

Township Supervisor
Brenda L. Stumbo
Township Clerk
Debbie Swanson
Township Treasurer
Stan Eldridge



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

Trustees
Karen Lovejoy Roe
John Newman II
Gloria Peterson
LaResha Thornton

REGULAR MEETING AGENDA

Tuesday, July 28, 2026

6:30 P.M.

Township Civic Center Board Room

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

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF PLANNING COMMISSION MEETING MINUTES
 - A. APPROVAL OF THE JUNE 23RD, 2026 PLANNING COMMISSION WORK SESSION MEETING MINUTES
 - B. APPROVAL OF THE JULY 14TH, 2026 PLANNING COMMISSION MEETING MINUTES
5. PUBLIC HEARINGS
 - A. **CONDITIONAL REZONING – 8061 MERRITT RD –** TO CONSIDER THE CONDITIONAL REZONING FROM R-3, ONE FAMILY RESIDENTIAL TO ADD THE AG, AGRICULTURAL OVERLAY.
6. OLD BUSINESS
7. NEW BUSINESS
 - A. **CONDITIONAL REZONING – 8061 MERRITT RD –** TO CONSIDER THE CONDITIONAL REZONING FROM R-3, ONE FAMILY RESIDENTIAL TO ADD THE AG, AGRICULTURAL OVERLAY
 - B. **PRELIMINARY SKETCH PLAN REVIEW – KALLITA TURBINES – 2830 TYLER RD –** TO CONSIDER THE CONSTRUCTION OF A 12,000 SQUARE FOOT STORAGE BUILDING ON A 9.8 ACRE SITE ZONED I-C, INDUSTRIAL AND COMMERCIAL
8. OPEN DISCUSSION FOR ISSUES NOT ON THE AGENDA
 - A. CORRESPONDENCE RECEIVED
 - B. PLANNING COMMISSION MEMBERS
 - C. MEMBERS OF THE AUDIENCE
9. TOWNSHIP BOARD REPRESENTATIVE REPORT
10. ZONING BOARD OF APPEALS REPRESENTATIVE REPORT
11. TOWNSHIP ATTORNEY REPORT
12. PLANNING DEPARTMENT REPORT

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13. OTHER BUSINESS

14. ADJOURNMENT – NEXT SCHEDULED MEETING, AUGUST 11TH, 2026

**CHARTER TOWNSHIP OF YPSILANTI
PLANNING COMMISSION WORK SESSION
Tuesday, June 23, 2026
6:45 pm (At the conclusion of Regular Meeting)**

COMMISSIONERS PRESENT

Elizabeth El-Assadi, Chair
Bill Sinkule, Vice-Chair
Darrell Kirby, Secretary
Gloria Peterson
Bianca Tyson
Amy Kehrer
Crystal Lecoq

STAFF AND CONSULTANTS

Denny McLain, Township Attorney
Mark Yandrick, Planning Director

- **CALL TO ORDER/ESTABLISH QUORUM**

MOTION: Ms. El-Assadi called the meeting to order at 6:48 pm.

- **ZONING TEXT AMENDMENTS**

Mark Yandrick, Planning Director reviewed with the commission three (3) buckets of Zoning Text Amendments, which included proposals to amend Articles 4, 5, and 18 from the Zoning Code. There were questions and discussion about the amendments and upcoming process. Mr. Yandrick shared these amendments would be scheduled and advertised for a public hearing at the July 14, 2026 Planning Commission meeting.

- **ADJOURNMENT**

The meeting was adjourned at 7:12pm.

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Respectively Submitted by Mark Yandrick

**CHARTER TOWNSHIP OF YPSILANTI
PLANNING COMMISSION MEETING
Tuesday, July 14, 2026
6:30 pm**

COMMISSIONERS PRESENT

Elizabeth El-Assadi, Chair
Darrell Kirby, Secretary
Bianca Tyson
Amy Kehrer
Crystal Lecoq

STAFF AND CONSULTANTS

Mark Yandrick, Planning Director

- **CALL TO ORDER/ESTABLISH QUORUM**

MOTION: Ms. El-Assadi called the meeting to order at 6:31 pm.

- **APPROVAL OF AGENDA**

MOTION: Mr. Kirby **MOVED** to **APPROVE** the agenda as presented. The **MOTION** was **SECONDED** by Ms. Kehrer and **PASSED** by unanimous consent.

- **APPROVAL OF THE JUNE 17 AND JUNE 23, 2026, REGULAR MEETING MINUTES**

MOTION: Ms. Kehrer **MOVED** to **APPROVE** the June 17 and June 23, 2026, regular meeting minutes. The **MOTION** was **SECONDED** by Mr. Kirby and **PASSED** by unanimous consent.

- **PUBLIC HEARINGS**

ZONING ORDINANCE AMENDMENT – APPENDIX A, ARTICLE 4 – DISTRICT REGULATIONS, ARTICLE 5 – FORM BASED DISTRICTS AND ARTICLE 18 – CHANGES AND AMENDMENTS. THE AMENDMENTS INCLUDE:

1. PROPOSED AMENDMENTS TO SEC. 420. – BUSINESS DISTRICT USE TABLE; AND

2. PROPOSED AMENDMENTS TO SEC. 502. – APPLICABILITY AND ORGANIZATION; AND
3. PROPOSED AMENDMENTS TO SEC. 504 THROUGH 506. – NEIGHBORHOOD CORRIDOR, REGIONAL CORRIDOR, AND TOWN CENTER; AND
4. PROPOSED AMENDMENTS TO SEC. 507. – DESIGN STANDARDS; AND
5. PROPOSED AMENDMENTS TO SEC. 1802. – APPLICATION PROCEDURE; AND
6. PROPOSED AMENDMENTS TO SEC. 1805. – CONDITIONAL REZONING PROCEDURES.

Planning Staff noted the process of zoning ordinance amendments. A Planning Commission work session was held on June 23, 2026. There was a notice in the Ann Arbor News on June 30, and the public hearing was on July 14. There would be a minimum of two readings at the Township Board meeting. Before the amendments could go to the Board, the minutes had to be approved, which was expected to occur at the July 28 meeting, with the readings in August and September.

Planning Staff referred to the zoning map. The zoning ordinance had three general buckets. The first included theaters, public assembly halls, concert halls or similar places of public assembly, the second related to mixed-use and design transparency and the third included pre-application meeting requirements for changes and amendments.

The first bucket of changes aligned theaters, places of assemblies, and similar uses with the house of worship use in the general business district. It would change from permitted to special land use. The change would make it compliant with the Religious Land Use and Institutionalized Persons Act, which prohibits discrimination against houses of worship. The special land use also required an evaluation to ensure that the places of worship were in the correct location and did not negatively impact the surrounding area. The special land use required a development agreement.

The second bucket of changes related to the form-based code. In the regional and neighborhood corridors, mixed-use, where multiple uses were allowed, was permitted only in Use Groups 1, 2, and 3. The modification would allow mixed-use development from Use Groups 1, 2, 3, and 4 to include retail and restaurants. Most mixed-use zones had retail and restaurants in the same building, so it aligned with the long-term goal for the Township. The Town Center already allows mixed use, so there would be no

change there. There were also changes to the design-based standards to allow for some flexibility in transparency requirements and to change the transparency height from two feet to three feet to reduce the window area.

The third bucket of changes related to the requirement of pre-application meetings. Pre-application meetings were currently required for site plans, and they were helpful to get advisory comments to applicants about the process. It also reduced the amount of review. The requirement was introduced for rezonings or conditional rezonings to ensure that applicants applied to the most appropriate zoning district and to assess utility capacity.

Planning Staff recommended approval of the proposed amendments.

Mr. Kirby (Commissioner) asked whether the amendments presented were the same as those reviewed in the table. Planning Staff confirmed that there had been no significant changes since the work session, only minor changes to correct any grammatical errors.

PUBLIC HEARING OPENED AT 6:42 PM

PUBLIC HEARING ENDED AT 6:42 PM

- **OLD BUSINESS**

None to Report.

- **NEW BUSINESS**

- a. **ZONING ORDINANCE AMENDMENT – APPENDIX A, ARTICLE 4 – DISTRICT REGULATIONS, ARTICLE 5 – FORM BASED DISTRICTS AND ARTICLE 18 – CHANGES AND AMENDMENTS. THE AMENDMENTS INCLUDE:**

- 1. PROPOSED AMENDMENTS TO SEC. 420. – BUSINESS DISTRICT USE TABLE; AND
 - 2. PROPOSED AMENDMENTS TO SEC. 502. – APPLICABILITY AND ORGANIZATION; AND
 - 3. PROPOSED AMENDMENTS TO SEC. 504 THROUGH 506. – NEIGHBORHOOD CORRIDOR, REGIONAL CORRIDOR, AND TOWN CENTER; AND
 - 4. PROPOSED AMENDMENTS TO SEC. 507. – DESIGN STANDARDS; AND

5. PROPOSED AMENDMENTS TO SEC. 1802. – APPLICATION PROCEDURE; AND
6. PROPOSED AMENDMENTS TO SEC. 1805. – CONDITIONAL REZONING PROCEDURES.

MOTION: Ms. Kehrer **MOVED** to recommend **APPROVAL** to the Township Board of the Township Initiated Zoning Ordinance Text Amendments relating to the various cleanup items in the Zoning Ordinance, including Article IV. – District Regulations, Section 420. - Table of Uses; Article V. – Form Based Districts, Section 502. - Applicability and Organization, Section 504. - Neighborhood Corridors, Section 505. - Regional Corridors, Section 506. - Town Center, and Section 507. - Design Standards; and Article XVIII. – Changes and Amendments, Section 1802. - Application Procedure, and Section 1805. - Conditional Rezoning Procedures (collectively “Text Amendments.”) to improve the health, safety, and welfare of the Township. The **MOTION** was **SECONDED** by Mr. Kirby.

Roll Call Vote: Ms. Tyson (Yes), Ms. Kehrer (Yes), Ms. Lecoq (Yes), Mr. Kirby (Yes), and Ms. El-Assadi (Yes).

- **OPEN DISCUSSIONS FOR ISSUES NOT ON AGENDA**

- **Correspondence Received**

- None to Report.

- **Planning Commission Members**

- None to Report.

- **Members of the Audience**

- None to Report.

- **TOWNSHIP BOARD REPRESENTATIVE REPORT**

None to Report

- **ZONING BOARD OF APPEALS REPRESENTATIVE REPORT**

None to Report

- **TOWNSHIP ATTORNEY REPORT**

None to Report

- **PLANNING DEPARTMENT REPORT**

Planning Staff thanked Dennis McLain for his work. Projects ongoing in the Township included Culver's, Zippy's, and Tortillas Tita. On July 28, 2026, a public hearing would be held for a conditional rezoning with an agriculture overlay. There was nothing officially scheduled for August, but the final site plan for Creek Side North was anticipated. A work session in August for the next round of text amendments was anticipated. In December 2025, the special land use site plan for 1241 Cross was tabled. Several rounds of reviews were conducted, and a brief work session may be held.

Ms. Lacoq asked about the ag overlay and why more comments were anticipated at the meeting. Planning Staff reported that everyone within 300 feet of the change was notified.

- **OTHER BUSINESS**

None to Report.

- **ADJOURNMENT**

MOTION: Mr. Kirby **MOVED** to adjourn at 6:49 pm. The **MOTION** was **SECONDED** by Ms. Kehrer and **PASSED** by unanimous consent.

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Respectively Submitted by Minutes Services



Carlisle | Wortman
ASSOCIATES, INC.

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

Date: June 1, 2026

Rev.: July 21, 2026

**Conditional Rezoning Application
For
Ypsilanti Charter Township, Michigan**

Applicant:	Andrew Burmeister
Project Name:	8061 Merritt Conditional Rezoning
Plan Date:	August 16, 2016
Latest Revision:	June 16, 2026 (Additional Information)
Location:	8061 Merritt Rd., Ypsilanti, MI 48197
Zoning:	R-3, One Family Residential District
Action Requested:	Conditional rezoning from R-3, One Family Residential to add the AG, Agricultural Overlay

PROJECT AND SITE DESCRIPTION

The applicant is requesting a conditional rezoning from R-3, One Family Residential to add AG, Agricultural Overlay to establish a plant nursery on the subject site. The site is 5.0-acres in size, and its shape is very narrow and long (165' x 1,320'). Almost half of the acreage is occupied by regulated wetlands (as shown on the submitted survey).

Per the submitted materials, the proposed rezoning is conditioned upon:

- All uses in the underlying zoning district will still be available.
- If approval for the rezoning is granted, the use of the property shall exclude any use that requires approval by the Planning Commission or Township Board. Any future use that requires Planning Commission or Township Board approval must reapply to remove this condition.
- The use sought shall exclude public riding and/or boarding stables, recreations centers and swimming pools.
- Sold products shall be picked up by appointment only between dawn and dusk.

The applicant has supplied an additional narrative (dated June 16, 2026), which we reference throughout this review.

An aerial photograph of the subject site is provided below.

Figure 1: Location of Subject Site



Source: MapWashtenaw (Image Capture March 2024)

Figure 2: Closer Aerial View of Subject Site



The intent of the Agricultural Overlay District is to preserve agricultural lands and prime soils for farming and provide stability for the farming economy. The overlay zone is intended only for existing farm operations at the time this ordinance was adopted, or areas designated for farmland or open space preservation by the Master Plan.

Surrounding Property Details:

Zoning and existing use of properties surrounding the subject site include:

Direction	Zoning	Use
North	R-3, One Family Residential (Min. Lot Size 14,000 s.f.)	Single-Family Residential / Open Space
South	R-2, One-Family Residential (Min. Lot Size 21,780 s.f.)	Agricultural (Across Merritt)
East	R-3, One Family Residential (Min. Lot Size 14,000 s.f.)	Vacant
West	R-3, One Family Residential (Min. Lot Size 14,000 s.f.)	Notice of Violation

Size of Site:

The total area of the subject site is 5 acres.

Current Use of Site:

In 2024, the Township became aware that the property owner had been clearing trees from the site, cutting them up for firewood, storing vehicles and other materials on the property, and using an accessory building for commercial storage even though the property had no principal residence. (The Zoning Ordinance prohibits construction/use of an accessory building ahead of construction/use of the principal building.) The matter was brought to court for the illegal logging operation, and for illegal outdoor storage/commercial operations, as none of these activities were permitted in the R-3 zoning district. The applicant was also informed that no disturbance (i.e., clearing, filling, etc.) can occur in the regulated wetland on this property.

As of 2026, per the Township's Code Enforcement Department, the applicant has marked the edge of the wetland in the field. Code Enforcement also reports that all equipment, vehicles, logs and other material have been removed (except for wood chips), and there is currently no activity occurring on the property while the owner awaits the outcome of this AG Overlay application. If it is denied, the applicant understands that the wood chip piles will need to be removed. Other than that, there is nothing stored on the property outside of the accessory structure and no blight at this time.

Proposed Future Use of Site:

The applicant would like to establish a plant nursery on this property. The photographs provided with the application show trees in "root pouches," or fabric pots. These pots are stored above ground. The submission does not indicate that anything will be planted in the ground. It appears that the plants will be delivered to the site and are left or planted in these containers above ground for sale to customers.

The proposed layout of the operation also does not show a "greenhouse." A greenhouse was mentioned in the original application, but the additional narrative explains that there is no current plan to construct a greenhouse of a permanent nature.

We also understand that this applicant owns a company called Foundations Property Management. Per their [website](#), this company engages in tree removal and trimming, lawn care and maintenance, fertilizer

and weed control, concrete paver installation, and snow/ice removal. The website also advertises the following services as “Coming Soon:”

- Irrigation installation and maintenance
- Bulk materials & retail (soil, mulch, gravel, and more); greenhouse and nursery retail
- Outdoor lighting
- Power washing.

In our previous review, we asked the applicant to address the following questions about the Foundations business. Their responses are shown in *italics* after each:

- 1) **Does the applicant own or have control over Foundations Property Management, or if they are an employee of the business.** *Response: The applicant is the sole owner of this business and has full control of all operations.*
- 2) **Will the applicant engage in any activities related to Foundations Property Management at the subject site? In other words, will this site be used as the company’s yard where equipment and materials are stored? Using this site as a contractor/landscape yard is not a permitted use in either R-3 or the Agricultural Overlay district. The applicant should explain if they have another site where they keep their equipment and materials for Foundations Property Management.** *Response: The applicant states that the subject site will not be used for any business operations for Foundations Property Management. This business has a separate lease agreement for a property in Milan that is being used for all of the daily business functions and the current lease will not expire for 13 months and has been in force for over 2 years.*
- 3) **Will the applicant construct a greenhouse? If yes, the location and size of the greenhouse needs to be shown on a survey of the property, and building elevations/floor plans provided.** *Response: No, there are no current plans to construct a greenhouse of a permanent nature. CWA Comment: See our comments on Pg. 7 below under “Additional Zoning Requirements.”*
- 4) **Will the applicant open a “retail” or sales operation at this site? One condition offered lists selling products to customers on an “appointment” basis. The area used for the retail sales should be shown on the survey.** *Response: Per the applicant, the scope of the retail use will be extremely minor. No building will be needed for the pick up of plant materials. All of the space that might be considered retail would only be the same area that the plans are being grown in.*
- 5) **Will bulk materials (such as soil, mulch, compost) be stored/sold from this site? If yes, the applicant should explain how bulk material storage relates to a nursery/greenhouse.** *Response: The applicant’s narrative states that no bulk materials of any type will be sold to the public coming to the site, only plant materials. There will be a need for material that will be used in the growing process to be stored at the site, such as compost, mulch, etc. These materials are used as potting mixtures, weed prevention and as general growing supplies for the health of the plants. CWA Comment: See our comments on Pg. 7 below under “Additional Zoning Requirements.”*

We also suggest the Planning Commission discuss the responses provided by the applicant, and if agreed by all parties, possibly be added as conditions of any approval of the rezoning.

The AG, Agricultural Overlay District restricts uses allowed in this district to uses listed in the underlying zoning district, as well as the uses listed in the AG District. The applicant’s conditions are also limiting the future uses to only those listed as “Permitted.” Therefore, the conditional rezoning, if approved, would not allow someone to ask for a “Special Land Use” without also modifying the conditions of the rezoning.

The uses that could be allowed in the future that are consistent with the proposed conditions of the rezoning include the following (see table on next page):

Sec. 420. – Table of Uses

Residential Districts Use Table	R-3	AG	Notes
<u>Residential Uses</u>			
Detached single-family residential	P	--	Subject to regulations in Section 1101
Open Space Communities	P	--	Subject to regulations in Section 702
<u>Accessory Uses</u>			
Accessory home occupations	A	A	Subject to conditions in Section 1102
Keeping of up to four (4) hens	A	--	Subject to conditions in Section 1103
Garage and Yard Sales	A	--	Subject to conditions in Section 1158
Accessory buildings and uses customarily incident to any of the permitted uses in this table	A	A	
<u>State-Licensed residential child and adult care facilities</u>			
Adult/Child family day care homes	P	--	Subject to the conditions in Section 1155
Adult and child foster care family home	P	--	Subject to the conditions in Section 1155
<u>Agricultural</u>			
Farm operation	--	P	
Community supported agriculture	--	P	Subject to conditions in Section 1112
Seasonal sale of produce on farms	--	P	Subject to Michigan Generally Accepted Agricultural Management Practices
Greenhouse and plant material nursery (materials grown and sold on-site)	--	P	Subject to conditions in Section 1110
<u>Recreation</u>			
Parks, common greens, plazas, public gathering places, and open space	P	P	
<u>Other</u>			
Keeping of more than four (4) dogs in one-family residential districts	P	P	Subject to conditions in Section 1113

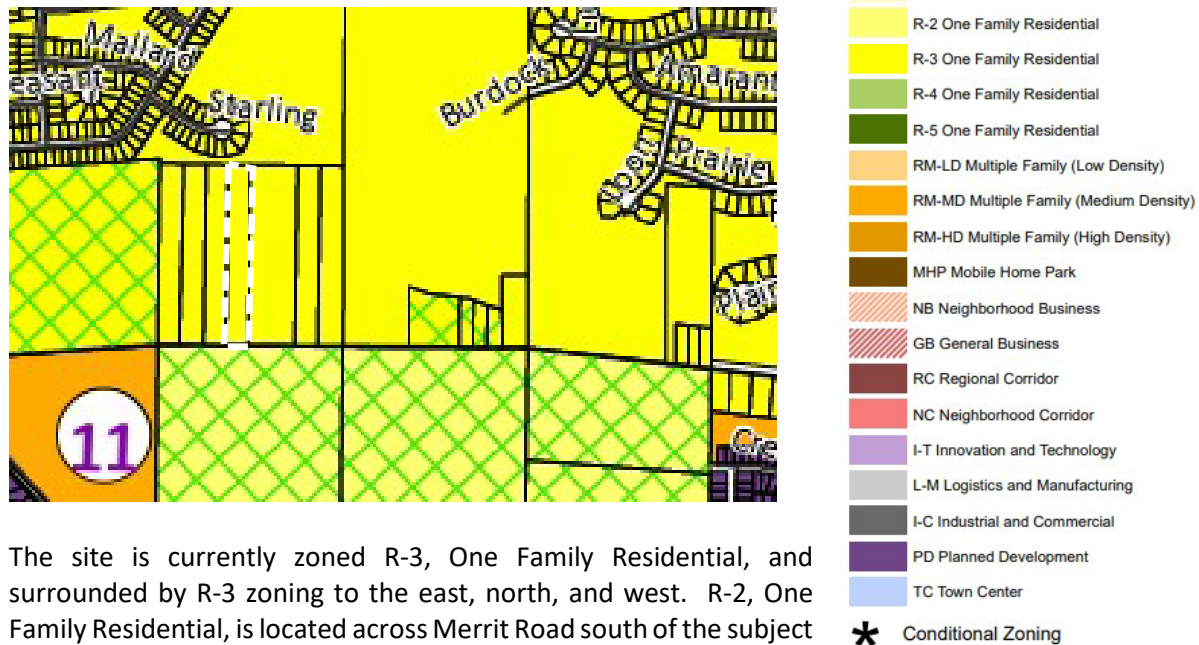
We interpret the proposed conditions to only allow “permitted” uses listed in the R-3 and AG districts on this property. While permitted uses may require review and approval of a site plan by the Planning Commission, they would not be required to obtain Special Land Use approval by either board.

The uses that meet the proposed conditions listed above include “Greenhouse and plant material nursery (materials grown and sold on-site). The Planning Commission should discuss if the proposal is consistent with the listed use since the plants will be in pots and not planted/grown in the ground.

Items to be Addressed: 1) Recommend responses provided by the applicant and other operational details described be conditions of any recommendation for rezoning, including: a) The site will not be used as a contractor yard for Foundations Property Management business operations or other business than that of a plant material nursery. b) Applicant will contact the Township if contemplating construction of a future greenhouse/building. c) No bulk materials of any kind will be sold from this site. Materials stored on site will only be used for plant material production on site. 3) Planning Commission to discuss proposed use and determine whether it is consistent with the allowed use described as “Greenhouse and Plant Material Nursery (materials grown and sold on-site.”

ZONING

Figure 3. Zoning Map



The site is currently zoned R-3, One Family Residential, and surrounded by R-3 zoning to the east, north, and west. R-2, One Family Residential, is located across Merritt Road south of the subject site. The green hatch pattern indicates other parcels that are zoned Agricultural Overlay. However, the aerial on the next page shows that many sites surrounding the subject site are owned by development companies or are part of existing residential developments.

Figure 4. Ownership Map



The three parcels that are part of a residential development (Whittaker Village Condos, Partridge Creek Subdivision, and Creekside Village West) will not be further developed, nor used for agricultural purposes. The two parcels that are in developer ownership (Merritt Investment Co. and S.E. Michigan Land Holdings) could be developed at some time in the future. Designation as “Agricultural Preservation” in the Master Plan does not prohibit a property owner from developing a site in conformance with the R-3 zoning designation.

Additional Zoning Requirements:

If the site is rezoned to add the Agricultural Overlay, the applicant will need to submit a Site Plan for approval by the Planning Commission. The proposal must meet the standards in Sec. 1110, *Commercial Greenhouses and Plant Material Nurseries in One-Family Residential Districts*, and Sec. 1157, *Outdoor Storage of Goods and Contractors/Landscapers Yards*, in addition to any other relevant zoning requirements (such as parking for example).

Sec. 1110:

- Requires a minimum of five-acres, which this site meets. However, 2.1-acres of this property is occupied by regulated wetlands, which substantially reduces the land available for a viable nursery production business. Sec. 1404, *Natural Features Setback*, also requires a 25-foot “non-disturbance” setback and 100-foot building setback from the edge of any regulated wetland. The non-disturbance setback prohibits clearing of native vegetation and depositing any material in the setback.

- Requires a minimum 50-foot setback from any residentially-zoned properties. The adjacent properties to the east and west are residentially zoned. Also, the site is very narrow at 165-feet wide. If the operation complies with the setbacks, they will have 65-feet in which they can operate, unless they are granted a variance by the Zoning Board of Appeals.

Sec. 1157 would regulate any outside storage that is associated with the nursery. (Note: As mentioned above, rezoning to add the Agricultural Overlay district would not allow a “contractors/landscape yard” in this district. Therefore, any outdoor storage must only be associated with the nursery operation.) Outdoor storage is a Special Land Use and will also need to be approved by the Planning Commission, after a public hearing, if the rezoning is approved.

The point of mentioning the Zoning requirements is to indicate that the proposal will need additional approvals from the Planning Commission, and possibly the Zoning Board of Appeals, if the rezoning is approved by the Township Board.

MASTER PLAN

Future Land Use

The site is located in an area designated for “Agricultural Preservation” (light green shading) in the Master Plan, as shown on the map below.

Figure 5: Future Land Use Map in Master Plan



Land designated Agriculture Preservation is clustered in the south-central portion of the Township, where farming operations are active. The category conserves agricultural lands for small, medium and larger farms, and provides stability for the agricultural economy while creating a sense of place.

Regarding land uses, it envisions production farms and nurseries. Accessory retail uses in conjunction with agricultural operations include farmer's markets, roadside stands, nurseries and greenhouses, and wineries with sales and tasting rooms. This designation also envisions preservation of natural areas that help mitigate the effects of agriculture, including soil erosion and stormwater management.

Regarding the proposal, the applicant's response memo states that on-site sales will be minimal. If sales will be minimal, how will the operation be viable? How will the plants be sold/distributed if not from on-site sales? Is the Planning Commission comfortable with the possibility that the sales component of this proposal will grow over time into a commercial land use within a residential area? In addition, the applicant is not proposing to install a well or have a source of water. How will plants be maintained without a reliable source of water?

Land Use Goals and Design Concepts and Considerations

The Master Plan's land use goals for Agricultural Preservation areas call for farming operations between 10-30+ acres, buildings should be agricultural in character, new land uses should ensure they can be served by infrastructure including roads, water and sewer, and new uses shall respect existing open space and natural areas.

As mentioned above, no water or sanitary facilities will be provided on site. Again, not having a source of water for a nursery seems to be an unsustainable business model in our opinion.

Zoning Plan

The Zoning Plan Table (Pg. 51 in Master Plan document) relates the future land use categories to the zoning districts. In this case, the Agricultural Preservation designation in the Master Plan coordinates with R-1, One-Family Residential (minimum lot size 32,500 s.f.) zoning district. This site is zoned R-3, One-Family Residential (minimum lot size 14,000 s.f.)

Items to be Addressed: 1) How will plants be sold/distributed if on-site sales are minimal? 2) Planning Commission to consider the possibility that the sales/commercial component of the proposal will grow over time within a residential area. 3) How will plants be maintained without reliable source of water? 3) Inconsistency with the Master Plan Goals and Design Concepts regarding site size and no source of water or sanitary sewer facilities.

STANDARDS

As set forth in Section 1804, the Township shall utilize the following standards to review the application for rezoning:

1. *Consistency with the goals, policies, and future land use map of the Charter Township of Ypsilanti Master Plan, including any sub-area or corridor plans. If conditions have changed since the master plan was adopted, the rezoning may be found to be consistent with recent development trends in the area.*

2. *Compatibility of the site's physical, geological, hydrological, and other environmental features with all uses permitted in the proposed zoning district compared to uses permitted under current zoning.*
3. *The compatibility of all uses permitted in the proposed zoning district with surrounding uses and zoning in terms of land suitability, impacts on the environment, density, nature of use, traffic impacts, aesthetics, infrastructure, and potential influence on property values compared to uses permitted under current zoning.*
4. *The capacity of Township utilities and services is sufficient to accommodate all the uses permitted in the requested district without compromising the health, safety, and welfare of the Township.*
5. *The capacity of the street system to safely and efficiently accommodate the expected traffic generated by uses permitted in the requested zoning district.*
6. *The apparent demand for the types of uses permitted in the requested zoning district in the Township, and surrounding area, in relation to the amount of land in the Township, and surrounding area, currently zoned and available to accommodate the demand.*
7. *The boundaries of the requested zoning district are sufficient to meet the dimensional regulations for the zoning district listed in Article IV, schedule of regulations.*
8. *The requested zoning district shall be more appropriate from the Township's perspective than another zoning district.*
9. *The requested rezoning will not create an isolated and unplanned spot zone.*
10. *The request has not previously been submitted within the past one (1) year, unless conditions have changed, or new information has been provided.*
11. *Other criteria as determined by the Planning Commission or Township Board which would protect the health and safety of the public, protect public and private investment in the Township, and enhance the overall quality of life in Charter Township of Ypsilanti.*

We find that some of the standards are met, while others are not. Our comments follow:

- A. The site is designated in the Master Plan for "Agricultural Preservation." The vision for Agricultural Preservation includes nurseries and greenhouses, and natural feature preservation. However, the proposed site is only five-acres in size (with 2.1-acres occupied by a regulated wetland), where the Master Plan calls for properties 10-30+ acres for this designation. Also, the Design Criteria call for new land uses being served by infrastructure. The applicant states that no water or sanitary facilities are proposed. In our view, this is inconsistent with the Master Plan.
- B. Compatibility of this site's physical features, including 2.1-acres of wetlands, natural feature setbacks, and its adjacency to residentially-zoned parcels, limits the available land for a viable nursery with customers visiting the site challenging. Also, if the properties to the east and west of the subject site were developed in compliance with R-3 (single-family homes), a commercial operation could impact the residential neighbors.
- C. Compared to residential uses allowed in R-3 (current zoning), and considering the limitations of the site, this property could accommodate one or two single-family homes. Situating a single-family home on this site would also be consistent with other uses in the vicinity.
- D. The applicant is "conditioning" their rezoning request on limiting the uses that would be allowed. See Pg. 5 of this review for a list of uses that are consistent with the applicant's proposed conditions.
- E. Regarding availability of public utilities, the applicant states that there will be no water or sanitary facilities on site. Regarding delivery of plants or other materials to the nursery (such as mulch,

compost, potting mix, etc.), The applicant's response states that large semi-trailer trucks won't be necessary and that all deliveries will be made in a UPS style delivery truck. Larger dump trucks will be needed to deliver bulk materials. How a large delivery truck can access this site will be evaluated if and when a Site Plan is submitted.

- F. Sec. 411, *Agricultural overlay District*, requires that the dimensional requirements of the underlying zoning district apply in the AG districts. The minimum lot size for the R-3 district is met by the area of this site. It's not clear if the other requirements of the R-3 district will be met by the proposal (such as setbacks).

Summary

With the information provided, it appears that the proposal is consistent with the Agricultural Preservation area in the Master Plan except for the lack of utilities (particularly water), and the size of the property (Master Plan calls for sites a minimum of 10-acres; proposal site is 5-acres). The extent of existing wetlands, need for a wetland buffer, as well as the required setbacks from residentially-zoned property for a nursery operation significantly limit the space available to operate a business. This part of the Township is also heavily developed (particularly near the subject site on the north side of Merritt Rd.) with residential neighborhoods and consider the proposal to be adding a potential commercial use over time within this residential zone, which isn't the intent of the Agricultural Overlay district.

RECOMMENDATIONS

In summary, the proposal meets some of the standards for rezoning the property to AG, Agricultural Overlay District. The standards not met, in our opinion, include the Master Plan Design Considerations that the site be served by infrastructure (which it will not), and the Plan's minimum property size of 10-acres for this type of use. Other considerations include the limitations on usable area of the site for the business operations (due to wetlands, setbacks, etc.), and the surrounding residential development of the area. The Planning Commission should consider the rezoning standards in Sec. 1804, as well as the applicant's response to the remaining questions in this review, including the following:

- 1) How will plants be sold/distributed if on-site sales are minimal?
- 2) How will plants be maintained without a reliable source of water?

Planning Commission Considerations

If the Planning Commission should discuss the following:

- 1) Planning Commission to discuss proposed use and determine whether it is consistent with the allowed use described as "Greenhouse and Plant Material Nursery (materials grown and sold on-site.)"
- 2) Planning Commission to consider the possibility that the sales/commercial component of the proposal will grow over time within a residential area.
- 3) Inconsistency with the Master Plan Goals and Design Concepts regarding site size and no source of water or sanitary sewer facilities.

Possible Conditions

If the Planning Commission recommends approval, we suggest that the following be discussed with the applicant and if agreed by all parties, possibly be added conditions of this decision:

- 1) Responses provided by the applicant and other operational details described by the applicant are conditions of the recommendation for rezoning, including:
 - a) The site will not be used as a contractor yard for the Foundations Property Management business operations or other businesses than that of a plant material nursery.
 - b) Applicant will contact the Township if contemplating construction of a future greenhouse/building.
 - c) No bulk materials of any kind will be sold from this site. Materials stored on site will only be used for plant material production on site.
- 2) If the site is rezoned to add the Agricultural Overlay, the applicant is to submit a Site Plan for approval by the Planning Commission. Outdoor storage is a Special Land Use and will also need to be approved by the Planning Commission, after a public hearing.


CARLISLE/WORTMAN ASSOC., INC.
Sally M. Elmiger, AICP, LEED AP
Principal



**Draft Motions
Andrew Burmeister
8061 Merritt Rd., Ypsilanti, MI 48197
Conditional Rezoning**

July 28, 2026

Applicant: Andrew Burmeister (Property Owner)

Project Name: Conditional Rezoning Request

Plan Date: August 16, 2016, and June 16, 2026 (latest revision)

Location: 8061 Merritt Road, Ypsilanti, MI 48197 Parcel #K-11-27-300-006

Zoning: R-3, One-Family Residential

Action Requested: Conditionally Rezone the Subject Site to add AG, Agricultural Overlay District

DRAFT MOTIONS:

Conditional Rezoning

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

Motion to Recommend Approval:

"I move to recommend approval to the Township Board of Trustees for the request to conditionally rezone and add the AG, Agricultural Overlay District to the 5-acre parcel with underlying zoning of R-3, One-Family Residential, located at 8061 Merritt Road, Ypsilanti, MI, 48197, Parcel K-11-27-300-006, as the request illustrated in the submitted materials and additional explanatory memo (dated June 16, 2026) describing the proposed Plant Nursery use of the site and with the voluntary conditions offered, is consistent with the criteria established in the Township Zoning Ordinance Section 1804, Criteria for amendment to the Official Zoning Map. The voluntarily offered conditions include the following:

- 1. All uses in the underlying zoning district will still be available.*
- 2. If approval for the rezoning is granted, the use of the property shall exclude any use that requires approval by the Planning Commission or Township Board. Any*



future use that requires Planning Commission or Township Board approval must reapply to remove this condition.

3. *The use sought shall exclude public riding and/or boarding stables, recreations centers and swimming pools.*
4. *Sold products shall be picked up by appointment only between dawn and dusk.*

Motion to Postpone:

"I move to postpone the request to conditionally rezone and add the AG, Agricultural Overlay District to the 5-acre parcel located at 8061 Merritt Road, Ypsilanti, MI, 48197, to give the applicant time to provide additional information regarding the following issues:

1. _____
2. _____

Motion to Recommend Denial:

"I move to recommend denial to the Township Board of Trustees for the request to conditionally rezone and add the AG, Agricultural Overlay District to the 5-acre parcel with underlying zoning of R-3, One-Family Residential, located at 8061 Merritt Road, Ypsilanti, MI, 48197, Parcel K-11-27-300-006, as the request illustrated in the submitted materials and additional explanatory memo (dated June 16, 2026) describing the proposed Plant Nursery use of the site and with the voluntary conditions offered, is inconsistent with the criteria established in the Township Zoning Ordinance Section 1804, Criteria for amendment to the Official Zoning Map, due to the following reasons:"

1. _____
2. _____

Charter Township of Ypsilanti
Office of Community Standards
7200 S. Huron Drive, Ypsilanti, MI 48197
Phone: (734) 544-4000 ext. #1
Website: <https://ypsitownship.org>

REZONING/ CONDITIONAL REZONING/ ORDINANCE TEXT/ MASTER PLAN AMENDMENT APPLICATION

I. APPLICATION TYPE

☐

Rezoning*

☐

Ordinance Text Amendment

☒

Conditional Rezoning*

☐

Master Plan/Future Land Use Map Amendment

II. PROJECT LOCATION (if applicable)

Address: 8061 Merritt Rd, Ypsilanti, MI, 48197

Parcel ID #: K-11- 27-300-006

Current Zoning: R 3 Proposed Zoning (if rezoning): AG Overlay

Lot Number: _____ Subdivision: _____

☒

Legal description (including tax code) is attached to this application

III. APPLICANT INFORMATION

Applicant Name: Andrew Burmeister Phone: [REDACTED]

Applicant address: 5988 Stony Creek City: Ypsi State: MI Zip: 48197

Fax: _____ Email: [REDACTED]

Is applicant the property owner?

☒

YES

☐

NO**

**If applicant is not the owner of the property, please attach a letter of interest, written authorization from the property owner, and purchase agreement to this application

☐

Applicant has attached a letter of interest and written authorization

IV. FEES

Total: \$3,000

Breakdown of fee:

Non-refundable: \$1,500

Refundable: \$1,500

V. APPLICANT SIGNATURE

[Signature]
Applicant Signature

Andrew Burmeister 4/8/26
Print Name Date

*For rezoning applications only:

Applicant agrees to post signage for public notice, adhering to the requirements detailed on the following page:

[Signature]
Applicant Signature

Andrew Burmeister 4/8/26
Print Name Date



Charter Township of Ypsilanti

Office of Community Standards

7200 S. Huron Drive, Ypsilanti, MI 48197

Phone: (734) 544-4000 ext. #1

Website: <https://ypsitownship.org>

OFFICE USE ONLY

Rezoning/ Conditional Rezoning/ Ordinance Text/ Master Plan Amendment Application Checklist

- ☒ The application is filled out in its entirety and includes the signature of the applicant
- ☒ A legal description of the property, including the street address and tax code numbers of the subject property
- ☒ A written description of how the requested rezoning satisfies the requirements identified in Section 2703
- ☒ Fees
- ☒ If applicant is not the property owner:
 - ☐ Attached statement of the applicant's interest in the subject property
 - ☐ Name and address of the record owners
 - ☐ Record owners' and other interested parties' signed consent to the petition

- ☒ A site analysis plan, the scale of which shall be no less than one inch = 200 feet and includes the following:
 - ☒ A title indicating the nature of the rezoning request, the applicant's name and the site address or general location
 - ☒ A legend indicating the owner of record, the engineer, surveyor or drafter, as applicable, the date of submission, scale and north arrow
 - ☐ A boundary survey of the subject property
 - ☒ The location of existing site boundary lines, buildings, structures or other improvements, parking areas, driveways, points of ingress and egress for the site and adjacent parcels
 - ☒ The location, width and names of existing streets and public or private easements adjacent to the site
 - ☒ The location of existing and proposed man-made features, including but not limited to drainage or utility structures or improvements
 - ☒ The location of existing natural features, including but not limited to the location of existing drainage courses, regulated floodplains or wetlands and other relevant information the Planning Commission has determined to be necessary and essential to making an informed recommendation to the Township Board
 - ☒ Existing and proposed zoning classification(s) of the site and adjacent parcels.

*Rezoning/ Conditional Rezoning Only (in addition to information above)

- ☐ If a conditional rezoning, an owner of land may voluntarily offer written conditions relating to the use and/or development of land for which a conditional rezoning is requested. This offer may be made either at the time the application for conditional rezoning is filed, or additional conditions may be offered at a later time during the conditional rezoning process. See Section 1803 for more details.
- ☐ Applicant has agreed to post signage for public notice, adhering to the following guidelines:
 - ☐ Sign will be 3' x 3'
 - ☐ Sign to be painted white
 - ☐ Sign must say: "This property petitioned for rezoning from XX to XX" with four-inch tall block letters and state: "If you have any questions call the Charter Township of Ypsilanti Planning Department at 734-544-4000 ext. 1"
 - ☐ Sign shall indicate the rezoning identification number assigned by the Township with two-inch tall block letters.



Agricultural Overlay Conditional Rezoning Request

8061 Merrit Rd Ypsilanti, MI 48197

Parcel ID # k 11 27 300 006

YP#27-10E E 1/2 OF E 1/2 OF W 1/2 OF SW 1/4 OF SW 1/4 SEC 27 T3S R7E 5.00 AC.

Andrew Burmeister

The following information is intended to be used for and support the request for the property to be rezoned to apply the Agricultural Overlay Zoning Classification.

The proposed use of the location will be as a greenhouse and plant nursery.

Regarding Section 1804

- 1: The surrounding area and parcel is Master Planned within the Agricultural Preservation district and several of the nearby parcels are already designated as being granted the overlay. Vacant farmland and forested areas are the predominant environmental features of the area.
- 2: The site's natural features and conditions provide challenges for a residential building and lend its productive use to agricultural purposes.
- 3: The site is surrounded by several other parcels historically and currently used for crops.
- 4: The proposed use will not require any township provided utilities.
- 5: The expected visits to the site will not provide any increase in traffic to the local roads.
- 6: Very few if any plant nursery type of uses exist in the township close to the site proposed for rezoning.
- 7: The parcel complies with the 5 acre required lot size.
- 8: the rezoning would be required as no other classification allows for proposed uses.
- 9: other parcels surrounding the site currently have the Ag overlay and approval would strengthen and support the master plan map.

Conditional Points for approval:

- The underlying Zoning and all uses will still be available.
- The use sought shall **exclude** at the approval of the overlay any use that requires either the approval of the Planning Commission or the Township Board. Any future use that requires such must reapply for the overlay to remove this condition.
- The use sought shall exclude (public riding and or boarding stables, recreation centers, swimming pool clubs).
- Any products sold shall be picked up by appointment only and during hours that fall between dawn and dusk.

▶ We have released our refreshed version of BS&A Online as of April 1st.

8061 MERRITT RD

YPSILANTI, MI 48197
Parcel #K -11-27-300-006
Property Owner: BURMEISTER, ANDREW

Owner and Taxpayer Information

Owner
BURMEISTER, ANDREW
5988 STONY CREEK RD
YPSILANTI, MI 48197

Taxpayer
SEE OWNER INFORMATION

General Information for Tax Year 2026

Property Class
402 RESIDENTIAL-VACANT
School District
LINCOLN CONS SCHOOL DISTRICT
MAP #
R 027 015 00
INDEX #
0
PRECINCT #
Not Available
SUBDIVISION
Not Available
Historical District
No
CURRENT USE
Not Available

Init
11 YPSILANTI TOWNSHIP
Assessed Value
\$72,000
Taxable Value
\$35,799
State Equalized Value
\$72,000
Date of Last Name Change
Not Available
Notes
Not Available
Census Block Group
No Data to Display
Exemption
No Data to Display

Principal Residence Exemption Information

Effective Date
No Data to Display

Principal Residence Exemption	June 1st	Fir
2026	0.0000%	0.000C

Previous Year Information

Year	MBOR Assessed	Final SEV	Final Taxat
2025	\$72,000	\$72,000	\$34,8
2024	\$42,400	\$42,400	\$33,8
2023	\$32,200	\$32,200	\$32,2

and Information

oning Code
R-3
and Value
\$144,000
naissance Zone
No
CF Neighborhood
RES LN 600 LINCOLN WESTSIDE UNPLATTED
ot Dimensions/Comments
No Data to Display

otal Acres
5.000
and Improvements
\$0
naissance Zone
No Data to Display
Expiration Date
No Data to Display
Mortgage Code
No Data to Display
eighborhood Enterprise
No
one

How can I help you today?

0.00	Frontage	Def
.01	165.00 ft	0.00

Legal Description

P#27-10E E 1/2 OF E 1/2 OF W 1/2 OF SW 1/4 OF SW 1/4 SEC 27 T3S R7E 5.00 AC.

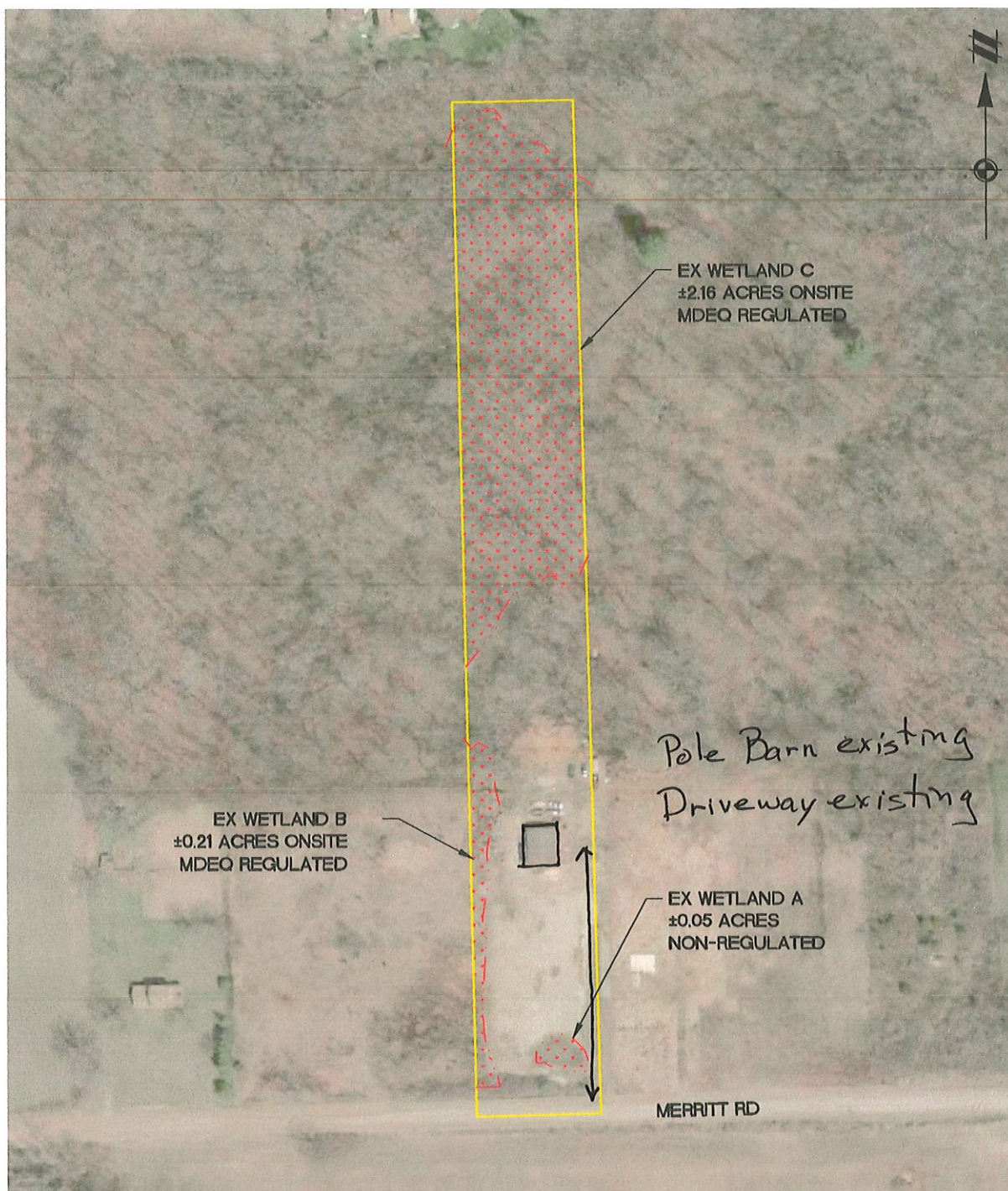
and Division Act Information

ate of Last Split/Combine	No Data to Display
ate Form Filed	No Data to Display
ate Created	No Data to Display
creage of Parent	0.00
plit Number	0
arent Parcel	No Data to Display

umber of Splits Left	Not Available
inallocated Div.s of Parent	0
inallocated Div.s	0
ransferred	
ights Were Transferred	Yes
ourtesy Split	No

Sale History

Sale Date	Sale Price	Instrument	Grantor	Grantee	Terms of Sale	Liber/Pa
06/28/2013	\$29,700.00	CD	MONROE BANK & TRUST	BURMEISTER, ANDREW	12-FROM LENDING INSTITUTION NOT EXPOSED	4988/95
01/13/2011	\$20,600.00	SD	ELLSWORTH, LARRY L.	MONROE BANK & TRUST	10-FORECLOSURE	4870/59
06/13/2003	\$50,000.00	WD	HANKINS, LARRY & SANDRA	ELLSWORTH, LARRY L.	16-LC PAYOFF	4360/88
05/19/2003	\$50,000.00	WD	REYNOLDS, WALLACE W.	HANKINS, LARRY S. & SANDRA	16-LC PAYOFF	4360/87
01/01/1998	\$50,000.00	LC	HANKINS, LARRY S.	ELLSWORTH, LARRY L.	03-ARM'S LENGTH	3775/04
01/03/1995	\$16,700.00	LC	REYNOLDS, WALLACE & JEAN	HANKINS, LARRY S.	03-ARM'S LENGTH	3164/33



LEGEND

- APPROXIMATE PROJECT BOUNDARY (±4.5 ACRES)
- EXISTING WETLAND

NOTE: THIS ILLUSTRATION IS AN APPROXIMATE DEPICTION OF THE WETLANDS THAT APPEAR TO BE LOCATED ON THE SUBJECT PROPERTY AS DELINEATED BY ATWELL ON AUGUST 16, 2016. THE MDEQ HAS THE FINAL AUTHORITY ON THE EXTENT OF REGULATED WETLANDS, LAKES, AND STREAMS IN THE STATE OF MICHIGAN.

AG Overlay Rezone Request



ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

ANDREW BURMEISTER
8061 MERRITT ROAD
WETLAND LOCATION MAP

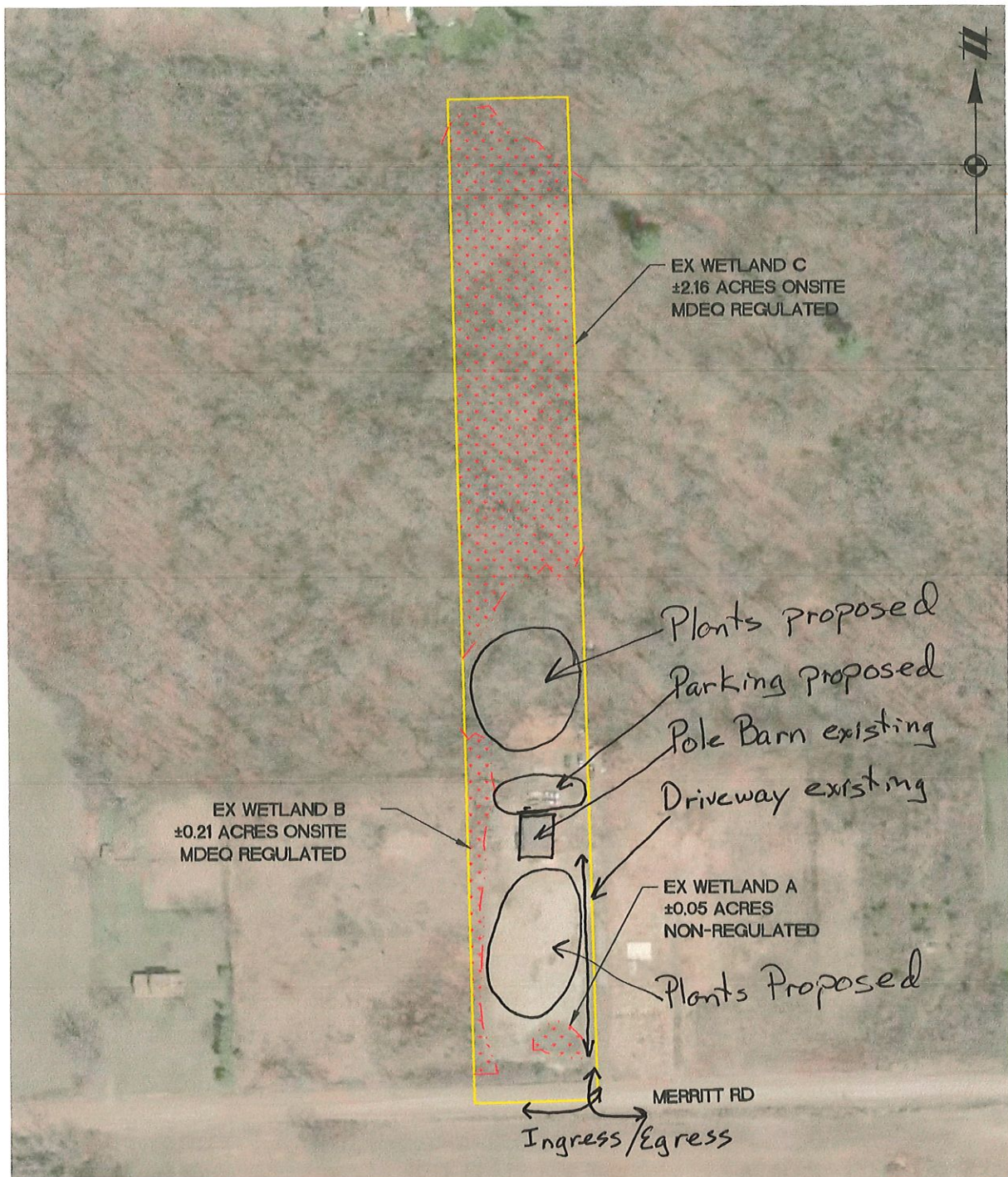
SECTION: 27
TOWN/RANGE: T03S, R07E

TWP: YPSILANTI
COUNTY: WASHTENAW

SCALE 0 100 200
1" = 200 FEET

JOB: 16001623
DATE: AUGUST 16, 2016

SHEET NO.
01



LEGEND

	APPROXIMATE PROJECT BOUNDARY (±4.5 ACRES)
	EXISTING WETLAND

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COUNTY: WASHTENAW

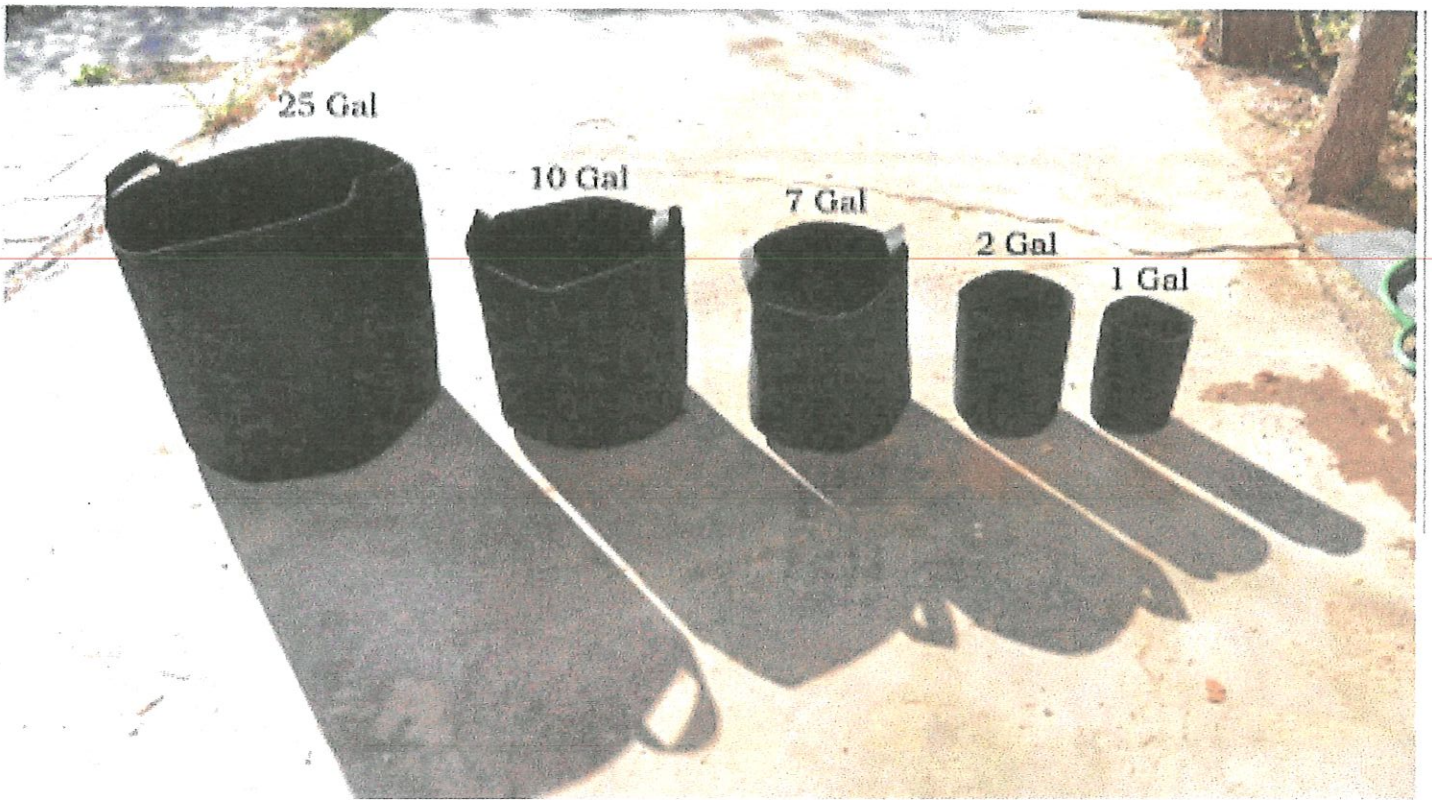
SCALE 0 100 200
1" = 200 FEET

JOB: 16001623
DATE: AUGUST 16, 2016

SHEET NO.
01









PERMEABLE

Soft surface for roots to penetrate and for moisture to soak through and ensure proper watering levels.



Carlisle | Wortman
ASSOCIATES, INC.

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

Date: July 11, 2026

Rev.: July 20, 2026

**Sketch Plan Review
For
Ypsilanti Township, Michigan**

Applicant:	Kalitta Turbines
Project Name:	Kalitta Turbines Storage Building
Plan Date:	April 23, 2026
Latest Revision:	July 15, 2026
Location:	2830 Tyler Road (South side of Tyler Rd. between Waird Rd. and McGregor Rd.)
Zoning:	I-C, Industrial and Commercial Revitalization District
Action Requested:	Sketch Plan Approval

PROJECT AND SITE DESCRIPTION

The applicant is proposing to build a 12,000 s.f. storage building on a 9.8-acre site that contains other buildings and parking that serves the Kalitta Turbines business. The business uses this facility to assemble, repair, clean, and warehouse turbines. The new building will be used for additional parts storage and will not include any repair, office, or plumbing facilities. The building will be accessed via asphalt paving to overhead loading doors on the north and west sides of the building.

Avionic repair and manufacturing including airplanes, helicopters and drones are permitted uses in this district.

An aerial of the proposed site is shown on the next page.

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

Figure 1: Subject Site



Source: MapWashtenaw (Image captured 2026)

Size of Subject Site: 9.8 acres:

Current Use of Subject Site:

Kalitta Turbines

Table 1: Adjacent Zoning and Existing Land Uses

Direction	Zoning	Use
North	I-C, Industrial and Commercial Revitalization District	GM Service/Parts
South	I-C, Industrial and Commercial Revitalization District	YCUA
East	I-C, Industrial and Commercial Revitalization District	Aircraft Maintenance & Repair
West	I-C, Industrial and Commercial Revitalization District	Plating Company

NATURAL FEATURES

Topography: The site to be developed is an existing hill. It appears at least part of this landform was created by previous development on this site.

Woodlands: Sheet C3.0, *Site Plan*, shows the location of 15 trees 8-inch DBH or greater to be removed, as well as a table describing the species, size and condition of the trees to be removed. Sec. 24-67 of the Woodlands Protection ordinance does not require mitigation for tree removal within the limits of construction.

As requested, a Tree Protection Fence symbol is now shown at the dripline of vegetation/trees to remain on the Grading Plan and Landscape Plan. A Tree Protection Fence detail is provided on the Landscape Plan, and a note prohibiting vehicle, equipment or construction materials to be parked or stored within the dripline of any tree or plant material to be saved. The Tree Protection Fence detail also states a similar message.

Items to be Addressed: None.

AREA, WIDTH, HEIGHT, SETBACKS

The table below evaluates the proposal against the bulk requirements for the IC, Industrial and Commercial Revitalization District in the ordinance.

Table 2. Bulk Requirements

	Required / Allowed	Provided	Complies with Ordinance
Min. Front Setback	20 feet	+20 feet	Complies
Min. Side Setback	40 feet / 80 feet total of two	+40 feet / +80 feet	Complies
Min. Rear Setback	50 feet	+50 feet	Complies
Min. Building Height	50 feet	Approx. 17.5 feet	Complies
Minimum Distances for Buildings 35 Feet Tall or Less	From Internal Drive: 20 feet Building Side to Building Side: 20 feet	From Internal Drive: 41-70 feet Building Side to Building Side: 70 feet	Complies

Items to be Addressed: None.

PARKING, LOADING

The ordinance requires the minimum number of off-street parking spaces in conjunction with all land or building uses, per Sec. 1205, *Access, Parking and Loading Requirements*. No changes to the existing parking facilities are proposed.

Table 3. Parking and Loading Spaces

	Required	Provided	Complies with Ordinance
Parking Spaces for Warehouses and Wholesale Establishments and Related Accessory Offices	Five (5) spaces plus one (1) space for every one (1) employee in the largest working shift, or five (5) spaces plus one (1) space for every one thousand seven hundred (1,700) square feet of usable floor space, whichever is the greater. or 5 + 48 employees = 53 spaces 5 + (92,483 s.f./ 1,700 s.f.) = 60 spaces	86 spaces*	Complies
Barrier-Free Spaces	4 spaces (1 being “van accessible”)	5 spaces (1 being “van accessible”)	Complies

*The number of existing (“Provided”) parking spaces represents spaces on the subject site only, and not the spaces located at 2820 Tyler Rd., the other Kalitta facility.

Items to be Addressed: None.

SITE ACCESS, CIRCULATION, TRAFFIC

The new driveway location connects to the existing vehicular circulation system. New pavement is located next to the north and west side of the new storage building. The driveway design maintains the existing pavement next to the previously-constructed storage building to the north and adds approximately 21-feet in width to this paved area between buildings. This set of plans has been revised to include truck turning movements on the Fire Protection/Solid Waste Plan.

It appears that the circulation is adequate; however, we defer evaluation of the proposed circulation around the new building to the Township Fire Marshall.

Sec. 1204, *Traffic Impact Analysis*, states that the Zoning Administrator may require a traffic impact analysis to analyze the effect of development upon existing street traffic. Chapter 24, Article IV, *Traffic Impact Study*, includes thresholds when a Traffic Impact Study is required. The Site Plan provides a comparison of traffic generated by the existing use, and traffic generated adding the new storage building. The change in number of trips does not meet the threshold to require a Traffic Impact Study per the Township’s ordinance.

Items to be Addressed: 1) *Defer evaluation of circulation facilities to Township Fire Marshall.*

LANDSCAPING

The proposal adds approximately 4,200 s.f. in pavement next to the new building. Sec. 1301.D requires that one (1) large deciduous tree be planted for each 2,000 s.f. of paved driveway. The Landscape Plan in the most recent plan set shows that two American Linden will be planted on the west side of the new pavement. The species and size of these proposed trees meet ordinance standards.

Items to be Addressed: None.

LIGHTING

A Lighting Plan has been provided, showing 11 new light fixtures mounted to the building façade. Sec. 1303 requires that all fixtures are downward-facing and can accept a shield if needed. The illustrations of the revised fixtures show that both are downward-facing, and the fixture housing provides a shield. The color temperature should be specified to not more than 3500K on the Final Sketch Plan set.

The proposed illumination levels meet ordinance requirements.

Items to be Addressed: 1) Specify color temperature of proposed fixtures at not more than 3500K on the Final Sketch Plan.

RECOMMENDATIONS

A summary of the comments in this review is provided below. We recommend the Planning Commission approve the Preliminary Sketch Plan, conditioned on any unresolved comments being addressed in the Final Sketch Plan.

Site Access, Circulation, Traffic

- 1) Defer evaluation of circulation facilities to Township Fire Marshall.

Lighting

- 1) Revise plans to propose a downward-facing light fixture that can accept a house-side shield and specify the color temperature of proposed fixture.


CARLISLE/WORTMAN ASSOC., INC.
Sally M. Elmiger, AICP, LEED AP
Principal



July 20, 2026

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

RE: Kalitta Turbines (2830 Tyler Road)
Sketch Plan Review # 2

Dear Mr. Yandrick:

We have completed the second sketch plan review of the plans dated May 2026, with a latest revision date of July 15, 2026, and received by OHM Advisors on July 16, 2026.

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

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

A. PROJECT AND SITE DESCRIPTION

The applicant is proposing to add a single-story stand-alone storage building south of the main building on the Kalitta Turbines site located at 2830 Tyler Rd. The building will be approximately 12,000 square feet and other site improvements include parking and stormwater management.

The site currently appears to be serviced by connection to the existing water main and sanitary sewer along Tyler Rd. Water and sanitary services are not proposed for the storage building and therefore changes to the water main or sanitary sewer are not proposed or required. Stormwater runoff is currently managed by an on-site retention basin and underground conveyance system. The proposed stormwater runoff will discharge to infiltration beds on either side of the proposed building.

B. SITE PLAN COMMENTS

SITE UTILITIES

1. It is noted that the applicant is proposing to relocate and extend the dead-end hydrant extension to the south to provide additional hydrant coverage. The applicant shall revise all applicable plan sheets to reflect this change, similar to Sheet C10.0, for clarity. The applicant shall note that additional changes to the water main layout as a result of the Ypsilanti Township Fire Department's or YCUA's review will require additional review by our office.



C. **PRELIMINARY DETAILED ENGINEERING COMMENTS**

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

1. The applicant shall provide utility pipe profiles, including pipe diameter, material, length, slope, etc. for all proposed water main.
2. The applicant shall provide an overall site plan, similar to the Existing Conditions Overall plan, showing the existing site and the proposed building for ease of reference.
3. The applicant shall provide standard details of the proposed downspout infiltration trench and emergency overflow structures on the plans.
4. The applicant shall provide cross-sections (HMA and concrete) for the proposed pavement improvements. It is recommended that the applicant provide a minimum HMA cross-section of four (4) inches for ease of future maintenance.
5. The applicant shall provide the Ypsilanti Township Standard Detail Sheets within the plan set, including the Ypsilanti Township SESC Standard Detail Sheet. These can be obtained by emailing stacie.monte@ohm-advisors.com. The applicant shall remove any SESC details (Sheet C4.0) that conflict with the Township Standard Detail Sheet for clarity.

D. **REQUIRED PERMITS & APPROVALS**

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

- ▶ **Ypsilanti Community Utilities Authority (YCUA):** Review and approval of all water main improvements and hydrant additions is required.
- ▶ **Ypsilanti Township Fire Department:** Review and approval of site accessibility and hydrant coverage is required. The review email dated July 14, 2026 indicated that extending the existing hydrant extension to the south would provide sufficient hydrant coverage.
- ▶ **Washtenaw County Water Resources Commissioner's Office (WCWRC):** Review and approval is required. Comments were provided in the review letter dated June 5, 2026.
- ▶ **Ypsilanti Township Office of Community Standards:** A Soil Erosion and Sedimentation Control permit shall be secured from the Ypsilanti Township Office of Community Standards.

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

Sincerely,
OHM Advisors

Stacie L. Monte

Matthew D. Parks, P.E.

SLM/MDP/jjr

cc: Lauren Doppke, Township Staff Planner
Doug Winters, Township Attorney
Sally Elmiger, CWA, Township Planning Consultant



Steven Wallgren, Township Fire Marshall
Scott Westover, P.E., YCUA
File

P:\0000_0100\SITE_YpsilantiTwp\2026\0098261040_2830 Tyler Rd_Kalitta Turbines\MUNI\01_SITE\Sketch Plan
#2\Kalitta Turbines_SP#2_2026-07-20.docx

CHARTER TOWNSHIP OF YPSILANTI FIRE DEPARTMENT

BUREAU OF FIRE PREVENTION

222 South Ford Boulevard, Ypsilanti, MI 48198



July 16, 2026

Mark Yandrick, Planning Director
Charter Township of Ypsilanti
7200 S. Huron River Drive
Ypsilanti, MI 48197

RE: Preliminary (non-residential) Site Plan Review #2

Project Name:	Kalitta storage building
Project Location:	2830 Tyler rd. Ypsilanti, MI 48198
Project Number:	33260
Plan Date:	7/15/2026
Applicable Codes:	IFC 2018
Engineering:	Washtenaw Engineering
Engineering Address:	3526 W. Liberty rd., Suite 400 Ann Arbor, MI 48103

Status of Review

Status of review: Approved as Submitted

Site Coverage - Access

Comments: Fire department access is adequate.

Hydrant Coverage

Comments: 250' radius for building coverage has been met.

Suppression

Comments: Suppression not required. This structure does not exceed 12,000 sq ft.

Best regards,

A handwritten signature in black ink, appearing to read "Steve Wallgren".

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

PRINCIPALS
J.K. MAYNARD, P.E.
D.J. HOUCK
D.L. MOORE
ASSOCIATE
T.L. SUTHERLAND, P.S.



CIVIL ENGINEERS • PLANNERS • SURVEYORS
TRANSPORTATION ENGINEERS
LANDSCAPE ARCHITECTS

TRANSMITTAL MEMORANDUM

Date: May 19, 2026

To: Charter Township of Ypsilanti
Office of Community Standards
7200 S. Huron River Dr
Ypsilanti, MI 48197

Attention:

Project: 2830 Tyler Road, Ypsilanti Township
Kalitta Turbines

Enclosed: Site Plan Review Application
Traffic Impact Study Application
One (1) 24x36 Copy of Proposed Plan
One (1) 11x17 Copy of Proposed Plan
One (1) Flash Drive of Proposed Plan
Application Fee \$500.00
Refundable Deposit \$2,500.00

Remarks:

Plans have been submitted to Washtenaw County Water Resources
Commissioner and Washtenaw County Road Commission.

If you have any questions please contact the undersigned.

From:

A handwritten signature in black ink, appearing to read "Joe Maynard", is written over a horizontal line. Below the line, the name "Joseph K. Maynard, P.E." is printed in a standard font.

S:\PROJECTS\WTA - KALITTA TURBINES\YpsiTwp260519trans.doc

TRAFFIC IMPACT STUDY APPLICATION

I. PROJECT LOCATION

Address: 2830 Tyler Road City: Ypsilanti State: MI Zip: 48198
Parcel ID #: K-11-13-206-008 & 006 Zoning: I-C
Name of Project/Proposed Development: Kalitta Turbines

II. APPLICANT INFORMATION

Applicant: Kalitta Turbines Phone: [REDACTED]
Address: 2820 Tyler Road City: Ypsilanti State: MI Zip: 48198
Fax: [REDACTED] Email: [REDACTED]
Traffic Consultant or Other: Fleis & Vandenbrink Phone: [REDACTED]
Address: 27725 Stansbury Blvd City: Farmington Hills State: MI Zip: 48334
Fax: [REDACTED] Email: [REDACTED]

III. PROPOSED LAND USE

Proposed Land Use:

Attach a narrative description of the project. Describe the project in as much detail as possible to illustrate the probable magnitude of the traffic potential of the development. Include existing and proposed zoning classifications, the number of residential units or size of commercial, office, or industrial buildings, which streets serve the development, tentative phasing plans, and any other factors that should be considered in determining study requirements. Provide a forecast of peak hour directional trips and daily trips associated with the development, based on Trip Generation by the Institute of Transportation Engineers.

Is the narrative attached?

- ☒ Yes
☐ No

Attach vicinity map.

Is the vicinity map attached?

- ☒ Yes
☐ No

IV. APPLICANT SIGNATURE

[Signature]
Applicant Signature

John Horn
Print Name

5/22/26
Date



Charter Township of Ypsilanti**Office of Community Standards**

7200 S. Huron Drive, Ypsilanti, MI 48197

Phone: (734) 544-4000 ext. #1

Website: <https://ypsitownship.org>**SITE PLAN REVIEW
APPLICATION****I. APPLICATION/DEVELOPMENT TYPE****Development:**

- ☐ Subdivision
☐ Multi-family/Condominium
☐ Site Condominium
☐ Planned Development
☒ Non-residential

Application:

- ☐ Administrative Site Plan Review
☒ Sketch Site Plan Review
☐ Full Site Plan Review
☐ Revisions to approved plan
☐ Tentative Preliminary Plat
☐ Final Preliminary Plat
☐ Final Plat Process
☐ Stage I (for Planned Development)
☐ Stage II (for Planned Development)

II. PROJECT LOCATION

Address: 2830 Tyler Road City: Ypsilanti State: MI Zip: 48198

Parcel ID #: K-11- 13-206-008 & 006 Zoning: I-C

Lot Number: Subdivision:

Property dimensions: (392x866)/(215x450) Acreage: 9.8 and 2.19

Name of project/Proposed development: Kalitta Turbines

Legal description of Property:
on attached site plans

Describe Proposed Project (including buildings/ structures/ # units):

Project to add a storage building on site with 12,000 sq ft of space and related parking and storm water management controls

III. APPLICANT INFORMATION

Applicant: Kalitta Turbines Phone: [REDACTED]

Address: 2820 Tyler Road City: Ypsilanti State: MI Zip: 48198

Fax: Email: [REDACTED]

Property owner (if different than applicant): Phone:

Address: City: State: Zip:

Fax: Email:

Engineer: Washtenaw Engineering Co, Joseph K. Maynard Phone: [REDACTED]

Address: 3526 W. Liberty Rd, Suite 400 City: Ann Arbor State: MI Zip: 48103

Fax: na Email: [REDACTED]



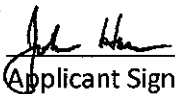
Charter Township of Ypsilanti**Office of Community Standards**

7200 S. Huron Drive, Ypsilanti, MI 48197

Phone: (734) 544-4000 ext. #1

Website: <https://ypsitownship.org>**SITE PLAN REVIEW
APPLICATION****VI. SCHEDULE OF FEES**

Preliminary Site Plan Review		
	Non-refundable fee	Refundable deposit
Full	\$500	Less than one (1) acre: \$2,000 One (1) acre to five acres: \$4,000 Over five (5) acres to ten (10) acres: \$5,500 Greater than ten (10) acres: \$5,500 + \$50 per acre over ten (10) acres
Sketch	\$500	Less than one (1) acre: \$1,500 One (1) acre to five acres: \$2,000 Over five (5) acres to ten (10) acres: \$2,500 Greater than ten (10) acres: \$2,500 + \$50 per acre over ten (10) acres
Administrative	\$100	Less than one (1) acre: \$1,000 One (1) acre to five acres: \$1,200 Over five (5) acres to ten (10) acres: \$1,500 Greater than ten (10) acres: \$1,500 + \$50 per acre over ten (10) acres
Planned Development Stage I and Rezoning	\$1,500 + \$20 per acre	Less than one (1) acre: \$3,000 One (1) acre to five acres: \$4,000 Over five (5) acres to ten (10) acres: \$5,500 Greater than ten (10) acres: \$5,500 + \$50 per acre over ten (10) acres
Final Site Plan Review		
	Non-refundable fee	Refundable deposit
Full	\$500	Less than one (1) acre: \$3,000 One (1) acre to five acres: \$4,000 Over five (5) acres to ten (10) acres: \$5,500 Greater than ten (10) acres: \$5,500 + \$50 per acre over ten (10) acres
Sketch	\$500	Less than one (1) acre: \$1,500 One (1) acre to five acres: \$2,000 Over five (5) acres to ten (10) acres: \$2,500 Greater than ten (10) acres: \$2,500 + \$50 per acre over ten (10) acres
Administrative	\$100	Less than one (1) acre: \$1,000 One (1) acre to five acres: \$1,200 Over five (5) acres to ten (10) acres: \$1,500 Greater than ten (10) acres: \$1,500 + \$50 per acre over ten (10) acres
Planned Development Stage I and Rezoning	\$1,500 + \$20 per acre	Less than one (1) acre: \$3,000 One (1) acre to five acres: \$4,000 Over five (5) acres to ten (10) acres: \$5,500 Greater than ten (10) acres: \$5,500 + \$50 per acre over ten (10) acres

S 3,000.00 FEE TOTAL**V. APPLICANT SIGNATURE**


Applicant Signature

John Horn

Print Name

5/22/26

Date



PRINCIPALS
J.K. MAYNARD, P.E.
D.J. HOUCK
D.L. MOORE
ASSOCIATE
T.L. SUTHERLAND, P.S.



CIVIL ENGINEERS • PLANNERS • SURVEYORS
TRANSPORTATION ENGINEERS
LANDSCAPE ARCHITECTS

TRANSMITTAL MEMORANDUM

Date: July 15, 2026

To: Charter Township of Ypsilanti
Office of Community Standards
7200 S. Huron River Dr
Ypsilanti, MI 48197

Attention:

Project: 2830 Tyler Road, Ypsilanti Township
Kalitta Turbines

Enclosed: One (1) 24x36 Copy of Proposed Plan
One (1) 11x17 Copy of Proposed Plan
One (1) Flash Drive of Proposed Plan
One (1) Copy of Infiltration Testing Report

Remarks:

Plans have been submitted to Washtenaw County Water Resources
Commissioner.

If you have any questions please contact the undersigned.

From:

A handwritten signature in black ink, appearing to read "Joseph K. Maynard", is written over a horizontal line. Below the line, the name "Joseph K. Maynard, P.E." is printed in a standard font.

S:\PROJECTS\WTA - KALITTA TURBINES\YpsiTwp260715trans.doc

PRINCIPALS
J.K. MAYNARD, P.E.
D.J. HOUCK
D.L. MOORE

ASSOCIATE
T.L. SUTHERLAND, P.S.



CIVIL ENGINEERS * PLANNERS * SURVEYORS
TRANSPORTATION ENGINEERS
LANDSCAPE ARCHITECTS

July 15, 2026

Ypsilanti Township
7200 S. Huron River Drive
Ypsilanti, MI 48197

Attn: Mark Yandrick

RE: Kalitta Turbines (2830 Tyler Road)
Sketch Plan Review #1

Mr. Yandrick

We offer the following comments in response to review letters outlined below:

OHM dated June 17, 2026

1. It currently appears that insufficient hydrant coverage has been provided. The applicant shall note that a 250-foot radius is required for hydrant coverage, per Ypsilanti Township standards. The applicant shall also note that the public water main will be required to be looped with a water main easement provided if an additional hydrant extension is needed and additional review from our office and the Ypsilanti Community Utilities Authority (YCUA) will be required.
The hydrant has been noted to be relocated to provide the required hydrant coverage.

2. The applicant shall provide a fire truck turning template to ensure sufficient space for accessibility has been provided.
Fire truck turning template has been added to the plans as sheet C10.0.

3. The applicant shall indicate how garbage will be collected and provide the location of the existing or proposed dumpster enclosure. If a dumpster enclosure is being proposed, the applicant shall provide a garbage truck turning template to ensure sufficient space for accessibility has been provided.
The existing dumpster is shown on the plans and turning template for access is shown on sheet C10.0.

Ypsilanti Township Fire dated June 17, 2026

Fire department access would be adequate if the building had hydrant coverage. 250' radius for building coverage is required.

The existing hydrant has been noted to be relocated to properly cover the building with 250' radius for building coverage and fire truck turning template has been added as sheet CD10.0.

Carlisle Wortman dated July 11, 2026.

NATURAL FEATURES

1. Show Tree Protective Fencing symbol around all "trees and vegetation to remain" on Site Plan and Grading Plan.
Tree protection fencing and detail added to sheet C11.0.

2. Add Tree Protection Fencing detail to plans.
Tree protection fencing and detail added to sheet C11.0.
3. Include following note on Site Plan and Grading Plan, "No vehicle, other construction equipment, or construction materials or debris shall be parked or stored within the dripline of any tree or plant material intended to be saved".
Note added to sheet C4.0 under notes #7.

SITE ACCESS, CIRCULATION, TRAFFIC

1. Provide truck turning movements in relation to new storage building to confirm access to overhead doors and adequate emergency vehicle access.
New sheet C10.0 has been added to plans to show truck movements for fire, solid waste, and access to new building.
2. Defer evaluation of circulation facilities to Township Fire Marshall.
Acknowledged.

LANDSCAPING

1. Add two new trees to plans, unless Planning Commission waives or modifies this requirement.
Two new trees added to plans.

LIGHTING

1. Revise plans to propose a downward-facing light fixture that can accept a house-sided shield and specify the color temperature of proposed fixture.
Lighting plan has been corrected.

If you have any questions please contact the undersigned.

Sincerely,



Joseph K. Maynard, P.E.

PRINCIPALS
J.K. MAYNARD, P.E.
D.J. HOUCK
D.L. MOORE

ASSOCIATE
T.L. SUTHERLAND, P.S.



CIVIL ENGINEERS * PLANNERS * SURVEYORS
TRANSPORTATION ENGINEERS
LANDSCAPE ARCHITECTS

July 15, 2026

Washtenaw County Water Resources Commissioner
705 N. Zeeb Road
Ann Arbor, MI 48103

Attn: Matt Byrne, P.E.

RE: Kalitta Turbines Storage Building
Ypsilanti, Michigan
WCWRC Project No. 13339

Mr. Byrne:

We offer the following comments in response to your review letter dated June 5, 2026:

1. Groundwater was noted at elevation 711.5 for TP-1 and 711 for TP-2. Provide 3' of separation between the observed groundwater elevation and the bottom of infiltration trench.

The storm water management design has been revised to use 714.5 for the bottom of the infiltration trench on both sides of the building. A cross-section detail of the system has been added to the storm water management calculations sheet C9.0. The system will use 4 ft depth of storage with 1 ft freeboard. The least infiltration rate of 7.5 inches was used to size the infiltration trench. The area of the trench needed to be increased so the east trench in the grass area was widened to 12.5 ft. for a total area of 1,900 sq. ft. The soils report was also added to the sheet for reference. The system will account for a 100-year storm event.

2. Provide a cross-section detail for the infiltration trench.

A cross-section detail of the system has been added to the storm water management calculations sheet C9.0.

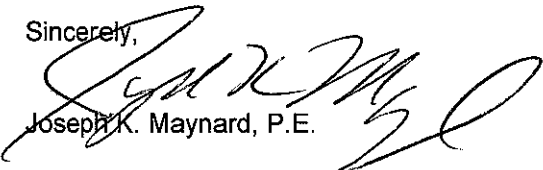
3. Please provide a storm water maintenance plan, including maintenance tasks, inspection frequency, responsible party, and estimated maintenance budget.

The storm water maintenance plan is shown on the grading and soil erosion control plan sheet C4.0.

Note: An additional sheet for Fire Protection/Solid Waste Plan has been added as sheet C10.0

If you have any questions please contact the undersigned.

Sincerely,


Joseph K. Maynard, P.E.

NEW STORAGE BUILDING FOR:

KALITTA TURBINES

2830 TYLER RD.
YPSILANTI, MICHIGAN

CONTACTS:

OWNER:

KALITTA TURBINES
2820 TYLER ROAD
YPSILANTI, MICHIGAN 48198
ATTN: JOHN HORN
PHONE: [REDACTED]

OFFICE OF THE ARCHITECT:

 **WTA ARCHITECTS**
100 S. JEFFERSON AVENUE, SUITE 601
SAGINAW, MICHIGAN 48607
PHONE: (989) 752-8107
EMAIL: DESIGN@WTAARCH.COM

CIVIL ENGINEER:

 **WASHTENAW ENGINEERING CO. INC.**
3526 W. LIBERTY RD.
SUITE 400
ANN ARBOR, MI. 48103
PHONE: (734) 761-8800

STRUCTURAL, MECHANICAL, ELECTRICAL ENGINEER:

 **MACMILLAN ASSOCIATES, INC.**
714 E. MIDLAND STREET
BAY CITY, MICHIGAN 48706
PHONE: (989) 894-4300
FAX: (989) 864-9930

INDEX OF DRAWINGS:

TS	TITLE SHEET
CIVIL	
C1.0	EXISTING CONDITIONS OVERALL
C1.1	EXISTING CONDITIONS
C1.2	EXISTING DRIVEWAYS
C1.3	LEGAL DESCRIPTIONS
C2.0	AERIAL
C2.1	IMAGES OVER TIME
C3.0	SITE PLAN
C4.0	GRADING AND SOIL EROSION CONTRON PLAN
C5.0	STORM SEWER PLAN
C6.0	STORM WATER CALCULATIONS
C7.0	STORM WATER CALCULATIONS
C8.0	STORM WATER MANAGEMENT DRAINAGE AREA PLAN
C9.0	STORM WATER MANAGEMENT CALCULATIONS
C10.0	FIRE PROTECTION/SOLID WASTE PLAN
C11.0	LANDSCAPE PLAN AND DETAILS

ARCHITECTURAL.	
A0.11	LIFE SAFETY PLAN AND CODE INFORMATION
A2.21	FLOOR PLAN
A5.11	EXTERIOR ELEVATIONS

ELECTRICAL.	
SE1.02	SITE PLAN - ELECTRICAL PHOTOMETRIC

PROJECT DESCRIPTION:

PROJECT SCOPE INCLUDES CONSTRUCTION OF A NEW SINGLE-STORY STAND ALONE STORAGE BUILDING TOTALING 12,000 SQUARE FEET. THE NEW STRUCTURE WILL BE USED FOR ADDITIONAL PARTS STORAGE AND WILL NOT INCLUDE ANY REPAIR, OFFICE, OR PLUMBING FACILITIES. THE NEW STRUCTURE IS TO BE LOCATED DIRECTLY SOUTH OF THE EXISTING STORAGE BUILDING WITH ASPHALT PAVING EXPANSION TO ACESS OVERHEAD LOADING DOORS ON THE NORTH AND WEST SIDES OF THE BUILDING

ROOM IDENTIFIER:

ROOM NAME

A100A

OPTIONAL LETTER

ROOM NUMBER

GRADE CLUSTER

UNIT LETTER

DOOR IDENTIFIER:

A100.1

DOOR NUMBER

ROOM NUMBER

GRADE CLUSTER

UNIT LETTER

REFERENCE BUBBLES:

1 — LOCATION NUMBER

A1.01 — SHEET NUMBER

7 — DETAIL MARK

A7.07

5 — BUILDING SECTION

A5.05

2 — ENLARGED DETAIL OR PLAN

A2.02

ROOM FINISH TAG:

ROOM NAME	
NO.	BASE
WALL	FLOOR
REMARK	

NO. = ROOM NUMBER
BASE = BASE MAT'L
FLOOR = FLOOR MAT'L
REMARK = REFER TO SCHEDULE OF REMARKS

KEYED NOTES:

1 — MATERIAL KEYNOTE (HEXAGON w/ NUMBER)

A — PLUMBING OR EQUIPMENT (HEXAGON w/ LETTER)

1 — PLAN KEYNOTE (SQUARE w/ NUMBER)

A — SITE PLAN KEYNOTE (SQUARE w/ LETTER)

R1 — ROOF PLAN KEYNOTE (SQUARE w/ "R" AND NUMBER)

1 — PLAN DEMOLITION KEYNOTE (TRIANGLE w/ NUMBER)

A — SITE DEMOLITION KEYNOTE (TRIANGLE w/ LETTER)

TEXT-X — FLOORING/FINISH KEYNOTE (RECTANGLE w/ TEXT)

DEMOLITION IDENTIFIER:

----- ITEM TO BE REMOVED

ALTERATION CLOUD:

INDICATES A CHANGE TO THE CONSTRUCTION DOCUMENTS VIA ADDENDUM, BULLETIN, AND CHANGE ORDER

MATCH LINE:

MATCH LINE

ADDITIONAL IDENTIFIERS:

F2 — DOOR FRAME TYPE (OVAL w/ "F" AND NUMBER)

D2 — DOOR TYPE (OVAL w/ "D" AND NUMBER)

W2 — WINDOW TYPE (OVAL w/ "W" AND NUMBER)

2.1 — WALL TYPE (DIAMOND w/ NUMBER)

— ADDENDUM IDENTIFIER (RHOMBUS w/ NUMBER)

— BULLETIN IDENTIFIER (RHOMBUS w/ NUMBER)

— CHANGE ORDER IDENTIFIER (RHOMBUS w/ NUMBER)

INTERIOR ELEVATION IDENTIFIER:

8/A8.08

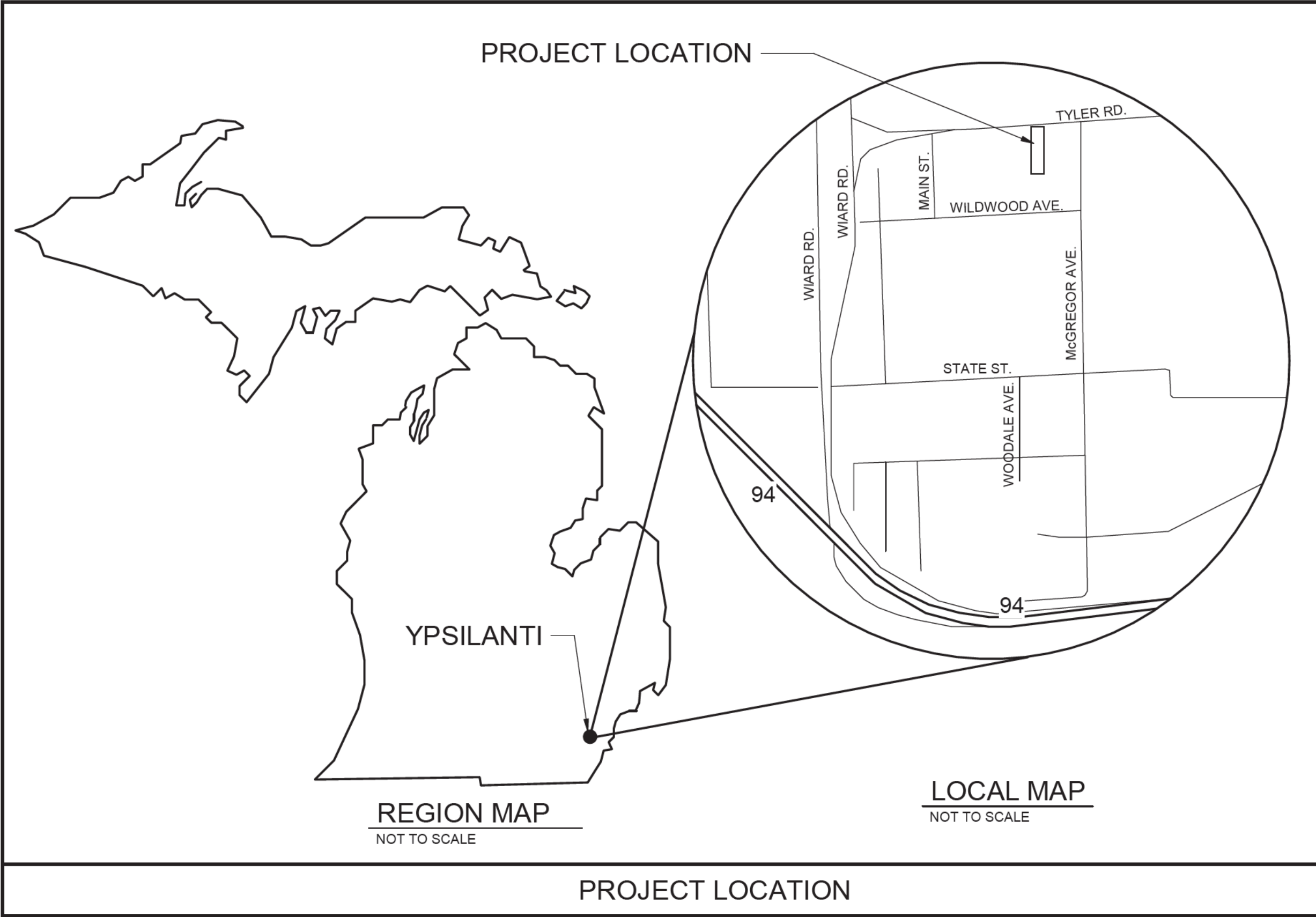
SHEET NUMBER

LOCATION NUMBER

ALTERATION IDENTIFIER:

ALTERNATE NO. 2

ARCHITECTURAL SYMBOL LEGEND



	PERLIMINARY SITE PLAN REV1	7-15-26
	PRELIMINARY BID PACKAGE	6-24-26
NO.	REVISION	DATE



 WTAARCH.COM

WTA ARCHITECTS

100 S. Jefferson Ave, Suite 601
Saginaw, Michigan 48607
989 752 8107

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PROJECT TITLE

NEW STORAGE BUILDING FOR:

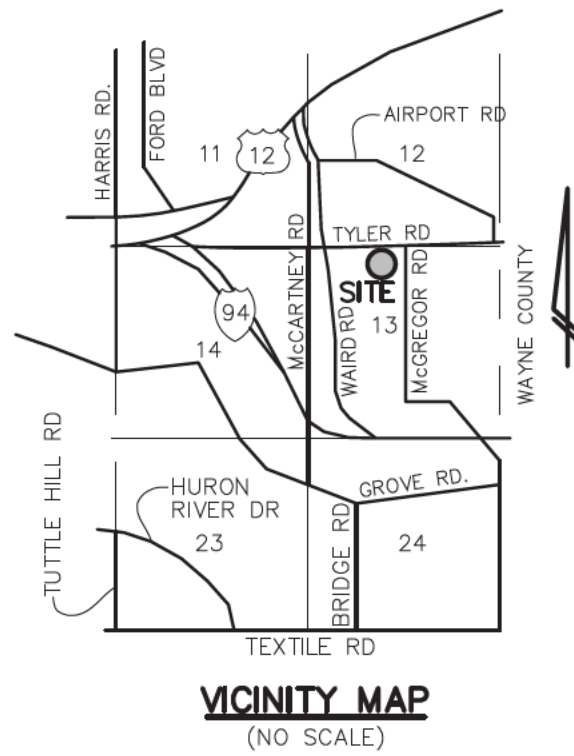
KALITTA TURBINES

2830 TYLER RD.
YPSILANTI, MICHIGAN

SHEET TITLE

TITLE SHEET

PROJECT NUMBER 2026004	SHEET NUMBER
PROJECT DATE MAY 2026	TS
CHECKED BY J.R.G.	



K-11-13-200-007
(2825 TYLER RD)
WILLOW BAY BUSINESS CENTER LLC
1400 WILLOW BAY ST, SUITE 300
OAK BRIDGE, MI 48063
ZONED I-C
(INDUSTRIAL & COMMERCIAL)

K-11-13-200-010
(1400 WILLOW BAY ST)
WILLOW BAY BUSINESS CENTER LLC
1400 WILLOW BAY ST, SUITE 300
OAK BRIDGE, MI 48063
ZONED I-C
(INDUSTRIAL & COMMERCIAL)

WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

BnB - BOYER LOAMY SAND, 0 TO 6 PERCENT SLOPES
Ur - URBAN LAND
WaA - WASEPI SANDY LOAM, 0 TO 4 PERCENT SLOPES

• • • • • SOILS BOUNDARY

SOILS ARE BASED ON USDA SOIL SURVEY
OF WASHTENAW COUNTY.

2830 TYLER RD.
TAX DESCRIPTION (NOT SURVEYED)
The East 1/2 of Lots 360 thru 369 inclusive, Lots 400 thru 409 inclusive, Lots 498 thru 547 inclusive, all of the 20' alley adjacent to Lots 515 thru 530 inclusive, all of the vacated Woodale Avenue from Southerly 60' right-of-way of Tyler Road to Northerly right-of-way line of Wildwood Avenue, the West 1/2 of vacated Bomber Avenue adjacent to Lots 529 thru 547, all of Textile Subdivision according to the plat thereof as recorded in Liber 6 of Plats, Page 57, Washtenaw County Records, more particularly described as: Commencing at the North 1/4 corner of Section 13; thence due South 60.07 feet to the POINT OF BEGINNING; thence continuing due South 866.96 feet; thence S88°07'30"W 607.64 feet; thence N00°01'45"E 407.51 feet; thence S89°58'15"E 140.00 feet; thence N00°01'45"E 450.50 feet; thence S89°58'15"E 140.00 feet; thence N00°01'45"E 450.50 feet; thence N87°10'45"E 392.34 feet to the Point of Beginning. Being located in the Northwest corner of Section 13 and containing 9.80 acres, more or less. Being subject to easements and restrictions of record, if any.

BENCHMARKS

BM1=TOP OF SWLY FLANGE ON HYDRANT, NORTH OF BUILDING AT 2830 TYLER RD, ELEV=720.23.
BM2=R.R. SPIKE IN UTILITY POLE, NORTH OF BUILDING AT 2830 TYLER RD, ELEV=719.31.
DATUM=(NAVD 88)

LEGEND

☆ = LIGHT POLE
⊕ = UTILITY POLE
⊙ = GUY ANCHOR
⊕ = HYDRANT
• = SPOT ELEV.
⊙ = POST
⊙ = GATE VALVE
⊕ = SIGN

TC = TOP OF CURB
TW = TOP OF WALL
○ = MANHOLE
□ = CATCHBASIN
⌋ = END SECTION

--- = GRAVEL
--- = FENCE
--- = CONCRETE
--- = ASPHALT

--- = EXISTING STORM
--- = EXISTING SANITARY
--- = EXISTING WATER
--- = EXISTING GAS
--- = EXISTING ELECTRIC
--- = EXISTING TELEPHONE



A BOUNDARY SURVEY WAS NOT
PERFORMED BY WASHTENAW
ENGINEERING COMPANY.



NOT FOR CONSTRUCTION
PRELIMINARY

1	SKETCH PLAN UPDATE	4-23-26
2	PRE-APPLICATION PLAN	5-15-26
3	PRELIMINARY SITE PLAN REV 1	7-15-26

NO.	REVISION	DATE
-----	----------	------



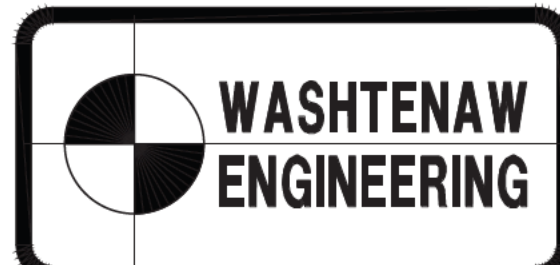
PREPARED BY
JOSEPH K. MAYNARD P.E., MICH No. 52559



WTAARCHITECTS

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Saginaw, Michigan 48607
989 752 8107

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LANDSCAPE ARCHITECTS

3526 W. LIBERTY RD
SUITE 400
ANN ARBOR, MI 48103
TEL. 734-761-8800

SECTION 13 TOWN 3 SOUTH RANGE 7 EAST
YPSILANTI TOWNSHIP
WASHTENAW COUNTY • MICHIGAN

PROJECT TITLE
NEW CONSTRUCTION FOR:

KALITTA TURBINES

2830 TYLER RD.
YPSILANTI, MICHIGAN

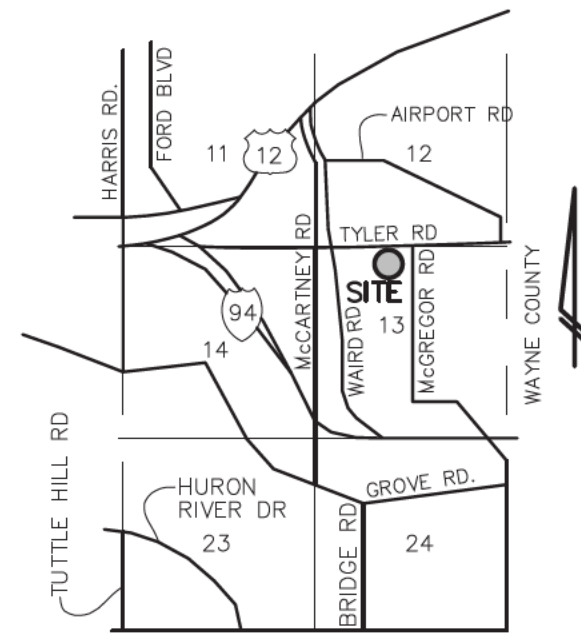
SHEET TITLE
EXISTING CONDITIONS
OVERALL

PROJECT NUMBER
33260

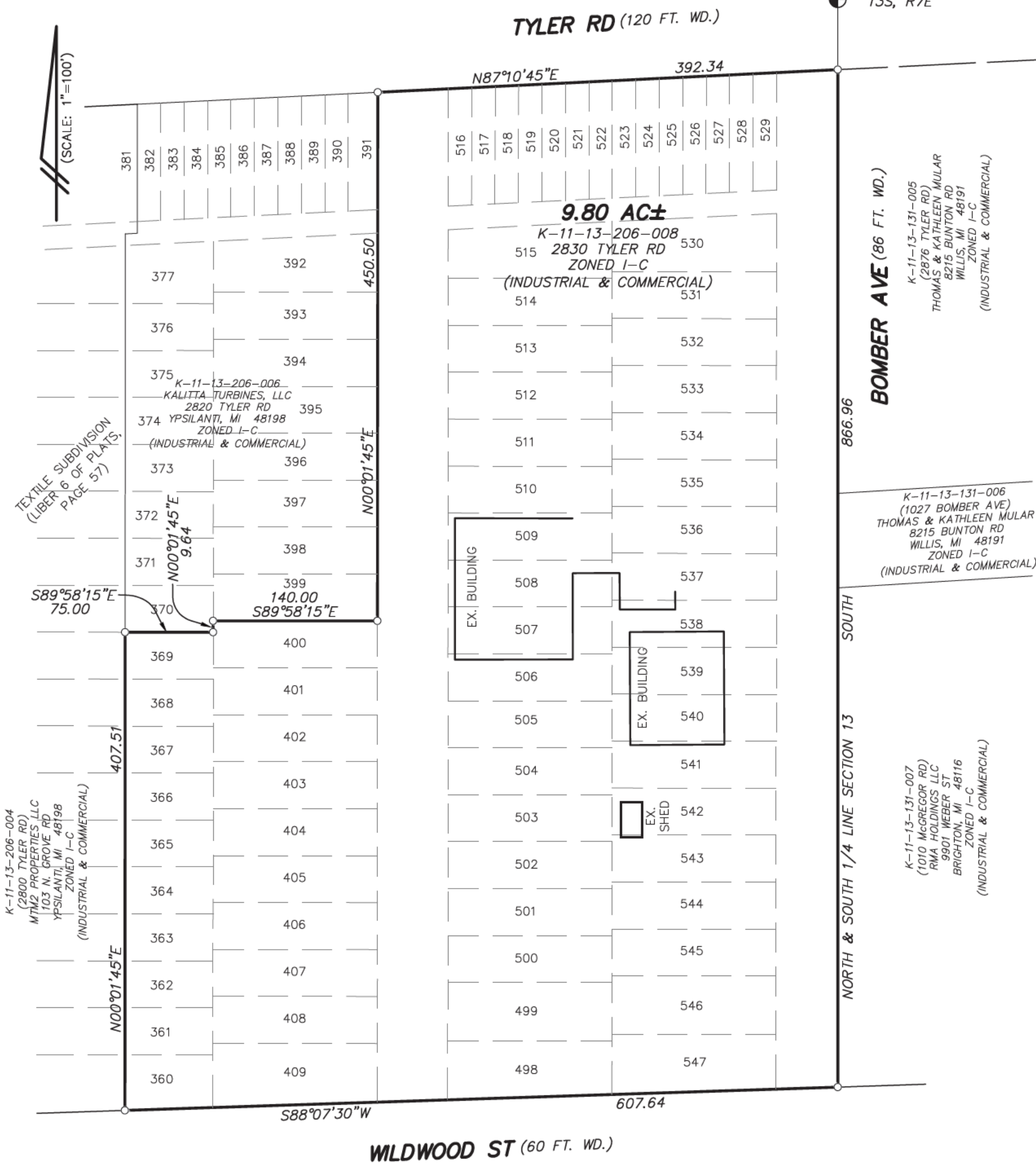
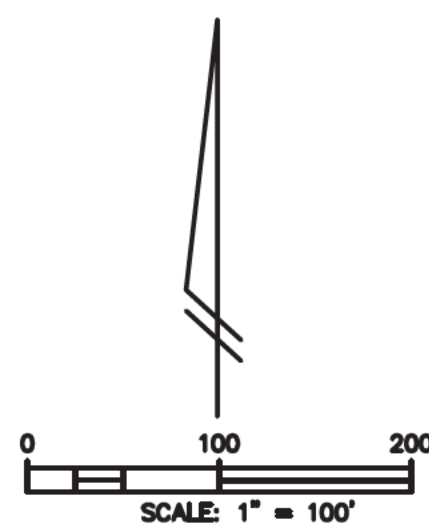
PROJECT DATE
3-4-2026

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C1.0



VICINITY MAP
(NO SCALE)



TAX DESCRIPTION (NOT SURVEYED)
The East 1/2 of Lots 360 thru 369 inclusive, Lots 400 thru 498 inclusive, Lots 498 thru 547 inclusive, all of the 20' alley adjacent to Lots 515 thru 530 inclusive, all of the vacated Woodale Avenue from Southerly 60' right-of-way of Tyler Road to Northerly right-of-way line of Wildwood Avenue, the West 1/2 of vacated Bomber Avenue adjacent to Lots 529 thru 547, all of Textile Subdivision according to the plat thereof as recorded in Liber 6 of Plats, Page 57, Washtenaw County Records, more particularly described as: Commencing at the North 1/4 corner of Section 13; thence due South 60.07 feet to the POINT OF BEGINNING; thence continuing due South 866.96 feet; thence S88°07'30"W 607.64 feet; thence N00°01'45"E 407.51 feet; thence S89°58'15"E 75.00 feet; thence N00°01'45"E 450.50 feet; thence S88°07'30"W 607.64 feet to the Point of Beginning. Being located in the Northwest corner of Section 13 and containing 9.80 acres, more or less. Being subject to easements and restrictions of record, if any.

WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

BnB - BOYER LOAMY SAND, 0 TO 6 PERCENT SLOPES
Ur - URBAN LAND
WaA - WASEPI SANDY LOAM, 0 TO 4 PERCENT SLOPES

• • • • • SOILS BOUNDARY

SOILS ARE BASED ON USDA SOIL SURVEY
OF WASHTENAW COUNTY.

BENCHMARKS

BM1=TOP OF SWLY FLANGE ON HYDRANT, NORTH OF BUILDING AT 2830 TYLER RD, ELEV=720.23.
BM2=R.R. SPIKE IN UTILITY POLE, NORTH OF BUILDING AT 2830 TYLER RD, ELEV=719.31.
DATUM=(NAVD 88)

LEGEND

☆ = LIGHT POLE
○ = UTILITY POLE
▽ = GUY ANCHOR
⊕ = HYDRANT
● = SPOT ELEV.
○ = POST
⊗ = GATE VALVE
— = SIGN

TC = TOP OF CURB
TW = TOP OF WALL
○ = MANHOLE
□ = CATCHBASIN
— = END SECTION

--- = GRAVEL
--- = FENCE
--- = CONCRETE
--- = ASPHALT

— = EXISTING STORM
— = EXISTING SANITARY
— = EXISTING WATER
— = EXISTING GAS
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— = EXISTING TELEPHONE



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A BOUNDARY SURVEY WAS NOT
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ENGINEERING COMPANY.

**NOT FOR CONSTRUCTION
PRELIMINARY**

1	SKETCH PLAN UPDATE	4-23-26
2	PRE-APPLICATION PLAN	5-15-26
3	PRELIMINARY SITE PLAN REV 1	7-15-26

NO.	REVISION	DATE
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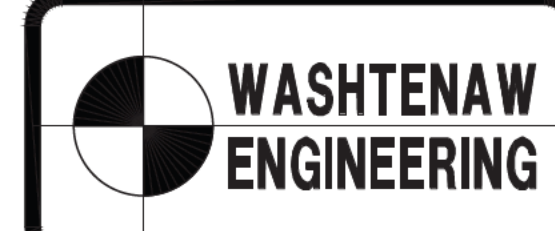
PREPARED BY
JOSEPH K. MAYNARD P.E., MICH No. 52559

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SECTION 13 TOWN 3 SOUTH RANGE 7 EAST
YPSILANTI TOWNSHIP
WASHTENAW COUNTY • MICHIGAN

PROJECT TITLE
NEW CONSTRUCTION FOR:

KALITTA TURBINES

2830 TYLER RD.
YPSILANTI, MICHIGAN

SHEET TITLE
EXISTING CONDITIONS

PROJECT NUMBER 33260	SHEET NUMBER
PROJECT DATE 3-4-2026	
CHECKED BY	C1.1



NO.	REVISION	DATE
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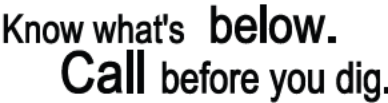
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SECTION 13 TOWN 3 SOUTH RANGE 7 EAST
YPSILANTI TOWNSHIP
WASHTENAW COUNTY * MICHIGAN

KALITTA TURBINES

SHEET TITLE
EXISTING DRIVEWAYS

FIELD BOOK 658 FILE NO. 10999

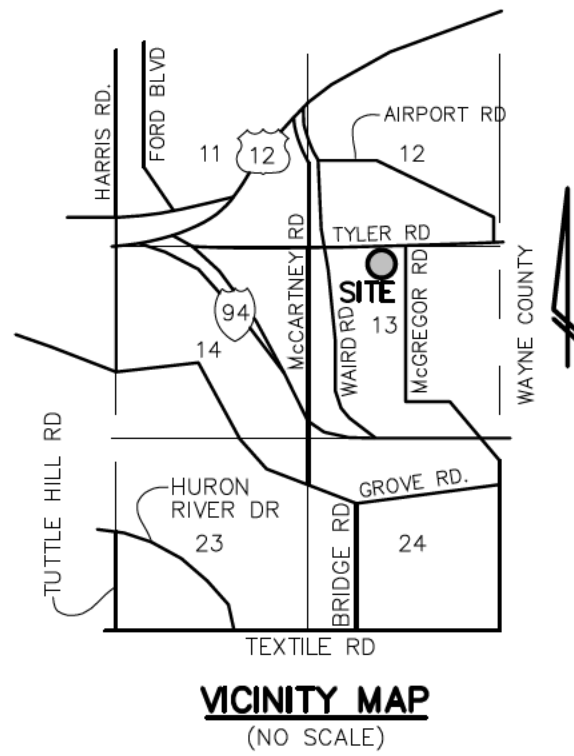
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Natural Features Statement

Site is 9.80 acres located on the south side of Tyler Rd between Waird Rd and McGregor Rd. within Ypsilanti Charter Township.

Historic aerial imagery indicate the parcel's land use was agricultural cropland.

Soils, BnB Boyer Loamy Sand, 0 to 6 percent slopes, WaA Wasepi Sandy Loam, 0 to 4 percent slopes.

Drainage and Saturated Hydraulic Conductivity: Well drained, Depth to the water table more than 80 inches. Potential for surface runoff is low. Saturated hydraulic conductivity is low. Permeability is well drained.

Gradients, the site has been modified by forming a storm-water detention basin within the center of the parcel. Side slope are landscaped with domestic trees, shrubs and lawn.

Wetland, there are no wetlands located on this site.

Vegetation, existing woodland on the south half of the site. Not original growth as the site was farmland. There are also trees planted as landscaping around the existing retention basin and traffic islands around the site.

In Conclusion,

Historically, the subject site has been used and occupied as agricultural in the 1940's. In later years 1960's the area underwent sub-urban land use development and currently is developed as an industrial warehousing site.

There are no significant natural features in this parcel.

- There are 2.07 acres of Woodlands on the south half of the site.
- No invasive species.
- There are no Heritage Trees on the site.
- There are NO endangered species habitat on site.
- The site does NOT include a 100-year flood plain.
- There are NO steep Slopes on site.
- There are NO existing watercourses on site.
- There are NO known endangered plant species.
- There are NO known archaeological impacts on the site.
- There are NO wetlands located on site.

The existing trees will be saved, where in conflict with proposed vehicular space, building foot print and/or utility easements the existing plants will be removed.

There exists no significant natural features on the site. All adjacent lands have been developed as parking lots, roadways and/or industrial or commercial structures, or remain as open space.

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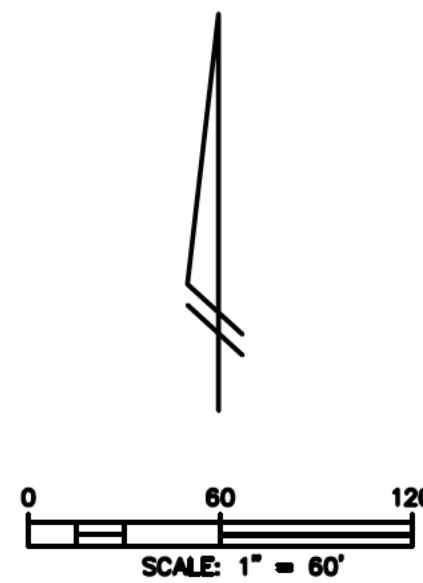
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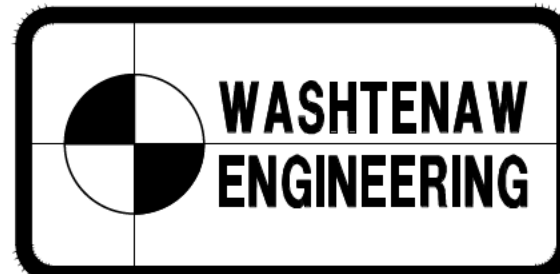
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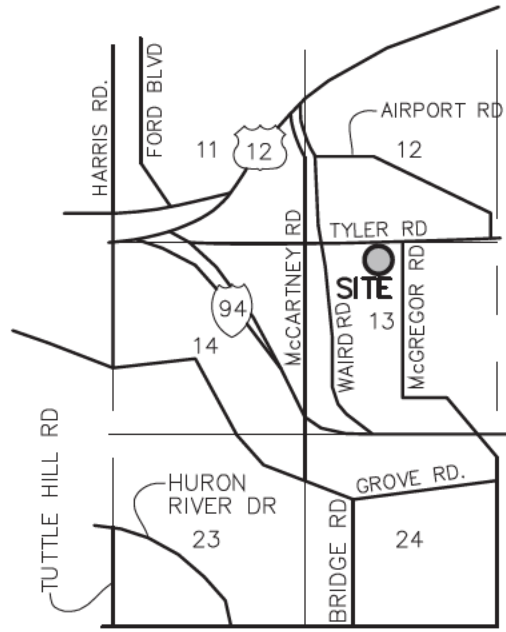
SHEET TITLE

AERIAL

PROJECT NUMBER 33260	SHEET NUMBER
PROJECT DATE 3-4-2026	
CHECKED BY	C2.0

FIELD BOOK 658

FILE NO. 10999



VICINITY MAP
(NO SCALE)

TRAFFIC IMPACT ANALYSIS

A TRIP GENERATION COMPARISON WAS PERFORMED TO SHOW THE ANTICIPATED IMPACT OF THE INCREASE IN BUILDING SIZE. THE RESULTS OF THIS COMPARISON ARE SUMMARIZED BELOW AND SHOW THAT THE TRIP IMPACT ASSOCIATED WITH THIS CHANGE IS NEGLIGIBLE. ADDITIONALLY, THE ADDITIONAL TRAFFIC IMPACTS ARE BELOW THE WASHTENAW COUNTY ROAD COMMISSION (WCRC) REQUIREMENTS FOR FURTHER TRAFFIC STUDY.

Land Use	ITE Code	Size	Unit	Average Daily Traffic (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
Warehouse					In	Out	Total	In	Out	Total
Cars	150	78.038	SF	24	16	5	21	8	20	28
Trucks				34	1	1	2	1	1	2
Total				58	17	6	23	9	21	30
Land Use	ITE Code	Size	Unit	Average Daily Traffic (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
Warehouse					In	Out	Total	In	Out	Total
Cars	150	90.038	SF	42	17	5	22	8	22	30
Trucks				39	1	1	2	1	1	2
Total				81	18	6	24	9	23	32
Difference				23	1	0	1	0	2	2

GENERAL CONSTRUCTION NOTES

- ALL WORK ON THIS SITE WILL BE IN ACCORDANCE WITH ALL APPLICABLE CURRENT STANDARDS & SPECIFICATIONS OF THE TOWNSHIP OF YPSILANTI EXCEPT AS HEREINAFTER MODIFIED.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY AND/OR OBTAIN ANY INFORMATION NECESSARY REGARDING THE PRESENCE OF UNDERGROUND UTILITIES WHICH MIGHT AFFECT THIS JOB.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO AND THE REPAIR OF ANY EXISTING UTILITY LINE IN THE CONSTRUCTION ZONE.
- AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CALL "MISS DIG" (1-800-482-7171) FOR UTILITY LOCATIONS.
- LOCATION OF EXISTING UTILITIES WERE TAKEN FROM EXISTING PLANS. LOCATIONS WERE FIELD VERIFIED WHERE POSSIBLE.
- THE CONTRACTOR WILL BE REQUIRED TO PROOF ROLL (WITH A HEAVY RUBBER TIRED VEHICLE) ALL FILL AREAS PRIOR TO PLACING ADDITIONAL FILL AND ALL CUT AREAS UPON COMPLETION OF THE CUT AND PRIOR TO PLACING SUBBASE MATERIAL. IF THE PROOF ROLLING INDICATES UNSTABLE AREAS THE UNSTABLE MATERIAL MUST BE REMOVED AND REPLACED WITH MATERIAL MATCHING THE ADJACENT SOILS TO THE ELEVATION OF THE SUB-GRADE.
- ALL FILL MATERIAL MUST BE PLACED IN LIFTS NOT EXCEEDING 12 INCHES AND COMPACTED TO 95% OF THE MAXIMUM UNIT WEIGHT.
- THE FINISHED SUBGRADE MUST BE GRADED WITHIN A TOLERANCE OF ± 0.1 FEET OF DESIGN GRADE COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM UNIT WEIGHT TO A DEPTH OF 9 INCHES AND APPROVED BY THE OWNERS REPRESENTATIVE PRIOR TO PLACEMENT OF THE SUBBASE.
- THE WORK OF CONSTRUCTING AN AGGREGATE BASE COURSE SHALL CONFORM TO MDOT SPECIFICATION 301 EXCEPT THAT FINE GRADING PRIOR TO PLACEMENT OF THE BITUMINOUS SURFACING SHALL BE INCLUDED IN THE COST OF FURNISHING AND PLACING THE AGGREGATE BASE.
- ALL PAVEMENT GRADES SHOWN REPRESENT TOP OF PAVEMENT ELEVATIONS UNLESS OTHERWISE NOTED.
- ALL CONSTRUCTION TRAFFIC CONTROL SHALL BE SIGNED PER THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURES PER THIS APPROVED PLAN.
- CONTRACTOR MUST OBTAIN AN EROSION CONTROL PERMIT FROM THE TOWNSHIP OF YPSILANTI PRIOR TO BEGINNING EARTH MOVING. CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS PRIOR TO BEGINNING CONSTRUCTION.

GENERAL SITE PLAN NOTES

THIS SITE IS LOCATED ON THE SOUTH SIDE OF TYLER RD, BETWEEN MAIN ST. AND MCGREGOR AVE. WEST OF THE WILLOW RUN AIRPORT. THE SITE WAS RECENTLY DEVELOPED FOR MANUFACTURING. A NEW STORAGE BUILDING IS PROPOSED SOUTH OF THE MAIN BUILDING. THE PROPOSED STORM WATER GENERATED FROM THE ADDITIONAL IMPERVIOUS SURFACE WILL DISCHARGE TO THE EXISTING RETENTION BASIN TO THE WEST.

THE PROJECT SEEKS TO COMPLY WITH THE WASHTENAW COUNTY WATER RESOURCES COMMISSIONER FOR STORM WATER MANAGEMENT AND THE TOWNSHIP OF YPSILANTI FOR SITE PLAN SUBMITTAL.

THE FOLLOWING ITEMS ARE NOTED AS PART OF THIS PROJECT:

- THE PROJECT IS NOT WITHIN THE RIGHT-OF-WAY OF THE WASHTENAW COUNTY ROAD COMMISSION, SO NO PERMIT OR REVIEW IS REQUIRED.
- NO CHANGE FROM EXISTING ZONING IS PROPOSED.
- THE PROJECT HAS NO OUTDOOR SALES OR DISPLAYS.
- ALL EXISTING FENCING TO REMAIN ONSITE.

SITE NOTE

UTILITIES NOTES:

- NO PROPOSED CHANGES TO OR ADDITIONAL LIGHTING IS PROPOSED.
- NO WATER OR SANITARY SERVICE TO PROPOSED STORAGE BUILDING. NO CHANGES PROPOSED FOR WATER OR SANITARY SEWER.
- NO NEW SIGNAGE IS PROPOSED.
- STORM WATER RETENTION BASIN ONSITE.
- NO NEW EASEMENTS ARE PROPOSED.
- THE PROJECT HAS NO OUT DOOR SALES OR DISPLAY AREAS.

PARKING CALCULATIONS

WAREHOUSES AND WHOLESALE ESTABLISHMENT AND RELATED ACCESSORY OFFICES.

REQUIRED PARKING:
FIVE (5) PLUS ONE (1) FOR EVERY ONE (1) EMPLOYEE IN THE LARGEST WORKING SHIFT, OR FIVE (5) PLUS ONE (1) FOR EVERY ONE THOUSAND SEVEN HUNDRED (1,700) SQUARE FEET OF USABLE FLOOR SPACE, WHICHEVER IS GREATER.

NUMBER OF EMPLOYEES FOR LARGEST SHIFT IS 48.
REQUIRED PARKING BASED ON EMPLOYEES IS 53.

USABLE FLOOR SPACE IS 92,483 SQUARE FEET.
REQUIRED PARKING BASED ON USABLE FLOOR SPACE IS 60.

60 PARKING SPACES ARE REQUIRED, ONE (1) OF WHICH MUST BE A VAN ACCESSIBLE ADA SPACE AND TWO (2) OF WHICH MUST BE A STANDARD ADA SPACE.

126 PARKING SPACES ARE PROVIDED, ONE (1) OF WHICH IS A VAN ACCESSIBLE ADA SPACE AND FOUR (4) ARE STANDARD ADA SPACES.

THIS SITE MEETS MINIMUM PARKING REQUIREMENTS.

TAG	COMMON NAME	SCIENTIFIC	DBH	CONDITION	REMOVE
626	American Elm	Ulmus americana	8	Good	X
627	American Elm	Ulmus americana	8	Good	X
628	American Elm	Ulmus americana	7	Good	X
630	American Elm	Ulmus americana	7	Good	X
631	American Elm	Ulmus americana	9	Good	X
632	American Elm	Ulmus americana	7	Good	X
633	American Elm	Ulmus americana	7	Good	X
634	American Elm	Ulmus americana	6	Good	
635	American Elm	Ulmus americana	8	Good	
636	Domestic Apple	Malus domestica	8	Good	
637	White Mulberry	Morus alba	9	Good	
1385	Domestic Apple	Malus domestica	12	Good	X
1386	Silver Maple	Acer saccharinum	70	Good	X
1387	American Elm	Ulmus americana	10.63	Good	
1388	American Elm	Ulmus americana	10	Good	
1389	American Elm	Ulmus americana	14.07	Good	X
1390	American Elm	Ulmus americana	8	Good	
1391	American Elm	Ulmus americana	10	Good	
1392	American Elm	Ulmus americana	11.31	Good	X
1393	Domestic Apple	Malus domestica	13.19	Poor	X
1394	Hawthorn	Crataegus spp	6	Good	
1395	American Elm	Ulmus americana	10	Poor	
1396	Domestic Apple	Malus domestica	12	Poor	
1399	American Elm	Ulmus americana	12	Good	
1400	American Elm	Ulmus americana	10	Good	
7077	American Elm	Ulmus americana	10	Good	
7078	American Elm	Ulmus americana	9	Good	
7079	Domestic Apple	Malus domestica	6	Good	
7082	White Mulberry	Morus alba	10	Good	
7083	Domestic Apple	Malus domestica	12	Good	
7084	Red Cedar	Juniperus virginiana	6	Good	
7085	White Mulberry	Morus alba	8	Good	
7086	American Elm	Ulmus americana	9	Good	
7087	White Mulberry	Morus alba	8	Good	
7088	White Mulberry	Morus alba	15	Good	
7089	Domestic Apple	Malus domestica	8	Good	X
7090	Domestic Apple	Malus domestica	16.55	Good	X
7091	Domestic Apple	Malus domestica	7	Good	X
7092	White Mulberry	Morus alba	15	Good	X
7093	American Elm	Ulmus americana	10	Good	X
7094	White Mulberry	Morus alba	7	Good	X
7095	Domestic Apple	Malus domestica	6	Good	X
7096	White Mulberry	Morus alba	12	Good	X
7097	Domestic Apple	Malus domestica	10	Good	X
7098	White Mulberry	Morus alba	8	Poor	X
7099	Silver Maple	Acer saccharinum	9	Good	X
	CEDAR		6	Good	X

TREE NOTES

- NO EXISTING TREE REPLACEMENT IS REQUIRED FOR TREE 87' D.B.H. OR GREATER DUE TO BEING PROHIBITED, RESTRICTED, OR DOMESTIC SPECIES.
- ONE (1) 70" D.B.H. IS LOCATED WITHIN THE BUILDING FOOTPRINT. REPLACEMENT PROHIBITS DEVELOPMENT OF THE SITE. PER ART. 111, SEC. 24-67.

WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

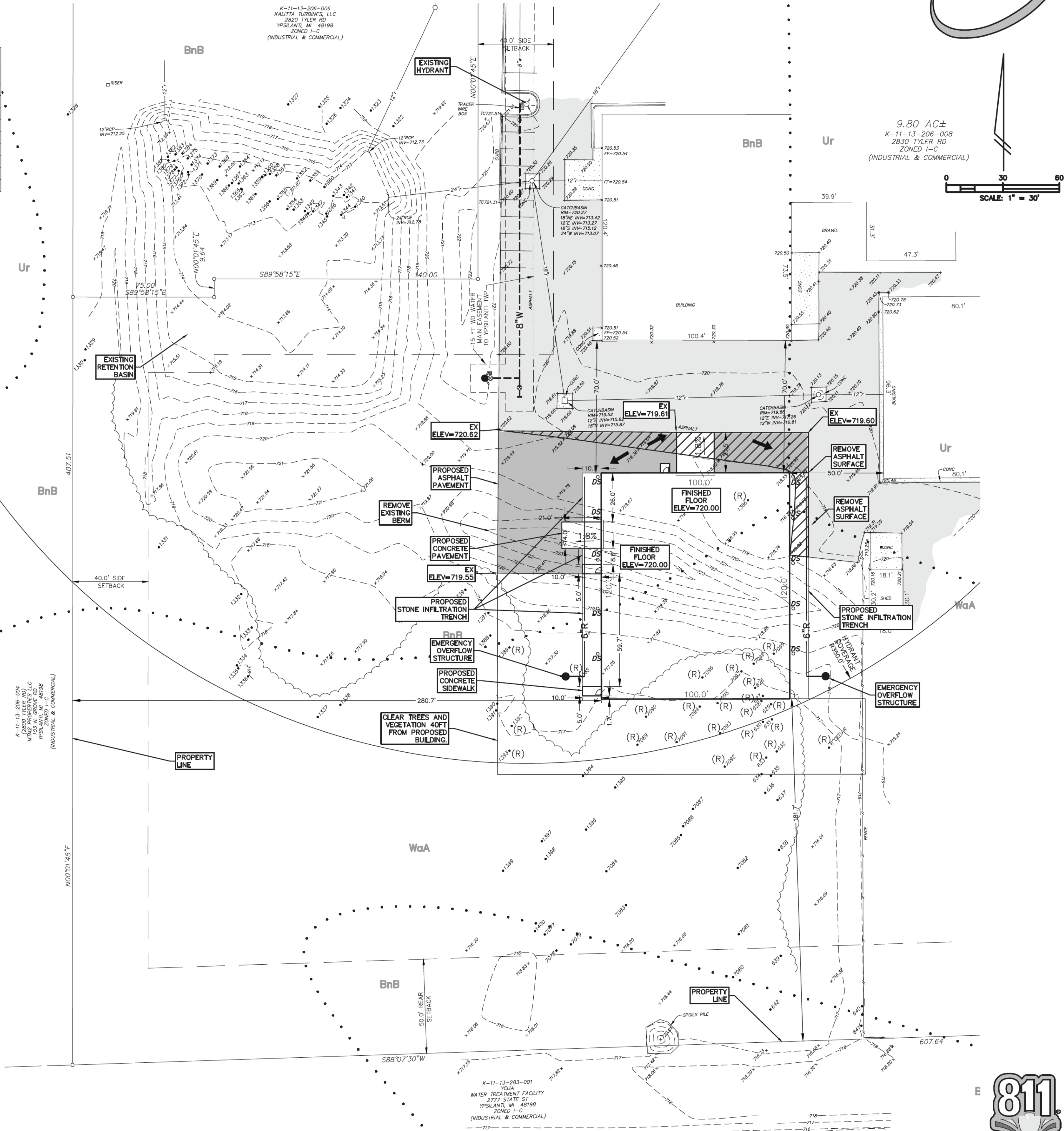
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PROPOSED UTILITY LEGEND

- = MANHOLE
- = STORM SEWER
- DS = DOWNSPOUT

PROPOSED LEGEND

- = ASPHALT SURFACE
- = CONCRETE SURFACE

NOT FOR CONSTRUCTION
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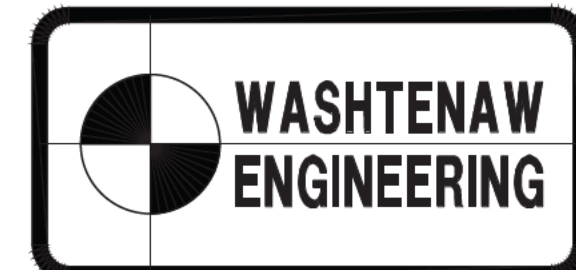
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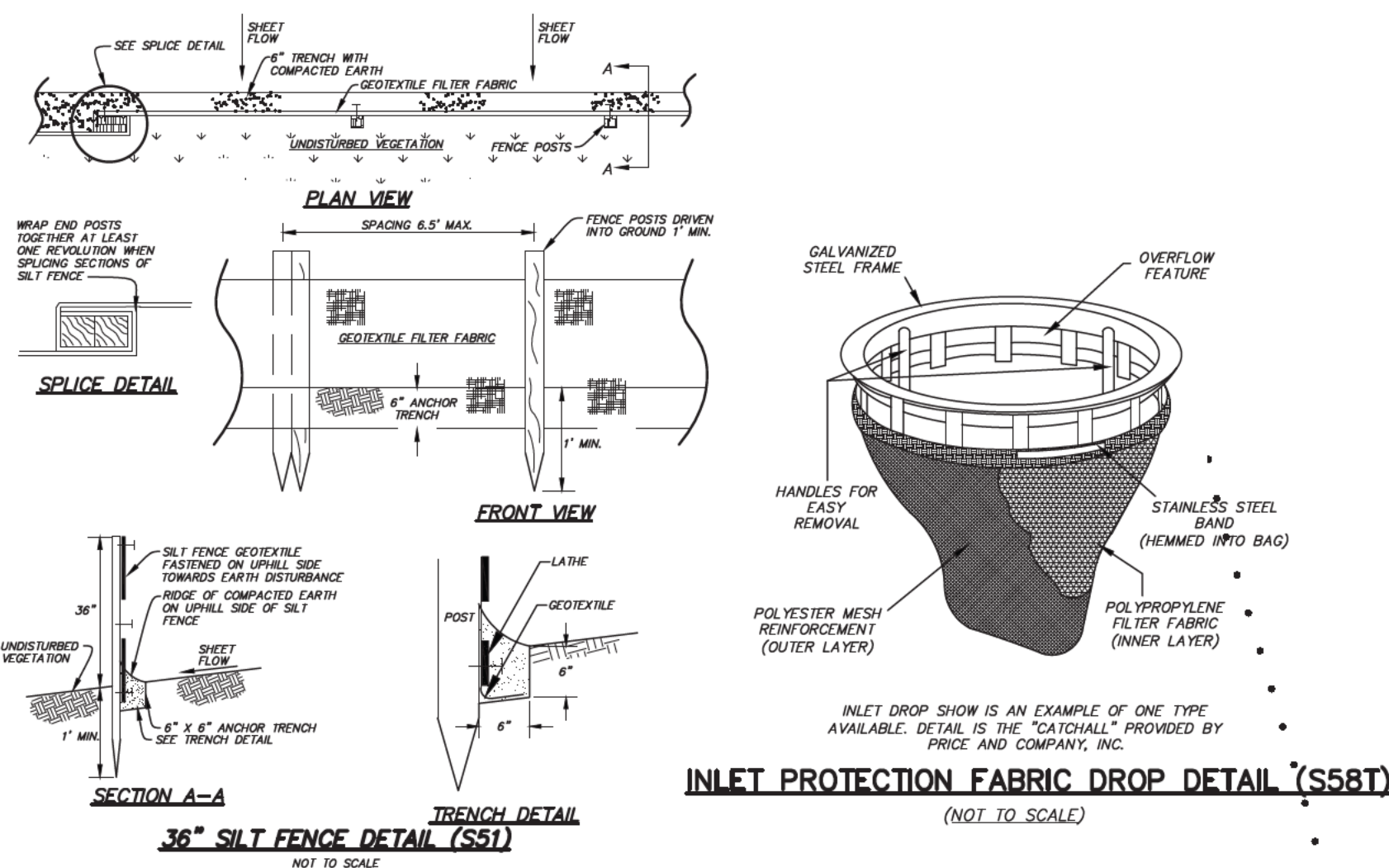
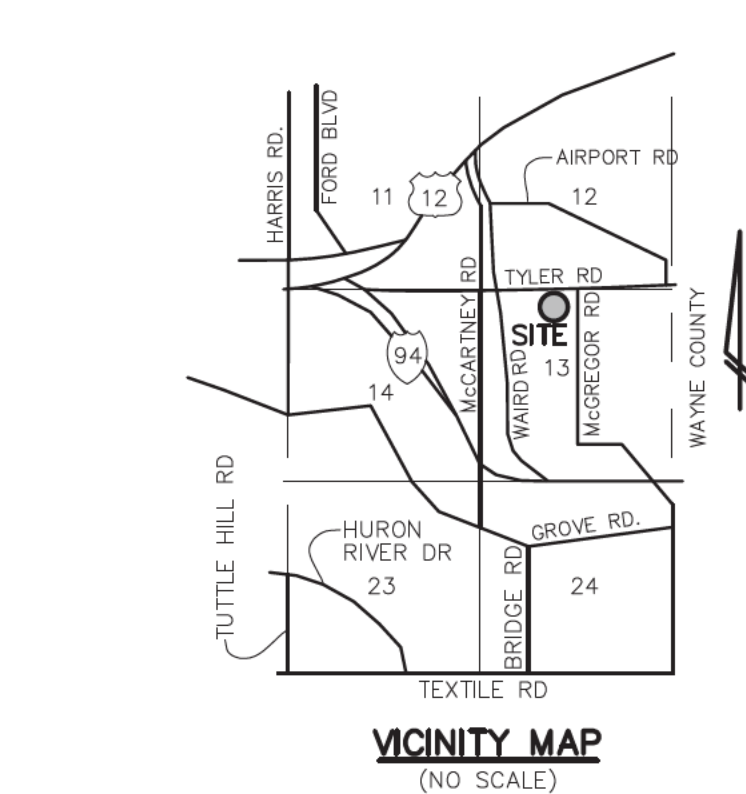
PROJECT NUMBER 33260

PROJECT DATE 3-4-2026

CHECKED BY

C3.0

FIELD BOOK 658 FILE NO. 10999



CLIENT LOCATION FOR	Kalitta Turbines Ypsilanti Township 2830 Tyler Rd	ENGINEER'S OPINION OF PROBABLE COSTS 4/23/2009 JOB # 33268 Prepared By: Seth Garner, P.E.			
ITEM No.	ITEM DESCRIPTION	ESTIMATED QUANTITIES	UNIT USED	UNIT PRICE	AMOUNT
1	Soil Erosion and Sedimentation Controls				
1	Permanent Seeding (and Mulch)	1843	SYD	\$2.50	\$4,607.50
2	Silt Fence	447	LF	\$2.71	\$1,211.37
3	Inlet Protection Fabric Drop	5	EA	\$125.00	\$625.00
4	Dust Emission Control (Dewatering)	3	Month	\$1,000.00	\$3,000.00
5	Final Inspection and Cleaning as required	1	LS	\$1,000.00	\$1,000.00
				Total Cost	\$10,443.87
6	Protection of all exposed soil surfaces from erosion should work discontinue (Minimum \$2,000)	1	ACRE	\$500.00	\$2,000.00

MAINTENANCE TASKS DURING CONSTRUCTION

Tasks	Collection System	Storm Water Management Basins	Scheduled Frequency
	Ditches/ Swales	Subsurface Infiltration Bed	
Inspect for Sediment Accumulation	X	X	Weekly
Removal of Sediment Accumulation	X	X	As Needed [1] & prior to Acceptance
Inspect for floatables and debris	X	X	Quarterly
Removal of floatables and debris	X	X	As Needed & prior to Acceptance
Inspect for erosion	X	X	Weekly
Re-establish permanent vegetation on eroded slopes	X	X	As Needed & prior to Acceptance
Replacement of stone	X	X	As Needed & prior to Acceptance
Inspect during wet weather & after major storms	X	X	As Needed
Repair Storm Damage to System and Erosion Control	X	X	As Needed
During construction, it is the developer's responsibility to perform the maintenance.			
[1] As Needed means when sediment has accumulated to a maximum of one foot.			
Immediately following construction, the developer will have the storm water management system inspected by an engineer to verify grades of the detention and filtration areas and make recommendations for any necessary sediment removal.			

PERMANENT MAINTENANCE TASKS AFTER CONSTRUCTION

Tasks	Collection System	Storm Water Management Basin	Scheduled Frequency
	Ditches & Swales	Subsurface Infiltration Bed	
Inspect for Sediment Accumulation	X	X	Annually [1]
Removal of Sediment Accumulation	X	X	Every 2 Years As Needed [1]
Inspect for floatables and debris	X	X	Annually
Removal of floatables and debris	X	X	As Needed [1]
Inspect for erosion	X	X	Annually
Re-establish permanent vegetation on eroded slopes	X	X	As Needed
Replacement of stone	X	X	Every 3-5 years as Needed
Inspection of the infiltration system following storms of one (1) inch or more	X	X	As Needed
Inspection stormwater system components during wet weather and comparing to as-built plans by professional engineer	X	X	Annually
Repair Storm Damage to System and Permanent Erosion Control	X	X	As Needed
Keep records on site of all maintenance inspections, actions and costs	X	X	As Needed
[1] As Needed means when sediment has accumulated to a maximum of one foot.			
No chemicals are allowed in stormwater features or buffer zones with the following exception: Invasive species may be treated with chemicals by a certified applicator.			
Following construction, it will be the responsibility of, Kalitta Turbine, to perform all permanent soil erosion control maintenance.			
Kalitta Turbine is required to pay for all maintenance activities on a continuing basis.			

PERMANENT MAINTENANCE ANNUAL BUDGET

Description	Annual Cost
Annual Inspection for sediment accumulation	\$50.00
Removal of sediment accumulation every 2 years as needed	\$250.00
Inspect for floatables & debris annually and after major storms	\$50.00
Removal of floatables and debris annually and after major storms	\$75.00
Inspect for erosion annually and after major storms	\$50.00
Re-establish permanent vegetation on eroded slopes as needed	\$150.00
Replacement of stone as needed	\$150.00
Inspection of the infiltration system following storms of one (1) inch or more	\$150.00
Inspect structural elements during wet weather and compare to as-built plans every 2 years	\$50.00
Make structural adjustments or replacements as determined by inspection as needed	\$200.00
Have a professional engineer carry out emergency inspections upon identification of severe problems	\$150.00
Records Maintenance	\$50.00
Estimated Annual Maintenance Cost	\$1,300.00

WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

BnB - BOYER LOAMY SAND, 0 TO 6 PERCENT SLOPES
Ur - URBAN LAND
WaA - WASEPI SANDY LOAM, 0 TO 4 PERCENT SLOPES
• • • • • SOILS BOUNDARY

SOILS ARE BASED ON USDA SOIL SURVEY OF WASHTENAW COUNTY.

MICHIGAN DEPARTMENT OF MANAGEMENT AND BUDGET S-E-S-C KEYING SYSTEM

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
S51	SILT FENCE		Use adjacent to critical areas, to prevent sediment load sheet flow from entering these areas.
S52	CATCH BASIN SEDIMENT GUARD		Use in or at stormwater inlets, especially at construction sites.
S58	INLET PROTECTION FABRIC DROP		Use at stormwater inlets, especially at construction sites.

(t) - TEMPORARY **(P)** - PERMANENT
--- LIMITS OF DISTURBANCE
--- SILT FENCE

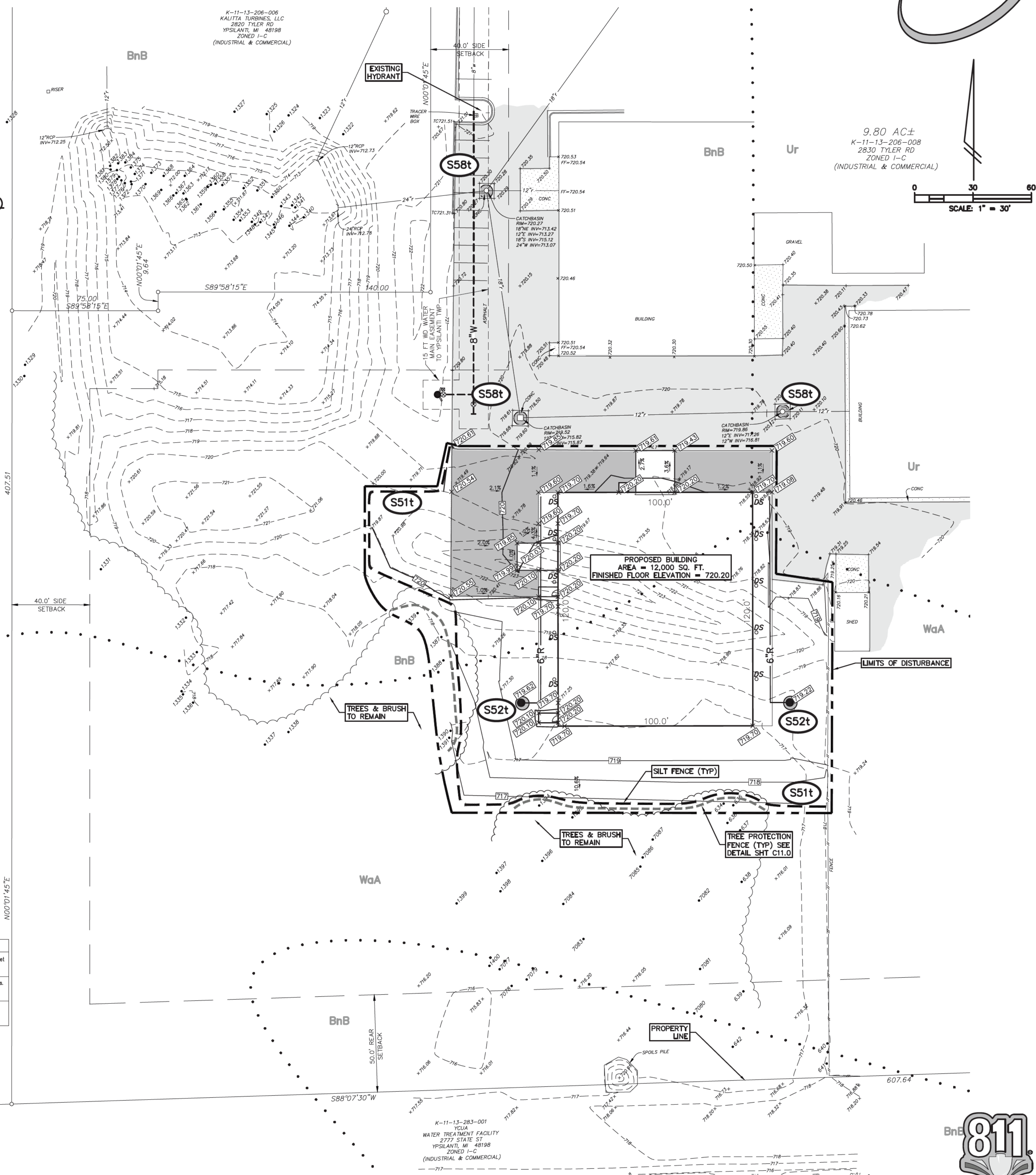
SOIL EROSION CONTROL NOTES:
1. TOTAL AREA OF DEVELOPMENT IS 11.99± ACRES.
2. AREA OF PROPOSED DISRUPTION IS 0.86± ACRES.
3. FEMA FLOOD MAP PANEL 2616C0435E. NOT IN A 100 YEAR FLOOD PLAN.
4. 1,770 F.T. FROM TYLER DAM DRAIN TO THE EAST.
5. EARTHWORK VOLUME SURFACE TO SURFACE WITH NO SPOILS INCLUDED FROM UTILITY TRENCHES OR STORM: Cut = 231 yards, Fill = 698 yards
Net = 467 yards FILL.

CONSTRUCTION SEQUENCE

1. TEMPORARY CONTROL MEASURES INSTALLED.
2. GRAVEL CONSTRUCTION ACCESS INSTALLED.
3. LAND CLEARING.
4. RETENTION/SEDIMENT BASIN INSTALLED AND STABILIZATION.
5. UTILITY INSTALLATION.
6. PLACE INLET FILTERS FOR MANHOLES.
7. BEGIN BUILDING CONSTRUCTION.
8. PLACE PAVEMENT/CONCRETE SURFACES.
9. FINAL GRADE/SEED.
10. CATCHBASINS/SEDIMENT BASINS CLEANED.
11. PERMANENT CONTROL MEASURES INSTALLED AND FUNCTIONING.
12. REMOVE TEMPORARY CONTROL MEASURES.

BENCHMARKS

BM1=TOP OF SWLY FLANGE ON HYDRANT, NORTH OF BUILDING AT 2830 TYLER RD, ELEV=720.23.
BM2=R.R. SPIKE IN UTILITY POLE, NORTH OF BUILDING AT 2830 TYLER RD, ELEV=719.31.
DATUM=(NAVD 88)



- LEGEND**
- = LIGHT POLE
 - = SPOT ELEV.
 - = POST
 - = GATE VALVE
 - = SIGN
 - = TOP OF CURB
 - = TOP OF WALL
 - = MANHOLE
 - = CATCHBASIN
 - = END SECTION
 - = GRAVEL
 - = FENCE
 - = CONCRETE
 - = ASPHALT
 - = EXISTING STORM
 - = EXISTING SANITARY
 - = EXISTING WATER
 - = EXISTING GAS
 - = EXISTING ELECTRIC
 - = EXISTING TELEPHONE

Know what's below.
Call before you dig.

A BOUNDARY SURVEY WAS NOT PERFORMED BY WASHTENAW ENGINEERING COMPANY.



9.80 AC±
K-11-13-206-008
2830 TYLER RD
ZONED I-C
(INDUSTRIAL & COMMERCIAL)

SCALE: 1" = 30'

PROPOSED UTILITY LEGEND

- = MANHOLE
- = STORM SEWER
- = DOWNSPOUT

PROPOSED LEGEND

- = ASPHALT SURFACE
- = CONCRETE SURFACE

NOT FOR CONSTRUCTION PRELIMINARY

1	SKETCH PLAN UPDATE	4-23-26
2	PRE-APPLICATION PLAN	5-15-26
3	PRELIMINARY SITE PLAN REV 1	7-15-26

NO.	REVISION	DATE
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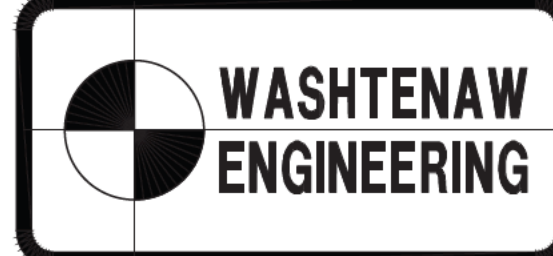
PREPARED BY: *Joseph K. Maynard*
JOSEPH K. MAYNARD P.E., MICH No. 52559

WTAARCH.COM

WTAARCHITECTS

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LANDSCAPE ARCHITECTS ANN ARBOR, MI 48103
TEL. 734-761-8800

SECTION 13 TOWN 3 SOUTH RANGE 7 EAST
YPSILANTI TOWNSHIP
WASHTENAW COUNTY • MICHIGAN

PROJECT TITLE
NEW CONSTRUCTION FOR:
KALITTA TURBINES

2830 TYLER RD.
YPSILANTI, MICHIGAN

SHEET TITLE
GRADING AND SOIL
EROSION CONTROL
PLAN

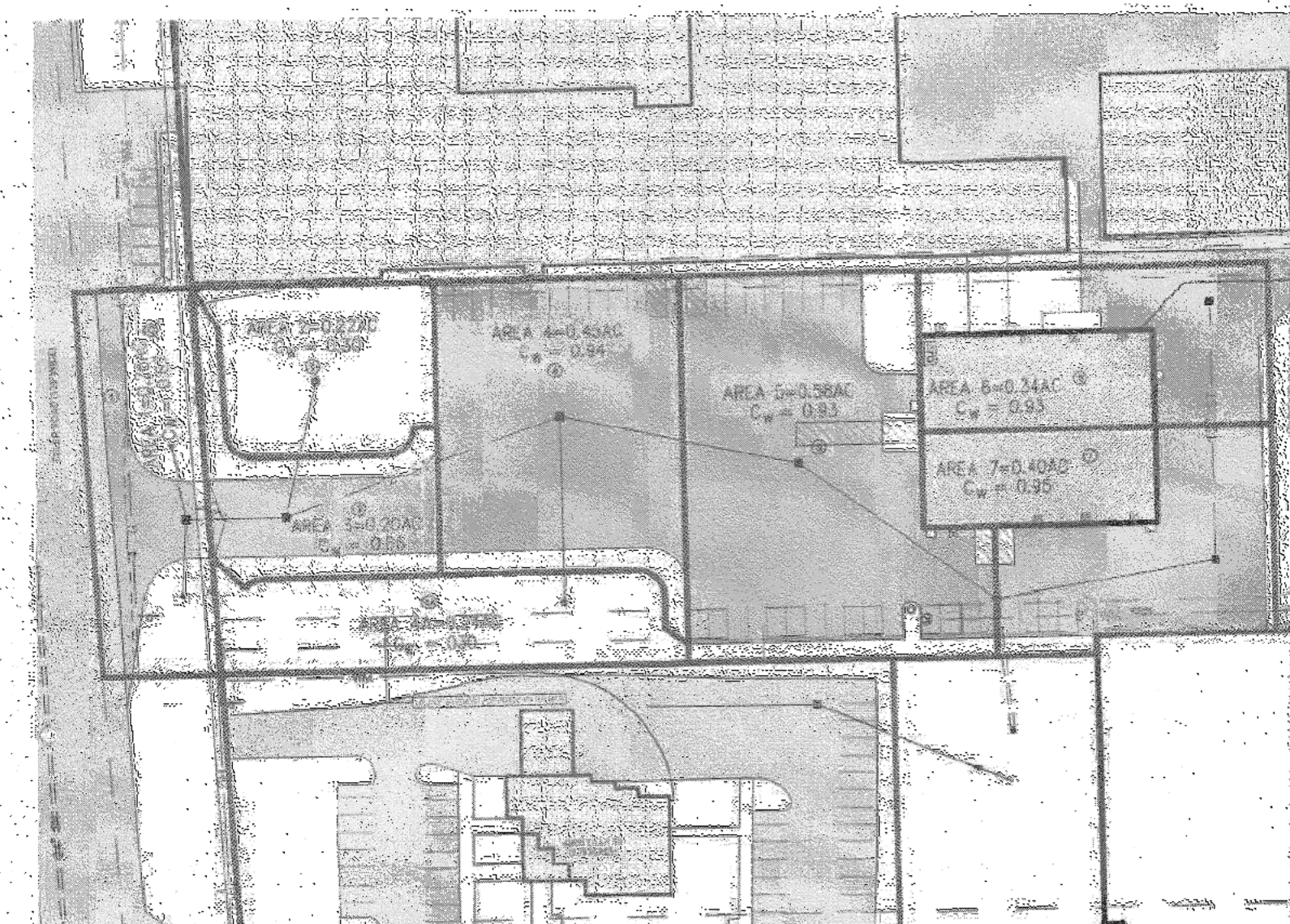
PROJECT NUMBER 33260 SHEET NUMBER

PROJECT DATE 3-4-2026

CHECKED BY C4.0

FIELD BOOK 658 FILE NO. 10999

10 YEAR FREQUENCY STORM SEWER DESIGN CALCULATIONS

[illegible]

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PROJECT NO. SM23059
DATE: 10-07-24

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PH 806 3261241-2772

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Quincy, IL 62304
Phone: (618) 292-5800

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Lanham, MD 20646

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CLIENT

BEDDER CONSULTING SERVICES, LLC

9 GATEWAY DRIVE

MULUS: M48174

[illegible]

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Call 1-800-451-7243.

FROM TO CONSTRUCTION, ALL ACTIVITIES AND PROGRESS OF
BUILDING STUDIES, IN CONFORM WITH REQUIRED
APPROVED BUILDING DEPARTMENT OF THE CITY. ALL THIS
HAS NOTHING SUPERIOR TO CONSTRUCTION.

UTILITY NOTE

[illegible]

**KALITTA TURBINES
BUILDING ADDITION
2830 TYLER ROAD
YPSILANTI, MI**

STORM SEWER PLAN

SECTION 7
TOWNSHIP SOUTH RANGE 17 EAST

YESILANTI TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

NO.	DATE	REVISION
1	01-22-24	ISSUED FOR FINAL APPROVAL
2	02-22-24	REV. PER CHN 3 - YCOA COMMENTS
3	02-27-24	FINAL COMMENTS FROM YCOA

.....

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

RECEIVED

PRINTED FROM THE
ADAMS SERIES ACCORDING TO

LA THORNTON	05-24-24
CHECKED	DATE
ED CONNELLY	05-24-24

HILL, BLAINE D MAYER	JOHN, DONALD D JACKSON
MURPHY, JIMMY D JACKSON	LEAHY, MICHAEL JOSEPH G POATE

QING	DRAWING NO.
SM23059SPL-061	SM23059SPL-06112
DATE	DESIGNER

C50

C5.0

COMPUTATIONAL REQUIREMENTS FOR STORMWATER MANAGEMENT SYSTEMS

Kalitta Turbines Storage Building Stormwater Narrative

The overall project site is comprised of two adjacent parcels on Tyler Road owned by Kalitta Turbines, LLC having a total of 11.89 acres. Runoff from the 7.43 acre currently proposed building and parking lot area is to be collected by new storm sewers and conveyed to the adjacent existing storm water retention basin which is to be expanded to provide its current storage volume plus the required double 100 year frequency storm storage volume for the total 3.52 acre current development area, which includes the 1.09 acre expanded retention basin. This "redevelopment" approach to the storm water management design was discussed and approved during the project's Pre-Application Meeting with W.C.W.R.C. personnel. The new storm water conveyance piping is designed to accommodate the 10 year frequency storm runoff from its tributary areas. The expanded storm water retention basin is designed based on the field-measured average infiltration rate of 10.15 inches/hour as adjusted to 5.0 inches/hour by the required factor of safety of two. The proposed retention basin storage volume of 114,050 cu. ft. will infiltrate within 57.28 hours based on this adjusted infiltration rate.

Stormwater Retention Design Calculations

Overall Combined Site Area:

Tax Parcel # K-11-13-206-007: 9.80 acres

Tax Parcel # K-11-13-206-006: 2.19 acres

Total: 11.99 acres

Proposed Retention Basin Tributary Area:

Proposed Storage Building & Parking Lot Area: 7.43 acres

Proposed Expanded Retention Basin Area: 1.09 acres

Existing Administrative Building & Parking Lot Area: 1.56 acres

Total: 5.18 acres

Infiltration Testing Summary:

Average of Final Test Trial for Two Test Bits = 10.15 inches/hour

Design Infiltration Rate using a Factor of Safety of Two = 5.08 inches/hour or 6.42 test/hour

Proposed Retention Basin Infiltration Rate = 22,866 S.F. Average Area x 0.42 test/hour =

9,604 cu. ft./hour

Retention Basin Storage Volume Calculations:

Required Storage Volume:

Per Standard Method Calculations Sheet W-10 = 77,308 cu. ft.

Plus Existing Basin Volume = 22,437 cu. ft.

Total = 104,745 cu. ft.

Existing Retention Basin Storage Volume Calculation

Contour	Area	Ave. Area	Depth Interval	Volume	Cumulative Volume
712	93 SF	897 SF x 1.0 FT	897 CF	897 CF	
713	1701 SF	3309 SF x 1.0 FT	2309 CF	3206 CF	
714	2916 SF	3625 SF x 1.0 FT	3625 CF	6831 CF	
715	4334 SF	5136 SF x 1.0 FT	5136 CF	11967 CF	
716	5938 SF	6817 SF x 1.0 FT	6817 CF	18784 CF	
717	7695 SF	8653 SF x 1.0 FT	8653 CF	27437 CF	
718	9610 SF				

Proposed Retention Basin Storage Volume Calculation

Contour	Area	Ave. Area	Depth Interval	Volume	Cumulative Volume
712	4962 SF	5791 SF x 1.0 FT	5791 CF	5791 CF	
713	6620 SF				
713	15247 SF	16676 SF x 1.0 FT	16676 CF	22467 CF	
714	18104 SF	19501 SF x 1.0 FT	19501 CF	41968 CF	
715	20898 SF	22394 SF x 1.0 FT	22394 CF	64362 CF	
716	23890 SF	25487 SF x 1.0 FT	25487 CF	89849 CF	
717	27084 SF	28784 SF x 1.0 FT	28784 CF	118633 CF	
718	30484 SF				

Proposed Retention Basin Storage Volume Calculation

(Difference Between Proposed & Existing Retention Basin Volumes)

Contour	Volume
712	0 CF
713	4894 CF
714	19261 CF
715	35137 CF
716	52395 CF
717	71065 CF
718	91196 CF

Bank Full Volume = 12,421 Cubic Feet
At Elevation 713.52
1x100 Year Storm = 38,654 Cubic Feet
At Elevation 715.20
2x100 Year Storm = 77,308 Cubic Feet
At Elevation 717.31

TASKS	COST
Annual inspection for sediment accumulation	\$100.00
Removal of sediment accumulation every 2 years as needed	\$500.00
Inspect for floatables and debris annually and after major storms	\$150.00
Removal of floatables and debris annually and after major storms	\$150.00
Inspect system for erosion annually and after major storms	\$100.00
Re-establish permanent vegetation on eroded slopes as needed	\$350.00
Replacement of stone	\$100.00
Mowing 1-2 times per year	\$400.00
Inspect structural elements during wet weather and compare to as-built plans every 2 years	\$150.00
Make structural adjustments or replacements as determined by inspection as needed	\$400.00
Have professional engineer carry out emergency inspections upon identification of severe problems	\$200.00
A. Total Annual Budget	\$2,550.00

Note: Maintenance tasks are suggested very early due to the size and unique characteristics of each stormwater management system. Repairs and replacements are suggested as determined by inspection as needed. The development of an inspection schedule specific to the site and components is recommended.

TASKS	Storm Sewer System	Catch Basin	Catch Basin Inlet	Outlet	Outlet Structure	Storm Drainage Pipe	Storm Drainage Appurtenances	Emergency Overflow	SCHEDULE
Inspect for sediment accumulation	X	X	X	X	X	X	X	X	Weekly
Removal of sediment accumulation	X	X	X	X	X	X	X	X	As needed & prior to turnover
Inspect for floatables and debris	X	X	X	X	X	X	X	X	Quarterly
Removal of floatables and debris	X	X	X	X	X	X	X	X	Quarterly & after turnover
Inspect for erosion	X	X	X	X	X	X	X	X	Weekly
Re-establish permanent vegetation on eroded slopes	X	X	X	X	X	X	X	X	As needed & after turnover
Replacement of Stone	X	X	X	X	X	X	X	X	As needed & prior to turnover
Mowing	X	X	X	X	X	X	X	X	1 to 2 times per year
Inspect stormwater system components during wet weather and compare to as-built plans (by professional engineer reporting to XYZ Co.)	X	X	X	X	X	X	X	X	Annually and after turnover
Make adjustments or replacements as determined by inspection as needed (by professional engineer reporting to XYZ Co.)	X	X	X	X	X	X	X	X	As needed

* Inspected points when sediment has accumulated by a minimum of one inch depth.

NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR ALL STORM WATER MAINTENANCE TASKS DURING CONSTRUCTION PERIOD.

TASKS	Catch Basin Inlet	Catch Basin	Outlet Structure	Storm Drainage Pipe	Storm Drainage Appurtenances	Emergency Overflow	SCHEDULE
Inspect for sediment accumulation	X	X	X	X	X	X	Annually
Removal of sediment accumulation	X	X	X	X	X	X	Every 2 years or needed
Inspect for floatables and debris	X	X	X	X	X	X	Annually
Removal of floatables and debris	X	X	X	X	X	X	Annually
Inspect for erosion	X	X	X	X	X	X	Annually
Re-establish permanent vegetation on eroded slopes	X	X	X	X	X	X	As needed
Replacement of Stone	X	X	X	X	X	X	Every 3-5 years as needed
Clear Storm Drain	X	X	X	X	X	X	Semi-Annually
Mowing	X	X	X	X	X	X	0-2 times per year
Inspect stormwater system components during wet weather and compare to as-built plans (by professional engineer reporting to XYZ Co.)	X	X	X	X	X	X	Annually
Make adjustments or replacements as determined by inspection as needed (by professional engineer reporting to XYZ Co.)	X	X	X	X	X	X	As needed
Keep records of all work by inspectors, maintenance and repairs. Report to XYZ Co.	X	X	X	X	X	X	Annually

NOTE: PROPERTY OWNER SHALL BE RESPONSIBLE FOR ALL STORM WATER MAINTENANCE TASKS AFTER CONSTRUCTION IS COMPLETE.

Forbay Storage Volume Calculations:

Required Storage Volume:

5% of Required Retention Basin Storage Volume = 0.05 x 104,745 cu. ft. = 5,237 cu. ft.

Provided Storage Volume:

712 Contour = 4,962 S.F. x 0.42 test/hour = 5,745 S.F. x 1.0 ft. = 5,745 cu. ft.

713 Contour = 6,620 S.F. x 0.42 test/hour = 7,742 S.F. x 1.0 ft. = 7,742 cu. ft.

Stormwater Volume Reduction Calculations:

Provided Storage Volume = 118,633 cu. ft.

Design Infiltration Rate = 0.42 test/hour

Retention Basin Bottom Area at 713 Contour = 15,247 S.F.

Maximum Allowable Infiltration Volume = 15,247 S.F. x 0.42 test/hour x 48 hours = 301,340 cu. ft.

Design Infiltration Time = 118,633 cu. ft. / 22,866 S.F. x 0.42 test/hour = 12.86 hrs.

Stormwater Infiltration Loading Calculations:

Required Minimum Average Infiltration Area Based on Impervious Area = 12.90 acres

Impervious Area x 43,560 S.F./AC / 18 = 15,291 S.F.

Required Minimum Average Infiltration Area Based on Total Area = 5.38 Acres Total Area x 43,560 S.F./AC / 18 = 22,564 S.F.

Provided Average Infiltration Area:

713 Contour = 15,247 S.F. x 0.42 test/hour = 22,866 S.F.

718 Contour = 30,484 S.F. x 0.42 test/hour = 44,849 S.F.

BANK FULL VOLUME INFILTRATION TIME:

713 CONTOUR AREA OF 15,247 SF x 0.42 FT/HR = 6,404 CF/HR

BANK FULL VOLUME OF 12,421 CF / 6,404 CF/HR = 1.94 HR

Section VIII: Appendix

Bar L.

ENGINEER'S CERTIFICATE OF OUTLET

Date: 11/01/24

Development Name: KALITTA TURBINES BUILDING ADDITION

City/Village/Township of: YPSILANTI

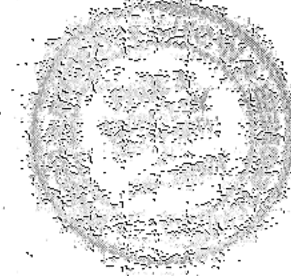
Washtenaw County, Michigan

Shades certify that the existing data is the only reasonably accurate information on file for the proposed stormwater management system and that the existing data is sufficient to design the system as shown on the proposed system without additional data or information of the engineer's own knowledge or otherwise.

Signature: [Signature]

Professional Engineer Seal

NOTE: The engineer's certificate must be stamped with the engineer's seal. The certificate submitted must be the original. The engineer's certificate should be accompanied by supporting calculations and documentation.



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CLIENT:

BEDDER CONSULTING SERVICES, LLC

32579 GATEWAY DRIVE

ROMULUS, MI 48174



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PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES IN CONFLICT WITH PROPOSED IMPROVEMENTS SHALL BE VERIFIED IN THE FIELD. CALL 811 OR 1-800-4-A-DIG PRIOR TO CONSTRUCTION.

UTILITY NOTE

UTILITY INFORMATION ON THIS DRAWING MAY BE FROM INFORMATION SUBMITTED TO THIS FIRM BY THE VARIOUS UTILITY COMPANIES, CITY/COUNTY AGENCIES AND OTHER VARIOUS SOURCES. UNDERGROUND UTILITIES WHICH ARE ON PRIVATE PROPERTY ARE USUALLY NOT DEPICTED UPON A UTILITY COMPANY'S PUBLISHED PLANS. THEIR LOCATION, IF KNOWN FROM THE SUBMITTER, ARE APPROXIMATED FROM POWER POLE WIRESPANS, ETC. AS LOCATED BY THE FIRM FROM SOURCES WHICH ARE UNKNOWN. NO GUARANTEE IS GIVEN AS TO THE COMPLETENESS OR ACCURACY THEREOF.

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KALITTA TURBINES
BUILDING ADDITION
2830 TYLER ROAD
YPSILANTI, MI

STORMWATER CALCULATIONS

SECTION 13

TOWN: 03 SOUTH RANGE: 07 EAST

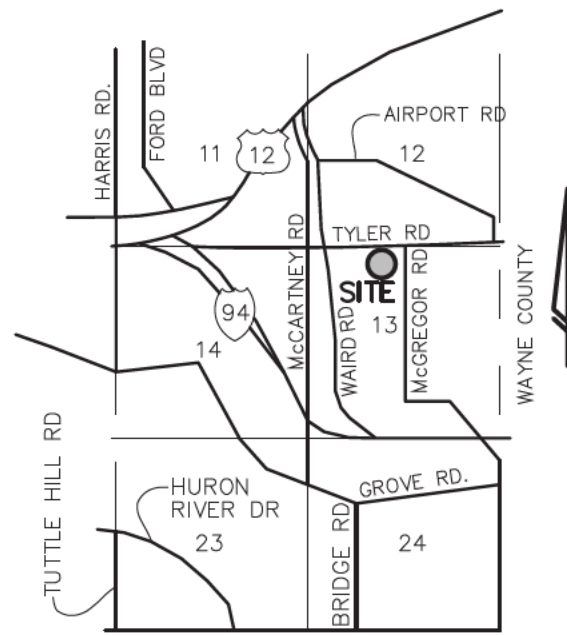
YPSILANTI TOWNSHIP

WASHTENAW COUNTY, MICHIGAN

NO.	DATE	REVISION
1	01-22-24	ISSUED FOR FINAL APPROVAL

VERIFY SCALES	
BAR IS ONE INCH ON ORIGINAL DRAWING	
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	
DRAWN BY: L. THORNTON	DATE: 01-22-24
CHECKED BY: R. DONNELLY	DATE: 01-24-24
FIELD LEADER: S. MAYER	PROJECT SURVEYOR: D. JACKSON
PROJECT MANAGER: D. JACKSON	DEPARTMENT MANAGER: G. PLATZ
DRAWING NO.: SM23059SPL-061	DRAWING NO.: SM23059SPL-061124
SHEET NO.: 1	SHEET NO.: 1
SCALE: 1" = 40'	SCALE: 1" = 40'

C7.0



VICINITY MAP
(NO SCALE)

GENERAL CONSTRUCTION NOTES

PROPOSED DRAINAGE AREAS	WATER			ROOF, ASPHALT OR CONCRETE			TYPE B SOILS			TYPE B SOILS			TYPE B SOILS			TOTAL AREA			
	SFT	ACRE	C	SFT	ACRE	C	SFT	ACRE	C	SFT	ACRE	C	SFT	ACRE	C	SFT	ACRE	C	
DRN AREA 1	-	0.0000	1.00	-	5,117	0.1175	0.95	-	0.0000	0.25	6,846	0.1572	0.30	-	0.0000	0.35	11,963	0.2747	0.5780
DRN AREA 2	-	0.0000	1.00	-	-	0.0000	0.95	-	0.0000	0.25	9,423	0.2163	0.30	-	0.0000	0.35	9,423	0.2163	0.3000
DRN AREA 3	-	0.0000	1.00	-	7,262	0.1667	0.95	-	0.0000	0.25	1,343	0.0308	0.30	-	0.0000	0.35	8,605	0.1975	0.8486
DRN AREA 4	-	0.0000	1.00	-	17,634	0.4048	0.95	-	0.0000	0.25	1,877	0.0431	0.30	-	0.0000	0.35	19,511	0.4479	0.8875
DRN AREA 4A	-	0.0000	1.00	-	0.0000	0.0000	0.95	-	0.0000	0.25	11,317	0.2598	0.30	-	0.0000	0.35	11,317	0.2598	0.3000
DNR AREA 5	-	0.0000	1.00	-	24,163	0.5547	0.95	-	0.0000	0.25	2,469	0.0567	0.30	-	0.0000	0.35	26,632	0.6114	0.8897
DRN AREA 6	-	0.0000	1.00	-	15,372	0.3529	0.95	-	0.0000	0.25	0.0000	0.0000	0.30	-	0.0000	0.35	15,372	0.3529	0.9500
DRN AREA 7	-	0.0000	1.00	-	15,312	0.3515	0.95	-	0.0000	0.25	1,004	0.0230	0.30	-	0.0000	0.35	16,316	0.3745	0.9101
DRN AREA 8	-	0.0000	1.00	-	0.0000	0.0000	0.95	-	0.0000	0.25	47,300	1.0859	0.30	-	0.0000	0.35	47,300	1.0859	0.3000
DRN AREA 9	-	0.0000	1.00	-	18,294	0.4200	0.95	-	0.0000	0.25	16,941	0.3889	0.30	-	0.0000	0.35	35,235	0.8089	0.6375

WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

BnB - BOYER LOAMY SAND, 0 TO 6 PERCENT SLOPES
Ur - URBAN LAND
WaA - WASEPI SANDY LOAM, 0 TO 4 PERCENT SLOPES
..... SOILS BOUNDARY

SOILS ARE BASED ON USDA SOIL SURVEY OF WASHTENAW COUNTY.

BENCHMARKS

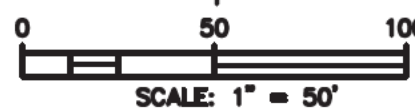
BM1=TOP OF SWLY FLANGE ON HYDRANT, NORTH OF BUILDING AT 2830 TYLER RD, ELEV=720.23.
BM2=R.R. SPIKE IN UTILITY POLE, NORTH OF BUILDING AT 2830 TYLER RD, ELEV=719.31.
DATUM=(NAVD 88)

LEGEND
* = LIGHT POLE
○ = UTILITY POLE
⊕ = GUY ANCHOR
⊕ = HYDRANT
● = SPOT ELEV.
⊕ = POST
⊕ = GATE VALVE
⊕ = SIGN
TC = TOP OF CURB
TW = TOP OF WALL
○ = MANHOLE
□ = CATCHBASIN
⊂ = END SECTION

--- = GRAVEL
--- = FENCE
--- = CONCRETE
--- = ASPHALT
--- = EXISTING STORM
--- = EXISTING SANITARY
--- = EXISTING WATER
--- = EXISTING GAS
--- = EXISTING ELECTRIC
--- = EXISTING TELEPHONE

Know what's below.
Call before you dig.

A BOUNDARY SURVEY WAS NOT PERFORMED BY WASHTENAW ENGINEERING COMPANY.



PROPOSED UTILITY LEGEND

● = MANHOLE
--- 12"R --- = STORM SEWER
DS+ = DOWNSPOUT

PROPOSED LEGEND

--- = ASPHALT SURFACE
--- = CONCRETE SURFACE

NOT FOR CONSTRUCTION
PRELIMINARY

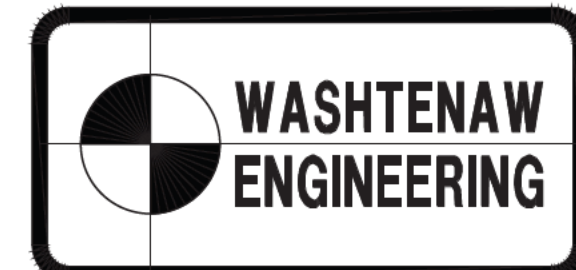
1	SKETCH PLAN UPDATE	4-23-26
2	PRE-APPLICATION PLAN	5-15-26
3	PRELIMINARY SITE PLAN REV 1	7-15-26

NO.	REVISION	DATE
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PREPARED BY
JOSEPH K. MAYNARD P.E., MICH No. 52559

WTAARCH.COM
WTAARCHITECTS
100 S Jefferson Ave, Suite 601
Saginaw, Michigan 48607
989 752 8107
COPYRIGHT ©



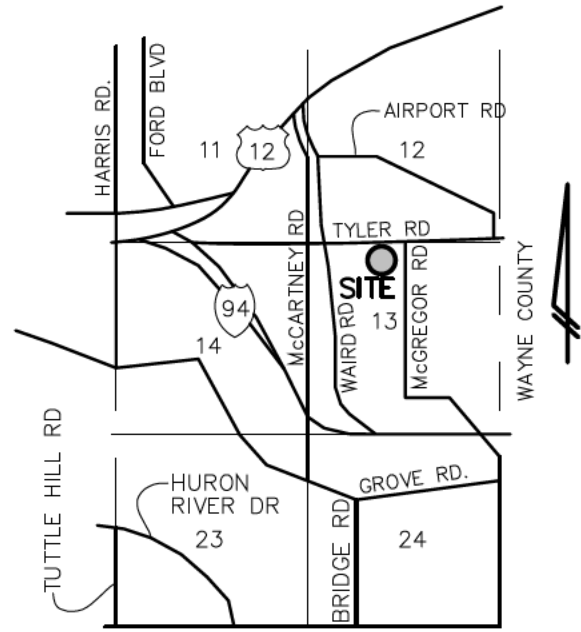
CIVIL ENGINEERS 3526 W. LIBERTY RD
PLANNERS • SURVEYORS SUITE 400
LANDSCAPE ARCHITECTS ANN ARBOR, MI 48103
TEL. 734-761-8800
SECTION 13 TOWN 3 SOUTH RANGE 7 EAST
YPSILANTI TOWNSHIP
WASHTENAW COUNTY • MICHIGAN

PROJECT TITLE
NEW CONSTRUCTION FOR:

KALITTA TURBINES

2830 TYLER RD.
YPSILANTI, MICHIGAN

SHEET TITLE	
STORM WATER MANAGEMENT DRAINAGE AREA PLAN	
PROJECT NUMBER	SHEET NUMBER
33260	
PROJECT DATE	
3-4-2026	
CHECKED BY	C8.0



VICINITY MAP
(NO SCALE)

MTC MATERIALS TESTING CONSULTANTS

May 29, 2026
Project No. 261327

Washtenaw Engineering Co., Inc.
3526 W. Liberty, Suite 400
Ann Arbor, Michigan 48106

Attention: Joe Maynard, P.E.

Reference: Summary Letter of Infiltration Testing
Kalitta Turbines Infiltration Testing
Ypsilanti, Michigan

Dear Mr. Maynard:

We have completed infiltration testing for the above-referenced project. Four infiltration test pits were completed in the proposed and existing detention ponds located at addresses 2820 and 2850 Tyler Road in Ypsilanti, Michigan, as shown on Figure No. 1.

At the time of our field work, the area of investigation was generally covered with low cut grass and heavily wooded areas at the south of the site and to the north of the existing detention pond. The site, in general, sloped down from north to south with elevations ranging from 722 near the existing parking lots to 715 near the wooded areas to the south.

Four test pits were excavated to depths of 2.8 to 7 ft (see 715 to 715 ft) using a 2.5-ft wide bucket. Test pit locations are shown on the attached location plan, Figure No. 1.

A summary of the subsurface conditions encountered within the test pits is provided. The attached test pit logs contain detailed soil descriptions. Some variation in subsurface conditions may be expected.

In general, the test pits encountered 7 to 10 inches of sandy topsoil at the surface. Beneath the topsoil, the test pits encountered fill, consisting of dark brown poorly graded sand with clay (SP-SC), to a depth of 2.8 ft (see 715.5 ft). Beneath the fill, the borings generally encountered poorly graded sand with varying amounts of clayey fines (SP, SP-SC, SG) to the explored depths of 2.8 to 7 ft (see 711 to 715 ft).

Groundwater was encountered within Test Pits TP-1 to TP-4 at depths ranging from 2.8 to 6.5 ft (see 711 to 715).

Infiltration tests were performed within Test Pits TP-1, TP-2 and TP-4 using the double ring method outlined in the Washtenaw County Water Resource Commissioner's Procedures and Design Criteria for Storm Water Management. Test locations and depths were directed by Mr.

800.968.8378 800.968.8378 800.968.8378 800.968.8378 mtc-test.com



Summary Letter of Infiltration Testing
Project No. 261327
May 29, 2026
Page 2

Mike Bergen of Washtenaw Engineering Co., Inc. An infiltration test was not performed in Test Pit TP-3 due to the groundwater encountered within 3 ft of the ground surface.

The double ring infiltration tests were performed in Test Pits TP-1, TP-2 and TP-4 at depths ranging from 2 to 3.5 ft below existing grade (see 714 to 718 ft). Two concentric rings were used to perform the tests, with a 6-inch outer ring diameter and 4-inch inner ring diameter. The purpose of the outer ring is to prevent divergent flow of water from the inner ring while the water level in the inner ring is monitored to calculate a one-dimensional infiltration rate. For all tests, readings were taken at 10-minute intervals until stabilized infiltration rates were achieved. The individual infiltration test reports are attached. Test pits were backfilled to the surface with excavated soil at the conclusion of testing. A summary of the stabilized infiltration rates, average rates, and design rate (safety factor of 2) for each Test Pit are listed in Table 1, below.

Table 1 - Infiltration Test Results					
Test Pit	Test Elevation (ft)	Test No.	Stabilized Infiltration Rate (in/hr)	Average Infiltration Rate (in/hr)	Design Infiltration Rate (in/hr)
TP-1	714.5	1.1	24	24	10*
TP-2	714	2.1	12	15	7 1/2
TP-3	718	3.1	24	24	10*

*WCWRC Procedures and Design Criteria for Stormwater Management specify a maximum design infiltration of 10 in/hr.

We appreciate the opportunity to provide this service to you on this project. Should you have any questions or require further assistance, please contact our office.

Sincerely,

MATERIALS TESTING CONSULTANTS, INC.

Ryan D. Stancher, P.E.
Project Manager

Attachments: Figure No. 1 - Test Pit Location Plan
Infiltration Test Reports
Test Pit Terminology and Classification Outline
Test Pit Logs

WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

BnB - BOYER LOAMY SAND, 0 TO 6 PERCENT SLOPES

Ur - URBAN LAND

WdA - WASEPI SANDY LOAM, 0 TO 4 PERCENT SLOPES

• • • • • SOILS BOUNDARY

SOILS ARE BASED ON USDA SOIL SURVEY OF WASHTENAW COUNTY.

STORM WATER SUBSURFACE INFILTRATION BED CALCULATIONS

Standard Method Runoff Volume Work Sheets

Project: Kalitta Turbines Building Addition
Basin: INFILTRATION TRENCH
By: Seth Garner
Date: 5/15/2026
W1 Determining Post-Development Cover Types, Areas, Curve Numbers and Runoff Coefficients
Total Site Area = 11.99 Ac
Disturbed Site Area = 0.46 Ac
% Disturbed = 4 %
If less than 50% of the site over the last 10 years is being disturbed after initial approval by the WCWRC, only the disturbed area needs to be updated.
Total Tributary Area Excluding "Self-Crediting" BMPs = 0.81 Ac

Rational Method Variables

Cover Type	Soil Type	Proposed Slopes	Area (ft2)	Area (acre)	Runoff Coefficient	C (Area)
Water	B	0	0.0000	0	0.0000	0.0000
Impervious	B	18.294	0.4200	0.95	0.3990	0.3990
Pervious (SB)	B	<4%	0	0.0000	0.25	0.0000
Pervious (SB)	B	4-8%	16.941	0.3889	0.3	0.1167
Pervious (SB)	B	>8%	0	0.0000	0.35	0.0000

Weighted C = $\Sigma(C)(Area) / \Sigma(Area)$ = 0.5157
C (Area) = 0.8089
Σ(Area) = 0.6375
NRCS Variables - Pervious Cover
Pervious Cover Soil Type Area (ft2) Area (acre) Curve Number (CN)(Area)
Open Space-Good B 16.941 0.3889 61 23.7229
Σ(Area) = 23.7229
Weighted CN = $\Sigma(C)(Area) / \Sigma(Area)$ = 61

NRCS Variables - Impervious Cover
Impervious Cover Soil Type Area (ft2) Area (acre) Curve Number (CN)(Area)
Water B 0 0 98 0.0000
Paved B 18.294 0.42 98 41.1600
Σ(CN)(Area) = 41.1600
Σ(Area) = 0.4200
Weighted CN = $\Sigma(C)(Area) / \Sigma(Area)$ = 98

W2 First Flush
Total Area A = 0.3889 ac
Weighted C C = 0.6375
Vf = 1.872 cft
W3 Pre-development Bankfull Runoff Calculation (Vbf-pre)
NRCS Variables - Pervious Cover
Pervious Cover Soil Type Area (ft2) Area (acre) Curve Number (CN)(Area)
Meadow B 35.235 0.8089 58 46.9162
Σ(CN)(Area) = 46.9162
Σ(Area) = 0.8089
Weighted CN = $\Sigma(C)(Area) / \Sigma(Area)$ = 58

Existing Cover Type = Meadow
2year/24 hour storm event P = 2.35 inches
Curve Number for Good Cover Woods or Meadow CN = 58
S = $(1000/CN) - 10$ = 7.241379 inches
Q = $(P-0.25)/(P+0.85)$ = 0.099852 inches
Vbf-pre = $Q(1/12)Area$ = 293 ft³
Total Site Area (SF) excluding "Self-Crediting" BMPs Area = 35,235 square feet
Vbf-pre = $Q(1/12)Area$ = 293 ft³

W4 Pervious Cover Post-development Bankfull Runoff Calculation (Vbf-per-post)
2year/24 hour storm event P = 2.35 inches
Pervious Curve Number from W1 = 61
S = $(1000/CN) - 10$ = 6.393443 inches
Q = $(P-0.25)/(P+0.85)$ = 0.15375 inches
Pervious Cover Area from W1 = 16,941 square feet
Vbf-per-post = $Q(1/12)Area$ = 217 ft³

W5 Impervious Cover Post-development Bankfull Runoff Calculation (Vbf-imp-post)
2year/24 hour storm event P = 2.35 inches
Impervious Curve Number from W1 = 98
S = $(1000/CN) - 10$ = 0.204062 inches
Q = $(P-0.25)/(P+0.85)$ = 2.121674 inches
Impervious Cover Area from W1 = 18,294 square feet
Vbf-imp-post = $Q(1/12)Area$ = 5.234 ft³

W6 Pervious Cover Post-development 100-Year Storm Runoff Calculation (V100-per-post)
100year/24 hour storm event P = 5.11 inches
Pervious Curve Number from W1 = 61
S = $(1000/CN) - 10$ = 6.393443 inches
Q = $(P-0.25)/(P+0.85)$ = 1.450628 inches
Pervious Cover Area from W1 = 16,941 square feet
V100-per-post = $Q(1/12)Area$ = 2,027 ft³

W7 Impervious Cover Post-development 100-Year Storm Runoff Calculation (V100-imp-post)
100year/24 hour storm event P = 5.11 inches
Impervious Curve Number from W1 = 98
S = $(1000/CN) - 10$ = 0.204062 inches
Q = $(P-0.25)/(P+0.85)$ = 4.973 inches
Impervious Cover Area from W1 = 18,294 square feet
V100-imp-post = $Q(1/12)Area$ = 7,429 ft³

W8 Determine Time of Concentration for Applicable Flow Types (Tc-hrs)
Change in Length Slope %
Elevation (ft) (S*100) S^{0.5} V_{avg} S^{0.5} Tc = L/(V*3600)
Waterway 1.2 1.96 1.96 1 0.48 0.11
Small Trib. 2.1

Total Tc = 0.11
*Sheet flow cannot exceed 300 feet. Anything beyond this is considered waterway.
Runoff Summary & Onsite Infiltration Requirement

First Flush Volume Vf = 1,872 ft³
Pervious-Post Development Bankfull Runoff Volume Vbf-per-post = 217 ft³
Impervious Cover Post-Development Bankfull Runoff Volume Vbf-imp-post = 3,234 ft³
Total BF Volume Vbf-post = 3,451 ft³
Pervious - Post Development 100-year Runoff Volume V100-per-post = 2,027 ft³
Impervious Cover Post-Development 100-year Runoff Volume V100-imp-post = 7,429 ft³
Total 100-year Volume V100 = 9,456 ft³

Determine Onsite Infiltration Requirement
Subtract the Pre-Development Bankfull from the Post Development Bankfull Volume
Total Post-Development Bankfull Volume Vbf-post = 3,451 ft³
Pre-Development Bankfull Volume Vbf-pre = 293 ft³
Bankfull Volume Difference = 3,158 ft³

Compare the Bankfull Volume Difference with the First Flush Volume.
The greater of the two is the Onsite Infiltration Requirement.
Onsite Infiltration Requirement V_{in} = 3,158 ft³

W10 Detention/Retention Requirement
Detention
Peak of Unit Hydrograph Q_{peak} = 238.67 cfs
Total Site Area (ac) excluding "Self Crediting" BMPs Area = 0.8089 ac
Q_{peak} = Q_{peak} * A = 6.3088287 in
Peak Flow PF = $Q_{peak} / (Q_{peak} / A + 0.40)$ = 11.623366 cfs
Δ = PF - 0.15 Area = 11.50405 cfs
V_{det} = (ΔPF) * V_{det-post} = 9,357 ft³

STORM WATER SUBSURFACE INFILTRATION BED CALCULATIONS (CONTINUED)

W11 Determine Applicable BMPs and Associated Volume Credits
Proposed BMP Infiltration Area (ft2) Storage Volume (ft3) Surface Soil Avg. Infiltration Design Volume During Storm (ft3) Total Volume Reduction (ft3)
Bio-Retention Basins
Rain Gardens
Pervious Pavement
Dry Wells
Structural Infiltration Basins
Subsurface Infiltration Bed
Infiltration Trench
Bioswales
Green Roof
Water Reuse
Total Volume Reduction Credit by Proposed Structural BMPs = 9,405 ft³
Runoff Volume Infiltration Requirement (V_{in}) from W10 = 3,158 ft³
Runoff Volume Credit = 6,247 ft³

Subsurface Infiltration Bed Volume Calculations
Bottom Elevation = 714.5
Bottom area = 1,900 sf
Stone Storage Volume = 4 ft (Does not include additional 1ft for freeboard storage)
Stone Storage Volume = Average Bed Area (sf) * Maximum Design Water Depth * Porosity
= 1900 sf * 4 ft * 0.30 = 2280
Design Infiltration Rate = 7.5 in/hr
Total Time to Infiltrate - should be less than 48 hours
T_{inf} = V_{in} (cft) / (Area (sf) * Design Infiltration Rate (in/hr) * (1/12) inches)
= 7125 (cft) / (1900sf x 7.5in/hr x 1ft/12inches) = 7.88 hr

W13 Summary
A. Storm Water Management Summary
Minimum Onsite Infiltration Requirement, V_{in} = 3,158 cft
Designed/Provided BMP Volume = 9,405 cft
% Minimum Required Infiltration Provided = 298 %
Total Calculated Detention Volume, V_{det} = 9,357 cft
Net Required Detention Volume (V_{det} - Designed/Provided Infiltration Volume) = 0 cft
B. Detention Volume Increase for sites where the required infiltration cannot be achieved.
% Required Infiltration NOT provided
(100%-%Minimum Required Infiltration Provided) N/A %
Net % Penalty
(20% x %Required Infiltration NOT Provided) N/A %
Total Required Detention Volume, including penalty
[(100% + Net % Penalty) x Net Required Detention Volume] N/A cft

SEE PLAN VIEW FOR WIDTH
PROPOSED MDOT 6A STONE WASHED
EXISTING SAND LAYER

6" SINGLE WALL CORRUGATED HDPE PERFORATED PIPE W/SOCK TO CONNECT TO OUTLET OVERFLOW STRUCTURE

INFILTRATION TEST ELEV = 714.00
GRADES WET ELEV = 711.50

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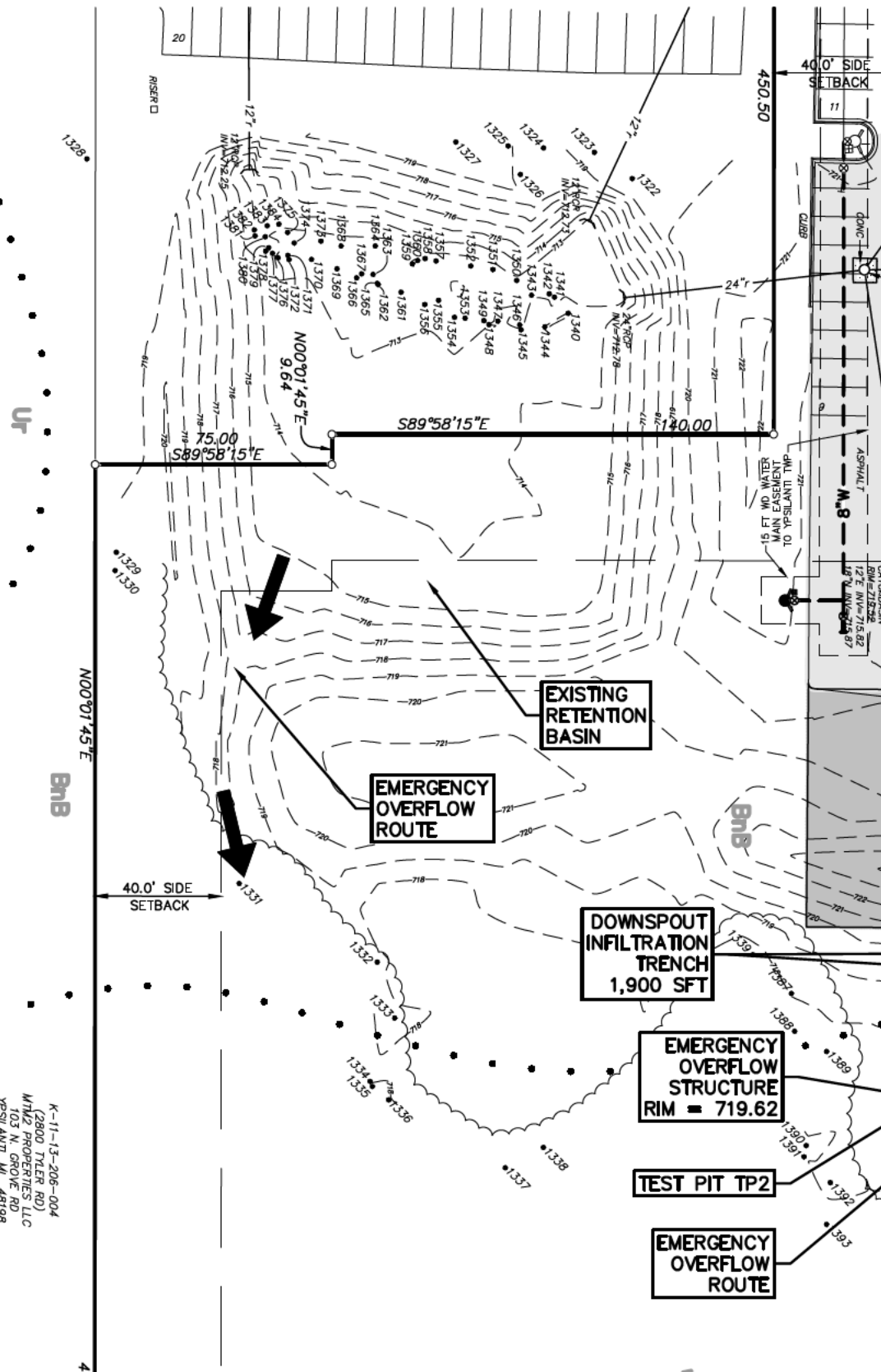
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PROPOSED BUILDING NO BASEMENT
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FG = 719.70
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NOTES

NO CHANGE TO EXISTING BASIN OR DRAINAGE AREAS TRIBUTARY TO EXISTING BASIN.

IT IS PROPOSED TO HAVE DOWNSPOUT SUBSURFACE INFILTRATION BEDS ON EACH SIDE OF THE BUILDING. THESE BEDS WILL INFILTRATE 100% OF THE 100 YEAR STORM EVENT, INCLUDING THE ADDITIONAL BUILDING AND PAVEMENT AREA.

THE OVERFLOW STRUCTURES TO EITHER SIDE OF THE BUILDING WILL KEEP ANY OVERFLOW AWAY FROM THE BUILDING IN CASE OF EMERGENCY.

SEE GRADING AND SOIL EROSION CONTROL PLAN SHEET C4.0 FOR MAINTENANCE SCHEDULE AND BUDGET.

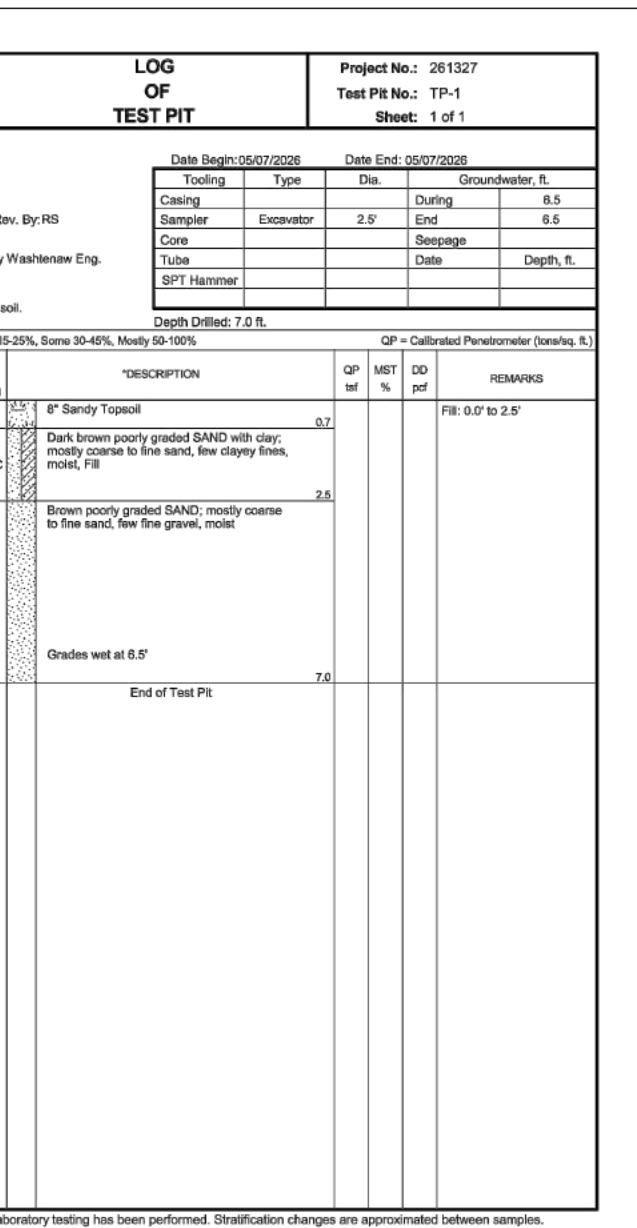
STORM WATER NARRATIVE

THIS SITE IS LOCATED ON THE SOUTH SIDE OF TYLER RD. BETWEEN MAIN ST. AND MCGREGOR AVE. WEST OF THE WILLOW RUN AIRPORT. THE SITE WAS RECENTLY DEVELOPED FOR MANUFACTURING AND PRODUCT STORAGE. A NEW STORAGE BUILDING IS PROPOSED SOUTH OF THE MAIN BUILDING. THE PROPOSED STORM WATER GENERATED FROM THE ADDITIONAL IMPERVIOUS SURFACE WILL DISCHARGE TO INFILTRATION BEDS ON EITHER SIDE OF THE PROPOSED BUILDING.

THE EXISTING SOILS ARE HYDROLOGICAL GROUP B SOILS. FROM THE ORIGINAL PLANS THE INFILTRATION RATE WITH SAFETY FACTOR OF 2 IS 5.08 INCHES/HOUR.

THE PROPOSED STORAGE UNIT AND IMPACTED AREAS WILL BE COLLECTED AND DISCHARGED TO A SUBSURFACE INFILTRATION BED WHICH WILL INFILTRATE 100% OF THE 100 YEAR STORM EVENT. NO CHANGES TO THE EXISTING BASIN ARE PROPOSED.

AS THERE IS NO OUTLET FOR THIS SUBSURFACE INFILTRATION BED, THE EMERGENCY DISCHARGE AREA IS TO THE SOUTH TO THE WOODED AREA ON THE PROPERTY. THERE IS NO EXPECTED IMPACT TO DOWNSTREAM PROPERTIES.



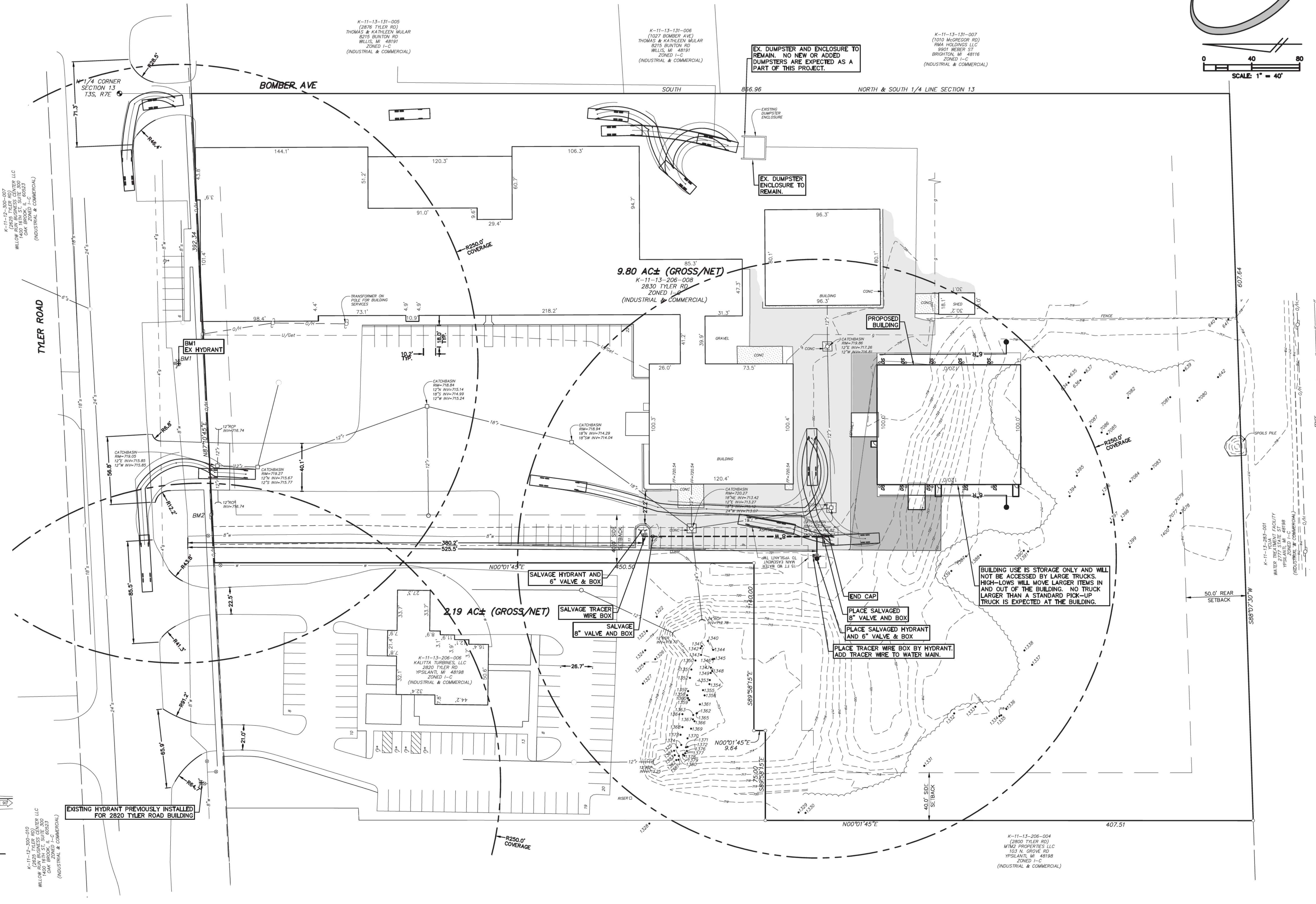
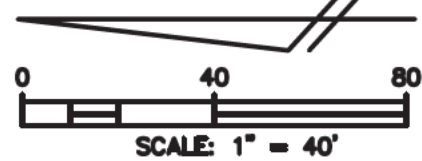
INFILTRATION TEST ELEV = 714.50
GRADES WET ELEV = 711.50

INFILTRATION TEST ELEV = 714.50
GRADES WET ELEV = 711.50

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GRADES WET ELEV = 711.50

INFILTRATION TEST ELEV = 714.50
GRADES WET ELEV = 711.50





**NOT FOR CONSTRUCTION
PRELIMINARY**

1	SKETCH PLAN UPDATE	4-23-26
2	PRE-APPLICATION PLAN	5-15-26
3	PRELIMINARY SITE PLAN REV 1	7-15-26

NO.	REVISION	DATE
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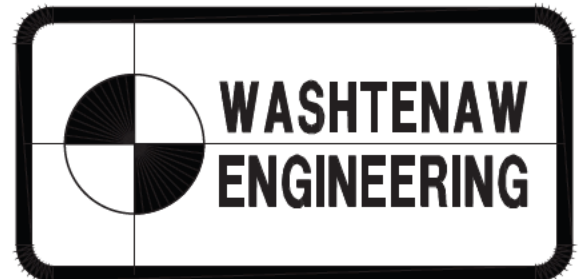
PREPARED BY *Joseph K. Maynard*
JOSEPH K. MAYNARD P.E., MICH No. 52559

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WTAARCHITECTS

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Saginaw, Michigan 48607
989 752 8107

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LANDSCAPE ARCHITECTS ANN ARBOR, MI 48103
TEL. 734-761-8800

SECTION 13 TOWN 3 SOUTH RANGE 7 EAST
YPSILANTI TOWNSHIP
WASHTENAW COUNTY • MICHIGAN

PROJECT TITLE
NEW CONSTRUCTION FOR:
KALITTA TURBINES

2830 TYLER RD.
YPSILANTI, MICHIGAN

SHEET TITLE
FIRE PROTECTION/SOLID
WASTE PLAN

PROJECT NUMBER 33260	SHEET NUMBER
PROJECT DATE 3-4-2026	
CHECKED BY	C10.0



Know what's below.
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A BOUNDARY SURVEY WAS NOT
PERFORMED BY WASHTENAW
ENGINEERING COMPANY.

- LEGEND**
- ☆ = LIGHT POLE
 - = UTILITY POLE
 - ⊙ = GUY ANCHOR
 - ⊕ = HYDRANT
 - = SPOT ELEV.
 - ⊙ = POST
 - ⊙ = GATE VALVE
 - ⊕ = SIGN
 - TC = TOP OF CURB
 - TW = TOP OF WALL
 - = MANHOLE
 - = CATCHBASIN
 - ⌒ = END SECTION

- = GRAVEL
- = FENCE
- = CONCRETE
- = ASPHALT
- = EXISTING STORM
- = EXISTING SANITARY
- = EXISTING WATER
- = EXISTING GAS
- = EXISTING ELECTRIC
- = EXISTING TELEPHONE

BENCHMARKS
BM1=TOP OF SWLY FLANGE ON HYDRANT, NORTH OF BUILDING AT 2830 TYLER RD, ELEV=720.23.
BM2=R.R. SPIKE IN UTILITY POLE, NORTH OF BUILDING AT 2830 TYLER RD, ELEV=719.31.
DATUM=(NAVD 88)

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H:\3d\map\332601.dwg Pre-application set\3601-land.dwg CT10.7/15/2020 1:22:09 PM 21

SEED BED PREPARATION

Remove unwanted vegetation that could out-compete native species, e.g. the usual aggressive invasive species, such as Purple Loosestrife, Reed Canary Grass, and Honeysuckle, some of the more problematic competitors include cool-season grasses, such as Brome, Clover, Tall Fescue, and other turf grasses.

Cultivation involves tilling an area regularly from spring to fall, to between four to five inches deep, to destroy weed root systems. Because it can also bring up weed seeds, cultivation needs to occur at regular intervals, between two to three weeks, to ensure undesirable perennials do not re-sprout. This has the highest risk of soil loss from erosion. Plants with deep root systems may need supplemental herbicide application.

Prepare planting and seedbeds. Prepare soil and create optimal plant conditions, before disturbing any ground: >

- Check for any buried utilities
- Clear area of debris that would interfere with planting
- Mow any excess existing vegetation growth
- Apply broad-spectrum or targeted herbicide, depending on species present
- De-compact any areas of special concern - Lightly de-compact tilled or loose soil with a roller, cultipacker, or similar equipment.

When using a no-till seed drill, tilling can usually be omitted. -
If ground is wet, tilling should not occur until the soil dries enough to break apart when tilled.

TIMING

Seed: The optimal time to install seed is from the fall (October 1) to late spring (June 15). Avoid mid-to-late summer seeding. Native seed mixes can be installed in the fall when temperatures are cooler and rains are more frequent. Many native species require a cold stratification in order to break dormancy. When conditions are right in the spring, the seed will be in place to germinate.

Seeding a bio-swale in the winter is often easier, because the site is frozen and equipment can more easily access the site. Broadcast the seed when the evening temperatures drop below freezing. Use appropriate erosion control measures, because the seed is not likely to germinate and provide stabilization until the following growing season.

SEED INSTALLATION

No-Till Drill: For larger areas and sites with existing vegetation, use a no-till seed drill, which does not require the soil to be tilled before planting, resulting in minimal soil disturbance. No-till drills plant seed in rows by opening slits in the soil, into which seed is deposited. Because the diversity of seed sizes mix in 32W/acre of seed oats as an carrier for even distribution of seed through the drill mechanism.

MAINTENANCE 3-YEARS

To help ensure success, projects need a maintenance and management plan that is flexible and supports site development goals. While native plants tend to germinate and develop at a slower rate than ornamental perennials or turf grass, regular maintenance during the establishment period greatly improves project success. Regular maintenance and monitoring controls invasive species, ensures optimal moisture levels are present, and identifies other necessary management actions.

- > Regular site inspection and monitoring
- > Mowing > Selective herbicide application
- > Overseeding and supplemental planting
- > Water control and temporary irrigation
- > Prescribed burning

Selection of maintenance methods partly depends upon timing, but other factors such as aesthetic goals, project size, and budget also help determine what techniques will work best. For example, for small areas or sites where chemical applications cannot be performed, target species may be removed by hand.

Regular site inspection and monitoring: During the first 6 to 12 months of a seeding project, it may be difficult to differentiate between the germinated native seed and undesirable weeds. Although some wildflower and grass species will be recognizable within the first year, it may take two to four years before the native plant community is sufficiently established to be recognized by most people. During this establishment period, address any invasive species that subsequently appear on site, to prevent them from becoming a larger problem later on. Inspect project areas throughout each growing season to gauge native plant density and composition, and manage undesirable weeds.

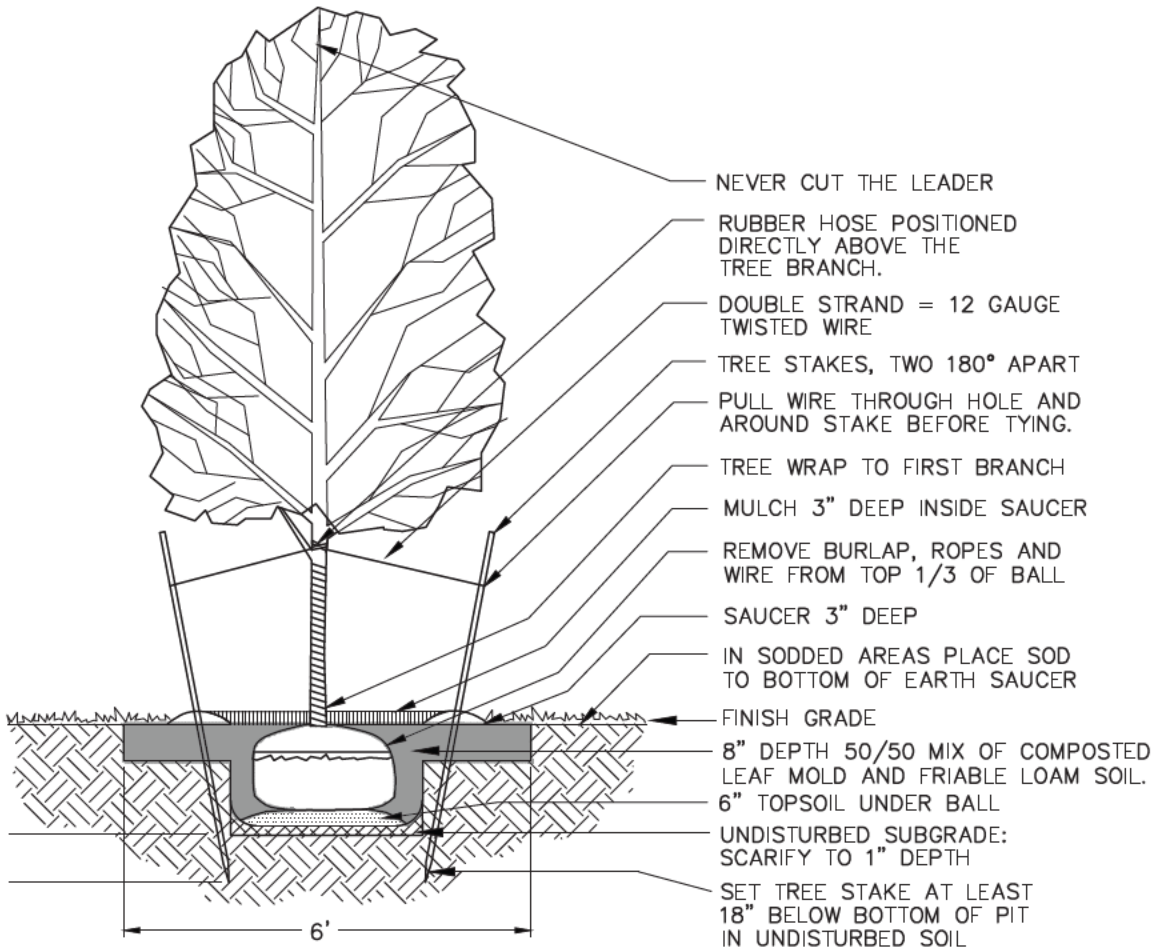
Mowing: During the establishment period, native plants concentrate their energy toward expanding their root systems. Mowing can suppress non-native annual plants without negatively affecting natives. Mowing also thins out the canopy, allowing more light to reach new seedlings.

Most weed competition comes from fast-growing annuals, mowing needs to occur to keep these species from re-seeding. Mow to between 8 and 10 inches high. During the first growing season, perform one to three mowing events, depending on the height and growth of the vegetation. If weed pressure is high, more mowing events may be needed.

Selective herbicide application: Perennial weed species are best controlled through chemical applications. Use caution when applying these chemicals, to minimize collateral damage to desirable plant species. Ensure chemical selection, rates, and application methods are legal and appropriate.

GENERAL LANDSCAPE NOTES

- All workmanship and materials shall conform to Ypsilanti Township standards and specifications. All plant material shall be sizes and measurements conforming to the usa standard for nursery stock. All plant material shall be of selected specimen quality and have a normal habit of growth. All plant material is subject to the approval of the landscape architect.
- All plant material shall be balled and burlapped stock moved by tree spade or container stock. No bare root stock is permitted. All plant balls shall be firm, intact and securely wrapped and bound.
- All plant beds shall be excavated of all building materials and other extraneous objects and poor soils to a minimum depth of twelve inches (12") and all backfilled to grade with planting mix (see below).
- Planting mixture shall be 50% composted leaf mold & 50% friable loam soil.
- All plant beds and individual plants shall be mulched with a three inch (3") layer of shredded bark mulch.
- All plants and plant beds shall be thoroughly watered.
- The contractor shall guarantee all plant materials for a period of one (1) year from the date the work is accepted, in writing, by the landscape architect. The contractor shall replace, without cost to the owner, within a specified period of time, all dead plants, and all plants not in a vigorous, thriving condition, as determined by the landscape architect during and at the end of the guarantee period. replacement stock shall conform to the original requirements.
- All areas of the site that become disturbed during construction and are not to be paved, stoned or landscaped shall be seeded and mulched. It is the responsibility of the contractor to establish a dense lawn of permanent grasses, free of lumps and depressions. Any part of the area that fails to show a uniform germination shall be reseeded and such reseeded shall continue until a dense lawn is established. Damage to seeded areas resulting from erosion shall be repaired by the contractor.
- All areas of the site scheduled for seeding shall be disc'd and graded in conformance with the grading plan.
- It is the contractor's responsibility to locate the utilities, both above and underground prior to landscaping. any conflicts between utilities and plant material shall be reported to the landscape architect.
- Installation dates:
Shrubbery - April 15 thru July 1 and Sept. 15 thru Dec. 15
Seed mixes - Oct. 1 thru June 15



DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE

WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

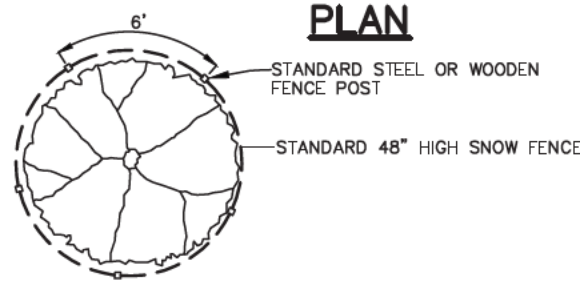
BnB - BOYER LOAMY SAND, 0 TO 6 PERCENT SLOPES

Ur - URBAN LAND

WqA - WASEPI SANDY LOAM, 0 TO 4 PERCENT SLOPES

• • • • • - SOILS BOUNDARY

SOILS ARE BASED ON USDA SOIL SURVEY OF WASHTENAW COUNTY.



ELEVATION

SNOW FENCE SHALL BE LOCATED AT THE OUTER PERIMETER OF THE SPREAD OF THE BRANCHES, OR CLOSER ONLY AT THE DIRECTION OF THE ENGINEER.

TREE PROTECTION FENCING

NOT TO SCALE

EXISTING TREE PROTECTION NOTES:

- TREES NOT TO BE REMOVED AND IN THE PROXIMITY OF CONSTRUCTION SHALL BE PROTECTED BY SNOW FENCING OR OTHER COMPARABLE MATERIAL. ERECTED AT LEAST EIGHT (8) FEET FROM THE TRUNK OR DRIPLINE, WHICHEVER IS GREATER. THE FENCED AREA SHALL FULLY PROVIDE A BARRIER AGAINST MECHANICAL INJURY, AND SHALL BE KEPT CLEAR OF ALL FILL, EQUIPMENT AND MATERIALS.
- WHERE CONSTRUCTION LIMITS INFRINGE ON THE TREE'S DRIPLINE, THE TREE TRUNK SHALL BE PROTECTED BY A TRIANGULAR FENCE BUILT AROUND IT OR BY PLACEMENT OF PLANKS AROUND THE TRUNK AND FIRMLY WIRED IN PLACE.
- WHERE THE USE OF HEAVY EARTH MOVING EQUIPMENT MAY PRODUCE INJURIOUS RESULTS, THE CONTRACTOR SHALL PROVIDE ALTERNATIVE METHODS OF CONSTRUCTION, SUCH AS THE USE OF SMALLER EQUIPMENT.
- CLEANING OF EQUIPMENT OR MATERIAL, OR THE STORAGE OR DISPOSAL OF WASTE MATERIALS SUCH AS PAINTS, SOLVENTS, OILS, ASPHALT, CONCRETE, MORTAR OR ANY OTHER MATERIAL HARMFUL TO THE LIFE OF ANY TREE WITHIN THE DRIPLINE OF THAT TREE SHALL BE PROHIBITED.
- NO DAMAGING ATTACHMENTS OR WIRES (OTHER THAN SUPPORTIVE WIRES FOR A TREE) MAY BE FASTENED TO ANY TREE NOTED AS BEING SAVED.
- TREES TO REMAIN SHALL MAINTAIN THE SAME PROPOSED GRADE AS EXISTING.

ECONOMY MIX (Seed Mix for all restored areas)

40% CR. RED FESCUE
30% ANNUAL RYE
20% PER. RYEGRASS
10% KY. BLUEGRASS

Seed Rate: 4#/1000 sf

12-12-12 fertilize @ 10#/1000sf
80% Wheat/Straw Mulch crimped into grade

Supplier:
Rhino seed & landscape supply,
850 N. Old Highway 23,
Brighton, MI ±1.800.482.3130

PLANT LIST

TREES

SYM	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENT
LIN	2	Tilia americana	AMERICAN LINDEN	2.5\"	B & B
TOTAL	2				

SCREENING & LANDSCAPING

	REQUIRED	PROVIDED	COMPLIANCE
PARKING LOTS: 1 LARGE DEC TREE PER 2000 SF OF PAVEMENT	4200 SF/2000 SF = 2	2	COMPLIES

WTA ARCHITECTS - KALITTA TURBINES 33260

TAG	COMMON NAME	SCIENTIFIC	DBH	CONDITION	REMOVE
626	American Elm	Ulmus americana	8	Good	X
627	American Elm	Ulmus americana	8	Good	X
628	American Elm	Ulmus americana	7	Good	X
630	American Elm	Ulmus americana	7	Good	X
631	American Elm	Ulmus americana	9	Good	X
632	American Elm	Ulmus americana	7	Good	X
633	American Elm	Ulmus americana	7	Good	X
634	American Elm	Ulmus americana	7	Good	X
635	American Elm	Ulmus americana	8	Good	X
636	Domestic Apple	Malus domestica	8	Good	X
637	White Mulberry	Morus alba	9	Good	X
1385	Domestic Apple	Malus domestica	12	Good	X
1386	Silver Maple	Acer saccharinum	70	Good	X
1387	American Elm	Ulmus americana	10.63	Good	X
1388	American Elm	Ulmus americana	10	Good	X
1389	American Elm	Ulmus americana	14.07	Good	X
1390	American Elm	Ulmus americana	8	Good	X
1391	American Elm	Ulmus americana	10	Good	X
1392	American Elm	Ulmus americana	11.31	Good	X
1393	Domestic Apple	Malus domestica	13.19	Poor	X
1394	Hawthorn	Crataegus spp	6	Good	X
1395	American Elm	Ulmus americana	10	Poor	X
1396	Domestic Apple	Malus domestica	12	Poor	X
1399	American Elm	Ulmus americana	12	Good	X
1400	American Elm	Ulmus americana	10	Good	X
7077	American Elm	Ulmus americana	10	Good	X
7078	American Elm	Ulmus americana	9	Good	X
7079	Domestic Apple	Malus domestica	6	Good	X
7082	White Mulberry	Morus alba	10	Good	X
7083	Domestic Apple	Malus domestica	12	Good	X
7084	Red Cedar	Juniperus virginiana	6	Good	X
7085	White Mulberry	Morus alba	8	Good	X
7086	American Elm	Ulmus americana	9	Good	X
7087	White Mulberry	Morus alba	8	Good	X
7088	White Mulberry	Morus alba	15	Good	X
7089	Domestic Apple	Malus domestica	8	Good	X
7090	Domestic Apple	Malus domestica	16.55	Good	X
7091	Domestic Apple	Malus domestica	7	Good	X
7092	White Mulberry	Morus alba	15	Good	X
7093	American Elm	Ulmus americana	10	Good	X
7094	White Mulberry	Morus alba	7	Good	X
7095	Domestic Apple	Malus domestica	6	Good	X
7096	White Mulberry	Morus alba	12	Good	X
7097	Domestic Apple	Malus domestica	10	Good	X
7098	White Mulberry	Morus alba	8	Poor	X
7099	Silver Maple	Acer saccharinum	9	Good	X
	CEDAR		6	Good	X

TREE NOTES

- NO EXISTING TREE REPLACEMENT IS REQUIRED FOR TREE 8\"
- ONE (1) 70\" D.B.H. IS LOCATED WITHIN THE BUILDING FOOTPRINT. REPLACEMENT PROHIBITS DEVELOPMENT OF THE SITE. PER ART. 111, SEC. 24--67.

BENCHMARKS

BM1=TOP OF SWLY FLANGE ON HYDRANT, NORTH OF BUILDING AT 2830 TYLER RD, ELEV=720.23.
BM2=R.R. SPIKE IN UTILITY POLE, NORTH OF BUILDING AT 2830 TYLER RD, ELEV=719.31.
DATUM=(NAVD 88)

LEGEND

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○ = UTILITY POLE
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⊕ = HYDRANT
● = SPOT ELEV.
⊙ = POST
⊙ = GATE VALVE
— = SIGN

TC = TOP OF CURB
TW = TOP OF WALL
○ = MANHOLE
□ = CATCHBASIN
— = END SECTION

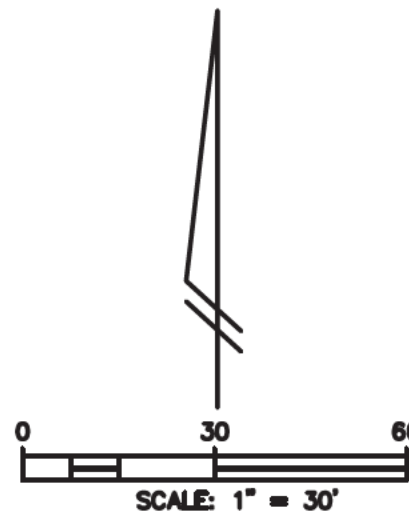
--- = GRAVEL
--- = FENCE
--- = CONCRETE
--- = ASPHALT

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— = EXISTING SANITARY
— = EXISTING WATER
— = EXISTING GAS
— = EXISTING ELECTRIC
— = EXISTING TELEPHONE



Know what's below.
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PROPOSED UTILITY LEGEND

● = MANHOLE
— 12\"

PROPOSED LEGEND
■ = ASPHALT SURFACE
□ = CONCRETE SURFACE

NOT FOR CONSTRUCTION
PRELIMINARY

1	SKETCH PLAN UPDATE	4-23-26
2	PRE-APPLICATION PLAN	5-15-26
3	PRELIMINARY SITE PLAN REV 1	7-15-26

NO.	REVISION	DATE
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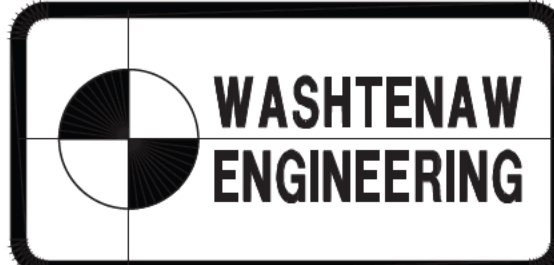
PREPARED BY
JOSEPH K. MAYNARD P.E., MICH No. 52559

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Saginaw, Michigan 48607
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SECTION 13 TOWN 3 SOUTH RANGE 7 EAST
YPSILANTI TOWNSHIP
WASHTENAW COUNTY • MICHIGAN

PROJECT TITLE

NEW CONSTRUCTION FOR:

KALITTA TURBINES

2830 TYLER RD.
YPSILANTI, MICHIGAN

SHEET TITLE

LANDSCAPE PLAN

PROJECT NUMBER	SHEET NUMBER
33260	

PROJECT DATE	
3-4-2026	

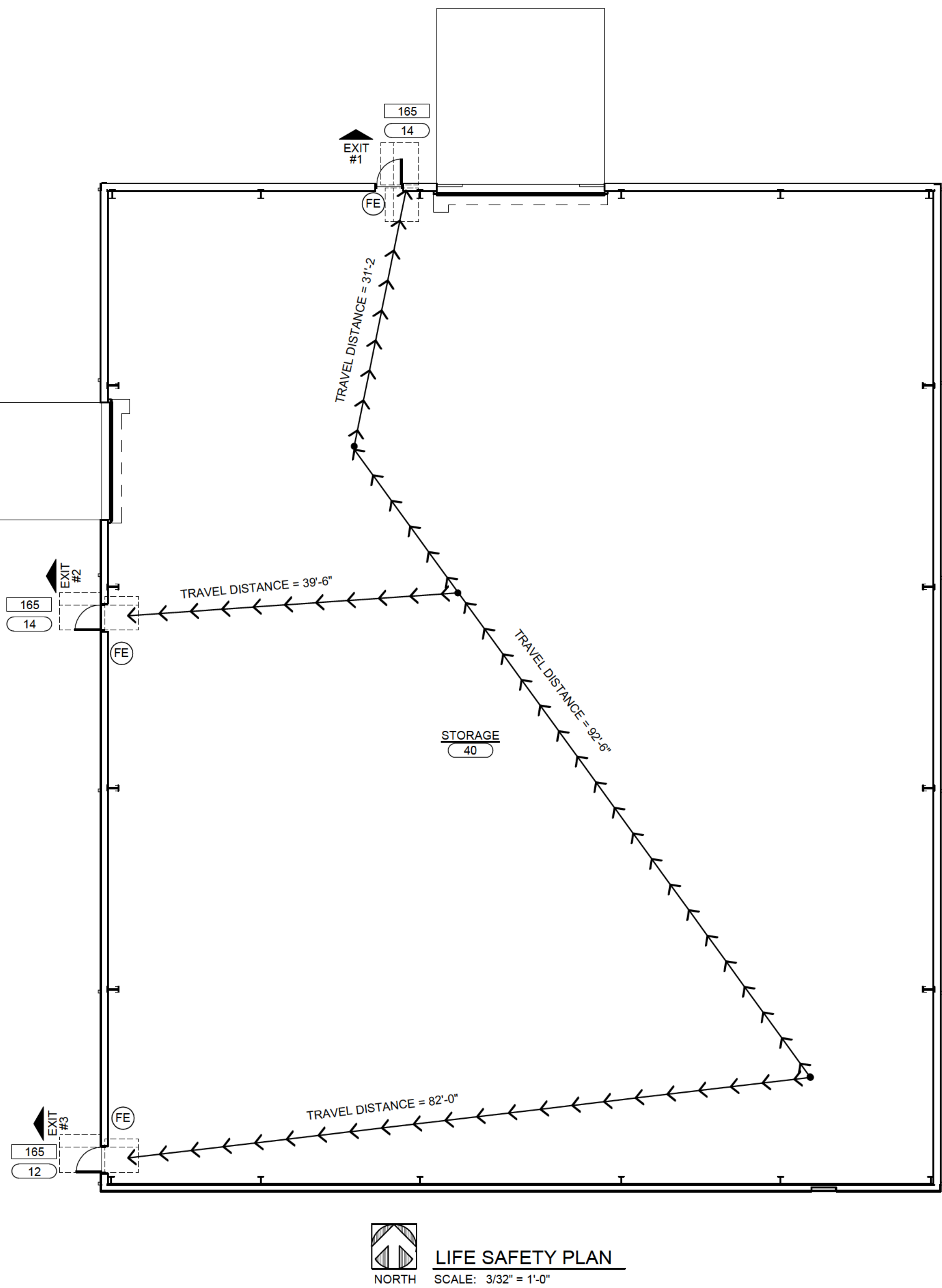
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FIELD BOOK 658

FILE NO. 10999

LEGEND OF ABBREVIATIONS			
ABBV.	ABBREVIATIONS	F.R.P./FRP	FIBER REINFORCED POLYESTER
A.F.F.	ABOVE FINISHED FLOOR	GA.	GAUGE
A.C.P.	ACROUSTICAL	G. TILEGT	GLASS TILE
A.C.T.	ACROUSTIC CEILING TILE	GL.	GLAZING
A.R.P.	ACROUSTIC RESIN PANEL	G.B.	GRAVEL BOARD
ADDL.	ADDITIONAL	GYP. BD.	GYPSUM BOARD
ADJ.	ADJUSTABLE		
ALT.	ALTERNATE	HWD.	HARDWOOD
ALUM.	ALUMINUM	H.P.	HIGH POINT
ANOD.	ANODIZED	H.M./HM	HOLLOW METAL
APPROX.	APPROXIMATE	HORIZ.	HORIZONTAL
ARCH.	ARCHITECTURAL	H.B.	HOSE BIB
BKR. BD.	BACKER BOARD	I.D.I.A.D.	INSIDE DIAMETER
BRG.	BEARING	I.F.B.L.	INSIDE FACE OF BLOCK
BTM.	BOTTOM	I.F.B.L.	INSIDE FACE OF BRICK
BKG(G)	BACKGROUND	INSUL.	INSULATED
BO.	BOARD	INT.	INTERIOR
BTM.	BOTTOM	JT.	JOINT
B.O.C.	BOTTOM OF CURB	LAM./LAM	LAMINATED
B.O.F.	BOTTOM OF FOOTING	L.V.	LAVATORY (SINK)
BRK.	BRICK	L.S.F./LSF	LINOLEUM SHEET FLOORING
BULD.	BUILDING	L.T./LTF	LINOLEUM TILE FLOORING
CPT.	CARPET	L.P.	LOW POINT
C.B.	CATCH BASIN	L.V./LVT	LUXURY VINYL TILE
CGL.	CEILING		
C.M.TILE/CMT	CERAMIC MOSAIC TILE	MFR.	MANUFACTURER
CT.	CERAMIC TILE	M.B.	MANHOLE BOARD
CHD.	CHALKBOARD	M.S.	MASONRY
CLR.	CLEAR	M.S.O.	MASONRY OPENING
COL.	COLUMN	MAT'L	MATERIAL
CONC.	CONCRETE	MAX.	MAXIMUM
C.M.U./CMU	CONCRETE MASONRY UNIT	MECH.	MECHANICAL
CONT.	CONTINUOUS	MTL.	METAL
C.J.	COUNTER JOINT	M.P./MP	METAL PANEL
CTOP.	COUNTER TOP	M.D.O.T.	MICHIGAN DEPARTMENT OF TRANSPORTATION
COV/CG	COVERING	MIN.	MINIMUM
DEFT.	DEFECT	MISC.	MISCELLANEOUS
DN.	DRAIN	NOM.	NOMINAL
DBL.	DOUBLE	N.L.C.	NOT IN CONTRACT
D.T.	DRAIN TILE	N.T.S.	NOT TO SCALE
DWG.	DRAWING	NO.	NUMBER
D.F.	DRAINING FOUNTAIN		
EA.	EACH	O.C.	ON CENTER
E.W.	ELECTRIC WAY	OPP.	OPPOSITE (HAND)
E.H.D.	ELECTRIC HAND DRYER	O.S.B.	ORIENTED STRAND BOARD
E.W.C.	ELECTRIC WATER COOLER	O.D.A.O.D.	OUTSIDE DIAMETER
EL.	ELEVATION	O.F.B.L.	OUTSIDE FACE OF BLOCK
ELEV.	ELEVATOR	O.F.B.R.	OUTSIDE FACE OF BRICK
EQ.	EQUAL	O.F.C.	OUTSIDE FACE OF CONCRETE
E.F.	EXHAUST FAN	O.F.M.	OUTSIDE FACE OF MASONRY
EXT.(E)	EXTERIOR	O.F.S.	OUTSIDE FACE OF STUDS
EXP.	EXPOSED	PT./P	PAINTED
EXT.	EXTERIOR	PR.	PAPER
FT.	FEET	P.T.D.	PART. BOARD
F.F.	FINISHED FACE	PN.	PARTITION
FIN.	FINISH	P.H.	PHYSICALLY HANDICAPPED
F.O.	FINISHED OPENING	PLAS.	PLASTER
F.E.C.	FIRE EXTINGUISHER	PLAM/PL	PLASTIC LAMINATE
F.R.	FIRE RATED	PLYWD.	PLYWOOD
F.R.T.	FIRE RETARDANT	P.O.N.C.	POINT OF NEW CONNECTION
F.R.L./RFL	FIBER REINFORCED LAMINATE	P.TE/PT	PORCELAIN TILE
FT.	FLOORED	POWER.	POWER
F.S.F./FSF	FLOORED SHEET FLOORING	P.CONC.	PRECAST CONCRETE
F.T.F./FTF	FLOORED TILE FLOORING	P.C/PC	POLISHED CONCRETE
FLR.	FLOOR	Q.TILEGT	QUARRY TILE
F.D.	FLOOR DRAIN	Q.TZ	QUARTZ
FTG.	FOOTING	Q.TZ	QUARTZ

ARCHITECTURAL MATERIAL LEGEND			
	CONCRETE MASONRY		CEMENT BOARD (SECTION)
	BRICK MASONRY		GROUT
	CAST STONE		GYPSUM BOARD (CEILING/ELEVATION)
	STONE		GYPSUM BOARD (SECTION)
	STUD WALL (PLAN)		BACKER BOARD
	BATT INSULATION		PARTICLE BOARD & PLYWOOD
	SOUND ATTENUATION BLANKETS/SPRAYED INSUL.		SOLID SURFACE
	RIGID INSULATION & RIGID INSULATION BOARD		CONCRETE
	DIMENSIONAL LUMBER		CONCRETE WALK (PLAN)
	FINISH LUMBER		GRAVEL OR STONE AS INDICATED
	STEEL (SECTION)		COMPACTED SAND FILL
	SUSPENDED CEILING TILE		ENGINEERED FILL
	TILE ON MORTAR BED		MORTAR NET



BUILDING CODE NOTES:

A. USE AND OCCUPANCY (CHAPTER 3)

GROUP S-1 STORAGE (PARTS STORAGE)

B. BUILDING HEIGHT (CHAPTER 5)

ALLOWED STORIES: 2 STORIES (TABLE 504.4)
ALLOWABLE HEIGHT: 55 FEET (TABLE 504.3)

C. BUILDING AREA

ALLOWABLE AREA: 17,500 SQUARE FEET (TABLE 506.2)
ALLOWABLE AREA ACTUAL: 30,625 SQUARE FEET (AREA INCREASES PER EQUATIONS 5-1, 5-4, 5-5)
PROPOSED AREA: 12,000 SQUARE FEET

ALLOWABLE AREA INCREASES FOR FRONTAGE TO BE CALCULATED WHICH WILL INCREASE ACTUAL ALLOWABLE AREA.

$$\text{EQUATION 5-1: ALLOWABLE AREA, } A_a = A_s + (NS \times I_s) \quad 17,500 + (17,500 \times 0.75) = 30,625$$

$$\text{EQUATION 5-4: } W = (L_1 \times w_1 + L_2 \times w_2 \dots) / F \quad (280 \times 30) / 280 = 30$$

$$\text{EQUATION 5-5: } I_s = [(F/P) - 0.25] \times W/30 \quad [280 / (2800 - 0.25)] \times 30 / 30 = 0.75$$

D. CONSTRUCTION TYPE

CONSTRUCTION TYPE (PROPOSED): TYPE II-B

E. TYPES OF CONSTRUCTION (IBC TABLE 601)

PRIMARY STRUCTURAL FRAME	0 HOURS
BEARING WALLS	0 HOURS
EXTERIOR	0 HOURS
INTERIOR	0 HOURS
NON-BEARING WALLS	0 HOURS
EXTERIOR	0 HOURS
(TABLE 602, FIRE SEPARATION DISTANCE GREATER THAN 10 FEET)	0 HOURS
INTERIOR	0 HOURS
FLOOR CONSTRUCTION	0 HOURS
ROOF CONSTRUCTION	0 HOURS

TYPE II-B CONSTRUCTION, NO RATING IS REQUIRED FOR STRUCTURAL FRAME, BEARING WALLS (INTERIOR OR EXTERIOR), NON-BEARING WALLS AND PARTITIONS, FLOOR CONSTRUCTION, PER TABLE 601 AND TABLE 705.5

F. FIRE PROTECTION SYSTEMS (IBC SECTION 903)

NOT SPRINKLERED (NONE REQUIRED)

G. MEANS OF EGRESS (CHAPTER 10)

OCCUPANT LOAD: PER TABLE 1004.5

STORAGE	1:300 (G)	40	OCCUPANTS
TOTAL:		40	OCCUPANTS

EGRESS WIDTH: (SECTION 1005)

DOORS: 0.2 INCHES PER OCCUPANT

DOORS: 40 OCCUPANTS x 0.2 INCHES PER OCCUPANT = 8 INCHES
PROVIDED: (3) DOORS @ 33" = 99 INCHES

STAIRWAYS: NOT APPLICABLE

SECTION 1006: NUMBER OF EXITS AND EXIT ACCESS DOORWAYS

EGRESS BASED ON OCCUPANT LOAD AND COMMON PATH OF EGRESS TRAVEL DISTANCE, (2) EXITS OR EXIT ACCESS DOORWAYS FROM ANY SPACE SHALL BE PROVIDED WHERE THE DESIGN OCCUPANT LOAD OR THE COMMON PATH OF EGRESS TRAVEL DISTANCE EXCEEDS:

TABLE 1006.2.1 - COMMON PATH OF EGRESS TRAVEL
GROUP S-1 (NON-SPRINKLERED) - 75 FEET (MORE THAN 30 OCCUPANTS)

SECTION 1017: EXIT ACCESS TRAVEL DISTANCE

TABLE 1017.2 - EXIT ACCESS TRAVEL DISTANCE
GROUP S-1: 200 FEET MAX. (NON-SPRINKLERED)

SECTION 1020.5: DEAD ENDS

20 FEET MAXIMUM DEAD END IN CORRIDORS WHERE MORE THAN ONE EXIT OR EXIT ACCESS DOORWAY IS REQUIRED.

2021 MICHIGAN ENERGY CODE

CLIMATE ZONE: 5A (WASHTENAW COUNTY)
INSULATION REQUIREMENTS:

ROOFS (METAL BUILDING):	U-0.035 or R-19 + R-11 LS
WALLS, ABOVE GRADE (METAL BUILDING):	U-0.050 or R-13 + R-14ci
FLOORS, SLAB-ON-GRADE (UNHEATED):	F-0.52 or R-15 for 24 in. below

VERTICAL FENESTRATION:
OPAQUE DOORS:
NON-SWINGING DOORS: U = 0.31
SWINGING DOORS: U = 0.37

APPLICABLE CODES:

NFPA 101 LIFE SAFETY CODE (2016)
ICC/ANSI A117.1-2017 & MICHIGAN BARRIER FREE DESIGN LAW OF PUBLIC ACT 1 OF 1996 AS AMENDED
MICHIGAN BUILDING CODE (2021)
MICHIGAN ENERGY CODE (2021)
NFPA 70 NATIONAL ELECTRICAL CODE WITH PART 8 RULES (2023)

CODE LEGEND

EXIT #	TRAVEL DISTANCE
XXX	EGRESS CAPACITY - MAXIMUM NUMBER OF OCCUPANTS ALLOWED TO EGRESS
XXX	OCCUPANT LOAD - NUMBER OF OCCUPANTS LOADING EXIT
EXIT #1	EXIT - REQUIRED EGRESS FROM BUILDING
ROOM NAME	ROOM #
101	OCCUPANT LOAD
22	OCCUPANCY TYPE
E	
FE	FIRE EXTINGUISHER (WALL MOUNTED)
	EXIT SIGN - NEW TO BE INSTALLED

	PERLIMINARY SITE PLAN REV1	7-15-26
	PERLIMINARY BID PACKAGE	6-24-26
NO.	REVISION	DATE

WTA ARCHITECTS

100 S. Jefferson Ave., Suite 601
Saginaw, Michigan 48607
989.752.8107

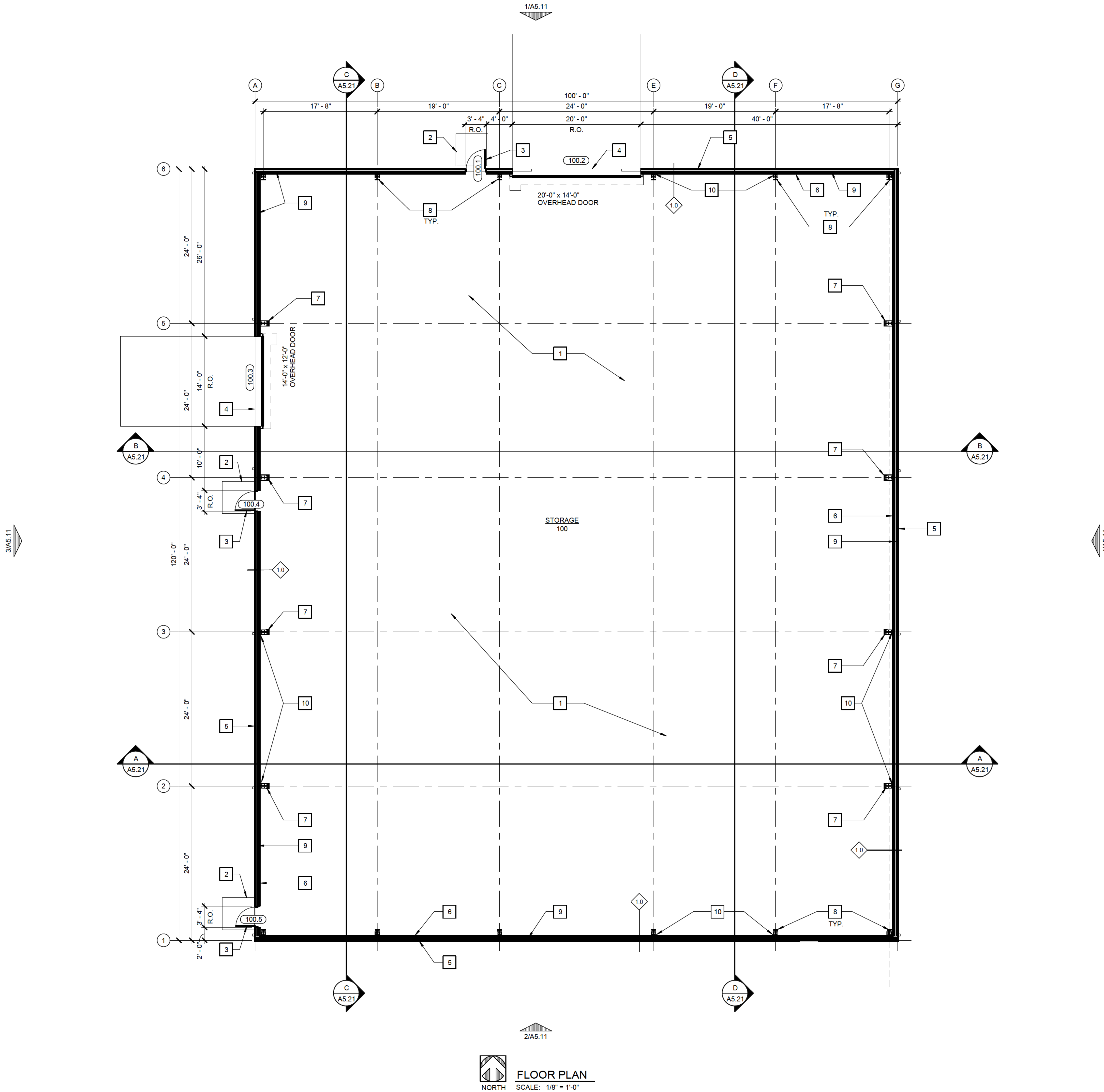
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PROJECT TITLE
NEW STORAGE BUILDING FOR:
KALITTA TURBINES
2830 TYLER RD. YPSILANTI, MICHIGAN
SHEET TITLE
LIFE SAFETY PLAN AND CODE INFORMATION

PROJECT NUMBER	SHEET NUMBER
2026004	
PROJECT DATE	
MAY 2026	
CHECKED BY	
J.R.G.	
	A0.11

WTA 7/15/2026 8:31:29 AM C:\Users\kdoos\Documents\CENTRAL_2026004\KALITTA\Drawings\Bldg_105_discoo@wtaarch.com.rvt



PLAN KEYNOTES

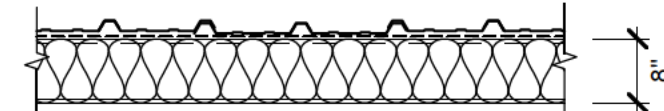
- 1 CONCRETE SLAB WITH W.W.F. ON VAPOR BARRIER ON COMPACTED GRANULAR FILL (RE: STRUCTURAL).
- 2 CONCRETE SUPPORTED ENTRY SLAB, TYPICAL AT ALL MANDOOK LOCATIONS (RE: STRUCTURAL).
- 3 DOOR AND FRAME ASSEMBLY (RE: DOOR SCHEDULE). PEMB TO PROVIDE FRAMING, FLASHING AND TRIM AT ALL PEMB WALL OPENINGS (RE: PEMB DRAWINGS).
- 4 INSULATED ROLLING OVERHEAD DOOR (RE: DOOR SCHEDULE).
- 5 EXTERIOR METAL WALL PANELS BY PEMB MFR. (RE: PEMB DRAWINGS).
- 6 INTERIOR METAL LINER PANELS BY PEMB MFR. (RE: PEMB DRAWINGS).
- 7 PRE-ENGINEERED METAL BUILDING TAPERED RIGID FRAME (RE: PEMB DRAWINGS).
- 8 PRE-ENGINEERED METAL BUILDING END FRAMING (RE: PEMB DRAWINGS).
- 9 PRE-ENGINEERED METAL BUILDING BYPASS WALL GIRT FRAMING. PROVIDE A MIN. R-20 BATT INSULATION. (RE: PEMB DRAWINGS).
- 10 STRUCTURAL X-BRACING RODS BETWEEN COLUMNS. (RE: PEMB DRAWINGS).

GENERAL PLAN NOTES:

1. ALL DIMENSIONS ARE FROM FACE OF STUD AND FACE OF MASONRY UNLESS NOTED OTHERWISE. REFER TO ENLARGED PLANS FOR ADDITIONAL DIMENSIONS NOT INDICATED ON OVERALL PLANS.
2. MECHANICAL, PLUMBING AND ELECTRICAL FIXTURES AND EQUIPMENT ARE SHOWN FOR REFERENCE ONLY. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DETAILS AND SPECIFICATIONS.
3. CONTRACTOR TO COORDINATE LOCATIONS OF ADDITIONAL PENETRATIONS THROUGH WALLS AND FLOORS NOT INDICATED ON ARCHITECTURAL DRAWINGS. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS. REFER TO STRUCTURAL DRAWINGS FOR LINTEL OR FRAMING REQUIREMENTS.
4. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO BIDDING AND CONSTRUCTION. ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY BEFORE PROCEEDING WITH WORK.

WALL TYPES

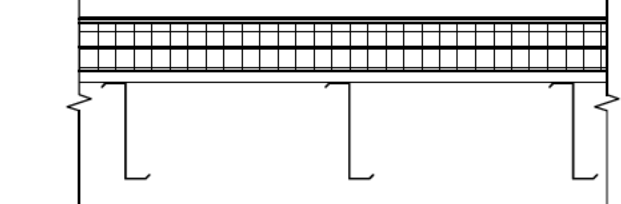
1/2" = 1'-0"



EXTERIOR WALL ASSEMBLY (NON-RATED)
EXTERIOR METAL WALL PANELS ON PRE-ENGINEERED BYPASS GIRT FRAMING W/ METAL BUILDING INSULATION (MIN. R-20). PROVIDE INTERIOR METAL LINER PANELS FROM FLOOR LEVEL TO 12'-6" A.F.F. (RE: PEMB DRAWINGS).

ROOF TYPES

1/2" = 1'-0"



ROOF ASSEMBLY
MECHANICALLY FASTENED ROOF MEMBRANE SYSTEM ON RIGID INSULATION BOARD (MIN. R-30) ON STEEL TYPE B ROOF DECKING ON PRE-ENGINEERED ROOF Z-PURLINS (RE: PEMB DRAWINGS).

	PERLIMINARY SITE PLAN REV1	7-15-26
	PERLIMINARY BID PACKAGE	6-24-26
NO.	REVISION	DATE

WTA ARCHITECTS
100 S. Jefferson Ave., Suite 601
Saginaw, Michigan 48607
989 752 8107

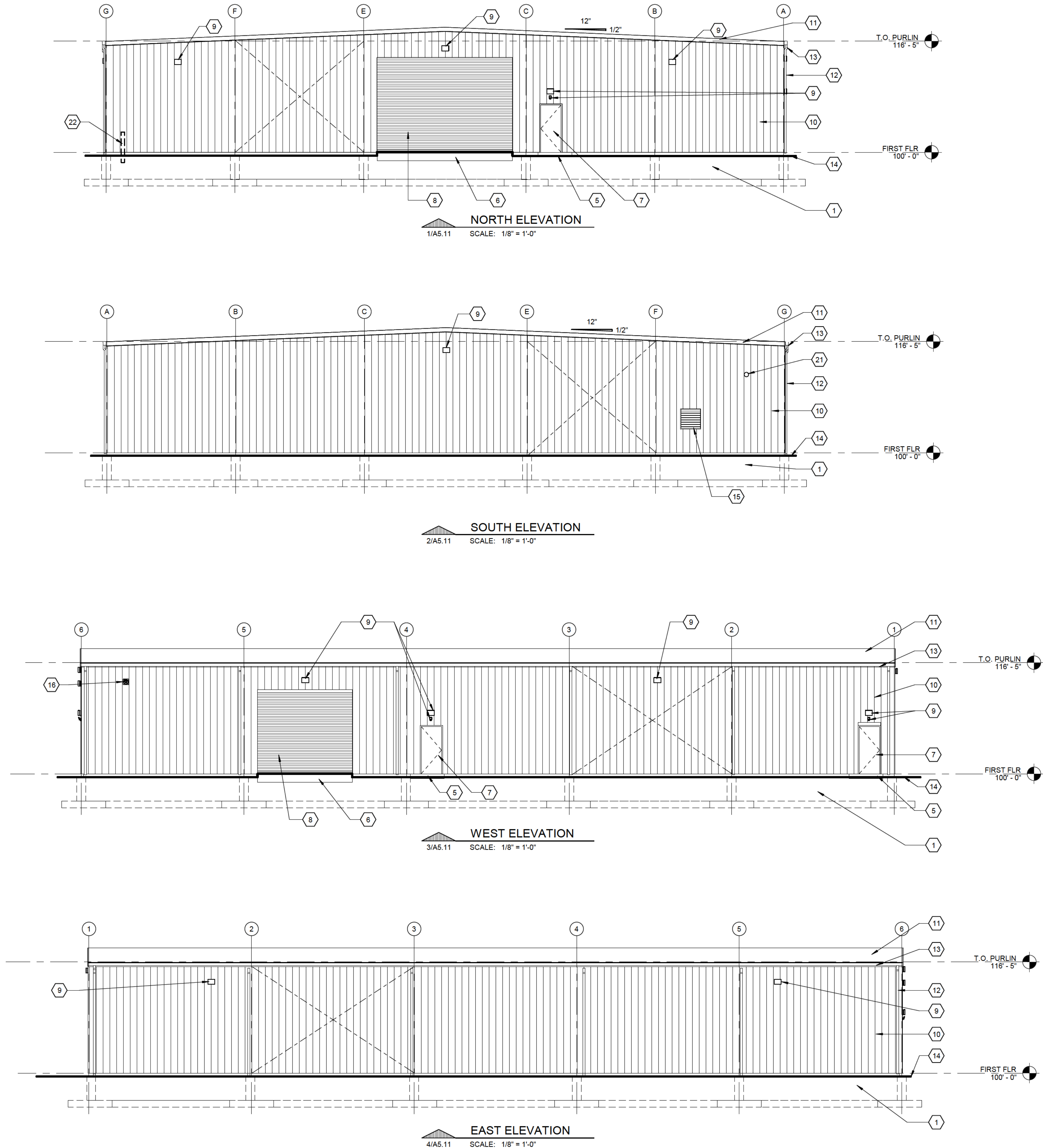
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PROJECT TITLE
NEW STORAGE BUILDING FOR:
KALITTA TURBINES
2830 TYLER RD.
YPSILANTI, MICHIGAN

SHEET TITLE
FLOOR PLAN

PROJECT NUMBER 2026004	SHEET NUMBER A2.21
PROJECT DATE MAY 2026	
CHECKED BY J.R.G.	

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MATERIAL KEYNOTES

- 1 FOUNDATION WALL. (RE: STRUCTURAL).
- 2 CONCRETE SLAB WITH W.W.F. ON VAPOR BARRIER (RE: STRUCTURAL).
- 3 COMPACTED GRANULAR FILL.
- 4 MIN. R-20 RIGID PERIMETER INSULATION FOR 24" BELOW MIN.
- 5 CONCRETE SUPPORTED ENTRY SLAB, TYPICAL AT ALL MANDOR locations (RE: STRUCTURAL).
- 6 SLOPED CONCRETE APPROACH STRUCTURE (RE: STRUCTURAL). MAX SLOPE SHALL BE 1:20 (5% SLOPE).
- 7 DOOR AND FRAME ASSEMBLY (RE: DOOR SCHEDULE). PEMB TO PROVIDE FRAMING, FLASHING, AND TRIM AT ALL PEMB WALL OPENINGS (RE: PEMB DRAWINGS).
- 8 INSULATED ROLLING OVERHEAD DOOR (RE: DOOR SCHEDULE).
- 9 LIGHT FIXTURE, TYPICAL. (RE: ELECTRICAL).
- 10 EXTERIOR METAL WALL PANELS BY PEMB MFR (RE: PEMB DRAWINGS).
- 11 ROOF MEMBRANE ON RIGID INSULATION (MIN. R-30) ON METAL TYPE B ROOF DECKING (RE: PEMB DRAWINGS).
- 12 PRE-ENGINEERED METAL BUILDING DOWNSPOUT SYSTEM (RE: PEMB DRAWINGS).
- 13 METAL ROOF GUTTER.
- 14 FINISH GRADE. (RE: CIVIL).
- 15 NEW LOUVER. (RE: MECHANICAL).
- 16 NEW EXHAUST FAN. (RE: MECHANICAL).
- 17 PRE-ENGINEERED METAL BUILDING TAPERED RIGID FRAME (RE: PEMB DRAWINGS).
- 18 PRE-ENGINEERED METAL BUILDING END WALL FRAMING (RE: PEMB DRAWINGS).
- 19 PRE-ENGINEERED METAL BUILDING BYPASS WALL GIRT FRAMING. PROVIDE MIN. R-20 BATT INSULATION (RE: PEMB DRAWINGS).
- 20 INTERIOR METAL LINER PANELS BY PEMB MFR (RE: PEMB DRAWINGS).
- 21 NEW FLUE VENT (RE: MECHANICAL).
- 22 NEW GAS LINE ENTRANCE (RE: MECHANICAL).

	PERLIMINARY SITE PLAN REV1	7-15-26
	PERLIMINARY BID PACKAGE	6-24-26
NO.	REVISION	DATE

WTA ARCHITECTS

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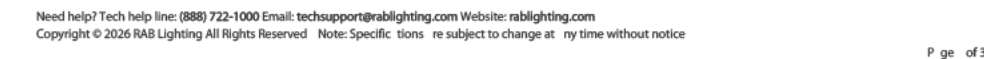
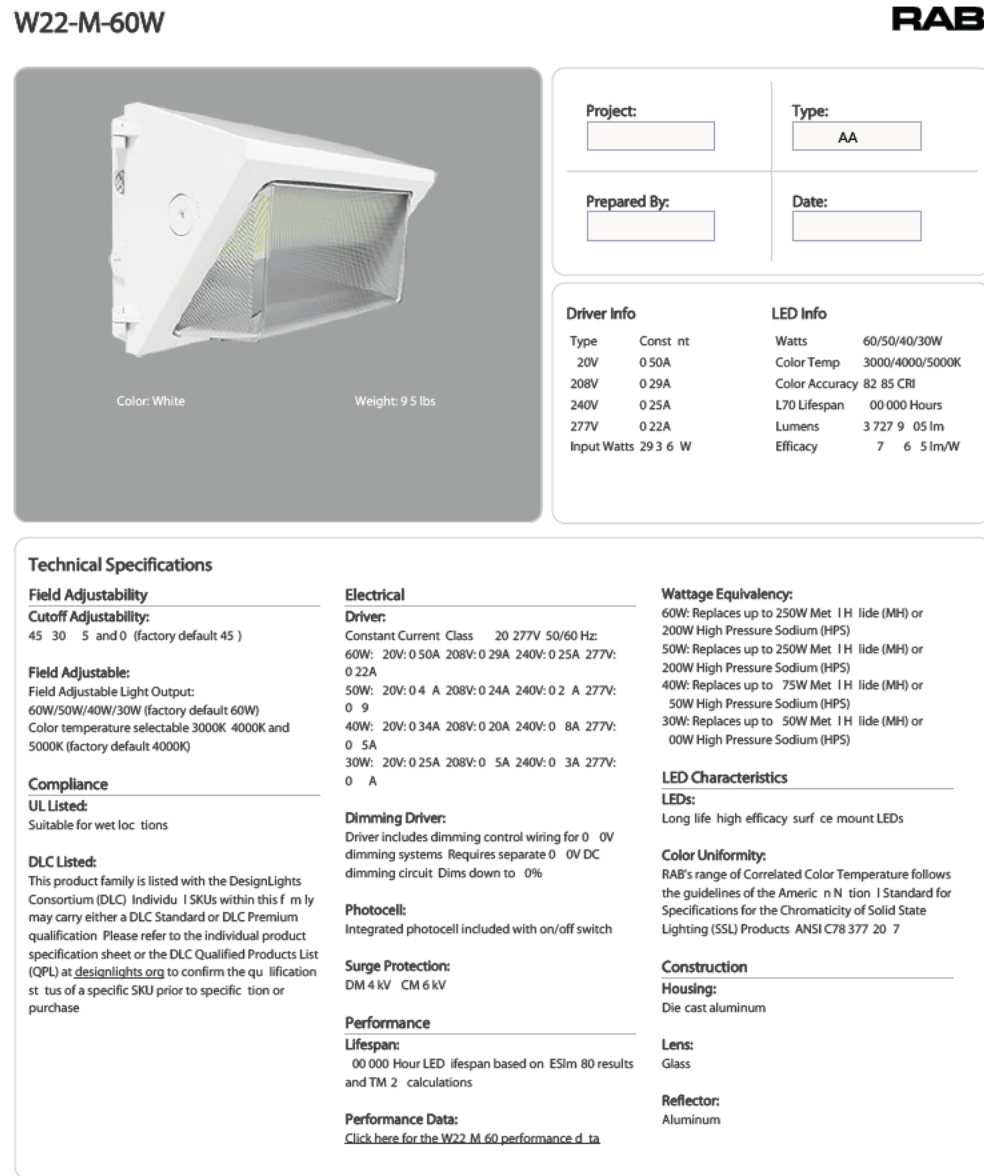
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PROJECT TITLE
NEW STORAGE BUILDING FOR:
KALITTA TURBINES
2830 TYLER RD.
YPSILANTI, MICHIGAN

SHEET TITLE
EXTERIOR ELEVATIONS

PROJECT NUMBER 2026004	SHEET NUMBER A5.11
PROJECT DATE MAY 2026	
CHECKED BY J.R.G.	



	PRELIMINARY SITE PLAN REV1	7-15-26
	PRELIMINARY BID PACKAGE	6-24-26
NO.	REVISION	DATE



PROJECT NUMBER 2026004	SHEET NUMBER SE1.02
PROJECT DATE JUNE 2026	
CHECKED BY JWF	



May 29, 2026
Project No. 261327

Washtenaw Engineering Co. Inc.
3526 W. Liberty, Suite 400
Ann Arbor, Michigan 48106

Attention: Joe Maynard, P.E.

Reference: Summary Letter of Infiltration Testing
Kalitta Turbines Infiltration Testing
Ypsilanti, Michigan

Dear Mr. Maynard:

We have completed infiltration testing for the above-referenced project. Four infiltration test pits were completed in the proposed and existing detention ponds located at addresses 2820 and 2850 Tyler Road in Ypsilanti, Michigan, as shown on Figure No. 1.

At the time of our field work, the area of investigation was generally covered with low cut grass and heavily wooded areas at the south of the site and to the north of the existing detention pond. The site, in general, sloped down from north to south with elevations ranging from 722 near the existing parking lots to 718 near the wooded areas to the south.

Four test pits were excavated to depths of 2.8 to 7 ft (els 711 to 715 ft) using a 2.5-ft wide bucket. Test pit locations are shown on the attached location plan, Figure No. 1.

A summary of the subsurface conditions encountered within the test pits is provided. The attached test pit logs contain detailed soil descriptions. Some variation in subsurface conditions may be expected.

In general, the test pits encountered 7 to 10 inches of sandy topsoil at the surface. Beneath the topsoil, the Test Pit TP-1 encountered fill, consisting of dark brown poorly graded sand with clay (SP-SC), to a depth of 2.5 ft (el 715.5 ft). Beneath the fill, the borings generally encountered poorly graded sand with varying amounts of clayey fines (SP, SP-SC, SC) to the explored depths of 2.8 to 7 ft (els 711 to 715 ft).

Groundwater was encountered within Test Pits TP-1 to TP-4 at depths ranging from 2.8 to 6.5 ft (els 711 to 715).

Infiltration tests were performed within Test Pits TP-1, TP-2 and TP-4 using the double ring method outlined in the Washtenaw County Water Resource Commissioner's Procedures and Design Criteria for Storm Water Management. Test locations and depths were directed by Mr.



Mike Bergren of Washtenaw Engineering Co., Inc. An infiltration test was not performed in Test Pit TP-3 due to the groundwater encountered within 3 ft of the ground surface.

The double ring infiltration tests were performed in Test Pits TP-1, TP-2 and TP-4 at depths ranging from 2 to 3.5 ft below existing grade (els 714 to 718 ft). Two concentric rings were used to perform the tests, with a 6-inch outer ring diameter and 4-inch inner ring diameter. The purpose of the outer ring is to prevent divergent flow of water from the inner ring while water level in the inner ring is monitored to calculate a one-dimensional infiltration rate. For all tests, readings were taken at 10-minute intervals until stabilized infiltration rates were achieved. The individual infiltration test reports are attached. Test pits were backfilled to the surface with excavated soil at the conclusion of testing. A summary of the stabilized infiltration rates, average rate, and design rate (safety factor of 2) for each Test Pit are listed in Table 1, below.

Table 1 – Infiltration Test Results

Test Pit	Test Elevation (ft)	Test No.	Stabilized Infiltration Rate (in/hr)	Average Infiltration Rate (in/hr)	Design Infiltration Rate (in/hr)
TP-1	714.5	1.1	24	24	10*
		1.2	24		
TP-2	714	2.1	12	15	7 1/2
		2.2	18		
TP-3	718	3.1	24	24	10*
		3.2	24		

*WCWRC Procedures and Design Criteria for Stormwater Management specify a maximum design infiltration of 10 in/hr.

We appreciate the opportunity to provide this service to you on this project. Should you have any questions or require further assistance, please contact our office.

Sincerely,

MATERIALS TESTING CONSULTANTS, INC.

Ryan D. Starcher, P.E.
Project Manager

Robert J. Warren, P.E.
Senior Project Manager

Attachments: Figure No. 1 – Test Pit Location Plan
Infiltration Test Reports
Test Pit Terminology and Classification Outline
Test Pit Logs



TITLE: TEST PIT LOCATION PLAN

PROJECT: KALITTA TURBINES

SCALE: AS

DATE: 05/29/2026

PROJECT NO.: 261327

FIG. NO.: 1

DR. BY: RS

REV. BY: RW



MATERIALS TESTING CONSULTANTS



Double Ring Infiltration Test

Client:

Washtenaw Engineering Co., Inc.
P O BOX 1128
Ann Arbor, M 48106

Project:

261327.0
Kalitta Turbines Infiltration Testing
TBD

Activity Information

Weather: Windy

Low / High Temp, °F: 36 / 57

Activity Date: 05/07/2026

Tested By: Pruitt, Raymond

Test No.: 1.1

DOUBLE RING INFILTRATION TEST - SEMCOG METHOD

Pre-Test Soaking Duration (min): 60

Ground Surface Elev. (ft): 718

Water Level Drop in Last 30 Minutes of Presoak (in): 5

Test Elev. (ft): 714.5

Inner Diameter (in): 4

Groundwater Elev. (ft): 711.5

Outer Diameter (in): 6

Soil Description: Brown poorly graded sand

Test Data

Time (min:sec)	Water Drop (in)	Time Interval (min)	Infiltration Rate (inches per hour)
10:00	4	10	24
20:00	4	10	24
30:00	4	10	24
40:00	4	10	24

Note: This test method provides a measure of infiltration rate, not hydraulic conductivity. Although the units of infiltration rate, and hydraulic conductivity are similar, there is a distinct difference between these two quantities. They cannot be directly related unless the hydraulic boundary conditions, such as hydraulic gradient and the extent of lateral flow of water are known or can be reliably estimated. Test results apply only to the specific test location, depth/elevation, and in-situ moisture content and density at time of test. An appropriate factor of safety should be applied to these results.

Remarks: Initial Head: 11"



Double Ring Infiltration Test

Client:

Washtenaw Engineering Co., Inc.
P O BOX 1128
Ann Arbor, M 48106

Project:

261327.0
Kalitta Turbines Infiltration Testing
TBD

Activity Information

Weather: Windy

Low / High Temp, °F: 36 / 57

Activity Date: 05/07/2026

Tested By: Pruitt, Raymond

Test No.: 1.2

DOUBLE RING INFILTRATION TEST - SEMCOG METHOD

Pre-Test Soaking Duration (min): 60

Ground Surface Elev. (ft): 718

Water Level Drop in Last 30 Minutes of Presoak (in): 7

Test Elev. (ft): 714.5

Inner Diameter (in): 4

Groundwater Elev. (ft): 711.5

Outer Diameter (in): 6

Soil Description: Brown poorly graded sand

Test Data

Time (min:sec)	Water Drop (in)	Time Interval (min)	Infiltration Rate (inches per hour)
10:00	4	10	24
20:00	4	10	24
30:00	4	10	24
40:00	4	10	24

Note: This test method provides a measure of infiltration rate, not hydraulic conductivity. Although the units of infiltration rate, and hydraulic conductivity are similar, there is a distinct difference between these two quantities. They cannot be directly related unless the hydraulic boundary conditions, such as hydraulic gradient and the extent of lateral flow of water are known or can be reliably estimated. Test results apply only to the specific test location, depth/elevation, and in-situ moisture content and density at time of test. An appropriate factor of safety should be applied to these results.

Remarks: Initial Head: 14"



Double Ring Infiltration Test

Client:

Washtenaw Engineering Co., Inc.
P O BOX 1128
Ann Arbor, M 48106

Project:

261327.0
Kalitta Turbines Infiltration Testing
TBD

Activity Information

Weather: Windy

Low / High Temp, °F: 36 / 57

Activity Date: 05/07/2026

Tested By: Pruitt, Raymond

Test No.: 2.1

DOUBLE RING INFILTRATION TEST - SEMCOG METHOD

Pre-Test Soaking Duration (min): 60

Ground Surface Elev. (ft): 717

Water Level Drop in Last 30 Minutes of Presoak (in): 7

Test Elev. (ft): 714

Inner Diameter (in): 4

Groundwater Elev. (ft): 711

Outer Diameter (in): 6

Soil Description: Brown poorly graded sand

Test Data

Time (min:sec)	Water Drop (in)	Time Interval (min)	Infiltration Rate (inches per hour)
10:00	3	10	18
20:00	2	10	12
30:00	2	10	12
40:00	2	10	12
50:00	2	10	12

Note: This test method provides a measure of infiltration rate, not hydraulic conductivity. Although the units of infiltration rate, and hydraulic conductivity are similar, there is a distinct difference between these two quantities. They cannot be directly related unless the hydraulic boundary conditions, such as hydraulic gradient and the extent of lateral flow of water are known or can be reliably estimated. Test results apply only to the specific test location, depth/elevation, and in-situ moisture content and density at time of test. An appropriate factor of safety should be applied to these results.

Remarks: Initial Head: 11"



Double Ring Infiltration Test

Client:

Washtenaw Engineering Co., Inc.
P O BOX 1128
Ann Arbor, M 48106

Project:

261327.0
Kalitta Turbines Infiltration Testing
TBD

Activity Information

Weather: Windy

Low / High Temp, °F: 36 / 57

Activity Date: 05/07/2026

Tested By: Pruitt, Raymond

Test No.: 2.2

DOUBLE RING INFILTRATION TEST - SEMCOG METHOD

Pre-Test Soaking Duration (min): 60

Ground Surface Elev. (ft): 717

Water Level Drop in Last 30 Minutes of Presoak (in): 6

Test Elev. (ft): 714

Inner Diameter (in): 4

Groundwater Elev. (ft): 711

Outer Diameter (in): 6

Soil Description: Brown poorly graded sand

Test Data

Time (min:sec)	Water Drop (in)	Time Interval (min)	Infiltration Rate (inches per hour)
10:00	3	10	18
20:00	3	10	18
30:00	3	10	18
40:00	3	10	18

Note: This test method provides a measure of infiltration rate, not hydraulic conductivity. Although the units of infiltration rate, and hydraulic conductivity are similar, there is a distinct difference between these two quantities. They cannot be directly related unless the hydraulic boundary conditions, such as hydraulic gradient and the extent of lateral flow of water are known or can be reliably estimated. Test results apply only to the specific test location, depth/elevation, and in-situ moisture content and density at time of test. An appropriate factor of safety should be applied to these results.

Remarks: Initial Head: 13"



Double Ring Infiltration Test

Client:

Washtenaw Engineering Co., Inc.
P O BOX 1128
Ann Arbor, M 48106

Project:

261327.0
Kalitta Turbines Infiltration Testing
TBD

Activity Information

Weather: Windy

Low / High Temp, °F: 36 / 57

Activity Date: 05/07/2026

Tested By: Pruitt, Raymond

Test No.: 4.1

DOUBLE RING INFILTRATION TEST - SEMCOG METHOD

Pre-Test Soaking Duration (min): 60

Ground Surface Elev. (ft): 720

Water Level Drop in Last 30 Minutes of Presoak (in): 8

Test Elev. (ft): 718

Inner Diameter (in): 4

Groundwater Elev. (ft): 715

Outer Diameter (in): 6

Soil Description: Brown poorly graded sand

Test Data

Time (min:sec)	Water Drop (in)	Time Interval (min)	Infiltration Rate (inches per hour)
10:00	4	10	24
20:00	4	10	24
30:00	4	10	24
40:00	4	10	24

Note: This test method provides a measure of infiltration rate, not hydraulic conductivity. Although the units of infiltration rate, and hydraulic conductivity are similar, there is a distinct difference between these two quantities. They cannot be directly related unless the hydraulic boundary conditions, such as hydraulic gradient and the extent of lateral flow of water are known or can be reliably estimated. Test results apply only to the specific test location, depth/elevation, and in-situ moisture content and density at time of test. An appropriate factor of safety should be applied to these results.

Remarks: Initial Head: 14"



Double Ring Infiltration Test

Client:

Washtenaw Engineering Co., Inc.
P O BOX 1128
Ann Arbor, M 48106

Project:

261327.0
Kalitta Turbines Infiltration Testing
TBD

Activity Information

Weather: Windy

Low / High Temp, °F: 36 / 57

Activity Date: 05/07/2026

Tested By: Pruitt, Raymond

Test No.: 4.2

DOUBLE RING INFILTRATION TEST - SEMCOG METHOD

Pre-Test Soaking Duration (min): 60

Ground Surface Elev. (ft): 720

Water Level Drop in Last 30 Minutes of Presoak (in): 6

Test Elev. (ft): 718

Inner Diameter (in): 4

Groundwater Elev. (ft): 715

Outer Diameter (in): 6

Soil Description: Brown poorly graded sand

Test Data

Time (min:sec)	Water Drop (in)	Time Interval (min)	Infiltration Rate (inches per hour)
10:00	4	10	24
20:00	4	10	24
30:00	4	10	24
40:00	4	10	24

Note: This test method provides a measure of infiltration rate, not hydraulic conductivity. Although the units of infiltration rate, and hydraulic conductivity are similar, there is a distinct difference between these two quantities. They cannot be directly related unless the hydraulic boundary conditions, such as hydraulic gradient and the extent of lateral flow of water are known or can be reliably estimated. Test results apply only to the specific test location, depth/elevation, and in-situ moisture content and density at time of test. An appropriate factor of safety should be applied to these results.

Remarks: Initial Head: 12"



TEST PIT LOG TERMINOLOGY AND ASTM D 2488 CLASSIFICATION OUTLINE

TERMS DESCRIBING CONSISTENCY OR CONDITION

COARSE-GRAINED SOILS (major portions retained on No. 200 sieve): includes (1) clean gravel and sands and (2) silty or clayey gravels and sands. Condition is rated according to relative density as determined by laboratory tests or standard penetration resistance tests.

Descriptive Terms	Relative Density	SPT Blow Count
Very loose	0 to 15 %	< 5
Loose	15 to 35 %	5 to 10
Medium dense	35 to 65 %	10 to 30
Dense	65 to 85 %	30 to 50
Very dense	85 to 100 %	> 50

Per ASTM D2487, the following conditions must be met based on laboratory testing to justify the label 'well graded' in a soil description.

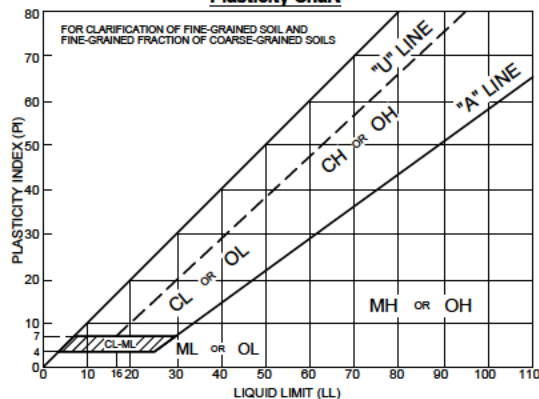
$$\text{Gravel: } C_u = \frac{D_{60}}{D_{10}} \text{ greater than 4; } C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}} \text{ between 1 and 3}$$

$$\text{Sand: } C_u = \frac{D_{60}}{D_{10}} \text{ greater than 6; } C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}} \text{ between 1 and 3}$$

FINE-GRAINED SOILS (major portions passing on No. 200 sieve): includes (1) inorganic and organic silts and clays, (2) gravelly, sandy, or silty clays, and (3) clayey silts. Consistency is rated according to shearing strength, as indicated by penetrometer readings, SPT blow count, or unconfined compression tests.

Descriptive Terms	Unconfined Compressive Strength TSF	SPT Blow Count
Very soft	< 0.25	< 2
Soft	0.25 to 0.5	2 to 4
Medium stiff	0.5 to 1.0	4 to 8
Stiff	1.0 to 2.0	8 to 15
Very stiff	2.0 to 4.0	15 to 30
Hard	> 4.0	> 30

Plasticity Chart



MAJOR DIVISIONS					TYPICAL NAMES
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS WITH LESS THAN 15% FINES	GW		WELL-GRADED GRAVELS WITH OR WITHOUT SAND
			GP		POORLY-GRADED GRAVELS WITH OR WITHOUT SAND
		GRAVELS WITH 15% OR MORE FINES	GM		SILTY GRAVELS WITH OR WITHOUT SAND
			GC		CLAYEY GRAVELS WITH OR WITHOUT SAND
	SANDS MORE THAN HALF COARSE FRACTION IS FINER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LESS THAN 15% FINES	SW		WELL-GRADED SANDS WITH OR WITHOUT GRAVEL
			SP		POORLY-GRADED SANDS WITH OR WITHOUT GRAVEL
		SANDS WITH 15% OR MORE FINES	SP-SM		POORLY-GRADED SANDS WITH SILT WITH OR WITHOUT GRAVEL
			SM		SILTY SANDS WITH OR WITHOUT GRAVEL
			SC		CLAYEY SANDS WITH OR WITHOUT GRAVEL
	FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50% OR LESS	ML		INORGANIC SILTS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
CL				INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL	
OL				ORGANIC SILTS OR CLAYS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL	
SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%		MH		INORGANIC SILTS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL	
		CH		INORGANIC CLAYS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL	
		OH		ORGANIC SILTS OR CLAYS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL	
HIGHLY ORGANIC SOILS		PT/OL		PEAT AND OTHER HIGHLY ORGANIC SOILS	

GENERAL NOTES

- Classifications are based on the United Soil Classification System and include consistency, moisture, and color. Field descriptions have been modified to reflect results of laboratory tests where deemed appropriate.
- "Grades with" or "Grades without" may be used to describe soil when characteristics vary within a stratum.
- Preserved soil samples will be discarded after 60 days unless alternate arrangements have been made.

GROUNDWATER OBSERVATIONS:

During - indicates water level encountered during the boring
End - indicates water level immediately after drilling
Date and Depth - Measurements at indicated date

SAMPLE TYPES AND NUMBERING

S	SPT, split barrel sample, ASTM D1586
U	Shelby tube sample, ASTM D1587
R	Rock core run
*S	Other than 2" split barrel sample
L	SPT with liner, ASTM D1586
A	Auger cuttings
G	Geoprobe liner

MINOR COMPONENT QUANTIFYING TERMS

Less than 5%	TRACE
5 to 10%	FEW
15 to 25%	LITTLE
30 to 40%	SOME
50 to 100%	MOSTLY

GRAIN SIZE

BOULDER	>12"
COBBLE	12" to 3"
COARSE GRAVEL	3" to 0.75"
FINE GRAVEL	0.75" to No. 4
COARSE SAND	No. 4 to No. 10
MEDIUM SAND	No. 10 to No. 40
FINE SAND	No. 40 to No. 200



LOG OF TEST PIT

Project No.: 261327

Test Pit No.: TP-1

Sheet: 1 of 1

Project: Kalitta Turbines Infiltration Testing

Client: Washtenaw Engineering

Location: Superior Township, Michigan

Drill Type: Excavator

Crew Chief: Field Eng.: RS

Rev. By: RS

Coordinates:

Elevation: 718 ft

Datum: Plans Provided by Washtenaw Eng.

Notes:

Plugging Record: Backfilled test pit with excavated soil.

Date Begin: 05/07/2026

Date End: 05/07/2026

Tooling	Type	Dia.	Groundwater, ft.	
Casing			During	6.5
Sampler	Excavator	2.5'	End	6.5
Core			Seepage	
Tube			Date	Depth, ft.
SPT Hammer				

Depth Drilled: 7.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Dyn. Cone Eq. "N": ASTM STP 399	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS	
717.5	0.5					8" Sandy Topsoil	0.7			Fill: 0.0' to 2.5'	
717.0	1.0				SP-SC		Dark brown poorly graded SAND with clay; mostly coarse to fine sand, few clayey fines, moist, Fill				2.5
716.5	1.5										
716.0	2.0										
715.5	2.5										
715.0	3.0				SP		Brown poorly graded SAND; mostly coarse to fine sand, few fine gravel, moist				7.0
714.5	3.5										
714.0	4.0										
713.5	4.5										
713.0	5.0										
712.5	5.5										
712.0	6.0										
711.5	6.5										
711.0	7.0				End of Test Pit						

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.



LOG OF TEST PIT

Project No.: 261327

Test Pit No.: TP-2

Sheet: 1 of 1

Project: Kalitta Turbines Infiltration Testing

Client: Washtenaw Engineering

Location: Superior Township, Michigan

Drill Type: Excavator

Crew Chief: Field Eng.: RS

Rev. By: RS

Coordinates:

Elevation: 717 ft Datum: Plans Provided by Washtenaw Eng.

Notes:

Plugging Record: Backfilled test pit with excavated soil.

Date Begin: 05/07/2026

Date End: 05/07/2026

Tooling	Type	Dia.	Groundwater, ft.	
Casing			During	6.0
Sampler	Excavator	2.5'	End	6.0
Core			Seepage	
Tube			Date	Depth, ft.
SPT Hammer				

Depth Drilled: 6.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Dyn. Cone Eq. "N": ASTM STP 399	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
716.5	0.5					10" Sandy Topsoil				
716.0	1.0						0.8			
715.5	1.5				SC	Brown clayey SAND; mostly coarse to fine sand, little clayey fines, moist				
715.0	2.0						2.3			
714.5	2.5									
714.0	3.0				SP	Brown poorly graded SAND; mostly coarse to fine sand, few fine gravel, moist				
713.5	3.5									
713.0	4.0									
712.5	4.5									
712.0	5.0									
711.5	5.5									
711.0	6.0					Grades wet at 6.0'	6.0			
						End of Test Pit				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.



LOG OF TEST PIT

Project No.: 261327

Test Pit No.: TP-3

Sheet: 1 of 1

Project: Kalitta Turbines Infiltration Testing

Client: Washtenaw Engineering

Location: Superior Township, Michigan

Drill Type: Excavator

Crew Chief: Field Eng.: RS Rev. By: RS

Coordinates:

Elevation: 714 ft Datum: Plans Provided by Washtenaw Eng.

Notes:

Plugging Record: Backfilled test pit with excavated soil.

Date Begin: 05/07/2026

Date End: 05/07/2026

Tooling	Type	Dia.	Groundwater, ft.	
Casing			During	2.8
Sampler	Excavator	2.5'	End	2.8
Core			Seepage	
Tube			Date	Depth, ft.
SPT Hammer				

Depth Drilled: 2.8 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Dyn. Cone Eq. "N": ASTM STP 399	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
713.5	0.5					7" Sandy Topsoil	0.6			
713.0	1.0									
712.5	1.5									
712.0	2.0				SP	Brown poorly graded SAND with gravel; mostly coarse to fine sand, some coarse to fine gravel, moist				
711.5	2.5					Grades wet at 2.8'	2.8			Possible cobble noted
						End of Test Pit				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.



LOG OF TEST PIT

Project No.: 261327

Test Pit No.: TP-4

Sheet: 1 of 1

Project: Kalitta Turbines Infiltration Testing

Client: Washtenaw Engineering

Location: Superior Township, Michigan

Drill Type: Excavator

Crew Chief: Field Eng.: RS

Rev. By: RS

Coordinates:

Elevation: 720 ft Datum: Plans Provided by Washtenaw Eng.

Notes:

Plugging Record: Backfilled test pit with excavated soil.

Date Begin: 05/07/2026

Date End: 05/07/2026

Tooling	Type	Dia.	Groundwater, ft.	
Casing			During	5.0
Sampler	Excavator	2.5'	End	5.0
Core			Seepage	
Tube			Date	Depth, ft.
SPT Hammer				

Depth Drilled: 5.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Dyn. Cone Eq. "N": ASTM STP 399	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
719.5	0.5					10" Sandy Topsoil				
719.0	1.0						0.8			
718.5	1.5				SP-SC	Brown poorly graded SAND with clay; mostly coarse to fine sand, few clayey fiens, moist	1.6			
718.0	2.0									
717.5	2.5									
717.0	3.0					Brown poorly graded SAND; mostly coarse to fine sand, few coarse to fine gravel, moist				
716.5	3.5				SP					
716.0	4.0									
715.5	4.5									
715.0	5.0					Grades wet at 5.0'	5.0			

End of Test Pit

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.