



REGULAR MEETING AGENDA

Tuesday, October 24, 2023

6:30 P.M.

If you need any assistance due to a disability, please contact the Planning Department at least 48 hours in advance of the meeting at planning@ypsitownship.org or 734-544-4000 ext. 1.

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF THE SEPTEMBER 26, 2023, REGULAR MEETING MINUTES
4. APPROVAL OF AGENDA
5. PUBLIC HEARINGS
6. OLD BUSINESS
7. NEW BUSINESS
 - A. **PRELIMINARY SITE PLAN – KALITTA TURBINES LLC – 2830 TYLER ROAD – PARCEL K-11-13-206-007 – TO CONSIDER THE PRELIMINARY SITE PLAN APPLICATION OF KALITTA TURBINES INC. TO PERMIT THE CONSTRUCTION OF A NEW BUILDING, PROPOSED FUTURE BUILDING, ASSOCIATED PARKING, AND SITE IMPROVEMENTS FOR A 6.0 ACRE SITE ZONED I-C – INDUSTRIAL AND COMMERCIAL**
8. OPEN DISCUSSION FOR ISSUES NOT ON THE AGENDA
 - A. CORRESPONDENCE RECEIVED
 - B. PLANNING COMMISSION MEMBERS
 - C. MEMBERS OF THE AUDIENCE
9. TOWNSHIP BOARD REPRESENTATIVE REPORT
10. ZONING BOARD OF APPEALS REPRESENTATIVE REPORT
11. TOWNSHIP ATTORNEY REPORT
12. PLANNING DEPARTMENT REPORT
13. OTHER BUSINESS
14. ADJOURNMENT

Please Note: This meeting is being recorded.

**CHARTER TOWNSHIP OF YPSILANTI
PLANNING COMMISSION MEETING
Tuesday, September 26, 2023
6:30 pm**

COMMISSIONERS PRESENT

Bill Sinkule, Chair
Elizabeth El-Assadi, Vice-Chair
Gloria Peterson
Larry Doe
Muddasar Tawakkul
Bianca Tyson
Caleb Copeland

STAFF AND CONSULTANTS

Jason Iacoangeli AICP, Planning Director
Fletcher Reyher, Planning and Development Coordinator
Dennis McLain, Township Attorney

i. **CALL TO ORDER/ESTABLISH QUORUM**

MOTION: Mr. Sinkule called the meeting to order at 6:30 pm.

ii. **APPROVAL OF SEPTEMBER 2023 REGULAR MEETING MINUTES**

MOTION: Mr. Tawakkul **MOVED** to approve the September 12, 2023, regular meeting minutes. The **MOTION** was **SECONDED** by Mr. Doe and **PASSED** by unanimous consent.

iii. **APPROVAL OF AGENDA**

MOTION: Ms. Peterson **MOVED** to approve the proposed agenda. The **MOTION** was **SECONDED** by Ms. El-Assadi and **PASSED** by unanimous consent.

iv. **PUBLIC HEARINGS**

- a. **SPECIAL LAND USE – MOTOWN HOLDINGS, INC. – 6630 RAWSONVILLE ROAD – PARCEL K-11-25-400-014 – TO CONSIDER THE SPECIAL LAND USE PERMIT APPLICATION OF MOTOWN HOLDINGS, INC. TO PERMIT THE CONSTRUCTION OF A TRUCK TERMINAL AND USES WHICH HAVE AN INDUSTRIAL CHARACTER IN TERMS OF EITHER THEIR OUTDOOR STORAGE REQUIREMENTS OR ACTIVITIES SUCH AS SUTOMOBILE GARAGES FOR A 6.030 ACRE SITE ZONED L-M – LOGISTICS AND MANUFACTURING.**

Mr. Iacoangeli, Planning Director, presented to the Commission a special land use application to permit a truck terminal at 6630 Rawsonville. The subject site is 6 acres, zoned L-M – Logistics and Manufacturing, and is designated as Innovation and Employment in the 2040 Master Plan.

Mr. Iacoangeli presented the Commission with an aerial view of the property taken from GIS. The surrounding properties are contractors' yard to the North, nursery, and storage yard to the South, residential to the east, and railroad / storage to the West. All surrounding properties share the same future land use designation of innovation and employment.

Mr. Iacoangeli shared the analysis of the outside reviewing agencies:

Planning Consultant Carlisle Wortman Associates reviewed the Preliminary Site Plan and has recommended approval in their letter dated August 14, 2023. CWA lists the following items need to be addressed by the Planning Commission and applicant prior to making a motion:

1. Circulation approval by the Township Fire Marshall.
2. The Planning Commission should consider waiving additional landscaping along Rawsonville Road but require parking lot landscaping and detention pond landscaping.
3. Install dimmers to dim lights to 50% at dusk.
4. Provide dumpster screening.
5. Based on the discussion with the applicant, the Planning Commission should consider limiting the number of drivers/trucks that operate from the site to 15.

Engineering Consultant – OHM recommended approval for this stage of the process in their August 30, 2023, review letter. OHM has provided preliminary detailed engineering comments that will be addressed at the time of Final Site Plan and Detailed Engineering.

Ypsilanti Community Utilities Authority (YCUA) reviewing agent Acott Westover has recommended preliminary site plan approval in a letter dated August 30, 2023.

Ypsilanti Township Fire Department: Reviewing agent Steve Wallgren has recommended preliminary site plan approval in a letter dated August 30, 2023.

Washtenaw County Water Resources Commission reviewing agent Theresa Marsik offered comments in their letter dated September 8, 2023.

Washtenaw County Road Commission offered comments in their email dated June 27, 2023. The comments were minor due to the applicant utilizing an existing driveway.

Ms. El-Assadi asked Mr. Iacoangeli about the Carlisle Wortman report regarding the need for more than 15 spaces.

Mr. Iacoangeli stated that the applicant could answer this question better, but Carlisle Wortman Associates did ask the applicant multiple questions when putting together their report. Mr. Iacoangeli went through the questions asked for the commissioners:

1. Are trucks picked up daily and returned every night or are trucks gone for extended periods of time?
 - a. Both daily and extended periods 50/50 currently. Things change with the market.
2. Do trucks stored hold any freight in them overnight or is all cargo removed before they return to site?
 - a. In some cases, they will have pending delivery that will stay overnight.
3. What is the normal truck pick up and drop-off times?
 - a. Normal times are 7am to 7pm. Though traffic conditions may alter time.
4. Are goods that are shipped stored in onsite warehouse?
 - a. No. Only stay in truck. Locked at all times.
5. Other than trucks, is there any outdoor storage proposed?
 - a. No.
6. If only 15 drivers are proposed, why are there so many truck spaces?
 - a. Extra space for trailer to be dropped.
7. Are there any other truck repairs other than oil change, tire repair, and filter replacement?
 - a. All items allowed under light maintenance.

Mr. Iacoangeli had the applicant Mr. Sandhu approach the stand to answer any questions the commissioners may have. The applicant's engineer, Mr. Jerry Sosnowski, approached the stand to represent the applicant in the absence of Joseph Maynard of Washtenaw Engineering. Mr. Sosnowski gave credit to Mr. Iacoangeli for representing the project fairly and accurately. Mr. Sosnowski gave the commissioners an overview of the project and how the trucking terminal operates on an average day. Mr. Sosnowski tried to answer all the questions outlined in the report.

Ms. El-Assadi asked Mr. Sosnowski why they are unable to meet the landscaping requirements as outlined in the Staff Report. Mr. Sosnowski went into the parking lot landscaping requirements in detail. Per the applicant, maneuvering semi-trucks is a difficult process and adding landscaping to the parking lot would make the operation much more difficult for drivers. For the stormwater detention landscaping, Mr. Sosnowski discussed that infiltration infrastructure takes up a large surface area of the parcel. They need to keep the stormwater infrastructure clear of vegetation for it to work properly. For the street yard landscaping, Mr. Sosnowski stated that there are existing mature evergreen trees. The location of the house, existing landscaping, driveway, and other utilities make it difficult to add any more landscaping.

Ms. El-Assadi asked for further details on why they need 30 truck spaces when they only have 15 drivers / trucks. Mr. Sosnowski waived the applicant Mr. Sandhu to the stand to answer additional questions. Mr. Sandhu stated that additional spaces are needed for the storage of trailers. Trailers would be periodically dropped off for drivers to pick up.

Ms. Peterson asked the applicant what the hours of operation are and whether the site would be secure. The applicant stated that the hours of operation are 7am to 7pm. The trucks left on site

would have freight stored inside the trailers. The trailers will be locked and secured if left overnight. Ms. Peterson had a follow-up question about whether the site is fenced in. Mr. Sandhu stated that the property currently has a fence in the front yard. The applicant plans on adding additional fencing to enclose the rear of the property.

Mr. Tawakkul asked the applicant how long the applicant has been doing this business and whether he plans on expanding in the future. Mr. Sandhu stated that he has been doing this trucking business since 2008. Currently, the amount of work he has is enough and he does not plan on expanding due to wanting to spend more time with family.

Mr. Doe asked that applicant if he is currently using the site. Mr. Sandhu stated that he is currently using multiple sites outside of the Township but would like to consolidate the business in one place.

Public Hearing opened at 6:51 PM

Hearing No Public Comments.

Public Hearing closed at 6:52 PM

MOTION: Mr. Tawakkul **MOVED** to approve the special land use permit for construction of a 31-sapce truck storage, and use of mechanic shop, and office located at 6630 Rawsonville Road, Parcel K-11-25-400-014, with the following conditions:

1. Applicant shall address all outstanding comments from reviewing agencies prior to Final Site Plan Approval.
2. Applicant shall obtain all applicable internal and outside agency permits prior to construction.
3. The applicant shall install dimmers to dim lights to 50% at dusk.
4. The applicant shall provide dumpster screening.
5. The residential structure is not to be rented or used for residential uses. The residential structure is only to be used for office purposes.
6. No outdoor storage of inoperable vehicles and vehicle parts.
7. No outdoor storage of 3rd party trucks. All trucks must be part of the Motown Holdings, Inc. fleet.
8. All vehicle repairs are for fleet vehicles only. The repair of 3rd party vehicles shall be prohibited.
9. Any other conditions based upon Planning Commission Discussion.

The **MOTION** was **SECONDED** by Mr. Doe

Roll Call Vote: Mr. Copeland (Yes); Ms. El-Assadi (Yes); Mr. Tawakkul (Yes); Mr. Tyson (Yes); Mr. Doe (Yes); Ms. Peterson (Yes); Mr. Sinkule (Yes).

MOTION PASSED.

Mr. Sinkule moved on to the next item but asked Mr. Iacoangeli if the Preliminary Site Plan should be addressed now. Mr. Iacoangeli suggested that the commission make a motion on the Preliminary Site Plan of Motown Holdings, Inc.

MOTION: Mr. Tawakkul **MOVED** to approve the Preliminary Site Plan for construction of a 31-space truck storage, and use of mechanic shop, and office located at 6630 Rawsonville Road, Parcel K-11-25-400-014, with the following conditions:

1. Applicant shall address all outstanding comments from reviewing agencies prior to Final Site Plan approval.
2. Applicant shall obtain all applicable internal and external agency permits prior to construction.
3. Any other conditions based upon Planning Commission Discussion.

The **MOTION** was **SECONDED** by Mr. Doe

Roll Call Vote: Mr. Copeland (Yes); Ms. El-Assadi (Yes); Mr. Tawakkul (Yes); Mr. Tyson (Yes); Mr. Doe (Yes); Ms. Peterson (Yes); Mr. Sinkule (Yes).

MOTION PASSED.

v. **PUBLIC HEARINGS**

- a. **ZONING ORDINANCE TEXT AMENDMENT – TO CONSIDER THE PROPOSED CHANGES TO THE FOLLOWING ZONING ORDINANCES.**

Mr. Iacoangeli informed the Commission that most of the amendments were supposed to go through with the last batch, but due to a publication issue, it was sent as a separate batch of amendments to the Board.

Mr. Iacoangeli requested the Commission make a motion to send the zoning ordinance amendments to the Township Board for its first reading.

- 1) ARTICLE 2, SECTION 201. – DEFINITIONS: The new addition to the definition section.

Adaptive Reuse: The development of a new use for an older building or for a building originally designed for a special or specific purpose.

- 2) ARTICLE 4, SECTION 420. – USE TABLE.

- 3) ARTICLE 5, SECTION 504. – NEIGHBORHOOD CORRIDORS.

- 4) ARTICLE 5, SECTION 505. – REGIONAL CORRIDORS.

- 5) ARTICLE 5, SECTION 507. – DESIGN STANDARDS.

This additional language wasn't included in the zoning ordinance when it was adopted about a year and a half ago "Transparency Alternatives."

Transparency alternatives. The following alternatives may be used singularly or in combination for any side or rear-facing facade which requires transparency. If used in combination, they may count toward no more than 50% of the transparency requirement. Transparency alternatives may be used but cannot be counted toward the transparency requirements for facades that face a right-of-way.

- a. Wall design. Wall designs must provide a minimum of three of the following elements, occurring at intervals no greater than 25 feet horizontally and 10 feet vertically.
 - Expression of the structural system and infill panels through a change in plane not less than three inches.
 - System of horizontal and vertical scaling elements, such as: belt courses, string courses, cornice, and pilasters.
 - System of horizontal and vertical reveals not less than one inch in width/depth.
 - Variations in material module, pattern, and/or color.
 - System of integrated architectural ornamentation.
- b. Outdoor dining/seating: inclusion of outdoor dining/seating located between the building and the primary street lot line.
- c. Permanent art: noncommercial art or graphic design of sufficient scale and orientation to be perceived from the public right-of-way and rendered in materials or media appropriate to an exterior, urban environment and permanently integrated into the building wall.

These criteria, even though they did not exist in the ordinance, were used as part of the Aldi development to allow them to achieve some of their transparency requirements for parts of their building. And one of those choices that they made was the permanent art because they will be putting an art area at the corner of Huron and Brinker.

6) ARTICLE 11, SECTION 1155. – STATE-LICENSED RESIDENTIAL CHILD AND ADULT CARE FACILITIES.

Struck out explicit state licensing rules that are subject to change and swapped them with State of Michigan licensing rules.

This change was made due to running into issues where ordinances have explicit legal numbers in them, and then the state numbers change, and the ordinance doesn't reflect it.

The other change is that the site shall comply with the sign provisions of Article 15.

7) ARTICLE 11, SECTION 1167. – ADAPTIVE REUSE

- i. **Intent:** The intent of this is to facilitate the retention and conversion of older, economically distressed, existing, underutilized, or historically significant buildings to viable uses. Reuse of existing buildings will help to reduce vacant space, create opportunities for new development, and reduce property degradation and blight. Encouraging the reuse of buildings is a sustainable practice to retain much of the energy that went into their initial construction and reduce greenhouse gas emissions. Specifically, the intent of this section is to:
 - a. Provide regulations specifically tailored to encourage and promote the rehabilitation of older used and underutilized buildings.
 - b. Provide for a mix of uses within said adaptive reuse developments, which promote the economic revitalization of Ypsilanti Township.
 - c. Promote the retention of older buildings and lands, which enhance the image and preserve the heritage of Ypsilanti Township.
 - d. Provide reasonable standards for the blending of new construction with existing buildings to allow quality development of older structures within contemporary development and building standards.

- ii. **Criteria:** The provisions of this section are intended to modify the standards otherwise applied to the site by its underlying zoning district. Unless specifically modified by this chapter, all other standards adopted shall apply.

Projects must meet the following criteria to be eligible adaptive reuse projects:

- The project site shall be located in an NB, Neighborhood Commercial, GB, General Commercial, Regional Commercial Form-Based district, Neighborhood Corridor Form-Based district, or the adaptive reuse of a civic building or public-school building in any district.
 - This applies to any building that is at least 20 years old and that was constructed in accordance with building and zoning codes in effect at the time of construction.
 - The project results in a change of use in all or a portion of the existing building.
 - The existing building may not be destroyed by any means to the extent of more than fifty (50) percent of its replacement cost.
- iii. **Allowances:** The setbacks, height loading and parking. The building must have ample parking. Loading the height can exceed the maximum height of the district that it's in. The setbacks need to be considered legally non-conforming, and no further encroachments can be permitted on non-conforming setbacks.

iv. Uses:

- Permitted Uses: Any use that is permitted to use in the underlying zoning district.
- Assembly Uses, Clubs, Banquet Halls and other such uses are not permitted.
- The following uses shall be allowed as a Special Use- Planning Commission approval if they are within an adaptive reuse development:
 - i. Any use that is a Special-Use Planning Commission in the underlying zoning district.
 - ii. Indoor Climate Controlled Self-Storage for reuse of buildings greater than 50,000 square feet.
 - iii. Retail greater than 20,000 sq/ft.
 - iv. Commercial kennel/Pet Day Care.
 - v. Veterinary clinic/veterinary hospital
 - vi. Fitness, gymnastics, exercise centers, and indoor recreational facilities.
 - vii. Theatres.
 - viii. Art Studios
 - ix. Trade Schools and other educational uses.
 - x. Offices and Flex Office Space.
 - xi. Daycare.
 - xii. Craft trades such as breweries, coffee roasters, bakeries, or culinary businesses.
- Unless listed in this section, other uses are not permitted.

v. Specific Conditions:

- a. The provisions of this zoning overlay are intended to modify the standards otherwise applied to the site by its underlying district. Unless specifically modified by this chapter, all other standards adopted for this site shall apply.
- b. All adaptive reuse projects require site plan review as provided for in Article 9.
- c. Adaptive Reuse Projects require a Development Agreement approved by the Township Board of Trustees.
- d. Expansions to the floor area of an eligible building and new construction on the lot must comply with the dimensional requirements provided in the district in which it is located.
- e. The following site elements must be brought into compliance:
 - Parking lot pavement/repairs

- Lighting as set forth in Section 1303.
 - Landscaping as set forth in Section 1301
- f. The application shall make necessary façade improvements as required by ordinance.
 - g. The adaptive reuse project may include both additions and new construction.
 - h. The application shall include security camera and license plate readers.
 - i. The Planning Commission has the authority to require traffic, environmental, and other reports that aid the site plan review.

Mr. Iacoangeli stated that the zoning section permits to utilize existing buildings that would not otherwise be utilized in the manner that they were initially built.

Public Hearing opened at 7:10 PM

Township Resident Peter Marcus had an opportunity to share with the Planning Commission regarding the Adaptive Reuse Zoning Ordinance proposal. Mr. Marcus thought that convention centers and hotels should be added to the list of allowable land uses. The former Walmart building on Ellsworth Road would be perfect for a convention center and hotel. Mr. Marcus states that he has been in the hospitality / hotel business for 40 years and could utilize this space for a popular convention center bringing in people from Michigan, Illinois, Indiana, and Ohio.

Public Hearing closed at 7:15 PM

MOTION: Mr. Tawakkul **MOVED** to recommend approval of the proposed zoning ordinance amendments and to send the proposed amendments to the Township Board for the first reading.

The **MOTION** was **SECONDED** by Mr. Doe.

Roll Call Vote: Mr. Copeland (Yes); Ms. El-Assadi (Yes); Mr. Tawakkul (Yes); Ms. Tyson (Yes); Mr. Doe (Yes); Ms. Peterson (Yes); Mr. Sinkule (Yes).

MOTION PASSED.

vi. **OLD BUSINESS**

None

vii. **OPEN DISCUSSIONS FOR ISSUES NOT ON AGENDA**

- **Correspondence received**

None to Report.

- **Planning Commission members**

The members discussed the development of Round House.

- **Members of the audience**

None to Report.

viii. TOWNSHIP BOARD REPRESENTATIVE REPORT

None to Report

ix. ZONING BOARD OF APPEALS REPRESENTATIVE REPORT

None to Report.

x. TOWNSHIP ATTORNEY REPORT

None to Report.

xi. PLANNING DEPARTMENT REPORT

None to Report.

xii. OTHER BUSINESS

None to Report.

xiii. ADJOURNMENT

MOTION: Ms. El-Assadi **MOVED** to adjourn at 7:30 pm. The **MOTION** was **PASSED** by unanimous consent.

Respectively Submitted by Minutes Services.

Planning Director's Report

Project Name: Kalitta Turbines Expansion

Location: 2830 Tyler Road, Ypsilanti, MI 48198

Date: 10-16-2023

- | | |
|---|---|
| <input checked="" type="checkbox"/> Full Preliminary Site Plan Review # 2
<input type="checkbox"/> Sketch Preliminary Site Plan Review #
<input type="checkbox"/> Administrative Preliminary Site Plan Review #
<input type="checkbox"/> Detailed Engineering/Final Site Plan Review #
<input type="checkbox"/> Special Use Permit
<input type="checkbox"/> Public Hearing | <input type="checkbox"/> Rezoning
<input type="checkbox"/> Tentative Preliminary Plat
<input type="checkbox"/> Final Preliminary Plat
<input type="checkbox"/> Final Plat Process
<input type="checkbox"/> Planned Development Stage I
<input type="checkbox"/> Planned Development Stage II |
|---|---|

Contact / Reviewer	Consultants, Departments, & Agencies	Approved	Approved with Conditions	Denied	N/A	See email/letter attached or comments below
Jason Iacoangeli, Planning Director	Township Planning Department	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See attached letter
Carlisle/Wortman Associates	Planning Consultant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
OHM / Stantec	Engineering Consultant	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See letter dated 10-03-2023
Steven Wallgren, Fire Marshal	Township Fire Department	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See letter dated 10-09-2023
Dave Bellers, Building Official	Township Building Department	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Brian McCleery, Deputy Assessor	Township Assessing Department	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Scott Westover, Engineering Manager	Ypsilanti Community Utilities Authority	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See letter dated 10-11-2023
Gary Streight, Project Manager	Washtenaw County Road Commission	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Theresa Marsik, Stormwater Engineer	Washtenaw County Water Resources Commission	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
James Drury, Permit Agent	Michigan Department of Transportation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Planning Director's Recommended Action:

At this time, Kalitta Turbines is eligible for Preliminary Site Plan consideration by the Planning Commission. This project is being placed on the Planning Commission Agenda for Tuesday, October 24, 2023 for Preliminary Site Plan consideration. It would be the Planning Department's recommendation that the Planning Commission grant Preliminary Site Plan approval as this project meets the conditions of the Township Zoning Ordinance for a industrial development of this type. The approval must be contingent on the applicant addressing the remaining outside agency comments required as part of the Final Site Plan / detailed Engineering design. Furthermore, approval should be contingent on the applicant obtaining all required inside / outside agency permits and approvals.



Staff Report
Kalitta Turbines: Storage Building
2830 Tyler Road, Ypsilanti, MI 48198
Preliminary Site Plan

October 24, 2023

Applicant: Peter W. Bedder

Project Name: Kalitta Turbines Storage Building

Plan Date: 08-24-2023

Location: 2830 Tyler Road, Ypsilanti, MI 48198 Parcel #K-11-13-206-007

Zoning: I-C – Industrial and Commercial

Action Requested: Preliminary Site Plan Approval

CASE LOCATION AND SUMMARY

The Office of Community Standards is in receipt of a Preliminary Site Plan Application from Mr. Bedder representing Kalitta Turbines requesting authorization for the construction of a 12,000 sq. ft. storage facility, 39,600 sq. ft. future building, and the construction of the associated parking areas, driveways, utilities, storm water management system, and landscaping. This project will include a land combination of the existing warehouse / avionic repair facility located at 2850 Tyler Road with the parcel located at 2830 Tyler Road.

CROSS REFERENCES

- Article 4, District Regulations
- Article 9, Site Plan Review
- Article 11, Specific Provisions
- Article 12, Access, Parking, Loading
- Article 13, Site Design Standards

SUBJECT SITE USE, ZONING AND COMPREHENSIVE PLAN

The Charter Township of Ypsilanti 2040 Master Plan designates this site for Innovation & Employment District, a designation intended to be the major employment area of the Township. The area is targeted for companies at the cutting edge of innovation with a combination of technology, office, and craft manufacturing or light industrial uses. The site is currently zoned I-C – Industrial and Commercial and we find that the proposed use of the site as a storage facility for avionic repair is consistent with the Master Plan.

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
— PLANNING & ZONING DEPARTMENT —

Trustees
John Newman II
Gloria Peterson
Debbie Swanson
Ryan Hunter

2830 Tyler Road, Ypsilanti, MI 48198 – Aerial Photograph 2020





ADJACENT USES, ZONING AND COMPREHENSIVE PLAN

<i>Direction</i>	<i>Use</i>	<i>Zoning</i>	<i>Master Plan</i>
North	Manufacturing	I-C – Industrial and Commercial	Innovation & Employment District
South	Wastewater Management	I-C – Industrial and Commercial	Innovation & Employment District
East	Office	I-C – Industrial and Commercial	Innovation & Employment District
West	Light Industrial – Avionic Repair / Storage	I-C – Industrial and Commercial	Innovation & Employment District

NATURAL FEATURES

Topography: The subject parcel is relatively flat.

Woodlands: The site has woodlands on the southern portion of the property.

Wetlands: There are no wetlands on the subject property. According to FEMA MAP 26161C0435E, Dated April 3, 2012, the site is in an area of minimal flood hazard.

Soils: Unknown

LAND USE

The land use table is in Sec. 420 of the Township Zoning Ordinance. This table establishes where certain land uses are permitted in the Township.

Sec. 420 – Residential Use Table

Proposed Use	Complies with Sec. 420 Residential Use Table
Warehouse and Storage	Complies



HEIGHT, BULK, DENSITY AND AREA

Height, Bulk, Density and Area requirements for developments in the I-C – Industrial and Commercial Zoning District are established in Sec. 416 of the Township Zoning Ordinance.

Sec. 416. – Industrial and Commercial District:

	Required / Allowed	Provided	Complies with Sec. 416 – Industrial and Commercial District
Lot Area	None	11.98 Acres	Complies
Lot Width	None	+/- 372 Feet	Complies
Front Yard Setback (Tyler Road)	20'	+/- 370'	Complies
Side Yard Setback (Western Lot Line)	40'	+/- 230'	Complies
Side Yard Setback (Eastern Lot Line)	40'	+/- 66'	Complies
Rear Yard Setback (Southern Lot Line)	50'	+/- 374'	Complies
Building Height for New Building (Feet)	50'	38'	Complies
Building Height for Building Addition (Feet)	50'	32.6'	Complies
Maximum Lot Coverage (All Buildings)	None	119,883 sq. ft.	Complies



PARKING AND LOADING

Sec. 1205, 1206, and 1207 of the Township Zoning Ordinance require all developments in the Township to have adequate parking accommodation for employees and members of the public.

Sec. 1205, 1206, and 1207

	Required	Provided
Warehouse and Wholesale establishments: Five (5) plus one (1) for every one (1) employee in the largest working shift, or five (5) plus one (1) for every one thousand-seven hundred (1,700) square feet of usable floor space, whichever is greater.	12,000 (proposed building) + 39,600 (Future Building) + 68,282 (existing building) = 119,883 sq. ft. 119,883 sq. ft. – 119,883/1,700 = 70 Parking Spaces	48 spaces
Barrier Free	3	1
Loading	1	0
Bicycle Facility	1	0
Total	75	48

Items to be addressed: Since the “future building” is proposed later, the applicant will need to include an additional twenty-three (23) parking spaces at that point to be compliant with the parking standards.

The minimum parking standards are currently met when factoring in the existing building and the proposed 12,000 sq. ft. building – 12,000 + 68,282 = 80,282. 80,282/1,700 = 47 parking spaces.

The applicant does not provide a loading space on the plans. The Planning Commission may waiver loading space requirements.

BICYCLE AND PEDESTRIAN ACCOMMODATIONS

Sec. 1206 of the Township Zoning Ordinance allows the Planning Commission to require additional walkways and pedestrian connections as part of the site plan review.

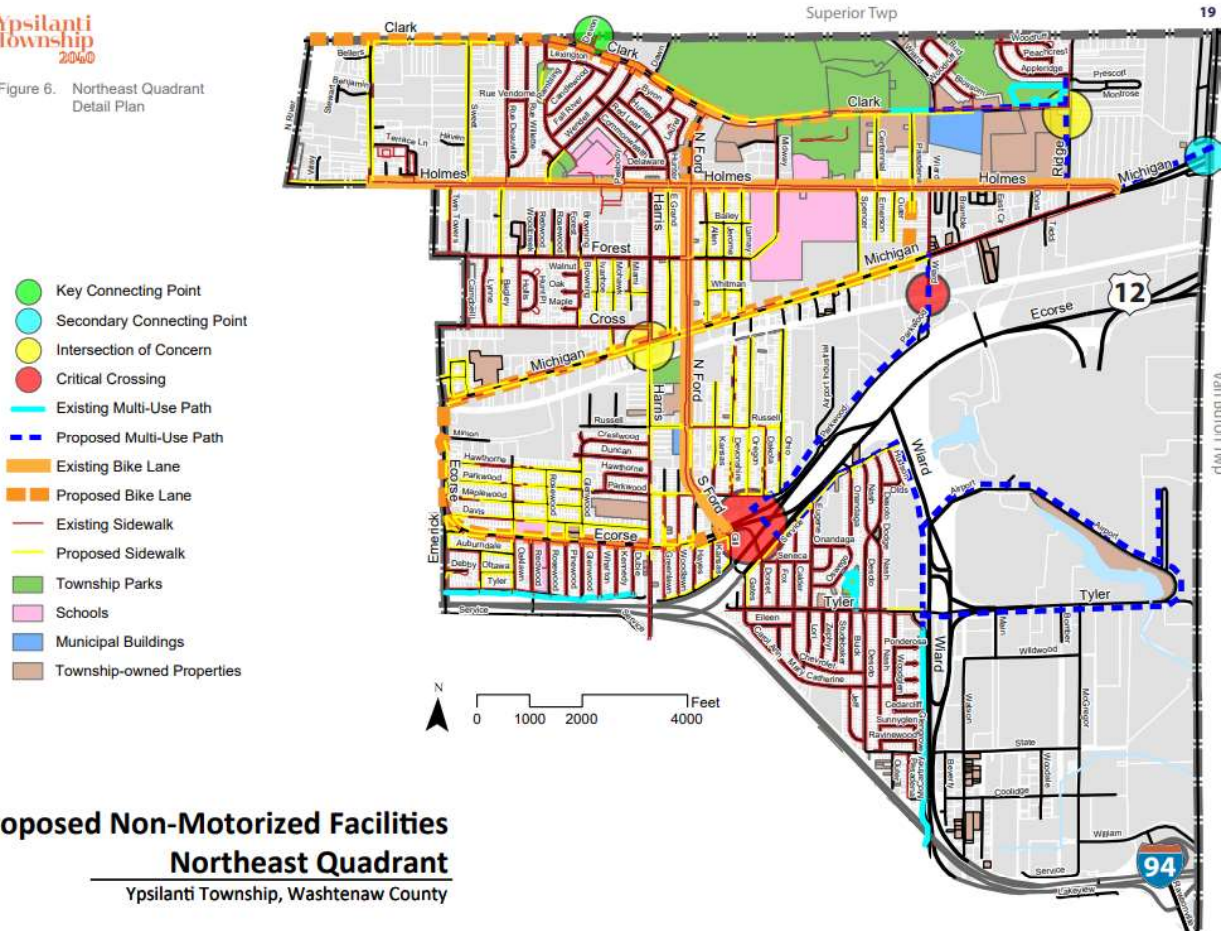
Items to be addressed: The Charter Township of Ypsilanti Non-Motorized-Transportation Plan calls for a “Multi-Use Path” to connect Tyler Road and Airport Drive



to the neighboring Willow Run Neighborhood on Wiard Road. The applicant has included a concrete pathway along both properties. The proposed plan is in compliance with The Charter Township of Ypsilanti Non-Motorized Transportation Plan.



Figure 6. Northeast Quadrant Detail Plan



**Proposed Non-Motorized Facilities
 Northeast Quadrant**
 Ypsilanti Township, Washtenaw County



LANDSCAPE REQUIREMENTS

Sec. 1301. – Landscape Requirements

	Required	Provided	Compliance
Street Yard Landscaping: 1 Large deciduous tree per 40ft of frontage, 1 ornamental tree per 100 ft of frontage, 1 shrub per 10 ft. of frontage.	372 L.F. / 40 L.F = 9 Deciduous Trees 372 L.F. / 100 L.F. = 4 Ornamental trees 372 L.F. / 10 = 37 Shrubs	19 Deciduous Trees. 35 Ornamental Trees.	Complies
Parking Lot: 1 large deciduous tree per 2,000 sq/ft of pavement and 1 per 40 lineal feet.	63,407 S.F. / 2,000 S.F. = 31 interior deciduous trees. 540 / 40 = 13 exterior trees. 44 Trees	None	Does not comply

Items to be addressed: Applicant is requesting that the Planning Commission waive the parking lot landscaping requirements of the Township Zoning Ordinance.

DUMPSTER ENCLOSURE

Sec. 1302. – Trash and Recycling Receptacles

Items to be addressed: Applicant has included a dumpster enclosure on the plans dated 08-24-2023.

EXTERIOR LIGHTING

Sec. 1303. - Exterior Lighting

Items to be addressed: Applicant provided a lighting plan for the proposed development. The proposed lighting meets the standards of the Township Zoning Ordinance.

ELEVATIONS

Sec. 1306. – Building Design Requirements

The proposed building is a 100’ x 120’ metal industrial building. The building materials are ribbed metal siding, continuous metal overflow metal gutters and downspouts, metal roof panels, two (2) 14’ x 14’ insulated sectional overhead door, and five (5) 7’ x 3’ metal doors.

Items to be addressed: Per Sec. 1306.D, when building walls are one hundred (100) feet or greater in length, design variations must be applied to assure that the building is



not monotonous in appearance. Such variations include but are not limited to the following:

1. Recess and projects along the building façade. Variations in depth should be a minimum of ten (10) feet.
2. Architectural details or features.
3. Enhanced ornamentation around building entryways.
4. Landscaping.
5. Streetscape elements.
6. Variations in building height.

Per Sec. 1306.I. Industrial buildings may use metal as 75% of the total exterior building material.

The applicant has provided additional materials in the most recent submittal dated 08-24-2023 to meet the standards mentioned above. The proposed elevations meet the standards of the Township Zoning Ordinance.

Suggested motions: *The following suggested motions and conditions are provided to assist the Planning Commission in making the most appropriate motion for this application. The Commission may utilize, add, or reject any conditions suggested herein, as they deem appropriate.*

Motion to table:

*“I move to table the request for **preliminary site plan** approval for construction of a of a 12,000 sq. ft. storage facility, 39,600 sq. ft. future building, and the construction of the associated parking areas, driveways, utilities, storm water management system, and landscaping for a site zoned I-C – Industrial and Commercial, located at 2380 Tyler Road, Ypsilanti, MI 48198, Parcel K-11-13-206-007, to consider the comments presented by the Planning Commission during the discussion of the project.”*

Motion to approve.

*“I move to approve the for **preliminary site plan** approval for construction of a of a 12,000 sq. ft. storage facility, 39,600 sq. ft. future building, and the construction of the associated parking areas, driveways, utilities, storm water management system, and landscaping for a site zoned I-C – Industrial and Commercial, located at 2380 Tyler Road, Ypsilanti, MI 48198, Parcel K-11-13-206-007, with the following conditions:*

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
— PLANNING & ZONING DEPARTMENT —

Trustees
John Newman II
Gloria Peterson
Debbie Swanson
Ryan Hunter

1. *The applicant shall address all outstanding comments from reviewing agencies prior to Final Site Plan approval.*
2. *Applicant shall obtain all applicable internal and outside agency permits prior to construction.*
3. *Any other conditions based upon Planning Commission Discussion.*

Motion to deny:

*“I move to deny the **preliminary site plan** for construction of a of a 12,000 sq. ft. storage facility, 39,600 sq. ft. future building, and the construction of the associated parking areas, driveways, utilities, storm water management system, and landscaping for a site zoned I-C – Industrial and Commercial, located at 2380 Tyler Road, Ypsilanti, MI 48198, Parcel K-11-13-206-007 due to the following reasons:”*

Respectfully submitted,

Fletcher Reyher, Planning & Development Coordinator
Charter Township of Ypsilanti Planning Department

October 3, 2023

Mr. Jason Iacoangeli
Township Planning Director
Charter Township of Ypsilanti
7200 S. Huron River Drive
Ypsilanti, MI 48197

RE: Kalitta Turbines Expansion
Site Plan Review #2

Dear Mr. Iacoangeli:

We have completed the second site plan review of the plans dated August 24, 2023, with a latest revision date of September 25, 2023, and stamped received by OHM Advisors on September 27, 2023.

At this time, the plans are recommended for approval for the Planning Commission's consideration, contingent on the following comments being addressed prior to submitting for detailed engineering review. Preliminary detailed engineering comments have been provided to the applicant as a courtesy and shall also be addressed prior to submitting detailed engineering plans for review.

A brief description of the project has been provided below (Section A), followed by our comments (Section B and C) and a list of anticipated required permits and approvals (Section D). Comments in Section C are detailed in nature, do not influence the overall site layout, and can be addressed during the detailed engineering drawing submittal.

A. PROJECT AND SITE DESCRIPTION

The applicant is proposing a pre-engineered storage building at 2830 Tyler Road as a building expansion for Kalitta Turbines. The proposed building will include associated utility and parking improvements.

The site will be serviced by connection to the existing 8-inch water main along the south side of Tyler Road. The stormwater runoff will be managed by a traditional underground conveyance system that will outlet to a nearby existing detention pond. No sanitary sewer is being proposed at this time.

B. SITE PLAN COMMENTS

Site Utilities

1. The applicant noted in their response letter that a looped water main will be installed with the construction of the second building addition to the south of the detention pond. The applicant shall provide the proposed water main and easement layout on the plans for review prior to detailed engineering approval. It is also noted in the YCUA review letter, dated July 27, 2023, that the existing 8-inch water main along Tyler Road may not be continuous between McGregor Road and the easement west of 2800 Tyler Road. The proposed 8-inch water main on-site shall also be made public. This office defers to YCUA and the Ypsilanti Township Fire Department on the review and approval of the proposed water main layout, including the potential future water main loop.



Stormwater Management

2. The applicant shall provide stormwater management calculations for the existing detention basin, based on the current Washtenaw County Water Resource Commissioner's (WCWRC) Standards, on the plans for review to ensure there is adequate volume available for the additional runoff. Stormwater management calculations based on the old WCWRC Standards will not be accepted. It is also recommended that the applicant provide water quality measures for the proposed development.

General

3. The applicant shall provide a landscape plan with the existing and proposed utilities overlaid on it for review. The applicant noted in their response letter that a landscape plan has been prepared and provided for review; however, it appears to be missing from the plan set.

C. PRELIMINARY DETAILED ENGINEERING PLAN COMMENTS

The following comments shall be addressed by the applicant during the detailed engineering drawing submittal, and do not affect the recommendation for approval to the Township of Ypsilanti Planning Commission. It should be noted that this is not an all-inclusive list and additional comments may be generated as new information is presented.

1. The applicant shall provide spot elevations along both sides of the proposed sidewalk along Tyler Road at 50-foot intervals. The applicant shall note that the cross-slope shall not exceed 2% per ADA Standards.
2. The applicant shall label the acreages, C-factors, and C-factor calculations for the proposed drainage areas (Sheet CE-5).
3. The applicant shall provide a draft of the easement from 2820 Tyler Road for the proposed stormwater outlet to the existing detention pond to this office for review prior to recording with the County.
4. The applicant shall provide a maintenance schedule for all proposed permanent soil erosion and stormwater management activities both during and after construction. The schedule shall include the frequency of activities as well as the party responsible.
5. The applicant shall provide a stormwater narrative on the plans clarifying how the proposed stormwater runoff will be managed, as well as if any Best Management Practices (BMPs) are being provided.
6. The applicant shall provide a Certificate of Outlet, signed and sealed by a registered engineer in the State of Michigan, on the plans.
7. The applicant shall address the following regarding the storm sewer profiles (Sheet CE-4) as there appears to be discrepancies:
 - a. Verify the slope between CB#4 and CB#5.
 - b. Verify the east invert of CB#6.
 - c. Verify the inverts of INL#4A.
8. The applicant shall provide the proposed water main and storm sewer materials on the utility plan for clarity.



D. REQUIRED PERMITS & APPROVALS

The following outside agency reviews and permits will be required for the project. Copies of any correspondence between the applicant and the review agencies, as well as the permit or waiver, shall be sent to both the Township and OHM Advisors (email: stacie.monte@ohm-advisors.com).

- ▶ **Ypsilanti Community Utilities Authority (YCUA):** Review and approval of all water main improvements will be required.
- ▶ **Ypsilanti Township Fire Department:** Review and approval is required.
- ▶ **Washtenaw County Water Resources Commissioner's Office (WCWRC):** Review and approval is required.
- ▶ **Washtenaw County Road Commission (WCRC):** Review and approval of all work within the Tyler Road ROW is required.
- ▶ **Michigan Department of Environment, Great Lakes & Energy (EGLE):** An EGLE Act 399 permit will be required for construction of all public water main improvements.
- ▶ **Ypsilanti Township Office of Community Standards:** A Soil Erosion and Sedimentation Control permit shall be secured from the Ypsilanti Township Office of Community Standards.
- ▶ The Township's Planner will inspect the landscaping for this site.
- ▶ If dewatering should be needed, the contractor/applicant shall be responsible for obtaining necessary approvals from the Township and the Township Engineer, permission from all impacted adjacent properties and/or permits from MDOT, WCWRC's Office, or the WCRC.
- ▶ Record plans shall be provided to the Township Engineer following the completion of construction.

Should you have any questions regarding this matter, please contact this office at (734) 466-4580.

Sincerely,
OHM Advisors

Matthew D. Parks, P.E.

Stacie L. Monte

MDP/SLM

cc: Fletcher Reyher, Township Staff Planner
Doug Winters, Township Attorney
Steven Wallgren, Township Fire Marshall
File

P:\0000_0100\SITE_YpsilantiTwp\2023\0098231080_2830 Tyler Rd_Kalitta Turbines Expansion\MUNI\01_SITE\PSP#2\Kalitta Turbines Expansion_PSP#2_2023-10-03.docx

CHARTER TOWNSHIP OF YPSILANTI FIRE DEPARTMENT

BUREAU OF FIRE PREVENTION

222 South Ford Boulevard, Ypsilanti, MI 48198



October 9, 2023

Jason Iacoangeli, Planning Director
Charter Township of Ypsilanti
7200 S. Huron River Drive
Ypsilanti, MI 48197

RE: Preliminary (non-residential) Site Plan Review #1

Project Name:	Kalitta Turbines Building Addition
Project Location:	2850 Tyler Rd. Ypsilanti, MI 48198
Plan revision Date:	9/25/2023
Job #:	SM23059
Drawing #:	SM23059SPL
Applicable Codes:	IFC 2018
Engineer:	Spalding DeDecker Engineering and Surveying
Engineer Address:	27333 Meadowbrook Rd., Suite 210 Novi, MI 48377

Status of Review

Status of review: Approved as Submitted

All pages were reviewed.

Site Coverage - Access

Comments: Complies with IFC 2018,

- Knox box positioning can be discussed with the Project manager. If the adjacent building has a Knox box, we can discuss future positioning to meet both building's needs.
- As a note. In the future if these buildings are proposed to be attached, suppression will be required.

.Sincerely,

A handwritten signature in cursive script that reads "Steve Wallgren".

Steve Wallgren, Fire Marshal
Charter Township of Ypsilanti Fire Department
CFPS, CFI I



YPSILANTI COMMUNITY UTILITIES AUTHORITY

2777 STATE ROAD
YPSILANTI, MICHIGAN 48198-9112
TELEPHONE: 734-484-4600
WEBSITE: www.ycua.org

October 11, 2023

VIA ELECTRONIC MAIL

Mr. Jason Iacoangeli, Planning Director
Office of Community Standards
CHARTER TOWNSHIP OF YPSILANTI
7200 S. Huron River Drive
Ypsilanti, MI 48197

Re: Preliminary (non-residential) Site Plan Review #2
Kalitta Turbines Expansion
Charter Township of Ypsilanti (Plan Date: 06-20-2023)

Dear Mr. Iacoangeli:

In response to the electronic mail message from your office dated September 27, 2023, we have reviewed both the referenced plans as well as the conceptual plan for offsite water main with regards to water supply and wastewater system design. The plans are not acceptable to YCUA.

1. Please note that YCUA is not certain the existing 8" diameter water main is continuous between McGregor Road and the easement west of 2800 Tyler Road. It is believed that the pipe may not have been originally constructed along the entire length of the corridor or that it may have been cut and capped somewhere between the existing hydrants. YCUA staff continues to investigate this item. Should the existing water main prove to be a dead-end pipe, it would eliminate the potential for installation of the currently proposed dead-end extension addressed below.
2. The proposed water main shall be public.
3. The proposed blowoff at the terminal end of the water main is not acceptable. In lieu of the blowoff, an 8" diameter pipe with cap or plug shall be stubbed south of the proposed gate valve.
4. Per discussion with the Applicant, it is understood that future buildings and/or building additions are planned. It is recommended that the proposed buildings/additions and water supply and wastewater utilities necessary to serve the future expansion be shown on the plans.

As there are no water services or sanitary laterals shown to the proposed building, connection fees do not apply. The construction phase escrow deposit and associated fees and deposits and the entity responsible for maintaining those accounts will be determined during the Detailed Engineering phase of the project in conjunction with your office and the Township Engineer. Should there be any questions please contact this office.

Sincerely,



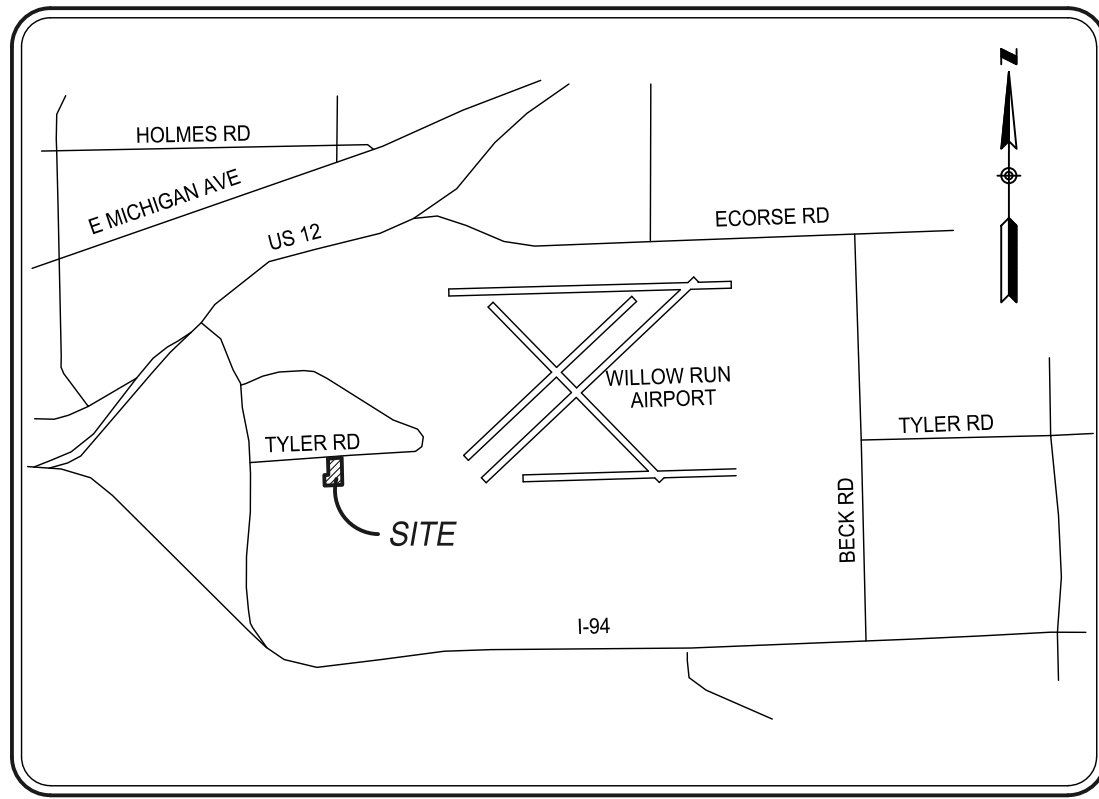
SDW Digital Signature

SCOTT D. WESTOVER, P.E., Engineering Manager
Ypsilanti Community Utilities Authority

Mr. Jason Iacoangeli
CHARTER TOWNSHIP OF YPSILANTI
October 11, 2023
Page 2

cc: Mr. Luke Blackburn, Mr. Sean Knapp, File, YCUA
Mr. Fletcher Reyer, Charter Township of Ypsilanti
Mr. Eric Copeland, Mr. Steve Wallgren, Township Fire Department
Mr. Matt Parks, P.E., Ms. Stacie Monte, Township Engineer
Mr. Peter Bedder, Applicant
Mr. Paul Lewsley, P.E., Applicant's design engineer

G:\CDproj\YpsiTwp\2023 - Kalitta Turbines Expansion\PNRSP Rev#2.docx



LOCATION MAP
NOT TO SCALE

KALITTA TURBINES PARCEL

2850 TYLER ROAD
YPSILANTI, MICHIGAN
PARCEL "C"
ZONING 1-C
INDUSTRIAL - COMMERCIAL

BUILDING ADDITION SDA JOB No. SM23059

ENGINEER:

SPALDING DeDECKER
905 SOUTH BLVD. EAST
ROCHESTER HILLS, MI 48307
(248)844-5400

AS CALCULATED LEGAL DESCRIPTION - PROPOSED PARCEL C
SOURCE: BASED ON FIELD SURVEY PERFORMED BY SPALDING DeDECKER IN APRIL 2023

LAND LOCATED IN THE NORTHWEST 1/4 OF SECTION 13, TOWNSHIP 03 SOUTH, RANGE 07 EAST, OF YPSILANTI TOWNSHIP, WASHTEENAW COUNTY, MICHIGAN; SAID LAND BEING COMPRISED OF THE EAST HALF OF LOTS 360 THROUGH 369 INCLUSIVE OF "TEXTILE SUBDIVISION" ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 6 ON PAGE 57 OF PLATS, WASHTEENAW COUNTY RECORDS; ALSO LOTS 400 THROUGH 409 INCLUSIVE OF SAID "TEXTILE SUBDIVISION"; ALSO LOTS 498 THROUGH 547 INCLUSIVE OF SAID "TEXTILE SUBDIVISION"; ALSO ALL OF THE TWENTY FOOT (20') WIDE ALLEY ADJACENT TO LOTS 515 THROUGH 530 INCLUSIVE THAT WAS VACATED IN A RESOLUTION BY THE WASHTEENAW COUNTY ROAD COMMISSION AS RECORDED IN LIBER 958, PAGE 144 OF WASHTEENAW COUNTY REGISTER OF DEEDS; ALSO ALL OF VACATED WOODDALE AVENUE (80' WIDE) FROM THE SOUTHERLY SIXTY FOOT (60') RIGHT OF WAY LINE OF TYLER ROAD (120' WIDE) TO THE NORTHERLY RIGHT OF WAY LINE OF WILDWOOD AVENUE (80' WIDE); ALSO THE WEST 1/2 OF VACATED BOMBER AVENUE (PLATTED AS TEXTILE AVENUE 88' WIDE) ADJACENT TO LOTS 529 THROUGH 547; SAID LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTH 1/4 CORNER OF SECTION 13, TOWNSHIP 03 SOUTH, RANGE 07 EAST, OF YPSILANTI TOWNSHIP, WASHTEENAW COUNTY, MICHIGAN; THENCE DUE SOUTH 60.07 FEET ALONG THE NORTH-SOUTH 1/4 LINE OF SAID SECTION 13 TO THE POINT OF BEGINNING; THENCE CONTINUING DUE SOUTH 866.96 FEET ALONG SAID NORTH-SOUTH 1/4 LINE ALSO BEING THE CENTERLINE OF VACATED BOMBER AVENUE 88 FEET WIDE (ORIGINALLY PLATTED AS TEXTILE AVENUE 88 FEET WIDE); THENCE S89°07'30"W 607.64 FEET ALONG THE NORTHERLY RIGHT OF WAY LINE OF WILDWOOD AVENUE (80' WIDE); THENCE N00°01'45"E 407.51 FEET ALONG THE WEST LINE OF THE EAST HALF OF LOTS 360 THROUGH 369 INCLUSIVE OF SAID "TEXTILE SUBDIVISION"; THENCE S89°58'15"E 75.00 FEET ALONG THE NORTHERLY LINE OF SAID LOT 369 TO THE NORTHEAST CORNER OF SAID LOT 369; THENCE N00°01'45"E 9.64 FEET ALONG THE WESTERLY LINE OF LOT 400 OF SAID "TEXTILE SUBDIVISION" TO THE NORTHWEST CORNER OF SAID LOT 400; THENCE S89°58'15"E 140.00 FEET ALONG THE NORTH LINE OF SAID LOT 400 TO THE WESTERLY RIGHT OF WAY LINE OF VACATED WOODDALE AVENUE (80' WIDE); THENCE N00°01'45"E 450.50 FEET ALONG SAID WESTERLY RIGHT OF WAY LINE OF WOODDALE AVENUE TO THE NORTHEAST CORNER OF LOT 391 OF SAID "TEXTILE SUBDIVISION"; THENCE N87°10'45"E 392.34 FEET ALONG THE SOUTHERLY 80 FOOT RIGHT OF WAY LINE OF TYLER ROAD (120' WIDE) TO THE POINT OF BEGINNING. CONTAINING 9.80 ACRES OF LAND. SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD OR OTHERWISE.

LEGAL DESCRIPTION OF TAX PARCEL NO. K-11-13-206-006
BASED ON FIELD SURVEY PERFORMED BY SPALDING DeDECKER IN APRIL 2023

LAND LOCATED IN THE NORTHWEST 1/4 OF SECTION 13, TOWNSHIP 03 SOUTH, RANGE 07 EAST, OF YPSILANTI TOWNSHIP, WASHTEENAW COUNTY, MICHIGAN; SAID LAND BEING COMPRISED OF THE EAST HALF OF LOTS 370 THROUGH 377 INCLUSIVE OF "TEXTILE SUBDIVISION" ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 6 ON PAGE 57 OF PLATS, WASHTEENAW COUNTY RECORDS; ALSO LOTS 382 THROUGH 399 INCLUSIVE OF SAID "TEXTILE SUBDIVISION"; ALSO THE NORTH HALF OF THE TWENTY FOOT (20') WIDE ALLEY ADJACENT TO LOTS 382 THROUGH 391 INCLUSIVE AND SOUTH HALF OF VACATED TWENTY FOOT (20') WIDE ALLEY ADJACENT TO LOT 392 AND THE EAST HALF OF LOT 377 THAT WAS VACATED IN A RESOLUTION BY THE WASHTEENAW COUNTY ROAD COMMISSION AS RECORDED IN LIBER 958, PAGE 144 OF WASHTEENAW COUNTY REGISTER OF DEEDS; SAID LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTH 1/4 CORNER OF SECTION 13, TOWNSHIP 03 SOUTH, RANGE 07 EAST, OF YPSILANTI TOWNSHIP, WASHTEENAW COUNTY, MICHIGAN; THENCE DUE SOUTH 60.07 FEET ALONG THE NORTH & SOUTH 1/4 LINE OF SAID SECTION 13; THENCE S87°10'45"W 392.34 FEET ALONG THE SOUTHERLY 60 FOOT RIGHT OF WAY LINE OF TYLER ROAD (120' WIDE) TO THE NORTHEASTLY CORNER OF SAID LOT 391; SAID POINT BEING THE POINT OF BEGINNING; THENCE S00°01'45"W 450.50 FEET ALONG THE WESTERLY RIGHT OF WAY LINE OF VACATED WOODDALE AVENUE (80' WIDE) TO THE SOUTHEASTLY CORNER OF SAID LOT 399; THENCE N89°58'15"W 140.00 FEET ALONG THE SOUTHERLY LINE OF SAID LOT 399 TO ITS SOUTHWESTERLY CORNER; THENCE S00°01'45"W 9.64 FEET ALONG THE EAST LINE OF SAID LOT 370 TO ITS SOUTHEASTLY CORNER; THENCE N89°58'15"W 75.00 FEET ALONG THE SOUTHERLY LINE OF SAID LOT 370; THENCE N00°01'45"E 339.42 FEET TO THE CENTERLINE OF SAID VACATED ALLEY; THENCE N87°10'45"E 10.09 FEET ALONG SAID CENTERLINE OF VACATED ALLEY; THENCE N00°01'45"E 110.01 FEET ALONG THE WESTERLY LINE OF SAID LOT 382 TO ITS NORTHWEST CORNER; THENCE N87°10'45"E 205.18 FEET ALONG THE SAID SOUTHERLY RIGHT OF WAY LINE OF TYLER ROAD TO THE POINT OF BEGINNING. CONTAINING 2.19 ACRES OF LAND. SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD OR OTHERWISE.

LEGAL DESCRIPTION OF STORM WATER DETENTION EASEMENT OVER PARCEL NO. K-11-13-206-006
BASED ON FIELD SURVEY PERFORMED BY SPALDING DeDECKER IN APRIL 2023

LAND LOCATED IN THE NORTHWEST 1/4 OF SECTION 13, TOWNSHIP 03 SOUTH, RANGE 07 EAST, OF YPSILANTI TOWNSHIP, WASHTEENAW COUNTY, MICHIGAN; SAID LAND BEING COMPRISED OF THE EAST HALF OF LOTS 370, 371, AND PART OF 372 OF "TEXTILE SUBDIVISION" ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 6 ON PAGE 57 OF PLATS, WASHTEENAW COUNTY RECORDS; ALSO LOTS 398, 399, AND PART OF 397 OF SAID "TEXTILE SUBDIVISION"; SAID LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTH 1/4 CORNER OF SECTION 13, TOWNSHIP 03 SOUTH, RANGE 07 EAST, OF YPSILANTI TOWNSHIP, WASHTEENAW COUNTY, MICHIGAN; THENCE DUE SOUTH 60.07 FEET ALONG THE NORTH & SOUTH 1/4 LINE OF SAID SECTION 13; THENCE S87°10'45"W 392.34 FEET ALONG THE SOUTHERLY 60 FOOT RIGHT OF WAY LINE OF TYLER ROAD (120' WIDE) TO THE NORTHEASTLY CORNER OF SAID LOT 391; THENCE S00°01'45"W 345.5 FEET ALONG THE WESTERLY RIGHT OF WAY LINE OF VACATED WOODDALE AVENUE (80' WIDE) TO THE POINT OF BEGINNING; THENCE CONTINUING S00°01'45"W 105.00 FEET TO THE SOUTHEASTLY CORNER OF SAID LOT 399; THENCE N89°58'15"W 140.00 FEET ALONG THE SOUTHERLY LINE OF SAID LOT 399 TO ITS SOUTHWESTERLY CORNER; THENCE S00°01'45"W 9.64 FEET ALONG THE EAST LINE OF SAID LOT 370 TO ITS SOUTHEASTLY CORNER; THENCE N89°58'15"W 75.00 FEET ALONG THE SOUTHERLY LINE OF SAID LOT 370; THENCE N00°01'45"E 114.64 FEET; THENCE S89°58'15"E 215.00 FEET TO THE POINT OF BEGINNING. CONTAINING 0.51 ACRES OF LAND. SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD OR OTHERWISE.

BENCHMARK DESCRIPTIONS
DATUM: GPS-DERIVED NAVD88

SITE BM#100	SET RR SPIKE ON N. FACE OF UTILITY POLE ±30' SOUTH OF TYLER ROAD AND ±60' EAST OF ENTRANCE TO #2820 TYLER ROAD.	ELEV = +719.31
SITE BM#101	SET CHISELED "4" ON SOUTHWEST BOLT ON TOP FLANGE OF HYDRANT ±15' SOUTH OF TYLER ROAD AND ±10' WEST OF WEST FACE OF BUILDING.	ELEV = +720.27

UTILITY CHART

UTILITY PROVIDER	CONTACT #	MISS DIG RESULTS	DATE
AT&T TELEPHONE	800-778-9140	RECEIVED	4-26-23
COMCAST	855-962-8525	RECEIVED	4-26-23
DTE ENERGY ELECTRIC	303-407-5364	RECEIVED	5-04-23
DTE ENERGY GAS	248-318-7839	RECEIVED	4-25-23
DTE GAS TRANSMISSION LINE	248-308-9967	RECEIVED	4-21-23
YCUA WATER	734-216-7103	RECEIVED	5-04-23

SHEET INDEX:

SHEET #	SHEET TITLE
CE-1	COVER SHEET
CE-2	GRADING PLAN
CE-3	UTILITY PLAN
CE-4	UTILITY PROFILES
CE-5	STORM DRAINAGE PLAN
CE-6	DEMOLITION AND SOIL EROSION PLAN
CE-7	TOPOGRAPHICAL SURVEY
CE-8	WATER MAIN DETAILS
CE-9	WATER MAIN DETAILS
CE-10	WATER MAIN DETAILS
CE-11	WATER MAIN DETAILS
CE-12	STORM SEWER DETAILS
CE-13	STORM SEWER DETAILS
CE-14	SOIL EROSION DETAILS

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Detroit, MI 48202
Phone (313) 305-9120

27333 Meadowbrook Rd., Suite 210
Novi, MI 48377
Phone (248) 844-6274

400 Ann St. NW, Suite 204
Grand Rapids, MI 49504
Phone (616) 885-5802

313 N. Capitol Ave., Suite 100
Lansing, MI 49933

www.sda-eng.com
(800) 598-1600



CLIENT:
BEDDER CONSULTING SERVICES, LLC
32579 GATEWAY DRIVE
ROMULUS, MI 48174

811
Know what's below.
Call before you dig.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES IN CONFLICT WITH PROPOSED IMPROVEMENTS SHALL BE VERIFIED IN THE FIELD. CALL MISS DIG 3 WORKING DAYS PRIOR TO CONSTRUCTION.

UTILITY NOTE

UTILITY INFORMATION ON THIS DRAWING MAY BE FROM INFORMATION DISCLOSED TO THIS FIRM BY THE VARIOUS UTILITY COMPANIES, CITY/COUNTY AGENCIES AND OTHER VARIOUS SOURCES. UNDERGROUND UTILITIES WHICH ARE ON PRIVATE PROPERTY ARE USUALLY NOT DELINEATED UPON A UTILITY COMPANY'S PUBLISHED PLANS. THEIR LOCATION, IF SHOWN UPON THIS SURVEY, ARE APPROXIMATED FROM FOUND PAINT MARKERS/STAKES, ETC. AS LOCATED BY THIS FIRM FROM SOURCES WHICH ARE UNKNOWN. NO GUARANTEE IS GIVEN AS TO THE COMPLETENESS OR ACCURACY THEREOF.

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KALITTA TURBINES BUILDING ADDITION
2830 TYLER ROAD
YPSILANTI, MI

COVER SHEET

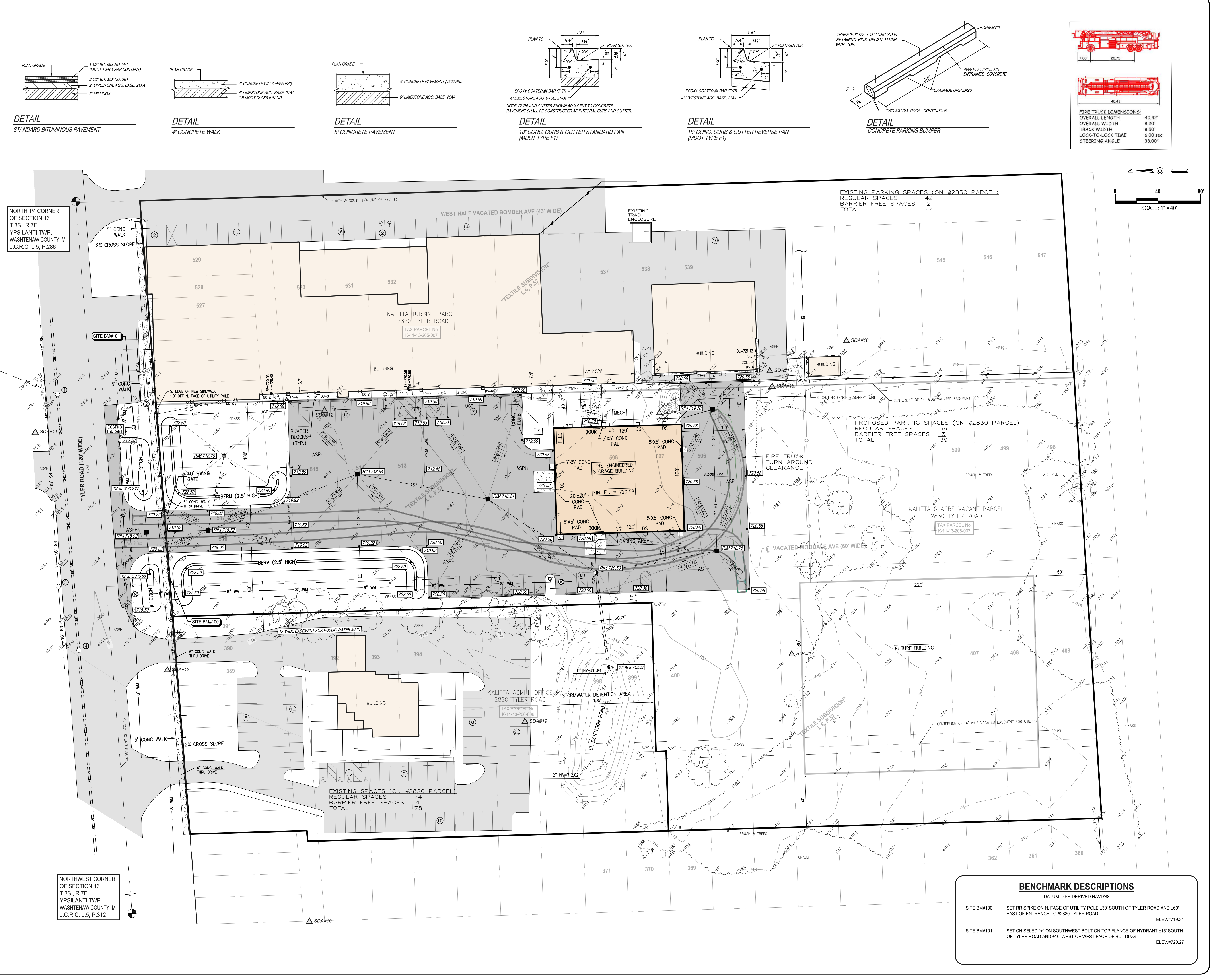
SECTION 13
TOWN 03 SOUTH RANGE 07 EAST
YPSILANTI TOWNSHIP
WASHTEENAW COUNTY, MICHIGAN

NO.	DATE	REVISION
1	9-25-23	REVISED LOCATION OF G.V.&W.
2	10-12-23	REMOVE BLOW OFF, INSTALL PLUG, & CALL WM PUBLIC IN ESMT.
3	10-12-23	ADDED FUTURE WM & SAN. SEWER IN PROPOSED EASEMENTS ON SHEET CE-3

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DRAFTER	DATE
L. THORNTON	8-24-23
CHECKED	DATE
R. DONNELLY	8-24-23
FIELD LEADER	PROJECT SURVEYOR
S. MAYER	D. JACKSON
PROJECT MANAGER	DEPARTMENT MANAGER
D. JACKSON	C. PLATZ
JOB NO.	DRAWING NO.
SM23059	SM23059SPL
SCALE:	SHEET NO.
	CE-1

- LEGEND**
- MANHOLE
 - CATCH BASIN
 - SEWER CLEAN OUT
 - GAS METER
 - GAS SHUT OFF VALVE
 - VALVE BOX
 - GATE VALVE & WELL
 - WATER SHUT OFF VALVE
 - FIRE HYDRANT
 - SPRINKLER VALVE BOX
 - LAWN SPRINKLER HEAD
 - UNVERIFIED MAPPED OBJECT
 - ELECTRIC RISER OR METER
 - TELEPHONE RISER
 - CABLE TV RISER
 - AIR CONDITION UNIT
 - UTILITY POLE
 - UTILITY POLE W/ LAMP EXTENSION (ARROW INDICATES DIRECTION OF ARM)
 - LIGHT POLE
 - LIGHT POLE WITH LAMP EXTENSION
 - TRAFFIC SIGNAL
 - POLE W/ TRAFFIC SIGNAL (OVER ROAD)
 - GUY WIRE
 - GROUND LEVEL / DECORATIVE LIGHTING
 - FLAG POLE
 - METAL OR CONC. POST
 - MAILBOX
 - SIGN
 - WATER FOUNTAIN
 - PARKING METER
 - BILLBOARD OR LARGE SIGN
 - BASKETBALL HOOP
 - BOULDER
 - STATUE OR SCULPTURE
 - BENCH
 - BIKE RACK
 - BIKE RACK
 - PICNIC TABLE
 - SOCCER GOAL
 - STUMP
 - DS-S DOWNSPOUT INTO STORM DRAIN
 - DS-G DOWNSPOUT TO GROUND
 - CONIFEROUS TREE
 - DECIDUOUS TREE
 - DECIDUOUS SHRUB
 - CONIFEROUS SHRUB
 - SECTION CORNER
 - TRAVERSE POINT
 - STRUCTURE NUMBER
 - SDA#10
 - SPOT ELEVATION
 - TC TOP OF CURB ELEVATION
 - GU GUTTER ELEVATION
 - TP TOP OF PAVEMENT ELEVATION
 - EM EDGE OF METAL ELEVATION
 - TW TOP OF WALK ELEVATION
 - TWALL BOTTOM OF WALL ELEVATION
 - GR GROUND ELEVATION
 - UG UNDERGROUND
 - FO FIBER OPTIC
 - CONC CONCRETE
 - ASPH ASPHALT
 - FF FINISH FLOOR ELEVATION
 - DL DOOR LEDGE ELEVATION
 - F.I FOUND IRON
 - F.M FOUND MONUMENT
 - F.P.K FOUND P.K. NAIL
 - S.I SET IRON WISDA CAP
 - S.P.K SET P.K. NAIL
 - S.P.K/TAG SET P.K. NAIL WISDA TAG
 - MAG SET MAGNETIC NAIL
 - MAG/TAG SET MAGNETIC NAIL WISDA TAG
 - M MEASURED
 - R RECORD
 - C CALCULATED
 - INV. INVERT ELEVATION
 - CMP CORRUGATED METAL PIPE
 - G GAS
 - SN SANITARY SEWER (SAN)
 - STN STORM SEWER (STM)
 - WM WATERMAIN (WM)
 - OH OVERHEAD WIRE
 - CS COMBINED SEWER
 - STE STEAM LINE
 - O OIL LINE
 - F UG FIBER (COMM.)
 - E UG ELECTRIC (ELEC.)
 - T UG PHONE (PH)
 - C UG CABLE (CBL)
 - CHAIN LINK FENCE (CL)
 - WOOD FENCE
 - WIRE FENCE (WF)
 - GUARD RAIL
 - EDGE OF BRUSHWOODS
 - CENTERLINE OF DITCH
 - CULVERT
 - MAJOR CONTOUR
 - MINOR CONTOUR
 - BOUNDARY LINES
 - ROW LINES
 - SECTION LINES
 - PROPERTY LINES
 - ASPHALT
 - CONCRETE
 - GRAVEL/DIRT/MULCH
 - BRICK/PAVERS
 - WATER
 - WATER W/ VEGETATION
 - PROPOSED STORM MANHOLE (MH)
 - PROPOSED CATCH BASIN (CB)
 - PROPOSED END SECTION (ES)



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KALITTA TURBINES BUILDING ADDITION
2830 TYLER ROAD
YPSILANTI, MI

PROPOSED GRADING PLAN

SECTION 13
TOWN 03 SOUTH RANGE 07 EAST
YPSILANTI TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

NO.	DATE	REVISION
1	9-25-23	REVISED LOCATION OF G.V.&W.
2	10-12-23	REMOVE BLOW OFF, INSTALL PLUG, & CALL WM PUBLIC IN ESMT.

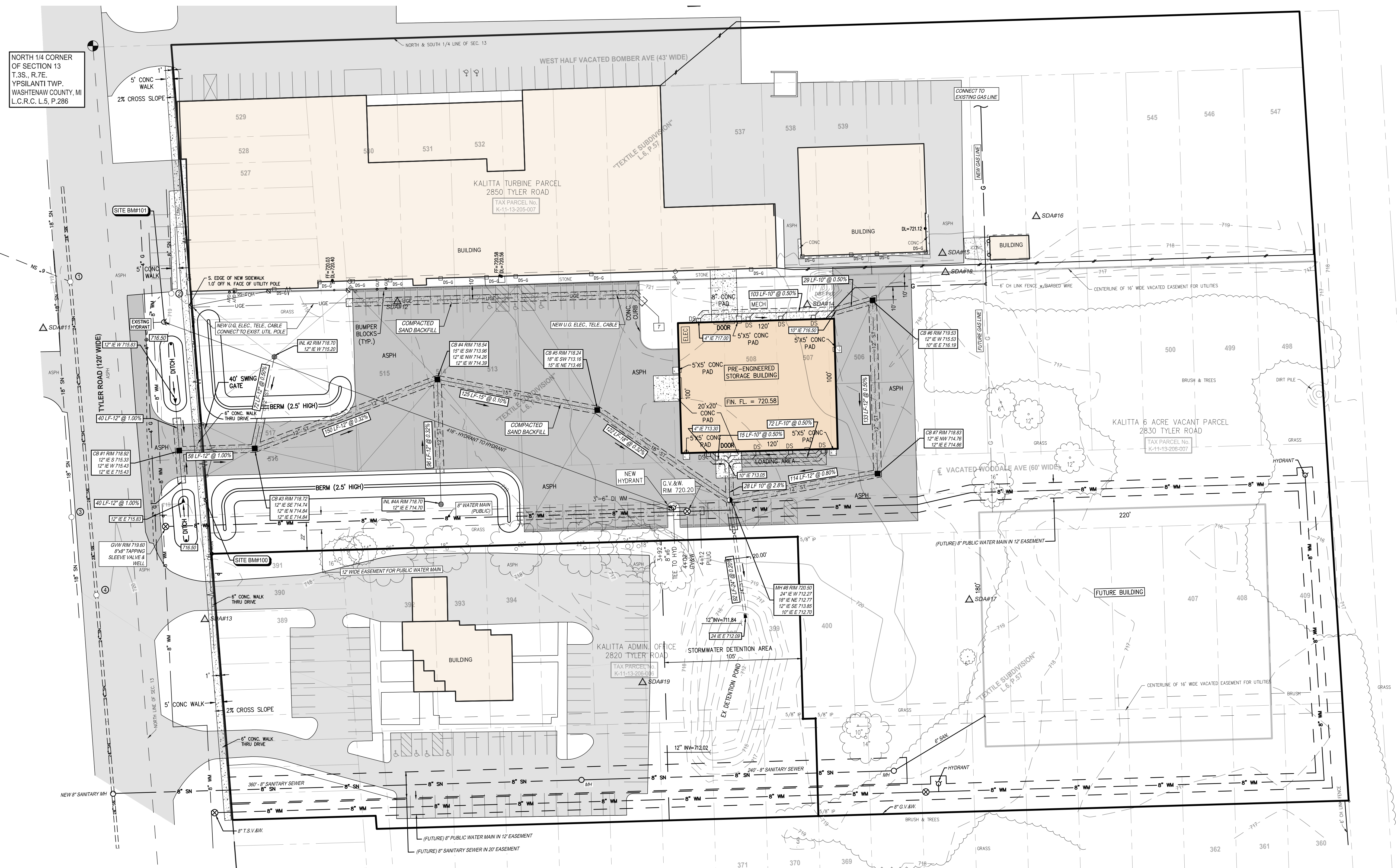
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DRAFTER L. THORNTON	DATE 8-24-23
CHECKED R. DONNELLY	DATE 8-24-23
FIELD LEADER S. MAYER	PROJECT SURVEYOR D. JACKSON
PROJECT MANAGER D. JACKSON	DEPARTMENT MANAGER C. PLATZ
JOB NO. SM23059	DRAWING NO. SM23059SPL
SCALE: 1" = 40'	SHEET NO. CE-2

LEGEND

- MANHOLE
- ⊕ CATCH BASIN
- ⊕ SEWER CLEAN OUT
- ⊕ GAS METER
- ⊕ GAS SHUT OFF VALVE
- ⊕ VALVE BOX
- ⊕ GATE VALVE & WELL
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- ⊕ SECTION CORNER
- ⊕ TRAVERSE POINT
- ⊕ STRUCTURE NUMBER
- ⊕ SDA POINT NO.
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- T UG PHONE (PH)
- C UG CABLE (CBL)
- CL CHAIN LINK FENCE (CL)
- W WOOD FENCE
- WV WIRE FENCE (WV)
- GR GUARD RAIL
- EB EDGE OF BRUSHWOODS
- CD CENTERLINE OF DITCH
- CU CULVERT
- 650 MAJOR CONTOUR
- 651 MINOR CONTOUR
- BL BOUNDARY LINES
- RL ROW LINES
- SL SECTION LINES
- PL PROPERTY LINES
- ASPH ASPHALT
- CONC CONCRETE
- GRAV GRAVEL/DIRT/MULCH
- BRK BRICK/PAVERS
- WATER WATER
- VEG VEGETATION
- PROPOSED STORM MANHOLE (MH)
- ⊕ PROPOSED CATCH BASIN (CB)
- ▼ PROPOSED END SECTION (ES)

NORTH 1/4 CORNER OF SECTION 13 T.3S., R.7E. YPSILANTI TWP. WASHTENAW COUNTY, MI L.C.R.C. L.5, P.286



NORTHWEST CORNER OF SECTION 13 T.3S., R.7E. YPSILANTI TWP. WASHTENAW COUNTY, MI L.C.R.C. L.5, P.312

BENCHMARK DESCRIPTIONS

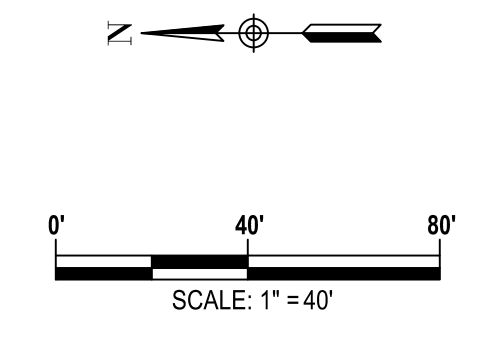
DATUM: GPS-DERIVED NAVD88

SITE BM#100	SET RR SPIKE ON N. FACE OF UTILITY POLE ±30' SOUTH OF TYLER ROAD AND ±60' EAST OF ENTRANCE TO #2820 TYLER ROAD.	ELEV. +719.31
SITE BM#101	SET CHISELED "X" ON SOUTHWEST BOLT ON TOP FLANGE OF HYDRANT ±15' SOUTH OF TYLER ROAD AND ±10' WEST OF WEST FACE OF BUILDING.	ELEV. +720.27

STRUCTURE TABLE

THE STRUCTURE TABLE ON THIS DRAWING IDENTIFIES THE AS-SURVEYED UNDERGROUND UTILITY MANHOLES THAT WERE FIELD MEASURED USING REASONABLE AND TRADITIONAL SURVEYING PRACTICES. PIPE SIZES, DIRECTIONS AND ELEVATIONS ARE INDICATED BY A COMBINATION OF FIELD EVIDENCE AND AVAILABLE RECORD INFORMATION. UNDERGROUND UTILITY PIPE SIZES AND CONNECTIONS ARE MANY TIMES AMBIGUOUS. SOME STRUCTURES MAY HAVE PIPES WITH UNKNOWN CONNECTIONS, BUMPS AND/OR PIPES THAT ARE FILLED WITH DEBRIS. IT WILL BE UP TO THE DESIGN ENGINEER TO LOOK AT THE PRESENTED SURVEY RESULTS AND DECIDE IF FURTHER INVESTIGATION BY OTHER METHODS SUCH AS VACUUM CLEAN OUT, UNDERGROUND RADAR, SMOKE TESTING AND PHYSICAL EXCAVATION IS REQUIRED AS AN ADDITIONAL SERVICE.

#	TYPE	RM	SIZE	MTRL	INVERT	DIRECTION	CONNECT
1	SANTARY MANHOLE	719.14	6"	PVC	711.09	NNE	4
			24"	CFP	707.69	W	
			24"	CFP	707.64	E	
2	SANTARY MANHOLE	718.97	8"	PVC	712.67	E	
3	SANTARY MANHOLE	719.38	18"	CLAY	708.48	E	
			18"	CLAY	708.58	W	
4	SANTARY MANHOLE	719.78	24"	CFP	707.83	E	1
			24"	CFP	707.88	W	



- WATER MAIN QUANTITIES**
- 1 EA 8" TAPPING SLEEVE VALVE AND WELL
 - 1 EA GATE VALVE & WELL
 - 1 EA STANDARD HYDRANT ASSEMBLY
 - 1 EA 8"x6" TEE TO HYDRANT
 - 412 LF 8" DI CL 54 WM
 - 3 LF 6" CL 54 WM

Plotted: Oct 12, 2023, 3:21 PM by user: 918 - Saved: 10/12/2023 by user: 918
 J:\SM\SM23059 - Kalitta Turbines Parcel DWG\SM23059SPL.dwg

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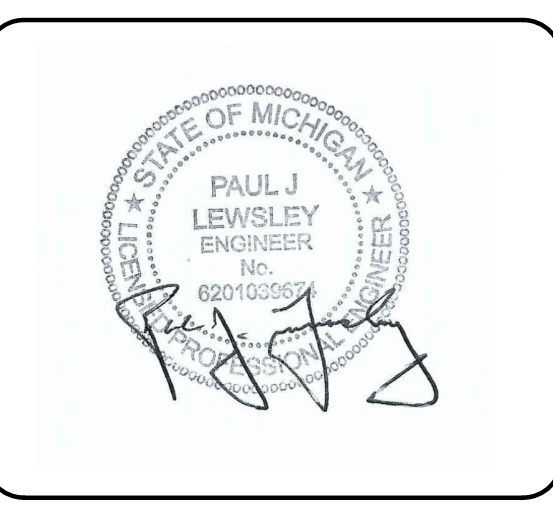
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KALITTA TURBINES BUILDING ADDITION
 2830 TYLER ROAD
 YPSILANTI, MI

UTILITIES AND STORM DRAINAGE PLAN

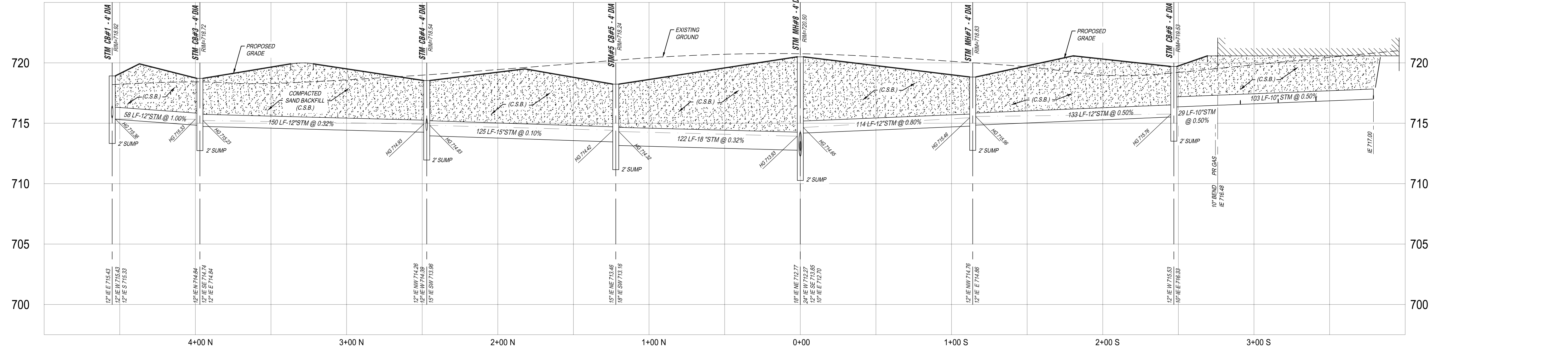
SECTION 13
 TOWN 03 SOUTH RANGE 07 EAST
 YPSILANTI TOWNSHIP
 WASHTENAW COUNTY, MICHIGAN

NO.	DATE	REVISION
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2	10-12-23	REMOVE BLOW OFF, INSTALL PLUG, & CALL WM PUBLIC IN ESMT.
3	10-12-23	ADDED FUTURE WM & SAN. SEWER IN PROPOSED EASEMENTS ON SHEET CE-3

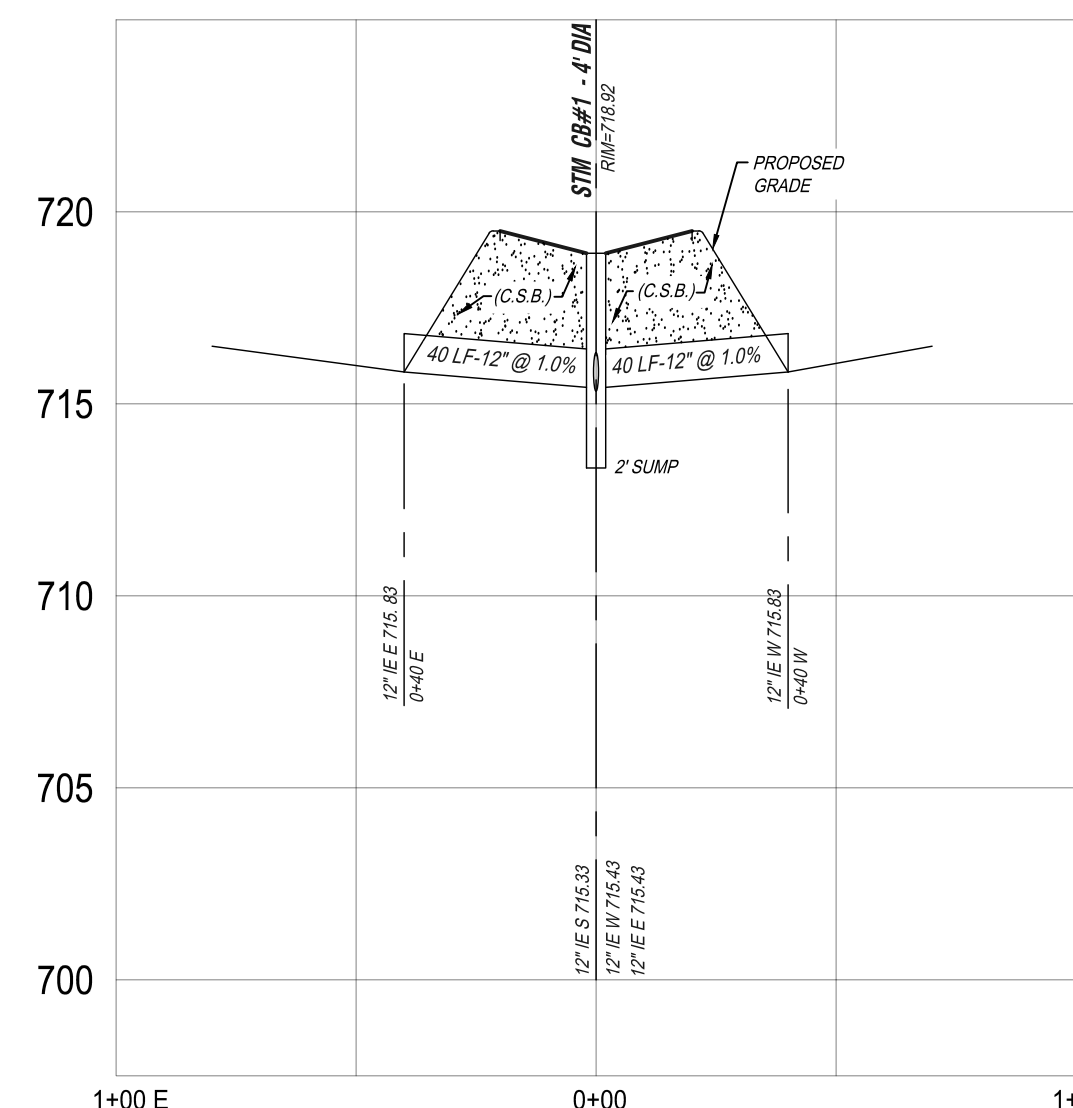
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DRAFTER	DATE	CHECKED	DATE	PROJECT SURVEYOR	DEPARTMENT MANAGER
L. THORNTON	8-24-23	R. DONNELLY	8-24-23	D. JACKSON	C. PLATZ
S. MAYER		D. JACKSON			
JOB NO.	SM23059	DRAWING NO.	SM23059SPL		
SCALE:	1" = 40'	SHEET NO.	CE-3		

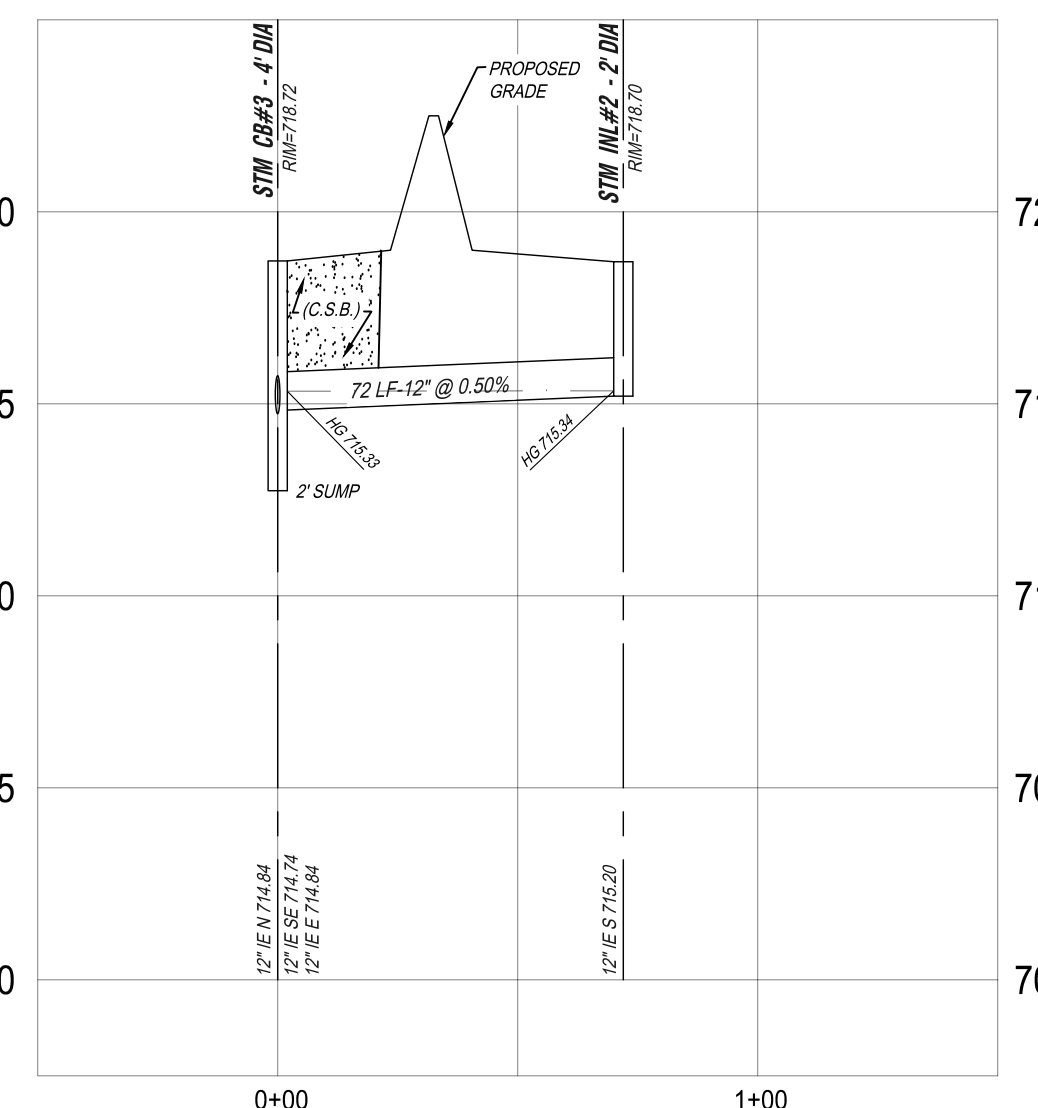
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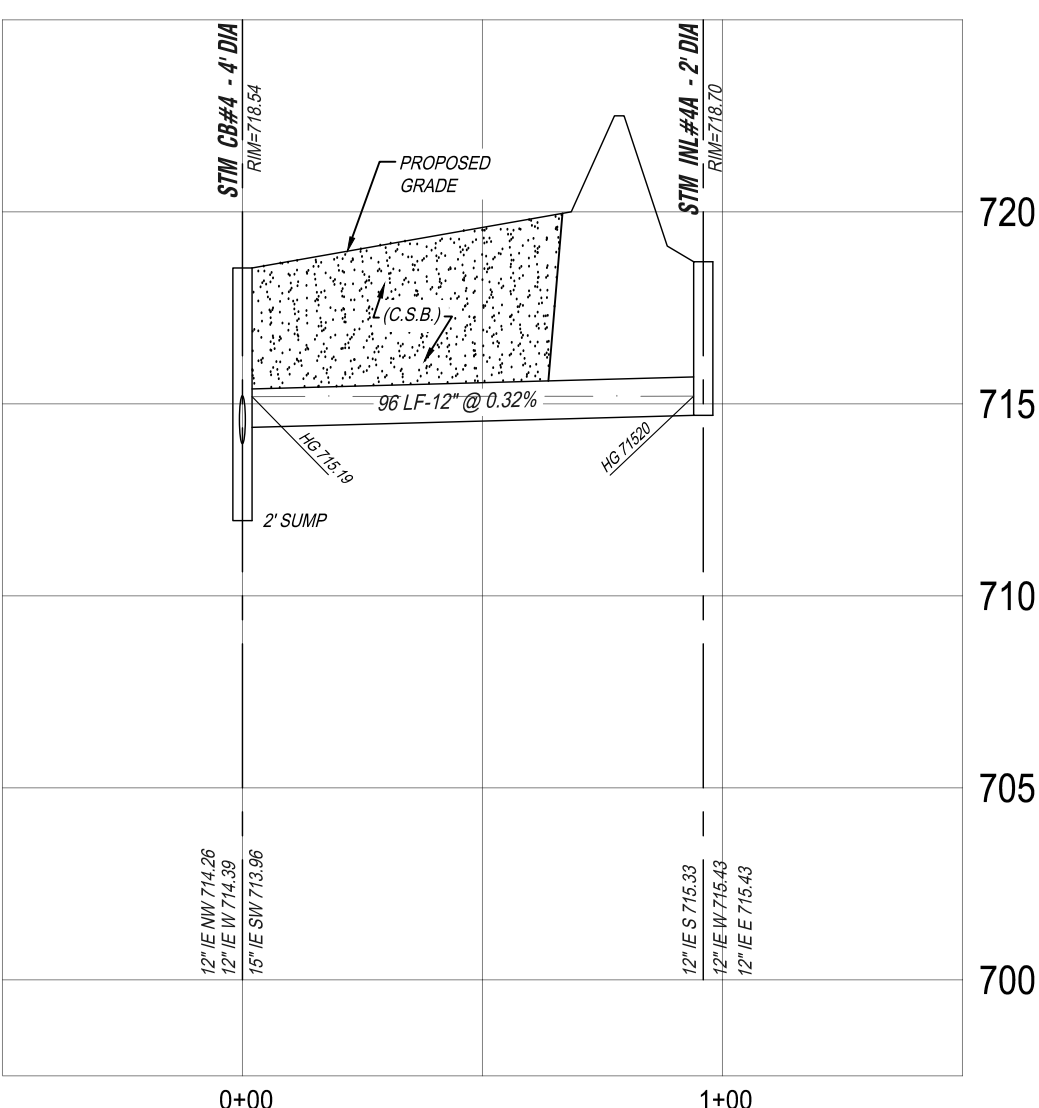
STORM SEWER
HORIZ: 1" = 40'
VERT: 1" = 5'



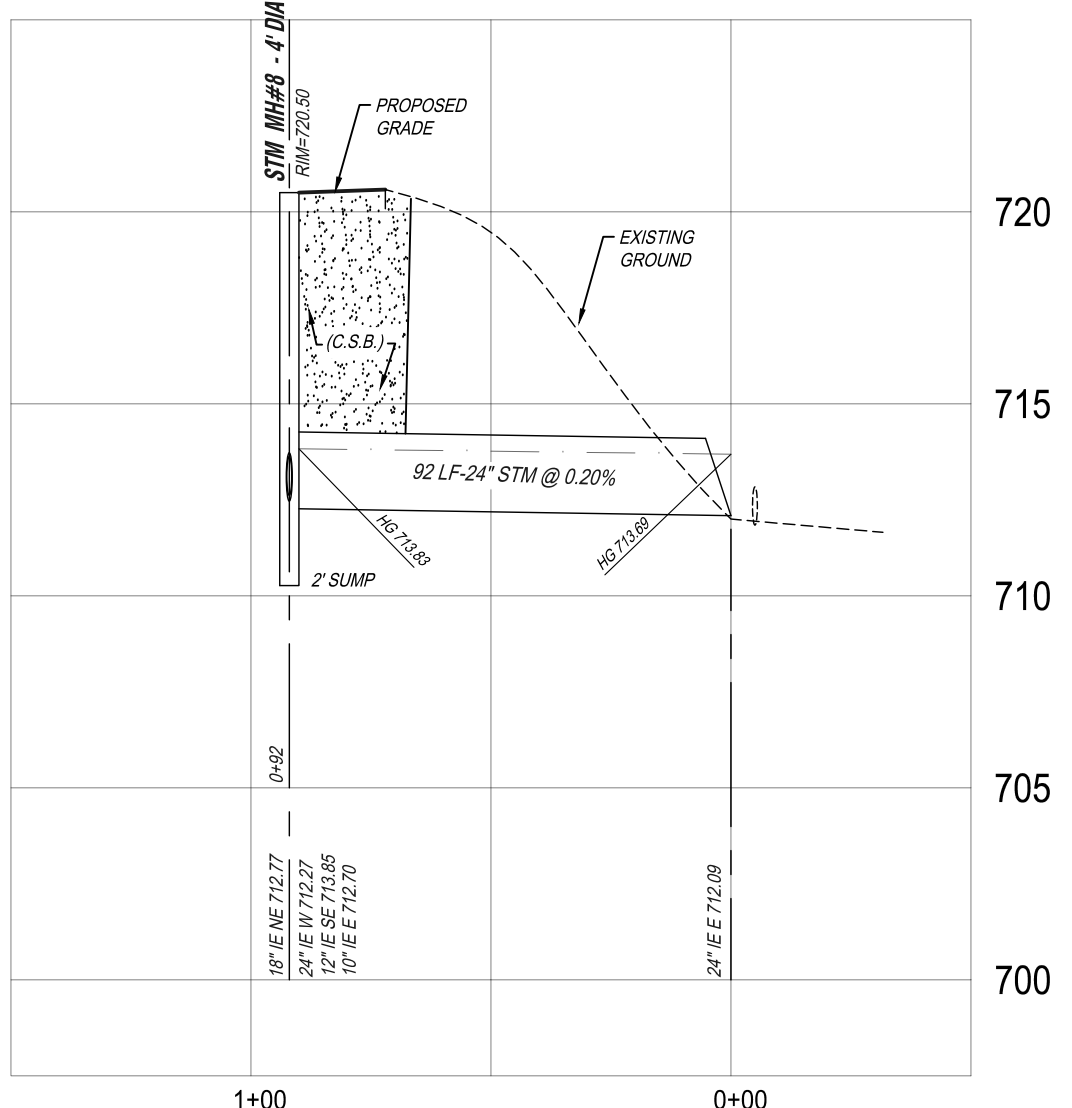
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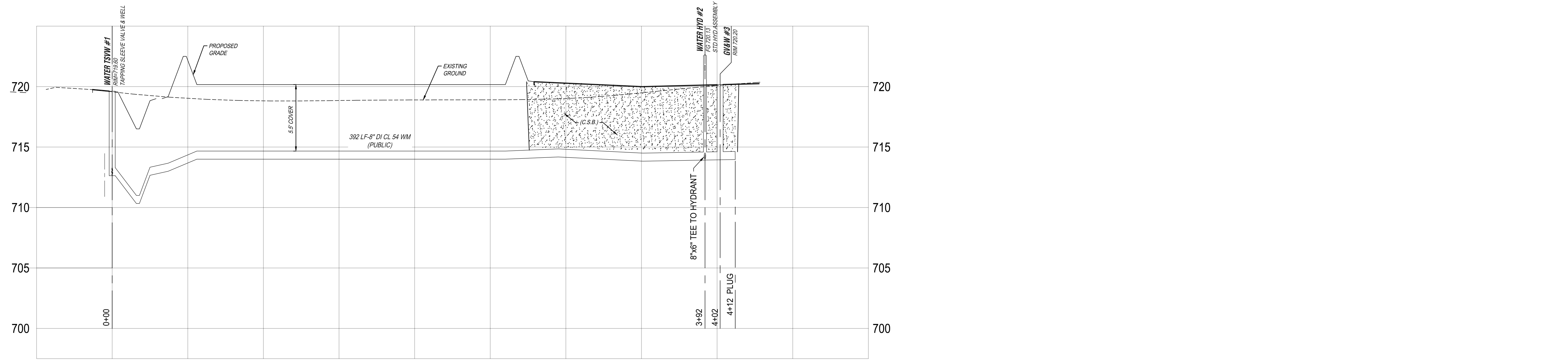
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HORIZ: 1" = 40'
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STORM SEWER
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VERT: 1" = 5'



WATER MAIN
HORIZ: 1" = 40'
VERT: 1" = 5'

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KALITTA TURBINES BUILDING ADDITION
2830 TYLER ROAD
YPSILANTI, MI

UTILITY PROFILES

SECTION 13
TOWN 03 SOUTH RANGE 07 EAST
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WASHTENAW COUNTY, MICHIGAN

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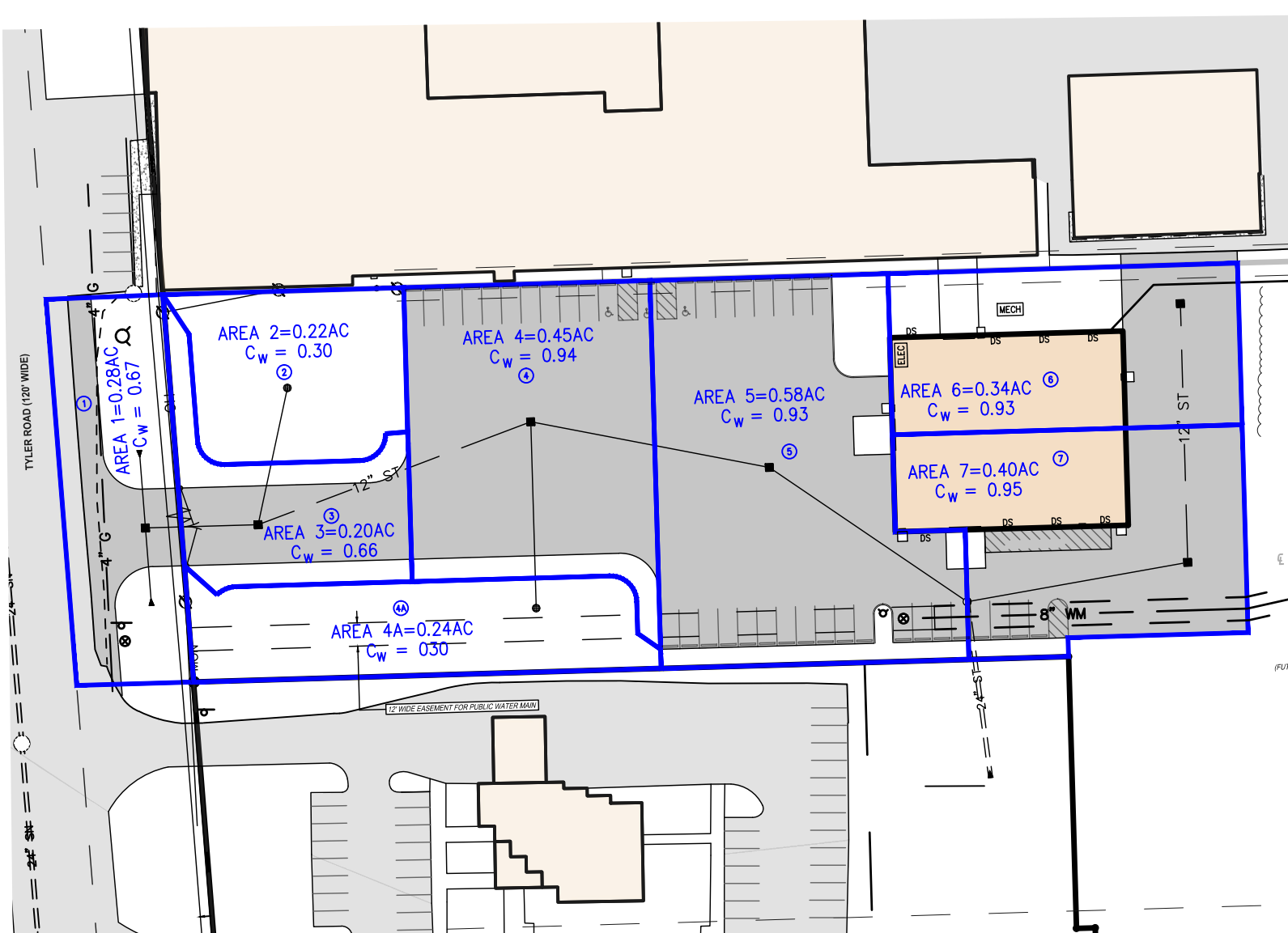
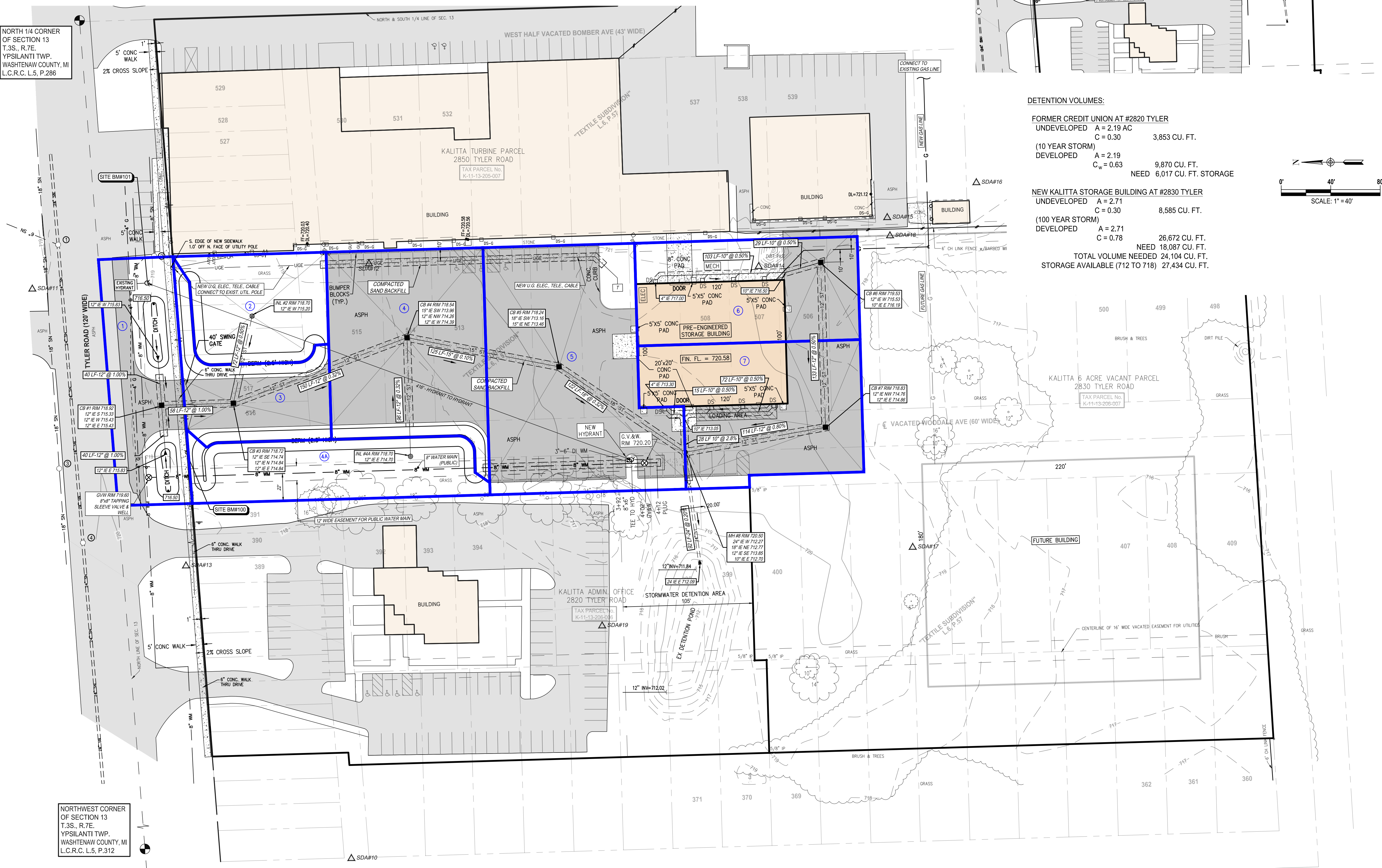
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DRAFTER	DATE
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CHECKED	DATE
R. DONNELLY	8-24-23
FIELD LEADER	PROJECT SURVEYOR
S. MAYER	D. JACKSON
PROJECT MANAGER	DEPARTMENT MANAGER
D. JACKSON	C. PLATZ
JOB NO.	DRAWING NO.
SM23059	SM23059SPL
SCALE:	SHEET NO.
AS NOTED	CE-4

LEGEND

- MANHOLE
- CATCH BASIN
- SEWER CLEAN OUT
- GAS METER
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- SPRINKLER VALVE BOX
- LAWN SPRINKLER HEAD
- UNVERIFIED MAPPED OBJECT
- ELECTRIC RISER OR METER
- TELEPHONE RISER
- CABLE TV RISER
- AIR CONDITION UNIT
- UTILITY POLE
- UTILITY POLE W/ LAMP EXTENSION (ARROW INDICATES DIRECTION OF ARM)
- LIGHT POLE
- LIGHT POLE WITH LAMP EXTENSION
- TRAFFIC SIGNAL
- POLE W/ TRAFFIC SIGNAL (OVER ROAD)
- GUY WIRE
- GROUND LEVEL / DECORATIVE LIGHTING
- FLAG POLE
- METAL OR CONC. POST
- MAILBOX
- SIGN
- WATER FOUNTAIN
- PARKING METER
- BILLBOARD OR LARGE SIGN
- BASKETBALL HOOP
- BOULDER
- STATUE OR SCULPTURE
- BENCH
- BIKE RACK
- PICNIC TABLE
- SOCCER GOAL
- STUMP
- DOWNSPUT INTO STORM DRAIN
- DOWNSPUT TO GROUND
- CONIFEROUS TREE
- DECIDUOUS TREE
- DECIDUOUS SHRUB
- CONIFEROUS SHRUB
- SECTION CORNER
- TRAVERSE POINT
- STRUCTURE NUMBER
- SDA POINT NO.
- SPOT ELEVATION
- TOP OF CURB ELEVATION
- GUTTER ELEVATION
- TOP OF PAVEMENT ELEVATION
- EDGE OF METAL ELEVATION
- TOP OF WALK ELEVATION
- BOTTOM OF WALK ELEVATION
- GROUND ELEVATION
- UNDERGROUND
- FIBER OPTIC
- CONCRETE
- ASPHALT
- FINISH FLOOR ELEVATION
- DOOR ELEVATION
- FOUND IRON
- FOUND MONUMENT
- FOUND P.K. NAIL
- SET IRON W/SDA CAP
- SET P.K. NAIL
- SET P.K. NAIL W/SDA TAG
- SET MAGNETIC NAIL
- SET MAGNETIC NAIL W/SDA TAG
- MEASURED
- RECORD
- CALCULATED
- INVERT ELEVATION
- CORRUGATED METAL PIPE
- GAS
- SANITARY SEWER (SAN)
- STORM SEWER (STM)
- WATER MAIN (WM)
- OVERHEAD WIRE
- COMBINED SEWER
- STEAM LINE
- OIL LINE
- UG FIBER (COMM.)
- UG ELECTRIC (ELEC.)
- UG PHONE (PH)
- UG CABLE (CBL)
- CHAIN LINK FENCE (CL)
- WOOD FENCE
- WIRE FENCE (WF)
- GUARD RAIL
- EDGE OF BRUSHWOODS
- CENTERLINE OF DITCH
- CULVERT
- MAJOR CONTOUR
- MINOR CONTOUR
- BOUNDARY LINES
- ROW LINES
- SECTION LINES
- PROPERTY LINES
- ASPHALT
- CONCRETE
- GRAVEL / DIRT / MULCH
- BRICK / PAVERS
- WATER
- WATER W/ VEGETATION
- PROPOSED STORM MANHOLE (MH)
- PROPOSED CATCH BASIN (CB)
- PROPOSED END SECTION (ES)

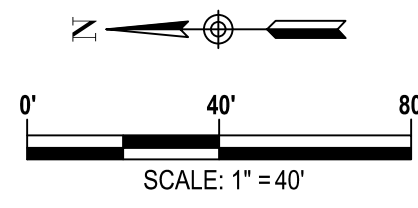
From M.H. or D.P.#	To M.H. OR D.P.#	Increment "A"	Imp. Area "A"	Per. Area "A"	Water Area "A"	Imp. Area "C"	Per. Area "C"	Water Area "C"	Wt. Avg. "C"	Equivalent Area 100% Acres	Total Area 100% Acres CA	T Time min.	I inches per hour	Q c.f.s. C.I.A.	Diameter of pipe in.	Slope pipe ft./ft. "	Slope H.G.	Length of line ft.	Velocity flow full ft./sec.	Time of flow min.	Capacity of sewer c.f.s.	H.G. Elevation Upper End	H.G. Elevation Lower End	Ground Elevation Upper end	Ground Elevation Lower end	Invert Elevation Upper end	Invert Elevation Lower end	Upper "H.G." > 1.0'
1	3	0.28	0.16	0.12		0.95	0.3	0.67	0.19	0.19	0.19	15	4.38	0.82	12"	0.001	0.0005	58	4.54	0.21	3.56	715.36	715.33	718.92	718.72	715.42	714.84	3.56
2	3	0.22		0.22		0.95	0.3	0.3	0.07	0.26	0.26	15	4.38	0.09	12"	0.005	0.0001	72	3.21	0.37	2.52	715.34	715.33	718.7	718.72	715.2	714.84	3.36
3	4	0.2	0.11	0.09		0.95	0.3	0.66	0.13	0.39	0.39	15.37	4.33	1.69	12"	0.0032	0.0022	150	2.57	0.97	2.02	715.23	714.93	718.72	718.54	714.74	714.26	3.49
4A	4	0.24		0.24		0.95	0.3	0.3	0.07	0.07	0.07	15	4.38	0.31	12"	0.0032	0.0001	96	2.57	0.62	2.02	715.2	715.19	718.7	718.54	714.7	714.39	3.5
4	5	0.45	0.44	0.01		0.95	0.3	0.94	0.42	0.88	0.88	16.34	4.23	3.72	15"	0.001	0.0033	125	3.33	0.63	4.09	714.83	714.42	718.54	718.24	713.96	713.46	3.71
5	8	0.58	0.54	0.01	0.03	0.95	0.3	0.85	0.93	0.54	1.42	16.97	4.17	5.92	18"	0.0032	0.0032	122	3.36	0.61	5.94	714.32	713.93	718.24	720.5	713.16	712.77	3.92
6	7	0.34	0.26		0.08	0.95	0.3	0.85	0.93	0.32	0.32	15	4.38	1.4	12"	0.005	0.0015	133	3.21	0.69	2.52	715.76	715.56	719.53	718.83	715.53	714.86	3.77
7	8	0.4	0.4			0.95	0.3	0.95	0.38	0.7	0.7	15.69	4.3	3.01	12"	0.008	0.0071	114	4.06	0.47	3.19	715.46	714.65	718.83	720.5	714.76	713.85	3.37
8	9	0	0	0					0	2.12	17.58	4.11	8.71	24"	0.002	0.0015	92	3.22	0.48	10.12	713.83	713.69	720.5		712.27	712.09	6.67	



DETENTION VOLUMES:

FORMER CREDIT UNION AT #2820 TYLER
 UNDEVELOPED A = 2.19 AC C = 0.30 3,853 CU. FT.
 (10 YEAR STORM) DEVELOPED A = 2.19 C = 0.63 9,870 CU. FT.
 NEED 6,017 CU. FT. STORAGE

NEW KALITTA STORAGE BUILDING AT #2830 TYLER
 UNDEVELOPED A = 2.71 C = 0.30 8,585 CU. FT.
 (100 YEAR STORM) DEVELOPED A = 2.71 C = 0.78 26,672 CU. FT.
 NEED 18,087 CU. FT.
 TOTAL VOLUME NEEDED 24,104 CU. FT.
 STORAGE AVAILABLE (712 TO 718) 27,434 CU. FT.



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PAUL J. LEWISLEY
 ENGINEER
 No. 62075
 STATE OF MICHIGAN

CLIENT:
 BEDDER CONSULTING SERVICES, LLC
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 ROMULUS, MI 48174

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 Call before you dig.

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KALITTA TURBINES BUILDING ADDITION 2830 TYLER ROAD YPSILANTI, MI

STORM DRAINAGE PLAN

SECTION 13
 TOWN 03 SOUTH RANGE 07 EAST
 YPSILANTI TOWNSHIP
 WASHTEWAW COUNTY, MICHIGAN

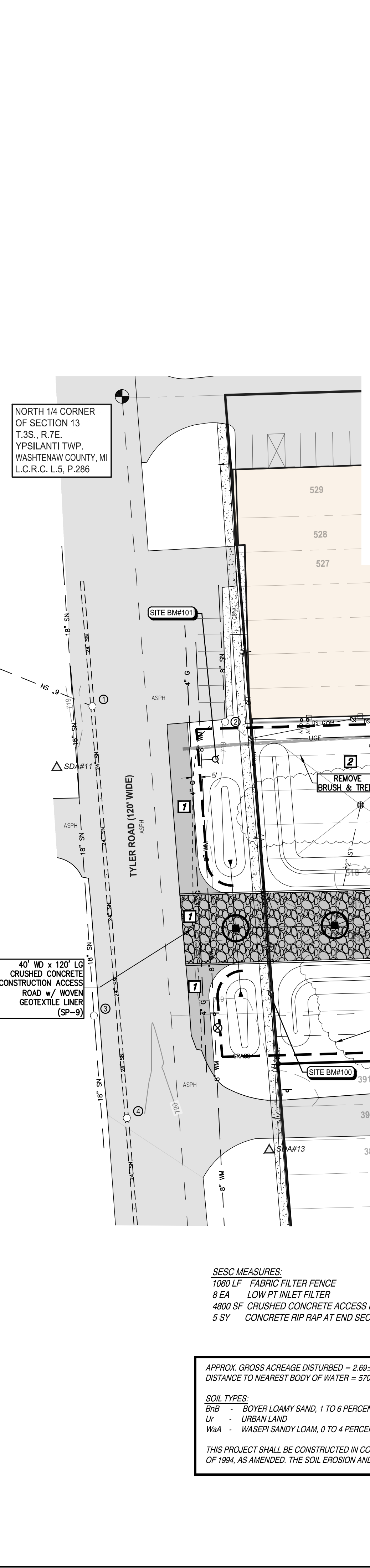
NO.	DATE	REVISION
1	9-25-23	REVISED LOCATION OF G.V.&W.
2	10-12-23	REMOVE BLOW OFF, INSTALL PLUG, & CALL WM PUBLIC IN ESMT.

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DRAFTER	DATE
L. THORNTON	8-24-23
CHECKED	DATE
R. DONNELLY	8-24-23
FIELD LEADER	PROJECT SURVEYOR
S. MAYER	D. JACKSON
PROJECT MANAGER	DEPARTMENT MANAGER
D. JACKSON	C. PLATZ
JOB NO.	DRAWING NO.
SM23059	SM23059SPL
SCALE:	SHEET NO.
1" = 40'	CE-5

LEGEND

- MANHOLE
- CATCH BASIN
- SEWER CLEAN OUT
- GAS METER
- GAS SHUT OFF VALVE
- VALVE BOX
- GATE VALVE & WELL
- WATER SHUT OFF VALVE
- FIRE HYDRANT
- SPRINKLER VALVE BOX
- LAWN SPRINKLER HEAD
- UNVERIFIED MAPPED OBJECT
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- SPOT ELEVATION
- TC TOP OF CURB ELEVATION
- GU GUTTER ELEVATION
- TP TOP OF PAVEMENT ELEVATION
- EM EDGE OF METAL ELEVATION
- TW TOP OF WALK ELEVATION
- TWALL BOTTOM OF WALL ELEVATION
- GR GROUND ELEVATION
- UG UNDERGROUND
- FO FIBER OPTIC
- CONC CONCRETE
- ASPH ASPHALT
- FF FINISH FLOOR ELEVATION
- DL DOOR LEDGE ELEVATION
- F.I FOUND IRON
- F.M FOUND MONUMENT
- F.P.K FOUND P.K. NAIL
- S.I SET IRON WISDA CAP
- S.P.K SET P.K. NAIL
- S.P.K/TAG SET P.K. NAIL WISDA TAG
- MAG SET MAGNETIC NAIL
- MAGTAG SET MAGNETIC NAIL WISDA TAG
- M MEASURED
- R RECORD
- C CALCULATED
- INV INVERT ELEVATION
- CMP CORRUGATED METAL PIPE
- G GAS
- SN SANITARY SEWER (SAN)
- ST STORM SEWER (STM)
- WM WATERMAIN (WM)
- OH OVERHEAD WIRE
- COMBINED SEWER
- STE STEAM LINE
- O OIL LINE
- F UG FIBER (COMM.)
- E UG ELECTRIC (ELEC.)
- T UG PHONE (PH)
- C UG CABLE (CBL)
- CHAIN LINK FENCE (CL)
- WOOD FENCE
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- GUARD RAIL
- EDGE OF BRUSHWOODS
- CENTERLINE OF DITCH
- CULVERT
- MAJOR CONTOUR
- MINOR CONTOUR
- BOUNDARY LINES
- ROW LINES
- SECTION LINES
- PROPERTY LINES
- ASPHALT
- CONCRETE
- GRAVEL/DIRT/MULCH
- BRICK/PAVERS
- WATER
- WATER W/ VEGETATION
- SOIL TYPE
- LOW PT INLET FILTER (SI-2)



SOIL EROSION/SEDIMENTATION CONTROL CONSTRUCTION SEQUENCE

- INSTALL SILT FENCE ALONG PERIMETER OF SITE.
- INSTALL 8" THICK CRUSHED CONCRETE CONSTRUCTION ACCESS DRIVE.
- CLEAR AND GRUB SITE TO LIMITS SHOWN.
- STOCKPILE TOPSOIL IN AREAS FOR NEW BERMS.
- ROUGH GRADE BUILDING PAD AND PARKING LOT.
- INSTALL BUILDING FOUNDATIONS.
- INSTALL NEW STORM SEWER, INLETS, CATCH BASINS, MANHOLES, ETC.
- INSTALL LOW POINT INLET FILTERS.
- GRADE PARKING LOTS FOR NEW CONCRETE CURB AND GUTTER.
- INSTALL CONCRETE WALKWAYS ON SITE.
- FINE GRADE PARKING LOTS WITH LIMESTONE BASE.
- INSTALL NEW DRIVEWAY APPROACH.
- INSTALL NEW ASPHALT PAVEMENT ON SITE.
- BACKFILL BEHIND CURBS AND GREENBELT AREAS.
- SOIL EROSION CONTROL SHALL BE MAINTAINED WEEKLY OR AFTER EVERY STORM EVENT.
- ESTABLISH VEGETATION ON DISTURBED AREAS WITH TOP SOIL AND SEED.
- REMOVE SOIL EROSION DEVICES AFTER VEGETATION IS ESTABLISHED.
- EROSION CONTROL MEASURES ARE NOT TO BE REMOVED UNTIL THE VILLAGE AND/OR COUNTY GRANTS A CERTIFICATE OF OCCUPANCY.

ALL EROSION CONTROL MEASURES SHALL BE INSTALLED APPROXIMATELY ACCORDING TO THE FOLLOWING SEQUENCE OF CONSTRUCTION.

PROJECT COMMENCEMENT ON OR ABOUT JULY, 2022.

SCHEDULE

A. INSTALL SILT FENCE AS SHOWN ON PLANS.	2 DAYS
B. INSTALL CONSTRUCTION ACCESS DRIVE.	1 DAY
C. CLEAR AND GRUB SITE.	3 DAYS
D. STOCKPILE TOPSOIL.	1 WEEK
E. COMMENCE WITH CONSTRUCTION OF NEW BUILDING, SITE GRADING, UTILITIES, PAVEMENT, AND FINE GRADING.	9 MONTHS
F. ESTABLISH VEGETATION ON DISTURBED AREAS WITH TOP SOIL AND SEED.	2 WEEKS
G. CLEAN PAVEMENTS, WALKS, CULVERTS, AND WATERCOURSES OF ALL ACCUMULATED SEDIMENT IN CONJUNCTION WITH REMOVING ALL TEMPORARY DEVICES.	4 DAYS

PROJECT COMPLETION ON OR ABOUT JUNE, 2024.

DEMOLITION NOTES

- REMOVE ASPHALT PAVEMENT TO FULL DEPTH SAWCUT FULL DEPTH WINDERS. NEW PAVEMENT WILL BE PLACED ADJACENT TO EXISTING PAVEMENT. EXCAVATE EXISTING AGGREGATE BASE AND SUBGRADE AS NECESSARY TO INSTALL NEW PAVEMENT SECTION AS SHOWN ON THE PLANS, INCLUDING NEW AGGREGATE BASE.
- CLEAR AND GRUB TO THE LIMITS SHOWN. INCLUDE REMOVAL OF ALL BRUSH, SHRUBS, GRASS, AND TREES NOT INDICATED FOR PROTECTION, INCLUDING ROOTS, STRIP TOPSOIL AND STOCKPILE ON SITE IN DESIGNATED LOCATIONS FOR BERMS.
- REMOVE EXISTING TREE (INCLUDING STUMPS AND ROOTS).

ALL DEPRESSIONS CREATED BY DEMOLITION PROCEDURES SHALL BE BACKFILLED WITH CLASS II FILL MATERIAL, IN 6" LIFTS COMPACTED TO 95% OF MAXIMUM UNIT WEIGHT, UP TO PROPOSED SUBGRADE.

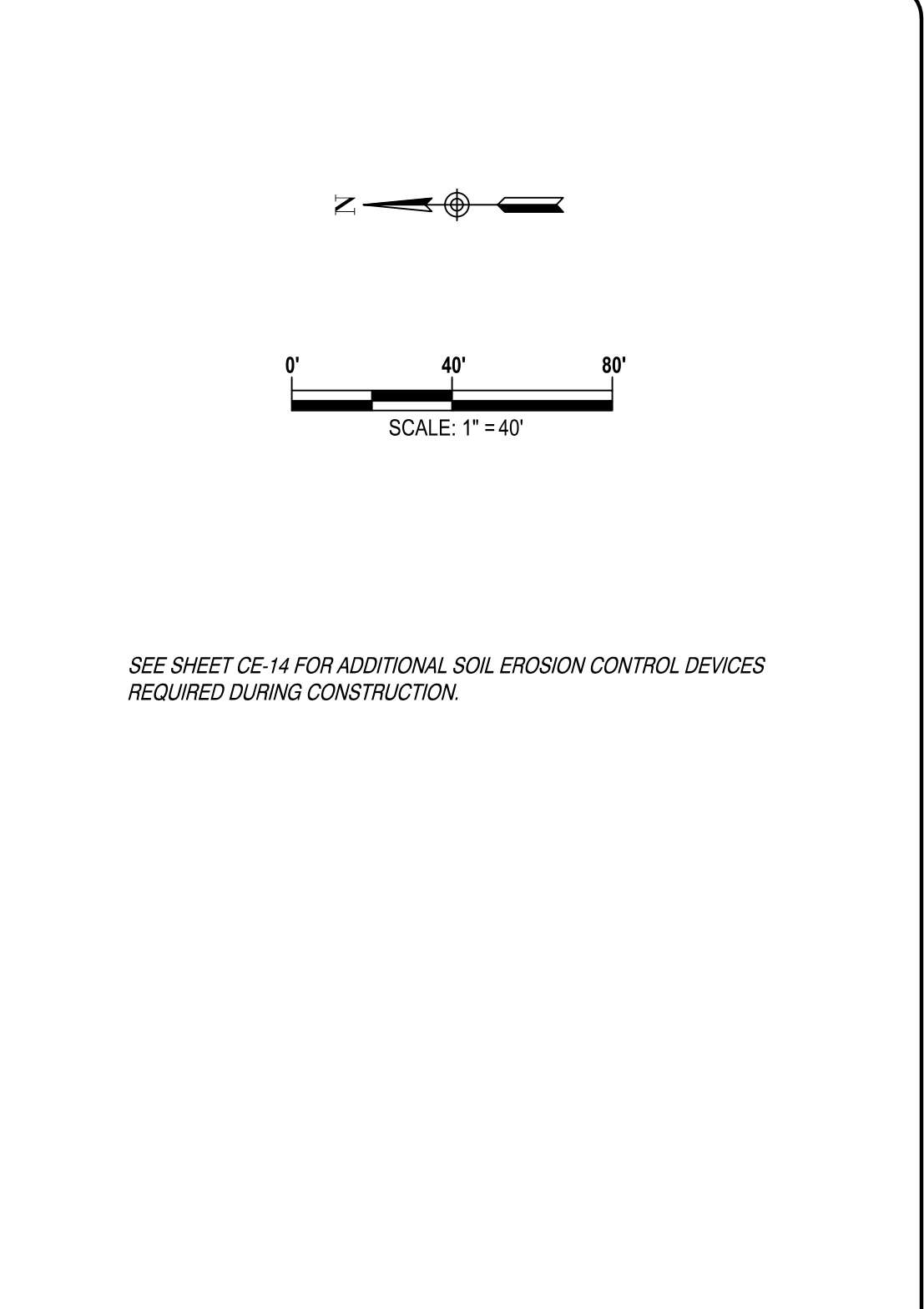
CONTRACTOR IS RESPONSIBLE FOR DOING AN EARTHWORK CALCULATION FOR CUT AND FILL REQUIREMENTS, AND IS RESPONSIBLE FOR INCLUDING IMPORT AND EXPORT OF MATERIALS IN THEIR BID. ALL EXCESS MATERIAL (INCLUDING TOPSOIL, CLEAN FILL, AND WASTE MATERIAL) SHALL BE REMOVED FROM THE SITE.

CONTRACTOR TO PROVIDE UNIT PRICES (\$/CY) IN THE BID DOCUMENTS FOR UNDERCUT AND REPLACEMENT OF POOR SOILS. UNIT PRICE TO INCLUDE DISPOSAL OF POOR SOILS AND IMPORT AND PLACEMENT OF 10% CRUSHED CONCRETE OR 214A (CRUSHED) CONCRETE, WITH GEOTEXTILE FABRIC, UP TO PROPOSED SUBGRADE.

PROTECT EXISTING UTILITIES AND UTILITY STRUCTURES TO REMAIN.

SOIL EROSION/SEDIMENTATION CONTROL NOTES

- ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF YPSILANTI AND/OR COUNTY OF WASHTENAW.
- DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR TO DETERMINE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL DEVICES, AND ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
- EROSION AND ANY SEDIMENT FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MANMADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
- EROSION AND SEDIMENT CONTROL DEVICES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF SILT OFF THE SITE.
- CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES AS REQUIRED AND AS DIRECTED ON THESE PLANS. HE SHALL REMOVE TEMPORARY DEVICES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES, AND OTHER EARTH CHANGES HAVE BEEN ACCOMPLISHED AND APPROVED BY THE CITY AND/OR COUNTY.
- DEBRIS FROM PROJECT WILL BE LEFT ON THE SITE BY DELIVERY OR CONSTRUCTION VEHICLES THROUGH THE USE OF CLEAN STONE EXITS. SHOULD THE STONE BECOME LESS EFFECTIVE IT WILL BE REPLACED. ALL CONSTRUCTION TRAFFIC WILL USE THE CLEAN STONE EXIT.
- DUST CONTROL WILL BE EXERCISED AT ALL TIMES WITHIN THE PROJECT BY THE CONTRACTORS. SPRINKLING TRUCKS WILL BE AVAILABLE AT ALL TIMES TO BE USED ON HAUL ROUTES OR OTHER PLACES WHERE DUST BECOMES A PROBLEM.
- IMMEDIATELY AFTER SEEDING, MULCH ALL SEEDING AREAS WITH UNWEATHERED SMALL GRAIN STRAW OR HAY. SPREAD UNIFORM AT A RATE OF 1 1/2 TO 2 TONS PER ACRE OR 0.10 POUNDS PER SQUARE FEET. ANCHOR MULCH WITH DISC TYPE MULCH ANCHORING TOOL.
- ALL MUD, DIRT, AND DEBRIS TRACKED ONTO EXISTING ROADS FROM THIS SITE SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR OR BUILDER. ALL MUD, DIRT, AND DEBRIS TRACKED OR SPILLED ONTO PAVED SURFACES WITHIN THIS SITE SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
- PERMANENT SOIL EROSION CONTROL DEVICES FOR ALL SLOPES, CHANNELS, DITCHES OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 15 CALENDAR DAYS AFTER FINAL GRADING OR FINAL EARTH CHANGES HAVE BEEN COMPLETED. WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR WHERE SIGNIFICANT EARTH CHANGE ACTIVITY CEASES TEMPORARY SOIL EROSION CONTROL DEVICES SHALL BE IMPLEMENTED WITHIN 30 CALENDAR DAYS. ALL TEMPORARY SOIL EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION DEVICES ARE IMPLEMENTED AND/OR ESTABLISHED. ALL PERMANENT SOIL EROSION CONTROL DEVICES WILL BE IMPLEMENTED AND ESTABLISHED BEFORE A CERTIFICATE OF OCCUPANCY IS ISSUED.
- ALL CONTRACTORS ARE TO KEEP DICATED MATERIAL ON SITE. PARTICULAR CARE SHOULD BE TAKEN WHEN WORKING ALONG THE PERIMETER OF THE SITE. IN NO EVENT SHALL THE WORK AREA EXTEND BEYOND THE LIMITS INDICATED ON THE PLANS.
- THE SOIL EROSION CONTROLS WILL BE MAINTAINED WEEKLY AND AFTER EVERY STORM EVENT BY THE CONTRACTOR.



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STATE OF MICHIGAN
 PAUL J. LEWISLEY
 ENGINEER
 No. 627622
 10/12/2023

CLIENT:
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PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES (IN CONFLICT WITH PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. CALL MISS DIG 3 WORKING DAYS PRIOR TO CONSTRUCTION.

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KALITTA TURBINES BUILDING ADDITION
 2830 TYLER ROAD
 YPSILANTI, MI

DEMOLITION AND SOIL EROSION PLAN

SECTION 13
 TOWN 03 SOUTH RANGE 07 EAST
 YPSILANTI TOWNSHIP
 WASHTENAW COUNTY, MICHIGAN

NO.	DATE	REVISION
1	9-25-23	REVISED LOCATION OF G.V.&W.
2	10-12-23	REMOVE BLOW OFF, INSTALL PLUG, & CALL WM PUBLIC IN ESMT.

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAFTER	DATE	CHECKED	DATE	PROJECT SURVEYOR
L. THORNTON	8-24-23	R. DONNELLY	8-24-23	D. JACKSON

PROJECT MANAGER	DEPARTMENT MANAGER
D. JACKSON	C. PLATZ

JOB NO. SM23059 DRAWING NO. SM23059SPL
 SCALE: 1" = 40' SHEET NO. CE-6



CLIENT:
BEDDER CONSULTING SERVICES, LLC
32579 GATEWAY DRIVE
ROMULUS, MI 48174



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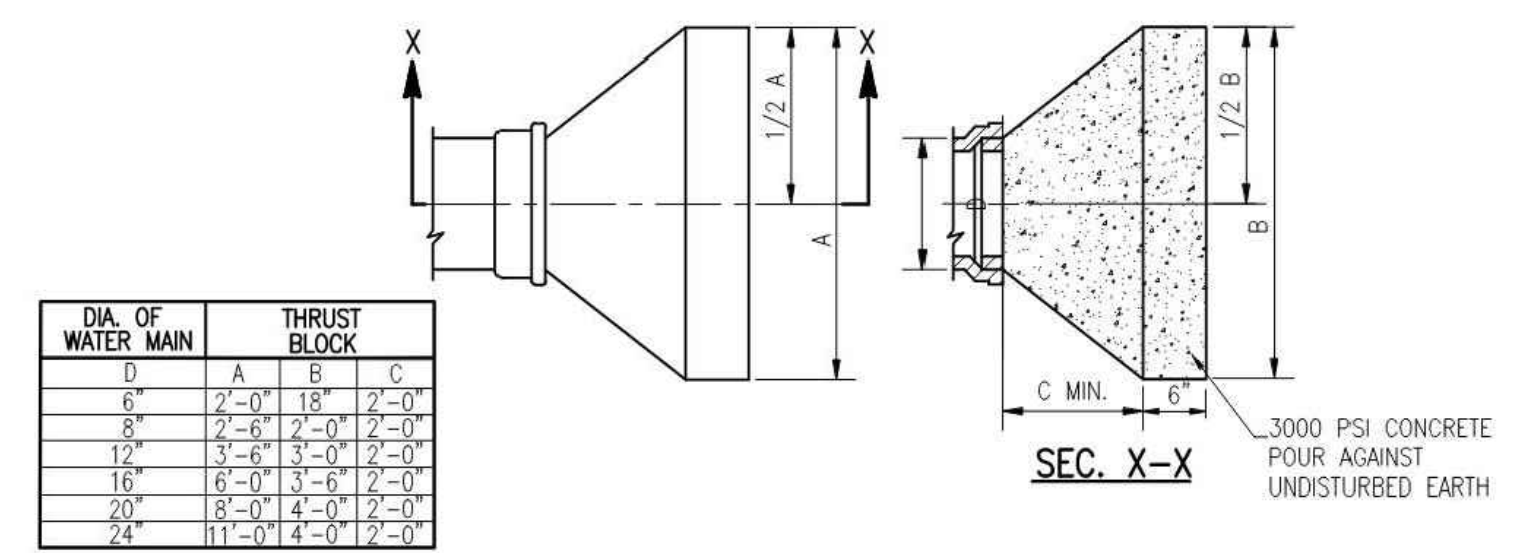
KALITTA TURBINES BUILDING ADDITION
2830 TYLER ROAD
YPSILANTI, MI

WATER MAIN DETAILS

SECTION 13
TOWN 03 SOUTH RANGE 07 EAST
YPSILANTI TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

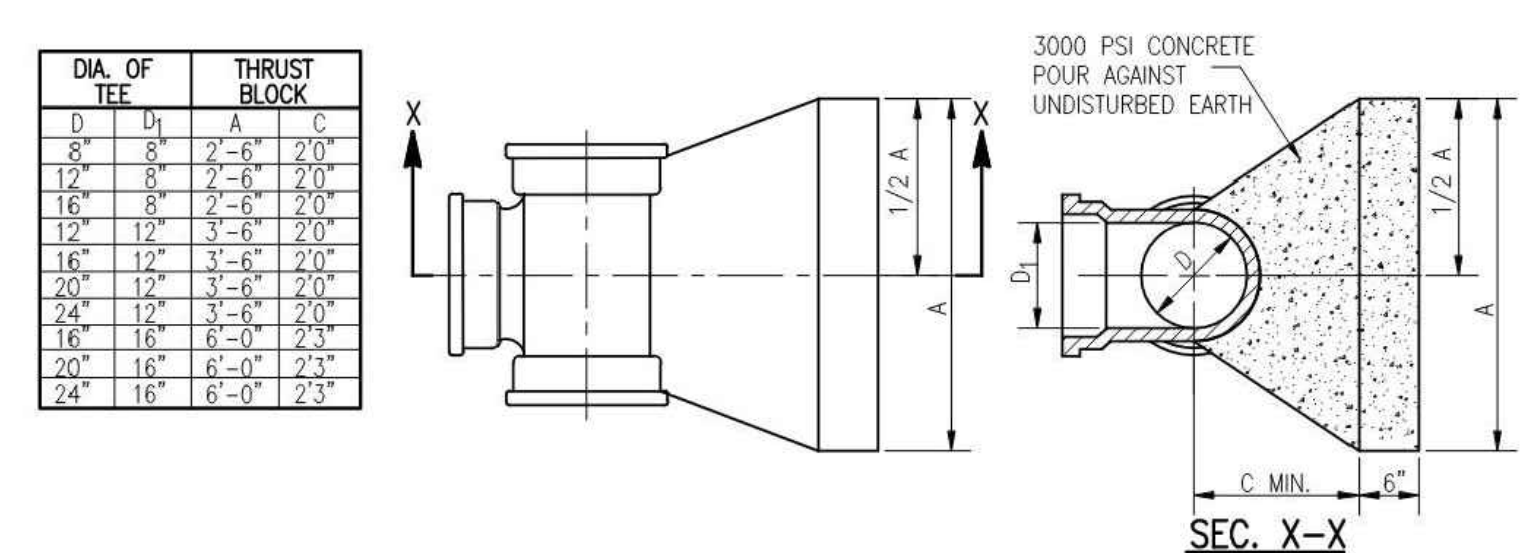
NO.	DATE	REVISION

VERIFY SCALES	
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	
DRAFTER L. THORNTON	DATE 8-24-23
CHECKED R. DONNELLY	DATE 8-24-23
FIELD LEADER S. MAYER	PROJECT SURVEYOR D. JACKSON
PROJECT MANAGER D. JACKSON	DEPARTMENT MANAGER C. PLATZ
JOB NO. SM23059	DRAWING NO. SM23059SPL
SCALE	SHEET NO.



DIA. OF WATER MAIN	THRUST BLOCK		
D	A	B	C
6"	2'-0"	18"	2'-0"
8"	2'-6"	2'-0"	2'-0"
12"	3'-6"	3'-0"	2'-0"
16"	6'-0"	3'-6"	2'-0"
20"	8'-0"	4'-0"	2'-0"
24"	11'-0"	4'-0"	2'-0"

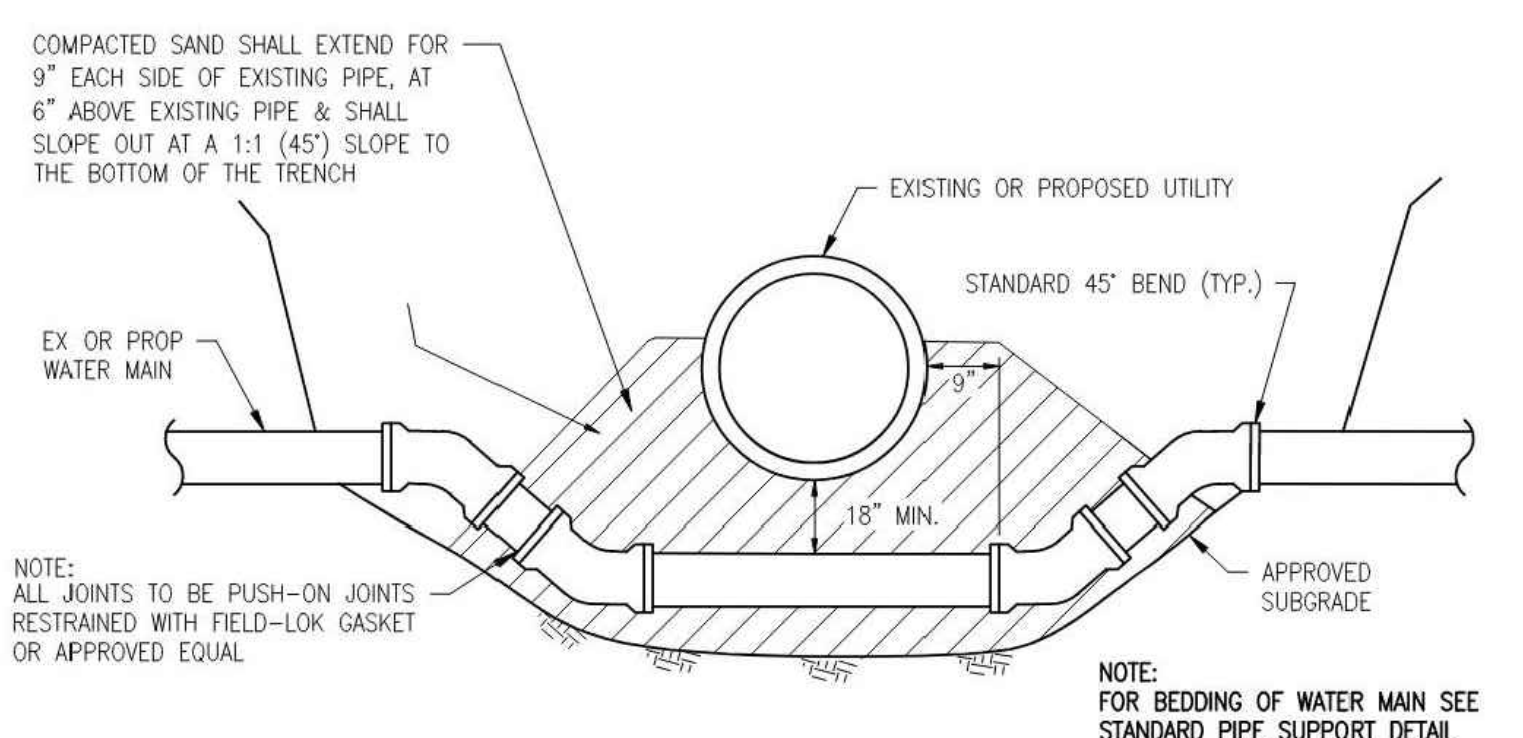
THRUST BLOCK AT PLUG OR HYDRANT SHOE
NOT TO SCALE



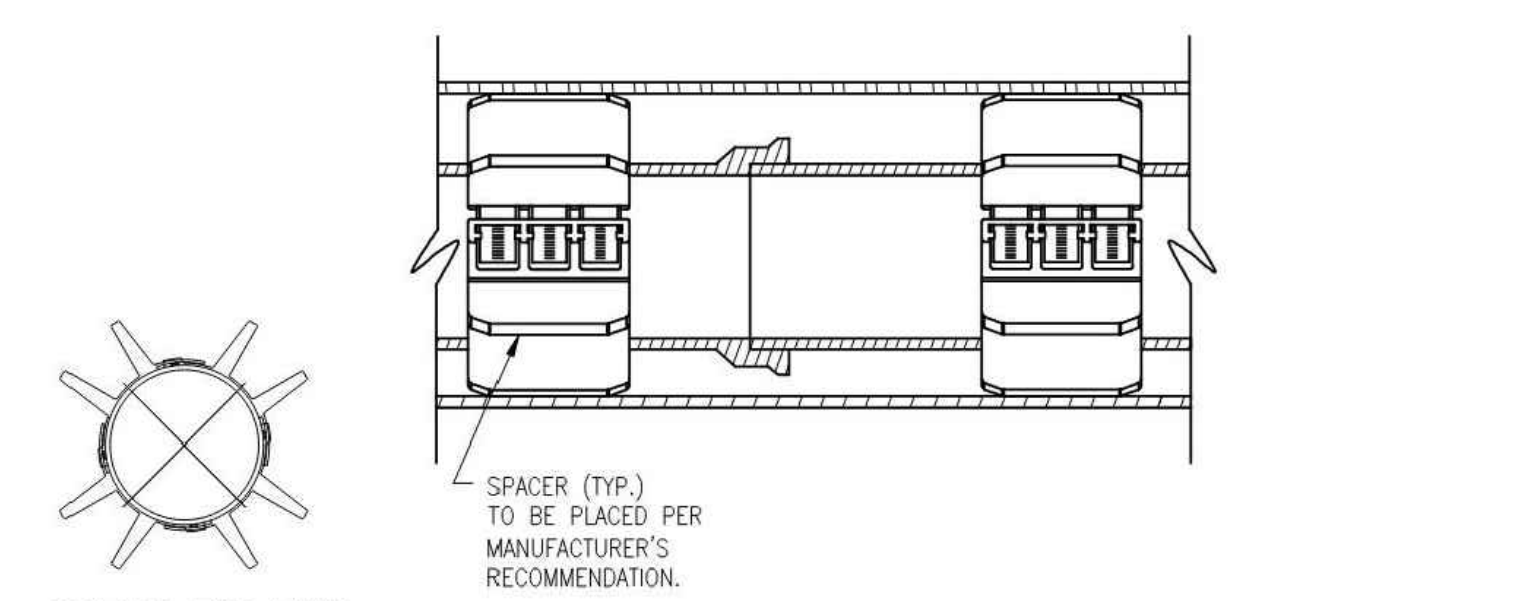
DIA. OF TEE	THRUST BLOCK		
D	A	B	C
6"	2'-0"	18"	2'-0"
8"	2'-6"	2'-0"	2'-0"
12"	3'-6"	3'-0"	2'-0"
16"	6'-0"	3'-6"	2'-0"
20"	8'-0"	4'-0"	2'-0"
24"	11'-0"	4'-0"	2'-0"

THRUST BLOCK AT TAPPING SLEEVE TEE
NOT TO SCALE

NOTE: CONCRETE THRUST BLOCKS WILL NOT BE PERMITTED EXCEPT BEHIND HYDRANT SHOES AND TAPPING SLEEVES. USE OF CONCRETE THRUST BLOCKS IN OTHER LOCATIONS WILL NOT BE PERMITTED WITHOUT THE WRITTEN APPROVAL OF YCUA. ALL OTHER VERTICAL AND HORIZONTAL BENDS SHALL BE RESTRAINED WITH FIELD-LOK GASKETS OR APPROVED MECHANICAL JOINTS.

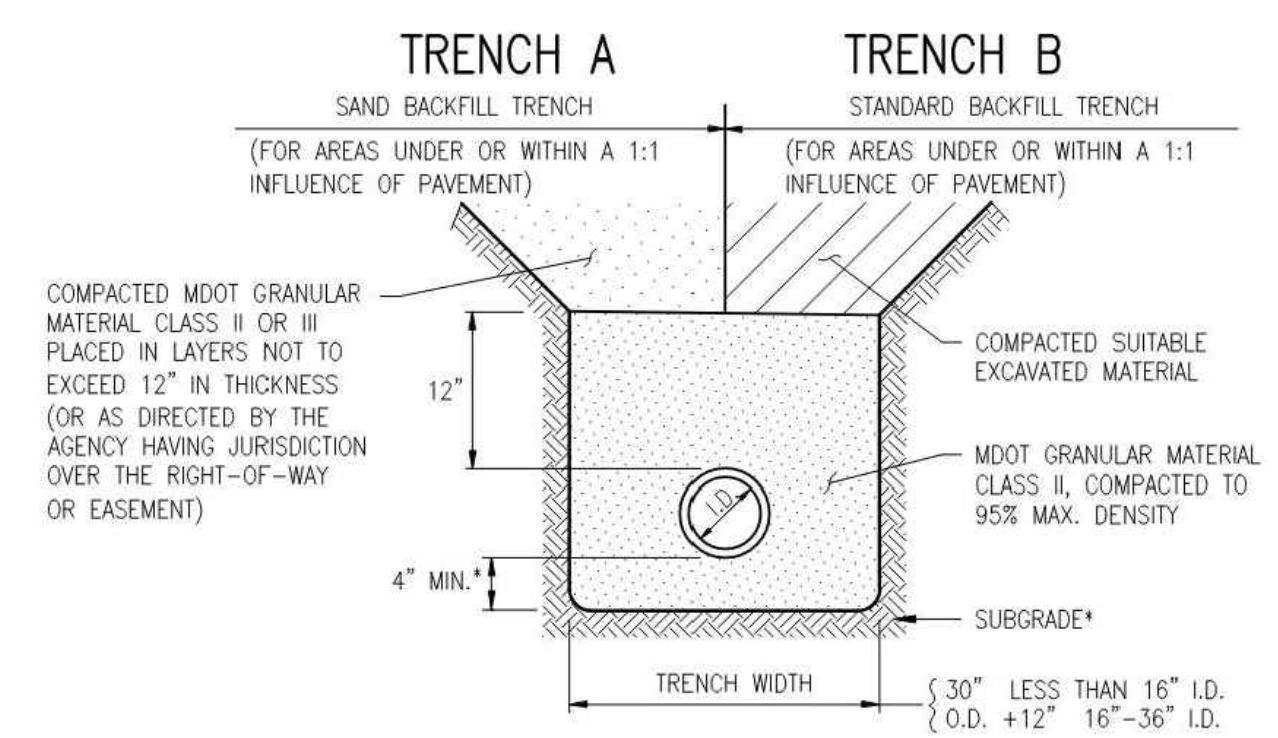


WATER MAIN LOWERING
NOT TO SCALE



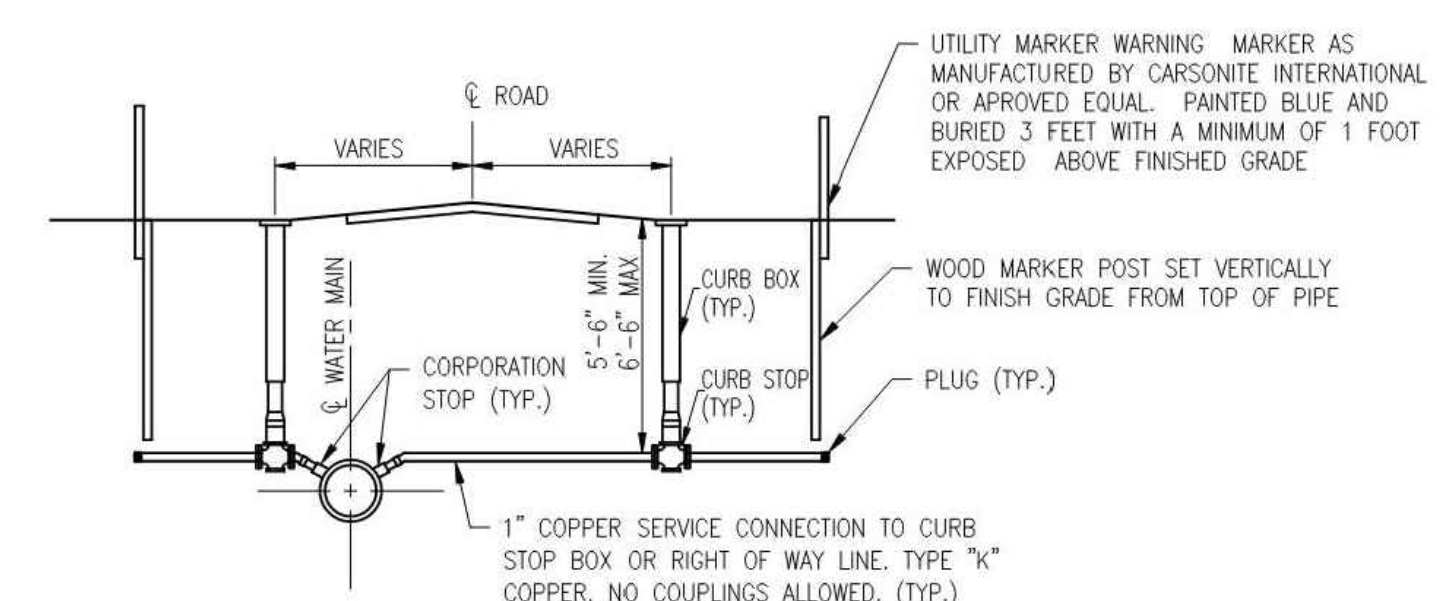
STANDARD CASING SECTION
NOT TO SCALE

NOTES:
1. SPACERS FOR PLACEMENT IN THE ANNULAR SPACE BETWEEN THE CARRIER PIPE AND A CASING PIPE SHALL BE RANGER II AS MANUFACTURED BY PSI OR APPROVED EQUAL.
2. END SEALS SHALL BE MODEL C RUBBER SEAL WITH STAINLESS STEEL BANDS AS MANUFACTURED BY PSI OR APPROVED EQUAL.

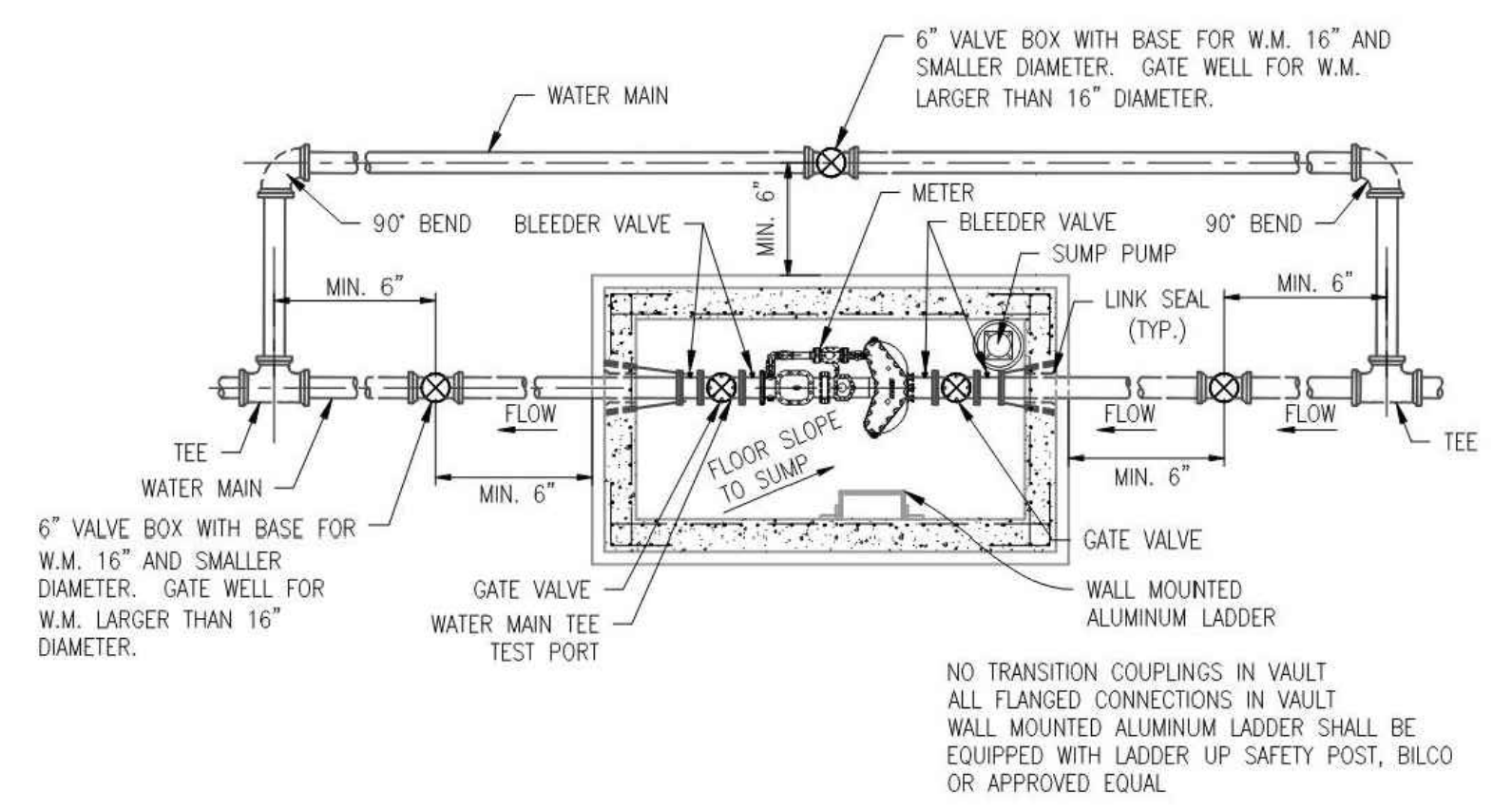


BEDDING AND TRENCH BACKFILL DETAIL FOR WATER MAIN
NOT TO SCALE

NOTE: IF THE EXISTING SUBGRADE MATERIAL MEETS THE REQUIREMENTS FOR MDOT GRANULAR MATERIAL CLASS II (MINIMUM 4" THICK), THEN THE WATER MAIN MAY BE LAID DIRECTLY ON THE COMPACTED EXISTING SUBGRADE MATERIAL.

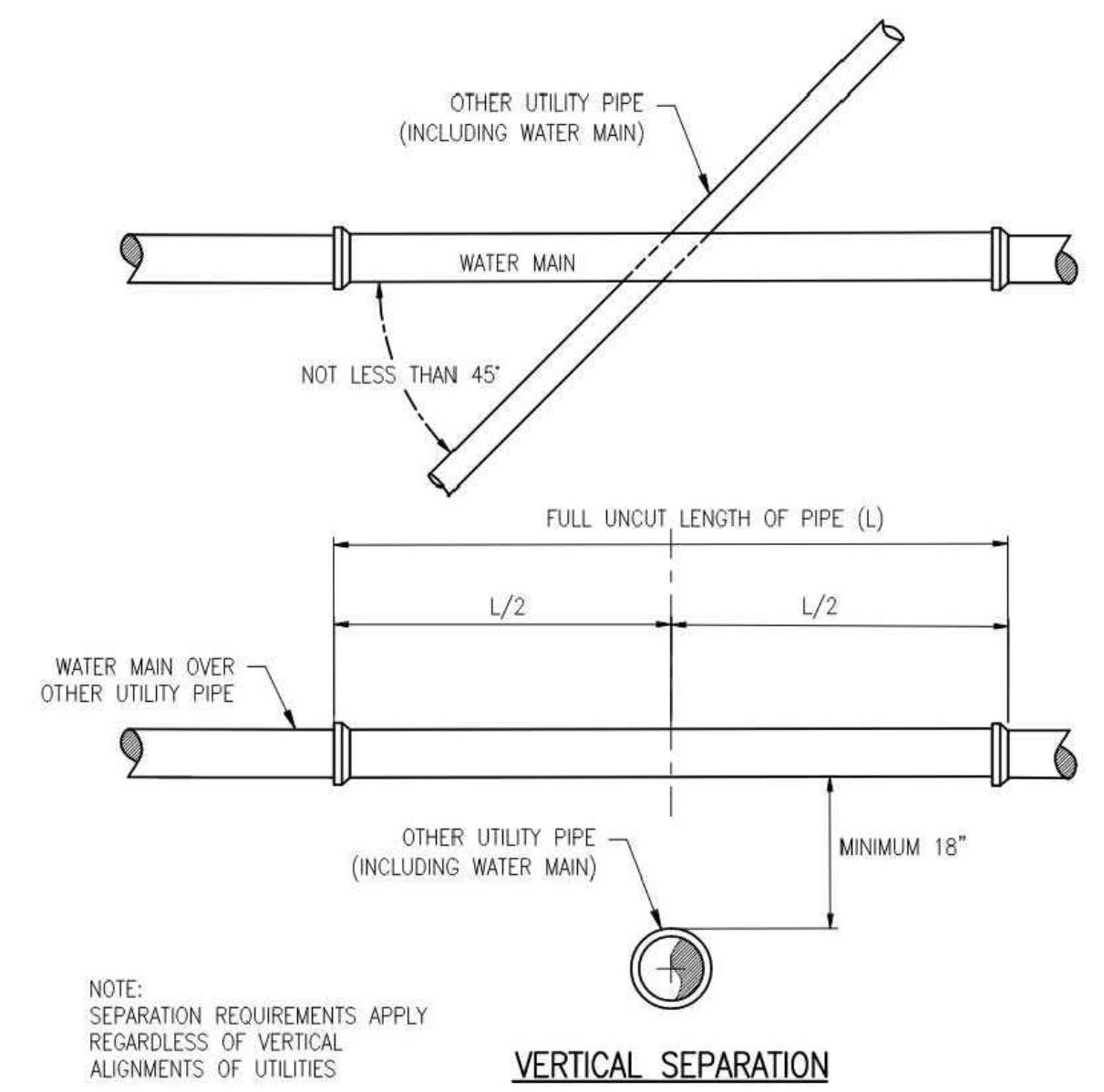


TYPICAL WATER SERVICE
NOT TO SCALE

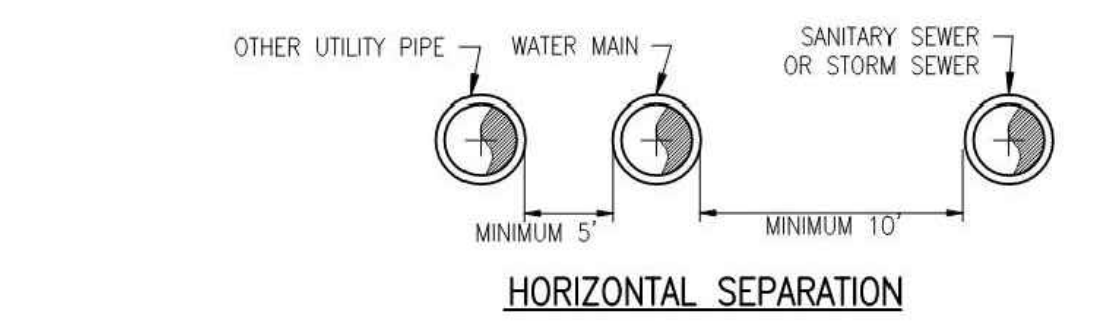


MASTER METER VAULT CONFIGURATION (WITHOUT COVER)
NOT TO SCALE

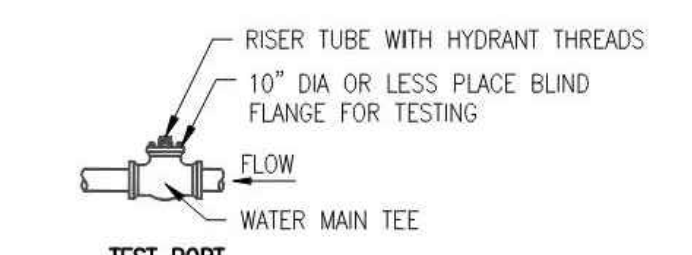
NOTES:
1. WHERE POSSIBLE THE METER VAULT SHALL BE LOCATED AWAY FROM TRAFFIC AREAS, ROADS, PARKING LOTS, ETC.
2. THE ACCESS HATCH SHALL BE SIZED LARGE ENOUGH TO ACCOMMODATE REMOVAL OF THE LARGEST METER OR THE LARGEST APPURTENANCE FOR MAINTENANCE PURPOSES. THE HATCH SHALL BE MANUFACTURED BY THE BILCO COMPANY. METER VAULT HATCH SHALL BE WATER TIGHT.
3. THE METER VAULT FLOOR SHALL BE SLOPED TO THE SUMP.
4. ELECTRICAL SERVICE SHALL BE SUPPLIED TO THE VAULT.



VERTICAL SEPARATION

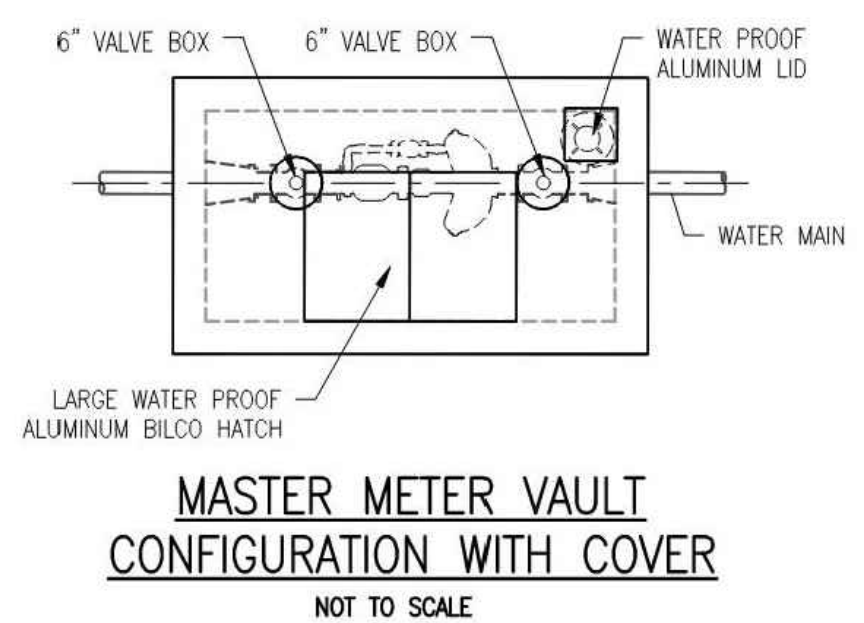


WATER MAIN CROSSING OTHER UTILITIES
NOT TO SCALE

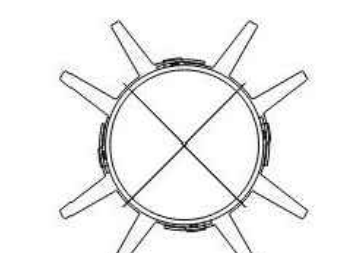


TEST PORT

PIPE DIA	TEST PORT SIZE
6"	6"
8"	8"
10"	10"
12"	10"
16"	10"



MASTER METER VAULT CONFIGURATION WITH COVER
NOT TO SCALE



SPACER END VIEW
NOT TO SCALE

Plotted: Aug 24, 2023, 3:7 PM by user: 918 - Saved: 8/24/2023 by user: 918
J:\SM\SM23059 - Kalitta Turbines Parcel\DWG\SM23059SPL.dwg



REVISIONS

STANDARD WATER MAIN DETAILS

YPSILANTI COMMUNITY UTILITIES AUTHORITY
2777 STATE ROAD
YPSILANTI, MICHIGAN 48198-9112
(734) 484-4600
FAX: (734) 544-7221
WWW.YCUA.ORG

DATE: 09/25/19 SCALE: NO SCALE SHEET: WM-2

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CLIENT:
BEDDER CONSULTING SERVICES, LLC
32579 GATEWAY DRIVE
ROMULUS, MI 48174



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KALITTA TURBINES BUILDING ADDITION
2830 TYLER ROAD
YPSILANTI, MI

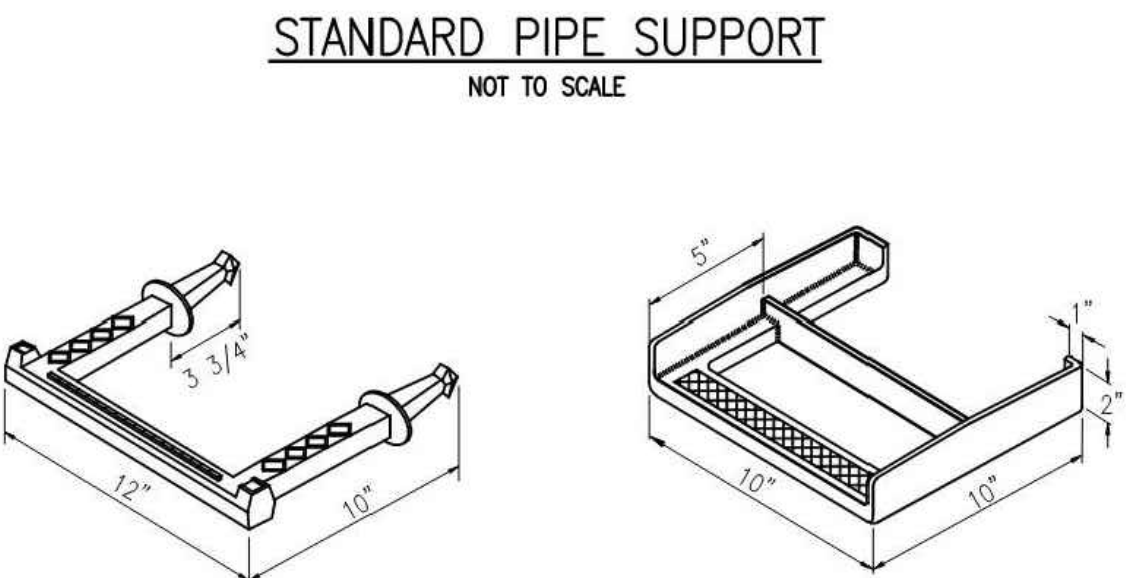
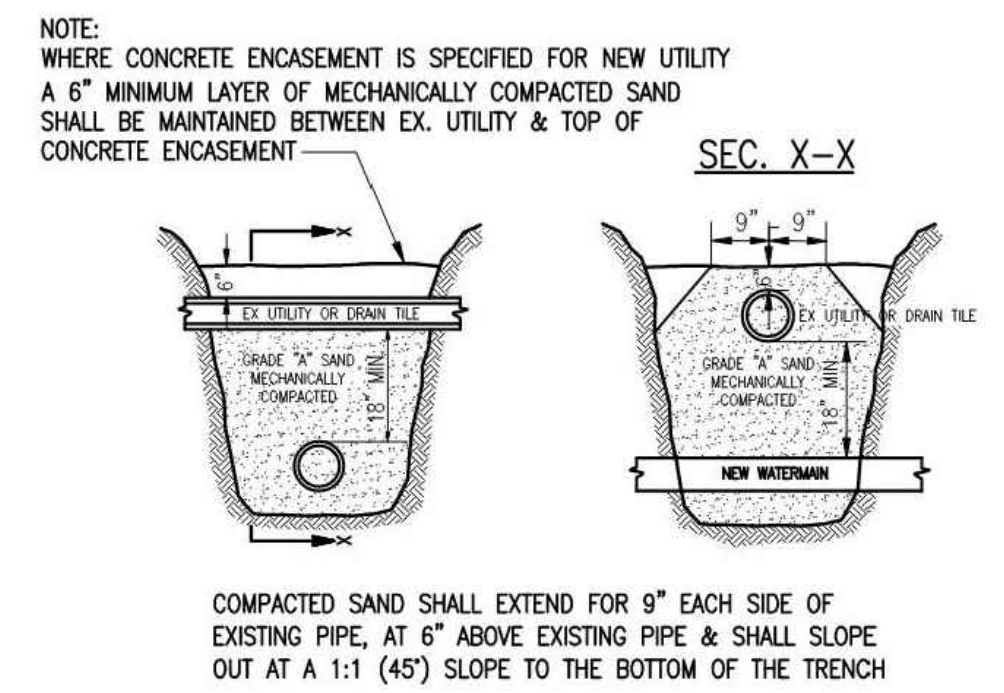
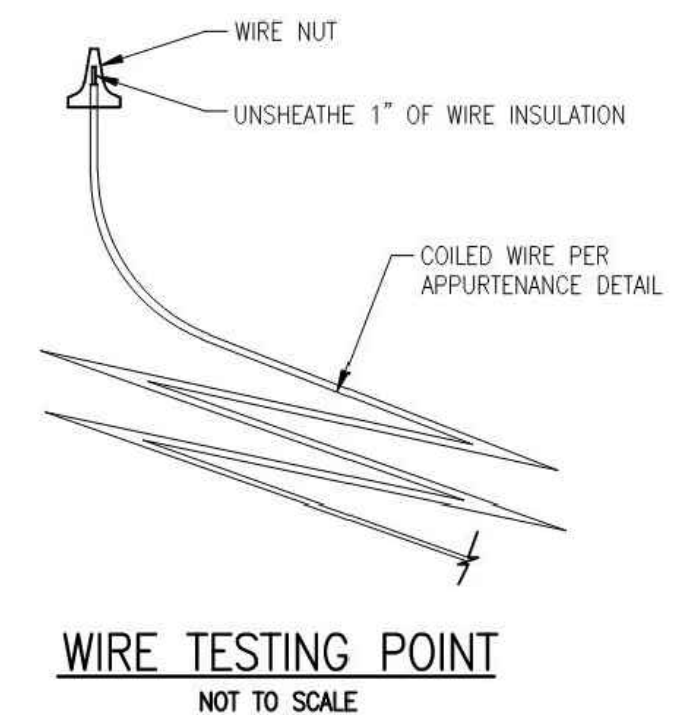
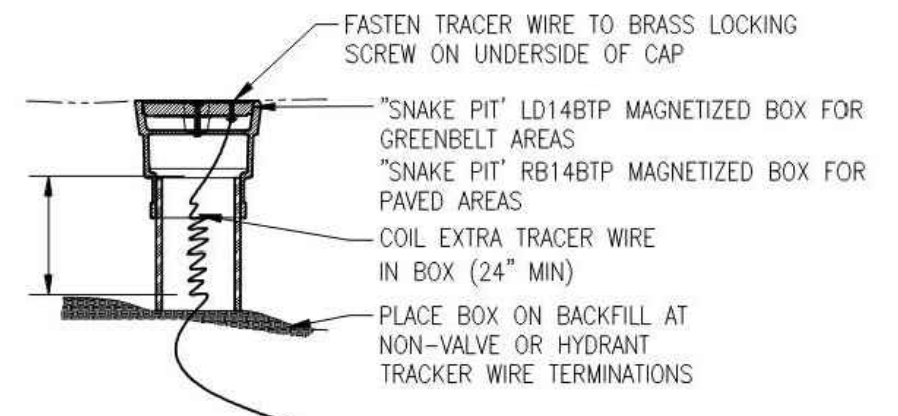
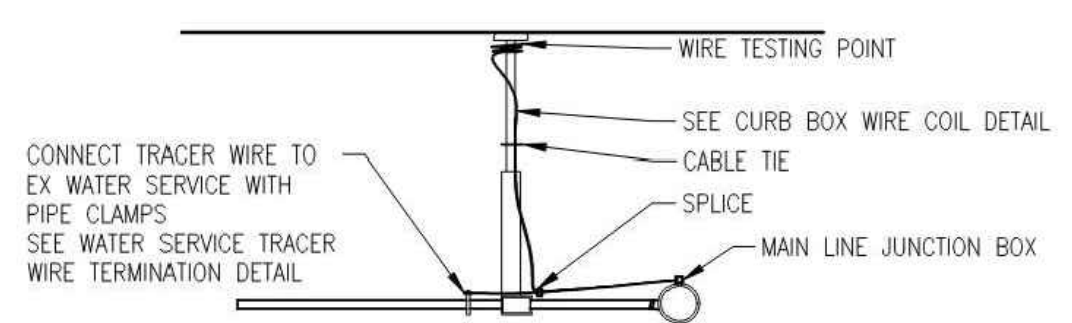
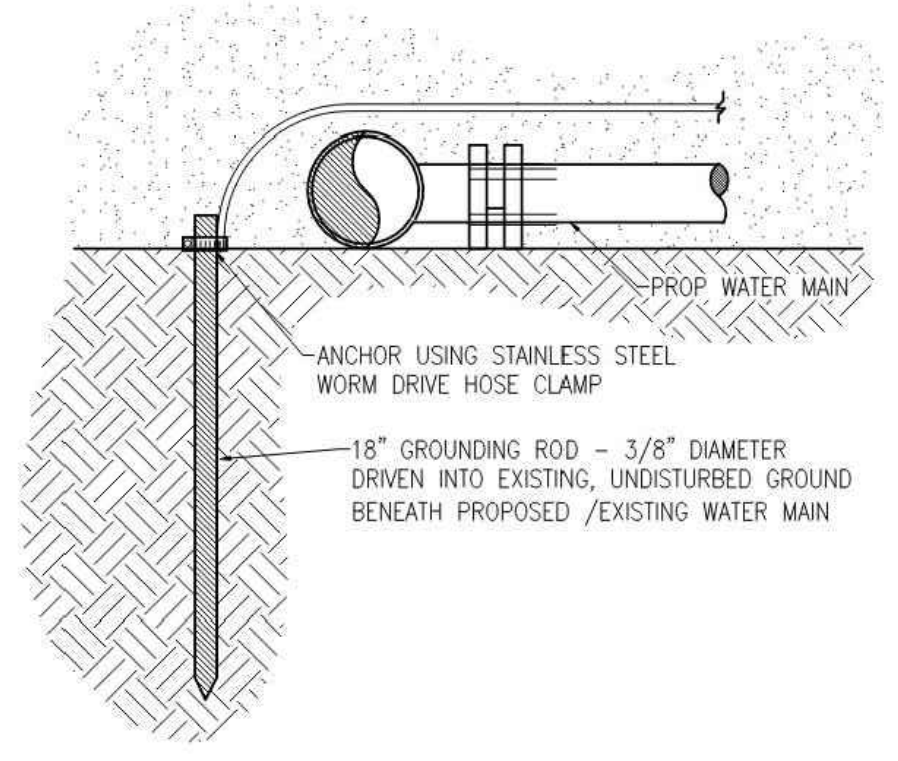
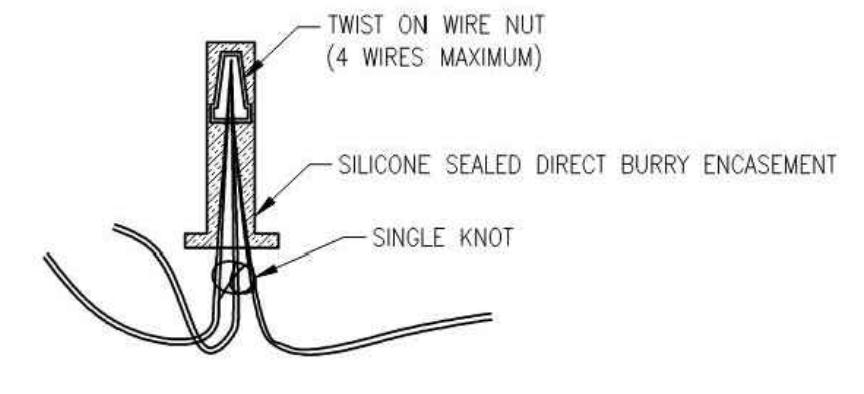
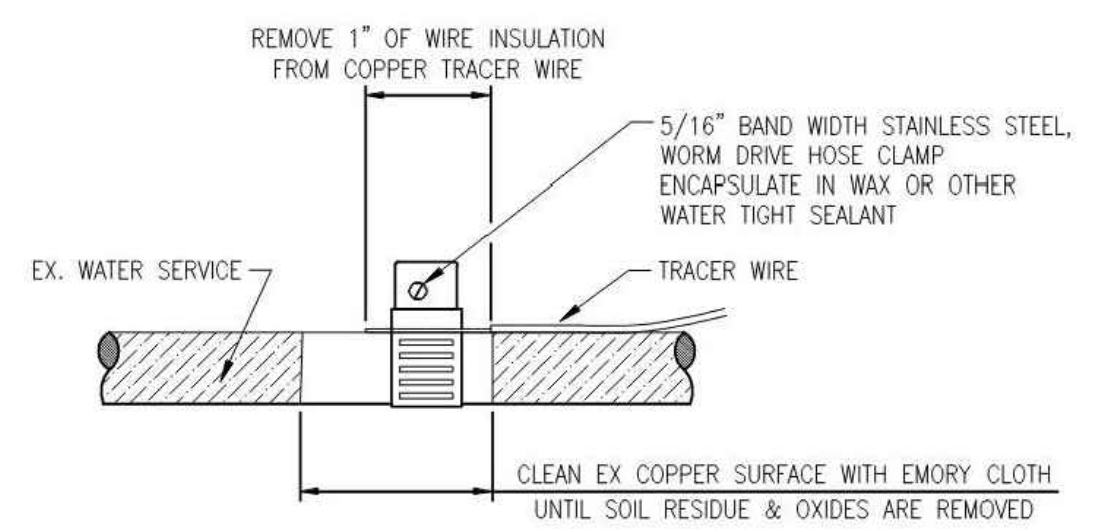
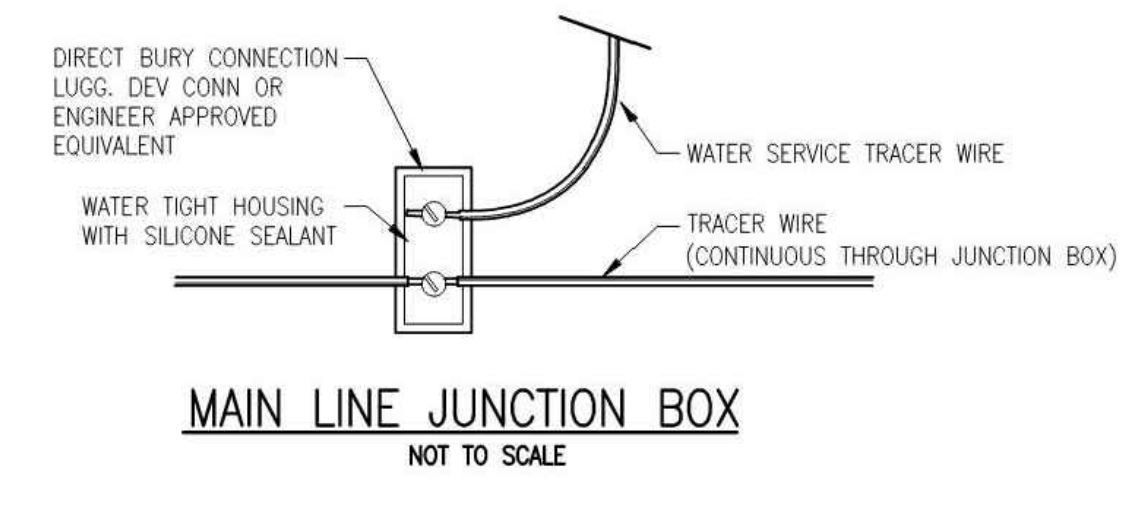
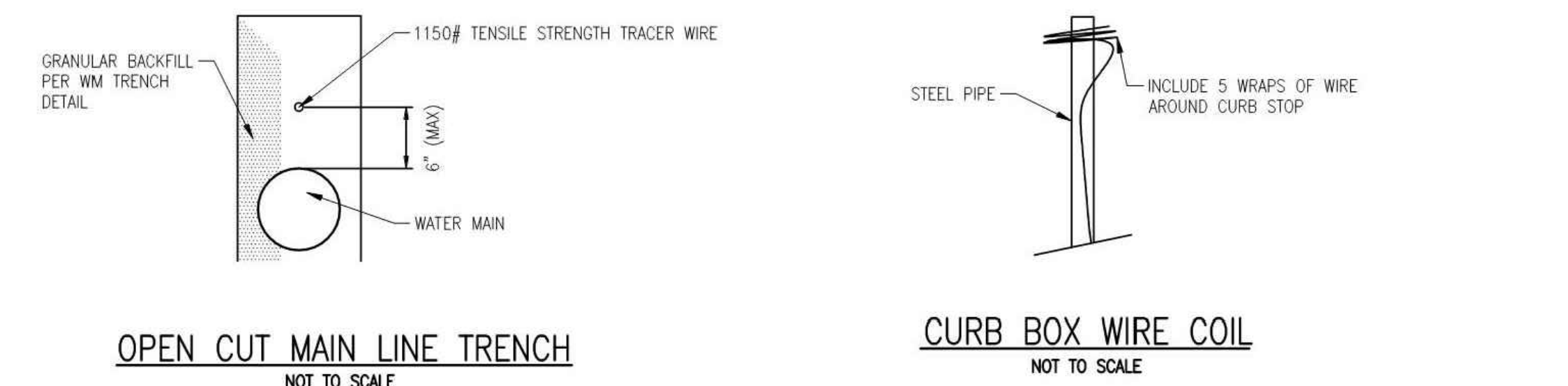
WATER MAIN DETAILS

SECTION 13
TOWN 03 SOUTH RANGE 07 EAST
YPSILANTI TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

NO.	DATE	REVISION

VERIFY SCALES	
BAR IS ONE INCH ON ORIGINAL DRAWING	
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	
DRAFTER L. THORNTON	DATE 8-24-23
CHECKED R. DONNELLY	DATE 8-24-23
FIELD LEADER S. MAYER	PROJECT SURVEYOR D. JACKSON
PROJECT MANAGER D. JACKSON	DEPARTMENT MANAGER C. PLATZ
JOB NO. SM23059	DRAWING NO. SM23059SPL
SCALE:	SHEET NO.

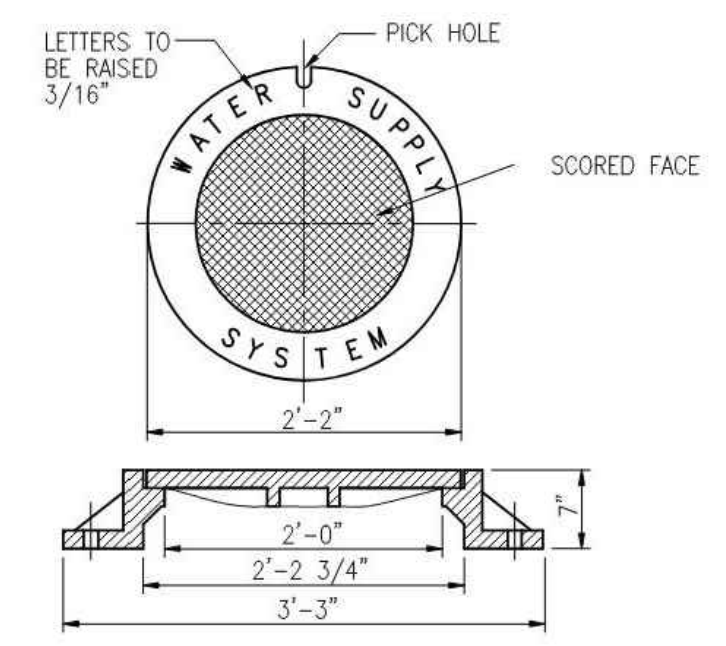
TRACER WIRE DETAILS



MANHOLE STEP
M.A. PSI-375
USE AS REQUIRED

STANDARD MANHOLE STEP
EJ 8500
USE AS REQUIRED

INSTALLED IN ECCENTRIC WELLS ONLY.
CONCENTRIC WELLS WILL NOT BE INSTALLED WITH STEPS.



STANDARD FRAME & COVER
EJ #1040
USE AS REQUIRED

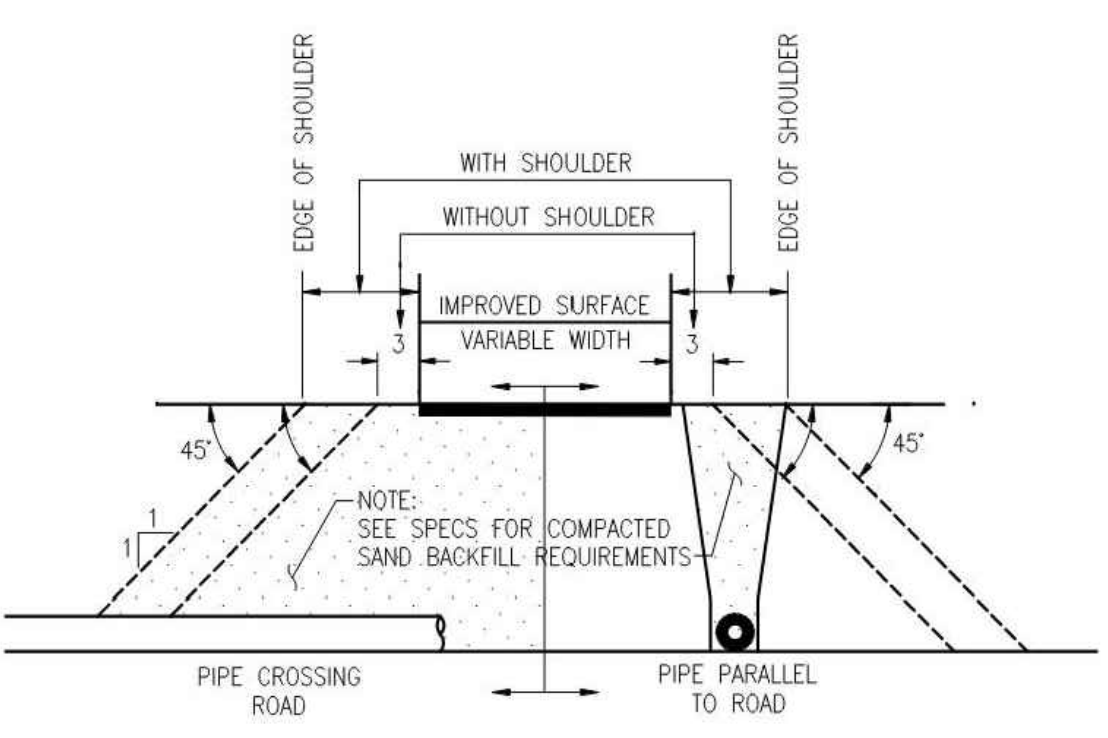
PIPE RESTRAINT SCHEDULE

THE FOLLOWING TABLE IS A JOINT RESTRAINT SCHEDULE (DIPRA) FOR GROUND-BURIED DUCTILE IRON OR PVC PIPE. LENGTHS OF PIPE RESTRAINT ARE GIVEN IN FEET.

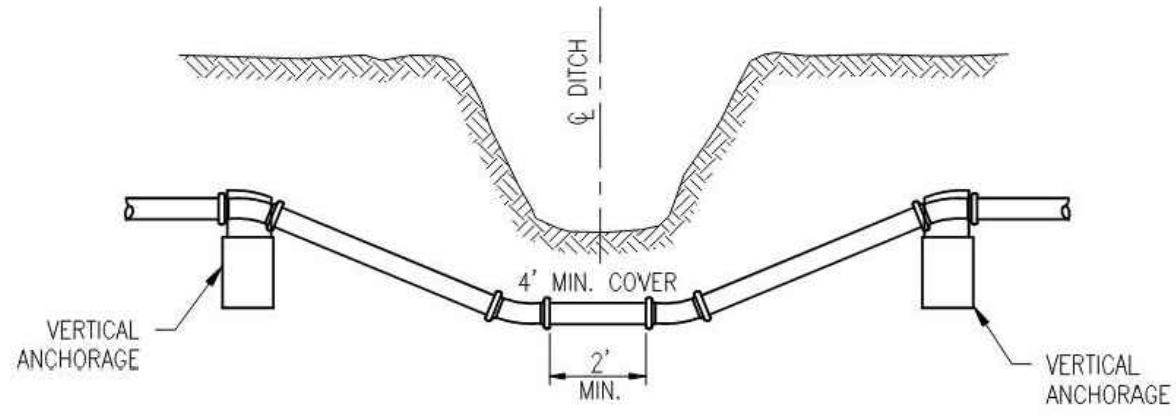
PIPE DIAMETER	TEES, 90° PLUGS	45° BENDS	22 1/2° BENDS	REDUCERS
6"	40	25	25	30
8"	55	25	25	30
12"	80	35	25	55
16"	100	40	25	60
24"	135	56	25	65

BASED UPON
INTERNAL PRESSURE: 180
PIPE DEPTH: 5
BEDDING CLASS: TYPE 4
SOIL TYPE: GOOD SAND
SAFETY FACTOR: 2

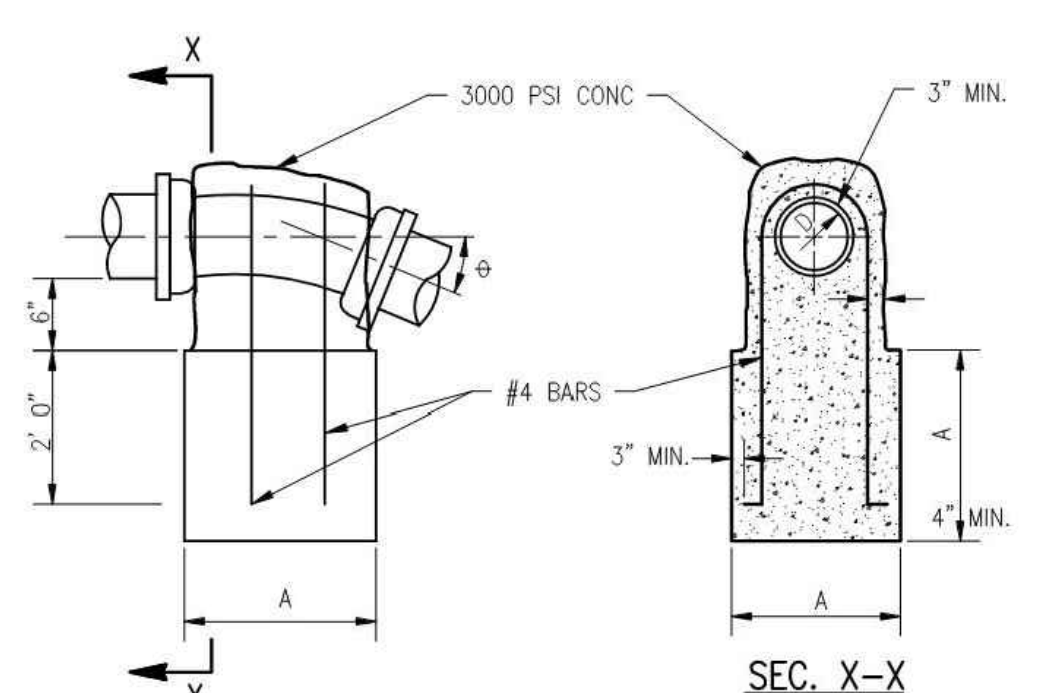
- IF PIPE DIAMETER IS NOT LISTED IN THIS TABLE; THE NEXT LARGEST PIPE SHALL BE USED. THIS TABLE IS BASED ON A TEST PRESSURE OF 180 PSI (OPERATING PRESSURE PLUS WATER HAMMER).
- FOR OTHER TEST PRESSURES, ALL VALUES TO BE INCREASED OR DECREASED PROPORTIONALLY. THE VALUES PROVIDED OF RESTRAINT LENGTH ARE IN EACH DIRECTION FROM THE POINT OF DEFLECTION OR TERMINATION EXCEPT FOR TEES, AT WHICH ONLY THE BRANCH IN THE DIRECTION OF THE STEM.
- IF THE RODS ARE USED, USE FOUR RODS MINIMUM AND ADD 1/8 INCH TO BAR DIAMETER AS CORROSION ALLOWANCE. SIZE REDUCTION IS BASED UPON THE PIPE DIAMETER SHOWN IN THIS TABLE.
- MANUFACTURER'S RESTRAINT SCHEDULE AND SPECIFIC SITE CONDITIONS MAY MODIFY THE ABOVE SCHEDULE. ANY ALTERNATIVE SCHEDULE SHALL BE SUBMITTED TO YCUA FOR APPROVAL.



BACKFILL IN THE AREA OF STREETS, ALLEYS, SIDEWALKS, DRIVES & PARKING LOTS
NOT TO SCALE



STANDARD DITCH CROSSING
NOT TO SCALE



DETAIL OF VERTICAL ANCHORAGE
NOT TO SCALE

DIA. OF WATER MAIN	BEND	A	NUMBER OF BARS
6"	22 1/2°	2'-0"	2
8"	22 1/2°	3'-3"	2
12"	11 1/4°	3'-3"	2
16"	11 1/4°	3'-5"	2
20"	22 1/2°	4'-0"	3
24"	11 1/4°	4'-0"	2
24"	22 1/2°	5'-0"	3



REVISIONS

STANDARD WATER MAIN DETAILS

YPSILANTI COMMUNITY UTILITIES AUTHORITY
2777 STATE ROAD
YPSILANTI, MICHIGAN 48198-9112
(734) 484-4600
FAX: (734) 544-7221
WWW.YCUA.ORG

DATE: 09/25/19
SCALE: NO SCALE
SHEET: WM-3



CLIENT:
BEDDER CONSULTING SERVICES, LLC
32579 GATEWAY DRIVE
ROMULUS, MI 48174



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KALITTA TURBINES BUILDING ADDITION
2830 TYLER ROAD
YPSILANTI, MI

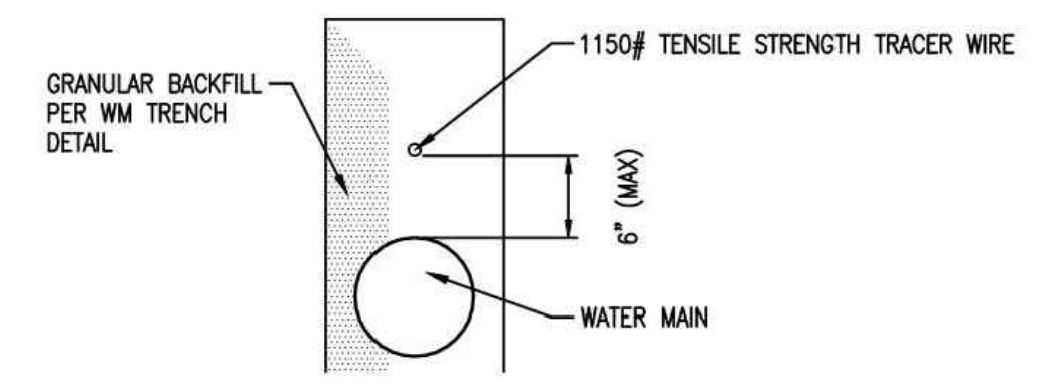
WATER MAIN DETAILS

SECTION 13
TOWN 03 SOUTH RANGE 07 EAST
YPSILANTI TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

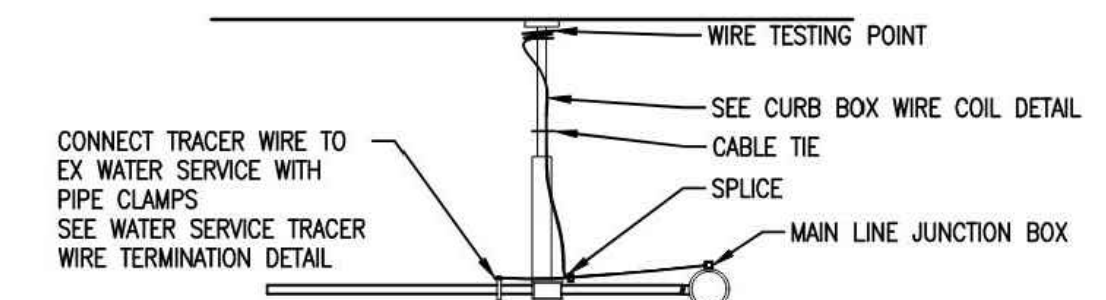
NO.	DATE	REVISION

VERIFY SCALES	
BAR IS ONE INCH ON ORIGINAL DRAWING	
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	
DRAFTER	DATE
L. THORNTON	8-24-23
CHECKED	DATE
R. DONNELLY	8-24-23
FIELD LEADER	PROJECT SURVEYOR
S. MAYER	D. JACKSON
PROJECT MANAGER	DEPARTMENT MANAGER
D. JACKSON	C. PLATZ
JOB NO.	DRAWING NO.
SM23059	SM23059SPL
SCALE:	SHEET NO.
	CE-11

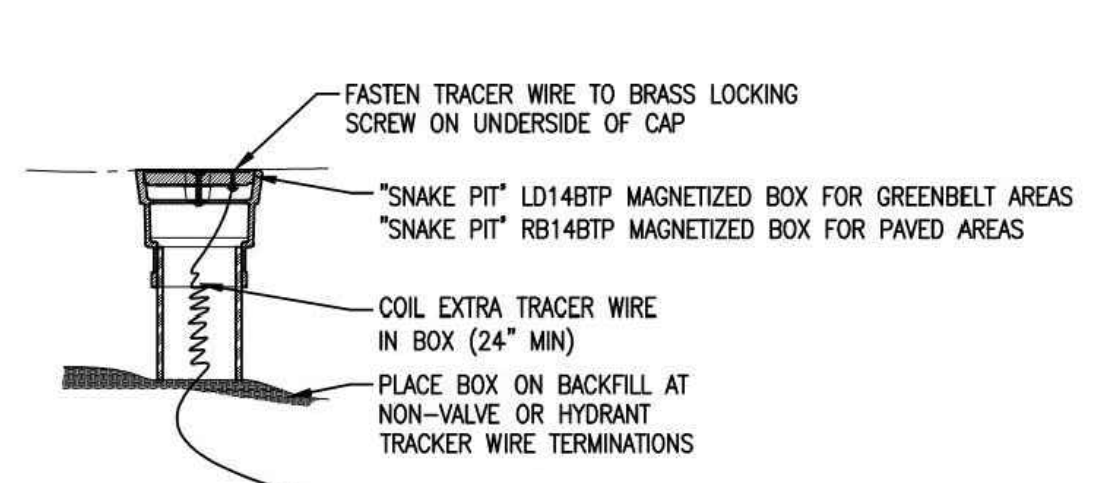
TRACER WIRE SHALL BE INCLUDED WITH ALL PVC WATER MAIN INSTALLATIONS



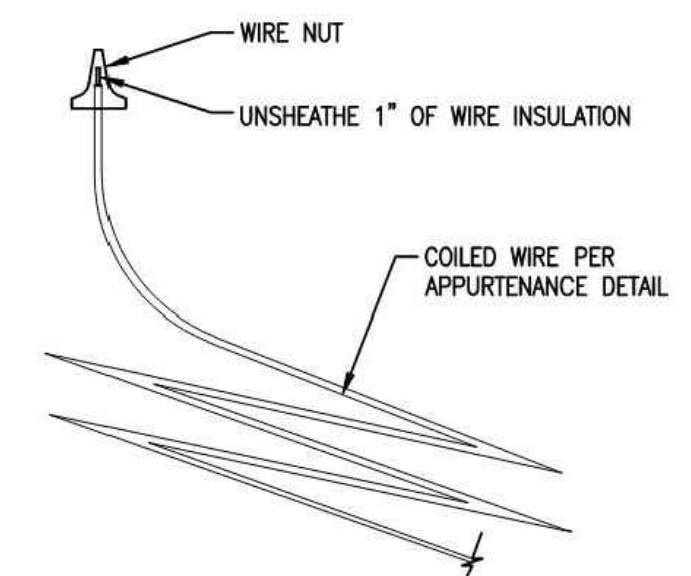
OPEN CUT MAIN LINE TRENCH
N.T.S.



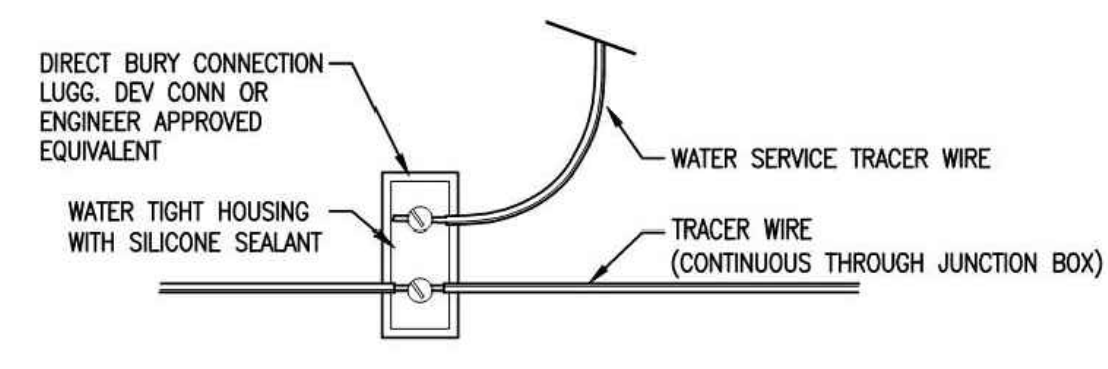
CURB STOP CONNECTION
N.T.S.



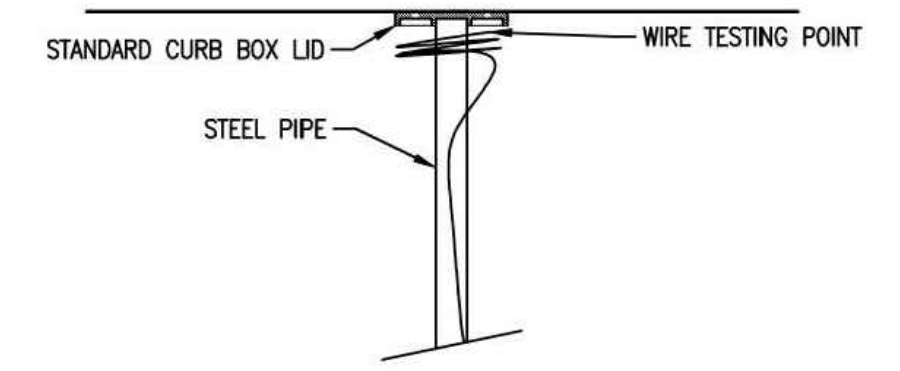
TRACER WIRE TEST POINT
N.T.S.



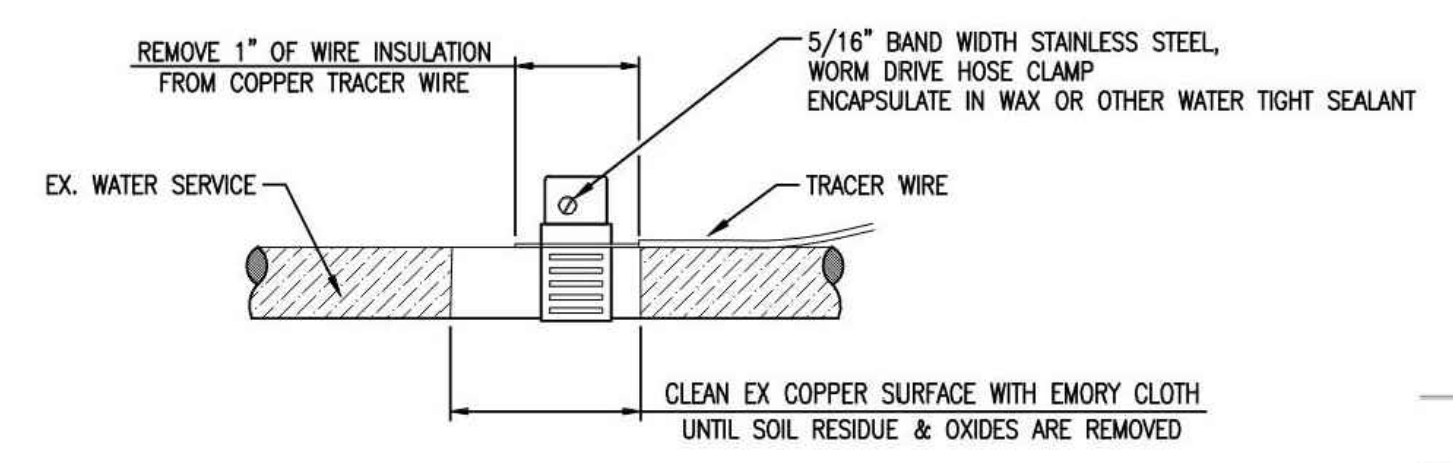
WIRE TESTING POINT
N.T.S.



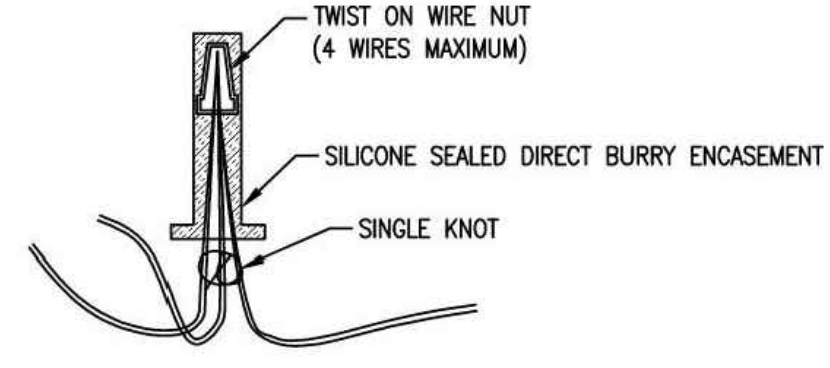
MAIN LINE JUNCTION BOX
N.T.S.



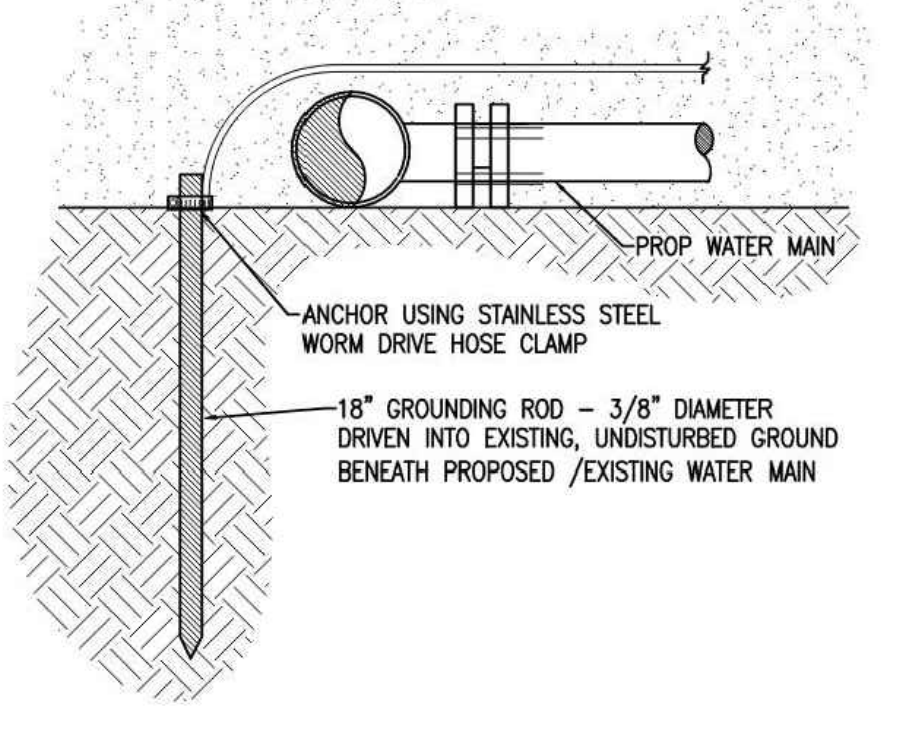
CURB BOX WIRE COIL
N.T.S.



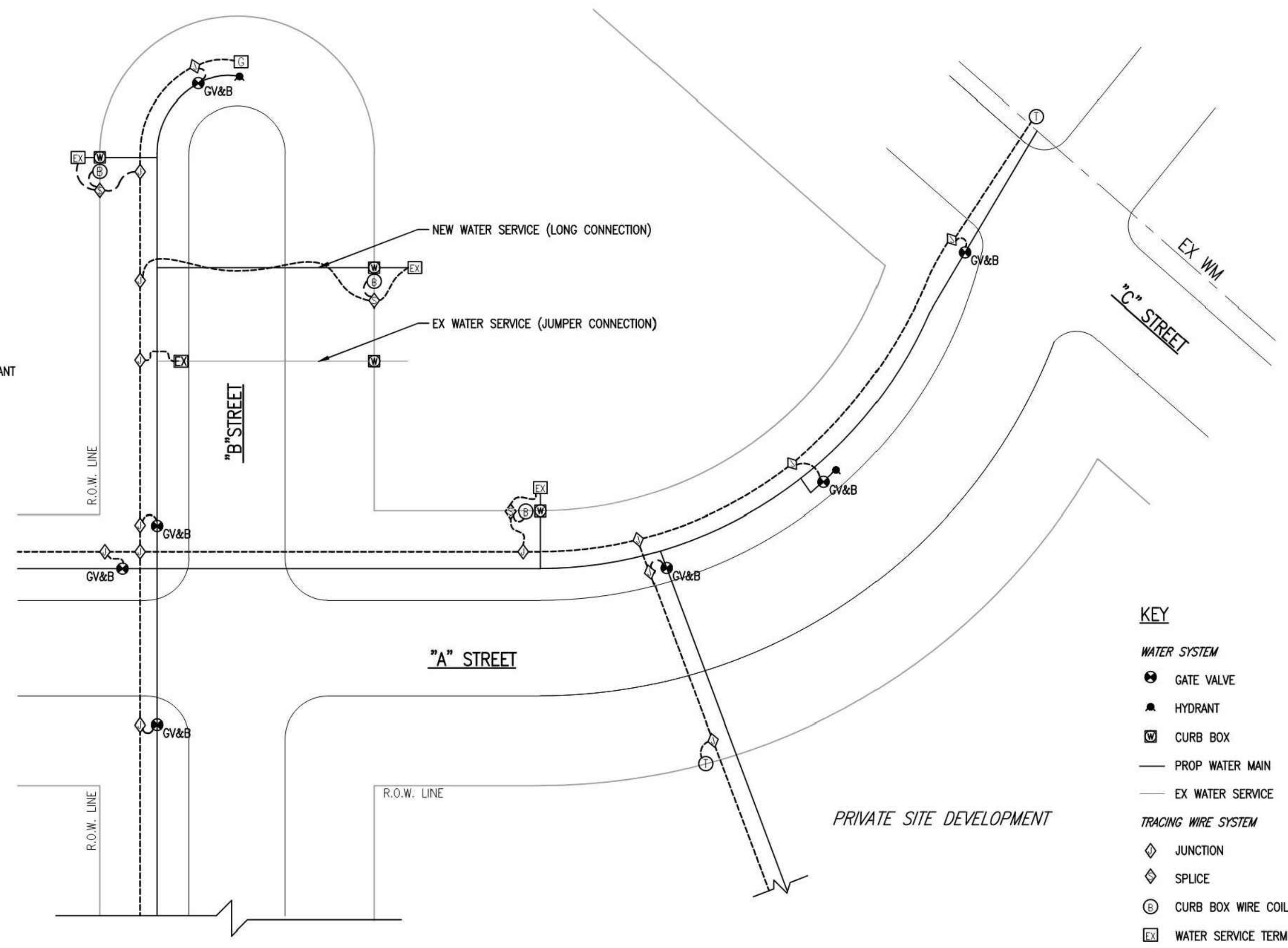
WATER SERVICE TERMINATION
N.T.S.



SPLICE CONNECTOR
N.T.S.



GROUNDING ROD TERMINATION
N.T.S.



- KEY**
- WATER SYSTEM**
- GATE VALVE
 - ▲ HYDRANT
 - CURB BOX
 - PROP WATER MAIN
 - EX WATER SERVICE
- TRACING WIRE SYSTEM**
- ◇ JUNCTION
 - SPLICE
 - ⊙ CURB BOX WIRE COIL
 - ⊠ WATER SERVICE TERMINATION
 - ⊙ TEST POINT
 - ⊠ GROUNDING ROD TERMINATION
 - TRACING WIRE

TRACER WIRE SYSTEM SCHEMATIC

REVISIONS

STANDARD WATER MAIN DETAILS

YPSILANTI COMMUNITY UTILITIES AUTHORITY		
2777 STATE ROAD		
YPSILANTI, MICHIGAN	48198-9112	
(734) 484-4800	FAX: (734) 544-7221	
WWW.YCUA.ORG		
DATE	SCALE	SHEET
07/24/18	NO SCALE	WM-4





CLIENT:
BEDDER CONSULTING SERVICES, LLC
32579 GATEWAY DRIVE
ROMULUS, MI 48174

811
Know what's below.
Call before you dig.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES IN CONFLICT WITH PROPOSED IMPROVEMENTS SHALL BE VERIFIED IN THE FIELD. CALL MISS DIG'S WORKING DAYS PRIOR TO CONSTRUCTION.

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KALITTA TURBINES BUILDING ADDITION
2830 TYLER ROAD
YPSILANTI, MI

STORM SEWER DETAILS

SECTION 13
TOWN 03 SOUTH RANGE 07 EAST
YPSILANTI TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

NO.	DATE	REVISION

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET,
ADJUST SCALES ACCORDINGLY.

DRAFTER	DATE
L. THORNTON	8-24-23
CHECKED D. DONNELLY	8-24-23
FIELD LEADER S. MAYER	PROJECT SURVEYOR D. JACKSON
PROJECT MANAGER D. JACKSON	DEPARTMENT MANAGER C. PLATZ
JOB NO. SM23059	DRAWING NO. SM23059SPL
SCALE:	SHEET NO.

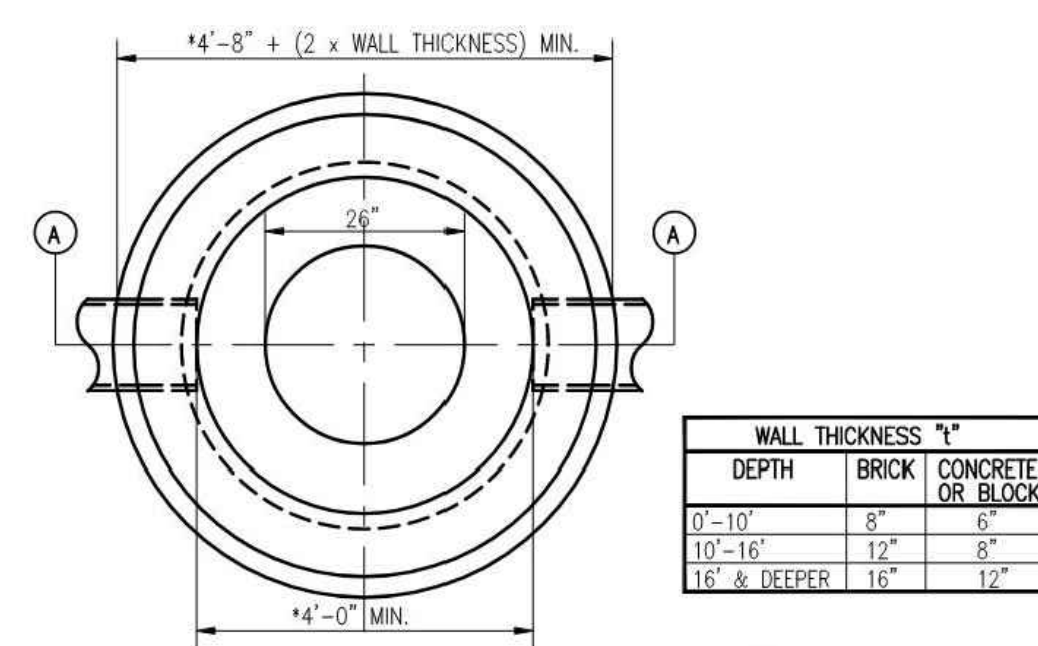
CE-12

OHM
WWW.OHM-ADVISORS.COM

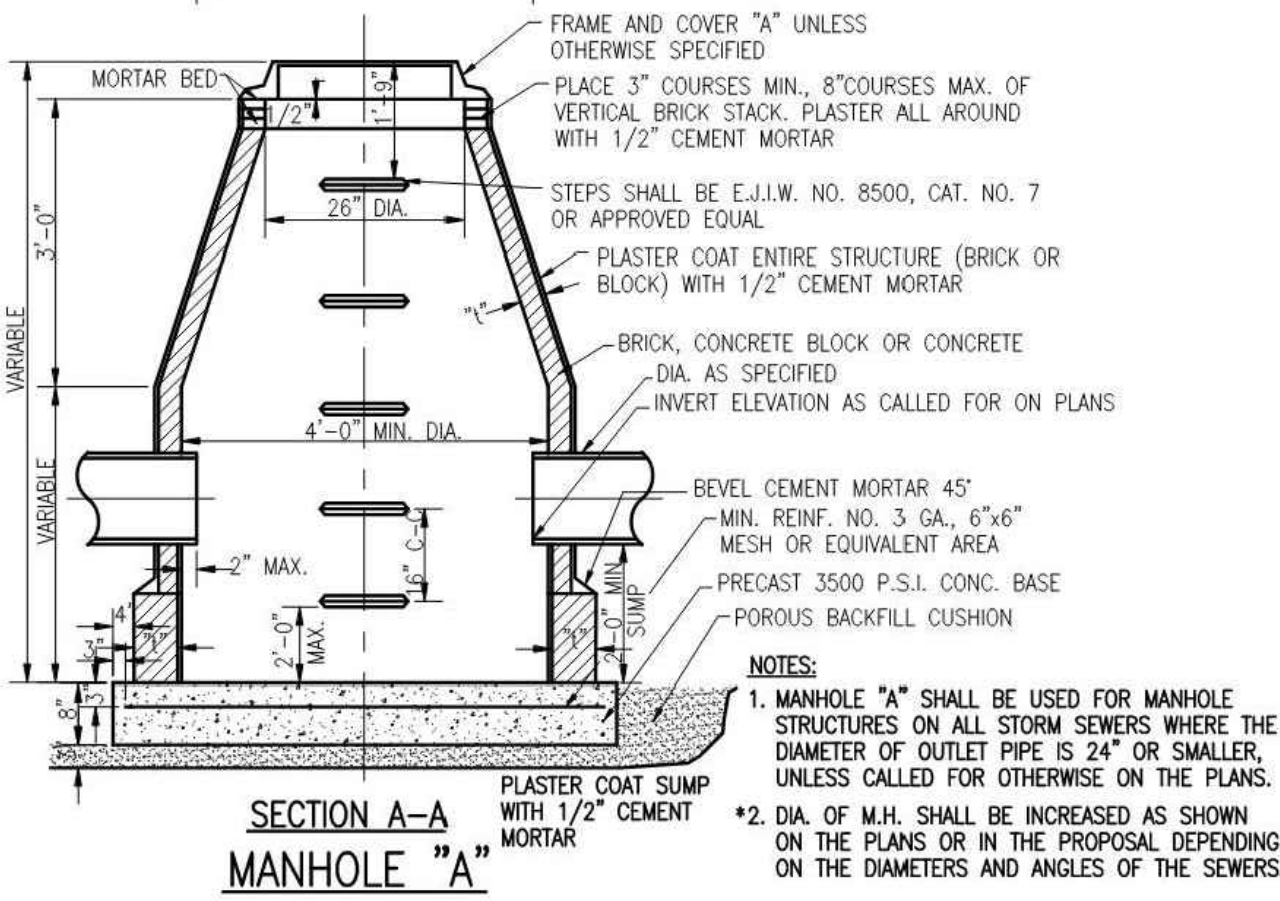
DATE: JUN 02, 2015 - 1:19pm
JOB #:
SCALE: V:
H:
CITY/TOWNSHIP:
COUNTY:
RANGE:
SECTION:
TOWN:
PROJ. NO.:
ENG. NO.:

YPSILANTI TOWNSHIP / Y.C.U.A.
STANDARD STORM SEWER DETAILS

SHEET
ST-1
OF ##

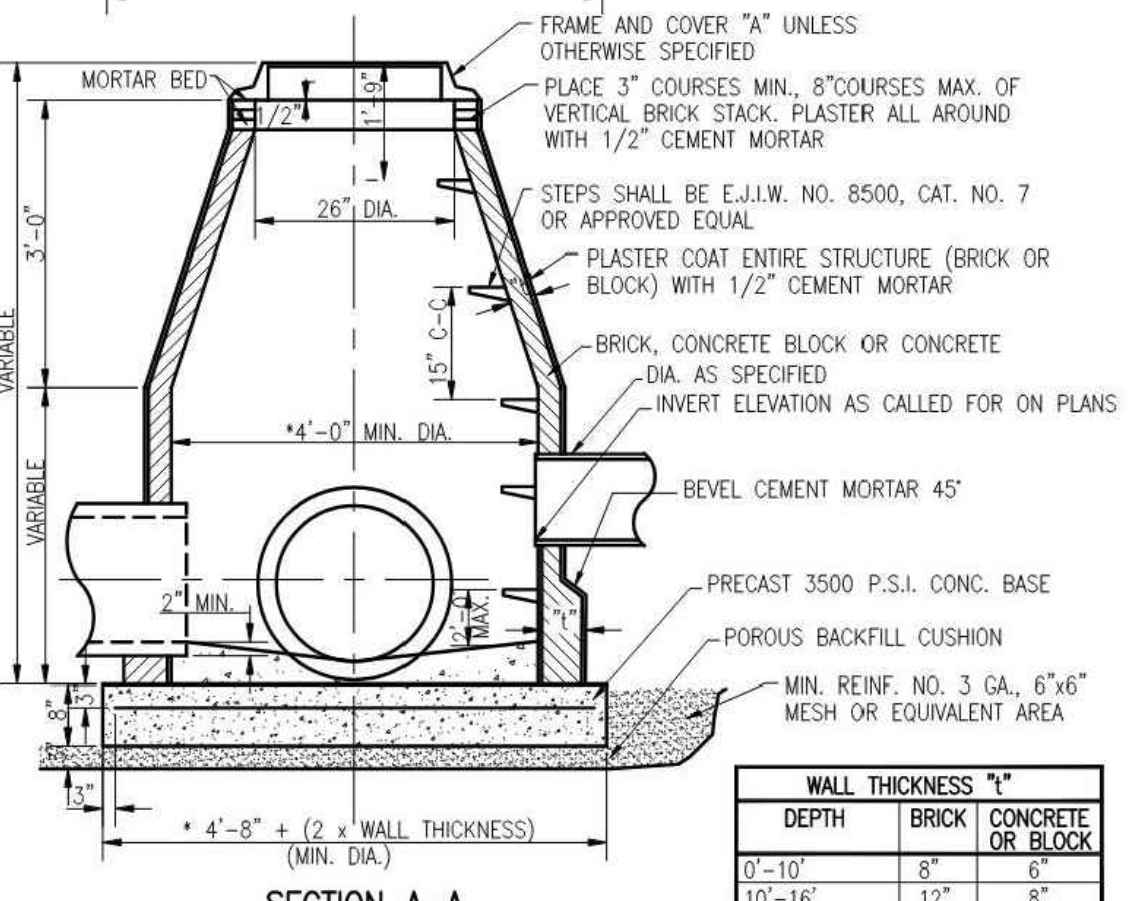
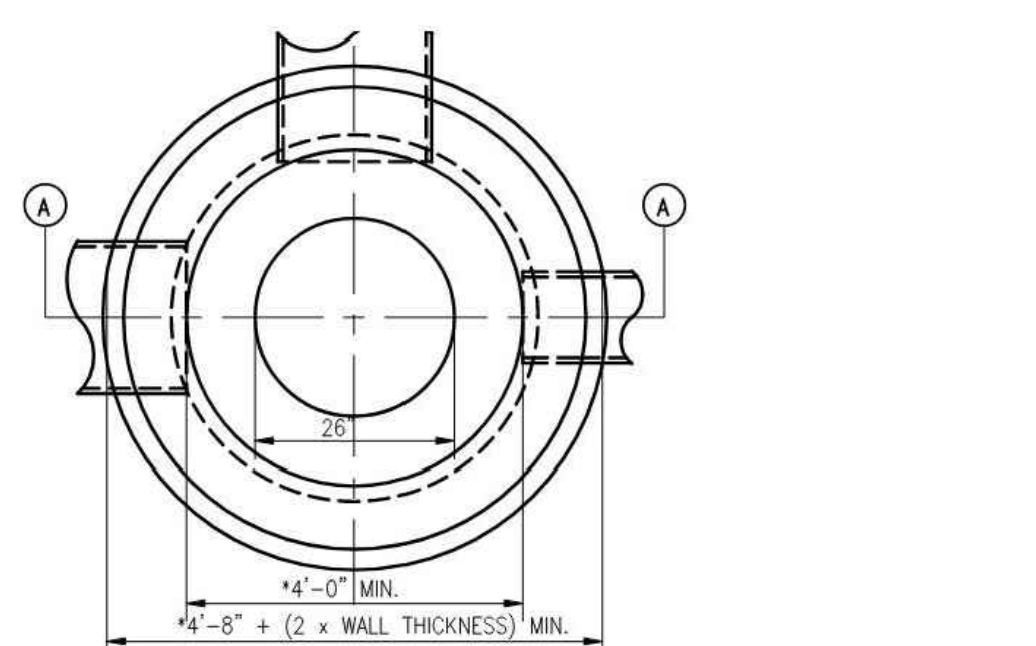


WALL THICKNESS "t"		
DEPTH	BRICK	CONCRETE OR BLOCK
0'-10"	8"	6"
10'-16"	12"	8"
16' & DEEPER	16"	12"



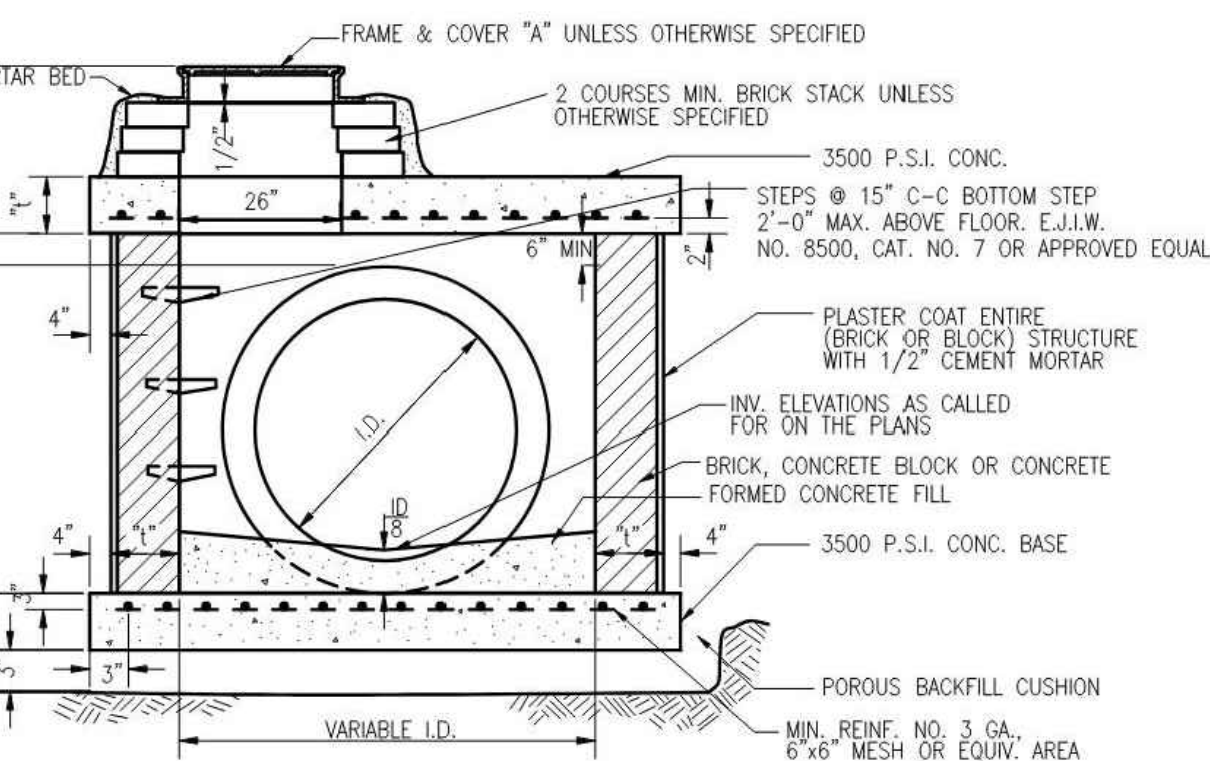
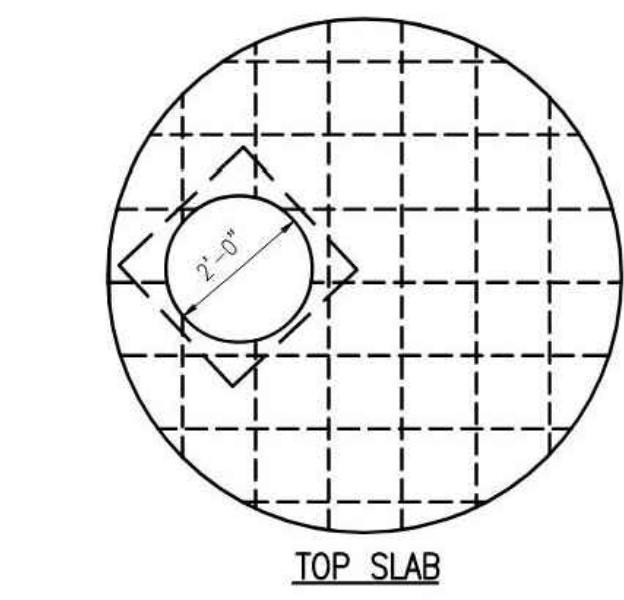
1. MANHOLE "A" SHALL BE USED FOR MANHOLE STRUCTURES ON ALL STORM SEWERS WHERE THE DIAMETER OF OUTLET PIPE IS 24" OR SMALLER, UNLESS CALLED FOR OTHERWISE ON THE PLANS.

2. DIA. OF M.H. SHALL BE INCREASED AS SHOWN ON THE PLANS OR IN THE PROPOSAL DEPENDING ON THE DIAMETERS AND ANGLES OF THE SEWERS.



1. MANHOLE "B" SHALL BE USED FOR MANHOLE STRUCTURES ON ALL STORM SEWERS WHERE THE DIAMETER OF OUTLET PIPE IS 24" OR SMALLER, UNLESS CALLED FOR OTHERWISE ON THE PLANS.

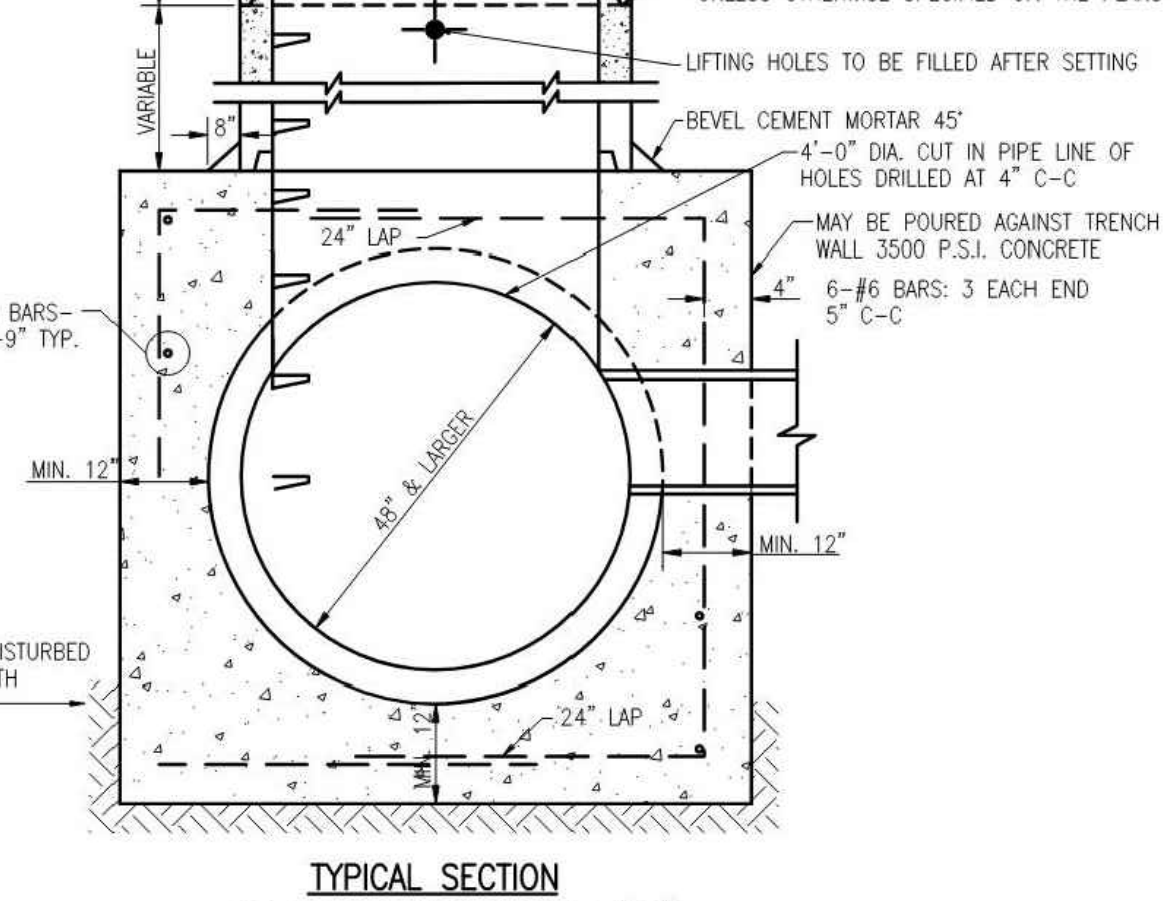
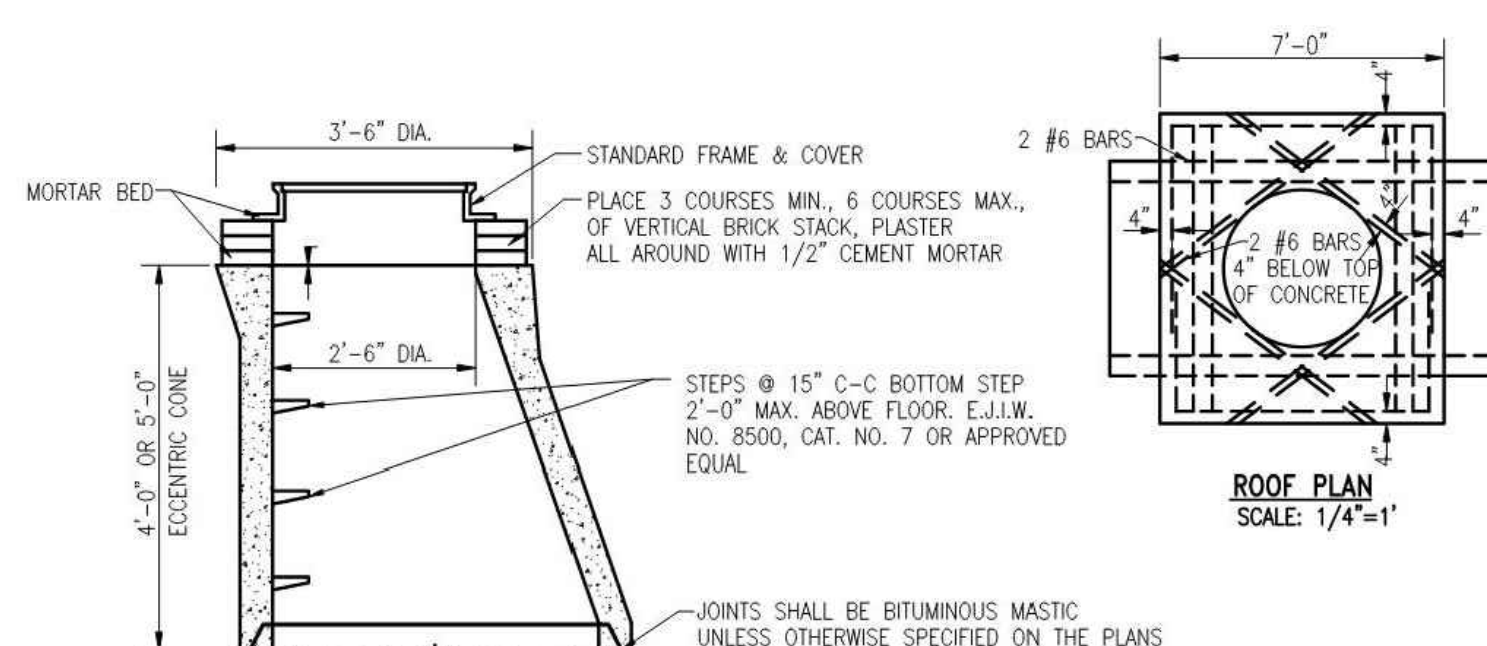
2. DIA. OF M.H. SHALL BE INCREASED AS SHOWN ON THE PLANS OR IN THE PROPOSAL DEPENDING ON THE DIAMETERS AND ANGLES OF THE SEWERS.



OUTLET I.D.	M.H. D	TOP SLAB "t"	WALLS "t"	REINFORCING STEEL (SLAB)
24" OR LESS	4'-0"	9"	8"	3/4" @ 9" EACH WAY
30"	4'-0"	9"	8"	3/4" @ 9" EACH WAY
36"	4'-0"	9"	12"	3/4" @ 9" EACH WAY
42"	4'-0"	10"	12"	3/4" @ 9" EACH WAY
48"	4'-0"	11"	12"	7/8" @ 9" EACH WAY
54"	4'-0"	11"	12"	7/8" @ 9" EACH WAY

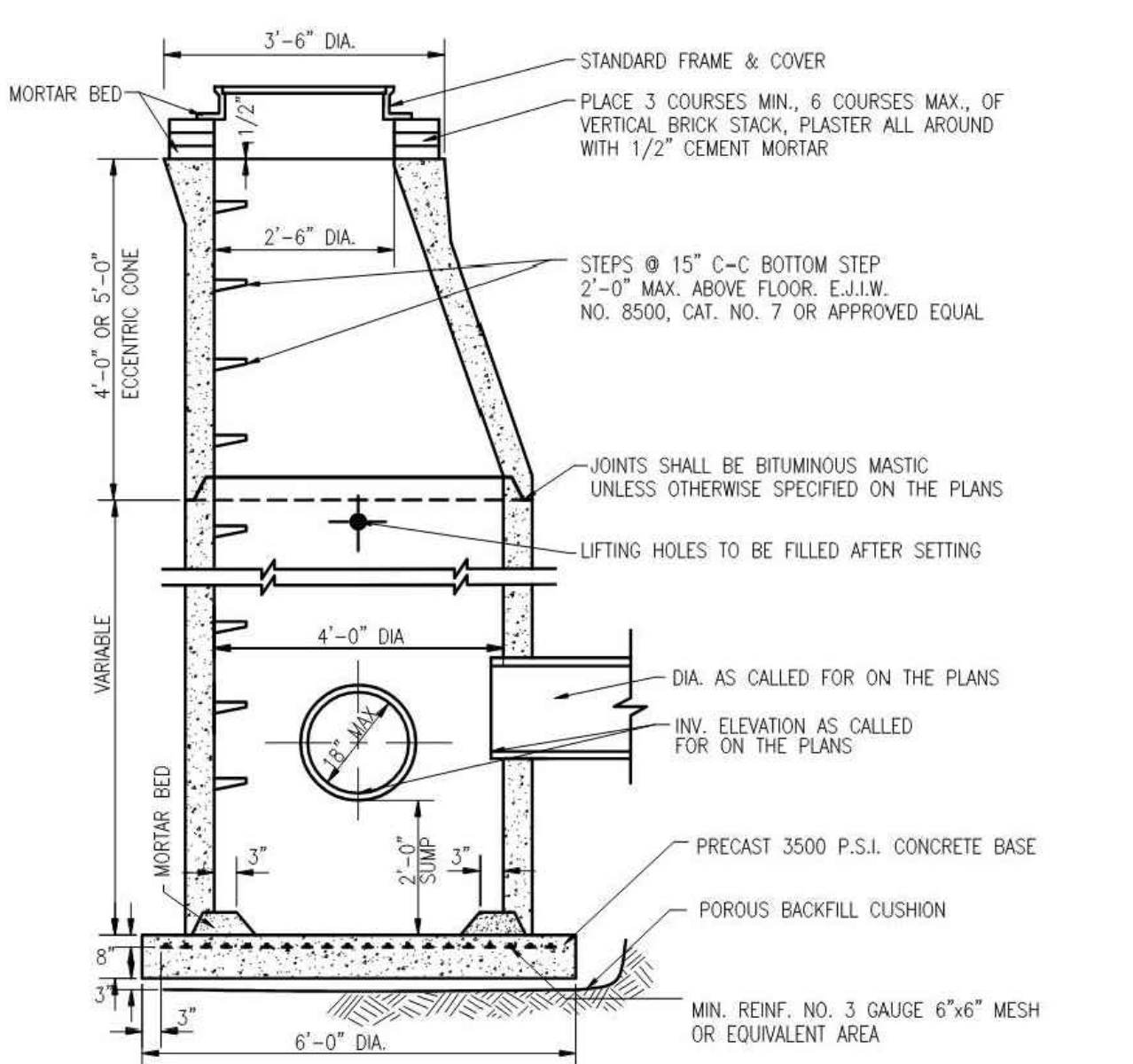
1. DIA. SHALL BE INCREASED AS SHOWN ON PLANS OR IN THE PROPOSAL DEPENDING ON THE ANGLE OF THE SEWERS.

2. M.H. "D" SHALL BE USED WHERE THE DEPTH OF COVER FROM THE TOP OF CASTING TO THE TOP OF SEWER IS LESS THAN 4'-0". M.H. "D" SHALL BE CONSTRUCTED WITH A 2" SUMP WHERE DIAMETER OF OUTLET SEWER IS 24" OR LESS.



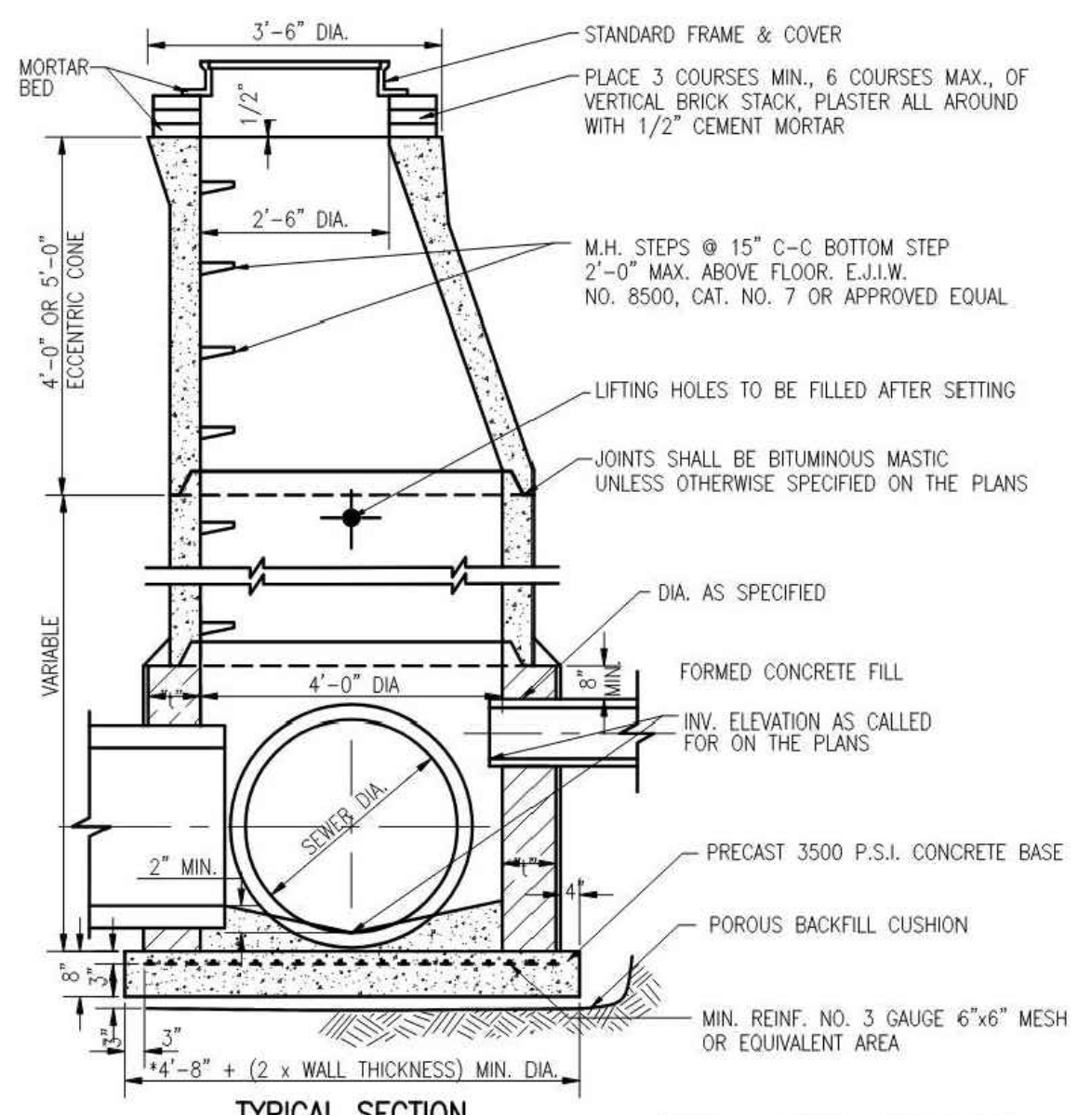
1. MANHOLE "C" SHALL BE USED FOR MANHOLE STRUCTURES ON ALL STORM SEWERS WHERE 48" OR LARGER DIA. PIPES INTERSECT.

2. PRECAST UNITS SHALL MEET THE REQUIREMENTS SPECIFIED BY A.S.T.M. C-478-88.



1. THIS MANHOLE SHALL BE USED ONLY WHEN MEETING CONDITIONS STATED IN THE "GENERAL MANHOLE NOTES", ITEM NO. 2A

2. PRECAST UNITS SHALL MEET THE REQUIREMENTS SPECIFIED BY A.S.T.M. C-478-88.



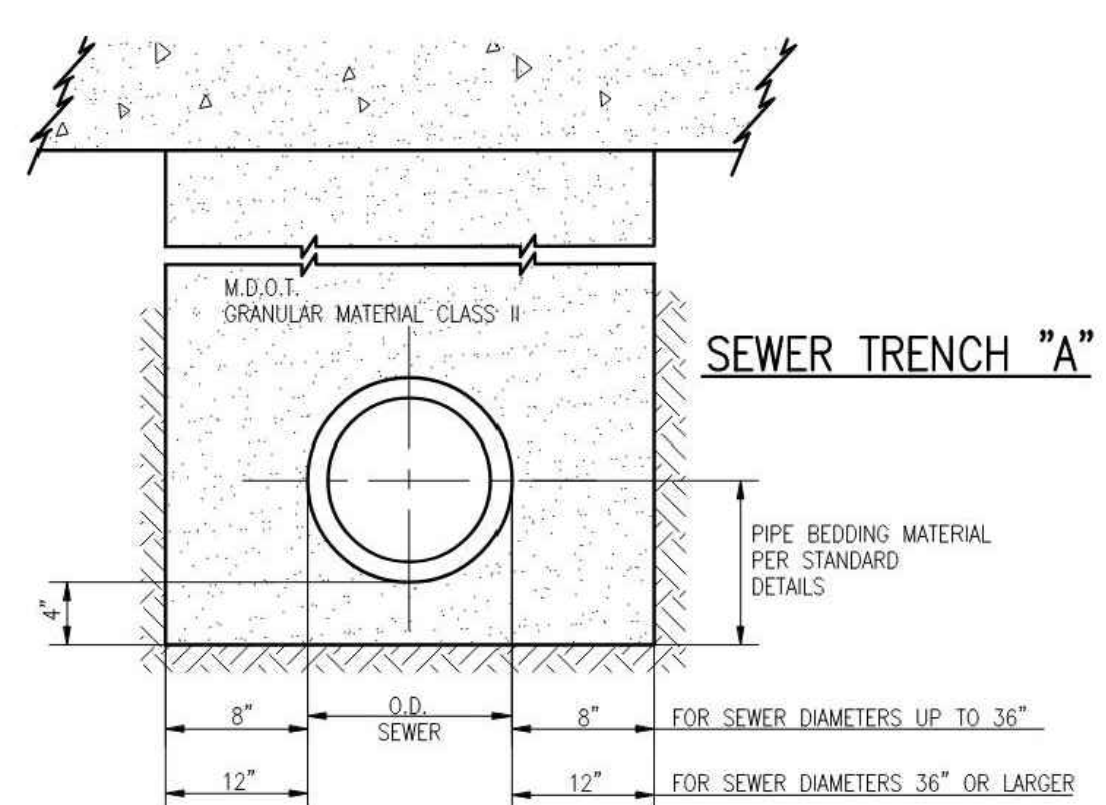
1. THIS MANHOLE SHALL BE USED ONLY WHEN MEETING CONDITIONS STATED IN THE "GENERAL MANHOLE NOTES", ITEM NO. 2A

2. PRECAST UNITS SHALL MEET THE REQUIREMENTS SPECIFIED BY A.S.T.M. C-478-88

3. DIAMETER OF MANHOLE SHALL BE INCREASED AS SHOWN ON PLANS OR IN THE PROPOSAL, DEPENDING ON THE DIAMETERS AND ANGLES OF THE SEWERS.

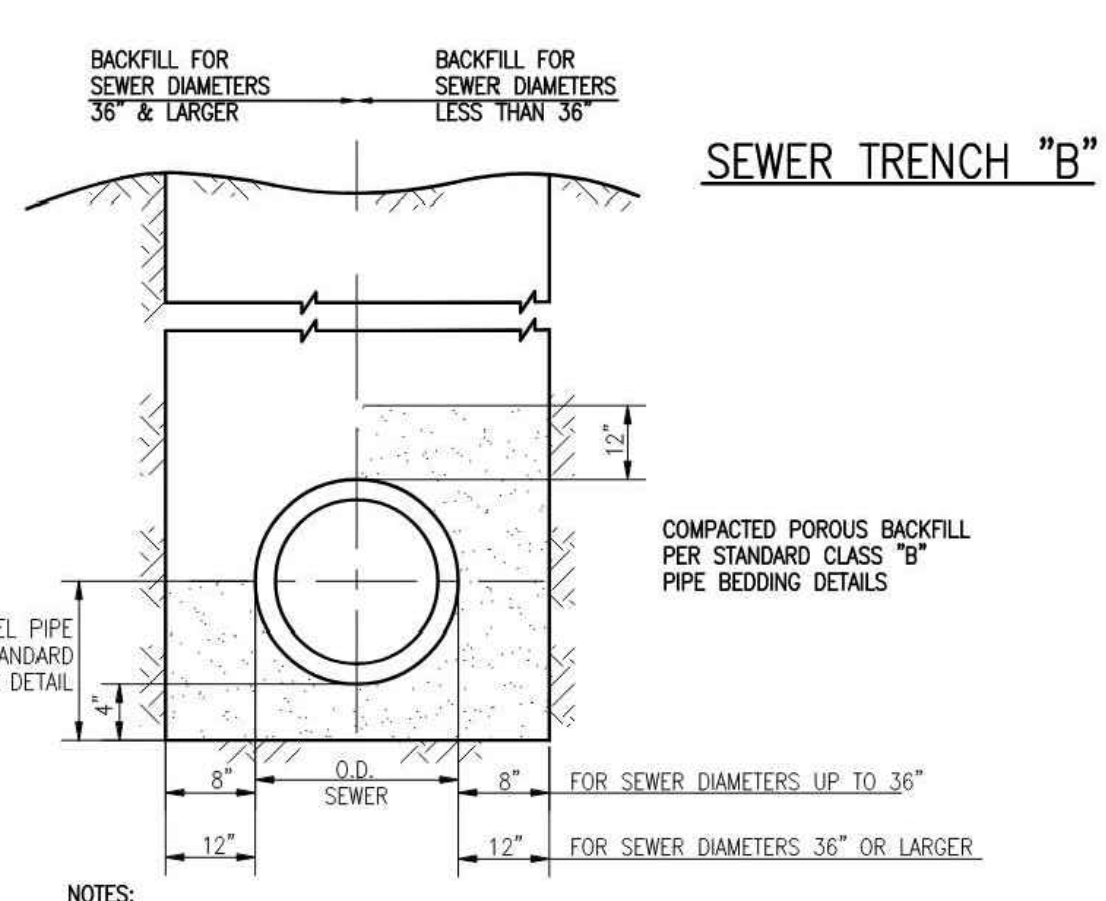
GENERAL NOTES FOR STORM SEWER MANHOLES

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE TOWNSHIP OF YPSILANTI AND YCUIA.
- CONTRACTOR SHALL CONSTRUCT MANHOLES WITH PRECAST REINFORCED CONCRETE UNITS ("A", "B", "C", "D", "E", "F", AND "G") IN LIEU OF CONCRETE, BRICK AND BLOCK MANHOLES ("A" AND "B") IN ACCORDANCE WITH THE FOLLOWING CONDITIONS:
 - A. MAXIMUM DIAMETER OF SEWER OUTLET IN ANY PRECAST UNIT SHALL BE 18" (MANHOLE "E" ONLY).
 - B. NO OPENINGS SHALL BE MADE IN PRECAST UNITS WHICH WOULD LEAVE LESS THAN 24" OF UNDISTURBED PRECAST PIPE OR WOULD REMOVE MORE THAN 30% OF THE CIRCUMFERENCE ALONG ANY HORIZONTAL PLANE.
 - C. STRUCTURES FOR SEWERS LARGER THAN 18", OR THOSE NOT MEETING THE OPENING REQUIREMENTS, SHALL BE BUILT OF BLOCK OR BRICK UP TO A MINIMUM OF 8" ABOVE THE TOP OF SEWER, WITH PRECAST UNITS BEING USED ABOVE THIS POINT, WHERE PRECAST UNITS REST ON THE BLOCK OR BRICK. THE GROOVE IN THE PRECAST UNIT SHALL BE FILLED WITH MORTAR.
 - D. OPENINGS FOR THE OUTLET SEWER SHALL BE PRECAST WITH A DIAMETER OF 3 INCHES LARGER THAN THE OUTSIDE DIAMETER OF THE OUTLET PIPE. ALL OTHER OPENINGS SHALL BE MADE IN THE FIELD AFTER MANHOLE HAS BEEN CONSTRUCTED.
- ALL VERTICAL OPENINGS IN CONCRETE BLOCK STRUCTURE WALLS SHALL BE COMPLETELY FILLED WITH MORTAR. ALL VERTICAL WALL JOINTS SHALL BE CEMENT POINTED.
- A "POURED 3500 P.S.I. CONCRETE BASE" WITHOUT STEEL REINFORCEMENT MAY BE SUBSTITUTED FOR PRECAST BASE WHEN APPROVED BY THE TOWNSHIP ENGINEER. A POROUS BACKFILL CUSHION WILL NOT BE REQUIRED UNDER THE POURED BASE UNLESS CONTRACTOR HAS EXCAVATED BELOW THE REQUIRED ELEVATION, AT WHICH TIME THE ENGINEER WILL DECIDE AS TO THE MERITS OF INCREASING THE THICKNESS OF THE CONCRETE BASE OR THE USE OF A POROUS BACKFILL CUSHION.
- WHERE UNSTABLE GROUND CONDITIONS ARE ENCOUNTERED, SLAG OR STONE BEDDING SHALL BE USED AS DIRECTED BY THE ENGINEER IN ORDER TO PROVIDE A STABLE FOUNDATION FOR PIPE AND MANHOLES.
- ALL PIPES ENTERING OR LEAVING A MANHOLE SHALL BE ADEQUATELY SUPPORTED BY POURING 2500 P.S.I. CONCRETE FILL FROM UNDISTURBED EARTH TO SPRINGLINE.
- WHEREVER EXISTING MANHOLES OR SEWER PIPE ARE TO BE TAPPED, DRILL HOLES AT 4" CENTER TO CENTER AROUND PERIPHERY OR OPENING TO CREATE A PLANE OF WEAKNESS BEFORE BREAKING SECTION OUT.



1. TRENCH "A" SHALL BE USED UNDER ROAD SURFACES, PAVEMENT, SIDEWALK, CURB, AGGREGATE & PAVED DRIVES AND WHERE THE EDGE OF TRENCH IS WITHIN 3 FEET OF THE PAVEMENT

2. GRANULAR MATERIAL SHALL BE PLACED BY THE "CONTROLLED DENSITY METHOD" OR OTHER METHOD HAVING APPROVAL OF THE ENGINEER AND IS TO BE COMPACTED TO 95% OF MAXIMUM UNIT WEIGHT



1. SUITABLE EXCAVATED BACKFILL MATERIAL SHALL BE PLACED IN ONE FOOT LAYERS AND COMPACTED BY MECHANICAL TAMPING OR OTHER EFFECTIVE MEANS HAVING APPROVAL OF THE ENGINEER, TO A DENSITY EQUIVALENT TO THE UNDISTURBED ADJACENT SOIL.

2. TRENCH "B" SHALL BE USED UNDER CONDITIONS OTHER THAN SPECIFIED FOR TRENCH "A"



CLIENT:

BEDDER CONSULTING SERVICES, LLC
32579 GATEWAY DRIVE
ROMULUS, MI 48174



UTILITY NOTE
PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES (IN CONFLICT WITH PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. CALL MISS DIG'S WORKING DAYS PRIOR TO CONSTRUCTION.

UTILITY INFORMATION ON THIS DRAWING MAY BE FROM INFORMATION DISCLOSED TO THIS FIRM BY THE VARIOUS UTILITY COMPANIES. CITY/COUNTY AGENCIES AND OTHER VARIOUS SOURCES. UNDERGROUND UTILITIES WHICH ARE ON PRIVATE PROPERTY ARE USUALLY NOT DELINEATED UPON A UTILITY COMPANY'S PUBLISHED PLANS. THEIR LOCATION, IF SHOWN UPON THIS SURVEY, ARE APPROXIMATED FROM FOUND PAINT MARKERS, ETC. AS LOCATED BY THIS FIRM FROM SOURCES WHICH ARE UNKNOWN. NO GUARANTEE IS GIVEN AS TO THE COMPLETENESS OR ACCURACY THEREOF.

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KALITTA TURBINES BUILDING ADDITION
2830 TYLER ROAD
YPSILANTI, MI

STORM SEWER DETAILS

SECTION 13
TOWN 03 SOUTH RANGE 07 EAST
YPSILANTI TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

NO.	DATE	REVISION

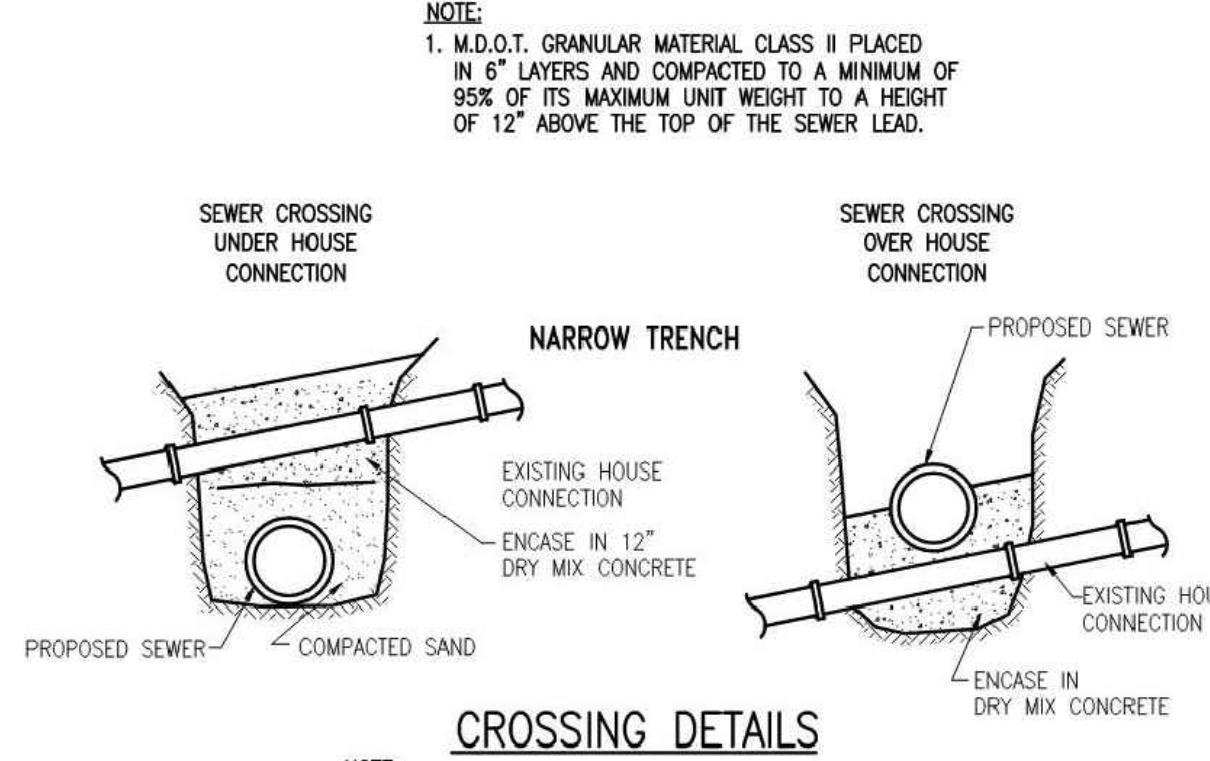
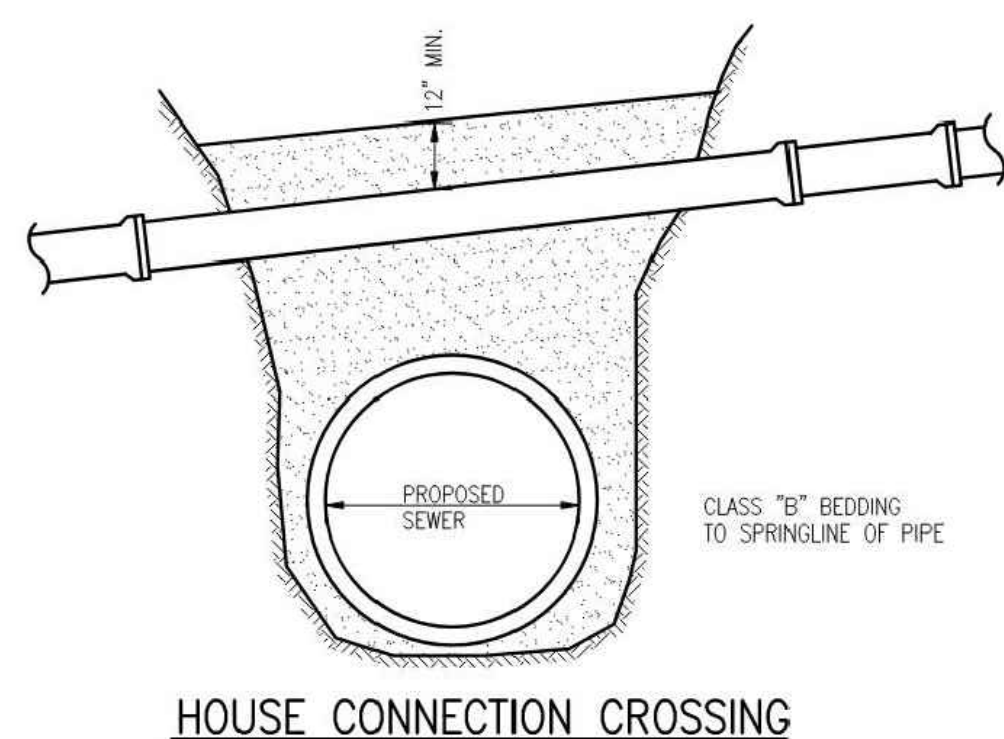
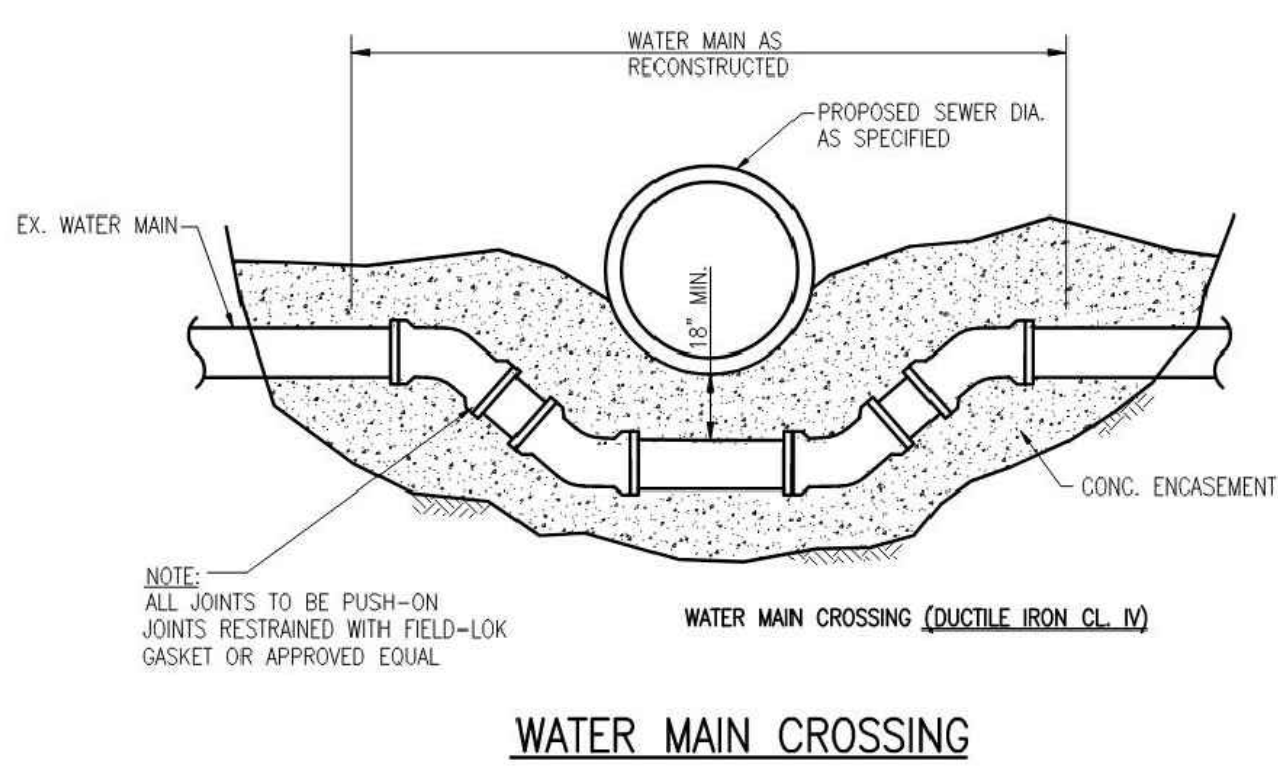
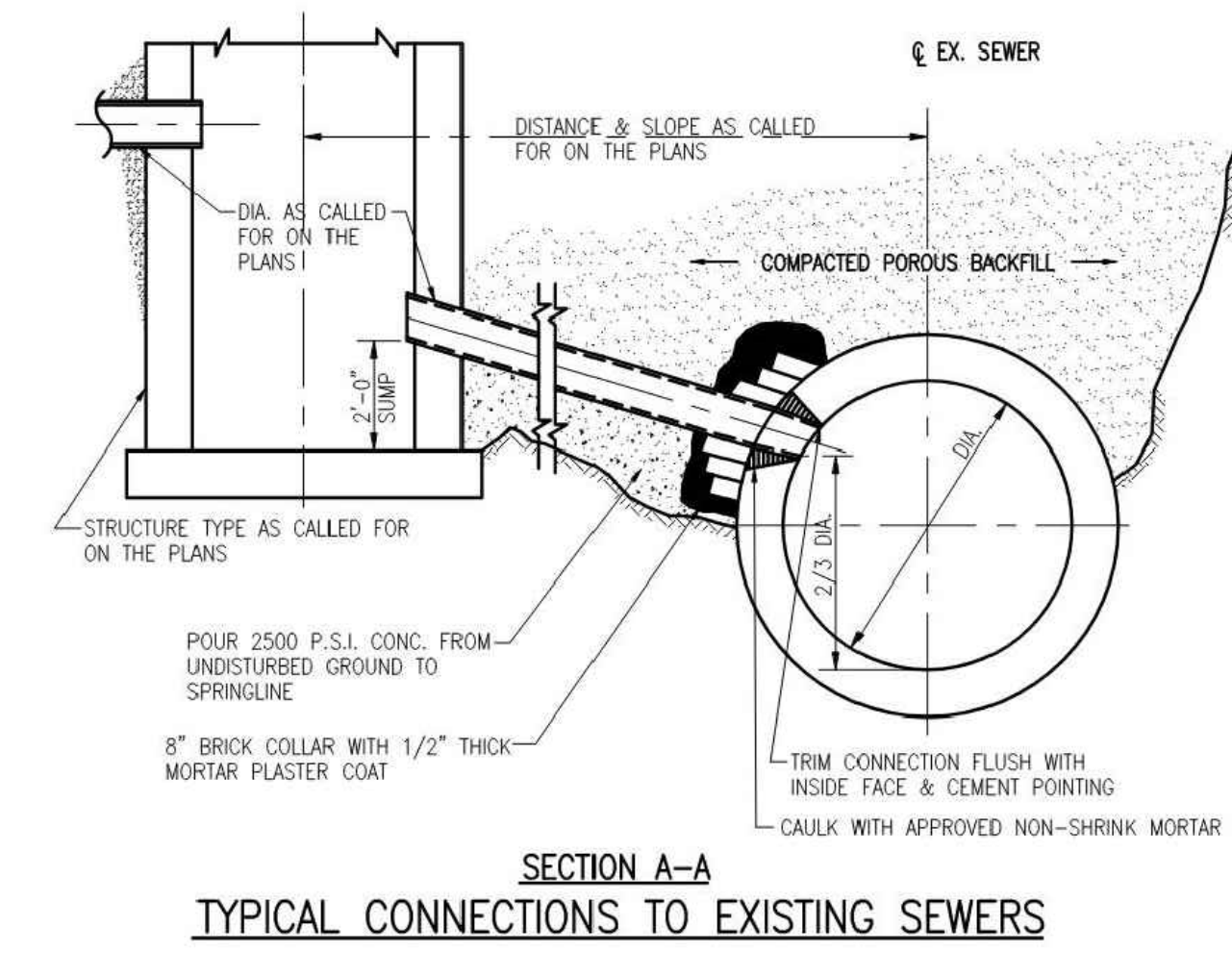
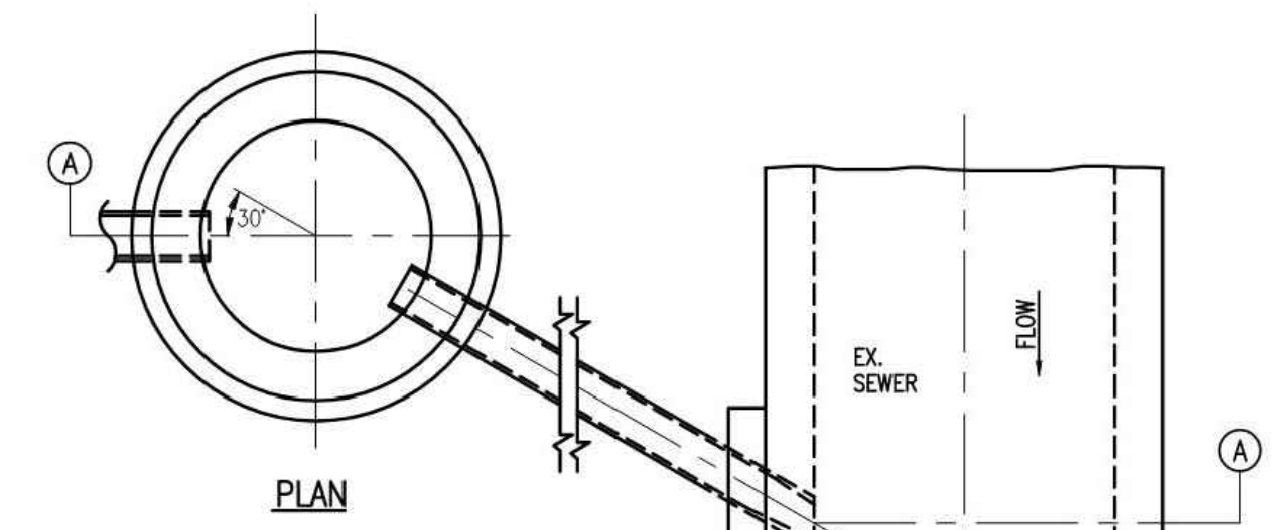
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET,
ADJUST SCALES ACCORDINGLY

DATE	DATE
8-24-23	8-24-23
8-24-23	8-24-23
D. JACKSON	D. JACKSON
C. PLATZ	C. PLATZ
SM23059	SM23059SPL

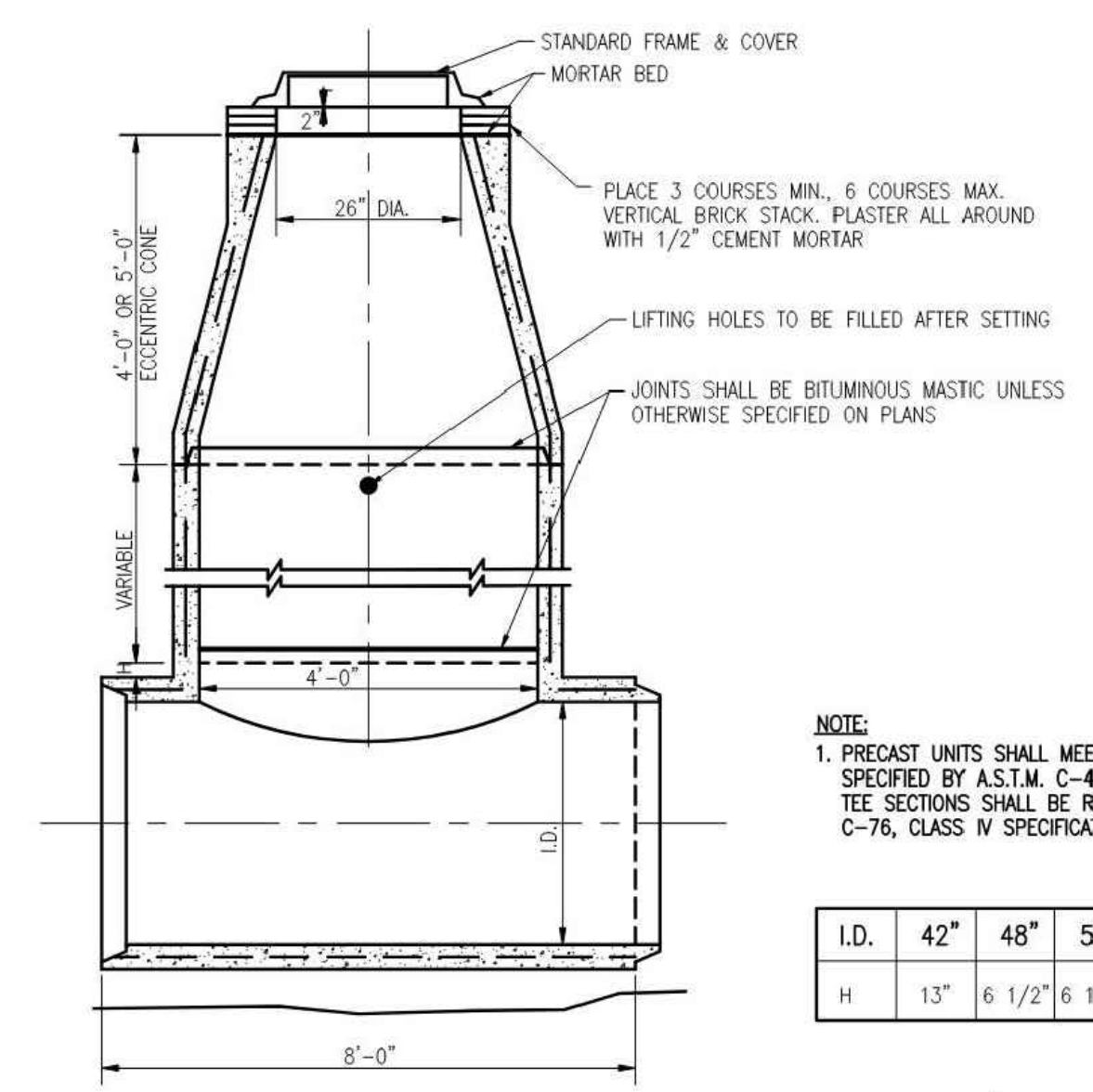
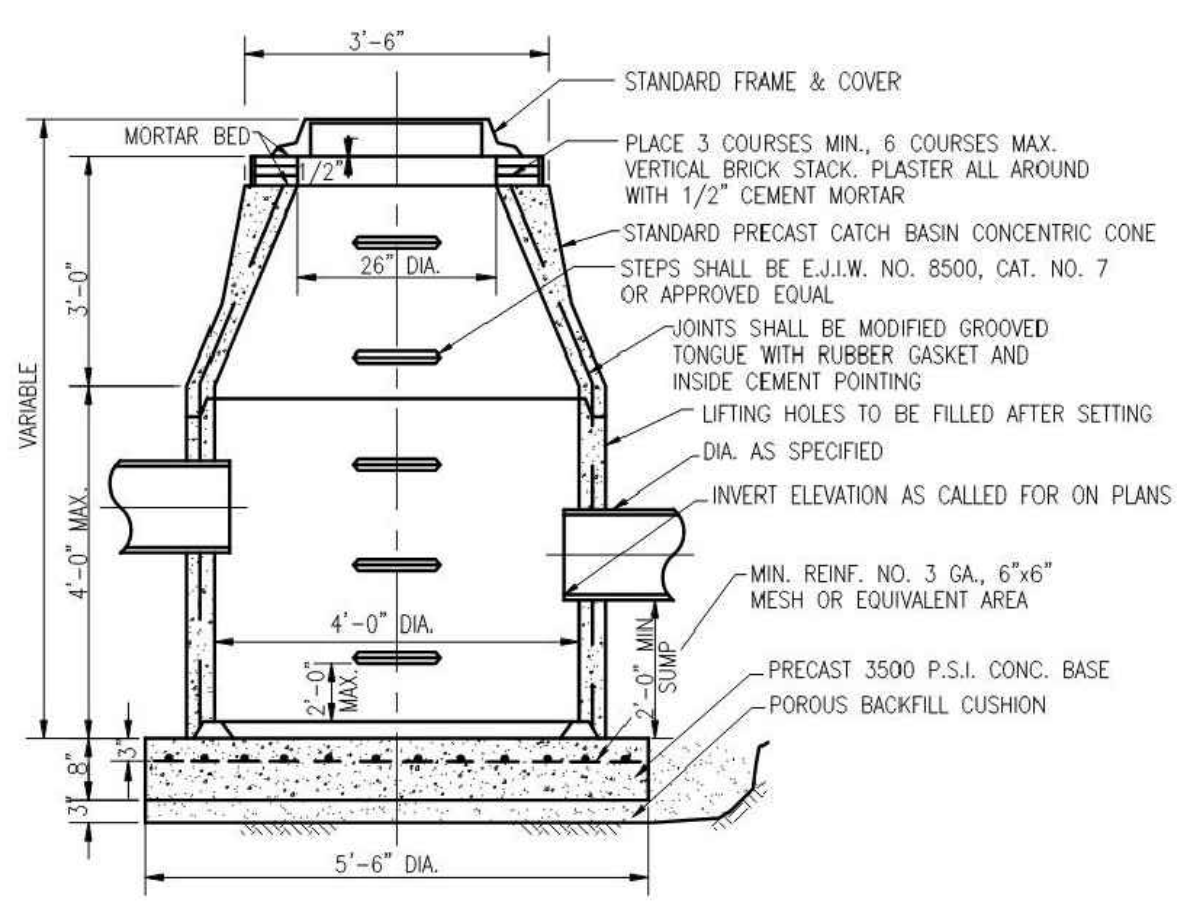


WWW.OHM-ADVISORS.COM
CITY/TOWNSHIP
COUNTY
RANGE
SECTION
PROJ. NO.
ENG. NO.
DATE
SCALE
VERT. DATUM
JOB #

YPSILANTI TOWNSHIP / Y.C.U.A.
STANDARD STORM SEWER DETAILS

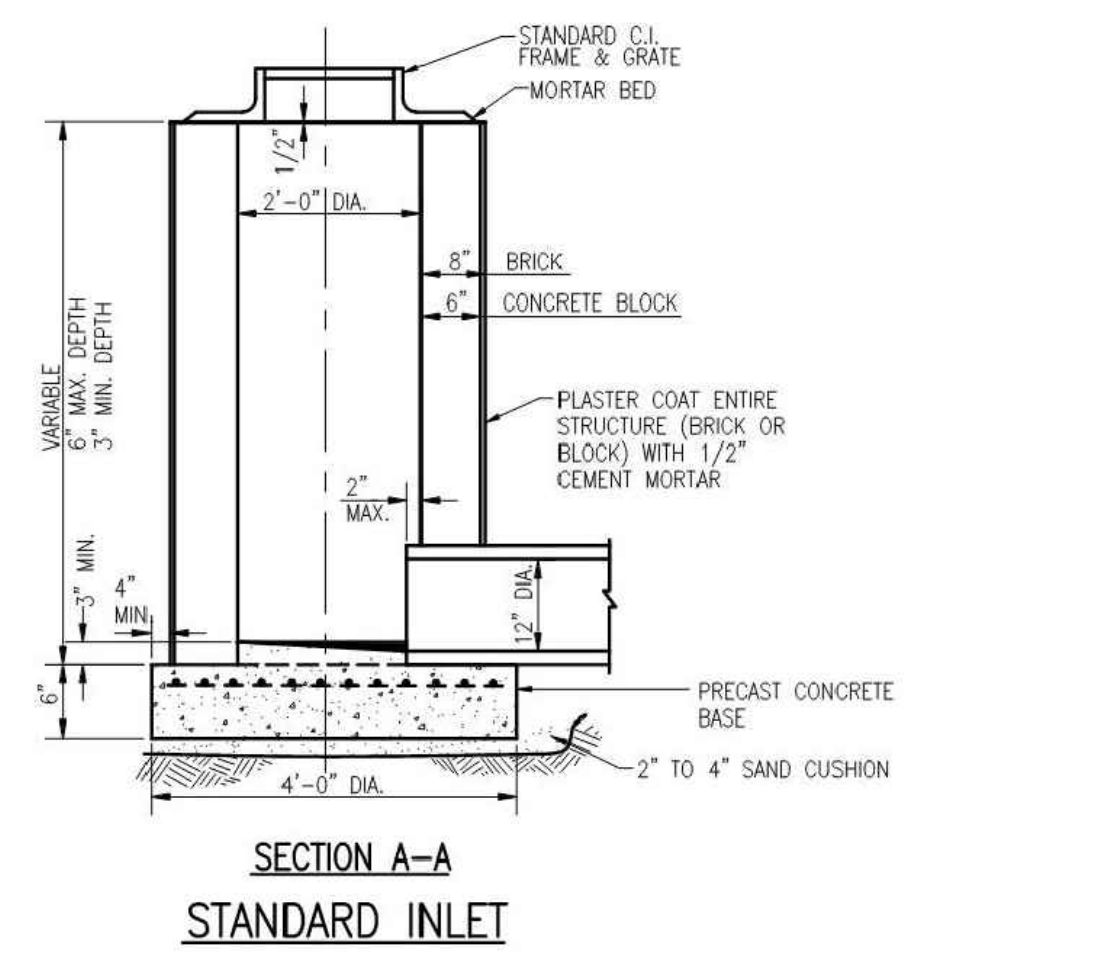
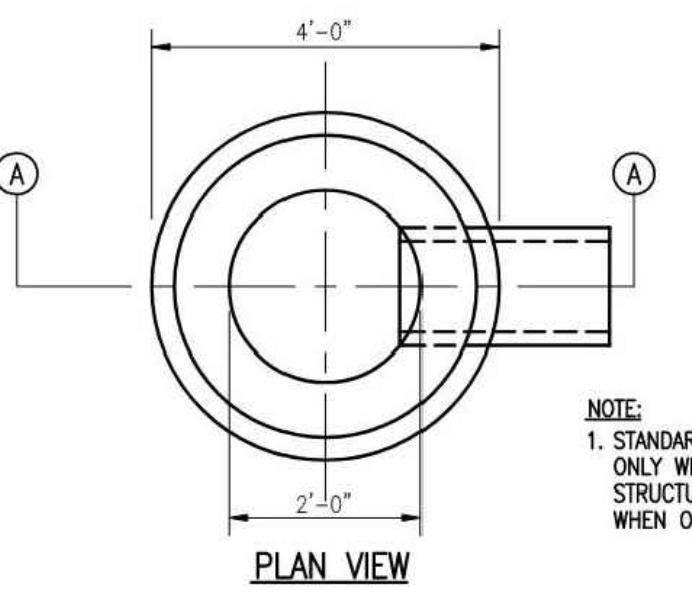
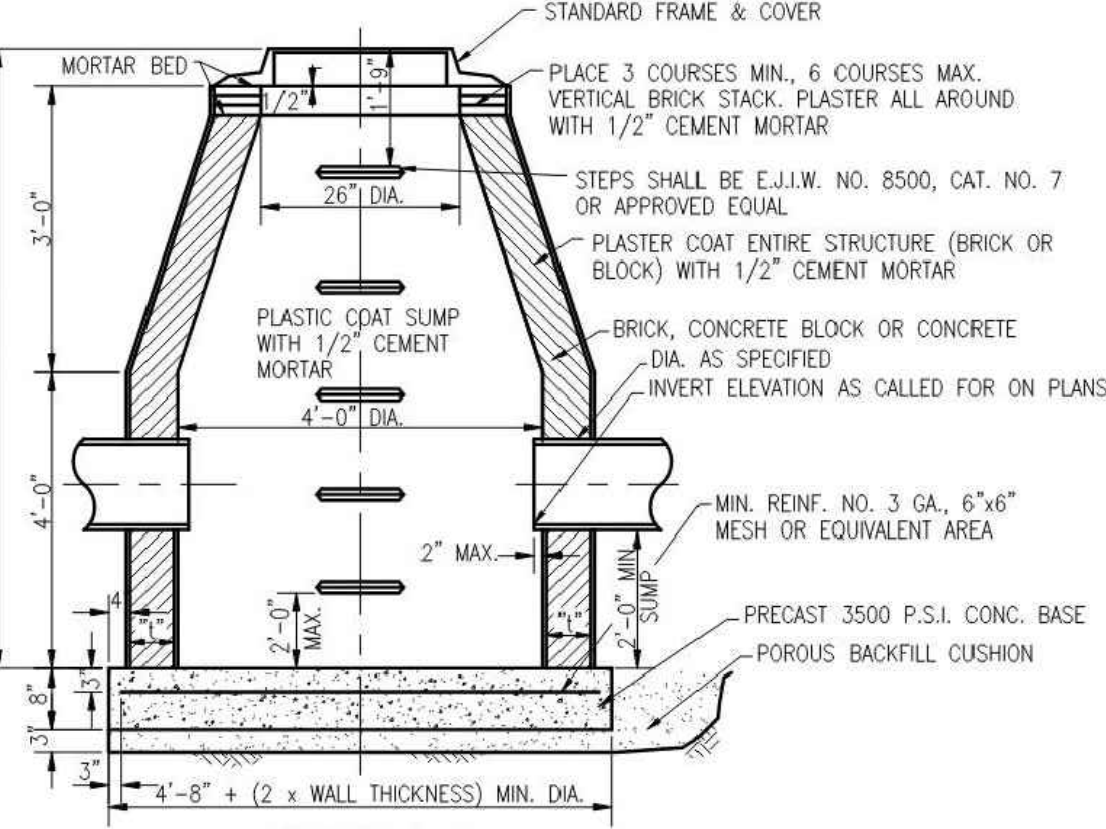
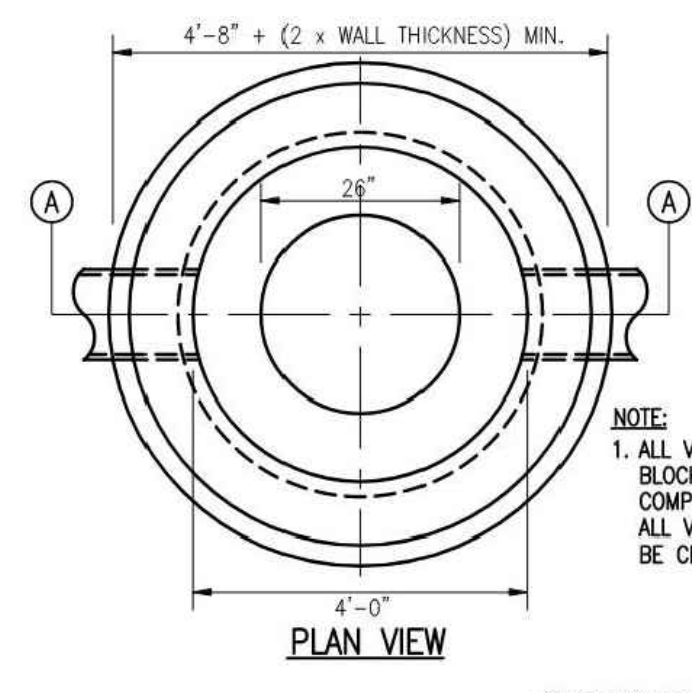
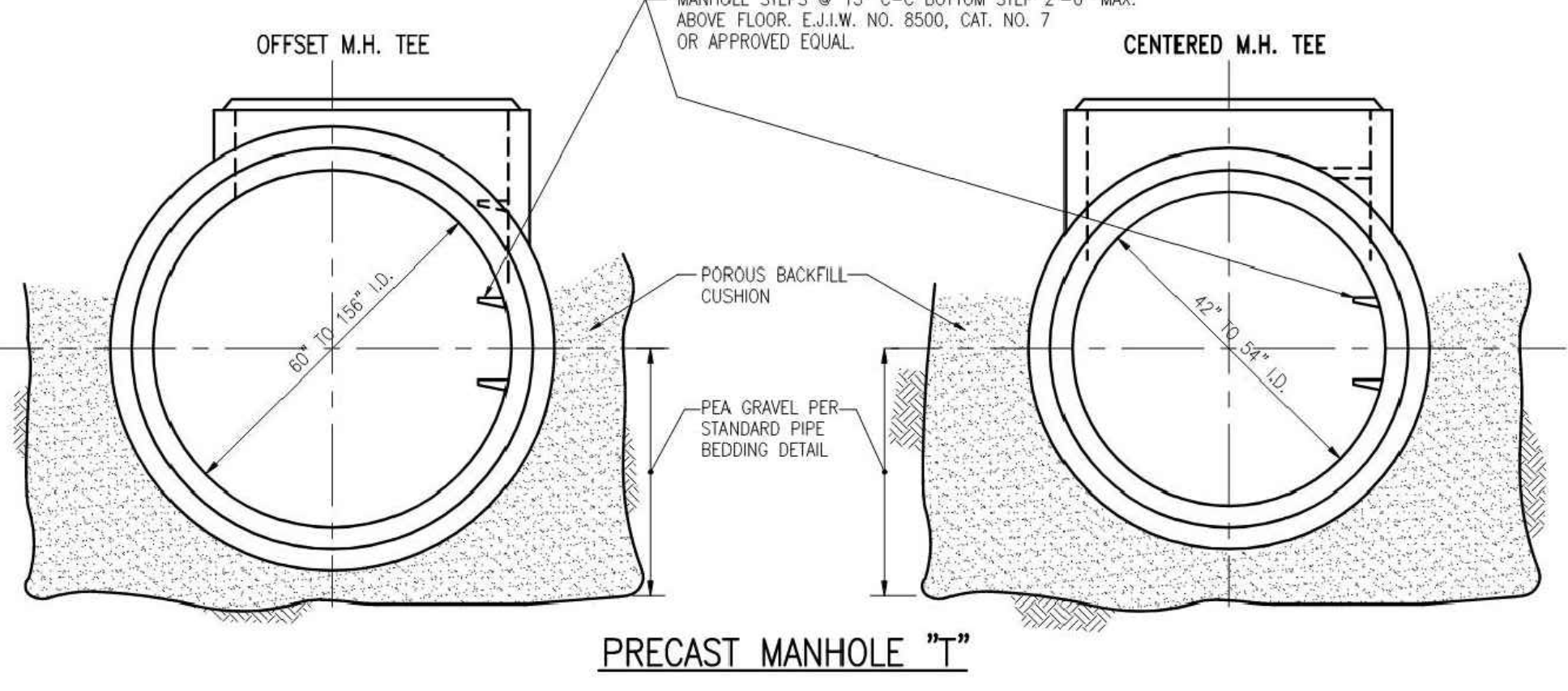


CROSSING DETAILS
NOTE:
1. WHEN UNSTABLE GROUND CONDITIONS ARE ENCOUNTERED STONE, SLAG OR DRY MIX CONCRETE SHALL BE USED TO BACKFILL THE TRENCH TO A HEIGHT 12" ABOVE THE TOP OF THE SEWER LEAD.



NOTE:
1. PRECAST UNITS SHALL MEET THE REQUIREMENTS SPECIFIED BY A.S.T.M. C-478-88. ALL MANHOLE TEE SECTIONS SHALL BE REINFORCED TO A.S.T.M. C-76, CLASS IV SPECIFICATIONS

I.D.	42"	48"	54"	60"	66"	72"	78"	84"	OVER 84"
H	13"	6 1/2"	6 1/2"	1"	1 3/4"	2 1/2"	4"	6"	7"



DRAWING PATH: S:\CVT\Ypsilanti\TwpStandards\std\Ypsilanti\SM23059SPL.dwg Jun 05, 2015 - 1:20pm

ALLOWABLE AREAS:

TABULAR AREA (TABLE 506.2): 17,500 SQ. FT. (COMPLIES)
(TYPE IIB CONSTRUCTION, S-1: ONE STORY, NON-SPRINKLERED)

FIRE RESISTANCE RATING OF STRUCTURAL ELEMENTS:
Required: None
Provided: None

Length of exit access travel: Complies with Table 1017.2 (200 FEET).
Egress Capacity: 0.20 inches per person (doors) per Section 1005.1

(4) DOORS x 34" clear opening = 680 persons
0.20" per person

CODE COMPLIANCE:

INTERPRETIVE CODES:

- Building: 2015 Michigan Building Code
- ICC/ANSI A117.1-2009 & Michigan Barrier Free Design Law of Public Act 1 of 1966 as amended.
- Energy: Michigan Uniform Energy Code Rules Part 10 with ANSI/ASHRAE/IESNA Standard 90.1-2013
- Electrical: Michigan Electrical Code based on 2017 NEC with Part 8 State Amendments
- Plumbing: 2018 Michigan Plumbing Code
- Mechanical: 2015 Michigan Mechanical Code

Fire Suppression System:
None provided.

Fire Alarm System:
Fire Alarm System to be modified in accordance with NFPA 72.
Fire Alarm Contractor shall submit plans for approval prior to modification.

Building Use Groups:
'S-1' Storage

Construction Type: IIB (Non-combustible/Non-protected structure)

ABBREVIATIONS:

ADA	AMERICANS WITH DISABILITIES ACT	MIN.	MINIMUM
A.F.F.	ABOVE FINISHED FLOOR	M.M.	MASONRY OPENING
ANOD.	ANODIZED	NEC	NATIONAL ELECTRICAL CODE (2014)
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
ALUM.	ALUMINUM	O.C.	ON CENTER (CENTER TO CENTER)
CJ	CONTROL JOINT	O.H.	OVERHEAD
CL	CENTERLINE	PLAM.	PLASTIC LAMINATE
CMU	CONCRETE MASONRY UNIT	PLYWD.	PLYWOOD
COL.	COLUMN	REIN.A.	REINFORCING/REINFORCEMENT
CONC.	CONCRETE	REQ'D	REQUIRED
CONT.	CONTINUOUS	RTU	ROOFTOP UNIT (MECH./HVAC)
D.F.	DRINKING FOUNTAIN	RWC	RAINWATER CONDUCTOR
DIA.	DIAMETER	SAN	SANITARY
DWG.	DRAWING	SCHED.	SCHEDULE
DR.	DOOR	SS	STAINLESS STEEL OR SERVICE SINK
ELEC.	ELECTRICAL	STL. STEEL	STEEL
ELEV.	ELEVATION	STRUCT.	STRUCTURAL
EXT.	EXTERIOR	SUSP.	SUSPENDED
EWC	ELECTRICAL WATER COOLER	THRESH.	THRESHOLD
FD	FLOOR DRAIN	TLT.	TOILET
F.F.	FINISHED FLOOR	T.O.F.	TOP OF FOOTING
FIN.	FINISH	T.O.M.	TOP OF MASONRY
FRT	FIRE-RESISTANCE TREATED	T.O.S.	TOP OF STEEL
FTG	FOOTING	TYP.	TYPICAL
GYP. BD.	GYPSUM BOARD	UL	UNDERWRITERS LABORATORIES
H.M.	HOLLOW METAL	U.N.O.	UNLESS NOTED OTHERWISE
HORIZ.	HORIZONTAL	USMD	UNDERSIDE OF METAL DECK
ICC	INTERNATIONAL CODE COUNCIL	VCT	VINYL COMPOSITE TILE
INSUL.	INSULATION	VERT.	VERTICAL
LAV.	LAVATORY	V.I.F.	VERIFY IN FIELD
LVT	LUXURY VINYL TILE	W/	WITH
MAX.	MAXIMUM	W/O	WITHOUT
MCB	MICHIGAN BUILDING CODE (2015)	W.C.	WATER CLOSET
MMC	MICHIGAN MECHANICAL CODE (2015)	WD.	WOOD
MPC	MICHIGAN PLUMBING CODE (2015)		
MECH.	MECHANICAL		
MTL.	METAL		

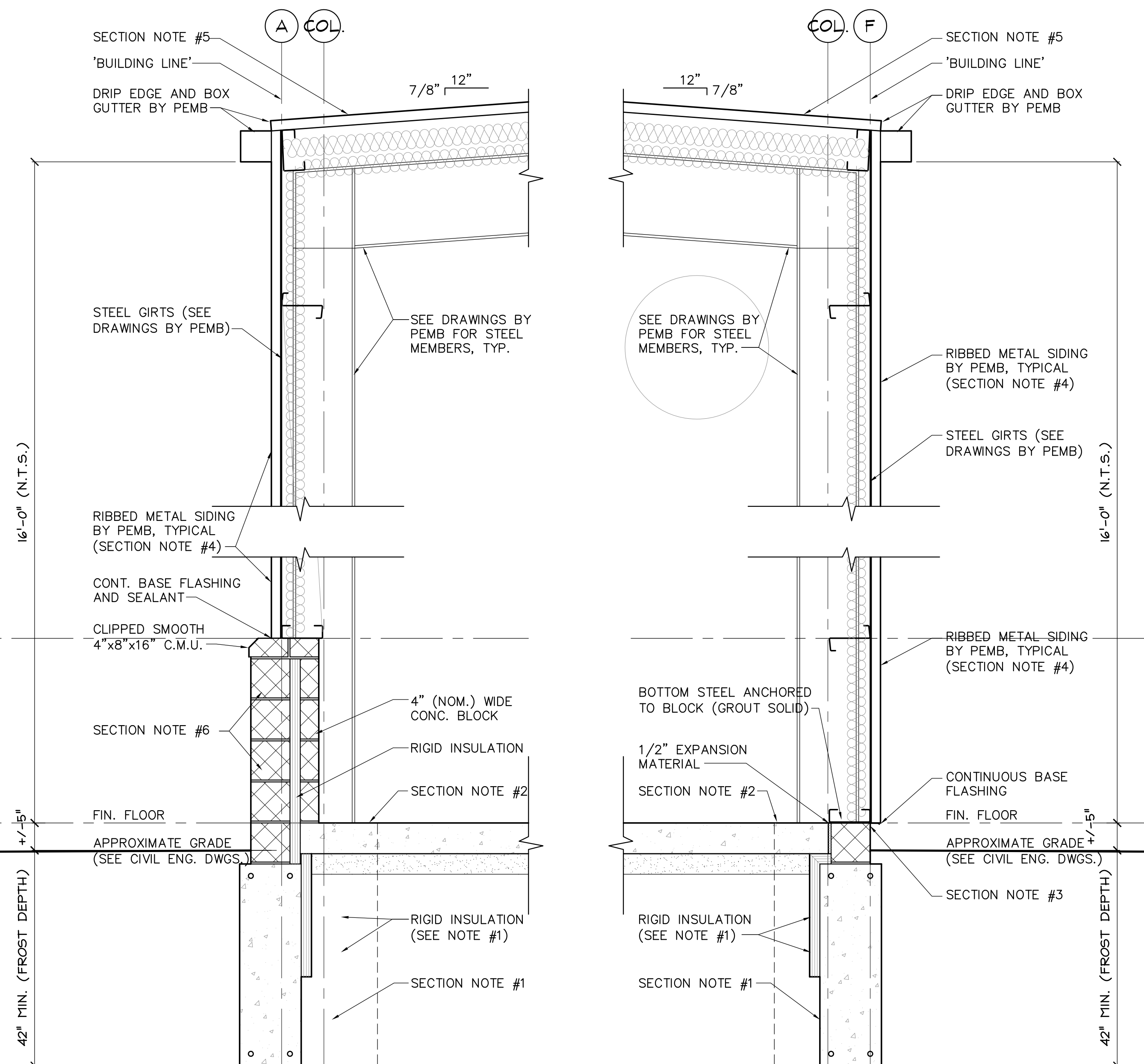
ACTUAL BUILDING AREA:

TOTAL AREA: 12,000 SQ. FT.

EGRESS DESIGN OCCUPANT LOAD

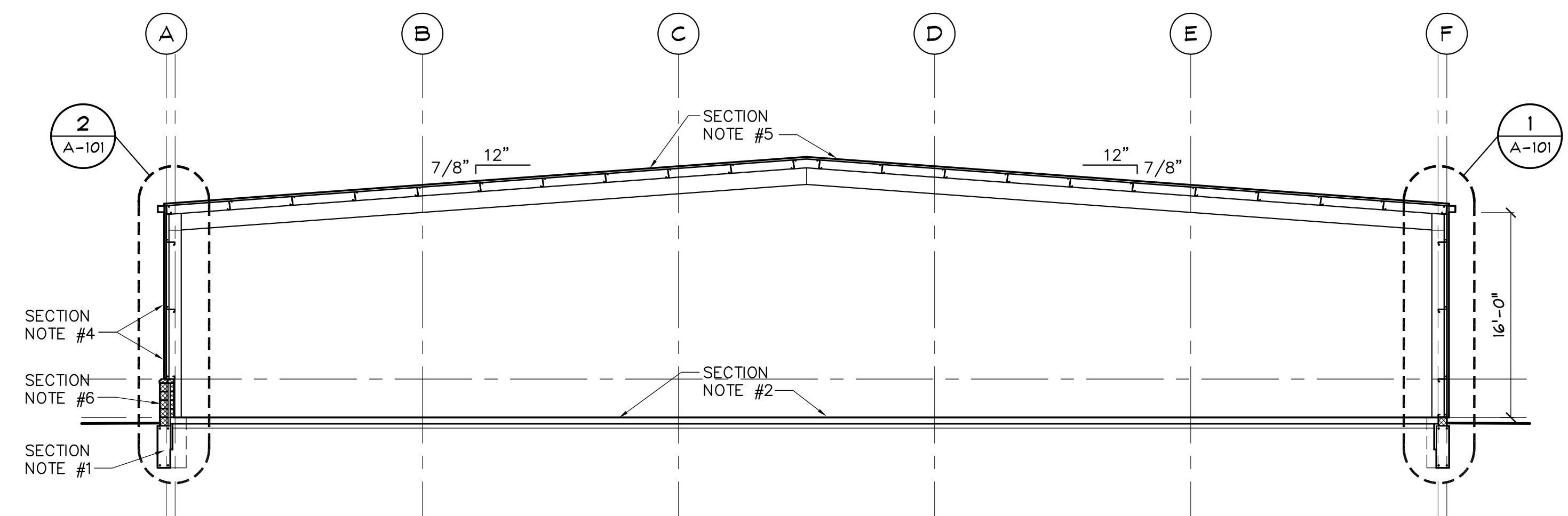
Storage (S-1) = 12,000 G.S.F./500 G.S.F. = 24 OCCUPANTS*

* This Storage Building is not intended to be occupied, but rather for material storage only.

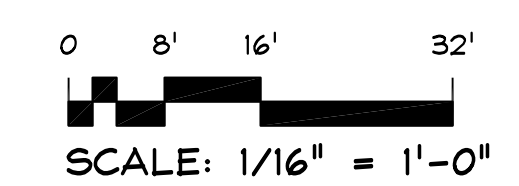


2 WEST WALL SECTION
A-101 SCALE: 3/4" = 1'-0"

1 EAST WALL SECTION
A-101 SCALE: 3/4" = 1'-0"



A BUILDING SECTION
A-101 SCALE: 1/16" = 1'-0"



SECTION NOTES

- 1 REINFORCED CONCRETE FOOTING / FOUNDATION. SEE STRUCTURAL DRAWINGS BY OTHERS FOR ALL INFORMATION RELATING TO SIZE AND CONFIGURATION OF FOUNDATION WORK. FOUNDATION WORK SHOWN HERE IS FOR GENERAL REFERENCE ONLY.
- 2 6" THICK CONCRETE SLAB (SEE STRUCTURAL ENGINEERING DRAWINGS BY OTHERS FOR SLAB DETAILS SUCH AS THICKNESS, REINFORCEMENT, ETC.) ON 4" MIN. WELL COMPACTED GRANULAR FILL. COMPACT FILL TO UNIFORM DENSITY, MINIMUM 95%. PROVIDE MINIMUM R-10 (2" THICK RIGID) PERIMETER INSULATION AT ALL EXTERIOR FOUNDATION WALLS.
- 3 SINGLE BASE COURSE OF NOM. 8" WIDE CONCRETE BLOCK (GROUT SOLID), SEE DRAWINGS BY OTHERS FOR STEEL ANGLE OR CHANNEL AND METAL SIDING ATTACHMENT. INSTALL CONTINUOUS METAL FLASHING AT METAL SIDING BASE PER MANUFACTURER'S RECOMMENDED SPECIFICATIONS.
- 4 METAL SIDING PANELS FASTENED TO PRE-ENGINEERED BUILDING GIRTS BY OTHERS (SEE DRAWINGS BY PEMB) PER STANDARD OF PANEL MANUFACTURER (VERIFY COLOR WITH OWNER AND/OR DEVELOPER). INSTALL MINIMUM 4" THICK CONTINUOUS INSULATION BEHIND PANELS AT EXTERIOR WALLS WHERE NO OTHER INSULATION IS PROVIDED. PEMB TO FURNISH DOWNSPOUTS AT COLUMN LOCATIONS ON EAST AND WEST SIDES (SEE ELEVATIONS ON SHEET A-301)
- 5 STANDING SEAM METAL ROOF PANELS ON METAL PURLINS BY OTHERS (SEE DRAWINGS BY PRE-ENGINEERED BUILDING MANUFACTURER; METALLIC BUILDING SYSTEMS). INSTALL A MINIMUM OF R-32 INSULATION ON UNDERSIDE OF ROOF. PEMB TO FURNISH CONTINUOUS GUTTERS ON EAST AND WEST SIDES.
- 6 8"x8"x16" (NOMINAL) SPLIT-FACE C.M.U. KNEEWALL ON NORTH AND WEST BUILDING SIDES. INSTALL JOINT REINF. 16" O.C. VERTICALLY (EVERY OTHER COURSE). SEE STRUCTURAL DWGS. FOR ADDITIONAL REINFORCEMENT.

SHEET INDEX	
NO.	DESCRIPTION
CE-1	COVER SHEET (CIVIL ENGINEERING)
CE-2	GRADING PLAN
CE-3	UTILITY PLAN
CE-4	UTILITY PROFILES
CE-5	STORM DRAINAGE PLAN
CE-6	DEMOLITION AND SOIL EROSION PLAN
CE-7	TOPOGRAPHICAL SURVEY
CE-8	WATER MAIN DETAILS
CE-9	WATER MAIN DETAILS
CE-10	WATER MAIN DETAILS
CE-11	WATER MAIN DETAILS
CE-12	STORM SEWER DETAILS
CE-13	STORM SEWER DETAILS
CE-14	SOIL EROSION DETAILS
A-101	SECTIONS & CODE COMPLIANCE
A-201	PLANS
A-301	ELEVATIONS
S-1	FOUNDATION PLAN
S-2	FOUNDATION DETAILS
S-3	SCHEDULES AND DETAILS
M-201	MECHANICAL SECTION, DETAILS, AND SCHEDULES
E-000	ELECTRICAL LEGEND, TABLES, AND GENERAL NOTES
E-010	ELECTRICAL RISER DIAGRAM & PANEL SCHEDULES
E-020	WIRE & LIGHTING SCHEDULES & CONTROL MATRIX
E-100	FLOOR PLAN - ELECTRICAL
E-500	ELECTRICAL DETAILS
E-600	ELECTRICAL SPECIFICATIONS

ARCHITECT'S SEAL:
Architects seal/signature only applies to scheduled Architectural sheets (those with an 'A' prefix) with the date and designation shown below. See drawings by other disciplines for their respective seals.

DATE:	DESIGNATION:
Oct. 11, 2023	REVISED

smith + schurman associates, inc.
architects + planners + interior designers
PO Box 1607, Southgate, MI 48195
Telephone: 248-227-9660

SECTIONS & CODE COMPLIANCE

PROPOSED PRE-ENGINEERED BUILDING FOR:
Kalitta Turbines
2880 Tyler Road
Ypsilanti Twp., Michigan

ISSUE	DATE
REVIEW	June 06, 2023
REVISED	June 20, 2023
WAINSCOT	Aug. 07, 2023
REVISED	Oct. 11, 2023

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DRAWN BY: JN
CHECKED BY: JN
JOB NO: 23-9266
SHEET NUMBER:
A-101

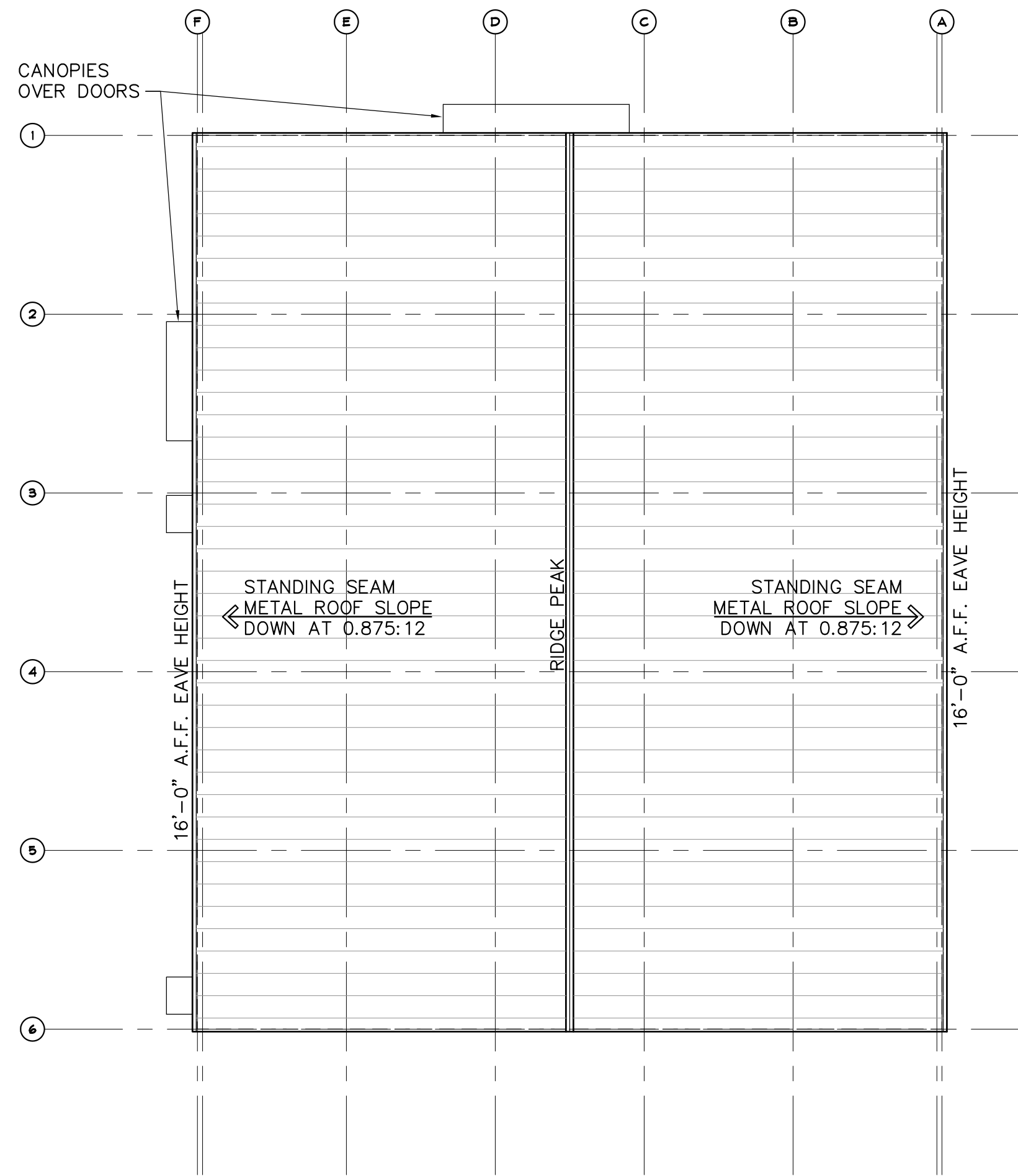
GENERAL NOTES

- DO NOT SCALE DRAWINGS. USE DIMENSIONS GIVEN OR FIELD VERIFY IF NECESSARY.
- ONLY DOCUMENTS INDICATED AS "BIDDING" OR "CONSTRUCTION" ARE TO BE USED FOR BIDDING OR CONSTRUCTION.
- THE REQUIREMENTS OF ICC/ANSI A117.1 AND THE AMERICANS WITH DISABILITIES ACT (ADA) ARE TO BE FULLY SATISFIED. ALL WORK SHALL MEET THE MOST STRINGENT REQUIREMENTS OF BOTH INCLUDING, BUT NOT LIMITED TO CLEARANCES, LIMITATIONS, ACCESSORIES, ETC. THESE DRAWINGS ARE PREPARED IN ACCORDANCE WITH THE LIMITED SERVICES FOR WHICH THE ARCHITECT WAS CONTRACTED. THE ARCHITECT MAKES NO REPRESENTATION THAT THE INTERPRETATION OF THESE DOCUMENTS WILL RESULT IN COMPLETE COMPLIANCE WITH THE ADA.
- ALL GLASS SHALL CONFORM TO FS DD-G-451. SAFETY GLASS SHALL CONFORM TO U.S. CONSUMERS PRODUCT SAFETY COMMISSION STANDARD 16 CFR 1201.
- ALL DOORS REQUIRED TO BE LABELED SHALL BE SET IN LABELED FRAMES AND IDENTIFIED WITH UL LABEL AND PROVIDED WITH APPROVED SELF-CLOSING DEVICES AND POSITIVE LATCHING HARDWARE.
- ALL DESIGNATED EXIT DOORS SHALL BE EQUIPPED WITH NON-LOCKING AGAINST EGRESS HARDWARE.
- UNLESS NOTED OTHERWISE, PRODUCTS SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS. CONTRACTOR TO PROVIDE ALL PRODUCT WARRANTIES AND INFORMATION TO PROPERTY MANAGER UPON COMPLETION OF CONSTRUCTION.
- PLASTIC PIPING, INSULATION AND OTHER COMBUSTIBLE MATERIALS SHALL BE RESTRICTED TO USE WHERE PERMITTED BY CODE AND IN NON-COMBUSTIBLE WALLS AND CEILING SPACES THAT DO NOT CONNECT DIRECTLY TO OCCUPIED ROOMS OR VENTILATING AIR DUCTS OR SPACES, IN ACCORDANCE WITH THE MICHIGAN STATE FIRE MARSHAL REGULATIONS. PROVIDE STEEL PIPING FOR ALL PLASTIC PIPING PASSING THROUGH FIREWALLS. RATED SHAFT WALLS SHALL BE DESIGNATED AS SUCH IN ACCORDANCE WITH 2015 MICHIGAN BUILDING CODE SECTION 703.7.
- ALL SIGNAGE THAT PROVIDES EMERGENCY INFORMATION OR GENERAL CIRCULATION DIRECTIONS OR SPACE IDENTIFICATION SHALL COMPLY WITH THE MOST STRINGENT OF ANSI A117.1 AND THE AMERICANS WITH DISABILITIES ACT.
- WHEN REQUIRED, PORTABLE FIRE EXTINGUISHERS SHALL BE FURNISHED BY THE OWNER AND INSTALLED IN ACCORDANCE WITH NFPA 10.
- ALL FINISH LUMBER SHALL HAVE A MOISTURE CONTENT OF 9% OR LESS.
- PROVIDE FIRE RETARDANT TREATED (FRT) WOOD BLOCKING WHERE REQUIRED TO SUPPORT ITEMS MOUNTED TO PARTITIONS AND AROUND ALL DOOR OPENINGS, ETC. ALL LUMBER REQUIRED TO BE FIRE TREATED SHALL BEAR THE UL FR-S LABEL.
- ALL INTERIOR FINISHES SHALL MEET THE FLAME SPREAD AND SMOKE DEVELOPED REQUIREMENTS OF MBC 2015, CHAPTER 8 "INTERIOR FINISHES".
- ALL INTERIOR METAL STUD PARTITIONS ARE TO BE DESIGNED TO WITHSTAND A UNIFORM LATERAL LOAD OF 5 P.S.F. BRACE WALLS TO THE STRUCTURE AS REQUIRED. SUBMIT SHOP DRAWINGS TO THE ARCHITECT FOR APPROVAL PRIOR TO CONSTRUCTION.
- ALL MECHANICAL/ELECTRICAL ENGINEERING SHALL BE PERFORMED ON A "DESIGN-BUILD" BASIS BY THE OWNER'S RESPECTIVE CONTRACTORS. ANY M/E ITEMS SHOWN HERE ARE FOR GENERAL REFERENCE ONLY.

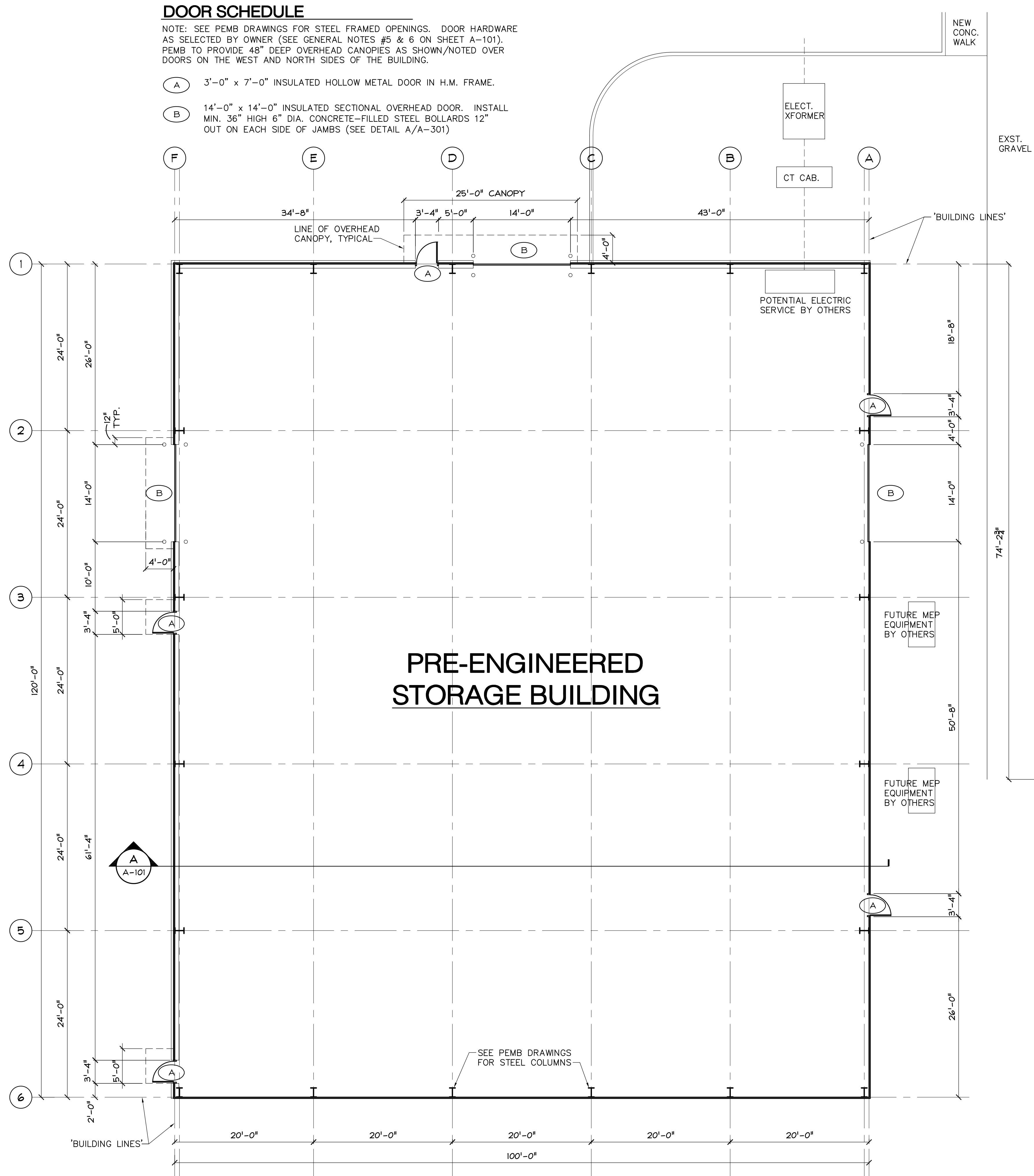
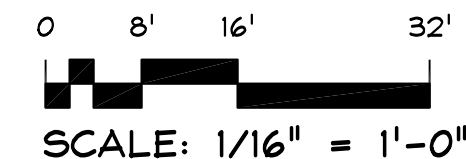
DOOR SCHEDULE

NOTE: SEE PEMB DRAWINGS FOR STEEL FRAMED OPENINGS. DOOR HARDWARE AS SELECTED BY OWNER (SEE GENERAL NOTES #5 & 6 ON SHEET A-101). PEMB TO PROVIDE 48" DEEP OVERHEAD CANOPIES AS SHOWN/NOTED OVER DOORS ON THE WEST AND NORTH SIDES OF THE BUILDING.

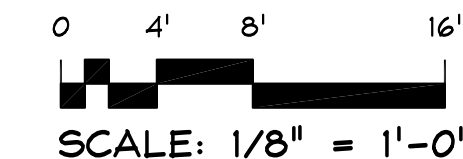
- (A) 3'-0" x 7'-0" INSULATED HOLLOW METAL DOOR IN H.M. FRAME.
- (B) 14'-0" x 14'-0" INSULATED SECTIONAL OVERHEAD DOOR. INSTALL MIN. 36" HIGH 6" DIA. CONCRETE-FILLED STEEL BOLLARDS 12" OUT ON EACH SIDE OF JAMBS (SEE DETAIL A/A-301)



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

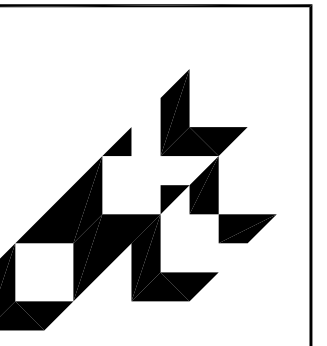


FLOOR PLAN
SCALE: 1/8" = 1'-0"



EXISTING BUILDING

EX. BLD'G.



smith + schurman associates, inc.
architects ■ planners ■ interior designers
PO Box 1607, Southgate, MI 48195
Telephone: 248-227-9660

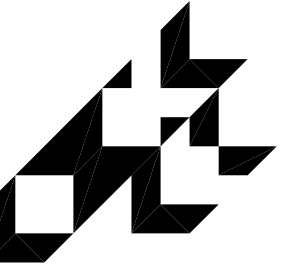
PLANS

PROPOSED PRE-ENGINEERED BUILDING FOR:
Kalitta Turbines
2880 Tyler Road
Ypsilanti Twp., Michigan

ISSUE	DATE
SCHEME	May 19, 2023
REVIEW	June 06, 2023
REVISED	June 20, 2023
WAINSCOT	Aug. 07, 2023
REVISED	Oct. 11, 2023

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CHECKED BY: JN
JOB NO: 23-9266
SHEET NUMBER:



smith + schurman associates, inc.
 architects • planners • interior designers
 PO Box 1607, Southgate, MI 48195
 Telephone: 248-227-9660

BUILDING ELEVATIONS

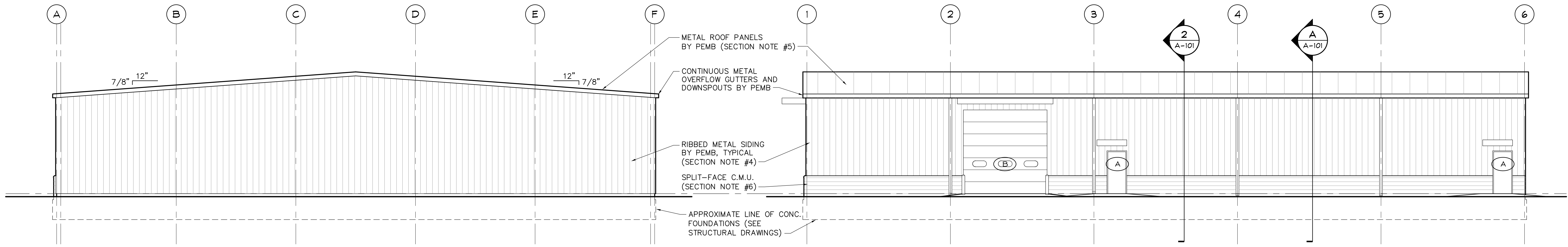
PROPOSED PRE-ENGINEERED BUILDING FOR:
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SCHEME	May 19, 2023
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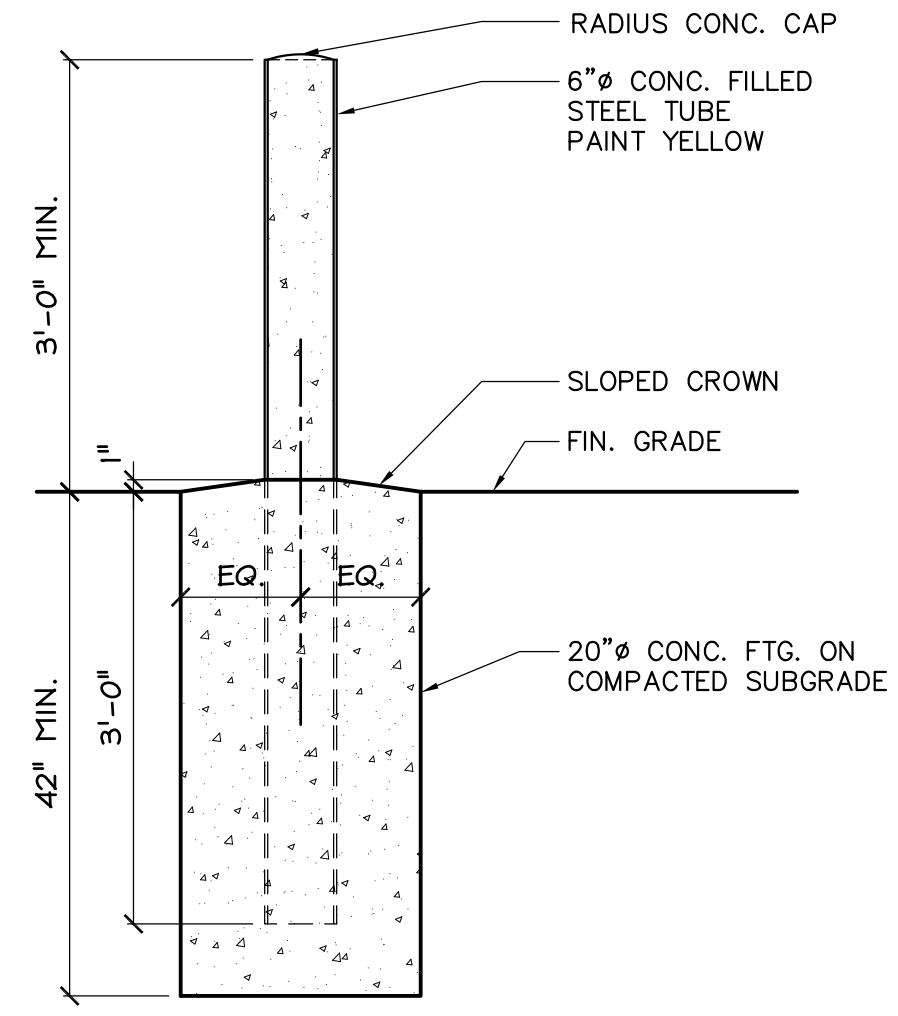
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 CHECKED BY: JN
 JOB NO: 23-9266
 SHEET NUMBER:

A-301



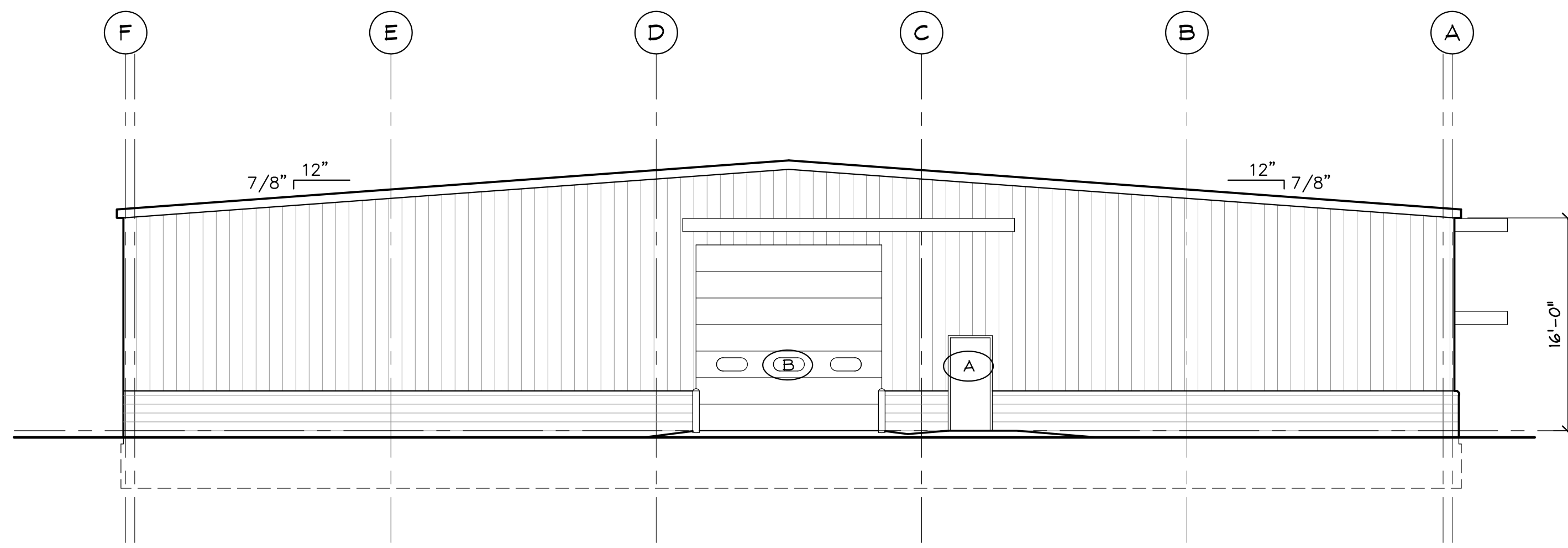
4 SOUTH ELEVATION
 A-301 SCALE: 1/8" = 1'-0"

3 WEST ELEVATION
 A-301 SCALE: 1/8" = 1'-0"

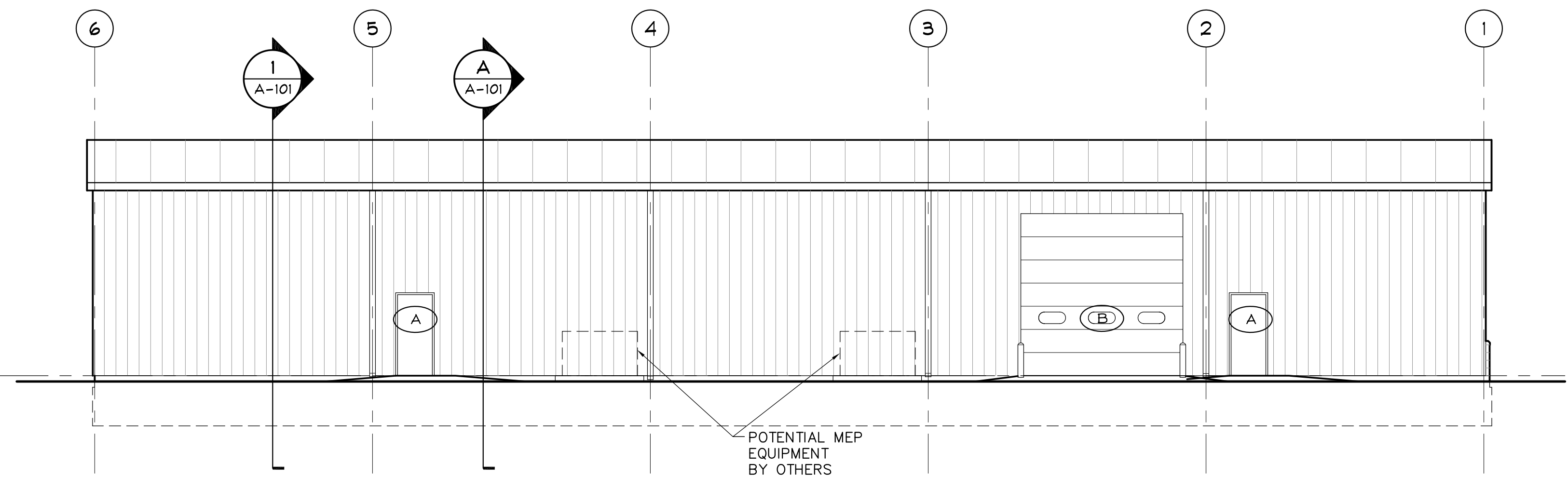


A BOLLARD DETAIL
 A-301 SCALE: 3/4" = 1'-0"

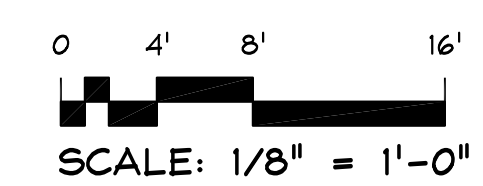
NOTE
 SEE SHEET A-101 FOR SECTION NOTES
 SEE SHEET A-201 FOR DOOR SCHEDULE

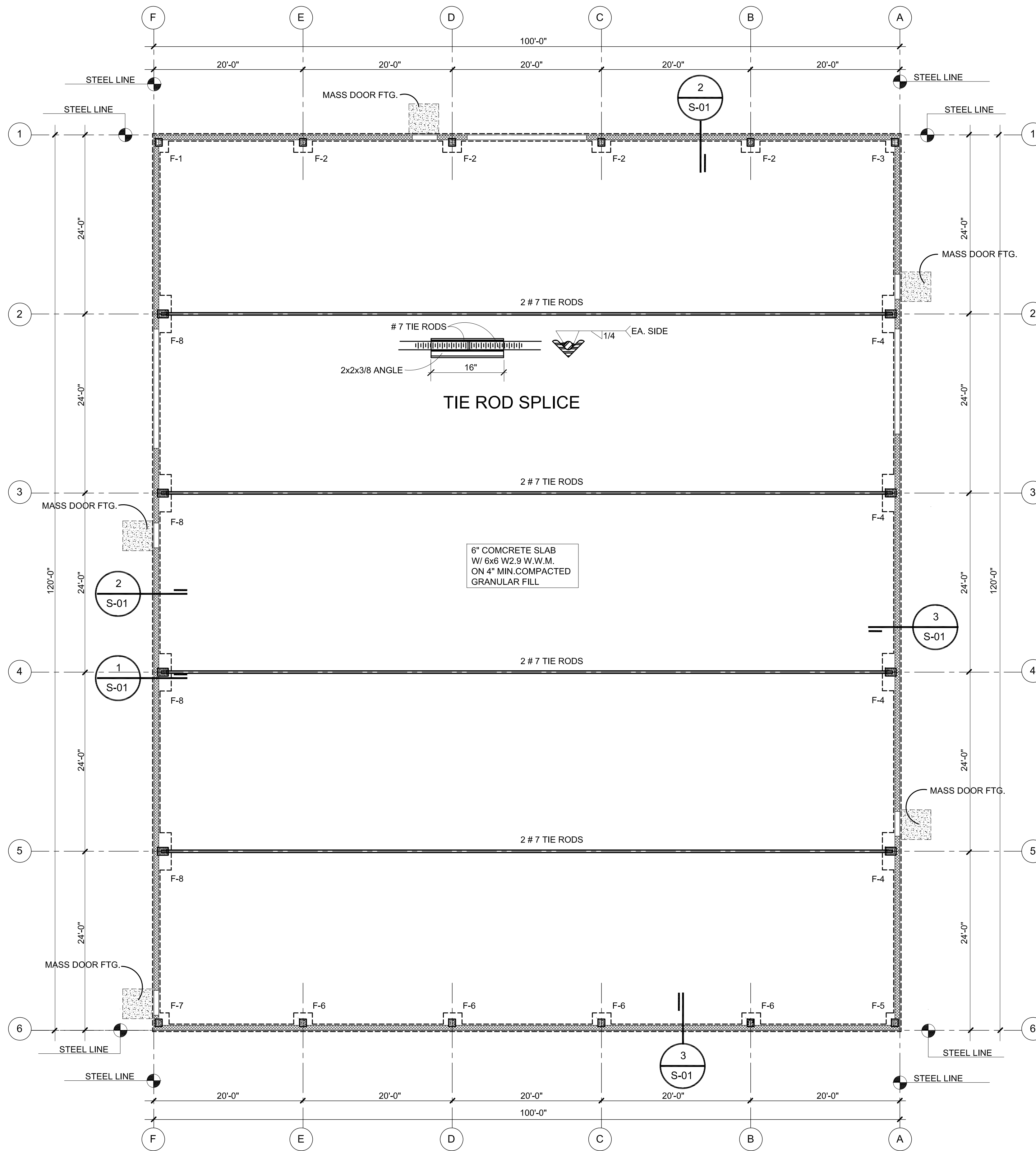


2 NORTH ELEVATION
 A-301 SCALE: 1/8" = 1'-0"



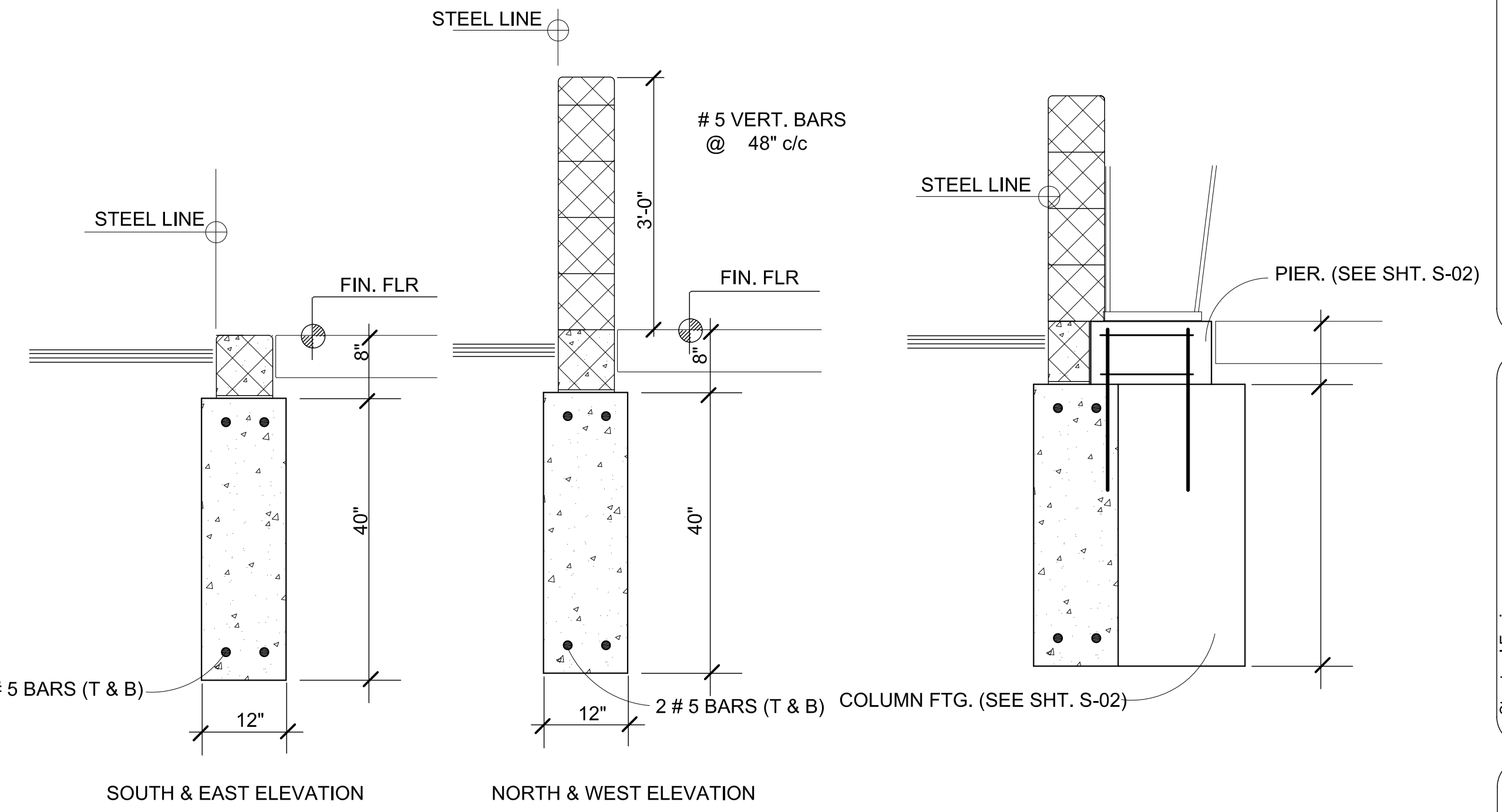
1 EAST ELEVATION
 A-301 SCALE: 1/8" = 1'-0"





FOUNDATION PLAN
SCALE: 1/8" = 1'-0"
NORTH

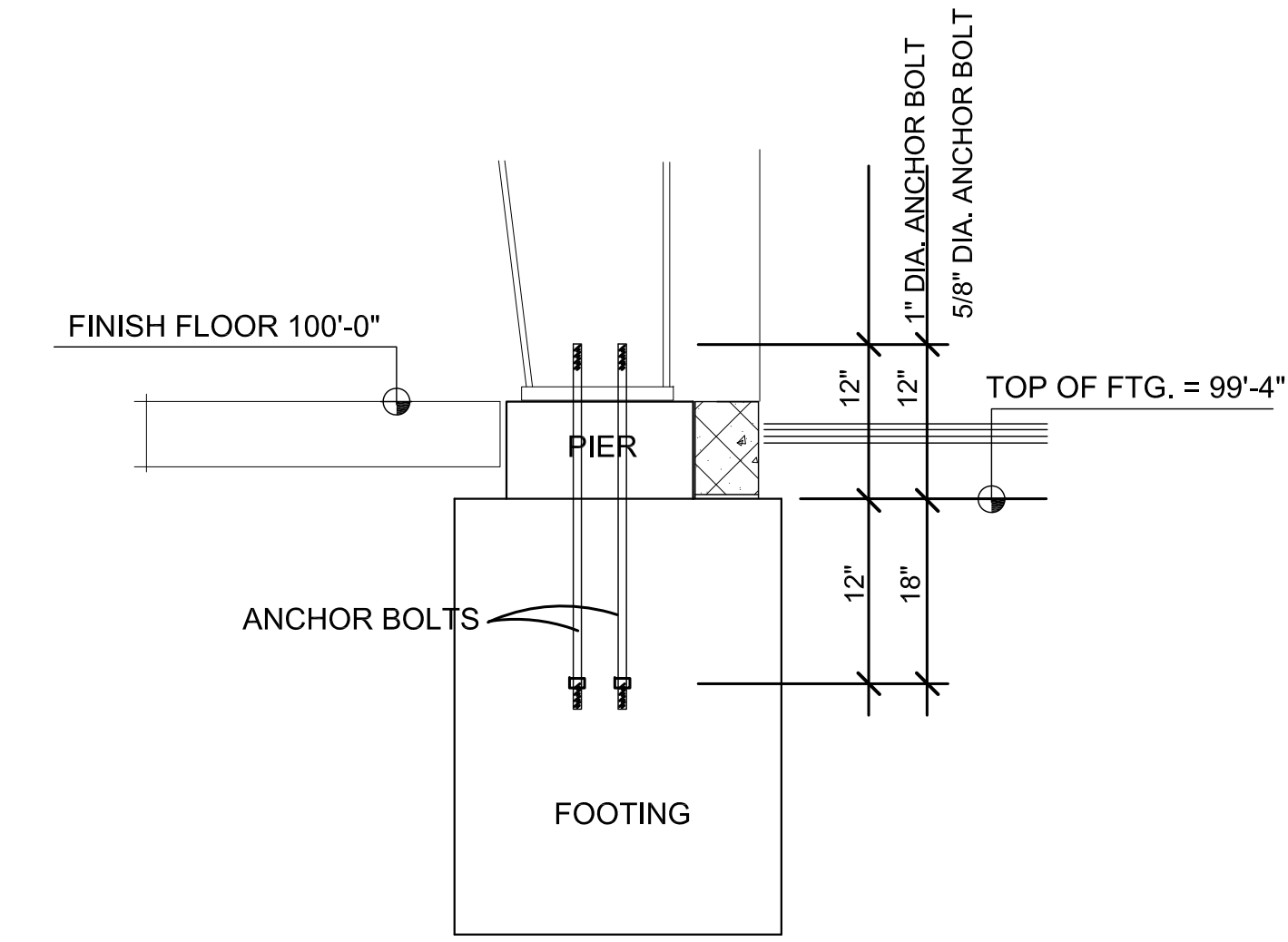
ASSUMED SOIL PRESSURE = 3000 PSF
PER REPORT PREPARED BY
CT CONSULTANTS, INC.
REPORT No. 231184, DATED JUNE 23, 2023



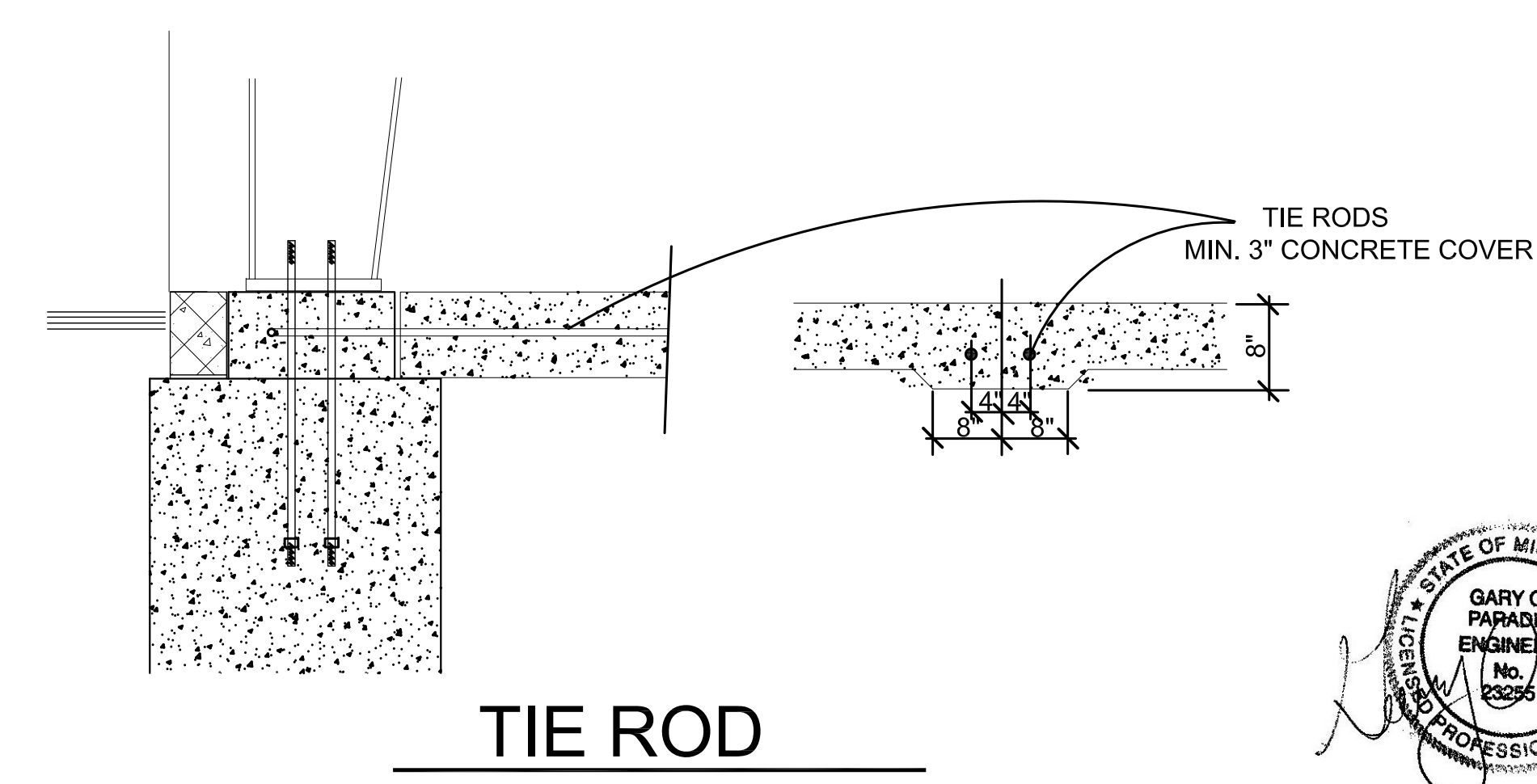
SECTION 3
SCALE: 3/4" = 1'-0"
S-01

SECTION 2
SCALE: 3/4" = 1'-0"
S-01

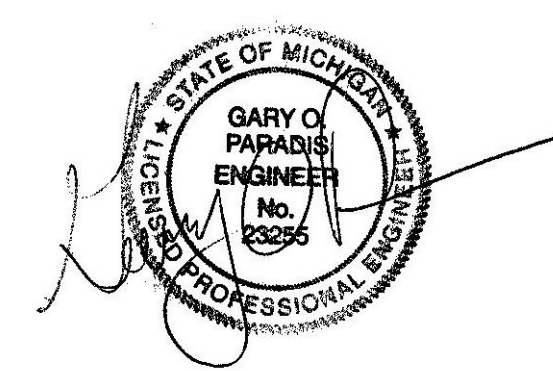
SECTION 1
SCALE: 3/4" = 1'-0"
S-01



SEE "METALLIC BLDG. SYSTEMS" DRGS.
FOR DIA. & LOCATION OF ANCHOR BOLTS
ANCHOR BOLTS



TIE ROD



Structural Engineer:
Paradis Associates Inc.
CONSULTING STRUCTURAL ENGINEERS
418 S. Main, Ste. 200
Farmington Hills, MI 48334
email@paradisassoc.com
(248) 650-4905

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No.	DESCRIPTION	DATE	APPD	G.O.P.	ISSUE:

FOUNDATION PLAN
OWNER
PROPOSED FACILITY FOR:
KALITTA TURBINES
2880 TYLER ROAD
YPSILANTI TWP., MICHIGAN

JOB NO.
23058

SHEET NO.
S-01

MASONRY NOTES:

Contractor & all sub-trades are responsible for reviewing & complying with all applicable specifications contained herein. Where discrepancies occur between design drawings and these notes, design drawing specifications are to supersede.

GENERAL WORKMANSHIP:

A: All work shall be in compliance with the latest building code requirements for masonry structures. Michigan Building Code, ACI 530/ASCE 5/TMS402 and specifications for masonry structures ACI 530.1/ASCE 6/TMS 602 and N.C.M.A. specifications.

B: The masonry contractor is responsible for the design and placement of all temporary shoring necessary for the stability of masonry structures during construction and prior to the completion of the project as shown in it's entirety in the construction documents.

C: All masonry below grade or fin. slab on grade shall be solid or have cores grouted solid.

D: Interior walls to be tied to the buildings structural steel at the top of the wall @ 48" c/c max. with a connection capable of min. 1" vert. deflection. Verify connection detail with Engineer.

MATERIALS:

A: All mortar shall be type "M" or "S".

B: All concrete masonry units shall conform to the latest version of the following:

- ASTM C 90 for load bearing or reinforced concrete units.
- ASTM C 744 for precast concrete and calcium silicate units.
- ASTM C 55 Grade N for concrete brick, i.e. split face.
- ASTM C 73 for calcium silicate face brick.

C: All clay or shale facing brick shall conform to ASTM C 216. All clay or shale hollow brick shall conform to ASTM C 652.

D: All masonry shall develop a 28 day minimum prism strength $f_m = 1500$ psi.

E: All reinforcing bars dowels, and ties shall conform to A.S.T.M. A615 grade 60. Reinforcing steel shall be continuous and have a minimum 50 bar diameter lap and be placed in accordance with ACI 530/ASCE 5/TMS402.

VERT. REINFORCEMENT:

A: All reinforcement to be #5 bars U.N.C. All bars to be placed in middle of fully grouted cell. Bars to be cont. & lapped spliced min. 31". Wire bars in place as required to maintain position during grouting.

B: All masonry vert. steel shall be lapped cont. & doweled into footings.

C: All interior C.M.U. and all exterior above grade C.M.U. walls up to 14'-0" in height shall have vertical reinforcing of @ 48" c/c. All masonry walls exceeding 14'-0" in height are to be reinforced. See structural details for specifics.

D: All C.M.U. walls are to have additional reinforced cells adjacent to all interruptions in the continuity of the wall, (i.e. door openings, control joints, ends of walls, etc.). Such additional reinforcement is to be of the same size vert. steel typical to that wall. Locate min. (1) reinforced cell located within 8" of all wall ends & corners & within 8" each side of control joints. For all openings provide one reinforced cell not obstructed by lintel within 16" of edge of opening plus one additional reinforced cell per side for each 4'-0" of opening width (round up to nearest number).

HORZ. REINFORCEMENT:

A: Provide Dur-O-Wall 9 gauge "Ladur" type horz. C.M.U. wall reinforcement w/16" c/c cross-rod spacing. All horz. reinforcement to be lap spliced continuous bwn. control joints. Splices to share one cross rod + min. 8" of side rods each side. Typical placement to be 16" c/c vert. Above all C.M.U. openings over 7'-4" wide place additional horz. reinforcement @ 8" c/c vert. Additional reinforcement to be continuous from control joint on one side to min. 32" past edge of opening on other side.

B: All masonry bond beams are to have (2) #5 bars cont. Bars are to be lap spliced 32" min., be placed @ mid-height in course & have 1/2" grout cover to face shell. Wire bars in place as required to maintain position during grouting. Bond beams are to be continuous through control joints U.N.O.

C: All control joints are to be typ. "Michigan" shear type with stretcher block head joint grouted solid. All control joints are to have min. (1) reinforced cell located within 8" each side of joint.

OPENINGS:

B: For all openings provide one reinforced cell not obstructed by lintel within 16" of edge of opening plus one additional reinforced cell per side for each 4'-0" of opening width (round up to nearest number).

C: For masonry openings up to 4'-0" wide provide (1) L4x3-1/2x1/4 for 4" masonry, (2) L4x3-1/2x1/4 for 8" C.M.U. & (2) L5x5x5/16 for 12" C.M.U. Provide 4" length of bearing each end on min. & grout solid min. 8" below.

D: For masonry openings up to 7'-4" wide provide (1) L6x3-1/2x3/8 for 4" masonry, (2) L6x3-1/2x3/8 for 8" C.M.U. & (2) L5x5x3/8 for 12" C.M.U. Provide 4" length of bearing each end on min. & grout solid min. 24" below.

STEEL BEARING:

A: All steel beams bearing on masonry other than loose angles shall have 8" of bearing past edge of masonry on 1/2" thk. bearing plate. Plate width to be 1-1/2" less than nominal width of C.M.U. Plate to be embedded w/(2) 3/4"x6" headed shear studs. Grout solid below brg. plate to foundation below. Provide min. (2) reinforced cells directly adjacent to brg. plate continuous from foundation to top of masonry. Beam to be fastened to brg. plate w/(2) 3/4" threaded shear studs welded to plate through long slotted holes in bottom flange of lintel. Lintel shelf plates are to be stitch welded to beam w/1/4" x 2" fillet @ 12" c/c - both sides.

B: Where joists bear on masonry provide steel bearing plates w/(2) 1/2"x6" headed shear stud anchors embedded bwn. horz. steel in cont. bond beam. For "K" series use 4"x6"x3/8" plates & for "LH" series use 6"x9"x3/8". Plate edge to be located within 1/2" of face of wall. Weld joists to bearing plates as follows, K-Series min. (2) 1/8"x1" long fillet welds. LH-Series min. (2) 1/4"x2" long fillet welds.

C: Where joist girders bear on masonry provide steel bearing plates w/(2) 3/4"x6" headed shear studs embedded bwn. horz. steel in cont. bond beam. Use 6"x12"x3/4" plate. Plate edge to be located within 1/2" of face of wall. Weld girder to bearing plates w/in. (2) 1/4"x3" fillet welds. Provide min. (2) reinforced cells directly below girder brg. plate cont. to foundation.

MASONRY GROUTING GUIDE:

Slump: 8" - 11".
Compressive strength: 2000 psi min.

Preparations for grouting:

Cleanouts: Required if pour height exceeds 5'-0".
Cleanouts Size: 3" x 3".
Cleanouts Spacing: In bottom course at each vertical bar or 32" c/c max. if wall grouted solid.

Grout Consolidation: Mechanical vibration or puddling.
Pour height 12" or less: Mechanical vibration and reconsolidate after water loss and settlement.
Pour height greater than 12": Mechanical vibration and reconsolidate after water loss and settlement.

CONCRETE NOTES:

Contractor & all sub-trades are responsible for reviewing & complying with all applicable specifications contained herein. Where discrepancies occur between design drawings and these notes, design drawing specifications are to supersede.

A: Measuring, mixing and placing of concrete shall be in accordance with ACI 304.

B: Protection and curing of concrete shall be in accordance with ACI 305, 306 and 308.

C: All pertinent sections of ACI 318 shall apply.

D: Reinforcing steel shall be fabricated and placed in accordance with the ACI 315.

E: All reinforcing steel shall be ASTM A615 Grade 60, deformed in accordance with ASTM 305, unless otherwise noted.

F: Step all footings at a ratio of (2) horizontal to (1) vertical.

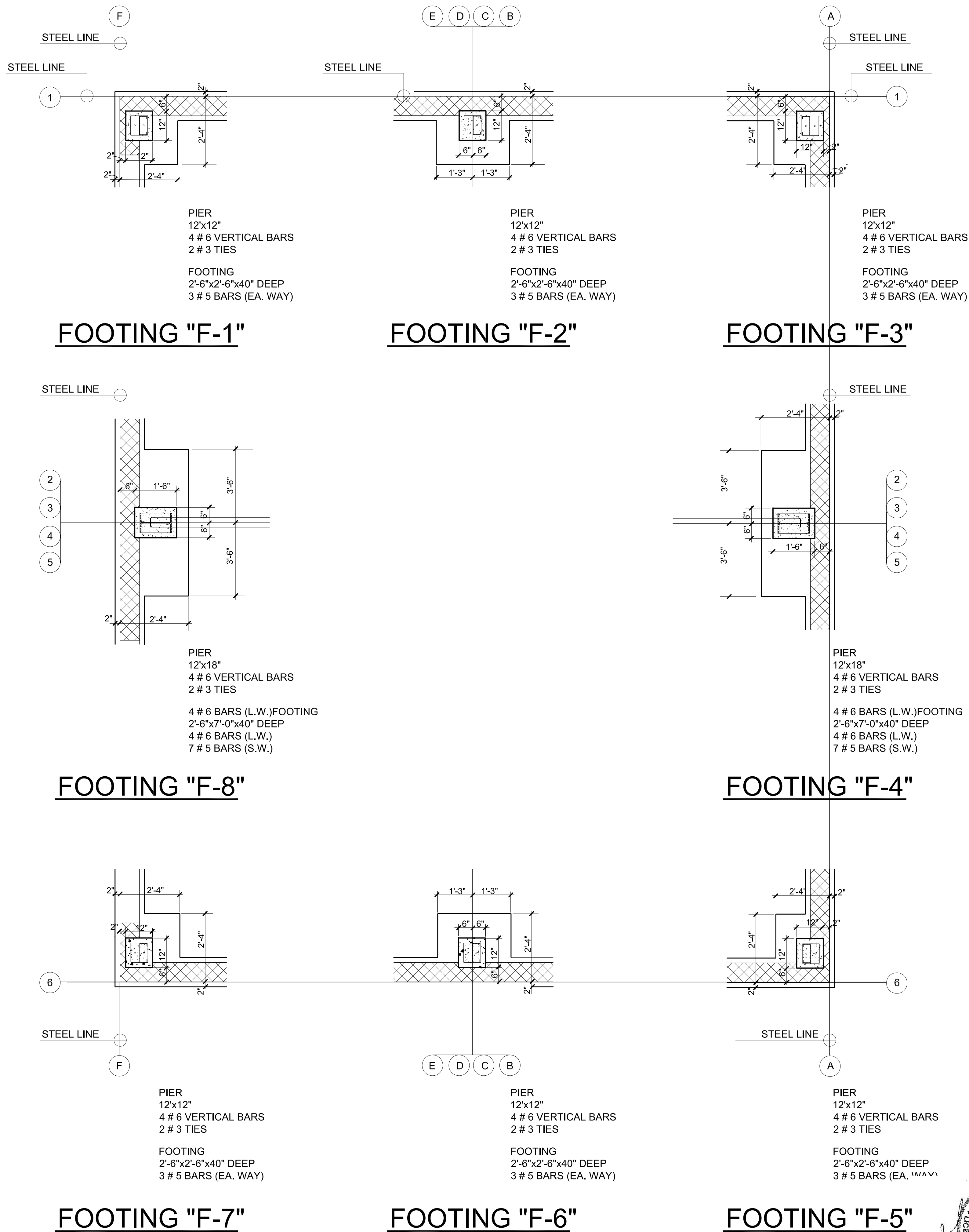
G: All footings to rest on undisturbed soil.

H: U.N.O. In concrete piers provide (8) #7 vert. bars [(3) each face] w/#4 ties @ 12" c/c max. Ties to be 2" from top & bott. of pier.

I: All columns & baseplates are to be fully encased in concrete from fin. floor to top of footing. Provide isolation joint encompassing entirety of base plate bwn. column pour & fin. floor slab.

CONCRETE MIX GUIDE

CLASS OF CONCRETE	MIN. 28 DAY STRENGTH (PSI)	MAX. W/C RATIO LBS. HOHLB. CEMENT	AIR CONT. %
STANDARD EXPOSED CONCRETE	4500	0.45	6 5-1/2
STANDARD FLOOR CONCRETE	4000	0.45	3-1/2 4-1/2
STANDARD FOUNDATION CONCRETE	3000	0.55	2 1
STANDARD UNEXPOSED & FORMED	4000	0.45	1 2



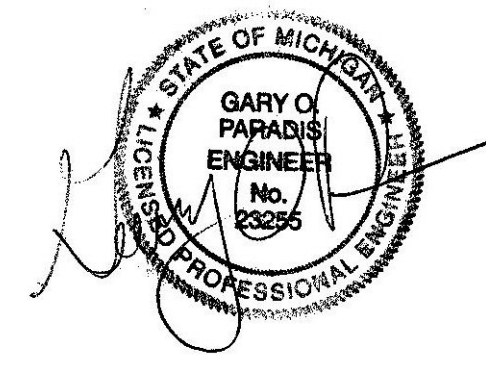
General Contractor:

Paradis Associates Inc.
CONSULTING STRUCTURAL ENGINEERS
418 S. Main St. - Ste. A
Rochester, Michigan 48307
email@paradisassoc.com
(248) 660-4905

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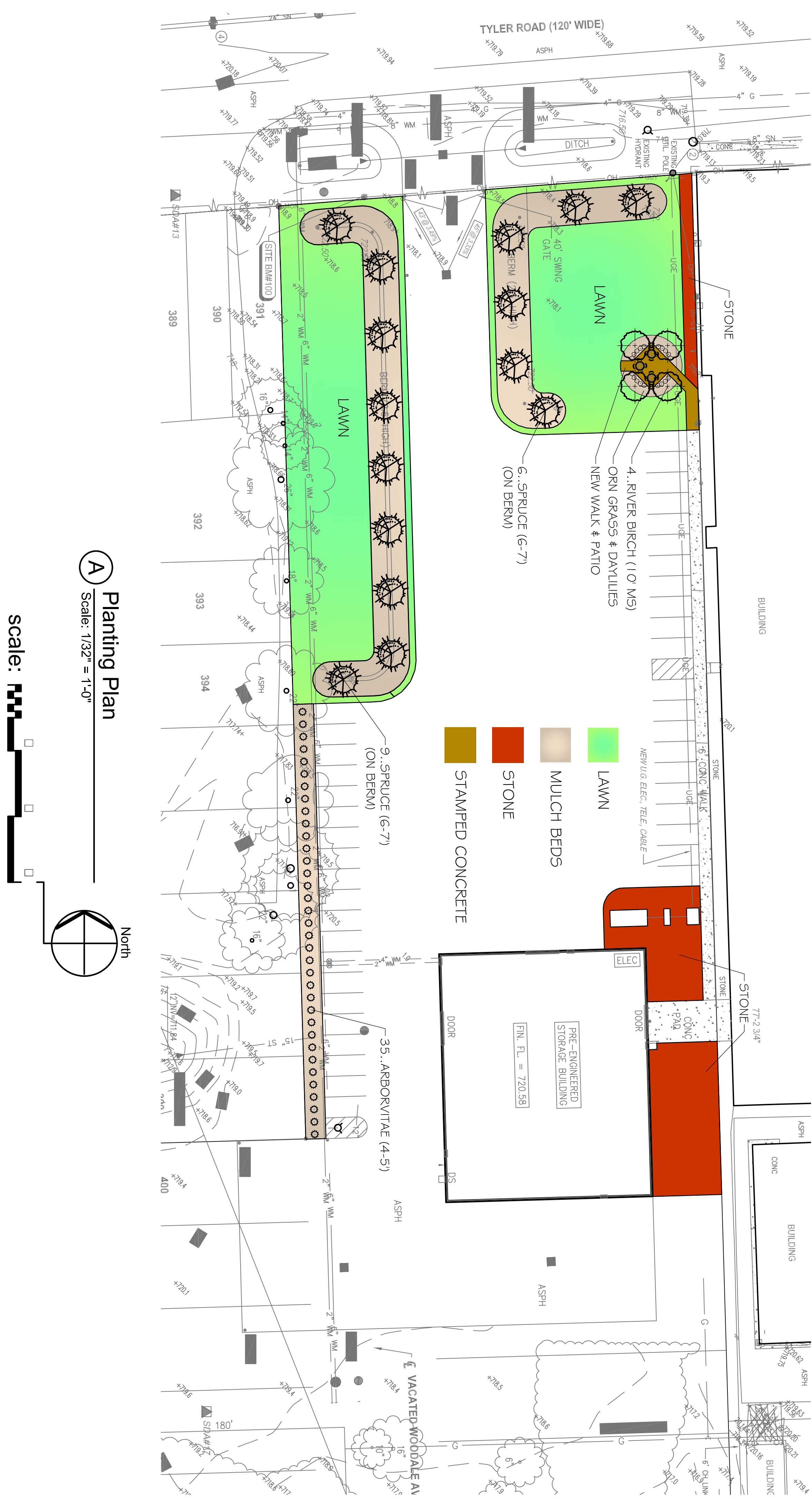
FOUNDATION PLAN
PROPOSED FACILITY FOR:
OWNER
KALITTA TURBINES
2880 TYLER ROAD
YPSILANTI TWP., MICHIGAN

JOB NO.
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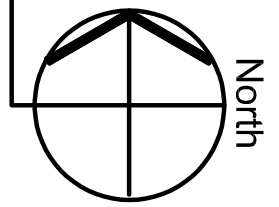
SHEET NO.
S-02

THIS DRAWING IS
CONCEPTUAL
 SUBJECT TO CHANGE WITHOUT NOTICE
 EXACT SITE CONDITIONS



A Planting Plan
 Scale: 1/32" = 1'-0"

scale:



Kalitta Turbines
 2830 TYLER ROAD
 YPSILANTI, MICH
 BEDDER CONSULTING
 32579 GATEWAY DRIVE, ROMULUS

Reliable Landscaping Inc.
 Since 1989

Reliable Landscaping, Inc.
 "Quality Not Only On The Surface."
 8285 N. Lilley Road Canton, MI 48187
 Phone: 734-455-5220 Fax: 734-455-2149
 Email: RELIABLELANDSCAPING@MSN.COM

Issued By: Randy Czajka (734-368-3299)

ISSUE No.	Description	Date
1	Review	07.24.2023

Sheet #
L-1
 Sheet 1 of 1