AGENDA

PLANNING COMMISSION PUBLIC HEARING/REGULAR MEETING CITY OF FARMINGTON HILLS DECEMBER 19, 2024 @ 7:30 P.M.

FARMINGTON HILLS CITY HALL – CITY COUNCIL CHAMBER 31555 W. ELEVEN MILE ROAD, FARMINGTON HILLS, MICHIGAN 48336

Cable TV: Spectrum – Channel 203; AT&T – Channel 99 **YouTube Channel:** https://www.youtube.com/user/FHChannel8

www.fhgov.com (248) 871-2540

- 1. Call Meeting to Order
- 2. Roll Call
- 3. Approval of Agenda

4. Public Hearing

A. <u>AMEND PLANNED UNIT DEVELOPMENT (PUD) PLAN 2, 2021, INCLUDING</u> REVISED SITE PLAN 59-5-2022

 LOCATION:
 27400 Twelve Mile Road

 PARCEL I.D.:
 22-23-12-476-008

PROPOSAL: Construction of site-built one-family detached dwelling units

within RA-1B One Family Residential District

ACTION REQUESTED: Recommendation to City Council APPLICANT: Robertson Brothers Homes OWNER: Evangelical Homes of Michigan

5. Regular Meeting

A. SITE PLAN 59-9-2024

LOCATION: 24300 Drake Road PARCEL I.D.: 22-23-21-351-032

PROPOSAL: Construction of vehicle wash within B-3 General Business

District

ACTION REQUESTED: Site plan approval

APPLICANT: BMW Kar Wash, LLC (Todd Gesund)

OWNER: Boxoffice Theaters, LLC

B. SITE PLAN 61-11-2024

LOCATION: 29403 and 29455 Grand River Avenue

PARCEL I.D.: 22-23-35-431-016 and -017

PROPOSAL: Construction of gasoline service station within B-3 General

Business District

ACTION REQUESTED: Site plan approval

APPLICANT: SkilkenGold Development

OWNER: Shakir Alkhafaji

6. Approval of Minutes November 21, 2024, Regular Meeting

7. Public Comment

8. Commissioner/Staff Comments

9. Adjournment

Respectfully Submitted,

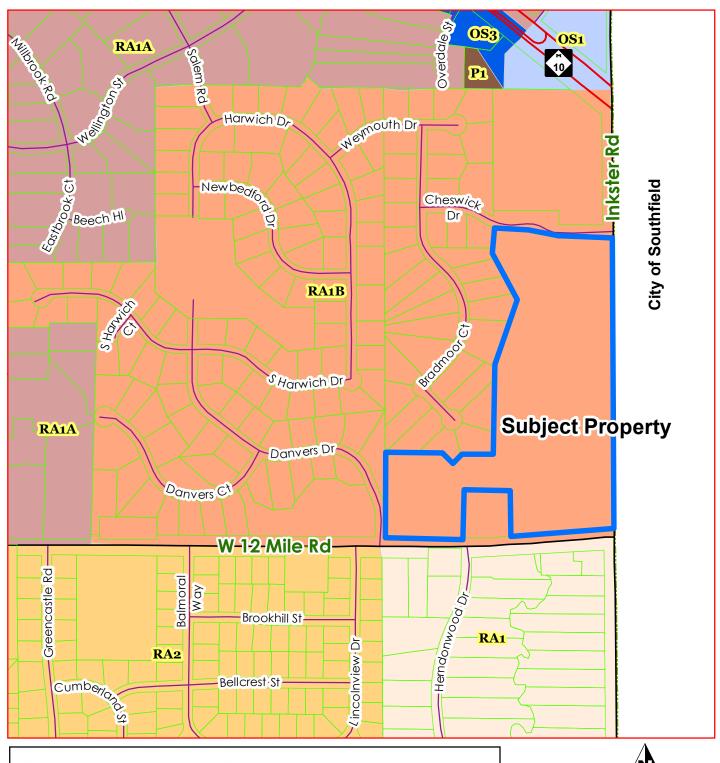
Kristen Aspinall, Planning Commission Secretary

Staff Contact:

Erik Perdonik, AICP City Planner Planning and Community Development Department (248) 871-2540 eperdonik@fhgov.com

NOTE: Anyone planning to attend the meeting who has need of special assistance under the Americans with Disabilities Act (ADA) is asked to contact the City Clerk's Office at (248) 871-2410 at least two (2) business days prior to the meeting, wherein arrangements/accommodations will be made. Thank you.

Amend PUD 2, 2021, SP 59-5-2024 12-476-008, 27400 Twelve Mile Rd. Amend Plan to eliminate skilled nursing and add single family in RA-1B





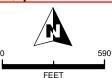
Minor roads

Zoning Districts Zoning Districts

- OS-1 Office Service District
- OS-3 Special Office District

- P-1 Vehicular Parking District
- RA-1 One Family Residential District
- RA-1A One Family Residential District
- RA-1B One Family Residential District
- RA-2 One Family Residential District





SOURCE: City of Farmington Hills, 2024 Oakland County GIS, 2024

DISCLAIMER: Although the information provided by this map is believed to be reliable, its accuracy is not warranted in any way The City of Farmington Hills assumes no liability for any claims arising from the use of this map.



Amend PUD 2, 2021, SP 59-5-2024 12-476-008, 27400 Twelve Mile Rd. Amend Plan to eliminate skilled nursing and add single family in RA-1B



Planning Division

Tax parcelMinor roads



SOURCE: City of Farmington Hills, 2024 Oakland County GIS, 2024

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October 17, 2024

City of Farmington Hills Planning Department

Re: Villas at Pebble Creek (Sarah Fisher) PUD 2nd Amendment

Vacant Property at the Northwest Corner of 12 Mile and Inkster Rd

City of Farmington Hills, MI

Robertson Brothers Homes is pleased to submit for a PUD Amendment to the approved Sarah Fisher redevelopment site located at the northwest corner of 12 Mile and Inkster Road. We are excited to announce that we have acquired the development rights for the entire Sarah Fisher site. Our updated proposal focuses on creating a high-quality community of detached ranch condominiums, eliminating the previously planned skilled nursing facility component. This new plan aims to deliver a cohesive, well-themed residential community with a much-needed single-level housing option. We have received approval from the Historic District Commission for a revised Certificate of Appropriateness, which includes preserving key historic features of the site and repurposing the chapel into a community space for residents.

The PUD had originally been approved for a 100-bed skilled nursing facility located on the southern 15 acres along with sixty-four (64) townhomes and thirty (30) detached condominium homes on the northern 15 acres. The plan was subsequently approved by the City Council for an amendment for a development with the skilled nursing facility and a residential community of fifty-one (51) new for-sale detached condominium ranch style homes with no townhomes. This second amendment now seeks to develop the site only as an enclave of seventy-five (75) detached ranch condominiums, to be named the Villas at Pebble Creek. We feel that each iteration of the plan has been an improvement and more in line with the surrounding neighborhood.

The vision for this community is centered on a philosophy of integration and connection, promoting pedestrian linkages throughout the development and encouraging outdoor activity and celebrating natural beauty. These pathways will seamlessly connect to the City's sidewalk system. The community will offer a high-quality series of detached condominium homes, with two floor plans featuring first-



floor master bedrooms and ranging in size from 1,834 to 2,050 square feet. An optional Cape Cod-style design will allow for the addition of two more bedrooms upstairs. We believe this development will be an attractive option for Farmington Hills residents looking to downsize from larger colonial homes while staying within their community. This will help the City retain these residents, preventing them from moving to neighboring areas. Additionally, as these residents downsize, their current homes will become available for families seeking properties within the Farmington public school district. As previously noted, the skilled nursing facility originally included in the plan has been completely removed and replaced with a lower-impact ranch home community.

The proposed first-floor primary bedroom, age-targeted homes have a significant reduction in impact to traffic and utility infrastructure over traditional single-family homes, due to the fact that the typical household profile will consist of only one or two residents. Fleis & Vandenbrink has provided a trip generation comparison to demonstrate the reduction in traffic volume with the proposed housing product compared to a traditional single family housing product.

	ITE		Average Daily	AM Peak Hour (vph)			PM Peak Hour (vph)			
Land Use	Code	Amount	Units	Traffic (vpd)	ln	Out	Total	In	Out	Total
Single-Family Detached	210	75	DU	774	14	43	57	48	28	76
Senior Adult Housing-Detached	251	75	DU	464	10	21	31	21	14	35
Differen	ce	- No. 10-		-310	-4	-22	-26	-27	-14	-41

Over the past few years, we have held several meetings with neighboring property owners. Many of the neighbors had expressed concerns about using Cheswick at the northern end of the property as a secondary access point. We are pleased to report that, due to the integrated design of the development without the skilled nursing facility, there is no longer a need for any connection to Cheswick. Additionally, we have met with representatives from the Hickory Oaks neighborhood, walked the western perimeter of the site, and agreed in principle that the required landscape buffer between properties is unnecessary due to the separation from existing homes west of the creek and the existing lush vegetation on both the Sarah Fisher site and Hickory Oaks properties providing adequate screening. As a result, we have proposed to forego the landscape buffer along the western perimeter and, instead, will plant new trees along Cheswick to replace those that are dead or dying, along with substantial screening along Inkster Road.



This adjustment will require a waiver from the tree buffer requirement, which we are requesting with this PUD Amendment.

The following is the previously approved plan compared to the new concept plan, and elevations of the proposed housing product.







The site plan has been thoughtfully designed to have the main entrance from Inkster terminate at the central community grounds, which will include the rehabbed chapel building that will be transformed as a community building amenity. There will be a significant amount of open space (39%) that will be maintained by the Homeowners Association. Sidewalks will be included along one side of the interior roads as is customary with this housing product, and a pathway has been included for easy access to the community building. The plan allows for plenty of parking for residents and guests, as each of the detached condominium homes include a 2-car garage with driveways and street parking.

Product Design

The new development will feature a selection of well-designed and appointed detached condominiums, with two options offering first-floor primary bedrooms:

Single-story ranches (1,834 to 2,050 sq. ft.) Story-and-a-half Cape Cod homes to include an additional 300 sq. ft. upstairs







These homes are designed to appeal to Farmington Hills residents looking to downsize while remaining in their community, helping the city retain its population rather than losing residents to nearby areas. Furthermore, as these new homes become available there will be more opportunities for families seeking homes within the Farmington public school district.

The condominium designs will seamlessly blend traditional and modern aesthetics, incorporating high-quality materials such as brick, stone and HardieBoard. The plans feature a 3-foot or 5-foot garage stepback, minimizing the visual impact of garage doors and enhancing the overall curb appeal.





Historic District Elements

The original chapel rehabilitation plan included a metal panel exterior for the northern third of the building, along with a glass lobby addition and a covered corridor linking to the skilled nursing facility. With the change in use to a residential community space, the new proposal features a painted brick accent wall, vertical siding, and a glass entry. The chapel will now be a central feature at the community entrance from Inkster Road, replacing its former secondary position near a parking lot. The building will become a prominent part of the community's amenities and will be maintained by the Homeowners' Association.

We are committed to meeting the Historic District Commission's preservation requirements. The chapel, entrance gates, and historic marker will remain, with the chapel being re-elevated on its eastern side with a more traditional façade. This will make it a more functional feature within the community, prominently located at the main entrance from Inkster Road. The building will be integrated into the community's common areas and maintained in perpetuity by the Homeowners' Association.

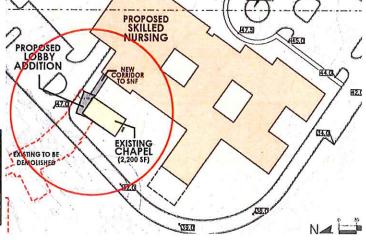


The following are the current approved plans and elevations, followed by the proposed amendments.

Approved Plans











Robertson Proposal

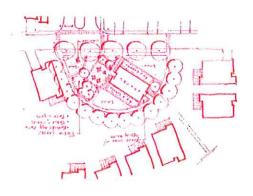














The Villas at Pebl	ole Creek - Detached Con	ndominium (75)	
		Detached Ranch	
	RA-1B Zoning District	Condominium	Deviations
Min. Building Setbacks			
	50′	18' to Livable	
Front Setback (Bldg)		21' to Garage	32' / 29'
		15' Total (including	
	15' Least / 30' Total	2' cantilever	52000
Side Minimum		projection)	15'
*		30' to Building	
Rear Perimeter Setback	35′	20' to Deck	5' to Building
Minimum Lot Area	23,400 Square Feet	N/A	N/A
Minimum Lot Frontage	140′	N/A	N/A
Lot Coverage	35%	14.5% Overall	In Compliance
		1.5 Stories /	
Principal Building Height to Midpoint	2 Stories/30 Feet	30 Feet	In Compliance
		None, due to	
551	8 Trees and 6 Shrubs	Existing Vegetation	8 Trees and 6
Landscape Buffer	per 100'	Along Perimeter	Shrubs per 100'
	f Regulations and Mo		
The villas at Fe		9	Deviations
	RA-1B Zoning District	Single Family	Deviations
Min. Building Setbacks			
Front Setback (Bldg)	50′	50′	In Compliance
Side Min. Principal	15' Least / 30' Total	15' Least / 30' Total	In Compliance
Rear Setback Principal	35′	100′	In Compliance
Minimum Lot Area	23,400 Square Feet	30,000 Square Feet	In Compliance
	4.40/	111′	29'
Minimum Lot Frontage	140'	7.7.7	23
Minimum Lot Frontage Lot Coverage	35%	35%	In Compliance



Robertson Brothers Homes is pleased to present the revised plan for the Villas at Pebble Creek residential site plan (fka Sarah Fisher) for PUD Amendment consideration by the Planning Commission. We believe the development will ultimately become a point of pride for responsible development in a solid area, retain the historical significance of the property, and importantly will provide for housing needs in the community.

Please let me know if any additional information is required at this time.

Thank you.

Respectfully,

Tim Loughrin | Vice President of Land Acquisition

Robertson Brothers Homes

6905 Telegraph Rd, Suite 200, Bloomfield Hills, MI 48301

Direct Dial: 248.282.1428 | Mobile: 248.752.7402

tloughrin@robertsonhomes.com



November 13, 2024

Farmington Hills Planning Commission 31555 W 11 Mile Rd Farmington Hills, MI 48336

PUD Amendment/Site Plan/Landscape Plan/Tree Removal

Case: PUD 2, 2021

Site: 24700 12 Mile Rd (Parcel ID 22-23-12-476-008)

Applicant: Robertson Brothers

Application Date: 10/15/2024

Zoning: RA-1B One Family Residential District (26,000 square feet)

We have completed a review of the application for final PUD qualification referenced above and a summary of our findings is below. Items in **bold** require specific action by the Applicant.



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SUMMARY OF FINDINGS

Existing Conditions

- 1. **Zoning.** The site is currently zoned RA1B One Family Residential District (26,000 square feet).
- 2. **Existing site.** The site is 31.5 acres and is developed with an abandoned orphanage consisting of 15 buildings. Pebble Creek runs along the western edge of the property, and through the southern portion.
- 3. Adjacent Properties.

Direction	Zoning	Land Use
North	RA1B	Residential access street
East (Southfield)	RT Attached Single Family/OS Office Service	Townhomes/medical office
South	RA1	Single family homes
West	RA1B	Single family homes

4. Site configuration and access. The site is currently accessible from Inkster Road via five driveways.

PUD Amendment:

- 1. The applicant proposes to amend the PUD to remove the 100-bed skilled nursing facility that was part of the original approval and instead now proposes a fully residential project with 75 detached ranch homes. The chapel that was to be preserved in the approved PUD plan will still be preserved in this new plan, and will be part of a common park area in the center of the development.
- 2. Per Section 34-3.20.5.G, "Proposed amendments or changes to an approved PUD plan shall be submitted to the planning commission. The planning commission shall determine whether the proposed modification is of such minor nature as not to violate the area and density requirements or to affect the overall character of the plan, and in such event may approve or deny the proposed amendment. If the planning commission determines the proposed amendment is material in nature, the amendment shall be reviewed by the planning commission and city council in accordance with the provisions and procedures of this section as they relate to final approval of the Planned Unit Development."
- 3. As the planning commission considers whether the amendment constitutes a minor or major amendment to the PUD, it should consider that the proposed signage is not ordinance-compliant and requires the approval of deviations from ordinance standards.
- 4. This is a major amendment to the PUD, and the PC will set a public hearing on the amendment and make a recommendation to Council.
- 5. The applicant has submitted a site plan for the new project.

PUD Qualification:

Under Section 34-3.20.2, the Planning Commission may make a determination that the site qualifies for a PUD based on the following criteria and procedures. **There is an approved PUD for this site; this new**

plan is an amendment to the approved plan that changes the use mix and number of units in the project.

Site Plan & Use:

- 1. Summary of Proposed Use. The approved PUD plan called for two primary use areas on the site: a 100-bed skilled nursing facility on the southern portion of the site, and 51 detached ranch homes on the northern portion. The residential portion has been substantially altered, however. The new plan removes the skilled nursing facility and presents an entirely residential plan, with 75 detached ranch homes targeted at seniors. Additionally, four individual single-family lots are proposed to be split off along 12 Mile Road for separate development. All buildings currently on the site will be removed, except for the existing historic chapel; the corner sign will also remain as a landmark.
- 2. **Land Use Plan.** The plan breaks down the land uses proposed for the property as follows (the areas dedicated to open space are no longer listed separately from the areas planned for development:
 - a. **Detached Residential (called Phase 1B):** 17.15 acres net
 - b. **Separate single-family lots:** 2.85 acres net
 - c. **Natural Preservation:** 11.5 acres. About 36.5% of the site is assigned to open space uses and preservation of the existing landscape.

The net density of the full site by unit is 2.7 dwelling units per acre (see below for comments on bedroom counts/ordinance density).

- 3. **Historic Designation.** The parcel is a designated historic site. The applicant proposes to demolish most of the buildings, preserving the existing chapel to be incorporated into the skilled nursing facility. The Historic District Commission has issued a notice to proceed, subject to the following:
 - a. Materials from demolished buildings will be stockpiled for future re-use.
 - b. The proponent will not proceed with any demolition until all other associated approvals are received.
 - c. Any building approved for demolition but left standing will remain subject to Historic District Commission review.
- 4. **Master Plan.** The master plan designates the site single family residential. The residential density map identifies this parcel as low density, which is consistent with current zoning. The 2009 Master Plan also identified this parcel as Special Residential Planning Area No. 3 and set the following goals and policies for the parcel:
 - Maintain the historic character of the site
 The chapel and corner sign are proposed to remain, and the site's southwestern portion is proposed to remain in its natural state.
 - Arrive at a plan for development that will be compatible with abutting residential uses, including
 a suitable transition area of single-family to existing residential use
 The plan proposes two uses: skilled nursing and detached single-family residential in the area
 closest to the adjacent neighborhood.
 - Pay special attention to traffic control because of intersection, topography of the roads and the proximity of the bridge on Twelve Mile Road

The site plan reduces the number of driveways to three and attempts to either align the new drives with driveways across Inkster or move them away from other driveways to avoid turning conflicts.

- Consider the PUD Option as a means to accommodate the complexities of the site The applicant is seeking approval of a major amendment to an approved PUD.
- Work with the developer on suitable plans that will achieve the goals
 The PUD process is designed to give the planning commission input into the design of the site.
- Feature the historic buildings on the site
 One historic building is preserved in the plan.
- Protect the environment and drainage pattern of Pebble Creek, which is part of the Green River Corridor
 - Development is kept away from Pebble Creek, and the narrative refers to a plan to dedicate seven acres around the creek for conservation.
- Carefully control the location of access for traffic management purposes

 Per the comment above, the applicant appears to have considered access management issues in
 the conceptual design. See comments below on access to the residential portion of the project.
- Emphasize vehicular access from Inkster Road because of grade changes and high traffic volume on Twelve Mile Road
 - All access is shown from Inkster on the site plan.
- Require widening of Inkster Road if there is any non-residential development
 The applicant proposes a skilled nursing facility and detached residential development.
- Establish residential lots or other suitable transition abutting the existing lots to the west The applicant suggests that smaller detached units and natural vegetative screening will serve as the transition to single family housing to the west.

The City's newly adopted master plan did not include this site as a special study area due to the previous approval of the PUD.

- 5. **Density.** The applicant is proposing 79 total units, four of which would be split off from the overall development on their own lots.
 - a. Split lots. The four split lots along 12 Mile Road are each 31,080 square feet with a lot width of 111 feet. While the minimum lot size of 26,000 square feet in the RA-1B district is met by these units, the 140-foot minimum lot width of the underlying district is not met. This requires relief from ordinance standards under the PUD, which has been requested.
 - b. Residential. The applicant proposes 75 detached single-family ranch units in the 17.15-acre residential use area of the plan. The underlying RA-1B district requires minimum lot size of 26,000 square feet, or 1.675 units per acre. Proposed density is 4.4 units/acre within the portion of the site devoted to the ranch units. This exceeds the underlying permitted density and requires relief from ordinance standards. Note that the first approved version of this plan included 94 units in a 14-acre area (6.7 units/acre), and the most recently approved version had 51 units over 14 acres (3.6 units/acre).

6. Dimensional Standards of the RA-1B District (as applied to the 75-unit project; see above for dimensional standard notes for the four splits).

Standard	Required	Proposed	
Lot Size	23,400 sq ft min/26,000 sq ft min	N/A – no individual lots proposed	
34-3.1.2.D	average	N/A – no marviduar lots proposed	
Lot width	140 ft min	1673 ft	
34-3.1.2.D	140 10 111111	10/3 10	
Lot coverage	35% max	14.5%	
34-3.1.2.D	55% IIIdX	14.5%	
Front setback	50 ft	50 ft from 12 Mile & Inkster	
34-3.1.2.D	3011	30 It ITOTH 12 WHIE & HIKSTEI	
Rear setback	35 ft	48 ft	
34-3.1.2.D	3510	4611	
Side setback	Front ward cothack of district	50 ft from 12 Mile Road	
34-3.5.2.C	Front yard setback of district	30 ft from Cheswick Right-of-Way (relief	
34-3.3.2.C	(yard abuts side yard) – 50 ft	needed)	
Building height	Max. 30 ft	Datashad Single Family, 20 ft	
34-3.1.2.D	IVIAX. SUIL	Detached Single-Family: 30 ft	

- 7. **Mechanical Screening.** Mechanical equipment on the ground shall be screened per Section 34-5.1.4.D.
- 8. **Dumpster Enclosure.** Waste management for the residential units is proposed to be handled individually by unit, with curb-side pickup.
- 9. **Parking.** Each single-family unit has a two-car garage, as well as a two-car driveway.

Use	Standard	Proposed
Single-Family Homes	2 spaces per unit = 150 spaces	150 + spaces (two-car garages
		with driveways)

10. Landscaping (34-5.14).

Item	Required			Proposed/Comments
Minimum distance from the property line (34-5.14.C.ii)	4 ft from the property line for trees and large shrubs			Compliant
Minimum parking lot island area	Minimum of 180 square feet; 3 feet minimum radius at the trunk of the tree		Standard is met by all in-lot landscape areas	
Cost estimate	Not required			
Minimum size and spacing requirements	Size	Center to distance (m		
(34-5.14.F)	(Height/width)	groupings	rows	
Evergreen Trees	8 ft. height 20 ft.		12 ft.	
• Narrow Evergreen Trees	5 ft. height	10 ft.	5 ft.	

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Project: 24700 12 Mile Rd – Villas at Pebble Creek PUD

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Item	Required		Proposed/Comments	
Large Shrubs	30 in. height	10 ft.	5 ft.	
Small Shrubs	24 in. width	4 ft.	4 ft.	
Large Deciduous	3 in. caliper	30 ft.	-	Standard is met
Small deciduous trees	2 in. caliper	15 ft.	-	
Hedge shrubs	24 in. height	3 ft.	3 ft.	Standard is met
Canopy Trees	Shall be large permit large eve		PC may	Standard is met
Minimum number of parking lot trees (34-5.14.4.C)	159,943 sq ft of hardscape (internal road)/2,800 = 57		57	
Parking lot screening from public thoroughfare (34-5.14.5)	No parking lot present		N/A	
Wall or Berm (34-5.15)	Required when abutting a residential district. (See 34-5.15)		None proposed; detached single-family use is closest to adjacent neighborhood.	
Buffer to Single-Family (34-5.14.6) (no longer a buffer from multiple to single, but buffer was provided on last approved plan)	i. Two (2) large deciduous trees; ii. Four (4) small deciduous trees; iii. Six (6) large shrubs; iv. Two (2) evergreen trees. Multiplied by 0.8 for 35-foot buffer yard 800 linear feet: 13 large deciduous 26 small deciduous 39 large shrubs 13 evergreens		None provided and relief sought; see applicant's notes on pages two and three of the narrative	
Tree replacement (34-5.18)	Per Section 34-5.18		See below	

204 total deciduous, 150 total evergreens

11. **Tree Removal.** The submission package includes the required tree survey and inventory, as well as the required superimposed survey.

Removed	Required Replacements	Provided
Regulated Trees: 85	85	See total below
Landmark Trees: 60 with total dbh of 1,872 inches	1,872 x 0.25 = 468 inches 468/3 = 156 3-inch caliper trees	See total below
Total:	241	241

- 21 trees are listed with a health score too low to require replacement.
- 12. **Traffic Study.** We defer to the city's traffic engineer for a review of the trip generation analysis provided by the applicant.
- 13. Lighting.
 - c. **Operation hours (34-5.16.3.B.v.).** Standards related to operating hours are met.

Date: November 13, 2024

Project: 24700 12 Mile Rd – Villas at Pebble Creek PUD

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- b. **Illumination Levels.** Lighting is limited to building-mounted residential fixtures providing very low light levels near the driveway and primary entrance to each unit.
- 14. **Vehicle Circulation & Access.** Circulation is provided by an internal access road with a boulevarded connection to Inkster, plus a secondary access, also to Inkster. There is also a gated emergency access drive to 12 Mile Road. The previously approved connection to Cheswick has been removed from the plan.
- 15. **Pedestrian Circulation.** Sidewalks are provided on one side of the street through most of the development, though they are not provided at the north end, where the road stubs and has a small loop. The width of these sidewalks, which are curb-tight, is not provided on the plans.

16. Relief Sought from Ordinance Standards:

- d. Permit detached single-family at requested density of 75 units.
- e. Permit reduced exterior side setback along Cheswick (30 feet).
- f. Permit no installation of western buffer plantings.
- g. 111-foot lot width for splits where 140 feet is required.

We are available to answer questions.

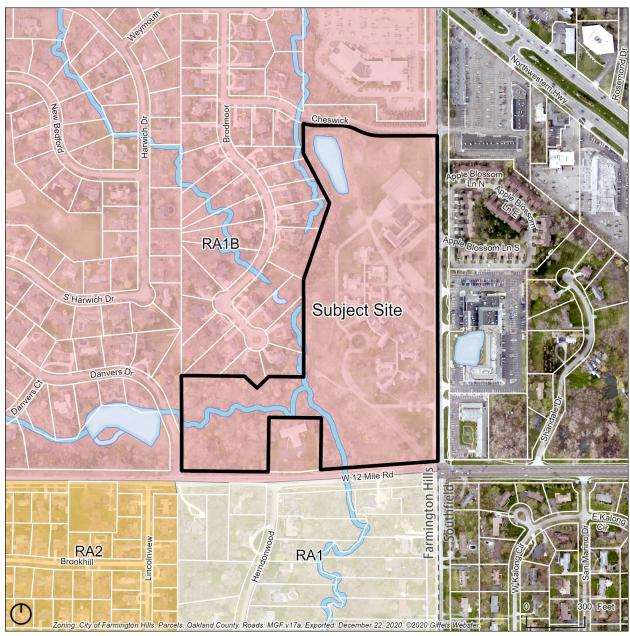
Respectfully,

Giffels Webster

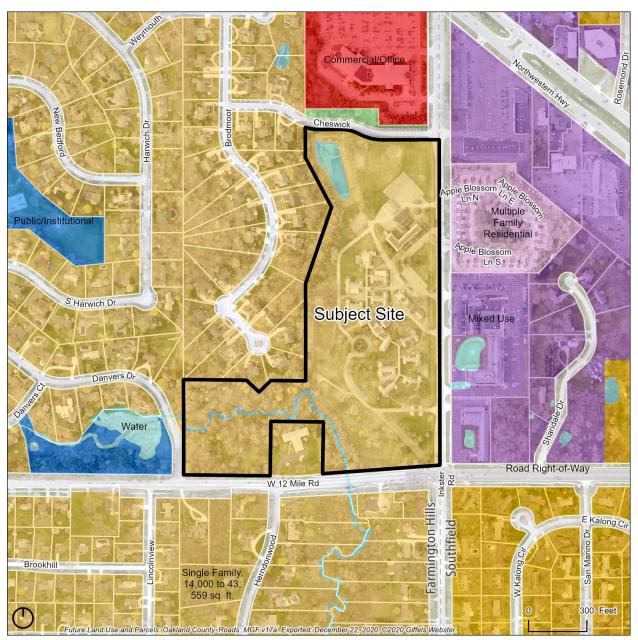
Ju S. Bahm

Jill Bahm, AICP Partner Joe Tangari, AICP

Principal Planner



Current zoning



Master Plan designations for this area.



Wetlands & surface water

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DEPARTMENT OF PUBLIC SERVICES JACOB RUSHLOW, P.E., DIRECTOR

INTEROFFICE CORRESPONDENCE

DATE:

November 12, 2024

TO:

Planning Commission

FROM:

James Cubera, Engineering

SUBJECT:

Sarah Fisher Home

Proposed Amended PUD2, 2021

27400 12 Mile Road

PJ#: 12-21-70 SP#: 59-05-2022 22-23-12-276-008

This office has performed a preliminary review of the above referenced proposed amended PUD plan submitted to the Planning Department on October 17, 2024. The plan is significantly different than the previously submitted one. Our preliminary comments are as follows:

1. A public sanitary sewer exists on site. It was utilized to service the previous development on the property. The proponent has indicated that they plan on abandoning portions of this public sewer, relocating other sections, and extending public sewer to service the new development. The proponent will be obligated to follow through with the appropriate abandonment procedures of the City, which include vacation of the existing easements as well as addressing proper abandonment procedures of the pipe system itself. This can be addressed during construction review. Formal easement abandonment must be completed before construction approval.

The plan identifies a relocation of a public sanitary pump station by others. It is our understanding that the proponent is working out the details of this as well as capacity concerns and financial obligations with the Oakland County WRC and City management. This needs to be finalized prior to moving forward.

Regarding the specifics of the site sanitary sewer layout our comments are similar to those of the last submittal.

They include

- A) Provide basement gravity sanitary sewer service to the proposed development.
- B) Extend public sanitary sewer with gravity basement service for any approved units on 12 Mile Road frontage (units 1-4 west of the Pebblecreek crossing).

- C) Provide a public sanitary sewer stub on the north side of 12 Mile east of the Pebblecreek crossing of 12 Mile Road with adequate depth to allow for this stub to be extended in the future to provide basement gravity service to the upstream service area of Farmington Hills properties on Inkster Road south of 12 Mile Road.
- D) Provide a public sanitary sewer stub on the north side of 12 Mile Road in the 12 Mile Road ROW west of the Pebblecreek crossing of 12 Mile Road with a manhole at the Herndonwood intersection with adequate depth to allow for it to be extended in the future to provide basement gravity service to the upstream service area of properties on Herndonwood.
- 2. An 8" water main exists onsite. The proponent is showing a design that apparently abandons it and provides a new public water main. This is acceptable. Conceptually the new layout meets City standards. Other than a necessary extension to better service unit 68 if this layout moves forward it may be appropriate to move the northern loop to Inkster Road such that it extends between units 67 and 68. Additionally, it is necessary that the proponent more specifically identify in detail the watermain being abandoned, the easements being abandoned and the methods used to abandon it, cap it or reconnect portions of the existing watermain system.

Similar to the sanitary sewer, any water main abandonment must follow appropriate easement vacation procedures as well as pipe abandonment procedures of the City/County. All formal water main abandonments must occur before construction approval. This can be addressed during construction review.

- 3. The site plan identifies two curb cuts to Inkster Road with one proposed as a boulevard. We question whether a boulevard approach is necessary. The plans also identify an emergency connection to the proposed driveway servicing the pump station on 12 Mile Road. This is not something that we recommend. We will require that the proponent submit a traffic impact statement addressing this as well as the need for further lane improvements on Inkster Road. The proponent's Traffic Engineer must contact the City's Traffic Engineer to discuss what other issues need to be addressed.
- 4. Regarding the internal traffic layout, 50' turning radius must be provided at all roadway bends. We question whether this is being provided at the circle road servicing units 66 thru 75. Additionally, the proposed stub road extension servicing units 70 thru 72 at the north end of the site and the stub road for units 8 thru 12 at the south end of the site are not standard or acceptable designs. They create turn around and traffic safety issues particularly for fire and police as well as delivery vehicles. The plan should be revised to eliminate the stub roads.

Along with above unit 68 is provided little frontage on the private road and it should be repositioned such that it does not present itself as a hidden rear yard residence.

Regarding the private road system, it must be built to public standards and will be inspected accordingly.

5. Public sidewalk installation will be required along the entire Inkster Road frontage. This walk shall be placed such that the west walk line shall be one foot east of the ultimate 60' right-of-way.

For that portion of the 12 Mile Road frontage that does not have sidewalk (between Danvers Dr. and 27600 12 Mile Road) it shall also be placed one foot south of the ultimate 60' right-of-way including across the frontage of what is identified as being units 1-4 along 12 Mile Road west of the Pebblecreek crossing and extending offsite to the driveway servicing 27600 Twelve Mile Road.

6. With reference to these units 1-4 a curb cut access to 12 Mile Road needs to be identified at this time. It is recommended that they share one common curb cut with a marginal access road across the frontage. This is consistent with what was done on the Preserves of Meadowbrook units 58-61 on Eight Mile Road east of I-275. It is also recommended that these 4 units enter into an agreement with the property to the east to allow for a future shared access. This agreement can then be triggered when any future development at 27600 12 Mile Road occurs.

In lieu of the above, we question whether these 4 units can be absorbed into the interior development such that additional curb cuts to 12 Mile are avoided.

- 7. Storm water detention is required in accordance with City of Farmington Hills Engineering Standards. The plans identify a pond with a mechanical treatment structure. Within the last year the City has adopted the WRC standards for detention, restriction and storm water quality. These plans must conform to those requirements. Detailed calculations and support must be provided confirming the design. These will be reviewed during Engineering construction review.
- 8. Attached with this review are comments from the City's inhouse Environmental Engineer Tyler Sonoga. These must be addressed. Please note that he can be reached at 248-871-2533.
- 9. The onsite storm system will be reviewed during engineering review in more detail. It should be noted that all units must tie their sump lines into a gravity storm sewer directed ultimately to the detention pond.
- 10. The edge of this site at the west end and south end is within the 100-year floodplain. Any involvement with the 100-year floodplain will require a permit from EGLE.
- 11. Our office notes that an existing detention pond is shown at the northwest corner of the property. A review of the storm water agreement indicates that the maintenance of this pond appears to be with the Association for Hickory Oaks. Access to this pond through the proposed roadway network of this PUD must be provided. This will necessitate the providing of an access easement.

- 12. Along with the above we question whether it is feasible to incorporate this Hickory Oaks offsite pond with this new development's pond at the south end near 12 Mile Road such that there is only one larger pond. We ask that this be explored.
- 13. The ultimate right-of-way on Inkster Road is 120'. This includes 60' from the center of the section line both east and west of it. It is suggested that the proponent dedicate the ultimate 60' right-of-way on Inkster Road for that portion west of the section line.
 - For 12 Mile Road, it is unclear whether the 60' right-of-way on 12 Mile Road exists. Again, this would be 60' from the section line northward. This needs to be confirmed, otherwise the City suggests that this also be dedicated to the City at this time.
- 14. It is suggested that the proponent and their engineer meet with the City Engineering staff in person or via Zoom or some other virtual format to discuss this site in further detail.
- 15. We recommend that all engineering items be specifically addressed in the City PUD agreement before it is considered by City Council.





INTEROFFICE CORRESPONDENCE

DATE: November 11, 2024

TO: Planning Commission

FROM: Jason Baloga, Fire Marshal

SUBJECT: Amended PUD 2-2021/Site Plan 59-5-2022 (Sarah Fisher Mixed Use Campus)

Considerable change has occurred from the previous version of the PUD Plan. Upon review of the new plan, it appears that the following is in violation of Ordinance Chapter 12 Section 12-11: Fire Department Site Plan Review and Design Standards:

• Site Access: sites must be designed to accommodate fire apparatus with a 50' turning radius. The 50 fifty feet shall be measured to the center line of the roadway.

Once the above is satisfied, the Fire Department will have no objection contingent upon compliance with the following:

- 1. Generally dead ends longer than 100' shall not be allowed.
- 2. Specific gate detail shall be provided to the Fire Department and Engineering for review and approval for all gates proposed.
- 3. Chapter 12 Section 12-9 Street Obstructions:
 - a. Gate/Knox key yelp for emergency access is proposed on Twelve Mile and will require Fire and Engineering Department approvals. Please provide a detailed submittal to the Fire Department to ensure that International Fire Code, permit and acceptance testing is adhered to.
 - b. Gate design will affect minimum acceptable road width for emergency access off Twelve Mile.
- 4. The City of Farmington Hills and the Fire Department shall not be responsible for any damage which occurs to the gate.

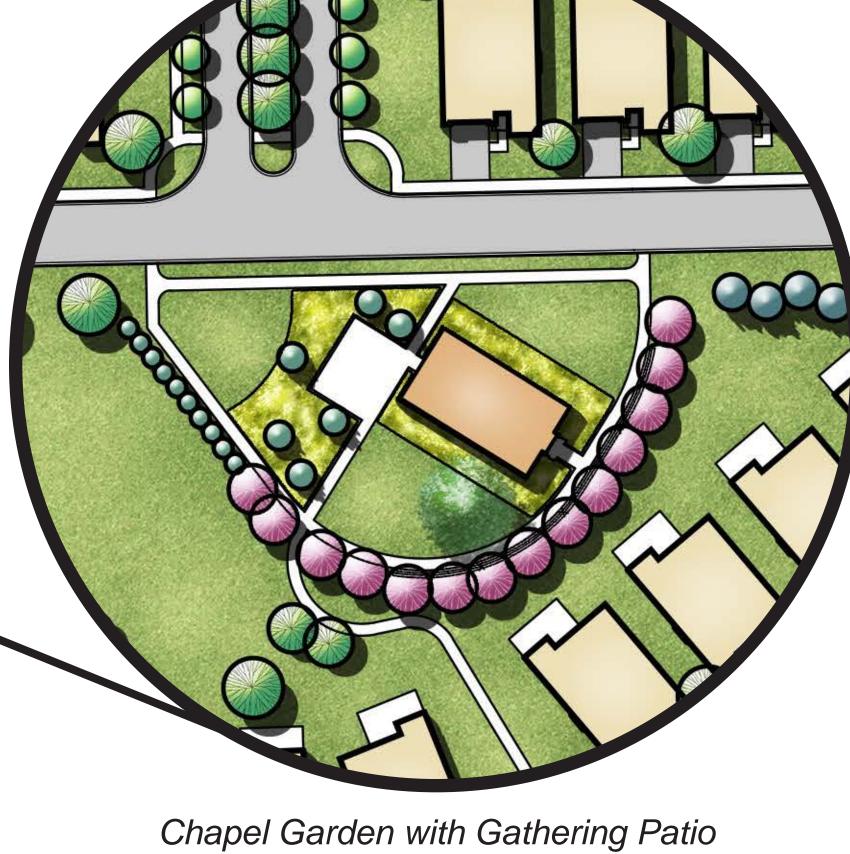
- 5. Chapter 12 Section 12-11 (2) Hydrants: it appears that hydrants meet the minimum distance as required in the City Ordinance. Special attention shall be given to the following and discussed in detail during the Engineering review:
 - a. "Wherever practical, the hydrants shall be provided at intersections to provide ease of stretching fire hose in more than one direction."
 - b. Watermain shall be looped according to Engineering specifications to ensure adequate water supply.
- 6. No parking fire lane signs shall be posted and strictly enforced.
- 7. Proponent may find it beneficial to provide residential sprinklers in residential homes to increase safety and <u>increase public benefit</u>.

Jason Baloga, Fire Marshal

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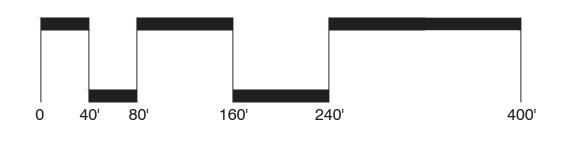
Villas at Pebble Creek

& Rain Gardens

40 Scale

Farmington Hills, Michigan Robertson Brothers Homes

October 2024





Road Width: 20' / 27'
Road Length:

- Lot Width:

- Lot Depth:

- Lot Setbacks:

- 20' width: 424 LF
 - 27' width: 3,241 LF
 Road Length per Unit: 46.39 LF/Du.

Total Open Space: 11.5 Ac. (39% of Site Area)

111' min.

280' min.

MAJOR AMENDMENT TO PUD



PART OF THE SE 1/4 OF SECTION 12, T.01N., R.08E. FARMINGTON HILLS, OAKLAND COUNTY, MICHIGAN



DESIGN TEAM

OWNER / DEVELOPER / APPLICANT

ROBERTSON BROTHERS HOMES
6905 TELEGRAPH RD, STE 200
BLOOMFIELD HILLS, MI 48301
CONTACT: TIM LOUGHRIN
PHONE: 248.282.1428
EMAIL: TLOUGHRIN@ROBERTSONHOMES.COM

CIVIL ENGINEER
PEA GROUP

PEA GROUP
2430 ROCHESTER COURT, STE. 100
TROY, MI 48083-1872
CONTACT: JOHN B. THOMPSON, PE
PHONE: 844.813.2949
EMAIL: JTHOMPSON@PEAGROUP.COM

LANDSCAPE ARCHITECT

PEA GROUP
45 W. GRAND RIVER AVE., STE. 501
DETROIT, MI 48226
CONTACT: NOAH BIRMELIN, PLA, ASLA
PHONE: 844.813.2949
EMAIL: NBIRMELIN@PEAGROUP.COM

PENA GROUP

INDEX OF DRAWINGS NUMBER TITLE **COVER SHEET BOUNDARY SURVEY** TOPOGRAPHIC SURVEY PROPOSED LAND USE PLAN **GRADING PLAN - NORTH GRADING PLAN - SOUTH UTILITY PLAN - NORTH** UTILITY PLAN - SOUTH **UTILITY PLAN - WEST** PRELIMINARY DRAINAGE PLAN FIRE TRUCK TURNING PLAN EASEMENT PLAN - NORTH **EASEMENT PLAN - SOUTH** LANDSCAPE PLAN LANDSCAPE PLAN LANDSCAPE DETAILS PROPOSED TREE PRESERVATION PLAN PROPOSED TREE PRESERVATION PLAN PROPOSED TREE PRESERVATION PLAN PROPOSED TREE PRESERVATION PLAN SUPERIMPOSED TREE PRESERVATION PLAN SUPERIMPOSED TREE PRESERVATION PLAN SUPERIMPOSED TREE PRESERVATION PLAN 24-35018 EXTERIOR PHOTOMETRIC PLAN 24-35018 EXTERIOR PHOTOMETRIC PLAN 24-35018 EXTERIOR PHOTOMETRIC PLAN 24-35018 EXTERIOR PHOTOMETRIC PLAN ARCHITECTURAL PLANS RALEIGH - EMERSON ELEVATION RALEIGH - EMERSON ELEVATION RALEIGH - BARRINGTON ELEVATION RALEIGH - BARRINGTON ELEVATION RALEIGH - ALBANY ELEVATION RALEIGH - ALBANY ELEVATION RALEIGH - BASEMENT PLAN RALEIGH - FLOOR PLAN WILMINGTON - ELEVATION A WILMINGTON - ELEVATION A WILMINGTON - ELEVATION B WILMINGTON - ELEVATION B WILMINGTON - ELEVATION E WILMINGTON - ELEVATION E

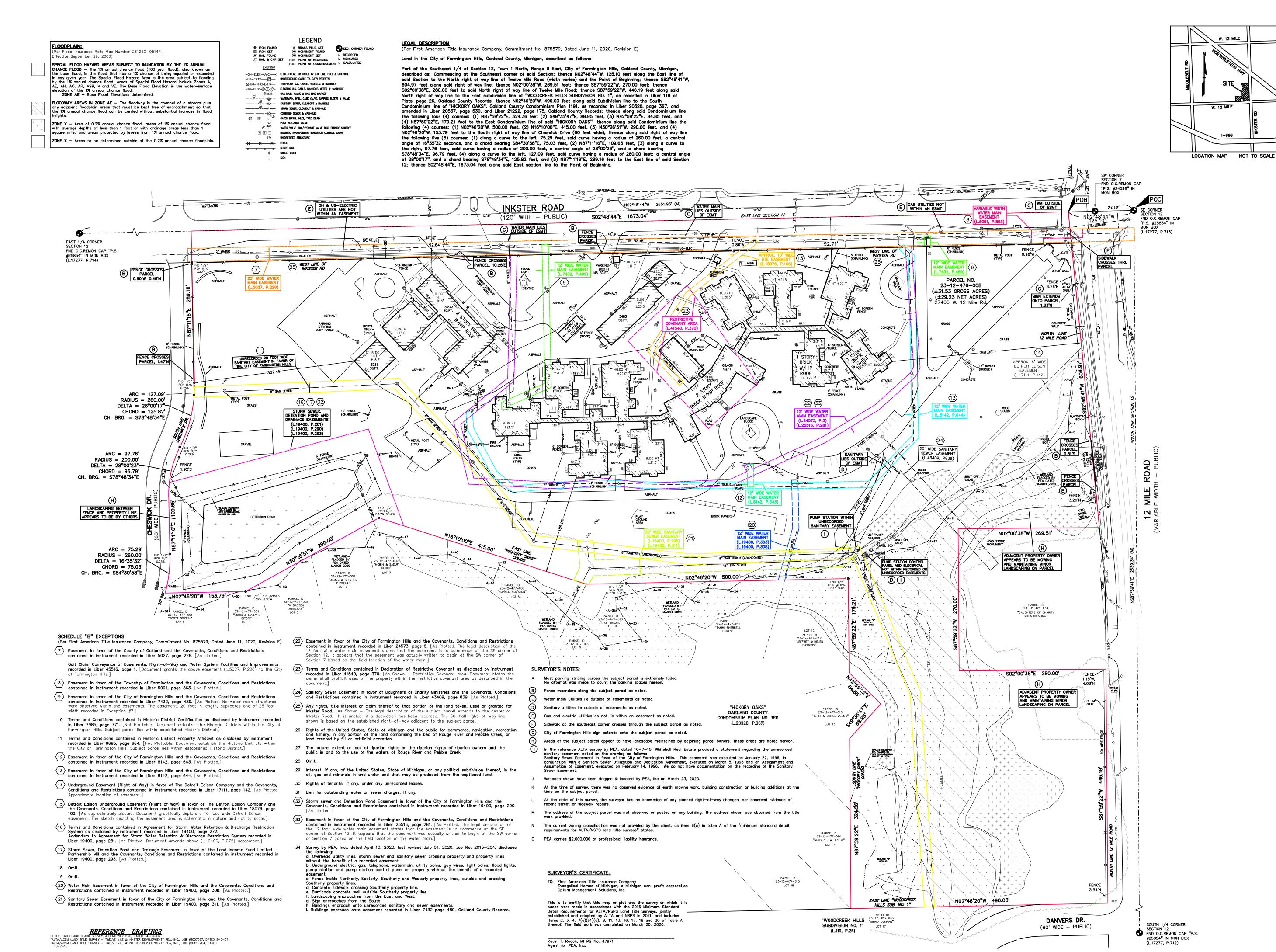
REVISIONS

DESCRIPTION DATE

ORIGINAL ISSUE DATE 10/15/2024

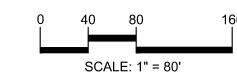
WILMINGTON - FLOOR PLAN





PEA GROUP t: 844.813.2949 www.peagroup.com

NORTH





CAUTION!!
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY
APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR
IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.
THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR
DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS
PRIOR TO THE START OF CONSTRUCTION.

ROBERTSON BROTHERS

HOMES
6905 TELEGRAPH RD, STE 200
BLOOMFIELD HILLS, MI 48301

PROJECT TITLE

Pebble Preek

PART OF THE SE \$\infty\$ OF SECTION 12, T.01N., R.08E.
CITY OF FARMINGTON HILLS
OAKLAND COUNTY, MICHIGAN

REVISIONS

ORIGINAL ISSUE DATE: OCTOBER 15, 2024

BOUNDARY
SUBVEY

SURVEY

PEA JOB NO. 2015-204

P.M. JBT

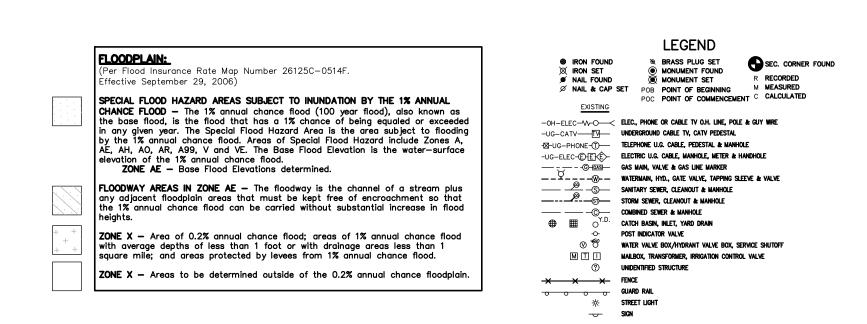
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SUR. KTR

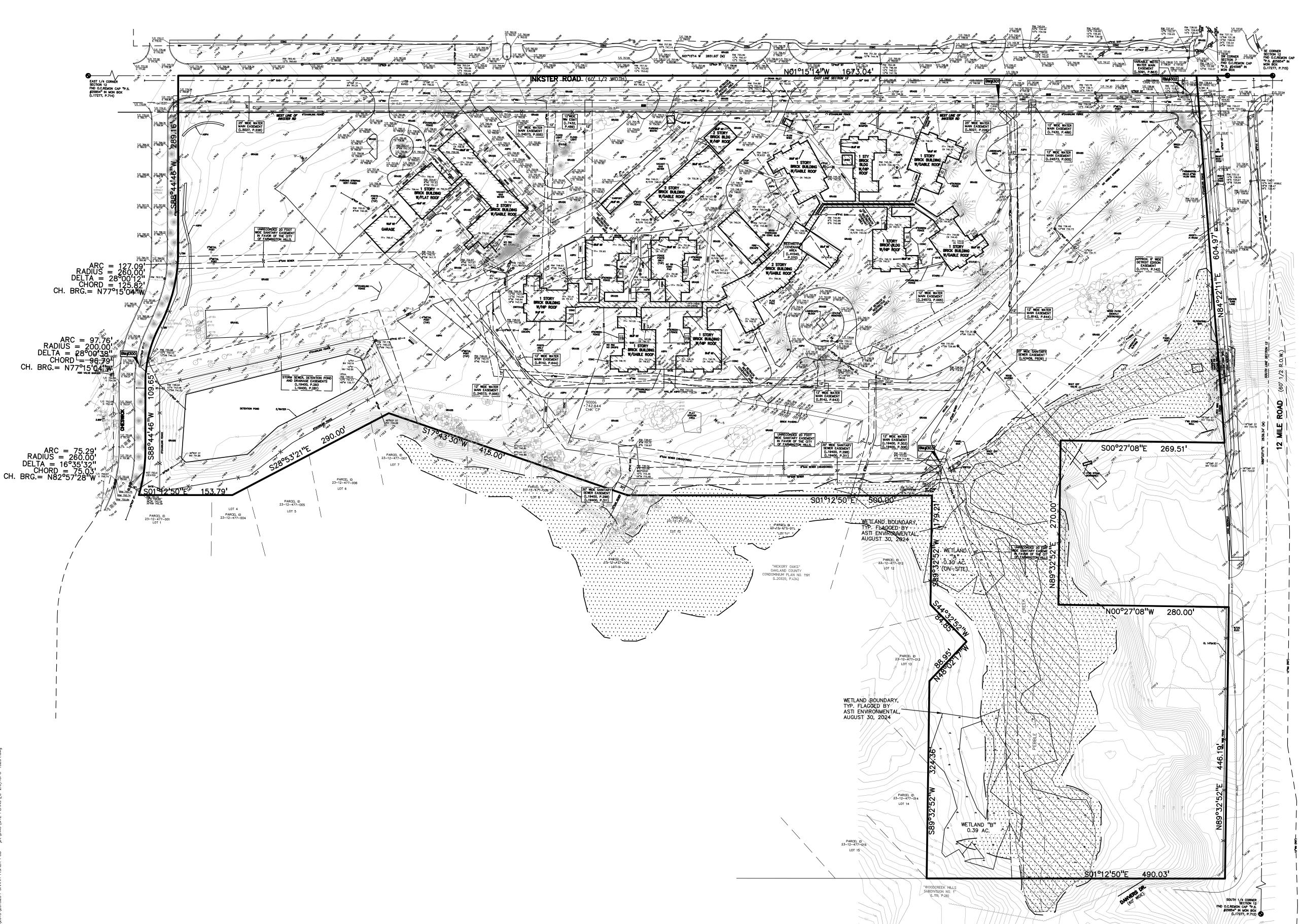
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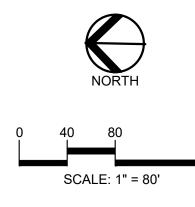
NOT FOR CONSTRUCTION

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ROBERTSON
BROTHERS
HOMES
6905 TELEGRAPH RD, STE 200
BLOOMFIELD HILLS, MI 48301

PROJECT TITLE

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PART OF THE SE & OF SECTION 12, T.01N., R.08E.
CITY OF FARMINGTON HILLS
OAKLAND COUNTY, MICHIGAN

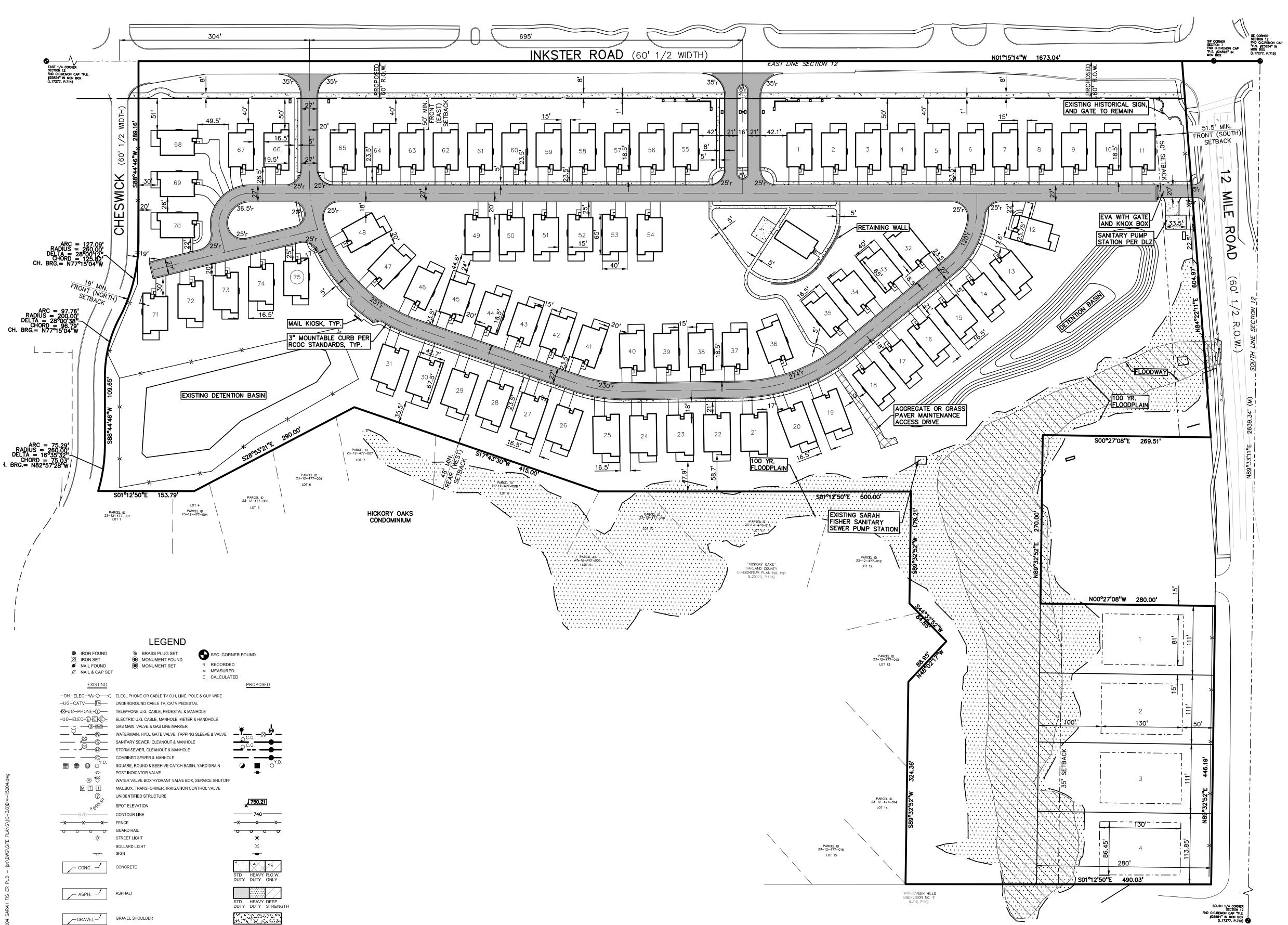
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ORIGINAL ISSUE DATE:
OCTOBER 15, 2024

DRAWING TITLE

TOPOGRAPHIC
SURVEY

PEA JOB NO.	2015-204
P.M.	JBT
DN.	LR
SUR.	KTR
DRAWING NUMBER	



THE THE THE WETLAND

SITE DATA TABLE:

SITE AREA: 31.53 ACRES GROSS 29.23 ACRES NET

ZONING: RA-1B (ONE FAMILY RESIDENTIAL)

PROPOSED USE: RESIDENTIAL PUD

BUILDING INFORMATION:

• MAXIMUM ALLOWABLE BUILDING HEIGHT = 30 FT. PROPOSED BUILDING HEIGHT = 30 FEET

• BUILDING FOOTPRINT AREA = 2,300 - 2,600 SF.

• BUILDING LOT COVERAGE = 14.5%

• TOTAL UNITS = 75 SITE CONDOS AND 4 SINGLE FAMILY LOTS = 79 TOTAL UNITS • UNIT DENSITY = 79 UNITS / 28.13 ACRES = 2.7 UNITS/ACRE

SETBACK REQUIREMENTS - SITE CONDO:	REQUIRED:	PROPOSED:
INKSTER (EAST)		
REAR YARD	50'	50'
• 12 MILE (SOUTH)		
SIDE YARD	50'	51.5'
CHESWICK (NORTH)		
SIDE YARD	50'	19' *
REAR YARD	50'	30' *
• WEST		
REAR YARD	35'	48'
BUILDING SEPARATION	-	15' **
DRIVEWAY LENGTH	-	MIN. 20'
 FRONT YARD SETBACK TO ROAD 	-	MIN. 18'
DELIEF COLICUT		

RELIEF SOUGHT ** EXCLUDING 2' BUILDING PROJECTIONS

ı			
5	SETBACK REQUIREMENTS - 12 MILE LOTS:	REQUIRED:	PROPOSED
-	FRONT (SOUTH)	50'	50'
ı	SIDE (EAST)	15'	15'
ı	SIDE (WEST)	15'	15'
ı	• REAR (NORTH)	35'	100'

RESIDENTIAL = 2 SPACES PER DWELLING

TOTAL REQUIRED PARKING = 150 SPACES

• TOTAL PROPOSED PARKING SPACES = 150 SPACES

OPEN SPACE:
• PROVIDED OPEN SPACE = 39% (11.5 ACRES)

SITE SOILS INFORMATION:
ACCORDING TO THE MCDOWELL & ASSOCIATES SOIL INVESTIGATION REPORT DATED JANUARY 20, 2022, THE SITE CONSISTS OF THE FOLLOWING SOIL TYPES:

SAND, CLAY OR SILT SOILS WITH SOME AREAS OF SAND & GRAVEL

FIRE DEPARTMENT NOTES:

1. EMERGENCY ACCESS SHALL BE MAINTAINED AT ALL TIMES; A. MINIMUM OF 18' FIRE LANES.

B. MINIMUM OF 50' TURNING RADIUS.
C. FIRE LANE SIGNS SHALL BE POSTED THROUGHOUT THE SITE AND STRICTLY ENFORCED.

2. DURING CONSTRUCTION SITE ACCESS SHALL BE MAINTAINED AND ROADWAYS SHALL BE ABLE TO SUPPORT FIRE APPARATUS WEIGHTING UP TO 25 TONS.

3. HYDRANT COVERAGE SHALL BE PROVIDED PURSUANT TO REQUIREMENTS OUTLINES IN THE CITY CODE (CHAPTER 12 SEC. 12-11 {2}).

4. FIRE SUPPRESSION HALL BE PROVIDED AND INSTALLED PURSUANT TO NFPA 13, STATE OF MICHIGAN AND FARMINGTON HILLS REQUIREMENTS. EACH FLOOR SHALL HAVE CONTROL VALVE, TAMPER SWITCH AND WATER-FLOW DEVICES INSTALLED.

5. A FIRE ALARM SYSTEM SHALL BE PROVIDED AND INSTALLED PURSUANT TO NFPA 72, STATE OF MICHIGAN AND FARMINGTON HILLS REQUIREMENTS.

GROUP

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SCALE: 1" = 80'



CAUTION!! THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

ROBERTSON BROTHERS HOMES 6905 TELEGRAPH RD, STE 200 BLOOMFIELD HILLS, MI 48301

PROJECT TITLE Debble Preek

PART OF THE SE **1**/4 OF SECTION 12, T.01N., R.08E.

CITY OF FARMINGTON HILLS OAKLAND COUNTY, MICHIGAN

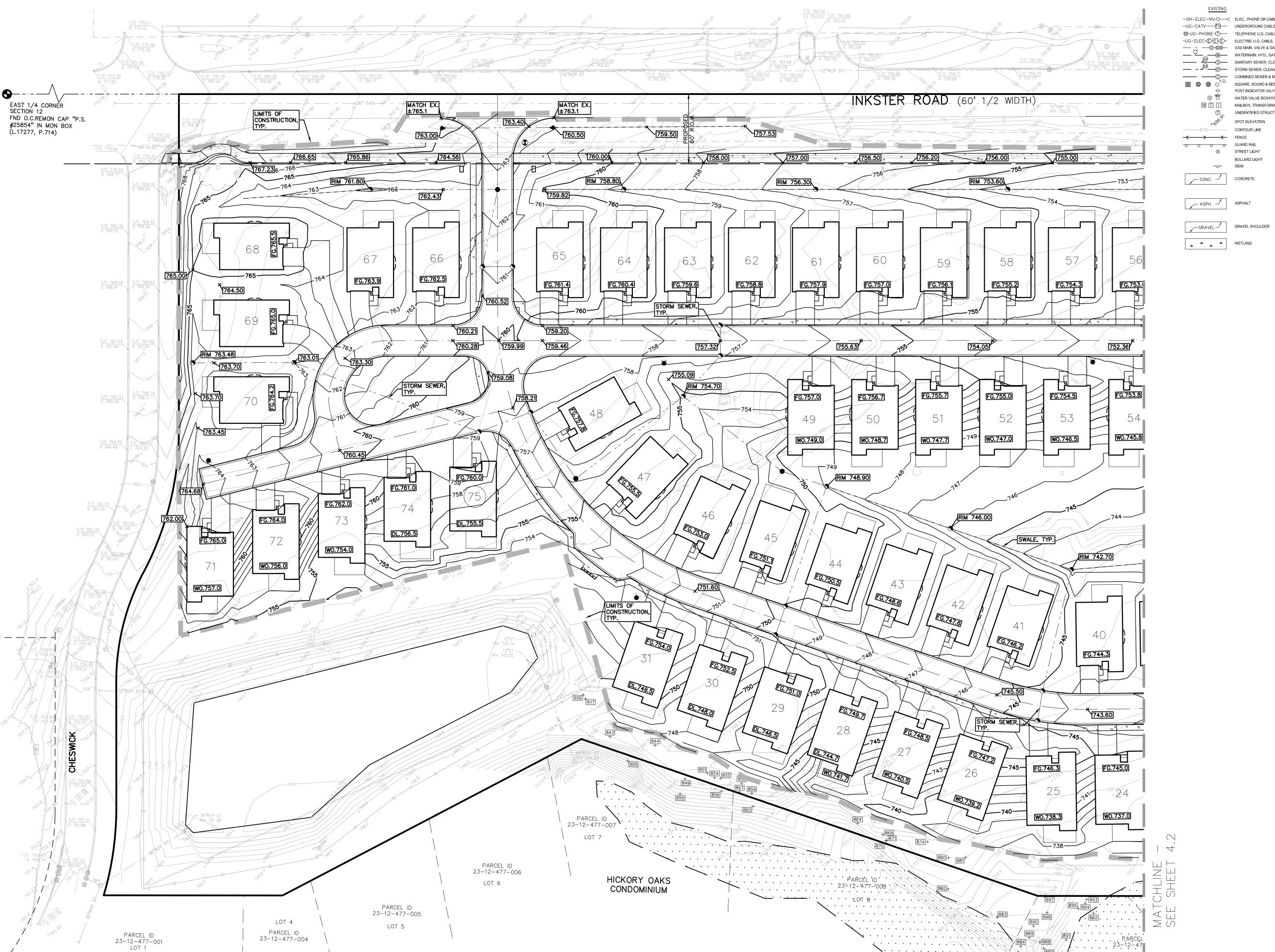
REVISIONS

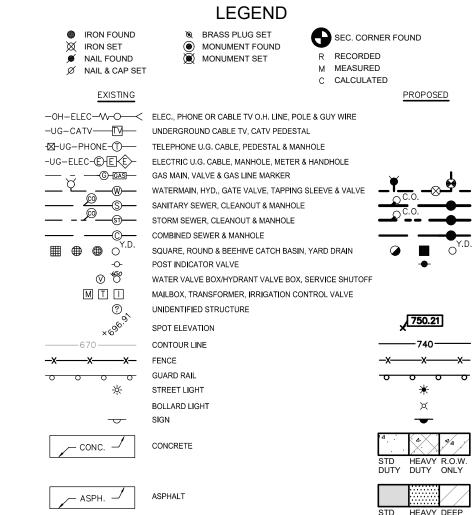
ORIGINAL ISSUE DATE: OCTOBER 15, 2024

DRAWING TITLE **PROPOSED** LAND USE PLAN

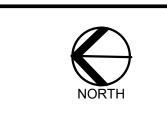
PEA JOB NO.	2015-204
P.M.	JBT
DN.	KMB
DES.	DK

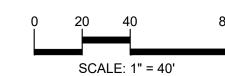
DRAWING NUMBER:





GROUP t: 844.813.2949 www.peagroup.com







CAUTION!! THE LOCATIONS!

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CLIENT ROBERTSON BROTHERS HOMES 6905 TELEGRAPH RD, STE 200 BLOOMFIELD HILLS, MI 48301

PROJECT TITLE Debble Preek PART OF THE SE X OF SECTION 12, T.01N., R.08E. CITY OF FARMINGTON HILLS OAKLAND COUNTY, MICHIGAN

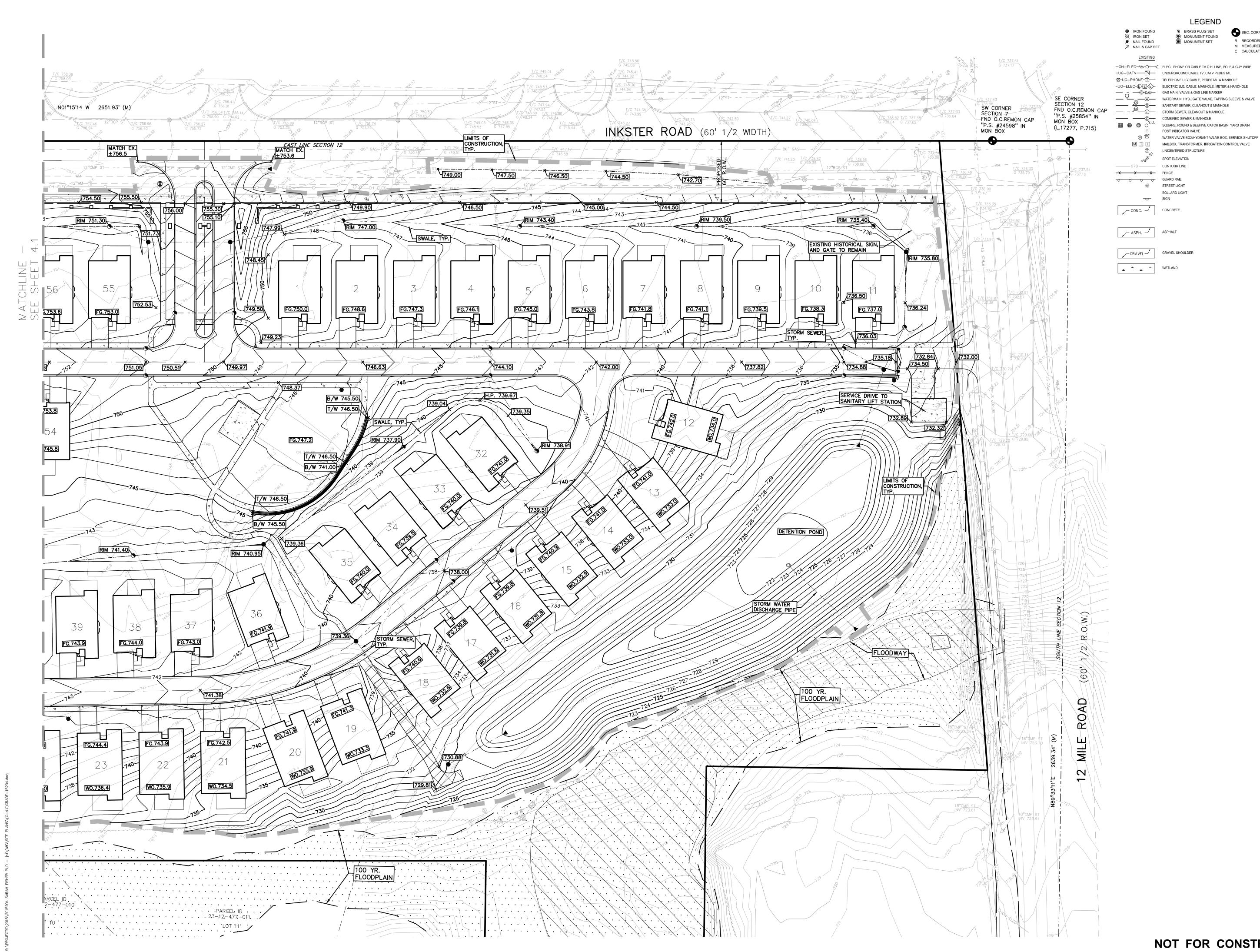
REVISIONS

OCTOBER 15, 2024 DRAWING TITLE

ORIGINAL ISSUE DATE:

GRADING PLAN

PEA JOB NO.	2015-204
P.M.	JBT
DN.	KMB
DES.	DK
DRAWING NUMBER	





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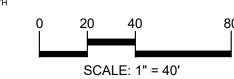
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CLIENT

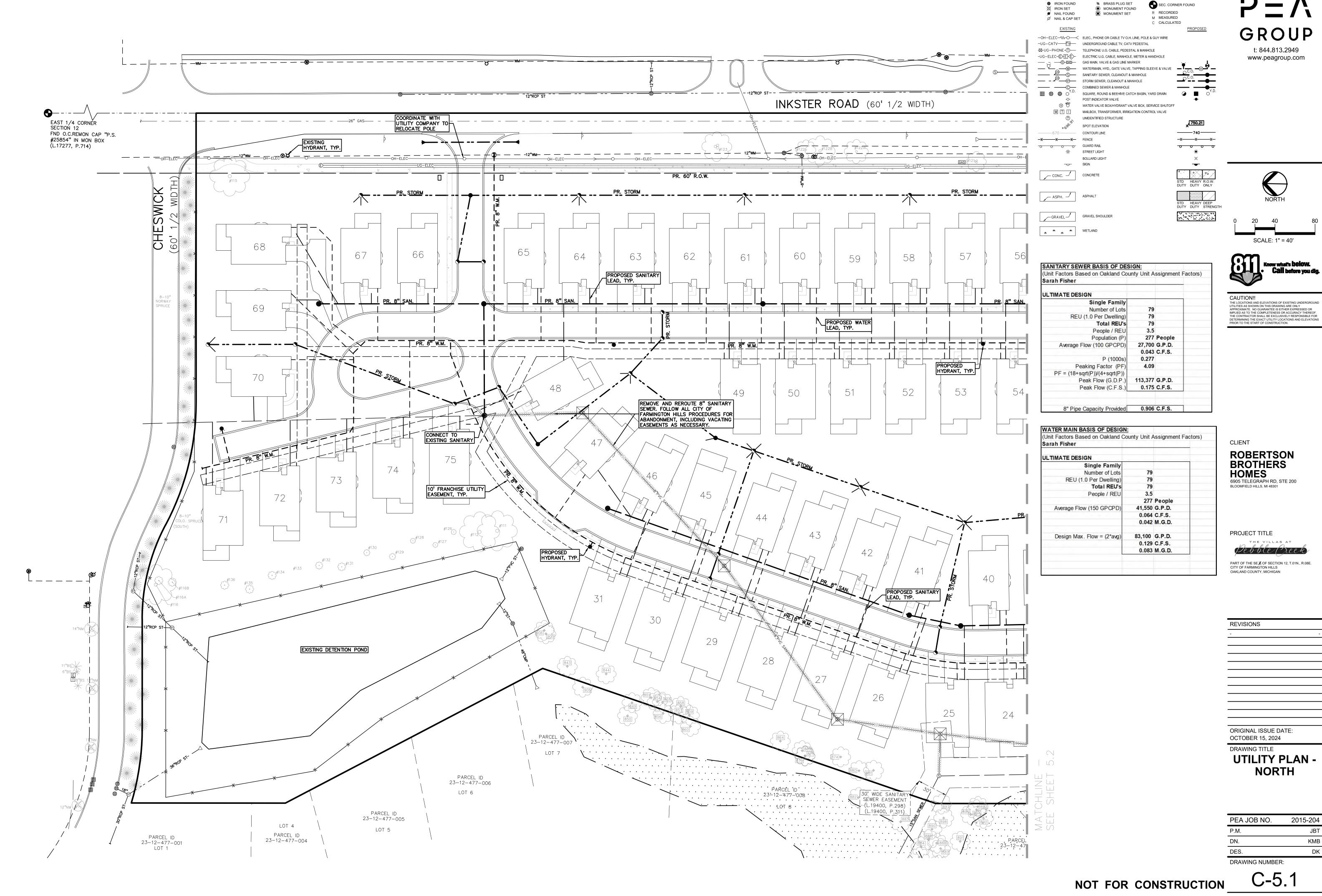
ROBERTSON BROTHERS HOMES 6905 TELEGRAPH RD, STE 200 BLOOMFIELD HILLS, MI 48301

PROJECT TITLE PART OF THE SE **X** OF SECTION 12, T.01N., R.08E. CITY OF FARMINGTON HILLS OAKLAND COUNTY, MICHIGAN

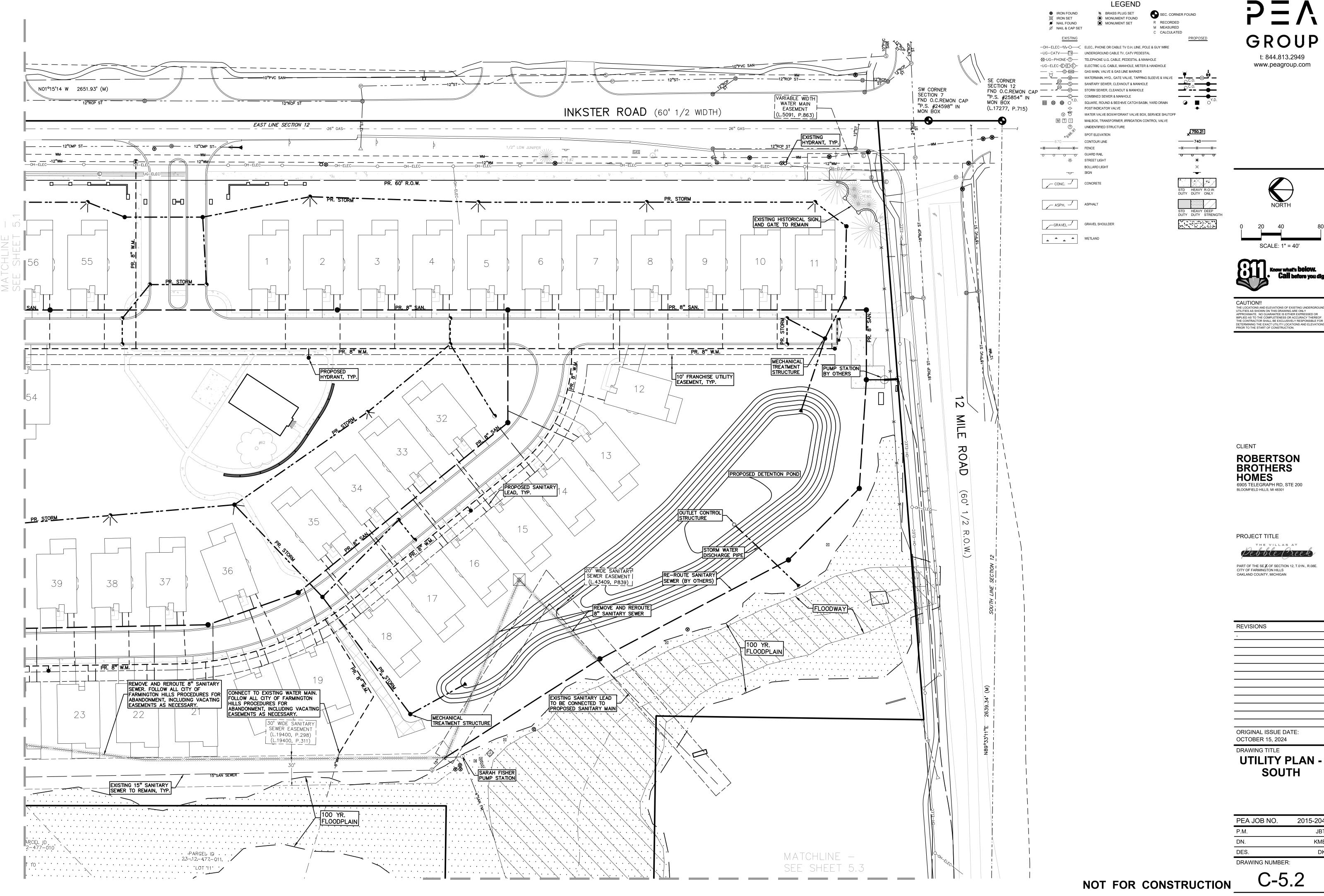
ORIGINAL ISSUE DATE: OCTOBER 15, 2024

GRADING PLAN

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LEGEND

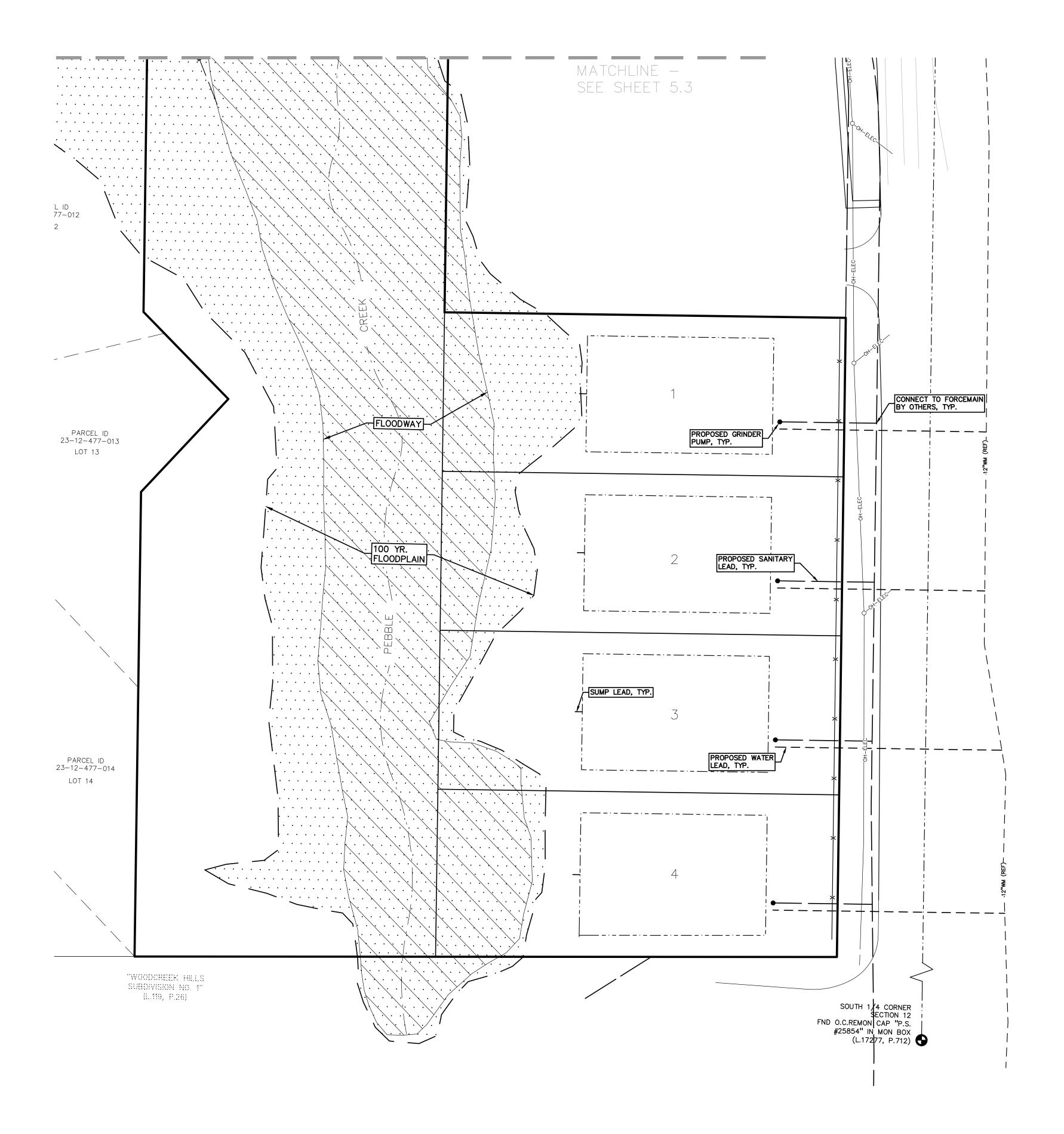


GROUP



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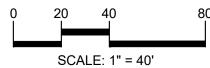
2015-204



LEGEND IRON FOUND BRASS PLUG SET MONUMENT FOUND R RECORDED MAIL FOUND MONUMENT SET Ø NAIL & CAP SET M MEASURED C CALCULATED -OH-ELEC-W-O- ELEC., PHONE OR CABLE TV O.H. LINE, POLE & GUY WIRE -UG-CATV----TV--- UNDERGROUND CABLE TV, CATV PEDESTAL -⊠-UG-PHONE-①--- TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE -UG-ELEC-E-E-E-ELECTRIC U.G. CABLE, MANHOLE, METER & HANDHOLE — — © GAS GAS MAIN, VALVE & GAS LINE MARKER
— W WATERMAIN, HYD., GATE VALVE, TAPPING SLEEVE & VALVE SANITARY SEWER, CLEANOUT & MANHOLE SQUARE, ROUND & BEEHIVE CATCH BASIN, YARD DRAIN POST INDICATOR VALVE WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF M T I MAILBOX, TRANSFORMER, IRRIGATION CONTROL VALVE UNIDENTIFIED STRUCTURE SPOT ELEVATION -----740-----CONTOUR LINE -X-X-Y-FENCE -x----x---x-OOOO GUARD RAIL BOLLARD LIGHT ── SIGN ASPH. ASPHALT









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CLIENT

ROBERTSON BROTHERS HOMES 6905 TELEGRAPH RD, STE 200 BLOOMFIELD HILLS, MI 48301

PROJECT TITLE Debble Preek

PART OF THE SE **X** OF SECTION 12, T.01N., R.08E. CITY OF FARMINGTON HILLS OAKLAND COUNTY, MICHIGAN

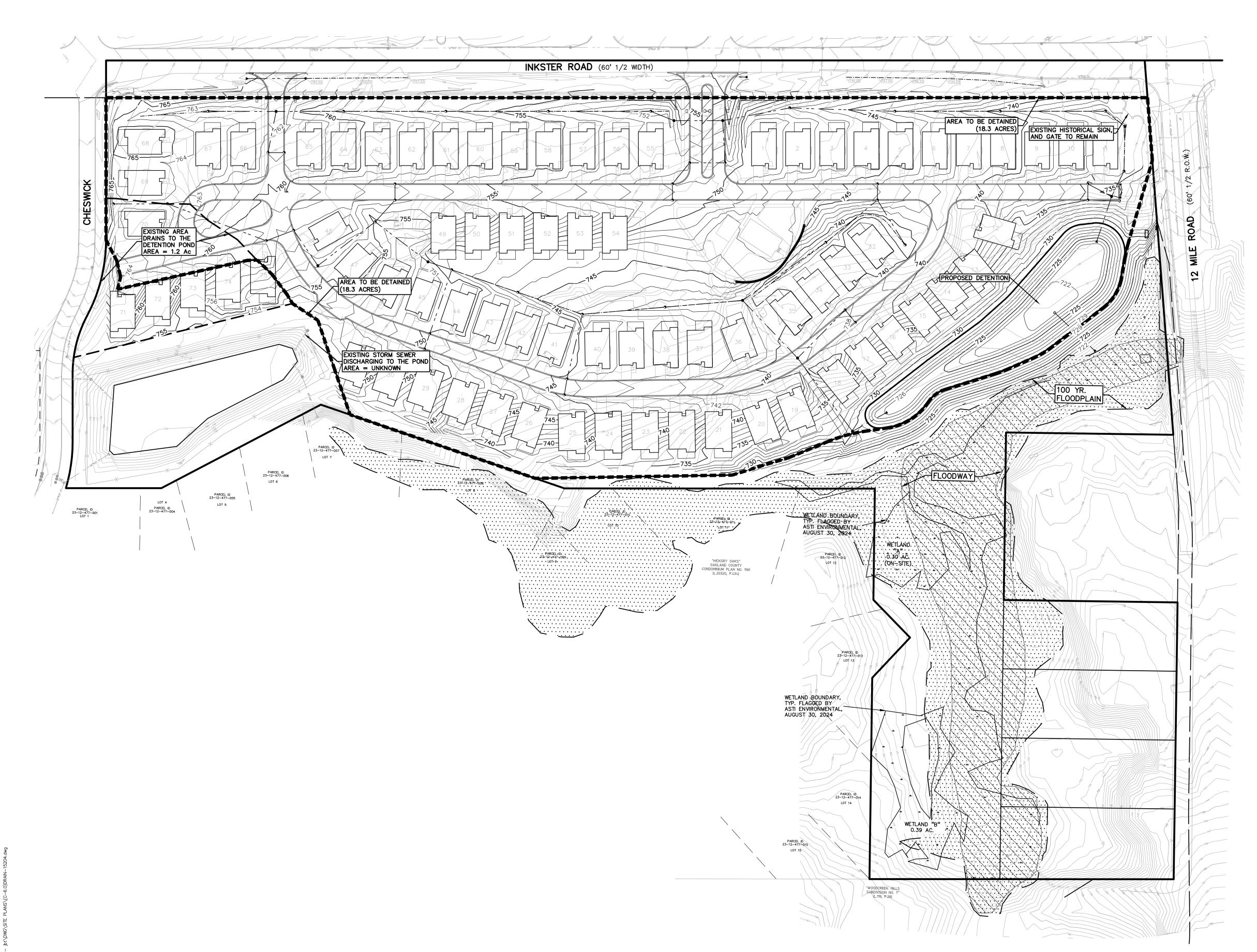
OCTOBER 15, 2024 DRAWING TITLE **UTILITY PLAN -**

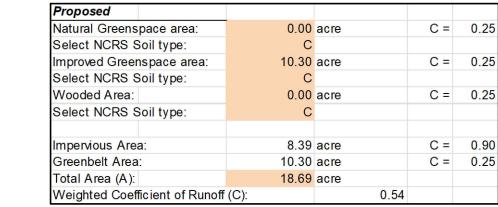
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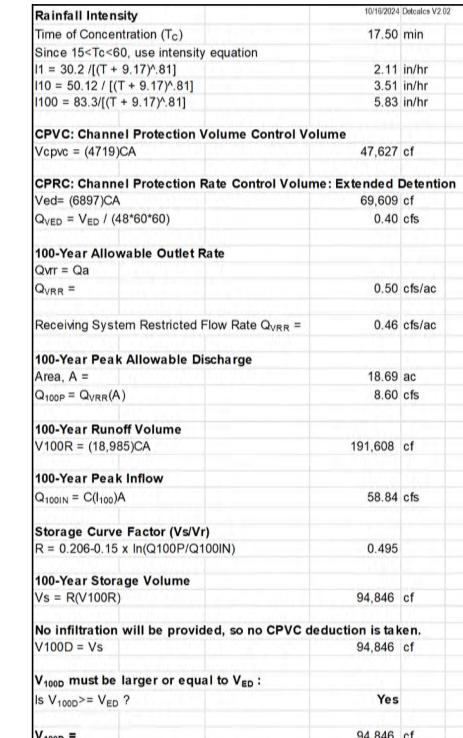
2015-204 PEA JOB NO. DES. DRAWING NUMBER:

NOT FOR CONSTRUCTION ___ C-5.3









Detention Bas	sin			
CPRC Storage	Elevation:	726.55	69,609	cf
Detention Stora	age Elevation:	727.48	94,846	cf
Elev. (ft)	Area (sf)	Vol. (cf)	Total Vol. (cf)	
721.5	0	0	0	
722.0	3,465	578	578	
723.0	11,034	7,250	7,827	
724.0	14,057	12,546	20,373	
725.0	17,394	15,726	36,098	
726.0	22,462	19,928	56,026	
727.0	27,080	24,771	80,797	
728.0	31,746	29,413	110,210	
Bottom Elevation	on of Pond:		721.50	

Rainfall Intensity	10/16/2024	Detcalcs V2.02
Time of Concentration (T _C)	17.50	min
Since 15 <tc<60, equation<="" intensity="" td="" use=""><td></td><td></td></tc<60,>		
$I1 = 30.2 / [(T + 9.17)^{.81}]$	2.11	in/hr
$110 = 50.12 / [(T + 9.17)^{\circ}.81]$	3.51	in/hr
I100 = 83.3/[(T + 9.17)^.81]	5.83	in/hr
CPVC: Channel Protection Volume Control Vo	lume	
Vepvc = (4719)CA	47,627	cf
CPRC: Channel Protection Rate Control Volum	ne: Extended	Detention
Ved= (6897)CA	69,609	cf
$Q_{VED} = V_{ED} / (48*60*60)$	0.40	cfs
100-Year Allowable Outlet Rate		
Qvr = Qa		
Q _{VRR} =	0.50	cfs/ac
Receiving System Restricted Flow Rate Q _{VRR} =	0.46	cfs/ac
100-Year Peak Allowable Discharge		
Area, A =	18.69	ac
$Q_{100P} = Q_{VRR}(A)$	8.60	cfs
100-Year Runoff Volume		
V100R = (18,985)CA	191,608	cf
100-Year Peak Inflow		
$Q_{100IN} = C(I_{100})A$	58.84	cfs
Storage Curve Factor (Vs/Vr)		
R = 0.206-0.15 x ln(Q100P/Q100IN)	0.495	
100-Year Storage Volume		
Vs = R(V100R)	94,846	cf
No infiltration will be provided, so no CPVC de	duction is tal	en.
V100D = Vs	94,846	cf
V _{100D} must be larger or equal to V _{ED} :		
Is V _{100D} >= V _{ED} ?	Yes	
V _{100D} =	94,846	cf
TOVE	5.,576	

CLIENT ROBERTSON BROTHERS HOMES 6905 TELEGRAPH RD, STE 200 BLOOMFIELD HILLS, MI 48301

SCALE: 1" = 80'

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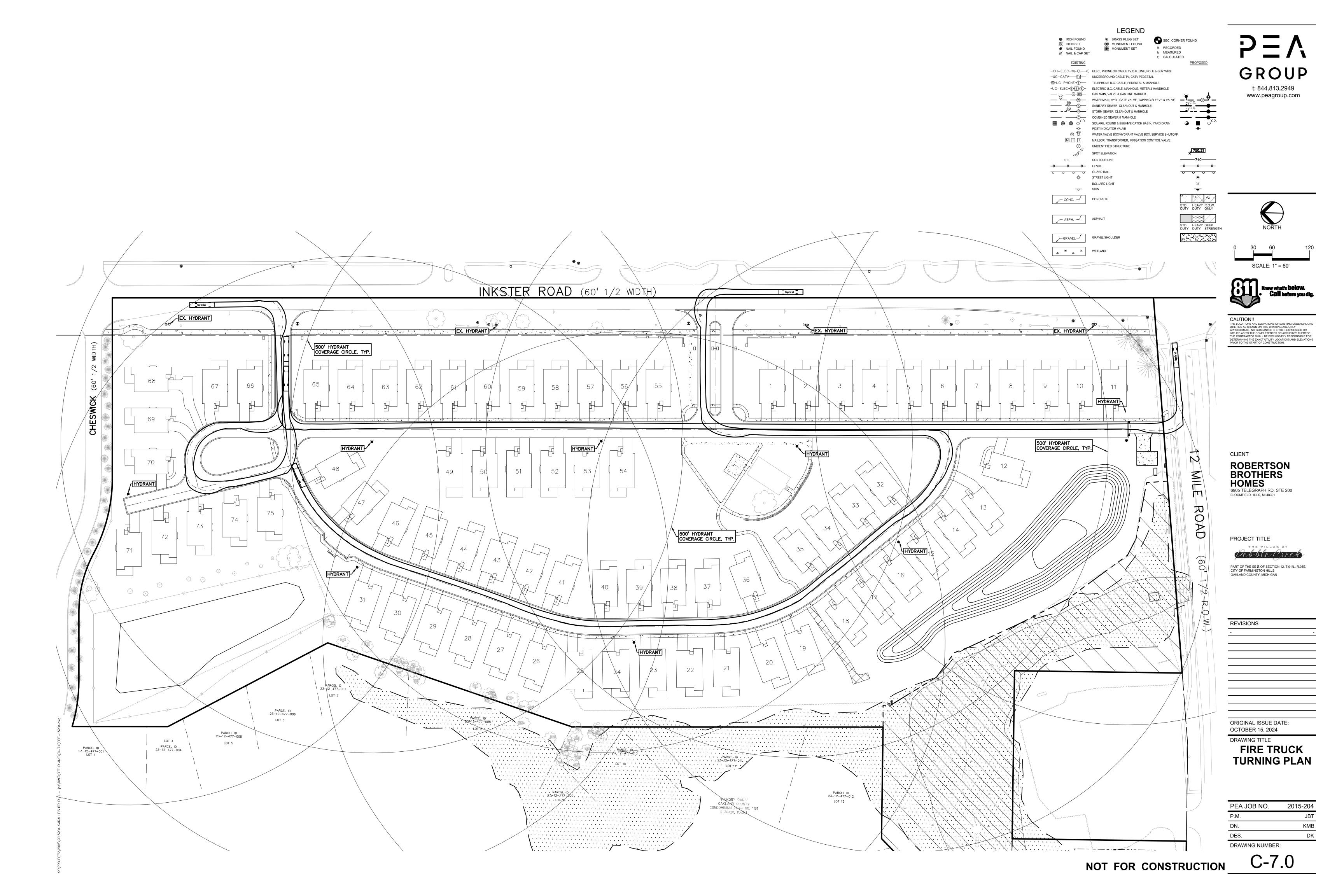
CAUTION!!

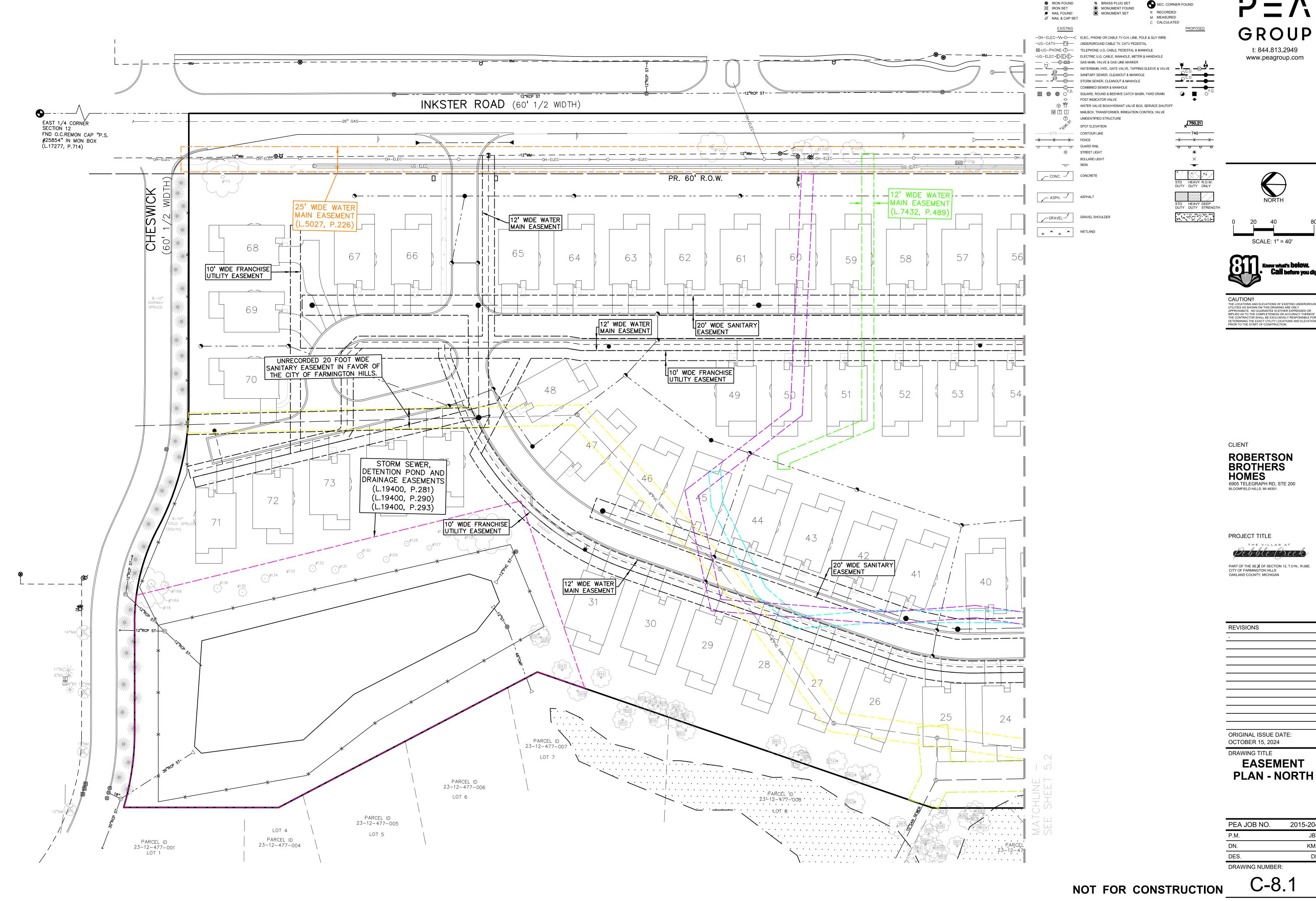
PROJECT TITLE Debble Preek PART OF THE SE $I\!\!\!/$ OF SECTION 12, T.01N., R.08E. CITY OF FARMINGTON HILLS OAKLAND COUNTY, MICHIGAN

ORIGINAL ISSUE DATE: OCTOBER 15, 2024

PRELIMINARY **DRAINAGE PLAN**

PEA JOB NO.	2015-204
P.M.	JBT
DN.	KME
DES.	DŁ
DRAWING NUMBER:	





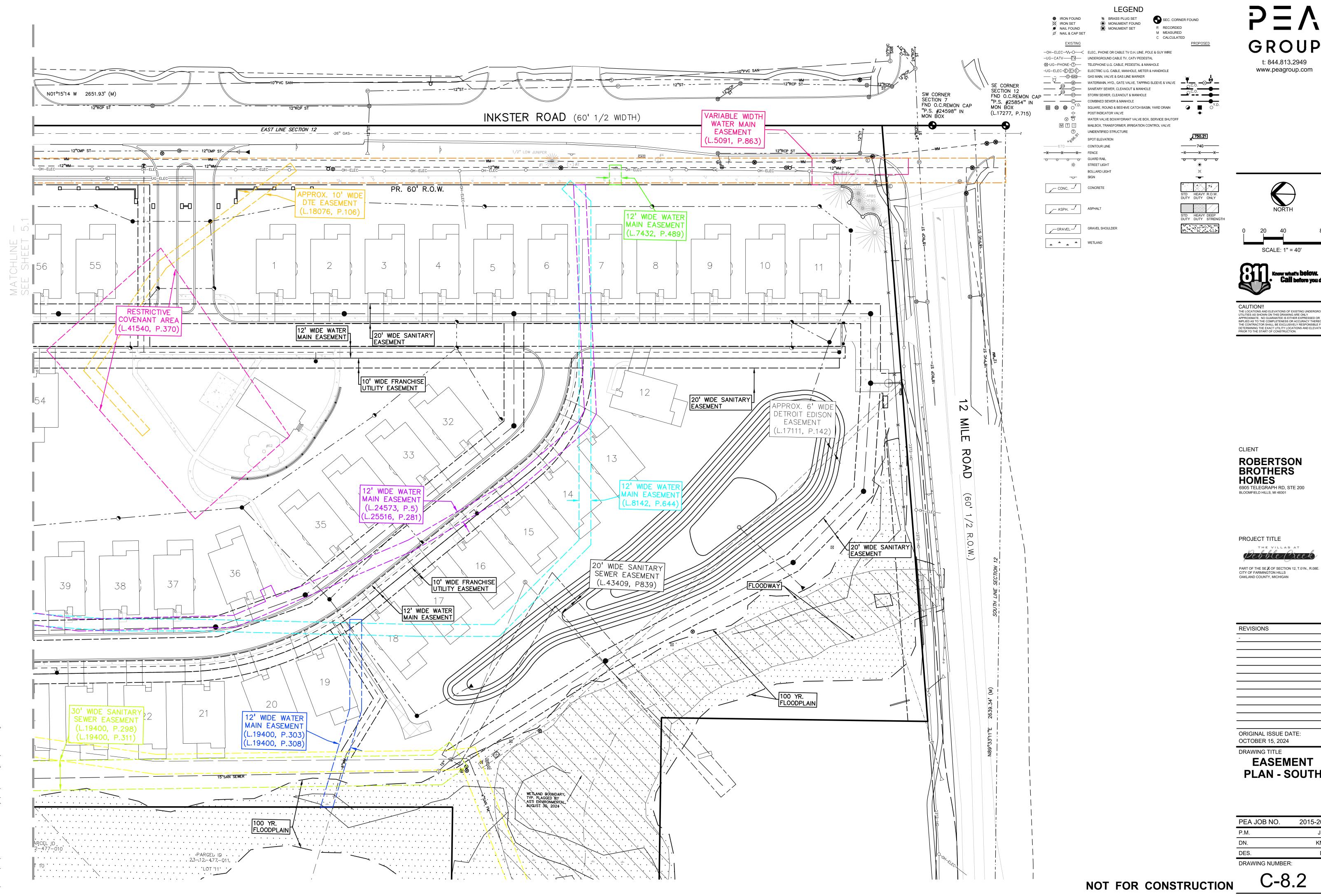
LEGEND





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2015-204



GROUP

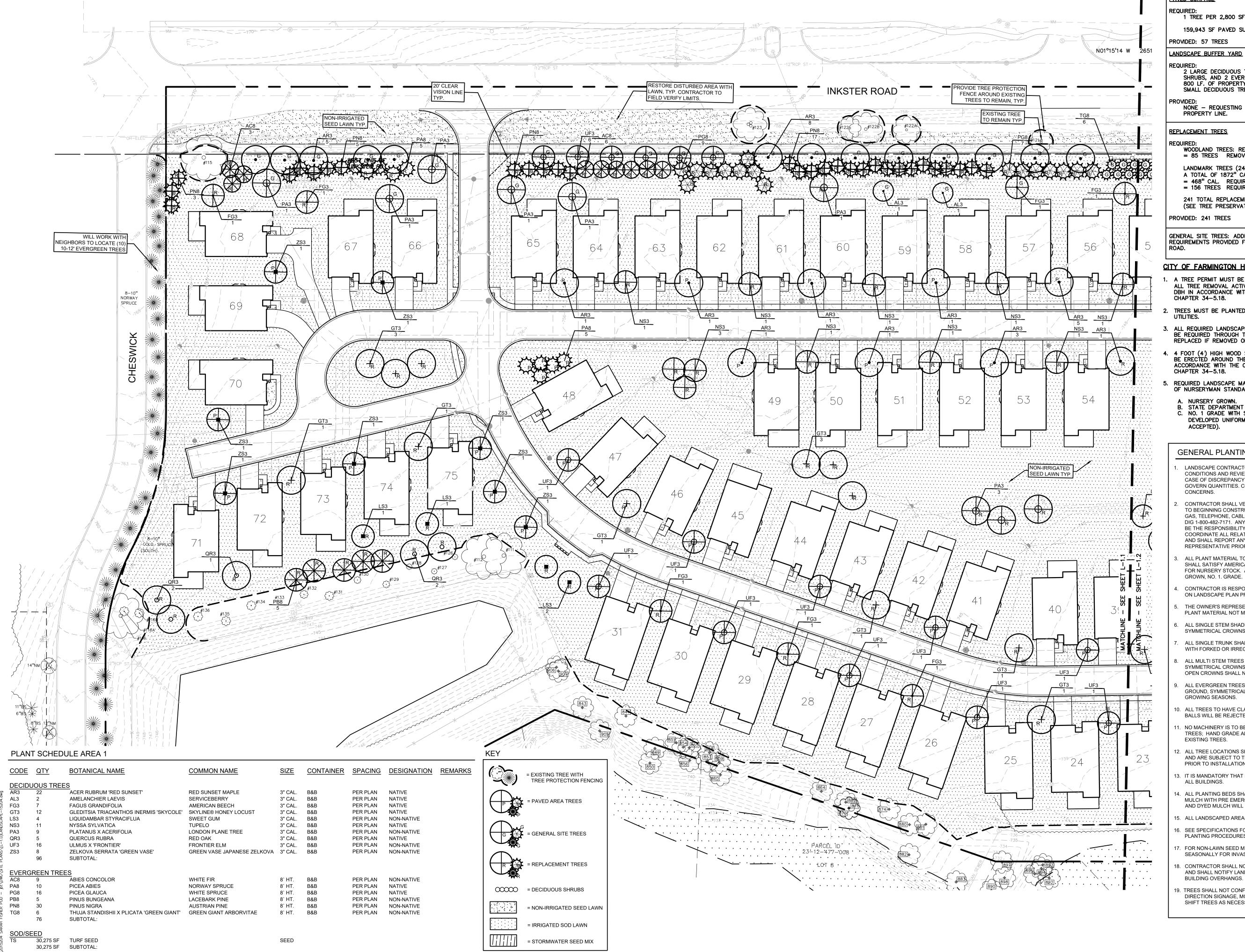




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PLAN - SOUTH

2015-204



LANDSCAPE CALCULATIONS:
PER THE CITY OF FARMINGTON HILLS ZONING ORDINANCE

PAVED SURFACE

1 TREE PER 2,800 SF OF PAVED SURFACE

159,943 SF PAVED SURFACE / 2,800 SF = 57.12 = 57 TREES

LANDSCAPE BUFFER YARD

2 LARGE DECIDUOUS TREES, 4 SMALL DECIDUOUS TREES, 6 LARGE SHRUBS, AND 2 EVERGREEN TREES PER 100 LF. 800 LF. OF PROPERTY LINE = 16 LARGE DECIDUOUS TREES, 32 SMALL DECIDUOUS TREES, 48 LARGE SHRUBS, AND 16 EVERGREENS

NONE - REQUESTING WAIVER DUE TO EXISTING VEGETATION ALONG

WOODLAND TREES: REPLACE REMOVED TREES AT 1:1
= 85 TREES REMOVED, 60 TREES REQUIRED FOR REPLACEMENT.

LANDMARK TREES (24" CAL. OR GREATER): 60 TREES REMOVED WITH A TOTAL OF 1872" CAL. AT 25% REPLACEMENT = 468" CAL. REQUIRED FOR REPLACEMENT / 3" CAL. TREES = 156 TREES REQUIRED FOR REPLACEMENT.

241 TOTAL REPLACEMENT TREES REQUIRED (SEE TREE PRESERVATION PLANS FOR DETAILS)

GENERAL SITE TREES: ADDITIONAL 56 TREES ABOVE ORDINANCE REQUIREMENTS PROVIDED FOR ADDITIONAL SCREENING ALONG INKSTER

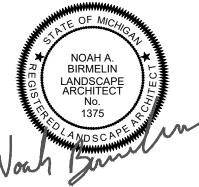
CITY OF FARMINGTON HILLS REQUIRED NOTES:

- A TREE PERMIT MUST BE OBTAINED FROM THE PLANNING OFFICE PRIOR TO ALL TREE REMOVAL ACTIVITY INVOLVING TREES SIX INCHES (6") OR MORE DBH IN ACCORDANCE WITH THE CITY OF FARMINGTON HILLS ZONING CHAPTER 34-5.18.
- 2. TREES MUST BE PLANTED NO CLOSER THAN SIX FEET (6') TO PUBLIC
- 3. ALL REQUIRED LANDSCAPE MATERIAL INDICATED ON APPROVED PLANS WILL BE REQUIRED THROUGH THE LIFE OF THE PROJECT AND MUST BE REPLACED IF REMOVED OR DEAD.
- 4 FOOT (4') HIGH WOOD SNOW FENCING OR OTHER RIGID MATERIAL IS TO BE ERECTED AROUND THE DRIP LINE OF ALL TREES TO BE SAVED IN ACCORDANCE WITH THE CITY OF FARMINGTON HILL ZONING ORDINANCE
- 5. REQUIRED LANDSCAPE MATERIAL SHALL SATISFY AMERICAN ASSOCIATION OF NURSERYMAN STANDARDS AND BE:
- B. STATE DEPARTMENT OF AGRICULTURE INSPECTED. C. NO. 1 GRADE WITH STRAIGHT UNSCARRED TRUNK AND WELL DEVELOPED UNIFORM CROWN (PARK GRADE TREES WILL NOT BE ACCEPTED).

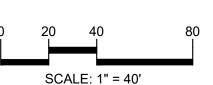
GENERAL PLANTING NOTES:

- LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING SITE CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION ON HIS/HER PHASE OF WORK. ELECTRIC, GAS, TELEPHONE, CABLE TELEVISION MAY BE LOCATED BY CALLING MISS DIG 1-800-482-7171. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF CONTRACTOR. CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES ON THE JOB AND SHALL REPORT ANY UNACCEPTABLE JOB CONDITIONS TO OWNER'S REPRESENTATIVE PRIOR TO COMMENCING.
- ALL PLANT MATERIAL TO BE PREMIUM GRADE NURSERY STOCK AND SHALL SATISFY AMERICAN ASSOCIATION OF NURSERYMEN STANDARD FOR NURSERY STOCK. ALL LANDSCAPE MATERIAL SHALL BE NORTHERN
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON LANDSCAPE PLAN PRIOR TO PRICING THE WORK.
- THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.
- ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.
- ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER; TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED.
- ALL MULTI STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNS. ONE SIDED TREES OR THOSE WITH THIN OR OPEN CROWNS SHALL NOT BE ACCEPTED.
- ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE GROWING SEASONS.
- D. ALL TREES TO HAVE CLAY OR CLAY LOAM BALLS, TREES WITH SAND BALLS WILL BE REJECTED.
- . NO MACHINERY IS TO BE USED WITHIN THE DRIP LINE OF EXISTING TREES; HAND GRADE ALL LAWN AREAS WITHIN THE DRIP LINE OF
- 2. ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT MATERIAL.
- 13. IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM
- . ALL PLANTING BEDS SHALL RECEIVE 3" SHREDDED HARDWOOD BARK MULCH WITH PRE EMERGENT, SEE SPECIFICATIONS. SHREDDED PALETTE AND DYED MULCH WILL NOT BE ACCEPTED.
- 5. ALL LANDSCAPED AREAS SHALL RECEIVE 3" COMPACTED TOPSOIL.
- 16. SEE SPECIFICATIONS FOR ADDITIONAL COMMENTS, REQUIREMENTS, PLANTING PROCEDURES AND WARRANTY STANDARDS.
- FOR NON-LAWN SEED MIX AREAS, AS NOTED ON PLAN, BRUSH MOW ONCE SEASONALLY FOR INVASIVE SPECIES CONTROL.
- . CONTRACTOR SHALL NOT INSTALL PLANTS UNDER BUILDING OVERHANG AND SHALL NOTIFY LANDSCAPE ARCHITECT IF DRAWINGS CONFLICT WITH BUILDING OVERHANGS.
- 19. TREES SHALL NOT CONFLICT/ BLOCK PROPOSED REGULATORY/ DIRECTION SIGNAGE, MONUMENT SIGNS, ADDRESS OR LIGHT POLES. SHIFT TREES AS NECESSARY TYP.

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CLIENT

ROBERTSON BROTHERS HOMES 6905 TELEGRAPH RD, STE 200 BLOOMFIELD HILLS, MI 48301

PROJECT TITLE

OAKLAND COUNTY, MICHIGAN

THE VILLAS AT Pebble Preek

PART OF THE SE **¼** OF SECTION 12, T.01N., R.08E. CITY OF FARMINGTON HILLS

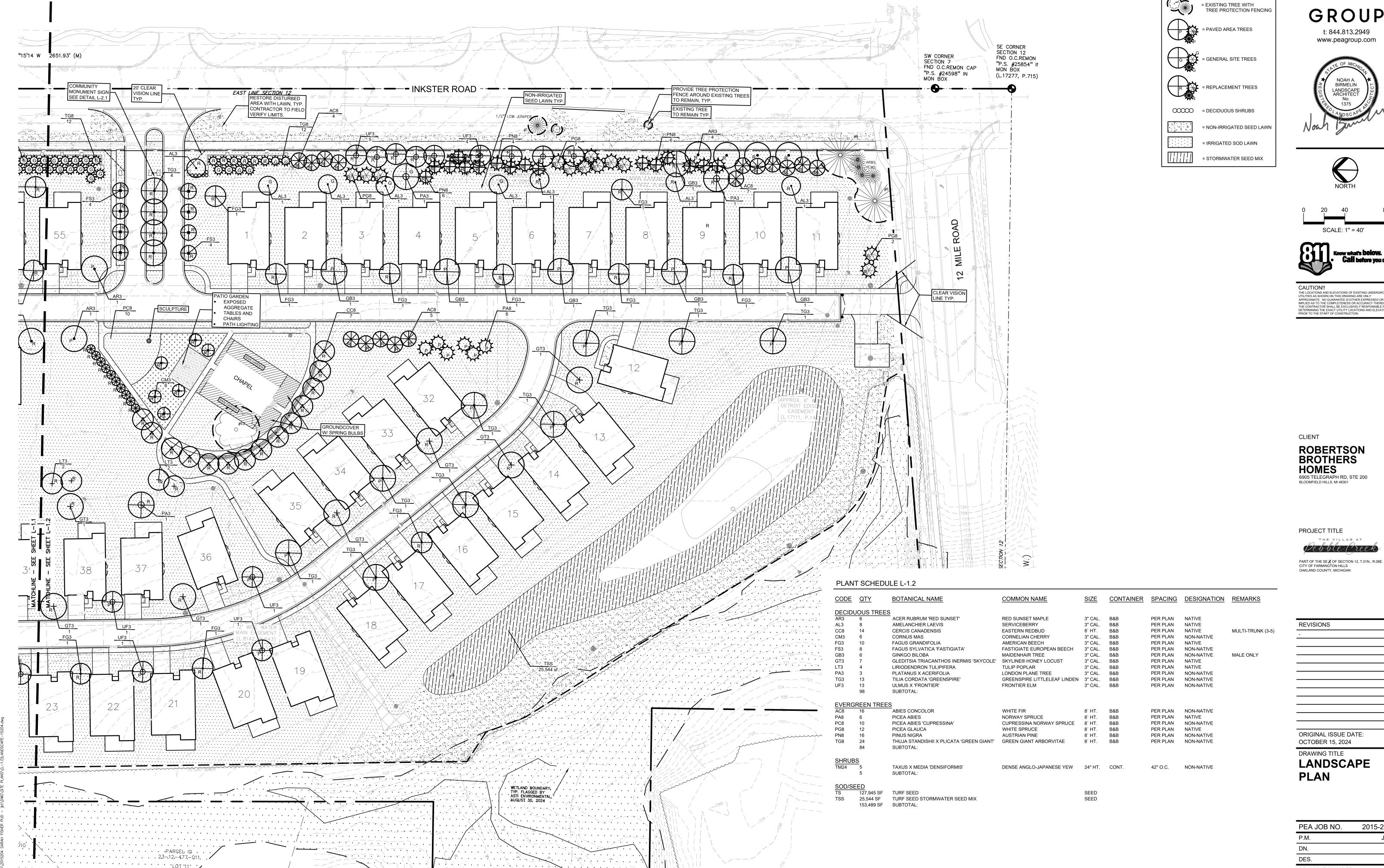
REVISIONS

ORIGINAL ISSUE DATE:

OCTOBER 15, 2024 DRAWING TITLE

LANDSCAPE PLAN

PEA JOB NO.	2015-204
P.M.	JBT
DN.	SS
DES.	NB
DRAWING NUMBER:	



GROUP



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PEA JOB NO.	2015-204
P.M.	JBT
DN.	SS
DES.	NB
DRAWING NUMBER:	

FOR ALL SEED MIXES, PROVIDE EROSION MAT ON SLOPES AND AREAS OF WASH OUT TYP. INSTALL AND PREP PER MANUFACTURES SPECIFICATIONS.

NATIVE SEED MIX, BY STANTEC NATIVE PLANT NURSERY, 574-586-2412, OR EQUAL SPECIES TO BE NATIVE TO COUNTY, NO INVASIVE SPECIES ALLOWED

FOR ALL SEED MIXES, PROVIDE EROSION MAT ON SLOPES AND AREAS OF WASH OUT TYP. INSTALL AND PREP PER MANUFACTURES SPECIFICATIONS.

Stormwater Seed Mix Stantec Native Plant Nursery 574-586-2412 stantec.com/native-plant-nursery

<u>Botanical Name</u> Common Name Permanent Grasses/Sedges/Rushes: Bolboschoenus fluviatilis River Bulrush Carex cristatella Crested Oval Sedge Carex lurida Bottlebrush Sedge Carex vulpinoidea Brown Fox Sedge Elymus virginicus Virginia Wild Rye Glyceria striata Fowl Manna Grass Juncus effusus Common Rush Rice Cut Grass Leersia oryzoides Switch Grass Panicum virgatum Schoenoplectus tabernaemontani Softstem Bulrush Dark Green Rush Scirpus atrovirens Wool Grass Scirpus cyperinus

Temporary Cover: Common Oat Avena sativa

Lolium multiflorum

Forbs & Shrubs: Water Plantain (Various Mix) Alisma spp. Asclepias incamata Swamp Milkweed Bidens spp. Bidens (Various Mix) Helenium autumnale Sneezeweed Blue Flag Iris virginica Lycopus americanus Common Water Horehound Mimulus ringens Monkey Flower Oligoneuron riddellii Riddell's Goldenrod

Annual Rye

Ditch Stonecrop Penthorum sedoides Pinkweed (Various Mix) Polygonum spp. Sweet Black-Eyed Susan Rudbeckia subtomentosa Rudbeckia triloba Brown-Eyed Susan Sagittaria latifolia Common Arrowhead Wild Senna Senna hebecarpa Symphyotrichum novae-angliae New England Aster Thalictrum dasycarpum Purple Meadow Rue



SALSBURY REGENCY CLUSTER BOX WITH 16 UNITS NOT TO SCALE

SHOVEL CUT BED EDGE APPROX. 45° 2" SHREDDED HARDWOOD MULCH FINISH GRADE — PREPARED BACKFILL MIX

VARIES PER

SPECIES SEE

PLAN FOR QUANTITY

PLANT PERENNIALS EQUAL DISTANCE IN

UNLESS NOTED OR GRAPHICALLY SHOWN

ALL SPACING IS TO BE TRIANGULAR

3" SHREDDED BARK MULCH. DO NOT

PILE MULCH AGAINST PLANT STEMS

SHOVEL CUT EDGE OR ALUMINUM

EDGING AS INDICATED ON PLAN

- SPECIFIED PLANTING MIX

NOTE: REMOVE ALL CONTAINERS PRIOR

ALL DIRECTIONS

CUT BED EDGE DETAIL SCALE: 1'' = 1'-0''

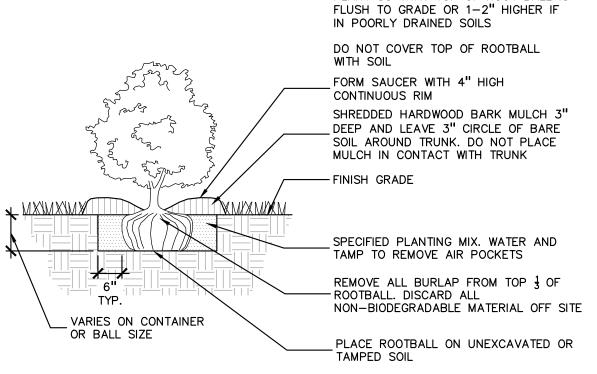
VARIES PER SPECIES SEE

PLAN FOR QUANTITY

PLAN VIEW

SECTION VIEW

PERENNIAL PLANTING DETAIL



PLANT SO THAT TOP OF ROOT BALL IS

SHRUB PLANTING DETAIL SCALE: 1'' = 2' - 0''

DO NOT PRUNE TERMINAL LEADER OR DO NOT AMEND SOIL UNLESS PLANTING IN POOR OR SEVERELY DISTURBED SOIL OR BUILDING RUBBLE. USE WATER TO SETTLE SOIL AND REMOVE AIR REMOVE NURSERY APPLIED TAPE OR STRING POCKETS AND FIRMLY SET TREE. -FROM TREE BRANCHES OR TRUNK. REMOVE GENTLY TAMP IF NEEDED. ANY TAGS OR LABELS. STAKE TREES WITH 2-3" WIDE BELT-LIKE, NYLON OR PLASTIC STRAPS (2 PER TREE ON OPPOSITE SIDES OF TREE, CONNECT FROM TREE TO STAKE HORIZONTALLY. DO NOT USE ROPE OR WIRE THROUGH A HOSE). REMOVE ALL STAKING MATERIALS AFTER 1 YEAR. LOOSELY STAKE TREE TRUNK TO ALLOW FOR TRUNK FLEXING. STAKE WITH 2"X2" HARDWOOD STAKES OR - APPROVED EQUAL DRIVEN 6"-8" OUTSIDE OF MULCH 2-3" DEEP LEAVING A 3" CIRCLE OF BARE SOIL AROUND TRUNK OF THE TREE 4" HIGH EARTH SAUCER INSIDE EDGE OF ROOTBALL SET ROOTBALL LEVEL TO GRADE OR SLIGHTLY ABOVE GRADE IF IN CLAY. FOLD DOWN OR PULL BACK STRING, BURLAP OR PLASTIC EXPOSING TOP HALF OF -ROOTBALL. REMOVE ALL NON-DEGRADABLE MATERIALS. DO NOT REMOVE SOIL FROM CENTER ROOTBALL IN PLANTING HOLE. BREAK UP (SCARCIFY) SIDES OF PLANTING HOLE. LEAVE BOTTOM OF PLANTING HOLD

MINIMUM AT BASE 12" FROM ROOTBALL

TOP HOLE WIDTH = 3X WIDTH OF ROOTBALL

EVERGREEN TREE PLANTING AND STAKING DETAIL

FENCE SHALL BE PLACED IN A CIRCLE WITH A RADIUS OF 1' PER 1" DIAMETER OF THE TREE MEASURED AT 4.5' ABOVE GROUND. ROOT ZONE 4' HT. PROTECTIVE WOOD SNOW FENCE OR SIMILAR STURDY STOCK MATERIAL WITH -METAL STAKES, 10' O.C. NO CLOSER THAN 6' FROM TRUNK OR AT THE DRIP LINE, WHICHEVER IS GREATER PER FARMINGTON 4' HIGH PROTECTIVE FENCING WITH STEEL POSTS - 10' O.C. EXISTING SOIL TREE PROTECTION DETAIL SCALE: 1'' = 3'-0''

DO NOT AMEND SOIL UNLESS PLANTING IN POOR OR SEVERELY DO NOT PRUNE TERMINAL LEADER OR BRANCHES TIPS DISTURBED SOIL OR BUILDING RUBBLE. USE WATER TO SETTLE PRUNE AWAY DEAD OR BROKEN SOIL AND REMOVE AIR POCKETS BRANCHES ONLY AND FIRMLY SET TREE. GENTLY TAMP IF NEEDED. REMOVE NURSERY APPLIED TAPE OR STRING FROM TREE BRANCHES OR TRUNK. REMOVE ANY TAGS OR LABELS. - PRUNE SUCKERS OFF SET ROOTBALL LEVEL WITH TRUNK -FLARE VISIBLE, LEVEL TO GRADE OR SLIGHTLY ABOVE GRADE IF IN CLAY. MULCH 2-3" DEEP LEAVING A 3" CIRCLE OF BARE SOIL AROUND TRUNK
OF THE TREE 4" HIGH EARTH SAUCER INSIDE EDGE OF ROOTBALL FOLD DOWN OR PULL BACK STRING, BURLAP OR PLASTIC EXPOSING TOP HALF OF ROOTBALL. REMOVE ALL NON-DEGRADABLE MATERIALS. DO NOT REMOVE SOIL FROM ROOTBALL. BREAK UP (SCARIFY) SIDES OF PLANTING HOLE. LEAVE BOTTOM OF PLANTING HOLD FIRM. MINIMUM AT BASE 12" FROM ROOTBALL TOP HOLE WIDTH = 3X WIDTH OF ROOTBALL <u>DECIDUOUS TREE PLANTING DETAIL</u>

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BIRMELIN

CLIENT **ROBERTSON BROTHERS HOMES** 6905 TELEGRAPH RD, STE 200 BLOOMFIELD HILLS, MI 48301

PROJECT TITLE

OAKLAND COUNTY, MICHIGAN

Debble Preek PART OF THE SE // OF SECTION 12, T.01N., R.08E.

ORIGINAL ISSUE DATE: OCTOBER 15, 2024 DRAWING TITLE

> LANDSCAPE **DETAILS**

PEA JOB NO. 2015-204 JBT DN. SS DRAWING NUMBER:

 Community Sign Proposed Area = 31.25 SF — 6" ht. Precast Concrete Wall CMU Wall with Brick Veneer, — 3'x3' Brick Columns, typ. Height — 8" ht. Precast Concrete Column Cap, Cap, typ. typ. Height and brick color varies and brick color varies per per Elevation Detail Elevation Detail — 4' ht. Decorative Aluminum Fence, typ. Pebble Creek Brick Elements shall be new, Dark Charcoal color Brick Elements shall be reclaimed from Existing Structures Brick Elements shall be new, Dark Charcoal color

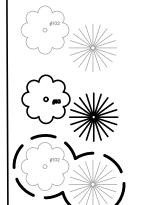
ENTRY FEATURE ELEVATION

NOT TO SCALE

NOT FOR CONSTRUCTION



LEGEND



EXISTING TREES

EXISTING TREES TO BE REMOVED

TREES TO BE SAVED WITH TREE PROTECTION FENCE

STANDARD TREES **85** (1:1 REPLACEMENT) STANDARD TREES REMOVED:

LANDMARK TREES LANDMARK TREES REMOVED: **1872** (25% DBH REPLACEMENT) LANDMARK TREE DBH REMOVED: 468 INCHES REPLACMENT DBH REQUIRED:

TREE REPLACEMENT REQUIREMENTS:

WOODLAND TREES: REPLACE REMOVED TREES AT 1:1 = 85 TREES REMOVED, 85 TREES REQUIRED FOR REPLACEMENT. LANDMARK TREES (24" CAL. OR GREATER): 60 TREES REMOVED WITH A TOTAL OF 1872" CAL.

AT 25% REPLACEMENT = 468" CAL. REQUIRED FOR REPLACEMENT / 3" CAL. TREES = 156 TREES REQUIRED FOR REPLACEMENT.

241 TOTAL REPLACEMENT TREES REQUIRED (SEE T-1.2 FOR TREE PRESERVATION LIST)

TREES TO BE REMOVED MUST BE MARKED IN THE FIELD WITH RED PAINT OR FLAGS AND INSPECTED BY THE PLANNING OFFICE PRIOR TO ANY TREES BEING REMOVED.

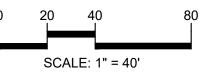
-A TREE PERMIT MUST BE OBTAINED FROM THE PLANNING OFFICE PRIOR TO ANY TREES BEING REMOVED.

GROUP t: 844.813.2949

www.peagroup.com









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CLIENT

ROBERTSON BROTHERS HOMES 6905 TELEGRAPH RD, STE 200 BLOOMFIELD HILLS, MI 48301

PROJECT TITLE

Debble Preek PART OF THE SE **X** OF SECTION 12, T.01N., R.08E. CITY OF FARMINGTON HILLS OAKLAND COUNTY, MICHIGAN

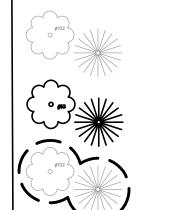
REVISIONS

DRAWING TITLE **PROPOSED TREE PRESERVATION PLAN**

ORIGINAL ISSUE DATE: OCTOBER 15, 2024

PEA JOB NO. 2015-204 DRAWING NUMBER:

LOT 10



EXISTING TREES

EXISTING TREES TO BE REMOVED

TREES TO BE SAVED WITH TREE PROTECTION FENCE

GROUP

t: 844.813.2949

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CLIENT

ROBERTSON BROTHERS HOMES 6905 TELEGRAPH RD, STE 200 BLOOMFIELD HILLS, MI 48301

PROJECT TITLE

PART OF THE SE 1/2 OF SECTION 12, T.01N., R.08E.
CITY OF FARMINGTON HILLS
OAKLAND COUNTY, MICHIGAN

EVISIONS

ORIGINAL ISSUE DATE: OCTOBER 15, 2024 DRAWING TITLE

PROPOSED TREE PRESERVATION PLAN

PEA JOB NO.	2015-204
P.M.	JBT
DN.	SS
DES.	NB
DRAWING NUMBER:	



MATCH LINE SEE SHEET T-1.2

N00°27'08"W 280.00'

S01°12'50"E 490.03'

MATCH LINE SEE SHEET T-1.1

WETLAND "A" 0.30 AC. (ON-SITE)

PARCEL ID 23-12-477-012

LOT 12

PARCEL ID 23-12-477-013 / LOT 13

PARCEL ID 23-12-477-014

"WOODCREEK HILLS SUBDIVISION NO. 1" (L.119, 18-26)

LOT 14

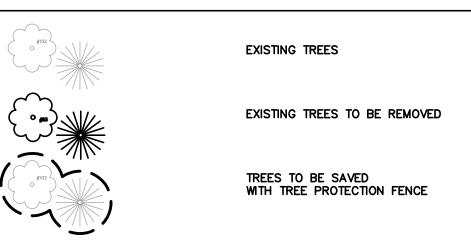
PARCEL ID 23-12-477-Q15

PARCEL ID 23-12-477-011

LOT 11

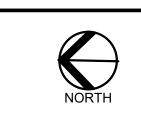
"HICKORY OAKS" OAKLAND COUNTY

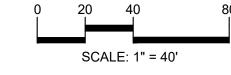
CONDOMINIUM PLAN NO. 1191 (L.20320, P.434)













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CLIENT

ROBERTSON BROTHERS HOMES 6905 TELEGRAPH RD, STE 200 BLOOMFIELD HILLS, MI 48301

PROJECT TITLE

THE VILLAS AT

Pebble Preek

PART OF THE SE 1/2 OF SECTION 12, T.01N., R.08E. CITY OF FARMINGTON HILLS OAKLAND COUNTY, MICHIGAN

REVISIONS

ORIGINAL ISSUE DATE: OCTOBER 15, 2024 DRAWING TITLE

PROPOSED
TREE
PRESERVATION
PLAN

PEA JOB NO.	2015-204
P.M.	JBT
DN.	SS
DES.	NB
DRAWING NUMBER:	

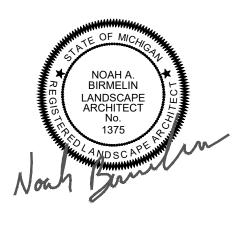
								7											 					
				CONDITION/ FA									NDITION/ FACTOR	0.007						CONDITION/ FACT				1
NO. CODE	DBH COMM	ION NAME	LATIN NAME TRUNKS	G CLASS trunk rate structure disease		OVERALL SAVE / RANK REMOVE	/ E REPLACE	││TAG E││NO. CODE DBH	I COMMON NAME LATIN N	l l	TRUNKS CLASS trunk rate		cture diseases dev life exp. OVERALL RANK		TAG NO.	CODE DBH	COMMON NAME	LATIN NAME	EXTRA TRUNKS	CLASS trunk rate structure diseases	l , l.,,	exp. RANK	SAVE / REMOVE	REPLACE
1 NM	13 Norw	v ay Maple	Acer platanoides	WOODLAND 4 3 2 5	1 2	17 \$	-	78 C 37	Catalpa Catalpa sp	peciosa	LANDMARK 3 5	5 :	3 4 5 2 22	R REPLAÇE	125	SH 15	Shagbark Hickory	Carya ovata		WOODLAND 4 4 3 4	2	3 20	R	REPLACE
2 CA		ab Apple	Malus coronaria	WOODLAND 5 3 3 5	3 3	22 S	-	79 SM 17	Silver Maple Acer sacc		WOODLAND 5 4	4 .	4 4 3 7 27 5 4 5 4 27	R REPLACE	126 127	HL 7	Honeylocust	Gleditsia triacanthos		WOODLAND 5 4 4 4	3	4 24	S	-
3 NM CA		v ay Maple ab Apple	Acer platanoides Malus coronaria	WOODLAND 4 4 3 5 WOODLAND 2 4 2 5	1 2	19 R 16 S	REPLACE	80 WS 13 81 SM 30	White Spruce Picea gl Silver Maple Acer sacc		WOODLAND 4 5 LANDMARK 3 3	3 4	5 4 5 4 27 4 3 4 2 19	R REPLACE	127	HL 7	Honeylocust Honeylocust	Gleditsia triacanthos Gleditsia triacanthos		WOODLAND 4 4 3 4 WOODLAND 5 4 4 5	+ +	4 25	S	-
5 NS		ay Spruce	Picea abies	LANDMARK 5 4 5 4	5 4	27 S	-	82 SM 37	Silver Maple Acer sacc		LANDMARK 5 2	2 .	4 4 4 2 21	R REPLACE	129	HL 7	Honeylocust	Gleditsia triacanthos		WOODLAND 4 4 4 5	4	4 25	s	-
6 NS		ay Spruce	Picea abies	LANDMARK 5 4 4 5	4 3	25 S		83 SM 58	Silver Maple Acer sacc		LANDMARK 3 5	5 :	5 3 5 2 23	R REPLACE	130	H L 7	Honeylocust	Gleditsia triacanthos		WOODLAND 3 4 3 4	ξ,	4 21	S	
7 WW		ping Willow erian ⊟m	Salix babylonica Ulmus pumila	LANDMARK 2 3 L L LANDMARK 1 3 L L	2 2	11 R		84 SM 22 85 E 32	Silver Maple Acer sacc American Bm Ulmus am		LANDMARK 4 3 LANDMARK 2 3	3 .	4 4 3 5 2 19	R REPLACE	131	HL 8	Honeylocust Honeylocust	Gleditsia triacanthos Gleditsia triacanthos		WOODLAND 5 4 4 5 WOODLAND 4 1 4 5	3 4	4 25	S	
9 BS		e Spruce	Picea pungens	WOODLAND 4 1 2 2	1 1	11 R	-	86 SM 32	Silver Maple Acer sacc		LANDMARK 3 3	3 :	5 4 4 2 21	R REPLACE	133	HL 9	Honeylocust	Gleditsia triacanthos		WOODLAND 3 4 3 4	3	4 21	ş	-
10 BS	18 Blue	e Spruce	Picea pungens	LANDMARK 4 2 2 3	1 1	13 R	-	87 NS 21	Norw ay Spruce Picea a	abies	LANDMARK 3 3	3	3 3 4 2 18	R REPLACE	134	HL 9	Honeylocust	Gleditsia triacanthos		WOODLAND 4 4 4 5	-1	4 25	S	-
11 RP		ed Pine e Spruce	Pinus resinosa	LANDWARK 3 3 4 1 WOODLAND 3 1 2 1	4 2	17 R	REPLACE	88 NS 22 89 BS 22	Norway Spruce Picea a Blue Spruce Picea pu		LANDMARK 4 3 LANDMARK 5 3	3 :	5 3 5 2 22 3 3 4 2 20	R REPLACE	135 136	HL 9	Honeylocust Honeylocust	Gleditsia triacanthos Gleditsia triacanthos		WOODLAND 5 4 4 5 WOODLAND 4 4 4 5	3	4 25	S	-
13 BS		e Spruce	Picea pungens Picea pungens	LANDMARK 3 2 2 3	3 1	14 R	-	90 BS 14	Blue Spruce Picea pur		WOODLAND 4 3	3 .	4 3 4 2 20	R REPLACE	842	CT 52	Cottonw ood	Populus deltoides		LANDMARK 3 3 2 4	3	3 18	S	-
14 BS	22 Blue	e Spruce	Picea pungens	LANDMARK 3 3 3 3	4 2	18 R	REPLACE	91 VVC 15	White Cedar Thuja occi	identalis	WOODLAND 4 4	4 .	4 5 4 3 24	R REPLACE	843	NM 243	Norw ay Maple	Acer platanoides	x1	LANDMARK 4 4 4 4	4	4 24	R	REPLACE
15 BS	 	e Spruce	Picea pungens	LANDMARK 5 4 4 3	4 3	23 R	REPLACE	92 WC 10	White Cedar Thuja occi		WOODLAND 5 4	4 4	4 5 4 3 25 4 5 4 3 25	R REPLACE	844 845	NM 9 BX 7	Norw ay Maple Box elder	Acer platanoides	x13	WOODLAND 4 4 4 4 4	4	4 24	S	-
16 BS		e Spruce ray Spruce	Picea pungens Picea abies	WOODLAND 3 3 4 3 WOODLAND 3 3 3 2	4 2	10 R	REPLACE REPLACE	93 WC 11 94 WC 8	White Cedar Thuja occi White Cedar Thuja occi		WOODLAND 5 4 WOODLAND 3 3	3	3 4 3 3 19	R REPLACE	846	CT 19	Cottonw ood	Acer negundo Populus deltoides	 	WOODLAND 3 3 3 4 WOODLAND 3 3 3 4	3	3 10	R	REPLACE /
18 NS		ay Spruce	Picea abies	WOODLAND 4 2 2 2	3 1	14 R	-	95 WC 9	White Cedar Thuja occi	identalis	x1.7" WOODLAND 3 3	3 :	3 4 3 3 19	R REPLACE	847	CT 22	Cattonw ood	Populus deltoides		WOODLAND 3 3 3 4	3	3 (0	Ŕ	REPLACE
19 B\$	12 Blue	e Spruce	Picea pungens	WOODLAND 3 3 3 3	1 1	14 R	-	96 SM 17	Silver Maple Acer sacc		x1 15" WOODLAND 4 4	4 :	3 4 3 4 22	R REPLACE	848	CT 13	Cottonwood	Populus deltoides		WOODLAND 3 3 3 4	3	3 0	R	REPLACE -
20 NS		ay Spruce	Picea abies Picea pungens	LANDMARK 3 2 3 3 WOODLAND 4 2 3 3	3 2	16 R	REPLACE REPLACE	97 WS 15 98 NW 11	White Spruce Picea gl Norw ay Maple A cer plata		WOODLAND 3 4 4 4	4 ,	3 4 3 4 21 4 5 4 4 25	R REPLACE	849 850	S 15	Sycamore	Platanus occidentalis Platanus occidentalis		LANDMARK 3 4 3 4 WOODLAND 4 4 4 4	4	3 23	\$ 5	
22 BW		ck Walnut	Juglans nigra	LANDMARK 2 3 2 1	4 2	14 R	-	99 SM 27	Silver Maple Acer sacc		LANDMARK 4 4	4	3 5 4 2 22	R REPLACE	851	S 12	Sycamore	Platanus occidentalis		WQQDLAND 4 4 3 4	3	3 21	S	-
24 PE	16 A	Peach	Prunus persica	WOODLAND 2 3 4 4	5 3	21 R	REPLACE	100 CA 7	Crab Apple Malus cor		x1.7" WOODLAND 3 3	3	3 4 3 3 19	R REPLACE	852	CT 21	Cottonw ood	Populus deltoides		WOODLAND 3 3 3 4	3	3 10	R	REPLACE
23 PE 25 BX		Peach	Prunus persica	WOODLAND 3 3 4 4 4	4 3	21 R	REPLACE	101 WC 9	White Cedar Thuja occi White Cedar Thuja occi		WOODLAND 4 3	3 :	3 4 3 3 20	R REPLACE	853 854	CT 22 CT 32	Cottonw ood Cottonw ood	Populus deltoides Populus deltoides	p. ivy p.ivy	WOODLAND 3 3 3 3 LANDMARK 3 3 3 3	3	3	R	REPLACE
26 PE	00 007	ox elder Peach	Acer negundo Prunus persica	WOODLAND 2 2 3 2	4 3	16 R	REPLACE	101B WC 7	White Cedar Thuja occi		WOODLAND 3 3	3 ;	3 3 2 2 16	R REPLACE	855	CT 15	Cottonw ood	Populus deltoides	ļ <i>,</i>	WOODLAND 3 2 2 3	2	3 15	s	
27 PE	15 P	Peach	Prunus persica	WOODLAND 4 3 5 4	5 3	24 R	REPLACE	101C WC 11	White Cedar Thuja occi	identalis	WOODLAND 4 4	4 :	3 4 3 3 21	R REPLACE	856	CT 17	Cottonw ood	Populus deltoides		WOODLAND 2 2 2 3	2	2 13	\$	-
28 B		ssw ood	Tilia americana	LANDMARK 3 3 3 4	3 3	19 R	REPLACE	101D WC 14 101E WG 10	White Cedar Thuja occi White Cedar Thuja occi		WOODLAND 3 4 WOODLAND 4 3	4 .	3 3 3 19	R REPLACE	857 858	CT 22	Cottonw ood	Populus deltoides Populus deltoides		WOODLAND 3 3 3 4 LANDMARK 3 3 3 2	2	3 18	S	-
29 NS 30 NS		ray Spruce	Picea abies Picea abies	LANDMARK 4 4 4 5 LANDMARK 4 4 5 5	5 4	25 R	REPLAÇE REPLAÇE	101F WC 7	White Cedar Thuja occi		x16" WQQDLAND 3 3	3 :	3 3 2 3 17	R REPLACE	859	CT 27	Cottonw ood	Populus deltoides	perme cova	LANDMARK 3 3 3 3	2	3 17	S	· · ·
31 NS	 	ay Spruce	Picea abies	LANDMARK 5 4 4 3	4 2	22 R	REPLACE	101G WC 10	White Cedar Thuja occi	identalis	WOODLAND 3 4	4 :	3 3 3 10	R REPLAÇE	860	E 8	American Em	Ulmus americana		WOODLAND 3 3 3 4	3	3 10	ş	<u> </u>
32 NS		ay Spruce	Picea abies	LANDMARK 4 4 4 3	4 2	21 R	REPLACE	101H WC 10	White Cedar Thuja occi White Cedar Thuja occi		x19" WOODLAND 4 4 WOODLAND 4 4	4 :	3 3 2 3 19	R REPLACE	861 862	E 13	American Em	Ulmus americana Ulmus americana		WOODLAND 3 3 3 4	3	3 10	S	PER A CE
33 NS 34 RS	 	ay Spruce	Picea abies Picea pungens	LANDMARK 3 5 5 3 LANDMARK 3 3 3 2	5 3	24 R	REPLACE REPLACE	1011 WG 7	White Cedar Thuja occi White Cedar Thuja occi		WOODLAND 5 4	4 ,	4 4 3 3 23	R REPLACE	863	CT 28	Cottonw ood	Populus deltoides	x1 p.ivy	WOODLAND 4 3 3 4 LANDMARK 3 3 3 3	3	3 18	R	REPLACE REPLACE
35 BS	 	e Spruce	Picea pungens	WOODLAND 2 2 3 2	2 1	12 R	-	101K WG 16	White Gedar Thuja occi	identalis	WOODLAND 4 4	4 .	4 4 3 3 22	R REPLACE	864	CA 6	Crab Apple	Malus coronaria		WOODLAND 3 3 3 3	2	3 17	R	REPLACE C/
36 BS	+ + +	e Spruce	Picea pungens	LANDMARK 2 3 3 2	2 1	13 R	-	101L WG 10	White Cedar Thuja occi		WOODLAND 3 4	4 .	4 4 3 2 20	R REPLACE	865 866	l 7	Ironw ood Bassw ood	Ostrya virginiana		WOODLAND 3 4 4 4	4	3 22	R	REPLACE THE UTIL
37 CA 38 WW	 	ab Apple ping Willow	Malus coronaria Salix babylonica	LANDMARK 4 2 3 4 LANDMARK 3 4 3 2	4 3	20 R	REPLACE REPLACE	101M WC 6 101N WC 12	White Cedar Thuja occi White Cedar Thuja occi		WQQDLAND 4 4 x1.5" WQQDLAND 3 4	4 .	4 3 3 2 19	R REPLACE	867	CT 36	Cottonw ood	Tilia americana Populus deltoides		WOODLAND 4 4 4 4 4 LANDMARK 3 3 3 4	3	3 10	5	REPLACE IMP
39 WW	 	ping Willow	Salix babylonica	LANDWARK I 3 I 4	1 2	12 R	-	1010 WC 11	White Cedar Thuja occi	identalis	WOODLAND 4 4	4 .	4 5 3 3 23	R REPLAČE	868	В 14	Bassw ood	Tilia americana		WOODLAND 4 3 4 3	3	3 20	R	REPLAČE
40 CA	10 Crat	ab Apple	Malus coronaria	WOODLAND 4 2 5 4	4 2	21 R	REPLACE	101P WC 11	White Cedar Thuja occi		WOODLAND 3 4	4 .	4 4 3 3 21	R REPLACE	869	B 13	Basswood	Tilia americana		WOODLAND 4 4 4 4	4	3 23	S	-
41 CT		ttonw ood	Populus deltoides Populus deltoides	LANDWARK 3 4 3 4 LANDWARK 5 4 4 5	4 3	21 R	REPLACE REPLACE	101Q WC 15 102 RO 33	White Cedar Thuja occi Red Oak Quercus		WOODLAND 4 4 LANDMARK 4 4	4 :	4 5 3 3 23 2 5 2 4 21	R REPLACE	870 871	S 13	Bassw ood Sycamore	Tilia americana Hatanus occidentalis		WOODLAND 4 3 3 3 WOODLAND 4 4 4 4	3	3 22	S	-
43 CT	 	ttonw ood	Populus deltoides	LANDMARK 3 3 3 4	3 2	18 R	REPLACE	103 SH 22	Shagbark Hickory Carya c	ovata	LANDMARK 4 4	4 .	4 4 4 3 23	R REPLACE	872	B 13	Bassw ood	Tilia americana		WOODLAND 3 3 4 4	4	3 21	R	REPLACE
44 CT	28 Cotto	ttonw ood	Populus deltoides	LANDMARK 5 3 5 5	3 3	24 R	REPLACE	103A GA 8	Green Ash Fraxinus pen		WOODLAND 4 4	4 .	4 3 4 2 21	R REPLACE	873	WO 7	White Oak	Quercus alba		WOODLAND 3 2 2 2	2	2 13	R	-
45 CT		ttonw ood ping Willow	Populus deltoides Salix babylonica	LANDMARK 5 3 5 5 LANDMARK 1 3 1 2	4 3	2.5 R	REPLACE	103B GA 6 104 CT 33	Green Ash Fraxinus peni Cottonwood Populus de		WOODLAND 4 4 x131" LANDMARK 4 4	4 .	4 3 4 2 21 4 4 2 3 21	R REPLACE	874 875	BW 7 BW 17	Black Walnut Black Walnut	Juglans nigra Juglans nigra		WOODLAND 4 3 3 4 WOODLAND 4 4 4 4	4	3 20	R	- REPLACE
47 WW		ping Willow	Salix babylonica	LANDWARK 2 2 2 2	2 2	12 R	-	105 SM 28	Silver Maple Acer sacc	harinum	LANDMARK 3 4	4 .	3 5 3 3 21	R REPLACE	876	BW 19	Black Walnut	Juglans nigra		WOODLAND 4 4 4 4	4	3 23	R	REPLACE
48 WW	38 Weepi	ping Willow	Salix babylonica	LANDMARK 2 4 2 I	0 1	10 R	•	106 SH 15	Shagbark Hickory Carya c		WQQDLAND 4 4	4 .	4 4 3 3 22	R REPLACE	877	B 6	Bassw ood	Tilia americana		WOODLAND 4 4 3 4	3	3 21	R	REPLACE
49 CT		ttonw ood	Populus deltoides Populus deltoides	LANDMARK 3 2 4 LANDMARK 3 4 4 4	4 5	18 R	REPLACE	107 SH 17 108 SH 17	Shagbark Hickory Carya of Shagbark Hickory Carya of Carya		WOODLAND 4 4	4 .	4 5 3 3 23 4 4 3 3 22	R REPLACE	878 879	SE 6	Basswood Slipperv Em	Tilia americana Ulmus rubra		WOODLAND 4 4 4 4 4 WOODLAND 4 3 3 4	2	3 22	R	REPLACE REPLACE
50 ÇT		ttonw ood	Populus deltoides	LANDMARK 3 3 4 3	5 3	21 R	REPLAÇE	109 SH 19	Shagbark Hickory Carya d		LANDMARK 4 4	4 :	3 5 4 3 23	R REPLACE	880	B 6	Bassw ood	Tilia americana		WOODLAND 4 4 4 4 4	4	3 23	S	-
52 B	25 Bas	assw ood	Tilia americana	LANDMARK 3 3 4 4	4 3	21 R	REPLACE	110 SU 27	Sugar Maple Acer sace		LANDMARK 3 4	4	3 4 3 3 20	R REPLACE	881	B 16	Bassw ood	Tilia americana		WOODLAND 4 4 4 4	4	3 23	S	- c
53 WO	 	hite Oak	Quercus alba	LANDMARK 3 3 3 4	5 3	21 R	REPLACE REPLACE	111 SU 12 112 SU 21	Sugar Maple Acer sacc Sugar Maple Acer sacc		WOODLAND 4 4 LANDMARK 4 4	4 .	4 3 3 3 21 4 3 4 3 22	s	882 883	BW 22 WP 8	Black Walnut (Eastern) White Pine	Juglans nigra Pinus strobus	DEA D	LANDMARK 4 4 3 4 WOODLAND 0 0 0 0	0	0 n	\$ 9	
55 EE		ed Maple erian Bm	Acer rubrum Ulmus pumila	WOODLAND 2 3 2 3 WOODLAND 3 5 4 4	4 5	25 R	REPLACE	113 NM 20	Norway Maple Acer plata		LANDMARK 4 4	4 .	4 5 4 2 23	R REPLACE	884	B 17	Bassw ood	Tilia americana		WOODLAND 3 4 3 4	3	3 20	S	
56 BS	13 Blue	e Spruce	Picea pungens	WOODLAND 3 2 3 1	4 1	14 R	-	114 BS 17	Blue Spruce Picea pur			4 .	4 4 3 3 21	R REPLACE	885	l 9	Ironw ood	Ostrya virginiana		WOODLAND 4 4 4 4	4	3 23	S	
57 B\$	20 Blue	e Spruce	Picea pungens	LANDMARK 3 I 4 3	3 2	16 R	REPLAÇE	114A CA 7 115 E 21	Crab Apple Malus con American ⊟m Ulmus am		x6	4 :	3 3 3 2 18 3 4 3 3 21	R REPLACE	886 887	I 7 SU 11	Ironw ood Sugar Maple	Ostrya virginiana Acer saccharum		WOODLAND 3 4 4 4 WOODLAND 4 4 4 4	4 4	3 22	S	- 69 BL
58 WC	+ +	nite Cedar nite Cedar	Thuja occidentalis Thuja occidentalis	WOODLAND 5 2 4 4 WOODLAND 2 3 4 3	4 2	23 R 18 R	REPLACE REPLACE	116 CT 15	Cottonwood Populus de		x18" WOODLAND 4 4	4 .	4 4 3 3 22	R REPLACE	888	1 7	Ironw ood	Ostrya virginiana		WOODLAND 3 4 3 4 WOODLAND 3 4 3 4	3	3 20	S	
\vdash	+ +	ay Spruce	Picea abies	LANDWARK 5 3 3 3	5 2	21 R	REPLACE	116A GA 8	Green Ash Fraxinus pen		WOODLAND 2 2	2	2 2 2 12	\$ -		WO 31	White Öak	Quercus alba		LANDMARK 4 3 4 4	3	3 21	s	-
61 NS	 	ay Spruce	Picea abies	LANDMARK 4 4 4 4	5 3	24 R	REPLACE	116B GA 8 117 BC 9	<u> </u>		x7 WOODLAND 2 2 WOODLAND 3 4	2 :	2 2 2 2 12 3 3 2 7 17	S - R REPLACE	890 891		Wild Black Cherry Sugar Maple	Prunus serotina Acer saccharum		WOODLAND 1 2 2 2 2	1 4	3 32	\$	-
62 NM 63 NS	 	v ay Maple v ay Spruce	Acer platanoides Picea abies	WOODLAND 5 4 5 5 LANDMARK 4 5 5 3	5 3	27 S 26 R	REPLACE	117A BC 11	Wild Black Cherry Prunus se		WOODLAND 4 3	3	3 4 2 2 18	R REPLACE	892	SM 19	Silver Maple	Acer saccharinum		WOODLAND 4 4 4 4 4 LANDMARK 4 4 4 4 4	4	3 23	s	-
64 NS	 	ay Spruce	Picea abies	LANDMARK 3 2 3 3	5 2	18 R	REPLACE	117B E 10	American Bm Ulmus am	ericana	WOODLAND 3 3	3	3 4 3 3 19	R REPLACE	893		White Oak	Quercus alba	p. ivy	LANDMARK 4 4 3 3	3	3 20	S	- PI
	25 Norwa		Picea abies	LANDMARK 4 4 4 4	5 3	24 R	REPLACE	117C E 7	American Bm Ulmus am	-	WOODLAND 4 3	3 -	4 4 3 2 20	R REPLACE	894	WO 37 SM 29	White Oak	Quercus alba		LANDMARK 4 4 3 4	4	3 22	\$	-
66 NS 67 SM		ray Spruce ver Maple	Acer saccharinum	LANDMARK 3 3 5 3 LANDMARK 4 3 3 4	5 2	21 R	REPLACE REPLACE	117D BC 9 118 BC 17	Wild Black Cherry Prunus se Wild Black Cherry Prunus se		dead WOODLAND 0 0 WOQDLAND 3 4	4 :	0 0 0 0 0 3 4 3 2 19	R REPLAÇE	895	I 9	Silver Maple Ironw ood	Acer saccharinum Ostrya virginiana		LANDMARK 4 4 3 4 WOODLAND 3 3 3 4	3	3 10	S	- PA
68 SM	28 Silve		Acer saccharinum	LANDWARK 5 4 4 4	5 3	25 R	REPLACE	118A BC 10	Wild Black Cherry Prunus s		WOODLAND 4 3	3 :	3 3 2 2 17	R REPLACE		B 9	Bassw ood	Tilia americana		WOODLAND 4 4 4 4	4	3 23	S	- OA
	23 Silve	· ·	Acer saccharinum	LANDMARK 3 3 4 2	5 2	19 R	REPLACE	118B BC 7	Wild Black Cherry Prunus se		WOODLAND 3 3	3 2	2 3 3 2 16	R REPLACE	898		(Eastern) White Pine			WOODLAND 3 2 1 4	1	2 13	R	,
70 SM	21 Silve	· ·	Acer saccharinum Acer saccharinum	LANDMARK 3 3 2 3 LANDMARK 5 4 3 3	2 1	14 R	- REPLAÇE	119 CT 14 120 CT 18	Cottonwood Populus de Cottonwood Populus de		X1 10" WOODLAND	+ -	3 4 3 2 20 4 5 3 3 23	R REPLACE	900	GA 6 WP 8	Green Ash (Eastern) White Pine	Fraxinus pennsylvanica Pinus strobus		WOODLAND 3 3 4 4 WOODLAND 3 3 3 4	2	3 18	+ +	REPLACE REPLACE
72 EE	+ + -	erian 8m	Ulmus pumila	LANDWARK 5 4 3 3 4 3 4 5 3	5 2	23 R	REPLAÇE	121 AP 12	 		crowinicut LANDMARK 3 3	3	1 4 2 1 14	s -	901		<u> </u>	Juglans nigra		WOODLAND 4 3 3 3	3	3 [0		REPLACE
73 SM	 		Acer saccharinum	LANDWARK 5 5 4 5	4 2	25 R	REPLACE	122 SH 11	Shagbark Hickory Carya c		WOODLAND 4 4	4 ;	3 5 2 3 21	s -		MVV 6	White Mulberry	Morus alba	 	WOODLAND 4 3 3 4	2	3 10	R	REPLACE
74 C	 	-	Catalpa speciosa	LANDMARK 3 2 5 4	5 2	21 R	REPLACE	122A SH 10 122B SH 12	Shagbark Hickory Carya of Shagbark Hickory Carya of		WOODLAND 4 4 WOODLAND 4 3	3	3 4 2 3 20 3 4 3 3 20	\$ - \$ -		CT 8	Cottonw ood Black Walnut	Populus deltoides Juglans n i gra	 	WOODLAND 3 3 3 4 WOODLAND 4 3 3 3	3 3	3 10	R	REPLACE RI
	1 1	er Maple ay Spruce	Acer saccharinum Picea abies	LANDMARK 3 3 5 4 LANDMARK 4 4 5 4	5 2	22 R 25 R	REPLACE REPLACE	123 E 23	 		x2 WOODLAND 4 4	4	3 4 3 3 21	s -		NM 10	Norw ay Maple	Acer platanoides		WOODLAND 4 3 3 3 WOODLAND 4 4 4 4 4	4	3 23	S	
77 BS	_	e Spruce	Picea pungens	WOODLAND S 4 5 3	4 2	23 R	REPLACE	124 AU 25	Austrian Pine Pinus r	nigra	LANDMARK 4 4	4	3 5 3 3 22	R REPLAÇE		GA 9		Fraxinus pennsylvanica			2	2 17	S	
															907	SU 6	Sugar Maple	Acer saccharum	ental bittersw	WOODLAND 3 2 2 2	2	2 13	S	

STANDARD TREES
STANDARD TREES REMOVED: **85** (1:1 REPLACEMENT) LANDMARK TREES LANDMARK TREES REMOVED: LANDMARK TREE DBH REMOVED: 1872 (25% DBH REPLACEMENT)

468 INCHES

REPLACMENT DBH REQUIRED:

GROUP t: 844.813.2949 www.peagroup.com







CAUTION!!

THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT

ROBERTSON BROTHERS HOMES 6905 TELEGRAPH RD, STE 200 BLOOMFIELD HILLS, MI 48301

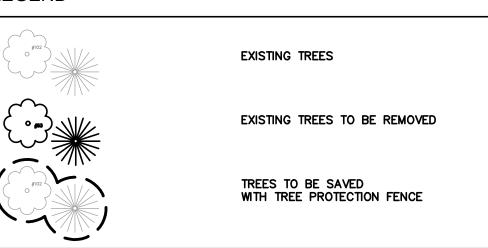
PROJECT TITLE Pebble Preek PART OF THE SE X OF SECTION 12, T.01N., R.08E.
CITY OF FARMINGTON HILLS
OAKLAND COUNTY, MICHIGAN

ORIGINAL ISSUE DATE: OCTOBER 15, 2024

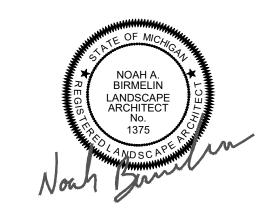
DRAWING TITLE **PROPOSED TREE PRESERVATION PLAN**

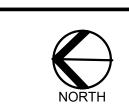
PEA JOB NO. 2015-204 DRAWING NUMBER:

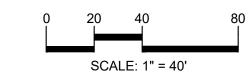














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CLIENT

ROBERTSON BROTHERS HOMES 6905 TELEGRAPH RD, STE 200 BLOOMFIELD HILLS, MI 48301

PROJECT TITLE

THE VILLAS AT

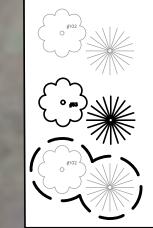
PART OF THE SE Z OF SECTION 12, T.01N., R.08E.
CITY OF FARMINGTON HILLS
OAKLAND COUNTY, MICHIGAN

REVISIONS -

ORIGINAL ISSUE DATE: OCTOBER 15, 2024 DRAWING TITLE

SUPERIMPOSED
TREE
PRESERVATION
PLAN

PEA JOB NO.	2015-204
P.M.	JBT
DN.	SS
DES.	NB
DRAWING NUMBER:	



EXISTING TREES

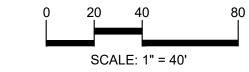
EXISTING TREES TO BE REMOVED

TREES TO BE SAVED WITH TREE PROTECTION FENCE











CAUTION!!

THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT

ROBERTSON BROTHERS HOMES 6905 TELEGRAPH RD, STE 200 BLOOMFIELD HILLS, MI 48301

PROJECT TITLE

THE VILLAS AT

PART OF THE SE % OF SECTION 12, T.01N., R.08E.
CITY OF FARMINGTON HILLS
OAKLAND COUNTY, MICHIGAN

VISIONS

ORIGINAL ISSUE DATE: OCTOBER 15, 2024 DRAWING TITLE

SUPERIMPOSED
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PEA JOB NO.	2015-204
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NOT FOR CONSTRUCTION

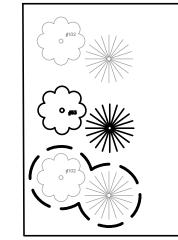
EXISTING TREE TO BE REMOVED TYP.

EXISTING TREE TO REMAIN TYP.

PROVIDE TREE PROTECTION FENCE AROUND EXISTING TREES TO REMAIN, TYP.

N01°15'14"W 1673.04'

S00°27'08"E 269.51

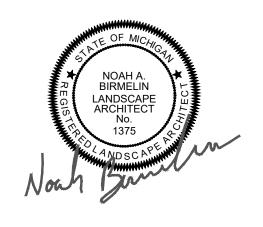


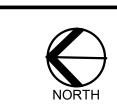
EXISTING TREES

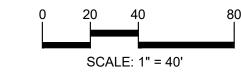
EXISTING TREES TO BE REMOVED

TREES TO BE SAVED WITH TREE PROTECTION FENCE

PEA GROUP t: 844.813.2949 www.peagroup.com









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CLIENT

ROBERTSON BROTHERS HOMES 6905 TELEGRAPH RD, STE 200 BLOOMFIELD HILLS, MI 48301

PROJECT TITLE

THE VILLAS AT

Pebble Preek

PART OF THE SE 1/2 OF SECTION 12, T.01N., R.08E. CITY OF FARMINGTON HILLS OAKLAND COUNTY, MICHIGAN

-

ORIGINAL ISSUE DATE: OCTOBER 15, 2024 DRAWING TITLE

SUPERIMPOSED TREE PRESERVATION PLAN

 PEA JOB NO.
 2015-204

 P.M.
 JBT

 DN.
 SS

DES.

DRAWING NUMBER:

T-1 6



Schedule

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Mounting

Height

General Note

0.0 ⁺0.0 [|]+0.0 |0.0

- 1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT. 2. SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR.
- 3. CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: GRADE

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.

THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIRMENTS DEFINED IN ASHRAE 90.1 2013. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT CONTROLS@GASSERBUSH.COM OR 734-266-6705.

Alternates Note

THE USE OF FIXTURE ALTERNATES MUST BE RESUBMITTED TO THE CITY FOR APPROVAL.

Drawing Note THIS DRAWING WAS GENERATED FROM AN ELECTRONIC IMAGE FOR ESTIMATION PURPOSE ONLY. LAYOUT TO BE VERIFIED IN FIELD BY OTHERS.

Ordering Note

FOR INQUIRIES CONTACT GASSER BUSH AT QUOTES@GASSERBUSH.COM OR 734-266-

Mounting Height Note

MOUNTING HEIGHT IS MEASURED FROM GRADE TO FACE OF FIXTURE. POLE HEIGHT SHOULD BE CALCULATED AS THE MOUNTING HEIGHT LESS BASE HEIGHT.

Symbol	Label	QTY	Manufacturer	Catalog
	A	138	VISUAL COMFORT	8590901-12

Plan View Scale - 1" = 50ft

A	138	VISUAL COMFORT	8590901-12	Small One Light Outdoor Wall Lantern	0.9	7'-0
В	4	VISUAL COMFORT	8720701EN3-12	Large One Light Outdoor Wall Lantern	0.9	8'-0"

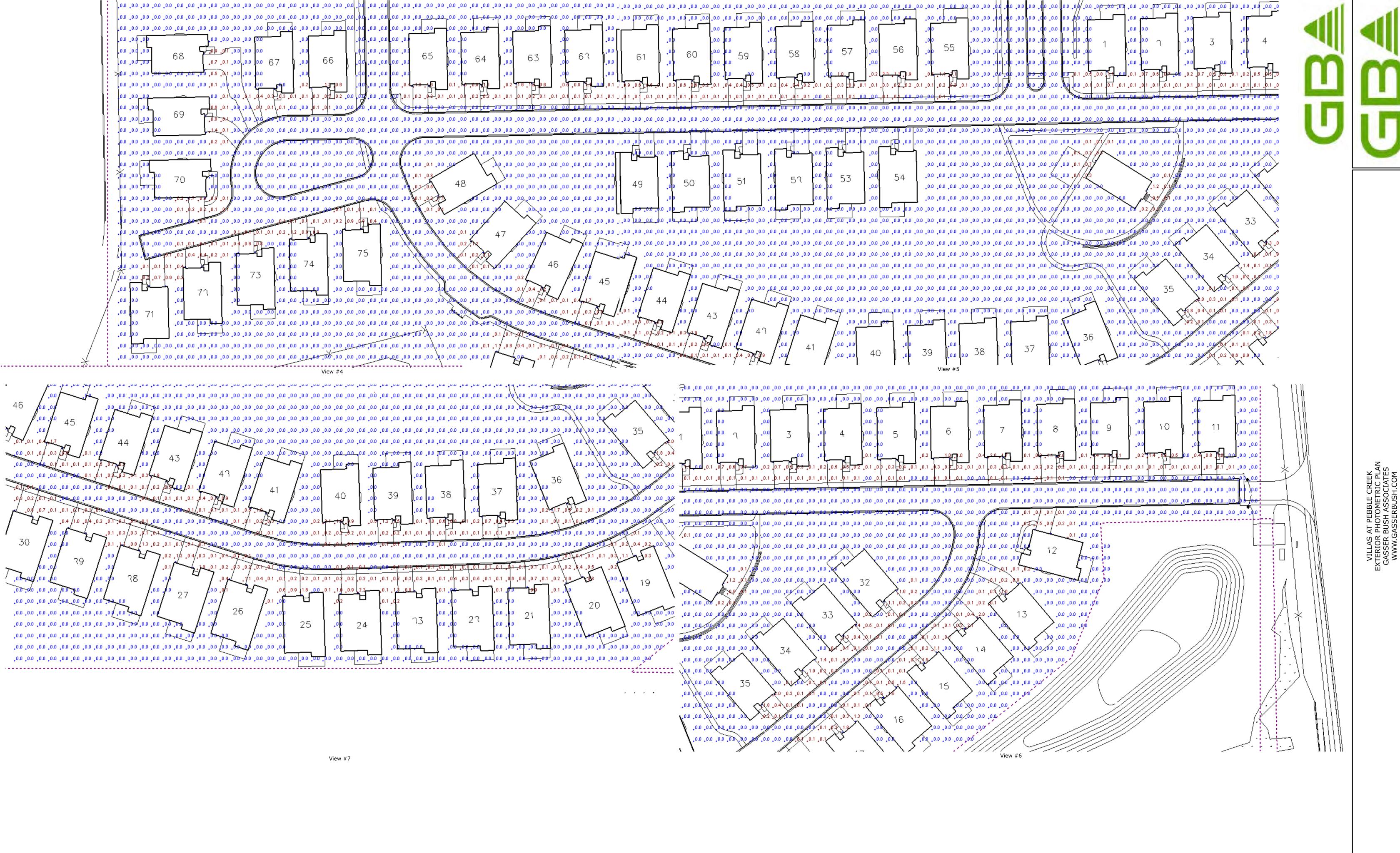
Description

Statistics

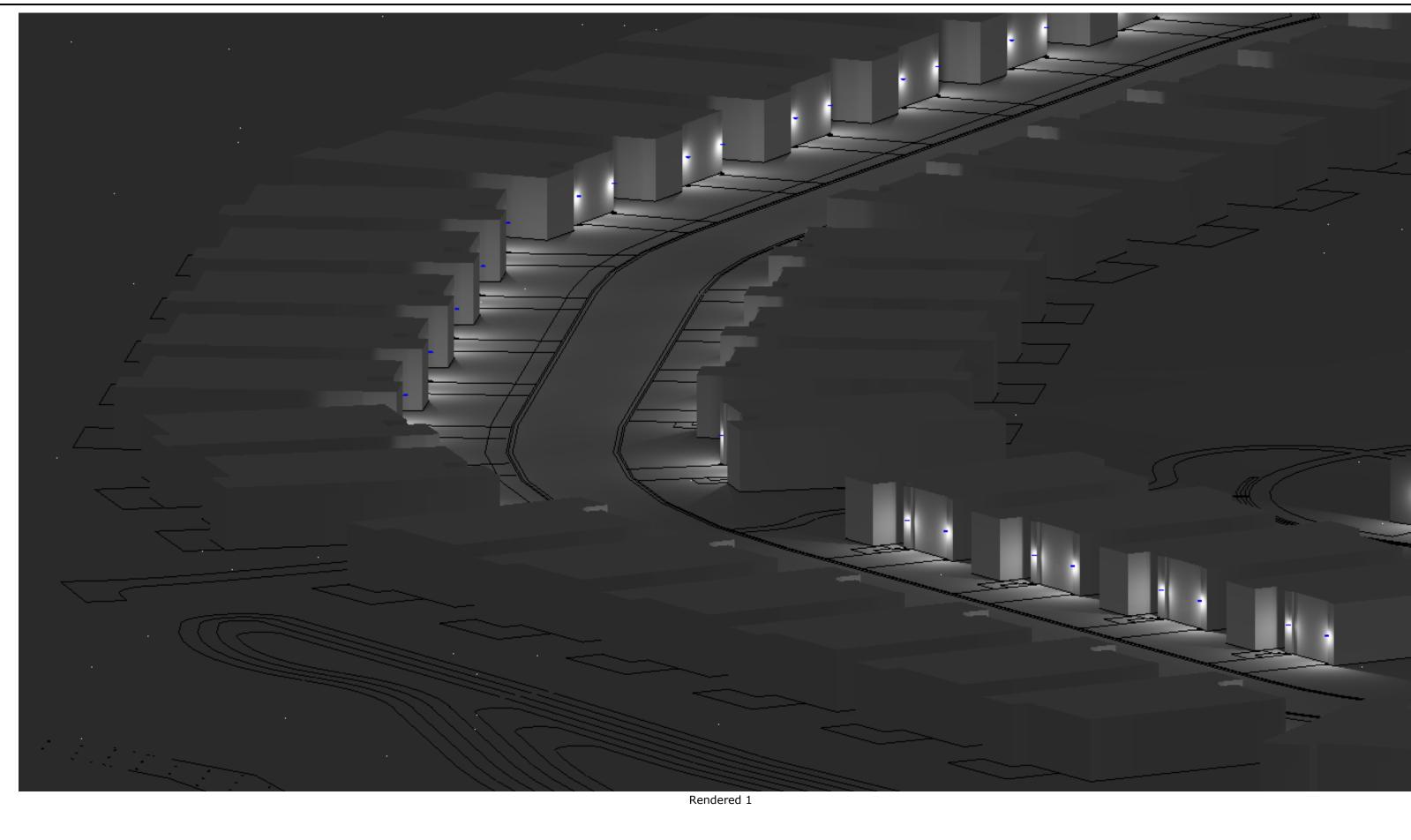
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Overall/Grade	+	0.1 fc	2.3 fc	0.0 fc	N/A	N/A

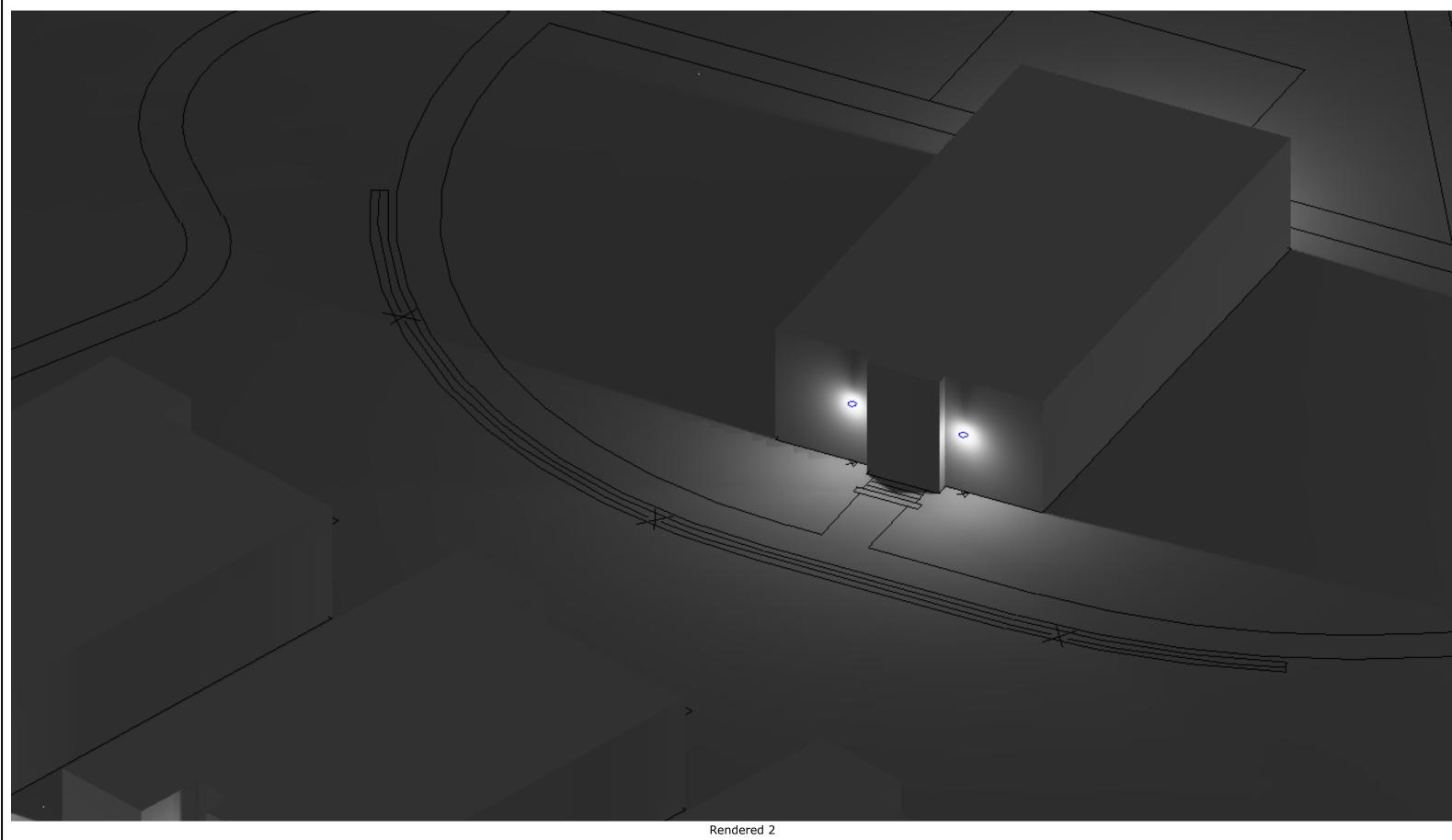
Designer 10/16/2024 Scale Not to Scale Drawing No.

#24-35018



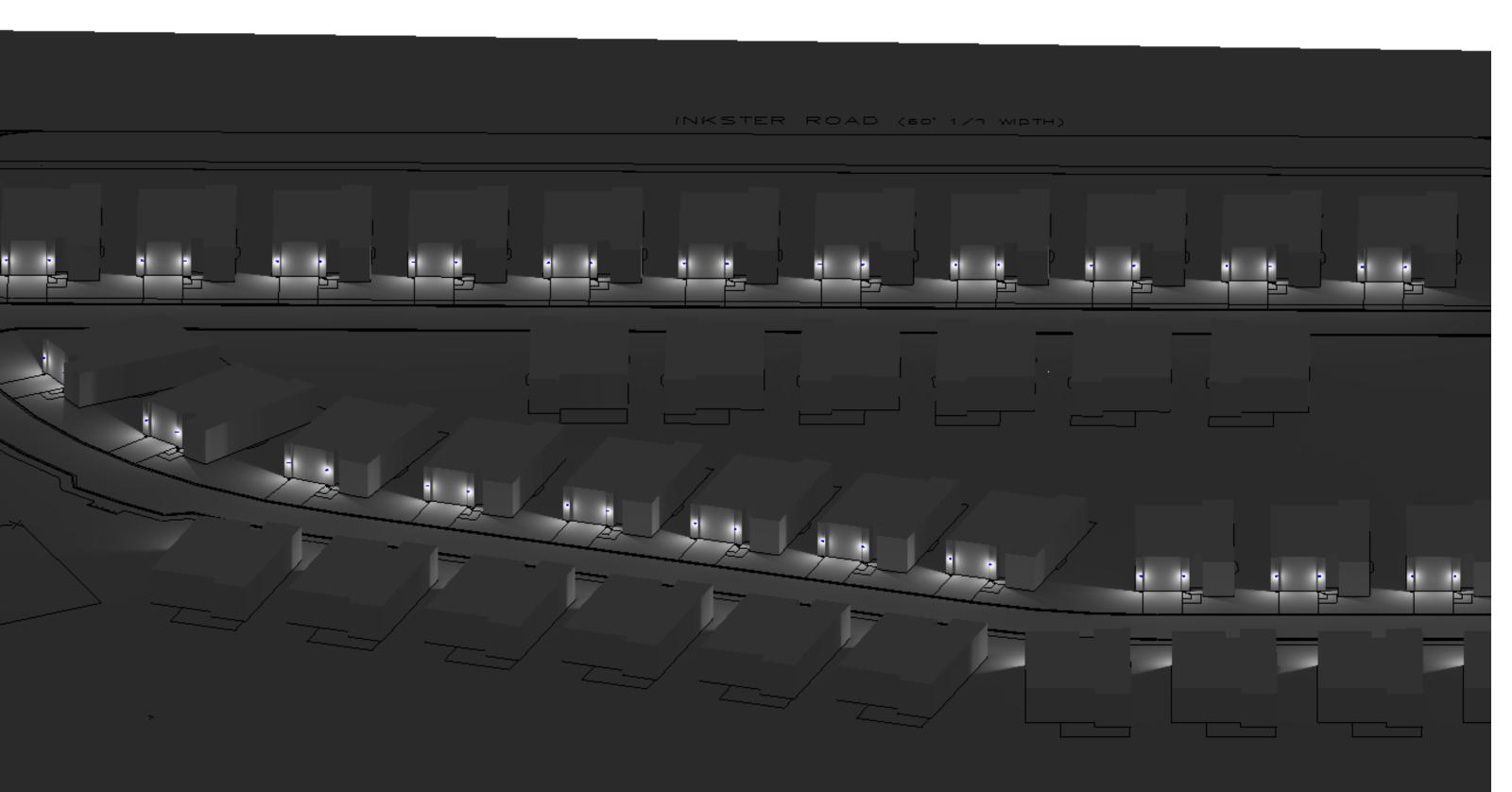
Designer
BK
Date
10/16/2024
Scale
Not to Scale
Drawing No.
#24-35018





√ View #8

|-----



Rendered 3

Designer
BK
Date
10/16/2024
Scale
Not to Scale
Drawing No.
#24-35018



Collection: Wilburn

The Wilburn outdoor fixtures are comprised of an oval form factor with grid overlay with an open bottom to cast an even glow.

A distinct industrial inspiration with an external cage detail finished in either Antique Bronze or Black finishes over Etched Seeded glass shades to complete the look.

Two finish options available: Antique Bronze and Black

Assortment includes: small, medium, large and extra large one-light lanterns; two-light flush mount; one-light post lantern and a one-light

Wet Rated and Dark Sky Friendly

UPC #:785652076787

Finish: Black (12)

Dimensions:

Extends: 7.375

Wire: 6.5" (color:Black/White) 10.25" Mounting Proc.: Cap Nuts Weight: 2.51 lbs. Connection: Mounted To Box

Bulbs:

1 - Medium A19 60 0w Max, 120v Not included

Features:

- . Easily converts to LED with optional replacement lamps
- Meets Title 24 energy efficiency standards
- . Title 24 compliant if used with Joint Appendix (JAB) approved light bulbs listed in the California Energy Commission Appliance

Material List:

1 Body - Aluminum - Black

Safety Listing:

Safety Listed for Wel Locations

Instruction Sheets:

Trilingual (English, Spanish, and French) (990W8_90901-WIL)

Shade / Glass / Diffuser Details:

Part	Material	Finish	Quantity	Item Number	Length	Width	Height	Diameter	Fitter Diameter	Shade Top Length	Shade Top Width	Shade Top Diameter
Shade	Glass	Satin Etched	$=t_c$				7.5	4.75				

Backplate / Canopy Details:

Туре	Height / Length	Width	Depth	Diameter	Outlet Box Up	Outlet Box Down
Back Plate	6.5	5.0	1.0	- CD	2.38	

Shipping Information:

Package Type	Product#	Quantity	UPC	Length	Width	Height	Cube	Weight	Frt. Class	UPS Ship
Individual	8590901-12		785652076787	17.5	10.25	10.25	1.06	4.1	0	Yes
Master Pack	8590901-12	0	10785652076784							No
NJ Pallet		.50		48.0	40.0	77.0	85.56	205.0		No
NV Pallet		50		48.0	40.0	77.0	85.56	205.0		No

VISUAL COMFORT & CO.

8720701EN3-12: Large One Light Outdoor Wall Lantern Dimensions:



Height:

Weight: 9.35 lbs.

8.0" 24.62"

Extends: 6.75

Mounting Proc.: Screw(s)

Wire: 6.5" (color;Black/White)

Connection: Mounted To Box

Watts: 9

Lumens: 800

Bulbs:

1 - LEDMedium A19 9 0w Max: 120v included

Features:

- . ENERGY STAR® Qualified
- . This fixture features mouth-blown glass and slight variations are an inherent part of the handcrafting process.
- . LED Bulbs are an efficient, versatile and durable light source that deliver exceptional performance.
- Meets Title 24 energy efficiency standards
- Title 24 compliant when used with included Joint Appendix (JA8) approved lamp.

Material List:

1 Body - Aluminum - Black

Safety Listing:

Safety Listed for Wet Locations

Instruction Sheets:

English (8518301 8618301 8620701 8718301 8720701) Trilingual (English, Spanish, and French) (ALBAN-WALL)

Shade / Glass / Diffuser Details:

Meets Title 24 energy efficiency standards

Featured in the decorative Alban collection

1 T10 Medium 60 watt light bulb and 1 A19 Medium 60 watt light bulb

Easily converts to LED with optional replacement lamps

Part	Material	Finish	Quantity	Item Number	Length	Width	Height	Diameter	Fitter Diameter	Shade Top Width	Shade Top Diameter
Shade	Glass	Etched Opal	1-1-		5.0	5.0	21.12				

Backplate / Canopy Details:

Collection: Alban

Etched opai glass shade

UPC #:785652097911

Finish: Black (12)

Туре	Height / Length	Width	Depth	Diameter	Outlet Box Up	Outlet Box Down
Back Plate	24.62	8.0	0.75	-	12.31	

Replacement Bulb Data:

1	Product #	Type	Base	Watts	Watts Consumed	Volts	Hours	Lumens	Temp (*K)	CRI
-		 -	-		*		-			

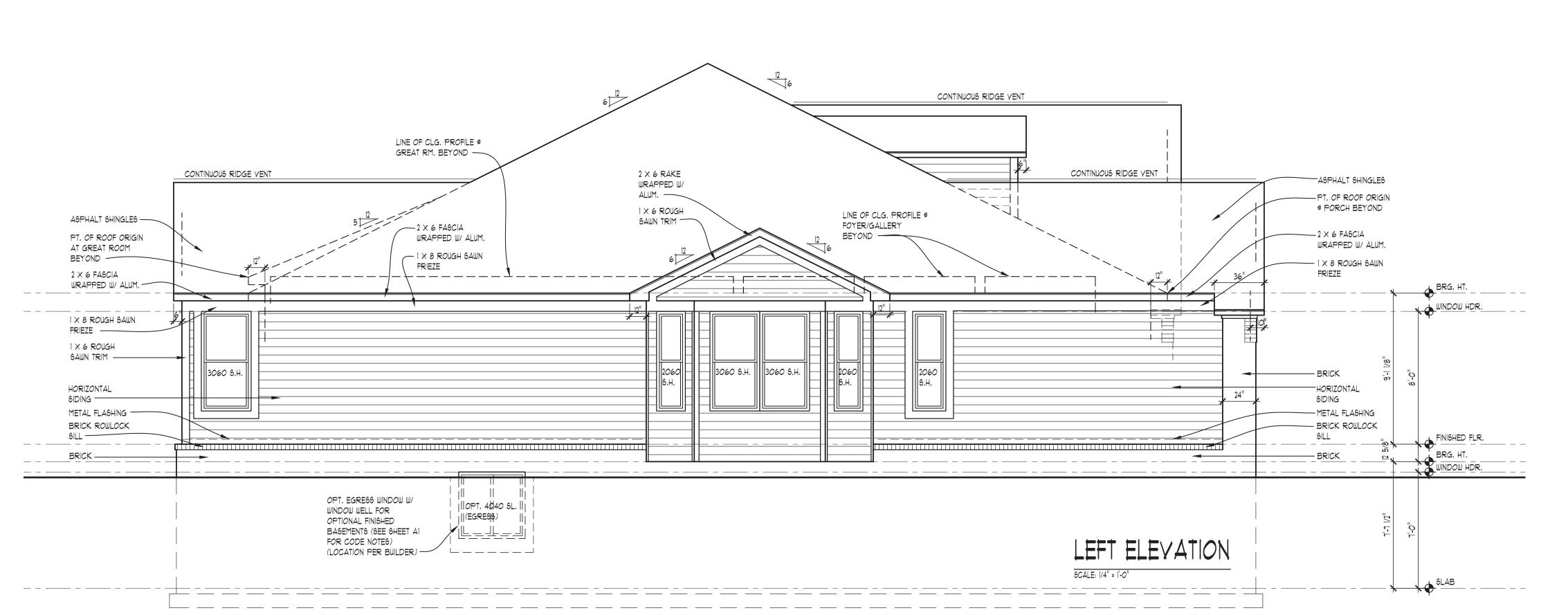
Shipping Information:

Package Type	Product #	Quantity	UPC	Length	Width	Height	Cube	Weight	Frt, Class	UPS Ship
Individual	8720701EN3-12	1	785652097911	29.3	10.9	10.0	1.85	11.45	0	Yes
Master Pack	8720701EN3-12	0	10785652097918							No
NJ Pallet		36		48.0	40.0	77.0	85,56	412.2		No
NV Pallet		36		48.0	40.0	77.0	85,56	412.2		No

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- 1. ALL ROOF SADDLES TO BE PLYWOOD SHEATHED WITH ICE & WATER SHIELD AND SHINGLES.
- 2. PROVIDE ICE & WATER SHIELD MIN, 6'-0" COVERAGE AT ALL VALLEYS
- 3. FIREPLACE FLUE TO BE DETERMINED PER
- MANUFACTURER'S SPECIFICATION

 4. METAL FLASHING AS REQUIRED BY CODE.
- 5. ROOF & SOFFIT VENTS AS REQUIRED BY CODE.
- 6. PROVIDE GUTTERS & DOWNSPOUTS FOR DRAINAGE OF
- ROOF WATER. DOWNSPOUTS ARE TO BE LOCATED SO THAT THE DISCHARGE WILL NOT SPILL ON OR FLOW ACROSS ANY PORCHES, WALKS OR DRIVES.
- CARPENTER TO VERIFY THICKNESS OF MASONRY PRIOR TO BUILDING BRICK RACK

	L
OTE:	
'ERHANG DIMENSIONS (O.H.) ARE OM SHEATHING U.N.O.	

TYPICAL WINDOW DESIGNATION
NOTE: GENERAL REFERENCE FOR ROUGH OPENING SIZES

3060 S.H.

GENERAL REFERENCE FOR
ROUGH OPENING SIZES
ONLY, CONSULT WITH
WINDOW MANUFACTURER
FOR EXACT WINDOW SIZES
& REQUIREMENTS,

REQUIREMENTS.

NOTE:
ALL CASEMENT VENTING TO
BE VERIFIED W/ BUILDER/
HOMEOWNER PRIOR TO
ORDERING WINDOWS

NOTE:

WINDOW MANUFACTURER TO VERIFY ALL WINDOW GRID
PATTERNS WITH HOME OWNER.

NOTE

ALL WINDOW SILLS OVER 6'-O" ABOVE EXTERIOR GRADE OR SURFACE BELOW TO BE MINIMUM 24" ABOVE FINISHED FLOOR OR HAVE SASH LIMITERS PER CODE REQUIRMENTS



DESIGN

CREATIVE COLLABORATIVE

WWW.TKHOMEDESIGN.COM

26030 PONTIAC TRAIL
SOUTH LYON, MI 48178
PHONE: (248)-446-1960
FAX: (248)-446-1961

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-DO NOT SCALE DRAWINGS, USE CALCULATED DIMENSIONS ONLY
-CONTRACTOR TO FIELD VERIFY ALL DRAWING ASPECTS BEFORE
CONSTRUCTION, DISCREPANCIES AND DESIGN CHANGES SHALL BE
REPORTED TO THE DESIGNER IN WRITTEN FORM IMMEDIATELY
-CALL MISS DIG AT 880-482-7271 3 DAYS PRIOR TO ANY EXCAVATION
-CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE PERMIT HOLDER

ROBERTSON
BROTHERS
EWSTER VILLAGE
RALEIGH PLAN
EMERSON
ELEVATION

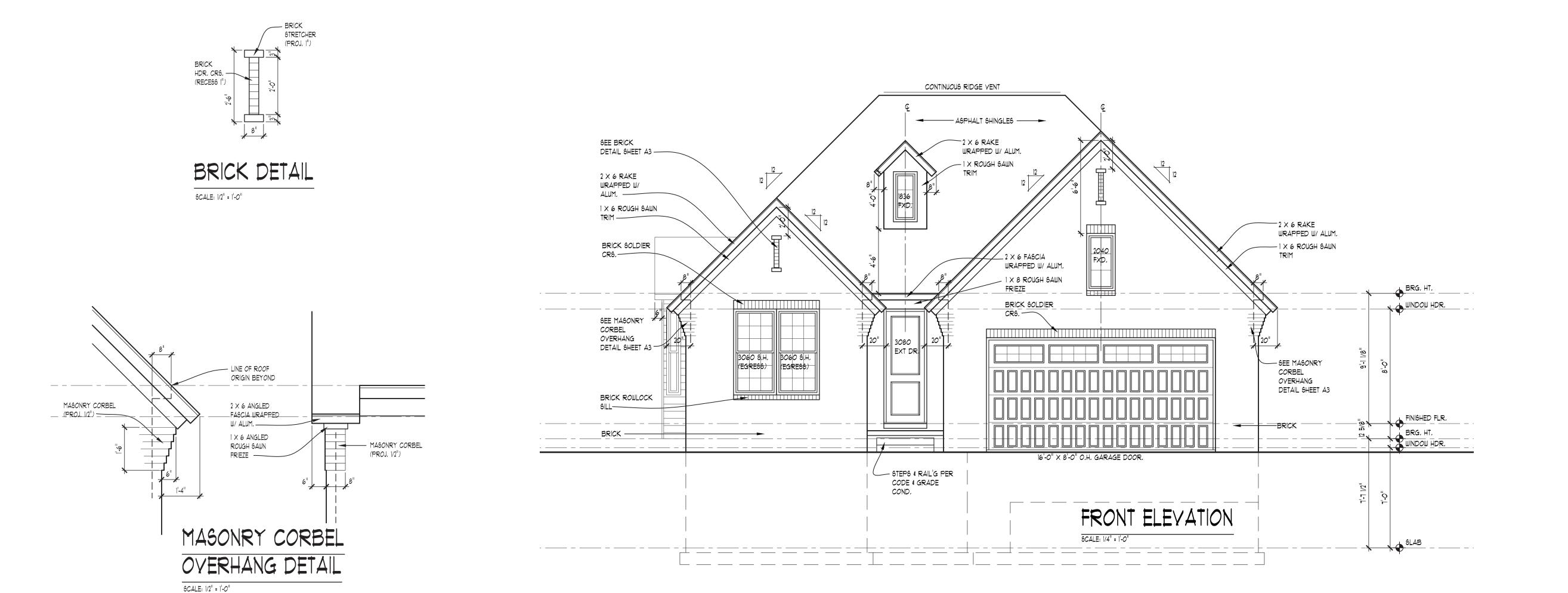
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CHECKED:	DM
REVIEW	3-25-20
FINAL:	3-27-20
REVISION	8-25-20
REVISION	11-19-20
REVISION REVISION	2-4-21 4-20-21
REVISION	5-11-21
REVISION	6-28-21

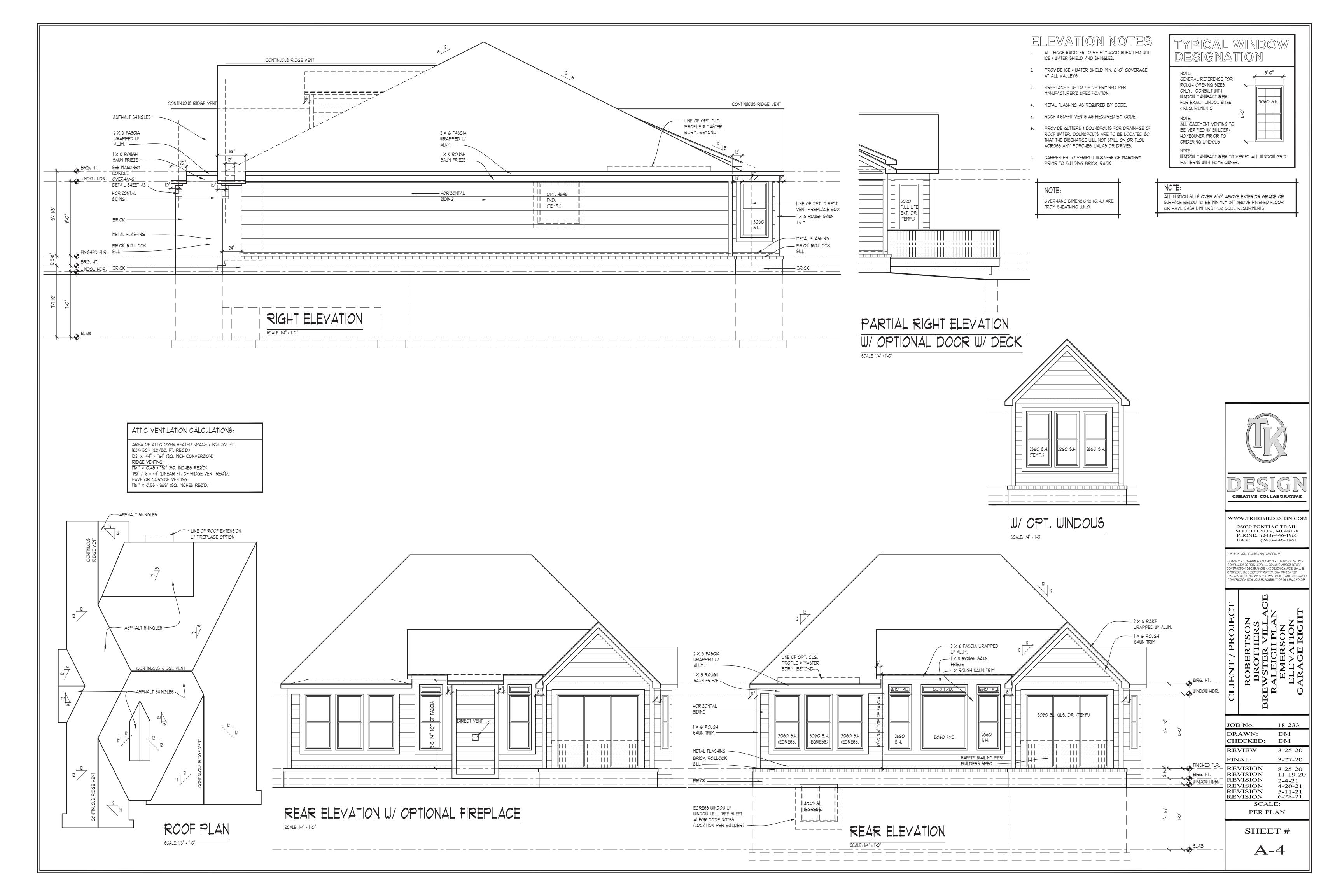
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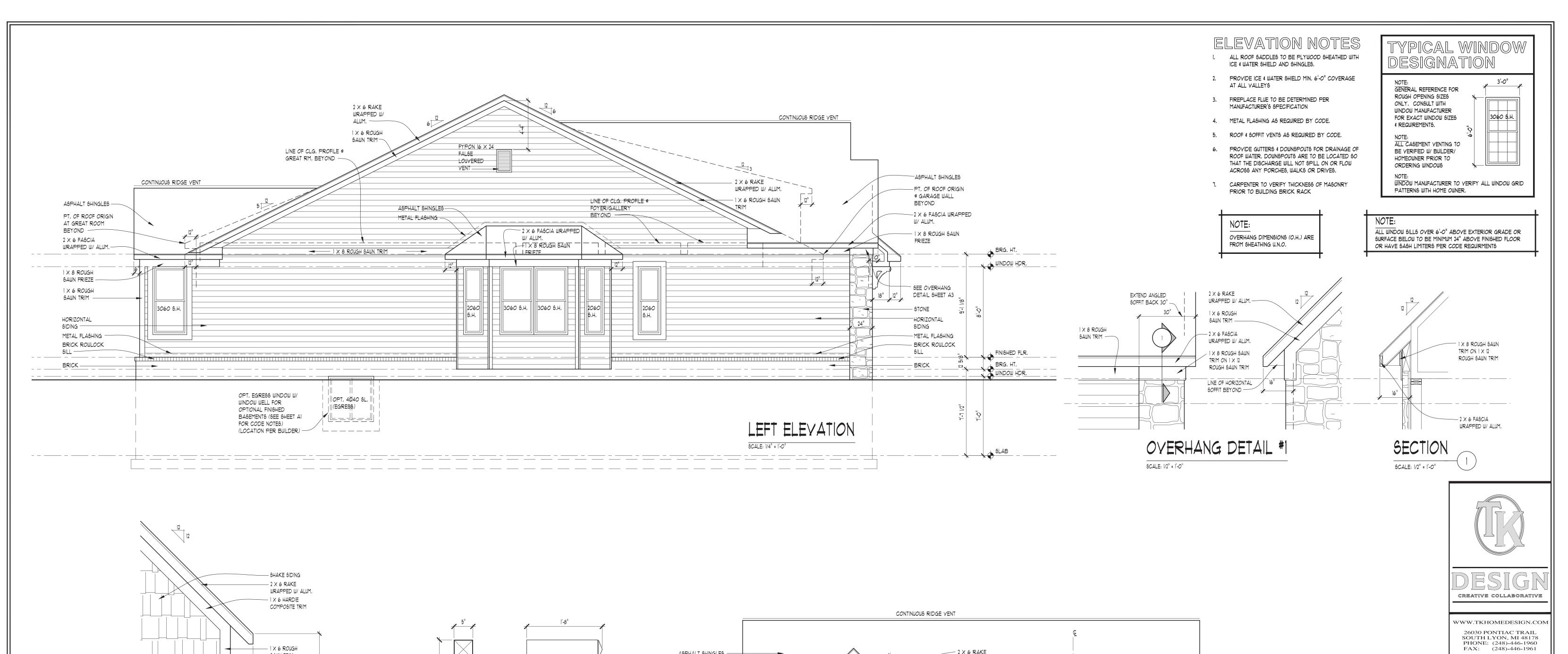
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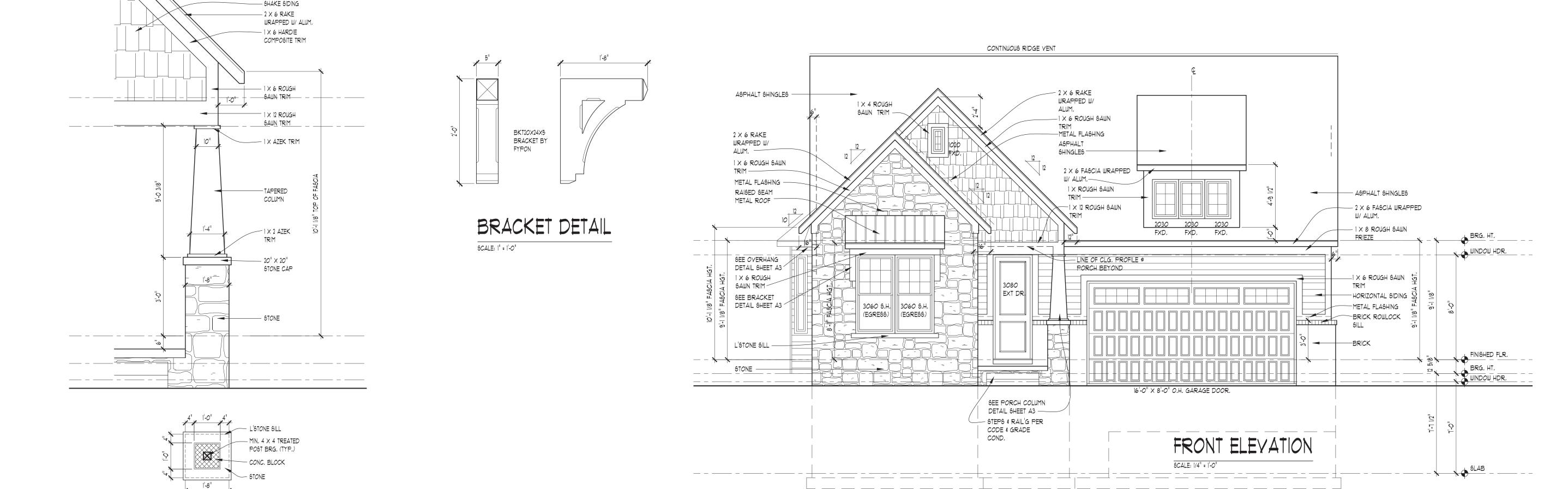
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SCALE:









PORCH COLUMN DETAIL

SCALE: 1/2" = 1'-0"

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ALL MISS DIG AT 680-482-7271 3 DAYS PRIOR TO ANY EXCAVATION
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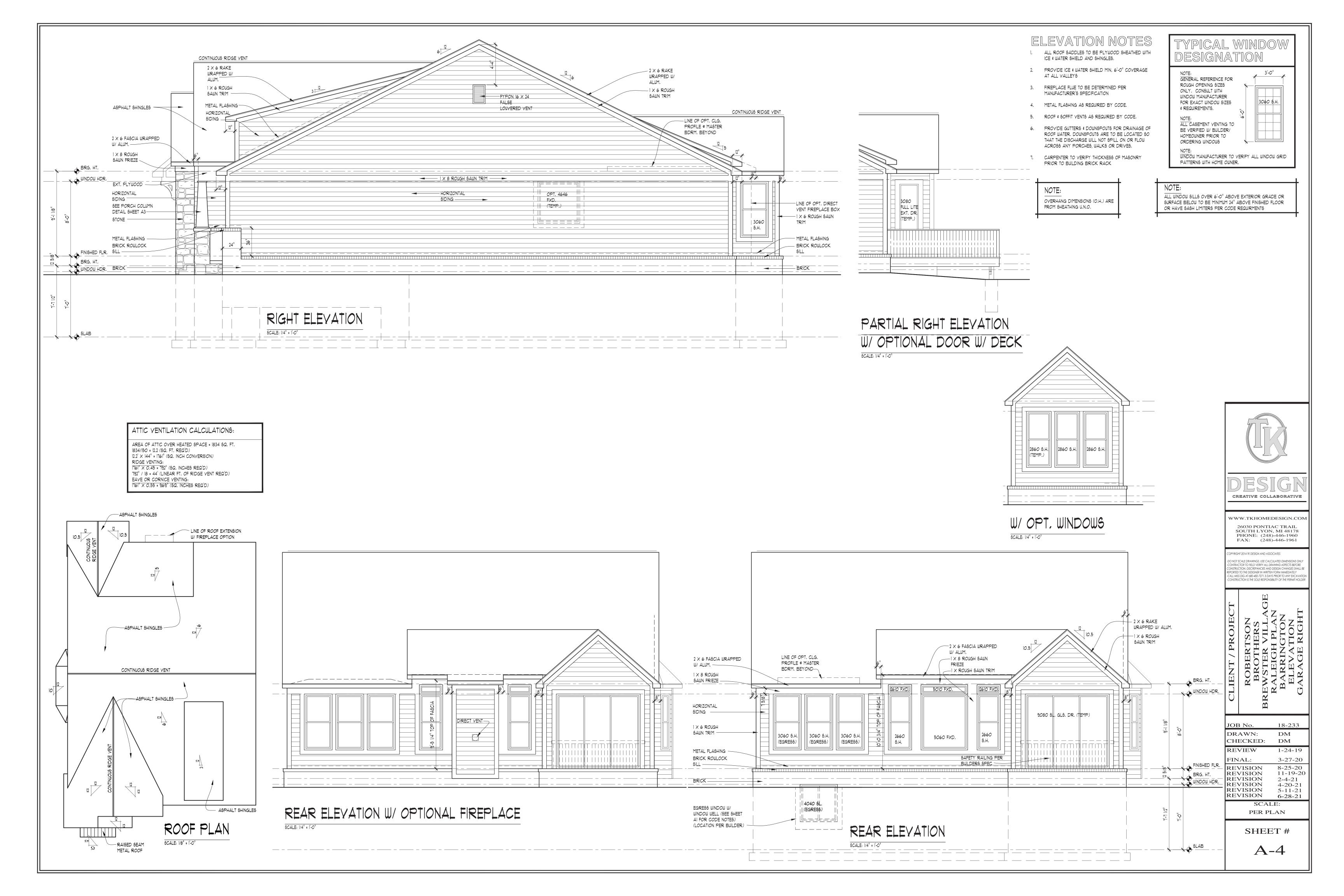
ROBERTSON
BROTHERS
REWSTER VILLAGE
RALEIGH PLAN
BARRINGTON
ELEVATION

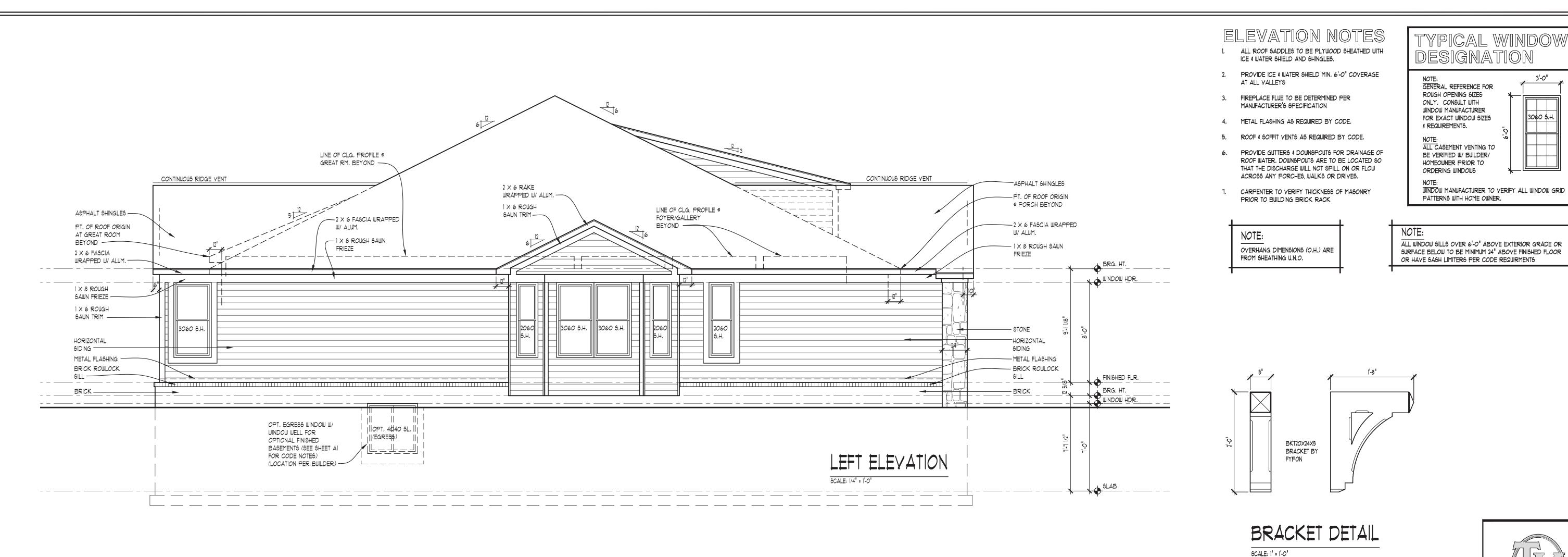
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REVIEW	1-24-19	
FINAL:	3-27-20	
REVISION REVISION REVISION REVISION REVISION REVISION	8-25-20 11-19-20 2-4-21 4-20-21 5-11-21 6-28-21	
SCALE:		
PER PLAN		

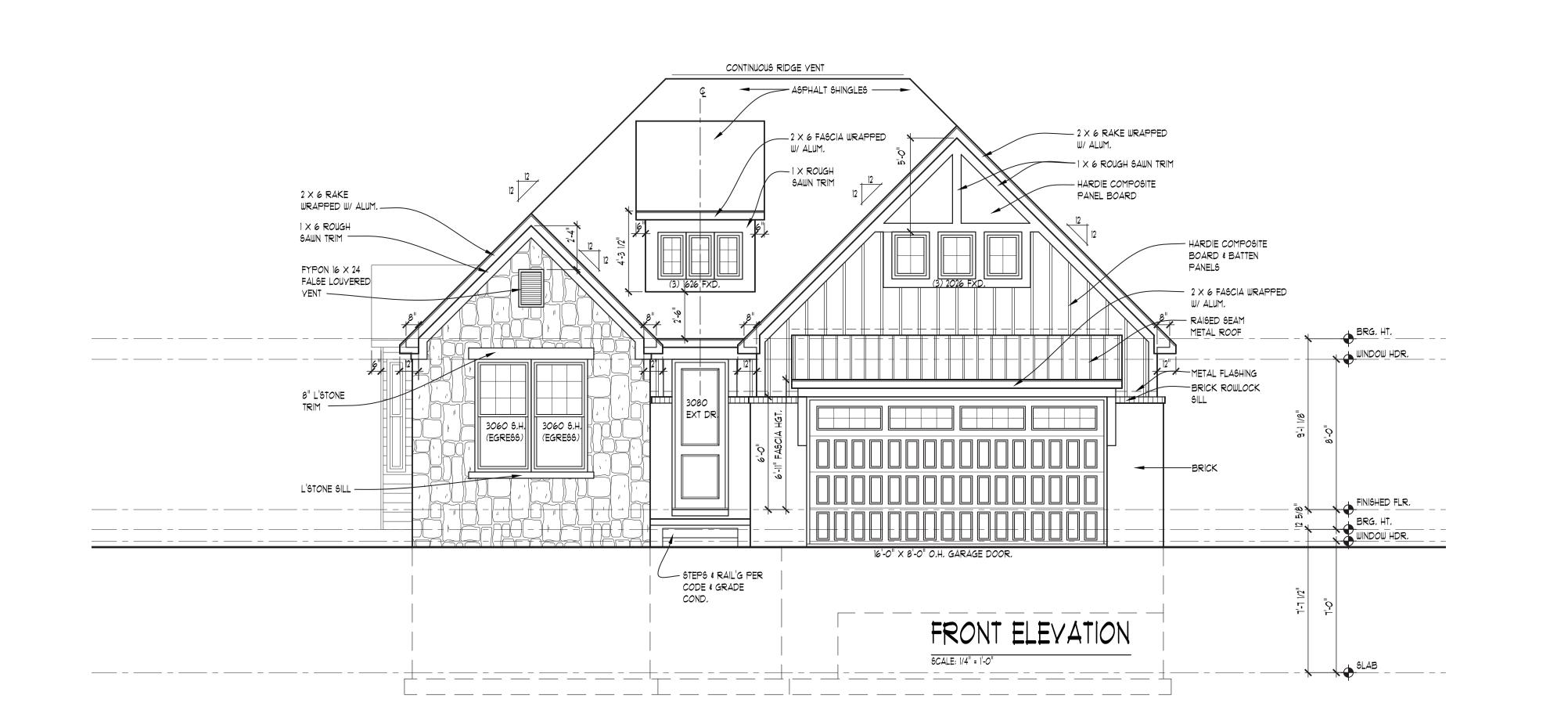
18-233

PER PLAN

SHEET#









3060 S.H.

CREATIVE COLLABORATIVE

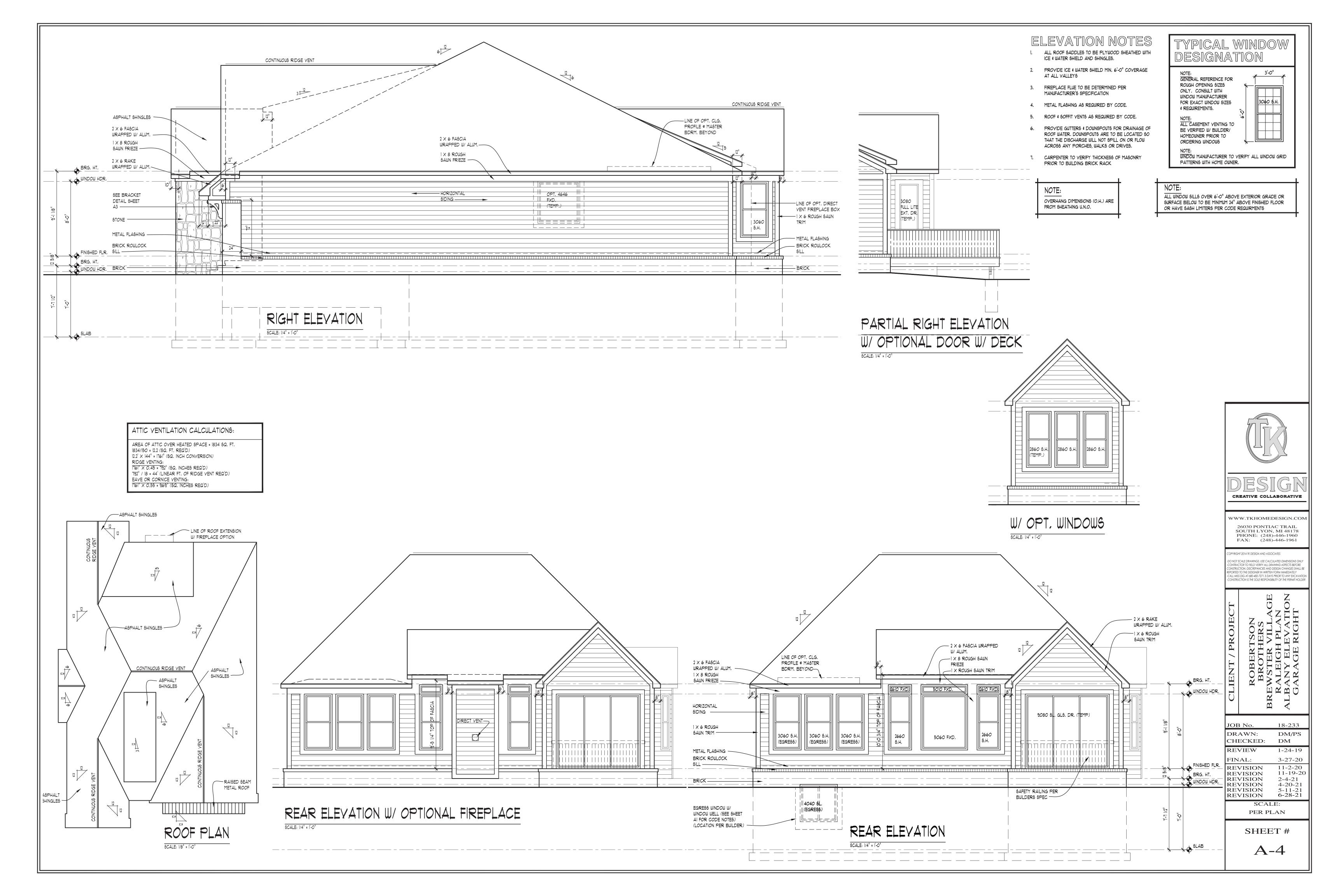
WWW.TKHOMEDESIGN.COM 26030 PONTIAC TRAIL SOUTH LYON, MI 48178 PHONE: (248)-446-1960 FAX: (248)-446-1961

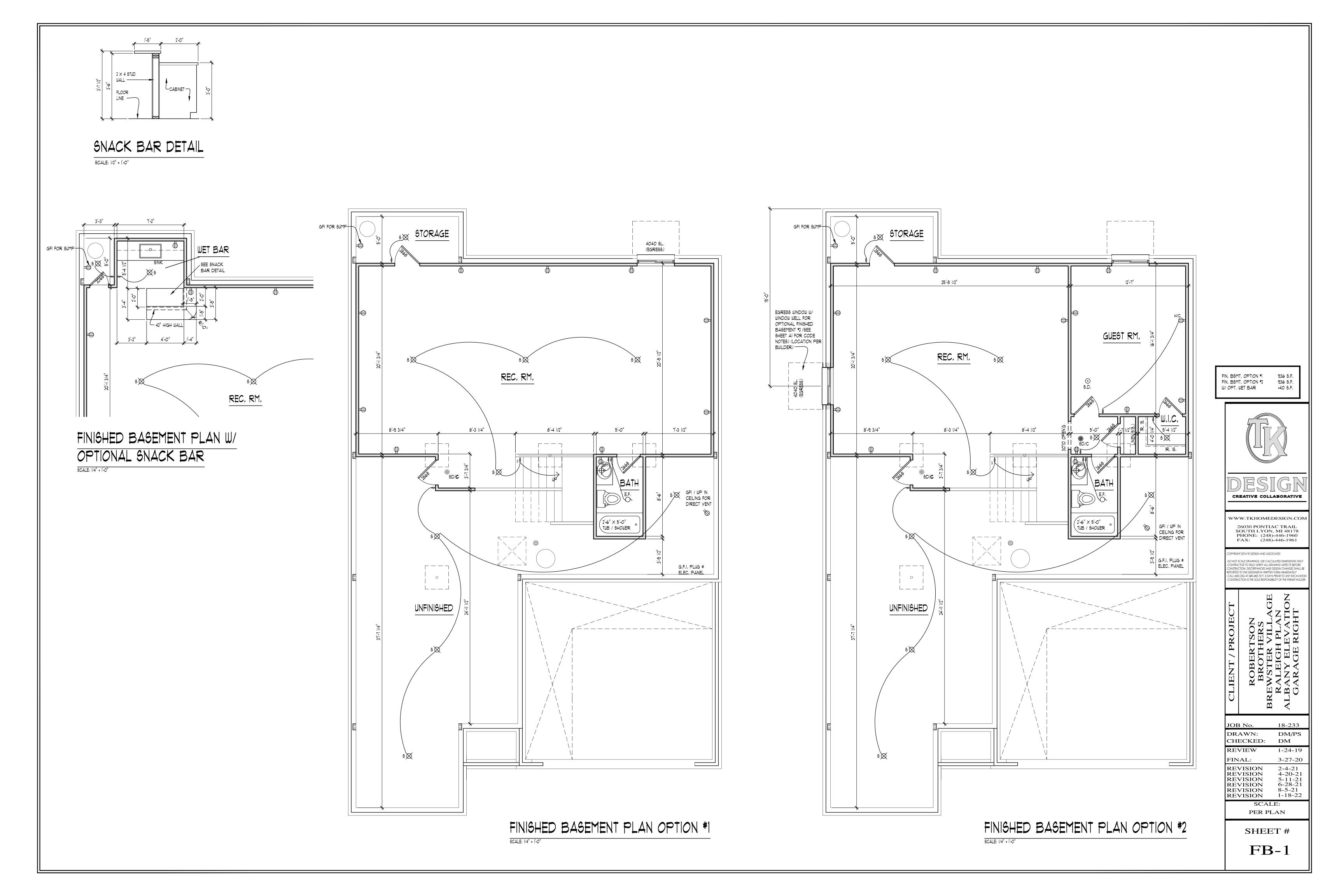
yright 2014 tk design and associates O NOT SCALE DRAWINGS, USE CALCULATED DIMENSIONS ONLY ONTRACTOR TO FIELD VERIFY ALL DRAWING ASPECTS BEFORE ONSTRUCTION, DISCREPANCIES AND DESIGN CHANGES SHALL BE PORTED TO THE DESIGNER IN WRITTEN FORM IMMEDIATELY ALL MISS DIG AT 680-482-7271 3 DAYS PRIOR TO ANY EXCAVATION ISTRUCTION IS THE SOLE RESPONSIBILITY OF THE PERMIT HOLDE

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SCALE:		

PER PLAN

SHEET#





INTERIOR WALLS:

1/2" GYPSUM WALL BOARD ON EACH SIDE OF 2x4 WOOD STUDS @ 16" O.C. 3 1/2" THICK TYPICAL (UNLESS NOTED OTHERWISE). ALL DIMENSION TAKEN FROM STUD EDGES

EXTERIOR WALLS:

SIDING AND/OR MASONRY WITH AIRSPACE, MOISTURE BARRIER PAPER (HOUSE WRAP) ON 1/16" O.S.B. SHEATHING ON 2X4 WOOD STUDS @ 16" O.C. OR AS NOTED, INSULATION TO BE INSTALLED TO MEET THE SIMULATED PERFORMANCE ALTERNATIVE METHOD IN ACCORDANCE WITH 2015 MRC SECTION NIIO5 BASED ON CLIMATE ZONE 5A, 1/2" GYP6UM WALL BOARD (GLUE & SCREW). WALL TO BE 4" THICK WITH SIDING AND 8" THICK WITH MASONRY (TYPICAL UNLESS NOTED OTHERWISE), ALL DIMENSION TAKEN FROM FRAMING (FLOOR PLANS) OR FOUNDATION CORNERS (FOUNDATION PLAN)

OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH 20-MINUTE FIRE RATED DOORS (OR EQUIVALENT PER 2015 MRC SECTION

- 2. YENT ALL EXHAUST FANS TO EXTERIOR.
- . WHEN POSSIBLE DIRECT ALL FLUES AND VENTS THAT PENETRATE ROOF BEHIND MAIN RIDGE.
- 4. INSTALL WATER SUPPLY AND DRAIN BOX (GREY BOX) AT WASHING MACHINE
- 5. USE MOISTURE RESISTANT DRYWALL AT ALL AREAS SUSCEPTIBLE TO
- . ALL FIRST FLOOR INTERIOR DOORS TO BE FRAMED 6'-8" TALL, UNLESS NOTED OTHERWISE, VERIFY W/ BUILDER
- PROVIDE GUARDRAIL AT STAIRS DURING CONSTRUCTION.
- PROVIDE SQUASH BLOCKS UNDER ALL BEARING CONDITIONS.
- . GARAGE WALLS TO BE 2X6 STUDS IF OVER 10'-0" TALL.

PROVIDE MIN. (2) 2 X 4 HEADER AT ALL INTERIOR & EXTERIOR DOOR & WINDOW OPENINGS (UNLESS NOTED OTHERWISE).

PROVIDE MIN. (1) JACK STUD & (1) KING STUD AT EACH END OF ALL HEADERS (UNLESS NOTED OTHERWISE).

PROVIDE MIN. (1) JOIST OR LADDER FRAMING UNDER ALL UPPER FLOOR PARALLEL PARTITIONS

6.D. ① 5D/C 🔘 ALL SMOKE & CARBON MONOXIDE DETECTORS INTERCONNECTED W/ BATTERY BACK-UP PER CODE.

DOOR & WINDOW LOCATIONS:

ALL DOORS & WINDOWS ARE ASSUMED TO BE EITHER IN THE CENTER OF THE WALL MASS OR MIN. 4 INCHES FROM PERPENDICULAR WALL FOR CASING UNLESS NOTED OTHERWISE

VERIFY DROPPED FLOOR AREAS FOR TILE WITH BUILDER

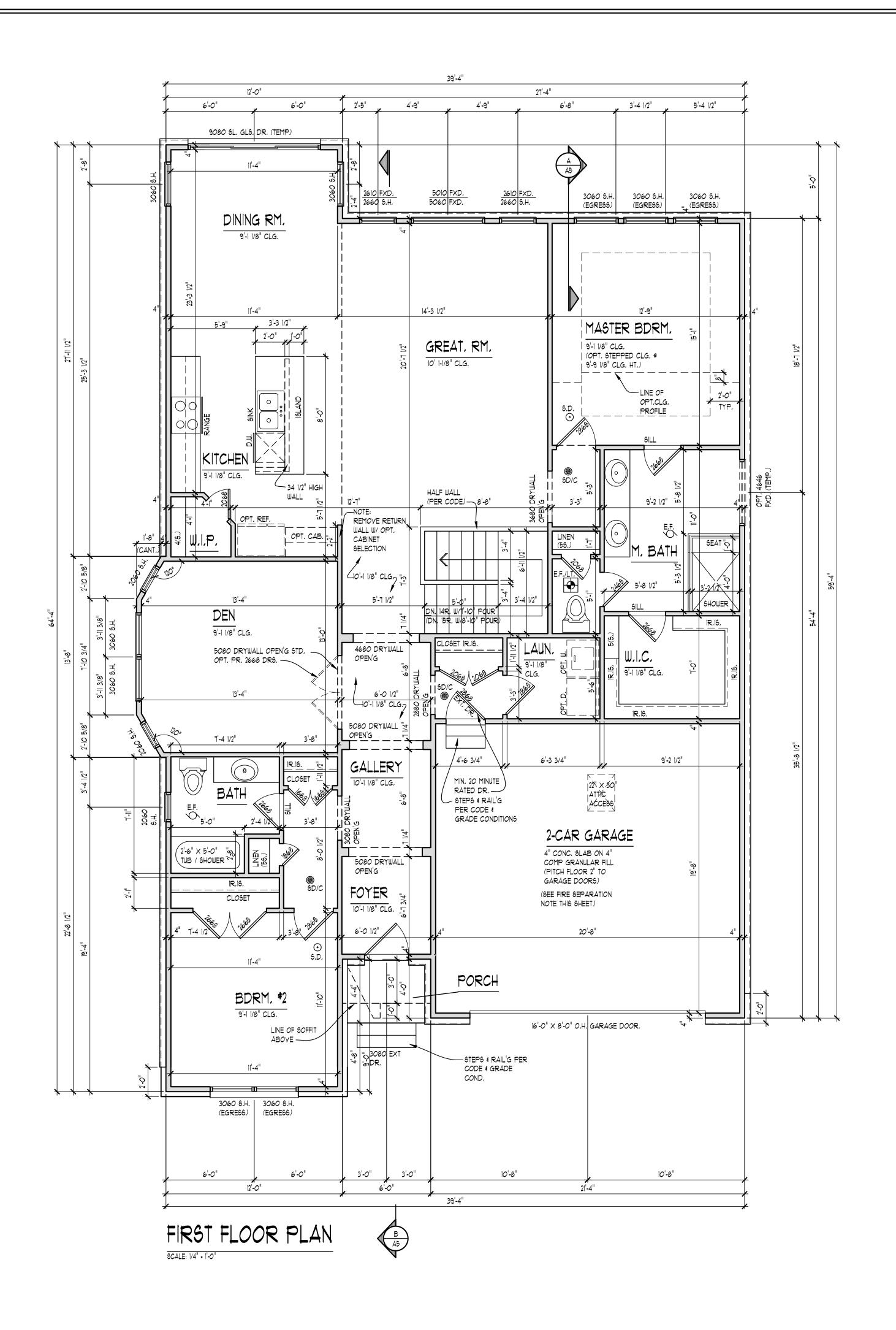
FIREPLACE NOTE

ALL FIREPLACE DIMENSIONS & ROUGH OPENINGS TO BE YERIFIED W/ MANUFACTURER SPECS INCLUDING BUT NOT LIMITED TO WIDTH, DEPTH, HEIGHT, CHIMNEY CLEARANCES, ETC. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL SPECS TO CARPENTER PRIOR TO FRAMING

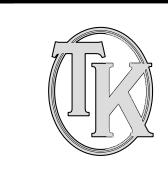
FIRE SEPARATION NOTE

FIRE SEPARATION (R302.6)

GARAGE SPACE BENEATH HABITABLE ROOMS SHALL BE SEPARATED FROM ALL HABITABLE ROOMS ABOYE BY NOT LESS THAN 5/8-INCH TYPE X GYPSUM BOARD OR EQUIVALENT. WHERE THE SEPARATION IS A FLOOR-CEILING ASSEMBLY, THE STRUCTURE SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED BY NOT LESS THAN 1/2-INCH GYPSUM BOARD OR EQUIVALENT. ALL OTHER GARAGE SPACE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAN 1/2-INCH GYPSUM BOARD APPLIED TO THE GARAGE SIDE. DROP CLG. UNDER FLR. ABY. (ENCLOSE MECHANICAL AND STRUCTURAL ELEMENTS) YERIFY W/ BLDR.



AREA SUMMARY: OYERALL FLOOR AREA: FIRST FLOOR 1834 S.F.



CREATIVE COLLABORATIVE

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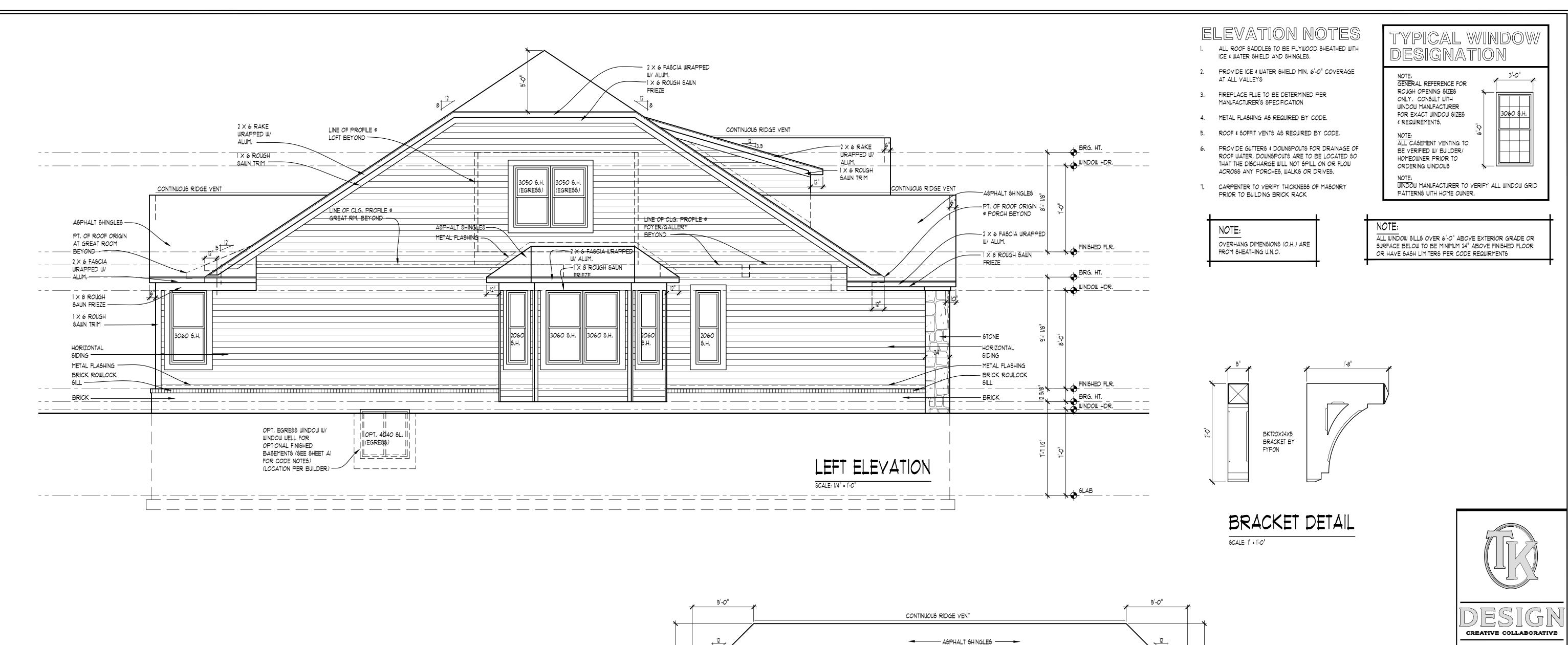
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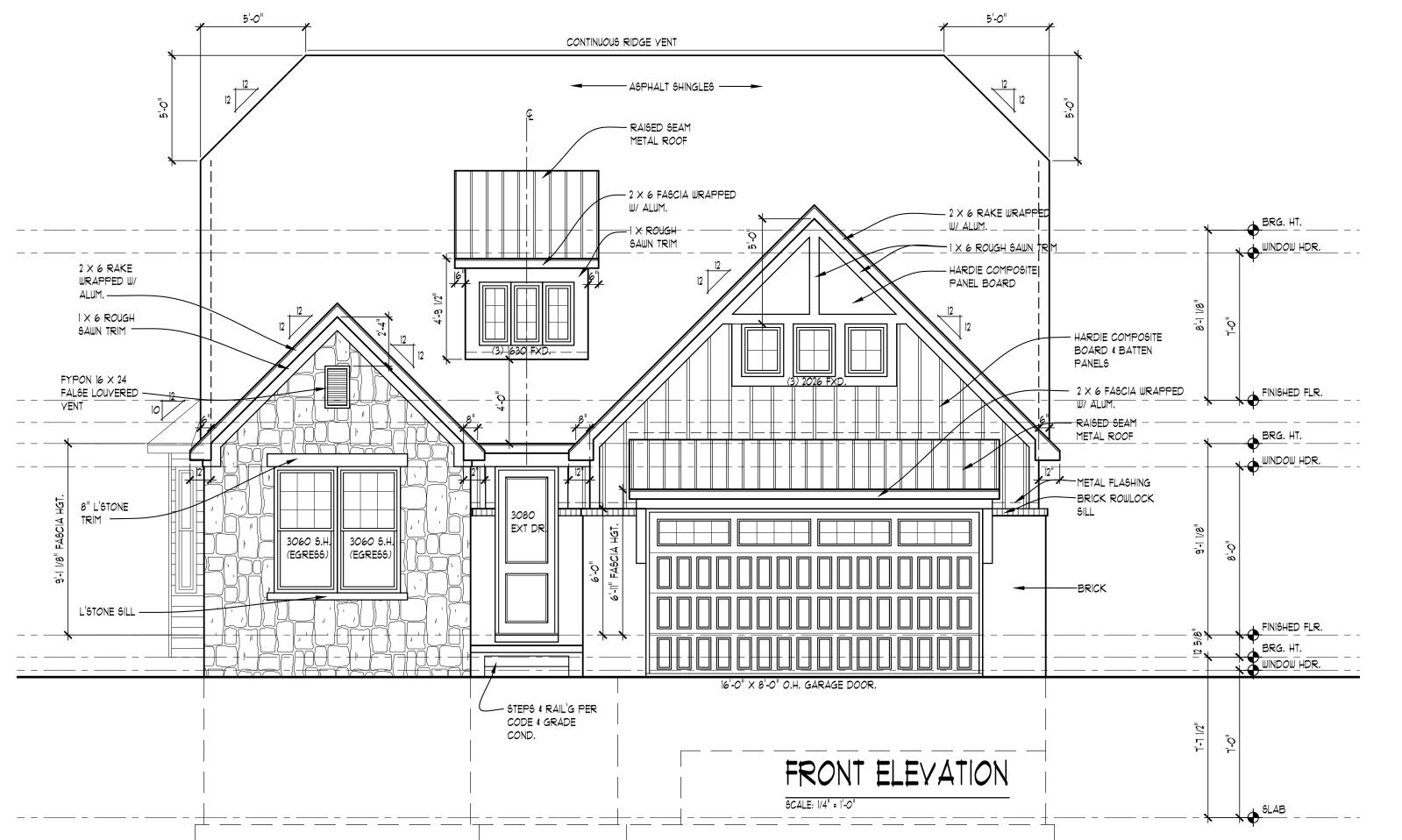
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CHECKED:	DM
REVIEW	1-24-19
FINAL:	3-27-20
REVISION	2-4-21
REVISION	4-20-21
REVISION	5-11-21
REVISION	6-28-21
REVISION	8-5-21
IREVISION	1-18-22

PER PLAN

SHEET#

SCALE:





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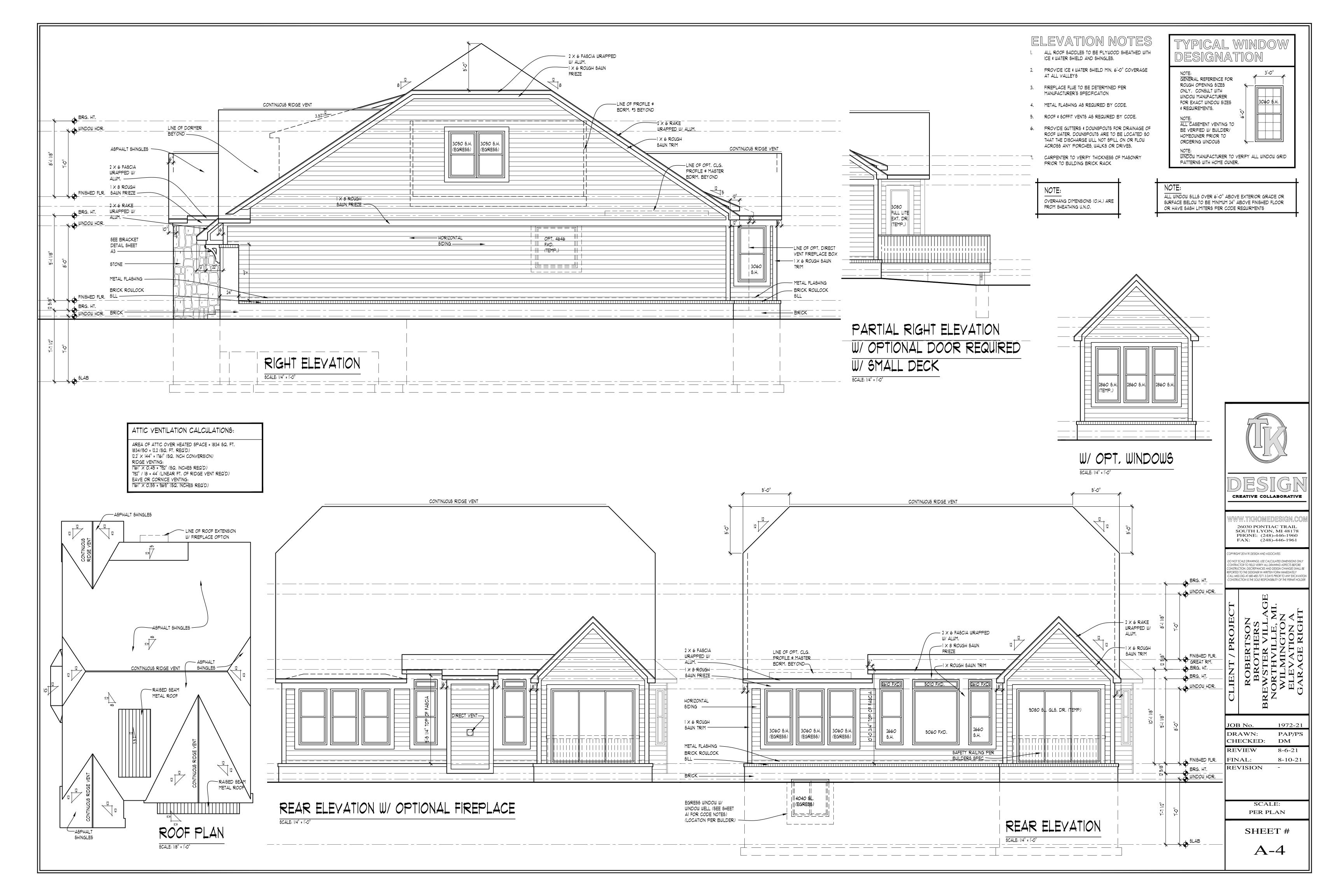
ROBERTSON
BROTHERS
REWSTER VILLAGE
NORTHVILLE, MI.
WILMINGTON
ELEVATION A

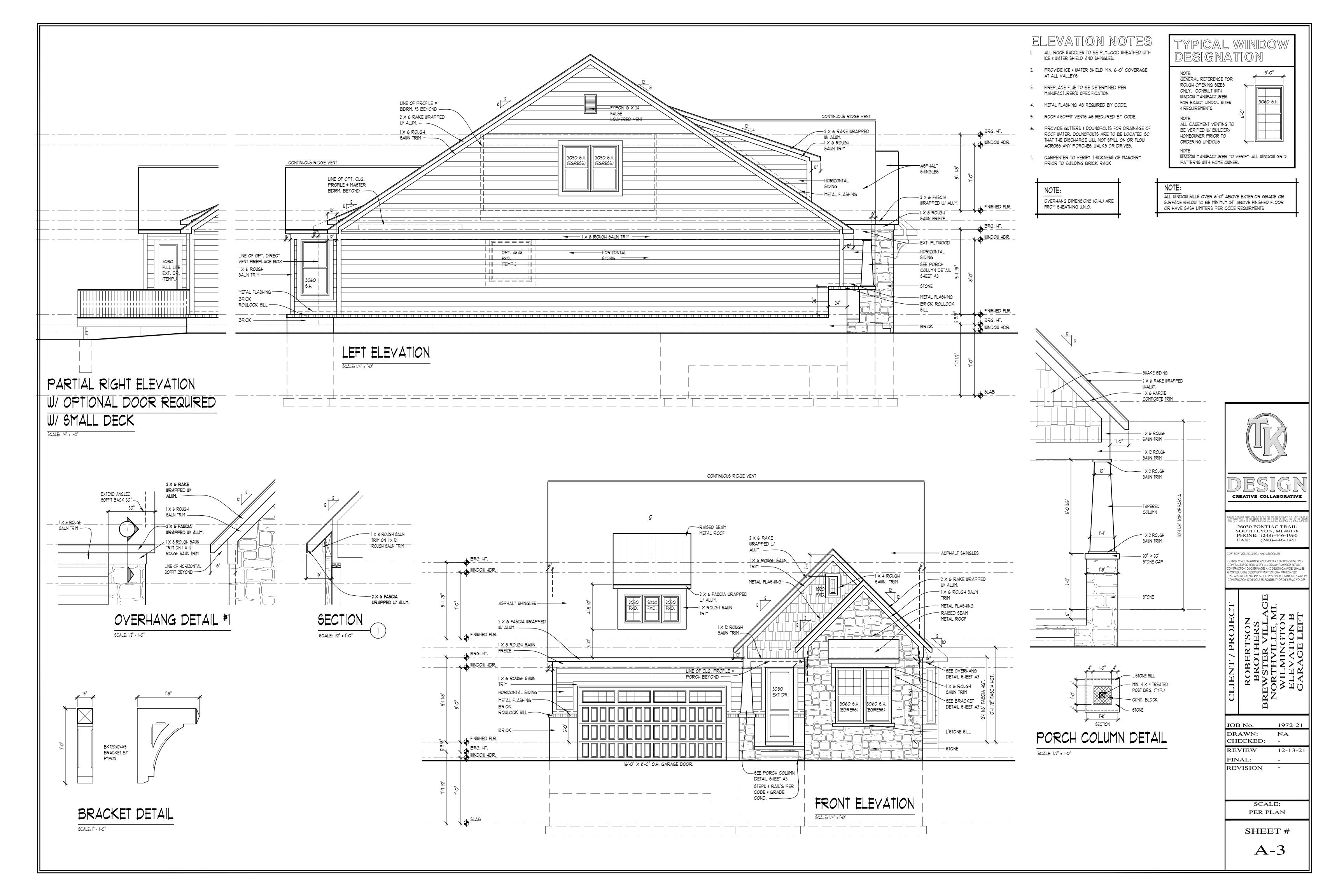
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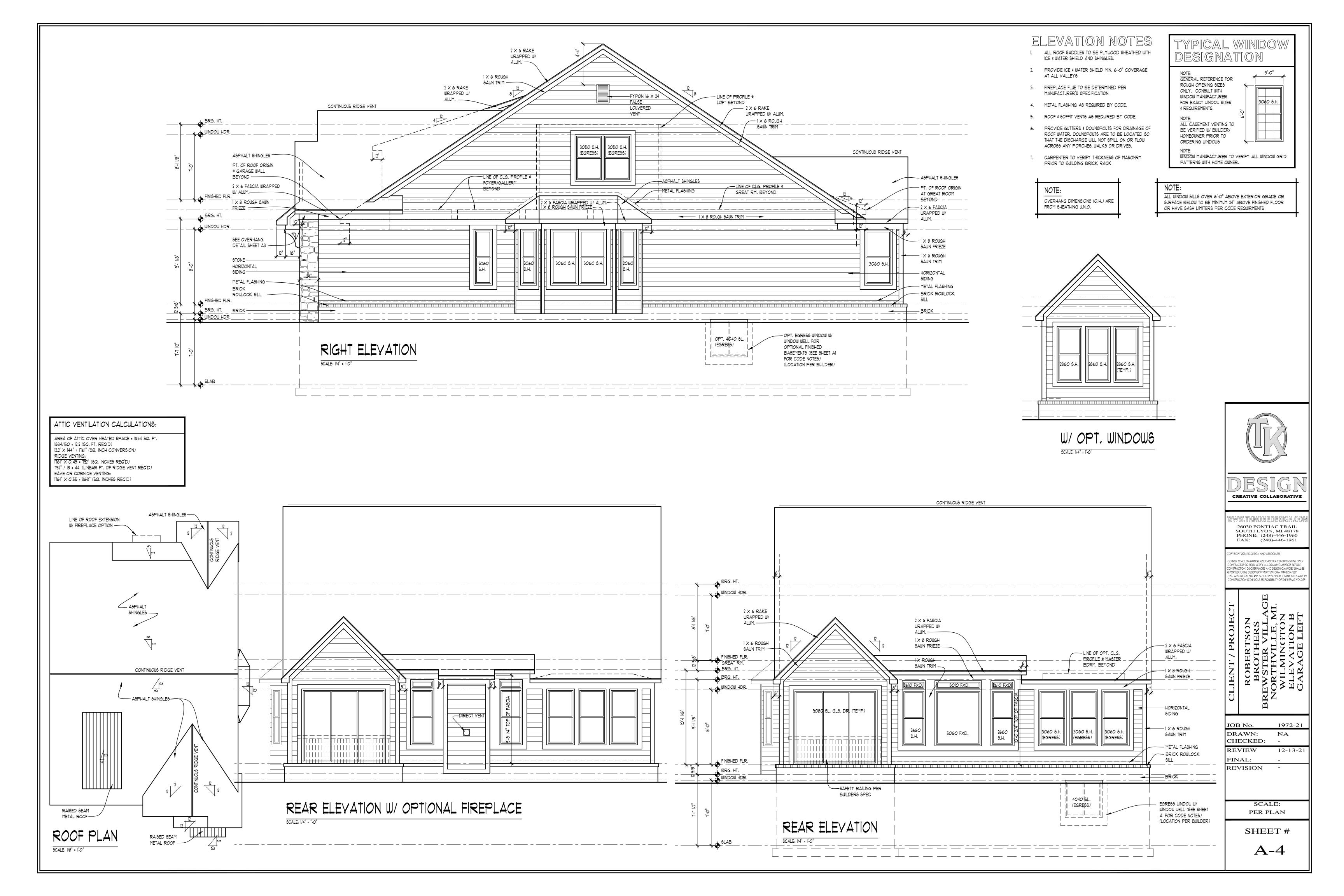
REVIEW 8-6-21
FINAL: 8-10-21
REVISION -

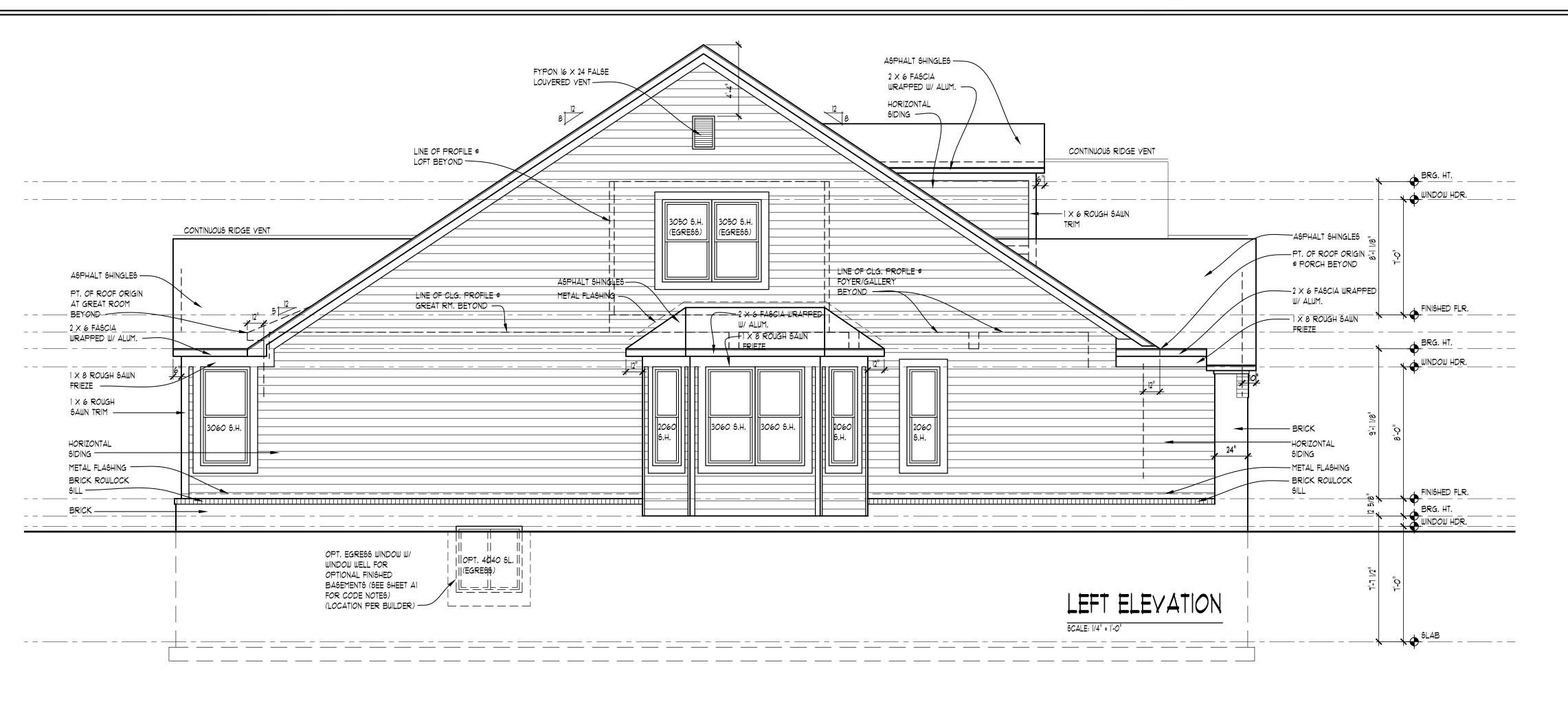
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SHEET #









ELEVATION NOTES

- I, ALL ROOF SADDLES TO BE PLYWOOD SHEATHED WITH ICE & WATER SHIELD AND SHINGLES.
- 2. PROVIDE ICE & WATER SHIELD MIN. 6'-0" COVERAGE AT ALL YALLEYS
- 3. FIREPLACE FLUE TO BE DETERMINED PER
- MANUFACTURER'S SPECIFICATION
- 4. METAL FLASHING AS REQUIRED BY CODE.
- 5. ROOF & SOFFIT YENTS AS REQUIRED BY CODE.
- 6. PROVIDE GUTTERS & DOWNSPOUTS FOR DRAINAGE OF ROOF WATER, DOWNSPOUTS ARE TO BE LOCATED SO THAT THE DISCHARGE WILL NOT SPILL ON OR FLOW ACROSS ANY PORCHES, WALKS OR DRIVES.
- CARPENTER TO VERIFY THICKNESS OF MASONRY PRIOR TO BUILDING BRICK RACK

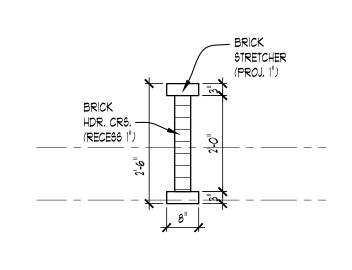
OVERHANG DIMENSIONS (O.H.) ARE

FROM SHEATHING U.N.O.

DESIGNATION		
NOTE: GENERAL REFERENCE FOR ROUGH OPENING SIZES ONLY. CONSULT WITH WINDOW MANUFACTURER FOR EXACT WINDOW SIZES & REQUIREMENTS. NOTE: ALL CASEMENT VENTING TO BE VERIFIED W/ BUILDER/ HOMEOWNER PRIOR TO ORDERING WINDOWS NOTE: WINDOW MANUFACTURER TO Y PATTERNS WITH HOME OWNER	,	

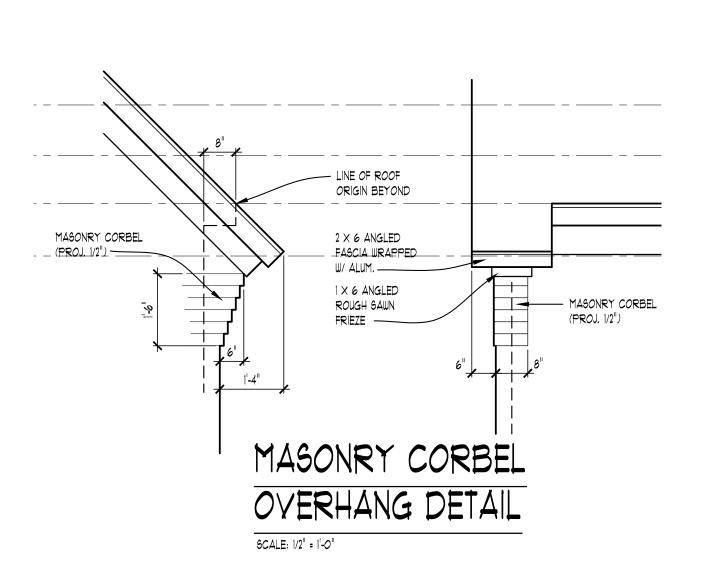
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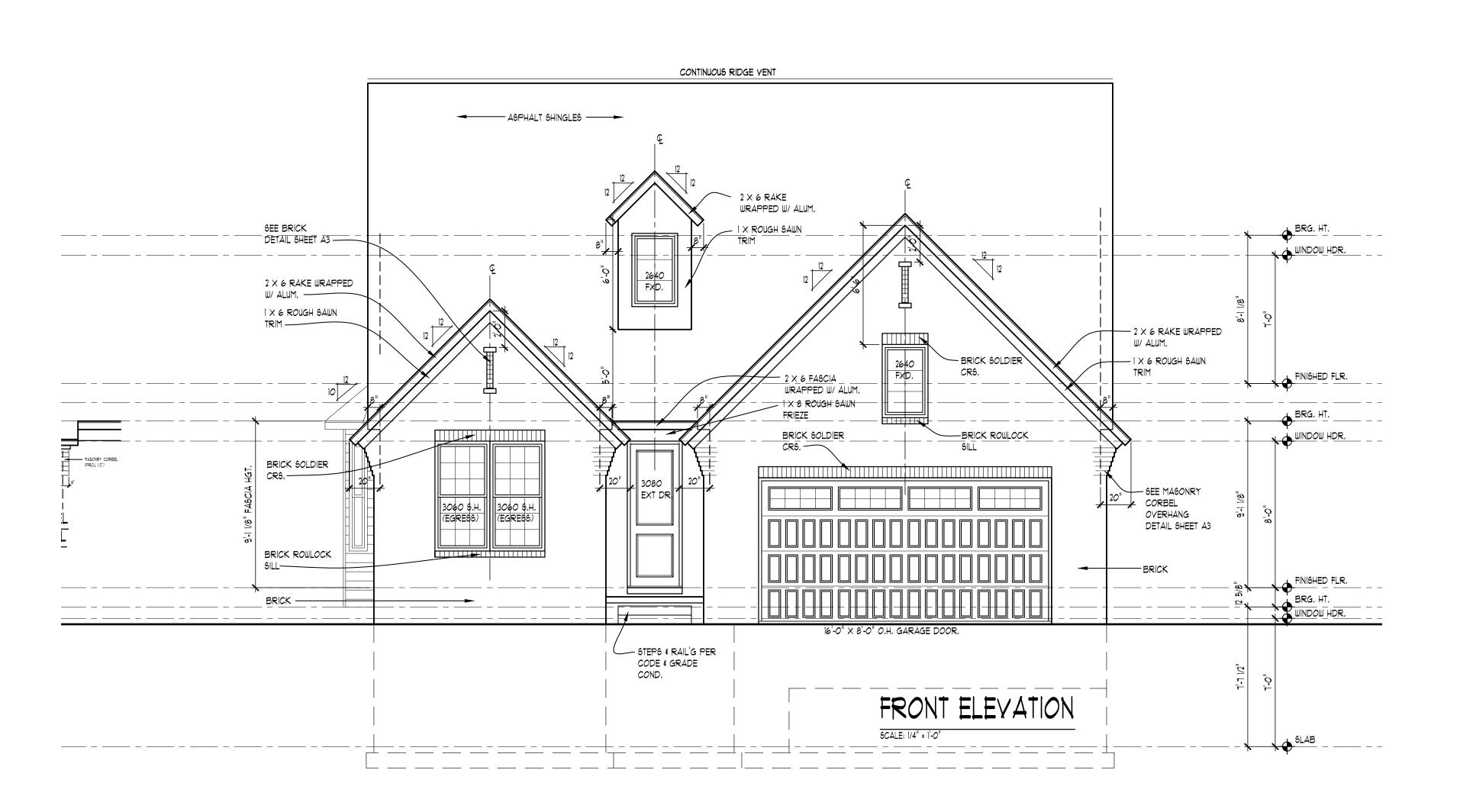
ALL WINDOW SILLS OVER 6'-O" ABOVE EXTERIOR GRADE OR SURFACE BELOW TO BE MINIMUM 24" ABOVE FINISHED FLOOR OR HAVE SASH LIMITERS PER CODE REQUIRMENTS

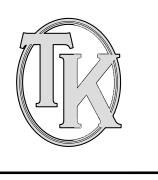


BRICK DETAIL

SCALE: 1/2" = 1'-0"







DESIGN

CREATIVE COLLABORATIVE

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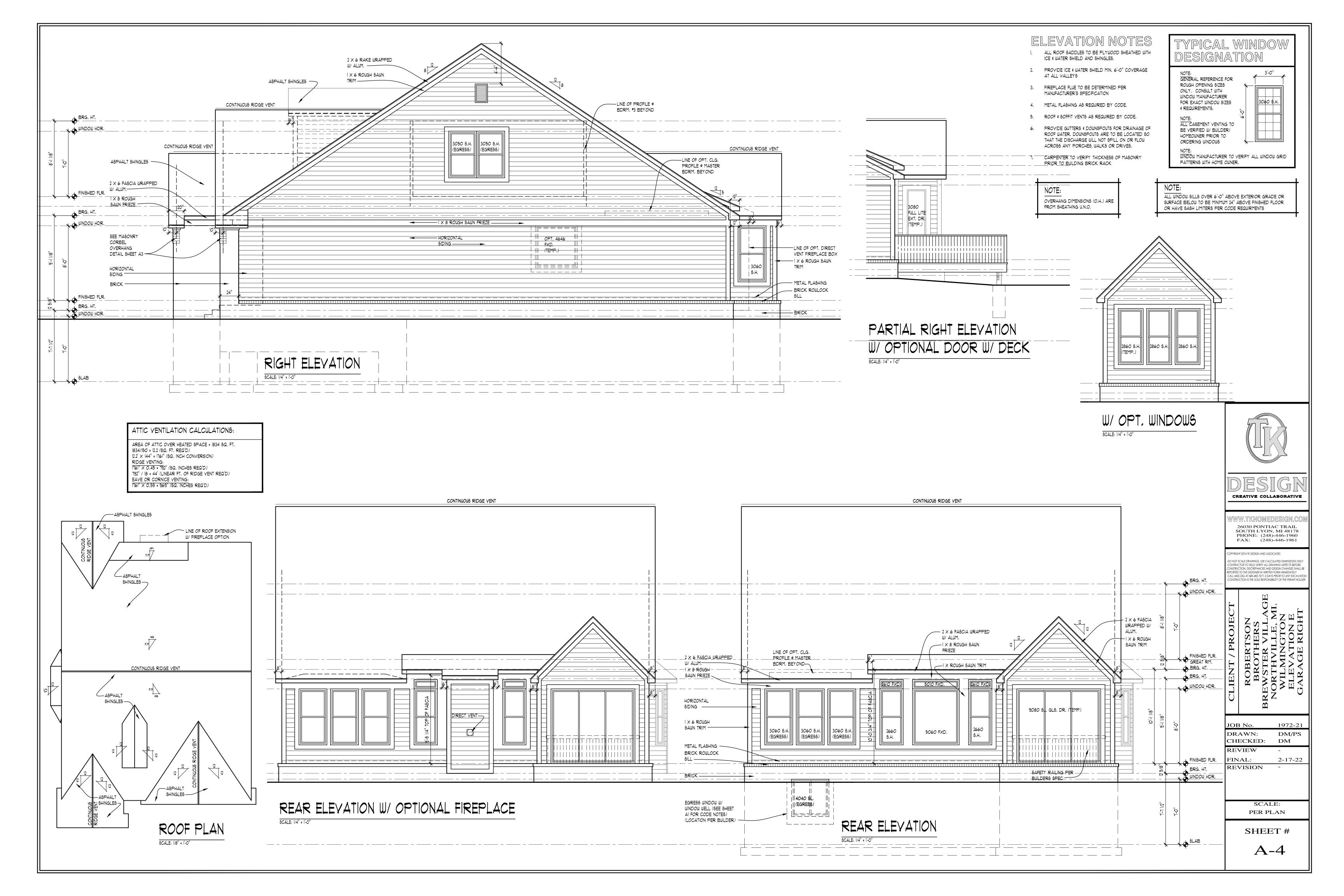
ROBERTSON
BROTHERS
REWSTER VILLAGE
NORTHVILLE, MI.
WILMINGTON
ELEVATION E

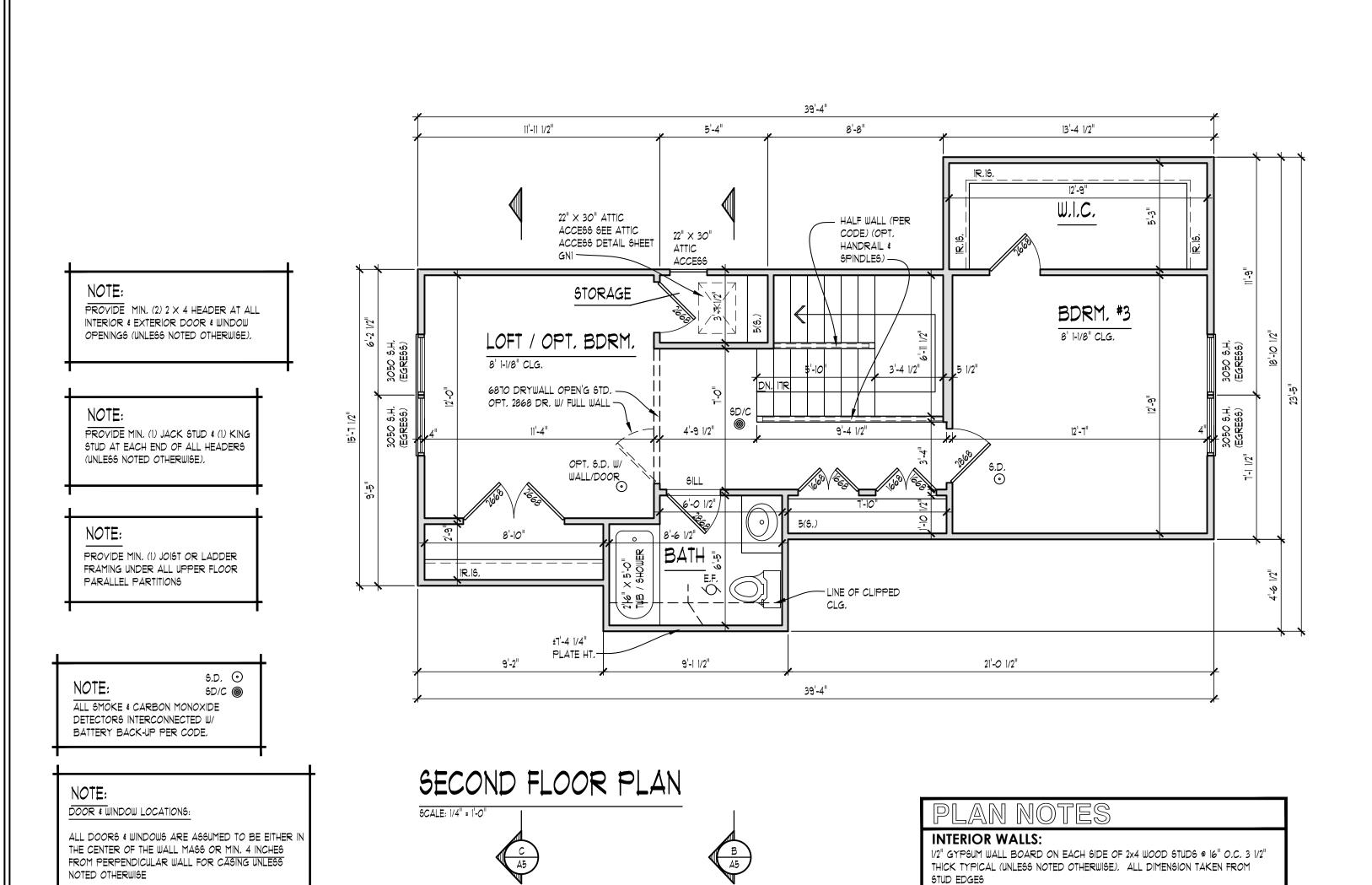
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CHECKED: DM

REVIEW FINAL: 2-17-22
REVISION -

SCALE: PER PLAN

SHEET #





VERIFY DROPPED FLOOR AREAS

FOR TILE WITH BUILDER

FIREPLACE NOTE

FIRE SEPARATION NOTE

FIRE SEPARATION (R302.6)

ALL FIREPLACE DIMENSIONS & ROUGH OPENINGS TO BE

YERIFIED W/ MANUFACTURER SPECS INCLUDING BUT NOT LIMITED TO WIDTH, DEPTH, HEIGHT, CHIMNEY CLEARANCES,

ETC. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO

PROVIDE ALL SPECS TO CARPENTER PRIOR TO FRAMING

GARAGE SPACE BENEATH HABITABLE ROOMS SHALL BE SEPARATED FROM ALL HABITABLE ROOMS

SEPARATION IS A FLOOR-CEILING ASSEMBLY, THE STRUCTURE SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED BY NOT LESS THAN 1/2-INCH GYPSUM BOARD OR EQUIVALENT. ALL OTHER

GARAGE SPACE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS

THAN 1/2-INCH GYPSUM BOARD APPLIED TO THE GARAGE SIDE, DROP CLG, UNDER FLR, ABY,

(ENCLOSE MECHANICAL AND STRUCTURAL ELEMENTS) VERIFY W/ BLDR,

ABOYE BY NOT LESS THAN 5/8-INCH TYPE X GYPSUM BOARD OR EQUIVALENT, WHERE THE

EXTERIOR WALLS:

R302.5.1).

LOCATION.

BEHIND MAIN RIDGE,

FOUNDATION CORNERS (FOUNDATION PLAN)

. YENT ALL EXHAUST FANS TO EXTERIOR.

NOTED OTHERWISE, YERIFY W/ BUILDER

SIDING AND/OR MASONRY WITH AIRSPACE, MOISTURE BARRIER PAPER (HOUSE WRAP) ON 1/16" O.S.B. SHEATHING ON 2X4 WOOD STUDS @ 16" O.C. OR AS

NOTED, INSULATION TO BE INSTALLED TO MEET THE SIMULATED PERFORMANCE ALTERNATIVE METHOD IN ACCORDANCE WITH 2015 MRC SECTION NIIO5 BASED

ON CLIMATE ZONE 5A, 1/2" GYPSUM WALL BOARD (GLUE & SCREW). WALL TO BE

OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH

20-MINUTE FIRE RATED DOORS (OR EQUIVALENT PER 2015 MRC SECTION

WHEN POSSIBLE DIRECT ALL FLUES AND VENTS THAT PENETRATE ROOF

USE MOISTURE RESISTANT DRYWALL AT ALL AREAS SUSCEPTIBLE TO

. ALL FIRST FLOOR INTERIOR DOORS TO BE FRAMED 6'-8" TALL, UNLESS

PROVIDE GUARDRAIL AT STAIRS DURING CONSTRUCTION.

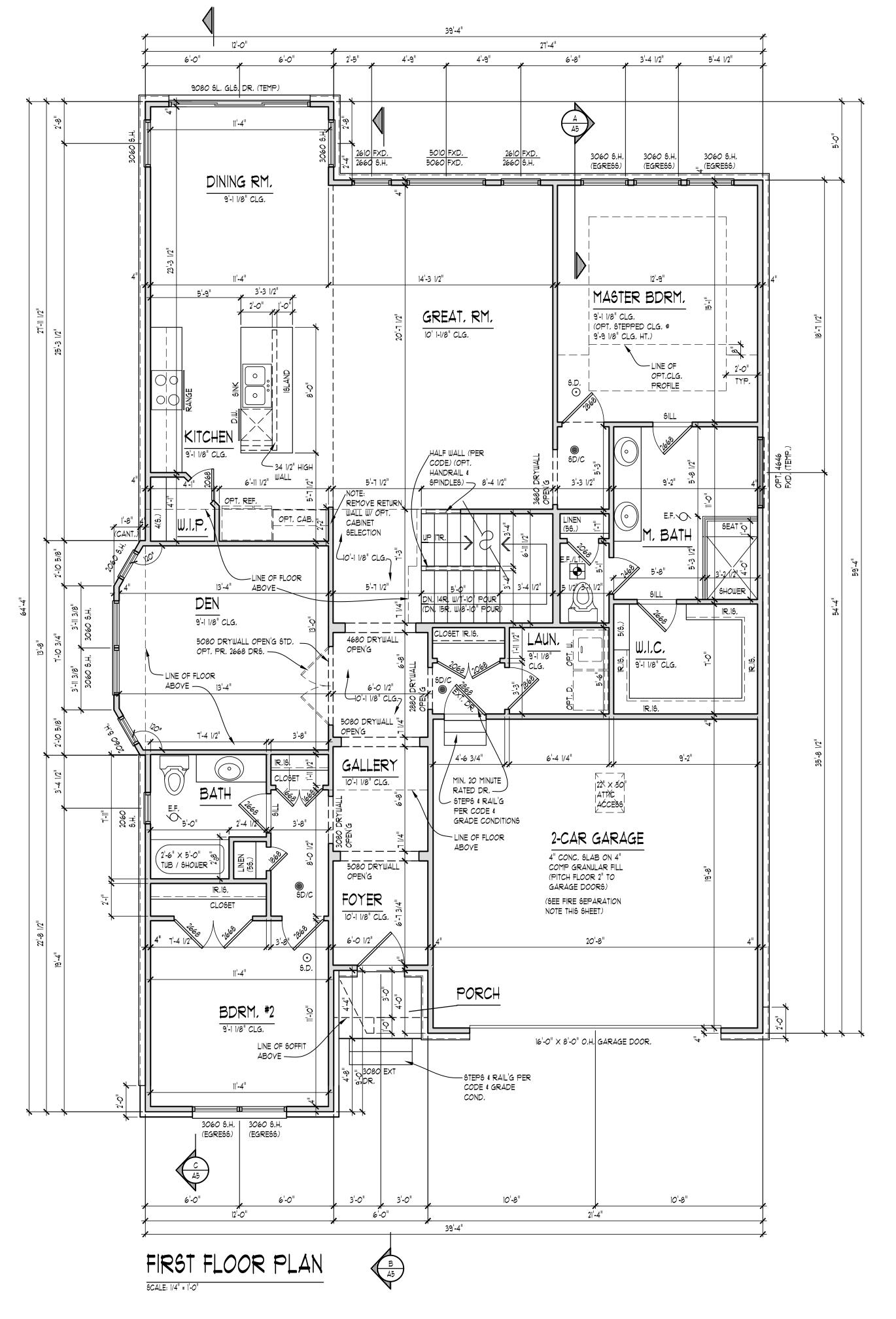
. GARAGE WALLS TO BE 2X6 STUDS IF OVER 10'-0" TALL.

PROVIDE SQUASH BLOCKS UNDER ALL BEARING CONDITIONS.

I. INSTALL WATER SUPPLY AND DRAIN BOX (GREY BOX) AT WASHING MACHINE

4" THICK WITH SIDING AND 8" THICK WITH MASONRY (TYPICAL UNLESS NOTED

OTHERWISE), ALL DIMENSION TAKEN FROM FRAMING (FLOOR PLANS) OR



AREA SUMMARY:

OVERALL FLOOR AREA:
FIRST FLOOR 1834 S.F.
SECOND FLOOR 598 S.F.
TOTAL 2432 S.F.



DESIGN
CREATIVE COLLABORATIVE

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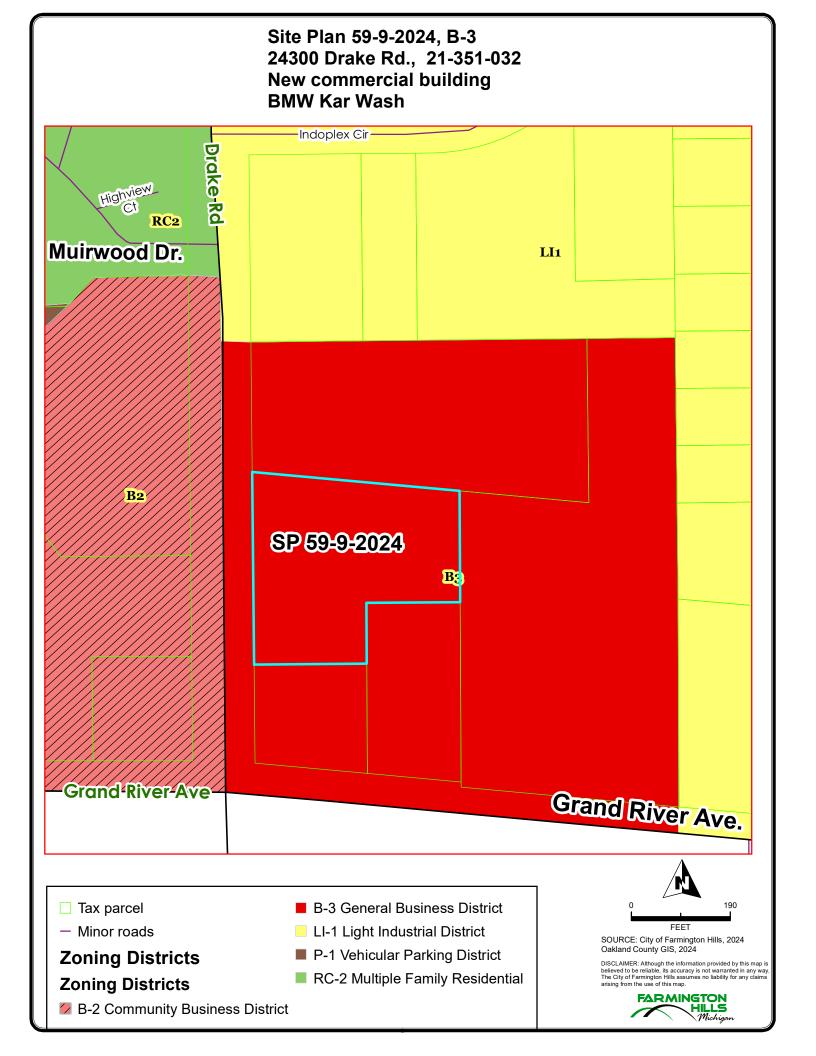
ROBERTSON
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WILMINGTON
ELEVATION A

JOB No. 1972-21
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REVISION

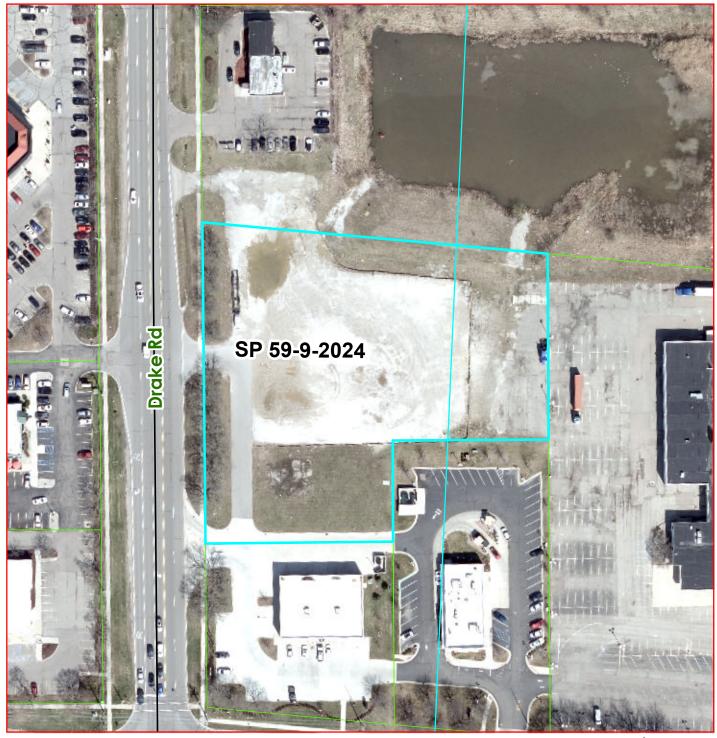
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SHEET#

A-2



Site Plan 59-9-2024, B-3 24300 Drake Rd., 21-351-032 New commercial building BMW Kar Wash



Planning Division



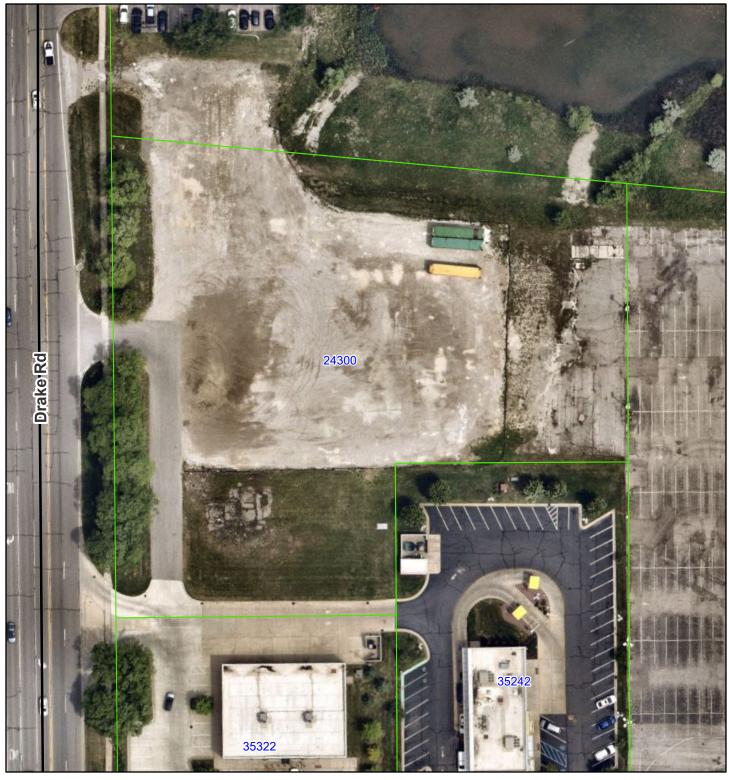
SOURCE: City of Farmington Hills, 2024 Oakland County GIS, 2024

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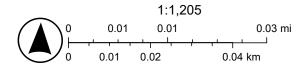
Tax parcel

24300 Drake Rd., early 2024



10/2/2024, 1:26:39 PM

Tax parcels



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December 11, 2024



Farmington Hills Planning Commission 31555 W 11 Mile Rd Farmington Hills, MI 48336

Site Plan Review

Case: SP59-9-24

Site: 24300 Drake (23-21-351-032)

Applicant: BMW Kar Wash, LLC

Plan Date: September 18, 2024; Revised November 18, 2024

Zoning: B-3 General Business

We have completed a review of the application for site plan approval and a summary of our findings is below. Items in **bold** require specific action. Items in *italics* can be addressed administratively.



Date: 12/09/2024 Project: 59-5-2024

Page: 2

SUMMARY OF FINDINGS

Summary of Proposal. The applicant proposes to construct a new 6,140 SF automated car wash facility, with 17 vacuum spaces with frontage along Drake Rd. between Grand River Avenue and Indoplex Circle. The plans involve maintaining the existing curb cut along Drake, with additional marginal access to the site from access drives connecting to the businesses to the south and east. A stub street connecting to the north is also proposed.

Summary of issues.

For Planning Commission consideration:

- Dead end off-street parking aisles are discouraged. Such parking aisles with more than 8 spaces
 are required to have sufficient space for vehicles to turnaround. Two-way access provides a
 means for vehicles to turnaround. The planning commission shall review this parking
 configuration and confirm whether it meets this requirement.
- A hedge is only provided along the northern half of the Drake Road frontage. The site includes
 existing trees along the road frontage which has a partial screening effect, but may not
 adequately mitigate the impact as effectively as a knee wall or hedge. Planning Commission
 should review and confirm.

For administrative review:

- Easement agreements shall be provided to allow for the proposed connections with adjacent lots.
- Applicant shall describe location of required 260 sf loading space
- Rooftop equipment is not addressed on the plans; ground-mounted mechanical equipment is also required to be screened including the HVAC shown along the north elevation.
- The drive lane does not meet the required 25 foot turning radius.
- The two egress stacking spaces beyond the washing bay should be depicted on the plans
- The bypass and drive-through/pay lane exceed the required average to minimum illumination ratio
- Building-mounted entrance fixtures exceed 2,000 lumens per door

Existing Conditions

- 1. **Zoning.** The site is 2.7 acres and zoned B-3.
- 2. **Existing site.** The site is currently vacant. There is an asphalt drive lane into the site, but the majority of the site is dirt/gravel.
- 3. Adjacent properties.

Direction	Zoning	Land Use	Future Land Use
North	B-3	Car Rental	Grand River Corridor
South	B-3	Retail/ Drive-Thru	Grand River Corridor
East	B-3	Auto Sales	Grand River Corridor
West	B-2	Grocery Store/ Shopping	Commercial
		Center	



4. **Existing site configuration and access.** The site is currently accessed through a single curb cut on Drake Road (between Grand River Ave. and Indoplex Circle). There is a marginal access drive to the property to the south.

Site Plan & Use:

- 1. **Use.** A car wash is a principally permitted use in the B-3 district, subject to PC approval and the standards of Section 4.40 (see below).
- 2. **Proposed site configuration and access.** The plans involve maintaining the existing curb cut along Drake, serving as the main entry point to the site. Additional marginal access drives connect to the properties south and east. A stub street connecting to the north was also provided. *Easement agreements shall be provided to allow for the proposed connections with adjacent lots*.
- 3. **Dimensional Standards (B-3 district).** See footnotes after the table for remarks on compliance issues.

Item	Required	Proposed/Comments			
Standards of Sec. 34-3.1.2	Standards of Sec. 34-3.1.25.E				
Min. lot size	None specified	2.7 Acres			
Min. lot width	None specified	370′¹			
Front Setback (west)	25 ft	86.55'			
Rear Setback (east)	20 ft	154.46'			
Side Setback (north)	10 ft	50.54'			
Side Setback (south)	10 ft	121.2'			
Building Height	50 feet	24'3"			
Front Yard Open Space	50%	>50%			

Date: 12/09/2024 Project: 59-5-2024

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Item	Required	Proposed/Comments
Other dimensional standa	rds	
Yard landscaping (34-3.5.2.A)	For all uses except one-family detached residential units, landscaping of all yards abutting a street shall be provided	See landscaping comments below.
Minimum parking setback (34-3.5.2.J)	10 feet	Compliant
Loading space (34-3.5.2.N)	10 feet of loading space per front foot of building = 260 sq ft	Applicant shall describe location of required loading
Rooftop equipment (34-3.5.2.U.)	Rooftop equipment shall be screened in accordance with Section 34-5.17.	Rooftop equipment is not addressed on the plans; ground-mounted mechanical equipment is also required to be screened including the HVAC shown along the north elevation.
Landscape area abutting street or freeway (34-3.5.2.V.)	A landscaped area not less than ten (10) feet deep	Compliant

4. B-3 Required Conditions (34-311.)

- a. All Uses shall also be subject to the conditions of sections 34-3.22 on marginal access drives, provided however, that: (See review of marginal access drive below).
 - i. The edge of the marginal access drive shall be located 10 feet from the future street ROW. *Compliant*.
 - ii. The front yard setback shall be a minimum of 60 feet from the future right-of-way. Compliant.
 - iii. The front yard open space may be reduced to twenty-five percent of the required 60 foot setback area. *Compliant*.
- b. All uses permitted shall require review and approval of the site plan by the PC
- 5. **Marginal Access Drive. (34-3.22).** The applicant provides a marginal access drive between this site and the neighboring sites to the south, east, and north. *The marginal access and cross-access drives must be covered by a dedicated easement recorded prior to the issuance of an occupancy permit.*
- 6. **Pedestrian Access. (34-3.24).** Pedestrian access is provided between the sidewalk and building and throughout the parking entrances. A sidewalk also runs along the entire front of the property.
- 7. Use Standards for Vehicle Washes (34-4.40).

Required	Proposed/Comments
All washing facilities shall be within a completely enclosed building.	compliant
Vacuuming and drying areas may be located outside the building but shall not be in the required front yard.	compliant
All cars required to wait for access to the facilities shall be provided space off the street right-of-way.	compliant

Access points shall be located at least	
two hundred (200) feet from the	compliant
intersection of any two (2) streets	•
All off-street parking and waiting areas	compliant
shall be hard surfaced and dust free.	Compilant
One traffic lane shall be provided as	
means of exiting the facility without	
having to enter the car wash building;	
such lane shall be in addition to those	
which would be used by customers	compliant
obtaining gasoline and waiting in line for	
the carwash. Such lane shall not be	
counted as part of the required	
reservoir parking space.	
All buildings, vehicular stacking space,	
vacuuming or other outside use area,	
except employee parking, shall have a	
minimum setback of one hundred (100)	Compliant; no adjacent residential
feet from a residential district, unless	
the district is separated by a major or	
secondary thoroughfare.	

8. Off Street Parking Requirements (34-5.2)

Requirement	Calculations	Provided
Auto wash (automatic)- One for each employee	3 employees	5 spaces
Barrier-Free Spaces	1 space (van accessible)	1 space
Stacking	3 vehicles in advance of the washing bay and 2 vehicles beyond the washing bay for drying	Complies ¹
Other drive -through standards	Drive-through lanes located adjacent to a street shall be buffered by a minimum 10 foot wide landscaped planting adjacent to the right-of-way as specified in 34-5.14.	See landscaping standards below.
	Drive-through lanes	The turning
	shall have a minimum	radius is only 20'
	centerline turning radius	(car wash
	of twenty-five (25) feet.	entrance and
		exit)
	Drive-through lanes	
	shall be striped, marked,	Provided
	or otherwise	TTOVICEU
	distinctively delineated	

¹Sheet C-4.0 Shows ingress stacking spaces, but the two required egress spaces beyond the washing bay shall also be depicted.

9. Off-street parking dimensions (34-5.3.3.A & B.).

Item	Required	Proposed/Comments
Maneuvering lane width	20 ft.	24'
Parking space width	9 ft.	9 ft
	Note: vacuum spaces proposed at 12' width	h
	20 ft. for minimum required	
	(May include a maximum two-foot	
	unobstructed vehicle overhang area at the	
	front of the parking space.)	
Parking space length		20 ft
	17 ft. for additional parking	
	(May include a maximum one-foot	
	unobstructed vehicle overhang area at the	
	front of the parking space)	
	The off-street parking lot shall be provided	See landscaping
Screening	with screening as required by Section 34-	comments below
	5.15	comments below
	Dead-end off-street parking aisles are	
	discouraged, especially in connection with	Including the vacuum
	business uses. Such aisles should be no	spaces, the aisles
	more than eight (8) spaces deep and	include more than 8
Dead-End Aisles	should, in any case, be used only when	spaces. However, two-
	there is no reasonable alternative. If more	way access is provided
	than eight (8) spaces deep, the layout shall	to allow a means for
	provide a means for vehicles to turn	turning around.
	around if all spaces are occupied.	

- 10. **Off-Street Loading (34-5.4).** 10 SF of required loading per each foot of building frontage (26'). *The applicant shall identify the required 260 sf loading space on the site.*
- 11. Acceleration-Deceleration-Passing Lanes (34-5.6.2.) Driveways providing ingress and egress to all three-lane paved major or secondary thoroughfares shall be provided with paved acceleration and deceleration lanes. If in the opinion of the director of public services no useful purpose would be served or if unusual difficulty would be encountered by reason of grade changes, intersections, bridges, or other land restrictions, the director may waive or modify the requirements of this section. We defer to engineering to address this issue.

12. Site Landscaping (34-5.14)

Item	Required	Proposed/Comments
Minimum distance from the property line (34-5.14.C.ii)	4 ft from the property line for trees and large shrubs	Compliant

Item	Required			Proposed/Comments
Minimum parking lot island area	Minimum of 180 square feet; 3 feet minimum radius at the trunk of the tree		N/A	
Cost estimate	Not required			
Minimum size and spacing requirements at	Size Center to center distance (max) (Height/width) groupings rows			
planting (34-5.14.F)				
Evergreen Trees	8 ft. height	20 ft.	12 ft.	N/A
Narrow Evergreen Trees	5 ft. height	10 ft.	5 ft.	N/A
Large Shrubs	30 in. height	10 ft.	5 ft.	N/A
Small Shrubs	24 in. width	4 ft.	4 ft.	N/A
Large Deciduous	3 in. caliper	30 ft.	-	Compliant
Small deciduous trees	2 in. caliper	15 ft.	-	Compliant
Hedge shrubs	24 in. height	3 ft.	3 ft.	Compliant
Canopy Trees	Shall be large deciduous. PC may permit large evergreens			Large deciduous provided
Minimum number of parking lot trees (34-5.14.4.C)	1 per every 2,800 square feet of paved surface area: 35,536.58 SF of Pavement= 13 trees		13 trees provided	
Parking lot screening from public thoroughfare (34-5.14.5)	A planted hedge of small shrubs, or A masonry wall or berm of 2 feet high			Hedge is only provided along northern half of drake road frontage. The site includes existing trees along the road frontage which has a partial screening effect, but may not adequately mitigate the impact as effectively as a knee wall or hedge. Planning Commission should review and confirm.
Wall or Berm (34-5.15)	Required when adjacent residential			Not required
Tree replacement (34-5.18)	0 required		No existing trees will be removed. 10 trees proposed to be maintained.	

13. Lighting (Section 34-5.16).

- i. Operation hours (34-5.16.3.B.v.) Notes regarding compliance with these standards are included on the photometric plan.
- ii. Illumination Levels. The fixtures appear to meet cutoff requirements.

Date: 12/09/2024 Project: 59-5-2024

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Item	Required	Proposed/Comments
Maximum height (34- 5.16.3.A.)	30 feet maximum	25 ft.
Building Lighting (34-5.16.3.A. iii.)	Relevant building elevation drawings showing all fixtures and the portions of the walls to be illuminated	Provided
Average to minimum illumination ratio (34-5.16.3.C)	4:1	6.0:1- Bypass Lane 5.8:1- Drive-Through/ Pay Lane
Maximum illumination at the property line	0.3 fc	Compliant
Illumination Levels- Hardscape areas (e.g., parking areas, sidewalks)	2.5 lumens per sq ft of hardscape area 35,536 sf of hardscape= 88,840 lumens	65,117
Illumination Levels Building Entrances – within 20 ft of door	2,000 lumens per door	Building-mounted entrance fixtures exceed 2,000 lumens per door

14. **Pedestrian Connection (Sec. 34-5.19).** A pedestrian connection to the Drake sidewalk is provided.

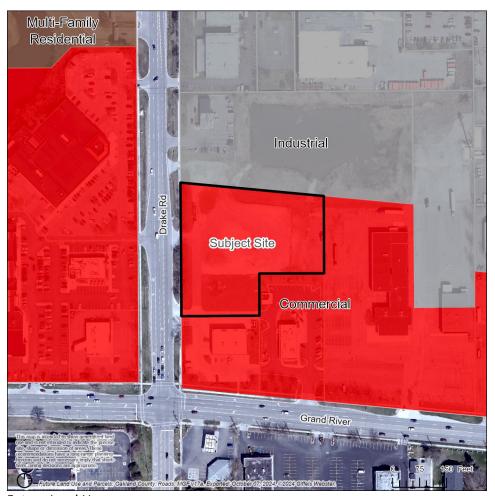
We are available to answer questions.

Fringer Gula

Respectfully,

Giffels Webster

Joe Tangari, AICP Principal Planner Julia Upfal, AICP Senior Planner



Future Land Use







DEPARTMENT OF PUBLIC SERVICES JACOB RUSHLOW, P.E., DIRECTOR

INTEROFFICE CORRESPONDENCE

DATE:

December 4, 2024

TO:

Planning Commission

FROM:

James Cubera, City Engineer

SUBJECT:

REVISED SP 59-09-2024

Jax Kar Wash 24300 Drake Road

PJ#21-24-60, 22-23-21-351-032

This office has performed a preliminary review of the above referenced site plan submitted to the Planning Department on November 18, 2024. Our preliminary comments are as follows:

- 1. A 16" water main exists along the Drake Road frontage of this site. In addition, an 8" water main exists along the south property line of the site. The site plan proposes to tap and loop these watermains with an 8" line. This is appropriate. Offsite easements to the south may be necessary.
- 2. An 8" public sanitary sewer exists along the west property line as well as the south property line within the confines of this site. The proponent has identified tapping the sanitary sewer along the Drake Road frontage. This is acceptable.
- 3. A 5 foot wide sidewalk currently exists along the Drake Road frontage of this site. Therefore, no additional sidewalk requirements will be in effect.
- 4. The site now proposes to provide a new curb cut to Drake Road and utilize the existing curb cut to the south thru a ring road system. This is acceptable. Note that acceleration and deceleration tapers may be warranted. An engineering traffic study must be provided to address this need. It is our understanding that this is being prepared. It is suggested that the proponent's engineer contact the City Traffic Engineer to discuss the specific needs of the study.

Of particular note, the plan now provides a two way road stub to the north to the Enterprise Car property and to the east to the old Serra Motors property. The extension of an interior ring road system is being provided. This is appropriate. Note that ring road access rights must be provided to all involved properties.

- With respect to the two vacant green areas, one to the east and one to the south, private access to the ring road appears to be provided.
- 5. This site utilizes the community detention pond located immediately north of the proposed car wash. The plans may need to rework the south slope line. This needs to be reviewed and addressed as existing grades drop off at the north property line. It is unclear if the slope will be impacted. Details of this must be provided during construction review. Additionally, the plans must address how the existing spillways are impacted.
- 6. The plans have not identified the access point to the detention basin. It should be in the neighborhood of the northeast property corner. A design of this must be provided for review. It must provide for proper and reasonable access.
- 7. The existing detention facility is in need of maintenance. This must be addressed prior to any construction permits. The pond that is being utilized for this site currently holds water and is in a state of disrepair. Prior to any construction permitted, it needs to be brought up to original condition of when it was built.
- 8. Storm water quality improvements for this site must be addressed. The plans identify a proposed storm water quality unit at the northeast corner of the site. This will be reviewed during construction review. Recently the City adopted the WRC stormwater standards. These new requirements may will impact the stormwater quality unit proposed as well as the detention/restriction system in general. Attached are additional comments from our Environmental Engineer. Any questions on these needs to be referred to Tyler Sonoga at 248-871-2533.
- 9. As stated above, the City is concerned with the property line grades along the north property line. A detailed plan must be provided to ensure that they are being maintained. If retaining walls will be proposed, they need to be identified and substantiated as to their necessity as well as their structural integrity.
- 10. Private utilities run through the site, most notably a 24" storm sewer. Private easements must be identified in advance of any construction approval.
- 11. We have previously met with the proponent. Many of our concerns have been addressed.





DEPARTMENT OF PUBLIC SERVICES KAREN MONDORA, P.E., DIRECTOR

City of Farmington Hills Environmental Review

Project Name: Jax Kar Wash

Address: 24300 Drake Road

Project Job #: 21-24-60 SP #59-9-2024

Plan Dated: 11-18-2024

Plan Received: 11-22-2024

Review #: 1

Review Date: 12-9-2024

As requested, I have conducted a plan review of the above reference engineering plans. I have the following comments:

1. Storm water quality must be provided for the entire site in accordance with the newly adopted Oakland County Water Resources stormwater standards.

- 2. Infiltration practices should be used to the maximum extent practicable and will count as part of the required water quality volume. Infiltration tests need to be performed in planned pervious areas to determine if the soils will allow infiltration. Any infiltration provided can be subtracted from water quality unit calculations.
- 3. As a part of the Oakland County Water Resources stormwater standards, the plans must include a long-term operations and maintenance plan, the land use summary page in the standards, a stormwater design narrative, a certificate of outlet, and GIS data. Please see page I-21 and I-22 on the stormwater standards.

Respectfully submitted,

Tyler Sonoga

Civil/Environmental Engineer Department of Public Services

cc:

City of Farmington Hills, J. Cubera



INTEROFFICE CORRESPONDENCE

DATE: December 4, 2024

TO: Planning Commission

FROM: Jason Baloga, Fire Marshal

SUBJECT: Revised Site Plan 59-9-2024 (24300 Drake)

The Fire Department has no objection to approval of this Site Plan contingent upon compliance with the following requirements:

- 1. Site shall accommodate fire apparatus with a fifty-foot (50') turning radius.
- 2. The minimum clearance between the finished roadway surface and any overhead obstruction shall be 13'6".
- 3. It was discussed with the Proponent that an 8' access road was not adequate and that they would adhere to Farmington Hills City Ordinance Chapter 12 Section 12-11(1)a; the minimum drive with of fourteen (14) feet.
- 4. Gate shall be subject to Engineering approval in accordance with the International Fire Code requirements D.103.5 Fire apparatus Road Gates (12'),
- 5. City of Farmington Hills shall not be responsible for any damage which may occur to proposed gate.
- 6. Building shall be maintained in accordance with the minimum Fire Prevention Code requirements.

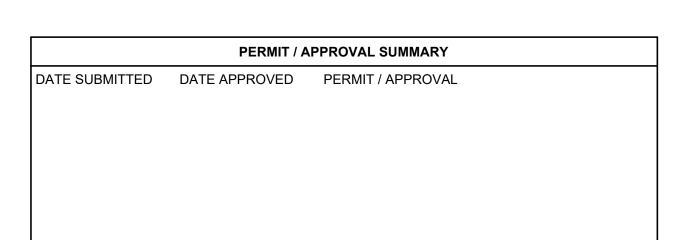
Jason Baloga, Fire Marshal

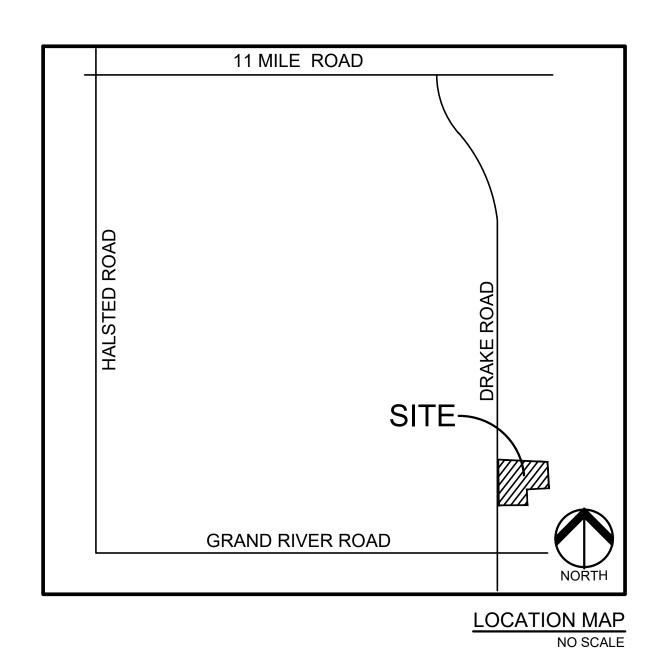
JB/al

JAX KAR WASH - FARMINGTON HILLS

24300 DRAKE ROAD FARMINGTON HILLS, MI







INDEX OF DRAWINGS NUMBER TITLE C-0.0 COVER SHEET C-1.0 TOPOGRAPHIC SURVEY C-3.0 PRELIMINARY SITE PLAN C-3.1 FIRE TRUCK MANEUVERING PLAN C-4.0 PRELIMINARY GRADING PLAN C-6.0 PRELIMINARY UTILITY PLAN C-9.0 NOTES AND DETAILS L-1.0 LANDSCAPE PLAN L-1.1 LANDSCAPE DETAILS L-2.1 LANDSCAPE SPECIFICATIONS L-2.2 LANDSCAPE SPECIFICATIONS V1 PHOTOMETRIC LAYOUT 1 OF 1 EXTERIOR RENDERING PE-1A ELEVATIONS PE-1B VACUUM STATION ELEVATIONS PFP-1 FLOOR PLAN

DESIGN TEAM

DEVELOPER
BMW KAR WASH, LLC

26777 CENTER PARK BOULEVARD SUITE: 150 SOUTHFIELD, MI 48076 CONTACT: TODD GESUND PHONE: 248.314.5565 EMAIL: TODD@JAXKARWASH.NET

ARCHITECT

F.A. STUDIO
26261 EVERGREEN ROAD, SUITE #123
SOUTHFIELD, MI 48076
CONTACT: DAVID BRINKMEIER
PHONE: 248.619.2354
EMAIL: DBRINKMEIER@FASTUDIO.COM

CIVIL ENGINEER

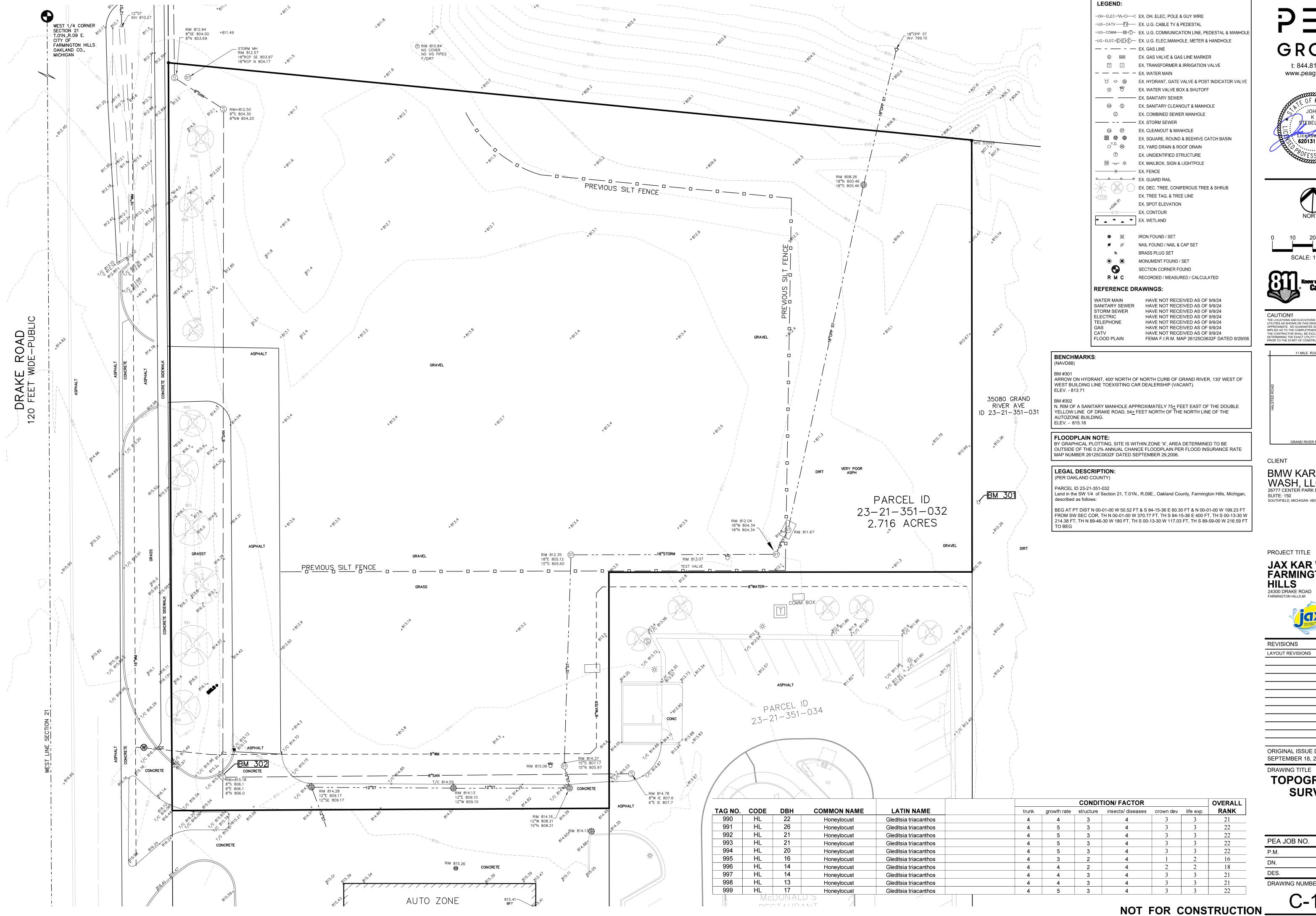
PEA GROUP 1849 POND RUN AUBURN HILLS, MI 48326 CONTACT: JAMES P. BUTLER, PE PHONE: 844.813.2949 EMAIL: JBUTLER@PEAGROUP.COM

LANDSCAPE ARCHITECT

PEA GROUP
7927 NEMCO WAY, STE. 115
BRIGHTON, MI 48116
CONTACT: JANET EVANS, PLA
PHONE: 844.813.2949
EMAIL: JEVANS@PEAGROUP.COM

PENA GROUP

REVISIO	NS
DESCRIPTION	DATE
ORIGINAL ISSUE DATE	9/18/2023
LAYOUT REVISIONS	11/18/2024

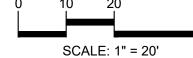


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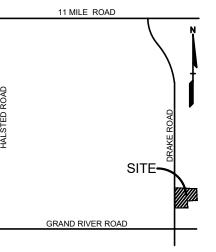








CAUTION!! THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.



BMW KAR WASH, LLC 26777 CENTER PARK BOULEVARD SUITE: 150 SOUTHFIELD, MICHIGAN 48076

PROJECT TITLE

JAX KAR WASH -FARMINGTON HILLS
24300 DRAKE ROAD
FARMINGTON HILLS,MI

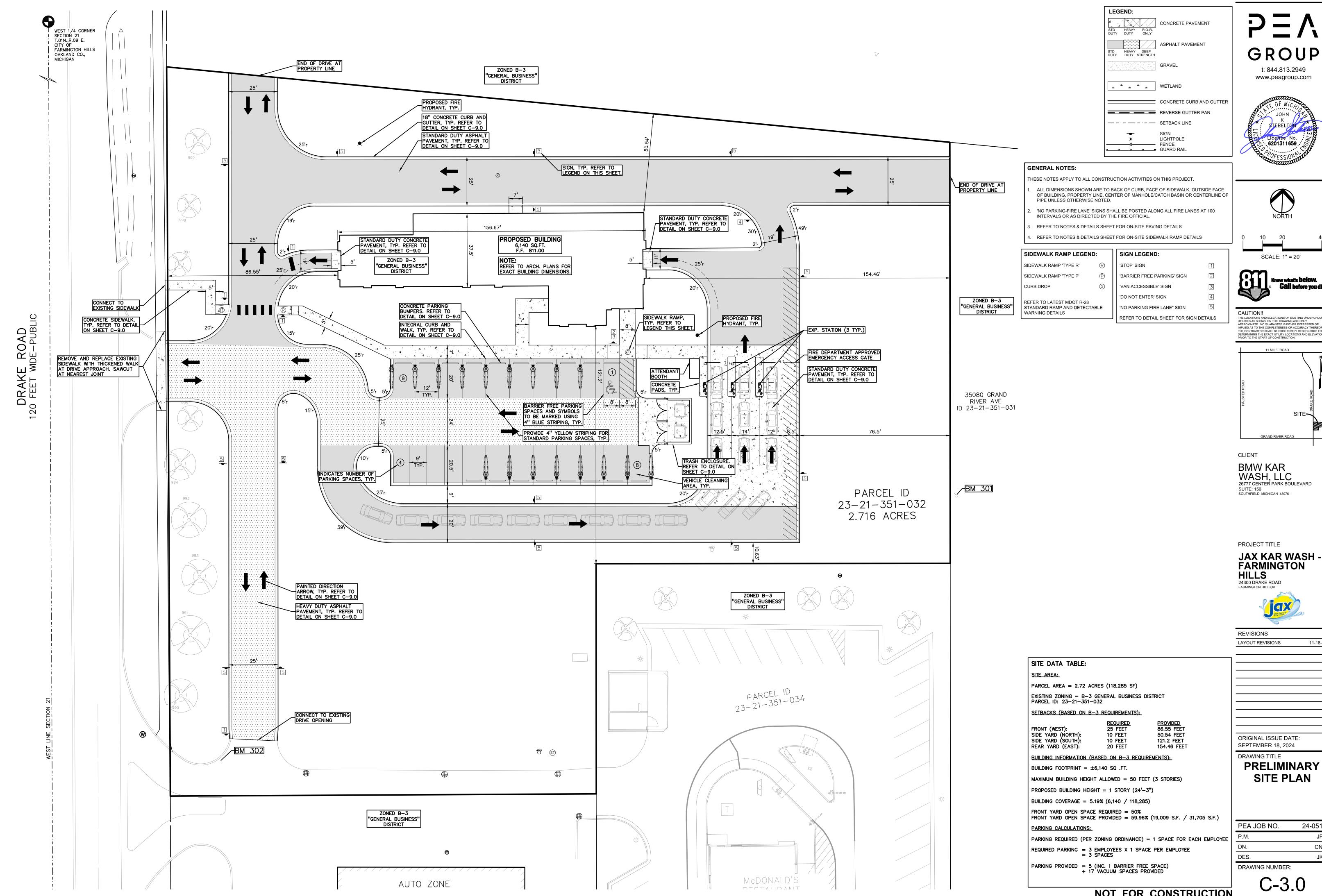


LAYOUT REVISIONS

ORIGINAL ISSUE DATE: SEPTEMBER 18, 2024

TOPOGRAPHIC SURVEY

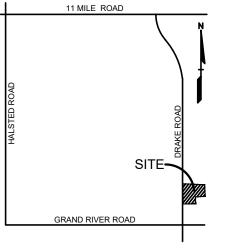
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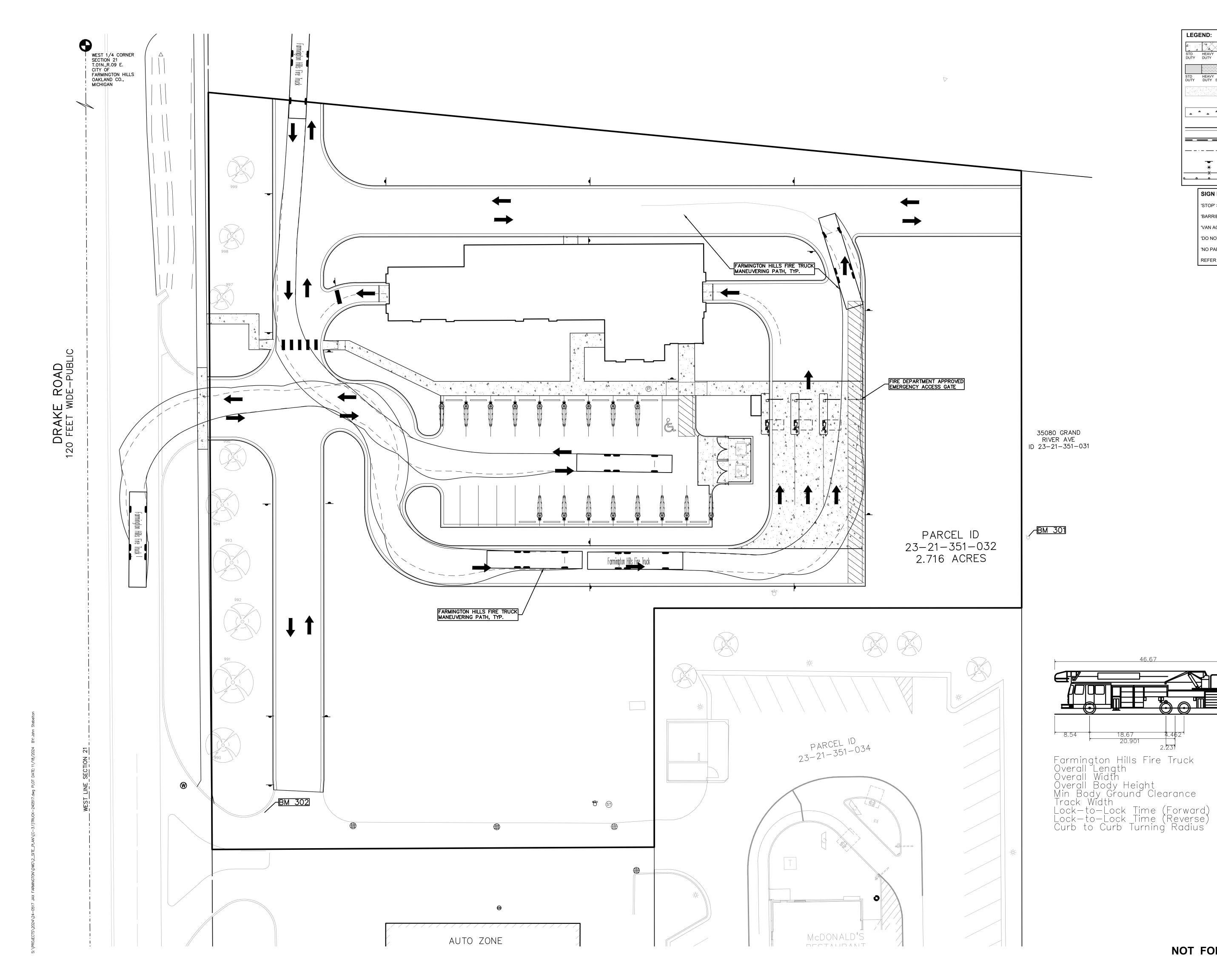
NOT FOR CONSTRUCTION

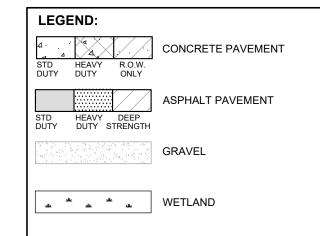


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24-0517 JPB CNR JKS





CONCRETE CURB AND GUTTER

CONCRETE CURB AND GUTTER

REVERSE GUTTER PAN

SETBACK LINE

SIGN
LIGHTPOLE
FENCE
GUARD RAIL

SIGN LEGEND:

'STOP' SIGN

'BARRIER FREE PARKING' SIGN

'VAN ACCESSIBLE' SIGN

'DO NOT ENTER' SIGN

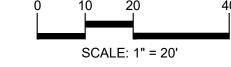
'NO PARKING FIRE LANE" SIGN

REFER TO DETAIL SHEET FOR SIGN DETAILS





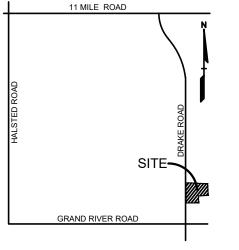






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CLIENT

BMW KAR

WASH, LLC

26777 CENTER PARK BOULEVARD
SUITE: 150
SOUTHFIELD, MICHIGAN 48076

PROJECT TITLE

JAX KAR WASH FARMINGTON
HILLS

24300 DRAKE ROAD
FARMINGTON HILLS,MI

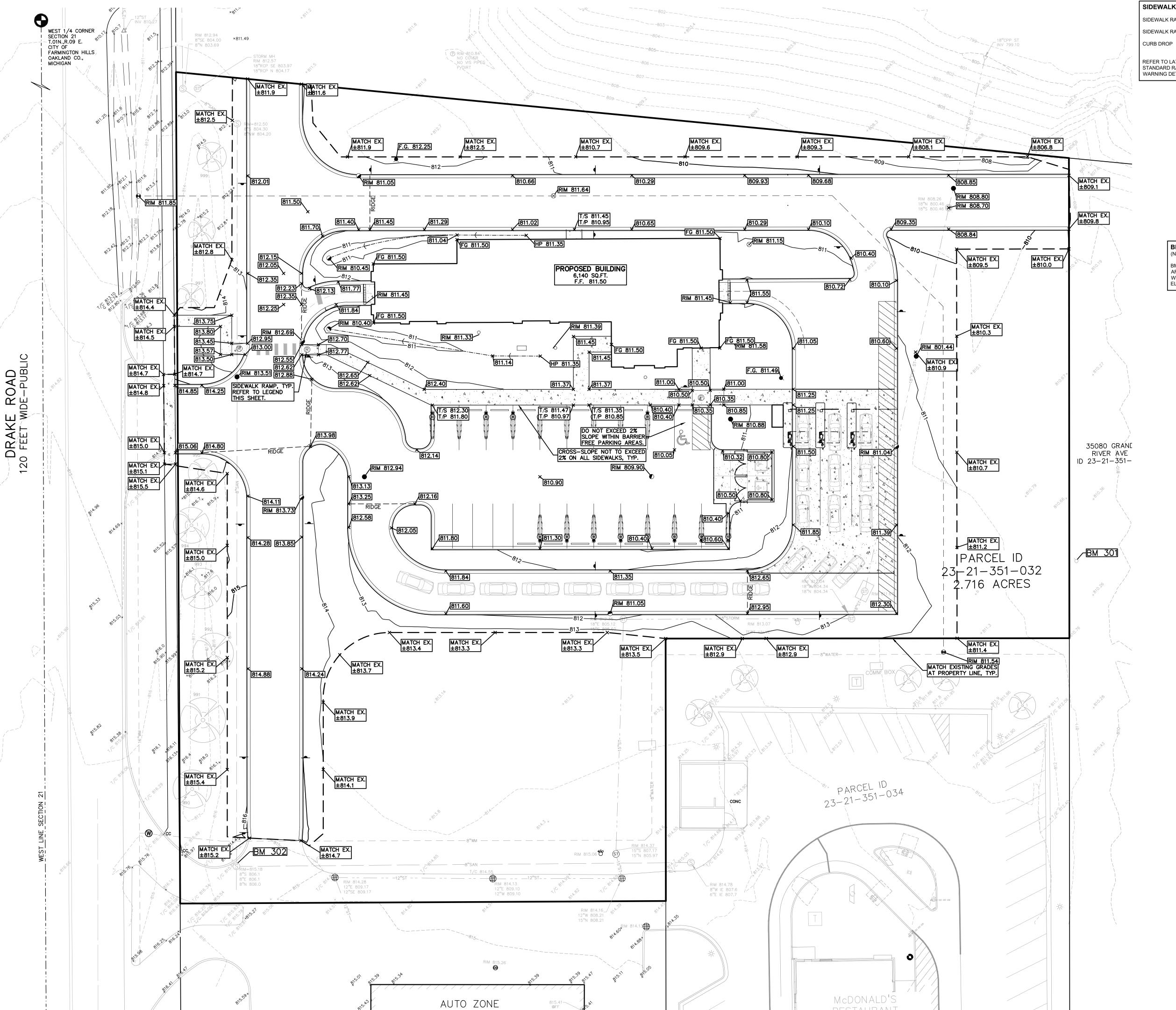


REVISIONS	
LAYOUT REVISIONS	11-18-24

ORIGINAL ISSUE DATE: SEPTEMBER 18, 2024

FIRE TRUCK
MANEUVERING
PLAN

PEA JOB NO.	24-0517
P.M.	JPB
DN.	CNR
DES.	JKS
DRAWING NUMBER:	



SIDEWALK RAMP LEGEND:

SIDEWALK RAMP 'TYPE R' SIDEWALK RAMP 'TYPE P'

REFER TO LATEST MDOT R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS

GRADING LEGEND: EXISTING SPOT ELEVATION

PROPOSED SPOT ELEVATION: TYPICALLY TOP OF PAVEMENT IN PAVED AREAS, GUTTER GRADE IN CURB LINES.

EXISTING CONTOUR

PROPOSED REVERSE GUTTER PAI - - - PROPOSED RIDGE LINE

—922— PROPOSED CONTOUR

----- PROPOSED SWALE/DITCH **ABBREVIATIONS**

T/C = TOP OF CURB G = GUTTER GRADE T/P = TOP OF PAVEMENT F.G. = FINISH GRADE T/S = TOP OF SIDEWALK RIM = RIM ELEVATION T/W = TOP OF WALL B/W = BOTTOM OF WALL

REFER TO GRADING NOTES ON SHEET C-9.0

EARTHWORK BALANCING NOTE:

HE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPORTING OR EXPORTING ALL MATERIALS AS REQUIRED TO PROPERLY GRADE THIS PROJECT TO THE FINISHED ELEVATIONS SHOWN ON THE APPROVED PLANS. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF CUT AND FILL QUANTITIES AND ALLOW FOR REMOVAL OF EXCESS OR IMPORTATION OF ADDITIONAL MATERIAL AT NO ADDITIONAL COST TO THE OWNER.

BENCHMARKS: (NAVD88)

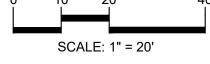
ARROW ON HYDRANT, 400' NORTH OF NORTH CURB OF GRAND RIVER, 130' WEST OF WEST BUILDING LINE TOEXISTING CAR DEALERSHIP (VACANT).

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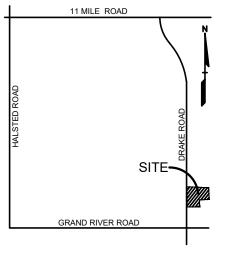








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CLIENT BMW KAR WASH, LLC 26777 CENTER PARK BOULEVARD SUITE: 150 SOUTHFIELD, MICHIGAN 48076

PROJECT TITLE

JAX KAR WASH -FARMINGTON HILLS 24300 DRAKE ROAD FARMINGTON HILLS,MI

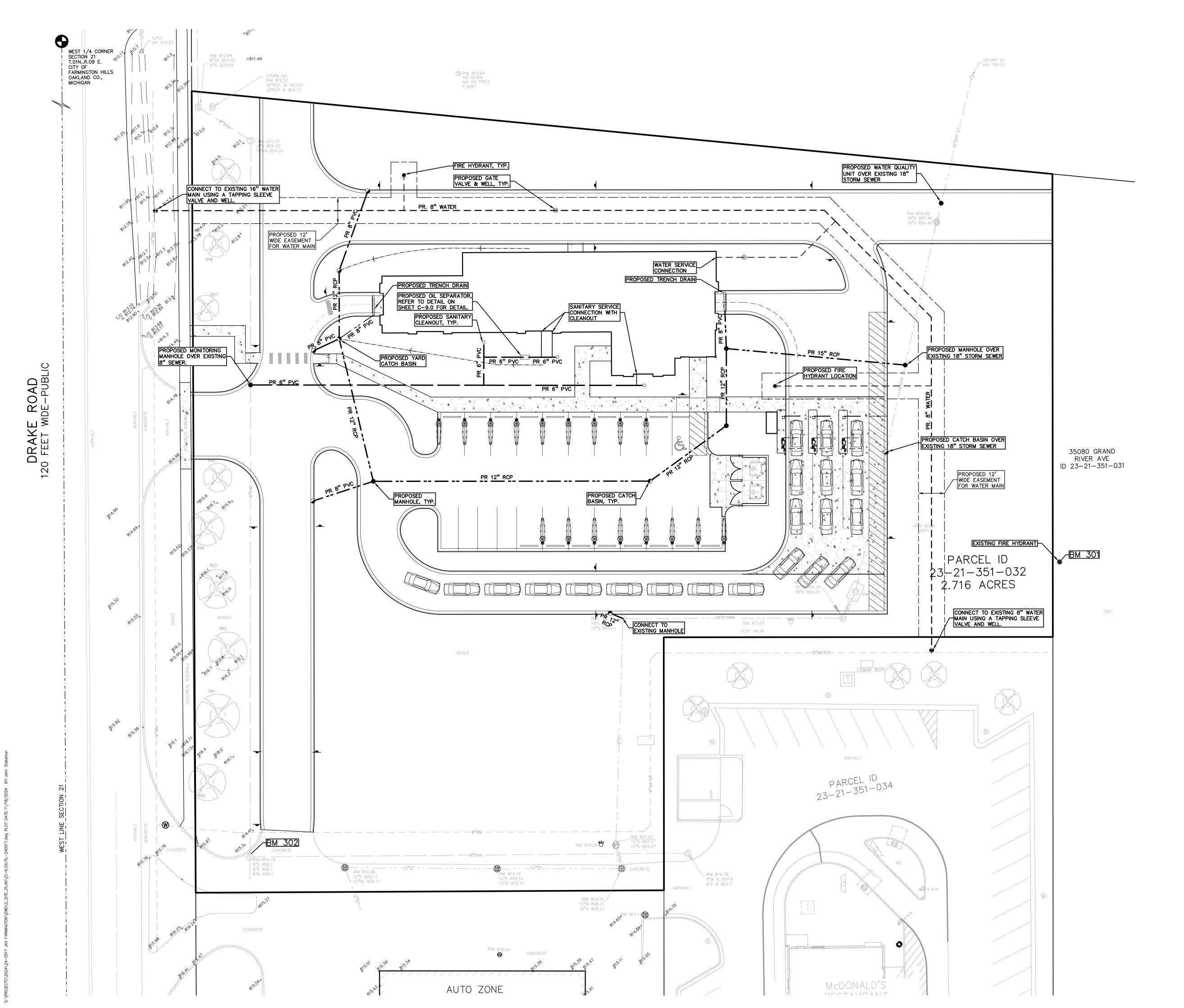


REVISIONS LAYOUT REVISIONS

ORIGINAL ISSUE DATE: SEPTEMBER 18, 2024

DRAWING TITLE **PRELIMINARY GRADING PLAN**

24-0517 PEA JOB NO. DRAWING NUMBER:



UTILITY LEGEND:

-OH-ELEC-W-O- EX. OH. ELEC, POLE & GUY WIRE
-UG-CATV-V- EX. U.G. CABLE TV & PEDESTAL

© □ EX. GAS VALVE & GAS LINE MARKER
□ □ EX. TRANSFORMER & IRRIGATION VALVE
□ □ EX. WATER MAIN
□ □ EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE

EX. WATER VALVE BOX & SHUTOFF

EX. SANITARY SEWER

EX. SANITARY CLEANOUT & MANHOLE

EX. COMBINED SEWER MANHOLE

© EX. COMBINED SEWER MANHOLE

EX. STORM SEWER

S S EX. CLEANOUT & MANHOLE

EX. SQUARE, ROUND, & BEEHIVE CATCH BASIN

OY.D. S EX. YARD DRAIN & ROOF DRAIN

● EX. UNIDENTIFIED STRUCTURE

PROPOSED WATER MAIN

PROPOSED HYDRANT AND GATE VALVE

PROPOSED TAPPING SLEEVE, VALVE & WELL

PROPOSED POST INDICATOR VALVE

PROPOSED SANITARY SEWER

OC.O. PROPOSED SANITARY CLEANOUT & MANHOLE

PROPOSED STORM SEWER

OC.O. PROPOSED STORM SEWER CLEANOUT & MANHOLE

PROPOSED CATCH BASIN, INLET & YARD DRAIN

STORMWATER MANAGEMENT NOTE:

STORMWATER MANAGEMENT FOR THE PROPOSED SITE IS HANDLED BY THE EXISTING DETENTION BASIN LOCATED OFF—SITE. THE PROPOSED DEVELOPMENT WILL INSTALL AN INLINE STORM WATER QUALITY UNIT PRIOR TO DISCHARGE OFF—SITE.

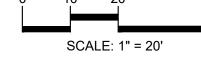
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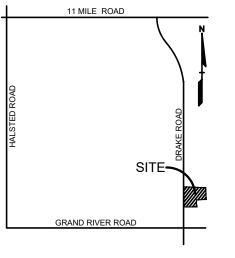






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CLIENT

BMW KAR

WASH, LLC

26777 CENTER PARK BOULEVARD
SUITE: 150
SOUTHFIELD, MICHIGAN 48076

PROJECT TITLE

JAX KAR WASH -FARMINGTON HILLS 24300 DRAKE ROAD FARMINGTON HILLS,MI



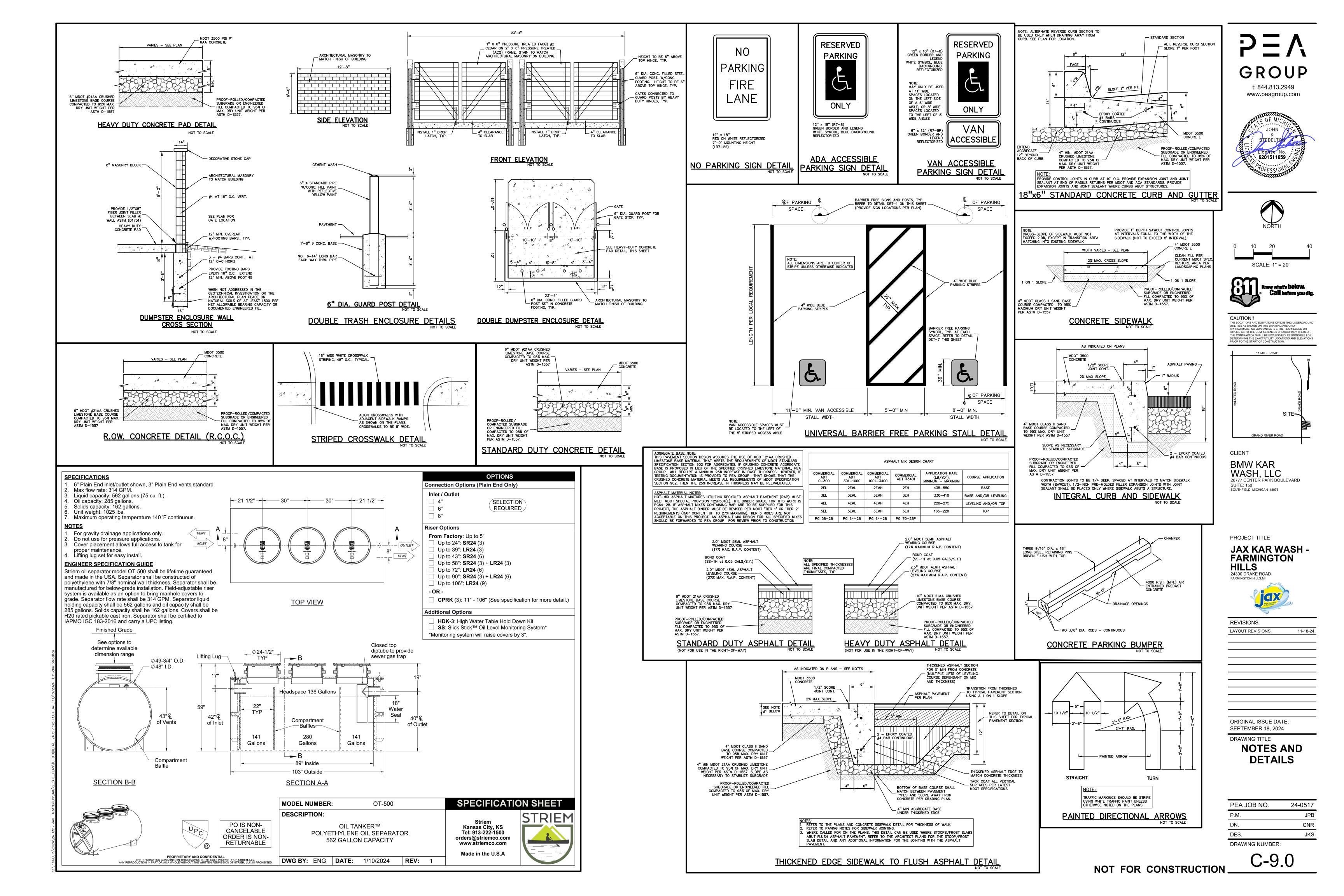
REVISIONS

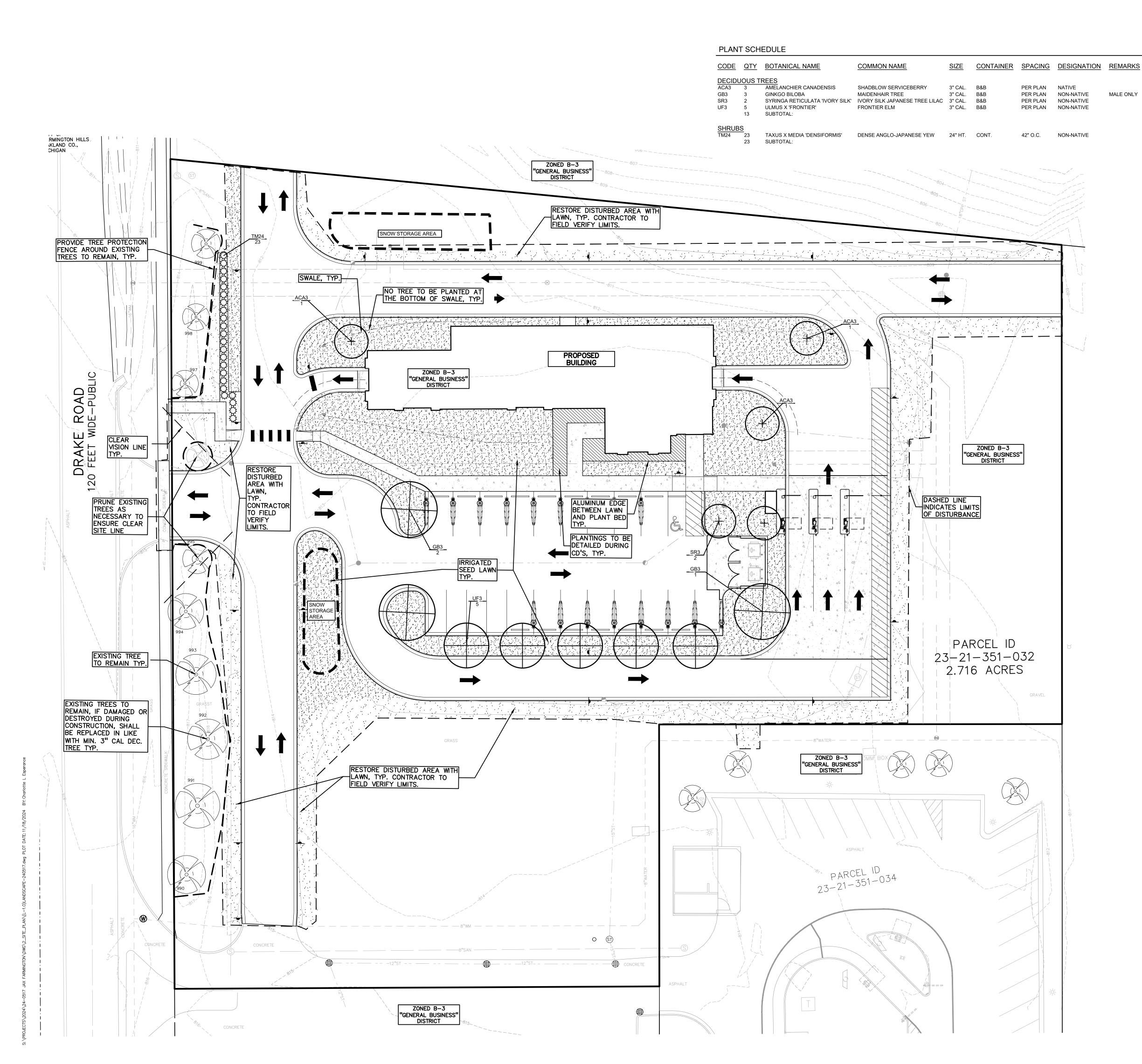
LAYOUT REVISIONS 11-18-2-

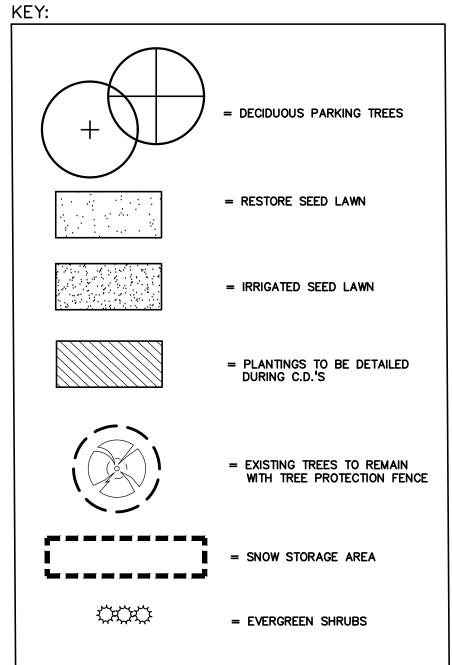
ORIGINAL ISSUE DATE: SEPTEMBER 18, 2024

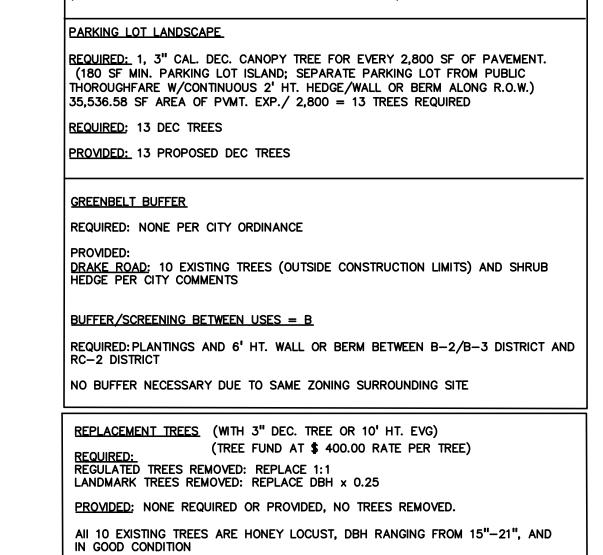
PRELIMINARY
UTILITY PLAN

PEA JOB NO.	24-0517
P.M.	JPB
DN.	CNR
DES.	JKS
DRAWING NUMBER:	









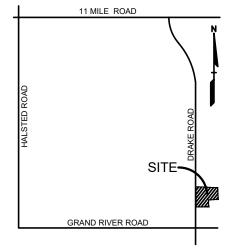


- ☐ The following notes must be included on the plan:
- A Tree Permit must be obtained from the Planning Office prior to all tree removal activity involving trees six inches (6") or more DBH in accordance with the City of
- Farmington Hills Zoning Chapter 34-559.
- Trees must be planted no closer than six feet (6') to public utilities.
- All required landscape material indicated on approved plans will be required through the life of the project and must be replaced if removed or dead.
- 4 foot (4') high wood snow fencing or other rigid material is to be erected around the drip line of all trees to be saved in accordance with the City of Farmington Hill Zoning Ordinance Chapter 34-5.18. Required landscape material shall satisfy American Association of Nurseryman
- Standards and be: a. Nursery grown.
- b. State Department of Agriculture inspected.
 c. No. 1 grade with straight unscarred trunk and well developed uniform crown (park
- grade trees will not be accepted).

 d. Planted per City of Farmington Hills details and specifications and in accordance with City of Farmington Hills Chapter 34-5.14.
- e. Guaranteed for one year.
- **f.** Replacement trees shall have shade potential and other characteristics comparable to the trees proposed for removal.

SCALE: 1" = 20' SEE SEET L-1.1 FOR GENERAL NOTES AND LANDSCAPE DETAILS CAUTION!!

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PER THE CITY OF FARMINGTON HILLS ZONING ORDINANCE (EXISTING ZONING B-3 COMMUNITY BUSINESS DISTRICT)



t: 844.813.2949

www.peagroup.com

CLIENT BMW KAR

WASH, LLC 26777 CENTER PARK BOULEVARD SUITE: 150 SOUTHFIELD, MICHIGAN 48076

PROJECT TITLE

JAX KAR WASH -**FARMINGTON** HILLS 24300 DRAKE ROAD FARMINGTON HILLS,MI

REVISIONS



LAYOUT REVISIONS	11-18-

ORIGINAL ISSUE DATE: **SEPTEMBER 18, 2024**

DRAWING TITLE LANDSCAPE **PLAN**

PEA JOB NO.	24-0517
P.M.	JPI
DN.	CAL
DES.	JLE
DRAWING NUMBER:	

DO NOT AMEND SOIL UNLESS DO NOT PRUNE TERMINAL LEADER OR PLANTING IN POOR OR SEVERELY BRANCHES TIPS DISTURBED SOIL OR BUILDING RUBBLE. USE WATER TO SETTLE PRUNE AWAY DEAD OR BROKEN SOIL AND REMOVE AIR POCKETS BRANCHES ONLY AND FIRMLY SET TREE. GENTLY TAMP IF NEEDED. REMOVE NURSERY APPLIED TAPE OR STRING FROM TREE BRANCHES OR TRUNK. REMOVE ANY TAGS OR LABELS. GENERAL PLANTING NOTES: - PRUNE SUCKERS OFF SET ROOTBALL LEVEL WITH TRUNK LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING SITE CONDITIONS AND REVIEW PROPOSED PLANTING AND -FLARE VISIBLE, LEVEL TO GRADE OR RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND SLIGHTLY ABOVE GRADE IF IN CLAY. PLANT LIST, PLAN SHALL GOVERN QUANTITIES. CONTACT MULCH 2-3" DEEP LEAVING A 3" LANDSCAPE ARCHITECT WITH ANY CONCERNS. - CIRCLE OF BARE SOIL AROUND TRUNK 2. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION ON HIS/HER PHASE OF WORK. ELECTRIC, GAS, TELEPHONE, CABLE 4" HIGH EARTH SAUCER INSIDE EDGE TELEVISION MAY BE LOCATED BY CALLING MISS DIG OF ROOTBALL 1-800-482-7171. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF CONTRACTOR. FOLD DOWN OR PULL BACK STRING, CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH BURLAP OR PLASTIC EXPOSING TOP OTHER TRADES ON THE JOB AND SHALL REPORT ANY - HALF OF ROOTBALL. REMOVE ALL UNACCEPTABLE JOB CONDITIONS TO OWNER'S REPRESENTATIVE NON-DEGRADABLE MATERIALS. DO PRIOR TO COMMENCING. NOT REMOVE SOIL FROM ROOTBALL. 3. ALL PLANT MATERIAL TO BE PREMIUM GRADE NURSERY STOCK AND SHALL SATISFY AMERICAN ASSOCIATION OF NURSERYMEN BREAK UP (SCARIFY) SIDES OF -PLANTING HOLE. LEAVE BOTTOM OF STANDARD FOR NURSERY STOCK. ALL LANDSCAPE MATERIAL PLANTING HOLD FIRM. SHALL BE NORTHERN GROWN, NO. 1. GRADE. 4. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON LANDSCAPE PLAN PRIOR TO PRICING THE WORK. 5. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS. MINIMUM AT BASE 12" FROM ROOTBALL 6. ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS

AND SYMMETRICAL CROWNS.

7. ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER; TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE

HAVE SYMMETRICAL CROWNS. ONE SIDED TREES OR THOSE WITH

9. ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED

10. ALL TREES TO HAVE CLAY OR CLAY LOAM BALLS, TREES WITH

EXISTING TREES; HAND GRADE ALL LAWN AREAS WITHIN THE

LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT

13. IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY

14. ALL PLANTING BEDS SHALL RECEIVE 3" SHREDDED HARDWOOD BARK MULCH WITH PRE EMERGENT, SEE SPECIFICATIONS.

15. ALL LANDSCAPED AREAS SHALL RECEIVE 3" COMPACTED

PLANTING PROCEDURES AND WARRANTY STANDARDS.

SHREDDED PALETTE AND DYED MULCH WILL NOT BE ACCEPTED.

16. SEE SPECIFICATIONS FOR ADDITIONAL COMMENTS, REQUIREMENTS,

17. FOR NON-LAWN SEED MIX AREAS, AS NOTED ON PLAN, BRUSH

MOW ONCE SEASONALLY FOR INVASIVE SPECIES CONTROL.

OVERHANG AND SHALL NOTIFY LANDSCAPE ARCHITECT IF

19. TREES SHALL NOT CONFLICT/ BLOCK PROPOSED REGULATORY/

PLANT SO THAT TOP OF ROOT BALL IS

SHREDDED HARDWOOD BARK MULCH 3"

_DEEP AND LEAVE 3" CIRCLE OF BARE

SOIL AROUND TRUNK. DO NOT PLACE

SPECIFIED PLANTING MIX. WATER AND

REMOVE ALL BURLAP FROM TOP 1 OF

NON-BIODEGRADABLE MATERIAL OFF SITE

PLACE ROOTBALL ON UNEXCAVATED OR

TAMP TO REMOVE AIR POCKETS

-ROOTBALL. DISCARD ALL

TAMPED SOIL

MULCH IN CONTACT WITH TRUNK

FLUSH TO GRADE OR 1-2" HIGHER IF

DO NOT COVER TOP OF ROOTBALL

IN POORLY DRAINED SOILS

FORM SAUCER WITH 4" HIGH

WITH SOIL

- FINISH GRADE

CONTINUOUS RIM

DIRECTION SIGNAGE, MONUMENT SIGNS, ADDRESS OR LIGHT

20. ALL LANDSCAPE SHALL BE WATERED WITH AN AUTOMATIC UNDERGROUND SPRINKLER SYSTEM. THIS WILL BE DESIGN/

18. CONTRACTOR SHALL NOT INSTALL PLANTS UNDER BUILDING

DRAWINGS CONFLICT WITH BUILDING OVERHANGS.

POLES. SHIFT TREES AS NECESSARY TYP.

BUILD BY CONTRACTOR.

VARIES ON CONTAINER

SHRUB PLANTING DETAIL

OR BALL SIZE

SCALE: 1'' = 2'-0''

11. NO MACHINERY IS TO BE USED WITHIN THE DRIP LINE OF

12. ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE

8. ALL MULTI STEM TREES SHALL BE HEAVILY BRANCHED AND

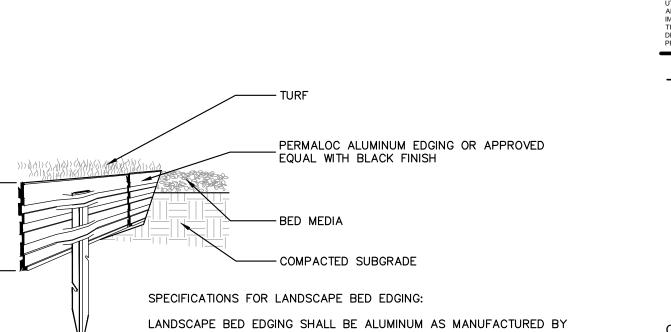
THIN OR OPEN CROWNS SHALL NOT BE ACCEPTED.

FOR THE LAST FIVE GROWING SEASONS.

SAND BALLS WILL BE REJECTED.

DRIP LINE OF EXISTING TREES.

FROM ALL BUILDINGS.



TOP HOLE WIDTH = 3X WIDTH OF ROOTBALI

<u>DECIDUOUS TREE PLANTING DETAIL</u>

PERMALOC 1.800.356.9660 8' OR 16' SECTIONS SHALL BE USED WITH ONE STAKE PER 38" OF EDGING

급" THICK X 5 ½" DEPTH WHEN ADJ. TO ROCK, FINISH: BLACK DURAFLEX MEETING AAMA 2603 STAKE SHALL SECURELY ENGAGE EDGING AND SHALL BE ENTIRELY

EDGING SHALL BE $\frac{3}{16}$ " THICK X 4" DEPTH WHEN ADJ. TO MULCH AND

BELOW TOP SURFACE OF EDGING

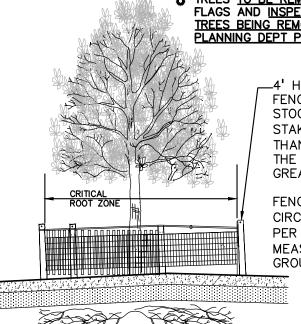
EDGING SHALL HAVE A MINIMUM OF 2" OF INTERLOCKING OVERLAP BETWEEN SECTIONS

INSTALL AS PER MANUFACTURER'S SPECIFICATIONS WITH TOP OF EDGING $\frac{1}{4}$ "- $\frac{1}{2}$ " ABOVE COMPACTED FINISH GRADE. FINISH GRADE TO BE COMPACTED ON BOTH SIDES OF EDGING TO MAINTAIN STABILITY

ALUMINUM EDGE DETAIL SCALE: 1/2'' = 1'-0''

TREE PROTECTION NOTES:

- TREE PROTECTION WILL BE ERECTED PRIOR TO START OF CONSTRUCTION ACTIVITIES AND SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
- NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE DRIP LINE OF ANY TREE DESIGNATED TO REMAIN; INCLUDING, BUT NOT LIMITED TO PLACING SOLVENTS,
- GRADE CHANGES MAY NOT OCCUR WITHIN THE DRIP LINE OF PROTECTED TREES.
- DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE TO ANY REMAINING TREE.
- ALL UTILITY SERVICE REQUESTS MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE OF THE PROTECTIVE FENCING.
- TREES LOCATED ON ADJACENT PROPERTY THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES MUST BE PROTECTED.
- TREES TO BE REMOVED SHALL BE MARKED IN THE FIELD WITH RED PAINT OR FLAGS AND INSPECTED BY FARMINGTON HILLS PLANNING OFFICE PRIOR TO ANY TREES BEING REMOVED. A TREE PERMIT MUST BE OBTAINED FROM THE PLANNING DEPT PRIOR TO ANY TREES BEING REMOVED.



__4' HT. PROTECTIVE WOOD SNOW FENCE OR SIMILAR STURDY STOCK MATERIAL WITH METAL STAKES, 10' O.C. NO CLOSER THAN 6' FROM TRUNK OR AT THE DRIP LINE, WHICHEVER IS GREATER PER FARMINGTON HILLS.

FENCE SHALL BE PLACED IN A CIRCLE WITH A RADIUS OF 1' PER 1" DIAMETER OF THE TREE MEASURED AT 4.5' ABOVE GROUND.

TREE PROTECTION DETAIL, PER CITY

NOT TO SCALE

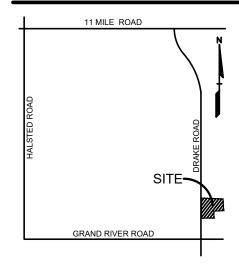
GROUP t: 844.813.2949



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CAUTION!! THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EYACT LITH BY LOCATIONS AND ELEVATIONS. DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.



CLIENT

BMW KAR WASH, LLC 26777 CENTER PARK BOULEVARD SUITE: 150 SOUTHFIELD, MICHIGAN 48076

PROJECT TITLE

REVISIONS

JAX KAR WASH -**FARMINGTON** 24300 DRAKE ROAD



DESIGNATED TO REMAIN; INCLUDING, BUT NOT LIMITED TO PLACING SOLVENTS, BUILDING MATERIAL, CONSTRUCTION EQUIPMENT, OR SOIL DEPOSITS WITHIN DRIP LINES.	LAYOUT REVISIONS	11-18-24
GRADE CHANGES MAY NOT OCCUR WITHIN THE DRIP LINE OF PROTECTED TREES.		
DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE TO ANY REMAINING TREE.		
ALL UTILITY SERVICE REQUESTS MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE OF THE PROTECTIVE FENCING.		
TREES LOCATED ON ADJACENT PROPERTY THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES MUST BE PROTECTED.		
TREES TO BE REMOVED SHALL BE MARKED IN THE FIELD WITH RED PAINT OR FLAGS AND INSPECTED BY FARMINGTON HILLS PLANNING OFFICE PRIOR TO ANY TREES BEING REMOVED. A TREE PERMIT MUST BE OBTAINED FROM THE PLANNING DEPT PRIOR TO ANY TREES BEING REMOVED.		
TANNING DEFT FRIOR TO ANT TREES DEING REMOVED.	ORIGINAL ISSUE DAT	F·

SEPTEMBER 18, 2024

DRAWING TITLE **LANDSCAPE DETAILS**

24-0517 PEA JOB NO. P.M. JPB CAL DES. JLE DRAWING NUMBER:

GENERAL LANDSCAPING REQUIREMENTS

- 1.0 GENERAL
- 1.1
- 1.1.1 Includes But Not Limited To
- General procedures and requirements for Site Work.
- PRODUCTS Not Used EXECUTION
- 3.0
- 3.1.1 Protection

 - Avoid spillage by covering and securing loads when hauling on or adjacent to public streets or highways.
 - B. Remove spillage and sweep, wash, or otherwise clean project, streets, and highways.
 - 2. Erosion Control:
 - Take precautions necessary to prevent erosion and transportation of soil downstream, to adjacent properties, and into on-site or off-site drainage systems.
 - B. Develop, install, and maintain an erosion control plan if required by
 - C. Repair and correct damage caused by erosion.
 - 3. Existing Plants And Features:
 - A. Do not damage tops, trunks, and roots of existing trees and shrubs on site which are intended to remain.
 - B. Do not use heavy equipment within branch spread. Interfering branches may be removed only with permission of Landscape
 - C. Do not damage other plants and features which are to remain.
- 3.1.2 If specified precautions are not taken or corrections and repairs made promptly. Owner may take such steps as may be deemed necessary and deduct costs of such from monies due to Contractor. Such action or lack of action on Owner's part does not relieve Contractor from responsibility for proper protection of the Work.

END OF SECTION

- LANDSCAPING PREPARATION
- 1.0 GENERAL 1.1 SUMMARY
- 1.1.1 Includes But Not Limited To
 - 1. General landscape work requirements
- 1.2 QUALITY ASSURANCE
- Comply with all applicable local, state and federal requirements, regarding
- materials, methods of work, and disposal of excess and waste materials
- 1.2.2 Obtain and pay for all required inspections, permits, and fees Provide notices required by governmental authorities.
- 1.2.3 1.3 PROJECT CONDITIONS
- Locate and identify existing underground and overhead services and utilities within contract limit work areas. (Call Miss Dig: 1-800-482-7171 in
- 1.3.2 Provide adequate means to protect utilities and services designated to
- 1.3.3 Repair utilities damaged during site work operations at Subcontractor's
- 1.3.4 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
- 1.3.5 Locate, protect, and maintain benchmarks, monuments, control points and project engineering reference points. Re-establish disturbed or destroyed items at Subcontractor's expense.
- 1.3.6 Perform landscape work operations and the removal of debris and materials to assure minimum interference with streets, walks, and other adjacent
- Obtain governing authorities' written permission when required to close or obstruct streets, walks and adjacent facilities. Provide alternate routes around closed or obstructed traffic ways when required by governing
- Protect and maintain street lights, utility poles and services, traffic signal control boxes, curb boxes, valves and other services, except items designated
- 1.3.9 The General Contractor will occupy the premises and adjacent facilities during the entire period of construction. Perform landscape work operations to minimize conflicts and to facilitate General Contractor's use of the premises and conduct of his normal operations.
- 1.3.10 Perform landscape preparation work before commencing landscape
- 1.3.11 Provide necessary barricades, coverings and protection to prevent damage to existing improvements indicated to remain.
- 1.3.12 Protect existing trees scheduled to remain against injury or damage including cutting, breaking or skinning of roots, trunks or branches, smothering by stockpiled construction materials, excavated materials or vehicular traffic within branch spread.
- 2.0 PRODUCTS
- MATERIALS/EQUIPMENT
- 2.1.1 As selected by the General Contractor, except as indicated.
 - 1. Tree protection:
 - A. Wood fencing Snow fencing 4' height
 - B. Posts Steel fence post.
 - C. Herbicide for lawn restoration "Round—up" by Monsanto. EXECUTION
- EXISTING UTILITIES
- Call "MISS DIG" 811 before construction begins. Information on the drawings related to existing utility lines and services is from the best sources presently available. All such information is furnished only for information and is not guaranteed. Excavate test pits as required to determine exact locations of existing utilities.

3.0

- Locate and suitably identify trees and improvements indicated to remain.
- 3.2.2 Fencing/soil erosion fence is to be installed.
- Any equipment that compacts the soil in the areas of existing trees is not
- 3.2.4 Protect trees scheduled to remain with 4' high snow fence per plans.

- 3.2.5 No vehicular traffic is permitted beneath drip line at any time. All lawn areas are to be worked by hand.
- 3.2.6 Clear and grub areas within contract limits as required for site access and
- Remove trees, plants, undergrowth, other vegetation and debris, except items indicated to remain.
- Treat planting and lawn areas as required with herbicide per manufacturer recommendations to kill existing vegetation prior to planting, seeding and
- Remove stumps and roots to a clear depth of 36" below subgrades. Remove stumps and roots to their full depth within 5'0" of underground structures, utility lines, footings, and paved areas.
- 3.3 DISPOSAL OF WASTE MATERIALS
- Stockpile, haul from site and legally dispose of waste materials and debris. Accumulation is not permitted
- 3.3.2 Maintain disposal routes, clear, clean and free of debris.
- 3.3.3 On site burning of combustible cleared materials is not permitted.
- Upon completion of landscape preparation work, clean areas within contract limits, remove tools and equipment. Site to be clear, clean and free of materials and debris and suitable for site work operations.
- Materials, items and equipment not scheduled for reinstallation or salvaged for the General Contractor are the property of the Landscape Contractor. Remove cleared materials from the site as the work progresses. Storage and sale of Landscape Contractors salvage items on site is not permitted.
- END OF SECTION

FINISH GRADING AND TOPSOIL PLACEMENT

- 1.0 GENERAL
- SUMMARY
- 1.1.1 Includes But Not Limited To
 - 1. Perform finish grading and topsoil placement required to prepare site for installation of landscaping as described in Contract Documents.
- 1.2 SUBMITTALS
- 1.2.1 Quality Assurance
 - Submit test on imported topsoil and on site stockpiled topsoil by independent licensed testing laboratory prior to use. Imported topsoil shall meet minimum specified requirements and be approved by Landscape Architect prior to use.
 - 2. Provide and pay for testing and inspection during topsoil operations. Laboratory, inspection services, and Soils Engineer shall be acceptable to
 - the Landscape Architect. 3. Submit report stating location of source of imported topsoil and account of recent use.
 - 4. Test for pH factor, mechanical analysis, and percentage of organic
 - 5. Submit test reports to General Contractor.
 - 6. Sub-Contractor, or testing agency to make recommendations on type of quantity of additives required to establish satisfactory pH factor and supply of nutrients to bring nutrients to satisfactory level for planting.
- 1.3 QUALITY ASSURANCE
- Participate in pre-installation meeting with Landscape Architect.
- PROJECT CONDITIONS
- 1.4.1 Also see Landscape Preparation Section
- Protect existing trees, plants, lawns, and other features designated to remain as part of the landscaping work.
- 1.4.3 Promptly repair damage to adjacent facilities caused by topsoil operations. Cost of repair at Subcontractor's expense
- 1.4.4 Promptly notify the General Contractor and Landscape Architect of unexpected subsurface conditions
- 2.0 PRODUCTS
- 2.1 MATERIALS
- Topsoil: supplied and stockpiled topsoil proposed for use must meet the testing criteria results specified. Topsoil must conform to adjustments and recommendations from the soil test and by the Landscape Architect.
- Existing topsoil: existing topsoil from on—site stockpile shall be utilized. All processing, cleaning, and preparation of this stored topsoil to render it acceptable for use is the responsibility of the Subcontractor.
- 2.1.3 Provide additional topsoil as required to complete the job. Topsoil must meet testing criteria results specified.
- 2.1.4 All processing, cleaning, and preparation of this supplied topsoil to render it acceptable for use is the responsibility of the Subcontractor
- Supplied and stockpiled topsoil, shall be fertile, friable, dark in color and representative of local productive soil, capable of sustaining vigorous plant growth and free of clay lumps, subsoil, noxious weeds or other foreign matter such as stones of 1" in any dimension, roots, sticks, and other extraneous material: not frozen or muddy. PH of soil range between 5.0
- 2.1.6 Soil shall not contain more than 2 percent of particles measuring over 2.0 mm in largest size
- Prepared topsoil shall be used in planting mixtures as specified in Trees, Plants, and Ground Cover; all beds prepared as specified.
- 3.0 EXECUTION
- 3.1 EXAMINATION
- Do not commence work of this Section until grading tolerances specified are
- PREPARATION 3.2
- 3.2.2 Prior to grading, dig out weeds from planting areas by their roots and remove from site. Before placing top soil in landscape areas, remove rocks larger than 1 inch in any dimension and foreign matter such as building rubble, wire, cans, sticks, concrete, etc.
- 3.2.3 Prior to placing topsoil, remove any imported base material present in planting areas down to natural subgrade or other material acceptable to Landscape Architect.
- 3.3 PERFORMANCE
- 3.3.1 Site Tolerances
 - 1. Total Topsoil Depth -
 - A. Lawn And Groundcover Planting Areas 3 inches minimum

 - B. Shrub Planting Areas 12 inches minimum throughout entire
 - 2. Elevation of topsoil relative to walks or curbs -

3.3.2 Do not expose or damage existing shrub or tree roots.

- A. Seeded Lawn Areas 1/4 inch below B. Sodded Lawn Areas - 1 1/2 inches below
- C. Shrub And Ground Cover Areas 3 inches below
- 3.3.3 Redistribute approved existing top soil stored on site as a result of rough grading. Remove organic material, rocks and clods greater than 1 inch in any dimension, and other objectionable materials. Provide additional approved imported topsoil required for specified topsoil depth and bring surface to specified elevation relative to walk or curb.

- 3.3.4 For trees, shrubs, ground cover beds and plant mix for beds see Exterior
- 3.3.5 Provide earth berming where indicated on Plans.
- Berming to be free flowing in shape and design, as indicated, and to blend into existing grades gradually so that the toe of slope is not readily visible. Landscape Architect or General Contractor's representative to verify final contouring before planting.
- 3.3.7 Regardless of finish grading elevations indicated, it is intended that grading be such that proper drainage of surface water away from buildings will occur and that no low areas are created to allow ponding. Subcontractor to consult the General Contractor and Landscape Architect regarding variations in grade elevations before rough grading is completed.
- 3.3.8 Slope grade away from building for 12 feet minimum from walls at slope of 1/2 inch per ft minimum unless otherwise noted. High point of finish grade at building foundation shall be 6 inches minimum below finish floor leve Direct surface drainage in manner indicated on Drawings by molding surface to facilitate natural run-off of water. Fill low spots and pockets with top soil and grade to drain properly.
- 3.3.9 Rake all topsoil to remove clods, rocks, weeds, and debris.
- Grade and shape area to bring surface to true uniform planes free from irregularities and to provide proper drainage and slopes per plans.
- CLEANING
- Upon completion of topsoil operations, clean areas within contract limits, remove tools, equipment, and haul all excess topsoil off-site. Site shall be clear, clean, free of debris, and suitable for site work operations.

END OF SECTION LAWN SEEDING

- 1.0 GENERAL
- SUMMARY
- 1.1.1 Includes But Not Limited To
- 1. Furnish and install seeded lawn as described in Contract Documents.
- 1.2 SUBMITTALS
- Submit seed vendor's certification for required grass seed mixture, indicating percentage by weight, and percentage of purity, germination, and weed seed for each grass species.
- 1.3 DELIVERY AND STORAGE
- Deliver seed and fertilizer materials in original unopened containers, showing weight, analysis, and name of manufacturer. Store in a manner to prevent wetting and deterioration.
- 1.4 PROJECT CONDITIONS
- 1.4.1 See landscape preparation section.
- Work notification: Notify Landscape Architect of General Contractor's representative at least seven (7) working days prior to start of seeding
- Protect existing utilities, paving, and other facilities from damage caused by seeding operations.
- 1.4.4 Perform seeding work only after planting and other work affecting ground
- surface has been completed.
- 1.4.5 Provide hose and lawn watering equipment as required. 1.4.6 The irrigation system will be installed prior to seeding. Locate, protect, and maintain the irrigation system during seeding operations. Repair irrigation system components damaged during seeding operations at the
- Sub-Contractor's expense. WARRANTY
- See Landscape Maintenance and Warranty Section
- 2.0 PRODUCTS

Annual Ryegrass

- Topsoil for Seeded Areas: See Topsoil Placement and Drawings
- Lawn seeded areas: Fresh, clean and new crop seed mixture. Mixed by approved methods.
- Seed mixture composed of the following varieties, mixed to the specified proportions by weight and tested to minimum percentages of purity and
- 2.1.4 Irrigated Lawn Seed Mixture proportioned by volume as indicated below: PROPORTION PURITY GERMINATION Kentucky Bluearass 95% Penn Lawn Fescue

20%

2.1.5 Non-Irrigated Seed Mixture proportioned by volume as indicated below: PROPORTION PURITY GERMINATION 60% 90% 85% Penn Lawn Fescue

Kentucky 28# Common Bluegrass 20% 90% 90%

- 2.1.6 Fertilizer: granular, non burning product composed of not less that 50% organic slow acting, guaranteed analysis professional fertilizer. Ground Limestone: Used if required by soil test report: Containing not less
- than 85% of total carbonates and ground to such fineness that 50% will pass through a 100 mesh sieve and 90% will pass through a 20% mesh 2.1.8 Straw Mulch: Used in crimping process only. Clean oat or wheat straw well seasoned before bailing, free from mature seed—bearing status, or roots of
- prohibited or noxious weeds
- 2.1.9 Water: Free of substance harmful to seed growth. Hoses or other methods to transpiration furnished by Sub Contractor.
- EXECUTION
- 3.1
- Landscape Architect or General Contractor's representative must approve finish surfaces, grades, topsoil quality and depth. Do not start seeding work until unsatisfactory conditions are corrected.
- PREPARATION
- 3.2.1 SURFACE PREPARATION
 - 1. Seven days maximum prior to seeding, -
 - A. Treat Lawn areas if required with "Round-Up" by Monsanto, per label direction to kill existing vegetation prior to seeding.
 - B. Loosen topsoil areas to minimum depth of 4", dampen thoroughly, and cultivate to properly break up clods and lumps. C. Rake area to remove clods, rocks, weeds, roots, debris, and stones
 - over 1" in any dimension. D. Grade lawn areas to smooth, free draining even surface with a loose, moderately coarse texture. Roll and rake, remove ridges, and fill depressions as required to drain.
 - rate determined by the soil test, to adjust pH of topsoil to not less than 6.0 no more that 6.8. Distribute evenly by machine and incorporate thoroughly into topsoil. F. Apply fertilizers to indicated turf areas at a rate equal to 1 lb. of

E. Apply limestone to supplied topsoil if required by soil test report at

G. Apply fertilizers by mechanical rotary or drop type distributor, thoroughly and evenly incorporated with soil to a depth of 1" by approved method. Fertilize areas inaccessible to power equipment with hand tools and incorporate into soil.

actual nitrogen 1,000 sq. ft. (43 lbs / acre).

- H. After lawn areas have been prepared, take no heavy objects over
- After preparation of lawn areas and with topsoil in semi-dry condition, roll lawn planting areas in two directions at approximately right angles with water ballast roller weighing 100 to 300 lbs
- J. Rake or scarify and cut or fill irregularities that develop as required
- until area is true and uniform, free from lumps, depressions, and K. Restore prepared areas to specified condition if eroded, settled or

otherwise disturbed after fine grading and prior to seeding.

- 3.3 INSTALLATION
- 3.3.1 SEEDING
 - 1. Seed lawns only between April 1, and June 1, and fall seeding between August 15, and October 15, or at such other times acceptable to
 - 2. Seed immediately after preparation of bed. Seed indicated areas within contract Limits and areas adjoining contract limits disturbed as a result
 - 3. Perform seeding operations when the soil is dry and when the winds do not exceed five(5) miles per hour velocity.
 - 4. 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
 - 5. Sow seed at a rate of 300 lbs./acre.
 - 6. After seeding, rake or drag surface of soil lightly to incorporate seed into top 1/8" of soil. Roll with light lawn roller.
 - 7. Provide soil erosion planting mat where grade conditions required to stabilize the planting area.
 - . Hydro—seeding: The application of grass seed and a wood cellulose fiber mulch tinted green shall be accomplished in one operation by use of an approved spraying machine.
 - A. Mix seed, fertilizer, and wood cellulose fiber in required amount of water to produce a homogeneous slurry. Add wood cellulous fiber after seed, water, and fertilizer have been thoroughly mixed and
 - B. For hydro-seeding, wood cellulose fiber shall be used. Silva-Fiber Mulch by Weyerhaeuer Company, Tacoma, WA (800-443-9179).

apply at the rate of 200 pounds per acre dry weight.

- C. Hydraulically spray material on ground to form a uniform cover impregnated with grass seed. D. Immediately following application of slurry mix, make separate application of wood cellulose mulch at the rate of 1,000 pounds, dry
- E. Apply cover so that rainfall or applied water will percolate to

3.3.2 HYDRO-SEEDING

- 1. Place straw mulch on seeded areas within 24-hours after seeding.
- 2. Place straw mulch uniformly in a continuous blanket at a rate of 2-1/2 tons per acre, or two (2) 50 lb. bales per 1,000 sq. ft. of area. A mechanical blower may be used for straw mulch application when acceptable to the Landscape Architect.
- 3. Crimp straw into soil by use of a "crimper". Two passes in alternate direction required. Alternative methods on areas too small for crimper
- must be approved by the Landscape Architect or Owner's Representative. 3.3.3 ESTABLISH LAWN

underlying soil.

1. Establish dense lawn of permanent grasses, free from lumps and depressions. Any area failing to show uniform germination to be

reseeded: continue until dense lawn established.

2. Damage to seeded area resulting from erosion to be repaired by Sub 3. In event Sub Contractor does not establish dense lawn during first

germination period, return to project to refertilize and reseed to establish

- Contractor is responsible to kill the weeds and reseed the proposed lawn areas to produce a dense turf, as specified.
- Perform Cleaning during installation of the work and upon completion of the work to the approval of the Landscape Architect. Remove from site all

excess materials, debris, and equipment. Repair damage resulting from

4. Should the seeded lawn become largely weeds after germination, Sub

- seeding operations.
- MAINTENANCE
- See Landscape Maintenance and Warranty Section. 3.6 ACCEPTANCE
- 3.6.1 See Landscape Maintenance and Warranty Section.
- LAWN SODDING

1.1

1.3

END OF SECTION

1.0 GENERAL

SUMMARY

- Includes But Not Limited To
- 1. Furnish and install sodded lawn as described in Contract Documents.
- Sod: Comply with American Sod Producers Association (ASPA) classes of sod
- Submit sod growers certification of grass species. Identify source location. Submit manufacturer's certification of fertilizer
- DELIVERY, STORAGE, AND HANDLING Cut, deliver, and install sod within 24 hour period
- Do not harvest or transport sod when moisture content may adversely affect sod survival.
- Protect sod from sun, wind, and dehydration prior to installation. Do not tear, stretch, or drop sod during handling and installation. 1.4.4 Sod which dries out before installation will be rejected.
- PROJECT CONDITIONS 1.5.1 See Landscape Preparation section.

barriers as required.

- Work notification: Notify Landscape Architect or General Contractor's representative at least seven (7) working days prior to start of sodding
- sodding operations. Perform sodding work only after planting and other work affecting ground

1.5.3 Protect existing utilities, paving, and other facilities from damage caused by

1.5.5 Restrict traffic from lawn areas until grass is established. Erect signs and

- 1.5.6 Provide hose and lawn watering equipment as required.
- The irrigation system will be installed prior to sodding. Locate, protect, and maintain the irrigation system during sodding operations. Repair irrigation system components damaged during sodding operations at the Subcontractor's expense.
- 1.6 WARRANTY
- See Landscape Maintenance and Warranty Section.
- 2.0 PRODUCTS
- MATERIALS
- Sod: An "approved" nursery grown blend of improved Kentucky Bluegrass
- Sod containing Common Bermudagrass, Quackgrass, Johnsongrass, Poison Ivy, Nutsedge, Nimblewill, Canada Thistle, Timothy, Bentgrass, Wild Garlic, Ground Ivy, Perennial Sorrel, or Bramegrass weeds will not be acceptable.
- Provide well rooted, healthy sod, free of diseases, nematodes and soil borne insects. Provide sod uniform in color, leaf texture, density, and free of weeds, undesirable grasses, stones, roots, thatch, and extraneous material; viable and capable of growth and development when planted.
- 2.1.4 Furnish sod, machine stripped in square pads or strips not more than 3'-0" long; uniformly 1" to 1-1/2" thick with clean cut edges. Mow sod before
- strippina. 2.1.5 Fertilizer: granular, non burning product composed of not less that 50%

8% potash by by weight or similar approved composition.

- organic slow acting, guaranteed analysis professional fertilizer. Type A: starter fertilizer containing 20% nitrogen, 12% phosphoric acid, and
- Ground Limestone: Used if required by soil test report: Containing not less than 85% of total carbonates and ground to such fineness that 50% will pass through a 100 mesh sieve and 90% will pass through a 20% mesh
- 2.1.8 Stakes: softwood, 3/4" x 8" long.

3.0 EXECUTION

INSPECTION

- 2.1.9 Water: Free of substance harmful to seed growth. Hoses or other methods
- to transpiration furnished by Sub Contractor 2.1.10 Topsoil: see Topsoil Placement section.
- Landscape Architect or General Contractor's representative must approve finish surfaces, grades, topsoil quality and depth. Do not start sodding work until unsatisfactory conditions are corrected.

fill depressions as required to drain.

incorporate thoroughly into topsoil.

3.2 PREPARATION 3.2.1 Surface Preparation:

1. Seven days maximum prior to sodding, -

a. Treat Lawn areas if required with herbicide per manufacturer recommendations to kill existing vegetation prior to sodding.

b. Loosen topsoil areas to minimum depth of 4", dampen thoroughly,

d. Grade lawn areas to smooth, free draining even surface with a

loose, moderately coarse texture. Roll and rake, remove ridges, and

c. Rake area to remove clods, rocks, weeds, roots, debris, and stones over 1" in any dimension.

and cultivate to properly break up clods and lumps.

- e. Apply limestone to supplied topsoil if required by soil test report at rate determined by the soil test, to adjust pH of topsoil to not less than 6.0 no more that 6.8. Distribute evenly by machine and
- f. Apply fertilizers to indicated turf areas at a rate equal to 1 lb. of actual nitrogen 1,000 sq. ft. (43 lbs / acre). g. Apply fertilizers by mechanical rotary or drop type distributor,
- with hand tools and incorporate into soil. h. After lawn greas have been prepared, take no heavy objects over them except lawn rollers.

After preparation of lawn areas and with topsoil in semi-dry

right angles with water ballast roller weighing 100 to 300 lbs.

thoroughly and evenly incorporated with soil to a depth of 1" by

approved method. Fertilize areas inaccessible to power equipment

condition, roll lawn planting areas in two directions at approximately

- Rake or scarify and cut or fill irregularities that develop as required until area is true and uniform, free from lumps, depressions, and
- k. Restore prepared areas to specified condition if eroded, settled or otherwise disturbed after fine grading and prior to sodding.
- I. Dampen dry soil prior to sodding.
- 3.3 INSTALLATION 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
 - 2. Do not lay dormant sod or install sod on saturated, frozen soil. 3. Install initial row of sod in a straight line, beginning at the bottom of

joints in adjacent course. Remove excess sod to avoid othering of

adjacent grass. Provide sod pad top flush with adjacent curbs,

sidewalks, drains, and seeded areas.

ensure contact with sub grade.

rows parallel to and lightly against previously installed row. 4. Peg sod on slopes greater than 3 to 1 or in centerline of swales to

slopes, perpendicular to direction of the sloped area. Place subsequent

5. Water sod thoroughly with a fine spray immediately after laying to obtain moisture penetration through sod into top 4 inches of topsoil. 6. Roll with light lawn roller in two directions perpendicular to each other to

prevent slippage at a rate of 2 stakes per yard of sod.

7. Install sod at indicated areas within contract limits and areas adjoining contract limits disturbed as a result of construction operations.

3.4 CLEANING

Perform Cleaning during installation of the work and upon completion of the work to the approval of the Landscape Architect. Remove from site all excess materials, debris, and equipment. Repair damage resulting from

8. Damage to sodded area resulting from erosion to be repaired by

- 3.6 ACCEPTANCE
- 3.6.1 See Landscape Maintenance and Warranty Section. END OF SECTION

See Landscape Maintenance and Warranty Section.

sodding operations.

MAINTENANCE

Know what's below.

• Call before you d CAUTION THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND

PRIOR TO THE START OF CONSTRUCTION.

UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY

MPLIED AS TO THE COMPLETENESS OR ACCURACY THEREO

DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS

GROUP

t: 844.813.2949

www.peagroup.com

JANET L. EVANS

LANDSCAPE

ARCHITECT



BMW KAR WASH, LLC

SOUTHFIELD, MICHIGAN 48076

26777 CENTER PARK BOULEVARD

SUITF: 150

PROJECT TITLE JAX KAR WASH FARMINGTON

REVISIONS

LAYOUT REVISIONS

HILLS 24300 DRAKE ROAD FARMINGTON HILLS,MI

11-18-24

ORIGINAL ISSUE DATE:

SEPTEMBER 18, 2024

DRAWING TITLE

PEA JOB NO. 24-0517 P.M. JPB CAL DN. JLE

LANDSCAPE

SPECIFICATIONS

DES. DRAWING NUMBER:

NOT FOR CONSTRUCTION

EXTERIOR PLANTS

- 1.0 GENERAL
- 1.1 SUMMARY
- Includes But Not Limited To Furnish and install landscaping plants as described in Contract
- QUALITY ASSURANCE
- Plant names indicated, comply with "Standardized Plant Names" as adopted by the latest edition of the American Joint Committee of Horticultural Nomenclature. Names of varieties not listed conform generally with names accepted by the nursery trade. Provide stock true to botanical name and
- 1.2.2 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.
- All plants shall be nursery grown under climatic conditions similar to those in the locality of the project for a minimum of two years.
- Stock furnished shall be at least the minimum size indicated. Larger stock is acceptable, at no additional charge. Larger plants shall not be cut back
- 1.2.5 Provide "specimen" plants with a special height, shape, or character of growth. Landscape Subcontractor is to tag specimen trees or shrubs at the source of supply. The Landscape Subcontractor shall inspect all plant material at source prior to Landscape Architect's approval. Landscape Subcontractor shall accompany Landscape Architect on final selection trip. The Landscape Architect will inspect specimen selections for suitability and adaptability to selected location. When specimen plants cannot be purchased locally, provide sufficient photographs of the proposed specimen plants for
- Plants may be inspected and approved at the place of growth for compliance with specification requirements for quality, size, and variety.
- Approval of plant selection at the place of growth shall not impair the right of inspection and rejection upon delivery at the site or during progress of
- 1.2.8 Provide percolation testing by filling plant pits with water and monitoring length of time for water to completely percolate into soil. Submit test results to Landscape Architect prior to starting work.
- 1.2.9 Before proceeding with work, check and verify dimensions and quantities. Report variations between Drawings and site to Landscape Architect before proceeding with work of this section.
- 1.2.10 Plant totals are for convenience only and are not guaranteed. Verify amounts shown on Drawings. All plantings indicated on Drawings are required unless indicated otherwise
- 1.3 SUBMITTALS
- Provide and pay for material testing. Testing agency shall be acceptable to the Landscape Architect. Provide the following data
- 1. The loss of weight by ignition and moisture absorption capacity shall be
- 1.3.2 Submit the following material samples to Landscape Architect:
 - 1. Peat moss, shredded hardwood bark mulch, planting accessories, pre-emergent herbicides, and plant fertilizers.
- 1.3.3 Submit the following materials certification to Landscape Architect: 1. Topsoil source and ph value, peat moss, and plant fertilizer.
- 1.4 DELIVERY, STORAGE, AND HANDLING
- Deliver fertilizer materials in original, unopened and undamaged containers showing weight, analysis, and name of manufacturer. Store in manner to prevent wetting and deterioration.
- 1.4.2 Take all precautions customary in good trade practice in preparing plants for Workmanship that fails to meet the highest standards will be
- 1.4.3 Spray deciduous plants in foliage with an approved "Anti-Desiccant" immediately after digging to prevent dehydration
- 1.4.4 Dig. pack, transport, and handle plants with care to ensure protection
- 1.4.5 Inspection certificates required by law shall accompany each shipment invoice or order to stock on arrival. The certificate shall be filed with the General Contractor's representative.
- 1.4.6 Protect all plants from drying out. If plants cannot be planted immediately upon delivery, properly protect them with soil, shredded hardwood bark mulch, or in a manner acceptable to the General Contractor's representative.
- 1.4.7 Water heeled in plantings daily.
- No plant shall be bound with rope or wire in a manner that could damage or break the branches.
- 1.4.9 Cover plants transported on open vehicles with a protective covering to
- 1.4.10 Frozen or muddy topsoil is not acceptable.
- PROJECT CONDITIONS

landscaping operations.

- 1.5.1 See Landscape Preparation Section.
- Work notification: notify Landscape Architect at least seven working days prior to installation of plant material.
- Protect existing utilities, paving, and other facilities from damage caused by
- 1.5.4 A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the proposal form. In the event that quantity discrepancies or material omissions occur in the proposal form. Subcontractor
- shall notify the Landscape Architect during the proposal bidding process. 1.5.5 An irrigation system will be installed prior to planting. Locate, protect, and maintain the irrigation system during planting operations. Repair irrigation
- Subcontractor's expense. The Landscape Subcontractor shall inspect existing soil conditions in all areas of the site where his operations will take place, prior to the beginning of work. It is the responsibility of the Landscape Subcontractor to notify the

system components, damaged during planting operations, at the Landscape

- General Contractor's representative and the Landscape Architect in writing of any conditions which could affect the survivability of plant material to be
- 1.6.1 See Landscape Maintenance and Warranty Standards
- 2.0 PRODUCTS
- - Plants: Provide plants typical of their species or variety; with normal, densely developed branches and vigorous, fibrous 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. All plants shall have a fully developed form without voids and open spaces.
- 1. Dig balled and burlapped plants with firm, natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system 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. All trees shall have clay or clay loam balls. Trees with sand balls will be
- 3. Provide tree species that mature at heights over 25'-0" with a single, main trunk. Trees that have the main trunk forming a "Y" shape are not acceptable.

- 4. Plants planted in rows shall be matched in form, (see specimen stock).
- 5. Plants larger than those specified in the plant list may be used when acceptable to the Landscape Architect.
- 6. No pruning wounds shall be present with a diameter of more than 1" and such wounds must show vigorous bark on all edges.
- 7. Evergreen trees shall be unsheared and branched to the ground.
- height indicated on the drawings. 9. Plant materials shall be subject to approval by the Landscape Architect

8. Shrubs and small plants shall meet the requirements for spread and

10. Bare root trees are not acceptable.

as to size, health, auglity, and character,

- 11. Provide plant materials from licensed nursery or grower.
- 2.1.2 Bare root plants: dug with adequate fibrous roots, to be covered with a uniformly thick coating of mud by being puddled immediately after they are
- Container grown stock: grown in a container for sufficient length of time for the root system to have developed to hold its soil together, firm, and whole.
 - 1. No plants shall be loose in the container
- 2. Container stock shall not be root bound.
- 3. Single stemmed or thin plants will not be accepted.

2.1.4 Collected stock consists of plants growing under natural conditions in soils

- 4. Side branches shall be generous, well twigged, and the plant as a whole well bushed to the ground.
- 5. Plants shall be in a moist, vigorous condition, free from dead wood,
- and climate as exist at location to be planted, in locations lending themselves to proper collecting practices. Root system (balls) to be at least twenty—five (25%) percent larger than specified for nursery grown material. 2.1.5 Specimen stock: all specimen designated plantings are to be nursery grown,
- fully developed, excellent quality, and typical example of the species. Plants designated to be planted in rows must be matched, symmetrical, and uniform in height, spread, caliper, and branching density.
 - 1. Matched plantings should be obtained from the same nursery and, preferably, from the same row or line. All specimen material will be approved by the Landscape Architect at nursery.
- Topsoil for planting mix: fertile, friable, natural topsoil of loamy character 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 6.0-6.8 for ericaceous plants.
- 2.1.7 Peat moss: brown to black in color, weed and seed free granulated raw
- 1. Provide ASTM D2607 sphagnum peat moss with a ph below 6.0 for
- 2.1.8 Planting mixture Type A trees: standard planting backfill shall be a mixture of $\frac{1}{2}$ native soil (excavated from plant pits), $\frac{1}{2}$ topsoil, and $\frac{1}{2}$ sand. Add fertilizer Type "A" and "B" to planting mixture per manufacturer's requirements. Follow planting details.
- 2.1.9 Planting mixture Type B for perennial flowers, groundcover beds, and ericaceous plants: planting backfill shall be a mixture of 1/3 screened topsoil, 1/3 sand and 1/3 peat. All existing soil shall be excavated and removed. Adding fertilizer types "A" and "B" to mixture per manufacturer's requirements. Follow planting details.
- 2.1.10 Planting mixture Type C for annual flower beds: same as Type "B". Submit a sample to the Landscape Architect for approval prior to installation.
- Planting mixture Type D for Bioretention Soil Mix. for use with shrubs and perennials in a bioswale, rain garden or bioretention area. Planting backfill shall be a mixture of 50%-60% coarse sand, 25%-35% screened topsoil, and 10-15% Compost by volume. The following criteria for bioretention soil mix shall be provided:
 - Maximum clay content: 15%
 - Clay and silt content: 25%-40% Nutrient content: 15-30 mg/kg
 - . Hydraulic Conductivity: 1-4 inches per hour 5. Organic Matter Content: 2%-5%
- Adding fertilizer to mixture per manufacturer's requirements and soil testing recommendations. Follow detail for installation. Submit a sample and testing results to the Landscape Architect for approval prior to installation.
- 2.1.12 Planting mixture Type E for Planter Soil Mix, Metro Mix 900 in 3 cubic foot baas or approved eaual.
- 2.1.13 Plant fertilizer Type A to be "Drimanure" applied per manufacturer recommendations
- 2.1.14 Plant fertilizer Type B to be "14-14-14". Apply per manufacturer
- 2.1.15 Bone Meal 5 lbs. per cubic yard of soil mixes.
- 2.1.16 Lime to be ground dolomitic limestone, ninety-five percent (95%) passing through #100 mesh screen. Use to adjust soil pH only, under direction of Landscape Architect.
- 2.1.17 Sand to be clean, coarse, ungraded conforming to ASTM-C-3 for fine
- 2.1.18 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.
- 2.1.19 Shredded bark mulch shall be double processed, dark shredded hardwood bark that is clean, free of debris and sticks. Materials shall be uniform in size, shape, and texture. Submit samples to Landscape Architect for approval prior to installation. Install mulch to finish grade, level smooth, without ridges, humps, or depressions.
- 2.1.20 Water: free of substances harmful to plant growth. Hoses or other methods of transportation shall be furnished by Sub Contractor.
- 2.1.21 Stakes for staking :(3) Three Hardwood, 2" x 2" x 8'-0" long. Driven a min. of 18" deep firmly into subgrade prior to backfilling. Stakes for guying: Hardwood, 2" x 2" x 36" long.
- 2.1.22 Guying/staking material: With 2"-3" wide fabric straps, connect from tree to stake. Remove after (1) year, allow for flexibility (do not use wire & hose).
- 2.1.23 Tree wrap: standard waterproofed tree wrapping paper, 2-1/2" wide, made of 2 layers of crepe kraft paper weighing not less than 30 lbs. per ream, cemented together with asphalt. Secure tree wrap with biodegradable material at top and bottom. Remove after first winter.
- 2.1.21 Twine: two-ply jute material.
- 2.2 MEASUREMENTS
- Measure height and spread of specimen plant materials with branches in their normal positions as indicated on Drawinas or Plant List.
- The measurements for height shall be taken from the ground level to the average height of the top of the plant and not the longest branch.
- Measurement should be average of plant, not greatest diameter. For example, plant measuring 15 inches in widest direction and 9 inches in narrowest direction would be classified as 12 inch stock.
- 2.2.4 Plants properly trimmed and transplanted should measure same in every direction.
- 2.2.5 Measure caliper of trees 6 inches above surface of around.
- 2.2.6 Where caliper or other dimensions of plant materials are omitted from Plant List, plant materials shall be normal stock for type listed.
- 2.2.7 Plant materials larger than those specified may be supplied, with prior written approval of Landscape Architect, and:

- 1. If complying with Contract Document requirements in all other respects.
- 2. If at no additional cost to Owner.

3. If sizes of roots or balls are increased proportionately.

- The height of the trees, specified by height, measured from the crown of the roots to the top of the top branch, shall not be less than the minimum size designated on the drawings.
- EXECUTION
- INSPECTION
- Landscape Architect or General Contractor's representative must approve proposed planting areas and conditions of installation. Do not start planting work until unsatisfactory conditions are corrected.
- 3.1.2 Individual plant locations shall be staked on the project site by the Landscape Contractor and approved by the Landscape Architect before any planting pits are dug. The Landscape Architect reserves the right to adjust plant material locations to meet field conditions, without additional cost to the General Contractor / Owner.
- Accurately stake plant material according to the Drawings. Stakes shall be above grade, painted a bright color, and labeled with the name of the plant material to be installed at that location.
- TIME OF PLANTING
- Evergreen material: Plant Evergreen materials between September 1 and October 15 or in spring before new growth begins. If project requirements require planting at other times, plants shall be sprayed with anti-desiccant prior to planting operations.
- Deciduous material: Plant deciduous materials in a dormant condition. If deciduous trees are planted in leaf, they shall be sprayed with anti-desiccant prior to planting operation.
- Planting times other than those indicated must be acceptable to the Landscape Architect.
- PREPARATION

3.3.2

- General: See Landscape Preparation Section
- Vegetation Removal
- 1. Strip existing grass and weeds, including roots from all bed areas leaving
- the soil surface one (1") inch below finish grade. 2. Herbicide: as required to prepare area for new planting applied to all around cover, evergreen and shrubbery beds and all mulch greas before
- recommendations. Clean area of all dead material after five (5) days. 3. Pre-Emergence Herbicide: applied per manufacturer recommendations to same area where "Herbicide" has been applied and to planting bed areas,
- after area is cleared of dead vegetation. 4. Herbicides to be applied by licensed applicator as required by the State.
- 5. Excavate circular plant pits with vertical sides, except for plants specifically indicated to be planted in beds. Provide plant pits per planting details. Depth of pit shall accommodate the root system Scarify the bottom of the pit to a depth of 6".

application of preemergence herbicide, per manufacture's

- 6. Roughen sides of excavations.
- 7. Provide premixed planting mixture Type "A" for use around the balls and roots of all deciduous and evergreen tree plantings.
- Percolation Testing of Plant Beds

Provide percolation testing by filling plant pits with water and monitoring length of time for water to completely percolate into soil. Submit test results to Landscape Architect prior to starting work.

- 1. Dig a hole at least 12" in diameter by 12" in depth, with straight sides, In
- excavated plant beds. 2. Fill hole with water and let it sit overnight.
- Refill hole the next day 4. Measure the water level by laying a straight edge across the top of the hole, then use a tape measure or yardstick to determine the water level. Continue to measure the water level every hour until the hole is empty, noting the number of inches the water level drops per hour.
- Any test holes with a rate of 1"or less an hour is considered to slow and recommendations to remedy issue shall be provide to Architect and Owner.
- Ground Cover Beds, Perennial Flower Beds, and Ericaceous Plant Beds 1. Excavate existing soil to 12" depth over entire bed area and remove soil
- from site. Scarify bottom of bed to a 4" depth. Set plants according to drawings and backfill entire bed with premixed planting mixture "Type B". Ground Cover shall be planted after bed has been backfilled with plant mix and mulched. Plant ground cover through mulch and into plant mix.
- Mass Shrub Beds / Hedge Beds: 1. Excavate existing soil to 18" depth over entire bed area and remove soil from site. Scarify bottom of the bed to a 4" depth. Set plants according to drawings and Specifications. Backfill entire bed with

(premixed) specified planting mixture Type "A".

- - 1. Excavate existing soil to 8" depth over entire bed area and remove soil from site. Scarify bottom of bed to a 4" depth. Backfill entire bed to an 8" depth with premixed planting mixture "Type B".
- INSTALLATION
- 3.4.1 Planting shall be performed only by experienced workman familiar with
- Planting pits shall be round, with vertical sides and flat bottoms, and sized in accordance with outlines and dimensions shown on the planting

planting procedures under the supervision of a qualified supervisor.

- See drawings for planting details.
- If obstructions are encountered that are not indicated, do not proceed with planting operations until alternative plant locations have been selected and approved in writing by the Landscape Architect. Where location or spacing dimensions are not clearly shown, request clarification by the
- Landscape Architect. Set plant material in the planting pit to proper grade and alignment.
- . Set plants upright, plumb, and faced to give the best appearance or relationship to each other or adjacent structure. 2. Set plant material so it is flush to finish grade after settling, or 1-2"
- higher in poorly drained soil, or as directed by Landscape Architect. 3. No filling will be permitted around the trunks or stems.
- 4. Do not cover top of root ball with soil.
- 5. Backfill pit with planting mixture. Do not use frozen or muddy mixtures
- 6. Form a ring of soil around the edge of the planting pit to retain water.

After balled and burlapped plants are set, tamp planting mixture around of

- balls and fill all voids and remove air pockets. Remove all burlap, ropes, and wires from top 1/3 of balls.
- Space ground cover plants in accordance with indicated dimensions. Adjust spacing as necessary to evenly fill planting bed with indicated quantity of plants. Plant to within 12" of trunks and shrubs and to within 6" of planting bed.
- Spread and arrange roots of bare rooted plants in their natural position. Work in planting mixture. Do not mat roots together. Cut all broken and frayed roots before installing planting mixture.
- 3.4.10 Water immediately after planting.
- Apply pre-emergent herbicide to bed areas per manufacturer's recommendations before mulching.
- 3.5 MUI CHING

- Mulch trees and shrub planting pits and shrub beds with shredded hardwood bark mulch 3" deep to dripline immediately after planting. Leave 3" circle of bare soil around tree trunk. Thoroughly water mulched areas. After watering, rake mulch to provide a uniform finished surface.
- 3.5.2 Mulch shall not be placed in contact with trunks or stems.
- Mulch ground cover beds with shredded bark mulch 2" to 3" deep prior to
- 3.5.4 Plant ground cover through mulch.

staking/guying.

- WRAPPING, GUYING, AND STAKING Inspect trees for injury to trunks, evidence of insect infestation and improper
- 3.6.2 Wrap trunks of all trees spirally from bottom to top with specified tree wrap and secure in place.
- 3.6.3 Stake deciduous trees under 4" caliper. Stake evergreen trees under 6'-0"
- tall and over with metal fence post, three (3)per tree. Stake/guy all trees immediately after installation. When high winds or other conditions which may effect tree survival or appearance occur during the warranty period, the Sub-Contractor shall immediately repair the
- 3.6.5 Guy deciduous trees 4" caliper and over. Stake evergreen trees 6'-0" tall
- and over with metal fence post, three (3) per tree. 3.6.6 All work shall be acceptable to the Landscape Architect/Owner's
- Remove or cut back broken, damaged, and unsymmetrical growth of new
- Multiple leader plants: preserve the leader which will best promote the symmetry of the plant. Do not prune terminal leader. Cut branches flush with the trunk of the main branch, at a point beyond a lateral shoot or bud a distance of not less than ½ the diameter of the supporting branch. Make cut on an angle.
- 3.7.3 Prune evergreens only to remove broken or damaged branches.
- MAINTENANCE 3.8
- 3.8.1 See Landscape Maintenance and Warranty Standards

LANDSCAPE MAINTENANCE AND WARRANTY STANDARDS

- 3.9 CLEANING
- 3.9.1 Perform cleaning during installation of the work and upon completion of the work. Remove from all site excess materials, soil, debris, and equipment. Repair damage resulting from planting operations.

END OF SECTION

- 1.1 SUMMARY
- 1.1.1 Includes But Not Limited To 1. Provide maintenance for new landscaping as described in Contract
 - Documents. 2. The requirements of the Section include a one (1) year warranty period from date of acceptance of installation performed by the General
- Contractor's Representative and Landscape Architect. 2.0 PRODUCTS - Not Used
- 3.0 EXECUTION
- 3.1 PERFORMANCE 3.1.1 Acceptance of Installation

Representative shall be present.

- 1. At the completion of all landscape installation, or pre-approved portions thereof, the Landscape Subcontractor shall request in writing an inspection for Acceptance of Installation in which the Landscape Subcontractor. Landscape Architect, and General Contractor's
- b. Upon completion of all punch list items, the Landscape Architect and/or General Contractor's Representative shall reinspect the

project and issue a written statement of Acceptance of Installation

a. Following the acceptance inspection a punch list will be issued by

c. At the time of acceptance all plant material shall be of vigorous health and planting bed and mulch rings are weed free.

and establish the beginning of the Project Warranty Period.

- d. It is the responsibility of the Landscape Subcontractor to make the written request for inspection of installation in a timely fashion. e. If there is plant material loss prior to the Landscape Subcontractor's written request for inspection of installation, the Landscape Contractor shall make all replacements of this dead material at no additional cost These replacements are not considered to be the required one (1) replacement of dead plant material by the
- 2. Landscape work may be inspected for acceptance in parts agreeable to the General Contractor's Representative and Landscape Architect provided work offered for Inspection is complete, including maintenance as

Landscape Subcontractor during the one (1) year project warranty

3. For work to be inspected for partial acceptance, the Landscape Subcontractor shall provide a drawing outlining work completed and supply

a written statement requesting acceptance of this work completed to

- 3.1.2 Project Warranty 1. The Project Warranty Period begins upon written preliminary acceptance of the project installation by the Landscape Architect and General
 - 2. The Landscape Subcontractor shall guarantee trees, shrubs, ground cover beds and seeded or sodded areas through construction and for a period of one (1) year after date of Acceptance of Installation against defects including death and unsatisfactory growth, except for defects resulting from neglect, abuse or damage by others or unusual phenomena or
- incidents which are beyond Landscape Subcontractor's control. 3.1.3 Maintenance During One (1) Year Project Warranty

lost in areas of subsidence.

- 1. To insure guarantee standards, the following maintenance procedures for trees, shrubs, and ground covers shall be executed during construction and for the full Project Warranty Periods.
- a. Landscape Subcontractor shall be responsible for only one (1) replacement of any plant materials during the one (1) year Project Warranty Period. These include those which are dead or in the opinion of the Landscape Architect are in an unhealthy or unsightly condition, or having lost natural shape, resulting from dieback, excessive pruning, or inadequate or improper maintenance as part of
- b. Prior to any replacements, Landscape Subcontractor shall review individual plants in question with Landscape Architect to determine c. Maintain plantings by pruning, cultivating, watering, weeding,
- fertilizing, mulching, restoring planting saucers, adjusting and repairing tree—stabilization devices, resetting to proper grades or vertical position, and performing other operations as required to establish healthy, viable plantings. d. Fill in, as necessary, soil subsidence that may occur because of

settling or other processes. Replace mulch materials damaged or

- e. Apply treatments as required to keep plant materials, planted areas, and soils free of pests and pathogens or disease. Use integrated pest management practices when possible to minimize use of pesticides and reduce hazards. Treatments include physical controls such as hosing off foliage, mechanical controls such as traps, and biological control agents.
- f. The contractor will be responsible for irrigation system operation, watering schedules, watering amounts and general monitoring of irrigation system throughout construction, maintenance, and warranty period. Over watering or lack of water from the irrigation system is the responsibility of the landscape contractor and any required
- replacements at the cost of the contractor and not part of the warranty replacement. 2. Replacements must meet the standards specified on the Landscape plans and in the specifications, i.e. quality, species of plant material and
- 3. Costs for replacements are assumed part of bid quotations and therefore will not result in an additional cost to General Contractor or Landscape

planting procedures to receive approval of replacement materials by

- 4. Areas damaged as a result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or
- 5. The Landscape Subcontractor shall be responsible for watering all plantings through the warranty period and shall keep guy wires taut, raise tree balls which settle, furnish and apply sprays as necessary to keep the plantings free of disease and insects until the end of the warranty
- 6. The Landscape Subcontractor shall remove and replace trees, shrubs or
- other plants found to be dead or in unhealthy condition. a. Rejected plants and materials shall be removed promptly.
- Replacements shall be made during the following normal planting
- c. Trees and shrubs which are in doubt shall be replaced, unless, in the opinion of the Landscape Architect, it is advisable to extend Project Warranty Period for full growing Season.
- and evergreen shrub beds within 150' of major streets and drives, no later than December 1, during the one (1) year project warranty. 8. The first spring after plant installation the contractor shall check all

trees to insure twine has rotted from around the trunk. If twine is still

9. All stakes, guy wires, tree wrap paper, dead twigs and branches shall be removed from tree and plant materials at the end of this warranty

present, it shall be removed and disposed of off-site.

- 3.1.4 Maintenance of Seeded Lawn Areas
 - 1. The Landscape Subcontractor shall maintain seeded lawn areas.
 - spots, none of which is larger than one (1) foot of area up to a maximum of 3% of the total seeded lawn area is established. Seeded lawn that fails to show a uniform growth and/or germination

Water, fertilize, weed, and apply chemicals until a dense lawn of

permanent grasses, free from lumps and depressions or any bare

- shall be reseeded until a dense cover is established, regardless of what season the seed was installed 2. The Landscape Subcontractor shall maintain and mow all lawn areas for until acceptance of installation (typically 3 mows). When lawn reaches 3"
- in height it shall be cut to 2" in height. 3. The Owner assumes cutting responsibilities following the Acceptance of Installation of the seeded lawn.

Acceptance by General Contractor's representative and Landscape

Water, fertilize, spot weed, apply herbicides, fungicides, insecticide

Architect, the Owner shall assume all seeded lawn maintenance responsibilities

3.1.5 Maintenance of Sodded Lawn Areas

- 1. The Landscape Subcontractor shall maintain sodded lawn areas.
- and resod until a full uniform, smooth stand of sod is knitted to topsoil, and accepted by the Landscape Architect or his or her representative.

2. Water sod thoroughly, as required to establish proper rooting.

3. Repair, rework, and resod all areas that have washed out or are eroded. Replace undesirable or dead areas with new sod. 4. Mow lawn areas once as soon as sod has rooted sufficiently and knitted

to the topsoil. Cut back to 2" height. Not more than 40% of grass

leaf shall be removed at any single moving. Excess clipping to be

- removed by the Landscape Subcontractor. The Landscape Subcontractor shall be responsible for lawn mowing until acceptance of installation (typically 3-mows).
- 5. The Owner assumes mowing responsibilities following the Acceptance of 6. At conclusion of Project Warranty Period and after receiving Written Final Acceptance by General Contractor's representative and Landscape

Architect, the Owner shall assume all sodded lawn maintenance

2. After the inspection for final acceptance, a punch list will be issued by

the Landscape Architect. Upon completion of all punch list items, the

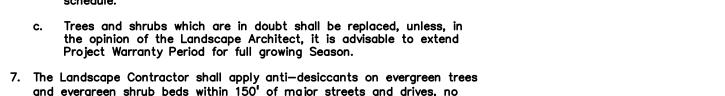
1. At the conclusion of the Project Warranty Period the Landscape Subcontractor shall request a project inspection for final acceptance in which the Landscape Contractor, Landscape Architect and Owner's Representative shall be present.

3.1.6 Final Acceptance Upon Conclusion of the Warranty Period

Landscape Architect and the Owner's Representative shall reinspect the project and issue a Written Statement of Final Acceptance.

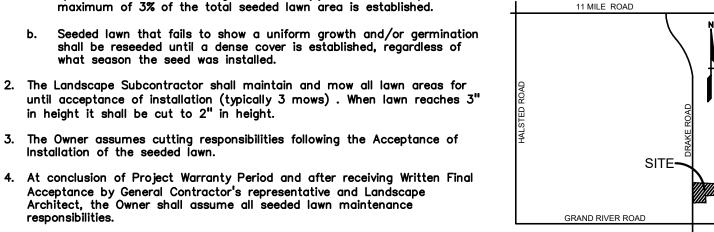
END OF SECTION

NOTE: The Owners may at their option elect to utilize a Construction Manager in lieu of a General Contractor for all matters pertaining to these specifications and the site work.



CAUTION THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND ITILITIES AS SHOWN ON THIS DRAWING ARE ONLY MPLIED AS TO THE COMPLETENESS OR ACCURACY THEREO HE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS

PRIOR TO THE START OF CONSTRUCTION.



26777 CENTER PARK BOULEVARD SUITF: 150 SOUTHFIELD, MICHIGAN 48076

BMW KAR

WASH, LLC

PROJECT TITLE

11-18-24

ORIGINAL ISSUE DATE:

SEPTEMBER 18, 2024

DRAWING NUMBER:

NOT FOR CONSTRUCTION

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LAYOUT REVISIONS

JAX KAR WASH FARMINGTON HILLS 24300 DRAKE ROAD FARMINGTON HILLS,MI

DRAWING TITLE **LANDSCAPE SPECIFICATIONS**

PEA JOB NO. 24-0517 P.M. JPB CAL DN. DES. JLE



Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Bypass Lane	Ж	0.9 fc	1.8 fc	0.3 fc	6.0:1	3.0:1
Drive Through/ Pay Lane	Ж	1.3 fc	2.3 fc	0.4 fc	5.8:1	3.3:1
Overall	+	0.6 fc	3.8 fc	0.0 fc	N/A	N/A
Parking/Vacuums	Ж	1.4 fc	3.8 fc	0.6 fc	6.3:1	2.3:1
Boundary	+	0.1 fc	0.3 fc	0.0 fc	N/A	N/A

Schedul	Schedule											
Symbol	Label	QTY	Manufacturer	Catalog	Description	Lamp Output	LLF	Input Power	Mounting Height			
	S1	1	Lithonia Lighting	DSX1 LED P3 40K 70CRI T4M	D-Series Size 1 Area Luminaire P3 Performance Package 4000K CCT 70 CRI Type 4 Medium	13968	0.9	102.17	25'			
	S2	1	Lithonia Lighting	DSX1 LED P3 40K 70CRI T2M	D-Series Size 1 Area Luminaire P3 Performance Package 4000K CCT 70 CRI Type 2 Medium	13605	0.9	102.17	25'			
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	S4	1	Lithonia Lighting	DSX1 LED P2 40K 70CRI TFTM	D-Series Size 1 Area Luminaire P2 Performance Package 4000K CCT 70 CRI Forward Throw	9977	0.9	67.79	25'			
	W1	6	Lithonia Lighting	WDGE2 LED P2 40K 70CRI T3M	WDGE2 LED WITH P2 - PERFORMANCE PACKAGE, 4000K, 70CRI, TYPE 3 MEDIUM OPTIC	2327	0.9	18.981 5	12'			

ADDITIONAL NOTES

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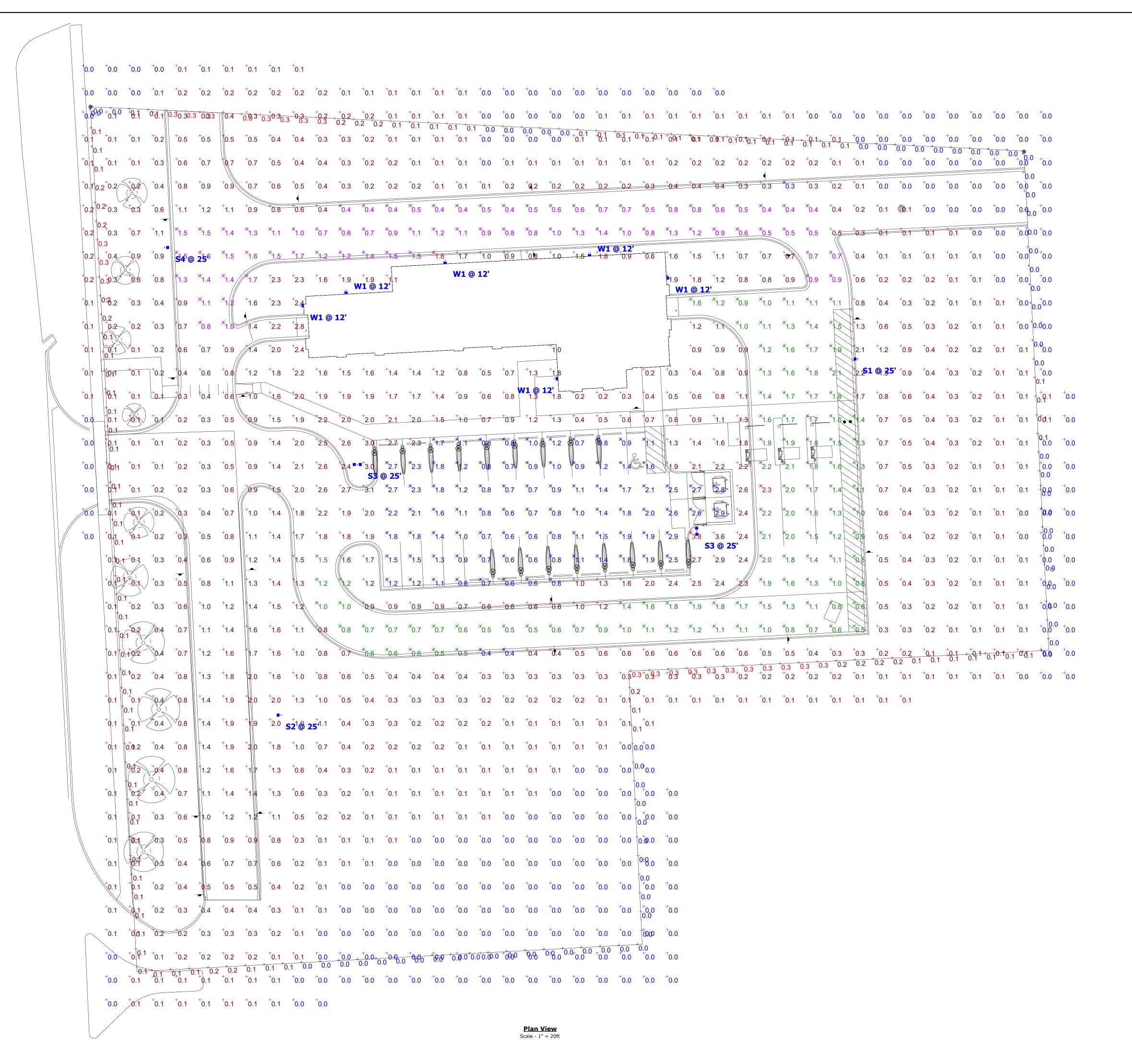
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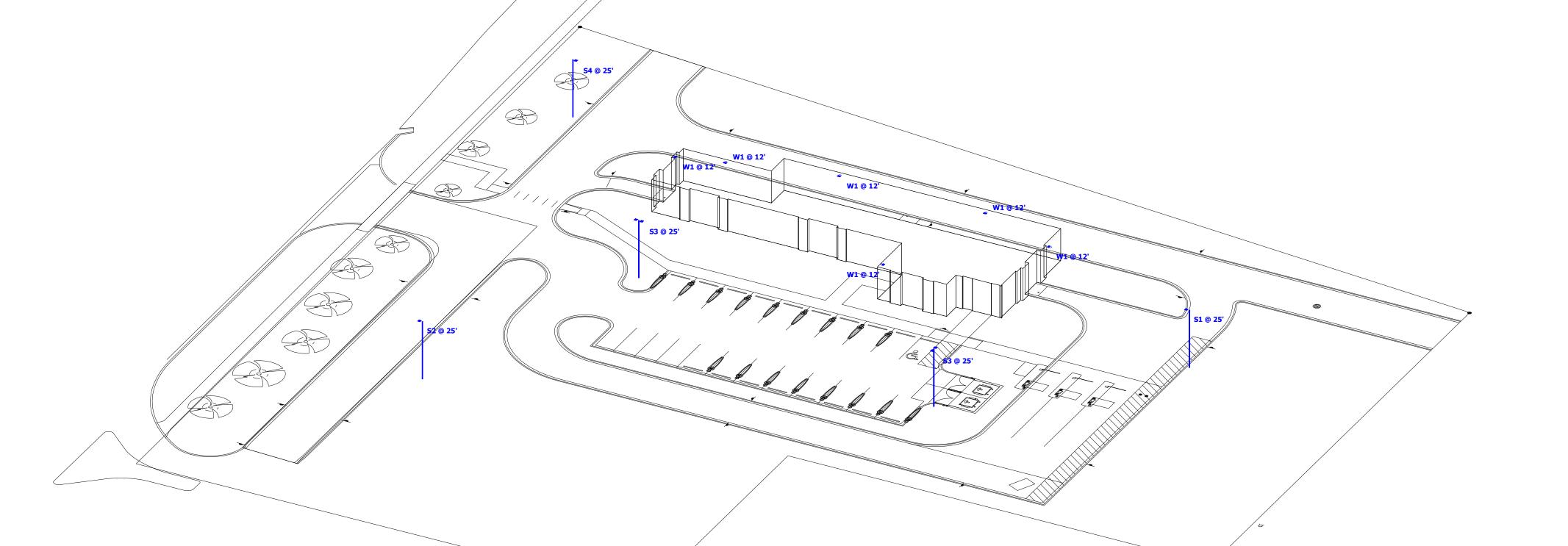
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Mounting Height Note

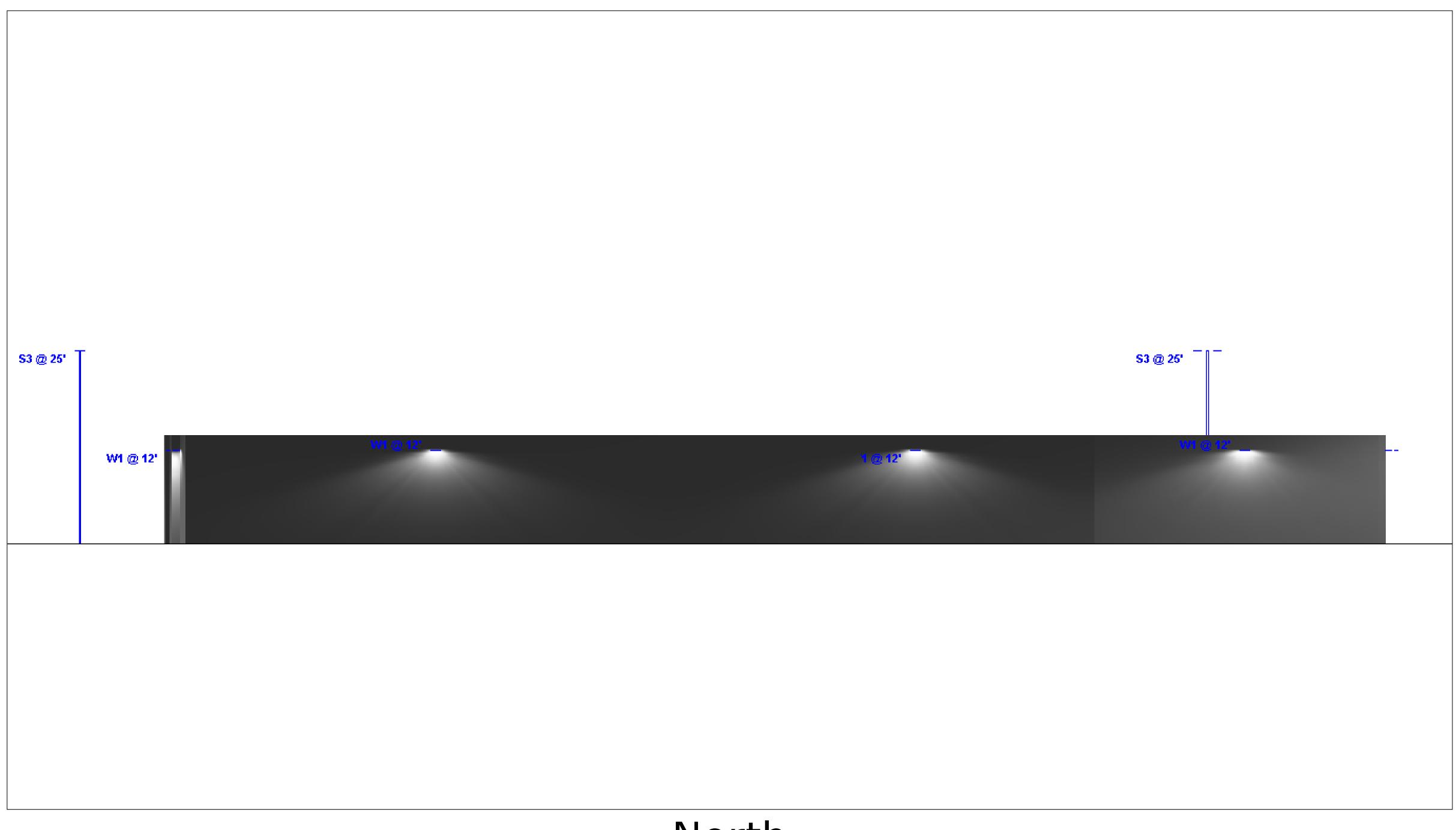
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Designer 11/18/2024 Scale Not to Scale Drawing No. #24-33767_V2

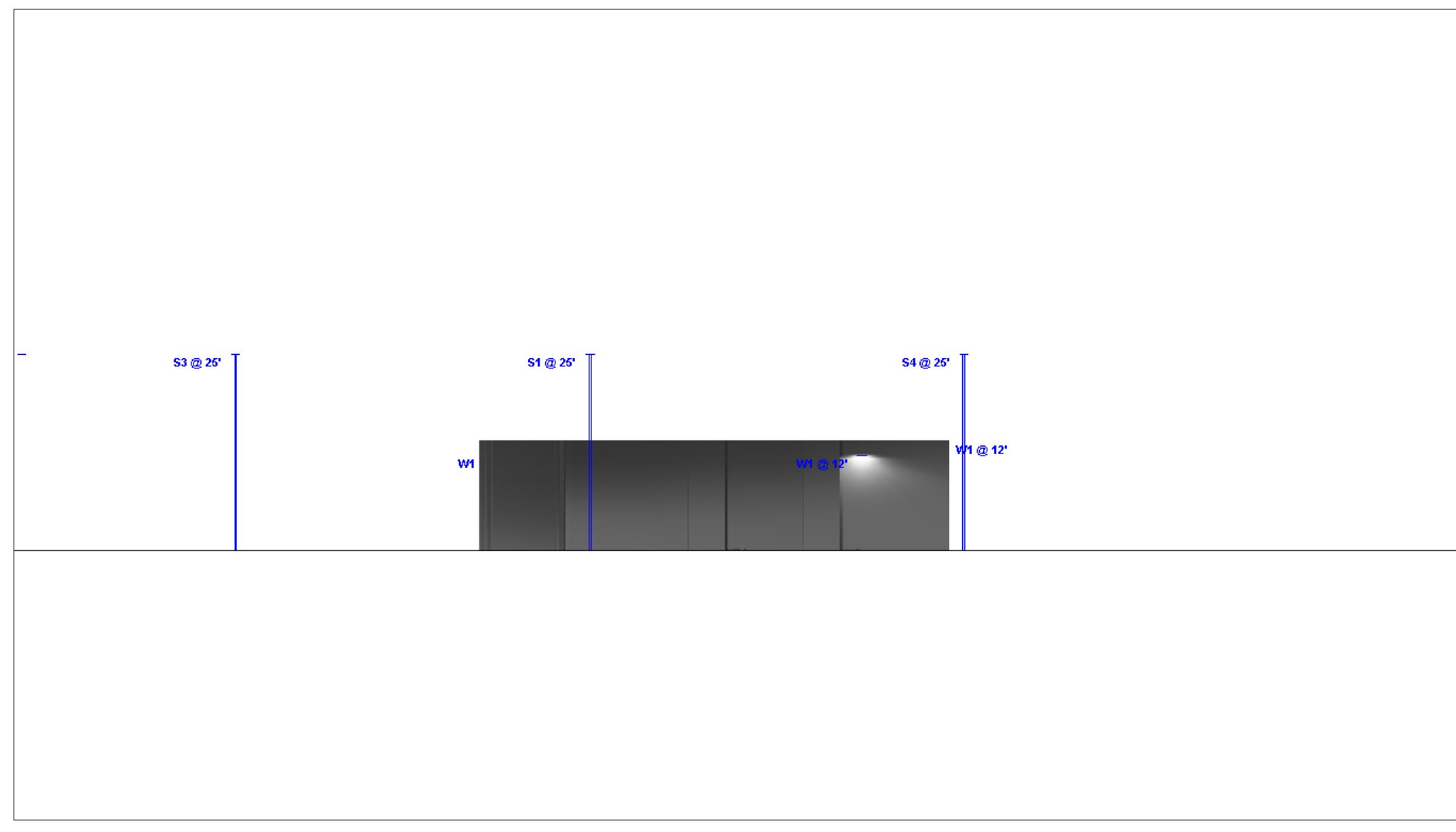




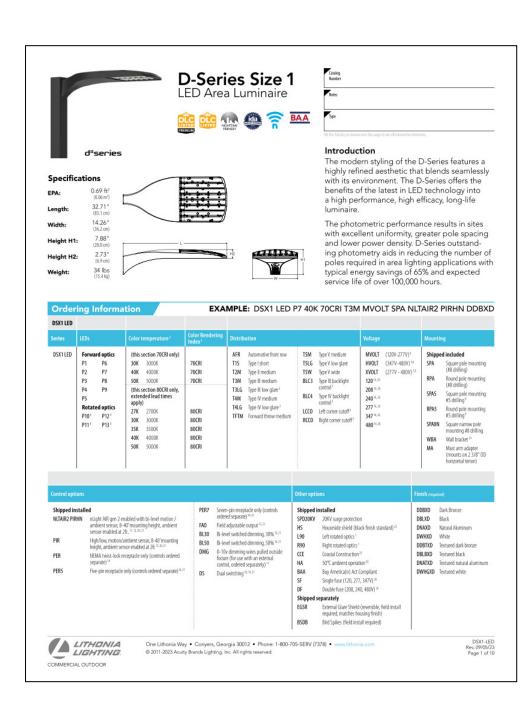
South East View

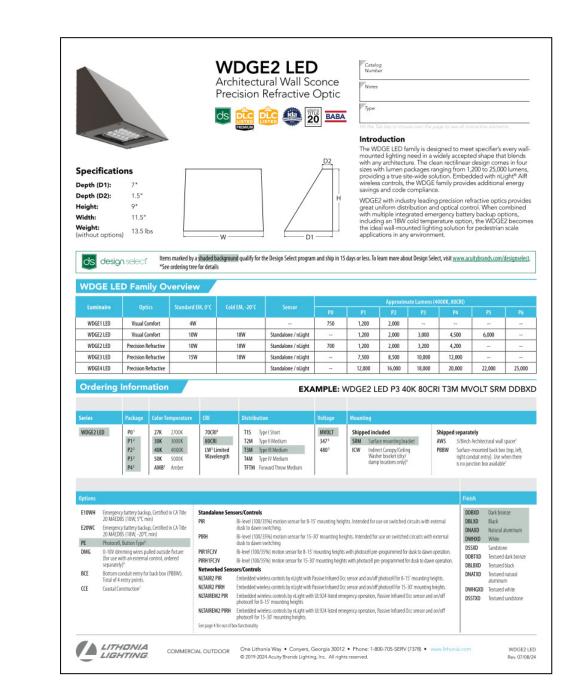


North



East





Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Bypass Lane	Ж	0.9 fc	1.8 fc	0.3 fc	6.0:1	3.0:1
Drive Through/ Pay Lane	Ж	1.3 fc	2.3 fc	0.4 fc	5.8:1	3.3:1
Overall	+	0.6 fc	3.8 fc	0.0 fc	N/A	N/A
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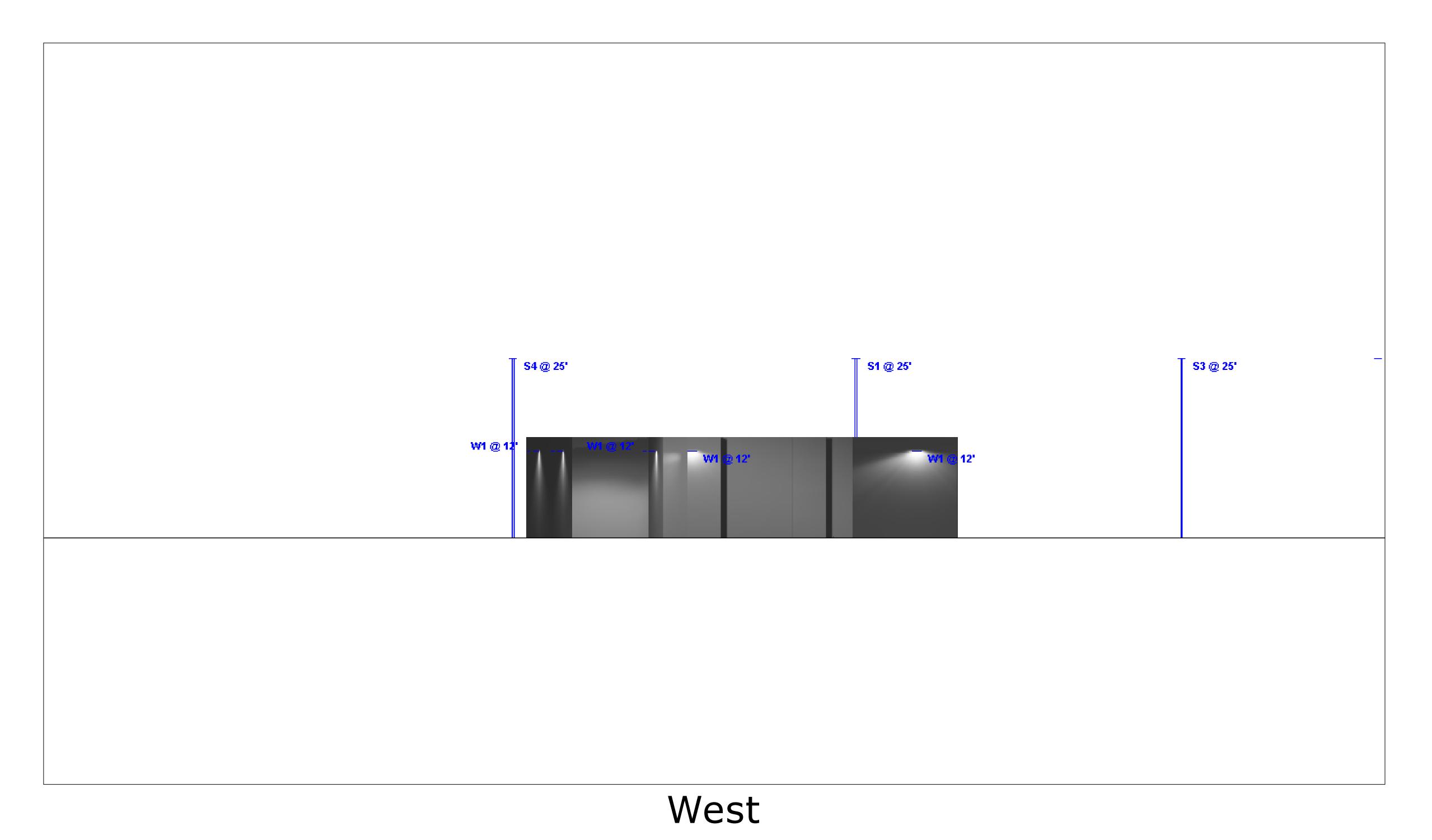
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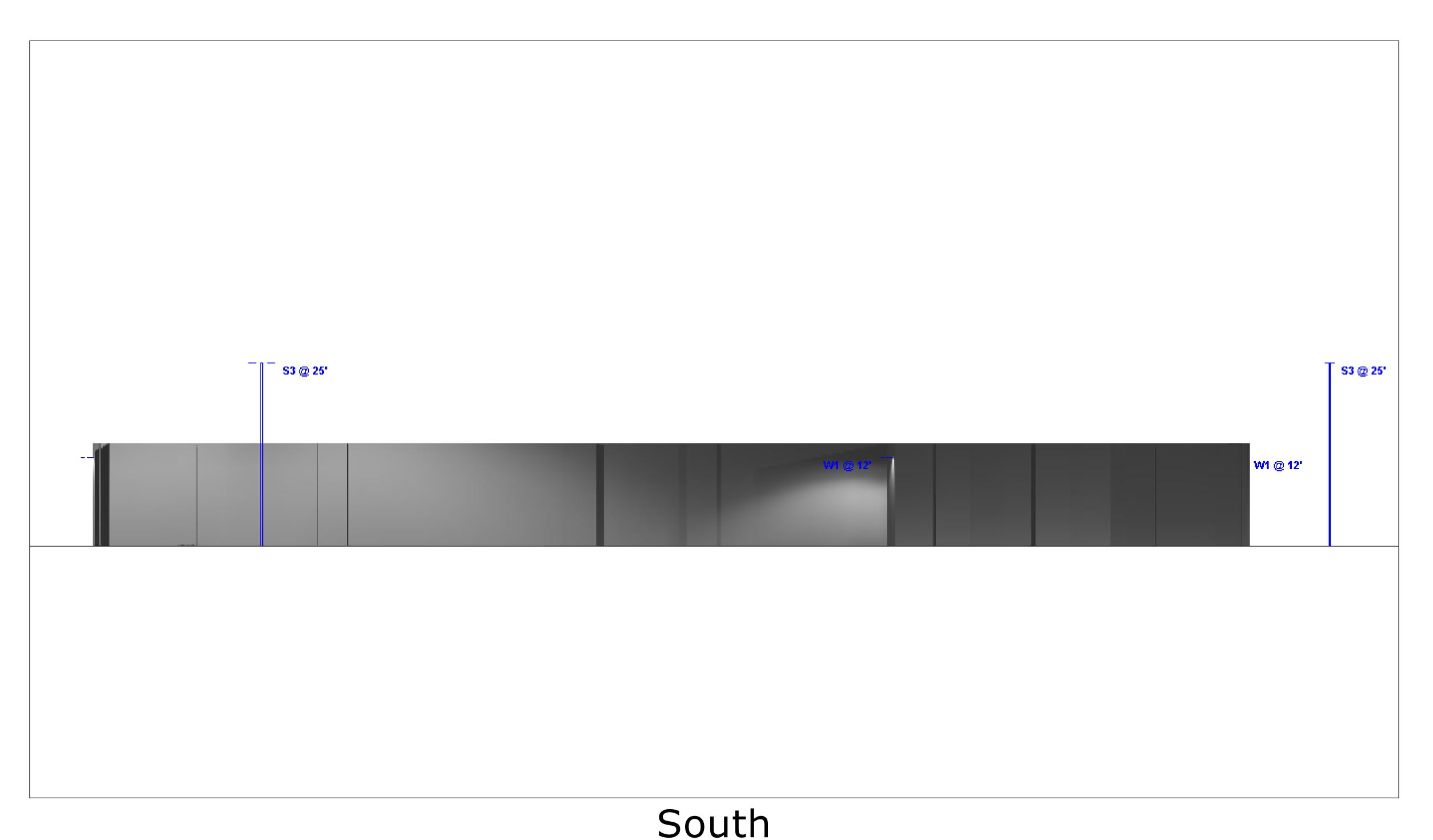
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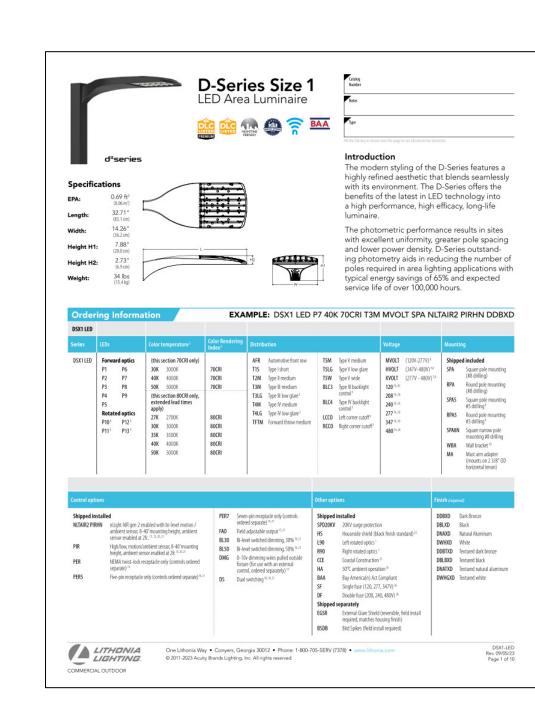
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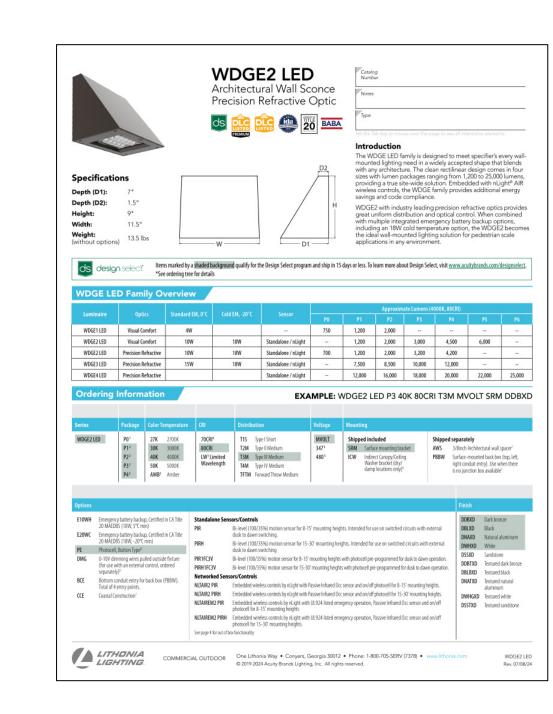
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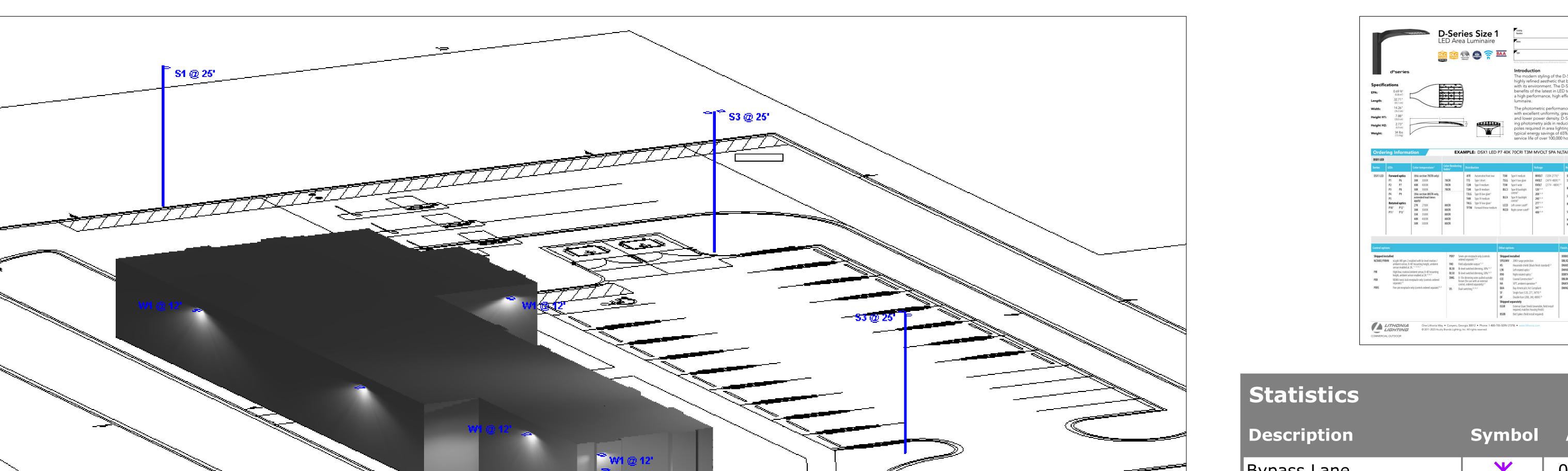
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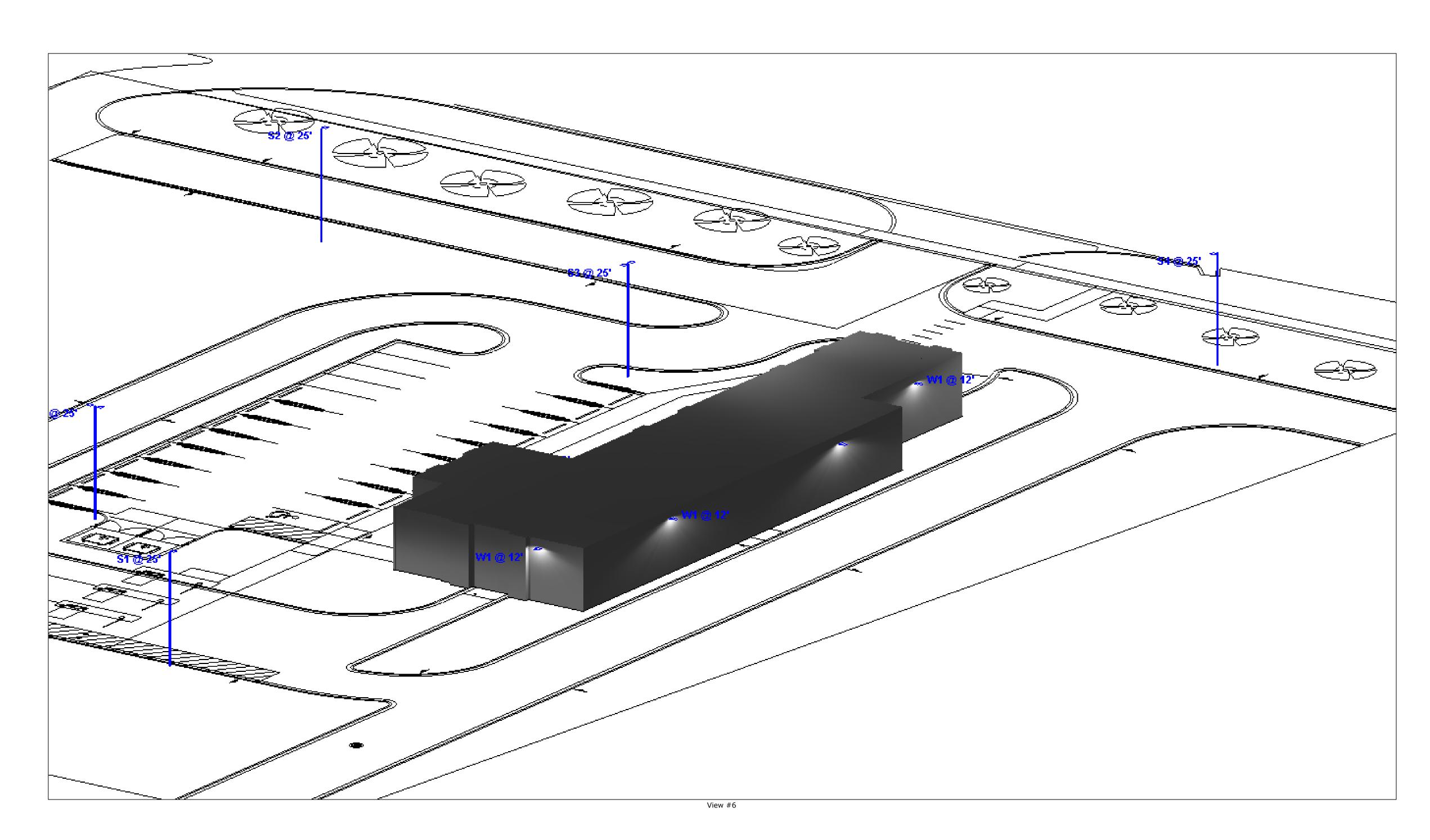
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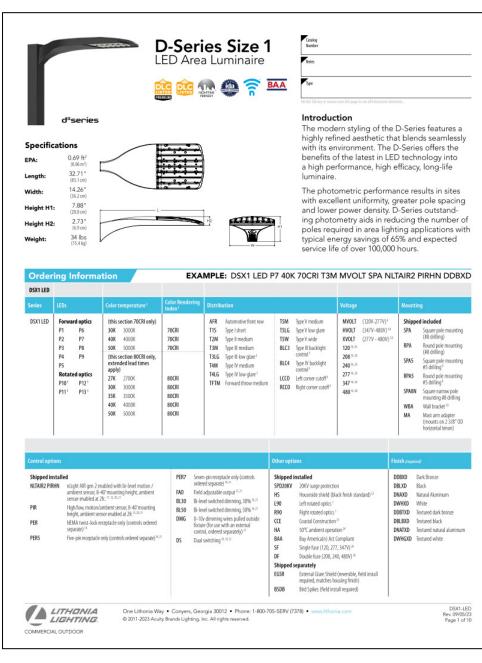
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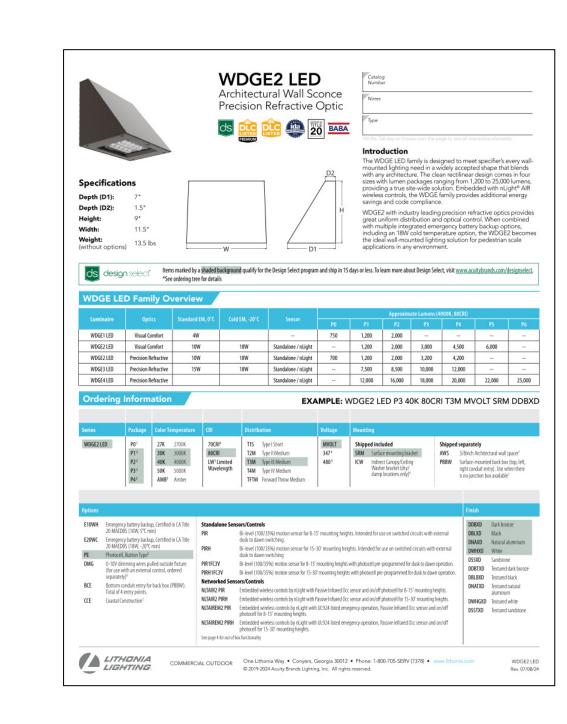
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Mounting Height Note

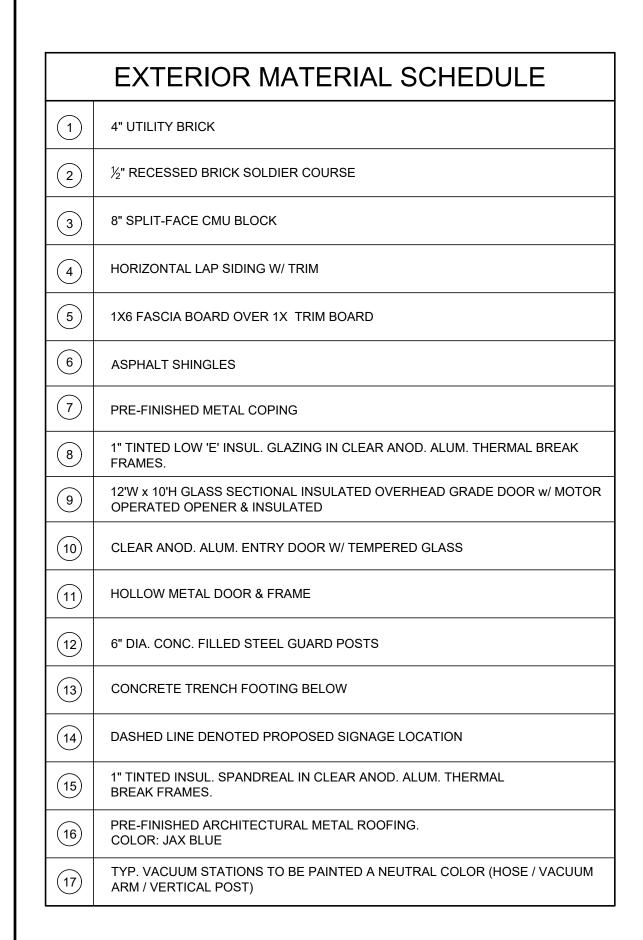
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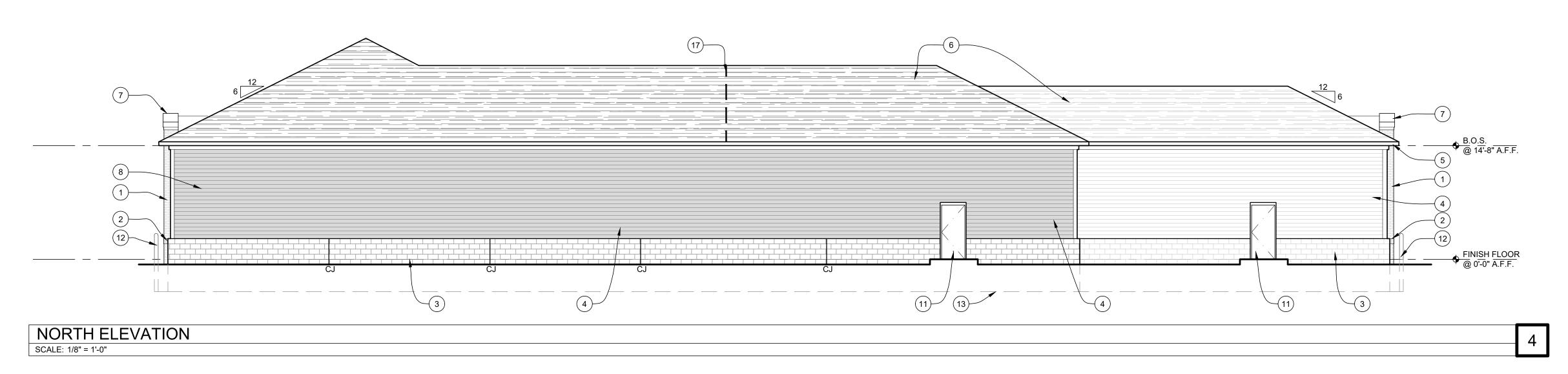


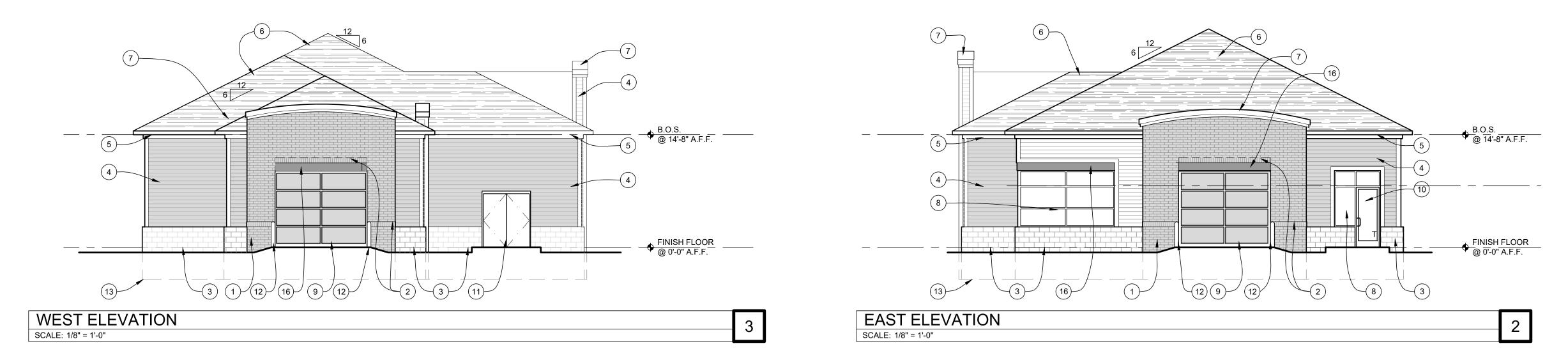


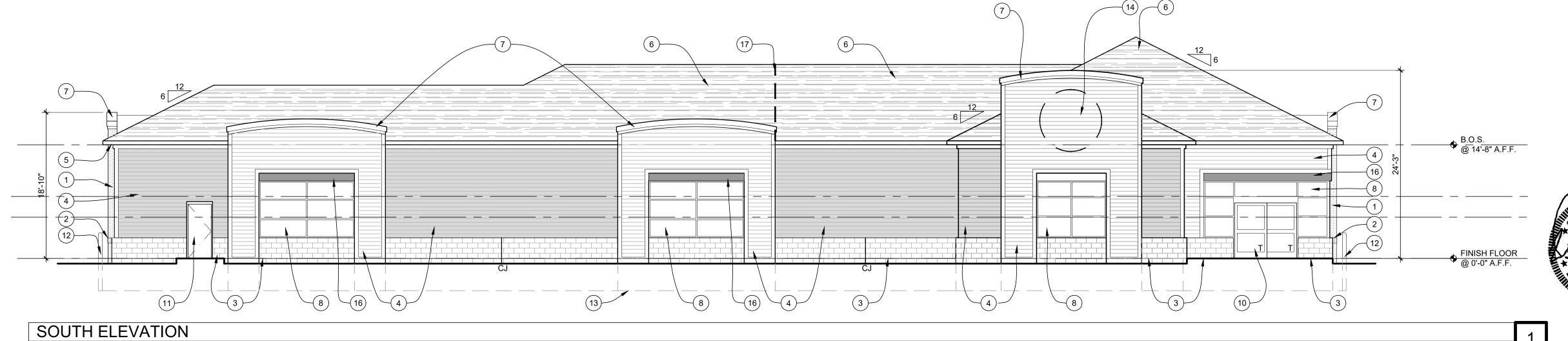




SCALE: 1/8" = 1'-0"







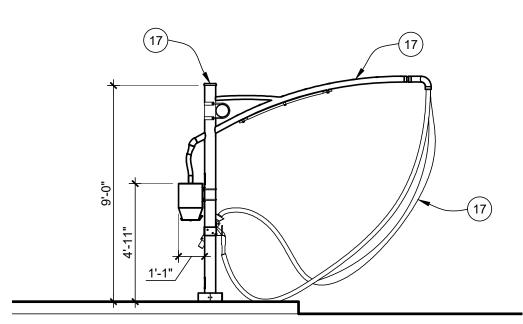
PROJECT NUMBER: 24078

> SHEET NUMBER: PE-1A

11-11-24

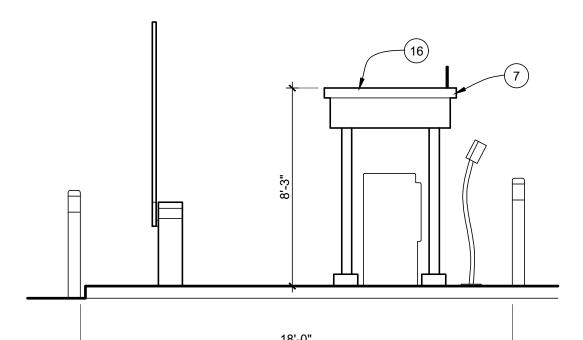
JAX KAR WASH
FARMINGTON HILLS, MI

© 2022, F.A.studio, LLC. EXTERIOR MATERIAL SCHEDULE A.Studio 4" UTILITY BRICK (2) ½" RECESSED BRICK SOLDIER COURSE 8" SPLIT-FACE CMU BLOCK 4 HORIZONTAL LAP SIDING W/ TRIM 5 1X6 FASCIA BOARD OVER 1X TRIM BOARD (6) ASPHALT SHINGLES 7 PRE-FINISHED METAL COPING 1" TINTED LOW 'E' INSUL. GLAZING IN CLEAR ANOD. ALUM. THERMAL BREAK 12'W x 10'H GLASS SECTIONAL INSULATED OVERHEAD GRADE DOOR w/ MOTOR OPERATED OPENER & INSULATED (10) CLEAR ANOD. ALUM. ENTRY DOOR W/ TEMPERED GLASS (11) HOLLOW METAL DOOR & FRAME (12) 6" DIA. CONC. FILLED STEEL GUARD POSTS (13) CONCRETE TRENCH FOOTING BELOW (14) DASHED LINE DENOTED PROPOSED SIGNAGE LOCATION 1" TINTED INSUL. SPANDREAL IN CLEAR ANOD. ALUM. THERMAL BREAK FRAMES. PRE-FINISHED ARCHITECTURAL METAL ROOFING. COLOR: JAX BLUE TYP. VACUUM STATIONS TO BE PAINTED A NEUTRAL COLOR (HOSE / VACUUM ARM / VERTICAL POST)



TYP. VACUUM STATION ELEVATION

SCALE: 1/4" = 1'-0"



WEST ELEVATION
SCALE: 1/4" = 1'-0"

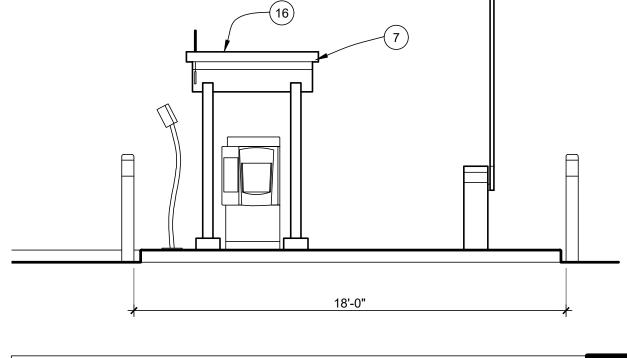


11-11-24 ROJECT NUMBER: 24078 SHEET NUMBER:

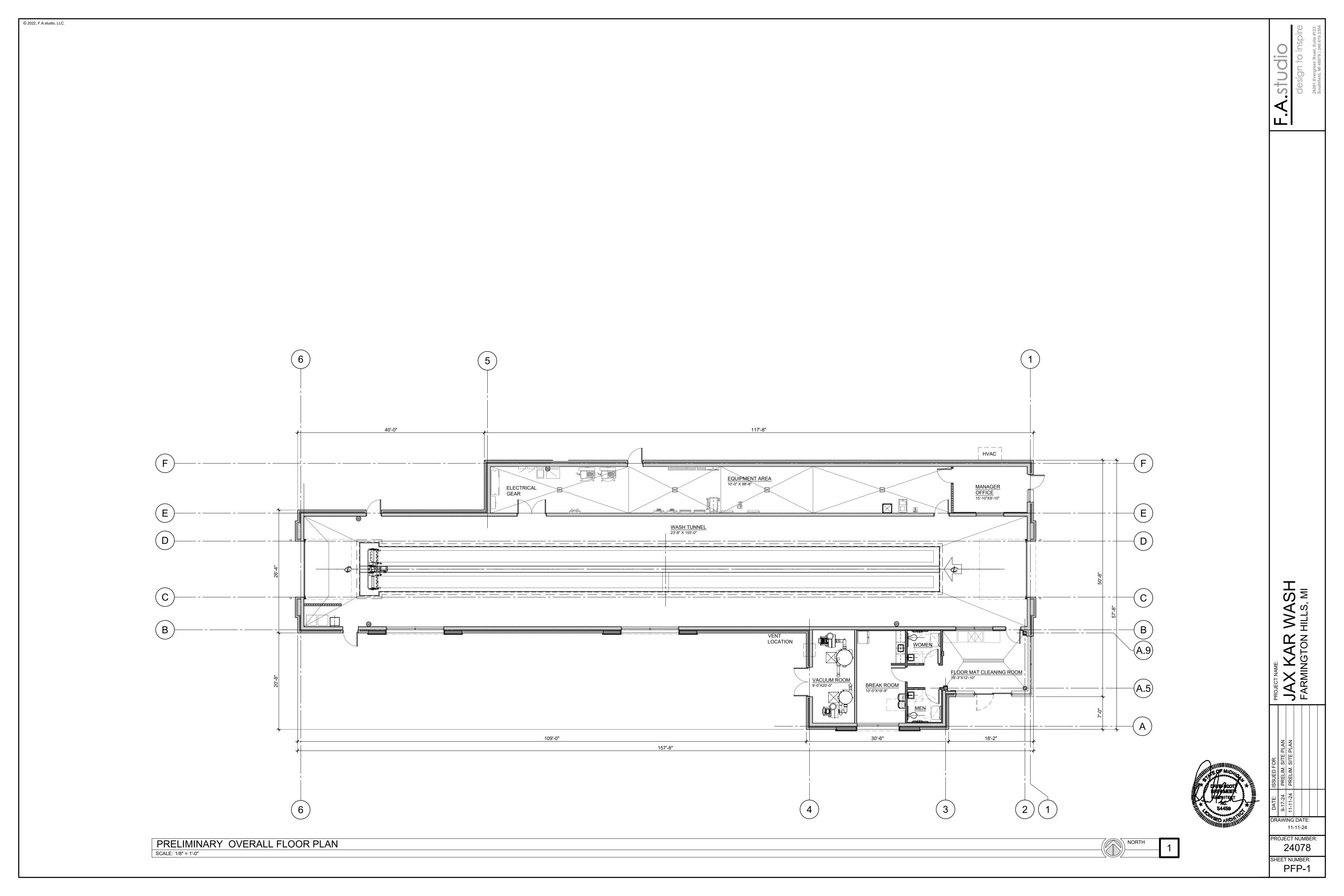
PE-1B

JAX KAR WASH FARMINGTON HILLS, MI

SOUTH ELEVATION SCALE: 1/4" = 1'-0"

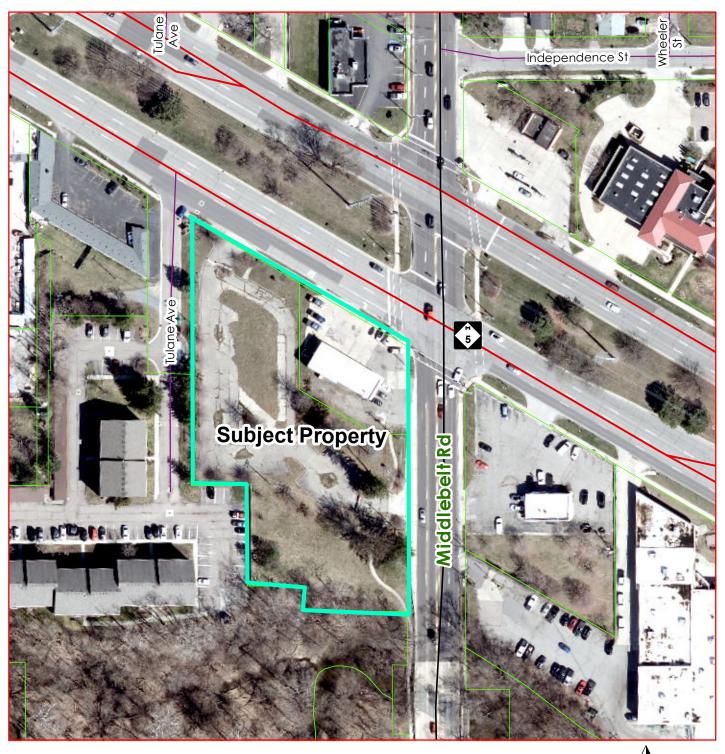


EAST ELEVATION SCALE: 1/4" = 1'-0"



SP 61-11-2024 23-35-431-017, 016 29455 & 29403 Grand River Ave. New fuel station with drive-through restaurant Wheeler P₁ RA₄ Independence St Albion Ave **B**3 P₁ RA₃ Subject Property RC₃ RC₁ RA₃ Tax parcel ■ P-1 Vehicular Parking District 150 Minor roads RA-3 One Family Residential District FEET **Zoning Districts** RA-4 One Family Residential District SOURCE: City of Farmington Hills, 2024 Oakland County GIS, 2024 RC-1 Multiple Family Residential **Zoning Districts** DISCLAIMER: Although the information provided by this map is believed to be reliable, its accuracy is not warranted in any way The City of Farmington Hills assumes no liability for any claims arising from the use of this map. RC-3 Multiple Family Residential B-3 General Business District FARMINGTON HILLS GR-1 Grand River Overlay District

SP 61-11-2024 23-35-431-017, 016 29455 & 29403 Grand River Ave. New fuel station with drive-through restaurant



Planning Division

☐ Tax parcel Minor roads





SOURCE: City of Farmington Hills, 2024 Oakland County GIS, 2024

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December 10, 2024



Farmington Hills Planning Commission 31555 W 11 Mile Rd Farmington Hills, MI 48336

Site Plan Review

Case: SP 61-11-2024

Site: 29455 and 29403 Grand River (22-23-36-431-016, 22-23-35-431-017)

Applicant: SkilkenGold Development

Plan Date: 11/04/2024

Zoning: B-3 General Business

We have completed a review of the application for site plan approval and a summary of our findings is below. Items in **bold** require specific action. Items in *italics* can be addressed administratively.



SUMMARY OF FINDINGS

Summary of Proposal. The applicant proposes to demolish an existing commercial building and construct a new fueling station with 6 pumps/ 12 fueling positions, with the front of the building oriented toward Middlebelt. The 6,132 sf proposed Sheetz store will include a convenience store and restaurant. No drivethrough service is included as a part of this proposal.

Summary of Issues.

For Planning Commission consideration:

• Canopy trees are required throughout the paved area, but were only provided along the perimeter of the parking lot. The Planning Commission shall consider whether this arrangement is sufficient to meet this requirement.

Ordinance compliance:

- Loading space shall be identified on the plans (970 sf required)
- The dumpster enclosure must be relocated to an interior side or rear yard location. The ordinance
 also requires it to be located as far as practicable from adjacent residential. The height of the bins
 within the enclosure shall be provided. Enclosure height must be 1 foot above the dumpster
 height.
- The freestanding monument sign on Grand River Avenue appears to be within the driveway clearance triangle.

For administrative review:

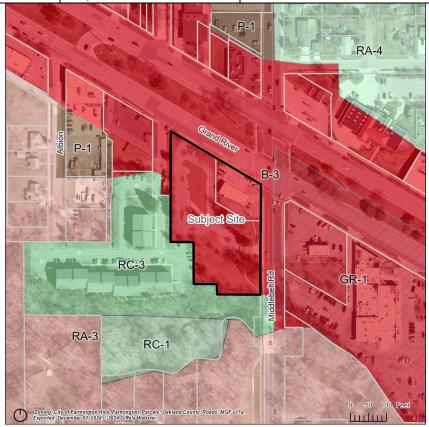
- Setback calculations shall be updated in accordance with 3.5.2.L and noted on the plans for the West and South property lines adjacent to residential.
- A note shall be added to the plans stating that the parking/storage of motor vehicles, trailers, campers, or other such conveyances shall be prohibited (except for those needed for operation of the use)
- Employee information is required to calculate parking, but the number of spaces provided (40) far exceeds what is required without the employee calculation (29). The application notes 30-40 employees, but does not specify the number on the largest shift.
- Sheet A-200 indicates that there will be three wall-mounted signs with the Sheetz logo, while Sheet A-300 indicates there are two Sheetz logo signs and one Made to Order sign. The applicant shall correct this discrepancy.
- Sheet A-200 labels the entry signs as "pole-mounted" signs, but Sheet A-600 details these signs to be monument signs. The applicant shall correct this discrepancy.
- Canopy mounted signs may not be taller than 8". The proposed canopy sign exceeds this requirement.
- Sign illumination in footcandles shall be provided.
- The site plan includes a screening wall and brick knee wall, referencing sheet A100 for details. However, only knee wall details are provided. Screening wall details are required.
- Evergreen trees are located less than the minimum spacing of 20' from deciduous trees.
- The buffer yard trees were calculated based on a 30' spacing, but the ordinance requires a 20' spacing for rows.

Existing Conditions

- 1. **Zoning.** The site is 1.9 acres (parcel -017 is 1.6 acres, parcel -016 is 0.3 acres) and zoned B-3.
- 2. **Existing site.** The site is currently developed with a 2,257 SF vacant automotive service facility (oil changes). Pavement from a previous use is also present.

3. Adjacent properties.

Direction	Zoning	Land Use
North	B-3	Commercial
South	RC-3	Multiple-Family Residential
West	RC-3	Multiple-Family Residential
West	B-3	Commercial
East	B-3/ GR-1	Commercial



4. **Site configuration and access.** The site is currently comprised of two separate parcels. Each parcel has two curb cuts, each with access on both Middlebelt and Grand River Avenue. The proposed plan closes two of these curb cuts (the two closest to the intersection), resulting in one access point on each right-of-way.

Site Plan & Use:

- 1. **Use.** A gas station and carryout restaurant are both principally permitted uses in the B-3 district, subject to PC approval and the standards of Sections 4.27 and 4.28 (see below).
- 2. **Dimensional Standards (B-3 district).** See footnotes after the table for remarks on compliance issues.

Item	Required	Proposed/Comments			
Standards of Sec. 34-3.1.25.E					
Min. lot size	None specified	1.9 acres			
Min. lot width	None specified	290'			
Front Setback- East	25 ft (from Middlebelt)	>45 ft to canopy ¹			
Side Setback- North	25 ft (from Grand River)	51.7 ft to canopy/67+ to building ¹			
Side Setback – South (Residential)	20 ft / 30.6 ft (3.5.2.L) ²	36.1 ft/Compliant			
Rear Setback – West (residential/ non- residential)	20 ft/ 23.9 ft (3.5.2.L) ²	25.1 ft			
Building Height	50 feet	26 ft to top of cupola			
Front Yard Open Space	50%	Compliant			
Other dimensional standa	rds				
Yard landscaping (34-3.5.2.A)	For all uses except one-family detached residential units, landscaping of all yards abutting a street shall be provided	See landscaping comments below.			
Minimum parking setback (34-3.5.2.J)	10 feet	Compliant			
Loading space (34-3.5.2.N)	10 feet of loading space per front foot of building = 970 sq ft	None Proposed			
Rooftop equipment (34-3.5.2.U.)	Rooftop equipment shall be screened in accordance with Section 34-5.17.	A roof equipment screen was proposed (note #11 on Sheet A300)			
Landscape area abutting street or freeway (34-3.5.2.V.)	A landscaped area not less than ten (10) feet deep	Compliant.			

- 1) Precise front setback distances to the building and canopy should be added to the plans.
- 2) Residential setbacks shall be calculated in accordance with 3.5.2.L, which requires residential setbacks to be 20 feet or 10% of lot depth as measured from the residential district, whichever is greater (limited to a maximum of 50 feet). The applicant should correctly note these setbacks on the plans for the West and South property lines.

3. Fast Food or Carryout Restaurants (34-4.27)

Standards apply to B-1, B-2, and B-4 Districts only

4. Gasoline Stations (34-4.28)

Standards for gas stations in the B-3 district. Per Section 34-4.28, gas stations in the B-3 district shall meet the following standards:

In all districts:

A. Adequate space shall be provided for the ingress, egress, and maneuvering of delivery trucks and emergency vehicles on the site. The analysis shall be based on radii and standards in the latest edition of A Policy of Geometric Design of Highways and Streets by the American Association of State Highway and Transportation Officials. Use of AutoTURN software or the

Date: 12/10/2024

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equivalent is highly recommended for this analysis. This information shall be depicted on a site plan and approved in accordance with Section 34-6.1.

This standard appears to be met. We defer to the fire department for their review of truck turning.

B. Up to fifty (50) percent of fueling positions may be considered toward fulfilling the parking requirement for the gas station, except that fueling positions shall not be counted as spaces required for service bays.

See review of parking requirements

In the B-1, B-3 and ES districts, gasoline service stations where no repair work is done, other than incidental service, but not including steam cleaning or undercoating, vehicle body repair, painting, tire recapping, engine rebuilding, auto dismantling, upholstering, auto glass work and such other activities whose external effects could adversely extend beyond the property line, shall be permitted subject further to the following conditions:

This station has no auto service.

- B. In the B-1, B-3 and ES districts:
 - i. The curbcuts for access to a service station shall not be permitted at such locations that will tend to create traffic hazards in the streets immediately adjacent thereto. Entrances shall be no less than twenty-five (25) feet from a street intersection (measured from the road right-of-way) or from adjacent residential districts.

This standard is met.

- ii. The minimum lot area shall be fifteen thousand (15,000) square feet, and so arranged that ample space is available for motor vehicles which are required to wait. Gasoline service stations having no facilities for repair or servicing of automobiles (including lubricating facilities) may be permitted on lots of ten thousand (10,000) square feet, subject to all other provisions herein required.
 - This standard is met.
- iii. Gasoline service stations which do not have a property line abutting a residential district shall not have service bay openings facing the public thoroughfare. N/A
- iv. The parking of motor vehicles or the storage of trailers, campers or other such conveyances on the gasoline service station property shall be prohibited, except for those necessary to the operation of a gasoline service station.

This standard appears to be met, but should be confirmed with a note on the plan.

v. Off-street loading and unloading space shall be provided in the ratio of at least ten (10) square feet per front foot of building but may be located in any required yard notwithstanding Section 34-5.4.

None proposed.

- C. In the B-3 and ES districts, automobile car washes may be permitted as an accessory use. N/A
- 5. Dumpster (34-5.1.2.D).

Item	Required	Proposed/Comments		
Location	Rear yard or interior side yard	Located in front yard		
Screening	Permanent building wall or earth	The height information of all bins		
	mound not less than 6 feet or 1 foot	within the enclosure was not		
	above the enclosed dumpster	provided. More information		
	whichever is greater	required.		
Setback	20 feet from any residential property	Although setback more than 20		
	and far as practicable from adjoining	feet, dumpster is adjacent to		
	residential district	shared residential property line		

- 6. **Mechanical Equipment (34-5.1.4.D).** The plans include a roof equipment screen consistent with the proposed building materials.
- 7. **Minimum parking (34-5.2.11.C.i/x).** It appears that the site plan includes more parking spaces than required.

Requirement	Calculations	Provided
Retail store: One (1) for each one hundred	2,383 SF= 14 spaces	
seventy-five (175) square feet of usable floor area Fast food restaurant: 1 per 30 SF UFAX	450 SF= 15 spaces	40 spaces + 6 (50% of fueling positions)
Self-service gas station: One (1) space plus one (1) space for each employee on the largest working shift. Additional parking shall be provided for any accessory retail use as required for such use	Employee information required, however 7 spaces are labeled "employee parking"	More information required.
Barrier-Free Spaces	2 spaces (1 van accessible)	2 spaces

8. Off-street parking dimensions (34-5.3.3.A & B.).

Item	Required	Proposed/Comments	
Maneuvering lane width	20 ft.	Compliant	
Parking space width	9 ft.	9 ft	
Parking space length	20 ft. for minimum required (May include a maximum two-foot unobstructed vehicle overhang area at the front of the parking space.)	20 ft	
	17 ft. for additional parking (May include a maximum one-foot unobstructed vehicle overhang area at the front of the parking space)		

9. **Signs (34-5.5).** The applicant provided sign details, but the plans show some discrepancies. *Sheet A-200 indicates that there will be three wall-mounted signs with the Sheetz logo, while Sheet A-300 indicates there are two Sheetz logo signs and one Made to Order sign. Sheet A-200 labels the entry signs as "pole-mounted" signs, but Sheet A-600 details these signs to be monument signs. The applicant shall correct these discrepancies.* The following review is based upon the sign details provided on Sheets A-300 to A-600.

The wall mounted signs include two 16.5 SF Sheetz logo signs and one 21.47 SF "Made to Order" sign. The maximum area of all signs is 10% of the establishment façade, or:

Middlebelt: $17'10 \ 1/8"x \ 96'7 \ 12" = 1,724.15 \ sf$ 10% = 172.41sf Grand River $17'10 \ 1/8"x \ 61'11 \ 12" = 1,105.57 \ sf$ 10% = 110.5sf The signs provided meet the maximum area and number for wall signs.

The applicant proposed one 13 SF canopy signs (1' 7 5/8" x 8'). Canopy-mounted signs, referred to in the ordinance are required to have letters shall be less than 8" and 80% of the total awning width; although the proposed Sheetz logo is less than 80% of the canopy width, the logo is taller than 8".

The applicant proposed two freestanding monument signs with electronic price displays and a Sheetz logo sign.

One monument sign along each right of way is permitted. The monument signs are 8' tall with 47.15 sf of total face area. The ordinance permits 64 SF of freestanding sign face area. Sign illumination (in footcandles) shall be provided.

- 10. Acceleration-Deceleration-Passing Lanes (34-5.6.2.) Driveways providing ingress and egress to all three-lane paved major or secondary thoroughfares shall be provided with paved acceleration and deceleration lanes. If in the opinion of the director of public services no useful purpose would be served or if unusual difficulty would be encountered by reason of grade changes, intersections, bridges, or other land restrictions, the director may waive or modify the requirements of this section. We defer to engineering to address this issue.
- 11. Circulation. See notes about Sheet C1-A above.
- 12. **Corner Clearance (34-5.10)**. The proposed freestanding sign on Grand River appears to be within the driveway clearance area and must be relocated.

13. Landscape Development (34-5.14) Landscaping is broadly compliant, but some locational and spacing issues must be addressed.

Item	Required			Proposed/Comments		
Minimum distance from the property line (34-5.14.C.ii)	4 ft from the property line for trees and large shrubs			The Eastern Redbud on the southeastern portion of the site does not meet this standard; additionally, the row of 8 nyssa sylvatica along Middlebelt north of the driveway appears to show the trunks in the sidewalk.		
Minimum parking lot island area	Minimum of 180 square feet; 3 feet minimum radius at the trunk of the tree			N/A		
Cost estimate	Not required					
Minimum size and spacing requirements at	Size	Center to center distance (max)				
planting (34-5.14.F)	planting (34-5.14.F) (Height/width) groupings rows		rows			
Evergreen Trees	8 ft. height	20 ft. 12 ft.		Standard is met		
Narrow Evergreen Trees	5 ft. height	10 ft. 5 ft.		N/A		
Large Shrubs	30 in. height	10 ft.	5 ft.	N/A		

Item	Required			Proposed/Comments		
Small Shrubs	24 in. width	4 ft.	4 ft.	Standard is met		
Large Deciduous	3 in. caliper	30 ft.	-	Standard is met		
Small deciduous trees	2 in. caliper	15 ft.	-	Standard is met		
Hedge shrubs	24 in. height	3 ft.	3 ft.	Standard is met		
Distance between plant materials	Spacing shall accordance with	•	ded in	Evergreen trees are less than 20 feet from deciduous trees.		
Canopy Trees	Shall be larged distributed even paved area	•		Large deciduous provided, but only along exterior parking lot perimeter.		
Minimum number of parking lot trees (34-5.14.4.C)	1 per every 2,800 square feet of paved surface area 48,730 sf/ 2,800= 17 trees required			Compliant		
Parking lot screening from public thoroughfare (34-5.14.5)	A planted hedge of small shrubs, or A masonry wall or berm of 2 feet high			Provided (wall and shrubs)		
Wall or Berm (34-5.15)	Required when abutting a residential district. (See 34-5.15)		The site plan includes a screening wall and brick knee wall, referencing sheet A100 for details. However, only knee wall details are provided. Screening wall details required.			
Buffer Yard	515 LF of buffer yard 30 ft grouping spacing= 17 trees		Provided 2 existing trees and 15 new trees proposed			
Tree replacement (34-5.18)	6inch DBH= 1 to 1 basis (12 deciduous and 3 evergreen= 15 trees required) Landmark trees= 25% of dbh removed (46 dbh of deciduous = 12 caliper inches required = 4 trees, 58 dbh of evergreen = 15 caliper inches required = 5 trees)		Compliant: 58 total trees required on the site, 58 provided			

14. Lighting (Section 34-5.16).

Item	Required	Proposed/Comments
Max footcandles at property line	0.3	Lighting should be adjusted to reduce light levels at all points on residential property lines to 0.3 fc or lower.
Average:minimum ratio	4:1	4.78:1; revise
Max mounting height	30 ft	All fixtures compliant
Max ambient light	2.5 lumens/sq ft hardscape 200 lumens/door	Unable to determine from information provided.

Date: 12/10/2024

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- Lighting is shown along the edge of the canopy and the edge of the building. This lighting is not
 permitted to be directly visible, and clarification is needed as to whether it is recessed or
 exposed. The southern elevation of the building faces residentially zoned property, and
 consideration should be given to removing this lighting on that side of the building.
- The ordinance requires canopy lighting to be recessed or flush-mounted. The proposed lighting
 meets this standard. However, the canopy is tilted, and the application should ensure that all
 lighting on its underside is recessed such that glare will not project onto the roadway or
 neighboring sites.
- Fixtures mounted within 50 ft of a residential property line or right-of-way boundary shall be fitted with a shielding reflector on the side facing the property line or right-of-way. The applicant shall note compliance with this standard on the plans—external glare shields and house-side shields are shown on the cut sheets.
- Since the business does not close, no alternative lighting for nighttime hours are required.
- 15. **Pedestrian Connection (Sec. 34-5.19).** Pedestrian connections are provided to both the Grand River and Middlebelt sidewalks.

We are available to answer questions.

Respectfully,

Giffels Webster

Joe Tangari, AICP Principal Planner Julia Upfal, AICP Senior Planner Intentionally left blank





DEPARTMENT OF PUBLIC SERVICES JACOB RUSHLOW, P.E., DIRECTOR

INTEROFFICE CORRESPONDENCE

DATE:

December 5, 2024

TO:

Planning Commission

FROM:

James Cubera, City Engineer

SUBJECT:

SP 61-11-2024

29455 Grand River Avenue at Middlebelt Rd Intersection Sheetz Gas Station

This office has performed a preliminary review of the above referenced site plan submitted to the Planning Department on November 13, 2024. Our preliminary comments are as follows:

- 1. Many utilities and easements run thru this site. The plans need to identify these on the utility plan in order for us to determine if utility relocation and easement vacation procedures are warranted. Note that the easements cannot encroach on the canopy for the gas pumps.
- 2. A 10" sanitary sewer runs thru the northern portion of this site. It is available for service. The plans identify providing a sewer lead off of it. Note that the old sewer lead must be properly capped and abandoned.
- 3. An 8" public watermain with a hydrant exists along the east property line predominantly in the Tulane ROW. It is available for service. The 30" watermain along the west side of Middlebelt Road is not available as it is a transmission line.
- 4. A public sidewalk exists along the south side of Grand River Avenue and on the west side of Middlebelt Road. Much of the existing Middlebelt Road sidewalk appears to meander parallel to Middlebelt Road but on private property. It must be relocated in its entirety such that the west walkline is one foot east of the ultimate 60' ROW line.
- 5. The plans identify a 36 foot wide curb cut on Grand River Avenue and a 40 foot wide curb cut on Middlebelt Road. These seem fairly wider than necessary and for the Middlebelt approach we question whether its location should be shifted further south and whether tapers are necessary.

The proponent will be obligated to submit a traffic impact statement/study addressing the above as well as how the traffic generated by this site will impact the major roads and what can be done to limit the impact.

- It is suggested that the proponent's traffic consultant contact the City's traffic engineer to discuss the specific needs that the study must address.
- 6. It is noted that 24" storm outfall pipe runs thru this property. It must be maintained.
- 7. The plans identify an underground storm detention system. This is acceptable. It will be reviewed in detail during construction review. Note that storm water detention and discharge restriction must be provided for as well as storm water quality improvements and that the City recently adopted the Oakland County WRC drainage standards on this. The proponent will be obligated to comply with it.
- 8. This site is within the 100 year floodplain at the south end of the site. The proponent needs to contact EGLE to see if they will require permits.
- 9. Attached are comments from the City's Environmental Engineer, Tyler Sonoga. These must be addressed. If any questions, he can be reached at 248-871-2533.
- 10. The ultimate ROW on Middlebelt Road is 120 feet with that being both 60 feet east and west of the section line. It is unclear if this is existing and it is suggested that the proponent dedicate the ultimate 60 feet of ROW if it does not exist already.
- 11. The proponent has previously met with the City Staff and several of our comments have been discussed.





DEPARTMENT OF PUBLIC SERVICES KAREN MONDORA, P.E., DIRECTOR

City of Farmington Hills Environmental Review

Project Name: Sheetz

Address: 29455 Grand River

Project Job #: 35-24-124, SP# 61-11-2024

Plan Dated: 11-04-2024

Plan Received: 11-25-2024

Review #: 1

Review Date: 12-5-2024

As requested, I have conducted a plan review of the above reference engineering plans. I have the following comments:

- 1. Storm water quality must be provided for the site in accordance with the newly adopted Oakland County Water Resources stormwater standards.
- 2. Infiltration practices should be used to the maximum extent practicable and will count as part of the required water quality volume. Infiltration tests need to be performed and layout should be considered to direct stormwater to infiltration practices.
- 3. As a part of the Oakland County Water Resources stormwater standards, the plans must include a long-term operations and maintenance plan, the land use summary page in the standards, a stormwater design narrative, and GIS data. Please see page I-21 and I-22 on the stormwater standards.
- 4. As a gas station is a high-risk zone for contaminants and illicit discharges other than sediment, prior to stormwater entering the detention pond, an oil water separator should be installed and included on the maintenance plan.

Respectfully submitted,

Tyler Sonoga

Civil/Environmental Engineer

Tyler Donoga

Department of Public Services

cc: City of Farmington Hills, J. Cubera

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INTEROFFICE CORRESPONDENCE

DATE: December 4, 2024

TO: Planning Commission

FROM: Jason Baloga, Fire Marshal

SUBJECT: Site Plan 61-11-2024 (Grand River/Middlebelt – Sheetz)

The Fire Department has no objection to approval of this Site Plan contingent upon compliance with the following requirements:

*NOTE: If the proponent finds it impractical to comply with the minimum Fire Department Site Plan Review and Design Standards, please contact the Fire Marshal to discuss the Alternate Protection provision outlined in Chapter 12 Section 12-11(4).

- 1. Site shall meet site access requirements in Chapter 12 Section 12-11(1) of the City Code; sites shall be designed to accommodate fire apparatus with a 50' turning radius. This will also be verified by the Engineering Department.
- 2. Underground storage tanks and hazardous materials shall be regulated according to State of Michigan requirements as well as City of Farmington Hills adopted Ordinance and Code requirements.
- 3. CO₂ monitoring shall be required according to International Fire Code requirements.
- 4. Propane exchange shall be permitted through the Building Department.
- 5. Pumps shall **only** dispense fuel with attendant present.
- 6. Fire lanes shall be posted and strictly enforced.
- 7. The minimum clearance between the finished roadway surface and any overhead obstructions shall be 13' 6".
- 8. Proponent shall consider adding a standby generator or other means of backup power so fuel may be dispensed during a power failure.

- 9. Building shall be maintained in accordance with minimum Fire Prevention Code requirements.
- 10. The Proponent shall familiarize yourself and follow Farmington Hills City Ordinance Chapter 12, Article IV "Hazardous Materials" Section 12-67; Outdoor and indoor hazardous materials.

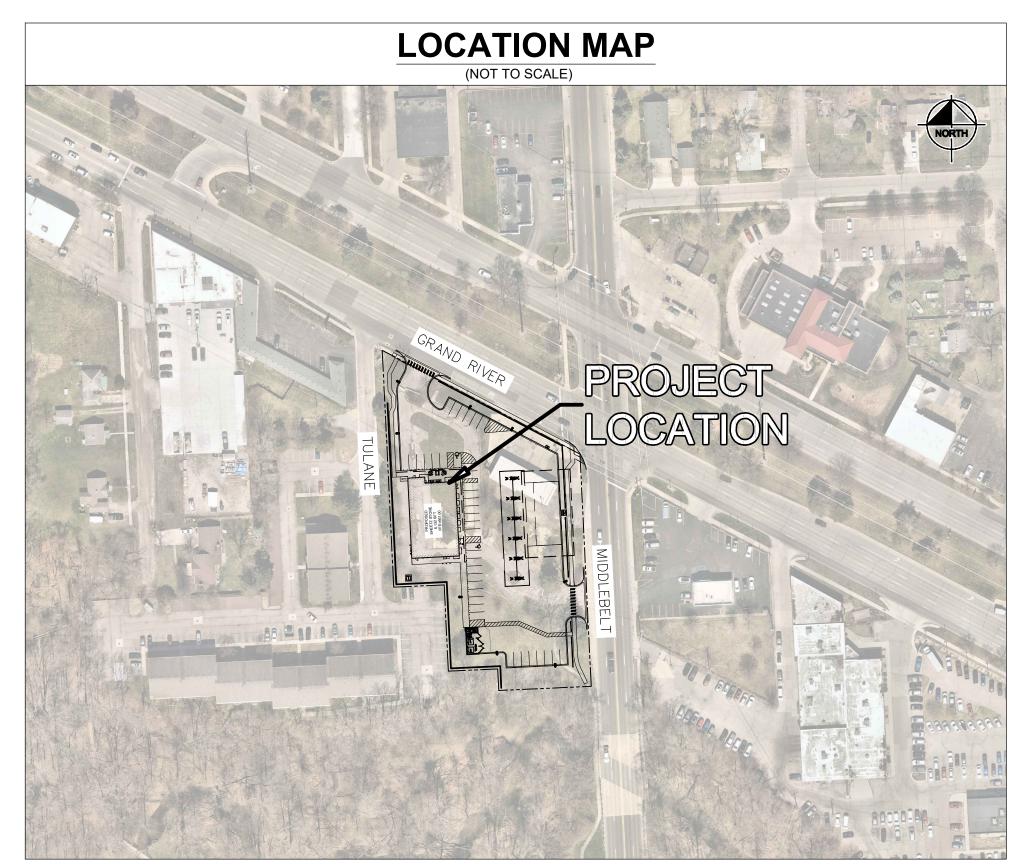
Jason Baloga, Fire Marshal

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SITE PLAN SHEETZ - FARMINGTON HILLS

29455 GRAND RIVER FARMINGTON HILLS, MI 48336



OAKLAND COUNTY

CONSTRUCTION OF A SHEETZ CONVENIENCE STORE AND GAS STATION ON ±1.89 AC. PROJECT IS IN SECTION 35 OF T1N, R9E IN OAKLAND COUNTY, MICHIGAN

Sheet List Table				
Sheet Number	Sheet Title			
C0.0	TITLE SHEET			
V1.0	ALTA SURVEY			
V1.1	ALTA SURVEY			
V2.0	TREE SURVEY			
C1.0	SITE PLAN			
C2.0	TRUCK TURN PLAN			
C3.0	PRELIMINARY GRADING PLAN			
C4.0	PRELIMINARY UTILITY PLAN			
L1.0	LANDSCAPE PLAN			
L1.1	LANDSCAPE NOTES & DETAILS			
A100	WALL DETAILS			
A200	ARCHITECTURAL COVER SHEET			
A300	EXTERIOR ELEVATIONS			
A301	EXTERIOR ELEVATIONS			
A400	GAS AWNING CONCAVE FASCIA			
A500	TRASH ENCLOSURE			
A600	MONUMENT SIGN DETAILS			
RL-9686-S1-R1	PHOTOMETRIC PLAN			
RL-9686-S1-R1	PHOTOMETRIC PLAN			
RL-9686-S1-R1	PHOTOMETRIC PLAN			
RL-9686-S1-R1	PHOTOMETRIC PLAN			
RL-9686-S1-R1	PHOTOMETRIC PLAN			

OWNER SHEETZ 351 SHEETZ WAY CLAYSBURG, PA 16625 TEL: (740) 497-2326 CONTACT: DAVID BRUCKELMEYER

DELVEOPER SKILKEN GOLD 4270 MORSE ROAD COLUMBUS, OH 43230 CONTACT KAREEM AMR TEL: (732) 536-8052 LANDSCAPE ARCHITECT

KIMLEY-HORN OF MICHIGAN, INC.
3000 TOWN CENTER, SUITE 2600
SOUTHFIELD, MI 48075
TEL: (313) 548-7109
CONTACT: JOHN ACKERMAN, PLA

LAND SURVEYOR ENGINEER

MONUMENT ENGINEERING GROUP
ASSOCIATES INC.
298 VETERANS DRIVE
FOWLERVILLE, MI 48836
TEL: (517) 223-3512

CIVIL ENGINEER

KIMLEY-HORN OF MICHIGAN, INC.
3000 TOWN CENTER, SUITE 2600
SOUTHFIELD, MI 48075
TEL: (313) 548-7062
CONTACT: TYLER SMITH, P.E.

RL-9686-S1-R1 PHOTOMETRIC PLAN RL-9686-S1-R1 PHOTOMETRIC PLAN

DESIGNED BY: TES

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SHEET2

ITLE SHEE

ARMINGTON HILL GRAND RIVER AND

ORIGINAL ISSUE:
11/04/2024

KHA PROJECT NO.
268593003

SHEET NUMBER

C0.0

LEGAL DESCRIPTION (AS PROVIDED)

(PER TITLE AGENCY: CHICAGO TITLE INSURANCE COMPANY, TITLE COMMITMENT NO: 631229933NTS, EFFECTIVE DATE: MAY 15, 2024)

LAND SITUATED IN THE CITY OF FARMINGTON, COUNTY OF OAKLAND AND STATE OF MICHIGAN DESCRIBED AS:

LOTS 69 THROUGH 75, INCLUSIVE AND ALL OF VACATED ALLEY, ASSESSOR'S GRAND RIVER HOMES STATE SUBDIVISION AS RECORDED IN LIBER 54, PAGE 12 OF PLATS, OAKLAND COUNTY

PARCEL 2: COMMENCING AT A CONCRETE MONUMENT IN MONUMENT BOX AT THE SOUTHEAST CORNER OF SECTION 35, TOWN 1 NORTH, RANGE 9 EAST; THENCE ALONG THE EAST LINE OF SAID SECTION, NORTH 01 DEGREE 48 MINUTES 00 SECONDS EAST, 2149.36 FEET TO THE NORTHEAST CORNER OF "BROOKSIDE PARK SUBDIVISION", AS RECORDED IN LIBER 19 OF PLATS, PAGE 4, OAKLAND COUNTY RECORDS, BEING THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE ALONG THE NORTH LINE OF SAID "BROOKSIDE PARK SUBDIVISION", NORTH 88 DEGREES 00 MINUTES 37 SECONDS WEST (RECORDED AS SOUTH 89 DEGREES 45 MINUTES 00 SECONDS WEST AND AS NORTH 89 DEGREES 59 MINUTES 52 SECONDS WEST), 33.00 FEET TO A T-IRON STAKE ON THE WEST LINE OF MIDDLEBELT ROAD AT THE NORTHEAST CORNER OF LOT 1 OF SAID "BROOKSIDE PARK SUBDIVISION"; THENCE ALONG THE EAST LINE OF SAID LOT 1, SOUTH 01 DEGREES 48 MINUTES 00 SECONDS WEST (RECORDED AS SOUTH 01 DEGREES 00 MINUTES 00 SECONDS WEST AND AS SOUTH OO DEGREES 16 MINUTES 53 SECONDS EAST), 140.00 FEET TO A T-IRON STAKE: THENCE PARALLEL WITH THE NORTH LINE OF SAID LOT 1, NORTH 88 DEGREES OO MINUTES 37 SECONDS WEST (RECORDED AS NORTH 89 DEGREES 59 MINUTES 52 SECONDS WEST AND AS SOUTH 89 DEGREES 45 MINUTES 00 SECONDS WEST), 120.00 FEET TO A T-IRON STAKE; THENCE PARALLEL WITH THE EAST LINE OF SAID LOT 1, NORTH 01 DEGREES 48 MINUTES 00 SECONDS EAST (RECORDED AS NORTH 00 DEGREES 16 MINUTES 53 SECONDS WEST), 28.00 FEET TO A T-IRON STAKE; THENCE PARALLEL WITH THE NORTH LINE OF SAID LOT 1, NORTH 88 DEGREES 00 MINUTES 37 SECONDS WEST (RECORDED AS NORTH 89 DEGREES 59 MINUTES 52 SECONDS WEST AND AS SOUTH 89 DEGREES 45 MINUTES 00 SECONDS WEST). 64.00 FEET TO A T-IRON STAKE; THENCE PARALLEL WITH THE EAST LINE OF SAID LOT 1, NORTH 01 DEGREES 48 MINUTES 00 SECONDS EAST, 112.00 FEET (RECORDED AS NORTH 00 DEGREES 16 MINUTES 53 SECONDS WEST, 112.11 FEET) TO A T-IRON STAKE ON THE NORTH LINE OF SAID LOT 1; THENCE ALONG THE NORTH LINE OF SAID LOT 1, NORTH 88 DEGREES 00 MINUTES 37 SECONDS WEST, 65.44 FEET (RECORDED AS NORTH 89 DEGREES 59 MINUTES 52 SECONDS WEST, 65.97 FEET AND AS SOUTH 89 DEGREES 45 MINUTES 00 SECONDS WEST, 66.57 FEET) A T-IRON STAKE ON THE SOUTHERLY EXTENSION OF THE WEST LINE OF LOT 83 OF "ASSESSOR'S GRAND RIVER HOMES STATE", AS RECORDED IN LIBER 54 OF PLATS, PAGE 12, OAKLAND COUNTY RECORDS; THENCE ALONG THE SOUTHERLY EXTENSION OF THE WEST LINE OF SAID LOT 83, NORTH 01 DEGREES 48 MINUTES 00 SECONDS EAST, 125.43 FEET (RECORDED AS NORTH 00 DEGREES 22 MINUTES 24 SECONDS WEST, 125.15 FEET AND AS NORTH 00 DEGREES 27 MINUTES 04 SECONDS WEST, 125.37 FEET) TO A T-IRON STAKE AT THE SOUTHWEST CORNER OF SAID LOT 83; THENCE ALONG THE EAST LINE OF TULANE AVENUE (50 FEET WIDE), NORTH 01 DEGREES 48 MINUTES 00 SECONDS EAST, 181.93 FEET (RECORDED AS NORTH 00 DEGREES 21 MINUTES 49 SECONDS WEST, 181.87 FEET) TO A T-IRON STAKE ON THE SOUTHWESTERLY LINE OF GRAND RIVER AVENUE AT THE NORTHWEST CORNER OF LOT 82 OF SAID "ASSESSOR'S GRAND RIVER HOMES STATE SUBDIVISION"; THENCE ALONG THE SOUTHWESTERLY LINE OF GRAND RIVER AVENUE (204 FEET WIDE), SOUTH 57 DEGREES 44 MINUTES 53 SECONDS EAST, 144.98 FEET (RECORDED AS SOUTH 57 DEGREES 42 MINUTES 00 SECONDS EAST, 145.08 FEET AND AS SOUTH 59 DEGREES 50 MINUTES 47 SECONDS EAST, 145.08 FEET) TO A T-IRON STAKE AT THE NORTHEAST CORNER OF LOT 76 OF SAID "ASSESSOR'S GRAND RIVER HOMES STATE SUBDIVISION"; THENCE ALONG THE EAST LINE OF SAID LOT 76, SOUTH 01 DEGREES 48 MINUTES 00 SECONDS WEST, 123.20 FEET (RECORDED AS SOUTH 00 DEGREES 21 MINUTES 49 SECONDS EAST, 123.14 FEET) TO A T-IRON STAKE ON THE SOUTHWESTERLY LINE OF A VACATED 20 FOOT WIDE PUBLIC ALLEY; THENCE ALONG THE SOUTHWESTERLY LINE OF SAID VACATED 20 FOOT WIDE PUBLIC ALLEY, SOUTH 57 DEGREES 44 MINUTES 53 SECONDS EAST (RECORDED AS SOUTH 57 DEGREES 42 MINUTES 00 SECONDS EAST), 100.70 FEET, (RECORDED AS SOUTH 59 DEGREES 50 MINUTES 47 SECONDS EAST, 100.82 FEET) TO A T-IRON STAKE; THENCE ALONG THE SOUTHERLY LINE OF SAID VACATED 20 FOOT WIDE PUBLIC ALLEY, SOUTH 87 DEGREES 57 MINUTES 53 SECONDS EAST (RECORDED AS SOUTH 87 DEGREES 55 MINUTES 00 SECONDS EAST), 37.65 FEET (RECORDED AS SOUTH 89 DEGREES 59 MINUTES 52 SECONDS EAST, 38.23 FEET) TO A T-IRON STAKE ON THE WEST LINE OF MIDDLEBELT ROAD; THENCE ALONG THE EASTERLY EXTENSION OF THE SOUTHERLY LINE OF SAID VACATED 20 FOOT WIDE PUBLIC ALLEY, SOUTH 87 DEGREES 57 MINUTES 53 SECONDS EAST (RECORDED AS SOUTH 89 DEGREES 59 MINUTES 52 SECONDS EAST AND AS SOUTH 87 DEGREES 55 MINUTES 00 SECONDS EAST), 33.00 FEET TO THE EAST LINE OF SAID SECTION: THENCE ALONG THE EAST LINE OF SAID SECTION, SOUTH 01 DEGREES 48 MINUTES 00 SECONDS WEST, 60.29 FEET (RECORDED AS SOUTH 00 DEGREES 16 MINUTES 53 SECONDS EAST, 60.36 FEET AND AS SOUTH 01 DEGREES 48 MINUTES 00 SECONDS WEST, 62.00 FEET) TO THE POINT OF BEGINNING, BEING A PART OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 35, TOWN 1 NORTH, RANGE 9 EAST AND INCLUDING LOTS 76 THROUGH 83 INCLÚSIVE AND THE ABUTTING PORTION OF THE VACATED 20 FOOT WIDE PUBLIC ALLEY OF SAID ASSESSOR'S GRAND RIVER HOMES STATE SUBDIVISION. OAKLAND COUNTY RECORDS AND INCLUDING A PART OF LOT 1 OF SAID BROOKSIDE PARK SUBDIVISION, OAKLAND COUNTY RECORDS.

BEARING REFERENCE

BEARINGS ARE BASED ON PROJECT COORDINATE SYSTEM: MICHIGAN STATE PLANE COORDINATE SYSTEM, NAD83 (CONUS) (MOL) (GRS80), SOUTH ZONE 2113, (LAT: 42°26'53.23" N, LON: 83°20'14.68" W, ELEV: 663, SCALE FACTOR: 1.00009587).

UTILITY/REFERENCE INFO

CITY OF FARMINGTON HILLS PHONE: 248-858-1116 RECEIVED: 10/8/21

CITY OF FARMINGTON HILLS 248-858-1116 RECEIVED: 10/8/21 CITY OF FARMINGTON HILLS

248-858-1116

RECEIVED: 10/8/21 CONSUMERS ENERGY PHONE: 800-778-9140

RECEIVED: 5/13/24 DTE ENERGY 313-407-5364

PHONE: RECEIVED: 5/30/24 PHONE: 616-881-2268 RECEIVED: 5/14/24

PHONE:

UTILITY NOTES

- 1. ALL UTILITIES SHOWN ARE BASED ON; A. GPRS MARKINGS LOCATED AT TIME OF SURVEY, OR; A. MISS DIG MARKINGS LOCATED AT TIME OF SURVEY, OR; B. UTILITY MAPS PROVIDED TO THE SURVEYOR AT THE TIME OF THE SURVEY.
- THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE

SCHEDULE B-SECTION II EXCEPTIONS

TITLE AGENCY: CHICAGO TITLE INSURANCE COMPANY TITLE COMMITMENT NO: 631229933NTS EFFECTIVE DATE: MAY 15, 2024

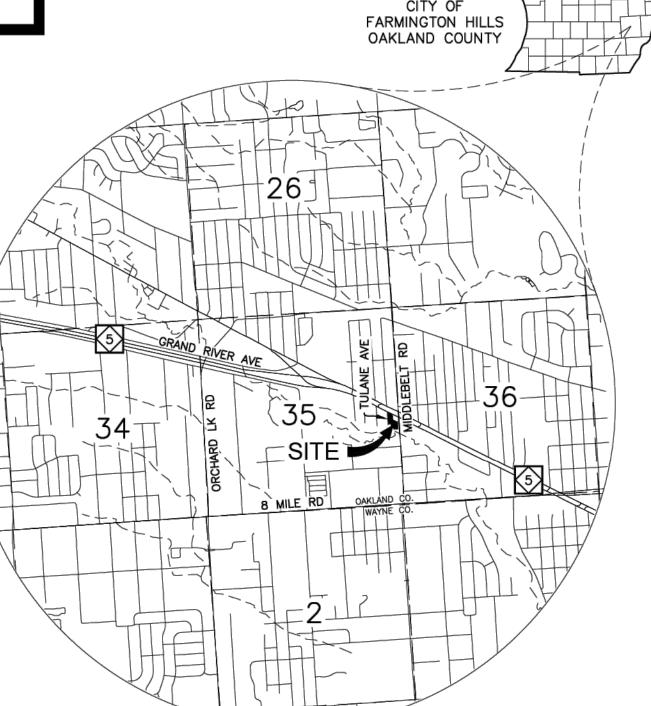
(PLOTTED & SHOWN HEREIN)

- RIGHT(S) OF WAY AND/OR EASEMENT(S) AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT: GRANTED TO: TOWNSHIP OF FARMINGTON RECORDING NO: LIBER 4471, PAGE 635. (PLOTTED & SHOWN HEREIN)
- RIGHT(S) OF WAY AND/OR EASEMENT(S) AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT: GRANTED TO: TOWNSHIP OF FARMINGTON RECORDING NO: LIBER 5071, PAGE 31. (PLOTTED & SHOWN HEREIN)
- ANY IRREGULARITIES, RESERVATIONS, EASEMENTS OR OTHER MATTERS IN THE PROCEEDINGS OCCASIONING THE ABANDONMENT OR VACATION OF THE STREET/ROAD NAME: ALLEY RECORDING NO: LIBER 7370, PAGE 77.
- RIGHT(S) OF WAY AND/OR EASEMENT(S) AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT: GRANTED TO: CITY OF FARMINGTON HILLS RECORDING NO: LIBER 7790, PAGE 579. (PLOTTED & SHOWN HEREIN)
- RIGHT(S) OF WAY AND/OR EASEMENT(S) AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT: GRANTED TO: CITY OF FARMINGTON HILLS RECORDING NO: LIBER 10654, PAGE 137. (PLOTTED & SHOWN HEREIN)
- RIGHT(S) OF WAY AND/OR EASEMENT(S) AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT: GRANTED TO: CITY OF FARMINGTON HILLS RECORDING NO: (PLOTTED & SHOWN HEREIN - APPROXIMATE)
- RIGHT(S) OF WAY AND/OR EASEMENT(S) AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT: GRANTED TO: THE DETROIT EDISON COMPANY RECORDING NO: LIBER 16818, PAGE 408. (PLOTTED & SHOWN HEREIN - APPROXIMATE)
- RIGHT(S) OF WAY AND/OR EASEMENT(S) AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT: GRANTED TO: THE DETROIT EDISON COMPANY RECORDING NO: LIBER 16818, PAGE 459. (PLOTTED & SHOWN HEREIN)
- RIGHT(S) OF WAY AND/OR EASEMENT(S) AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT: GRANTED TO: CONSUMERS ENERGY COMPANY RECORDING NO: LIBER 53846, PAGE 461. (PLOTTED & SHOWN HEREIN)

SHEET INDEX

ALT-1 = ALTA COVERALT-2 = ALTA SURVEY

CITY OF



LOCATION MAP

MISCELLANEOUS NOTES

- THERE IS DIRECT ACCESS TO THE SUBJECT PROPERTY VIA GRAND RIVER AVENUE & MIDDLEBELT ROAD, BOTH ARE PUBLIC RIGHT-OF-WAYS.
- 2. THE PROPERTY SURVEYED AND SHOWN HEREON IS THE SAME PROPERTY DESCRIBED IN EXHIBIT A OF TITLE AGENCY: CHICAGO TITLE INSURANCE COMPANY, TITLE COMMITMENT NO: 631229933NTS, EFFECTIVE DATE: MAY 15, 2024.
- SOME DETAILS SHOWN HEREIN ARE REFERENCED FROM A SITE PLAN PROVIDED BY: MICKALICH AND ASSOCIATES, INC., JOB NO.: 95074, DATED: 7/17/1996.

SURVEYOR'S OBSERVATIONS

AT THE TIME OF THIS SURVEY, EVIDENCE WAS/WAS NOT OBSERVED OF POTENTIAL ENCROACHMENTS, OTHER ENCROACHMENTS MAY OR MAY NOT STILL EXIST ON OR OFF THE SUBJECT PROPERTY.

[[IF THERE ARE ENCROACHMENTS, ADD FOR EACH ENCROACHING

THE FOLLOWING OBSERVATIONS WERE MADE AT THE TIME OF SURVEY: ___ APPEARS TO LIE A MAXIMUM DISTANCE OF ____ FEET

TABLE A NOTES

ITEM 2: THE FOLLOWING SITE ADDRESSES ARE: 29455 GRAND RIVER AVENUE [TAX ID: 22-23-35-431-017];

ITEM 3: FLOOD ZONE FEMA MAP SCALES DO NOT SUPPLY SUFFICIENT LEVEL OF DETAIL TO PLOT ACCURATELY. ZONES IF PLOTTED HEREIN

> BY SCALED MAP LOCATION AND GRAPHIC PLOTTING ONLY. THE SUBJECT PROPERTY APPEARS TO LIE PARTIALLY IN THREE (3) 70NF ARFAS: 1) ZONE (X) AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD PLAIN, 2) ZONE (X-OTHER AREAS) AREAS OF 0.2% ANNUAL CHANCE

AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD & 3) ZONE (AE) THE FLOODWAY IS THE CHANNEL OF A STREAM PLUS ANY ADJACENT FLOODPLAIN AREAS THAT MUST BE KEPT FREE OF ENCROACHMENT SO THAT THE 1% ANNUAL CHANCE FLOOD CAN BE CARRIED WITHOUT SUBSTANTIAL

ACCORDING TO THE FLOOD INSURANCE RATE MAP FOR THE COUNTY OF OAKLAND, COMMUNITY PANEL NO. (26125C0654F), EFFECTIVE DATE SEPTEMBER 29, 2006.

A ZONING REPORT OR LETTER WAS NOT PROVIDED TO THE SURVEYOR AS REQUIRED BY 2021 ALTA/NSPS STANDARDS TABLE A ITEMS 6(A) & 6(B).

THIS ZONING INFORMATION SHOWN HEREIN WAS TAKEN FROM THE FARMINGTON HILLS ZONING ORDINANCE, EFFECTIVE DATE: 9/15/2014.

BUILDING SETBACKS: SIDE =

REAR =

' (INTERIOR) 25' (ADJACENT TO RESIDENTIAL) 10' (NON-RESIDENTIAL)

MAX. BUILDING HEIGHT = 65' (OR 5 STORIES) FOR FURTHER INTERPRETATION OF THE BUILDING SETBACK REQUIREMENTS OR OTHER APPLICABLE ZONING REGULATIONS, PLEASE REFER TO THE LOCAL ZONING AUTHORITY LISTED

NUMBER AND TYPE (E.G., DISABLED, MOTORCYCLE, REGULAR, AND OTHER MARKED SPECIALIZED TYPES) OF CLEARLY IDENTIFIABLE PARKING SPACES ON SURFACE PARKING AREAS, LOTS, AND IN PARKING STRUCTURES. STRIPING OF CLEARLY IDENTIFIABLE PARKING SPACES ON SURFACE PARKING AREAS AND LOTS.

> 29455 GRAND RIVER AVENUE: (VISIBLE STRIPES ONLY) REGULAR SPACES XX REGULAR SPACES O BARRIER FREE SPACES XX BARRIER FREE SPACES 21 TOTAL PARKING SPACES

THERE ARE NO STRIPED PARKING SPACES ON THE SUBJECT PROPERTY.

ITEM 16: AT THE TIME OF THIS SURVEY "EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF

ITEM 17: AT THE TIME OF THIS SURVEY, INFORMATION REGARDING PROPOSED CHANGES TO RIGHT OF WAY LINES WAS NOT MADE AVAILABLE BY THE CONTROLLING JURISDICTION EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS WAS NOT OBSERVED IN THE

ITEM 19: CERTIFICATE OF INSURANCE TO BE FURNISHED UPON REQUEST, BUT THIS ITEM SHALL NOT BE ADDRESSED ON

PROCESS OF CONDUCTING THE FIELDWORK.

(FOR TABLE "A" ITEMS NOT LISTED BELOW, SEE PLAN VIEW ON ALT-2 SHEET FOR MORE INFORMATION)

(NO BUILDINGS WERE OBSERVED, SUBJECT PROPERTY IS VACANT

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THIS SURVEY PREPARED FOR

KIMLEY-HORN OF MICHIGAN, INC.

29403 GRAND RIVER AVENUE [TAX ID: 22-23-35-431-016].

ARE APPROXIMATE.

FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE

INCREASES IN FLOOD HEIGHTS;

ITEM 6(a) and 6(b): ZONING

ZONING CLASSIFICATION: (GR-1) (GRAND RIVER CORRIDOR OVERLAY 1)

25' (RESIDENTIAL)

CONDUCTING THE FIELDWORK" WAS NOT OBSERVED.

THE FACE OF THE PLAT OR MAP.

CERTIFICATION

TO: CHICAGO TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS , <u>2, 3, 4,</u> 5, 6(a), 7(a), 7(b1), 7(c), 8, 9, 11, 13, 14, 16, 17, 18 & 19 OF TABLE

THE FIELD WORK WAS COMPLETED ON 6/12/2024.

MARC E. BUDZINSKI, PS PROFESSIONAL SURVEYOR

NO. 4001053492

6/21/2024 DATE OF PLAT OR MAP:

THIS SURVEY PLAT WAS PREPARED FOR THE EXCLUSIVE USE OF THE PERSON, PERSONS, OR ENTITY NAMED IN THE CERTIFICATION HEREON. SAID CERTIFICATION DOES NOT EXTEND TO ANY UNNAMED THIRD PERSON WITHOUT AN EXPRESS RECERTIFICATION BY THE SURVEYOR NAMING SAID THIRD PERSON.

FILE:P:\Projects\2024\24-086 KH Sheetz Grand River Farmington Hills\Dwg\Survey\24-086_ALTA Topo-KH.dwg PLOT DATE:6/21/2024 1:23 PM

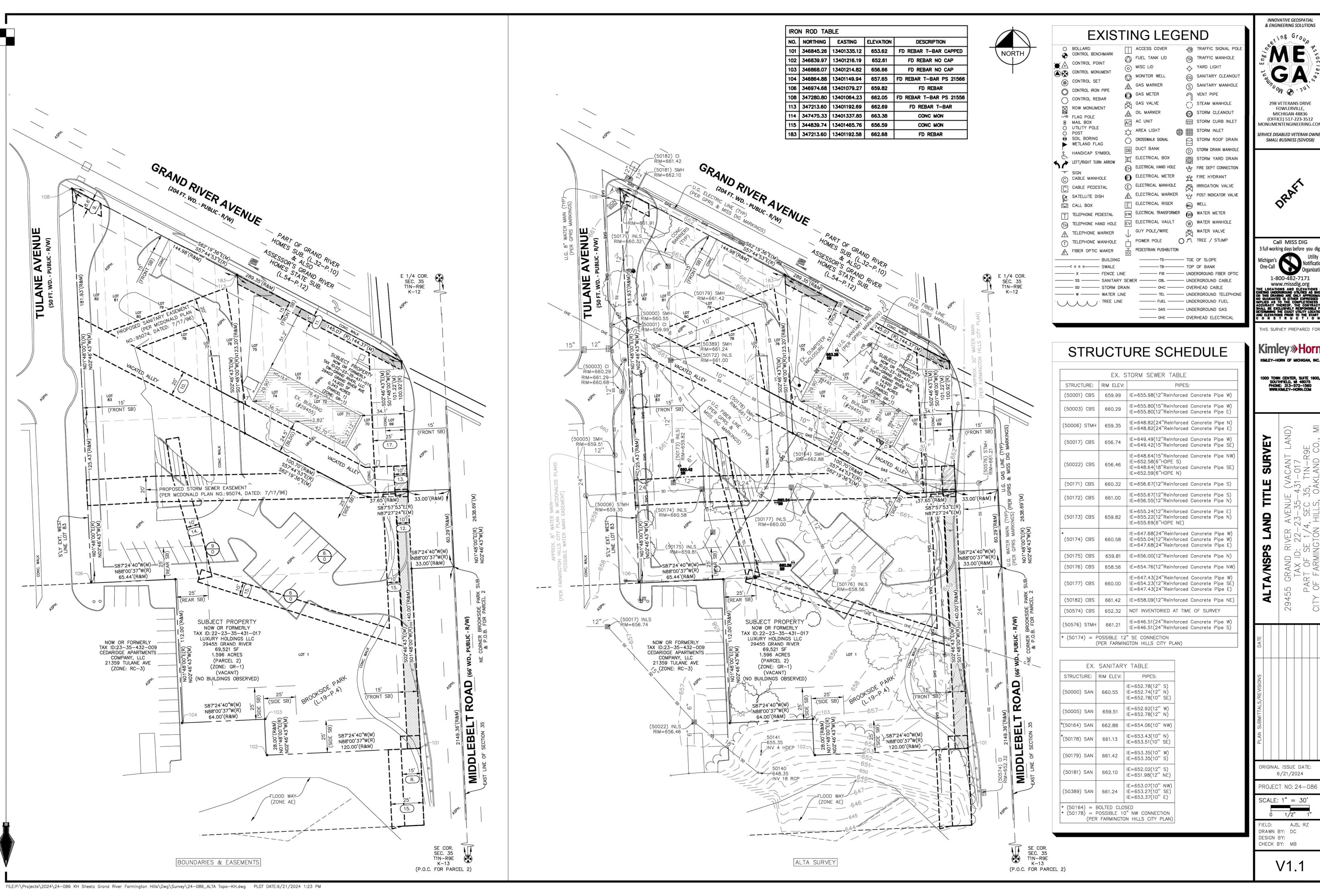
ORIGINAL ISSUE DATE: 6/21/2024

 \sim

PROJECT NO: 24-086 SCALE: N/A

1/2" AJS, RZ FIELD: DRAWN BY: DC DESIGN BY:

CHECK BY: MB



298 VETERANS DRIVE FOWLERVILLE, MICHIGAN 48836 (OFFICE) 517-223-3512



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THIS SURVEY PREPARED FOR

Kimley » Horr KIMLEY-HORN OF MICHIGAN, INC

1000 TOWN CENTER, SUITE 1900 SOUTHFIELD, MI 48075 PHONE: 313-572-1560 WWW.KIMLEY-HORN.COM

ORIGINAL ISSUE DATE: 6/21/2024

PROJECT NO: 24-086 SCALE: 1" = 30

1/2" AJS, RZ

DRAWN BY: DC CHECK BY: MB



MIDDLEBELT ROAD

FLOOD WAY (ZONE AE)



Monument Engineering Group Associates, Inc. 298 Veterans Drive, Fowlerville, MI (517) 223-3512 www.monumentengineering.com



Tree Survey

Project No./Name:	24-086 KH Sheetz Grand River farmington Hills		Date:	6/24/2024	
Tag No.	Scientific Name	Common Name	D.B.H.	Condition	Notes
50255	Colonillo Hame	Red Maple	5"	Good	110103
		· · · · · · · · · · · · · · · · · · ·	_		
50256		Red Maple	6"	Good	
50257		Red Maple	6"	Good	
50260		Buckthorn/Mulberry	4"	Good	Bush
50265		Buckthorn/Mulberry	2"	Good	
50286		Red Oak	12"	Good	
50339		Red Oak	10"	Good	
50340		Red Oak	5"	Good	Quad
50341		Red Oak	10"	Good	
50349		Red Oak	10"	Good	
50472		American Elm	10"	Good	
50494		Red Pine	10"	Good	
50495		Red Pine	10"	Good	
50496		Red Pine	8"	Good	
50520		Pin Oak	8"	Good	
50521		Red Oak	26"	Good	
50525		11000 0000	20"	Good	
		Norway Spruce			
50526		Silver Maple	20"	Good	
50550		Box Elder	12"	Good	
50551		American Elm	14"	Good	
50552		Norway Spruce	20"	Good	
50553		Norway Spruce	18"	Good	
50587		Norway Spruce	12"	Good	
30367		1401 Way Spruce	14	000u	

Norway Spruce 12" Good

LEGEND

TREE TO BE REMOVED

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THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE NO GUARANTEE IS EITHER EXPRESSED OF MPLIED AS TO THE COMPLETENESS OF ACCURACY THEREOF. THE CONTRACTO SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATION AND ELEVATIONS PRIOR TO THE START OF COMPLETENESS OF THE START OF THE START

THIS SURVEY PREPARED FOR:

KIMLEY-HORN OF MICHIGAN, INC.

1000 TOWN CENTER, SUITE 1900, SOUTHFIELD, MI 48075 PHONE: 313-572-1560 WWW.KIMLEY-HORN.COM

INVENTOR

29455

ORIGINAL ISSUE DATE:

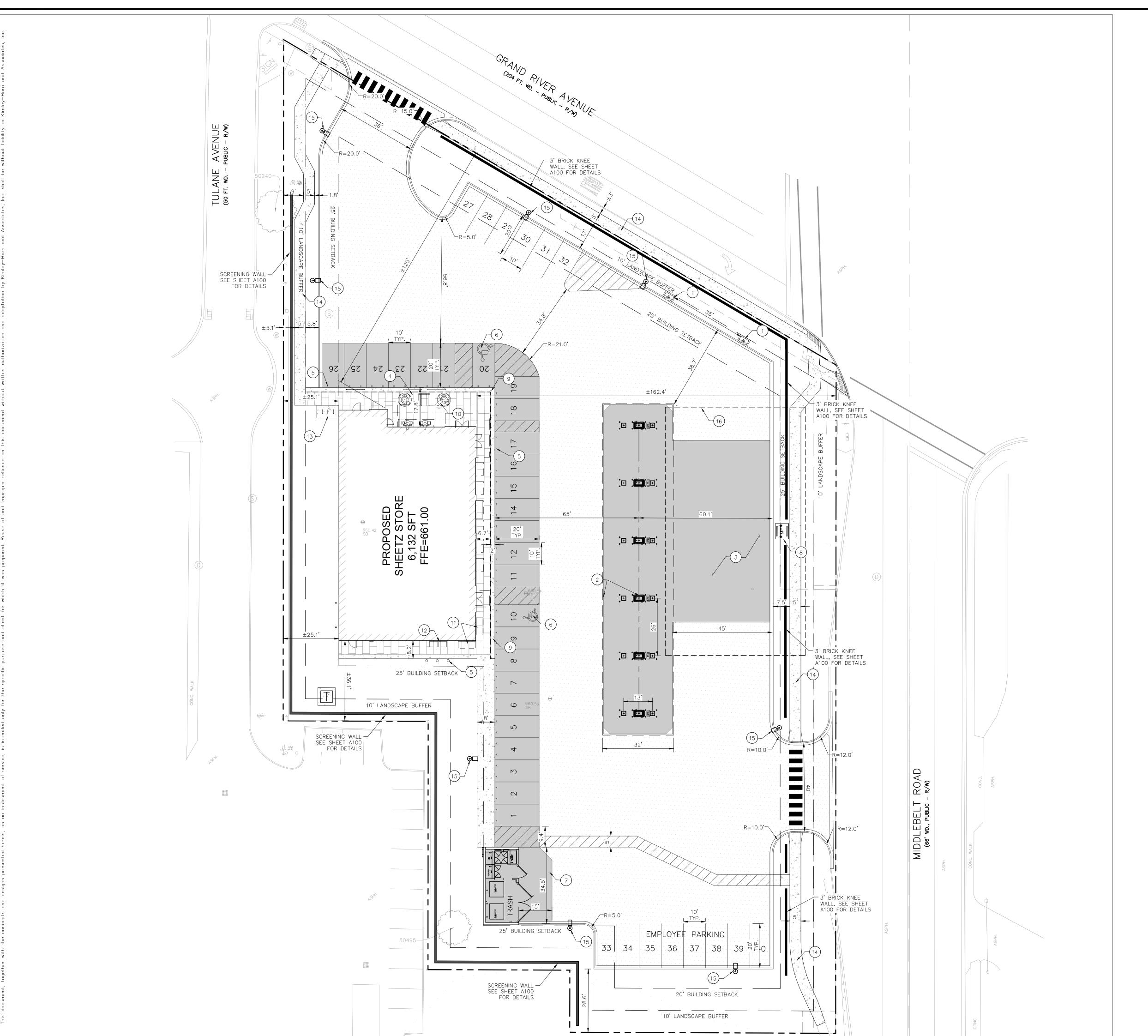
6/24/2024 PROJECT NO: 24-086

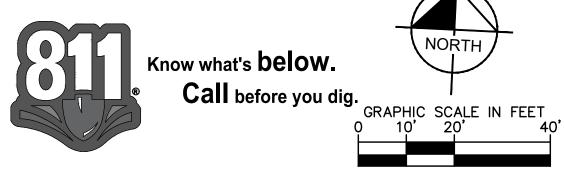
FIELD: AJS, RZ
DRAWN BY: DC
DESIGN BY:
CHECK BY: MB

V2.0

FILE:P:\Projects\2024\24-086 KH Sheetz Grand River Farmington Hills\Dwg\Survey\24-086_ALTA Topo-KH.dwg PLOT DATE:6/24/2024 1:21 PM

TULANE AVENUE
(50 FT. WD. - PUBLIC - R/W)





PAVING LEGEND

HEAVY DUTY ASPHALT PAVEMENT

HEAVY DUTY CONCRETE PAVEMENT CONCRETE SIDEWALK

BRICK PAVER WALK

CURB AND GUTTER

KEY NOTES

- 1. AIR STATION, PER SHEETZ, STANDARD DETAIL
- 2. FUEL STATIONS AND CANOPY
- 3. UNDERGROUND STORAGE TANK AREA
- 4. PATIO AREA
- 5. STOREFRONT BUMPER POST, PER SHEETZ STANDARD DETAIL, TYP. 6. ADA PARKING SPACE
- 7. CONCRETE DUMPSTER PAD, PER SHEETZ STANDARD DETAIL
- 8. UNDERGROUND STORAGE TANK VENT PAD, PER SHEETZ STANDARD
- 9. WALK TO BE CONSTRUCTED FLUSH WITH PAVEMENT PER SHEETZ STANDARD DETAIL
- 10. OUTDOOR SEATING
- 11. ICE MERCHANDISER
- 12. PROPANE LOCKER
- 13. BIKE RACK
- 14. 5' CONCRETE SIDEWALK
- 15. LIGHT POLE, FOR COORDINATION ONLY, REFER TO PHOTOMETRIC PLAN FOR DETAILS
- 16. APPROXIMATE LIMITS OF EXCAVATION FOR INSTALLATION OF UNDERGROUND STORAGE TANKS, TYP.

SITE DATA TABLE

PARCEL INFORMATION:
PARCEL 1:
ADDRESS: 29455 GRAND RIVER
ID: 23-35-43-10-17

PARCEL 2: ADDRESS: 29403 GRAND RIVER ID: 23-35-43-10-16

SITE AREA: 1.939 ACRES (84,462 SF.) NET AND GROSS

EXISTING: PROPOSED: B-3

PROPOSED USE: GAS STATION/RESTAURANT

<u>BUILDING INFORMATION:</u>
BUILDING FOOTPRINT AREA = 6,139 SF
BUILDING LOT COVERAGE = 7.27%

SETBACK REQUIREMENTS:

RESIDENTIAL:

BUILDING: REQUIRED PROPOSED SIDE: REAR:

LANDSCAPE BUFFER: REQUIRED PROPOSED FRONT: SIDE: 15.9'

REAR: 28.6 <u>Parking calculations:</u> Retail = 1 for every 175 sq ft of usable floor area Restaurant = 1 for every 30 sq ft of usable floor area GAS STATION = 1/2 FOR EVERY PUMP TOTAL PARKING REQUIRED = 2,383 USABLE FLOOR AREA/175 = 14

+450 USABLE FLOOR AREA / 30 = 15 + 6 GAS PUMPS / 2 = 3 = 32 SPACES

TOTAL PROPOSED PARKING SPACES = 40 SPACES INC. 2 H/C SPACES

SHEETZ
FARMINGTON HILLS
GRAND RIVER AND
MIDDLEBELT

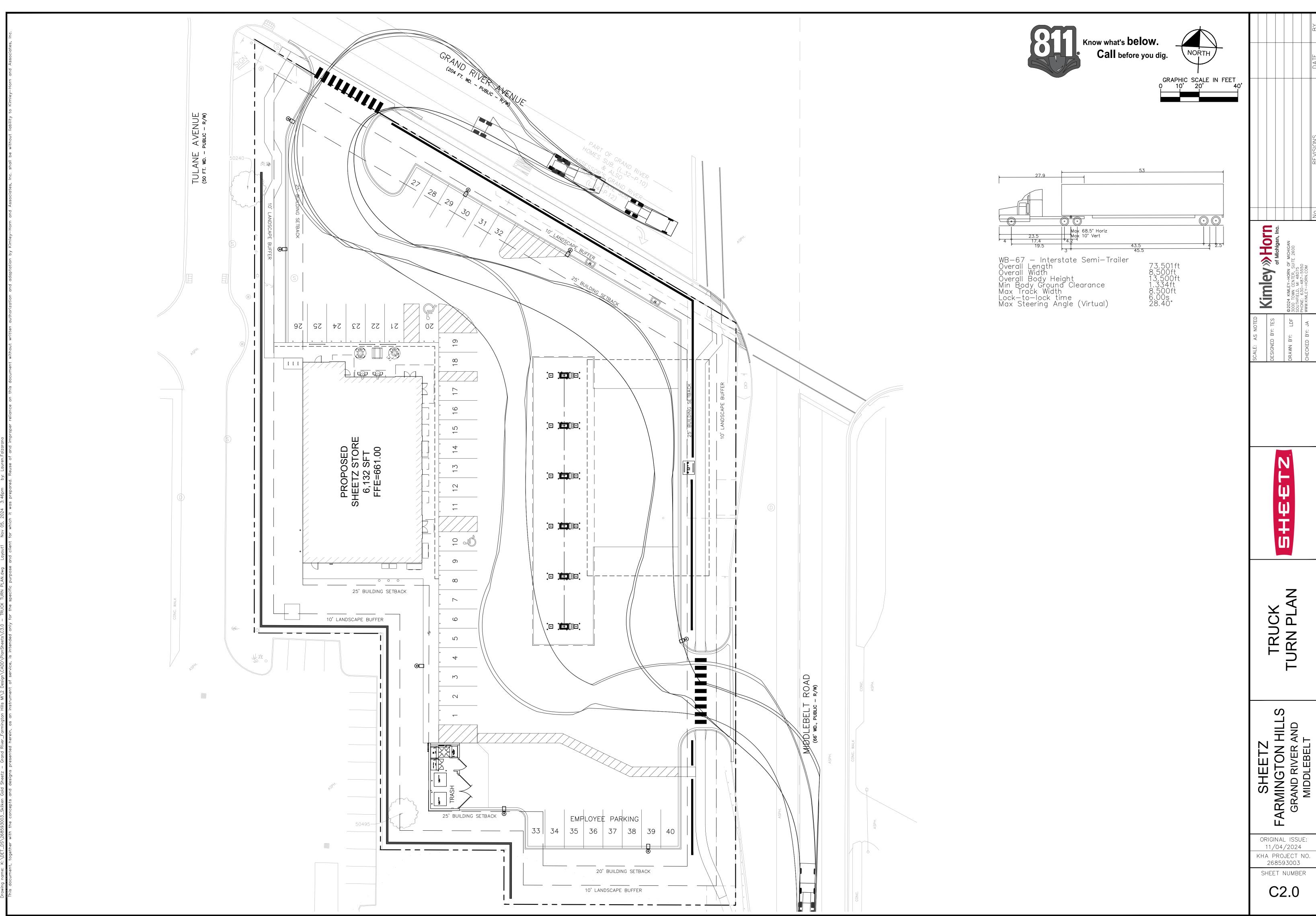
 \Box

Kimley » Horn of Michigan, Inc.

ORIGINAL ISSUE: 11/04/2024 KHA PROJECT NO. 268593003

SHEET NUMBER

C1.0



TRUCK TURN PLAN

ORIGINAL ISSUE: 11/04/2024 KHA PROJECT NO. 268593003



GRADING LEGEND

FINISHED GRADE SPOT ELEVATION x TC XXX.XX BC XXX.XX TOP OF CURB / BOTTOM OF CURB SPOT ELEVATION FL XXX.XX FLOW LINE SPOT ELEVATION ME XXX.XX MATCH EXISTING SPOT ELEVATION x FF XXX.XX FINISHED FLOOR SPOT ELEVATION FINISHED GRADE NEAR BUILDING SPOT ELEVATION x FG XXX.XX X TW XXX.XX TOP OF WALL SPOT ELEVATION × BW XXX.XX BOTTOM OF WALL SPOT ELEVATION R XXX.XX RIM ELEVATION STR XX R XXX.XX STRUCTURE ID & RIM ELEVATION STR XX STRUCTURE ID & INVERT ELEVATION (INV XXX.XX) -----620-----PROPOSED CONTOUR ____RIDGE__ RIDGE LINE SLOPE AND FLOW DIRECTION 100-YEAR OVERLAND OVERFLOW ROUTE DETENTION BASIN 100-YEAR EMERGENCY PROPOSED SWALE

GRADING NOTES

PROPOSED STORM SEWER

PROPOSED STORM STRUCTURES

PROPOSED SANITARY MANHOLE

PROPOSED WATER STRUCTURES

PROPOSED TRANSFORMER PAD

PROPOSED LIGHT POLES

PROPOSED STORM/SANITARY CLEANOUT

- CONTRACTOR TO VERIFY ALL EXISTING TOPOGRAPHY AND STRUCTURES ON THE SITE AND IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING WORK.
- ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHI OR ALONG CURB AND GUTTER REFER TO EDGE OF PAVEMENT ELEVATIONS UNLESS OTHERWISE NOTED.
- ALL ELEVATIONS SHOWN DEPICT FINISHED GRADE OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED. GENERAL CONTRACTOR TO COORDINATE WITH EXCAVATION, LANDSCAPE AND PAVING SUBCONTRACTORS REGARDING TOPSOIL THICKNESS FOR LANDSCAPE AREAS AND PAVEMENT SECTION THICKNESS FOR PAVED AREAS TO PROPERLY ENSURE ADEQUATE CUT TO ESTABLISH SUBGRADE
- 4. NO EARTHEN SLOPE SHALL BE GREATER THAN 3:1, UNLESS OTHERWISE NOTED.
- MAXIMUM SLOPE IN ACCESSIBLE PARKING SPACES AND LOADING ZONES SHALL NOT EXCEED 2.0% IN ALL DIRECTIONS.
- MAXIMUM RUNNING SLOPE SHALL NOT EXCEED 5% AND CROSS SLOPE SHALL NOT EXCEED 2% ON ALL SIDEWALKS AND ACCESSIBLE ROUTES UNLESS OTHERWISE NOTED.
- WHEN NATURAL FLOW OF DRAINAGE IS AWAY FROM CURB, CONTRACTOR TO INSTALL REVERSE GUTTER PITCH.
- 8. MATCH EXISTING ELEVATIONS AT THE PROPERTY LIMITS.
- 9. ALL STOOPS OR PEDESTRIAN EGRESS POINTS FROM THE BUILDING(S) SHALL BE NO GREATER THAN 2% FOR THE FIRST 5'.

PRELIMINARY GRADING PLAN

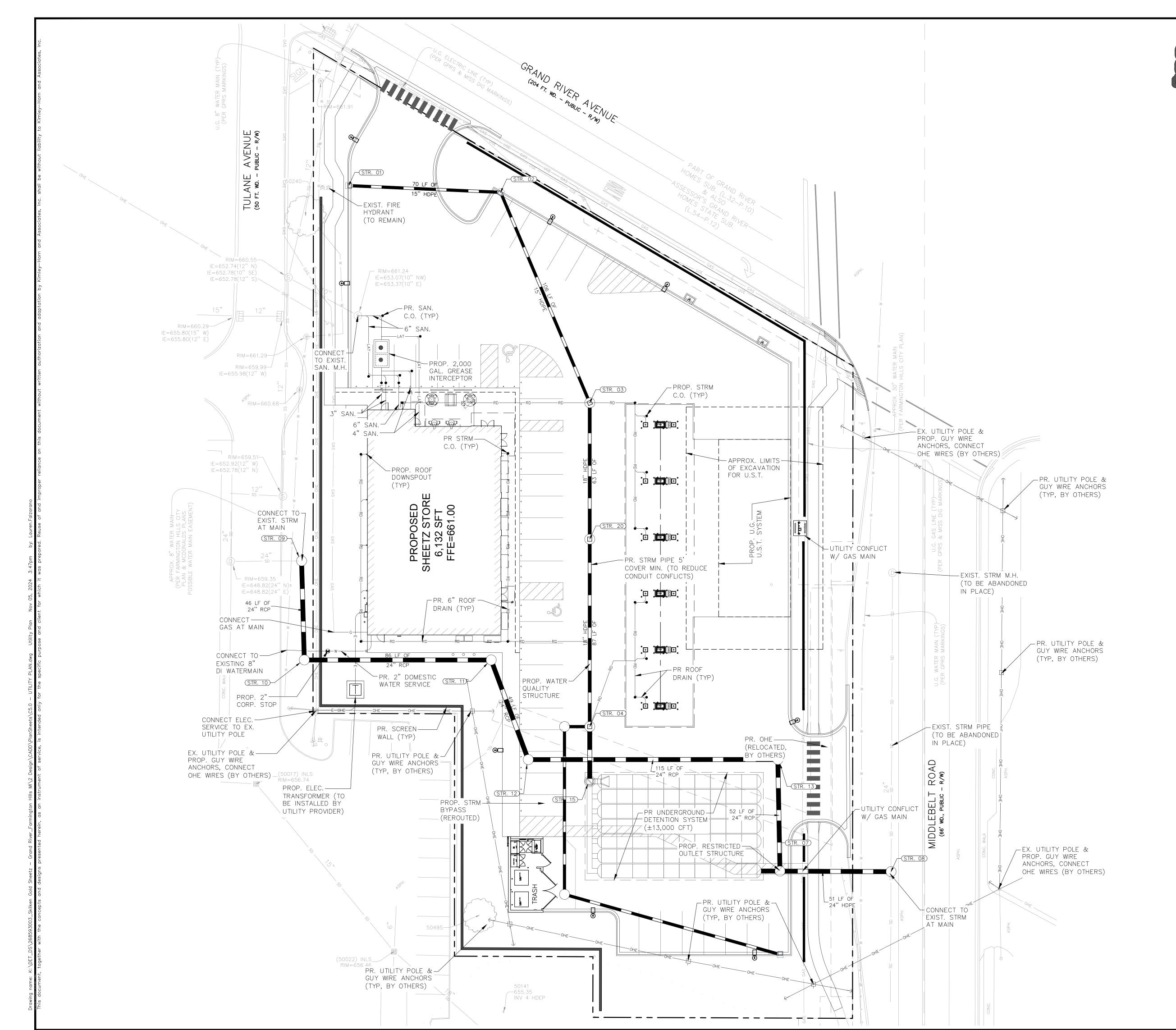
Kimley » Horn

SHEETZ
FARMINGTON HILLS
GRAND RIVER AND
MIDDLEBELT

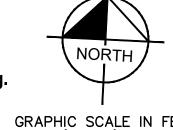
ORIGINAL ISSUE: 11/04/2024 KHA PROJECT NO. 268593003

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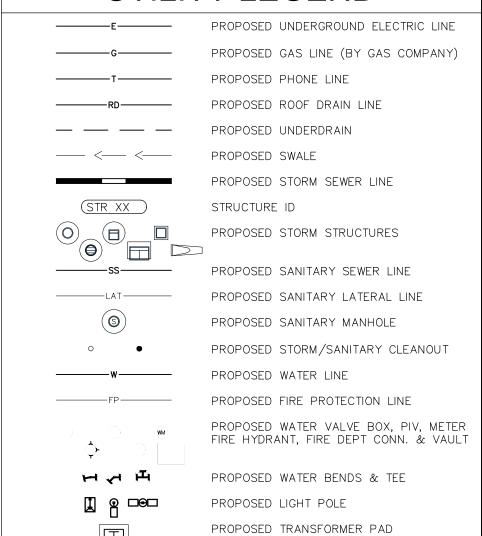






GRAPHIC SCALE IN FEET
0 10' 20' 40'

UTILITY LEGEND



UTILITY NOTES

(BY OTHERS)

GENERAL UTILITY NOTES

INSTALLATION.

- 1. PROPOSED SANITARY SEWER SERVICE TO BE SDR-35, ASTM D-3034 OR APPROVED EQUIVALENT.
- PROPOSED 2" WATER SERVICE TO BE TYPE "K" COPPER OR APPROVED EQUIVALENT. RESPONSIBILITY TO BE DETERMINED FOR TAP AND METER INSTALLATION.
- 3. PROPOSED 6" ROOF DRAINS ARE TO BE A MINIMUM SLOPE OF 1.00%
- 4. MAINTAIN 18" OF VERTICAL CLEARANCE (OUTSIDE OF PIPE TO OUTSIDE OF PIPE) BETWEEN UTILITIES.
- 5. ASSUMED FOUR (4) 4" SCHEDULE 40 CONDUITS ARE NECESSARY FOR ELECTRICAL SERVICE FROM TRANSFORMER TO BUILDING. TO BE CONFIRMED IN ENGINEERING DESIGN WITH SERVICE TEAM.
- PROPOSED GAS SERVICE AND METER ASSUMED TO BE 2.5", CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR
- CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS.
- 8. ALL ELECTRIC AND TELEPHONE EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE DESIGNATED UTILITY COMPANIES.
- 9. CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED BY THE ENGINEER FROM THE APPROPRIATE GOVERNING AUTHORITY AND CONTRACTOR

HAS BEEN NOTIFIED BY THE ENGINEER.

- 10. CONTRACTOR TO CALL MISS DIG (1-800-482-7171) TO COORDINATE FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES BEFORE ORDERING MATERIALS OR COMMENCING CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
- 11. PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OTHER UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM THE ENGINEER AND THE OWNER/ DEVELOPER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. THE ENGINEER AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION. THE MUNICIPALITY SHALL BE NOTIFIED OF ANY AND ALL CHANGES TO THE DESIGN
- 12. CONTRACTOR SHALL COMPLY COMPLETELY WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH PERFORMANCE CRITERIA AS REQUIRED BY OSHA.
- 13. CONTRACTOR TO AVOID DISRUPTION OF ANY ADJACENT TENANT'S TRAFFIC OPERATIONS DURING INSTALLATION OF UTILITIES.
- 14. ALL DIMENSIONS ARE TO CENTERLINE OF PIPE OR CENTER OF MANHOLE UNLESS NOTED OTHERWISE.
- 15. SEE ARCHITECTURAL AND MEP PLANS FOR EXACT UTILITY
- CONNECTION LOCATIONS AT BUILDING.
- 16. LIGHT POLES SHOWN FOR COORDINATION PURPOSES ONLY AND DO NOT REPRESENT ACTUAL SIZE. SEE SITE LIGHTING PLANS BY OTHERS FOR MORE INFORMATION.
- 17. SEE DETAILS FOR LOCATING STORM STRUCTURES WITHIN THE CURB
- 18. STORMWATER FACILITIES MUST BE FUNCTIONAL BEFORE BUILDING CONSTRUCTION BEGINS.

Imley >>> Horn
of Michigan, Inc.
24 KIMLEY-HORN OF MICHIGAN
TOWN CENTER, SUITE 2600
HFIELD, MI 48075
IE: 630-487-5550
KIMLEY-HORN.COM

DRAWN BY: LDF

HEETZ

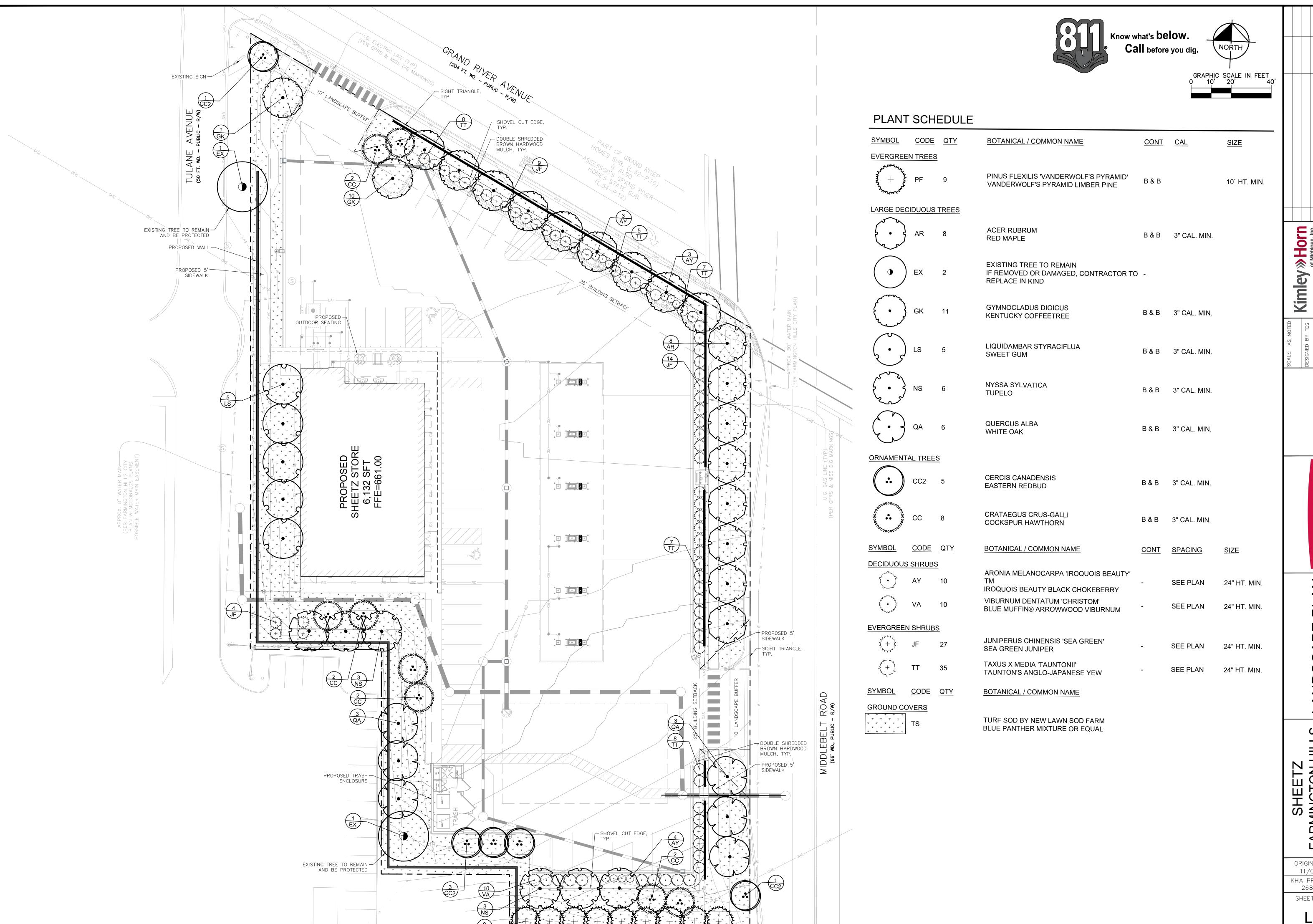
PRELIMINAR UTILITY PLA

SHEETZ FARMINGTON HILL GRAND RIVER AND MIDDLEBELT

ORIGINAL ISSUE: 11/04/2024 KHA PROJECT NO. 268593003

SHEET NUMBER

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Kimley » Horn
of Michigan, Inc.

2024 KIMLEY-HORN OF MICHIGAN
DOO TOWN CENTER, SUITE 2600
DUTHFIELD, MI 48075
WW.KIMLEY-HORN.COM

EETZ

ANDSCAPE PLAN

SHEETZ
FARMINGTON HILLS
GRAND RIVER AND
MIDDLEBELT

ORIGINAL ISSUE: 11/04/2024 KHA PROJECT NO. 268593003

SHEET NUMBER

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TREE PLANTING

- 1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING MATERIALS AND PLANTS SHOWN ON THE LANDSCAPE PLAN. THE CONTRACTOR IS RESPONSIBLE FOR THE COST TO REPAIR UTILITIES, ADJACENT LANDSCAPE, PUBLIC AND PRIVATE PROPERTY THAT IS DAMAGED BY THE CONTRACTOR OR THEIR SUBCONTRACTOR'S OPERATIONS DURING INSTALLATION OR DURING THE SPECIFIED MAINTENANCE PERIOD. CALL FOR UTILITY LOCATIONS PRIOR TO ANY EXCAVATION.
- NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN
- THE IMMEDIATE AREA.
- EXCAVATIONS THAT SETTLE.
- 5. ALL PLANTS TO BE SPECIMEN GRADE, WELL BRANCHED, HEALTHY, FULL, PRE-INOCULATED AND FERTILIZED. PLANTS SHALL BE FREE FROM DISEASE, PESTS, WOUNDS, AND SCARS. PLANTS SHALL BE FREE FROM NOTICEABLE GAPS, HOLES, OR DEFORMITIES. PLANTS SHALL BE FREE FROM BROKEN OR DEAD BRANCHES. TRUNKS WILL BE WRAPPED IF NECESSARY TO PREVENT SUN SCALD AND INSECT THIS CONTRACT.
- 7. ALL NURSERY STOCK SHALL BE GUARANTEED. BY THE CONTRACTOR, FOR ONE YEAR FROM DATE OF FINAL INSPECTION. THE GUARANTEE BEGINS ON THE DATE OF THE LANDSCAPE ARCHITECT'S OR
- 9. PRUNE PLANTS AS NECESSARY- PER STANDARD NURSERY PRACTICE AND TO CORRECT POOR
- BRANCHING OF EXISTING AND PROPOSED TREES.
- FINISHED GRADE IN TURF AREAS AND 18 INCHES IN PLANTING AREAS.
- 11. PLANTING AREA TOPSOIL SHALL BE AMENDED WITH 25% SPHAGNUM PEATMOSS, 5% HUMUS AND 70% ANNUAL BEDS.
- 13. EDGING TO BE A SPADED EDGE UNLESS INDICATED OTHERWISE ON THE PLANS. SPADED EDGE TO PROVIDE V-SHAPED DEPTH AND WIDTH TO CREATE SEPARATION BETWEEN MULCH AND GRASS. A
- 14. CONTRACTOR SHALL INSTALL DOUBLE SHREDDED BROWN HARDWOOD MULCH AT A 3" DEPTH TO ALL TREES, SHRUB, PERENNIAL, AND GROUNDCOVER AREAS. TREES PLACED IN AREA COVERED BY TURF
- 15. INSTALLATION OF TREES WITHIN PARKWAYS SHALL BE COORDINATED IN THE FIELD WITH LOCATIONS OF UNDERGROUND UTILITIES. TREES SHALL NOT BE LOCATED CLOSER THAN 5' FROM UNDERGROUND
- 16. DO NOT DISTURB THE EXISTING PAVING, LIGHTING, OR LANDSCAPING THAT EXISTS ADJACENT TO THE
- 17. ALL DISTURBED AREAS TO BE SODDED OR SEEDED, UNLESS OTHERWISE NOTED. SOD/SEED SHALL BE
- LOCAL HARDY TURF GRASS MIX UNLESS, OTHERWISE NOTED.
- AGENCIES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES AS DRAWN.
- 19. THE CONTINUED MAINTENANCE OF ALL REQUIRED LANDSCAPING SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY ON WHICH SAID MATERIALS ARE REQUIRED. ALL PLANT MATERIALS REQUIRED BY THIS SECTION SHALL BE MAINTAINED AS LIVING VEGETATION AND SHALL BE PROMPTLY REPLACED IF THE PLANT MATERIAL HAS DIED PRIOR TO FINAL ACCEPTANCE. PLANTING AREAS SHALL BE

NOTES: 1. INSPECT TREE FOR DAMAGED BRANCHES, APPLY CORRECTIVE PRUNING. 2. SET ROOT BALL ON UNEXCAVATED OR TAMPED SOIL. TOP OF ROOTBALL SHALL BE TWO INCHES ABOVE SURROUNDING GRADE WITH BURLAP AND WIRE BASKET REMOVE WIRE BASKET AND BURLAP DOWN FOUR TO SIX INCHES BELOW TOP OF ROOT BALL. REMOVE ALL TWINE AND (IF USED), SYNTHETIC MATERIAL. REMOVE OR CORRECT GIRDLING ROOTS. 4. TAMP EXCAVATED SOIL AROUND BASE OF ROOTBALL 5. BACKFILL REMAINDER EXCAVATED SOIL TAMPED LIGHTLY. HIGH CLAY OR POOR SOIL SHALL RECEIVE SOIL AMENDMENT PER LANDSCAPE NOTES. 6. WATER THOROUGHLY WITHIN TWO HOURS USING 10 TO 15 GALLONS OF WATER. 7. APPLY MULCH IN EVEN LAYER, KEEPING AWAY FROM ROOT FLARE. 8. FINAL LOCATION OF TREE TO BE APPROVED BY OWNER. 2X ROOT BALL WIDTH DOUBLE SHREDDED BROWN HARDWOOD MULCH EXCAVATED BACKFILL

TAMPED BACKFILL

- SUBGRADE

MINIMUM 6" BEYOND ROOT BALL DOUBLE SHREDDED BROWN HARDWOOD MULCH AMENDED SOIL

NOTES:

- APPLY CORRECTIVE PRUNING
- 2. SET ROOT BALL OR CONTAINER ON UNEXCAVATED OR TAMPED SOIL. TOP OF ROOTBALL (CONTAINER) SHALL BE ONE INCH ABOVE SURROUNDING GRADE. FOR LARGER SHRUBS WITHIN PLANTING BED DIG A DEEPER PIT ONLY FOR THOSE SHRUBS.
- 3. REMOVE BURLAP FROM TOP HALF THE LENGTH OF ROOTBALL. TWINE AND (IF USED) SYNTHETIC MATERIAL SHALL BE REMOVED FROM PLANTING BED. FOR CONTAINER GROWN SHRUBS, REMOVE CONTAINER AND LOOSEN ROOTS PRIOR TO INSTALLATION.
- 4. REMOVE OR CORRECT GIRDLING ROOTS.
- 5. PLUMB AND BACKFILL WITH AMENDED SOIL PER LANDSCAPE NOTES. WATER THOROUGHLY WITHIN TWO HOURS.
- 6. APPLY MULCH IN EVEN LAYER, KEEPING AWAY FROM ROOT FLARE. MULCH LIMITS FOR SHRUBS EXTEND TO ALL LIMITS OF PLANTING BED, SEE PLANS

SHRUB PLANTING

2. THE CONTRACTOR SHALL REPORT ANY DISCREPANCY IN PLAN VS. FIELD CONDITIONS IMMEDIATELY TO THE LANDSCAPE ARCHITECT, PRIOR TO CONTINUING WITH THAT PORTION OF WORK.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY OF THEIR TRENCHES OR

DAMAGE. THE LANDSCAPE CONTRACTOR SHALL REMOVE THE WRAP AT THE PROPER TIME AS PART OF

6. THE OWNER'S REPRESENTATIVE MAY REJECT ANY PLANT MATERIALS THAT ARE DISEASED, DEFORMED. OR OTHERWISE NOT EXHIBITING SUPERIOR QUALITY.

- OWNERS WRITTEN ACCEPTANCE OF THE INITIAL PLANTING. REPLACEMENT PLANT MATERIAL SHALL HAVE A ONE YEAR GUARANTEE COMMENCING UPON PLANTING.
- 8. PLANTS TO MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014 OR MOST CURRENT
- VERSION) REQUIREMENTS FOR SIZE AND TYPE SPECIFIED.
- 10. TOPSOIL SHALL BE PROVIDED AND GRADED BY THE GENERAL CONTRACTOR UP TO 6 INCHES BELOW
- PULVERIZED SOIL FOR ALL NON TURF SEED MIX AREAS, SHRUB, ORNAMENTAL GRASS, PERENNIAL AND
- 12. SEED/SOD LIMIT LINES ARE APPROXIMATE. CONTRACTOR SHALL SEED/SOD ALL AREAS WHICH ARE DISTURBED BY GRADING WITH THE SPECIFIED SEED/SOD MIXES.
- SPADED BED EDGE SHALL SEPARATE MULCH BEDS FROM TURF OR SEEDED AREAS. A SPADED EDGE IS NOT REQUIRED ALONG CURBED EDGES.
- SHALL RECEIVE A 4 FT WIDE MAXIMUM TREE RING WITH 3" DEPTH SHREDDED HARDWOOD MULCH.
- UTILITY LINES AND NO CLOSER THAN 10' FROM UTILITY STRUCTURES.
- SITE UNLESS OTHERWISE NOTED ON PLAN.
- 18. PLANT QUANTITIES SHOWN ARE FOR THE CONVENIENCE OF THE OWNER AND JURISDICTIONAL REVIEW
- KEPT FREE OF TRASH, LITTER, AND WEEDS AT ALL TIMES.

34-5.15.1 - WALLS AND BERMS

FARMINGTON HILLS, MI - LANDSCAPE CODE REQUIREMENTS **ZONING ORDINANCE** REQUIRED PROPOSED 34-5.14.4.C - PARKING LOT LANDSCAPE REQUIREMENTS PAVED AREA: ONE LARGE DECIDUOUS TREE SHALL BE PROVIDED FOR EACH TWO THOUSAND EIGHT HUNDRED (2,800) SQUARE FEET 48,730 SF 17 LARGE DECIDUOUS PAVED AREA TREES PROVIDED OF THE PAVED SURFACE AREA ON THE ZONING LOT; PROVIDED THAT NO FEWER THAN TWO (2) TREES ARE PROVIDED, 48,730 SF / 2,800 = 17.4 17 LARGE DECIDUOUS PAVED AREA TREES REQUIRED REGARDLESS OF SUFACE AREA 34-5.14.5 - PARKING LOT SCREENING

PARKING LOT SCREENING: 2' MINIMUM HIGH HEDGE OR MASONRY WALL REQUIRED ALONG GRAND RIVER AVENUE AND ALL PARKING LOTS SHALL BE SEPARATED FROM A PUBLIC THOROUGHFARE BY A PLANTED HEDGE OF SMALL SHRUBS AS 2" MINIMUM HIGH HEDGE PROVIDED ALONG GRAND RIVER AVENUE AND MIDDLEBELT ROAD

DEFINED IN SUBSECTION 34-5.14.3.F.v, OR BY A MASONRY WALL OR BERM A MINIMUM OF TWO (2) FEET HIGH

BUFFER YARD: WHENEVER A WALL OR BERM IS REQUIRED IN A B-1, B-2, B-3, B-4, ES AND LI-1 DISTRICT, DECIDUOUS TREES SHALL BE PLANTED IN THE GROUND ADJACENT TO THE WALL ON THE NONRESIDENTIAL SIDE WITH SIZE AND SPACING IN **ACCORDANCE WITH SECTION 34-5.14**

WESTERN AND SOUTHERN PROPERTY BOUNDARY: 515 LF / 30 = 17.2 17 LARGE DECIDUOUS BUFFER YARD TREES REQUIRED

2 EXISTING TREES TO REMAIN, 15 LARGE DECIDUOUS BUFFER YARD TREES PROVIDED

34-5.18 - TREE PROTECTION, REMOVAL, AND REPLACEMENT

EVERGREEN TREE PLANTING

AS A CONDITION OF GRANTING A TREE PERMIT, THE APPLICANT WILL BE REQUIRED TO REPLACE TREES BEING REMOVED HAVING SIX (6) INCHES OR MORE DBH AT A 1:1 RATIO

WHEN LANDMARK TREES ARE PERMITTED TO BE REMOVED, REPLACEMENT TREES SHALL BE PROVIDED TO A MINIMUM \parallel OF TWENTY-FIVE (25) PERCENT OF DBH OR CALIPERS, SHALL BE PROVIDED EITHER INDIVIDUALLY OR ON A CUMULATIVE BASIS TO MEET THE TWENTY-FIVE (25) PERCENT DBH REQUIREMENT

12 DECIDUOUS TREES OF 6" OR MORE DBH REMOVED 12 DECIDUOUS REPLACEMENT TREES REQUIRED

3 EVERGREEN TREES OF 6" OR MORE DBH REMOVED 3 EVERGREEN REPLACEMENT TREES OF 10' HEIGHT OR MORE REQUIRED

46" DBH OF DECIDUOUS LANDMARK TREES REMOVED (5) 3" CALIPER DECIDUOUS LANDMARK REPLACEMENT TREES REQUIRED

58" DBH EVERGREEN LANDMARK TREE REMOVED (6) 10' HEIGHT EVERGREEN LANDMARK REPLACEMENT TREES REQUIRED 12 DECIDUOUS REPLACEMENT TREES PROVIDED

3 EVERGREEN REPLACEMENT TREES PROVIDED

(5) 3" CALIPER DECIDUOUS LANDMARK TREES PROVIDED

(6) 10' HEIGHT EVERGREEN LANDMARK REPLACEMENT TREES PROVIDED

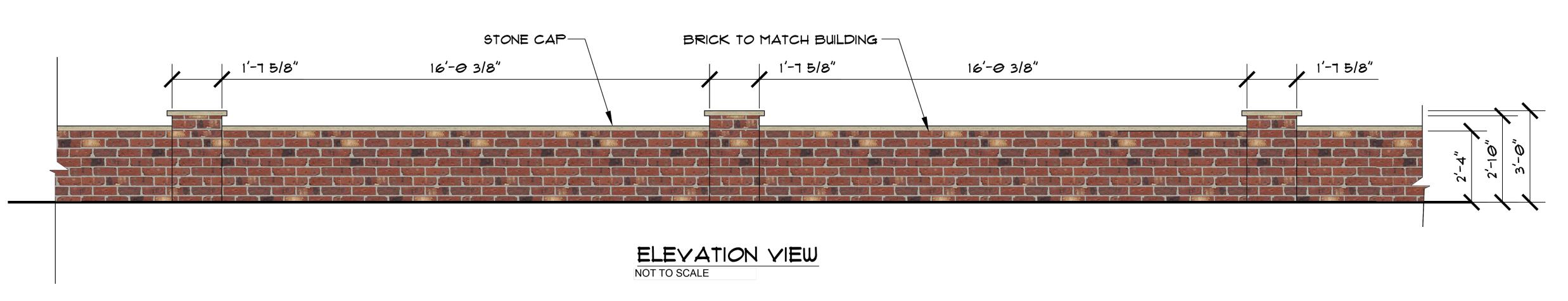
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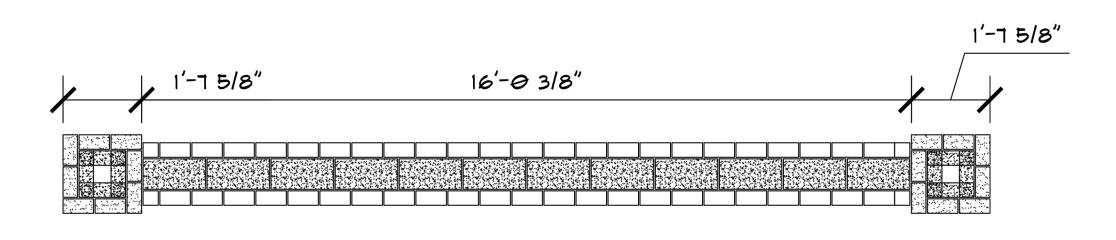
LANDSCAPE NOTES

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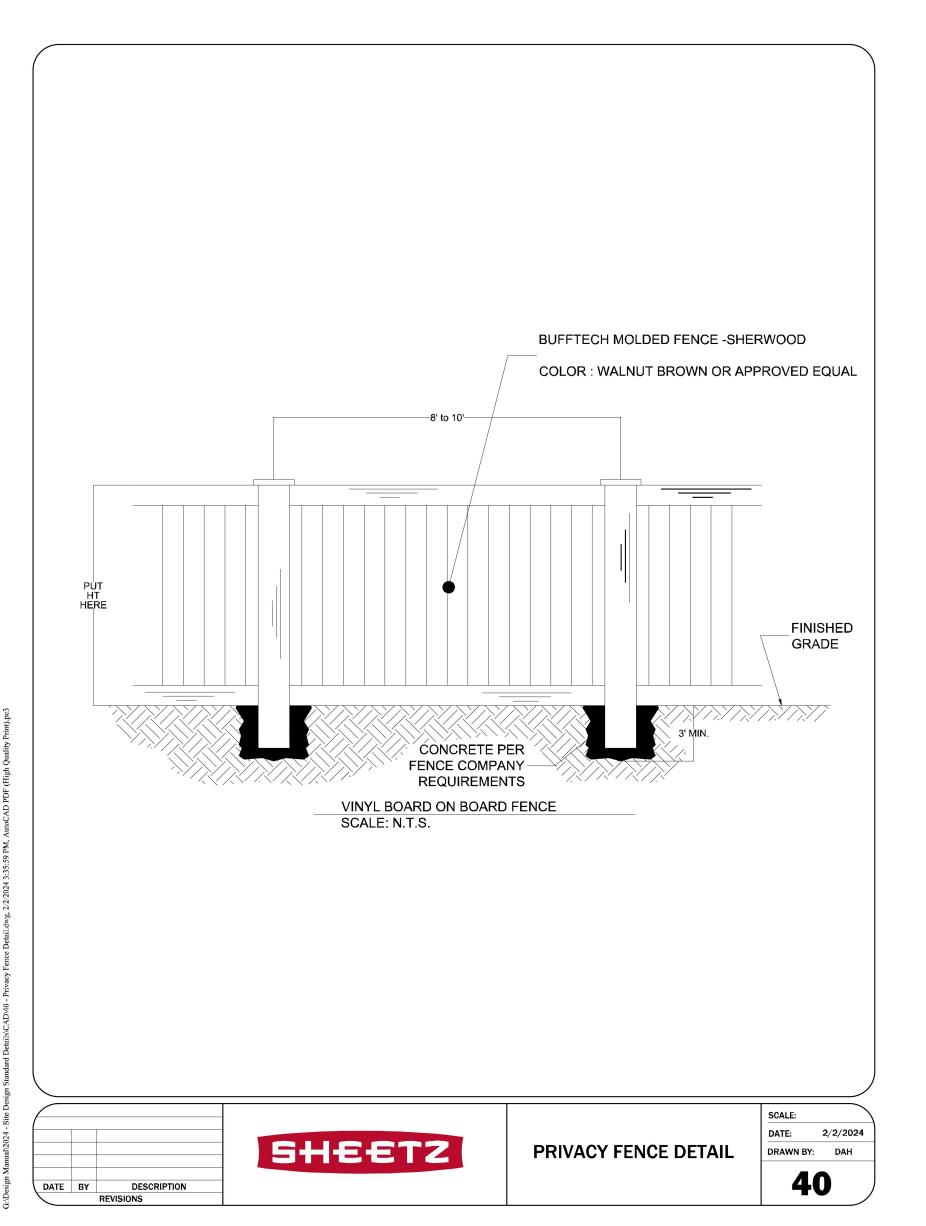
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PLAN VIEW NOT TO SCALE



DETAIL SHEET NUMBER

Kimley » Horn of Michigan, Inc.

ORIGINAL ISSUE: 11/04/2024 KHA PROJECT NO. 268593003

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544EEETZ

SHEETZ, INCORPORATED
5700 SIXTH AVENUE
ALTOONA, PA 16602
(814) 946-3611

NEW SHEETZ STORE "FARMINGTON HILLS"

SWC OF GRAND RIVER AVENUE AND MIDDLEBELT ROAD FARMINGTON, MICHIGAN

SIGNAGE SQUARE FOOTAGE BREAKDOWN

BUILDING ELEVATIONS

SHEETZ SIGN = 16.55 SQ. FT. × 3 = 49.65 SQ. FT.

TOTAL = 49.65 SQ. FT.

49.65 SQ. FT.

GAS PRICE MONUMENT SIGN

SHEETZ SIGN = 16.17 SQ. FT. $\times 1$ = 16.17 SQ. FT.

GAS PRICE SIGN = 30.99 SQ. FT. $\times 1$ = 30.99 SQ. FT.

TOTAL = 47.16 SQ. FT. X2 94.32 SQ. FT.

GAS CANOPY AWNING

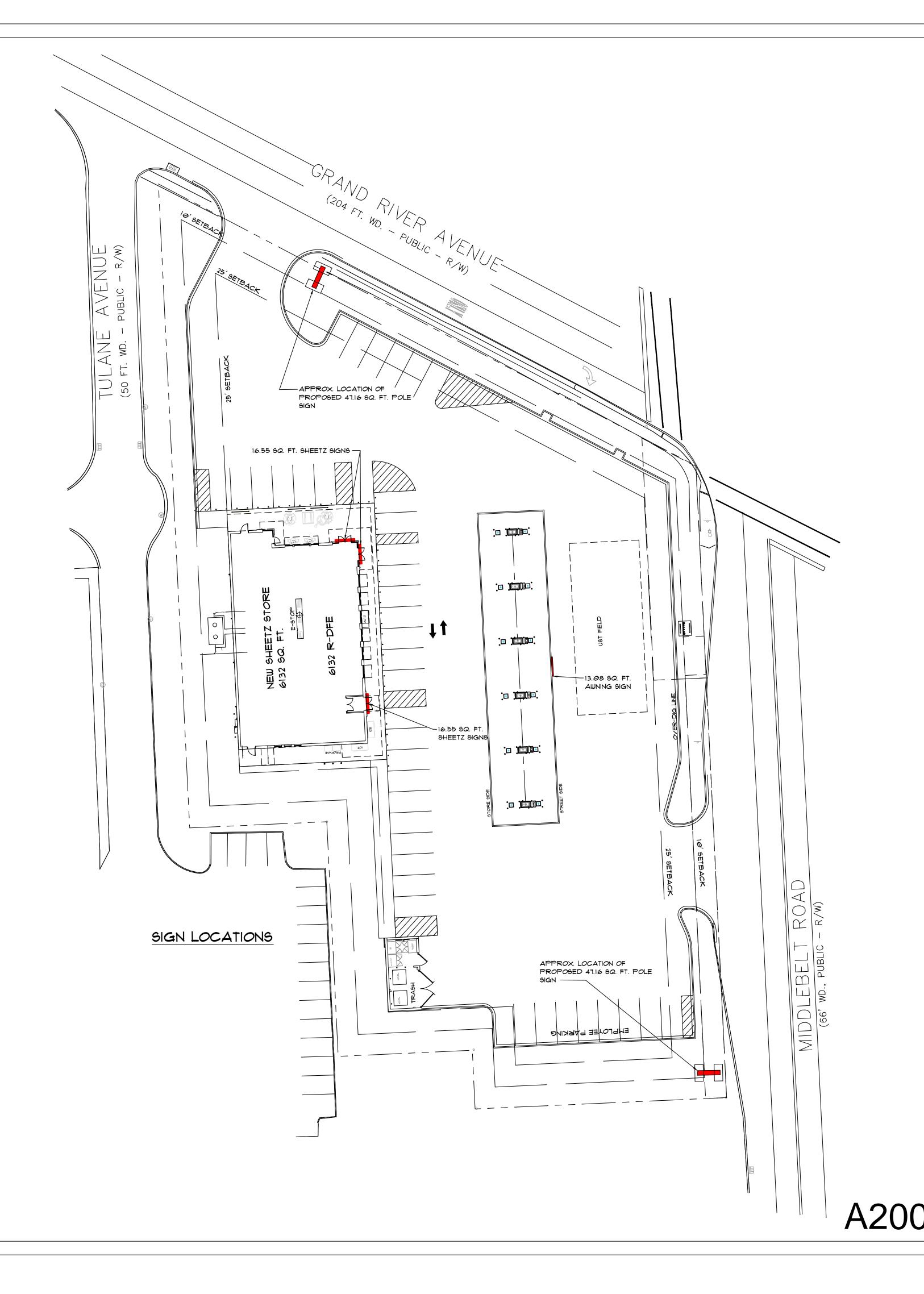
SHEETZ SIGN AREA = 13.08 SQ. FT. $\times 1$ = 13.08 SQ. FT.

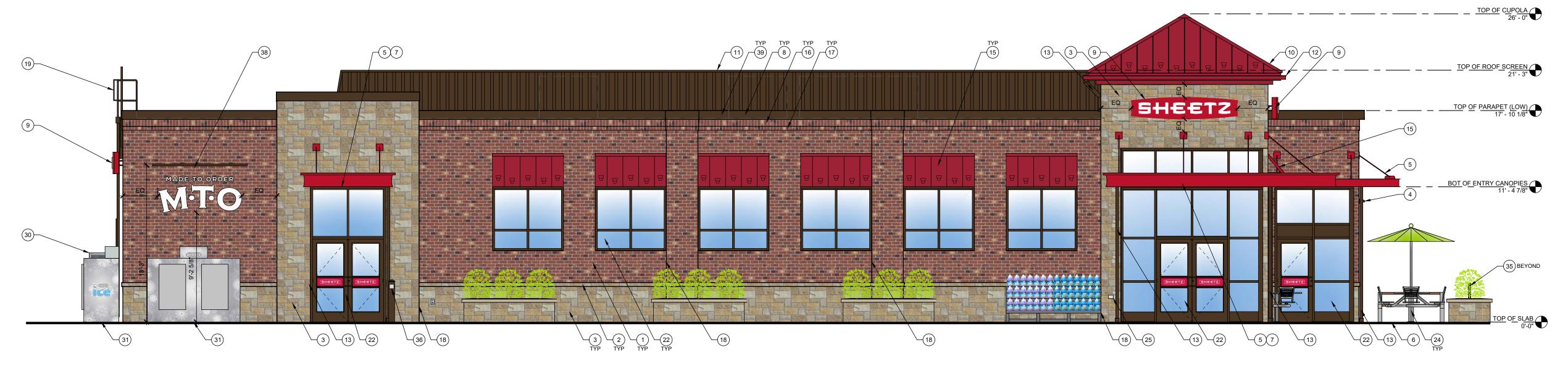
FUEL OFFERING FLAG AREA = 2.76 SQ. FT. $\times 12$ = 33.12 SQ. FT.

TOTAL = 46.20 SQ. FT.

46.20 SQ. FT.

TOTAL SITE SIGN AREA = 190.17 SQ. FT.



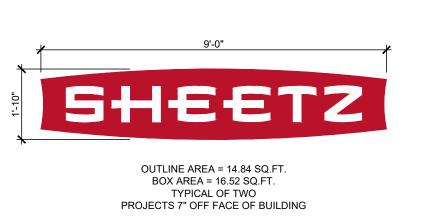


FRONT ELEVATION

TYPICAL EXTERIOR ELEVATION NOTES:

- ALL LIGHTS SHOWN ABOVE AND/OR BELOW DOORS OR WINDOWS ARE TO BE CENTERED ON THE DOOR OR WINDOW UNLESS NOTED OTHERWISE.
- FIXTURES/EQUIPMENT BETWEEN TWO DOORS OR WINDOWS ARE TO BE CENTERED EQUALLY.
- EXTERIOR SEALANT FOR STONE SHALL COMPLY WITH SECTION 07 9005 JOINT SEALANTS, GENERAL BUILDING FASCADE WEATHER SEALANT AND SHALL MATCH THE COLOR OF THE STORE.
- EXTERIOR ELEVATION KEYNOTES: BRICK VENEER, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE
- (2) CAST STONE SILL, COLOR: CRAB ORCHARD. SEE MASONRY SPEC
- ANCHORED CAST STONE MASONRY VENEER, COLOR: CRAB ORCHARD. 3 SEE MASONRY SPEC
- 4 EXTERIOR LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
- 5 ARCHITECTURAL CANOPY, COLOR: REGAL RED, PREMIUM TWO-COAT KYNAR FINISH
- (6) BRICK PAVER WALKWAY
- (7) LIGHTED CURVED FASCIA CANOPY ATTACHMENT
- (8) METAL COPING, COLOR: DARK BRONZE
- (9) WALL MOUNTED BUILDING SIGN, SEE SHEET A200. (10) STANDING SEAM METAL ROOF, COLOR: BRITE RED
- (11) ROOF EQUIPMENT SCREEN, COLOR: DARK BRONZE
- (12) GUTTER, COLOR TO MATCH CUPOLA COLOR
- (13) DOWNSPOUT, COLOR: DARK BRONZE
- 14) DRIVE-THRU WINDOW (IF APPLICABLE)
- METAL STANDING SEAM SHED STYLE AWNING AND FRAME ASSEMBLY. ROOF COLOR: BRITE RED, FRAME COLOR: DARK BRONZE
- BRICK SOLDIER COURSE, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE MASONRY SPEC
- BRICK ROWLOCK COURSE, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE MASONRY SPEC
- (18) CONTROL JOINT, SEE MASONRY SPEC
- (19) STEEL ROOF LADDER AND CRANKY POST, COLOR: DARK BRONZE
- STANDARD THROUGH WALL SCUPPER WITH CONDUCTOR HEAD & DOWNSPOUT, COLOR: DARK BRONZE
- (21) OVERFLOW SCUPPER
- (22) ALUMINUM STOREFRONT SYSTEM, SEE A600
- (23) EXTERIOR HOSE BIB, REFER TO PLUMBING DRAWINGS
- (24) OUTDOOR FURNITURE
- (25) ELECTRICAL RECEPTACLE, REFER TO ELECTRICAL DRAWINGS
- (26) ELECTRICAL EQUIPMENT, REFER TO ELECTRICAL DRAWINGS
- (27) HM DOOR AND FRAME, COLOR: DARK BRONZE
- (28) EMERGENCY WATER CONNECTION, REFER TO PLUMBING DRAWINGS
- $\ensuremath{\bigcirc}\xspace^{\ensuremath{\bigcirc}\xspace}$ SEAMLESS ALUM PANEL SYSTEM WITH EXPOSED FASTENERS, COLOR: DARK BRONZE
- (30) PROPANE LOCKER
- (31) ICE MERCHANDISER
- (32) RTI FILLPORT
- (33) STEEL BOLLARD, COLOR: DARK BRONZE
- (34) CO2 FILLPORT
- (35) DECORATIVE ALUMINUM FENCE, COLOR DARK BRONZE
- AUTOMATIC DOOR PUSH PLATE AND BOLLARD, BOLLARD COLOR: DARK BRONZE
- GAS METER AND RISER, REFER TO CIVIL UTILITY PLAN, COLOR: DARK BRONZE
- (38) MTO GRAPHIC DECAL, SEE SHEET A200.
- LIGHT CHANNEL AT PARAPET COPING. SEE ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.





A WALL MOUNTED "SHEETZ" BUILDING SIGN
1/2" = 1'-0"



PROJECTS 0" OFF FACE OF BUILDING

B WALL MOUNTED "MTO" DECAL

Convenience Architecture and *Design* P.C. 351 Sheetz Way, Claysburg, PA 16625 (814) 239-6013 phone email tcolumbu@sheetz.com web site www.sheetz.com PROJECT NAME: NEW SHEETZ STORE

FARMINGTON HILLS GRAND RIVER AVE

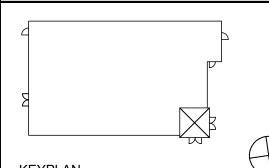
Int. of Grand River Avenue and Middlebelt Road Farmington Hills, MI 48336

OWNER: SHEETZ, INC.

5700 SIXTH AVE. ALTOONA, PA 16602

CONSULTANT

PROFESSIONAL



KEYPLAN

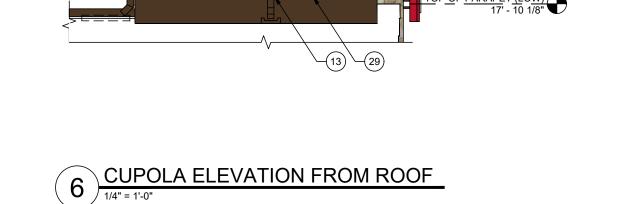
07.29.2024 ISSUE: SITE ID NO: 214652 AUTHOR BY: **RJK** REVIEW BY: RJH VERSION: 6132R_v1.6

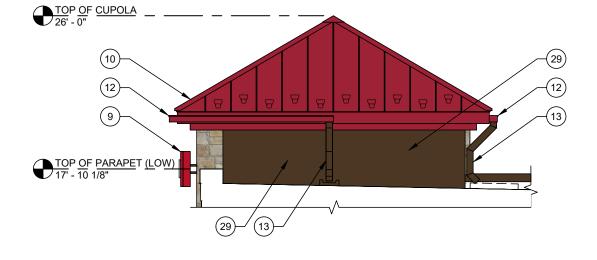
> **EXTERIOR ELEVATIONS**

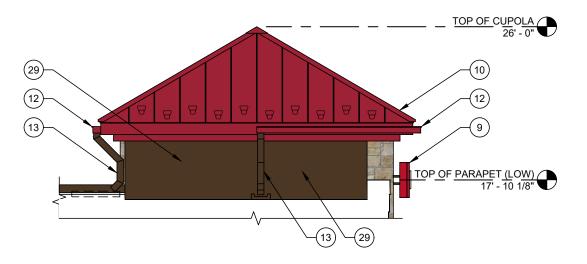
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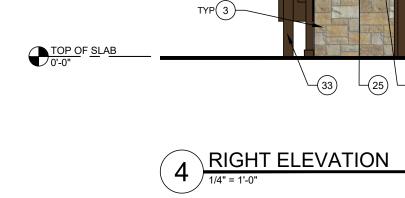
A300

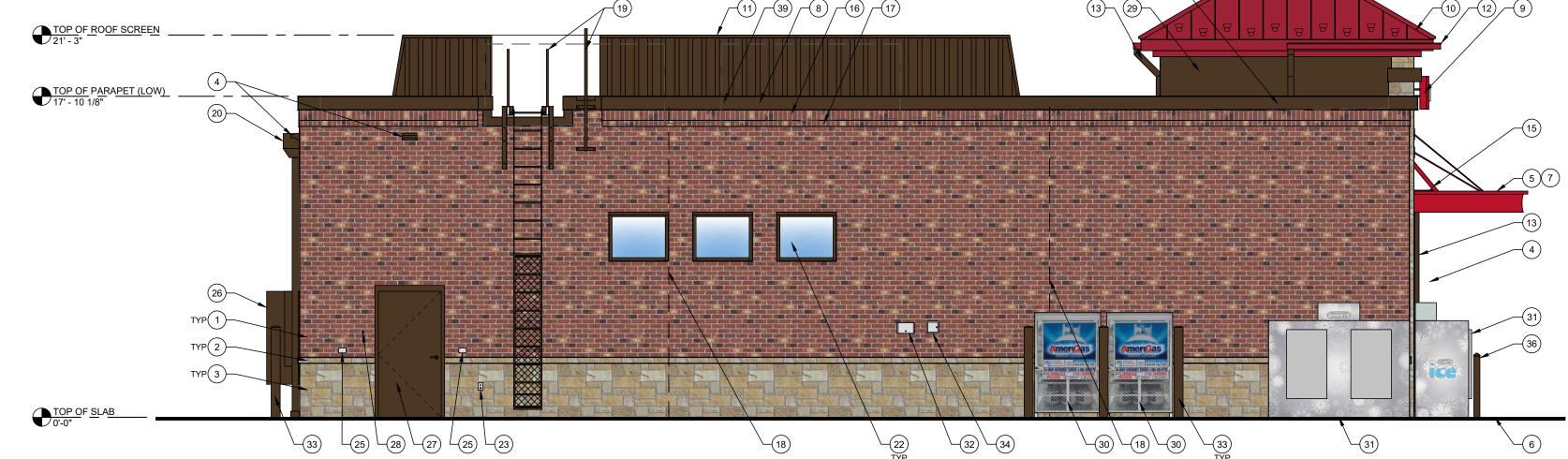


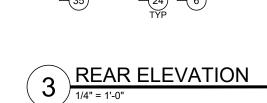












TYPICAL EXTERIOR ELEVATION NOTES:

AND SHALL MATCH THE COLOR OF THE STORE.

7 LIGHTED CURVED FASCIA CANOPY ATTACHMENT

(9) WALL MOUNTED BUILDING SIGN, SEE SHEET A200.

(10) STANDING SEAM METAL ROOF, COLOR: BRITE RED

(11) ROOF EQUIPMENT SCREEN, COLOR: DARK BRONZE

ROOF COLOR: BRITE RED, FRAME COLOR: DARK BRONZE BRICK SOLDIER COURSE, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE MASONRY SPEC

BRICK ROWLOCK COURSE, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE MASONRY SPEC

(19) STEEL ROOF LADDER AND CRANKY POST, COLOR: DARK BRONZE

STANDARD THROUGH WALL SCUPPER WITH CONDUCTOR HEAD & DOWNSPOUT, COLOR: DARK BRONZE

(12) GUTTER, COLOR TO MATCH CUPOLA COLOR

(13) DOWNSPOUT, COLOR: DARK BRONZE

(14) DRIVE-THRU WINDOW (IF APPLICABLE)

(18) CONTROL JOINT, SEE MASONRY SPEC

(22) ALUMINUM STOREFRONT SYSTEM, SEE A600

(27) HM DOOR AND FRAME, COLOR: DARK BRONZE

(33) STEEL BOLLARD, COLOR: DARK BRONZE

(38) MTO GRAPHIC DECAL, SEE SHEET A200.

(35) DECORATIVE ALUMINUM FENCE, COLOR DARK BRONZE

AUTOMATIC DOOR PUSH PLATE AND BOLLARD, BOLLARD COLOR: DARK BRONZE

LIGHT CHANNEL AT PARAPET COPING. SEE ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.

GAS METER AND RISER, REFER TO CIVIL UTILITY PLAN, COLOR: DARK BRONZE

(23) EXTERIOR HOSE BIB, REFER TO PLUMBING DRAWINGS

(25) ELECTRICAL RECEPTACLE, REFER TO ELECTRICAL DRAWINGS

(26) ELECTRICAL EQUIPMENT, REFER TO ELECTRICAL DRAWINGS

(28) EMERGENCY WATER CONNECTION, REFER TO PLUMBING DRAWINGS

SEAMLESS ALUM PANEL SYSTEM WITH EXPOSED FASTENERS, COLOR: DARK BRONZE

(21) OVERFLOW SCUPPER

(24) OUTDOOR FURNITURE

(30) PROPANE LOCKER

(31) ICE MERCHANDISER

(32) RTI FILLPORT

(34) CO2 FILLPORT

(8) METAL COPING, COLOR: DARK BRONZE

EXTERIOR ELEVATION KEYNOTES:

CENTERED EQUALLY.

3 SEE MASONRY SPEC

(6) BRICK PAVER WALKWAY

5 KYNAR FINISH

 ALL LIGHTS SHOWN ABOVE AND/OR BELOW DOORS OR WINDOWS ARE TO BE CENTERED ON THE DOOR OR WINDOW UNLESS NOTED

FIXTURES/EQUIPMENT BETWEEN TWO DOORS OR WINDOWS ARE TO BE

• EXTERIOR SEALANT FOR STONE SHALL COMPLY WITH SECTION 07 9005 JOINT SEALANTS, GENERAL BUILDING FASCADE WEATHER SEALANT

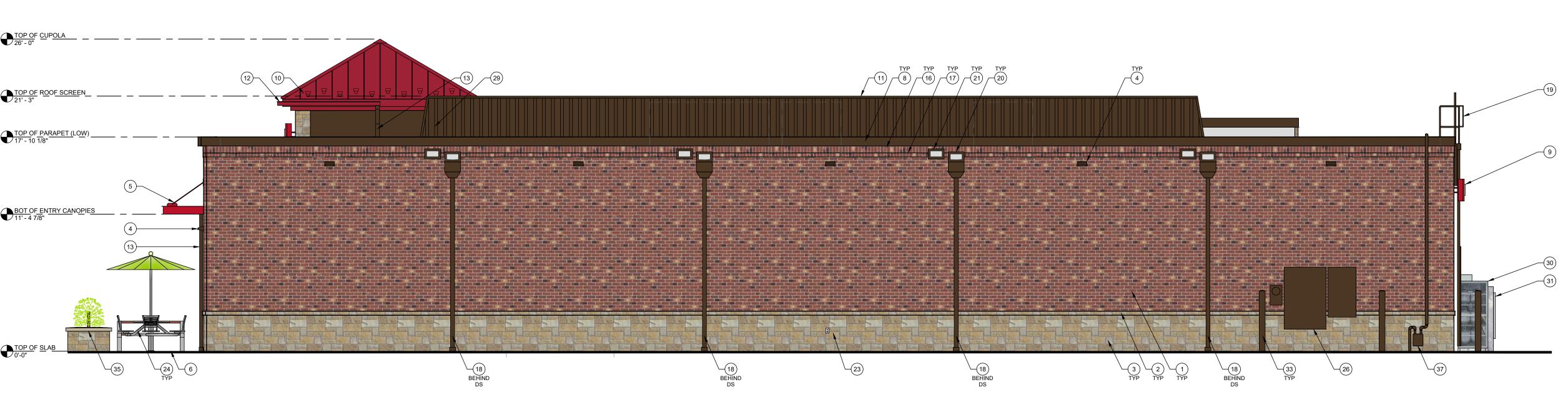
BRICK VENEER, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE

ANCHORED CAST STONE MASONRY VENEER, COLOR: CRAB ORCHARD.

ARCHITECTURAL CANOPY, COLOR: REGAL RED, PREMIUM TWO-COAT

(2) CAST STONE SILL, COLOR: CRAB ORCHARD. SEE MASONRY SPEC

4 EXTERIOR LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS



web site www.sheetz.com PROJECT NAME: **NEW SHEETZ STORE** FARMINGTON HILLS GRAND RIVER AVE Int. of Grand River Avenue and Middlebelt Road Farmington Hills, MI 48336 OWNER: SHEETZ, INC. 5700 SIXTH AVE. ALTOONA, PA 16602 CONSULTANT PROFESSIONAL KEYPLAN 07.29.2024 ISSUE: SITE ID NO: 214652 AUTHOR BY: **RJK** REVIEW BY: RJH VERSION: 6132R_v1.6 PRELIMIN **EXTERIOR ELEVATIONS**

A301

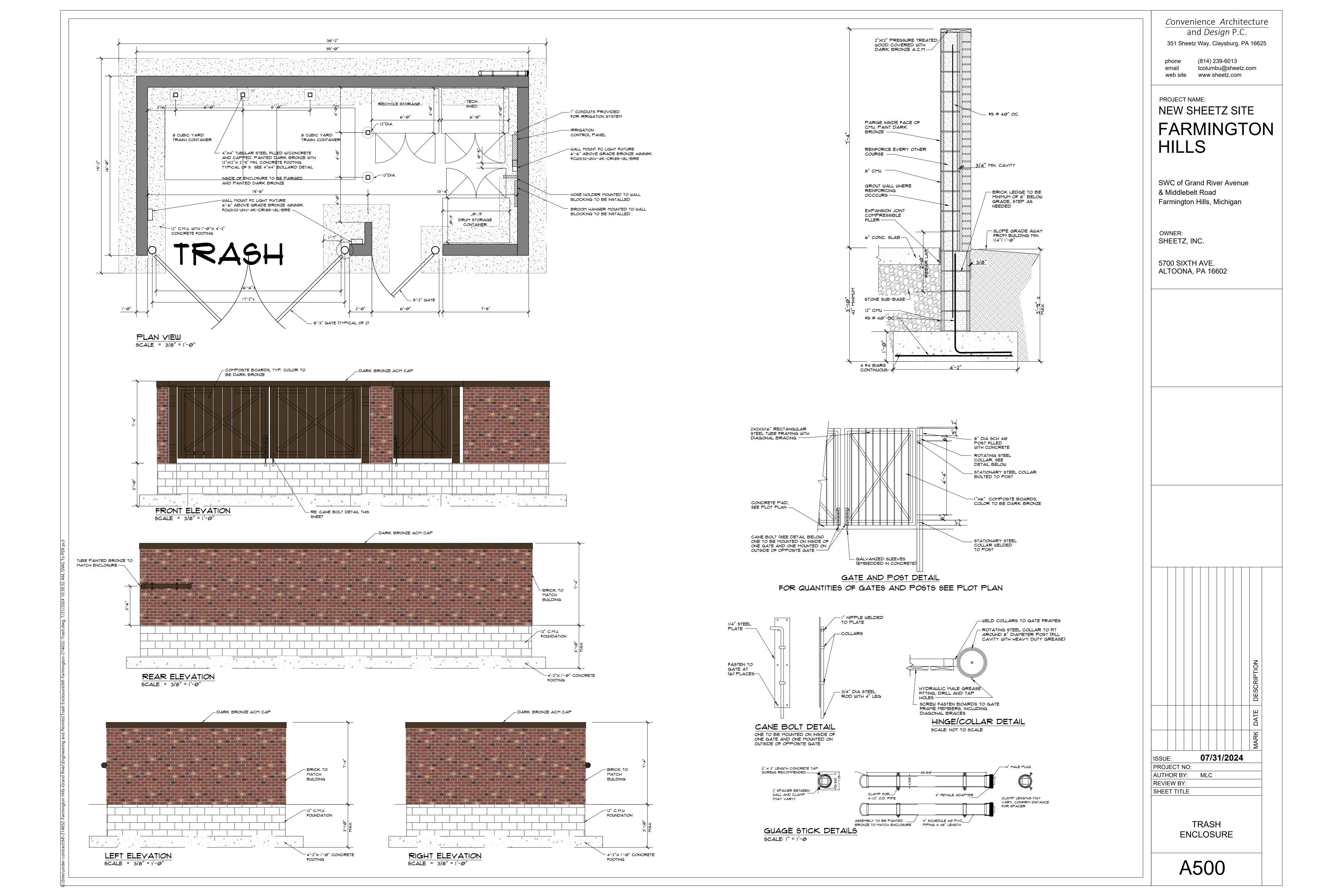
Convenience Architecture and *Design* P.C. 351 Sheetz Way, Claysburg, PA 16625

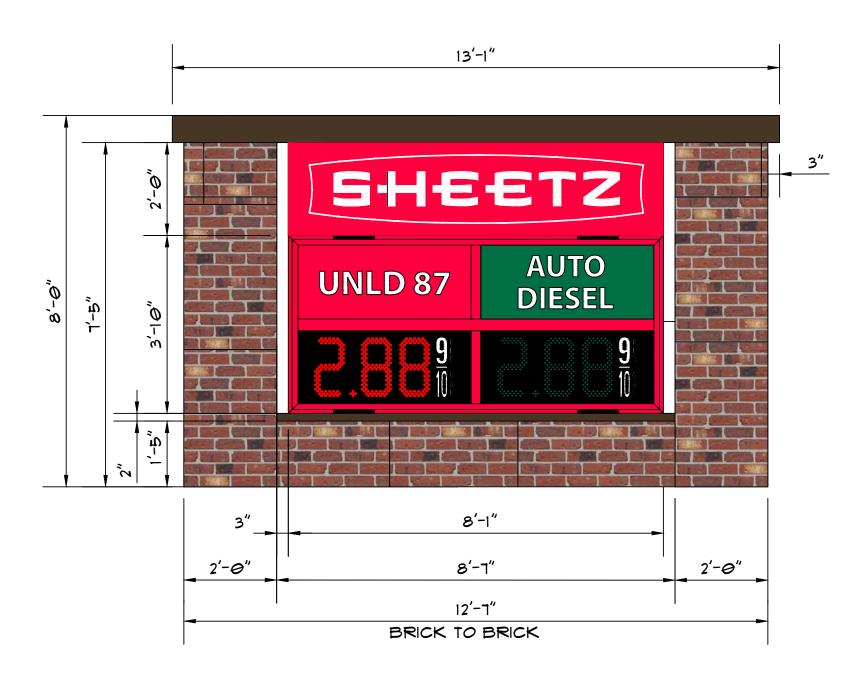
(814) 239-6013

tcolumbu@sheetz.com

phone email

G:\Sites\under-contract\MI-214652-Farmington Hills-Grand River\Signage\MI-Farmington-214652-23-ft Awning.dwg, 8/1/2024 9:32:02 AM, DWG

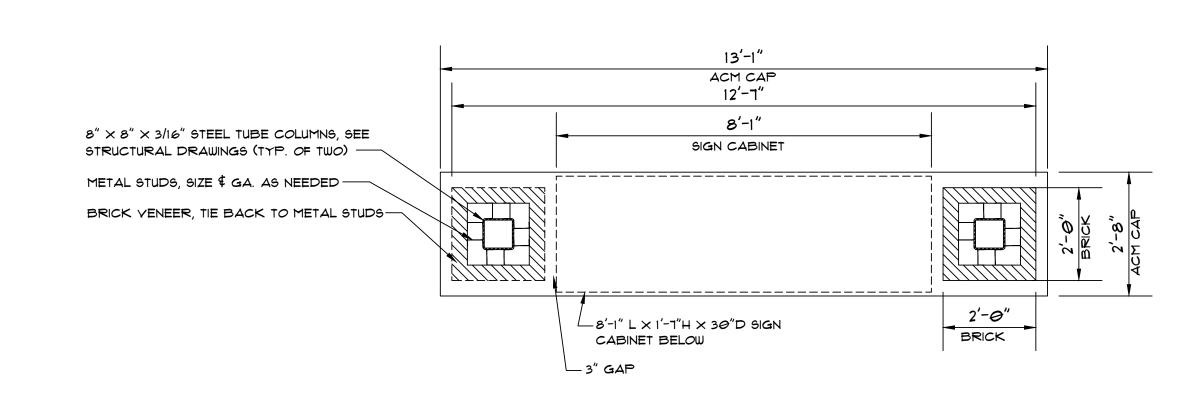




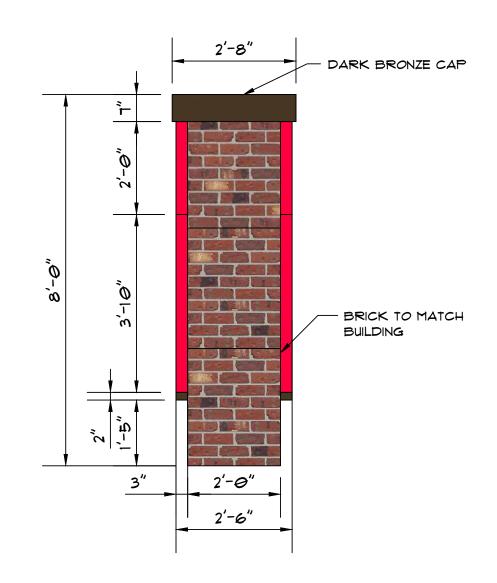
GAS PRICE SIGN DETAIL - PARTIAL ELEVATION

9CALE: 1/2" = 1'-0"

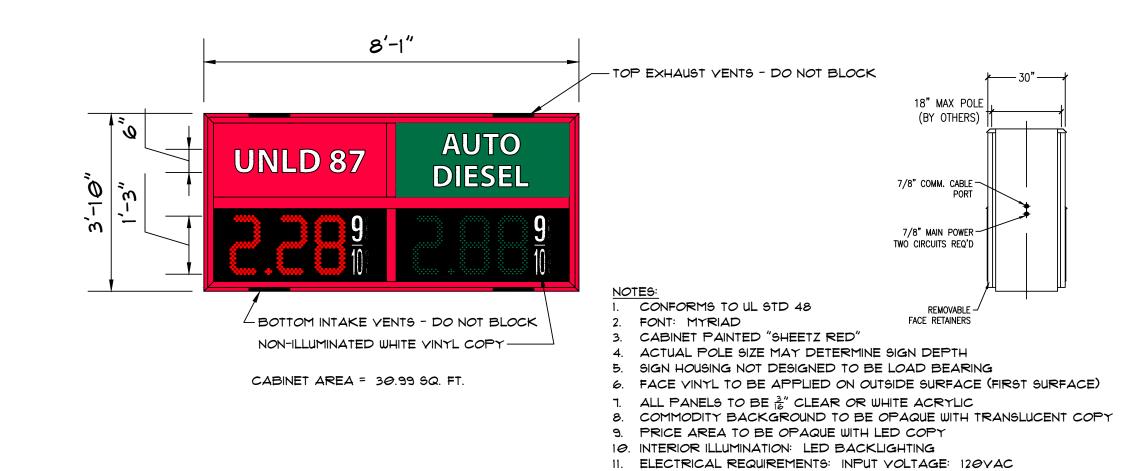
AREA: 41.16 9Q. FT.

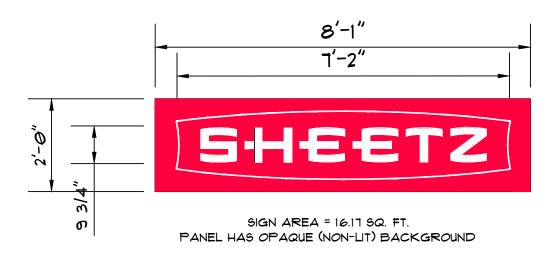


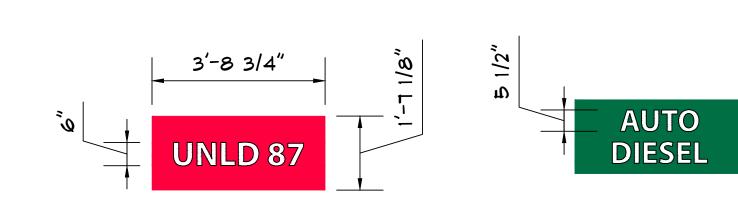
PLAN VIEW 9CALE: 1/2"=1'-0"



MONUMENT SIGN SIDE ELEVATION SCALE: 1/2"=1'-0"







CONTROL 24/7: 3 AMPS

TYPICAL OF TWO

Convenience Architecture and Design P.C.
351 Sheetz Way, Claysburg, PA 16625

phone (814) 239-6013 email tcolumbu@sheetz.com web site www.sheetz.com

PROJECT NAME:

FARMINGTON HILLS

NEW SHEETZ SITE

SWC of Grand River Avenue & Middlebelt Road Farmington Hills, Michigan

OWNER: SHEETZ, INC.

OTTEETZ, IIVO

5700 SIXTH AVE. ALTOONA, PA 16602

CONSULTANT

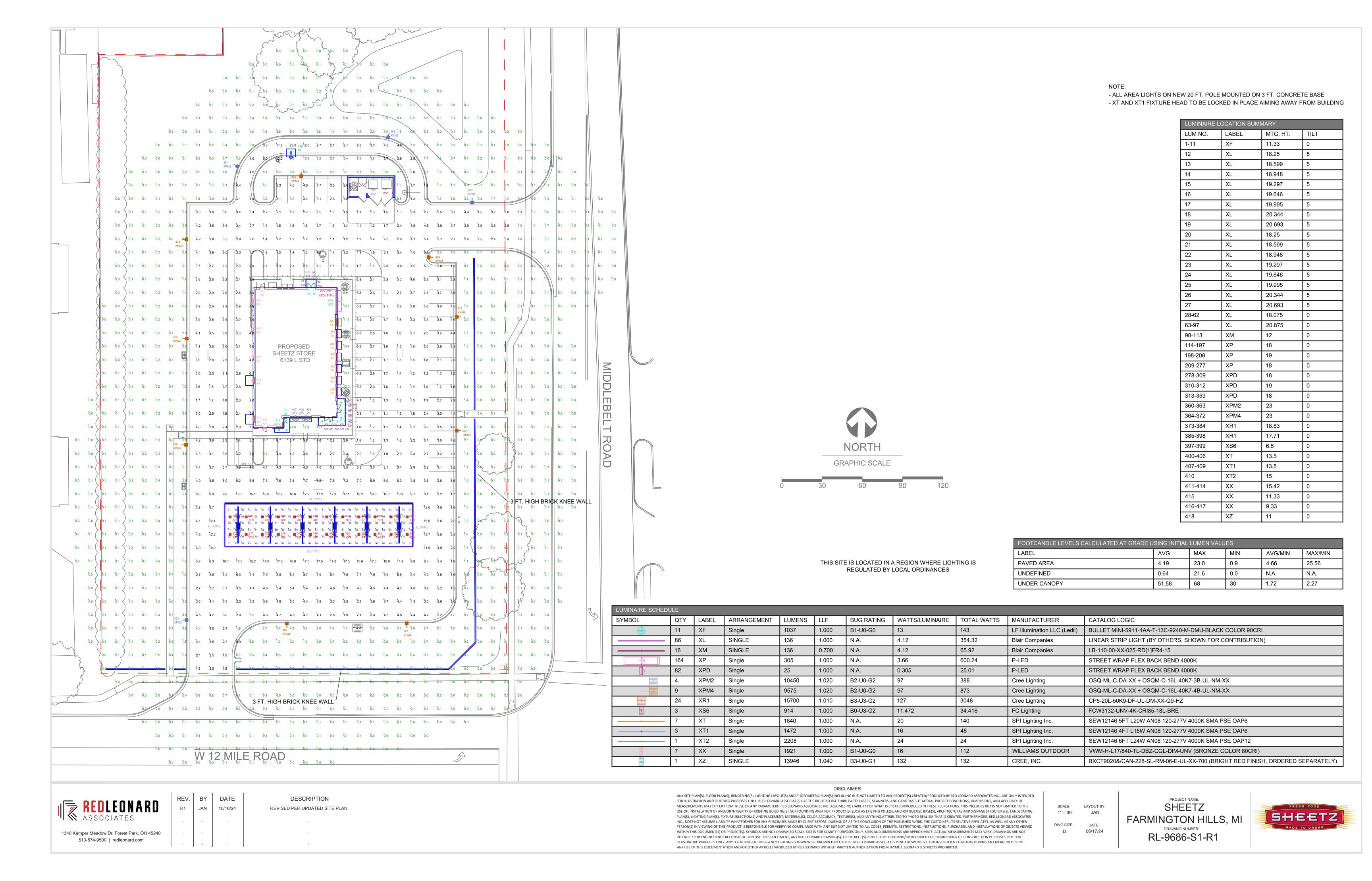
PROFESSIONAL

KEYPLAN

ISSUE: 07/31/2024
PROJECT NO:
AUTHOR BY: MLC
REVIEW BY:
SHEET TITLE

MONUMENT SIGN DETAILS

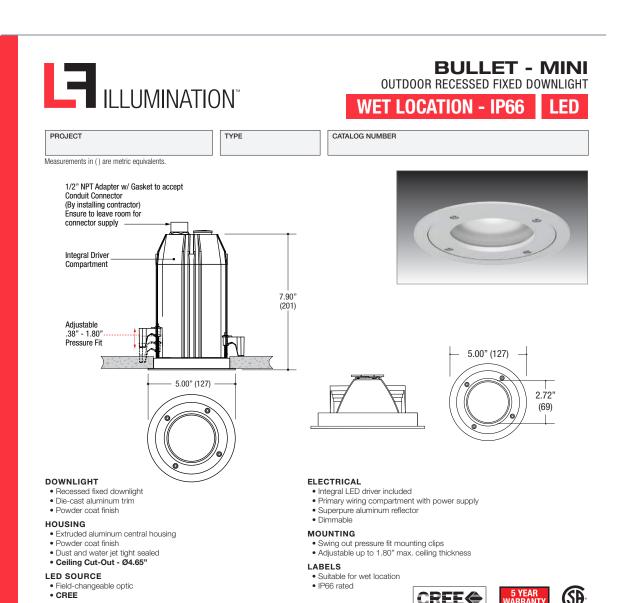
A600



QTY LABEL DESCRIPTION 24 XR1 CP5-20L-50K9-DF-UL-DM-XX-Q9-HZ

QTY LABEL DESCRIPTION WALL MOUNTED 3 XS6 FCW3132-UNV-4K-CRI85-18L-BRE





8030 80CRI / 3000K M Medium 36° 8040 80CRI / 4000K W Wide 46° 9227 92CRI / 2700K 9230 92CRI / 3500K 9235 92CRI / 3500K 9236 92CRI / 3500K

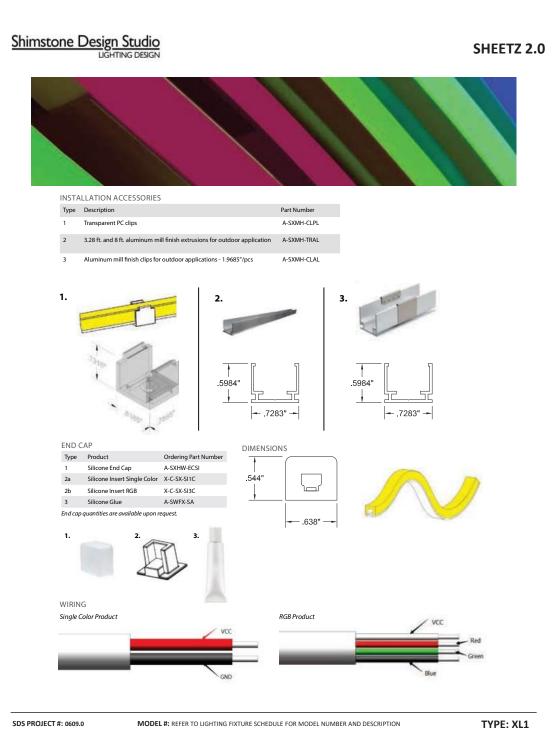
Chatsworth CA 91311

(120-277V)

Fax: 818-576-1335

www.lfillumination.com



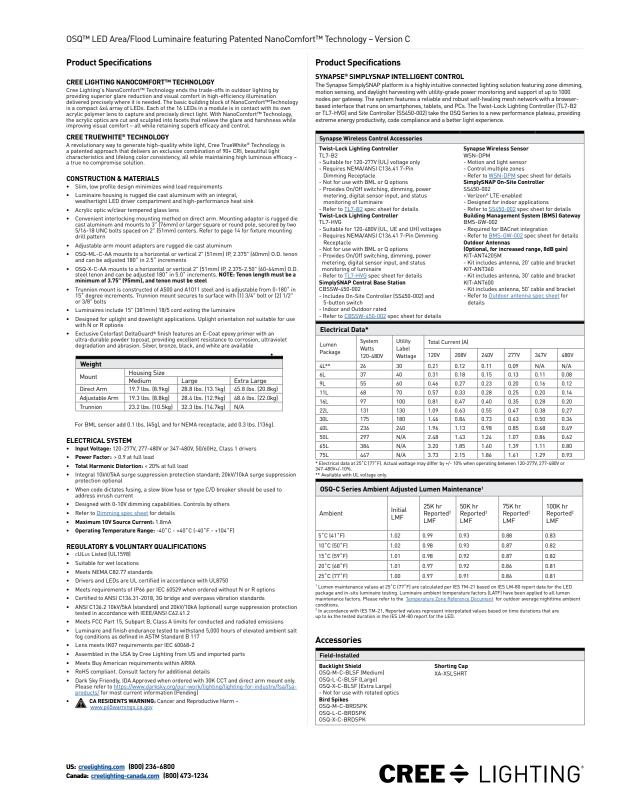


Shimstone Design Studio LLC, 7400 1st Avenue, North Bergen, NJ 07047, Tel: 201.861.5390



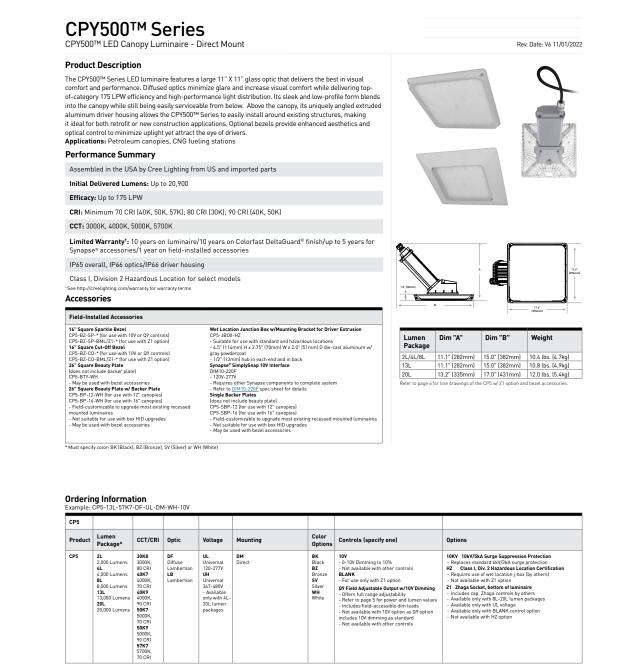
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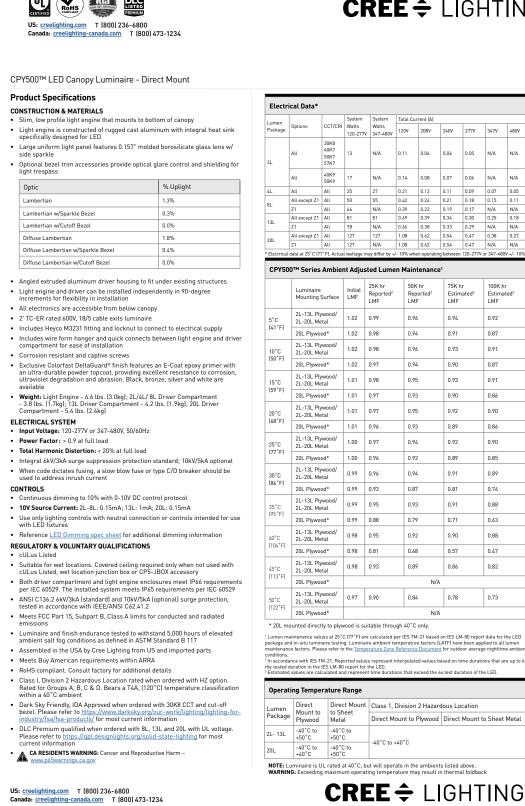
CREE \$\DECEMBerrian{\text{CREE}}{\text{creation}} \text{LIGHTING}^*







CREE \$\Dightarrow\$ LIGHTING



		Date:		Approved:
		Туре:		
	INIC .	Fixture:		
OUTDOOR LIGHT	ING	Project:		
FCW3132		easy to install fixture wit design requirements of y	eyelid fixture is an 8 inch oval, IP¢ h an impact resistant lens and fact your building. The smallest eyelid o or line of products can be ceiling, v	e options to meet the val face fixture in the
SPECIFICATIONS				
PHYSICAL				
dimensions	5.1" H x 8.4" W x 2.2" D			
weight	1.5 lbs			
housing	Marine grade, corrosion resistant, heav socket screws	y gauge high pressure die-cast	aluminum; captive stainless steel tar	nper resistant hex hea
lens	Impact resistant, UV stabilized, opal, p	olycarbonate diffuser		
mounting	Masonry applications use four (4) 0.2	5" x 0.75" screws with lead an	chors (fasteners not included, j-box	by others)
ingress protection	IP65 Rated. Suitable for wet, damp or	dry location application, with e	xtruded silicone gasket to seal out o	ontaminants
finish	Six stage chemical iron phosphate co (ASTM B117) compliant with Florida /		er powder coat finish, 18 μm Min.,	5000hr salt spray test
PERFORMANCE				
color temperature	2700K 3000K	3500K	4000K	
lumen output	900 lm 1750 lm	'	'	
lifetime	> 70,000 hours / L70 or better			
color consistency	3 SDCM / standard: 85 CRI optiona	al: 90 CRI		
operating temperature	-13°F to 104°F (-25°C to 40°C)			
junction temperature	73°C @ T ^A 25°C			
warranty	5-Year limited warranty (refer to webs	site for details)		
ELECTRICAL				
input voltage	Universal 120 - 277 VAC optional: 3	47 VAC (remote only)		
power supply	Integral, class II, electronic high powe	r factor > 94% @ 120V		
certification	ETL/cETL Listed, CEC Title 24 JA8 cor	mpliant (only 90CRI complies), A	DA Compliant	
standards	UL 1598 / CSA C22.2 No. 250.0; UL 8	750 / CSA C22.2 No. 250.13 / I	ES LM-79 / LM-80	
power consumption	15W @ 120 - 277 VAC 11.5W @ 1	20 - 277 VAC		

	velopment and improvements, specifications are subject to change without notice. FC Lighting reserves the right to cl agreement to FC Lighting terms and conditions. FCC Series Cylinder Lights are engineered and produced in our Illinois	
US Commerc	al Lighting Manufacturer Since 1982	Specification Sheet
© FC Lighting	3609 Swenson Ave. ◆ St. Charles, IL ◆ 60174 fclighting.com 800.900.1730	AG-DM-061623

Product Specifications												-
ONSTRUCTION & MATERIALS		Electr	ical Data*									
Slim, low profile light engine that mounts t	bottom of canopy	Lumen		007/001	System	System	Total Cu	rrent (A)				_
Light engine is constructed of rugged cast specifically designed for LED	aluminum with integral heat sink	Package	Options	CCT/CRI	Watts 120-277V	Watts 347-480V	120V	208V	240V	277V	347V	48
Large uniform light panel features 0.157" r	nolded borosilicate glass lens w/			30K8 40K7								
side sparkle	ical alone control and chielding for	2L	All	50K7 57K7	13	N/A	0.11	0.06	0.06	0.05	N/A	N,
Optional bezel trim accessories provide op light trespass	ical glare control and shielding for		All	40K9	17	N/A	0.14	0.08	0.07	0.06	N/A	N
Optic	% Uplight	4L	All	50K9	25	27	0.14	0.08	0.07	0.06	0.07	0.
Lambertian	1.3%	8L	All except Z1	_	50	55	0.42	0.12	0.11	0.18	0.07	0.
Lambertian w/Sparkle Bezel	0.3%	8L	Z1	All	46 81	N/A 81	0.39	0.22	0.19	0.17	N/A 0.25	N,
Lambertian w/Cutoff Bezel	0.0%	13L	All except Z1	All	78	N/A	0.66	0.39	0.34	0.30	N/A	O.
Diffuse Lambertian	1.8%	20L	All except Z1	All	127	127	1.08	0.62	0.54	0.47	0.38	0.
Diffuse Lambertian w/Sparkle Bezel	0.4%		Z1	All	127	N/A	1.08	0.62	0.54	0.47	N/A	N
Diffuse Lambertian w/Cutoff Bezel	0.0%		data at 25°C (7							12U-277V	or 347-480	+/
	1	CPY50	0™ Series	Ambie	nt Adjust	ed Lume	n Main	tenance	1			
Angled extruded aluminum driver housing Light engine and driver can be installed ind ncrements for flexibility in installation	ependently in 90-degree		Luminaire Mounting		Initial	25K hr Reported ² LMF	50k Rep LM	oorted ²	75K h Estim		100K hr Estimat LMF	
All electronics are accessible from below of 2' TC-ER rated 600V, 18/5 cable exits lumin	**		2L-13L Pk		1.02	0.99	0.96	4	0.94		0.92	_
Includes Heyco M3231 fitting and locknut t		5°C (41°F)	2L-20L M	etal			_					_
Includes wire form hanger and quick conn	***		20L Plywo		1.02	0.98	0.94	4	0.91		0.87	_
compartment for ease of installation Corrosion resistant and captive screws		10°C	2L-13L Pt 2L-20L Me		1.02	0.98	0.9	6	0.93		0.91	
Exclusive Colorfast DeltaGuard® finish feat	(50°F)	20L Plywo		1.02	0.97	0.94	4	0.90		0.87		
an ultra-durable powder topcoat, providing		2L-13L Pt		4.04	0.00	-		0.00		0.04	_	
ultraviolet degradation and abrasion. Black, bronze, silver and white are available		15°C (59°F)	2L-20L M		1.01	0.98	0.9	5	0.93		0.91	
Weight: Light Engine - 6.6 lbs. (3.0kg); 2L/4L/8L Driver Compartment			20L Plywo	od*	1.01	0.97	0.93	3	0.90		0.86	
 - 3.8 lbs. (1.7kg); 13L Driver Compartment Compartment - 5.4 lbs. (2.4kg) 	- 4.2 lbs. [1.9kg]; 2UL Driver	20°C	2L-13L Pt		1.01	0.97	0.9	5	0.92		0.90	
ECTRICAL SYSTEM		(68°F)	20L Plywo		1.01	0.96	0.93	3	0.89		0.86	_
Input Voltage: 120-277V or 347-480V, 50/6	lHz		2L-13L Pk				_					_
Power Factor: > 0.9 at full load Total Harmonic Distortion: < 20% at full lo	ad	25°C	2L-20L M		1.00	0.97	0.94	4	0.92		0.90	
Integral 6kV/3kA surge suppression protect		(77°F)	20L Plywo	od*	1.00	0.96	0.93	2	0.89		0.85	
When code dictates fusing, a slow blow fus used to address inrush current		30°C	2L-13L Pt		0.99	0.96	0.94	4	0.91		0.89	
NTROLS		(86°F)	20L Plywo		0.99	0.93	0.8	7	0.81		0.76	_
Continuous dimming to 10% with 0-10V DC	control protocol		2L-13L Pk				_					_
10V Source Current: 2L-8L: 0.15mA; 13L:	mA; 20L: 0.15mA	35°C (95°F)	2L-20L M		0.99	0.95	0.93	3	0.91		0.88	
Jse only lighting controls with neutral con vith LED fixtures	nection or controls intended for use	[73 F]	20L Plywo	od*	0.99	0.88	0.79	9	0.71		0.63	_
eference <u>LED Dimming spec sheet</u> for ad	ditional dimming information	40°C	2L-13L Pt		0.98	0.95	0.93	2	0.90		0.88	
ULATORY & VOLUNTARY QUALIFICATIO	NS	(104°F)	20L Plywo		0.98	0.81	0.61	В	0.57		0.47	_
JLus Listed uitable for wet locations. Covered ceiling	required only when not used with		2L-13L Pk		0.98	0.93	0.8	0	0.86		0.82	_
ULus Listed, wet location junction box or		45°C (113°F)	2L-20L M	etal	0.76	0.73	0.8	7	0.86		0.62	_
oth driver compartment and light engine er IEC 60529. The installed system meets		(,13 1)	20L Plywo	od*				N/A				
NSI C136.2 6kV/3kA (standard) and 10kV/	5kA (optional) surge protection,	50°C	2L-13L Plywood/ 2L-20L Metal		0.97	0.90	0.84	0.84			0.73	
ested in accordance with IEEE/ANSI C62.4	1.2	(122°F)							_			
Meets FCC Part 15, Subpart B, Class A lim emissions	ts for conducted and radiated	* 201 m	ounted direc		unnd is sui	table throu	ah 4∩°∩					_
uminaire and finish endurance tested to v nbient salt fog conditions as defined in A	STM Standard B 117	¹ Lumen m package ar	aintenance val nd in-situ lumir	ues at 25° naire testir	C (77°F) are g. Luminair	calculated p	er IES TN mperatur	4-21 based re factors (L	ATF) have	e been ap	plied to all	lum
Assembled in the USA by Cree Lighting fro		conditions.										
feets Buy American requirements within a toHS compliant. Consult factory for addition		the tested	ance with IES 1 duration in the	IES LM-80	report for t	he LED.						2 U
lass I, Division 2 Hazardous Location rate		3 Estimated	d values are ca	lculated ar	id represent	time duration	ns that e	xceed the 6	x test dur	ation of th	ne LED.	_
ated for Groups A, B, C & D. Bears a T4A, thin a 40° C ambient		Opera	ting Tempe	erature	Range							
k Sky Friendly, IDA Approved when orde		Lumen	Direct		t Mount	Class 1, I	Division	2 Hazaro	dous Lo	cation		Ī
el. Please refer to <u>https://www.darksky</u> ustry/fsa/fsa-products/ for most curren	org/our-work/lighting/lighting-for- t information	Package	Mount to Plywood	to Sh Meta		Direct Mo	ount to	Plywood	Direct	Mount	to Sheet	Μe
Premium qualified when ordered with use refer to https://gpl.designlights.org	8L, 13L and 20L with UL voltage.	2L- 13L	-40°C to +50°C	-40°0 +50°	C to							_

 Lumen Package
 Direct Mount to Plywood
 Class 1, Division 2 Hazardous Location

 2L- 13L
 -40°C to +50°C
 -40°C to +50°C

 2L. 13L
 -40°C to +40°C to +40°C to +40°C to +40°C

US: creelighting.com T (800) 236-6800 Canada: creelighting-canada.com T (800) 473-1234

CA RESIDENTS WARNING: Cancer and Reproductive Harm -

CREE \$\DECEMBerrian{\text{CREE}}{\text{creation}} \text{LIGHTING}^*



ORDERING INFO

5911-1AA-T

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We reserve the right to change or

withdraw specifications without prior notice.

BULLET MINI

13C 13W LED 1050lm 19C 19W LED 1420lm

80CRI / 3000K Narrow Beam

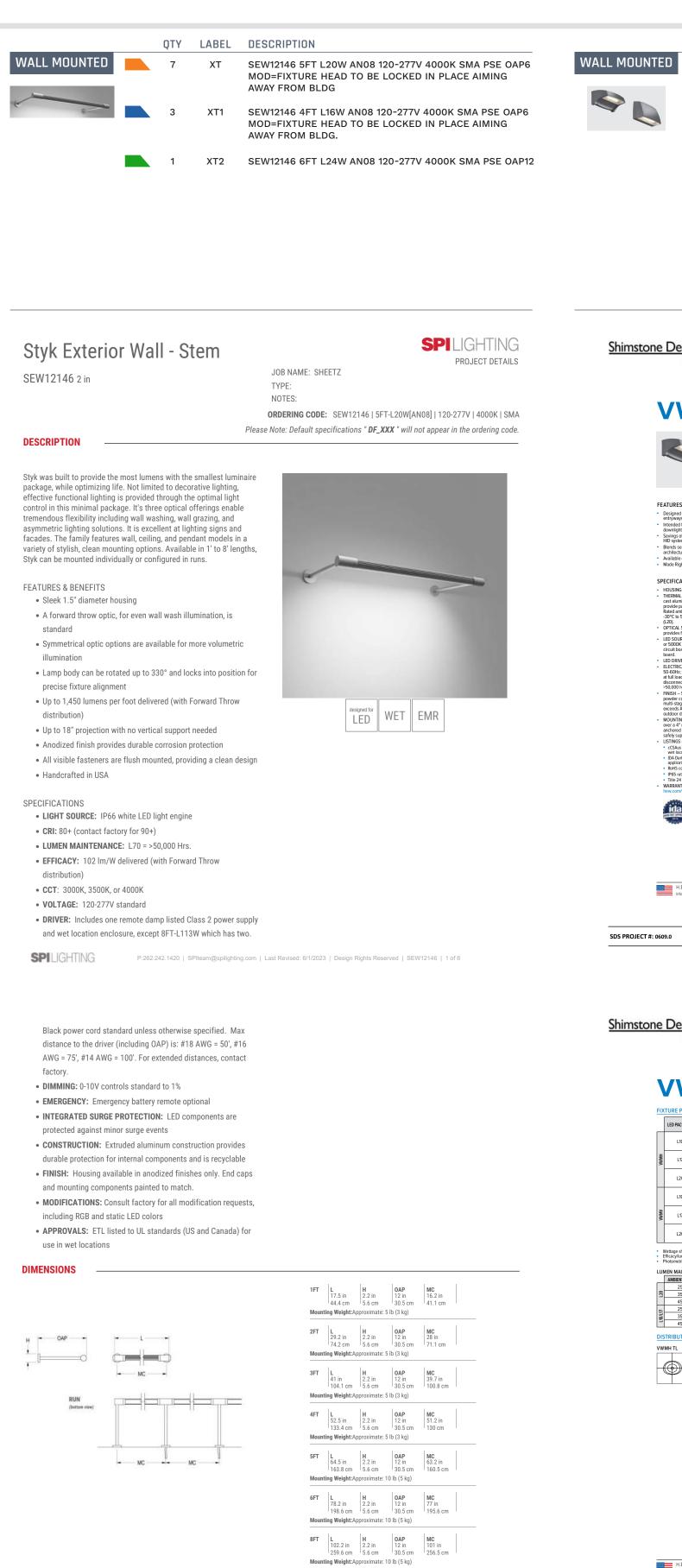
Ordering Example: 5911-1AA-T-19C-8030-N-DMU-SS

Delivered lumens @ 9240 92CRI / 4000K

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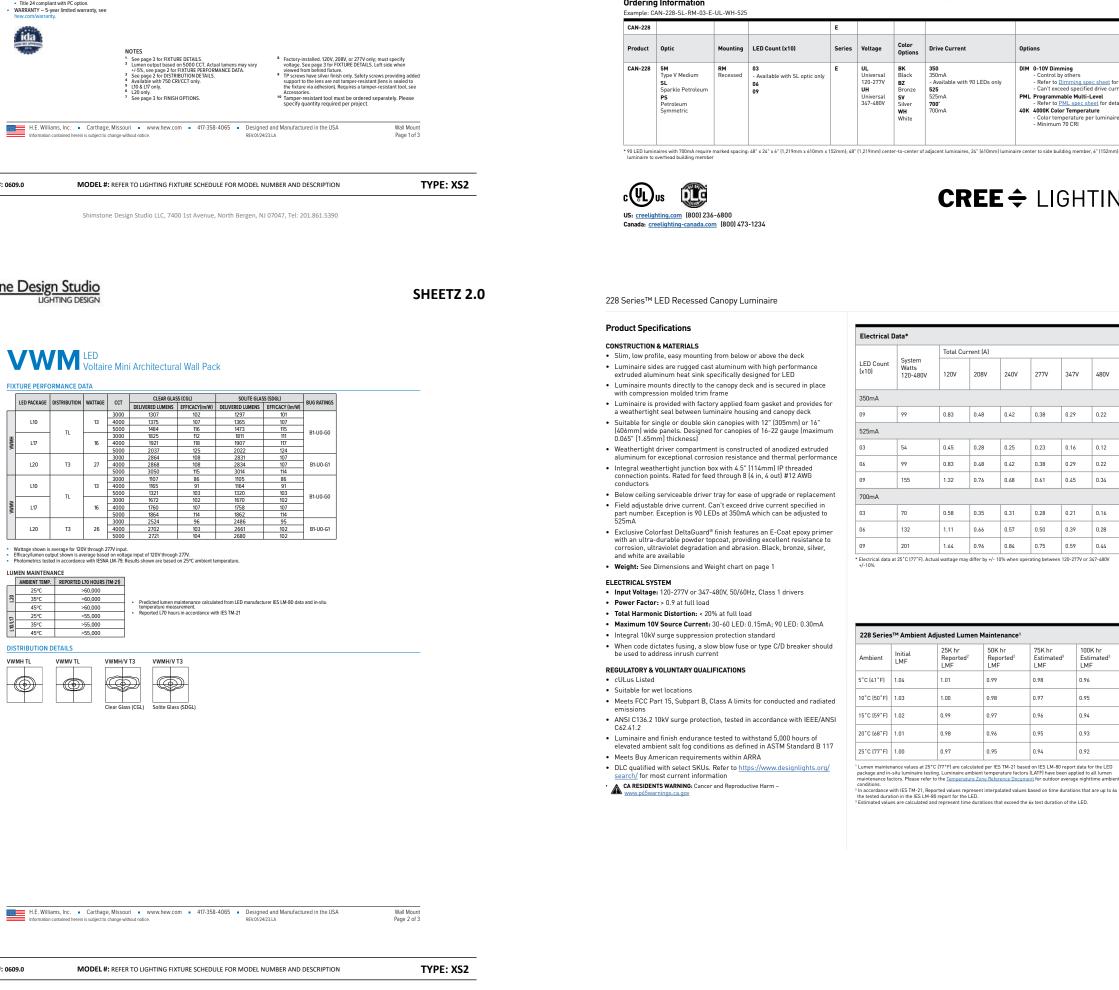


SDS PROJECT #: 0609.0

Shimstone Design Studio LLC, 7400 1st Avenue, North Bergen, NJ 07047, Tel: 201.861.5390

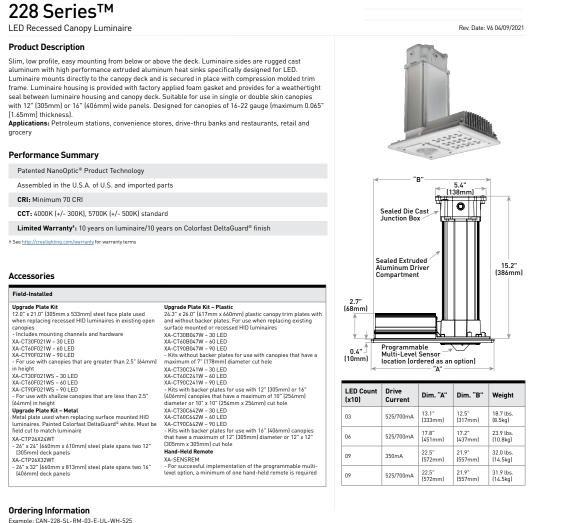
QTY LABEL DESCRIPTION

7 XX VWM-H-L17/840-TL-DBZ-CGL-DIM-UNV (BRONZE COLOR 80CRI)



ADDITIONAL FIXTURE INFO

CANOPY



QTY LABEL DESCRIPTION

1 XZ BXCT9020&/CAN-228-SL-RM-06-E-UL-XX-700

(BRIGHT RED FINISH, ORDERED SEPARATELY)

-228				E				
uct	Optic	Mounting	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options
-228	5M Type V Medium SL Sparkle Petroleum PS Petroleum Symmetric	RM Recessed	03 - Available with SL optic only 06 09	Е	UL Universal 120-277V UH Universal 347-480V	BK Black BZ Bronze SV Silver WH White	350 350mA - Available with 90 LEDs only 525 SZSmA 700° 700mA	DIM 0-10V Dimming Control by others Refer to <u>Dimming spec sheet</u> for details Refer to <u>Dimming spec sheet</u> for details Can't exceed specified drive current PMI. Programmable Multi-Level Refer to <u>PMI. spec sheet</u> for details 40X 4000X Cool Temperature Color temperature per luminaire Minimum 70 CRI
	aires with 700mA require i werhead building member		: 48" x 24" x 6" (1,219mm x 610mm x 1	52mm); 48"	(1,219mm) cente	er-to-center of	adjacent luminaires, 24" (610mm) lumina	ire center to side building member, 6" (152mm) top of

CREE \$\(\dig\) LIGHTING

06	132	1.11	0.66	0.57	0.50	0.39	0.28
09	201	1.64	0.96	0.84	0.75	0.59	0.44
228 Series	s™ Ambient Adj	usted Lum	en Mainte	nance ¹			
228 Series	a™ Ambient Adj Initial LMF	justed Lumo 25K hr Reported ² LMF	50K	hr orted ²	75K hr Estimated LMF	1 ³ E	100K hr Estimate LMF
	Initial	25K hr Reported ²	50K Repo	hr orted ²	Estimated	f ³ E	Estimate
Ambient	Initial LMF	25K hr Reported ² LMF	50K Repo LMF	hr orted ²	Estimated LMF	1 ³ E	Estimate LMF

99 0.83 0.48 0.42 0.38 0.29 0.22

CREE \$\DECEMBerrian{\text{CREE}}{\text{creation}} \text{LIGHTING}^* US: creelighting.com (800) 236-6800

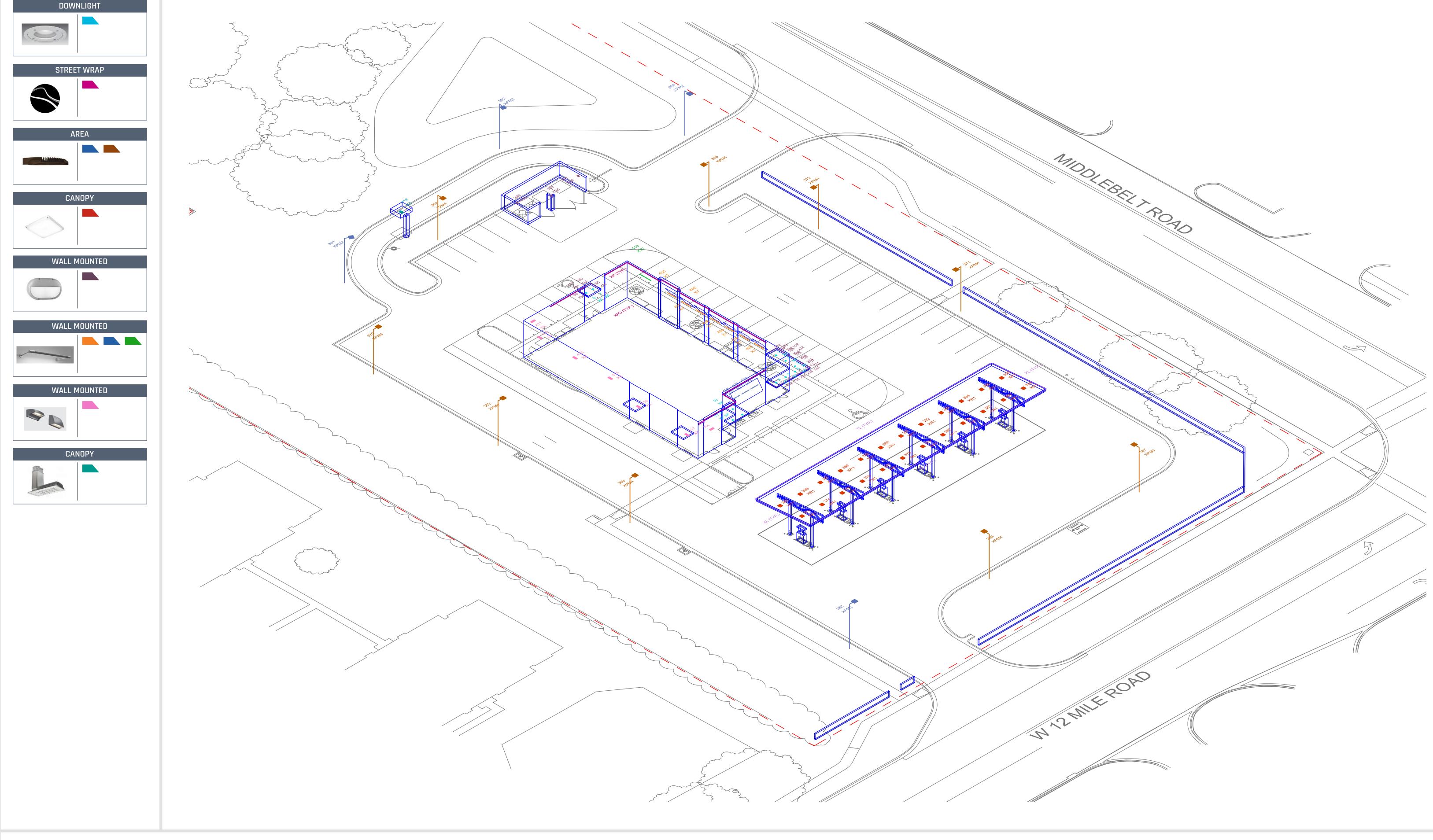


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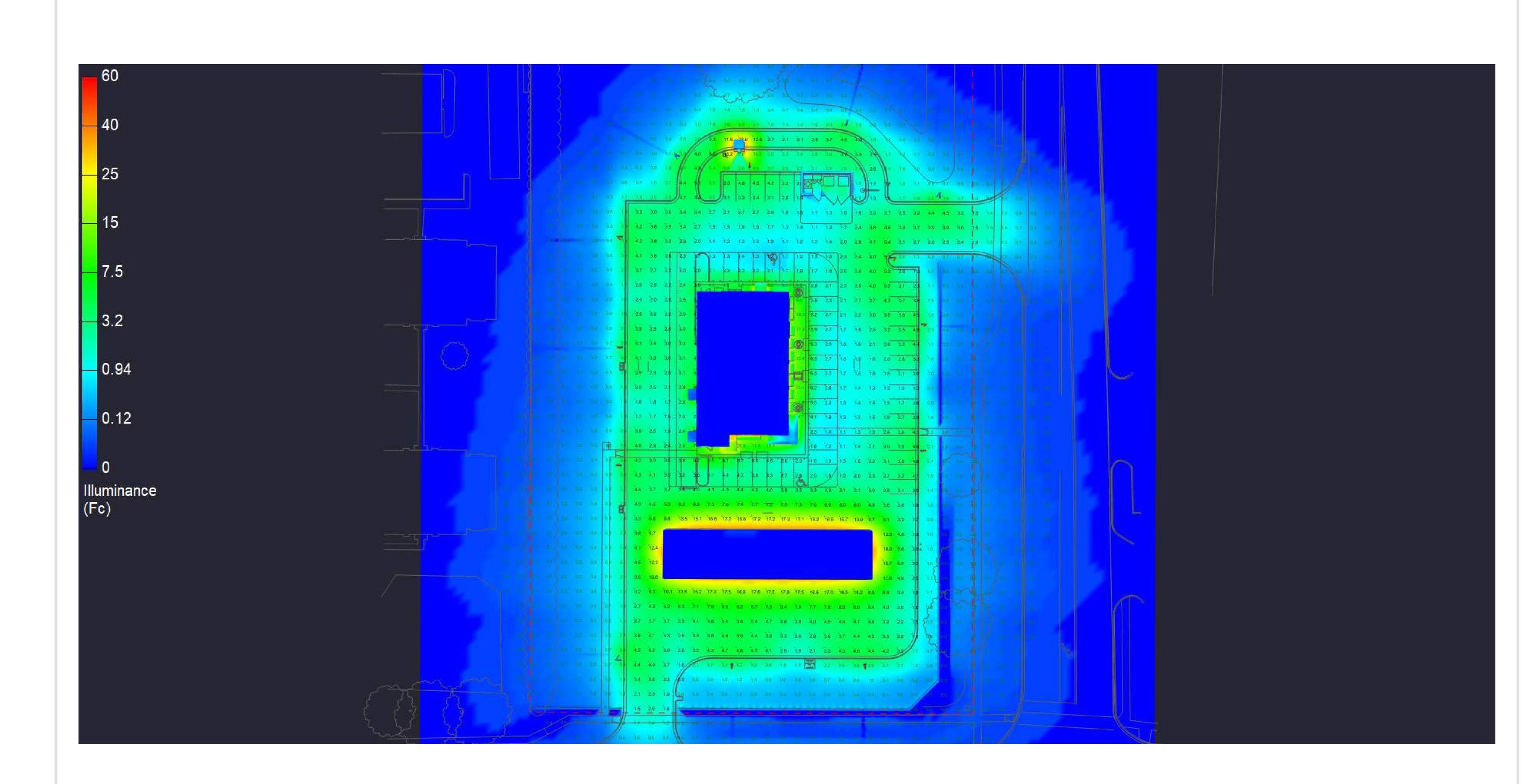




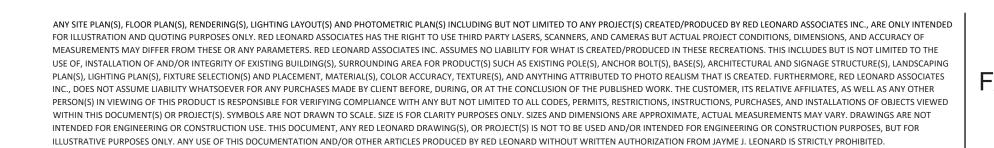
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FARMINGTON HILLS, MI
DRAWING NUMBER:
RL-9686-S1-R1



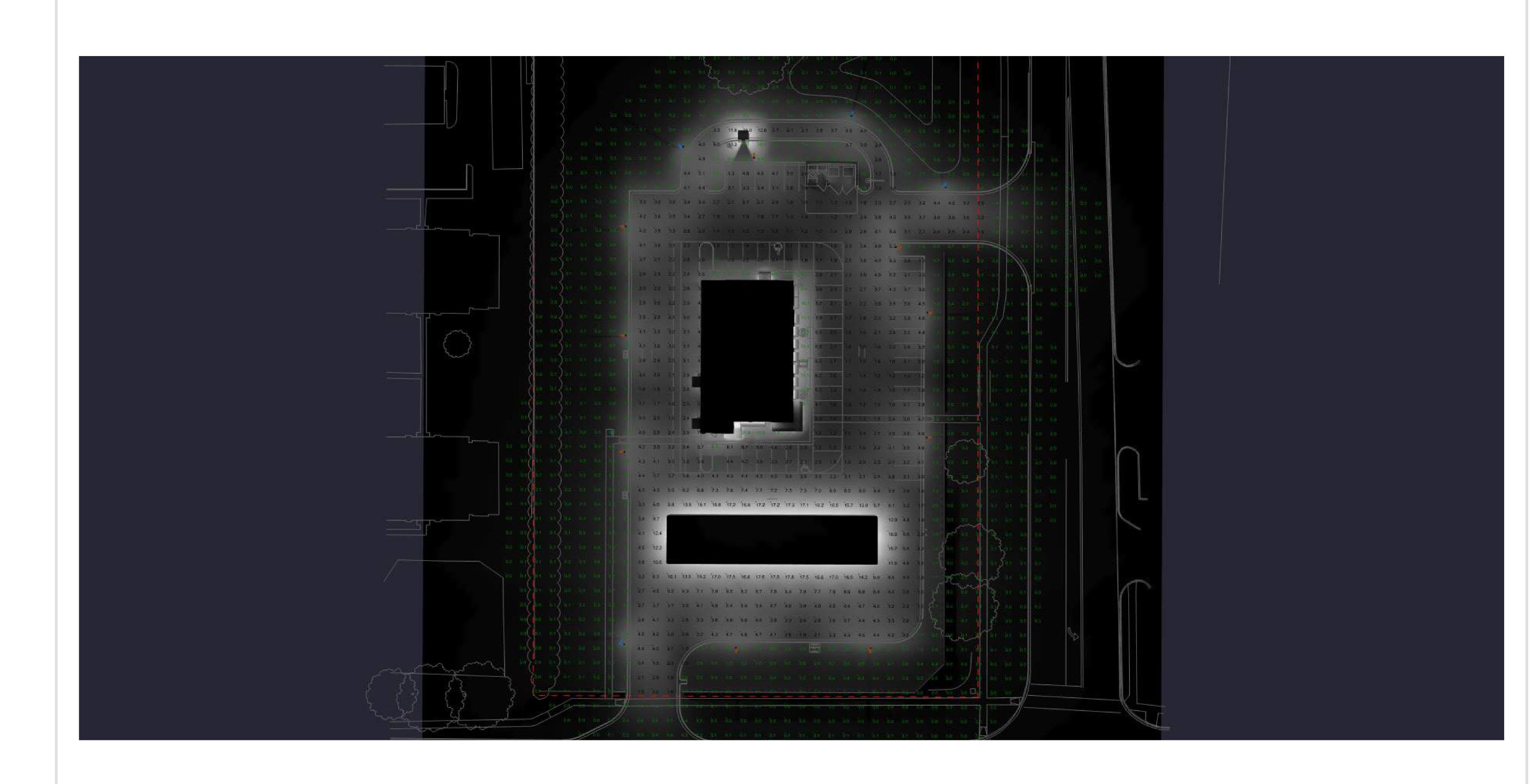




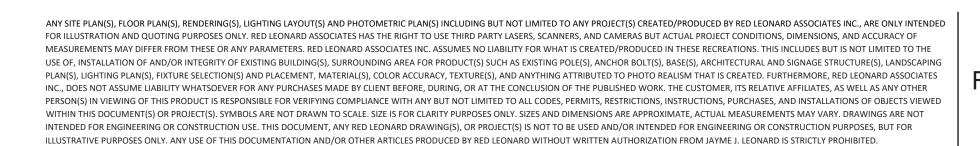
















CITY OF FARMINGTON HILLS PLANNING COMMISSION MEETING 31555 W ELEVEN MILE ROAD FARMINGTON HILLS, MICHIGAN NOVEMBER 21, 2024, 7:30 P.M.

CALL MEETING TO ORDER

The Planning Commission Regular Meeting was called to order by Chair Trafelet at 7:30 p.m.

ROLL CALL

Commissioners present: Aspinall, Brickner, Trafelet, Varga, Countegan

Commissioners Absent: Grant, Mantey, Ware, Stimson

Others Present: City Planner Perdonik, Planning Consultants Tangari and Upfal (Giffels

Webster), Engineering Division representative Natasha Sonck, City

Attorney Schultz

APPROVAL OF THE AGENDA

MOTION by Countegan, support by Aspinall, to approve the agenda as published. Motion passed unanimously by voice vote.

PUBLIC HEARING

A. <u>AMEND PLANNED UNIT DEVELOPMENT (PUD) 1, 2015</u>

LOCATION: 28050 Grand River Avenue

PARCEL I.D.: 22-23-36-404-010

PROPOSAL: Construction of freestanding and wall signs within B-3, General

Business District, and SP-2, Special Purpose District

ACTION REQUESTED: Recommendation to City Council APPLICANT: Signworks of Michigan, Inc.

OWNER: Robert Mount

Chair Trafelet introduced this request to amend PUD 1, 2015, Corewell Health Hospital.

Applicant Presentation

Claire McCready, Senior Project Manager, Signworks of Michigan, Inc., was present on behalf of this request to amend PUD 1, 2015. Ann Frass, Signworks owner, was also present, as was Derk Pronger, President, Corewell Health Farmington Hills.

As mentioned during the discussion on October 17th, the proposed signage is among the most critical in the City. The hospital is an essential institution, serving as the largest employer in Farmington Hills and one of the city's most significant sources of revenue.

Corewell is requesting approval for the following changes to the Planned Unit Development (PUD) Agreement:

1. Height Adjustment for the Main Entrance Monument Sign:

The applicant proposes replacing the existing monument sign, which is currently 10'8" tall and 7' wide, with a new sign measuring 12' tall and 6' wide, for a total of 72 square feet. This update would make the sign 1 foot narrower and 1 foot 4 inches taller than the current version. Both modifications will improve visibility for vehicular traffic.

2. Replacement of the Main Wall Sign:

The applicant also seeks approval to update the wall sign identifying the hospital on the building. The current sign, which reads "Beaumont," would be replaced with signage displaying "Corewell Health, Farmington Hills Hospital."

Ms. McCready noted that the existing locations for both signs are structurally sound and provide optimal visibility for vehicular traffic.

Consultant comments

Planning Consultant Tangari explained that the Corewell Health Hospital property is subject to PUD 1-2015, which requires any amendments to the Development Agreement—no matter how minor—to be treated as major amendments. Such amendments necessitate a public hearing process, with ultimate approval resting with the City Council. The focus of this amendment is solely on signage, with no other site modifications requested.

- For the monument sign, the applicant is requesting to modify the deviation that is permitted under the PUD Agreement, with a 1'4" increase in height from the currently approved deviation. This request is the sole reason for holding the public hearing tonight.
- For the wall sign on the ground floor south elevation, the size of the sign is being reduced from the current 73.33sf to 40.15sf. The PUD Agreement already permits the requested deviation of 15.15sf, as the new sign is smaller than the one it is replacing.

MOTION by Countegan, support by Aspinall, to RECOMMEND TO CITY COUNCIL that the application to amend Planned Unit Development 1, 2015, dated September 19, 2024, submitted by Signworks of Michigan, Inc., BE APPROVED, because the plans are consistent with the goals, objectives, and policies of the Master Plan and applicable provisions of the Planned Unit Development Option in Section 34-3.20 of the Zoning Ordinance.

Motion passed unanimously by voice vote.

B. PUD PLAN 2, 2024, INCLUDING SITE PLAN 56-8-2024

LOCATION: South side of Thirteen Mile Road, just west of Middlebelt Road PARCEL I.D.: 22-23-11-201-001, -002, -004, -005, -006, -020, and -021 PROPOSAL: Construction of multiple-family dwellings within RA-1, One

Family Residential District

ACTION REQUESTED: Recommendation to City Council

APPLICANT: Steven Schafer

OWNERS: Detroit Baptist Manor and MOBI Investments

City of Farmington Hills Planning Commission Meeting November 21, 2024 Page 3

Aaron and Steven Shafer, Shafer Development, were present on behalf of this application for a Planned Unit Development to construct multiple-family dwellings within RA-1, One Family Residential District.

Applicant presentation

Overview

Aaron Schafer gave an overview of this proposed development:

- The 12.04 acre site is located on the south side of 13 Mile between Middlebelt Road and Orchard Lake Road. The development site is directly east of the Baptist Manor facility. To the north is Westgate Subdivision, and to the south is Holly Hill Farms.
- The project is a planned unit development, with two different residential communities within a single PUD:
 - The Mulberry Way townhouse site (5.9 acres) will feature 40 two-story, for sale units, directly east of property owned by the Baptist Manor
 - The Tabernacle community will feature 36 one-story age-restricted rental ranch homes, on property owned by and directly adjacent to the Baptist Manor.

Timeline

- January 2024 the property was put under contract
- April 18, 2024 Applicant secured PUD qualification from the Planning Commission
- October 17, 2024 Applicant presented to the Planning Commission, who set a date for tonight's public hearing.

Community outreach

- February 2024 present. Met multiple times with both the Westgate and Holly Hill Farms Homeowners Associations.
 - February 2, 2024 Westgate HOA
 - February 6, 2024 Holly Hill Farms HOA
 - March 3, 2024 Westgate Annual HOA Neighborhood Meeting
 - March 26, 2024 Holly Hill Farms HOA
 - April 9, 2024 Holly Hill Farms Neighborhood Meeting
 - September 23, 2024 Westgate HOA
 - October 11, 2024 Holly Hill Farms HOA

Background work regarding the site

Since the April and October Planning Commission meetings, Schafer Development has completed the following:

- Assisted the Baptist Manor team in selecting an architect to design their ranch units
- Engaged with Civil Engineering Firm Nowak & Fraus to prepare the Site Plan/PUD Package
- Incorporated Giffels Webster, Engineering and Fire Department Review Letter(s) feedback into Site Plan/PUD Package
- Engaged with Wetlands Consultant ASTI and conducted on-site pre-application meeting with EGLE (Michigan Department of Environment, Great Lakes, and Energy) to verify no wetland permits are required for this project.

Special planning area – flex residential

- The site has been designated as a special planning area since the adoption of the 2009 Master Plan.
 - This designation recognizes that the thoroughfare frontage along 13 Mile Road, particularly between Orchard Lake and Middlebelt, is less desirable for single-family residential lots.
 - Homes in this area back directly onto 13 Mile Road, which experiences significantly higher traffic levels compared to nearby neighborhoods like Westgate and Holly Hill Farms, which are set farther back from the thoroughfare.
 - The special planning area designation encourages cluster development to preserve as much natural vegetation as possible.
- On the 2024 Future Land Use Map, the property is identified as "flex residential," which:
 - Supports creative redevelopment approaches for challenging sites.
 - Allows for a maximum building height of three stories.
 - Emphasizes the preservation of open space and natural buffers to adjacent established communities.
 - This project includes a substantial southern perimeter setback of approximately 60 to 70 feet from Holly Hill Farms, the adjacent development to the south.
 - The development prioritizes preserving as many existing trees as possible to maintain natural buffers and open space.

Site plan updates:

- Road Design Updates: A key point in Mr. Cubera's Engineering review letter was the
 recommendation to eliminate the "road to nowhere" located in the southwestern corner of
 the Baptist Manor property. The design has been revised to replace this road with a more
 cohesive horseshoe-shaped ring road.
- Entrance Configuration: The review letter also suggested consolidating two separate entrances into a single combined boulevard. The updated site plan now reflects this change, with the boulevard aligned with Westgate Road to improve traffic flow and site access.
- Potential Secondary Access: The updated plan also considers the addition of a secondary
 access point for emergency services along 13 Mile Road. This secondary access, potentially
 located near the Tabernacle property, could feature a breakaway gate or chain for exclusive
 use by fire and life safety personnel. The developers will collaborate with City Engineering
 on this issue.
- Stormwater Management Improvements: The initial site plan included three stormwater basins, but further analysis determined that one basin in the northeast corner of the property could be upsized to meet the site's needs. This revision reduces the total number of basins to two, avoiding the need for a basin near a single-family residence, a concern raised in a review letter and by a neighbor.
- Stub street request: The engineering review letter included a request to provide a stubstreet to the east, connecting to four single-family lots adjacent to the property near the corner of 13 Mile Road and Middlebelt. However, the topography of the eastern lots presents significant challenges, including steep elevations that make further expansion impractical. Additionally, two of the four adjacent lots have recently been sold, and the new owners plan to maintain the properties as single-family residential, further supporting the decision not to extend the development eastward. The decision to upsize the stormwater

basin in the northeast corner of the property, reducing the number of basins on-site, has further limited available space for a road extension.

Landscape plan updates:

The landscape plan was designed based on multiple site walks with and feedback from neighboring residents and the homeowners' associations. Buffering, natural screening, and overall landscape design were identified as top priorities.

- Tree Planting Details:
 - There will be over 140 new trees planted across the property, with a focus on filling gaps along the southern property line where a forested tree stand exists. Evergreen trees will be added along the southern property line to provide consistent screening for adjacent properties.
 - Along the southern perimeter and portions of the eastern and western property lines,
 89 new trees are proposed to enhance the existing canopy and address gaps identified during site walks.
- Tree Count and Ordinance Compliance: While the design maximizes tree placement throughout the site, the plan is 34 trees short of the ordinance requirements. The applicant proposed three options to address this shortfall:
 - 1. Requesting a waiver (not preferred by the applicant or the City), or
 - 2. Donating funds representing the 34 trees to the City's tree fund, or
 - 3. With the City's permission, collaborating with neighbors along Holly Hill Farms to plant the 34 trees in their rear yards, addressing concerns about development near their properties.
- Commitment to the neighbors: Shafer Development is willing to work directly with affected neighbors to ensure their concerns are addressed.

Architectural and Design Overview

- Shafer Development is under contract with M/I Homes for the development of the 40 townhomes, and renderings showed a representative sample of this new product, which will be 3 bedroom, 2-1/2 bath 2,200sf units, with 2-car garages.
- While architectural plans for the Baptist Manor portion of the development are still being
 finalized, the developers are committed to ensuring that exterior materials and masonry will
 complement both communities. Maintaining a cohesive aesthetic for the development
 along 13 Mile Road remains a priority.

Traffic Impact Study

- As requested in the Giffels Webster review comments prior to the October meeting, a traffic impact study has been conducted by Fleis & VandenBrink and submitted to the City. The traffic study recommended a right-turn deceleration taper along eastbound 13 Mile Road at the site driveway.
- The Engineering review letter suggested relocating the boulevard slightly further west to avoid left-hand turning conflicts with Westgate. The developer is open to this suggestion.

Planning Consultant Comments

Referencing the November 14, 2024 Giffels Webster review letter, Planning Consultant Tangari highlighted the following information:

- The April motion qualifying this project for a Planned Unit Development is included in the packets.
- The proposed development complies with RC-1 district standards for both the number of units and bedrooms.
- Regarding Master Plan and Zoning Standards: The site is designated as "flex residential" in the Master Plan, and the development meets all dimensional standards of the underlying RA-1 district, including setbacks and height requirements, for both the Tabernacle and Mulberry Park portions of the site.
- Curbside pickup of trash is planned, with no dumpster enclosures included.
- Lighting Plan: The only proposed lighting consists of residential wall sconces with frosted glass, directed toward the ring road. The photometric plan shows that light is concentrated on the ground and driveways in front of the units, ensuring minimal light spillage.
- Tree Preservation and Screening: The plan preserves significant tree coverage along the southern property line and 13 Mile Road frontage, with additional trees added to fill gaps. The southern screening is particularly dense, although its adequacy remains a point for discussion, as this has been a major concern.
- Tree Shortfall and Ordinance Relief: The 34-tree shortfall has been acknowledged and discussed.
- The only ordinance relief being sought under the Planned Unit Development is to permit attached units at RC-1 density. All other standards appear to be met.

Commission clarifying questions

Chair Trafelet raised safety concerns for pedestrians walking by the retention pond in the northeast corner of the site, which was very close to the road. Would fencing be installed? Steven Shafer responded that the slope of the basin, which determines the need for fencing, has not yet been finalized. However, they would commit to addressing safety concerns during detailed engineering. If fencing is not required, alternative protective measures, such as split rail fencing or landscaping, will be implemented.

Chair Trafelet asked if the project could be moved closer to 13 Mile Road to increase the setback on the southern property line.

Mr. Shafer explained that the current placement maximizes the southern setback in response to concerns from neighboring residents, while adhering to engineering constraints, including the required 64-foot road right-of-way.

In response to further comments, Mr. Shafer explained that the detention basins have been designed to capture all stormwater runoff from the site, ensuring that no flooding will occur on neighboring properties, including Holly Hill Farms. The basins meet current, stringent stormwater standards, and should help to mitigate existing runoff issues. Additionally, the site grading plan redirects water away from Holly Hill Farms and toward the street, significantly reducing the runoff currently affecting neighboring areas during rain events.

Public Hearing

Pam Gerard, resident, asked if any of the proposed dwellings were ADA compliant.

In response, Mr. Shafer said the Tabernacle single story homes will be accessible. The two-story townhomes will not be accessible.

Isaac Dunn, resident, said he lived directly east of the development. He asked the distance between the enlarged detention basin and his property. Would there be a complete tree line separating his property from this development?

In response, Steven Shafer said he could not immediately answer the distance question regarding the detention pond but he would talk to Mr. Dunn after the meeting. The setback for that area is 45'. There were trees proposed at the property line, and they would work with Mr. Dunn regarding potentially planting additional trees offsite.

Louise Lieberman, Southbrook Street, expressed appreciation that the developers had been willing to talk with residents. She remained concerned regarding density, traffic, and the need for an animal relocation plan.

Eric Schmidt, Woodbrook Court, opposed the proposed development, citing concerns about its impact on the natural environment and quality of life in the neighborhood. While acknowledging the developers' efforts to mitigate impacts, Schmidt emphasized that the construction would disrupt the area through noise pollution and loss of green space, ultimately detracting from the neighborhood's character. He questioned the long-term viability of the proposed landscaping and asked that the proposal be denied.

Lindsey and Zack Matych, Woodbrook Street, opposed this development. Ms. Matych cited concerns over extensive tree removal, loss of privacy, and excessive density beyond the standards of both RA-1 zoning and the recommendations of the 2024 Master Plan. She said the plan fails to preserve natural vegetation, including landmark trees, and does not provide the deep buffering necessary to protect adjacent neighborhoods as outlined in the Master Plan. She argued that the project creates environmental, traffic, and drainage issues while compromising the privacy and well-being of neighboring residents. She stated that the proposal does not align with zoning ordinances, city objectives, or Master Plan goals, calling it aesthetically undesirable and detrimental to the character of the historic neighborhood.

Spencer Krauss, Westgate, expressed deep concern about the increased traffic hazards the proposed development may cause, particularly at the Westgate entrance which he already finds dangerous when turning left. As a parent, he emphasized the safety risks to his children, citing aggressive traffic conditions and the potential for accidents with the addition of the new development. Krauss urged the Commission to conduct thorough traffic studies to ensure the community's safety.

Amy Brooklyn Peterson, Westgate, emphasized the importance of preserving the natural tree line along 13 Mile Road and ensuring substantial and well-maintained landscaping. She raised concerns about wildlife preservation, overflow parking, and traffic management, noting the area's significance for local species and the challenges residents already face with traffic.

As no other public indicated they wished to speak, Chair Trafelet closed the public hearing and brought the matter back to the Planning Commission for discussion and/or a motion.

Commission discussion and action

City of Farmington Hills Planning Commission Meeting November 21, 2024 Page 8

In response to public comments, Commissioner Countegan clarified that the project had previously been qualified under the applicable Planned Unit Development criteria. The property in question is privately owned, and the owner has the right to develop it. The Commission's role is limited to regulating and overseeing development within the framework of the Zoning Ordinance and Master Plan.

MOTION by Brickner, support by Varga, that the Planning Commission recommend to City Council that Planned Unit Development Plan 2, 2024, including Site Plan 56-8-2024, both dated September 4, 2024, submitted by Steven Schafer, BE APPROVED, because the plans are consistent with the goals, objectives, and policies of the Master Plan and applicable provisions of the Planned Unit Development Option in Section 34-3.20 of the Zoning Ordinance, SUBJECT TO:

- Modifications of Zoning Ordinance requirements as indicated on the proposed plan.
- Resolution of outstanding issues in the November 14, 2024 Giffels Webster review letter.

Motion passed unanimously by voice vote.

The Chair declared a 5 minute recess at 8:34pm and reconvened the meeting at 8:39pm.

C. PUD PLAN 1, 2024, INCLUDING SITE PLAN 54-7-2024

LOCATION: 27815 and 28025 Middlebelt Road PARCEL I.D.: 22-23-11-477-013, -014, and -109

PROPOSAL: Construction of gasoline service station with drive-through

restaurant within RC-2, Multiple-Family Residential District

ACTION REQUESTED: Recommendation to City Council
APPLICANT: SkilkenGold Real Estate Development

OWNER: HRA Farmington Hills, LLC

Applicant Presentation

Alex Siwicki, 39300 W. 12 Mile Road, Sheetz, was present on behalf of this request for a positive recommendation to City Council of a Planned Unit Development in order to construct a gasoline station with drive-through restaurant at 27815 and 28025 Middlebelt Road. Mr. Siwicki provided the following information:

Project Overview:

- Proposed 6,139-square-foot Sheetz facility to include a restaurant, convenience store, and gas station on a 3.83-acre site.
- Site includes six fuel pumps (12 stations) and a convenience drive-through.

Actions/Improvements Made Following September 19 meeting:

Based on continued conversations with neighbors and staff reviews, the following modifications have been made since the September 19 meeting:

- Additional evergreen buffering to the west and north.
- Pedestrian access enhancements.
- Installation of a six-foot vinyl fence along western and northern property lines.
- Replacement of all sidewalks on 12 Mile and Middlebelt Roads.

Design Features:

- High-quality, four-sided architecture utilizing brick and stone.
- A decorative three-foot knee wall along Middlebelt and 12 Mile Roads.
- Increased open space and reduced impervious surfaces.
- Enhanced landscaping, including evergreen trees for buffering.

Compliance with Zoning and PUD Standards:

- The proposal meets all use standards for a convenience store, gasoline station, and drivethrough restaurant.
 - Regarding the standard requiring separation of a drive-through restaurant from
 residential properties by a roadway, Sheetz believes that the intent of this standard—to
 ensure sufficient space between a drive-through and residential areas—is met. The
 plans demonstrate significant distance between the drive-through restaurant and
 nearby residential properties, providing ample space that could accommodate a
 roadway if necessary.
- Increased setbacks: Increases of 50% from Middlebelt, 38% from 12 Mile, 17% from the west, and 33% from the north (75' increase) compared to existing development.
- Parking spaces reduced by 63% (reduction of 75 spaces to 44 total spaces), with pavement area decreased by 19%, creating 16,000 square feet of additional green space over the existing site.

PUD Compliance Criteria:

- At its June 20th meeting, the Planning Commission determined that the plan meets PUD criteria and qualifies for a PUD. Additionally, the developer believes they meet 7 of the 8 objectives outlined under Section 34-3.20.2.E.i through viii, when only 1 is required.
- Offers community benefits such as enhanced buffering, landscaping, pedestrian access, and architectural standards exceeding traditional zoning requirements.

Community Benefits Highlighted:

- High quality four-sided architecture utilizing brick and stone.
- Preservation and addition of 16,000sf of green space.
- Improved site aesthetics with enhanced landscaping, reduced impervious areas, and a decorative knee wall.
- Replacement of deteriorating structures with a high-quality, state-of-the-art facility.
- Pedestrian and bike-friendly features, including bike racks and sidewalk improvements.

Company Overview:

- Sheetz, founded in 1952, is a family-owned and operated company with 760 stores nationwide, emphasizing quality, innovation, and community engagement. The company operates without franchises.
- The Sheetz model includes a full-service kitchen, a Sheetz Brothers Coffee Bar, and a variety of convenience items. The facility will feature 30 interior dining seats, outdoor seating, and free Wi-Fi, fostering a welcoming environment for customers to dine, work, or socialize.
- Drive-through orders are managed via intuitive touch-screen menus, eliminating noise and enhancing customer experience.

Economic and employment opportunities:

• The \$8.5 million project will bring 30-35 local full-time jobs to Farmington Hills with competitive benefits, including medical, dental, vision, paid time off, parental leave, and tuition reimbursement. Sheetz is recognized as one of Fortune's "100 Best Companies to

Work For" over the past decade and is ranked as the second-best retailer to work for in the U.S.

- The company engages in local philanthropy, including donations to schools, athletic programs, and community organizations.
- The project will utilize local contractors and engineering firms, increase tax assessments, and contribute to the area's property values.

Hours of Operation

The proposed Sheetz will operate as a 24-hour one-stop shop.

Planning Consultant Comments

Referencing the November 14, 2024 Giffels Webster memorandum, Planning Consultant Upfal provided the planner's review for this application for Planned Unit Development, in order to construct a Sheetz facility at 27815 and 28025 Middlebelt Road.

- The site is located at 12 Mile and Middlebelt Roads, formerly Ginopolis restaurant. Current structures include a commercial building and a residential house.
- Surrounding uses include single-family residential (north and east), offices (east), and a gas station (east).
- The PUD was qualified at the June 20 meeting. In its motion, the Planning Commission found the proposal met 4 of the 8 objectives outlined under Section 34-3.20.2.E.i through viii; only 1 is necessary.
- Proposal includes:
 - o 12 fueling positions and six pumps.
 - A 24-hour convenience store with carry-out food service, drive-through, and outdoor dining.
 - 44 parking spaces (required: 38).

Key Planning Considerations:

Future Land Use and Zoning:

- Future land use map designates the corner parcel as commercial and the rear portion as multiple-family residential.
- The Master Plan acknowledges the growing demand for drive-through facilities. However, drive-throughs are not conducive to pedestrian movement, as they are designed to move people through a site without leaving their cars. The Planning Commission should carefully evaluate this aspect when considering approval.
- PUD allows for uses not typically permitted in RC-2 zoning, requiring Planning Commission discretion regarding compliance with commercial district standards.
- Dimensional and Site Standards:
 - The reviewed use standards were based on commercial district requirements, not RC-2 zoning. All dimensional standards are met, exceeding setback requirements and providing pedestrian access. The project reduces impervious surfaces compared to current conditions but includes departures from ordinance standards, including:
 - Excessive maneuvering lane width (35 feet; required: 20 feet).
 - Lack of a required bypass lane for the drive-through.
 - Dumpster enclosure is proposed in the street side yard, which is inconsistent with zoning requirements.
- Parking and Loading:

- 44 parking spaces provided; 38 required.
- Loading space proposed in the interior side yard, facing apartments, which deviates from the preferred rear yard location.
- Parking of motor vehicles and storage throughout the site is prohibited, except during non-operating hours for truck loading.
- Signage Standards:
 - Deviations from RC-2 zoning signage requirements include:
 - Exceeding wall sign allowance of 25 square feet with two signs (16.52 sq. ft. each) and one (21.47 sq. ft.). Applicant indicated intent to remove the third sign, pending clarification.
 - Canopy-mounted signs exceed allowable dimensions and height.
- Landscaping and Buffering:
 - Landscaping standards are largely met.
 - Screening requirements for residential adjacency require Planning Commission review for a possible waiver.
- Lighting Standards:
 - Several deviations noted, including:
 - Pole height: Proposed 23 feet exceeds the 15-foot limit for RC-2 but complies with commercial standards (30 feet).
 - Canopy lighting tilt: Angled 5% outward, which is non-compliant with flush-mount standards.
 - Illumination levels: Exceeds allowable limits, particularly at doorways and paved areas. Doorway illumination is 3,111 lumens per door, vs. 2,000 lumens permitted in commercial districts and 1,000 lumens in residential.
 - Total lumens: 628,227 lumens far exceed the RC-2 maximum of 74,943.75 lumens, and the commercial standard of 149,887.5 lumens.
 - Consultant Upfal recommended reducing color temperature to below 3,500 K to minimize disruption to sleep cycles.
- Tree Replacement:
 - One additional tree is required to meet replacement standards.

Conclusion and Recommendations:

There are numerous deviations requested for signage, lighting, parking, and loading, as detailed in the staff report, along with items needing additional Planning Commission consideration (pages 11-12 of the review). The Planning Commission is encouraged to evaluate these deviations, particularly those related to lighting, dumpster placement, and impervious surfaces, as part of the PUD approval process, and in the context of the PUD objectives and overall community benefit.

Commission questions

In response to questions, Mr. Siwicki provided the following further information and assurances:

- The proposed 6' vinyl wall will be along the entirety of the western and northern property lines in lieu of the required 6' masonry wall. A masonry wall would require substantial footers that would damage the root system of existing mature trees.
- Mr. Siwicki agreed to keep light poles to the residential standard of 15' high, although more light poles will be needed as a result.

- There will be no light shed onto the neighbor's properties except for the driveways, and that will be minimal.
- Mr. Siwicki said they would shield the lights per ordinance, and could adhere to the commercial standard of 149,887.5 lumens
- Sheetz will add a bypass lane to the drive-through.
- Sheetz was willing to convert the 5 spaces by the ordering area to landbanked parking, reducing the parking spaces from 44 to 39, which was only one space more than the allowed 38 spaces.
- While the dumpster location as proposed in the street side yard along 12 Mile Road represents a deviation from ordinance standards, the alternative location on the other side of the exit of the drive-through lane would put the dumpster closer to the residential neighbors.
- In response to a question regarding the compatibility of the 24-hour operation with the surrounding residential uses, Mr. Siwicki said that the continuous operation was non-negotiable. However, the effect of the 24-hour operation was mitigated by the additional fencing and landscaping.

Public Hearing

Chair Trafelet opened the meeting for public comment.

PG, Farmington Hills resident, opposed the Sheetz proposal, highlighting concerns about the company's recent federal fines for discriminatory hiring practices. The site, formerly home to a historic restaurant, would be better suited for a fine dining establishment or coffee bar instead of a gas station.

Dennis Layton (phonetic), Farmington Hills resident, opposed the Sheetz proposal. He cited an oversaturation of gas stations in the area and noted the lack of successful 24-hour food establishments, both locally and in surrounding cities, as evidence that such operations are unsustainable. He raised concerns about potential late-night safety issues.

Sam Dorchin (phonetic), Farmington Hills resident directly behind the proposed development, opposed the requested PUD. He highlighted the presence of two struggling gas stations nearby, the area's quiet and viable character, and his professional perspective as an architect that the proposed facility is incompatible with the neighborhood.

Dion DeGennaro, New Castle Road, represented his mother who resides across the street from the proposed development. They opposed the project as incompatible with the surrounding residential neighborhoods, noncompliant with several zoning requirements, with lighting levels that far exceed residential and business standards. He questioned the developer's claim of green space preservation as a community benefit, noting the space would remain regardless of the project.

Ken Polk, Farmington Hills resident, said he was a retired lieutenant medic with 40 years of experience in a neighboring metropolitan fire department. He opposed the project, citing safety concerns related to 24-hour operations. Based on his professional experience, 24 hour operations increase impaired driving incidents, injuries, and fatalities.

Faye Nemer, representing the Middle East and North African (MENA) Chamber of Commerce, spoke in opposition to the proposed Sheetz development, emphasizing its negative impact on small, locally owned businesses in the area. She described the proposed 3.3-acre site as more akin to a truck stop that does not fit the character of the community. Nemer cited a local survey conducted among 1,990 residents aged 21 and older, which revealed that 77% of respondents from the directly impacted zip code (48334) oppose the development. Nemer challenged Sheetz's claims of job creation and economic benefit, arguing that the development would cannibalize revenue from local businesses and reallocate, rather than create, jobs. She also noted that Sheetz sources products and fuel from out of state, further draining the local economy. She criticized the notion of Sheetz as a family-based business, pointing to its status as a \$7.5 billion corporate entity. Nemer urged the Planning Commission to reject the proposal, a decision that would be in alignment with community sentiment and local economic priorities.

Michael Madigan, Farmington Hills resident, opposed the Sheetz proposal, referencing the company's testimony to Congress about the safety risks of 24/7 operations, including increased shoplifting, robberies, and violent crimes. He contrasted the proposed residential-adjacent site with other Sheetz locations in commercial or rural areas, emphasizing this proposal's incompatibility with the surrounding residential community.

Amy Brooklyn Peterson, Farmington Hills resident, opposed the Sheetz proposal, emphasizing that the area already has seven gas stations within a one-mile radius. She urged the Planning Commission to prioritize the desires of residents over corporate interests and questioned the use of commercial zoning standards for a proposal in a predominantly residential area. Peterson also warned that the project could encourage loitering late at night, further detracting from the neighborhood's character.

Brian Ventura, Farmington Hills resident (WoodCreek) and professional engineer, opposed the Sheetz proposal, citing the numerous ordinance deviations, particularly regarding lighting, and emphasizing the negative impact on the surrounding residential area. He highlighted the incompatibility of a 24/7 operation with the quiet, peaceful nature of the neighborhood and raised concerns about increased crime, noise, and light pollution.

Kathleen Hayes Parvin, Farmington Hills resident, opposed the Sheetz development, as a 24/7 operation is incompatible with the neighborhood. Additional gas stations and fast food options are unnecessary. Ms. Parvin urged the Planning Commission to prioritize the voices of residents and stated that Sheetz is not suitable for the community.

Tim Parvin, Farmington Hills resident, opposed the Sheetz development, drawing parallels to a 1990s decision where a big-box store was denied due to traffic and neighborhood concerns, resulting in a more compatible use of the land. He pointed out that the area already has ample gas stations and questioned the need for another station given societal shifts away from fossil fuels. The project is incompatible with the neighborhood and would negatively impact the community.

Margaret Keyes Howard, Farmington Hills resident (Sylvan Circle), opposed the Sheetz development. She emphasized the neighborhood's support for small businesses and its character as a family- and pedestrian-friendly community. She expressed concerns about the safety of children and families who frequently walk the area, particularly near school bus stops, and criticized the lack of aesthetic appeal and cleanliness of Sheetz locations she had recently visited in Maryland.

Marilyn Joseph, Farmington Hills resident, opposed the proposed development. She cited Sheetz's acknowledgment of increased shoplifting, armed robberies, and violent crimes associated with its 24-hour operations. She also referenced citations from the U.S. Environmental Protection Agency for fuel storage violations and a lawsuit from the U.S. Equal Employment Opportunity Commission for discriminatory hiring practices.

Joe Noune, Farmington Hills resident (Berrywood Lane), opposed the Sheets development. He expressed concerns about the potential sale of alcohol at the proposed Sheetz convenience store and the likelihood of increased crime as affirmed by police officers he consulted. He emphasized the importance of a secure barrier between the development and the neighboring condominiums.

Robert Dall (phonetic), Farmington Hills resident, opposed the proposed Sheetz development. He had driven to Romulus to see the Sheetz facility there, and he described it as more suited to an interstate location than a residential neighborhood. He noted the oversaturation of gas stations within a mile of the site, counting eight existing locations.

Sheila Schoenberg, Farmington Hills resident (Berrywood Lane), opposed the Sheetz development, stating it would disrupt the quiet, residential nature of the neighborhood, particularly for its many elderly residents. The project would negatively impact the community's aesthetics and quality of life, citing concerns about excessive lighting and unattractiveness.

Shane Stephan, Farmington Hills resident (Beachwood Hills Condominiums), opposed the Sheetz development, citing concerns about increased crime, noise, and excessive lighting, which he described as making the area resemble an airport. He criticized the company's poor maintenance record, referencing online reviews showing overflowing trash at their locations.

Joan Gebhardt, Farmington Hills resident (Pine Knolls Condominiums), expressed concerns about the financial stability of Sheetz. She highlighted the risks of failure associated with newly installed gas stations, noting that if Sheetz were to fail, the site could face long-term abandonment due to the need for environmental remediation.

Mike Yandora, Farmington Hills resident (Moran Street), supported the Sheetz development. He cited past positive experiences with Sheetz during his travels. The property in question has been vacant for five years without any other offers or plans for development. He dismissed impervious surface issues as irrelevant due to the area's clay soil conditions and defended Sheetz against allegations of discriminatory hiring.

Steve Bridges, Farmington Hills resident, supported the Sheetz development, viewing the redevelopment of the long-vacant Ginopolis site as an opportunity to address urban decay. Bridges emphasized the value Sheetz would bring to the community, including 24-hour services, taxable revenue, good-paying jobs, and the revitalization of an unused site.

Johnene Koganti, Farmington Hills resident (WoodCreek Subdivision), voiced concerns about the increased traffic and safety risks associated with the Sheetz proposal, particularly when there are three nearby schools that require parents to drive children to school. She questioned the assertion that the development would only capture existing traffic, suggesting it could become a destination and exacerbate existing congestion. She echoed neighbors' concerns about excessive lighting, crime, and overall neighborhood impact.

Keith Henry Jr., President of the Orion Court Homeowners Association, spoke in opposition to the proposed Sheetz development, citing concerns about its impact on safety, environmental sustainability, and property values in nearby neighborhoods. The primary goals of HOA presidents include ensuring the safety of residents and visitors, protecting property, enhancing property values, and maintaining community privacy. Highlighting the effort invested in sustaining property values above \$500,000, he expressed strong opposition to the proposed development.

George Senawi, Farmington Hills resident (Orion Court), opposed the Sheetz development, citing potential safety risks for children in the neighborhood, including increased traffic and the likelihood of people congregating in the gas station parking lot. The project would bring heavy truck traffic, and he questioned the lack of detailed plans for traffic and site design. He urged the Commission to consider the project's impact on the peaceful, safe environment that has characterized the community.

Joseph Wade, President of the Timbercrest Condominium Association representing 165 homeowners, opposed the proposed Sheetz facility at 12 Mile and Middlebelt. He emphasized the development's large size, potential for increased traffic accidents, and negative impact on property values. Mr. Wade urged the Commission to consider more beneficial uses for the site that align with the area's norms and values.

Richard Olenzek, Farmington Hills resident (Holly Hill Farms), raised concerns about increased traffic and safety issues associated with the proposed Sheetz development. He highlighted the company's business model, which uses billboard advertising to attract travelers seeking low-cost fuel, 24-hour food, and other conveniences, potentially drawing additional traffic from already accident-prone exits such as Orchard Lake and 12 Mile.

Laura Gee (phonetic), Farmington Hills resident (Berrywood Lane) asked several clarifying questions regarding the property and the process being followed tonight. She raised concerns about the potential impact of the Sheetz development on property values, increased traffic congestion, and the compatibility of the project with the character of the surrounding community.

Jonathan Hommes, Farmington Hills resident (WoodCreek), voiced opposition to the proposed Sheetz development, citing concerns about its 24-hour operation and lighting levels, which he described as inconsistent with the character of the area. He questioned the necessity of another gas station in this area, warning it could lead to the closure of existing stations and create long-term environmental challenges related to buried fuel tanks and site remediation.

Joan Williams, Farmington Hills resident (Timbercrest), opposed the proposed Sheetz development, emphasizing that it is not a good fit for the Farmington Hills community. She referenced past issues with 24-hour operations, such as a former 7-Eleven, and highlighted concerns about the disruption to the neighborhood's quiet character.

Syed Razvi, Farmington Hills resident (Orion Court), opposed the proposed Sheetz facility, citing concerns about the impact on neighborhood safety. He addressed increased traffic, noise and light pollution, crime risks associated with a 24-hour operation, and the potential for local gas stations to be abandoned if unable to compete.

Hank Murawski, Farmington Hills resident (Village Lane), urged the Commission to deny the proposed Sheetz PUD, emphasizing that the development would disrupt the area's current character. He highlighted the stark contrast between the quiet, unlit nature of the 12 Mile and Middlebelt area and the proposed 24-hour, highly illuminated gas station and food complex. Mr. Murawski supported the community's concerns, noting the inevitability of traffic, crime, and other issues, and reinforced the validity of the objections raised by other residents.

Seeing that no other public indicated they wished to speak, Chair Trafelet closed the public hearing.

Applicant response

Mr. Siwicki addressed concerns raised by residents and provided the following key points: Safety Measures:

- Sheetz locations prioritize safety with advanced security procedures and systems, creating spaces for activities like custody exchanges and online marketplace deals.
- Sheetz has built a reputation for safety over its 70-year history.

Environmental Protections:

- Nearly 100% compliance rate with EPA standards, exceeding inspection requirements with state-of-the-art systems and third party inspections at 4X the rate than required.
- Dedicated environmental protection teams ensure rigorous standards are met.

Traffic Impact:

- Convenience stores primarily serve existing traffic rather than generating additional traffic, as supported by traffic studies. Convenience stores are not a destination.
- The proposed site does not cater to semi-truck traffic and is not designed as a truck stop. The lot is not big enough for a semi-truck to park or maneuver comfortably. It would take 30 minutes for a semi to fuel up at the pump.

Market Competition:

 Sheetz introduces competition in the convenience industry, providing diverse offerings beyond fuel, such as made-to-order food and grocery items. Page 17

• Mr. Sawicki downplayed concerns about potential closures of existing gas stations, citing Sheetz's history of coexistence with competitors in other markets.

Light, Noise, Site Enhancements and Community Benefits:

- Significant improvements include increased green space, enhanced landscaping, buffer zones, pedestrian access, and new construction investments, all of which will reduce the effect of light and noise on the surrounding neighborhoods.
- The proposed PUD provides benefits such as architectural standards and noise mitigation that exceed traditional rezoning options.

Commission Discussion

Signage and Billboards:

- Commissioner Countegan inquired about the potential use of billboards to direct traffic to the site. Could a PUD agreement limit billboard signage off site? Would the applicant agree to this limitation?
- Mr. Siwicki indicated that off-site signage is not part of Sheetz's business strategy but deferred to the Sheetz marketing department.
- Applicant Attorney Pat Lennon, Honigman LLP, expressed surprise at the billboard question.
 noting uncertainty about the Planning Commission's authority to impose such restrictions.
 That said, Mr. Lennon indicated a willingness to discuss the matter prior to City Council review.
- City Attorney Schultz clarified that the inquiry was intended as a negotiation point and not a directive.

Zoning history of site

The site was zoned B-2 during the time Ginopolis was open. After the restaurant closed, the property was rezoned to RC-2 to accommodate a proposed senior apartment project, which did not move forward. If the property were rezoned back to B-2, a drive-through use would not be permitted. The current proposal is a request for a Planned Unit Development, which allows flexibility for property development. The proposed use mirrors what is on the other corners of the intersection, and the PUD, with City approval, could allow a drive-through use.

Master Plan Considerations:

The City's Master Plan designates the site for future commercial, with a small portion of the northerly portion within the multifamily category. The proposal aligns with the Master Plan's commercial designation part of the site.

Alcohol Sales:

Mr. Siwicki confirmed they would sell packaged alcohol for off-premises consumption only, subject to state licensing.

Traffic Study:

A traffic study has been completed and provided to the City.

Competition Concerns:

The Commission noted that one of the gas station owners at 12 Mile and Middlebelt owns multiple stations in the area, providing context regarding the competitive landscape.

Environmental and Design Considerations:

- The B2 zoning previously in place would not have permitted a drive-through use.
- The proposed PUD provides for enhanced design elements, including increased green space and buffers, which were discussed earlier in the meeting.

Commissioner Countegan said that he would make a recommending motion to City Council. All Planned Unit Developments and their formal agreements between developer and the City, are ultimately decided at the Council level.

In the current instance, key considerations included:

- **History of the Site:** The site was previously used commercially and designated for future commercial use in the Master Plan.
- **Redevelopment Benefits:** The proposal offers redevelopment of a long-vacant, declining property, with increased green space and reduced parking.
- **Compatibility:** Similar uses exist at nearby intersections.
- **Lighting Plan:** The motion will require that the project must meet commercial zoning lumen standards, with no spillover illumination on neighboring properties. The applicant is to work with staff to optimize 15' lighting pole height and placement to minimize impacts.
- **Vinyl Fencing:** The vinyl fence at the required height is preferred over a wall to preserve natural features and minimize tree disturbance.
- Parking Spaces: Five parking spaces are to be land banked as green space until needed.
- **Bypass Lane:** The project will include the required bypass lane for the drive-through. The bypass lane is an ordinance requirement as well as an engineering standard.

After discussion and amendment, the following motion was offered:

MOTION by Countegan, support by Varga, to RECOMMEND TO CITY COUNCIL that Planned Unit Development Plan 1, 2024, including Site Plan 54-7-2024, both dated July 17, 2024, submitted by SkilkenGold Real Estate Development, BE APPROVED, because the plans are consistent with the goals, objectives, and policies of the Master Plan and applicable provisions of the Planned Unit Development Option in Section 34-3.20 of the Zoning Ordinance, SUBJECT TO:

- All outstanding issues in the Giffels Webster review letter be resolved.
- All engineering standards be met relative to the development of the plans.
- Five parking spaces close to the drive-through pick-up location as discussed this evening be landbanked.
- Applicant to work with staff to determine the number of 15-foot poles that will sufficiently provide the lighting requirements for the site, to minimize the lighting effect on surrounding properties.
- Lighting lumens to meet the commercial lighting standard of 149,887.5 lumens total, and 2,000 lumens at doorways.
- Bypass lane be provided for the drive-through restaurant, per ordinance standard.

And with the following finding:

 The vinyl fencing as shown on the plans this evening at the required height is acceptable, and therefore the requirement for a masonry wall is waived.

Motion discussion:

Chair Trafelet opposed the motion, citing incompatibility with the surrounding residential area due to the 24-hour operation. The Planning Consultant's review letter specifically mentioned that the 24-hour operation could be a consideration at this location.

Roll call vote:

Ayes – Countegan, Aspinall, Varga, Brickner Nay – Trafelet

Motion passed 4-1.

The Chair called a break at 10:53pm and reconvened the meeting at 11:08pm.

REGULAR MEETING

A. LOT SPLIT 5, 2024 (FINAL) (PUD 5, 1993)

LOCATION: Southeast intersection of Twelve Mile Road and Investment

Drive

PARCEL I.D.: 22-23-17-201-014

PROPOSAL: Split one (1) parcel into two (2) parcels within OS-4, Office

Research District

ACTION REQUESTED: Lot Split approval (final)

APPLICANTS: Farmington Hills VI Corporate Investors, L.L.C., and Farmington

Hills VII Corporate Investors, L.L.C.

OWNERS: Farmington Hills VI Corporate Investors, L.L.C., and Farmington

Hills VII Corporate Investors, L.L.C.

Chair Trafelet introduced this item, noting that the next agenda item was tied to this one.

Applicant presentation

Chris Kojaian, Kojaian Companies, was present on behalf of this application for lot split approval. Mr. Kojaian provided the following information:

- The lot split will create a new parcel to facilitate the development of a daycare facility as an amenity for the Farmington Hills Corporate Campus.
- This facility is expected to benefit both the community and the corporate tenants, such as Motorola, Allstate, and Comerica.

City Planner comments

City Planner Perdonik gave the following background to this request:

- The requested lot split complies with all applicable zoning ordinances and requires no waivers or variances.
- The lot split mirrors a previous Planning Commission approved lot split for the same site, originally intended for a restaurant/retail development.
- While the intended use has changed, the lot split itself remains unchanged from the prior approval.

MOTION by Aspinall, support by Varga, that Lot Split 5, 2024 (Final), dated October 18, 2024, submitted by Farmington Hills VI Corporate Investors, LLC, and Farmington Hills VII Corporate Investors, LLC, BE APPROVED, because it appears to meet the applicable provisions of Chapter 34, "Zoning," and Chapter 27, "Subdivision of Land," of the City Code and will result in land parcels generally compatible with surrounding parcels in the vicinity; and that the City Assessor be so notified.

Motion passed unanimously by voice vote

B. SITE PLAN 60-10-2024 (PUD 5, 1993)

LOCATION: Southeast intersection of Twelve Mile Road and Investment

Drive

PARCEL I.D.: 22-23-17-201-014

PROPOSAL: Construction of day care center within OS-4, Office Research

District

ACTION REQUESTED: Site Plan approval APPLICANT: Cunningham Limp

OWNER: Farmington Hills VI Corporate Investors, LLC

Planning Consultant Comments

Referencing the November 14, 2024 Giffels Webster memorandum, Planning Consultant Tangari gave the background and review for this request for site plan approval at the southeast intersection of Twelve Mile Road and Investment Drive (PUD 5, 1933).

- This request does not require a PUD amendment as the existing agreement for PUD 5, 1993 permits childcare uses.
- The applicant is proposing a childcare center within the larger, office-focused PUD. The development consists of one 10,000-square-foot building.
- The site plan complies with all dimensional standards. However, the dumpster is located in a front yard; this is not permitted under the ordinance.

Applicant Presentation

Chris Kojaian, Kojaian Companies, was present on behalf of this application for site plan approval. Mr. Kojaian provided the following information:

- The proposed childcare center, operated by The Learning Experience, will serve children aged six weeks to six years and focus on both childcare and education.
- Regarding the dumpster, they proposed reducing the number of dumpsters to one and relocating it at a 45-degree angle behind the setback line to comply with zoning requirements.

MOTION by Varga, support by Aspinall, that Site Plan 60-10-2024, dated October 18, 2024, submitted by Cunningham Limp, BE APPROVED, because it appears to meet all applicable requirements of the Zoning Chapter, SUBJECT TO addressing each of the outstanding items identified in Giffels Webster's review.

Motion passed unanimously by voice vote.

C. SITE PLAN 55-8-2024

LOCATION: 29707 Ten Mile Road and 29580 Moran Street

PARCEL I.D.: 22-23-26-226-003, -008, and -009

PROPOSAL: Building addition to existing church within RA-1, One Family

Residential District, and RA-3, One Family Residential District

ACTION REQUESTED: Site Plan approval

APPLICANT: Hisham Turk, Turk Architects

OWNER: Tawheed Center, Osman Habib (President)

Planning Consultant comments

Referencing the November 14, 2024 Giffels Webster memorandum, Planning Consultant Upfal highlighted the following points:

- The applicant is proposing a 38,000sf addition to an existing 33,800sf mosque (the Tawheed Center) to include additional lobby area and a gymnasium with second story mezzanine. In addition, they will be converting existing space into a 224-seat auditorium/conference center. The expansion includes two additional parcels of land, and when combined this will result in the creation of a through-lot with frontage on both W. Ten Mile (between Middlebelt and Creekside Dr) and Moran St.
- In addition to the building modifications, the plans propose modifications to parking and circulation, including the addition of new parking facilities. An existing single-family home will be demolished to accommodate the proposed expansion.

Summary of Items to be addressed by the Planning Commission:

- 1. The plans do not show the required wall or berm. An existing wood privacy fence exists, but zoning regulations require a wall or berm around places of worship. The applicant requested a waiver to extend the existing wood fence instead of constructing a wall.
- 2. The average:minimum illumination calculation for parking lot lighting is 8.65:1, which exceeds the requirement of 4:1. Planning Commission may grant a waiver from this requirement when deemed necessary and appropriate for public safety.

<u>Summary of Items to be addressed administratively:</u>

- 1. The height of the existing building, which is located in the RA-3 district, is nonconforming. A small portion of the addition occurs in the RA-3 district, which would expand this nonconformity; the portion in the RA-1 district is a maximum height of 28.75 feet and is compliant. The applicant may only proceed with a variance or modification to the design.
- 2. There are existing trees that appear to be within the corner clearance triangle at the driveway. These shall be identified and a note shall be added stating that all trees within the corner clearance triangle will be trimmed up to a height of 6' or more.
- 3. Deciduous trees do not meet the size requirements for large deciduous trees. Spacing information is not provided, and height is not provided for shrubs.
- 4. None of the trees are proposed at a large enough size to meet the requirements for large deciduous trees, but large deciduous trees are required to meet the canopy tree requirement.

Planning Commission discussion

Regarding the non-conforming height, City Planner Perdonik clarified that the building's

nonconformance is not attributed to zoning changes but may have resulted from past oversight. To proceed, the Planning Commission must deny the application, allowing the applicant standing to seek a variance from the ZBA.

 Regarding the fence/waiver discussion, Commissioner Countegan noted past approvals where the fence was deemed acceptable.

The Commission discussed the height request. The Planning Commission has sometimes approved a site plan conditioned upon a variance being granted, saving the applicant from having to return to the Commission if they are able to receive ZBA approval. There appeared to be consensus to follow this pattern for this request.

In response to questions, Hisham Turk, Turk Architects, explained that they wanted to extend the current wood fence.

After discussion and amendment, the following motion was offered:

MOTION by Countegan, support by Bruckner, that Site Plan 55-8-2024, dated October 14, 2024, submitted by Hisham Turk, Turk Architects, BE APPROVED, because it appears to meet all applicable requirements of the Zoning Chapter, SUBJECT TO:

- Resolution of outstanding items in the November 14, 2024 Giffels Webster review.
- Project must receive a height variance from the Zoning Board of Appeals or modify the design so the height variance is not necessary.

With the following finding:

• The Planning Commission waives the wall requirement so that the applicant can extend the wooden fence as shown on the plans.

Motion passed unanimously by voice vote.

D. AMEND PUD PLAN 2, 2021, INCLUDING REVISED SITE PLAN 59-5-2022

LOCATION: 27400 Twelve Mile Road

PARCEL I.D.: 22-23-12-476-008

PROPOSAL: Construction of site-built one-family detached dwelling units

within RA-1B, One Family Residential District

ACTION REQUESTED: Schedule for Public Hearing
APPLICANT: Robertson Brothers Homes
OWNER: Evangelical Homes of Michigan

Planning Consultant comments

Referencing the November 13, 2024 Giffels Webster memorandum, Planning Consultant Tangari highlighted the following:

The applicant proposes to amend the PUD to remove the 100-bed skilled nursing facility that
was part of the original approval and instead now proposes a fully residential project with
75 detached ranch homes. The chapel that was to be preserved in the approved PUD plan
will still be preserved in this new plan and will be part of a common park area in the center
of the development.

- This is a major amendment to the PUD, and the Planning Commission will set a public hearing on the amendment and make a recommendation to Council.
- The review memorandum provides site plan review which will be more thoroughly presented at the public hearing.

Requested deviations include:

- a. Permit detached single-family at requested density of 75 units.
- b. Permit reduced exterior side setback along Cheswick (30 feet).
- c. Permit no installation of western buffer plantings.
- d. 111-foot lot width for splits where 140 feet is required.

City Planner Perdonik added the following:

- Per the Fire Department, the turning radius of the spur drive does not meet the 50-foot requirement.
- The front yard of unit 68 faces the side of the unit next door.
- Why are there sidewalks on only one side of the street?
- In order to minimize curb cuts along 12 Mile Road, the Engineering Division has suggested the possibility of a shared access drive for the 4 lots located on 12 Mile.

Applicant Presentation

Tim Loughrin, Robert Brothers Homes, provided the following information:

- Regarding the request for no installation of western buffer plantings, the existing natural buffer on the west side is sufficient and the applicant is requesting to reallocate those plantings to Inkster Road. A letter of support from the adjacent HOA was provided.
 Robertson Brothers has also offered to replace 10 trees on public land along Cheswick.
- The home lots exceed ordinance area requirements, even though at 111 feet wide they do not meet lot width requirements.
- They will work with engineering and the Fire Department regarding the turning radius. They believe they meet the 50-foot requirement, but if necessary they can reduce the island by Cheswick and Inkster to make sure the 50 feet are provided.
- Additional landscaping will be added to Unit 68.

Other issues:

- Robertson Brothers will work with Engineering regarding the request for gravity sewer systems; the applicant prefers low-pressure systems for those 4 properties, especially noting the new lift station that is being installed on the property.
- Regarding lot access on 12 Mile Road, Robertson Brothers prefers individual curb cuts for the four lots but expressed willingness to impose turnarounds or shared access as required.
- Regarding the chapel renovation, the chapel will be converted into a residential-style
 community building. Planned modifications include removing the glass entryway and
 updating the building's design to integrate with the neighborhood. The applicant has been
 before the Historic District Commission regarding this change.
- Robertson Brothers intends to apply for Brownfield funding to address asbestos removal and environmental remediation.

MOTION by Brickner, support by Countegan, that the proposed Amendment to PUD Plan 2, 2021, including revised site plan 59-5-2022, submitted by Robertson Brothers Homes, be set for public hearing for the Planning Commission's next available regular meeting agenda.

Motion passed unanimously by voice vote.

APPROVAL OF MINUTES

Approval of October 17, 2024 Regular Meeting

MOTION by Brickner, support by Aspinall, to approve the October 17 2024 Regular Planning Commission meeting minutes as submitted.

Motion passed unanimously by voice vote.

PUBLIC COMMENT

None

COMMISSIONER/STAFF COMMENTS

None

ADJOURNMENT

Motion by Aspinall, support by Varga, to adjourn the meeting. Motion passed unanimously by voice vote.

The meeting was adjourned at 11:47pm.

Respectfully submitted, Kristen Aspinall, Planning Commission Secretary

/cem