

**SUPERIOR CHARTER TOWNSHIP PLANNING COMMISSION
SUPERIOR TOWNSHIP HALL
3040 N. PROSPECT, SUPERIOR TOWNSHIP, MI 48198
AGENDA
FEBRUARY 26, 2025 - 7:00 PM**

1. CALL TO ORDER
2. ROLL CALL
3. DETERMINATION OF QUORUM
4. ADOPTION OF AGENDA
5. APPROVAL OF MINUTES
 - A. Approval of the January 22, 2024, Regular Meeting Minutes
6. CITIZEN PARTICIPATION
7. CORRESPONDENCE
8. PUBLIC HEARINGS, DELIBERATIONS AND ACTIONS
 - A. STPC #25-02 Conditional Use Permit/Preliminary Site Plan - DTE Electric Grenada Electric Substation Expansion
9. REPORTS
 - A. Building Department Report
 - B. Zoning Administrator Report
10. OLD BUSINESS
11. NEW BUSINESS
12. POLICY DISCUSSION
 - A. Size of plans submitted for Commission packets: full-sized plan sheets (24 in x 36 in), Tabloid size (11 in x 17 in), and/or digital PDF
 - B. Zoning Ordinance Rewrite
13. ADJOURNMENT

SUPERIOR CHARTER TOWNSHIP

Planning Commission

Regular Meeting Minutes - DRAFT

January 22, 2025, 7:00 PM

Township Hall - 3040 North Prospect

Superior Township, MI 48198

1. CALL TO ORDER

Chairman Gardner called the regular meeting to order at 7:00 p.m.

2. ROLL CALL

Present: Jay Gardner, Chair
Dr. Robert Steele, Vice Chair
Thomas Brennan, Secretary
Patrick McGill
Brenda McKinney, Board Representative
Nahid Sanii-Yahyai
Curt Wolf

Absent: None

Also Present: Planning Consultant - Diane Mulville-Friel, Carlisle Wortman
Engineering Consultants - Claire Martin, OHM

3. DETERMINATION OF QUORUM

A quorum was present.

4. ADOPTION OF AGENDA

MOTION by Brennan, supported by Sanii-Yahyai, to adopt the January 22, 2025, agenda with the following changes:

- 11.A. STPC 2021-02 - The Meadows at Hawthorne Mills - Extension of Final Site Plan
- 11.B. Adoption of 2025 Meeting Schedule
- 11.C. Election of Officers for 2025

Motion passed unanimously by voice vote.

5. APPROVAL OF MEETING MINUTES

A. January 22, 2025 - Regular Meeting Minutes

Chair Gardner requested that the minutes be corrected. Chair Gardner asked that the third paragraph under "11A. STPC 2023-03 Garrett's Space Final Site Plan", be changed as follows:

"Chair Gardner also asked Mr. Halpert ~~is he~~ if the entity, Garrett's Space, controlled the property. Halpert responded, yes."

The changes were accepted without objection.

MOTION by Brennan supported by Sanii-Yahyai, to approve the September 24, 2024, meeting minutes as amended.

Motion passed unanimously by voice vote.

6. CITIZEN PARTICIPATION

Chair Gardner opened the Citizen Participation portion of the meeting. Superior Township Board of Trustee, Dana Greene Jr., was present and he introduce himself to the Planning Commission as a new Trustee. No other citizens wished public comment.

7. CORRESPONDANCE

Ms. Mulville-Friel provided the Commission with copies of communication from Cresson Slotten of OHM regarding tonight’s Planning Commission agenda item 11A The Meadows at Hawthorne Mill Extension of Final Site Plan. The OHM correspondence provides background on this proposed development as the final site plan was approved in November of 2023. OHM prepared a memo (dated January 22, 2025) to provide background/status information for the Planning Commission to consider.

MOTION by Brennan supported by Sanii-Yahyai, to receive the correspondence.

Motion passed unanimously by voice vote.

8. PUBLIC HEARINGS, DELIBERATIONS AND ACTIONS

No Public Hearings.

9. REPORTS

A. Building Department Report

Ms. Mulville-Friel provided the Commission with the Building Department Year-To-Date Report (January 2024 – December 2024).

B. Zoning Administrator Report

Ms. Mulville-Friel provided the Commission with an overview of the status of active development projects (Prospect Pointe West, Brookwood, and Garrett’s Space); the status of the Zoning Board of Appeals (ZBA) and upcoming cases to be heard; the Planning Commission; and other business/news.

MOTION by Brennan supported by Wolf, to receive the reports.

Motion passed unanimously by voice vote.

10. OLD BUSINESS

None.

11. NEW BUSINESS

A. STPC 2021-02 - The Meadows at Hawthorne Mills - Extension of Final Site Plan

Jared Kime, from Atwell LLC, provided an overview of the applicant's (Louis J. Eyde Family, LLC) request for the Planning Commission to grant a one-year extension to the final site plan approved for Phase I of the Meadows at Hawthorne Mill. Mr. Kime explained that the request for an extension was sent to the Township on October 1, 2024, prior to the final site plan expiration date. He explained that the applicant (Louis J. Eyde Family, LLC) was in the process of selling the property to another developer. Terms of the purchase are being finalized, and the purchaser intends to develop the property in a similar fashion as Louis J. Eyde Family, LLC would have developed the property.

Chair Gardner asked if there were any planned changes to the scope of the project. Mr. Kime stated, that they are requesting an extension for the approved final site plan as is and there are no plans to changes to the site plan; however, there are some outstanding conditions that will need to be addressed.

Chair Gardner asked Mr. Kime to explain the structure of the owner/developer relationship. Kime explained that the property owner is Louis J. Eydes Family, LLC and they had been operating as the developer as well but Eydes are not a home builders. They were intending to partner with Pulte Group, a large developer/home builder to take over the property. The final site plan approve only includes Phase 1 of the project. Chair Gardner asked if Pulte Group will be the developer of Phase 2 and Kime stated that those details have not been worked out yet.

Steele asked for clarification on roadway improvements required. All required off-site road improvements are triggered by Phase 1 of the development.

No other questions were asked by Commissioners and the Chair requested OHM to provide an overview of the memo (dated January 22, 2025) Cresson Sloten had prepared. Ms. Martin summarized the memo (attached at the end of these minutes).

Commissioner Steele asked about steep slopes on the property line and how they were being preserved. Kime stated that there are some areas with steep slopes in excess of 25% near the southeast corner of the property that are too steep to build on and these area will be maintained as is and left in a natural vegetated state.

No other questions were asked by Commissioners, and the Chair requested a motion.

MOTION by Brennan supported by Steele to approve a Final Site Plan extension for STPC 2021-02 - The Meadows at Hawthorne Mills with the following conditions:

- 1) Provide a cost estimate of the requirement woodland mitigation to be paid into Superior tree fund. Once a fund number is agreed upon with the Township, the applicant shall pay the amount to the Township.
- 2) All future homebuilders will be required to submit floor plans and elevations for review and approval by the Planning Commission.
- 3) Secure all required Washtenaw County Road Commission (WCRC) permits and right-of-way dedications to facilitate improvements at the intersection of Prospect and Geddes Rd as well as turn lane improvements for the private connection on Geddes Road.
- 4) Complete a Development Agreement and present to the Board of Trustees for approval prior to Phase 1 moving to the pre-construction phase of the development.

Roll Call Vote

Yes: Gardner, Steele, Brennan, McGill, McKinney, Sanii-Yahyai, Wolf

No: None.

Abstain: None.

The motion carried 7-0.

B. Adoption of the 2025 Meeting Schedule

MOTION by Sanii-Yahyai supported by Brennan, to adopt the 2025 Planning Commission Meeting Schedule.

Motion passed unanimously by voice vote.

C. Election of Officers for 2025

MOTION by Sanii-Yahyai to elected Mr. Gardner as the Chair. The motion was supported by Brennan.

Roll Call Vote

Yes: Steele, Brennan, McGill, McKinney, Sanii-Yahyai, Wolf

No: None.

Abstain: Gardner

The motion carried 6-0, 1 abstain.

MOTION by Sanii-Yahyai to elected Mr. Steele as the Vice Chair. The motion was supported by Brennan.

Roll Call Vote

Yes: Gardner, Brennan, McGill, McKinney, Sanii-Yahyai, Wolf

No: None.

Abstain: Steele

The motion carried 6-0, 1 abstain.

MOTION by Sanii-Yahyai to elected Mr. Brennan as the Secretary. The motion was supported by Gardner.

Roll Call Vote

Yes: Gardner, Brennan, McGill, Steele, McKinney, Sanii-Yahyai, Wolf

No: None.

Abstain: Brennan

The motion carried 6-0, 1 abstain.

12. POLICY DISCUSSION

A. Review of Ordinance No. 181 Establishing the Planning Commission

Ms. Mulville-Friel asked Commissioners to familiarize themselves with Superior Township Ordinance No. 181 which was adopted to establish a Planning Commission for the Township. She explained that the ordinance outlined important conditions and structure of the Planning Commission (i.e., membership, removal, compensation, officer and committees, etc).

Chair Gardner clarified that although this particular ordinance was adopted in 2011, the Superior Township Planning Commission has been in existence for a long time.

Ms. Mulville-Friel confirmed that the Township Planning Commission has been in existence way prior to the adoption of this ordinance and that Ordinance 185 confirmed establishment of the Superior Township Planning Commission under the Michigan Planning Enabling Act and the Michigan Zoning Enabling Act and established the Planning Commission for the Township with the authority, powers, and duties provided by those Acts and subject to the terms and conditions of this Ordinance.

A. Zoning Ordinance Rewrite Update

Ms. Mulville-Friel explained that the two memos (dated December 13, 2024 and January 15, 2025) included in the agenda packet regarding Superior Township Zoning Ordinance Evaluation highlight the progress made to date.

Ms. Mulville-Friel relayed to the Planning Commission that the Township established a Zoning Ordinance Rewrite Steering Committee made up of three (3) Planning Commission members. Gardner, Brennan, and Sanii-Yahyai were approved by the Township Board to serve on the Steering Committee. The Steering Committee typically meets one hour prior to the regular scheduled Planning Commission meeting.

Chair Garner asked for clarification on the procedures to obtain input from the Planning Commission on the proposed rewrite as well as the public input. Ms. Mulville-Friel stated that this procedure will be outlined more clearly and reported back at a subsequent meeting.

13. ADJOURNMENT – next regularly scheduled meeting on February 26, 2025

MOTION by Brennan, supported by McKinney to adjourn the meeting.

Motion passed unanimously by voice vote.

The meeting was adjourned at 7:47 pm.

Meeting Minutes Respectfully submitted,

Thomas Brennan III, Planning Commission Secretary
Diane Mulville-Friel, Recording Secretary
3040 N. Prospect, Ypsilanti, MI 48198, 734-482-6099

Attached:

Cresson Slotten, OHM memo (dated January 22, 2025)



ARCHITECTS. ENGINEERS. PLANNERS.

January 22, 2025

CHARTER TOWNSHIP OF SUPERIOR

3040 N. Prospect Road
Ypsilanti, MI 48198

Attention: **Planning Commission**

Regarding: **The Meadows at Hawthorne Mill – Phase 1
Final Site Plan Approval Extension Request
OHM Job No. 0140-20-1010**

Dear Planning Commissioners,

On the agenda for consideration by the Planning Commission at your January meeting is a request for an extension of Final Site Plan for Phase 1 of The Meadows at Hawthorn Mill.

This site plan is for Phase 1 of a new single-family residential development with associated site improvements, which include a total of 40 lots/units (215 lots are proposed for the full development). The Phase 1 of the overall development is comprised of construction of the roads and infrastructure items to directly serve those units, extension of a sanitary sewer from LeForge Road across the neighboring property to the west needed to service Phase 1, and mass grading of the entire site. The site is in the northwest quarter of Section 33 on the south side of Geddes Road, east of LeForge Road, directly west of the Prospect Point West Site Condominium development.

We offer the following background information on this site plan.

1. The Preliminary Site Plan (PSP) for the entire development was approved by the Planning Commission on October 28, 2020.
2. Following the PSP approval, the Applicant submitted their Traffic Impact Study (TIS) to the Washtenaw County Road Commission (WCRC) for review. The WCRC reviewed the TIS and determined that the Applicant needs to improve Geddes Road for their private road connections to Geddes Road with turn lanes, and also improve the Geddes Road/Prospect Road intersection with turn lanes and traffic signal improvements due to the additional traffic the development is going to generate.
3. As the Applicant began to prepare their Final Site Plan (FSP) materials in late 2020/early 2021 they noted to Township staff that they intended to phase the development but needed to mass grade the entire site as part of Phase 1. It was determined that the Applicant needed to submit engineering detail level plans for the entire development for OHM to review to ensure the mass grading, water and sanitary sewer designs were appropriate to review for the Phase 1 FSP.



4. As OHM worked through reviewing the Engineering Submittals, the Applicant applied for their necessary EGLE wetlands permit for the full development and OHM assisted the Applicant in applying for the required EGLE Part 41 sanitary sewer and PA 399 water main construction permits for the entire development.
 - a) The EGLE wetland permit was approved on December 6, 2022.
 - b) The EGLE Part 41 sanitary permit was approved on October 3, 2023
 - c) The EGLE PA 399 water main permit was approved on January 10, 2024
5. With the approval of the EGLE Part 41 sanitary sewer permit in October 2023, though the water permit hadn't been approved, it was reasonably assured that this permit was going to be issued so the Applicant submitted their Phase 1 FSP materials to the Township.
6. The Meadows Phase 1 FSP was approved by the Planning Commission on November 15, 2023, with the following conditions:
 - a) Provide a cost estimate of the requirement woodland mitigation to be paid into tree fund. Once a fund number is agreed upon with the Township, the applicant shall pay the amount to the Township. *(Funds have not yet been deposited. This will be done by the new developer following the sale of the project.)*
 - b) All future homebuilders will be required to submit floor plans and elevations for review and approval by the Planning Commission.
 - c) Address all items in the Township Engineer's November 9, 2023 review. *(Following the FSP approval in November 2023 the Applicant's engineer submitted their first set of Phase 1 Engineering Plans to OHM in late January 2024 and included a response letter to OHM's November 9, 2023 review letter indicating how these items had been addressed. This condition has been met.)*
7. The Applicant's engineer has submitted engineering plans to the WCRC for the improvements to Geddes Road for their private road connections. The plans for these improvements were approved by the WCRC on September 19, 2023.
8. The Applicant's engineer submitted a separate set of engineering plans to the WCRC for the Geddes Road/Prospect Road intersection improvements. The most recent communication from the WCRC received by OHM regarding these plans is an email dated October 16, 2023, that included seven comments to be addressed by the Applicant's engineer. Additional right-of-way is needed for these intersection improvements over a portion of a Township-owned parcel at the northwest corner of the intersection. OHM has reviewed the right-of-way documents provided by the Applicant's engineer and found them to have proper closure and match the exhibit drawings. A motion to grant this additional right-of-way will be presented to the Board of Trustees for their consideration at a future regular meeting of the Board.
9. The drafting of a Development Agreement for Phase 1 of The Meadows at Hawthorn Mill was started but the document has not been finalized. A Development Agreement will be presented to the Board of Trustees for approval prior to Phase 1 moving to the pre-construction phase of the development.



If you have any questions regarding our review, please feel free to contact me at (734) 466-4585, or Claire Martin at (734) 466-4592.

Sincerely,
OHM Advisors

Cresson Slotten, P.E.

Cc: Emily Dabish Yahkind, Township Supervisor (via email)
Angela Robinson, Township Clerk (via email)
Bill Balmes, Building Department (via email)
Ben Carlisle, CWA, Twp Planner (via email)
Diane Mulville-Friel, CWA (via email)
George Tsakoff, OHM Advisors (via email)
Claire Martin, OHM Advisors (via email)
File

SUPERIOR TOWNSHIP BUILDING DEPARTMENT
MONTH-END REPORT
January 2025

Category	Estimated Cost	Permit Fee	Number of Permits
Com/Multi-Family Renovations	<i>\$1,972,800.00</i>	<i>\$12,823.00</i>	<i>1</i>
Electrical	<i>\$0.00</i>	<i>\$8,470.00</i>	<i>31</i>
Mechanical	<i>\$0.00</i>	<i>\$6,975.00</i>	<i>41</i>
Plumbing	<i>\$0.00</i>	<i>\$6,495.00</i>	<i>27</i>
Res-Other Building	<i>\$52,528.00</i>	<i>\$395.00</i>	<i>3</i>
Res-Renovations	<i>\$45,000.00</i>	<i>\$292.00</i>	<i>1</i>
Totals	<i>\$2,070,328.00</i>	<i>\$35,450.00</i>	<i>104</i>

**SUPERIOR TOWNSHIP BUILDING DEPARTMENT
YEAR-TO-DATE REPORT**

January 2025 To Date

Category	Estimated Cost	Permit Fee	Number of Permits
Com/Multi-Family Renovations	<i>\$1,972,800.00</i>	<i>\$12,823.00</i>	<i>1</i>
Electrical	<i>\$0.00</i>	<i>\$8,470.00</i>	<i>31</i>
Mechanical	<i>\$0.00</i>	<i>\$6,975.00</i>	<i>41</i>
Plumbing	<i>\$0.00</i>	<i>\$6,495.00</i>	<i>27</i>
Res-Other Building	<i>\$52,528.00</i>	<i>\$395.00</i>	<i>3</i>
Res-Renovations	<i>\$45,000.00</i>	<i>\$292.00</i>	<i>1</i>
Totals	<i>\$2,070,328.00</i>	<i>\$35,450.00</i>	<i>104</i>

MEMO

TO: Superior Charter Township Board of Trustees

FROM: Diane Mulville-Friel, Planning & Zoning Administrator

RE: Planning & Zoning Department Report

DATE: February 18, 2025

PROSPECT POINTE WEST

Prospect Pointe West is a four-phase single-family residential development project, on an ~67 acre parcel of land zoned R-4 an Urban Residential District. The development is located on the southwest corner of Geddes Road and Prospect Road, west of Hunters Creek Drive in the northeast quarter of Section 33. The applicant is proposing to develop Prospect Pointe West as a 157-unit site condominium.

The four (4) phases consist of the following number of units:

- Phase 1 – 39 units
- Phase 2 – 45 units
- Phase 3 – 26 units
- Phase 4 – 47 units

The proposed lot dimensions are 66' x 130' with a minimum lot size of 8,580 sf. The homes will range in size from 2,000 to 3,200 sf with sales prices starting in the \$400,000s. The development has private roads with sidewalks on both sides and will be serviced by public sanitary sewer which will be designed as an extension of the existing Prospect Pointe development. Public water will also be extended from the existing subdivision. Each of the phase of the development is required to go through the Final Site Plan process.

The Final Site Plan for Prospect Pointe West Phase 1 (STPC #22-03) was approved by action of the Superior Township Planning Commission on April 26, 2023, and includes 39 single family lots. Building permits for individual homes are being issued and construction has commenced.

The Final Site Plan for Prospect Pointe West Phase 2 (STPC #24-01) was approved by action of the Superior Township Planning Commission on May 22, 2024, and includes 45 single family lots. The Development Agreement for Phase 2 has been recorded and a preconstruction meeting was held on September 10, 2024.

The Final Site Plan for Prospect Pointe West Phase 3 (STPC #25-01) was received by the Township in December 2024. Planning, Engineering, and Fire review memos were sent to the applicant on February 18, 2025. The applicant needs to satisfactorily address reviewer comments prior to being presented to the Planning Commission for consideration.

BROOKWOOD

Brookwood is a Master Planned Community on an ~84 acre parcel of land zoned Planned Community (PC) a Special District. The development is located on the east side of Leforge Road approximately 700 feet north of Clark Road in the southwest corner of Section 33. The applicant is proposing to develop Brookwood with 318 dwelling units divided into three (3) residential dwelling product types (i.e., stacked flats, duplex units, four-plex units, and attached townhomes).

The development is designed for renters and owners plus a section dedicated for people over 55 years of age. Stacked flats and duplexes are anticipated to rent from \$1.50 - \$2.50 per square foot. The townhomes will be for sale and priced per unit according to the market. The development will also include a clubhouse, amenity areas, paved parking areas, landscape improvement, and a continuous sidewalk network along private drives throughout the development and walking paths that connect amenities with various areas of the development. Existing public water and sanitary sewer mains will be extended to serve the development.

The Brookwood Superior Area Plan Amendment was approved at second reading by the Township Board on May 20, 2024.

The Brookwood Superior Preliminary Site Plan (STPC #23-05) was approved by action of the Superior Township Planning Commission on May 22, 2024, with the following conditions:

- 1) Address all items in the Township Engineers May 9, 2024, review.
- 2) Provide additional details on Natural Feature Plan including how the 25% slopes will be protected, and their integrity remain intact.
- 3) Provide a more detailed landscape plan that meets all landscape, screening, and woodland preservation requirements.
- 4) Provide lighting and photometric plan.
- 5) Provide a detailed narrative of the architectural concept for the site including materials details.

The applicant submitted a Final Site Plan (rev November 18, 2024). All review memos (Planning, Engineering, and Fire) were forwarded to the applicant on or before January 30, 2025. The applicant needs to satisfactorily address reviewer comments prior to being presented to the Planning Commission for consideration. The Brookwood team has not submitted revised plans to date. Engineering and Planning review comments were substantive and may require some time to address.

GARRETT'S SPACE

Garrett's Space is proposed to be a residential center where young adults suffering from depression and anxiety are treated. The facility will include both inpatient and daily services, with a non-medical and non-institutional focus. Garrett's Space is proposed on seven (7) parcels that will be combined into one lot totaling approximately 76.0 acres. The property has historically been used as a single-family residence with

an address of 3900 Dixboro Road and is in Section 7 of the Township. The site includes significant natural resources including woodlands, steep slopes, a creek, floodplain, and wetlands.

The applicant proposes the following improvements:

- 1) Convert the existing home on the site to administrative offices
- 2) Construct a 10,100 square foot building to house 15 to 20 residents
- 3) Construct a 2,100 square foot building for recreational and therapy activities
- 4) Construction of a parking lot
- 5) Landscaping improvements
- 6) Create walking paths and lookouts through the site's natural features.
- 7) Expanding the sites well and septic system
- 8) Construct two (2) stormwater detention ponds

The applicant proposes a phased development:

- Phase 1: Use of the existing house for administrative offices and day programming. This phase does not include any overnight guests.
- Phase 2: Construction of the residential structure and creativity studio with parking areas, and utility and landscaping improvements. This phase includes expanded day programming and overnight residents.
- Phase 3: Additional ancillary elements, including the barn for gardening and therapeutic animals, and outdoor recreation and gathering spaces, will be constructed as funding allows.

Previous Township approvals are as follows:

- Property was rezoned from A-2 to Planned Community (PC) Special District via an Area Plan petition approved by the Township Board on July 17, 2023.
- The applicant recorded a Zoning and Land Use Agreement dated October 16, 2023, that limits uses, the number of residents and the number of employees.
- A Preliminary Site Plan (STPC 23-03) was approved by the Planning Commission with conditions on January 24, 2024.
- A Final Site Plan (STPC 23-03) was approved by the Planning Commission on September 25, 2024, with the following conditions:
 - 1) Obtain all outside agency approvals permits outlined in Township Engineer's memo dated 9/19/24.
 - 2) Combine existing seven (7) parcels into one parcel prior to receiving certificate of occupancy.
 - 3) Record conservation protection prior to certificate of occupancy.
- A Development Agreement was approved by the Township Board on October 21, 2024.

To date, the applicant has completed Final Site Plan conditions #1 and #2 and is working on completing condition #3.

- 1) OHM's review of the Engineering Plans submittal (dated 12/20/24) is attached and they have no exceptions to the proposed development moving forward as shown on the plans as submitted.
- 2) The seven (7) parcels have been combined into one and a new parcel assigned (J -10-07-200-021). Furthermore, the Township Assessor has changed the zoning of this new parcel to PC.
- 3) The Township received a letter from the Washtenaw County Parks and Recreation Commission (WCPRC) dated January 6, 2025 (attached). The letter indicates that the Natural Area Technical Advisory Committee (NATAC) nominated the conservation area associated with Garrett's Space as a Tier One Priority. The letter notes, "The litigation regarding zoning will need to be settled prior to WCPARC accepting the conservation easement". In response of the "litigation regarding zoning" Garrett's Space and the Township are pursuing a Conservation Deed Restriction on 58 of the property's 77 acres to address the conservation protection requirements that are a condition of the final site plan approval. To clarify, the approved Development Agreement requires the conservation protection to be recorded prior to Certificate of Occupancy (CO) for the main residential structure to be newly constructed (Phase 2). A CO may be issued for the Phase 1 portion of the project if all building and fire codes and requirements are met for the change of use.

ZONING BOARD OF APPEALS

The following three (3) cases scheduled to be reviewed at a ZBA meeting on February 27, 2025:

- 1) **ZBA #24-02 - 5766 Geddes Road** - Continuance of an appeal the Township Zoning Administrator's decision to grant a certificate of zoning compliance for a building permit requested by Daniel Snyder for construction on 5766 Geddes Road.
- 2) **ZBA #24-03 - 7486 Plymouth-Ann Arbor Road** - Accessory Structure Variance from Section 3.101 (Dimensional Standards) to allow an attached accessory structure to be constructed in the front yard setback.
- 3) **ZBA #24-04 - 5766 Geddes Road** – Request ZBA interpretation of zoning ordinance text and appeal the Township Zoning Administrator's decision to deny a boundary adjustment request for 5766 Geddes Road.

The following application was received on March 12, 2025:

- 1) **ZBA #25-01 - 3420 Deward** - Variance from Section 3.101 (Dimensional Standards) to allow a proposed single family dwelling addition to encroach into the required 50 ft rear yard setback.

Per bylaws, the ZBA consists of seven (7) regular and two (2) alternates members appointed by the Township Board. One (1) of the members must be a member of the Township Planning Commission and

one member may be a member of the Township Board. The remaining members must reside in the unincorporated areas of the Township and represent the population distribution and various interests present. Current ZBA members include:

- Thomas Brennan, (Chair & PC Member)
- Rachel Smith
- Dana Greene (BOT)
- Guy Conti
- Meghan Winslow
- Jack Gilbreath

One (1) ZBA position remains vacant and the Township is accepting applications.

Historically, the Township has not had regular scheduled ZBA meetings and has been convening as needed. This is not efficient, and it is recommended that regular meeting be scheduled for the 2nd Wednesday of the month; if there are no agenda items, the meeting would be cancelled. The schedule will be voted on at the next ZBA meeting scheduled for February 27, 2025.

PLANNING COMMISSION

The next Planning Commission meeting is scheduled for February 26, 2025. Public Hearing agenda items to be reviewed at this meeting includes:

STPC #25-02 Conditional Use Permit/Preliminary Site Plan - DTE Electric to expand the existing Grenada Electric Substation

Final site plans submitted for Brookwood (STPC 23-05) and Prospect Pointe West Phase 3 (STPC 25-01) are the new petitions submitted for the Planning Commission to consider at a future meeting. It is anticipated that these items will be reviewed at the March or April Planning Commission meeting.

Besides these agenda items, the Zoning Ordinance Rewrite Steering Committee (appointed by the Township Board on October 21, 2024) will be convening. Three (3) Planning Commissioners (Jay Gardner, Thomas Brennan, and Nahid Sani-Yahyai) were identified to serve on this Steering Committee; to date, steering committee meetings have been held on December 18, 2024 and January 15, 2025.

Per bylaws, the Planning Commission shall consist of seven (7) members serving for three (3) year terms with eligibility for re-appointment. One member of the Township Board shall be appointed to the Planning Commission as an ex officio member and Township Board Representative, with full voting rights. The current Planning Commission is comprised of following members:

- Jay Gardner, Chair (Term expires 2/28/2026)
- Robert Steele, Vice Chair* (Term expires 2/28/2028)
- Thomas Brennan, Secretary (Term expires 2/28/2027)

- Patrick McGill (Term expires 2/28/2027)
- Brenda McKinney– Board Rep. (Term expires 11/7/2028)
- Nahid Sani-Yahyai (Term expires 2/28/2026)
- Curt Wolf (Term expires 1/01/2028)

*Robert Steel was reappointed on February 18, 2025.

OTHER BUSINESS/NEWS

- 1) Diane Muville-Friel of Carlisle Wortman Associates (CWA), continues to serve as the Township Planning and Zoning Administrator as approved by the Board of Trustees at their meeting on May 20, 2024. Over the last nine (9) months, she has reviewed approximately 193 Certificates of Zoning Compliance and responded to 270+ phone calls and email inquiries from the general public. She also manages and attends the ZBA and Planning Commission meetings and responds to Board of Trustee inquiries.

- 2) Carlisle Wortman Associates staff also serve in the role as the Township Planner and review and manage projects that are paid from escrows including applicant inquiries and project coordination.

Attach:

Garrett’s Space - OHM’s review of the Engineering Plans submittal (dated 12/20/24)

Garrett’s Space - Washtenaw County Parks and Recreation Commission (dated January 6, 2025)



February 13, 2025

Midwestern Consulting, LLC

3815 Plaza Drive
Ann Arbor, MI 48108

Attention: **Heath Hartt, PE**

Regarding: **Garrett's Space
Engineering Plan – Review No. 3
OHM Job No. 0140-23-1040**

Dear Mr. Hartt,

On behalf of Superior Township, we have reviewed the Engineering Plan submittal for the above referenced project, as submitted to the Township with a revision date of January 28, 2025. We have reviewed the submittal consistent with the requirements for engineering plans based on the Township Engineering Standards. Below is a summary of our review:

Engineering Plan Review

Based on our review of the most recent version of the plans noted above, we take no exception to the proposed development moving forward, as shown on the engineering plans. We request that prior to a pre-construction meeting, four (4) sets of printed sealed engineering plans, two (2) sets including full size sheets and the other two with 11" x 17" reduced size sheets, be submitted to the township engineer for use during construction. These plans should be noted to be "For Construction" and should be delivered to OHM Advisors, 355 South Zeeb Road, Suite A, Ann Arbor, MI 48103, attention: Chris Donajkowski.

A pdf of these "For Construction" plans should also be emailed to OHM.

Requirements Prior to Construction

A pre-construction meeting is to be held prior to the commencement of construction at the site. This meeting will be led by OHM Construction staff. In order to schedule this pre-construction meeting, the following items are required:

- a. Contractors' construction schedule for completion of the project.
- b. A copy of the following permits must be received by OHM Advisors:
 - a. Part 303 Wetlands Protection permit by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) (**Permit No. WRP043932V.1 has been received**)
 - b. A Soil Erosion and Sedimentation Control (SESC) permit issued by Washtenaw County Water Resources Commissioner's Office (WCWRC)
 - c. A right-of-way permit related to work in the Dixboro Road right-of-way issued by Washtenaw County Road Commission (WCRC)



- d. A Well Permit issued by the Washtenaw County Health Department (WCHD) Environmental Health Division (**Permit No. WELL2024-0074 has been received**)
- c. Payment of the initial Construction Inspection Escrow of \$27,500.00 as well as any remaining invoices for the engineering review stage must be received by Superior Township.
- d. Insurance Certificates and Endorsements from the Contractor should be provided in the types and limits of coverage as specified in the Township's standards (per attachments). The name of the project shall be on all Certificates and Endorsements for identification referencing. The Certificates shall have a thirty (30) day written cancellation notice instead of the typical "...will endeavor to provide a ten (10) day notice..." phrase. The additionally insured Endorsements for the Owner's and Contractor's Public Liability and Property Damage Insurance shall include Charter Township of Superior, the Township Board and individual members thereof, the Township Engineer (OHM Advisors) and members of their staff. The Insurance Certificates and Endorsements should be reviewed and accepted by the Township prior to construction.
- e. A copy of the recorded conservation agreement required by the Superior Township Planning Commission as a condition of the Final Site Plan approval, or a copy of deed restrictions placed on the property as an interim until the completion of conservation agreement (if approved by the Township) are to be received by the Township prior to scheduling the pre-construction meeting.

Bond Requirements

The Applicant is required to provide the following bonds for this project as identified in the development agreement and as follows:

- a. Financial assurance for the proposed site work are required prior to the pre-construction meeting. Based on the Engineer's Opinion of Probable Cost dated October 7, 2024, the required amount of this performance guarantee is \$570,295.50. The Applicant shall provide performance guarantees prior to the scheduling of the pre-construction meeting with the Township Treasurer's Office, in the form of cash, certified check, irrevocable letter of credit, or surety bond acceptable to the Township (whichever Applicant may elect), payable to the Charter Township of Superior.

Project Completion and As-Builts

The final acceptance of this project after construction is contingent upon Township acceptance, relevant agency approvals, receipt of record set plans, grading certifications during building construction, payment of any outstanding escrow fees, and final site approval by Township Consultants.

The standards for submitting digital as-built drawings will be provided to the Applicant at the pre-construction meeting. Digital as-builts in the form of flash drive or other acceptable electronic submittal, and (2) sets of black line drawings shall be submitted to our office following completion of site work, and prior to substantial completion of the project.



A pre-construction meeting can be scheduled for this project once all required fees, letters of credit, documents and permits have been issued.

Sincerely,
OHM Advisors

Cresson Slotten, PE
Senior Project Manager

cc: Emily Dabish Yahkind, Township Supervisor (via email)
Angela Robinson, Township Clerk (via email)
Bill Balmes, Building Department (via email)
Dan Kimball, Fire Marshal (via email)
Diane Mulville-Friel, CWA, Township Zoning Administrator (via email)
Ben Carlisle, CWA, Township Planner (via email)
George Tsakoff, OHM Advisors
Claire Martin, OHM Advisors
Chris Donajkowski, OHM Advisors
Candice Briere, Midwestern Consulting (via email)

file

P:\0126_0165\SITE_SuperiorTwp\2023\0140231040_Garrett's Space_1045 Engineering Review\Engineering Review 3\Garretts Space_Eng Rev 3_No Exceptions.docx



Washtenaw County Parks and Recreation Commission

Emily Dabish Yahkind, Supervisor
3040 North Prospect Road
Superior Township, MI 48198

January 6th, 2025

NOTICE OF ROUND 24 PRIORITIES FOR NATURAL AREA PRESERVATION PROGRAM

Dear Supervisor Yahkind,

We are writing to inform you of the active land preservation priorities adopted by Washtenaw County Parks and Recreation Commission's (WCPARC) Natural Area Preservation Program (NAPP) for Round 24 (year 2024), as two properties in Superior Township were included in Tier One and Tier Two priorities. Depending upon the landowner's preference, WCPARC may pursue purchase of a property to establish or expand a nature preserve, or purchase of a conservation or trail easement on the property. Alternatively, WCPARC may receive a donation for conservation, or financially participate in another local preservation program's efforts. The prioritized properties in Superior Township are highlighted in the attachments. As you will note, Garrett's Space is noted as a Tier 1 priority, which we understand is a contingency of the site development agreement. The litigation regarding zoning will need to be settled prior to WCPARC accepting the conservation easement.

NAPP was established in 2000 to protect natural areas in Washtenaw County. Landowners voluntarily nominate their land for protection to the program, and nominated properties are reviewed according to the property screening system developed by the Natural Area Technical Advisory (NATAC). During the 24th round of nominations, 26 properties were submitted for consideration across 10 townships. The attached recommendations were developed by NATAC and ALPAC at their October 2024 meetings and subsequently adopted by the Parks and Recreation Commission in November.

Please contact Allison Krueger, kruegera@washtenaw.org or Ginny Leikam, leikamg@washtenaw.org, with any questions you have regarding the priority list. Please also contact us if Superior Township is interested in supporting the acquisition by being a financial partner.

Sincerely,

A handwritten signature in black ink, appearing to read "Allison Krueger".

Allison Krueger
Stewardship Planner



Washtenaw County Parks and Recreation Commission

MEMORANDUM

To: Washtenaw County Parks and Recreation Commission
 From: Coy P. Vaughn, Director
 Date: November 12, 2024
 Re: Recommendation for Round 24 NATAC Priorities

At their October 2024 meeting, the Natural Area Technical Advisory Committee (NATAC) evaluated 26 nominations. Of the 26 nominations, 21 sites were visited by NATAC. All site visits resulted in completed field review worksheets. The remaining properties were adjacent to existing protected or nominated land. NATAC reviewed field worksheets, prioritization data, and property maps to determine the "highest priority" for protection for the nominations received in 2024.

Tier One Priority: Move forward with appraisals or negotiations.

Property Name	Acres	Township	Acquisition Type	Lead Org.
Zellner	14	Northfield	Fee Simple	WCPARC
Garretts Space	77	Superior	Conservation Easement	WCPARC
Brundson (portion)	57	Sharon	Fee Simple	WCPARC
Schuck	50	Northfield	Trail Easement	WCPARC
Barnett	.52	Northfield	Fee Simple	WCPARC
Roller Waters	133	Manchester & Bridgewater	Conservation Easement	Legacy Land Conservancy
Houle	41	Sharon	Conservation Easement	Legacy Land Con.
Schoen	20	Manchester	Conservation Easement	Legacy Land Con.
Dieterle*	85	Ann Arbor	Conservation Easement	Ann Arbor Township
R & R Farms*	44	Ann Arbor	Conservation Easement	Ann Arbor Township
Bennett	76	Dexter	Conservation Easement	Dexter Township
Esch*	93	Dexter	Conservation Easement	Dexter Township
Schwarck	80	Webster	Conservation Easement	Webster Township

* Property is also a priority for ALPAC. Funds will be split between 2 budgets.

Tier Two Priority: More information is needed before moving forward.

Property Name	Acres	Township	Acquisition Type	Lead Org.
Anchor Reality/RPY46 -	48	Ypsilanti	Fee Simple	WCPARC
Emmett*	29	Superior	Fee Simple	WCPARC
Hoff Sisung	78	Manchester	Conservation Easement	WCPARC
Dimo	43	Dexter	Conservation Easement	Dexter Township
Clark	30	Dexter	Conservation Easement	Dexter Township
Pheasant Hollow	112	Northfield	Conservation Easement	Greenbelt

Nonnenmacher	92	Webster & Northfield	Conservation Easement	Greenbelt
Berquist**	55	Webster	Conservation Easement	Webster Township

** NATAC prioritization is contingent limiting any development on this property.

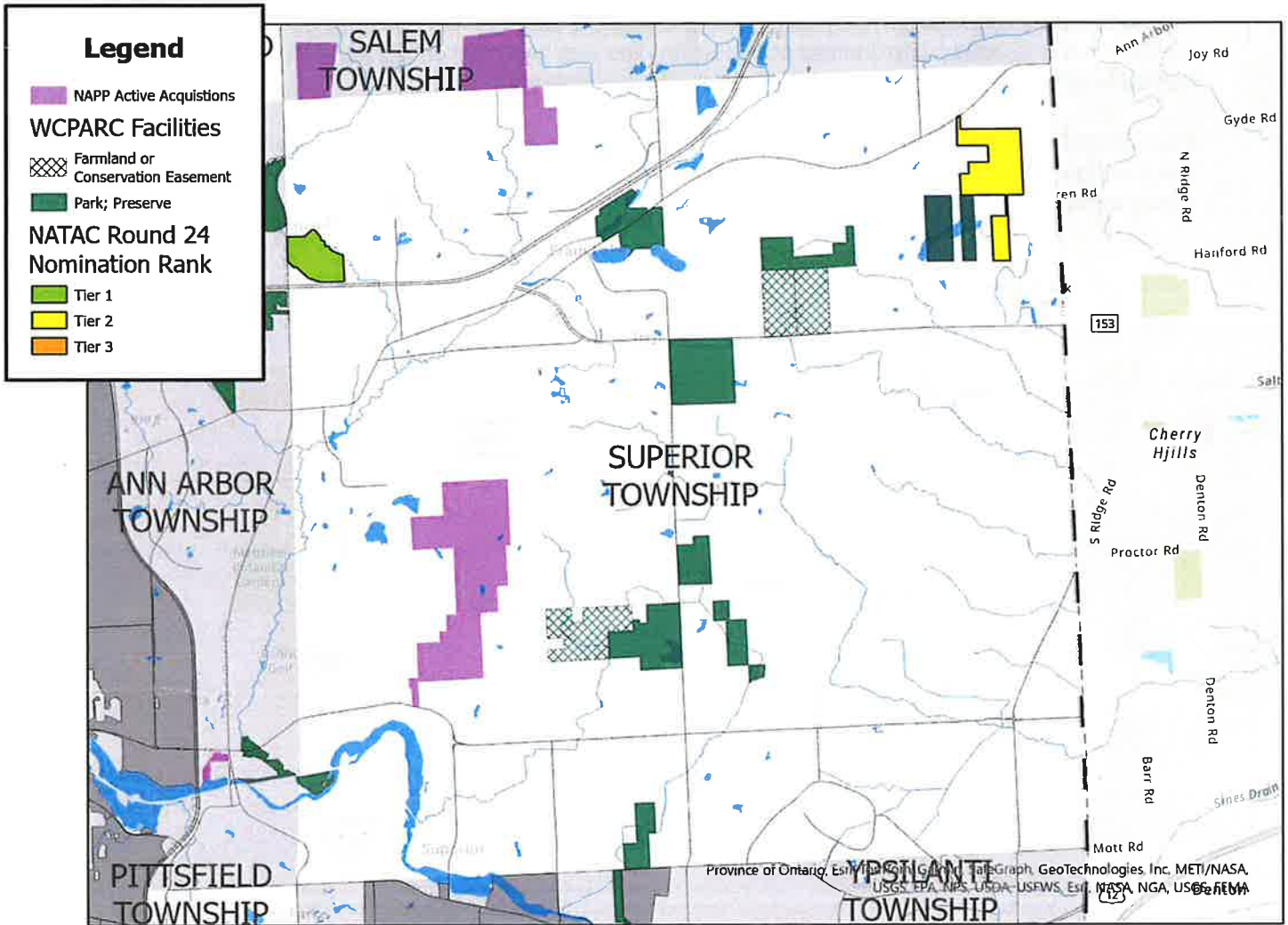
Tier Three: Recommend to not move forward/do not participate in project.

Property Name	Acres	Township	Acquisition Type	Lead Org.
Nester	3	Dexter	Conservation Easement	Dexter Township
Dettore	40	Dexter	Conservation Easement	Dexter Township
Mertz	71	Dexter	Conservation Easement	Dexter Township

The Natural Area Technical Advisory Committee presents the above recommendation for your consideration. The Committee is available to address any questions you may have concerning the recommendation and members can be available to attend a future Commission meeting.

Recommendation: Based on staff and NATAC's review and site visits of Round 24 nominations, I recommend that the Washtenaw County Parks and Recommendation Commission adopt the priorities as outlined in the memo above.

NATAC ROUND 24 TIER RANKING TOWNSHIP MAPS SUPERIOR TOWNSHIP



**SUPERIOR CHARTER TOWNSHIP
PLANNING COMMISSION
SUPERIOR TOWNSHIP HALL
3040 N. PROSPECT, YPSILANTI, MI 48198**

**WEDNESDAY, FEBRUARY 26, 2025
7:00 p.m.**

STPC#25-02

The Superior Township Planning Commission will hold a public hearing on **Wednesday, February 26, 2025, at 7:00 p.m.** at the Superior Township Hall, 3040 N. Prospect., Ypsilanti, MI 48198, on an application from DTE Electric Company for a Conditional Use Permit to expand the existing Grenada Substation.

The property is located on the east side of N. Dixboro Road, south of Plymouth Road (J - 10-18-261-012) and is zoned R-4 (Single-Family Residential).

A complete copy of the petition is available for inspection or copying at the Township Hall 9:00 a.m. – 4:00 p.m. weekdays. Persons wishing to express their views may do so in person at the public hearing, or in writing addressed to the Zoning Board of Appeals at the above address. Superior Township will provide necessary reasonable auxiliary aids and services to individuals with disabilities upon four (4) business days notice to the Township. Individuals requiring auxiliary aids or services should contact Superior Charter Township by writing the Township Clerk.

Diane Mulville-Friel
3040 N. Prospect
Ypsilanti, MI 48198
734-482-6099





CONDITIONAL USE PERMIT APPLICATION

(This application must be typewritten or printed. ALL questions must be answered.)

Request is hereby made for permission to obtain a conditional use permit for the property described below, for the following use: DTE Electric Substation

Applicant Name DTE Electric Company (John Erb, DTE Real Estate - Terry Spryszak, DTE Corp Permits)

Applicant Address 1 Energy Plaza - WCB, RM 1135, Detroit, MI 48226

Telephone 313-971-4536 Fax _____ Email DTEPermits@dteenergy.com

Is the property owned by the applicant? YES NO

If "NO", what is the applicant's interest in the property? _____

Name, address and telephone number of owner(s): DTE Electric Company

1 Energy Plaza, Detroit, MI 48226 313-971-4536

DESCRIPTION OF THE PREMISES:

1. Location of property 3270 N. Dixboro Rd., Ann Arbor, MI 48105
2. Zoning classification of property R-4
3. Adjoining land uses & zoning classifications R1 to the south (residential properties).
PSP to the east (Huron Valley Tennis Club). R4 and VC to the north (residential properties).
4. Tax code number J-10-18-261-012
5. Size of property or lot 3.76 Acres
6. Size of proposed building or addition (if any) NA
7. Use of existing building (if any) and property NA

If a new building is proposed, has the Building Inspection department examined the plans for the proposed building? YES NO

Has the department refused a permit? YES NO

8. Has there been any previous land use application involving this property?

YES NO If YES, state date of filing, character of appeal and disposition of same:

DTE built and has operated the Grenada Substation on this property since the 1990's, but no zoning use records exist.

The following items are attached as part of the Conditional Use Permit Application:

- 1. A scaled and accurate survey drawing, correlated with the legal description and showing all existing buildings, drives and other improvements.

CHECK IF ATTACHED

- 2. A letter of authority, or power of attorney, in case the appeal is made by a person other than the actual owner of the property.

CHECK IF ATTACHED

- 3. Complete legal description of the premises (as stated on your deed or tax bills available in the Treasurer's Office).

CHECK IF ATTACHED

- 4. A detailed description of the proposed use.

CHECK IF ATTACHED

- 5. A site plan, either a.or b.

- a. A site plan, meeting all the requirements of a preliminary site plan as set forth in Article 10 of the Superior Charter Township Ordinance.

CHECK IF ATTACHED

OR

- b. A site plan, meeting all the requirements of a minor site plan as set forth in Article 10 of the Superior Charter Township Zoning Ordinance.

CHECK IF ATTACHED

- 6. A signed copy of the *Applicant's Acknowledgment*. (See attachment)

CHECK IF ATTACHED

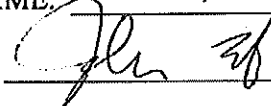
NOTICE TO APPLICANT: You are hereby advised to refer to the Superior Charter Township Zoning Ordinance for a description of your property's zoning classification, as well as Article 11 (Conditional Uses) and Article 10 (Site Plan Review); and any other sections of the Zoning Ordinance which may be applicable.

APPLICANT AFFIDAVIT


The applicant(s) represents that he/she/they are the owner(s) of the subject property or are acting on behalf of the above listed owner.

I hereby depose and certify that all information contained in this application, all accompanying plans and all attachments are complete and accurate to the best of my knowledge.

APPLICANT'S PRINTED NAME: John Erb, Manager DTE Real Estate

APPLICANT'S SIGNATURE  DATE 12/17/2021


PROPERTY OWNER'S PRINTED NAME John Erb, Manager DTE Real Estate

PROPERTY OWNER'S SIGNATURE  12/17/2021

To be filled in by Township Clerk (or designated Township Officer/Personnel)

I hereby state that this petition was properly received and filed on 1/6/25 (date)

Signature of Clerk (or designee)


DIANE MULVILLE-FRIEL

Fee paid \$500.00 + \$2,500 ESCROW



DTE Energy

PROJECT DESCRIPTION

THIS PROJECT IS TO CONSTRUCT AN ELECTRICAL SUBSTATION WHICH WILL IMPROVE POWER RELIABILITY IN THE SURROUNDING AREAS. WORK INCLUDES OVERHEAD SUPPORT STRUCTURES, LIGHTNING MASTS, TRANSFORMERS, CIRCUIT BREAKERS, POWER DISTRIBUTION CONTROL EQUIPMENT, ITC CONTROL HOUSE, ACCESS DRIVES WITH SECURITY FENCE AND LIGHTING.

GRENADA SUBSTATION IS AN UN-OCCUPIED ELECTRIC SWITCHING/DISTRIBUTION SUBSTATION. AFTER CONSTRUCTION IS COMPLETE, AN OPERATOR WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH TO PERFORM ROUTINE MAINTENANCE AND DATA COLLECTION.

LEGAL DESCRIPTION

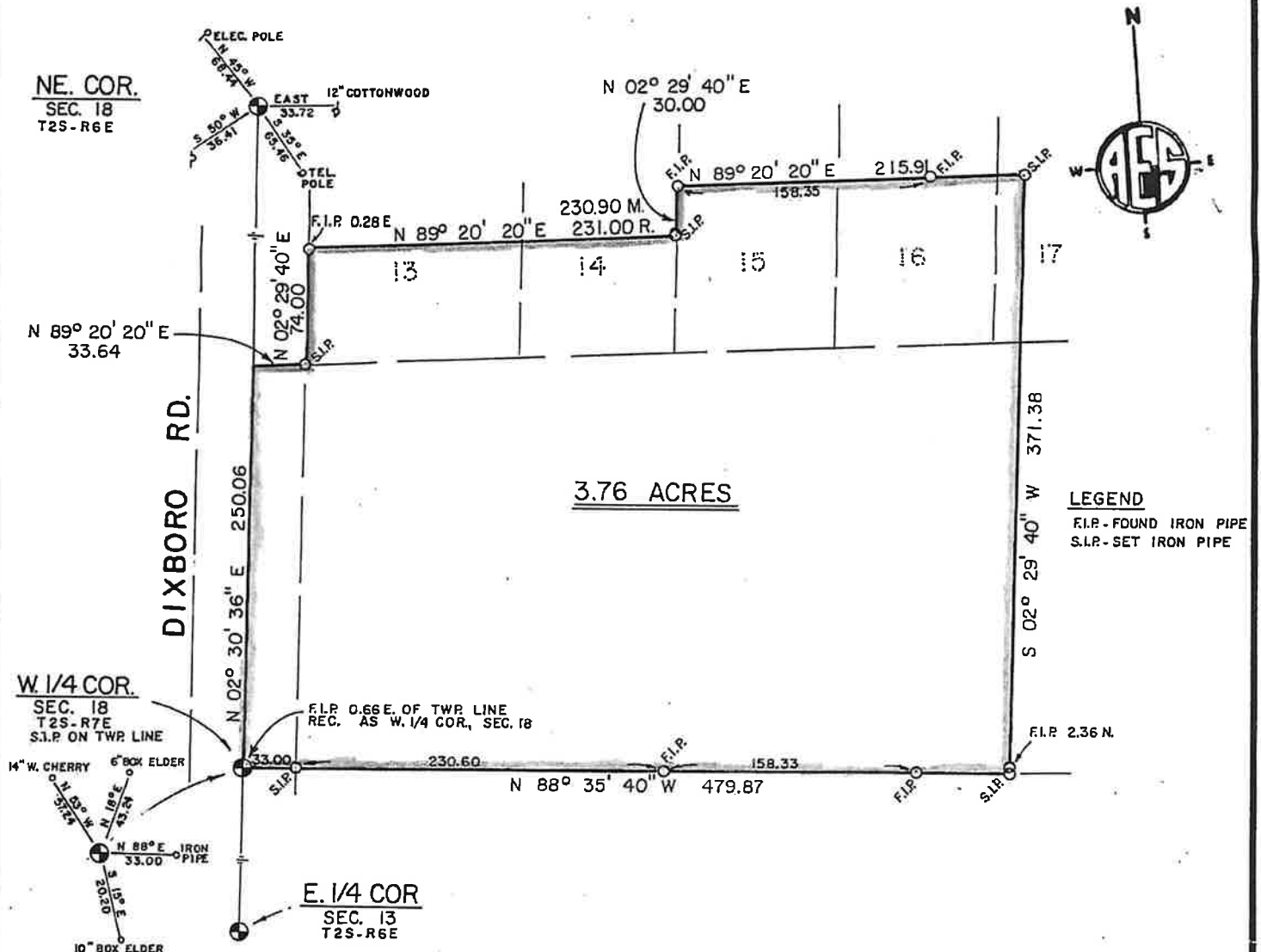
ALL THE PART OF SECTION 18, TOWN 2 SOUTH, RANGE 7 EAST, SUPERIOR TOWNSHIP, WASHTENAW COUNTY, MICHIGAN, DESCRIBED AS BEGINNING AT THE WEST 1/4 CORNER OF SECTION 18, AFORESAID; THENCE NORTH $02^{\circ}30'36''$ EAST, 250.06 FEET ALONG THE WEST LINE OF SAID SECTION 18, (BEING COMMON TO THE EAST LINE OF SECTION 13, TOWN 2 SOUTH, RANGE 6 EAST); THENCE NORTH $89^{\circ}20'20''$ EAST, 33.64 FEET TO THE SOUTHWEST CORNER OF LOT 13 ON THE PLAT OF THE VILLAGE OF DIXBORO, AS RECORDED IN LIBER A ON PAGE 272, WASHTENAW COUNTY RECORDS; THENCE NORTH $02^{\circ}29'40''$ EAST, 74.00 FEET ALONG THE WEST LINE OF SAID LOT 134; THENCE NORTH $89^{\circ}20'20''$ EAST, 230.90 FEET (ALSO RECORDED AS 231.00 FEET); THENCE NORTH $02^{\circ}29'40''$ EAST, 30.00 FEET ALONG THE LINE COMMON TO LOTS 14 AND 15 ON SAID PLAT OF THE VILLAGE OF DIXBORO; THENCE NORTH $89^{\circ}20'20''$ EAST, 215.91 FEET; THENCE SOUTH $02^{\circ}29'40''$ WEST, 371.38 FEET; THENCE NORTH $88^{\circ}35'40''$ WEST, ALONG THE SOUTH LINE OF THREE PARCELS OF LAND AS MONUMENTED AND DESCRIBES IN WARRANTY DEEDS RECORDED IN LIBER 1528, PAGE 598, LIBER 1535, PAGE 253, AND LIBER 1674, PAGE 890, WASHTENAW COUNTY RECORDS TO THE POINT OF BEGINNING, BEING PART OF LOTS 13, 14, 15, 16, AND 17 ON THE SAID PLAT OF THE VILLAGE OF DIXBORO. RESERVING AN EASEMENT FOR THE INSTALLATION AND MAINTENANCE OF UTILITY LINES AND EQUIPMENT OF THE SOUTHERLY 20 FEET OF THE SUBJECT PROPERTY FOR THE BENEFIT OF THE PROPERTY LYING ADJACENT AND TO THE EAST OF THE ABOVE DESCRIBED PROPERTY.

CERTIFICATE OF SURVEY

Description
Superior Township, Washtenaw County, Michigan

All that part of Section 18, Town 2 South, Range 7 East, described as beginning at the West 1/4 corner of Section 18, aforesaid; thence N 02° 30' 36" E 250.06 feet along the west line of said Section 18, (being common to the east line of Section 13, Town 2 South, Range 6 East); thence N 89° 20' 20" E 33.64 feet to the Southwest corner of Lot 13 on the Plat of the Village of Dixboro as recorded in Liber A on Page 272, Washtenaw County Records; thence N 02° 29' 40" E 74.00 feet along the west line of said Lot 13; thence N 89° 20' 20" E 230.90 feet (also recorded as 231.00 feet); thence N 02° 29' 40" E 30.00 feet along the line common to Lots 14 and 15 on said Plat of the Village of Dixboro; thence N 89° 20' 20" E 215.91 feet; thence S 02° 29' 40" W 371.38 feet; thence N 88° 35' 40" W 479.87 feet along the south line of three parcels of land as monumented and described in Warranty Deeds recorded in Liber 1528 on Page 598 and in Liber 1535 on Page 253 and in Liber 1674 on Page 890, Washtenaw County Records to the point of beginning, being part of Lots 13, 14, 15, 16 and 17 on the said plat of the Village of Dixboro. Containing 3.76 acres.

Subject to highway easements and other easements and restrictions of record, if any.




BASED ON MY KNOWLEDGE, INFORMATION AND BELIEF, I CERTIFY THAT AS RESULT OF A SURVEY MADE ON THE GROUND TO THE NORMAL STANDARD OF CARE OF PROFESSIONAL (LAND) SURVEYORS IN THE STATE OF MICHIGAN, THAT THE MAP DELINEATED HEREON CORRECTLY REPRESENTS SUCH SURVEY AND THAT THE RATIO OF CLOSURE OF THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1: 5000 AND THAT ALL APPLICABLE REQUIREMENTS OF P.A. 132 OF 1970 HAVE BEEN COMPLIED WITH.

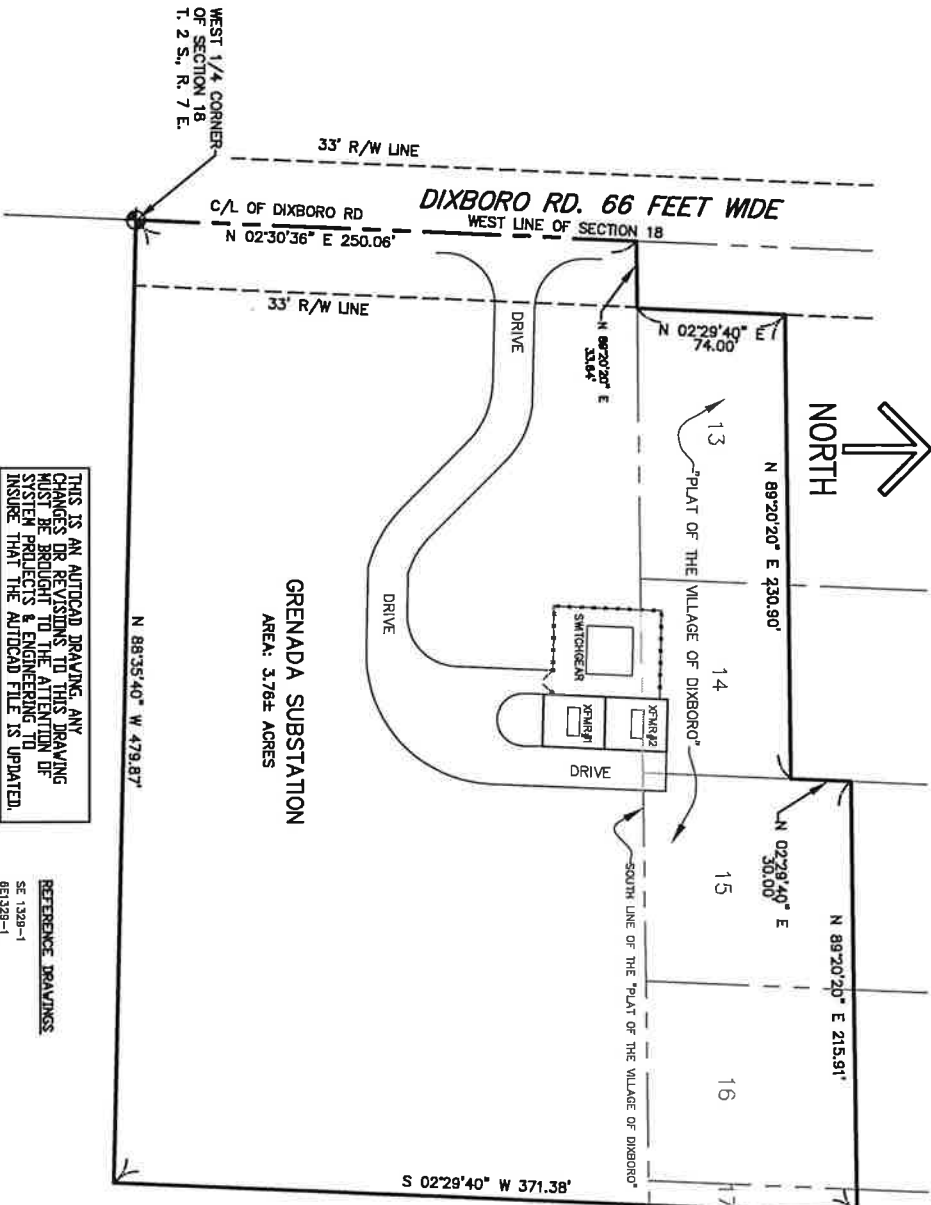
SURVEYOR: Glenn E. Richard RLS NO. 13040 DATE August 24, 1989

JOB NO. 8908234

LOCATION
PART OF SECTION 18
SUPERIOR TOWNSHIP,
WASHTENAW COUNTY, MICHIGAN

GRENADA SUBSTATION

Detroit Edison		OPERATIONS RESOURCES	
SCALE 1 Inch = 100 feet 	DRAWN BY S. Cappelletty	DATE OF SURVEY 8-21-89	SURVEY ENGINEER <i>A. Valva</i>
			DRAWING NO. SE 1329-1



THIS IS AN AUTOCAD DRAWING. ANY CHANGES OR REVISIONS TO THIS DRAWING MUST BE BROUGHT TO THE ATTENTION OF SYSTEM PROJECTS & ENGINEERING TO INSURE THAT THE AUTOCAD FILE IS UPDATED.

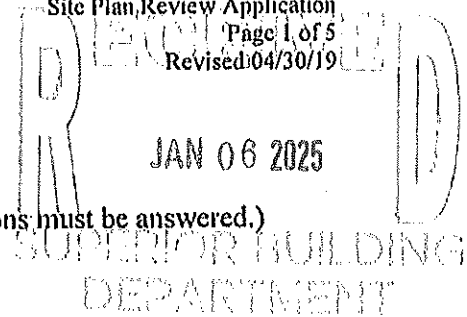
REFERENCE DRAWINGS
 SE 1328-1
 6E1329-1
 6A 1329-1

3270 DIXBORO RD. SUPERIOR TWP., WASHTEENAW CO., MICHIGAN

GRENADA SUBSTATION
 AREA: 3.78± ACRES

BY	DATE	APPL.	NAME	DATE	CITY	COUNTY	DESCRIPTION	SCALE	SYSTEM PROJECTS & ENGINEERING
C			G.E. RICHARD	8-21-89	SUPERIOR TWP.	WASHTEENAW	PART OF LOTS 13-17 OF "PLAT OF THE VILLAGE OF DIXBORO" (L.A.P. 272) & PART OF NW 1/4 OF SEC. 18 T. 2 S., R. 7 E. SUPERIOR TOWNSHIP, WASHTEENAW COUNTY, MICHIGAN	1"=60'	GRENADA SUBSTATION THE DETROIT EDISON COMPANY
B			BRAWN BY S. WLAZLIK	7-16-03				3MS 1329	
A			CHKD. BY						

REVISIONS	DATE	APPL.	BY



SITE PLAN REVIEW APPLICATION

(This application must be typewritten or printed. All questions must be answered.)

APPLICANT NAME DTE Electric Company

NAME OF PROPOSED DEVELOPMENT DTE Grenada Substation

- APPLYING FOR
- PRELIMINARY SITE PLAN
 - FINAL SITE PLAN
 - COMBINED PRELIMINARY AND FINAL SITE PLAN
(Combination is at discretion of Planning Commission)
 - MINOR SITE PLAN
 - MAJOR/MINOR CHANGE DETERMINATION
 - ADMINISTRATIVE REVIEW

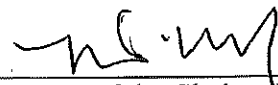
WILL PROJECT BE PHASED? YES NO

IF PROJECT IS PHASED COMPLETE THE FOLLOWING:

- Total number of phases _____
- Phase number of current application _____
- Name and date of preliminary site plan approval _____

- _____
- Date of Previous Phase Approvals:
- | | | | |
|---------|-------|------|-------|
| Phase # | _____ | Date | _____ |
| Phase # | _____ | Date | _____ |
| Phase # | _____ | Date | _____ |
| Phase # | _____ | Date | _____ |

SEEKING ADDITIONAL APPROVAL FOR A CONDITIONAL USE YES NO

 DIANE MULVILLE-FRIEL
Signature of the Clerk or Designee

1/6/2025
Date of Receipt of Application

\$900 APPLICATION + \$5,000 ESCROW
Amount of Fee

GENERAL INFORMATION

- Name of Proposed Development DTE Grenada Substation
- Address of Property 3270 N Dixboro Road, Ann Arbor, MI 48105
- Current Zoning District Classification of Property R4

Is the zoning classification a Special District as defined by Article 7 ? YES NO

- Has this property been the subject of a rezoning request, Zoning Board of Appeals petition or other Township action with the past five (5) years? YES NO

Please explain _____

- Tax ID Number(s) of property J-10-18-261-012

- Site Location - Property is located on (circle one) N S(E)W side of N. Dixboro Road between Plymouth/Ann Arbor Road and Ravine Ct Roads.

- Legal Description of Property (please attach a separate sheet)
Where a metes and bounds description is used, lot line angles or bearings shall be indicated on the plan. Lot line dimensions and angles or bearings shall be based upon a boundary survey prepared by a registered surveyor and shall correlate with the legal description.

Site Area (Acreage) and Dimensions

- Are there any existing structures on the property? YES NO
Please explain: The property has been utilized as a DTE Electric Substation since the 1990's. There property contains High Voltage electric transformers and control equipment. There are no occupiable building structures on the property.

PROPOSED LAND USE

- Residential Office Commercial Other

If other, please specify _____

- Number of units NA
- Total floor area of each unit NA
- Give a complete description of the proposed development.
DTE will expand the current substation and will replace and upgrade the transformers
and control equipment. New landscaping and fencing will also be installed.

ESTIMATED COSTS

- Buildings and other structures \$7,000,000.00
- Site improvements \$4,000,000.00
- Landscaping \$200,000.00
- Total \$11,200,000.00

ESTIMATED DATES OF CONSTRUCTION

- Initial construction 4/1/2025
- Project completion 9/30/26
- Initial construction of phases (IF APPLICABLE) _____
- Completion of subsequent phases. (IF APPLICABLE) _____
- Estimated date of first occupancy NA

IDENTIFY EACH DRAWING SUBMITTED BY NAME OF PLAN OR DRAWING, DATE AND DRAWING NUMBER (ATTACH ADDITIONAL SHEET IF NECESSARY)

- 5A1329-1 Site Plan 5A1329 - 2 Landscape Plan
- 5A1329-3 Masonry Transformer Enclosure Plan 5A1329-4 Existing Conditions Plan

APPLICANT INFORMATION

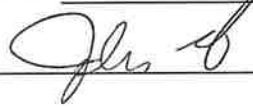
- APPLICANTS NAME John Erb, DTE Real Estate (Terry Spryszak, DTE Permits)
Company DTE Electric Company
Address 1 Energy Plaza, WCB Rm 1135, Detroit, MI 48226
Telephone Number 313-971-4536 Email DTEPermits@dteenergy.com
- PROPERTY OWNER'S NAME John Erb, DTE Real Estate
Company DTE Energy
Address 1 Energy Plaza, WCB Rm 1935, Detroit, MI 48226
Telephone Number 313-235-8321 Email john.erb@dteenergy.com
- DEVELOPER'S NAME DTE Electric Company
Company DTE Energy
Address 1 Energy Plaza, Detroit, MI 48226
Telephone Number 313-971-4536 Email terrance.spryszak@dteenergy.com
- ENGINEER'S NAME Erick Myrick
Company DTE Energy
Address 1 Energy Plaza, Detroit, MI 48226
Telephone Number 313-235-6728 Email eric.myrick@dteenergy.com
- ARCHITECT/PLANNER'S NAME Greg Eskola (Black & Veatch)
Company Black & Veatch
Address 3550 Green Ct, Ann Arbor, MI 48150
Telephone Number 734-622-8529 Email EskolaGJ@bv.com

The applicant indicated on page 4 must sign this application. All correspondence regarding the application and plan will be directed to the applicant. If the applicant is not the property owner, the owner's signed consent must also be provided with this application.

APPLICANT'S DEPOSITION

I hereby depose and certify that all information contained in this application, all accompanying plans and all attachments are complete and accurate to the best of my knowledge.

APPLICANT'S PRINTED NAME: John Erb

APPLICANT'S SIGNATURE  DATE 12/17/2024

PROPERTY OWNER'S PRINTED NAME John Erb

PROPERTY OWNER'S SIGNATURE  DATE 12/17/2024

DTE GRENADA SUBSTATION SIT PLAN REVIEW APPLICATION

SUBMITTED DRAWING IDENTIFICATION CONTINUED

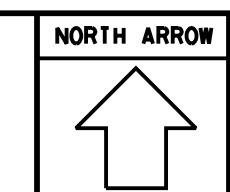
5A1329-5	SITE PREPERATIONAND DEMOLITION PLAN
5A1329-6	FENCE AN SERVICE DRIVE PLAN
5A1329-7	SITE DETAILS
5A1329-8	SOIL EROSION AND SEDIMENTATION CONTROL PLAN
5A1329-9	SOIL EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS
5A1329-10	SUBSTATION ELEVATION SECTION VIEWS
5A1329-11	RESTROOM LAYOUT AND ELEVATIONS
5A1329-12	RESTROOM SEPTIC DESIGN
5M1329-1	STORMWATER MANAGEMENT PLAN
5M1329-2	STORMWATER DETAILS (1 OF 4)
5M1329-3	STORMWATER DETAILS (2 OF 4)
5M1329-4	STORMWATER DETAILS (3 OF 4)
5M1328-5	STORMWATER DETAILS (4 OF 4)

SITE INFORMATION:
 EXISTING AND PROPOSED LAND USE:
 GREENFIELD LOT, NEW ELECTRICAL SUBSTATION
 (120-40kV)
 EXISTING AND PROPOSED ZONING CLASSIFICATION:
 R4 (SINGLE-FAMILY RESIDENTIAL)

**PROPERTY OWNER/
 APPLICANT/DEVELOPER:**
 DTE ENERGY - DTE ELECTRIC CO.
 ONE ENERGY PLAZA
 DETROIT, MI 48226-1279
 (313)235-0177
ENGINEER:
 BLACK & VEATCH LTD. OF MICHIGAN
 3550 GREEN COURT
 ANN ARBOR, MICHIGAN 48105
 (734) 665-1000 FAX (734) 622-8816
ADDRESS:
 3270 N. DIXBORO RD.
 ANN ARBOR, MI 48105

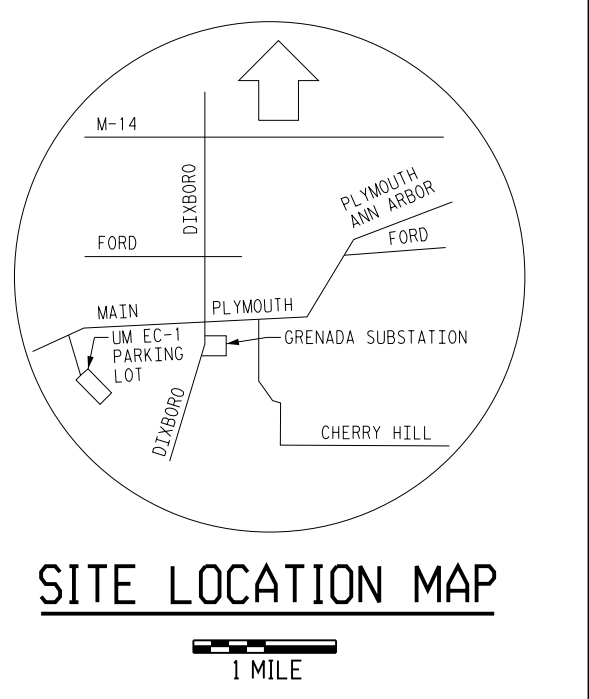
WETLAND NOTE:
 NO REGULATED OR UNREGULATED WETLANDS
 PRESENT WITHIN THE SUBJECT PARCEL BOUNDARY.
UTILITY WARNING:
 UNDERGROUND UTILITY LOCATIONS, AS SHOWN ON THE
 PLAN, WERE OBTAINED FROM TOPOGRAPHIC SURVEY
 DRAWING NUMBER SSE 1502-001 DATED 5/19/2022. THE
 ACCURACY AND COMPLETENESS OF THE UTILITY
 INFORMATION CAN NOT BE GUARANTEED.
 A MINIMUM OF 3 WORKING DAYS PRIOR TO BEGINNING
 CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY 'MISS DIG'
 AND HAVE ALL UNDERGROUND UTILITIES STAKED BEFORE
 ANY WORK MAY BEGIN.

FLOODPLAIN NOTE:
 SITE IS WITHIN ZONE 'X' AREA DETERMINED TO BE OUTSIDE OF THE
 0.2% ANNUAL CHANCE FLOODPLAIN, PER FLOOD INSURANCE RATE MAP
 NUMBER 26161C0266E, DATED APRIL 3, 2012.

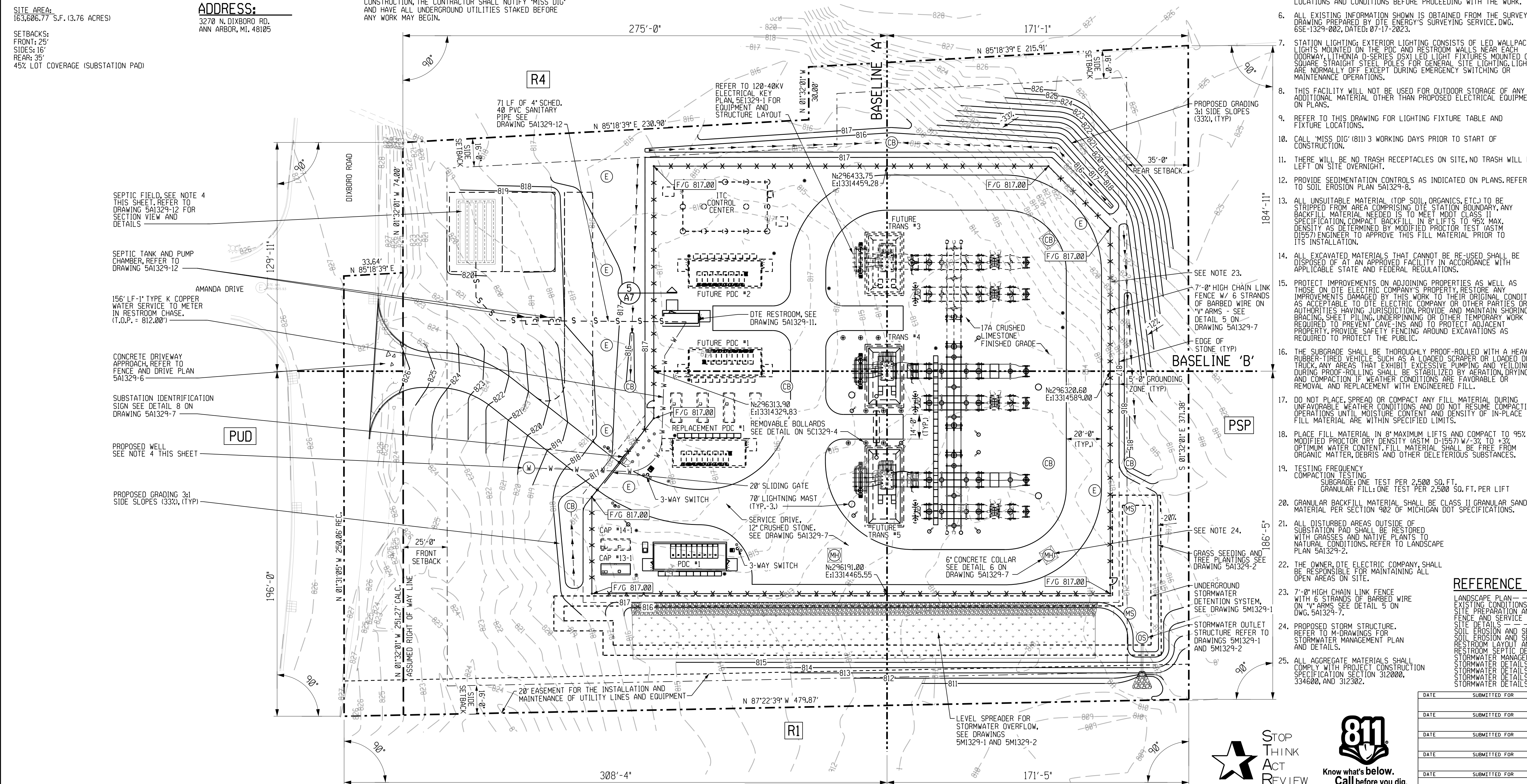


FIXTURE	QTY	LABEL	DESCRIPTION
☐	XX	ALA	LITHONIA DSX1 LED P2 40K TFM MVOLT SPA PIR HS BS EGS
☐	XX	ALB	LITHONIA DSX1 LED P3 40K T5W MVOLT SPA PIR HS BS
☐	XX	GMA	LITHONIA WSR LED P1 SR2 40K 120V PE PIR VG

- GENERAL NOTES:**
- SEE 5A1329-4 FOR PARCEL DESCRIPTION.
 - REFER TO DRAWING 5A1329-2 FOR LANDSCAPING AND RESTORATION.
 - REFER TO DRAWING 5A1329-11 FOR RESTROOM LAYOUT AND ELEVATIONS.
 - THE CONTRACTOR SHALL INCLUDE ALL WORK REQUIRED TO SECURE PERMITS FROM THE WASHTENAW COUNTY HEALTH DEPARTMENT TO INSTALL APPROVED SYSTEMS. REFER TO GRENADA SUBSTATION RESTROOM CONSTRUCTION PLANS FOR WELL AND SEPTIC DESIGN.
 - FIELD TO VERIFY CONDITIONS THAT AFFECT THE WORK. INFORM THE ARCHITECTS/ENGINEERS OF ANY DISCREPANCIES IN DIMENSIONS, SIZE, LOCATIONS AND CONDITIONS BEFORE PROCEEDING WITH THE WORK.
 - ALL EXISTING INFORMATION SHOWN IS OBTAINED FROM THE SURVEY DRAWING PREPARED BY DTE ENERGY'S SURVEYING SERVICE, DWG. 65E-1329-002, DATED: 07-17-2023.
 - STATION LIGHTING: EXTERIOR LIGHTING CONSISTS OF LED WALLPACK LIGHTS MOUNTED ON THE PDC AND RESTROOM WALLS NEAR EACH DOORWAY. LITHONIA D-SERIES DSX1 LED LIGHT FIXTURES MOUNTED ON SQUARE STRAIGHT STEEL POLES FOR GENERAL SITE LIGHTING. LIGHTS ARE NORMALLY OFF EXCEPT DURING EMERGENCY SWITCHING OR MAINTENANCE OPERATIONS.
 - THIS FACILITY WILL NOT BE USED FOR OUTDOOR STORAGE OF ANY ADDITIONAL MATERIAL OTHER THAN PROPOSED ELECTRICAL EQUIPMENT ON PLANS.
 - REFER TO THIS DRAWING FOR LIGHTING FIXTURE TABLE AND FIXTURE LOCATIONS.
 - CALL 'MISS DIG' (811) 3 WORKING DAYS PRIOR TO START OF CONSTRUCTION.
 - THERE WILL BE NO TRASH RECEPTACLES ON SITE, NO TRASH WILL BE LEFT ON SITE OVERNIGHT.
 - PROVIDE SEDIMENTATION CONTROLS AS INDICATED ON PLANS. REFER TO SOIL EROSION PLAN 5A1329-8.
 - ALL UNSUITABLE MATERIAL (TOP SOIL, ORGANICS, ETC.) TO BE STRIPPED FROM AREA COMPRISING DTE STATION BOUNDARY, ANY BACKFILL MATERIAL NEEDED TO MEET MOISTURE AND DENSITY SPECIFICATION. COMPACT BACKFILL IN 8" LIFTS TO 95% MAX. DENSITY AS DETERMINED BY MODIFIED PROCTOR TEST (ASTM D1557) ENGINEER TO APPROVE THIS FILL MATERIAL PRIOR TO ITS INSTALLATION.
 - ALL EXCAVATED MATERIALS THAT CANNOT BE RE-USED SHALL BE DISPOSED OF AT AN APPROVED FACILITY IN ACCORDANCE WITH APPLICABLE STATE AND FEDERAL REGULATIONS.
 - PROTECT IMPROVEMENTS ON ADJOINING PROPERTIES AS WELL AS THOSE ON DTE ELECTRIC COMPANY'S PROPERTY. RESTORE ANY IMPROVEMENTS ON THEIR PROPERTY TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO DTE ELECTRIC COMPANY OR OTHER PARTIES OR AUTHORITIES HAVING JURISDICTION. PROVIDE AND MAINTAIN SHORING, BRACING, SHEET PILING, UNDERPINNING OR OTHER TEMPORARY WORK AS REQUIRED TO PREVENT CAVES-INS AND TO PROTECT ADJACENT PROPERTY. PROVIDE SAFETY FENCING AROUND EXCAVATIONS AS REQUIRED TO PROTECT THE PUBLIC.
 - THE SUBGRADE SHALL BE THOROUGHLY PROOF-ROLLED WITH A HEAVY RUBBER-TIRED VEHICLE SUCH AS A LOADED SCRAPER OR LOADED DUMP TRUCK. ANY AREAS THAT EXHIBIT EXCESSIVE PUMPING AND YIELDING DURING PROOF-ROLLING SHALL BE STABILIZED BY AERATION, DRYING AND CEMENT TREATMENT IF WEATHER CONDITIONS ARE FAVORABLE OR REMOVAL AND REPLACEMENT WITH ENGINEERED FILL.
 - DO NOT PLACE, SPREAD OR COMPACT ANY FILL MATERIAL DURING UNFAVORABLE WEATHER CONDITIONS AND DO NOT RESUME COMPACTION OPERATIONS UNTIL MOISTURE CONTENT AND DENSITY OF IN-PLACE FILL MATERIAL ARE WITHIN SPECIFIED LIMITS.
 - PLACE FILL MATERIAL IN 8" MAXIMUM LIFTS AND COMPACT TO 95% MODIFIED PROCTOR DRY DENSITY (ASTM D-1557) W/ -3% TO +3% OPTIMUM WATER CONTENT. FILL MATERIAL SHALL BE FREE FROM ORGANIC MATTER, DEBRIS AND OTHER DELETERIOUS SUBSTANCES.
 - TESTING FREQUENCY: COMPACTION TESTING: SUBGRADE: ONE TEST PER 2,500 SQ. FT. GRANULAR FILL: ONE TEST PER 2,500 SQ. FT. PER LIFT
 - GRANULAR BACKFILL MATERIAL SHALL BE CLASS II GRANULAR SAND MATERIAL PER SECTION 902 OF MICHIGAN DOT SPECIFICATIONS.
 - ALL DISTURBED AREAS OUTSIDE OF SUBSTATION PAD SHALL BE RESTORED WITH GRASSES AND NATIVE PLANTS TO NATURAL CONDITIONS. REFER TO LANDSCAPE PLAN 5A1329-2.
 - THE OWNER, DTE ELECTRIC COMPANY, SHALL BE RESPONSIBLE FOR MAINTAINING ALL OPEN AREAS ON SITE.



SETBACKS:
 FRONT: 25'
 SIDES: 16'
 REAR: 35'
 45% LOT COVERAGE (SUBSTATION PAD)



LEGEND:

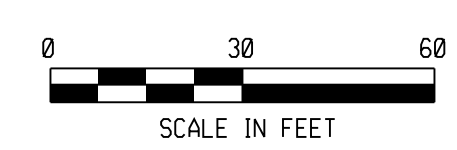
	PROPOSED LINE
	PROPOSED FENCE
	EXISTING FENCE
	RIGHT-OF-WAY
	SETBACKS
	STORM/WATER UTILITY EASEMENT
	EDGE OF STONE
	EXISTING FIRE HYDRANT
	EXISTING WATER SHUT OFF
	EXISTING ELECTRICAL MANHOLE
	EXISTING CATCH BASIN
	ABANDONED CONTOUR
	EXISTING CONTOURS
	PROPOSED CONTOURS
	CABLE TRENCH
	CLEANOUT
	PROPOSED STORM MANHOLE
	UNDERGROUND CONDUIT MANHOLE
	PROPOSED STORM OUTLET STRUCTURE
	PROPOSED CATCH BASIN
	REMOVABLE BOLLARD
	FIXED BOLLARD
	CARD READER
	DRAINAGE SPLIT
	PROPOSED SPOT GRADE
	PROPOSED DRAINAGE SWALE CENTERLINE
	PROPOSED SANITARY SEWER
	PROPOSED WATER SERVICE
	CONCRETE PAVEMENT
	ZONING IDENTIFICATION

REFERENCE DRAWINGS:

LANDSCAPE PLAN	5A1329-2
EXISTING CONDITIONS PLAN	5A1329-4
SITE PREPARATION AND DEMOLITION PLAN	5A1329-5
FENCE AND SERVICE DRIVE PLAN	5A1329-6
SITE DETAILS	5A1329-7
SOIL EROSION AND SEDIMENT CONTROL PLAN	5A1329-8
SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS	5A1329-4
RESTROOM LAYOUT AND ELEVATIONS	5A1329-11
RESTROOM SEPTIC DESIGN	5A1329-12
STORMWATER MANAGEMENT PLAN	5M1329-1
STORMWATER DETAILS (1 OF 4)	5M1329-2
STORMWATER DETAILS (2 OF 4)	5M1329-3
STORMWATER DETAILS (3 OF 4)	5M1329-4
STORMWATER DETAILS (4 OF 4)	5M1329-5

NOTE TO FIELD
 FOR ANY QUESTIONS ON THIS DESIGN,
 PLEASE CONTACT:
 PROJECT ENGINEER
 ERIC M. MYRICK
 (313)235-6728

**PRELIMINARY
 NOT FOR CONSTRUCTION**



SHARED DRAWING
 INFORMATION ON DRAWING SHARED WITH ETC HOLDINGS CORP.

DATE	SUBMITTED FOR

C	PROJ DESIGN			B	PROJ DESIGN			A	PROJ DESIGN			APPROVALS		
	DATE	PROJ DESIGN	PROJ MANAGER		DATE	PROJ DESIGN	PROJ MANAGER		DATE	PROJ DESIGN	PROJ MANAGER	OTHER	ENGINEERING	

DTE Energy DTE Electric Central Design/Standards

SITE PLAN

LOCATION NAME: **GRENADA SUBSTATION** SERVICE CENTER: **ANN ARBOR** SCALE: **1"=30'-0"**

DRAWING NUMBER: **5A1329-1** WORK ORDER: PROJECT DOCUMENT LIST

DOCUMENTUM FILENAME: **GRENA-A-0001**

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 11/22/2024 / pr88942

CALCULATIONS:

SUPERIOR TOWNSHIP ZONING ORDINANCE SECTION 14.05 NATURAL FEATURES PROTECTION TREE PRESERVATION AND REPLACEMENT REQUIREMENTS.

CONIFEROUS TREE REPLACEMENT VALUE (BASED ON TREE HEIGHT):

- 10' < TREE HEIGHT < 15' = 1:1 REPLACEMENT RATIO
- TREES WITH HEIGHT (10' - 15') = 0 TREES
- 15' < TREE HEIGHT < 30' = 3:1 REPLACEMENT RATIO
- TREES WITH HEIGHT (15' - 30') = 5 TREES x 3:1 R.R. = 15 TREES
- 30' < TREE HEIGHT < 60' = 6:1 REPLACEMENT RATIO
- TREES WITH HEIGHT (> 30') = 10 TREES x 6:1 R.R. = 60 TREES
- TOTAL CONIFEROUS REPLACEMENT TREES: 75 TREES

DECIDUOUS TREE REPLACEMENT VALUE (BASED ON D.B.H.):

- D.B.H. < 8" NO REPLACEMENT REQUIRED
- TREES WITH D.B.H. (< 8") = 13 TREES NOT REQUIRED TO BE REPLACED
- 8" < D.B.H. < 12" = 1:1 REPLACEMENT RATIO
- TREES WITH D.B.H. (8" - 12") = 17 TREES x 1:1 R.R. = 17 TREES
- 12.01" < D.B.H. (< 16") = 3:1 REPLACEMENT RATIO
- TREES WITH D.B.H. (12.01" - 16") = 11 TREES x 3:1 R.R. = 33 TREES
- 16" < D.B.H. = 6:1 REPLACEMENT RATIO
- TREES WITH D.B.H. (16" <) = 1 TREES x 6:1 R.R. = 6 TREES

TOTAL DECIDUOUS REPLACEMENT TREES: 56 TREES

LANDMARK TREE REPLACEMENT VALUE: 1 TREE PER INCH OF D.B.H. REMOVED.

- 3 PINE/SPRUCE WITH D.B.H. EQUAL TO 18" = (3 x 18") = 54 INCHES
- 2 BLACK WALNUT WITH D.B.H. EQUAL TO 18" = (2 x 18") = 36 INCHES
- 2 PINE/SPRUCE WITH D.B.H. EQUAL TO 19" = (2 x 19") = 38 INCHES
- 4 PINE/SPRUCE WITH D.B.H. EQUAL TO 20" = (4 x 20") = 80 INCHES
- 1 BLACK WALNUT WITH D.B.H. EQUAL TO 20" = (1 x 20") = 20 INCHES
- 1 BLACK CHERRY WITH D.B.H. EQUAL TO 24" = (1 x 24") = 24 INCHES
- 1 PINE/SPRUCE WITH D.B.H. EQUAL TO 25" = (1 x 25") = 25 INCHES
- 2 PINE/SPRUCE WITH D.B.H. EQUAL TO 30" = (2 x 30") = 60 INCHES
- 1 PINE/SPRUCE WITH D.B.H. EQUAL TO 32" = (1 x 32") = 32 INCHES
- 1 SIBERIAN ELM WITH D.B.H. EQUAL TO 42" = (1 x 42") = 42 INCHES

SUM OF LANDMARK TREE D.B.H. INCHES REMOVED = 431 INCHES

(431 INCHES OF D.B.H. REMOVED) x (1 TREE PER D.B.H. REMOVED) = 431 TREES

TOTAL TREES TO REPLACE * OF TREES REMOVED PER D.B.H.: 431 TREES

TREE PRESERVATION EXCLUSIONS PER SUPERIOR TOWNSHIP ORDINANCES SECTION 14.05.F.5:

- ACER NEGUNDO: 22 TREES
- POPULUS DELTOIDES: 4 TREES
- DYING/DISEASED: 3 TREES
- TOTAL EXISTING TREES EXCLUDED FROM REPLACEMENT: 29 TREES

TREE PRESERVATION REQUIREMENT: 30% OF ALL REGULATED TREES ON SITE

- TOTAL TREES ON SITE (PRIOR TO CONSTRUCTION): 142 TREES
- TOTAL TREES W/ ALLOWED EXCEPTIONS: 31 TREES
- TOTAL REGULATED TREES ON SITE: (142 TREES - 31 TREES) = 111 TREES
- TOTAL TREES REQUIRED TO BE PRESERVED: (111 TREES x 0.3) = 33 TREES
- TOTAL TREES PRESERVED: 35 TREES

TREE REPLACEMENT SUMMARY:

- CONIFEROUS TREE REPLACEMENT COUNT: 75 TREES
- DECIDUOUS TREE REPLACEMENT COUNT: 56 TREES
- LANDMARK TREE REPLACEMENT COUNT: 431 TREES
- TOTAL TREE REPLACEMENT: 562 TREES

TREES NOT ABLE TO BE INSTALLED ON SITE:

- (562 TREES TO BE REPLACED) - (97 TREES PROVIDED) = 465 TREES NOT ABLE TO BE INSTALLED ON SITE.

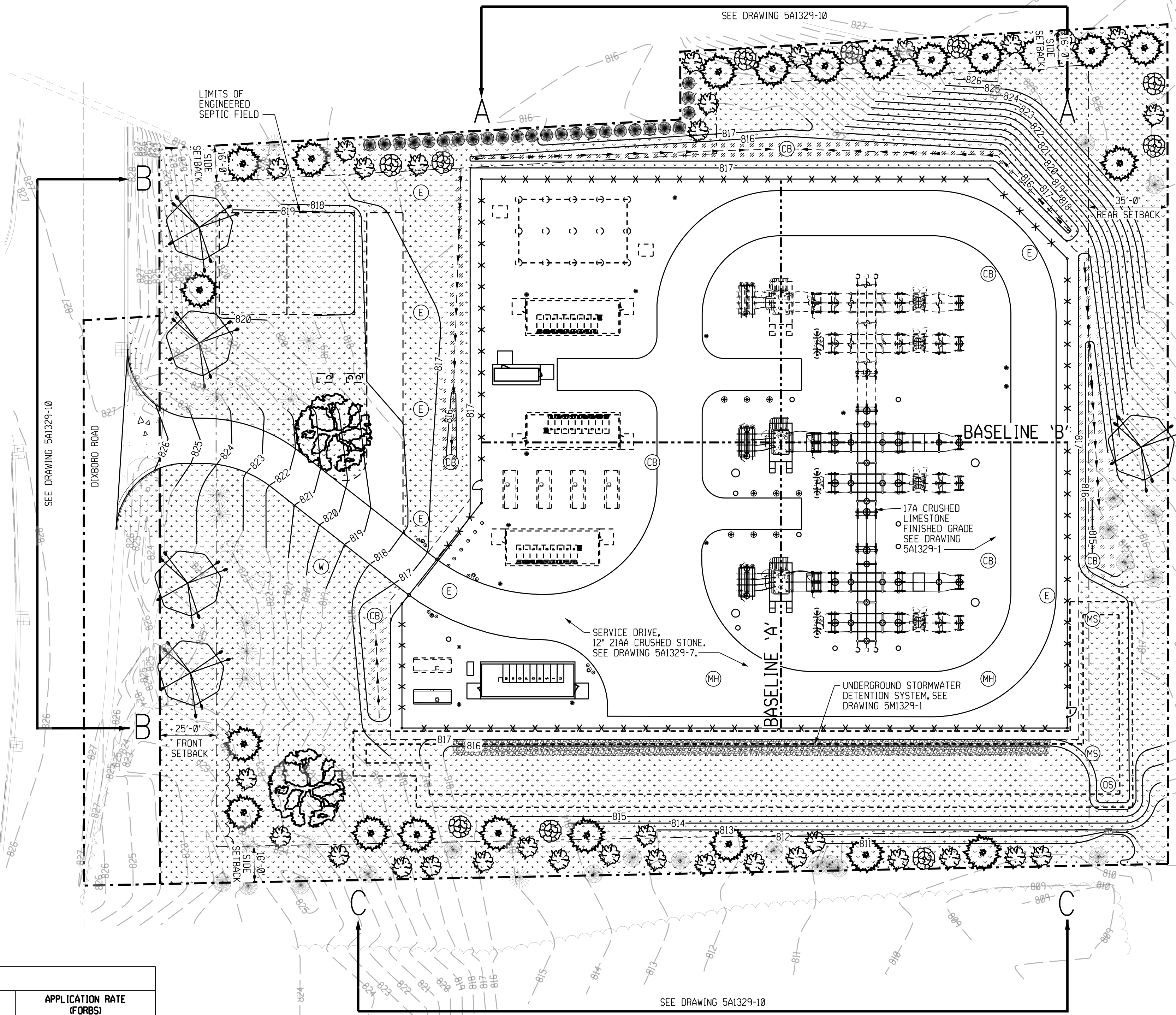
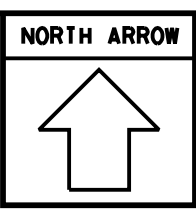
** OWNER/CONTRACTOR TO COORDINATE ALTERNATIVE SUPPLEMENTATION WITH SUPERIOR TOWNSHIP AS REQUIRED BY TOWNSHIP ORDINANCE, SECTION 14.05.F.5.

PLANT MATERIAL LIST				
PATTERN	ACRES ±	SEEDING MIX	APPLICATION RATE (PERMANENT GRASS)	APPLICATION RATE (FORBS)
---	1.10	ECONOMY PRAIRIE	101.50 PLS LBS/ACRE	41.75 PLS LBS/ACRE
---	.02	SWALE	60.50 PLS LBS/ACRE	20.00 PLS LBS/ACRE

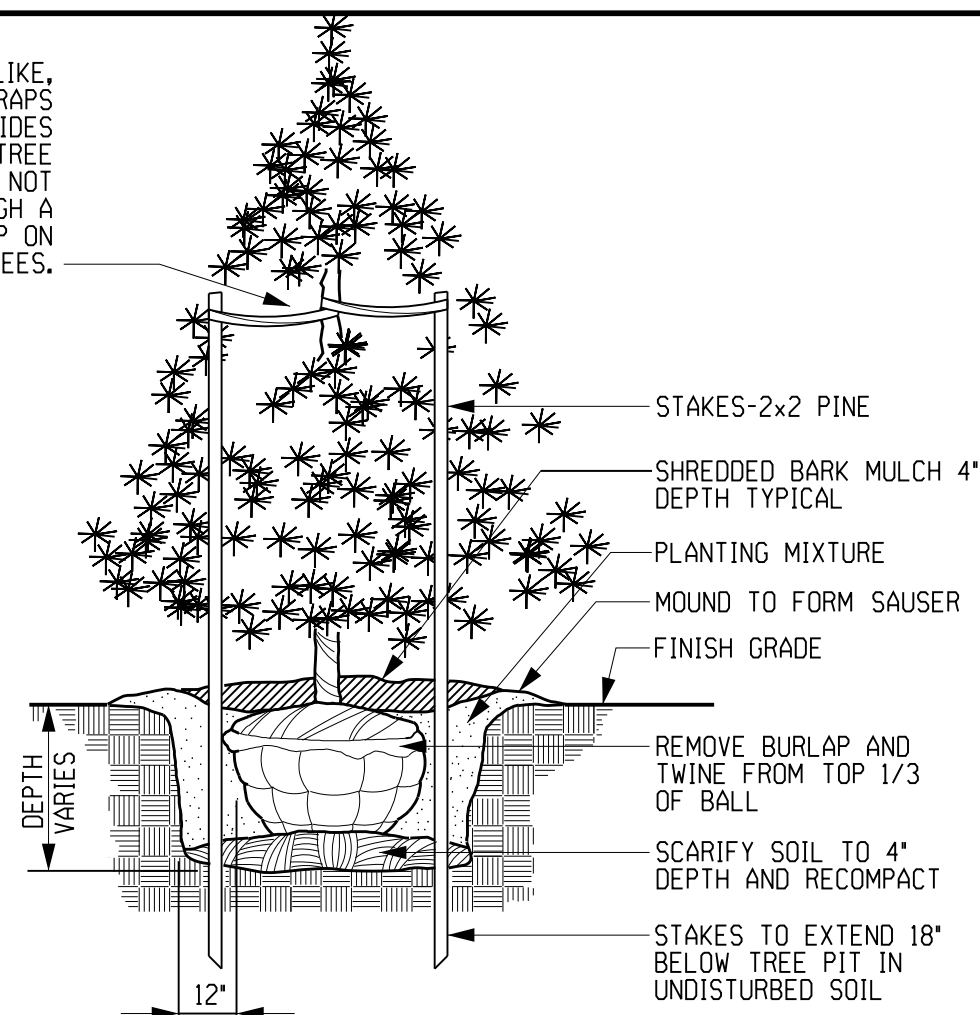
SEE SPECIFICATION 39.92.00 FOR SEED MIXTURE SPECIFICATIONS AND APPLICATION RATE.

TREE MATERIAL LIST				
KEY	QTY.	BOTANICAL NAME	COMMON NAME	CALIPER INCHES/HEIGHT AT PLANTING
ERB	5	CERCIS CANADENSIS	EASTERN RED BUD (ERB)	2" OR 6" MIN.
WWS	31	PICEA GLAUCA 'PENDULA'	WEeping WHITE SPRUCE (WWS)	6' MIN. HGT.
CWP	22	PINUS STROBUS 'FASTIGIATA'	COLUMNAR WHITE PINE (CWP)	6' MIN. HGT.
DW	2	CORNUS FLORIDA	DOGWOOD (DW)	2" OR 6" MIN.
ERA	25	HUJA OCCIDENTALIS 'SMARAGO'	EMERALD GREEN ARBORVITAE	6' MIN. HGT.
GGT	11	THUJA STANDISHII X PPLICATA	GIANT GREEN THUJA	6' MIN. HGT.

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USE 2-3" WIDE BELT-LIKE, NYLON OR PLASTIC STRAPS (2 PER TREE, ON OPPOSITE SIDES OF TREE, CONNECT FROM TREE TO STAKE HORIZONTALLY, DO NOT USE ROPE OR WIRE THROUGH A HOSE.) ATTACH STRAPS 2/3 UP ON EVERGREEN TREES.



NOTES:

- CONTRACTOR TO VERIFY PERCOLATION OF PLANTING PIT PRIOR TO INSTALLATION
- SET TOP OF BALL TO CORRESPOND WITH FINISH GRADE
- STAKE ALL EVERGREEN TREES 12" AND UNDER
- GUY ALL EVERGREEN TREES 12" AND OVER
- SET STAYS OR GUYS 2/3 UP TREE
- NEVER CUT CENTRAL LEADER
- PRUNE ONLY TO REMOVE DEAD OR BROKEN BRANCHES
- SPRAY EVERGREENS WITH ANTI-DESSICANT PRIOR TO FIRST WINTER

- DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING.
- DO NOT DAMAGE MAIN ROOTS OR DESTROY ROOT BALL WHEN INSTALLING TREE STAKE.
- REMOVE TREE RINGS, TREE WRAP AND STAKES TWO YEARS AFTER INSTALLATION.
- WATER TREE THOROUGHLY SUBSEQUENT TO INSTALLATION.

1 TREE PLANTING DETAIL
A2 NOT TO SCALE

LANDSCAPE NOTES:

- ALL EXISTING AND PROPOSED UTILITIES SHALL BE FIELD LOCATED AND FLAGGED PRIOR TO ANY LANDSCAPE CONSTRUCTION ON-SITE.
- ALL SPECIFIED AND INSTALLED LANDSCAPE MATERIAL SHALL SATISFY THE AMERICAN ASSOCIATION OF NURSERYMAN STANDARDS (LATEST EDITION) AND BE:
 - A. NURSERY GROWN
 - B. STATE DEPARTMENT OF AGRICULTURE INSPECTED AND APPROVED.
 - C. NO. 1 GRADE WITH STRAIGHT UNSCARPED TRUNKS AND WELL DEVELOPED UNIFORM CROWNS ON ALL TREES (PARK GRADE TREES WILL NOT BE ACCEPTED).
- PROPOSED SHREDDED HARDWOOD BARK MULCH SHALL BE SEASONED FOR A MINIMUM SIX MONTHS, DARK BROWN IN COLOR, AND INSTALLED 4" DEEP IN ALL CIRCLES AROUND EACH PROPOSED TREE (INCLUDED IN THE UNIT PRICE OF EACH TREE).
- ALL LAWN AREAS ARE EXISTING, IF LAWN AREAS ARE DISTURBED DURING CONSTRUCTION, CONTRACTOR SHALL FINE GRADE, FERTILIZE, SEED (WITH APPROVED SEED MIX) AND MULCH ON A MINIMUM 4", WELL-DRAINED, SCREENED, ORGANIC TOPSOIL.
- TREES & SHRUBS SHALL BE REPLACED IF UNACCEPTABLE (DISEASED, DAMAGED OR DEAD MATERIALS) WITHIN FIRST YEAR.
- NO PLANTINGS SHALL BE FURNISHED WITHIN THE ITC 90'-0" WIDE TRANSMISSION EASEMENT EAST OF THE SUBSTATION DUE TO CLEARANCE AND MAINTENANCE REQUIREMENTS OF THE 120KV OVERHEAD LINES.
- TREES FOR THIS SITE ARE SELECTED FROM THE LIST OF RECOMMENDED PLANTINGS WITHIN THE SUPERIOR TOWNSHIP ZONING ORDINANCE FOR SITE STANDARDS. TREES AND SHRUBS WERE CHOSE BASED ON AESTHETICS, SAFETY CONCERNS, HEIGHT AND SPREAD, AND MAINTENANCE CONSIDERATIONS OVER TIME. LOCATIONS WERE CHOSE BASED ON AVAILABILITY ALONG THE RIGHT OF WAY AND THROUGHOUT THE SITE.
- GRASS AREAS SHALL BE PLANTED IN SPECIES NORMALLY GROWN AS PERMANENT LAWNS IN WASHTENAW COUNTY. GRASS MAY BE PLUGGED, SPRIGGED, HYDROSEED, SEED, OR SODDED, EXCEPT THAT ROLLED SOD, EROSION REDUCING NET OR SUITABLE MULCH SHALL BE USED IN SWALES OR OTHER AREAS SUBJECT TO EROSION.
- ALL LANDSCAPING EXCEPT RAISED PLANTERS AND SIDEWALK TREE GRATES SHALL BE IRRIGATED. IRRIGATION SHALL BE PROVIDED UNTIL VEGETATION AND PLANTINGS ARE FULLY ESTABLISHED. PERMANENT IRRIGATION SYSTEMS ARE NOT FURNISHED FOR SUBSTATION SITES. IRRIGATION WILL BE PER OWNER.
- ALL TREES AND VEGETATION SHOULD BE INSTALLED IN ACCORDANCE WITH SUPERIOR TOWNSHIP ORDINANCE SECTION 14.10B AND 14.10C AND ALL OTHER APPLICABLE STANDARDS AND ORDINANCES.

LEGEND:

- PROPERTY LINE
- x-x-x- PROPOSED FENCE
- - - - - SETBACK LINE
- - - - - RIGHT-OF-WAY
- xxx EXISTING CONTOURS
- xxx ABANDONED CONTOURS
- - - - - PROPOSED CONTOURS
- EDGE OF STONE
- CONCRETE PAVEMENT
- xxx.xx PROPOSED SPOT GRADE
- PROPOSED DRAINAGE SWALE CENTERLINE
- EXISTING CATCH BASIN
- CB PROPOSED CATCH BASIN
- MH PROPOSED STORM STRUCTURE
- E UNDERGROUND CONDUIT MANHOLE
- OS PROPOSED STORM OUTLET STRUCTURE
- REMOVABLE BOLLARD
- FIXED BOLLARD
- CARD READER
- EXISTING TREELINE

TREE LEGEND:

- EMERALD GREEN ARBORVITAE (ERA)
- GIANT GREEN THUJA (GGT)
- WEeping WHITE SPRUCE (WWS)
- COLUMNAR WHITE PINE (CWP)
- EASTERN RED BUD (ERB)
- DOGWOOD (DW)

NOTE TO FIELD
FOR ANY QUESTIONS ON THIS DESIGN, PLEASE CONTACT:
PROJECT ENGINEER
ERIC M. MYRICK
(313)235-6728

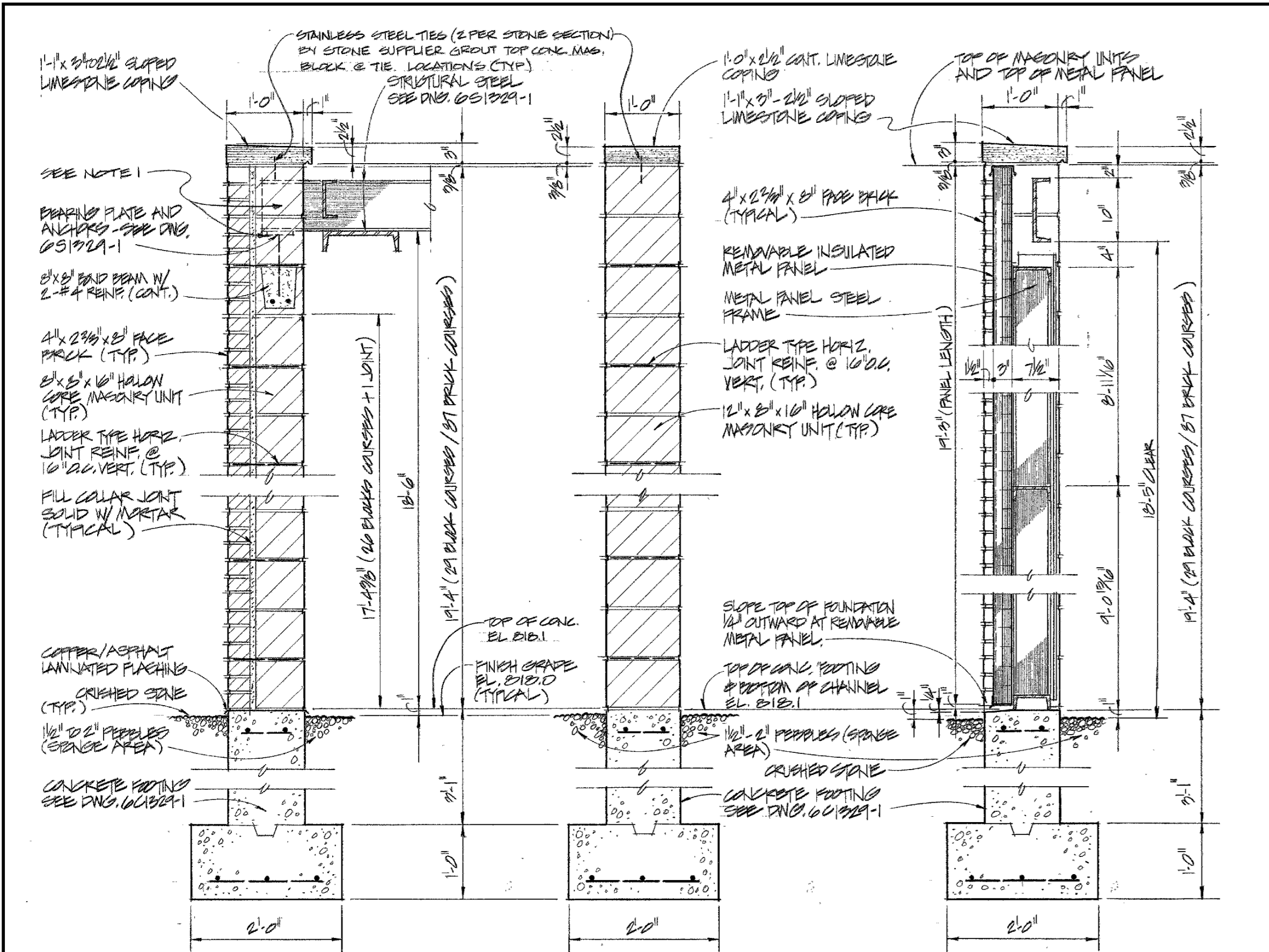
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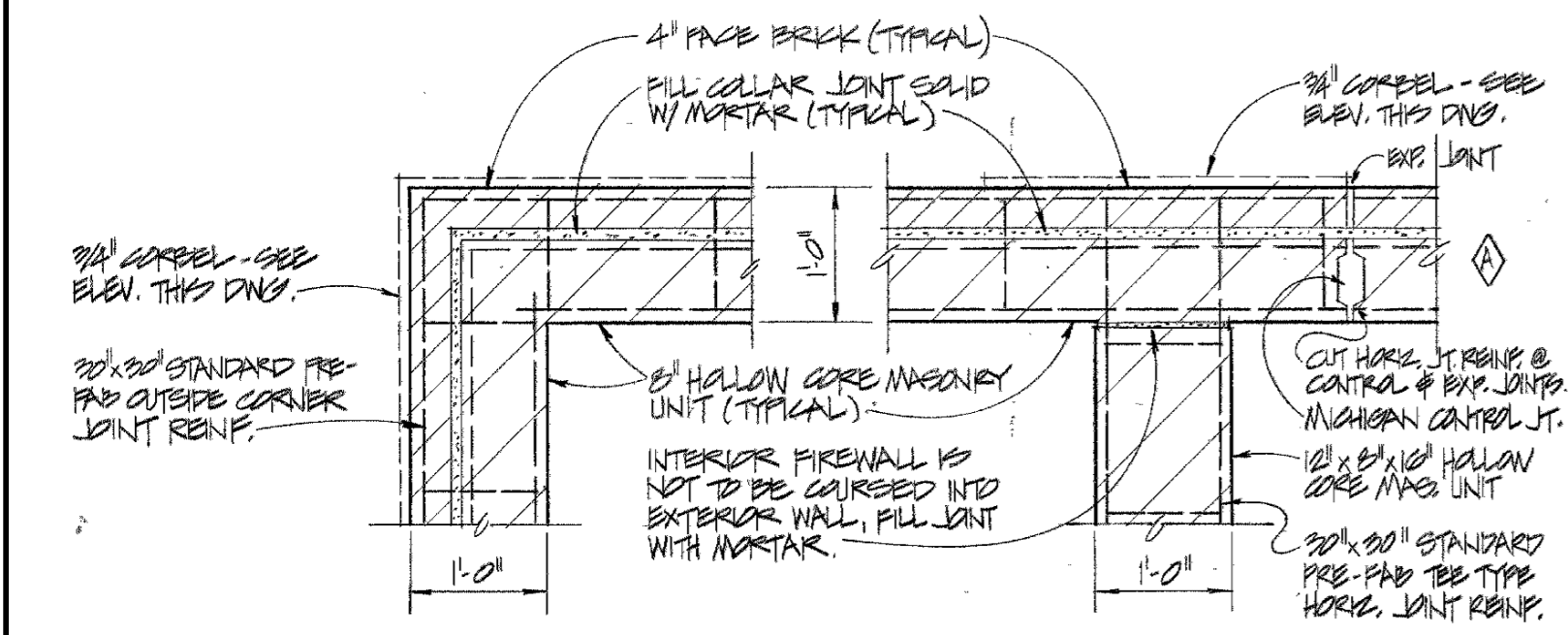
REFERENCE DRAWINGS:

- SITE PLAN --- 5A1329-1
- SOIL EROSION AND SEDIMENT CONTROL PLAN --- 5A1329-8
- SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS --- 5A1329-9
- SUBSTATION ELEVATION SECTION VIEWS --- 5A1329-10
- STORMWATER MANAGEMENT PLAN --- 5M1329-1

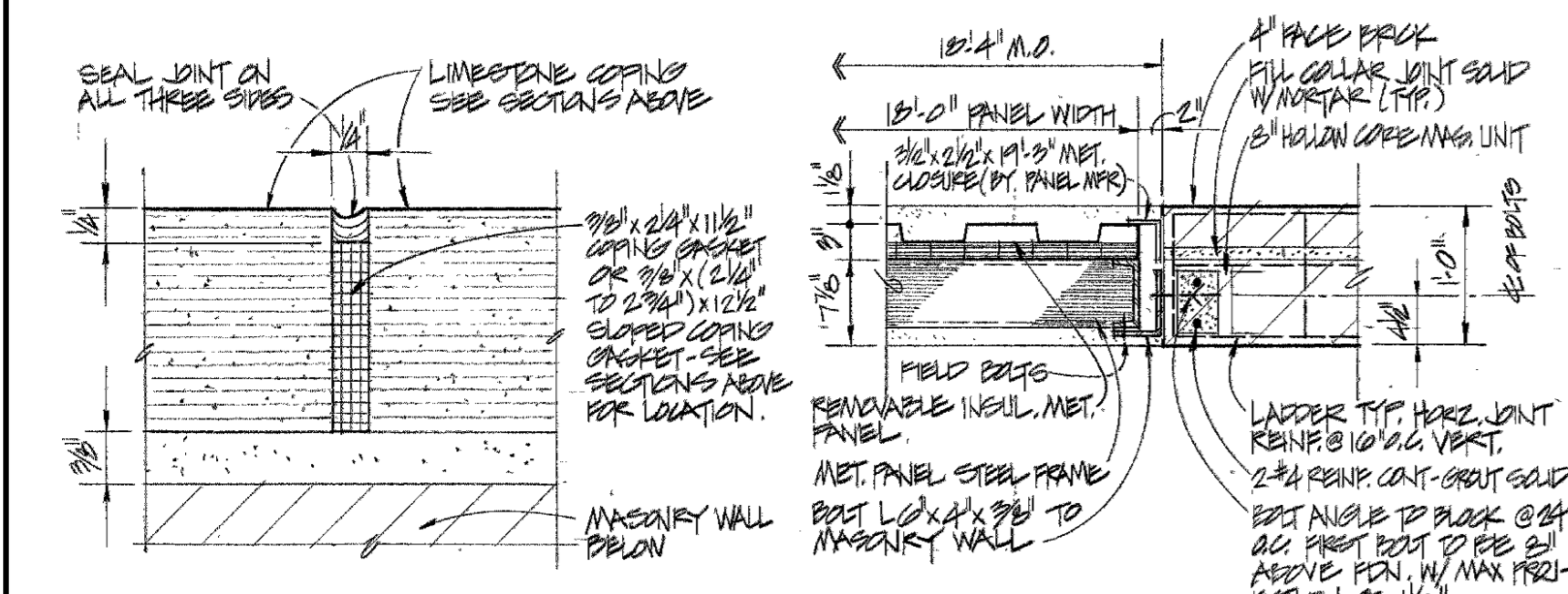
D				C				B				A				APPROVALS							
PROJ DESIGN	PROJ MANAGER	OTHERS	DATE	PROJ DESIGN	PROJ MANAGER	OTHERS	DATE	PROJ DESIGN	PROJ MANAGER	OTHERS	DATE	PROJ DESIGN	PROJ MANAGER	OTHERS	DATE	DATE	DATE	DATE	DATE				
EXISTING SUBSTATION TO BE DECOMMISSIONED AND DEMOLISHED. NEW SUBSTATION REDRAWN IN MICROSTATION AND SHEET SIZE CHANGED FROM SIZE 6 TO 5.				ADDED GRASS PAVER DRIVE ALONG NORTH PROPERTY LINE.				RELOCATE 4 NORWAY SPRUCE AWAY FROM SUBSTATION DRIVE.				GORDON K. YEE 9-27-89 LAYOUT BY				DTE Energy DTE Electric Central Design/Standards							
GRENA-PDL-A-69084198				WO69084198				PROJECT NO RFW NO 9CA6A				PROJECT NO RFW NO 9CA6A				DTE Energy DTE Electric Central Design/Standards							
MADE BY DATE ACT RELAY				MADE BY DATE ACT RELAY				MADE BY DATE ACT RELAY				MADE BY DATE ACT RELAY				GORDON K. YEE 9-27-89 CHECKED BY DATE							
CH'K BY DATE EPPM APVD FOR ISSUE				CH'K BY DATE EPPM APVD FOR ISSUE				CH'K BY DATE EPPM APVD FOR ISSUE				CH'K BY DATE EPPM APVD FOR ISSUE				DENNIS M. KELLY 9-27-89 PROJECT DESIGN/ELECT DATE							
ZEW/BV 11/22/24				G.J.E/BV 11/22/24				G.K.YEE 4-25-91				G.K.YEE 4-10-90				JOHN JAMESON 9-27-89 PROJECT DESIGN/ACT DATE							
D.KELLY 4-26-91				D.M.KELLY				D.KELLY 4-26-91				D.KELLY 4-11-90				BORIS A. JAKOWENKO 10-16-89 APPROVED FOR ISSUE DATE							
D.M.KELLY				D.M.KELLY				D.M.KELLY				D.M.KELLY				D.M.KELLY 9-27-89				GRENADA SUBSTATION ANN ARBOR SCALE 1"=30'-0"			
5A1329-2				9CA6A				5A1329-2				9CA6A				DRAWING NUMBER WORK ORDER PROJECT DOCUMENT LIST							
5A1329-2				9CA6A				5A1329-2				9CA6A				5A1329-2				5A1329-2			



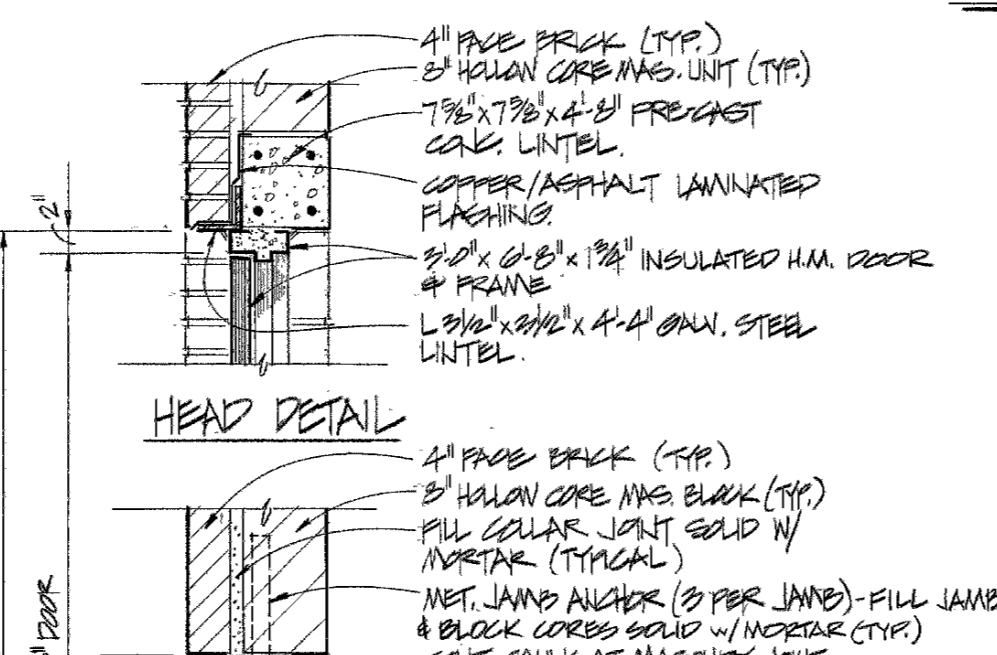
1 PERIMETER WALL SECTION SCALE: 1/2"=1'-0"
 2 12" MASONRY WALL SECTION SCALE: 1"=1'-0"
 3 REMOVABLE MET. PANEL SECTION SCALE: 1"=1'-0"



4 OUTSIDE CORNER DETAIL (TYPICAL) SCALE: 1"=1'-0"
 5 INTERIOR FIREWALL DETAIL (TYPICAL) SCALE: 1"=1'-0"



6 COPING JOINT DET.-ELEV. (TYPICAL) NO SCALE
 7 JAMB DET. @ REMOVABLE PANEL SCALE: 1"=1'-0"



8 HEAD DETAIL (TYPICAL) SCALE: 1"=1'-0"
 9 SILL DETAIL (TYP.) SCALE: 1"=1'-0"



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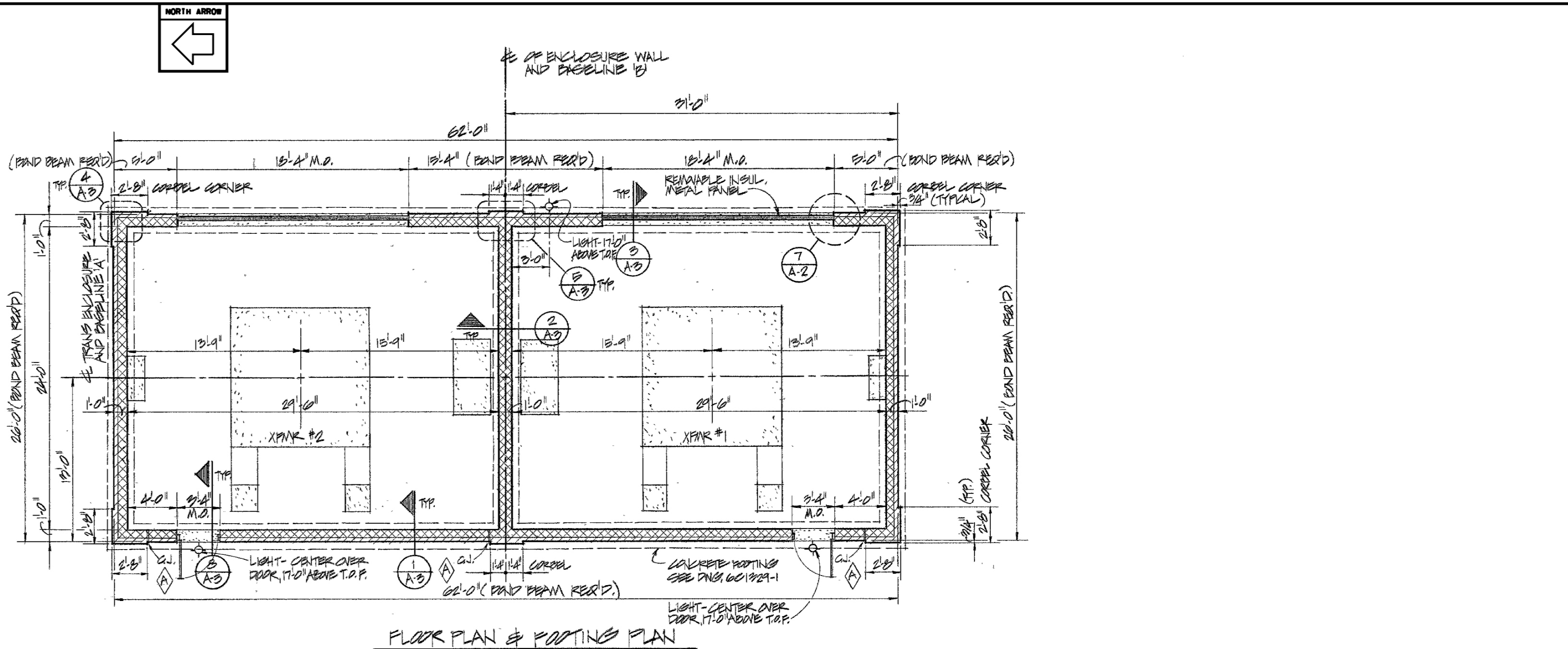
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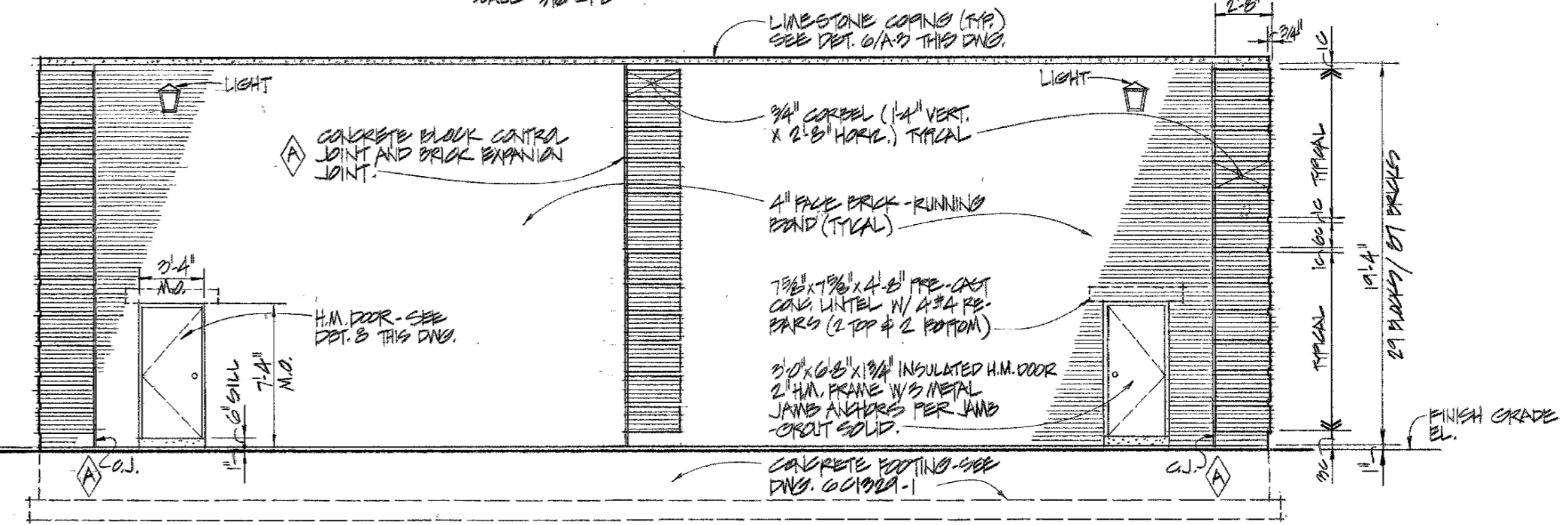
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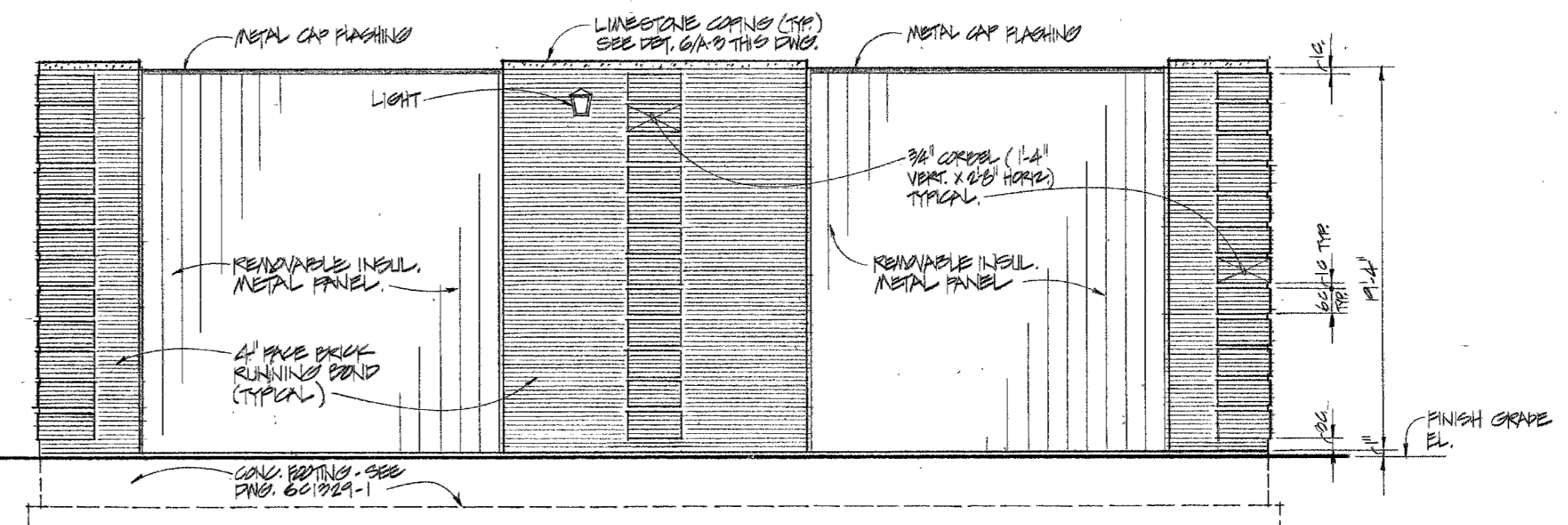
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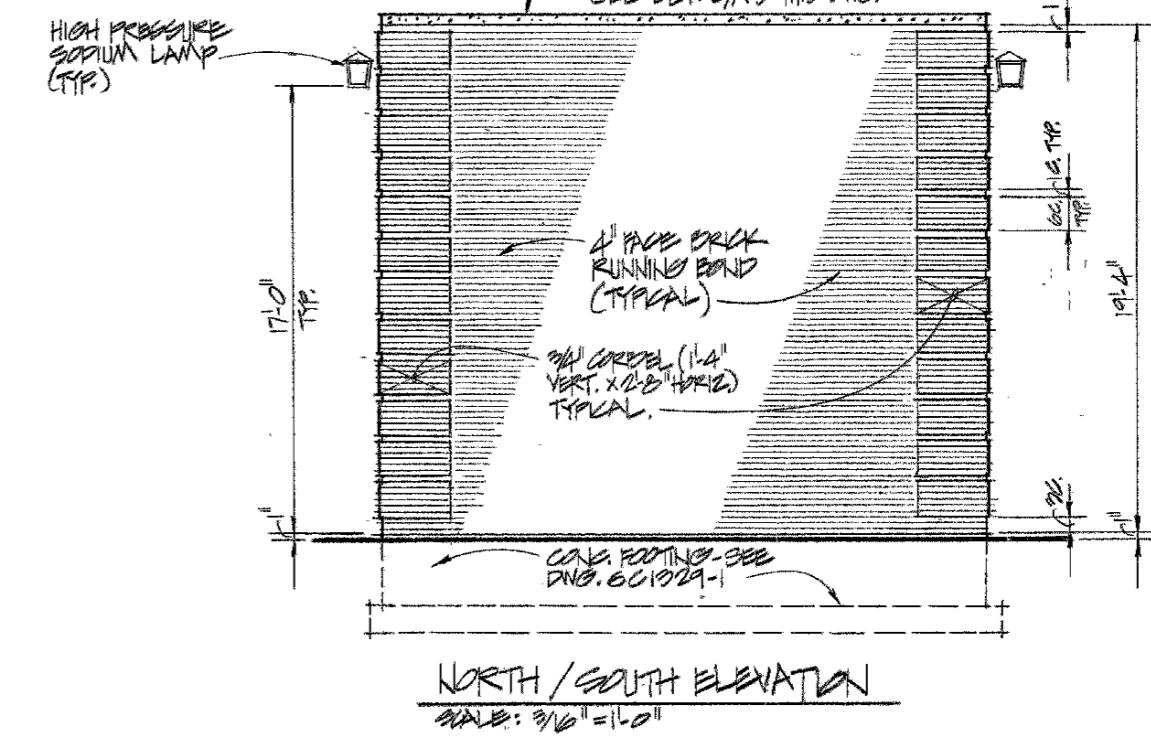
FLOOR PLAN & FOOTING PLAN SCALE: 3/16"=1'-0"



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



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



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

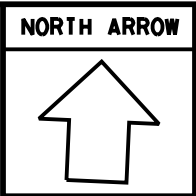
- GENERAL NOTES:**
1. FILL GAPS WITH GROUT 1/2" BOTH SIDES OF STEEL BEAMS ABOVE END BEAM.
 2. INSTALL HORIZ. JOINT REINP. AT 16" O.C. VERT.
 3. INTERIOR FIREWALL IS NOT TO BE COURSED INTO EXTERIOR WALL. FILL JOINT WITH MORTAR.
 4. FILL CAVITY BETWEEN BRICK AND BLOCK FILL WITH MORTAR.
 5. FILL JOINTS ON ALL THREE SIDES AT LIMESTONE COPING. SEE DETAIL G/A/3 THIS DRAWING.
 6. SEE DRAWING G/C1929-1 FOR CONCRETE FOOTING SIZES AND LOCATIONS.
 7. SUBSTITUTION LIGHTING ARE SWITCHED CONTROL. NO PHOTO CELLS WILL BE USED. ALL LIGHTS ARE NORMALLY OFF EXCEPT DURING EMERGENCY OR MAINTENANCE OPERATIONS.
 8. ALL LIGHTS TO BE HIGH PRESSURE SODIUM. BETWEEN 100WATTES AND 150 WATTES.

NOTE TO FIELD
 FOR ANY QUESTIONS ON THIS DESIGN,
 PLEASE CONTACT:
 PROJECT ENGINEER
 ERIC M. WYRICK
 (313)235-6728

PRELIMINARY
 NOT FOR CONSTRUCTION

REF. DWGS:	6A1329-1	DATE	9-27-89
	6A1329-2	DATE	9-27-89
	6C1329-1	DATE	9-27-89
	6S1329-1	DATE	10-16-89
	6SE1329-1	DATE	9-27-89
	6E1329-1	DATE	9-27-89

C		B		A		APPROVALS		DTE Energy		DTE Electric		Central Design/Standards																
PROJ DESIGN	PROJ MANAGER	OTHERS	PROJ DESIGN	PROJ MANAGER	OTHERS	DATE	DATE	DATE	TITLE	LOCATION NAME	SERVICE CENTER	SCALE																
									MASONRY TRANSFORMER ENCLOSURE PLAN, ELEVATIONS & SECTIONS	GRENA SUBSTATION	ANN ARBOR	AS NOTED																
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PROPERTY OWNER/
APPLICANT/DEVELOPER:

DTE ENERGY - DTE ELECTRICAL CO.
ONE ENERGY PLAZA
DETROIT, MI 48226-1279
(313) 235-0177

ENGINEER:

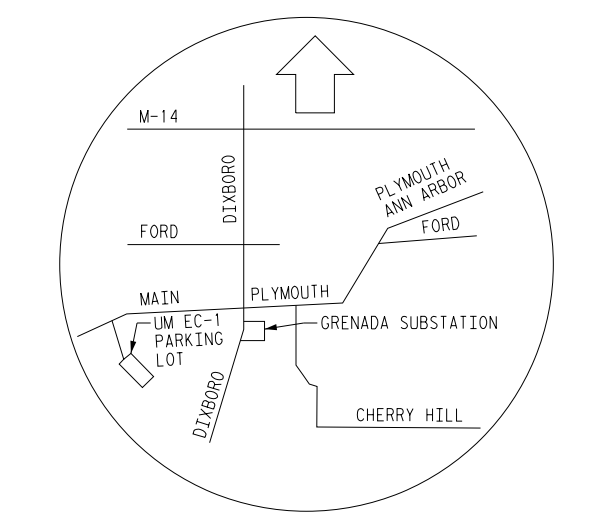
BLACK & VEATCH LTD. OF MICHIGAN
3550 GREEN COURT
ANN ARBOR, MICHIGAN 48105
(734) 665-1000 FAX (734) 622-8816

ADDRESS:

3270 N. DIXBORO RD.
ANN ARBOR, MI. 48105

BENCHMARKS:

- BM #1:
ARROW ON HYDRANT
NORTHING: 296276.69
EASTING: 1331444.90
ELEV: 828.62'
- BM #2:
NAIL IN S. SIDE OF POLE
NORTHING: 296444.33
EASTING: 1331441.33
ELEV: 817.01'
- BM #3:
ARROW ON HYDRANT
NORTHING: 296378.21
EASTING: 1331408.67
ELEV: 828.62'



SITE LOCATION MAP
NOT TO SCALE

LEGEND:

- PROPERTY LINE
- RIGHT-OF-WAY
- STORM/WATER UTILITY EASEMENT
- EXISTING SWING GATE
- EXISTING FENCE
- EXISTING CONTOUR
- EXISTING OVERHEAD ELECTRIC
- EXISTING GRAVEL DRIVE
- EXISTING CATCH BASIN
- EXISTING CULVERT
- EXISTING TREE LINE
- EXISTING TREES
- EXISTING ELECTRICAL MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING WATER SHUT OFF
- EXISTING DTE POLE

NOTES:

- DRAWING IS SET UP IN THE MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, INTERNATIONAL FOOT.
- THE HORIZONTAL DATUM IS NAD 83 (2011).
- THE ELEVATIONS ARE IN FEET AND DECIMALS THEREOF AND ARE REFERENCED TO THE NAVD 88 DATUM.
- CONTOURS INDICATED ARE AT 1 FOOT INTERVALS.
- BEARING STRUCTURE IS BASED ON THE MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, INTERNATIONAL FOOT.
- THE LOCATION OF UTILITIES AND IMPROVEMENTS INDICATED HEREON ARE APPROXIMATE ONLY AND WERE OBTAINED FROM SOURCES BELIEVED TO BE RELIABLE, BUT NO GUARANTEE IS EXPRESSED OR IMPLIED AS TO LOCATION, TYPE OR COMPLETENESS OF UTILITIES OR IMPROVEMENTS.
- SITE IS WITHIN ZONE 'X', AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER FLOOD INSURANCE RATE MAP NUMBER 26161C0266E EFFECTIVE APRIL 3, 2012.
- SEE DRAWING 5A1329-5 FOR TREE REMOVAL AND TREE PROTECTION REQUIREMENTS.
- PROPERTY LINE INFORMATION, TOPOGRAPHY, UNDERGROUND UTILITIES, AND SITE FEATURES SHOWN ON THIS DRAWING WERE OBTAINED FROM DTE DRAWING 6SE 1329-002 TOPOGRAPHIC SURVEY.

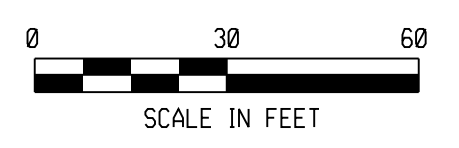
REFERENCE DRAWINGS:

- TOPOGRAPHIC SURVEY --- 6SE 1329-002
- SITE PLAN --- 5A1329-1
- SITE PREPARATION AND DEMOLITION PLAN --- 5A1329-5



REV	NOTE TO FIELD
-	FOR ANY QUESTIONS ON THIS DESIGN, PLEASE CONTACT: PROJECT ENGINEER ERIC M. MYRICK (313) 235-6728

PRELIMINARY
NOT FOR CONSTRUCTION



LEGAL DESCRIPTION

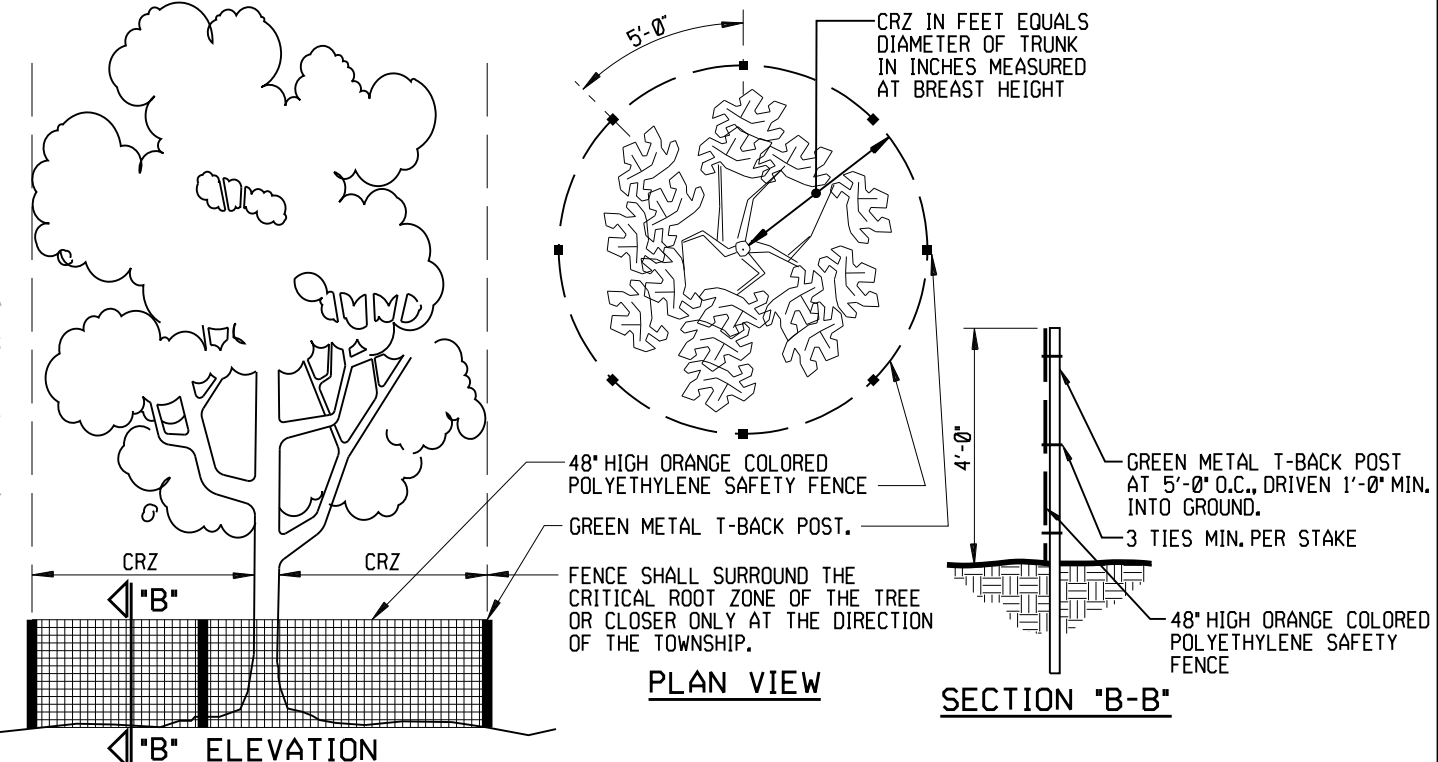
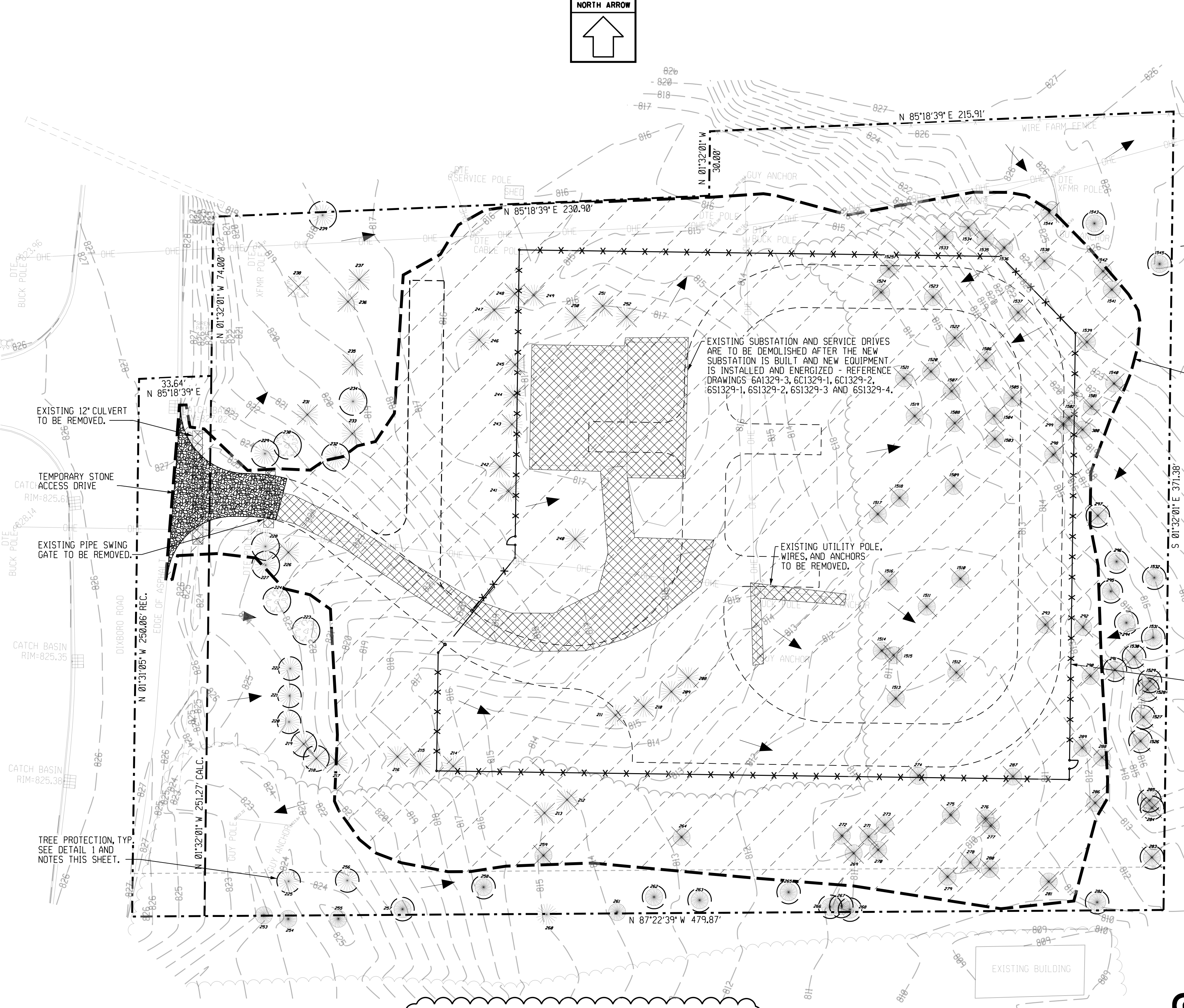
ALL THE PART OF SECTION 18, TOWN 2 SOUTH, RANGE 7 EAST, SUPERIOR TOWNSHIP, WASHTENAW COUNTY, MICHIGAN, DESCRIBED AS BEGINNING AT THE WEST 1/4 CORNER OF SECTION 18, AFORESAID; THENCE NORTH 02°30'36" EAST, 250.06 FEET ALONG THE WEST LINE OF SAID SECTION 18, (BEING COMMON TO THE EAST LINE OF SECTION 13, TOWN 2 SOUTH, RANGE 6 EAST); THENCE NORTH 89°20'20" EAST, 33.64 FEET TO THE SOUTHWEST CORNER OF LOT 13 ON THE PLAT OF THE VILLAGE OF DIXBORO, AS RECORDED IN LIBER A ON PAGE 272, WASHTENAW COUNTY RECORDS; THENCE NORTH 02°29'40" EAST, 74.00 FEET ALONG THE WEST LINE OF SAID LOT 13; THENCE NORTH 89°20'20" EAST, 230.90 FEET (ALSO RECORDED AS 231.00 FEET); THENCE NORTH 02°29'40" EAST, 30.00 FEET ALONG THE LINE COMMON TO LOTS 14 AND 15 ON SAID PLAT OF THE VILLAGE OF DIXBORO; THENCE NORTH 89°20'20" EAST, 215.91 FEET; THENCE SOUTH 02°29'40" WEST, 371.38 FEET; THENCE NORTH 88°35'40" WEST, ALONG THE SOUTH LINE OF THREE PARCELS OF LAND AS MONUMENTED AND DESCRIBED IN WARRANTY DEEDS RECORDED IN LIBER 1528, PAGE 598, LIBER 1535, PAGE 253, AND LIBER 1674, PAGE 890, WASHTENAW COUNTY RECORDS TO THE POINT OF BEGINNING, BEING PART OF LOTS 13, 14, 15, 16, AND 17 ON THE SAID PLAT OF THE VILLAGE OF DIXBORO, RESERVING AN EASEMENT FOR THE INSTALLATION AND MAINTENANCE OF UTILITY LINES AND EQUIPMENT OF THE SOUTHERLY 20 FEET OF THE SUBJECT PROPERTY FOR THE BENEFIT OF THE PROPERTY LYING ADJACENT AND TO THE EAST OF THE ABOVE DESCRIBED PROPERTY.

C				B				A			
PROJ DESIGN	PROJ MANAGER	OTHERS	DATE	PROJ DESIGN	PROJ MANAGER	OTHERS	DATE	PROJ DESIGN	PROJ MANAGER	OTHERS	DATE

APPROVALS	
OTHER	ENGINEERING
	MADE BY DATE R.D. BREWER/BV 11/22/24
	LAYOUT BY DATE Z.E. WIACEK/BV 1/22/24
	CHECKED BY DATE G.J. ESKOLA/BV 11/22/24
	PROJECT DESIGN/ELECT DATE
	PROJECT DESIGN/ACT DATE
	APPROVED FOR ISSUE DATE

DTE Energy			DTE Electric			Central Design/Standards		
EXISTING CONDITIONS PLAN						TITLE		
LOCATION NAME GRENA SUBSTATION			SERVICE CENTER ANN ARBOR			SCALE 1"=30'-0"		
DRAWING NUMBER 5A1329-4			WORK ORDER 69084198			PROJECT DOCUMENT LIST GRENA-PDL-A-69084198		
DOCUMENTUM FILENAME GRENA-A-0004								

TREE SPECIES DATA					
TAG #	REMARKS	DBH (INCHES)	TAG #	REMARKS	DBH (INCHES)
200	NORWAY SPRUCE/PICEA ABIES	19	279	AMERICAN ELM/ULMUS AMERICANA	9
201	BLUE SPRUCE/PICEA PUNGENS	10	280	EASTERN COTONWOOD/POPULUS DELTOIDES	16
210	NORWAY SPRUCE/PICEA ABIES	16	281	BLACK CHERRY/PRUNUS SEROTINA	10
211	NORWAY SPRUCE/PICEA ABIES	19	282	BOXELDER/ACER NEGUNDO	28
212	WHITE PINE/PINUS STROBUS	18	283	BLACK CHERRY/PRUNUS SEROTINA	16
213	WHITE PINE/PINUS STROBUS	25	284	BOXELDER/ACER NEGUNDO	12
214	NORWAY SPRUCE/PICEA ABIES	30	285	BOXELDER/ACER NEGUNDO	14
215	NORWAY SPRUCE/PICEA ABIES	32	286	BLACK CHERRY/PRUNUS SEROTINA	24
216	NORWAY SPRUCE/PICEA ABIES	30	287	BLACK WALNUT/JUGLANS NIGRA	7
217	WHITE PINE/PINUS STROBUS	22	288	HACKBERRY/CELTIS OCCIDENTALIS	10
218	WHITE PINE/PINUS STROBUS	13	289	BLACK WALNUT/JUGLANS NIGRA	8
219	WHITE PINE/PINUS STROBUS	9, 18	290	HACKBERRY/CELTIS OCCIDENTALIS	14
220	WHITE PINE/PINUS STROBUS	16	291	BOXELDER/ACER NEGUNDO	10
221	WHITE PINE/PINUS STROBUS	18	292	AMERICAN ELM/ULMUS AMERICANA	7
222	WHITE PINE/PINUS STROBUS	15	293	BLACK WALNUT/JUGLANS NIGRA	14
223	SUGAR MAPLE/ACER SACCHARUM	16	294	BLACK CHERRY/PRUNUS SEROTINA	12
224	SUGAR MAPLE/ACER SACCHARUM	15	295	BLACK WALNUT/JUGLANS NIGRA	12
225	WHITE PINE/PINUS STROBUS	17	296	BLACK WALNUT/JUGLANS NIGRA	14
226	BLUE SPRUCE/PICEA PUNGENS	10	297	BLACK CHERRY/PRUNUS SEROTINA	12
227	BLUE SPRUCE/PICEA PUNGENS	12	298	BLACK WALNUT/JUGLANS NIGRA	10
228	BLUE SPRUCE/PICEA PUNGENS	13	299	HACKBERRY/CELTIS OCCIDENTALIS	7
229	BLUE SPRUCE/PICEA PUNGENS	11	300	HACKBERRY/CELTIS OCCIDENTALIS	13
230	SUGAR MAPLE/ACER SACCHARUM	20	501	BLACK WALNUT/JUGLANS NIGRA	11
231	BLUE SPRUCE/PICEA PUNGENS	13	502	BOXELDER/ACER NEGUNDO	16
232	WHITE PINE/PINUS STROBUS	7, 10	503	BLACK WALNUT/JUGLANS NIGRA	20
233	WHITE PINE/PINUS STROBUS	17	504	BLACK WALNUT/JUGLANS NIGRA	18
234	WHITE PINE/PINUS STROBUS	19	505	BLACK WALNUT/JUGLANS NIGRA	6
235	WHITE PINE/PINUS STROBUS	20	506	BOXELDER/ACER NEGUNDO	7
236	NORWAY SPRUCE/PICEA ABIES	25	507	NORTHERN CATALPA/CATALPA SPECIOSA	8
237	NORWAY SPRUCE/PICEA ABIES	28	508	BLACK WALNUT/JUGLANS NIGRA	16
238	SUGAR MAPLE/ACER SACCHARUM	14	509	BLACK WALNUT/JUGLANS NIGRA	6
239	BLUE SPRUCE/PICEA PUNGENS	15	510	BLACK WALNUT/JUGLANS NIGRA	9
240	WHITE PINE/PINUS STROBUS	8	511	BLACK WALNUT/JUGLANS NIGRA	9
241	WHITE PINE/PINUS STROBUS	20	512	BLACK WALNUT/JUGLANS NIGRA	7
242	WHITE PINE/PINUS STROBUS	17	513	BOXELDER/ACER NEGUNDO	9
243	NORWAY SPRUCE/PICEA ABIES	14	514	BLACK WALNUT/JUGLANS NIGRA	6
244	NORWAY SPRUCE/PICEA ABIES	12, 13	515	BLACK WALNUT/JUGLANS NIGRA	8
245	NORWAY SPRUCE/PICEA ABIES	17	516	BLACK WALNUT/JUGLANS NIGRA	8
246	WHITE PINE/PINUS STROBUS	13	517	BLACK WALNUT/JUGLANS NIGRA	8
247	WHITE PINE/PINUS STROBUS	18	518	BOXELDER/ACER NEGUNDO	11
248	WHITE PINE/PINUS STROBUS	16	519	BOXELDER/ACER NEGUNDO	6
249	WHITE PINE/PINUS STROBUS	17	520	EASTERN COTONWOOD/POPULUS DELTOIDES	12
250	NORWAY SPRUCE/PICEA ABIES	20	521	EASTERN COTONWOOD/POPULUS DELTOIDES	16
251	NORWAY SPRUCE/PICEA ABIES	16	522	BLACK WALNUT/JUGLANS NIGRA	16
252	NORWAY SPRUCE/PICEA ABIES	20	523	BLACK WALNUT/JUGLANS NIGRA	14
253	AMERICAN ELM/ULMUS AMERICANA	9	524	BLACK WALNUT/JUGLANS NIGRA	16
254	BLACK CHERRY/PRUNUS SEROTINA	28	525	BLACK WALNUT/JUGLANS NIGRA	14
255	BLACK CHERRY/PRUNUS SEROTINA	17, 24	526	BOXELDER/ACER NEGUNDO	12
256	WHITE PINE/PINUS STROBUS	18	527	BOXELDER/ACER NEGUNDO	8
257	BOXELDER/ACER NEGUNDO	13, 14	528	BOXELDER/ACER NEGUNDO	9, 9
258	BLACK WALNUT/JUGLANS NIGRA	13	529	BOXELDER/ACER NEGUNDO	10
259	BLACK WALNUT/JUGLANS NIGRA	8	530	BOXELDER/ACER NEGUNDO	7
260	WHITE PINE/PINUS STROBUS	21	531	BLACK WALNUT/JUGLANS NIGRA	8
261	BLACK CHERRY/PRUNUS SEROTINA	25	532	BOXELDER/ACER NEGUNDO	9
262	BLACK CHERRY/PRUNUS SEROTINA	21, 14	533	BOXELDER/ACER NEGUNDO	12
263	BLACK CHERRY/PRUNUS SEROTINA	11, 14, 14	534	BLACK WALNUT/JUGLANS NIGRA	18
264	BLACK WALNUT/JUGLANS NIGRA	10	535	BLACK WALNUT/JUGLANS NIGRA	11
265	NORWAY SPRUCE/PICEA ABIES	18	536	BLACK WALNUT/JUGLANS NIGRA	7
266	BLACK CHERRY/PRUNUS SEROTINA	10, 12	537	BLACK WALNUT/JUGLANS NIGRA	9
267	BLACK CHERRY/PRUNUS SEROTINA	7, 10	538	ULMUS PUMILA/SIBERIAN ELM	18
268	BLACK CHERRY/PRUNUS SEROTINA	15	539	ULMUS PUMILA/SIBERIAN ELM	42
269	BOXELDER/ACER NEGUNDO	10	540	BLACK WALNUT/JUGLANS NIGRA	14
270	BOXELDER/ACER NEGUNDO	11	541	COMMON BUCKHORN	6
271	BOXELDER/ACER NEGUNDO	9	542	ULMUS PUMILA/SIBERIAN ELM	8
272	BOXELDER/ACER NEGUNDO	8	543	BLACK WALNUT/JUGLANS NIGRA	12
273	BOXELDER/ACER NEGUNDO	13	544	BLACK WALNUT/JUGLANS NIGRA	11
274	BOXELDER/ACER NEGUNDO	16	545	ULMUS PUMILA/SIBERIAN ELM	11
275	BLACK WALNUT/JUGLANS NIGRA	7			
276	BOXELDER/ACER NEGUNDO	8, 10			
277	BOXELDER/ACER NEGUNDO	11			
278	EASTERN COTONWOOD/POPULUS DELTOIDES	22			



1
A5
NO SCALE

TEMPORARY TREE PROTECTION BARRIER FENCE DETAIL

TREE PROTECTION NOTES:

- ALL TREES TO BE REMOVED WILL BE IDENTIFIED BY RED FLAGGING.
- TREES NOT INDICATED TO BE REMOVED OR TRANSPLANTED SHALL BE FENCED OFF WITH 4" HIGH ORANGE CONSTRUCTION FENCE AT A DISTANCE OF THE TREE OF THE TRUNK DIAMETER IN INCHES MEASURED AT BREAST HEIGHT.
- TREE PROTECTION FENCING IS TO BE ERECTED PRIOR TO ANY EARTHWORK OR CONSTRUCTION AND IS TO REMAIN IN PLACE UNTIL CONSTRUCTION GRADING IS COMPLETE.
- INSTALL TREE PROTECTION FENCING SURROUNDING THE CRITICAL ROOT ZONE (CRZ). THE CRZ IS THE RADIAL DISTANCE FROM THE TRUNK IN FEET EQUAL TO THE DIAMETER IN INCHES MEASURED AT BREAST HEIGHT (dbh).
- ALL DEBRIS, FILL, EQUIPMENT OR MATERIAL IS TO BE KEPT CLEAR OF AREA WITHIN PROTECTIVE FENCE. NO CLEANING OF EQUIPMENT OR MATERIAL STORAGE OR STORAGE OR DISPOSAL OF ANY MATERIAL WITHIN THE DRIP LINE OF ANY TREES TO BE SAVED.
- REFERENCE SOIL EROSION PLAN DRAWING 5A1329-8 PRIOR TO ANY DEMOLITION OR TREE REMOVAL.

LEGEND:

- PROPERTY LINE
- RIGHT-OF-WAY
- PROPOSED GRADING LIMITS
- EDGE OF PROPOSED DRIVE
- PROPOSED FENCE
- EXISTING FENCE
- STORM/WATER UTILITY EASEMENT
- EXISTING CONTOUR
- EXISTING DRAINAGE FLOW DIRECTION
- EXISTING DTE POLE
- EXISTING OVERHEAD ELECTRICAL LINE
- EXISTING TREE LINE
- EXISTING WATER SHUT OFF
- EXISTING FIRE HYDRANT
- EXISTING CATCH BASIN
- LIMITS OF TREE REMOVAL
- EXISTING TREES
- TREE REMOVAL
- TREE PROTECTION BARRIER
- TEMPORARY STONE ACCESS DRIVE
- LIMITS OF DISTURBANCE
- TO BE DEMOLISHED/REMOVED

DEMOLITION NOTES:

- ALL EXCAVATED MATERIALS SHALL BE DISPOSED OF AT AN OWNER APPROVED FACILITY IN ACCORDANCE WITH APPLICABLE STATE AND FEDERAL REGULATIONS. SITE SOILS SHALL NOT BE RELOCATED OR STOCK PILED ON SITE UNLESS NOTED ON PLANS BY THE ENGINEER.

REFERENCE DRAWINGS:

TOPOGRAPHIC SURVEY	6S6 1329-002
SITE PLAN	5A1329-1
EXISTING CONDITIONS PLAN	5A1329-4
SOIL EROSION AND SEDIMENT CONTROL PLAN	5A1329-8
SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS	5A1329-9

ESTIMATED CLEAN FILL VOLUME
COMPACTED IN PLACE VOLUME (CY)
XXXXXX

TOPSOIL SOIL REMOVAL VOLUME
COMPACTED IN PLACE VOLUME (CY)
XXXX FROM SITE
XXXX FROM OFFSITE

ON HOLD

QUANTITIES LISTED ARE IN-PLACE BANK VOLUME ESTIMATES AND ARE FOR INFORMATION ONLY. CONTRACTOR SHALL DO THEIR OWN QUANTITY ESTIMATE AND INCLUDE ALL SOIL ADJUSTMENTS NECESSARY FOR EXPANSION, HAULING, UNIT WEIGHTS ETC, IN ORDER TO PROVIDE A NOT TO EXCEED LUMP SUM BID.

PRELIMINARY
NOT FOR CONSTRUCTION



NOTE TO FIELD

FOR ANY QUESTIONS ON THIS DESIGN, PLEASE CONTACT:

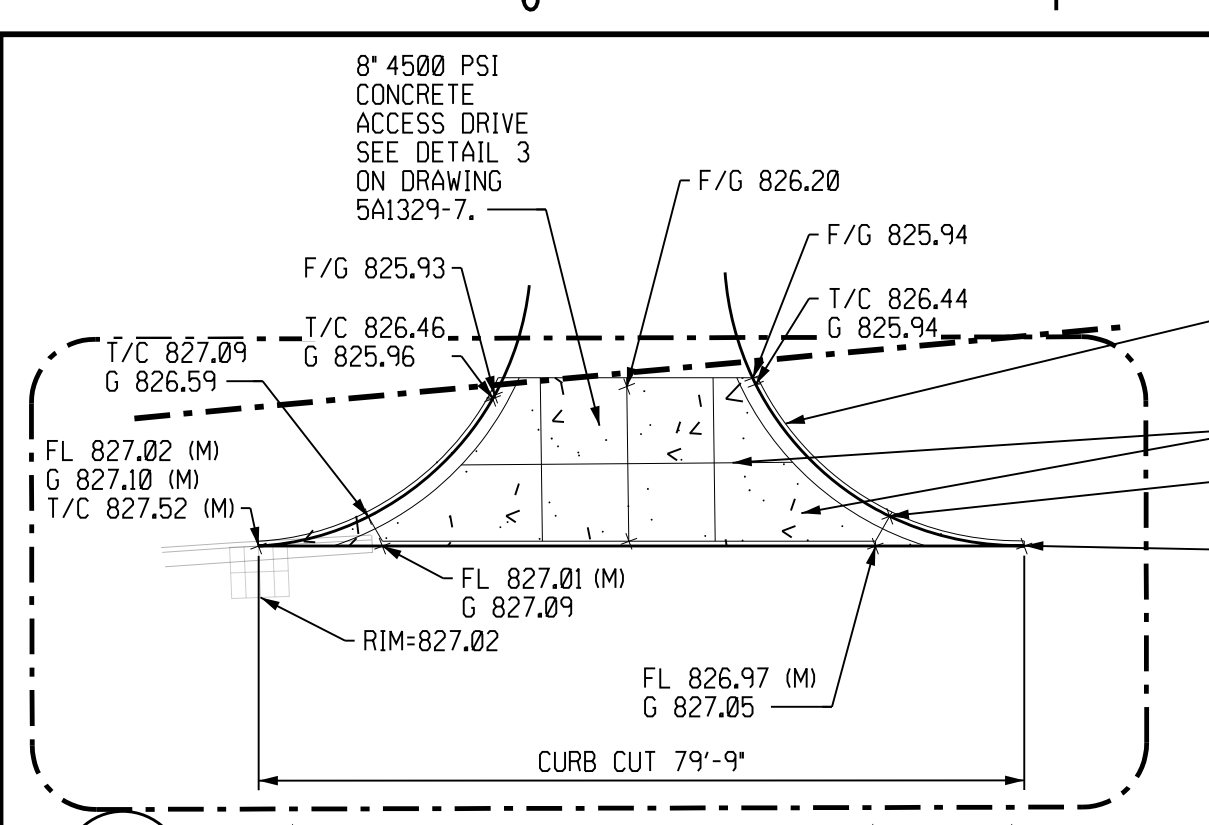
PROJECT ENGINEER
ERIC M. MYRICK
(313)235-6728



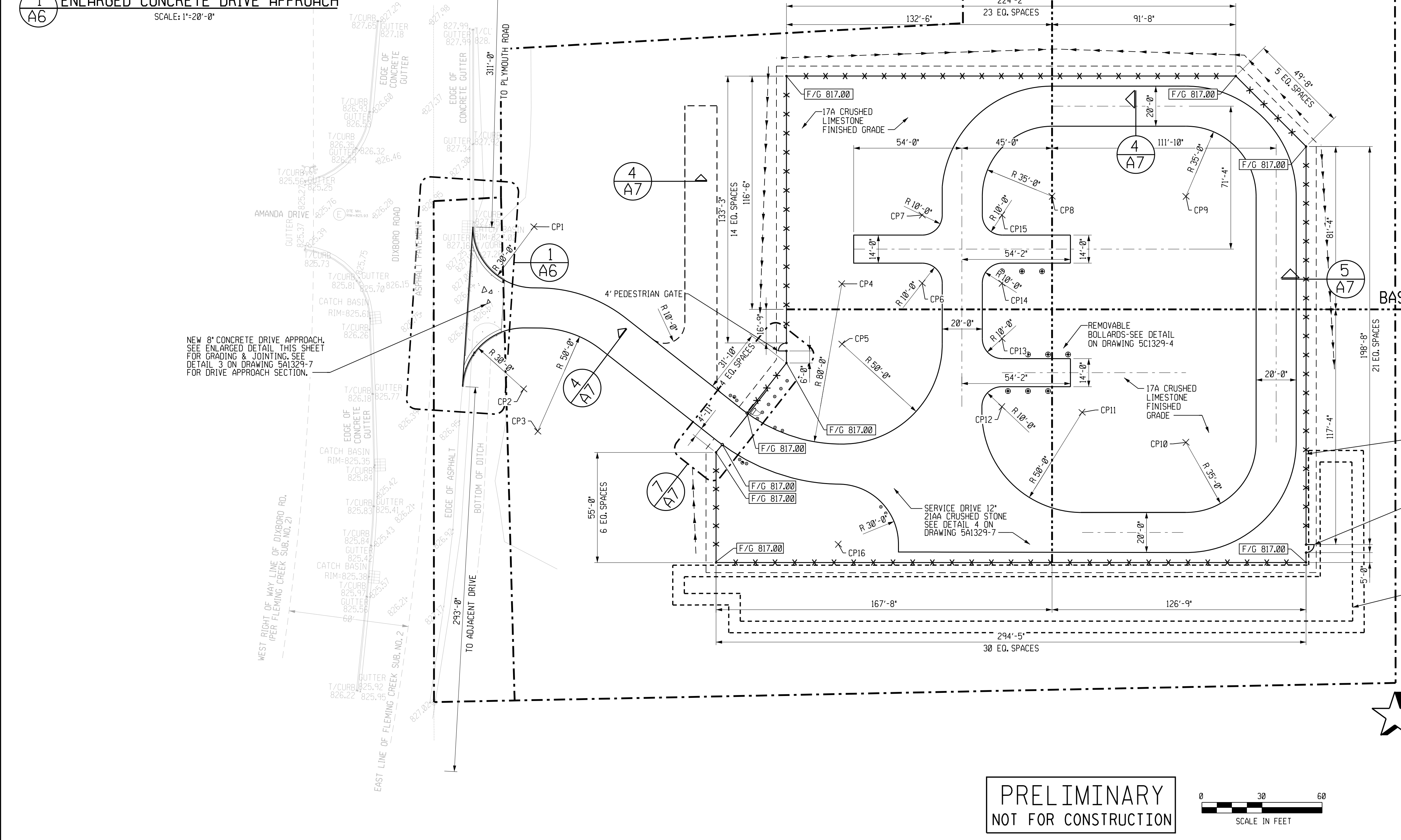
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MADE BY	DATE	ACT	WO RELAY	MADE BY	DATE	ACT	WO RELAY	MADE BY	DATE	ACT	WO RELAY
CH'K BY	DATE	EPPM	APVD FOR ISSUE	CH'K BY	DATE	EPPM	APVD FOR ISSUE	CH'K BY	DATE	EPPM	APVD FOR ISSUE

APPROVALS			
OTHER	DATE	ENGINEERING	
RELAY		MADE BY	DATE
		R.D. BREWER/BV	11/22/24
		LAYOUT BY	DATE
		Z.E. WIACEK/BV	11/22/24
EPPM		CHECKED BY	DATE
		G.J. ESKOLA/BV	11/22/24
ACT		PROJECT DESIGN/ELECT	DATE
		PROJECT DESIGN/ACT	DATE
OTHERS		APPROVED FOR ISSUE	DATE

DTE Energy		<i>DTE Electric</i>	<i>Central Design/Standards</i>
TITLE			
SITE PREPARATION AND DEMOLITION PLAN			
LOCATION NAME	SERVICE CENTER	SCALE	
GRENADA SUBSTATION	ANN ARBOR	1"=30'-0"	
DRAWING NUMBER	WORK ORDER	PROJECT DOCUMENT LIST	
5A1329-5	69084198	GRENA-PDL-A-69084198	
DOCUMENTUM FILENAME			
GRENA-A-0005			



1 ENLARGED CONCRETE DRIVE APPROACH
SCALE: 1"=20'-0"



DRIVEWAY RADII TABLE		
CONSTRUCTION POINT	POINT DESCRIPTION	COORDINATE
CP1	CENTER OF 30' RADIUS	N:296341.45 E:1331492.69
CP2	CENTER OF 30' RADIUS	N:296281.94 E:13314188.75
CP3	CENTER OF 50' RADIUS	N:296249.88 E:13314207.32
CP4	CENTER OF 80' RADIUS	N:296327.39 E:13314357.09
CP5	CENTER OF 50' RADIUS	N:296297.40 E:13314357.98
CP6	CENTER OF 10' RADIUS	N:296328.73 E:13314397.18
CP7	CENTER OF 10' RADIUS	N:296362.72 E:13314396.30
CP8	CENTER OF 35' RADIUS	N:296375.49 E:13314460.83
CP9	CENTER OF 35' RADIUS	N:2964527.63 E:13314527.63
CP10	CENTER OF 35' RADIUS	N:296252.72 E:13314530.80
CP11	CENTER OF 50' RADIUS	N:296266.37 E:13314478.61
CP12	CENTER OF 10' RADIUS	N:296268.13 E:13314438.55
CP13	CENTER OF 10' RADIUS	N:296302.11 E:13314437.67
CP14	CENTER OF 10' RADIUS	N:296329.76 E:13314436.96
CP15	CENTER OF 10' RADIUS	N:296363.75 E:13314436.08
CP16	CENTER OF 30' RADIUS	N:296197.40 E:13314358.72

- GENERAL NOTES:**
- REFER TO SITE PLAN DRAWING 5A1329-1 FOR SITE GRADING CONTOURS.
 - ALL RADII FOR PROPOSED DRIVES AND APPROACHES ARE DIMENSIONED TO BACK OF CURB.
 - ALL AGGREGATE MATERIALS SHALL COMPLY WITH PROJECT CONSTRUCTION SPECIFICATION SECTION 312000 EARTH MOVING.
 - JOINTING SHALL CONFORM TO THE LATEST EDITION OF ACI 330 GUIDE FOR DESIGN & CONSTRUCTION OF CONCRETE PARKING LOTS AS WELL AS OTHER APPLICABLE GOVERNING STANDARDS.
 - INSTALL MDOOT 21AA UNDER NEW CURB TO MATCH NEW PAVEMENT SECTION AGGREGATE BASE THICKNESS. EXTEND MDOOT 21AA 12" BEYOND BACK OF CURB.
 - ADJUST TO GUTTER PAN SPILL OUT AT 1" PER FOOT AS REQUIRED TO PROVIDE POSITIVE DRAINAGE OR NOTED ON PLAN.
 - BACKFILL BEHIND BACK OF CURB TO MATCH EXISTING AND PROVIDE POSITIVE DRAINAGE UNLESS OTHERWISE NOTED.
 - JOINTS SHALL BE PLACED AT RIGHT ANGLES TO THE EDGE OF CONCRETE CURB AND GUTTER.
 - BOTTOM SLOPE OF CURB AND GUTTER STRUCTURE MAY BE THE SAME SLOPE AS TOP OF PAVEMENT. BACK OF CURB AND VERTICAL EDGE OF GUTTER PAN MAY HAVE A MAXIMUM 1/2" BATTER TO FACILITATE FORMING.
 - TAPER CURB TO ZERO AT FREE ENDS.
 - ALL FENCE MATERIALS SHALL COMPLY WITH PROJECT CONSTRUCTION SPECIFICATION SECTION 323100 CHAINLINK FENCE AND GATES.

LEGEND:

- PROPERTY LINE
- x-x-x- PROPOSED FENCE
- - - - - EDGE OF STONE
- ⊙ EXISTING FIRE HYDRANT
- ⊙ EXISTING WATER SHUT OFF
- ⊙ EXISTING ELECTRICAL MANHOLE
- ⊙ EXISTING CATCH BASIN
- 827.92 EXISTING SPOT GRADE
- XXX.XX PROPOSED SPOT GRADE
- - - - - PROPOSED DRAINAGE SWALE
- ▭ CONCRETE PAVEMENT
- ⊙ REMOVABLE BOLLARD
- ⊙ FIXED BOLLARD
- ⊙ CARD READER
- F/G FINISH GRADE ELEVATION
- T/C TOP OF CURB ELEVATION
- G GUTTER ELEVATION
- FL FLOWLINE ELEVATION
- (M) MATCH GRADE ELEVATION

REFERENCE DRAWINGS:

SITE PLAN	5A1329-1
SITE DETAILS	5A1329-7

DATE	SUBMITTED FOR



NOTE TO FIELD
FOR ANY QUESTIONS ON THIS DESIGN, PLEASE CONTACT:
PROJECT ENGINEER
ERIC M. MYRICK
(313)235-6128

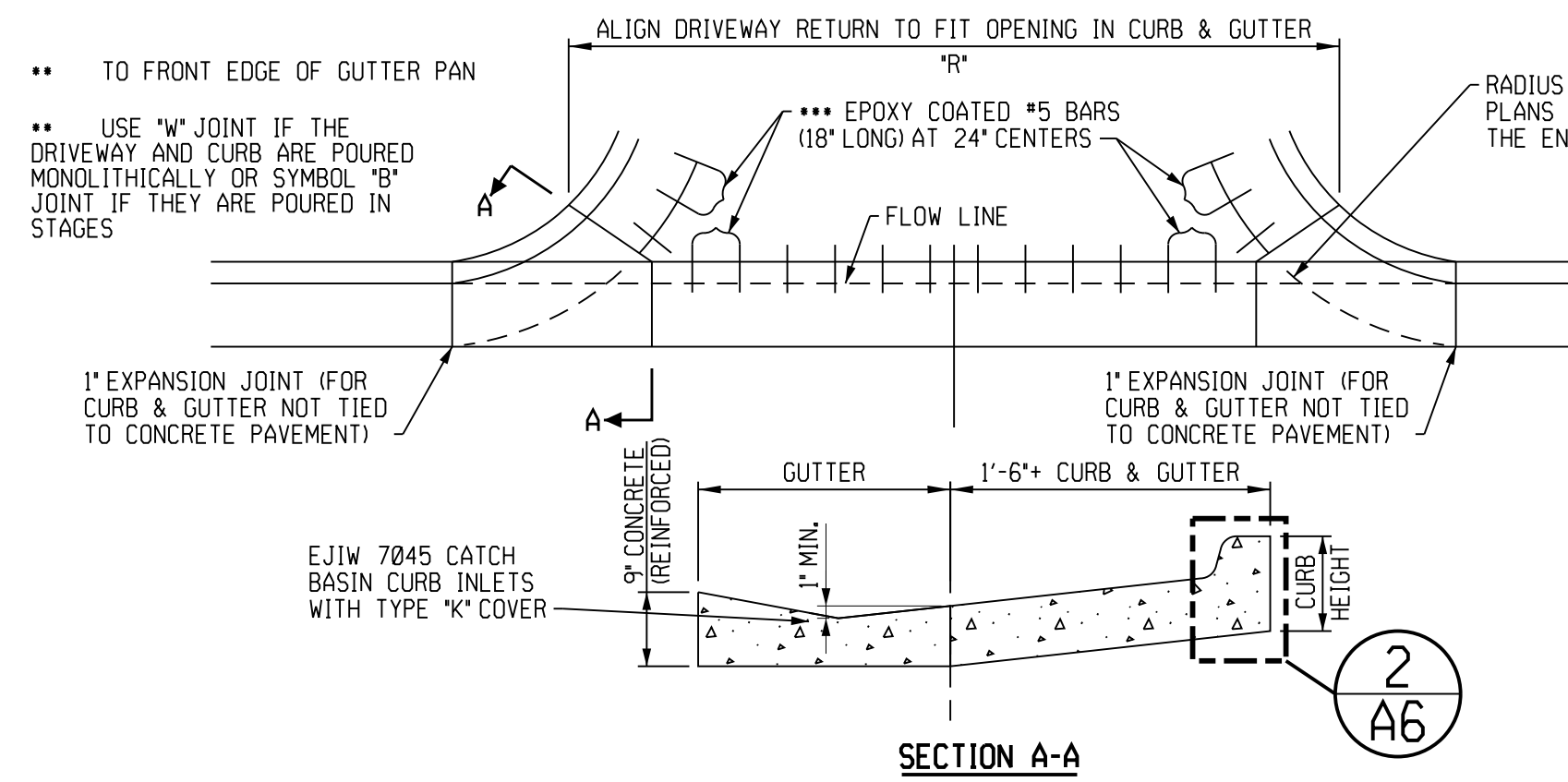
PRELIMINARY NOT FOR CONSTRUCTION

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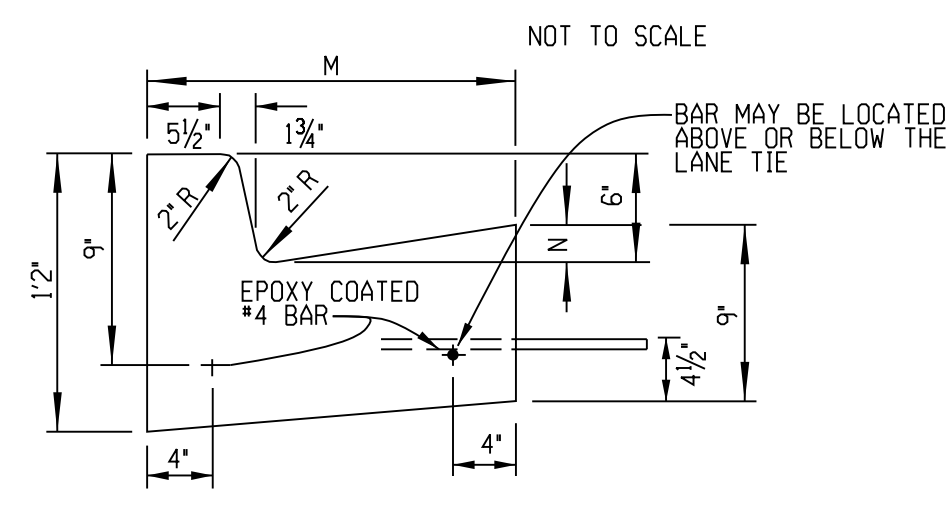
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MADE BY			MADE BY			MADE BY		
DATE			DATE			DATE		
ACT			ACT			ACT		
RELAY			RELAY			RELAY		
APVD FOR ISSUE			APVD FOR ISSUE			APVD FOR ISSUE		
CH'K BY	DATE	EPPM	CH'K BY	DATE	EPPM	CH'K BY	DATE	EPPM

APPROVALS	
OTHER	ENGINEERING
RELAY	MADE BY DATE
EPPM	LAYOUT BY DATE
ACT	CHECKED BY DATE
OTHERS	PROJECT DESIGN/ELECT DATE
	PROJECT DESIGN/ACT DATE
	APPROVED FOR ISSUE DATE
	xxx/bv

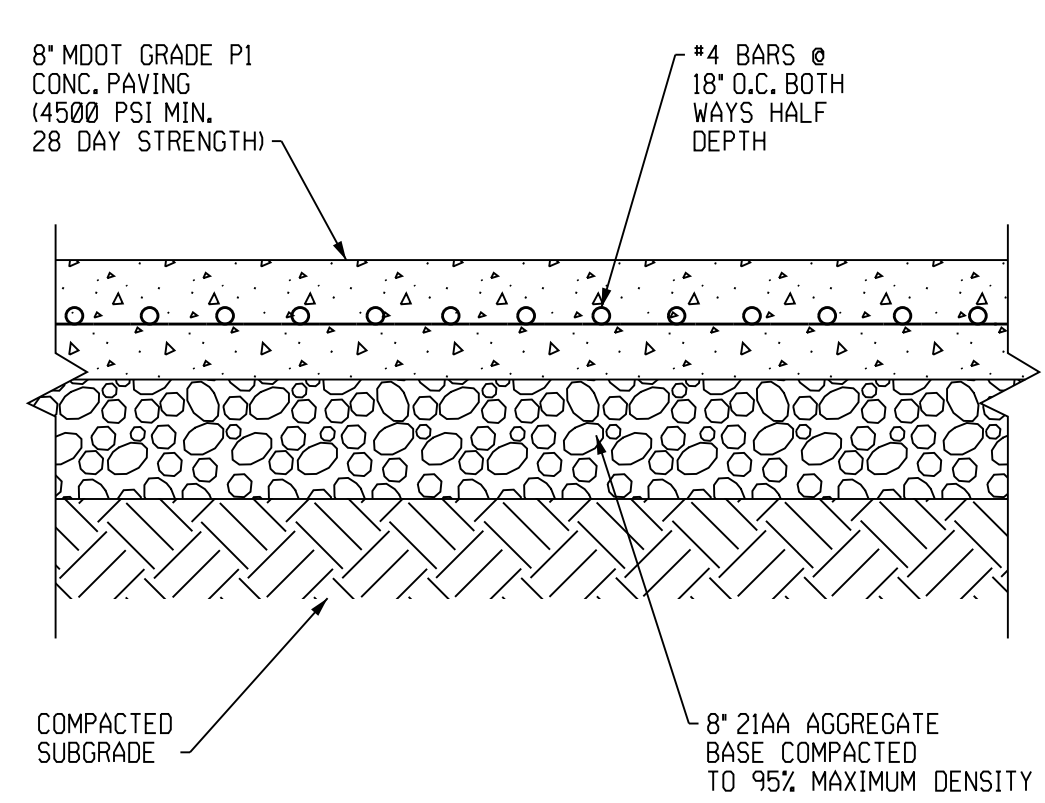
DTE Energy	DTE Electric	Central Design/Standards
TITLE		
FENCE AND SERVICE DRIVE PLAN		
LOCATION NAME	SERVICE CENTER	SCALE
GRENADA SUBSTATION	ANN ARBOR	1"=30'-0"
DRAWING NUMBER	WORK ORDER	PROJECT DOCUMENT LIST
5A1329-6	69084198	GRENA-PDL-A-69084198
DOCUMENTUM FILENAME		
GRENA-A-0006		



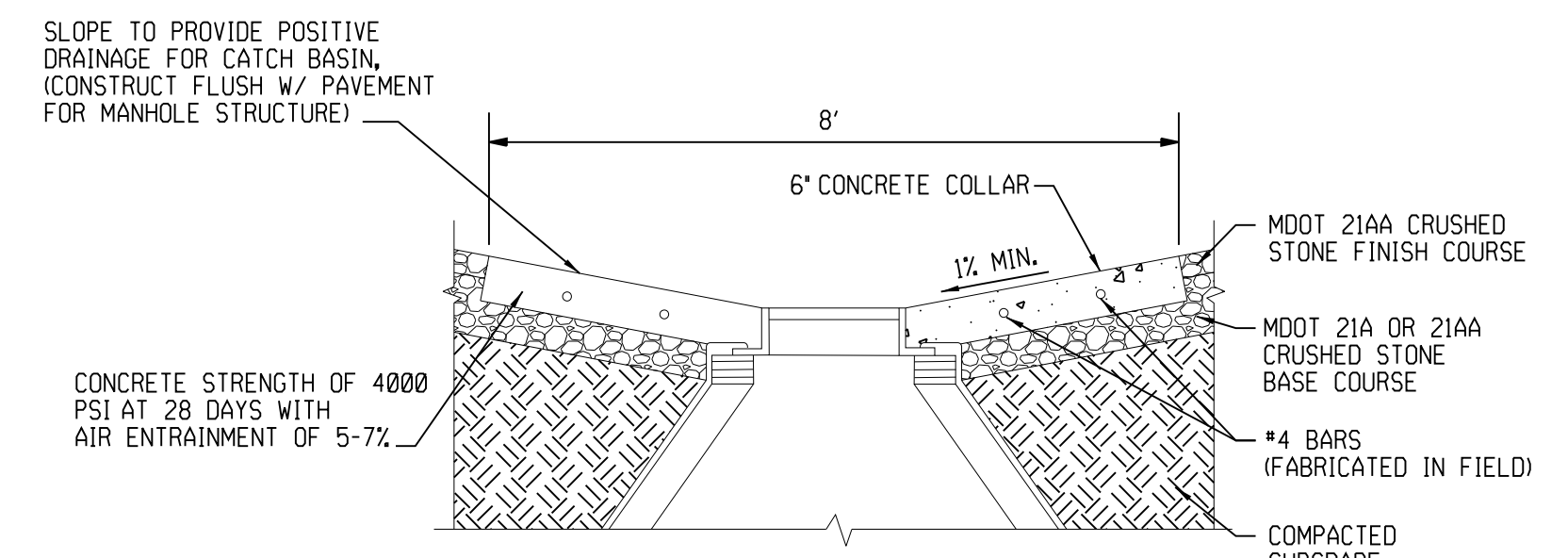
1 CONCRETE DRIVEWAY OPENING LAYOUT
A6 NOT TO SCALE



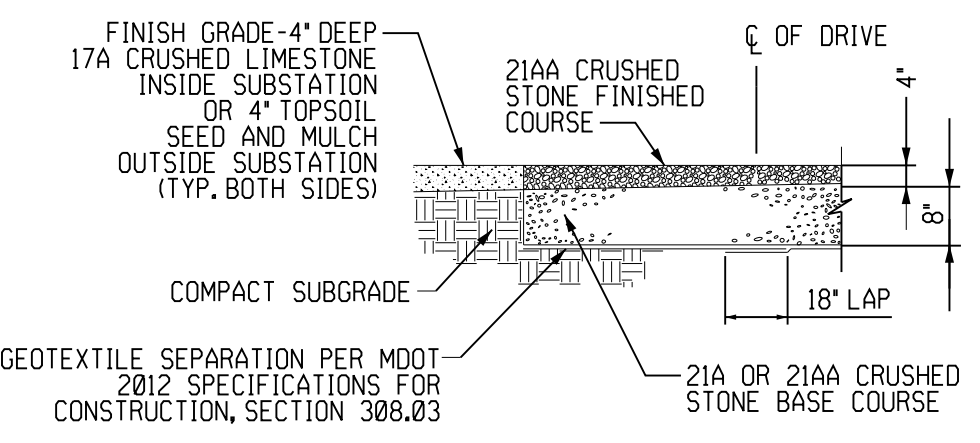
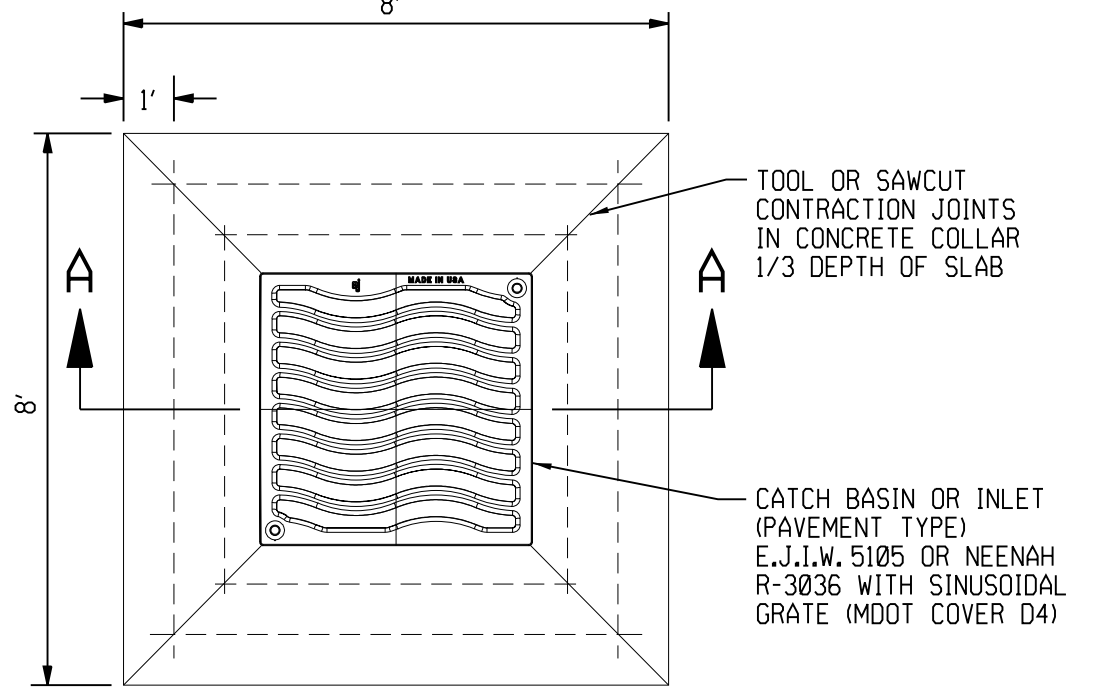
2 CURB & GUTTER DETAIL
A6 NOT TO SCALE



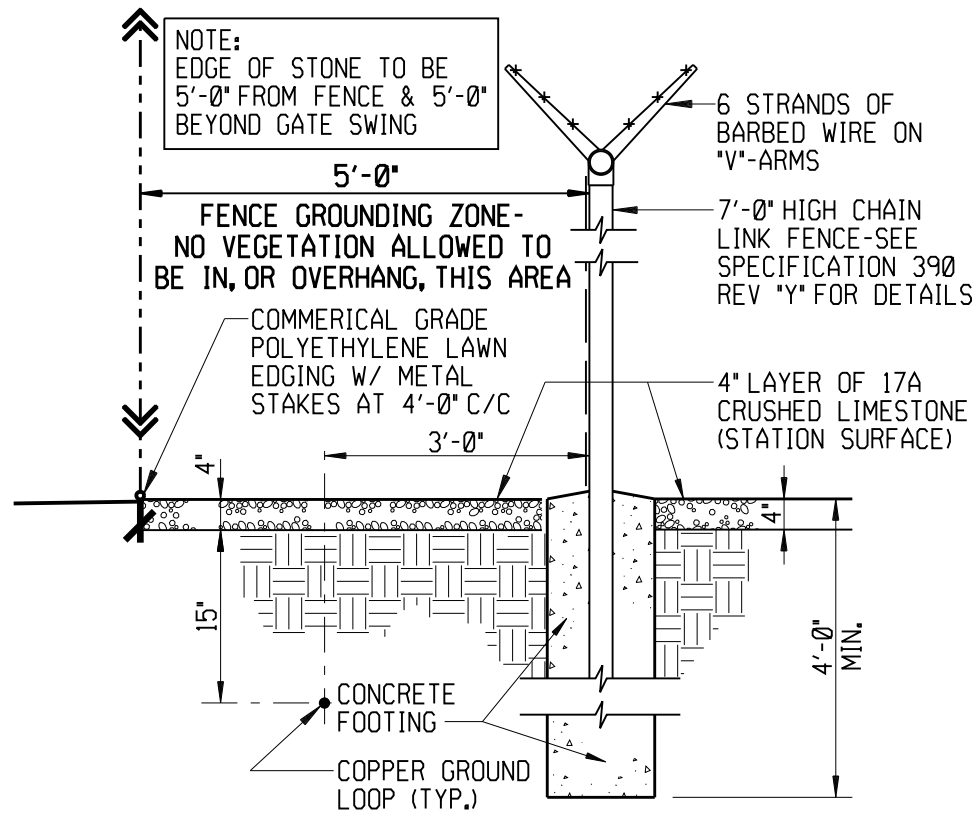
3 TYPICAL 8" CONCRETE DRIVEWAY APPROACH PAVEMENT SECTION
A6 NOT TO SCALE



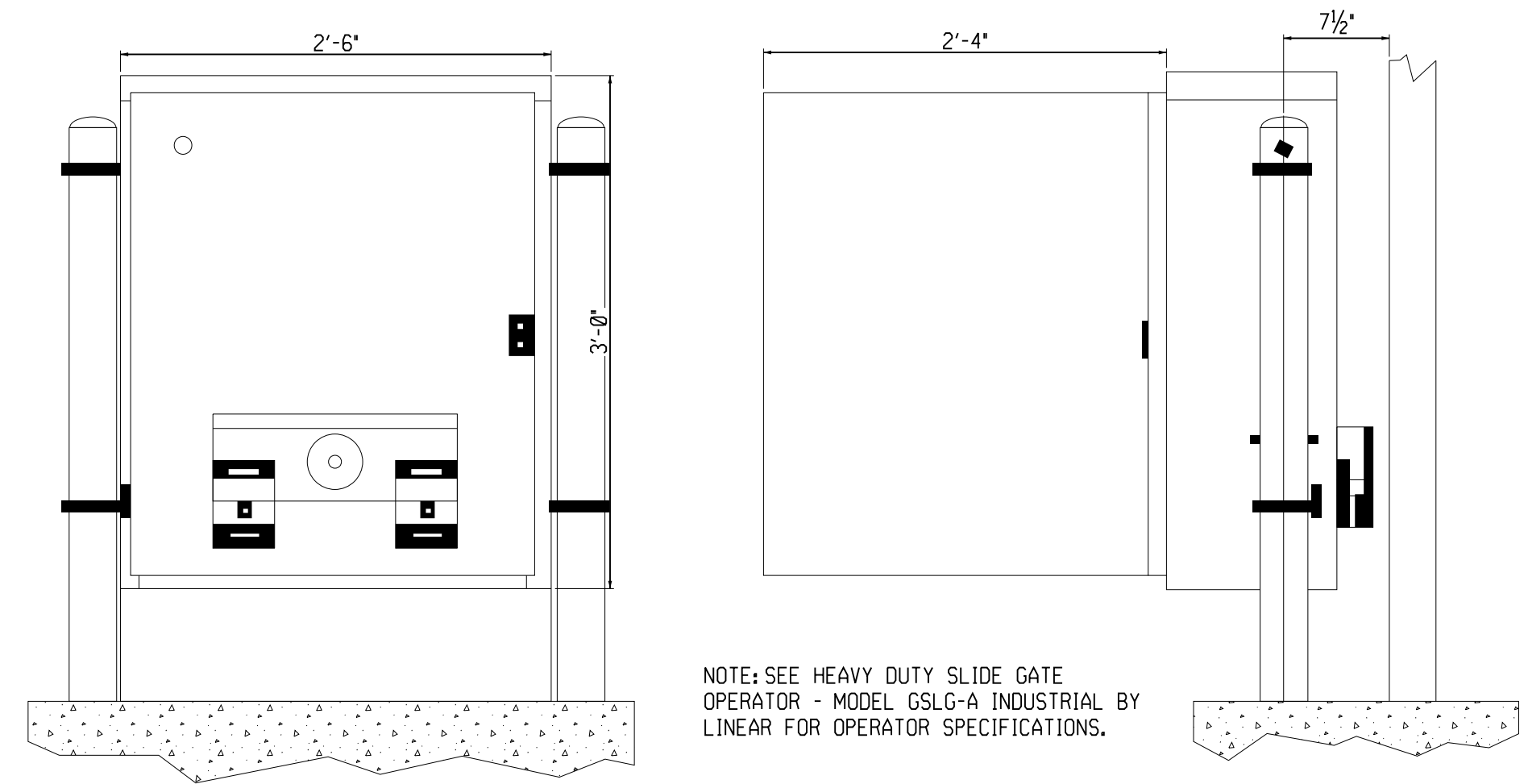
6 CONCRETE COLLAR AT CATCH BASIN
A1 NO SCALE



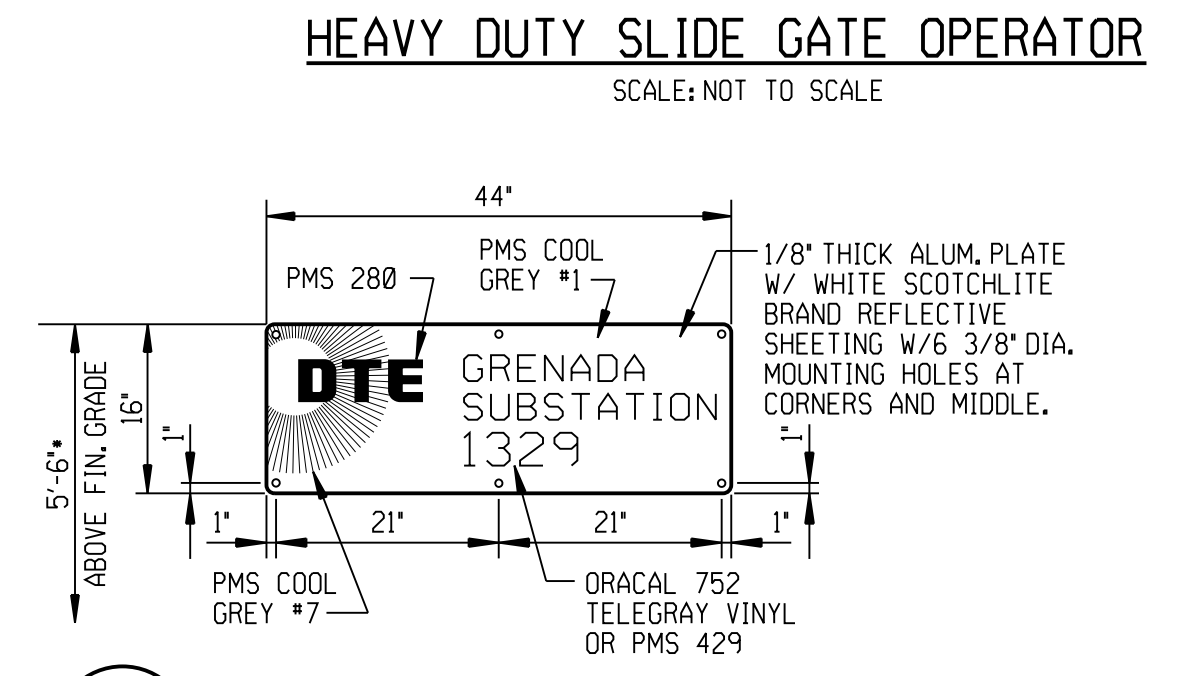
4 SECTION THRU SUBSTATION AND ACCESS DRIVE
A6 NO SCALE



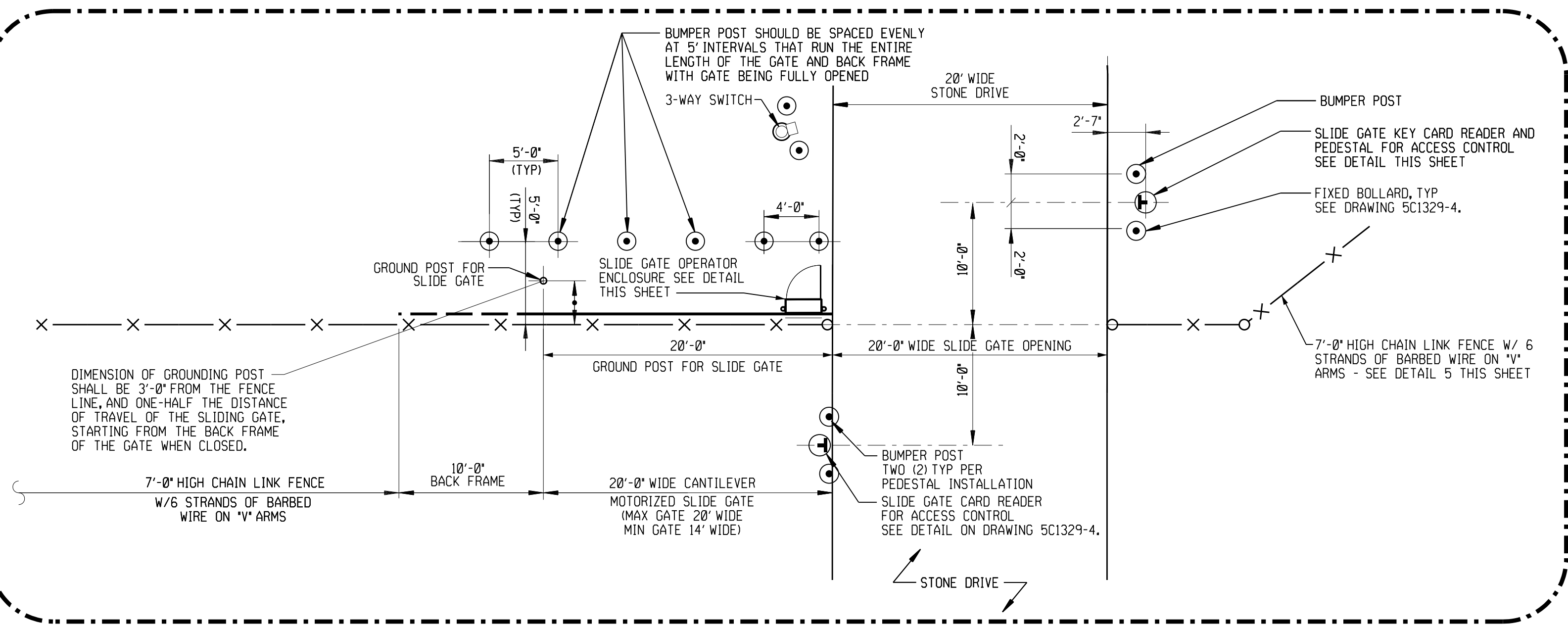
5 YARD EDGE DETAIL
A6 NOT TO SCALE



8 GSG-A SERIES SLIDE GATE OPERATOR SPECIFICATIONS
A1 NO SCALE



8 HEAVY DUTY SLIDE GATE OPERATOR
A1 NO SCALE



7 ENLARGED SLIDE GATE LAYOUT
A6 SCALE: NOT TO SCALE

8 SUBSTATION IDENTIFICATION SIGN
A1 NO SCALE

PRELIMINARY
NOT FOR CONSTRUCTION

STOP THINK ACT REVIEW
Know what's below. Call before you dig.

NOTE TO FIELD
FOR ANY QUESTIONS ON THIS DESIGN, PLEASE CONTACT:
PROJECT ENGINEER
ERIC M. MYRICK
(313)258-6728

REFERENCE DRAWINGS:
SITE PLAN FENCE AND SERVICE DRIVE PLAN 5A1329-1
5A1329-6

DATE	SUBMITTED FOR

C				B				A			
PROJ DESIGN	PROJ MANAGER	OTHERS	DATE	PROJ DESIGN	PROJ MANAGER	OTHERS	DATE	PROJ DESIGN	PROJ MANAGER	OTHERS	DATE

APPROVALS	
OTHER	ENGINEERING
	MADE BY DATE
	R.D. BREWER/BV 11/22/24
	LAYOUT BY DATE
	Z.E. WIACEK/BV 11/22/24
	CHECKED BY DATE
	G.J. ESKOLA/BV 11/22/24
	PROJECT DESIGN/ELECT DATE
	PROJECT DESIGN/ACT DATE
	APPROVED FOR ISSUE DATE

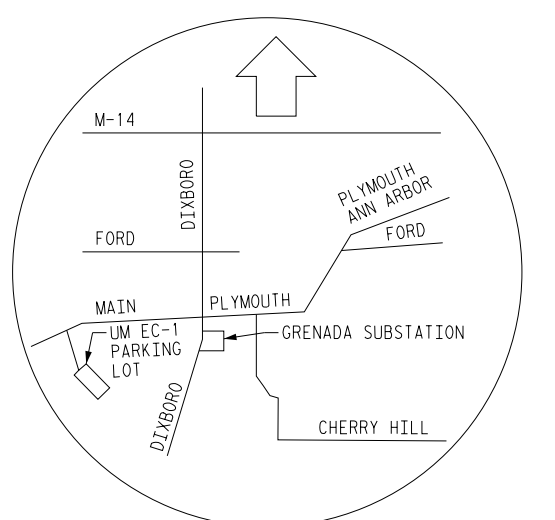
DTE Energy	DTE Electric	Central Design/Standards
TITLE		
SITE DETAILS		
LOCATION NAME	SERVICE CENTER	SCALE
GRENADA SUBSTATION	ANN ARBOR	NONE
DRAWING NUMBER	WORK ORDER	PROJECT DOCUMENT LIST
5A1329-7	69084198	GRENA-PDL-A-69084198



**PROPERTY OWNER/
APPLICANT/DEVELOPER:**
DTE ENERGY - DTE ELECTRIC CO.
ONE ENERGY PLAZA
DETROIT, MI 48226-1279
(313)235-0177

ENGINEER:
BLACK & VEATCH LTD. OF MICHIGAN
3550 GREEN COURT
ANN ARBOR, MICHIGAN 48105
(734) 665-1000 FAX (734) 622-8816

ADDRESS:
3270 N. DIXBORO RD.
ANN ARBOR, MI. 48105



SITE LOCATION MAP

USDA SOIL CLASSIFICATIONS	
MAP UNIT SYMBOL	MAP UNIT NAME
FoB	FOX SANDY LOAM, TILL PLAIN, 2 TO 6 PERCENT SLOPES

SOIL EROSION GENERAL NOTES:

- REFER TO DRAWING 5A1329-9 FOR GENERAL SOIL EROSION NOTES AND DETAILS.
- EGLE WETLAND INVENTORY INDICATES NEAREST WATER BODY IS ASSOCIATED WITH FLEMING CREEK AND IS APPROXIMATELY 300' SOUTH OF SITE PROPERTY BOUNDARIES.

LEGEND:

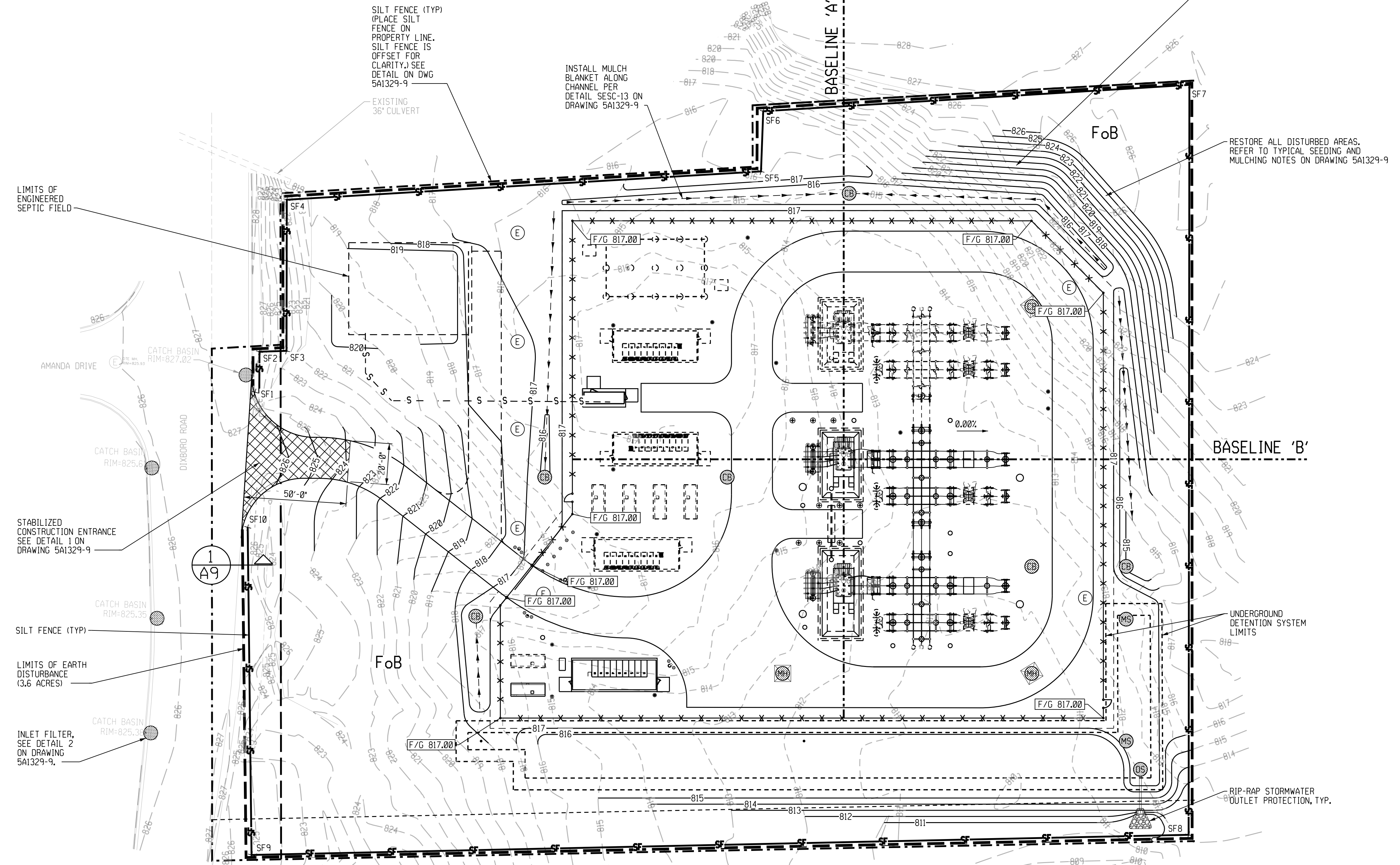
- PROPERTY LINE
- x-x-x- PROPOSED FENCE
- LIMITS OF DISTURBANCE
- EXISTING CONTOUR
- ABANDONED CONTOUR
- PROPOSED CONTOUR
- EXISTING CULVERT
- RIGHT-OF-WAY
- EDGE OF STONE
- STORM/WATER UTILITY EASEMENT
- SILT FENCE
- PROPOSED SPOT GRADE
- PROPOSED DRAINAGE SWALE CENTERLINE
- EXISTING CATCH BASIN
- EXISTING ELECTRICAL MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- UNDERGROUND CONDUIT MANHOLE
- PROPOSED STORM OUTLET STRUCTURE
- REMOVABLE BOLLARD
- FIXED BOLLARD
- CARD READER
- TEMPORARY STONE ACCESS DRIVE
- INLET FILTER
- SILT FENCE LOCATION
- CLEANOUT

POINT NUMBER	COORDINATE
SF1	N:296342.71 E:13314174.12
SF2	N:296364.13 E:13314173.58
SF3	N:296365.25 E:13314187.95
SF4	N:296438.42 E:13314186.06
SF5	N:296458.43 E:13314417.31
SF6	N:296487.57 E:13314417.11
SF7	N:296505.39 E:13314627.00
SF8	N:296136.38 E:13314636.61
SF9	N:296116.36 E:13314177.02
SF10	N:296277.05 E:13314170.59

REFERENCE DRAWINGS:

- SITE PLAN --- 5A1329-1
- LANDSCAPE PLAN --- 5A1329-2
- EXISTING CONDITIONS PLAN --- 5A1329-4
- FENCE AND SERVICE DRIVE PLAN --- 5A1329-6
- SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS --- 5A1329-9
- STORMWATER MANAGEMENT PLAN --- 5M1329-1

DATE	SUBMITTED FOR



SILT FENCE (TYP)
PLACE SILT FENCE ON PROPERTY LINE. SILT FENCE IS OFFSET FOR CLARITY. SEE DETAIL ON DWG 5A1329-9

EXISTING 36" CULVERT

INSTALL MULCH BLANKET ALONG CHANNEL PER DETAIL SESC-13 ON DRAWING 5A1329-9

INSTALL MULCH BLANKETS ON ALL CUT AND FILL SLOPES OUTSIDE SUBSTATION ON DRAWING 5A1329-9.

RESTORE ALL DISTURBED AREAS. REFER TO TYPICAL SEEDING AND MULCHING NOTES ON DRAWING 5A1329-9

LIMITS OF ENGINEERED SEPTIC FIELD

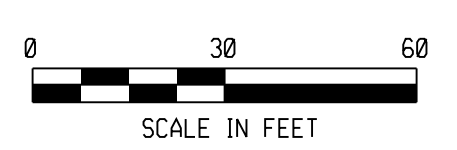
STABILIZED CONSTRUCTION ENTRANCE SEE DETAIL 1 ON DRAWING 5A1329-9

LIMITS OF EARTH DISTURBANCE (3.6 ACRES)

INLET FILTER. SEE DETAIL 2 ON DRAWING 5A1329-9.

NOTE TO FIELD
FOR ANY QUESTIONS ON THIS DESIGN, PLEASE CONTACT:
PROJECT ENGINEER
ERIC M. MYRICK
(313)235-6728

PRELIMINARY
NOT FOR CONSTRUCTION



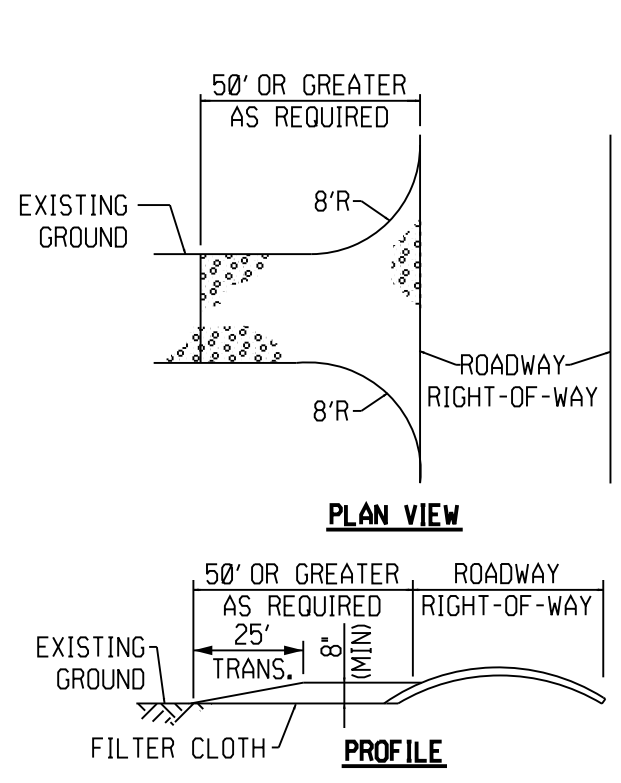
LEGAL DESCRIPTION

ALL THE PART OF SECTION 18, TOWN 2 SOUTH, RANGE 7 EAST, SUPERIOR TOWNSHIP, WASHTENAW COUNTY, MICHIGAN, DESCRIBED AS BEGINNING AT THE WEST 1/4 CORNER OF SECTION 18, AFORESAID; THENCE NORTH 02°30'36" EAST, 250.06 FEET ALONG THE WEST LINE OF SAID SECTION 18, (BEING COMMON TO THE EAST LINE OF SECTION 13, TOWN 2 SOUTH, RANGE 6 EAST); THENCE NORTH 89°20'20" EAST, 33.64 FEET TO THE SOUTHWEST CORNER OF LOT 13 ON THE PLAT OF THE VILLAGE OF DIXBORO, AS RECORDED IN LIBER A ON PAGE 272, WASHTENAW COUNTY RECORDS; THENCE NORTH 02°29'40" EAST, 74.00 FEET ALONG THE WEST LINE OF SAID LOT 13; THENCE NORTH 89°20'20" EAST, 230.90 FEET (ALSO RECORDED AS 231.00 FEET); THENCE NORTH 02°29'40" EAST, 30.00 FEET ALONG THE LINE COMMON TO LOTS 14 AND 15 ON SAID PLAT OF THE VILLAGE OF DIXBORO; THENCE NORTH 89°20'20" EAST, 215.91 FEET; THENCE SOUTH 02°29'40" WEST, 371.38 FEET; THENCE NORTH 88°35'40" WEST, ALONG THE SOUTH LINE OF THREE PARCELS OF LAND AS MONUMENTED AND DESCRIBED IN WARRANTY DEEDS RECORDED IN LIBER 1528, PAGE 598, LIBER 1535, PAGE 253, AND LIBER 1674, PAGE 890, WASHTENAW COUNTY RECORDS TO THE POINT OF BEGINNING, BEING PART OF LOTS 13, 14, 15, 16, AND 17 ON THE SAID PLATE OF THE VILLAGE OF DIXBORO, RESERVING AN EASEMENT FOR THE INSTALLATION AND MAINTENANCE OF UTILITY LINES AND EQUIPMENT OF THE SOUTHERLY 20 FEET OF THE SUBJECT PROPERTY FOR THE BENEFIT OF THE PROPERTY LYING ADJACENT AND TO THE EAST OF THE ABOVE DESCRIBED PROPERTY.

PROJ DESIGN	PROJ MANAGER	OTHERS	PROJ DESIGN	PROJ MANAGER	OTHERS	PROJ DESIGN	PROJ MANAGER	OTHERS

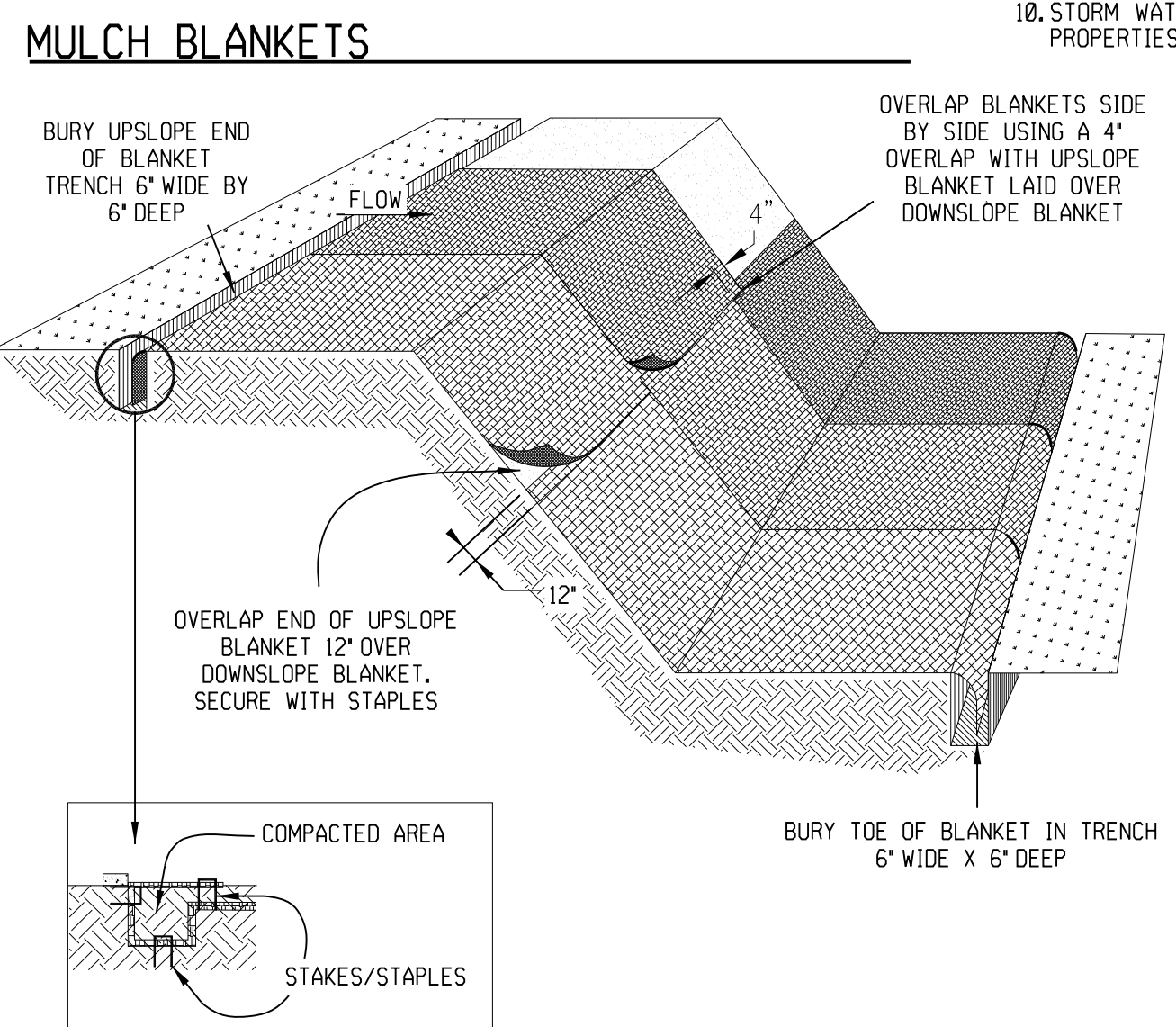
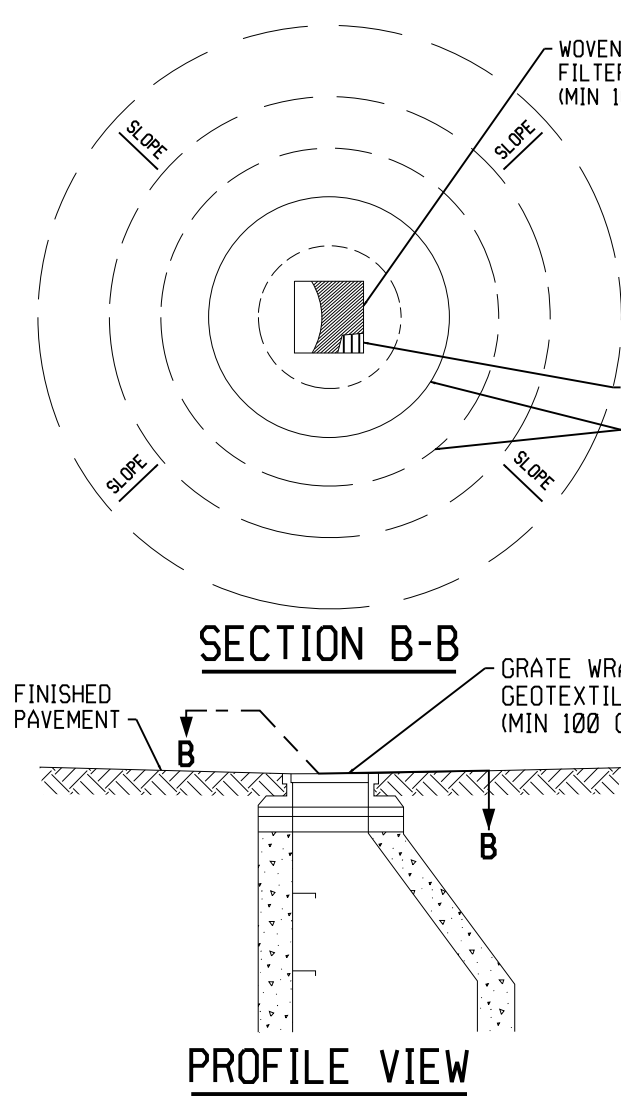
APPROVALS	
OTHER	ENGINEERING
	MADE BY DATE
RELAY	R.D. BREWER/BV 11/22/24
	LAYOUT BY DATE
EPPM	Z.E. WIACEK/BV 11/22/24
	CHECKED BY DATE
ACT	G.J. ESKOLA/BV 11/22/24
	PROJECT DESIGN/ELECT DATE
	PROJECT DESIGN/ACT DATE
	APPROVED FOR ISSUE DATE

DTE Energy			DTE Electric	Central Design/Standards
SOIL EROSION AND SEDIMENT CONTROL PLAN				
LOCATION NAME	GRENADA SUBSTATION	SERVICE CENTER	ANN ARBOR	SCALE
DRAWING NUMBER	5A1329-8	WORK ORDER	69084198	PROJECT DOCUMENT LIST
				GRENA-PDL-69084198



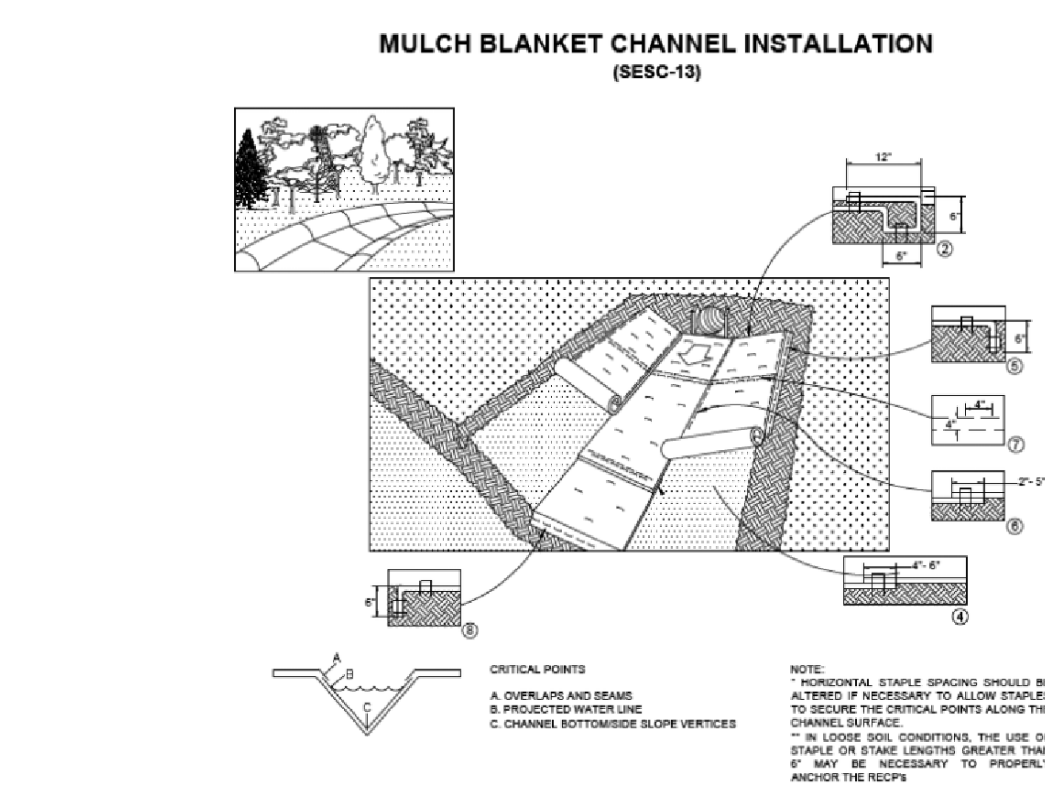
- PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND PUBLIC R.O.W.
- DESIGN CRITERIA FOR STABILIZED CONSTRUCTION ENTRANCE.
 - STONE SIZE - USE ASTM C-33, SIZE NO 2 OR 3, USE CRUSHED STONE (NO CRUSHED CONCRETE)
 - THICKNESS - NOT LESS THAN 8 INCHES.
 - WIDTH - NOT LESS THAN FULL WIDTH OF POINTS OF INGRESS OR EGRESS.
 - LENGTH - 50 FEET MINIMUM WHERE THE SOILS ARE SAND OR GRAVEL OR 100 FEET MINIMUM WHERE SOILS ARE CLAYS OR SILTS, EXCEPT WHERE THE TRAVELED LENGTH IS LESS THAN 50 TO 1 FEET RESPECTIVELY. THESE LENGTHS MAY BE INCREASED WHERE FIELD CONDITIONS DICTATE.
 - FILTER CLOTH - WILL BE PLACED OVER ENTIRE AREA PRIOR TO PLACING OF STONE.
 - MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ON TO PUBLIC RIGHT-OF-WAY THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

1
A9
NO SCALE
STABILIZED CONSTRUCTION ENTRANCE DETAIL



- NOTES:**
- PLACE MULCH BLANKET PARALLEL TO FLOW AND ANCHOR SECURELY.
 - WHEN BLANKETS ARE USED IN FLOWING DITCH, BLANKETS SHOULD NOT OVERLAP IN DITCH CENTER PARALLEL TO FLOW.
 - STAPLES INSTALLED/SECURED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
 - WHERE POSSIBLE, CONSTRUCT WITH BIODEGRADABLE MATERIAL.

2
A9
NO SCALE
INLET FILTER DETAIL



- PREPARE SUBGRADE TO PROPER GRADE AND COMPACTION REQUIREMENTS.
- REMOVE RUTS, ROOTS, SOIL CLODS, OR OTHER DEBRIS FROM SURFACE SUBJECT TO MULCH BLANKET INSTALLATION.
- SPREAD OR DRILL SEED.
- CONSULT WITH EROSION CONTROL MATERIAL SUPPLIER TO SELECT MULCH BLANKET BASED ON SLOPE GRADIENT, EXPECTED SURFACE RUN-OFF, AND PROTECTION TERM NECESSARY (LONG OR SHORT TERM).
- POSITION SELECTED MULCH BLANKET AS CLOSE AS POSSIBLE TO INTENDED USE LOCATION.
- INSTALL BLANKET AT TOP OF SLOPE, FIRST ANCHORING TOE IN TRENCH 6" WIDE X 6" DEEP, PROGRESSING DOWN-SLOPE OR DOWN-GRADIENT WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH.
- ANCHOR THE BLANKET WITH STAPLES/STAKES PLACED APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH, BACKFILL AND COMPACT THE TRENCH AFTER SECURING.
- APPLY SEED TO COMPACTED SOIL AND FOLD THE 12" PORTION OF THE BLANKET OVER COMPACTED AREA AND SECURE WITH A ROW OF STAPLES/STAKES PLACED 12" APART ACROSS THE WIDTH OF THE BLANKET.
- UNROLL THE BLANKETS DOWN OR HORIZONTALLY ACROSS THE SLOPE.
- OVERLAP BLANKET EDGES BY A MINIMUM OF 4" AND BLANKET ENDS BY A MINIMUM OF 12". OVERLAPS SHOULD BE IN THE DIRECTION OF EXPECTED FLOW WITH THE UP-SLOPE BLANKET PLACED OVER THE DOWN-SLOPE BLANKET EDGE.
- SECURE DOWN-SLOPE END OF BLANKET WITH STAPLES/STAKES AND TRENCH IN.

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPs) INCLUDING ANY NECESSARY APPLICATION OF SEED, FERTILIZER AND SOIL.

2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECPs IN A 6" DEEP X 6" HIGH TRENCH WITH APPROXIMATELY 12" OF RECPs EXTENDING BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPs WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPs.

3. SOIL CENTER RECPs IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECPs WILL UNROLL WITH APPROXIMATE 12" OVERLAP. USE SOIL BACKFILL, AS REQUIRED, TO FILL GAPS BETWEEN RECPs. OVERLAP OF RECPs SHOULD BE IN DIRECTION OF FLOW. PLACE TRENCH BACK OF THE CHANNEL TO COMPACTED SOIL WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPs.

4. PLACE CONCRETE RECPs OVER TOP CHANNEL WITH A TRENCH WITH A 4" OVERLAP. USE A DOUBLE ROW OF STAPLES/STAKES APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPs.

5. FULL LENGTH ENDS OF RECPs AT THE TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPs.

6. ADJACENT RECPs MUST BE OVERLAPPED APPROXIMATELY 2" IF OVERLAPPING RECPs TYPES AND STAPLES.

7. IN HIGH FLOW CHANNELS, APPLY DOUBLE ROW OF STAPLES/STAKES APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPs.

8. IN HIGH FLOW CHANNELS, APPLY DOUBLE ROW OF STAPLES/STAKES APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPs.

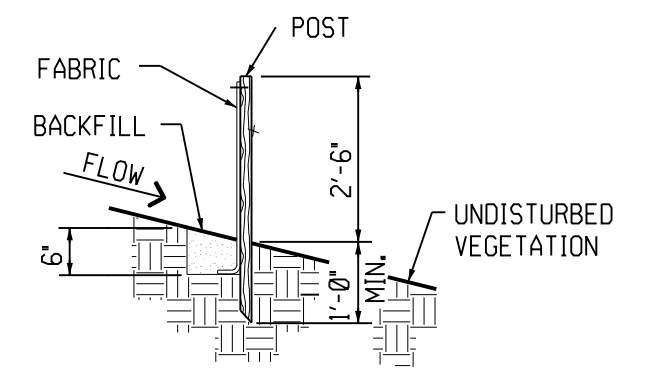
9. IN HIGH FLOW CHANNELS, APPLY DOUBLE ROW OF STAPLES/STAKES APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPs.

10. IN HIGH FLOW CHANNELS, APPLY DOUBLE ROW OF STAPLES/STAKES APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPs.

GENERAL SEDIMENTATION AND EROSION CONTROL NOTES:

- THIS PROJECT SHALL BE CONSTRUCTED IN COMPLIANCE WITH PART 91 OF MICHIGAN ACT 451 OF 1994, AS AMENDED, THE SOIL EROSION AND SEDIMENT CONTROL ACT.
- CONTRACTOR SHALL NOTIFY WASHTENAW COUNTY SOIL EROSION INSPECTORS OFFICE 48 HOURS BEFORE WORK IS TO BEGIN (734) 222-6860.
- THE CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES WHEN REQUIRED, AND AS DIRECTED ON THESE PLANS. THE CONTRACTOR SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES, AND OTHER EARTH CHANGES HAVE BEEN ACCOMPLISHED.
- STAGING OF THE WORK SHALL BE DONE BY THE CONTRACTOR AS DIRECTED IN THESE PLANS, AND AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED EARTH.
- PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY PERMANENT SOIL EROSION CONTROL MEASURES FOR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 5 CALENDAR DAYS AFTER FINAL GRADING, OR THE FINAL EARTH CHANGE, HAS BEEN COMPLETED. WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER EARTH CHANGE HAS BEEN COMPLETED, OR WHERE SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED IMMEDIATELY UNTIL A NOTICE OF TERMINATION IS OBTAINED FROM THE EGLE.
- ALL STOCKPILED SOILS SHALL BE MAINTAINED IN SUCH A WAY AS TO PREVENT EROSION FROM THE SITE. ANY STOCKPILE THAT REMAINS LONGER THAN 15 DAYS SHALL BE GRASS SEED.
- BURLAP IS NOT ALLOWED, AND STRAW BALES CAN ONLY BE USED TO BACKUP SILT FENCES.
- NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL NECESSARY EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AS IDENTIFIED BY THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO IMPLEMENT THE ACTIONS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
- STORM WATER FROM THE SITE SHALL NOT BE PERMITTED TO ADVERSELY IMPACT TO ADJACENT PROPERTIES.

3
A9
NO SCALE
SEDIMENTATION CONTROL FABRIC FENCE (SF)



SEQUENCE OF CONSTRUCTION AND SOIL EROSION AND SEDIMENTATION CONTROL:

- SUBSTATION CONSTRUCTION (DATE TBD)
- INSTALL FILTERS WITHIN DIXBORO ROAD FOR SEWER INLET PROTECTION DURING CONSTRUCTION AS INDICATED ON DRAWING 5A1329-9, (DAY 1)
 - INSTALL TEMPORARY STABILIZED CONSTRUCTION ACCESS ENTRANCE AS INDICATED ON DRAWING 5A1329-9, (DAY 1)
 - INSTALL SILT FENCE ALONG PROPERTY LINE OR AT LIMITS OF GRADING AS INDICATED ON DRAWING 5A1329-9, (DAY 1)
 - SITE WORK. (DAY 2 - DATE TBD)
 - TOTAL AREA OF DISTURBANCE 3.6 ACRES.
 - DURING DRY PERIODS ALL AREAS SHALL BE WATER FOR DUST CONTROL.
 - ALL DIRT AND MUD TRACKED ONTO ROADWAY SHALL BE REMOVED IMMEDIATELY.
 - EXCAVATE AND DISPOSE OF SOIL AS INDICATED ON DRAWING 5A1329-5.
 - MASS GRADE SITE TO ROUGH GRADE.
 - MAINTAIN ALL TEMPORARY SOIL EROSION MEASURES DURING AND AFTER MASS GRADING OF SITE. INSPECT AND REPAIR ANY TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES ON A WEEKLY BASIS AND WITHIN 24 HOURS OF A RAINFALL EVENT.
 - INSTALL ALL STORM SEWER STRUCTURES, SOLID STORM PIPING AND INLET PROTECTION ON NEW STORM SEWER, CAP AND PROTECT UNDERDRAIN CONNECTIONS AT MANHOLE UNTIL UNDERDRAINS ARE INSTALLED. INSTALL PERFORATED UNDERDRAIN SYSTEM AND CONNECT TO STORM STRUCTURES PER DRAWING 5M1329-1.
 - INSTALL UNDERGROUND DETENTION SYSTEM AND TREATMENT UNIT PER VENDOR SPECIFICATIONS. PROTECT INSPECTION PORTS, ACCESS RISERS, STORM SEWER CONNECTIONS UNTIL DETENTION SYSTEM OUTLET IS INSTALLED.
 - INSTALL OUTLET CONTROL STRUCTURE AND DISCHARGE PIPE AS INDICATED ON STORMWATER MANAGEMENT PLANS.
 - ROUTE ALL SURFACE WATER TO NEW STORM OUTLET. CONTRACTOR IS RESPONSIBLE TO MANAGE SURFACE WATER DURING CONSTRUCTION AND PROVIDE PROPER AND NECESSARY FILTRATION TO ENSURE THAT NO SEDIMENT ENTERS DETENTION SYSTEM.
 - INSTALL ALL UNDERGROUND ELECTRIC MANHOLES AND CONDUIT.
 - INSTALL REMAINING UNDERGROUND UTILITIES AND FOUNDATIONS.
 - CONSTRUCT 12-INCH THICK GRAVEL DRIVES AS INDICATED ON PLANS.
 - INSTALL 4-INCH THICK SURFACING STONE OVER REMAINDER OF SITE TO RESTORE AND STABILIZE SURFACE.
 - INSTALL PROPOSED LANDSCAPING AND SCREENING PER DRAWING 5A1329-2.
 - RESTORE GREENBELT AREA BETWEEN SUBSTATION AND PROPERTY LINES WITH SEED AND MULCH PER PLANS.
 - INSTALL ABOVE GRADE STRUCTURES AND EQUIPMENT.
 - REMOVE TEMPORARY STABILIZED CONSTRUCTION ENTRANCES AFTER SUBSTATION WORK IS COMPLETE AND INSTALL NEW CONCRETE CURBS AND DRIVE APRONS AS INDICATED ON PLANS.
 - REMOVE REMAINING TEMPORARY SOIL EROSION MEASURES AFTER SURFACE RESTORATION IS COMPLETE AND STABILIZED AFTER ACCEPTANCE BY WASHTENAW COUNTY SOIL EROSION INSPECTOR.

NOTES:

- DATES, IF PROVIDED ARE ESTIMATES ONLY, AND MAY VARY DUE TO WEATHER OR PROJECT DELAYS. REFER TO SOIL EROSION CONTROL SEQUENCE OF CONSTRUCTION NOTES ON THIS SHEET.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF SOIL EROSION AND SEDIMENTATION CONTROL DEVICES AND SHALL COMPLY WITH THE WASHTENAW COUNTY PERMIT PROCEDURES FOR SOIL EROSION AND SEDIMENTATION CONTROL PER WASHTENAW COUNTY DEPARTMENT OF PUBLIC SERVICES AND LAND RESOURCE MANAGEMENT DIVISION.

DEWATERING:

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING APPROPRIATE PERMITS FROM LOCAL AUTHORITIES FOR DISCHARGE INTO RECEIVING WATERS WHEN APPLICABLE.
- IF REQUIRED, DEWATERING MUST BE CONDUCTED SO THAT DISCHARGE WATER VELOCITY DOESN'T CAUSE SCOURING OF RECEIVING AREA.
- IF SEDIMENT IS PRESENT IT SHALL BE REMOVED PRIOR TO DISCHARGE. DISCHARGE SHALL BE MAINTAINED A MINIMUM OF 100'-0" AWAY FROM ANY WETLAND OR WATER BODY.
- SURFACE WATER THAT CONTACTS CONTAMINATED SOILS, AND DECONTAMINATION WATER THAT IS GENERATED WHILE CLEANING EQUIPMENT WILL BE CONSIDERED CONTACT WATER. CONTACT WATER SHALL BE COLLECTED AND STORED AND PROPERLY DISPOSED OF OFF SITE AT OWNER APPROVED FACILITY BY THE CONTRACTOR.
- DEWATERING SHALL BE CONDUCTED IN ACCORDANCE TO DEWATERING PLAN PROVIDED BY THE CONTRACTOR AND APPROVED BY DTE. SEE SPECIFICATIONS FOR DETAILS.

SEEDING AND MULCHING:

- ALL DISTURBED AREAS NOT AGGREGATE SURFACED SHALL BE STABILIZED WITH SEED AND MULCH. THE AREA TO BE SEED SHALL BE GRADED TO A SMOOTH EVEN SUBGRADE TO AN ELEVATION THREE INCHES BELOW THE PREPARED FINISHED GRADE.
- AFTER APPROVAL BY THE ENGINEER OF THE GRADING OF THE SUBGRADE AS ABOVE DESCRIBED, THREE INCHES OF TOPSOIL SHALL BE PLACED THEREON. AFTER SPREADING OF TOPSOIL TO THE PREPARED FINISHED GRADE, ANY LARGE CLODS OR LUMPS SHALL BE BROKEN WITH A PULVERIZER OR OTHER EFFECTIVE MEANS AND ALL FOREIGN MATTER SHALL BE REMOVED AND DISPOSED OF OFF THE SITE. IMMEDIATELY BEFORE FERTILIZING AND SEEDING, THE TOPSOIL SHALL BE BROUGHT TO A FRIABLE CONDITION BY DISKING AND HARROWING TO A DEPTH OF THREE INCHES.
- MOOT CLASS A CHEMICAL FERTILIZER SHALL BE UNIFORMLY APPLIED ON THE PREPARED TOPSOIL SURFACE AT A RATE OF 540 POUNDS PER ACRE OF 12-12-12, PER MOOT SPEC 917.10.
- IMMEDIATELY AFTER THE FERTILIZER HAS BEEN PLACED, GRASS SEED MIXTURE TDS SHALL BE SOWN IN ACCORDANCE WITH MOOT SPEC. 816. REFER TO MOOT TABLE 917-1 FOR SEED MIXTURE TDS.
- SEEDS SHALL NOT BE SOWN THROUGH MULCH. THE SEED MIXTURE REQUIRED SHALL BE SOWN, OR RESOWN, AT A RATE OF 220 POUNDS PER ACRE WITH EITHER MECHANICAL DRILLS, BROADCAST, OR HYDRO-SEEDER TYPE EQUIPMENT. AREAS THAT ARE SOWN BY HYDRO-SEEDER OR THE BROADCAST METHOD WILL BE VISUALLY INSPECTED FOR UNIFORMITY OF APPLICATION. AREAS SOWN BY HYDRO-SEEDER OR THE BROADCAST METHOD SHALL BE FLOATED AND LIGHTLY COMPACTED TO INCORPORATE THE SEED INTO THE UPPERMOST 1+4" INCH OF THE SOIL.
- SEED SHALL BE SOWN IN THE PERIOD FROM APRIL 20 TO OCTOBER 1. NO SEED SHALL BE SOWN OUTSIDE THIS PERIOD UNLESS APPROVED BY ENGINEER.
- IMMEDIATELY AFTER COMPLETION OF THE SEEDING OPERATION, THE SEEDING AREAS SHALL BE MULCHED. MULCH SHALL CONSIST OF STRAW SPREAD OVER THE SURFACE TO A UNIFORM THICKNESS AT A RATE OF 2 TONS PER ACRE (0.83 POUNDS PER SQUARE YARD) OR AS APPROVED BY THE ENGINEER, UNLESS OTHERWISE SPECIFIED. THE MULCH SHALL BE HELD IN PLACE BY A SPRAY COATING OF ADHESIVE MATERIAL APPROVED BY THE ENGINEER OR BY USING A NOTCHED DISK THAT PUNCHES AND ANCHORS THE MULCH MATERIAL. THE CONTRACTOR SHALL PROTECT ALL TRAFFIC SIGNS, STRUCTURES, AND OTHER OBJECTS FROM BEING MARKED OR DISFIGURED BY THE ADHESIVE MATERIAL. THE MULCH SHALL BE LOOSE ENOUGH TO ALLOW SUNLIGHT TO PENETRATE AND AIR TO SLOWLY CIRCULATE, BUT THICK ENOUGH TO SHADE THE GROUND, REDUCE THE RATE OF WATER EVAPORATION, AND PREVENT OR REDUCE WATER AND WIND EROSION. MULCH THAT HAS BECOME DISPLACED SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- DURING THE PERIOD FROM APRIL 20 TO NOVEMBER 1, ALL AREAS SEEDING SHALL BE WATERED AS NECESSARY UNTIL THE GRASS HAS BEEN ESTABLISHED AS REQUIRED BY THE SOIL EROSION PERMIT.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN A FINAL RESULT THAT WILL PROVIDE A WELL ROOTED GROWTH, RESISTANT TO NORMAL WASHING AND DROUGHT. SHOULD THE FIRST ATTEMPT AT SEEDING FAIL TO PRODUCE THE REQUIRED RESULT, THE CONTRACTOR WILL BE RESPONSIBLE FOR REPEATING THE NECESSARY OPERATIONS TO PRODUCE THE DESIGNED RESULTS, AT NO ADDITIONAL COST TO OWNER.
- AFTER VEGETATION IS ESTABLISHED, SLOPED AREAS WILL BE MOWED ONLY TO DETER THE GROWTH OF BRUSH.

SOIL EROSION & SEDIMENTATION CONTROL MAINTENANCE:

- THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN THE SOIL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS BEFORE AND AT ALL TIMES DURING CONSTRUCTION ON THE PROJECT. ANY MODIFICATIONS OR ADDITIONS TO SOIL EROSION CONTROL MEASURES DUE TO CONSTRUCTION OR CHANGED CONDITIONS SHALL BE COMPLETED WITH AS REQUIRED OR DIRECTED BY THE ENGINEER OR ENFORCEMENT AGENCY.
- ALL SOIL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE PERMIT REQUIREMENTS OF WASHTENAW COUNTY.
- DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR. PERIODIC INSPECTIONS MAY BE MADE BY THE OWNER/ENGINEER TO DETERMINE THE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES. ANY NECESSARY CORRECTIONS SHALL BE MADE WITHIN 48 HOURS.
- ALL SILT FENCE SHALL BE INSPECTED DAILY, INCLUDING AROUND YARD DRAINS. SILT FENCE WHICH IS UNDERMINED, CLOGGED, FALLING OVER, OR OTHERWISE FUNCTIONING IMPROPERLY SHALL BE REPAIRED AND RESTORED TO ITS ORIGINAL INSTALLATION DETAIL WITHIN 48 HRS.
- EROSION AND ANY SEDIMENTATION 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 MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
- THE CONTRACTOR SHALL INSTRUCT ALL DRIVERS TO CLEAN SOIL MATERIALS FROM TIRES PRIOR TO EXITING THE SITE.
- ALL MUD/DIRT TRACKED INTO CITY STREETS & STATE ROADS FROM THIS SITE DUE TO CONSTRUCTION SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR. ALL MUD/DIRT TRACKED OR SPILLED ON PAVED ROAD SURFACES WITHIN AND ADJACENT TO THIS SITE SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR DAILY. STREETS SHALL BE SWEEPED WEEKLY AT A MINIMUM.
- SHOULD DUST BECOME A PROBLEM ON SITE, CONTRACTOR SHALL USE WATERING OR ANY OTHER METHOD OF DUST CONTROL ACCEPTABLE TO THE OWNER.
- THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION.

REFERENCE DRAWINGS:

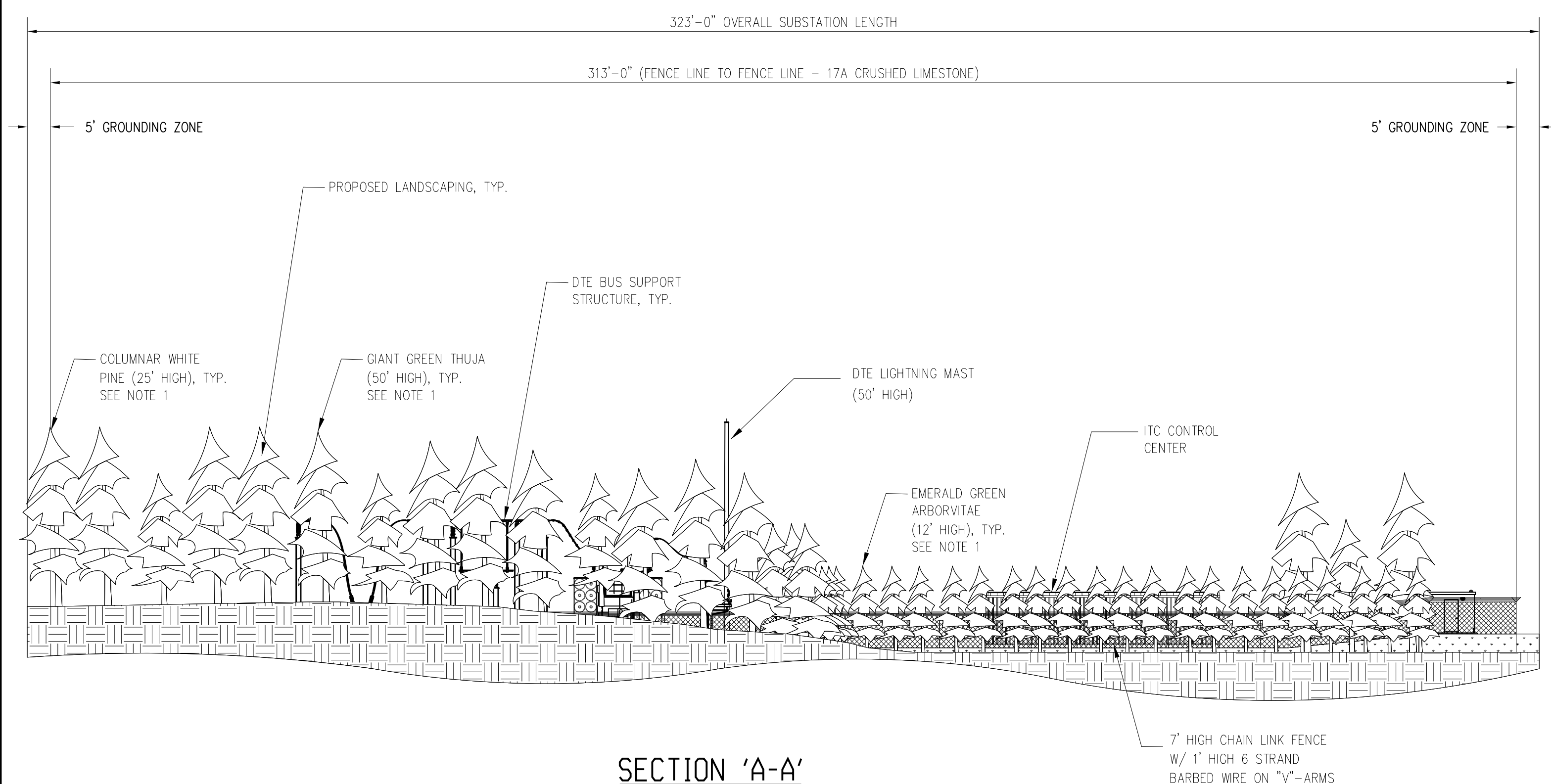
SITE PLAN	5A1329-1
SITE PREPARATION AND DEMOLITION PLAN	5A1329-5
SOIL EROSION AND SEDIMENT CONTROL PLAN	5A1329-8
STORMWATER MANAGEMENT PLAN	5M1329-1

DATE	SUBMITTED FOR	DTE Energy	DTE Electric	Central Design/Standards
DATE	SUBMITTED FOR			
DATE	SUBMITTED FOR			
DATE	SUBMITTED FOR			
TITLE		SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS		
LOCATION NAME	SERVICE CENTER	SCALE		
GRENADA SUBSTATION	ANN ARBOR	NONE		
DRAWING NUMBER	WORK ORDER	PROJECT DOCUMENT LIST		
5A1329-9	69084198	GRENA-PDL-A-69084198		

PRELIMINARY NOT FOR CONSTRUCTION

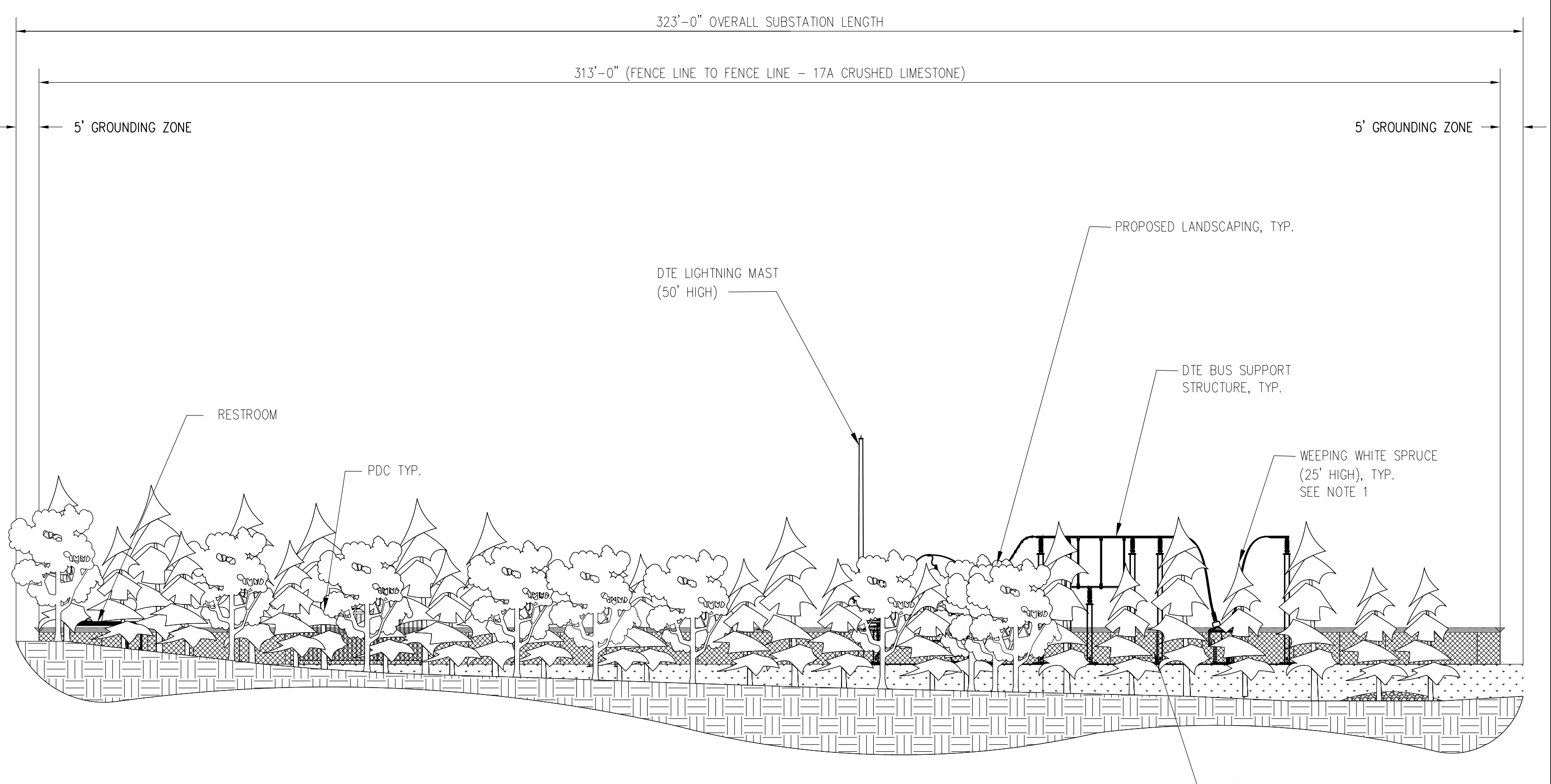
NOTE TO FIELD
FOR ANY QUESTIONS ON THIS DESIGN, PLEASE CONTACT:
PROJECT ENGINEER
ERIC M. MYRICK
(313)235-6728

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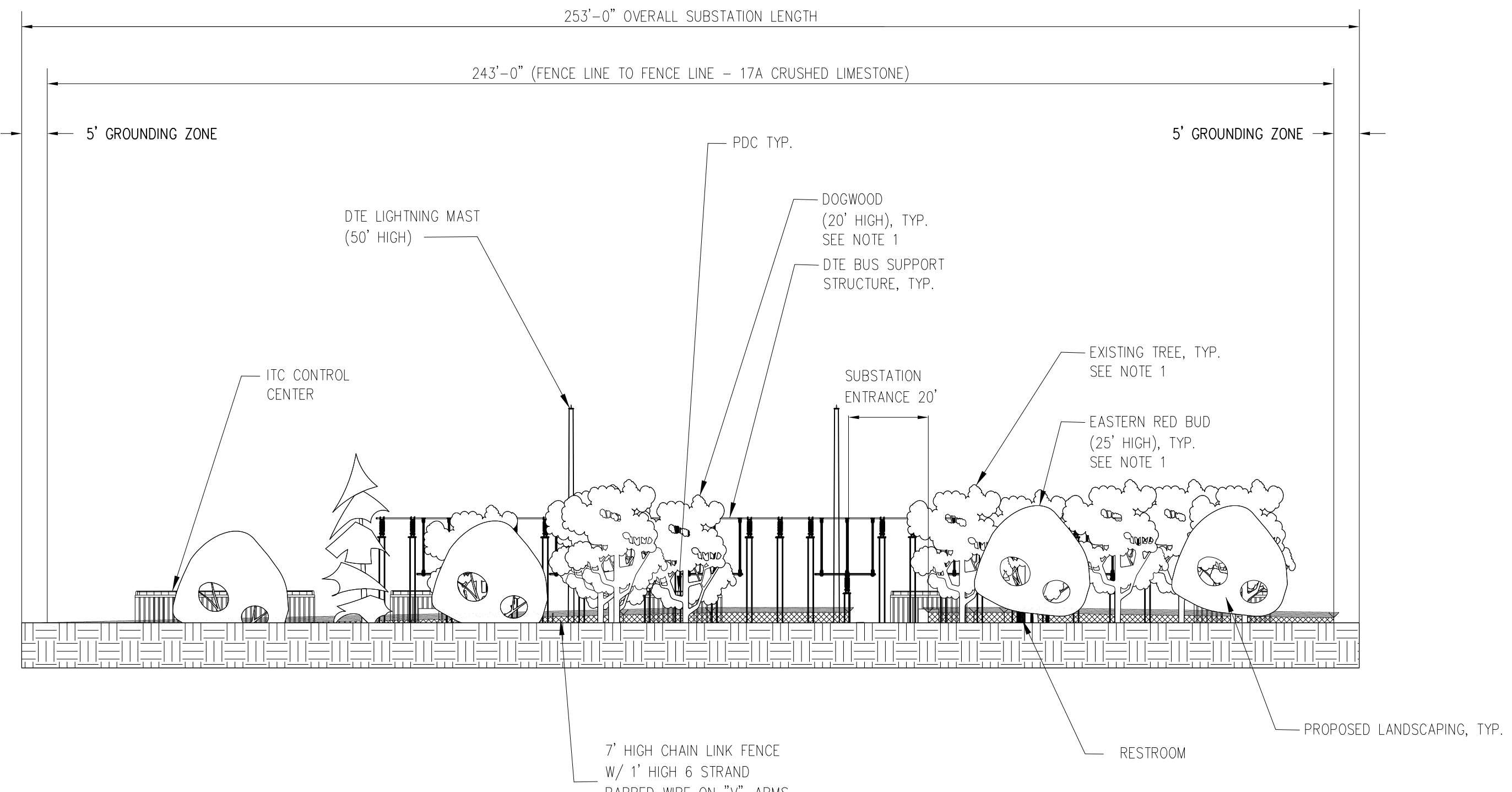
SECTION 'A-A'

NOTE: ALL TREES SHOWN IN THIS VIEW ARE SHOWN AT FULL MATURITY



SECTION 'C-C'

NOTE: ALL TREES SHOWN IN THIS VIEW ARE SHOWN AT FULL MATURITY



SECTION 'B-B'

NOTE: ALL TREES SHOWN IN THIS VIEW ARE SHOWN AT FULL MATURITY

GENERAL NOTES:
 1. REFER TO LANDSCAPE PLAN 5A1329-2.C FOR PROPOSED TREE ARRANGEMENT AND SEE TREE MATERIAL LIST TABLE FOR QUANTITIES AND MINIMUM PLANTING SIZES.

**PRELIMINARY
NOT FOR CONSTRUCTION**



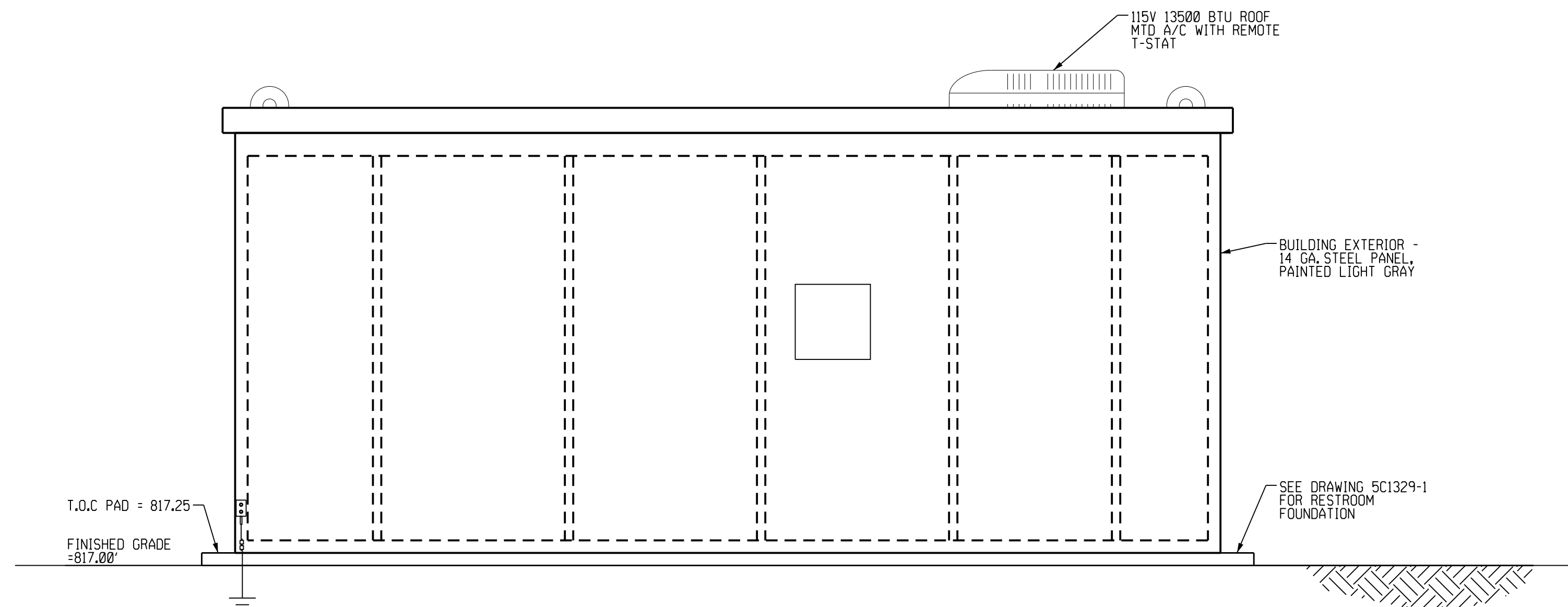
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 FOR ANY QUESTIONS ON THIS DESIGN, PLEASE CONTACT:
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 ERIC M. MYRICK
 (313)235-6128

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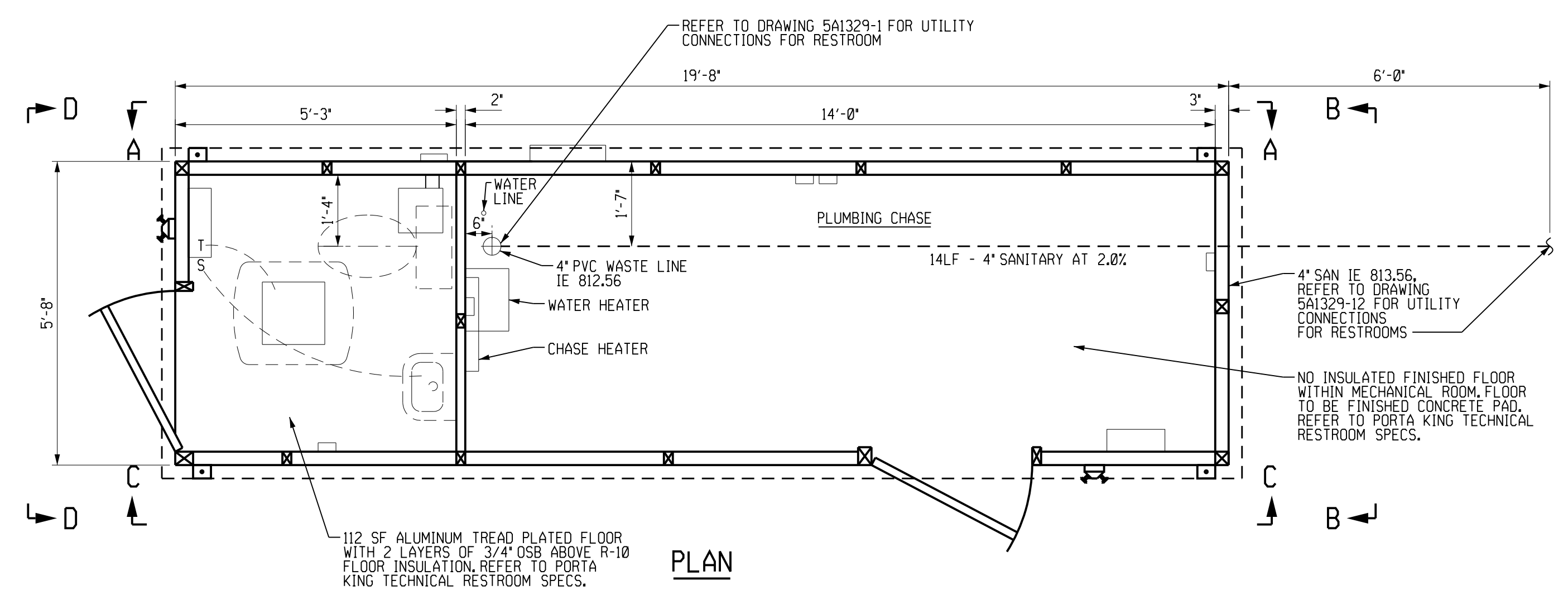
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DATE	SUBMITTED FOR
DATE	SUBMITTED FOR

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DATE	PROJ DESIGN	PROJ MANAGER	OTHERS	DATE	PROJ DESIGN	PROJ MANAGER	OTHERS	DATE	PROJ DESIGN	PROJ MANAGER	OTHERS	DATE	OTHER	ENGINEERING	DATE

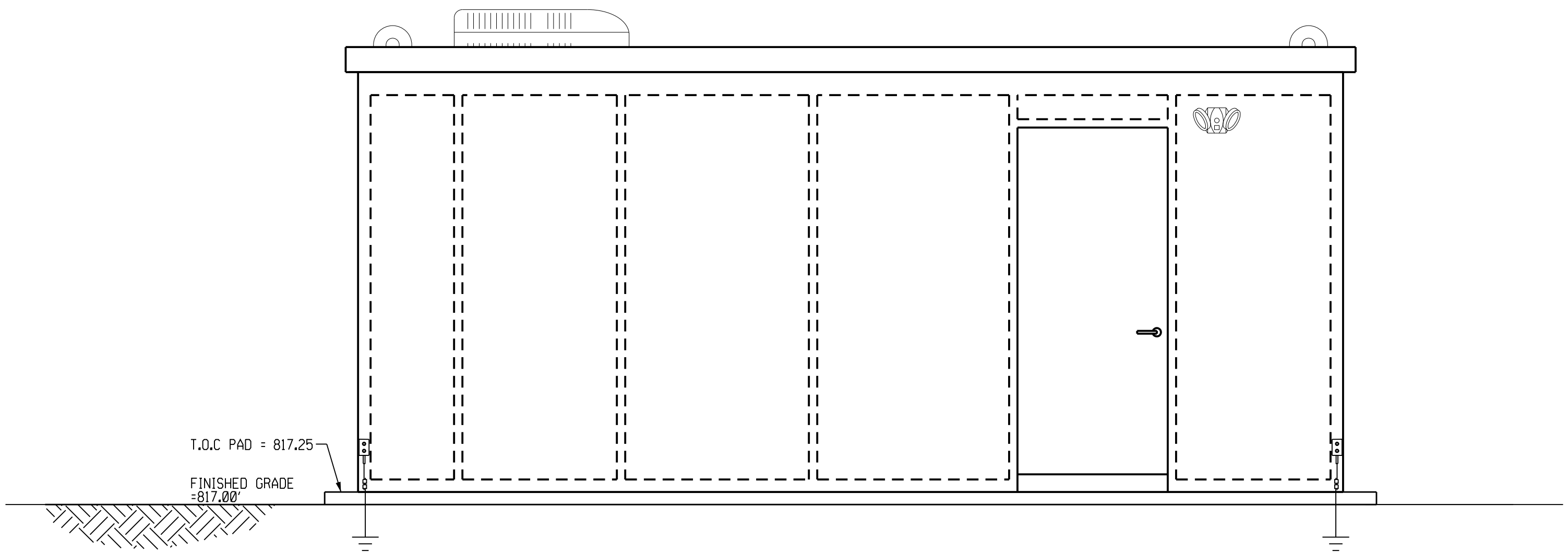
DTE Energy			<i>DTE Electric</i>	<i>Central Design/Standards</i>
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LOCATION NAME	SERVICE CENTER	SCALE		
GRENADA SUBSTATION	ANN ARBOR	1"=20'		
DRAWING NUMBER	WORK ORDER	PROJECT DOCUMENT LIST		
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DOCUMENTUM FILENAME GRENA-A-0010				



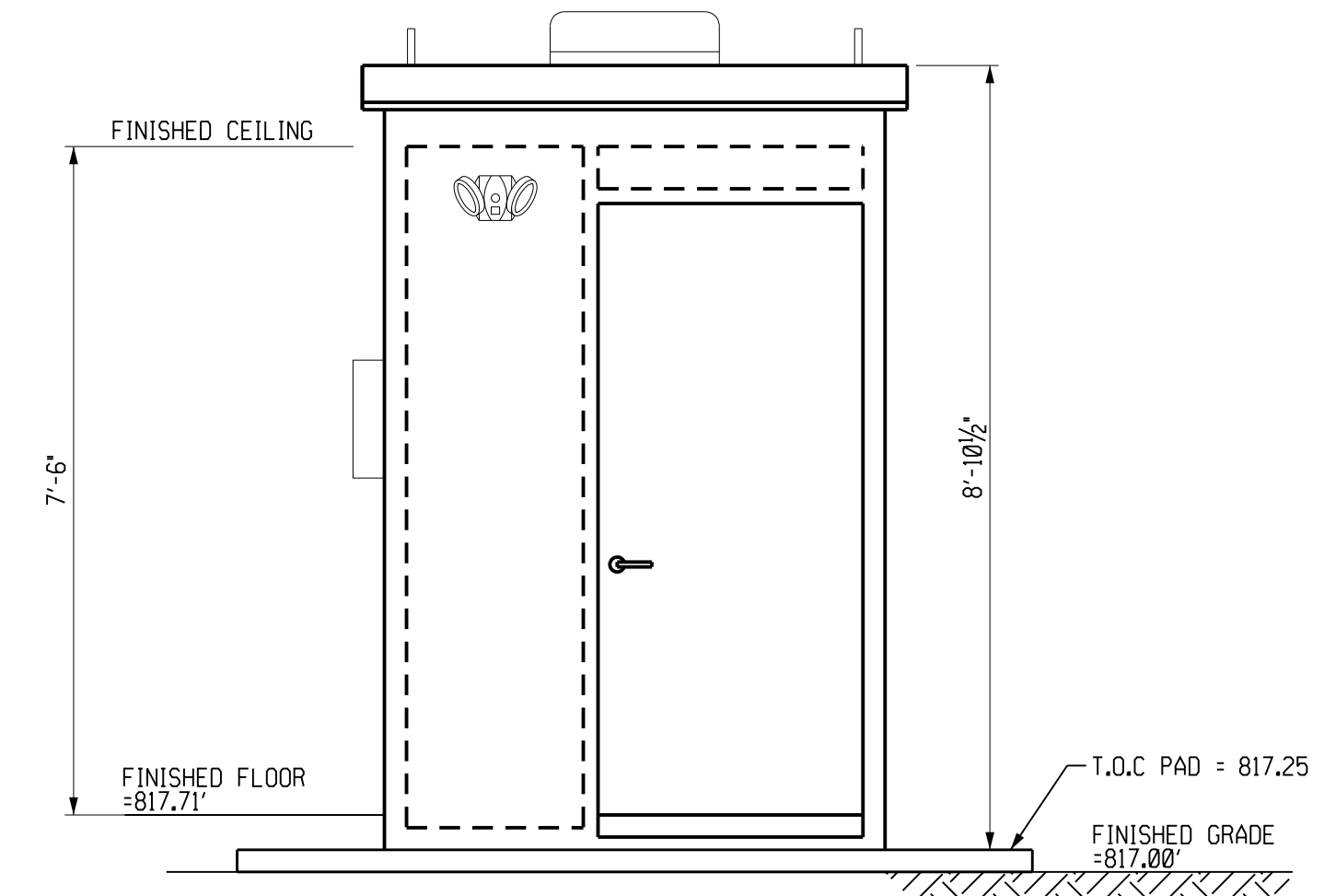
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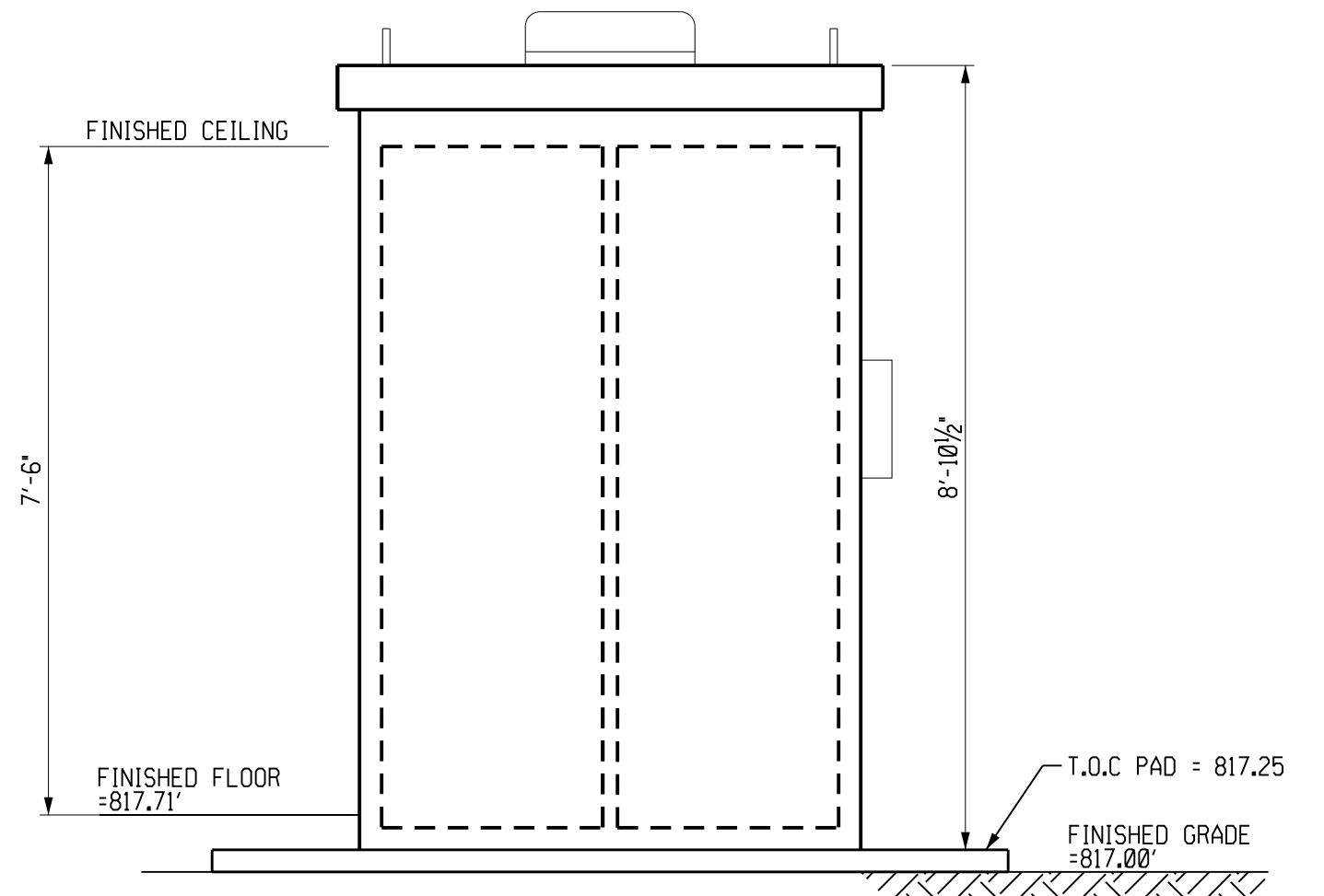
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SECTION C-C



SECTION D-D



SECTION B-B

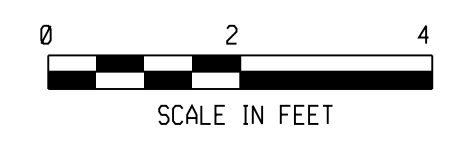


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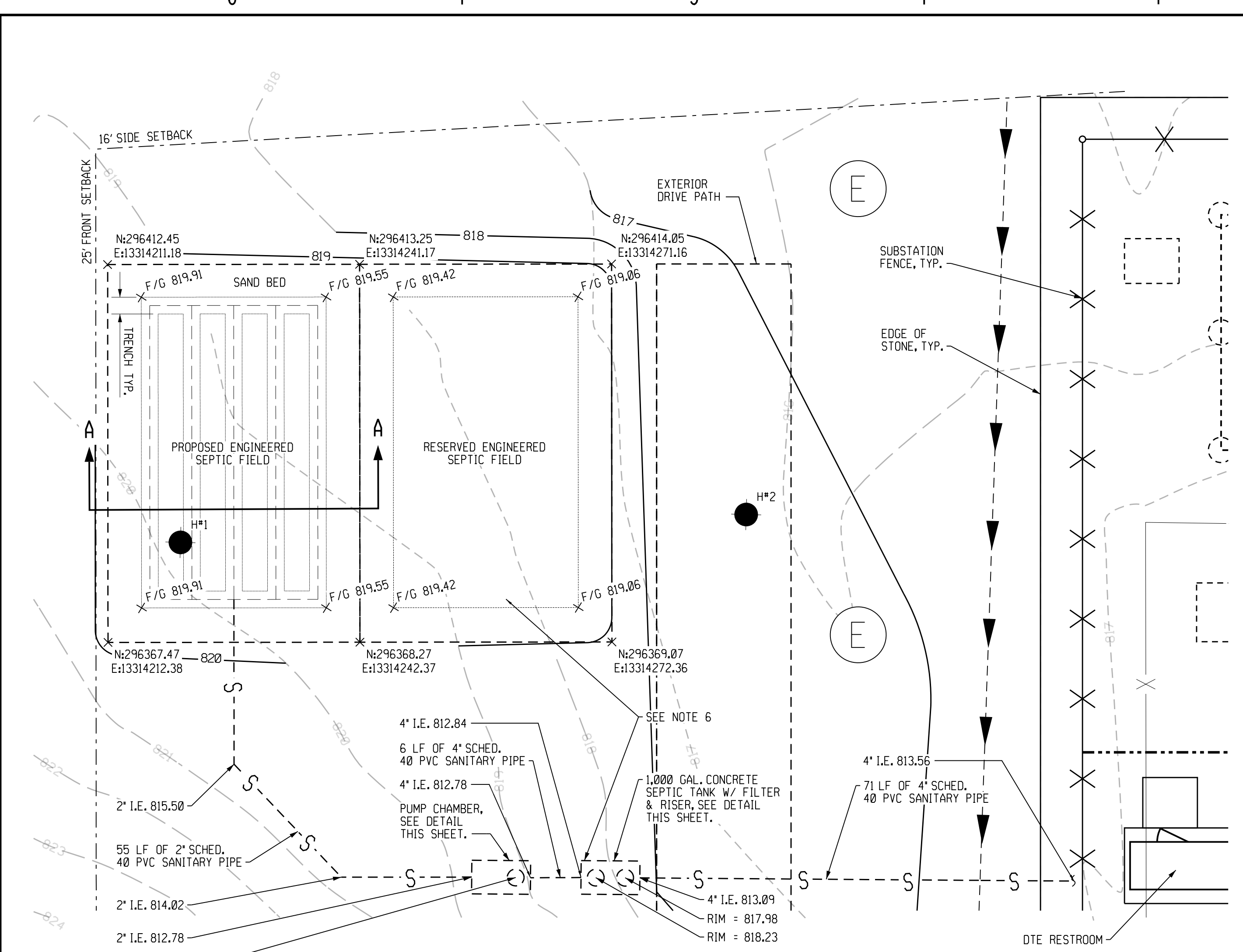
SITE PLAN	5A1329-1
RESTROOM SEPTIC DESIGN	5A1329-12
CONCRETE DETAILS RESTROOM MAT	5C1329-4

NOTE TO FIELD
 FOR ANY QUESTIONS ON THIS DESIGN,
 PLEASE CONTACT:
 PROJECT ENGINEER
 ERIC M. MYRICK
 13131235-6728

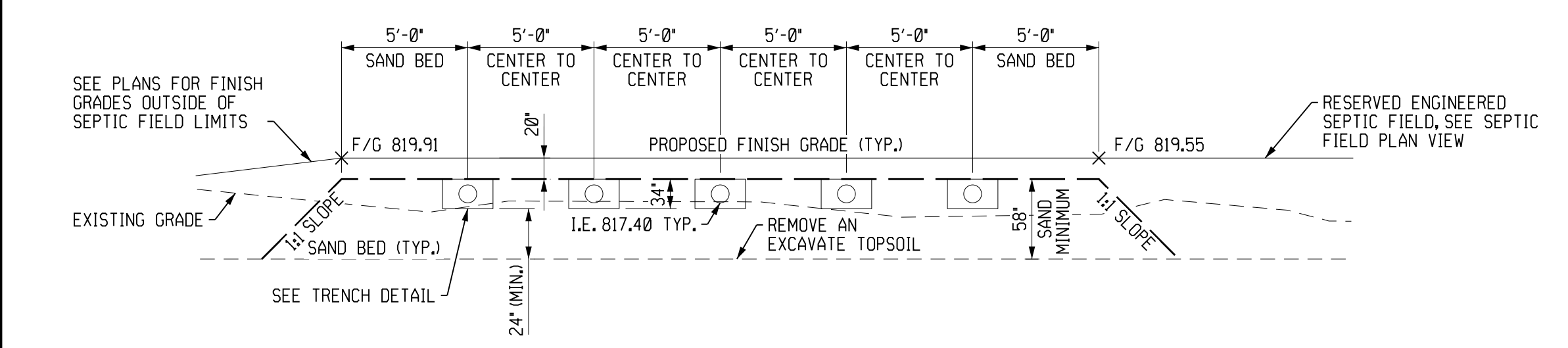
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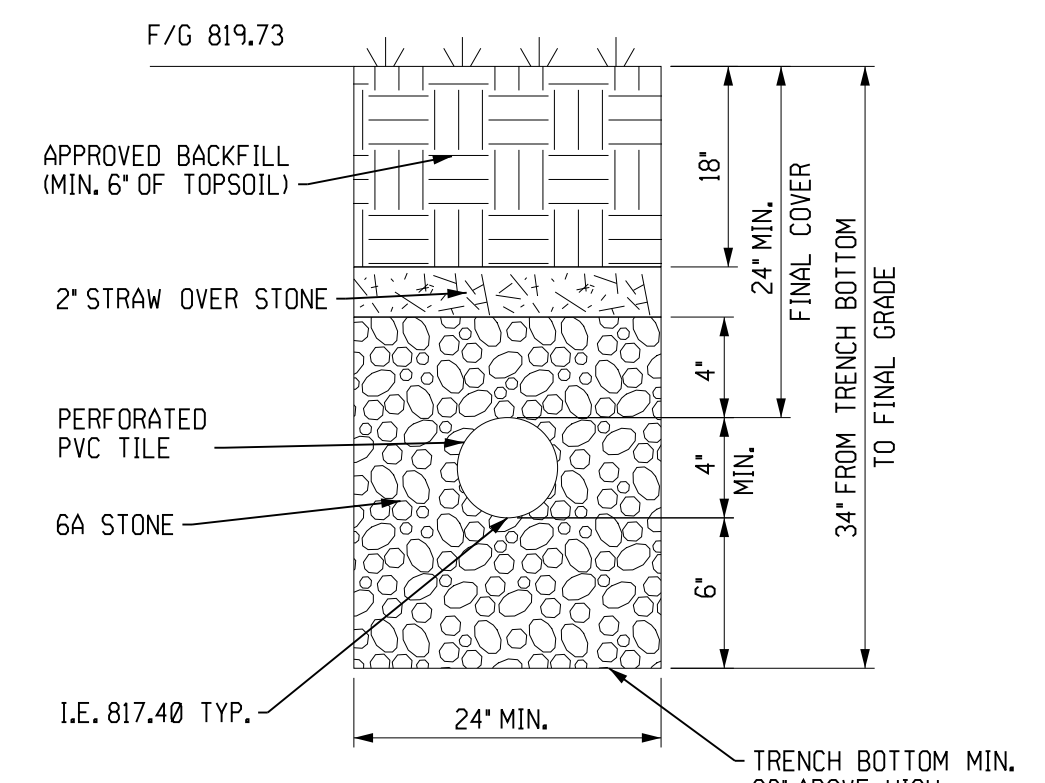
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												RELAY		MADE BY		RESTROOM LAYOUT AND ELEVATIONS	GRENADA SUBSTATION	ANN ARBOR	1"=2'-0"
												EPPM		LAYOUT BY					
												ACT		CHECKED BY					
												OTHERS		PROJECT DESIGN/ELECT					
														PROJECT DESIGN/ACT					
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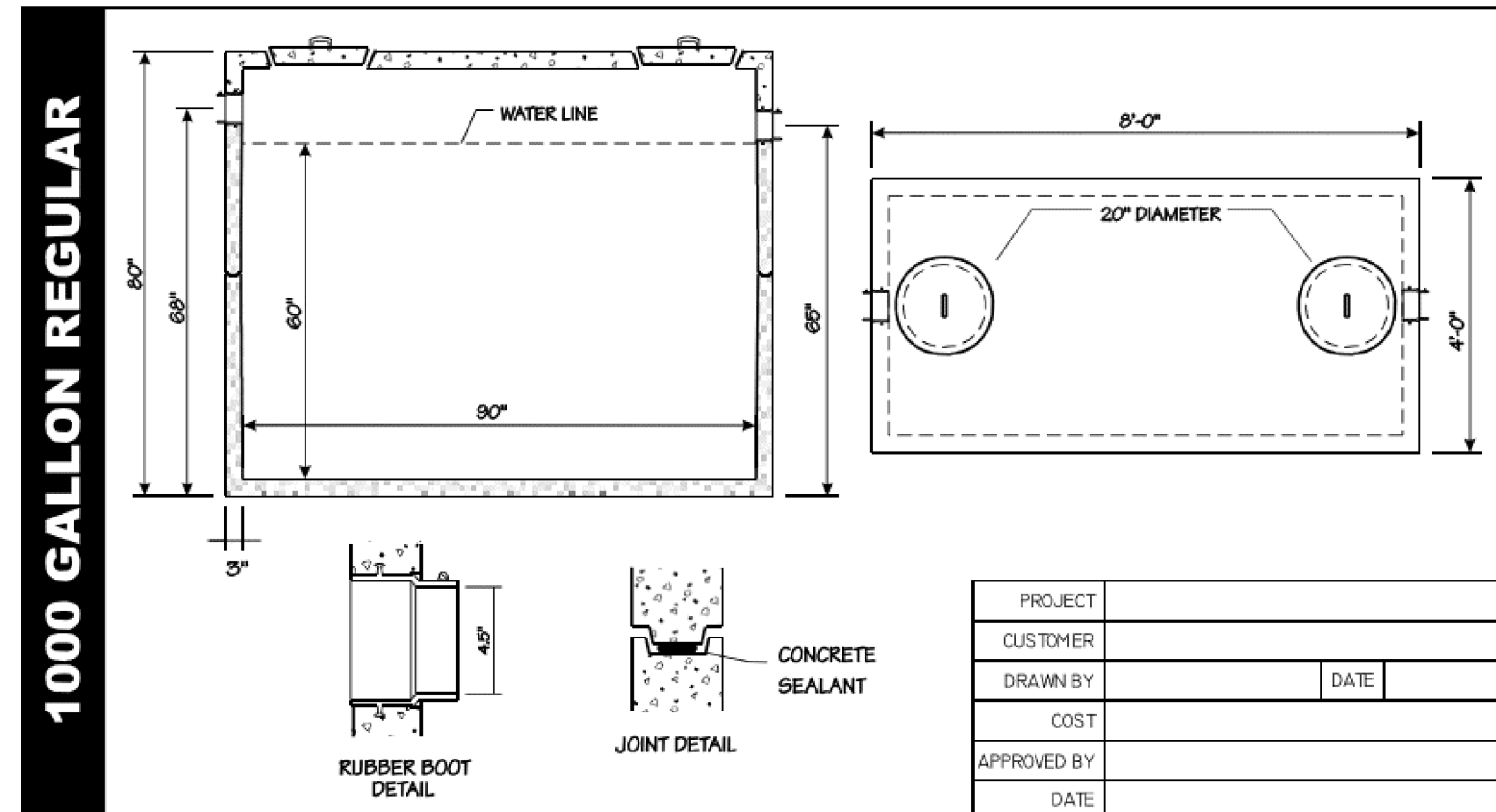
SEPTIC FIELD PLAN VIEW
SCALE: 1"=10'



CROSS SECTION A-A
SCALE: 1"=5'



TRENCH DETAIL
SCALE: NONE



VOLUME - CAPACITY:	FABRICATION SPECS:
CAPACITY: 90" x 42" x 60" = 981 GAL.	TONGUE AND GROOVE JOINT, SEALED WITH 1" BUTYL SEALANT
GALLONS PER INCH = 10.36	REINFORCEMENT - FORTA FERRO STRUCTURAL FIBER
	STRUCTURAL FIBER REINFORCED CONCRETE - 5000 PSI
OVERALL WEIGHT: 6880 LBS.	

PROJECT	
CUSTOMER	
DRAWN BY	DATE
COST	
APPROVED BY	
DATE	

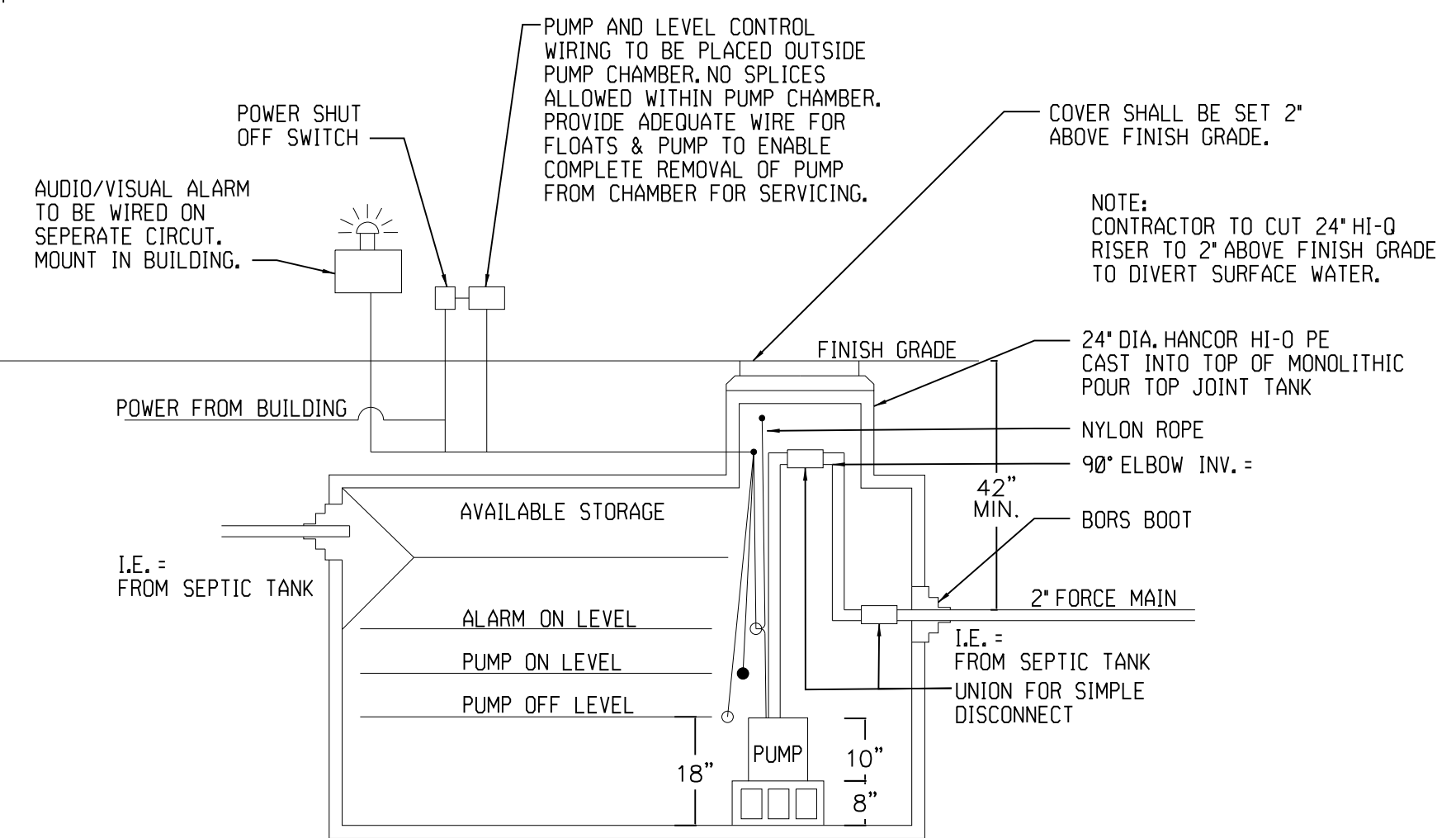


- SEWAGE DISPOSAL SYSTEM:**
- SET THE FIRST FLOOR ELEVATION, BUILDING INVERT ELEVATION, AND FINISH GRADE ELEVATION WHEREBY THE REQUIRED DRAINFIELD INVERT ELEVATION CAN BE MET AS SPECIFIED.
 - STRIP THE TOPSOIL AND ANY NON-NATIVE FILL MATERIAL FROM THE DRAINFIELD AREA AND REPLACE WITH CLEAN, COARSE SAND (OR ENGINEER APPROVED EQUAL).
 - INSTALL THE TILE LINES TO PROVIDED INVERT ELEVATIONS, AT THE FOOTER, NO LOWER THAN 813.81.
 - THE FILL PLACED OVER THE DRAINFIELD SHALL HAVE A MINIMUM DEPTH OF 10 INCHES AND A MAXIMUM DEPTH OF 28 INCHES.
 - SEPTIC FIELD SHALL MAINTAIN A MINIMUM ISOLATION DISTANCE OF 50 FEET TO SURFACE WATERS AND 100 FEET FROM WELL LOCATION. SEPTIC TANK SHALL MAINTAIN A MINIMUM ISOLATION DISTANCE OF 75 FEET FROM WELL LOCATION AND 50 FEET TO SURFACE WATERS.
 - REFER TO DRAWING 5A1329-4 FOR BENCHMARKS.
 - ITEMS: TOPSOIL REMOVAL, JOB START, FIXTURE COUNT, FINAL INSPECTION MUST BE VERIFIED BY THE HEALTH DEPARTMENT. CALL (734)-544-6700 A MINIMUM OF 24 HOURS IN ADVANCE FOR INSPECTIONS.
 - THE FOLLOWING ADDITIONAL SEWAGE DISPOSAL PROVISIONS ARE APPLICABLE:
 - INSTALL THE ONSITE SEWAGE DISPOSAL SYSTEM IN ACCORDANCE WITH THE SITE PLAN APPROVED BY THE WASHTENAW COUNTY HEALTH DEPARTMENT.
 - REMOVE THE TOPSOIL/FILL USING A METHOD THAT DOES NOT COMPACT THE UNDERLYING SOIL.
 - DO NOT USE A LOADER BUCKET OR A LOADER.
 - INSTALL THE SEPTIC SYSTEM A MINIMUM OF 10' AWAY FROM PROPERTY LINES AND 10' FROM BUILDING FOUNDATIONS.
 - PROVIDE POSITIVE SURFACE DRAINAGE FROM THE TILE DRAIN FIELD AREA.
 - THE AREA OF THE TILE FIELD SHALL BE FENCED/ROPED OFF TO PREVENT CONSTRUCTION TRAFFIC WHILE THE STATION IS BEING BUILT. THIS WILL PREVENT THE SOIL IN THE TILE FIELD AREA FROM BECOMING COMPACTED.
 - ANY DEVIATION FROM THIS PERMIT MUST HAVE PRIOR APPROVAL FROM WASHTENAW COUNTY HEALTH DEPARTMENT.

WASHTENAW COUNTY SOIL EVALUATION

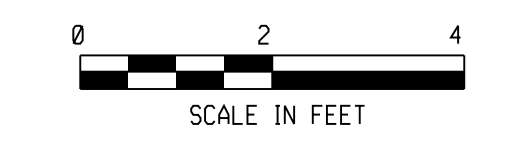
HOLE #1	LOCATION	DEPTH	SOIL TYPE	SW
1	N: 296379.59 E: 13314220.70	0'-0.5'	TOPSOIL & SANDY LOAM	6.5'
1	N: 296379.59 E: 13314220.70	0.5'-9.5'	SANDY CLAY LOAM	6.5'
1	N: 296379.59 E: 13314220.70	9.5'-14.5'	LOAMY SAND	6.5'
1	N: 296379.59 E: 13314220.70	14.5'-15.5'	BLUE CLAY	6.5'
2	N: 296384.65 E: 13314287.95	0'-0.5'	TOPSOIL & SANDY LOAM	6.5'
2	N: 296384.65 E: 13314287.95	0.5'-6'	SANDY LOAM & LOAMY SAND	6.5'
2	N: 296384.65 E: 13314287.95	6'-11'	SAND	6.5'

*SW = SEASONAL WATER TABLE (INCHES) AS EVIDENCED BY MOTTILING OF THE SOIL PERCOLATION RATE (INCH/HOUR): 3.75



PUMP CHAMBER DETAIL
SCALE: NONE

SHARED DRAWING
INFORMATION ON DRAWING SHARED WITH ITC HOLDINGS CORP.



STOP THINK ACT REVIEW

NOTE TO FIELD

FOR ANY QUESTIONS ON THIS DESIGN, PLEASE CONTACT:

PROJECT ENGINEER
ERIC M. MYRICK
13131235-6728

- REFERENCE DRAWINGS:**
- SITE PLAN - 5A1329-1
 - RESTROOM LAYOUT AND ELEVATIONS - 5A1329-11
 - CONCRETE DETAILS RESTROOM MAT - 5C1329-4

DATE	SUBMITTED FOR

C				B				A				APPROVALS			
PROJ DESIGN	PROJ MANAGER	OTHERS	DATE	PROJ DESIGN	PROJ MANAGER	OTHERS	DATE	PROJ DESIGN	PROJ MANAGER	OTHERS	DATE	OTHER	DATE	ENGINEERING	DATE

DTE Energy *DTE Electric* *Central Design/Standards*

RESTROOM SEPTIC DESIGN

LOCATION NAME: **GRENA SUBSTATION** SERVICE CENTER: **ANN ARBOR** SCALE: **NONE**

DRAWING NUMBER: **5A1329-12** WORK ORDER: **69084198** PROJECT DOCUMENT LIST: **GRENA-PDL-A-69084198**

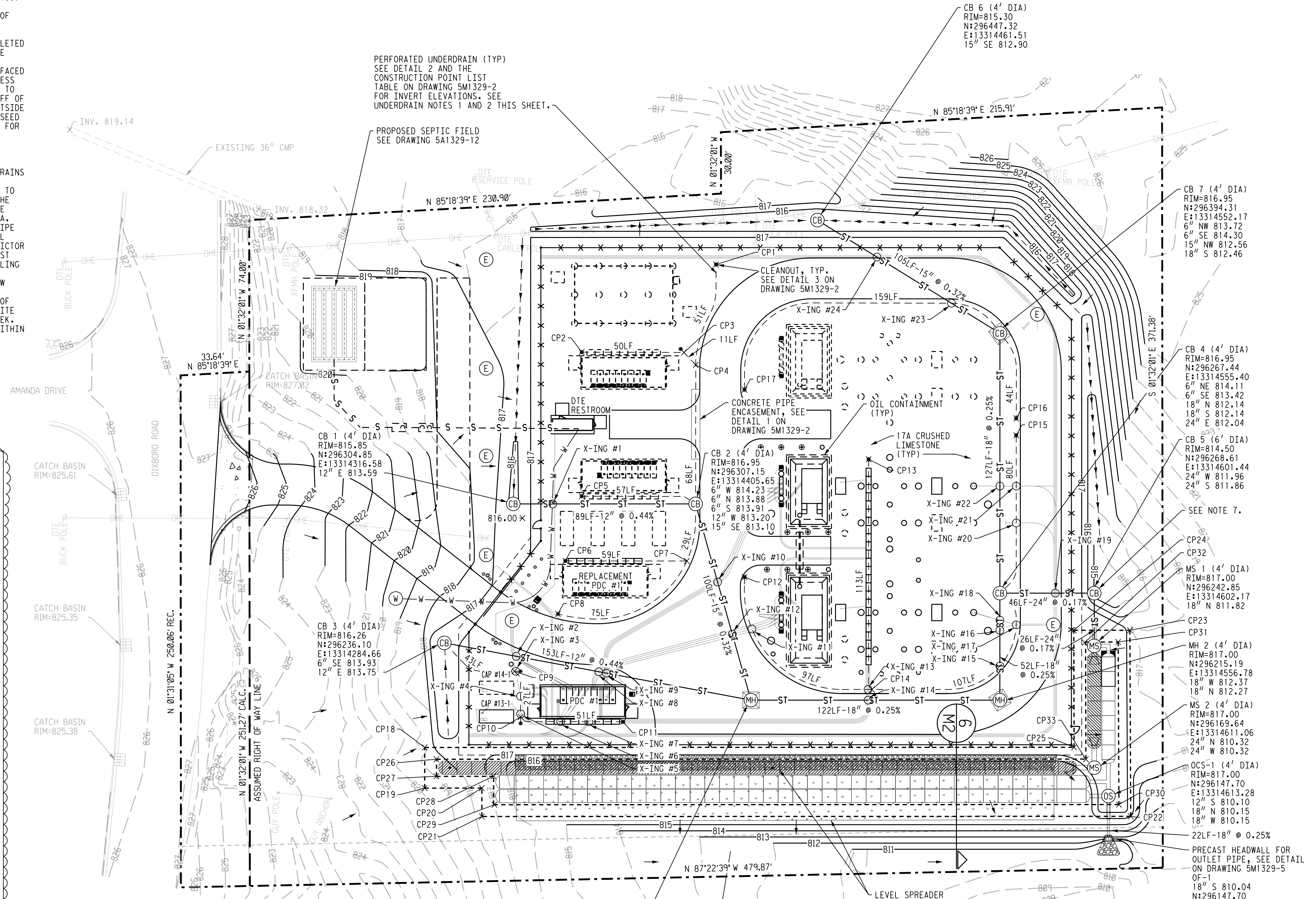
DOCUMENT FILE NAME: **GRENA-A-0012**

STORMWATER MANAGEMENT

THE GRENA SUBSTATION SITE IS LOCATED WITHIN SUPERIOR TOWNSHIP, EAST OF DIXBORO ROAD AND SOUTH OF PLYMOUTH ROAD IN WASHTENAW COUNTY, MI. THE TOPOGRAPHY OF THE SITE HAS SLOPES ACROSS THE SITE RANGING FROM (1.25% - 33.25%) WITH ELEVATIONS RANGING BETWEEN (810.00 AND 826.00) AND HAS A NATURAL DRAINAGE PATH FROM THE NORTHWEST CORNER TO THE SOUTH EAST CORNER OF THE PROPERTY. THE SITE HAS AN EXISTING SUBSTATION BUILDING AND YARD THAT WILL BE EXPANDED AS PART OF THIS PROJECT. THE COMPLETED SUBSTATION YARD WILL BE SURFACED WITH LOOSE MDOT 17A STONE MATERIAL ABOVE A CLEAN FILL MATERIAL LAYER WITH INTERIOR DRIVEWAYS SURFACED WITH 21AA CRUSHED GRAVEL. THE EXISTING ACCESS DRIVEWAY TO THE SUBSTATION WILL BE WIDENED TO 20-FOOT WIDE AND A NEW CONCRETE APPROACH OFF OF THE SUBSTATION WILL BE STABILIZED WITH SEED AND MULCH, AND NEW TREES WILL BE FURNISHED FOR SCREENING ALONG ALL PROPERTY BOUNDARIES. STORMWATER GENERATED ON SITE WILL FILTER THROUGH THE LOOSE STONE SURFACE OF THE SUBSTATION AND WILL BE COLLECTED BY A PERFORATED UNDERDRAIN SYSTEM. THESE UNDERDRAINS CONNECT TO A NETWORK OF STORM SEWERS AND STRUCTURES THAT WILL CONVEY RUNOFF ON SITE TO AN UNDERGROUND DETENTION SYSTEM SOUTH OF THE SUBSTATION PAD. AN OUTLET CONTROL STRUCTURE WILL BE INSTALLED WITHIN THE DETENTION AREA. THE STRUCTURE WILL CONTAIN AN 18" OUTLET PIPE AND A PRECAST CONCRETE FLOW RESTRICTOR WALL WITH AN OVERFLOW OPTION. THE PRECAST RESTRICTOR WALL WILL HAVE DRILLED ORIFICES AT THE FIRST FLUSH ELEVATION INDICATED ON PLANS CONTROLLING THE 100-YEAR DETENTION VOLUME. THE 18" OUTLET PIPE WILL DISCHARGE TO A LOW AREA IN THE SOUTH EAST CORNER OF THE SITE, HEAVY LINED WITH RIP-RAP TO AVOID EROSION OF ADJACENT PROPERTIES. ALL RUNOFF FROM THE SITE WILL ULTIMATELY DRAIN BACK TO FLEMING CREEK. THERE ARE NO WETLANDS, STREAMS, OR LAKES WITHIN THE PROPERTY OR WITHIN 1,000 FEET OF THE PROPERTY THAT WILL BE AFFECTED DURING CONSTRUCTION.

UTILITY CROSSINGS:

- 12" STM & 1" WATER X-ING
B.O.P. = 813.05
T.O.P. = 812.00
VERT. CLEAR. = (1.05')
- 12" STM & ELEC. CONDUIT X-ING
B.O.C. = XXX.XX
T.O.P. = XXX.XX
VERT. CLEAR. = (X.XX)
- 6" STM & ELEC. CONDUIT X-ING
B.O.P. = XXX.XX
T.O.C. = XXX.XX
VERT. CLEAR. = (X.XX)
- 6" STM & ELEC. CONDUIT X-ING
B.O.P. = XXX.XX
T.O.C. = XXX.XX
VERT. CLEAR. = (X.XX)
- 6" STM & ELEC. CONDUIT X-ING
B.O.P. = XXX.XX
T.O.C. = XXX.XX
VERT. CLEAR. = (X.XX)
- 6" STM & ELEC. CONDUIT X-ING
B.O.P. = XXX.XX
T.O.C. = XXX.XX
VERT. CLEAR. = (X.XX)
- 6" STM & ELEC. CONDUIT X-ING
B.O.P. = XXX.XX
T.O.C. = XXX.XX
VERT. CLEAR. = (X.XX)
- 12" STM & ELEC. CONDUIT X-ING
B.O.C. = XXX.XX
T.O.P. = XXX.XX
VERT. CLEAR. = (X.XX)
- 12" STM & ELEC. CONDUIT X-ING
B.O.C. = XXX.XX
T.O.P. = XXX.XX
VERT. CLEAR. = (X.XX)
- 15" STM & ELEC. CONDUIT X-ING
B.O.C. = XXX.XX
T.O.P. = XXX.XX
VERT. CLEAR. = (X.XX)
- 6" STM & ELEC. CONDUIT X-ING
B.O.P. = XXX.XX
T.O.C. = XXX.XX
VERT. CLEAR. = (X.XX)
- 15" STM & ELEC. CONDUIT X-ING
B.O.C. = XXX.XX
T.O.P. = XXX.XX
VERT. CLEAR. = (X.XX)
- 6" STM & ELEC. CONDUIT X-ING
B.O.P. = XXX.XX
T.O.C. = XXX.XX
VERT. CLEAR. = (X.XX)
- 18" STM & ELEC. CONDUIT X-ING
B.O.P. = XXX.XX
T.O.C. = XXX.XX
VERT. CLEAR. = (X.XX)
- 6" STM & ELEC. CONDUIT X-ING
B.O.P. = XXX.XX
T.O.P. = XXX.XX
VERT. CLEAR. = (X.XX)
- 18" STM & ELEC. CONDUIT X-ING
B.O.C. = XXX.XX
T.O.P. = XXX.XX
VERT. CLEAR. = (X.XX)
- 6" STM & 15" STM X-ING
B.O.C. = XXX.XX
T.O.P. = XXX.XX
VERT. CLEAR. = (0.14')
- 24" STM & ELEC. CONDUIT X-ING
B.O.C. = XXX.XX
T.O.P. = XXX.XX
VERT. CLEAR. = (X.XX)
- 6" STM & 18" STM X-ING
B.O.P. = 813.60
T.O.P. = 813.32
VERT. CLEAR. = (0.28')
- 6" STM & ELEC. CONDUIT X-ING
B.O.P. = XXX.XX
T.O.C. = XXX.XX
VERT. CLEAR. = (X.XX)
- 6" STM & ELEC. CONDUIT X-ING
B.O.P. = BOTTOM OF PIPE
B.O.C. = BOTTOM OF CONDUIT
T.O.C. = TOP OF CONDUIT/CONC ENCASEMENT
T.O.P. = TOP OF PIPE



PIPE MATERIAL:

ALL DRAIN PIPES ARE 6" DIAMETER PERFORATED ADS N-12 DUAL WALL PIPE WITH PROTECTIVE WRAP UNL.
ESTIMATED QUANTITY 6" ADS N-12 ST 18 HDPE PERFORATED PIPE = 1,121 LINEAL FT.
ESTIMATED QUANTITY 12" CL IV REINFORCED CONCRETE PIPE = 242 LINEAL FT.
ESTIMATED QUANTITY 15" CL IV REINFORCED CONCRETE PIPE = 205 LINEAL FT.
ESTIMATED QUANTITY 18" CL IV REINFORCED CONCRETE PIPE = 323 LINEAL FT.
ESTIMATED QUANTITY 24" CL IV REINFORCED CONCRETE PIPE = 72' LINEAL FT.
(VERIFY ALL LENGTHS OF PIPE IN THE FIELD)

STORMWATER NOTES:

1. SEE DRAWING 5M1329-2 FOR ALL STORM STRUCTURE FRAMES AND COVERS.
2. SEE DETAIL ON DRAWING 5M1329-2 FOR TYPICAL DETENTION SYSTEM SECTIONS IN YARD.
3. MDOT 17A STONE AROUND FOUNDATIONS SHALL BE COMPACTED TO 95% OF ITS' MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR METHODS (ASTM D1557), IN LIFTS NOT EXCEEDING 12-INCHES.
4. SEE DRAWING 5M1329-2 FOR UNDERGROUND DETENTION SYSTEM DETAILS.
5. CONTRACTOR SHALL HAVE AN ENGINEER ONSITE FROM ADVANCED DRAINAGE SYSTEMS DURING CONSTRUCTION OF THE STORMWATER DETENTION SYSTEM AND STRUCTURES FOR INSPECTION.
6. CONTRACTOR TO NOTIFY BLACK AND VEATCH 48 HOURS PRIOR TO INSTALLING BASE STONE, PRE-TREATMENT STRUCTURES, AND STORMWATER DETENTION CHAMBERS FOR INSPECTION.
7. CONTRACTOR TO PROVIDE ECCENTRIC CONE FOR YARD BASIN STRUCTURE AND HAVE GRATE AND FRAME POSITIONED ON THE EAST SIDE TO ALIGN WITH TOE OF SLOPE.

STORMWATER CALCULATIONS

SEE DRAWING 5M1329-2.

PROJECT SCHEDULE

TO BE DETERMINED.

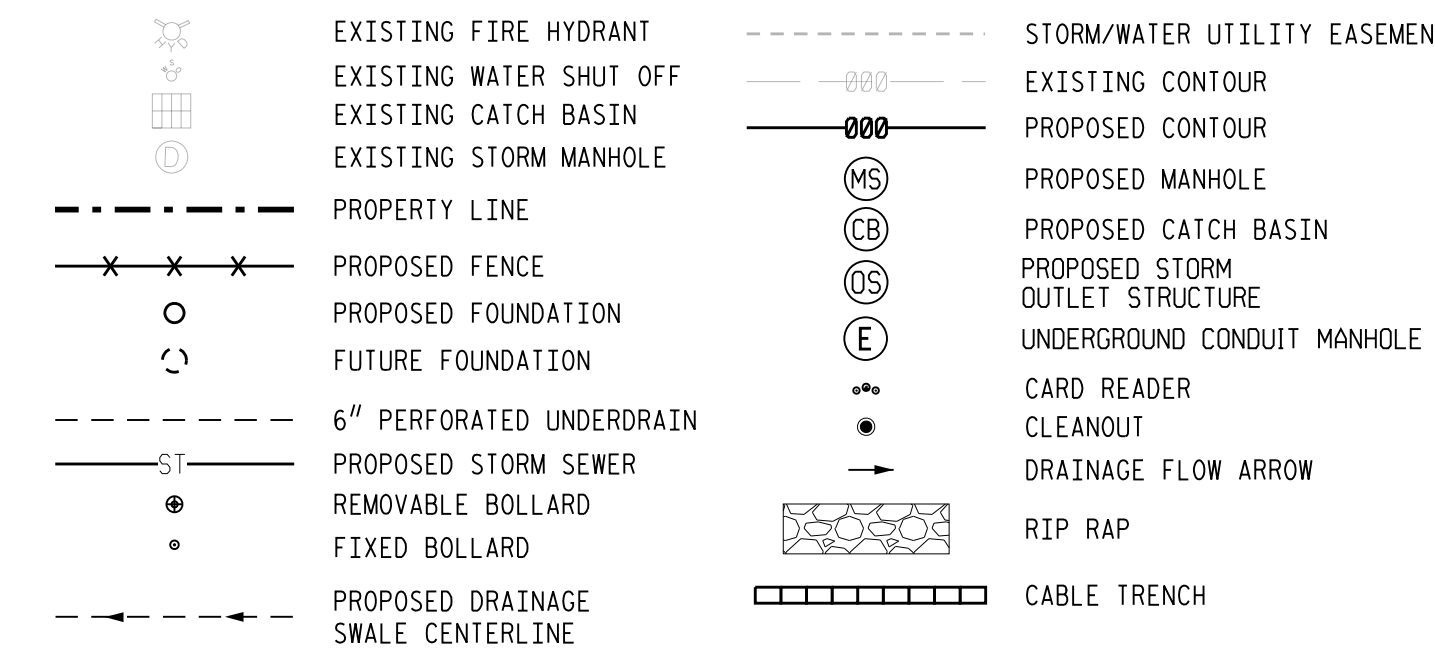
UTILITY WARNING

A MINIMUM OF 3 WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY "MISS DIG" AND HAVE ALL UNDERGROUND UTILITIES STAKED BEFORE ANY WORK MAY BEGIN.

UNDERDRAIN NOTES:

1. ALL UNDERDRAIN PIPE SHALL BE SLOPED AT A MINIMUM 0.50%.
2. ALL UNDERDRAIN SHALL BE 6" DIAMETER UNLESS NOTED OTHERWISE ON THIS PLAN.

LEGEND:



REFERENCE DRAWINGS:

SITE PLAN	5A1329-1
EXISTING CONDITIONS PLAN	5A1329-4
SOIL EROSION AND SEDIMENT CONTROL PLAN	5A1329-8
SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS	5A1329-9
RESTROOM LAYOUT AND ELEVATIONS	5A1329-11
STORMWATER DETAILS (1 OF 4)	5M1329-2
STORMWATER DETAILS (2 OF 4)	5M1329-3
STORMWATER DETAILS (3 OF 4)	5M1329-4
STORMWATER DETAILS (4 OF 4)	5M1329-5

DATE	SUBMITTED FOR

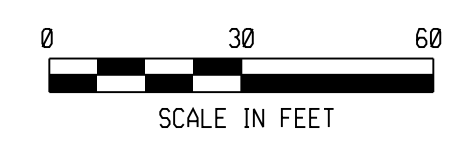
NOTE TO FIELD

FOR ANY QUESTIONS ON THIS DESIGN, PLEASE CONTACT:

PROJECT ENGINEER
ERIC M. MYRICK
(313)235-6728

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

PRELIMINARY
NOT FOR CONSTRUCTION



PROJ DESIGN	PROJ MANAGER	OTHERS	PROJ DESIGN	PROJ MANAGER	OTHERS	PROJ DESIGN	PROJ MANAGER	OTHERS
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
MADE BY	DATE	ACT	MADE BY	DATE	ACT	MADE BY	DATE	ACT
CH'K BY	DATE	EPPM	CH'K BY	DATE	EPPM	CH'K BY	DATE	EPPM

APPROVALS		
OTHER	DATE	ENGINEERING
RELAY		MADE BY DATE
		R.D. BREWER/BV 11/22/24
		LAYOUT BY DATE
		Z.E. WIACEK/BV 11/22/24
EPPM		CHECKED BY DATE
		G.J. ESKOLA/BV 11/22/24
ACT		PROJECT DESIGN/ELECT DATE
OTHERS		PROJECT DESIGN/ACT DATE
		APPROVED FOR ISSUE DATE

DTE Energy	DTE Electric	Central Design/Standards
TITLE		
STORMWATER MANAGEMENT PLAN		
LOCATION NAME	SERVICE CENTER	SCALE
GRENA SUBSTATION	ANN ARBOR	1"=30'-0"
DRAWING NUMBER	WORK ORDER	PROJECT DOCUMENT LIST
5M1329-1	69084198	GRENA-PDL-A-69084198

STORM SEWER DESIGN: 10 YR STORM

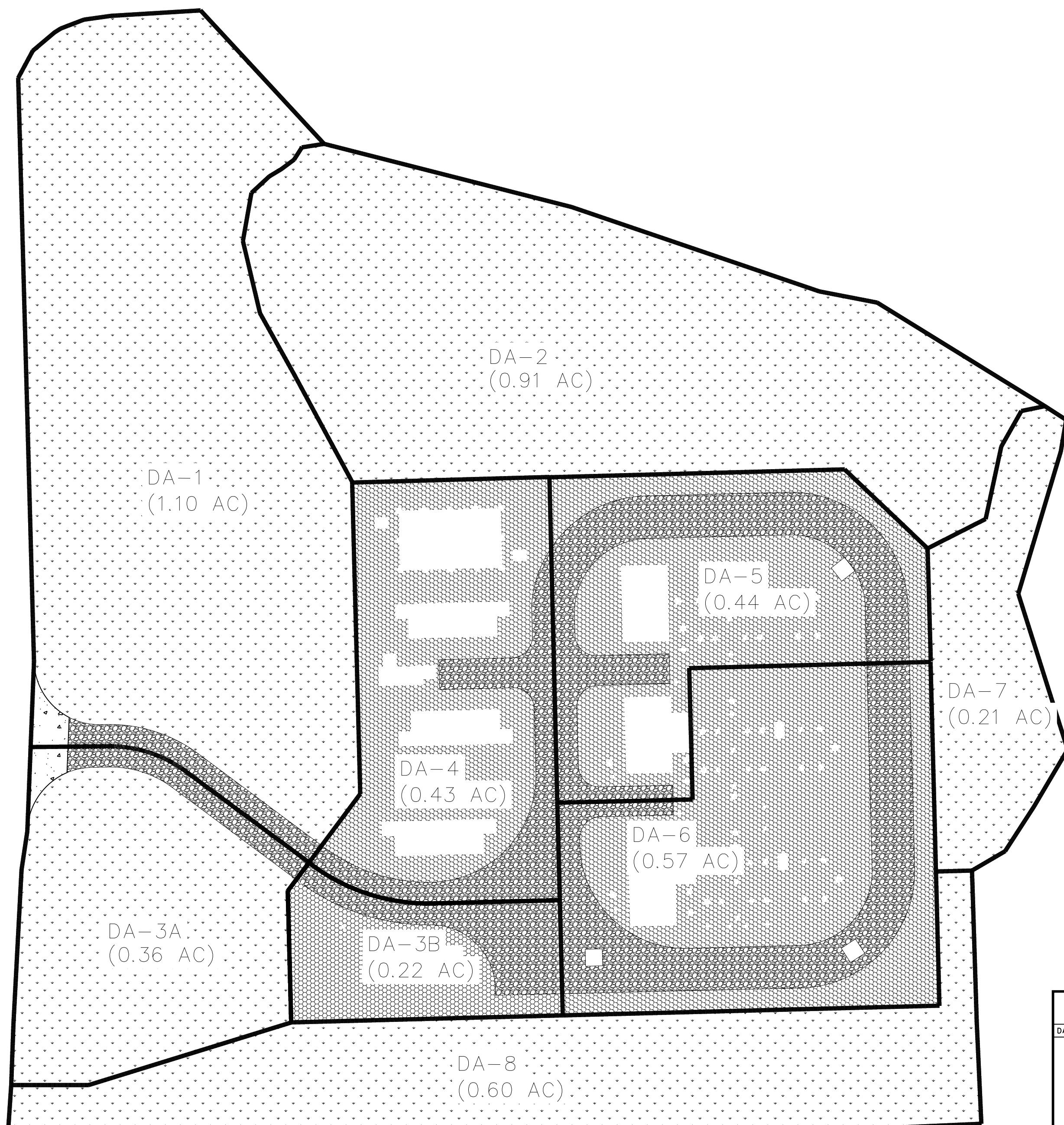
STARTING TIME = 15:00
 MANNING'S n = 0.013
 INTENSITY I_r = 1.75

UPST	DNST	PIPE LEN	AREA	ADD'D AREA	TIME OF CONC	INTENSITY	(Kc)	PIPE DIA	PIPE SLP	V FALL	R TIME	INVERT ELEV.	Q (CAPACITY)	RM	COVER OVER PIPE	HGL BELOW	HGL ELEV.	HGL ELEV.	FREEBOARD TO RIM				
ST. #	ST. #	(L) Ft	#	ACRES	C	AC	SUM AC	(T) Min	(L) In/ft	(S) %	(V) Fps	Min	Upst #	Dist #	Cfs	OR GRADE	COVER OVER PIPE	HGL Below	HGL Elev.	HGL Elev.	Freeboard To Rim		
BRANCHES																							
CB-3	MH-1	153	3	0.57	0.50	0.285	0.29	15.00	4.38	1.25	12	0.44	3.0	0.85	813.75	813.08	2.37	816.26	1.41	1.64	814.62	813.61	1.64
CB-6	CB-7	105	2	0.91	0.35	0.319	0.32	15.00	4.38	1.39	15	0.32	3.0	0.59	812.90	812.56	3.66	815.30	1.05	1.16	814.14	813.63	1.16
CB-7	CB-4	127	5	0.44	0.75	0.330	0.33	15.59	4.31	1.42	18	0.25	3.0	0.71	812.46	812.14	5.27	816.95	2.89	3.32	813.63	813.14	3.32
MAIN SEWER RUN																							
CB-1	CB-2	89	1	1.10	0.37	0.407	0.41	15.00	4.38	1.78	12	0.45	3.0	0.50	813.58	813.20	2.34	815.85	1.17	1.18	814.67	814.10	1.18
CB-2	MH-1	100	4	0.43	0.75	0.323	0.73	15.50	4.32	3.28	15	0.32	3.0	0.56	813.10	812.78	3.66	816.95	2.90	2.85	814.10	813.61	2.85
MH-1	MH-2	122	6	0.00	0.00	0.000	1.01	16.00	4.26	4.45	18	0.25	3.0	0.68	812.68	812.37	5.27	817.00	2.72	3.39	813.61	813.14	3.39
MH-2	CB-4	52	6	0.00	0.00	0.000	1.01	16.74	4.19	4.38	18	0.25	3.0	0.29	812.27	812.14	5.27	817.00	3.13	3.86	813.14	812.94	3.86
CB-4	CB-5	46	6	0.57	0.73	0.416	1.76	17.03	4.16	7.46	24	0.17	3.0	0.25	811.84	811.96	9.35	816.95	3.64	4.01	812.94	812.82	4.01
CB-5	MS-1	26	7	0.21	0.35	0.074	1.83	17.29	4.14	7.72	24	0.17	3.0	0.15	811.86	811.82	9.35	814.50	1.37	1.68	812.82	812.75	1.68
DETENTION OUTLET																							
OCS-1	OF-1	22	-	0.00	0.00	0.000	0.00	17.43	4.12	0.13	18	0.25	3.0	0.12	810.10	810.04	5.27	817.50	6.14	6.44	811.00	810.97	6.44

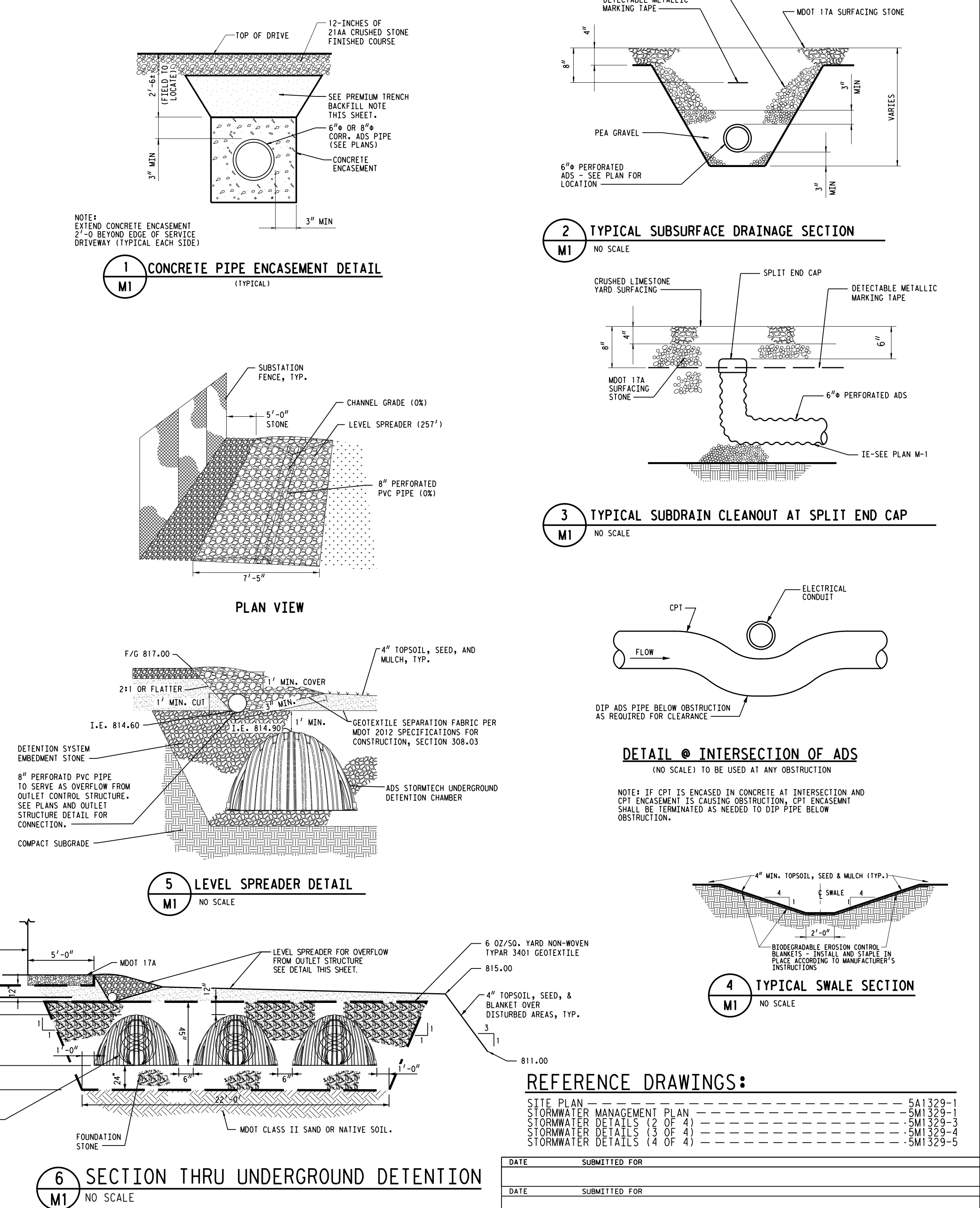
DRAINAGE AREAS: (SEE DRAINAGE AREA SKETCH THIS SHEET)

Drainage Area	Yard Stone				Square Feet				Acres				C Factor					
	Yard Stone	Gravel Dme	Pave Equip Found	Water	Lawn	Total	Yard Stone	Gravel Dme	Pave Equip Found	Water	Lawn	Total	Yard Stone	Gravel Dme	Pave Equip Found	Water	Lawn	Weighted
1	0	1,362	384	0	45,970	47,716	0.00	0.03	0.00	0.00	1.06	1.10	0.65	0.85	0.95	1	0.35	0.37
2	0	0	0	0	39,480	39,480	0.00	0.00	0.00	0.00	0.91	0.91	0.65	0.85	0.95	1	0.35	0.35
3	4,143	3,771	1,113	0	15,623	24,650	0.10	3.09	0.03	0.00	0.36	0.57	0.65	0.85	0.95	1	0.35	0.50
4	11,042	3,803	4,033	0	18,878	26,718	0.25	0.09	0.09	0.00	0.00	0.43	0.65	0.85	0.95	1	0.35	0.75
5	10,989	8,368	1,984	0	19,341	29,732	0.25	0.15	0.05	0.00	0.00	0.44	0.65	0.85	0.95	1	0.35	0.75
6	15,860	7,005	1,987	0	24,852	33,844	0.37	3.16	0.04	0.00	0.00	0.57	0.65	0.85	0.95	1	0.35	0.73
7	0	0	0	0	9,213	9,213	0.00	0.00	0.00	0.00	0.21	0.21	0.65	0.85	0.95	1	0.35	0.35
8	0	0	0	0	28,283	28,283	0.00	0.00	0.00	0.00	0.60	0.60	0.65	0.85	0.95	1	0.35	0.35
SUM	42,124	22,309	9,181	0	136,539	210,153	0.97	0.51	0.21	0.00	3.13	4.82	0.65	0.85	0.95	1	0.35	0.48

TOTAL AREA (AC) = 4.82



CONSTRUCTION POINT	COORDINATE	INVERT	DESCRIPTION
CP-1	N:296424.33 E:13314412.62'	814.46	6" CLEANOUT
CP-2	N:296379.82 E:13314348.11	814.50	6" CLEANOUT
CP-3	N:296380.94 E:13314398.07	814.25	6" WYE
CP-4	N:296375.02 E:13314403.99	814.21	6" WYE
CP-5	N:296309.49 E:13314349.92	814.50	6" CLEANOUT
CP-6	N:296277.67 E:13314342.73	814.34	6" CLEANOUT
CP-7	N:296279.16 E:13314402.09	814.04	6" TEE
CP-8	N:296253.82 E:13314332.14	814.50	6" CLEANOUT
CP-9	N:296223.21 E:13314322.28	814.13	6" TEE
CP-10	N:296200.90 E:13314322.86	814.26	6" WYE
CP-11	N:296199.85 E:13314372.98	814.50	6" CLEANOUT
CP-12	N:296272.07 E:13314430.48	814.42	6" CLEANOUT
CP-13	N:296331.12 E:13314489.61	814.50	6" CLEANOUT
CP-14	N:296218.76 E:13314494.15	813.93	6" WYE
CP-15	N:296344.71 E:13314561.43	814.50	6" CLEANOUT
CP-16	N:296352.98 E:13314561.21	814.50	6" CLEANOUT
CP-17	N:296363.54 E:13314428.10	814.50	6" CLEANOUT
CP-18	N:296184.80 E:13314276.39	-	DETENTION BASIN CORNER
CP-19	N:296164.93 E:13314276.91	-	DETENTION BASIN CORNER
CP-20	N:296165.70 E:13314304.82	-	DETENTION BASIN CORNER
CP-21	N:296151.81 E:13314305.17	-	DETENTION BASIN CORNER
CP-22	N:296160.08 E:13314622.15	-	DETENTION BASIN CORNER
CP-23	N:296250.94 E:13314619.39	-	DETENTION BASIN CORNER
CP-24	N:296250.22 E:13314592.00	-	DETENTION BASIN CORNER
CP-25	N:296193.05 E:13314593.61	-	DETENTION BASIN CORNER
CP-26	N:296179.20 E:13314282.29	-	DETENTION BASIN CORNER
CP-27	N:296170.84 E:13314282.51	-	DETENTION BASIN CORNER
CP-28	N:296171.612 E:13314310.42	-	DETENTION BASIN CORNER
CP-29	N:296157.70 E:13314310.77	-	DETENTION BASIN CORNER
CP-30	N:296165.68 E:13314616.23	-	DETENTION BASIN CORNER
CP-31	N:296245.04 E:13314613.82	-	DETENTION BASIN CORNER
CP-32	N:296244.63 E:13314597.91	-	DETENTION BASIN CORNER
CP-33	N:296187.45 E:13314599.52	-	DETENTION BASIN CORNER



NOTE TO FIELD
 FOR ANY QUESTIONS ON THIS DESIGN,
 PLEASE CONTACT:
 PROJECT ENGINEER
 ERIC M. MYRICK
 (313)235-6728

PRELIMINARY
 NOT FOR CONSTRUCTION

SHARED DRAWING
 INFORMATION ON DRAWING SHARED
 WITH ITC HOLDINGS CORP.

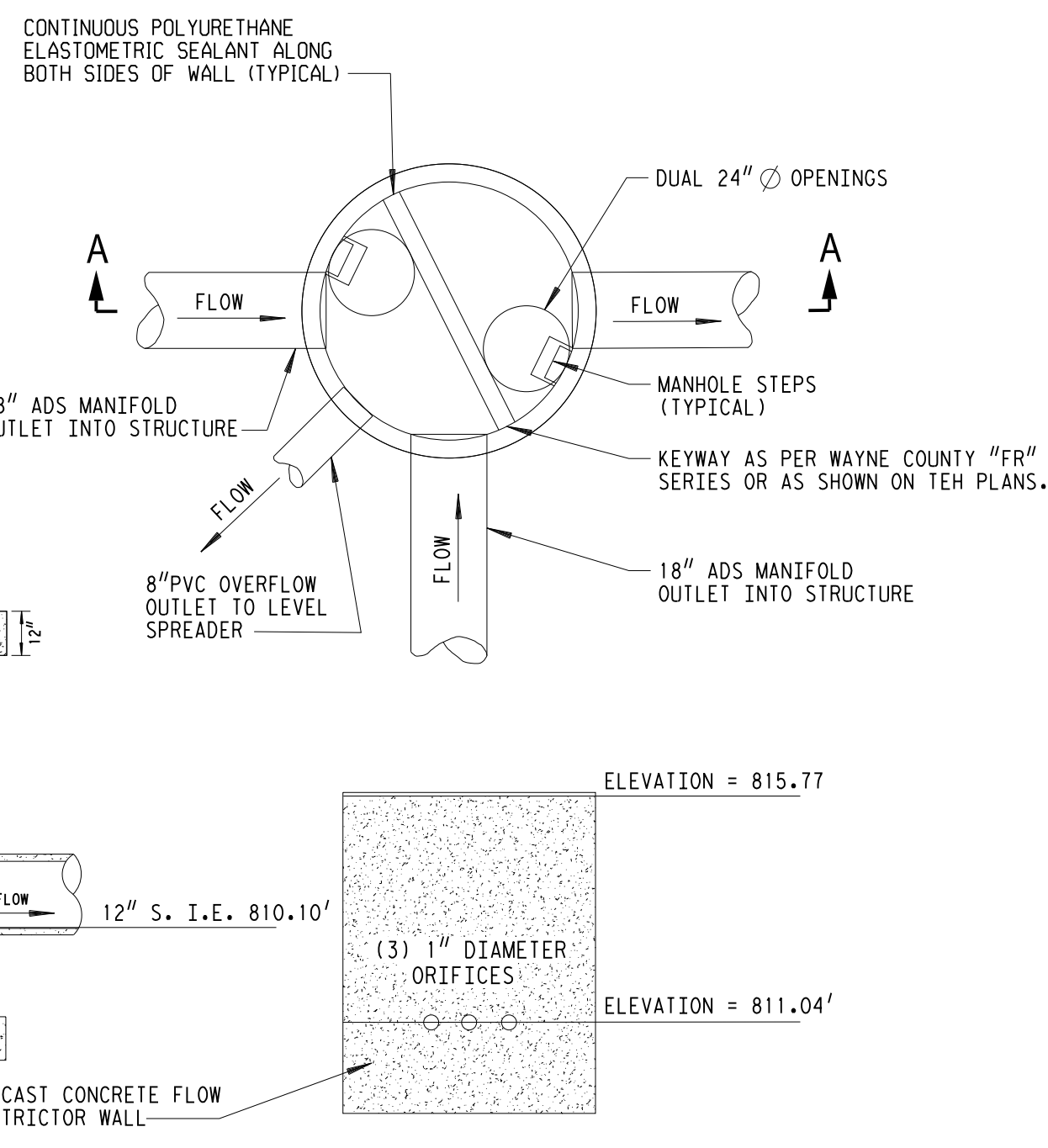
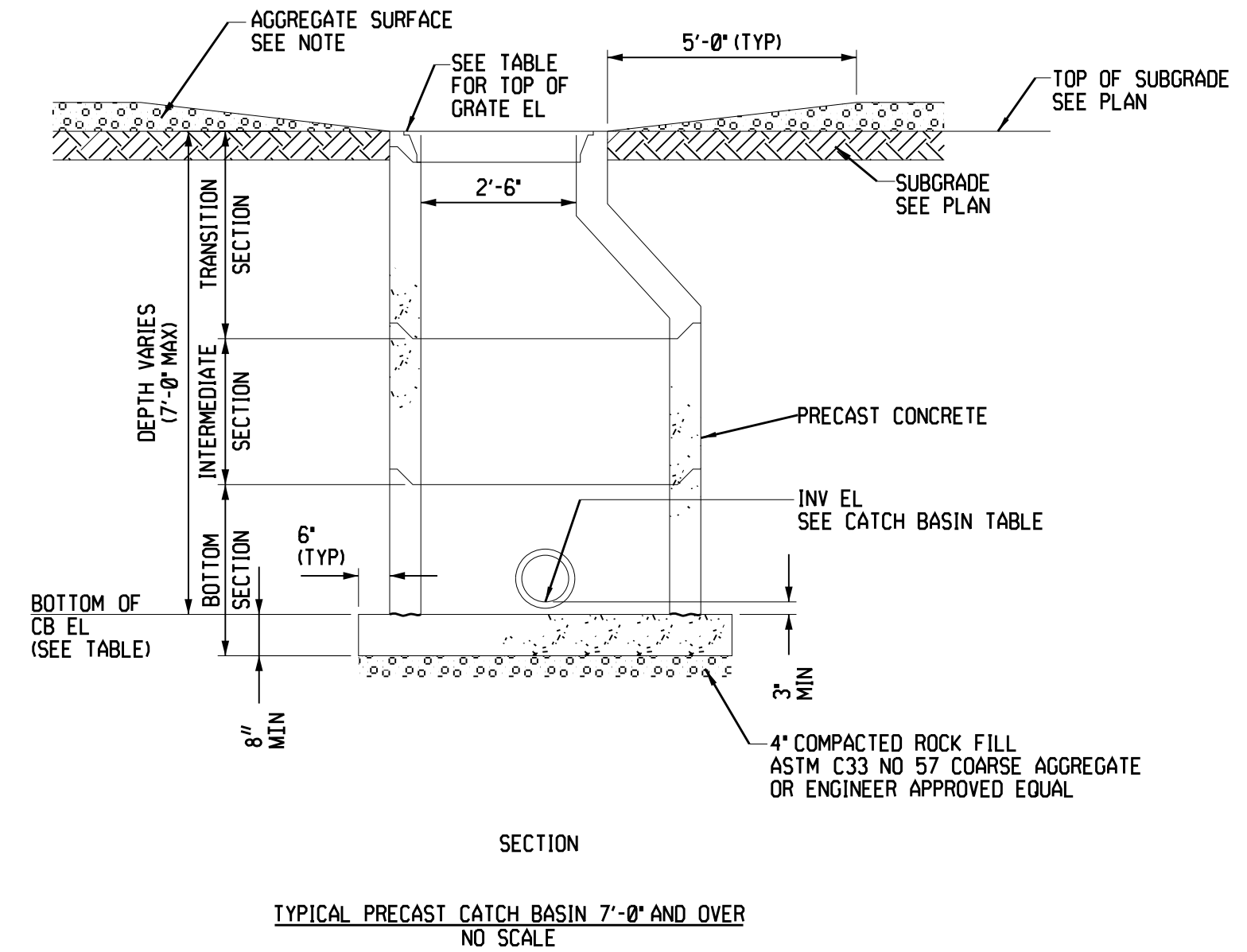
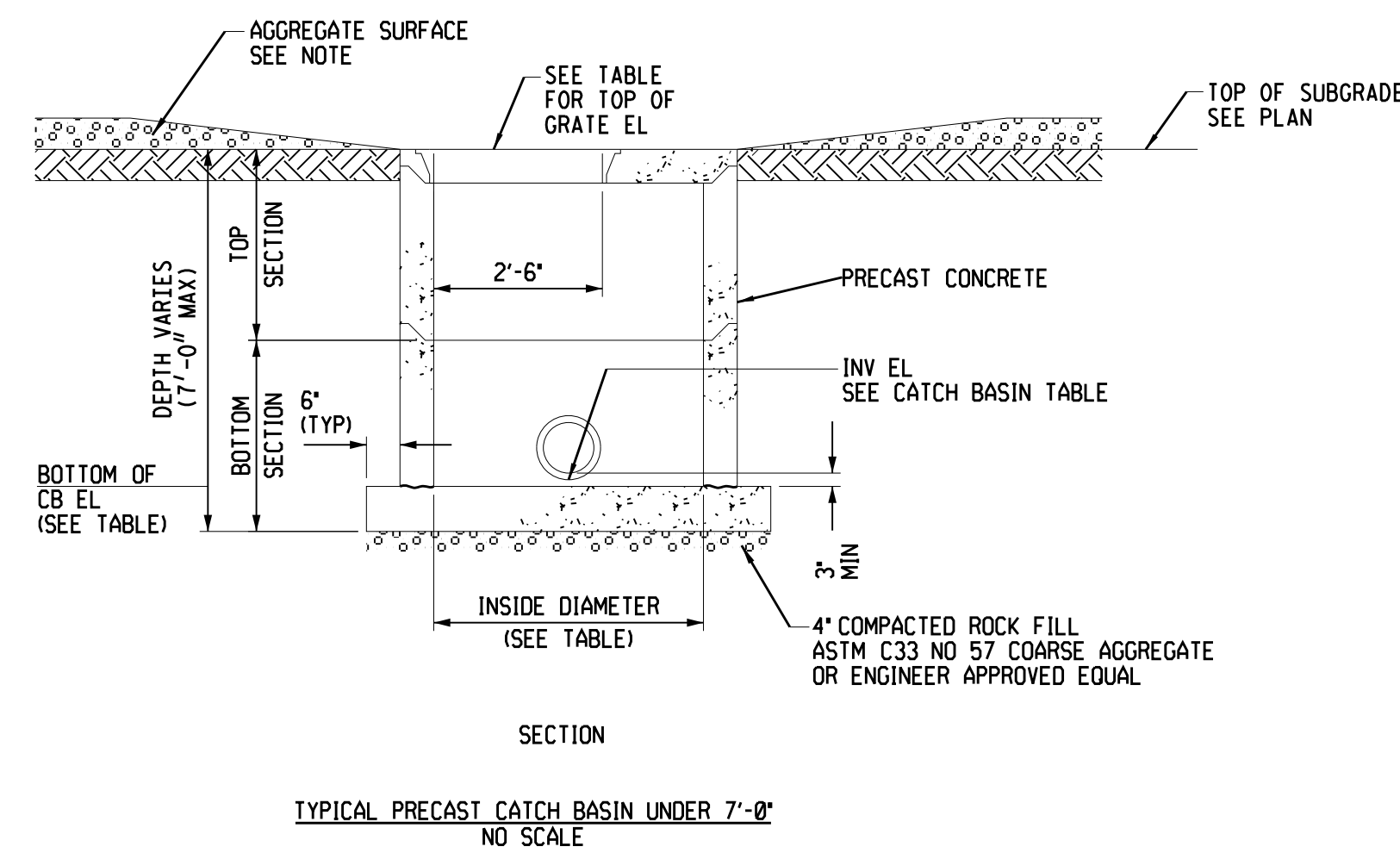
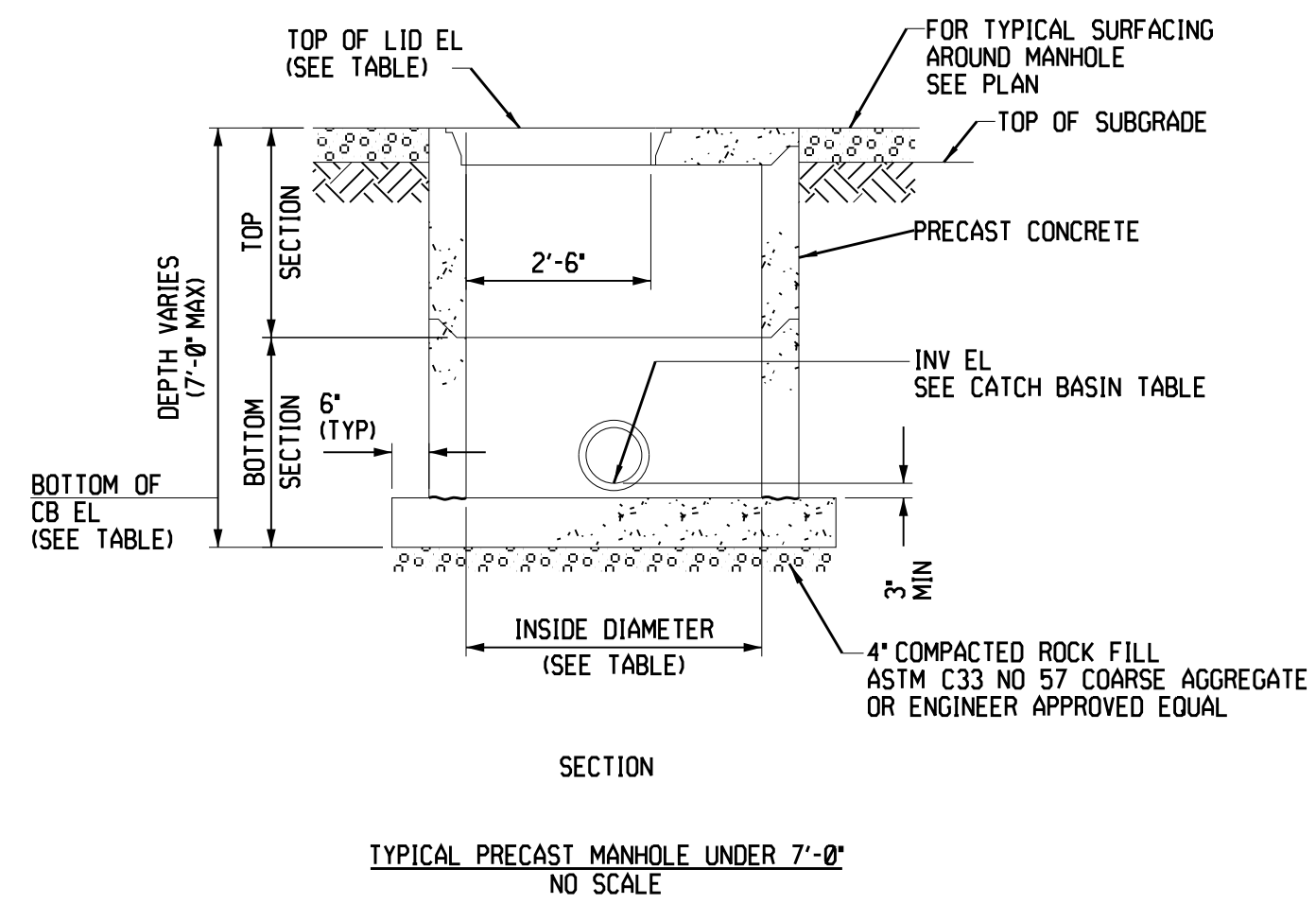
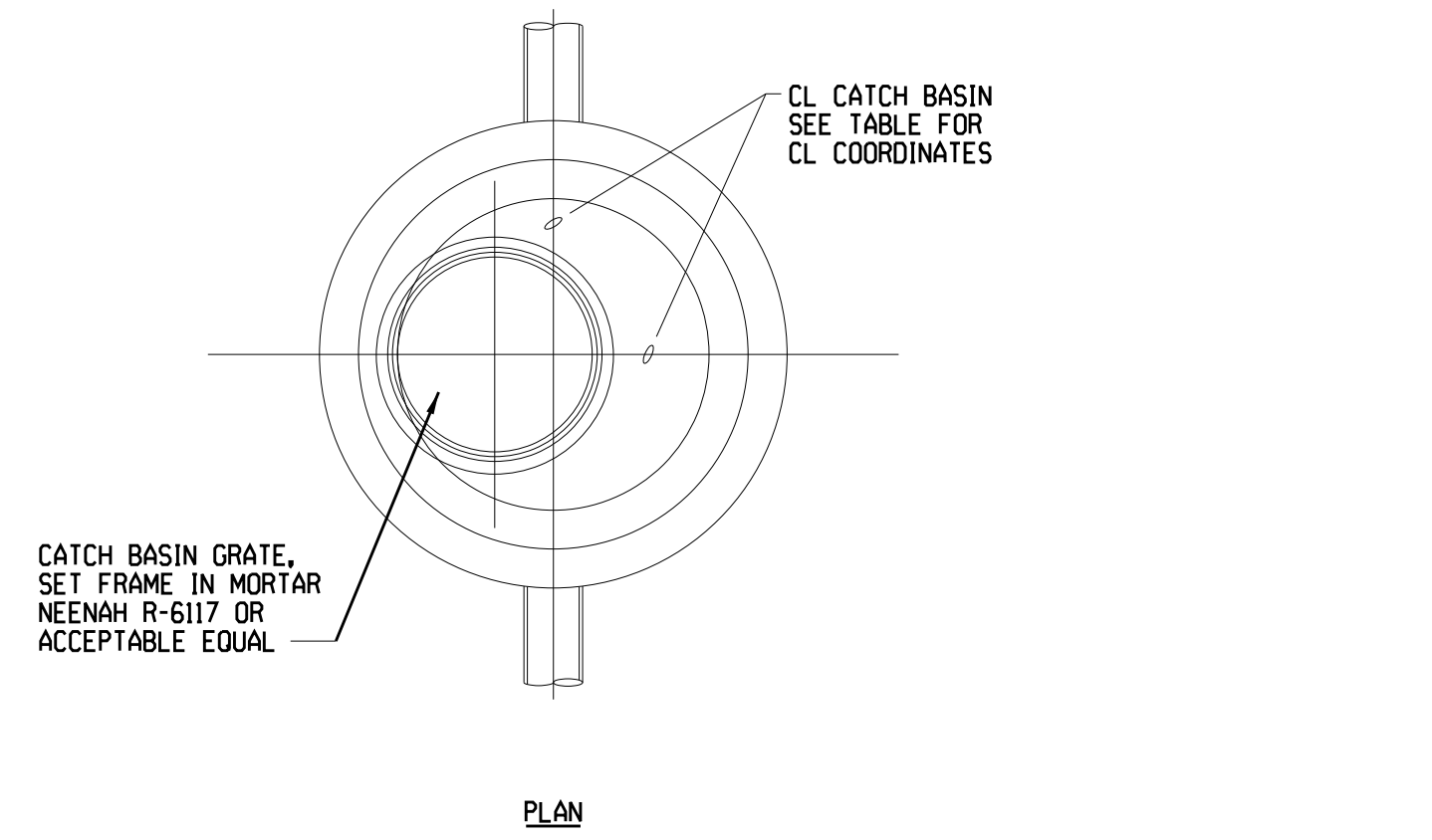
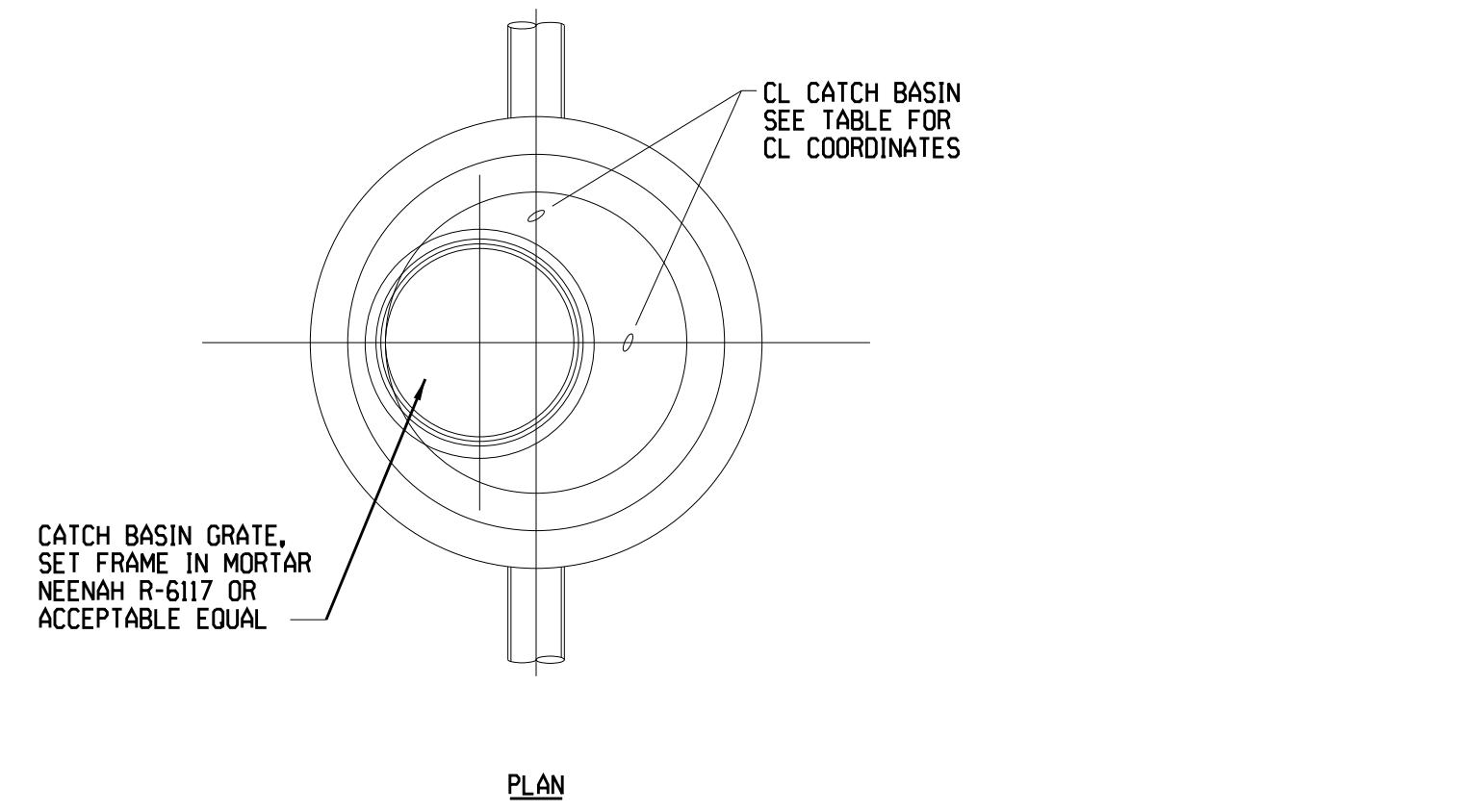
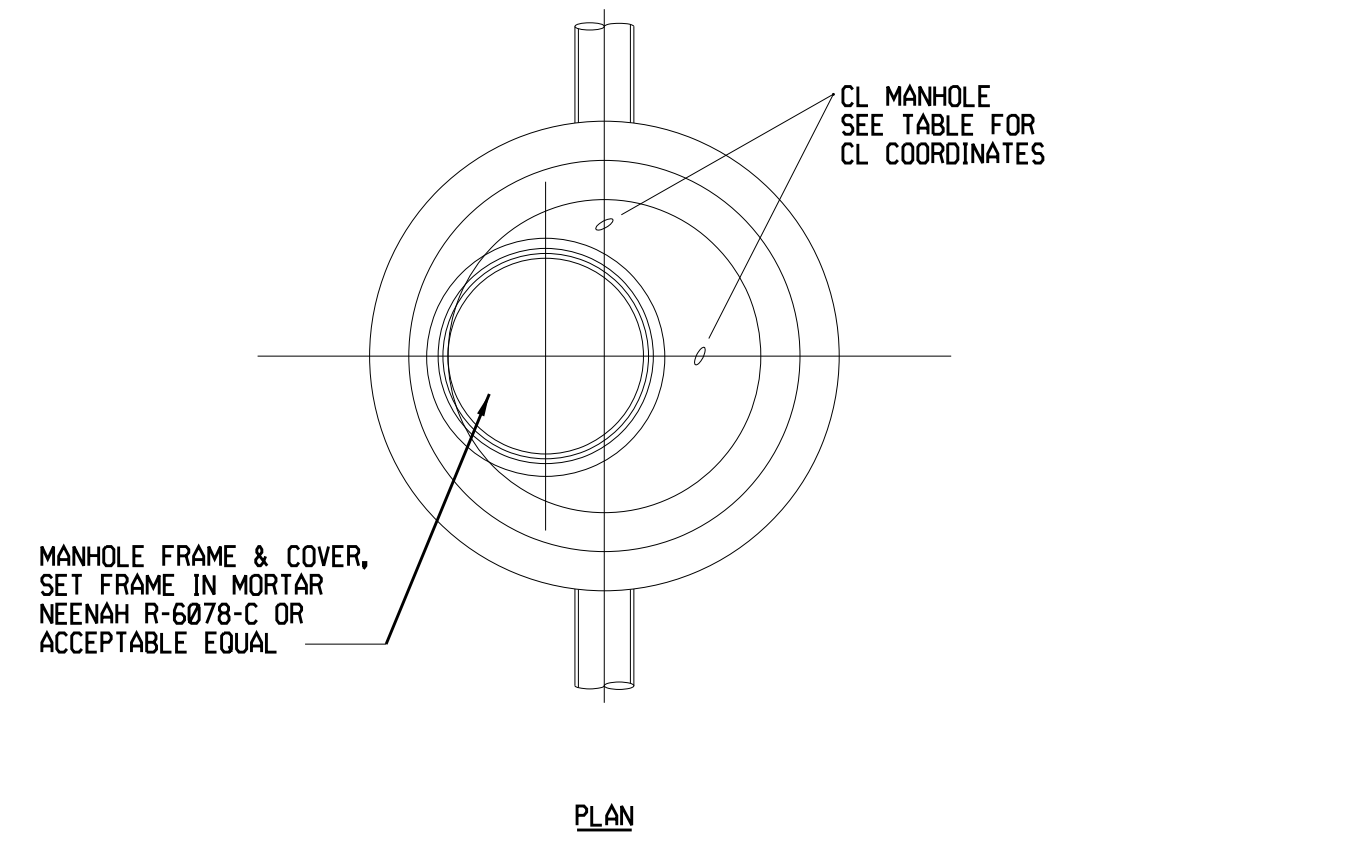


REFERENCE DRAWINGS:

SITE PLAN	5A1329-1
STORMWATER MANAGEMENT PLAN	5M1329-1
STORMWATER DETAILS (2 OF 4)	5M1329-2
STORMWATER DETAILS (3 OF 4)	5M1329-3
STORMWATER DETAILS (4 OF 4)	5M1329-4
STORMWATER DETAILS (4 OF 4)	5M1329-5

DATE	SUBMITTED FOR

DTE Energy <i>DTE Electric</i> Central Design/Standards	
TITLE STORMWATER DETAILS (1 OF 4)	
LOCATION NAME GRENA SUBSTATION	SERVICE CENTER ANN ARBOR
DRAWING NUMBER 5M1329-2	WORK ORDER 69084198
PROJECT DOCUMENT LIST GRENA-PDL-A-69084198	SCALE NONE
DOCUMENTUM FILENAME GRENA-M-0002	



PRELIMINARY
NOT FOR CONSTRUCTION

REFERENCE DRAWINGS:

DATE	SUBMITTED FOR	NO.	REV.
DATE	SUBMITTED FOR	NO.	REV.
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DATE	SUBMITTED FOR	NO.	REV.
DATE	SUBMITTED FOR	NO.	REV.
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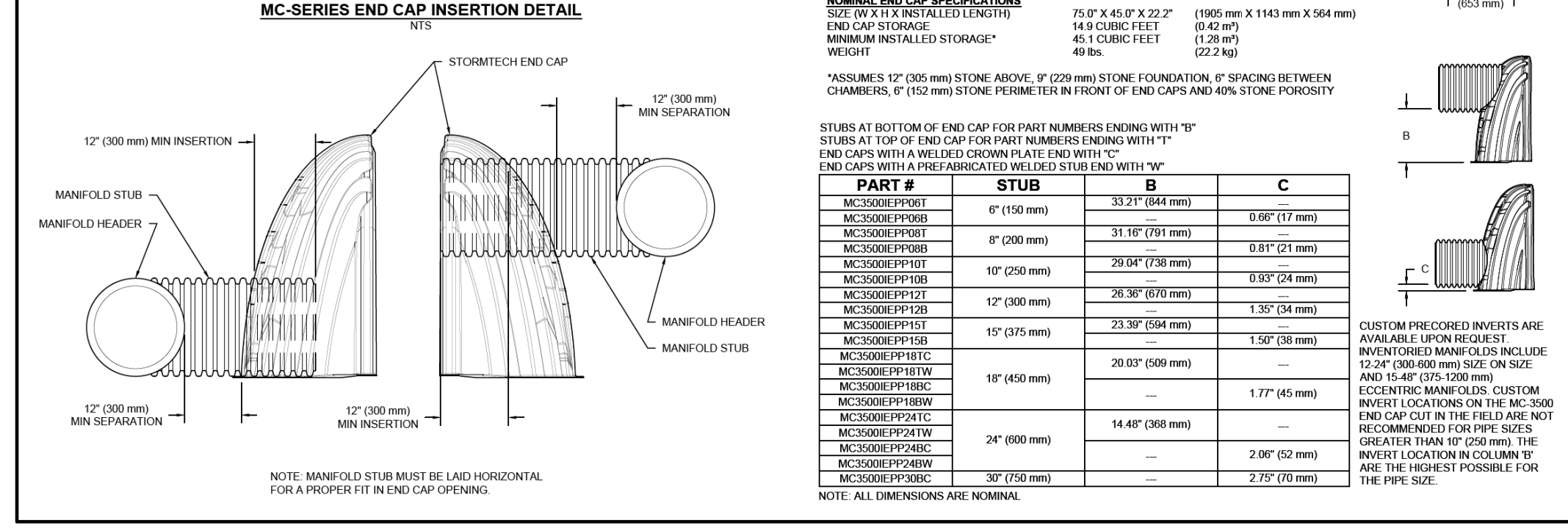
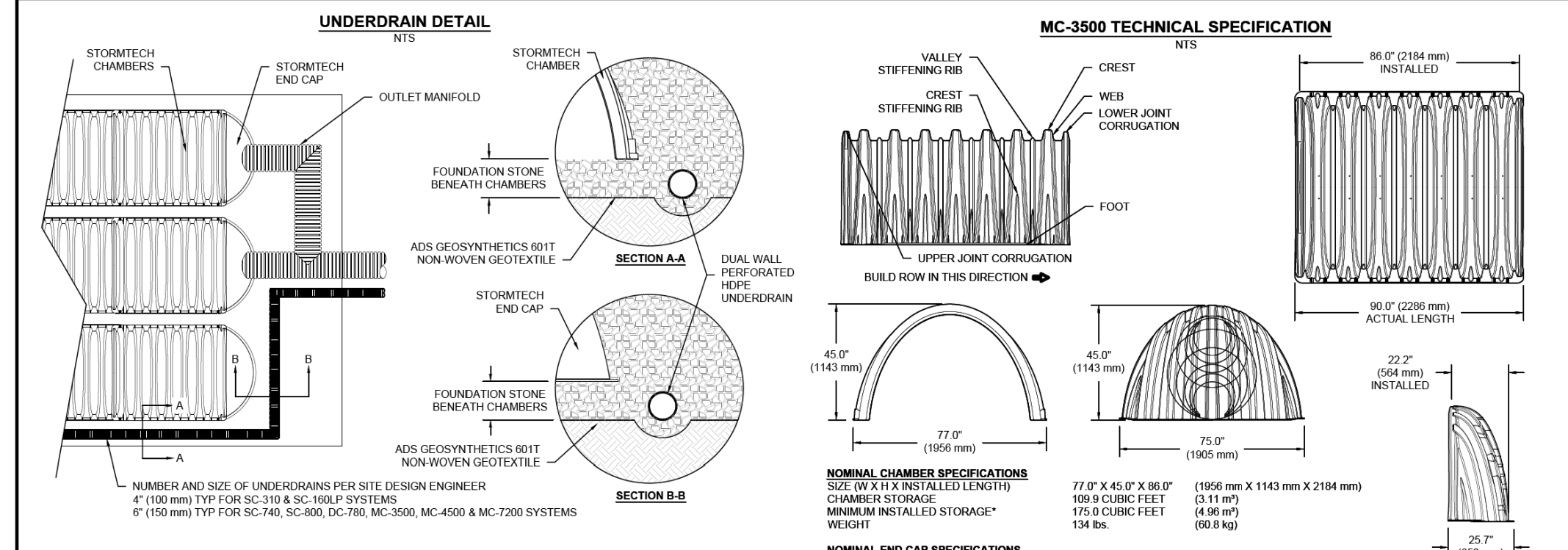
SHARED DRAWING
INFORMATION ON DRAWING SHARED
WITH ITC HOLDINGS CORP.

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FOR ANY QUESTIONS ON THIS DESIGN,
PLEASE CONTACT:
PROJECT ENGINEER
ERIC M. MYRICK
(313)235-6728



PROJ DESIGN			PROJ MANAGER			OTHERS			APPROVALS		
DATE			DATE			DATE			OTHER	DATE	ENGINEERING
									RELAY		R.D. BREWER/BV MADE BY DATE 11/22/24
									EPPM		Z.E. WIACEK/BV LAYOUT BY DATE 11/22/24
									ACT		G.J. ESKOLA/BV CHECKED BY DATE 11/22/24
									OTHERS		PROJECT DESIGN/ELECT DATE 11/22/24
											PROJECT DESIGN/ACT DATE
											APPROVED FOR ISSUE DATE

DTE Energy		DTE Electric	Central Design/Standards
TITLE			
STORMWATER DETAILS (2 OF 4)			
LOCATION NAME	SERVICE CENTER	SCALE	
GRENA DA SUBSTATION	ANN ARBOR	NONE	
DRAWING NUMBER	WORK ORDER	PROJECT DOCUMENT LIST	
5M1329-3	69084198	GRENA-PDL-A-69084198	
DOCUMENTUM FILENAME GRENA-M-0003			

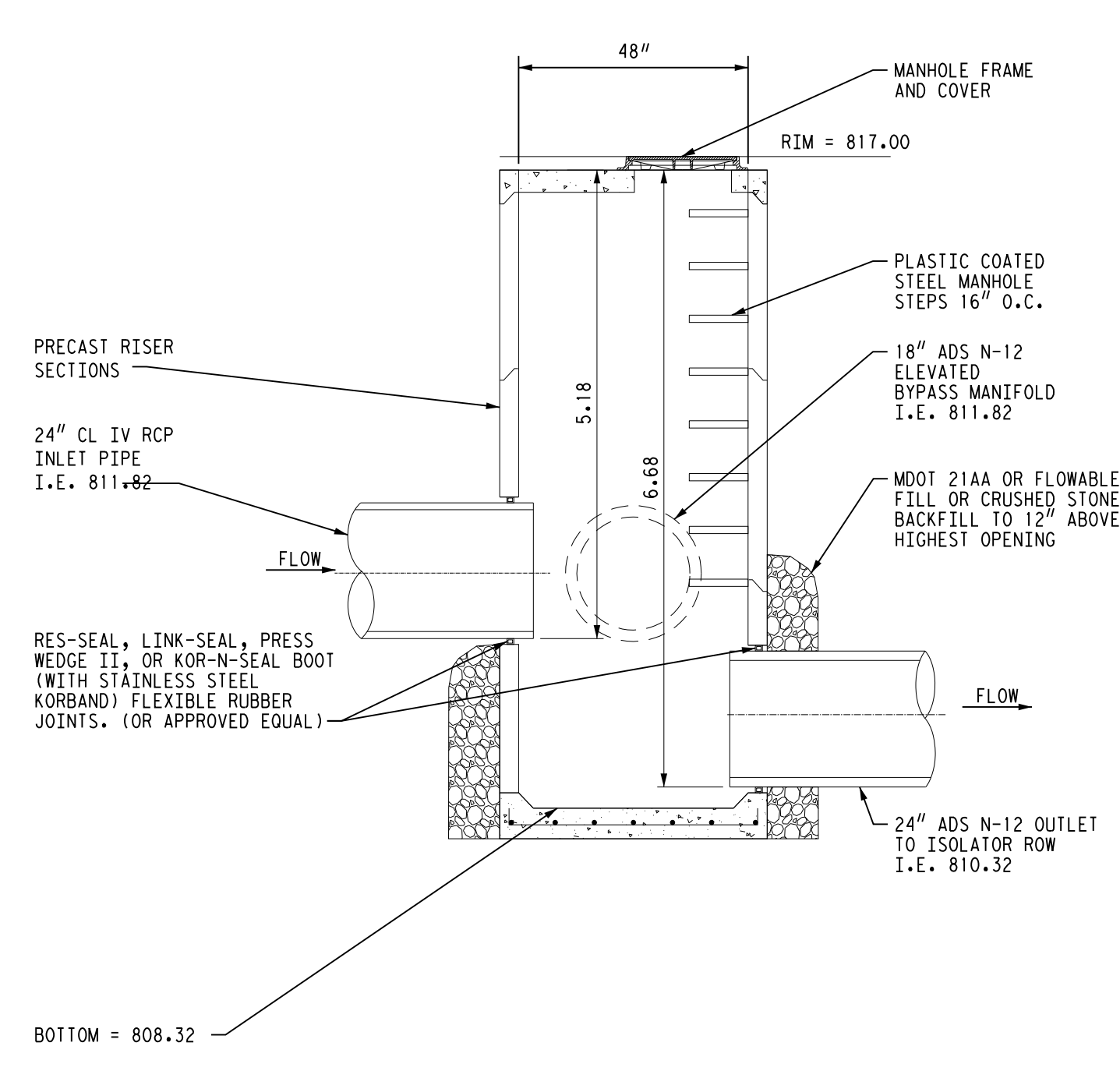


NOTE: ALL DIMENSIONS ARE NOMINAL

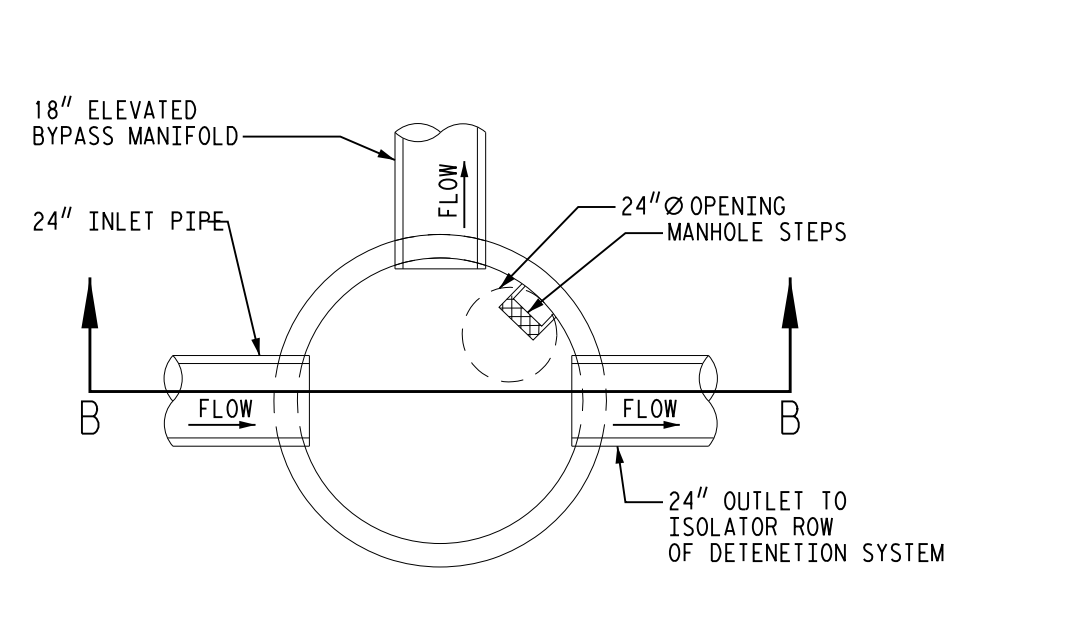
PART #	STUB		CUSTOM PRECAST INVERTS ARE AVAILABLE UPON REQUEST. INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 18" (450 mm). THE INVERT LOCATION IS DETERMINED BY THE HIGHEST POSSIBLE FOR THE PIPE SIZE.
	B	C	
MC-SO2PEP08T	8" (203 mm)	33.21" (844 mm)	—
MC-SO2PEP08B	—	—	0.80" (21 mm)
MC-SO2PEP08R	8" (203 mm)	31.18" (791 mm)	—
MC-SO2PEP10T	10" (250 mm)	29.54" (748 mm)	0.81" (21 mm)
MC-SO2PEP10B	—	—	1.03" (24 mm)
MC-SO2PEP10R	10" (250 mm)	26.38" (670 mm)	—
MC-SO2PEP12T	12" (300 mm)	25.39" (644 mm)	1.35" (34 mm)
MC-SO2PEP12B	—	—	1.50" (38 mm)
MC-SO2PEP12R	12" (300 mm)	23.39" (594 mm)	—
MC-SO2PEP15T	15" (375 mm)	20.03" (509 mm)	—
MC-SO2PEP15B	—	—	1.77" (45 mm)
MC-SO2PEP15R	15" (375 mm)	18.48" (468 mm)	—
MC-SO2PEP18T	18" (450 mm)	—	—
MC-SO2PEP18B	—	—	—
MC-SO2PEP18R	18" (450 mm)	—	2.80" (72 mm)
MC-SO2PEP24T	24" (600 mm)	—	—
MC-SO2PEP24B	—	—	—
MC-SO2PEP24R	24" (600 mm)	—	2.75" (70 mm)

GRENADA SUBSTATION
ANN ARBOR, MI, USA
DATE: [] / [] / [] PRODUCT # []
REV: [] / [] / [] DESCRIPTION []
SITE: [] / [] / [] ELEVATION: []
CLIENT: [] / [] / []
PROJECT # []
DRAWING # []
SHEET 5 OF 5

StormTech Chamber System
4445 TRILBYMAN BLVD
FREMONT, MI 48031
TEL: (313) 486-1000

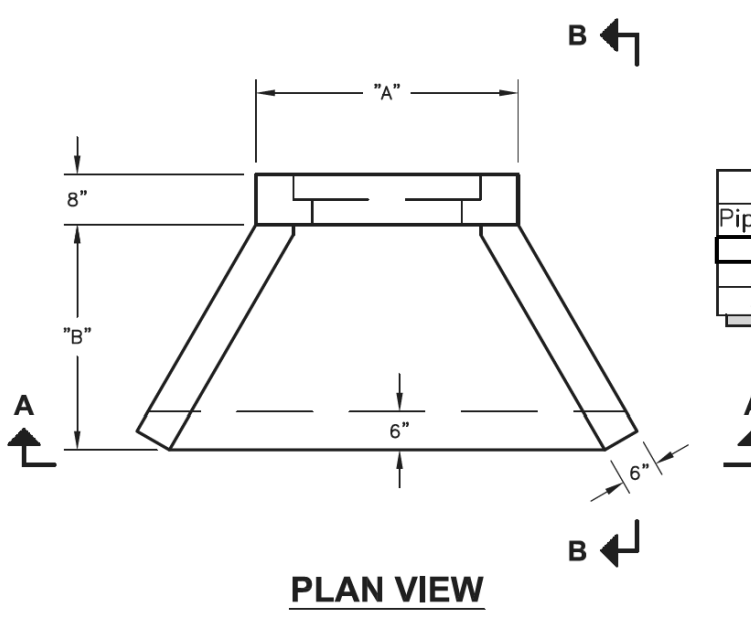


1 M1 MANIFOLD STRUCTURE (MS-1)
NO SCALE

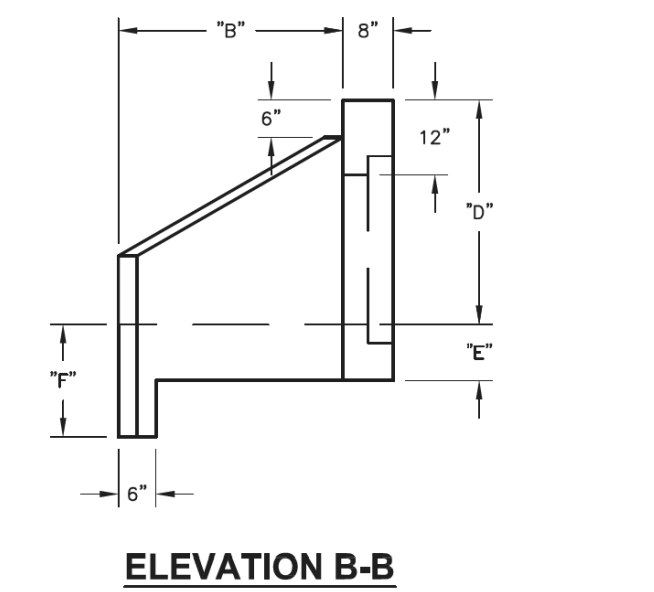
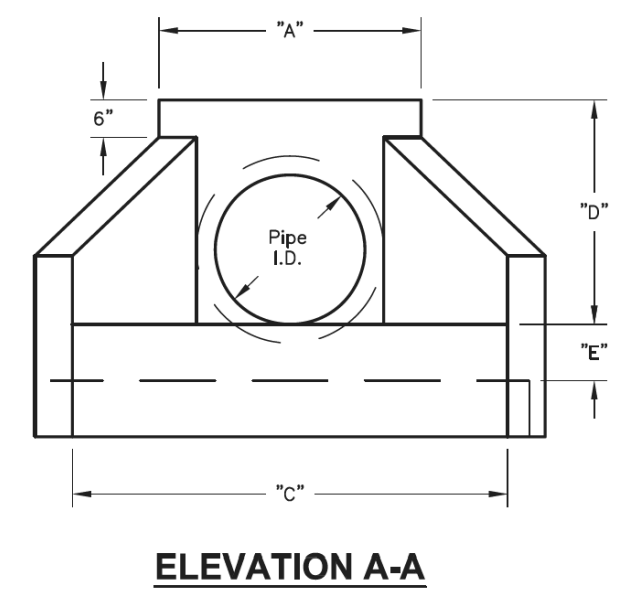


Water

18", 24", 30"
Headwall
Model: HEADWALL



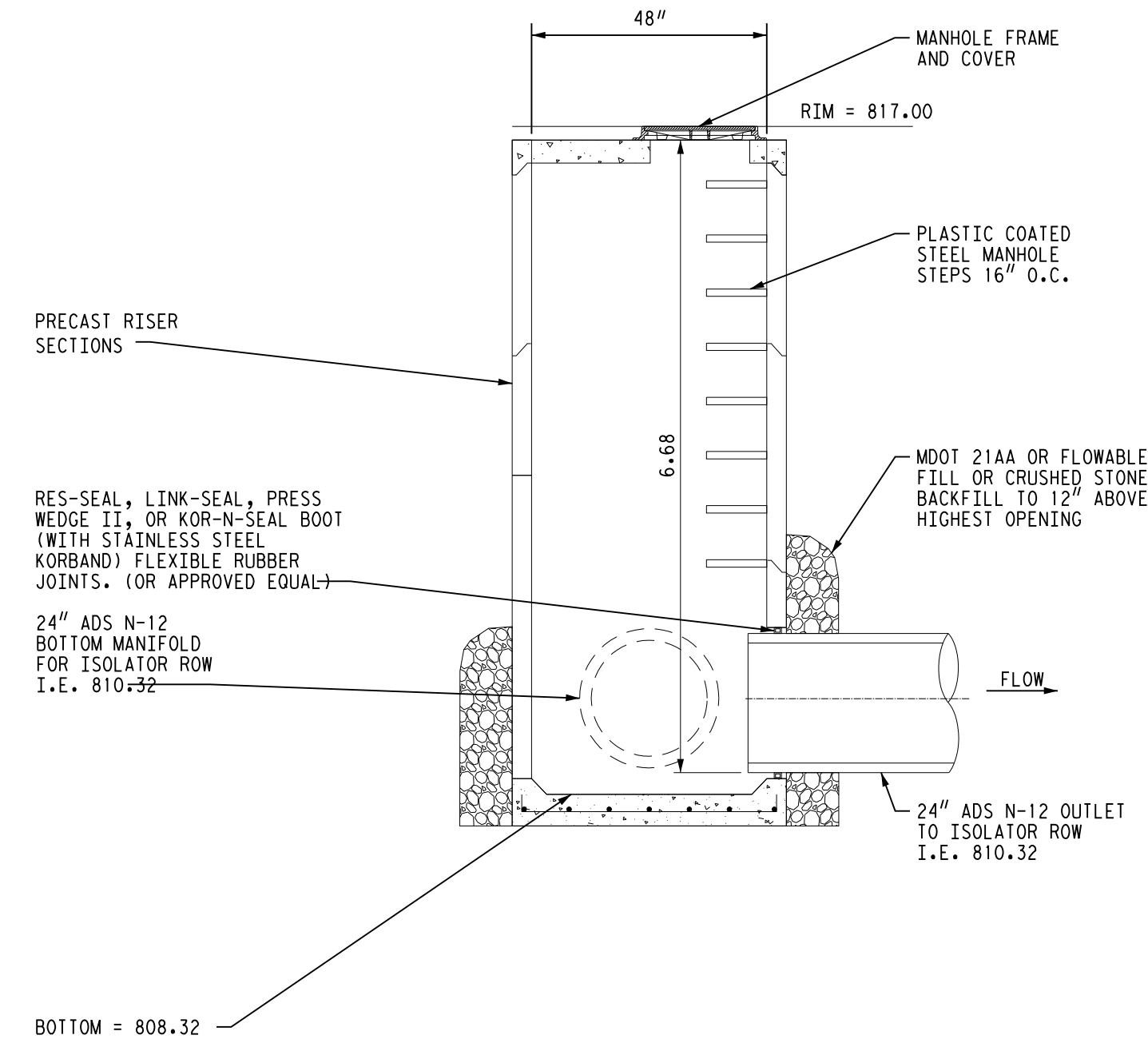
Pipe I.D.	"A"	"B"	"C"	"D"	"E"	"F"	"G"	Weight	Item#
18"	36"	24"	48"	36"	7"	18"	36"	2170 Lbs.	1221020
24"	42"	36"	69"	36"	9"	18"	29"	4000 Lbs.	1221040
30"	49"	60"	111"	41"	7"	18"	27"	4965 Lbs.	1221060



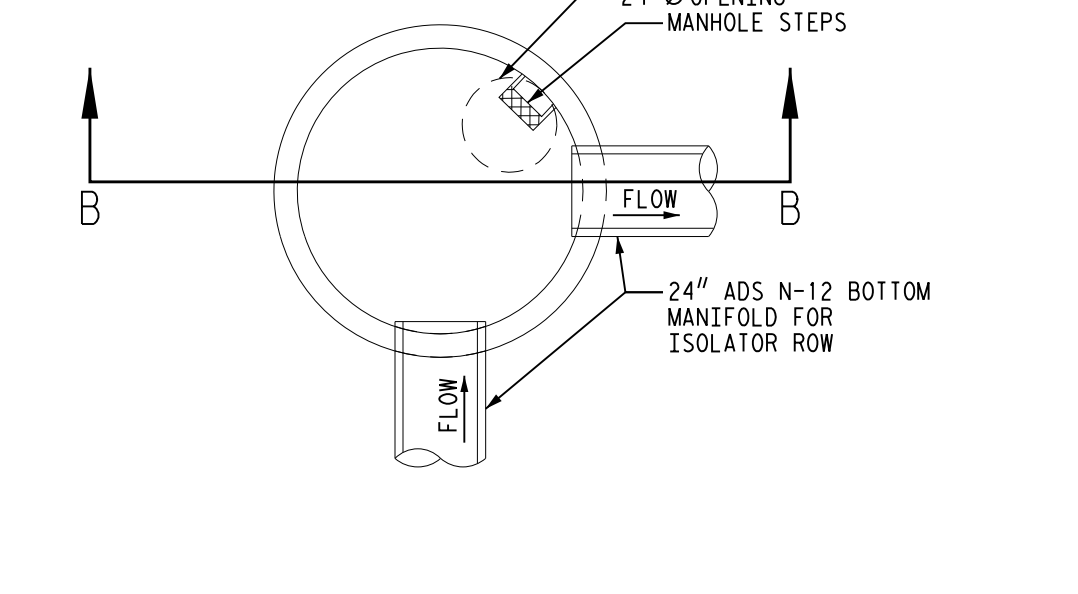
SPECIFICATIONS:
 1. Concrete: Class "C" with design strength of 5000 PSI at 28 days.
 2. Steel reinforcement: ASTM A-615 Grade 60 or ASTM A-497 Welded wire fabric.
 3. Loading: Designed for H20 Loading.
 4. C.I. Castings: ASTM A48, Class 30/35.
 5. All exposed Corners shall be Chamfered 3/4".

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Texas Region
888-9 Oldcastle (888-966-3227)



1 M1 MANIFOLD STRUCTURE (MS-2)
NO SCALE



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INFORMATION ON DRAWING SHARED WITH ITC HOLDINGS CORP.

NOTE TO FIELD
FOR ANY QUESTIONS ON THIS DESIGN, PLEASE CONTACT:
PROJECT ENGINEER
ERIC M. MPRICK
(313) 235-6728

STOP THINK ACT REVIEW Know what's below. Call before you dig. **811**

REFERENCE DRAWINGS:

STIE PLAN	5A1329-1
STORMWATER MANAGEMENT PLAN	5M1329-1
STORMWATER DETAILS (1 OF 4)	5M1329-2
STORMWATER DETAILS (2 OF 4)	5M1329-3
STORMWATER DETAILS (3 OF 4)	5M1329-4

DATE	SUBMITTED FOR

PROJ DESIGN			PROJ DESIGN			PROJ DESIGN			APPROVALS				
DATE	PROJ DESIGN	PROJ MANAGER	DATE	PROJ DESIGN	PROJ MANAGER	DATE	PROJ DESIGN	PROJ MANAGER	DATE	OTHER	DATE	ENGINEERING	DATE

DTE Energy *DTE Electric* *Central Design/Standards*

TITLE: STORMWATER DETAILS (4 OF 4)

LOCATION NAME GRENADA SUBSTATION	SERVICE CENTER ANN ARBOR	SCALE NONE
DRAWING NUMBER 5M1329-5	WORK ORDER 69084198	PROJECT DOCUMENT LIST GRENA-PDL-A-69084198

DOCUMENTUM FILENAME: GRENA-M-0005



Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: February 14, 2025

**Conditional Use and Preliminary Site Plan Review
For
Superior Township, Michigan**

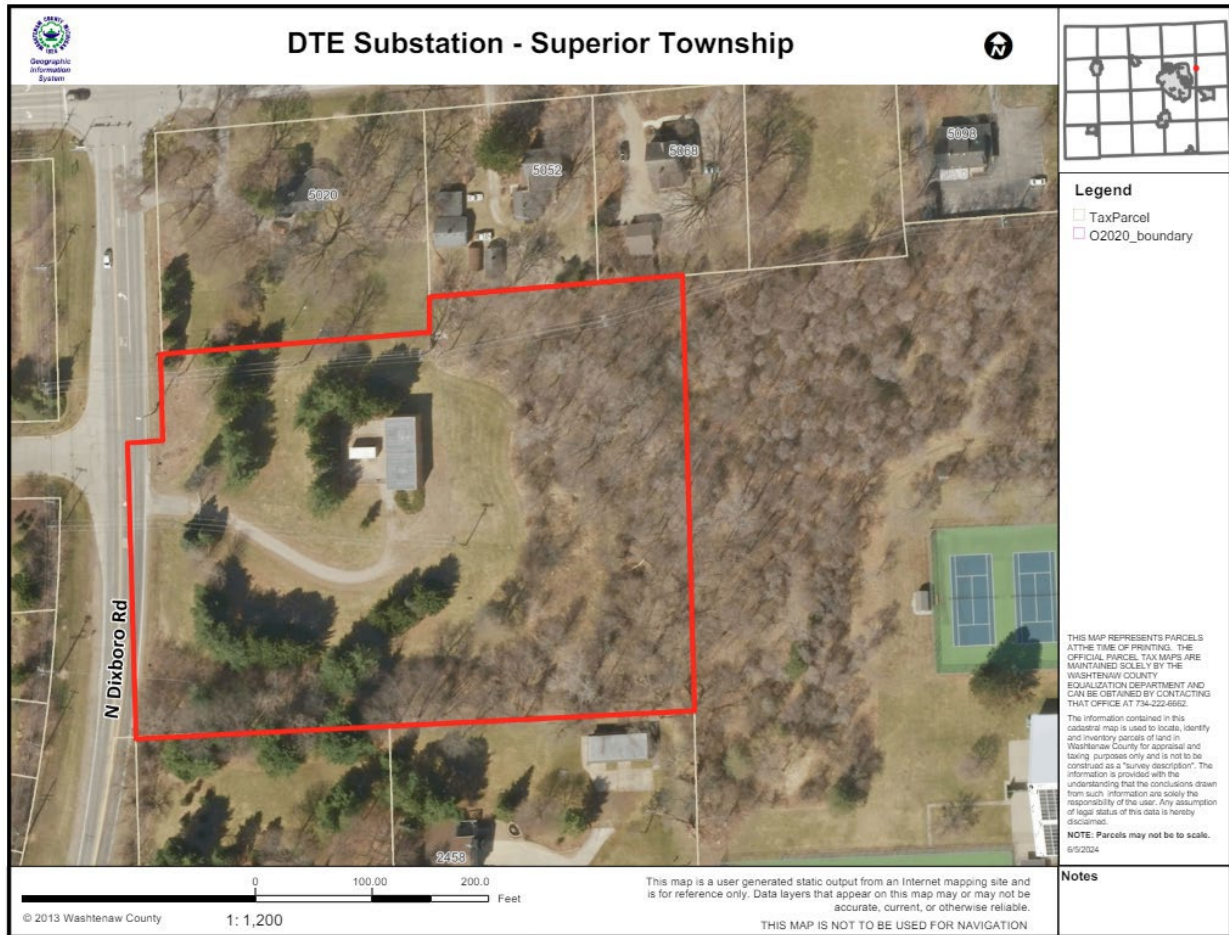
Applicant:	DTE Electric Company (John Erb, DTE Real Estate and Terry Spryszak, DTE Corp Permits)
Project Name:	STPC 25-02 - DTE Grenada Substation Expansion
Plan Date:	November 22, 2024
Location:	East side of N. Dixboro Road, south of Plymouth Road J -10-18-261-012
Zoning:	R-4 (Single-Family Residential) Urban Residential District
Action Requested:	Conditional Use Permit / Preliminary Site Plan Approval
Required Information:	As noted in review.

PROJECT DESCRIPTION

DTE Electric Company is seeking approval for a combined Conditional Use Permit and Preliminary Site Plan to expand an existing electrical substation on a 3.76 acres parcel (J -10-18-261-012) located on the east side of Dixboro Road, south of Plymouth Road (see Figure 1). The property is in an Urban Residential District zoned R-4 (Single-Family Residential). The proposed new Grenada Substation would be classified as a "Utility Transmission and Distribution Lines and Pipelines not in Existing Easements or Rights-of-Way" and requires a Conditional Use Permit approval in an R-4 (Urban Residential District).

Benjamin R. Carlisle, *President* John L. Enos, *Vice President* Douglas J. Lewan, *Principal*
David Scurto, *Principal* Sally M. Elmiger, *Principal* R. Donald Wortman, *Principal* Craig Strong, *Principal*
Paul Montagno, *Principal* Megan Masson-Minock, *Principal* Laura Kreps, *Principal* Brent Strong, *Principal*
Richard K. Carlisle, *Past President/Senior Principal*

Figure 1 - Aerial Image of Subject Site



The applicant has provided the following use description:

THIS PROJECT IS TO CONSTRUCT AN ELECTRICAL SUBSTATION WHICH WILL IMPROVE POWER RELIABILITY IN THE SURROUNDING AREAS. WORK INCLUDES OVERHEAD SUPPORT STRUCTURES, LIGHTNING MASTS, TRANSFORMERS, CIRCUIT BREAKERS, POWER DISTRIBUTION CONTROL EQUIPMENT, ITC CONTROL HOUSE, ACCESS DRIVES WITH SECURITY FENCE AND LIGHTING. GRENADA SUBSTATION IS AN UN-OCCUPIED ELECTRIC SWITCHING/DISTRIBUTION SUBSTATION, AFTER CONSTRUCTION IS COMPLETE, AN OPERATOR WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH TO PERFORM ROUTINE MAINTENANCE AND DATA COLLECTION.

The Preliminary Site Plan submitted also includes a restroom facility, supported by a new septic and a pre-manufactured stormwater underground detention treatment system.

Electrical substations play a key part in effectively transmitting electricity through our national electricity grid. One of the main roles of substations are to convert electricity into different voltages. This is needed so the electricity can be transmitted throughout the country and then distributed throughout local neighborhoods and into our homes, businesses and buildings. Substations contain specialized equipment that allows the voltage of electricity to be transformed (or 'switched'). The voltage is

stepped up or down through pieces of equipment called transformers. Substations are integral features within that grid and enable electricity to be transmitted at different voltages, securely and reliably.

There is an existing substation facility on this property that was constructed around 1990 and the applicant is proposing to improve and expand the facility to improve power reliability in the surrounding areas. The height of the transformer towers proposed was not specified on the plans; however, they appear to be less than the 50 foot high lightning masts shown on sheet 5A1329-10 (Substation Elevations & Section Views).

PROCESS

The proposed Grenada Substation facility is considered to be a “Utility Transmission and Distribution Lines and Pipelines not in Existing Easements or Rights-of-Way” and is permitted on parcels zoned R-4 (Urban Residential District) with a Conditional Use Permit approval.

Article 11 (Conditional Uses) specifies the procedures and standards to be followed in granting such permits. A site plan meeting all the requirements of a Preliminary Site Plan as outlined under Article 10.0 (Site Plan Review) must accompany the Conditional Use Permit application. A public hearing shall be held on the petition and notice shall be given in accordance with Section 1.14 (Public Hearing Procedures).

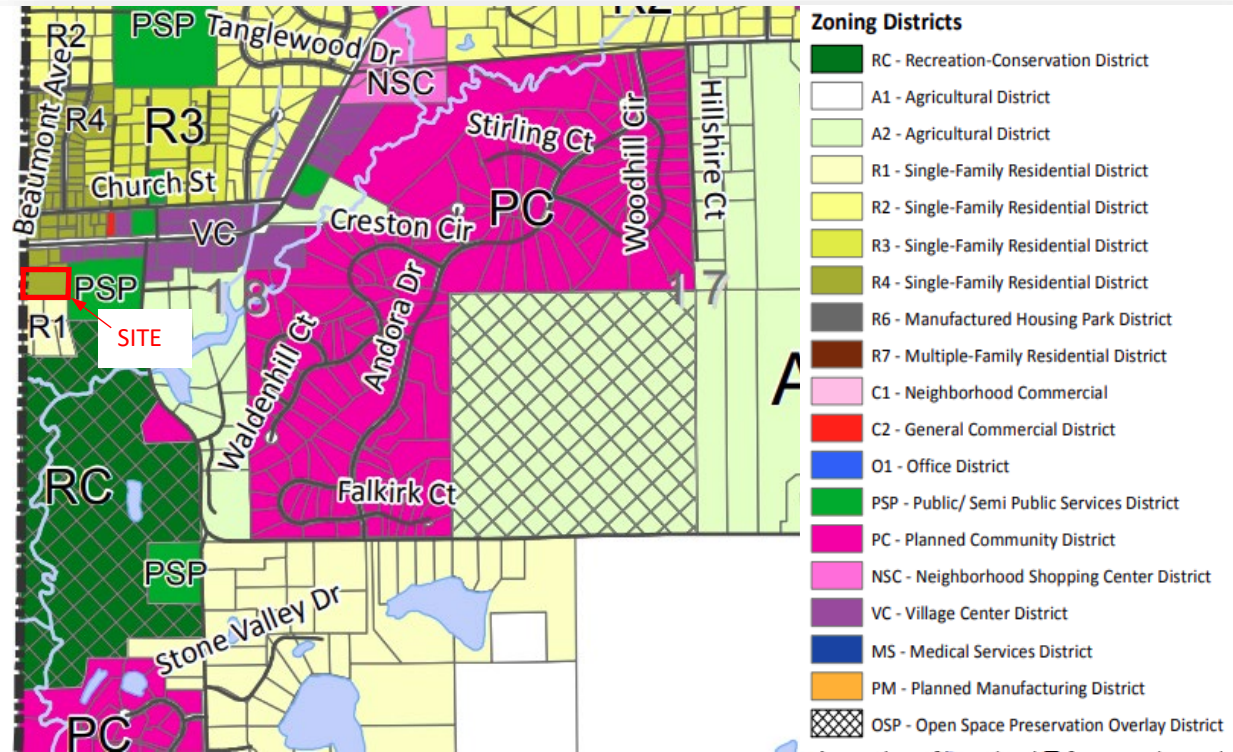
ZONING AND LAND USE

Zoning and existing land uses for the subject site and surrounding parcels are identified in the following table and shown on Figure 2.

DIRECTION	ZONING	LAND USE
North	R4 (Single-Family Residential) VC (Village Center)	Single Family Dwelling and Commercial Office
South	R1 (Single-Family Residential)	Single Family Vacant and Rural Residential
East	PSP (Public/ Semi Public Services)	Huron Valley Tennis Club
West	PUD (Ann Arbor Township)	Dixboro Road and Flemming Creek Residential Subdivision

Sheet 5A1329-1 (Site Plan) includes zoning information for abutting properties. Abutting property near the northeast corner of the site is zoned Village Center (VC) and needs to be reflected on the plans.

Figure 2 – Superior Township Zoning Map

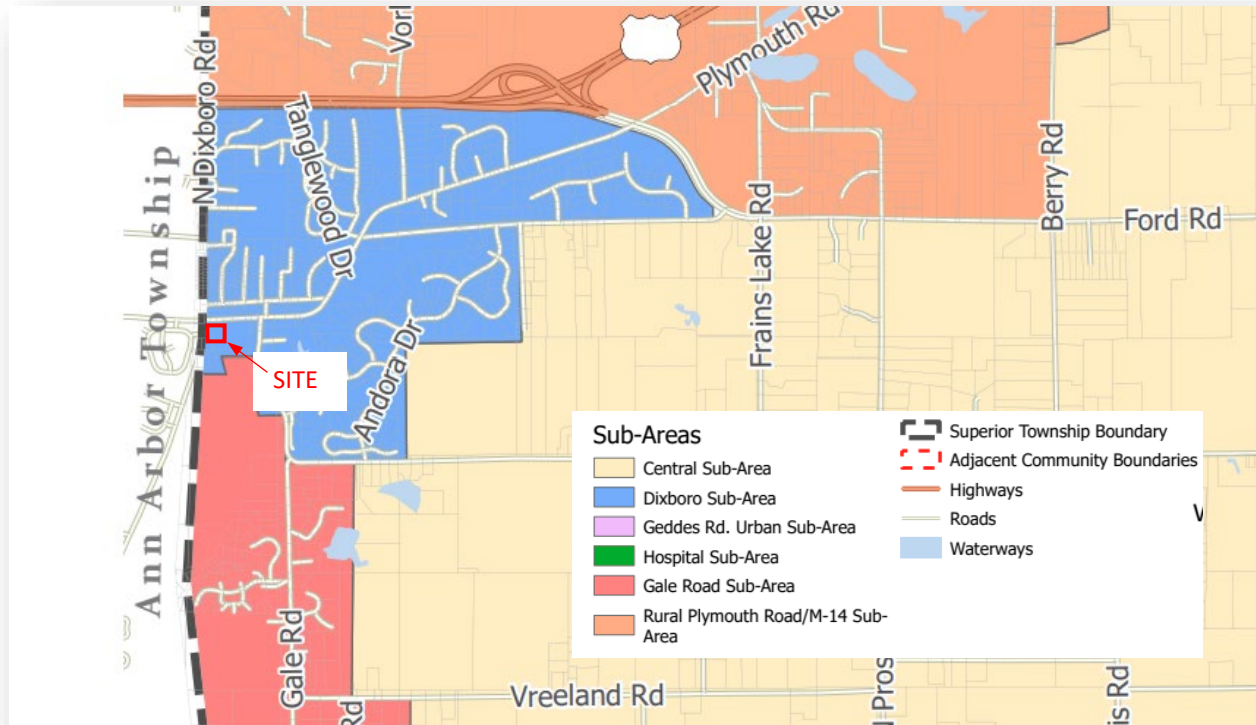


Items to be Addressed: (1) Correct Sheet 5A1329-1 (Site Plan) to reflect that abutting property near the northeast corner of the site is zoned Village Center (VC).

MASTER PLAN

The Future Land Use Map designates the subject site and the properties to the north, south, and east in the Dixboro Sub-Area (Figure 3). Properties west of the site and N Dixboro Road are in Ann Arbor Township and these parcels are designated as Residential 0.2-0.5 DU/acre (2 to 5-ac. lots) on the Township’s Future Land Use Map.

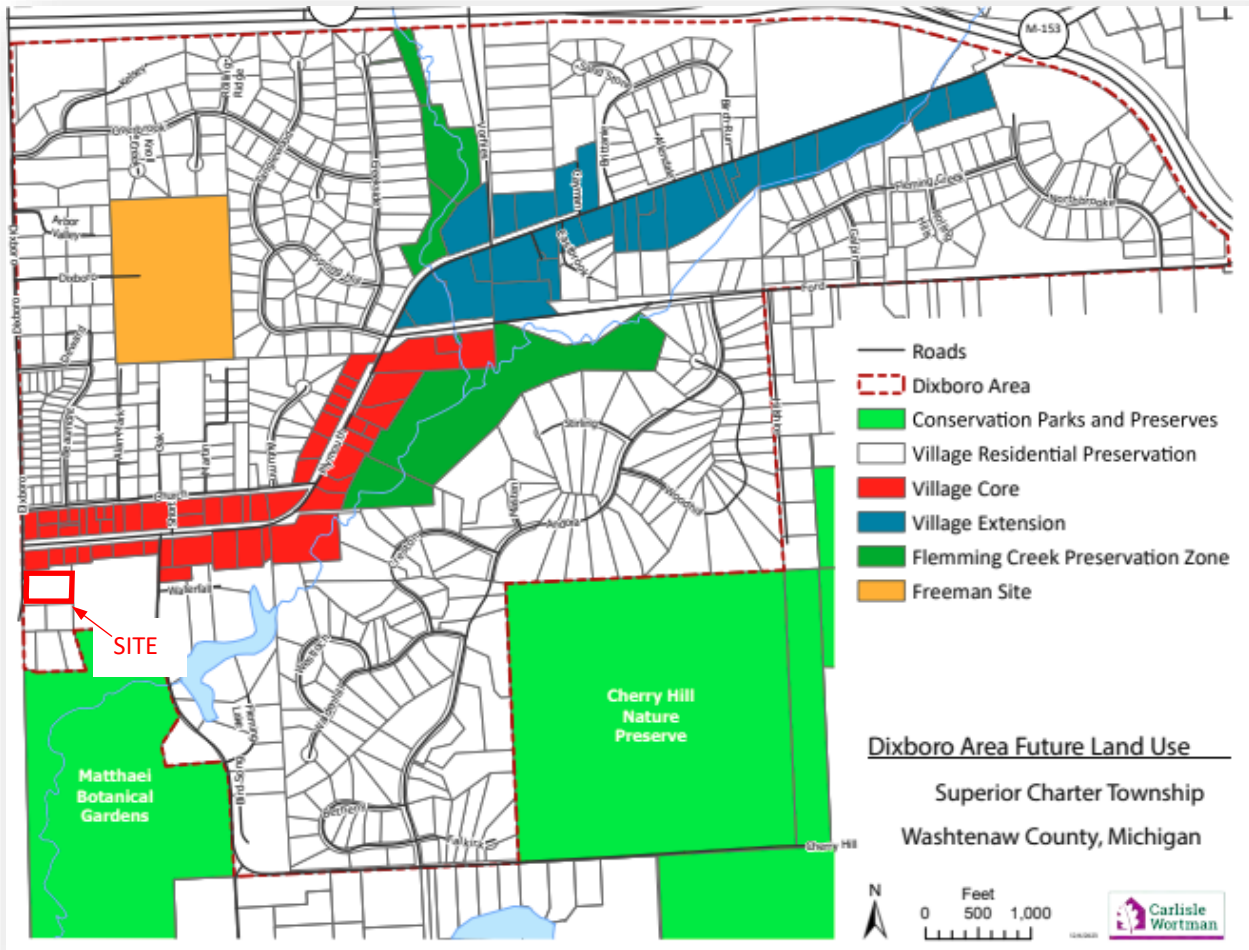
Figure 3 – Superior Township Future Land Use Map



The Dixboro Sub-Area has a more detailed Future Land Use Map (Figure 4). Areas within the Dixboro Sub-Area have been divided into five (5) place types based upon the context of existing build form, physical conditions, environmental conditions, land uses, development patterns, and community input, goals, and strategies. The subject site is included in the “Village Residential Preservation” place type which is intended for large- and small-lot single-family homes, open spaces and parks. It is the Township’s desire to maintain and seek continuing reinvestment in the existing housing stock in the Village Residential Preservation area and new development must fit the character of the area. This being said, the intent of the Future Land Use Map is not to predetermine land uses or zoning on a specific parcel or at specific locations. Rather, individual properties or projects can be considered within the context of the location and surrounding properties, and not by a strict set of land use categories.

The existing DTE electrical substation facility on this parcel was constructed in the early-1990s and while the conditional use request to expand this facility does not specifically meet the intent of the Village Residential Preservation place type, expansion of the substation and associated improvements are intended to increase power reliability in the surrounding areas including the Dixboro Sub-Area. The property is located outside the area requiring Dixboro Design Review Board’s review under Section 14.04 (Design Review).

Figure 4 – Dixboro Sub-Area Future Land Use Map



Items to be Addressed: None

NATURAL RESOURCES

The property is currently partially developed and there are no “significant” natural resources including woodlands, steep slopes, and wetlands on site. The property is located outside the 100 year floodplain. The applicant has designed the facility to maintain existing natural features on site to the fullest extent possible.

Watercourses and Wetlands: Sheet 5A1329-1 (Site Plan) states there are no regulated or unregulated wetlands within the subject parcel boundary. Sheet 5A1329-4 (Existing Conditions Plan) supports this claim and a note on sheet 5A1329-8 (Soil Erosion and Sediment Control Plan) states that based on the EGLE wetland inventory the nearest water body is associated with Flemming Creek approximately 300 ft south of the site boundaries.

Slopes: No development shall be permitted in areas where the soil is highly erodible, or in any area with existing steep slopes of twenty five percent (25%) or greater.

Sheet 5A1329-4 shows existing conditions including topographic elevations. Notes on sheet 5M1329-1 (Stormwater Management) indicate that slopes range from 1.25% to 33.25% with elevations ranging between 810 and 826. The natural drainage path is from the northwest corner to the southeast corner of the property. During construction of the new substation pad, approximately 3.6 acres of the 3.76 acre parcel will be disturbed and re-graded to an elevation of 817 feet. As shown on sheet 5A1329-1, the wooded area with steep slopes towards the northeast corner of the parcel will be re-graded with 3:1 slide slopes (33%) and this area will remain undeveloped. Sheets 5A1329-8 and 5A1329-9 provide details on soil erosion and sediment control measures proposed during and after construction. The applicant needs to provide comment on how the integrity and profile of areas with slopes greater than 25% and areas with slopes of at least twelve percent (12%) but less than twenty five percent (25%) shall be maintained.

Floodplain: As noted on sheet 5A1329-4 (Existing Conditions Plan), the site is within Zone "X" determined to be outside the 0.2% annual chance flood plain per Flood Insurance Map No 26161C0266E (effective April 3, 2012).

Woodlands and Tree Preservation: Sheet 5A1329-4 (Existing Conditions Plan) including limits of wooded areas on the subject parcel and sheet 5A1329-5 (Site Preparation and Demolition Plan) includes an inventory of existing trees on site as well as those proposed to be removed and preserved with details on tree protection measures. Tree replacement calculations are provided on sheet 5A1329-2 (Landscape Plan). The applicant proposes to pay up to 465 trees replacement equivalent into the tree fund. We understand that the required additional 465 trees will not fit, there are opportunities to put additional replacement trees on site including in the large area south of the access drive, along Dixboro road, and along the eastern property line.

Based on adding additional trees on to the site, the applicant needs to provide a cost estimate for the remaining trees that cannot be installed on site and that are required to be mitigated. The estimate shall be based upon the current retail market value for the tree replacement. Once an amount is agreed upon with the Township, the applicant shall deposit into a tree-planting fund maintained by the Township to be utilized for planting, maintenance, and preservation of trees and woodland areas in the Township.

Items to be Addressed: (1) Provide comment on how the integrity and profile of areas with slopes greater than 25% and areas with slopes of at least twelve percent (12%) but less than twenty five percent (25%) shall be maintained; (2) Add additional replacement trees on site; and (3). Provide a cost estimate for the remaining replacement trees that cannot be installed on site and that are required to be mitigated.

SITE ARRANGEMENT

As described on the cover sheet under "General Notes", during construction, approximately 3.6 acres of land will be disturbed and, after expansion, the substation structures and buildings will be constructed on a gravel pad that totals 1.6 acres. A fence will be installed around the pad and areas outside the pad will largely remain pervious open space and enhanced with new landscape, including a berm along the northeast corner of the site.

Sheets 5A1329-1 and 5A1329-6 have notes that reference a 7.0 ft high chain link fence with 6 strands of barbed wire on 'V' arms and calls out "Detail 5 on drawing 5A1329-7". Detail 5 shows aspects of the fence, but it is a "Yard Edge Detail" and calls out specification 390 rev "Y". Furthermore, general note #11 on sheet 5A1329-6 refers to another project construction specification for chain link fences and gates (e.g., 323100). These references need to be corrected, and the fence detail added to the plans.

Fencing and screening are important design considerations for the Planning Commission to contemplate for this conditional use. The towers and ground equipment enclosures must be secured by fencing and Section 6.01A.2.b. permits barbed wire fences to surround public utility facilities and essential service uses in any zoning district. Per Section 6.01B.4. fences on public lands and enclosing public utilities are not to exceed a maximum of eight (8) feet in height, unless the Zoning Inspector determines that a higher fence is necessary for safety reasons. The applicant needs to confirm the total height of the fence with the barbed wire extension. Section 6.01B.4.b. also states, "Fences that enclose public utility and essential service facilities shall not be permitted in a required side yard in the Urban Residential Districts, but may be permitted in any required yard of any other zoning district." The substation is zoned R-4 (Urban Residential) and the minimum required side yard setback is 6 Feet (16 Feet Total). The proposed fence would be installed around the pad area and outside the side yard setback.

The cover sheet lists the following improvements under "Structure Summary":

- RESTROOM: AREA = 480 SFT /HEIGHT = 8 FT
- ITC CONTROL HOUSE: AREA = 1,318 SFT /HEIGHT = 12 FT
- DTE PDC EQUIPMENT ENCLOSURE: AREA = 690 SFT /HEIGHT = 12 FT
- FUTURE PDC EQUIPMENT ENCLOSURES: AREA = 3 AT 690 = 2,070 SFT / HEIGHT = 12 FT
- LOT COVERAGE = 1.6 AC/3.6 AC = 44%
- STRUCTURE COUNT ONLY INCLUDES RESTROOM AND CONTROL ENCLOSURES AND DOES NOT INCLUDE EXTERIOR ELECTRICAL EQUIPMENT.

The "Project Description" provided on the cover sheets needs to reference the restroom facility, supported by a well and septic and a pre-manufactured stormwater underground detention treatment system. We ask for additional details regarding the need for a restroom, if the site is only visited once a month. If the restroom were to be removed, the applicant could remove the septic field, which would provide more area for tree planting.

Details of "exterior electrical equipment" referenced in the "Structure Summary" note on the cover sheet should be added. For example, height of lightning mast, bus support structures, and masonry transformer enclosures.

As shown in the table below, the Grenada Substation Expansion project is compliant with the majority of dimensional standards set forth in Section 3.101 of the Superior Township Zoning Ordinance. This being said, the maximum allowable Ground Floor Coverage (GFC) and Floor Area Ratio (FAR) needs to be confirmed.

STANDARD	REQUIRED/PERMITTED	PROVIDED	COMPLIANCE
Minimum Lot Size	7,200 Sq Ft (0.16 Acres)	3.76 Acres	Compliant
Minimum Lot Width	60 Feet	324 Feet	Compliant

Max. Building Height	35 feet / 2.5 Stories	12 feet	Compliant
Front Setback	25 Feet	~25 Feet	Compliant
Side Setback	6 Feet (16 Feet Total)	~16 Feet	Compliant
Rear Setback	35 Feet	~35 Feet	Compliant
Max. Ground Floor Coverage (GFC)	25%	Unknown	Unknown
Max Floor Area Ratio (FAR)	0.40	Unknown	Unknown

Items to be Addressed: (1) Add note to plans that describe project phasing if any; (2) Provide more descriptive labels for PDC equipment enclosures on Sheet 5A1329-1 (Site Plan) it is not clear how many are proposed in total; (3) Clarify and correct, if necessary, the Lot Coverage calculation included on cover sheet under “Structure Summary” and under “Site Information” on sheet 5A1329-1; (4) Add details for “exterior electrical equipment” on cover sheet under “Structure Summary” including the height of all structures; (5) Calculate the Ground Floor Coverage (GFC) and Floor Area Ratio (FAR) and add notes to cover sheet; (6) Add fence details to the plans; and (7) Provide details on the need for the restroom.

OPERATIONS

The existing substation was constructed in the early-1990s and includes a 32 foot high transformer enclosure building. When the expansion and improvements are complete and the new Grenada Substation will operate as an un-occupied electric switching/distribution substation which includes 120-40kV transformers. Once the new substation is energized, the existing substation infrastructure will be demolished. The applicant has stated that the new substation will be visited by an operator approximately once a month to perform routine maintenance and data collection and that the substation will generate less than 100 peak hour directional trips. Control and monitoring equipment will be inside a 1,318 sq. ft. "ITC control building". There will be no public sewer or water at this site. A new septic system and well will be established to support a 480 sq. ft. restroom on site. Sheet 5A1329-11 includes restroom layout and elevations and sheet 5A1329-12 includes the septic design.

Dixboro Road will remain open during underground utility construction and there will be minimal impact to traffic. General Notes on sheet 5A1329-1 (Site Plan) indicates that the facility will not be used for outdoor storage of any additional material other than proposed electrical equipment on the plans and that there will be no trash receptacles on site and no trash will be left on site overnight. General Notes on the cover sheet indicates that “Site transformer may emit low level noise that will be attenuated by having transformers setback 120 feet from adjacent property lines”. The Planning Commission should ask the applicant to clarify what noise or other nuisances may result from the use.

Items to be Addressed: (1) Provide the Planning Commission with details on what nuisances, other than noise, may potentially result from the use; (2) Limit use to conditions of approval as noted in recommendation.

PARKING AND LOADING

The facility is largely unmanned and there are no parking or loading requirements.

Items to be Addressed: None

SITE ACCESS AND CIRCULATION

The Grenada Substation will be accessed from the existing driveway curb cut off of N Dixboro Road. A new concrete drive approach will be constructed, and the facility improvements will be accessed by a 20-foot wide crushed stone service driveway that circles the substation pad. The proposed layout is shown on sheet 5A1329-6. The concrete driveway opening details are included on both sheets 5A1329-6 and 5A1329-7 and the access drive details are included on sheet 5A1329-7.

A detailed discussion of proposed fencing is included above under SITE ARRANGEMENT. There is motorized slide gate and a pedestrian gate with details provided on sheet 5A1329-7. The slide gate will be installed at the bottom of the driveway approximately 150 feet from N Dixboro Road. The movement of vehicular and pedestrian traffic within the site will be safe and convenient.

Items to be Addressed: None.

LANDSCAPING

The applicant is preserving existing mature on-site vegetation and natural landforms to the maximum extent feasible and has planned to provide additional landscaping along the north, south, and west property boundaries as shown on sheet 5A1329-2 (Landscape Plan). The Landscape Plan provided addresses standards of subsection 14.05F (Woodlands and Tree Preservation) and includes an inventory of existing trees on site as well as those proposed to be removed and preserved with details on tree protection measures; however, it does not address Section 14.10D (Methods of Screening). The methods of screening are described under Section 14.10D and include one (1) or more of the following:

- 1) Greenbelt buffer;
- 2) Hedgerow;
- 3) Fence;
- 4) Berm;
- 5) Evergreen screen;
- 6) Masonry wall

The screening method should be suited to the existing conditions and are subject to Planning Commission approval. It recommended that the proposed Grenada Substation should at minimum have a ten (10) foot wide greenbelt buffer that includes a mixture of deciduous shade trees, ornamental trees, evergreen trees, and shrubs planted at a concentration of one (1) tree and three (3) shrubs per 15 linear feet of greenbelt length around the entire property.

The Planning Commission may require additional plantings to achieve the screening objectives of Section 14.10D; however, based on a review of substation elevations and section views shown on sheet 5A1329-10, the substation should be adequately screened after landscape reaches full maturity. Furthermore, the substation pad will be at 817 finished grade which is almost 10 feet below the grade of Dixboro Road and there is a natural berm towards the northeast corner of the property.

Items to be Addressed: (1) Applicant needs to include greenbelt buffer and details on the Landscape Plan.

LIGHTING

No lighting plan has been provided. According to Section 6.13, any operation or activity which produces glare shall be conducted so that direct and indirect illumination from the source of light does not exceed one-half (1/2) footcandle when measured at any point along the property line of the site on which the operation is located if lighting is to be proposed. Item #7 under "General Notes" on sheet 5A1329-1 (Site Plan) describes exterior substation lighting as consisting of LED wallpack lights mounted on the PDC and restroom walls near each doorway. Lithonia D-Series DSX1 LED light fixtures mounted on square straight steel poles for general site lighting, lights are normally off except during emergency switching or maintenance operations.

Items to be Addressed: (1) *The applicant needs to provide a lighting plan in conformance with Section 6.13.*

FLOOR PLAN AND ELEVATIONS

Elevations, and dimensions for the ITC Control House and PDC Equipment Enclosures were not include with the plans submitted. The application also include details for a wall; however, we cannot tell from the plan set where a wall is proposed.

Items to be Addressed: (1) *Include elevations, and dimensions for the ITC Control House and PDC Equipment Enclosures; and (2) provide wall location on the site plan*

SUPPLEMENTAL REGULATIONS

Section 5.604 sets forth additional requirements for Utility Transmission and Distribution Lines. Electricity transmission and distribution lines, gas and oil pipelines, and other utility structures, lines, and pipelines shall be subject to the following:

- 1) *Storage of materials, equipment, vehicles, or supplies shall be prohibited on the premises, except as required during periods of maintenance and servicing.*
- 2) *No personnel shall be quartered or employed on the premises.*
- 3) *Structures or buildings shall be located, designed, constructed, and landscaped in conformance to the character of the surrounding area and zoning district.*

With the exception of landscaping, the plans comply with the supplemental regulations set forth under Section 5.604 (Utility Transmission and Distribution Lines). Provided that the applicant agrees to, and Planning Commission requires the following conditions, we find that the use is appropriate for the site and meets the required standards set forth in section 5.604.

CONDITIONAL USE STANDARDS

The Planning Commission has the authority to approve a Conditional Use Permit if the proposed use complies with Section 11.05.C (Standards for Conditional Use Permit Approval) as follows:

- a) *The proposed use will be harmonious, and in accordance with the*

objectives, intent, and purposes of this Ordinance;

- b) The proposed use will be compatible with the natural environment and existing and future land uses in the vicinity;*
- c) The proposed use will be compatible with the Growth Management Plan;*
- d) The proposed use will be served adequately by essential public facilities and services, such as highways, streets, police and fire protection, drainage ways and structures, refuse disposal, or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide adequately for any such services;*
- e) The proposed use will not be detrimental, hazardous, or disturbing to existing or future neighboring uses, persons, property, or the public welfare; and*
- f) The proposed use will not create additional requirements at public cost for public facilities and services that will be detrimental to the economic welfare of the community.*
- g) The proposed use complies with all applicable standards of this Ordinance, including Article 5.0 (Use Standards).*
- h) The proposed use complies with all applicable regulations of federal, state, regional, and county agencies with jurisdiction.*

The Grenada Substation conditional use as a “Utility Transmission and Distribution Lines and Pipelines not in Existing Easements or Rights-of-Way” in an R-4 (Urban Residential District) meets Standards for Conditional Use Permit Approval. There is an existing electrical substation facility on this parcel and while the conditional use request to expand this facility does not specifically meet the intent of the Village Residential Preservation place type, expansion of the substation and associated improvements are intended to increase power reliability in the surrounding areas including the Dixboro Sub-Area. With additional greenbelt buffers added for screening, the Grenada Substation Expansion project will not negatively impact the natural environment and existing and future land uses in the vicinity and the proposed use will not be detrimental, hazardous, or disturbing to existing or future neighboring uses, persons, property, or the public welfare.

CONDITIONS

In granting a Conditional Use Permit, the Planning Commission may impose conditions that it deems necessary to ensure that:

- a) *Public services and facilities affected by a proposed conditional use will be capable of accommodating increased service and facility loads caused by the proposed conditional use;*
- b) *The natural environment will be protected and natural resources and energy conserved;*
- c) *The proposed use is compatible with adjacent land uses; and*
- d) *The proposed use promotes the use of land in a socially and economically desirable manner.*

Conditions imposed shall meet the following requirements:

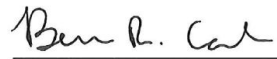
- a) *The conditions shall be designed to protect natural resources, the health, safety, and welfare and the social and economic well being of those who will use the proposed land use or activity, residents and landowners immediately adjacent to the proposed conditional use, and the community as a whole.*
- b) *The conditions shall be related to the valid exercise of the police power of the Township, and purposes that are affected by the proposed conditional use.*
- c) *The conditions imposed shall be necessary to meet the intent and purpose of the Ordinance, shall be related to the standards established in the Ordinance for conditional uses, and shall be necessary to ensure compliance with those standards.*

RECOMMENDATION

Overall, we strongly support the expansion of the Grenada DTE Substation as it will improve service and reliability in the area. However, there are a number of items that should be addressed prior to Planning Commission approval:

- 1) Clarification on need for restroom and ability to remove it to allow for more onsite tree replacement planting
- 2) Ability to plant additional onsite tree replacement
- 3) Fence details
- 4) Additional greenbelt plantings
- 5) Overall mitigation on adjacent properties
- 6) Steep slope impact
- 7) Lighting plan

We recommend that the Planning Commission hold a public hearing, and consider public testimony; however, postpone action until the aforementioned items have been addressed.



CARLISLE/WORTMAN ASSOC., INC.
Benjamin R. Carlisle, AICP, LEED AP
Principal



CARLISLE/WORTMAN ASSOC., INC.
Diane Mulville-Friel, AICP
Senior Associate



February 7, 2025

CHARTER TOWNSHIP OF SUPERIOR

3040 N. Prospect Road
Ypsilanti, MI 48198

Attention: **Angela Robinson, Township Clerk**

Regarding: **DTE Grenada Substation
Preliminary Site Plan Review – Review No. 1
OHM Job No. 0140-24-1010**

Dear Ms. Robinson,

On behalf of the Township, we have reviewed the Preliminary Site Plan submittal for the above referenced project, as provided to the Township by the Applicant on January 27, 2025. In our opinion, this plan is ready for consideration by the Planning Commission at their regular meeting in February regarding Preliminary Site Plan action. We offer the following comments to the Planning Commission related to the site/civil engineering aspects of the Preliminary Site Plan that can either be addressed by the Applicant prior to the Planning Commission granting preliminary site plan approval, or in our opinion these items can be made conditional to Preliminary Site Plan Approval and addressed by the Applicant during the Final Site Plan review stage.

1. Site plans should bear the professional seals of an engineer and land surveyor licensed in the State of Michigan.
2. On Sheet 5A1329-2, Landscape Note 6 mentions an “ITC 90’-0” Transmission Easement east of the substation” that does not appear to be shown on the plans. The location and limits of this easement should be indicated on the plans.
3. Plans should include the initial plan date and any revision date(s).

Permits and Other Agency Approvals

4. The individual well and septic systems for this site must meet the requirements of the Washtenaw County Health Department’s Environmental Health Division. A copy of their approval letter will be required or must be reasonably assured prior to presentation of the Final Site Plan to the Planning Commission.
5. Work proposed in the Dixboro Road Right-of-way (ROW) must meet the requirements of the Washtenaw County Road Commission (WCRC) as they have jurisdiction within the public ROW of Dixboro Rd. The Applicant should coordinate with WCRC to meet their requirements and obtain any necessary permits. A copy of their approval letter will be required or must be reasonably assured prior to presentation of the Final Site Plan to the Planning Commission.



6. The stormwater management design must meet Washtenaw County Water Resources Commissioner (WCWRC) Standards. The Applicant should coordinate with WCWRC to facilitate review and obtain necessary approvals. A copy of their approval letter will be required prior to presentation of the Final Site Plan to the Planning Commission.
7. Soil erosion and sedimentation control (SESC) measures for the project must meet the requirements of WCWRC and the Applicant should coordinate with WCWRC regarding the review process. A copy of their approval letter will be required or must be reasonably assured prior to presentation of the Final Site Plan to the Planning Commission.

If you have any questions regarding our review, please do not hesitate to contact me at (734) 466-4585, or George Tsakoff at (734) 466-4439.

Sincerely,
OHM Advisors

Cresson Sloten, PE
Senior Project Manager

cc: Emily Dabish Yahkind, Township Supervisor (via email)
Bill Balmes, CBO, Building Department (via email)
Diane Mulville-Friel, CWA (via email)
Ben Carlisle, CWA, Twp Planner (via email)
George Tsakoff, OHM
Claire Martin, OHM
file

CHARTER TOWNSHIP OF SUPERIOR FIRE DEPARTMENT

FIRE MARSHAL DIVISION

7999 Ford Rd, Ypsilanti, MI 48198

February 5, 2025

Diane Mulville-Friel

Senior Associate Planner, AICP

Phone: 734-662-2200 | Mobile: 727-422-0380

117 N. 1st Street, Suite 70, Ann Arbor, MI 48104

Preliminary (non-residential) Site Plan Review #1
Project Name: DTE Grenada Substation
Project Location: 3270 N. Dixboro Rd., Ann Arbor, MI 48105
Plan Date Submitted: 10/19/2021
Drawing Number: 5A1329-1 thru 12
Applicable Codes: IFC 2024
Engineer: Black & Veatch LTD. Of Michigan
Engineer Address: 3550 Green Court, Ann Arbor, MI 48105

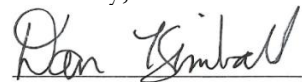
Status of Review

Status of review: Approved as Submitted

Site Coverage - Access

Comments: Meets IFC 2024

Sincerely,



Dan Kimball, Fire Marshal

Charter Township of Superior Fire Department

CFPS, CFI II, CFPE