build and total projected conditions, the overall intersection is projected to continue to operate at LOS B during the weekday morning and weekday evening peak hours. All approaches are projected to operate at LOS C or better during the peak hours.

183rd Street with White Eagle Drive

The results of the capacity analysis indicate that the northbound approach currently operates at LOS B during the weekday morning and weekday evening peak hours. The westbound left-turn movement currently operates at LOS A during the peak hours. Under Year 2028 no-build conditions, the northbound approach is projected to operate at LOS B during the weekday morning peak hour and at LOS C during the weekday evening peak hour. The westbound left-turn movement is projected to continue operating at LOS A during the peak hours.

As part of the proposed development, the northbound approach of White Eagle Drive is to be restriped to provide one eastbound lane and two northbound lanes striped for a separate left-turn lane and a separate right-turn lane. The left-turn lane will provide approximately 150 feet of storage and a 150-foot taper. In addition, the radius on the southeast corner of the intersection will be enlarged in order to accommodate turning truck traffic.

Under Year 2028 total projected conditions, the northbound left-turn movement is projected to operate at LOS F and the northbound right-turn movement is projected to operate at LOS B during the weekday morning and weekday evening peak hours. The westbound left-turn movement is projected to operate at LOS A during the peak hours. The poor level of service for the northbound left-turn lane is common and expected when a stop sign-controlled approach intersects a four-lane major roadway such as 183rd Street. The left-turn traffic will be able to exit on to 183rd Street. However, during the peak hours, this traffic may experience some additional delay. Further, it is important to note that the capacity analyses do not take into consideration the additional gaps created in the 183rd Street traffic stream due to the traffic signal at the LaGrange Road/Orland Parkway/183rd Street intersection and the all-way stop at the 183rd Street/94th Avenue intersection. As such, the northbound left-turn movement may operate better than the capacity analyses indicate.

The 95th percentile queues for the northbound left-turn lane are projected to extend approximately 300 to 330 feet during the morning and evening peak hours. However, as discussed above, the northbound left-turn movement may operate better than the capacity analyses indicate, which will reduce the queuing along the left-turn lane. The north access drive, which will accommodate outbound movements from the fuel center, is to be located approximately 140 feet south of the stop bar along northbound White Eagle Drive at its intersection with 183rd Street. It is important to note the average queue is projected to extend to or just past the access drive. As such, the queue of traffic along northbound White Eagle Drive will extend past the access drive during certain times during both the weekday morning and evening peak periods. As such, appropriate signage and striping should be provided at this intersection directing White Eagle Drive northbound traffic and the traffic exiting the access drive to not block the intersection.

Further, it is important to note that the commercial fuel positions are projected to generate approximately 12 round trip truck trips during each of the peak hours, which represents on average one inbound trip and one outbound trip every five minutes. In addition, the type of vehicles expected to use the commercial fueling positions will include diesel pick-up trucks with trailers, single unit trucks, and semi-trailers. As such, given the limited volume of truck traffic, the different type of truck traffic, and the improvements proposed at this intersection, the truck traffic generated by the fuel center should have a limited impact on the operation of the intersection.

In addition, per the request of the Cook County Department of Transportation and Highways (CCDOTH), the Year 2029 total traffic volumes were compared to the Four Hour and Peak Hour traffic signal warrants to determine if a traffic signal will be warranted at this intersection. It should be noted that for the four-hour traffic signal warrants, it was assumed that the secondary hour during the weekday morning and weekday evening peak hours would carry approximately 70 percent of the peak hour traffic volumes. If the Year 2029 traffic volumes are realized, the weekday evening peak hour volumes will just meet the Peak Hour warrant. It is important to note that the Year 2029 total traffic volumes do not meet the Four Hour warrant and the weekday morning peak hour volumes do not meet the Peak Hour warrant.

A preliminary sight distance analyses is included in the Appendix which shows the available sight distance for a vehicle stopped on White Eagle Drive looking east along 183rd Street. Given the trees and landscaping along the west side of White Eagle Drive, the sight distance assumes the vehicle is stopped at approximately the edge of pavement and the driver is looking east within the 183rd right-of-way. The results of the preliminary sight distance analysis shows that approximately 490 feet of sight distance is available. Based on a posted speed limit of 35 mph (40 design speed) on 183rd Street, the following summarizes the minimum sight distance required along 183rd Street:

- Stopping Sight Distance (all vehicles) = 305 feet
- Intersection Sight Distance – Passenger Vehicle = 500 feet
- Intersection Sight Distance – Single Unit Truck = 640 feet
- Intersection Sight Distance – Semi Trailer = 755 feet

As such, the 490 feet of sight distance exceeds the minimum stopping sight requirements and it just short of meeting the minimum intersection sight distance requirements for passenger vehicles. While intersection sight distance is desirable, *A Policy on Geometric Design of Highways and Streets* (Green Book) published by the American Association of State Highway and Transportation Officials (AASHTO) indicates that, at a minimum, the location of a side road or access road must meet the minimum stopping sight distance requirements. As such, the available sight distance exceeds the minimum requirements, which is backed up by the fact that the existing intersection has experienced a very low incidence of crashes. In order to further enhance the sight distance, it is recommended that the brush and trees within the 183rd Street and White Eagle Drive right-of-way be cut back or lowered. Also, consideration should be given to installing an advanced intersection warning sign along westbound 183rd Street in advance of the intersection.

White Eagle Drive with South Access Drive and Hotel Entrance Drive

The White Eagle Drive south access drive will be located approximately 600 feet south of 183rd Street aligned opposite the southern access drive to the hotel development to be located on the east side of White Eagle Drive. The access drive will provide one inbound lane that will serve the entire fuel center and one outbound lane that will serve the entire fuel center except the commercial fueling positions, The outbound lane will be under stop sign control. The access drive will provide larger radii and a wider outbound lane in order to accommodate the inbound truck traffic.

The results of the capacity analysis indicate that under Year 2028 total projected conditions, all the critical approaches and movements are projected to operate at LOS B or better. As such, the proposed access drive will provide efficient and flexible access to the fuel center with limited impact on the White Eagle Drive through traffic.

White Eagle Drive with North Access Drive

The White Eagle Drive north access drive will be located approximately 170 feet south of 183rd Street and will provide inbound and outbound access to the entire fuel center except for the commercial fueling positions. The 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 northbound queue from the White Eagle Drive intersection with 183rd Street will at times extend past the access drive. As such, appropriate signage and striping should be provided at this intersection directing White Eagle Drive northbound traffic and the traffic exiting the access drive to not block the intersection.

The results of the capacity analysis indicate that under Year 2028 total projected conditions, all the critical approaches and movements are projected to operate at LOS B or better. As such, the proposed access drive will provide efficient and flexible access to the fuel center with limited impact on the White Eagle Drive through traffic.

183rd Street with Right-In/Right-Out Access Drive

The 183rd Street right-in/right-out access drive will be located approximately 240 feet east of LaGrange Road and will serve the entire fuel center except for the commercial fueling positions. This access drive will provide one inbound lane and one outbound lane channelized, signed, and striped to prohibit left-turn movements. The outbound lane should be under stop sign control.

The results of the capacity analysis indicate that under Year 2028 total projected conditions, the northbound approach is projected to operate at LOS B during the weekday morning and weekday evening peak hours. As such, the proposed access drive will provide efficient and flexible access to the fuel center with limited impact on the 183rd Street through traffic.

Drive-Through Facilities

Coffee/Donut Store

The drive-through facility for the coffee/donut store is proposed to be located on the north end of the convenience store and will extend in a U shape. Vehicles will enter and exit the drive-through lane via the north-south circulation road located adjacent to the convenience store. The drive-through lane will accommodate approximately 13 vehicles. Wayfinding signage will be provided within the fuel center directing vehicles to the entrance of the drive-through facility. Additionally, exiting movements from the drive-through lane should be under stop sign control and "Do Not Enter" signs facing south should be provided at the exit from the drive-through facility.

Previous surveys performed of free-standing coffee/donut stores with drive-through facilities have shown that peak queuing occurs during the morning peak period. The average observed queue at the drive-through facility, including the vehicle at the drive-through window, was approximately seven to eight vehicles with an average maximum queue of ten to eleven vehicles. Therefore, the stacking to be provided by the proposed drive-through facility should accommodate the average queue and maximum queue.

Quick Service Restaurant

The drive-through facility for the quick service restaurant will be located on the east side of the convenience store. Vehicles will enter the drive-through lane via the north-south circulation road located adjacent to the convenience store and will travel through a small parking lot on the south side of the convenience store and exit the drive-through facility via the northern east-west circulation road. The site plan shows that the drive-through lane will accommodate approximately seven vehicles and the small parking lot on the south side of the convenience store can accommodate an additional four to five vehicles. Wayfinding signage will be provided within the fuel center directing vehicles to the entrance of the drive-through facility. Additionally, exiting movements from the drive-through lane should be under stop sign control and "Do Not Enter" signs facing south should be provided at the exit from the drive-through facility.

Previous surveys performed at free-standing quick service restaurants with drive-through facilities have shown that the average queue, including the vehicle at the drive-through window, was approximately six to seven vehicles with an average maximum queue of nine to ten vehicles. Therefore, the stacking to be provided by the proposed drive-through facility will accommodate the average queue. It should be noted that the maximum queue will likely extend within the small parking lot located south of the convenience store. However, the maximum queue should be contained within the drive-through lane and parking lot should not extend into the fuel center's circulation system. Further, the drive-through demand of a quick service restaurant center is likely lower than free-standing stores, as many patrons will purchase their food/drink in the convenience store as they are purchasing gas as opposed to using the drive-through facility.

Parking

The fuel center is proposed to provide a total of 46 parking spaces. In addition, 14 vehicles can be accommodated at the 14 fueling positions. As such, the fuel center will provide parking for a total of 60 vehicles including the vehicles that can be accommodated at the fueling positions. The Village of Tinley Park zoning ordinance requires that the fuel center provide a total of 53 parking spaces. As such, the 60 parking spaces, which includes the vehicles that can be accommodated at the fueling positions, exceeds the Village's parking requirements. If the vehicles that can be accommodated at the fueling positions are not included, the 46 parking spaces to be provided are seven parking spaces short of the Village's requirements. However, it is important to note that many patrons of fuel centers will purchase products at the convenience store or restaurants as they are purchasing gas as opposed to parking in a dedicated parking space. As such, the parking to be provided by the fuel center will be sufficient to meet its peak parking demand.

6. Conclusion

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

- The traffic projected to be generated by the proposed fuel center will be reduced due to the volume of pass-by traffic that will be diverted from the existing traffic on the adjacent roadways as well as interaction with the other proposed uses on site.

- Access to the development will be provided as summarized below:

    - The White Eagle Drive south access drive will be located approximately 600 feet south of 183rd Street aligned opposite the southern access drive to the hotel development to be located on the east side of White Eagle Drive. The access drive will provide one inbound lane that will serve the entire fuel center and one outbound lane that will serve the entire fuel center except the commercial fueling positions, The outbound lane will be under stop sign control. The access drive will provide larger radii and a wider outbound lane in order to accommodate the inbound truck traffic.

    - The White Eagle Drive middle access drive will be located approximately 275 feet south of 183rd Street and will provide inbound only access to the commercial fueling positions. The access drive will provide one wide inbound lane with larger radii in order to accommodate the inbound truck traffic.

    - The White Eagle Drive north access drive will be located approximately 170 feet south of 183rd Street and will provide inbound and outbound access to the entire fuel center except for the commercial fueling positions. The 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 northbound queue from the White Eagle Drive intersection with 183rd Street will at times extend past the access drive. As such, appropriate signage and striping should be provided at this intersection directing White Eagle Drive northbound traffic and the traffic exiting the access drive to not block the intersection.

    - The 183rd Street right-in/right-out access drive will be located approximately 240 feet east of LaGrange Road and will serve the entire fuel center except for the commercial fueling positions. This access drive will provide one inbound lane and one outbound lane channelized, signed, and striped to prohibit left-turn movements. The outbound lane should be under stop sign control.

- As part of the development, the White Eagle Drive approach to 183rd Street will be restriped to provide one southbound lane and two northbound lanes striped for a separate left-turn lane and a separate right-turn lane. In addition, the radius in the southeast corner of the 183rd Street/White Eagle Drive intersection will be enlarged in order to accommodate turning truck traffic.

- If the Year 2028 total traffic volumes are realized, the traffic signal timings at the LaGrange Road/183rd Street intersection will likely need to be reoptimized.

- The proposed access system will be adequate in accommodating the traffic projected to be generated by the proposed fuel center with limited impact on the external roadway system. As discussed above, appropriate signage and striping should be provided at the intersection of White Eagle Drive with the north access drive directing White Eagle Drive northbound traffic and the traffic exiting the access drive to not block the intersection.

Appendix

Traffic Count Summary Sheets
Site Plan
CMAP 2050 Projections Letter
Level of Service Criteria
Capacity Analysis Summary Sheets
Preliminary Sight Distance Study

Traffic Count Summary Sheets

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

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Orland Parkway with La Grange Road TMC
Site Code:
Start Date: 04/12/2022

Turning Movement Data

Start Time	Orland Parkway Eastbound						Orland Parkway Westbound						La Grange Road Northbound						La Grange Road 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	
7:00 AM	0	8	20	28	0	56	0	37	13	16	0	66	1	34	319	32	0	386	1	20	353	13	0	387	895
7:15 AM	0	19	38	24	0	81	0	46	28	15	0	89	2	33	361	29	0	425	0	18	400	18	0	436	1031
7:30 AM	0	21	18	28	0	67	0	64	24	27	0	115	0	39	425	42	0	506	0	23	398	23	0	444	1132
7:45 AM	0	11	31	22	0	64	0	62	26	23	0	111	4	44	392	57	0	497	0	32	362	40	0	434	1106
Hourly Total	0	59	107	102	0	268	0	209	91	81	0	381	7	150	1497	160	0	1814	1	93	1513	94	0	1701	4164
8:00 AM	0	18	24	36	0	78	0	45	21	16	0	82	0	55	379	55	0	489	0	28	321	22	0	371	1020
8:15 AM	0	13	14	28	0	55	0	40	16	13	0	69	0	45	343	51	0	439	0	18	359	22	0	399	962
8:30 AM	0	9	25	24	0	58	0	42	23	18	0	83	0	44	368	32	0	444	0	23	323	23	0	369	954
8:45 AM	0	11	12	24	0	47	0	43	23	22	0	88	0	51	356	41	0	448	0	25	310	19	0	354	937
Hourly Total	0	51	75	112	0	238	0	170	83	69	0	322	0	195	1446	179	0	1820	0	94	1313	86	0	1493	3873
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	30	34	60	0	124	0	57	34	40	0	131	2	37	460	76	0	575	1	39	487	15	0	542	1372
4:15 PM	0	19	28	34	0	81	0	41	28	34	0	103	1	30	557	61	0	649	0	21	543	15	0	579	1412
4:30 PM	0	32	27	42	0	101	0	68	31	50	0	149	2	22	461	54	0	539	0	24	475	16	0	515	1304
4:45 PM	0	21	18	27	0	66	0	41	28	28	0	97	1	47	555	59	0	662	0	20	471	24	0	515	1340
Hourly Total	0	102	107	163	0	372	0	207	121	152	0	480	6	136	2033	250	0	2425	1	104	1976	70	0	2151	5428
5:00 PM	0	24	33	51	0	108	0	69	38	54	0	161	2	27	438	58	0	525	0	23	445	14	0	482	1276
5:15 PM	0	22	16	22	0	60	2	68	28	40	0	138	1	29	491	71	0	592	0	18	450	13	0	481	1271
5:30 PM	0	10	19	26	0	55	0	46	25	30	0	101	0	29	482	51	0	562	1	22	496	14	0	533	1251
5:45 PM	0	15	15	19	0	49	0	63	18	36	0	117	1	26	422	52	0	501	0	23	378	11	0	412	1079
Hourly Total	0	71	83	118	0	272	2	246	109	160	0	517	4	111	1833	232	0	2180	1	86	1769	52	0	1908	4877
Grand Total	0	283	372	495	0	1150	2	832	404	462	0	1700	17	592	6809	821	0	8239	3	377	6571	302	0	7253	18342
Approach %	0.0	24.6	32.3	43.0	-	-	0.1	48.9	23.8	27.2	-	-	0.2	7.2	82.6	10.0	-	-	0.0	5.2	90.6	4.2	-	-	-
Total %	0.0	1.5	2.0	2.7	-	6.3	0.0	4.5	2.2	2.5	-	9.3	0.1	3.2	37.1	4.5	-	44.9	0.0	2.1	35.8	1.6	-	39.5	-
Lights	0	280	370	481	-	1131	2	816	402	453	-	1673	17	581	6636	802	-	8036	3	372	6354	299	-	7028	17868
% Lights	-	98.9	99.5	97.2	-	98.3	100.0	98.1	99.5	98.1	-	98.4	100.0	98.1	97.5	97.7	-	97.5	100.0	98.7	96.7	99.0	-	96.9	97.4
Buses	0	2	1	2	-	5	0	7	1	3	-	11	0	1	15	5	-	21	0	1	19	0	-	20	57
% Buses	-	0.7	0.3	0.4	-	0.4	0.0	0.8	0.2	0.6	-	0.6	0.0	0.2	0.2	0.6	-	0.3	0.0	0.3	0.3	0.0	-	0.3	0.3
Single-Unit Trucks	0	1	1	8	-	10	0	7	0	6	-	13	0	4	89	9	-	102	0	3	97	1	-	101	226
% Single-Unit Trucks	-	0.4	0.3	1.6	-	0.9	0.0	0.8	0.0	1.3	-	0.8	0.0	0.7	1.3	1.1	-	1.2	0.0	0.8	1.5	0.3	-	1.4	1.2
Articulated Trucks	0	0	0	4	-	4	0	2	1	0	-	3	0	6	69	5	-	80	0	1	101	2	-	104	191
% Articulated Trucks	-	0.0	0.0	0.8	-	0.3	0.0	0.2	0.2	0.0	-	0.2	0.0	1.0	1.0	0.6	-	1.0	0.0	0.3	1.5	0.7	-	1.4	1.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0

% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Orland Parkway with La Grange Road TMC
Site Code:
Start Date: 04/12/2022

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Orland Parkway Eastbound						Orland Parkway Westbound						La Grange Road Northbound						La Grange Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:15 AM	0	19	38	24	0	81	0	46	28	15	0	89	2	33	361	29	0	425	0	18	400	18	0	436	1031
7:30 AM	0	21	18	28	0	67	0	64	24	27	0	115	0	39	425	42	0	506	0	23	398	23	0	444	1132
7:45 AM	0	11	31	22	0	64	0	62	26	23	0	111	4	44	392	57	0	497	0	32	362	40	0	434	1106
8:00 AM	0	18	24	36	0	78	0	45	21	16	0	82	0	55	379	55	0	489	0	28	321	22	0	371	1020
Total	0	69	111	110	0	290	0	217	99	81	0	397	6	171	1557	183	0	1917	0	101	1481	103	0	1685	4289
Approach %	0.0	23.8	38.3	37.9	-	-	0.0	54.7	24.9	20.4	-	-	0.3	8.9	81.2	9.5	-	-	0.0	6.0	87.9	6.1	-	-	-
Total %	0.0	1.6	2.6	2.6	-	6.8	0.0	5.1	2.3	1.9	-	9.3	0.1	4.0	36.3	4.3	-	44.7	0.0	2.4	34.5	2.4	-	39.3	-
PHF	0.000	0.821	0.730	0.764	-	0.895	0.000	0.848	0.884	0.750	-	0.863	0.375	0.777	0.916	0.803	-	0.947	0.000	0.789	0.926	0.644	-	0.949	0.947
Lights	0	66	111	105	-	282	0	209	97	81	-	387	6	169	1499	175	-	1849	0	101	1399	102	-	1602	4120
% Lights	-	95.7	100.0	95.5	-	97.2	-	96.3	98.0	100.0	-	97.5	100.0	98.8	96.3	95.6	-	96.5	-	100.0	94.5	99.0	-	95.1	96.1
Buses	0	2	0	2	-	4	0	3	1	0	-	4	0	0	2	2	-	4	0	0	8	0	-	8	20
% Buses	-	2.9	0.0	1.8	-	1.4	-	1.4	1.0	0.0	-	1.0	0.0	0.0	0.1	1.1	-	0.2	-	0.0	0.5	0.0	-	0.5	0.5
Single-Unit Trucks	0	1	0	3	-	4	0	5	0	0	-	5	0	1	29	3	-	33	0	0	33	0	-	33	75
% Single-Unit Trucks	-	1.4	0.0	2.7	-	1.4	-	2.3	0.0	0.0	-	1.3	0.0	0.6	1.9	1.6	-	1.7	-	0.0	2.2	0.0	-	2.0	1.7
Articulated Trucks	0	0	0	0	-	0	0	0	1	0	-	1	0	1	27	3	-	31	0	0	41	1	-	42	74
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	1.0	0.0	-	0.3	0.0	0.6	1.7	1.6	-	1.6	-	0.0	2.8	1.0	-	2.5	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	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Orland Parkway with La Grange Road TMC
Site Code:
Start Date: 04/12/2022

Turning Movement Peak Hour Data (4:00 PM)

Start Time	Orland Parkway Eastbound						Orland Parkway Westbound						La Grange Road Northbound						La Grange Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:00 PM	0	30	34	60	0	124	0	57	34	40	0	131	2	37	460	76	0	575	1	39	487	15	0	542	1372
4:15 PM	0	19	28	34	0	81	0	41	28	34	0	103	1	30	557	61	0	649	0	21	543	15	0	579	1412
4:30 PM	0	32	27	42	0	101	0	68	31	50	0	149	2	22	461	54	0	539	0	24	475	16	0	515	1304
4:45 PM	0	21	18	27	0	66	0	41	28	28	0	97	1	47	555	59	0	662	0	20	471	24	0	515	1340
Total	0	102	107	163	0	372	0	207	121	152	0	480	6	136	2033	250	0	2425	1	104	1976	70	0	2151	5428
Approach %	0.0	27.4	28.8	43.8	-	-	0.0	43.1	25.2	31.7	-	-	0.2	5.6	83.8	10.3	-	-	0.0	4.8	91.9	3.3	-	-	-
Total %	0.0	1.9	2.0	3.0	-	6.9	0.0	3.8	2.2	2.8	-	8.8	0.1	2.5	37.5	4.6	-	44.7	0.0	1.9	36.4	1.3	-	39.6	-
PHF	0.000	0.797	0.787	0.679	-	0.750	0.000	0.761	0.890	0.760	-	0.805	0.750	0.723	0.912	0.822	-	0.916	0.250	0.667	0.910	0.729	-	0.929	0.961
Lights	0	102	107	160	-	369	0	204	121	147	-	472	6	134	1992	244	-	2376	1	102	1939	69	-	2111	5328
% Lights	-	100.0	100.0	98.2	-	99.2	-	98.6	100.0	96.7	-	98.3	100.0	98.5	98.0	97.6	-	98.0	100.0	98.1	98.1	98.6	-	98.1	98.2
Buses	0	0	0	0	-	0	0	1	0	2	-	3	0	1	9	1	-	11	0	0	7	0	-	7	21
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.5	0.0	1.3	-	0.6	0.0	0.7	0.4	0.4	-	0.5	0.0	0.0	0.4	0.0	-	0.3	0.4
Single-Unit Trucks	0	0	0	2	-	2	0	2	0	3	-	5	0	1	19	4	-	24	0	2	16	0	-	18	49
% Single-Unit Trucks	-	0.0	0.0	1.2	-	0.5	-	1.0	0.0	2.0	-	1.0	0.0	0.7	0.9	1.6	-	1.0	0.0	1.9	0.8	0.0	-	0.8	0.9
Articulated Trucks	0	0	0	1	-	1	0	0	0	0	-	0	0	0	13	1	-	14	0	0	14	1	-	15	30
% Articulated Trucks	-	0.0	0.0	0.6	-	0.3	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.6	0.4	-	0.6	0.0	0.0	0.7	1.4	-	0.7	0.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Orland Parkway with 96th Road
TMC
Site Code:
Start Date: 04/12/2022

Turning Movement Data

Start Time	Eastbound St. Eastbound					Westbound St. Westbound					Northbound St. Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00 AM	0	65	2	0	67	0	0	77	0	77	0	7	2	0	9	153
7:15 AM	0	84	3	0	87	1	1	89	0	91	0	2	1	0	3	181
7:30 AM	0	82	4	0	86	0	0	100	0	100	0	9	1	0	10	196
7:45 AM	1	121	4	0	126	0	4	101	0	105	0	7	1	0	8	239
Hourly Total	1	352	13	0	366	1	5	367	0	373	0	25	5	0	30	769
8:00 AM	0	101	2	0	103	0	0	69	0	69	0	5	2	0	7	179
8:15 AM	0	71	6	0	77	0	2	75	0	77	0	3	1	0	4	158
8:30 AM	1	77	5	0	83	0	0	78	0	78	0	8	1	0	9	170
8:45 AM	0	76	0	0	76	0	0	78	0	78	0	4	0	0	4	158
Hourly Total	1	325	13	0	339	0	2	300	0	302	0	20	4	0	24	665
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	128	23	1	151	0	5	125	0	130	0	7	5	0	12	293
4:15 PM	1	83	15	0	99	0	7	105	0	112	0	8	5	0	13	224
4:30 PM	0	87	22	0	109	0	5	127	0	132	0	5	5	0	10	251
4:45 PM	0	79	20	0	99	0	8	103	0	111	0	12	4	0	16	226
Hourly Total	1	377	80	1	458	0	25	460	0	485	0	32	19	0	51	994
5:00 PM	0	100	21	0	121	0	4	148	0	152	0	15	9	0	24	297
5:15 PM	0	71	19	0	90	0	3	109	0	112	0	11	2	0	13	215
5:30 PM	0	88	13	0	101	0	7	103	0	110	0	10	9	0	19	230
5:45 PM	0	73	15	0	88	0	6	83	0	89	0	19	12	0	31	208
Hourly Total	0	332	68	0	400	0	20	443	0	463	0	55	32	0	87	950
Grand Total	3	1386	174	1	1563	1	52	1570	0	1623	0	132	60	0	192	3378
Approach %	0.2	88.7	11.1	-	-	0.1	3.2	96.7	-	-	0.0	68.8	31.3	-	-	-
Total %	0.1	41.0	5.2	-	46.3	0.0	1.5	46.5	-	48.0	0.0	3.9	1.8	-	5.7	-
Lights	3	1361	171	-	1535	1	51	1544	-	1596	0	130	60	-	190	3321
% Lights	100.0	98.2	98.3	-	98.2	100.0	98.1	98.3	-	98.3	-	98.5	100.0	-	99.0	98.3
Buses	0	8	0	-	8	0	0	11	-	11	0	0	0	-	0	19
% Buses	0.0	0.6	0.0	-	0.5	0.0	0.0	0.7	-	0.7	-	0.0	0.0	-	0.0	0.6
Single-Unit Trucks	0	13	2	-	15	0	1	13	-	14	0	1	0	-	1	30
% Single-Unit Trucks	0.0	0.9	1.1	-	1.0	0.0	1.9	0.8	-	0.9	-	0.8	0.0	-	0.5	0.9
Articulated Trucks	0	4	1	-	5	0	0	2	-	2	0	1	0	-	1	8
% Articulated Trucks	0.0	0.3	0.6	-	0.3	0.0	0.0	0.1	-	0.1	-	0.8	0.0	-	0.5	0.2
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Orland Parkway with 96th Road
TMC
Site Code:
Start Date: 04/12/2022

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Eastbound St. Eastbound					Westbound St. Westbound					Northbound St. Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:15 AM	0	84	3	0	87	1	1	89	0	91	0	2	1	0	3	181
7:30 AM	0	82	4	0	86	0	0	100	0	100	0	9	1	0	10	196
7:45 AM	1	121	4	0	126	0	4	101	0	105	0	7	1	0	8	239
8:00 AM	0	101	2	0	103	0	0	69	0	69	0	5	2	0	7	179
Total	1	388	13	0	402	1	5	359	0	365	0	23	5	0	28	795
Approach %	0.2	96.5	3.2	-	-	0.3	1.4	98.4	-	-	0.0	82.1	17.9	-	-	-
Total %	0.1	48.8	1.6	-	50.6	0.1	0.6	45.2	-	45.9	0.0	2.9	0.6	-	3.5	-
PHF	0.250	0.802	0.813	-	0.798	0.250	0.313	0.889	-	0.869	0.000	0.639	0.625	-	0.700	0.832
Lights	1	380	13	-	394	1	5	349	-	355	0	22	5	-	27	776
% Lights	100.0	97.9	100.0	-	98.0	100.0	100.0	97.2	-	97.3	-	95.7	100.0	-	96.4	97.6
Buses	0	5	0	-	5	0	0	4	-	4	0	0	0	-	0	9
% Buses	0.0	1.3	0.0	-	1.2	0.0	0.0	1.1	-	1.1	-	0.0	0.0	-	0.0	1.1
Single-Unit Trucks	0	0	0	-	0	0	0	5	-	5	0	0	0	-	0	5
% Single-Unit Trucks	0.0	0.0	0.0	-	0.0	0.0	0.0	1.4	-	1.4	-	0.0	0.0	-	0.0	0.6
Articulated Trucks	0	3	0	-	3	0	0	1	-	1	0	1	0	-	1	5
% Articulated Trucks	0.0	0.8	0.0	-	0.7	0.0	0.0	0.3	-	0.3	-	4.3	0.0	-	3.6	0.6
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Orland Parkway with 96th Road
TMC
Site Code:
Start Date: 04/12/2022

Turning Movement Peak Hour Data (4:00 PM)

Start Time	Eastbound St. Eastbound					Westbound St. Westbound					Northbound St. Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
4:00 PM	0	128	23	1	151	0	5	125	0	130	0	7	5	0	12	293
4:15 PM	1	83	15	0	99	0	7	105	0	112	0	8	5	0	13	224
4:30 PM	0	87	22	0	109	0	5	127	0	132	0	5	5	0	10	251
4:45 PM	0	79	20	0	99	0	8	103	0	111	0	12	4	0	16	226
Total	1	377	80	1	458	0	25	460	0	485	0	32	19	0	51	994
Approach %	0.2	82.3	17.5	-	-	0.0	5.2	94.8	-	-	0.0	62.7	37.3	-	-	-
Total %	0.1	37.9	8.0	-	46.1	0.0	2.5	46.3	-	48.8	0.0	3.2	1.9	-	5.1	-
PHF	0.250	0.736	0.870	-	0.758	0.000	0.781	0.906	-	0.919	0.000	0.667	0.950	-	0.797	0.848
Lights	1	371	79	-	451	0	25	453	-	478	0	32	19	-	51	980
% Lights	100.0	98.4	98.8	-	98.5	-	100.0	98.5	-	98.6	-	100.0	100.0	-	100.0	98.6
Buses	0	0	0	-	0	0	0	3	-	3	0	0	0	-	0	3
% Buses	0.0	0.0	0.0	-	0.0	-	0.0	0.7	-	0.6	-	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	6	1	-	7	0	0	4	-	4	0	0	0	-	0	11
% Single-Unit Trucks	0.0	1.6	1.3	-	1.5	-	0.0	0.9	-	0.8	-	0.0	0.0	-	0.0	1.1
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Orland Parkway with 94th Avenue
TMC
Site Code:
Start Date: 04/12/2022

Turning Movement Data

Start Time	Eastbound St. Eastbound					Westbound St. Westbound					Southbound St. Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00 AM	0	6	63	0	69	0	60	18	0	78	0	12	9	0	21	168
7:15 AM	0	4	79	0	83	0	84	16	0	100	0	17	8	0	25	208
7:30 AM	0	6	74	0	80	0	85	24	0	109	0	14	16	0	30	219
7:45 AM	0	6	111	0	117	0	98	21	0	119	0	31	11	0	42	278
Hourly Total	0	22	327	0	349	0	327	79	0	406	0	74	44	0	118	873
8:00 AM	1	6	99	0	106	0	58	19	0	77	0	22	13	0	35	218
8:15 AM	0	8	67	0	75	0	61	18	0	79	0	14	10	0	24	178
8:30 AM	0	6	72	0	78	0	64	14	0	78	0	22	11	0	33	189
8:45 AM	0	9	65	0	74	0	73	18	0	91	0	17	8	0	25	190
Hourly Total	1	29	303	0	333	0	256	69	0	325	0	75	42	0	117	775
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	19	105	0	124	0	114	27	0	141	0	14	16	0	30	295
4:15 PM	0	21	85	0	106	0	99	26	0	125	0	20	13	0	33	264
4:30 PM	0	12	73	0	85	0	122	30	0	152	0	33	9	0	42	279
4:45 PM	0	22	67	0	89	0	87	27	0	114	0	25	18	0	43	246
Hourly Total	0	74	330	0	404	0	422	110	0	532	0	92	56	0	148	1084
5:00 PM	0	12	84	0	96	0	141	35	0	176	0	24	11	0	35	307
5:15 PM	0	12	74	0	86	0	107	35	0	142	0	30	14	0	44	272
5:30 PM	0	16	77	0	93	0	89	27	0	116	0	25	20	0	45	254
5:45 PM	0	24	58	0	82	0	67	25	0	92	0	22	22	0	44	218
Hourly Total	0	64	293	0	357	0	404	122	0	526	0	101	67	0	168	1051
Grand Total	1	189	1253	0	1443	0	1409	380	0	1789	0	342	209	0	551	3783
Approach %	0.1	13.1	86.8	-	-	0.0	78.8	21.2	-	-	0.0	62.1	37.9	-	-	-
Total %	0.0	5.0	33.1	-	38.1	0.0	37.2	10.0	-	47.3	0.0	9.0	5.5	-	14.6	-
Lights	0	188	1229	-	1417	0	1385	375	-	1760	0	336	209	-	545	3722
% Lights	0.0	99.5	98.1	-	98.2	-	98.3	98.7	-	98.4	-	98.2	100.0	-	98.9	98.4
Buses	0	0	10	-	10	0	11	4	-	15	0	1	0	-	1	26
% Buses	0.0	0.0	0.8	-	0.7	-	0.8	1.1	-	0.8	-	0.3	0.0	-	0.2	0.7
Single-Unit Trucks	0	1	12	-	13	0	12	1	-	13	0	3	0	-	3	29
% Single-Unit Trucks	0.0	0.5	1.0	-	0.9	-	0.9	0.3	-	0.7	-	0.9	0.0	-	0.5	0.8
Articulated Trucks	1	0	2	-	3	0	1	0	-	1	0	1	0	-	1	5
% Articulated Trucks	100.0	0.0	0.2	-	0.2	-	0.1	0.0	-	0.1	-	0.3	0.0	-	0.2	0.1
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	1	0	-	1	1
% Bicycles on Road	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.3	0.0	-	0.2	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Orland Parkway with 94th Avenue
TMC
Site Code:
Start Date: 04/12/2022

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Eastbound St. Eastbound					Westbound St. Westbound					Southbound St. Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:15 AM	0	4	79	0	83	0	84	16	0	100	0	17	8	0	25	208
7:30 AM	0	6	74	0	80	0	85	24	0	109	0	14	16	0	30	219
7:45 AM	0	6	111	0	117	0	98	21	0	119	0	31	11	0	42	278
8:00 AM	1	6	99	0	106	0	58	19	0	77	0	22	13	0	35	218
Total	1	22	363	0	386	0	325	80	0	405	0	84	48	0	132	923
Approach %	0.3	5.7	94.0	-	-	0.0	80.2	19.8	-	-	0.0	63.6	36.4	-	-	-
Total %	0.1	2.4	39.3	-	41.8	0.0	35.2	8.7	-	43.9	0.0	9.1	5.2	-	14.3	-
PHF	0.250	0.917	0.818	-	0.825	0.000	0.829	0.833	-	0.851	0.000	0.677	0.750	-	0.786	0.830
Lights	0	22	356	-	378	0	316	78	-	394	0	83	48	-	131	903
% Lights	0.0	100.0	98.1	-	97.9	-	97.2	97.5	-	97.3	-	98.8	100.0	-	99.2	97.8
Buses	0	0	5	-	5	0	4	2	-	6	0	1	0	-	1	12
% Buses	0.0	0.0	1.4	-	1.3	-	1.2	2.5	-	1.5	-	1.2	0.0	-	0.8	1.3
Single-Unit Trucks	0	0	1	-	1	0	5	0	-	5	0	0	0	-	0	6
% Single-Unit Trucks	0.0	0.0	0.3	-	0.3	-	1.5	0.0	-	1.2	-	0.0	0.0	-	0.0	0.7
Articulated Trucks	1	0	1	-	2	0	0	0	-	0	0	0	0	-	0	2
% Articulated Trucks	100.0	0.0	0.3	-	0.5	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	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
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Orland Parkway with 94th Avenue
TMC
Site Code:
Start Date: 04/12/2022

Turning Movement Peak Hour Data (4:00 PM)

Start Time	Eastbound St. Eastbound					Westbound St. Westbound					Southbound St. Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
4:00 PM	0	19	105	0	124	0	114	27	0	141	0	14	16	0	30	295
4:15 PM	0	21	85	0	106	0	99	26	0	125	0	20	13	0	33	264
4:30 PM	0	12	73	0	85	0	122	30	0	152	0	33	9	0	42	279
4:45 PM	0	22	67	0	89	0	87	27	0	114	0	25	18	0	43	246
Total	0	74	330	0	404	0	422	110	0	532	0	92	56	0	148	1084
Approach %	0.0	18.3	81.7	-	-	0.0	79.3	20.7	-	-	0.0	62.2	37.8	-	-	-
Total %	0.0	6.8	30.4	-	37.3	0.0	38.9	10.1	-	49.1	0.0	8.5	5.2	-	13.7	-
PHF	0.000	0.841	0.786	-	0.815	0.000	0.865	0.917	-	0.875	0.000	0.697	0.778	-	0.860	0.919
Lights	0	74	322	-	396	0	415	109	-	524	0	91	56	-	147	1067
% Lights	-	100.0	97.6	-	98.0	-	98.3	99.1	-	98.5	-	98.9	100.0	-	99.3	98.4
Buses	0	0	1	-	1	0	3	1	-	4	0	0	0	-	0	5
% Buses	-	0.0	0.3	-	0.2	-	0.7	0.9	-	0.8	-	0.0	0.0	-	0.0	0.5
Single-Unit Trucks	0	0	7	-	7	0	4	0	-	4	0	1	0	-	1	12
% Single-Unit Trucks	-	0.0	2.1	-	1.7	-	0.9	0.0	-	0.8	-	1.1	0.0	-	0.7	1.1
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Site Plan

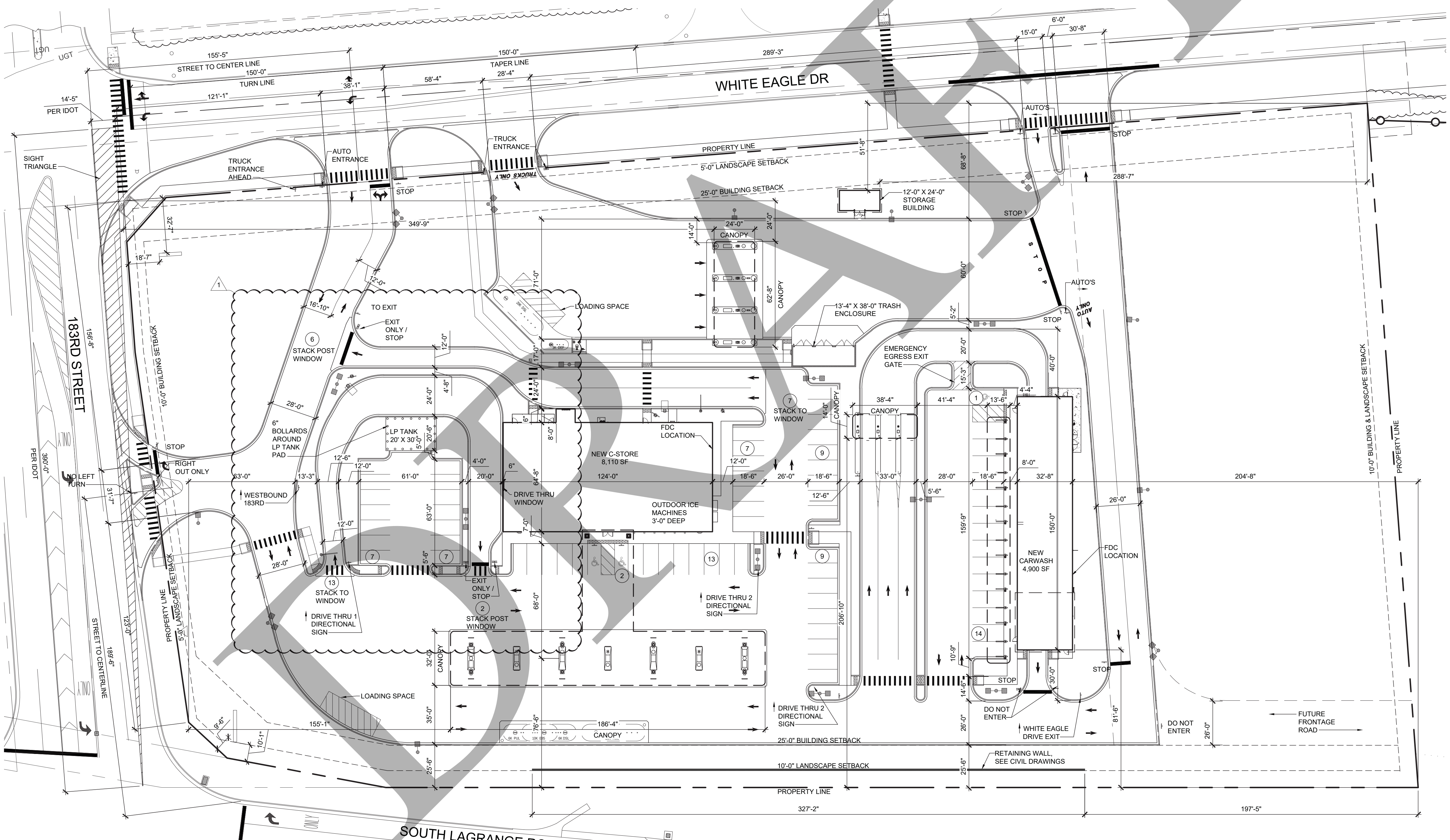
VARIANCE REQUESTS

1. REQUESTING A VARIANCE OF 1'-2" ON THE MONUMENT SIGN HEIGHT FROM THE 10'-0" MAX HEIGHT FOR THE C-STORE MONUMENT SIGN.
2. REQUESTING A VARIANCE OF 0'-8" ON THE MONUMENT SIGN HEIGHT FROM THE 10'-0" MAX HEIGHT FOR THE CARWASH MONUMENT SIGN.
3. REQUESTING A VARIANCE OF 10% ON THE ELECTRONIC MESSAGE CENTER FOR THE CARWASH SIGN FROM 20% OF SIGN MAX
4. REQUESTING A VARIANCE OF 34 SF ON THE GASOLINE SALES SIGN FROM THE 20 SF MAX FOR PRICER PORTION
5. REQUESTING A VARIANCE OF 12 SF ON THE NORTH AND SOUTH AUTO CANOPY SIGN FROM THE 16 SF MAX.
6. REQUESTING A VARIANCE OF 8.4 SF ON THE WEST CARWASH SIGN FROM THE 32.6 SF MAX.
7. REQUESTING A VARIANCE TO ALLOW SIGNAGE ON THE CARWASH PAY AND VAC CANOPY. 28.2 SF ON THE VAC CANOPY, 35.7 SF ON THE PAY CANOPY.
8. REQUESTING A VARIANCE OF 2 PARKING SPACES FROM THE REQUIRED 57 PARKING SPACES. (1)
9. REQUESTING A VARIANCE TO ALLOW FOR BRANDING ON DIRECTIONAL SIGNAGE

ZONING INFORMATION

SECTION	ITEM	REQUIRED	PROPOSED
SITE ZONING SECTION V SCHEDULE I	ZONING: B-3 GENERAL BUSINESS AND COMMERCIAL PERMITTED USES: RESTAURANTS INCLUDING DRIVE-THRU FACILITIES RETAIL STORES SPECIAL USES: AUTOMOBILE CAR WASHES		
SITE AREA SECTION V SCHEDULE II	LOT AREA:	7,500	275,124 SF 6.31 ACRES
	FAR (FLOOR AREA RATIO):	1.0	0.05
BUILDING SETBACK SECTION V SCHEDULE II	FRONT YARD: (LaGRANGE RD.)	25'-0"	81'-6" MIN.
	SIDE YARD: (183RD. STREET)	10'-0"	203'-0" MIN.
	REAR YARD: (WHITE EAGLE DR.)	25'-0"	144'-9" MIN.
BUILDING HEIGHT SECTION V SCHEDULE II	MAIN BUILDING (C-STORE & CARWASH)	35'-0" MAX.	33'-6"
LANDSCAPE SETBACK CHAPTER 158 TABLE 1	BUFFER YARDS:		
	FRONT YARD (LaGRANGE)	10'-0"	25'-6" MIN.
	SIDE YARD (183RD STREET)	5'-0"	51'-2" MIN.
	REAR YARD (WHITE EAGLE)	5'-0"	36'-5" MIN.

PARKING SECTION VIII 10 INCLUDING TABLE		REQUIRED	PROPOSED
	LOADING SPACE	1 REQUIRED 15'-0" X 35'-0"	2 PROVIDED 15'-0" X 35'-0"
	PARKING SPACE SIZE	9'-0" x 18'-6"	9'-0" X 18'-6" 10'-0" X 18'-0" VAC SPACE
	C-STORE: AREA BREAKDOWN: TOTAL BUILDING: 8,110 S.F. DRIVE THRU RESTAURANT: 2,168 S.F. C-STORE: 5,693 S.F. BUILDING MECHANICAL: 249 S.F.		
	RETAIL SPACE: (1) SPACE / 150 SF 5,693 SF / 150 =	38	35
	FAST FOOD, CARRY OUT : MIN. 5 SPACES + 1 PER EMPLOYEE =	8	8
	EATING ESTABLISHMENT: 1 PER 3 SEATS:	7	7
	GAMING AREA:	4	4
	CAR WASH	0	1
	TOTAL PARKING:	57	55 SPACES PROVIDED



1 SITE PLAN
SCALE: 1" = 30'-0"

DRAFT

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RETAIL PETROLEUM FACILITY
18301 LAGRANGE ROAD
TINLEY PARK, IL 60487
GAS N WASH

ISSUE

TO	DATE
ZONING	10/21/22
ZONING	01/06/23
ZONING	01/20/23
CLIENT	01/23/23
UPDATE SITE	02/21/23
ZONING	02/22/23
ZONING (1)	05/05/23

CHECK:CP
DRAWN:KM
JOB:D220035

A001
SITE PLAN

CMAP 2050 Projections Letter

Chicago Metropolitan Agency for Planning

433 West Van Buren Street
Suite 450
Chicago, IL 60607

312-454-0400
cmap.illinois.gov

September 7, 2022

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

Subject: ***LaGrange Road (US 45) @ 183rd Street / Orland Parkway***
IDOT

Dear Ms. Pachowicz:

In response to a request made on your behalf and dated September 7, 2022, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT	Year 2050 ADT
LaGrange Rd, @ 183rd St	43,100	52,300
183rd St east of LaGrange Rd	8,750	11,500
94th Ave north of 183rd St	7,000	9,200

Traffic projections are developed using existing ADT data provided in the request letter and the results from the December 2021 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: Rios (IDOT)
2022_ForecastTraffic\TinleyPark\ck-116-22\ck-116-22.docx

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

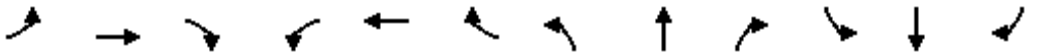
Signalized Intersections		
Level of Service	**Interpretation**	**Average Control Delay (seconds per vehicle)**
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level 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

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*, 6th Edition.

Capacity Analysis Summary Sheets

Weekday Morning Peak Hour – Existing Conditions



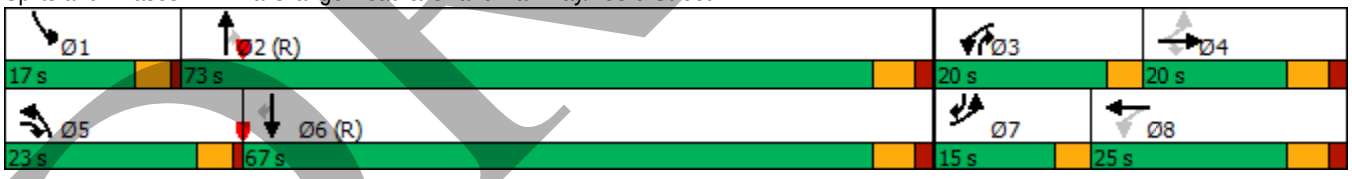
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	111	110	217	99	81	177	1557	183	101	1481	103
Future Volume (vph)	69	111	110	217	99	81	177	1557	183	101	1481	103
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		285	195		0	360		245	435		0
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	155			50			300			170		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.97	0.91	1.00	1.00	0.91	1.00
Ped Bike Factor												
Frt			0.850		0.933				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	2000	1538	1736	3331	0	3467	5250	1553	1805	5151	1599
Flt Permitted	0.633			0.449			0.950			0.950		
Satd. Flow (perm)	1156	2000	1538	820	3331	0	3467	5250	1553	1805	5151	1599
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		911			471			1381			1181	
Travel Time (s)		17.7			9.2			20.9			17.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	0%	5%	4%	2%	0%	1%	4%	4%	0%	6%	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)	73	117	116	228	189	0	186	1639	193	106	1559	108
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4	8					2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	9.5	20.0	9.5	9.5	22.5		9.5	22.5	9.5	9.5	22.5	9.5
Total Split (s)	15.0	20.0	23.0	20.0	25.0		23.0	73.0	20.0	17.0	67.0	15.0
Total Split (%)	11.5%	15.4%	17.7%	15.4%	19.2%		17.7%	56.2%	15.4%	13.1%	51.5%	11.5%
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.0	3.5	3.5	4.0	3.5
All-Red Time (s)	0.0	2.0	1.0	0.0	2.0		1.0	2.0	0.0	1.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	4.5	3.5	6.0		4.5	6.0	3.5	4.5	6.0	3.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Min	None
Act Effct Green (s)	24.8	13.0	31.3	34.9	19.6		12.3	69.8	91.7	11.3	68.8	84.1
Actuated g/C Ratio	0.19	0.10	0.24	0.27	0.15		0.09	0.54	0.71	0.09	0.53	0.65

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.28	0.58	0.31	0.69	0.38		0.57	0.58	0.18	0.68	0.57	0.10
Control Delay	38.9	68.0	42.1	51.4	52.1		62.9	21.8	7.3	78.7	22.3	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.9	68.0	42.1	51.4	52.1		62.9	21.8	7.3	78.7	22.3	9.5
LOS	D	E	D	D	D		E	C	A	E	C	A
Approach Delay		51.2			51.7			24.2			24.9	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	46	95	80	160	75		78	345	53	87	323	33
Queue Length 95th (ft)	87	160	131	241	115		115	393	83	#153	392	59
Internal Link Dist (ft)		831			391			1301			1101	
Turn Bay Length (ft)	400		285	195			360		245	435		
Base Capacity (vph)	291	215	443	336	510		493	2817	1102	173	2725	1061
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.54	0.26	0.68	0.37		0.38	0.58	0.18	0.61	0.57	0.10

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 68 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 28.9 Intersection LOS: C
Intersection Capacity Utilization 69.9% 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: 1: La Grange Road & Orland Parkway/183rd Street



Intersection	
Intersection Delay, s/veh	11.4
Intersection LOS	B

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	23	364	332	80	84	48
Future Vol, veh/h	23	364	332	80	84	48
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	4	2	3	3	1	0
Mvmt Flow	28	439	400	96	101	58
Number of Lanes	1	2	2	0	1	0

Approach	SE	NW	SW
Opposing Approach	NW	SE	
Opposing Lanes	2	3	0
Conflicting Approach Left	SW		NW
Conflicting Lanes Left	1	0	2
Conflicting Approach Right		SW	SE
Conflicting Lanes Right	0	1	3
HCM Control Delay	9.7	12.8	12.2
HCM LOS	A	B	B

Lane	NWLn1	NWLn2	SELn1	SELn2	SELn3	SWLn1
Vol Left, %	0%	0%	100%	0%	0%	64%
Vol Thru, %	100%	58%	0%	100%	100%	0%
Vol Right, %	0%	42%	0%	0%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	221	191	23	182	182	132
LT Vol	0	0	23	0	0	84
Through Vol	221	111	0	182	182	0
RT Vol	0	80	0	0	0	48
Lane Flow Rate	267	230	28	219	219	159
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.449	0.368	0.048	0.349	0.242	0.296
Departure Headway (Hd)	6.066	5.769	6.27	5.73	3.975	6.701
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	595	625	572	627	901	536
Service Time	3.8	3.502	4.002	3.461	1.706	4.44
HCM Lane V/C Ratio	0.449	0.368	0.049	0.349	0.243	0.297
HCM Control Delay	13.7	11.8	9.3	11.5	8	12.2
HCM Lane LOS	B	B	A	B	A	B
HCM 95th-tile Q	2.3	1.7	0.2	1.6	0.9	1.2

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	382	13	6	374	23	5
Future Vol, veh/h	382	13	6	374	23	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	160	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	0	0	3	4	0
Mvmt Flow	460	16	7	451	28	6

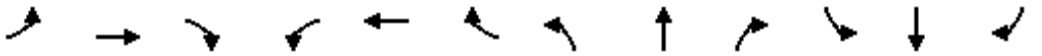
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	476	0	708	238
Stage 1	-	-	-	-	468	-
Stage 2	-	-	-	-	240	-
Critical Hdwy	-	-	4.1	-	6.88	6.9
Critical Hdwy Stg 1	-	-	-	-	5.88	-
Critical Hdwy Stg 2	-	-	-	-	5.88	-
Follow-up Hdwy	-	-	2.2	-	3.54	3.3
Pot Cap-1 Maneuver	-	-	1097	-	365	769
Stage 1	-	-	-	-	591	-
Stage 2	-	-	-	-	771	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1097	-	363	769
Mov Cap-2 Maneuver	-	-	-	-	464	-
Stage 1	-	-	-	-	591	-
Stage 2	-	-	-	-	766	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	12.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	499	-	-	1097	-
HCM Lane V/C Ratio	0.068	-	-	0.007	-
HCM Control Delay (s)	12.7	-	-	8.3	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Capacity Analysis Summary Sheets

Weekday Evening Peak Hour – Existing Conditions



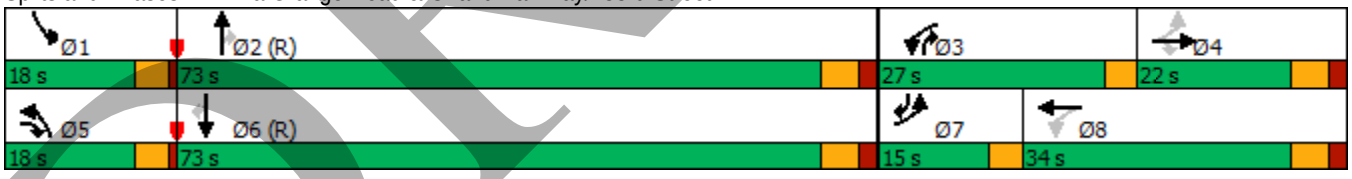
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	102	107	163	207	121	152	142	2033	250	105	1976	70
Future Volume (vph)	102	107	163	207	121	152	142	2033	250	105	1976	70
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		285	195		0	360		245	435		0
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	155			50			300			170		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.97	0.91	1.00	1.00	0.91	1.00
Ped Bike Factor												
Frt			0.850		0.917				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	2000	1583	1787	3256	0	3467	5353	1583	1770	5353	1599
Flt Permitted	0.578			0.464			0.950			0.950		
Satd. Flow (perm)	1098	2000	1583	873	3256	0	3467	5353	1583	1770	5353	1599
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		911			471			1381			1181	
Travel Time (s)		17.7			9.2			20.9			17.9	
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%	2%	1%	0%	3%	1%	2%	2%	2%	2%	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)	106	111	170	216	284	0	148	2118	260	109	2058	73
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4	8					2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	9.5	20.0	9.5	9.5	22.5		9.5	22.5	9.5	9.5	22.5	9.5
Total Split (s)	15.0	22.0	18.0	27.0	34.0		18.0	73.0	27.0	18.0	73.0	15.0
Total Split (%)	10.7%	15.7%	12.9%	19.3%	24.3%		12.9%	52.1%	19.3%	12.9%	52.1%	10.7%
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.0	3.5	3.5	4.0	3.5
All-Red Time (s)	0.0	2.0	1.0	0.0	2.0		1.0	2.0	0.0	1.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	4.5	3.5	6.0		4.5	6.0	3.5	4.5	6.0	3.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Min	None
Act Effct Green (s)	27.3	14.2	31.4	39.2	22.7		11.1	74.2	99.2	12.6	75.7	92.2
Actuated g/C Ratio	0.20	0.10	0.22	0.28	0.16		0.08	0.53	0.71	0.09	0.54	0.66

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.40	0.55	0.48	0.59	0.54		0.54	0.75	0.23	0.69	0.71	0.07
Control Delay	42.3	69.8	51.3	47.2	57.1		69.0	28.9	8.2	83.1	26.9	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	69.8	51.3	47.2	57.1		69.0	28.9	8.2	83.1	26.9	10.1
LOS	D	E	D	D	E		E	C	A	F	C	B
Approach Delay		54.1			52.8			29.1			29.1	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	73	97	135	160	126		68	554	80	97	506	22
Queue Length 95th (ft)	118	161	204	226	168		103	663	120	#171	633	49
Internal Link Dist (ft)		831			391			1301			1101	
Turn Bay Length (ft)	400		285	195			360		245	435		
Base Capacity (vph)	279	230	381	397	651		334	2837	1172	175	2894	1064
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.48	0.45	0.54	0.44		0.44	0.75	0.22	0.62	0.71	0.07

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 92 (66%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 32.9 Intersection LOS: C
Intersection Capacity Utilization 78.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: La Grange Road & Orland Parkway/183rd Street



Intersection	
Intersection Delay, s/veh	12.1
Intersection LOS	B

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	74	327	417	110	92	56
Future Vol, veh/h	74	327	417	110	92	56
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	2	2	1	1	0
Mvmt Flow	80	355	453	120	100	61
Number of Lanes	1	2	2	0	1	0

Approach	SE	NW	SW
Opposing Approach	NW	SE	
Opposing Lanes	2	3	0
Conflicting Approach Left	SW		NW
Conflicting Lanes Left	1	0	2
Conflicting Approach Right		SW	SE
Conflicting Lanes Right	0	1	3
HCM Control Delay	9.5	13.9	12.5
HCM LOS	A	B	B

Lane	NWLn1	NWLn2	SELn1	SELn2	SELn3	SWLn1
Vol Left, %	0%	0%	100%	0%	0%	62%
Vol Thru, %	100%	56%	0%	100%	100%	0%
Vol Right, %	0%	44%	0%	0%	0%	38%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	278	249	74	164	164	148
LT Vol	0	0	74	0	0	92
Through Vol	278	139	0	164	164	0
RT Vol	0	110	0	0	0	56
Lane Flow Rate	302	271	80	178	178	161
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.507	0.429	0.141	0.288	0.202	0.304
Departure Headway (Hd)	6.042	5.712	6.312	5.84	4.084	6.794
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	595	631	568	615	876	529
Service Time	3.78	3.45	4.049	3.577	1.82	4.536
HCM Lane V/C Ratio	0.508	0.429	0.141	0.289	0.203	0.304
HCM Control Delay	14.9	12.7	10.1	10.9	7.9	12.5
HCM Lane LOS	B	B	B	B	A	B
HCM 95th-tile Q	2.9	2.2	0.5	1.2	0.8	1.3

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	382	80	25	448	32	19
Future Vol, veh/h	382	80	25	448	32	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	160	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	1	0	2	0	0
Mvmt Flow	449	94	29	527	38	22

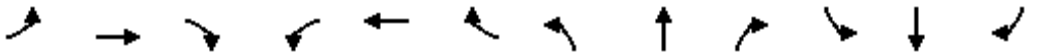
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	543	0	818	272
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	322	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1036	-	318	732
Stage 1	-	-	-	-	583	-
Stage 2	-	-	-	-	713	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1036	-	309	732
Mov Cap-2 Maneuver	-	-	-	-	428	-
Stage 1	-	-	-	-	583	-
Stage 2	-	-	-	-	693	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	13.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	506	-	-	1036	-
HCM Lane V/C Ratio	0.119	-	-	0.028	-
HCM Control Delay (s)	13.1	-	-	8.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Capacity Analysis Summary Sheets

Weekday Morning Peak Hour – No-Build Conditions



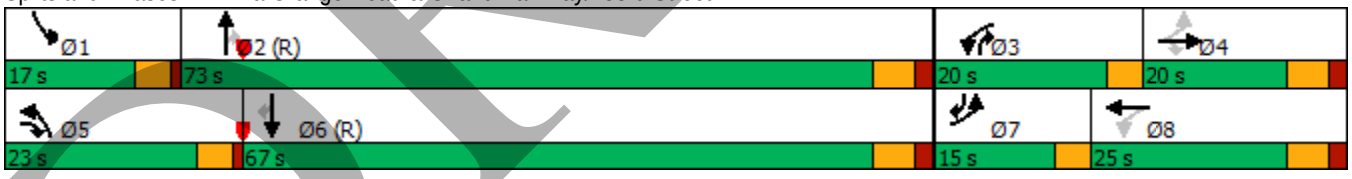
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	122	116	245	108	102	186	1635	213	127	1555	108
Future Volume (vph)	72	122	116	245	108	102	186	1635	213	127	1555	108
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		285	195		0	360		245	435		0
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	155			50			300			170		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.97	0.91	1.00	1.00	0.91	1.00
Ped Bike Factor												
Frt			0.850		0.927				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	2000	1538	1736	3312	0	3467	5250	1553	1805	5151	1599
Flt Permitted	0.614			0.415			0.950			0.950		
Satd. Flow (perm)	1122	2000	1538	758	3312	0	3467	5250	1553	1805	5151	1599
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		911			471			1381			1181	
Travel Time (s)		17.7			9.2			20.9			17.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	0%	5%	4%	2%	0%	1%	4%	4%	0%	6%	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)	76	128	122	258	221	0	196	1721	224	134	1637	114
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4	8					2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	9.5	20.0	9.5	9.5	22.5		9.5	22.5	9.5	9.5	22.5	9.5
Total Split (s)	15.0	20.0	23.0	20.0	25.0		23.0	73.0	20.0	17.0	67.0	15.0
Total Split (%)	11.5%	15.4%	17.7%	15.4%	19.2%		17.7%	56.2%	15.4%	13.1%	51.5%	11.5%
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.0	3.5	3.5	4.0	3.5
All-Red Time (s)	0.0	2.0	1.0	0.0	2.0		1.0	2.0	0.0	1.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	4.5	3.5	6.0		4.5	6.0	3.5	4.5	6.0	3.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Min	None
Act Effct Green (s)	25.2	13.2	31.9	35.5	20.1		12.7	68.4	90.6	12.1	67.8	83.3
Actuated g/C Ratio	0.19	0.10	0.25	0.27	0.15		0.10	0.53	0.70	0.09	0.52	0.64

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.29	0.63	0.32	0.78	0.43		0.58	0.62	0.21	0.80	0.61	0.11
Control Delay	39.0	70.2	41.9	58.3	53.0		62.9	23.3	7.7	89.3	23.5	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	70.2	41.9	58.3	53.0		62.9	23.3	7.7	89.3	23.5	9.7
LOS	D	E	D	E	D		E	C	A	F	C	A
Approach Delay		52.3			55.8			25.3			27.4	
Approach LOS		D			E			C			C	
Queue Length 50th (ft)	48	105	84	184	89		82	371	63	112	349	35
Queue Length 95th (ft)	90	173	137	#295	133		120	421	96	#217	422	63
Internal Link Dist (ft)		831			391			1301			1101	
Turn Bay Length (ft)	400		285	195			360		245	435		
Base Capacity (vph)	289	215	446	330	511		493	2760	1085	174	2688	1049
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.60	0.27	0.78	0.43		0.40	0.62	0.21	0.77	0.61	0.11

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 68 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 30.9 Intersection LOS: C
Intersection Capacity Utilization 74.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: La Grange Road & Orland Parkway/183rd Street



Intersection	
Intersection Delay, s/veh	12.1
Intersection LOS	B

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	25	386	354	84	88	50
Future Vol, veh/h	25	386	354	84	88	50
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	4	2	3	3	1	0
Mvmt Flow	30	465	427	101	106	60
Number of Lanes	1	2	2	0	1	0

Approach	SE	NW	SW
Opposing Approach	NW	SE	
Opposing Lanes	2	3	0
Conflicting Approach Left	SW		NW
Conflicting Lanes Left	1	0	2
Conflicting Approach Right		SW	SE
Conflicting Lanes Right	0	1	3
HCM Control Delay	10.2	13.7	12.7
HCM LOS	B	B	B

Lane	NWLn1	NWLn2	SELn1	SELn2	SELn3	SWLn1
Vol Left, %	0%	0%	100%	0%	0%	64%
Vol Thru, %	100%	58%	0%	100%	100%	0%
Vol Right, %	0%	42%	0%	0%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	236	202	25	193	193	138
LT Vol	0	0	25	0	0	88
Through Vol	236	118	0	193	193	0
RT Vol	0	84	0	0	0	50
Lane Flow Rate	284	243	30	233	233	166
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.487	0.397	0.053	0.376	0.263	0.316
Departure Headway (Hd)	6.172	5.877	6.367	5.826	4.07	6.833
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	583	613	563	619	881	525
Service Time	3.911	3.616	4.103	3.562	1.806	4.576
HCM Lane V/C Ratio	0.487	0.396	0.053	0.376	0.264	0.316
HCM Control Delay	14.7	12.5	9.5	12.1	8.3	12.7
HCM Lane LOS	B	B	A	B	A	B
HCM 95th-tile Q	2.7	1.9	0.2	1.7	1.1	1.3

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	401	60	11	393	61	10
Future Vol, veh/h	401	60	11	393	61	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	160	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	0	0	3	4	0
Mvmt Flow	483	72	13	473	73	12

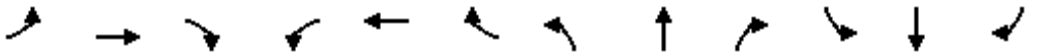
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	555	0	782	278
Stage 1	-	-	-	-	519	-
Stage 2	-	-	-	-	263	-
Critical Hdwy	-	-	4.1	-	6.88	6.9
Critical Hdwy Stg 1	-	-	-	-	5.88	-
Critical Hdwy Stg 2	-	-	-	-	5.88	-
Follow-up Hdwy	-	-	2.2	-	3.54	3.3
Pot Cap-1 Maneuver	-	-	1026	-	327	725
Stage 1	-	-	-	-	556	-
Stage 2	-	-	-	-	751	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1026	-	323	725
Mov Cap-2 Maneuver	-	-	-	-	431	-
Stage 1	-	-	-	-	556	-
Stage 2	-	-	-	-	741	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	14.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	457	-	-	1026	-
HCM Lane V/C Ratio	0.187	-	-	0.013	-
HCM Control Delay (s)	14.7	-	-	8.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.7	-	-	0	-

Capacity Analysis Summary Sheets

Weekday Evening Peak Hour – No-Build Conditions



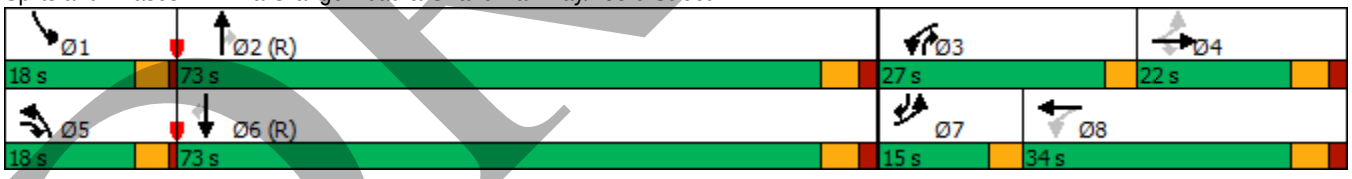
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	117	171	238	132	181	149	2135	284	131	2075	74
Future Volume (vph)	107	117	171	238	132	181	149	2135	284	131	2075	74
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		285	195		0	360		245	435		0
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	155			50			300			170		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.97	0.91	1.00	1.00	0.91	1.00
Ped Bike Factor												
Frt			0.850		0.913				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	2000	1583	1787	3240	0	3467	5353	1583	1770	5353	1599
Flt Permitted	0.554			0.429			0.950			0.950		
Satd. Flow (perm)	1053	2000	1583	807	3240	0	3467	5353	1583	1770	5353	1599
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		911			471			1381			1181	
Travel Time (s)		17.7			9.2			20.9			17.9	
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%	2%	1%	0%	3%	1%	2%	2%	2%	2%	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)	111	122	178	248	327	0	155	2224	296	136	2161	77
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4	8					2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	9.5	20.0	9.5	9.5	22.5		9.5	22.5	9.5	9.5	22.5	9.5
Total Split (s)	15.0	22.0	18.0	27.0	34.0		18.0	73.0	27.0	18.0	73.0	15.0
Total Split (%)	10.7%	15.7%	12.9%	19.3%	24.3%		12.9%	52.1%	19.3%	12.9%	52.1%	10.7%
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.0	3.5	3.5	4.0	3.5
All-Red Time (s)	0.0	2.0	1.0	0.0	2.0		1.0	2.0	0.0	1.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	4.5	3.5	6.0		4.5	6.0	3.5	4.5	6.0	3.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Min	None
Act Effct Green (s)	27.5	14.4	31.8	40.9	24.3		11.3	71.4	97.8	13.8	73.8	90.4
Actuated g/C Ratio	0.20	0.10	0.23	0.29	0.17		0.08	0.51	0.70	0.10	0.53	0.65

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.42	0.59	0.50	0.66	0.58		0.55	0.82	0.27	0.79	0.77	0.07
Control Delay	42.0	71.9	51.6	48.8	57.1		69.2	32.8	8.9	90.6	29.7	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.0	71.9	51.6	48.8	57.1		69.2	32.8	8.9	90.6	29.7	10.7
LOS	D	E	D	D	E		E	C	A	F	C	B
Approach Delay		55.0			53.5			32.3			32.5	
Approach LOS		E			D			C			C	
Queue Length 50th (ft)	75	107	140	182	144		71	648	101	121	576	25
Queue Length 95th (ft)	122	175	213	259	192		107	716	138	#236	684	51
Internal Link Dist (ft)		831			391			1301			1101	
Turn Bay Length (ft)	400		285	195			360		245	435		
Base Capacity (vph)	275	228	383	399	648		334	2728	1140	179	2820	1042
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.54	0.46	0.62	0.50		0.46	0.82	0.26	0.76	0.77	0.07

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 92 (66%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 36.0 Intersection LOS: D
Intersection Capacity Utilization 83.4% 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: La Grange Road & Orland Parkway/183rd Street



Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	79	248	443	116	97	60
Future Vol, veh/h	79	248	443	116	97	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	2	2	1	1	0
Mvmt Flow	86	270	482	126	105	65
Number of Lanes	1	2	2	0	1	0

Approach	SE	NW	SW
Opposing Approach	NW	SE	
Opposing Lanes	2	3	0
Conflicting Approach Left	SW		NW
Conflicting Lanes Left	1	0	2
Conflicting Approach Right		SW	SE
Conflicting Lanes Right	0	1	3
HCM Control Delay	9.3	14.1	12.6
HCM LOS	A	B	B

Lane	NWLn1	NWLn2	SELn1	SELn2	SELn3	SWLn1
Vol Left, %	0%	0%	100%	0%	0%	62%
Vol Thru, %	100%	56%	0%	100%	100%	0%
Vol Right, %	0%	44%	0%	0%	0%	38%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	295	264	79	124	124	157
LT Vol	0	0	79	0	0	97
Through Vol	295	148	0	124	124	0
RT Vol	0	116	0	0	0	60
Lane Flow Rate	321	287	86	135	135	171
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.53	0.447	0.152	0.221	0.155	0.319
Departure Headway (Hd)	5.949	5.62	6.381	5.909	4.152	6.722
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	607	642	562	608	861	536
Service Time	3.684	3.355	4.118	3.646	1.888	4.461
HCM Lane V/C Ratio	0.529	0.447	0.153	0.222	0.157	0.319
HCM Control Delay	15.2	12.8	10.3	10.3	7.7	12.6
HCM Lane LOS	C	B	B	B	A	B
HCM 95th-tile Q	3.1	2.3	0.5	0.8	0.5	1.4

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	401	127	31	470	79	25
Future Vol, veh/h	401	127	31	470	79	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	160	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	1	0	2	0	0
Mvmt Flow	472	149	36	553	93	29

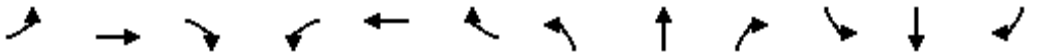
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	621	0	896	311
Stage 1	-	-	-	-	547	-
Stage 2	-	-	-	-	349	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	969	-	284	691
Stage 1	-	-	-	-	549	-
Stage 2	-	-	-	-	691	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	969	-	273	691
Mov Cap-2 Maneuver	-	-	-	-	397	-
Stage 1	-	-	-	-	549	-
Stage 2	-	-	-	-	665	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	16.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	442	-	-	969	-
HCM Lane V/C Ratio	0.277	-	-	0.038	-
HCM Control Delay (s)	16.2	-	-	8.9	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	1.1	-	-	0.1	-

Capacity Analysis Summary Sheets

Weekday Morning Peak Hour – Projected Conditions



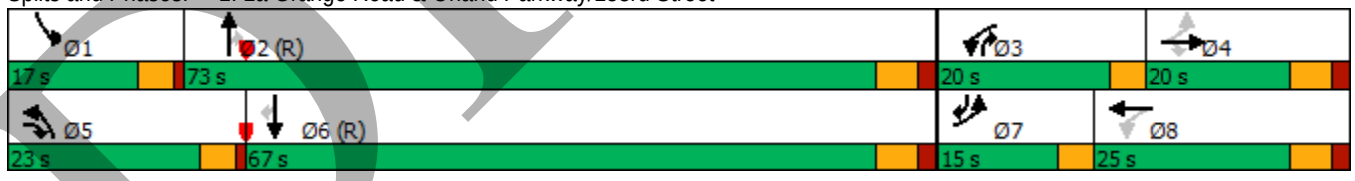
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	135	116	337	121	223	186	1552	346	206	1514	108
Future Volume (vph)	72	135	116	337	121	223	186	1552	346	206	1514	108
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		285	195		0	360		245	435		0
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	155			50			300			170		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.97	0.91	1.00	1.00	0.91	1.00
Ped Bike Factor												
Frt			0.850		0.903				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	2000	1538	1736	3237	0	3467	5250	1553	1805	5151	1599
Flt Permitted	0.536			0.373			0.950			0.950		
Satd. Flow (perm)	979	2000	1538	681	3237	0	3467	5250	1553	1805	5151	1599
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		911			240			1381			1181	
Travel Time (s)		17.7			4.7			20.9			17.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	0%	5%	4%	2%	0%	1%	4%	4%	0%	6%	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)	76	142	122	355	362	0	196	1634	364	217	1594	114
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4	8					2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	9.5	20.0	9.5	9.5	22.5		9.5	22.5	9.5	9.5	22.5	9.5
Total Split (s)	15.0	20.0	23.0	20.0	25.0		23.0	73.0	20.0	17.0	67.0	15.0
Total Split (%)	11.5%	15.4%	17.7%	15.4%	19.2%		17.7%	56.2%	15.4%	13.1%	51.5%	11.5%
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.0	3.5	3.5	4.0	3.5
All-Red Time (s)	0.0	2.0	1.0	0.0	2.0		1.0	2.0	0.0	1.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	4.5	3.5	6.0		4.5	6.0	3.5	4.5	6.0	3.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Min	None
Act Effct Green (s)	25.4	13.5	32.1	36.0	20.6		12.7	67.0	89.5	13.0	67.4	82.8
Actuated g/C Ratio	0.20	0.10	0.25	0.28	0.16		0.10	0.52	0.69	0.10	0.52	0.64

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.31	0.69	0.32	1.10	0.92dr		0.58	0.60	0.34	1.21	0.60	0.11
Control Delay	39.3	73.5	41.7	121.0	60.5		62.9	23.4	9.3	181.3	23.4	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.3	73.5	41.7	121.0	60.5		62.9	23.4	9.3	181.3	23.4	9.8
LOS	D	E	D	F	E		E	C	A	F	C	A
Approach Delay		54.5			90.5			24.5			40.4	
Approach LOS		D			F			C			D	
Queue Length 50th (ft)	48	117	84	~303	153		82	343	114	~228	336	35
Queue Length 95th (ft)	90	#198	137	#437	#213		120	392	165	#393	406	63
Internal Link Dist (ft)		831			160			1301			1101	
Turn Bay Length (ft)	400		285	195			360		245	435		
Base Capacity (vph)	273	215	449	322	511		493	2705	1069	180	2669	1043
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.66	0.27	1.10	0.71		0.40	0.60	0.34	1.21	0.60	0.11

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 68 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.21
Intersection Signal Delay: 41.6 Intersection LOS: D
Intersection Capacity Utilization 82.4% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 1: La Grange Road & Orland Parkway/183rd Street



Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	37	399	367	84	88	62
Future Vol, veh/h	37	399	367	84	88	62
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	4	2	3	3	1	0
Mvmt Flow	45	481	442	101	106	75
Number of Lanes	1	2	2	0	1	0

Approach	SE	NW	SW
Opposing Approach	NW	SE	
Opposing Lanes	2	3	0
Conflicting Approach Left	SW		NW
Conflicting Lanes Left	1	0	2
Conflicting Approach Right		SW	SE
Conflicting Lanes Right	0	1	3
HCM Control Delay	10.4	14.4	13.2
HCM LOS	B	B	B

Lane	NWLn1	NWLn2	SELn1	SELn2	SELn3	SWLn1
Vol Left, %	0%	0%	100%	0%	0%	59%
Vol Thru, %	100%	59%	0%	100%	100%	0%
Vol Right, %	0%	41%	0%	0%	0%	41%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	245	206	37	200	200	150
LT Vol	0	0	37	0	0	88
Through Vol	245	122	0	200	200	0
RT Vol	0	84	0	0	0	62
Lane Flow Rate	295	249	45	240	240	181
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.516	0.415	0.08	0.396	0.278	0.345
Departure Headway (Hd)	6.304	6.015	6.467	5.925	4.167	6.878
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	572	597	554	606	858	522
Service Time	4.05	3.761	4.21	3.668	1.91	4.629
HCM Lane V/C Ratio	0.516	0.417	0.081	0.396	0.28	0.347
HCM Control Delay	15.6	13	9.8	12.5	8.5	13.2
HCM Lane LOS	C	B	A	B	A	B
HCM 95th-tile Q	2.9	2	0.3	1.9	1.1	1.5

Intersection	
Int Delay, s/veh	20.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	414	134	57	372	308	22
Future Vol, veh/h	414	134	57	372	308	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	160	-	150	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	0	0	3	4	0
Mvmt Flow	499	161	69	448	371	27

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	660	0	942	330
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	362	-
Critical Hdwy	-	-	4.1	-	6.88	6.9
Critical Hdwy Stg 1	-	-	-	-	5.88	-
Critical Hdwy Stg 2	-	-	-	-	5.88	-
Follow-up Hdwy	-	-	2.2	-	3.54	3.3
Pot Cap-1 Maneuver	-	-	938	-	~ 258	672
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	669	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	938	-	~ 239	672
Mov Cap-2 Maneuver	-	-	-	-	~ 365	-
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	619	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	80.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	365	672	-	-	938	-
HCM Lane V/C Ratio	1.017	0.039	-	-	0.073	-
HCM Control Delay (s)	85.9	10.6	-	-	9.1	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	12.2	0.1	-	-	0.2	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	110	0	0	0	0	21	0	28	0	26	19	21
Future Vol, veh/h	110	0	0	0	0	21	0	28	0	26	19	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	2	2	0	2	2	0	2	100
Mvmt Flow	116	0	0	0	0	22	0	29	0	27	20	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	125	114	31	114	125	29	42	0	0	29	0	0
Stage 1	85	85	-	29	29	-	-	-	-	-	-	-
Stage 2	40	29	-	85	96	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	854	780	1049	863	765	1046	1580	-	-	1597	-	-
Stage 1	928	828	-	988	871	-	-	-	-	-	-	-
Stage 2	980	875	-	923	815	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	825	767	1049	852	752	1046	1580	-	-	1597	-	-
Mov Cap-2 Maneuver	825	767	-	852	752	-	-	-	-	-	-	-
Stage 1	928	814	-	988	871	-	-	-	-	-	-	-
Stage 2	959	875	-	907	801	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	8.5	0	2.9
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1580	-	-	825	1046	1597	-	-
HCM Lane V/C Ratio	-	-	-	0.14	0.021	0.017	-	-
HCM Control Delay (s)	0	-	-	10.1	8.5	7.3	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	149	0	0	181	104	87
Future Vol, veh/h	149	0	0	181	104	87
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	0	2	2	0
Mvmt Flow	157	0	0	191	109	92

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	346	155	201	0	-	0
Stage 1	155	-	-	-	-	-
Stage 2	191	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.1	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.2	-	-	-
Pot Cap-1 Maneuver	651	891	1383	-	-	-
Stage 1	873	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	651	891	1383	-	-	-
Mov Cap-2 Maneuver	651	-	-	-	-	-
Stage 1	873	-	-	-	-	-
Stage 2	841	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1383	-	651	-	-
HCM Lane V/C Ratio	-	-	0.241	-	-
HCM Control Delay (s)	0	-	12.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.9	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	515	172	0	681	0	34
Future Vol, veh/h	515	172	0	681	0	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	0	2	2	2	0
Mvmt Flow	542	181	0	717	0	36

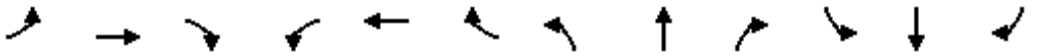
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	271
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	733
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	733
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	733	-	-
HCM Lane V/C Ratio	0.049	-	-
HCM Control Delay (s)	10.2	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Capacity Analysis Summary Sheets

Weekday Evening Peak Hour – Projected Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	130	171	326	146	290	149	2067	406	205	2041	74
Future Volume (vph)	107	130	171	326	146	290	149	2067	406	205	2041	74
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		285	195		0	360		245	435		0
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	155			50			300			170		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.97	0.91	1.00	1.00	0.91	1.00
Ped Bike Factor												
Frt			0.850		0.900				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	2000	1583	1787	3185	0	3467	5353	1583	1770	5353	1599
Flt Permitted	0.490			0.390			0.950			0.950		
Satd. Flow (perm)	931	2000	1583	734	3185	0	3467	5353	1583	1770	5353	1599
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		911			240			1381			1181	
Travel Time (s)		17.7			4.7			20.9			17.9	
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%	2%	1%	0%	3%	1%	2%	2%	2%	2%	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)	111	135	178	340	454	0	155	2153	423	214	2126	77
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4	8					2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	9.5	20.0	9.5	9.5	22.5		9.5	22.5	9.5	9.5	22.5	9.5
Total Split (s)	15.0	22.0	18.0	27.0	34.0		18.0	73.0	27.0	18.0	73.0	15.0
Total Split (%)	10.7%	15.7%	12.9%	19.3%	24.3%		12.9%	52.1%	19.3%	12.9%	52.1%	10.7%
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.0	3.5	3.5	4.0	3.5
All-Red Time (s)	0.0	2.0	1.0	0.0	2.0		1.0	2.0	0.0	1.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	4.5	3.5	6.0		4.5	6.0	3.5	4.5	6.0	3.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Min	None
Act Effct Green (s)	27.8	14.8	32.1	43.7	27.2		11.3	67.0	96.0	15.3	70.9	87.4
Actuated g/C Ratio	0.20	0.11	0.23	0.31	0.19		0.08	0.48	0.69	0.11	0.51	0.62

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.44	0.64	0.49	0.85	0.99dr		0.55	0.84	0.39	1.11	0.78	0.08
Control Delay	41.6	74.2	51.2	60.8	60.7		69.2	35.7	10.6	153.6	31.5	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.6	74.2	51.2	60.8	60.7		69.2	35.7	10.6	153.6	31.5	11.3
LOS	D	E	D	E	E		E	D	B	F	C	B
Approach Delay		56.0			60.7			33.7			41.7	
Approach LOS		E			E			C			D	
Queue Length 50th (ft)	73	119	140	258	205		71	614	151	~243	584	27
Queue Length 95th (ft)	122	191	213	#401	268		107	680	211	#409	667	51
Internal Link Dist (ft)		831			160			1301			1101	
Turn Bay Length (ft)	400		285	195			360		245	435		
Base Capacity (vph)	263	228	387	406	637		334	2561	1091	192	2711	1009
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.59	0.46	0.84	0.71		0.46	0.84	0.39	1.11	0.78	0.08

Intersection Summary

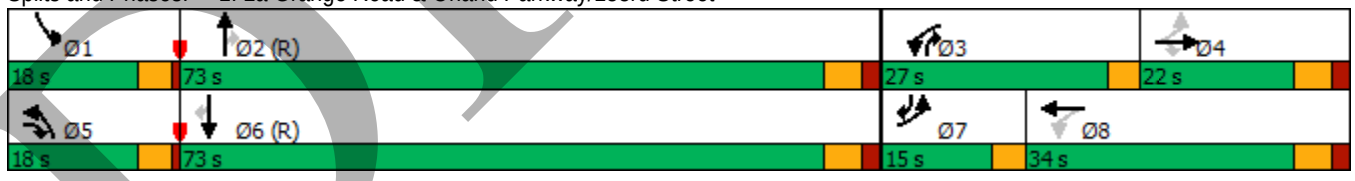
Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 92 (66%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 41.6 Intersection LOS: D
Intersection Capacity Utilization 91.1% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 1: La Grange Road & Orland Parkway/183rd Street



Intersection	
Intersection Delay, s/veh	13.4
Intersection LOS	B

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	92	362	457	116	97	73
Future Vol, veh/h	92	362	457	116	97	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	2	2	1	1	0
Mvmt Flow	100	393	497	126	105	79
Number of Lanes	1	2	2	0	1	0

Approach	SE	NW	SW
Opposing Approach	NW	SE	
Opposing Lanes	2	3	0
Conflicting Approach Left	SW		NW
Conflicting Lanes Left	1	0	2
Conflicting Approach Right		SW	SE
Conflicting Lanes Right	0	1	3
HCM Control Delay	10.2	15.9	13.6
HCM LOS	B	C	B

Lane	NWLn1	NWLn2	SELn1	SELn2	SELn3	SWLn1
Vol Left, %	0%	0%	100%	0%	0%	57%
Vol Thru, %	100%	57%	0%	100%	100%	0%
Vol Right, %	0%	43%	0%	0%	0%	43%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	305	268	92	181	181	170
LT Vol	0	0	92	0	0	97
Through Vol	305	152	0	181	181	0
RT Vol	0	116	0	0	0	73
Lane Flow Rate	331	292	100	197	197	185
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.579	0.484	0.181	0.331	0.235	0.358
Departure Headway (Hd)	6.294	5.97	6.529	6.056	4.297	6.973
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	573	604	549	592	832	516
Service Time	4.043	3.719	4.279	3.806	2.046	4.729
HCM Lane V/C Ratio	0.578	0.483	0.182	0.333	0.237	0.359
HCM Control Delay	17.4	14.2	10.7	11.8	8.4	13.6
HCM Lane LOS	C	B	B	B	A	B
HCM 95th-tile Q	3.7	2.6	0.7	1.4	0.9	1.6

Intersection	
Int Delay, s/veh	22.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	415	196	75	453	307	38
Future Vol, veh/h	415	196	75	453	307	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	160	-	150	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	1	0	2	0	0
Mvmt Flow	488	231	88	533	361	45

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	719	0	1047	360
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	443	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	892	-	~ 227	642
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	620	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	892	-	~ 205	642
Mov Cap-2 Maneuver	-	-	-	-	~ 338	-
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	559	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	94
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	338	642	-	-	892	-
HCM Lane V/C Ratio	1.069	0.07	-	-	0.099	-
HCM Control Delay (s)	104.3	11	-	-	9.5	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	13.2	0.2	-	-	0.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	100	0	0	0	0	26	0	51	0	26	105	17
Future Vol, veh/h	100	0	0	0	0	26	0	51	0	26	105	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	2	2	100	2	2	2	2	100
Mvmt Flow	105	0	0	0	0	27	0	54	0	27	111	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	242	228	120	228	237	54	129	0	0	54	0	0
Stage 1	174	174	-	54	54	-	-	-	-	-	-	-
Stage 2	68	54	-	174	183	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	5.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	3.1	-	-	2.218	-	-
Pot Cap-1 Maneuver	716	675	937	727	664	1013	1022	-	-	1551	-	-
Stage 1	833	759	-	958	850	-	-	-	-	-	-	-
Stage 2	947	854	-	828	748	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	687	662	937	717	651	1013	1022	-	-	1551	-	-
Mov Cap-2 Maneuver	687	662	-	717	651	-	-	-	-	-	-	-
Stage 1	833	745	-	958	850	-	-	-	-	-	-	-
Stage 2	921	854	-	812	734	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	8.7	0	1.3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1022	-	-	687	1013	1551	-	-
HCM Lane V/C Ratio	-	-	-	0.153	0.027	0.018	-	-
HCM Control Delay (s)	0	-	-	11.2	8.7	7.4	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	141	0	0	204	187	84
Future Vol, veh/h	141	0	0	204	187	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	0
Mvmt Flow	148	0	0	215	197	88

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	456	241	285	0	-	0
Stage 1	241	-	-	-	-	-
Stage 2	215	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	562	798	1277	-	-	-
Stage 1	799	-	-	-	-	-
Stage 2	821	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	562	798	1277	-	-	-
Mov Cap-2 Maneuver	562	-	-	-	-	-
Stage 1	799	-	-	-	-	-
Stage 2	821	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1277	-	562	-	-
HCM Lane V/C Ratio	-	-	0.264	-	-
HCM Control Delay (s)	0	-	13.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	1.1	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	580	157	0	762	0	31
Future Vol, veh/h	580	157	0	762	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	0	2	2	2	0
Mvmt Flow	611	165	0	802	0	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	306
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	696
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	696
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	696	-	-
HCM Lane V/C Ratio	0.047	-	-
HCM Control Delay (s)	10.4	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Preliminary Sight Distance Study

183RD STREET
FUEL CENTER
TINLEY PARK, ILLINOIS

WHITE EAGLE DRIVE AT 183RD STREET
PRELIMINARY SIGHT DISTANCE STUDY

DRAWN: MD
CHECKED: MW
DATE: 11-07-22
REV: 05-04-23
PROJECT # 22-088
EXHIBIT: A

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