

**GENOA CHARTER TOWNSHIP
PLANNING COMMISSION
PUBLIC HEARING
JULY 11, 2022
6:30 P.M.
AGENDA**

CALL TO ORDER:

PLEDGE OF ALLEGIANCE:

APPROVAL OF AGENDA:

DECLARATION OF CONFLICT OF INTEREST:

CALL TO THE PUBLIC: *(Note: The Board reserves the right to not begin new business after 10:00 p.m.)*

OLD BUSINESS:

OPEN PUBLIC HEARING # 1...Consideration of an amendment to the Saint Joseph Mercy Health Planned Unit Development Agreement, final PUD site plan and environmental impact assessment to construct a proposed 186,157 sq. ft. 4-story hospital addition to an existing medical building. The project is located at 7575 Grand River Avenue, north side of Grand River Avenue and west of Bendix Road. The request is petitioned by Trinity Health-Michigan.

- A. Recommendation of Amended and Restated PUD Agreement
- B. Recommendation of Environmental Impact Assessment (dated 3-30-22)
- C. Recommendation of Final PUD site plan (dated 6-22-22)

NEW BUSINESS:

OPEN PUBLIC HEARING # 2...Consideration of a special use application, environmental impact assessment and site plan for a contractor's yard with outdoor storage for Two Men and a Truck. The request is located at 840 Victory Drive, west side of Victory Drive, south of Grand River Avenue. The request is petitioned by Alan Oversmith, Two Men and a Truck.

- A. Recommendation of Special Use Application.
- B. Recommendation of Environmental Impact Assessment (dated 6-7-22)
- C. Recommendation of Site Plan (dated 6-7-22)

OPEN PUBLIC HEARING #3...Consideration of a environmental impact assessment and site plan for the expansion of a parking lot for an existing office/medical building located at 3399 E. Grand River Avenue on the north side of Grand River Avenue, west of Grand Oaks Drive. The request is petitioned by Crane Construction, Inc.

- A. Recommendation of Environmental Impact Assessment (dated 6-1-22)
- B. Disposition of Site plan (dated 6-21-22)

OPEN PUBLIC HEARING #4...Consideration of a rezoning application, PUD Agreement, Environmental Impact Assessment and conceptual PUD Plan for a proposed rezoning and conceptual plan approval for a proposed development of 204 apartment units. The proposed rezoning is to go from Neighborhood Service District (NSD)/Medium Density Residential (MDR) with Town Center Overlay (TC) to High Density Residential (HDR) with a Residential Planned Unit Development (RPUD) overlay. The request involves parcels 4711-11-300-014 and 4711-14-100-002 located on the Southwest corner of Grand River Avenue and Dorr Road. The request is petitioned by Grand River Dorr, LLC.

- A. Recommendation of Rezoning to HDR and PUD application for RPUD
- B. Recommendation of PUD Agreement (dated 6-22-22)
- C. Recommendation of Environmental Impact Assessment (file dated 5-25-22)
- D. Recommendation of Conceptual PUD Plan (dated 6-23-22)

ADMINISTRATIVE BUSINESS:

- *Staff Report*
- *Approval of June 13, 2022 Planning Commission meeting minutes*
- *Member discussion*
- *Adjournment*



GENOA CHARTER TOWNSHIP
Application for Site Plan Review

TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

APPLICANT NAME & ADDRESS: Trinity Health-Michigan d/b/a St. Joseph Mercy Health System
If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: St. Joseph Mercy Health System

SITE ADDRESS: 7575 Grand River Existing Facility, 7555 Grand River for New Hospital **PARCEL #(s):** ID:4711-13-200-009

APPLICANT PHONE: (734) 712-2192 **OWNER PHONE:** (734) 712-2192

OWNER EMAIL: tom.tocco@stjoeshealth.org

LOCATION AND BRIEF DESCRIPTION OF SITE: Project site is located at
7575 Grand River Rd., Brighton, Michigan, 48114.

Project to include expansion and renovation of existing facility
known as St. Joseph Mercy Brighton.

BRIEF STATEMENT OF PROPOSED USE: Project is intended to expand community health service to Brighton
area and includes development of new hospital addition (four stories plus basement), support spaces,
72 inpatient beds including mother/baby unit, expanded emergency department services, cafeteria,
and associated upgrades to support spaces and utilities, with expanded onsite parking capacity.

THE FOLLOWING BUILDINGS ARE PROPOSED: _____
Hospital addition to existing facility = 175,043 gross sq.ft.
Expansion areas to Medical Office Building =11,114 gross sq.ft.
Renovation area within Medical Office Building = 23,326 net sq.ft

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.


BY: Tom Tocco
ADDRESS: 1600 South Canton Center Road, Canton, MI 48155

Contact Information - Review Letters and Correspondence shall be forwarded to the following:

L.) Tom Tocco of Trinity dba St. Joseph Mercy Health System at Tom.Tocco@stjoeshealth.org
Name Business Affiliation E-mail Address

FEE EXCEEDANCE AGREEMENT

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

SIGNATURE:  DATE: March 29, 2022
PRINT NAME: Tom Tocco PHONE: Direct: 734-712-2192 Cell: 734-646-8730
ADDRESS: 1600 South Canton Center Road, Canton, MI 48155



GENOA CHARTER TOWNSHIP APPLICATION Planned Unit Development (PUD)

APPLICANT NAME: Tom Tocco

APPLICANT EMAIL: tom.tocco@stjoeshealth.org

APPLICANT ADDRESS & PHONE: 1600 South Canton Center Road;Canton, MI 48155 (734) 712-2192

OWNER'S NAME: Trinity Health – Michigan d/b/a St. Joseph Mercy Livingston

OWNER ADDRESS & PHONE: St. Joseph Mercy Health System (734) 712-2192

TAX CODE(S): ID: 4711-13-200-009

QUALIFYING CONDITIONS (To be filled out by applicant)

1. A PUD zoning classification may be initiated only by a petition.
2. It is desired and requested that the foregoing property be rezoned to the following type of PUD designation:
 - Residential Planned Unit Development (RPUD)
 - Planned Industrial District (PID)
 - Mixed Use Planned Unit Development (MUPUD)
 - Redevelopment Planned Unit Development (RDPUD)
 - Non-residential Planned Unit Development (NRPUD)
 - Town Center Planned Unit Development (TCPUD)
3. The planned unit development site shall be under the control of one owner or group of owners and shall be capable of being planned and developed as one integral unit.

EXPLAIN Trinity Health-Michigan d/b/a St. Joseph Mercy Health System are the current owners of the parcel.

4. The site shall have a minimum area of twenty (20) acres of contiguous land, provided such minimum may be reduced by the Township Board as follows:
 - A. The minimum area requirement may be reduced to five (5) acres for sites served by both public water and public sewer.
 - B. The minimum lot area may be waived for sites zoned for commercial use (NSD, GCD or RCD) where the site is occupied by a nonconforming commercial, office or industrial building, all buildings on such site are proposed to be removed and a new use permitted within the underlying zoning district is to be established. The Township Board shall only permit the PUD on the smaller site where it finds that the flexibility in dimensional standards is necessary to allow for innovative design in redeveloping the site and an existing blighted situation will be eliminated. A parallel plan shall be provided showing how the site could be redeveloped without the use of the PUD to allow the Planning Commission to evaluate whether the modifications to dimensional standards are the

minimum necessary to allow redevelopment of the site, while still meeting the spirit and intent of the ordinance.

- C. The PUD site plan shall provide one or more of the following benefits not possible under the standards of another zoning district, as determined by the Planning Commission:
 - preservation of significant natural or historic features
 - a complementary mixture of uses or a variety of housing types
 - common open space for passive or active recreational use
 - mitigation to offset impacts
 - redevelopment of a nonconforming site where creative design can address unique site constraints.

- D. The site shall be served by public sewer and water. The Township may approve a residential PUD that is not served by public sewer or water, provided all lots shall be at least one (1) acre in area and the requirements of the County Health Department shall be met.

Size of property is 77.59 acres.

DESCRIBE BELOW HOW THE REQUESTED PUD DESIGNATION COMPLIES WITH AFOREMENTIONED MINIMUM LOT SIZE REQUIREMENTS.

A PUD currently governs the site and is being amended in order to accommodate
the expanded hospital program to better serve the community.

STANDARDS FOR REZONING TO PLANNED UNIT DEVELOPMENT (RESPOND HERE OR WITHIN THE IMPACT STATEMENT)

- 1. How would the PUD be consistent with the goals, policies and future land use map of the Genoa Township Master Plan, including any subarea or corridor studies. If conditions have changed since the Master Plan was adopted, the consistency with recent development trends in the area;

The amended PUD will comply with the open space requirement from the township.

- 2. The compatibility of all the potential uses in the PUD 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;

See attachment, Impact Statement and supporting appendices.

- 3. The capacity of infrastructure and services sufficient to accommodate the uses permitted in the requested district without compromising the “health, safety and welfare” of the Township;

See attachment, Impact Statement and supporting appendices.

4. The apparent demand for the types of uses permitted in the PUD;
See attachment, Impact Statement and supporting appendices.

AFFIDAVIT

The undersigned says that they are the Owner's Executive Dir. (owner, lessee, or other specified interest) involved in this petition and that the foregoing answers and statements herein contained and the information herewith submitted are in all respects true and correct to the best of his/her knowledge and belief.

BY: Tom Tocco
ADDRESS: 1600 South Canton Center Road, Canton, MI 48155

Contact Information - Review Letters and Correspondence shall be forwarded to the following:

Tom Tocco of Trinity dba St. Joseph Mercy Health System at tom.tocco@stjoeshealth.org
Name Business Affiliation E-mail

FEE EXCEEDANCE AGREEMENT

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

PROJECT NAME: St. Joseph Mercy Brighton Expansion and Renovation

PROJECT LOCATON & DESCRIPTION: 7575 Grand River Rd., Brighton, MI 48114

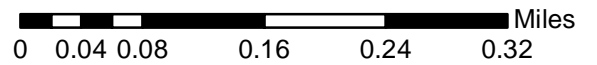
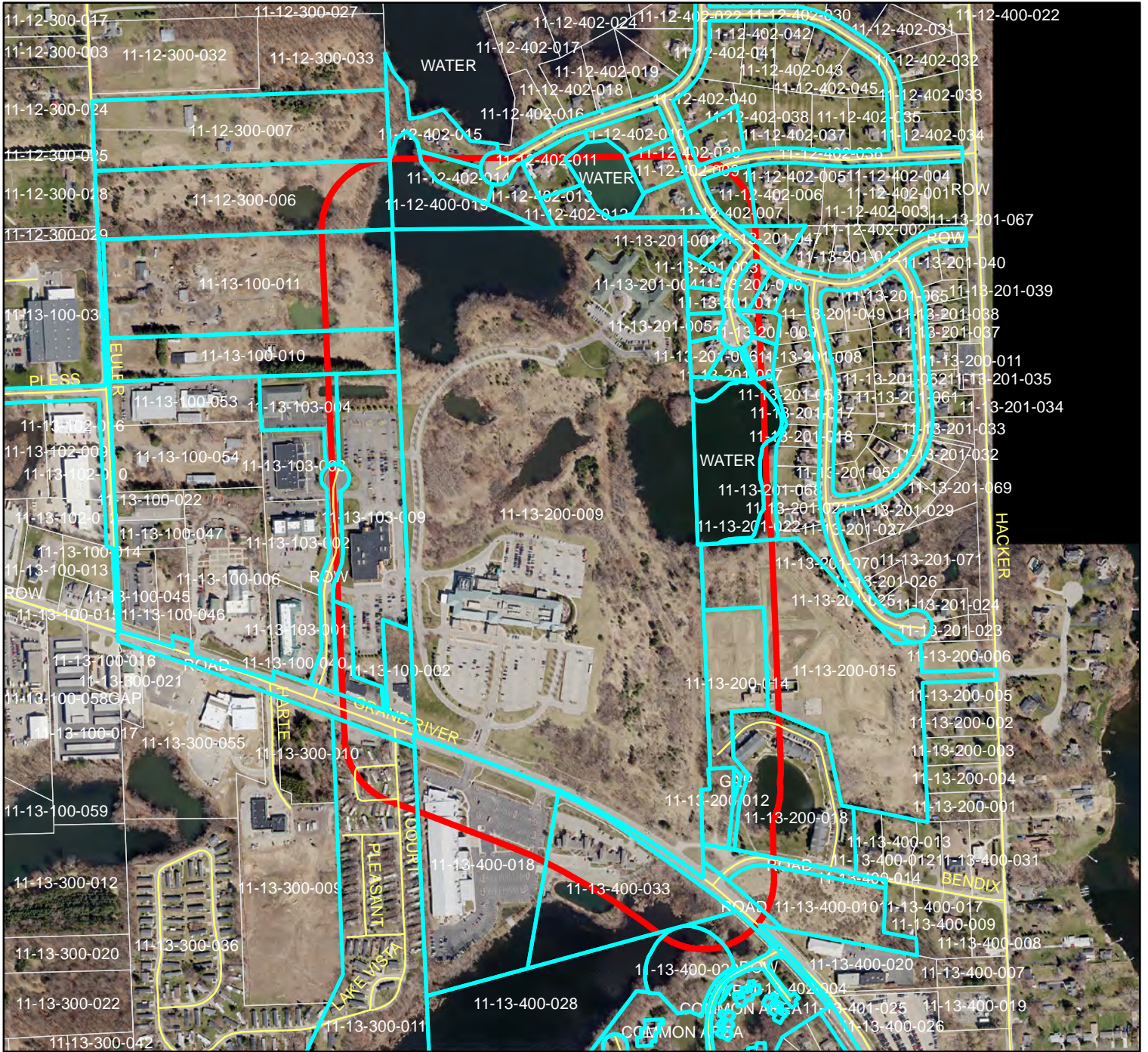
Expansion and renovation of existing MOB and clinic to add Hospital function.

SIGNATURE: Tom Tocco DATE: March 29, 2022

PRINT NAME: Tom Tocco PHONE: 734-712-2192

COMPANY NAME & ADDRESS: St. Joseph Mercy Health; 1600 South Canton Center Road, Canton, MI 48155

300 Foot Buffer for Noticing



Special Use: St. Joseph Mercy

Address: 7575 Grand River

Parcel: 4711-13-200-009



May 4, 2022



NOTICE OF PUBLIC HEARING – MAY 23, 2022

May 6, 2022

To Whom It May Concern:

Please be advised that the Planning Commission of Genoa Charter Township will conduct a public hearing on **Monday, May 23, 2022 commencing at 6:30 p.m.** As required by state law, you are receiving this notice because you have been identified as an owner or occupant of real property within 300 feet of the subject parcels.

The property in question is located at 7575 Grand River Avenue, north side of Grand River Avenue, west of Bendix Road. **The applicant is requesting an amendment to the Saint Joseph Mercy Health Planned Unit Development to construct a proposed 184,157 sq. ft. 4-story hospital addition to an existing medical building. The request is petitioned by Trinity Health-Michigan.**

You are invited to attend this hearing. Members of the public will be able to speak during the public hearing portions of the meeting. If, prior to the meeting, members of the public have certain questions or wish to provide input on any business that will be addressed at the meeting then such persons may contact the Planning Commissioners through email to Kelly@genoa.org, or by mail at 2911 Dorr Road, Brighton, Michigan 48116.

Genoa Charter Township will provide necessary reasonable auxiliary aids and services to individuals with disabilities at the meeting/hearing upon seven (7) days' notice to the Township. Individuals with disabilities requiring auxiliary aids or services should contact the Township in writing or by calling at (810) 227-5225.

Sincerely,

Kelly VanMarter,
Assistant Township Manager / Community Development Director

2911 Dorr Road
Brighton, MI 48116
810.227.5225
810.227.3420 fax
genoa.org

SUPERVISOR

Bill Rogers

CLERK

Paulette A. Skolarus

TREASURER

Robin L. Hunt

TRUSTEES

Jean W. Ledford

H. James Mortensen

Terry Croft

Diana Lowe

MANAGER

Michael C. Archinal

OPEN PUBLIC HEARING #1... Consideration of a **REQUEST TO POSTPONE UNTIL THE JULY 11, 2022 PLANNING COMMISSION MEETING** the proposed project for an amendment to the Saint Joseph Mercy Health Planned Unit Development Agreement, final PUD site plan and environmental impact assessment to construct a proposed 186,157 sq. ft. 4-story hospital addition to an existing medical building. The project is located at 7575 Grand River Avenue, north side of Grand River Avenue and west of Bendix Road. The request is petitioned by Trinity Health-Michigan.

- A. Call to the public
- B. Consider request to postpone to the July 11, 2022 meeting.

The call to the public was made at 6:42 pm.

Dr. Stephen Tait, who has a practice within the building envelope of the hospital, wants to know what the plans will be during construction for ingress and egress. He sees approximately 70 elderly patients a day and he wants to make sure they are accommodated.

Ms. VanMarter provided her contact information so Dr. Tait can contact her to view the plans for the hospital.

The call to the public was closed at 6:45 pm.

Moved by Commissioner McCreary, seconded by Commissioner Dhaenens, to postpone Public Hearing #1 until the July 11, 2022 Planning Commission meeting at the applicant's request. **The motion carried unanimously.**

OPEN PUBLIC HEARING # 2.... Discussion and consideration of a recommendation to distribute final draft master plan as presented by Giffels Webster.

- A. Recommendation to distribute Final Draft Master Plan.

Ms. Jill Bahm and Ms. Sri Komaragiri from Giffels Webster were present.

Ms. Komaragiri reviewed the changes that were made to the plan as a result of the discussion at the previous meeting. The major changes are in the Action Strategies section, specifically:

- Updated action strategies for all goals under three categories (Zoning, Advocacy and Capital Improvement).
- Included information about Lead bodies and supporting partners for each strategy.
- The recommended strategies capture the intent and PC discussion at the April meeting.

Commissioner McCreary asked to amend Item 4.5 under "Advocacy Action Strategies" to include that the Township will work with the surrounding municipalities when addressing the transportation network and coordinating potential road improvements in and around the Township to mitigate traffic congestion from changes in development.



July 1, 2022

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP Planning Director and Assistant Township Manager
Subject:	St. Joseph Mercy Health System – PUD Amendment and Site Plan Review #3
Location:	7575 Grand River Avenue – north side of Grand River, west of Bendix Road
Zoning:	NRPUD Non-Residential Planned Unit Development

Dear Commissioners:

At the Township’s request, we have reviewed the revised submittal from St. Joseph Mercy Health System requesting an amendment to the approved PUD, as well as PUD site plan review (plans most recently dated 6/22/22).

A. Summary

1. PUD Amendment:

- a. The applicant must address the comments put forth by Township staff.
- b. There are several elements of the draft that warrant additional discussion and/or edits.

2. PUD Site Plan:

- a. Sheet A0.X, which identifies the building material codes, must be provided to the Township.
- b. The applicant should be prepared to present material samples to the Commission as part of its review.
- c. The findings of the traffic impact study are subject to review and comment by the Township Engineer.
- d. We are unable to locate details of an enclosure for the refuse area, or for the “architectural covering” noted.
- e. The Commission should consider comments provided by the Township Engineer and/or Brighton Area Fire Authority.

B. Proposal/Process

The applicant proposes to amend the approved PUD by renovating and expanding an existing hospital building. Per the PUD Agreement, the proposed 4-story hospital contains 175,043 square feet of gross floor area.

In accordance with Section 10.11, the PUD amendment requires review and recommendation by the Planning Commission, and final review/approval by the Township Board (including execution of an amended PUD Agreement).



Aerial view of site and surroundings (looking west)

C. PUD Amendment

The applicant has addressed many of the comments raised to date. However, based on discussion with the Township, the following Sections warrant additional edits and/or discussion:

- 2.1 – the original language regarding the base zoning should be retained.
- 2.3.4 and 2.4.1 – specific information and a detail are needed describing and depicting the encroachments into the natural feature setback. Part of the overall request is to eliminate the need for special land use review/approval to encroach, so this detail is an important matter for the Township’s consideration.
- 4.2.3 – seeks to allow administrative review for parking lot expansion; however, this should reference the requirements of Article 18 (which will likely result in the need for site plan review by the Planning Commission).
- 5.2 – the proposed sign provisions are far too vague, in our opinion. The quantity and maximum size of signage should remain in the Agreement (even if amended from current). Use of the phrase “in an amount deemed necessary” should not be allowed.
- 5.3 – allows a 4-story building with a maximum height of 65 feet, plus a screen wall that takes the top of the building up to 78 feet. To the best of our knowledge this would be the tallest building in the Township. Additionally, this section allows rooftop equipment to exceed 17 feet in height, but does not include an overall maximum.
- 7.12 – seeks to allow an appeal to ZBA if denied. This section must be deleted as it conflicts with Section 10.10.01 of the Zoning Ordinance, which allows variance consideration (though amending the PUD is generally more appropriate), but does not permit appeals on PUD decisions.

D. PUD Site Plan

1. **Dimensional Requirements.** The proposed building expansion/addition is situated well outside of required setbacks – the least amount of setback provided is nearly 250 feet from the west side lot line. The proposal will be approximately 750 feet from the easterly lot line, which includes existing residential uses.

Provided the Township is amenable to the building height increase proposed as part of the amended PUD Agreement, the plans meet the applicable dimensional requirements.

2. **Buildings.** The proposed building materials include brick, concrete block, metal and glass.

The notes on Sheet A4.1.1 reference Sheet A0.X for the material codes, though this sheet has yet to be provided to our office as part of this review. This document must be provided to the Township for their files.

The proposal uses a mixture of materials and colors, as well as horizontal and vertical features to help break up the mass of the building.

Building materials and design are subject to review by the Planning Commission, and the applicant should be prepared to present material and color samples at the upcoming meeting.

- 3. Pedestrian Circulation.** The plan includes extension of the existing pedestrian pathway system that connects parking areas to building entrances. Pedestrian crosswalk striping is also provided at appropriate locations.

The revised plan also includes an enhanced path/trail connecting the project area with Woodland Village to the northeast.

- 4. Vehicular Circulation.** The project includes completion of a loop road around the entire medical facility, with internal drives connecting the multiple parking lots. The loop road and internal drive aisles meet or exceed the dimensional standards of the Ordinance.

The findings of the traffic impact study are subject to review and comment by the Township Engineer.

The Commission should consider any additional comments provided by the Township Engineer and/or Brighton Area Fire Authority with respect to vehicular circulation.

- 5. Parking.** Parking has been based on the owner's experience with other large medical complexes.

The site plan notes 618 spaces for the anticipated parking needs for the proposal. The plan provides 753 spaces with an additional 246 designed as banked parking (southeast of building).

Parking spaces comply with the dimensional and design requirements of the Ordinance.

- 6. Landscaping and Screening.** The revised landscape plan includes a significant number of new plantings within the parking lot, along the loop road, around the stormwater ponds, and within a courtyard area between the existing and proposed buildings.

The minor discrepancies noted in our initial review letter have been corrected.

The revised plans include a masonry screen wall matching materials used on the building around the "utility yard" north of the proposed building addition.

Lastly, a refuse area is identified on the north side of the proposed building addition; however, we are unable to locate details of an enclosure (as required by Section 12.04). The notes identify an "architectural covering," though it is unclear what this entails.

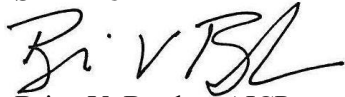
- 7. Lighting.** The revised submittal includes a detailed lighting plan for the project area. Fixture/pole details and light intensities comply with the standards of Section 12.03.

- 8. Grading, Drainage, and Utilities.** We defer to the Township Engineer for review and comment on site engineering elements.

Should you have any questions concerning this matter, please do not hesitate to contact our office.

Respectfully,

SAFEBUILT

A handwritten signature in black ink, appearing to read "B. V. Borden". The signature is fluid and cursive, with the first letters of each name being capitalized and prominent.

Brian V. Borden, AICP
Michigan Planning Manager

July 6, 2022

Ms. Kelly Van Marter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

**Re: St. Joseph Mercy Hospital
Site Plan Review No. 3**

Dear Ms. Van Marter:

Tetra Tech conducted a third review of the proposed St. Joseph Mercy Hospital site plan last dated June 22, 2022. The plans were prepared by SmithGroup on behalf of Trinity Health-Michigan/Saint Joseph Mercy Health System. The site is located on a 77.59-acre parcel on the north side of Grand River Avenue at the existing St. Joseph Mercy Brighton Healthcare. The proposed improvements include a 175,000 square foot hospital expansion at the existing site. Additional improvements include parking lot expansion, storm sewer and bioretention basins, and public water main and sanitary sewer improvements. We offer the following comments:

GENERAL

1. Approval from the Brighton Area Fire Authority should be obtained prior to approval.
2. The impact assessment states that the proposed hospital expansion will include 72 beds. This will account for 78.5 residential equivalency units (REU), which comes from the Township's REU table that assigns 1.09 REUs per hospital bed. This number will be used to determine the proposed facility's tap-in fee. The impact assessment also notes that the hospital will include shell space for an additional 16 beds, which would account for an additional 17.4 REUs.
3. The Petitioner completed a traffic impact study that recommended multiple offsite improvements to keep the existing intersection operating at a similar or better level of service at the current conditions, and recommended the improvements be made regardless of the proposed hospital. Recommended improvements include signal changes at the intersections of Latson Road and eastbound and westbound I-96 and at the intersection of Latson Road and Grand River Avenue. The study also recommends the widening of the Grand River Avenue and I-96 crossover (near Hilton Road in Brighton) to three lanes. These improvements are something the Township, MDOT, and the City of Brighton should keep in mind.

SITE PLAN

1. A wetland inventory has been completed and added to the plans, and the Petitioner is proposing to waive the 25-foot wetland buffer as part of their PUD Agreement. If a wetland permit is required, approval should be obtained from EGLE for any proposed work within the wetlands and for using the wetlands for detention. This approval should be provided prior to site plan approval.
2. The site plan calls out a refuse area with architectural covering, but it appears that no detail is provided. A detail of the proposed architectural covering should be provided for review and approval.

DRAINAGE/GRADING

1. The Livingston County Drain Commission (LCDC) was asked to review the plans for the proposed hospital. The LCDC has completed their initial review and no significant issues were found with the proposed storm drainage plan. We do not foresee future reviews from the LCDC causing any major changes to the layout of the site. Final Approval from the LCDC should be obtained and provided to the Township prior to final approval. If future reviews from either the LCDC or EGLE cause any major changes to the site plan, the Petitioner may be required to submit for additional review and approval.
2. Detention and storm sewer calculations, including structure sizing, should be included as part of the site plan submittal. Any additional information requested in the June 23, 2022, letter from the LCDC should also be included on the site plan.

UTILITIES

1. The Petitioner is proposing to provide easements for both the existing and proposed water and sanitary sewer on site. Currently, Genoa Township is not included in the existing utility easements on site and it is mutually beneficial for this to be resolved as part of the site plan approval process.
2. After final site plan approval, the Petitioner will need to submit to MHOG Sewer and Water Authority for their approval and permitting of the public water and sanitary sewer improvements.
3. The Brighton Area Fire Authority requested in their letter that the onsite water main be looped around the perimeter of the proposed and existing buildings. This has been added to the plans.
4. Detailed water and sanitary plans at a 1" = 20' scale have been provided for each portion of the project beside the hospital expansion area. Since the overall water and sanitary plan and the detailed site plan of this area does not include much detail on the proposed utilities, a smaller scale water and sanitary plan should be provided for the building expansion area as well.

We recommend the petitioner address the above comments prior to approval.

Sincerely,



Gary J. Markstrom, P.E.
Vice President



Shelby Byrne
Project Engineer



Brian Jonckheere

Livingston County Drain Commissioner

2300 E. Grand River Ave., Ste. 105

Howell, MI 48843-7581

Phone: 517-546-0040 FAX: 517-545-9658

Website: www.livgov.com/drain Email: drain@livgov.com

June 23, 2022

Mr. Michael Campos
SmithGroup
201 Depot St.
Ann Arbor, MI 48104

Re: St. Joseph Mercy Brighton Expansion
Construction Plans
Northeast 1/4 of Section 13
Genoa Township

Dear Mr. Campos:

I received Construction Plans for the above referenced site directly from the project construction manager on May 11, 2022. The submitted information has been reviewed for conformance with the recently updated L.C.D.C. "Procedures and Design Criteria for Stormwater Management Systems." My comments on the currently proposed drainage design are as follows:

- 1.) Drainage System Ownership - The plans should include a general note stating that "The existing and proposed onsite drainage systems are to be owned and properly maintained by the property owner." A maintenance agreement for the site's stormwater management facilities should be executed with Genoa Township prior to final project approval.
- 2.) Overall Drainage Concept - The proposed project, consisting of a large building addition, together with its related parking lot expansions, at the existing health care facility located on the north side of Grand River Avenue between Euler

Road and Hacker Road, is to be completed in 7 phases. Two stormwater bioretention areas are proposed to infiltrate runoff from the newly developed portions of the site, with any overflow being directed to the existing onsite stormwater detention basin located to the north. Replacement of the existing detention basin outlet control structure ultimately discharging to Woodland Lake is also proposed.

- 3.) Site Topographic Survey - The Construction Plans should include a current topographic survey of the site showing the property description, property boundary, bench marks, easements, and complete utilities information, including the pipe sizes, rim and invert elevations of the existing manholes, catch basins, and end sections. Existing contours extending 100 feet outside the site perimeter should be shown and labeled with their respective elevations. Existing pavement spot elevations should also be noted, particularly in the areas of the proposed pavement connections.
- 4.) Drainage Areas Plans - The Construction Plans should include a drainage areas plan showing the boundary, acreage and runoff coefficient of the tributary area to each existing and proposed drainage structure. The extent of offsite tributary area to the existing detention basin should be confirmed, as it appears possible that an offsite tributary from the north (including an area draining the service road to the north, and possibly open water bodies to the north of the service road) may flow through this basin.
- 5.) Stormwater Detention/Infiltration - Complete stormwater management calculations should be included on the plans indicating the required Water Quality Control, Channel Protection Volume Control, Channel Protection Rate Control and 100 Year Frequency Storm storage volumes for the site. The calculations should also document the storage volumes provided in the proposed bioretention areas, the existing forebay and detention basin, as well as the proposed outlet structure orifice design. The "Land Use Summary Table" found in Appendix J of the updated L.C.D.C. "Procedures and Design Criteria for Stormwater Management Systems" should be included on the Cover Sheet of the Construction Plans.

- 6.) Storm Sewer - The proposed storm sewers should be designed to accommodate the runoff from a 10 year frequency storm over their tributary areas. Complete storm sewer plans, profiles and design calculations should be included in the Construction Plans.
- 7.) Site Grading - The existing and proposed contours shown on the Overall Grading and Storm Sewer Plan on Sheet C6-100 should be labeled with their respective elevations. The proposed slopes shown around much of the construction area perimeter appear to be 1V on 3H. All slopes steeper than 1V on 4H should be stabilized with topsoil, seed and stake mulch blankets (or sod), and so noted on the plans.

I am withholding approval of the Construction Plans for St. Joseph Mercy Brighton Expansion until the above mentioned items have been addressed.

Very truly yours,



Kenneth E. Recker, II, P.E.
Chief Deputy Drain Commissioner

C: Mike Archinal, Genoa Twp. Manager
Kelly VanMarter, Genoa Twp. Community Development Director
Amy Ruthig, Genoa Township Zoning Official
Paul Lewsley, Environmental Engineers
Jenifer Kern, Genoa Township (MHOG)
Tiffany Spano, St. Joseph Mercy Brighton



BRIGHTON AREA FIRE AUTHORITY

615 W. Grand River Ave.
Brighton, MI 48116
o: 810-229-6640 f: 810-229-1619

July 5, 2022

Kelly VanMarter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

RE: St. Joseph Mercy Brighton - Renovation & Expansion
7555 Grand River
Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Department has reviewed the above-mentioned site plan. The plans were received for review on May 10, 2022 and the drawings are dated December 22, 2021 with revisions dated May 4, 2022 and June 22, 2022. The project is based on the addition and expansion to an existing hospital facility. The project includes a new 4-story 175,043 square foot inpatient tower, 11,114 square foot addition to the existing hospital and emergency room as well as approximately 26,326 square foot of tenant alterations within the existing building. The plan review is based on the requirements of the International Fire Code (IFC) 2021 edition.

Previously addressed comments have been removed from this letter for clarity.

1. Access around the building shall provide emergency vehicles with a turning radius of 50-feet outside and 30-feet inside. Provide an emergency vehicle circulation plan using the previously provided templates. Vehicle circulation shall account for non-emergency traffic and maintain the vehicle within the boundary of lanes of travel. **(Vehicle circulation plan has been provided on Sheet CS-200; however, it indicates numerous areas where apparatus circulation and navigation require the use of opposing travel lanes. There are two along the North drive and the intersection from the North drive South along the East side of the tower and the South interior drive corner moving South turning East adjacent to the new expansion. Clarification was previously provided requiring lane management for emergency vehicles. This may require wider intersections or drive widths to accommodate the)**

IFC 503.2.4

Additional comments will be given during the building plan review process (specific to the building plans and occupancy). The applicant is reminded that the fire authority must review the fire protection systems submittals (sprinkler & alarm) prior to permit issuance by the Building Department and that the authority will also review the building plans for life safety requirements in conjunction with the Building Department.

If you have any questions about the comments on this plan review please contact me at 810-229-6640.

Cordially,

A handwritten signature in black ink, appearing to read "R. Boisvert".

Rick Boisvert, FM, CFPS



May 18, 2022

Page 2

St. Joseph Mercy Brighton 0- Renovation & Expansion
7575 Grand River
Site Plan Review

Fire Marshal

cc:Amy Ruthig amy@genoa.org

From: [Matt Bolang](#)
To: [Amy Ruthig](#)
Cc: [Aaron Aumock](#)
Subject: Genoa LCHD Reviews
Date: Tuesday, April 19, 2022 3:46:41 PM
Attachments: [image002.png](#)
[image003.png](#)
[image007.png](#)
[image008.png](#)
[image001.png](#)

Hi Amy,

We have reviewed all of the current proposals. Below are our comments:

- **St. Joes: Will be connected to MHOG water and sewer. No LCHD review. Any potential new or remodeled food service will need to be reviewed by our department for licensure.**
- Two Men and a Truck: We recommend that the new owner samples the well for bacteria, nitrates, and arsenic. We are available to review the results.
- Lanning Daycare: The septic system was replaced in 2020, likely due to overuse by the daycare. We oversized the system and required the installation of a diverter valve so the old system could be used again in the future. As part of the LARA licensing process, LCHD would be required to inspect the facility including the well and septic. Our last record of a licensing inspection was 2004.
- Panda: We have no comments initially. They will need LCHD approval in conjunction with the building department before approved to operate and issued a food service license.

Let me know if you have any questions. Also in the future you can email the proposed projects directly to Aaron Aumock (copied on this email).

Thanks,
Matt

Matt Bolang, MSA, REHS
Deputy Health Officer
Director of Environmental Health
Livingston County Health Department
2300 East Grand River
Howell, MI 48843

517-552-6870 | www.lchd.org



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IMPACT ASSESSMENT
St. Joseph Mercy Brighton Health Center
March 30, 2022

INTRODUCTION

The proposed development is a 77.59-acre medical use site residing north of Grand River Ave. Potential areas of concern are noted along with the proposed methods of addressing each item. The format conforms to the impact assessment requirements as outlined in section 18.07 of the published zoning ordinance for Genoa Township.

- a. **Name(s) and address(es) of person(s) responsible for preparation** of the impact assessment and a brief statement of their qualifications.

St. Joseph Mercy Brighton Health Center
7575 Grand River Ave Rd,
Brighton, MI 48114
(810) 844-7575

SmithGroup
Architecture architectural, engineering and planning firm
201 Depot St, Ann Arbor, MI 48104
(734) 662-4457

Michael Johnson |
michael.johnson@smithgroup.com | 734-712-2047

Dino Lekas | PLA
dino.lekas@smithgroup.com | 734-669-2678

Michael Campos | Civil, PE
michael.campos@smithgroup.com | 734-669-2749

Katherine DeKrey | Landscape Design
katherine.dekrey@smithgroup.com | 734-669-2712

Charles Langolf | Professional Surveyor
charlie.langolf@smithgroup.com | 734-669-2690

Bergmann
Transportation engineering firm
29777 Telegraph, Suite 1640 Southfield, MI 48034

Steven J. Russo, PE | Transportation Engineer
srusso@bergmannpc.com | 248-663-1379

Barr Engineering Co.
Wetland Consultant
3005 Boardwalk Dr Suite 100, Ann Arbor, Mi 48108

Woody L. Held | Senior Environmental Consultant
WHeld@barr.com | 734.922.4422

b. Map(s) and written description/analysis of the project site

The St. Joseph Mercy Brighton Health Center site (Parcel ID: 4711-13-200-009) is in Section 13 of Livingston County, north on Grand River Road, west of South Hacker Road and east of the Genoa Business Park. It is a 77.59-acre site that currently has a medical facility and a senior living facility residing on it. These establishments are supported by surface parking as well as an access road that has shared connections shared with the Business Park. Please see attached documentation Smith Group Site Submittal Package page CV-100 for easement information and surrounding zoning.

c. Impact on natural features:

1. Slopes and Grade: The site presents steeper slopes around the parking perimeter and road resulting from the excavation process from prior development. It is intended that this plan will minimize the amount of grading that will need to be done on-site. However, due to the nature of the medical building programming, a grade change over 3% will need to be performed in order to make it accessible. This grading will be performed on 11 acres of the site. The zoning administration will be notified of the grade change required for the building footprint, revised detention basin, parking, and utility yards. Smith Group Site Submittal Package page CG-100 to CG-104.
2. Wetland and Soils: The site contains two creeks and two wetland/detention ponds north of the existing medical building. Based on a Preliminary Wetland Analysis completed by SmithGroup, and a Wetland Inventory Study, currently being conducted by Barr engineering, wetland soils are present within the project area, and development and grading may fall within 25' of the wetland boundary north of the loop fire road. Mitigations will follow any state of Michigan EGLE regulated wetlands requirements and shall only be installed or constructed upon receiving all necessary approvals of EGLE and in accordance with all applicable EGLE rules and regulations. See attachment Smith Group Site Submittal Package page CV-200 and supporting wetland documentation.
3. Vegetation: There is significant existing vegetation on the site, as shown on the Site Plan. Most of this vegetation tends to be undergrowth and brush. Some of this vegetation will need to be removed in order to accommodate the required parking for the expanded medical building use. It is the intent of this design to minimize vegetation removal and the improvements will not be removing more than 25% of existing vegetation on site. See attachment Smith Group Site Submittal Package page CV-300.

d. Impact on stormwater management:

The existing stormwater drainage is contained within the site and drain to a regional pond/detention system. An existing wet pond with forebay is currently functioning as the stormwater mitigation system for the entirety of the site's drainage area. Existing on-site underground storm sewer will be utilized to continue to convey stormwater to the existing wet pond. Proposed underground storm sewer will be added to support the additional parking areas and impervious cover.

Based on revised Livingston County Drain Commission requirements, improvements will be made to the existing forebay by dredging the bottom of the pond and increasing its storage volume. Proposed improvements to the existing system also include reconstructing the outlet pipe of the larger wet pond prior to discharging into the adjacent lake. Infiltration rates have been determined by the Geotechnical Engineer and additions of bioretention infiltration ponds throughout the site will be installed.

The improvements to the existing detention system as well as the bioretention infiltration ponds are to enhance the overall quality of the stormwater system.

Surface runoff during construction will be controlled by silt fences, inlet filters, and seed and mulch.

e. Impact on surrounding land used:

The new medical facilities are planned to benefit the community by providing state-of-the-art healthcare facilities in the area. This development enhances the existing medical development on-site, which can be accessed from the south via I-96 expressway and Grand River Avenue. Site improvements include a complete loop road, drop-off areas, parking lots, relocation of the helistop, loading area, generators, oxygen tanks,

mobile PET scanner for trucks and ambulance access. Although exterior lighting will be required for the roadways and walks to provide safe access for staff and visitors, full cut-off fixtures are planned to decrease unnecessary light pollution. Lighting will also be required for the safe use of the helipad, currently planned to only pick up patients and take them to another facility if needed. Additional building and site accent lighting will be automatically shut off via timeclock curfew control. Although the generators, helicopters, vehicles and ambulances planned for the site may increase the noise and air pollution, this is not expected to be a significant issue, due to the current noise level and air pollution from the existing site usage, its proximity to I-96 and Grand River, and significant setbacks from other adjacent development.

f. Impact on public facilities and services:

St. Joseph Mercy Health of Michigan intends to build an 175,000 square foot, 4-story, 72 bed hospital with basement, (with shell space for an additional 16 beds) within Livingston County, thus replacing the existing facility on Byron Road in Howell. The project will be located on and attached to the St. Joseph Mercy Brighton Health Center. The two buildings will be connected to the first and second levels, but no inpatients will move into the existing facility for services. There will be additions to the existing Brighton Health Center to expand Emergency Department and Outpatient Surgery Services as well as renovations of the Emergency Department, Outpatient Surgery, Imaging, and Lab.

The facility is anticipated to employ the same number of people as the two existing facilities. This development is not expected to impact the public schools. Police and fire protection will be needed for both the hospital and MOB.

g. Impact on public utilities:

Sanitary sewer and water utilities are reviewed by Marion, Howell, Oceola, and Genoa (MHOG) Sewer and Water Utilities.

The existing hospital is serviced by a sanitary sewer located south of the building that connects to Grand River Avenue. The sanitary sewer for the proposed building is to exit the north of the building and connect to the existing 8-inch sewer main running along the eastern property line. In discussion with MHOG, there is sufficient capacity in the sewer located just north of the site.

The site is currently serviced by one 12" water main connection along Grand River Avenue. With the planned hospital expansion there will be an 8" watermain that will provide a looped system by connecting the watermain system from the existing stub north of the current staff entrance to the stub located at The Village development. An existing water main runs along the north of the existing St. Joseph Mercy building to the edge of the staff parking lot. Based on the proposed building outline, a portion of the existing watermain will be removed and capped at the west edge of the driveway to the emergency department. Separate domestic and fire protection water main services will connect into the building off an extension from the capped watermain. Existing hydrants will be maintained to ensure adequate building coverage as required by all applicable fire codes.

Sanitary sewer and water main design will meet the MHOG Sanitary Sewer and Water Design Standards. All utility connections will follow guidelines set forth by the MHOG Utility Connection Manual.

h. Storage and handling of any hazardous materials:

Fuel tanks and other utilities will be installed north of the building adjacent to the loading dock, will not comply with 13.07.01 Above Ground (Fuel) Storage Tanks based on the nature of medical facility. Instead, the facility will comply with the State and Federal codes for fuel oil storage which are more rigorous than the intent of the local ordinance. It is the policy of Saint Joseph Mercy Health System (SJMHS) to ensure the safe handling and disposal of medical waste throughout the organization, including the proposed development. SJMHS enforces a strict medical waste policy and plan, including obtaining certificates from regulatory agencies, oversight from SJMHS Safety Program personnel to ensure safe practices for the transportation, packaging, and storage of medical waste.

i. Impact on Traffic and Pedestrians:

A traffic study was completed by Bergmann on March 24, 2022. The report covers all of the items listed below with the exception of the crash analysis as it was not requested by LCRC or MDOT. Please see attached Appendix I for the Traffic study's executive summary and full report.

Description of existing daily and peak hour traffic on adjacent street(s) and a description of any sight distance limitations along the right-of-way frontage of the site.

Forecasted trip generation of the proposed use for the a.m. and p.m. peak hour and average daily traffic generated.

For any project with a completion date beyond one year at the time of site plan approval, the analysis shall also include a scenario analyzing forecasted traffic at date of completion along the adjacent street network using a forecast based either on historic annual percentage increases and/or on expected development in the area.

Projected traffic generated shall be distributed (inbound v. outbound, left turn v. right turn) onto the existing street network to project turning movements at site driveways and nearby intersections. Rationale for the distribution shall be provided.

Capacity analysis at the proposed driveway(s) using the procedures outlined in the most recent edition of the *Highway Capacity Manual* published by the Transportation Research Board. Capacity analyses shall be provided for all street intersections where the expected traffic will comprise at least five-percent (5%) of the existing intersection capacity.

Accident data for the previous three (3) years for roadway sections and intersections experiencing congestion or a relatively high accident rate, as determined by the township or staff from the Livingston County Road Commission or Michigan Department of Transportation.

Analysis of any mitigation measures warranted by the anticipated traffic impacts. Where appropriate, documentation shall be provided from the appropriate road agency regarding time schedule for improvements and method of funding.

A map illustrating the location and design of proposed access, including any sight distance limitations, dimensions from adjacent driveways and intersections within 250 feet of the edge of the property frontage, and other data to demonstrate that the driveway(s) will provide safe and efficient traffic operation and be in accordance with Article 15.

j. Special Provisions: General description of any deed restrictions, protective covenants, master deed or association bylaws.

All easements are shown on Smith Group Site Submittal Package page CV-100.

k. A list of all sources shall be provided.

SmithGroup Survey and Plans
Traffic Study Appendix I
Preliminary Wetland Analysis Appendix II
Title Search Appendix III

TRAFFIC STUDY APPENDIX I



ST. JOSEPH MERCY BRIGHTON HEALTH CENTER EXPANSION TRAFFIC IMPACT STUDY

Genoa Township, Michigan



Bergmann

Office: Midwest (Southfield)
29777 Telegraph Road, Suite 1640
Southfield, MI 48034

Phone: 248.663.1289

Email: srusso@bergmannpc.com
www.bergmannpc.com

March, 2022



ST. JOE'S

A Member of Trinity Health

Only the executive summary is included in the 7/11/22 PC Packet for brevity and reduced packet size. Please contact Kelly VanMarter at kelly@genoa.org for a full copy of the document.



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1.0 Executive Summary

This report presents the methodologies, analyses, results, and recommendations of a Traffic Impact Study (TIS) for the proposed St. Joseph Mercy Brighton Health Center expansion in Genoa Township, Livingston County, Michigan. The project site is located on the north side of Grand River Avenue ¾ miles northwest of Hacker Road and currently includes approximately 145,000 square feet (SF) of outpatient health services including primary care and specialty physicians, comprehensive diagnostic and testing services, emergency services, outpatient surgery, and cancer care. The purpose of this study is to identify the traffic related impacts, if any, of the proposed project on the adjacent road network. This study was conducted in accordance with accepted traffic engineering practice and guidelines published by the Institute of Transportation Engineers (ITE). Township Ordinance as well as Michigan Department of Transportation (MDOT) and Livingston County Road Commission (LCRC) standards were referenced as applicable.

The proposed development plans include construction of an approximately 150,000 square foot (SF) Hospital facility to accommodate 559 employees and 72 beds. This project is planned to be built out by 2024 and assumed to be fully occupied by that time for the purposes of this study. Access for the site is currently provided via a single signalized driveway to Grand River Avenue aligned with the 2½ Church Driveway. Additionally, a cross access connection is provided to the adjacent Genoa Business Park which provides access additional access to a STOP controlled driveway to Grand River Avenue. The existing access locations are not proposed to change as part of the development plans. Traffic volumes that are expected to be generated by the development were forecast based on the rates and equations published by ITE in Trip Generation, as summarized below:

Land Use	ITE Code	Amount	Units	Average Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Hospital	610	559	Employees	3,654	192	74	266	59	137	196

The Conclusions related to this Traffic Impact Study and relative analyses are as follows:

1. At the time of this study, traffic volumes throughout the State of Michigan were impacted by restrictions in place associated with the COVID pandemic. Therefore, historic turning movement count data collected between October, 2018 and November, 2019 was obtained and utilized to establish baseline traffic volumes.
2. All study intersection approaches and movements currently operate acceptably at a LOS D or better during both peak hours with the exception of the following:
 - a. The NB right-turn movement at the signalized intersection of Grand River Avenue & Latson Road currently operates at a LOS E during the AM peak hour. During the PM peak hour, the NB left-turn movement operates at a LOS E while the WB right-turn movement and SB left-turn movement operate at a LOS F.
 - b. The SB approach at the signalized intersection of Grand River Avenue & Dorr Road currently operates at a LOS E during the AM peak hour; however, the vehicle demand for this approach is only one vehicle. Therefore, preference for green time allocation is given to other movements at the intersection and the LOS E experienced is acceptable.
 - c. The WB and SB left-turn movements at the signalized intersection of Grand River Avenue & Hilton Road currently operate at a LOS E or F during the peak hours. Additionally, the WB right-turn movement operates at a LOS E during the PM peak hour.
 - d. The NB through movement at the signalized intersection of Grand River Avenue & WB I-96 Ramps currently operates at a LOS F during both peak hours. Additionally, the WB left-turn movement and right-turn movement operate at a LOS E during the AM and PM peak hours, respectively.



- e. The STOP controlled left-turn movement from the EB I-96 off-ramp to Grand River Avenue operates at a LOS E or F during both peak hours. Additionally, the STOP controlled right-turn movement operates at a LOS E during the AM peak hour.
- 3. Ambient traffic growth of 0.75% was applied to establish 2024 no-build traffic volumes **without the proposed development**. Several background developments were also identified in the study area and included in this study. Additionally, planned roadway improvements by MDOT and LCRC including construction of a DDI at the I-96 & Grand River Avenue interchange were included.
- 4. No-build (2024) conditions analyses indicate that several movements will experience degraded operations including the intersection of Grand River Avenue & Latson Road, and the left-turn movements from Latson Road to the EB and WB I-96 on-ramps. The planned DDI at the I-96 & Grand River Avenue interchange will result in improved operations for the interchange ramp terminal intersections and Hilton Road intersection.
- 5. Future build (2024) conditions analyses indicate that most study intersection approaches and movements will continue to operate acceptably; however, there are several locations with undesirable or failing conditions that are expected to worsen in the future if those movements operating at a LOS E or F are not improved under no-build conditions.
- 6. With the improvements outlined below, all study network intersections and site driveways will operate acceptably, or in a manner similar or improved compared to no-build conditions during the peak hours.

Based on the results of this study, the following should be considered to provide acceptable traffic operations due to existing deficiencies and other development projects, **regardless of the proposed Hospital:**

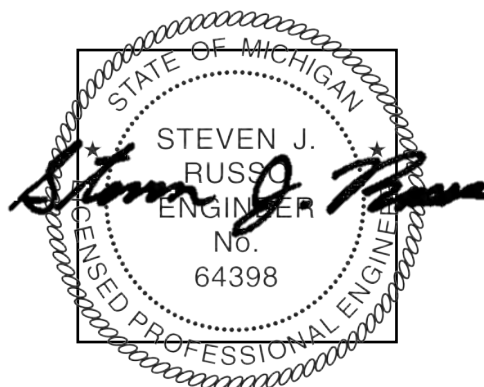
- 1. Install permissive-protected left-turn phasing at the intersections of Latson Road with the EB and WB I-96 ramps.
- 2. Consider widening the Grand River Avenue & I-96 DDI crossover approaches to three lanes to increase available capacity for future growth and development.

Based on the results of this study, the following should be considered to provide acceptable traffic operations **with all development projects, including the proposed Hospital:**

- 1. Optimize signal timings at the intersection of Grand River Avenue & Latson Road.

This report is intended for use by the Township, MDOT, and LCRC to guide decisions related to development project approvals, access permitting, and identifying future roadway improvement needs. The methodologies, analyses, results, and recommendations relevant to this study are described in detail herein. **The opinions, findings, and conclusions expressed in this report are those of Bergmann and not necessarily those of the Owner, Genoa Township, MDOT, and/or LCRC.**

Prepared By:
 Steven J. Russo, PE
 Bergmann Associates



PRELIMINARY WETLAND ANALYSIS APPENDIX II

SMITHGROUP

MEMORANDUM
www.smithgroup.com

PROJECT: Brighton Wetland Assessment

DATE: September 7, 2021

PROJECT NO.

PROJECT LOCATION: Brighton, MI

SUBJECT: Wetland Assessment

PREPARED BY: Neal Billetdeaux

The vacant property north of the St. Joseph Mercy Brighton Health Center was visited on the morning of September 7, 2021. The Michigan Department of Environment, Great Lakes and Energy (EGLE) Wetlands Mapper indicates wetlands are present on this property. The USDA Web Soil Survey indicates hydric soils are present on this property. The approximate location of the wetland boundaries observed is shown on the attached aerial photo.

The southern tip of the central wetland is an emergent wetland dominated by purple loosestrife (*Lythrum salicaria*) and glossy buckthorn (*Frangula alnus*). The vegetation in this area showed signs of being sprayed with an herbicide in the past as very little of the purple loosestrife had flowers and most of the glossy buckthorn was dead. Other plants observed included buttonbush (*Cephalanthus occidentalis*), wool grass (*Scirpus cyperinus*) and narrow-leaved cattail (*Typha angustifolia*). All the plants observed are indicators of wetland conditions. This area contained saturated soils, evidence of standing water and transitioned into an open water wetland with an emergent fringe to the north and east.

A swale with flowing water was observed connecting an open water wetland to the west of the central wetland. The swale was dominated by reed canary grass (*Phalaris arundinacea*) and narrow-leaved cattail.

It is anticipated that the central wetland would be considered jurisdictional under Part 303, Wetland Protection, of the Natural Resources and Environmental Protection Act because it is within 500' of an inland lake (to the east) that is greater than 5 acres in size. The open water wetland to the west would also be considered jurisdictional because it has a direct surface connection to the central wetland.

This wetland assessment was completed for planning purposes. A formal wetland delineation in accordance with EGLE procedures would be required to locate and survey the wetland boundaries if more accurate information is required.



West Wetland

Central Wetland

Swale

Approximate wetland boundaries

Wetland boundary could be here; hard to tell on aerial photo



North
Brighton Wetland Assessment
September 7, 2021

Department of Environment, Great Lakes, and Energy
Wetlands Map Viewer



Part 303 Final Wetlands Inventory

- Wetlands as identified on NWI and MIRIS maps
- Soil areas which include wetland soils
- Wetlands as identified on NWI and MIRIS maps and soil areas which include wetland soils

USDA Web Soil Survey
 Custom Soil Resource Report
 Soil Map



Map Scale: 1:5,250 if printed on A portrait (8.5" x 11") sheet.

0 50 100 200 300 Meters

0 250 500 1000 1500 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

TITLE SEARCH APPENDIX III

INFORMATIONAL TITLE REPORT

SCHEDULE A

1. **Effective Date:** November 24, 2021, 8:00 AM

2. **Fee Simple interest in the land described in this commitment is owned, at the commitment date by:**
[Mercy Health Services, a Michigan non-profit corporation, and Trinity Continuing Care Services, a Michigan non-profit corporation, as their interests appear of record](#)

3. **The land referred to in this Commitment is described as follows:**

Land situated in the Township of Genoa in the County of Livingston in the State of MI

(See Attached Exhibit A - Legal Description)

Client Reference: 7575 Grand River Genoa, MI 48114

This report contains information from public land records available in the county indicated above for whose accuracy and completeness we assume no responsibility. This report is released with the understanding that it is strictly confidential and only to be used by the party requesting it. This report is not to be construed as an opinion of title or as a commitment for title insurance. For matters of a legal nature, we suggest you contact your attorney. The liability of *Amrock, LLC* is limited to the amount paid for this report. *Amrock, LLC* assumes no liability, financial or otherwise, in association with the information in this report.

Issued By: Amrock, LLC
662 Woodward Ave.
Detroit, MI 48226
Phone: (800) 594-1044
Questions? Contact:

Fax:
Email:
Website: www.amrock.com

SCHEDULE B - Part I
(Requirements)

- 1. This report is for informational purposes only.
- 2. TAXES: 4711-13-200-009

TAX INFORMATION
GENOA TOWNSHIP
2911 DORR RD, BRIGHTON, MI 48116
(810) 227-5225

Property Tax ID: 4711-13-200-009
Tax Type: Summer
Tax Year: 2021
Next Bill Date: 07/01/2022
Duplicate Bill Fee: \$0.00
Payment Frequency: ANNUAL

Paid/Due	Due Date	Delinquent Date	Amount	Amount Paid	Remaining Balance
Paid	07/01/2021	09/15/2021	\$0.00	\$0.00	None
Comments:					

TAX INFORMATION
GENOA TOWNSHIP
2911 DORR RD, BRIGHTON, MI 48116
(810) 227-5225

Property Tax ID: 4711-13-200-009
Tax Type: Winter
Tax Year: 2021
Next Bill Date: 12/01/2022
Duplicate Bill Fee: \$0.00
Payment Frequency: ANNUAL

Paid/Due	Due Date	Delinquent Date	Amount	Amount Paid	Remaining Balance
Paid	12/01/2021	03/01/2022	\$0.00	\$0.00	None
Comments:					

SCHEDULE B - PART II
(Exceptions)

If a Policy of Policies are requested, Schedule B of the policy or policies to be issued will contain exceptions to the following matters unless the same are disposed of to the satisfaction of the Company:

1. Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date and the date on which all of the Schedule B, Part I - Requirements are met.
2. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land.
3. Rights or claims of parties in possession not shown by the Public Records.
4. Easements or claims of easements not shown by the Public Records.
5. Any lien or rights to lien for services, labor or material, heretofore or hereafter furnished, imposed by law and not shown by the Public Records.
6. Taxes and assessments that have become a lien against the property but are not yet due and payable. The Company assumes no liability for tax increases occasioned by retroactive revaluation, changes in the land usage or loss of any exemption status for the insured premises.
7. Release of Right of Way granted to the Board of County Road Commissioners of the County of Livingston, State of Michigan, recorded January 20, 1925 in [Liber 153, Page 81](#).
8. Right of Way Agreement - Overhead - S/L Individual granted to The Detroit Edison Company, recorded April 5, 1984 in [Liber 1090, Page 40](#).
9. Easement granted to Michigan Bell Telephone Company recorded October 17, 1994 in [Liber 1872, Page 809](#).
10. Detroit Edison Overhead Easement (Right of Way), granted to The Detroit Edison Company, recorded February 22, 2000 in [Liber 2728, Page 875](#).
11. Permanent Utility Easement granted to the Township of Genoa, recorded July 27, 2000 in [Liber 2803, Page 165](#).
12. Ground Lease between Trinity Health - Michigan, a Michigan nonprofit corporation, doing business as Mercy Health Services ("Lessor"), and Village at Brighton, L.L.C., a Michigan limited liability company ("Lessee"), dated February 1, 2001 and recorded February 15, 2001 in [Liber 2910, Page 668](#).
13. Non-Exclusive Easement, Right-of-Way and Maintenance Agreement (Utilities), in favor of the Village at Brighton, L.L.C., a Michigan limited liability company, recorded February 15, 2001 in [Liber 2910, Page 724](#).
14. Non-Exclusive Easement, Right-of-Way and Maintenance Agreement (Utilities), in favor of the Village at Brighton, L.L.C., a Michigan limited liability company, recorded February 15, 2001 in [Liber 2910, Page 731](#).
15. Non-Exclusive Easement, Right-of-Way and Maintenance Agreement (Utilities), in favor of the Village at Brighton, L.L.C., a Michigan limited liability company, recorded February 15, 2001 in [Liber 2910, Page 739](#).
16. Non-Exclusive Easement, Right-of-Way and Maintenance Agreement (Access and Utilities), in favor of the Village at Brighton, L.L.C., a Michigan limited liability company, recorded February 15, 2001 in [Liber 2910, Page 746](#).
17. Non-Exclusive Easement, Right-of-Way and Maintenance Agreement (Utilities), in favor of the Village at Brighton, L.L.C., a Michigan limited liability company, recorded February 15, 2001 in [Liber 2910, Page 754](#).
18. Non-Exclusive Easement, Right-of-Way and Maintenance Agreement (Utilities), in favor of the Village at Brighton, L.L.C., a Michigan limited liability company, recorded February 15, 2001 in [Liber 2910, Page 775](#).
19. Non-Exclusive Easement, Right-of-Way and Maintenance Agreement (Access and Utilities), in favor of the Village at Brighton, L.L.C., a Michigan limited liability company, recorded February 15, 2001 in [Liber 2910, Page 782](#).

20. Non-Exclusive Easement, Right-of-Way and Maintenance Agreement (Utilities), in favor of the Village at Brighton, L.L.C., a Michigan limited liability company, recorded February 15, 2001 in [Liber 2910, Page 789](#).
21. Non-Exclusive Easement, Right-of-Way and Maintenance Agreement (Utilities), in favor of the Village at Brighton, L.L.C., a Michigan limited liability company, recorded February 15, 2001 in [Liber 2910, Page 796](#).
22. Non-Exclusive Easement, Right-of-Way and Maintenance Agreement (Utilities), in favor of the Village at Brighton, L.L.C., a Michigan limited liability company, recorded February 15, 2001 in [Liber 2910, Page 804](#).
23. Mortgage executed by Village at Brighton, L.L.C., a Michigan limited liability company, to U.S. Bank Trust National Association, a national banking association organized and existing under the laws of the United States of America ("Bond Trustee"), and Fannie Mae, a federally-chartered and stockholder-owned corporation organized and existing under the Federal National Mortgage Association Charter Act, 12 U.S.C. § 1716, et seq., as a beneficiary, in the principal amount of \$12,270,000.00, dated February 1, 2001 and recorded February 15, 2001 in [Liber 2910, Page 811](#). Assignment by and among Michigan Strategic Fund (the "Issuer"), a Michigan corporation, U.S. Bank Trust National Association (together with any successor trustee, the "Trustee"), a national banking association, not in its individual or corporate capacity, but solely as trustee, to Fannie Mae, a corporation organized and existing under the Federal National Mortgage Association Charter Act, 12 U.S.C. § 1716 et seq., as amended, Glaser Financial Group, Inc. (the "Loan Servicer"), a Minnesota corporation, and Village at Brighton, L.L.C. (the "Borrower"), a Michigan limited liability company, dated February 1, 2001 and recorded February 15, 2001 in [Liber 2911, Page 9](#).
24. Financing Statement between Village at Brighton, L.L.C., as Debtor, and Comerica Bank, as Secured Party, recorded February 15, 2001 in [Liber 2910, Page 925](#). Continuances recorded September 9, 2005 in [Liber 4907, Page 880](#); recorded October 12, 2010 in [Instrument No. 2010R-027470](#); recorded September 25, 2020 in [Instrument No. 2020R-033666](#).
25. Mortgage executed by Village at Brighton, L.L.C., a Michigan corporation, to Glaser Financial Group, Inc., a Minnesota corporation, in the principal amount of \$12,270,000.00, dated February 1, 2001 and recorded February 15, 2001 in [Liber 2910, Page 933](#). Said Mortgage was assigned from Glaser Financial Group, Inc., a Minnesota corporation, to Fannie Mae by Assignment of Mortgage dated February 1, 2001 and recorded February 15, 2001 in [Liber 2911, Page 2](#). Assignment by and among Michigan Strategic Fund (the "Issuer"), a Michigan corporation, U.S. Bank Trust National Association (together with any successor trustee, the "Trustee"), a national banking association, not in its individual or corporate capacity, but solely as trustee, to Fannie Mae, a corporation organized and existing under the Federal National Mortgage Association Charter Act, 12 U.S.C. § 1716 et seq., as amended, Glaser Financial Group, Inc. (the "Loan Servicer"), a Minnesota corporation, and Village at Brighton, L.L.C. (the "Borrower"), a Michigan limited liability company, dated February 1, 2001 and recorded February 15, 2001 in [Liber 2911, Page 9](#).
26. Detroit Edison Overhead Easement (Right of Way), granted to The Detroit Edison Company recorded June 26, 2001 in [Liber 3032, Page 336](#).
27. Permanent Utility Easement granted to the Township of Genoa recorded May 3, 2006 in [Instrument No. 2006R-001225](#).
28. Amendment to Planned Unit Development Agreement recorded January 16, 2019 in [Instrument No. 2019R-001392](#).
29. Notice: Please be aware that due to the conflict between federal and state laws concerning the cultivation, distribution, manufacture or sale of marijuana, the Company is not able to close or insure any transaction involving Land that is associated with these activities.
30. Loss or damage sustained as a result of the failure to have the tax assessed legal description reassessed to accurately describe the land insured herein.
31. Rights of tenants now in possession of the land under unrecorded leases or otherwise.
32. Rights of the public and any governmental unit in any part of the land taken, deeded or used for street, road or highway purposes.
33. Rights of the public and adjoining riparian owners in any part of subject property lying beneath the waters of unnamed bodies of water.

34. Any adverse claim based on the assertion that the bed of unnamed bodies of water have changed location as a result of other than natural causes.
35. Any adverse claim that a portion of subject premises has been created by artificial means or has accretion to such portion so created.
36. Interest of others in oil, gas and mineral rights, if any, whether or not recorded in the Public Records.
37. Interest, if any, of the United States, State of Michigan, or any political subdivision thereof, in the oil, gas and minerals in and under and that may be produced from the captioned Land.

NOTE: Any map/plat that is furnished is only an aid in locating the herein described Land in relation to adjoining streets, natural boundaries and other land, and is not a survey of the land depicted. Except to the extent a policy of title insurance is expressly modified by endorsement, if any, the Company does not insure dimensions, distances, location of easements, acreage or other matters shown thereon.

NOTE: This report and any policy issued pursuant hereto omits any covenant, condition or restriction based on race, color, religion, age, sex, handicap, familial status or national origin, unless and only to the extent that the restriction is not in violation of state or federal law, or relates to a handicap, but does not discriminate against handicapped people.

EXHIBIT A - LEGAL DESCRIPTION

Tax Id Number(s): 4711-13-200-009

Land situated in the Township of Genoa, Livingston County, State of Michigan, more particularly described as:

A part of the West 1/2 of the Northeast 1/4 and part of the West 1/2 of the Southeast 1/4, Section 13, Town 2 North, Range 5 East, Genoa Township, Livingston County, Michigan, described as follows: Beginning at the North 1/4 corner of said Section 13; thence South 87° 58' 14" East along the North line of said Section 1348.27 feet; thence South 00° 14' 31" West 2496.64 feet; thence South 89° 15' 27" West 7.47 feet; thence South 00° 44' 33" East 92.85 feet; thence North 88° 07' 15" West 38.78 feet; thence South 00° 44' 33" East 250.00 feet to the centerline of Bendix Road; thence South 76° 18' 59" East along said centerline 41.48 feet; thence South 00° 14' 31" West 129.69 feet to the centerline of Grand River Avenue; thence along said centerline on an arc left, having a length of 1095.39 feet, a radius of 3404.83 feet, a central angle of 18° 26' 19" and a chord which bears North 59° 55' 42" West 1090.67 feet; thence continuing along said centerline North 69° 08' 51" West 419.11 feet to the North-South 1/4 line of said Section; thence North 00° 01' 00" East along said 1/4 line 2329.81 feet to the point of beginning. EXCEPTING THEREFROM, part of the Northeast 1/4 of Section 13, Town 2 North, Range 5 East, Genoa Township, Livingston County, Michigan, described as follows: Commencing at the Northeast corner of said Section 13; thence along the North line of said Section, using the North 1/4 corner of said Section 13, as set by Boss Engineering, North 87° 58' 25" West 1348.43 feet (recorded by Boss Engineering as North 87° 58' 14" West 1348.27 feet) to the point of beginning of the land to be described; thence along a line previously surveyed and monumented by Boss Engineering, South 00° 14' 31" West 0.22 feet to a found 1/2" iron rod and cap; thence continuing along said line South 00° 14' 31" West 762.97 feet to a set iron rod on the Northerly water's edge of a pond; thence perpendicular to the previous line, North 89° 45' 29" West 6.54 feet to a set iron rod in said pond; thence along a line delineated by a found Clay Gordon iron to the South and a point on the North, called for in a survey by George H. Ruhling and Company, Registered Civil Engineers of Detroit, Michigan, for John F. Linehan, dated June 21, 1927 and having Job Number 399, North 00° 10' 44" East 8.08 feet to a set iron rod on the Northerly water's edge of said pond; thence continuing along said line North 00° 10' 44" East 755.51 feet to a point on the North Section line of said Section, that is 1355.60 feet West of the Northeast corner of said Section 13 and called for in the Ruhling survey drawing; thence South 87° 58' 25" East 7.38 feet along the North line of said Section to the point of beginning.

Client Reference: 7575 Grand River, Genoa, MI 48114

This is a marked up version of the agreement which includes comments and suggested revisions from Township Staff and Counsel

AMENDED AND RESTATED
PLANNED UNIT DEVELOPMENT AGREEMENT

THIS AMENDED AND RESTATED PLANNED UNIT DEVELOPMENT AGREEMENT (the “Agreement”) is made as of _____, 2022, between the TOWNSHIP OF GENOA, a charter township, whose address is 2911 Dorr Road, Brighton, Michigan 48116 (the “Township”) and TRINITY HEALTH-MICHIGAN, d/b/a SAINT JOSEPH MERCY HEALTH SYSTEM, formerly known as MERCY HEALTH SERVICES, a Michigan nonprofit corporation, whose address is 1600 South Canton Center Road, Canton, Michigan 48155 (the “Owner”).

RECITALS

A. The Owner and the Township entered into a Planned Unit Development Agreement dated August 2, 1999 (the “Original PUD”), with respect to the development of property owned by Owner consisting of approximately 77.74 acres of land and located in the Township of Genoa, County of Livingston, State of Michigan, commonly known as 7575 Grand River Avenue (Parcel Identification Number 4711-13-200-009), more particularly described on **Exhibit A** attached hereto (the “Property”). The Original PUD was not recorded with the Livingston County Register of Deeds.

B. The Original PUD provided that the Owner develop the Property as a “Mixed Use Planned Unit Development District” pursuant to Article 10 of the zoning ordinance of the Township (as amended, the “Ordinance”) under the “Conceptual Site Plan” in the form required by the Ordinance and attached as Schedule B to the Original PUD which identified the location and general configuration of each of such uses (the “Conceptual Plan”).

C. The Township determined that the Conceptual Plan (1) properly achieved the purposes of Article 10 of the Ordinance, including the encouragement of innovation in land use, the preservation of open space in areas adjacent to Grand River Avenue to achieve compatibility with adjacent land uses, the promotion of efficient provision of public services and utilities, the reduction of adverse traffic impacts, and the provision of adequate employment, (2) is consistent with the Master Plan and the Grand River Avenue Corridor Study of the Township, and (3) promotes the public health, safety and welfare of the Township.

D. In accordance with the Ordinance and the requirements of Act No. 184 of the Michigan Public Acts of 1943, as amended (now Act No. 110 of 2006) (the “Act”), the Township

Planning Commission and Township Board of Trustees (“Township Board”) approved the Conceptual Plan.

E. As part of the Original PUD, the Property was rezoned to Non-Residential Planned Unit Development (“NRPUD”) in accordance with Section 10 of the Ordinance.

F. The Property is currently zoned NRPUD as identified in the Township Zoning Map adopted May 2, 2005 and revised September 4, 2020.

G. In accordance with Section 2.3 of the Original PUD, Owner developed a medical office building and clinic of up to 240,000 gross square feet of floor area, and a second office building of up to 55,000 gross square feet of floor area on the Property (collectively, “Medical Buildings”). The Medical Buildings are located east of the Genoa Business Park. The address for the Medical Buildings is 7575 Grand River, Brighton, Michigan 48114.

H. In accordance with Section 2.5 of the Original PUD and pursuant to that Ground Lease dated February 1, 2001 recorded at Liber 2901, Page 668, Livingston County Records, between the Owner (as lessor) and Village At Brighton, L.L.C. (now known as Village at Brighton 2, L.L.C. (as lessee) (the “Village”), the Village developed a two-story assisted living and independent living facility now known as “Sanctuary at Woodland” located at 7533 Grand River Avenue, Brighton, Michigan (the “Facility”).

I. The Facility was constructed in 2001 and modified in 2003 and is located on approximately 7.49 acres of the Property. The Facility is licensed for forty (40) assisted living beds in thirty-eight (38) resident rooms and fifty (50) independent living apartment units. The licenses for the Facility are held by Trinity Senior Living Communities.

J. In connection with the development of the Facility, the Owner granted multiple access and utility easements in the Property to Village (“Village Easements”).

K. The Owner and the Township entered into an Amendment to the Original PUD dated November 13, 2018, and recorded on January 16, 2019, as Document No. 2019R-001392, Livingston County Records (“Amendment”) with respect to the then existing entry signage and the installation of new signage along Grand River Avenue. The Amendment was approved by the Township on October 15, 2018. The Original PUD and Amendment are collectively referred to as the “Existing PUD”.

L. On March 30, 2022, the Owner submitted to the Township an Application-Planned Unit Development (PUD) (“PUD Application”). Also, on March 30, 2022 the Owner submitted to the Township an Application for Site Plan Review (“Site Plan Application”). The applications request review and approval of proposed amendments to the Existing PUD along with Final PUD Site Plan authorization for the expansion and renovation of the Medical Buildings (“Project”). The Project is intended to expand community health services to the Brighton, Livingston County, Michigan vicinity and to provide state-of-the art healthcare facilities in the area.

M. The PUD and Site Plan Applications included all submitted items set forth in Section 10.06 of the Ordinance except the hydrologic impact assessment. The submitted items include but are not limited to, proof of ownership of the Property and Owner authorization,

completed application and application fee, an impact assessment and traffic study meeting the requirements of Article 18 of the Ordinance, a demolition plan, site plan, grading and storm plan, utility plan, landscape plan, site development notes and details, and architectural plans (collectively, the “NRPUD Plans”). For purposes of this Agreement, the NRPUD Plans shall be deemed to be the Final PUD Site Plan attached as **Exhibit B**.

N. The Project entails the development of a new, four-story hospital addition (with basement) comprising 175,043 square feet and consisting of support spaces, seventy-two (72) inpatient beds, including expanded emergency department services, cafeteria and associated upgrades to existing support spaces and utilities, with expanded capacity for on-site parking. The Project will be located on and attached to the Medical Buildings. The two buildings will be connected to the first and second levels of the Medical Buildings. There will be additions to the existing Medical Buildings to expand the Emergency Department and Outpatient Surgery Services, as well as renovations to the Emergency Department, Outpatient Surgery Services, Imaging and Lab.

contemplated or is required? the initial phrase uses the word shall which makes it mandatory yet the following language expresses less certainty. I suggest the words "intend to" be changed to will. paragraph 2.4 says it will so language should be consistent

O. In addition to the existing Facility, the Project brings comprehensive health care to the community. In terms of open space, a courtyard and a future community garden is contemplated (as detailed in the NRPUD Plans). The Project includes a creative yet cost-effective development of a community hospital addition, including enhanced Emergency Department, the addition of inpatient beds and adjacency to existing facilities which are already familiar to the community. There will be visibility of care center for wellness, acute and chronic health conditions. In addition, the Project shall provide the following community benefits under Section 10.02.05 of the Ordinance: (a) the Project intends to maintain 25% of lake and pond areas, 50% of retention and detention ponds, landscaped areas, plazas and residential uses to protect natural habitats and beautification of surrounding areas, (b) provides two (2) additional detention ponds, a new community garden and walking loop, with a natural walkway in the future to connect to the Facility, (c) enhance traffic safety and alleviates further potential for congestion on Grand River by adding a ring road around the facility. This also provides a safer, faster service to buildings on the Property by local authorities, including Brighton Area Fire Authorities, (d) enhances the patient experience upon arrival due to the landscaped features, added signage, increased parking and specialty areas, natural landscape, walking paths and improved routing throughout the facility and adjacent buildings, (e) interior renovation allowing for improved patient flow, experience and ability to provide better service to the community, (f) state of the art equipment and facilities due to new equipment and patient flow and increased efficiency within departments, (g) better service to the community by having all services in one location and in a more accessible location, (h) improved energy efficiency as a result of new equipment and building material, leading to improved sustainability and a decreased carbon footprint, (i) the Project allows for new services to be provided within the existing Medical Buildings to support patient needs at one location, (j) implements improved HVAC and architectural designs to better support pandemic needs as a result of recent COVID experiences, (k) the new addition and design allows for shared central sterile services for in-patient and outpatient surgeries, and (l) allows for redundancies within equipment to alleviate impacts to areas and functions due to shutdowns for maintenance and/or repairs of MEP equipment.

P. The Township Planning Commission has reviewed the PUD Application, this Agreement, the Site Plan Application, the impact assessment and NRPUD Plans, conducted a

public hearing on _____ and recommended approval of the Final PUD Site Plan, this Agreement, the impact assessment and the NRPUD Plans to the Township Board.

Q. The Township Board reviewed the PUD Application, this Agreement, the Site Plan Application, the impact assessment and NRPUD Plans on _____, and provided conceptual approval pursuant to Sections 10.04.03, 10.06, 10.07 and 10.08 of the Ordinance on _____.

R. The Ordinance requires the execution of this Agreement in connection with the Project, which agreement shall be binding on the Township and the Owner.

S. The Township has requested easements be granted to the Township similar to the Village Easements benefitting the Township relative to the existing water and sanitary sewer facilities located on the Property, all in accordance with those requirements specified in the Sewer and Water Connection Manual of Marion, Howell, Oceola and Genoa Sewer and Water Utilities (“MHOG”). See **Exhibit B** for the location of the Village Easements.

T. In connection with the Project, the hospital use classification for the Property requires mechanical, electrical, plumbing and fire protection design that addresses both code requirements and national certification standards for licensing and operations. Rooftop equipment is, therefore, sized to support *acuity adaptable rooms* in response to standards required for community pandemic response.

U. The Property is served by public sewer and water. Sanitary sewers and water facilities pertaining to the Project will be reviewed by the Township and MHOG.

V. To facilitate the Project, the Owner and the Township desire to amend and restate the Existing PUD. The Existing PUD is amended and restated in its entirety by this Agreement and as stated herein.

NOW, THEREFORE, in consideration of the foregoing and the remaining terms, conditions and covenants hereinafter set forth, the Township and the Owner agree as follows:

ARTICLE 1

THE CONCEPTUAL PLAN

1.1 Representations of Township. The Township warrants and represents to the Owner that (a) the Township has taken all actions necessary to approve the Conceptual Plan, including, without limitation, all required public hearings, notices to nearby landowners, and all other actions required by the Ordinance and the Act, (b) the Township has approved the Conceptual Plan and that no further action to approve the Conceptual Plan is required, (c) all uses contemplated by the Conceptual Plan are authorized by the Ordinance, and (d) the Owner may rely upon this Agreement for purposes of future development of the Property in accord with the Conceptual Plan.

1.2 Amendment of Conceptual Plan. The Owner and the Township may only amend the Conceptual Plan as permitted by, and in accord with the procedure therefor set forth in, the Ordinance; provided, however, that the Owner may adjust the size or shape of the various parcels

land divisions or combinations must follow the requirements of the zoning ordinance.

of the Property dedicated to differing uses so long as any such adjustment does not alter the land use designation for any area of the Property or increase the intensity and/or density of use.

1.3 Site Plan Approvals. Except as otherwise specifically provided in this Agreement, the Owner shall develop the Property only in accord with the Conceptual Plan and subject to site plan approval in accord with the process therefor established in the Ordinance. Each site plan shall superimpose the approved plan of development upon the Conceptual Plan to clearly illustrate the final plan for each portion of the Property. In the event a portion of the Property is submitted for site plan approval and such approval is denied, the party submitting such site plan shall be entitled to appeal such decision to the Township Zoning Board of Appeals as provided by law, and all parties shall agree to proceed expeditiously to final resolution.

1.4 Final PUD Site Plan. The Owner shall submit a "Final PUD Site Plan" to the Township within the time limits prescribed by the Ordinance but otherwise determined by the Owner.

Zoning Ordinance.

ARTICLE 2

LAND USE AUTHORIZATION

Assisted living

2.1 Phased Development. The Owner plans to further develop the Property in phases. The Medical Building and Facility were constructed as part of the original phases under the Original PUD. The next phase shall consist of the Project. Additional potential phases may include building a community farm and food hub on the east portion of the Property as described in **Exhibit B**. Additional phases may be phased and separated as the Owner and Township deem necessary.

projects

2.2 Detailed Development. The Owner may, in its discretion, develop the Property in accord with the Conceptual Plan and subject to the obligation to coordinate development of the Property as a whole pursuant to this Agreement. In connection with the discretionary development of the Property, the Owner shall submit to the Township for review and approval a plan in the form required by the Ordinance, including impact assessments required by the Township ~~(including an updated Traffic Impact Study which meets the requirements of [Sections 10.03.05(d)(1) and 18.07.09] of the Ordinance, showing how traffic will differ from that originally projected, a Natural Features Plan, and a Pollution Incident Prevention Plan)~~. The Township shall review each of such plans within a reasonable time.

related

2.3 Permitted Special Uses. The Township acknowledges the Owner's plan to develop expanded medical uses of up to 175,043 gross square feet of floor area and other improvements as part of Phase 1. Notwithstanding the requirement of a permit for any special land use under the Ordinance, the Township agrees that the following uses shall not require a Special Land Use Permit or fee, or submission of additional application forms beyond those normally required for general site plan approval.

2.3.1 The Medical Buildings developed under the Original PUD,

2.3.2 The Project described in Recital N and in the NRPUD Plans,

Add the base zoning districts back in from the original agreement.

2.3.3 The above ground storage tanks within the Property which will not comply with Section 13.07.01 of the Ordinance, “Above Ground (Fuel) Storage Tanks,” based on the nature of the medical facility. Instead, the facility will comply with state and federal codes for fuel oil storage.

2.3.4 [Insert specific proposed modifications to the 25-foot wetland buffer specified in the Ordinance]

2.3.5 [Insert any additional special uses]

2.4 Open Space. The Owner shall develop a minimum of 50% of the Property as open/residential space, defined as undisturbed areas of key natural features, 25% of lake and pond areas, 50% of retention and/or detention ponds, landscaped areas, plazas, and residential uses. **Exhibit B** shows the calculation and location of open/residential space as shown on the Conceptual Plan.

There should be an exhibit/enlarged plan showing exactly where we are granting this relief.

2.4.1 Wetlands. In accordance with requirements of local municipal fire marshal requirements for continuous perimeter access to expanded land use for a community hospital, a loop fire ring road will be provided. Final construction of the wetland boundary north of loop fire ring road improvements within State of Michigan Department of Environment, Great Lakes and Energy (“EGLE”) regulated wetlands shall be installed or constructed upon receiving necessary approvals of EGLE, and in accordance with all applicable EGLE rules and regulations, to comply with the State and Federal codes. [Compliance with State laws supersede the requirements in Section 13.02.02 of the Ordinance. (25’ buffer)]

ARTICLE 3

ACCESS TO AND WITHIN THE PROPERTY

3.1 Traffic Impact Study. The Owner shall submit to the Township for review and approval a traffic impact study as required by Articles 10 and 18 of the Ordinance. Such study shall evaluate the impact of the planned development of the Property at each access point and existing adjacent major intersections, specifically including any intersections where traffic from the Property will comprise at least five percent (5%) of the existing intersection capacity. Such study shall also include proposals to mitigate any adverse impact of such development identified by the study and describe timing and responsibility for funding any improvements designed to implement any such proposals. The Owner shall provide an updated Traffic Impact Study at each phase of the development. At such time as the Township and Livingston County Road Commission determine that a signal is warranted at either entry to the Property, the Owner shall fund the installation of said traffic signal and such other traffic mitigation measures as are required by its development of the Property. However, nothing in this Agreement shall require the Owner to pay more than its pro-rata share of improvements as determined by the proportion of total traffic increase which is generated by developments on the Property.

3.2 Access to the Property. Access to the Property shall be limited to two major entrances from Grand River Avenue. Both access points shall be full movement, with Grand River Avenue ingress and egress from both directions. The Township will only consider additional access points if spaced a safe distance apart and a traffic impact study submitted by the Owner demonstrates that overall traffic operations and safety will be improved. The Owner shall determine the specific location of permitted access points utilizing safety standards established and approved by the Township and the Livingston County Road Commission. The Owner shall also locate access points such distances from existing signalized intersections to ensure sound traffic operations if the access points are signalized. The site design for the Property shall direct traffic flow to use the main access points to public thoroughfares. Stacking or queuing depth at access points shall be sufficient to accommodate expected peak hour volumes to minimize conflict with inbound or internal circulation.

3.3 Internal Roadways. The Owner shall plan and establish an internal system of vehicular thoroughfares throughout the Property in connection with development of portions of the Property as it occurs. The Owner shall design internal roads in such a way as to permit vehicular access between and among users of the Property, as ultimately developed, with the view and intent of minimizing the number of traffic movements onto adjoining public roads. The Township shall review and approve the precise locations and design of the overall system of internal thoroughfares as each site plan for development of portions of the Property is submitted to the Township for approval, taking into consideration the uncertainty of the development of the then undeveloped portions of the Property.

3.4 Pedestrian Walkways. The Owner has constructed a pedestrian walkway along Grand River Avenue that conforms with the Grand River Corridor Plan of the Township. The Owner shall also construct pedestrian walkways between each building and the parking area(s) that serve each such building, as the Property is developed. The pedestrian walkway will conform to the walkway plan shown conceptually in the Final PUD Site Plan. The Township and Owner agree that the purpose of any such pedestrian walkways is to serve the business needs of the Owner and other occupants of buildings on the Property, and to encourage recreational pedestrian use by the general public.

ARTICLE 4

SITE IMPROVEMENTS

4.1 Coordination of Site Improvements. The Owner shall coordinate the construction of site improvements within the Property as a whole to ensure that site improvements are integrated and mutually supportive among the respective portions of phases of development of the Property, including utilities, landscaping, and site lighting.

4.2 General Guidelines. The Owner shall observe the following guidelines in connection with the construction of site improvements on the Property:

- 4.2.1 Site design and landscaping shall diminish the prominence of parking lots as viewed from public roads, consistent with the need to orient visitors to parking areas.

additional parking shall follow ordinance requirements and not be allowed strictly by administrative review

- 4.2.2 Extensive greenways and tree-lined drives shall be located within parking lots to improve traffic operations and views.
- 4.2.3 Consistent with the Owner's experience developing large-scale hospital, clinical and medical office facilities, parking for Phase 1 uses shall be at the ratio of one (1) space for each two-hundred seventy-five square feet (275 SF) of eighty percent (80%) of gross building area. This includes areas for built and ready to be built ("banked") parking. If necessary, the Owner shall submit additional parking areas to meet demand for administrative review. Similarly, parking requirements for future phases shall be approved via administrative review in coordination with Township requirements and Owner's experience developing similar uses.
- 4.2.4 Any storm water control devices visible from public streets shall have a maximum 6:1 slope (so as to not require a fence according to the Livingston County Drain Commission) and be designed to have a naturalistic appearance, such as variable shape, natural arrangement of landscape materials.
- 4.2.5 Landscaping shall demonstrate consistency in design and materials.
- 4.2.6 Site lighting shall be of a uniform type and color throughout.

4.3 Maintenance. The Owner shall be responsible for ongoing maintenance and repair or replacement of site design elements, such as open spaces, signage, landscaping, lighting, and pavement markings. Except as otherwise provided herein, the Owner shall be responsible for maintenance and repair or replacement of facilities serving the entire Property such as stormwater control devices and any roadways within the Property.

4.4 Residential Buffer Zone. The Owner shall create and maintain a buffer zone between the residential portion of the property and the adjacent residential properties to the north and east. The buffer zone shall be seventy-five (75) feet deep and shall preserve existing large trees in the zone along the north and east boundaries of the Property. The Owner shall provide a sculptured six to eight foot (6 ft.-8 ft.) high berm, interspersed among existing trees. The Owner shall provide one (1) canopy tree, two (2) evergreen trees, and four (4) shrubs for every twenty (20) lineal feet along the property line of the residential building zone as shown in the Final PUD Site Plan. There shall be a credit of two (2) canopy trees for every existing canopy tree of eight (8) inches diameter or greater. The Owner shall also be permitted to substitute one (1) evergreen tree for five (5) shrubs, or one (1) canopy tree for eight (8) shrubs to develop an aesthetically pleasing landscape buffer.

ARTICLE 5

DESIGN OF BUILDINGS AND SIGNAGE

5.1 Building. The architecture, building materials, colors, and shapes of all buildings shall substantially conform with the guidelines set forth in the Grand River Corridor Plan, as it

may be reasonably amended. The Owner shall develop buildings on the Property that incorporate varying building lines, natural earth tone construction materials, and other elements that are aesthetically pleasing. The Owner shall follow the following general guidelines:

- 5.1.1. large walls shall include varying building lines, setbacks, color accents, windows, or other elements to upgrade appearance;
- 5.1.2 each site plan shall include a narrative or illustration(s) that demonstrate the design of new buildings will be consistent with, or complement, architecture of the other sites;
- 5.1.3 buildings shall use high quality architecture with variable building lines, architectural accents, and, with the exception of the hospital addition which is part of the Project, pitched roof buildings shall be required.
- 5.1.4 brick or stone shall be used for all building faces;
- 5.1.5 other materials may be used for architectural accents, provided such materials shall have the appearance of cut or cast stone or stucco;
- 5.1.6 out-parcel office buildings shall treat all exterior wall surfaces with at least eighty percent (80%) natural materials; and
- 5.1.7 residential buildings shall be permitted to use siding for up to fifty percent (50%) of exterior wall surfaces.

5.2 Signage. Consistent with the Owner’s experience developing large-scale hospital, clinical, and medical office facilities, signage within the Property will provide clear and safe wayfinding deemed necessary to best serve the community. Signage shall have materials, lighting, and mounting that is in line with the stated goal. Variations beyond approximate limits identified herein will be reviewed for approval with the Township as required by the Ordinance. The following signs shall be permitted on the Property:

internal to the site

This language is too vague. Who determines the amount necessary? This should establish maximums in terms of size, number and location. Deviations from ordinance standards must be specifically called out.

- 5.2.1 ground signage ~~in~~ the amount deemed necessary at the entrances of the medical facilities; [shall not exceed 14 ft in height and 7 ft in width]
- 5.2.2 ground signage in the amount deemed necessary for each separate building to be located on interior roads of the Property; [shall not exceed 6 ft in width and 6 ft in height]
- 5.2.3 building signage shall be entitled to wall signs in the percentage deemed necessary of a building’s front façade as reasonably determined by the Owner and zoning administrator:
- 5.2.4 all other signs, including directional and wayfinding signs, shall conform to the size, materials and other specifications of the Ordinance; and

Too vague, call it out location, size, etc.

5.2.5 ~~directional and wayfinding~~ signs shall be provided throughout the site in line with the stated goal as **reasonably determined** by the Owner and zoning administrator.

The internal signs are proposed at 14 feet tall. The Grand River Sign should be the largest sign on the site.

5.2.6 One (1) ground sign at the central entry from Grand River Avenue of up to ~~one hundred~~ twenty square feet (120 SF) area with maximum height of no more than twelve feet six inches (12'-6").

5.3 Building Height. The Owner shall be permitted to erect the hospital services portion of the addition as a four (4) story building with a general roof height of approximately sixty-five (65) feet from the first level finished floor to the top of the parapet (65' 0" AFF) measured as indicated in the Ordinance. The Owner shall be permitted to erect a roof mounted screen wall on the hospital services portion of the addition with a general height of approximately seventy-eight (78) feet from the first level finished floor to the top of the screen wall (78' 0" AFF) measured as indicated in the Ordinance. The Owner shall be permitted to build a connector of the existing medical office building to the hospital addition as a two (2) story addition with a general roof height of approximately thirty-two (32) feet from the first level finished floor to the top of the parapet (32' 0" AFF) measured as indicated in the Ordinance. **The Owner shall be permitted to build expansions of the existing medical office building as a one (1) story expansions with general roof height of approximately seventeen (17) feet from the first level finished floor to the top of the parapet (17' 0" AFF) measured as indicated in the Ordinance.** Roof-mounted equipment on the hospital addition may exceed seventeen (17) feet and fifteen percent (15%) of the total roof area on the entire building. All other buildings on the Property shall meet the specific height limitations required by the Ordinance for the respective type of building. Variations beyond approximate limits identified herein will be reviewed for approval with the Township in accordance with Section 10.11 of the Ordinance.

NOT

ARTICLE 6

UTILITIES

What is the purpose of this? I don't see an expansion of the existing building proposed?

6.1 Water. Each office and residential parcel/use on the Property must connect to the community water system. The Owner shall submit a master water plan for the Property as an attachment to the Final PUD Site Plan for approval by the Township and its Engineers. The Owner shall install and pay the cost of the internal water main for each developed portion of the Property prior to or concurrent with the site plan approval for such development.

6.2 Sanitary Sewer. All of the office and residential buildings constructed on the Property shall, as developed, be connected to and be served by the public sanitary sewer systems. The Township represents that there has been reserved for the Owner adequate municipal wastewater treatment capacity to service the approved use of the Property, and the adequacy of wastewater treatment capacity shall not limit the type of use or density of the development based on the Conceptual Plan. The Owner shall install and pay the cost of the infrastructure required by the Township and its engineers to connect the Property and additional improvements to the public sanitary sewer system.

6.3 Electrical. All electrical lines serving the buildings on the Property shall be underground. Public utility lines in existing or future easements shall be permitted overhead so long as the buildings are serviced from underground.

6.4 Fees. Fees, charges, and costs for utilities shall be as set forth on attached Exhibit C, which may be amended on a district-wide basis from time to time. [The cost for connection fees is as follows: the connection fee for both water and sewer shall be the then-prevailing rate of connection cost/REU, per connection, as set forth in the Equivalent User Table of the Genoa Charter Township as the same may be amended from time to time.

6.5 The above ground storage tanks within the Property will not comply with Section 13.07.01 of the Ordinance, "Above Ground (Fuel) Storage Tanks," based on the nature of the medical facility. Instead, the facility will comply with state and federal codes for fuel oil storage.

6.6 The Owner shall grant and convey easements on the Property to the Township or the authority designated by the Township to allow for ingress and egress for the maintenance, repair, improvement or replacement of the public sewer and water system including those reflected in the existing Village Easements.

6.7 Upon completion of the water and sewer infrastructure and the approval of the Township, the Owner will convey the infrastructure (the sanitary sewer, the water mains and their appurtenant components), excluding the leads, to the Township. The Township will then be responsible for the maintenance, repair, improvement and replacement of the infrastructure. The Owner and its successors in interest will be responsible for the perpetual maintenance, repair, improvement and replacement of the leads for both the water and the sewer extending from the [curb] to the buildings.

ARTICLE 7

MISCELLANEOUS

if another person/entity owns the property then it should have a voice in how its property is changed. The applicant should explain why this is necessary? Also seems inconsistent with paragraph 7.2 and 7.8 below

7.1 Amendment. This Agreement may not be modified, replaced, amended or terminated without the prior written consent of the parties to this Agreement. ~~The Owner and the Township shall be entitled to modify, replace, or amend this Agreement without the consent of any other person or entity, regardless of whether such person or entity now or hereafter has any interest in any part of the Property, including subsequent purchasers, or their tenants, mortgagees, or others.~~

7.2 Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective legal representatives, successors, and assigns. The rights and obligations under this Agreement shall run with the Property and shall bind and inure to the benefit of any successors-in-interest of the Owner in the Property.

7.3 Controlling Effect. In the event of any direct conflict between the terms and provisions of this Agreement and the Conceptual Plan, and the provisions of the Ordinance, or other Township ordinances, rules, or regulations, the provisions of this Agreement and the Conceptual Plan shall control.

7.4 Conditions Reasonable. The Owner acknowledges that the conditions imposed by this Agreement upon the development of the Property are reasonable and necessary to ensure that public services and facilities affected by the proposed land use or activity will be capable of accommodating increased service and facility loads caused by the land use or activity, to protect the natural environment and conserve natural resources and energy, to ensure compatibility with adjacent used of land, and to promote the use of land in a socially and economically desirable manner. The Owner further acknowledges that the conditions meet all of the requirements of MCL 125.3503.

7.5 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Michigan, without giving effect to principles of conflicts of law.

7.6 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall constitute an original, and all of which shall constitute one and the same agreement.

7.7 Plans and Drawings. The plans and drawings listed in **EXHIBIT D** are attached to and made a part of this Agreement.

7.8 Sale. In the event that a portion of the Property is sold to another entity, coordination and control of the Property will be up to the determination of the current Owner at the time of the sale.

7.9 The terms of this Agreement, as hereby amended, shall run with the land and shall be recorded on title to the Property with the Livingston County Register of Deeds.

~~7.10 With respect to any portion of the Property owned by Owner, the Owner and Township shall be entitled to modify, replace or amend this Agreement without the consent of any other person or entity, regardless of whether such person or entity now or hereafter has any interest in any other part of the Property, including subsequent purchasers, tenants, mortgagees, or others, unless required by Federal, State or local law or ordinance.~~

7.11 References in this Agreement to activities by the Owner in relation to development is intended to include Owner's transferees and assigns unless context dictates to the contrary.

~~7.12 In the event a portion of the Property is submitted for site plan approval, and such approval is denied, the party submitting such site plan shall be entitled to appeal such decision to the Zoning Boards of Appeals as required by law.~~

This is a contrary to Section 10.10.01 and must be deleted.

[Remainder of Page Intentionally Left Blank.]

This Agreement has been executed by a duly authorized representative of the Owner as of the date first set forth above.

TRINITY HEALTH-MICHIGAN, d/b/a
SAINT JOSEPH MERCY HEALTH
SYSTEM, formerly known as MERCY
HEALTH SERVICES,
a Michigan nonprofit corporation

By: _____
[Printed Name]
Its: _____

STATE OF MICHIGAN)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 2022, by _____, the _____ of TRINITY HEALTH-MICHIGAN, d/b/a SAINT JOSEPH MERCY HEALTH SYSTEM, formerly known as MERCY HEALTH SERVICES, a Michigan nonprofit corporation, on behalf of the corporation.

Notary Public _____ County, Michigan
Acting in _____ County, Michigan
My Commission Expires: _____

[Signatures Continued on the Following Page.]

APPROVED by the Township Board for Genoa Charter Township on the _____ day of _____, 2022, at a meeting duly called and held.

GENOA CHARTER TOWNSHIP,
a Michigan charter township

By: _____
[Printed Name]
Its: Supervisor

By: _____
[Printed Name]
Its: Clerk

STATE OF MICHIGAN)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 2022, by _____ and _____, the Supervisor and Clerk, respectively, of GENOA CHARTER TOWNSHIP, a Michigan charter township, on behalf of said township..

Notary Public _____ County, Michigan
Acting in _____ County, Michigan
My Commission Expires: _____

Drafted by:

Richard A. Sundquist
Clark Hill PLC
500 Woodward Avenue, Suite 3500
Detroit, Michigan 48226
(313) 965-8227
rsundquist@clarkhill.com

When Recorded, Return to:

EXHIBIT A

LEGAL DESCRIPTION OF THE PROPERTY

Commencing at the Northeast Corner of Section 13, Town 2 North, Range 5 East, Genoa Township, Livingston County, Michigan; thence S 89°38'11" W 1355.85 feet (recorded as N 87°59'50" W 1355.93 feet) along the North line of said Section 13 for a PLACE OF BEGINNING; thence S 02°11'38" E 763.41 feet (recorded as S 00°08'31" E 763.54 feet); thence N 87°56'59" E 6.62 feet (recorded as S 89°20'22" E 6.57 feet); thence S 02°09'04" E 1733.44 feet; thence S 86°51'52" W 7.47 feet (recorded as S 89°16'32" W 7.47 feet); thence S 03°08'08" E 92.85 feet (recorded as S 00°38'37" E 92.41 feet); thence S 89°29'10" W 38.78 feet (recorded as N 88°05'08" W 38.78 feet); thence S 03°08'08" E (recorded as S 00°30'54" E) 176.36 feet; thence N 69°43'30" W 1410.63 feet (recorded as N 67°17'30" W 1402.44 feet) along the Northerly Right-of-Way of Grand River Avenue; thence N 02°12'10" W 2268.75 feet along the North-South 1/4 line to the North 1/4 Corner of said Section 13; thence N 89°38'11" E 1341.07 feet (recorded as S 87°54'35" E 1341.18 feet) along the North line of said Section 13 to the Place of Beginning. Being a part of the Northeast 1/4 and the Southeast 1/4 of Section 13, Town 2 North, Range 5 East, Genoa Township, Livingston County, Michigan. Containing 77.74 acres of land, more or less. Being subject to easements and restrictions of record, if any.

EXHIBIT B
NRPUD PLANS

The NRPUD Plans showing the existing (already improved) facilities including the Medical Buildings and the Facility as well as the proposed new hospital and expansion areas is attached to this Agreement as Sheet _____ which also identifies a future community farm. Sheet ____ attached identifies the existing Village Easements.

EXHIBIT C

FEES, CHARGES, AND COSTS FOR UTILITIES

To Be Determined /Equivalent User Table

Existing Owner Credits

EXHIBIT D

**LIST OF ADDITIONAL PLANS AND DRAWINGS
MADE A PART OF THIS AGREEMENT**

- Renderings of existing facilities and proposed expansion and renovation of existing Medical Buildings.

St. Joseph Mercy Brighton Expansion and Renovation

7575 Grand River Ave., Brighton, Michigan 48114
7555 Grand River Ave., Brighton, Michigan 48114



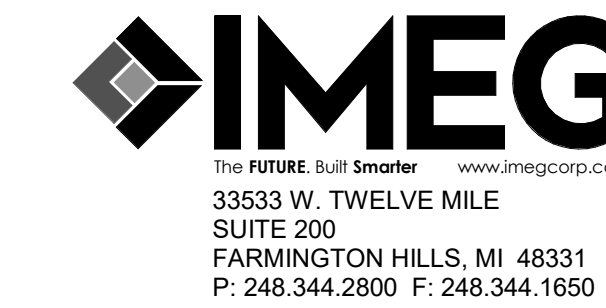
Trinity Health-Michigan/ Saint Joseph Mercy Health System

1600 South Canton Center Road
Canton, MI 48155
<https://www.stjoeshealth.org/>

Clinet Contact:
Stephen VanBrussel
Saint Joseph Mercy Health System
Regional Director of Construction
36475 Five Mile Road
Livonia, MI 48154
stephen.vanbrussel@stjoeshealth.org

SMITHGROUP

500 GRISWOLD
SUITE 1700
DETROIT, MI 48226
313.983.3600
smithgroup.com

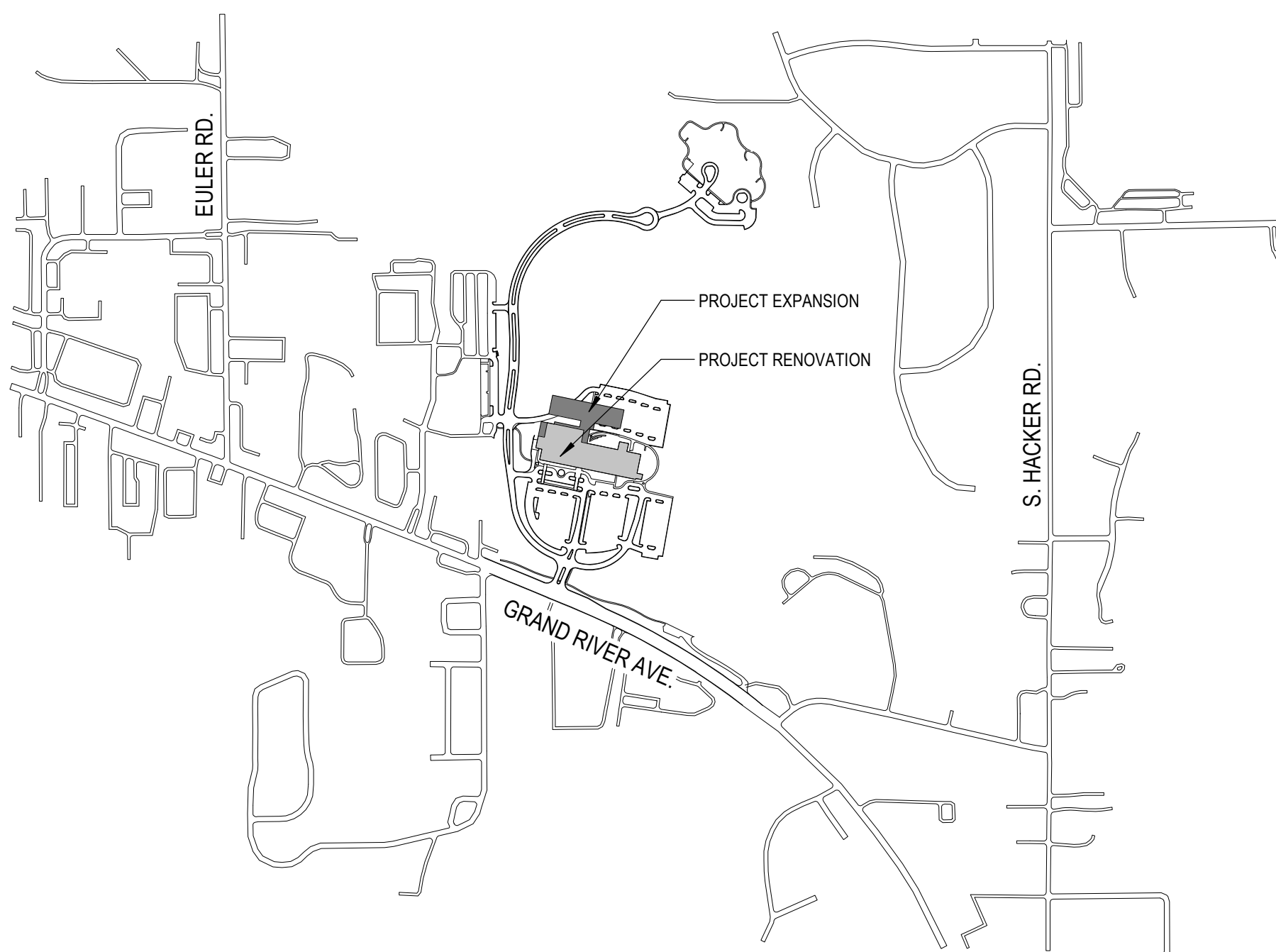


VOLUME I OF I

ISSUED FOR:
SITE PLAN RESUBMITTAL

ISSUE DATE:
JUNE 22, 2022

SG PROJECT #: 13472.000
IMEG PROJECT #: 21006742.00



NOTES

- 1. HORIZONTAL DATUM IS ACCORDING TO MICHIGAN STATE PLANE GRID COORDINATES, SOUTH ZONE (2113), GEOID 2016, INTERNATIONAL FEET AS LINEAR UNIT OF MEASURE.
2. AT THE TIME OF SURVEY, SCHEDULE B TITLE EXCEPTION NO. 8, DTE EASEMENT, RECORDED IN L1090, P.40, L.C.R., LACKS THE REFERENCE DRAWING NOTED IN THE AGREEMENT (DWG NO. HS-2468), WHICH IS REQUIRED TO CONFIRM THE LOCATION OF SAID EASEMENT. DTE PLANNING WAS CONTACTED DEC. 15, 2021, JAN. 6, 2022, JAN. 26, 2022 - AWAITING RESPONSE.
THE RECORD EASEMENT FOLLOWS OVERHEAD LINES AND GUY WIRES. IN AN EFFORT TO DISPLAY POTENTIAL IMPACT OF THE EASEMENT, THE PRESCRIBED EASEMENT WIDTH HAS BEEN ASSIGNED TO DTE OVERHEAD LINES THAT APPEAR ON PROVIDED DTE UTILITY RECORDS THAT WERE NOT ALREADY ADDRESSED WITH OTHER RECORDED DTE EASEMENTS CONTAINED IN THE PROVIDED TITLE WORK. THERE IS NO CERTAINTY THAT THESE ARE THE SAME OVERHEAD LINES REFERENCED IN THE MISSING REFERENCE DRAWING.

RECORDED DOCUMENTS

- MOOT ROW MAP, FILE NO. 47-R-2, PROJ. NO. 47062, SHEET NO. 80
• RELEASE OF RIGHT-OF-WAY, OCT. 6, 1924, RECORDED IN L153, P.81, L.C.R.
• L.C.R.C. #1299 CORNERS L-5 & L-6, DATED SEPT. 24, 1981
• L.C.R.C. #363m CORNER L-5, DATED NOV. 14, 1984
• L.C.R.C. CORNER M-06, DATED DEC. 29, 2020, INSTRUMENT NO. 2020CR-0013, L.C.R.
• L.C.R.C. CORNER M-05, DATED NOV. 16, 1994
• BOUNDARY SURVEY - BOSS ENG. CO., JOB NO. 81113, DATED JUNE 25, 1981
• BOUNDARY SURVEY - BOSS ENG. CO., JOB NO. 90006, DATED FEB. 8, 1990
• BOUNDARY SURVEY - BENTON LAND SURVEYS, JOB NO. 87-5-4686, DATED JUNE 1987
• BOUNDARY SURVEY - BOSS ENG. CO., JOB NO. 87516, DATED DEC. 7, 1987
• BOUNDARY SURVEY - DESNE ENG., JOB NO. 01-10-13-8750, DATED JULY 1, 1999, RECORDED IN L2847, P.87, L.C.R.
• GENOA ONE CONDOMINIUM REPLAT NO. 2 OF LIVINGSTON COUNTY CONDOMINIUM SUBDIVISION PLAN NO. 275, MASTER DEED RECORDED IN L5002, P.603, L.C.R.
• "BIRKENSTOCK FARMS" RECD IN L30 OF PLATS, P.49-52, INCLUSIVE, L.C.R.
• "PEBBLE CREEK" RECD IN L37 OF PLATS, P.30-36, INCLUSIVE, L.C.R.
• AMROCK TITLE SEARCH, ORDER NO. C000125006, DATED NOVEMBER 24, 2021

RECORD LEGAL DESCRIPTION:

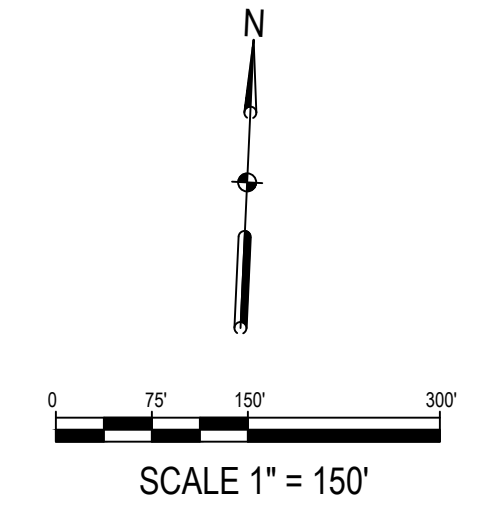
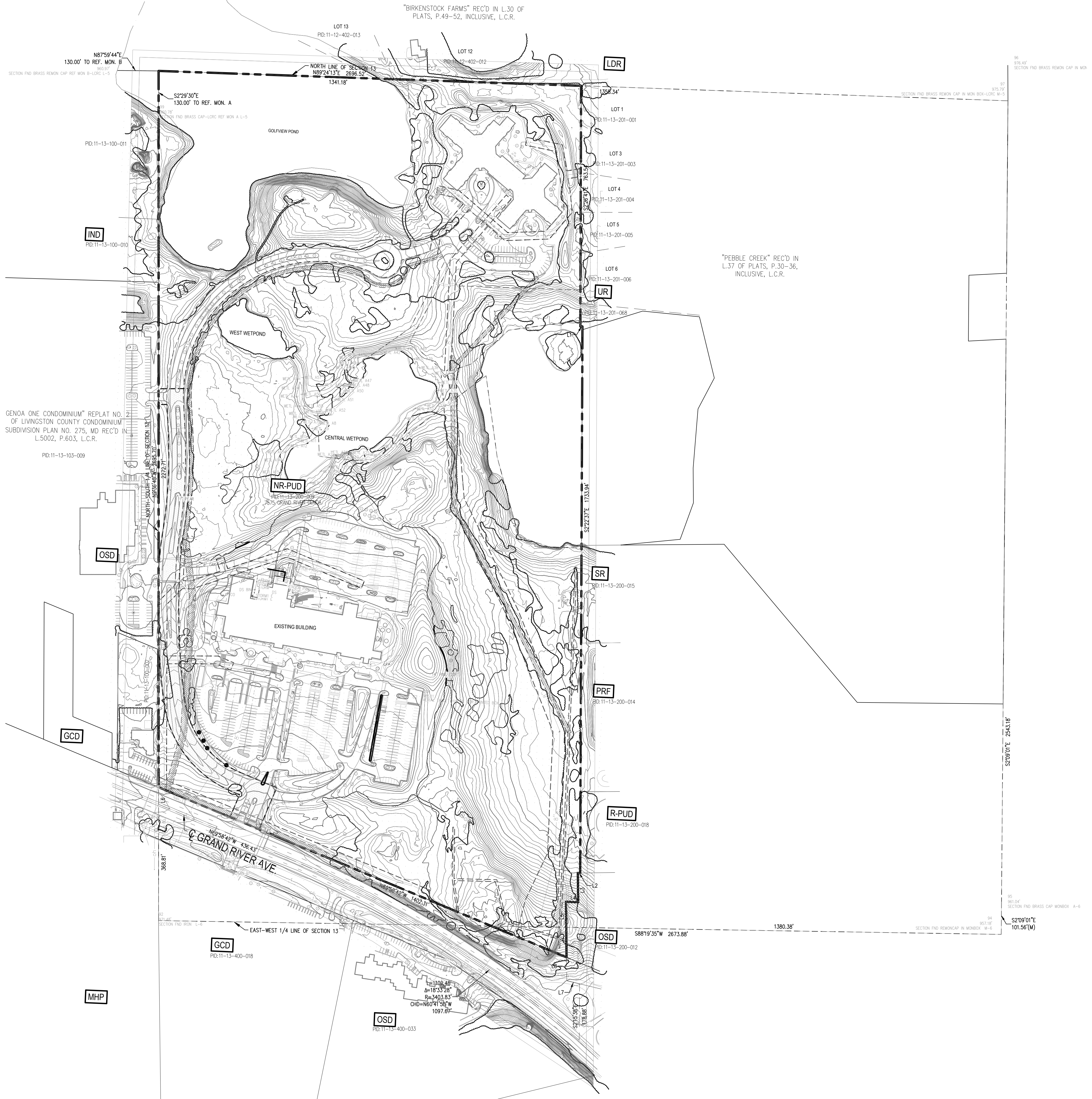
Land situated in the Township of Genoa, Livingston County, State of Michigan, more particularly described as: A part of the West 1/2 of the Northeast 1/4 and part of the West 1/2 of the Southeast 1/4, Section 13, Town 2 North, Range 5 East, Genoa Township, Livingston County, Michigan, described as follows: Beginning at the North 1/4 corner of said Section 13; thence South 87° 58' 14" East along the North line of said Section 1348.27 feet; thence South 00° 14' 31" West 2498.64 feet; thence South 89° 15' 27" West 7.47 feet; thence South 00° 44' 13" East 92.85 feet; thence North 88° 07' 15" West 38.78 feet; thence South 00° 44' 13" East 250.00 feet to the centerline of Bendix Road; thence South 78° 18' 59" East along said centerline 41.48 feet; thence South 00° 14' 31" West 129.69 feet to the centerline of Grand River Avenue; thence along said centerline on an arc left, having a length of 1095.39 feet, a radius of 3404.83 feet, a central angle of 18° 26' 19" and a chord which bears North 59° 55' 42" West 1090.67 feet, thence continuing along said centerline North 69° 08' 51" West 419.11 feet to the North-South 1/4 line of said Section; thence North 00° 01' 00" East along said 1/4 line 2328.81 feet to the point of beginning. EXCEPTING THEREFROM, part of the Northeast 1/4 of Section 13, Town 2 North, Range 5 East, Genoa Township, Livingston County, Michigan, described as follows: Commencing at the Northeast corner of said Section 13, thence along the North line of said Section, using the North 1/4 corner of said Section 13, as set by Boss Engineering, North 87° 58' 25" West 1348.43 feet (recorded by Boss Engineering as North 87° 58' 14" West 1348.27 feet) to the point of beginning of the land to be described; thence along a line previously surveyed and monumented by Boss Engineering, South 00° 14' 31" West 0.22 feet to a found 1/2" iron rod and cap; thence continuing along said line South 00° 14' 31" West 762.97 feet to a set iron rod on the Northern water's edge of a pond; thence perpendicular to the previous line, North 80° 45' 29" West 6.54 feet to a set iron rod in said pond; thence along a line delineated by a found Clay Gordon iron to the South and a point on the North, called for in a survey by George H. Puhling and Company, Registered Civil Engineers of Detroit, Michigan, for John F. Lindean, dated June 21, 1927 and having job Number 399, North 00° 10' 44" East 8.08 feet to a set iron rod on the Northern water's edge of said pond; thence continuing along said line North 00° 10' 44" East 755.51 feet to a point on the North Section line of said Section, that is 1355.60 feet West of the Northeast corner of said Section 13 and called for in the staking survey drawing; thence South 87° 58' 25" East 7.38 feet along the North line of said Section to the point of beginning.

AS-SURVEYED LEGAL DESCRIPTION:

BEGINNING at the North 1/4 corner of Section 13, T2N, R5E, Township of Genoa, Livingston County, Michigan; thence N89°24'13"E 1341.16 feet along the North line of said Section 13 also part of the South line of "Birkenstock Farms" as recorded in Liber 30 of Plats, Page 49-52, inclusive, Livingston County Records; thence the following three courses along the line established by Circuit Court Consent Judgment dated March 23, 1987, File # C2 84-2397-02: (1) S02°25'41"E 763.94 feet along the West line of "Pebble Creek" as recorded in Liber 37 of Plats, Page 30-36, inclusive, Livingston County Records, and the Southerly extension thereof; (2) N87°58'26"E 6.57 feet; (3) S02°22'37"E 1733.94 feet; thence S86°35'30"W 7.47 feet; thence S03°19'49"E 92.41 feet; thence S89°13'40"W 28.78 feet; thence S03°12'28"E 176.42 feet; thence N69°58'42"W 1402.31 feet along the Northernly Right-of-Way line of Grand River Avenue (variable width) as defined in the Release of Right-of-Way recorded in Liber 153 of Deeds, Page 81, Livingston County Records; thence N02°36'45"W 2272.71 feet along the North-South 1/4 of said Section 13 and the East line of "Genoa One Condominium" Replat No. 2 of Livingston County Condominium Subdivision Plan No. 275, Master Deed recorded in Liber 5002, Page 603, Livingston County Records to the Point of Beginning, being part of the Northeast 1/4 of said section 13 containing 77.59 acres of land, more or less, being subject to any terms, conditions, or restrictions of record, if any.

BOUNDARY SURVEY

PART OF THE WEST 1/2 OF THE NORTHEAST QUARTER OF SECTION 13, T2N, R5E, GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN



ST. JOSEPH MERCY BRIGHTON EXPANSION AND RENOVATION
7575 GRAND RIVER AVE., BRIGHTON, MI 48114
7555 GRAND RIVER AVE., BRIGHTON, MI 48114

SMITHGROUP

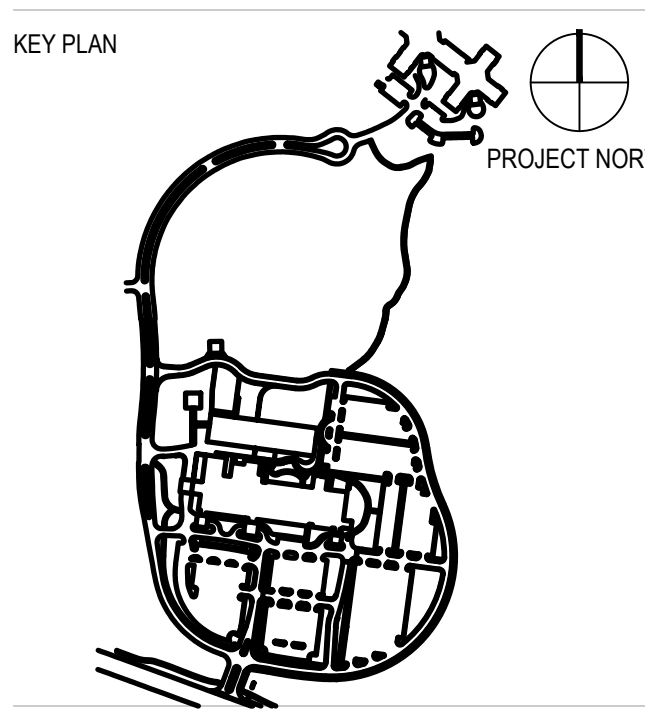
201 DEPOT STREET
SECOND FLOOR
ANN ARBOR, MI 48104
734.662.4457
www.smithgroup.com



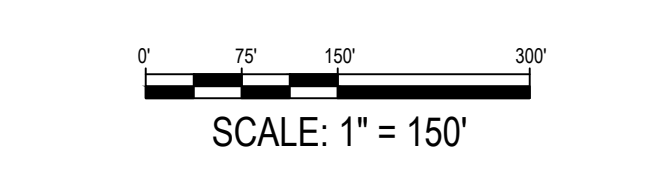
Table with 2 columns: ISSUED FOR, REV, DATE. It lists project milestones such as SITE PLAN RESUBMITTAL, DESIGN DEVELOPMENT, SITE PLAN REVIEW, SCHEMATIC DESIGN, and SD PROGRESS with their respective revision numbers and dates.

SEALS AND SIGNATURES

NOT FOR CONSTRUCTION



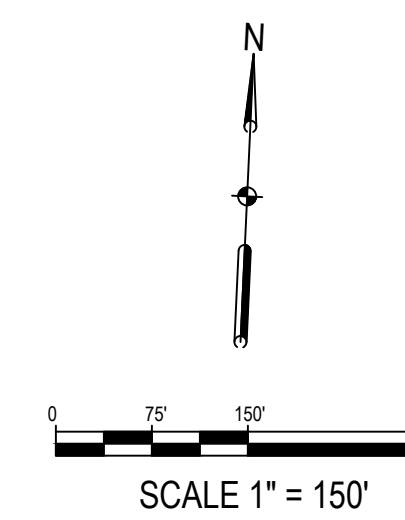
DRAWING TITLE
SITE SURVEY AND EXISTING ZONING



SCALE 13472.00
PROJECT NUMBER
DRAWING NUMBER CV-100

WETLAND AND SOIL SURVEY

PART OF THE WEST 1/2 OF THE NORTHEAST QUARTER OF SECTION 13, T2N, R5E, GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN



**ST. JOSEPH MERCY
BRIGHTON
EXPANSION AND RENOVATION**

7575 GRAND RIVER AVE., BRIGHTON, MI 48114
7555 GRAND RIVER AVE., BRIGHTON, MI 48114

SMITHGROUP

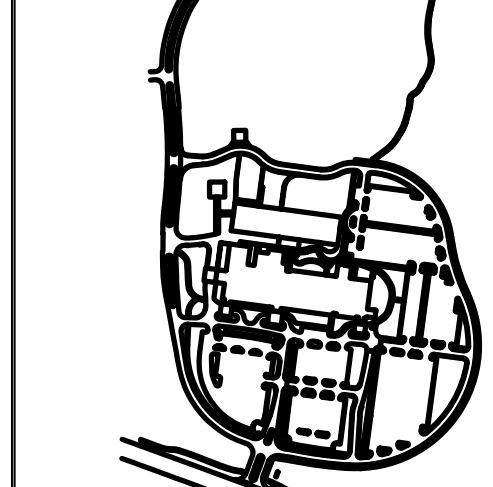
201 DEPOT STREET
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734.662.4457
www.smithgroup.com



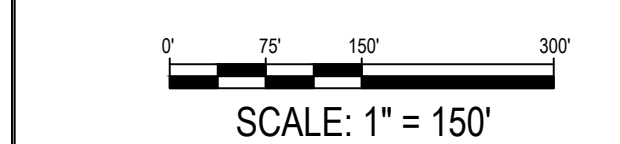
ISSUED FOR	REV	DATE
SITE PLAN RESUBMITTAL	E	22JUN22
DESIGN DEVELOPMENT	D	21JUN22
SITE PLAN REVIEW	C	30MAR22
SCHEMATIC DESIGN	B	04MAR22
SD PROGRESS	A	04MAR22

SEALS AND SIGNATURES

NOT FOR CONSTRUCTION



DRAWING TITLE **SITE SOILS**



SCALE 13472.00
PROJECT NUMBER
CV-200
DRAWING NUMBER

WORKING WETLAND BOUNDARY NOTE:

THE VACANT PROPERTY NORTH OF THE ST. JOSEPH MERCY BRIGHTON HEALTH CENTER WAS VISITED ON THE MORNING OF SEPTEMBER 7, 2021. THE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES AND ENERGY (EGLE) WETLANDS MAPPER INDICATES WETLANDS ARE PRESENT ON THIS PROPERTY. THE USDA WEB SOIL SURVEY INDICATES HYDRIC SOILS ARE PRESENT ON THIS PROPERTY. THE APPROXIMATE LOCATION OF THE WETLAND BOUNDARIES OBSERVED IS SHOWN ON THE AERIAL PHOTO.

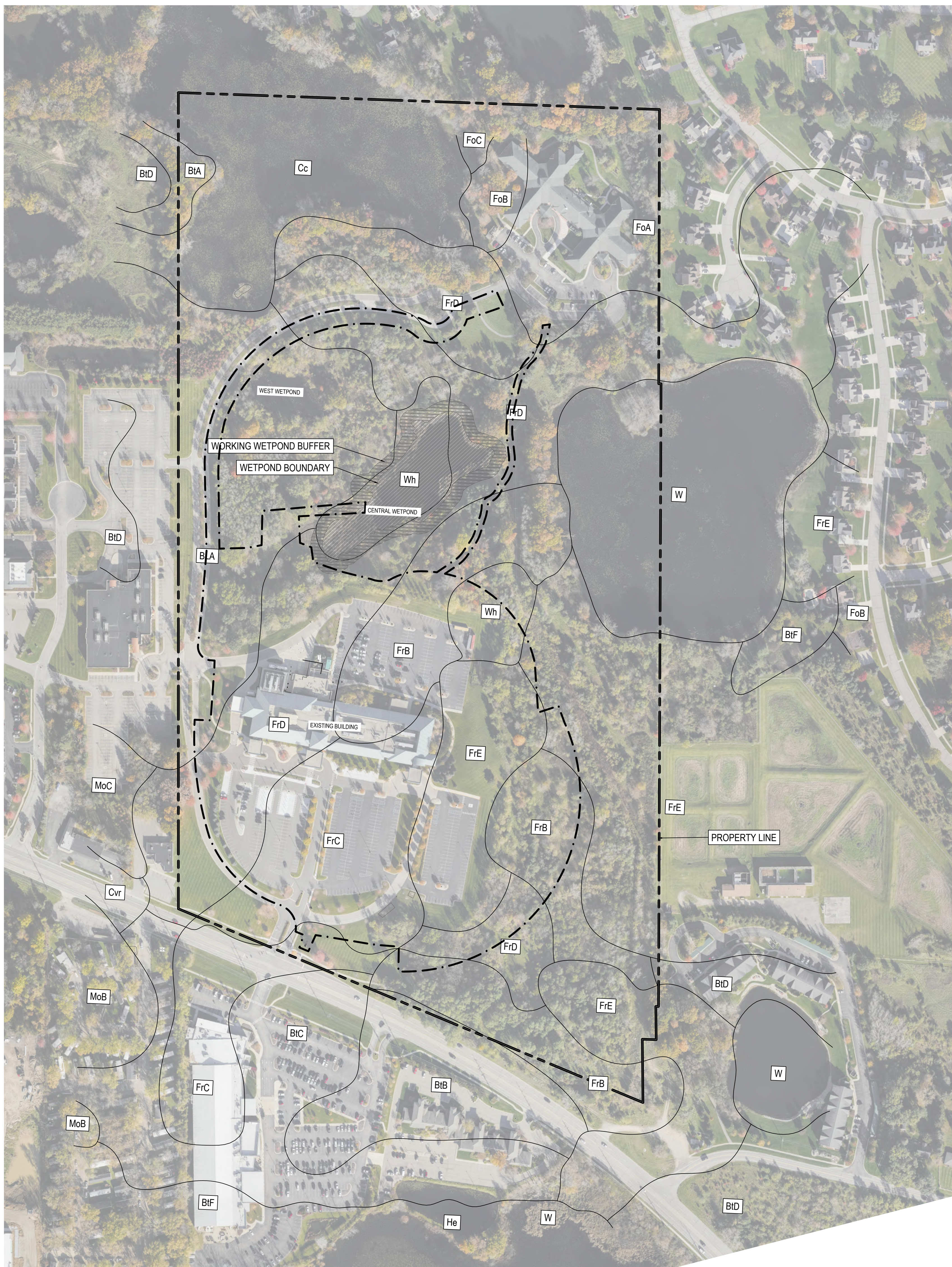
THE SOUTHERN TIP OF THE CENTRAL WETLAND IS AN EMERGENT WETLAND DOMINATED BY PURPLE LOOSESTRIFE (LYTHRUM SALICARIA) AND GLOSSY BUCKTHORN (FRANGULA ALNUS). THE VEGETATION IN THIS AREA SHOWED SIGNS OF BEING SPRAYED WITH AN HERBICIDE IN THE PAST AS VERY LITTLE OF THE PURPLE LOOSESTRIFE HAD FLOWERS AND MOST OF THE GLOSSY BUCKTHORN WAS DEAD. OTHER PLANTS OBSERVED INCLUDED BUTTONEBUSH (CEPHALANTHUS OCCIDENTALIS), WOOL GRASS (SCORPUS CYPERINUS) AND NARROW-LEAVED CATTAIL (TYPHA ANGUSTIFOLIA). ALL THE PLANTS OBSERVED ARE INDICATORS OF WETLAND CONDITIONS. THIS AREA CONTAINED SATURATED SOILS, EVIDENCE OF STANDING WATER AND TRANSITIONED INTO AN OPEN WATER WETLAND WITH AN EMERGENT FRINGE TO THE NORTH AND EAST. A SWALE WITH FLOWING WATER WAS OBSERVED CONNECTING AN OPEN WATER WETLAND TO THE WEST OF THE CENTRAL WETLAND. THE SWALE WAS DOMINATED BY REED CANARY GRASS (PHALARIS ARUNDINACEA) AND NARROW-LEAVED CATTAIL.

IT IS ANTICIPATED THAT THE CENTRAL WETLAND WOULD BE CONSIDERED JURISDICTIONAL UNDER PART 303, WETLAND PROTECTION, OF THE NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT BECAUSE IT IS WITHIN 500' OF AN INLAND LAKE (TO THE EAST) THAT IS GREATER THAN 5 ACRES IN SIZE. THE OPEN WATER WETLAND TO THE WEST WOULD ALSO BE CONSIDERED JURISDICTIONAL BECAUSE IT HAS A DIRECT SURFACE CONNECTION TO THE CENTRAL WETLAND.

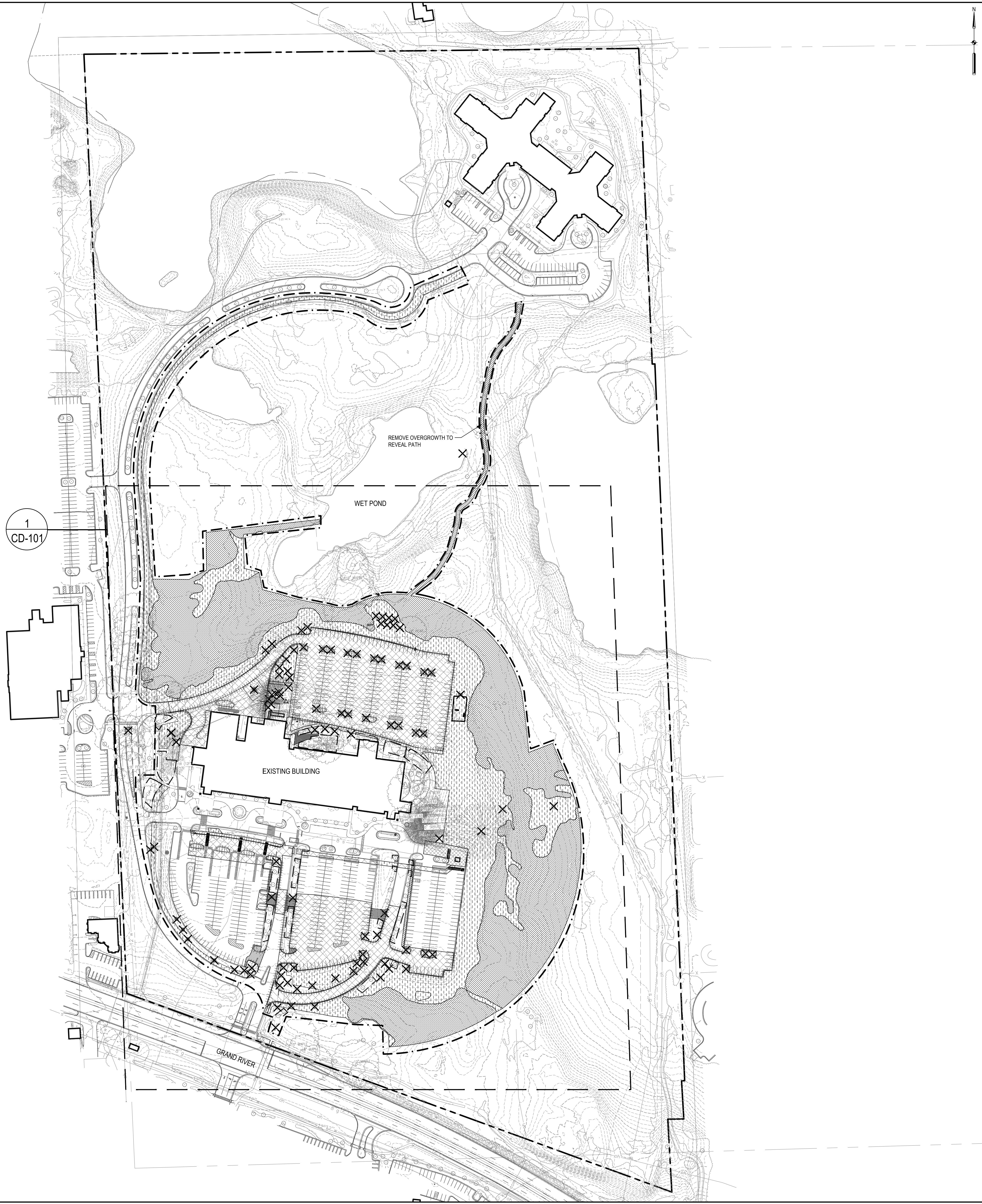
THIS WETLAND ASSESSMENT WAS COMPLETED FOR PLANNING PURPOSES. A FORMAL WETLAND DELINEATION IN ACCORDANCE WITH EGLE PROCEDURES IS CURRENTLY BEING CONDUCTED AND WILL BE AVAILABLE FOR THE FORMAL REVIEW MAY 9TH.

SOIL SURVEY DESCRIPTIONS:

MAP UNIT SYMBOL	DESCRIPTION
BtA	BOYER-OCHTENO LOAMY SANDS
BtB	BOYER-OCHTENO LOAMY SANDS
BtC	BOYER-OCHTENO LOAMY SANDS
BtD	BOYER-OCHTENO LOAMY SANDS
BtE	BOYER-OCHTENO LOAMY SANDS
BtF	BOYER-OCHTENO LOAMY SANDS
BtG	BOYER-OCHTENO LOAMY SANDS
BtH	BOYER-OCHTENO LOAMY SANDS
BtI	BOYER-OCHTENO LOAMY SANDS
BtJ	BOYER-OCHTENO LOAMY SANDS
BtK	BOYER-OCHTENO LOAMY SANDS
BtL	BOYER-OCHTENO LOAMY SANDS
BtM	BOYER-OCHTENO LOAMY SANDS
BtN	BOYER-OCHTENO LOAMY SANDS
BtO	BOYER-OCHTENO LOAMY SANDS
BtP	BOYER-OCHTENO LOAMY SANDS
BtQ	BOYER-OCHTENO LOAMY SANDS
BtR	BOYER-OCHTENO LOAMY SANDS
BtS	BOYER-OCHTENO LOAMY SANDS
BtT	BOYER-OCHTENO LOAMY SANDS
BtU	BOYER-OCHTENO LOAMY SANDS
BtV	BOYER-OCHTENO LOAMY SANDS
BtW	BOYER-OCHTENO LOAMY SANDS
BtX	BOYER-OCHTENO LOAMY SANDS
BtY	BOYER-OCHTENO LOAMY SANDS
BtZ	BOYER-OCHTENO LOAMY SANDS
CC	CARLEUSE MUCK
CvRAAB	CONOVER LOAM
FoA	FOX SANDY LOAM
FoB	FOX SANDY LOAM
FoC	FOX SANDY LOAM
FoD	FOX SANDY LOAM
FoE	FOX SANDY LOAM
FrB	FOX-BOYER COMPLEX
FrC	FOX-BOYER COMPLEX
FrD	FOX-BOYER COMPLEX
FrE	FOX-BOYER COMPLEX
FrF	FOX-BOYER COMPLEX
FrG	FOX-BOYER COMPLEX
FrH	FOX-BOYER COMPLEX
FrI	FOX-BOYER COMPLEX
FrJ	FOX-BOYER COMPLEX
FrK	FOX-BOYER COMPLEX
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FrT	FOX-BOYER COMPLEX
FrU	FOX-BOYER COMPLEX
FrV	FOX-BOYER COMPLEX
FrW	FOX-BOYER COMPLEX
FrX	FOX-BOYER COMPLEX
FrY	FOX-BOYER COMPLEX
FrZ	FOX-BOYER COMPLEX
He	HOUSTON MUCK
MoB	MAWASEE LOAM
W	WATER
Wh	WASHTEAW SILT LOAM



FILE C:\Users\kdelroy\Documents\Company\CV-200\CV-200.dwg USER:kdelroy DATE: Jun, 21, 2022 TIME: 11:07 am



SHEET NOTES

1. NOTIFY THE ENGINEER IN WRITING OF ANY IDENTIFIED DISCREPANCIES WITHIN THE CONSTRUCTION DOCUMENTS PRIOR TO THE START OF WORK. DURING PERFORMANCE OF THE WORK, VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND CROSS-CHECK DETAILS AND DIMENSION SHOWN ON THE DRAWINGS WITH RELATED REQUIREMENTS ON THE ENGINEERURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS PRIOR TO STARTING WORK. IN ALL CASES, WHERE A CONFLICT MAY OCCUR, THE ENGINEER SHALL BE NOTIFIED AND WILL INTERPRET THE INTENT OF THE CONTRACT DOCUMENTS.
2. PRIOR TO THE COMMENCEMENT OF WORK, VERIFY LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY CONSTRUCTION AND TAKE RESPONSIBILITY FOR DAMAGES TO SUCH UTILITIES CAUSED AS A RESULT OF CONSTRUCTION.
3. TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT THE PUBLIC AND ADJACENT PROPERTIES FROM DAMAGE THROUGHOUT CONSTRUCTION, INCLUDING DAMAGES TO UTILITIES, WALKS, WALLS, DRIVES, CURBS, ETC.
4. ALL MATERIAL TO BE REMOVED WHETHER SPECIFICALLY NOTED IN THE PLANS OR NOT, SHALL BE REMOVED BY THE CONTRACTOR AND TRANSPORTED OFF SITE. MATERIAL TO BE DISPOSED OF OFFSITE AND IN A LEGAL MANNER. NO BURY OR BURN PITS SHALL BE ALLOWED. PROVIDE RECEIPTS AND LETTERS FROM DISPOSAL SITES TO OWNER AS REQUIRED BY THE OWNER.
5. SECURE ALL NECESSARY PERMITS AND NOTIFY ALL UTILITY COMPANIES WITH UTILITIES ON THE SITE PRIOR TO THE CONSTRUCTION OF THE PROJECT. ADHERE TO ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS OR REGULATIONS PERTAINING TO THE PROJECT.
6. SPECIFIC DEMOLITION ITEMS HAVE BEEN INDICATED ON THE PLANS AS A GUIDE TO THE GENERAL SCOPE OF THE WORK. IT IS THE INTENT THAT THESE ITEMS SHALL BE COMPLETELY REMOVED BY THE CONTRACTOR ABOVE AND BELOW GROUND, UNLESS SPECIFICALLY NOTED OTHERWISE, AND THAT DEMOLITION WILL INCLUDE BUT WILL NOT NECESSARILY BE LIMITED TO THESE ITEMS. CONTRACTOR SHALL VISIT SITE TO VERIFY EXISTING CONDITIONS AND EXTENTS OF THE DEMOLITION THAT WILL BE REQUIRED PRIOR TO SUBMITTING A BID.
7. THE CONTRACTOR SHALL, AT A MINIMUM, PROVIDE TREE PROTECTION FENCING AROUND EXISTING TREES TO BE SAVED THAT ARE WITHIN 15' OF CONSTRUCTION ACTIVITIES AND AS INDICATED IN THE PLANS OR PER LOCAL AGENCY REQUIREMENTS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN UP, NOISE, DUST CONTROL, STREET SWEEPING AND HOURS OF OPERATION IN ACCORDANCE WITH THE LOCAL CODES.
9. THE CONTRACTOR SHALL PROVIDE NECESSARY BARRICADES, SIGNAGE, MARKINGS, LIGHTS AND OTHER TRAFFIC CONTROL DEVICES TO PROTECT THE WORK ZONE AND SAFELY MAINTAIN TRAFFIC PER MUTCD REQUIREMENTS.
10. COORDINATE REMOVALS WITH SITE LAYOUT AND MATERIALS PLANS. NOTIFY ENGINEER OF ANY DISCREPANCIES.
11. PREPARE ALL SUBGRADES IN ACCORDANCE WITH RECOMMENDATIONS OF GEOTECHNICAL ENGINEER. PROVIDE PROOF OF ALL REQUIRED SOIL COMPACTION TO THE OWNER.
12. CALL MISS DIG 811 A MINIMUM OF 48 HOURS TO BEGINNING ANY EXCAVATION ACTIVITIES.
13. IF CONTRACTOR DISTURBS AREA OUTSIDE LIMITS OF DISTURBANCE, CONTRACTOR TO REPLACE MATERIAL AT NO COST OF OWNER.

KEYED NOTES

- (A) PROTECT EXISTING PAVEMENT TO REMAIN
- (B) REMOVE CONCRETE CURB AND GUTTER TO THE EXTENTS SHOWN
- (C) SAWCUT FULL DEPTH AND REMOVE PAVEMENT. REMOVE TO THE NEAREST JOINT IF PAVEMENT IS CONCRETE.
- (D) REMOVE EXISTING STORM STRUCTURE. REFER TO UTILITY PLANS FOR PROPOSED STORM STRUCTURE LOCATIONS.
- (E) PROTECT EXISTING LIGHT POLE
- (F) REMOVE LAWN AND STRIP TOP SOIL
- (G) PROTECT EXISTING LAWN, TREES, SHRUBS AND PERENNIALS
- (H) REMOVE EXISTING ROAD AND CROSSWALK STRIPPING
- (I) REFER TO IMEG PLANS FOR GENERATOR RELOCATION
- (J) SMALL GARDEN SHED REMOVAL
- (K) PARKING PAINT REMOVAL

LEGEND

- PROPERTY LINE
- - - EASEMENT
- - - LIMITS OF CONSTRUCTION
- ||||| CURB REMOVAL
- XXXXX PAVEMENT REMOVAL
- XXXXX CONCRETE REMOVAL
- XXXXX PREP EARTHWORK
- X TREE REMOVAL
- TREE PROTECTION FENCE
- PROTECT
- △ RELOCATE
- X REMOVE
- SHRUB MASSING REMOVAL AND PREP EARTHWORK

**ST. JOSEPH MERCY
BRIGHTON
EXPANSION AND RENOVATION**

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7555 GRAND RIVER AVE., BRIGHTON, MI 48114

SMITHGROUP

201 DEPOT STREET
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ANN ARBOR, MI 48104
734.662.4457
www.smithgroup.com

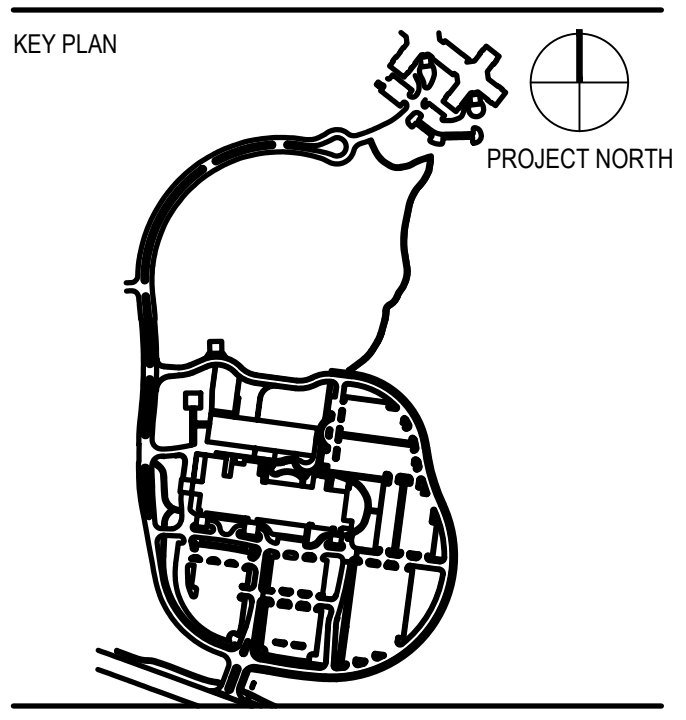
IMEG

35533 W. TWELVE MILE
SUITE 200
FARMINGTON HILLS, MI 48331
P: 248.344.2800 F: 248.344.1650

ISSUED FOR	REV	DATE
SITE PLAN RESUBMITTAL	E	22JUN22
DESIGN DEVELOPMENT	D	21JUN22
SITE PLAN REVIEW	C	30MAR22
SCHEMATIC DESIGN	B	04MAR22
SD PROGRESS	A	04MAR22

SEALS AND SIGNATURES

NOT FOR CONSTRUCTION



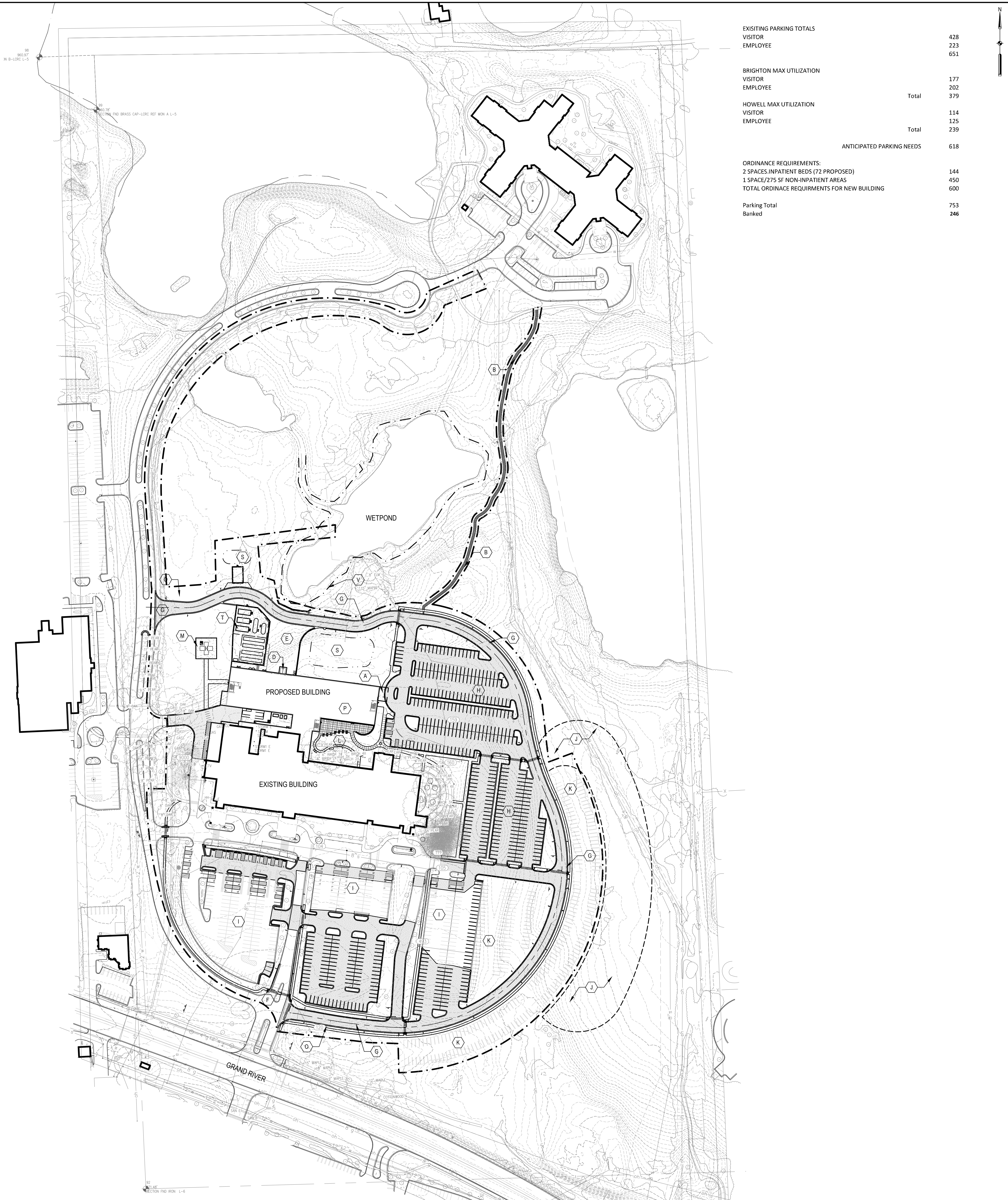
DRAWING TITLE
SITE DEMOLITION PLAN

SCALE
SCALE: 1" = 100'

PROJECT NUMBER
13472.00

DRAWING NUMBER
CD-100

FILE: C:\Users\kadeva\SmithGroup\Commodore\13472\13472-CD100.dwg USER: kadeva DATE: Jun 19, 2022 TIME: 05:37 pm



EXISTING PARKING TOTALS	
VISITOR	428
EMPLOYEE	223
	651
BRIGHTON MAX UTILIZATION	
VISITOR	177
EMPLOYEE	202
	379
HOVELL MAX UTILIZATION	
VISITOR	114
EMPLOYEE	125
	239
ANTICIPATED PARKING NEEDS	618
ORDINANCE REQUIREMENTS:	
2 SPACES/INPATIENT BEDS (72 PROPOSED)	144
1 SPACE/275 SF NON-INPATIENT AREAS	450
TOTAL ORDINANCE REQUIREMENTS FOR NEW BUILDING	600
Parking Total	753
Banked	246

SHEET NOTES

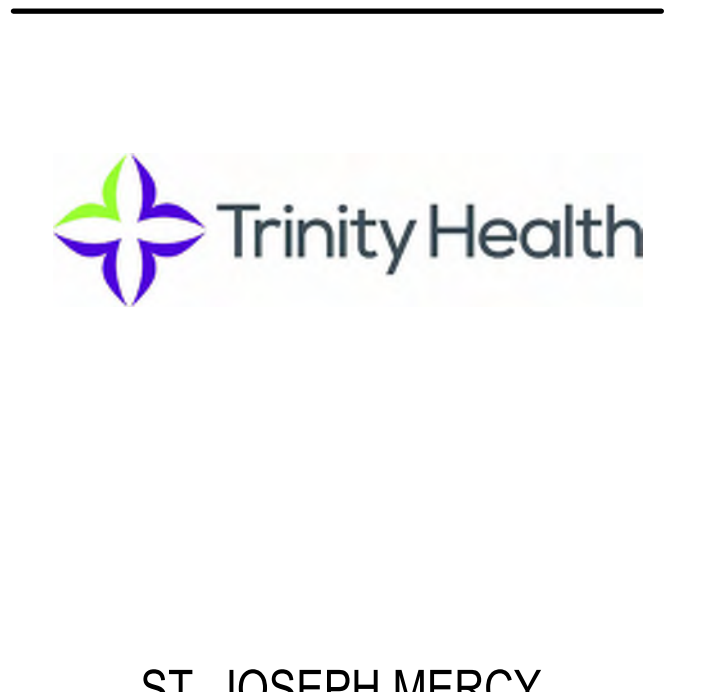
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KEY NOTES

- (A) PATIENT DISCHARGE AND STAFF ENTRY
- (B) EXISTING PATH TO ENHANCE AND MULCH
- (C) LANDSCAPE, SEE LANDSCAPE PLANS
- (D) REFUSE AREA WITH ARCHITECTURAL COVERING
- (E) LOADING DOCK
- (F) MAIN ENTRANCE
- (G) FIRE SAFETY LOOP
- (H) PROPOSED PARKING
- (I) EXISTING PARKING
- (J) FUTURE COMMUNITY FARM AREA
- (K) BANKED PARKING
- (L) COURTYARD
- (M) HELISTOP REF. XXX CONSULTANT PLANS
- (N) LAWN AREA, SEE LANDSCAPE PLANS
- (O) LIGHTING, SEE LIGHTING PLANS
- (P) BUILDING, SEE ARCHITECTURE PLANS
- (Q) RETAINING WALL
- (R) DECORATIVE CMU WALL OR FENCE
- (S) BIO RETENTION POND SEE LANDSCAPE PLANS
- (T) UTILITY YARD
- (U) WALL FOOTINGS
- (V) WETPOND BOUNDARY (MAPPED AND SURVEYED)
- (W) BARRIER FREE PARKING
- (X) HAND RAILS, REF. ARCH
- (Y) CONCRETE RAMP

LEGEND

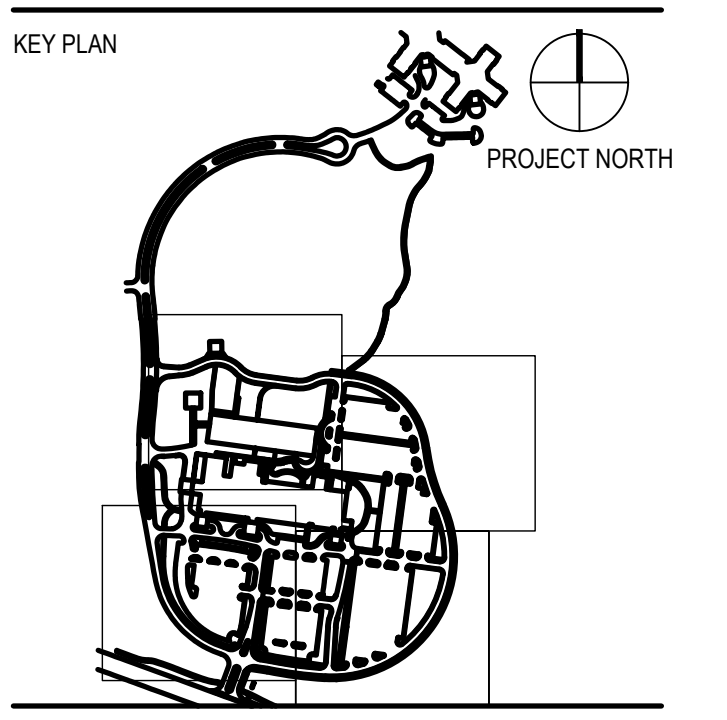
---	LIMITS OF CONSTRUCTION		
[Pattern]	ASPHALT PAVEMENT	2,3	CS-500
[Pattern]	HEAVY DUTY CONCRETE PAVEMENT	1	CS-500
[Pattern]	CONCRETE PAVEMENT	4	CS-500
[Pattern]	COLOR CONCRETE PAVEMENT	4	CS-500
[Pattern]	CURB & GUTTER	7	CS-500
[Pattern]	CURB RAMP	13	CS-500
[Pattern]	FLUSH CURB	8	CS-500
[Pattern]	SPILLOUT CURB & GUTTER	8	CS-500
[Pattern]	CONTROL JOINT	5	CS-500
[Pattern]	ISOLATION (EXPANSION) JOINT	6	CS-500
[Pattern]	STOP BAR PAVEMENT MARKING		
[Pattern]	CROSSWALK PAVEMENT MARKING	10	CS-500
[Pattern]	ASSESSABLE PAVEMENT MARKING	11	CS-500
[Symbol]	BOLLARD	5	CS-501
[Symbol]	TRASH & RECYCLING CONTAINERS	2	CS-506
[Pattern]	DETECTABLE WARNING STRIP	14	CS-500
[Pattern]	CMU AND CONCRETE RETAINING WALLS	1,4	CS-502 CS-503 CS-504
[Pattern]	CONCRETE RETAINING WALL WITH & WITHOUT HANDRAIL OR GUARDRAIL	3,4	CS-504 CS-505
[Pattern]	SEAT WALL	3,4	CS-505
[Symbol]	SIGNAGE	3,4	CS-501
[Symbol]	MONUMENT SIGNAGE	1,2	CS-501
[Symbol]	BENCH	3	CS-506
[Symbol]	PLANTERS	4	CS-506
[Symbol]	UTILITY GATE	1	CS-505
[Symbol]	WHEEL STOPS	12	CS-500



ISSUED FOR	REV	DATE

SEALS AND SIGNATURES

NOT FOR CONSTRUCTION



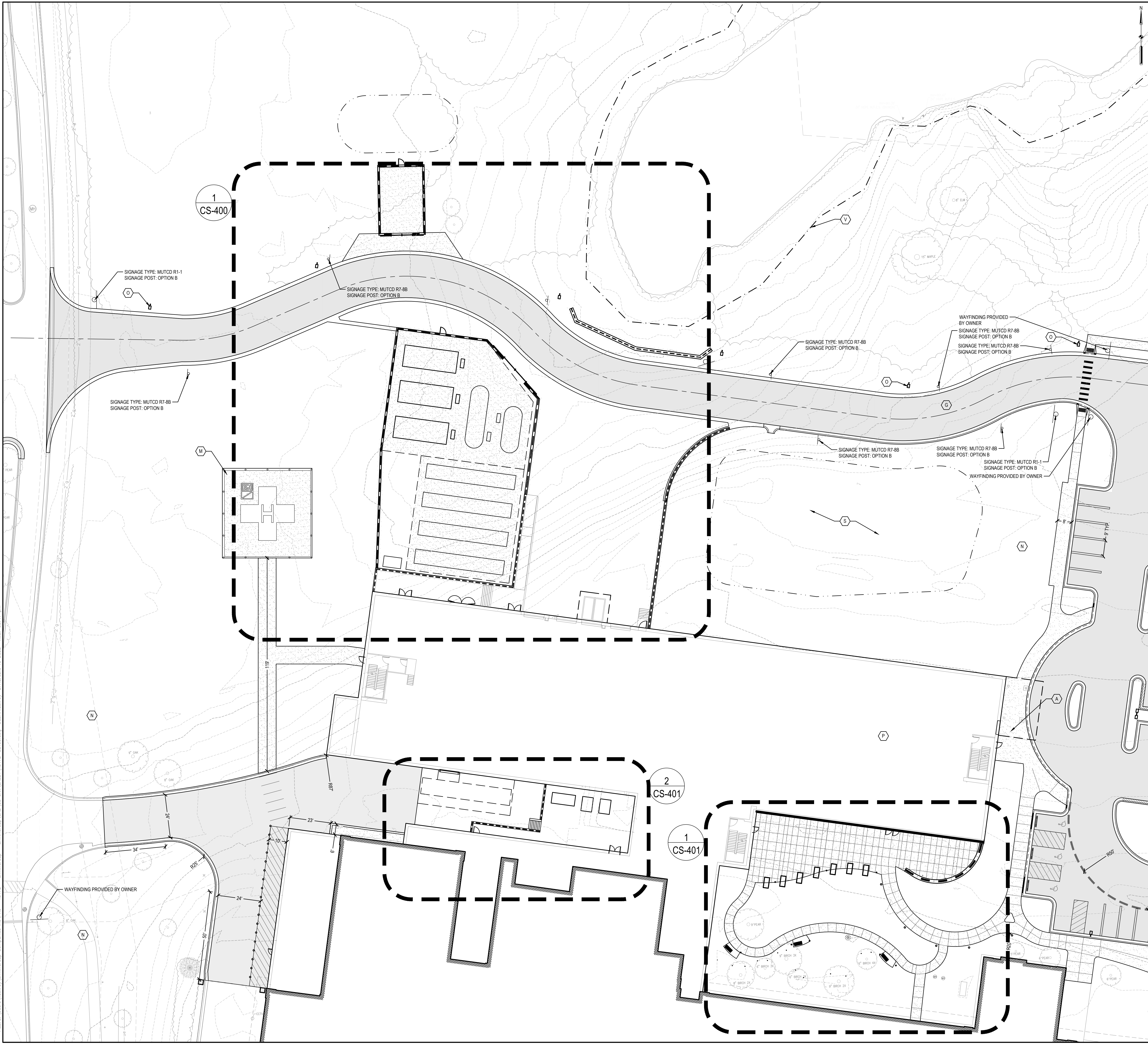
DRAWING TITLE
SITE PLAN

SCALE
SCALE: 1" = 100'

PROJECT NUMBER
13472.00

DRAWING NUMBER
CS-100

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- (W) BARRIER FREE PARKING
- (X) HAND RAILS, REF. ARCH
- (Y) CONCRETE RAMP

LEGEND

- LIMITS OF CONSTRUCTION
- ASPHALT PAVEMENT (2,3) CS-500
- HEAVY DUTY CONCRETE PAVEMENT (1) CS-500
- CONCRETE PAVEMENT (4) CS-500
- COLOR CONCRETE PAVEMENT (4) CS-500
- CURB & GUTTER (7) CS-500
- CURB RAMP (13) CS-500
- FLUSH CURB (8) CS-500
- SPILLOUT CURB & GUTTER (8) CS-500
- CONTROL JOINT (5) CS-500
- ISOLATION (EXPANSION) JOINT (6) CS-500
- STOP BAR PAVEMENT MARKING
- CROSSWALK PAVEMENT MARKING (10) CS-500
- ASSESSABLE PAVEMENT MARKING (11) CS-500
- BOLLARD (5) CS-501
- TRASH & RECYCLING CONTAINERS (2) CS-506
- DETECTABLE WARNING STRIP (14) CS-500
- CMU AND CONCRETE RETAINING WALLS (1,4) CS-502 (1,4) CS-503 (1,2) CS-504
- CONCRETE RETAINING WALL WITH & WITHOUT HANDRAIL OR GUARDRAIL (3,4) CS-504 (1,2) CS-505
- SEAT WALL (3,4) CS-500
- SIGNAGE (3,4) CS-501
- MONUMENT SIGNAGE (1,2) CS-501
- BENCH (3) CS-506
- PLANTERS (4) CS-506
- UTILITY GATE (1) CS-506
- WHEEL STOPS (12) CS-500

Trinity Health
 ST. JOSEPH MERCY
 BRIGHTON
 EXPANSION AND RENOVATION
 7575 GRAND RIVER AVE., BRIGHTON, MI 48114
 7555 GRAND RIVER AVE., BRIGHTON, MI 48114

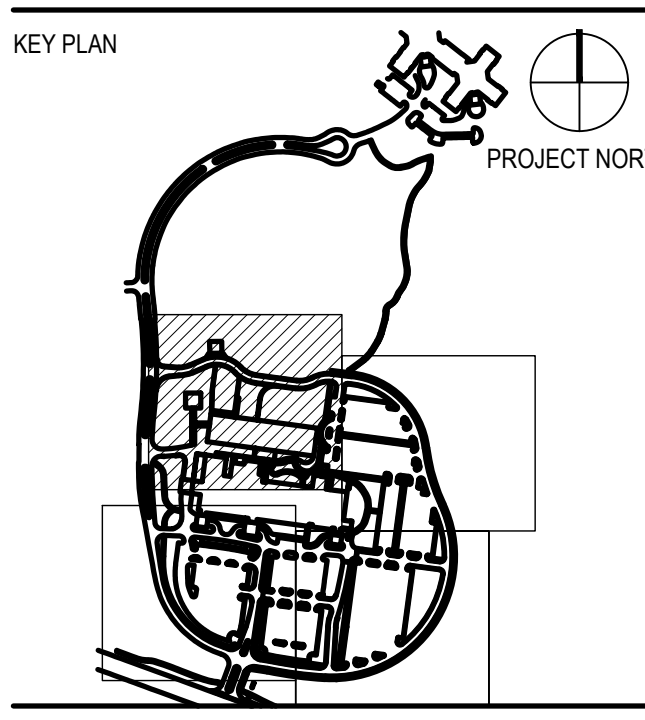
SMITHGROUP
 201 DEPOT STREET
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IMEG
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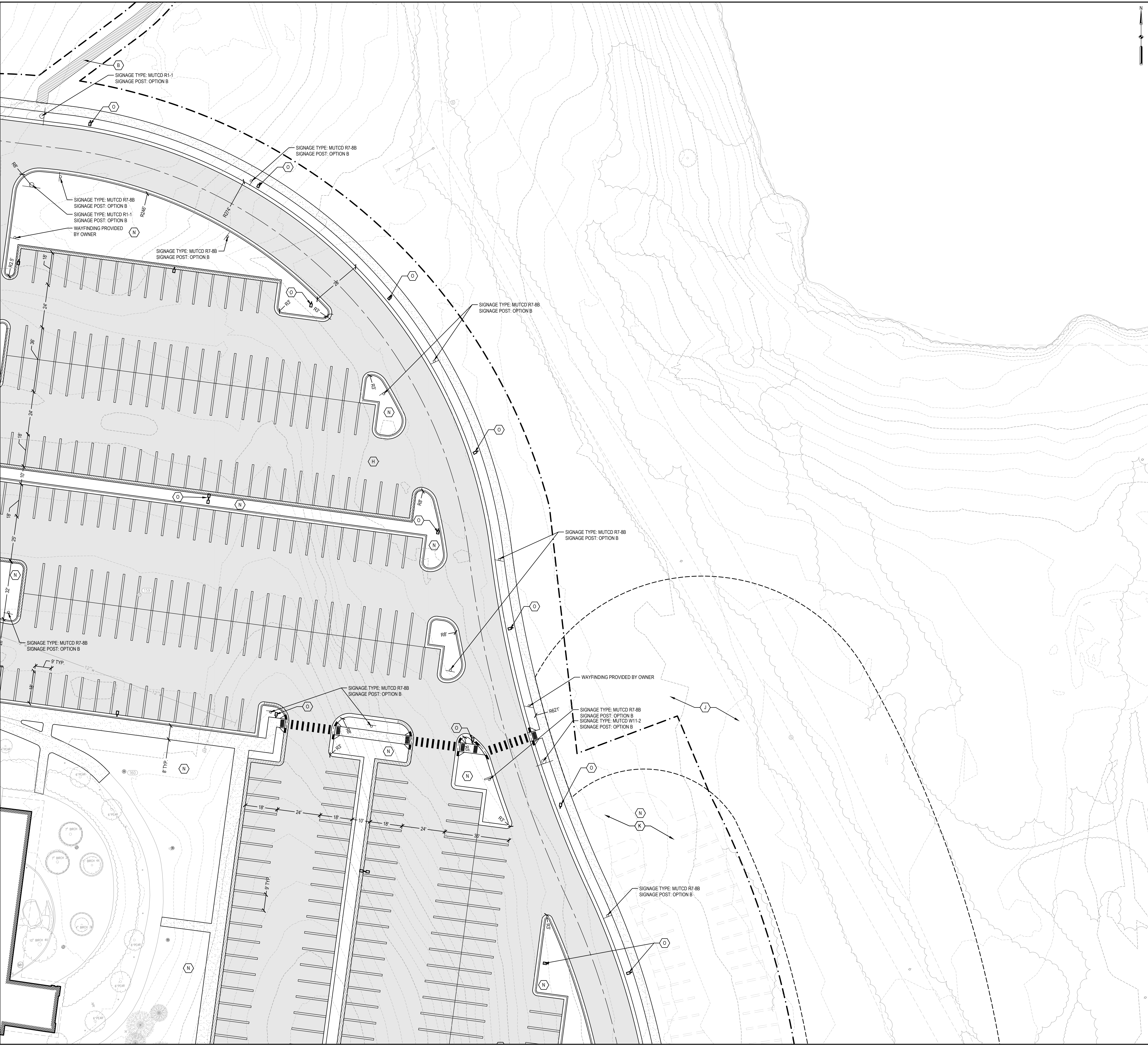
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SEALS AND SIGNATURES

NOT FOR CONSTRUCTION



DRAWING TITLE **SITE PLAN**
 SCALE 1" = 20'
 PROJECT NUMBER 13472.00
 DRAWING NUMBER **CS-101**



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SHEET NOTES

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- (O) LIGHTING, SEE LIGHTING PLANS
- (P) BUILDING, SEE ARCHITECTURE PLANS
- (Q) RETAINING WALL
- (R) DECORATIVE CMU WALL OR FENCE
- (S) BIO RETENTION POND SEE LANDSCAPE PLANS
- (T) UTILITY YARD
- (U) WALL FOOTINGS
- (V) WETPOND BOUNDARY (MAPPED AND SURVEYED)
- (W) BARRIER FREE PARKING
- (X) HAND RAILS, REF. ARCH
- (Y) CONCRETE RAMP

LEGEND

(---) LIMITS OF CONSTRUCTION	(2.3) CS-500
(---) ASPHALT PAVEMENT	(1) CS-500
(---) HEAVY DUTY CONCRETE PAVEMENT	(4) CS-500
(---) CONCRETE PAVEMENT	(7) CS-500
(---) COLOR CONCRETE PAVEMENT	(13) CS-500
(---) CURB & GUTTER	(8) CS-500
(---) CURB RAMP	(8) CS-500
(---) FLUSH CURB	(5) CS-500
(---) SPILLOUT CURB & GUTTER	(6) CS-500
(---) CONTROL JOINT	(10) CS-500
(---) ISOLATION (EXPANSION) JOINT	(11) CS-500
(---) STOP BAR PAVEMENT MARKING	(5) CS-501
(---) CROSSWALK PAVEMENT MARKING	(2) CS-506
(---) ASSESSABLE PAVEMENT MARKING	(14) CS-506
(---) BOLLARD	(1.4) CS-502
(---) TRASH & RECYCLING CONTAINERS	(1.4) CS-503
(---) DETECTABLE WARNING STRIP	(1.2) CS-504
(---) CMU AND CONCRETE RETAINING WALLS	(3.4) CS-504
(---) CONCRETE RETAINING WALL WITH 6" WITHOUT HANDRAIL OR GUARDRAIL	(3.4) CS-505
(---) SEAT WALL	(3.4) CS-505
(---) SIGNAGE	(3.4) CS-501
(---) MONUMENT SIGNAGE	(1.2) CS-501
(---) BENCH	(3) CS-506
(---) PLANTERS	(4) CS-506
(---) UTILITY GATE	(1) CS-506
(---) WHEEL STOPS	(12) CS-500

Trinity Health

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 FARMINGTON HILLS, MI 48331
 P: 248.344.2800 F: 248.344.1650

ISSUED FOR	REV	DATE

SITE PLAN RESUBMITTAL	E	22JUN22
DESIGN DEVELOPMENT	D	21JUN22
SITE PLAN REVIEW	C	30MAR22
SCHEMATIC DESIGN	B	04MAR22
SD PROGRESS	A	04MAR22

SEALS AND SIGNATURES

NOT FOR CONSTRUCTION

KEY PLAN

PROJECT NORTH

DRAWING TITLE: **SITE PLAN**

SCALE: 1" = 20'

SCALE: 13472.00
 PROJECT NUMBER: CS-102
 DRAWING NUMBER: CS-102



- ### SHEET NOTES
- ENGINEER WILL PROVIDE TO THE CONTRACTOR AUTOCAD 2022 DWG FILES FOR LAYOUT AND GRADING USE. IF THERE ARE DISCREPANCIES BETWEEN THIS SET OF PLANS AND THE ELECTRONIC FILES, THE PLAN DRAWINGS SHALL CONTROL. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
 - NOTIFY THE ENGINEER IN WRITING OF ANY IDENTIFIED DISCREPANCIES WITHIN THE CONSTRUCTION DOCUMENTS PRIOR TO THE START OF WORK. DURING PERFORMANCE OF THE WORK, VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND CROSS-CHECK DETAILS AND DIMENSION SHOWN ON THE DRAWINGS WITH RELATED REQUIREMENTS ON THE ENGINEERING, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS PRIOR TO STARTING WORK. IN ALL CASES WHERE A CONFLICT MAY OCCUR, THE ENGINEER SHALL BE NOTIFIED AND WILL INTERPRET THE INTENT OF THE CONTRACT DOCUMENTS.
 - PRIOR TO THE COMMENCEMENT OF WORK, VERIFY LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY CONSTRUCTION AND TAKE RESPONSIBILITY FOR DAMAGES TO SUCH UTILITIES CAUSED AS A RESULT OF CONSTRUCTION.
 - CALL MISS DIG 811 A MINIMUM OF 48 HOURS TO BEGINNING ANY EXCAVATION ACTIVITIES.
 - LIMITS OF SEED ARE APPROXIMATE BASED ON GRADING PLAN. CONTRACTOR TO SEED ALL DISTURBED AREAS FROM CONSTRUCTION RELATED ACTIVITIES. IF CONTRACTOR DISTURBS AREA OUTSIDE LIMITS OF DISTURBANCE, CONTRACTOR TO REPLACE MATERIAL AT NO COST OF OWNER.
 - REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT SHOWN ON DRAWINGS.
 - DETAILS NOTED AS TYPICAL SHALL APPLY IN ALL CASES UNLESS SPECIFICALLY SHOWN OR NOTED OTHERWISE. WHERE NO SPECIFIC DETAIL IS SHOWN, THE CONSTRUCTION SHALL BE IDENTICAL OR SIMILAR TO THAT INDICATED FOR LIKE CASES OF CONSTRUCTION ON THIS PROJECT.
 - PROTECT EXISTING LANDSCAPING. CONTRACTOR RESPONSIBLE IF DAMAGE OCCURS DURING PROJECT DURATION. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF TREE PROTECTION FENCE DURING PROJECT DURATION.
 - SIGNS AND PAVEMENT MARKINGS TO BE INSTALLED PER MUTCD STANDARDS.
 - COORDINATE CONSTRUCTION OF PENETRATIONS, SLEEVES, VARIATIONS IN THE SLAB ELEVATIONS, DEPRESSED AREAS AND ALL OTHER ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING REQUIREMENTS.

- ### KEY NOTES
- (A) PATIENT DISCHARGE AND STAFF ENTRY
 - (B) EXISTING PATH TO ENHANCE AND MULCH
 - (C) LANDSCAPE. SEE LANDSCAPE PLANS
 - (D) REFUSE AREA WITH ARCHITECTURAL COVERING
 - (E) LOADING DOCK
 - (F) MAIN ENTRANCE
 - (G) FIRE SAFETY LOOP
 - (H) PROPOSED PARKING
 - (I) EXISTING PARKING
 - (J) FUTURE COMMUNITY FARM AREA
 - (K) BANKED PARKING
 - (L) COURTYARD
 - (M) HELISTOP REF. XXX CONSULTANT PLANS
 - (N) LAWN AREA. SEE LANDSCAPE PLANS
 - (O) LIGHTING. SEE LIGHTING PLANS
 - (P) BUILDING. SEE ARCHITECTURE PLANS
 - (Q) RETAINING WALL
 - (R) DECORATIVE CMU WALL OR FENCE
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 - (W) BARRIER FREE PARKING
 - (X) HAND RAILS, REF. ARCH
 - (Y) CONCRETE RAMP

LEGEND

(---) LIMITS OF CONSTRUCTION	(2,3) ASPHALT PAVEMENT (CS-500)	(1) HEAVY DUTY CONCRETE PAVEMENT (CS-500)
(---) CONCRETE PAVEMENT	(4) COLOR CONCRETE PAVEMENT (CS-500)	(7) CURB & GUTTER (CS-500)
(---) CURB & GUTTER	(8) CURB RAMP (CS-500)	(13) FLUSH CURB (CS-500)
(---) SPILLOUT CURB & GUTTER	(5) CONTROL JOINT (CS-500)	(9) ISOLATION (EXPANSION) JOINT (CS-500)
(---) STOP BAR PAVEMENT MARKING	(10) CROSSWALK PAVEMENT MARKING (CS-500)	(11) ASSESSABLE PAVEMENT MARKING (CS-500)
(---) BOLLARD	(5) TRASH & RECYCLING CONTAINERS (CS-506)	(2) DETECTABLE WARNING STRIP (CS-500)
(---) CMU AND CONCRETE RETAINING WALLS (3,4) (CS-502, CS-503, CS-504)	(3,4) CONCRETE RETAINING WALL WITH & WITHOUT HANDRAIL OR GUARDRAIL (CS-504, CS-505)	(3,4) SEAT WALL (CS-500)
(---) MONUMENT SIGNAGE (1,3) (CS-501)	(3) BENCH (CS-506)	(4) PLANTERS (CS-506)
(---) UTILITY GATE (1,2) (CS-500)	(12) WHEEL STOPS (CS-500)	

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SEALS AND SIGNATURES

NOT FOR CONSTRUCTION

KEY PLAN

PROJECT NORTH

DRAWING TITLE **SITE PLAN**

SCALE: 1" = 20'

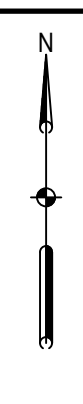
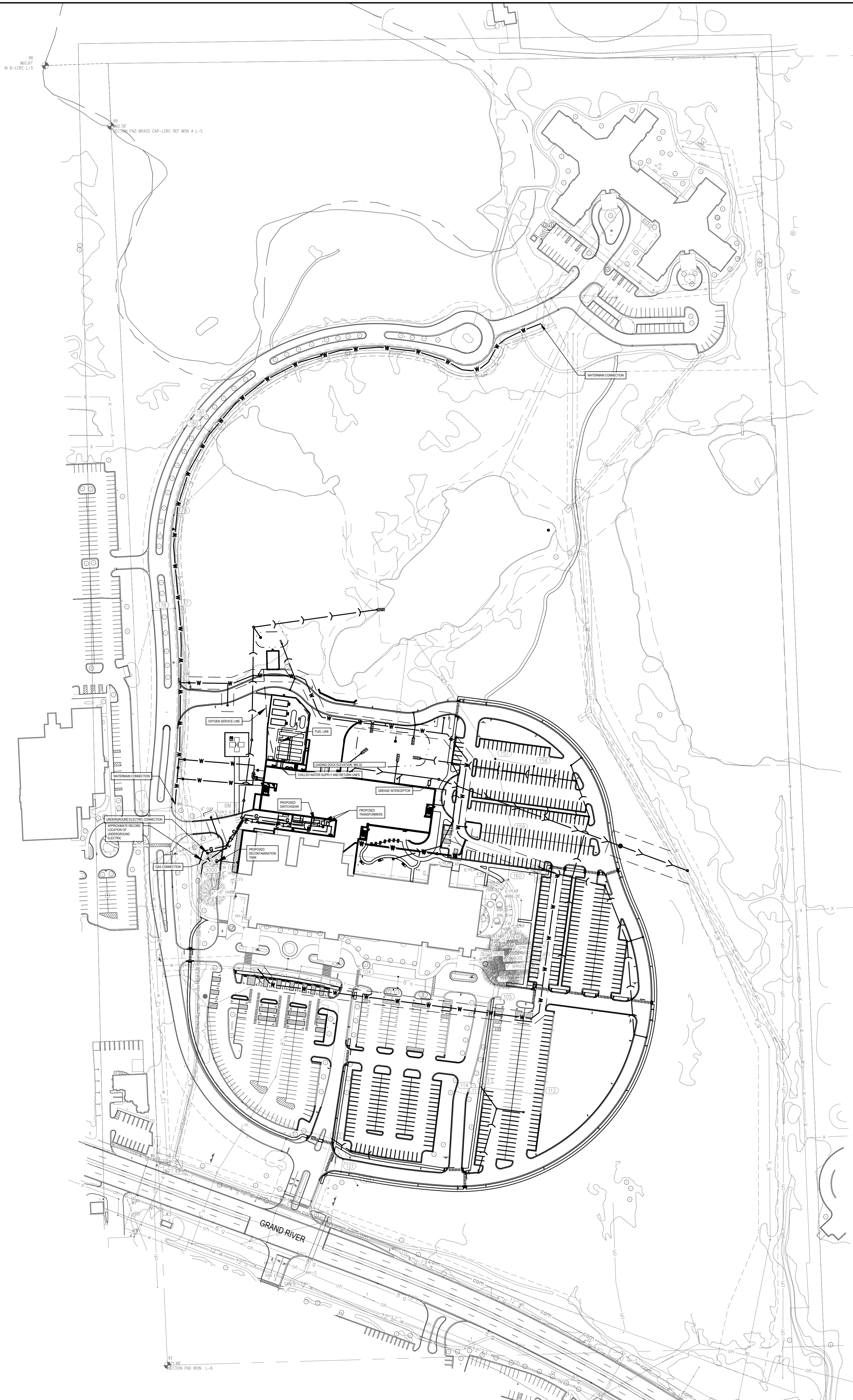
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PROJECT NUMBER **CS-104**

DRAWING NUMBER

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SHEET NOTES

1. REFER TO CG-100 TO CG104 FOR GRADING AND STORM PLANS.
2. REFER TO SPECIFICATIONS FOR UTILITY PRODUCT AND MATERIAL INFORMATION.
3. VERIFY ALL LOCATIONS OF EXISTING UTILITIES, ROADS, PAVING, PROPERTY LINES, SETBACKS, DIMENSIONS, ETC., PRIOR TO BEGINNING CONSTRUCTION OPERATIONS.
4. ALL MANHOLES SHALL BE PRECAST STRUCTURES WITH APPROVED FRAMES, COVERS, AND LADDERS. REFER TO PLANS FOR MANHOLE SIZE.

KEYED NOTES

- (A) 12" CONNECTION TO EXISTING STUB-OUT
- (B) 12"X12"X8" TEE
- (C) 11-14" BEND
- (D) 22-12" BEND
- (E) 45° BEND
- (F) 8" D.I. WATERMAIN
- (G) 12" D.I. WATERMAIN
- (H) 8" SANITARY SEWER, PVC SDR 26
- (I) CONNECTION TO EXISTING SANITARY MANHOLE
- (J) PROPOSED AMENDED EASEMENT
- (K) PROPOSED 25' WATERMAIN EASEMENT
- (L) PROPOSED 50' SANITARY SEWER EASEMENT
- (M) 8" CONNECTION TO EXISTING STUB-OUT
- (N) PROPOSED FIRE HYDRANT
- (O) 8" PRIVATE WATERMAIN
- (P) 8" FIRE SUPPRESSION WATER LINE
- (Q) 4" DOMESTIC SERVICE WATER LINE

LEGEND

- W — WATER MAIN
- S — SANITARY SEWER
- T — STORM SEWER
- G — NATURAL GAS LINE
- E — ELECTRICAL LINE UNDERGROUND
- T(OH) — TELECOM LINE OVERHEAD
- T — TELECOM LINE UNDERGROUND
- CWS — CHILLED WATER SUPPLY PIPE
- CWR — CHILLED WATER RETURN PIPE
- FIRE — FIRE WATER LINE
- FL — FUEL LINE
- ⊖ GATE VALVE VAULT
- ⊕ FIRE HYDRANT ASSEMBLY
- ⊙ 48" SANITARY MANHOLE
- CLEANOUT
- ⊙ STORM STRUCTURE
- AREA INLET
- ⊕ OUTLET CONTROL STRUCTURE
- CURB INLET
- ▽ FLARED END SECTION
- ▨ RIP RAP
- UTILITY CROSSING CALLOUT



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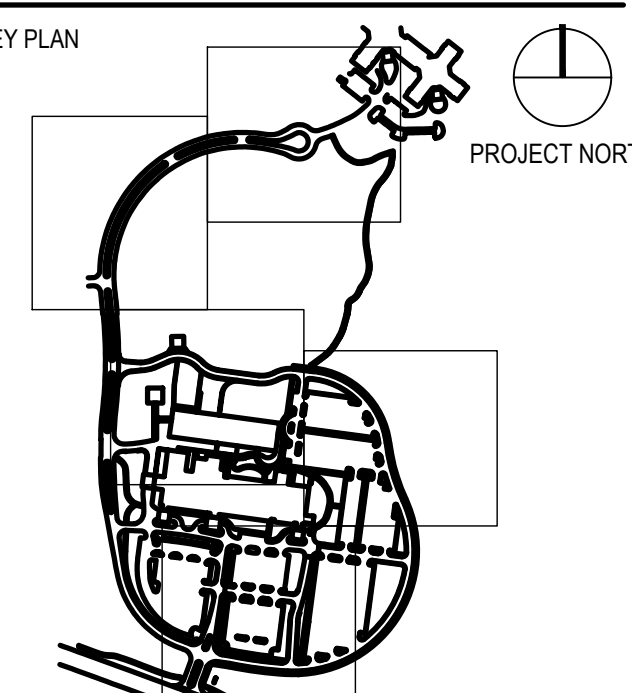


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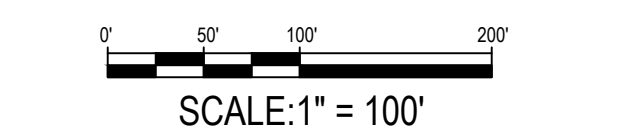
SEALS AND SIGNATURES

NOT FOR CONSTRUCTION

KEY PLAN



**OVERALL WATER AND
SANITARY PLAN**



SCALE: 13472.00

PROJECT NUMBER

CU-100

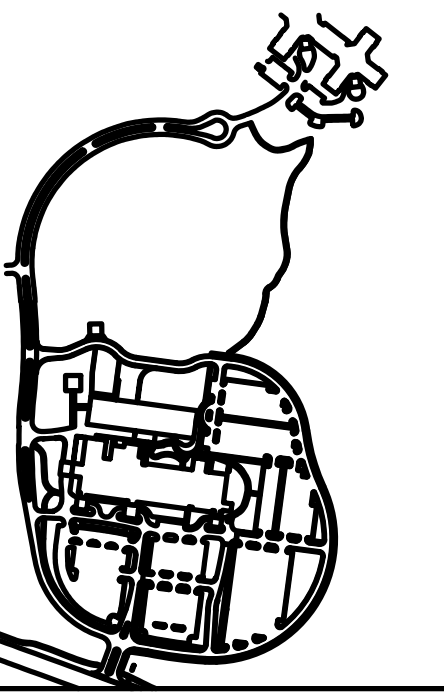
DRAWING NUMBER

DESCRIPTION	DATE
SITE PLAN RESUBMITTAL	E 22JUN22
DESIGN DEVELOPMENT	D 21JUN22
SITE PLAN REVIEW	C 30MAR22
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SD PROGRESS	A 04MAR22

SEALS AND SIGNATURES

NOT FOR CONSTRUCTION

KEY PLAN



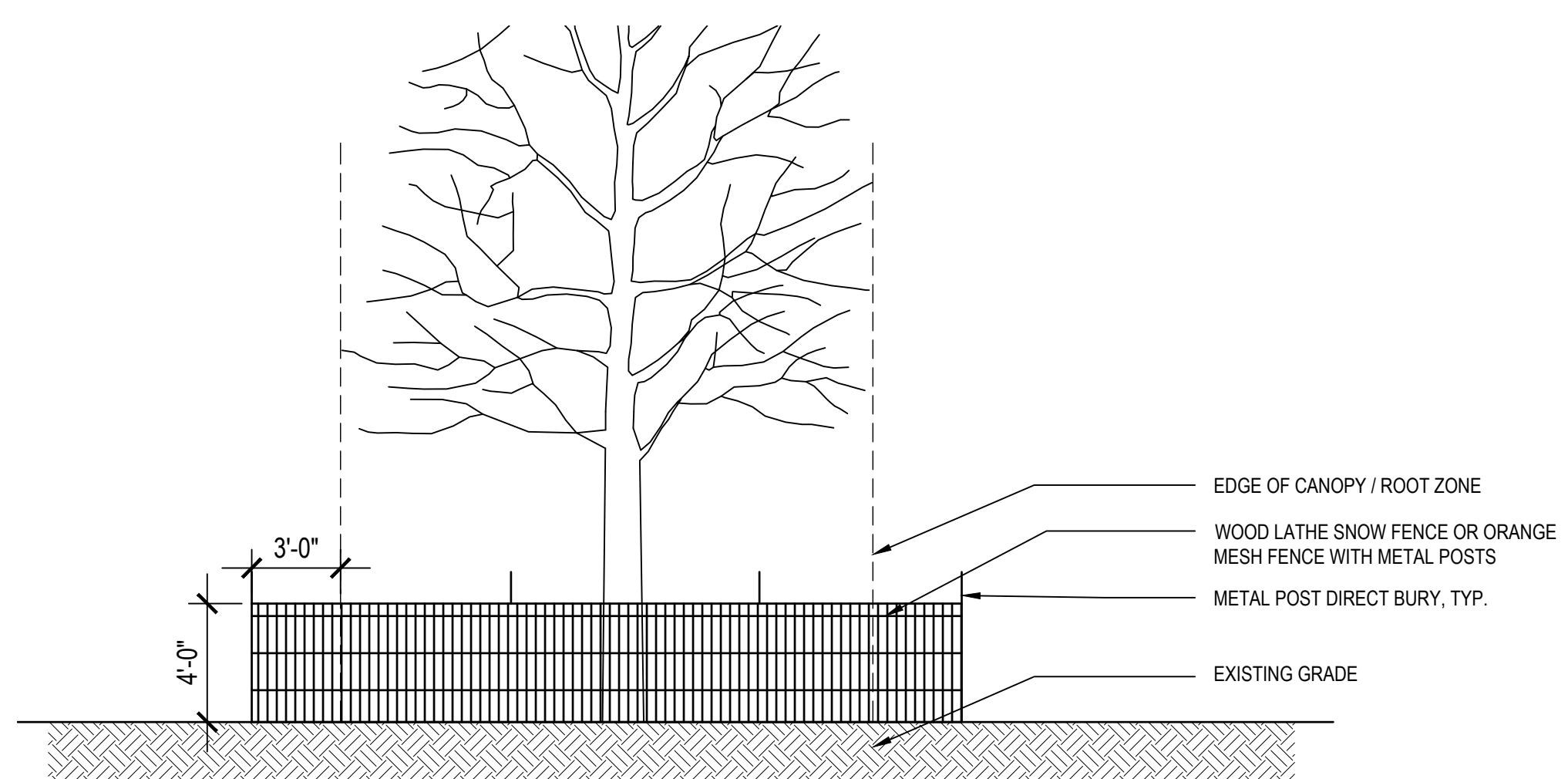
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LANDSCAPE DETAILS

SCALE: AS NOTED

SCALE: _____ 13472

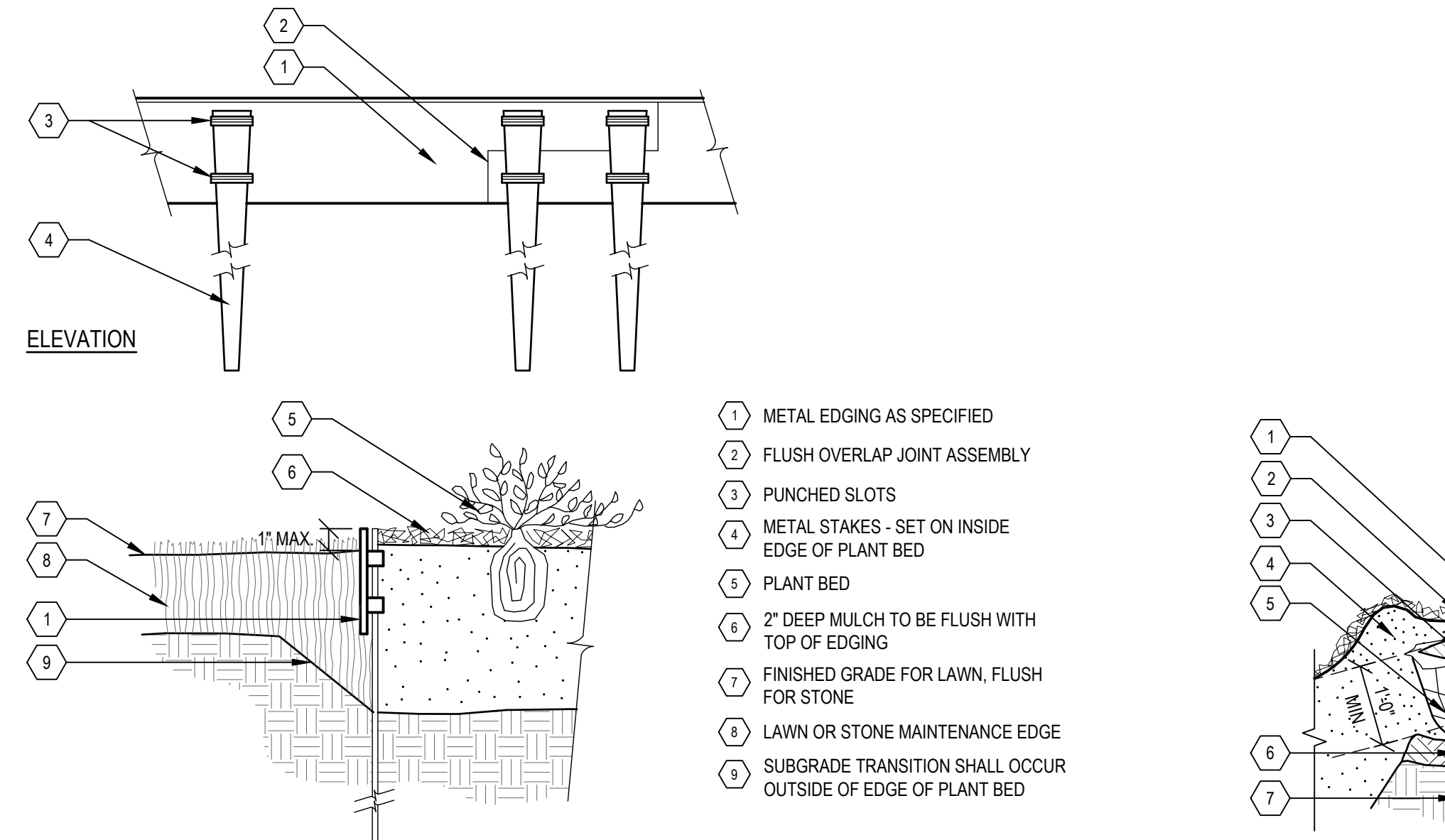
PROJECT NUMBER **LP-500**

DRAWING NUMBER

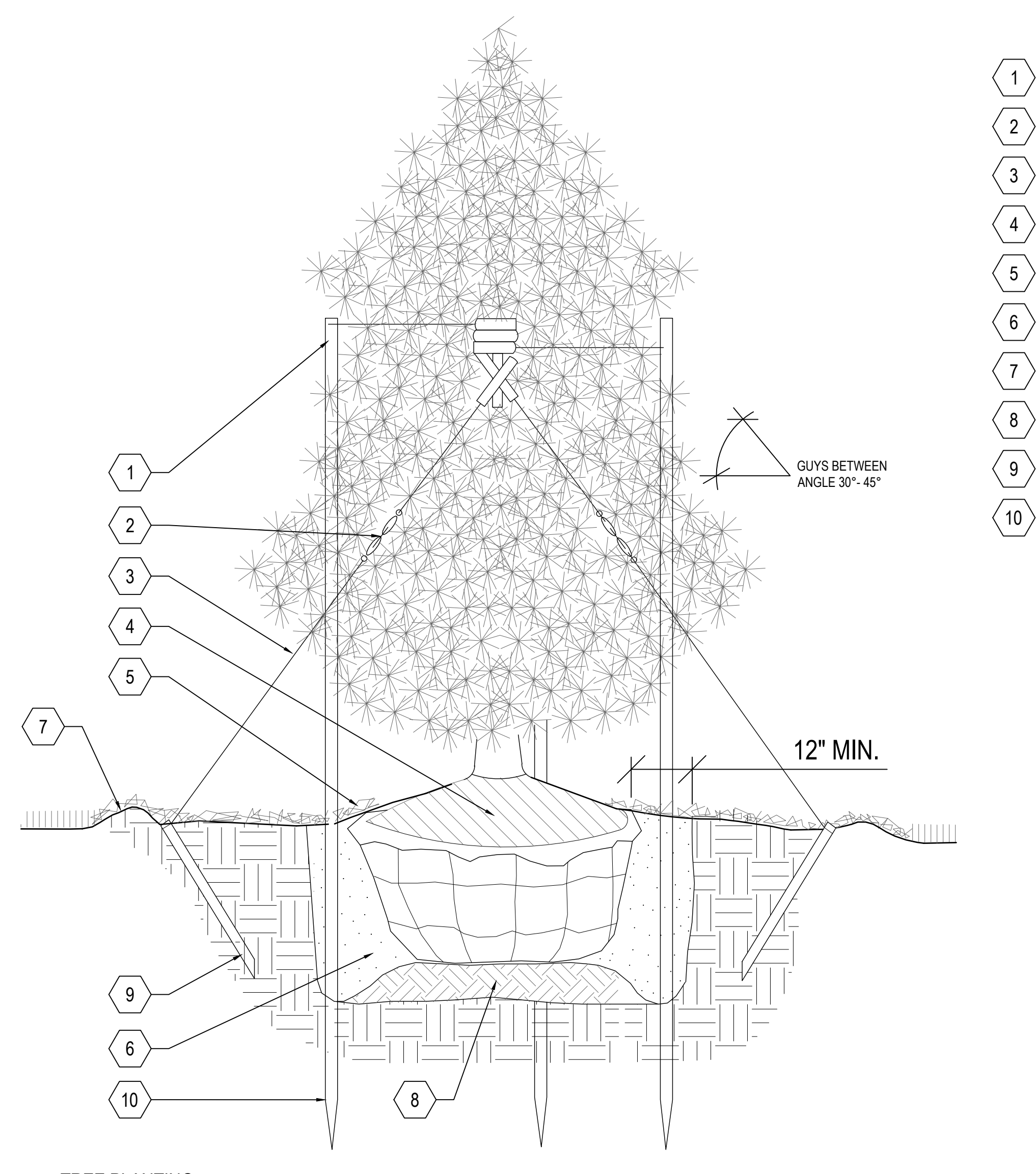


Notes:
1. SEE PLAN FOR LOCATION OF TREES TO BE PROTECTED. (LOCATION OF FENCE DETERMINED BY THIS GRAPHIC).

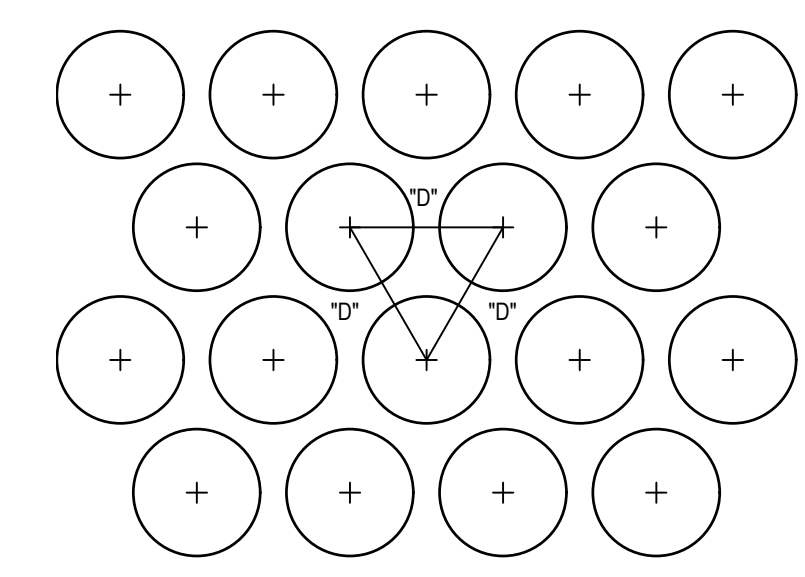
1 TREE FENCE PROTECTION NTS



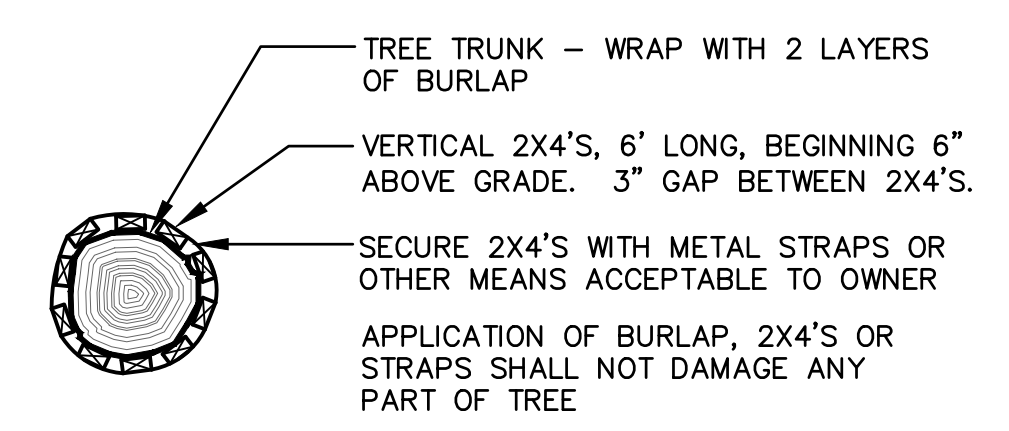
6 METAL EDGING NTS



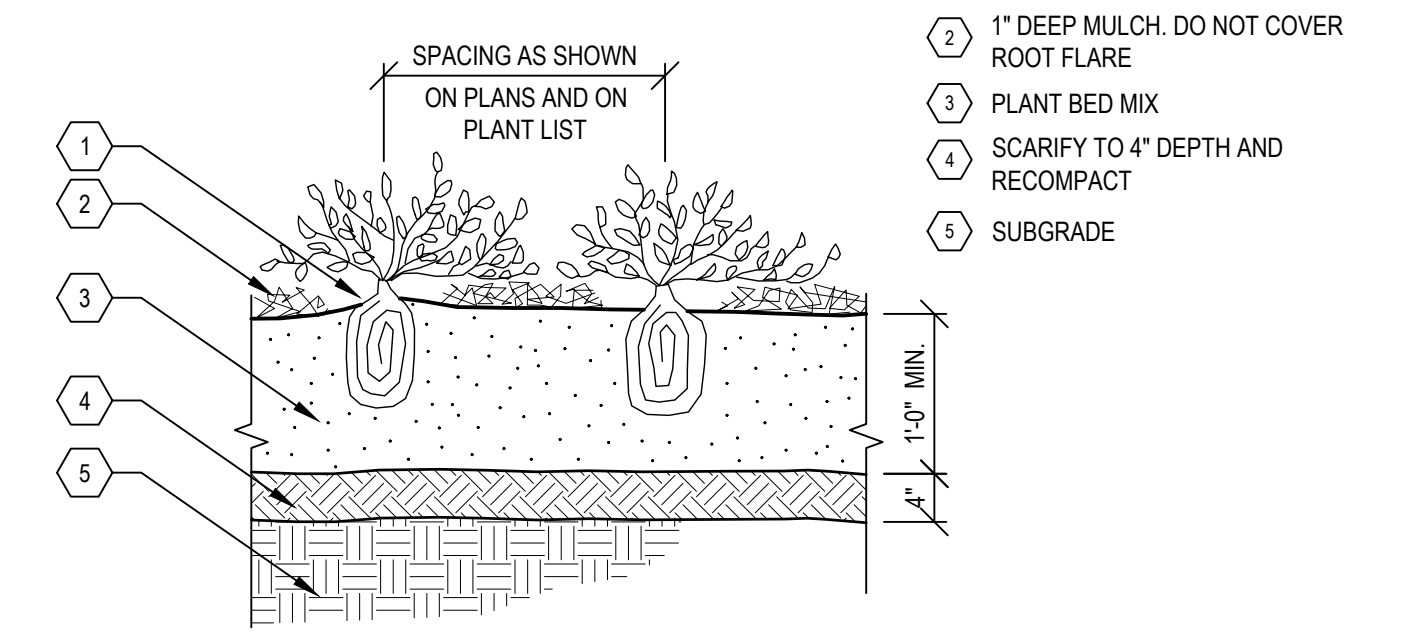
9 TREE PLANTING NTS



D=DIMENSION OF PLANT SPACING (SHRUB, GROUNDCOVER OR PERENNIAL) IN BED PLANTINGS

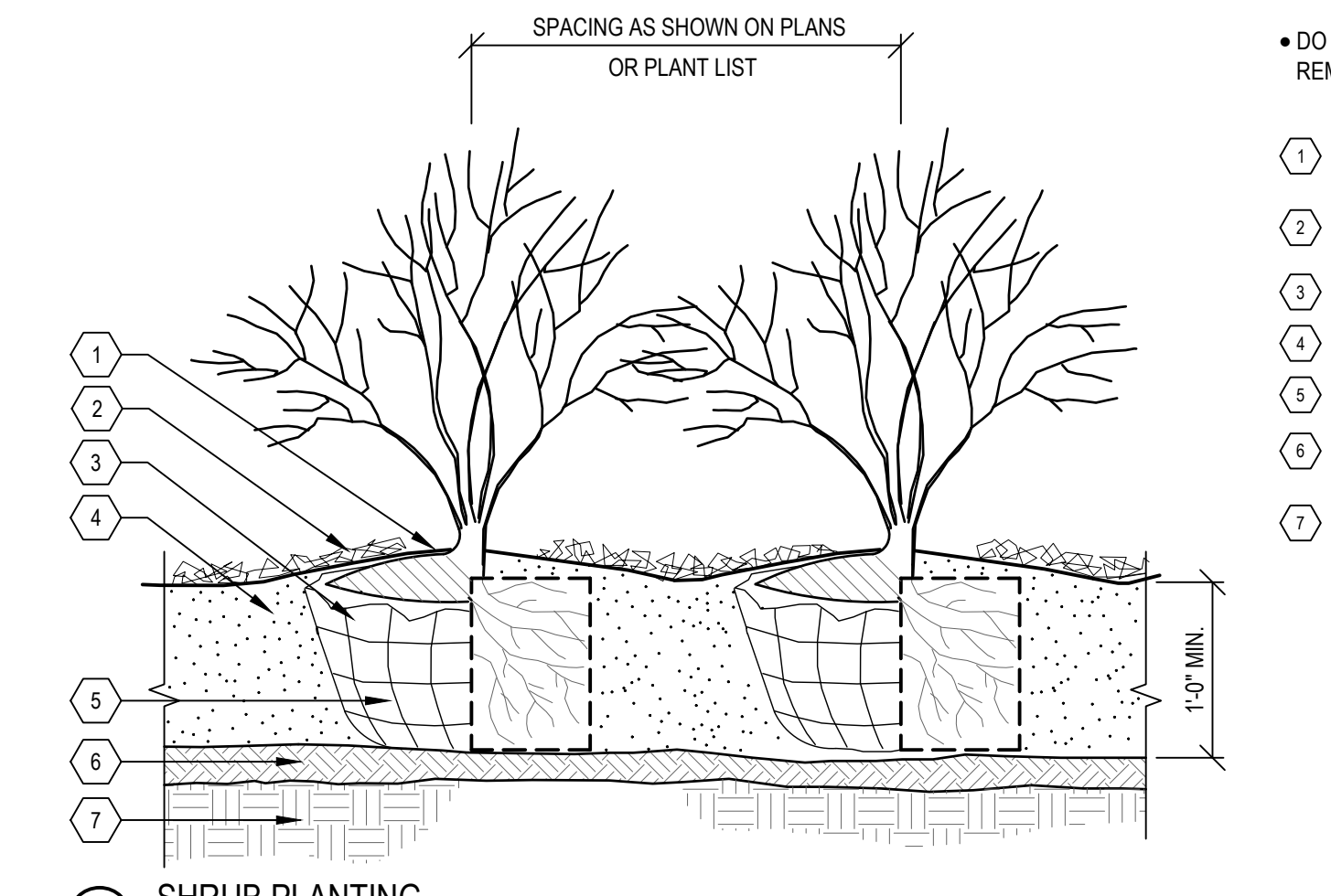


2 TREE TRUNK PROTECTION NTS

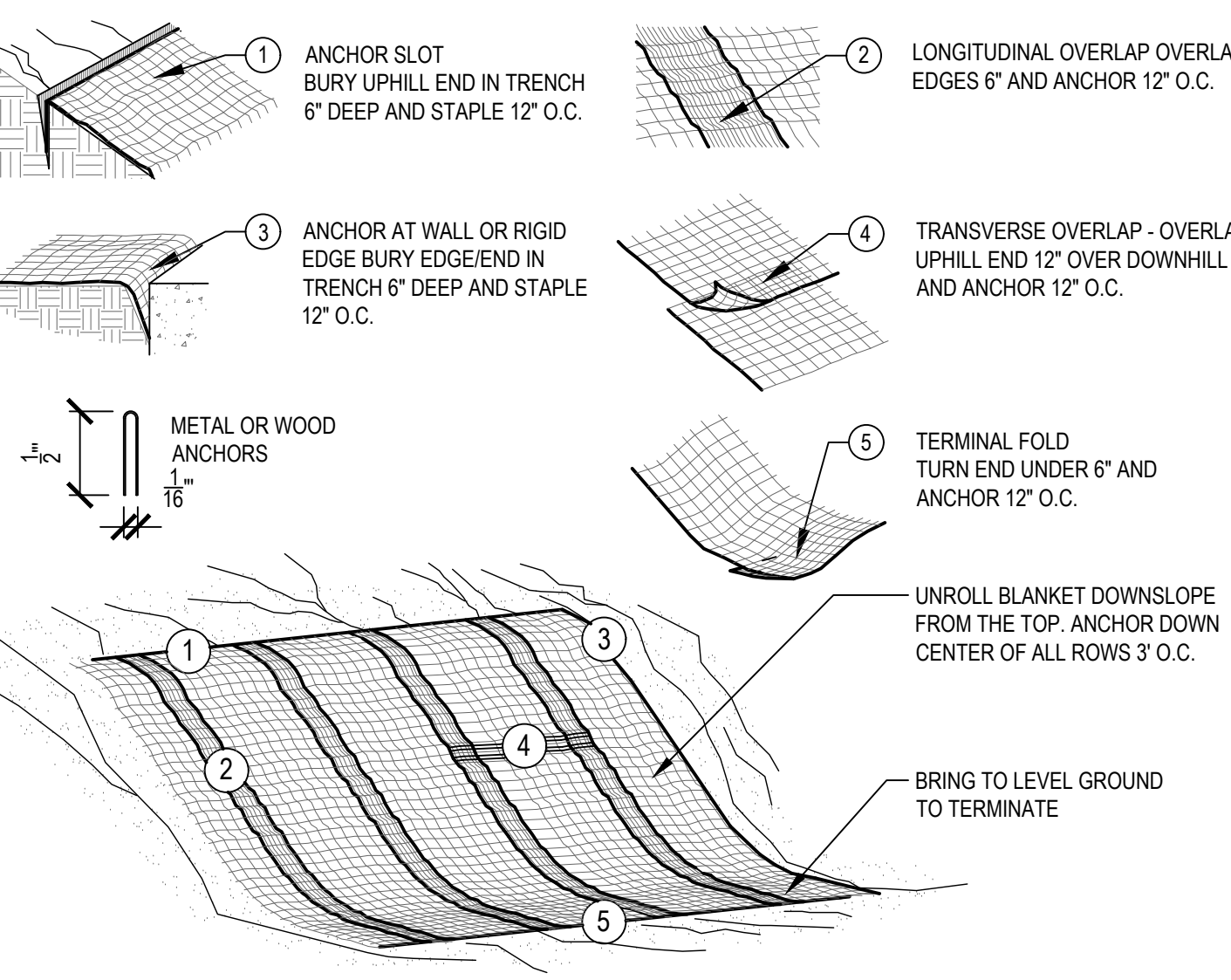


NOTE TO SPECIFIER:
• DEPTH OF PLANTING BACKFILL MUST BE CONFIRMED AND LIMITS OF BED SHOWN ON THE PLANS AND LABELED ACCORDINGLY. USE SAME DEPTH THROUGHOUT PROJECT AND MATCH WITH SHRUB PLANTING - BED
• VERIFY QUALITY OF SUBSOIL IF FLAY-BED UNDER DRAIN MUST BE CONSIDERED TO PREVENT ROOT ROT.

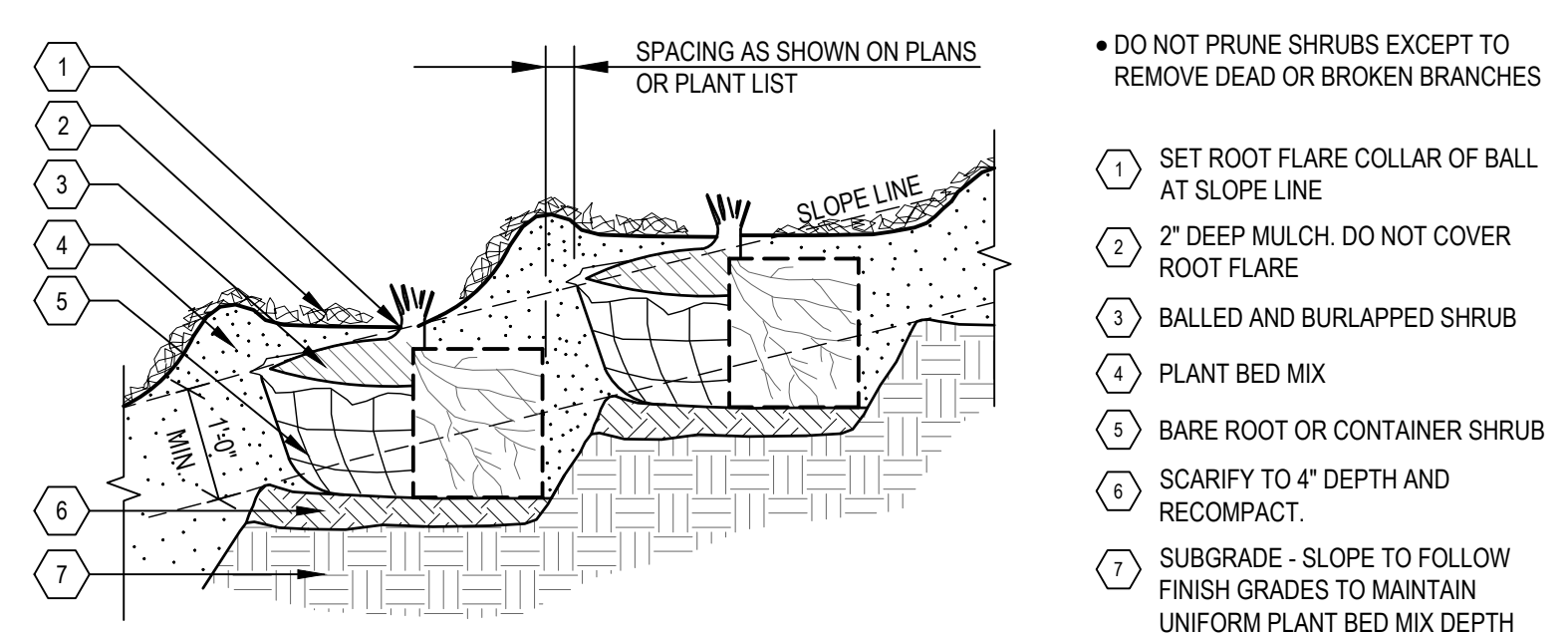
4 PERENNIAL AND ORNAMENTAL GRASS PLANTING NTS



5 SHRUB PLANTING NTS



8 EROSION CONTROL BLANKET NTS



7 SHRUB PLANTING ON SLOPE NTS

NOTES:
• REMOVE BURLAP FROM TOP 1/3 OF ROOT BALL, OR WITH CONTAINER PLANTS, REMOVE POTS AND SEPARATE POT BOUND ROOTS AS SPECIFIED.
• DO NOT PRUNE SHRUBS EXCEPT TO REMOVE DEAD OR BROKEN BRANCHES

- 1 SET ROOT FLARE COLLAR OF BALL AT SLOPE LINE
- 2 2" DEEP MULCH. DO NOT COVER ROOT FLARE
- 3 BALLED AND BURLAPPED SHRUB
- 4 PLANT BED MIX
- 5 BARE ROOT OR CONTAINER SHRUB
- 6 SCARIFY TO 4" DEPTH AND RECOMPACT.
- 7 SUBGRADE - SLOPE TO FOLLOW FINISH GRADES TO MAINTAIN UNIFORM PLANT BED MIX DEPTH

SHADE TREES	CODE	BOTANICAL / COMMON NAME	QTY	SIZE	FORM	SPACING	REMARKS
	OST	Ostrya virginiana / American Hophornbeam	6	3" Cal.	B&B	As Shown on Plan	Well-branched, single central leader
	QUE	Quercus bicolor / Swamp White Oak	23	3" Cal.	B&B	As Shown on Plan	Full, well-branched, single central leader
	QUR	Quercus rubra / Red Oak	24	3" Cal.	B&B	As Shown on Plan	Full, well branched, single central leader
	TIL	Tilia americana / American Linden	22	3" Cal.	Pot	As Shown on Plan	Full, well-branch, single leader
	ULM	Ulmus wilsoniana 'Prospector' / Prospector Elm	24	3" Cal.	B&B	As Shown on Plan	Full, well-branched, single central leader
CONIFEROUS TREES	CODE	BOTANICAL / COMMON NAME	QTY	SIZE	FORM	SPACING	REMARKS
	PIA	Picea abies / Norway Spruce	5	8" Ht.	B&B	As Shown on Plan	Full to ground, unshearthed
FLOWERING TREES	CODE	BOTANICAL / COMMON NAME	QTY	SIZE	FORM	SPACING	REMARKS
	AME	Amelanchier x grandiflora 'Autumn Brilliance' / Autumn Brilliance Apple Serviceberry	4	10 FT	B&B	As Shown on Plan	Well-branched, multi-stem, Min. 3 stems
	MAL	Malus x 'Hargazon' TM / Harvest Gold Crab Apple	10	10 FT	B&B	As Shown on Plan	Well-branched, single central leader
SHRUBS	CODE	BOTANICAL / COMMON NAME	QTY	SIZE	FORM	SPACING	REMARKS
	ARO	Aronia melanocarpa 'Autumn Magic' / Autumn Magic Black Chokeberry	25	#5	Pot	36" o.c.	Well-branched, min. 4 canes, 5" O.C
	COR	Cornus sericea 'Alleman's Compact' / Dwarf Red Twig Dogwood	25	#5	Pot	84" o.c.	Well-branched, min. 4 canes, 7 O.C.
	COK	Cornus sericea 'Kelsey' / Kelsey's Dwarf Red Twig Dogwood	31	#1	Pot	36" o.c.	Full, unshearthed; 2" O.C.
	JUN	Juniperus chinensis 'Sea Green' / Sea Green Juniper	30	#5	Pot	36" o.c.	Full, unshearthed, 4" O.C.
	RHU	Rhus copallina latifolium 'Prairie Flame' TM / Dwarf Sumac	18	#5	Pot	48" o.c.	Well-branched, min. 4 canes, 4" O.C.
	TAX	Taxus x media 'Wardii' / Ward Anglo-Japanese Yew	27	#5	Pot	72" o.c.	Full, unshearthed; 4" O.C.
GRASSES	CODE	BOTANICAL / COMMON NAME	QTY	SIZE	FORM	SPACING	REMARKS
	CAL	calamagrostis x acutiflora / Feather Reed Grass	70	#1	Pot	36" o.c.	Well-rooted; 24" O.C.
	CHA	Chasmanthium latifolium / Northern Sea Oats	202	#1	Pot	36" o.c.	Well-rooted 24" O.C.
SHRUB AREAS	CODE	BOTANICAL / COMMON NAME	QTY	SIZE	FORM	SPACING	REMARKS
	BRU	Brunnera macrophylla / Siberian Bugloss	75	#1	Pot	24" o.c.	Well-rooted; 24" O.C.
	ECH	Echinacea purpurea 'White Swan' / White Swan Coneflower	90	#1	Pot	24" o.c.	Well-rooted; 24" O.C.
	RUD	Rudbeckia fulgida sullivanii 'Little Goldstar' / Little Goldstar Coneflower	323	#1	Pot	12" o.c.	Well-rooted; 12" O.C.
	SPO	Sporobolus heterolepis / Prairie Dropseed	185	#1	Pot	18" o.c.	Well-rooted; 18" O.C.
GROUND COVERS	CODE	BOTANICAL / COMMON NAME	QTY	SIZE	FORM	SPACING	REMARKS
	NAV	Rhino Seed Wetland Mix	12,473 sf		seed		See Manufacturers Specification's
	TUR	Turf Sod / Drought Tolerant Fescue Blend	248,008 sf		seed		See Manufacturers Specification's

11 PLANTING SCHEDULE NTS

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GRAPHIC LEGEND

GENERAL SHEET NOTES

- A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.
- B. FOR BASIC LIFE SAFETY AND CODE INFORMATION APPLYING TO THIS PROJECT, REFER TO THE G0.X SERIES SHEETS LOCATED PER THE PROJECT SHEET INDEX.
- C. REFER TO THE A3.X SERIES SHEETS FOR THE REFLECTED CEILING PLANS.
- D. REFER TO THE A8.2.X SERIES SHEETS FOR PARTITION SYSTEMS TYPES AND DETAILS.
- E. REFER TO THE A8.3.X SERIES SHEETS FOR THE INTERIOR OPENING SCHEDULE(S), TYPES, AND DETAILS.
- F. REFER TO THE 'AF' SERIES SHEETS FOR INTERIOR FINISH INFORMATION.
- G. REFER TO THE 'AF' SERIES SHEETS FOR INTERIOR FURNISHING INFORMATION.

REFERENCE KEYNOTES

SMITHGROUP

500 GRISWOLD
SUITE 1700
DETROIT, MI 48226
313.983.3600
smithgroup.com

SHEET KEYNOTES

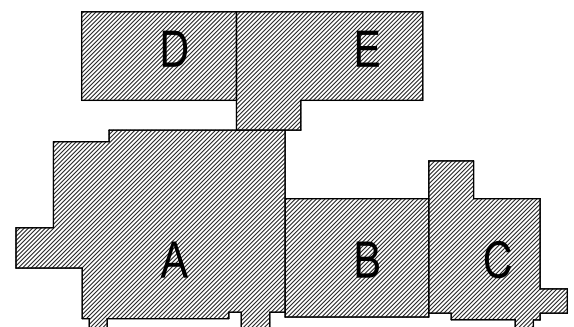
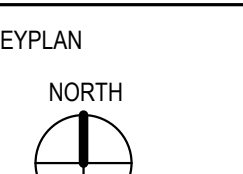


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SEALS AND SIGNATURES

**NOT FOR
CONSTRUCTION**



SHEET TITLE

**FIRST FLOOR COMPOSITE
PLAN**

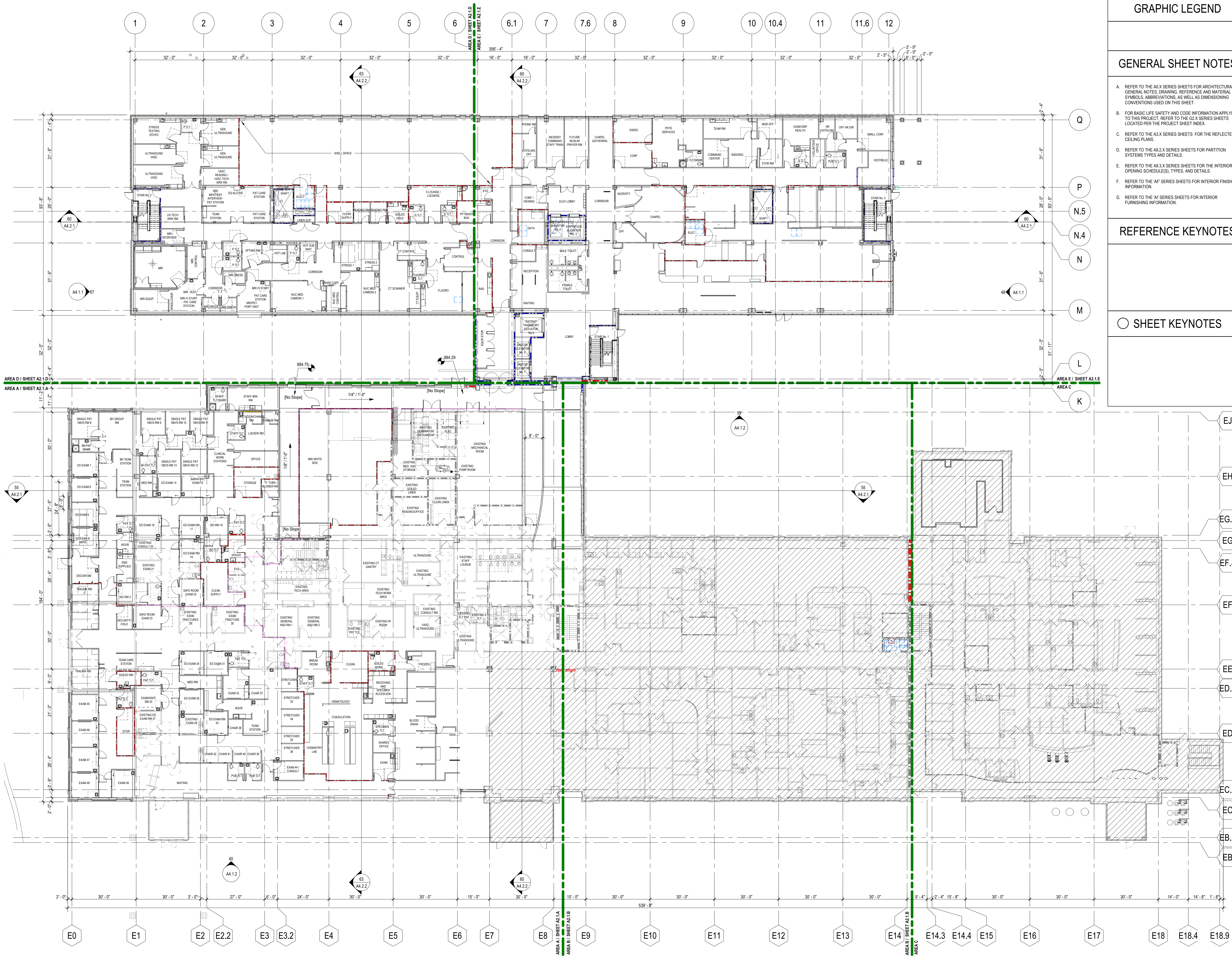
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IMEG PROJECT #: 21006742.00

PROJECT NUMBER

A2.1

SHEET NUMBER

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16 FIRST FLOOR COMPOSITE PLAN
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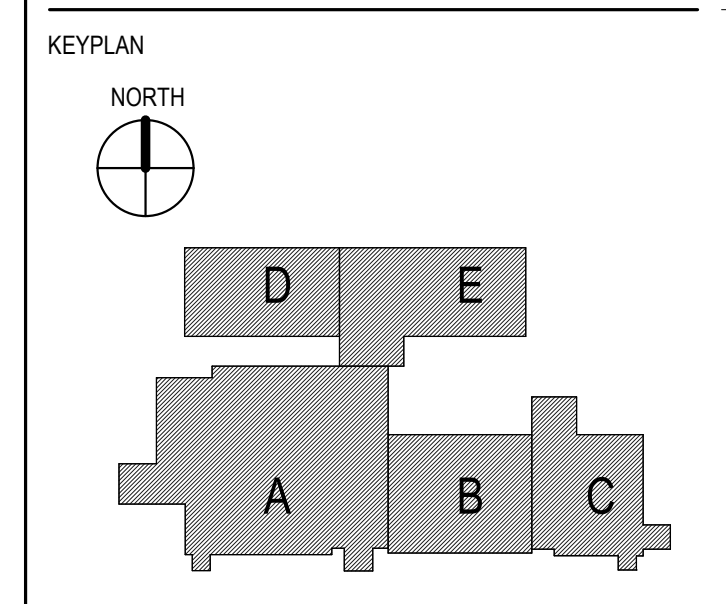
FOR REFERENCE

- GRAPHIC LEGEND**
- GENERAL SHEET NOTES**
- REFER TO THE A0 X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.
 - FOR BASIC LIFE SAFETY AND CODE INFORMATION APPLYING TO THIS PROJECT, REFER TO THE G2 X SERIES SHEETS LOCATED PER THE PROJECT SHEET INDEX.
 - REFER TO THE A3 X SERIES SHEETS FOR THE REFLECTED CEILING PLANS.
 - REFER TO THE A8.2 X SERIES SHEETS FOR PARTITION SYSTEMS TYPES AND DETAILS.
 - REFER TO THE A8.3 X SERIES SHEETS FOR THE INTERIOR OPENING SCHEDULE(S), TYPES, AND DETAILS.
 - REFER TO THE 'AF' SERIES SHEETS FOR INTERIOR FINISH INFORMATION.
 - REFER TO THE 'AI' SERIES SHEETS FOR INTERIOR FURNISHING INFORMATION.
- REFERENCE KEYNOTES**
- SHEET KEYNOTES**

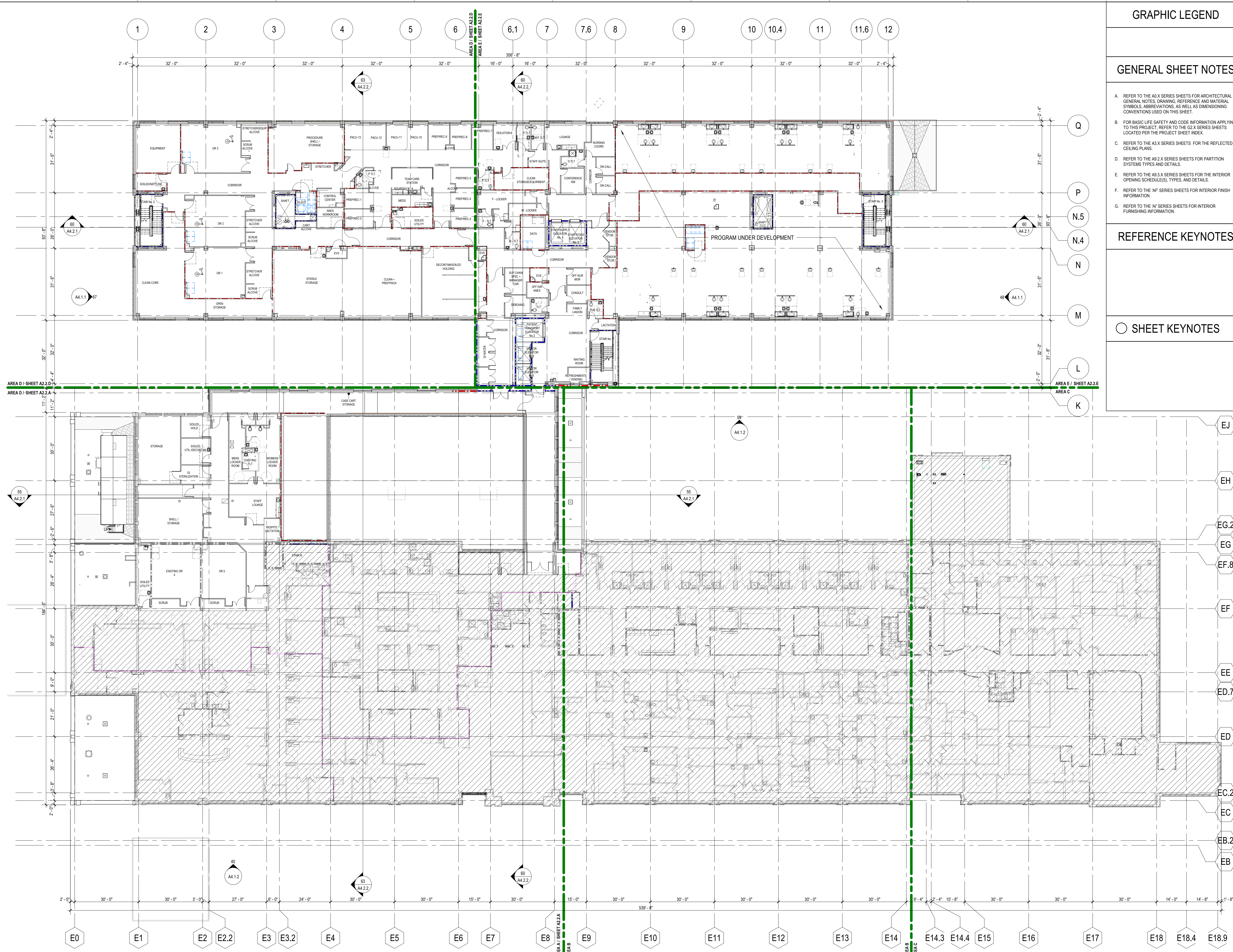
ISSUED FOR	REV	DATE
SITE PLAN RESUBMITTAL	E	22JUN22
DESIGN DEVELOPMENT	D	21JUN22
SITE PLAN REVIEW	C	30MAR22
SCHEMATIC DESIGN	B	04MAR22
SD PROGRESS	A	22DEC21

SEALS AND SIGNATURES

NOT FOR
CONSTRUCTION



SHEET TITLE
**SECOND FLOOR
COMPOSITE PLAN**



Plot Date: 6/21/2022 10:36:09 AM
Author

GRAPHIC LEGEND

GENERAL SHEET NOTES

- A. REFER TO THE A1.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.
- B. FOR BASIC LIFE SAFETY AND CODE INFORMATION APPLYING TO THIS PROJECT, REFER TO THE G2.X SERIES SHEETS LOCATED PER THE PROJECT SHEET INDEX.
- C. REFER TO THE A3.X SERIES SHEETS FOR THE REFLECTED CEILING PLANS.
- D. REFER TO THE A8.2.X SERIES SHEETS FOR PARTITION SYSTEMS TYPES AND DETAILS.
- E. REFER TO THE A8.3.X SERIES SHEETS FOR THE INTERIOR OPENING SCHEDULE(S), TYPES, AND DETAILS.
- F. REFER TO THE 'AF' SERIES SHEETS FOR INTERIOR FINISH INFORMATION.
- G. REFER TO THE 'AF' SERIES SHEETS FOR INTERIOR FURNISHING INFORMATION.

REFERENCE KEYNOTES

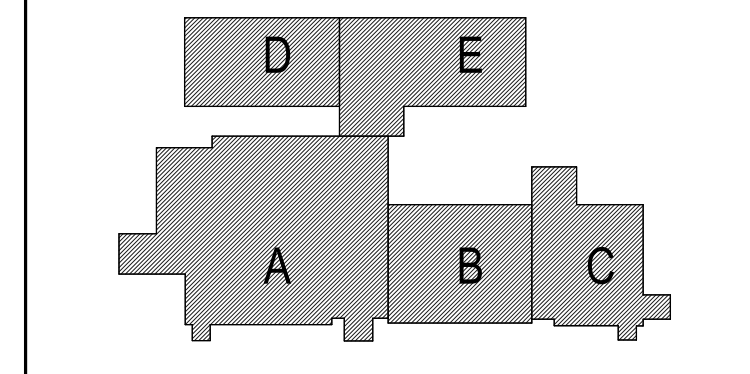
○ SHEET KEYNOTES

ISSUED FOR	REV	DATE

SITE PLAN RESUBMITTAL	E	22JUN22
DESIGN DEVELOPMENT	D	21JUN22
SITE PLAN REVIEW	C	30MAR22
SCHEMATIC DESIGN	B	04MAR22
SD PROGRESS	A	22DEC21

SEALS AND SIGNATURES

NOT FOR CONSTRUCTION



SHEET TITLE
**FOURTH FLOOR
COMPOSITE PLAN**

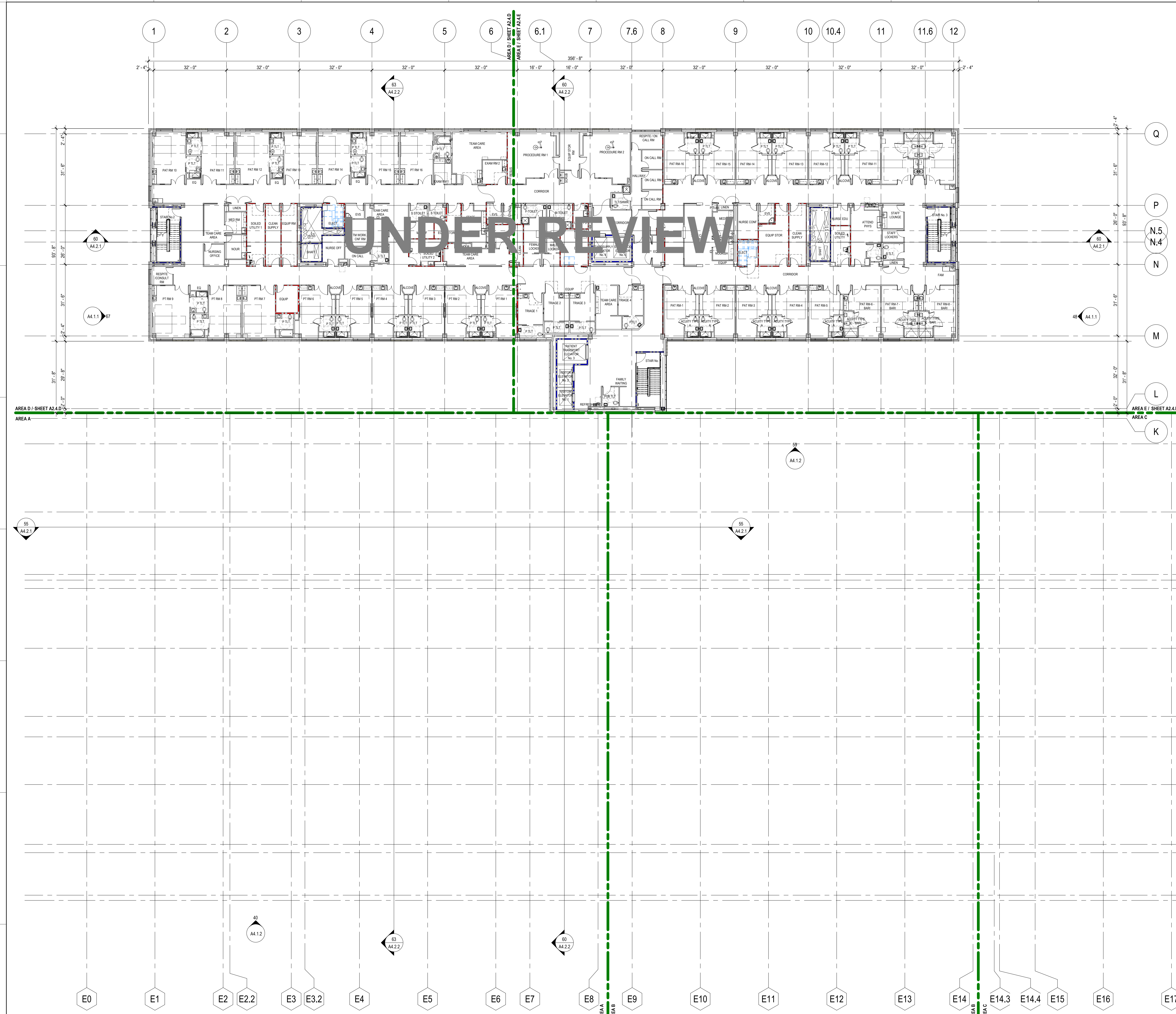
SG PROJECT #: 13472.000
IMEG PROJECT #: 21006742.00

PROJECT NUMBER

SHEET NUMBER

Plot Date: 6/21/2022 10:38:29 AM

A2.4



UNDER REVIEW

GRAPHIC LEGEND

- GL-11
- GL-S1
- GL-12
- GL-S2
- BRK-01
- DCM-01
- DCM-02
- PRC-01
- FMP-01
- FMP-02
- MCM-01
- MCM-02
- MASONRY CONTROL JOINT

GENERAL SHEET NOTES

- A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.
- B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.
- C. REFER TO AND COORDINATE WITH CIVIL DRAWINGS FOR ALL FINISH GRADES.
- D. REFER TO THE A4.X SERIES SHEETS FOR ENLARGED EXTERIOR ELEVATIONS.
- E. REFER TO THE A5.O.X SERIES SHEETS FOR EXTERIOR WINDOW ELEVATIONS.

REFERENCE KEYNOTES

ISSUED FOR	REV	DATE
SITE PLAN SUBMITTAL	E	22JUN22
DESIGN DEVELOPMENT	D	21JUN22
SITE PLAN REVIEW	C	30MAR22
SCHEMATIC DESIGN	B	04MAR22
SD PROGRESS	A	22DEC21

SEALS AND SIGNATURES

NOT FOR CONSTRUCTION

SHEET KEYNOTES

○ SHEET KEYNOTES

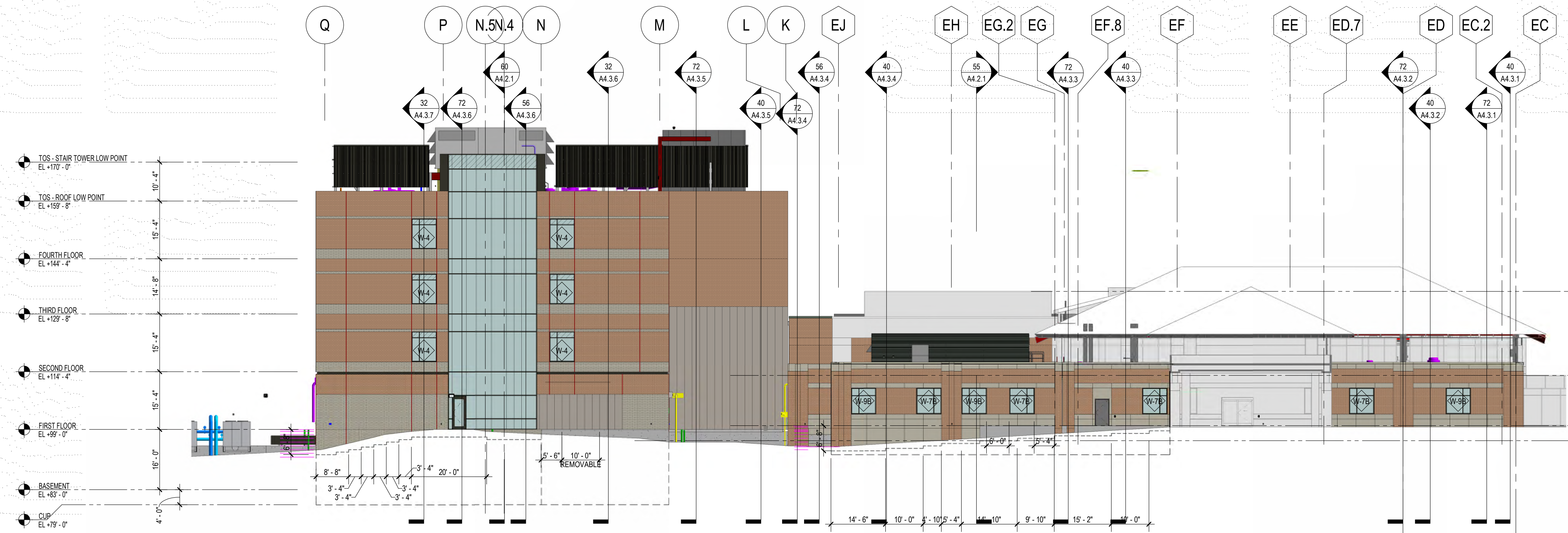
SHEET TITLE
EXTERIOR BUILDING ELEVATIONS & EXTERIOR FINISH SCHEDULE

SG PROJECT #: 13472.000
IMEG PROJECT #: 21006742.00

PROJECT NUMBER
A4.1.1

SHEET NUMBER
6/21/2022 10:45:22 AM

67 EXTERIOR ELEVATION - WEST EXISTING AND NEW
SCALE: 1/16" = 1'-0"



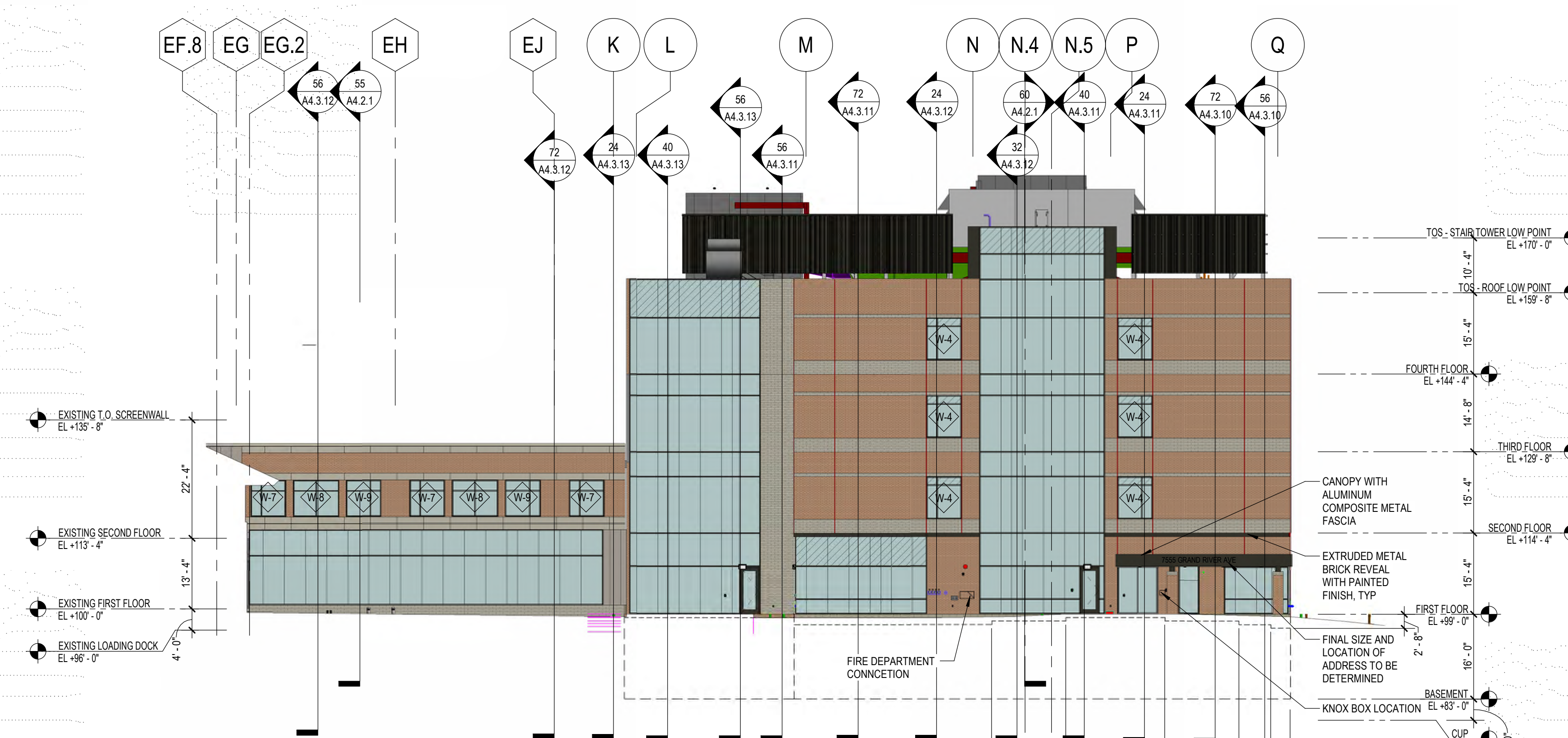
62 EXTERIOR ELEVATION - NORTH NEW
SCALE: 1/16" = 1'-0"



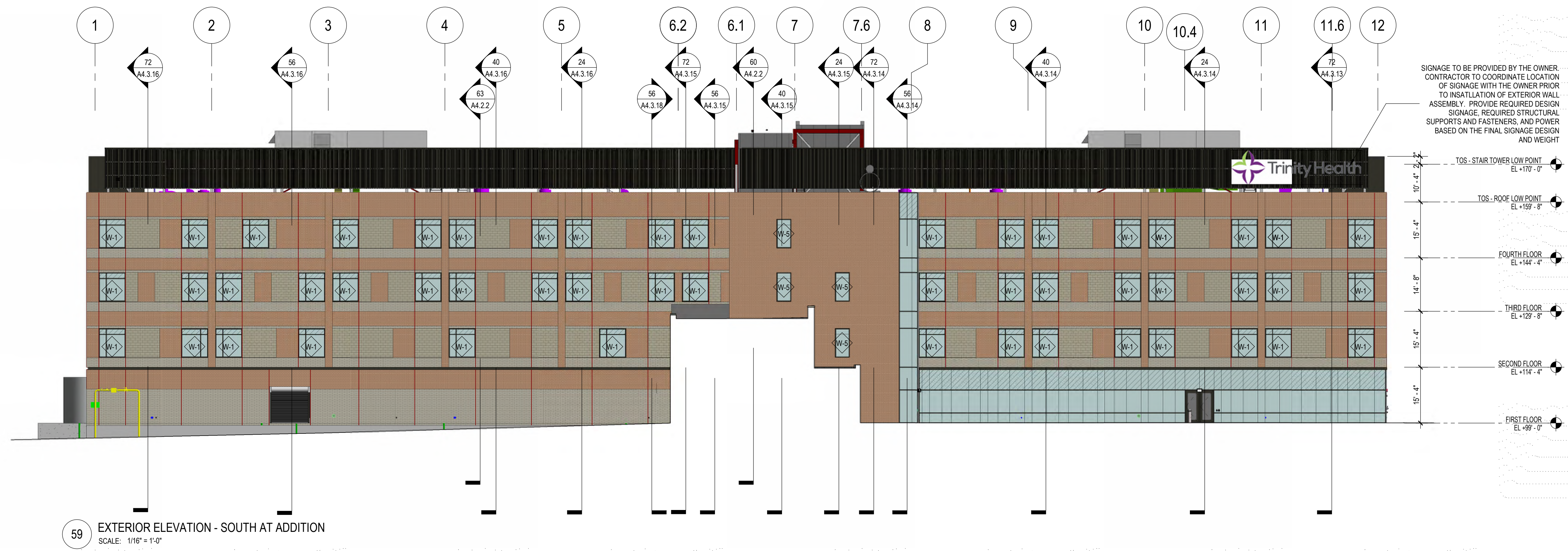
EXTERIOR MATERIAL SCHEDULE

SPEC	TAG	MANUFACTURER / SUPPLIER	SERIES/NAME	COLOR	SIZE	INSTALLATION	NOTES
EIFS							
072413.A00	EIFS-01	STO CORP.	ISTOTHERM CI	81524-600 STOLITE X FINE: 16005	SEE RCP	SOFFIT	---
GLAZING							
08800.A00	GL-I1	IVITRO	SOLARBAN 90	STARPHIRE - STARFIRE	1"-1 1/8" IGU	VISION	---
08800.A00	GL-I2	IVITRO	SOLARBAN 90	---	1"-1 1/8" IGU	VISION	---
08800.A00	GL-S1	IVITRO	SOLARBAN 90	---	1"-1 1/8" IGU	SPANDREL	---
08800.A00	GL-S2	IVITRO	SOLARBAN 90	---	1"-1 1/8" IGU	SPANDREL	---
MASONRY							
042000.B01	MORTAR	SOLOMON COLORS, INC.	SSS CONCENTRATED-X SERIES	10X LT. BUFF	---	FOR ALL MASONRY	---
042000.A18	BRK-01	BRICK TECH ARCHITECTURAL	GLEN-GERRY MARYSVILLE	MARYSVILLE RED BLEND	MODULAR: 3-5/8" x 2-1/4" x 7-5/8"	RUNNING BOND	MATCH EXISTING
042000.A10	DCM-01	ECHOLON MASONRY	TRENDSTONE PLUS MASONRY VENEER	FOUR COLOR MIX LINCOLN - MIDWEST	STRETCHER 4FE: 3-5/8" x 7-5/8" x 15 5/8"	RUNNING BOND	---
042000.A10	DCM-02	ECHOLON MASONRY	TRENDSTONE MASONRY VENEER	FOUR COLOR MIX GOLDSTONE - MIDWEST	STRETCHER 4FE: 3-5/8" x 3-5/8" x 15 5/8"	RUNNING BOND	---
047200.A00	PRC-01	ROYAL STONE LLC	CAST STONE VENEER	LIMESTONE	5'-0" WIDTH (TYP)	---	MATCH EXISTING
METAL							
074213.13.A00	FMP-01	CENTRIA	CONCEPT SERIES: CS-210/CS-220/CS-260	DARK BRONZE	1'-0" WIDTH	VERTICAL	---
074213.13.A00	FMP-02	CENTRIA	CONCEPT SERIES: CS-260	HEMLOCK GREEN (CUSTOM MATCH)	1'-0" HEIGHT	HORIZONTAL	MATCH EXISTING
074213.23.A02	MCM-01	ALUCOBOND	ALUCOBOND PLUS	EPERNAY CHAMPAGNE METALLIC	---	VERTICAL	---
074213.23.A02	MCM-02	ALUCOBOND	ALUCOBOND PLUS	NEW-AGE DARK BRONZE MICA	---	VERTICAL	---
ROOFING							
075323.A00	EPDM-01	REFER TO SPEC	REFER TO SPEC	---	---	---	---

48 EXTERIOR ELEVATION - EAST NEW
SCALE: 1/16" = 1'-0"



START Sheet
6/21/2022 10:45:22 AM
Plot Date:



59 EXTERIOR ELEVATION - SOUTH AT ADDITION
SCALE: 1/16" = 1'-0"

GRAPHIC LEGEND

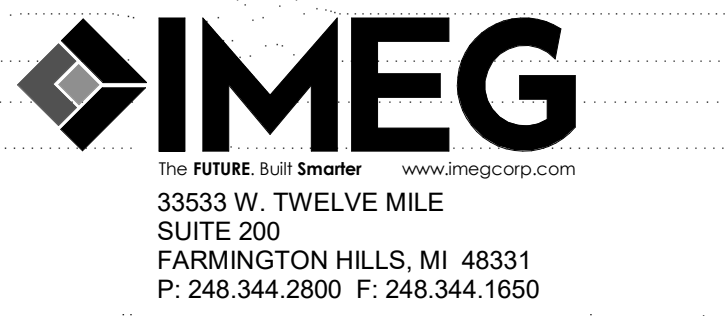
- GL-11
 - GL-S1
 - GL-12
 - GL-S2
 - BRK-01
 - DCM-01
 - DCM-02
 - PRC-01
 - FMP-01
 - FMP-02
 - MCM-01
 - MCM-02
- DEDUCT ALTERNATE PROVIDE GL-11/GL-S1 IN PLACE OF GL-12/GL-S2
- MASONRY CONTROL JOINT



ST. JOSEPH MERCY
BRIGHTON
EXPANSION AND RENOVATION
7575 GRAND RIVER AVE., BRIGHTON, MI 48114
7555 GRAND RIVER AVE., BRIGHTON, MI 48114

SMITHGROUP
500 GRISWOLD
SUITE 1700
DETROIT, MI 48226
313.983.3600
smithgroup.com

GENERAL SHEET NOTES



REFERENCE KEYNOTES

ISSUED FOR	REV	DATE
SITE PLAN RESUBMITTAL	E	22JUN22
DESIGN DEVELOPMENT	D	21JUN22
SITE PLAN REVIEW	C	30MAR22
SCHEMATIC DESIGN	B	04MAR22
SD PROGRESS	A	22DEC21

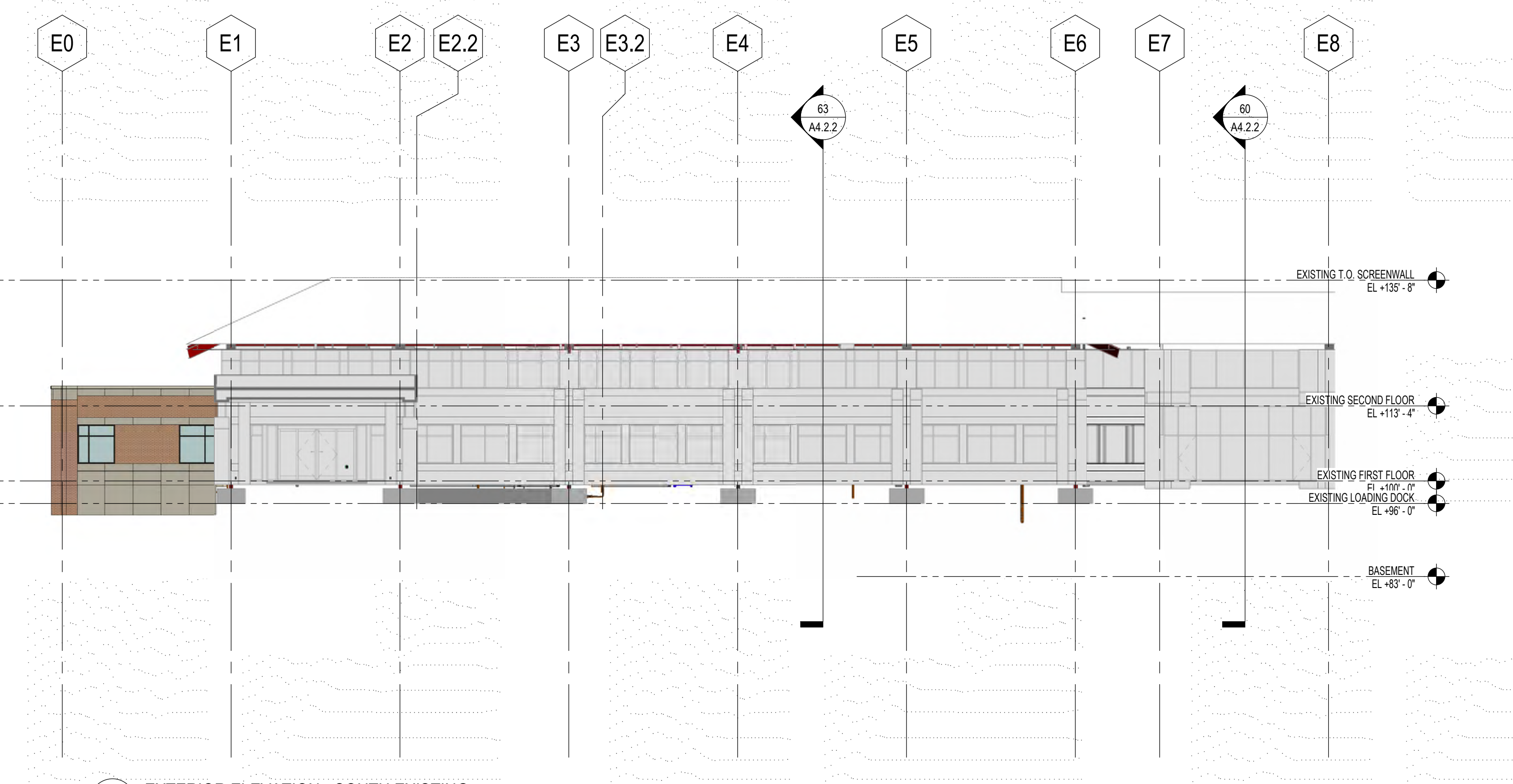
SEALS AND SIGNATURES

NOT FOR CONSTRUCTION

SHEET KEYNOTES



38 EXTERIOR ELEVATION - NORTH EXISTING AT CONNECTOR
SCALE: 1/16" = 1'-0"



40 EXTERIOR ELEVATION - SOUTH EXISTING
SCALE: 1/16" = 1'-0"

Author
6/21/2022 10:46:27 AM
Plot Date:

SHEET TITLE
EXTERIOR BUILDING ELEVATIONS

SG PROJECT #: 13472.000
IMEG PROJECT #: 21006742.00

PROJECT NUMBER
A4.1.2
SHEET NUMBER
Plot Date: 6/21/2022 10:46:27 AM



GENOA CHARTER TOWNSHIP Special Land Use Application

This application **must** be accompanied by a site plan review application and the associated submittal requirements. (The Zoning Official may allow a less detailed sketch plan for a change in use.)

APPLICANT NAME & ADDRESS: Alan Oversmith Two Men & A Truck 125 Dino Drive Ann Arbor, MI 48103
Submit a letter of Authorization from Property Owner if application is signed by Acting Agent.

APPLICANT PHONE: (517) 719-6796 EMAIL: alan.oversmith@twomen.com

OWNER NAME & ADDRESS: Same as above

SITE ADDRESS: 840 Victory Drive Howell, MI 48843 PARCEL #(s): 11-05-303-008

OWNER PHONE: () same as above EMAIL: same as above

Location and brief description of site and surroundings:

The site is lot 8 located within the Grand Oaks West Industrial Park off Grand River Avenue on Victory Drive in Howell. A county drain runs onto the site from the center of the north property line to the southwest corner. Herbaceous and shrubby vegetation, woodlands and wetlands characterize the edges of the site, with an existing approximately 8,000 gross square foot building.

Proposed Use:

Proposed special use Contractor's Yard with outdoor storage in order to park moving trucks and trailers. Existing uses of the building and site will continue (office space, warehouse, machine shop) .

Describe how your request meets the Zoning Ordinance General Review Standards (section 19.03):

- a. Describe how the use will be compatible and in accordance with the goals, objectives, and policies of the Genoa Township Comprehensive Plan and subarea plans, and will promote the Statement of Purpose of the zoning district in which the use is proposed.

This use is compatible with adjacent uses

- b. Describe how the use will be designed, constructed, operated, and maintained to be compatible with, and not significantly alter, the existing or intended character of the general vicinity.

No changes are planned to how the site will be designed, constructed, operated or maintained.

- c. How will the use be served adequately by essential public facilities and services such as highways, streets, police and fire protection, drainage structures, water and sewage facilities, refuse disposal and schools?

No changes to any public facilities and services.

d. Will the use involve any uses, activities, processes, or materials potentially detrimental to the natural environment, public health, safety, or welfare by reason of excessive production of traffic, noise, vibration, smoke, fumes, odors, glare, or other such nuisance? If so, how will the impacts be mitigated?

A vehicle trip generation table for site uses has been included on the Site Plan drawing sheet 2. The proposed use will not add any detrimental nuisance to the area.

e. Does the use have specific criteria as listed in the Zoning Ordinance (sections 3.03.02, 7.02.02, & 8.02.02)? If so, describe how the criteria are met.

For this use, the minimum lot area is 1 acre. The site is 3.36 AC +/- . No stockpiles of loose/loosely packaged materials will be stored outdoors. Outdoor storage areas are covered with asphalt millings and graded to dispose of storm water. No outdoor storage is within required yards (setbacks). The existing office/warehouse/machine shop building on site is approx. 8,000 gsf.

Loading and truck maneuvering will be accommodated on-site. An existing woodland along property lines is provided rather than buffer zone B as required. All truck parking is screened by existing vegetation.

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION ARE TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I AGREE TO DESIGN, CONSTRUCT AND OPERATE, AND MAINTAIN THESE PREMISES AND THE BUILDINGS, STRUCTURES, AND FACILITIES WHICH ARE GOVERNED BY THIS PERMIT IN ACCORDANCE WITH THE STATED REQUIREMENTS OF THE GENOA TOWNSHIP ZONING ORDINANCE, AND SUCH ADDITIONAL LIMITS AND SAFEGUARDS AS MAY BE MADE A PART OF THIS PERMIT.

THE UNDERSIGNED Alan Oversmith STATES THAT THEY ARE THE FREE OWNER OF THE PROPERTY OF PROPERTIES DESCRIBED ABOVE AND MAKES APPLICATION FOR THIS SPECIAL LAND USE PERMIT.

BY: 

ADDRESS: 125 Dino Dr, Ann Arbor, MI 48103

Contact Information - Review Letters and Correspondence shall be forwarded to the following:

Jennifer M. Austin of Boss Engineering at jennifera@bosseng.com
Name Business Affiliation Email

FEE EXCEEDANCE AGREEMENT

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

SIGNATURE:  DATE: 3-25-22

PRINT NAME: ALAN OVERSMITH PHONE: 517-719-676



GENOA CHARTER TOWNSHIP
Application for Site Plan Review

TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

APPLICANT NAME & ADDRESS: Alan Oversmith Two Men & A Truck 125 Dino Drive Ann Arbor, MI 48103
If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: Same as above

SITE ADDRESS: 840 Victory Drive Howell, MI 48843 PARCEL #(s): 11-05-303-008

APPLICANT PHONE: (517) 719-6796 OWNER PHONE: () same

OWNER EMAIL: alan.oversmith@twomen.com

LOCATION AND BRIEF DESCRIPTION OF SITE: _____

The site is lot 8 located within the Grand Oaks West Industrial Park off Grand River Avenue on Victory Drive in Howell. A county drain runs onto the site from the center

of the north property line to the southwest corner. Herbaceous and shrubby vegetation, woodlands and wetlands characterize the edges of the site, with an existing

approximately 8,000 gross square foot building.

BRIEF STATEMENT OF PROPOSED USE: _____

Proposed special use is Contractor's Yard with outdoor storage in order to park moving trucks and trailers. Existing uses of the building and

site will continue (office space, warehouse, machine shop).

THE FOLLOWING BUILDINGS ARE PROPOSED: N/A

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY: 

ADDRESS: 125 Dino Dr, Ann Arbor, MI 48103

Contact Information - Review Letters and Correspondence shall be forwarded to the following:

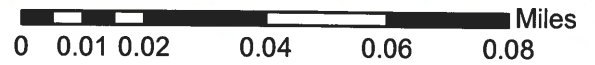
1.) Alans Oversmith of Two Men And A Truck at ALANS.OVERSMT@TWO
Name Business Affiliation E-mail Address WOMEN.COM

FEE EXCEEDANCE AGREEMENT

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

SIGNATURE: A Oversmith DATE: 3-25-22
PRINT NAME: Alans Oversmith PHONE: 517-715-6196
ADDRESS: 125 Dino Dr, Ann Arbor, MI 48103

300 Foot Buffer for Noticing



Special Use: Two Men and a Truck

Address: 840 Victory Drive

Parcel: 4711-05-303-008

Meeting Date: May 9, 2022



April 20, 2022



NOTICE OF PUBLIC HEARING – JULY 11, 2022 REZONING

June 24, 2022

To Whom It May Concern:

Please be advised that the Planning Commission of Genoa Charter Township will conduct a public hearing on **Monday, July 11, 2022 commencing at 6:30 p.m.** As required by state law, you are receiving this notice because you have been identified as an owner or occupant of real property within 300 feet of the subject parcels.

The property in question is located at 840 Victory Drive, on the west side of Victory Drive, south of Grand River Avenue. **The applicant is requesting a special land use permit for a proposed contractor's yard with outdoor storage at an existing business (Two Men & A Truck). The request is petitioned by Alan Oversmith, Two Men & A Truck.**

You are invited to attend this hearing. Members of the public will be able to speak during the public hearing portions of the meeting. If, prior to the meeting, members of the public have certain questions or wish to provide input on any business that will be addressed at the meeting then such persons may contact the Planning Commissioners through Kelly VanMarter, Township Community Development Director by email to Kelly@genoa.org, or by mail at 2911 Dorr Road, Brighton, Michigan 48116.

Genoa Charter Township will provide necessary reasonable auxiliary aids and services to individuals with disabilities at the meeting/hearing upon seven (7) days' notice to the Township. Individuals with disabilities requiring auxiliary aids or services should contact the Township in writing or by calling at (810) 227-5225.

Sincerely,

Kelly VanMarter,
Assistant Township Manager / Community Development Director

2911 Dorr Road
Brighton, MI 48116
810.227.5225
810.227.3420 fax
genoa.org

SUPERVISOR

Bill Rogers

CLERK

Paulette A. Skolarus

TREASURER

Robin L. Hunt

TRUSTEES

Jean W. Ledford

H. James Mortensen

Terry Croft

Diana Lowe

MANAGER

Michael C. Archinal



June 22, 2022

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP Planning Director and Assistant Township Manager
Subject:	Two Men and a Truck – Special Land Use and Site Plan Review #2
Location:	840 Victory Drive – west side of Victory Drive, south of Grand River Avenue
Zoning:	IND Industrial District

Dear Commissioners:

At the Township’s request, we have reviewed the revised submittal from Two Men and a Truck for a contractor’s yard with outdoor storage on a previously developed 3.36-acre lot within the Grand Oaks West Industrial Park (revised plans dated 6/7/22).

A. Summary

1. Section 19.03 General Special Land Use Standards:

- a. The project is generally consistent with the Master Plan recommendations for this site/area of the Township.
- b. In order to make favorable findings related to compatibility and impacts, the use conditions of Section 8.02.02(b) need to be met to the Township’s satisfaction.
- c. The applicant must address any comments provided by the Township Engineer and/or Brighton Area Fire Authority regarding public facilities and services.

2. Section 8.02.02(b) Use Conditions:

- a. The Commission may allow gravel surfacing of the outdoor storage area, pending a recommendation from the Township Engineer.
- b. We suggest the applicant slightly extend the gravel area in the southwest corner to accommodate the truck turning template.
- c. The Commission may allow existing vegetation to remain in lieu of new buffer zone requirements along the rear and sides of the property.

3. Site Plan Review:

- a. The required parking spaces within the outdoor storage area are surfaced with gravel, which requires Planning Commission approval based on input from the Township Engineer.
- b. The front yard of the site contains multiple easements, which preclude the required greenbelt tree plantings.
- c. We suggest the applicant modify the existing light fixtures by adding shielding, or provide new fixtures to comply with current Ordinance standards.
- d. If the existing waste receptacle enclosure does not have a gate across the front, one must be added, per current Ordinance standards.
- e. Given the location of the waste receptacle, the applicant will need schedule pick-up when the parking lot is not full.
- f. The applicant must address any site plan comments provided by the Township Engineer and/or Brighton Area Fire Authority.



Aerial view of site and surroundings (looking north)

B. Proposal/Process

The site contains an 8,000 square foot building and the applicant proposes to incorporate an outdoor storage area in the rear yard of the property.

Contractor's yards with outdoor storage are special land uses in the IND (Table 8.02). Such uses are also subject to the conditions of Section 8.02.02(b).

Procedurally, the Planning Commission is to review the special land use, site plan, and Environmental Impact Assessment, and put forth a recommendation on each to the Township Board following a public hearing.

C. Special Land Use Review

Section 19.03 of the Zoning Ordinance identifies the review criteria for Special Land Use applications as follows:

- 1. Master Plan.** The Township Master Plan identifies the subject site and the Grand Oaks West Industrial Park as Industrial. This classification is intended for "industrial uses such as research, wholesale and warehouse activities and light industrial operations."

The proposed use of a contractor's yard with outdoor storage would be viewed as a light industrial operation, per this description, and is generally consistent with the Master Plan guidance for this site/area.

- 2. Compatibility.** Victory Drive is developed with light industrial uses, many of which have accessory outdoor storage.

The use conditions of Section 8.02.02(b) are intended to help ensure compatibility. Provided these conditions are met to the Township's satisfaction, the proposal is expected to be compatible with the surrounding area.

- 3. Public Facilities and Services.** As a previously developed site within an industrial park, we anticipate that necessary public facilities and services are already in place.

However, the applicant must address any comments provided by the Township Engineer and/or Brighton Area Fire Authority related to this criterion.

- 4. Impacts.** Similar to the comment above, the use conditions of Section 8.02.02(b) are intended to limit impacts of the proposal upon the site and surrounding properties.

Provided these conditions are met to the Township's satisfaction, surrounding properties are not expected to be adversely impacted by the proposal.

- 5. Mitigation.** If further concerns arise as part of the review process, the Township may require additional efforts to mitigate potential adverse impacts.

D. Use Conditions

Contractor's yards with outdoor storage are subject to the use conditions of Section 8.02.02(b), as follows:

- 1. Minimum lot area shall be one (1) acre.**

The subject site contains 3.36 acres of lot area.

- 2. Any stockpiles of soils, fertilizer or similar loosely packaged materials shall be sufficiently covered or contained to prevent dust or blowing of materials.**

The application form states that no such materials will be stored outdoors.

- 3. All outdoor storage areas shall be paved with a permanent, durable and dustless surface and shall be graded and drained to dispose stormwater without negatively impact adjacent property. The Township Board, following a recommendation of the Planning Commission and the Township Engineer, may approve a gravel surface for all or part of the display or storage area for low intensity activities, upon a finding that neighboring properties and the environment will not be negatively impacted.**

The applicant proposes gravel surfacing for the outdoor storage area. The Commission may allow the use of gravel, pending a recommendation from the Township Engineer.

- 4. No outdoor storage shall be permitted in any required yard (setback) of buildings for the district in which the outdoor display, sales or storage use is located. Any approved outdoor sales or display with a parking lot shall meet the required parking lot setback; provided the Planning Commission may require additional landscaping screening or ornamental fencing.**

The outdoor storage area is situated outside of required side and rear yard setbacks. Furthermore, the application form states that there will be no outdoor storage within required yards.

- 5. The site shall include a building of at least five hundred (500) feet of gross floor area for office use in conjunction with the use.**

The existing building provides a gross floor area of 8,000 square feet.

- 6. All loading and truck maneuvering shall be accommodated on-site.**

Sheet 6 of the revised site plan includes a truck turning template for an emergency vehicle. All un/loading will occur on-site, though the template depicts a small area of encroachment onto the lawn in the southwest corner

We suggest the applicant slightly extend the gravel drive area to accommodate this encroachment.

7. All outdoor storage area property lines adjacent to a residential district shall provide a buffer zone A as described in Section 12.02. A buffer zone B shall be provided on all other sides. The Planning Commission may approve a six (6) foot high screen wall or fence, or a four (4) foot high landscaped berm as an alternative.

The properties to the north and south are zoned IND, though the property to the west (rear) is zoned for residential purposes (HDR). As such, a Buffer Zone B is required along both sides, and a buffer zone A is required along the rear of the site.

As depicted on the plans, the north side and rear of the property contain large existing wooded areas, while the south side includes 20+ mature trees. The revised plan also includes 2 new canopy trees along the south side lot line.

Section 12.02.13 allows the Commission to waive or modify current landscaping requirements based upon the presence of existing natural vegetation.

8. The height of all material and equipment stored in an outdoor storage area shall not exceed the height of any landscape screening, wall or fence. Boats and recreational vehicles may exceed the height of the fence provided that they are setback from the fence a distance equal to their height. Storage of materials up to the height of the adjacent building wall may be permitted in the rear yard if it is illustrated on the site plan, the rear yard does not abut a residential district or face an expressway, and such storage is confined to within twenty (20) feet of the building.

The outdoor storage area is intended for moving trucks and trailers. Based on previous projects, such items typically have a height of 12 to 14 feet.

The nature of the existing vegetation is such that this standard is met along the north side and rear. As noted above, two new canopy trees are proposed to supplement the existing trees along the south side lot line. As a result, we are of the opinion that this standard will be met.

E. Site Plan Review

1. Dimensional Requirements. The project has been reviewed for compliance with the dimensional requirements of the IND, as follows:

	Min. Lot Req.		Minimum Yard Setbacks (feet)				Max. Lot Coverage (%)	Max. Height (feet)
	Area (acres)	Width (feet)	Front Yard	Side Yard	Rear Yard	Parking Lot		
IND	1	150	85	25	40	20 front 10 side/rear	40% building 85% impervious	30
Proposed	3.36	275	105	105 (N) 69 (S)	342	40 front 20 side (S)	5.4% building 23% impervious	Not provided

There is no information provided for the existing building, though no alterations are proposed and building height is within that allowed by Ordinance (based on review of aerial photos).

2. Pedestrian Circulation. As an industrial area, public sidewalks are not required, nor proposed.

The plan does depict an existing concrete walk along the south side of the building as a buffer between the drive aisle and building.

3. Vehicular Circulation. The site currently has a paved, full turning movement driveway to/from Victory Drive. No changes are proposed to the existing drive.

The internal drive provides sufficient width for two-way travel around the site, though the aisle on the north side will require travel near the building should 2 vehicles be there at the same time (unlikely given this is noted as staff parking).

The applicant must address any comments provided by the Township Engineer and/or the Brighton Area Fire Authority with respect to vehicular circulation.

- 4. Parking.** Based on the information provided, the site requires a total of 39 spaces – 32 for the proposed use and 7 for a separate suite within the existing building.

The existing site provides 21 parking spaces, including 2 barrier-free spaces, while the outdoor storage area includes space for 19 vehicles and/or moving trucks and trailers.

The spaces at the rear of the site are within the gravel storage area. Parking lots are to be hard-surfaced, unless otherwise approved by the Planning Commission based on input from the Township Engineer.

- 5. Landscaping.** The project proposes to retain existing vegetation and plant 2 new canopy trees to address the buffer zone requirements previously identified.

There is a deficiency in greenbelt tree plantings; however, it is important to note that the front of the site contains multiple easements, which preclude new plantings.

- 6. Exterior Lighting.** The lighting plan (Sheet 6) identifies 7 existing wall mounted fixtures.

Specifications note the use of LED fixtures, though they shine light outward as opposed to downward. We suggest the applicant modify the existing fixtures by adding shielding, or provide new fixtures to comply with current Ordinance standards.

The photometric plan complies with maximum allowable light intensities (both on site and along property lines).

- 7. Waste Receptacle/Enclosure.** The site contains an existing waste receptacle/enclosure north of the building in the non-required side yard (per Ordinance standards). The plan depicts an enclosure and concrete base pad, and photos of existing conditions have been added to the revised plans.

It is unclear whether a gate is provided across the front of the enclosure. If one it not, then the applicant should add one.

The receptacle will also be difficult to access when the parking lot is full. As such, the applicant will need to make arrangements for appropriate pick-up times.

- 8. Impact Assessment.** The submittal includes the required Environmental Impact Assessment (revised June 7, 2022). In summary, the Assessment notes that the proposal is not expected to have an adverse impact upon natural features, stormwater, surrounding land uses, public services/utilities, or traffic and pedestrians.

Should you have any questions concerning this matter, please do not hesitate to contact our office.

Respectfully,
SAFE BUILT



Brian V. Borden, AICP
Michigan Planning Manager



June 20, 2022

Ms. Kelly Van Marter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

**Re: Two Men and a Truck
Site Plan Review No. 2**

Dear Ms. Van Marter:

Tetra Tech conducted a second review of the existing Two Men and a Truck site plan last dated June 7, 2022. The plans were prepared by Boss Engineering on behalf of Two Men and a Truck. The site is located on the west side of Victory Drive. Most of the proposed improvements depicted on the site plan have already been completed and include additional parking lot space. The storm drainage improvements shown on the plans are proposed and have not yet been completed. We offer the following comments:

GENERAL

1. The existing parking lot to the west is shown as asphalt millings. Genoa Township requires that parking lots must be paved with a concrete curb and gutter. The primary use of the west lot is for storage of corporate vehicles, and we have no objection to the use of asphalt millings for the proposed use.
2. Approval from the fire authority should be provided to the Township prior to approval.

DRAINAGE AND GRADING

1. The original site plan for the property from 1996 shows a drainage swale on the west side of the site that was intended to direct flow from the north side of the site to the on-site detention basin. As part of this project the Petitioner is proposing to redirect flow around the expanded parking area to the existing detention basin that is being expanded. Currently the provided detention basin calculations are done with the old Livingston County Drain Commissioner (LCDC) standards, but the LCDC standards have been updated recently and the existing detention basin expansion should be designed using the new standards.

We recommend the petitioner address the above comments and resubmit for additional review.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Gary Markstrom'.

Gary J. Markstrom, P.E.
Vice President

A handwritten signature in blue ink, appearing to read 'Shelby Byrne'.

Shelby Byrne, P.E.
Project Engineer



BRIGHTON AREA FIRE AUTHORITY

615 W. Grand River Ave.
Brighton, MI 48116
o: 810-229-6640 f: 810-229-1619

June 14, 2022

Kelly VanMarter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

RE: Two Men And a Truck
840 Victory Drive
Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Department has reviewed the above-mentioned site plan. The plans were received for review on June 10, 2022 and the drawings are dated March 30, 2022 with latest revisions dated June 7, 2022. The project is based on an existing 3.36-acre parcel with an 8,000 square foot B/F-1/S-1 mixed-use structure. The applicant is proposing an increase of outdoor vehicle storage located along the rear of the parcel. The plan review is based on the requirements of the International Fire Code (IFC) 2021 edition.

1. Truck and trailer parking along the rear of the building shall not impede access to or obstruct clear access to exterior doors or egress doors. Please provide a floor plan indicating door locations and clear paths of egress and access to both portions of the structure. **(New elevations and floor plans indicate that there are no doors where outdoor truck parking is proposed.)**
2. The fire authority had no previous knowledge of the applicant occupying the structure. An inspection for occupancy must be completed. **(Acknowledged by the applicant)**
3. The tenant warehouse square footage of 2,800 exceeds what is permissible for the storage of upholstered furniture and mattresses without fire sprinkler protection. Clarification of the warehouse use shall be provided and will be verified on inspection. **(The warehouse storage use SHALL exclude upholstered furnishings and mattresses. The Fire Authority has spoken with the owner and is requiring a Notorized affidavit stating that; "Due to the lack of economic feasibility, at this time fire sprinkler protection will not be provided. Without fire sprinklers the owner and operator acknowledge with full understanding that they may not store upholstered furnishing and/or mattresses within the building." Furthermore we will be working with the owner on issues related to storage configuration and layout within the building to provide additional guidance of potential storage concerns.)**

IFC 903.2.9.4

4. The integrity of the separation wall between the applicant and the adjacent space must be verified by a licensed building inspector for proper construction to be considered a separated mixed-use. If the separation is properly rated the square footage of the warehouse far exceeds allowable in Item #2 above. **(Acknowledged by the applicant)**
5. The building address shall be a **minimum of 6"** high letters of contrasting colors and be clearly visible from the street. The location and size shall be verified prior to installation. If the new occupant has a separate address or suite number it shall be provided to the fire authority. **(Existing address meets this requirement.)**



June 14, 2022

Page 2

Two Men And a Truck

840 Victory Drive

Site Plan Review

IFC 505.1

6. Fire lane signage shall be provided along the drive around the building every 50-feet. Include the location of the proposed fire lane signage and a detail of the fire lane sign in the submittal. **(Additional fire lane signage has been provided as required, with an appropriate detail, however, following site visit on 6/14/2022 it was determined that the southernmost parking space along the back of the building encroaches on emergency vehicle access around the building. This space shall also be marked as "No Parking Fire Lane".)**

IFC 503.3

7. A minimum vertical clearance of 13½ feet shall be maintained along the length of all apparatus access drives. This includes but is not limited to porte-cochere's, lighting, and large canopy trees. **(Acknowledged by the applicant)**

IFC 503.2.1

8. The location of a Knox Box shall be indicated on future submittals. The Knox box shall be located adjacent to the main entrance of the structure, in a location coordinated with the fire authority. **(A knox box is located on the East side of the building and is indicated on drawing Sheet 3.)**

IFC 506.1

9. Provide names, addresses, phone numbers, emails of owner or owner's agent, contractor, architect, on-site project supervisor. **(TBD)**

Additional comments will be given during the building plan review process (specific to the building plans and occupancy). The applicant is reminded that the fire authority must review the fire protection systems submittals (sprinkler & alarm) prior to permit issuance by the Building Department and that the authority will also review the building plans for life safety requirements in conjunction with the Building Department.

If you have any questions about the comments on this plan review please contact me at 810-229-6640.

Cordially,

A handwritten signature in black ink, appearing to read 'R. Boisvert'.

Rick Boisvert, FM, CFPS
Fire Marshal

cc:Amy Ruthig amy@genoa.org

From: [Matt Bolang](#)
To: [Amy Ruthig](#)
Cc: [Aaron Aumock](#)
Subject: Genoa LCHD Reviews
Date: Tuesday, April 19, 2022 3:46:41 PM
Attachments: [image002.png](#)
[image003.png](#)
[image007.png](#)
[image008.png](#)
[image001.png](#)

Hi Amy,

We have reviewed all of the current proposals. Below are our comments:

- St. Joes: Will be connected to MHOG water and sewer. No LCHD review. Any potential new or remodeled food service will need to be reviewed by our department for licensure.
- **Two Men and a Truck: We recommend that the new owner samples the well for bacteria, nitrates, and arsenic. We are available to review the results.**
- Lanning Daycare: The septic system was replaced in 2020, likely due to overuse by the daycare. We oversized the system and required the installation of a diverter valve so the old system could be used again in the future. As part of the LARA licensing process, LCHD would be required to inspect the facility including the well and septic. Our last record of a licensing inspection was 2004.
- Panda: We have no comments initially. They will need LCHD approval in conjunction with the building department before approved to operate and issued a food service license.

Let me know if you have any questions. Also in the future you can email the proposed projects directly to Aaron Aumock (copied on this email).

Thanks,
Matt

Matt Bolang, MSA, REHS
Deputy Health Officer
Director of Environmental Health
Livingston County Health Department
2300 East Grand River
Howell, MI 48843

517-552-6870 | www.lchd.org



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**IMPACT ASSESSMENT
For
Two Men and a Truck Site Plan Submittal
GENOA TOWNSHIP
LIVINGSTON COUNTY, MICHIGAN**

Prepared for:

**Applicant
Two Men and a Truck
840 Victory Lane
Howell, Michigan 48843**

**Owner:
Mr. Alan Oversmith
120 Dino Drive
Ann Arbor, MI 48103**

Prepared by:



3121 E. Grand River Howell, MI 48843
517.546.4836 fax 517.548.1670
www.bosseng.com

**Jennifer M. Austin, PLA
Boss Engineering
3121 E Grand River
Howell, MI 48843**

**March 30, 2022
Revised June 7, 2022**

DISCUSSION ITEMS

A. Name(s) and address(es) of person(s) responsible for preparation of the Impact Assessment and a brief statement of their qualifications.

Prepared by:

Jennifer M. Austin, PLA
Boss Engineering
3121 E Grand River
Howell, MI 48843

Prepared for:

Applicant & Owner:

Alan Oversmith
125 Dino Drive
Ann Arbor, MI 48103

B. Description of the site, including existing structures, man-made facilities, and natural features, all-inclusive to within 10' of the property boundary.

The subject property (840 Victory Drive) is part of Tax ID # 4711-05-303-008 in the SE ¼ of Section 6, Genoa Township, Livingston County, MI, and is Lot 8 of the Grand Oaks West Industrial Park on Victory Drive, just off East Grand River in Howell.

The subject site is bordered:

- North by a vacant parcel zoned Industrial, East by Victory Drive and a parcel zoned Industrial, South by a parcel zoned Industrial and occupied by self-storage, and West by a parcel zoned Medium Density Residential.

Current zoning of the subject site is Industrial and is occupied by an approximately 8,000 gsf building with two uses: Suite A is an office/warehouse for Two Men and A Truck and Suite B is an office/machine shop for Patrick Carbide Die. Special land use is being requested for a Contractor's Outdoor Storage Yard to park moving trucks and trailers.

The driveway entrance off Victory Drive provides access to staff and visitor parking (29 total spaces) and commercial vehicle parking on the west side of the building (7 moving truck and 4 trailer parking spaces). The moving trucks are roughly 7' x 35' and typically parked at the rear of the building along with (2) 7' x 18' trailers. The trucks are dispatched around 8:00 a.m. and return anytime between mid-day and 6:00 p.m. The Suite B use operates from 8:00 a.m. to 5:00 p.m. and employs 6 staff during max shift hours. Suite A Two Men and A Truck employs 17 staff during max shift hours.

C. *Impact on natural features: A written description of the environmental characteristics of the site prior to development, i.e., topography, soils, vegetative cover, drainage, streams, creeks or ponds.*

The Marion and Genoa County Drain runs along the west and north perimeter of the site. Topography of the parcel features low areas at the northeast corner and southwest portion with wetland areas connected to the county drain. Soils are classified by the USDA Natural Resources Conservation Service map as Carlisle muck with 0-2% slopes, Gilford Sandy Loam with 0-2% slopes and Wawasee Loam with 2-6% slopes and is depicted on Existing Conditions drawing Sheet 2. The woodland buffer between Marion and Genoa County Drain and most of the site contains a dense understory that is primarily composed of gray and red osier dogwood shrubs, and invasive buckthorn trees. Several deciduous canopy trees stand within this buffer that include Black Cherry, Boxelder, American Elm, and various Oak species, each ranging in size from 6-13" diameter at breast height. The trees are spaced approximately 20' apart. Large trees over 8" D.B.H. outside of the larger woodland areas are shown on Existing Conditions drawing Sheet 2.

SPECIFIC OVERVIEW

D. *Impact on storm water management: description of soil erosion control measures during construction.*

On-site drainage -- flow from the north side of the site and the west parking area -- will be directed through swales to the enlarged existing detention basin in the southwest portion of the site, and to the Marion Genoa County Drain at the west end of the site. An existing control structure and pipe will handle discharge from the basin outlet to the Marion and Genoa County Drain which then flows to the south and a basin west of Chilson Road and just north of I-96 (according to the Livingston County Drain Commissioner Marion Genoa Drain map). Existing drainage at the front (east) side of the building flows to the existing wetland to the north and to the drainage along Victory Drive.

E. *Impact on surrounding land use: Description of proposed usage and other man-made facilities; how it conforms to existing and potential development patterns. Effects of added lighting, noise or air pollution which could negatively impact adjacent properties.*

The single 8,000 square foot building on site houses two uses: warehouse/office and machine shop/office. The warehouse/office use by Two Men and a Truck is requesting approval of special use of contractor's yard outdoor storage for parking of commercial vehicles (moving trucks and trailers.) A tenant of the building in Suite B is the manufacturing use. These uses are compatible with the surrounding Industrial uses and no new impacts to the area are proposed.

F. Impact on public facilities and services: Description of number of residents, employees, patrons, and impact on general services, i.e., schools, police, fire.

The warehouse/office/contractor's yard use employs a total of 17 staff. The machine shop/office use employs 6 staff. No additional employees are expected. The impact on existing public facilities and services will not change.

Normal police and fire protection services should remain unchanged.

G. Impact on public utilities: description of public utilities serving the project, i.e., water, sanitary sewer, and storm drainage system. Expected flows projected in residential units.

An on-site well provides water to the building and MHOG Public sanitary sewer services the building. No change to these services is planned.

H. Storage or handling of any hazardous materials: Description of any hazardous materials used, stored, or disposed of on-site.

No hazardous materials are stored on site. Moving trucks and enclosed trailers are stored outdoors. Moving equipment (dollies, etc), boxes and packing supplies sold to customers are stored on site. Occasionally customer household goods (appliances, etc) are stored inside the building for short periods of time when they are unable to move into their new homes right away. However, no upholstered furniture and mattresses will be stored on site as per Brighton Area Fire Authority review comments and verified upon inspection.

No outdoor storage will be located within the required 25-foot side yard setbacks nor any other required yard setback.

I. Impact on traffic and pedestrians: Description of traffic volumes to be generated and their effect on the area.

The driveway entrance off Victory Drive provides access to staff and visitor parking (29 total spaces) and commercial vehicle parking on the west side of the building (7 moving truck spaces). Trucks are dispatched around 8:00 a.m. and return anytime between mid-day and 6:00 p.m. The Suite B use operates from 8:00 a.m. to 5:00 p.m. and employs 6 staff during max shift hours. Suite A Two Men and A Truck employs 17 staff during max shift hours. No increase in this traffic volume is planned.

J. Special provisions: Deed restrictions, protective covenants, etc.

None.

K. Description of all sources:

- Genoa Township Zoning Ordinance
- Natural Resources Soil Conservation Services, USDA
- Livingston County Drain Commissioner Marion Genoa Drain Map (<https://www.livgov.com/drain/Documents/drainagemaps/Genoa%20Twp/Marion%20Genoa%20-2017.pdf>)

SITE PLAN FOR TWO MEN AND A TRUCK

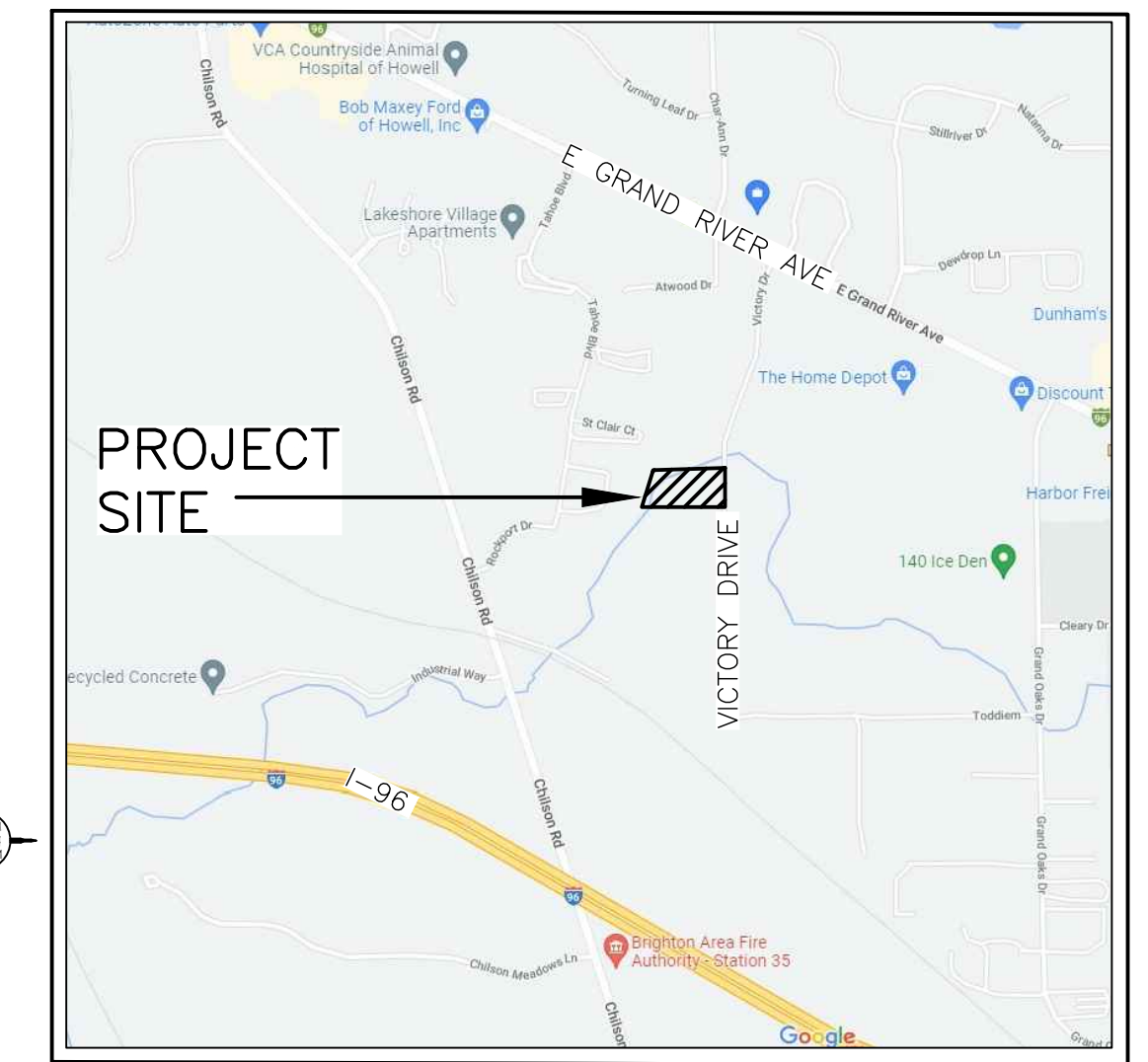
PART OF SOUTHEAST QUARTER, SECTION 6 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

PROPERTY DESCRIPTION:

PROPERTY DESCRIPTION PER LIVINGSTON COUNTY RECORDS:
SEC 6 T2N R5E GRAND OAKS WEST INDUSTRIAL PARK LOT 8

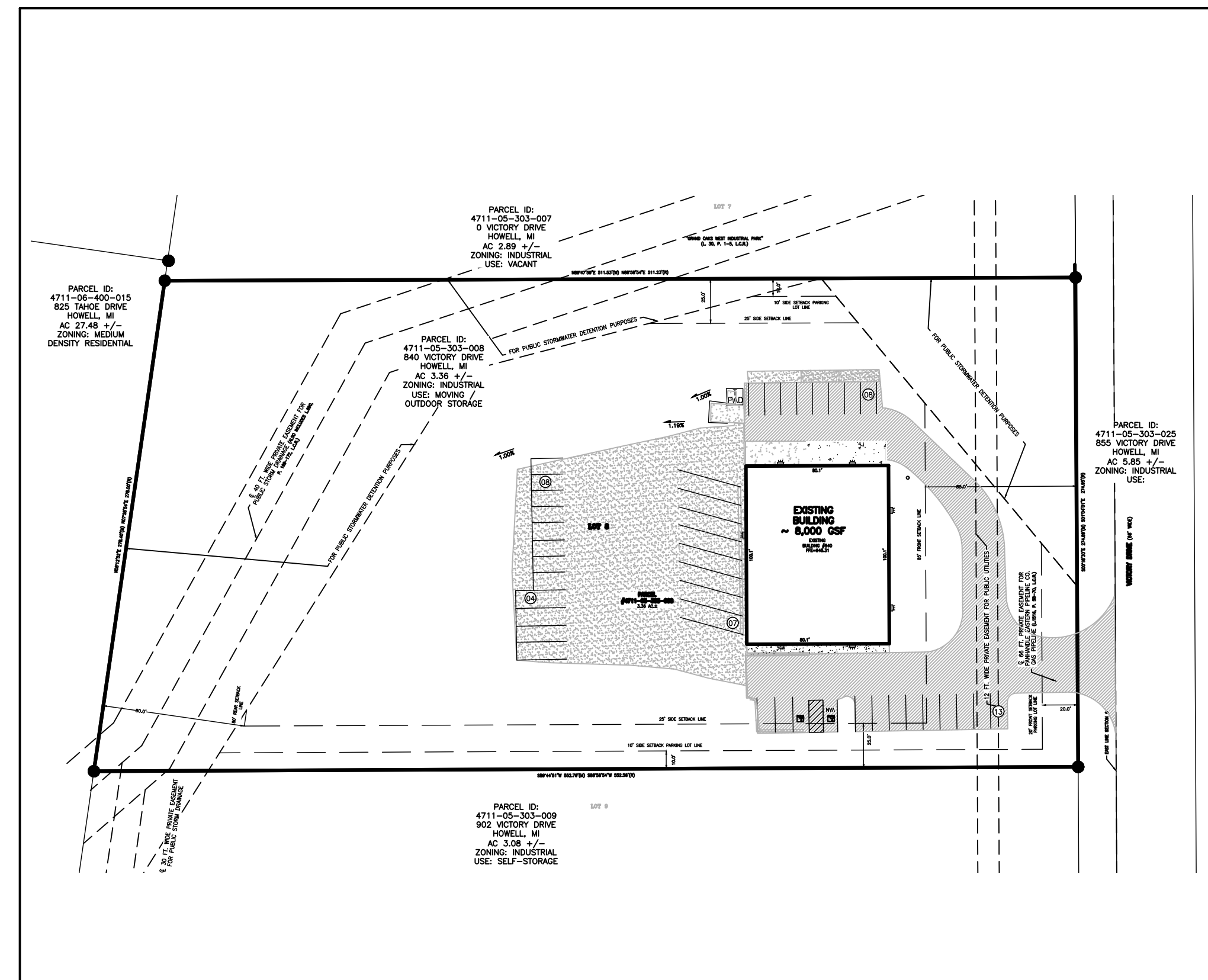
CONSTRUCTION NOTES

- THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING NOTES AND ANY WORK INVOLVED SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.
 - DO NOT SCALE THESE DRAWINGS AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
 - A GRADING PERMIT FOR SOIL EROSION-SEDIMENTATION CONTROL SHALL BE OBTAINED FROM THE GOVERNING AGENCY PRIOR TO THE START OF CONSTRUCTION.
 - IF DUST PROBLEM OCCURS DURING CONSTRUCTION, CONTROL WILL BE PROVIDED BY AN APPLICATION OF WATER, EITHER BY SPRINKLER OR TANK TRUCK.
 - ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS AND SPECIFICATIONS.
 - THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED TOWNSHIP, COUNTY, AND STATE OF MICHIGAN PERMITS.
 - PAVED SURFACES, WALKWAYS, SIGNS, LIGHTING AND OTHER STRUCTURES SHALL BE MAINTAINED IN A SAFE, ATTRACTIVE CONDITION AS ORIGINALLY DESIGNED AND CONSTRUCTED.
 - ALL BARRIER-FREE FEATURES SHALL BE CONSTRUCTED TO MEET ALL LOCAL, STATE AND A.D.A. REQUIREMENTS.
 - ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
 - THE CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND RIGHTS-OF-WAY, PUBLIC OR PRIVATE, PRIOR TO THE START OF CONSTRUCTION.
 - THE CONTRACTOR SHALL COORDINATE WITH ALL OWNERS TO DETERMINE THE LOCATION OF EXISTING LANDSCAPING, IRRIGATION LINES & PRIVATE UTILITY LINES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING LANDSCAPING, IRRIGATION LINES, AND PRIVATE UTILITY LINES.
 - THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT.
 - THE CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
 - THE CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
 - THE CONTRACTOR SHALL CALL MISS DIG A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
 - ALL EXCAVATION UNDER OR WITHIN 3 FEET OF PUBLIC PAVEMENT, EXISTING OR PROPOSED SHALL BE BACKFILLED AND COMPACTED WITH SAND (MDOT CLASS II).
 - ALL PAVEMENT REPLACEMENT AND OTHER WORKS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWNSHIP, INCLUDING THE LATEST MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
 - THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES.
 - NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR ANY DELAY OR INCONVENIENCE DUE TO THE MATERIAL SHORTAGES OR RESPONSIBLE DELAYS DUE TO THE OPERATIONS OF SUCH OTHER PARTIES DOING WORK INDICATED OR SHOWN ON THE PLANS OR IN THE SPECIFICATION OR FOR ANY REASONABLE DELAYS IN CONSTRUCTION DUE TO THE ENCOUNTERING OR EXISTING UTILITIES THAT MAY OR MAY NOT BE SHOWN ON THE PLANS.
 - DURING THE CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL NOT PERFORM WORK BY PRIVATE AGREEMENT WITH PROPERTY OWNERS ADJACENT TO THE PROJECT.
 - IF WORK EXTENDS BEYOND NOVEMBER 15, NO COMPENSATION WILL BE DUE TO THE CONTRACTOR FOR ANY WINTER PROTECTION MEASURES THAT MAY BE REQUIRED BY THE ENGINEER.
 - NO TREES ARE TO BE REMOVED UNTIL MARKED IN THE FIELD BY THE ENGINEER.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY BEYOND THE CONSTRUCTION LIMITS INCLUDING BUT NOT LIMITED TO EXISTING FENCE, LAWN, TREES AND SHRUBBERY.
 - ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE NORMAL CONSTRUCTION LIMITS OF THE PROJECT SHALL BE SODDED OR SEEDS AS SPECIFIED OR DIRECTED BY THE ENGINEER.
 - ALL ROOTS, STUMPS AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED AND THE HOLE BACKFILLED WITH SUITABLE MATERIAL. WHERE GRADE CORRECTION IS REQUIRED, THE SUBGRADE SHALL BE CUT TO CONFORM TO THE CROSS-SECTION AS SHOWN IN THE PLANS.
 - TRAFFIC SHALL BE MAINTAINED DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SIGNS AND TRAFFIC CONTROL DEVICES. FLAG PERSONS SHALL BE PROVIDED BY THE CONTRACTOR IF DETERMINED NECESSARY BY THE ENGINEER. ALL SIGNS SHALL CONFORM TO THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AT NO COST TO THE TOWNSHIP. NO WORK SHALL BE DONE UNLESS THE APPROPRIATE TRAFFIC CONTROL DEVICES ARE IN PLACE.
 - ALL DEMOLISHED MATERIALS AND SOIL SPOILS SHALL BE REMOVED FROM THE SITE AT NO ADDITIONAL COST, AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
 - AFTER REMOVAL OF TOPSOIL, THE SUBGRADE SHALL BE COMPACTED TO 95% OF ITS UNIT WEIGHT.
 - ALL GRADING IN THE PLANS SHALL BE DONE AS PART OF THIS CONTRACT. ALL DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE SUBGRADE PRIOR TO COMPACTING.
 - NO SEEDING SHALL BE DONE AFTER OCTOBER 15 WITHOUT APPROVAL OF THE ENGINEER.
 - ANY EXISTING APPURTENANCES SUCH AS MANHOLES, GATE VALVES, ETC. SHALL BE ADJUSTED TO THE PROPOSED GRADE AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
 - SOIL EROSION MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL VEGETATION HAS BEEN RE-ESTABLISHED.
 - ALL PERMANENT SIGNS AND PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST REVISION OF THE MICHIGAN MUTCD MANUAL AND SHALL BE INCIDENTAL TO THE CONTRACT.



LOCATION MAP

NO SCALE



OVERALL SITE MAP

NO SCALE

SHEET INDEX

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	EXISTING CONDITIONS & DEMOLITION PLAN
3	SITE PLAN
4	GRADING AND DRAINAGE PLAN
5	LANDSCAPE PLAN
6	LIGHTING PLAN AND CIRCULATION PLAN
7	SOIL EROSION & SEDIMENTATION CONTROL NOTES
SHEET NO.	DRAWINGS BY MICHAEL MCKELVEY, ARCHITECT
A-1	FLOOR PLAN
A-2	ELEVATIONS

PREPARED FOR:

TWO MEN & A TRUCK
125 DINO DRIVE
ANN ARBOR, MI 48103
CONTACT: MR. ALAN OVERSMITH
517-719-6796

PREPARED BY:

BEBOSS
Engineering
Engineers Surveyors Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
517.546.4836 FAX 517.548.1670

INDEMNIFICATION STATEMENT

THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.

				1
1	JA	BL	REVISION PER TWP REVIEW	06/07/22
	NO	BY	CK	REVISION
				ISSUE DATE: 03/30/22
				DATE
				JOB NO: 22-055

ASSESSED PROPERTY DESCRIPTION PER LIVINGSTON COUNTY RECORDS:
 SEC 5 & 6 T2N R5E GRAND OAKS WEST INDUSTRIAL PARK LOT 8

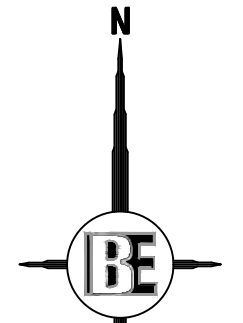
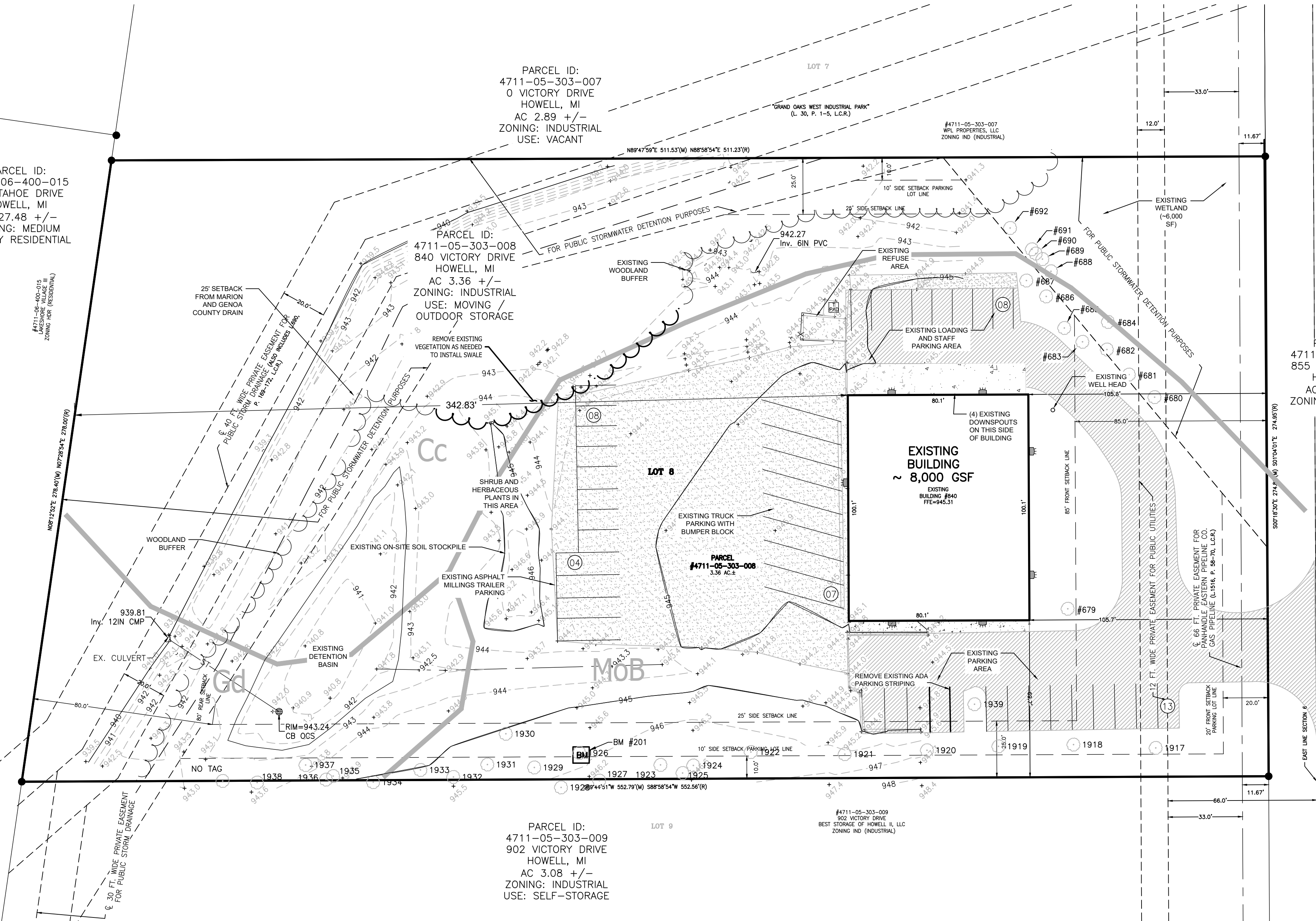
PARCEL ID:
 4711-06-400-015
 825 TAHOE DRIVE
 HOWELL, MI
 AC 27.48 +/-
 ZONING: MEDIUM
 DENSITY RESIDENTIAL

PARCEL ID:
 4711-05-303-007
 0 VICTORY DRIVE
 HOWELL, MI
 AC 2.89 +/-
 ZONING: INDUSTRIAL
 USE: VACANT

PARCEL ID:
 4711-05-303-008
 840 VICTORY DRIVE
 HOWELL, MI
 AC 3.36 +/-
 ZONING: INDUSTRIAL
 USE: MOVING
 OUTDOOR STORAGE

PARCEL ID:
 4711-05-303-025
 855 VICTORY DRIVE
 HOWELL, MI
 AC 5.85 +/-
 ZONING: INDUSTRIAL
 USE:

PARCEL ID:
 4711-05-303-009
 902 VICTORY DRIVE
 HOWELL, MI
 AC 3.08 +/-
 ZONING: INDUSTRIAL
 USE: SELF-STORAGE



SCALE 1 INCH = 30 FEET

LEGEND

- 900 - EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- TRANSFORMER PAD
- STORM CATCH BASIN (ROUND OR BEEHIVE)
- STORM INVERT
- TREE
- STEEL ROD OR PIPE FOUND
- STORM SEWER
- FENCE
- LIBER
- P. PAGE
- L.C.R. LIVINGSTON COUNTY RECORDS
- (M&R) MEASURED AND RECORD
- FEE FINISHED FIRST FLOOR ELEVATION
- CMP CORRUGATED METAL PIPE
- ASPHALT
- CONCRETE
- GRAVEL
- WOODLAND BUFFER

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES AND PROPOSED UTILITY CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY CONFLICTS ARE APPARENT OR IF THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLANS.

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171

SITE BENCHMARKS (NAVD88 DATUM):
 -BM #201 = NAIL/TAG W/S 12" MAPLE, 55' ±
 S'LY & 120' ± W'LY OF SOUTHWEST CORNER
 BUILDING #840
 ELEV. = 947.05'

GENERAL SURVEY NOTES:

- BEARINGS ARE BASED ON MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE. RECORD BEARINGS WERE ESTABLISHED FROM "GRAND OAKS WEST INDUSTRIAL PARK" AS RECORDED IN LIBER 30, PAGES 1-5, LIVINGSTON COUNTY RECORDS.
- SUBSURFACE UTILITIES NOT LOCATED FOR THIS SURVEY MAY EXIST. IT IS THE RESPONSIBILITY OF THE OWNER OF THE RESPECTIVE UTILITY TO ACCURATELY LOCATE SUCH UTILITIES.
- EASEMENTS OR RESTRICTIONS OF RECORD NOT DEPICTED ON THIS DRAWING MAY EXIST.
- ELEVATIONS WERE ESTABLISHED WITH GPS USING OPUS GPS POST-PROCESSING. (NAVD88 DATUM).
- CONTOURS ARE SHOWN AT 1 FOOT INTERVALS.
- SUBJECT PROPERTY IS DESIGNATED AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN (ZONE X) ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP (FIRM), FOR THE TOWNSHIP OF GENOA, LIVINGSTON COUNTY, MICHIGAN, MAP NUMBER 26093C0309D, PANEL 309 OF 495, WITH AN EFFECTIVE DATE OF SEPTEMBER 17, 2008.
- THE LOCATIONS OF STORM SEWER, SANITARY SEWER & WATERMAIN, AS SHOWN ON THIS DRAWING ARE APPROXIMATE. THE LOCATIONS ARE BASED ON PHYSICAL FIELD LOCATIONS OF STRUCTURES ALONG WITH DRAWINGS SUPPLIED BY XXXXX.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY, THE COUNTY, AND THE STATE OF MICHIGAN.
- ALLOW THREE WORKING DAYS BEFORE YOU DIG, CALL MISS DIG TOLL FREE 1-800-482-7171.

SOIL NOTES:

THE PROJECT SITE IS COMPRISED OF THE FOLLOWING SOIL TYPE ACCORDING TO THE USDA NATURAL RESOURCES CONSERVATION SERVICE:
 CC -- CARLISLE MUCK, 0 TO 2 % SLOPES
 Gd -- GILFORD SANDY LOAM, 0 TO 2 % SLOPES
 MoB -- WAWASEE LOAM, 2 TO 6 % SLOPES

WOODLAND BUFFER NOTE:

THE WOODLAND BUFFER BETWEEN THE MAJORITY OF THE PROJECT SITE AND THE MARION GENOA COUNTY DRAIN (WHICH RUNS ALONG THE WEST AND NORTH PERIMETER OF THE SITE) CONTAINS A DENSE UNDERSTORY THAT IS PRIMARILY COMPOSED OF GRAY DOGWOOD, RED OSIER DOGWOOD SHRUBS, AND INVASIVE BUCKTHORN TREES. SEVERAL DECIDUOUS CANOPY TREES STAND WITHIN THIS BUFFER THAT INCLUDE BLACK CHERRY, BOXELDER, AMERICAN ELM, AND VARIOUS OAK SPECIES, EACH RANGING IN SIZE FROM 6-13" DIAMETER AT BREAST HEIGHT. THE TREES ARE SPACED APPROXIMATELY 20' APART.

TREE SURVEY:

Tree #	Botanical Name	Common Name	Dia.	Type	Other Dia.	Condition	Comments
679	Malus spp.	Crabapple	11			Good	
680	Pinus resinosa	Red Pine	23			Good	
681	Pinus resinosa	Red Pine	27			Good	
682	Pinus resinosa	Red Pine	26			Good	
683	Pinus resinosa	Red Pine	30			Good	
684	Acer negundo	Boxelder	14	Multiple	9.9	Fair	Leaning
685	Picea pungens	Blue Spruce	28			Good	
686	Picea pungens	Blue Spruce				Good	
687	Picea pungens	Blue Spruce	23			Fair	Leaning
688	Populus deltoides	Eastern Cottonwood	16			Fair	Dieback
689	Populus deltoides	Eastern Cottonwood	16			Good	
690	Populus deltoides	Eastern Cottonwood	14			Good	
691	Populus deltoides	Eastern Cottonwood	15			Good	
692	Populus deltoides	Eastern Cottonwood	16	Twin	13	Good	
1917	Acer saccharum	Sugar Maple	12			Good	
1918	Acer saccharum	Sugar Maple	11			Good	
1919	Acer saccharum	Sugar Maple	13			Good	
1920	Acer camppestre	Honey Locust	9			Good	
1921	Acer rubrum	Red Maple	12			Good	
1922	Acer rubrum	Red Maple	11			Good	
1923	Acer saccharum	Sugar Maple	15			Good	
1924	Prunus serotina	Black Cherry	9	Twin	9	Good	
1925	Ulmus americana	American Elm	9			Poor	Suppression, leaning, girdled by fence
1926	Acer saccharum	Sugar Maple	16			Good	
1927	Ulmus americana	American Elm	8			Poor	Girdled by fence
1928	Ulmus americana	American Elm	8			Poor	Girdled by fence
1929	Ulmus americana	American Elm	7			Poor	Girdled by fence
1930	Quercus rubra	Red Oak	8			Good	
1931	Tilia americana	Basswood	8			Good	
1932	Ulmus americana	American Elm	6			Fair	Warped Trunk
1933	Ulmus americana	American Elm	7			Fair	
1934	Ulmus americana	Basswood	9			Good	
1935	Ulmus americana	American Elm	8	Twin	8	Fair	Girdled by fence
1936	Ulmus americana	American Elm	7			Good	
1937	Quercus rubra	Red Oak	7			Good	
1938	Tilia americana	Basswood	10			Poor	Lost leader, kind in trunk
1939	Acer saccharum	Sugar Maple	10			Good	Girdled by fence, lost leader, warped trunk (located on 15 feet south along fence line)
No Tag	Populus deltoides	Eastern Cottonwood	10			Poor	

BEBOSS Engineering
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 3121 E. GRAND RIVER AVE.
 HOWELL, MI. 48843
 517.546.4836 FAX 517.548.1670

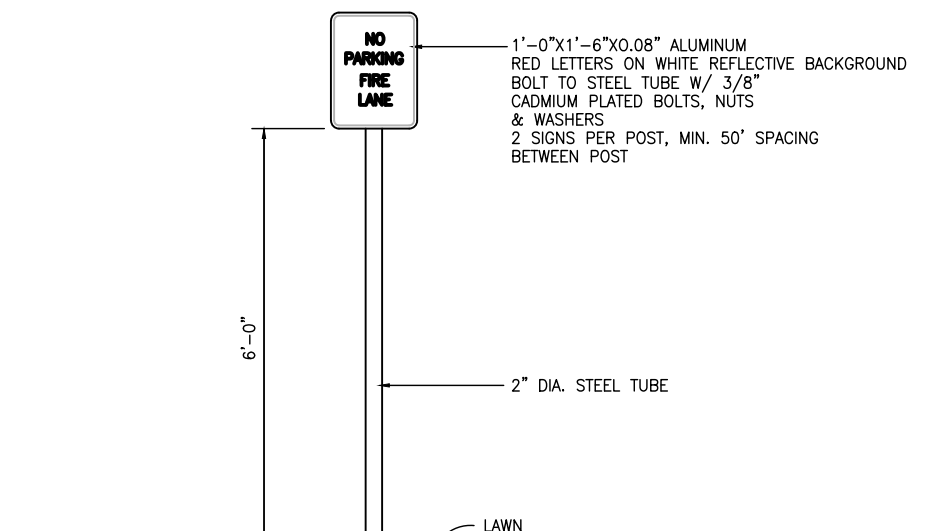
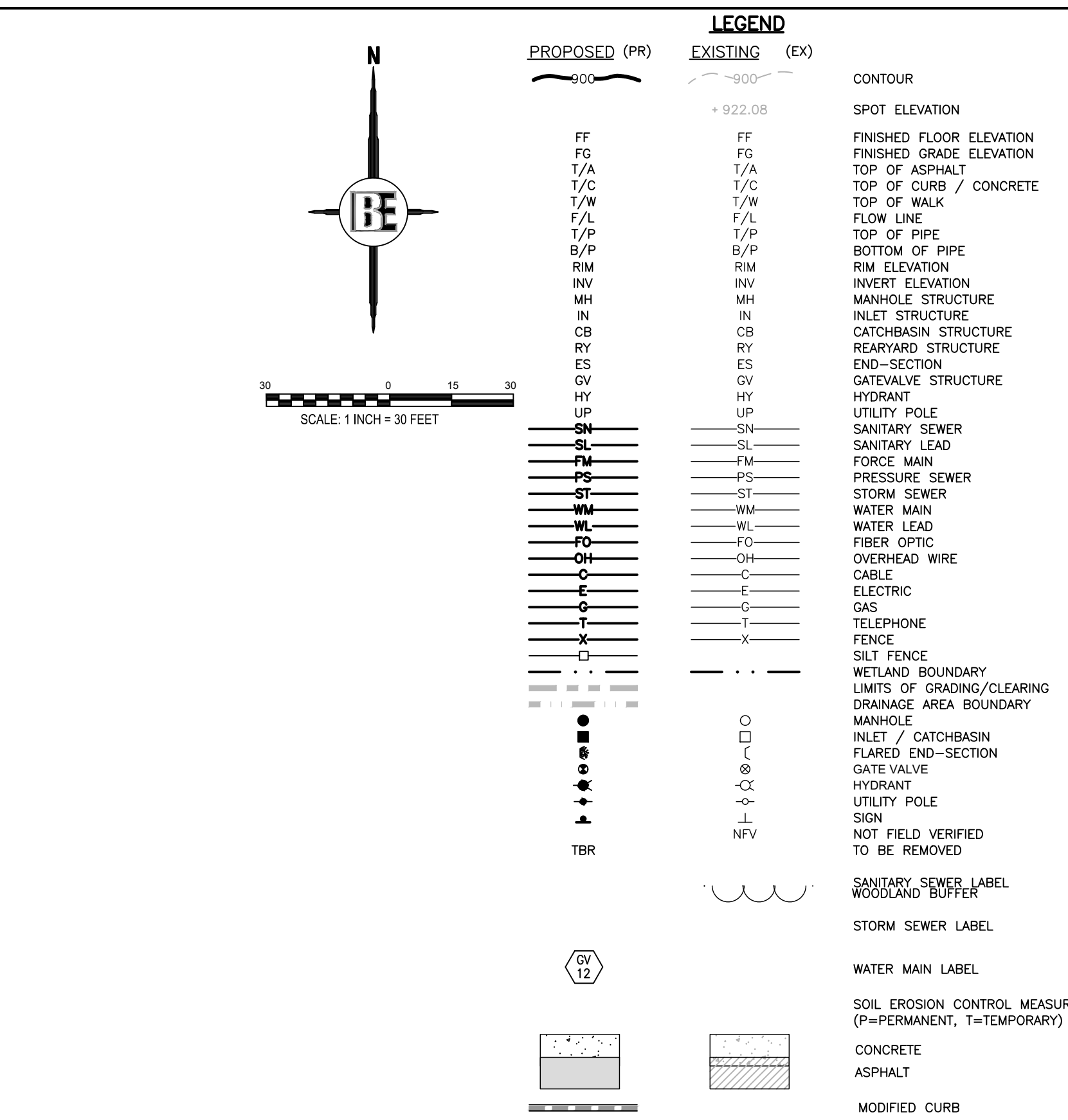
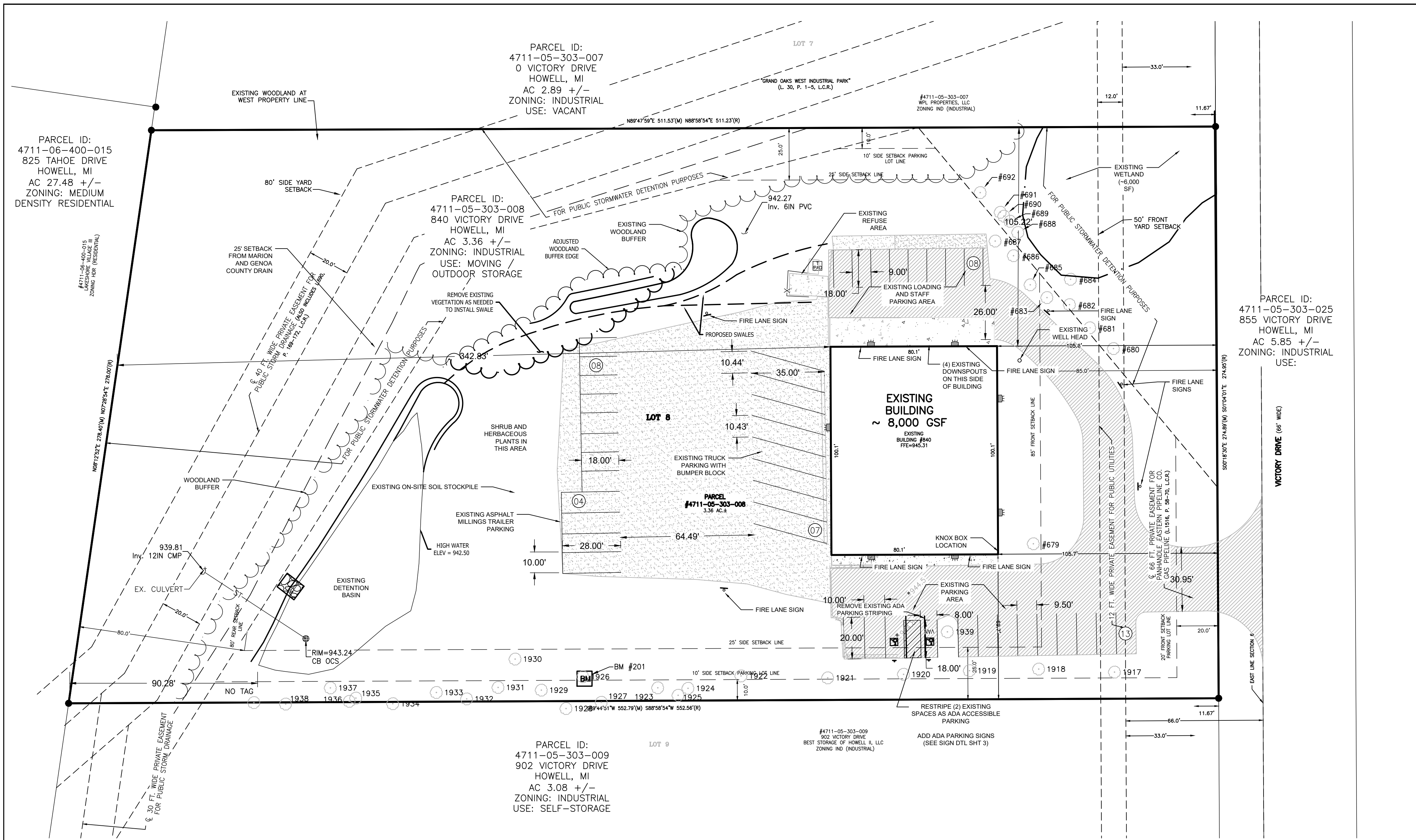
PROJECT: TWO MEN AND A TRUCK
 PREPARED FOR: MR. ALAN OVERSMITH
 125 DINO DRIVE
 ANN ARBOR, MI 48103
 810.586.9390

TITLE: EXISTING CONDITIONS & DEMOLITION PLAN

DATE: 06/07/22

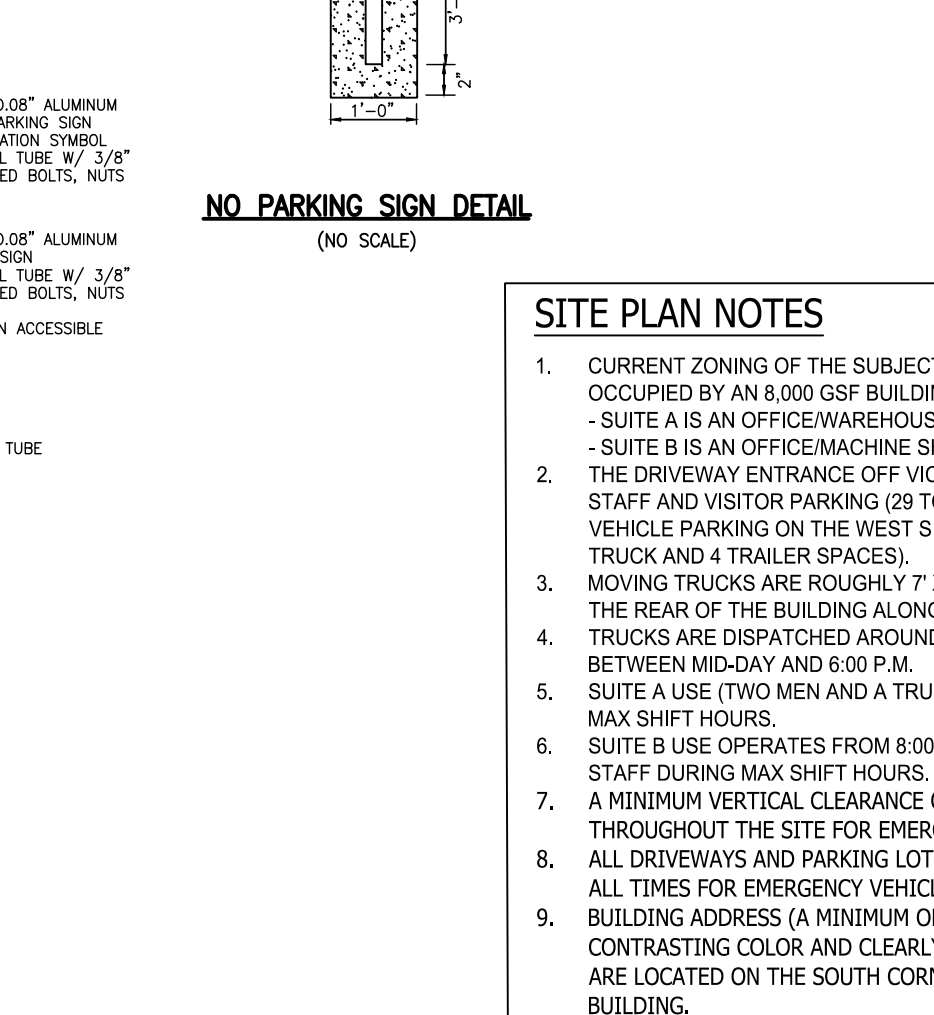
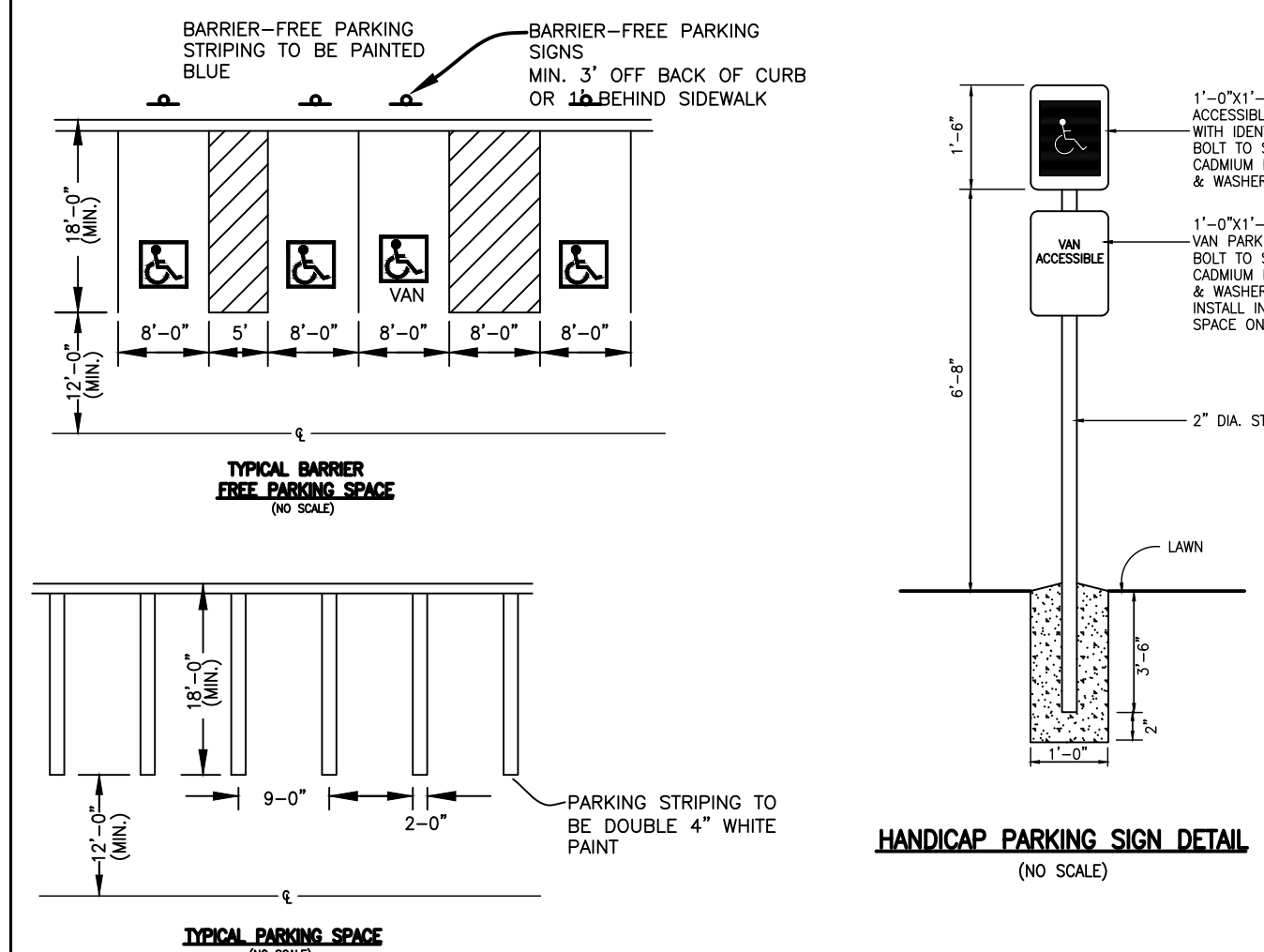
REVISION PER TWP REVIEW PER DATE

DESIGNED BY: JA
 DRAWN BY: JA
 CHECKED BY: BL
 SCALE: 1" = 30'
 JOB NO: 22-055
 DATE: 03/30/2022
 SHEET NO. 2



VEHICLE TRIP GENERATION TABLE
2 MEN AND A TRUCK - GENOA TOWNSHIP SITE PLAN SUBMITTAL
3/30/2022

LAND USE DESCRIPTION	ITE CAT.	SIZE	UNIT	TOTAL GENERATED TRIPS													
				WEEKDAY			WEEKDAY AM PEAK (7-9AM)			WEEKDAY PM PEAK (4-6PM)							
				TRIPS	IN	OUT	TOTAL	IN	OUT	PASS-BY	TOTAL	IN	OUT	PASS-BY			
PASSENGER CAR																	
EXISTING BUILDING																	
*MANUFACTURING W/ OFFICE	140	1,000SF	4,000SF	16	8	8	3	2	1	-	3	1	2	-			
ENTERING (%) / EXITING (%)				100%	50%	50%	100%	72%	28%	-	100%	43%	57%	-			
PASSENGER CAR																	
**WAREHOUSE W/OFFICE	150		4,000SF	17	17	17	17	17	0	-	17	0	17	-			
ENTERING (%) / EXITING (%)				100%			100%			-	100%						



* TRIP DATA PER INSTITUTE OF TRAFFIC ENGINEERS (ITE) TRIP GENERATION MANUAL 10TH EDITION - VOLUME 2
** TRIP DATA PER CURRENT SITE USE

SITE PLAN NOTES

- CURRENT ZONING OF THE SUBJECT SITE IS INDUSTRIAL AND IS OCCUPIED BY AN 8,000 GSF BUILDING WITH TWO USES:
 - SUITE A IS AN OFFICE/WAREHOUSE FOR TWO MEN AND A TRUCK
 - SUITE B IS AN OFFICE/MACHINE SHOP FOR PATRICK CARBIDE DIE.
- THE DRIVEWAY ENTRANCE OFF VICTORY DRIVE PROVIDES ACCESS TO STAFF AND VISITOR PARKING (26 TOTAL SPACES) AND COMMERCIAL VEHICLE PARKING ON THE WEST SIDE OF THE BUILDING (7 MOVING TRUCK AND 4 TRAILER SPACES).
- MOVING TRUCKS ARE ROUGHLY 7' X 35' AND TYPICALLY PARKED AT THE REAR OF THE BUILDING ALONG WITH (2) 7' X 18' TRAILERS.
- TRUCKS ARE DISPATCHED AROUND 8:00 A.M. AND RETURN ANYTIME BETWEEN MID-DAY AND 6:00 P.M.
- SUITE A USE (TWO MEN AND A TRUCK) EMPLOYS 17 STAFF DURING MAX SHIFT HOURS.
- SUITE B USE OPERATES FROM 8:00 A.M. TO 5:00 P.M. AND EMPLOYS 6 STAFF DURING MAX SHIFT HOURS.
- A MINIMUM VERTICAL CLEARANCE OF 13.5' SHALL BE MAINTAINED THROUGHOUT THE SITE FOR EMERGENCY VEHICLE ACCESS.
- ALL DRIVEWAYS AND PARKING LOT ASLES SHALL BE ACCESSIBLE AT ALL TIMES FOR EMERGENCY VEHICLES AND REGULAR SNOW REMOVAL.
- BUILDING ADDRESS (A MINIMUM OF 6' HIGH CHARACTERS OF CONTRASTING COLOR AND CLEARLY VISIBLE FROM THE STREET) ARE LOCATED ON THE SOUTH CORNER OF THE EAST SIDE OF THE BUILDING.

IMPACT STATEMENT NOTES

- THIS USE IS COMPATIBLE WITH SURROUNDING INDUSTRIAL USES AND NO NEW IMPACTS TO THE AREA ARE PROPOSED.
- THE WAREHOUSE/OFFICE/CONTRACTOR'S YARD USE EMPLOYS A TOTAL OF 17 STAFF. THE MACHINE SHOP/OFFICE USE EMPLOYS 6 STAFF. NO ADDITIONAL EMPLOYEES ARE EXPECTED. THE IMPACT ON EXISTING PUBLIC FACILITIES AND SERVICES WILL NOT CHANGE.
- AN ON-SITE WELL PROVIDES WATER TO THE BUILDING AND MHOG PUBLIC SANITARY SEWER SERVICES TO THE BUILDING. NO CHANGE TO THESE SERVICES ARE PLANNED.
- NO HAZARDOUS MATERIALS ARE STORED ON SITE. MOVING TRUCKS AND ENCLOSED TRAILERS ARE STORED OUTDOORS. MOVING EQUIPMENT (DOLLIES, ETC), BOXES AND PACKING SUPPLIES SOLD TO CUSTOMERS ARE STORED ON SITE. OCCASIONALLY CUSTOMER HOUSEHOLD GOODS (APPLIANCES, ETC) ARE STORED FOR SHORT PERIODS OF TIME WHEN CUSTOMERS ARE UNABLE TO MOVE INTO THEIR NEW HOMES RIGHT AWAY. HOWEVER, NO UNPOLISHED FURNITURE AND MATTRESSES WILL BE STORED ON SITE AS PER BRIGHTON AREA FIRE AUTHORITY REVIEW COMMENTS AND VERIFIED UPON INSPECTION.
- NO OUTDOOR STORAGE WILL BE LOCATED WITHIN THE REQUIRED 25-FOOT SIDE YARD SETBACKS NOR ANY OTHER REQUIRED YARD SETBACK.
- TWO DRIVEWAY ENTRANCES OFF VICTORY DRIVE PROVIDE ACCESS TO STAFF AND VISITOR PARKING (29 TOTAL SPACES) AND COMMERCIAL VEHICLE PARKING ON THE WEST SIDE OF THE BUILDING (7 MOVING TRUCK SPACES). TRUCKS ARE DISPATCHED AROUND 8:00 A.M. AND RETURN ANYTIME BETWEEN MID-DAY AND 6:00 P.M. THE SUITE B USE OPERATES FROM 8:00 A.M. TO 5:00 P.M. AND EMPLOYS 6 STAFF DURING MAX SHIFT HOURS. SUITE A TWO MEN AND A TRUCK EMPLOYS 17 STAFF DURING MAX SHIFT HOURS. NO INCREASE IN THIS TRAFFIC VOLUME IS PLANNED.

NOTE: THE BUILDING IS SERVICED BY PUBLIC SEWER FROM VICTORY DRIVE

GENOA TOWNSHIP LANDSCAPE REQUIREMENTS PER ARTICLE 12:

- GREENBELT:** 20 FT WIDE GREENBELT ALONG PUBLIC STREET ROW INCLUDING (1) CANOPY TREE FOR EVERY FORTY LINEAR FEET OF FRONTAGE, OR SUBSTITUTE EVERGREEN TREES FOR 50% OF REQUIRED TREES.
 - REQUIRED: 7 CANOPY TREES (275 LF / 40 LF)
 - PROVIDED: A 12 FT WIDE PUBLIC UTILITY EASEMENT AND A 66 FT WIDE PRIVATE GAS PIPELINE EASEMENT AREA LOCATED ALONG THE ROAD FRONTAGE AND TREES CANNOT BE PLANTED IN THIS AREA.
- BUFFER:** BUFFER ZONE B REQUIRED PER ORDINANCE 02.02 (b): (20 FT WIDE, 6 FT HIGH CONTINUOUS WALL OR 3 FOOT HIGH BERRY) ALONG WEST PROPERTY LINE (MULTIPLE FAMILY RESIDENTIAL) WITH 1 CANOPY TREE, 1 EVERGREEN TREE AND 4 SHRUBS PER EACH 30 LF.
 - REQUIRED: 275 LF / 30 = 9.27 CANOPY TREES, 9.27 EVERGREEN TREES AND 37 SHRUBS
 - PROVIDED: AN EXISTING WOODLAND BUFFER AT LEAST 60 FT DEEP SCREENS ALONG THE WEST AND NORTH PROPERTY LINES. THIS WOODLAND CONSISTS OF DENSE UNDERSTORY THAT IS PRIMARILY COMPOSED OF GRAY DOGWOOD, RED OSIER DOGWOOD SHRUBS, AND INVASIVE BUCKTHORN TREES. SEVERAL DECIDUOUS CANOPY TREES STAND WITHIN THIS BUFFER THAT INCLUDE BLACK CHERRY, BOXELDER, AMERICAN ELM, AND VARIOUS OAK SPECIES, EACH RANGING IN SIZE FROM 6-13" DIAMETER AT BREST HEIGHT. THE TREES ARE SPACED APPROXIMATELY 20' APART.
- PARKING LOT:**
 - MINIMUM TREES IN PARKING AREA -- 1 CANOPY TREE AND 100 SF OF LANDSCAPED AREA PER 10 SPACES
 - REQUIRED: 30 SPACES / 10 = 3 CANOPY TREES AND 300 SF LANDSCAPE AREA
 - PROVIDED: EXISTING WOODLAND ADJACENT TO NORTH PARKING AREA; 6 CANOPY TREES AND OVER 300 SF OF LANDSCAPE AREA ADJACENT TO SOUTH PARKING AREA

BEBOSS Engineering
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3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
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TWO MEN AND A TRUCK

PROJECT: MR. ALAN OVERSMITH
PREPARED FOR: 125 DINO DRIVE
ANN ARBOR, MI 48103
810.586.9590

TITLE: **SITE PLAN**

REVISION	PER	DATE
06/07/22	JA	DATE
03/30/2022	JA	DATE

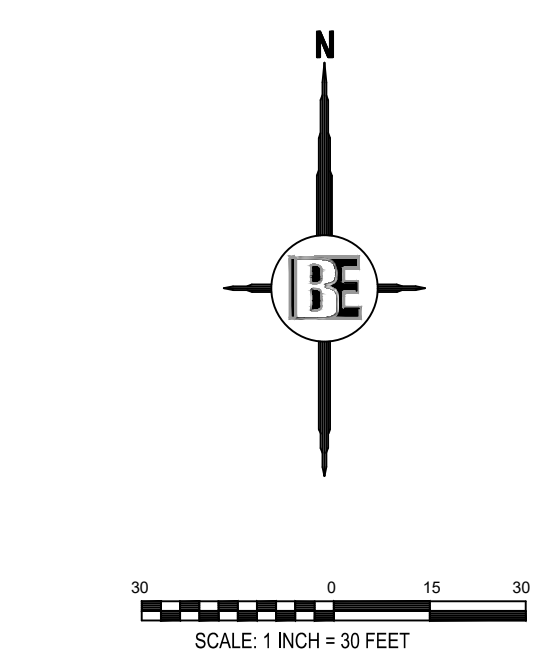
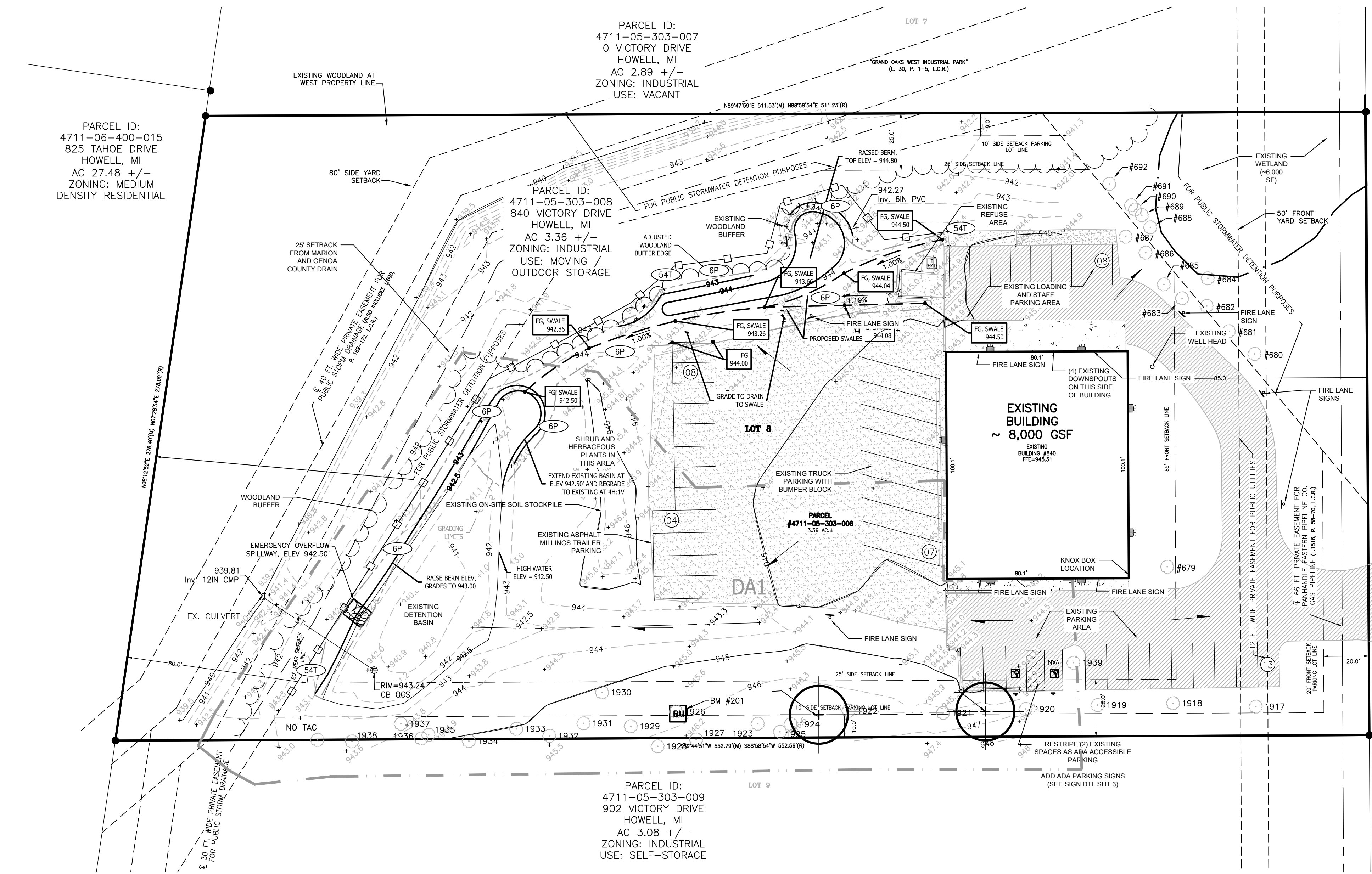
DESIGNED BY: JA
DRAWN BY: JA
CHECKED BY: BL
SCALE: 1" = 30'
JOB NO: 22-055
DATE: 03/30/2022
SHEET NO. **3**

PARCEL ID:
4711-06-400-015
825 TAHOE DRIVE
HOWELL, MI
AC 27.48 +/-
ZONING: MEDIUM
DENSITY RESIDENTIAL

PARCEL ID:
4711-05-303-007
0 VICTORY DRIVE
HOWELL, MI
AC 2.89 +/-
ZONING: INDUSTRIAL
USE: VACANT

PARCEL ID:
4711-05-303-008
840 VICTORY DRIVE
HOWELL, MI
AC 3.36 +/-
ZONING: INDUSTRIAL
USE: MOVING
OUTDOOR STORAGE

PARCEL ID:
4711-05-303-025
855 VICTORY DRIVE
HOWELL, MI
AC 5.85 +/-
ZONING: INDUSTRIAL
USE:



SITE BENCHMARKS (NAVD88 DATUM):
-BM #201 = NAIL/TAG W/S 12" MAPLE, 55' ±
S'LY & 120' ± W'LY OF SOUTHWEST CORNER
BUILDING #640
ELEV. = 947.05'

PROPOSED CONST. SCHEDULE FOR THE YEAR 2022

ACTIVITY	AUG	SEPT	OCT
CLEAR, GRUB			
MASS GRADING			
UNDERGROUND UTILITY			
FINAL GRADING			
CURB & GUTTER			
PAVING			
SEED & MULCH			

CONTROLS & MEASURES POST CONSTRUCTION SEQUENCE

ACTIVITY	WEEKLY	MONTHLY	AS REQUIRED
MAINTAIN LANDSCAPING, REPLACE MULCH	X	X	X
CLEAN INLETS		X	X
COLLECT LITTER	X		X
SWEEP PARKING LOT			X

CONTROLS & MEASURES NARRATIVE

ACTIVITY	DESCRIPTION
MAINTAIN LANDSCAPING, REPLACE MULCH	COLLECT GRASS, TREE, AND SHRUB CLIPPINGS, DISPOSE IN APPROVED CONTAINER. REPLACE DEAD SOG, TREES AND SHRUBS.
CLEAN INLETS	REMOVE LITTER, SEDIMENT, AND DEBRIS. DISPOSE OF IN APPROVED LANDFILL.
COLLECT LITTER	
SWEEP PARKING LOT	REMOVE MUD, DIRT, GREASE AND OIL WITH PERIODIC SWEEPING.
DUST CONTROL	SPRINKLE WATER AS NEEDED.

CONSTRUCTION SEQUENCE

THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT EROSION IS MINIMIZED AND THAT COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, REGULATIONS, AND ORDINANCES IS MAINTAINED THROUGHOUT EXECUTION OF THIS PROJECT.

- 1 DAYS 1. INSTALL SILT FENCE AS SHOWN ON PLANS.
- 10 DAYS 2. ROUGH GRADE AND INSTALL BIOTRETENTION BASIN.
- 3 DAYS 3. INSTALL UTILITY SERVICES.
- 60 DAYS 4. BEGIN BUILDING CONSTRUCTION.
- 7 DAYS 5. GRADE AND EXCAVATE FOR RAMP, PARKING AND DRIVEWAY.
- 14 DAYS 6. INSTALL PAVEMENT AND CURBING.
- 7 DAYS 7. FINE GRADE, SPREAD TOPSOIL, SEED OR SOO AS APPLICABLE, INSTALL PLANTS.
- 3 DAYS 8. REMOVE ALL EROSION CONTROL STRUCTURES AND ACCUMULATED SILT FROM STRUCTURES.

LEGEND

PROPOSED (PR)	EXISTING (EX)	DESCRIPTION
900	900.08	CONTOUR
T/C		FINISHED FLOOR ELEVATION
FF	FF	FINISHED GRADE ELEVATION
T/A	T/A	TOP OF ASPHALT
T/C	T/C	TOP OF CURB / CONCRETE
T/W	T/W	TOP OF WALK
F/L	F/L	FLOW LINE
T/P	T/P	TOP OF PIPE
B/P	B/P	BOTTOM OF PIPE
RIM	RIM	RIM ELEVATION
INV	INV	INVERT ELEVATION
MH	MH	MANHOLE STRUCTURE
IN	IN	INLET STRUCTURE
CB	CB	CATCHBASIN STRUCTURE
RY	RY	REARWARD STRUCTURE
ES	ES	END-SECTION
OV	OV	GATEVALVE STRUCTURE
HY	HY	HYDRANT
UP	UP	UTILITY POLE
SS	SS	SANITARY SEWER
SL	SL	SANITARY LEAD
FM	FM	FORCE MAIN
PS	PS	PRESSURE SEWER
ST	ST	STORM SEWER
WM	WM	WATER MAIN
WL	WL	WATER LEAD
FO	FO	FIBER OPTIC
OH	OH	OVERHEAD WIRE
C	C	CABLE
E	E	ELECTRIC
T	T	TELEPHONE
F	F	FENCE
S	S	SILT FENCE
W	W	WETLAND BOUNDARY
L	L	LIMITS OF GRADING/CLEARING
D	D	DRAINAGE AREA BOUNDARY
M	M	MANHOLE
I	I	INLET / CATCHBASIN
G	G	GATE VALVE
H	H	HYDRANT
U	U	UTILITY POLE
N	N	NOT FIELD VERIFIED TO BE REMOVED
S	S	SANITARY SEWER LABEL
SS	SS	STORM SEWER LABEL
WM	WM	WATER MAIN LABEL
SO	SO	SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY)
C	C	CONCRETE
A	A	ASPHALT
M	M	MODIFIED CURB
D	D	DIRECTION OF DRAINAGE
W	W	WOODLAND BUFFER

SOIL EROSION CONTROL MEASURES

P=PERMANENT T=TEMPORARY
TOTAL AREA OF DISTURBANCE = 0.15 AC (6,439 SF)

6	SEEDING WITH MULCH AND/OR MATING	FACILITATES ESTABLISHMENT OF VEGETATIVE COVER EFFECTIVE FOR DRAMATICALLY LOW VELOCITY SLOPES. SHALL BE PERFORMED BY EXPERIENCED PERSONNEL. SHOULD INCLUDE PREPARED TOPSOIL BED.
54	SILT FENCE	USES GEOTEXTILE FABRIC AND POSTS OR POLES. EASY TO CONSTRUCT AND LOCATE AS NECESSARY. (SEE DETAIL SHEET)

DISTANCE FROM PROJECT SITE TO THE NEAREST...

-COUNTY DRAIN (MARIAN GENOA COUNTY DRAIN) CUTS THROUGH THE NORTHWEST CORNER SIDE OF THE SITE, -BASIN IS APPROXIMATELY 565 FEET TO NORTHEAST (AT WALMART/LOWES),
-LAKE CHEMUNG IS APPROXIMATELY 1.00 MILE TO THE NORTHEAST
-WETLAND IS LOCATED WITH THE PROJECT SITE AT THE NORTHEAST CORNER, AND
- RIVER (SOUTH BRANCH OF SHIAWASSEE RIVER) IS APPROXIMATELY 3.00 MILES TO THE WEST.

EXISTING DETENTION BASIN DRAINAGE AREA (DA1):
47,918 SF

7,432 SF ASPHALT MILLINGS
2,621 SF ASPHALT AND CONCRETE
37,865 SF VEGETATION

LIVINGSTON COUNTY DETENTION BASIN CALCULATIONS

AREA (ACRES)	IMPERVIOUS FACTOR	ACRE IMPERVIOUS
0.06	0.9	0.05
0.17	0.7	0.12
0.87	0.2	0.17

COMPOUND C: 0.32
TOTAL DRAINAGE AREA: 1.10 ACRES

K1 = Ax C (Design Constant) 0.352
Qa = MAX ALLOW OUTFLOW (0.10 CFS / ACRE) 0.110 CFS

REQUIRED 100 YEAR DETENTION VOLUME = 4015 CF

BANKFULL FLOOD VOLUME
V_{BF} = 5160 x A x C = 1816 CF

FIRST FLUSH VOLUME
V_{FF} = 1815 x A x C = 639 CF

BASEIN STORAGE PROVIDED

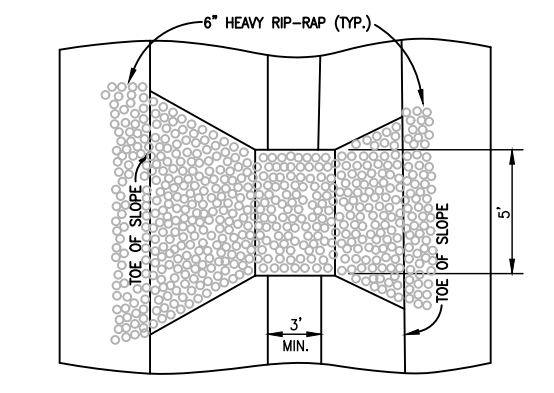
ELEV.	AREA (FT ²)	DEPTH (FT)	VOLUME (FT ³)	TOTAL VOLUME (FT ³)	DESIGN HIGHWATER ELEVATION
943	6660	0.5	2,960	7,634	FREEBOARD ELEVATION
942.5	5179.33	0.5	2,174	4,674	DESIGN HIGHWATER ELEVATION
942	3517	1	2,377	2,500	
941	1236	0.2	124	124	
940.8	0	0	0	0	

SEE SHEET 7 FOR DETAILS AND SESC NOTES

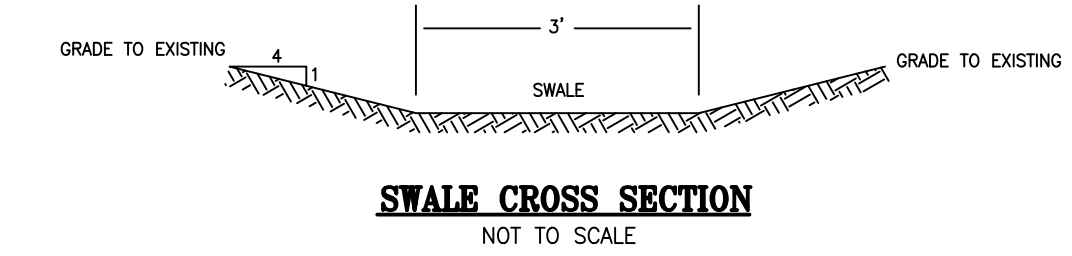
STORMWATER NARRATIVE:
ON-SITE DRAINAGE -- FLOW FROM THE NORTH SIDE OF THE SITE AND THE WEST PARKING AREA WILL BE DIRECTED THROUGH SWALES TO THE ENLARGED EXISTING DETENTION BASIN IN THE SOUTHWEST PORTION OF THE SITE, AND TO THE MARION GENOA COUNTY DRAIN AT THE WEST END OF THE SITE. AN EXISTING CONTROL STRUCTURE AND PIPE WILL HANDLE DISCHARGE FROM THE BASIN OUTLET TO THE MARION AND GENOA COUNTY DRAIN WHICH THEN FLOWS TO THE SOUTH AND A BASIN WEST OF CHILSON ROAD AND JUST NORTH OF I-96 (ACCORDING TO THE LIVINGSTON COUNTY DRAIN COMMISSIONER MARION GENOA DRAIN MAP). EXISTING DRAINAGE AT THE FRONT (EAST) SIDE OF THE BUILDING FLOWS TO THE EXISTING WETLAND TO THE NORTH AND TO THE DRAINAGE ALONG VICTORY DRIVE.

SOIL NOTES:
THE PROJECT SITE IS COMPRISED OF THE FOLLOWING SOIL TYPE ACCORDING TO THE USDA NATURAL RESOURCES CONSERVATION SERVICE:
CC -- CARLISLE MUCK, 0 TO 2 % SLOPES
Gd -- GILFORD SANDY LOAM, 0 TO 2 % SLOPES
MoB -- WAWASEE LOAM, 2 TO 6 % SLOPES

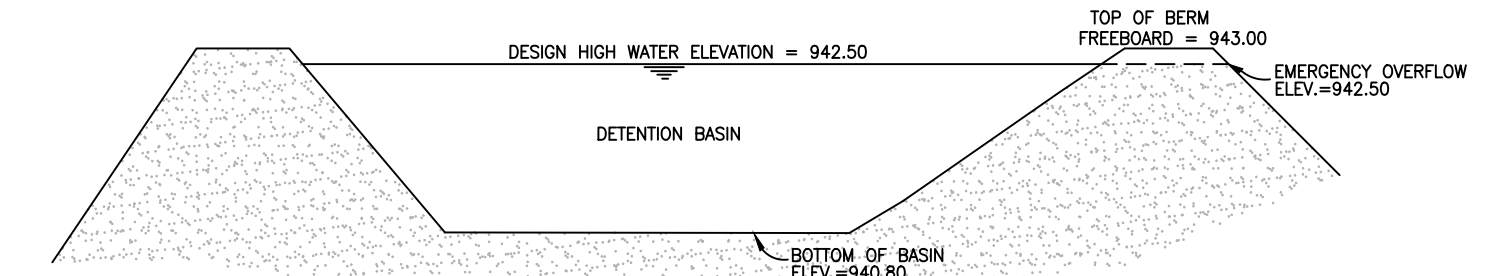
DETENTION BASIN OVERFLOW SPILLWAY:
Q=2.42 CFS (BASED ON 100 YEAR STORM)
DEPTH OF FLOW: .5'
WIDTH OF SPILLWAY: 5'
CAPACITY=3.33*(W-0.02*(D))*D^{3/2}
CAPACITY: 5.87 CFS



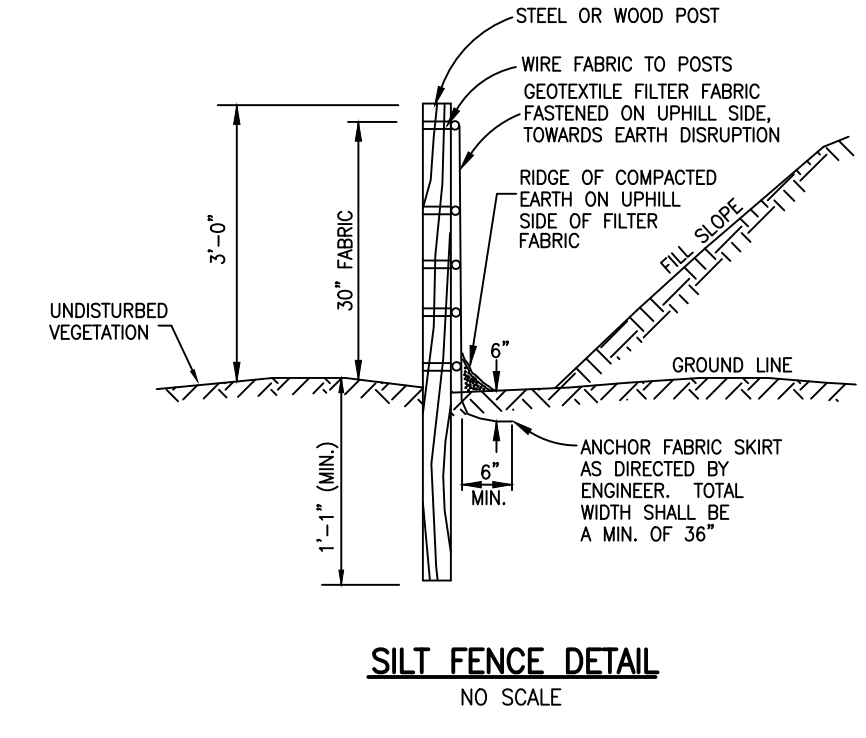
EMERGENCY SPILLWAY PATH CROSS-SECTION
NO SCALE



SWALE CROSS SECTION
NOT TO SCALE



DETENTION BASIN CROSS SECTION
NOT TO SCALE



SILT FENCE DETAIL
NO SCALE

SILT FENCE SHALL BE A MINIMUM 36"

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517.546.4836 FAX 517.548.1670

PROJECT: TWO MEN AND A TRUCK
PREPARED FOR: MR. ALAN OVERSMITH
125 DINDO DRIVE
ANN ARBOR, MI 48103
810.586.9590

TITLE: GRADING AND DRAINAGE PLAN

DATE	REVISION PER	BY
06/07/22	1	JA
	2	BL
	3	JA
	4	JA

DESIGNED BY: JA
DRAWN BY: JA
CHECKED BY: BL
SCALE: 1" = 30'
JOB NO: 22-055
DATE: 03/30/2022
SHEET NO. 4

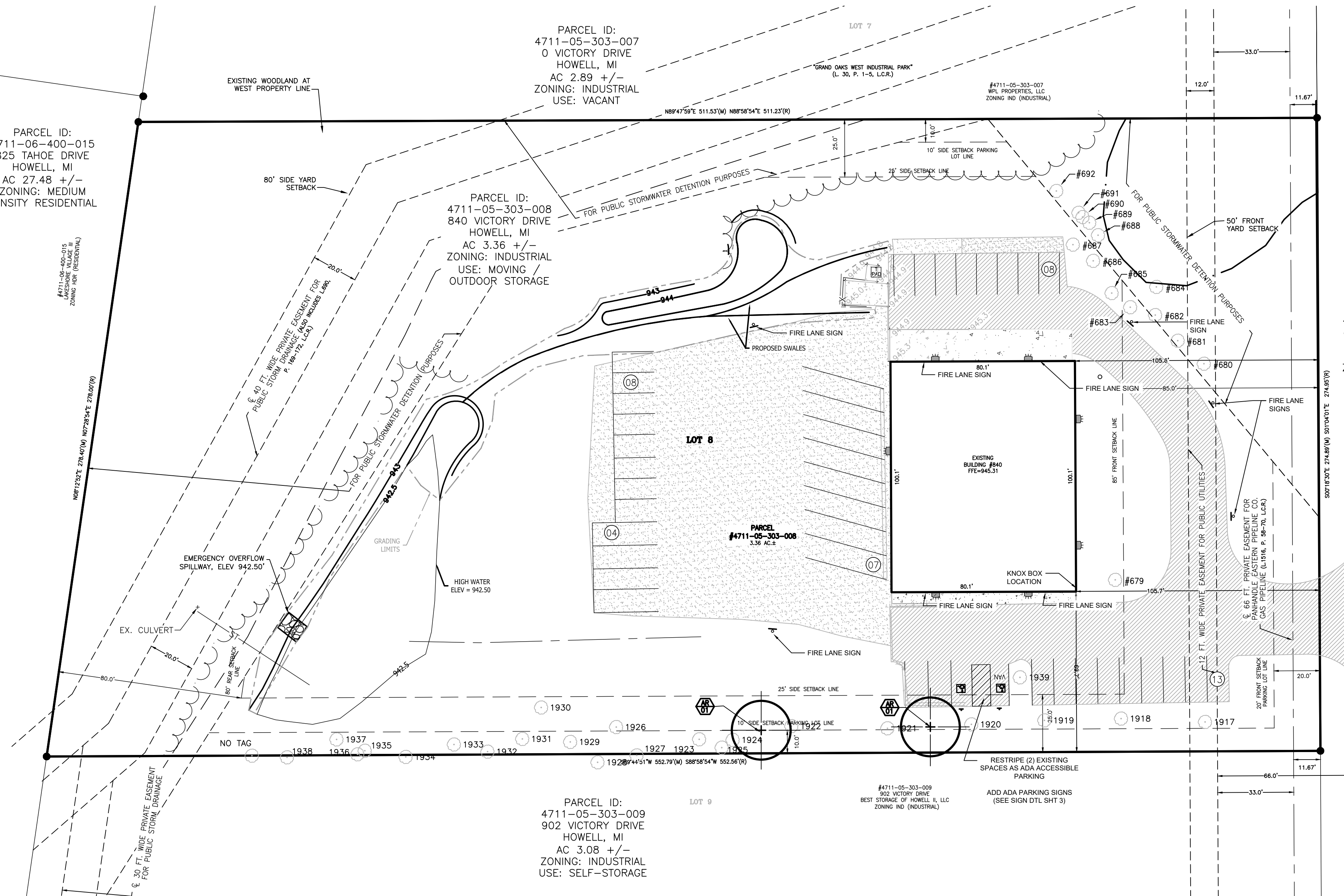
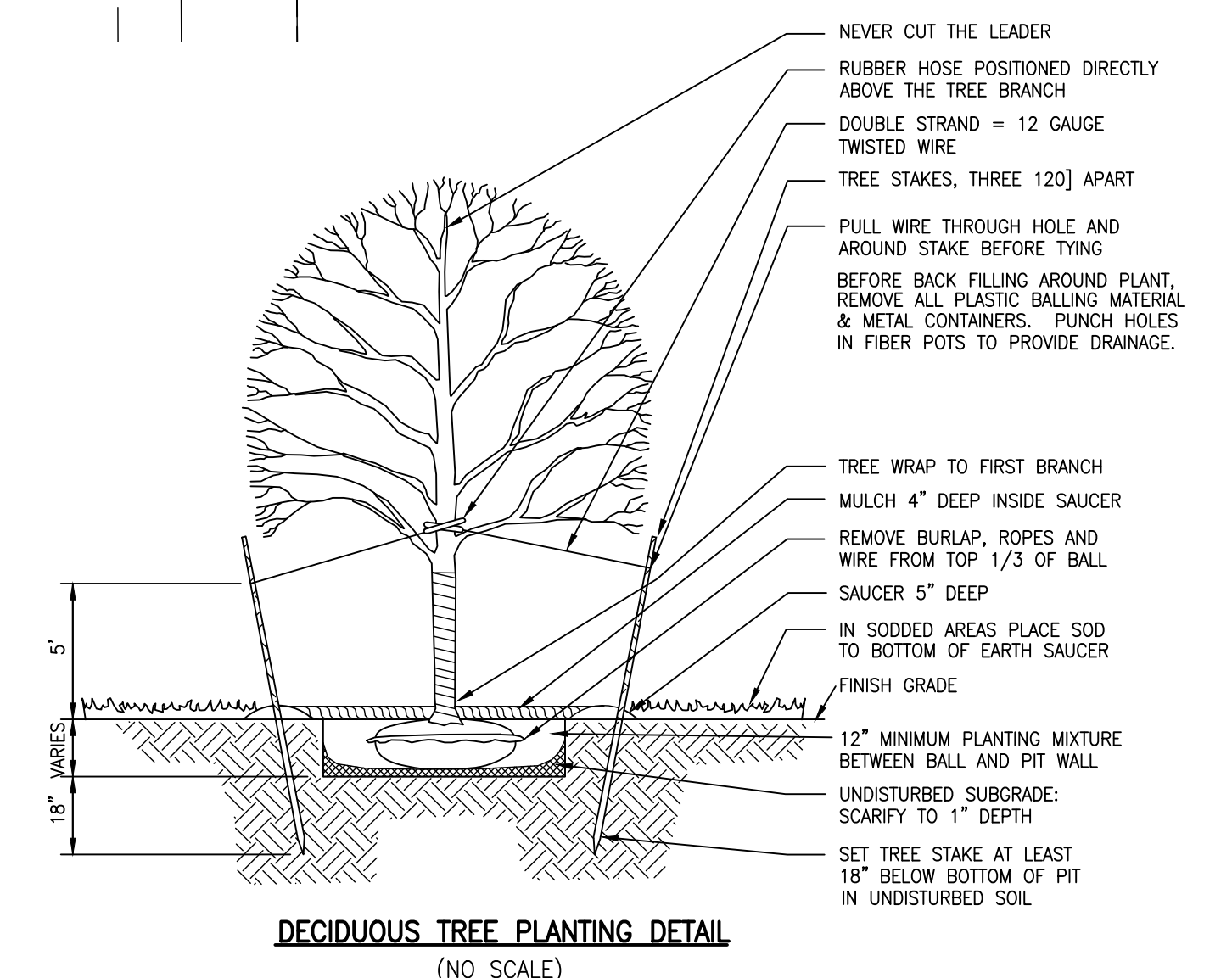
GENERAL LANDSCAPE SPECIFICATIONS:

- ALL PLANT MATERIAL SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE GOVERNING MUNICIPALITY. ALL STOCK SHALL BE NURSERY GROWN, CONFORMING TO ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK", AND IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE. STOCK SHALL EXHIBIT NORMAL GROWTH HABIT AND BE FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN-SCALD, INJURIES, ABRASIONS, OR DISFIGUREMENT. ALL PLANT MATERIAL SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- ALL PLANT MATERIALS SHALL BE BALLED AND BURLAPPED OR CONTAINER STOCK. NO BARE ROOT STOCK IS PERMITTED. ALL PLANT BALLS SHALL BE FIRM, INTACT, AND SECURELY WRAPPED AND BOUND.
- ALL PLANT BED MATERIALS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS, OTHER EXTRANEUS OBJECTS, AND POOR SOILS TO A MINIMUM DEPTH OF 12-INCHES AND BACKFILLED TO GRADE WITH SPECIFIED PLANTING MIX (SEE BELOW).
- PLANTING MIXTURE SHALL CONSIST OF 5 PARTS TOPSOIL FROM ON-SITE (AS APPROVED), 4 PARTS COARSE SAND, 1 PART SPHAGNUM PEAT MOSS (OR APPROVED COMPOST), AND 5 LBS OF SUPERPHOSPHATE FERTILIZER PER CU. YD. OF MIX. INGREDIENTS SHALL BE THOROUGHLY BLENDED FOR UNIFORM CONSISTENCY.
- ALL PLANT BEDS AND INDIVIDUAL PLANTS, NOT OTHERWISE NOTED SHALL BE MULCHED WITH A 4-INCH LAYER OF SHREDDED BARK MULCH. EDGE OF MULCH BEDS AS SHOWN. DECIDUOUS TREES IN LAWN AREAS SHALL RECEIVE A 5-FT DIAMETER CIRCLE OF MULCH AND CONIFER TREES 8-FT (PLANTED CROWN OF TREE) UNLESS OTHERWISE NOTED.
- LANDSCAPE STONE SHALL BE INSTALLED WHERE NOTED OR INDICATED (HATCHED). STONE SHALL BE 3/4"-1-1/4" WASHED RIVER GRAVEL OR AS SELECTED AND SHALL BE INSTALLED TO A MINIMUM DEPTH OF 3-INCHES.
- ALL LANDSCAPE BEDS, UNLESS OTHERWISE NOTED SHALL BE INSTALLED OVER WEED BARRIER FABRIC - WATER PERMEABLE FILTRATION FABRIC OF NON-WOVEN POLYPROPYLENE OR POLYESTER FABRIC. FABRIC SHALL BE OF SUITABLE THICKNESS FOR APPLICATION.
- ALL PLANTS AND PLANT BEDS SHALL BE THOROUGHLY WATERED UPON COMPLETION OF PLANTING AND STAKING OPERATIONS.
- THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR A PERIOD OF 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 SPECIFICATIONS.
- EDGING SHALL BE PROVIDED FOR ALL LANDSCAPE BEDS NOT ADJACENT TO CONCRETE PAVEMENT. EDGING SHALL BE BLACK ALUMINUM EDGING, 3/16-INCH X 4-INCH. INSTALL PER MANUFACTURER'S INSTRUCTIONS, ALL EDGING SHALL BE INSTALLED IN STRAIGHT LINES OR SMOOTH CURVES WITHOUT IRREGULARITIES.
- SOD SHALL BE DENSE, WELL ROOTED TURF, FREE OF WEEDS. IT SHALL BE COMPRISED OF A BLEND OF AT LEAST TWO KENTUCKY BLUE GRASSES AND ONE FESCUE. IT SHALL HAVE A UNIFORM THICKNESS OF 3/4-INCH AT TIME OF PLANTING, AND CUT IN UNIFORM STRIPS NOT LESS THAN 10-INCHES BY 18-INCHES. SOD SHALL BE KEPT MOIST AND LAID WITHIN 36-HOURS AFTER CUTTING.
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ALL SODDED AREAS THAT BROWN-OUT OR HAVE NOT FIRMLY KNITTED TO THE SOIL BASE WITHIN A PERIOD OF 1 MONTH SHALL BE REPLACED BY THE CONTRACTOR, AT NO COST TO THE OWNER.
- ALL AREAS OF THE SITE THAT BECOME DISTURBED DURING CONSTRUCTION AND ARE NOT TO BE PAVED, STONED, LANDSCAPED, OR SODDED SHALL BE SEEDED AND MULCHED.
SEE MIXTURE SHALL BE AS FOLLOWS:
KENTUCKY BLUEGRASS (CHOOSE 3 VARIETIES - ADELPHI, RUGBY, GLADE, OR PARADE) 30%
RUBY RED OR DAWSON RED FINE FESCUE 30%
ATLANTA RED FESCUE 20%
PENNFINE PERENNIAL RYE 20%
THE ABOVE SEED MIXTURE SHALL BE SOWN AT A RATE OF 250 LBS PER ACRE. PRIOR TO SEEDING, THE TOPSOIL SHALL BE FERTILIZED WITH A COMMERCIAL FERTILIZER WITH A 10-0-10 ANALYSIS:
10% NITROGEN - MIN 25% FROM A UREA FORMALDEHYDE SOURCE
0% PHOSPHATE
10% POTASH - SOURCE POTASSIUM SULFATE OR POTASSIUM NITRATE
THE FIRST FERTILIZER APPLICATION SHALL BE AT A RATE OF 10 LBS PER 1000 SQ FT OF BULK FERTILIZER.
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 RE-SEEDED AND SUCH RE-SEEDED 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 OR SODDING SHALL FIRST RECEIVE A 6-INCH LAYER OF CLEAN, FRABLE TOPSOIL. THE SOIL SHALL BE DISCED AND SHALL BE GRADED IN CONFORMANCE WITH THE GRADING PLAN.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES AND TO INFORM THE LANDSCAPE ARCHITECT OF ANY CONFLICTS PRIOR TO COMMENCING LANDSCAPING.

GENOA TOWNSHIP LANDSCAPE REQUIREMENTS PER ARTICLE 12:

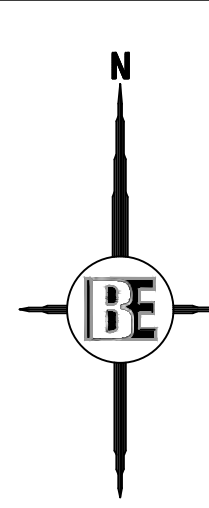
- GREENBELT:** 20 FT WIDE GREENBELT ALONG PUBLIC STREET ROW INCLUDING (1) CANOPY TREE FOR EVERY FORTY LINEAR FEET OF FRONTAGE. OR SUBSTITUTE EVERGREEN TREES FOR 50% OF REQUIRED TREES.
REQUIRED: 7 CANOPY TREES (275 LF /40 LF)
PROVIDED: 7 CANOPY TREES
- BUFFER:** BUFFER ZONE B REQUIRED PER ORDINANCE 8.02.02 (b): (20 FT WIDE, 6 FT HIGH CONTINUOUS WALL OR 3 FOOT HIGH BERM) ALONG WEST PROPERTY LINE (MULTIPLE FAMILY RESIDENTIAL) WITH 1 CANOPY TREE, 1 EVERGREEN TREE AND 4 SHRUBS PER EACH 30 LF.
REQUIRED: 278 LF / 30 = 9.27 CANOPY TREES, 9.27 EVERGREEN TREES AND 37 SHRUBS
PROVIDED: AN EXISTING WOODLAND BUFFER AT LEAST 60 FT DEEP SCREENS ALONG THE WEST AND NORTH PROPERTY LINES. THIS WOODLAND CONSISTS OF DENSE UNDERSTORY THAT IS PRIMARILY COMPOSED OF GRAY DOGWOOD, RED OSIER DOGWOOD SHRUBS, AND INVASIVE BUCKTHORN TREES. SEVERAL DECIDUOUS CANOPY TREES STAND WITHIN THIS BUFFER THAT INCLUDE BLACK CHERRY, BOXELDER, AMERICAN ELM, AND VARIOUS OAK SPECIES, EACH RANGING IN SIZE FROM 6-13" DIAMETER AT BREAST HEIGHT. THE TREES ARE SPACED APPROXIMATELY 20' APART.
- PARKING LOT:**
MINIMUM TREES IN PARKING AREA - 1 CANOPY TREE AND 100 SF OF LANDSCAPED AREA PER 10 SPACES
REQUIRED: 30 SPACES / 10 = 3 CANOPY TREES AND 300 SF LANDSCAPE AREA
PROVIDED: EXISTING WOODLANDS ADJACENT TO NORTH PARKING AREA; 6 CANOPY TREES AND OVER 300 SF OF LANDSCAPE AREA ADJACENT TO SOUTH PARKING AREA
- (2) ADDITIONAL DECIDUOUS TREES ADDED TO SOUTH PROPERTY LINE AS SUGGESTED BY SAFE-BUILT REVIEW DATED 4/12/22

PLANT LIST				
KEY QUAN.	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
DECIDUOUS TREES				
AR 2	Acer rubrum 'Armstrong'	Armstrong Maple	2.5" cal.	B-B



LEGEND

PROPOSED (PR)	EXISTING (EX)	CONTOUR
000 T/C	+900.08	SPOT ELEVATION
FF	FF	FINISHED FLOOR ELEVATION
T/A	T/A	FINISHED GRADE ELEVATION
T/C	T/C	TOP OF ASPHALT
T/W	T/W	TOP OF CURB / CONCRETE
F/L	F/L	TOP OF WALK
T/P	T/P	FLOW LINE
B/P	B/P	TOP OF PIPE
RM	RM	BOTTOM OF PIPE
INV	INV	RIM ELEVATION
MH	MH	INVERT ELEVATION
IN	IN	MANHOLE STRUCTURE
CB	CB	INLET STRUCTURE
RY	RY	CATCHBASIN STRUCTURE
ES	ES	REARYARD STRUCTURE
OV	OV	END-SECTION
HY	HY	GATEVALVE STRUCTURE
UP	UP	HYDRANT
SL	SL	UTILITY POLE
FM	FM	SANITARY SEWER
PS	PS	SANITARY LEAD
ST	ST	FORCE MAIN
WM	WM	PRESSURE SEWER
WL	WL	STORM SEWER
FO	FO	WATER MAIN
OH	OH	WATER LEAD
C	C	FIBER OPTIC
X	X	OVERHEAD WIRE
OV	OV	CABLE
HY	HY	ELECTRIC
UP	UP	GAS
SL	SL	TELEPHONE
FM	FM	FENCE
PS	PS	SILT FENCE
ST	ST	WETLAND BOUNDARY
WM	WM	LIMITS OF GRADING/CLEARING
WL	WL	DRAINAGE AREA BOUNDARY
FO	FO	MANHOLE
OH	OH	INLET / CATCHBASIN
C	C	FLARED END-SECTION
X	X	GATE VALVE
OV	OV	HYDRANT
HY	HY	UTILITY POLE
UP	UP	SIGN
SL	SL	NOT FIELD VERIFIED TO BE REMOVED
FM	FM	SANITARY SEWER LABEL
PS	PS	STORM SEWER LABEL
ST	ST	WATER MAIN LABEL
WM	WM	SOIL EROSION CONTROL MEASURE
WL	WL	(P=PERMANENT, T=TEMPORARY)
FO	FO	CONCRETE
OH	OH	ASPHALT
C	C	MODIFIED CURB



PARCEL ID:
4711-05-303-025
855 VICTORY DRIVE
HOWELL, MI
AC 5.85 +/-
ZONING: INDUSTRIAL
USE:

BEBOSS Engineering
Engineers Surveyors Planners Landscape Architects
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TWO MEN AND A TRUCK

PROJECT: PREPARED FOR: MR. ALAN OVERSMITH
125 CHINO DRIVE
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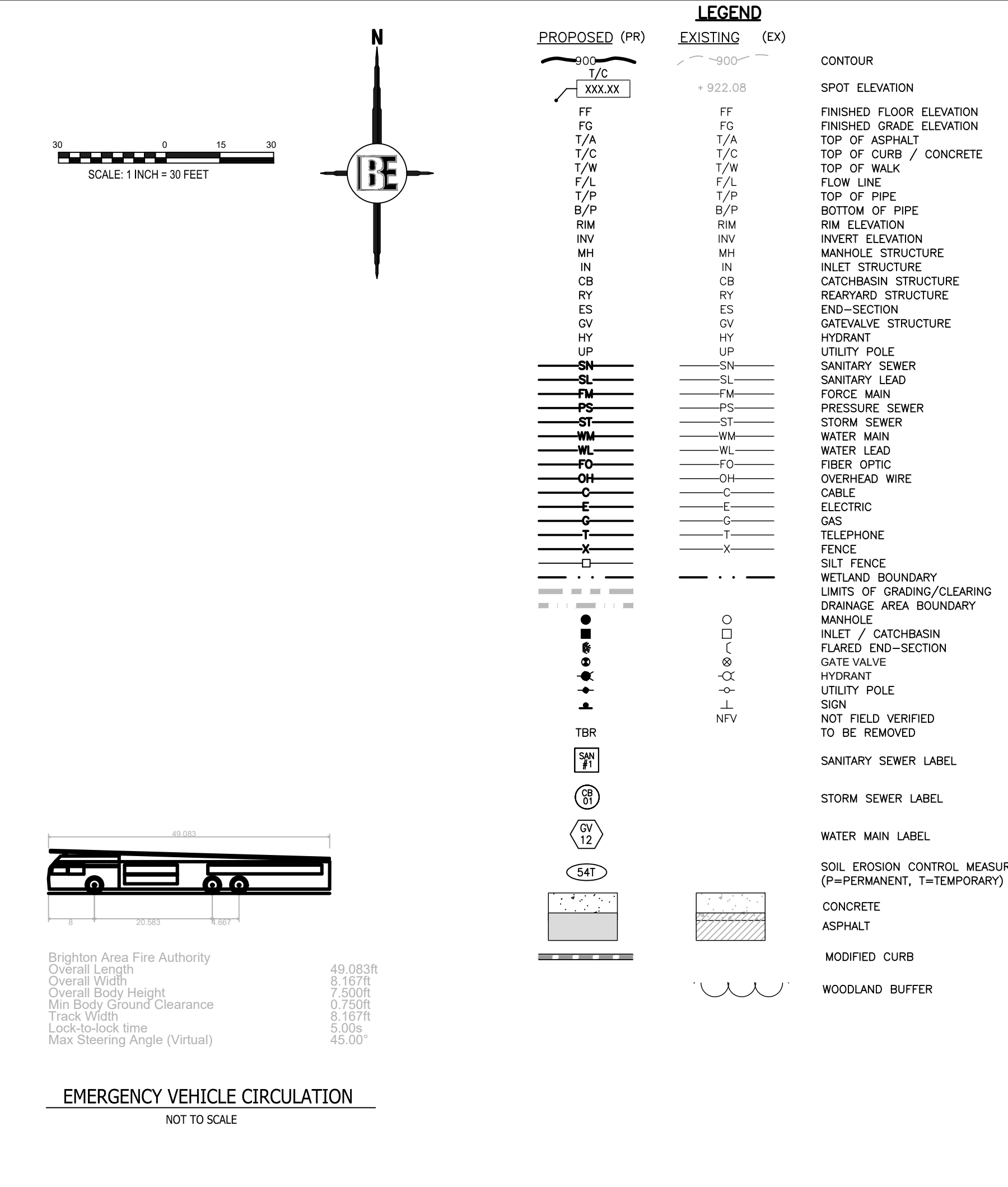
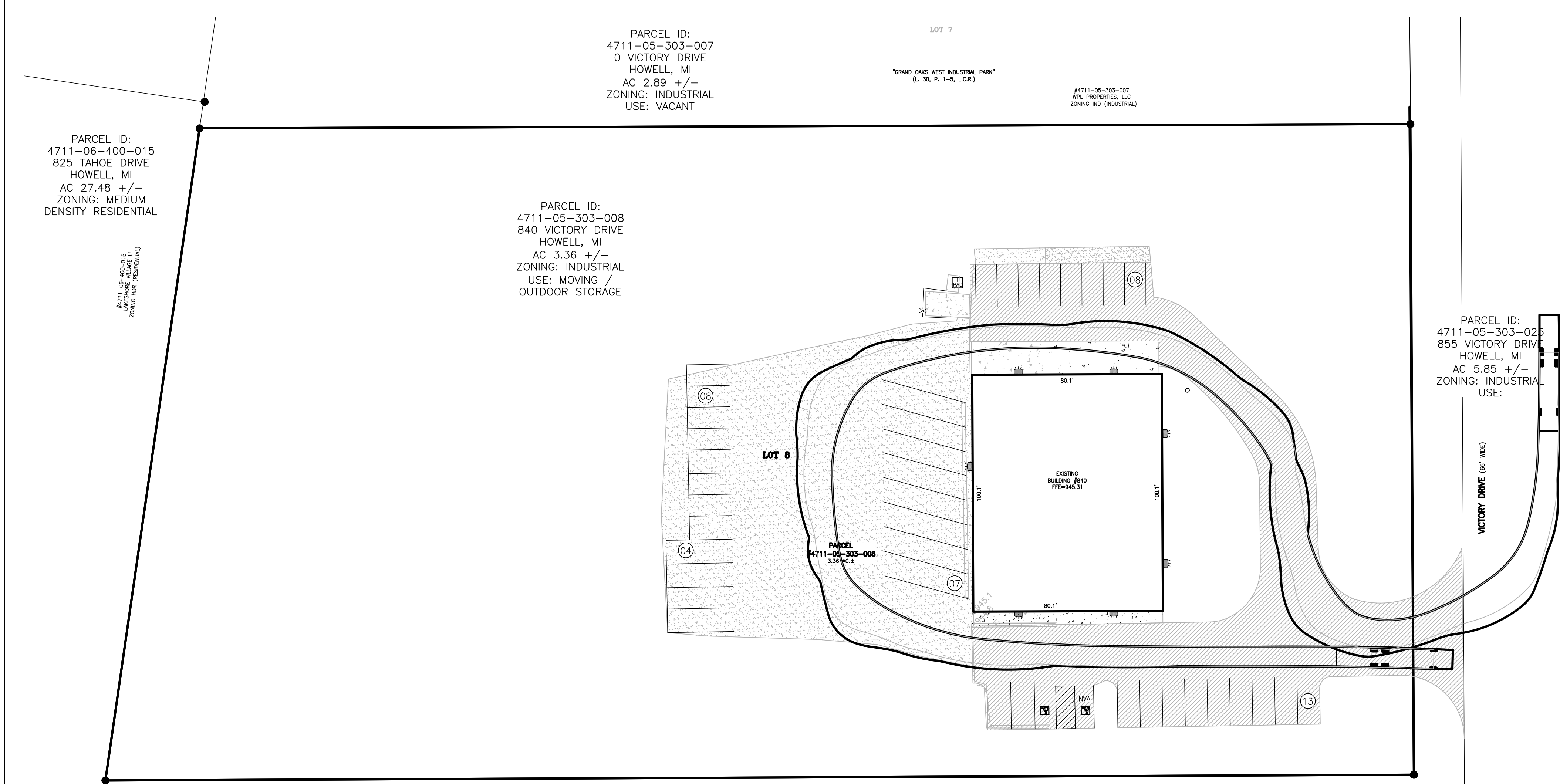
TITLE: LANDSCAPE PLAN

REVISION	PER	DATE
1	JA	06/07/22
2	BL	03/30/2022

DESIGNED BY: JA
DRAWN BY: JA
CHECKED BY: BL
SCALE: 1" = 30'
JOB NO: 22-055
DATE: 03/30/2022
SHEET NO. 5

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

BEBOSS ENGINEERING
1-800-488-1711
www.beboss.com



EMERGENCY VEHICLE CIRCULATION
NOT TO SCALE

*LIGHTING PLAN IS BASED ON EXISTING BUILDING FIXTURES.
NO NEW LIGHTING IS PROPOSED.

SITE LIGHTING REQUIREMENTS FOR GENOA TOWNSHIP
LIGHT LEVELS NO MORE THAN 0.5 FC AT A RESIDENTIAL LOT LINE AND 1.0 AT NON-RESIDENTIAL LOT LINE. MAXIMUM LIGHT LEVEL ON THE SITE IS 4.6 FC
LIGHTS TO BE DOWNWARD DIRECTED AND SHIELDED.

GENERAL LIGHTING NOTES
1. THE LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS.

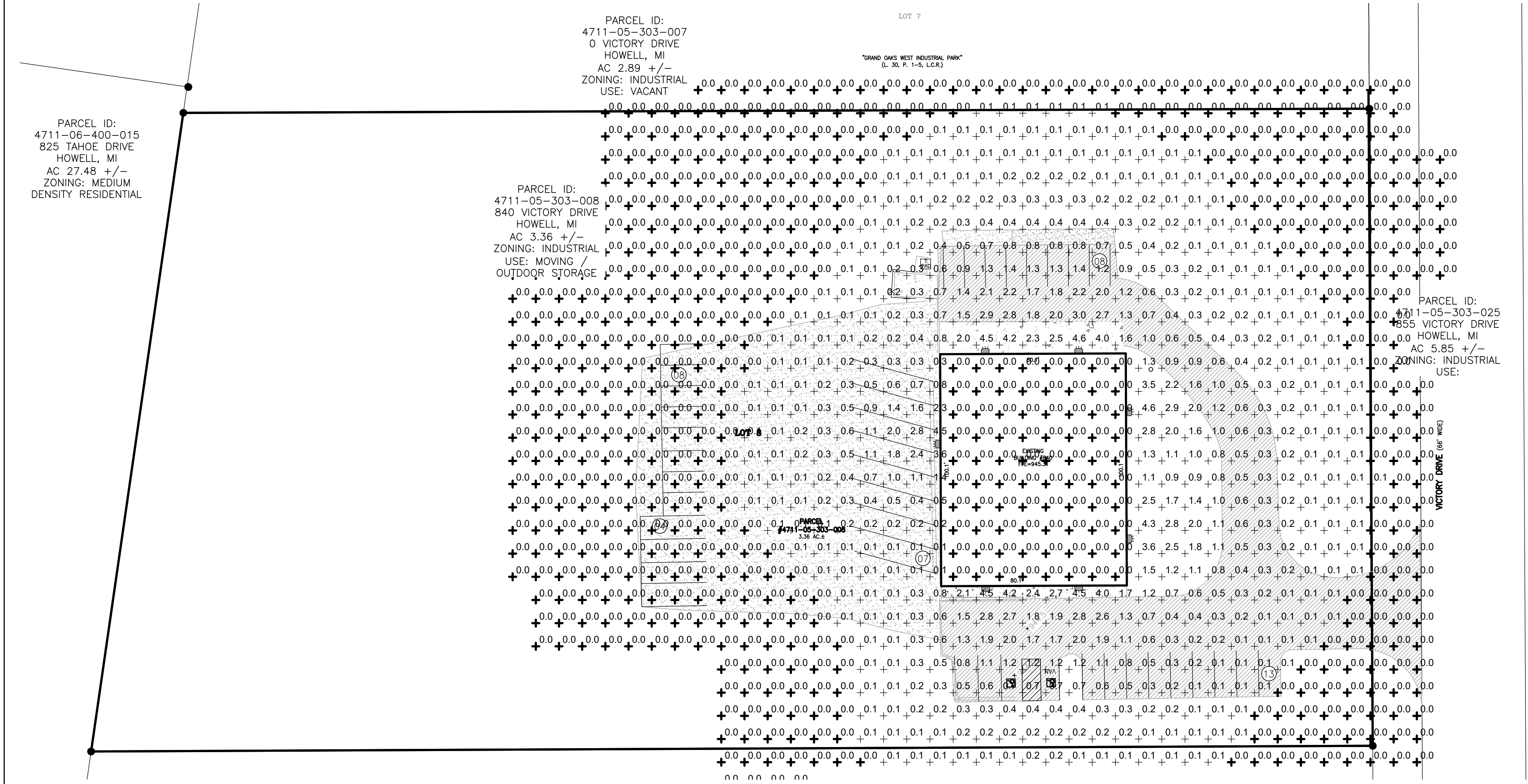
SITE LIGHTING SUMMARY
AVERAGE LIGHTING LEVEL: 0.2 FC
MAXIMUM LIGHT LEVEL: 4.6 FC
MINIMUM LIGHT LEVEL: 0.0 FC

SYMBOL	LABEL	QTY.	DESCRIPTION	CATALOG NUMBER	LAMP	LUMENS	LLF	POLE HGT
	A	07	EXISTING LIGHTING: LITHONIA LIGHTING TWR1 LED ADJUSTABLE LUMEN OUTPUT DIE-CAST WALL PACK, DOWNWARD FACING	TWR1 LED ALO WALL PACK OR EQUIVALENT	LED	ABSOLUTE	.93	20' WALL MOUNTED

ALL LIES FILES PROVIDED BY MANUFACTURER FOR CALCULATION OF LIGHTING LEVEL.



EXISTING FIXTURES



LEGEND

PROPOSED (PR)	EXISTING (EX)	DESCRIPTION
000	-900	CONTOUR
T/C	+922.08	SPOT ELEVATION
FF	FF	FINISHED FLOOR ELEVATION
FS	FS	FINISHED GRADE ELEVATION
T/A	T/A	TOP OF ASPHALT
T/C	T/C	TOP OF CURB / CONCRETE
T/W	T/W	TOP OF WALK
F/L	F/L	FLOW LINE
T/P	T/P	TOP OF PIPE
B/P	B/P	BOTTOM OF PIPE
RM	RM	RIM ELEVATION
INV	INV	INVERT ELEVATION
MH	MH	MANHOLE STRUCTURE
IN	IN	INLET STRUCTURE
CB	CB	CATCHBASIN STRUCTURE
RY	RY	REARYARD STRUCTURE
ES	ES	END-SECTION
GV	GV	GATEVALVE STRUCTURE
HY	HY	HYDRANT
UP	UP	UTILITY POLE
SN	SN	SANITARY SEWER
SL	SL	SANITARY LEAD
FM	FM	FORCE MAIN
PS	PS	PRESSURE SEWER
ST	ST	STORM SEWER
WM	WM	WATER MAIN
WL	WL	WATER LEAD
FO	FO	FIBER OPTIC
OH	OH	OVERHEAD WIRE
C	C	CABLE
E	E	ELECTRIC
G	G	GAS
T	T	TELEPHONE
X	X	FENCE
D	D	SILT FENCE
W	W	WETLAND BOUNDARY
L	L	LIMITS OF GRADING/CLEARING
DA	DA	DRAINAGE AREA BOUNDARY
MH	MH	MANHOLE
IB	IB	INLET / CATCHBASIN
FL	FL	FLARED END-SECTION
GV	GV	GATE VALVE
HY	HY	HYDRANT
UP	UP	UTILITY POLE
NFV	NFV	NOT FIELD VERIFIED TO BE REMOVED
SN	SN	SANITARY SEWER LABEL
ST	ST	STORM SEWER LABEL
WM	WM	WATER MAIN LABEL
SC	SC	SOIL EROSION CONTROL MEASURE
C	C	CONCRETE
A	A	ASPHALT
M	M	MODIFIED CURB
W	W	WOODLAND BUFFER

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TWO MEN AND A TRUCK
PROJECT: TWO MEN AND A TRUCK
PREPARED FOR: MR. ALAN OVERSMITH
125 DINDO DRIVE
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810.586.9390

LIGHTING PLAN AND CIRCULATION PLAN

REVISION	DATE	BY	REVISION PER
1	06/07/22	JA	DESIGNED BY
2	06/07/22	JA	DRAWN BY
3	06/07/22	BL	CHECKED BY
4	06/07/22	BL	SCALE: 1" = 30'
5	06/07/22	BL	JOB NO: 22-055
6	06/07/22	BL	DATE: 03/30/2022
7	06/07/22	BL	SHEET NO.

DESIGNED BY: JA
DRAWN BY: JA
CHECKED BY: BL
SCALE: 1" = 30'
JOB NO: 22-055
DATE: 03/30/2022
SHEET NO. 6

**LIVINGSTON COUNTY SOIL EROSION PERMIT TEMPLATE
TEMPORARY CONTROLS AND SEQUENCE**

- NOTIFY LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE 24 HOURS PRIOR TO START OF GRADE WORK.
- IN ACCORDANCE WITH PUBLIC ACT NO. 53, OF 1974 THE PERMIT HOLDER SHALL CALL MISS DIG FOR STAKING AND LOCATING OF UTILITIES, AT LEAST 72 HOURS IN ADVANCE OF THE START OF ANY WORK.

PERMITTING STANDARDS

- (IMPORTANT NOTICE) RETENTION/DETENTION PONDS SHALL BE EXCAVATED, TOPSOILED, SEEDED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. INGRESS/EGRESS MUST HAVE LARGE CRUSHED ROCK TO REDUCE THE TRACKING OF SOIL ONTO THE PUBLIC TRAFFIC AREAS. SEE DETAIL ITEMS BELOW.
- 36" M.D.O.T SPECIFICATION TYPE SILT FABRIC FENCE AS SHOWN ON PLANS SHALL BE PLACED AND MAINTAINED ALONG PERIMETER ON ALL LOW LYING AREAS OF THE CONSTRUCTION SITE TO FILTER RUNOFF BEFORE LEAVING PROJECT SITE.

- ALL TEMPORARY EROSION CONTROL DEVICES AS NOTED ON PLANS SHALL BE INSTALLED PRIOR TO THE START OF MASSIVE EARTH DISTRIBUTION.

- PLAN DOES DENOTE A DETAILED EROSION CONTROL DEVICE TO RESTRICT TRACKING OF MATERIAL ONTO THE HIGHWAY. STONE DIAPERS SHALL BE INSTALLED AT ALL INGRESS/EGRESS AREAS OF THE SITE PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. DIAPERS SHALL BE OF CRUSHED STONE AND SHALL HAVE A MINIMUM LENGTH OF 100' LINEAL FEET.

RETENTION PONDS

- RETENTION/DETENTION/SEDIMENTATION PONDS SHALL BE EXCAVATED, TOPSOILED, SEEDED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION.

- DETENTION POND OUTLETS SHALL BE OF THE STANDPIPE AND STONE FILTER SYSTEM, WITH TRASH SCREEN. OUTLET FLOW SHALL NOT EXCEED 0.20 CUBIC FEET OF WATER PER SECOND/PER ACRE. POND DIKES SHALL HAVE A MINIMUM OF ONE (1) FOOT OF FREEBOARD. AN EMERGENCY SPILLWAY SHALL BE CONSTRUCTED WITHIN THE FREEBOARD LEVEL.

- THE EMERGENCY SPILLWAY FROM THE DETENTION POND SHALL BE SODDED AND PEGGED, OR RIP RAPPED, 15 FEET PAST THE TOE OF THE SLOPE OF THE BERM.

- DIKES AND BERMS SHALL BE FREE OF ALL ORGANIC MATTER.

- RETENTION/DETENTION PONDS SHALL BE FENCED WITH A 4' CHAIN LINK FENCE, INCLUDING A 12' ACCESS GATE FOR MAINTENANCE UNLESS MINIMUM 5 FT. HORIZONTAL TO 1 FT. VERTICAL SIDE SLOPES ARE PROVIDED. THE FENCE SHALL BE INSTALLED AT THE OUTER PORTION OF THE BERM, TO ALLOW FOR MAINTENANCE WORK TO BE DONE INSIDE THE FENCE.

- ALL UNIMPROVED DISTURBED AREAS SHALL BE STRIPPED OF TOPSOIL WHICH WILL BE STORED ONSITE DURING THE EXCAVATING STAGE. TOPSOIL PILES SHALL BE SEEDED AND MULCHED, OR MATTED WITH STRAW IN THE NON-GROWING SEASON, IMMEDIATELY AFTER THE STRIPPING PROCESS IS COMPLETED, TO PREVENT WIND AND WATER EROSION.

- SOIL EROSION CONTROLS SHALL BE MONITORED DAILY BY THE ON-SITE ENGINEER, OR CONTRACTOR, WHICHEVER CASE APPLIES.

SLOPES AND DITCHES

- ON SITE DITCHES SHALL BE OF THE FLAT BOTTOM TYPE MINIMUM WIDTH OF 2' WITH A MINIMUM OF 3 HORIZONTAL TO 1 VERTICAL SIDE SLOPES, 3:1.

- DITCHES WITH STEEP SLOPES WILL NEED FLOW CHECKS TO PREVENT SCOURING OF THE DITCH BOTTOM. THESE SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER OR INSPECTOR.

- SLOPES IN EXCESS OF 3 HORIZONTAL TO 1 VERTICAL SHALL NOT BE USED EXCEPT WITH A MECHANICAL DEVICE SUCH AS A RETAINING WALL, TERRACING, OR OTHER PRIOR APPROVED DEVICE.

STORM DRAINS

- ALL STORM WATER STRUCTURES, CATCH BASINS AND/OR MANHOLES, IF BLOCK, SHALL BE PLASTERED ON BOTH THE INSIDE AND OUTSIDE OF THE STRUCTURES. GROUTING AND POINTING WILL BE NECESSARY AT THE CASTING AND STRUCTURE JOINT TO PREVENT LEAKAGE AND THE RESULTING SOIL MOVEMENT, AROUND THE STRUCTURE.

- STORM WATER INLETS SHALL HAVE AS A TEMPORARY CONTROL A STRAW BALE BARRIER AND STONE FILTER INSTALLED AROUND THE INLET DURING CONSTRUCTION. AS AN ALTERNATIVE TO THE STRAW BALE BARRIER, A BURLAP AND PEA STONE FILTER MAY BE USED. THREE LAYERS OF BURLAP FIBER AND A FILTER OF PEA STONE MINIMUM 1 FT. IN DEPTH CAN BE USED. DUE TO THE POROSITY OF THE BURLAP FILTER THE MINIMUM OF 1 FT. OF STONE IS VERY IMPORTANT. THE CONTROL SHALL BE INSTALLED AS SOON AS THE STRUCTURE IS BUILT AND INSPECTED DAILY.

- BURLAP AND PEA STONE FILTERS WILL NEED TO BE CHANGED AFTER EACH RAINFALL.

- COUNTY CODE REQUIRES A MINIMUM PIPE SIZE OF 12" IN DIAMETER. IF SMALLER PIPE IS NEEDED FOR OUTLET PURPOSES THE 12" CAN BE BAFFLED TO THE CORRECT SIZE. ALL PIPE SHALL MEET THE 12" DIAMETER CODE SIZE.

- ALL STORM DRAIN OUTLETS 15" IN DIAMETER OR LARGER SHALL HAVE ANIMAL GUARDS INSTALLED TO PREVENT ENTRANCE TO THE SYSTEM.

- ALL STORM DRAINAGE PIPE 30" IN DIAMETER OR LARGER SHALL BE POINTED, AT THE JOINTS ON THE INSIDE WITH MORTAR, AFTER BACKFILLING.

- ALL STORM DRAIN OUTLETS THAT DO NOT EMPTY INTO THE RETENTION/DETENTION POND SHALL HAVE A TEMPORARY 5'X10'X3' SUMP INSTALLED AT THE TERMINATION OF THE STORM SEWER. UPON COMPLETION OF THE STABILIZATION WORK THE SUMP AREA SHALL BE FILLED AND RIP RAPPED WITH COBBLE STONE. SILT TRAPS SHALL BE INSPECTED AFTER EACH STORM.

- STORM WATER OUTLETS DO DENOTE RIP RAP. ALL OUTLETS SHALL BE RIP RAPPED OVER KEYED FILTER FABRIC WITH A MINIMUM OF 15 SQ. YARDS OF 6" OR LARGER COBBLE STONE.

- RIP RAP AS NOTED ON THE PLAN SHALL BE OF A FUNNEL SHAPE CONSTRUCTION, WIDTH SHALL INCREASE AS DISTANCE FROM THE OUTLET POINT INCREASES AT A 3:1 RATIO.

- RIP RAP SHALL BE OF COBBLE STONE, 6" IN DIAMETER OR LARGER. GROUTING MAY BE NECESSARY, AND SHALL BE A MINIMUM OF 6" IN DEPTH WITH THE COBBLE SET IN THE CEMENT SLURRY.

- STORM WATER OUTLET IS IN NEED OF A SPLASH BLOCK WHICH IS NOT NOTED ON THE PLAN. INSTALL SPLASH BLOCK IF SLOPE OF THE PIPE IS 4% OR GREATER.

- IT WILL BE NECESSARY FOR THE DEVELOPER TO HAVE THE STORM DRAINAGE LINES CLEANED PRIOR TO FINAL INSPECTION BY THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE. IF REQUIRED, THIS WORK SHALL BE DONE BY A PROFESSIONAL SEWER CLEANING FIRM AND CERTIFIED IN WRITING BY THE PROJECT ENGINEER. ALL SUMPS AND TEMPORARY SILT TRAPS SHALL ALSO BE CLEANED AT THIS TIME.

STABILIZATION

- ALL UNIMPROVED DISTURBED AREAS SHALL BE RE-TOP SOILED, WITH A MINIMUM OF 3" OF MATERIAL, SEEDED, MULCHED AND TACKED WITHIN 15 DAYS OF THE COMPLETION OF THE MASSIVE EARTH DISRUPTION. IN THE NON-GROWING SEASON STRAW MATTING WILL SUFFICE. HYDROSEEDING WILL BE AN ACCEPTABLE ALTERNATE FOR MULCHING. EXTREME CARE SHOULD BE EXERCISED IN SPRING AND FALL PERIODS AS A FROST WILL BREAK THE BIND OF THE HYDROSEEDING, WHICH WILL AFFECT THE EFFECTIVENESS OF THIS PROCEDURE.

- IN THE NON-GROWING SEASON, TEMPORARY STABILIZATION OF MASSIVELY EXPOSED AREAS FOR WINTER STABILIZATION SHALL BE DONE WITH STRAW MATTING.

- PERMIT FEES DURING THE WINTER PERIOD OF NON-CONSTRUCTION, (DECEMBER 1 THROUGH MARCH 31), SHALL NOT BE IMPOSED IF THE PERMIT HOLDER TEMPORARILY STABILIZES THE EXPOSED AREAS WITH STRAW MATTING, AND OTHER APPROVED CONTROLS, AND OBTAINS A WINTER STABILIZATION CERTIFICATE FROM THIS OFFICE.

- PERIODIC INSPECTIONS WILL BE MADE THROUGHOUT THE COURSE OF THE PROJECT. IT WILL BE THE RESPONSIBILITY OF THE MANAGERS OF THE PROJECT TO CONTACT THIS OFFICE FOR THE FINAL INSPECTION AT THE END OF THE PROJECT.

- THIS COMMERCIAL PERMIT IS VALID FOR THE MASS EARTH MOVEMENT, THE INSTALLATION OF ROADS, DRAINS, AND UTILITIES AND IS NOT FOR ANY SINGLE FAMILY RESIDENCE. ALL RESIDENTIAL BUILDERS WILL NEED TO SECURE WAIVERS AND OR PERMITS AS NECESSARY FOR EACH LOT IN THIS DEVELOPMENT AT THE TIME APPLICATION FOR SINGLE FAMILY RESIDENCE IS MADE.

- THE ISSUING BUILDING DEPARTMENT SHALL NOT ISSUE THE CERTIFICATE OF OCCUPANCY UNTIL THE FINAL INSPECTION LETTER FROM THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE HAS BEEN OBTAINED.

- PER THE LIVINGSTON COUNTY DRAIN COMMISSIONER THE SEEDING, FERTILIZER AND MULCH MINIMUM QUANTITIES SHALL BE AS FOLLOWS:

- | | |
|-------------|--|
| TOP-SOIL | 3" IN DEPTH |
| GRASS SEED | 210 LBS. PER ACRE |
| FERTILIZER | 150 LBS. PER ACRE |
| STRAW MULCH | 3" IN DEPTH 1.5 TO 2 TONS PER ACRE (ALL MULCHING MUST HAVE A TIE DOWN, SUCH AS TACKIFIER, NET BINDING, ETC.) |

- HYDRO-SEEDING IS NOT ACCEPTABLE FOR SLOPES EXCEEDING 1%, IN SUCH CASES STABILIZATION SHALL BE DONE WITH SEED AND STRAW MULCH WITH A TACKIFIER.

SANITARY SEWERS

- SANITARY SEWER TAP TO THE MHOG SANITARY SEWER SYSTEM, SHALL ONLY BE MADE AFTER SECURING IN WRITING CLEARANCE FROM GENOA TOWNSHIP AND A SEWER TAP PERMIT FROM THE LIVINGSTON COUNTY DEPARTMENT OF BUILDING & SAFETY.

- A TAP PERMIT WILL BE NEEDED BY THE OWNER/DEVELOPER OF THIS PROJECT TO TAP TO THE LEGALLY ESTABLISHED COUNTY STORM DRAIN. THE OWNER/DEVELOPER SHALL MAKE A WRITTEN REQUEST TO THE DRAIN COMMISSIONER TO REQUEST THE TAP TO THE STORM SEWER. THE FEES FOR SUCH TAP ARE AS FOLLOWS:

- NON REFUNDABLE ADMINISTRATIVE FEE OF \$50.00, TO BE PAID AT THE TIME OF APPLICATION.

- INSPECTION FEES ARE BASED ON TIME AND MATERIAL BASIS FROM PORT TO PORT FOR THE ON-SITE INSPECTOR. INSPECTORS RATE, VEHICLE MILEAGE, AND 0.5 HOURS OF REPORT PREPARATION TIME WILL BE CHARGED, AS WELL AS ANY NECESSARY MATERIALS. TIME AND MATERIAL FEES ARE PAID AT THE COMPLETION OF THE TAP INSTALLATION.

MAINTENANCE SCHEDULE FOR SOIL EROSION CONTROLS

- SILT FENCE SHALL BE INSPECTED WEEKLY AND AFTER EACH MAJOR STORM EVENT. MAINTENANCE SHALL INCLUDE REMOVAL OF ACCUMULATED SILT AND REPLACEMENT OF TORN SECTIONS. SILT FENCE SHALL BE REMOVED WHEN ALL CONTRIBUTING AREAS HAVE BEEN STABILIZED.

- TRACKING PAD SHALL BE INSPECTED MONTHLY FOR ACCUMULATED DIRT. TRACKING PAD SHALL BE REPLACED WHEN THE STONES ARE CHOKED WITH DIRT. TRACKING PAD SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FIRST COURSE OF ASPHALT BEING LAID.

- DETENTION/RETENTION POND SHALL BE INSPECTED QUARTERLY ON A PERMANENT BASIS. MAINTENANCE SHALL INCLUDE SEDIMENT REMOVAL, EMBANKMENT STABILIZATION AND MAINTAINING THE OUTLET STRUCTURE IN GOOD CONDITION. NO TREES SHALL BE ALLOWED TO GROW ON THE EMBANKMENT.

- CATCH BASINS SHALL BE INSPECTED ANNUALLY FOR ACCUMULATION OF SEDIMENT. ALL SEDIMENT MUST BE REMOVED AND DISPOSED OF PROPERLY WHEN THE SUMP IS FULL.

- COMMON AREAS SHALL BE STABILIZED NO LATER THAN 15 DAYS AFTER GRADE WORK, PURSUANT TO RULE 1709 (5).

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO ASSURANCE IS MADE AS TO THE ACCURACY OF THESE UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF ALL UTILITIES CROSSING IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE PLANS DEPARTMENT OR IF THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLANS.

BEFORE ANY DIGGING OR EXCAVATION, CALL MISS DIG AT 1-800-487-7171. MISS DIG IS A SERVICE PROVIDED BY BEBOSS ENGINEERING.

BEBOSS
Engineering

Engineers Surveyors Planners Landscape Architects

3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843

517.546.4836 FAX 517.548.1670

PROJECT		TWO MEN AND A TRUCK	
PREPARED FOR		MR. ALAN OVERSMITH 125 DINO DRIVE ANN ARBOR, MI 48103 810.586.9390	
TITLE		SOIL EROSION & SEDIMENTATION CONTROL NOTES	
DATE	06/07/22	BY	JA
REVISION PER		REVISION PER	
NO	1	NO	1

DESIGNED BY: JA

DRAWN BY: JA

CHECKED BY:

SCALE: N/A

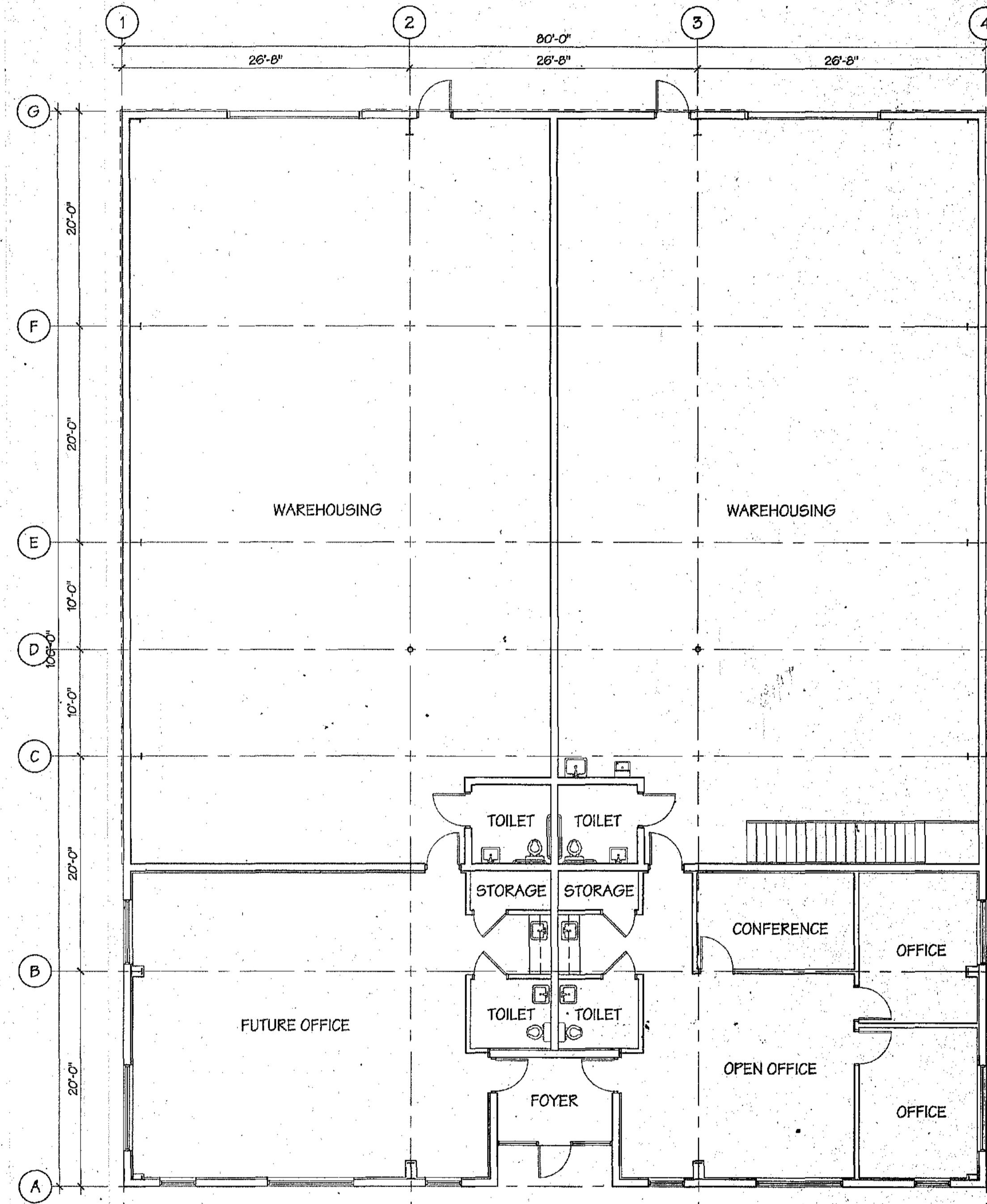
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DATE: 03/30/2022

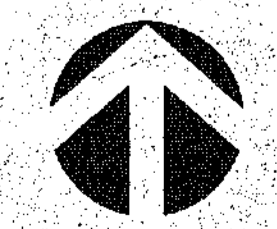
SHEET NO. 7

BEBOSS
Engineering

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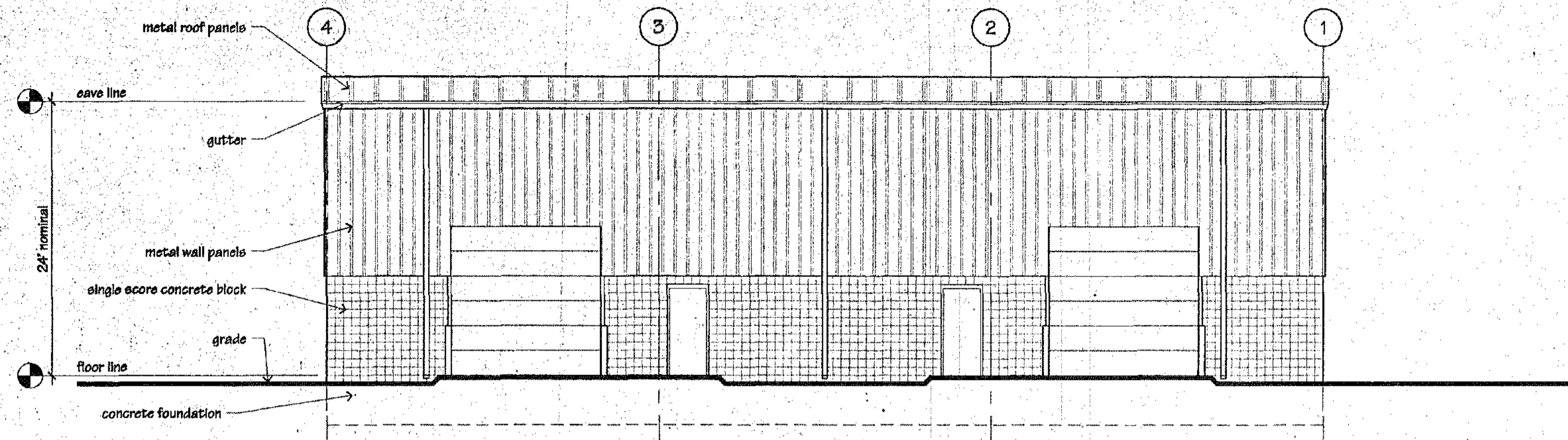


Michael McKevey

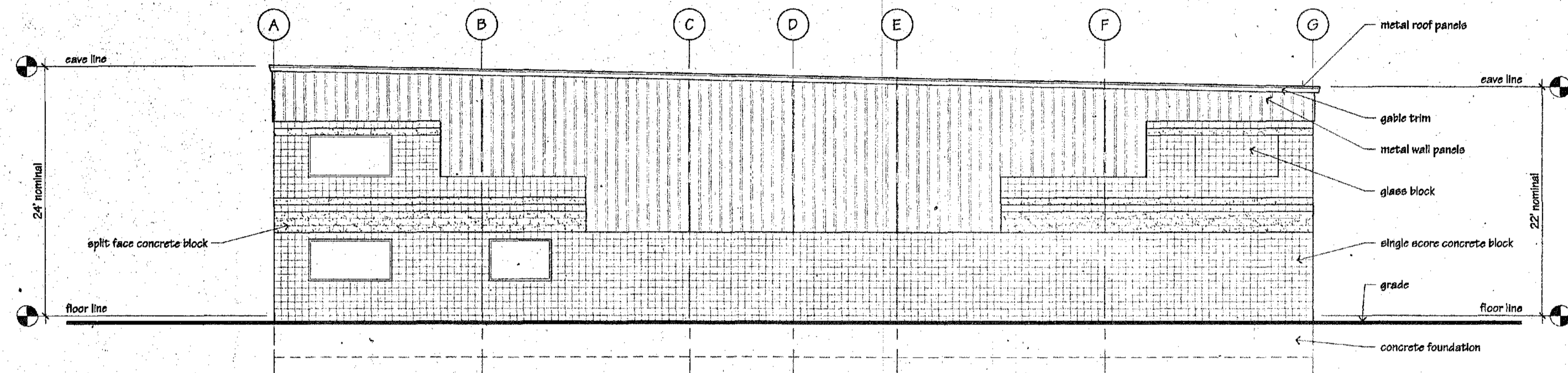


ISSUED 7-5-96 Site Plan Review	
REVISED	
BRIVAR Construction Co. 945 S. Milford Road Highland, MI 48357 810 888-1483 	
New Facility For AUTOMATED ENERGY CONTROLS Lot #8 Grand Oaks West Industrial Park - Genoa Twp., Mich.	FLOOR PLAN
 Michael McKevey Architect 1750 Huron River Drive Ypsilanti, Michigan 48197 (313) 485-0305	
June 24, 1996	
1/8" = 1'-0"	
258E	
A-1	

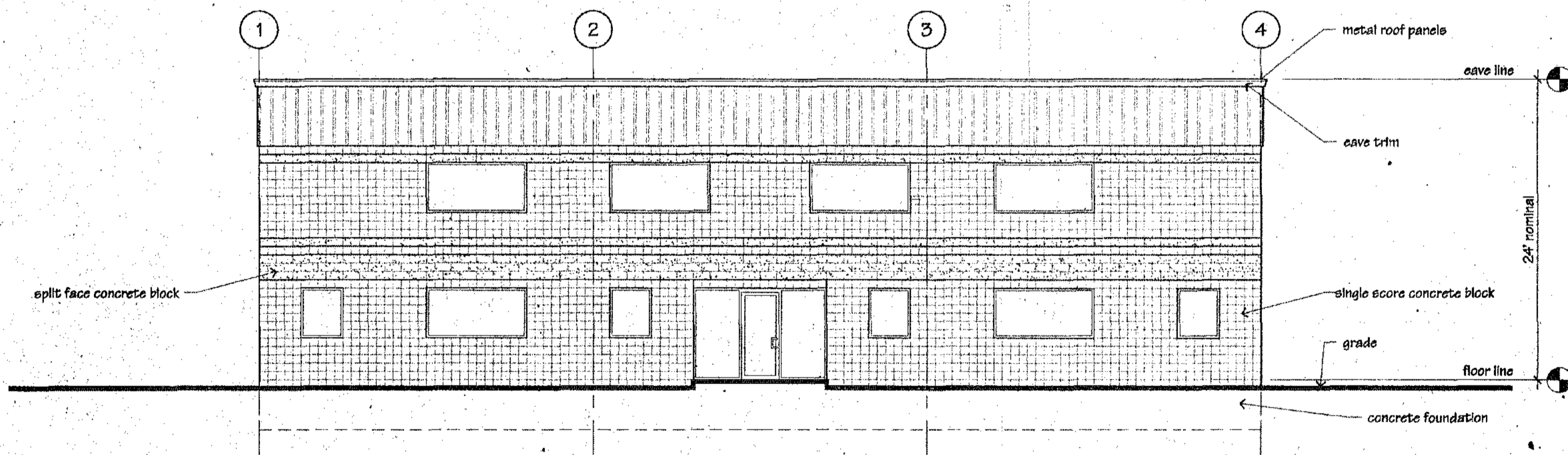
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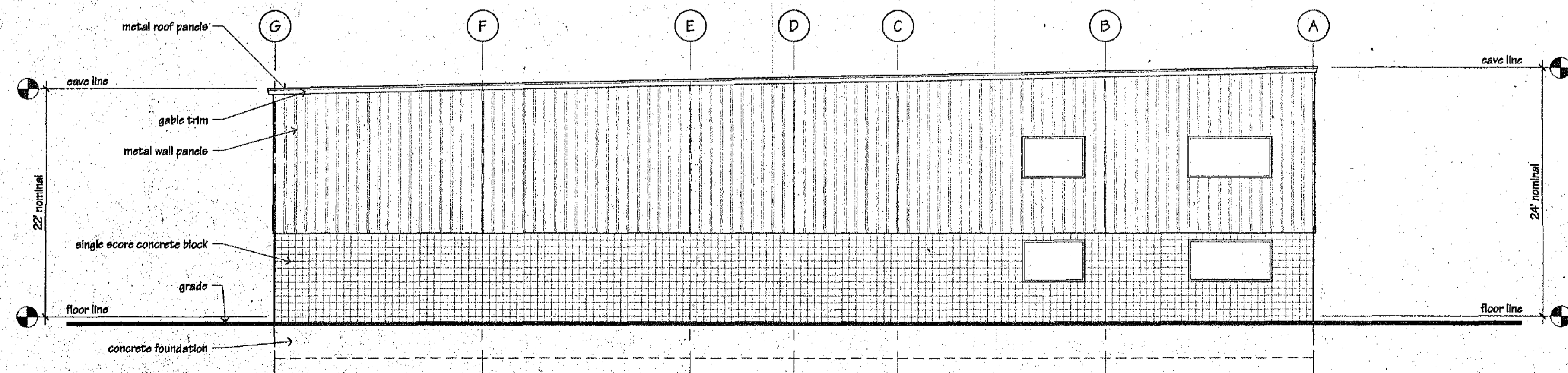
North Elevation



East Elevation



South Elevation



West Elevation

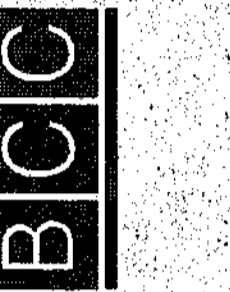
ISSUED

7-5-96 Site Plan Review

REVISED

9-3-96 Misc. Revisions

BRYAN Construction Co.
945 S. Milford Road
Plymouth, MI 48157
810 888-1463



New Facility For
AUTOMATED ENERGY CONTROLS
Lot #8 Grand Oaks West Industrial Park - Genoa Twp., Mich.

ELEVATIONS

Michael
McKelvey
Architect
7750 Huron River Drive Ypsilanti, Michigan 48197
(313) 486-0905

June 24, 1996

1/8" = 1'-0"

258E

A-2

Michael McKelvey



GENOA CHARTER TOWNSHIP
Application for Site Plan Review

TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

APPLICANT NAME & ADDRESS: Crane Construction Inc ^{893 S. Old US-23} Brighton, MI 48114
If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: KULAL LLC 20925 Currie Rd Northville, MI 48167

SITE ADDRESS: 3399 E Grand River PARCEL #(s): 11-05-300-0417 To Be
-0423 Combined

APPLICANT PHONE: (810) 229-9161 OWNER PHONE: (734) 330-4662

OWNER EMAIL: dburcon@wingits.com

LOCATION AND BRIEF DESCRIPTION OF SITE: Parking lot addition to
surround existing office/medical building

BRIEF STATEMENT OF PROPOSED USE: Additional Parking.

THE FOLLOWING BUILDINGS ARE PROPOSED: Additional parking
only

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY: Stephen F. Crane 


ADDRESS: 893 S. Old US 23 Brighton, MI 48114

Contact Information - Review Letters and Correspondence shall be forwarded to the following:

1.) David LeClair of Livingston Engineering at David@LivingstonEng.com
Name Business Affiliation E-mail Address

FEE EXCEEDANCE AGREEMENT

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

SIGNATURE:  DATE: 5-23-22
PRINT NAME: Stephen F. Crane PHONE: 810-229-9161
ADDRESS: 893 S. Old US 23 Brighton, MI 48114

June 1, 2022

Kelly VanMarter AICP

Assistant Township Manager/Community Development Director

Genoa Charter Township

Kelly,

My name is David Burcon, Managing Member of KULOL LLC. KULOL LLC owns the Grand Oakes Building located at 3399 Grand River Road in Howell MI.

This letter is to serve as my approval of the parking lot expansion. The parking lot is being expanded from a general use to Medical use - to accommodate the VA.

Best Regards,

A handwritten signature in black ink, appearing to read 'David Burcon', with a long horizontal flourish extending to the right.

David Burcon

Managing member, KULOL LLC

Cell: 734 330-4662



June 30, 2022

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP Planning Director and Assistant Township Manager
Subject:	Parking lot expansion – Site Plan Review #2
Location:	3399 Grand River Avenue – north side of Grand River, west of Grand Oaks Drive
Zoning:	GCD General Commercial District

Dear Commissioners:

At the Township’s request, we have reviewed the revised site plan submittal to expand the parking lot for the developed property at 3399 Grand River Avenue (plans most recently dated 6/21/22).

A. Summary

1. The amount of parking proposed requires Planning Commission approval as it slightly exceeds the 120% limit (121% proposed).
2. The applicant must replace at least 4 of the greenbelt evergreen trees with deciduous canopy trees.
3. The Commission may allow substitution of evergreen trees for up to 50% of the required greenbelt trees.
4. We suggest the applicant incorporate additional plantings and/or fencing/berming to create a more substantial, denser buffer along the rear lot line that will further protect the adjacent residential use.
5. There is a minor discrepancy on the landscape plan with respect to the number of Norway and Blue Spruce.
6. The applicant must ensure that the plantings identified in the previously approved site plan are still in place and/or are in good condition. Any plantings that have been removed or are dead/diseased, must be replaced to match the previously approved plans.
7. The applicant must provide shielding for proposed light fixtures to protect the adjacent residential properties to the north.
8. The applicant must address any comments provided by the Township Engineer and/or Brighton Area Fire Authority.

B. Proposal/Process

The applicant proposes to expand the parking lot for an existing office building. The additional parking is needed to accommodate new medical office space (which requires slightly more parking than business office uses).

The medical uses contained/proposed within the existing building are permitted by right in the GCD; however, a parking lot expansion of more than 5 spaces requires site plan review by the Planning Commission (Section 18.02).

Procedurally, Planning Commission has review/approval authority over the site plan, though a recommendation to the Township Board is needed for the Environmental Impact Assessment.



Aerial view of site and surroundings (looking north)

C. Site Plan Review

1. **Dimensional Requirements.** Given that the project is limited to a parking lot expansion, the only dimensional requirements that apply are parking lot setbacks and impervious surface lot coverage.

The revised site plan demonstrates compliance with minimum setbacks (front, side and rear) and maximum impervious surface coverage.

2. **Pedestrian Circulation.** There is an existing public sidewalk along Grand River. No other sidewalks are proposed or required as part of this project.
3. **Vehicular Circulation.** The new parking area is located immediately west of the existing parking lot. No new curb cuts are proposed, and the parking lot provides adequate drive aisle width for two way travel.

A truck turning template is provided on Sheet C7.0 that depicts adequate maneuvering space for large trucks/emergency vehicles.

The applicant must address any comments provided by the Township Engineer and/or the Brighton Area Fire Authority with respect to vehicular circulation.

4. **Parking.** Based on the calculations provided, 83 spaces are required (the barrier-free spaces are included in the Ordinance requirement and are not an add-on).

As such, the 101 spaces proposed slightly exceeds the 120% limit on parking (121% provided). The overage represents 1 parking space, which has minimal impact on the site; especially given that the site is well under the maximum allowable impervious surface coverage.

Despite the fact that the overage is nominal, it technically requires Commission approval.

The lot itself provides the dimensions, paving, and curbing required by Article 14, though the spaces must provide looped striping.

5. **Landscaping.** The revised landscape plan identifies 5 existing greenbelt trees and proposes new plantings for the greenbelt, parking lot, around the detention pond and along the rear of the parking lot.

The revised plan complies with current standards for greenbelt tree plantings; however, the proposed trees are evergreens and not deciduous canopy trees (as required). The Commission may allow evergreen trees for up to 50% of the greenbelt trees. As such, the applicant must replace at least 4 of the proposed evergreen trees with deciduous canopy trees.

The revised plan also provides the required parking lot landscaping around the perimeter of the parking lot.

The proposed detention pond includes 9 trees and 90 shrubs, as required.

The revised plan also provides 2 new evergreen trees, preservation of 1 existing tree and 7 shrubs along the rear of the parking lot to protect the adjacent residential uses to the north. However, we suggest the applicant provide a more substantial buffer.

The adjacent residential to the north was developed under a PUD; however, if it had been developed under the conventional Ordinance, a Buffer Zone B would be required.

As such, we suggest the applicant incorporate additional plantings and/or fencing/berming to create a more substantial, denser buffer that will further protect the residents.

The landscape plan and plan list are inconsistent with respect to the number of Norway Spruce (4 depicted; 5 noted) and Blue Spruce (5 depicted; 4 noted). The applicant must correct this minor discrepancy.

Lastly, the landscape plan does not depict the entire developed site. The applicant must ensure that the plantings identified in the previously approved site plan are still in place and/or are in good condition. Any plantings that have been removed or are dead/diseased, must be replaced to match the previously approved plans.

- 6. Exterior Lighting.** The lighting plan depicts 2 new light poles with a fixture mounting height of 20 feet.

Fixture details note the use of downward directed, cut-off LED fixtures. The applicant will need to ensure that proper shielding is provided to protect the adjacent residential properties to the north.

The photometric plan identifies a maximum on-site intensity of 5.9 footcandles and a maximum intensity of 0.3 footcandles along the rear lot line, both of which are within the Ordinance maximums.

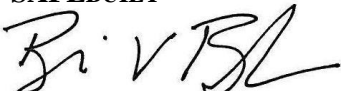
- 7. Impact Assessment.** The submittal includes an Environmental Impact Assessment (dated June 1, 2022).

Based on this document (which includes new information, as well as the original Assessment from 1995) the proposed project is not expected to result in adverse impacts.

Should you have any questions concerning this matter, please do not hesitate to contact our office.

Respectfully,

SAFE BUILT



Brian V. Borden, AICP
Michigan Planning Manager



July 6, 2022

Ms. Kelly Van Marter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

**Re: Veterans Affairs Parking Lot Addition
Site Plan Review No. 2**

Dear Ms. Van Marter:

Tetra Tech conducted a second review of the proposed Veterans Affairs Parking Lot Addition site plan last dated June 21, 2022. The plans were prepared by Livingston Engineering on behalf of KULOL LLC. The site is located on the north side of East Grand River Avenue, just east of the East Grand River Avenue and Natanna Drive intersection. The proposed improvements include an expansion to the existing parking lot to provide 29 additional parking spaces and storm drainage improvements to accommodate the additional impervious surface on site. We offer the following comments:

DRAINAGE AND GRADING

1. The response letter from the Petitioner, dated June 22, 2022, notes that the proposed additional flow to the existing detention basin was designed in accordance with conversations with the Livingston County Drain Commissioner (LCDC). The provided plans do not include information on any infiltration testing or calculations as required by the updated LCDC standards and an approval letter should be provided from the LCDC to ensure this requirement is being waived prior to approval.
2. The detention basin outlet detail shows the 100-year detention and channel protection orifice at 958.75 and 958.5 respectively, but the design storm elevation calculations show the 100-year elevation at 960.70 and the channel protection elevation at 960.43. The outlet detail should be revised to show the correct orifice elevations.

We recommend the petitioner address the above comments prior to approval.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Gary Markstrom'.

Gary J. Markstrom, P.E.
Vice President

A handwritten signature in blue ink, appearing to read 'Shelby Byrne'.

Shelby Byrne, P.E.
Project Engineer



BRIGHTON AREA FIRE AUTHORITY

615 W. Grand River Ave.
Brighton, MI 48116
o: 810-229-6640 f: 810-229-1619

July 5, 2022

Kelly VanMarter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

RE: Veteran Affairs Parking Lot Addition
3399. Grand River
Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Department has reviewed the above-mentioned site plan. The plans were received for review on June 27, 2022 and the drawings are dated May 19, 2002 with the latest revisions dated June 21, 2022. The project is based on an existing 2.62-acre parcel that services an existing 16,130 square foot multi-tenant office building that is proposing a parking lot expansion. The plan review is based on the requirements of the International Fire Code (IFC) 2021 edition.

All previous comments have been addressed on the recent submittal. The fire authority has no other comments for the proposed parking lot expansion unless the layout changes affecting drive width or turning radius.

Additional comments will be given during the building plan review process (specific to the building plans and occupancy). The applicant is reminded that the fire authority must review the fire protection systems submittals (sprinkler & alarm) prior to permit issuance by the Building Department and that the authority will also review the building plans for life safety requirements in conjunction with the Building Department.

If you have any questions about the comments on this plan review please contact me at 810-229-6640.

Cordially,

A handwritten signature in black ink, appearing to read "R. Boisvert".

Rick Boisvert, FM, CFPS
Fire Marshal

**Impact Assessment
For
Parking Lot Addition
3399 Grand River Avenue
Genoa Township
Livingston County, Michigan**

Prepared By

**Livingston Engineering
3300 S. Old US-23
Brighton, MI 48114
(810) 225-7100
June 1, 2022**

This impact assessment has been prepared in accordance with section 18.07 of the Genoa Township, Livingston County, Michigan Zoning Ordinance. Section 18.07.13 of the ordinance specifically states that Impact Assessments previously submitted relative to the site and proposed development which fulfills the requirements may be submitted to satisfy the Impact Assessment requirements. As such, the previously submitted Impact Assessment has been attached and submitted for this purpose. The site boundary and physical building size and configuration is not changing. The proposed improvement is a simple parking lot expansion to serve the building tenants which currently exists or will be occupying space within the building. As such, the only changes taking place on the site are as follows:

I. Parking

This improvements on the site will add 29 parking spaces to the site by expanding the existing parking in a westerly direction. The additional parking is necessitated by a larger portion of the existing office being utilized by medical uses, which requires additional parking per the current township ordinance. The revised parking lot calculations are included on the cover sheet of the revised site plan drawings.

II. Site Drainage

The additional impervious surfaces added by the additional parking has also required additional detention volume to be added to the site. In addition, the Livingston County Drain Commissioners office has recently amended their drainage standards for sites within their jurisdiction. As such, additional detention volume has been added to the site to bring it into conformance with such requirements. Amended drainage calculations are included in the submitted site plan package for review and approval by both the Township Engineer and Drain Commissioners office.

III. Site Lighting

Additional site lighting has been added to provide lighting to the expanded parking area. For such, a photometric plan as required by current Township ordinances has been prepared and is included in the submitted site plan package for review and approval.

IV. Site Landscaping

As additional parking and detention area is being proposed, the site landscaping is being supplemented in these areas to meet current ordinance requirements. For this work, a landscape plan has been prepared as part of the site plan approval package for review and approval.

The remaining items required in the Impact Assessment are included in the attached report in accordance with current Township standards.

ENVIRONMENTAL IMPACT ASSESSMENT
FOR
READER OFFICE BUILDING SITE PLAN
GENOA TOWNSHIP, LIVINGSTON COUNTY
MICHIGAN

Prepared For

Keystone Design Group
1120 Keystone Avenue
Lansing, MI 48911

(517) 394-3800

Prepared By

Boss Engineering Company
3121 East Grand River
Howell, Michigan 48843

(517) 546-4836
(810) 229-4773

July 11, 1995

95273EIA

INTRODUCTION

The purpose of this report is to show what effect this proposed development may have on various environmental factors in the general vicinity. Potential areas of concern are to be noted along with the proposed methods for addressing each item. The format of this report conforms to Section 13.05 of the published Zoning Ordinance for Genoa Township, Livingston County, Michigan.

A. NAME(S) AND ADDRESS(ES) OF PERSON(S) RESPONSIBLE FOR PREPARATION OF THE STATEMENT.

Prepared by:
Boss Engineering Company
3121 East Grand River
Howell, Michigan 48843
(517)546-4836

Prepared for:
Keystone Design Group
1120 Keystone Avenue
Lansing, MI 48911
(517) 394-3800
Morris Stein

B. DESCRIPTION OF THE SITE, INCLUDING EXISTING STRUCTURES, MAN MADE FACILITIES AND NATURAL FEATURES ALL INCLUSIVE TO WITHIN 10' OF THE PROPERTY BOUNDARY.

The site is located on the north side of Grand River Avenue, west of Latson Road in the Southwest 1/4 of Section 5, T2N-R5E, Genoa Township, Livingston County, Michigan. The parcel of land contains approximately 3.5 acres, and is currently vacant. The site is rolling, sloping at an average grade of about 2.6%. The variation in slope within the development area ranges from 1% up to 20%. The parcel is designated by the Genoa Township zoning district as GENERAL COMMERCIAL (GC). A Site Plan has been prepared which provides a more complete picture of the area.

Existing underground utilities on-site and abutting the site include a Consumers Power gas main, an overhead Detroit Edison electric cable, a 15" diameter sanitary sewer and two sanitary manholes, a 12" diameter watermain and two fire hydrants, and underground Ameritech telephone line. In addition, there is a 12" diameter storm sewer. In recent years Grand River Avenue has been improved, changing it from 4 lanes to a 5 lane roadway with concrete curb and gutter and a center left turn only lane east and west of this site.

However, the improvements did not include adding a left turn lane along the front of this parcel. There is an abandoned house and shed located on southeasterly portion of the site. The site is accessible from the South side directly from Grand River Avenue with a total frontage of 720 feet along the right-of-way line.

Adjacent properties include: To the south, Grand River Avenue, vacant land on the south side of Grand River Avenue, and a retail furniture store on the southeast corner of Grand Oaks Drive and Grand River Avenue; To the east, Olga's Diner and an office building; To the north, a medium-dense wooded parcel; And to the west, the Chem-Trend Inc. building.

C. A WRITTEN DESCRIPTION OF THE ENVIRONMENTAL CHARACTERISTICS OF THE SITE PRIOR TO DEVELOPMENT, I., TOPOGRAPHY, SOILS, VEGETATIVE COVER, DRAINAGE, STREAMS, CREEKS OR PONDS.

As mentioned, the site is gently rolling, sloping downward to the northwest. As shown on the U.S.D.A. Soil Conservation Service "Soil Survey of Livingston County, Michigan", the on-site soils consist of:

MIAMI LOAM (MoB and MoC). MIAMI LOAMS are typically well-drained soils found on till plains and moraines, with soil slopes of 2-6% (MoB) and 6-12% (MoC). Surface runoff is slow for MoB, permeability is moderate, and the soil erosion hazard is slight.

The National Wetlands Inventory Plan prepared by the United States Department of the Interior, Fish and Wildlife Service indicates that there are no wetlands or lowlands located on the site. Vegetative cover consists of woodlands bordering the northern boundary, including several trees infringing onto the northeast corner of the parcel. Further, there is one (1) 15" elm tree, two (2) 20" pine trees, two (2) 5-10" maple trees and four (4) 8-24" cherry trees located along an existing gravel drive in the southeast corner of the site adjacent to the previously mentioned vacant house.

Storm water currently drains towards the northwest corner of the site, either via sheetflow or along a roadside ditch. Ultimately, the on-site storm water drains to the north into the wooded area.

D. DESCRIPTION OF SOIL EROSION CONTROL MEASURES DURING CONSTRUCTION

Surface runoff during periods of construction will be controlled by proper methods set forth by the Livingston County Drain Commissioner, including silt fence, pea stone filters, and seed and mulch.

E. DESCRIPTION OF PROPOSED USAGE AND OTHER MAN MADE FACILITIES; HOW IT CONFORMS TO EXISTING AND POTENTIAL DEVELOPMENT PATTERNS. EFFECTS OF ADDED LIGHTING, NOISE OR AIR POLLUTION, ANY PROPOSED PHASING.

The applicant is proposing to utilize the GENERAL COMMERCIAL (GC) zoning as designated by Genoa Township. The proposed use as an office building is compatible with the surrounding establishments, as the site is located in the vicinity of an office and business complex. In addition, the Michigan Department of Transportation branch office is located on the east side of Olga's diner.

This development is proposed to contain an office building and parking lot, and the expected impact will be minimized because of the following:

1. The woodlands along the north boundary of the site will only be disturbed as is necessary to construct the building and parking areas. A majority of the wildlife inhabiting the vegetated treed area north of the site should remain. It is expected that some of the wildlife may seek new habitat during construction of the project.
2. A detention pond will be located on the northwest corner of the site to maintain natural drainage patterns.
3. The layout was prepared taking into account the topography to minimize the amount of earthwork required which will preserve the existing lay of the land. The site will be landscaped in accordance with Genoa Township standards and to provide an aesthetically pleasing site.
4. Soil erosion control measures such as silt fence, straw bale filters, and pea stone filters at catch basins will be utilized during construction to control siltation and sedimentation from entering the wooded areas.

Grand River Avenue presently experiences a large volume of traffic along with the associated noise level. It is unlikely that this development will significantly change that. Permanent air pollution from the vehicle-usage generated from the development is the only pollution expected. Since the site is located along a primary commuting route, it is anticipated that most of the traffic generated will have a minor impact on the traffic already travelling in the area. However, a nominal increase is still anticipated. The abutting property to the west of the site is occupied by a chemical factory and warehouse which includes numerous lighting fixtures. Consequently, additional lighting from the project site will have a negligible effect on this general commercial area.

On-site lighting will also be shielded and directed downward as required to eliminate off-site illumination. It is anticipated that the project will be completed in a single phase.

F. DESCRIPTION OF NUMBER OF EMPLOYEES, PATRONS AND THE IMPACT ON GENERAL SERVICES, I.E.: SCHOOLS, POLICE, FIRE.

Based on the Institute of Transportation Engineers publication, TRIP GENERATION manual, an average of 3.29 employees can be expected per each 1,000 square feet of gross floor area (G.F.A.). Therefore, an office building with 17,200 square feet will potentially include approximately fifty-seven (57) employees. Normal police and fire protection services should be anticipated.

G. DESCRIPTION OF ALL PUBLIC UTILITIES SERVICING THE PROJECT I.E.: SANITARY SEWER AND STORM DRAINAGE CONTROL. EXPECTED FLOWS PROJECTED IN RESIDENTIAL EQUIVALENTS.

The site is located within the Genoa-Oceola Sanitary Sewer District. In order to determine the sanitary sewage flow according to the Genoa Township list of Equivalent User Factors, an office building is assigned a factor of 0.4 Residential Equivalent Units (R.E.U.) per 1,000 square feet of G.F.A. Therefore, the proposed 17,200 square foot office building has a total of 6.88 R.E.U. The parcel is also within the water district along Grand River Avenue, for which construction has just recently been completed. As described above, a detention pond will be located in the northwest corner of the parcel to collect stormwater runoff. Storm water runoff will be

restricted to an agricultural runoff rate from all developed areas. Underground gas, overhead electric and telephone are also available.

H. DESCRIPTION OF ANY HAZARDOUS MATERIALS USED, STORED OR DISPOSED OF ON-SITE.

None Applicable

I. DESCRIPTION OF TRAFFIC VOLUMES TO BE GENERATED AND THEIR EFFECT ON THE AREA.

Consideration was given to the amount of traffic generated from this development and the impact it will have on the existing public road network. Grand River Avenue has been recently renovated, including the addition of a center left turn only lane along certain developed frontage areas. Traffic lights at both the corner of Chilson Road and Grand River Avenue and on Grand River Avenue at the Walmart complex should control traffic sufficiently to accommodate any increase in traffic from this development. According to the updated Grand River Avenue Area Corridor Plan, the existing Average Daily Traffic (A.D.T.) is approximately 31,000 vehicles per day in front of this site. A Traffic Study was conducted on December 14, 1994, by Midwestern Consulting, Inc., Transportation Engineers, for the traffic light located on Grand River Avenue at the Walmart complex. According to the Traffic Study, the largest 2-way traffic count occurs at the P.M. peak hour with a total of 2256 vehicles on Grand River Avenue. The TRIP GENERATION manual indicates that , for an office building with 3,700 square foot medical offices and 13,500 square foot general offices the average weekday traffic in and out of the parking lot will be 443 vehicles per day, or 1.4% of the average daily traffic on Grand River Avenue. The P.M. peak hour traffic generated by the proposed office building will be approximately 51 vehicles per hour, or 2.3% of the peak P.M. traffic rate on Grand River Avenue. 30% (15 vehicles) of the P.M. peak hour of 51 vehicles will be entering the parking lot and 70% (36 vehicles) will exit. The conclusion of this brief traffic overview indicates that this proposed office site will have a minor impact on the overall traffic situation along Grand River Avenue. Therefore, it is anticipated that the peak hour Level of Service (LOS) will not change as a result of this proposed development. The study concluded that the LOS for the main driveway at the traffic light during the morning peak hour was LOS B and the afternoon peak hour was LOS C. The average LOS for the

intersection during the A.M. peak is A, and the average for the P.M. peak is LOS B.

The Michigan Department of Transportation (M.D.O.T.) is presently reviewing the impact of the proposed project and driveway to determine if improvement of the Grand River Avenue pavement is warranted and the extent of improvement. In a site meeting with M.D.O.T., it was tentatively determined that the proposed driveway location should remain at the existing 'M' opening location, as shown on the site plan.

J. SPECIAL PROVISIONS, I.E.; DEED RESTRICTIONS, PROTECTIVE COVENANTS, ETC.

None.

K. DESCRIPTION OF ALL SOURCES

- GENOA TOWNSHIP ZONING ORDINANCES
- MICHIGAN RESOURCE INFORMATION SERVICE
- ON-SITE DETERMINATION
- MICHIGAN DEPARTMENT OF TRANSPORTATION
- "SOIL SURVEY OF LIVINGSTON COUNTY, MICHIGAN", SOIL CONSERVATION SERVICE, U.S.D.A.
- NATIONAL WETLANDS INVENTORY, U.S DEPARTMENT OF INTERIOR FISH AND WILDLIFE SERVICE
- TRIP GENERATION, 5TH EDITION, INSTITUTE OF TRANSPORTATION ENGINEERS.
- GRAND RIVER AVENUE AREA CORRIDOR PLAN, GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN, APRIL 10, 1995.

L. PREVIOUSLY SUBMITTED ENVIRONMENTAL ASSESSMENTS

None applicable

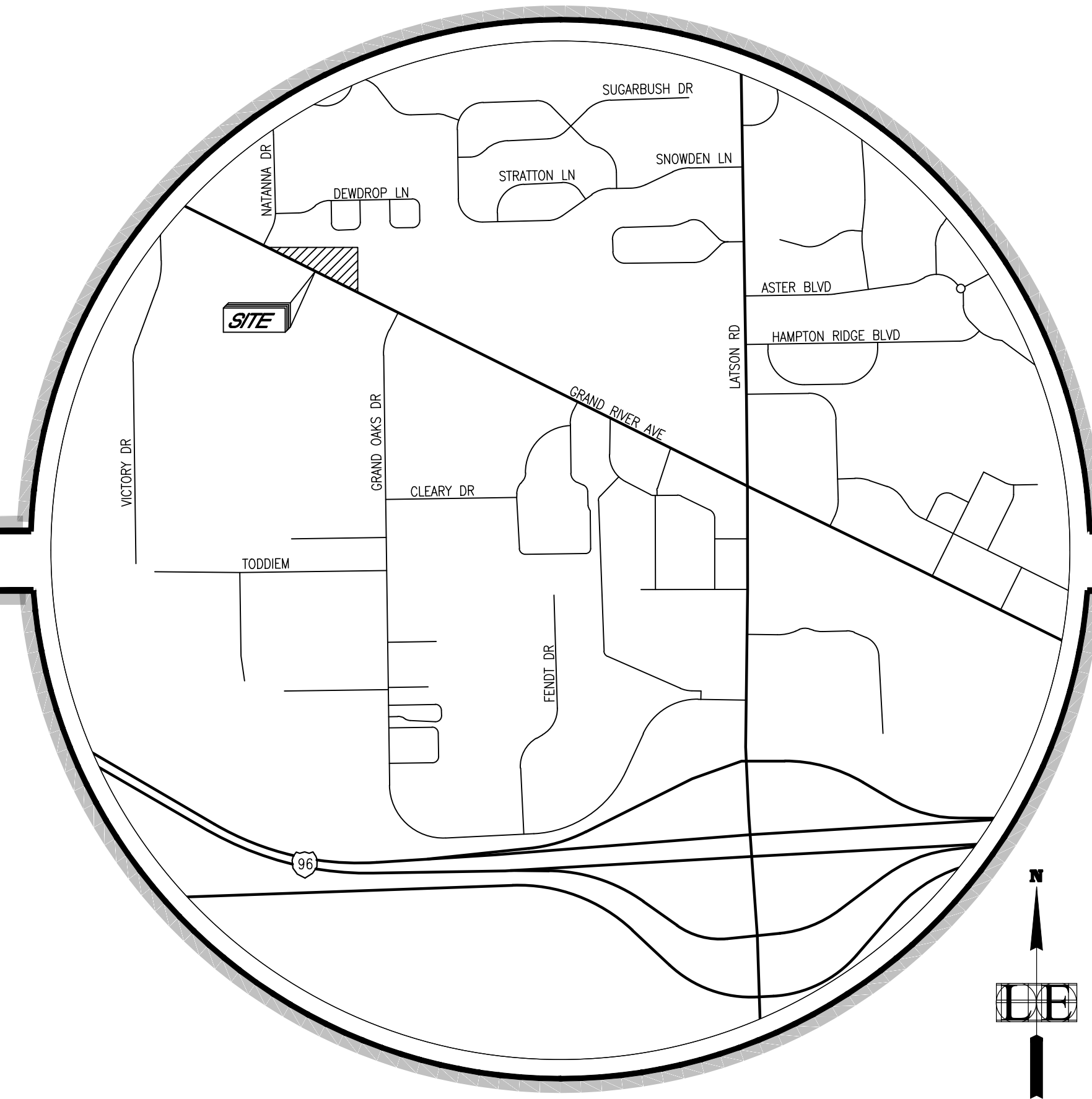
PRELIMINARY SITE PLAN FOR PARKING LOT EXPANSION 3399 E. GRAND RIVER GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

SHEET INDEX

- C1.0 COVER SHEET
- C2.0 EXISTING CONDITIONS & REMOVALS
- C3.0 SITE LAYOUT PLAN
- C4.0 UTILITY PLAN
- C5.0 GRADING PLAN
- C5.1 SESC PLAN
- C5.2 SESC DETAILS
- C6.0 STORM WATER MANAGEMENT PLAN
- C7.0 DETAILS
- C8.0 LANDSCAPE PLAN
- L1.0 PHOTOMETRIC PLAN

LEGEND

	EXISTING	PROPOSED
SPOT GRADE	--- 000.00 ---	--- 000.00 ---
CONTOUR	--- 000 ---	--- 000 ---
SANITARY SEWER	--- SAN ---	--- SAN ---
STORM SEWER	--- ST ---	--- ST ---
WATER	--- W ---	--- W ---
OVERHEAD	--- X ---	--- X ---
FENCE	--- X ---	--- X ---
GAS	--- GAS ---	--- GAS ---
ELECTRIC	--- E ---	--- E ---
DRAINAGE AREA BOUNDARY	---	---
LIMITS OF DISTURBANCE	---	---
SILT FENCE	---	---
SIGN	---	---
LIGHT POLE	---	---
UTILITY POLE	---	---
DECIDUOUS TREE	---	---
GATE VALVE IN WELL	---	---



LOCATION MAP
SCALE: 1" = 1,000 FEET

LEGAL DESCRIPTION

Situated in the Township of Genoa, County of Livingston, State of Michigan.

Part of the Southwest 1/4 of Section 5, T2N-R5E, Genoa Township, Livingston County, Michigan, more particularly described as follows: Commencing at the West 1/4 Corner of said Section 5; thence along the East-West 1/4 line of Section 5 S 88°35'24" E, 1130.47 feet to the intersection of said Section line with the centerline of Grand River Avenue and the POINT OF BEGINNING of the parcel to be described; thence continuing along said East-West 1/4 line of Section 5, S 88°35'24" E, 767.34 feet (previously recorded as N 89°01' E, 759.64 feet) to a point which bears N 88°35'24" W, 635.62 feet from the center of said Section 5; thence S 02°32'33" W, 406.13 feet (previously recorded as S 00°09'00" E, 406.85 feet) to the centerline of Grand River Avenue (varying Right-of-Way); thence along said centerline, N 60°26'30" W, 809.89 feet; thence continuing along said centerline, N 60°39'00" W, 51.18 feet to the point of beginning.

SITE DATA TABLE

	REQUIRED	PROVIDED
LOT AREA	1.00 AC. (min)	2.62 AC. (114,018 SF)
LOT WIDTH	150 FT (min)	719 FT
LOT COVERAGE		
BUILDING AREA	35% (max.)	8,754 SF/114,018 SF = 7.68%
IMPERVIOUS SURFACE AREA	75% (max.)	43,160 SF/114,018 SF = 37.85%
BUILDING SETBACKS:	REQUIRED	PROVIDED
FRONT	70 FT (35 FT, IF NOT LOT)	143 FT
SIDE	15 FT	19 FT
REAR	50 FT	50 FT
PARKING SETBACKS:	REQUIRED	PROVIDED
FRONT	20 FT	20 FT
SIDE & REAR	10 FT	15 FT
BUILDING DATA:	REQUIRED	PROVIDED
FLOORS	2 MAX	1
BUILDING HEIGHT	35 FT MAX	

PARKING CALCULATIONS

REQUIRED PARKING PER ORDINANCE

MEDICAL OFFICES OF DOCTORS, DENTIST OR SIMILAR PROFESSIONS:
1 SP. PER 200 S.F. OF GROSS FLOOR AREA

MEDICAL CLINICS, OUTPATIENT CENTERS, 24 HOUR URGENT CARE CENTERS ETC:
2 SPACES PER EXAM OR OUTPATIENT PROCEDURE/OPERATING ROOM, PLUS 1 SP. PER LABORATORY OR RECOVERY ROOM, PLUS 1 SPACE FOR EACH 2 ROOMS FOR EMPLOYEE PARKING

UPPER LEVEL:

A. MEDICAL OFFICE	1,512 GSF	=	8 SPACES
B. MEDICAL LAB	650 GSF	=	3 SPACES
C. MEDICAL CLINIC	5,368 GSF	=	24 SPACES

LOWER LEVEL:

D. MEDICAL OFFICE	8,600 GSF	=	43 SPACES
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PARKING REQUIRED:

A. MEDICAL OFFICE	1,512 GSF / 200 GSF	=	8 SPACES
B. MEDICAL LAB	1 LAB + 1 EXAM + 1 EMPLOYEE ROOM	=	3 SPACES
C. MEDICAL CLINIC	12 EXAMS X 2	=	24 SPACES
D. MEDICAL OFFICE	1 LAB + 8 EMPLOYEE ROOMS	=	5 SPACES
E. ADA PARKING	8,600 GSF / 200 SF	=	43 SPACES
			3 SPACES
			86 SPACES

PROVIDED PARKING:

TOTAL SPACES PROPOSED: = 101 SPACES
INCL / 4 BARRIER FREE SPACES

SITE DATA & GENERAL NOTES

- Property is zoned: GCD
- Contractor is responsible for protecting all existing and proposed utilities from damage during all stages of construction.
- The engineer and applicable agency must approve, prior to construction, any alteration, or variance from these plans.
- Property to be serviced by connection to public sanitary and water.
- Underground dry utilities shall be extended from existing locations to service this site as required by utility companies.
- All construction shall be performed in accordance with the current standards and specifications of Genoa Township and Livingston County.
- Three working days prior to any excavation, the Contractor shall telephone MISS DIG (800-482-7171) for the location of underground utilities and shall also notify representatives of other utilities located in the vicinity of the work. It shall be the Contractor's responsibility to verify and/or obtain any information necessary regarding the presence of underground utilities which might affect this job.
- Site plan use: Commercial
- Site storm drainage to outlet to Ravines of Rolling Ridge Drain.
- Parcels 11-05-300-041 and 11-05-300-042 are proposed to be combined at the appropriate time.

ADJACENT PROPERTY TABLE

Direction	Lot	Zoning	Use
North	Landings of Rolling Ridge	MU-PUD	Residential
East	4	GCD	Commercial
South	27	RCD	Commercial
West	6	IND	Industrial

UTILITY DISCLAIMER

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

Utilities as shown indicate approximate location of facilities only, as described by the various companies and no guarantee is given either as to the completeness or accuracy thereof. Contractor shall call "MISS DIG" 1-800-482-7171 prior to the start of construction. Electric, gas, phone and television companies should be contacted prior to the commencement of field activities.

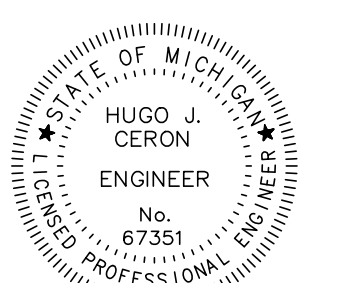
ENGINEER

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3300 S. OLD U.S. 23, BRIGHTON, MI 48114
www.livingstoneng.com PHONE: (810) 225-7100 FAX: (810) 225-7699

PARKING LOT EXPANSION

GENOA TOWNSHIP
LIVINGSTON COUNTY, MICHIGAN
SITE PLAN

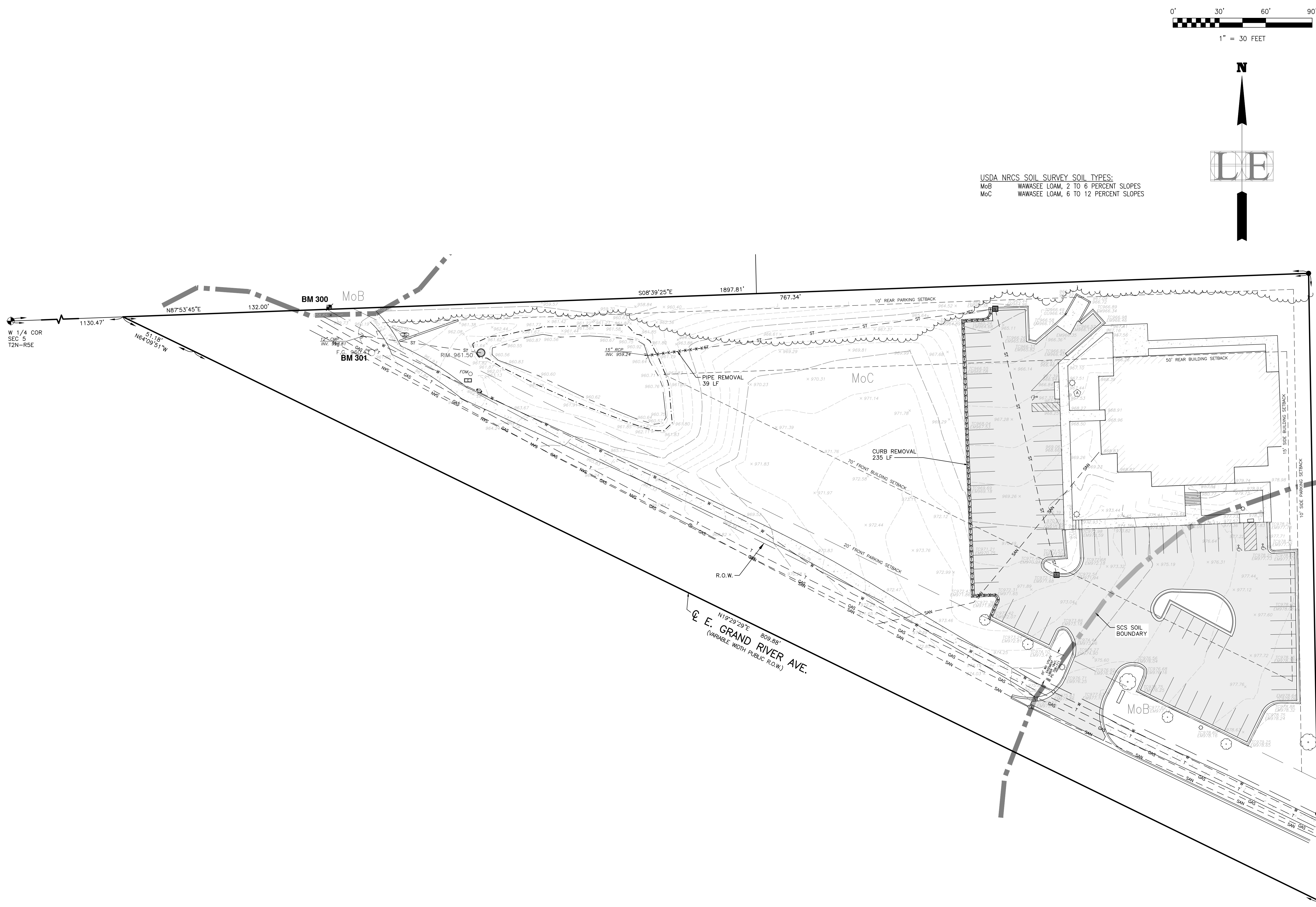
ENGINEER'S SEAL



Hugo J. Ceron

REVISIONS	DATE	PROJECT No. 22147
REVISIONS PER TOWNSHIP	06/21/2022	
		SHEET 1 OF 11
		DATE: May 24, 2022

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USDA NRCS SOIL SURVEY SOIL TYPES:
 MoB WAWASEE LOAM, 2 TO 6 PERCENT SLOPES
 MoC WAWASEE LOAM, 6 TO 12 PERCENT SLOPES

- LEGEND**
- COMMUNICATION RISER
 - END SECTION
 - STORM CLEANOUT
 - STORM CONTROL STRUCTURE
 - CATCH BASIN IN CURB
 - SANITARY MANHOLE
 - WATER VALVE IN BOX
 - GATE VALVE IN WELL
 - HYDRANT
 - GUY WIRE
 - UTILITY POLE
 - SIGN
 - GROUND LIGHT
 - LIGHT POLE
 - BOLLARD
 - WETLAND FLAG
 - FOUND IRON ROD
 - SET IRON ROD
 - SECTION CORNER
 - TRAVERSE POINT-SET
 - BENCHMARK
 - EXISTING OVERHEAD UTILITY LINE
 - SAN- EXISTING SANITARY SEWER LINE
 - W- EXISTING UNDERGROUND WATER LINE
 - EXISTING WETLAND BOUNDARY
 - DECIDUOUS TREE
 - DECIDUOUS TREE REMOVAL

SIGN TABLE

- RESERVED HANDICAP PARKING ONLY

BENCHMARKS

BENCHMARK #300
 SPINDLE IN S. SIDE OF
 POWERPOLE
 ELEVATION= 960.72
 (NAVD88)

BENCHMARK #301
 ARROW ON HYDRANT
 ELEVATION= 962.30
 (NAVD88)

NOTE:
 TOPOGRAPHIC SURVEY DONE BY LIVINGSTON ENGINEERING ON MAY 11, 2022

NOTE:
 NORTHINGS AND EASTINGS SHOWN ON THIS DRAWING ARE BASED ON MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE INTERNATIONAL FEET (NAD83), ELEVATION BASED UPON NAVD88 DATUM FROM RTK GPS OBSERVATIONS.

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PARKING LOT EXPANSION

Client
 3399 E. GRAND RIVER AVENUE
 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
 EXISTING CONDITIONS & REMOVALS

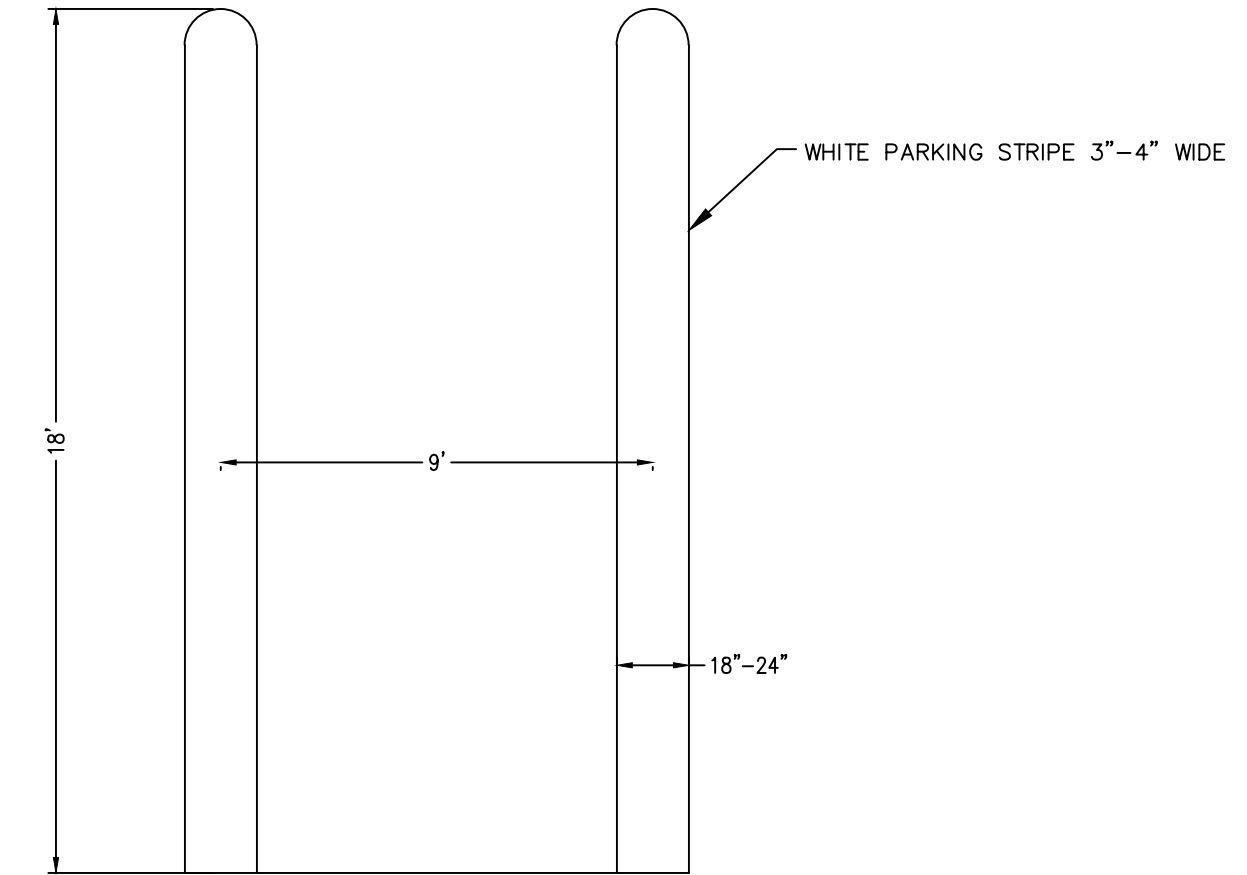
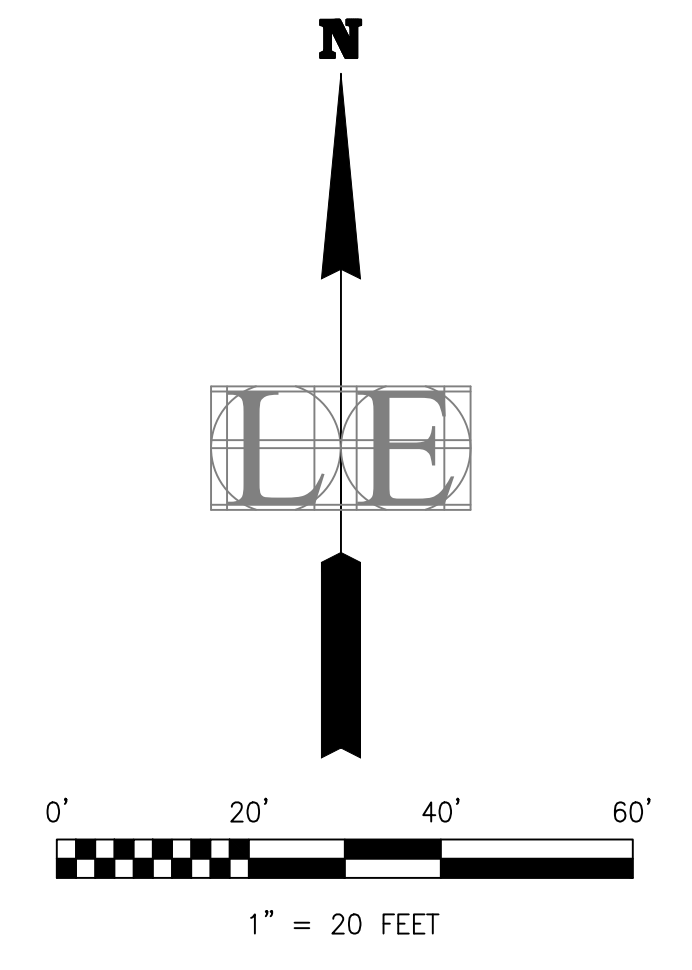
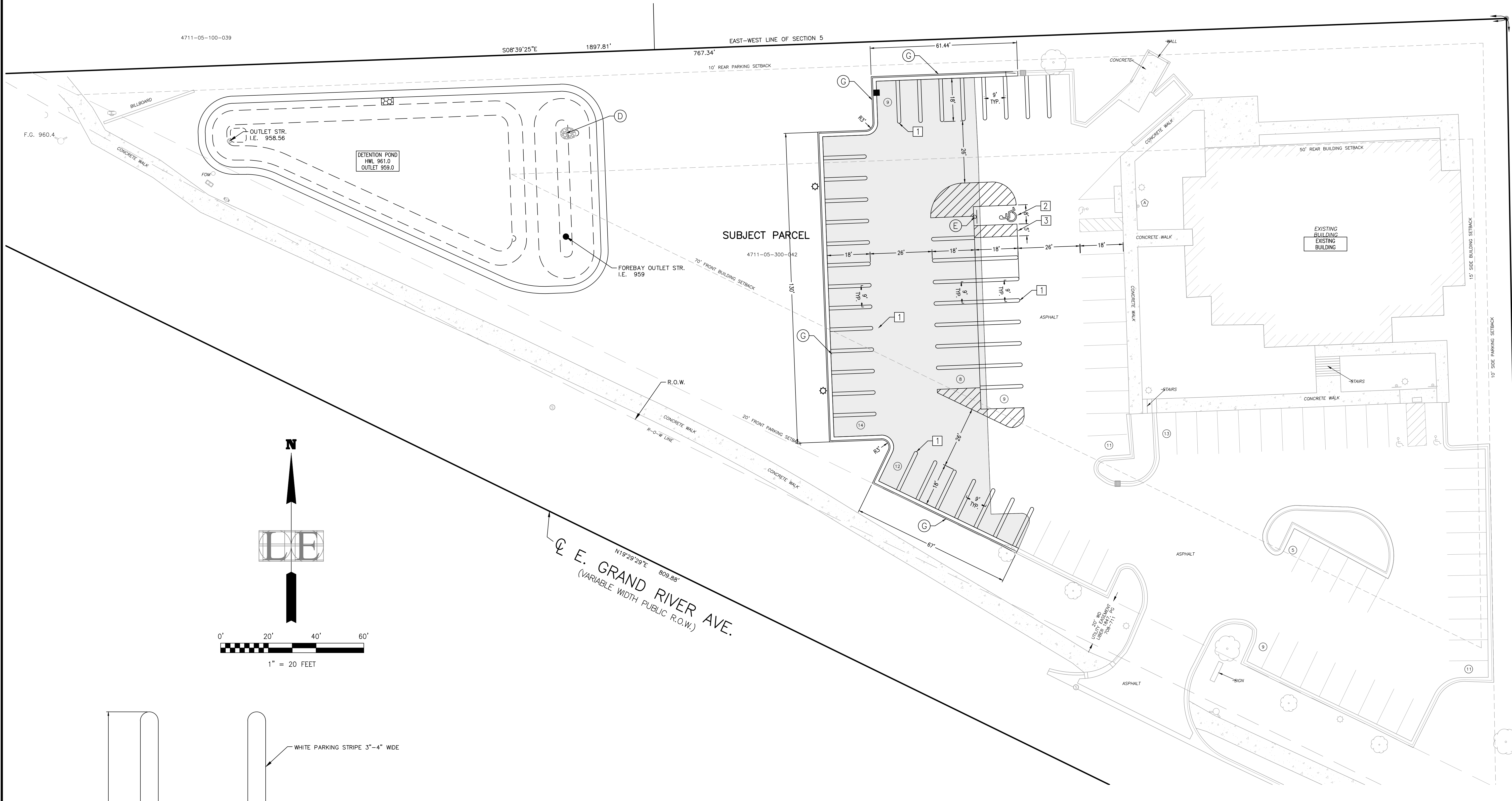
REVISONS	DATE
REVISIONS PER TOWNSHIP	06/21/22

Drawn: HJC	Checked: DBL	Approved: DBL	Date: 05/19/2022
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Job. no. 22147	Scale:	Vertical: T = 30'	Horizontal:
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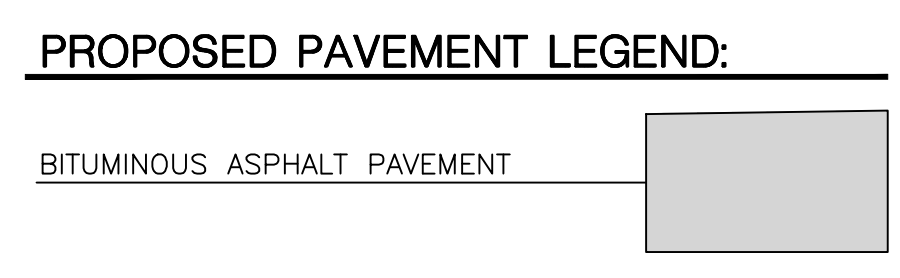
C2.0

FILE:C:\Users\User\Dropbox (Livingston)\Projects\2022\22147 Crane 3399 E Grand River\03 DWGSS\Prelim Site Plan\22147 C3.0 Site Layout.dwg



- GENERAL NOTES:**
1. ALL UTILITY COMPANIES SHALL BE CONTACTED PRIOR TO CONSTRUCTION AND ALL UTILITIES LOCATED. ANY DISCREPANCIES OR CONFLICTS SHALL BE REPORTED TO ENGINEER FOR RESOLUTION PRIOR TO COMMENCING CONSTRUCTION.
 2. ALL DIMENSIONS TO CURB ARE MEASURED FROM BACK OF CURB
 3. ALL STORM SEWER, WATER MAIN AND SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH GENOA TOWNSHIP AND LIVINGSTON COUNTY STANDARDS AND SPECIFICATIONS.

- KEYED NOTES:**
- (D) RIP-RAP DETAIL SEE DETAIL D
 - (E) BARRIER FREE SIGN WITH R7-8, SEE DETAIL E ON SHEET C7.0
 - (E*) BARRIER FREE SIGN WITH R7-8a INCLUDED, SEE DETAIL E ON SHEET C7.0
 - (F) CURB FACE WALK AT PROPOSED PAVEMENT, SEE DETAIL F ON SHEET C7.0
 - (G) MDT E-4 CONCRETE CURB, SEE DETAIL G ON SHEET C7.0



- KEYED PAVEMENT MARKING NOTES:**
- 1 4" SINGLE SOLID LINE, WHITE
 - 2 PAINTED INTERNATIONAL SYMBOL OF ACCESSIBILITY, BLUE ADA COMPLIANT
 - 3 4" SINGLE SOLID LINES, BLUE, 45° CROSS HATCH PATTERN (2' O.C.) WITH BORDER, ADA COMPLIANT

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PARKING LOT EXPANSION

Client
3399 E. GRAND RIVER AVENUE
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
SITE LAYOUT PLAN

REV. NO.	DATE	BY	CHECKED	APPROVED	DATE
1	06/21/22				

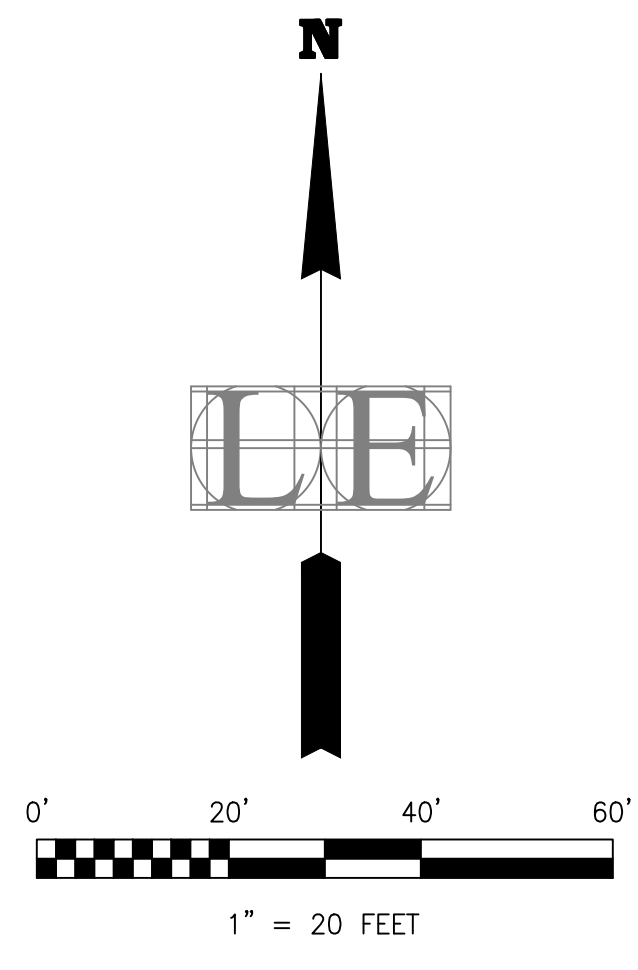
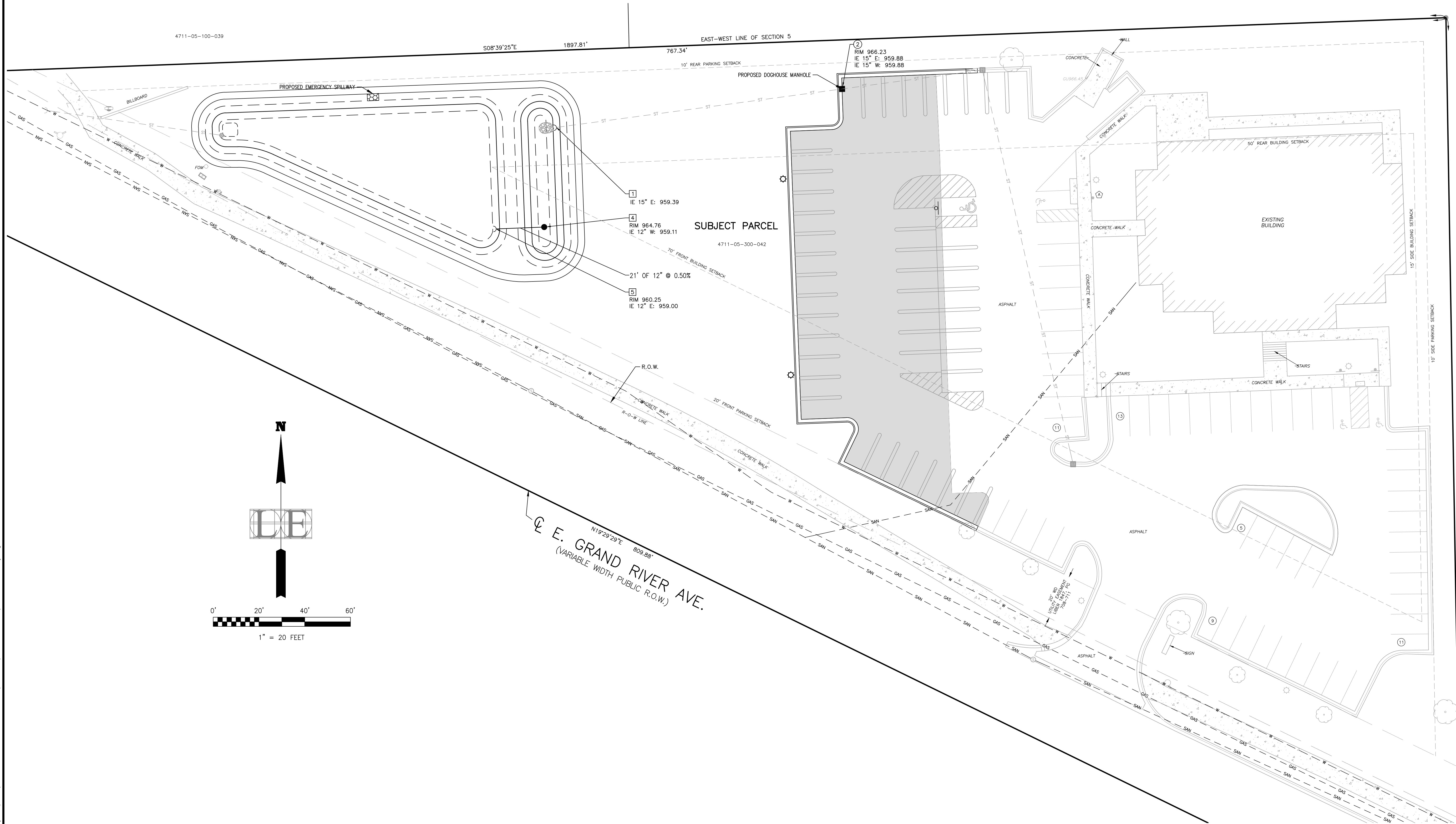
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Vertical: **DBL** Horizontal: **DBL**

Date: **05/19/2022**

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E. GRAND RIVER AVE.
(VARIABLE WIDTH PUBLIC R.O.W.)

- UTILITY PLAN NOTES:**
1. ALL STORM SEWER & WATER MAIN SHALL BE DESIGNED AND CONSTRUCTED TO MEET GENOA TOWNSHIP STANDARDS.
 2. ALL CONNECTIONS TO EXISTING UTILITIES SHALL BE DONE IN ACCORDANCE TO GENOA TOWNSHIP STANDARDS.
 3. SEE SHEET C6.0 FOR PROPOSED DETENTION BASIN DETAIL, STORM SEWER SIZING AND STORM WATER MANAGEMENT PLAN.
 4. GENOA TOWNSHIP STANDARD DETAILS SHALL BE USED FOR ALL APPLICABLE CONSTRUCTION ACTIVITIES. THESE STANDARD DETAILS WILL BE PROVIDED IN THE FINAL SITE PLAN PACKAGE.
 5. ALL UTILITY COMPANIES SHALL BE CONTACTED PRIOR TO CONSTRUCTION AND ALL UTILITIES LOCATED. ANY DISCREPANCIES OR CONFLICTS SHALL BE REPORTED TO ENGINEER FOR RESOLUTION PRIOR TO COMMENCING CONSTRUCTION.

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PARKING LOT EXPANSION

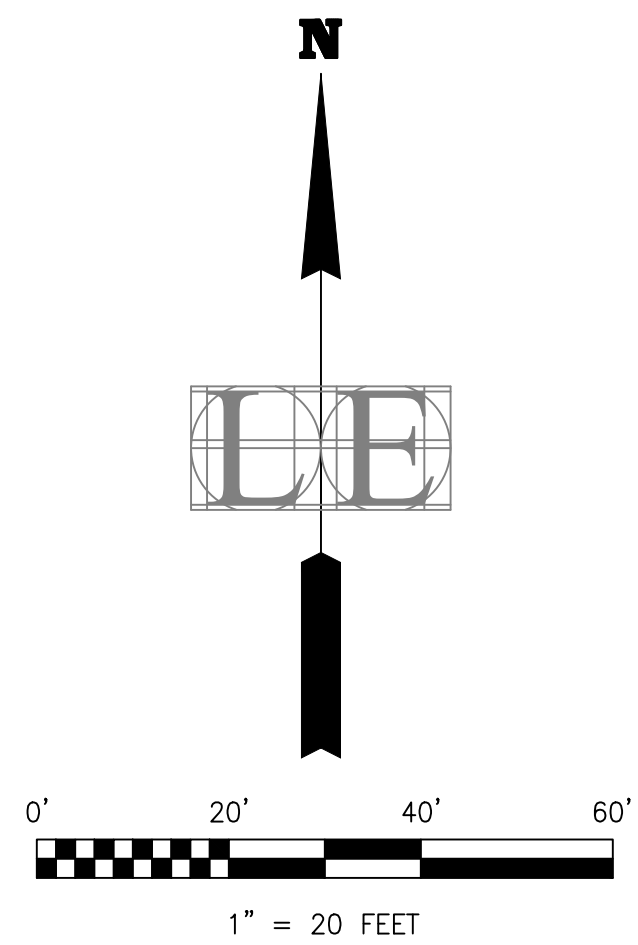
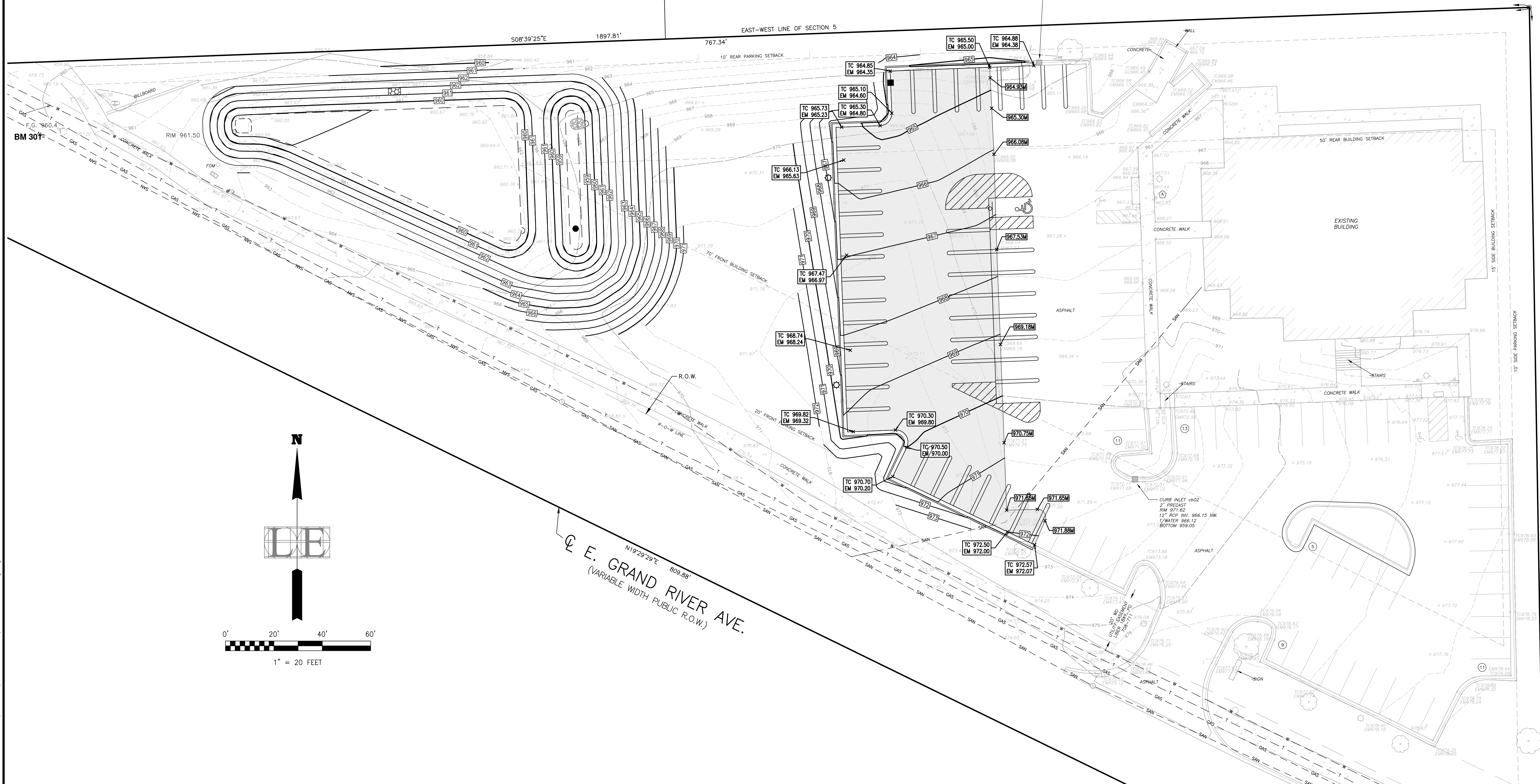
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3399 E. GRAND RIVER AVENUE
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
UTILITY PLAN

Drawn: HJC	DATE: 06/21/22
Checked: DBL	REVISIONS PER TOWNSHIP
Approved: DBL	
Date: 05/19/2022	

Job No. **22147** Scale: Vertical: **1" = 20'** Horizontal:

C4.0

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GRADE PLAN LEGEND

PR. SPOT GRADE	
PR. CONTOUR	
DRAINAGE ARROW	
LIMITS OF GRADING	
RIDGE LINE	
SWALE LINE	

SPOT GRADE ABBREVIATIONS LIST

TP	TOP OF PAVEMENT
BC	BACK OF CURB
G	GUTTER ELEVATION
RIM	RIM ELEVATION
IE	INVERT ELEVATION
FG	FINISHED GRADE
TW	TOP OF WALK
FFE	FIN. FLOOR ELEVATION
WT	TOP OF WALL
WB	BOTTOM OF WALL
m.	MATCH EXISTING

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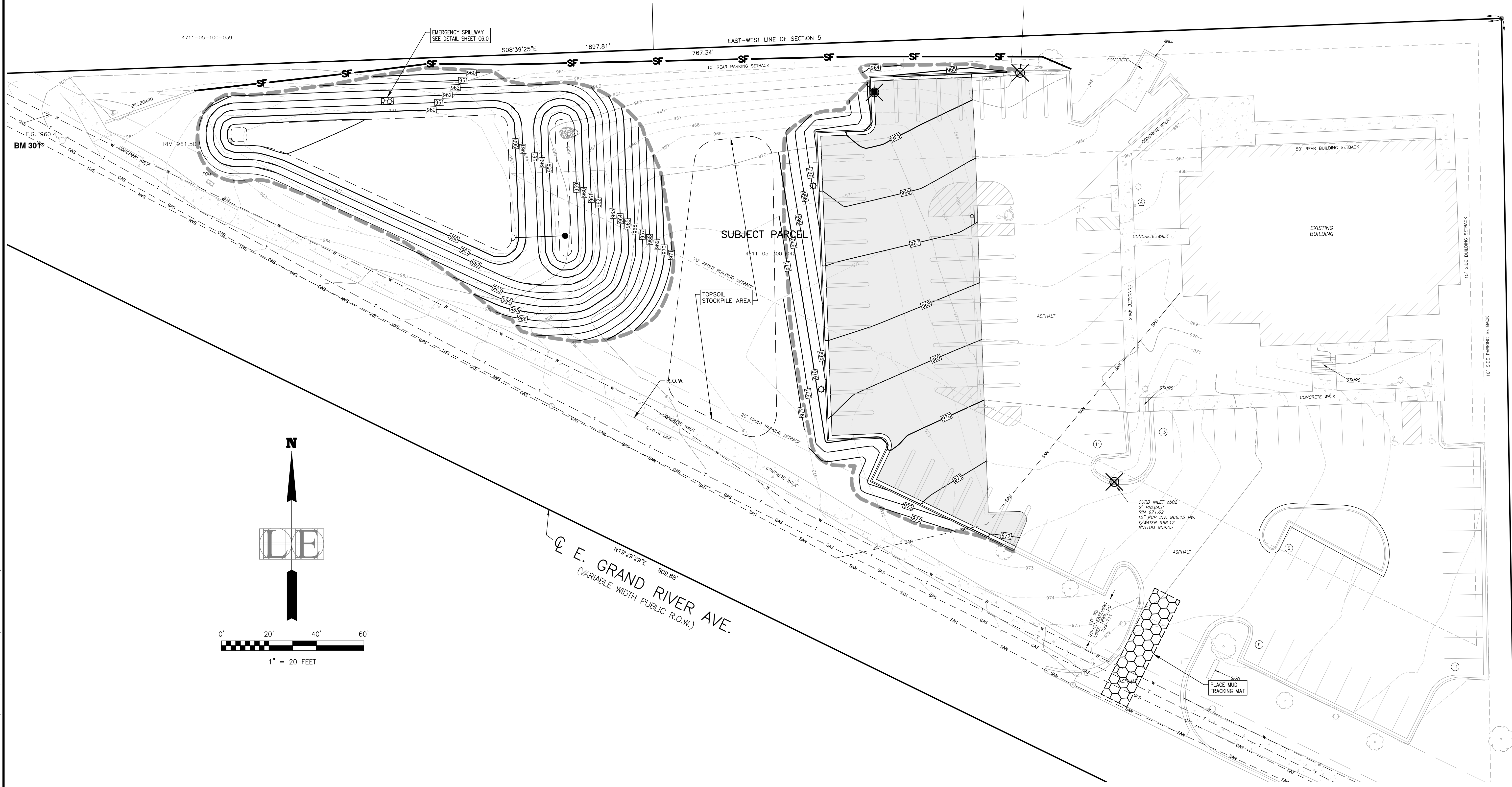
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PARKING LOT EXPANSION
 Client
 3399 E. GRAND RIVER AVENUE
 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
 GRADING PLAN

Drawn: HJC	DATE: 06/21/22
Checked: DBL	REVISIONS PER TOWNSHIP
Approved: DBL	
Date: 05/19/2022	
Job no. 22147	Scale: T = 20'
Vertical: Horizontal:	

C5.0

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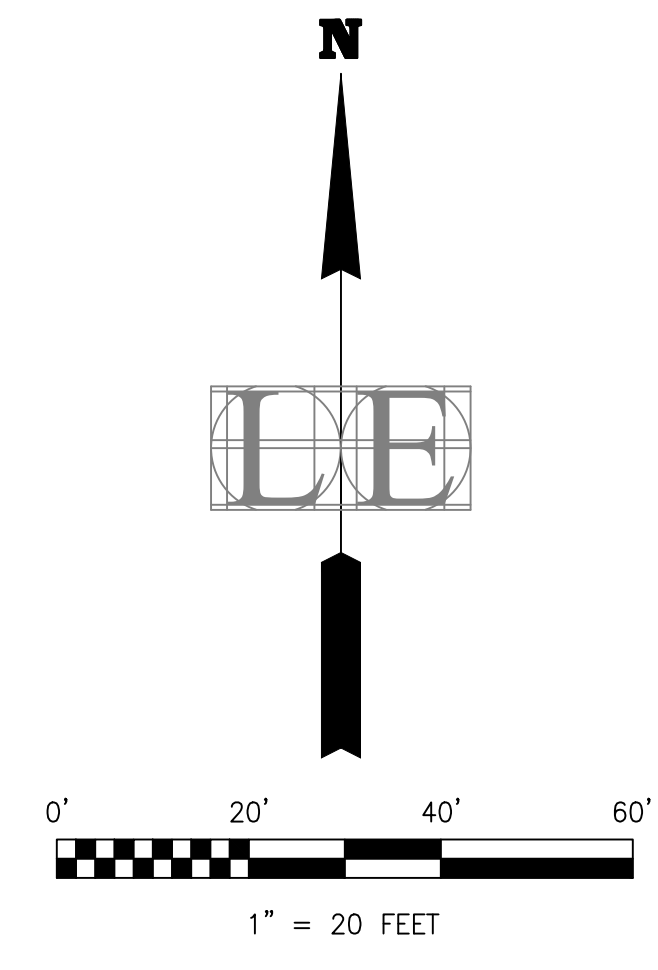
4711-05-100-039

S08°39'25"E 1897.81' EAST-WEST LINE OF SECTION 5

SUBJECT PARCEL

TOPSOIL STOCKPILE AREA

E. GRAND RIVER AVE.
(VARIABLE WIDTH PUBLIC R.O.W.)



SESC PLAN NOTES:

1. SEE SHEET C5.2 FOR SESC DETAILS

LEGEND

- LIMITS OF GRADING
- PR. SWALE
- PR. CONTOUR
- PR. SILT FENCE
- SILT SACK FILTER

**TOTAL DISTURBED AREA
28,296 S.F. (0.65 AC.)**

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Client

PARKING LOT EXPANSION
3399 E. GRAND RIVER AVENUE
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
SESC PLAN

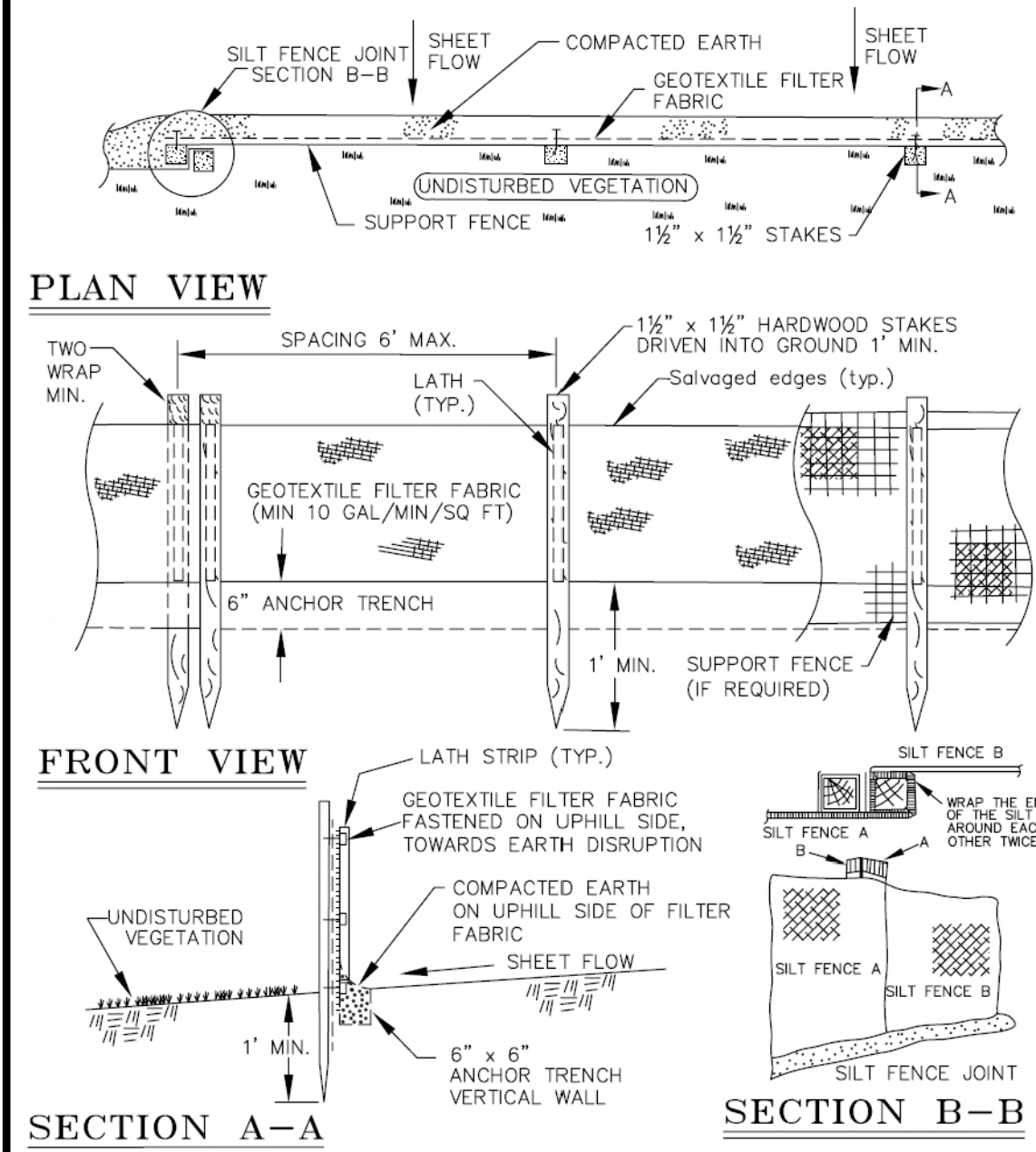
REVISIONS	DATE
REVISIONS PER TOWNSHIP	06/21/22

Drawn: HJC	Checked: DBL	Approved: DBL	Date: 05/19/2022
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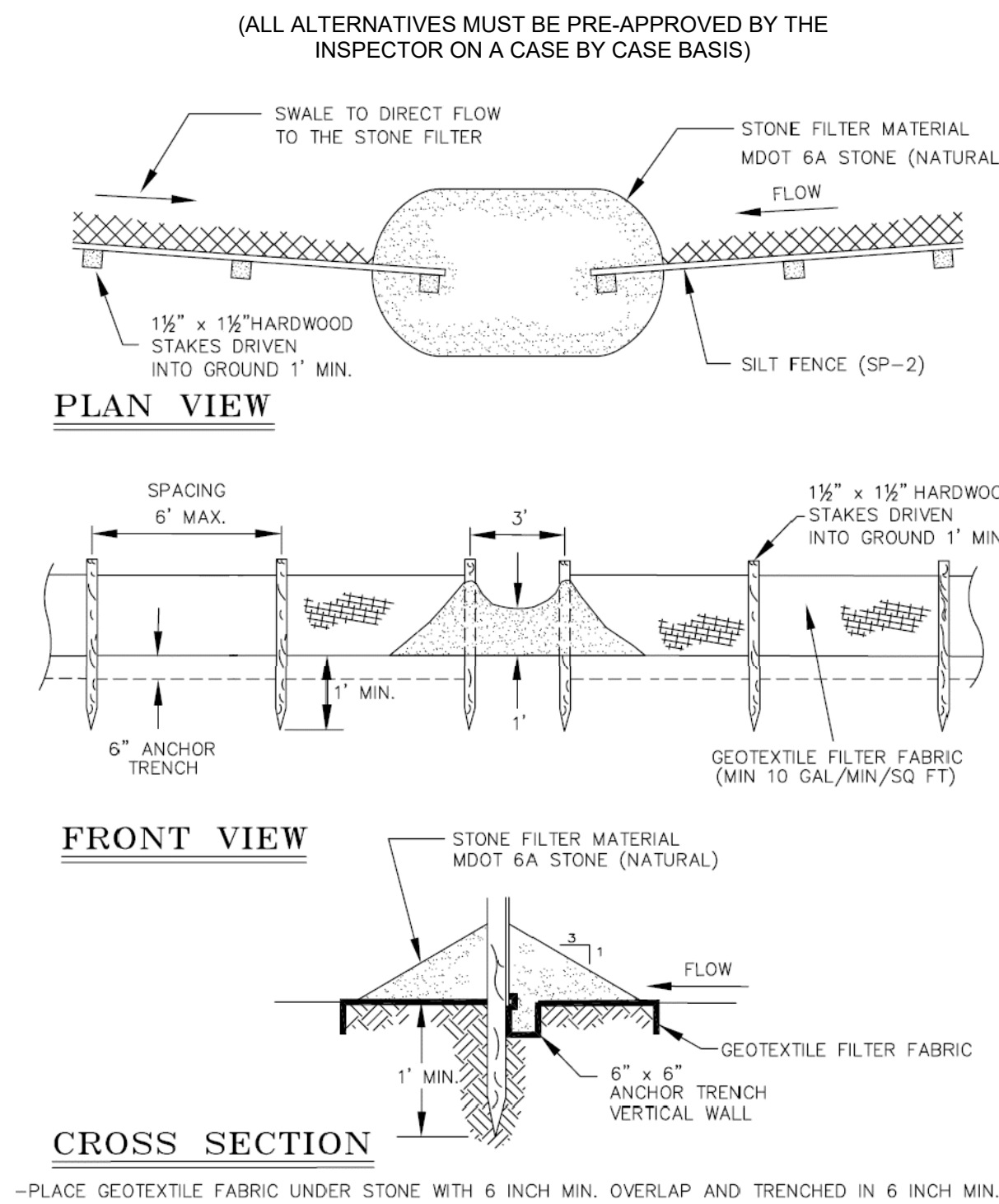
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C5.1

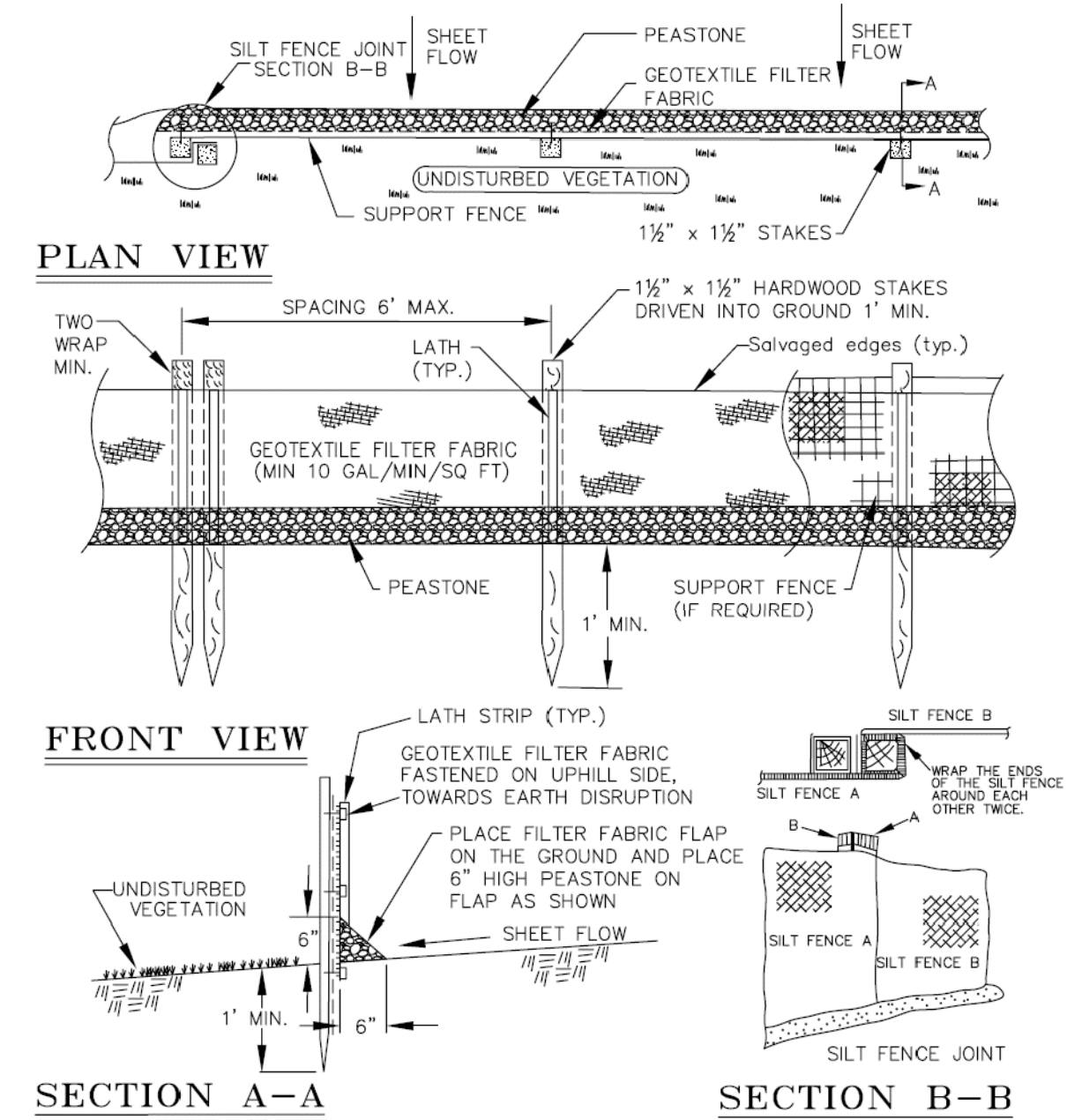
36" SILT FENCE
STANDARD CONTROL



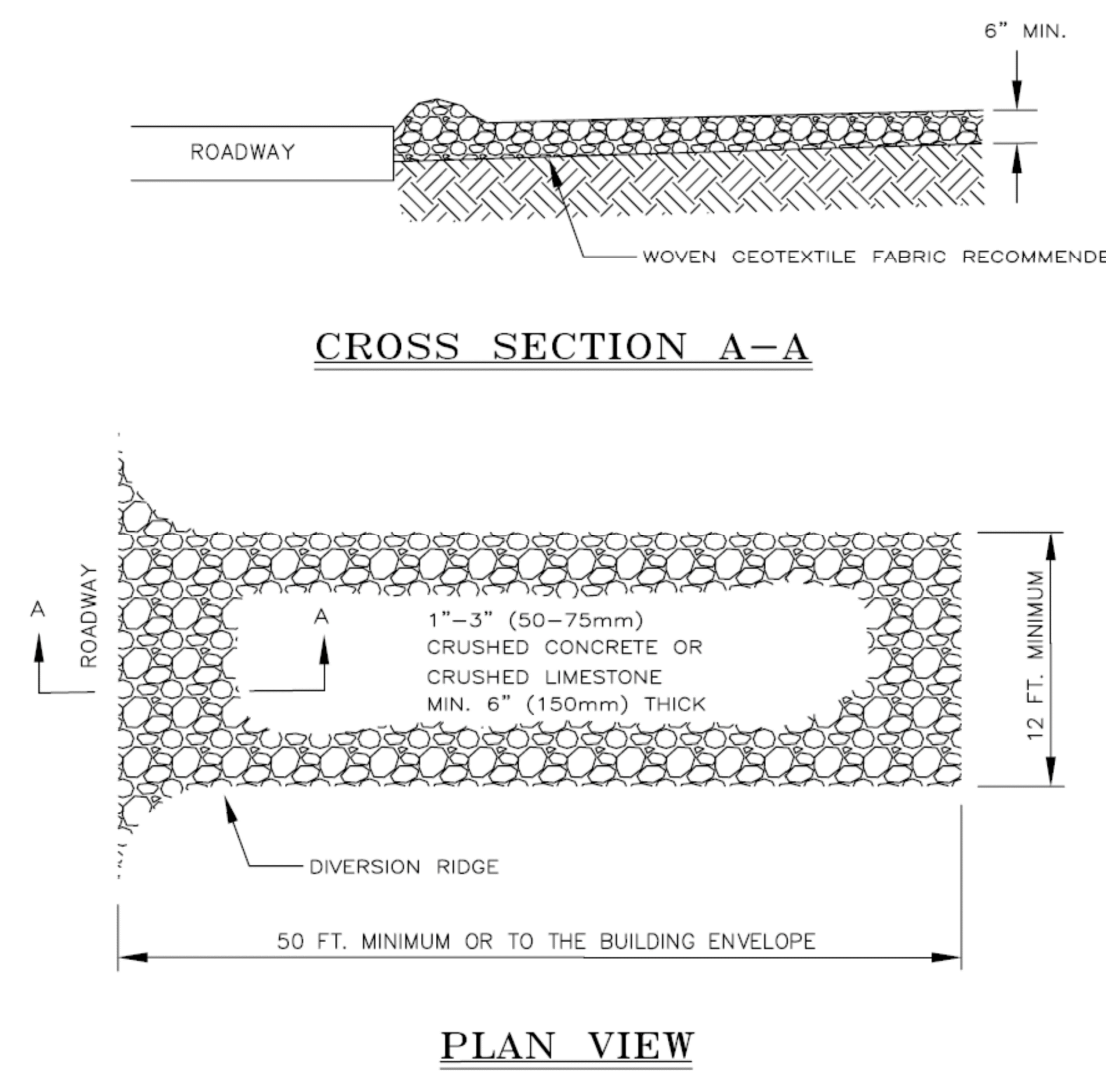
36" SILT FENCE GRAVEL FILTER
STANDARD CONTROL



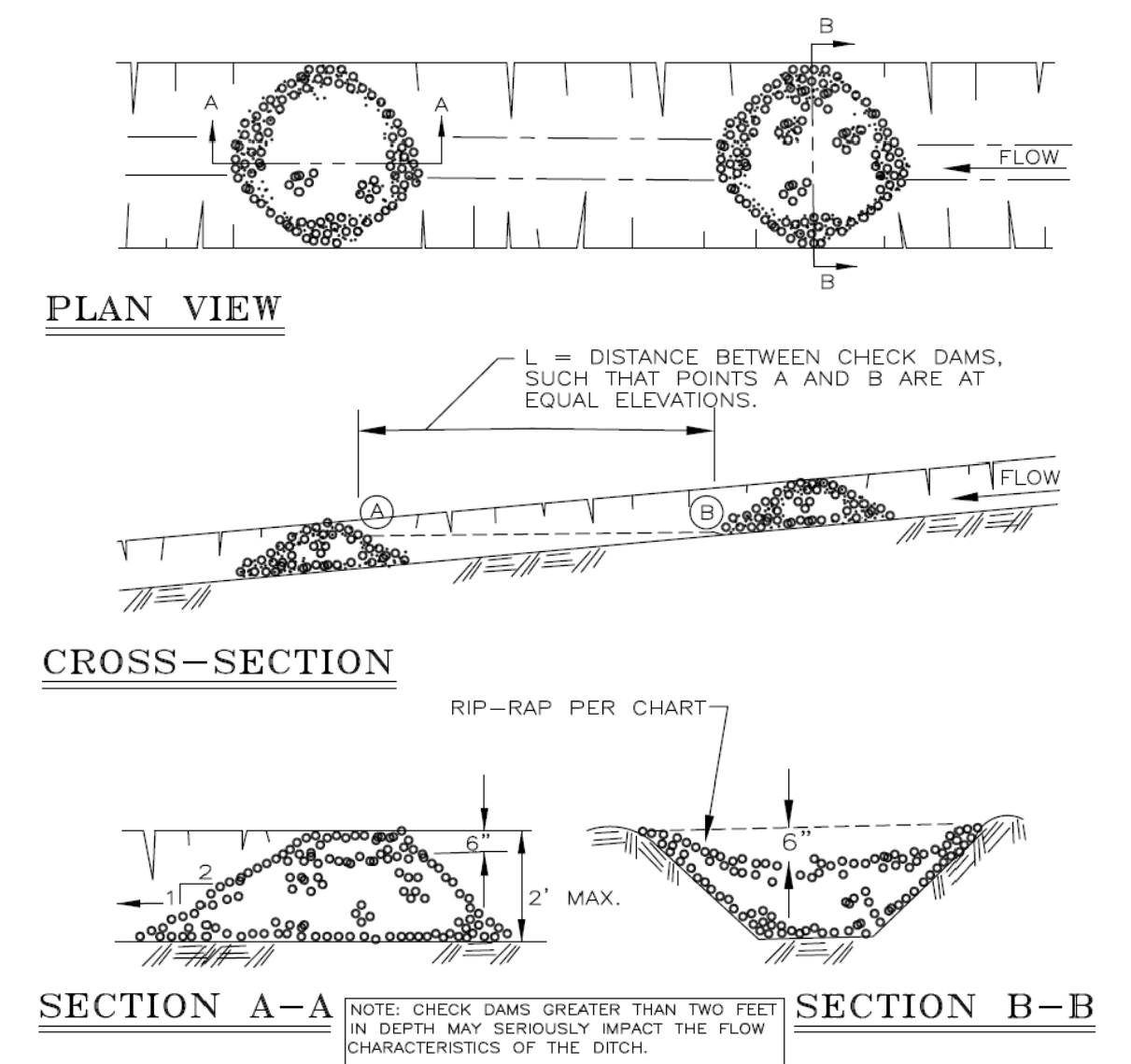
36" SILT FENCE
WINTER FROZEN GROUND INSTALLATION
STANDARD CONTROL



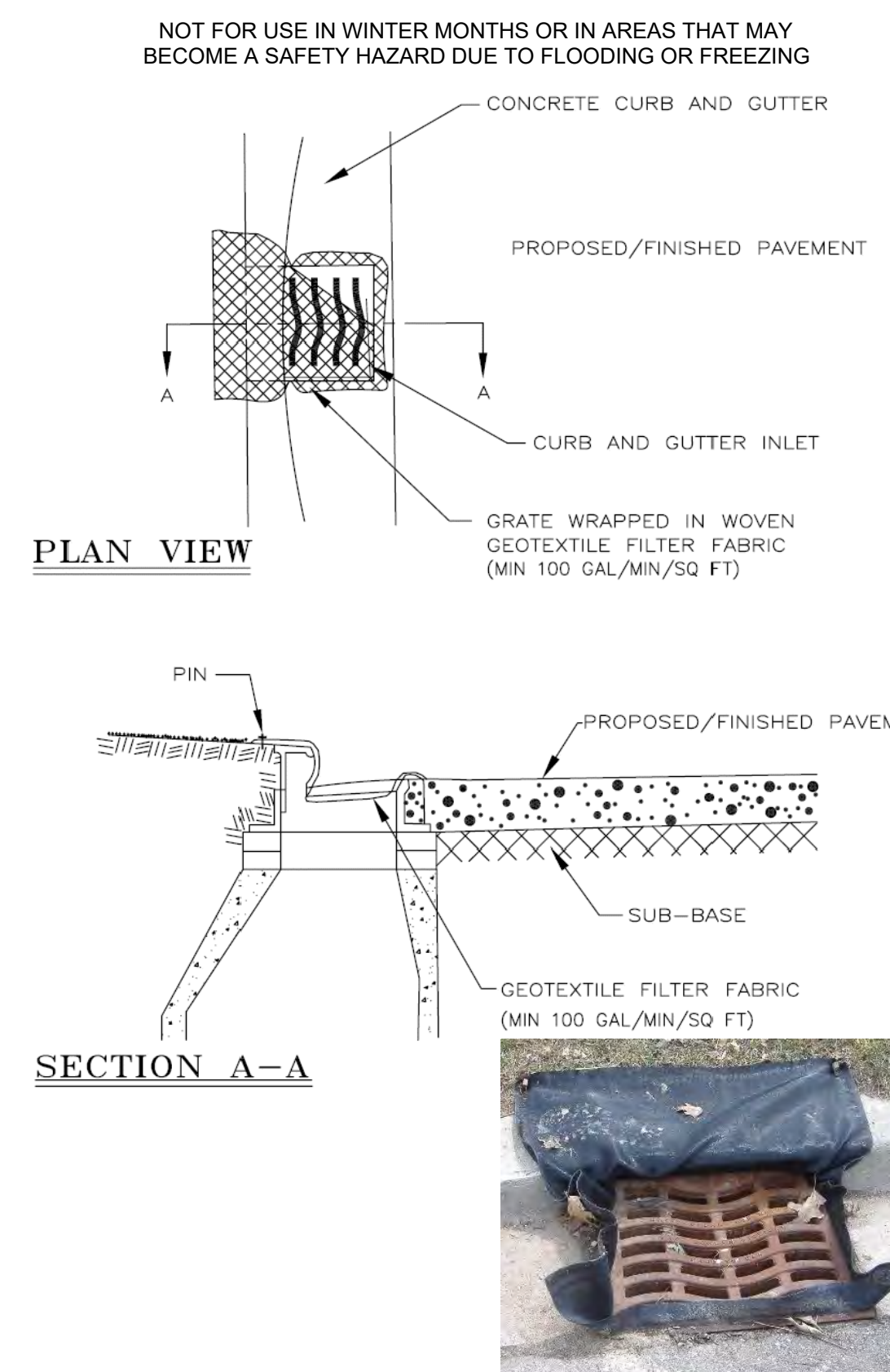
TRACKING MAT
STANDARD CONTROL



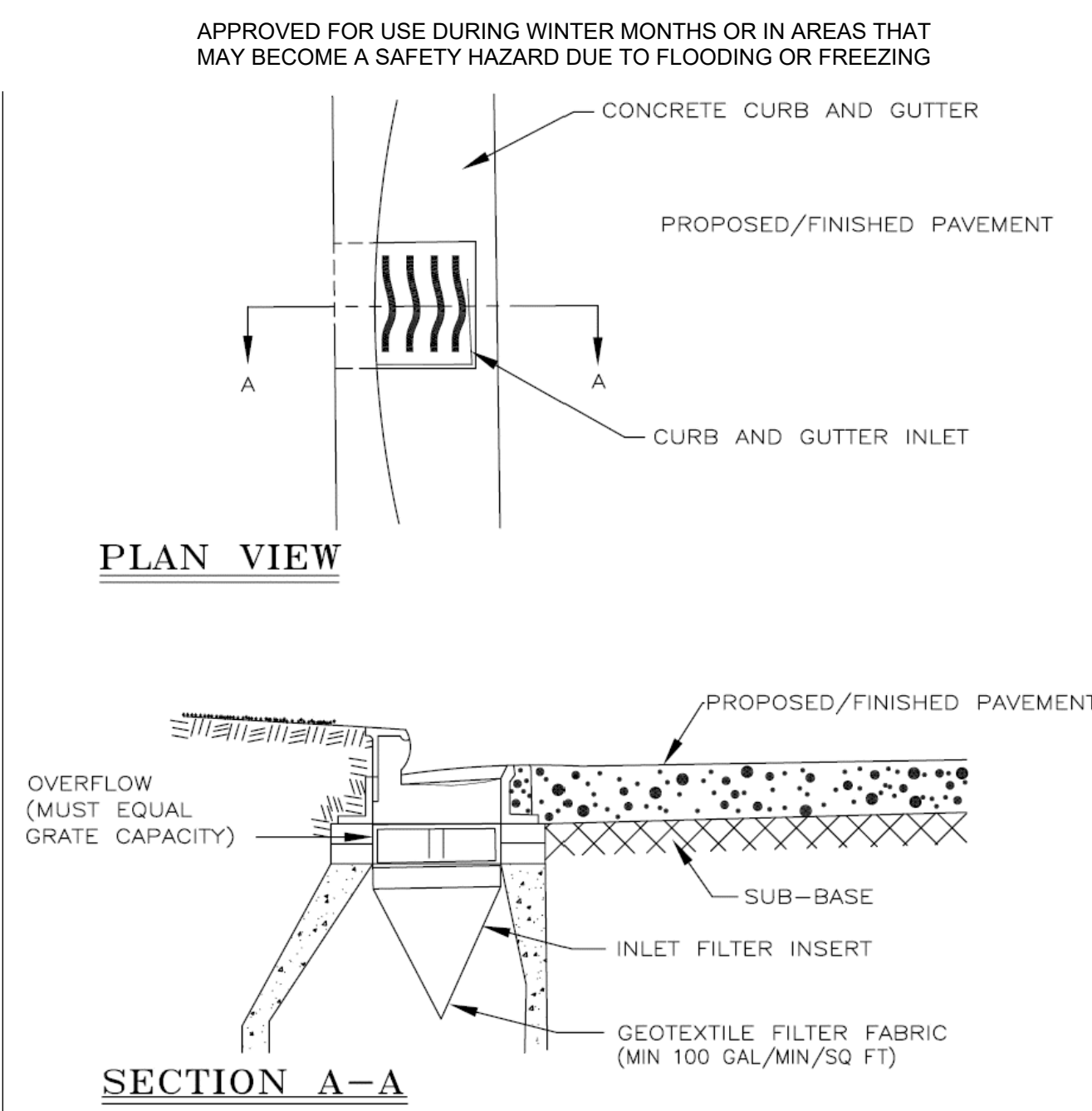
ANGULAR RIP RAP CHECK DAM
STANDARD CONTROL



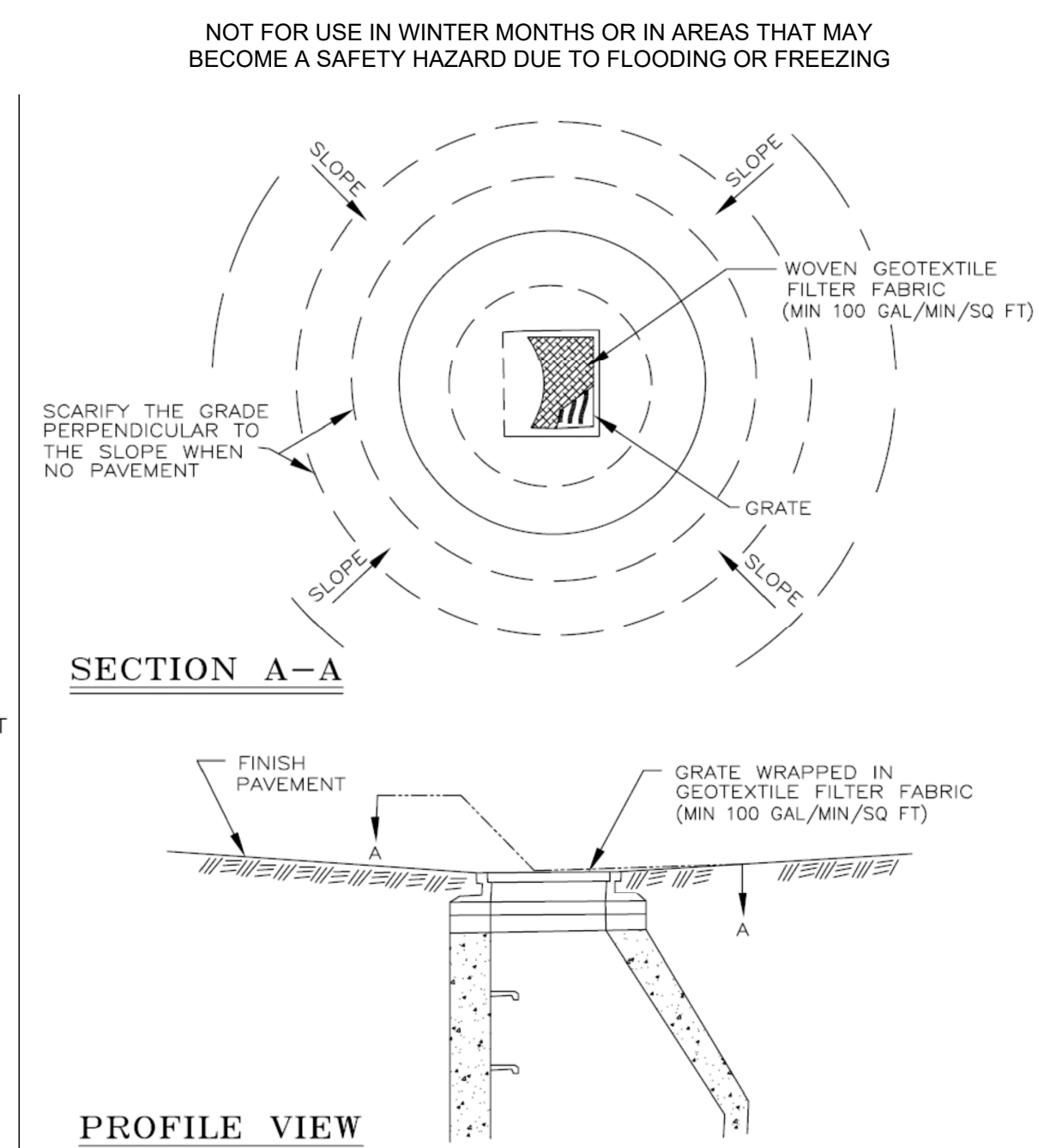
GEOTEXTILE FABRIC CURB AND GUTTER
INLET FILTER
STANDARD NON-WINTER USE



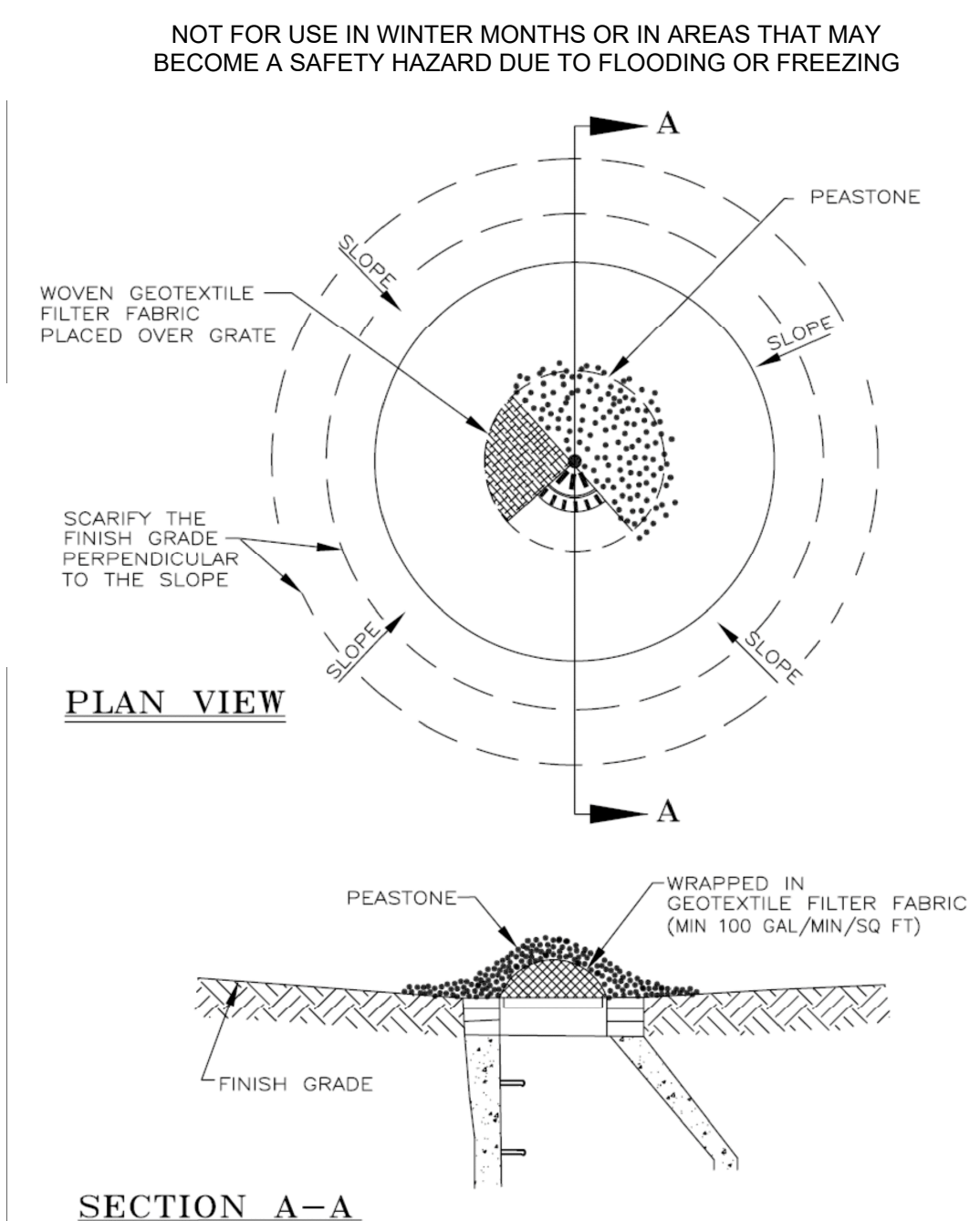
SILT SACK OR APPROVED EQUAL CURB AND GUTTER
INLET FILTER
STANDARD CONTROL YEAR ROUND OR WINTER USE



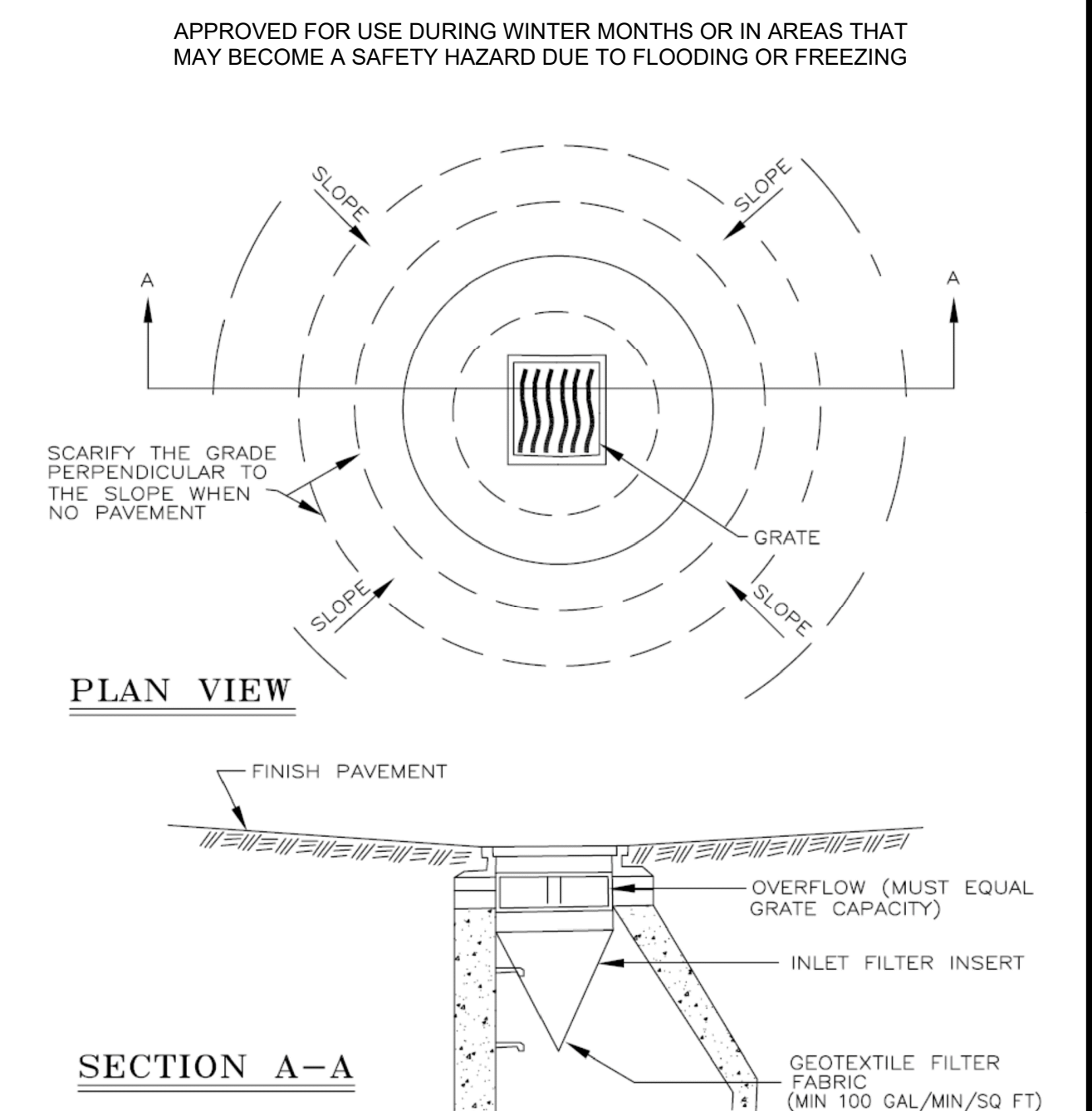
GEOTEXTILE FABRIC LOW POINT/YARD
INLET FILTER
STANDARD CONTROL NON-WINTER USE



GEOTEXTILE & PEASTONE LOW POINT/YARD
INLET FILTER
STANDARD CONTROL NON-WINTER USE



SILT SACK OR APPROVED EQUAL LOW POINT/YARD
INLET FILTER
STANDARD CONTROL YEAR ROUND OR WINTER USE



FILE:C:\Users\User\Dropbox (Living)\Projects\2022\22147_Come_3399_E_Grand_River\03_DWGS\Prelim_Site_Plan\22147_C5.2_SESC_Details.dwg

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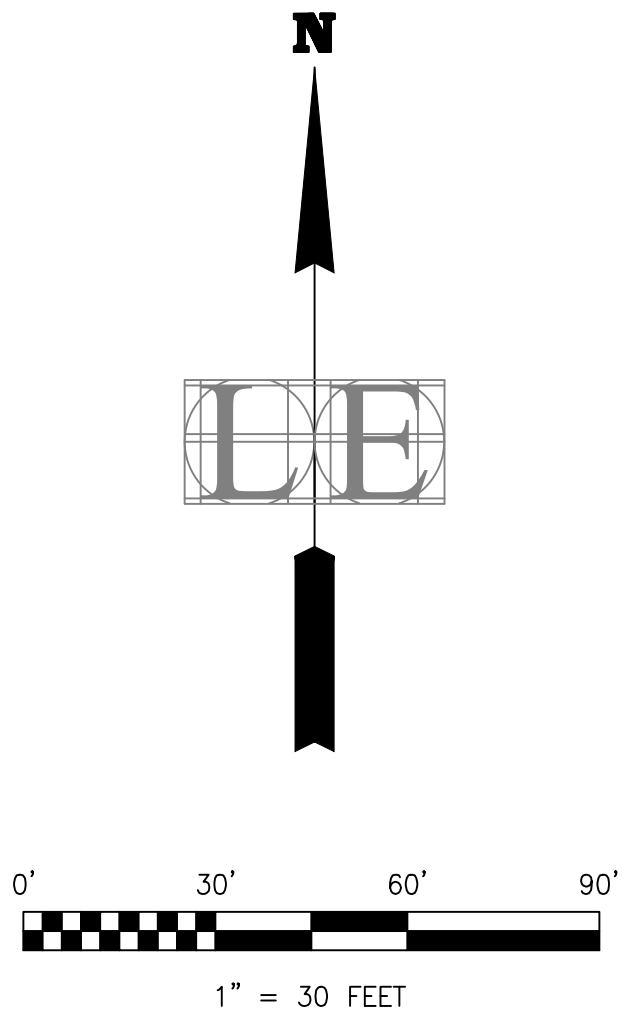
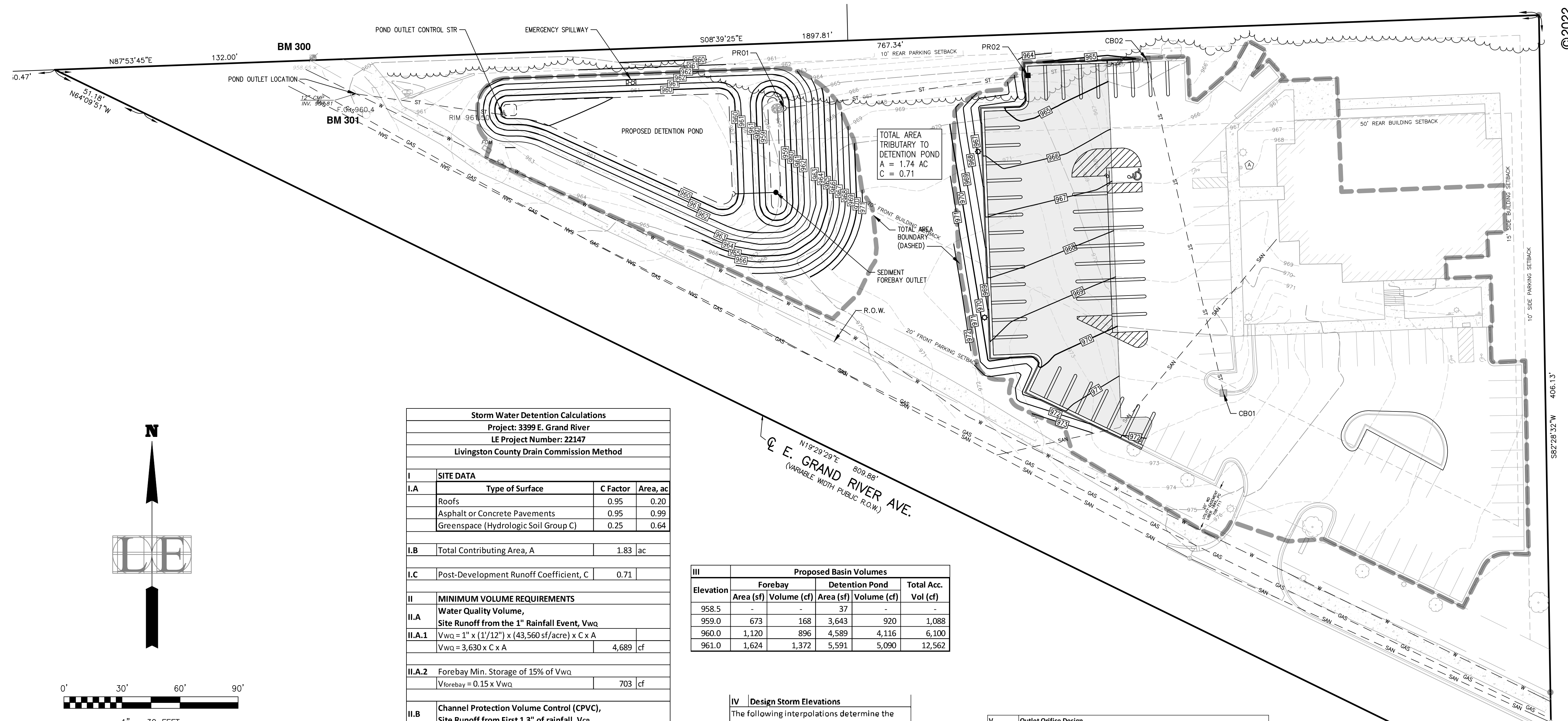
Client

PARKING LOT EXPANSION
3399 E. GRAND RIVER AVENUE
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
SECC DETAILS

DATE	06/21/22
REVISIONS	REVISIONS PER TOWNSHIP
Drawn: HJC	Checked: DBL
Scale:	Approved: DBL
Vertical:	Date: 05/19/2022
Horizontal:	

Job No. **22147** Scale: **T = 20'**

C5.2



Storm Water Detention Calculations	
Project: 3399 E. Grand River	
LE Project Number: 22147	
Livingston County Drain Commission Method	
I SITE DATA	
I.A	Type of Surface
	Roofs 0.95 0.20
	Asphalt or Concrete Pavements 0.95 0.99
	Greenspace (Hydrologic Soil Group C) 0.25 0.64
I.B	Total Contributing Area, A 1.83 ac
I.C	Post-Development Runoff Coefficient, C 0.71
II MINIMUM VOLUME REQUIREMENTS	
II.A Water Quality Volume, Site Runoff from the 1" Rainfall Event, Vwq	
II.A.1	Vwq = 1" x (1/12") x (43,560 sf/acre) x C x A
	Vwq = 3,630 x C x A 4,689 cf
II.A.2	Forebay Min. Storage of 15% of Vwq
	Vforebay = 0.15 x Vwq 703 cf
II.B Channel Protection Volume Control (CPVC), Site Runoff from First 1.3" of rainfall, Vcp	
	Vcp = 1.3" x (1/12") x (43,560 sf/acre) x C x A
	Vcp = 4,719 x C x A 6,096 cf
	Vcp Credit, Vcp-P - cf
II.C Channel Protection Rate Control (CPRC), Extended Detention for the Site Runoff from a 1.9" Rainfall Event, Ved	
II.C.1	Ved = 1.9" x (1/12") x (43,560 sf/acre) x C x A
	Ved = 6,897 x C x A 8,910 cf
II.C.2	Extended Detention Volume Discharge Rate, Qed
	Qed = Ved / (48 hr x 60 min x 60 sec) 0.05 cfs
II.D Detention and Flood Control Volume	
II.D.1	Allowable Release Rate, Qvrr
	Qvrr = 1.1055 - 0.206ln(A) 0.98 cfs/ac
II.D.2	Allowable 100-year Post-Development Peak Flow Rate, Q100p
	Q100p = Qvrr x A 1.80 cfs
II.D.3	Allowable 100-year Post-Development Runoff Volume, V100r
	V100r = 18,985 x C x A 24,526 cf
II.D.4	100-Year Peak Inflow Rate, Q100in
II.D.4.a	Site Specific Time of Concentration, Tc 15 min
II.D.4.b	100-Year Peak Rainfall Intensity, I100
	I100 = 83.3 / (Tc + 9.17)^0.81 6.31 in/hr
II.D.4.c	Q100in = C x I100 x A 8.15 cfs
II.D.5	Storage Curve Factor, R
	R = [0.206 - 0.15 Ln(Q100p/Q100in)] 0.433
II.D.6	100-Year Detention Basin Size, V100d
	V100d = (V100r x R) - Vcp-P 10,619 cf
	Key Rule: V100d ≥ Ved
	V100d = 10,619 cf

Proposed Basin Volumes					
Elevation	Forebay		Detention Pond		Total Acc. Vol (cf)
	Area (sf)	Volume (cf)	Area (sf)	Volume (cf)	
958.5	-	-	37	-	-
959.0	673	168	3,643	920	1,088
960.0	1,120	896	4,589	4,116	6,100
961.0	1,624	1,372	5,591	5,090	12,562

IV Design Storm Elevations
The following interpolations determine the pond water elevations for the three different storm events:

Water Quality Volume Elevation, Site Runoff from the 1" Rainfall Event, Elev Vwq

960	959	=	x	-	959
6,100	1,088		4,689		1,088
Elev Vwq = x = 959.72					

Channel Protection Rate Control (CPRC), Extended Detention Elevation for the Site Runoff from a 1.9" Rainfall Event, Elev Ved

961	960	=	x	-	960
12,562	6,100		8,910		6,100
Elev Ved = x = 960.43					

IV.C 100 Year Storm Event Elevation, Elev V100d

961	960	=	x	-	960
12,562	6,100		10,619		6,100
Elev V100d = x = 960.70					

V Outlet Orifice Design

II.A Channel Protection Rate Control (CPRC) Orifice

Number of 1-inch Dewatering Holes, Hcp		
h = Total Head on the Orifices, (Elev Vcp) - (Elev Bottom of Pond)	1.93 ft	
Hcp = (Vcp) / ((4800)(h)^(1/2))	1.33	
Hcp	2/holes	

II.B 100-Year Detention Orifice

II.A.1 Number of 1-inch Dewatering Holes, H100d

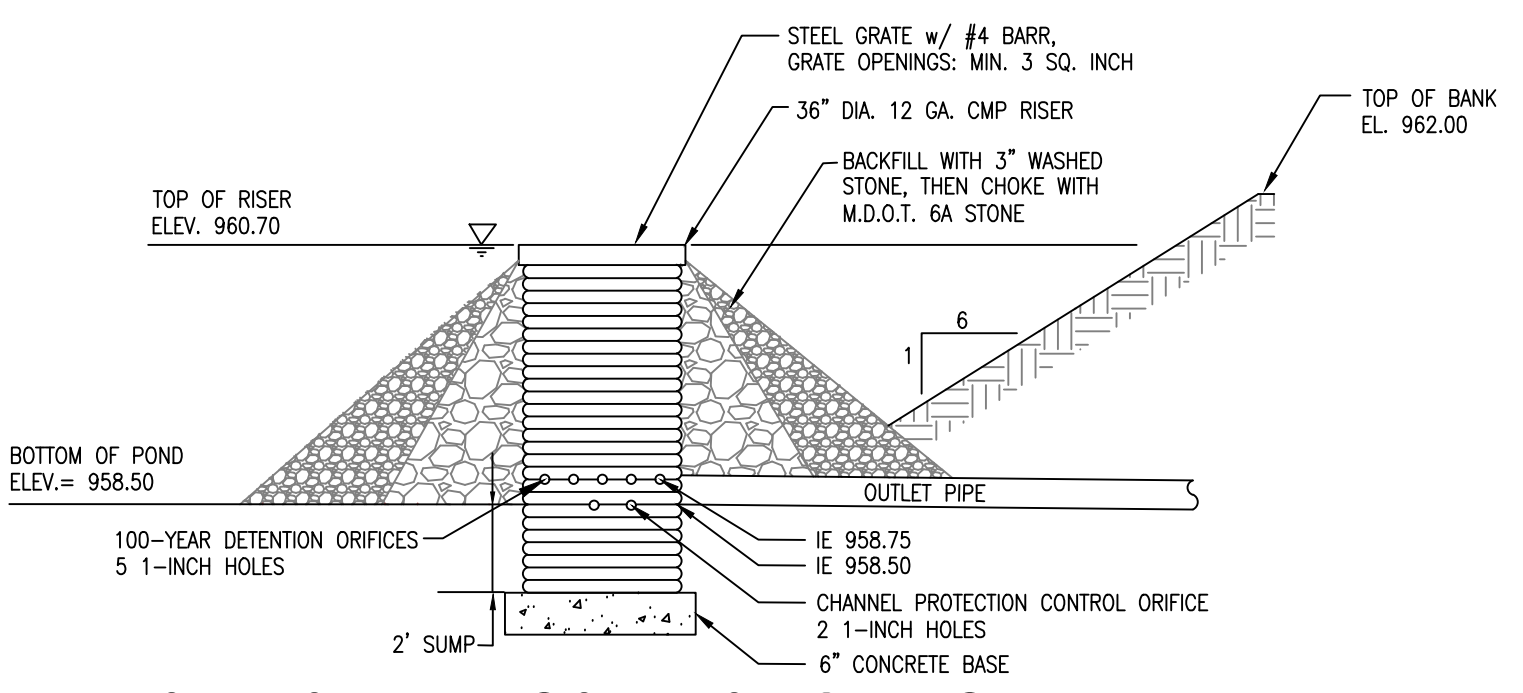
h = Total Head on the Orifices, (Elev V100d) - (Elev V100)	0.25 ft
H100d = (V100d) / ((4800)(h)^(1/2))	4.37
H100d	5/holes

GENERAL UTILITY NOTES:

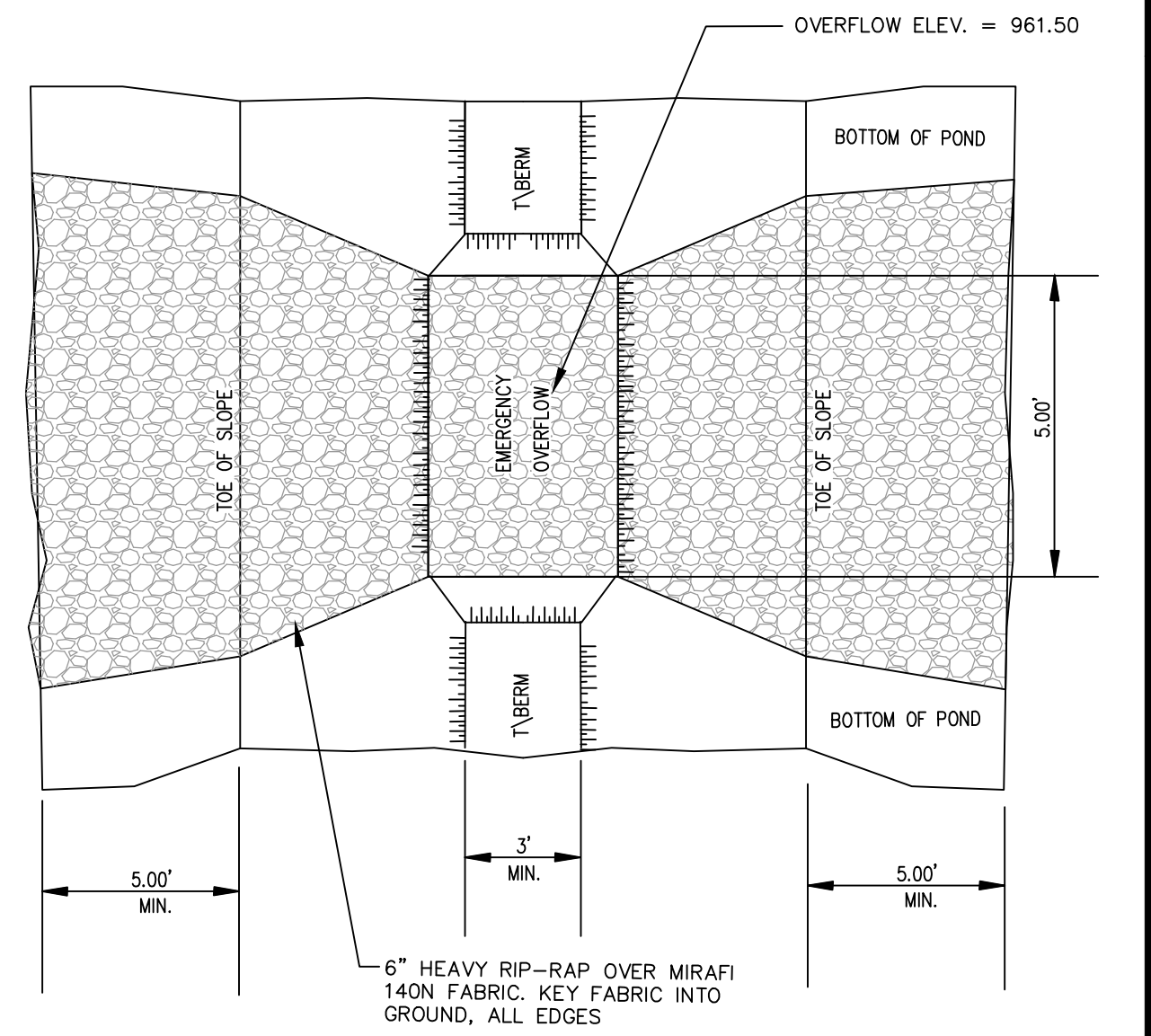
STORM WATER MANAGEMENT NARRATIVE
THE PROJECT INCLUDES THE CONSTRUCTION OF A PARKING AREA EXPANSION TO THE MULTI-USE COMMERCIAL PROPERTY. SURFACE RUNOFF WILL SHEET FLOW TO THE NORTHEAST CORNER OF THE PROPOSED PARKING AREA AND SPILL INTO A PROPOSED DOGHOUSE MANHOLE OVER AN EXISTING 15" PIPE. RUNOFF WILL THEN OUTLET INTO A SEDIMENT FOREBAY AND DETENTION BASIN BEFORE BEING RELEASED OVER A MINIMUM 48 HR PERIOD INTO THE EXISTING RAVINES OF ROLLING RIDGE DRAIN.

THE EXISTING DETENTION BASIN IS EXPANDED TO MEET THE LATEST LIVINGSTON COUNTY DRAIN COMMISSION STORMWATER DESIGN CRITERIA. PROPOSED DETENTION BASIN IS DESIGNED WITH A CAPACITY FOR A COMPOSITE TRIBUTARY RUNOFF COEFFICIENT OF 0.71 FOR THE ENTIRE DEVELOPMENT.

STORM DRAINAGE CALCULATION SHEET																					
Runoff Formula: Q = CIA																					
LIVINGSTON ENGINEERING, L.C. 3300 S. Old U.S. 23 Brighton, MI 48114 (810) 225-7100 Ph. (810) 225-7699 Fax										PROJECT/CLIENT: Job No.: 22147 Date: 6/21/2022 By: HJC Revised:											
$i = n/T^{0.775}$ $x = 175$ $y = 25$ (10 Year Storm Event) Job No.: 22147 $i = n/T^{0.775}$ $x = 275$ $y = 25$ (100 Year Storm Event) Date: 6/21/2022 Type of Pipe = Concrete $n = 0.013$ c factor impervious = 0.90 $n = 0.013$ c factor for turfgrass = 0.20																					
Structure No.	Drainage Area A (Acres)	%Imperv	Runoff Coeff. C	CxA	ADD. CxA	Σ CxA	Time T (min.)	Rainfall I (in./hr.)	Q (cfs)	Pipe Dia. (in.)	Length (ft.)	Slope %	H.G. Slope (ft./sec.)	Velocity Flowing Full (ft./sec.)	Travel Time (min.)	Pipe Capacity (cfs)	Rim Elev. Upstr.	H.G. Upstr.	Invert Elev. Dwnstr.		
CB02	CB01	0.50	83	0.78	0.39	0.39	15.00	4.38	1.70	12	177	3.37	0.23	8.35	0.35	6.56	971.62	966.95	961.12	966.15	960.19
CB01	PR02	0.47	78	0.74	0.35	0.74	13.35	4.34	3.19	15	62	0.39	0.24	3.28	0.31	4.03	964.23	961.12	960.88	960.12	959.88
PR02	PR01	0.35	100	0.71	0.25	0.98	15.67	4.30	4.23	15	126	0.39	0.43	3.46	0.61	4.04	966.23	960.88	958.50	959.88	959.39



POND OUTLET CONTROL STRUCTURE DETAIL
NOT TO SCALE



EMERGENCY SPILLWAY DETAIL
NOT TO SCALE

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© 2022 406.13' 582°28'32"W 10' SIDE PARKING SETBACK

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Client

PARKING LOT EXPANSION

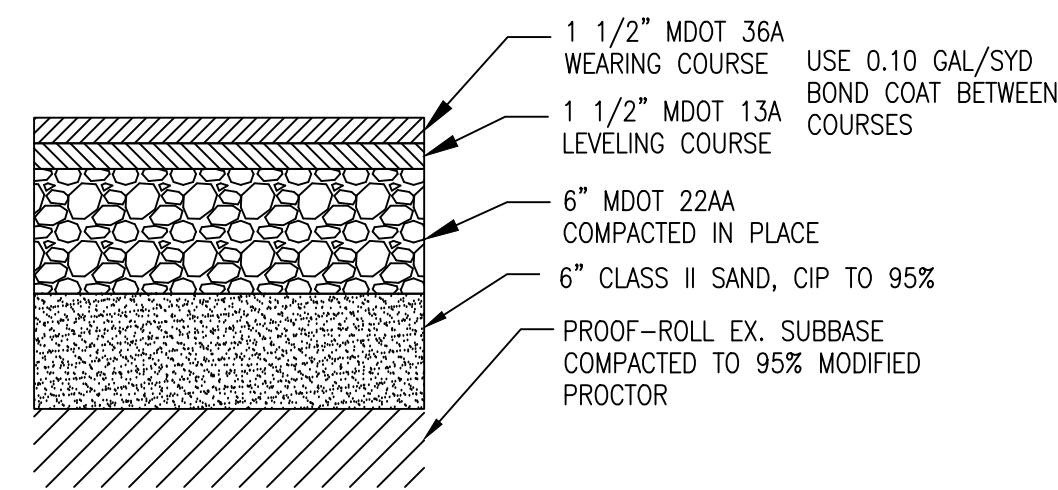
3399 E. GRAND RIVER AVENUE
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
STORM WATER MANAGEMENT PLAN

DATE	REVISIONS
06/21/22 <td>REVISIONS PER TOWNSHIP</td>	REVISIONS PER TOWNSHIP

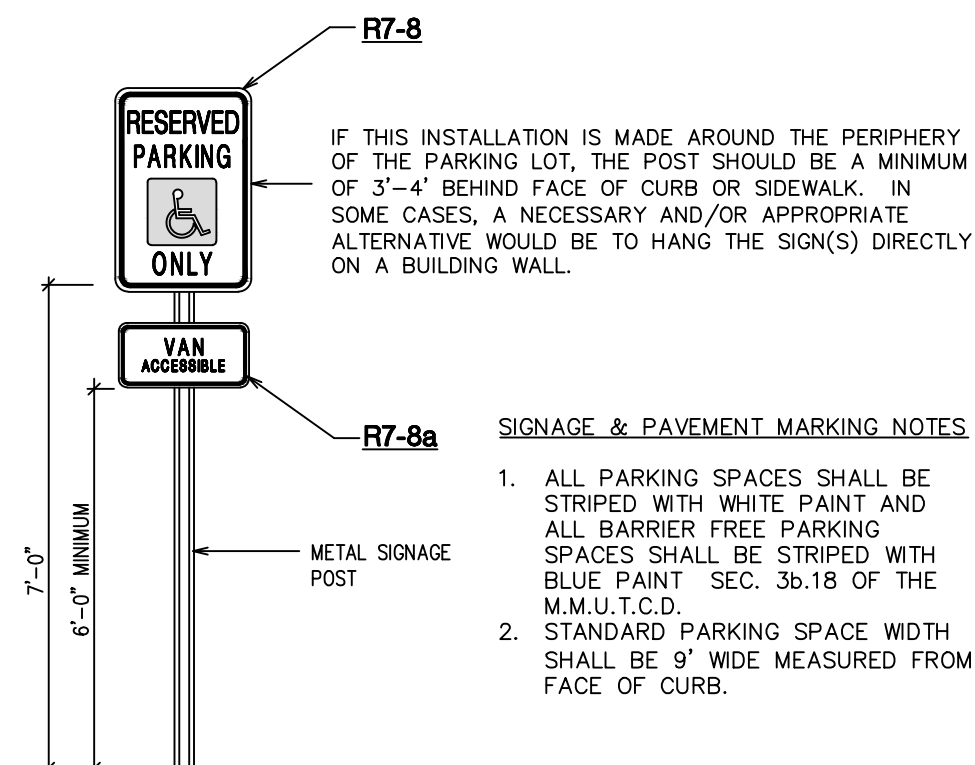
Drawn: HJC	Checked: DBL	Approved: DBL	Date: 05/19/2022
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Job No.: 22147
Scale: Vertical: Horizontal: 1" = 20'

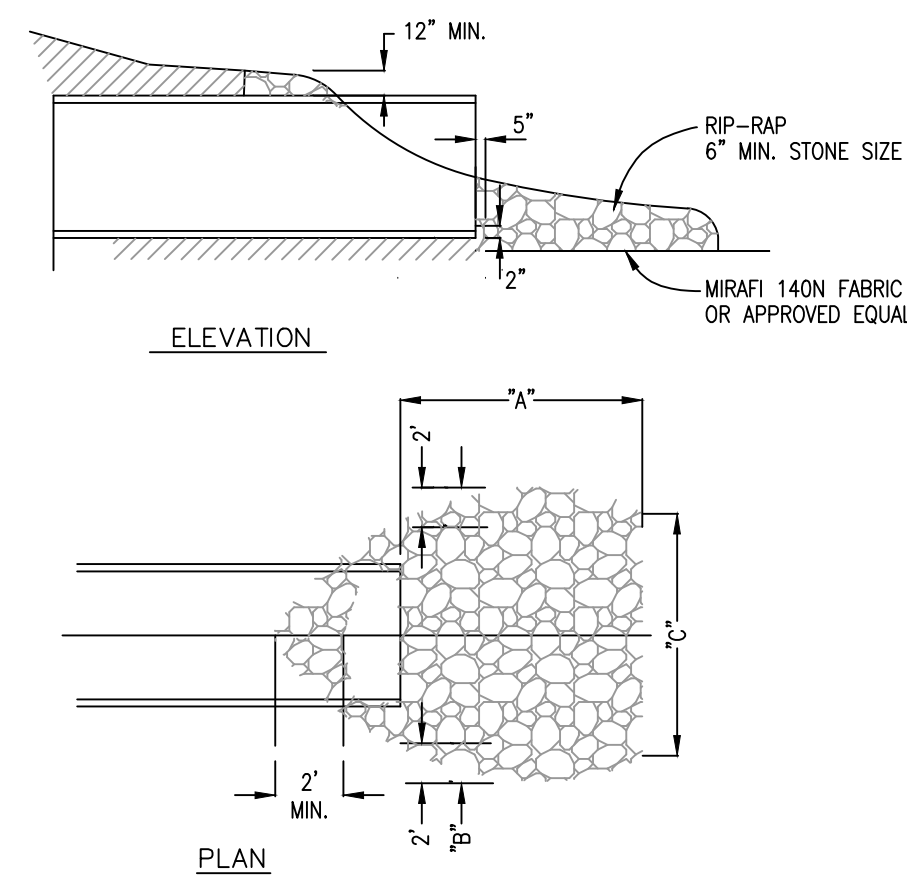
C6.0



A ASPHALT PAVEMENT SECTION
NOT TO SCALE

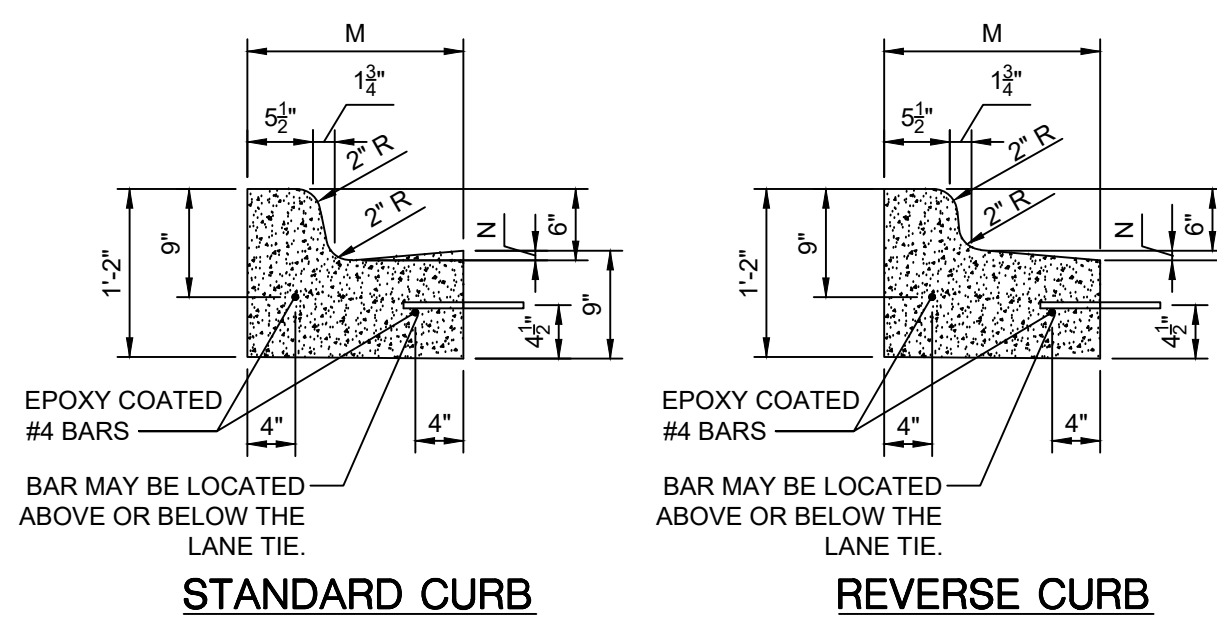


E BARRIER FREE SIGN
NOT TO SCALE



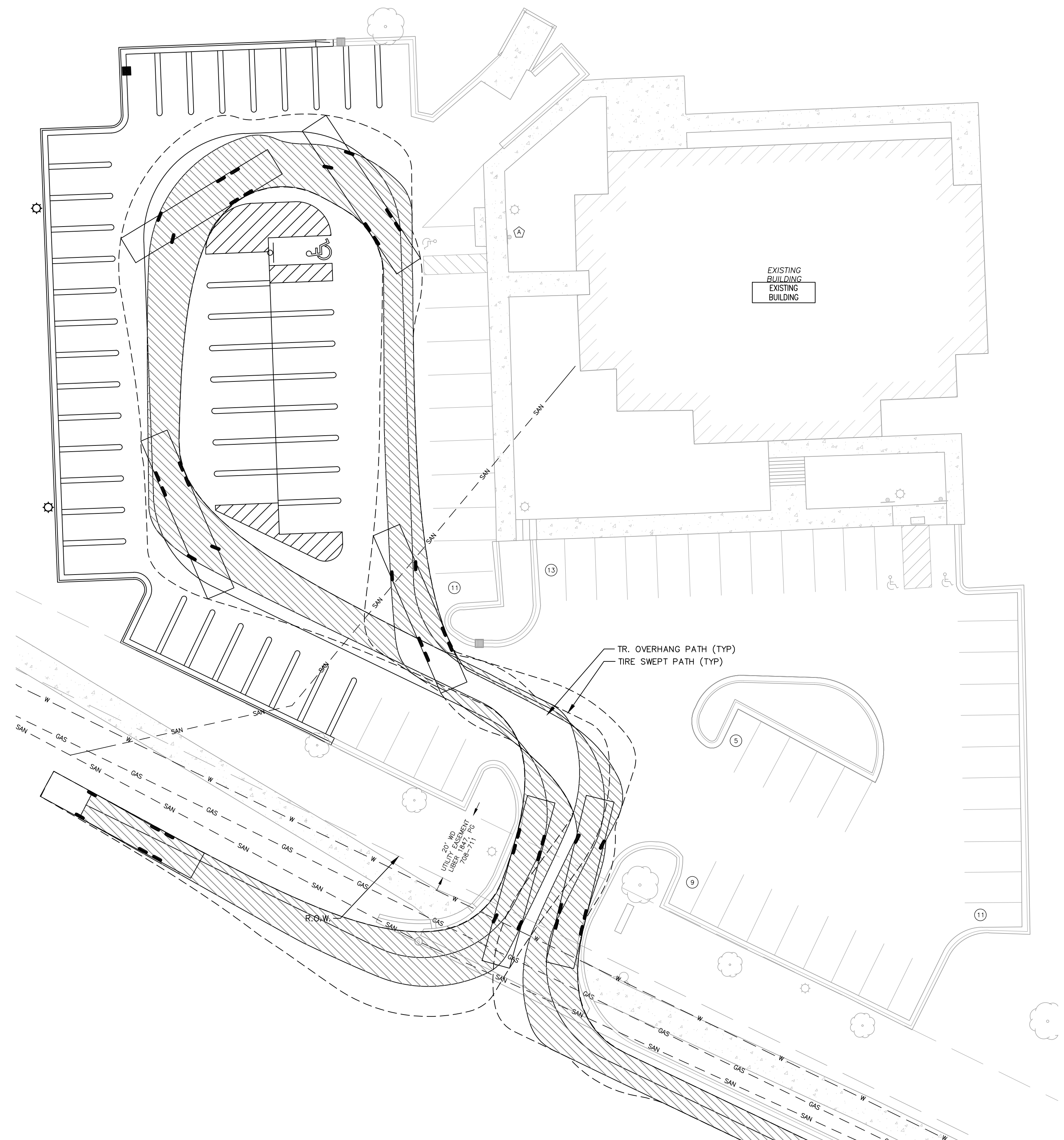
PIPE DIAMETER	"A"	"B"	"C"	SQUARE YARDS
12"	5'-0"	6'-6"	3'-0"	15 MIN
15"	5'-0"	7'-0"	3'-0"	15 MIN
18"	5'-0"	7'-6"	3'-6"	15 MIN
21"	5'-6"	8'-0"	4'-0"	15 MIN
24"	6'-0"	8'-6"	4'-6"	15 MIN

D RIP-RAP DETAIL
NOT TO SCALE

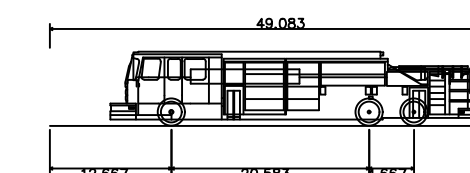


DETAIL	DIMENSIONS		LANE TIES	CONCRETE CU. YD. / LIN. FT.
	M	N		
F1	1'-6"	7/8"	AS SHOWN	0.0484
F2	1'-6"	7/8"	OMITTED	0.0484
F3	2'-0"	1.38"	AS SHOWN	0.0610
F4	2'-0"	1.38"	OMITTED	0.0610
F5	2'-6"	1.78"	AS SHOWN	0.0737
F6	2'-6"	1.78"	OMITTED	0.0737

G MDOT "F" CONCRETE CURB
NOT TO SCALE



PUMPER FIRE TRUCK MANEUVERING PLAN
SCALE: 1" = 30'

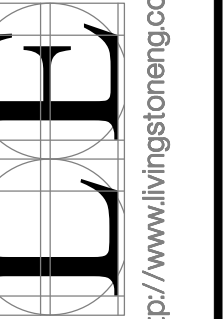


Pumper Fire Truck Brighton FA	49.083ft
Overall Length	8.167ft
Overall Width	7.745ft
Overall Body Height	0.656ft
Min. Body Ground Clearance	8.067ft
Track Width	8.06ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

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Client

PARKING LOT EXPANSION

3399 E. GRAND RIVER AVENUE
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

DATE

06/21/22

REVISIONS

REVISIONS PER TOWNSHIP

Drawn: HJC

Checked: DBL

Approved: DBL

Date: 05/19/2022

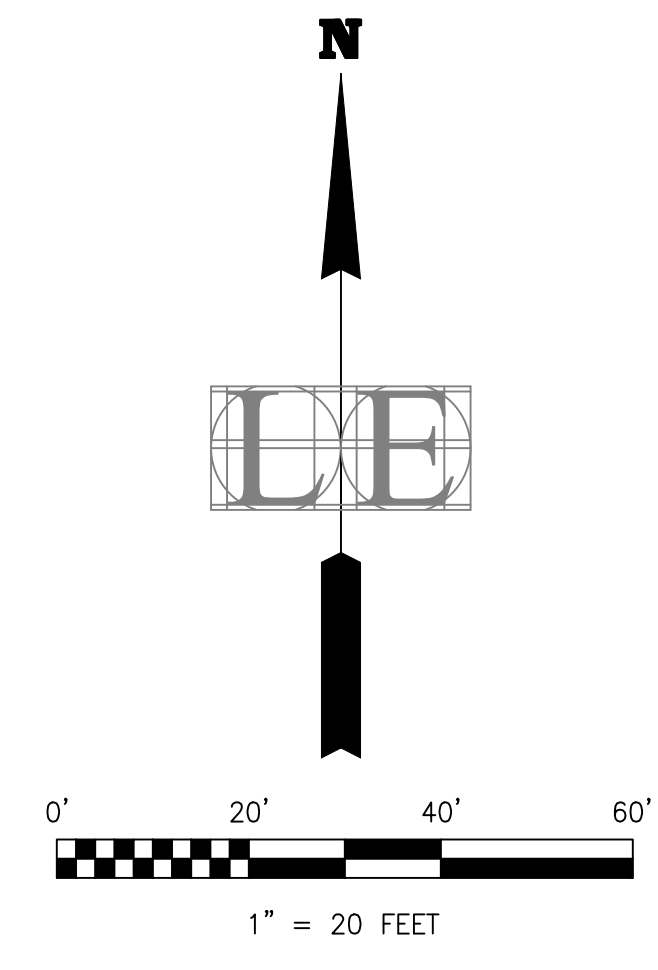
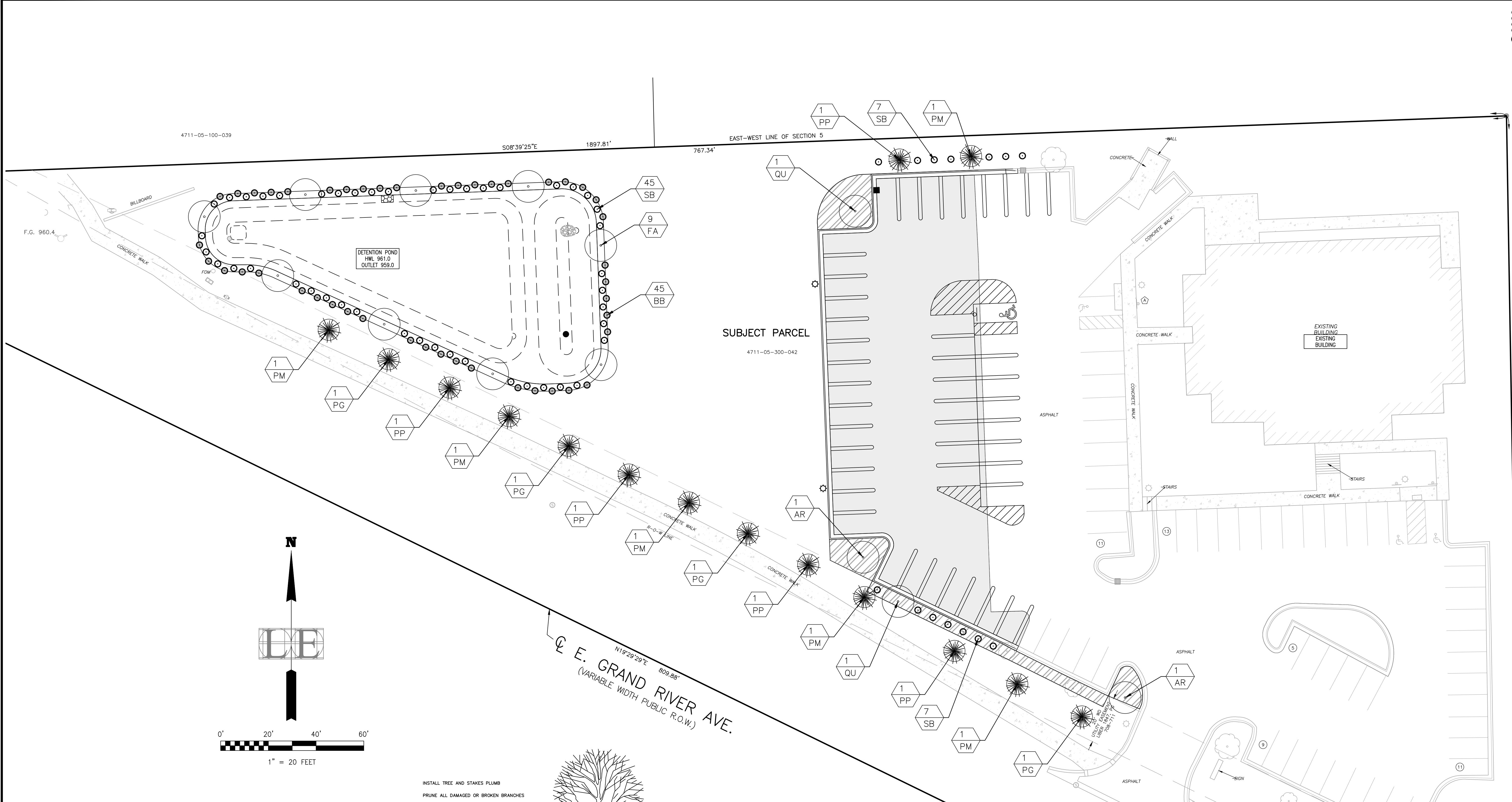
22147

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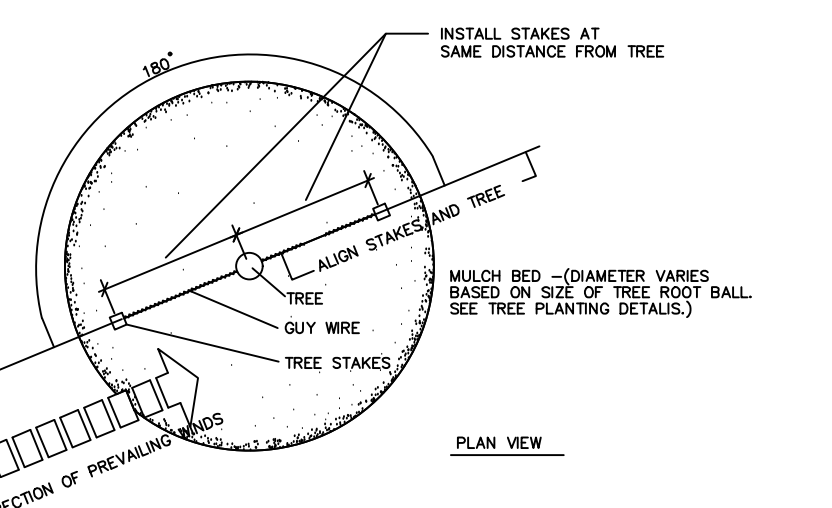
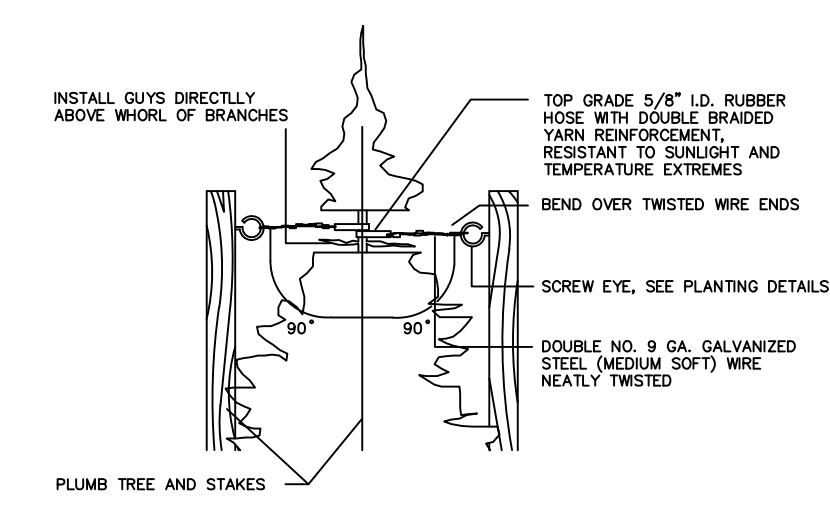
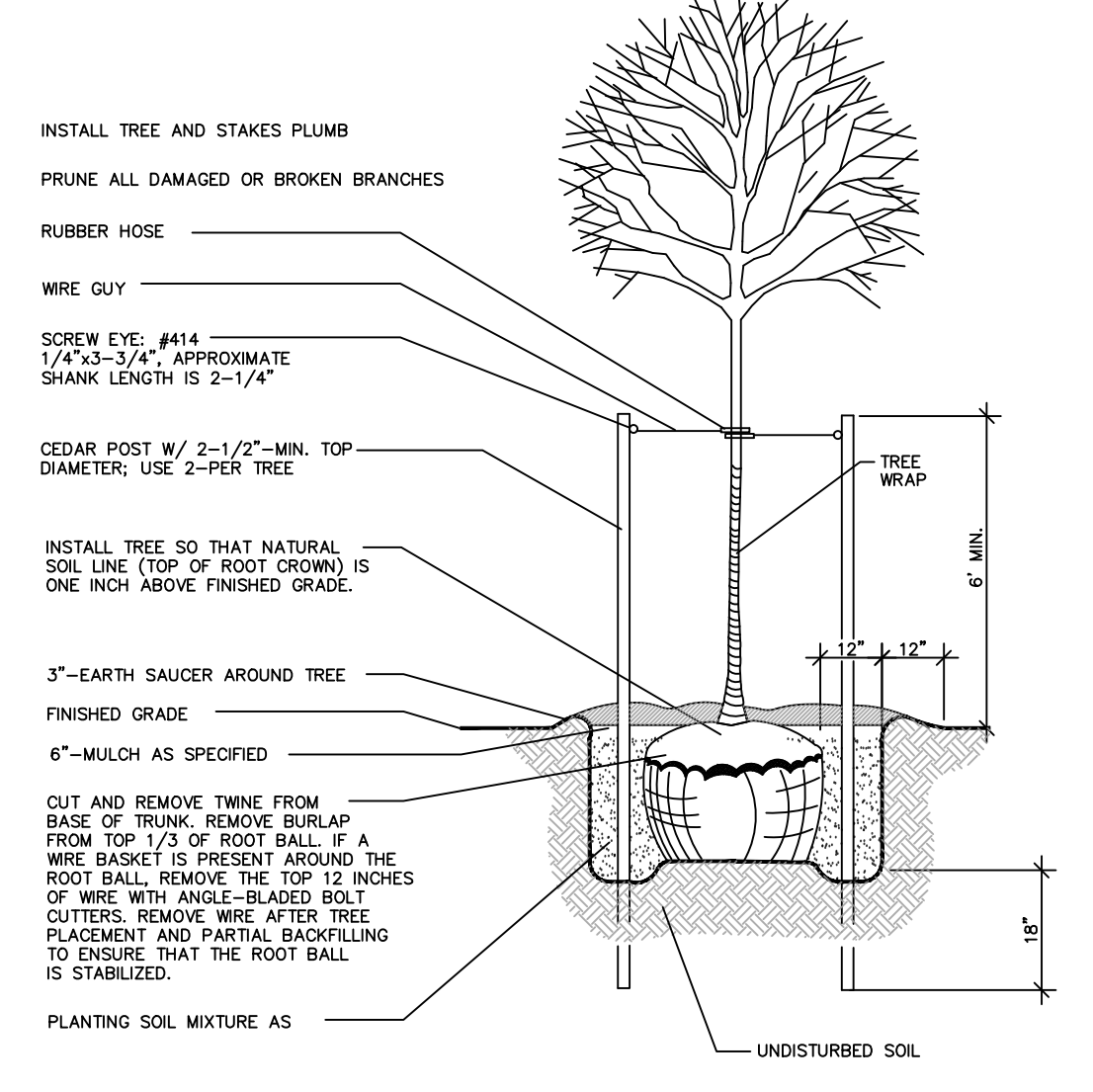
Vertical: 1" = 30'

Horizontal:

C7.0



Planting List					
Deciduous Trees			Size		
Key	Qty	Genus	Common Name		
AR	2	Acer rubrum	Red Maple	2.5"	B & B
QU	2	Quercus alba	White Oak	2.5"	B & B
FA	9	Fagus grandifolia	American Beech	2.5"	B & B
Evergreen Trees			Size		
Key	Qty	Genus	Common Name		
PG	5	Picea glauca	Norway Spruce	6"	B & B
PM	6	Picea mariana	Black Spruce	6"	B & B
PP	4	Picea pungens	Blue Spruce	6"	B & B
Large Shrubs			Size		
Key	Qty	Genus	Common Name		
SB	59	Cornus A. 'Sibirica Bloodgood'	Bloodgood Siberian Dogwood	30"	B & B
BB	45	Euonymus A. 'Compacta'	Dwarf Burning Bush	24"	B & B



DECIDUOUS TREE PLANTING/ STAKING DETAIL
UNDER 3" IN CALIPER

Guy Installation Detail
FOR EVERGREEN AND DECIDUOUS TREES

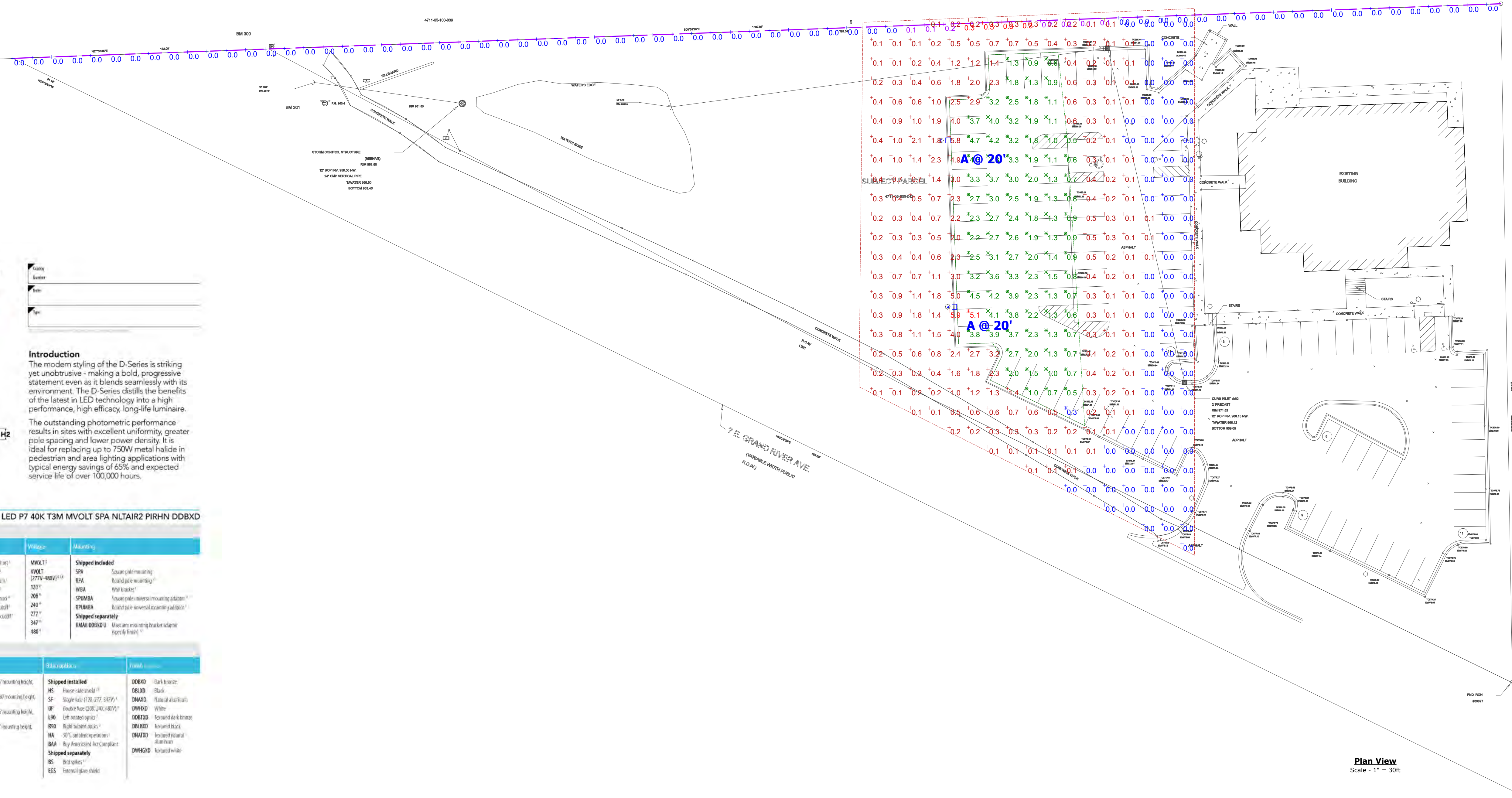
Stake Placement Detail
FOR EVERGREEN AND DECIDUOUS TREES

- LANDSCAPING NOTES:**
- The contractor(s) shall verify the location of all underground utilities prior to construction.
 - All plant beds are spade edged and to be mulched with shredded bark.
 - Plants shall conform to the sizes as shown on the drawings and shall be of sound health. All measurements such as spread, ball size, height, caliper and quality designations shall be in conformance to the latest edition of the American Standards for Nursery Stock.
 - All evergreen tree species are to be full, dense plants branched fully to the ground.
 - Prune all dead and broken branches from all plants immediately after installation.
 - Planting soil mixture shall be prepared on-site by mixing 3 parts topsoil to 1 part existing site soils to 1 part peat, adding 5 lbs. of superphosphate to each cubic yard of the mixture.
 - Organic mulch requirements: shade trees, ornamental trees and evergreen trees - 6" of shredded bark; shrubs and shrub beds - 4" of shredded bark; ground cover beds and perennial flowers - mulch with 1" of peat.

LANDSCAPE LEGEND

DECIDUOUS:	ALL SPECIES	
CONIFEROUS:	ALL SPECIES	
SHRUB:	ALL SPECIES	
LABEL:	QUANTITY	
KEY:	AR	
PARKING LOT GREENBELT AREA:		

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Plan View
 Scale = 1" = 30'



**D-Series Size 1
 LED Area Luminaire**

Specifications

EPA: 1.01 ft-cd
 Length: 33"
 Width: 13"
 Height H1: 7'-1 1/2"
 Height H2: 3'-1 1/2"
 Weight (max): 27 lbs.

Introduction
 The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAR2 PIRHN DDBXD

Series	LED	Color Temperature	Beam Spread	Voltages	Mounting
DSX1 LED	Forward optics	30K 4000K 40K 4000K 50K 5000K	T15 Spot (Automated) T25 Spot (Automated) T3M Spot (Automated) T3M Spot (Automated) T3M Spot (Automated) T3M Spot (Automated) T3M Spot (Automated) T3M Spot (Automated)	T3M Spot (Automated) T3M Spot (Automated) T3M Spot (Automated) T3M Spot (Automated) T3M Spot (Automated) T3M Spot (Automated) T3M Spot (Automated) T3M Spot (Automated)	Shipped included SPA Square pole mounting DDBXD Dark bronze DDBXD Black DDBXD Natural aluminum DDBXD White DDBXD Forward dark bronze DDBXD Forward black DDBXD Forward natural aluminum DDBXD Forward white Shipped separately KMAE DDBXD U Max arm mounting bracket adapter (sold separately)

General Note
 1. SEE DRAWING FOR LUMINAIRE MOUNTING HEIGHT.
 2. CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: 0' - 0"
 3. LIGHTING ALTERNATES REQUIRE NEW PHOTOMETRIC CALCULATION AND RESUBMISSION TO CITY FOR APPROVAL.

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

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

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

FOR ORDERING INQUIRIES CONTACT GASSER BUSH AT QUOTES@GASSERBUSH.COM OR 734-266-6705.

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

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

Schedule						
Symbol	Label	Quantity	Manufacturer	Catalog Number	Lamp	Light Loss Factor
□	A	2	Lithonia Lighting	DSX1 LED 40K MVOLT	LED	0.9

Statistics							
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
New Parking Lot	✖	2.2 fc	5.1 fc	0.3 fc	17.0:1	7.3:1	0.4:1
New Work	+	0.9 fc	5.9 fc	0.0 fc	N/A	N/A	0.2:1
Property Line	+	0.0 fc	0.3 fc	0.0 fc	N/A	N/A	0.0:1



GENOA CHARTER TOWNSHIP APPLICATION
Planned Unit Development (PUD)

APPLICANT NAME: GRAND RIVER DORR, LLC (Mark Kassab)
APPLICANT EMAIL: MKASSAB@MSHAPIROREALESTATE.COM
APPLICANT ADDRESS & PHONE: 31550 Northwestern Hwy, Suite 200 Farmington Hill, MI 48334 (248) 865-0066
OWNER'S NAME: Grand River Dorr, LLC
OWNER ADDRESS & PHONE: same as above
TAX CODE(S): 47-11-11-200-014, 47-11-14-100-002

QUALIFYING CONDITIONS (To be filled out by applicant)

- 1. A PUD zoning classification may be initiated only by a petition.
2. It is desired and requested that the foregoing property be rezoned to the following type of PUD designation:
[X] Residential Planned Unit Development (RPUD)
[] Planned Industrial District (PID)
[] Mixed Use Planned Unit Development (MUPUD)
[] Redevelopment Planned Unit Development (RDPUD)
[] Non-residential Planned Unit Development (NRPUD)
[] Town Center Planned Unit Development (TCPUD)
3. The planned unit development site shall be under the control of one owner or group of owners and shall be capable of being planned and developed as one integral unit.

EXPLAIN The development will be developed, owned and operated by a single ownership entity

- 4. The site shall have a minimum area of twenty (20) acres of contiguous land, provided such minimum may be reduced by the Township Board as follows:
A. The minimum area requirement may be reduced to five (5) acres for sites served by both public water and public sewer.
B. The minimum lot area may be waived for sites zoned for commercial use (NSD, GCD or RCD) where the site is occupied by a nonconforming commercial, office or industrial building, all buildings on such site are proposed to be removed and a new use permitted within the underlying zoning district is to be established.

minimum necessary to allow redevelopment of the site, while still meeting the spirit and intent of the ordinance.

- C. The PUD site plan shall provide one or more of the following benefits not possible under the standards of another zoning district, as determined by the Planning Commission:
- preservation of significant natural or historic features
 - a complementary mixture of uses or a variety of housing types
 - common open space for passive or active recreational use
 - mitigation to offset impacts
 - redevelopment of a nonconforming site where creative design can address unique site constraints.
- D. The site shall be served by public sewer and water. The Township may approve a residential PUD that is not served by public sewer or water, provided all lots shall be at least one (1) acre in area and the requirements of the County Health Department shall be met.

Size of property is 51.9+/- acres.

DESCRIBE BELOW HOW THE REQUESTED PUD DESIGNATION COMPLIES WITH AFOREMENTIONED MINIMUM LOT SIZE REQUIREMENTS.

The proposed development is over 51 acres. The development will preserve natural features and provided common open space opportunities for the residents, including walking trails, a community building and swimming pool. The site is constrained by regulated wetlands and create design is required to address the constraints. The site has access to public water supply and sanitary sewer.

STANDARDS FOR REZONING TO PLANNED UNIT DEVELOPMENT (RESPOND HERE OR WITHIN THE IMPACT STATEMENT)

1. How would the PUD be consistent with the goals, policies and future land use map of the Genoa Township Master Plan, including any subarea or corridor studies. If conditions have changed since the Master Plan was adopted, the consistency with recent development trends in the area;

The future land use map for Genoa Township identifies mixed use town center. However, a change in need for retail services has been observed in the market. There is a lack of ability to attract new retail to compete with the existing retail services already located in the area. The proposed use is consistent with the high intensity use along the Grand River Corridor. This is consistent with surrounding land use and provides a transition to the residential areas to the south.

2. The compatibility of all the potential uses in the PUD 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;

The RPUD with an HDR underlying zoning is a transitional residential zoning that is typically found adjacent to high and medium intensity uses. This is consistent with this property and its surrounding uses. In this situation the property is surrounded by industrial, general business and office. There is residential to the north (higher density) and the south (lower density). The RPUD allows for additional open space, protection of natural features, and is supported by the existing infrastructure.

3. The capacity of infrastructure and services sufficient to accommodate the uses permitted in the requested district without compromising the "health, safety and welfare" of the Township;

The proposed development will be compatible with past planning efforts and therefore the infrastructure is present to support it. The township services planned for this area will not be overtaxed by the development.

4. The apparent demand for the types of uses permitted in the PUD; Successful development area reaching various age demographics that seek amenities, less maintenance nature preservation and convenience to restaurants and shopping. This location is well located between Brighton and Howell where downtown shopping and restaurants are available as well as the Genoa retail and restaurant area at Latson and Grand River.

AFFIDAVIT

The undersigned says that they are the Owner (owner, lessee, or other specified interest) involved in this petition and that the foregoing answers and statements herein contained and the information herewith submitted are in all respects true and correct to the best of his/her knowledge and belief.

BY: Mark Kassab, Grand River Dorr, LLC

ADDRESS: 315550 Northwestern Hwy, ste 200 Farmington Hills 48334

Contact Information - Review Letters and Correspondence shall be forwarded to the following:

Jonathan Curry

of

PEA Group

at

jcurry@peagroup.com

Name

Business Affiliation

E-mail

FEE EXCEEDANCE AGREEMENT

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

PROJECT NAME: Grand River Dorr

PROJECT LOCATON & DESCRIPTION: 6080 W Grand River (Grand River/Dorr)

SIGNATURE: [Signature]

DATE: 6/2/22

PRINT NAME: MARK KASSAB

PHONE: 248-865-0066

COMPANY NAME & ADDRESS: 315550 Northwestern Hwy, ste 200 Farmington Hills 48334



GENOA CHARTER TOWNSHIP
Application for Re-Zoning

APPLICANT NAME: Grand River Dorr, LLC ADDRESS: 315550 Northwestern Highway, ste 200 Farmington Hills, 48334
OWNER NAME: same as above ADDRESS: _____
PARCEL #(s): 47-11-11-200-014, 47-11-14-100-002 PRIMARY PHONE: (248) 865-0066
EMAIL 1: Mkassab@mshapirorealestate.com EMAIL 2: _____

We, the undersigned, do hereby respectfully make application to and petition the Township Board to amend the Township Zoning Ordinance and change the zoning map of the township of Genoa as hereinafter requested, and in support of this application, the following facts are shown:

A. REQUIRED SUBMITTAL INFORMATION

1. A legal description and street address of the subject property, together with a map identifying the subject property in relation to surrounding properties;
2. The name, signature and address of the owner of the subject property, a statement of the applicant's interest in the subject property if not the owner in fee simple title, and proof of consent from the property owner;
3. It is desired and requested that the foregoing property be rezoned from:
NSD/ MDR /TOWN CENTER to HDR/PUD
4. A site plan illustrating existing conditions on the site and adjacent properties; such as woodlands, wetlands, soil conditions, steep slope, drainage patterns, views, existing buildings, sight distance limitations, relationship to other developed sites, and access points in the vicinity;
5. A conceptual plan demonstrating that the site could be developed with representative uses permitted in the requested zoning district meeting requirements for setbacks, wetland buffers access spacing, any requested service drives and other site design factors;
6. A written environmental impact assessment, a map of existing site features as described in Article 18 describing site features and anticipated impacts created by the host of uses permitted in the requested zoning district;
7. A written description of how the requested rezoning meets Sec. 22.04 "Criteria for Amendment of the Official Zoning Map."
8. The property in question shall be staked prior to the Planning Commission Public Hearing.

B. DESCRIBE HOW YOUR REQUESTED RE-ZONING MEETS THE ZONING ORDINANCE CRITERIA FOR AMENDING THE OFFICIAL ZONING MAP:

1. How is the rezoning consistent with the goals, policies and future land use map of the Genoa Township Master Plan, including any subareas or corridor studies. If not consistent, describe how conditions have changed since the Master Plan was adopted?

SEE ATTACHED

2. Are the site's physical, geological, hydrological and other environmental features suitable for the host of uses permitted in the proposed zoning district?

SEE ATTACHED

3. Do you have any evidence that a reasonable return on investment cannot be received by developing the property with one (1) of the uses permitted under the current zoning?

SEE ATTACHED

4. How would all the potential uses allowed in the proposed zoning district be compatible with surrounding uses and zoning in terms of views, noise, air quality, the environment, density, traffic impacts, drainage and potential influence on property values?

SEE ATTACHED

5. Are infrastructure capacity (streets, sanitary sewer, water, and drainage) and services (police and fire protection, etc.) sufficient to accommodate the uses permitted in the requested district?

SEE ATTACHED

6. Is there a demonstrated demand in Genoa Township or the surrounding area for the types of uses permitted in the requested zoning district? If yes, explain how this site is better suited for the zoning than others which may be planned or zoned to accommodate the demand.

SEE ATTACHED

7. If you have a particular use in mind, is another zoning district more appropriate? Why should the Township re-zone the land rather than amend the list of uses allowed in another zoning district to accommodate your intended use?

SEE ATTACHED

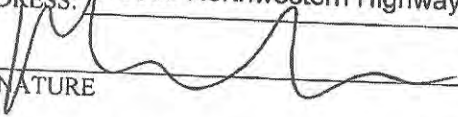
8. Describe any deed restrictions which could potentially affect the use of the property.

C. AFFIDAVIT

The undersigned says that they are the owner (owner, lessee, or other specified interest) involved in this petition and that the foregoing answers and statements herein contained and the information herewith submitted are in all respects true and correct to the best of his/her knowledge and belief.

BY: Mark Kassab, Grand River Dorr, LLC

ADDRESS: 31550 Northwestern Highway, ste 200 Farmington Hills, MI 48334

SIGNATURE: 

The following contact should also receive review letters and correspondence:

Name: Jonathan Curry, P.E. Email: jcurry@peagroup.com

Business Affiliation: PEA Group

FEE EXCEEDANCE AGREEMENT

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

PROJECT NAME: Grand River Dorr

PROJECT LOCATON & DESCRIPTION: 6080 W. Grand River Road

SIGNATURE: 

DATE: 6/2/22

PRINT NAME: Mark Kassab

PHONE: 248-865-0066

COMPANY NAME & ADDRESS: 31550 Northwestern Hwy, Farmington Hills, MI 48334

B. 1.

Development conditions have changed since the approval of the Master Plan. Retail has seen a steep decline throughout the state. The ability of individuals to order online and have delivered to their home is one of the main reasons for this. It was further exasperated during covid pandemic and lock downs. Residents became used to online ordering.

High density residential is an acceptable use in the Town Center Overlay, however, this zoning is tied to being placed above retail. The existing zoning would allow for 28 units per acre when tied to retail. The proposed rezoning to HDR /RPUD reduces the density by allowing for 8 units per acre. This will reduce the burden on the township service and infrastructure.

2.

The southern side of the site consists of a regulated EGLE wetland and wooded areas. These natural features are desirable to protect. The proposed rezoning to HDR/RPUD allows for limiting disturbance to the natural features, while obtaining a financially viable project that provides the end user with desired environmental features.

3.

The evidence that a reasonable return on investment cannot be received by developing the property with one of the permitted uses under current zoning is evidenced by the lack of interest in the property. The property is in a desirable area; however, this area is located between developed areas that meet the residential services needs and retail for the area. Obtaining retail or residential service providers for this area is difficult because of the existing competition.

4.

As stated above, the proposed zoning was considered compatible with the master plan. However, it is desired to remove the retail component and town center overlay. The surrounding land uses along the Grand River corridor are higher intensity uses. The proposed use will be compatible with the existing users and could be considered a transitional zoning against the higher intensity industrial use to the west and the residential to the south.

5.

Infrastructure is available to service this site with the proposed rezoning. This area was master planned to provide the services necessary to develop this property successfully. The property is located adjacent to Grand River and Dorr Road. Sanitary sewer and public water main are available adjacent to the property as well.

6.

There is a demonstrated demand for the proposed uses allowed under HDR/RPUD. Genoa is in need of additional HDR/RPUD locations to assist residents wishing to downsize or even for younger residents to

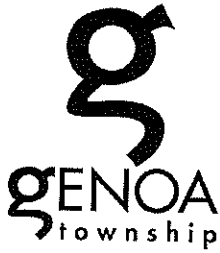
enter into the area. The desire for younger and older residents is less maintenance with amenities. This site provides a club house with a pool, as well as the beauty of its existing nature areas left preserved.

7.

Currently, the town center does not appear to be desirable to developers. This is a prime location that should have developed. A rezoning at this time would provide additional developers options for this property should this development not continue for any reason.

8.

Currently there are no deed restrictions that would affect the property. However, if rezoned a deed restriction will be in place to protect the natural features and EGLE regulated wetland.



GENOA CHARTER TOWNSHIP
Application for Site Plan Review

TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

APPLICANT NAME & ADDRESS: Grand River Dorr, LLC
If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: Grand River Dorr, LLC

SITE ADDRESS: 6080 W Grand River PARCEL #(s): 47-11-11-200-014,

APPLICANT PHONE: (248) 865-0066 OWNER PHONE: () 47-11-14-100-002

OWNER EMAIL: mkassab@mshapriorealestate.com

LOCATION AND BRIEF DESCRIPTION OF SITE: .51.9 acres +/- at the South East Corner of
Grand River and Dorr Road

BRIEF STATEMENT OF PROPOSED USE: _____

The proposed use will be a RPUD - multifamily development consisting of 204 apartment homes in 18 buildings, with a community clubhouse and pool.

THE FOLLOWING BUILDINGS ARE PROPOSED: _____
18 buildings in 12-plex or 6-plex configuration, and a community clubhouse.

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY:  Mark Kassal

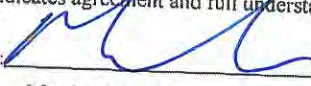
ADDRESS: 315550 Northwestern Hwy., Farmington Hills, MI 48334

Contact Information - Review Letters and Correspondence shall be forwarded to the following:

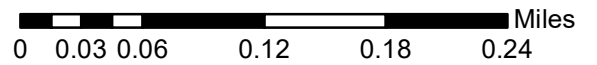
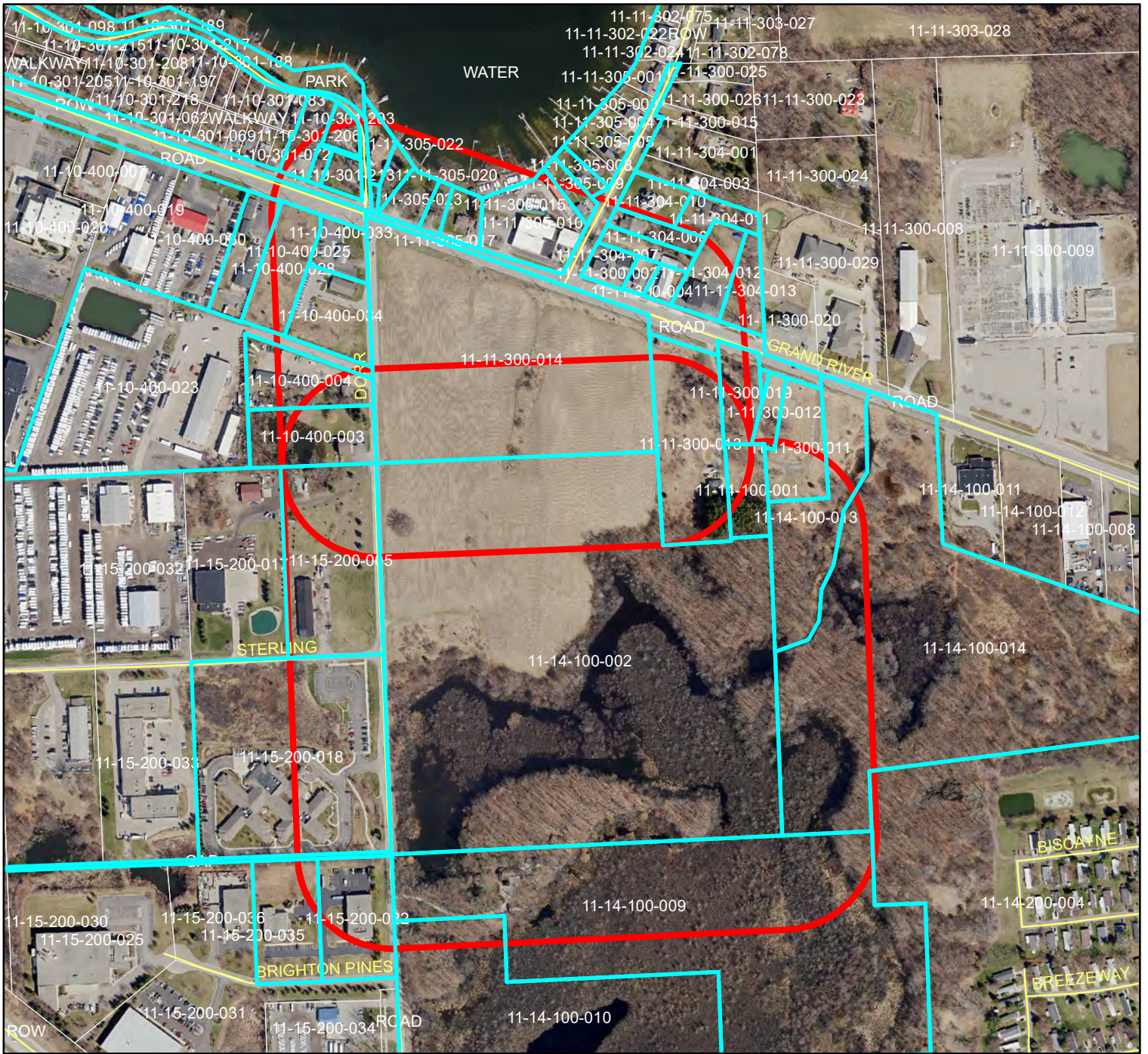
1.) Mark Kassab of Grand River Dorr, LLC at mkassab@mshapirorealestate.com
Name Business Affiliation E-mail Address

FEE EXCEEDANCE AGREEMENT

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

SIGNATURE:  DATE: 6/2/22
PRINT NAME: Mark Kassab PHONE: 248-865-0066
ADDRESS: 315550 Northwestern Highway, ste 200 Farmington Hills 48334

300 Foot Buffer for Noticing



Re-Zoning: Legacy Apartments

Address: Grand River/Dorr

Parcel: 4711-11-300-014, 11-14-100-002

Meeting Date: July 11, 2022



June 21, 2022



NOTICE OF PUBLIC HEARING – JULY 11, 2022 (REZONING)

June 24, 2022

To Whom It May Concern:

Please be advised that the Planning Commission of Genoa Charter Township will conduct a public hearing on **Monday, July 11, 2022 commencing at 6:30 p.m.** As required by state law, you are receiving this notice because you have been identified as an owner or occupant of real property within 300 feet of the subject parcel.

The property in question is located on the southeast corner of Grand River Avenue and Dorr Road consisting of parcels: 4711-300-014 and 4711-14-100-002. **The applicant is requesting to rezone 51.9 acres from Neighborhood Service District (NSD)/Medium Density Residential (MDR) with Town Center Overlay (TC) to High Density Residential (HDR) with a Residential Planned Unit Development (RPUD) overlay to allow for 204 apartment units. The request is petitioned by Grand River Dorr, LLC.**

You are invited to attend this hearing. Members of the public will be able to speak during the public hearing portions of the meeting. If, prior to the meeting, members of the public have certain questions or wish to provide input on any business that will be addressed at the meeting then such persons may contact the Planning Commissioners through Kelly VanMarter, Township Community Development Director by email to Kelly@genoa.org, or by mail at 2911 Dorr Road, Brighton, Michigan 48116.

Genoa Charter Township will provide necessary reasonable auxiliary aids and services to individuals with disabilities at the meeting/hearing upon seven (7) days' notice to the Township. Individuals with disabilities requiring auxiliary aids or services should contact the Township in writing or by calling at (810) 227-5225.

Sincerely,

Kelly VanMarter,
Assistant Township Manager / Community Development Director

2911 Dorr Road
Brighton, MI 48116
810.227.5225
810.227.3420 fax
genoa.org

SUPERVISOR

Bill Rogers

CLERK

Paulette A. Skolarus

TREASURER

Robin L. Hunt

TRUSTEES

Jean W. Ledford

H. James Mortensen

Terry Croft

Diana Lowe

MANAGER

Michael C. Archinal



July 7, 2022

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP Planning Director and Assistant Township Manager
Subject:	Legacy Apartments – PUD Rezoning and Conceptual Plan Review #2
Location:	Southeast corner of Grand River Avenue and Dorr Road
Zoning:	NSD and MDR with TC Overlay

Dear Commissioners:

At the Township’s request, we have reviewed the revised submittal from Grand River Dorr, LLC requesting establishment of an RPUD for 51.9 acres of land at the southeast corner of Grand River and Dorr.

A. Summary

1. **PUD Qualifying Conditions:** based upon our review, the qualifying conditions of Section 10.02 are satisfied. The applicant must address any comments provided by the Township Engineer, Utilities Director and/or Brighton Area Fire Authority.
2. **Rezoning Criteria:**
 - a. As a PUD project, the request may be viewed as consistent with the intent and goals/objectives of the Master Plan.
 - b. HDR rezoning may be viewed as appropriate given the inclusion of the RPUD and the site amenities provided by the proposal.
 - c. We believe the RPUD is reasonable provided the provisions of Section 10.03.01 are met to the Township’s satisfaction.
3. **Conceptual PUD Plan:**
 - a. Deviations are sought for side and rear parking setbacks, excess parking spaces, grading (but not structures) within the natural feature setback, and from the requirement for a 100-foot open space depth along exterior public roadways.
 - b. At the time of this review letter, the applicant is working on building material calculations to determine whether deviations are necessary (or not).
4. **Draft PUD Agreement:**
 - a. The Agreement must identify the deviations sought as part of the PUD.
 - b. If the Township is amenable to reducing the 100-foot open space along both exterior roadways, we suggest the applicant be required to provide enhanced landscaping and screening along both frontages. This should include appropriate screening for vehicle parking and/or garage doors.
 - c. We suggest additional language be provided with respect to the preservation and maintenance of open space/conservation areas.
 - d. If a phased project is proposed, each phase must be described and outlined.
 - e. The applicant must address any comments provided by staff and/or the Township Attorney.



Aerial view of site and surroundings (looking north)

B. Proposal/Process

The request is to establish a Residential Planned Unit Development (RPUD) for approximately 51.9 acres of land at the southeast corner of Grand River and Dorr. Because of the split-zoned nature of the subject area (NSD and MDR with TC overlay), and the fact that the RPUD is an overlay district, the overall request includes rezoning of the subject site to HDR.

The RPUD proposes development of 204 apartment units within 18 buildings and an accessory clubhouse and pool. The wetland areas, which account for approximately 29 acres, will not be disturbed and will be preserved as open space.

Procedurally, following the required public hearing, the Planning Commission is to put forth recommendations to the Township Board on the NSD/MDR/TC to HDR rezoning, RPUD overlay zoning, Conceptual PUD Plan, Environmental Impact Statement and draft PUD Agreement.

C. Qualifying Conditions

We have reviewed the proposal for compliance with the PUD Qualifying Conditions (Section 10.02), as follows:

- 1. Single Ownership.** The application forms identify Grand River Dorr, LLC as the property owner, and note that the property will be developed, owned and operated by a single ownership entity.
- 2. Initiated by Petition.** The property owner has initiated the request, including applications for rezoning, PUD, and site plan review.
- 3. Minimum Site Area.** The site provides approximately 51.9 acres, which exceeds the 20-acre minimum to qualify for PUD consideration.
- 4. Benefits.** The submittal references preservation of natural features (approximately 29 acres of wetland areas) and common open space for passive and active recreational use (a clubhouse and pool, as well as a walking trail, pocket parks and a dog park).

- 5. Sewer and Water.** The site is currently served by public water and sanitary sewer; however, the Commission should consider any technical comments provided by the Township Engineer, Utilities Director and/or Brighton Area Fire Authority under this criterion.

D. Rezoning Criteria

We have reviewed the proposal for compliance with the Criteria for Amendment of the Official Zoning Map (Section 22.04), as follows:

- 1. Consistency with the goals, policies and future land use map of the Genoa Township Master Plan, including any subarea or corridor studies. If conditions have changed since the Master Plan was adopted, the consistency with recent development trends in the area.**

The Township Master Plan and Future Land Use map identify the subject site as Mixed-Use Town Center.

Per Chapter 5 of the Master Plan:

This category includes a mixture of uses integrated into a traditional-style development of high density single family homes, attached and detached, along with various commercial uses including retail and office. The intent is to create a destination in the Township as an alternative to the consistent strip development that currently exists along Grand River Avenue from Howell to Brighton.

On its own, a conventional rezoning to HDR without the RPUD could be questionable given the statement above; however, the inclusion of an RPUD provides the Township with certain assurances that will help to uphold the intent of the Master Plan.

The request may also be viewed as compatible with several goals of the Master Plan, including:

- Accommodate a variety of land uses that are located in a logical pattern and complement community goals, the surrounding land uses, environment, capacity of roads and the sanitary sewer, and public water system capabilities.
- Provide land owners with reasonable use of their land in a manner that is compatible with adjacent land uses and the overall land use plan for the Township and the capacity of infrastructure.
- Provide a variety of housing styles, types, and densities to support needs of residents.

With respect to the lack of mixed use component (residential only; no office or retail), the applicant has noted a change in development conditions since the Plan's adoption.

Based on the above, we are of the opinion that the overall request (HDR rezoning and inclusion of the RPUD overlay) may be viewed as consistent with the Township Master Plan.

- 2. Compatibility of the site's physical, geological, hydrological and other environmental features with the host of uses permitted in the proposed zoning district.**

As previously noted, the site contains approximately 29 acres of regulated wetlands. These areas will be preserved as part of the project.

- 3. The ability of the site to be reasonably developed with one (1) of the uses permitted under the current zoning.**

In response to this criterion, the applicant cites the lack of interest in the property, despite having been on the market and promoted for conventional TC development for many years.

4. *The compatibility of all the potential uses allowed 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.*

The RPUD is an overlay district, which allows the host of permitted and special land uses of the underlying zoning district.

As proposed, the underlying district would be HDR, which allows for multiple-family apartments with up to 8 units per acre and 24 units per building.

As part of the proposed PUD, the applicant will restrict the project density and number of units per building to less than what conventional HDR zoning would allow.

5. *The capacity of Township infrastructure and services sufficient to accommodate the uses permitted in the requested district without compromising the "health, safety and welfare" of the Township.*

As noted under our review of the PUD Qualifying Conditions, the site is served by public utilities.

The applicant must address any additional comments provided by the Township Engineer, Utilities Director and/or Brighton Area Fire Authority related to this criterion.

This includes any comments by the Township Engineer on the traffic study.

6. *The apparent demand for the types of uses permitted in the requested zoning district in the Township in relation to the amount of land in the Township currently zoned to accommodate the demand.*

Township-wide, there is an overall lack of land planned/zoned for HDR/multiple-family uses. While the TC overlay provides some allowance, it requires a non-residential component, as well.

7. *Where a rezoning is reasonable given the above criteria, a determination the requested zoning district is more appropriate than another district or amending the list of permitted or Special Land Uses within a district.*

Similar to previous comments, conventional HDR rezoning on its own may not be fully justifiable; however, the inclusion of the RPUD overlay provides the Township with assurances that the property will be developed in a manner consistent with the Master Plan and site constraints.

In our opinion, use of the RPUD overlay is reasonable provided the provisions of Section 10.03.01 are met to the Township's satisfaction.

8. *The request has not previously been submitted within the past one (1) year, unless conditions have changed or new information has been provided.*

This request has not been submitted within the past year.

E. Conceptual PUD Plan

We have reviewed the proposal for compliance with the Residential PUD and Conceptual PUD Plan standards (Sections 10.03.01 and 10.07.01, respectively), as follows:

- 1. Density.** The submittal does not include a parallel plan to determine base density. However, based on the definition, which allows inclusion of up to 25% of wetland area, the proposal results in a density of 6.2 units per acre.

The proposed density is less than the 8 units per acre allowed for a conventional HDR development (as well as the 28 units per acre allowed as part of mixed-use project under the current TCOD).

- 2. Dimensional Standards.** The proposed buildings meet or exceed conventional HDR setback requirements.

The Conceptual PUD Plan notes that deviations are sought to reduce side and rear setbacks for parking lots and drive aisles. The easternmost parking spaces provide a 4-foot setback.

The proposal also exceeds the maximum parking allowance, for which an additional deviation is sought. The minimum parking requirement is 408 spaces. Given the site design, which includes garages and parking spaces contiguous to the garages, as well as guest parking throughout the development, there are 700 parking spaces proposed.

The submittal does not include any structures that encroach into the 25-foot natural feature setback; however, notes indicate that grading is proposed within 10 feet of the wetland in certain areas.

Lastly, the open space requirements for an RPUD (outlined below) require an open space depth of 100 feet along exterior public roads. This standard is not met along either Grand River or Dorr, and a deviation has been requested.

- 3. Open Space.** The proposed development results in an open space ratio of 55.8%, which exceeds the 25% minimum threshold.

The proposed open space includes protection of the wetland areas, as well as a large courtyard through the middle of the development.

Active and passive recreational opportunities are also provided via a clubhouse, pool, walking trails, sidewalks, dog park, and pocket parks.

- 4. Additional Considerations.**

Landscaping: the submittal includes a landscape plan depicting numerous plantings throughout the site. A detailed review of the landscape plan will be provided as part of the Final PUD Plan review.

Lighting: the Conceptual PUD Plan does not include a lighting plan. A full lighting plan, per Section 12.03, must be provided with the Final PUD Plan submittal.

Refuse/Recycling: the revised plans note that “trash collection will be provided via individual trash carts for each unit with curb side trash collection.”

Pedestrian Circulation: the project includes public sidewalks along both road frontages (Grand River and Dorr), as well as an internal connection of sidewalks and trails.

Site Amenities: in addition to items previously noted, the project includes EV charging stations, a gazebo, bicycle racks, park benches, fountains within ponds, and decorative entrance features (as depicted on Sheets LSC 4 and 5).

Buildings: the elevation drawings note a mix of materials, including brick and multiple types of siding. Unless deviations are sought, the proposed buildings must comply with the standards of Section 12.01. The revised submittal notes that the applicant is working on material calculations and will provide additional information to determine if standards are met or if deviations are needed.

Mailbox Clusters: the plans provide for a mailbox cluster in the southeasterly portion of the development. In response to our previous comment, the applicant has stated that “the proposed mailbox and package kiosk is sized appropriately to serve all residents of the development.”

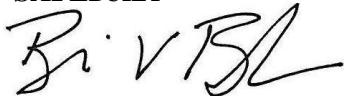
F. DRAFT PUD AGREEMENT

The applicant must address any comments provided by staff or the Township Attorney. Additionally, we provide the following comments for consideration:

- The revised document references deviations, but does not identify them. Any and all deviations sought must be specifically listed within the Agreement.
- In exchange for the requested reduction in the 100-foot open space along exterior roadways, we suggest the applicant be required to provide enhanced landscaping and screening along both roads. Additionally, any views of vehicle parking and/or garage doors must be appropriately screened from off-site views.
- Article VI includes a very general statement regarding maintenance of open space. In our opinion, additional language (such as that noted in Section 10.05.04(b)) should be incorporated into this section.
- Article IV references phasing for the project; however, neither the Conceptual PUD Plan nor the Agreement describe a phased project. If a phased development is proposed, each phase needs to be described in the Agreement and depicted on the Concept Plan.

Should you have any questions concerning this matter, please do not hesitate to contact our office.

Respectfully,
SAFE BUILT



Brian V. Borden, AICP
Michigan Planning Manager



July 6, 2022

Ms. Kelly Van Marter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

**Re: Legacy Apartments
Site Plan Review No. 2**

Dear Ms. Van Marter:

Tetra Tech conducted a second review of the proposed Legacy Apartment Homes conceptual PUD plans last dated June 23, 2022. The plans were prepared by PEA Group on behalf of Grand River Dorr, LLC. The site is located on the southeast quadrant of the Grand River Avenue and Dorr Road intersection. The proposed development consists of 204 multi-family units and includes sanitary sewer and water main improvements, on-site storm sewer and detention, and private road improvements. The Petitioner is also proposing to rezone the site from Neighborhood Services District and Medium Density Residential with Town Overlay to High Density Residential and Residential Planned Unit Development. We offer the following comments:

GENERAL

1. The Livingston County Road Commission will need to approve both access drives to the site, and this approval should be provided to Genoa Township prior to final approval.
2. A Traffic Impact Study was completed for the proposed development and was included in the impact assessment. The study concludes that left turn passing lanes will be needed at both site drives, and this is included on the site plans. The development will increase traffic in the localized area however the improvements presented in the traffic study should mitigate the impacts.

DRAINAGE AND GRADING

1. The detention calculations shown on sheet C3.1 should be updated to the new Livingston County Drain Commissioner standards as part of the final site plan submittal. The new standards can be found here: <https://www.livgov.com/drain/Pages/procedures.aspx>.
2. The petitioner is proposing multiple connections to the existing storm sewer on Grand River Avenue. The Livingston County Road Commission will need to approve all proposed connections to their storm sewer system and said approval should be provided to Genoa Township prior to final site plan approval.
3. The Petitioner is proposing grading within the 25-foot wetland setback. This will require a special land use permit or should be addressed in the PUD Agreement.

Ms. Kelly Van Marter
Re: Legacy Apartments
Site Plan Review No. 2
July 6, 2022
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UTILITIES

1. A utility impact study should be completed by MHOG for the proposed development, as it will account for more than 100 new residential units. The downstream sanitary sewer pump stations have known capacity concerns, and improvements will need to be considered as part of this development.
2. The final site plan should include MHOG standard details, which can be found here: <https://www.mhog.org/newdevelopment/designstandards>.
3. After final site plan approval, the Petitioner will be required to submit construction plans to MHOG Sewer and Water Authority for review and approval.

Tetra Tech has reviewed the documents and the only issue of concern is the connection of the storm collection system to the public road system. LCRC will need to provide their review and approval for use of their facilities for this added storm drainage. Other than this concern we have no further engineering related issues regarding traffic, water, and sewer utilities that would arise from this change in zoning classification. We recommend the above comments be addressed prior to final site plan approval.

Sincerely,



Gary J. Markstrom, P.E.
Vice President



Shelby Byrne, P.E.
Project Engineer



BRIGHTON AREA FIRE AUTHORITY

615 W. Grand River Ave.
Brighton, MI 48116
o: 810-229-6640 f: 810-229-1619

July 5, 2022

Kelly VanMarter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

RE: Legacy Apartments PUD
6080 W. Grand River
Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Department has reviewed the above-mentioned site plan. The plans were received for review on June 27, 2022 and the drawings are dated May 24, 2022 with revisions dated June 23, 2022. The project is based on an currently vacant 51.9-acre parcel to be rezoned from NSD/MDR/Town Center to HDR/RPUD. The plan proposes the site to be redeveloped as a 18-building apartment complex with 204-living units. It also includes associated clubhouse and common areas. The plan review is based on the requirements of the International Fire Code (IFC) 2021 edition.

1. All access drives capable of supporting emergency vehicles, water main and fire hydrants shall be installed and operational on the site prior to and throughout the duration of combustible materials being present on the site. **(Requirement acknowledged by the applicant.)**
2. All proposed fire hydrant locations shall be eliminated and replaced with fire hydrant locations revised as follows to accommodate fire hydrant placement within 100-feet of all fire department connections and hydrants within 400-foot hoselay of all parts of the buildings. All new hydrants are to be located on the same side of the road as the previously proposed hydrants.
 - The center landscape island in front of the clubhouse at the main entrance (Grand River),
 - Centered immediately across from Building #1,
 - North Corner of the parking/driveway entrance to Building 18, centered across from Building #2,
 - North corner of parking/driveway entrance between Buildings #18 & #17,
 - North corner of parking/driveway entrance between Buildings #17 & #16,
 - Centered immediately across from Building #5,
 - Southeast corner of the intersection of the Dorr Rd. access road and the interior road,
 - Along the Dorr Rd. access road at parking/driveway entrance to Building #6,
 - Centered immediately across from Building #8,
 - Inside corners of the large landscape areas with parking/driveway between Buildings #16 & #15 as well as Buildings #15 & #14,
 - Keep current location at the Mailbox/Package Kiosk,
 - Centered immediately across from Building #10,
 - Centered immediately across from Building #11,
 - Centered immediately across from Building #12 at the parking/driveway corner for Building # 13, **(All hydrant locations have been revised as required.)**



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Legacy Apartments PUD

6080 W. Grand River

Site Plan Review

IFC 912.8

3. The buildings are required to be provided with an automatic sprinkler system. The fire authority recommends that NFPA 13 compliant systems be installed in lieu of the minimum required NFPA 13R systems. **(This was a recommendation. Applicant has elected to install the automatic sprinkler systems in accordance with NFPA 13R rather than NFPA 13.)**

IFC 903

- A. The fire department connection (FDC) for each building is permitted to be located immediately outside the water meter/fire sprinkler riser room. The FDC for the clubhouse shall be located on the front of the building regardless of the location of the fire riser room. **(FDC locations have been added to the Utility plan sheets.)**
 - B. Water meter rooms/fire sprinkler riser rooms shall be located on the street side of the buildings. Fire sprinkler riser rooms shall be provided with signage identifying the room and its address with red letters on white background. **(Meter room have been located as requested. Identification has been noted.)**
 - C. The water meter/fire sprinkler riser rooms shall be provided with heat and insulation to maintain the room temperature above 40-degrees fahrenheit.**(Note added to be insulated and provide diwth proper heating.)**
 - D. The location, size, gate valve, and connection of the fire protection lead shall be indicated on the utility site plan. Apartment building fire protection leads shall be a minimum of 4-inches in diameter. The clubhouse fire protection lead shall be a minimum of 6-inches in diameter. **(Fire Lead Sizes and valves agave been added to the Utility plan.)**
4. All two-way emergency vehicle access roads shall be a minimum of 26-feet wide measured from the face of the curb including the parking areas between buildings. With a width of 26-feet, one side (hydrant side) of the drive shall be marked as a fire lane. Include the location of the proposed fire lane signage and a detail of the fire lane sign in the submittal. Fire lane signage shall also be provided in parking areas between buildings where there is not designated parking. Access roads to the site shall be provided and maintained during construction. The surface of the parking area and drive between Buildings 9 & 10 is not identified, however, all other areas are listed as standard duty bituminous surfaces. All access drives shall be Heavy Duty surfaces constructed to be capable of supporting the imposed load of fire apparatus weighing at least 84,000 pounds. **(The main access drive and driveways to garages are revised to 26' wide, face of curb to face of curb. A note regarding fire lane signage is added to the plans. Final pavement design will be completed with site construction drawings, will be based on geotechnical recommendations and Township standards, and will be designed to accommodate fire apparatus.)**

IFC D 103.6

IFC D 103.1

IFC D 102.1

IFC D 103.3



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6080 W. Grand River
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5. Access around the building shall provide emergency vehicles with a turning radius of 50-feet outside and 30-feet inside. Nearly all inside curb corners need to be modified to accommodate this radius. The curb corner between Buildings 11 & 12 must be softened to accommodate emergency vehicle reversing and turnaround or a separate means of turn-around provided at the dead end at Building 12. Vehicle circulation shall account for non-emergency traffic and maintain the vehicle **within the boundary of lanes of travel.** Provide an emergency vehicle circulation plan utilizing the BAFA Aerial Profile at the bottom of the letter. If lanes of travel cannot be maintained, drive widths and radii must be adjusted to accommodate. **(Inside curb radii have been increased in most locations, and emergency vehicle access to each driveway is possible with the design vehicle indicated. A Vehicle Tracking analysis is added to the plans.)**

IFC 503.2.4

6. A minimum vertical clearance of 13½ feet shall be maintained along the length of all apparatus access drives. This includes but is not limited to porte-cochere, lighting, and large canopy trees. A number of trees must be relocated, the species modified, or the road width increased to not overhang the roadways. **(Note provided to address plantings at final site and construction review.)**

IFC 503.2.1

7. Each building shall include the building numbers at a **minimum of 6-inches** high letters/numbers of contrasting colors and be clearly visible from the street. Each unit address shall be a **minimum of 4-inches** high. With unit addresses located on the non-street -side of the buildings, additional yard signs visible from the parking areas will be required. Each water meter/fire sprinkler riser room shall be provided with their own address. The location and size of address labeling shall be coordinated and approved prior to installation. **(A note is added to the plans regarding addressing requirements and identifying signage for riser rooms.)**

IFC 505.1

8. It is **highly recommended** that the parking areas in front of garages (not overhanging greenbelt areas) be increased to a minimum of 20-feet. The 18-foot depth is not large enough to accommodate a standard-sized pickup truck (19.5-feet) with the bumper touching the garage door. This encroaches on emergency vehicle access and operational work area between buildings and impedes access to rear unit buildings. **(Applicant acknowledges, and indicates that there is substantial additional parking for oversized vehicles within the complex.)**

9. The location of Knox Boxes shall be indicated on future submittals. The Knox boxes shall be located adjacent to the water meter/fire sprinkler riser room of each structure, in a location coordinated with the fire authority. **(Knox box locations are indicated on the revised plans. Final locations will be approved by the fire authority during engineering and building permit reviews.)**

IFC 506.1

10. During the construction process, the buildings will be evaluated for emergency responder radio signal strength. If coverage is found to be questionable or inadequate; the contractor or the building owner shall hire an approved contractor to conduct a grid test of the facility. If the signal strength coverage is found to be non-compliant, an approved emergency responder radio coverage system shall be



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provided in the building. **(The developer wishes to discuss this request in more detail prior to Final PUD Site Plan approvals. It should be noted that all units within the proposed buildings will have exterior entrances and private garage entries as well. The buildings will not have any internal shared corridors or shared exterior doors.)***(This was not a request from BAFA, but a requirement that must be addressed during construction. At a minimum the testing shall take place on the structures, and if signal strength is acceptable, the systems will not be required.)*

IFC 510

11. Provide names, addresses, phone numbers, emails of owner or owner's agent, contractor, architect, on-site project supervisor. **(Contact information for the owner and architect are provided on the plans. The contractors and on-site project supervisors are not yet known.)**

Additional comments will be given during the building plan review process (specific to the building plans and occupancy). The applicant is reminded that the fire authority must review the fire protection systems submittals (sprinkler & alarm) prior to permit issuance by the Building Department and that the authority will also review the building plans for life safety requirements in conjunction with the Building Department.

If you have any questions about the comments on this plan review please contact me at 810-229-6640.

Cordially,

A handwritten signature in black ink, appearing to read "R. Boisvert".

Rick Boisvert, FM, CFPS
Fire Marshal

cc:Amy Ruthig amy@genoa.org

From: [Mark Surel](#)
To: [Kelly VanMarter](#)
Subject: Re: GRAND RIVER/DORR RD ZONING CHANGE REQUEST MEETING 7/11
Date: Wednesday, July 6, 2022 2:11:33 PM
Attachments: [06 Master Plan-Future Land Use - Map.pdf](#)
[Zoning Map Sept 2020.pdf](#)

Hi Kelley

Just a quick follow-up. I personally am opposed to apartments over traditional homes and commercial in the current and future plans for a few reasons:

1. The current housing market has driven rental unit prices to extremely high levels pricing many out.
2. I would consider an apartment a "temporary" housing where ownership of the dwelling is not cared for in the same way as a traditional home.
3. What I have witnessed living in other areas that have built apartments, over time apartments rarely hold their value in rent, appearance or quality of tenants.
4. Commercial stores/businesses are a more long-term solution with pride in ownership.

Thanks for your time!

I would oppose this move to HDR in the future at this location as laid out in the draft master plan. I know they have to go somewhere, how about down Herbst?

Mark Surel
3333 Pineridge Ln

Mark Surel
President
NVU INC
ph 248.850.5482
fx. 248.565.8291
www.newvintageusa.com

<http://www.newvintageusa.com/images/email-logo.jpg>



On Wednesday, July 6, 2022 at 11:15:24 AM EDT, Kelly VanMarter <kelly@genoa.org> wrote:

Mark,

Thank you for your comments and your involvement in the Master Plan process. I will share your email with the Planning Commission.

Just to clarify a few things for you, although the current underlying zoning of the property is neighborhood commercial and medium density residential, the Town Center Overlay zoning would control if there was any new development proposed (see Section 9.02.03). The existing master plan designation for the property is for Town Center District. The Town Center district allows up to 14 units per acre by right or

28 units per acre with special land use. It also would allow commercial uses. The proposed project is for 6.23 units per acre which is significantly less dense than the current overlay zone and master plan. I know the overlay is confusing so I just wanted to share this with you.

Lastly, in the current draft plan of the Master Plan, the property is designated as high density residential and mixed use which would allow for multi-family dwellings.

Please let me know if you have any questions.

Kelly VanMarter, AICP

Assistant Township Manager/Community Development Director

Genoa Charter Township

2911 Dorr Road, Brighton, Michigan 48116

Direct: (810) 588-6900, Phone: (810) 227-5225, Fax: (810) 227-3420

E-mail: kelly@genoa.org, Url: www.genoa.org

From: Mark Surel <mark@newvintageusa.com>

Sent: Tuesday, July 5, 2022 5:10 PM

To: Kelly VanMarter <Kelly@genoa.org>

Subject: GRAND RIVER/DORR RD ZONING CHANGE REQUEST MEETING 7/11

Hi Kelly

Thank you for taking moment to review and distribute my letter to the planning commission. The meetings I have been at have been enlightening with the level of detail the commission has been working on the Master Plan. Its a great plan to use as a roadmap for the future of the township; I do realize that things may need to change as times change.

My reason for reaching out is I wanted to let the commission know my opinion on the zoning change request for the acreage at Grand River/Dorr Rd to change from MDR to HDR. I do see why it would be prime real estate in that location , HDR will increase the profitability of the developer with advantages that I cannot see for the *current* residents of Genoa Township.

I oppose the change for several reasons:

1. The high density apartments do not seem to fit in the overall countryside/rural vision/appeal of the area
2. Traffic at that intersection is already getting bad, adding 204 apartments will only worsen the growing issue
3. We as residents should never "trade down". Going from houses to apartments seems to me a trade-down, we should always be trading up.
4. The planning commission has done a great job and worked really hard setting up zones for each type of use and we should try our best to stay with the plan, especially in a high visibility area as that location.

Thank You

Mark Surel

3333 Pineridge Ln

Mark Surel
President
NVU INC
ph 248.850.5482
fx. 248.565.8291
www.newvintageusa.com



From: [Judith Workman](#)
To: [Kelly VanMarter](#)
Subject: Proposed zoning change
Date: Tuesday, July 5, 2022 8:25:51 PM

Hello,

Unfortunately, I will be out of town on 7/11 for the meeting where this proposed change is to be considered. Please share with all board members that I am vehemently opposed to this change as it, again, goes against the master plan. The proposed area is currently zoned for medium density. I have no idea why a high density change would even be considered except for financial gain, which is absolutely the wrong reason!

Our township is beautiful! Adding in high density areas will not continue the current attractiveness that all enjoy.

I find it disturbing that the board continues to look at zoning changes that are not in accordance with the master plan. Hopefully they will realize that the majority of residents live here BECAUSE the area is not high density.

Sincerely,
Judith Workman
5730 Pineridge Lane
Brighton, MI 48116

Sent from my iPad

From: [Mark Surel](#)
To: [Kelly VanMarter](#)
Subject: GRAND RIVER/DORR RD ZONING CHANGE REQUEST MEETING 7/11
Date: Tuesday, July 5, 2022 5:40:24 PM

Hi Kelly

Thank you for taking moment to review and distribute my letter to the planning commission. The meetings I have been at have been enlightening with the level of detail the commission has been working on the Master Plan. Its a great plan to use as a roadmap for the future of the township; I do realize that things may need to change as times change.

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Thank You

Mark Surel
3333 Pineridge Ln

Mark Surel
President
NVU INC
ph 248.850.5482
fx. 248.565.8291
www.newvintageusa.com

GRAND RIVER DORR LLC

DBA

THE LEGACY APARTMENT HOMES

OWNER:

GRAND RIVER DORR LLC

PREPARED BY: MARK KASSAB

31550 NORTHWESTERN, STE 220

FARMINGTON HILLS, MI 48334

248-865-0066

THE LEGACY APARTMENT HOMES

CONCEPTUAL PUD SITE PLAN

APPLICATION & COMMUNITY IMPACT STATEMENT

COMMUNITY IMPACT STATEMENT

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COMMUNITY IMPACT STATEMENT

- 1.0 General Project Information**
 - 1.1 Project Overview**
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- 2.0 Community and Facilities Services**
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 - 2.2 Utilities**
 - 2.3 Stormwater Management**

- 3.0 Economics**
 - 3.1 Tax Revenues Analysis**
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- 4.0**
 - 4.1 Natural resources Analysis**
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- 5.0 Traffic**

- 6.0 Development Statement**

SECTION 1: GENERAL PROJECT INFORMATION

1.1 Project Overview

The Legacy Apartment Homes is a proposed residential community consisting of 204 attached apartments with an associated clubhouse and pool. The project shall include open space and other elements as set forth in this Agreement and the PD plan. The project will include approximately 29 acres of total open space. This site is currently vacant and is zoned Neighborhood Services District (NSD) and Medium Density Residential (MDR) with Town Overlay and currently petitioning to be rezoned to High-Density Residential (HDR), and Residential Planned Unit Development (RPUD).

The proposed land use consists of multi-family apartment homes. The project will have 3.92 units per acre based on 52 +/- gross acreage and 6.23 units per acre based on 32.77 net acreage. The proposed development will be compatible with past planning efforts and therefore the infrastructure is present to support it. The township services planned for this area will not be overtaxed by the development.

Unit counts and densities for the proposed The Legacy Apartment Homes are as follows:

204 Multi-Family Dwelling Units (51 gross Acres/33 Net Acres):

3.92	DU/Gross Acre
6.23	DU/Net Acre

1.2 Master Plan Analysis

- **Value communities and neighborhoods** – The Legacy Apartment Homes will be an exclusive neighborhood community targeting demographics of multiple ages. The development will focus on quality building materials and attention to architecture details. This location is well located between Brighton and Howell where downtown shopping and restaurants are available as well as the Genoa retail and restaurant area at Latson and Grand River.
- **Walkable neighborhoods** – In addition to sidewalk proposed on both sides of the planned internal roadways, the development will also have a system of pathways within the extensive open space areas.

- **Variety of recreational facilities** – The Legacy Apartment Homes proposes a successful development area reaching various age demographics that seek amenities, less maintenance, nature preservation and convenience to restaurants and shopping. sidewalks and interconnectivity within the community, dog park, gazebo, EV Charging Stations throughout, benches, clubhouse, Amazon Hub station, pool and fitness center consisting of a Yoga room, business center, dog wash to accommodate residents of all ages, interests, and physical abilities.

Refer to the Conceptual PUD for additional information of the neighborhood layout and representative architectural details.

1.3 Existing Surrounding Uses

As shown within the attached zoning map, the existing surrounding uses for the subject site are uses of varying densities. These existing uses are as follows:

- **North:** GCD- General Commercial District
- **East:** OSD
- **West:** Industrial
- **South:** Rural Residential

SECTION 2: COMMUNITY AND FACILITY SERVICES

2.1 Police and Fire Demand

The Livingston County Sheriff in addition to the Michigan State Police will be providing Public Safety services required to accommodate the proposed use.

The Brighton Area Fire Department, as part of an existing Governmental agreement will provide fire protection services. There will be numerous fire hydrants located on the subject property. Fire Department Connections (FDC's) will be located on each building in addition to the buildings having an internal fire suppression system. Station 34 on Dorr Road is located approximately ¼ mile away from the subject property.

The property is accessed from Grand River and Dorr Road. Both entrances are designed to accommodate emergency vehicle access.

A fiscal impact statement is prepared and attached to the CIS to determine the annual tax revenue. The additional net annual tax revenue at full buildout will be approximately \$836,662. The additional tax revenues are in addition to the one-time utility connection charges in the amount of \$3,080,400.

2.2 Utilities

Utility services will be provided by existing public water and sewer systems in the area. The development proposes a total of 204 apartment unit connections to the existing public utilities. We estimate an average daily usage of 36,500 gallons per year per person with an annual usage of approximately 19,000,000 gallons per year.

All utility lines, structures, and trenches shall be constructed in accordance with the standards and requirements of Genoa Township, the Livingston County and MDOT. All hydrants will be a minimum of 4.5' from back of curb.

Water main connections to the existing mains will be completed to provide for a looped system in accordance with the Township standards and placed within public easements. The proposed site water mains will be 8" in diameter and placed in public easements, and will connect to the existing 12" main on Dorr Road 16" main on Grand River Rd.

Site Storm sewer will be privately owned and designed to convey runoff to appropriately sized stormwater management facilities.

2.3 Stormwater Management

Stormwater management for quality treatment and flood storage will be provided in proposed detention basin optimally located at the southeast corner of Grand River and Dorr Road. These basin will be designated and approved in accordance with Livingston County Drain Commission standards to accommodate the 100-year frequency storm runoff from the proposed development.

LEGEND

DETENTION BASIN CALCULATIONS POND 1:

(BASED ON THE RULES OF THE LIVINGSTON COUNTY DRAIN COMMISSIONER)

Total Disturbed Area, A	=	13.40	acres	
Parking and Road	=	3.90	acres	C1 = 0.90
Sidewalks Foot and Deck	=	1.18	acres	C2 = 0.90
Buildings	=	2.78	acres	C3 = 0.90
Grass/Landscape Area	=	5.37	acres	C4 = 0.25
Wet Pond Surface	=	0.17	acres	C5 = 1.0
Compound Run-off Coefficient, C	=	0.64		
Design Constant, K = A°C	=	8.58		
Allowable Outflow Rate, Qo	=	0.2 cfs/acre		
	=	2.68	CFS	

1	2	3	4	5	6	7
Duration (min)	Duration (sec)	100-year intensity (In/Hr)	Col#2*Col#3 (inches)	Inflow Volume (CF) = Col#4*K	Allowable Outflow Volume (CF) = Col#2*Qo	Storage Volume (CF) = Col#5-Col#6
5	300	9.17	2.750	23,584	804	22,780
10	600	7.86	4.714	40,430	1,608	38,822
15	900	6.88	6.188	53,084	2,412	50,672
20	1200	6.11	7.333	62,861	3,216	59,645
30	1800	5.00	9.000	77,184	4,824	72,360
60	3600	3.24	11.647	99,885	9,648	90,237
70	4200	2.89	12.158	104,266	11,256	93,010
80	4800	2.62	12.571	107,813	12,864	94,949
90	5400	2.39	12.913	110,742	14,472	96,270
120	7200	1.90	13.655	117,107	19,296	97,811
140	8400	1.67	14.000	120,064	22,512	97,552
145	8700	1.62	14.074	120,695	23,316	97,379

Detention Volume Required for 100-yr Storm Event = 97,811 CF
Sediment Forebay Capacity = 5% of 100-yr volume = 4,891 CF

Volume Provided in Detention Basin

Elevation	Surface Area (SF)	Volume (CF)	Total Volume (CF)
978	30,451		
977	29,594	28,066	116,489
976	26,537	25,041	88,424
975	23,543	22,101	63,363
974	20,696	18,877	44,282
973	17,097	15,477	22,406
972	13,857	6,929	6,929
971			0

Storage Volume Provided = 116,489 CF

Volume Provided in Sediment Forebay

Elevation	Surface Area (SF)	Volume (CF)	Total Volume (CF)
975			7,877
974	5,006	4,458	
973	3,510	3,419	
972	2,527		

Sedimentation Volume Provided = 7,877 CF

TOTAL VOLUME PROVIDED = 124,366

DETENTION BASIN CALCULATIONS (POND 2):

(BASED ON THE RULES OF THE LIVINGSTON COUNTY DRAIN COMMISSIONER)

Total Disturbed Area, A	=	10.47	acres	
Parking and Road	=	2.85	acres	C1 = 0.90
Sidewalks	=	0.53	acres	C2 = 0.90
Buildings	=	2.20	acres	C3 = 0.90
Grass/Landscape Area	=	4.89	acres	C4 = 0.25
Compound Run-off Coefficient, C	=	0.60		
Design Constant, K = A°C	=	6.24		
Allowable Outflow Rate, Qo	=	0.2 cfs/acre		
	=	2.09	CFS	

1	2	3	4	5	6	7
Duration (min)	Duration (sec)	100-year intensity (In/Hr)	Col#2*Col#3 (inches)	Inflow Volume (CF) = Col#4*K	Allowable Outflow Volume (CF) = Col#2*Qo	Storage Volume (CF) = Col#5-Col#6
5	300	9.17	2.750	17,172	628	16,544
10	600	7.86	4.714	29,438	1,256	28,182
15	900	6.88	6.188	38,638	1,885	36,753
20	1200	6.11	7.333	45,793	2,513	43,280
30	1800	5.00	9.000	56,201	3,769	52,432
60	3600	3.24	11.647	72,730	7,538	65,192
70	4200	2.89	12.158	75,920	8,795	67,125
80	4800	2.62	12.571	78,302	10,001	68,301
90	5400	2.39	12.913	80,636	11,306	69,330
120	7200	1.90	13.655	85,270	15,077	70,193
140	8400	1.67	14.000	87,423	17,500	69,923
145	8700	1.62	14.074	87,882	18,218	69,664

Detention Volume Required for 100-yr Storm Event = 70,193 CF
Sediment Forebay Capacity = 5% of 100-yr volume = 3,510 CF

Volume Provided in Detention Basin

Elevation	Surface Area (SF)	Volume (CF)	Total Volume (CF)
990.5			
979.5	34,968	32,571	80,267
978.5	30,174	27,950	47,666
977.5	25,743	19,737	19,737
976.5	13,731		0

Storage Volume Provided = 80,267 CF

Volume Provided in Sediment Forebay

Elevation	Surface Area (SF)	Volume (CF)	Total Volume (CF)
979.5	4,641	3,929	6,537
978.5	3,217	2,608	
977.5	1,999	0	

Sedimentation Volume Provided = 6,537 CF

TOTAL POND VOLUME PROVIDED 86,804

SECTION 3: ECONOMICS

3.1 Tax Revenue Analysis

A fiscal impact analysis was prepared to determine the anticipated annual tax revenue to be generated as a result of the development. Based on this analysis, we anticipate Legacy Apartment Homes will have a taxable value of approximately \$22,950,000 and will generate an annual revenue gain of approximately \$911,139. Currently the property is generating \$24,659 in annual taxes.

3.2 Jobs Created

Legacy Apartment Homes will be a residential development. Legacy Apartment Homes will create 100 +/- construction jobs during the installation of the infrastructure and the building of the apartment buildings on the site. In addition,

The Legacy Apartments will employ 5-6 permanent leasing and maintenance staff.

Refer to **Exhibit A** for the Fiscal Impact Analysis Calculations

SECTION 4: ENVIRONMENT

4.1 Natural Resources Analysis

The proposed development is approximately 52 acres. The development will preserve natural features and provided common open space opportunities for the residents, including walking trails, a community building and swimming pool. The site is constrained by regulated wetlands to the South and Southeast portion of the property. The area of proposed development is primarily vacant farmed land with minimal to no tree removal required.

Storm water runoff for the site will be detained and treated in accordance with applicable Township, County and State requirements prior to discharge from the site. No significant impact or pollution to offsite water bodies is anticipated with the development.

The proposed development will seek to preserve existing wooded areas around the perimeter of the development where grading would allow, to serve as a buffer between the development and neighboring properties. New trees will be planted in the proposed development in accordance with an approved Landscaping Plan.

4.2 Hazardous Materials

No hazardous materials are planned to be manufactured, used, or stored on site.

4.3 Air Quality Impact

Legacy Apartment Homes is a residential development that does not plan to have any significant impact to the air quality of the area. No quantifiable type or quantities of pollutants are expected to be released in the air. During construction, special measures will be included within the Soil Erosion and Sedimentation (SESC) Plan to mitigate any potential dust creation during dryer site conditions, including the use of water trucks.

4.4 Groundwater Impact

Legacy Apartment Homes is a residential development that will utilize connections to the existing public utilities in the area. The development fits within

the master planned unit density for the area and does not plan to have any significant impact to the groundwater levels within the area.

4.5 Noise

Legacy Apartment Homes is a residential development that does not plan to have any significant impact to the increased noise in the area. During construction, the development intends to minimize noise as reasonable and follow the Township's ordinance regarding hours of allowed construction operation.

SECTION 5: TRAFFIC

Legacy Apartment Homes is a residential project consisting of a multi-family dwelling units that are proposed to have access off Grand River Road in addition to Dorr Road. The main access to the community will be from Grand River Road which is a State Road. There is a secondary access off Door Road.

A Traffic Impact Study (TIS) has been prepared by Rowe Engineering in accordance with the Township Ordinance. The report was completed in accordance with the requirements specified by the Michigan Department of Transportation (MDOT), the Road Commission for Oakland County (RCOC), and Genoa Township.

A copy of the TIS attached as **Exhibit B**.

DEVELOPER'S STATEMENT

After a five decades of residential building in Michigan, MJC Companies® is proud to be one of the state's largest privately-owned and operated builders, as well as one of the top 100 builders in the nation. Since 1972, the company has garnered a reputation of value and innovation with single-family homes and condominiums that offer a carefree lifestyle in desirable neighborhoods.

And that reputation still holds true today. With deep roots in an array of communities in Livingston, Macomb, Oakland and Wayne counties, MJC Companies® is excited to be a part of Michigan's rich history and is confident in the future of the state and dedicated to the families who live here.

Specializing in new construction, MJC Apartment homes and condominiums offer a wide choice of locations, flexible floor plans, and an abundance of the most desired amenities within pleasant communities including some with pools, walking trails and ponds.

MJC Companies® looks forward to enduring its longstanding presence in Southeast Michigan as it continues to develop communities of choice for generations to come.

Charities, Sponsorships & Clubs

- [Alzheimer's Association](#)
- [Building Industry Association - Charitable and Education Foundation](#)
- [Capuchin Soup Kitchen](#)
- [Cardinal Mooney Catholic High School](#)
- [Children's Charities at Adios](#)
- [Club Calabria](#)
- [Club Terrasini](#)
- [Club Di Santa Fara](#)
- [De La Salle Collegiate High School](#)
- [Fraternal Order of Police](#)
- [Interfaith Volunteer Caregivers](#)
- [Italain American Culture Society](#)
- [Karmanos Cancer Institute](#)
- [Mackinac Island Historical Preservation](#)
- [March of Dimes](#)
- [Men of the Sacred Heart](#)
- [Michigan Historical Society](#)
- [Mat Gaberty Heart Fund](#)
- [Macomb Foundation](#)
- [Mt. Clemens General –Board Member](#)
- [Mt. Clemens Regional Oncology](#)
- [Multiple Sclerosis Foundation](#)
- [MPURE – Department of Urology at William Beaumont Hospital](#)
- [Muscular Dystrophy Association](#)
- [National Italian American Foundation](#)
- [Northville Park & Recreation](#)
- [Nothdurft Pediatric Endowment](#)
- [Special Olympics](#)
- [St. John Health Foundation](#)
- [St. John Hospital Guild](#)
- [St. Lawrence Athletics](#)
- [St. Louis Center– \(helping to raise, \\$800,000 dollars in the last 10 years\)](#)
- [Utica Community Schools](#)
- [USC Shoah Foundation](#)

EXHIBIT A

FISCAL IMPACT STATEMENT

**The Legacy Apartments Homes - 204-Unit Community
Fiscal Impact**

Property Development

Property Tax Revenue

Housing Type	Market Value Per Unit	State Equalized Value Per Unit	Taxable Value Per unit	Total Units	Estimated Market Value	Estimated Taxable Value
Apartment Homes	\$ 225,000	\$ 225,000	\$ 112,500	204	\$ 45,900,000	\$ 22,950,000
				<u>204</u>		<u>\$ 22,950,000</u>

	Current Millage Rate	Estimated Taxable Value	Tax Generated
<u>SUMMER TAX REVENUE GENERATION</u>			
State Ed Tax	6.0000	\$ 22,950,000	\$ 137,700
County Tax	3.2391	\$ 22,950,000	\$ 74,337
HO School Oper	18.0000	\$ 22,950,000	\$ 413,100
HO School Debt	2.7500	\$ 22,950,000	\$ 63,113
Livingston ISD	3.2315	\$ 22,950,000	\$ 74,163
BR Fire Auth	0.8733	\$ 22,950,000	\$ 20,042
<u>WINTER TAX REVENUE GENERATION</u>			
County Ambulance	0.2863	\$ 22,950,000	\$ 6,571
HCMA-Parks	0.2089	\$ 22,950,000	\$ 4,794
Veterans Relief	0.1127	\$ 22,950,000	\$ 2,586
Genoa Alloc	0.7855	\$ 22,950,000	\$ 18,027
HO School Debt	2.7500	\$ 22,950,000	\$ 63,113
HO Library	1.0382	\$ 22,950,000	\$ 23,827
BR Fire Auth	1.5000	\$ 22,950,000	\$ 34,425
Total Estimated Annual Revenue from Property Taxes			\$ 935,798
			<u>\$ 24,659</u>
Less Current Property Tax Revenue Generation			
Total Net annual Revenue from Property Taxes			<u>\$ 911,139</u>

Estimated Residents

Land Use	Units	Unit Factor Per Us Census	Projected Population
Residential	204	2.55	<u>520</u>

Utility Revenue

Water and Sewer Capital Connection Fee	Water Capital Fee	Sewer Capital Fee	Total Capital Charges	Total Units	Total Estimated Fee
Building Type					
Units	\$ 7,900.00	\$ 7,200.00	\$ 15,100	204	\$ 3,080,400
Total Estimated Connection Fee		(Fees per. DPS)		204	<u>\$ 3,080,400</u>

Annual Water/Sewer Usage Fees	Estimated Population	Annual Usage (Gal); Assume 36,500 gal/yr/person	Usage fee/1000 Gal.	Total Estimated Fees
Apartments	520	18,987,300	\$11.28	\$ 214,177
		Annual Water Usage Fees		<u>\$ 214,177</u>
Total Utility-Related Fees				<u>\$ 214,177</u>

Township Expenditures Per Budget

Total Expenditures - 2022 Budget (per Genoa.org)	\$ 6,412,166
Township Population (per 2020 SEMCOG)	<u>20,692</u>
Township Expenditures Per Resident	\$ 309.89

	# Residents	Expenditure per Resident	Total
Total Annual Expenditures for Legacy Apartment	520	\$ 309.89	\$ 161,202.82

The Legacy Apartment - One-Time Utility Connection Revenue	\$ 3,080,400
The Legacy Apartment - Annual Revenue Gain (Loss)	\$ 964,113

EXHIBIT B

TRAFFIC IMPACT STUDY



Memorandum

To: Mr. James Galbraith
From: Jill M. Bauer, PE, PTOE
Date: February 3, 2022
RE: Traffic Impact Study for Multi-Family Residential Development in Genoa Township, MI

ROWE Professional Services Company has completed a Traffic Impact Study (TIS) related to the development of a Multi-Family Residential Development located in the southeast quadrant of Grand River Avenue and Dorr Road in Genoa Township, MI. The current site plan (included in the materials attached to this report) shows 222 units of Multifamily Housing (Low-Rise) with an anticipated opening date in 2025. This TIS was prepared to determine if any improvements would be necessary to mitigate traffic impacts to the adjacent road network. This report has been completed in accordance with the requirements specified by the Livingston County Road Commission (LCRC) and Genoa Township.

TRAFFIC IMPACT STUDY

Traffic Counts

Turning movement counts (TMCs) were collected during the weekday AM (7 a.m. to 9 a.m.) and PM (4 p.m. to 6 p.m.) peak periods on December 14, 2021 at the intersections of:

- Grand River Avenue and Dorr Road / Glen Echo Drive
- Grand River Avenue and Hughes Road
- Dorr Road and Sterling Drive

Due to the impact of COVID-19, current traffic volume data is not representative of typical operations. Historical traffic data from the Southeast Michigan Council of Governments (SEMCOG) website was compared to the TMCs completed in 2021 and an adjustment factor was determined for the AM (16%) and PM (11%) peak hours. This factor was used to adjust the completed TMCs to “Pre-COVID-19” levels.

All studied intersections are shown in Figure 1 attached to this memorandum. All traffic counts used in this study are attached to this memorandum. The existing adjusted peak hour traffic volumes are shown in Figure 2 attached to this memorandum.

Background Traffic Scenario

Historical traffic data from the SEMCOG Transportation Data Management System (TDMS) website was referenced to determine the applicable growth rate for the existing traffic volumes for the project build-out year in 2025. Based on this review, a background growth rate of 0.5 percent was utilized. The background peak hour traffic volumes are shown in Figure 3 attached to this memorandum.

Farmington Hills, MI: 27280 Haggerty Road, Suite C-2, 48331 | Phone: (248) 675-1096

Civil Engineering | Surveying | Landscape Architecture | Aerial Imagery/Mapping | Planning

Flint, MI (HQ) | Lapeer, MI | Farmington Hills, MI | Kentwood, MI | Mt. Pleasant, MI | Grayling, MI | Myrtle Beach, SC | www.rowepsc.com

Trip Generation

Using the information and methodologies specified in the latest version of Trip Generation (Trip Generation Manual, 11th Edition, 2021), ROWE forecast the weekday AM and PM peak hour trips associated with the proposed development. The results of the trip generation forecasts are provided below in Table 1.

Table 1: Trip Generation for Proposed Development

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
Multifamily Housing (Low-Rise)	220	222 Units	22	70	92	73	43	116	1,498
Total	-	-	22	70	92	73	43	116	1,498

Trip Distribution

The existing traffic volumes were used to develop a trip distribution model for the AM and PM peak hours for the new traffic that will be generated by the proposed development. Table 2 provides the probable distribution based on the existing traffic patterns.

Table 2: Trip Distribution

Direction	Via	AM Peak Hour		PM Peak Hour	
		To	From	To	From
North	Hughes Rd	4%	7%	7%	5%
South	Dorr Rd	13%	18%	13%	16%
East	Grand River Ave	54%	31%	35%	46%
West		29%	44%	45%	33%
Total		100%	100%	100%	100%

The trip distribution for the site is shown in Figure 4 attached to this memorandum. The background traffic volumes were combined with the site generated traffic volumes to obtain the total future traffic volumes, which are shown in Figure 5 attached to this memorandum.

Level of Service Analysis

Level of service (LOS) analyses for existing, background, and total future (build) conditions for the AM and PM peak hours were performed for the intersections of:

- Grand River Avenue and Dorr Road / Glen Echo Drive
 - Signalized Intersection
- Grand River Avenue and Hughes Road / Site Driveway 1
 - Signalized Intersection
- Dorr Road and Sterling Drive
 - Unsignalized Intersection
- Dorr Road and Driveway 2
 - Proposed driveway approximately 150 feet north of Sterling Drive

According to the most recent (6th) edition of the Highway Capacity Manual (HCM), LOS is a qualitative measure describing operational conditions of a traffic stream or intersection. LOS ranges from A to F, with LOS A being the best and LOS D generally being considered acceptable. Table 3 presents the criteria for defining the various LOS for signalized and unsignalized intersections. LOS D is considered acceptable in urban/suburban areas.

Table 3: LOS Criteria

LOS	Average Stopped Delay/Vehicle (seconds)	
	Signalized Intersection	Unsignalized Intersection
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

The results of the LOS analyses for the intersection listed above are summarized in Table 4 through Table 6. Full LOS output reports are attached to this memorandum.

Existing Conditions

The results of the LOS analysis for existing conditions reveals that all approaches and movements of the studied intersections operate at LOS D or better during the AM and PM peak hours.

The 95th percentile queue lengths were reviewed at the studied intersections. No significant queue lengths were observed in the simulations and all queue lengths dissipated within one cycle length at the signalized intersections. The queue lengths did not block any study intersection.

The operational results for existing conditions are presented in Table 4.

Table 4: LOS Analysis for Existing Conditions

Intersection	Control Type	Approach	AM Peak	PM Peak
Grand River Ave & Dorr Rd / Glen Echo Dr	Signalized	Eastbound	A (9.6)	B (16.5)
		Westbound	A (7.6)	B (17.8)
		Northbound	C (30.9)	C (25.4)
		Southbound	D (39.6)	D (39.4)
		Overall	B (13.9)	B (19.0)
Grand River Ave & Hughes Rd	Signalized	Eastbound	A (4.9)	A (2.8)
		Westbound	A (7.0)	A (6.2)
		Southbound	D (39.4)	C (33.8)
		Overall	B (11.1)	A (6.5)
Dorr Rd & Sterling Dr	Stop	Eastbound	B (14.1)	B (14.5)
	Free	Northbound	A (0.3)	A (0.0)
		Southbound	A (0.0)	A (0.0)
	TWSC	Overall	A (0.7)	A (1.1)

XX.X Average seconds of delay per vehicle

Background Conditions

The results of the LOS analysis for background conditions reveals that most approaches and movements of the studied intersections would continue to operate at LOS D or better during the AM and PM peak hours, with the following exception:

- Grand River Avenue and Glen Echo Drive
 - The southbound approach would operate at LOS E in the PM peak hour. There is only one vehicle experiencing this delay. No recommendations or improvements needed.

The 95th percentile queue lengths were reviewed at the studied intersections. No significant queue lengths were observed in the simulations and all queue lengths dissipated within one cycle length at the signalized intersections. The queue lengths did not block any study intersection.

The operational results for background conditions are presented in Table 5.

Table 5: LOS Analysis for Background Conditions

Intersection	Control Type	Approach	AM Peak	PM Peak
Grand River Ave & Dorr Rd / Glen Echo Dr	Signalized	Eastbound	B (18.9)	B (20.0)
		Westbound	B (17.4)	C (22.5)
		Northbound	C (29.1)	D (39.0)
		Southbound	D (52.3)	E (61.4)
		Overall	C (20.8)	C (25.0)
Grand River Ave & Hughes Rd	Signalized	Eastbound	A (6.8)	A (3.4)
		Westbound	A (7.1)	A (6.3)
		Southbound	D (39.5)	C (33.9)
		Overall	B (12.1)	A (6.8)
Dorr Rd & Sterling Dr	Stop	Eastbound	B (14.0)	B (14.8)
	Free	Northbound	A (0.3)	A (0.0)
		Southbound	A (0.0)	A (0.0)
	TWSC	Overall	A (0.7)	A (1.1)

XX.X Average seconds of delay per vehicle

Future Conditions

The results of the LOS analysis for future conditions reveals that most approaches and movements of the studied intersections would continue to operate at LOS D or better during the AM and PM peak hours, with the following exceptions:

- Grand River Avenue and Glen Echo Drive
 - The southbound approach would continue to operate at LOS E in the PM peak hour. There is only one vehicle experiencing this delay. No recommendations or improvements needed.

The 95th percentile queue lengths were reviewed at the studied intersections. No significant queue lengths were observed in the simulations and all queue lengths dissipated within one cycle length at the signalized intersections. The queue lengths did not block any study intersection.

No significant queue lengths at the proposed site driveways were observed. The proposed driveway with access to Grand River Avenue had a queue of 37 feet (1-2 vehicles). The proposed driveway with access to Dorr Road had a queue of 42 feet (2 vehicles). The operational results for future conditions are presented in Table 6.

Table 6: LOS Analysis for Future Conditions

Intersection	Control Type	Approach	AM Peak	PM Peak
Grand River Ave & Dorr Rd / Glen Echo Dr	Signalized	Eastbound	C (20.3)	C (21.4)
		Westbound	A (3.7)	A (3.7)
		Northbound	C (28.4)	D (39.6)
		Southbound	D (52.3)	E (61.4)
		Overall	B (16.9)	B (16.9)

Table 6: LOS Analysis for Future Conditions, Cont'd

Intersection	Control Type	Approach	AM Peak	PM Peak
Grand River Ave & Hughes Rd / Driveway 1	Signalized	Eastbound	B (14.8)	A (1.4)
		Westbound	A (8.2)	A (6.7)
		Northbound	C (24.3)	C (31.6)
		Southbound	D (35.5)	D (36.3)
		Overall	B (16.0)	A (6.5)
Dorr Rd & Sterling Dr	Stop	Eastbound	B (14.3)	C (15.0)
	Free	Northbound	A (0.3)	A (0.0)
		Southbound	A (0.0)	A (0.0)
	TWSC	Overall	A (0.7)	A (1.1)
Dorr Rd & Driveway 2	Stop	Westbound	A (8.5)	B (12.7)
	Free	Northbound	B (11.8)	A (0.0)
		Southbound	B (10.9)	A (0.7)
	TWSC	Overall	B (11.2)	A (0.7)

XX.X Average seconds of delay per vehicle

Turn Lane, Passing Lane, and Taper Warrants

An evaluation was performed in accordance with LCRC requirements to determine if left turn passing lanes or right turn deceleration lanes are required at the site driveways. The results of the analysis indicated that a left turn passing lane is warranted at Driveway 1 and 2. All turn lane warrant charts are attached to this memorandum.

The results of the analysis are presented in Table 7.

Table 7: Turn Lane Warrants

Intersection	Movement	Result
Grand River Ave & Driveway 1	WB LT	Warranted ¹
	EB RT	Not warranted
Dorr Rd & Driveway 2	SB LT	Warranted
	NB RT	Not warranted

¹Two-Way Left Turn Lane

Conclusions and Recommendations for the Traffic Impact Study

The proposed project consists of a Multi-Family Residential Development with a build-out year of approximately 2025. The proposed development will have access to Grand River Avenue via one proposed driveway and a second access to Dorr Road via one proposed driveway.

The proposed development is forecast to generate 92 new trips during the AM peak hour (22 inbound and 70 outbound from the site) and 116 new trips during the PM peak hour (73 inbound and 43 outbound from the site).

An operational analysis was performed for existing, background, and total future (build) conditions for the intersections of:

- Grand River Avenue and Dorr Road / Glen Echo Drive
- Grand River Avenue and Hughes Road / Site Driveway 1
- Dorr Road and Sterling Drive
- Dorr Road and Driveway 2

Mr. James Galbraith
February 3, 2022
Page 6

The operational analysis indicated that most approaches of the study intersections would operate at acceptable levels during both the AM and PM peak hours with no improvements.

Turn lane warrant analysis at the new site driveways revealed that a left turn passing lane is warranted at Driveway 1 and 2.

Attachments

R:\Projects\21F0111\Docs\Design\TIA\21F0111 Shapiro Real Estate - Genoa Twp TIS.docx

This document includes mark-up comments
requesting revisions by Township Staff and Counsel

PLANNED DEVELOPMENT AGREEMENT

The Legacy Apartment Homes

Entered into between:

Grand River Dorr, LLC

a Michigan limited liability company

and

Genoa Charter Township, County of Livingston

Dated: June 22, 2022

PLANNED UNIT DEVELOPMENT AGREEMENT

This Planned Development Agreement ("**Agreement**") is entered into as of _____, 2022, by Grand River Dorr LLC, a Michigan limited liability company, whose address is 31550 Northwestern Hwy., Suite 200, Farmington Hills, MI 48334 ("**Owner**") and **Genoa Charter Township**, a Michigan Charter Township, whose address is 2911 Dorr Road, Brighton, Michigan 48116 ("**Township**").

RECITALS

- A. Owners, own certain real property consisting of **52 +/-** acres located in the Genoa Charter Township, Michigan, which is more particularly described on **Exhibit A** attached hereto (the "**Property**"). The Property has been established as two (2) separate tax parcels consisting of 11-11-300-014 and 11-14-100-002.
- B. Owner desires to develop the Property as a Planned Development, which will consist of a development of **204** apartment units.
- C. At a meeting held by the Township Planning Commission on _____, 2022, the Township Planning Commission recommended approval of Owner's Conceptual PUD Site Plan for the Project prepared by PEA Group – Job Number **2021-0578**, last revised **5/24/2022 ("Preliminary Site Plan")**, subject to certain conditions as more fully set forth in Section 2.3 below.
- D. At a meeting held by the Township Board on _____, 2022, the Township Board approved the Preliminary Site Plan, subject to certain conditions as more fully set forth in Section 2.3 below.
- E. At a meeting held by the Township Planning Commission on _____, 2022, the Township Planning Commission approved Owner's Final Planned Unit Development Plan for the Project subject to certain conditions as more fully set forth in Section 2.3 below. The Final Planned Development Site Plan is attached as **Exhibit B** and is referred to herein as the "**PUD Plan.**"
- F. At a meeting held by the Township Board on _____, 2022, the Township Board approved Owner's Planned Development Agreement for the Project, subject to the conditions set forth in this Agreement, including without limitation Section 2.3 below.
- G. The Township determined that the Property qualifies for development as a Residential Planned Unit Development (RPUD) under the Genoa Charter Township's Zoning Ordinance ("**Zoning Ordinance**") because the Project will: (i) provide for the preservation of open space; (ii) provide recreational area for the use and benefit of the residents of the Project; and (iii) will facilitate the construction and maintenance of streets, utilities and public services in an efficient manner.

- H. By entering into this Agreement, Owner and the Township desire to set forth the parties' obligations with respect to the Property and the Project and the terms and requirements under which the Property and the Project shall be developed.

NOW, THEREFORE, in consideration of the premises and the mutual covenants of the parties described in this Agreement, the parties agree as follows:

ARTICLE I

DESCRIPTION OF THE PROJECT; PD and PD PLANS

- 1.1 **Description of Project.** The overall project ("**Project**") covers an area comprising approximately **52 +/-** acres located along Grand River Road and Dorr in the Township. The Project will contain **204** attached apartment units (each, a "**Project**"). The Project generally meets the requirements of the Zoning Ordinance and is consistent with the conditions imposed in the recommendation for approval by the Planning Commission. The Project shall include open space and other elements as set forth in this Agreement and the PD Plan. The Project will also contain approximately 29 acres of total open space.
- 1.2 **Final PD Plan Approval; Exhibits.** The PD Plan was approved by the Township Planning Commission on ____, 2022. The PD Plan approval grants the Owner the right to improve as set forth in the PD Plan, as the same may be modified and amended in accordance with the Township Zoning Ordinance from time to time, subject to obtaining permits in the ordinary course. All exhibits attached hereto are incorporated herein and made a part hereof by reference.
- 1.3 **Deviations to Standard Zoning Requirements.** Except as otherwise provided in this Agreement and the PD Plan attached hereto, Owner shall generally adhere to all Township Ordinances. Any deviations from the Township Zoning Ordinance which the Township shall be deemed to have granted, and hereby grants, as well as modifications to standard zoning requirements which will be requested, if any, are as set forth within this PUD Agreement and the attached PD Plan.
- 1.4 **Minor Modifications.** The Zoning Administrator may approve the proposed revision upon finding the change would not alter the basic design nor any conditions imposed upon the original plan approval by the Planning Commission as outlined within Sec **18.10** within the Township Zoning ordinance.
- 1.5 **Owner.** The obligations contained in this Agreement which apply to the Owner shall remain the responsibility of the Owner until such time as the Owner has assigned its obligations under this Agreement to a successor Owner who has assumed Owner's obligations under this Agreement in writing or to an association of owners that assume such obligations. Wherever the term "Owner" is used in this Agreement, it shall be deemed to include (i) the Owner named in this Agreement (ii) the entity identified as the Owner the project, as the term "Developer".
- 1.7 **Name and Address of Owner and Owner.** The Owners of the Property described on **Exhibit A** is Grand River Dorr, LLC, c/o Mark Kassab whose address is, 31550

This must be called out specifically

10.11

- 1.8 **Statement of Planning Objectives to Be Achieved by the Owner.** The primary planning objectives of this development is to provide Apartments for rent consisting of stacked ranch units.
- 1.9 **Statement of Applicant's Intention regarding Leasing.** It is the intent of the Owner to develop the Project and to market for the leasing of apartments.

ARTICLE II

REQUIREMENTS FOR DEVELOPMENT

- 2.1 **Development Standards.** The Property shall be developed and improved in compliance with the following:
 - (a) The Charter Township of Genoa Zoning Ordinance, as amended, except were modified by this Agreement and the Exhibits attached hereto;
 - (b) This Agreement;
 - (c) The PD Plan;
 - (d) The conditions set forth in Section 2.3 below; and
 - (e) All applicable federal, state and county laws, rules and regulations.
- 2.2 **Effect of PD Approval.** To the extent that developing the Property in accordance with this Agreement and the PD Plan will deviate from the Zoning Ordinance or any other Township ordinance or regulation, this Agreement and the PD Plan shall control. To the extent this Agreement and PD Plan attached hereto are silent on development issues, the Project shall comply with the Zoning Ordinance and other Township ordinances and regulations. All improvements constructed in accordance with this Agreement and the PD Plan shall be deemed to be conforming under the Zoning Ordinance and in compliance with all ordinances of the Township. The Project shall not be subject to any additional requirements contained in any amendments or additions to Township Zoning Ordinance adopted subsequent to the date of this Agreement which conflict with the provisions of this Agreement, including the PD Plan and/or any plans which are approved pursuant to this Agreement.
- 2.3 **Conditions to Approval.** Owner within the Property, including without limitation, installation of roads and utilities, until the completion of such pre-construction meeting (the "Site Improvement (Pre-Con Meeting)") as required by the Township engineer or Utility System Authorities shall obtain all state, county, and federal permits for the development of the Project. Owner shall not install any site improvements

ARTICLE III

USES WITHIN THE PROJECT

- 3.1 **Approved Uses for the Project.** The Project will consist of an apartment project containing **204** units, with approximately **29** acres of total open space, per the PD Plan.
- 3.2 **Permitted Density.** The Project will have a density of **6.23** residential units per acre based on the net acreage of the property.

ARTICLE IV

OWNER'S RIGHTS AND OBLIGATIONS

Right to Develop; Phasing. Owner shall have the right to develop the Property in accordance with the PD Plan and this Agreement. Owner shall have the right to develop the Property in phases (each, a "**Phase,**" and collectively, the "**Phases**"), each of which shall include the infrastructure improvements necessary to serve such Phase.

- 4.2 **Order of Development.** Owner shall have the right to develop the Phases at such time and in such order as determined by Owner, provided that Owner complies with this Agreement.

- 4.3 **Development Schedule.** Owner shall commence development of Phase 1 on or about April 2023.

- 4.4 **Internal Roads in the Project.** The internal roads within the Project will be private and asphalt or concrete. As such, internal circulation drives shall be built in conformance with the applicable requirements and standards of the Township for private roads.

- 4.5 **Landscape Plan.** The Landscape Plan which is part of the PD Plan attached hereto as Exhibit B identifies the landscaping to be installed within the Project. ~~The Owner may transfer the responsibility for street tree plantings to the owner or builder of each unit of the single-family development.~~

- 4.6 **Utilities.**

(a) **Sanitary Sewer System.** Sanitary sewers are available to the site and the Owner must connect to the Township's sanitary sewer system. Connection to the sanitary sewer system shall require payment of all applicable fees, charges, and assessments, in accordance with the Township's Ordinance. The PD Plan identifies the sewer lines and related sanitary sewer easements to be dedicated to the Township.

(b) **Water System.** Water service sewers is available to the site and the Owner must connect to the Township's water system. Connection to the water system shall require payment of all applicable fees, charges, and assessments, in accordance with the Township's Ordinance. The PD Plan identifies the water lines and related water easements to be dedicated to

Phasing must be shown on the plans and further described herein

Delete last sentence

the Township.

4.7 **Storm Water Detention.** Storm water shall be conveyed by a storm sewer system to a storm water detention basin located within the Project. All such storm water drainage facilities, including the detention basin and all related improvements shall be designed in accordance with all applicable ordinances in addition to the Livingston County Drain Commission engineering regulations and standards.

and Entryway Features

4.8 **Signs.** The PD Plan attached hereto includes a wall sign plan. Owner shall otherwise comply with all the sign regulations in the Township's sign ordinance, as amended with respect to changes (if applicable).

4.9 **Architectural and Site Design Guidelines.** The Project shall be developed in conformance with the following architectural and site minimum standards:

- (a) **Minimum Setbacks.** Setback's requirements shall be as specified in the PD Plan.
- (b) **Exterior Materials.** The materials used on the exterior of the attached units shall consist of any of the following materials: brick, vinyl, Hardie Plank® or similar siding, brick or stone.
- (c) **Driveway and Sidewalks.** Curbs, gutters, driveways and sidewalks shall be constructed of concrete or asphalt.
- (d) **Garages.** All dwellings including the attached rental units shall have an attached garage.

an entry wall monument, signage, stone piers and decorative fencing, which is approved.

ARTICLE V

PERFORMANCE GUARANTEE REQUIREMENTS

5.1 **Performance Guaranties.** Performance guarantees covering the estimated cost of improvements for the applicable phase being developed shall be provided to the extent required by and in accordance with the Township's Ordinances. The Owner shall place a bond, cash or other form of financial instrument for any such performance guarantees required by the Township.

Add additional language. See Section 10.05.04 for guidance.

ARTICLE VI

MAINTENANCE OF OPEN SPACE AND COMMON AREAS

Common Elements and Common Facilities. The Owner shall be responsible for the maintenance and repair of all roads, utilities that are not dedicated to the Township, storm drainage facilities, and

ARTICLE VII

TOWNSHIP'S RIGHTS AND OBLIGATIONS

- 7.1 **Permits and Authorizations.** The Township shall within its prevue grant to Owner and its contractors and subcontractors all Township permits and authorizations necessary to bring and/or construct all utilities necessary to service the Property and to otherwise develop and improve the Property in accordance with the PD Plan, provided the Owner has first made all requisite filings and submissions for permits, complied with the requirements for said permits or authorizations, submissions and paid all required fees in accordance with the Township's Ordinances in addition to the agencies having authority over such. The Owner will be responsible for obtaining all required approvals and necessary permits or authorizations from the appropriate agencies.
- 7.2 **Township Action for Failure to Maintain Property.** In the event the Owner defaults in its obligation to maintain the Property in a reasonable condition, using reasonable standards, and consistent with and as required under the PD Plan and this Agreement, the Township may serve written notice upon Owner setting forth the manner in which Owner has failed to maintain the Property, and such notice shall include a demand that deficiencies be cured within a stated reasonable time period no less than thirty (30) days, and the cost and expense of such curative action, including the cost of notices by the Township and reasonable legal, planning, and engineering fees and costs incurred by the Township shall be paid by the Owner. The Township may seek legal action to compel the owner to maintain the property and all cost associated with the Townships enforcement of such claims will be due by Owner.

ARTICLE VIII

MISCELLANEOUS PROVISIONS

- 8.1 **Governing Law.** This Agreement shall be governed by and construed in accordance with the laws of the State of Michigan.
- 8.2 **Counterparts.** This Agreement may be executed in multiple counterparts, each of which shall be deemed an original and all of which shall constitute one agreement. The signature of any party to any counterpart shall be deemed to be a signature to, and may be appended to, any other counterpart.
- 8.3 **Successors and Assigns.** The terms, provisions and conditions of this Agreement are and shall be deemed to be of benefit to the Property and shall run with and bind the Property, and shall bind and inure to the benefit of the successors and assigns of the parties to this Agreement.
- 8.4 **Amendment.** This Agreement may only be modified by written agreement of the Township and Owner or any successor in title who assumes Owner's rights and obligations hereunder. Notwithstanding, any amendments to this Agreement shall also require the written consent of Owners if Owners continue to hold title to any

portion of the Property.

- 8.5 **Authority.** This Agreement has been duly authorized by all necessary action of Owner and the Township, through the approval of the Township Board at a meeting in accordance with the laws of the State of Michigan, and the ordinances of the Township. By the execution of this Agreement, the parties each warrant that they have the authority to execute this Agreement and bind the Property in its respective entities to its terms and conditions.
- 8.6 **Partial Invalidity.** Invalidation of any of the provisions contained in this Agreement or of the application thereof to any person by judgment or court order shall in no way affect any of the other provisions hereof or the application thereof to any other person and the same shall remain in full force and effect.
- 8.7 **No Partnership.** None of the terms or provisions of this Agreement shall be deemed to create a partnership or joint venture between Owner and the Township.
- 8.8 **Incorporation of Documents.** The recitals contained in this Agreement, the introductory paragraph, and all exhibits attached to this Agreement and referred to herein shall for all purposes be deemed to be incorporated in this Agreement by this reference and made apart of this Agreement.
- 8.9 **Integration Clause.** This Agreement is intended as the complete integration of all understandings between the parties related to the subject matter herein. No prior contemporaneous addition, deletion or other amendment shall have any force or effect whatsoever, unless referenced in this Agreement.
- 8.10 **Incorporation of Owner's Representations, Warranties and Information.** All representations, warranties and information previously provided by Owner in any submission by the Owner to the Township are hereby incorporated in this Agreement by reference.
- 8.11 **Recording.** This Agreement, or a notice of its existence, shall be executed by the Owner and Owners and recorded by the Owner in the office of the Livingston County Register of Deeds, and may be recorded by any of the undersigned parties following the execution of this Agreement. Alternatively, the Township shall be authorized to prepare and record a Notice of Development Agreement.
- 8.12 **Waiver.** Failure of either party to insist upon strict performance of any of the terms, conditions or covenants hereof shall not be deemed to be a waiver of any rights or remedies that such party may have hereunder, at law or in equity, and shall not be deemed a waiver of any subsequent breach or default under this Agreement. No waiver by either party of any default under this Agreement shall be effective or binding unless made in writing and no such waiver shall be implied from any omission by the party to take an action with respect to the default. No express written waiver of any default shall affect any other default or cover any other period of time, and one or more written waivers of any default shall not be deemed to be a waiver of any subsequent default in performance of the same or any other term or provision contained in this Agreement.
- 8.13 **Violations.** Violations of the provisions of this Agreement shall be deemed to be violations of the Township Zoning Ordinance and shall entitle the Township to all the rights and remedies provided by the Zoning Ordinance or any other applicable law for such violation.

[Signatures and notarization are contained on the following pages]

[Signature page to Planned Development Agreement]

The parties hereto have executed this Agreement as of the year and date set forth above.

"OWNER"

Grand River Dorr, LLC,
A Michigan Limited Liability Company

By: _____
Mark Kassab

Its: _____
Authorized Agent

STATE OF MICHIGAN)
) ss.
COUNTY OF LIVINGSTON)

The foregoing PUD Agreement was acknowledged before me on this day of _____, 2022, by _____, _____ of Grand River Dorr, LLC, on behalf of the company.

[Signatures and notarization are continued on the following page)

[Signature page to Planned Development Agreement]

"TOWNSHIP"

Genoa Charter Township, Livingston County
A Michigan Limited Liability Company

By:

Its:

STATE OF MICHIGAN)
) ss.
COUNTY OF LIVINGSTON)

The foregoing PUD Agreement was acknowledged before me on this day of _____, 2022, by _____, _____ of Genoa Charter Township, on behalf of the company.

EXHIBIT A

LEGAL DESCRIPTION OF THE PROPERTY

PROPERTY DESCRIPTION:

BEING A PART OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 11, AND A PART OF THE NORTHWEST QUARTER (NW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 14, TOWN 2 NORTH, RANGE 5 EAST, GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN, DESCRIBED AS:

BEGINNING AT THE SOUTHWEST CORNER OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 11 SAME BEING THE NORTHWEST CORNER OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 14; THENCE, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 14, SAME BEING THE CENTERLINE OF DORR ROAD (66 FOOT RIGHT OF WAY), SOUTH 00 DEGREES 15 MINUTES 00 SECONDS EAST, A DISTANCE OF 1340.74 FEET TO THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 14; THENCE ALONG THE SOUTH LINE OF SAID NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 14, NORTH 89 DEGREES 50 MINUTES 12 SECONDS EAST, A DISTANCE OF 1335.60 FEET TO THE SOUTHEAST CORNER OF SAID NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 14; THENCE ALONG THE EAST LINE OF SAID NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 14, NORTH 00 DEGREES 02 MINUTES 14 SECONDS WEST, A DISTANCE OF 1029.24 FEET TO THE SOUTHEAST CORNER OF A PARCEL DESCRIBED IN WARRANTY DEED RECORDED IN LIBER 777, PAGE 269, LIVINGSTON COUNTY RECORDS; THENCE ALONG THE SOUTHERLY LINE OF SAID PARCEL, SOUTH 86 DEGREES 34 MINUTES 33 SECONDS WEST, A DISTANCE OF 140.24 FEET TO THE SOUTHWEST CORNER OF SAID PARCEL; THENCE ALONG THE SOUTHERLY LINE OF S PARCEL DESCRIBED IN WARRANTY DEED RECORDED IN LIBER 2443, PAGE 454, LIVINGSTON COUNTY RECORDS, NORTH 89 DEGREES 56 MINUTES 58 SECONDS WEST, A DISTANCE OF 235.00 FEET TO A POINT BEING 375.00 FEET WEST OF THE EAST LINE OF SAID NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 14; THENCE ALONG A LINE BEING 375.00 FEET WEST OF AND PARALLEL TO THE EAST LINE OF SAID NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 14, NORTH 00 DEGREES 02 MINUTES 14 SECONDS WEST, A DISTANCE OF 315.00 FEET TO A POINT ON THE NORTH LINE OF SAID NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 14 SAME BEING THE SOUTH LINE OF SAID SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11; THENCE ALONG A LINE BEING 375.00 WEST AND PARALLEL TO THE EAST LINE OF SAID SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, NORTH 00 DEGREES 07 MINUTES 24 SECONDS EAST, A DISTANCE OF 420.56 FEET TO THE SOUTHERLY LINE OF GRAND RIVER AVENUE (100 FOOT RIGHT OF WAY); THENCE ALONG SAID SOUTHERLY LINE, NORTH 68 DEGREES 30 MINUTES 00 SECONDS WEST, A DISTANCE OF 1037.63 FEET TO A POINT ON THE WEST LINE OF SAID SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11 SAME BEING THE CENTERLINE OF SAID DORR ROAD; THENCE ALONG SAID WEST LINE OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, SOUTH 00 DEGREES 04 MINUTES 32 SECONDS WEST A DISTANCE OF 800.00 FEET TO THE POINT OF BEGINNING. CONTAINING 2,262,563 +- SQUARE FEET OR 51.941 +- ACRES OF LAND.

Exhibit B

Site Plan

EXHIBIT C

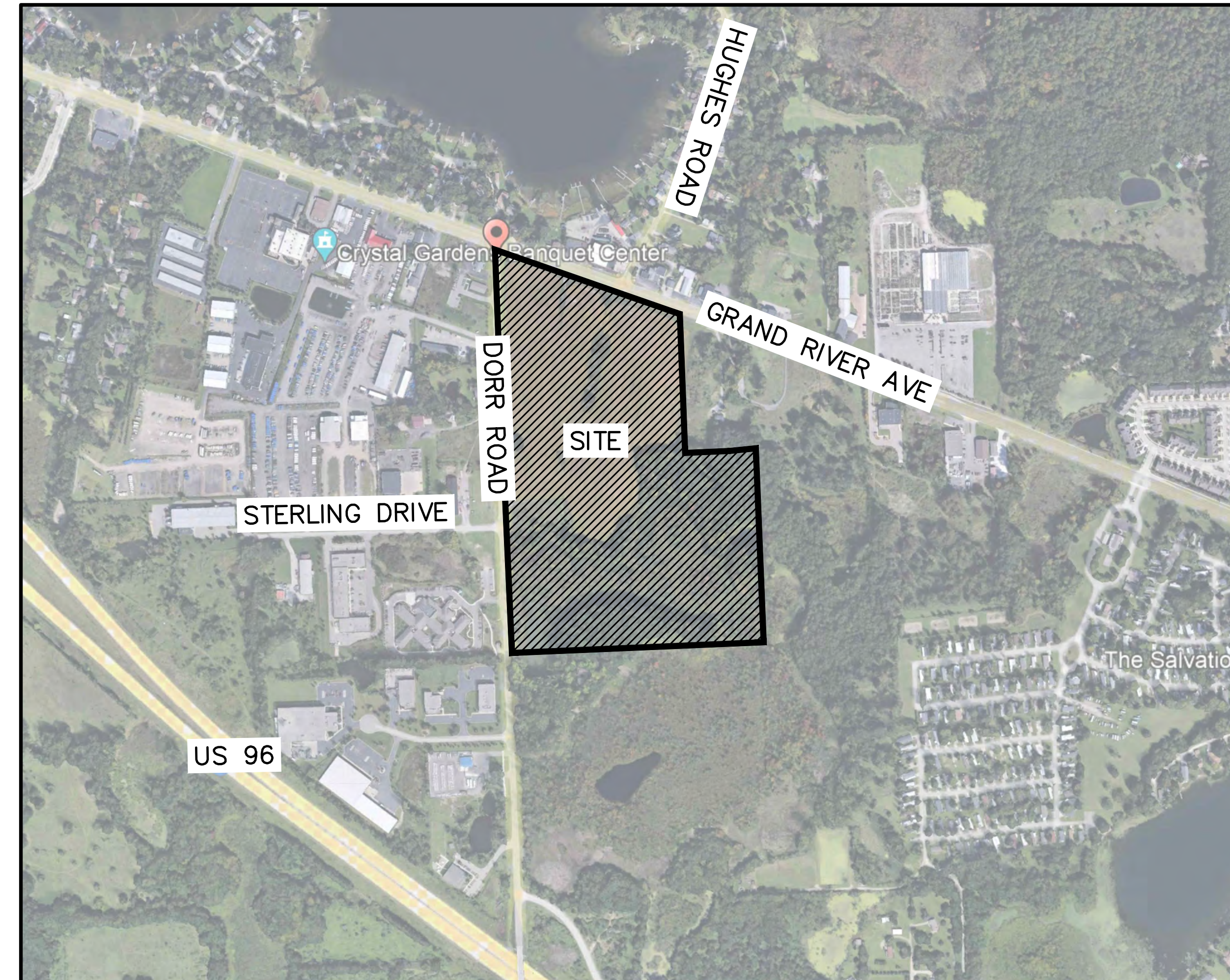
MINUTES OF MEETINGS AND
REVIEW LETTERS

CONCEPTUAL P.U.D. PLANS

THE LEGACY APARTMENT HOMES

6080 W. GRAND RIVER
GENOA TOWNSHIP, LIVINGSTON COUNTY

PERMIT / APPROVAL SUMMARY		
DATE SUBMITTED	DATE APPROVED	PERMIT / APPROVAL



LOCATION MAP
1"=500'

INDEX OF DRAWINGS	
SHEET NUMBER	SHEET TITLE
C-0.0	COVER SHEET
C-1.1	TOPOGRAPHICAL SURVEY-OVERALL
C-1.2	TOPOGRAPHICAL SURVEY-NORTH
C-1.3	TOPOGRAPHICAL SURVEY-SOUTH
C-1.4	TREE LIST
C-2.1	OVERALL PUD SITE PLAN
C-2.2	CONCEPTUAL PUD SITE PLAN-NORTH
C-2.3	CONCEPTUAL PUD SITE PLAN-SOUTH
C-3.1	CONCEPTUAL STORM WATER MANAGEMENT PLAN
C-4.1	CONCEPTUAL UTILITY PLAN
C-4.2	CONCEPTUAL UTILITY PLAN
C-5.1	VEHICLE TRACKING
L-1.0 - 5.0	CONCEPTUAL LANDSCAPE PLAN
A -1.0 - 6.0	ARCHITECTURAL FLOOR PLANS AND ELEVATIONS

DESIGN TEAM

OWNER/APPLICANT/DEVELOPER
GRAND RIVER DORR, LLC
315550 NORTHWESTERN HIGHWAY
FARMINGTON HILL, MI 48334
CONTACT: MARK KASSAB
PHONE: 248.865.0066
EMAIL: MKASSAB@MSHAPIROREALESTATE.COM

CIVIL ENGINEER
PEA GROUP
7927 NEMCO WAY, STE. 115
BRIGHTON, MI 48116
CONTACT: JONATHAN E. CURRY, PE
PHONE: 844.813.2949
EMAIL: JCURRY@PEAGROUP.COM

ARCHITECT
BURMANN ASSOCIATES INC.
119 W. ST. CLAIR
ROMEO, MICHIGAN 58065-4655
PHONE: 586.752.5010 , MOBILE: 586.201.1602
EMAIL: GREATARCHITECTS@CHARTER.NET

SURVEYOR

HUBBELL ROTH AND CLARK
555 HULET DRIVE
BLOOMFIELD HILLS, MICHIGAN 48303
CONTACT: MELISSA COATTE, P.E.
PHONE: 248-454-6300
EMAIL: mcoatta@hrcengr.com

LANDSCAPE ARCHITECT/PLANNER

FELINO A. PASCUAL AND ASSOCIATES
24333 ORCHARD LAKE ROAD SUITE G
CONTACT: FELINO A. PASCUAL, RLA, CLARB
PHONE: 248.557.5588



REVISIONS	
DESCRIPTION	DATE
ORIGINAL ISSUE DATE	5/24/2022
REVISED FOR TOWNSHIP COMMENTS	6/23/2022

TOPOGRAPHIC AND BOUNDARY SURVEY DISCLAIMER:

TOPOGRAPHIC AND BOUNDARY SURVEY, INCLUDING PROPERTY LINES, LEGAL DESCRIPTION, EXISTING UTILITIES, EXISTING ELEVATIONS, EXISTING PHYSICAL FEATURES AND STRUCTURES WAS PROVIDED BY HRC, INC. THE NORTH WETLAND LINE WAS OBTAINED BY PEA GROUP.

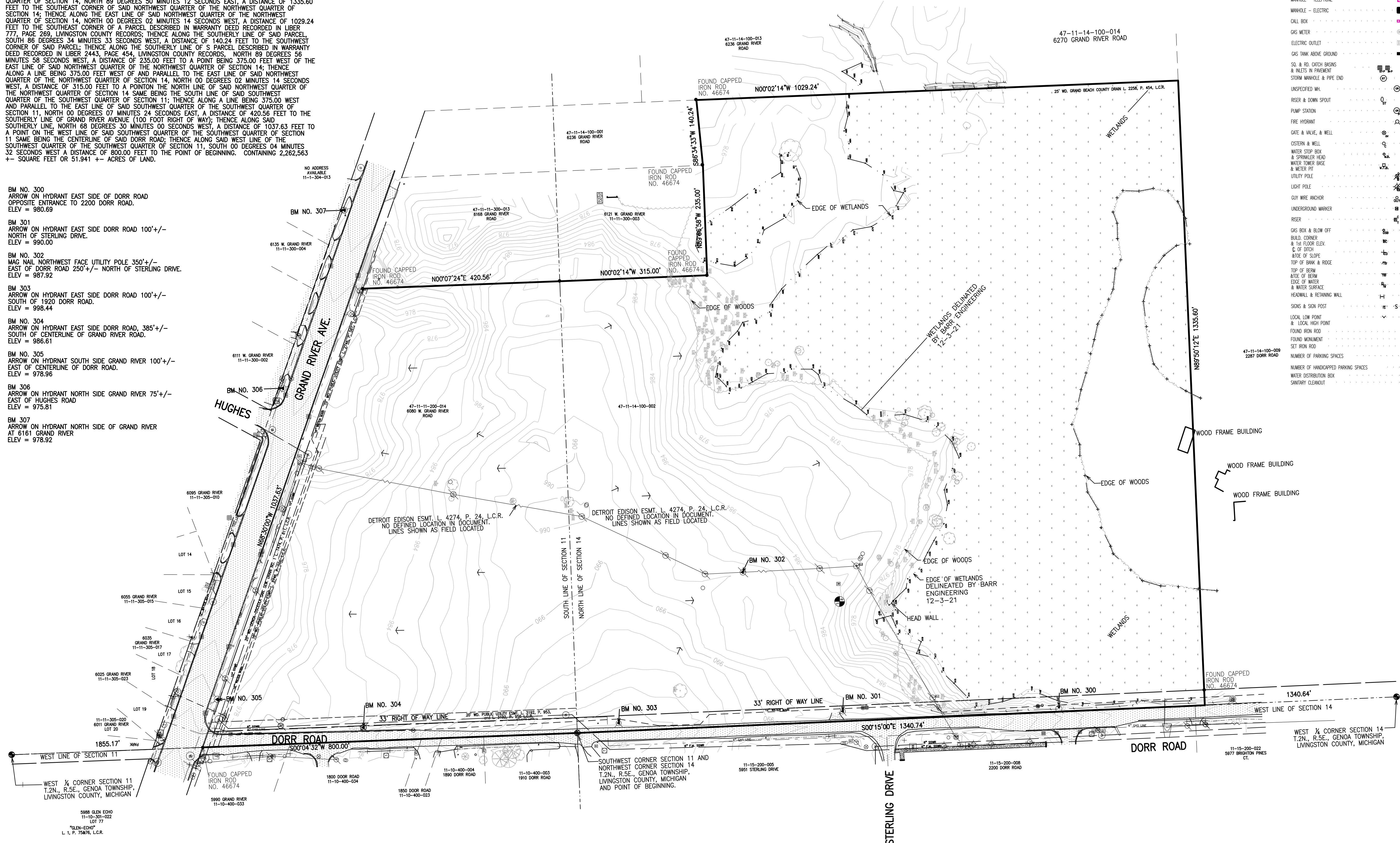
PEA GROUP WILL NOT BE HELD RESPONSIBLE FOR THE ACCURACY OF THE SURVEY OR FOR DESIGN ERRORS/OMISSIONS RESULTING FROM SURVEY INACCURACIES.

PROPERTY DESCRIPTION:

BEING A PART OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 11, AND A PART OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 14, TOWN 2 NORTH, RANGE 5 EAST, GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN, DESCRIBED AS:

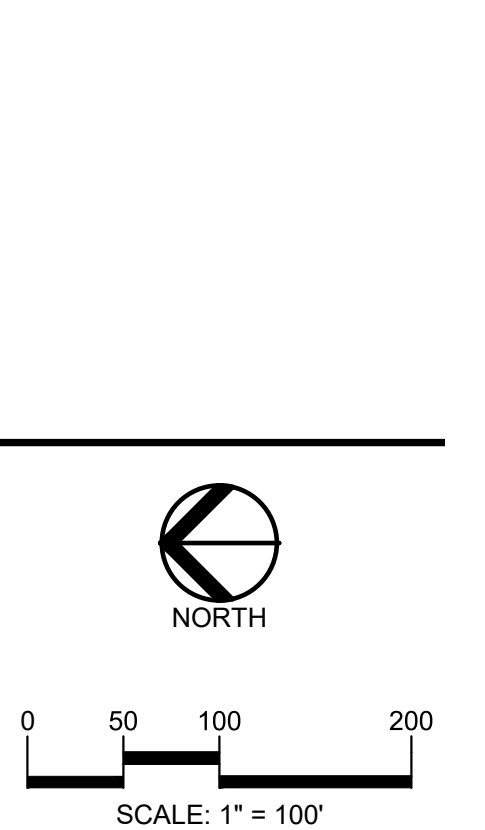
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- BM NO. 300
ARROW ON HYDRANT EAST SIDE OF DORR ROAD
OPPOSITE ENTRANCE TO 2200 DORR ROAD.
ELEV = 980.69
- BM NO. 301
ARROW ON HYDRANT EAST SIDE DORR ROAD 100'+/-
NORTH OF STERLING DRIVE.
ELEV = 990.00
- BM NO. 302
MAG NAIL NORTHWEST FACE UTILITY POLE 350'+/-
EAST OF DORR ROAD 250'+/- NORTH OF STERLING DRIVE.
ELEV = 987.92
- BM NO. 303
ARROW ON HYDRANT EAST SIDE DORR ROAD 100'+/-
SOUTH OF 1920 DORR ROAD.
ELEV = 998.44
- BM NO. 304
ARROW ON HYDRANT EAST SIDE DORR ROAD, 385'+/-
SOUTH OF CENTERLINE OF GRAND RIVER ROAD.
ELEV = 986.61
- BM NO. 305
ARROW ON HYDRANT SOUTH SIDE GRAND RIVER 100'+/-
EAST OF CENTERLINE OF DORR ROAD.
ELEV = 978.95
- BM NO. 306
ARROW ON HYDRANT NORTH SIDE GRAND RIVER 75'+/-
EAST OF HUGHES ROAD
ELEV = 975.81
- BM NO. 307
ARROW ON HYDRANT NORTH SIDE OF GRAND RIVER
AT 6161 GRAND RIVER
ELEV = 978.92

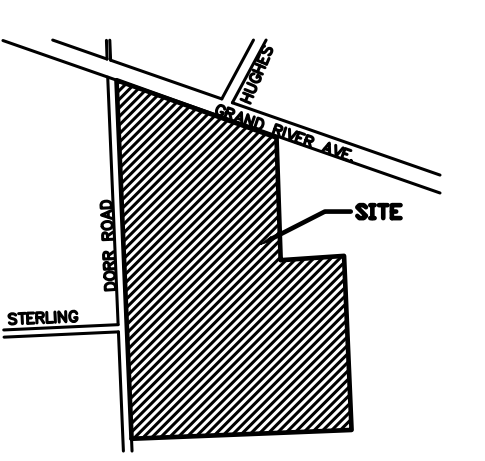


LEGEND

BUILDING	[Symbol]
ASPHALT	[Symbol]
CONCRETE	[Symbol]
GRAVEL	[Symbol]
STORM	[Symbol]
SANITARY	[Symbol]
WATERMAIN	[Symbol]
GAS	[Symbol]
LAND TELEPHONE	[Symbol]
UND. ELECTRICAL	[Symbol]
TRAVERSE LINE & TRAVERSE POINT	[Symbol]
BENCH MARK SYMBOL	[Symbol]
PARKING BOLLARD	[Symbol]
FENCE	[Symbol]
MANHOLE - TELEPHONE	[Symbol]
MANHOLE - ELECTRIC	[Symbol]
CALL BOX	[Symbol]
GAS METER	[Symbol]
ELECTRIC OUTLET	[Symbol]
GAS TANK ABOVE GROUND	[Symbol]
SO. & RD. CATCH BASINS & INLETS IN PAVEMENT	[Symbol]
STORM MANHOLE & PIPE END	[Symbol]
UNSPECIFIED MFL	[Symbol]
RISER & DOWN SPOUT	[Symbol]
PUMP STATION	[Symbol]
FIRE HYDRANT	[Symbol]
GATE & VALVE, & WELL	[Symbol]
CISTERN & WELL	[Symbol]
WATER STOP BOX & SPRINKLER HEAD	[Symbol]
WATER TOWER BASE & METER PIT	[Symbol]
UTILITY POLE	[Symbol]
LIGHT POLE	[Symbol]
CLAY WIRE ANCHOR	[Symbol]
UNDERGROUND MARKER	[Symbol]
RISER	[Symbol]
GAS BOX & BLOW OFF	[Symbol]
BUILD CORNER & 1st FLOOR ELEV. & OF DITCH	[Symbol]
AT&E OF SLOPE	[Symbol]
TOP OF BANK & RIDGE	[Symbol]
TOP OF BEAM	[Symbol]
AT&E OF BEAM	[Symbol]
EDGE OF WATER & WATER SURFACE	[Symbol]
HEADWALL & RETAINING WALL	[Symbol]
SIGNS & SIGN POST	[Symbol]
LOCAL LOW POINT & LOCAL HIGH POINT	[Symbol]
FOUND IRON ROD	[Symbol]
FOUND MONUMENT	[Symbol]
SET IRON ROD	[Symbol]
NUMBER OF PARKING SPACES	[Symbol]
NUMBER OF HANDICAPPED PARKING SPACES	[Symbol]
WATER DISTRIBUTION BOX	[Symbol]
SANITARY CLEANOUT	[Symbol]



CAUTION!!
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY AS APPLIED AS TO THE COMPLETION OF ACCURACY THEREOF. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.



CLIENT
GRAND RIVER DORR LLC.
315550 NORTHWESTERN HIGHWAY
FARMINGTON HILLS, MI 48334

PROJECT TITLE
THE LEGACY APARTMENT HOMES
6080 W GRAND RIVER
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS

REVISED PER TWP COMMENTS	6.23.22
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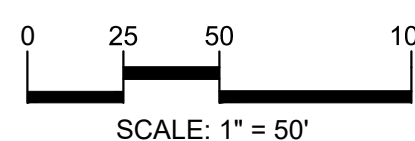
ORIGINAL ISSUE DATE:
MAY 24, 2022

DRAWING TITLE
TOPOGRAPHICAL SURVEY-OVERALL

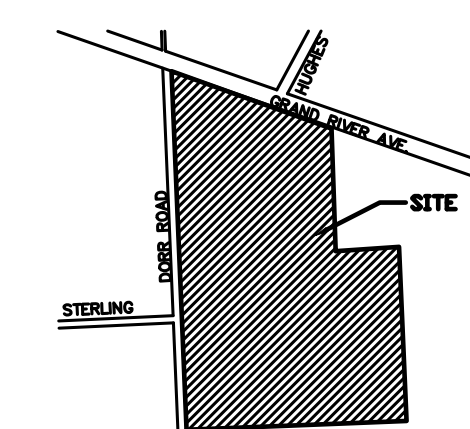
PEA JOB NO.	2021-0578
P.M.	JEC
DN.	JMR
DES.	JMR
DRAWING NUMBER:	C-1.1

NOT FOR CONSTRUCTION

S:\PROJECTS\2021-0578 LAUREL GENOA TOWNSHIP\CONCEPTUAL\G-1.0 CONCEPT TOPO-21-058.dwg



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



CLIENT
GRAND RIVER DORR LLC.
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PROJECT TITLE
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6080 W GRAND RIVER
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS

REVISION	DATE
REVISED PER TWP COMMENTS	6.23.22

ORIGINAL ISSUE DATE:
MAY 24, 2022

DRAWING TITLE
TOPOGRAPHICAL SURVEY-NORTH

PEA JOB NO.	2021-0578
P.M.	JEC
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

LEGEND

BUILDING	(Symbol)
ASPHALT	(Symbol)
CONCRETE	(Symbol)
GRAVEL	(Symbol)
STORM	(Symbol)
SAUNTRY	(Symbol)
WATERMAIN	(Symbol)
GAS	(Symbol)
UND. TELEPHONE	(Symbol)
UND. ELECTRICAL	(Symbol)
TRAVERSE LINE & TRAVERSE POINT	(Symbol)
BENCH MARK SYMBOL	(Symbol)
PARKING BOLLARD	(Symbol)
FENCE	(Symbol)
MANHOLE - TELEPHONE	(Symbol)
MANHOLE - ELECTRIC	(Symbol)
CALL BOX	(Symbol)
GAS METER	(Symbol)
ELECTRIC OUTLET	(Symbol)
GAS TANK ABOVE GROUND	(Symbol)
SO. & RO. CATCH BASINS & INLETS IN PAVEMENT	(Symbol)
STORM MANHOLE & PIPE END	(Symbol)
UNSPECIFIED MH	(Symbol)
RISER & DOWN SPOUT	(Symbol)
PUMP STATION	(Symbol)
FIRE HYDRANT	(Symbol)
GATE & VALVE, & WELL	(Symbol)
CISTERN & WELL	(Symbol)
WATER STOP BOX & SPRINKLER HEAD	(Symbol)
WATER TOWER BASE & METER PIT	(Symbol)
UTILITY POLE	(Symbol)
LIGHT POLE	(Symbol)
CITY WIRE ANCHOR	(Symbol)
UNDERGROUND MARKER	(Symbol)
RISER	(Symbol)
GAS BOX & BLOW OFF	(Symbol)
BUILD. CORNER @ 1st FLOOR ELEV.	(Symbol)
C. OF DITCH	(Symbol)
ATICE OF SLOPE	(Symbol)
TOP OF BANK & RIDGE	(Symbol)
ATICE OF BERM	(Symbol)
EDGE OF WATER	(Symbol)
WATER SURFACE	(Symbol)
HEADWALL & RETAINING WALL	(Symbol)
SIGNS & SIGN POST	(Symbol)
LOCAL LOW POINT & LOCAL HIGH POINT	(Symbol)
FOUND IRON ROD	(Symbol)
FOUND MONUMENT	(Symbol)
SET IRON ROD	(Symbol)
NUMBER OF PARKING SPACES	(Symbol)
NUMBER OF HANDICAPPED PARKING SPACES	(Symbol)
WATER DISTRIBUTION BOX	(Symbol)
SAUNTRY CLEANOUT	(Symbol)

BM NO. 300
ARROW ON HYDRANT EAST SIDE OF DORR ROAD
OPPOSITE ENTRANCE TO 2200 DORR ROAD.
ELEV = 980.69

BM 301
ARROW ON HYDRANT EAST SIDE DORR ROAD 100'+/-
NORTH OF STERLING DRIVE.
ELEV = 990.00

BM NO. 302
MAG NAIL NORTHWEST FACE UTILITY POLE 350'+/-
EAST OF DORR ROAD 250'+/- NORTH OF STERLING DRIVE.
ELEV = 987.92

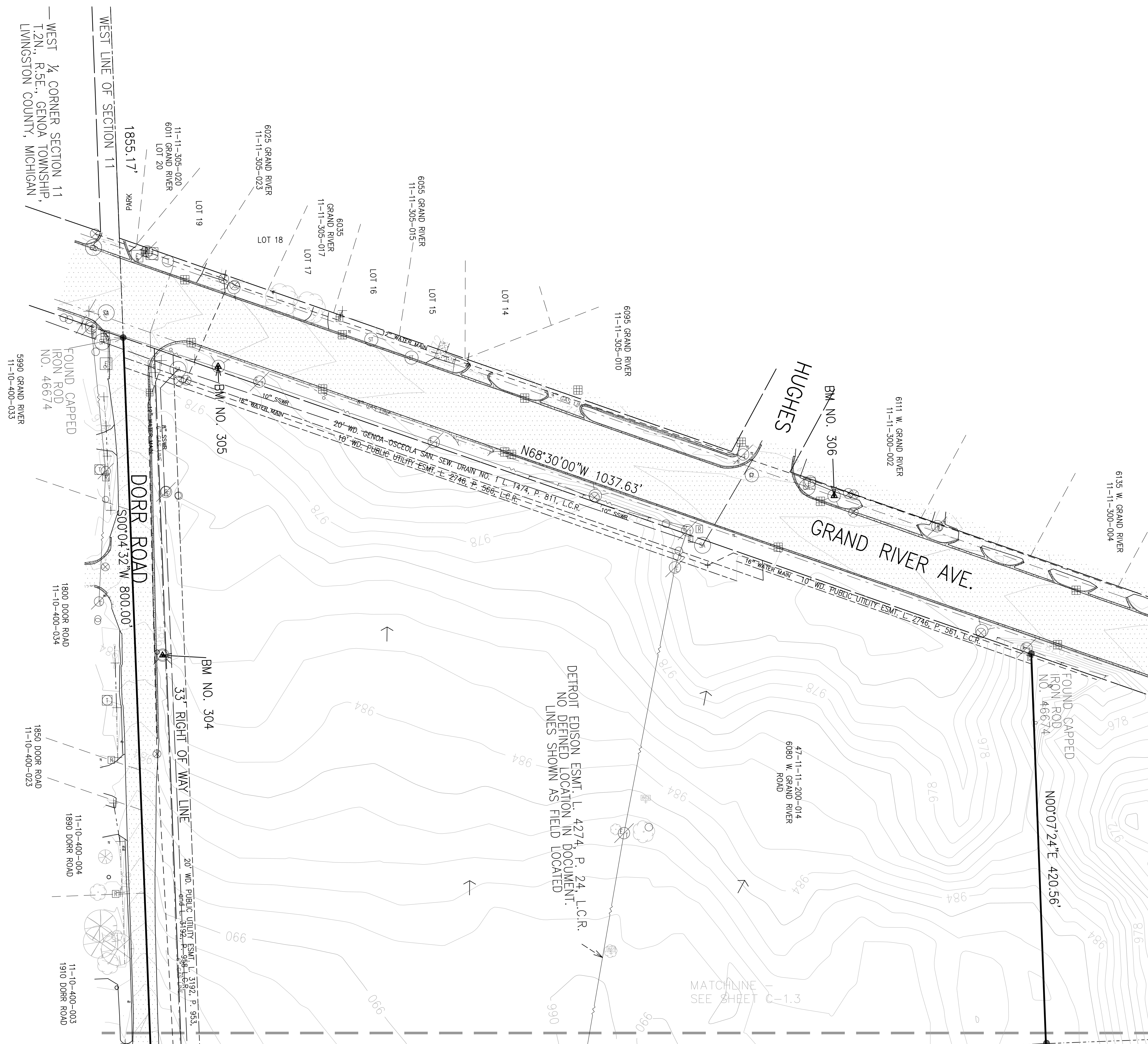
BM 303
ARROW ON HYDRANT EAST SIDE DORR ROAD 100'+/-
SOUTH OF 1920 DORR ROAD.
ELEV = 988.44

BM NO. 304
ARROW ON HYDRANT EAST SIDE DORR ROAD, 385'+/-
SOUTH OF CENTERLINE OF GRAND RIVER ROAD.
ELEV = 986.61

BM NO. 305
ARROW ON HYDRANT SOUTH SIDE GRAND RIVER 100'+/-
EAST OF CENTERLINE OF DORR ROAD.
ELEV = 978.96

BM 306
ARROW ON HYDRANT NORTH SIDE GRAND RIVER 75'+/-
EAST OF HUGHES ROAD
ELEV = 975.81

BM 307
ARROW ON HYDRANT NORTH SIDE OF GRAND RIVER
AT 6161 GRAND RIVER
ELEV = 978.92



DETROIT EDISON ESMT. L. 4274, P. 24, L.C.R.
NO DEFINED LOCATION IN DOCUMENT.
NO LINES SHOWN AS FIELD LOCATED

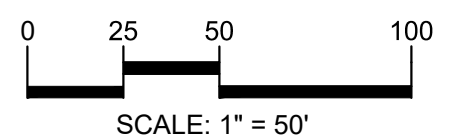
MATCHLINE - SEE SHEET C-1.3

NOT FOR CONSTRUCTION

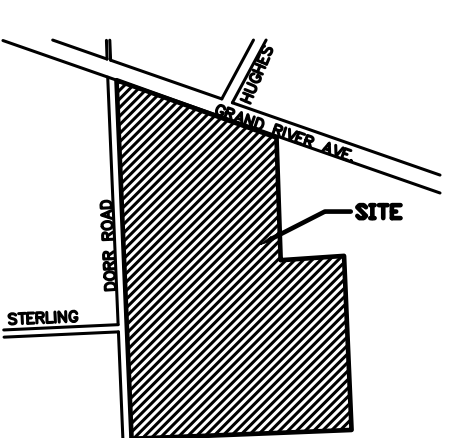
C-1.2



NORTH



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315550 NORTHWESTERN HIGHWAY
FARMINGTON HILLS, MI 48334

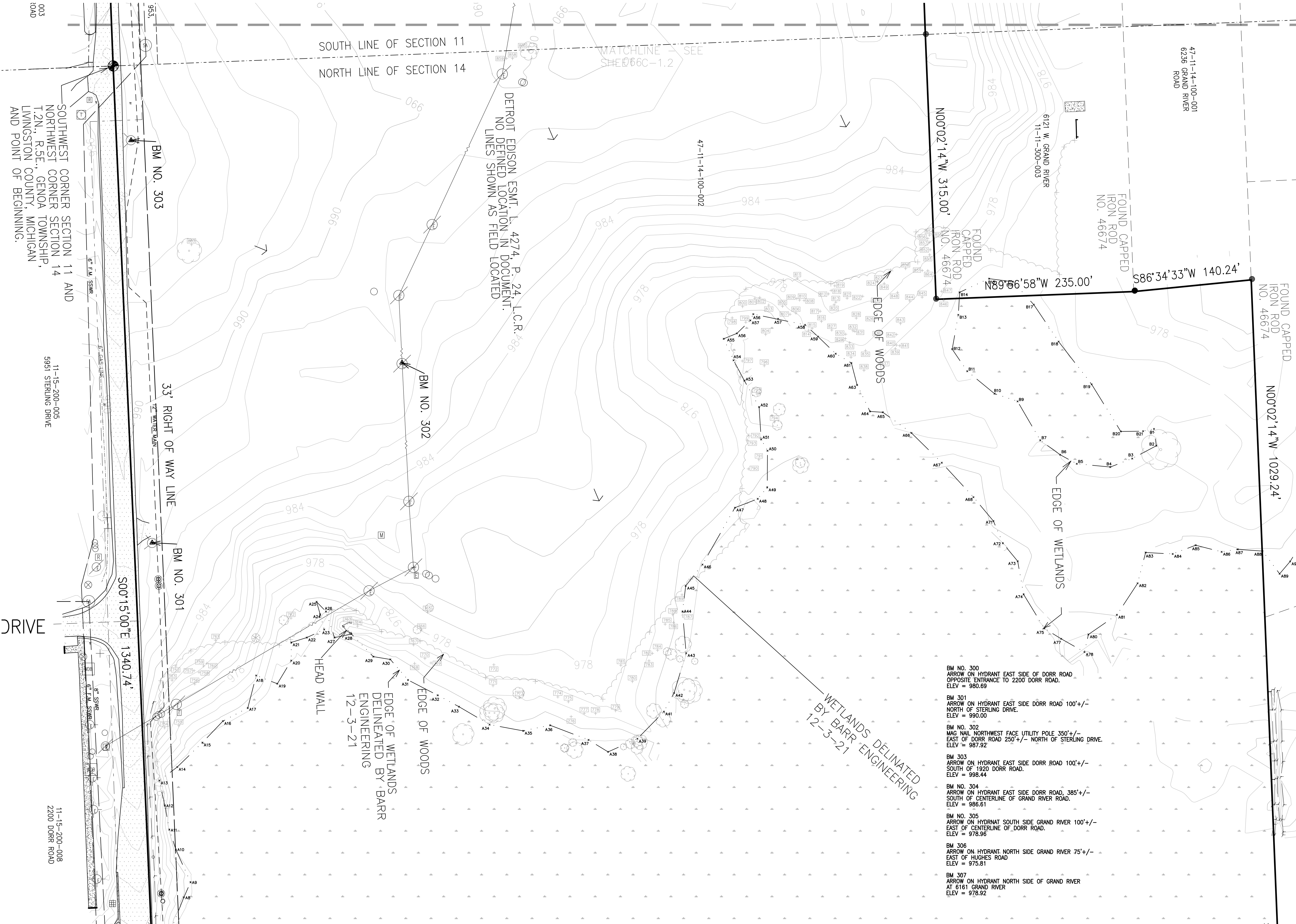
PROJECT TITLE
THE LEGACY APARTMENT HOMES
6080 W GRAND RIVER
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS
REVISED PER TWP COMMENTS 6.23.22

ORIGINAL ISSUE DATE:
MAY 24, 2022

DRAWING TITLE
TOPOGRAPHICAL SURVEY-SOUTH

PEA JOB NO. 2021-0578
P.M. JEC
DN. JMR
DES. JMR
DRAWING NUMBER:

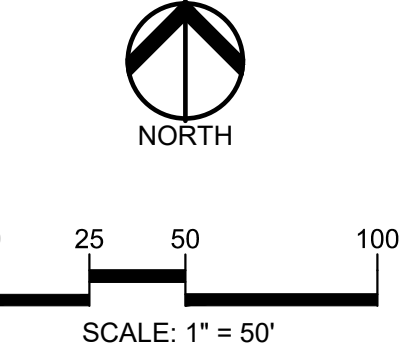


- BM NO. 300
ARROW ON HYDRANT EAST SIDE OF DORR ROAD
OPPOSITE ENTRANCE TO 2200 DORR ROAD.
ELEV = 980.69
- BM NO. 301
ARROW ON HYDRANT EAST SIDE DORR ROAD 100'+/-
NORTH OF STERLING DRIVE.
ELEV = 990.00
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EAST OF DORR ROAD 250'+/- NORTH OF STERLING DRIVE.
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ELEV = 975.81
- BM NO. 307
ARROW ON HYDRANT NORTH SIDE OF GRAND RIVER
AT 5151 GRAND RIVER
ELEV = 978.92

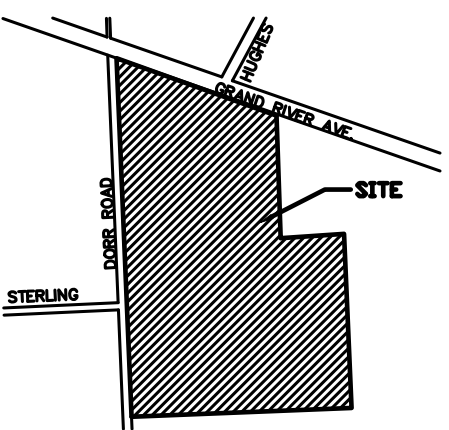
\\pea-02\proj\2021\2021-0578\2021-0578.dwg

TAG NO.	CODE	DBH	COMMON NAME	LATIN NAME	COND	COMMENTS
752	RO	10	Red Oak	Quercus rubra	Good	
753	RO	11	Red Oak	Quercus rubra	Good	
754	PN	18	Pin Cherry	Prunus pennsylvanica	Good	
755	RO	13	Red Oak	Quercus rubra	Good	
756	RO	10	Red Oak	Quercus rubra	Good	
757	RO	10	Red Oak	Quercus rubra	Good	x1
758	RO	9	Red Oak	Quercus rubra	Good	
759	RO	11	Red Oak	Quercus rubra	Good	
760	RO	8	Red Oak	Quercus rubra	Good	x1
761	RO	10	Red Oak	Quercus rubra	Good	
762	BX	21	Box elder	Acer negundo	Fair	x1
763	AP	10	Domestic Apple	Malus sylvestris	Fair	x1
764	BC	10	Wild Black Cherry	Prunus serotina	Poor	
765	BG	10	Bigtooth Aspen	Populus grandidentata	Good	
766	E	10	American Elm	Ulmus americana	Good	
767	AP	9	Domestic Apple	Malus sylvestris	Fair	
768	BC	10	Wild Black Cherry	Prunus serotina	Fair	
769	MW	12	White Mulberry	Morus alba	Fair	
770	BC	13	Wild Black Cherry	Prunus serotina	Fair	
771	BC	13	Wild Black Cherry	Prunus serotina	Fair	
772	BC	9	Wild Black Cherry	Prunus serotina	Fair	
773	BC	15	Wild Black Cherry	Prunus serotina	Fair	
774	AP	12	Domestic Apple	Malus sylvestris	Fair	
775	AP	8	Domestic Apple	Malus sylvestris	Fair	
776	AP	8	Domestic Apple	Malus sylvestris	Fair	x1
777	AP	8	Domestic Apple	Malus sylvestris	Fair	
778	RO	9	Red Oak	Quercus rubra	Good	
779	AP	10	Domestic Apple	Malus sylvestris	Fair	
780	AP	12	Domestic Apple	Malus sylvestris	Fair	
781	RO	12	Red Oak	Quercus rubra	Good	
782	AP	11	Domestic Apple	Malus sylvestris	Fair	
783	AP	10	Domestic Apple	Malus sylvestris	Fair	
784	AP	8	Domestic Apple	Malus sylvestris	Fair	x1
785	BG	8	Bigtooth Aspen	Populus grandidentata		
786	BG	10	Bigtooth Aspen	Populus grandidentata	Very Poor	
787	BG	9	Bigtooth Aspen	Populus grandidentata	Fair	
788	BG	10	Bigtooth Aspen	Populus grandidentata	Fair	
789	BG	10	Bigtooth Aspen	Populus grandidentata	Very Poor	
790	AP	8	Domestic Apple	Malus sylvestris	Fair	
791	AP	8	Domestic Apple	Malus sylvestris	Fair	x5
792	BG	9	Bigtooth Aspen	Populus grandidentata	Good	
793	RO	12	Red Oak	Quercus rubra	Fair	
794	SWO	14	Swamp White Oak	Quercus bicolor	Fair	
795	SWO	14	Swamp White Oak	Quercus bicolor	Fair	
796	SWO	16	Swamp White Oak	Quercus bicolor	Fair	
797	BX	11	Box elder	Acer negundo	Poor	x1
798	AP	18	Domestic Apple	Malus sylvestris	Fair	x5
799	BG	11	Bigtooth Aspen	Populus grandidentata	Dead	
800	BC	9	Wild Black Cherry	Prunus serotina	Fair	
801	BC	16	Wild Black Cherry	Prunus serotina	Poor	
802	BC	14	Wild Black Cherry	Prunus serotina	Fair	
803	BC	16	Wild Black Cherry	Prunus serotina	Fair	x1
804	GA	8	Green Ash	Fraxinus pennsylvanica	Poor	x1
805	BC	18	Wild Black Cherry	Prunus serotina	Fair	
806	BC	9	Wild Black Cherry	Prunus serotina	Fair	
807	BC	9	Wild Black Cherry	Prunus serotina	Fair	
808	BC	14	Wild Black Cherry	Prunus serotina	Poor	x1

TAG NO.	CODE	DBH	COMMON NAME	LATIN NAME	COND	COMMENTS
809	BC	13	Wild Black Cherry	Prunus serotina	Fair	
810	BC	11	Wild Black Cherry	Prunus serotina	Poor	
811	BC	12	Wild Black Cherry	Prunus serotina	Fair	
812	BC	16	Wild Black Cherry	Prunus serotina	Fair	x1
813	BC	13	Wild Black Cherry	Prunus serotina	Fair	
814	BC	8	Wild Black Cherry	Prunus serotina	Poor	
815	BC	9	Wild Black Cherry	Prunus serotina	Fair	
816	PN	11	Pin Cherry	Prunus pennsylvanica	Fair	check YB
817	PN	12	Pin Cherry	Prunus pennsylvanica	Fair	
818	BC	9	Wild Black Cherry	Prunus serotina	Fair	
819	BX	12	Box elder	Acer negundo	Fair	
820	BC	13	Wild Black Cherry	Prunus serotina	Fair	
821	BC	11	Wild Black Cherry	Prunus serotina	Fair	
822	PN	14	Pin Cherry	Prunus pennsylvanica	Good	
823	BX	17	Box elder	Acer negundo	Fair	x1
824	BX	8	Box elder	Acer negundo	Fair	
825	BX	10	Box elder	Acer negundo	Fair	
826	BX	8	Box elder	Acer negundo	Fair	
827	SM	21	Silver Maple	Acer saccharinum	Good	x1
828	BC	10	Wild Black Cherry	Prunus serotina	Poor	
829	BC	11	Wild Black Cherry	Prunus serotina	Very Poor	crown broke off
830	BC	8	Wild Black Cherry	Prunus serotina	Poor	
831	BC	9	Wild Black Cherry	Prunus serotina	Fair	
832	BC	8	Wild Black Cherry	Prunus serotina	Poor	
833	BC	12	Wild Black Cherry	Prunus serotina	Fair	
834	BC	9	Wild Black Cherry	Prunus serotina	Poor	
835	BX	8	Box elder	Acer negundo	Very Poor	x1
836	BX	10	Box elder	Acer negundo	Fair	
837	PN	11	Pin Cherry	Prunus pennsylvanica	Fair	
838	BC	12	Wild Black Cherry	Prunus serotina	Fair	
839	RO	18	Red Oak	Quercus rubra	Fair	
840	YB	13	Yellow Birch	Betula alleghaniensis	Fair	
841	BX	8	Box elder	Acer negundo	Poor	
842	BC	8	Wild Black Cherry	Prunus serotina	Fair	
843	BX	8	Box elder	Acer negundo	Very Poor	
844	BC	16	Wild Black Cherry	Prunus serotina	Fair	
845	BX	8	Box elder	Acer negundo	Poor	
846	BC	27	Wild Black Cherry	Prunus serotina	Fair	x1
847	BC	14	Wild Black Cherry	Prunus serotina	Fair	
848	BX	9	Box elder	Acer negundo	Fair	
849	BX	9	Box elder	Acer negundo	Very Poor	
850	BX	8	Box elder	Acer negundo	Fair	x1
851	BO	16	Black Oak	Quercus velutina	Good	x1
852	BX	9	Box elder	Acer negundo	Poor	x3
853	BX	9	Box elder	Acer negundo	Fair	
854	BC	11	Wild Black Cherry	Prunus serotina	Fair	
855	RO	13	Red Oak	Quercus rubra	Fair	
856	BC	13	Wild Black Cherry	Prunus serotina	Fair	
857	RO	11	Red Oak	Quercus rubra	Fair	
858	BC	8	Wild Black Cherry	Prunus serotina	Fair	x3
859	BC	8	Wild Black Cherry	Prunus serotina	Fair	
860	RO	17	Red Oak	Quercus rubra	Good	x1
861	AP	17	Domestic Apple	Malus sylvestris	Poor	x2
862	AP	25	Domestic Apple	Malus sylvestris	Poor	
863	WO	38	White Oak	Quercus alba	Very Poor	
864	BC	13	Wild Black Cherry	Prunus serotina	Fair	



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CLIENT
GRAND RIVER DORR LLC.
31550 NORTHWESTERN HIGHWAY
FARMINGTON HILLS, MI 48334

PROJECT TITLE
THE LEGACY APARTMENT HOMES
6080 W GRAND RIVER
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS
REVISED PER TWP COMMENTS 6.23.22

ORIGINAL ISSUE DATE:
MAY 24, 2022
DRAWING TITLE
TREE LIST

PEA JOB NO. 2021-0578
P.M. JEC
DN. JMR
DES. JMR
DRAWING NUMBER:

SITE DATA TABLE:

SITE AREA	ORDINANCE 20.0 ACRES MIN.	PROPOSED 51.94 ACRES GROSS 32.77 ACRES NET
DENSITY	8 UNITS/ACRE	6.23 UNITS/ACRE
ZONING:	EXISTING: NSD AND MDR WITH TOWN CENTER OVERLAY PROPOSED: HDR, RPUD	
USE:	EXISTING: VACANT PROPOSED: 204 MULTI-FAMILY DWELLING UNITS, CLUBHOUSE AND POOL	

BUILDING INFORMATION:
 MAXIMUM ALLOWABLE BUILDING HEIGHT = 40 FEET (3 STORIES)
 PROPOSED BUILDING HEIGHT = 27 FEET (2 STORIES)
 BUILDING FOOTPRINT AREA = 5,898 - 11,981 SQ.FT.
 CLUBHOUSE = 6,658 SQ. FT.
 TOTAL BUILDING FOOTPRINT AREA = 203,492 SQ.FT.

LOT COVERAGE	REQUIRED 35% MAX	PROPOSED (BASED ON NET ACRES) 14.3%
PERCENT IMPERVIOUS	50% MAX	41.4%

SETBACK REQUIREMENTS:

FRONT:	REQUIRED	PROPOSED
INTERIOR	20'	32'
EXTERIOR	35'	45.5' MIN
SIDE:	15'	20.2' MIN
REAR:	30'	77'

DENSITY CALCULATION

ALLOWED 8 UNITS/AC	PROPOSED OVERALL ACREAGE 3.92 UNITS/AC	PROPOSED USEABLE ACREAGE 6.23 UNITS/AC
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PARKING CALCULATIONS:
 TOTAL REQUIRED PARKING REQUIRED 2 SPACES PER 2 BEDROOM OR MORE UNIT = 408 SPACES

TOTAL PROPOSED PARKING SPACES = 700 SPACES (408 GARAGE + 204 IN DRIVEWAYS + 88 ADDITIONAL SPACES INCLUDING 1 H/C SPACE)

OPEN SPACE:
 MINIMUM OPEN SPACE REQUIRED = 25%
 PROVIDED OPEN SPACE = 29.0 AC, = 55.8%

SITE SOILS INFORMATION:
 ACCORDING TO THE USDA NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY FOR LIVINGSTON COUNTY, THE SITE CONSISTS OF THE FOLLOWING SOIL TYPES:
 Cc, Cvrab, Frb, Frc, FFe, Gr, HIB, HIC, Ho, MoB, MoC, MoD, MqE, MoF, Rf, W, Wh

ORDINANCE MODIFICATIONS:

ZONING 10.03.01 (C)	THE OPEN SPACE ALONG THE EXTERIOR PUBLIC ROADS SHALL GENERALLY HAVE A DEPTH OF AT LEAST ONE HUNDRED (100) FEET EITHER LANDSCAPED OR PRESERVED IN A NATURAL WOODED CONDITION.
13.02.04 d.	REQUEST FOR GRADING UPTO 10' FROM REGULATED WETLAND.
14.02.06	REQUEST TO EXCEED PARKING SPACE REQUIREMENT MORE THAN 20%
14.06.09	PARKING LOTS AND RELATED MANEUVERING AISLES SHALL MEET MINIMUM SETBACKS FROM ADJACENT STREET R-O-W AS SHOWN IN THE SCHEDULE OF REGULATIONS AND HAVE PARKING LOT LANDSCAPING
14.06.10	PARKING LOTS SHALL HAVE MINIMUM REAR AND SIDE YARD SETBACKS INCLUDING BERMING AND LANDSCAPING.

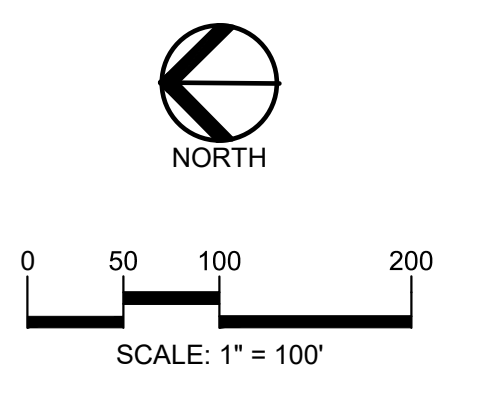
NOTE:

- PROPERTY WILL BE DEVELOPED OWNED AND OPERATED BY A SINGLE OWNERSHIP ENTITY.
- TRASH COLLECTION WILL BE PROVIDED VIA INDIVIDUAL TRASH CARTS FOR EACH UNIT WITH CURB SIDE TRASH COLLECTION.

LEGEND:

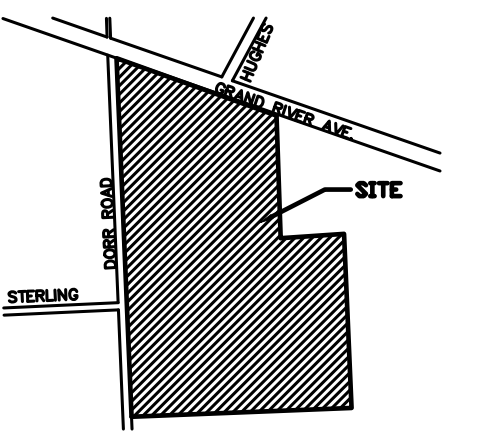
CONCRETE PAVEMENT	CONCRETE CURB AND GUTTER
ASPHALT PAVEMENT	REVERSE GUTTER PAN
GRAVEL	SETBACK LINE
WETLAND	SIGN
	LIGHTPOLE
	FENCE
	GUARD RAIL

PEA GROUP
 t. 844.813.2949
 www.peagroup.com



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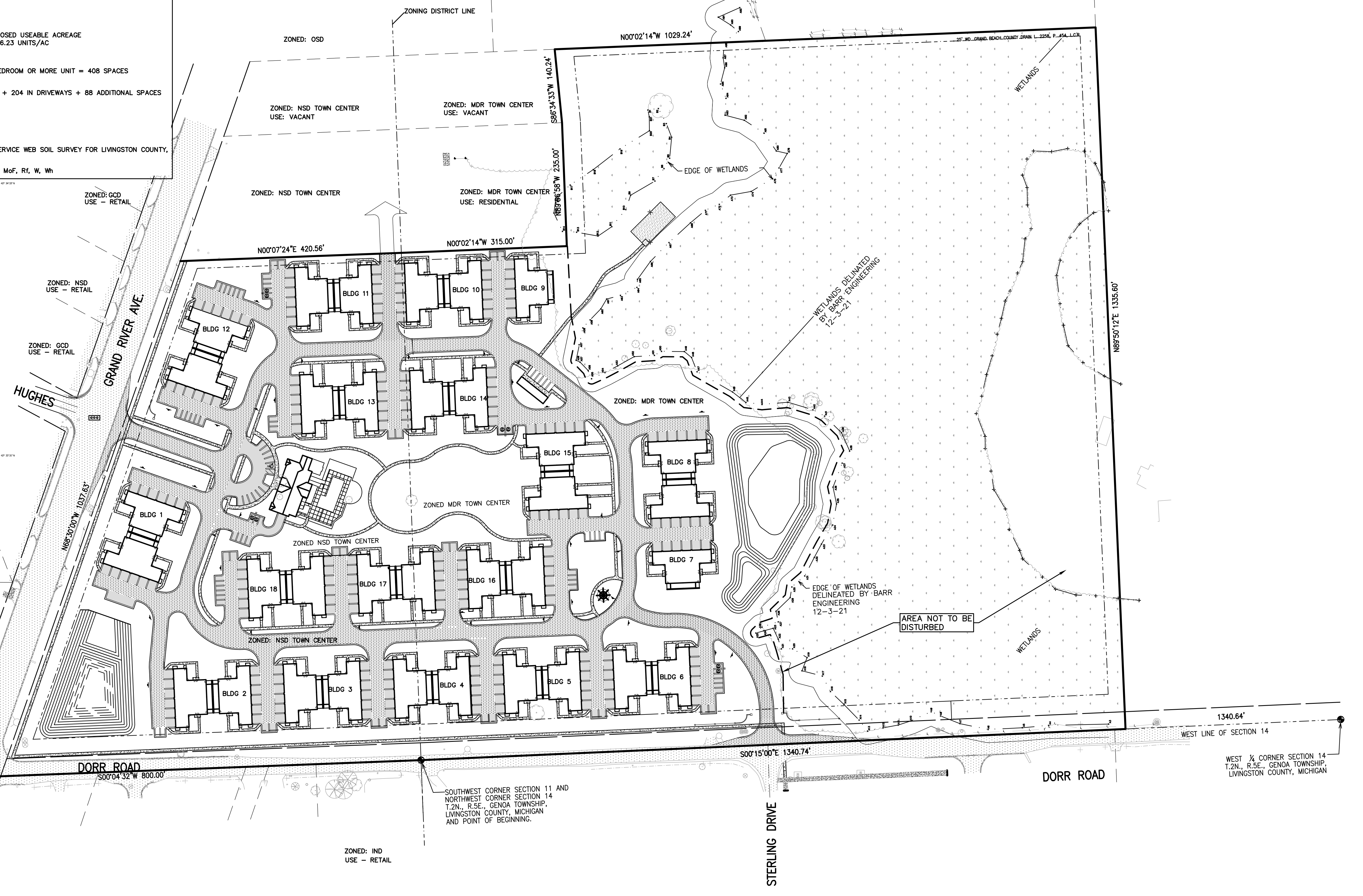
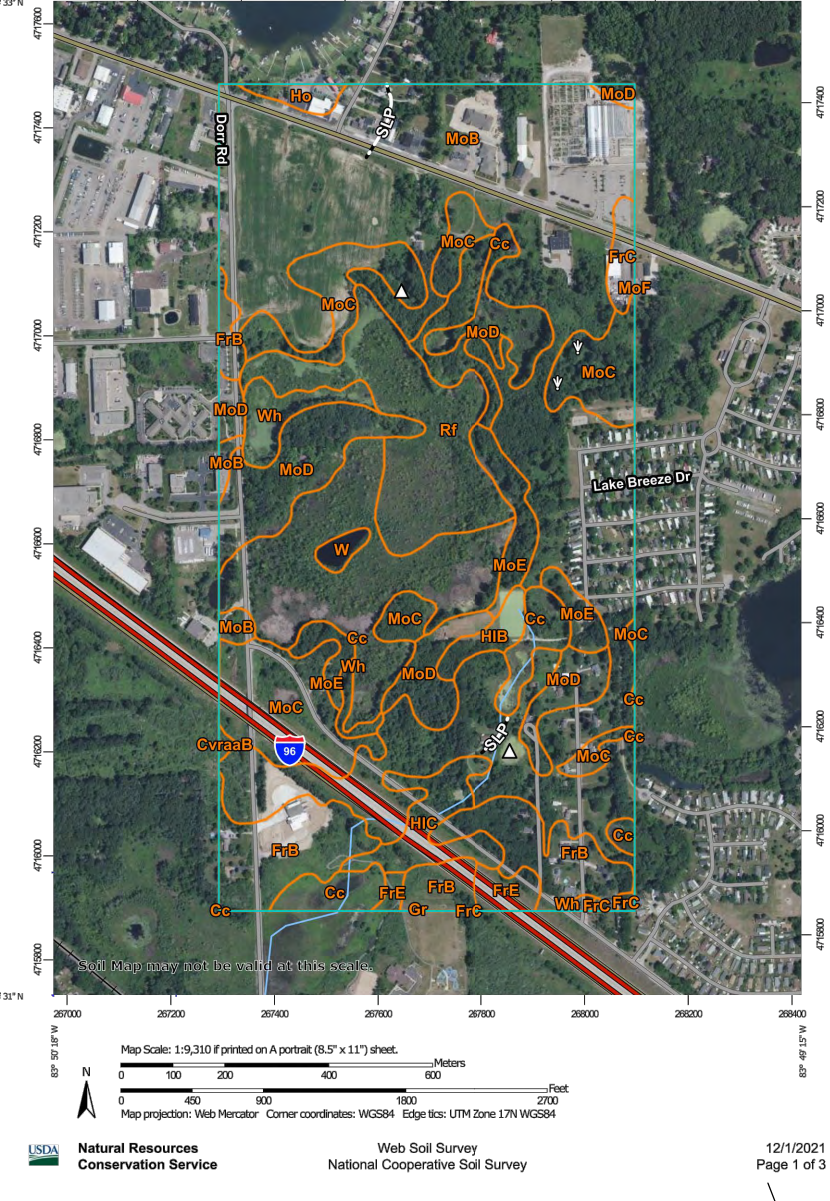
PROJECT TITLE
THE LEGACY APARTMENT HOMES
 6080 W GRAND RIVER
 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS
 REVISED PER TWP COMMENTS 6.23.22

ORIGINAL ISSUE DATE:
 MAY 24, 2022

DRAWING TITLE
OVERALL PUD SITE PLAN

PEA JOB NO. 2021-0578
 P.M. JEC
 DN. JMR
 DES. JMR
 DRAWING NUMBER:



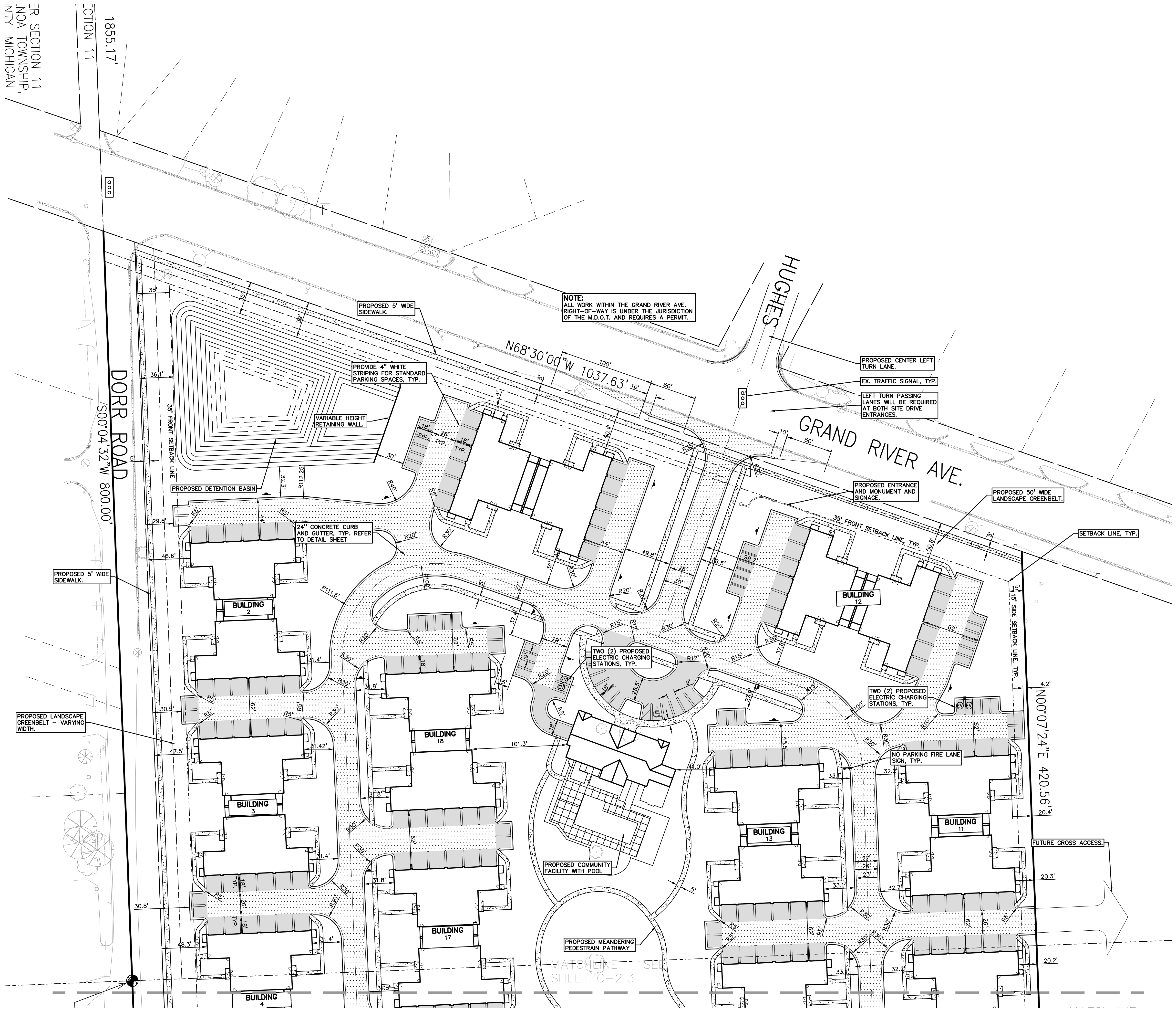
NOT FOR CONSTRUCTION C-2.1

S:\PROJECTS\2021\0578 LAUREL GENOA TOWNSHIP\CONCEPTUAL\C-2.0 CONCEPT DW 21-0578.rvt

SECTION 11
NOA TOWNSHIP,
MICHIGAN

1855.17'
SECTION 11

DORR ROAD
S00°04'32"W 800.00'



NOTE:
ALL WORK WITHIN THE GRAND RIVER AVE.
RIGHT-OF-WAY IS UNDER THE JURISDICTION
OF THE M.D.O.T. AND REQUIRES A PERMIT.

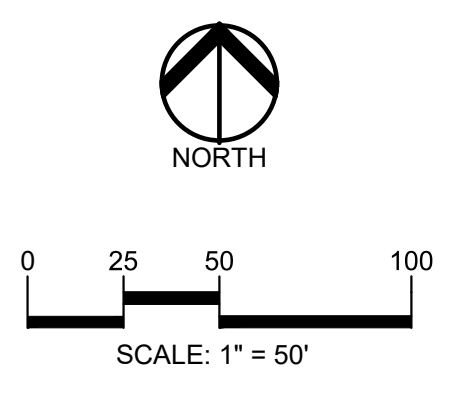
GENERAL NOTES:
THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.

- ALL DIMENSIONS SHOWN ARE TO FACE OF CURB, FACE OF SIDEWALK, OUTSIDE FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR CENTERLINE OF PIPE UNLESS OTHERWISE NOTED.
- 'NO PARKING-FIRE LANE' SIGNS SHALL BE POSTED ALONG ALL FIRE LANES AT 50'-100' FOOT INTERVALS OR AS DIRECTED BY THE FIRE OFFICIAL.

LEGEND:

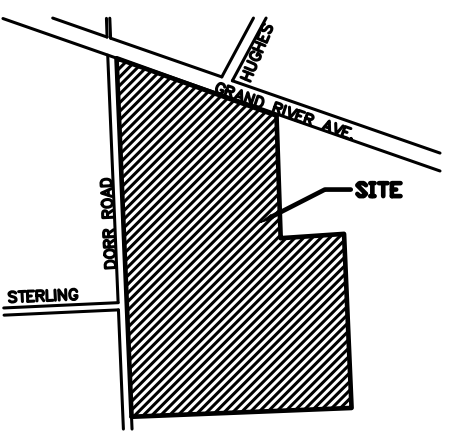
	CONCRETE PAVEMENT
	ASPHALT PAVEMENT
	GRAVEL
	WETLAND
	CONCRETE CURB AND GUTTER
	REVERSE GUTTER PAN
	SETBACK LINE
	SIGN
	LIGHTPOLE
	FENCE
	GUARD RAIL

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PROJECT TITLE
THE LEGACY APARTMENT HOMES
6080 W GRAND RIVER
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS

REVISED PER TWP COMMENTS	6.23.22
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ORIGINAL ISSUE DATE:
MAY 24, 2022

DRAWING TITLE
CONCEPTUAL PUD SITE PLAN-NORTH

PEA JOB NO.	2021-0578
P.M.	JEC
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

NOT FOR CONSTRUCTION

C-2.2

S:\PROJECTS\2021\0578-0578-0578-0578-0578-0578\CONCEPTUAL\C-2.2 CONCEPT DW 21-0578.dwg

LEGEND:

- CONCRETE PAVEMENT
- ASPHALT PAVEMENT
- GRAVEL
- WETLAND
- CONCRETE CURB AND GUTTER
- REVERSE GUTTER PAN
- SETBACK LINE
- SIGN
- LIGHTPOLE
- FENCE
- GUARD RAIL

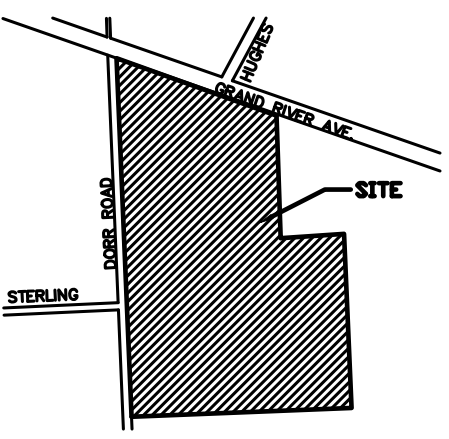
NORTH

0 25 50 100

SCALE: 1" = 50'

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 31550 NORTHWESTERN HIGHWAY
 FARMINGTON HILLS, MI 48334

PROJECT TITLE
THE LEGACY APARTMENT HOMES
 6080 W GRAND RIVER
 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS

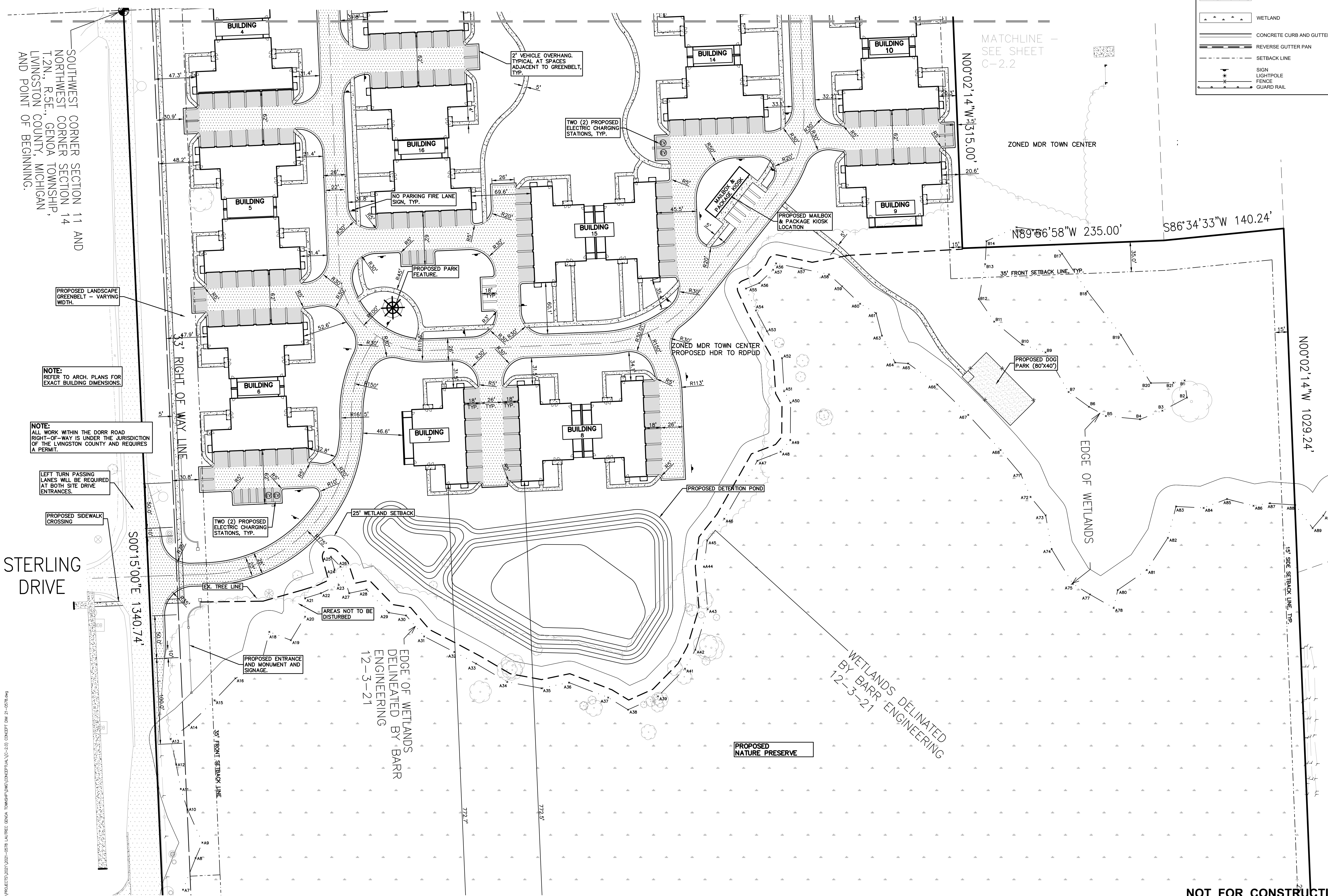
REVISED PER TWP COMMENTS	6.23.22
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ORIGINAL ISSUE DATE:
 MAY 24, 2022

DRAWING TITLE
CONCEPTUAL PUD SITE PLAN-SOUTH

PEA JOB NO.	2021-0578
P.M.	JEC
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

NOT FOR CONSTRUCTION **C-2.3**



SOUTHWEST CORNER SECTION 11 AND NORTHWEST CORNER SECTION 14, T.2N., R.5E., GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN AND POINT OF BEGINNING.

PROPOSED LANDSCAPE GREENBELT - VARYING WIDTH.

NOTE: REFER TO ARCH. PLANS FOR EXACT BUILDING DIMENSIONS.

NOTE: ALL WORK WITHIN THE DORR ROAD RIGHT-OF-WAY IS UNDER THE JURISDICTION OF THE LIVINGSTON COUNTY AND REQUIRES A PERMIT.

LEFT TURN PASSING LANES WILL BE REQUIRED AT BOTH SITE DRIVE ENTRANCES.

PROPOSED SIDEWALK CROSSING

STERLING DRIVE

S:\PROJECTS\2021\2021-0578-0578-0578-0578\CONCEPT\DWG\CONCEPT DWG 21-0578.dwg

300°15'00"E 1340.74'

3' RIGHT OF WAY LINE

TWO (2) PROPOSED ELECTRIC CHARGING STATIONS, TYP.

PROPOSED ENTRANCE AND MONUMENT AND SIGNAGE.

EDGE OF WETLANDS DELINEATED BY BARR ENGINEERING 12-3-21

PROPOSED NATURE PRESERVE

WETLANDS DELINEATED BY BARR ENGINEERING 12-3-21

MATCHLINE - SEE SHEET C-2.2

ZONED MDR TOWN CENTER

N89°06'58"W 235.00'

S86°34'33"W 140.24'

35' FRONT SETBACK LINE, TYP.

PROPOSED DOG PARK (80'X40')

EDGE OF WETLANDS

N00°02'14"W 1029.24'

15' SIDE SETBACK LINE, TYP.

BUILDING 4

BUILDING 5

BUILDING 6

BUILDING 7

BUILDING 16

BUILDING 15

BUILDING 8

BUILDING 14

BUILDING 10

BUILDING 9

BUILDING 15

BUILDING 8

BUILDING 15

BUILDING 8

BUILDING 15

BUILDING 8

BUILDING 15

BUILDING 8

BUILDING 15

BUILDING 8

LEGEND

● IRON FOUND	⊗ BRASS PLUG SET	⊙ SEC. CORNER FOUND
⊗ IRON SET	⊙ MONUMENT FOUND	⊙ RECORDED
⊗ NAIL FOUND	⊙ MONUMENT SET	⊙ MEASURED
⊗ NAIL & CAP SET		⊙ CALCULATED

—OH—ELEC—W—	ELEC. PHONE OR CABLE TV OH LINE, POLE & GUY WIRE
—UG—CATV—	UNDERGROUND CABLE TV, CATV, PEDESTAL
—UG—PHONE—	TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
—UG—ELEC—	ELECTRIC U.G. CABLE, MANHOLE, METER & HANDHOLE
—GAS—	GAS MAIN, VALVE & GAS LINE MARKER
—WATER—	WATERMAIN, HYD. GATE VALVE, TAPPING SLEEVE & VALVE
—SEWER—	SANITARY SEWER, CLEANOUT & MANHOLE
—STORM—	STORM SEWER, CLEANOUT & MANHOLE
—COMB.—	COMBINED SEWER & MANHOLE
—SQUARE—	SQUARE, ROUND & BEEHIVE CATCH BASIN, YARD DRAIN
—POST—	POST INDICATOR VALVE
—WATER VALVE—	WATER VALVE, BOXHYDRANT VALVE BOX, SERVICE SHUTOFF
—METER BOX—	METER BOX, TRANSFORMER, IRRIGATION CONTROL VALVE
—UNIDENTIFIED—	UNIDENTIFIED STRUCTURE
—SPOT—	SPOT ELEVATION
—CONTOUR—	CONTOUR LINE
—FENCE—	FENCE
—GUARD RAIL—	GUARD RAIL
—STREET LIGHT—	STREET LIGHT
—SIGN—	SIGN
—CONC.—	CONCRETE
—ASPH.—	ASPHALT
—GRAVEL—	GRAVEL SHOULDER
—WETLAND—	WETLAND

NOTE:
CROSS-HATCHED AREAS REPRESENT AREAS OF THE SITE THAT ARE NOT TRIBUTARY TO THE PROPOSED STORM SEWER. THESE AREAS ARE TRIBUTARY TO EXISTING STORM SYSTEMS WITHIN ADJACENT RIGHT-OF-WAYS AND ADJACENT PARCELS. AREA = 0.55 ACRES.

NOTE:
HEAVY DASHED LINE INDICATES DRAINAGE LIMITS. AREA = ±13.4 ACRES.

NOTE:
HEAVY DASHED LINE INDICATES DRAINAGE LIMITS. AREA = ±10.47 ACRES.



DETENTION BASIN CALCULATIONS POND 1:

(BASED ON THE RULES OF THE LIVINGSTON COUNTY DRAIN COMMISSIONER)

Total Disturbed Area, A	=	13.40	acres	
Parking and Road	=	3.90	acres	C1 = 0.90
Sidewalks Pool and Deck	=	1.18	acres	C2 = 0.90
Buildings	=	2.78	acres	C3 = 0.90
Grass Landscape Area	=	5.37	acres	C4 = 0.25
Wet Pond Surface	=	0.17	acres	C5 = 1.0

Compound Run-off Coefficient, C	=	0.64
Design Constant, K = A°C	=	8.58
Allowable Outflow Rate, Qo	=	0.2 cfs/acre
	=	2.68 CFS

1	2	3	4	5	6	7
Duration (min)	Duration (sec)	100-year intensity (in/Hr)	Col#2*Col#3 (inches)	Inflow Volume (CF) = Col#4*K	Allowable Outflow Volume (CF) = Col#2*Qo	Storage Volume (CF) = Col#5-Col#6
5	300	9.17	2,750	23,584	804	22,780
10	600	7.86	4,714	40,430	1,608	38,822
15	900	6.88	6,188	53,064	2,412	50,652
20	1200	6.11	7,333	62,891	3,216	59,675
30	1800	5.00	9,000	77,184	4,824	72,360
60	3600	3.24	11,647	99,885	9,648	90,237
70	4200	2.89	12,158	104,266	11,256	93,010
80	4800	2.62	12,571	107,813	12,864	94,949
90	5400	2.39	12,913	110,742	14,472	96,270
120	7200	1.90	13,655	117,107	19,296	97,811
140	8400	1.67	14,000	120,064	22,512	97,552
145	8700	1.62	14,074	120,695	23,316	97,379

Detention Volume Required for 100-yr Storm Event = 97,811 CF
 Sediment Forebay Capacity = 5% of 100-yr volume = 4,891 CF

Volume Provided in Detention Basin

Elevation	Surface Area (SF)	Volume (CF)	Total Volume (CF)
978	30,451		
977	29,594	28,066	116,489
976	26,537	25,041	88,424
975	23,545	22,101	63,383
974	20,656	18,877	41,282
973	17,097	15,477	22,406
972	13,857	6,929	6,929
971		0	0

Storage Volume Provided = 116,489 CF

Volume Provided in Sediment Forebay

Elevation	Surface Area (SF)	Volume (CF)	Total Volume (CF)
975			7,877
974	5,006	4,458	
973	3,910	3,419	
972	2,927		

Sedimentation Volume Provided = 7,877 CF

TOTAL VOLUME PROVIDED = 124,366

DETENTION BASIN CALCULATIONS (POND 2):

(BASED ON THE RULES OF THE LIVINGSTON COUNTY DRAIN COMMISSIONER)

Total Disturbed Area, A	=	10.47	acres	
Parking and Road	=	2.85	acres	C1 = 0.90
Sidewalks	=	0.53	acres	C2 = 0.90
Buildings	=	2.20	acres	C3 = 0.90
Grass/Landscape Area	=	4.89	acres	C4 = 0.25

Compound Run-off Coefficient, C	=	0.60
Design Constant, K = A°C	=	6.24
Allowable Outflow Rate, Qo	=	0.2 cfs/acre
	=	2.09 CFS

1	2	3	4	5	6	7
Duration (min)	Duration (sec)	100-year intensity (in/Hr)	Col#2*Col#3 (inches)	Inflow Volume (CF) = Col#4*K	Allowable Outflow Volume (CF) = Col#2*Qo	Storage Volume (CF) = Col#5-Col#6
5	300	9.17	2,750	17,172	628	16,544
10	600	7.86	4,714	29,438	1,256	28,182
15	900	6.88	6,188	38,638	1,885	36,753
20	1200	6.11	7,333	45,793	2,513	43,280
30	1800	5.00	9,000	56,201	3,769	52,431
60	3600	3.24	11,647	72,730	7,538	65,192
70	4200	2.89	12,158	75,920	8,795	67,125
80	4800	2.62	12,571	78,502	10,051	68,451
90	5400	2.39	12,913	80,636	11,308	69,328
120	7200	1.90	13,655	85,270	15,077	70,193
140	8400	1.67	14,000	87,423	17,590	69,833
145	8700	1.62	14,074	87,882	18,218	69,664

Detention Volume Required for 100-yr Storm Event = 70,193 CF
 Sediment Forebay Capacity = 5% of 100-yr volume = 3,510 CF

Volume Provided in Detention Basin

Elevation	Surface Area (SF)	Volume (CF)	Total Volume (CF)
980.5			80,267
979.5	34,968	32,571	80,267
978.5	30,174	27,959	47,696
977.5	25,743	19,737	19,737
976.5	13,731	0	0

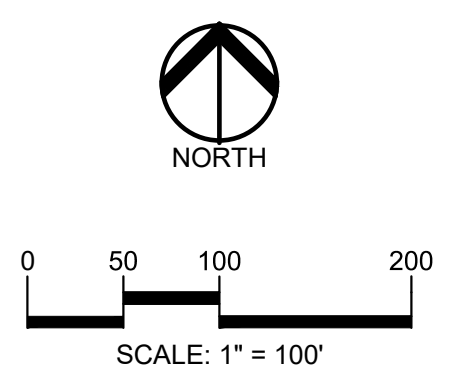
Storage Volume Provided = 80,267 CF

Volume Provided in Sediment Forebay

Elevation	Surface Area (SF)	Volume (CF)	Total Volume (CF)
979.5	4,641	3,929	6,537
978.5	3,217	2,608	
977.5	1,999	0	

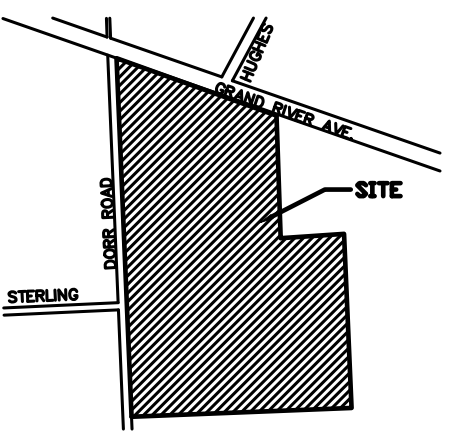
Sedimentation Volume Provided = 6,537 CF

TOTAL POND VOLUME PROVIDED 86,804 CF



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

CAUTION!!
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CLIENT
GRAND RIVER DORR LLC.
 315550 NORTHWESTERN HIGHWAY
 FARMINGTON HILLS, MI 48334

PROJECT TITLE
THE LEGACY APARTMENT HOMES
 6080 W GRAND RIVER
 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS
 REVISED PER TWP COMMENTS 6.23.22

ORIGINAL ISSUE DATE:
 10/24/2021
 DRAWING TITLE
CONCEPTUAL STORM WATER MANAGEMENT PLAN

PEA JOB NO. 2021-0578
 P.M. JEC
 DN. JMR
 DES. JMR
 DRAWING NUMBER:

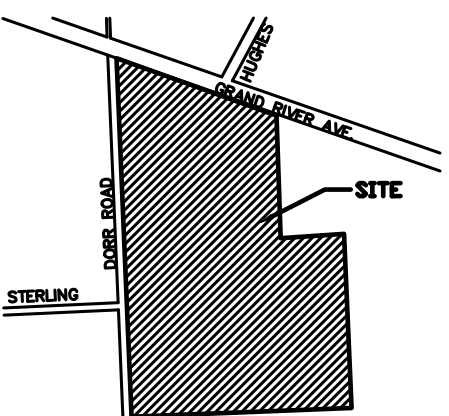
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0 25 50 100
SCALE: 1" = 50'



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CLIENT
GRAND RIVER DORR LLC.
315550 NORTHWESTERN HIGHWAY
FARMINGTON HILLS, MI 48334

PROJECT TITLE
THE LEGACY APARTMENT HOMES
6080 W GRAND RIVER
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS
REVISED PER TWP COMMENTS 6.23.22

ORIGINAL ISSUE DATE:
MAY 24, 2022

DRAWING TITLE
CONCEPTUAL UTILITY PLAN

PEA JOB NO. 2021-0578
P.M. JEC
DN. JMR
DES. JMR

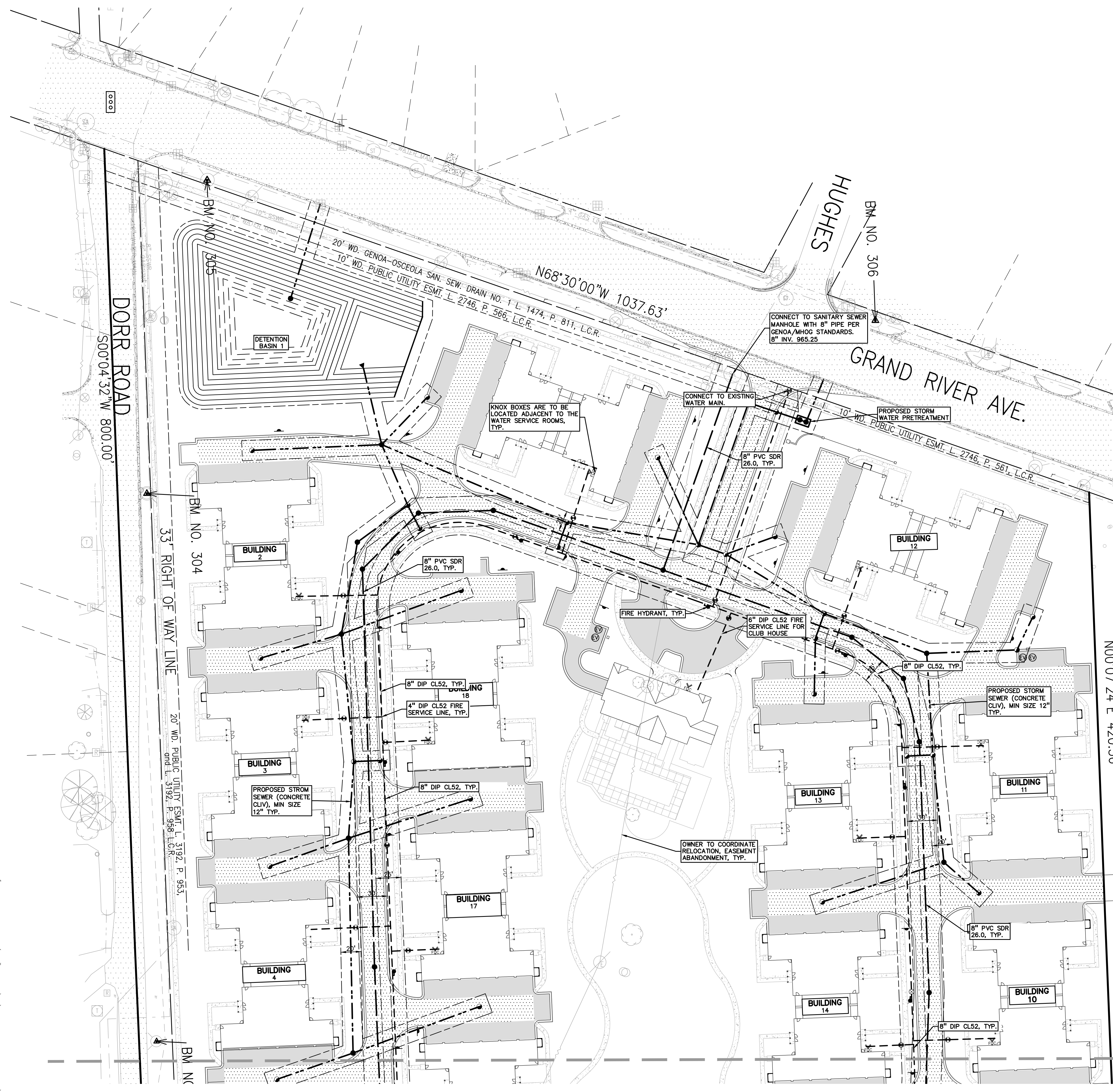
DRAWING NUMBER:

- GENERAL UTILITY NOTES:**
1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF MHOG AND GENOA TOWNSHIP.
 2. ALL TRENCHES UNDER OR WITHIN THREE (3) FEET OR THE FORTY-FIVE (45) DEGREE ZONE OF INFLUENCE LINE OF EXISTING AND/OR PROPOSED PAVEMENT, BUILDING PAD OR DRIVE APPROACH SHALL BE BACKFILLED WITH MDOT CLII SAND COMPACTED TO AT LEAST NINETY-FIVE (95) PERCENT OF MAXIMUM UNIT WEIGHT (ASTM D-1557). ALL OTHER TRENCHES TO BE COMPACTED TO 90% OR BETTER.
 3. WHERE EXISTING MANHOLES OR SEWER PIPE ARE TO BE TAPPED, DRILL HOLES 4" CENTER TO CENTER, AROUND PERIPHERY OF OPENING TO CREATE A PLANE OF WEAKNESS JOINT BEFORE BREAKING SECTION OUT.
 4. THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING UTILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION WITHOUT UNCOVERING AND MEASURING. THE DESIGN ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN. CONTRACTOR SHALL FIELD VERIFY UTILITIES.
 5. THE CONTRACTOR SHALL COORDINATE TO ENSURE ALL REQUIRED PIPES, CONDUITS, CABLES AND SLEEVES ARE PROPERLY PLACED FOR THE INSTALLATION OF GAS, ELECTRIC, PHONE, CABLE, IRRIGATION, ETC. IN SUCH A MANNER THAT WILL FACILITATE THEIR PROPER INSTALLATION PRIOR TO THE PLACEMENT OF THE PROPOSED PAVEMENT AND LANDSCAPING.
 6. CONTRACTOR SHALL INSPECT ALL EXISTING PUBLIC STORM SEWER, SANITARY SEWER AND WATER MAIN STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION AND WITH THE GOVERNING AGENCY INSPECTOR PRIOR TO ESTABLISHING FINAL GRADE. NOTIFY THE ENGINEER, OWNER/DEVELOPER, AND GOVERNING AGENCY IF STRUCTURE IS DEEMED TO BE STRUCTURALLY UNSOUND AND/OR IN NEED OF REPAIR.
- STORM SEWER NOTES:**
1. ALL STORM SEWER 12" DIAMETER OR LARGER SHALL BE REINFORCED CONCRETE PIPE (RCP C-76) CLASS IV WITH MODIFIED TONGUE AND GROOVE JOINT WITH RUBBER GASKETS UNLESS SPECIFIED OTHERWISE (ASTM C-443).
 2. ALL STORM SEWER LEADS SHALL BE CONSTRUCTED AT 1.00% MINIMUM SLOPE.
 3. ALL STORM SEWER 10" OR LESS AND/OR LEADS SHALL BE HDPE SCHEDULE 40.
 4. STORM SEWER WILL BE PRIVATE AND PLACED IN A 20' WIDE MINIMUM EASEMENT.
- WATER MAIN NOTES:**
1. ALL WATER MAIN SHALL BE INSTALLED WITH A MINIMUM COVER OF 5.5' BELOW FINISH GRADE. WHEN WATER MAINS MUST DIP TO PASS UNDER A STORM SEWER OR SANITARY SEWER, THE SECTIONS WHICH ARE DEEPER THAN NORMAL SHALL BE KEPT TO A MINIMUM LENGTH BY THE USE OF VERTICAL TWENTY TWO AND A HALF (22.5°) DEGREE BENDS, PROPERLY ANCHORED.
 2. ALL TEES, BENDS, CONNECTIONS, ETC. ARE CONSIDERED INCIDENTAL TO THE JOB.
 3. PHYSICAL CONNECTIONS SHALL NOT BE MADE BETWEEN EXISTING AND NEW WATER MAINS UNTIL REQUIRED TESTING IS SATISFACTORILY COMPLETED.
 4. MAINTAIN 10' HORIZONTAL CLEARANCE BETWEEN OUTER EDGE OF WATERMAIN AND ANY SANITARY/STORM SEWER OR STRUCTURE.
 5. NO PHYSICAL CONNECTION TO THE EXISTING WATER MAIN CAN BE MADE UNTIL ALL NEW WATER MAIN PASSES PRESSURE AND BACTERIOLOGICAL TESTS TO THE SATISFACTION OF THE MARION, HOWELL, OCEOLA, GENOA (MHOG) SEWER AND WATER AUTHORITY.
 6. ALL WATER MAIN AND FITTINGS (3" DIAMETER AND LARGER) SHALL BE DUCTILE IRON, CLASS 52.
 7. WATER MAIN SERVICE LEADS SHALL BE TYPE 'K' ANNEALED SEAMLESS COPPER WITH FLARED FITTINGS, UNLESS OTHERWISE NOTED.
 8. ALL FIRE HYDRANTS SHALL BE E.J.W #58R MODEL #250 PER MHOG STANDARDS.
 9. ALL HYDRANTS TO BE A MINIMUM OF 4.5' FROM BACK OF CURB, TYP.
 10. ALL NECESSARY FITTINGS, THRUST BLOCKS, RESTRAINING GLANDS, BLOW OFFS, ETC. FOR WATER MAIN ARE CONSIDERED INCIDENTAL TO THIS PROJECT. THE CONTRACTOR SHALL INSTALL THESE ITEMS AS NECESSARY AND AS REQUIRED BY THE MHOG.
 11. THE WATER MAIN CONTRACTOR SHALL NOTIFY THE INSPECTION SECTION OF THE MHOG/GENOA TOWNSHIP AT 810-227-5225 AT LEAST THREE WORKING DAYS IN ADVANCE OF STARTING CONSTRUCTION.
- FIRE DEPARTMENT NOTES:**
1. WATER METER ROOMS/FIRE SPRINKLER ROOMS SHALL BE LOCATED ON THE STREET SIDE OF THE BUILDINGS. FIRE SPRINKLER RISER ROOMS SHALL BE PROVIDED WITH SIGNAGE IDENTIFYING THE ROOM AND ITS ADDRESS WITH RED LETTERS ON WHITE BACKGROUND.
 2. THE WATER METER/FIRE SPRINKLER RISER ROOMS SHALL BE PROVIDED WITH HEAT AND INSULATION TO MAINTAIN THE ROOM TEMPERATURE ABOVE 40 DEGREES FAHRENHEIT.
 3. THE FDC FOR EACH BUILDING MAY BE LOCATED IMMEDIATELY OUTSIDE THE WATER METER/FIRE SPRINKLER RISER ROOM. THE FDC FOR THE CLUBHOUSE SHALL BE LOCATED ON THE FRONT OF THE BUILDING REGARDLESS OF THE LOCATION OF THE RISER ROOM.
 4. ALL FIRE ACCESS DRIVES ARE TO BE PROVIDED WITH VERTICAL CLEARANCE OF 13.5 FEET. THIS INCLUDES BUT IS NOT LIMITED TO PORTE-COCHERE, LIGHTING, AND LARGE CANOPY TREES.
 5. EACH BUILDING SHALL INCLUDE THE BUILDING NUMBERS A MINIMUM OF 6" HIGH LETTERS/NUMBERS OF CONTRASTING COLORS AND BE CLEARLY VISIBLE FROM THE STREET. EACH UNIT ADDRESS SHALL BE A MINIMUM OF 4" HIGH. WHITE UNIT ADDRESSES LOCATED ON THE NON-STREET-SIDE OF THE BUILDINGS. ADDITIONAL YARD SIGNS VISIBLE FROM THE PARKING AREAS WILL BE REQUIRED. EACH WATER METER/FIRE SPRINKLER RISER ROOM SHALL BE PROVIDED WITH THEIR OWN ADDRESS. THE LOCATION AND SIZE OF THE ADDRESS LABELING SHALL BE COORDINATED AND APPROVED PRIOR TO INSTALLATION. ALL WATER MAIN SHALL BE INSTALLED WITH A MINIMUM COVER OF 5.5' BELOW FINISH GRADE.
- SANITARY SEWER NOTES:**
1. DOWNSPOUTS, WEEP TILE, FOOTING DRAINS OR ANY CONDUIT THAT CARRIES STORM OR GROUND WATER SHALL NOT BE ALLOWED TO DISCHARGE INTO A SANITARY SEWER.
 2. ALL SANITARY LEADS SHALL BE CONSTRUCTED AT 1.00% MINIMUM SLOPE.
 3. ALL SANITARY SEWER 8" OR LARGER SHALL BE PVC SDR 26 TYPE PSM SEWER PIPE WITH BELL AND SPIGOT ENDS FOR GASKETED JOINTS. (FITTINGS ASTM D 3034, PVC BELL ENDS, GASKETS ASTM F 477, ELASTOMERIC SEALS).
 4. ALL SANITARY SEWER LEADS SHALL BE POLYVINYL CHLORIDE (PVC) SDR 23.5 PIPE AND FITTINGS. ALL JOINTS TO BE ELASTOMERIC GASKET JOINTS PER ASTM D3212 UNLESS OTHERWISE NOTED.
 5. SANITARY LEADS SHALL BE PROVIDED WITH CLEANOUTS EVERY 100 FEET AND AT EVERY BEND AS SHOWN. ALL CLEANOUTS TO BE PROVIDED WITH E.I.I.W. #1565 BOX OR EQUAL.

UTILITY LEGEND:

-OH-ELEC-W-O-	EX. OH. ELEC. POLE & GUY WIRE
-UG-CATV-	EX. U.G. CABLE TV & PEDESTAL
-UG-COMM-	EX. U.G. COMMUNICATION LINE, PEDESTAL & MANHOLE
-UG-ELEC-MH-	EX. U.G. ELEC. MANHOLE, METER & HANDHOLE
-GAS LINE	EX. GAS LINE
⊕	EX. GAS VALVE & GAS LINE MARKER
⊞	EX. TRANSFORMER & IRRIGATION VALVE
—	EX. WATER MAIN
⊙	EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE
⊗	EX. WATER VALVE BOX & SHUTOFF
⊕	EX. SANITARY SEWER
⊕	EX. SANITARY CLEANOUT & MANHOLE
⊕	EX. COMBINED SEWER MANHOLE
⊕	EX. STORM SEWER
⊕	EX. CLEANOUT & MANHOLE
⊕	EX. SQUARE, ROUND, & BEEHIVE CATCH BASIN
⊕	EX. YARD DRAIN & ROOF DRAIN
⊕	EX. UNIDENTIFIED STRUCTURE
- - -	PROPOSED WATER MAIN
⊕	PROPOSED HYDRANT AND GATE VALVE
⊕	PROPOSED TAPPING SLEEVE, VALVE & WELL
⊕	PROPOSED POST INDICATOR VALVE
⊕	PROPOSED SANITARY SEWER
⊕	PROPOSED SANITARY CLEANOUT & MANHOLE
⊕	PROPOSED STORM SEWER
⊕	PROPOSED STORM SEWER CLEANOUT & MANHOLE
⊕	PROPOSED CATCH BASIN, INLET & YARD DRAIN

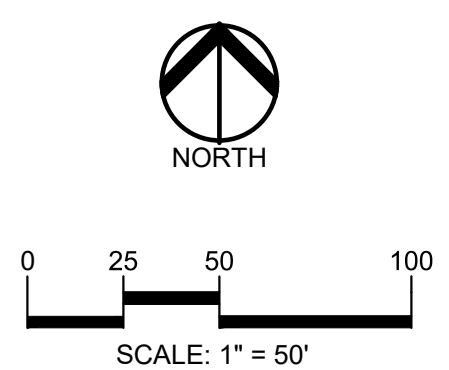
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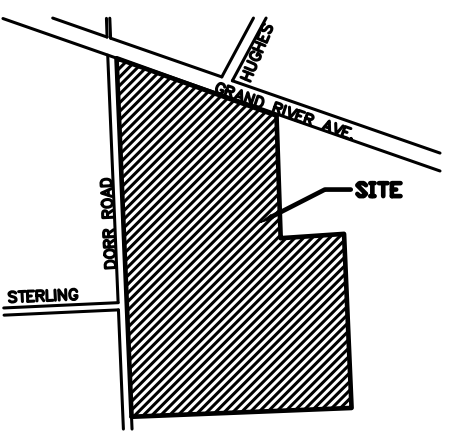
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UTILITY LEGEND:

	EX. OH, ELEC, POLE & GUY WIRE
	EX. U.G. CABLE TV & PEDESTAL
	EX. U.G. COMMUNICATION LINE, PEDESTAL & MANHOLE
	EX. U.G. ELEC. MANHOLE, METER & HANDHOLE
	EX. GAS LINE
	EX. GAS VALVE & GAS LINE MARKER
	EX. TRANSFORMER & IRRIGATION VALVE
	EX. WATER MAIN
	EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE
	EX. WATER VALVE BOX & SHUTOFF
	EX. SANITARY SEWER
	EX. SANITARY CLEANOUT & MANHOLE
	EX. COMBINED SEWER MANHOLE
	EX. STORM SEWER
	EX. CLEANOUT & MANHOLE
	EX. SQUARE, ROUND, & BEEHIVE CATCH BASIN
	EX. YARD DRAIN & ROOF DRAIN
	EX. UNIDENTIFIED STRUCTURE
	PROPOSED WATER MAIN
	PROPOSED HYDRANT AND GATE VALVE
	PROPOSED TAPPING SLEEVE, VALVE & WELL
	PROPOSED POST INDICATOR VALVE
	PROPOSED SANITARY SEWER
	PROPOSED SANITARY CLEANOUT & MANHOLE
	PROPOSED STORM SEWER
	PROPOSED STORM SEWER CLEANOUT & MANHOLE
	PROPOSED CATCH BASIN, INLET & YARD DRAIN



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CLIENT
GRAND RIVER DORR LLC.
315550 NORTHWESTERN HIGHWAY
FARMINGTON HILLS, MI 48334

PROJECT TITLE
THE LEGACY APARTMENT HOMES
6080 W GRAND RIVER
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

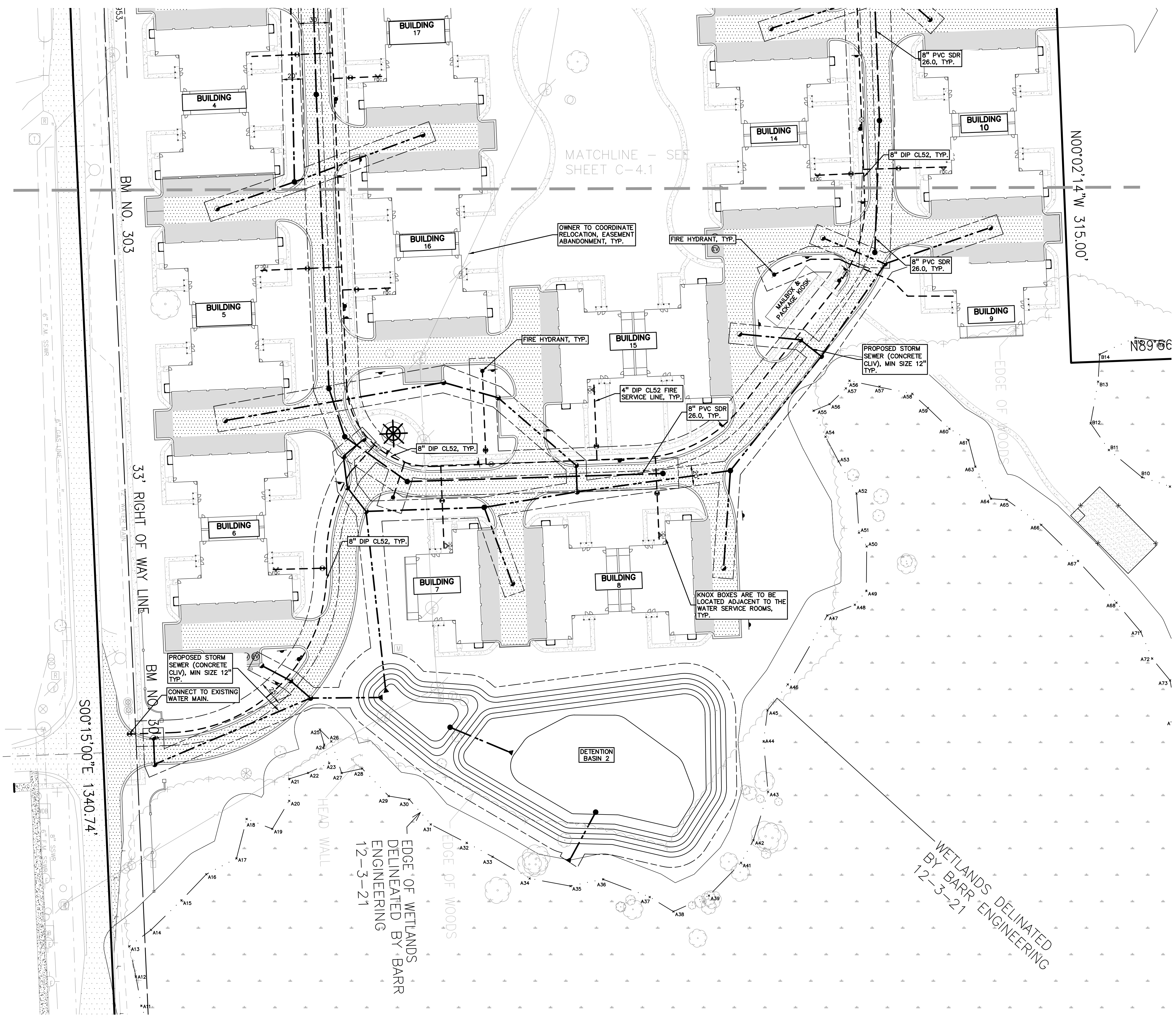
REVISIONS

REVISED PER TWP COMMENTS	6.23.22
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ORIGINAL ISSUE DATE:
MAY 24, 2022

DRAWING TITLE
CONCEPTUAL UTILITY PLAN

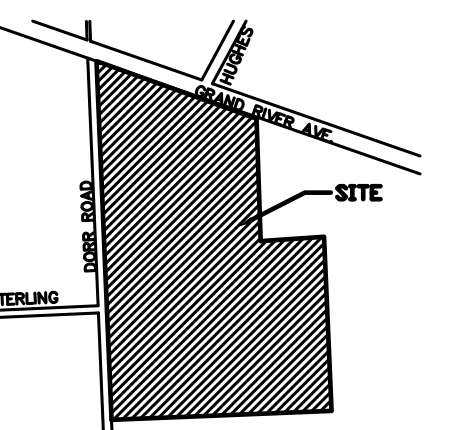
PEA JOB NO.	2021-0578
P.M.	JEC
DN.	JMR
DES.	JMR
DRAWING NUMBER:	



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CLIENT
GRAND RIVER DORR LLC.
31550 NORTHWESTERN HIGHWAY
FARMINGTON HILLS, MI 48334

PROJECT TITLE
THE LEGACY APARTMENT HOMES
6080 W GRAND RIVER
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS
REVISED PER TWP COMMENTS 6.23.22

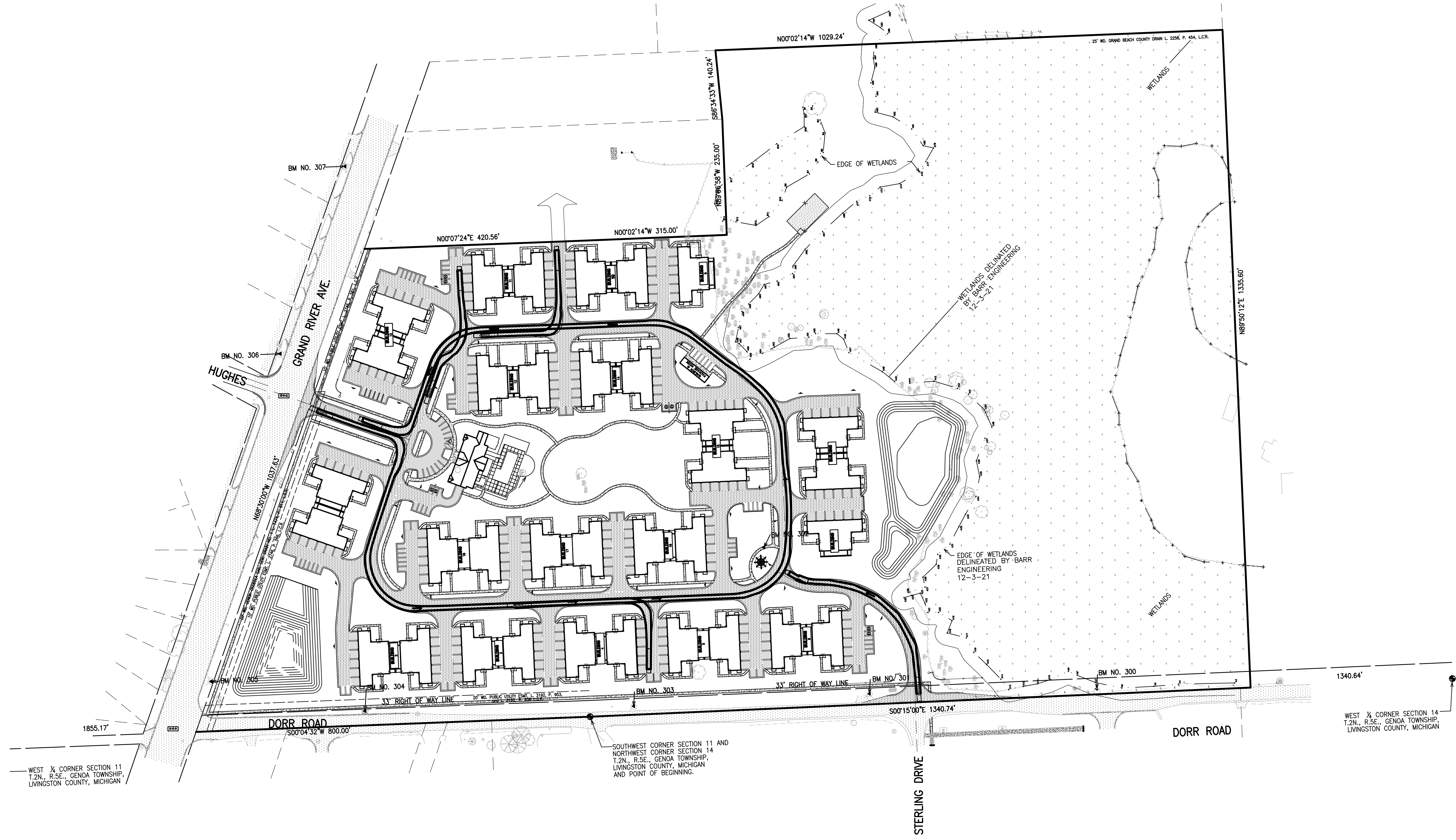
ORIGINAL ISSUE DATE:
MAY 24, 2022

DRAWING TITLE

VEHICLE TRACKING

PEA JOB NO. 2021-0578
P.M. JEC
DN. JMR
DES. JMR
DRAWING NUMBER:

NOT FOR CONSTRUCTION **C-5.1**



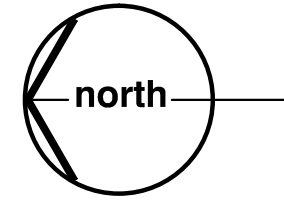
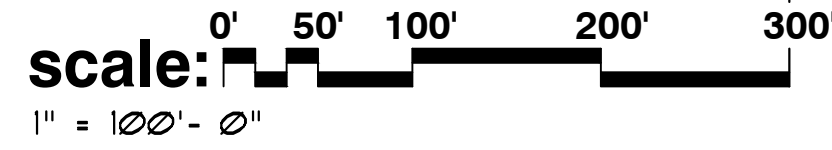
S:\PROJECTS\2021\0578 LAUREL GENOA TOWNSHIP\CONCEPTUAL\CG-5.01 CONCEPT VEHICLE TRACKING 21-0578.dwg

site plan study for:

A Proposed Multi-Family Residential Community

Genoa Township, Michigan

note
 preliminary concept plan for inspection purposes
 only and in no way official or approved for record
 purposes.



landscape requirements:

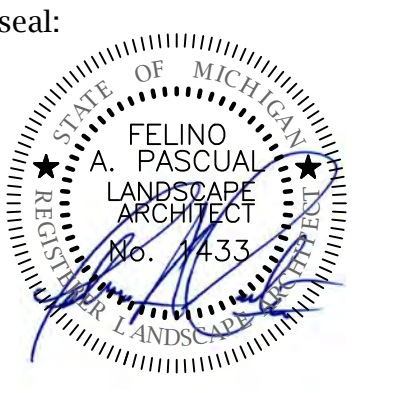
	REQUIRED	PROVIDED
greenbelt (Grand River Avenue)		
TOTAL LIN.FT. OF GREENBELT FRONTAGE	945±	
ONE (1) 2 1/2" CANOPY OR EVERGREEN TREE PER 40 LIN.FT. (945 LIN.FT. / 40 LIN.FT. = 24.8 TREES)	25	25
greenbelt (Dorr Road)		
TOTAL LIN.FT. OF GREENBELT FRONTAGE	1570±	
ONE (1) 2 1/2" CANOPY OR EVERGREEN TREE PER 40 LIN.FT. (1570 LIN.FT. / 40 LIN.FT. = 39.25 TREES)	39	39
street trees (interior residential streets)		
TOTAL NO. OF RESIDENTIAL UNITS PROVIDED	204	
TWO (2) 2 1/2" CANOPY TREES PER RESIDENTIAL UNIT (204 UNITS X 2 TREES = 408 TREES)	408	408
landscape screening		
TOTAL LIN.FT. OF BOUNDARY FRONTAGE	721±	
ONE (1) 2 1/2" CANOPY OR EVERGREEN TREE PER 20 LIN.FT. (721 LIN.FT. / 20 LIN.FT. = 36.05 TREES)	36	36
OR FOUR (4) SHRUBS PER 20 LIN.FT. (721 LIN.FT. / 20 LIN.FT. = 36.05 X 4-SHRUBS=144.2)	144	144
detention pond-A		
TOTAL LIN.FT. OF POND PERIMETER	727±	
ONE (1) DECIDUOUS OR EVERGREEN TREE PER 50 LIN.FT. (727 LIN.FT. / 50 LIN.FT. = 14.5 TREES)	15	15
TEN (10) SHRUBS PER 50 LIN.FT. (727 LIN.FT. / 50 LIN.FT. = 14.5 X 10-SHRUBS=145)	145	145
detention pond-B		
TOTAL LIN.FT. OF POND PERIMETER	932±	
ONE (1) DECIDUOUS OR EVERGREEN TREE PER 50 LIN.FT. (932 LIN.FT. / 50 LIN.FT. = 18.64 TREES)	19	19
TEN (10) SHRUBS PER 50 LIN.FT. (932 LIN.FT. / 50 LIN.FT. = 18.64 X 10-SHRUBS=186.4)	186	186

landscape sheet index

- LSC-1 OVERALL PLAN VIEW
- LSC-2 PLANTING DETAIL PLAN
- LSC-3 PLANTING DETAIL PLAN
- LSC-4 SITE AMENITY PLAN
- LSC-5 ENTRY DETAIL PLAN

landscape legend

- deciduous trees**
(Maples, Hackberry, Zelkova, Oaks, Lindens, Locust, etc...)
- ornamental trees**
(Redbud, Crabs, Hawthorn, Serviceberry, Dogwood, etc...)
- evergreen trees**
(Pines, Spruces, Fir)
- deciduous shrubs**
(Viburnum, Forsythia, Hydrangea, Hollies, Dogwood, etc...)
- evergreen shrubs**
(Junipers, Yews, Arborvitae, Boxwood, etc...)
- perennials and/or seasonal flowers**
(Daylily, Sedum, Ornamental Grasses, Black Eyed Susan, Coneflowers, etc...)



client:
LAUTREC
 31550
 Northwestern
 HWY. Suite 200
 Farmington Hills,
 Michigan 48334
 project:

**THE LEGACY
 APARTMENT HOMES**

project location:
 Genoa Township,
 Michigan
 12 Mile Road

sheet title:
 CONCEPTUAL
 LANDSCAPE PLAN

job no./issue/revision date:

LS21.096.08 SPA	8-18-2021
LS21.096.10 SPA	10-8-2021
LS21.096.10 SPA	10-24-2021
LS21.096.12 SPA	12-13-2021
LS22.028.02 SPA	2-24-2022
LS22.028.04 SPA	4-18-2022

drawn by:
JP, HP, DK
 checked by:
FP
 date:
2-22-2022

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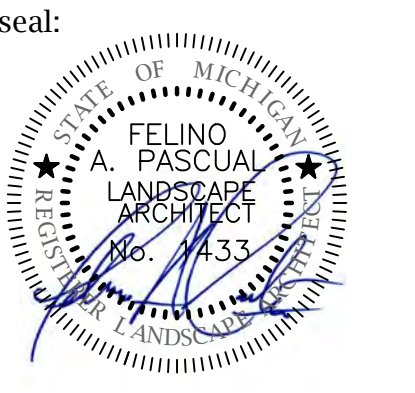
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The location and elevations of existing
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project no:
LS22.028.02

sheet no:
LSC-1



client:
LAUTREC
 31550
 Northwestern
 HWY. Suite 200
 Farmington Hills,
 Michigan 48334

**THE LEGACY
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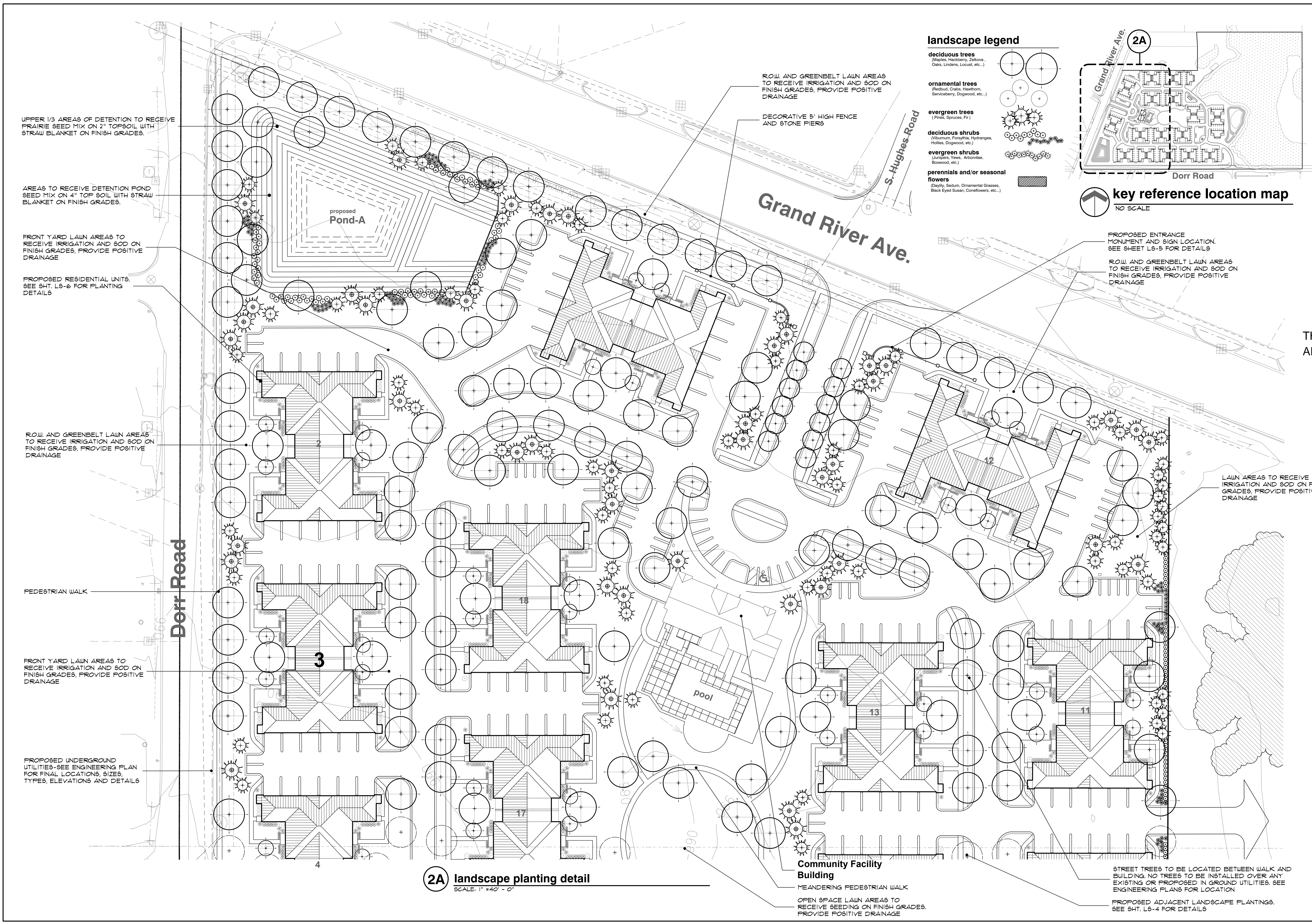
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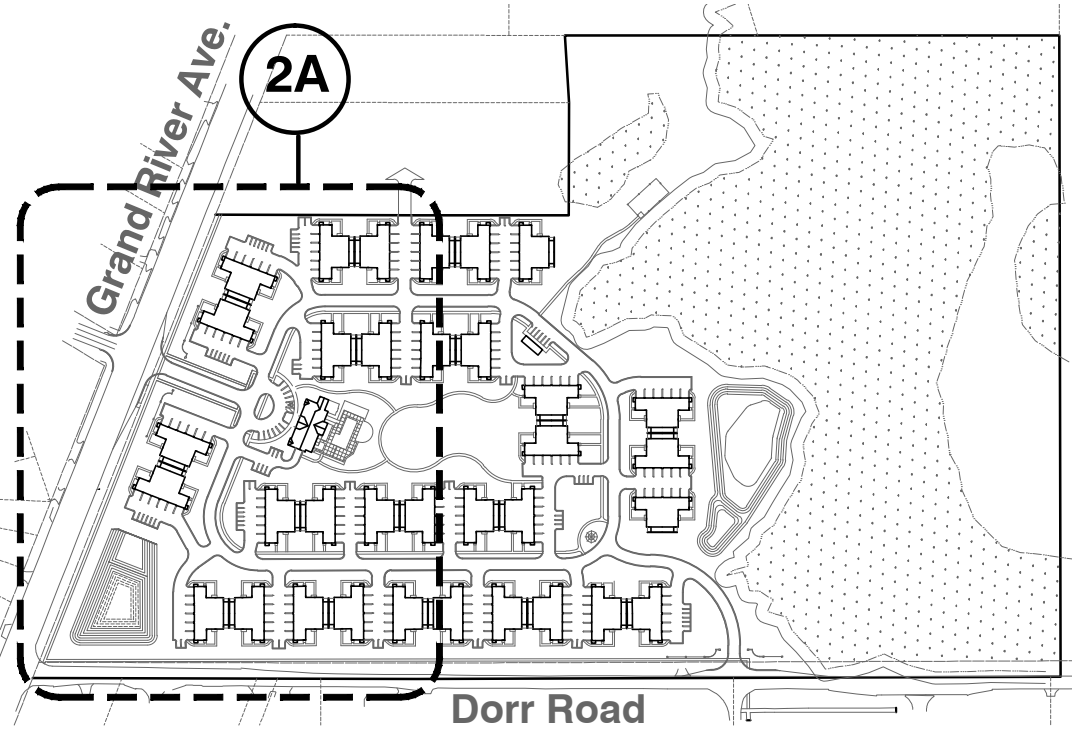
project no:
LS22.028.02

sheet no:
LSC-2



landscape legend

- deciduous trees**
 (Maples, Hackberry, Zelkova, Oaks, Lindens, Locust, etc.)
- ornamental trees**
 (Redbud, Crabs, Hawthorn, Serviceberry, Dogwood, etc.)
- evergreen trees**
 (Pines, Spruces, Fir)
- deciduous shrubs**
 (Vitumnm, Forsythia, Hydrangea, Hollies, Dogwood, etc.)
- evergreen shrubs**
 (Junipers, Yews, Arborvitae, Boxwood, etc.)
- perennials and/or seasonal flowers**
 (Daylily, Sedum, Ornamental Grasses, Black-Eyed Susan, Coneflowers, etc.)



key reference location map
 NO SCALE

UPPER 1/3 AREAS OF DETENTION TO RECEIVE PRAIRIE SEED MIX ON 2" TOPSOIL WITH STRAW BLANKET ON FINISH GRADES.

AREAS TO RECEIVE DETENTION POND SEED MIX ON 4" TOP SOIL WITH STRAW BLANKET ON FINISH GRADES.

FRONT YARD LAWN AREAS TO RECEIVE IRRIGATION AND SOD ON FINISH GRADES, PROVIDE POSITIVE DRAINAGE

PROPOSED RESIDENTIAL UNITS. SEE SHT. LS-6 FOR PLANTING DETAILS

ROW, AND GREENBELT LAWN AREAS TO RECEIVE IRRIGATION AND SOD ON FINISH GRADES, PROVIDE POSITIVE DRAINAGE

PEDESTRIAN WALK

FRONT YARD LAWN AREAS TO RECEIVE IRRIGATION AND SOD ON FINISH GRADES, PROVIDE POSITIVE DRAINAGE

PROPOSED UNDERGROUND UTILITIES-SEE ENGINEERING PLAN FOR FINAL LOCATIONS, SIZES, TYPES, ELEVATIONS AND DETAILS.

ROW, AND GREENBELT LAWN AREAS TO RECEIVE IRRIGATION AND SOD ON FINISH GRADES, PROVIDE POSITIVE DRAINAGE

DECORATIVE 5' HIGH FENCE AND STONE PIERS

PROPOSED ENTRANCE MONUMENT AND SIGN LOCATION. SEE SHEET LS-5 FOR DETAILS

ROW, AND GREENBELT LAWN AREAS TO RECEIVE IRRIGATION AND SOD ON FINISH GRADES, PROVIDE POSITIVE DRAINAGE

LAWN AREAS TO RECEIVE IRRIGATION AND SOD ON FINISH GRADES, PROVIDE POSITIVE DRAINAGE

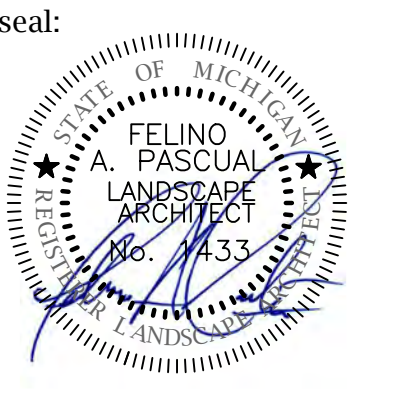
2A landscape planting detail
 SCALE: 1" = 40' - 0"

Community Facility Building
 MEANDERING PEDESTRIAN WALK

OPEN SPACE LAWN AREAS TO RECEIVE SEEDING ON FINISH GRADES. PROVIDE POSITIVE DRAINAGE

STREET TREES TO BE LOCATED BETWEEN WALK AND BUILDING. NO TREES TO BE INSTALLED OVER ANY EXISTING OR PROPOSED IN GROUND UTILITIES. SEE ENGINEERING PLANS FOR LOCATION

PROPOSED ADJACENT LANDSCAPE PLANTINGS. SEE SHT. LS-4 FOR DETAILS



client:
LAUTREC
 31550
 Northwestern
 HWY. Suite 200
 Farmington Hills,
 Michigan 48334

**THE LEGACY
 APARTMENT HOMES**

project location:
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 Michigan
 12 Mile Road

sheet title:
**CONCEPTUAL
 LANDSCAPE
 PLANTING PLAN**

job no./issue/revision date:

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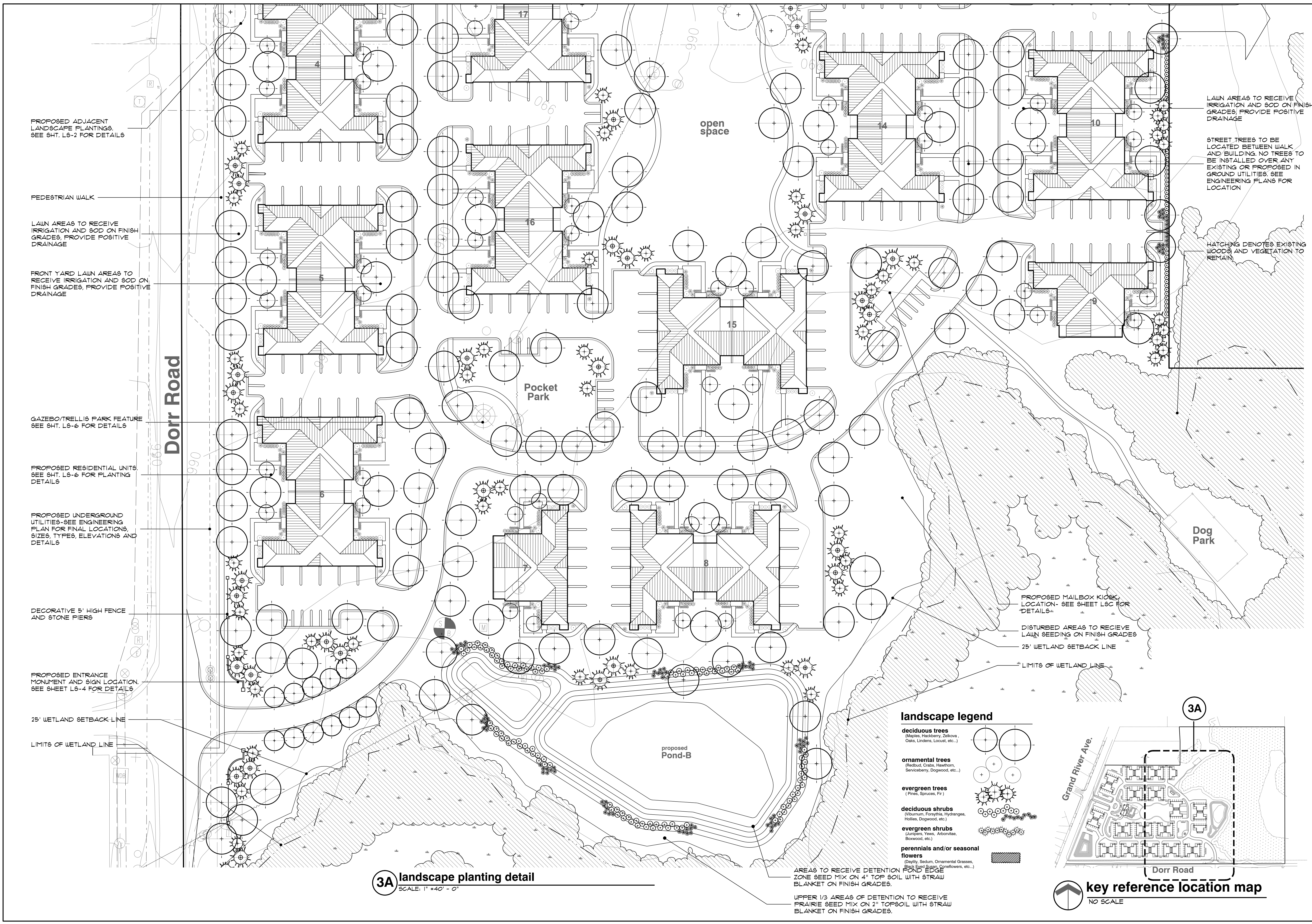
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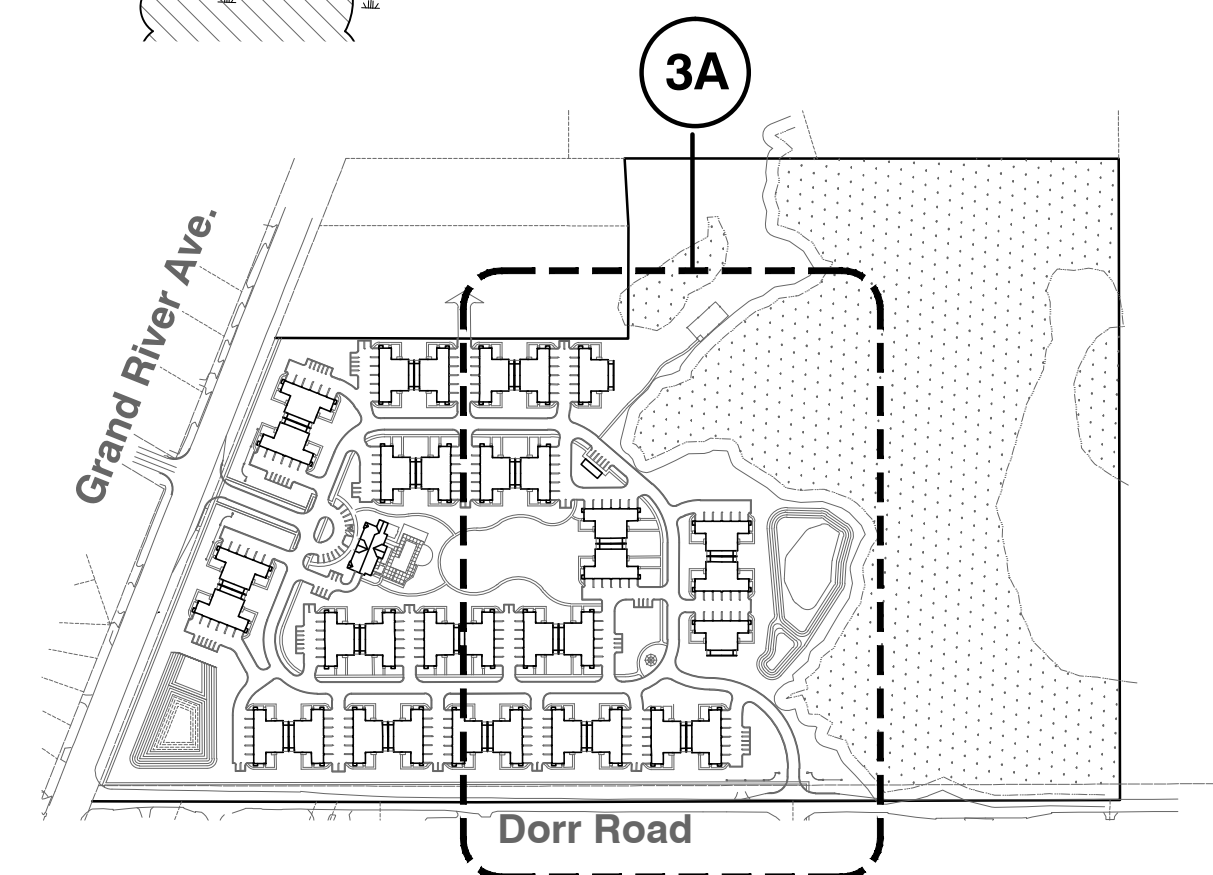
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project no:
LS22.028.02

sheet no:
LSC-3



- landscape legend**
- deciduous trees**
 (Maples, Hackberry, Zelkova, Oaks, Lindens, Locust, etc.)
 - ornamental trees**
 (Redbud, Crab, Hawthorn, Serviceberry, Dogwood, etc.)
 - evergreen trees**
 (Pines, Spruces, Fir)
 - deciduous shrubs**
 (Viburnum, Forsythia, Hydrangea, Hollies, Dogwood, etc.)
 - evergreen shrubs**
 (Junipers, Yews, Arborvitae, Boxwood, etc.)
 - perennials and/or seasonal flowers**
 (Sedum, Ornamental Grasses, Black-eyed Susan, Coneflowers, etc.)



3A landscape planting detail
 SCALE: 1" = 40' - 0"

AREAS TO RECEIVE DETENTION POND EDGE ZONE SEED MIX ON 4" TOP SOIL WITH STRAW BLANKET ON FINISH GRADES.

UPPER 1/3 AREAS OF DETENTION TO RECEIVE PRAIRIE SEED MIX ON 2" TOPSOIL WITH STRAW BLANKET ON FINISH GRADES.



client:
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 31550
 Northwestern
 HWY. Suite 200
 Farmington Hills,
 Michigan 48334
 project:

**THE LEGACY
 APARTMENT HOMES**

project location:
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 Michigan
 12 Mile Road

sheet title:

**CONCEPTUAL SITE
 AMENITY PLAN**

job no./issue/revision date:
 LS21.096.08 SPA 8-18-2021
 LS21.096.10 SPA 10-8-2021
 LS21.096.10 SPA 10-24-2021
 LS21.096.12 SPA 12-13-2021
 LS22.028.02 SPA 2-24-2022
 LS22.028.04 SPA 4-18-2022

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project no:
LS22.028.02

sheet no:



L EV charging station
 TOTAL OF 4-CONDITIONS



K pet waste station
 TOTAL OF 5-CONDITIONS



J pond fountain
 TOTAL OF 2-CONDITIONS



I dog park



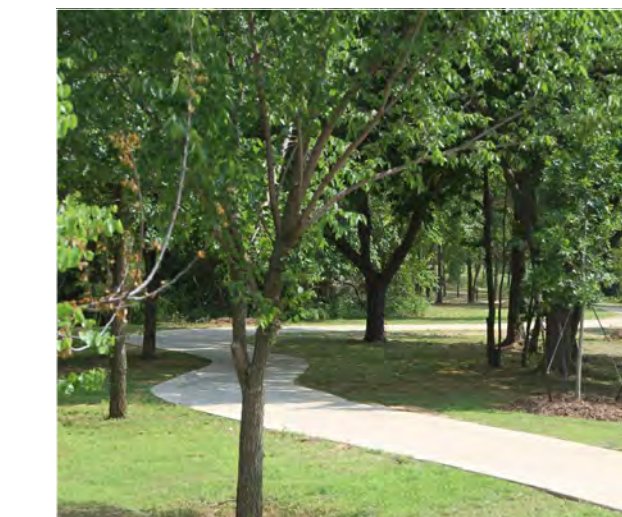
H park bench seating
 TOTAL OF 3-CONDITIONS



G decorative bench seating
 TOTAL OF 1-CONDITIONS
 MANUFACTURED BY ANOVA, INC.
 WWW.ANOVAFURNISHINGS.COM
 MODEL NO. LEXC6
 DESCRIPTION: 6' WIDE CONTOUR BENCH
 FINISH: TEXTURE PEKTER



F gazebo feature
 (1-CONDITIONS)
 STICK BUILT OR KIT FORM.
 TO BE BUILT BY MANUFACTURER
 STANDARDS



E meandering interior pedestrian walk



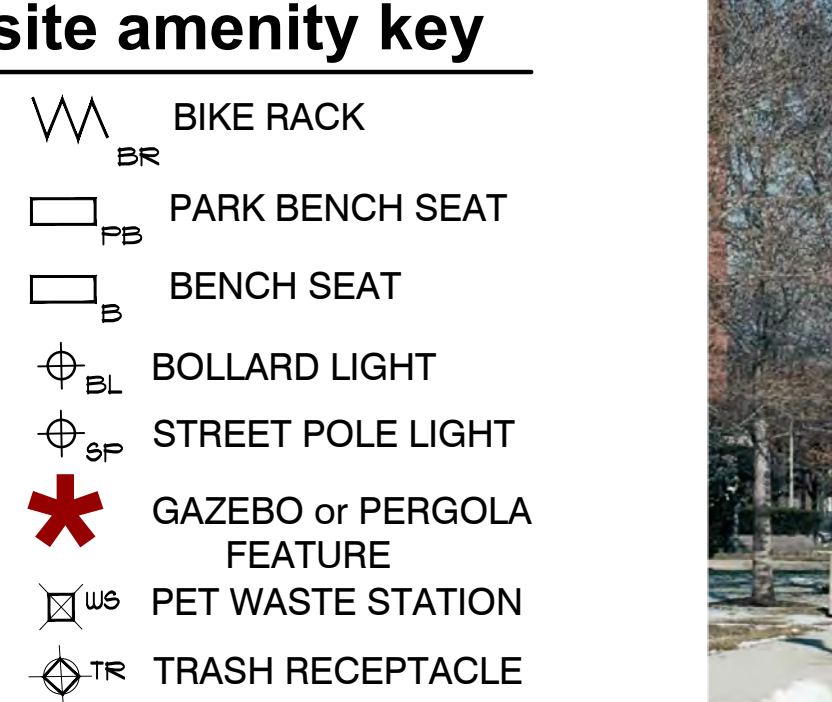
D bicycle rack
 (2-CONDITIONS)
 BIKE RACK BY DUMOR, INC.
 MODEL NO. 180-20 (S-2
 SURFACE PLATE MOUNT) 2 3/8"
 O.D. BLACK POWDER-COATED
 LOOP OR EQUAL



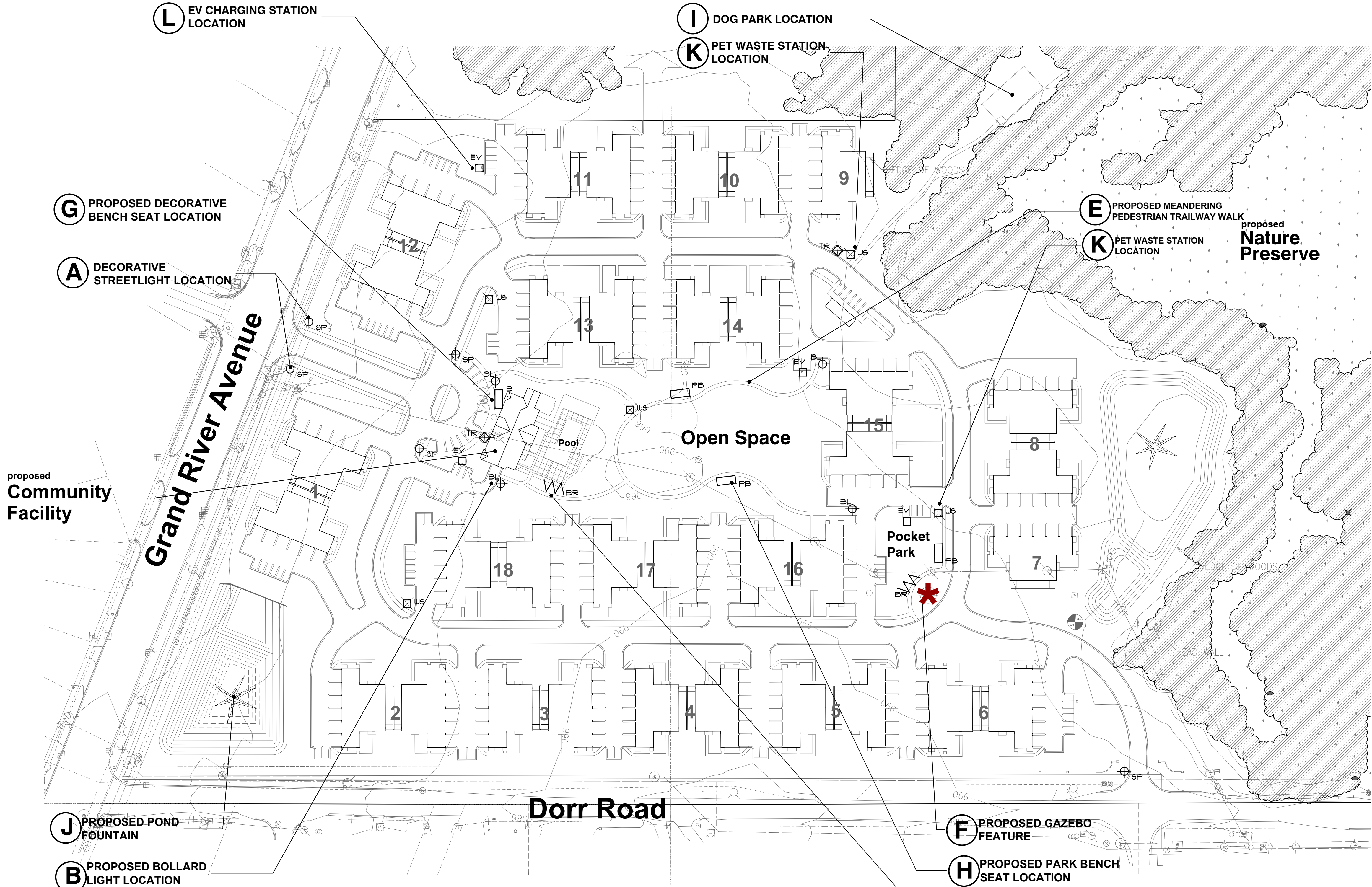
C trash receptacle
 (2-CONDITION)
 MANUFACTURED BY BY
 ANOVA, INC.
 WWW.ANOVAFURNISHINGS.COM
 DESCRIPTION: 32 GAL
 FINISH: TEXTURE PEKTER



B bollard light
 BY LITHONIA LIGHTS OR
 EQUAL MODEL: DSXB LED
 (D-SERIES LED BOLLARD
 8" DIA. X 42" HGT.) OR
 EQUAL (4-CONDITIONS)



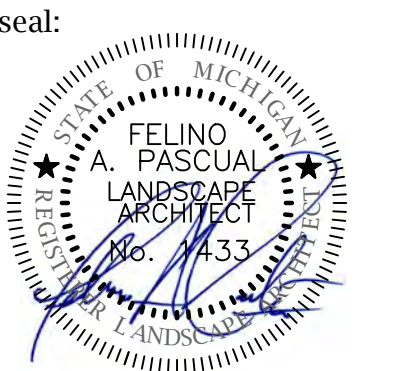
A decorative pole and light
 (5-CONDITION)
 DECORATIVE BLVD. ISLAND
 SITE FIXTURE LIGHTS AND
 ALUMINUM POLE.



4A site amenity reference location map
 NO SCALE

site amenity key

- BIKE RACK
- PARK BENCH SEAT
- BENCH SEAT
- BOLLARD LIGHT
- STREET POLE LIGHT
- GAZEBO or PERGOLA FEATURE
- PET WASTE STATION
- TRASH RECEPTACLE
- EV CHARGING STATION



client:
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 31550
 Northwestern
 HWY. Suite 200
 Farmington Hills,
 Michigan 48334

project:
**THE LEGACY
 APARTMENT HOMES**

project location:
 Genoa Township,
 Michigan
 12 Mile Road

sheet title:
**CONCEPTUAL ENTRY
 SIGN MONUMENT**

job no./issue/revision date:
 LS21.096.08 SPA 8-18-2021
 LS21.096.10 SPA 10-8-2021
 LS21.096.10 SPA 10-24-2021
 LS21.096.12 SPA 12-13-2021
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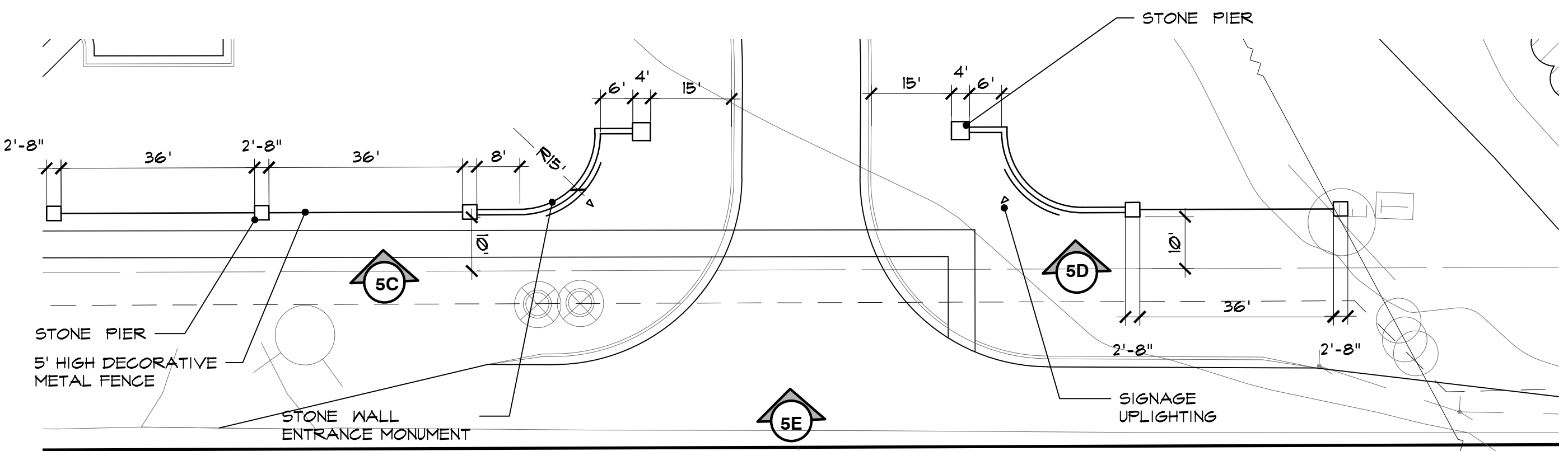
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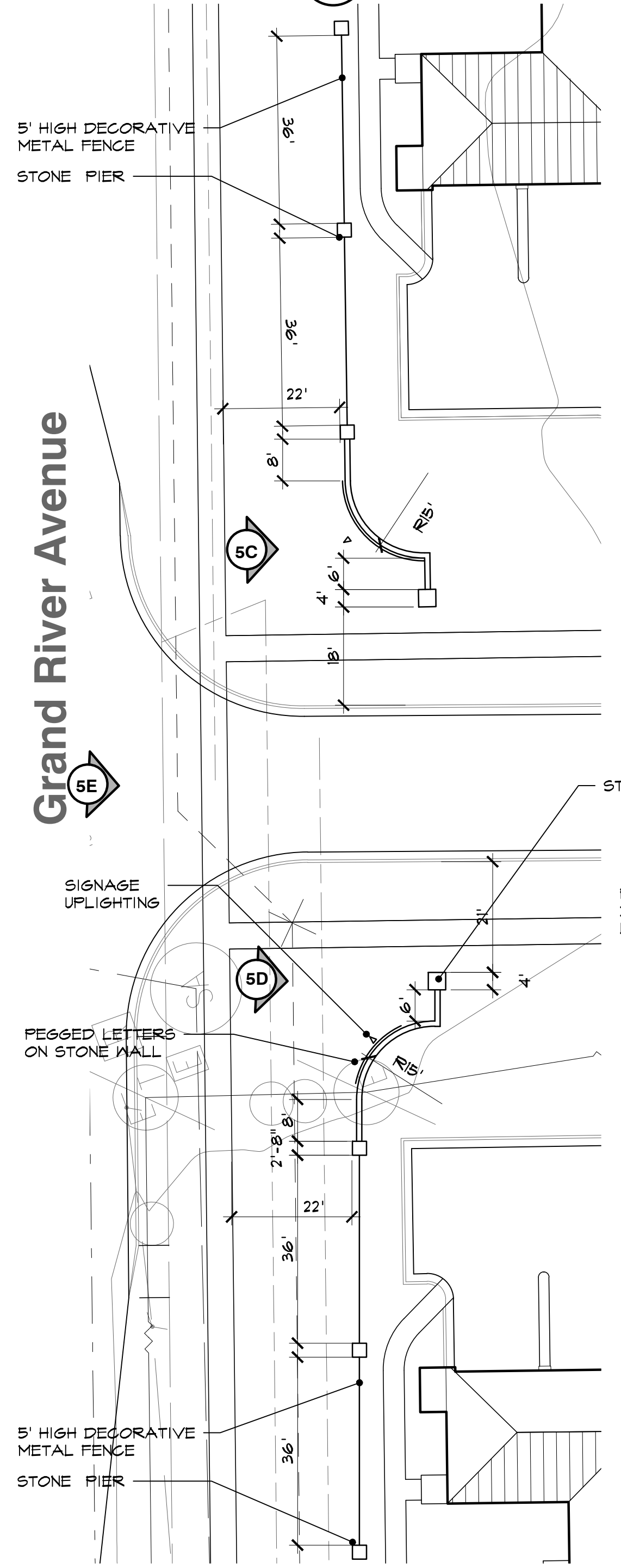
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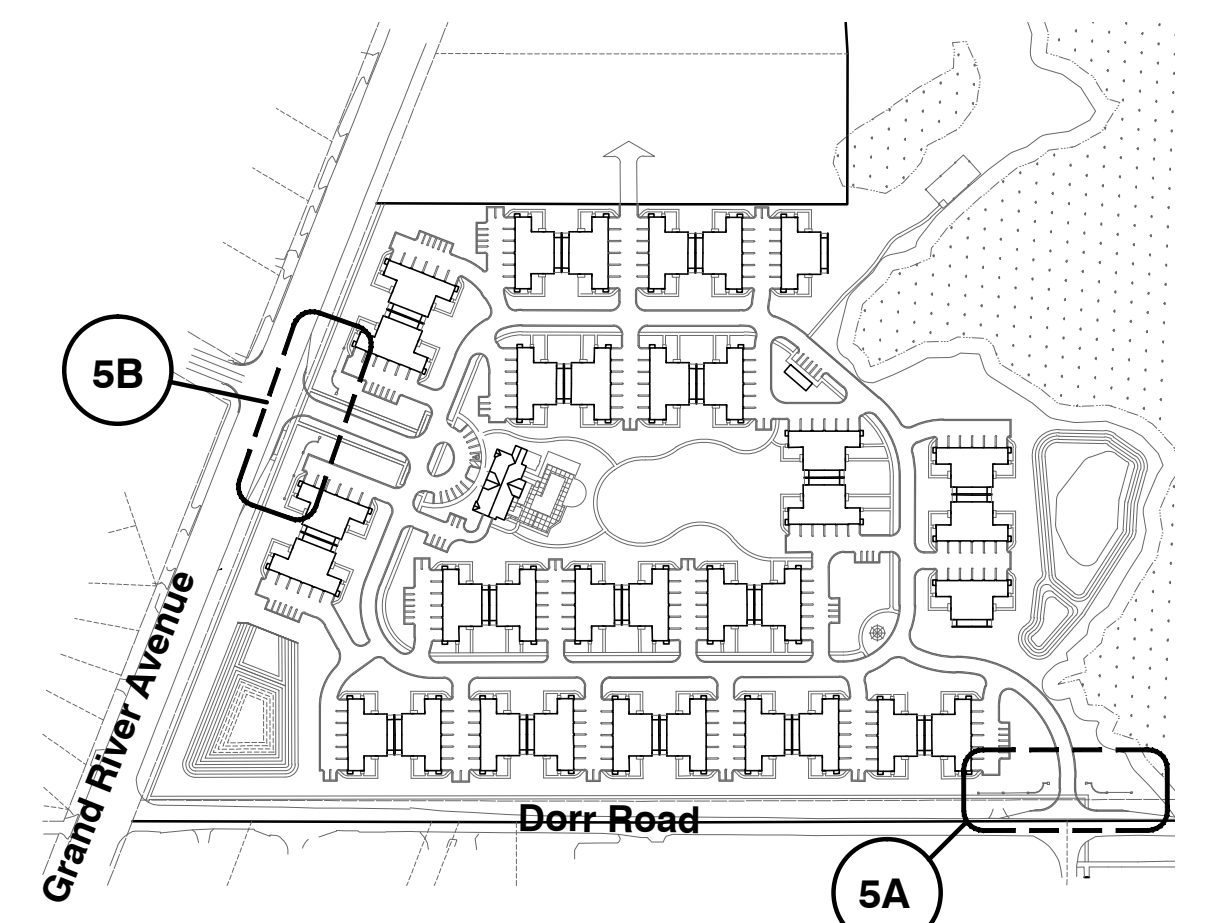
sheet no:
LSC-5 of 5



5A entry sign monument site plan
 SCALE: 1" = 20' - 0"



5B entry sign monument site plan
 SCALE: 1" = 20' - 0"



key reference location map
 NO SCALE

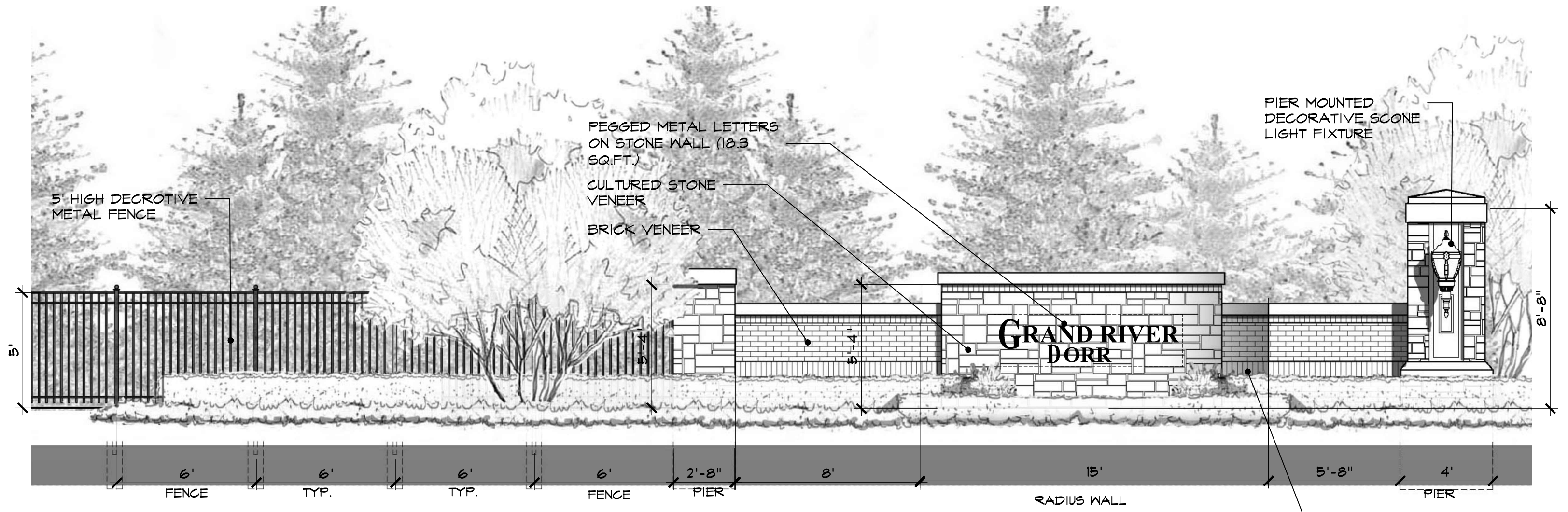
entry wall monument / pier / signage / notes:

1. LOCATE AND STAKE ALL EXISTING AND PROPOSED UTILITIES PRIOR TO CONSTRUCTION. COORDINATE ANY ADJUSTMENTS WITH LANDSCAPE ARCHITECT.
2. ALL ENTRY WALL LIGHTING SHALL BE CONTROLLED WITH A 'PHOTO-EYE' SWITCH. ALL LIGHTING SHALL BE SHIELDED FROM PUBLIC ROW'S AND ADJACENT PROPERTIES.
3. SEE LANDSCAPE PLAN FOR PROPOSED PLANTINGS ADJACENT TO PROPOSED ENTRY SIGN MONUMENT ON SHT. 15-2
4. VERIFY SOIL BEARING CAPACITY PRIOR TO ENTRY SIGN MONUMENT & PIER CONSTRUCTION. IF SOIL BEARING CAPACITY FALLS BELOW STANDARD REQUIREMENTS, CONSULT STRUCTURAL ENGINEER FOR RECOMMENDATION OF FINAL ENTRY MONUMENT & PIER FOOTING DESIGN.
5. SIGNAGE TEXT AND LOGO TO BE METAL PRISMATIC DIMENSIONAL LETTERS. PRIOR TO SIGN INSTALLATION, PERMITS TO BE OBTAINED PER GENOA TOWNSHIP REQUIREMENTS AND APPROVALS.
6. ALL INFORMATION CONTAINED HEREIN IS SUBJECT TO APPROVAL, AND PERMITS PERMITS TO BE OBTAINED PRIOR TO CONSTRUCTION.
7. FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED SOIL WITH AN ASSUMED SAFE BEARING CAPACITY OF 2000 P.S.I. IF SOIL OF THIS CAPACITY IS NOT FOUND AT THE ELEVATIONS INDICATED, FOOTINGS SHALL BE ENLARGED OR LOWERED AT THE DIRECTION OF THE ARCHITECT. VERIFY FOUNDATION SOIL BEARING PRESSURE IN FIELD BY SOILS ENGINEER.
8. MINIMUM CONCRETE STRENGTH TO BE 3000 P.S.I. @ 28 DAYS, U.O.N.; SLABS SHALL BE 3500 P.S.I. MIN. U.O.N.; EXPOSED CONCRETE SHALL BE 4000 P.S.I. WITH 6% ± 1% ENTRAINED AIR U.O.N.
9. ALL CONCRETE WORK AND PLACEMENT SHALL CONFORM TO THE LATEST RECOMMENDATIONS OF ACI.
10. PROVIDE DOUELS INTO FOUNDATION TO MATCH SIZE AND SPACING OF VERTICAL REINFORCEMENT AT ALL WALLS, UNLESS OTHERWISE NOTED.
11. PROVIDE MINIMUM 3" CONCRETE COVER FOR REINFORCEMENT BARS BELOW GRADE AND MINIMUM 2" CONCRETE COVER FOR REINFORCEMENT BARS ABOVE GRADE.

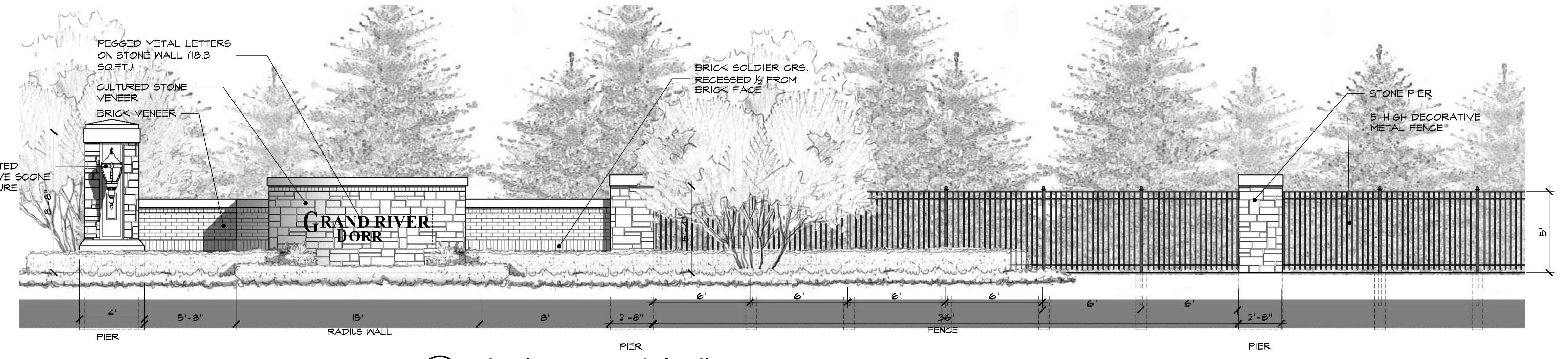


sign panel uplighting
 (4-CONDITIONS)

MANUFACTURER:
 ACUITY BRANDS LIGHTING
 ONE LITHONIA WAY
 CONYERS, GA 30012
 PEACHTREE, GA 30269
 PH. 770-322-9000
 BRAND: HYDREL
 MODEL: 4750SF or EQUAL
 (LED 4000K)
 FINISH : BRONZE



5C entry sign monument elevation
 SCALE: 1/4" = 1' - 0"



5D entry sign monument elevation
 SCALE: 1/4" = 1' - 0"



5E entry sign monument elevation
 SCALE: 1/8" = 1' - 0"

Notes:

Applicable Building Codes:

MICHIGAN BUILDING CODE 2015
STATE OF MICHIGAN ELECTRICAL CODE 2017 w/PART 8 AMENDMENTS
MICHIGAN MECHANICAL CODE 2015
MICHIGAN PLUMBING CODE 2015
ANSI A117.1 - 2009 ACCESSIBILITY CODE
INTERNATIONAL FIRE CODE 2015
MICHIGAN 2015 USE TYPE : R-2 (Apartments) U (Private Garages)
MICHIGAN 2015 CONSTRUCTION TYPE: V-B

Areas:

Table with 4 columns: UNIT, R-2, U, Total. Rows include UNIT "A", UNIT "B", UNIT "C", TOTAL PER QUADRANT, and TOTAL FOR HALF BUILDING.

A 2 HOUR FIRE WALL IS REQUIRED BETWEEN THE RIGHT & LEFT HALVES OF THE BUILDING.
A 1 HOUR SEPERATION WILL BE PROVIDED BETWEEN THE 2 QUADRANTS.
A 1 HOUR SEPERATION WILL PROVIDED BETWEEN THE FIRST FLOOR AND THE SECOND FLOOR
A 1 HOUR SEPERATION WILL BE PROVIDED BETWEEN THE APARTMENTS AND THE PRIVATE GARAGE AREA.
A 1 HOUR SEPERATION WILL BE PROVIDED BETWEEN THE SECOND FLOOR AREA AND THE ATTIC

Occupancies:

1 OCCUPANT PER 200 s/f OF AREA PER TABLE 1004.1.2

Table with 2 columns: UNIT, Occupancy. Rows include UNIT "A", UNIT "B", UNIT "C", TOTAL PER QUADRANT, and TOTAL PER BUILDING.

Fire Supression:

A NFPA 13-R 2010 AUTOMATIC FIRE SUPPRESSION SYSTEM SHALL BE PROVIDED THROUGHOUT ALL AREAS OF THE BUILDING INCLUDING GARAGES, BALCONIES AND GROUND FLOOR PATIOS AS PER CHAPTER 9 OF THEMBC- 2012.
SMOKE ALARMS TO BE PROVIDED AS PER SECTION 907.2.9.2 & 907.2.11.2 OF THE MBC-2012.
CARBON MONOXIDE ALARMS TO BE PROVIDED AS PER SECTION 908.7 OF THE MBC-2012.

ATTIC DRAFT STOPS:

EACH OF THE ATTICS ABOVE THE SECOND FLOOR UNITS ARE SEPERATED BY THE EXTENSION OF THE FIRE WALLS BELOW SEPERATING EACH UNIT. THESE WALLS EXTEND TO THE UNDERSIDE OF THE ROOF DECK. THE WALL SEPERATING THE RIGHT HALF OF THE BUILDING FROM THE LEFT HALF IS A 2 HOUR FIRE RATED WALL. THE WALL SEPERATING THE FRONT UNITS FROM THE REAR UNITS ARE A 1 HOUR WALL. EACH OF THE ATTIC SPACES IS LESS THAN THE MAXIMUM OF 3,000 s/f.

Seperate Submittals

- 1. SHOP DRAWINGS FOR ENGINEERED FLOOR JOIST SYSTEMS & PRE-ENGINEERED ROOF TRUSSES SYSTEMS. ALL DRAWINGS TO BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF MICHIGAN.
2. FIRE SUPPRESSION SYSTEM DESIGN DRAWINGS. ALL DRAWINGS TO BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF MICHIGAN.
3. ALL INTERIOR FINISHES SHALL MEET A CLASS C FLAME SPREAD INDEX 76-200 AND SMOKE-DEVELOPED INDEX 0-450. PROVIDE PRODUCT CUT SHEETS TO THE BUILDING DEPARTMENT SHOWING COMPLIANCE.

Special Inspections:

ALL SPECIAL INSPECTIONS SHALL BE DONE BY McDOWELL & ASSOCIATES
- GEOTECHNICAL TESTING
- SOIL BEARING CAPACITIES
- CONCRETE TESTING

COPIES OF ALL REPORTS TO BE SUBMITTED TO THE BUILDING DEPARTMENT OF MACOMB TOWNSHIP

Proposed New Apartments for:

M J C Avalon

Attic Areas & Ventilation Requirements

(PER MBC 2015 SEC 1203)

ATTIC AREAS

Above Unit B: 1,611 S.F.
Above Unit C: 1,726 S.F.

VENTILATION AREA REQUIRED: 1/300 ALLOWED (Per 1203.2) IF: MORE THAN 50% AND LESS THAN 80% OF REQUIRED VENTILATION TO BE LOCATED IN THE UPPER PORTION OF THE ATTIC SPACE

Unit B: 1,611 S.F. x 1/300 = 5.37 S.F.
Unit C: 1,726 S.F. x 1/300 = 5.75 S.F.

VENTILATION AREA PROVIDED:

Unit B: 36'-0" L.F. Soffit Vent @ 5 Sq. In./Ft. = 180 Sq. In.
144 Sq. In. per 36 Sq. Ft.
Unit B: (10) Style 600 Roof Vents @ 60 Sq. = 600 Sq. In.
144 Sq. In. per 36 Sq. Ft.

Unit B: Total Ventilation Area = 5.42 S.F. > 5.37 S.F. Required (77% OF VENTILATION IN UPPER PORTION OF ATTIC)

Unit C: 80'-0" L.F. Soffit Vent @ 5 Sq. In./Ft. = 400 Sq. In.
144 Sq. In. per 36 Sq. Ft.
Unit C: (11) Style 600 Roof Vents @ 60 Sq. = 660 Sq. In.
144 Sq. In. per 36 Sq. Ft.

Unit C: Total Ventilation Area = 7.36 S.F. > 5.75 S.F. Required (62% OF VENTILATION IN UPPER PORTION OF ATTIC)

- 1. ROOF VENT SPECS. PROVIDED ARE BY "LOMANCO VENTS"
2. PERFORATED SOFFIT/EAVE VENTS ARE JAMES HARDIE
3. ALUM. ROOF VENTS ARE LOMANCO - 600 SERIES

Project Professionals:

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Romeo, Michigan 48065
o.586-752-5010 c.586-201-1602
greatarchitects@charter.net
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248-651-3681
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Dominic A. Mocerri

SEPARATE SUBMITTAL:

CIVIL ENGINEERING DESIGN & DRAWINGS ARE DONE BY OTHERS AND ARE NOT PART OF THIS SUBMITTAL

FIRE SUPPRESSION DESIGN & DRAWINGS ARE DONE BY OTHERS AND ARE NOT PART OF THIS SUBMITTAL

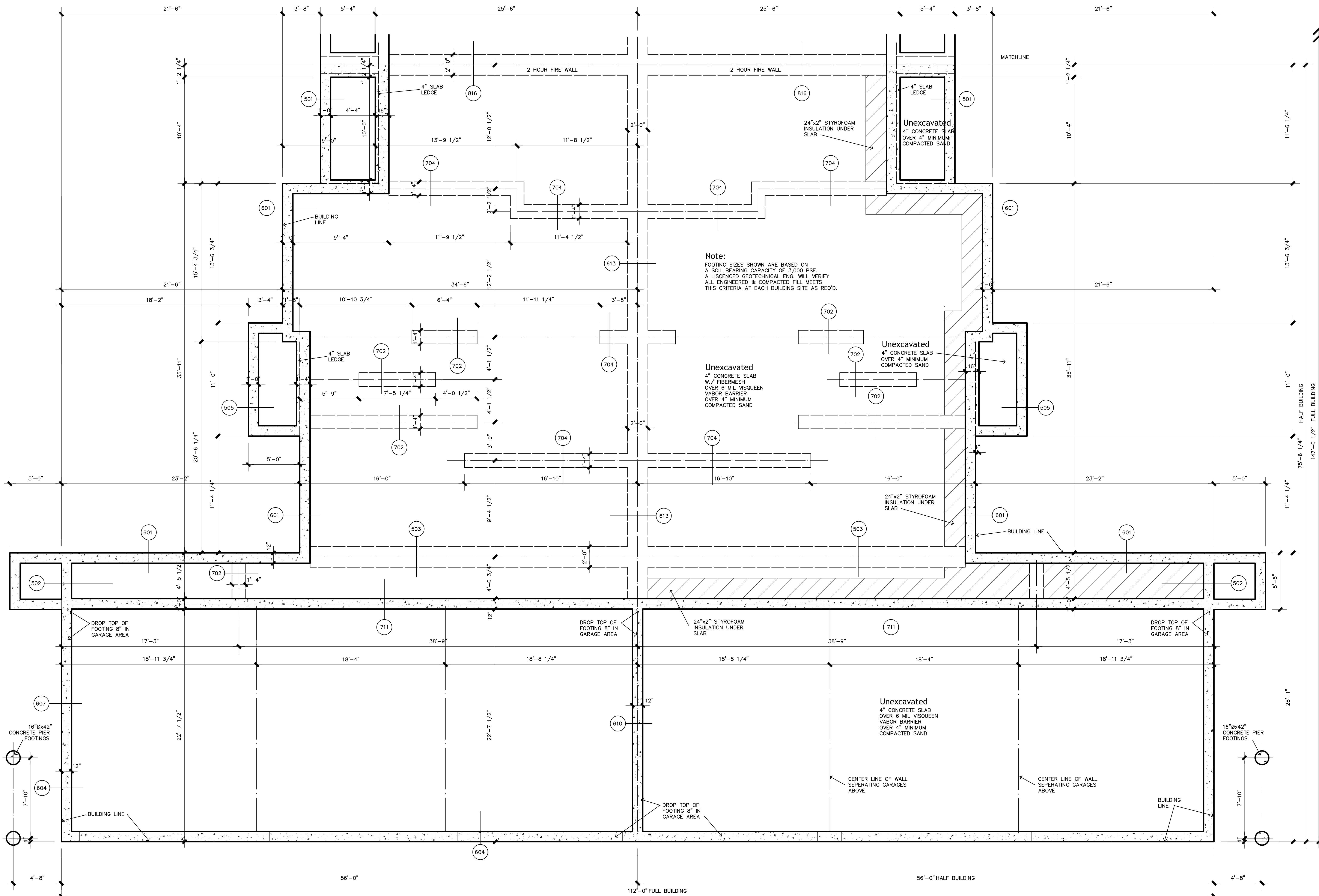
Sheet Index:

Table with 2 columns: Sheet Name, Page Number. Includes Cover Page, Foundation Plan, First Floor Plan, Second Floor Plan, Elevations, Building Sections, Wall Sections, Wall Sections & Details, Specifications, and Door Schedule.

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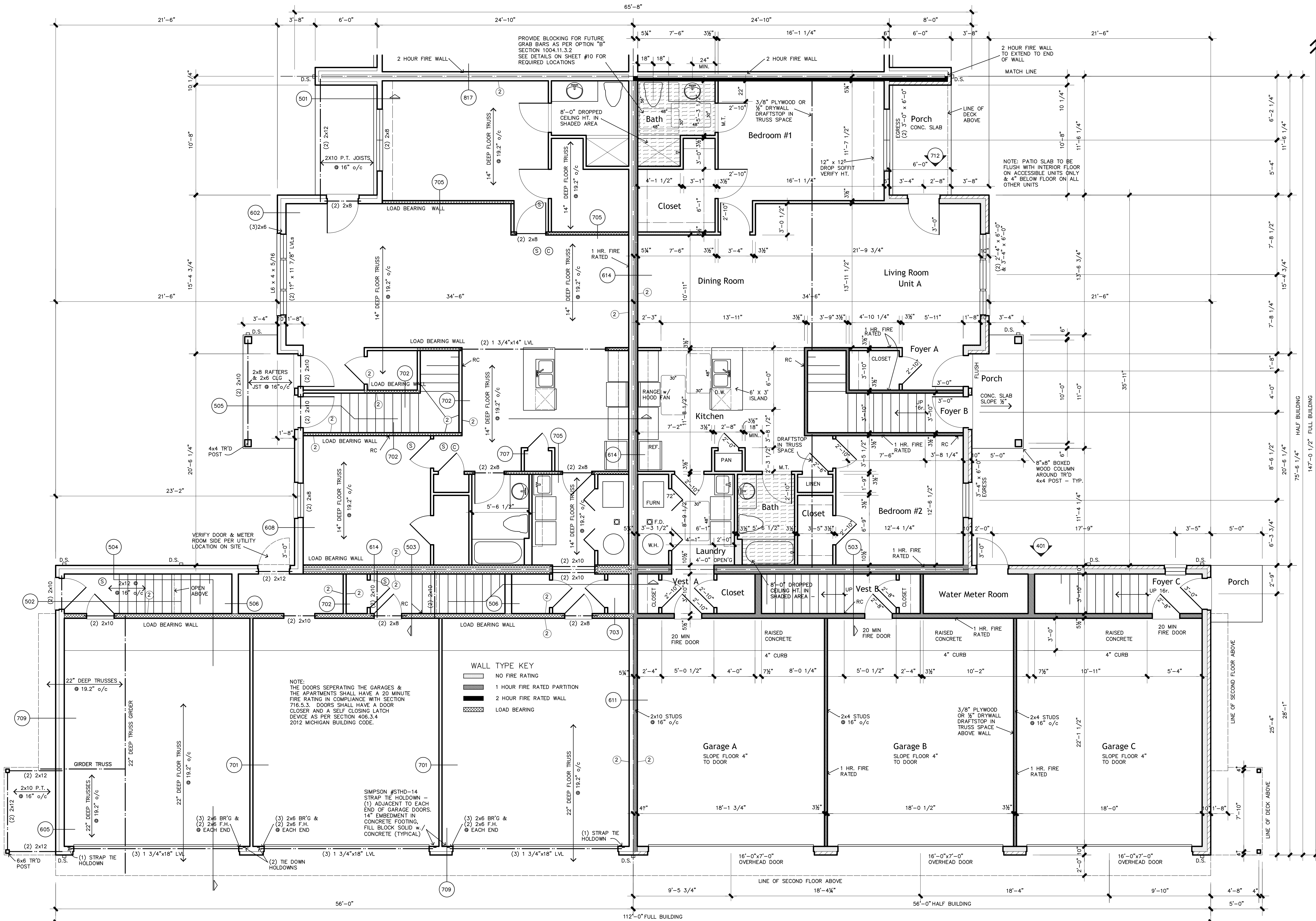
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Note:
FOOTING SIZES SHOWN ARE BASED ON
A SOIL BEARING CAPACITY OF 3,000 PSF.
A LICENSED GEOTECHNICAL ENG. WILL VERIFY
ALL ENGINEERED & COMPACTED FILL MEETS
THIS CRITERIA AT EACH BUILDING SITE AS REQ'D.

Foundation Plan
Scale: 1/4" = 1'-0"



WALL TYPE KEY

[White Box]	NO FIRE RATING
[Grey Box]	1 HOUR FIRE RATED PARTITION
[Black Box]	2 HOUR FIRE RATED WALL
[Hatched Box]	LOAD BEARING

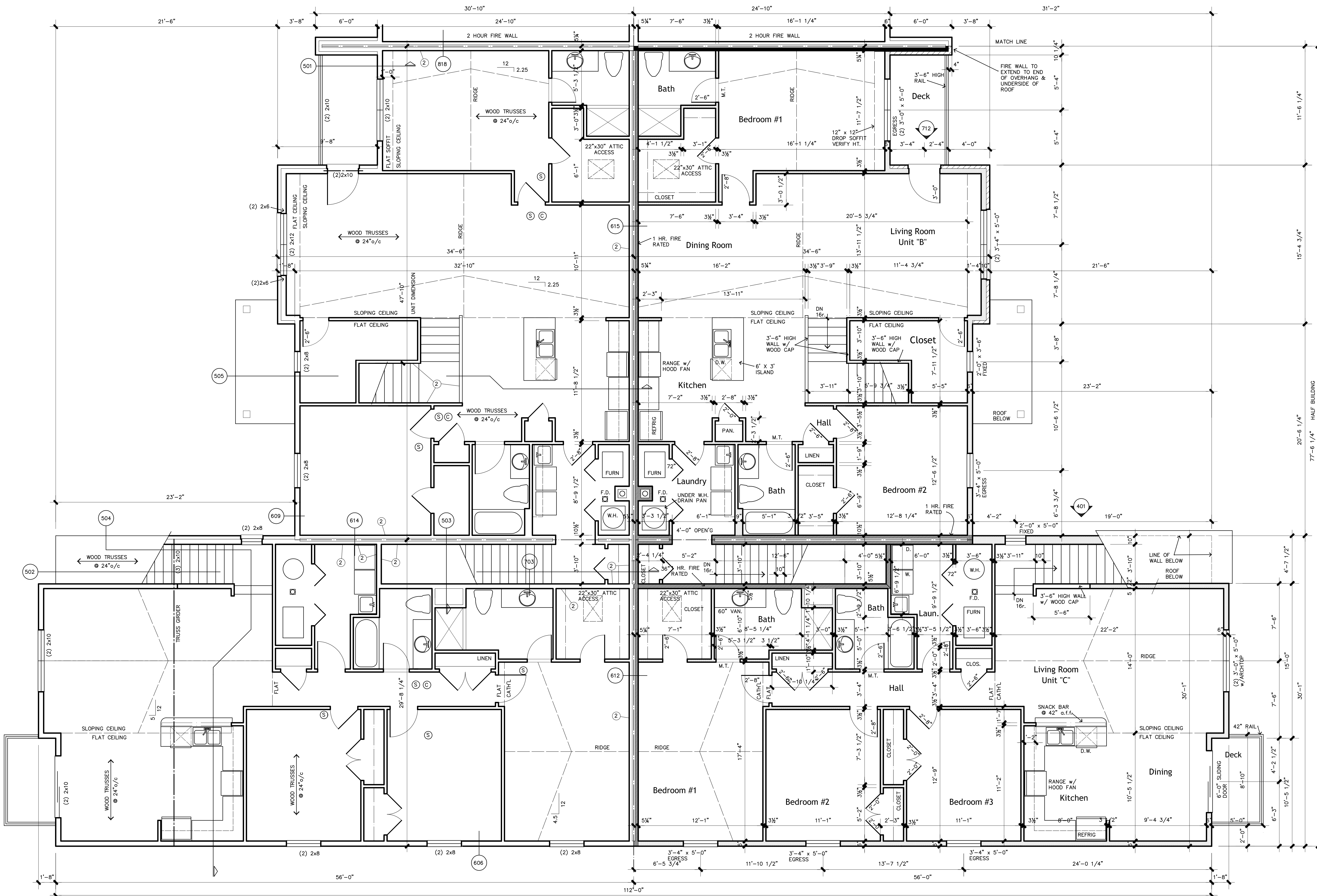
NOTE: THE DOORS SEPARATING THE GARAGES & THE APARTMENTS SHALL HAVE A 20 MINUTE FIRE RATING IN COMPLIANCE WITH SECTION 716.5.3. DOORS SHALL HAVE A DOOR CLOSER AND A SELF-CLOSING LATCH DEVICE AS PER SECTION 406.3.4 2012 MICHIGAN BUILDING CODE.

SIMPSON #5THD-14 STRAP TIE HOLDDOWN - (1) ADJACENT TO EACH END OF GARAGE DOORS. 14" EMBEDMENT IN CONCRETE FOOTING, FILL BLOCK, SOLID W. CONCRETE (TYPICAL)

First Floor Plan
Scale: 1/4" = 1'-0"

Type "B" Units
ALL UNITS EXCEPT FOR: BUILDINGS #3, #4 & #9 - SEE SHEET #10 BUILDING #10 - SEE SHEET #11

REPRODUCTION OF PRINTS IS PROHIBITED.

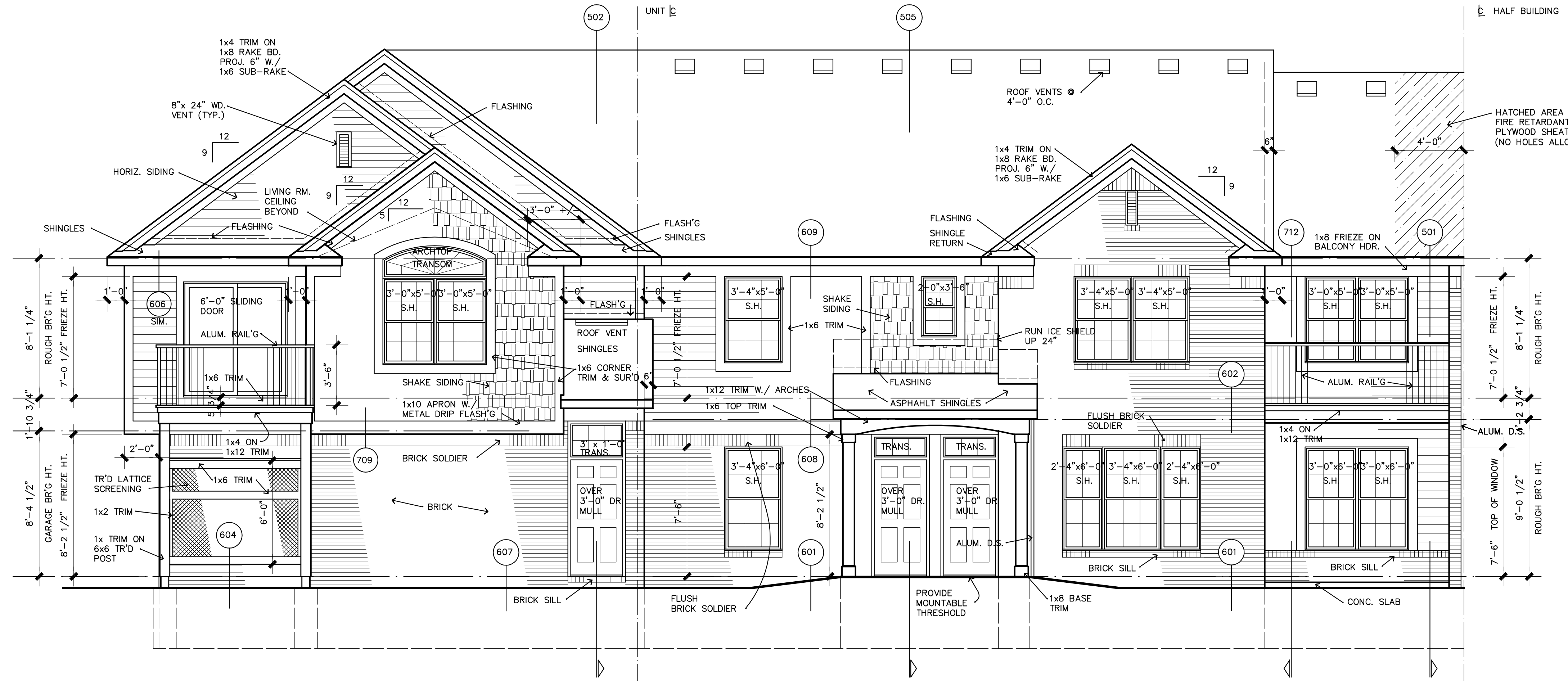


WALL TYPE KEY

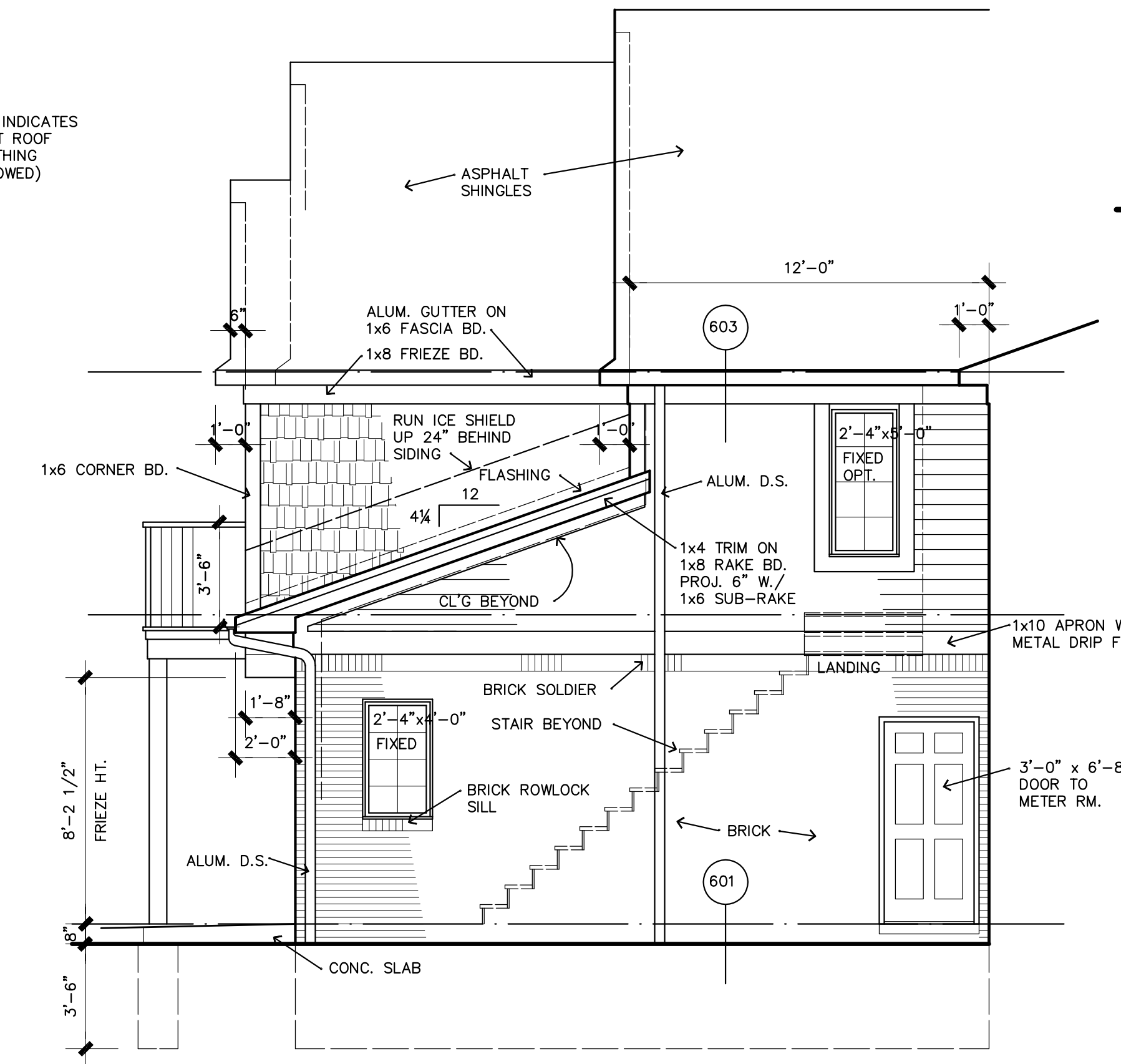
[Symbol]	NO FIRE RATING
[Symbol]	1 HOUR FIRE RATED PARTITION
[Symbol]	2 HOUR FIRE RATED WALL
[Symbol]	LOAD BEARING

Second Floor Plan
 Scale: 1/4" = 1'-0"

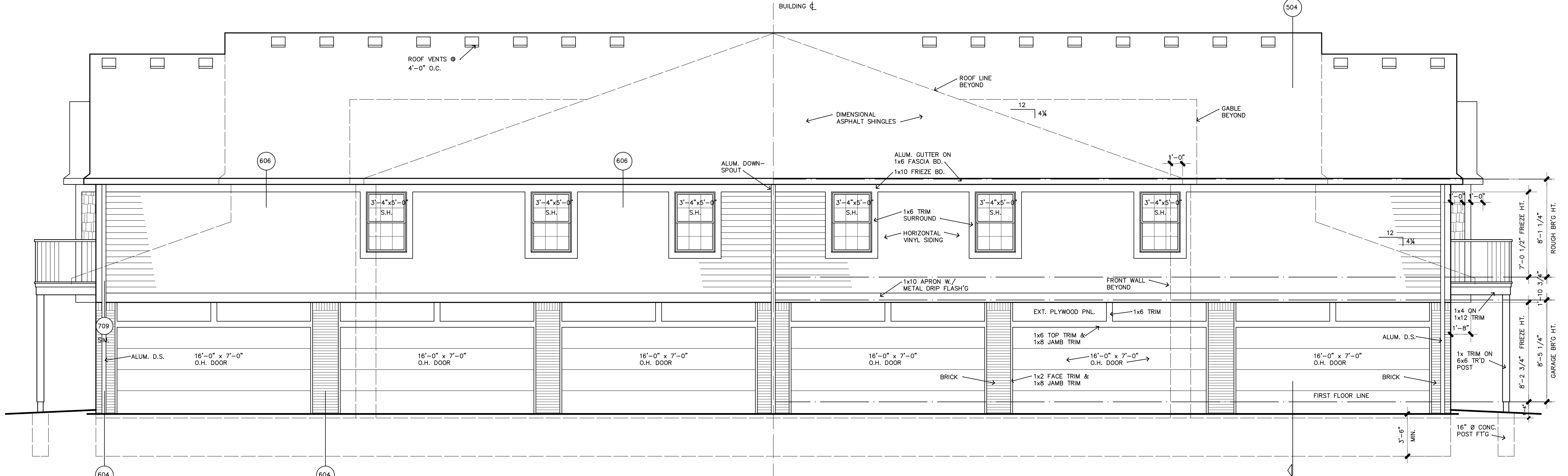
ALL UNITS "B" & "C" ARE NOT ACCESSIBLE UNITS.



Front/Rear Elevation "A"
 Scale: 1/4" = 1'-0"



Partial Elevation "A"
 Scale: 1/4" = 1'-0"

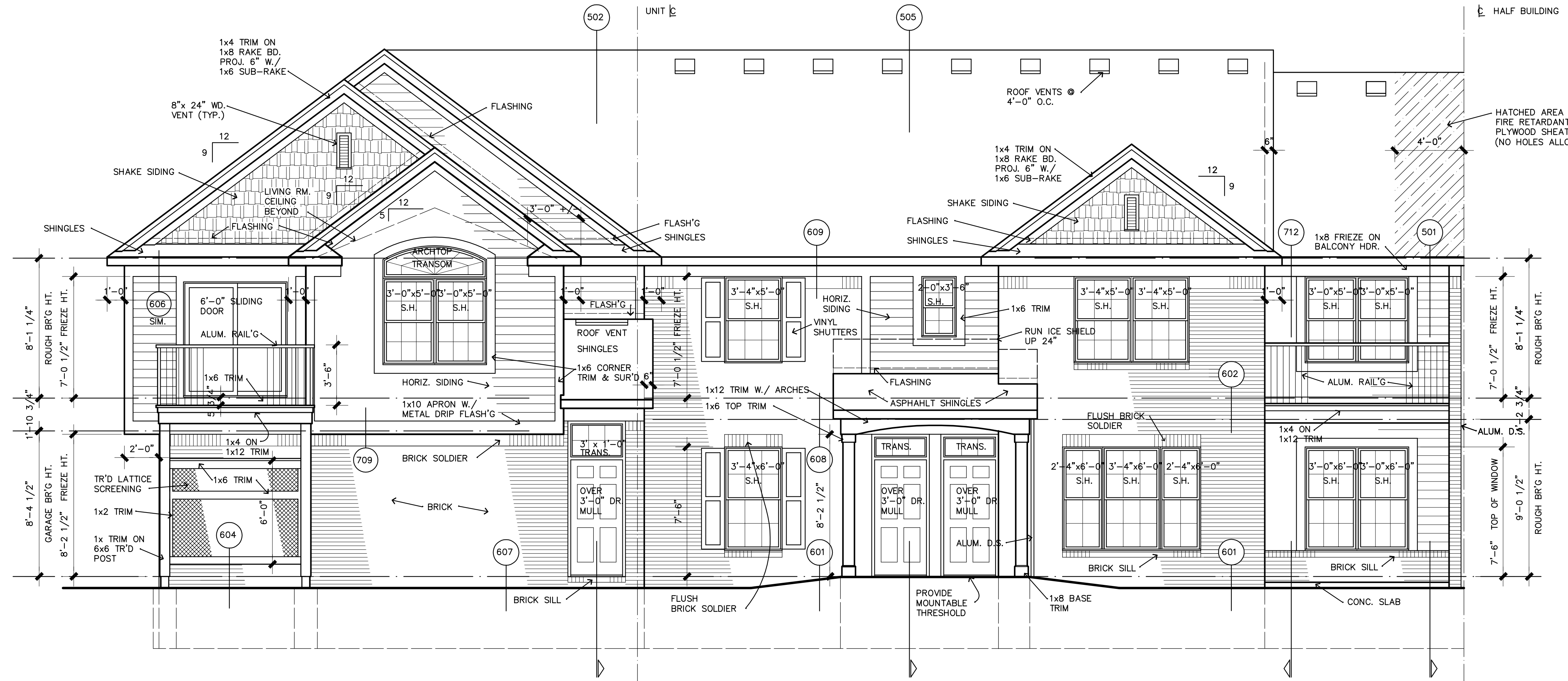


Side Elevation "A"
 Scale: 1/4" = 1'-0"

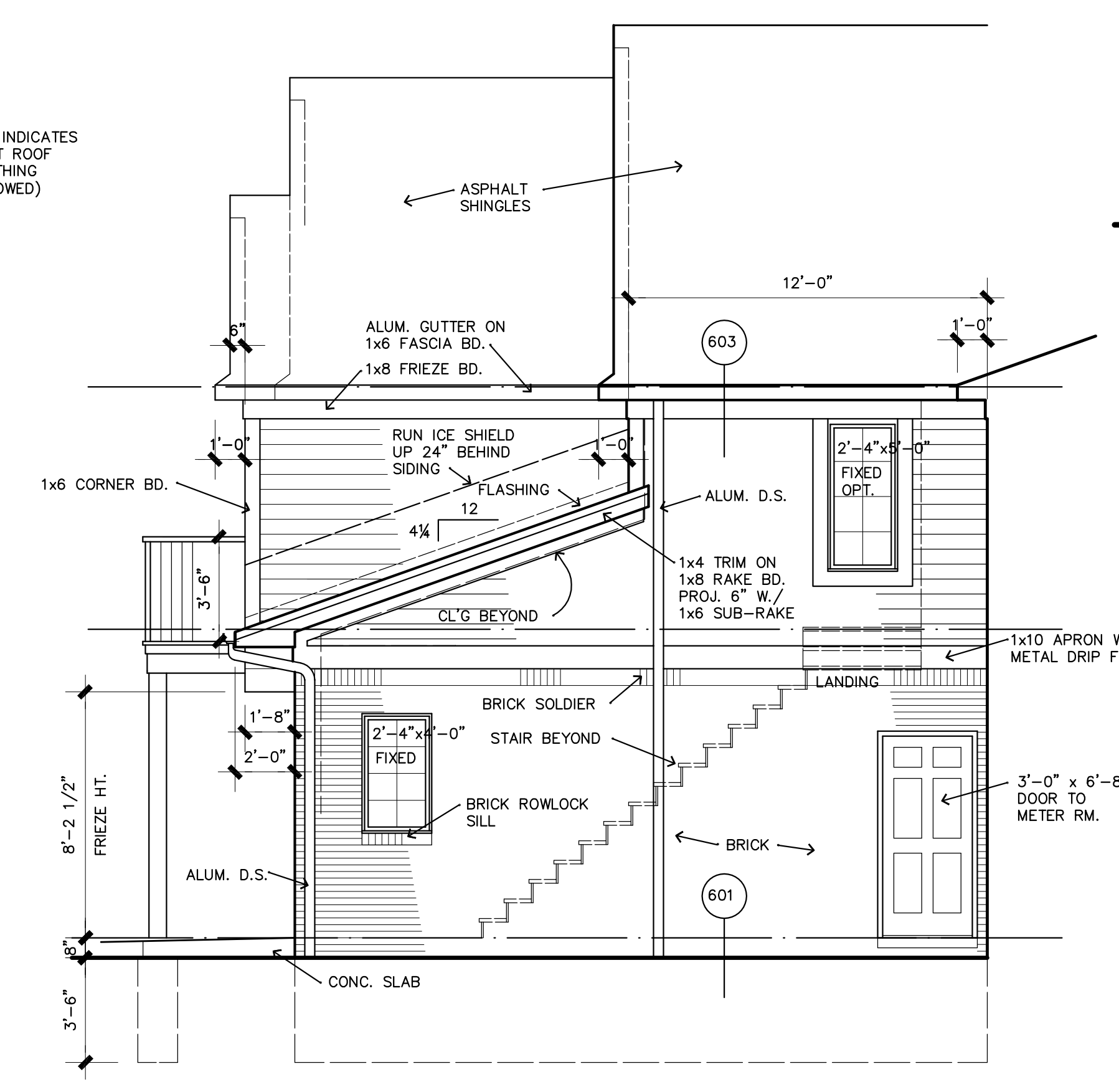
Proposed Condominiums for:
MJC
 12 - Plex Condominiums
 Architects • Engineers • Historic Restorations
 110 W. St. Clair • Romeo • Michigan • 48065-4655
 Office: 586-752-9010 • 586-201-1602 Call
 greatarchitects@charter.net
 A.I.A.
 Member of the American Institute of Architects
 BURMANN ASSOCIATES INC.

Sheet Contents:
 Elevations

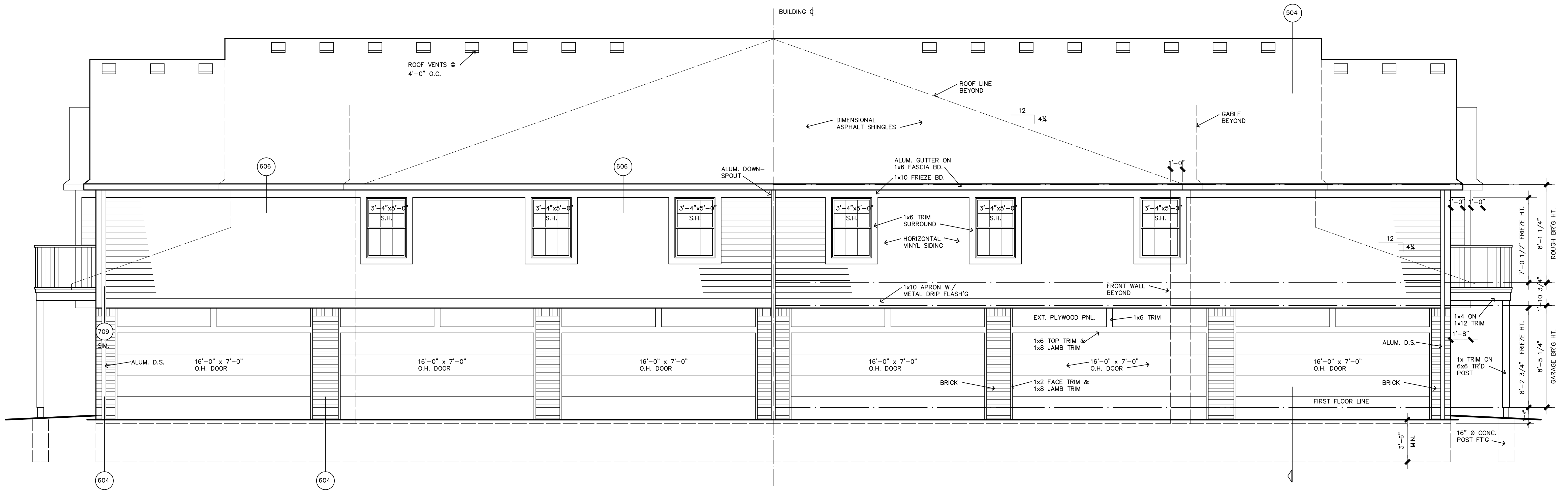
Job: 18173
 Drawn by: MAK
 Date: 17JUL18
 Sheet Number:



Front/Rear Elevation "B"
 Scale: 1/4" = 1'-0"



401 Partial Elevation "B"
 Scale: 1/4" = 1'-0"



Side Elevation "B"
 Scale: 1/4" = 1'-0"

Proposed Condominiums for:
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BURMANN
 BURMANN ASSOCIATES INC.

Sheet Contents:
 Elevations
 Job: 18173
 Drawn by: MAK
 Date: 27JUN18
 Sheet Number:

**GENOA CHARTER TOWNSHIP
PLANNING COMMISSION
PUBLIC HEARING
JUNE 13, 2022
6:30 P.M.
MINUTES**

CALL TO ORDER: Chairman Grajek called the meeting of the Genoa Charter Township Planning Commission to order at 6:30 p.m. Present were Chris Grajek, Jeff Dhaenens, Marianne McCreary, Eric Rauch, Glynis McBain, Tim Chouinard and Diana Lowe. Also present was Kelly VanMarter, Community Development Director/Asst. Township Manager, Brian Borden of Safebuilt, and Shelby Byrne of Tetra Tech.

Chairman Grajek introduced the newest Planning Commissioner, Diana Lowe. She is also a trustee for the Township Board.

PLEDGE OF ALLEGIANCE: The pledge of allegiance was recited.

APPROVAL OF AGENDA:

Moved by Commissioner Lowe, seconded by Commissioner Dhaenens, to approve the agenda as presented. **The motion carried unanimously.**

DECLARATION OF CONFLICT OF INTEREST: None

CALL TO THE PUBLIC:

The call to the public was made at 6:31 pm with no response.

OLD BUSINESS:

OPEN PUBLIC HEARING # 1...Consideration of a special use application, environmental impact assessment and site plan for an expansion of an existing automobile dealership to expand a parking/vehicle storage lot located at 7100 Grand River Avenue, southeast corner of Grand River Avenue and Hubert Drive. The request is petitioned by Joshua Tauriainen.

- A. Recommendation of Special Use Application.
- B. Recommendation of Environmental Impact Assessment (1-18-22)
- C. Recommendation of Site Plan (5-3-22)

Mr. Joshua Tauriainen and Mr. Wayne Perry of Desine, Inc. were present. Mr. Perry stated they have changed the plans per the comments from the Planning Commission and township consultants. They have expanded the buffers on the north and east sides, reconfigured the parking lot, moved the detention basin, and reduced the amount of impervious surface.

Mr. Borden reviewed his letter dated June 8, 2022.

1. The special land use standards of Section 19.03 of the zoning ordinance are generally met, though the applicant must address any comments raised by the Township Engineer and/or the Brighton Area Fire Authority.
2. To comply with the use conditions of Section 7.02.02(c) of the zoning ordinance, the applicant must combine the two parcels.
3. The rear yard buffer zone is deficient by 11 evergreen trees; however, the overall landscape plan for the site provides more trees than required by at least 13 trees.
4. The discrepancies between the landscape plan and planting table must be corrected.
5. The applicant will need to ensure that shielding is provided for the light fixtures at the rear of the site to protect the adjacent residential properties.
6. Overall lighting intensity must be reduced to meet ordinance standards, which is no more than 10 footcandles.

Mr. Perry agrees with Mr. Borden's comment regarding the landscaping and he requested the Planning Commission approve the deficiency. He will ensure that the lighting issues are addressed.

Ms. Byrne stated that all of her previous concerns have been addressed.

The May 25, 2022 letter from the Fire Marshal states that all of his previous concerns have been addressed by the applicant.

Commissioner Dhaenens asked the applicant if they received the letter from the Livingston County Road Commission. Mr. Perry stated they are working with the Road Commission and will have it resolved prior to their presentation to the Township Board.

The call to the public was made at 6:42 pm.

Mr. Kristian Smith 6972 Rink Drive asked if the retention pond will be standing water. Mr. Perry stated that this plan complies with the updated Livingston County Drain Commissioner code. Part of it does include standing water. Mr. Smith stated that Mr. Tauriainen has made improvements to the site since he has taken ownership and he appreciates the increased plantings.

The call to the public was closed at 6:44 pm.

Moved Commissioner Rauch, seconded by Commissioner Lowe, to recommend to the Township Board approval of the Special Use Application for an expansion of an existing automobile dealership to expand a parking/vehicle storage lot located at 7100 Grand River Avenue, southeast corner of Grand River Avenue and Hubert Drive as the Commission finds

that the special land use standards of Section 19.03 of the zoning ordinance are met. **The motion carried unanimously.**

Moved Commissioner Rauch, seconded by Commissioner Dhaenens, to recommend to the Township Board approval of the Environmental Impact Assessment dated January 18, 2022 for an expansion of an existing automobile dealership to expand a parking/vehicle storage lot located at 7100 Grand River Avenue, southeast corner of Grand River Avenue and Hubert Drive. **The motion carried unanimously.**

Moved Commissioner Rauch, seconded by Commissioner Lowe, to recommend to the Township Board approval of the Site Plan dated May 3, 2022 for an expansion of an existing automobile dealership to expand a parking/vehicle storage lot located at 7100 Grand River Avenue, southeast corner of Grand River Avenue and Hubert Drive with the following conditions:

- The two parcels shall be combined
- The Planning Commission finds the tree plantings as noted and located on the landscape plan to be appropriate, although deviating slightly from the requirements of the zoning ordinance.
- The petitioner shall update the landscape count on the plan and table.
- The sight lighting plan shall be updated so the shielding on the lights on the south side protects the adjacent residential properties.
- The site lighting intensity must be reduced to meet ordinance standards of no more than 10 footcandles.
- All conditions of the township engineer, Brighton Area Fire Authority, Drain Commissioner and Road Commission shall be met.

The motion carried unanimously.

NEW BUSINESS:

OPEN PUBLIC HEARING #2...Consideration of a rezoning application and environmental impact assessment to rezone 20-acres from Rural Residential (RR) to Country Estates (CE) for property located at 5320 Richardson Road on the west side of Richardson Road, south of Brighton Road. The request is petitioned by Andrea Sydor.

- A. Recommendation of Environmental Impact Assessment (5-31-22)
- B. Recommendation of Rezoning (5-31-22)

Mr. and Mrs. Jason and Andrea Sydor were present. They would like to change their zoning from Rural Residential (RR) to Country Estates (CE). Their property is 20 acres and they are adjacent to CE to the rear and RR is on either side. They would like to build a 60 x 80 barn; however, they are not able to build that size due to their current zoning. They would also like to develop and maintain a small hobby farm to grow local organic garlic.

Mr. Borden reviewed his letter dated June 2, 2022.

1. The Country Estates zoning is generally consistent with the rezoning criteria of Section 22.04 of the zoning ordinance.
2. The request is consistent with the goals of the Township Master Plan.
3. The request is anticipated to be compatible with the surrounding area.
4. The host of uses permitted in Country Estates are compatible with existing and planned uses in the surrounding area. Additionally, the more intensive agriculture uses, such as those allowed in agricultural zoning, are not allowed in Country Estates or would require a special land use. The applicant is requesting to rezone to a less intense use.
5. Consideration must be given to any technical comments provided by the Township Engineer, Utilities Director and/or Fire Authority with respect to infrastructure compatibility or capacity.

Commissioner McCreary questioned the section of the ordinance regarding the keeping of animals. Mr. Borden advised that if this is rezoned, they can keep livestock, but they are not to operate an intensive livestock operation. They would be able to have five of one species and not more than a total of seven animals.

Chairman Grajek asked the applicant if they had a conversation with their neighbors. Ms. Sydor stated they had a very positive conversation with one of their neighbors. They are in support of their request.

The call to the public was made at 7:00 pm

Mr. Mario Genovese of 5282 Richardson stated he is in support of the rezoning.

The call to the public was closed at 7:02 pm.

Ms. Byrne had no issues with the proposed rezoning.

The June 1, 2022 letter from the Fire Marshal states that all of his previous concerns have been addressed by the applicant.

Commissioner Rauch would like the Planning Commission to review this because it is not master planned for Country Estates zoning; however, he does not believe it will stand out due to the surrounding zoning.

Moved by Commissioner Dhaenens, seconded by Commissioner McCreary, to recommend to the Township Board approval of the Environmental Impact Assessment dated May 31, 2022 to rezone 20-acres from Rural Residential (RR) to Country Estates (CE) for property located at 5320 Richardson Road on the west side of Richardson Road, south of Brighton Road.

The motion carried unanimously.

Moved by Commissioner Dhaenens, seconded by Commissioner Lowe, to recommend to the Township Board approval of the rezoning dated May 31, 2022 to rezone 20-acres from Rural Residential (RR) to Country Estates (CE) for property located at 5320 Richardson Road on the west side of Richardson Road, south of Brighton Road as the Planning Commission finds that the Country Estates zoning is generally consistent with the rezoning criteria of Section 22.04 of the zoning ordinance, the request is consistent with the goals of the Township Master Plan, the request is anticipated to be compatible with the surrounding area and the host of uses permitted in Country Estates are compatible with existing and planned uses in the surrounding area. This recommendation is conditioned upon the following:

- All conditions of the township engineer, Brighton Area Fire Authority, Drain Commissioner and Road Commission shall be met.

The motion carried unanimously.

OPEN PUBLIC HEARING #3...Consideration of an environmental impact assessment and site plan for a proposed renovation and addition to the existing clubhouse located inside the Sylvan Glen Manufactured Housing Park. The park is located at 6600 Grand River Avenue, south side of Grand River, east of Dorr Road. The request is petitioned by Mike Barnett, Sun Communities.

- A. Recommendation of Environmental Impact Assessment (5-3-22)
- B. Disposition of Site Plan (5-26-22)

Mr. Robert Miller of M Architects provided a review of the project. They will be adding a pool and a small addition to the clubhouse to include bathrooms and a fitness room. They will also be making improvements to the office and reception area.

Mr. Borden reviewed his letter dated June 7, 2022.

1. The applicant should provide elevation views for the remaining two sides of the equipment storage building.
2. The elevations are mislabeled on Sheet A301.
3. The applicant should be prepared to submit material samples and color samples for the Commission's consideration.
4. The applicant must include a typical light pole detail demonstrating that the maximum height requirement of 20 feet is met.
5. The applicant must address comments provided by the Township Engineer and/or Brighton Area Fire Authority.

Ms. Byrne reviewed her letter dated June 8, 2022.

1. The plans need to be signed and sealed by a professional engineer.
2. The petitioner is proposing swales and a riprap area to control the additional drainage from the site. The riprap area is intended to fill up and overflow across the site drive during a storm event. The storm management for the site should be designed so that overflow stormwater is not being conveyed across the access drive to the site. A culvert will be needed to direct flow to the west side of the existing drive.

The June 3, 2022 letter from the Fire Marshal states that all of his previous concerns have been addressed by the applicant.

Mr. Miller submitted a drawing of the side elevations to the Planning Commission. He showed the proposed materials.

Commissioner McCreary asked how the safety of the pool and the building is handled. Ms. Anita Haddock, the property manager, stated this is for the residents only. There will be a lifeguard on duty and there will be pool monitors. There will always be someone in the office while the pool is open.

The call to the public was made at 7:19 pm with no response.

Moved by Commissioner Rauch, seconded by Commissioner Lowe, to recommend to the Township Board approval of the Environmental Impact Assessment dated May 3, 2022 for a proposed renovation and addition to the existing clubhouse located inside the Sylvan Glen Manufactured Housing Park. **The motion carried unanimously.**

Moved by Commissioner Rauch, seconded by Commissioner Dhaenens, to approve the Site Plan dated May 26, 2022 for a proposed renovation and addition to the existing clubhouse located inside the Sylvan Glen Manufactured Housing Park, with the following conditions:

- The elevation views for the remaining two sides of the equipment storage building shall be supplied to staff for review & approval
- The mislabeling of the elevations on Sheet A301 shall be corrected.
- The material samples and colors viewed this evening are acceptable to the Planning Commission and shall be submitted and become property of the Township.
- The light pole height must conform to the requirements of a maximum height of 20 feet. The light pole details shall be submitted to staff for review & approval.
- The items listed in the township's engineer letter dated June 8, 2022 shall be met, specifically, to accommodate for the overflow of the stormwater management system
- The applicant must address comments provided by the Brighton Area Fire Authority.

The motion carried unanimously.

OPEN PUBLIC HEARING #4...Consideration of an amendment to the master deed and bylaws for Chestnut Springs to allow a detached accessory structure on lot 25. The property in question is located on the east side of Chilson Road, South of Brighton Road along the southern Township boundary with Hamburg Township. The request is petitioned by Chestnut Development LLC.

A. Recommendation of Master Deed and Bylaws amendment

Ms. Catherine Riesterer of Cooper & Riesterer, the attorney for the applicant, and Christian Bugeja of Chestnut Development were present. This was a development built by the Chestnut Group. Most of the homes are on 1-2 acre lots and there is one large 25-acre parcel; however,

only approximately eight acres of it are buildable. This is a site condominium and there were no outbuildings allowed. This one parcel owner will need to maintain their own property so they would like to allow this lot to have an accessory structure in addition to the home. She cited the proposed revised documents presented in the packet. They submitted forms from 21 neighbors who are in favor of allowing this for the one parcel.

Mr. Borden agrees with the request. He suggested that this would be the time for the applicant to consider amending the Master Deed and Bylaws to allow outbuildings on the other parcels. Ms. Riesterer stated they do not wish to have outbuildings allowed on the other parcels. They are not needed as the homeowner's association hires out the landscaping.

Ms. Byrne stated she has no concerns with this proposal.

Commissioner McCreary questioned why the applicant cannot build an attached garage. Ms. Riesterer stated that anyone who has shown interest in this property, due to the size of the lot, has stated they would want an outbuilding for their maintenance equipment. The developer can waive this provision in the agreement; however, it was suggested to have the Township approve the change. Commissioner McCreary is concerned that the type of equipment that could be on that site and used could be loud and it is adjacent to the other residences. Commissioner McCreary wants to ensure that this does not become used for a commercial business. Ms. Riesterer stated this lot is restricted to a single-family residential use and not commercial. Ms. VanMarter stated the zoning ordinance allows for home occupation businesses. She agrees that the restriction should be put in the master deed and bylaws.

The call to the public was made at 7:41 pm with no response.

Moved by Commissioner Rauch, seconded by Commissioner Lowe, to recommend to the Township Board approval of an amendment to the master deed and bylaws for Chestnut Springs to allow a detached accessory structure on Lot 25, with the condition that additional language be added stating the accessory building for Lot 25 shall not be used for commercial purposes, including a home occupation business. **The motion carried unanimously.**

OPEN PUBLIC HEARING #5...Discussion and review of a conceptual site plan for 12 attached condominiums and 102 single family homes for the Summerfield Pointe PUD. The property in question is located on Lawson Drive, north of Grand River Avenue. The request is petitioned by Healy Homes, LLC.

Mr. Wayne Perry of Desine, Inc. stated that Mr. Healy requested to have this item on tonight's agenda; however, he is not present.

Mr. Perry stated that Mr. Healy's original application was withdrawn after it was recommended for denial by the Planning Commission. Mr. Healy then met with residents of the community as their biggest concern was developing single-family residences into a multi-family neighborhood.

They also wanted to keep their community separate from the single-family homes. Mr. Healy changed his proposal to develop multi-family homes on the three remaining parcels and then build the homes throughout the rest of the development. They will also have separate associations. The residents are satisfied with the proposal.

The changes from the original, approved plan is they are reducing the density and traffic to the surrounding neighborhood. The current market is not for attached condominiums.

Commissioner Dhaenens would like to postpone this item until a future Planning Commission meeting so Mr. Healy can speak to the Planning Commission.

Commissioner McBain is concerned that the traffic from this development will be traveling on the roads in the other three attached developments, and those residents will have to pay for the maintenance. She would like to see a shared road maintenance agreement for these different developments. Mr. Perry stated the road network is already approved and the new proposal will reduce the number of units and users. Commissioner Chouinard suggested that representatives from the abutting developments meet. Ms. VanMarter stated the road network was designed to be a benefit to all of the neighborhoods. There is pending legislation regarding special assessments that would allow for assessments to be made on properties that benefit from the road and not just those residences that are on the road. Commissioner McBain would like to continue the discussion when the item is brought back before the Planning Commission.

Commissioner Rauch noted that the density is being reduced from what is already approved. During the recent Master Plan update, there was a lot of discussion regarding affordable housing and perhaps this could meet that need. The Planning Commission discussed this and would like Mr. Healy to return and provide details of the types of homes that will be built.

Moved by Commissioner Lowe, seconded by Commissioner Rauch, to postpone this discussion to a future Planning Commission meeting when Mr. Healy is available. **The motion carried unanimously.**

ADMINISTRATIVE BUSINESS:

Staff Report

Ms. VanMarter advised there will be five items on the July 11 Planning Commission meeting agenda.

Approval of the May 9, 2022 Planning Commission meeting minutes

Needed changes were noted.

Moved by Commissioner McCreary, seconded by Commissioner Lowe, to approve the minutes of the May 23, 2022 Planning Commission Meeting as corrected. **The motion carried unanimously.**

Member Discussion

Chairman Grajek asked if the Township could meet to discuss the issue raised by Commissioner McBain regarding the private road maintenance agreements or the Township could put together information to distribute to the associations. Commissioner Chouinard agrees. Ms. VanMarter recommended that the affected homeowner's associations contact the Township Manager as this issue would be decided by the Township Board.

Adjournment

Moved by Commissioner McBain, seconded by Commissioner Rauch, to adjourn the meeting at 8:39 pm. **The motion carried unanimously.**

Respectfully Submitted,

Patty Thomas, Recording Secretary

DRAFT