Plan Commission Meeting Agenda

August 19, 2026 - 6:00 PM
Council Chambers
3805 S. Casper Drive

Published: 08/07/2026

AGENDA

1. **PUBLIC HEARING(S)**
2. **PRIVILEGE OF THE FLOOR**
   Each speaker will be limited to three (3) minutes. The Privilege of the Floor session shall not exceed a total of thirty (30) minutes.
3. **CALL TO ORDER, PLEDGE OF ALLEGIANCE**
4. **ROLL CALL; DECLARATION OF QUORUM; PUBLIC NOTICE**
5. **APPROVAL OF MINUTES**
   - **A.** July 15, 2026, Plan Commission Meeting Minutes
6. **PLAN COMMISSION SECRETARY'S REPORT**
7. **CONTINUED BUSINESS**
8. **NEW BUSINESS**
   - **A.** (4) KH UA-2601030 Patrick Theodossiou with SunCap Property Group on behalf of Rockwell Automation, Inc. - 14811 W. Grange Avenue - Use, Site and Architecture approval for Rockwell Automation to construct a building.
   - **B.** (4) KH UA-2601134 Chris Strzok on behalf of Little Muskego Lake District - 5805 S. Martin Road - Use Approval to allow composting piles
9. **PENDING**
10. **COMMUNICATIONS**
    - **A.** 2026 Plan Commission Meeting Dates
11. **ADJOURN**

Additional Information

- The agenda packet, including supplemental information related to agenda items, is available online at www.NewBerlinWI.gov. Once finalized by the governing body, approved meeting minutes will also be posted online.
- Agenda items may be taken out of order at the governing body's discretion.
- Members, and possibly a quorum, of other municipal governmental bodies may attend this meeting to gather information. However, no action will be taken by any governmental body other than the one referenced in this notice.
- Accommodations will be provided under the Americans with Disabilities Act (ADA) to meet the needs of individuals with disabilities. If you require assistance or appropriate aids and services, please contact the Office of the City Clerk at (262) 786-8610 with reasonable notice.

Plan Commission
MEETING MINUTES

July 15, 2026 - 6:00 PM
Council Chambers
3805 S. Casper Drive

MINUTES

1. PUBLIC HEARING(S)

A. (4) NJ CU-2601016 Nick Petit with Tierwiler Construction & Supply Co. on behalf of WisDot - 6600-6666 S. Crowbar Road (Tax Key #'s: 2182-999-011 & 2182-999-013) (Johnson Sand & Gravel) - Conditional Use for a Temporary Mobile Concrete Batch Plant (PUBLIC HEARING 6:00 PM)

Mayor Ament opened the Public Hearing at 6:01 p.m. and reviewed the rules and procedures for the Public Hearing.
Kristen Hogan introduced the item, read the legal notice, and provided a brief presentation.
Mayor Ament invited questions for clarification from members of the public. Questions were asked and answered.
Mayor Ament invited comments in support of the item. No comments in support were received.
Mayor Ament invited comments in opposition to the item. Residents spoke in opposition.
Mayor Ament invited questions for clarification from members of the Plan Commission. Questions were asked and answered.
Mayor Ament closed the Public Hearing at 6:44 p.m.

2. PRIVILEGE OF THE FLOOR

Each speaker will be limited to three (3) minutes. The Privilege of the Floor session shall not exceed a total of thirty (30) minutes.

Mayor Ament reviewed the rules governing Privilege of the Floor and invited members of the public wishing to speak to come forward.
Several members of the public spoke during Privilege of the Floor. The allotted 30-minute period was utilized, and the Plan Commission agreed to extend Privilege of the Floor by an additional 15 minutes to allow additional members of the public an opportunity to speak.
The full comments made during Privilege of the Floor are available in the meeting recording.
Privilege of the Floor concluded at 6:44 p.m.

3. CALL TO ORDER, PLEDGE OF ALLEGIANCE

Mayor Ament called the meeting to order at 6:44 PM and led the Pledge of Allegiance.

4. ROLL CALL; DECLARATION OF QUORUM; PUBLIC NOTICE

City Clerk Rubina R. Medina called the roll as follows:

Present: Commissioner Schulpius, Commissioner Felda, Commissioner Anderson, Alderperson

Stribl, Mayor Ament, and Commissioner Erdmann
Excused: Commissioner Rafel
Staff Present: City Attorney Mark Blum and City Clerk Rubina R. Medina

The City Clerk confirmed that a quorum was present and that public notice of the meeting had been properly provided and posted.

5. APPROVAL OF MINUTES

A. 06/01/2026 Meeting Minutes

MOTION: Motion to Approve

VOTE: Motion by: Commissioner Schulpius
Second by: Commissioner Felda
Motion Passed 6-0

6. PLAN COMMISSION SECRETARY'S REPORT

No Report.

7. CONTINUED BUSINESS

None.

8. NEW BUSINESS

A. (4) NJ CU-2601016 Nick Petit with Tierwiler Construction & Supply Co. on behalf of WisDot - 6600-6666 S. Crowbar Road (Tax Key #'s: 2182-999-011 & 2182-999-013) (Johnson Sand & Gravel) - Conditional Use for a Temporary Mobile Concrete Batch Plant (PUBLIC HEARING 6:00 PM)

MOTION: Motion to Approve

VOTE: Motion by: Commissioner Felda
Second by: Commissioner Schulpius
Motion Passed 5-1 with Commissioner Erdmann voting nay.

B.
Discussion and possible recommendation to the Common Council to approve CP-2600596 Patrick Theodossiou with SunCap Property Group on behalf of Rockwell Automation, Inc. -14811 W. Grange Avenue (Tax Key #: 1290.999), 14655 W. Grange Avenue (Tax Key #: 1289.995) - Amend the Future Land Use Map within the City's Comprehensive Plan (Chapter 17 - Neighborhood "G" Sections 26 and 35 – South Moorland Road Corridor, Chapter 18 – Neighborhood "H" Westridge & Moorland Road, and Chapter 10 - Land Use) from Business Park/Industrial & Urban Residential to Business Park/Industrial, 2030 Comprehensive Plan Updates (PUBLIC HEARING HELD 6/1/2026)

MOTION: Motion to Approve

VOTE: Motion by: Alderperson Stribl
Second by: Commissioner Schulpius
Motion Passed 6-0

C.

Discussion and possible recommendation to the Common Council adoption of a Planned Unit Development Oridance # 2720 (Rockwell PUD) that approve RZ-2600597 Patrick Theodossiou with SunCap Property Group on behalf of Rockwell Automation, Inc. - 15393 W. Grange Avenue (Tax Key #: 1290.998), Tax Key #: 1290.998.002, Tax Key #: 1290.998.003, 15301 W. Grange Avenue (Tax Key #: 1290.998.001), 14811 W. Grange Avenue (Tax Key #: 1290.999), 14655 W. Grange Avenue (Tax Key #: 1289.995), Tax Key #: 1291.997, Tax Key #: 1291.986.001, Tax Key #: 1291.994, 15920 W College Avenue (Tax Key #: 1288.997), 5900 S Moorland Road (Tax Key #: 1288.999) - Rezone from A-1, A-2, R-4, M-1, P-1, C-1 & C-2 to A-1, M-3/PUD, P-1, C-1, & C-2 (PUBLIC HEARING HELD 6/1/2026)

MOTION: Motion to Approve

VOTE: Motion by: Alderperson Stribl
Second by: Commissioner Anderson
Motion Passed 6-0

D.

Discussion and possible recommendation to the Common Council to approve LD-2600598 Patrick Theodossiou with SunCap Property Group on behalf of Rockwell Automation, Inc. - 15393 W. Grange Avenue (Tax Key #: 1290.998), Tax Key #: 1290.998.002, Tax Key #: 1290.998.003, 15301 W. Grange Avenue (Tax Key #: 1290.998.001), 14811 W. Grange Avenue (Tax Key #: 1290.999), 14655 W. Grange Avenue (Tax Key #: 1289.995) - 1-Lot Certified Survey Map.

MOTION: Motion to Approve

VOTE: Motion by: Alderperson Stribl
Second by: Commissioner Schulpius
Motion Passed 6-0

E.

Discussion and possible recommendation to the Common Council to approve LD-2601026 Patrick Theodossiou with SunCap Property Group on behalf of Rockwell Automation, Inc. - Tax Key #: 1291.997 & Tax Key #: 1291.986.001 (Bass Farm) - 3-Lot Certified Survey Map.

MOTION: Motion to Approve

VOTE: Motion by: Alderperson Stribl
Second by: Commissioner Felda
Motion Passed 6-0

F. Discussion and possible recommendation to the Common Council to approve LD-2601027 Patrick Theodossiou with SunCap Property Group on behalf of Rockwell Automation, Inc. - Tax Key #: 1291.994 - 2-Lot Certified Survey Map.

MOTION: Motion to Approve

VOTE: Motion by: Alderperson Stribl
Second by: Commissioner Felda
Motion Passed 6-0

G. Discussion and possible recommendation to the Common Council to approve LD-2601028 Patrick Theodossiou with SunCap Property Group on behalf of Rockwell Automation, Inc. - Tax Key #'s: 1288.999 & 1288.997 - 3-Lot Certified Survey Map.

MOTION: Motion to Approve

VOTE: Motion by: Alderperson Stribl
Second by: Commissioner Schulpius
Motion Passed 6-0

H. (3) NJ UA-2601010 Ted and Hunter Larson with Greenfield Professional Building - 21477 W. Greenfield Avenue (Tax Key #: 1174.983) - Use, Site and Architecture for an office building.

MOTION: Motion to Approve

VOTE: Motion by: Commissioner Anderson
Second by: Commissioner Felda
Motion Passed 6-0

I. (7) KW UA-2601023 Matthew Lyons with Azura, LLC - 4675 S. Moorland Road (Tax Key #: 1240.987.001) - Conceptual Use, Site and Architecture for Azura for a Memory Care and Assisted Living development.

Matthew Lyons, representing Azura, LLC, presented the conceptual use, site plan, and architectural design for a proposed memory care and assisted living development. The full presentation and discussion are available in the meeting recording.

This item was for discussion purposes only. No action was taken.

J. (3) NJ UA-2600893 John Spitz with Western Contractors Inc. - 2345 S. 179th Street (Tax Key #: 1185.990.001) - Use & Site approval for a grading and storm water plan.

MOTION: Motion to Approve

VOTE: Motion by: Alderperson Stribl
Second by: Mayor Ament
Motion Passed 6-0

9. PENDING

None.

10. COMMUNICATIONS

No Communications.

11. ADJOURN

MOTION: Motion to Adjourn at 7:44 PM.

VOTE: Motion by: Commissioner Felda
Second by: Alderperson Stribl
Motion Passed 6-0

Respectfully Submitted,
Rubina R. Medina, City Clerk

STAFF REPORT
EXECUTIVE SUMMARY

APPLICANT/PROJECT:	**Patrick Theodossiou with SunCap Property Group, on behalf of Rockwell Automation, Inc./ Rockwell Automation, Inc.**
LOCATION:	**15393 W. Grange Avenue (Tax Key #: 1290.998)** **Tax Key #: 1290.998.002** **Tax Key #: 1290.998.003** **15301 W. Grange Avenue (Tax Key #: 1290.998.001)** **14811 W. Grange Avenue (Tax Key #: 1290.999)** **14655 W. Grange Avenue (Tax Key #: 1289.995)**
REQUEST:	**Use, Site and Architecture Approval for Rockwell Automation, Inc. to construct an 830,055 square foot building located at:** **15393 W. Grange Avenue (Tax Key #: 1290.998)** **Tax Key #: 1290.998.002** **Tax Key #: 1290.998.003** **15301 W. Grange Avenue (Tax Key #: 1290.998.001)** **14811 W. Grange Avenue (Tax Key #: 1290.999)** **14655 W. Grange Avenue (Tax Key #: 1289.995)**
D.R.C. RECOMMENDATION:	**Approval of the Use, Site and Architecture for Rockwell Automation, Inc. to construct an 830,055 square foot building located at:** **15393 W. Grange Avenue (Tax Key #: 1290.998)** **Tax Key #: 1290.998.002** **Tax Key #: 1290.998.003** **15301 W. Grange Avenue (Tax Key #: 1290.998.001)** **14811 W. Grange Avenue (Tax Key #: 1290.999)** **14655 W. Grange Avenue (Tax Key #: 1289.995)** **Subject to the application, plans on file and the following conditions:**

1. **Planning:**
    a. **Plan of operation shall be consistent with submitted plans on file. The applicant is proposing to construct an 830,055 square foot light industrial building for Rockwell Automation. This approval is only for proposed building # 1 as shown on the site plan. Any future development of the site will be subject to review and approval in a second phase of a proposed use approval. Plans shall comply with PUD Ordinance # 2720.**
        i. **Hours of Operation: 24/7**
        ii. **Number of Employees: Operated under three shifts. Not to exceed 711 employees per shift to stay within parking count**
    b. **The Architecture Review Committee approved the plans at the July 15, 2026 meeting.**
        i. **The light color for the main building shall be SW7043 Worldly Gray or SW7044 Amazing Gray.**
    c. **Employee and customer parking shall be contained on site.**
    d. **Landscape plans shall meet the requirements of §275-53 through §275-56 of the Zoning Code and shall comply with PUD Ordinance # 2720.**
        i. **Replacement of significant trees shall comply with §275-54B.**
        ii. **Approval of the Landscaping Plan and payment of all installation and maintenance sureties is required. A maintenance portion of the surety is required to ensure that the landscape installation is maintained during its critical establishment (five-year) period following installation. The amount of the maintenance portion of the surety shall be 20% of the original surety.**
        iii. **A 40-foot-wide landscape buffer is required along the east and south lot lines to provide a vegetative buffer between adjacent land uses by use of sound walls, increased landscaping and/or preservation of existing tree lines, to the maximum extent possible.**
        iv. **Applicant shall include prominent gateway signage, increased landscaping and planting beds to be planted throughout the year as part of the development to be approved by the City.**
    e. **Dumpsters shall be properly screened from the street and public view in accordance with §275-56 of the Zoning Code.**
    f. **Roof, ground and wall mounted equipment shall be properly screened from the right-of-way to the maximum extent possible in accordance with c Alternative screening methods, including but not limited to increased landscaping, larger setbacks and grouping of equipment may be permitted with the approval of the Director.**
    g. **On-road and off-road sidewalk and trail connections shall be required to connect this development to the public trail and park. All sidewalk and trail connections shall be constructed at the time of development and public trail easements shall be provided to the City, per §275-56J and PUD Ordinance # 2720. Sidewalks and trails shall be paved and maintained by applicant.**

i. **A trail is accounted for along the City's utility easement. The trail will transition to public use as parcels develop. Where the trail is along the extension of Woods Edge Road a sidepath will be incorporated. Where the trail is not along the public road right-of-way, the utility easement will be updated to reflect that the section is now public if located on Rockwell's property.**

ii. **An off-road trail is required to connect the development to the public ROW. The applicant is proposing an off-road trail internal to their development, which connects to proposed public sidewalks to the north to Grange Avenue and the south to Wood Edge Road.**

iii. **An off-road trail is required to connect the development to the City's Park to the east. Revise plans to include this paved trail over the new public watermain.**

iv. **Revise plans to include a paved trail over the new public watermain to the south.**

v. **Service road located at tax key # 1291.986.001 shall be converted to a multiuse recreational trail (off-road trail), per document # 3948483.**

vi. **Service road located at tax key # 1291.997 shall be converted to a multiuse recreational trail (off-road trail), per document # 3948483.**

h. **Access to Grange Avenue shall be restricted to employee access, with the primary access to the site being from Moorland Road. Applicant shall provide plans for appropriate signage prohibiting Grange Avenue as an access way for any other purpose.**

i. **All permanent and temporary signs require a Sign Application to be filed prior to installation and shall comply with PUD Ordinance # 2720.**

i. **Directional signage shall be part of an overall coordinated sign plan.**

j. **Applicant shall coordinate with City Staff to execute a Conservation Easement that will encompass environmentally sensitive areas. The Conservation Easement shall be recorded prior to issuance of the Zoning Permit.**

i. **The applicant shall provide Staff with the legal description of the Conservation Easement area for review.**

ii. **The applicant shall be responsible for recording the Conservation Easement document.**

k. **Additional permits may be required for the fire protection tank.**

l. **Additional permits may be required for the Pump House.**

2. **Engineering:**

a. **A Development Agreement will be required for public infrastructure. A template is available in the Development Handbook and will be drafted by the City.**

i. **Provide construction plans for the proposed public improvements, including the roadway, intersections and trails.**

ii. **Part of the Agreement will need the statistic of the public improvements including length of watermain, roadway, etc. Please provide a final list of itemized infrastructure and a unit price estimate of cost.**

iii. **On-site grading work can begin prior to issuance of zoning permits; however, the grading and stormwater plan shall be approved prior to any site disturbance. No work on public improvements shall begin until a Development Agreement is approved.**

b. **Provide engineering design details on the retaining wall.**

c. **Max slopes have been exceeded on the east side of the north parking lot. Provide a detailed stability plan or revised grading plan.**

d. **Provide details on the sound mitigation barrier wall.**

e. **Where the sanitary line is tying into the existing public sanitary line, abandon any excess pipe or easement that is not needed.**

f. **Provide details on how the access to Grange Avenue will be signed, gated or how vehicles will get turned around if they get to the gate and don't have access.**

g. **Sheet C-4.2: add a 12-in Butterfly valve in the profile at Sta. 110+62.**

h. **General Note: Label hydrants in the profile view.**

i. **Sheet C4.4: Show or label areas where insulation is needed between the storm and watermain. Including, but not limited to, Sta. 211+27 and 213+44.**

j. **Verify the size of the storm pipe at Sta. 213+44 in the profile view.**

k. **Sheet C-4.10: Profile view, label grade breaks at 323+05 and 324+87.**

l. **Sheet C-4.11: It appears all the vertical bends have an angle/degree of bend. Note that the vertical bend at 408+00 does not.**

m. **Lighting shall comply with PUD Ordinance # 2720.**

3. **Inspection:**

a. **Inspection CU - STATE REVIEW**

b. **Building plans shall be signed and stamped by a licensed architect or professional engineer per the Wisconsin Enrolled Commercial Building Code (SPS.361.31).**

c. **Building plans shall be approved by the State of Wisconsin Department of Commerce Safety and Buildings Division (SPS.361.60). State letter required with permit application**

d. **Apply and obtain appropriate building, HVAC, electric, plumbing and fire permits from the City of New Berlin Building Inspection Division.**

e. **Zoning approval will be required BEFORE applying for the building permit. Separate application and plans are required.**

f. **Plumbing: State review is required for over 16 fixtures - new and/or replacements**

g. **The building shall be fully accessible from the parking lot to the interior elements SPS.363.1101 and ICC/ANSI A117.1)**

4. **Stormwater:**

a. **Plans for the waterway crossings are required.**

b. **Floodplain analysis for the water way crossings are required. Depending on the results of the floodplain analysis FEMA approval may be required.**

c. **Show floodplain line on plans.**

d. SWMP

i. Table on Page 4 lists 2 year proposed as 22.56, model says 11.56. Verify and Correct.

ii. Tables lists 2 year existing volume as 31.041, models says 34.042. Verify and Correct.

iii. Table lists 100 year elevation of Mid Pond as 841.29, models says 840.64. Verify and Correct.

iv. Pond Mid Cross Section shows highwater 841.29, model says 840.64. Verify and Correct.

v. Pond South Cross Section shows clay liner to 836.5, model shows 2 year elevation at 837.53. Verify and Correct.

vi. North Pond outlet structure incorrectly labels the normal water level at 855.5, model has 850.5. Verify and Correct.

vii. Missing South Pond Grading and Storm Plans.

viii. Missing South Pond Cross Section, Outlet Structure and Spillway Detail.

e. WDNR Wetland Fill and Waterway crossing permits are required.

f. WDNR NOI is required.

g. MMSD Chapter 13 approval is required.

h. SWMP Maintenance Agreement is required; City of New Berlin boilerplate agreement is available online.

i. Asbuilt plans of the Stormwater Management facilities are required per DH Section VI.D.7. If the stormwater management facilities are used for erosion control during construction, an asbuilt is required after construction of the facilities, and a recertification/asbuilt is required prior to Occupancy.

5. Sewer Utility:

a. Sanitary should flow to the east away from large retention pond. There will already be a water connection running in that path. The planned connection to the stub running south would be prone to infiltration during flooding due to its proximity to the pond. If the stormwater pond is built, that sanitary stub should be abandoned.

6. Fire:

a. Maintain fire lane access of 24 feet. If building exceeds 30 feet in height, then fire lane access increases to 26 feet.

b. Plans show 12-foot single direction access. NFPA 1 Chapter 18 states 20-foot minimum access for apparatus without AHJ approval. Our widest track width is 8 foot 3 inches leaving approximately 20 inches on either side from curb to curb. Can this increase to 16-foot single access?

c. Manual fire alarm system (NFPA72)

d. Knox boxes x2 (minimum)

e. **Fully sprinklered to NFPA 13**
    i. **Standpipes may be required**
    ii. **Fire pump may be required**
    iii. **Monitored for fire flow**
    iv. **FDC located on the street side of the building, fully visible/accessible and within 150 feet of municipal hydrant. With 5-inch Storz and 30-degree elbow**
    v. **Fire hydrants maximum spacing is 400 feet**
f. **All fire protection systems require separate permits and plan review.**

DETAILS IN ATTACHED STAFF REPORT

CITY OF NEW BERLIN
DEPARTMENT OF COMMUNITY DEVELOPMENT
PLAN COMMISSION STAFF REPORT

Meeting of August 19, 2026

Patrick Theodossiou with SunCap Property Group, on behalf of Rockwell Automation, Inc / Rockwell Automation, Inc.
Address: See list in Executive Summary

DATE STAFF REPORT PREPARED: August 3, 2026

APPLICANT / OWNER(S): Patrick Theodossiou with SunCap Property Group, on behalf of Rockwell Automation, Inc / Owners:

- 15393 W. Grange Avenue (Tax Key #: 1290.998) [E. James Rausch, Marie A. Rausch A. May – 2 Acres]
- Tax Key #: 1290.998.002 [E. James Rausch – 10.11 Acres]
- Tax Key #: 1290.998.003 [E. James Rausch, Marie A. Rausch, Marie Rausch A. May – 7.92 Acres]
- 15301 W. Grange Avenue (Tax Key #: 1290.998.001) [E. James Rausch – 20.34 Acres]
- 14811 W. Grange Avenue (Tax Key #: 1290.999) [Loomis Farm, LLC – 80.22 Acres]
- 14655 W. Grange Avenue (Tax Key #: 1289.995) [Maureen E. Bosch Revocable Trust - 39.83 Acres]

REQUEST/DESCRIPTION OF PROJECT: Use, Site and Architecture Approval for Rockwell Automation, Inc. to construct an 830,055 square foot building located at:

- 15393 W. Grange Avenue (Tax Key #: 1290.998)
- Tax Key #: 1290.998.002
- Tax Key #: 1290.998.003
- 15301 W. Grange Avenue (Tax Key #: 1290.998.001)
- 14811 W. Grange Avenue (Tax Key #: 1290.999)
- 14655 W. Grange Avenue (Tax Key #: 1289.995)

DATE OF APPLICATION: 5/29/26

DATE OF COMPLETENESS DETERMINATION: 6/1/26
Application Check List Enclosed: No

PRE-APPLICATION CONFERENCE HELD: Yes
(Date(s) of Meeting(s): Several meetings
Site Visit(s): 4/30/2026

CONCEPTUAL PLAN: Yes

SIZE OF DEVELOPMENT / PARCEL(S):
830,055 sq. ft. building (including 787,320 sq. ft of manufacturing and 42,320 sq. ft. of office)
158.73 Acres (after 1-Lot CSM is recorded, see file # LD-2600598)

CURRENT ZONING: M-3/PUD & C-1

CURRENT LAND USE: Agriculture

PROPOSED ZONING: N/A

PROPOSED LAND USE: The proposed facility will be operated by Rockwell Automation, Inc.

PROPOSED LOT SIZE: 158.73 Acres (after 1-Lot CSM is recorded, see file # LD-2600598)

PROPOSED DENSITY: N/A

ADJACENT ZONING AND LAND USE:

North:	Zoning: R-3/R-4/O-2/C-1/C-2	Land Use: Costco/Single-Family Residential
South:	Zoning: A-1/R-3/C-1/C-2	Land Use: Agricultural/Single-Family Residential
East:	Zoning: A-1/R-6/P-2	Land Use: Agricultural/Soccer Field/Theofila Estates Subdivision/Thomson Hollow Subdivision
West:	Zoning: A-1/M-1/P-1/C-1/C-2	Land Use: Golf Range/Westridge Business Park/East Moorland Road Business Park

CONFORMANCE WITH COMPREHENSIVE PLAN AND MUNICIPAL CODE: Yes, this submittal meets the intent of this Chapter. The Future Land Use Map amendment from "Urban Residential" to "Business Park / Industrial" for the northern portion of this development (See application # CP-2600598) was approved by the Common Council on July 28, 2026. More information on the Comprehensive Plan Amendment can be found in that staff report.

Chapter 17: Neighborhood G: Sections 26 & 35 South Moorland Road Corridor (Note: there is crossover to Chapter 18: Neighborhood H: Westridge & Moorland Road):

Planning Context / Vision / Development Policies:

Vision:

- *Neighborhood G is considered to be a sizeable land area in New Berlin that can accommodate the amount of development desired to offset the City's tax base and accommodate new businesses and residents. Planning for a specific scale of development in Neighborhood "G" may relieve development pressure City-wide, as the western half of New Berlin remains the area in which residents and businesses wish to maintain higher open space percentages.*
- *In order to guide the City on policy decisions and better understand the impact on the School District, traffic patterns, storm water and environmental features conceptual plans were prepared for Section 35.*
- *Even though Neighborhood G is unique, it cannot be independently planned separately from Neighborhood H. The two neighborhoods are integrated and will share land uses, new roadway and trail connections and should be considered as one cohesive area.*
- *The vision for the Section 35 includes the following elements that have been incorporated into the development of the plan:*
    - *A business community that focuses on sustainable site and building design.*
    - *Emphasis on preservation of significant environmental features such as: wetlands, woodlands, tree rows, floodplain and environmental corridors.*
    - *Focus on green infrastructure and creative storm water management elements.*
    - *A system of meaningful pedestrian connections to create a walkable and connected community.*

- *Focus on sound planning and architecture practices.*
- *Layout that includes a mix of retail, commercial, office and light manufacturing within the Business Park/Industrial area.*
- *Allow for flexible site design for both residential and non-residential development by creating Zoning Code standards that promote creativity and sustainability.*
- *Require significant buffers between contrasting uses and main thoroughfares.*
- *Provide a regional park complex.*

- *Westridge/Towne Corporate Business Park should be expanded as a major economic center for the City. The Business Park should continue to set an example of high standards in architecture, site planning, and sustainable practices. Primary uses should promote light manufacturing and office complexes. Hotels, clinics, entertainment (i.e. restaurants, shopping center, and cinemas), and retail should serve as supporting uses.*

Development Policies:

- *Allow additional business office uses east of Moorland Road to respond to the growing interest in New Berlin. Additionally, allowing more office uses should help to offset tax increases and reduce development impacts on the school district. Business park/industrial, office, commercial and/or retail uses should be separated from residential areas with open space, vegetative buffers, new landscaping, and existing environmental features including wetlands, woodlands, existing tree rows, floodplain and environmental corridors.*
- *Now that the interceptor has been installed to service this area with sewer and water, continue to pursue the extension of local sewer and water mains to accommodate new development in the Section 35 area.*
- *Encourage the continuation of agricultural uses as long as the property owners so desire. As agricultural lands transition to residential developments, the subdivision design could incorporate farming and agriculture uses as viable open space options.*
- *As development occurs, require off-road paths and trail connections, where appropriate to connect to the City's Utility easement / public trail and on-road bike paths for both residential and non-residential development to create an interconnected trail system for much of the Section 34/35 area. All path and trail connections shall be constructed at the time of development and public trail easements shall be provided to the City.*
- *Include on-road bike paths for new streets and on existing streets where possible for non-residential development and major thoroughfares, and again, in order to create an interconnected trail system for much of the Section 34/35 area. Work to create linkages to the off-road paths and trail system through private development and/or public projects. All path and trail connections shall be constructed at the time of development and public trail easements shall be provided to the City.*
- *Require coordinated, pre-planned concepts/development proposals to ensure a cohesive and coordinated development pattern. Developments must take into consideration how adjacent parcels would be developed.*
- *Although the City may wish to invest and construct roadway, public utility, storm water infrastructure improvements, the City should approve an overall official roadway map for the Section 34/35 area and require dedication of appropriate right-of-way areas, consistent with this map, at the time of land platting where private development is taking place. The development shall also construct the roadway, public utility, and storm water infrastructure*

to City specifications where the City deems it necessary in order to service that development and / or overall development for the area.

- *Development proposals shall include appropriate utility easements and/or roadway reservations or dedications to ensure public infrastructure (utility or roadway) extensions/connections and a coordinated development pattern are achieved.*
- *Any future development requiring coordinated access and/or utility extensions in this area may require the applicant to submit a surety instrument to the City to cover future public improvements and cost contributions.*
- *All utility extensions shall be at the expense of the developer to service their respective developments. The City shall endeavor to collect funds from future developments that connect into the utilities where appropriate and collected funds shall be redistributed back to the developer that installed the infrastructure.*
- *Emphasize mixed-use developments with light industrial and office as the dominant land uses. Supporting hospitality related uses (i.e., hotels and table service restaurants) should complement the primary uses.*
- *Allow mixed-use development to extend south of the Westridge / Towne Business Park along Moorland Road to the City limits. In particular, pre-planned coordinated shopping centers are desired at both corners of the College Avenue and Moorland Road intersection.*
- *In conjunction with Waukesha County, the City should establish a traffic management plan for the area around the Moorland Road and College Avenue intersection so that as new development occurs, traffic can be efficiently managed.*
- *Require traffic impact studies to be submitted for new construction as indicated in the City Zoning Code requirements. The City should ensure that impact studies include consideration of the surrounding area at full build-out.*
- *Maintain a transportation system that minimizes cut-through and business-related traffic in adjacent residential areas.*
- *Ensure that lighting follows Zoning Code requirements so that any impact is minimized on surrounding properties.*
- *Request that Waukesha County accelerate the widening of Moorland Road to four lanes.*
- *The City should give consideration to the use TID, BID, or other economic development tools to fund necessary public improvements.*

Land Use: Business Park / Industrial

ZONING CODE (CHAPTER 275): Yes, this request meets the requirements of Chapters 275-35B(6), 275-32B(1), 275-36(2), 275-37B (3) & (4), and 275-37E(3) of the Zoning Code, as well as PUD Ordinance # 2720.

DEVELOPMENT CODE (CHAPTER 235): Yes

PUBLIC HEARING REQUIRED: No

CONDITIONAL USE REQUIRED: No

USE / SITE /ARCHITECTURAL REVIEW:
Use Approval Required: Yes
Site Plan Required: Yes
Architectural Review Required: Yes

PROPOSED ARCHITECTURE: The applicant is proposing a 830,055 square foot building. A mixture of precast panels and prefinished metal panels are being proposed. Plans were approved by the Architectural Review Committee on July 15, 2026.

UNIQUE SITE CHARACTERISTICS:
Environmental Corridor: Yes, Environmental Corridor.
Wetland On Property: Yes, a wetland delineation report dated January 7, 2026 has been prepared by Dave Meyer with Wetland & Waterway Consulting, LLC.
Conservancy Districts (C-1, C-2): Yes, C-1 and C-2.
NRCS Map Classification: N/A
Floodplain: Yes
Topography / Geologic: The entire site slopes towards the valley in the middle. There are steep slopes near Grange Avenue.

BIKE & PEDESTRIAN FACILITIES PLAN: Applicant will dedicate the right-of-way as part of CSMs. The City will work with the applicant as to the placement of these on-road and off-road facilities for bicycles and pedestrians, which includes a multiuse trail within the proposed right-of-way off Moorland Road.

PARK & OPEN SPACE PLAN: Paved trails shall be required to connect this lot to the public trail and City park. The City will work with the applicant as to the placement of these on-road and off-road facilities for bicycles and pedestrians, which includes a multiuse trail within the proposed right-of-way off Moorland Road.

NATURAL RESOURCES PROTECTION:
Limits of Disturbance (LOD): Yes, shown on plans.
Wildlife Habitat Protection: Yes
Wildlife Management Plan: Yes

ENVIRONMENTAL IMPACT: A tree inventory has been prepared.

STORM WATER MANAGEMENT / DRAINAGE PLAN: Applicant is required to adhere to all City of New Berlin Codes, Ordinances and Plans regarding storm water conveyance and maintenance as identified by the Department of Community Development. A full report has been submitted.

SANITARY SEWER PROVISION:
Within Current Sewer Service Area: Yes
Basin Capacity Available: Yes
Adequate Linkage: Yes
Onsite System Required: No

WATER USAGE CALC.: Will be determined at the time of building permit.

TRAFFIC IMPACT: The applicant submitted a Traffic Impact Analysis dated January 28, 2026**.** To address any potential future traffic impacts at the study are intersections, it is necessary to identify the hourly volume of traffic generated by anticipated development. The development is expected to be built out over two phases with the phased built out expected to include the following (Note: the building size information below is what was listed in the TIA):

Phase I (South Building - Year 2026)

- Manufacturing – 725,000 SF
- Warehousing – 400,000 SF

Phase II (North Building - Year 2036)

- Light Industrial - 425,000 SF

The analysis predicts that the first phase is expected to generate about 3,610 new trips (operating over three shift periods) on a typical weekday under the initial build. With 520 new trips (395 in/125 out) during the weekday AM peak hour and 690 new trips (210 in/480 out) during the weekday PM peak hour. Under full build out conditions, the light industrial user is expected to generate a total of about 5,260 new trips (operating over three shift periods) on a typical weekday. With 815 new trips (655 in/160 out) during the weekday AM peak hour and 805 new trips (225 in/580 out) during the weekday PM peak hour.

In 2029 and as shown in Exhibit 1-4, Waukesha County plans to reconstruct Moorland Road between Grange Avenue and College Avenue to a four-lane median separated cross section with intersection modifications (longer turn lanes) regardless of this development. Additional modifications, above and beyond the Waukesha County planned modifications, were provided for the Initial Build (Exhibit 1-3) and Full Build (Exhibit 1-4) traffic conditions as follows:

- "Initial Build Traffic" – These modifications are expected to be necessary to accommodate the Year 2026 Initial Build traffic volumes which includes phase I initial build out of the proposed manufacturing/light industrial development.

- "Background Traffic" – These modifications are expected to be necessary to accommodate the Year 2036 Background traffic without the proposed development, which includes the modifications required from general background growth in the study area through the year 2036. The background traffic recommended modifications are in addition to conditions as they currently exist and do not include any on-site or off-site development.
- "Full Build Traffic" – These modifications are expected to be necessary to accommodate the Year 2036 Full Build traffic volumes which includes full build out of the proposed manufacturing/light industrial development as well as the general background traffic growth in the study area through the year 2036. Full Build traffic modifications are in addition to background traffic recommended modifications.

For future planning purposes, additional development within the Section 34/35 area was also considered as part of the study. These off-site developments included a mix of commercial, retail, office, light industrial and residential land uses. Additional modifications, above and beyond the planned Waukesha County modifications as well as the proposed development modifications were provided in the TIA.

Exhibits from TADI are attached.

SCHOOL DISTRICT IMPACT: N/A

PREVIOUS ACTION: SOUTH MOORLAND ROAD (SECTION 35) COMPREHENSIVE PLAN AMENDMENTS: Approximately two years of public comment and 29 meetings were held with those interested in the Comprehensive Plan Amendments for Chapter 10, 17, and 18 to plan for the Section 35 / South Moorland Road Corridor area.

- **12/1/2014** Staff presented a memo to the Plan Commission dated November 10, 2014 summarizing the Section 35 Master Planning Update.
- **3/28/2015** Staff began holding the South Moorland Road Corridor – Neighborhood Plan – "Staff Open Office Hours." Office hours continued through June. Upwards of 12,000 postcards were sent out to residents in the City of New Berlin notifying them of the office hours held in June.
- **4/08/2015** Staff notified the Plan Commission of the South Moorland Road Corridor – Neighborhood Plan – "Staff Open Office Hours".
- **5/5/2015** Plan Commission requested the Common Council set a Public Hearing date for June 29, 2015 (Note: item tabled at the May 12, 2015 Common Council meeting in order to provide more time for discussions with the property owners).
- **7/28/2015** Common Council set a date for a Public Hearing for the amendments.
- **8/24/2015** Special Plan Commission Meeting - Commission presentation & discussion on recommendations and action.
- **9/9/2015** Public Hearing
- **10/5/2015** Plan Commission action & recommendation to Council
- **10/13/2015** Common Council action to approve.

PREVIOUS ACTION: SOUTH MOORLAND ROAD CORRIDOR (SECTION 35) ZONING CODE AMENDMENTS: The Plan Commission adopted amendments to the Zoning Code reflecting the Comprehensive Plan amendments above, which established a new Zoning District for this area of the City, which was the M-3, Section 35 Business Park Development District.

- **12/17/2015** Plan Commission held a public hearing.
- **1/6/2016** Plan Commission approved the amendments.
- **1/12/2016** Common Council approved the amendment.

PREVIOUS ACTION FOR ROCKWELL PROJECT:

- **4/14/2026** Common Council set the date for a joint public hearing on June 1, 2026, for a Rezoning and Comprehensive Plan amendment for Rockwell. Common Councial also authorized an agreement to hire Ehlers & Associates to prepare a TID Project Plan for Tax Incremental District # 6. Further information will follow.
- **5/13/2026** Neighborhood meeting for Rockwell.
- **6/1/2026** Public Hearing for a Comprehensive Plan Amendment and Rezoning/PUD.
- **7/15/2026** Plan Commission approval of the Comprehensive Plan Amendment, Rezoning/PUD, and (4) Land Division requests.
- **7/28/2026** Common Council approval of the Comprehensive Plan Amendment, Rezoning/PUD, and (4) Land Division requests.

CONSISTENCY WITH PREVIOUS ACTION: Yes

FINDINGS:

1. The proposed facility will be operated by Rockwell Automation, Inc. PUD Ordinance # 2720 is in place for this development.
    a. 830,055 sq. ft. building, including 787,320 sq. ft of manufacturing and 42,320 sq. ft. of office.
    b. Parking: 711 passenger car parking spaces, 62 trailer parking spaces, 27 dock stalls
2. A Conservation Easement will be required to further protect the environmental corridor.
3. Lighting levels may be lower under PUD Ordinance # 2720.
4. The proposed private driveway exiting to Grange Avenue will be built to public standards.
5. Proposed roadway reconstruction projects in the Section 35 Area are dependent on the timing of Capital Improvement Program (CIP) funding. Sunny Slope Road and Grange Avenue are included in the City's 5-year CIP list. Please see the attached staff summary.
6. Waukesha County will be the approving authority on the roadway improvements and access permitting along CTH O (Moorland Road).
7. A TIA dated January 28, 2026 has been submitted. Locations of recommended improvements for the initial build-out include:
    a. Intersection of Moorland Road and Woods Edge Road
    b. Intersection of Grange Avenue and proposed driveway to the development site
    c. Intersection of Moorland Road and College Avenue
    d. Intersection of Moorland Road and Grange Avenue
8. A Development Agreement will be required for the proposed improvements. See the Development Handbook for public infrastructure requirements.
    a. A public road is being proposed from Moorland Road, aligning with Woods Edge Road to the west.
    b. On-road and off-road facilities for bicycles and pedestrians are required, which includes a multiuse trail within the proposed right-of-way off Moorland Road.

D.R.C. RECOMMENDATION: Approval of the Use, Site and Architecture for Rockwell Automation, Inc. to construct an 830,055 square foot building located at:

15393 W. Grange Avenue (Tax Key #: 1290.998)

Tax Key #: 1290.998.002

Tax Key #: 1290.998.003

15301 W. Grange Avenue (Tax Key #: 1290.998.001)

14811 W. Grange Avenue (Tax Key #: 1290.999)

14655 W. Grange Avenue (Tax Key #: 1289.995)

Subject to the application, plans on file and the following conditions: **SEE EXECUTIVE SUMMARY.**

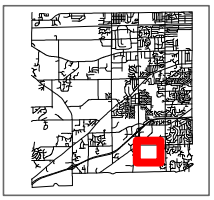
Attachments:
Location Map
Plan of Operation Letter
Summary of Changes
Development Plans

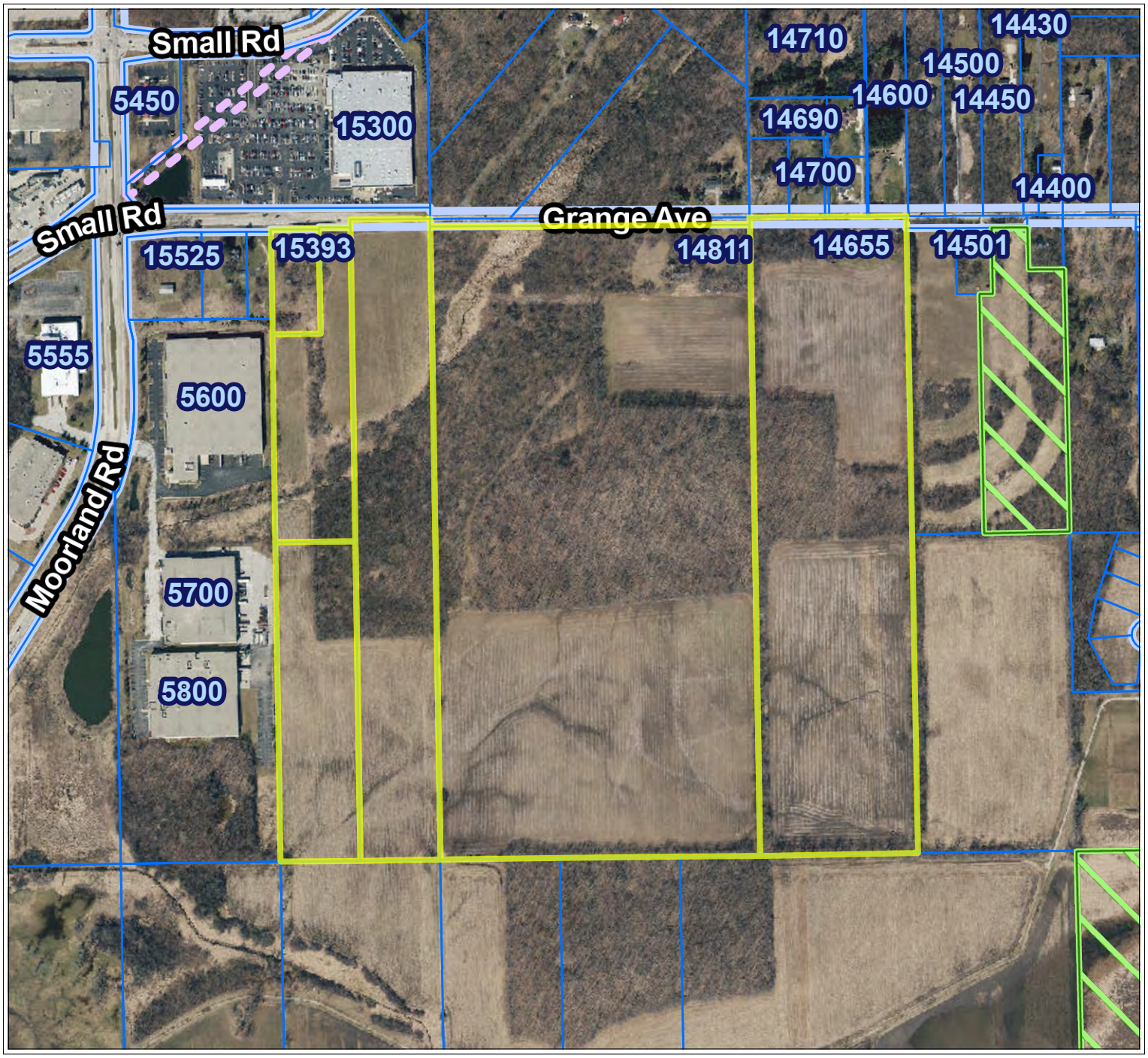
The following are on file in the Department of Community Development office:
TIA

City of New Berlin
Community Development

UA-2601030

Rockwell Automation





Parcels
Road Right-of-Way
Conservation Easement
Environmental Corridor

Floodplain FEMA DFIRM
FEMA DFIRM - Zone A
FEMA DFIRM - Zone AE
FEMA DFIRM - 0.2% Chance

Wetland

Zoning Wetland Registration
Registered Wetland
Outside Wetland

Zoning Overlay
PUD
Special Conditions Apply
SPO

Zoning Boundaries

N

0 290 580
ft

Scale is estimate - not survey

City of New Berlin
Department of Community Development
3805 S Casper Dr.
New Berlin WI 53151
(262) 797-2445
www.newberlin.org

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Map Printed: 8/7/2026 2:57 PM

City of New Berlin
Department of Community Development
3805 S. Casper Drive
New Berlin, WI 53151

Re: Department of Community Development
Plan of Operation Report
Proposed Planned Unit Development (PUD) Rezoning

April 6, 2026

Dear Review Staff:

On behalf of the applicant, **SunCap Property Group**, we respectfully submit this Plan of Operation Report in support of a rezoning request from **A-1 Agricultural District** to **Planned Unit Development (PUD)** for a proposed advanced manufacturing development within the City of New Berlin.

The proposed facility will be operated by **Rockwell Automation, Inc.**, a global leader in industrial automation and digital transformation. This Plan of Operation Report is intended to provide a concise, operations-focused overview appropriate for the rezoning stage of review. Additional detail will be provided through companion submittals, including site plans, architectural renderings, engineering documentation, and proposed PUD zoning language.

Proposed Use

The proposed Planned Unit Development will accommodate an advanced manufacturing campus, which may include:

- Manufacturing and assembly operations
- Warehousing and distribution functions
- Office, administrative, and operational support uses

Operations will be conducted in a manner consistent with contemporary advanced manufacturing facilities and applicable zoning standards.

General Operations

General site operations are anticipated to include:

- Employee and visitor parking
- Truck circulation and loading/unloading at designated dock areas
- Refuse and recycling services located within screened or enclosed service areas

No permanent outdoor storage is proposed unless otherwise approved by the City.

All operations will comply with applicable City of New Berlin ordinances and State and Federal regulations.

Employment and Economic Activity

Hundreds of new jobs will be created and capital investment in the building is expected to be between $211 million and $246 million.

Existing Conditions and Site Cleanup

The project includes demolition of existing structures on the property, including residences identified in the environmental assessment as having mold infestation and potential structural concerns, along with other buildings that are not in consistent ongoing use. All clean up efforts will be done in compliance with environmental regulations utilizing proper disposal locations as required.

Traffic and Circulation

Site access and circulation will be designed to efficiently accommodate employee, visitor, and truck traffic while minimizing impacts to surrounding roadways.

- Primary truck routes will utilize major arterial roads and regional transportation corridors. Access to and from the site will be focused to the Moorland Rd entrance with minimal access via Grange Ave.
- A traffic impact analysis is currently in progress and is expected to be submitted by April 7, 2026
- Review and approval will be required by applicable municipal and county reviewing authorities, as appropriate

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Refuse and Recycling

Refuse and recycling is expected to be non-toxic and contained within a limited area that is screened and/or fenced from public visibility as much as possible

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Utilities and Infrastructure

The proposed development will be served by public utilities and infrastructure extensions as required. Improvements may include roadway, power, water, and sanitary sewer extensions. Based on the anticipated usage requirements of the facility, existing water and sewer systems are expected to be sufficient to serve the development without material strain on those systems. The scope, timing, and responsibility for these improvements will be coordinated with the City and applicable reviewing authorities. The proposed facility is not a data center and its power demand is expected to be significantly lower than energy-intensive commercial uses like a typical data center.

Conclusion

This Plan of Operation Report is submitted to demonstrate that the proposed development can operate in a compatible and responsible manner consistent with the intent of the Planned Unit Development zoning district. Additional detail will be provided through companion submittals and subsequent review stages as the project advances.

We appreciate the City's time and consideration and look forward to continued coordination throughout the rezoning review process.

Respectfully submitted,

SunCap Property Group
Patrick Theodossiou
Development Director
252-229-2501
ptheodossiou@suncappg.com

This Plan of Operation Report is intentionally concise and may be refined as additional information becomes available.

MEMORANDUM
To: City of New Berlin Plan Commission and Common Council
From: Rockwell Automation Project Team
Date: August 5, 2026
Re: Project Refinements in Response to Public Input

Throughout the public review process, Rockwell Automation has welcomed input from nearby residents, City staff, the Plan Commission, and the Common Council. We proactively engaged more than 700 homes and spoke directly with over 300 residents.
Public feedback has played an important role in shaping and refining the proposed development.

At each stage, Rockwell has sought to understand community perspectives and identify opportunities to ensure the project is a positive, long-term, addition to New Berlin.

The following summarizes the key refinements and commitments that have been incorporated into the project in response to public input received throughout the review process. Resident feedback informed meaningful changes to the project design and operational commitments.

Building Height

One concern expressed during the public review process related to the proposed building height. In response to the feedback, Rockwell eliminated the requested Planned Unit Development provision that would have allowed buildings up to 60 feet in height. The project will instead comply with the underlying M-3 zoning district maximum building height of 45 feet.

Visual Buffering and Tree Preservation

Rockwell completed extensive visual impact analyses and refined the grading, utility, and landscape plans to preserve additional existing vegetation and maintain the visual buffer between the project and adjacent residential neighborhoods. These refinements include:

- Relocating portions of the proposed water and sanitary sewer infrastructure away from the southern property boundary to minimize impacts to existing vegetation.
- Revising grading approaches and steepening selected cut and fill slopes, where appropriate, to preserve additional mature trees while ensuring long-term slope stability and maintainability.
- Modifying the Phase 1 grading approach to avoid mass grading future development areas, allowing existing vegetation to remain during this phase of the project.
- Developing a comprehensive landscape and tree preservation plan that supplements preserved vegetation with additional plantings in specific areas to further reduce visibility from neighboring properties.

Rockwell also completed rooftop equipment visibility studies, which found that rooftop mechanical equipment is not expected to be visible from surrounding residential areas. Visibility will continue to be evaluated as the design is finalized.

Lighting

In response to public input, Rockwell refined the site's lighting design to reduce impacts on surrounding properties beyond what is required by City code. These refinements include:

- Proposing lighting levels below the City's minimum illumination standards where appropriate.

- Selecting lighting fixtures with focused light distribution to reduce off-site light spill.
- Utilizing additional fixtures with lower mounting heights to provide appropriate on-site illumination while minimizing impacts to neighboring properties.

Sound

Rockwell retained an independent acoustical consultant to evaluate potential operational sound levels associated with the proposed facility. The study concluded that projected sound levels comply with applicable standards and that additional mitigation measures would not be required.

In response to public input, however, Rockwell adjusted the project plans and voluntarily incorporated a sound wall along the eastern portion of the truck court to provide an additional layer of buffering between the site's operational areas and neighboring properties. Preserved vegetation and additional landscaping further strengthen this buffering.

Traffic and Site Access

Rockwell completed a comprehensive Traffic Impact Analysis and has continued working with City staff to identify roadway improvements that support both the project and the surrounding transportation network.

Project refinements include:

- Designing the site to direct primary traffic toward Moorland Road rather than Grange Avenue as much as possible.
- Consolidating site access at the existing Costco driveway rather than introducing additional access points along Grange Avenue.
- Working with the City of New Berlin to improve the safety and operational efficiency of the existing intersection. While the project is expected to generate minimal traffic to the Grange Avenue corridor, this improvement will benefit the general public and support long-term traffic operations in the area.

Ongoing Collaboration

Rockwell appreciates the engagement, thoughtful feedback, and collaboration from City staff, elected officials, and residents of New Berlin throughout this process. As the project advances through the Development Use Approval process and final engineering review, Rockwell remains committed to maintaining open, transparent, and constructive dialogue with the community.

ONSITE CIVIL ENGINEERING INFRASTRUCTURE PLANS
FOR
PROJECT GRAVITY
NEW BERLIN, WI
PLANS PREPARED FOR
SUNCAP PROPERTY GROUP
6101 CARNEGIE BOULEVARD SUITE 180
CHARLOTTE, NC 28209

LEGEND

	EXISTING	PROPOSED
SANITARY MANHOLE		
STORM MANHOLE		
CATCH BASIN		
INLET		
PRECAST FLARED END SECTION		
CONCRETE HEADWALL		
VALVE VAULT		
VALVE BOX		
FIRE HYDRANT		
BUFFALO BOX		
CLEANOUT		
SANITARY SEWER		
FORCE MAIN		
STORM SEWER		
WATER MAIN		
UTILITY CROSSING		
GRANULAR TRENCH BACKFILL		
LIGHTING		
ELECTRICAL CABLE	E	E
ELECTRICAL TRANSFORMER OR PEDESTAL	E	
POWER POLE		
POWER POLE WITH LIGHT		
GUY WIRE		
STREET SIGN		
GAS MAIN	G	G
TELEPHONE LINE	T	T
CONTOUR	749	749
SPOT ELEVATION	×(750.00)	×750.00
WETLANDS		
FLOODWAY		
FLOODPLAIN		
HIGH WATER LEVEL (HWL)		
NORMAL WATER LEVEL (NWL)		
DIRECTION OF SURFACE FLOW		
DITCH OR SWALE		
DIVERSION SWALE		
OVERFLOW RELIEF ROUTING		
TREE WITH TRUNK SIZE	6" 6"	
SOIL BORING	B-1	B-1
TOPSOIL PROBE	TP-1	TP-1
FENCE LINE, TEMPORARY SILT	SF	SF
FENCE LINE, WIRE		
FENCE LINE, CHAIN LINK OR IRON		
FENCE LINE, WOOD OR PLASTIC		
CONCRETE SIDEWALK		
CURB AND GUTTER		
DEPRESSED CURB		
REVERSE PITCH CURB & GUTTER		
EASEMENT LINE		
PROPERTY LINE		

ABBREVIATIONS

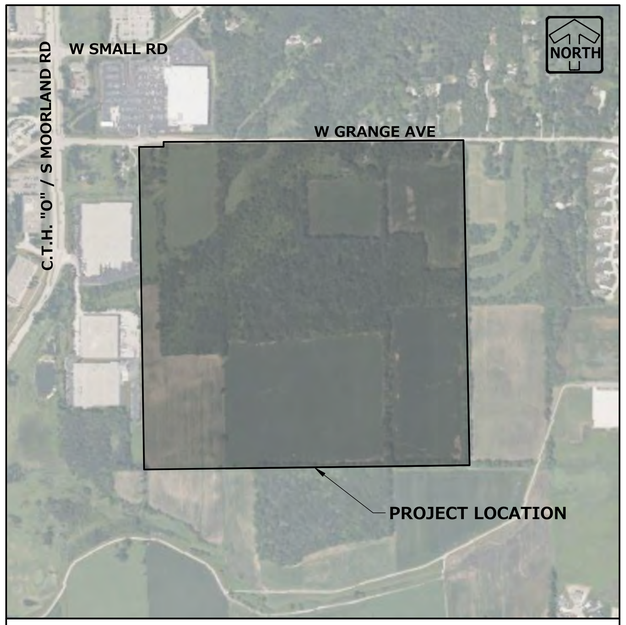
BL	BASE LINE	NSI	NATIVE SOIL INTERFACE
C	LONG CHORD OF CURVE	NWL	NORMAL WATER LEVEL
C & G	CURB AND GUTTER	PC	POINT OF CURVATURE
CB	CATCH BASIN	PT	POINT OF TANGENCY
CL	CENTERLINE	PVI	POINT OF VERTICAL INTERSECTION
D	DEGREE OF CURVE	R	RADIUS
EP	EDGE OF PAVEMENT	ROW	RIGHT-OF-WAY
FF	FINISHED FLOOR	SAN	SANITARY SEWER
FG	FINISHED GRADE	ST	STORM SEWER
FL	FLOW LINE	T	TANGENCY OF CURVE
FP	FLOODPLAIN	TB	TOP OF BANK
FR	FRAME	TC	TOP OF CURB
FW	FLOODWAY	TF	TOP OF FOUNDATION
HWL	HIGH WATER LEVEL	TS	TOP OF SIDEWALK
INV	INVERT	TW	TOP OF WALK
L	LENGTH OF CURVE	WM	WATER MAIN
MH	MANHOLE	Δ	INTERSECTION ANGLE

REQUIRED SUBMITTALS FOR APPROVAL

1. ASPHALT PAVEMENTS
2. CONCRETE PAVEMENTS (EXTERIOR)
3. STONE BASE COURSE
4. TRENCH BACKFILL
5. PIPE BEDDING
6. TIE BARS
7. DOWEL BARS
8. DOWEL BAR BASKETS

REQUIRED SUBMITTALS FOR RECORDS

1. WATER MAIN PIPE FITTINGS
2. SANITARY SEWER
3. STORM SEWER
4. SUBGRADE STABILIZATION (IF APPLICABLE)



LOCATION MAP
SCALE 1" = 500'

GENERAL NOTES

1. THE INTENTION OF THE PLANS AND SPECIFICATIONS IS TO SET FORTH PERFORMANCE AND CONSTRUCTION MATERIAL STANDARDS FOR THE PROPER EXECUTION OF WORK. ALL WORKS CONTAINED WITHIN THE PLANS AND SPECIFICATIONS SHALL BE COMPLETED IN ACCORDANCE WITH ALL REQUIREMENTS FROM LOCAL, STATE, FEDERAL OR OTHER GOVERNING AGENCY'S LAWS, REGULATIONS, JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., AND THE OWNER'S DIRECTION.
2. A GEOTECHNICAL REPORT FOR THIS SITE HAS BEEN PREPARED BY GILES ENGINEERING ASSOCIATES DATED APRIL 6, 2026. THE DATA ON SUB-SURFACE SOIL CONDITIONS IS NOT INTENDED AS A REPRESENTATION OR WARRANTY OF THE CONTINUITY OF SUCH CONDITIONS BETWEEN BORINGS OR INDICATED SAMPLING LOCATIONS. IT SHALL BE EXPRESSLY UNDERSTOOD THAT OWNER WILL NOT BE RESPONSIBLE FOR ANY INTERPRETATIONS OR CONCLUSIONS DRAWN THERE FROM BY THE CONTRACTOR. DATA IS MADE AVAILABLE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ANY ADDITIONAL SOILS INVESTIGATIONS THEY FEEL IS NECESSARY FOR THE PROPER EVALUATION OF THE SITE FOR PURPOSES OF PLANNING, BIDDING, OR CONSTRUCTING THE PROJECT AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR IS RESPONSIBLE TO REVIEW AND UNDERSTAND ALL COMPONENTS OF THE PLANS AND SPECIFICATIONS, INCLUDING FIELD VERIFYING SOIL CONDITIONS, PRIOR TO SUBMISSION OF A BID PROPOSAL.
4. THE CONTRACTOR SHALL PROMPTLY REPORT ANY ERRORS OR AMBIGUITIES LEARNED AS PART OF THEIR REVIEW OF PLANS, SPECIFICATIONS, REPORTS AND FIELD INVESTIGATIONS.
5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE COMPUTATION OF QUANTITIES AND WORK REQUIRED TO COMPLETE THIS PROJECT. THE CONTRACTOR'S BID SHALL BE BASED ON ITS OWN COMPUTATIONS AND IN NO SUCH INSTANCE RELY ON THE ENGINEER'S ESTIMATE.
6. QUESTIONS/CLARIFICATIONS WILL BE INTERPRETED BY ENGINEER/OWNER PRIOR TO THE AWARD OF CONTRACT. ENGINEER/OWNER WILL SUBMIT OFFICIAL RESPONSES IN WRITING. INTERPRETATIONS PRESENTED IN OFFICIAL RESPONSES SHALL BE BINDING ON ALL PARTIES ASSOCIATED WITH THE CONTRACT. IN NO WAY SHALL WORD-OF-MOUTH DIALOG CONSTITUTE AN OFFICIAL RESPONSE.
7. PRIOR TO START OF WORK, CONTRACTOR SHALL BE COMPLETELY FAMILIAR WITH ALL CONDITIONS OF THE SITE, AND SHALL ACCOUNT FOR CONDITIONS THAT AFFECT, OR MAY AFFECT CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, LIMITATIONS OF WORK ACCESS, SPACE LIMITATIONS, OVERHEAD OBSTRUCTIONS, TRAFFIC PATTERNS, LOCAL REQUIREMENTS, ADJACENT ACTIVITIES, ETC. FAILURE TO CONSIDER SITE CONDITIONS SHALL NOT BE CAUSE FOR CLAIM OF JOB EXTRAS.
8. COMMENCEMENT OF CONSTRUCTION SHALL EXPLICITLY CONFIRM THAT THE CONTRACTOR HAS REVIEWED THE PLANS AND SPECIFICATIONS IN ENTIRETY AND CERTIFIES THAT THEIR SUBMITTED BID PROPOSAL CONTAINS PROVISIONS TO COMPLETE THE PROJECT, WITH THE EXCEPTION OF UNFORESEEN FIELD CONDITIONS; ALL APPLICABLE PERMITS HAVE BEEN OBTAINED; AND CONTRACTOR UNDERSTANDS ALL OF THE REQUIREMENTS OF THE PROJECT.
9. SHOULD ANY DISCREPANCIES OR CONFLICTS IN THE PLANS OR SPECIFICATIONS BE DISCOVERED AFTER THE AWARD OF CONTRACT, ENGINEER SHALL BE NOTIFIED IN WRITING IMMEDIATELY AND CONSTRUCTION OF ITEMS AFFECTED BY THE DISCREPANCIES/CONFLICTS SHALL NOT COMMENCE, OR CONTINUE, UNTIL A WRITTEN RESPONSE FROM ENGINEER/OWNER IS DISTRIBUTED. IN THE EVENT OF A CONFLICT BETWEEN REFERENCED CODES, STANDARDS, SPECIFICATIONS AND PLANS, THE ONE ESTABLISHING THE MOST STRINGENT REQUIREMENTS SHALL BE FOLLOWED.
10. THE CONTRACTOR SHALL, AT ITS OWN EXPENSE, OBTAIN ALL NECESSARY PERMITS AND LICENSES TO COMPLETE THE PROJECT. OBTAINING PERMITS, OR DELAYS, IS NOT CAUSE FOR DELAY OF THE CONTRACT OR SCHEDULE. CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS.
11. THE CONTRACTOR SHALL NOTIFY ALL INTERESTED GOVERNING AGENCIES, UTILITY COMPANIES AFFECTED BY THIS CONSTRUCTION PROJECT, AND DIGGER'S HOTLINE IN ADVANCE OF CONSTRUCTION TO COMPLY WITH ALL JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., PERMIT STIPULATIONS, AND OTHER APPLICABLE STANDARDS.
12. SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE TO INITIATE, INSTITUTE, ENFORCE, MAINTAIN, AND SUPERVISE ALL SAFETY PRECAUTIONS AND JOB SITE SAFETY PROGRAMS IN CONNECTION WITH THE WORK.
13. CONTRACTOR SHALL KEEP THE JOBSITE CLEAN AND ORDERLY AT ALL TIMES. ALL LOCATIONS OF THE SITE SHALL BE KEPT IN A WORKING MANNER SUCH THAT DEBRIS IS REMOVED CONTINUOUSLY AND ALL RESPECTIVE CONTRACTORS OPERATE UNDER GENERAL "GOOD HOUSEKEEPING."
14. THE CONTRACTOR SHALL INDEMNIFY THE CITY, CITY ENGINEER, CITY BUILDING INSPECTOR, OWNER, ENGINEER, AND THEIR AGENTS FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.
15. PRIOR TO CONSTRUCTION, A PRECONSTRUCTION MEETING MUST BE HELD AT THE CITY OFFICES. THE PRECONSTRUCTION MEETING SHALL BE SCHEDULED AND MODERATED BY THE DESIGN ENGINEER OF RECORD.

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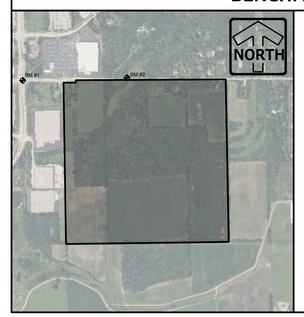
BENCHMARKS



NOTE

NORTH AMERICAN VERTICAL DATUM OF 1988(12), (NAVD88)

REFERENCE BENCHMARK (BM #1)

CONCRETE MONUMENT WITH BRASS CAP AT THE NORTHWEST CORNER OF THE NORTHWEST 1/4 SECTION 35, TOWNSHIP 6 NORTH, RANGE 20 EAST
ELEV = 882.05

SITE BENCHMARKS (BM #2)

CHISELED SQUARE IN CONCRETE HEAD
ELEV = 866.40

EXPIRATION DATE: JULY 31, 2026

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PINNACLE ENGINEERING GROUP, LLC
ENGINEER'S LIMITATION

PINNACLE ENGINEERING GROUP, LLC AND THEIR CONSULTANTS DO NOT WARRANT OR GUARANTEE THE ACCURACY AND COMPLETENESS OF THE DELIVERABLES HEREIN BEYOND A REASONABLE DILIGENCE. IF ANY MISTAKES, OMISSIONS, OR DISCREPANCIES ARE FOUND TO EXIST WITHIN THE DELIVERABLES, THE ENGINEER SHALL BE PROMPTLY NOTIFIED PRIOR TO BID SO THAT HE MAY HAVE THE OPPORTUNITY TO TAKE WHATEVER STEPS NECESSARY TO RESOLVE THEM. FAILURE TO PROMPTLY NOTIFY THE ENGINEER OF SUCH CONDITIONS SHALL ABSOLVE THE ENGINEER FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES OF SUCH FAILURE. ACTIONS TAKEN WITHOUT THE KNOWLEDGE AND CONSENT TO THE ENGINEER, OR IN CONTRADICTION TO THE ENGINEER'S DELIVERABLES OR RECOMMENDATIONS, SHALL BECOME THE RESPONSIBILITY NOT OF THE ENGINEER BUT OF THE PARTIES RESPONSIBLE FOR TAKING SUCH ACTION.

FURTHERMORE, PINNACLE ENGINEERING GROUP, LLC IS NOT RESPONSIBLE FOR CONSTRUCTION SAFETY OR THE MEANS AND METHODS OF CONSTRUCTION.

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PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

COVER SHEET

DATE: JULY 2, 2026

DEVELOPMENT USE

C-1.0

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SITE DIMENSIONAL & PAVING NOTES

1. ALL PAVING SHALL CONFORM TO STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY & STRUCTURE CONSTRUCTION (STANDARD SPECIFICATIONS), LATEST EDITION AND APPLICABLE COUNTY AND MUNICIPAL ORDINANCES, AND SPECIFICATIONS (LOCAL SPECIFICATIONS) CONTAINED WITHIN THIS PLAN SET. THESE STANDARDS ARE TO BE USED WHEREVER WISDOT OR STANDARD OR LOCAL SPECIFICATIONS APPEARS ON THE PLANS.
2. ALL DIMENSIONS ARE EDGE OF PAVEMENT, FACE OF CURB, SHOULDER, OR CENTER OF LANE LINE UNLESS NOTED OTHERWISE.
3. BUILDING DIMENSIONS AND ADJACENT PARKING AND UTILITY LAYOUT HAVE BEEN PREPARED BASED UPON ARCHITECTURAL INFORMATION CURRENT AT THE DATE OF THIS DRAWING. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. THEREFORE, CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS AND EXACT UTILITY ENTRANCE LOCATIONS AND NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
4. IMPROVEMENTS ADJACENT TO BUILDING IF SHOWN SUCH AS TRUCK DOCK, RETAINING WALLS, SIDEWALKS, CURBING, FENCES, CANOPIES, RAMPS, HANDICAP ACCESS, PLANTERS, DUMPSTERS, AND TRANSFORMERS ETC. HAVE BEEN SHOWN FOR APPROXIMATE LOCATION ONLY. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS, SPECIFICATIONS, AND DETAILS.
5. REFER TO ELECTRICAL PLANS FOR LIGHTING LOCATIONS, SPECIFICATIONS, AND DETAILS.
6. ASPHALTIC CONCRETE PAVING SPECIFICATIONS:
   - 6.1. CODES AND STANDARDS: THE PLACING, CONSTRUCTION AND COMPOSITION OF THE ASPHALTIC BINDER COURSE AND ASPHALTIC SURFACE COURSE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460 AND 465 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION. HEREAFTER, THIS PUBLICATION WILL BE REFERRED TO AS THE STATE HIGHWAY SPECIFICATIONS.
   - 6.2. APPLY TACK COAT IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.
   - 6.3. WEATHER LIMITATIONS - APPLY TACK COATS WHEN AMBIENT TEMPERATURE IS ABOVE 45°F (10°C) AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35°F (1°C) FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION. DO NOT APPLY WHEN BASE IS WET OR CONTAINS EXCESS OF MOISTURE. CONSTRUCT ASPHALTIC CONCRETE SURFACE COURSE WHEN ATMOSPHERIC TEMPERATURE IS ABOVE 40°F (4°C) AND WHEN BASE IS DRY AND WHEN WEATHER IS NOT RAINY. BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30°F (-1°C). FOR CONCRETE PAVEMENTS PLACEMENT IS NOT TO BE PERFORMED IF THE AMBIENT TEMPERATURE IN THE SHADE FALLS BELOW 35°F UNLESS WRITTEN PERMISSION IS OBTAINED FROM THE ENGINEER. IF FREEZING TEMPERATURES ARE FORECASTED WITHIN 24 HOURS OF A POUR, A PROTECTIVE COATING WILL NEED TO BE APPLIED IN ACCORDANCE WITH 415.3.13.2 OF THE STANDARD SPECIFICATIONS.
   - 6.4. GRADE CONTROL: ESTABLISH AND MAINTAIN REQUIRED LINES AND ELEVATIONS FOR EACH COURSE DURING CONSTRUCTION.
   - 6.5. CRUSHED AGGREGATE BASE COURSE: THE TOP LAYER OF BASE COURSE SHALL CONFORM TO APPLICABLE SECTIONS 301 AND 305 OF THE STATE HIGHWAY SPECIFICATIONS.
   - 6.6. BINDER COURSE AGGREGATE: THE AGGREGATE FOR THE BINDER COURSE SHALL CONFORM TO APPLICABLE SECTIONS 460 AND 315 OF THE STATE HIGHWAY SPECIFICATIONS.
   - 6.7. SURFACE COURSE AGGREGATE: THE AGGREGATE FOR THE SURFACE COURSE SHALL CONFORM TO SECTIONS 460 AND 465 OF THE STATE HIGHWAY SPECIFICATIONS.
   - 6.8. ASPHALTIC MATERIALS: THE ASPHALTIC MATERIALS SHALL CONFORM TO SECTION 455 AND 460, STATE HIGHWAY SPECIFICATIONS.
9. CONCRETE PAVING SPECIFICATIONS:
   - 9.1. CODES AND STANDARDS: THE PLACING, CONSTRUCTIONS AND COMPOSITION OF THE CONCRETE PAVEMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 415 AND 416 OF THE STANDARD SPECIFICATIONS.
   - 9.2. CRUSHED AGGREGATE BASE COURSE: THE BASE COURSE SHALL CONFORM TO SECTIONS 301 AND 305 OF THE STANDARD SPECIFICATIONS. CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.
   - 9.3. SURFACE PREPARATION: NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.
10. PAVEMENT MARKING SPECIFICATIONS:
    - 10.1. DO NOT PLACE MARKING OVER UNSOUND PAVEMENTS. IF THESE CONDITIONS EXIST, NOTIFY OWNER. STARTING INSTALLATION CONSTITUTES CONTRACTOR'S ACCEPTANCE THAT THE SURFACE AS SUITABLE FOR INSTALLATION.
    - 10.2. PROVIDE CONTRACTOR GRADE STRIPING EPOXY FOR NEW ASPHALT OR COATED ASPHALT. APPLY MARKING EPOXY AT A RATE OF ONE (1) GALLON PER THREE TO FOUR HUNDRED (300-400) LINEAL FEET OF FOUR (4) INCH WIDE STRIPES OR TO MANUFACTURER'S SPECIFICATION, WHICHEVER IS GREATER.
    - 10.3. PRIOR TO APPLYING STRIPING OR MARKING EPOXY PAINT, THOROUGHLY CLEAN EXISTING PAVEMENT SURFACES FREE OF DIRT, SAND, GRAVEL, OIL AND OTHER FOREIGN MATTER. CONTRACTOR RESPONSIBLE FOR INSPECTING EXISTING PAVEMENT SURFACES FOR CONDITIONS AND DEFECTS THAT WILL ADVERSELY AFFECT QUALITY OF WORK.
    - 10.4. LAYOUT MARKINGS USING GUIDELINES, TEMPLATES AND FORMS. STENCILS AND TEMPLATES SHALL BE PROFESSIONALLY MADE TO INDUSTRY STANDARDS. "FREE HAND" PAINTING OF ARROWS, SYMBOLS, OR WORDING SHALL NOT BE ALLOWED. APPLY STRIPES STRAIGHT AND EVEN.
    - 10.5. PROTECT ADJACENT CURBS, WALKS, FENCES, AND OTHER ITEMS FROM RECEIVING EPOXY PAINT.
    - 10.6. BARRICADE MARKED AREAS DURING INSTALLATION AND UNTIL THE MARKING EPOXY PAINT IS DRIED AND READY FOR TRAFFIC.
11. TRAFFIC CONTROL SHALL BE PER M.U.T.C.D (LATEST EDITION) AND WISDOT SPECIFICATIONS, OR AS SHOWN ON THE PLAN.
12. ALL JOINTS BETWEEN EXISTING AND PROPOSED CONCRETE PAVEMENT AND CURB AND GUTTER SHALL BE JOINED WITH NO. 4 TIE BARS. ANY TIE BARS INSTALLED IN A DRILLED HOLE SHALL BE ANCHORED WITH AN EPOXY.
12. SEE ADDITIONAL NOTES AND DETAILS ON THE CONSTRUCTION DETAIL SHEET(S).

GRADING NOTES

1. CONTRACTOR SHALL COMPLY WITH ALL STATE, COUNTY, AND MUNICIPAL CONSTRUCTION STANDARDS/ORDINANCES.
2. GRADING ACTIVITIES SHALL BE CONDUCTED IN A MANNER TO ALLOW POSITIVE DRAINAGE ACROSS DISTURBED SOILS, WHICH MAY INCLUDE EXCAVATION OF TEMPORARY DITCHES TO PREVENT PONDING, AND IF NECESSARY, DEWATERING TO ALLEVIATE PONDING. CONTRACTOR SHALL PREVENT SURFACE WATER FROM ENTERING INTO EXCAVATIONS. IN NO WAY SHALL OWNER BE RESPONSIBLE FOR REMEDIATION OF UNSUITABLE SOILS CREATED/ORDINATED AS A RESULT OF IMPROPER SITE GRADING OR SEQUENCING. CONTRACTOR SHALL SEQUENCE GRADING ACTIVITIES TO LIMIT EXPOSURE OF DISTURBED SOILS DUE TO WEATHER.
3. CONTRACTOR SHALL VERIFY ALL GRADES, ENSURE ALL AREAS DRAIN PROPERLY AND REPORT ANY DISCREPANCIES TO PINNACLE ENGINEERING GROUP PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
4. ALL EXISTING CONTOURS REPRESENT EXISTING SURFACE GRADES UNLESS OTHERWISE NOTED. ALL PROPOSED GRADES SHOWN ARE FINISH SURFACE GRADES UNLESS OTHERWISE NOTED.
5. SPOT ELEVATIONS REPRESENT THE GRADE ALONG THE CURB AND GUTTER FLANGELINE UNLESS OTHERWISE NOTED.
6. ALL EXCAVATIONS AND MATERIAL PLACEMENT SHALL BE COMPLETED TO DESIGN ELEVATIONS AS DEPICTED IN THE PLANS.
7. CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPUTATION(S) OF ALL GRADING QUANTITIES. WHILE PEG ATTEMPTS TO PROVIDE AN EFFECTIVE APPROACH TO BALANCING EARTHWORK, GRADING DESIGN IS BASED ON MANY FACTORS, INCLUDING SAFETY, AESTHETICS, AND COMMON ENGINEERING STANDARD OF CARE; THEREFORE NO GUARANTEE CAN BE MADE FOR A BALANCED SITE. THE CONTRACTOR MAY SOLICIT APPROVAL FROM ENGINEER/OWNER TO ADJUST FINAL GRADES FROM DESIGN GRADES TO PROVIDE AN OVERALL SITE BALANCE AS A RESULT OF FIELD CONDITIONS.
8. THE CONTRACTOR IS RESPONSIBLE FOR MEETING MINIMUM COMPACTION STANDARDS. THE CONTRACTOR SHALL NOTIFY ENGINEER/OWNER IF PROPER COMPACTION CANNOT BE OBTAINED. THE PROJECT'S GEOTECHNICAL CONSULTANT SHALL DETERMINE WHICH IN-SITU SOILS ARE TO BE CONSIDERED UNSUITABLE SOILS. THE ENGINEER/OWNER AND GEOTECHNICAL TESTING CONSULTANT WILL DETERMINE IF REMEDIAL MEASURES WILL BE NECESSARY.
9. IN THE EVENT THAT ANY COMPACTION TEST(S) FAIL TO MEET SPECIFICATION REQUIREMENTS, THE CONTRACTOR SHALL PERFORM CORRECTIVE WORK AS NECESSARY TO BRING THE MATERIAL INTO COMPLIANCE AND RETEST THE FAILED AREA AT NO COST TO THE OWNER.
10. WITH THE AUTHORIZATION OF THE ENGINEER/OWNER, MATERIAL THAT IS TOO WET TO PERMIT PROPER COMPACTION MAY BE SPREAD ON FILL AREAS IN AN EFFORT TO DRY. CONTRACTOR SHALL CLEARLY FIELD MARK THE EXTERIOR LIMITS OF SPREAD MATERIAL WITH PAINTED LATH AND SUBMIT A PLAN TO THE ENGINEER/OWNER THAT IDENTIFIES THE LIMITS. UNDER NO CONDITION SHALL THE SPREAD MATERIAL DEPTH EXCEED THE MOST RESTRICTIVE OF: THE EFFECTIVE TREATMENT DEPTH OF MACHINERY THAT WILL BE USED TO TURNOVER THE SPREAD MATERIAL; OR THE MAXIMUM COMPACTION LIFT DEPTH.
11. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER/OWNER IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ADEQUATE AND SAFE TEMPORARY SHORING, BRACING, RETENTION STRUCTURES, AND EXCAVATIONS.
12. THE SITE SHALL BE COMPLETED WITHIN 0.1-FT (+/-) OF THE PROPOSED GRADES AS INDICATED WITHIN THE PLANS PRIOR TO PLACEMENT OF TOPSOIL OR STONE. CONTRACTOR IS ENCOURAGED TO SEQUENCE CONSTRUCTION SUCH THAT THE SITE IS DIVIDED INTO SMALLER AREAS TO ALLOW STABILIZATION OF DISTURBED SOILS IMMEDIATELY UPON COMPLETION OF SAID AREAS.
13. WORK WITHIN ANY ROADWAY RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE MUNICIPAL OFFICIAL PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FEES. GRADING WITHIN RIGHT-OF-WAY IS SUBJECT TO APPROVAL BY SAID OFFICIALS. RESTORATION OF RIGHT-OF-WAY IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF GRADING. RESTORATION SHALL INCLUDE ALL ITEMS NECESSARY TO RESTORE RIGHT-OF-WAY IN-KIND INCLUDING LANDSCAPING.
14. LANDSCAPE AND TURF AREAS SHALL HAVE A MINIMUM OF 4-INCH TOPSOIL REPLACEMENT, UNLESS OTHERWISE SPECIFIED IN THE PLAN.
15. TOPSOIL BERMING SHALL ACHIEVE 90% STANDARD PROCTOR DENSITY AT (±)3% OPTIMUM MOISTURE CONTENT.
16. SEE ADDITIONAL NOTES AND DETAILS ON THE CONSTRUCTION DETAIL SHEET(S).

EROSION & SEDIMENT CONTROL NOTES

1. ALL EROSION CONTROL PLANS FOR A CONSTRUCTION AND POST CONSTRUTION SITE SHALL BE IN ACCORDANCE WITH "CH. NR 216.47, AND NR 151 OF THE WISCONSIN ADMINISTRATION CODE". ALL EROSION CONTROL, SITE STABILIZATION PRACTICES, AND SEDIMENT CONTROL PRACTICES USED SHALL FOLLOW WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) TECHNICAL STANDARDS AND BEST MANAGEMENT PRACTICES FOR CONSTRUCTION SITES.
2. ALL EROSION CONTROL AND STORMWATER PRODUCTS SHALL FOLLOW THE WISCONSIN DEPARTMENT OF TRANSPORTATION PRODUCT ACCEPTIBILITY LIST (PAL) FOR EROSION MATS, TACKTIFIERS, SOIL STABILIZERS, INLET PROTECTION, AND TEMPORARY DITCH CHECKS FOR PRODUCTS AND INSTALLATION STANDARDS.
3. ALL CONSTRUCTION SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT ("WPDES" PERMIT NO. WI-S067831-4) FOR CONSTRUCTION SITE LAND DISTURBANCE ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL TECHNICAL STANDARDS AND PROVISIONS IN EFFECT AT THE TIME OF CONSTRUCTION. THESE PROCEDURES AND STANDARDS SHALL BE REFERRED TO AS BEST MANAGEMENT PRACTICES (BMP'S). IT IS THE RESPONSIBILITY OF ALL CONTRACTORS ASSOCIATED WITH THE PROJECT TO OBTAIN A COPY OF, AND UNDERSTAND, THE BMP'S PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
4. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL CONTROL MEASURES AS DIRECTED BY OWNER/ENGINEER OR GOVERNING AGENCIES SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
5. POST WDNR CERTIFICATE OF PERMIT COVERAGE ON SITE AND MAINTAIN UNTIL CONSTRUCTION ACTIVITIES HAVE CEASED, THE SITE IS STABILIZED, AND A NOTICE OF TERMINATION IS FILES WITH WDNR.
6. KEEP A COPY OF THE CURRENT EROSION CONTROL PLAN ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
7. KEEP A COPY OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN THE FIELD OFFICE THROUGHOUT THE DURATION OF THE PROJECT. ANY MODIFICATIONS TO THE APPROVED SWPPP IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS ARE ALLOWED IF MODIFICATIONS CONFORM TO APPLICABLE BMP'S. ALL MODIFICATIONS MUST BE APPROVED BY OWNER/ENGINEER/GOVERNING AGENCY PRIOR TO DEVIATION OF THE APPROVED PLAN.
8. INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCES, SILT FENCE AND EXISTING INLET PROTECTIONS) PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN IN ORDER TO PROTECT ADJACENT PROPERTIES/STORM SEWER SYSTEMS FROM SEDIMENT TRANSPORT.
9. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL LOCATIONS OF VEHICLE INGRESS/EGRESS POINTS. CONTRACTOR IS RESPONSIBLE TO COORDINATE LOCATION(S) WITH THE PROPER AUTHORITIES. PROVIDE NECESSARY FEES AND OBTAIN ALL REQUIRED APPROVALS OR PERMITS. ADDITIONAL CONSTRUCTION ENTRANCES OTHER THAN AS SHOWN ON THE PLANS MUST BE APPROVED BY THE APPLICABLE GOVERNING AGENCIES PRIOR TO INSTALLATION.
10. PAVED SURFACES ADJACENT TO CONSTRUCTION ENTRANCES SHALL BE SWEPT AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST IMMEDIATELY AND AS REQUESTED BY GOVERNING AGENCIES.
11. ALL EXISTING STORM SEWER FACILITIES THAT WILL COLLECT RUNOFF FROM DISTURBED AREAS SHALL BE PROTECTED TO PREVENT SEDIMENT DEPOSITION INTO STORM SEWER SYSTEMS. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL EXISTING AND INSTALLED STORM SEWER STRUCTURES WITHIN THE PROJECT ARE OR AS DIRECTED BY THE ENGINEER. ALL INLETS, STRUCTURES, PIPES, AND SWALES SHALL BE KEPT CLEAN AND FREE OF SEDIMENTATION AND DEBRIS.
12. EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, WATER MAIN, ETC.) OUTSIDE OF THE PERIMETER CONTROLS SHALL INCORPORATE THE FOLLOWING:
    - 12.1. PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
    - 12.2. BACKFILL, COMPACT AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
    - 12.3. DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH BMP'S PRIOR TO RELEASE INTO STORM SEWER OR DITCHES.
13. AT A MINIMUM, SEDIMENT BASINS AND NECESSARY TEMPORARY DRAINAGE PROVISIONS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE BEGINNING OF SIGNIFICANT MASS GRADING OPERATIONS TO PREVENT OFFSITE DISCHARGE OF UNTREATED RUNOFF.
14. ALL WATERCOURSES AND WETLANDS SHALL BE PROTECTED WITH SILT FENCE TO PREVENT ANY DIRECT DISCHARGE FROM DISTURBED SOILS, IF APPLICABLE.
15. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE OWNER WILL BE RESPONSIBLE IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT.
16. TOPSOIL STOCKPILES SHALL HAVE A PERIMETER BERM OR TRENCH AND SILT FENCE INSTALLED TO CONTROL SILT. IF TOPSOIL STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IS REQUIRED.
17. EROSION CONTROL MEASURES TEMPORARILY REMOVED FOR UNAVOIDABLE CONSTRUCTION ACTIVITIES SHALL BE IN WORKING ORDER IMMEDIATELY FOLLOWING COMPLETION OF SUCH ACTIVITIES OR PRIOR TO THE COMPLETION OF EACH WORKDAY, WHICH EVER OCCURS FIRST.
18. MAINTAIN SOIL EROSION CONTROL DEVICES THROUGH THE DURATION OF THIS PROJECT. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. DISTURBANCES ASSOCIATED WITH EROSION CONTROL REMOVAL SHALL BE IMMEDIATELY STABILIZED.
19. PUMPS MAY BE USED AS BYPASS DEVICES. IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS. PUMP DISCHARGE SHALL BE DIRECTED INTO AN APPROVED FILTER BAG OR APPROVED SETTLING DEVICE.
20. GRADING EFFORTS SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. EROSION AND SEDIMENT CONTROL MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY OR PERMANENT MEASURES. ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR A PERIOD OF SEVEN (7) DAYS REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH TECHNICAL STANDARDS.
21. ALL DISTURBED SLOPES 4:1 OR GREATER, SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S75BN EROSION MATTING (OR APPROVED EQUAL) AND ALL CHANNELS SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S150BN (OR APPROVED EQUAL) OR APPLICATION OF AN APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED. EROSION MATTING AND/OR NETTING USED ONSITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES.
22. DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL KEEP A WATER TRUCK ON SITE FOR THE PURPOSE OF WATERING DOWN SOILS WHICH MAY OTHERWISE BECOME AIRBORNE.THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING WIND EROSION (DUST) DURING CONSTRUCTION AT HIS/HER EXPENSE.
23. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE VISUALLY INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM ON A DAILY BASIS.
24. QUALIFIED PERSONNEL (PROVIDED BY THE GENERAL/PRIME CONTRACTOR) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AND EROSION AND SEDIMENT CONTROLS WITHIN 24 HOURS OF ALL 0.5-INCH, OR MORE, PRECIPITATION EVENTS WITH A MINIMUM INSPECTION INTERVAL OF ONCE EVERY SEVEN (7) CALENDAR DAYS IN THE ABSENCE OF A QUALIFYING RAIN OR SNOWFALL EVENT. REPORTING SHALL BE IN ACCORDANCE WITH OF THE GENERAL PERMIT. CONTRACTOR SHALL IMMEDIATELY ARRANGE TO HAVE ANY DEFICIENT ITEMS REVEALED DURING INSPECTIONS REPAIRED/REPLACED.
25. SEE ADDITIONAL NOTES AND DETAILS ON THE CONSTRUCTION DETAIL SHEET(S).

GENERAL UTILITY NOTES

1. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN (LATEST EDITION AND ADDENDUM) AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.
2. EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE TYPE, LOCATION, SIZE AND ELEVATION OF UNDERGROUND UTILITIES AS THEY DEEM NECESSARY FOR PROPOSED UTILITY CONNECTIONS AND/OR TO AVOID DAMAGE THERETO. CONTRACTOR SHALL CALL "DIGGER'S HOTLINE" PRIOR TO ANY CONSTRUCTION.
3. LENGTHS OF PROPOSED UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS ARE SHOWN FOR CONTRACTOR CONVENIENCE ONLY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPUTATIONS OF MATERIALS REQUIRED TO COMPLETE WORK. LENGTHS SHALL BE FIELD VERIFIED DURING CONSTRUCTION.
4. CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT EXISTING UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH FINISHED GRADES OF THE AREAS DISTURBED DURING CONSTRUCTION.
5. CONTRACTOR SHALL FIELD VERIFY LOCATIONS, ELEVATIONS, AND SIZES OF PROPOSED UTILITIES AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS PRIOR TO ATTEMPTING CONNECTIONS AND BEGINNING UTILITY CONSTRUCTION AND NOTIFY THE OWNER OF ANY DISCREPANCIES OR CONFLICTS.
6. ALL NEW ON-SITE SANITARY, STORM AND WATER UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER, EXCEPT FOR THOSE UTILITIES IDENTIFIED AS PUBLIC.
7. THE CONTRACTOR SHALL CONTACT THE LOCAL GOVERNING MUNICIPAL PUBLIC WORKS DEPARTMENT, A MINIMUM OF, 48-HOURS IN ADVANCE OF SANITARY, WATER AND STORM CONNECTIONS TO THE MUNICIPAL-OWNED SYSTEM TO SCHEDULE INSPECTIONS.
8. ROUTING OF GAS, ELECTRIC AND TELEPHONE SERVICES ARE SHOWN ON THE ARCHITECTURAL PLANS AND SUBJECT TO CHANGE BASED UPON FINAL REVIEW AND APPROVAL BY RESPECTIVE UTILITY COMPANIES AND OWNER. CONTRACTOR SHALL CONTACT EACH UTILITY COMPANY AND COORDINATE FINAL LOCATIONS FOR ALL UTILITY SERVICES PRIOR TO START OF CONSTRUCTION.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROPER AUTHORITIES FOR ANY REQUIRED PERMITS, AUTHORIZATIONS, TRAFFIC CONTROL AND ANY PERMIT FEES REQUIRED.
10. SEE UTILITY SPECIFIC PLANS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION.

STORM SEWER NOTES

1. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN (LATEST EDITION AND ADDENDUM) AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.
2. THESE NOTES & SPECIFICATIONS APPLY TO ALL STORM SEWER WORK BEGINNING AT A POINT 5 FEET OUTSIDE OF THE BUILDING WALL, UNLESS OTHERWISE SPECIFIED.
3. WHERE THESE NOTES DO NOT COVER PORTIONS OF THE WORK TO BE UNDERTAKEN, THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, CURRENT EDITION, SHALL GOVERN.
4. ALL MATERIALS SHALL CONFORM TO THE SIZE AND TYPE SHOWN ON THE PLANS OR AS CALLED FOR IN THESE NOTES AND TO APPLICABLE LAWS, CODES AND ORDINANCES.
5. ALL PRODUCTS AND MATERIALS ARE TO BE NEW, UNDAMAGED, CLEAN, AND IN GOOD CONDITION. EXISTING PRODUCTS AND MATERIALS ARE NOT TO BE REUSED UNLESS INDICATED ON THE PLANS.
6. ALL MATERIALS TO BE UTILIZED IN THE WORK SHALL BE STORED AND HANDLED IN A SAFE MANNER. STORAGE OF MATERIALS SHALL BE DESIGNATED BY THE GENERAL CONTRACTOR.
7. WHEN REQUIRED BY PROPRIETARY PRODUCTS AND MATERIALS, PERFORM ALL WORK IN ACCORDANCE WITH ANY APPLICABLE MANUFACTURER'S INSTRUCTIONS.
8. CONTRACTOR SHALL PROVIDE THE SIZE, TYPE AND CLASS/SCHEDULE OF PIPE AS INDICATED ON THE PLANS AND NOTES.
9. PIPE MATERIALS:

   REINFORCED CONCRETE PIPE (RCP)

   PIPE AND FITTINGS SHALL CONFORM TO ASTM C-76 FOR CIRCULAR PIPE AND ASTM C-507 FOR ELLIPTICAL PIPE. STRENGTH CLASSIFICATIONS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

HEIGHT OF COVER (FT):	0 TO 2	2 TO 3	3 TO 6	6 TO 15	15 TO 25	25+
MIN. PIPE CLASS:	IV	III	III	III	IV	ENGINEER TO SPECIFY

   JOINTS FOR REINFORCED CONCRETE PIPE SHALL BE BELL AND SPIGOT OR TONGUE AND GROOVE. JOINTS SHALL BE PROVIDED WITH RUBBER GASKETS CONFORMING TO ASTM C433. JOINTS FOR ELLIPTICAL PIPE SHALL BE PROVIDED WITH TROWEL ABLE IMPERVIOUS BITUMINOUS JOINT SEALER THAT IS MANUFACTURED FOR SEALING REINFORCED CONCRETE SEWER PIPE JOINTS.

   WHEN REQUIRED, EXTERNAL SEALING BANDS SHALL MEET THE REQUIREMENTS OF ASTM C877 (TYPE II), AND SHALL BE MAR MAC WRAP, OR APPROVED EQUAL

   POLYVINYL CHLORIDE PIPE (PVC)

   PIPE SHALL CONFORM TO ASTM D-3034 WITH SOLVENT WELD OR ELASTOMERIC JOINTS. PIPE SHALL BE SDR-35, UNLESS OTHERWISE NOTED. PIPE OVER 15 INCHES IN DIAMETER SHALL MEET THE REQUIREMENTS OF ASTM F679-03. DO NOT MIX DIFFERENT MANUFACTURERS PRODUCTS, OR FITTINGS.

   HIGH DENSITY DUAL-WALL POLYETHYLENE N-12 CORRUGATED PIPE (HDPE)

   PIPE SHALL BE AS MANUFACTURED BY ADS OR EQUAL WITH WATERTIGHT JOINTS AND SHALL MEET THE REQUIREMENTS OF AASHTO DESIGNATION M-294 TYPE "S", OR POLYVINYL CHLORIDE (PVC) - CLASS PS46 MEETING AASHTO M278, AS NOTED.

   IF HDPE PIPE IS USED FOR POND OUTFALLS, A MINIMUM OF THREE (3) SECTIONS (2 STRAPS) SHALL BE STRAPPED TOGETHER.

   CORRUGATED METAL PIPE (CMP)

   GALVANIZED PIPE MEETING THE REQUIREMENTS OF AASHTO M36. MINIMUM WALL THICKNESS SHALL BE 16 GA. FOR 12"-24" DIAMETER PIPE, 14 GA FOR 30" AND 36" PIPE, AND 12 GA. FOR 42"-54" DIAMETER PIPE.

   PROVIDE GALVANIZED CORRUGATED COUPLING BANDS WITH ANGLE CONNECTORS HAVING A MINIMUM OF 2 BOLTS FOR A SOIL TIGHT JOINT.
10. CONNECTION FOR DISSIMILAR PIPE MATERIALS - WHERE NEW SEWER CONNECTS TO AN EXISTING DISSIMILAR PIPE, THE CONNECTION SHALL BE MADE WITH A NO HUB TYPE COUPLINGS MEETING THE REQUIREMENTS OF CISPI 310. COUPLINGS SHALL HAVE NEOPRENE GASKETS WITH STAINLESS STEEL SHIELD, AND MULTIPLE STAINLESS STEEL CLAMPS WITH WORM GEAR TIGHTENING DEVICE. THE COUPLINGS SHALL BE MADE SPECIFICALLY FOR THE TYPE AND SIZE OF PIPE MATERIALS BEING CONNECTED. COUPLINGS SHALL BE FERNCO HUSKY OR APPROVED EQUAL
11. STRUCTURES:

    STORM S

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 100' 200'

EXISTING CONDITIONS SURVEY:

EXISTING CONDITIONS SURVEY PROVIDED BY PINNACLE ENGINEERING GROUP. ALTHOUGH PEG HAS NO REASON TO BELIEVE THE SURVEY IS INACCURATE, PEG MAKES NO WARRANTS THAT EXISTING INFORMATION CONTAINED WITHIN THESE PLANS IS ALL-INCLUSIVE OR ACCURATE. CONTRACTOR SHALL UNDERTAKE NECESSARY EFFORTS TO VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF MATERIAL PROCUREMENT AND CONSTRUCTION EFFORTS/ACTIVITIES.

CONTRACTOR RESPONSIBILITY:

THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. IF ADDITIONAL UTILITIES ARE KNOWN TO EXIST IN THE PROPERTY, THE OWNER WILL PROVIDE EXISTING PLANS OF OTHER UTILITIES SERVING THE SITE AND THE BUILDING THAT OTHERWISE CANNOT BE LOCATED BY A VISUAL OBSERVATION OF THE PROPERTY OR OF WHICH THE SURVEYOR WOULD HAVE NO KNOWLEDGE.

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

LEGEND

- REMOVE EXISTING UTILITY STRUCTURE
- REMOVE EXISTING TREE
- CLEARING & GRUBBING
- REMOVE EXISTING TREELINE
- REMOVE OR ABANDON EXISTING UTILITY (SEE PLAN FOR DESCRIPTION)
- LIMITS OF DISTURBANCE

LEGEND

SANITARY MANHOLE	STORM SEWER
STORM MANHOLE	WATER MAIN
CATCH BASIN	LIGHTING
INLET	ELECTRICAL CABLE
PRECAST FLARED END SECTION	ELECTRICAL TRANSFORMER OR PEDESTAL
CONCRETE HEADWALL	POWER POLE
VALVE VAULT	POWER POLE WITH LIGHT
VALVE BOX	GUY WIRE
FIRE HYDRANT	STREET SIGN
BUFFALO BOX	GAS MAIN
CLEANOUT	TELEPHONE LINE
SANITARY SEWER	CONTOUR
FORCE MAIN	TREE
CONCRETE SIDEWALK	EASEMENT LINE

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HGA, Inc.

SunCap PROPERTY GROUP

1407 Stuart Engals Boulevard - 2nd floor
Mt. Pleasant, SC 29464

PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

EXISTING CONDITIONS & DEMOLITION PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

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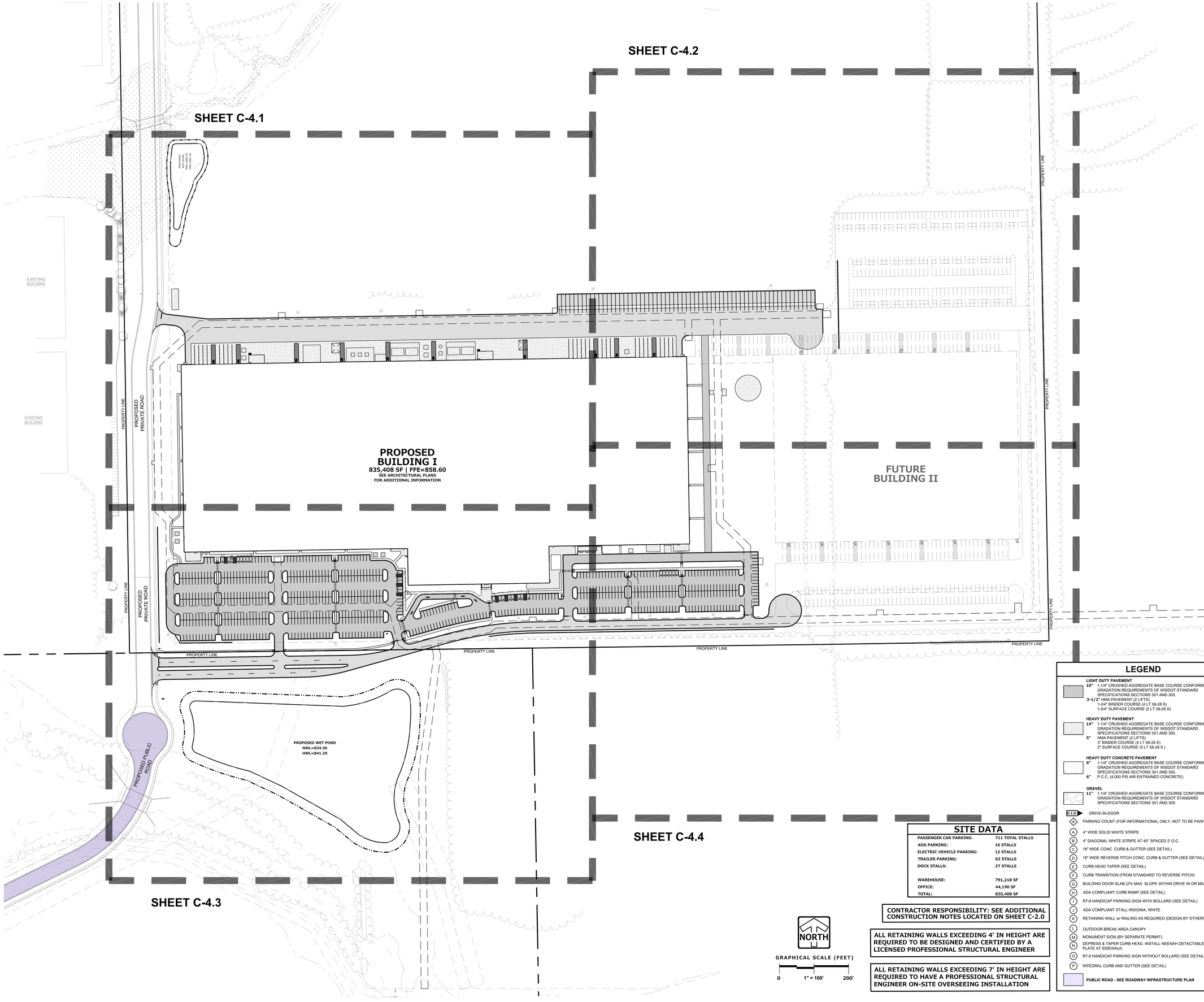

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 100' 200'

SITE DATA

PASSENGER CAR PARKING:	711 TOTAL STALLS
ADA PARKING:	16 STALLS
ELECTRIC VEHICLE PARKING:	12 STALLS
TRAILER PARKING:	62 STALLS
DOCK STALLS:	27 STALLS
WAREHOUSE:	791,218 SF
OFFICE:	44,190 SF
TOTAL:	835,408 SF

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

ALL RETAINING WALLS EXCEEDING 4' IN HEIGHT ARE REQUIRED TO BE DESIGNED AND CERTIFIED BY A LICENSED PROFESSIONAL STRUCTURAL ENGINEER

ALL RETAINING WALLS EXCEEDING 7' IN HEIGHT ARE REQUIRED TO HAVE A PROFESSIONAL STRUCTURAL ENGINEER ON-SITE OVERSEEING INSTALLATION

LEGEND

LIGHT DUTY PAVEMENT
10" 1-1/4" CRUSHED AGGREGATE BASE COURSE CONFORMING TO GRADATION REQUIREMENTS OF WISDOT STANDARD SPECIFICATIONS SECTIONS 301 AND 305.
3-1/2" HMA PAVEMENT (2 LIFTS)
1-3/4" BINDER COURSE (4 LT 58-28 S)
1-3/4" SURFACE COURSE (5 LT 58-28 S)

HEAVY DUTY PAVEMENT
14" 1-1/4" CRUSHED AGGREGATE BASE COURSE CONFORMING TO GRADATION REQUIREMENTS OF WISDOT STANDARD SPECIFICATIONS SECTIONS 301 AND 305.
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3" BINDER COURSE (4 LT 58-28 S)
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6" 1-1/4" CRUSHED AGGREGATE BASE COURSE CONFORMING TO GRADATION REQUIREMENTS OF WISDOT STANDARD SPECIFICATIONS SECTIONS 301 AND 305.
6" P.C.C. (4,000 PSI AIR ENTRAINED CONCRETE)

GRAVEL
11" 1-1/4" CRUSHED AGGREGATE BASE COURSE CONFORMING TO GRADATION REQUIREMENTS OF WISDOT STANDARD SPECIFICATIONS SECTIONS 301 AND 305.

D.I.D. DRIVE-IN-DOOR
X PARKING COUNT (FOR INFORMATIONAL ONLY, NOT TO BE PAINTED)
A 4" WIDE SOLID WHITE STRIPE
B 4" DIAGONAL WHITE STRIPE AT 45° SPACED 2' O.C.
C 18" WIDE CONC. CURB & GUTTER (SEE DETAIL)
D 18" WIDE REVERSE PITCH CONC. CURB & GUTTER (SEE DETAIL)
E CURB HEAD TAPER (SEE DETAIL)
F CURB TRANSITION (FROM STANDARD TO REVERSE PITCH)
G BUILDING DOOR SLAB (2% MAX. SLOPE WITHIN DRIVE IN OR MAN DOOR)
H ADA COMPLIANT CURB RAMP (SEE DETAIL)
I R7-8 HANDICAP PARKING SIGN WITH BOLLARD (SEE DETAIL)
J ADA COMPLIANT STALL INSIGNIA, WHITE
K RETAINING WALL w/ RAILING AS REQUIRED (DESIGN BY OTHERS)
L OUTDOOR BREAK AREA CANOPY
M MONUMENT SIGN (BY SEPARATE PERMIT)
N DEPRESS & TAPER CURB HEAD. INSTALL NEENAH DETACTABLE WARNING PLATE AT SIDEWALK.
O R7-8 HANDICAP PARKING SIGN WITHOUT BOLLARD (SEE DETAIL)
P INTEGRAL CURB AND GUTTER (SEE DETAIL)

PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

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STRUCTURAL ENGINEER/ MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER
HGA, Inc.

SunCap PROPERTY GROUP
1407 Stuart Engals Boulevard - 2nd floor
Mt. Pleasant, SC 29464

PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

SITE DIMENSIONAL & PAVING PLAN OVERVIEW

DATE: JULY 2, 2026

DEVELOPMENT USE

C-4.0

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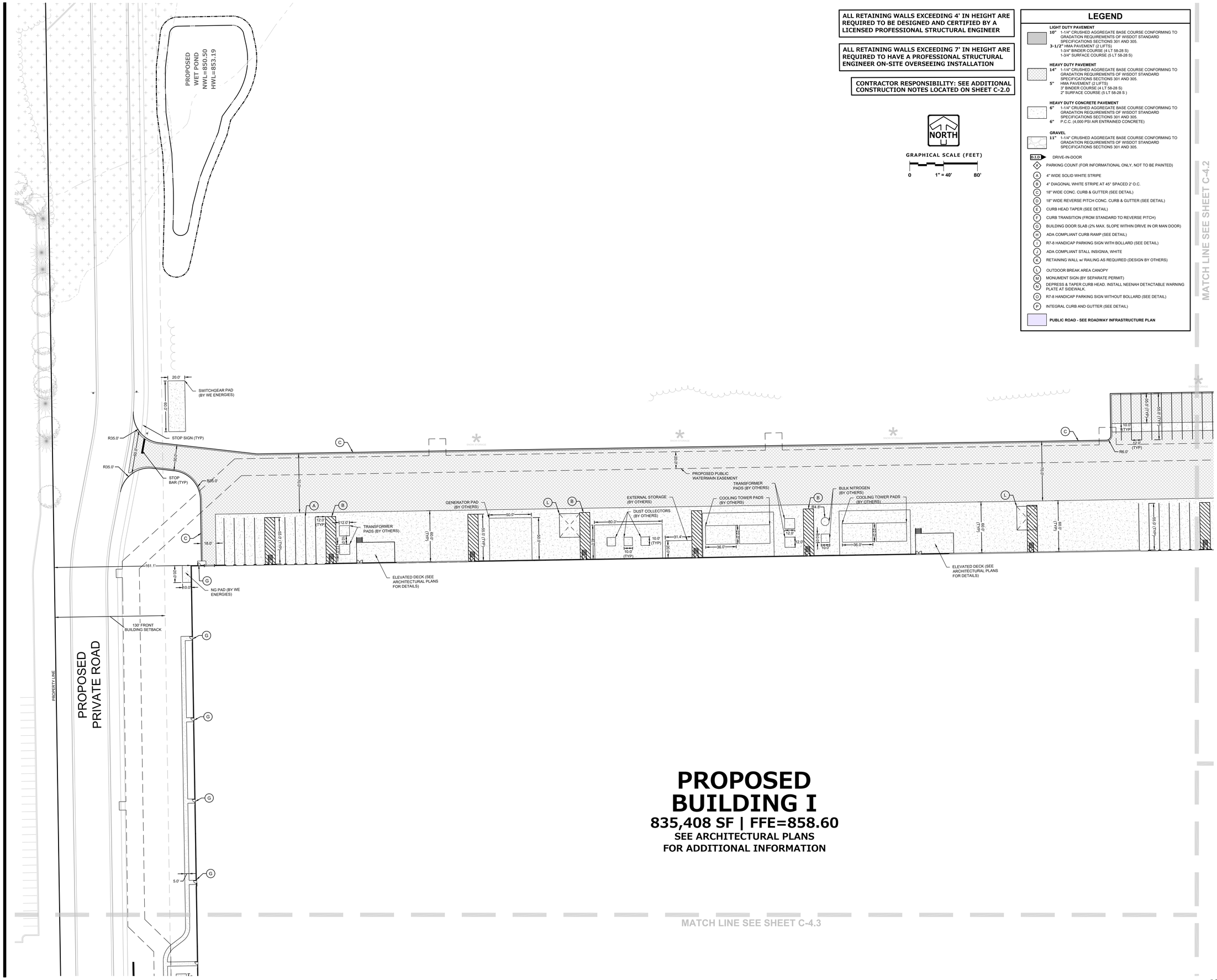

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CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

LEGEND

LIGHT DUTY PAVEMENT
10" 1-1/4" CRUSHED AGGREGATE BASE COURSE CONFORMING TO GRADATION REQUIREMENTS OF WISDOT STANDARD SPECIFICATIONS SECTIONS 301 AND 305.
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11" 1-1/4" CRUSHED AGGREGATE BASE COURSE CONFORMING TO GRADATION REQUIREMENTS OF WISDOT STANDARD SPECIFICATIONS SECTIONS 301 AND 305.

D.I.D. DRIVE-IN-DOOR
PARKING COUNT (FOR INFORMATIONAL ONLY, NOT TO BE PAINTED)
A 4" WIDE SOLID WHITE STRIPE
B 4" DIAGONAL WHITE STRIPE AT 45° SPACED 2' O.C.
C 18" WIDE CONC. CURB & GUTTER (SEE DETAIL)
D 18" WIDE REVERSE PITCH CONC. CURB & GUTTER (SEE DETAIL)
E CURB HEAD TAPER (SEE DETAIL)
F CURB TRANSITION (FROM STANDARD TO REVERSE PITCH)
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I R7-8 HANDICAP PARKING SIGN WITH BOLLARD (SEE DETAIL)
J ADA COMPLIANT STALL INSIGNIA, WHITE
K RETAINING WALL w/ RAILING AS REQUIRED (DESIGN BY OTHERS)
L OUTDOOR BREAK AREA CANOPY
M MONUMENT SIGN (BY SEPARATE PERMIT)
N DEPRESS & TAPER CURB HEAD. INSTALL NEENAH DETACTABLE WARNING PLATE AT SIDEWALK.
O R7-8 HANDICAP PARKING SIGN WITHOUT BOLLARD (SEE DETAIL)
P INTEGRAL CURB AND GUTTER (SEE DETAIL)

PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

MATCH LINE SEE SHEET C-4.2

PROPOSED BUILDING I

835,408 SF | FFE=858.60

SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION

MATCH LINE SEE SHEET C-4.3

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PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

SITE DIMENSIONAL & PAVING PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

C-4.1

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ALL RETAINING WALLS EXCEEDING 4' IN HEIGHT ARE REQUIRED TO BE DESIGNED AND CERTIFIED BY A LICENSED PROFESSIONAL STRUCTURAL ENGINEER

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CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

LEGEND

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P INTEGRAL CURB AND GUTTER (SEE DETAIL)

PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

NORTH

GRAPHICAL SCALE (FEET)
0 1" = 40' 80'

MATCH LINE SEE SHEET C-4.1

FUTURE TRAILER PARKING

15' HIGH SOUND MITIGATION BARRIER

255.0'

PROPOSED PUBLIC WATERMAIN EASEMENT

TRANSFORMER PAD (BY OTHERS)

R18.0'

R20.0'

R45.0'

R6.0' (TYP)

20.0'

PROPOSED PUBLIC WATERMAIN EASEMENT

FIRE PROTECTION TANK PAD (BY OTHERS)

PUMP HOUSE PAD (BY OTHERS)

R37.5'

WE ENERGIES TEMP CONSTRUCTION TRANSFORMER PAD

FUTURE BUILDING II

PROPERTY LINE

25' REAR BUILDING SETBACK

MATCH LINE SEE SHEET C-4.4

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PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

SITE DIMENSIONAL & PAVING PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

C-4.2

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MATCH LINE SEE SHEET C-4.1

PROPOSED BUILDING I

835,408 SF | FFE=858.60

SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION

PROPOSED PRIVATE ROAD

PROPERTY LINE

130' FRONT BUILDING SETBACK

TRANSFORMER PADS (BY OTHERS)

6 ELECTRIC VEHICLE STALLS

PROPOSED PUBLIC WATERMAIN EASEMENT

PROPOSED CROSSWALK STRIPING (TYP)

3'X5' FIBER VAULT PAD (BY OTHERS)

PROPOSED DUMPSTER LOCATION (SEE ARCHITECTURAL PLANS FOR DETAILS)

STRAIGHT ARROW (TYP)

STOP SIGN (TYP)

STOP BAR (TYP)

4" WHITE DASHED STRIPES

25' SIDE BUILDING SETBACK

PROPOSED PUBLIC ROAD

PROPOSED WET POND
NWL=834.50
HWL=841.29

EXISTING WETLAND

LOT ROAD CONSTRUCTION EASEMENT PER DOC. NO. 3948983

INLET TO CONTROL DEED EASEMENT PER DOC. NO. 3948983

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

MATCH LINE SEE SHEET C-4.4

LEGEND

LIGHT DUTY PAVEMENT
10" 1-1/4" CRUSHED AGGREGATE BASE COURSE CONFORMING TO GRADATION REQUIREMENTS OF WISDOT STANDARD SPECIFICATIONS SECTIONS 301 AND 305.
3-1/2" HMA PAVEMENT (2 LIFTS)
1-3/4" BINDER COURSE (4 LT 58-28 S)
1-3/4" SURFACE COURSE (5 LT 58-28 S)

HEAVY DUTY PAVEMENT
14" 1-1/4" CRUSHED AGGREGATE BASE COURSE CONFORMING TO GRADATION REQUIREMENTS OF WISDOT STANDARD SPECIFICATIONS SECTIONS 301 AND 305.
5" HMA PAVEMENT (2 LIFTS)
3" BINDER COURSE (4 LT 58-28 S)
2" SURFACE COURSE (5 LT 58-28 S)

HEAVY DUTY CONCRETE PAVEMENT
6" 1-1/4" CRUSHED AGGREGATE BASE COURSE CONFORMING TO GRADATION REQUIREMENTS OF WISDOT STANDARD SPECIFICATIONS SECTIONS 301 AND 305.
6" P.C.C. (4,000 PSI AIR ENTRAINED CONCRETE)

GRAVEL
11" 1-1/4" CRUSHED AGGREGATE BASE COURSE CONFORMING TO GRADATION REQUIREMENTS OF WISDOT STANDARD SPECIFICATIONS SECTIONS 301 AND 305.

D.I.D. DRIVE-IN-DOOR

P PARKING COUNT (FOR INFORMATIONAL ONLY, NOT TO BE PAINTED)

A 4" WIDE SOLID WHITE STRIPE
B 4" DIAGONAL WHITE STRIPE AT 45° SPACED 2' O.C.
C 18" WIDE CONC. CURB & GUTTER (SEE DETAIL)
D 18" WIDE REVERSE PITCH CONC. CURB & GUTTER (SEE DETAIL)
E CURB HEAD TAPER (SEE DETAIL)
F CURB TRANSITION (FROM STANDARD TO REVERSE PITCH)
G BUILDING DOOR SLAB (2% MAX. SLOPE WITHIN DRIVE IN OR MAN DOOR)
H ADA COMPLIANT CURB RAMP (SEE DETAIL)
I R7-8 HANDICAP PARKING SIGN WITH BOLLARD (SEE DETAIL)
J ADA COMPLIANT STALL INSIGNIA, WHITE
K RETAINING WALL w/ RAILING AS REQUIRED (DESIGN BY OTHERS)
L OUTDOOR BREAK AREA CANOPY
M MONUMENT SIGN (BY SEPARATE PERMIT)
N DEPRESS & TAPER CURB HEAD. INSTALL NEENAH DETACTABLE WARNING PLATE AT SIDEWALK.
O R7-8 HANDICAP PARKING SIGN WITHOUT BOLLARD (SEE DETAIL)
P INTEGRAL CURB AND GUTTER (SEE DETAIL)

PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

ALL RETAINING WALLS EXCEEDING 4' IN HEIGHT ARE REQUIRED TO BE DESIGNED AND CERTIFIED BY A LICENSED PROFESSIONAL STRUCTURAL ENGINEER

ALL RETAINING WALLS EXCEEDING 7' IN HEIGHT ARE REQUIRED TO HAVE A PROFESSIONAL STRUCTURAL ENGINEER ON-SITE OVERSEEING INSTALLATION

HGA
333 East Erie Street
Milwaukee, Wisconsin 53202
Telephone 414.278.8200

CIVIL ENGINEER/ LANDSCAPE ARCHITECT
PINNACLE ENGINEERING GROUP
20725 W. WATERTOWN ROAD, SUITE 100
BROOKFIELD, WI 53186
(414) 588-5851

STRUCTURAL ENGINEER/ MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER
HGA, Inc.

SunCap PROPERTY GROUP
1407 Stuart Engals Boulevard - 2nd floor
Mt. Pleasant, SC 29464

PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

SITE DIMENSIONAL & PAVING PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

C-4.3

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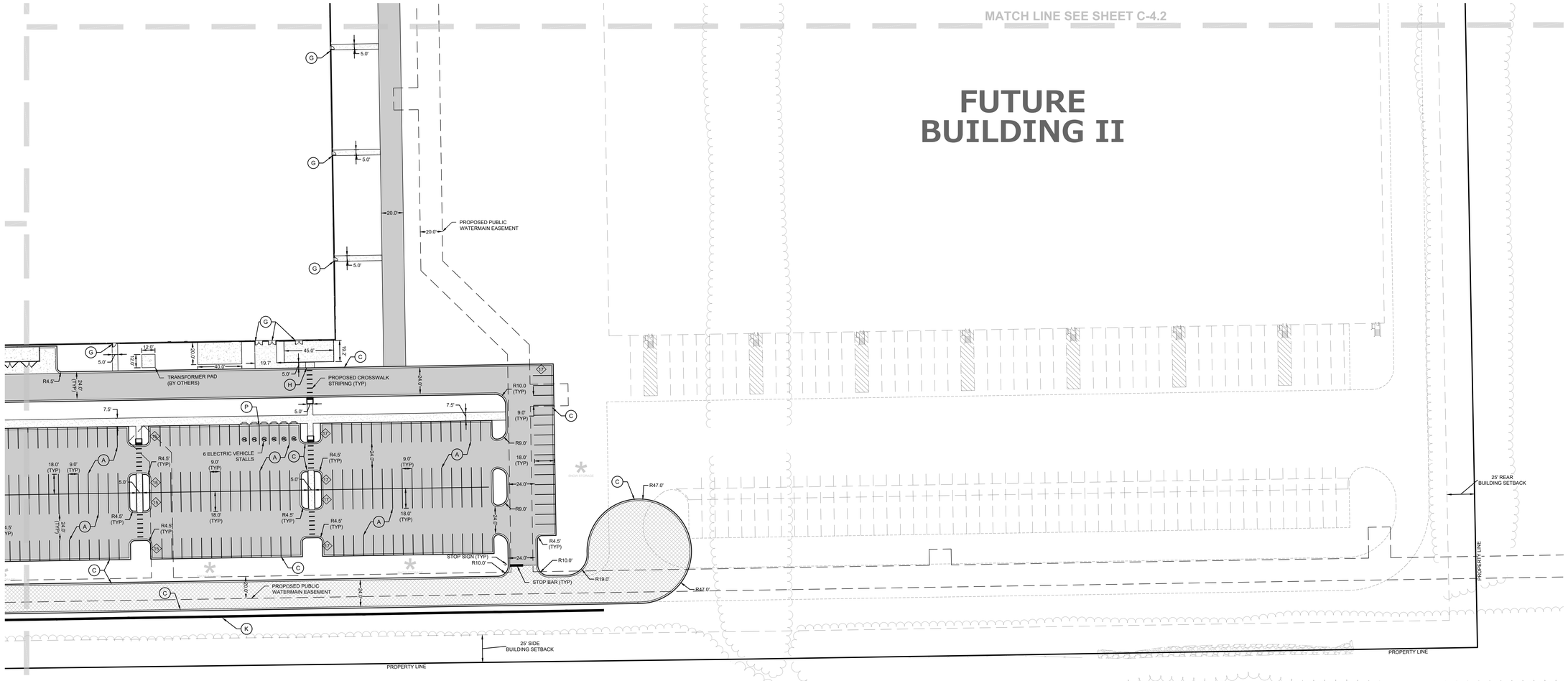
MATCH LINE SEE SHEET C-4.2



MATCH LINE SEE SHEET C-4.3

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

ALL RETAINING WALLS EXCEEDING 4' IN HEIGHT ARE REQUIRED TO BE DESIGNED AND CERTIFIED BY A LICENSED PROFESSIONAL STRUCTURAL ENGINEER

ALL RETAINING WALLS EXCEEDING 7' IN HEIGHT ARE REQUIRED TO HAVE A PROFESSIONAL STRUCTURAL ENGINEER ON-SITE OVERSEEING INSTALLATION

LEGEND

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1-3/4" SURFACE COURSE (5 LT 58-28 S)

HEAVY DUTY PAVEMENT
14" 1-1/4" CRUSHED AGGREGATE BASE COURSE CONFORMING TO GRADATION REQUIREMENTS OF WISDOT STANDARD SPECIFICATIONS SECTIONS 301 AND 305.
5" HMA PAVEMENT (2 LIFTS)
3" BINDER COURSE (4 LT 58-28 S)
2" SURFACE COURSE (5 LT 58-28 S)

HEAVY DUTY CONCRETE PAVEMENT
6" 1-1/4" CRUSHED AGGREGATE BASE COURSE CONFORMING TO GRADATION REQUIREMENTS OF WISDOT STANDARD SPECIFICATIONS SECTIONS 301 AND 305.
6" P.C.C. (4,000 PSI AIR ENTRAINED CONCRETE)

GRAVEL
11" 1-1/4" CRUSHED AGGREGATE BASE COURSE CONFORMING TO GRADATION REQUIREMENTS OF WISDOT STANDARD SPECIFICATIONS SECTIONS 301 AND 305.

D.I.D. DRIVE-IN-DOOR
1 PARKING COUNT (FOR INFORMATIONAL ONLY, NOT TO BE PAINTED)
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B 4" DIAGONAL WHITE STRIPE AT 45° SPACED 2' O.C.
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D 18" WIDE REVERSE PITCH CONC. CURB & GUTTER (SEE DETAIL)
E CURB HEAD TAPER (SEE DETAIL)
F CURB TRANSITION (FROM STANDARD TO REVERSE PITCH)
G BUILDING DOOR SLAB (2% MAX. SLOPE WITHIN DRIVE IN OR MAN DOOR)
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I R7-8 HANDICAP PARKING SIGN WITH BOLLARD (SEE DETAIL)
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K RETAINING WALL w/ RAILING AS REQUIRED (DESIGN BY OTHERS)
L OUTDOOR BREAK AREA CANOPY
M MONUMENT SIGN (BY SEPARATE PERMIT)
N DEPRESS & TAPER CURB HEAD. INSTALL NEENAH DETACTABLE WARNING PLATE AT SIDEWALK.
O R7-8 HANDICAP PARKING SIGN WITHOUT BOLLARD (SEE DETAIL)
P INTEGRAL CURB AND GUTTER (SEE DETAIL)

PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

HGA
333 East Erie Street
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Telephone 414.278.8200

CIVIL ENGINEER/ LANDSCAPE ARCHITECT
PINNACLE ENGINEERING GROUP
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SUITE 100
BROOKFIELD, WI 53186
(414) 588-5851

STRUCTURAL ENGINEER/ MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER
HGA, Inc.

SunCap PROPERTY GROUP
1407 Stuart Engals Boulevard - 2nd floor
Mt. Pleasant, SC 29464

PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

SITE DIMENSIONAL & PAVING PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

C-4.4

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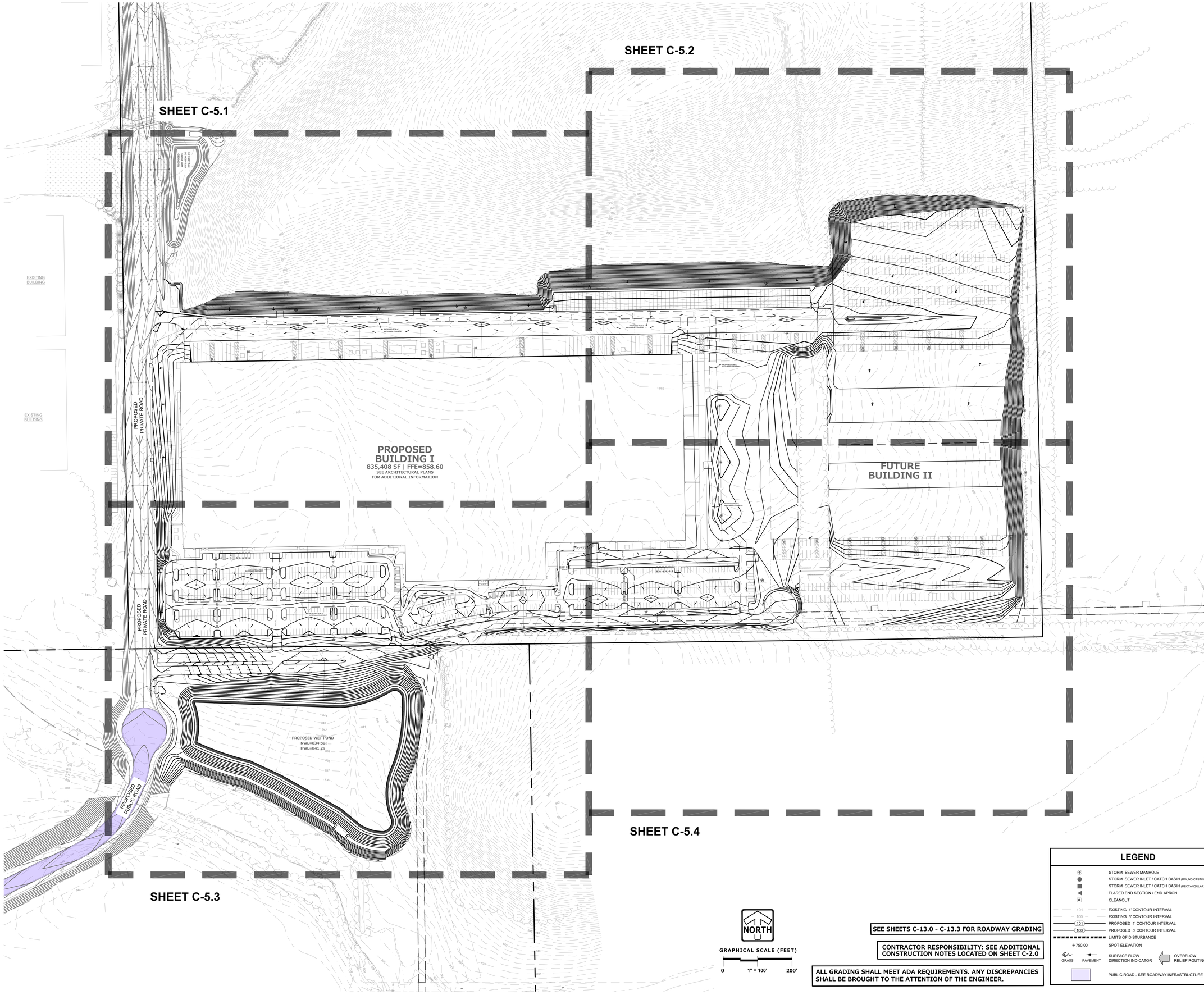

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 100' 200'

SEE SHEETS C-13.0 - C-13.3 FOR ROADWAY GRADING

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

ALL GRADING SHALL MEET ADA REQUIREMENTS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

LEGEND

- STORM SEWER MANHOLE
- STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- FLARED END SECTION / END APRON
- CLEANOUT
- 101 EXISTING 1' CONTOUR INTERVAL
- 100 EXISTING 5' CONTOUR INTERVAL
- 101 PROPOSED 1' CONTOUR INTERVAL
- 100 PROPOSED 5' CONTOUR INTERVAL
- LIMITS OF DISTURBANCE
- +750.00 SPOT ELEVATION
- GRASS / PAVEMENT SURFACE FLOW DIRECTION INDICATOR
- OVERFLOW RELIEF ROUTING
- PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

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PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

GRADING PLAN OVERVIEW

DATE: JULY 2, 2026

DEVELOPMENT USE

C-5.0

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CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

SEE SHEETS C-13.0 - C-13.3 FOR ROADWAY GRADING

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

LEGEND

- STORM SEWER MANHOLE
- STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- FLARED END SECTION / END APRON
- CLEANOUT
- 101 EXISTING 1' CONTOUR INTERVAL
- 100 EXISTING 5' CONTOUR INTERVAL
- 101 PROPOSED 1' CONTOUR INTERVAL
- 100 PROPOSED 5' CONTOUR INTERVAL
- LIMITS OF DISTURBANCE
- +750.00 SPOT ELEVATION
- GRASS / PAVEMENT SURFACE FLOW DIRECTION INDICATOR
- OVERFLOW RELIEF ROUTING
- PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

PROPOSED WET POND NWL=850.50 HWL=853.19

PROPOSED PRIVATE ROAD

130' FRONT BUILDING SETBACK

130.0'

PROPOSED PUBLIC WATERMAIN EASEMENT

MATCH LINE SEE SHEET C-5.2

MATCH LINE SEE SHEET C-5.3

PROPOSED BUILDING I

835,408 SF | FFE=858.60

SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION

PROPOSED BUILDING I

HGA

333 East Erie Street
Milwaukee, Wisconsin 53202
Telephone 414.278.8200

CIVIL ENGINEER/ LANDSCAPE ARCHITECT

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PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

GRADING PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

C-5.1

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CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

SEE SHEETS C-13.0 - C-13.3 FOR ROADWAY GRADING

LEGEND

- STORM SEWER MANHOLE
- STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- FLARED END SECTION / END APRON
- CLEANOUT
- 101 — EXISTING 1' CONTOUR INTERVAL
- 100 — EXISTING 5' CONTOUR INTERVAL
- 101 — PROPOSED 1' CONTOUR INTERVAL
- 100 — PROPOSED 5' CONTOUR INTERVAL
- LIMITS OF DISTURBANCE
- +750.00 SPOT ELEVATION
- GRASS / PAVEMENT SURFACE FLOW DIRECTION INDICATOR
- OVERFLOW RELIEF ROUTING
- PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

MATCH LINE SEE SHEET C-5.1

PROPOSED PUBLIC WATERMAIN EASEMENT

PROPOSED PUBLIC WATERMAIN EASEMENT

FUTURE TRAILER PARKING

PROPOSED BUILDING I

835,408 SF | FFE=858.60

SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION

FUTURE BUILDING II

25' REAR BUILDING SETBACK

25.0'

MATCH LINE SEE SHEET C-5.4

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PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

GRADING PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

C-5.2

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MATCH LINE SEE SHEET C-5.1

PROPOSED BUILDING I

835,408 SF | FFE=858.60

SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION

PROPOSED PRIVATE ROAD

PROPOSED PUBLIC WATERMAIN EASEMENT

PROPOSED PUBLIC WATERMAIN EASEMENT

130' FRONT BUILDING SETBACK

RETAINING WALL

8' RETAINING WALL

25' SIDE BUILDING SETBACK

PROPOSED WET POND
NWL=834.50
HWL=841.29

PROPOSED PUBLIC ROAD

EXISTING WETLAND

66' ROAD CONSTRUCTION EASEMENT PER DOC. NO. 2PA8H63

GRAVEL

MATCH LINE SEE SHEET C-5.4

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

LEGEND

- STORM SEWER MANHOLE
- STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- FLARED END SECTION / END APRON
- CLEANOUT
- 101 — EXISTING 1' CONTOUR INTERVAL
- 100 — EXISTING 5' CONTOUR INTERVAL
- 101 — PROPOSED 1' CONTOUR INTERVAL
- 100 — PROPOSED 5' CONTOUR INTERVAL
- LIMITS OF DISTURBANCE
- +750.00 SPOT ELEVATION
- GRASS / PAVEMENT — SURFACE FLOW DIRECTION INDICATOR
- OVERFLOW RELIEF ROUTING
- PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

SEE SHEETS C-13.0 - C-13.3 FOR ROADWAY GRADING

ALL GRADING SHALL MEET ADA REQUIREMENTS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

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PROJECT GRAVITY

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NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

GRADING PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

C-5.3

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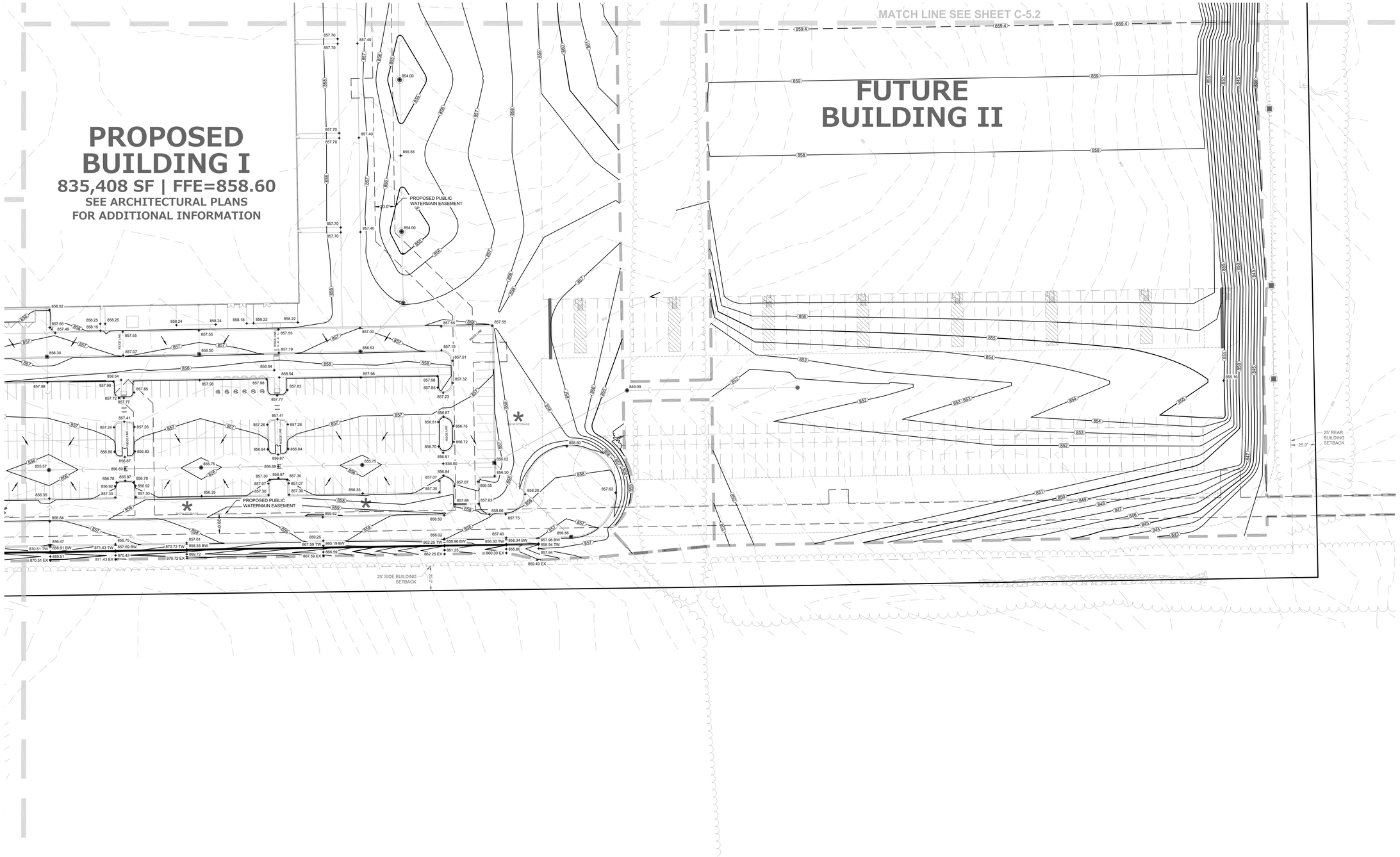

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

LEGEND

- STORM SEWER MANHOLE
- STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- FLARED END SECTION / END APRON
- CLEANOUT
- 101 EXISTING 1' CONTOUR INTERVAL
- 100 EXISTING 5' CONTOUR INTERVAL
- 101 PROPOSED 1' CONTOUR INTERVAL
- 100 PROPOSED 5' CONTOUR INTERVAL
- LIMITS OF DISTURBANCE
- +750.00 SPOT ELEVATION
- GRASS / PAVEMENT SURFACE FLOW DIRECTION INDICATOR
- OVERFLOW RELIEF ROUTING
- PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

SEE SHEETS C-13.0 - C-13.3 FOR ROADWAY GRADING

ALL GRADING SHALL MEET ADA REQUIREMENTS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

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NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

GRADING PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

C-5.4

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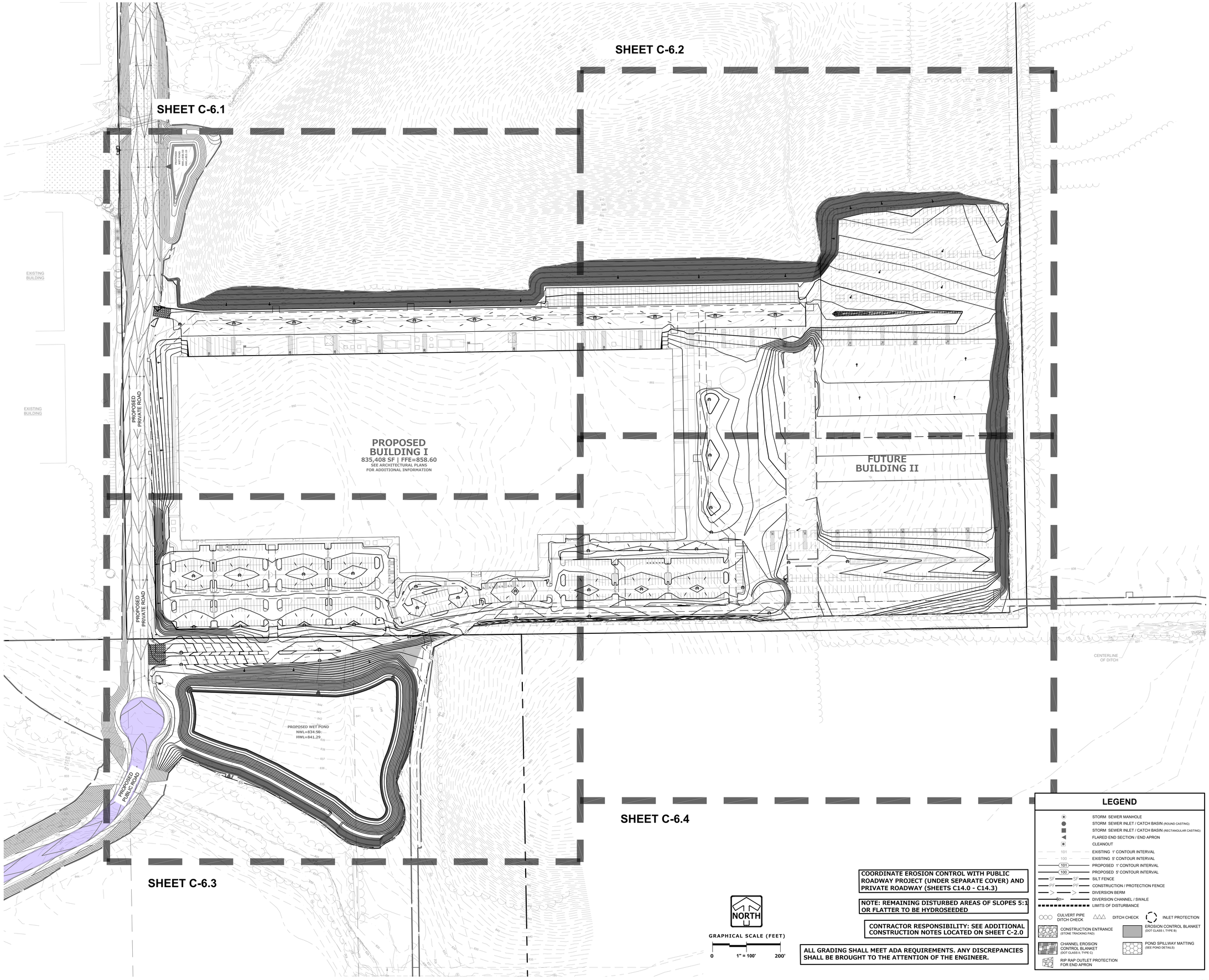

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 100' 200'

COORDINATE EROSION CONTROL WITH PUBLIC ROADWAY PROJECT (UNDER SEPARATE COVER) AND PRIVATE ROADWAY (SHEETS C14.0 - C14.3)

NOTE: REMAINING DISTURBED AREAS OF SLOPES 5:1 OR FLATTER TO BE HYDROSEEDED

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

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LEGEND

- STORM SEWER MANHOLE
- STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- FLARED END SECTION / END APRON
- CLEANOUT
- 101 EXISTING 1' CONTOUR INTERVAL
- 100 EXISTING 5' CONTOUR INTERVAL
- 101 PROPOSED 1' CONTOUR INTERVAL
- 100 PROPOSED 5' CONTOUR INTERVAL
- SF SILT FENCE
- CF CONSTRUCTION / PROTECTION FENCE
- DIVERSION BERM
- DIVERSION CHANNEL / SWALE
- LIMITS OF DISTURBANCE
- CULVERT PIPE DITCH CHECK
- DITCH CHECK
- INLET PROTECTION
- CONSTRUCTION ENTRANCE (STONE TRACKING PAD)
- EROSION CONTROL BLANKET (DOT CLASS I, TYPE B)
- CHANNEL EROSION CONTROL BLANKET (DOT CLASS II, TYPE C)
- POND SPILLWAY MATTING (SEE POND DETAILS)
- RIP RAP OUTLET PROTECTION FOR END APRON

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Boulevard - 2nd floor
Mt. Pleasant, SC 29464

PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

EROSION CONTROL PLAN OVERVIEW

DATE: JULY 2, 2026

DEVELOPMENT USE

C-6.0

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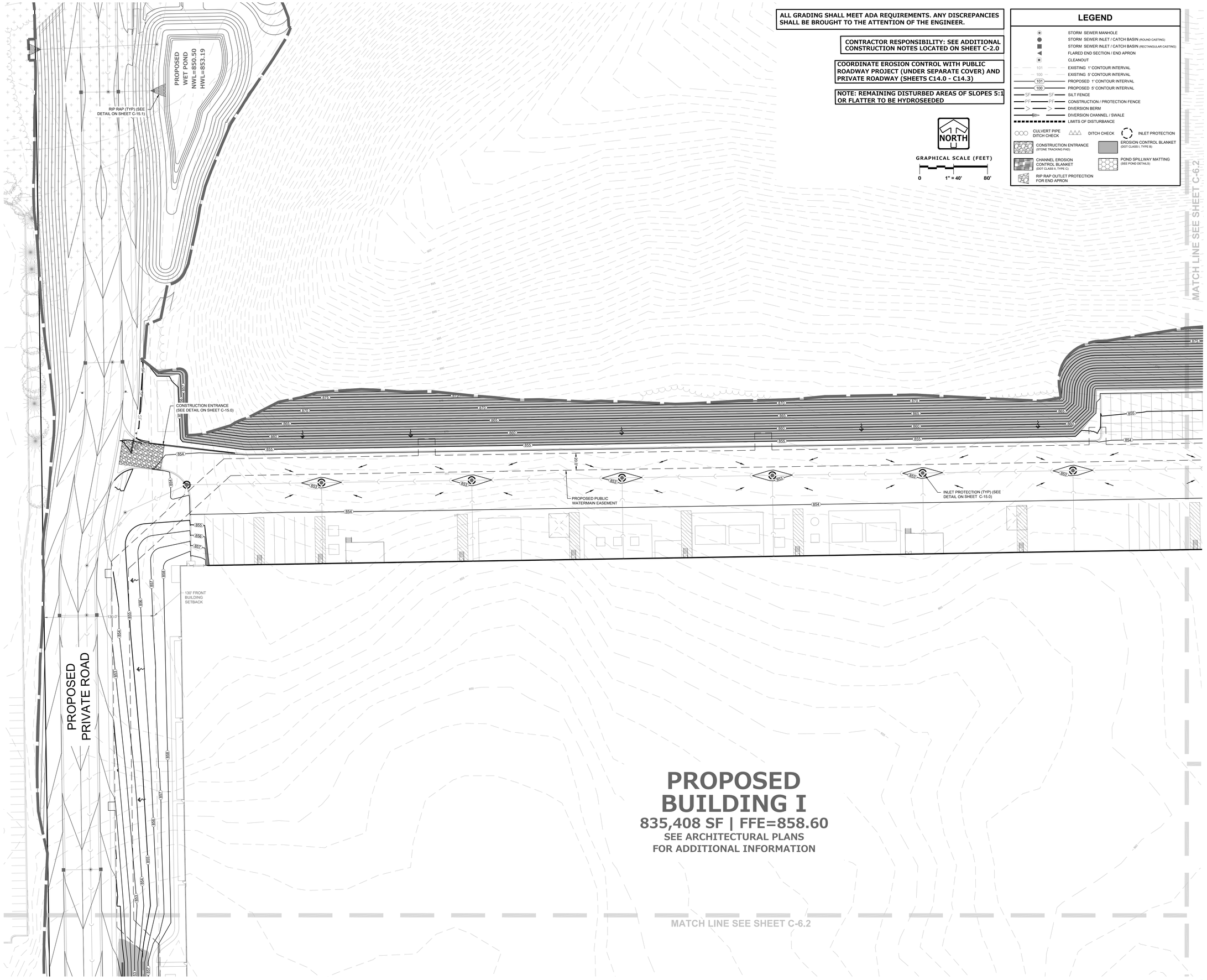

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CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

COORDINATE EROSION CONTROL WITH PUBLIC ROADWAY PROJECT (UNDER SEPARATE COVER) AND PRIVATE ROADWAY (SHEETS C14.0 - C14.3)

NOTE: REMAINING DISTURBED AREAS OF SLOPES 5:1 OR FLATTER TO BE HYDROSEEDED

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

LEGEND

- STORM SEWER MANHOLE
- STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- FLARED END SECTION / END APRON
- CLEANOUT
- EXISTING 1' CONTOUR INTERVAL
- EXISTING 5' CONTOUR INTERVAL
- PROPOSED 1' CONTOUR INTERVAL
- PROPOSED 5' CONTOUR INTERVAL
- SILT FENCE
- CONSTRUCTION / PROTECTION FENCE
- DIVERSION BERM
- DIVERSION CHANNEL / SWALE
- LIMITS OF DISTURBANCE
- CULVERT PIPE DITCH CHECK
- DITCH CHECK
- INLET PROTECTION
- CONSTRUCTION ENTRANCE (STONE TRACKING PAD)
- EROSION CONTROL BLANKET (DOT CLASS I, TYPE B)
- CHANNEL EROSION CONTROL BLANKET (DOT CLASS II, TYPE C)
- POND SPILLWAY MATTING (SEE POND DETAILS)
- RIP RAP OUTLET PROTECTION FOR END APRON

MATCH LINE SEE SHEET C-6.2

PROPOSED BUILDING I

835,408 SF | FFE=858.60

SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION

MATCH LINE SEE SHEET C-6.2

HGA

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SunCap PROPERTY GROUP

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PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

EROSION CONTROL PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

C-6.1

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COORDINATE EROSION CONTROL WITH PUBLIC ROADWAY PROJECT (UNDER SEPARATE COVER) AND PRIVATE ROADWAY (SHEETS C14.0 - C14.3)

NOTE: REMAINING DISTURBED AREAS OF SLOPES 5:1 OR FLATTER TO BE HYDROSEEDED

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

LEGEND

- STORM SEWER MANHOLE
- STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- FLARED END SECTION / END APRON
- CLEANOUT
- 101 EXISTING 1' CONTOUR INTERVAL
- 100 EXISTING 5' CONTOUR INTERVAL
- 101 PROPOSED 1' CONTOUR INTERVAL
- 100 PROPOSED 5' CONTOUR INTERVAL
- SF SILT FENCE
- PF CONSTRUCTION / PROTECTION FENCE
- DIVERSION BERM
- DIVERSION CHANNEL / SWALE
- LIMITS OF DISTURBANCE
- CULVERT PIPE
- DITCH CHECK
- INLET PROTECTION
- CONSTRUCTION ENTRANCE (STONE TRACKING PAD)
- EROSION CONTROL BLANKET (DOT CLASS I, TYPE B)
- CHANNEL EROSION CONTROL BLANKET (DOT CLASS II, TYPE C)
- POND SPILLWAY MATTING (SEE POND DETAILS)
- RIP RAP OUTLET PROTECTION FOR END APRON

MATCH LINE SEE SHEET C-6.1

INLET PROTECTION (TYP) (SEE DETAIL ON SHEET C-15.0)

PROPOSED PUBLIC WATERMAIN EASEMENT

20.0'

PROPOSED PUBLIC WATERMAIN EASEMENT

FUTURE TRAILER PARKING

FUTURE BUILDING II

25' REAR BUILDING SETBACK

25.0'

MATCH LINE SEE SHEET C-6.4

HGA

333 East Erie Street
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Telephone 414.278.8200

CIVIL ENGINEER/ LANDSCAPE ARCHITECT

PINNACLE ENGINEERING GROUP
20725 W. WATERTOWN ROAD,
SUITE 100
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(414) 588-5851

STRUCTURAL ENGINEER/ MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

HGA, Inc.

SunCap PROPERTY GROUP

1407 Stuart Engals
Boulevard - 2nd floor
Mt. Pleasant, SC 29464

PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

EROSION CONTROL PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

C-6.2

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MATCH LINE SEE SHEET C-6.1

PROPOSED BUILDING I

835,408 SF | FFE=858.60

SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION

PROPOSED PRIVATE ROAD

130' FRONT BUILDING SETBACK

INLET PROTECTION (TYP) (SEE DETAIL ON SHEET C-15.0)

PROPOSED PUBLIC WATERMAIN EASEMENT

25' SIDE BUILDING SETBACK

CONSTRUCTION ENTRANCE (SEE DETAIL ON SHEET C-15.0)

RIP RAP (TYP) (SEE DETAIL ON SHEET C-15.0)

PROPOSED WET POND
NWL=834.50
HWL=841.29

PROPOSED PUBLIC ROAD

40' ROAD CONSTRUCTION EASEMENT PER DOC. NO. 2PMN463

40' EMERGENCY ESCAPE (SEE SHEET C-6.2 FOR MORE DETAILS)

EXISTING WETLAND

MATCH LINE SEE SHEET C-6.4

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

COORDINATE EROSION CONTROL WITH PUBLIC ROADWAY PROJECT (UNDER SEPARATE COVER) AND PRIVATE ROADWAY (SHEETS C14.0 - C14.3)

NOTE: REMAINING DISTURBED AREAS OF SLOPES 5:1 OR FLATTER TO BE HYDROSEEDED

ALL GRADING SHALL MEET ADA REQUIREMENTS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

LEGEND

- STORM SEWER MANHOLE
- STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- FLARED END SECTION / END APRON
- CLEANOUT
- EXISTING 1' CONTOUR INTERVAL
- EXISTING 5' CONTOUR INTERVAL
- PROPOSED 1' CONTOUR INTERVAL
- PROPOSED 5' CONTOUR INTERVAL
- SILT FENCE
- CONSTRUCTION / PROTECTION FENCE
- DIVERSION BERM
- DIVERSION CHANNEL / SWALE
- LIMITS OF DISTURBANCE
- CULVERT PIPE
- DITCH CHECK
- INLET PROTECTION
- CONSTRUCTION ENTRANCE (STONE TRACKING PAD)
- EROSION CONTROL BLANKET (DOT CLASS I, TYPE B)
- CHANNEL EROSION CONTROL BLANKET (DOT CLASS II, TYPE C)
- POND SPILLWAY MATTING (SEE POND DETAILS)
- RIP RAP OUTLET PROTECTION FOR END APRON

HGA

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HGA, Inc.

SunCap PROPERTY GROUP

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Boulevard - 2nd floor
Mt. Pleasant, SC 29464

PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

EROSION CONTROL PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

C-6.3

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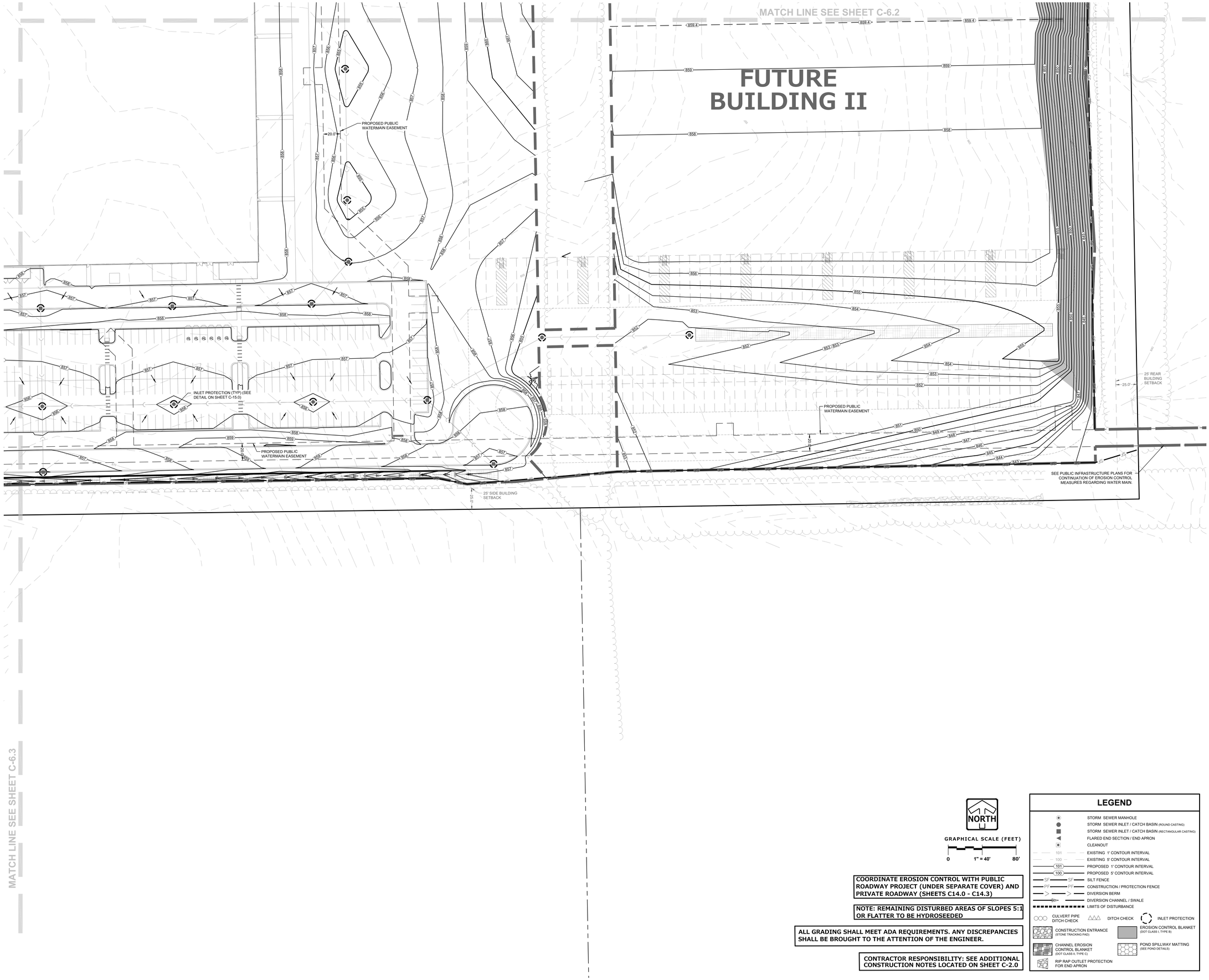

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

COORDINATE EROSION CONTROL WITH PUBLIC ROADWAY PROJECT (UNDER SEPARATE COVER) AND PRIVATE ROADWAY (SHEETS C14.0 - C14.3)

NOTE: REMAINING DISTURBED AREAS OF SLOPES 5:1 OR FLATTER TO BE HYDROSEEDED

ALL GRADING SHALL MEET ADA REQUIREMENTS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

LEGEND

- STORM SEWER MANHOLE
- STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- FLARED END SECTION / END APRON
- CLEANOUT
- 101 EXISTING 1' CONTOUR INTERVAL
- 105 EXISTING 5' CONTOUR INTERVAL
- 101 PROPOSED 1' CONTOUR INTERVAL
- 100 PROPOSED 5' CONTOUR INTERVAL
- SF SILT FENCE
- PF CONSTRUCTION / PROTECTION FENCE
- DIVERSION BERM
- DIVERSION CHANNEL / SWALE
- LIMITS OF DISTURBANCE
- CULVERT PIPE DITCH CHECK
- DITCH CHECK
- INLET PROTECTION
- CONSTRUCTION ENTRANCE (STONE TRACKING PAD)
- EROSION CONTROL BLANKET (DOT CLASS I, TYPE B)
- CHANNEL EROSION CONTROL BLANKET (DOT CLASS II, TYPE C)
- POND SPILLWAY MATTING (SEE POND DETAILS)
- RIP RAP OUTLET PROTECTION FOR END APRON

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PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

EROSION CONTROL PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

C-6.4

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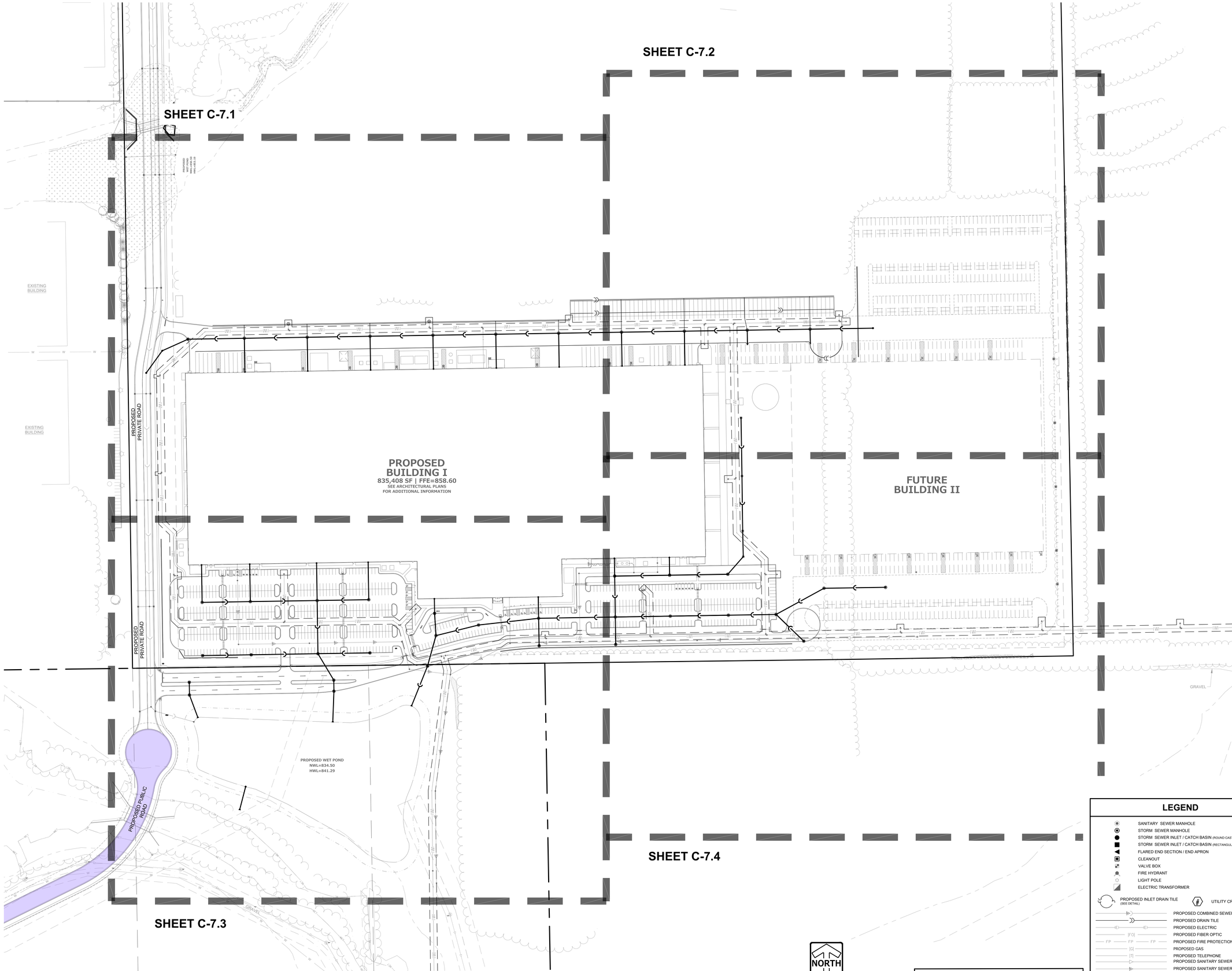

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 100' 200'

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

ALL STORM SEWER STRUCTURES SHALL HAVE INLET DRAINTILE IN ACCORDANCE WITH DETAIL ON SHEET C-15.0

LEGEND

- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- FLARED END SECTION / END APRON
- CLEANOUT
- VALVE BOX
- FIRE HYDRANT
- LIGHT POLE
- ELECTRIC TRANSFORMER
- PROPOSED INLET DRAIN TILE (SEE DETAIL)
- UTILITY CROSSING
- PROPOSED COMBINED SEWER
- PROPOSED DRAIN TILE
- PROPOSED ELECTRIC
- PROPOSED FIBER OPTIC
- PROPOSED FIRE PROTECTION
- PROPOSED GAS
- PROPOSED TELEPHONE
- PROPOSED SANITARY SEWER (PUBLIC)
- PROPOSED SANITARY SEWER (PRIVATE)
- PROPOSED STORM SEWER
- PROPOSED WATERMAIN (PUBLIC)
- PROPOSED WATERMAIN (PRIVATE)
- PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

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PROJECT GRAVITY

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NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

STORM SEWER PLAN OVERVIEW

DATE: JULY 2, 2026

DEVELOPMENT USE

C-7.0

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ALL STORM SEWER STRUCTURES SHALL HAVE INLET DRAINTILE IN ACCORDANCE WITH DETAIL ON SHEET C-15.0

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

LEGEND

- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- FLARED END SECTION / END APRON
- CLEANOUT
- VALVE BOX
- FIRE HYDRANT
- LIGHT POLE
- ELECTRIC TRANSFORMER
- PROPOSED INLET DRAIN TILE (SEE DETAIL)
- UTILITY CROSSING
- PROPOSED COMBINED SEWER
- PROPOSED DRAIN TILE
- PROPOSED ELECTRIC
- PROPOSED FIBER OPTIC
- PROPOSED FIRE PROTECTION
- PROPOSED GAS
- PROPOSED TELEPHONE
- PROPOSED SANITARY SEWER (PUBLIC)
- PROPOSED SANITARY SEWER (PRIVATE)
- PROPOSED STORM SEWER
- PROPOSED WATERMAIN (PUBLIC)
- PROPOSED WATERMAIN (PRIVATE)
- PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

MATCH LINE SEE SHEET C-7.2

PROPOSED WET POND NWL=850.50 HWL=853.19

PROPERTY LINE

STM MH 105.1 108" DIA RIM= 854.83 INV=838.10 (72" NE) INV=838.10 (72" SW)

79.6 L.F. 72" RCP @ S=0.30%

77.1 L.F. 72" RCP @ S=0.30%

CB 107.0 108" DIA RIM= 852.89 INV=838.34 (72" E) INV=838.34 (72" SW)

159.0 L.F. 72" RCP @ S=0.28%

95.0 L.F. 16" SCH-40 PVC @ S=2.00%

CB 108.0 96" DIA RIM= 852.76 INV=838.79 (72" E) INV=847.79 (16" S) INV=838.79 (72" W)

177.3 L.F. 72" RCP @ S=0.25%

95.0 L.F. 16" SCH-40 PVC @ S=2.00%

CB 109.0 96" DIA RIM= 852.76 INV=839.23 (66" E) INV=847.73 (16" S) INV=839.23 (72" W)

177.3 L.F. 66" RCP @ S=0.35%

20.0'

PROPOSED PUBLIC WATERMAIN EASEMENT

CB 110.0 96" DIA RIM= 852.76 INV=839.85 (66" E) INV=847.85 (16" S) INV=839.85 (66" W)

95.0 L.F. 16" SCH-40 PVC @ S=2.00%

177.3 L.F. 66" RCP @ S=0.30%

CB 111.0 96" DIA RIM= 852.76 INV=840.38 (60" E) INV=847.88 (16" S) INV=840.38 (66" W)

177.3 L.F. 60" RCP @ S=0.40%

95.0 L.F. 16" SCH-40 PVC @ S=2.00%

CB 112.0 96" DIA RIM= 852.76 INV=841.09 (60" E) INV=847.59 (16" S) INV=841.09 (60" W)

177.3 L.F. 60" RCP @ S=0.32%

95.0 L.F. 16" SCH-40 PVC @ S=2.00%

CB 113.0 96" DIA RIM= 852.76 INV=841.66 (60" E) INV=847.66 (16" S) INV=841.66 (60" W)

177.3 L.F. 60" RCP @ S=0.30%

BC 108.1 INV=849.69 (16")

BC 109.1 INV=849.63 (16")

BC 110.1 INV=849.75 (16")

BC 111.1 INV=849.78 (16")

BC 112.1 INV=849.49 (16")

BC 113.1 INV=849.56 (16")

130.0'

130' FRONT BUILDING SETBACK

STM MH 105.0 108" DIA RIM= 853.31 INV=837.87 (72" NE) INV=848.67 (12" N) INV=837.87 (72" S)

SEE SHEET C-13.1 - C-13.3 FOR CONTINUED ROADWAY STORM SEWER DETAILS

PROPOSED PRIVATE ROAD

PROPERTY LINE

PROPERTY LINE

PROPOSED BUILDING I

835,408 SF | FFE=858.60

SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION

MATCH LINE SEE SHEET C-7.3

HGA

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STRUCTURAL ENGINEER/ MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

HGA, Inc.

SunCap PROPERTY GROUP

1407 Stuart Engals Boulevard - 2nd floor
Mt. Pleasant, SC 29464

PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

STORM SEWER PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

C-7.1

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ALL STORM SEWER STRUCTURES SHALL HAVE INLET DRAINTILE IN ACCORDANCE WITH DETAIL ON SHEET C-15.0

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

LEGEND

- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- FLARED END SECTION / END APRON
- CLEANOUT
- VALVE BOX
- FIRE HYDRANT
- LIGHT POLE
- ELECTRIC TRANSFORMER
- PROPOSED INLET DRAIN TILE (SEE DETAIL)
- UTILITY CROSSING
- PROPOSED COMBINED SEWER
- PROPOSED DRAIN TILE
- PROPOSED ELECTRIC
- PROPOSED FIBER OPTIC
- PROPOSED FIRE PROTECTION
- PROPOSED GAS
- PROPOSED TELEPHONE
- PROPOSED SANITARY SEWER (PUBLIC)
- PROPOSED SANITARY SEWER (PRIVATE)
- PROPOSED STORM SEWER
- PROPOSED WATERMAIN (PUBLIC)
- PROPOSED WATERMAIN (PRIVATE)
- PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

MATCH LINE SEE SHEET C-7.1

FUTURE TRAILER PARKING

CB 114.0
84" DIA
RIM= 852.76
INV=842.19 (54" E)
INV=847.69 (16" S)
INV=842.19 (60" W)

CB 115.0
72" DIA
RIM= 852.76
INV=842.90 (54" E)
INV=847.90 (16" S)
INV=842.90 (54" W)

CB 116.0
72" DIA
RIM= 852.76
INV=843.43 (54" E)
INV=849.13 (16" S)
INV=843.43 (54" W)

CB 117.0
72" DIA
RIM= 852.76
INV=843.87 (48" E)
INV=849.13 (16" S)
INV=843.87 (54" W)

CB 119.0
72" DIA
RIM= 850.76
INV=844.44 (48" W)

PROPOSED PUBLIC WATERMAIN EASEMENT

20.0'

177.3 L.F. 48" RCP @ S=0.32%

177.3 L.F. 54" RCP @ S=0.25%

177.3 L.F. 54" RCP @ S=0.30%

177.3 L.F. 54" RCP @ S=0.40%

95.0 L.F. 16" SCH-40 PVC @ S=2.00%

95.0 L.F. 16" SCH-40 PVC @ S=2.00%

40.0 L.F. 16" SCH-40 PVC @ S=1.43%

40.0 L.F. 16" SCH-40 PVC @ S=1.43%

STM CLEANOUT 116.1
INV=849.70 (16")

STM CLEANOUT 117.1
INV=849.70 (16")

BC 114.1
INV=849.59 (16")

BC 115.1
INV=849.80 (16")

PROPOSED PUBLIC WATERMAIN EASEMENT

20.0'

INL 317.0
48" DIA
RIM= 854.00
INV=850.23 (18" S)

164.0 L.F. 18" HDPE @ S=0.50%

FUTURE BUILDING II

PROPERTY LINE

25' REAR BUILDING SETBACK

25.0'

MATCH LINE SEE SHEET C-7.4

HGA
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PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

STORM SEWER PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

C-7.2

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MATCH LINE SEE SHEET C-7.1

PROPOSED BUILDING I

835,408 SF | FFE=858.60

SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION

PROPERTY LINE

PROPOSED PRIVATE ROAD

BC 206.1 INV=852.84 (16")

BC 205.1 INV=852.82 (16")

BC 204.1 INV=852.93 (16")

BC 207.1 INV=853.02 (16")

105.5 L.F. 16" SCH-40 PVC @ S=1.00%

105.5 L.F. 16" SCH-40 PVC @ S=1.00%

105.5 L.F. 16" SCH-40 PVC @ S=1.00%

105.5 L.F. 16" SCH-40 PVC @ S=1.00%

CB 205.0
48" DIA
RIM= 855.31
INV=850.96 (18" W)
INV=851.76 (16" N)
INV=850.96 (24" E)

CB 206.0
48" DIA
RIM= 855.58
INV=851.78 (16" N)
INV=851.78 (18" E)

136.0 L.F. 18" HDPE @ S=0.60%

188.5 L.F. 24" HDPE @ S=1.00%

CB 204.0
60" DIA
RIM= 855.36
INV=849.07 (24" W)
INV=851.87 (16" N)
INV=849.07 (18" E)
INV=849.07 (30" S)

145.5 L.F. 18" HDPE @ S=1.30%

CB 207.0
48" DIA
RIM= 855.36
INV=851.96 (16" N)
INV=850.96 (18" W)

PROPOSED PUBLIC WATERMAIN EASEMENT

20'

149.8 L.F. 30" HDPE @ S=1.40%

2'X3' BOX INL 210.0
RIM= 854.86
INV=850.79 (12" E)

137.1 L.F. 12" HDPE @ S=1.50%

2'X3' BOX INL 209.0
RIM= 854.59
INV=848.73 (12" W)
INV=848.73 (12" E)

188.2 L.F. 12" HDPE @ S=2.00%

146.8 L.F. 12" HDPE @ S=2.00%

2'X3' BOX INL 208.0
RIM= 854.71
INV=850.41 (12" W)

CB 203.0
72" DIA
RIM= 854.71
INV=846.97 (30" N)
INV=847.47 (12" E)
INV=844.97 (12" W)
INV=844.97 (30" SE)

87.0 L.F. 30" HDPE @ S=1.30%

CB 202.0
48" DIA
RIM= 850.83
INV=843.84 (30" NW)
INV=843.84 (30" S)

31.1 L.F. 30" HDPE @ S=1.51%

CB 201.0
60" DIA
RIM= 849.89
INV=843.37 (30" N)
INV=835.37 (36" S)

87.3 L.F. 36" HDPE @ S=1.00%

FES 200.0
INV=834.50 (36")

SEE SHEET C-13.1 - C-13.3 FOR CONTINUED ROADWAY STORM SEWER DETAILS

2'X3' BOX INL 213.0
RIM= 843.22
INV=839.04 (12" S)

36.0 L.F. 12" HDPE @ S=1.00%

CB 212.0
48" DIA
RIM= 843.22
INV=838.68 (12" N)
INV=835.18 (18" S)

68.3 L.F. 18" HDPE @ S=1.00%

FES 211.0
INV=834.50 (18")

PROPOSED PUBLIC ROAD

PROPOSED WET POND
NWL=834.50
HWL=841.29

MID POND OCS
SEE SHEET C-15.2 FOR MORE DETAILS

67.6 L.F. 36" RCP @ S=0.74%

RCP FES MID POND
INV=834.00 (36")

40'

40'

30'

47' ROAD CONSTRUCTION EASEMENT PER DOC. NO. 3PMPMS

RIGHT TO CONSTRUCT SLOPES EASEMENT PER DOC. NO. 3PMPMA

30' ROAD CONSTRUCTION EASEMENT PER DOC. NO. 3PMPMA

GRAVEL

BC 319.1
INV=852.43 (16")

41.0 L.F. 16" SCH-40 PVC @ S=3.00%

CB 319.0
48" DIA
RIM= 856.46
INV=851.20 (16" N)
INV=851.20 (24" S)

62.8 L.F. 24" HDPE @ S=1.00%

CB 302.0
96" DIA
RIM= 856.60
INV=835.57 (54" E)
INV=850.57 (24" N)
INV=835.57 (54" S)

89.4 L.F. 54" RCP @ S=0.50%

CB 303.0
84" DIA
RIM= 856.60
INV=836.19 (54" E)
INV=836.19 (54" W)

123.7 L.F. 54" RCP @ S=0.50%

PROPOSED PUBLIC WATERMAIN EASEMENT

20'

CB 301.0
84" DIA
RIM= 854.43
INV=835.12 (54" N)
INV=835.12 (54" S)

121.3 L.F. 54" RCP @ S=0.51%

RCP FES 300.0
INV=834.50 (54")

EXISTING WETLAND

BC 304.1
INV=853.84 (16")

59.9 L.F. 16" SCH-40 PVC @ S=3.01%

216.5 L.F. 48" RCP @ S=0.50%

170.4 L.F. 54" RCP @ S=0.50%

77.5 L.F. 12" HDPE @ S=1.00%

CB 304.0
84" DIA
RIM= 855.80
INV=837.04 (48" E)
INV=850.04 (12" S)
INV=852.04 (16" N)
INV=837.04 (54" W)

2'X3' BOX INL 318.0
RIM= 855.12
INV=850.82 (12" N)

PROPERTY LINE

MATCH LINE SEE SHEET C-7.4

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

ALL STORM SEWER STRUCTURES SHALL HAVE INLET DRAINTILE IN ACCORDANCE WITH DETAIL ON SHEET C-15.0

LEGEND

- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- FLARED END SECTION / END APRON
- CLEANOUT
- VALVE BOX
- FIRE HYDRANT
- LIGHT POLE
- ELECTRIC TRANSFORMER
- PROPOSED INLET DRAIN TILE (SEE DETAIL)
- UTILITY CROSSING
- PROPOSED COMBINED SEWER
- PROPOSED DRAIN TILE
- PROPOSED ELECTRIC
- PROPOSED FIBER OPTIC
- PROPOSED FIRE PROTECTION
- PROPOSED GAS
- PROPOSED TELEPHONE
- PROPOSED SANITARY SEWER (PUBLIC)
- PROPOSED SANITARY SEWER (PRIVATE)
- PROPOSED STORM SEWER
- PROPOSED WATERMAIN (PUBLIC)
- PROPOSED WATERMAIN (PRIVATE)
- PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

HGA
333 East Erie Street
Milwaukee, Wisconsin 53202
Telephone 414.278.8200

CIVIL ENGINEER/ LANDSCAPE ARCHITECT

PINNACLE ENGINEERING GROUP
20725 W. WATERTOWN ROAD,
SUITE 100
BROOKFIELD, WI 53186
(414) 588-5851

STRUCTURAL ENGINEER/ MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

HGA, Inc.

SunCap PROPERTY GROUP
1407 Stuart Engals Boulevard - 2nd floor
Mt. Pleasant, SC 29464

PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

STORM SEWER PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

C-7.3

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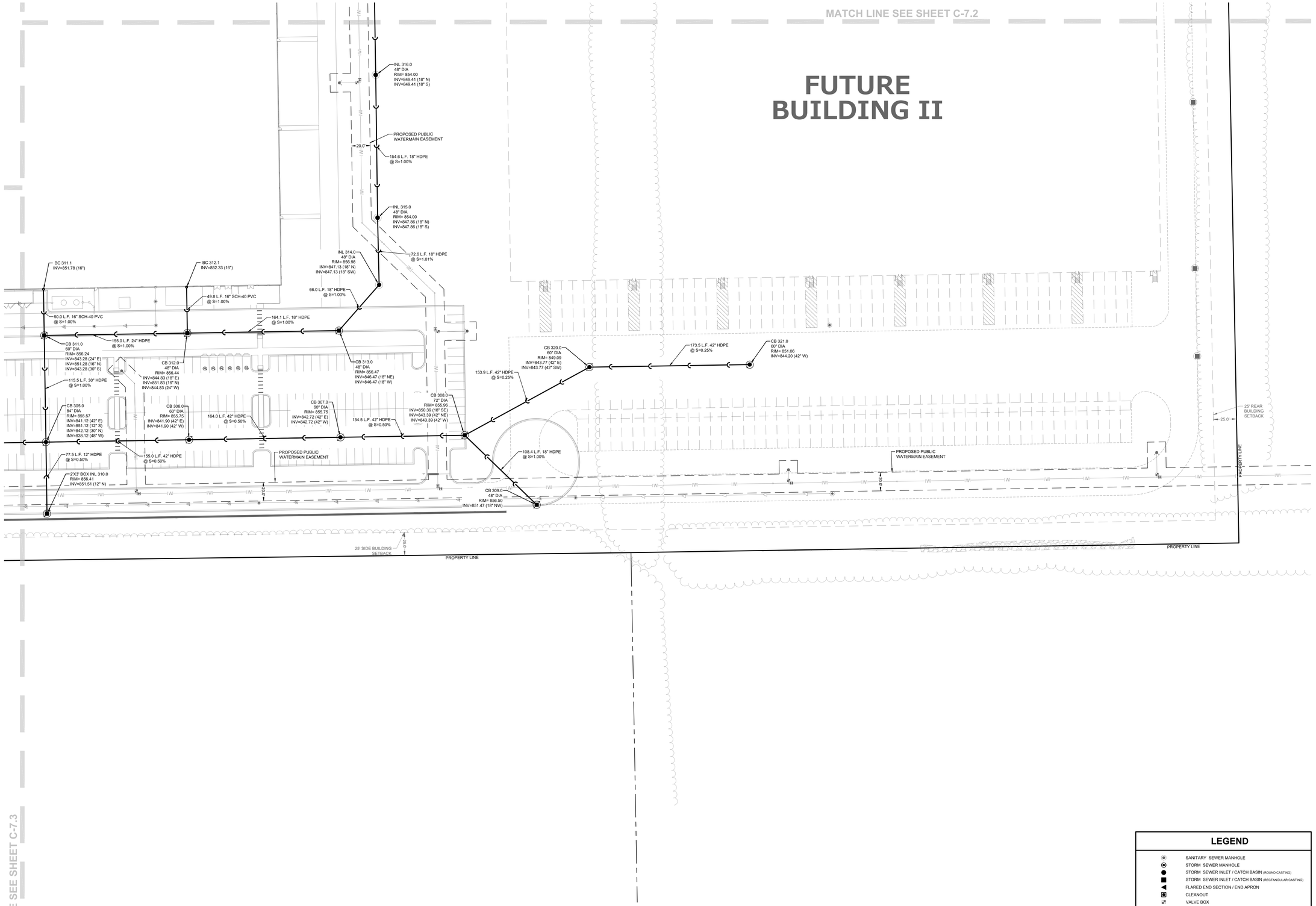
MATCH LINE SEE SHEET C-7.2

FUTURE BUILDING II



MATCH LINE SEE SHEET C-7.3

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2.0

ALL STORM SEWER STRUCTURES SHALL HAVE INLET DRAINTILE IN ACCORDANCE WITH DETAIL ON SHEET C-15.0

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HGA NO: 5533-001-00

STORM SEWER PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

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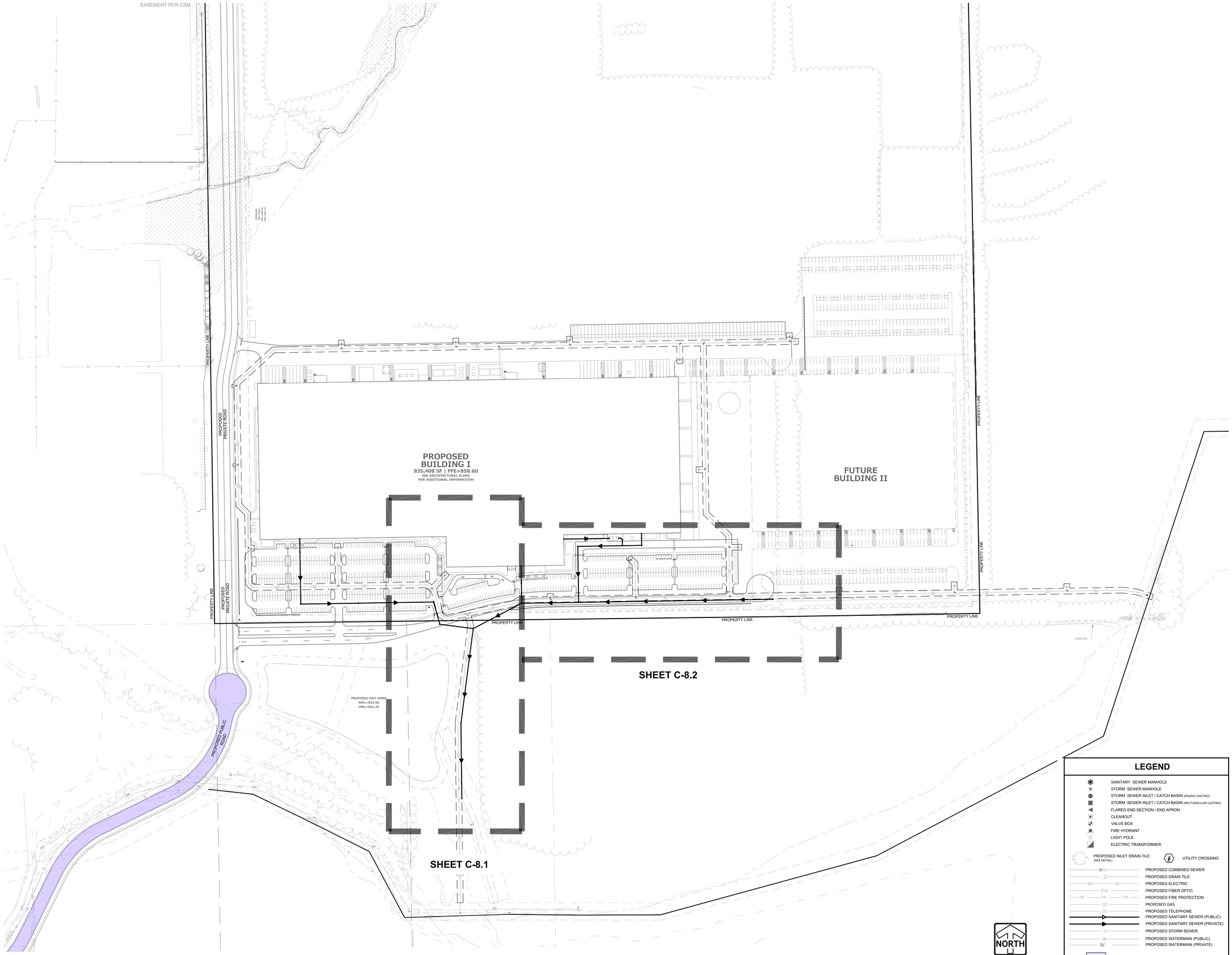

LEGEND

- SANITARY SEWER MANHOLE
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NORTH

GRAPHICAL SCALE (FEET)

0 1" = 120' 240'

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ISSUANCE HISTORY - THIS SHEET

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SANITARY SEWER PLAN & PROFILE OVERVIEW

DATE: JULY 2, 2026

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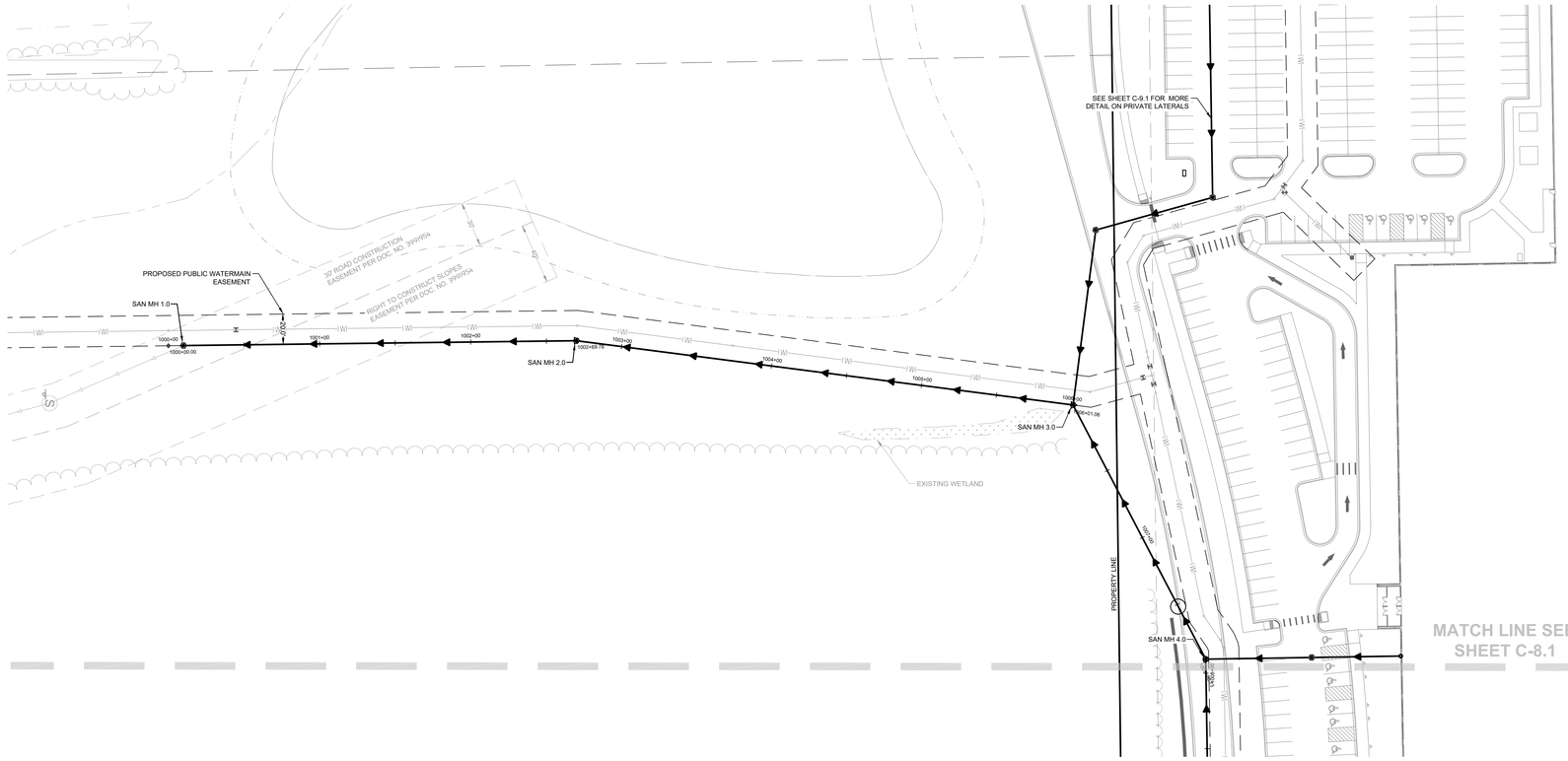

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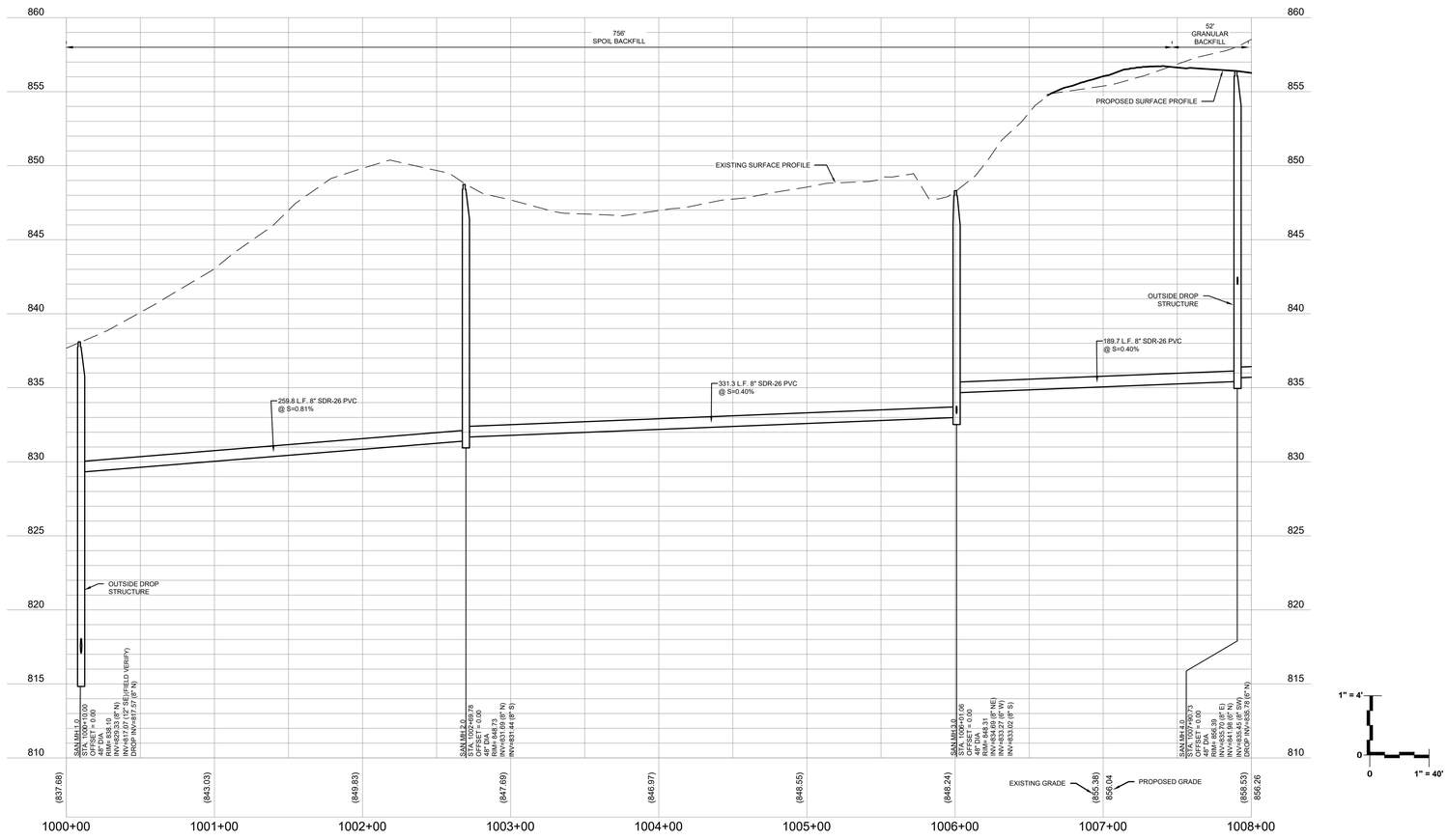
- PROPOSED WATERMAIN (PRIVATE)
- PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'



1" = 4'

0 1" = 40'

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SANITARY SEWER PLAN & PROFILE

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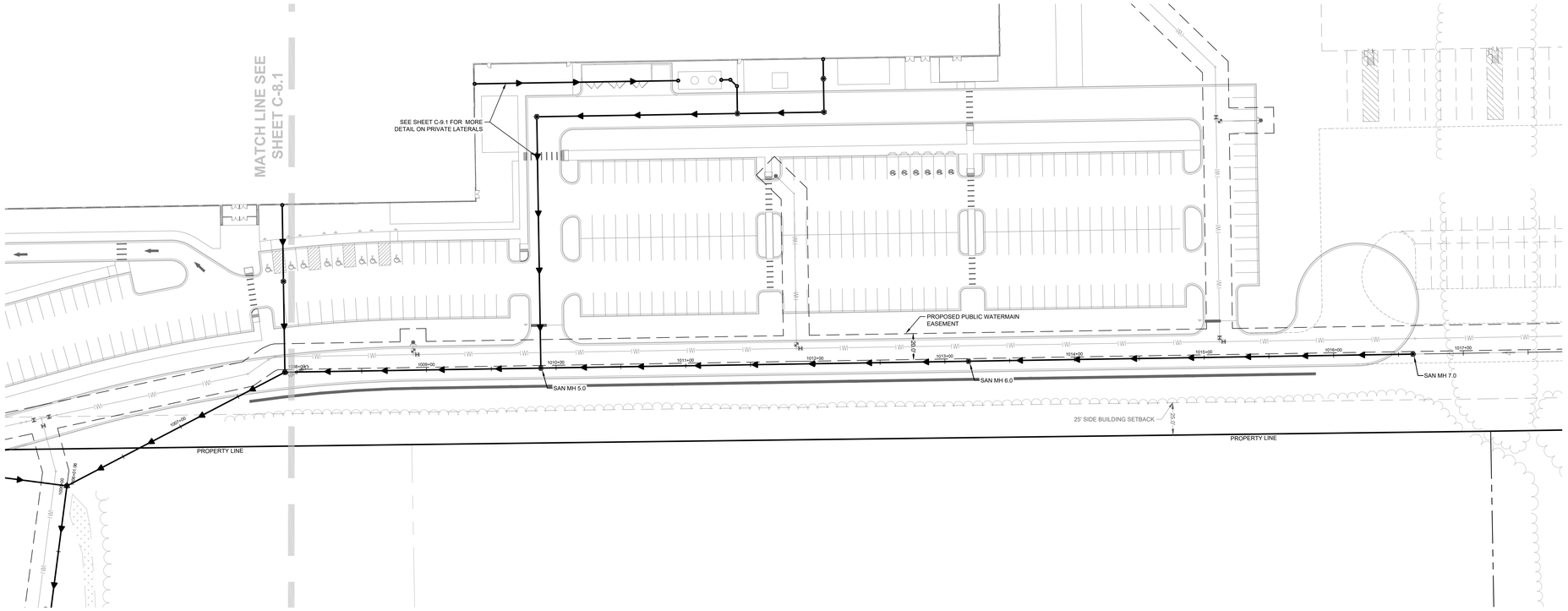

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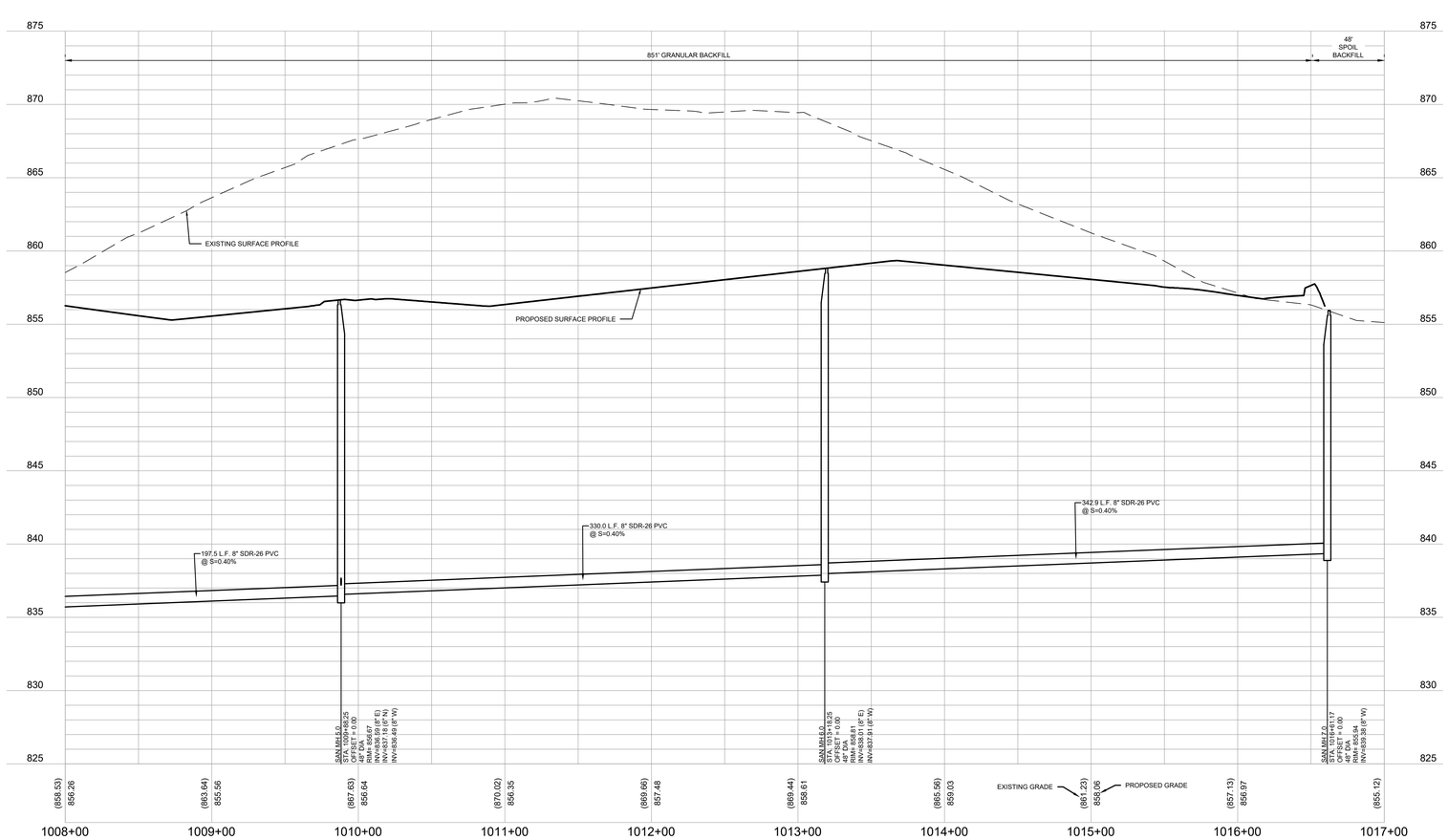
- PROPOSED WATERMAIN (PRIVATE)
- PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'



1" = 4'

0 1" = 40'

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SANITARY SEWER PLAN & PROFILE

DATE: JULY 2, 2026

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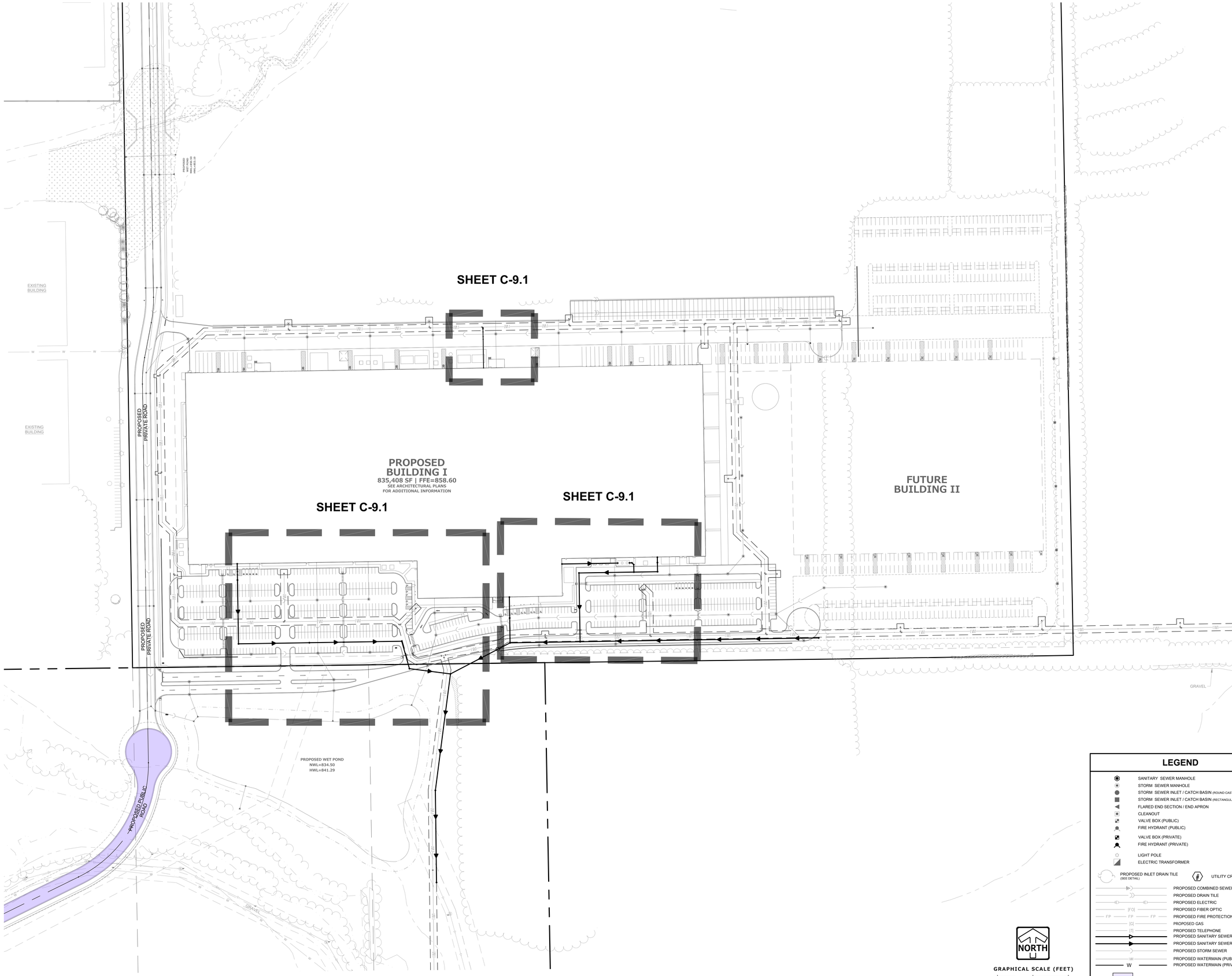

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- PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 100' 200'

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NO	DESCRIPTION	DATE

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PRIVATE UTILITY LATERAL PLAN OVERVIEW

DATE: JULY 2, 2026

DEVELOPMENT USE

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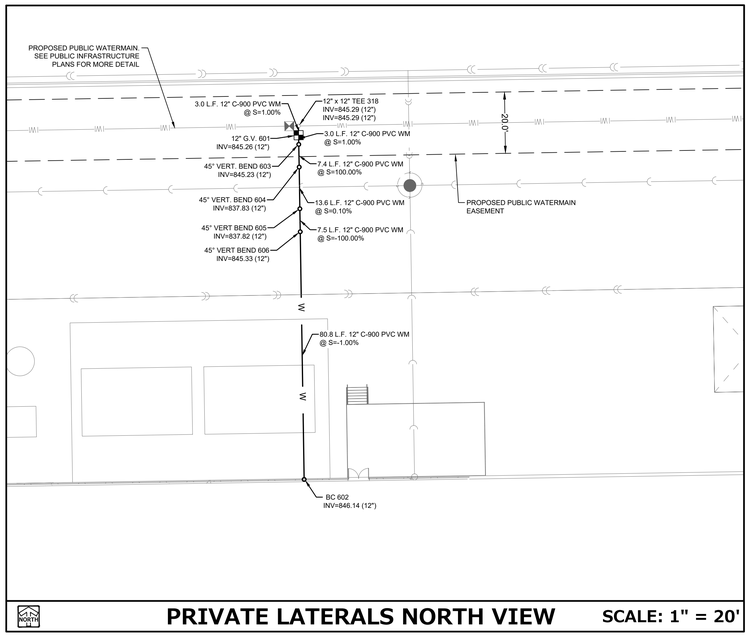

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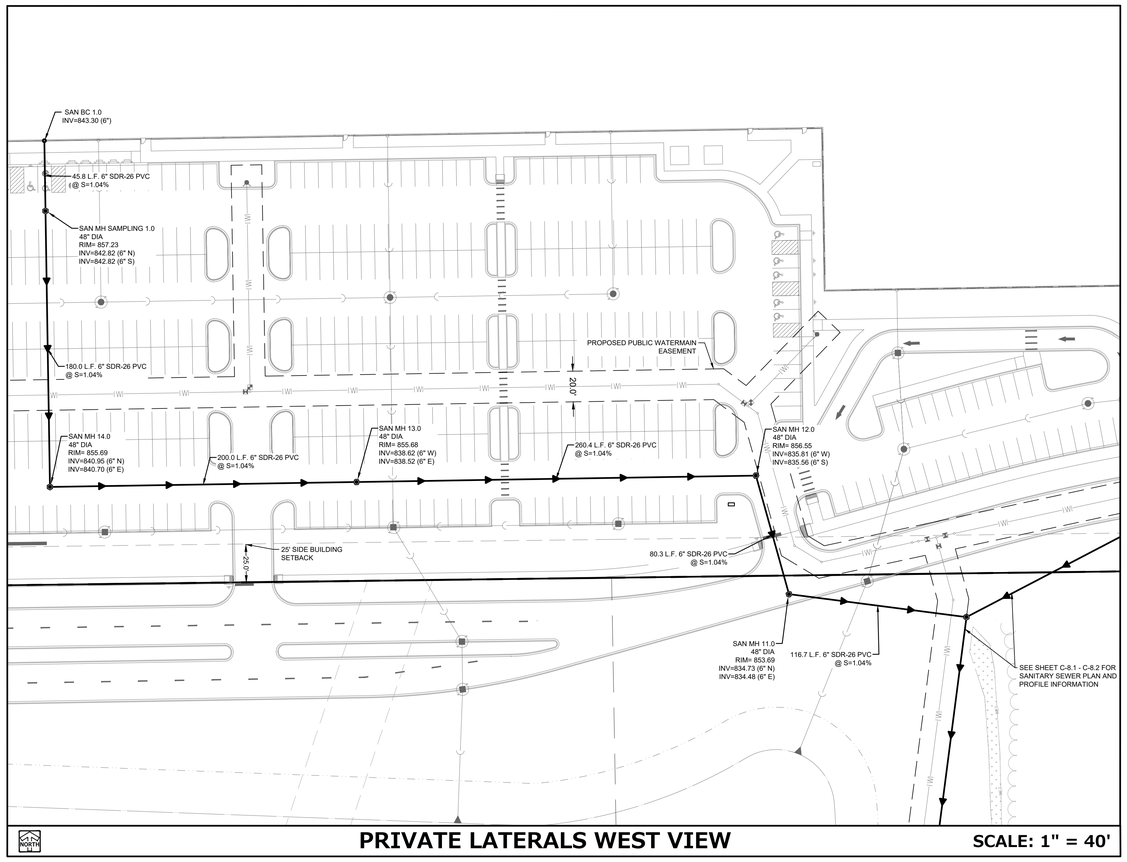

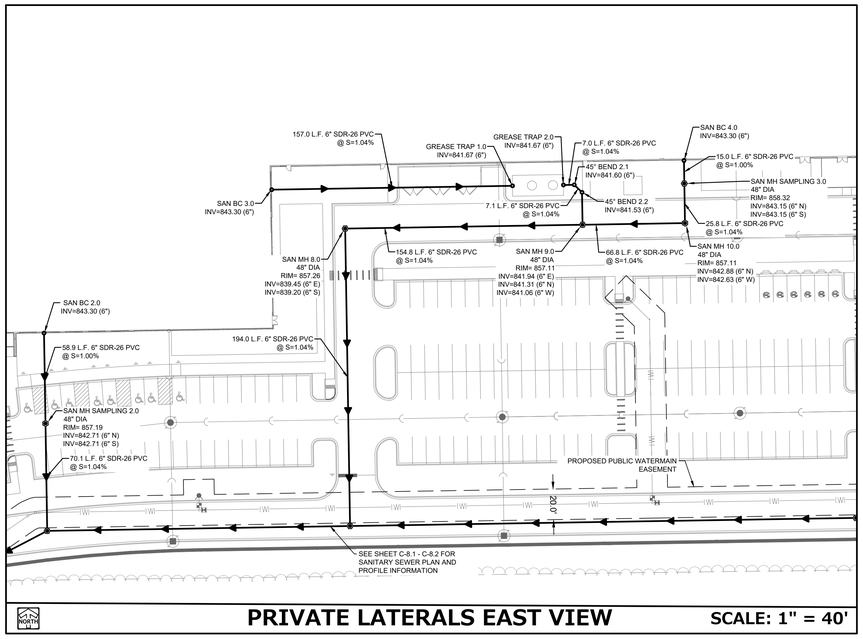

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PRIVATE UTILITY LATERAL PLAN

DATE: JULY 2, 2026

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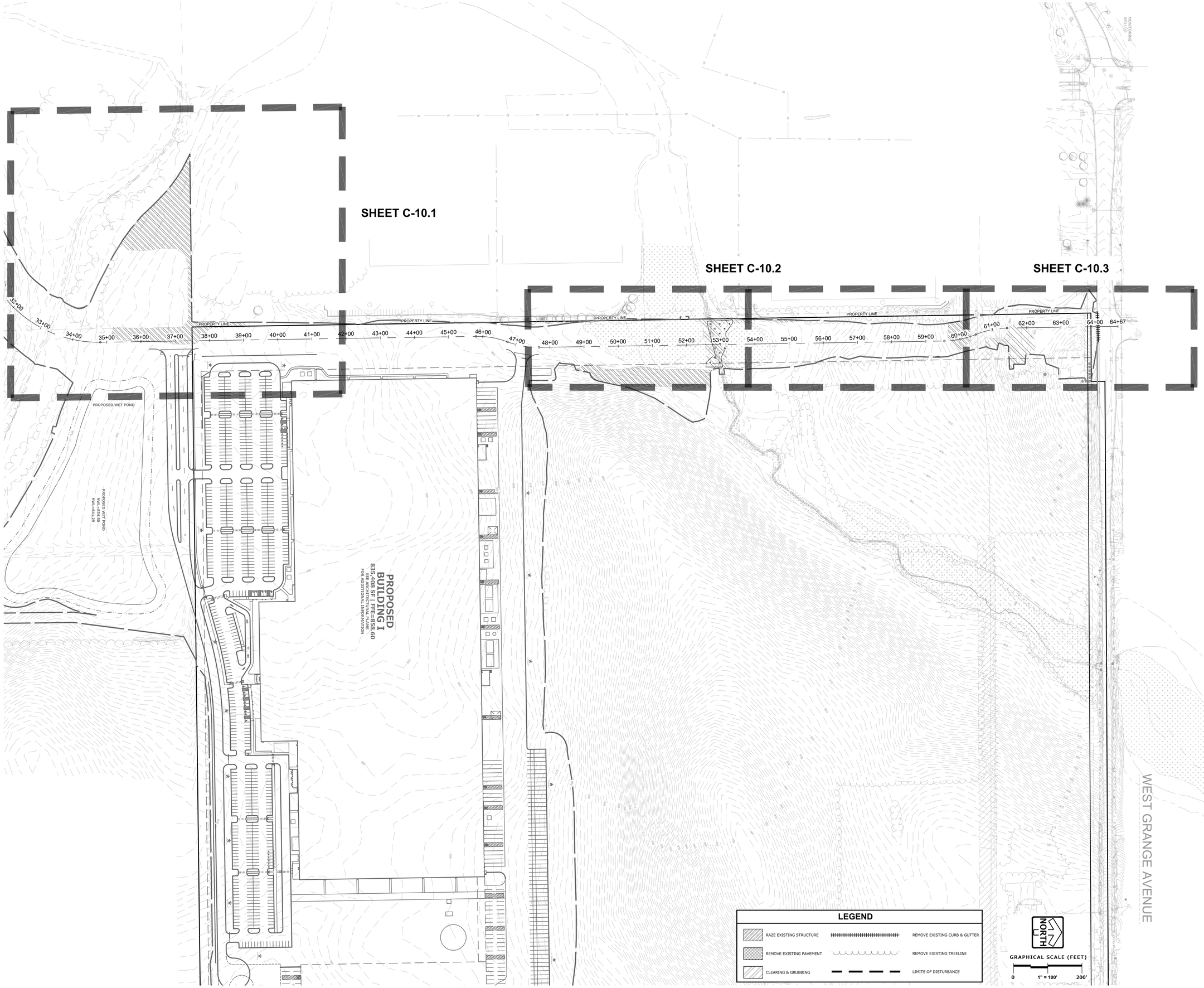

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ISSUANCE HISTORY - THIS SHEET

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PRIVATE ROADWAY REMOVAL PLAN OVERVIEW

DATE: JULY 2, 2026

DEVELOPMENT USE

C-10.0

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LEGEND

RAZE EXISTING STRUCTURE	REMOVE EXISTING CURB & GUTTER
REMOVE EXISTING PAVEMENT	REMOVE EXISTING TREELINE
CLEARING & GRUBBING	LIMITS OF DISTURBANCE

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 30' 60'

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PRIVATE ROADWAY REMOVAL PLAN

DATE: JULY 2, 2026

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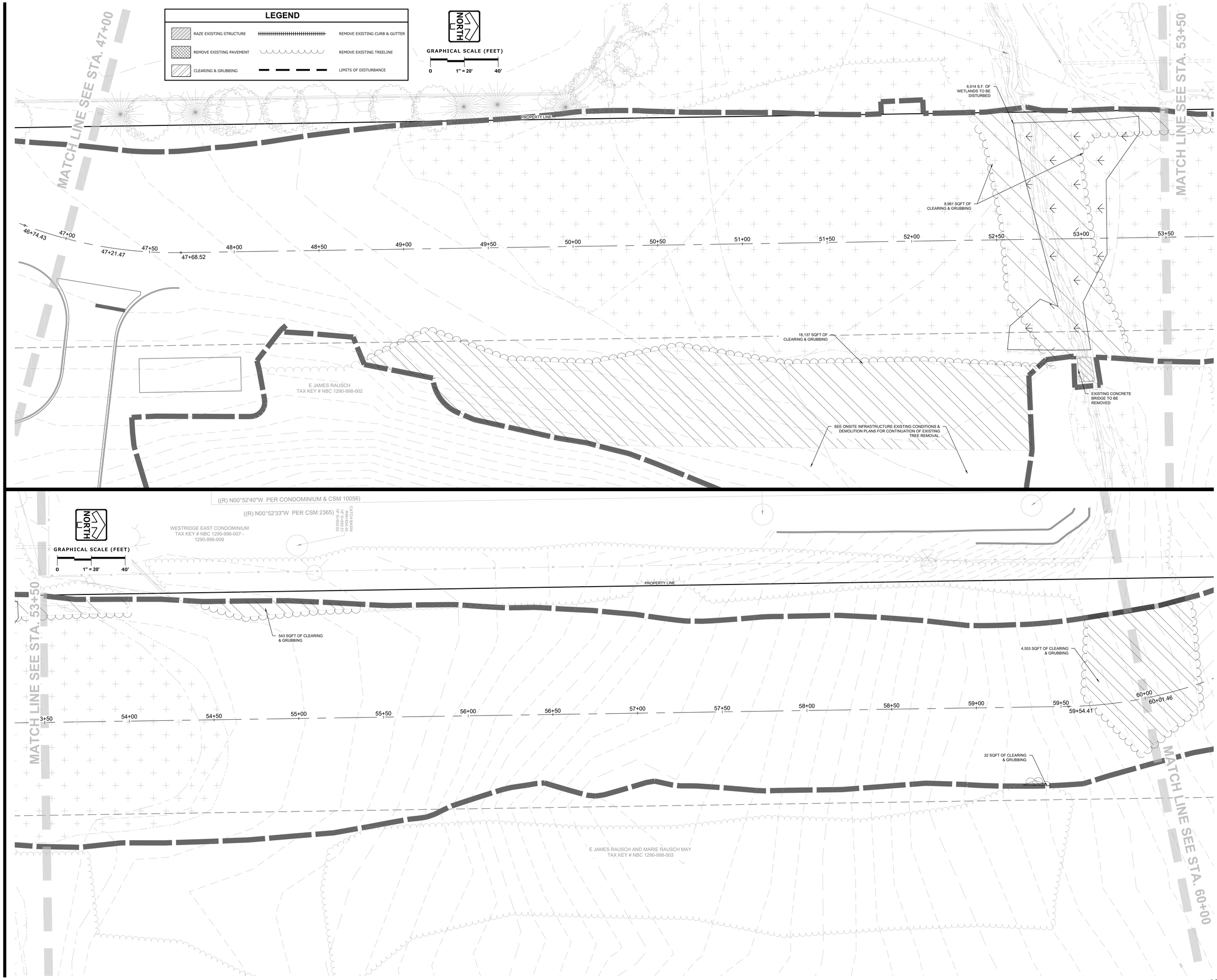

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PRIVATE ROADWAY REMOVAL PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

C-10.2

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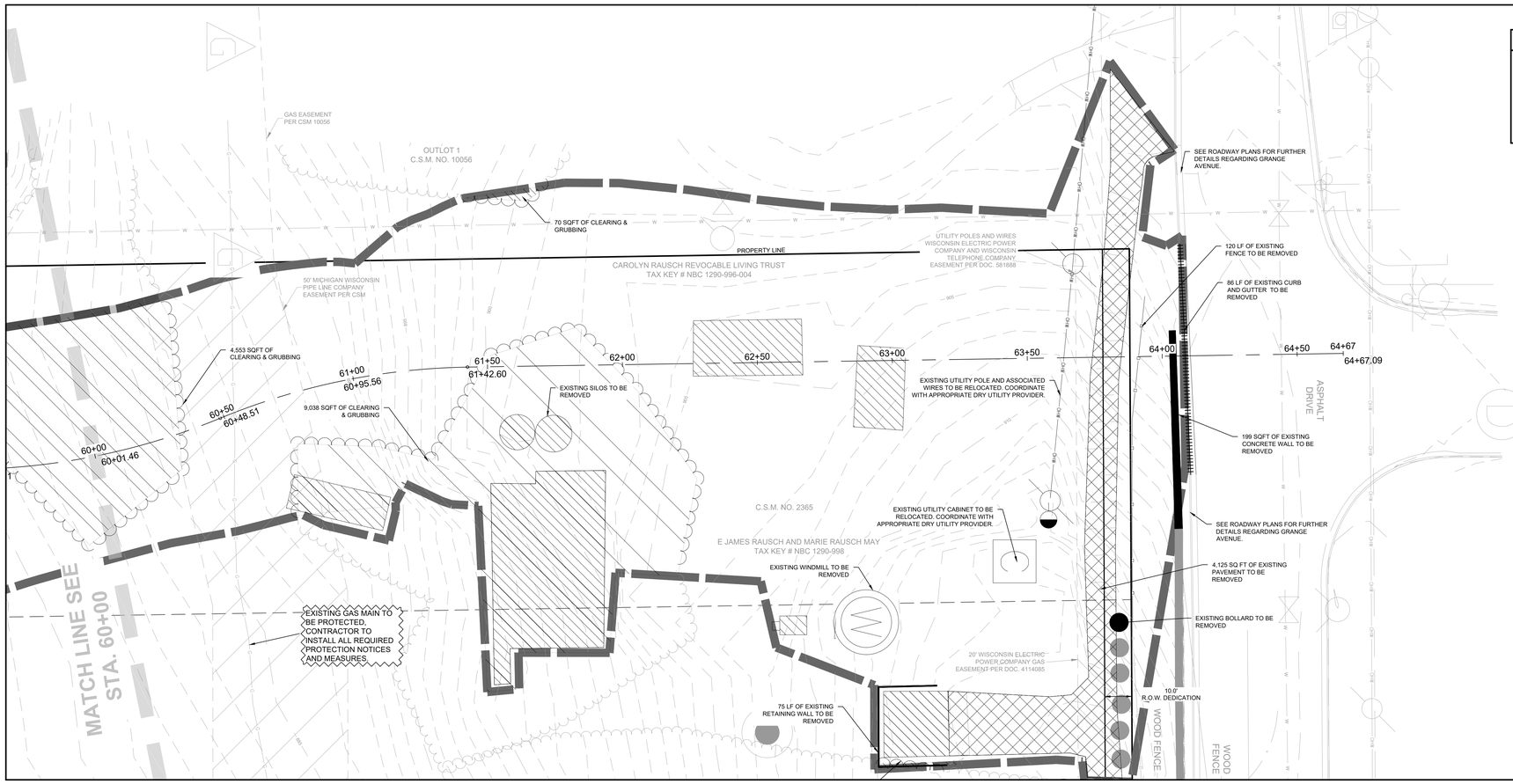

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PRIVATE ROADWAY REMOVAL PLAN

DATE: JULY 2, 2026

DEVELOPMENT USE

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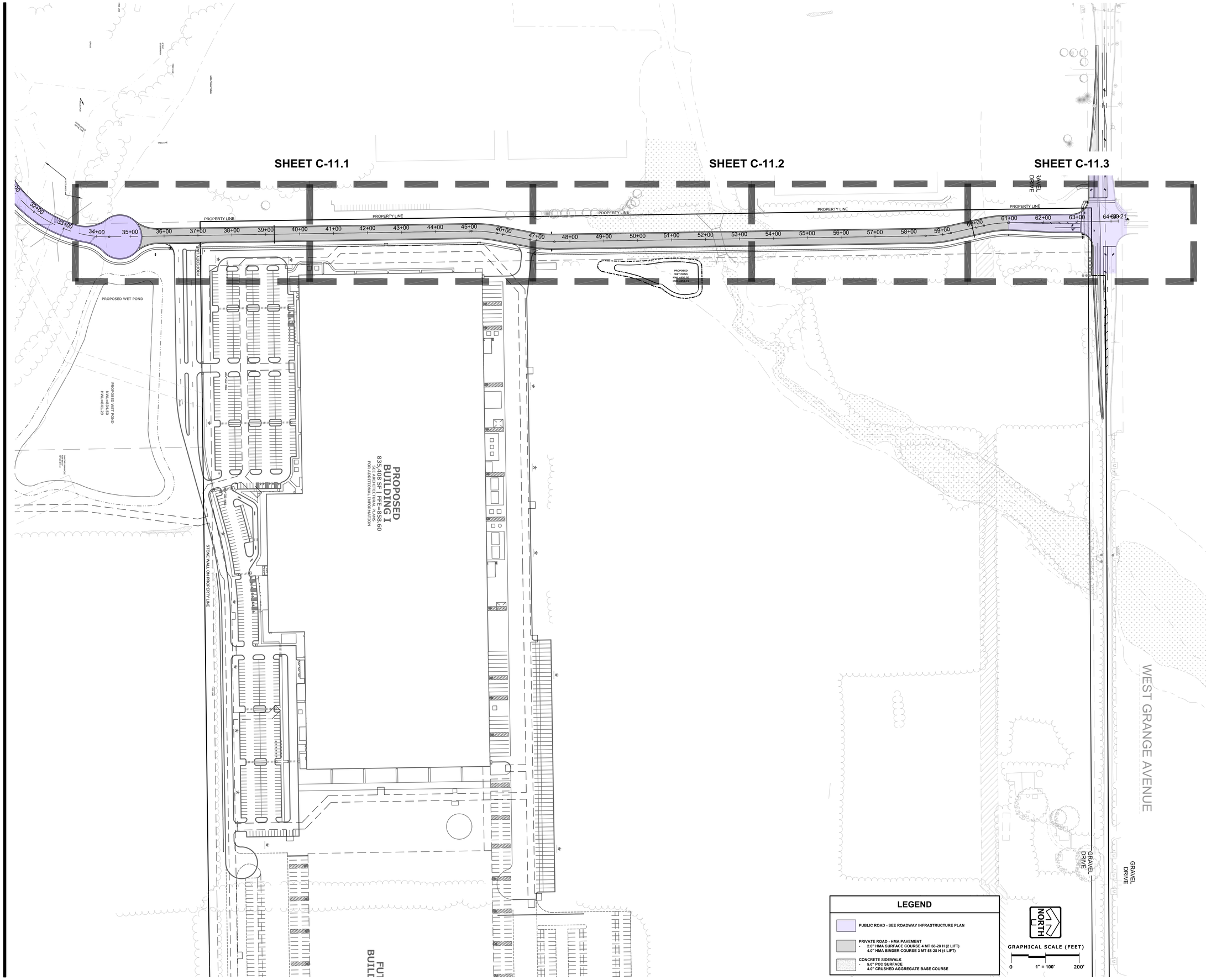

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HGA NO: 5533-001-00

PRIVATE ROADWAY PLAN DETAILS OVERVIEW

DATE: JULY 2, 2026

DEVELOPMENT USE

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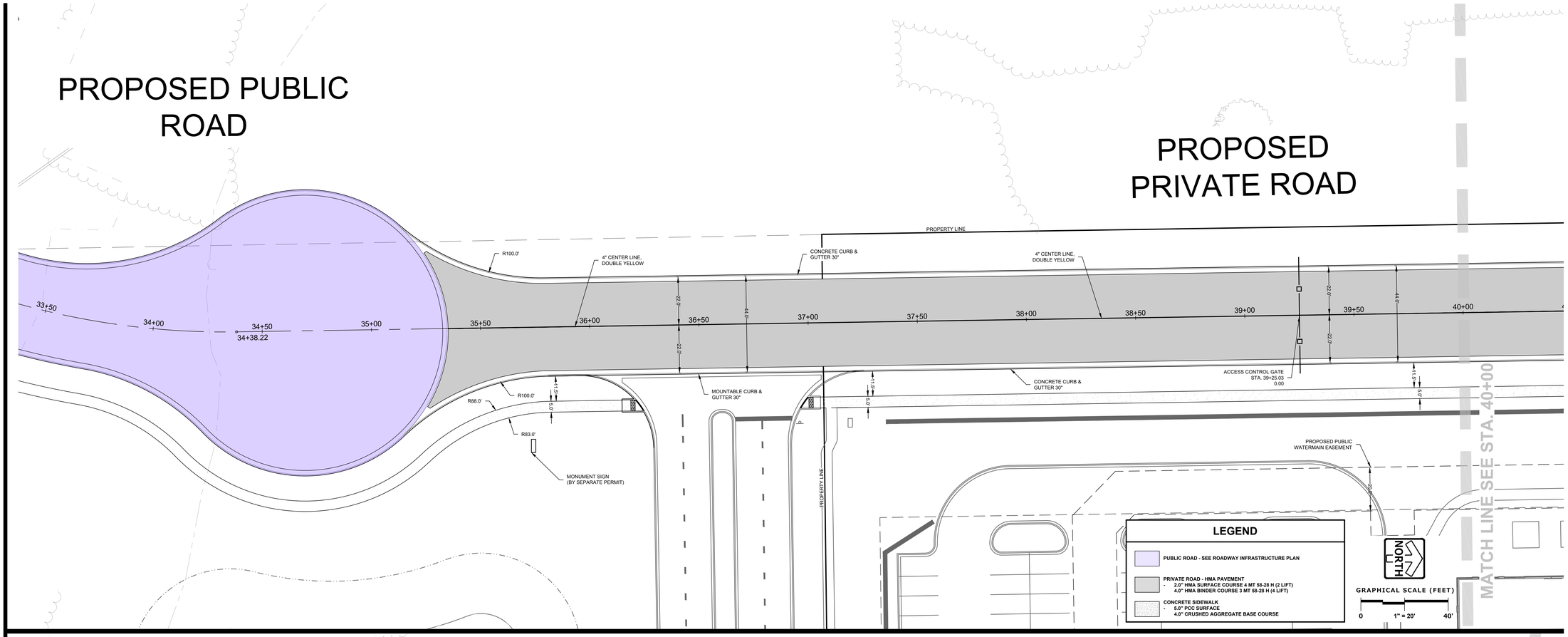

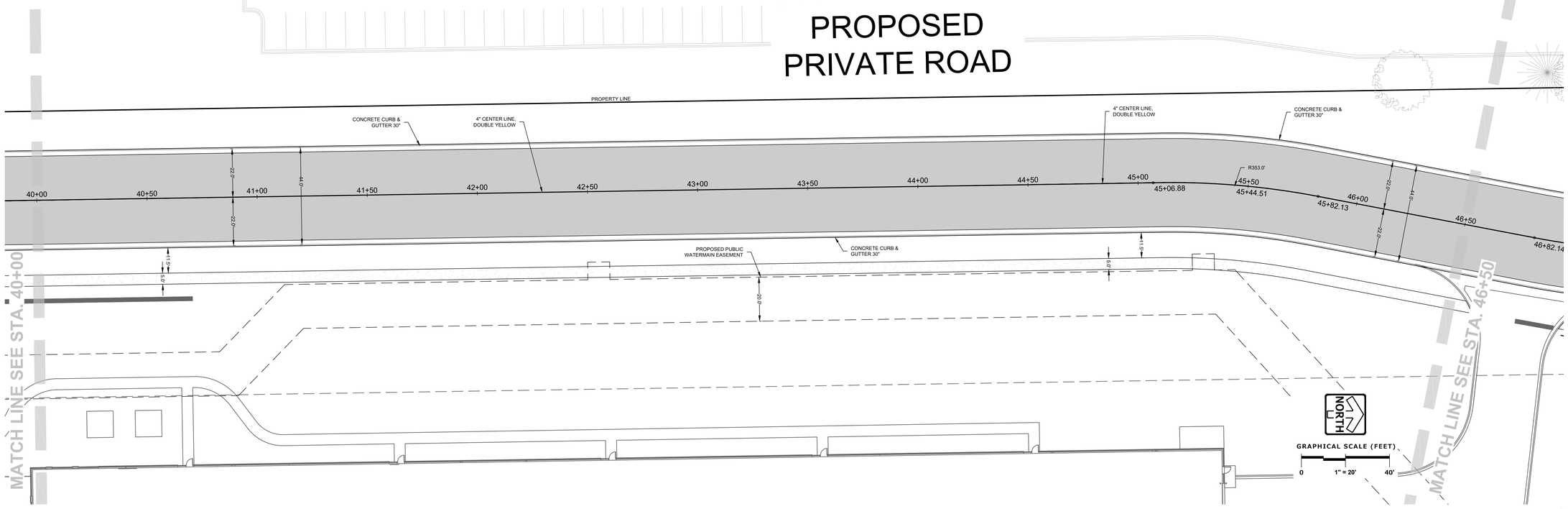

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PROJECT GRAVITY

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NO	DESCRIPTION	DATE

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PRIVATE ROADWAY PLAN DETAILS

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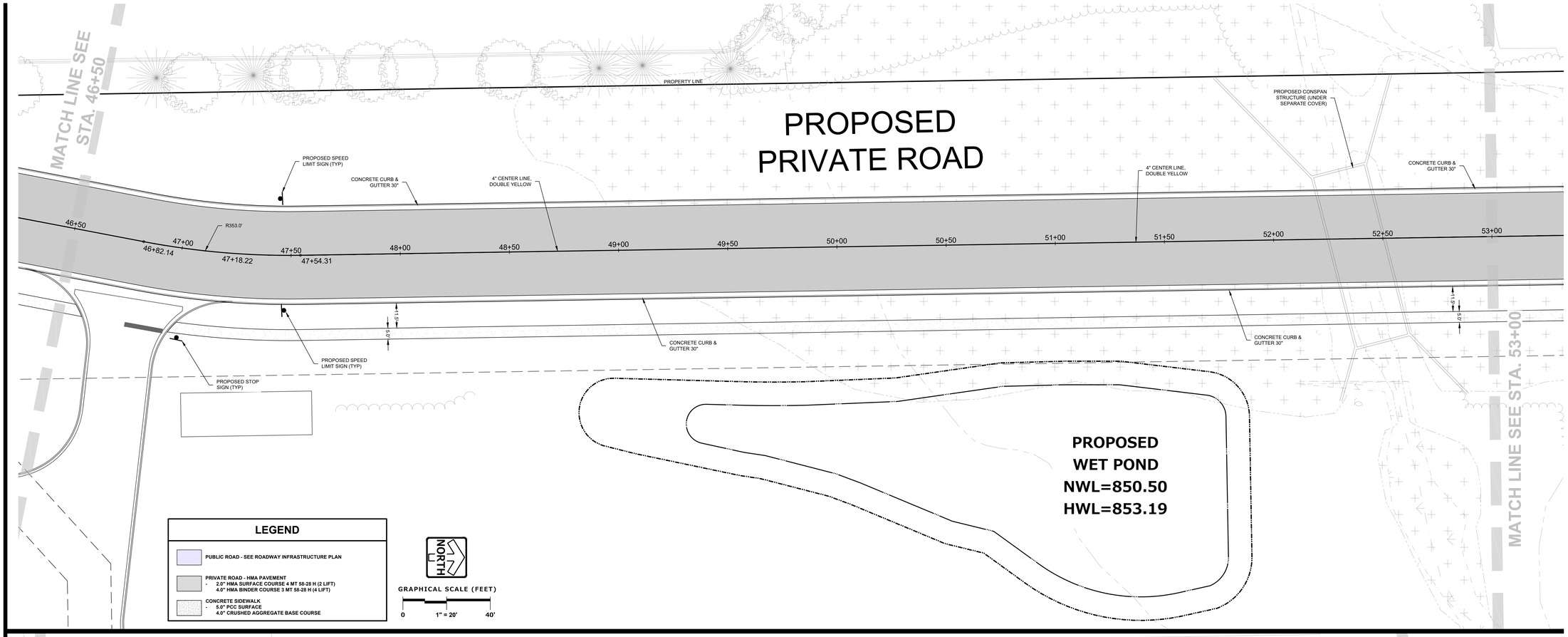

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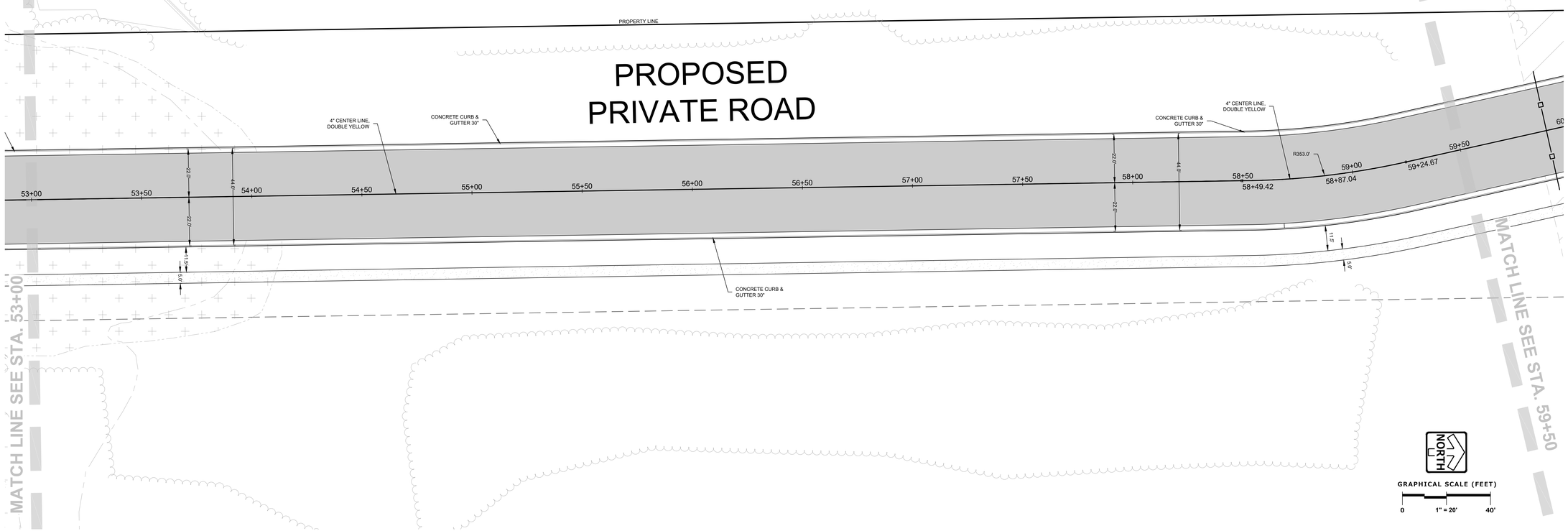

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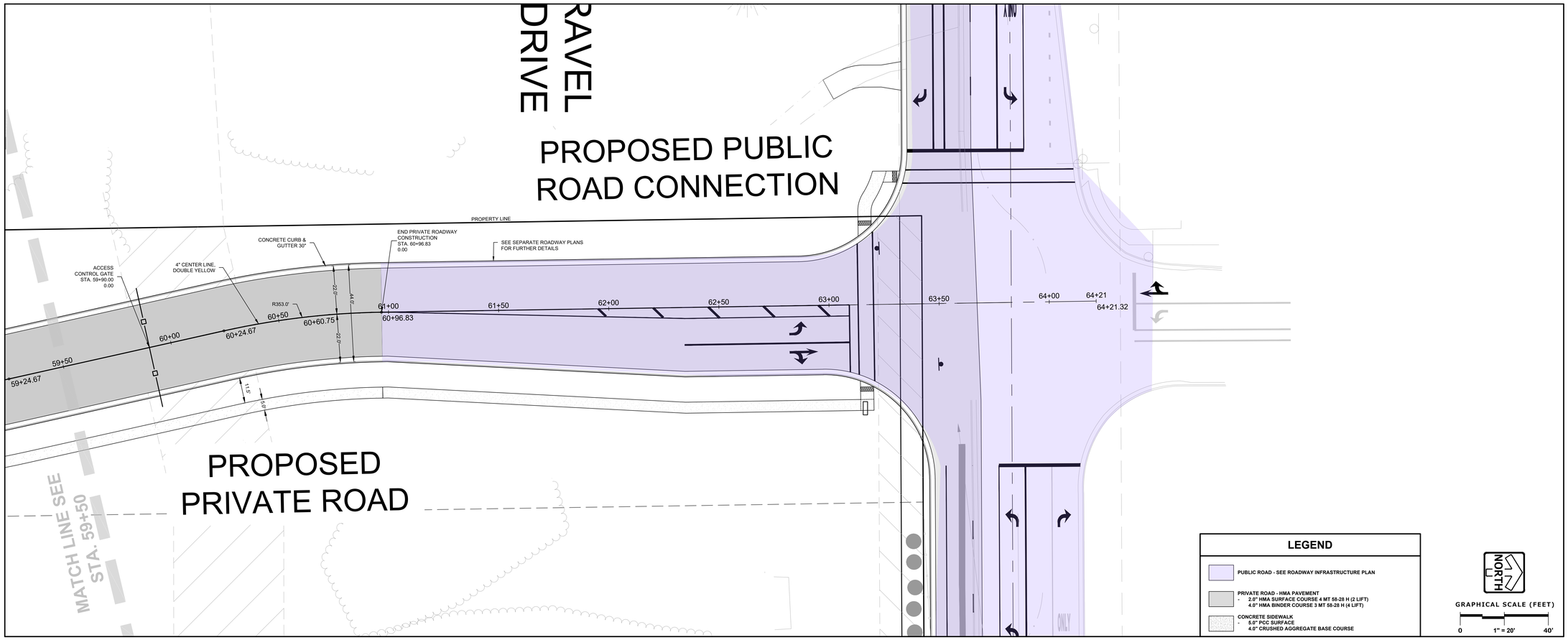

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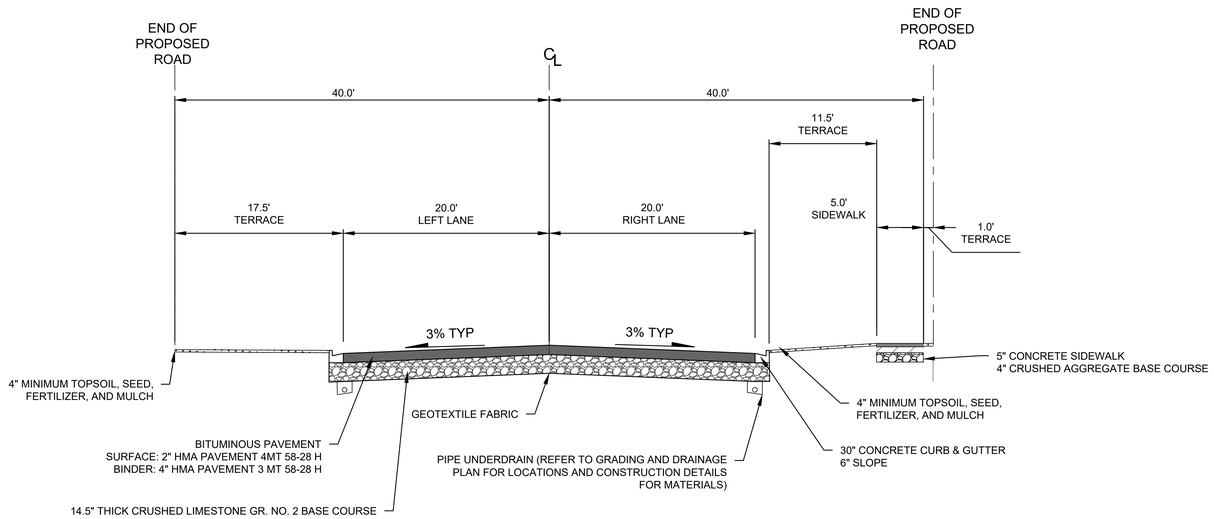

TYPICAL FINISHED SECTION

PROPOSED PRIVATE ROADWAY

STA. 35+78.26 - STA. 64+10.49

PROPOSED TYPICAL SECTION NOTES

1. SEE PLAN DETAILS SHEETS AND PAVING AND STRIPING SHEETS FOR DETAILED LOCATIONS OF EDGE OF PAVEMENT, CURB AND GUTTER, RIGHT-OF-WAY LINES AND EASEMENTS. SEE CROSS SECTIONS FOR EXACT SLOPE RATIOS.
2. SAWED CONSTRUCTION JOINTS 3" DEEP SHALL BE PLACED AT 15 FOOT MAXIMUM SPACING.
3. THE EXCAVATION AND PLACEMENT OF AGGREGATE BASE PLACED UNDER AND ADJACENT TO THE PROPOSED CURB AND GUTTER SHALL BE A MINIMUM DEPTH OF 4" AND SHALL EXTEND TO THE DEPTH OF AGGREGATE BASE PLACED FOR THE ROADWAY PAVEMENT. AGGREGATE BASE PLACED UNDER AND 1' BEHIND THE CURB IS INCLUDED IN THE CONTRACT COST.
4. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH THE STATE SPECIFICATIONS. IF THE REQUIRED DENSITY AND STABILITY CAN NOT BE ATTAINED, IT WILL BE NECESSARY TO UNDERCUT AND REMOVE EARTH AND ORGANIC MATTER BELOW THE PROPOSED PAVEMENT SYSTEM TO A DEPTH OF 12" OR AS DIRECTED BY THE ENGINEER. ALL UNSTABLE, UNSUITIBLE, OR ORGANIC MATERIAL SHALL BE REMOVED, CLASSIFIED AS WASTE, AND DISPOSED OFF OF THE SITE IN ACCORDANCE TO THE SPECIFICATIONS.
5. THE FINISHED EARTHWORK SHALL HAVE VEGETATIVE SUSTAINING TOPSOIL COVERING THE TOP 6" OF AREAS TO BE SEEDED. THE CONTRACTOR SHALL FURNISH AND INSTALL TOPSOIL. THE TOPSOIL SHALL MEET THE REQUIREMENTS OF THE SPECIFICATIONS OR BE APPROVED BY THE ENGINEER.
6. ALL EXPOSED EARTH AREAS SHALL BE SEEDED AND BLANKETED OR TEMPORARY SEEDED AND MULCHED IN ACCORDANCE WITH THE SPECIFICATIONS. SUPPLEMENTAL WATERING SHALL BE DONE AS DIRECTED BY THE ENGINEER.
7. SET OUTSIDE LONGITUDINAL JOINT 1/3 THE DISTANCE FROM PREVIOUS LONGITUDINAL JOINT. TIE JOINT INTO CURB JOINT WHEN 2.0' FROM EDGE OF CURB AND GUTTER.

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PRIVATE ROADWAY TYPICAL SECTION

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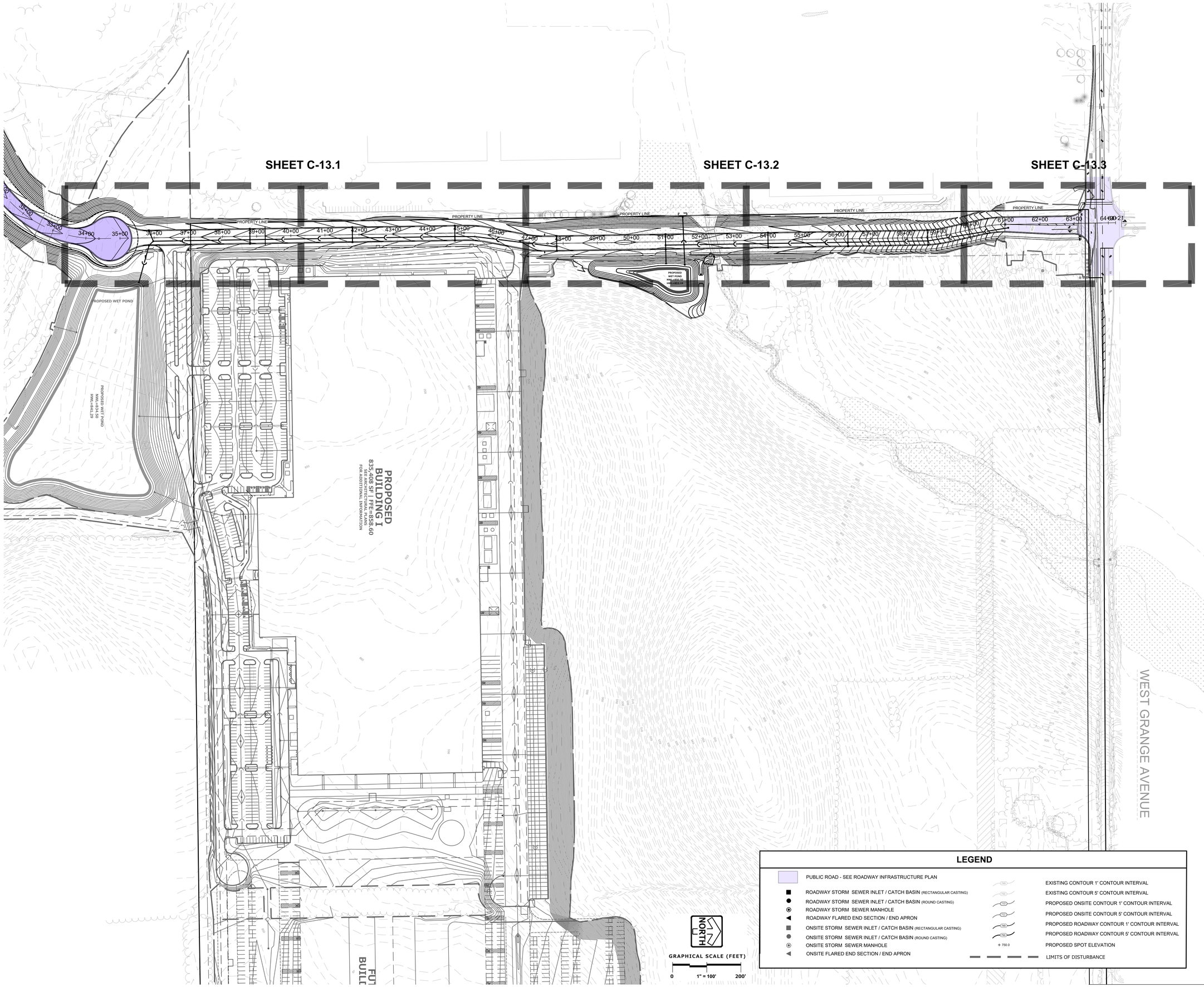

LEGEND

- PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN
- ROADWAY STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- ROADWAY STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- ROADWAY STORM SEWER MANHOLE
- ROADWAY FLARED END SECTION / END APRON
- ONSITE STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- ONSITE STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- ONSITE STORM SEWER MANHOLE
- ONSITE FLARED END SECTION / END APRON
- EXISTING CONTOUR 1' CONTOUR INTERVAL
- EXISTING CONTOUR 5' CONTOUR INTERVAL
- PROPOSED ONSITE CONTOUR 1' CONTOUR INTERVAL
- PROPOSED ONSITE CONTOUR 5' CONTOUR INTERVAL
- PROPOSED ROADWAY CONTOUR 1' CONTOUR INTERVAL
- PROPOSED ROADWAY CONTOUR 5' CONTOUR INTERVAL
- + 750.0 PROPOSED SPOT ELEVATION
- LIMITS OF DISTURBANCE

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PRIVATE ROADWAY GRADING & DRAINAGE PLAN OVERVIEW

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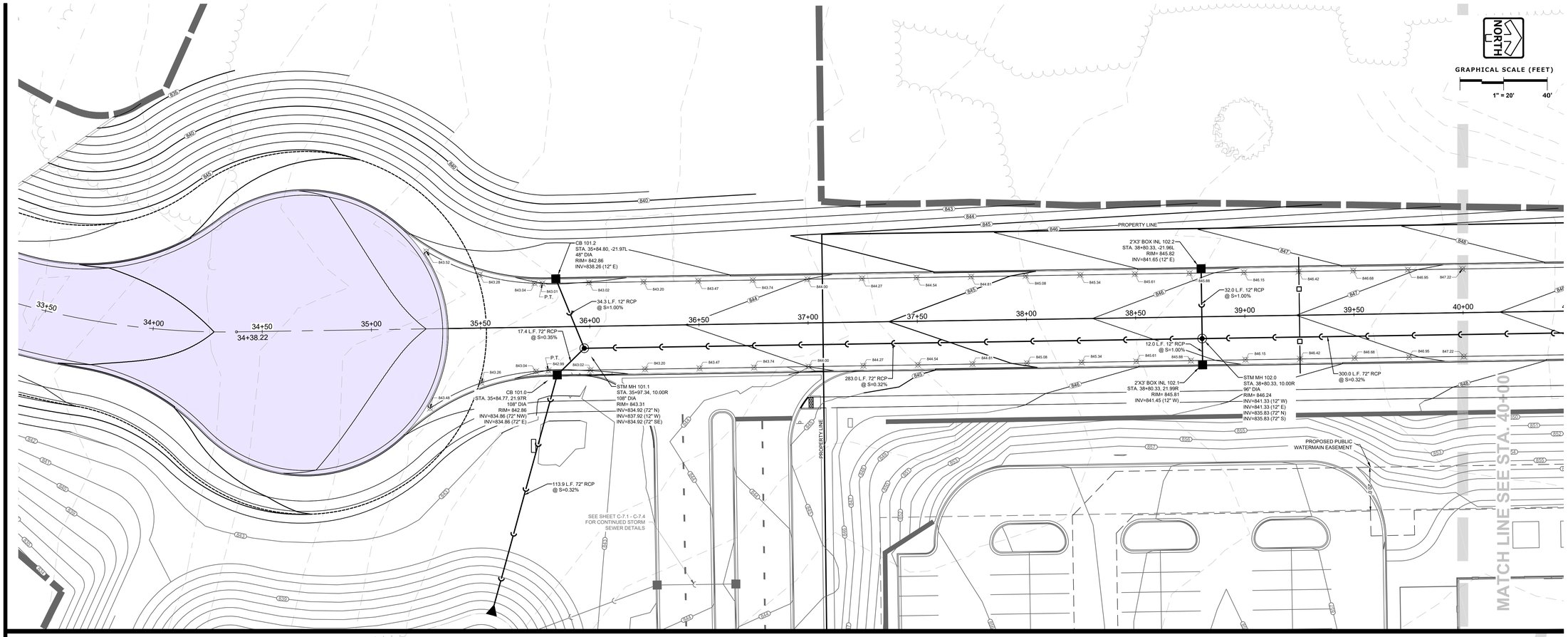

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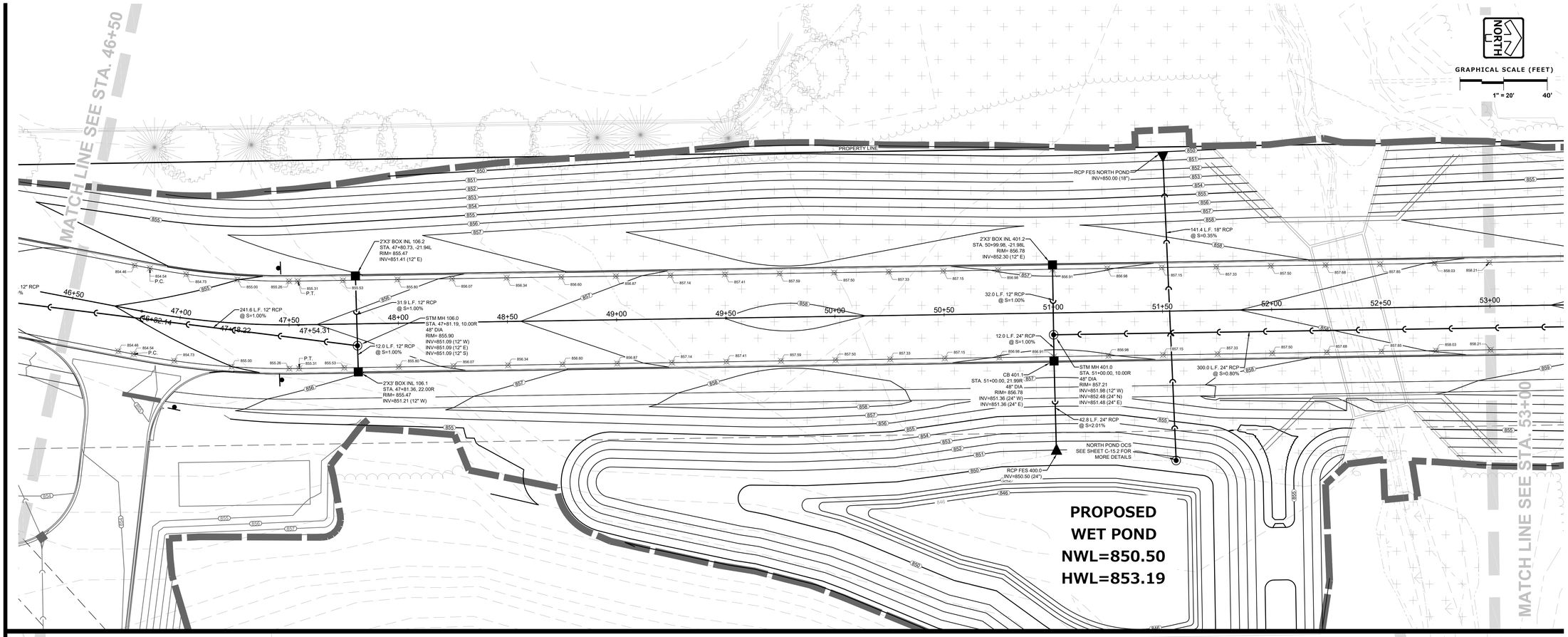

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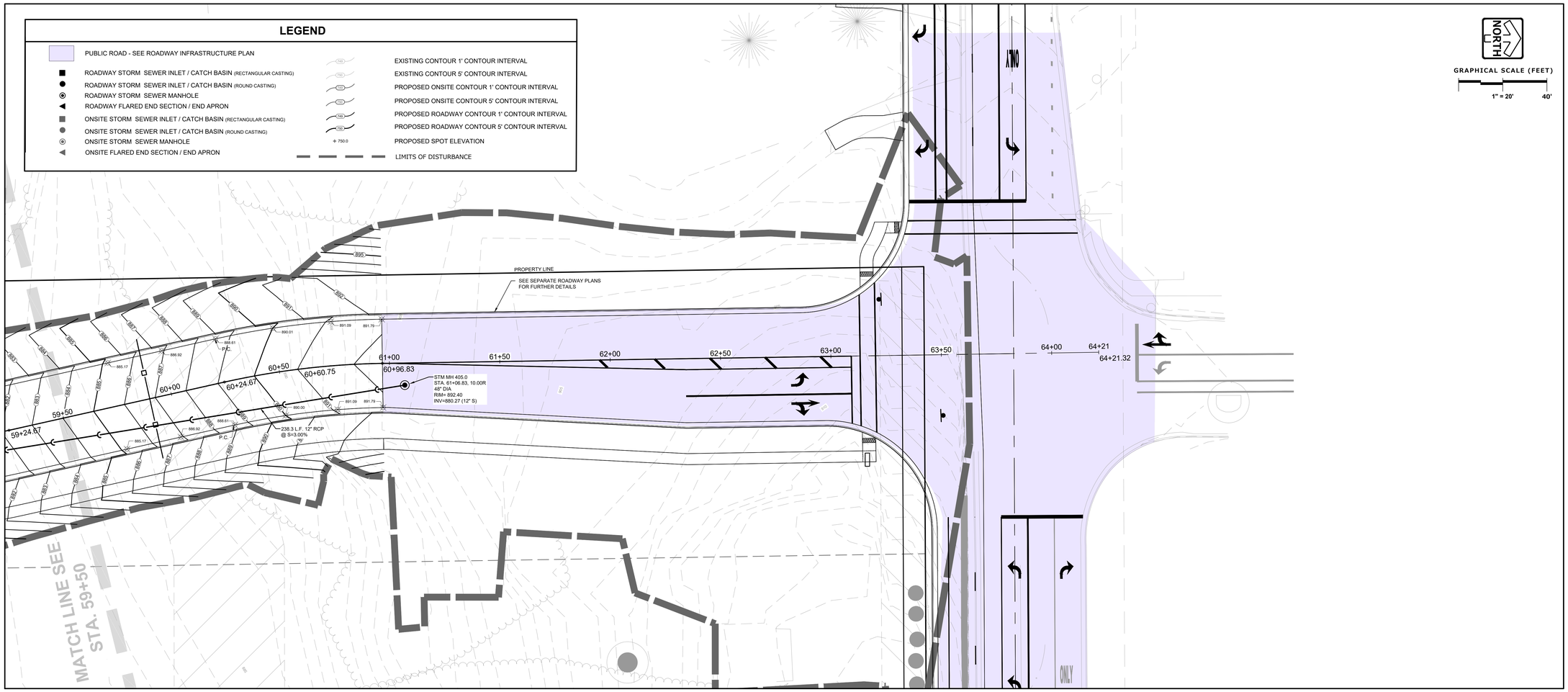

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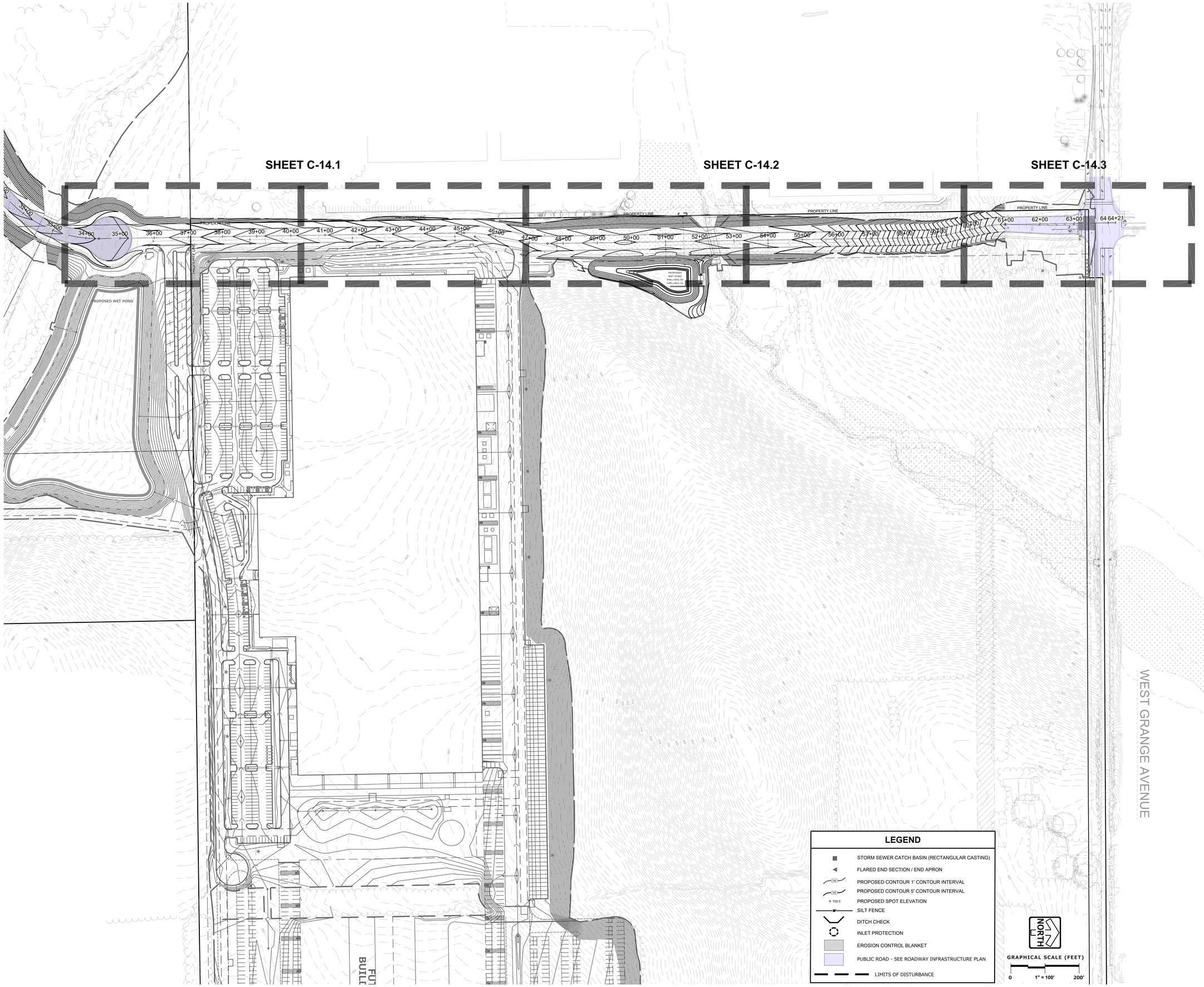

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PRIVATE ROADWAY EROSION CONTROL PLAN OVERVIEW

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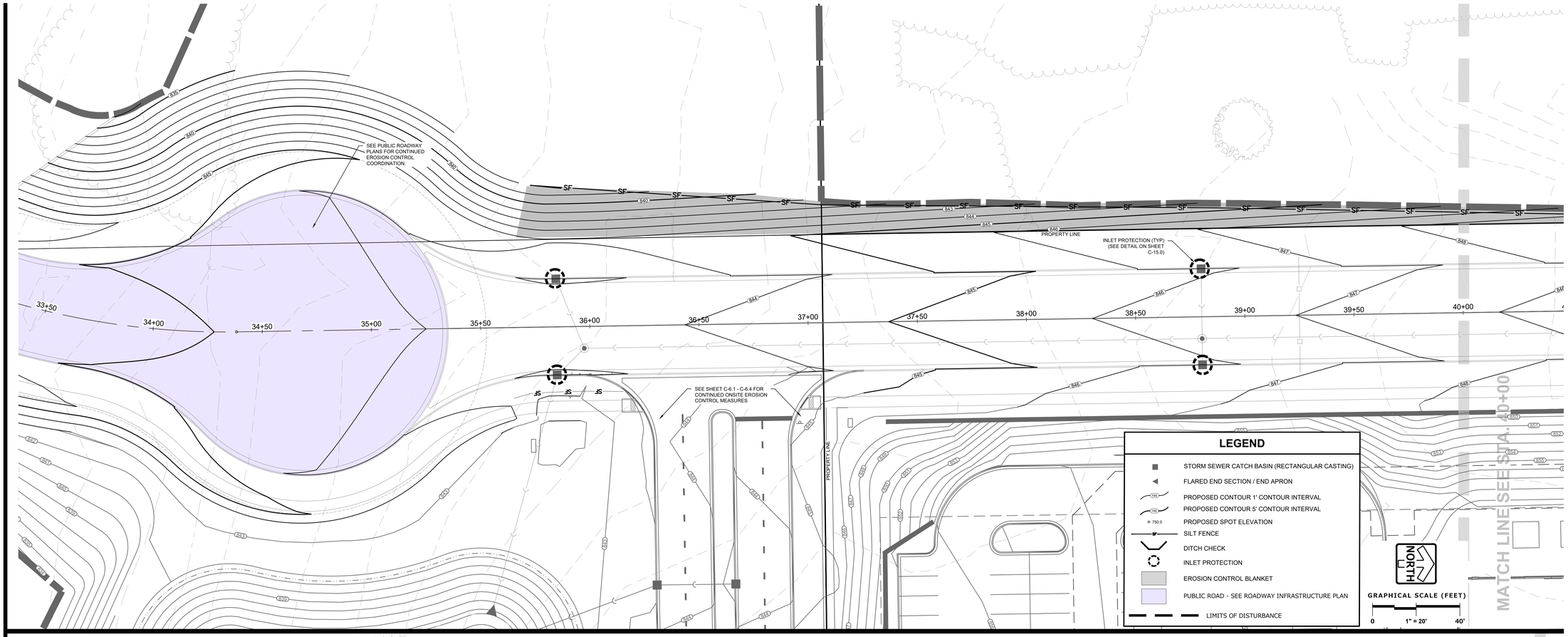

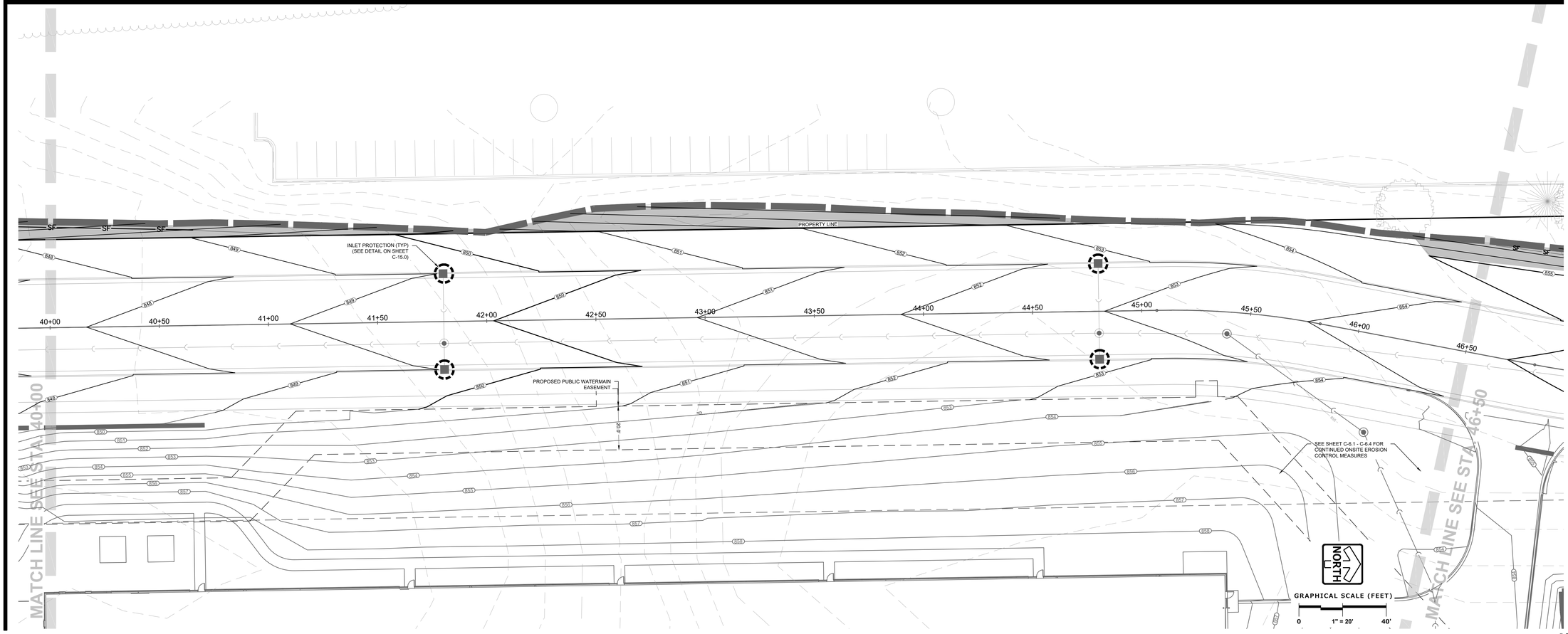

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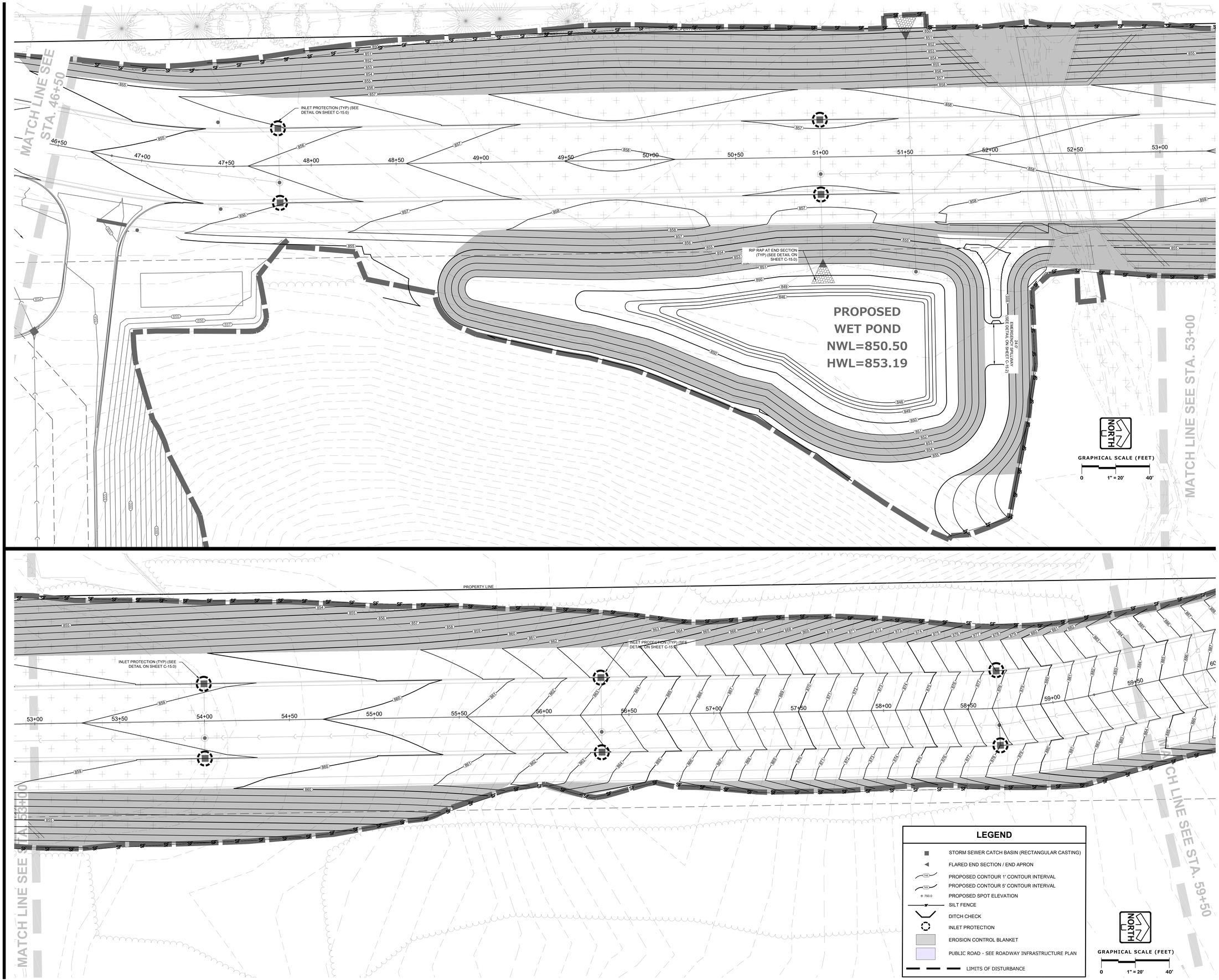

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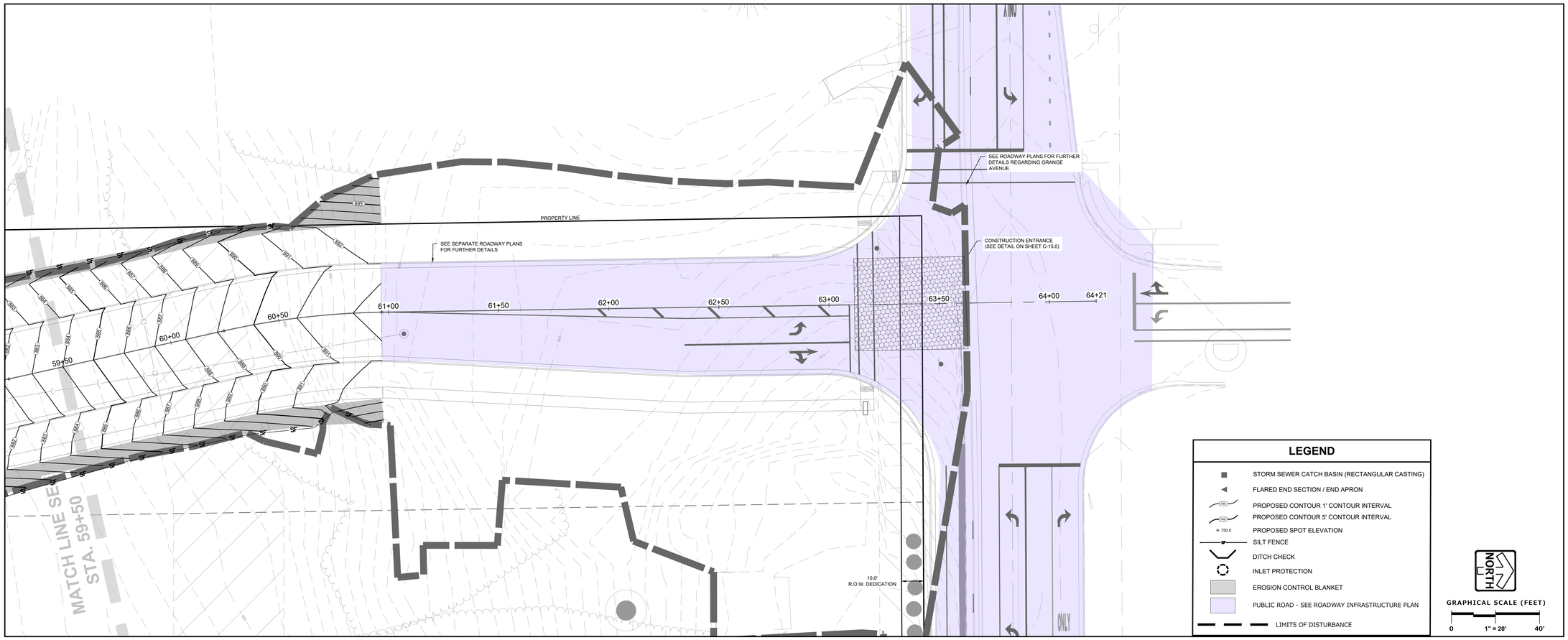

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1.0 POTENTIAL POLLUTANT SOURCES

GIVEN THE PROPOSED ACTIVITY ON THE PROJECT SITE, THE PRIMARY POTENTIAL POLLUTANT SOURCE ASSOCIATED WITH THIS CONSTRUCTION PROJECT IS SOIL EROSION AND TRANSPORTATION; REFER TO SECTION 4 OF THIS PLAN. ADDITIONAL POTENTIAL SOURCES OF POLLUTION MAY INCLUDE: FUEL TANKS, WASTE CONTAINERS, OIL OR OTHER PETROLEUM PRODUCTS, DETERGENTS, PAINTS, CONSTRUCTION DEBRIS, SANITARY STATIONS, FERTILIZERS, AND DUST; REFER TO SECTION 5 OF THIS PLAN.

2.0 EROSION AND SEDIMENT CONTROL IMPLEMENTATION

THE FOLLOWING ARE DESCRIPTIONS OF THE EROSION AND SEDIMENT CONTROL PRACTICES THAT SHALL BE IMPLEMENTED DURING CONSTRUCTION OF THIS PROJECT. IN ADDITION TO THESE MEASURES, CONTRACTOR SHALL DISTURB ONLY AREAS NECESSARY TO COMPLETE THE CONSTRUCTION PROJECT. ALL PRACTICES SHALL BE CONDUCTED IN ACCORDANCE WITH THE BEST MANAGEMENT PRACTICES (BMP).

2.1 CONSTRUCTION AND EROSION CONTROL SEQUENCING

CONSTRUCTION SEQUENCING WILL BE UTILIZED AS A MEANS OF CONTROLLING EROSION AND LIMITING SEDIMENT TRANSPORT. SEQUENCING AS LISTED BELOW IS GENERAL IN NATURE AND MAY VARY DEPENDING ON WEATHER CONDITIONS AND/OR PHASING OF CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A DETAILED SITE SEQUENCING PLAN TO OWNER FOR APPROVAL AT LEAST 5 BUSINESS DAYS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM 6 AS NEEDED TO COMPLETE CONSTRUCTION ONLY IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL REQUIREMENTS.

1. INSTALL TEMPORARY CONSTRUCTION ENTRANCES, INLET PROTECTION ON EXISTING STORM SEWER AND CULVERT INLET LOCATIONS, AND PERIMETER SILT FENCING.
2. INSTALL SILT FENCING ALONG THE PERIMETER OF PROPOSED TOPSOIL STOCKPILE LOCATIONS. THE FIRST TOPSOIL DEPOSITED WITHIN THE STOCKPILE LIMITS SHALL BE PLACED TO CREATE TEMPORARY BERMING ALONG THE SILT FENCE TO PREVENT DIRECT STORMWATER RUNOFF AGAINST SILT FENCING. CONTRACTOR SHALL LIMIT LAND DISTURBING ACTIVITIES ASSOCIATED WITH TEMPORARY BERMING TO A MINIMUM.
3. STRIP TOPSOIL WITHIN THE LIMITS OF THE SEDIMENT TRAPS THAT WILL BE USED FOR TEMPORARY SEDIMENT CONTROL. STRIPPED TOPSOIL SHALL BE PLACED TO CONSTRUCT DIVERSION BERMING OR PLACED WITHIN THE STOCKPILE LIMITS.
4. STRIP TOPSOIL ALONG THE REMAINDER OF DIVERSION BERMING AND IMMEDIATELY PLACE TOPSOIL TO CREATE THE BERMING. MASS TOPSOIL STRIPPING SHALL NOT OCCUR UNTIL ALL DOWNSTREAM SEDIMENT CONTROLS ARE IN PLACE.
5. CONDUCT ROUGH GRADING OPERATIONS AND UTILITY PIPING INSTALLATION. DRAIN TILE SHALL NOT BE INSTALLED UNTIL UPLAND AREAS CONTRIBUTING STORMWATER RUNOFF ARE STABILIZED. DITCH CHECKS SHALL BE INSTALLED WITHIN DRAINAGE DITCHES IMMEDIATELY FOLLOWING CREATION OF DITCHES AND INLET PROTECTION SHALL BE INSTALLED TO PROTECT ANY STORM SEWER OR CULVERTS THAT WILL FUNCTION DURING CONSTRUCTION.
6. FINE GRADE SUB-GRADE SOILS WITHIN PAVEMENT AND BUILDING LIMITS. PLACE STONE BASE MATERIAL AS SOON AS POSSIBLE FOLLOWING COMPLETION OF FINE GRADING EFFORTS.
7. FINE GRADE REMAINING DISTURBED AREAS. PLACE SALVAGED TOPSOIL, EROSION BLANKETS/MATTING, AND SEED/MULCH AS SOON AS POSSIBLE FOLLOWING COMPLETION OF FINE GRADING EFFORTS.
8. EROSION CONTROLS SHALL NOT BE REMOVED UNTIL SITE IS FULLY STABILIZED OR 70% VEGETATIVE COVER IS ESTABLISHED. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF SILT FENCE, TEMPORARY FENCING/PRETECTION, DITCH CHECKS, AND OTHER TEMPORARY CONTROLS, AND RESTORATION PRACTICES AS NECESSARY, TO THE SATISFACTION OF THE OWNER.

2.2 STABILIZATION PRACTICES

THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, AND WHEN STABILIZATION MEASURES ARE INITIATED, SHALL BE RECORDED ON THE STABILIZATION SCHEDULE FOR MAJOR GRADING ACTIVITIES.

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. NO MORE THAN SEVEN (7) DAYS SHALL PASS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS PERMANENTLY CEASED UNLESS:

THE INITIATION OF STABILIZATION MEASURES BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASE IS PRECLUDED BY SNOW COVER. IN THAT EVENT, STABILIZATION MEASURE SHALL BE INITIATED AS SOON AS PRACTICABLE.

CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN FOURTEEN (14) DAYS FROM WHEN ACTIVITIES CEASED, (I.E. THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN FOURTEEN (14) DAYS). IN THAT EVENT, STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED. SEE THE SOIL PROTECTION CHART PRESENTED IN THE CONSTRUCTION DOCUMENTS FOR RATES OF PERMANENT AND TEMPORARY VEGETATION.

STABILIZATION MEASURES SHALL BE DETERMINED BASED ON SITE CONDITIONS AT THE TIME CONSTRUCTION ACTIVITY HAS CEASED, INCLUDING BUT NOT LIMITED TO WEATHER CONDITIONS AND LENGTH OF TIME MEASURE MUST BE EFFECTIVE. THE FOLLOWING ARE ACCEPTABLE STABILIZATION MEASURES.

PERMANENT SEEDING; IN ACCORDANCE WITH APPROVED LANDSCAPING PLAN
TEMPORARY SEEDING MAY CONSIST OF SPRING OATS (100LBS/ACRE) AND/OR WHEAT OR CEREAL RYE (150LBS/ACRE)
HYDRO-MULCHING WITH A TACKIFIER
GEOTEXTILE EROSION MATTING
SODDING

2.3 STRUCTURAL PRACTICES

THE FOLLOWING ARE DESCRIPTIONS OF STRUCTURAL PRACTICES TO BE IMPLEMENTED TO DIVERT FLOWS FROM EXPOSED SOILS, STORE FLOWS, OR OTHERWISE LIMIT THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE INCLUDING THE PROPOSED AND EXISTING WETLAND AREAS. SUCH PRACTICES COULD INCLUDE SILT FENCE, PROTECTION FENCE, CONSTRUCTION ENTRANCE, DITCH CHECK, EROSION CONTROL MATTING, DIVERSION BERM/SWALE, SEDIMENT TRAP, LEVEL SPREADER, INLET PROTECTION, OUTLET PROTECTION, AND TEMPORARY OR PERMANENT SEDIMENT BASIN. THE FOLLOWING STRUCTURAL PRACTICES ARE TO BE UTILIZED DURING THIS PROJECT.

SILT FENCE SHALL BE PLACED DOWN SLOPE OF DISTURBED AREAS OF THE CONSTRUCTION SITE AND AROUND THE PERIMETER OF THE TOPSOIL STOCKPILE. THIS INCLUDES PROTECTION OF EXISTING WETLAND AREAS TO BE MAINTAINED. SILT FENCE MAY ALSO BE USED AS A TEMPORARY CONTROL DEVICE WHERE SEDIMENTATION RUNOFF IS DISCOVERED.

CONSTRUCTION ENTRANCE SHALL BE INSTALLED TO REDUCE SOIL EROSION POLLUTANTS FROM LEAVING THE SITE DURING CONSTRUCTION ACTIVITIES. IF THE CRUSHED STONE DOES NOT ADEQUATELY REMOVE MUD FROM VEHICLE TIRES, THEY SHALL BE HOSED OFF BEFORE ENTERING A PAVED ROADWAY. ANY SOIL DEPOSITED ON THE PUBLIC PAVED ROAD WAY SHALL BE REMOVED IMMEDIATELY.

DITCH CHECK (STRAW BALES) SHALL BE INSTALLED IN DRAINAGE CHANNELS AS NEEDED.

EROSION CONTROL MATTING SHALL BE PLACED ON AREAS OR EMBANKMENTS HAVING SLOPES GREATER THAN OR EQUAL TO 3H:1V, BEFORE VEGETATION IS ESTABLISHED.

DIVERSION BERM/SWALE SHALL BE CONSTRUCTED TO DIVERT RUNOFF AROUND THE SITE AND TO DIVERT RUNOFF FROM THE DISTURBED AREA TO A SEDIMENT TRAP OR OTHER CONTROL. BERMS/SWALES SHALL BE STABILIZED WITH EQUIPMENT TRACKING AND TEMPORARY SEEDING.

SEDIMENT TRAPS/BASIN SHALL BE CONSTRUCTED TO COLLECT RUNOFF AND RUNOFF FROM SITE DIVERSION BERMS/SWALES.

INLET PROTECTION SHALL BE INSTALLED AT STORMWATER DRAINAGE INLETS TO REDUCE SEDIMENT WITHIN STORM SEWER CONVEYANCE FEATURES.

OUTLET SCOUR PROTECTION SHALL BE INSTALLED AT STORMWATER DRAINAGE OUTLETS TO DIFFUSE FLOWS.

3.0 ADDITIONAL PRACTICES

ADDITIONAL POLLUTANT CONTROL MEASURES TO BE IMPLEMENTED DURING CONSTRUCTION ACTIVITIES SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING.

CONSTRUCTION WASTE SHALL BE PROPERLY DISPOSED OF. THIS INCLUDES ALL CONSTRUCTION SITE WASTE MATERIAL, SANITARY WASTE, AND WASTE FROM VEHICLE TRACKING OF SEDIMENTS. THE CONTRACTOR SHALL ENSURE THAT NO MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, RINSED, OR DISCHARGED TO THE WATERS OF THE STATE. VEHICLES HAULING MATERIAL AWAY FROM THE SITE SHALL BE COVERED WITH A TARPAULIN TO PREVENT BLOWING DEBRIS.

DUST CONTROL SHALL BE ACCOMPLISHED BY ONE OR MORE OF THE FOLLOWING METHODS:

COVERING 30% OR MORE OF THE SOIL SURFACE WITH A NON-ERODIBLE MATERIAL.

ROUGHENING (EQUIPMENT TRACKING) THE SOIL TO PRODUCE RIDGES PERPENDICULAR TO THE PREVAILING WIND. RIDGES SHALL BE AT LEAST SIX (6) INCHES IN HEIGHT.

FREQUENT WATERING OF EXCAVATION AND FILL AREAS.

PROVIDING GRAVEL OR PAVING AT ENTRANCE/EXIT DRIVES, PARKING AREAS AND TRANSIT PATHS.

STREET SWEEPING SHALL BE PERFORMED TO IMMEDIATELY REMOVE ANY SEDIMENT TRACKED ON PAVEMENTS.

4.0 EROSION AND SEDIMENT STRUCTURAL PRACTICE MAINTENANCE

THE FOLLOWING MAINTENANCE PRACTICES SHALL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES, AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN. UPON IDENTIFICATION, DEFICIENCIES IN STORMWATER CONTROLS SHALL BE ADDRESSED IMMEDIATELY. THE MAINTENANCE PROCEDURES FOR THIS DEVELOPMENT SHALL INCLUDE, BUT NOT BE LIMITED TO THE BELOW.

SILT FENCE - REPAIR OR REPLACE ANY DAMAGED FILTER FABRIC AND/OR STAKES. REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE-HALF THE ABOVE GROUND HEIGHT OF THE FENCE.

CONSTRUCTION ENTRANCE - AS NEEDED, ADD STONE TO MAINTAIN CONSTRUCTION ENTRANCE DIMENSIONS AND EFFECTIVENESS.

DITCH CHECK (STRAW BALES) - RE-SECURE STAKES; ADJUST OR REPOSITION BALES TO ADDRESS PROPER FLOW OF STORMWATER; AND REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE-HALF THE HEIGHT OF THE BALE.

EROSION CONTROL MATTING - REPAIR MATTING IMMEDIATELY IF INSPECTION REVEALS BREACHED OR FAILED CONDITIONS. REPAIR AND RE-GRADE SOIL WHERE CHANNELIZATION HAS OCCURRED.

DIVERSION BERM/SWALE - REPLACE OR RE-COMPACT THE CONSTRUCTION MATERIALS AS NECESSARY.

SEDIMENT TRAP - REMOVE AND DISPOSE OF THE ACCUMULATED SEDIMENT WHEN IT HAS REACHED THE SEDIMENT STORAGE ELEVATION.

INLET PROTECTION - CLEAN, REPAIR OR REPLACE FILTER FABRIC AND/OR STONE WHEN CONTROL MEASURE IS ONE-HALF FULL OF SEDIMENT.

OUTLET PROTECTION - CLEAN, REPAIR OR REPLACE FILTER FABRIC, TURF REINFORCEMENT MATTING AND/OR STONE WHEN CONTROL MEASURE IS CLOGGED. INLET FILTER BAGS SHALL BE REPLACED ONCE ONE-HALF FULL OF SEDIMENT.

SEDIMENT BASIN - AT THE END OF CONSTRUCTION, CONTRACTOR SHALL REMOVE AND DISPOSE OF THE ACCUMULATED SEDIMENT AND RESTORE BASIN AREA TO INTENDED POST-CONSTRUCTION DESIGN GRADES.

5.0 INSPECTION

INSPECTIONS SHALL BE COMPLETED WITHIN TWENTY-FOUR (24) HOURS OF THE END OF A RAINFALL EVENT THAT IS ONE-HALF INCH OR GREATER OR EQUIVALENT SNOWFALL, OR AT A MINIMUM ONCE EVERY SEVEN (7) CALENDAR DAYS. INSPECTIONS SHALL BE UNDERTAKEN BY QUALIFIED PERSONNEL PROVIDED BY THE CONTRACTOR, AND SHALL INCLUDE: DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. A STORMWATER POLLUTION PREVENTION PLAN INSPECTION REPORT SHALL BE COMPLETED AND ADDED TO THE SWPPP. RAINFALL SHALL BE RECORDED ON THE SWPPP RAINFALL LOG. CONTRACTOR SHALL IMMEDIATELY ARRANGE FOR REPAIR OR REPLACEMENT OF ANY DAMAGED OR DEFICIENT CONTROL MEASURES OBSERVED DURING THE INSPECTION.

QUALIFIED PERSONNEL MEANS A PERSON KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICES OF EROSION AND SEDIMENT CONTROL MEASURES, SUCH AS A LICENSED PROFESSIONAL ENGINEER, A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL, A CERTIFIED EROSION SEDIMENT OR STORMWATER INSPECTOR, OR OTHER TRAINED INDIVIDUAL.

6.0 SPILL PREVENTION

6.1 GENERAL MATERIAL MANAGEMENT PRACTICES

THE GOOD HOUSEKEEPING PRACTICES LISTED BELOW SHALL BE FOLLOWED THROUGHOUT THE CONSTRUCTION PROJECT.

1. CONTRACTOR SHALL STORE ONLY ENOUGH PRODUCTS REQUIRED TO COMPLETE THIS PROJECT.
2. ALL MATERIALS SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR ORIGINAL CONTAINERS CONTAINING MANUFACTURER'S LABEL.
3. MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
4. MATERIALS REQUIRED TO HAVE A MATERIAL SAFETY DATA SHEET (MSDS) SHALL HAVE A COPY STORED IN THE PROJECT'S MSDS DATABASE.

6.2 SPILL CONTROL PRACTICES

THE PRACTICES LISTED BELOW SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP.

1. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE MAINTAINED ONSITE.
2. IMMEDIATELY UPON DISCOVERY, ALL SPILLS SHALL BE CLEANED UP ACCORDING TO THE MANUFACTURERS' RECOMMENDED METHODS.
3. PERSONNEL CLEANING UP A SPILL SHALL USE PERSONAL PROTECTIVE EQUIPMENT.
4. IMMEDIATELY UPON DISCOVERY, SPILLS OF TOXIC OR HAZARDOUS MATERIALS SHALL BE REPORTED TO THE OWNER AND GENERAL CONTRACTOR.
5. NOTIFICATION AND REPORTING TO THE APPROPRIATE FEDERAL, STATE, AND LOCAL GOVERNMENT AGENCIES SHALL BE MADE AS REQUIRED.

GENERAL INFORMATION:

THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN DEVELOPED TO FULFILL ONE OF THE REQUIREMENTS OF THE GENERAL ENVIRONMENTAL PROTECTION AGENCY (EPA) NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (WISCONSIN POLLUTION DISCHARGE ELIMINATION SYSTEM "WPDES" PERMIT NO. WI-S067831-4) FOR THE DISCHARGE OF STORMWATER ASSOCIATED WITH CONSTRUCTION PROJECTS DISTURBING ONE ACRE OR MORE. THE OWNER AND CONTRACTORS SHALL COMPLY WITH ALL REQUIREMENTS OF THE WPDES FOR ALL SUCH CONSTRUCTION PROJECTS. THE STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY FROM THIS SITE ARE SUBJECT TO THE CONDITIONS AND REQUIREMENTS OF THE PERMITS.

THE EXECUTED OWNER CERTIFICATION AND THE CONTRACTOR CERTIFICATIONS SHALL BE KEPT ONSITE WITH THE APPROVED PLANS.

SWPPP AVAILABILITY:

THE OWNER SHALL RETAIN A COPY OF THE SWPPP AT THE CONSTRUCTION SITE FROM THE DATE OF THE PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

KEEPING PLANS CURRENT:

THE CONTRACTOR SHALL AMEND THE PLAN WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE. WHICH HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS TO THE WATERS OF THE STATE AND WHICH HAS NOT OTHERWISE BEEN ADDRESSED IN THE PLAN OR IF THE PLAN PROVES TO BE INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY CONTROLLING POLLUTANTS IN STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SITE ACTIVITY. IN ADDITION, THE PLAN SHALL BE AMENDED TO IDENTIFY ANY NEW CONTRACTOR AND/OR SUBCONTRACTOR THAT WILL IMPLEMENT A MEASURE OF THE PLAN. AMENDMENTS TO THE PLAN MAY BE REQUIRED BY THE MUNICIPALITY, OWNER, OR OTHER REVIEWING AGENCY. COPIES OF THE AMENDMENTS SHALL BE KEPT ONSITE AS PART OF THE SWPPP.

RETENTION OF RECORDS:

THE OWNER SHALL RETAIN COPIES OF THIS AND ALL REPORTS AND NOTICES REQUIRED BY THIS PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT, FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE PERMIT COVERAGE EXPIRES OR IS TERMINATED. THIS PERIOD MAY BE EXTENDED BY THE REQUEST OF THE AGENCY AT ANY TIME. IN ADDITION, THE OWNER SHALL RETAIN A COPY OF THE PLAN REQUIRED BY THIS PERMIT AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

A NOTICE OF INTENT (NOI) APPLICATION MUST BE COMPLETED AND INCORPORATED INTO THE SWPPP.

WPDES NOTICE OF TERMINATION GUIDANCE:

WHEN A SITE HAS BEEN FINALLY STABILIZED AND ALL STORMWATER DISCHARGES FROM CONSTRUCTION SITES THAT ARE AUTHORIZED BY THE PERMIT ARE ELIMINATED, THE OWNER OF THE FACILITY MUST SUBMIT A COMPLETED NOTICE OF TERMINATION THAT IS SIGNED IN ACCORDANCE WITH THE PERMIT. CONTRACTOR SHALL SUBMIT A COMPLETED NOTICE OF TERMINATION TO OWNER FOR EXECUTION PRIOR TO THEIR FINAL PAY APPLICATION REQUEST.

CONTROL MEASURE	CONTROL MEASURE	CONTROL MEASURE CHARACTERISTICS
VEGETATIVE SOIL COVER	TEMPORARY SEEDING	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE.
	PERMANENT SEEDING	PROVIDES PERMANENT VEGETATIVE COVER TO CONTROL EROSION. FILTERS SEDIMENT FROM WATER. MAY BE PART OF FINAL LANDSCAPE PLAN.
NON VEGETATIVE SOIL COVER	AGGREGATE COVER	PROVIDES TEMPORARY COVER ON ROADS AND PARKING LOTS AND AREAS WHERE VEGETATION CANNOT BE ESTABLISHED. PREVENTS MUD FROM BEING PICKED UP AND TRANSPORTED OFF-SITE.
	PAVING	PROVIDES PERMANENT COVER ON PARKING LOTS AND ROADS OR OTHER AREAS WHERE VEGETATION CANNOT BE ESTABLISHED.
DIVERSIONS	DIVERSION BERM / SWALE	DIVERTS RUNOFF TO A SEDIMENT TRAP OR OTHER CONTROL.
ENCLOSED DRAINAGE	STORM SEWER	CONVEYS SEDIMENT LADEN WATER TO A SEDIMENT BASIN.
OUTLETS	APRON ENDWALL OR RIPRAP	PROTECTS DOWNSTREAM CHANNEL FROM HIGH VELOCITY OF FLOW DISCHARGING FROM STRUCTURE.
SEDIMENT BASINS	TEMPORARY SEDIMENT TRAP	CONSTRUCTED TO REMOVE SILTATION FROM RUNOFF FROM SITE DIVERSION BERMS/SWALES AND IN OVERLAND FLOOD ROUTE. CAN BE CONVERTED TO PERMANENT SEDIMENT BASIN.
SEDIMENT FILTERS	SILT FENCE	PLACED DOWN SLOPE OF DISTURBED AREA TO KEEP RUNOFF CONTAINED ON-SITE.
	INLET PROTECTION	INSTALLED IN OPEN GRATE STRUCTURES TO COLLECT SEDIMENT.
	DITCH CHECK	PLACED IN DRAINAGE CHANNELS TO FILTER SEDIMENT FROM RUNOFF.
MUD AND DUST CONTROL	CONSTRUCTION ENTRANCE	REDUCES SOIL EROSION POLLUTANTS BEING TRANSPORTED OFF-SITE.
	STREET SWEEPING	REDUCES POLLUTANTS TRACKED FROM CONSTRUCTION SITE.
	DUST CONTROL	PREVENTS DUST FROM LEAVING CONSTRUCTION SITE.

STABILIZATION EFFECTIVENESS (TIME OF YEAR)

STABILIZATION TYPE	STABILIZATION UTILIZATION PERIODS											
	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PERMANENT SEEDING			A	*	*	*	*	*	*			
DORMANT SEEDING	B										B	
TEMPORARY SEEDING			C	*	*	*	D	*	*			
SODDING			E	*	*	*	*	*	*			

A. KENTUCKY BLUEGRASS 90 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 30 LBS/ACRE.
B. KENTUCKY BLUEGRASS 135 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 45 LBS/ACRE + 2 TONS STRAW MULCH/ACRE.
C. SPRING OATS 100 LBS/ACRE.
D. WHEAT OR CEREAL RYE 150 LBS/ACRE.
E. SOD.
F. STRAW MULCH 2 TONS/ACRE.
* IRRIGATION/WATERING REQUIRED TO SUPPORT ESTABLISHMENT AS NEEDED.

HGA
333 East Erie Street
Milwaukee, Wisconsin 53202
Telephone 414.278.8200

CIVIL ENGINEER/ LANDSCAPE ARCHITECT
PINNACLE ENGINEERING GROUP
20725 W. WATERTOWN ROAD, SUITE 100
BROOKFIELD, WI 53186
(414) 588-5851

STRUCTURAL ENGINEER/ MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER
HGA, Inc.

SunCap PROPERTY GROUP
1407 Stuart Engals Boulevard - 2nd floor
Mt. Pleasant, SC 29464

PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

CONSTRUCTION DETAILS

DATE: JULY 2, 2026

DEVELOPMENT USE

C-15.0

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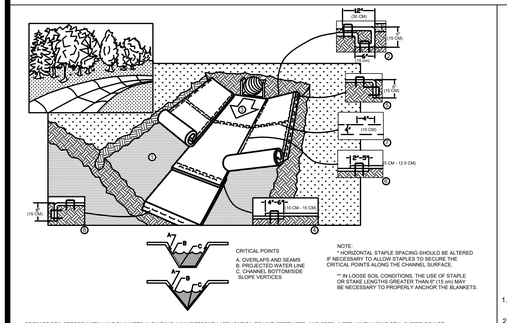
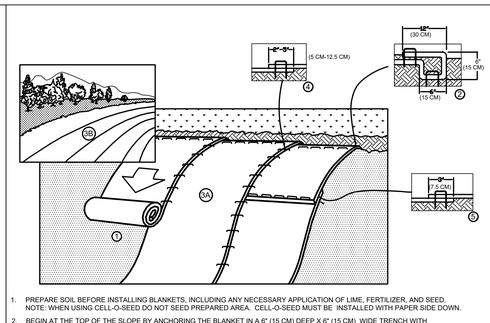


1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4" - 6" (10 CM -15 CM) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2" - 5" (5 CM -12.5 CM) (DEPENDING ON BLANKET TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9 M - 12 M) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

NOTE: *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

EROSION MATTING - CHANNEL INSTALLATION

150- 11/18/15

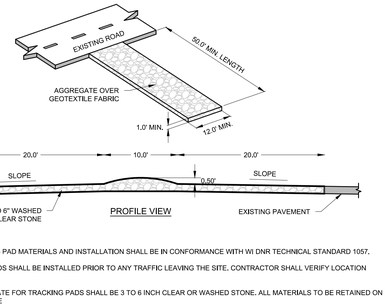


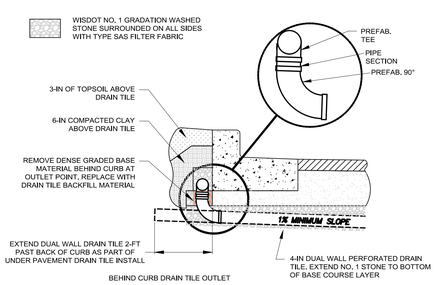
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON BLANKET TYPE.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE BLANKET WIDTH.

NOTE: *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

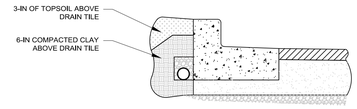
EROSION MATTING - SLOPE INSTALLATION

150- 11/18/15

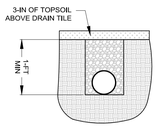

EXISTING ROAD
50.0 MIN. LENGTH
AGGREGATE OVER GEOTEXTILE FABRIC
1.0' MIN.
12.0' MIN.
20.0'
10.0'
20.0'
SLOPE
0.50'
SLOPE
3" TO 6" W



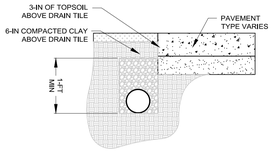
BEHIND CURB DRAIN TILE OUTLET



BEHIND CURB DRAIN TILE



PERVIOUS AREA DRAIN TILE

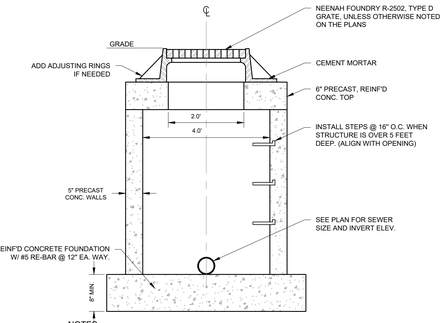


EDGE OF PAVEMENT DRAIN TILE

DRAIN TILE GENERAL SPECIFICATIONS

1. THE DRAIN TILE CONDUIT AND FITTINGS SHALL MEET STRENGTH AND DURABILITY REQUIREMENTS FOR THE SITE, ALL CONDUIT AND FITTINGS SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS PUBLISHED BY THE AMERICAN SOCIETY FOR TESTING AND MATERIALS. CORRUGATED HIGH DENSITY POLYETHYLENE (HDPE) CONDUIT AND FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM M252. CONDUIT TYPE (SINGLE WALL OR DUAL WALL) SHALL INSTALLED PER THE LOCATIONS SHOWN IN THE PLANS. CONTRACTOR MAY SUBSTITUTE DUAL WALL CONDUIT AT LOCATIONS SPECIFIED FOR SINGLE WALL CONDUIT AT THE SOLE EXPENSE OF THE CONTRACTOR.
   - SINGLE WALL CONDUIT SHALL BE TYPE DP WITH CLASS 4 PERFORATION PATTERN.
   - DUAL WALL CONDUIT SHALL BE TYPE SP WITH A SMOOTH INTERIOR THAT CARRIES A MAXIMUM MANNING'S "N" VALUE OF 0.12 WITH CLASS 1 PERFORATION PATTERN.
2. ALL DRAIN TILE CONSTRUCTION MUST BE PROVIDED WITH TRACER WIRE OR OTHER APPROVED METHODS IN ORDER TO BE LOCATED IN ACCORD WITH 182.0720(29) OF THE STATUTES. CONTRACTOR SHALL PROVIDE THE ENGINEER NOTICE OF LOCATION METHOD PRIOR TO THE START OF CONSTRUCTION.
3. A MAXIMUM TRENCH WIDTH OF 2-FT SHALL BE MAINTAINED FOR ALL DRAIN TILE INSTALLATION WITH THE EXCEPTION OF CONNECTION POINTS TO THE EXISTING STORM SEWER SYSTEM IN WHICH CASE THE CONTRACTOR SHALL LIMIT DISTURBANCE AS POSSIBLE
4. THE MINIMUM DEPTH OF COVER (FINISH GRADE TO TOP PIPE) SHALL BE:
   - CONCRETE PAVED AREAS - 2.0-FT
   - ASPHALT PAVED AREAS - 2.5-FT
   - BEHIND CURB - 2.5-FT
   - OTHER LANDSCAPED/GRASS/PERVIOUS AREAS - 2.5-FT
5. CONNECTION TO THE EXISTING STORM SEWER SYSTEM SHALL ACHIEVED BY CORING THE EXISTING REINFORCED CONCRETE STORM SEWER STRUCTURES OR PIPING TO THE DIAMETER NECESSARY TO ACCOMODATE A PERMANENT WATERTIGHT SEAL. CONNECTION TO EXISTING NON-REINFORCING REINFORCED CONCRETE STORM SEWER SHALL BE ACHIEVED BY THE USE OF NON-HUB CONNECTORS, OR EQUAL.
6. FOR TRENCH INSTALLATIONS OF CORRUGATED PLASTIC CONDUIT (OTHER THAN BEHIND CURB LOCATIONS), THE FOLLOWING BEDDING METHODS ARE REQUIRED:
   - A STONE BEDDING LAYER, AT LEAST 3 IN. THICK, USING A CLEAN STONE SHALL BE INSTALLED TO PROVIDE CONDUIT SUPPORT.
   - COMPACT BEDDING MATERIAL BESIDE AND TO THE UPPER (TOP) LIMITS OF BASE COURSE IN PAVED AREAS OR TOP OF CUVI (BOTTOM OF TOPSOIL LAYER) ABOVE THE CONDUIT.
7. ANY HARD OBJECTS LARGER THAN 1.5 IN. IN DIAMETER EXPOSED WITHIN THE TRENCH BOTTOM OR WALLS SHALL BE REMOVED TO PREVENT UNDUE STRESSES ON THE CONDUIT AND FITTINGS.
8. PRE MANUFACTURED FITTINGS (SUCH AS: WYES, TEES, BENDS, CAPS, ETC) OF THE SAME MATERIAL AS THE CONDUIT SHALL BE USED AT ALL CONNECTIONS AND DEFLECTIONS GREATER THAN 22.5 DEGREES.
9. IF NOT CONNECTED TO A STRUCTURE, THE UPPER END OF EACH SUBSURFACE DRAIN TILE SHALL BE CAPPED WITH A TIGHT-FITTING EXTERNAL CAP OF THE SAME MATERIAL AS THE CONDUIT.
10. AT ALL TIMES THE DRAIN TILE SYSTEM SHALL BE KEPT CLEAN AND PROTECTED AGAINST UNDERMINING OF THE CAPACITY OF THE CONDUIT AND DAMAGE DURING CONSTRUCTION. TYPICAL CAPACITY UNDERMINING INCLUDES ENTRY OF CONSTRUCTION MATERIALS, TRASH, AND RODENTS INTO THE CONDUIT.

DRAINTILE

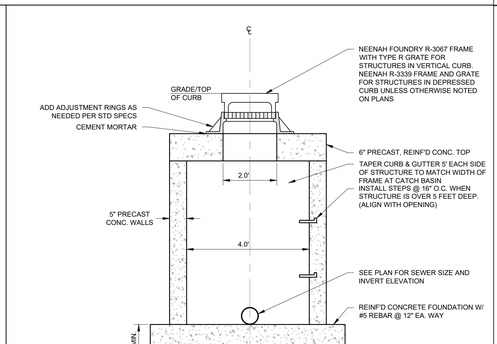


NOTES:

1. EASY STICK, RUBBER GASKET OR APPROVED EQUIVALENT SHALL BE PLACED AT ALL JOINTS BETWEEN ADJUSTING RINGS FOR STORM CATCH BASINS.
2. THE FLAT TOP MAY BE USED IN LIEU OF THE TAPERED TOP WHEN FIELD CONDITIONS PROHIBIT USE OF A TAPERED TOP.
3. STRUCTURE TO BE 4.0' DIA. OR AS INDICATED ON THE PLANS.

INLET

#502 10-04-12

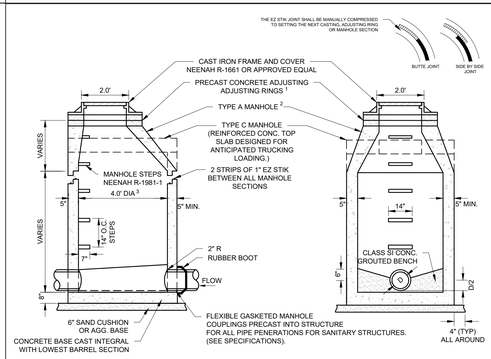


NOTES:

1. EASY STICK, RUBBER GASKET OR APPROVED EQUIVALENT SHALL BE PLACED AT ALL JOINTS BETWEEN ADJUSTING RINGS FOR STORM CATCH BASINS.
2. THE FLAT TOP MAY BE USED IN LIEU OF THE TAPERED TOP WHEN FIELD CONDITIONS PROHIBIT USE OF A TAPERED TOP.
3. STRUCTURES TO BE 4' DIA. OR AS INDICATED ON THE PLANS.

STORM INLET - CURB

#506 10-10-12

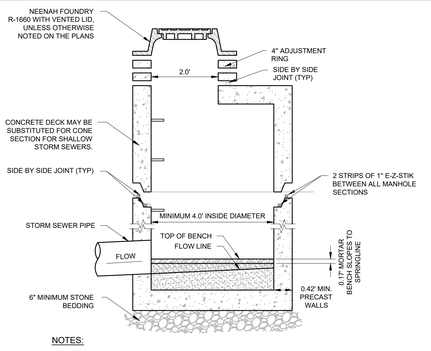


NOTES:

1. 1" EZ STIKE BETWEEN ALL ADJUSTMENT RINGS, BETWEEN TOP ADJUSTMENT RINGS AND FRAME. USE INTERNAL ADAPTOR SEAL RING, ALL JOINTS MUST BE BACKPLASTERED INSIDE AND OUT.
2. THE FLAT TOP MAYBE USED IN LIEU OF THE TAPERED TOP WHEN FIELD CONDITIONS PROHIBIT THE USE OF A TAPERED TOP.
3. STRUCTURE TO BE 4'-0" DIA UNLESS OTHERWISE INDICATED ON THE PLANS.

SANITARY MANHOLE

#402 10-04-12

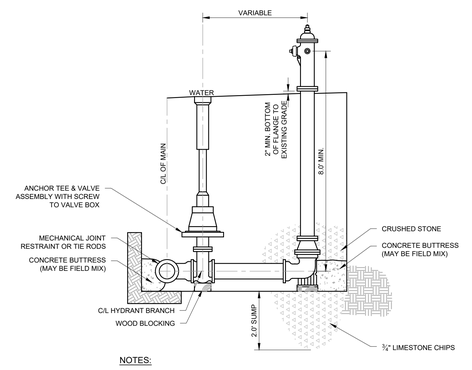


NOTES:

1. CLEAN UNDERSIDE OF ADJUSTING RING OR CAST IRON FRAME AND SET IN PLACE.
2. TUCK POINT MORTAR INTO ANNULAR CRACK AND BACKPLASTERED INSIDE AND OUTSIDE OF ALL JOINTS.
3. THE FLAT TOP MAY BE USED IN LIEU OF THE TAPERED TOP WHEN FIELD CONDITIONS PROHIBIT THE USE OF A FLAT TAPERED TOP.
4. MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
5. ECCENTRIC CONE SECTION OF MANHOLE TO BE SET OUTSIDE OF VEHICULAR WHEEL PATH NEAR ℄ OF ROADWAY.

STORM SEWER MANHOLE

#401 04/08



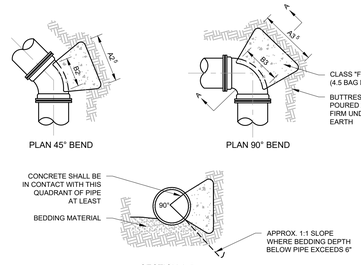
NOTES:

1. MEGALUG RESTRAINING GLANDS ON ALL MECHANICAL JOINTS, THE BOLTS & NUTS ARE TO BE HIGH STRENGTH LOW ALLOY STEEL (CORTEN) AS PER SECTION 11.6.5 OF A.W.W.A. C-111.
2. THE FOLLOWING HYDRANTS SHALL BE ALLOWED:

   MUELLER SUPER CENTURION 250 3-WAY FIRE HYDRANT
   U.S. PIPE METROPOLITAN / M-94 DUCTILE IRON FIRE HYDRANT
   WATEROUS 5½" PACER FIRE HYDRANT

FIRE HYDRANT

#501 10-10-12



SECTION A-A

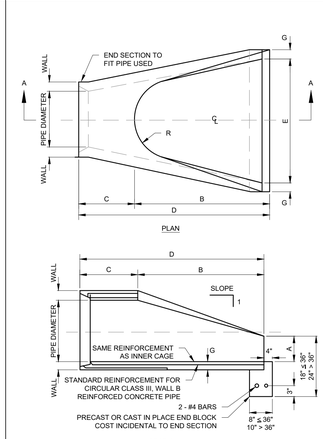
PIPE	22 1/2° BENDS		45° BENDS		90° BENDS	
SIZE	A1	B1	A2	B2	A3	B3
6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-4"	1'-2"
8"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-6"
12"	1'-4"	1'-4"	1'-10"	1'-10"	2'-8"	2'-3"
16"	1'-10"	1'-8"	2'-6"	2'-4"	3'-10"	2'-10"
20"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"
24"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"
30"	3'-6"	3'-0"	5'-4"	3'-10"	8'-0"	4'-8"

NOTES:

1. PROVIDE THRUST BLOCKING TO PREVENT MOVEMENT OF LINES UNDER PRESSURE AT BENDS, TEES, CAPS, VALVES, HYDRANTS, AND AT POINTS SPECIFIED BY THE ENGINEER
2. ALL BLOCKING SHALL BE WITH POURED CLASS SI CONCRETE AGAINST UNDISTURBED VERTICAL EARTH SURFACE
3. THRUST BLOCKS TO BE AT ALL BENDS 11½° OR GREATER
4. THE COST OF INSTALLING THE THRUST BLOCK SHALL BE INCIDENTAL TO THE CONSTRUCTION OF THE WATER
5. DIMENSION A2 & A3 SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH M.J BOLTS

THRUST BLOCK

#502 10-10-12



PIPE DIA.	APPROX QTY (lbs)	WALL (in)	A (in)	B (in)	C (in)	D (in)	E (in)	G (in)	R (in)	APPROX SLOPE
12"	530	2	4	24	4'-0 7/8"	6'-0 7/8"	24	2	9	1:2.4
15"	740	2 1/4	6	27	3'-10"	6'-1"	30	2 1/4"	11	1:2.4
18"	990	2 1/2	9	27	3'-10"	6'-1"	36	2 1/2	12	1:2.4
21"	1280	2 3/4	9	35	38	6'-1"	3'-6"	2 3/4	13	1:2.4
24"	1520	3	9 1/2	3'-7 1/2"	30	6'-1 1/2"	4'-0"	3	14	1:2.5
27"	1930	3 1/4	10 1/2	4'-0"	25 1/2	6'-1 1/2"	4'-6"	3 1/4	14 1/2	1:2.4
30"	2190	3 1/2	12	4'-6"	19 3/4	6'-1 3/4"	5'-0"	3 1/2	15	1:2.5
33"	3200	3 3/4	13 1/2	4'-10 1/2"	39 1/4	8'-1 3/4"	5'-6"	3 3/4	17 1/2	1:2.5
36"	4100	4	15	5'-3"	34 3/4	8'-1 3/4"	6'-0"	4	20	1:2.5
42"	5380	4 1/2	21	5'-3"	35	8'-2"	6'-6"	4 1/2	22	1:2.5
48"	6550	5	24	6'-0"	26	8'-2"	7'-0"	5	22	1:2.5
54"	8240	5 1/2	27	5'-5"	35	8'-4"	7'-6"	5 1/2	24	1:2.0
60"	8730	6	35	5'-0"	39	8'-3"	8'-0"	5	*	1:1.9
66"	10710	6 1/2	30	6'-0"	27	8'-3"	8'-6"	5 1/2	*	1:1.7
72"	12520	7	36	6'-6"	21	8'-3"	9'-0"	6	*	1:1.8
78"	14770	7 1/2	36	7'-6"	21	9'-3"	9'-6"	6 1/2	*	1:1.8
84"	18160	8	36	7'-6 1/2"	21	9'-3 1/2"	10'-0"	6 1/2	*	1:1.6

* RADIUS AS FURNISHED BY MANUFACTURER

NOTES:

1. PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS 3, WALL B REINFORCED CONCRETE PIPE.
2. PRECAST CONCRETE FLARED END SECTIONS FOR PIPE DIAMETER REQUIRED SHALL BE AS INDICATED ON DETAIL PLAN FOR EACH INDIVIDUAL INSTALLATION
3. THIS ITEM SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR PRECAST CONCRETE FLARED END SECTION OF THE DIAMETER SPECIFIED WHICH PRICE INCLUDES PROVIDING AND INSTALLATION OF EACH END SECTION SPECIFIED.
4. GRATES, WHERE SPECIFIED, SHALL BE PROVIDED FOR ALL PRECAST REINFORCED CONCRETE FLARED END SECTIONS.

PRECAST FLARED END SECTIONS

#312A 8/19/24

HGA

333 East Erie Street
Milwaukee, Wisconsin 53202
Telephone 414.278.8200

CIVIL ENGINEER/ LANDSCAPE ARCHITECT

PINNACLE ENGINEERING GROUP
20725 W. WATERTOWN ROAD, SUITE 100
BROOKFIELD, WI 53186
(414) 588-5851

STRUCTURAL ENGINEER/ MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

HGA, Inc.

SunCap PROPERTY GROUP

1407 Stuart Engals Boulevard - 2nd floor
Mt. Pleasant, SC 29464

PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

CONSTRUCTION DETAILS

DATE: JULY 2, 2026

DEVELOPMENT USE

C-15.1

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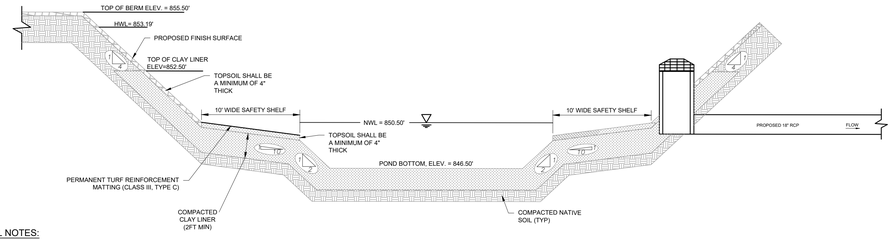
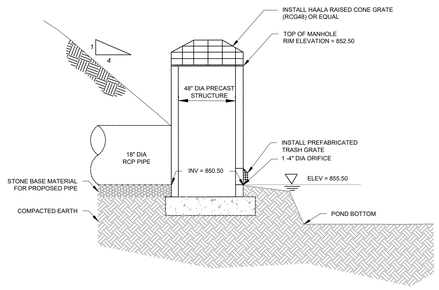


GENERAL NOTES:

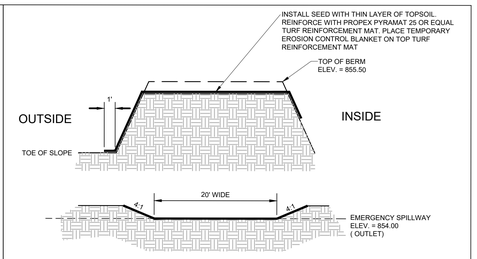
1. ALL CONSTRUCTION SHALL MEET THE SPECIFICATIONS OF "WDNR WET DETENTION BASIN TECHNICAL STANDARD 1001".
2. ALL WORK TO BE CONDUCTED IN CONFORMANCE WITH THE STORM WATER MANAGEMENT PLAN FOR THE PROJECT SITE AS APPROVED BY THE REGULATORY ENGINEER OF RECORD.
3. RCP PIPING & INSTALLATION WITHIN THE BASIN SHALL HAVE RUBBER GASKETS
4. OWNER OR CONTRACTOR MUST CONSULT LANDSCAPE ARCHITECT OR ECOLOGICAL PLANNING AGENCY FOR APPROPRIATE PLANTS AND PLANTING CONFIGURATIONS.
5. CLAY LINER SHALL BE A MINIMUM OF 2-FEET THICK. CLAY SHALL BE COMPACTED AT ±2.0% OPTIMAL MOISTURE CONTENT TO 90% MODIFIED PROCTOR. MEDIUM STIFF TO STIFF CLAYS PRESENT IN-PLACE AT THE POND SIDE SLOPES OR OTHER ONSITE MEDIUM STIFF TO STIFF CLAYS MAY BE USED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER OF RECORD.
6. FOR CONSTRUCTED EMBANKMENTS WHERE THE PERMANENT POOL IS PONDED 3-FEET OR MORE AGAINST THE EMBANKMENT, THERE SHALL BE A CORE TRENCH OR KEYWAY ALONG THE CENTERLINE OF THE EMBANKMENT UP TO THE PERMANENT POOL ELEVATION. THE CORE TRENCH OR KEYWAY SHALL BE A MINIMUM OF 2-FEET DEEP AND 8-FEET WIDE WITH A SIDE SLOPE OF 1:1 OR FLATTER.

NORTH WET POND CROSS SECTION

#320A 08-27-14



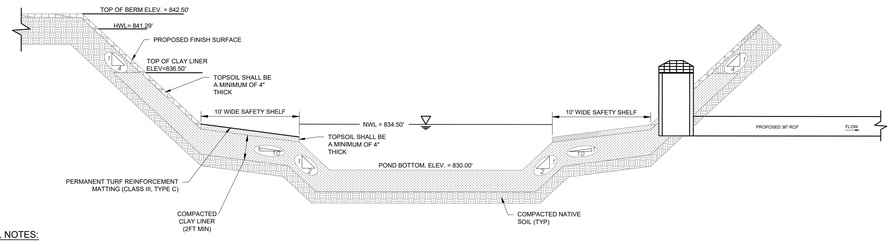
NORTH POND OUTLET STRUCTURE



NOTES:

1. TURF REINFORCEMENT MAT MUST COVER ENTIRE BOTTOM OF CHUTE AND EXTEND TO THE TOP OF BERM AND EXTEND DOWN THE OUTSIDE FACE OF THE BERM.

NORTH POND SPILLWAY DETAIL

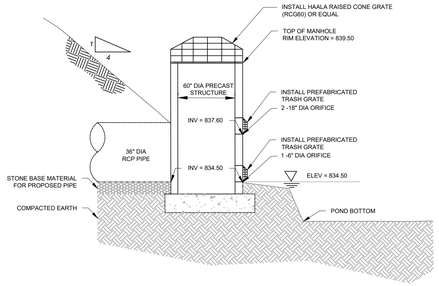


GENERAL NOTES:

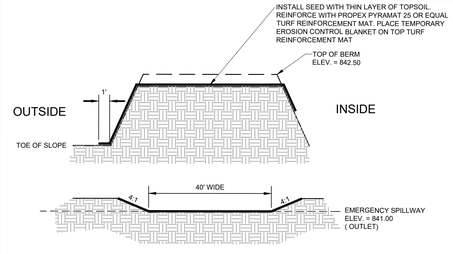
1. ALL CONSTRUCTION SHALL MEET THE SPECIFICATIONS OF "WDNR WET DETENTION BASIN TECHNICAL STANDARD 1001".
2. ALL WORK TO BE CONDUCTED IN CONFORMANCE WITH THE STORM WATER MANAGEMENT PLAN FOR THE PROJECT SITE AS APPROVED BY THE REGULATORY ENGINEER OF RECORD.
3. RCP PIPING & INSTALLATION WITHIN THE BASIN SHALL HAVE RUBBER GASKETS
4. OWNER OR CONTRACTOR MUST CONSULT LANDSCAPE ARCHITECT OR ECOLOGICAL PLANNING AGENCY FOR APPROPRIATE PLANTS AND PLANTING CONFIGURATIONS.
5. CLAY LINER SHALL BE A MINIMUM OF 2-FEET THICK. CLAY SHALL BE COMPACTED AT ±2.0% OPTIMAL MOISTURE CONTENT TO 90% MODIFIED PROCTOR. MEDIUM STIFF TO STIFF CLAYS PRESENT IN-PLACE AT THE POND SIDE SLOPES OR OTHER ONSITE MEDIUM STIFF TO STIFF CLAYS MAY BE USED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER OF RECORD.
6. FOR CONSTRUCTED EMBANKMENTS WHERE THE PERMANENT POOL IS PONDED 3-FEET OR MORE AGAINST THE EMBANKMENT, THERE SHALL BE A CORE TRENCH OR KEYWAY ALONG THE CENTERLINE OF THE EMBANKMENT UP TO THE PERMANENT POOL ELEVATION. THE CORE TRENCH OR KEYWAY SHALL BE A MINIMUM OF 2-FEET DEEP AND 8-FEET WIDE WITH A SIDE SLOPE OF 1:1 OR FLATTER.

MID WET POND CROSS SECTION

#320A 08-27-14



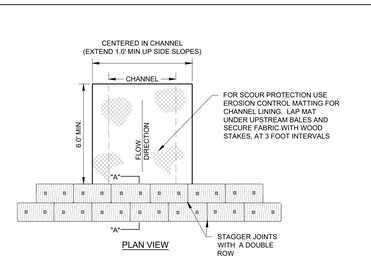
MID POND OUTLET STRUCTURE



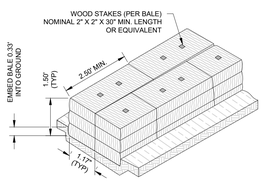
NOTES:

1. TURF REINFORCEMENT MAT MUST COVER ENTIRE BOTTOM OF CHUTE AND EXTEND TO THE TOP OF BERM AND EXTEND DOWN THE OUTSIDE FACE OF THE BERM.

MID POND SPILLWAY DETAIL

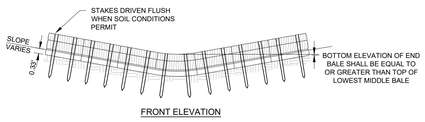


PLAN VIEW



SECTION "A-A"

NOTE:
ALL DIMENSIONS ARE APPROXIMATE



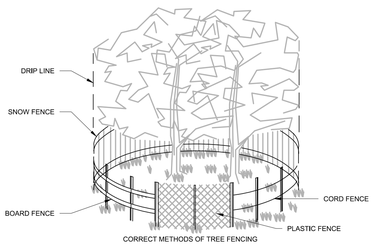
FRONT ELEVATION

NOTES:

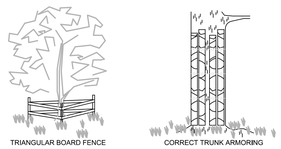
1. INSTALLED, THE MINIMUM HEIGHT OF DITCH CHECK SHALL BE 10-INCHES AND SHALL NOT EXCEED A MAXIMUM HEIGHT OF 16-INCHES FOR MANUFACTURED OR BIODEGRADABLE MATERIALS.
2. DITCH CHECK MUST BE INSTALLED WITH THE CENTER LOWER THAN THE SIDES FORMING A WEIR.
3. AT A MINIMUM, INSTALL ONE DITCH CHECK FOR EVERY TWO-FEET OF DROP IN THE CHANNEL.
4. DITCH CHECK SHALL, AT A MINIMUM, BE INSPECTED WEEKLY AND WITHIN 24-HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5-INCHES OF RAIN OR MORE DURING A 24-HOUR PERIOD.
5. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN DEPOSITS REACH HALF OF THE HEIGHT OF THE LOWEST BALE.
6. DITCH CHECK SHALL BE UTILIZED DURING ROUGH GRADING AND SHALL BE REMOVED ONCE FINAL GRADING AND CHANNEL STABILIZATION IS APPLIED.
7. EROSION CONTROL MATTING FOR CHANNELS SHALL BE NORTH AMERICAN GREEN C125BN OR EQUAL.

DITCH CHECK WITH STRAW BALES

#312 10-02-12



CORRECT METHODS OF TREE FENCING

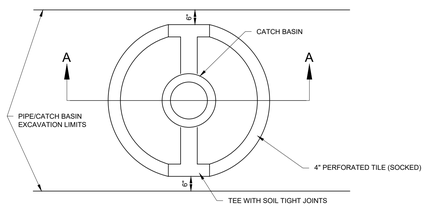


TRIANGULAR BOARD FENCE

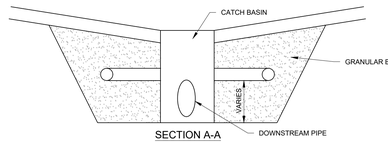
CORRECT TRUNK ARMORING

TREE PRESERVATION & PROTECTION

#110 10-10-11



PLAN VIEW



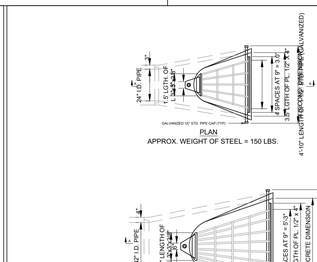
SECTION A-A

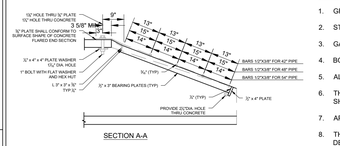
NOTES:

1. DRAINTILE INVERTS SHALL BE PLACED AT OR ABOVE CROWN OF DOWNSTREAM PIPE.

INLET - DRAIN TILE

#315 08/28/24





SECTION A-A

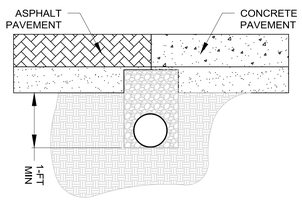
NOTES:

1. GRATING DETAILS SHOWN ARE INTENDED FOR USE WITH PARTICULAR SIZES OF PRECAST REINFORCED CONCRETE FLARED END SECTION AS SHOWN ON IDOT STANDARDS.
2. STRUCTURAL STEEL SHAPES AND PLATES SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
3. GALVANIZED STEEL PIPE SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
4. BOLTS, NUTS AND WASHERS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
5. ALL FABRICATION SHALL BE COMPLETED AND READY FOR ASSEMBLY BEFORE GALVANIZING.
6. THE CORED HOLES IN THE THE PRECAST CONCRETE FLARED END SECTIONS SHALL BE TO THE DIAMETERS NOTED. IF CONE-OUT ON THE OTHER END OF THE HOLE OCCURS, THE HOLE SHALL BE FILLED WITH GROUT TO CORRECT DIAMETER OF THE HOLE.
7. APPROXIMATE WEIGHT OF STEEL SHOWN INCLUDES TOTAL WEIGHT OF GRATING, BOLTS, WASHERS, NUTS, AND STEEL PIPE.
8. THE CONTRACT UNIT PRICE "EACH" FOR GRATING FOR CONCRETE FLARED END SECTION OF THE SIZE INDICATED SHALL INCLUDED FABRICATION AND INSTALLATION OF THE GRATING AS DETAILED HEREON, INCLUDING FABRICATION OF THE NECESSARY MOUNTING HOLES IN THE FLARED END SECTION. THIS PRICE DOES NOT INCLUDE THE COST OF THE PRECAST CONCRETE FLARED END SECTION.

FLARED END SECTION GRATES

#313 8/19/15

WISDOT NO. 1 GRADATION WASHED STONE SURROUNDED ON ALL SIDES WITH TYPE SAS FILTER FABRIC



DRAIN TILE GENERAL SPECIFICATIONS

1. THE DRAIN TILE CONDUIT AND FITTINGS SHALL MEET STRENGTH AND DURABILITY REQUIREMENTS FOR THE SITE. ALL CONDUITS AND FITTINGS SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS OF THE APPROPRIATE SPECIFICATIONS PUBLISHED BY THE AMERICAN SOCIETY FOR TESTING AND MATERIALS. CORRUGATED HIGH DENSITY POLYETHYLENE (HDPE) CONDUIT AND FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM M252. CONDUIT TYPE (SINGLE WALL OR DUAL WALL) SHALL INSTALLED PER THE LOCATIONS SHOWN IN THE PLANS. CONTRACTOR MAY SUBSTITUTE DUAL WALL CONDUIT AT LOCATIONS SPECIFIED FOR SINGLE WALL CONDUIT AT THE SOLE EXPENSE OF THE CONTRACTOR.
   - SINGLE WALL CONDUIT SHALL BE TYPE CP WITH CLASS II PERFORATION PATTERN.
   - DUAL WALL CONDUIT SHALL BE TYPE SP WITH A SMOOTH INTERIOR THAT CARRIES A MAXIMUM MANNING'S 'N' VALUE OF 0.12 WITH CLASS II PERFORATION PATTERN.
2. ALL DRAIN TILE CONSTRUCTION MUST BE PROVIDED WITH TRACER WIRE OR OTHER APPROVED METHODS IN ORDER TO BE LOCATED IN ACCORD WITH 182.0715(2R) OF THE STATUTES. CONTRACTOR SHALL PROVIDE THE ENGINEER NOTICE OF LOCATION METHOD PRIOR TO THE START OF CONSTRUCTION.
3. A MAXIMUM TRENCH WIDTH OF 3-FT SHALL BE MAINTAINED FOR ALL DRAIN TILE INSTALLATION WITH THE EXCEPTION OF CONNECTION POINTS TO THE EXISTING STORM SEWER SYSTEM IN WHICH CASE THE CONTRACTOR SHALL LIMIT DISTURBANCE AS POSSIBLE.
4. THE MINIMUM DEPTH OF COVER (FINISH GRADE TO TOP PIPE) SHALL BE:
   - CONCRETE PAVED AREAS - 2.0-FT
   - ASPHALT PAVED AREAS - 2.5-FT
   - BEHIND CURB - 0.5-FT
   - OTHER LANDSCAPED/GRASS/PERVIOUS AREAS - 2.0-FT
5. CONNECTION TO THE EXISTING STORM SEWER SYSTEM SHALL ACHIEVED BY CORING THE EXISTING REINFORCED CONCRETE STORM SEWER STRUCTURES OR PIPING TO THE DIAMETER NECESSARY TO ACCOMMODATE A PERMANENT CONNECTION. ALL CONNECTIONS TO THE EXISTING REINFORCED CONCRETE STORM SEWER SHALL BE ACHIEVED BY THE USE OF KORN-SEAL CONNECTORS, OR EQUAL.
6. FOR TRENCH INSTALLATIONS OF CORRUGATED PLASTIC CONDUIT (OTHER THAN BEHIND CURB LOCATIONS), THE FOLLOWING BEDDING METHODS ARE REQUIRED:
   - A STONE BEDDING LAYER, AT LEAST 3 IN. THICK, USING A CLEAR STONE SHALL BE INSTALLED TO PROVIDE CONDUIT SUPPORT.
   - COMPACT BEDDING MATERIAL BESIDE AND TO THE UPPER (TOP) LIMITS OF BASE COURSE IN PAVED AREAS OR TOP OF CLAY (BOTTOM OF TOPSOIL LAYER) ABOVE THE CONDUIT.
7. ANY HARD OBJECTS LARGER THAN 1.5 IN. IN DIAMETER EXPOSED WITHIN THE TRENCH BOTTOM OR WALLS SHALL BE REMOVED TO PREVENT UNDUE STRESSES ON THE CONDUIT AND FITTINGS.
8. PRE MANUFACTURED FITTINGS (SUCH AS: WYES, TEES, BENDS, CAPS, ETC) OF THE SAME MATERIAL AS THE CONDUIT SHALL BE USED AT ALL CONNECTIONS AND DEFLECTIONS GREATER THAN 22.5 DEGREES.
9. IF NOT CONNECTED TO A STRUCTURE, THE UPPER END OF EACH SUBSURFACE DRAIN TILE SHALL BE CAPPED WITH A TIGHT-FITTING EXTERNAL CAP OF THE SAME MATERIAL AS THE CONDUIT.
10. AT ALL TIMES THE DRAIN TILE SYSTEM SHALL BE KEPT CLEAN AND PROTECTED AGAINST UNDERMINING OF THE CAPACITY OF THE CONDUIT AND DAMAGE DURING CONSTRUCTION. TYPICAL CAPACITY UNDERMINING INCLUDES ENTRY OF CONSTRUCTION MATERIALS, TRASH, AND RODENTS INTO THE CONDUIT.

LOADING DOCK DRAINTILE

HGA

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STRUCTURAL ENGINEER/ MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

HGA, Inc.

SunCap PROPERTY GROUP

1407 Stuart Engals Boulevard - 2nd floor
Mt. Pleasant, SC 29464

PROJECT GRAVITY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

CONSTRUCTION DETAILS

DATE: JULY 2, 2026

DEVELOPMENT USE

C-15.2

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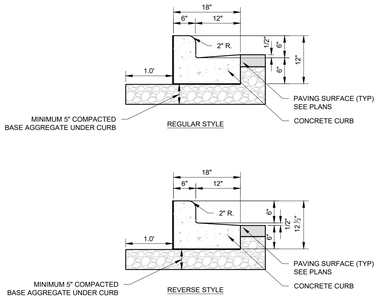
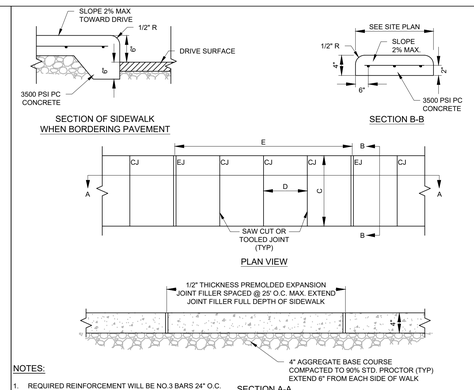


NOTES:

1. LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15 FEET NOR LESS THAN 6 FEET. THE JOINTS SHALL BE A MINIMUM OF 3 INCHES IN DEPTH.
2. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT RADIUS POINTS ON CURVES OF RADIUS 200 FEET OR LESS, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER OF RECORD. THE EXPANSION JOINTS FILLER SHALL BE A ONE PIECE FIBERBOARD OR THE APPROVED EQUIVALENT MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 0.5 INCH THICK.
3. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.
4. REVERSE STYLE CURB LOCATIONS ARE NOTED ON THE PLANS.

18" VERTICAL FACE CURB

#602-VR 10-21-13

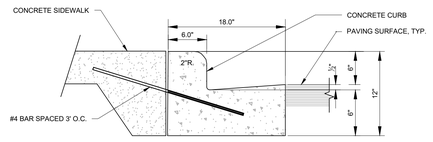


NOTES:

1. REQUIRED REINFORCEMENT WILL BE NO.3 BARS 24" O.C. EACH WAY MAX. SPACING OR 6x6 - W1.4 x W1.4 WWF
2. INSTALL 1/2" EXPANSION JOINT MATERIAL AT AREAS WERE PROPOSED SIDEWALK ABUTTS EXISTING SIDEWALK, CURBS, AND OR STRUCTURE. (JOINT MATERIAL TO MEET ASTM D994 OR D1751)
3. ALL SIDEWALKS WITHIN CITY R.O.W. SHALL BE NON-REINFORCED.

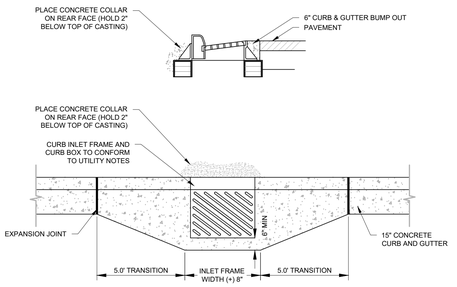
CONCRETE SIDEWALK

#607-A 05/2014



18" CURB ADJACENT TO SIDEWALK

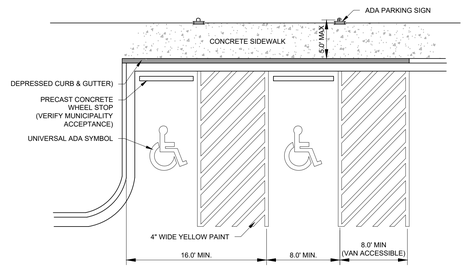
#619 2/2013



NOTE : CURB CONTRACTOR TO VERIFY POSITION AND ELEVATION OF FRAME AND GRATE PRIOR TO POUR. IF NOT CORRECT, FIVE (5) FOOT TRANSITION AREA TO BE LEFT UNPOURED UNTIL SITUATION IS CORRECTED BY CONTRACTOR.

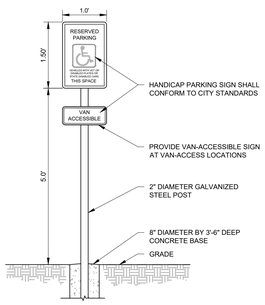
CURB AND GUTTER BUMP OUT

#672 10-15-13



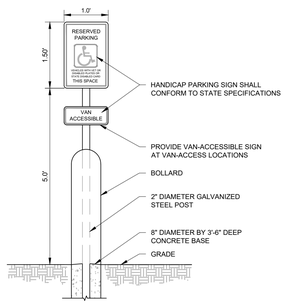
ADA PARKING STRIPING

#713 2/2016



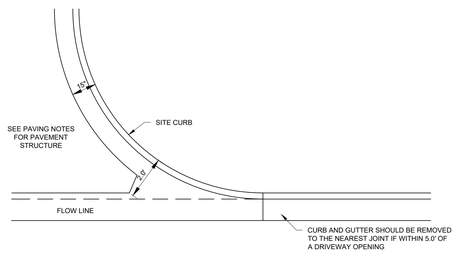
ADA SIGN (NO BOLLARD)

#706 10-11-12



ADA SIGN (WITH BOLLARD)

#707 10-11-12

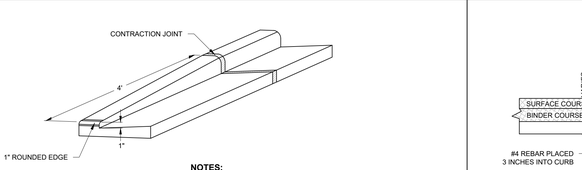


NOTES:

1. ALL DRIVEWAY APPROACHES SHALL BE CONNECTED TO THE EXISTING CONCRETE ROAD BASE WITH TIE BARS

DRIVEWAY ENTRANCE

#633 2/2015

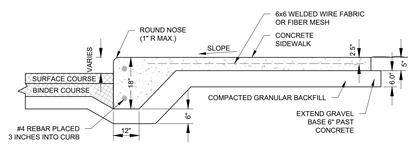


NOTES:

1. CONTRACTION JOINTS SHALL BE PLACED EVERY 10 FEET
2. EXPANSION JOINTS (3/4" EXPANSION FIBER MATERIAL) SHALL BE PLACED EVERY 300 FEET AND AT EVERY PC/PT AND 3 FEET FROM STRUCTURES

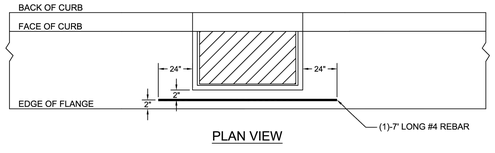
TAPER CURB HEAD

#623 10-11-12



INTEGRAL CURB AND SIDEWALK

#617 12-28-12



PLAN VIEW

FIGURE NO. 26

CURB REINFORCEMENT AT INLET

CITY OF NEW BERLIN
ENGINEERING DEPARTMENT

DRAWN BY:	DATE:	SCALE:
NLH	01/19	NTS

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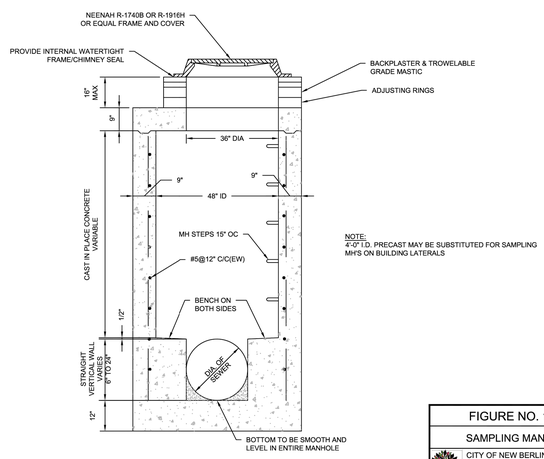

NOTE:
4'-0" I.D. PRECAST MAY BE SUBSTITUTED FOR SAMPLING MH'S ON BUILDING LATERALS

FIGURE NO. 16

SAMPLING MANHOLE

CITY OF NEW BERLIN
ENGINEERING DEPARTMENT

DRAWN BY:	DATE:	SCALE:
MDC/NLH	2/05, REV 5/16	NTS

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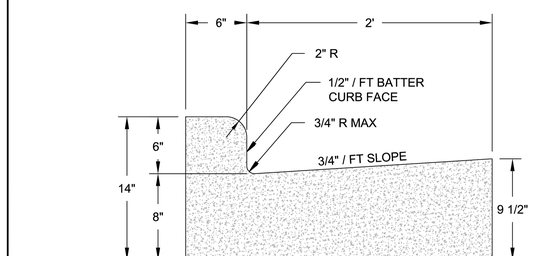

FIGURE NO. 6

CONCRETE
CURB AND GUTTER 30-INCH

CITY OF NEW BERLIN
ENGINEERING DEPARTMENT

DRAWN BY:	DATE:	SCALE:
JMS/NLH	2/01, REV 5/16	NTS

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CONSTRUCTION DETAILS

DATE: JULY 2, 2026

DEVELOPMENT USE

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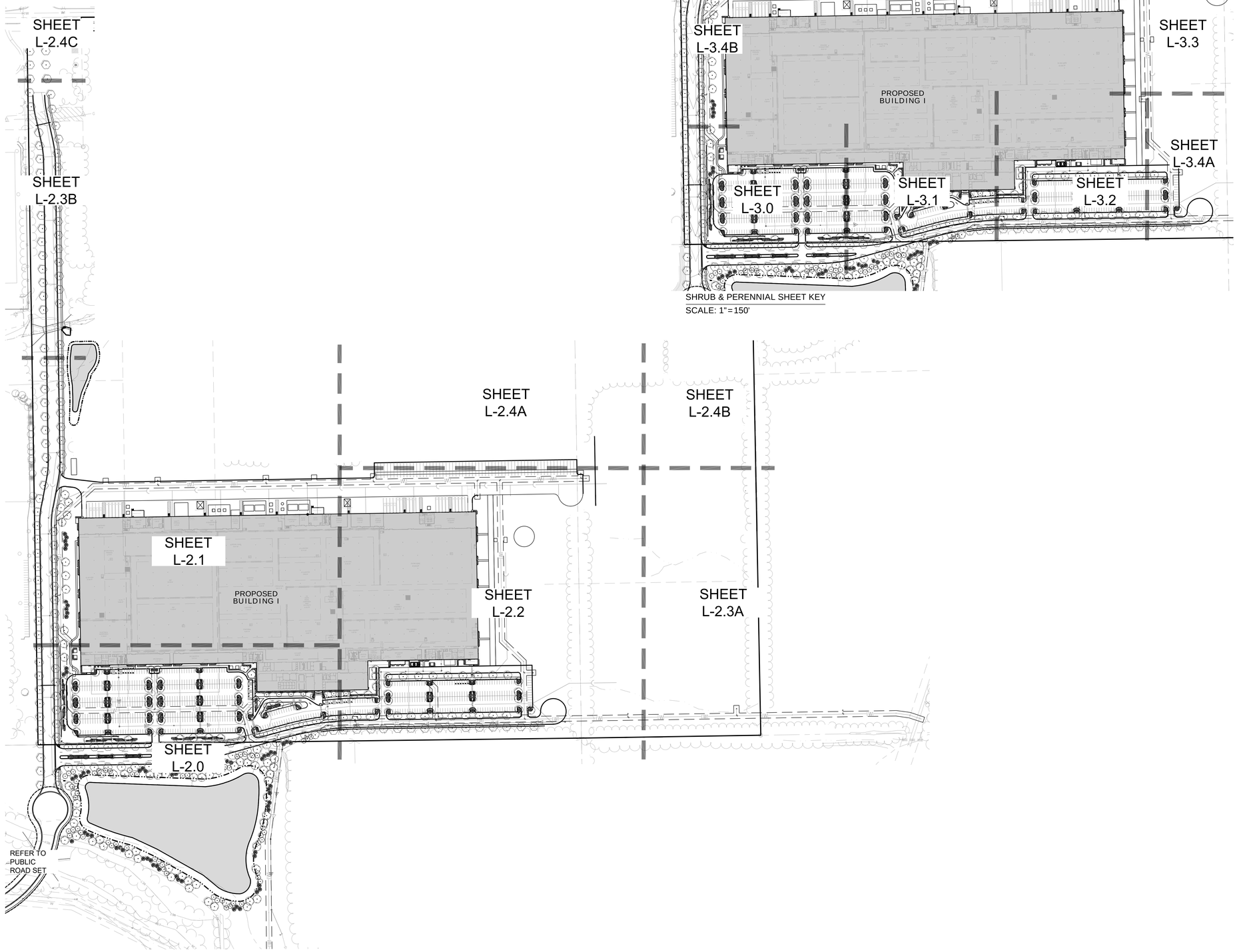

SHRUB & PERENNIAL SHEET KEY
SCALE: 1"=150'

TREE & GROUND COVER SHEET KEY
SCALE: 1"=150'

LANDSCAPE OVERVIEW

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LANDSCAPE OVERVIEW

NORTH

GRAPHICAL SCALE (FEET)
0 1" = 150' 300'

DATE: JULY 2, 2026

DEVELOPMENT USE

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LANDSCAPE TREE ENLARGEMENT

CONCEPT PLANT KEY		
SYMBOL	BOTANICAL NAME	COMMON NAME
TREES		
	DECIDUOUS TREE	VARIOUS SPECIES
	ORNAMENTAL TREE	VARIOUS SPECIES
	EVERGREEN TREE	VARIOUS SPECIES
	STREET TREES	VARIOUS SPECIES
NATIVE		
	Native Plantings	Agrecol Rainwater Renewal Seed Mix
	Prairie	Agrecol Economy Prairie Mix
TURF		
	Turf	Reinders - Cadet 70/30 Fescue/Blue Mix
	Turf Low Grow	No Mow/Low Grow Mix

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ISSUANCE HISTORY - THIS SHEET

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LANDSCAPE TREE ENLARGEMENT

NORTH

GRAPHICAL SCALE (FEET)
0 1" = 40' 80'

DATE: JULY 2, 2026

DEVELOPMENT USE

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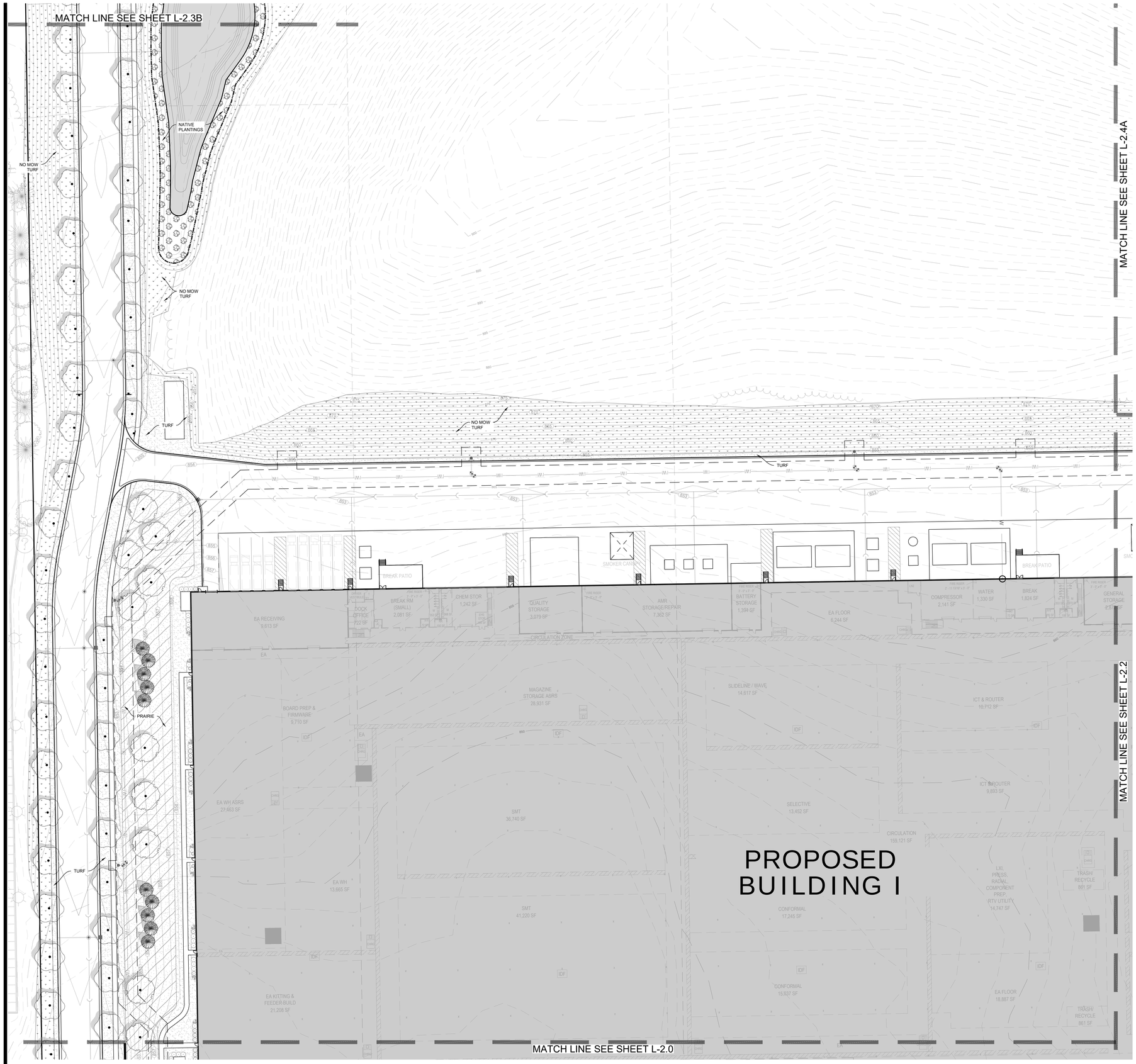

LANDSCAPE TREE ENLARGEMENT

CONCEPT PLANT KEY

SYMBOL	BOTANICAL NAME	COMMON NAME
TREES		
	DECIDUOUS TREE	VARIOUS SPECIES
	ORNAMENTAL TREE	VARIOUS SPECIES
	EVERGREEN TREE	VARIOUS SPECIES
	STREET TREES	VARIOUS SPECIES
NATIVE		
	Native Plantings	Agrecol Rainwater Renewal Seed Mix
	Prairie	Agrecol Economy Prairie Mix
TURF		
	Turf	Reinders - Cadet 70/30 Fescue/Blue Mix
	Turf Low Grow	No Mow/Low Grow Mix

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NO	DESCRIPTION	DATE

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LANDSCAPE TREE ENLARGEMENT

NORTH

GRAPHICAL SCALE (FEET)
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DATE: JULY 2, 2026

DEVELOPMENT USE

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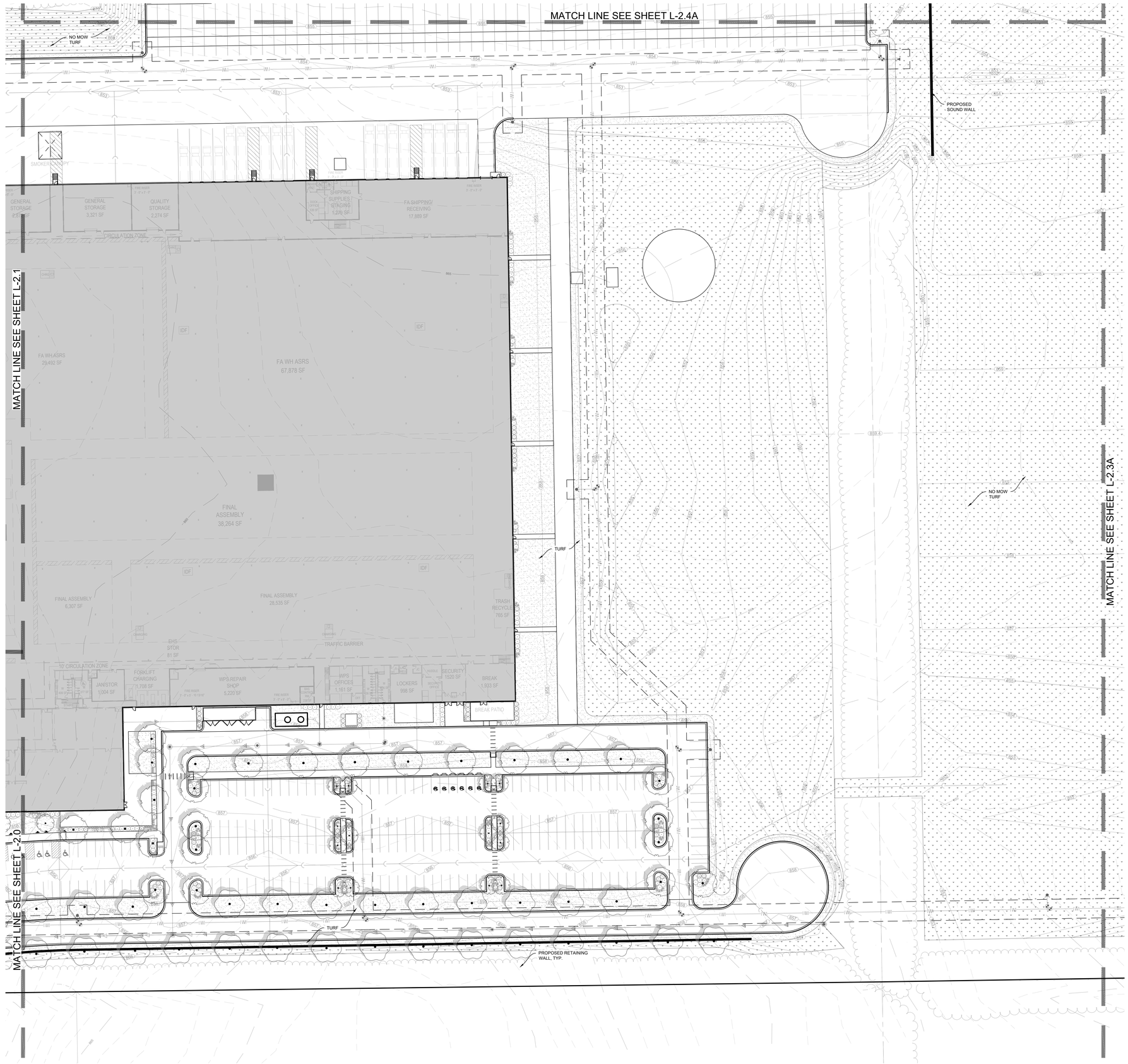

LANDSCAPE TREE ENLARGEMENT

CONCEPT PLANT KEY		
SYMBOL	BOTANICAL NAME	COMMON NAME
TREES		
	DECIDUOUS TREE	VARIOUS SPECIES
	ORNAMENTAL TREE	VARIOUS SPECIES
	EVERGREEN TREE	VARIOUS SPECIES
	STREET TREES	VARIOUS SPECIES
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	Native Plantings	Agrecol Rainwater Renewal Seed Mix
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TURF		
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NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

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LANDSCAPE TREE ENLARGEMENT

NORTH

GRAPHICAL SCALE (FEET)
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DATE: JULY 2, 2026

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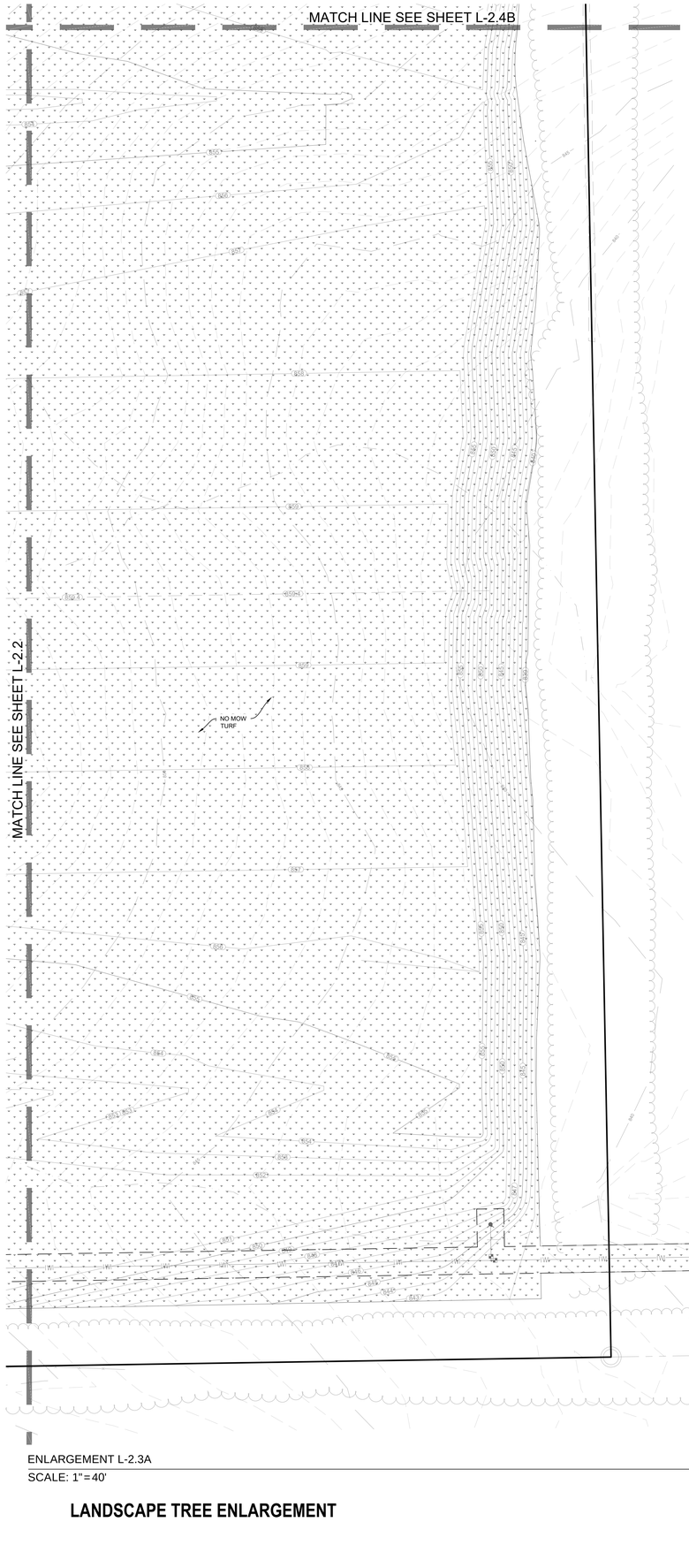

CONCEPT PLANT KEY		
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	ORNAMENTAL TREE	VARIOUS SPECIES
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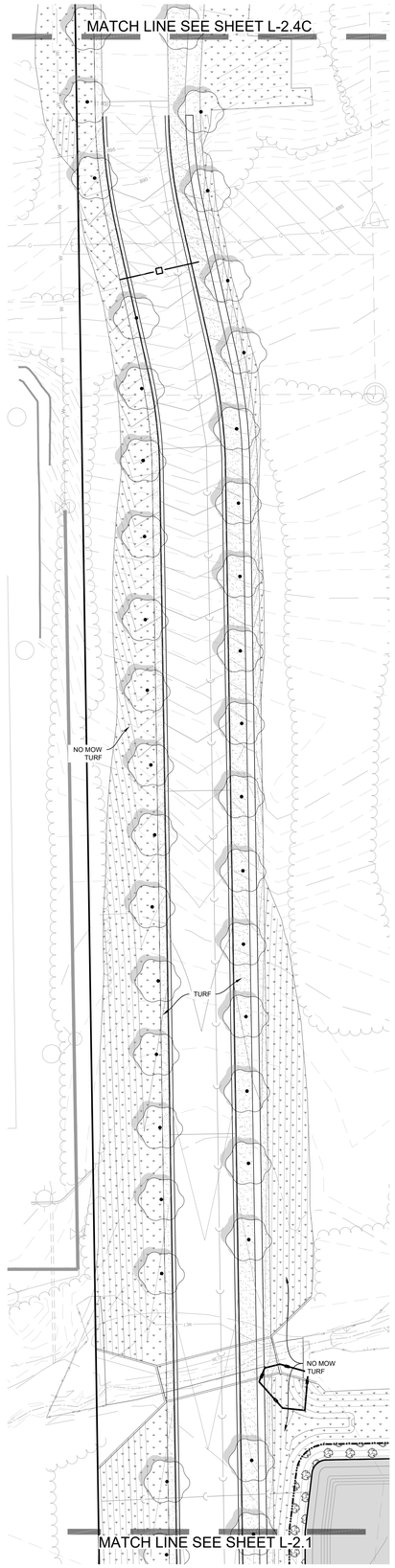
	STREET TREES	VARIOUS SPECIES
NATIVE		
	Native Plantings	Agrecol Rainwater Renewal Seed Mix
	Prairie	Agrecol Economy Prairie Mix
TURF		
	Turf	Reinders - Cadet 70/30 Fescue/Blue Mix
	Turf Low Grow	No Mow/Low Grow Mix

ENLARGEMENT L-2.3A

SCALE: 1"=40'



ENLARGEMENT L-2.3B

SCALE: 1"=20'

LANDSCAPE TREE ENLARGEMENT

HGA

333 East Erie Street
Milwaukee, Wisconsin 53202
Telephone 414.278.8200

CIVIL ENGINEER/ LANDSCAPE ARCHITECT

PINNACLE ENGINEERING GROUP
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PROJECT GRAVITY

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NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

LANDSCAPE TREE ENLARGEMENT

NORTH

GRAPHICAL SCALE (FEET)
0 1" = 40' 80'

DATE: JULY 2, 2026

DEVELOPMENT USE

L-2.3

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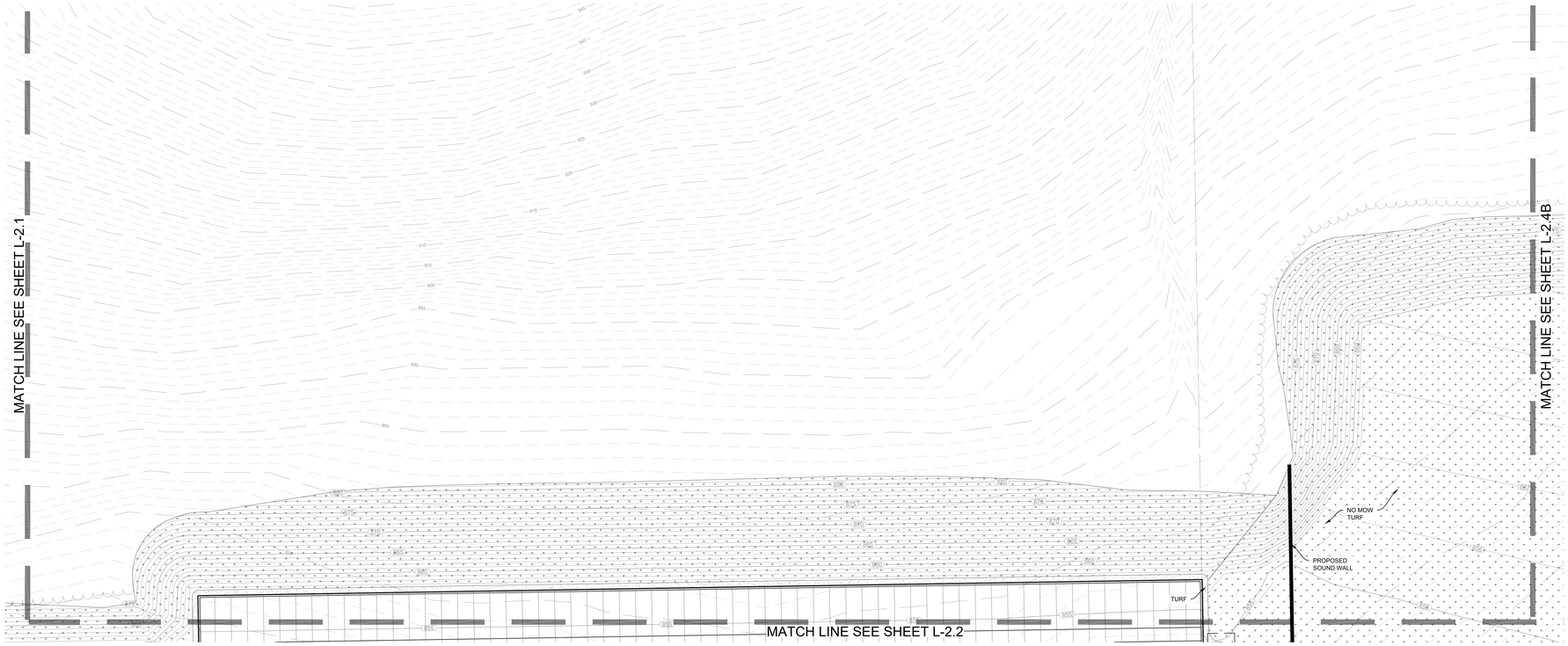
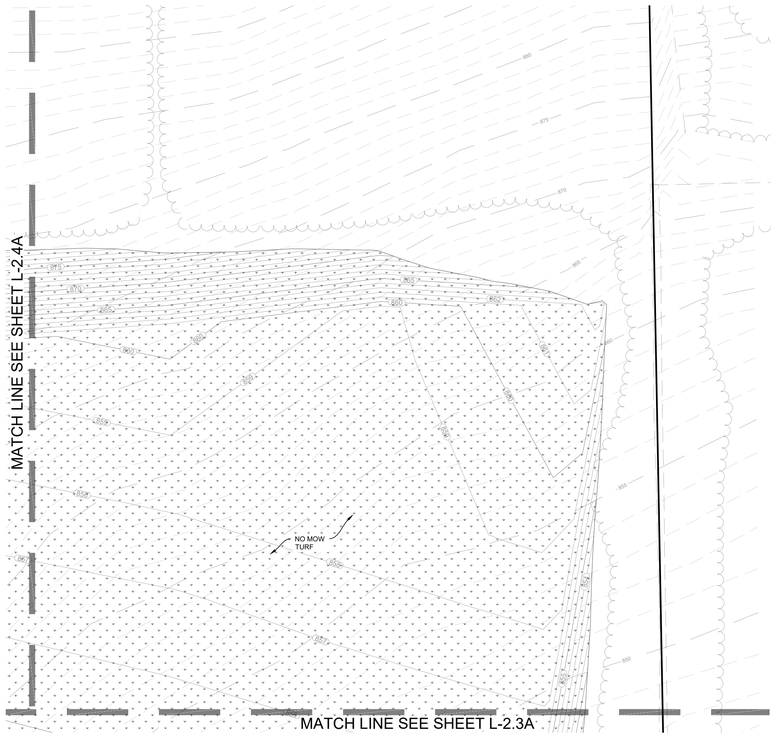


ENLARGEMENT L-2.4A

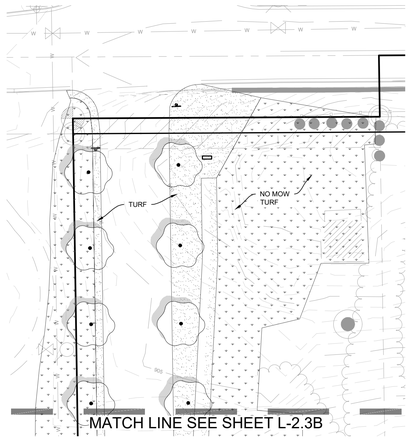
SCALE: 1"=20'

CONCEPT PLANT KEY		
SYMBOL	BOTANICAL NAME	COMMON NAME
TREES		
	DECIDUOUS TREE	VARIOUS SPECIES
	ORNAMENTAL TREE	VARIOUS SPECIES
	EVERGREEN TREE	VARIOUS SPECIES
	STREET TREES	VARIOUS SPECIES
NATIVE		
	Native Plantings	Agrecol Rainwater Renewal Seed Mix
	Prairie	Agrecol Economy Prairie Mix
TURF		
	Turf	Reinders - Cadet 70/30 Fescue/Blue Mix
	Turf Low Grow	No Mow/Low Grow Mix



ENLARGEMENT L-2.4B

SCALE: 1"=20'



ENLARGEMENT L-2.4C

SCALE: 1"=20'

LANDSCAPE TREE ENLARGEMENT

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HGA NO: 5533-001-00

LANDSCAPE TREE ENLARGEMENT

NORTH

GRAPHICAL SCALE (FEET)

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DATE: JULY 2, 2026

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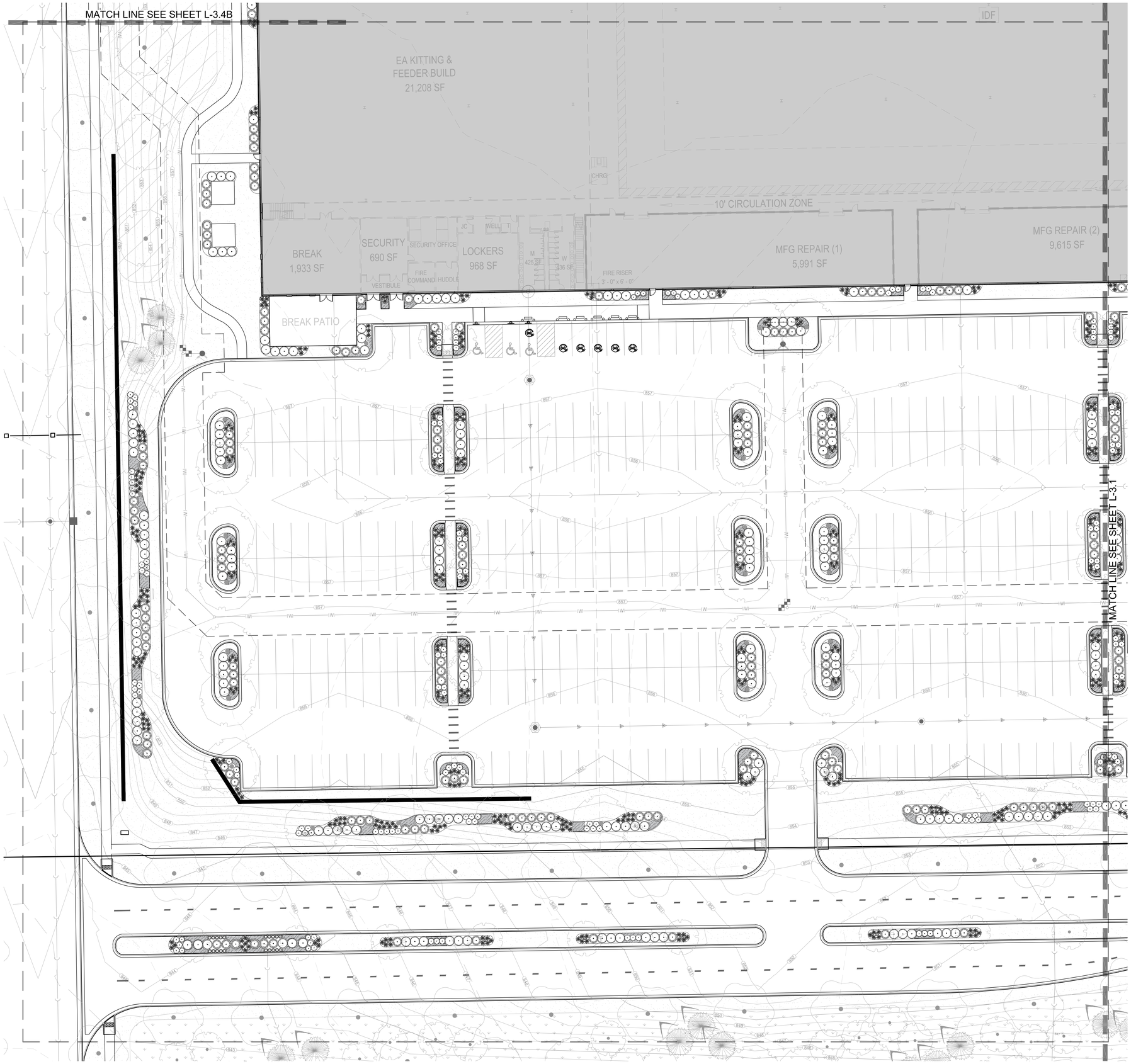

LANDSCAPE SHRUB ENLARGEMENT

CONCEPT PLANT KEY		
SYMBOL	BOTANICAL NAME	COMMON NAME
SHRUBS		
	TREE FORM SHRUB	VARIOUS SPECIES
	MEDIUM EVERGREEN SHRUB	VARIOUS SPECIES
	MEDIUM DECIDUOUS SHRUB	VARIOUS SPECIES
	SMALL EVERGREEN SHRUB	VARIOUS SPECIES
	LOW EVERGREEN SHRUB	VARIOUS SPECIES
	SMALL DECIDUOUS SHRUB	VARIOUS SPECIES
	TALL ORNAMENTAL GRASS	VARIOUS SPECIES
	SHORT ORNAMENTAL GRASS	VARIOUS SPECIES
SHRUB AREAS		
	PERENNIALS	VARIOUS SPECIES
NATIVE		
	Native Plantings	Agrecol Rainwater Renewal Seed Mix
	Prairie	Agrecol Economy Prairie Mix
TURF		
	Turf	Reinders - Cadet 70/30 Fescue/Blue Mix
	Turf Low Grow	No Mow/Low Grow Mix

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LANDSCAPE SHRUB ENLARGEMENT

NORTH

GRAPHICAL SCALE (FEET)
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LANDSCAPE SHRUB ENLARGEMENT

CONCEPT PLANT KEY

SYMBOL	BOTANICAL NAME	COMMON NAME
SHRUBS		
	TREE FORM SHRUB	VARIOUS SPECIES
	MEDIUM EVERGREEN SHRUB	VARIOUS SPECIES
	MEDIUM DECIDUOUS SHRUB	VARIOUS SPECIES
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	LOW EVERGREEN SHRUB	VARIOUS SPECIES
	SMALL DECIDUOUS SHRUB	VARIOUS SPECIES
	TALL ORNAMENTAL GRASS	VARIOUS SPECIES
	SHORT ORNAMENTAL GRASS	VARIOUS SPECIES
SHRUB AREAS		
	PERENNIALS	VARIOUS SPECIES
NATIVE		
	Native Plantings	Agrecol Rainwater Renewal Seed Mix
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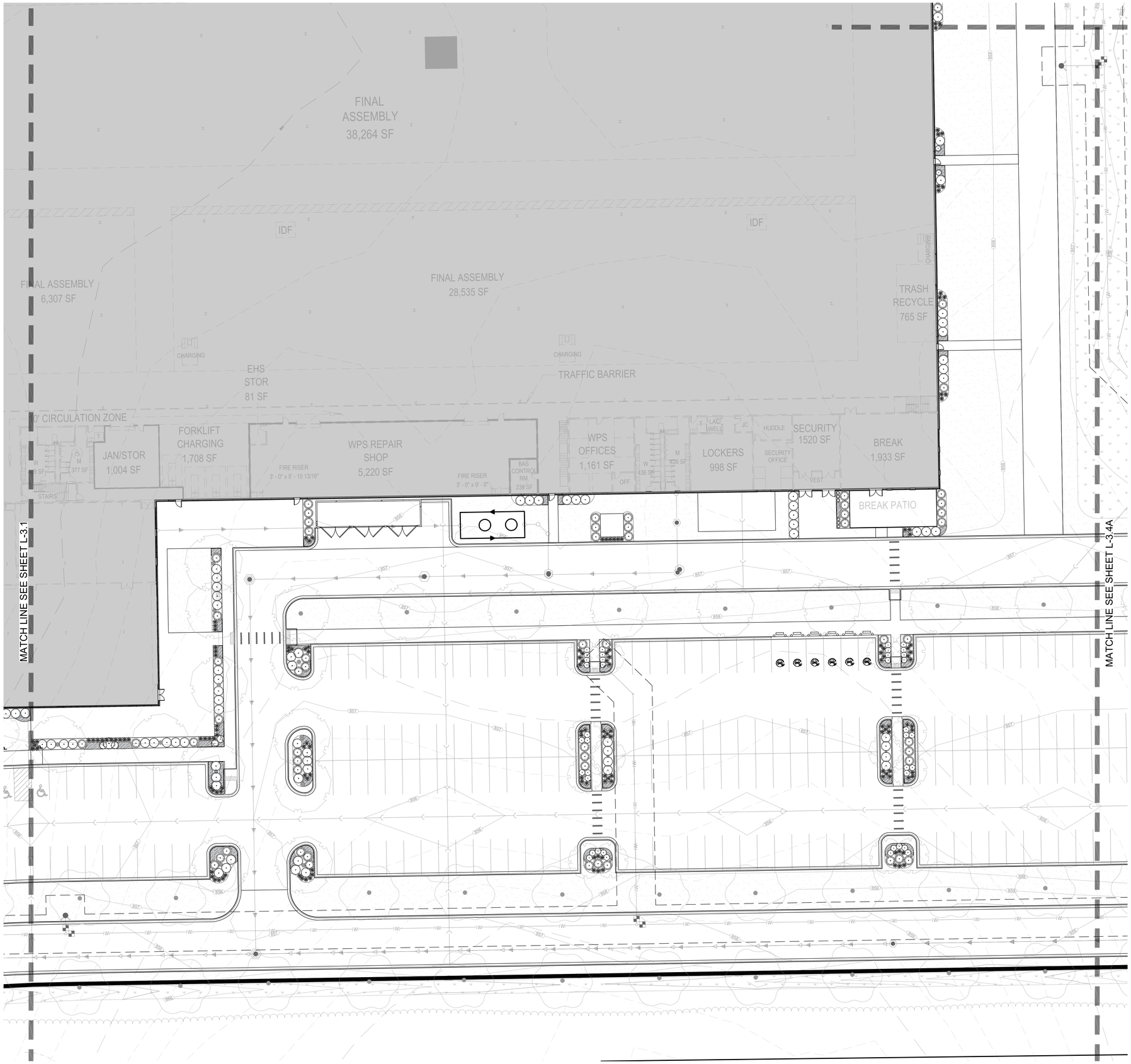

LANDSCAPE SHRUB ENLARGEMENT

CONCEPT PLANT KEY

SYMBOL	BOTANICAL NAME	COMMON NAME
SHRUBS		
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	LOW EVERGREEN SHRUB	VARIOUS SPECIES
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	SHORT ORNAMENTAL GRASS	VARIOUS SPECIES
SHRUB AREAS		
	PERENNIALS	VARIOUS SPECIES
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LANDSCAPE SHRUB ENLARGEMENT

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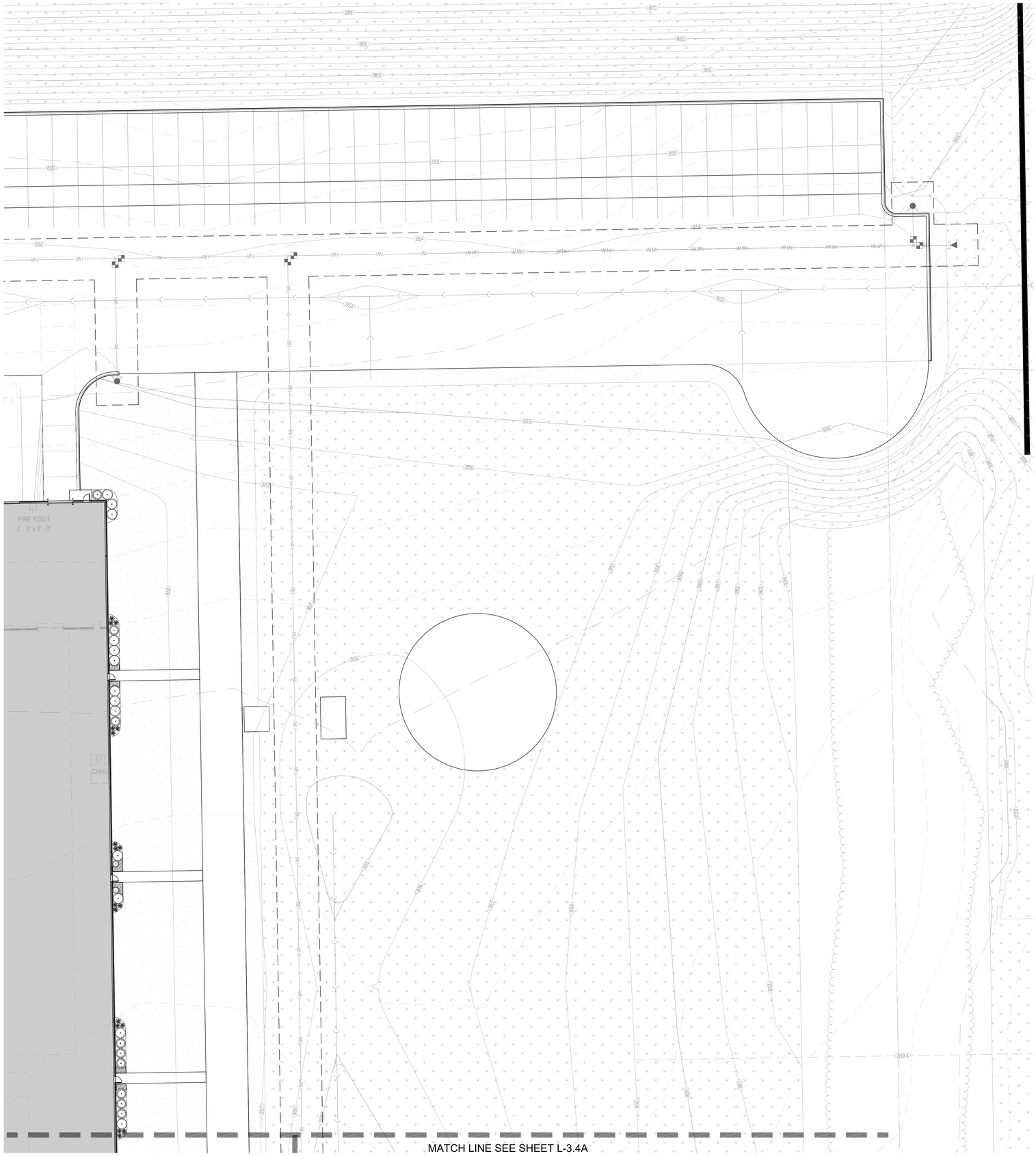

MATCH LINE SEE SHEET L-3.4A

LANDSCAPE SHRUB ENLARGEMENT

CONCEPT PLANT KEY		
SYMBOL	BOTANICAL NAME	COMMON NAME
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LANDSCAPE SHRUB ENLARGEMENT

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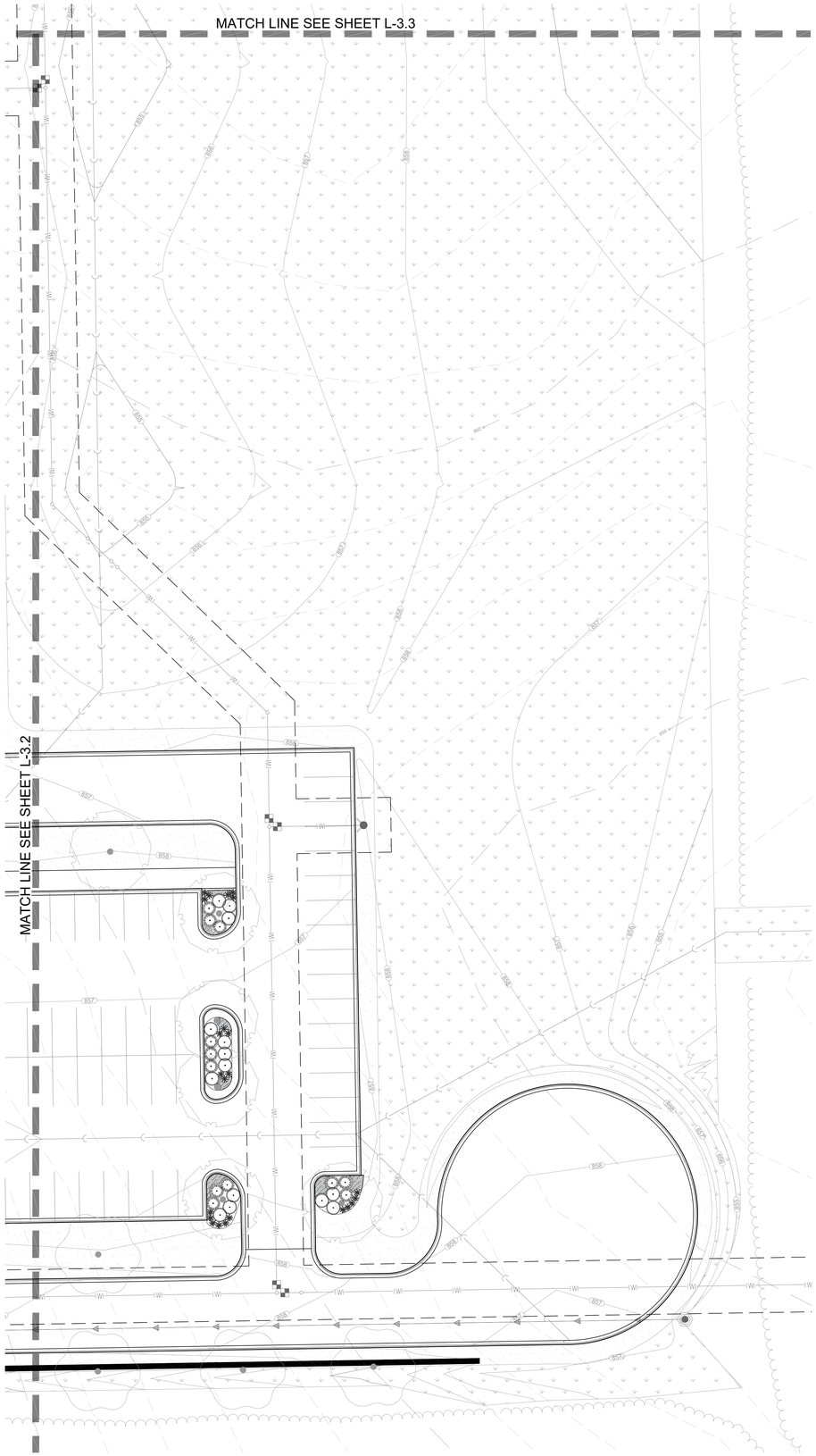
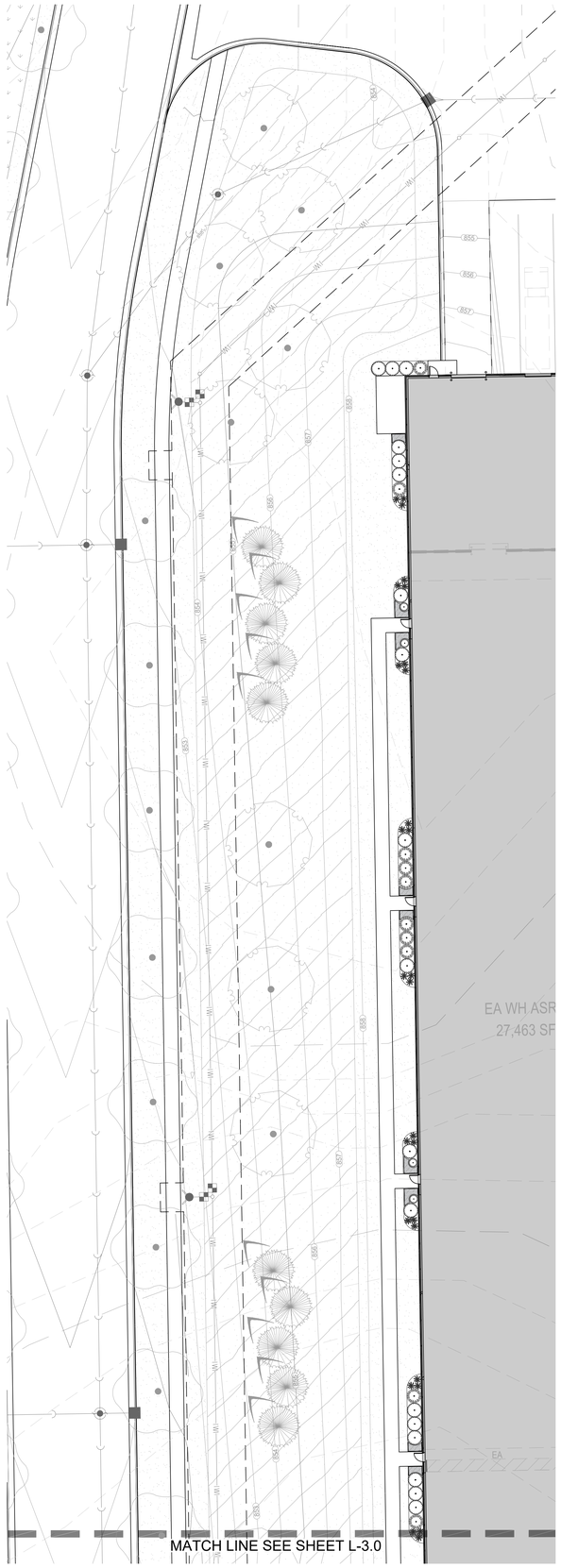


ENLARGEMENT L-3.4A
SCALE: 1" = 20'



ENLARGEMENT L-3.4B
SCALE: 1" = 20'

LANDSCAPE SHRUB ENLARGEMENT

CONCEPT PLANT KEY		
SYMBOL	BOTANICAL NAME	COMMON NAME
SHRUBS		
	TREE FORM SHRUB	VARIOUS SPECIES
	MEDIUM EVERGREEN SHRUB	VARIOUS SPECIES
	MEDIUM DECIDUOUS SHRUB	VARIOUS SPECIES
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	PERENNIALS	VARIOUS SPECIES
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L-3.4

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GENERAL PLANTING NOTES

1. THE LAYOUT OF ALL PLANTING BEDS AND INDIVIDUAL TREES AND SHRUBS SHALL BE STAKED BY THE CONTRACTOR IN ADVANCE OF INSTALLATION. FLAGGING, STAKES, OR PAINT MAY BE USED TO DELINEATE LOCATIONS AS SCALED FROM THE PLANS. AN APPROVED REPRESENTATIVE WILL REVIEW THESE LOCATIONS WITH THE CONTRACTOR AND MAKE MINOR ADJUSTMENTS AS NECESSARY. BED LAYOUT SHALL ALSO INCLUDE PERENNIAL GROUPINGS BY SPECIES.
2. THE CONTRACTOR IS RESPONSIBLE FOR INDEPENDENTLY DETERMINING THE PLANT MATERIAL QUANTITIES REQUIRED BY THE LANDSCAPE PLANS. REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT.
3. NO PLANT MATERIAL OR PLANT SIZE SUBSTITUTIONS WILL BE ACCEPTED WITHOUT APPROVAL BY THE LANDSCAPE ARCHITECT. ANY CHANGES SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT IN WRITING PRIOR TO INSTALLATION.
4. ALL BNB STOCK SHALL BE NURSERY GROWN IN A CLAY LOAM SOIL FOR A MINIMUM OF THREE GROWING SEASONS WITHIN 200 MILES OF PROJECT LOCATION, IN A ZONE COMPATIBLE WITH USDA HARDINESS ZONE 5A. SEED SHALL BE PROVIDED FROM A NURSERY (WITHIN 200 MILES) WITH A SIMILAR PLANT HARDINESS ZONE AS PROJECT LOCATION. EXISTING SOIL SHALL BE AMENDED PER SOIL ANALYSIS REPORT TO ENSURE A PROPER GROWING MEDIUM IS ACHIEVED.
5. ALL PLANT MATERIAL SHALL COMPLY WITH STANDARDS DESCRIBED IN AMERICAN STANDARD OF NURSERY STOCK - Z60.1 ANSI. LANDSCAPE ARCHITECT OR OWNERS AUTHORIZED REPRESENTATIVE RESERVES THE RIGHT TO INSPECT AND POTENTIALLY REJECT ANY PLANT MATERIAL DEEMED TO NOT MEET THE REQUIRED STANDARDS.
6. ALL STOCK SHALL BE FREE OF DISEASES AND HARMFUL INSECTS, DAMAGE, DISORDERS AND DEFORMITIES.
7. TREES SHALL HAVE SINGLE, STRAIGHT TRUNKS AND WELL BALANCED BRANCH SYSTEMS. MUTLI-STEM TREES SHALL HAVE 3-4 STRAIGHT TRUNKS AND WELL BALANCED BRANCH SYSTEMS. HEIGHT-TO-CALIPER RATIOS SHALL BE CONSISTENT WITH THE LATEST EDITION OF ANSI Z60.1.
8. ROOT SYSTEMS SHALL BE LARGE ENOUGH TO ALLOW FOR FULL RECOVERY OF THE TREE, AND SHALL CONFORM TO STANDARDS AS THEY APPEAR IN THE MOST CURRENT REVISION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S AMERICAN STANDARD OF NURSERY STOCK ANSI Z60.1.
9. BNB TREES SHALL BE DUG WITH A BALL OF SOIL, NOT SOFT BALLED OR POTTED AND SHALL BE FIRM IN THEIR ROOTBALL. ROOT BALL SHALL BE WRAPPED (WITH BIODEGRADABLE MATERIAL). THE TREE ROOT FLARE, OR COLLAR, SHALL BE AT OR WITHIN THE TOP THREE INCHES OF GRADE.
10. ALL SPRING TREES MUST BE FRESHLY DUG IN THE MOST RECENT SPRING.
11. ALL AUTUMN TREES MUST BE FRESHLY DUG IN THE MOST RECENT AUTUMN.
12. TREES SHALL BE ALIVE, HEALTHY AND APPROPRIATELY MOIST, AT TIME OF DELIVERY. TREES SHALL BE SUBJECT TO INSPECTION FOR CONFORMITY TO SPECIFICATION REQUIREMENTS AND APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE. THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY TREES THAT DO NOT MEET THE SPECIFICATIONS OR THAT HAVE BEEN DAMAGED DURING SHIPMENT. THE LANDSCAPE INSTALLER MUST RECEIVE APPROVAL FROM LANDSCAPE ARCHITECT FOR ANY SUBSTITUTIONS OR ALTERATIONS.
13. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH PLANTING DETAILS.
14. ALL PLANTING BEDS SHALL HAVE A MINIMUM 10" DEPTH OF PREPARED SOIL. WITH APPROVAL, EXISTING SOIL MAY BE UTILIZED PROVIDED THE PROPER SOIL AMENDMENTS ARE TILLED THOROUGHLY INTO THE TOP 10" OF SOIL. REFER TO SOIL PLACEMENT NOTES.
15. WHILE PLANTING TREES AND SHRUBS, BACKFILL ⅔ OF PLANTING HOLE AND WATER TREE THOROUGHLY BEFORE INSTALLING THE REMAINDER OF SOIL MIXTURE. AFTER ALL SOIL HAS BEEN PLACED INTO THE PLANTING HOLE WATER THOROUGHLY AGAIN.
16. THE CONTRACTOR MUST LABEL ALL TREES WITH THE COMMON AND BOTANICAL NAMES PRIOR TO FINAL INSPECTION.
17. OAK TREES SHALL BE TREATED FOR TWO-LINE CHESTNUT BORER BOTH AT THE TIME OF INSTALLATION AND DURING THE SECOND GROWING SEASON.
18. ALL PLANTING BEDS SHALL BE MULCHED WITH 3" DEEP SHREDDED HARDWOOD MULCH, AND ALL TREES PLANTED IN TURF AREAS SHALL RECEIVE A 3" DEEP SHREDDED HARDWOOD MULCHED RING AS SHOWN IN PLANTING DETAILS.
19. ALL PLANTING BEDS AND TREE RINGS SHALL HAVE A 4" DEEP TRENCHED BED EDGE CREATED BY EITHER A FLAT LANDSCAPE SPADE OR MECHANICAL EDGER. BED EDGES ARE TO BE CUT CLEAN AND SMOOTH AS SHOWN ON LANDSCAPE PLANS WITH A CLEAN DEFINITION BETWEEN TURF AND PLANTING AREAS.
20. ALL TURF SEED AREAS SHALL RECEIVE A MINIMUM OF 6" DEPTH OF TOPSOIL. WITH APPROVAL, EXISTING SOIL MAY BE UTILIZED PROVIDED THE PROPER SOIL AMENDMENTS ARE TILLED THOROUGHLY INTO THE TOP 6" OF SOIL AS INDICATED IN THE SOIL PLACEMENT NOTES. REQUIRED AMENDMENTS SHALL BE DETERMINED BASED ON A SOIL ANALYSIS TO BE PERFORMED. ALL TOPSOIL AMENDMENT SHALL BE AGED WEED FREE MANURE OR CLASS 1 ORGANIC MATTER.
21. FOR LAWN SEEDING, APPLY A STARTER FERTILIZER AND SEED UNIFORMLY AT THE RATE RECOMMENDED BY MANUFACTURER, AND PROVIDE A MULCH COVERING THAT IS SUITABLE TO PROMOTE SEED GERMINATION AND TURF ESTABLISHMENT. CONTRACTOR TO PROVIDE FERTILIZER, SEED, AND MULCH SPECIFICATIONS TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION. EROSION CONTROL MEASURES ARE TO BE INSTALLED IN THOSE AREAS REQUIRING STABILIZATION (SWALES, SLOPES EXCEEDING 1:3, AND THOSE LOCATIONS INDICATED IN CIVIL DRAWINGS).
22. THE CONTRACTOR TO ENSURE A SMOOTH, UNIFORM QUALITY TURF IS ACHIEVED WITH NO BARE SPOTS LARGER THAN 6" X 6". ANY BARE SPOTS LARGER THAN 6" X6" AT THE END OF ESTABLISHMENT PERIOD SHALL BE RESEEDED AT THE CONTRACTORS EXPENSE TO OBTAIN A DENSE, UNIFORM LAWN.
23. ALL FINISH GRADING AND LAWN AREAS TO BE INSTALLED BY LANDSCAPE CONTRACTOR.
24. ALL DISTURBED AREAS WITHIN THE PROJECT SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
25. ALL DISTURBED AREAS OUTSIDE THE LIMITS OF WORK SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OWNER.
26. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, INCLUDING ANY IRRIGATION LINES, PRIOR TO DIGGING. CONSULT DIGGERS HOTLINE.
27. TREES SHALL BE INSTALLED NO CLOSER THAN:
    - -10 FEET FROM ANY FIRE HYDRANT
    - - 7 FEET FROM STORM SEWER, SANITARY SEWER LATERALS, DRIVEWAYS, AND WATER SERVICE
28. THE CONTRACTOR SHALL ENSURE THAT SOIL CONDITIONS AND COMPACTION ARE ADEQUATE TO ALLOW FOR PROPER DRAINAGE AROUND THE CONSTRUCTION SITE. UNDESIRABLE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER SURFACE AND SUBSURFACE DRAINAGE IN ALL AREAS
29. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, FEES, AND LICENSES NECESSARY FOR THE INSTALLATION OF THIS PLAN.
30. THE CONTRACTOR IS TO REVIEW ALL SITE ENGINEERING DOCUMENTS PRIOR TO INSTALLATION. ANY CONFLICTS MUST BE REPORTED TO THE LANDSCAPE ARCHITECT. THESE LANDSCAPE DRAWINGS ARE FOR THE INSTALLATION OF PLANT MATERIALS ONLY UNLESS OTHERWISE STATED.
31. THE CONTRACTOR SHALL PROVIDE WATERING AND MAINTENANCE SERVICES FOR A PERIOD OF 60 DAYS TO ENSURE VEGETATIVE ESTABLISHMENT. UPON COMPLETION OF THE PROJECT, CONTRACTOR SHALL SUPPLY THE OWNER IN WRITING WITH ONGOING WATERING AND MAINTENANCE INSTRUCTIONS.
32. PLANT MATERIALS SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM TIME OF OWNER ACCEPTANCE. ONLY ONE REPLACEMENT PER PLANT WILL BE REQUIRED DURING THE WARRANTY PERIOD EXCEPT IN THE EVENT OF FAILURE TO COMPLY WITH THE SPECIFIED REQUIREMENTS.
33. THE CONTRACTOR IS RESPONSIBLE TO CONDUCT A FINAL WALK THROUGH WITH THE LANDSCAPE ARCHITECT AND OR OWNERS REPRESENTATIVE TO ANSWER QUESTIONS, PROVIDE INSTRUCTIONS, AND ENSURE THAT PROJECT REQUIREMENTS HAVE BEEN MET.

LANDSCAPE GENERAL NOTES

SOIL PLACEMENT **NOTES**

1. LOOSEN SUBGRADE TO A MINIMUM DEPTH INDICATED IN PLANTING NOTES USING A CULTI-MULCHER OR SIMILAR EQUIPMENT, AND REMOVE STONES MEASURING OVER 1-1/2 INCHES IN ANY DIMENSION, STICKS, RUBBISH AND OTHER EXTRANEOUS MATTER. AREAS ADJACENT TO WALKS AND PAVEMENT SHALL BE FREE OF EXCESS STONE AND PAVING MATERIALS SO AS TO PROVIDE AN UNINTERRUPTED CROSS SECTION OF SOIL. INTERNAL PARKING ISLANDS SHALL BE LOOSENED TO A DEPTH OF 30".
2. THOROUGHLY BLEND PLANTING SOIL MIX FOR PLANTING BED AREAS. (1 PART EXISTING SOIL, 1 PART TOPSOIL, 1 PART ORGANIC SOIL AMENDMENT, 2.9 POUNDS PER CUBIC YARD OF 4-4-4 ANALYSIS SLOW-RELEASE FERTILIZER)
3. TREE AND SHRUB HOLES SHALL BE FILLED WITH A PREPARED PLANTING MIXTURE OF 1 PART TOPSOIL, 2 PARTS PLANTING SOIL MIX.
4. SPREAD SOIL AND SOIL AMENDMENTS TO DEPTH INDICATED ON DRAWINGS, BUT NOT LESS THAN REQUIRED TO MEET FINISH GRADES AFTER NATURAL SETTLEMENT. (FINISH GRADE OF PLANTING BEDS SHALL BE 3" BELOW ALL ADJACENT SURFACES. FINISH GRADE OF TURF SEEDING AREAS SHALL BE 1" BELOW ALL ADJACENT HARD SURFACES, WALKS, AND CURBS.)
5. PLACE APPROXIMATELY 1/2 OF TOTAL AMOUNT OF SOIL REQUIRED. WORK INTO TOP OF LOOSENED SUBGRADE TO CREATE A TRANSITION LAYER, THEN PLACE REMAINDER OF THE SOIL. SOIL TRANSITION LAYER SHALL BE TILLED TO A MINIMUM DEPTH OF 6" BELOW THE DEPTH OF NEWLY PLACED SOIL. PARKING LOT ISLANDS SHALL BE CROWNED TO A HEIGHT OF 6" TO PROVIDE PROPER DRAINAGE UNLESS OTHERWISE NOTED.
6. DO NOT SPREAD IF PLANTING SOIL OR SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET.
7. FINISH GRADING: GRADE SOIL TO A SMOOTH, UNIFORM SURFACE PLANE WITH A LOOSE, UNIFORMLY FINE TEXTURE.
8. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES.
9. RESTORE PLANTING BEDS IF ERODED OR OTHERWISE DISTURBED AFTER FINISH GRADING AND BEFORE PLANTING.

NATIVE SEEDING & PLUG PLANTINGS

ESTABLISHMENT OF A VIABLE VEGETATION COMMUNITY WILL BE COMPLETED BY HAND-BROADCASTING OF PRE-DESIGNED SEED MIXES AND PLANTING OF PERENNIALS TO CREATE A DYNAMIC PLANTING.

PRIOR TO SEEDING/PLUG PLANTING:

A. ALL WEEDS AND EXISTING VEGETATION SHALL BE REMOVED. EXISTING VEGETATION SHALL BE TREATED WITH GLYPHOSATE OR SIMILAR HERBICIDE BY A LICENSED PROFESSIONAL. TREATMENT SHALL OCCUR A MINIMUM OF 10 DAYS PRIOR TO SEEDING/PLANTING. VEGETATION STILL ALIVE AFTER INITIAL HERBICIDE TREATMENT SHALL BE TREATED A SECOND TIME PRIOR TO TILLING INTO THE SOIL.TREATED VEGETATION SHALL BE TILLED INTO THE SOIL NO EARLIER THAN 1 DAY PRIOR TO SEEDING.

B. PREPARATION OF SOIL PRIOR TO SEEDING
   1. REFER TO CIVIL PLANS FOR SOIL MIXTURE.
   2. ALL FOREIGN MATERIALS LARGER THAN 1-INCH SHALL BE REMOVED FROM THE SOIL PRIOR TO SEEDING OR PLANTING.
   3. AREA SHOULD BE FREE FROM UNSIGHTLY VARIATIONS, RIDGES, AND DEPRESSIONS.
   4. AVOID DRIVING OVER THE SPECIFIED AREA WITH MACHINERY.

SPECIFICATIONS FOR HAND BROADCASTING:

SEEDING SHALL BE CONDUCTED IN LATE FALL (SEPTEMBER 1- SOIL FREEZE) SO THAT SEEDS MAY LIE DORMANT DURING THE WINTER, ALLOWING FOR STRATIFICATION, OR SPRING (MARCH 1-JUNE 1) TO ALLOW A COMPLETE GROWING SEASON TO BECOME ESTABLISHED.

A. COVER CROP
   1. ANNUAL RYE SHALL BE SPREAD AT A DENSITY OF 20 POUNDS PER ACRE DURING THE PLANTING OR SEEDING OF THE NATIVE PLANT SPECIES TO STABILIZE THE SOIL AND REDUCE THE GROWTH OF UNWANTED VEGETATION. THIS ANNUAL GRASS GROWS RAPIDLY WITHOUT COMPETING WITH THE WILDFLOWERS AND GRASSES THAT ARE PLANTED IN THE TARGET AREAS.
   2. WINTER WHEAT OR PERENNIAL RYE SHALL NOT BE USED AS A COVER CROP. THESE GRASSES MAY OUT COMPETE PRAIRIE SEEDLINGS, LEADING TO A REDUCTION IN THE SUCCESS OF THE PLANTINGS.

B. SEED MIX:
   1. MIX ALL NATIVE SEED WITH VERMICULITE ACCORDING TO AGRECOL RECOMMENDATIONS AND INSTALLATION GUIDELINES
   2. BROADCAST HALF THE SEED OVER THE ENTIRE SITE OR TARGET AREA.
   3. BROADCAST THE OTHER HALF OF SEED PERPENDICULAR TO THE DIRECTION THAT THE FIRST HALF OF THE SEED WAS BROADCAST.
   4. COVER SEED WITH ¼ -INCH TO ½ -INCH OF SOIL (USE ANY EXCESS SOIL FROM THE SITE) WITH RAKE OR DRAG.
   5. ROLL SITE TO ENSURE FIRM SEED-TO-GROUND CONTACT.
   6. KEEP SEED CONSTANTLY WET THROUGH GERMINATION PERIOD. GENERALLY 3 WEEKS.

ALL SEEDING SHALL BE COVERED WITH 1-INCH OF CLEAN, NON-INVASIVE STRAW (NO MARSH HAY, OR REED CANARY GRASS) WITHOUT SEEDS, WITHIN SEVEN DAYS. WHEAT, RYE, OATS, OR BARLEY ARE ACCEPTABLE FORMS OF STRAW. THOSE AREAS OF SLOPES STEEPER THAN 8:1 (EIGHT FEET HORIZONTAL TO ONE FOOT VERTICAL) SHALL BE PLANTED NO LATER THAN OCTOBER 1 AND STAKED WITH AN EROSION CONTROL BLANKET TO PREVENT EROSION.

NATIVE PLUGS INSTALLATION

INSTALLATION OF PLUGS SHOULD OCCUR ON A CLOUDY, COOL DAY IN EITHER THE MORNING OR AFTERNOON. PLANTING SHOULD ALSO OCCUR AS EARLY IN THE SEASON AS POSSIBLE ONCE THE RISK OF FREEZING HAS PASSED.

IF INSTALLING PLUGS IN COMBINATION WITH SEEDING, INSTALL PLUGS AFTER SEED HAS BEEN PLACED.

INSTALL PLUGS PRIOR TO PLACEMENT OF STRAW MULCH EXCEPT WHERE AN EROSION CONTROL BLANKET WILL BE UTILIZED. ENSURE THAT NEWLY PLANTED PLUGS HAVE ADEQUATE STRAW MULCH COVERAGE FOLLOWING INSTALLATION.

A. DIG A HOLE IN YOUR FRESHLY WORKED SOIL ABOUT TWICE THE DIAMETER AND THE SAME HEIGHT OF THE ROOT BALL OF THE PLANT. PUT THE SOIL ASIDE TO FILL THE HOLE BACK IN LATER. GENTLY REMOVE THE PLANT FROM ITS CONTAINER, AND BRUSH YOUR HAND OVER THE ROOT BALL TO STIMULATE THE ROOTS.
B. PLACE THE PLANT IN THE HOLE. PLACE THE ROOTS AT THE PROPER LEVEL SO THAT THE PLANTS ROOTS AREN'T EXPOSED AND THE FOLIAGE OF LOW-LYING PLANTS DOESN'T GET TOO WET. FILL THE HOLE ABOUT HALF-WAY WITH THE ORIGINAL SOIL. GENTLY PACK THE SOIL TO REMOVE ANY TRAPPED AIR. WATER PLANT THOROUGHLY.
C. FINISH FILLING IN WITH SOIL AROUND THE PLANT, GENTLY PACK, AND WATER THOROUGHLY AGAIN.
D. COVER THE BASE OF THE PLANT WITH 1" OF STRAW MULCH.
E. AFTER PLANTING, KEEP YOUR PLANTS WELL WATERED FOR THE FIRST YEAR UNTIL THEY ESTABLISH A GOOD ROOT SYSTEM.

GROUP PLUGS IN DYNAMIC PATTERNS OF 7-11 PLANTS OF THE SAME SPECIES PER GROUPING. PLUGS SHALL HAVE A TRIANGULAR SPACING OF 21 INCHES APART.

NATIVE PLANTINGS:

WEED SUPPRESSION MEASURES:

1st YEAR - PERFORM SPOT SPRAY WITH HERBICIDE TO SUPPRESS WEEDS. THIS SHOULD OCCUR APPROXIMATELY EVERY MONTH OF THE GROWING SEASON AFTER NATIVE PLANTINGS HAVE BEEN ROUGH GRADED.

2nd YEAR - IN MAY/JUNE MOW NATIVE PLANTINGS AT 6" HEIGHT TO SUPPRESS THE WEEDS. PERFORM SPOT SPRAY WITH HERBICIDE TO SUPPRESS WEEDS. HAVE PROFESSIONAL ASSESS PLANTINGS. REPEAT MOWING NATIVE PLANTINGS AND SPOT-SPRAY IN EARLY JULY.

3rd YEAR - IN MAY/JUNE MOW NATIVE PLANTINGS AT 8" HEIGHT TO SUPPRESS THE WEEDS. PERFORM SPOT SPRAY WITH HERBICIDE TO SUPPRESS WEEDS.

4th YEAR - IN MAY PERFORM A PRESCRIBED BURN. IN JUNE HAVE A QUALIFIED PROFESSIONAL ASSESS PLANTINGS. IF A PRESCRIBED BURN CAN NOT BE UTILIZED, NATIVE PLANTINGS SHALL BE CUT TO THE GROUND AND ALL CUT MATERIAL SHALL BE REMOVED AND DISPOSED OF OFF SITE.

LANDSCAPE IMPROVEMENT TABLE	REQUIRED	PROVIDED	REMARKS
OPEN SPACE 596,128 SQ FT • TREE 1/3600 SQ FT • SHRUBS 3/3600 SQ FT	 166 497	 204 500	* PARKING LOT ISLANDS AND PERIMETER COUNTS ARE NOT INCLUDED IN THIS SECTION. * 5 TALL ORNAMENTAL GRASS COUNTED AS 1 SHRUB
PLANTINGS SIZES: FOR FINAL PLAN WILL BE- • STREET TREES TOTAL 141 • TREE TOTAL 139 • EVERGREEN TREE TOTAL 13	 141 4" 50% 2" 50% 8' 50% 6' 50%	 141 69 70 6 7	* TREES IN THE SCHEDULE ARE PLACE HOLDERS. THE SIZE AND SPECIES WILL REFLECT THESE REQUIREMENTS WITH FINAL DESIGN
PARKING INTERIOR 74 ISLANDS • TREES 1/ISLAND • SHRUBS 2/ISLAND	 74 222	 70 222	
PARKING LOT PERIMETER NONARTERIAL 265 SQ FT • CANOPY TREE 1/30 FT • SHRUBS 1/10 FT	 9 27	 9 27	
PARKING LOT PERIMETER SIDE YARD 713 SQ FT • CANOPY TREE 1/30 FT • SHRUBS 1/5 FT	 48 285	 48 285	
BUFFERS ARE TYPE N • TREES • EVERGREEN TREES • SHRUBS	 0 0 0	 0 0 0	

CONCEPT PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
TREES					
	141	DECIDUOUS TREE	POSSIBLE SPECIES:		
		Gleditsia triacanthos i 'Shademaster'	Shademaster Locust	2" Cal.	55' T x 50' W
		Liriodendron tulipifera	Tulip Tree	2" Cal.	75' T x 45' W
		Platanus x acerifolia 'Morton Circle'	Exclamation London Plane Tree	2" Cal.	60' T x 45' W
		Quercus x schuetti	Schuetti Oak	2" Cal.	70' T x 65' W
		Tilia tomentosa 'Sterling'	Sterling Silver Linden	2" Cal.	60' T x 35' W
	124	ORNAMENTAL TREE	POSSIBLE SPECIES:		
		Aesculus x carnea 'Briotii'	Briotii Red Horsechestnut	8` Ht.	30' T x 30' W
		Amelanchier x 'Autumn Brilliance'	`Autumn Brilliance` Serviceberry	7` Ht.	20' T x 20' W
		Malus x 'Prairie Maid'	Prairie Maid Crabapple	2" Cal.	20' T x 25' W
		Malus x 'Sugar Tyme'	Sugar Tyme Crabapple	2" Cal.	25' T x 25' W
	70	EVERGREEN TREE	POSSIBLE SPECIES:		
		Juniperus virginiana	Eastern Red Cedar	8` Ht.	35' T x 17' W
		Picea glauca 'Densata'	Black Hills Spruce	6` Ht.	30' T x 15' W
		Pinus strobus	Eastern White Pine	6` Ht.	65' T x 30' W
		Thuja plicata x 'Standishii'	Green Giant Western Arborvitae	8` Ht.	45' T x 14' W
	168	STREET TREES	POSSIBLE SPECIES:		
		Celtis occidentalis 'Chicagoland'	Chicagoland Hackberry	2" Cal.	50' T x 40' W
		Gymnocladus dioica 'McKBranched'	Decaf Kentucky Coffee Tree	2" Cal.	50' T x 40' W
		Tilia cordata 'Greenspire'	Greenspire Littleleaf Linden	2" Cal.	45' T x 35' W
		Ulmus x 'Morton Glossy'	Triumph Elm	2" Cal.	55' T x 40' W
SHRUBS					
	8	TREE FORM SHRUB	POSSIBLE SPECIES:		
		Hydrangea paniculata 'Tardiva' TF	Tardiva Panicle Hydrangea TF	3` Ht.	10' T x 10' W
		Salix integra 'Hakuro-nishiki' TF	Hakuro-nishiki Willow TF	3` Ht.	5' T x 6' W
		Syringa patula 'Miss Kim' TF	Miss Kim Korean Lilac TF	3` Ht.	7' T x 7' W
	302	MEDIUM EVERGREEN SHRUB	POSSIBLE SPECIES:		
		Juniperus chinensis 'Old Gold'	Old Gold Juniper	3 gal.	3' T x 5' W
		Juniperus chinensis 'Sea Green'	Sea Green Juniper	3 gal.	5' T x 6' W
		Juniperus virginiana 'Grey Owl'	Grey Owl Juniper	3 gal.	5' T x 5' W
		Taxus x media 'Tauntonii'	Tauton Yew	3 gal.	4' T x 5' W
		Thuja occidentalis 'Little Giant'	Little Giant Arborvitae	3 gal.	5' T x 5' W
	402	MEDIUM DECIDUOUS SHRUB	POSSIBLE SPECIES:		
		Aronia melanocarpa 'Iroquois Beauty'	Black Chokeberry	3 gal.	3' T x 5' W
		Hydrangea paniculata 'SMNHPH'	Little Lime Punch Hydrangea	3 gal.	4' T x 5' W
		Hydrangea quercifolia 'PIIHQ-I'	Jetstream Oakleaf Hydrangea	3 gal.	5' T x 5' W
		Physocarpus opulifolius 'Seward'	Summer Wine® Ninebark	3 gal.	5' T x 5' W
		Rosa rugosa 'Purple Pavement'	Purple Pavement Rugosa Rose	3 gal.	5' T x 5' W
		Weigela florida 'Wine & Roses'	Wine & Roses Weigela	3 gal.	5' T x 5' W
	30	SMALL EVERGREEN SHRUB	POSSIBLE SPECIES:		
		Juniperus chinensis 'SMNJCHM'	Montana Moss Juniper	3 gal.	3' T x 4' W
		Pinus mugo 'Slowmound'	Slowmound Mugo Pine	3 gal.	3' T x 3' W
		Thuja occidentalis 'Congabe'	Fire Chief Arborvitae	3 gal.	2' T x 3' W
	25	LOW EVERGREEN SHRUB	POSSIBLE SPECIES:		
		Juniperus sabina 'Buffalo'	Buffalo Juniper	2` W	1' T x 7' W
		Taxus x media 'Everlow'	Everlow Yew	2` W	3' T x 3' W
	214	SMALL DECIDUOUS SHRUB	POSSIBLE SPECIES:		
		Cornus stolonifera 'Farrow'	Arctic Fire Dogwood	2 gal.	3' T x 3' W
		Hydrangea arborescens 'NCHA2'	Invincibelle Spirit II Hydrangea	2 gal.	4' T x 4' W
		Itea virginica 'Scentlandia'	Scentlandia Sweetspire	2 gal.	3' T x 3' W
		Spiraea x 'Tracy'	Double Play Big Bang Spirea	2 gal.	3' T x 3' W
		Weigela florida 'Floraclar'	Bubbly Wine Weigela	2 gal.	3' T x 3' W
	764	TALL ORNAMENTAL GRASS	POSSIBLE SPECIES:		
		Andropogon gerardii 'Dancing Wind'	Dancing Wind Big Blue Stem	1 gal.	36" T x 30" W
		Calamagrostis x a 'Karl Foerster'	Karl Foerster Reed Grass	1 gal.	36" T x 24" W
		Miscanthus sinensis 'Oktoberfest'	Oktoberfest Miscanthus	1 gal.	48" T x 36" W
		Panicum virgatum 'Northwind'	Northwind Switch Grass	1 gal.	42" T x 28" W
		Schizachyrium scoparium 'S S'	Smoke Signal Little Bluestem	1 gal.	36" T x 24" W
	32	SHORT ORNAMENTAL GRASS	POSSIBLE SPECIES:		
		Deschampsia cespitosa 'P..F.'	Pixie Fountain Tufted Hair Grass	1 gal.	15" T x 18" W
		Eragrostis spectabilis	Purple Love Grass	1 gal.	18" T x 24" W
		Pennisetum alopecuroides 'Cassian'	Cassian Fountain Grass	1 gal.	20" T x 30" W
		Sporobolus heterolepis 'Tara'	Prairie Dropseed	1 gal.	15" T x 20" W
SHRUB AREAS					
	809	PERENNIALS	VARIOUS SPECIES	1 gal.	
NATIVE					
	62,050 sf	Native Plantings	Agrecol Rainwater Renewal Seed Mix	seed	
	32,447 sf	Prairie	Agrecol Economy Prairie Mix	seed	
TURF					
	207,341 sf	Turf	Reinders - Cadet 70/30 Fescue/Blue Mix	seed	
	1,493,914 sf	Turf Low Grow	No Mow/Low Grow Mix	seed	

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LANDSCAPE GENERAL NOTES

DATE: JULY 2, 2026

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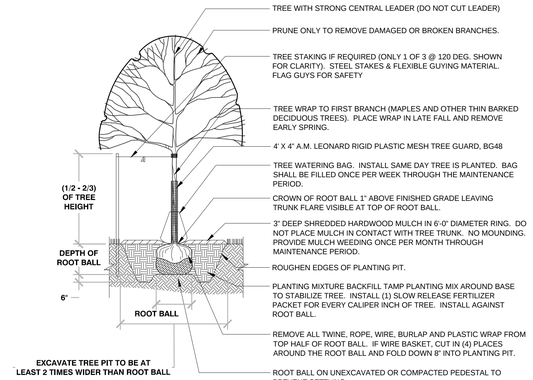
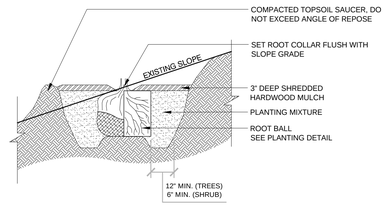
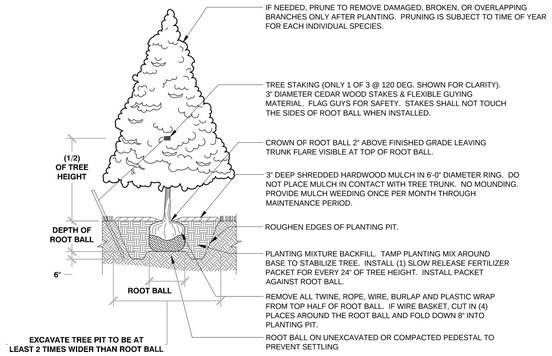


1 TREE PLANTING
1/4" = 1'-0" 329343-01



2 TREE PLANTING ON SLOPE
3/8" = 1'-0" 329343-02



3 EVERGREEN TREE PLANTING
1/4" = 1'-0" 329343-03

BAREROOT PLANTING NOTES:
1. SOAK ROOTS IN WATER FOR AT LEAST ONE HOUR BUT NOT MORE THAN 24 HOURS PRIOR TO PLANTING.
2. SCARIFY SIDES AND BOTTOMS OF HOLE.
3. PROCEED WITH CORRECTIVE PRUNING OF THE TOP AND BOTTOM ROOTS.
4. TRANSFER PLANT DIRECTLY FROM WATER TO HOLE. SET PLANT SO THE ROOT FLARE IS APPROXIMATELY AT THE FINISHED SOIL ELEVATION. SPREAD ROOTS OUT EVENLY. PLUMB AND IMMEDIATELY BACKFILL WITH PLANTING SOIL MIX.
5. WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANTS AND FILL VOIDS.
6. BACKFILL VOIDS AND WATER SECOND TIME.
7. PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.

4 SHRUB PLANTING
1/2" = 1'-0" 329333-02

5 PERENNIAL PLANTING
1" = 1'-0" 3293-01

(*) = SPECIFIED PLANT SPACING PER PLANTING LIST

6 PLANT SPACING
3/4" = 1'-0" 3293-02

7 TRENCHED BED EDGE
3/4" = 1'-0" 3293-03

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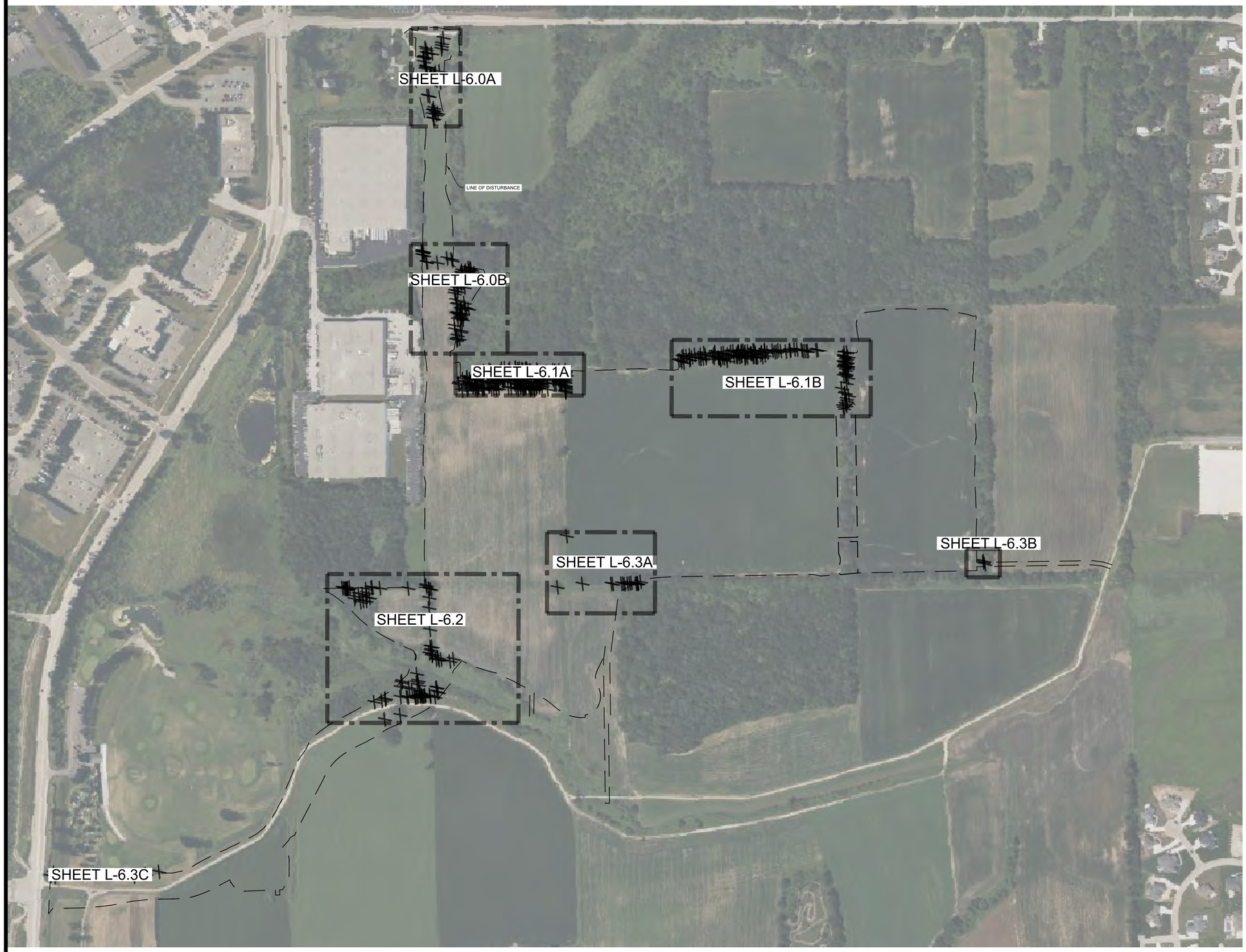

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 200' 400'

EXISTING TREE INVENTORY OVERVIEW

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TREE INVENTORY OVERVIEW

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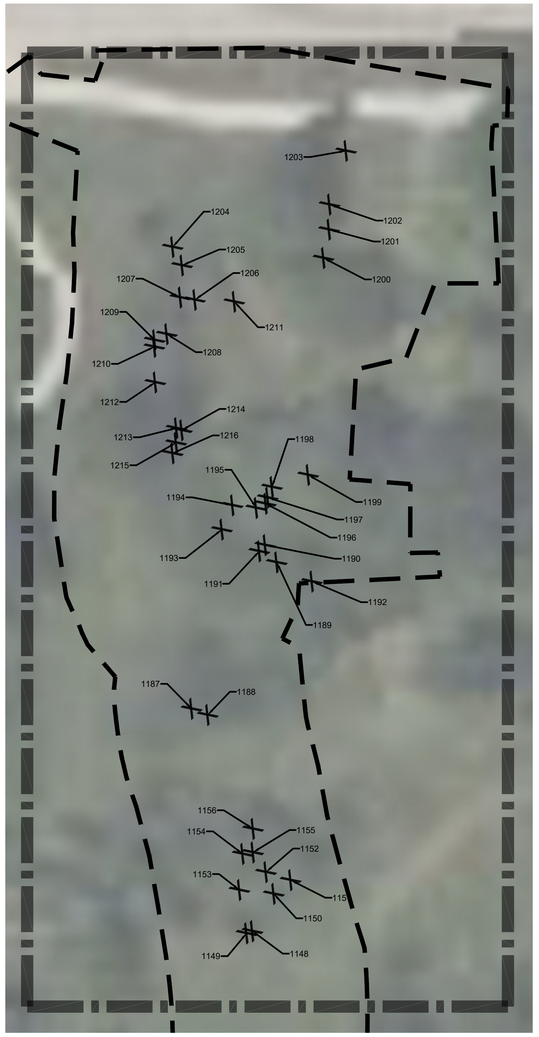

ENLARGEMENT L-6.0A

SCALE: 1"=30'

NORTH

GRAPHICAL SCALE (FEET)

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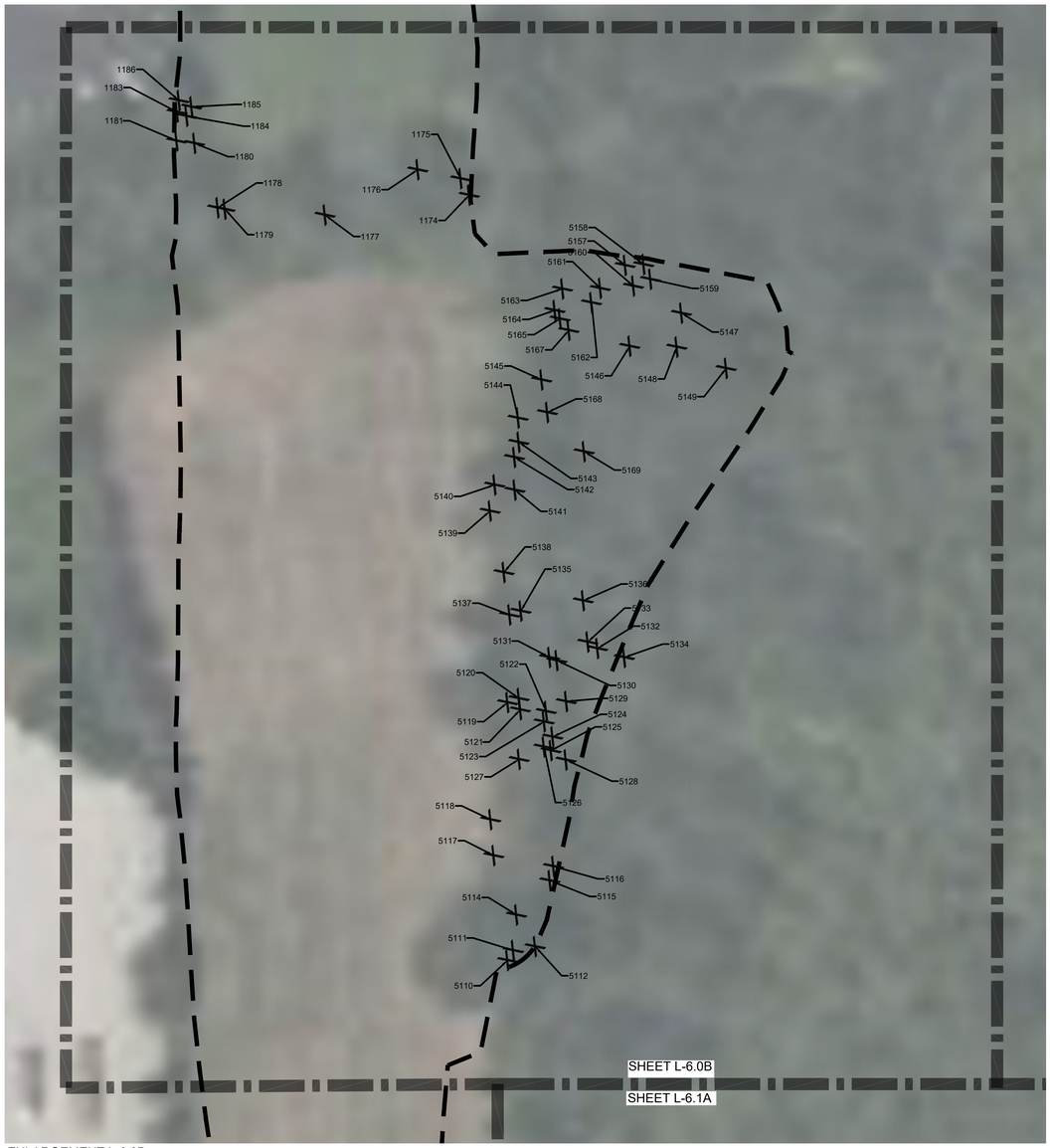

ENLARGEMENT L-6.0B

SCALE: 1"=30'

NORTH

GRAPHICAL SCALE (FEET)

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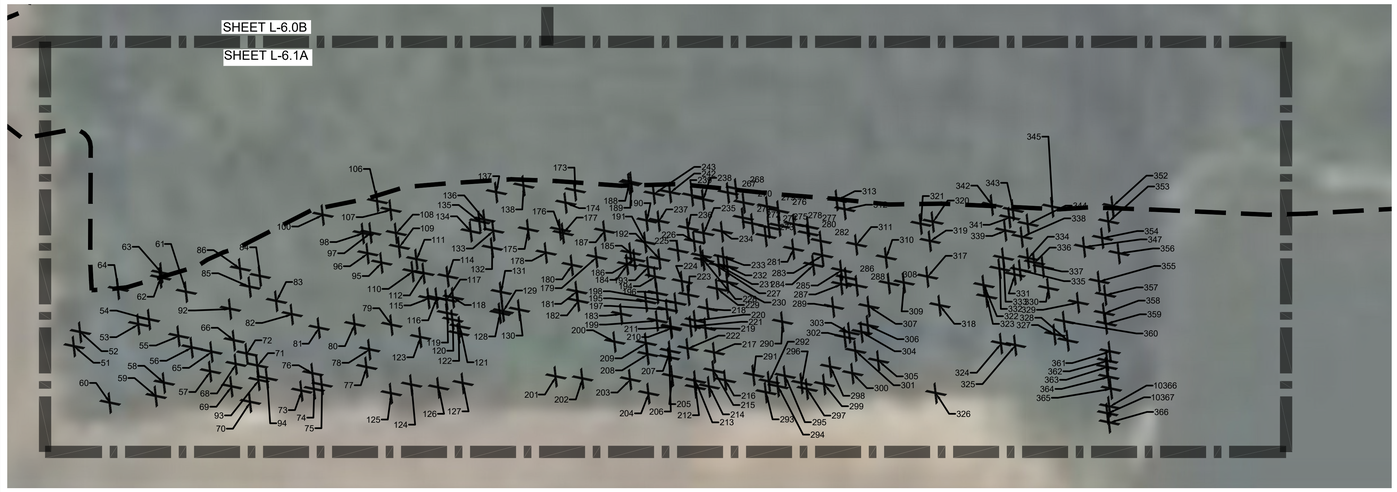

ENLARGEMENT L-6.1A

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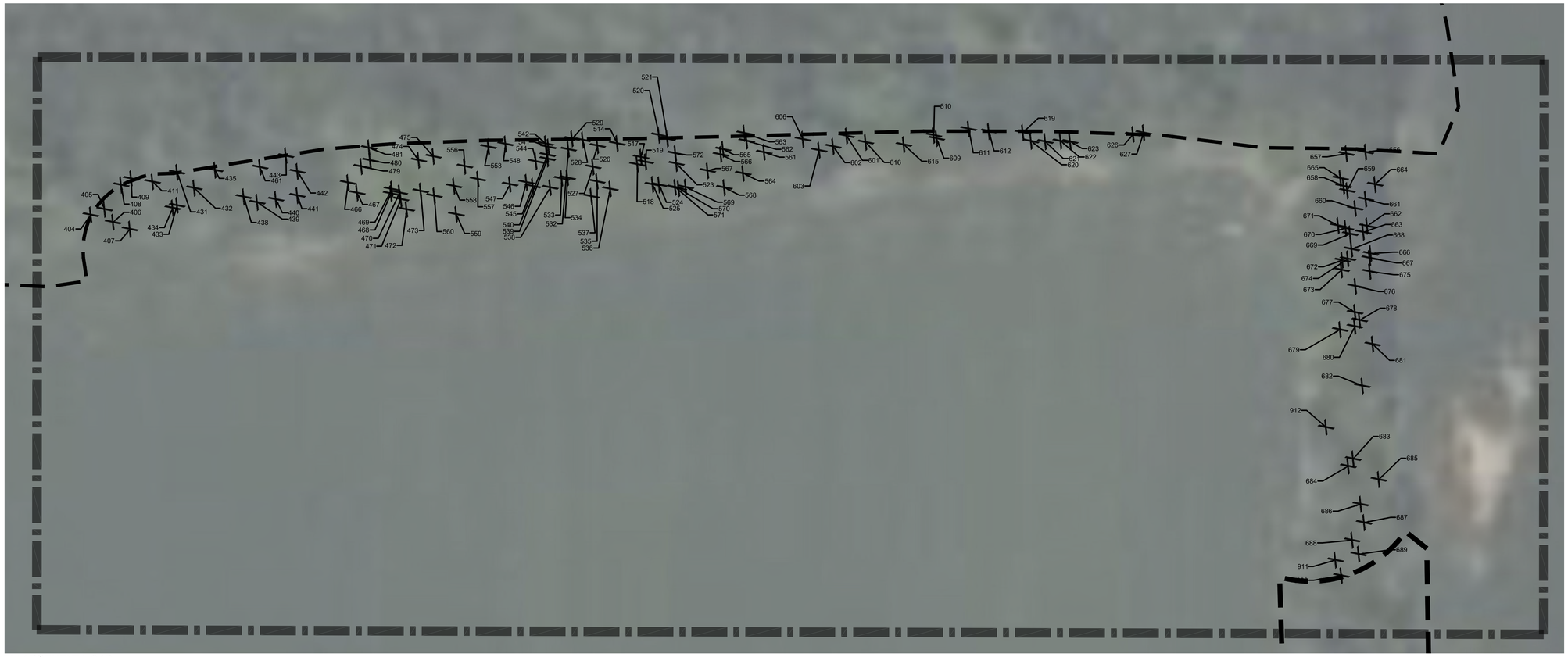

ENLARGEMENT L-6.1B

SCALE: 1"=30'

NORTH

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Telephone 414.278.8200

CIVIL ENGINEER/ LANDSCAPE ARCHITECT

PINNACLE ENGINEERING GROUP
20725 W. WATERTOWN ROAD,
SUITE 100
BROOKFIELD, WI 53186
(414) 588-5851

STRUCTURAL ENGINEER/ MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

HGA, Inc.

SunCap PROPERTY GROUP®
1407 Stuart Engals Boulevard - 2nd floor
Mt. Pleasant, SC 29464

PROJECT GRAVITY

CONFIDENTIAL — FOR PROJECT TEAM ONLY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

TREE INVENTORY ENLARGEMENT

DATE: JULY 2, 2026

PRE DESIGN

L-6.2

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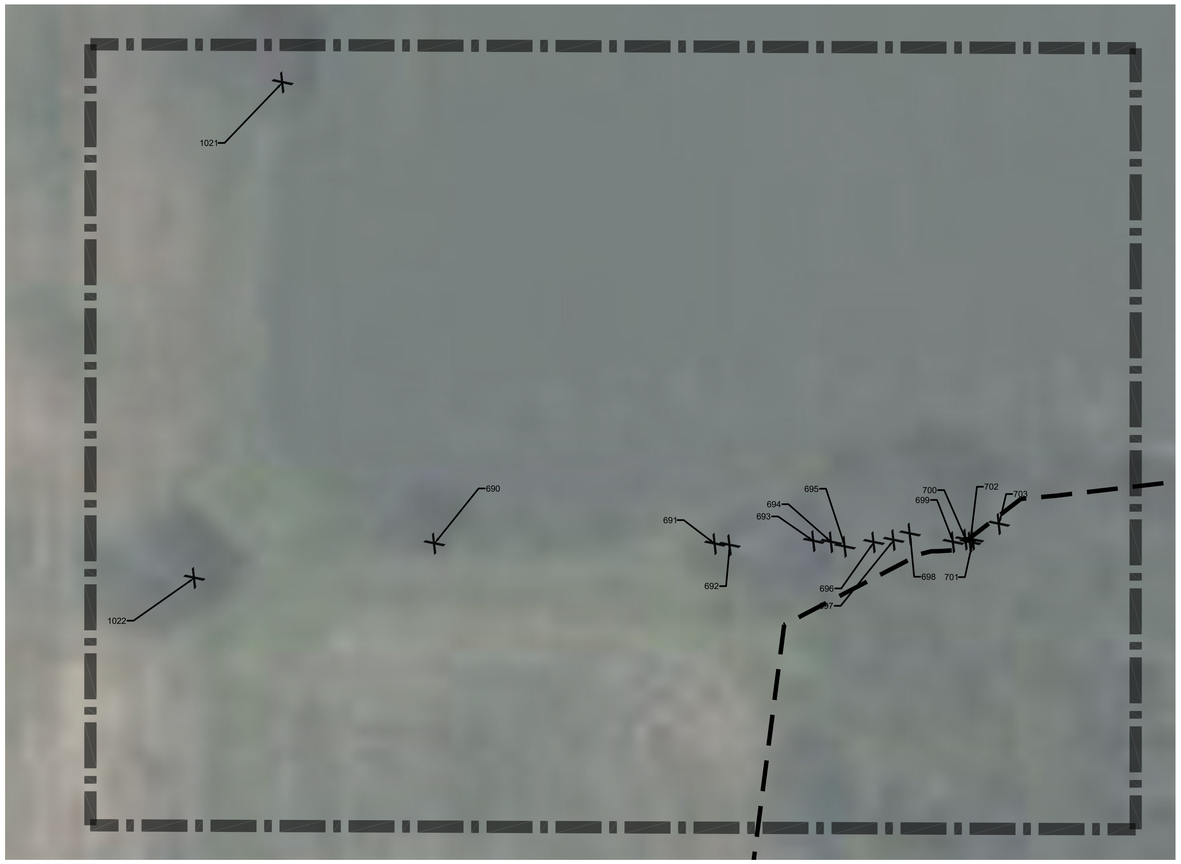


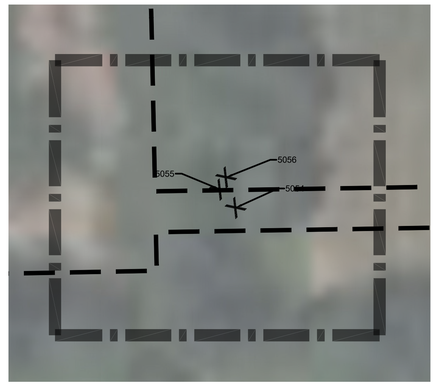
ENLARGEMENT L-6.3A

SCALE: 1"=30'

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 30' 60'



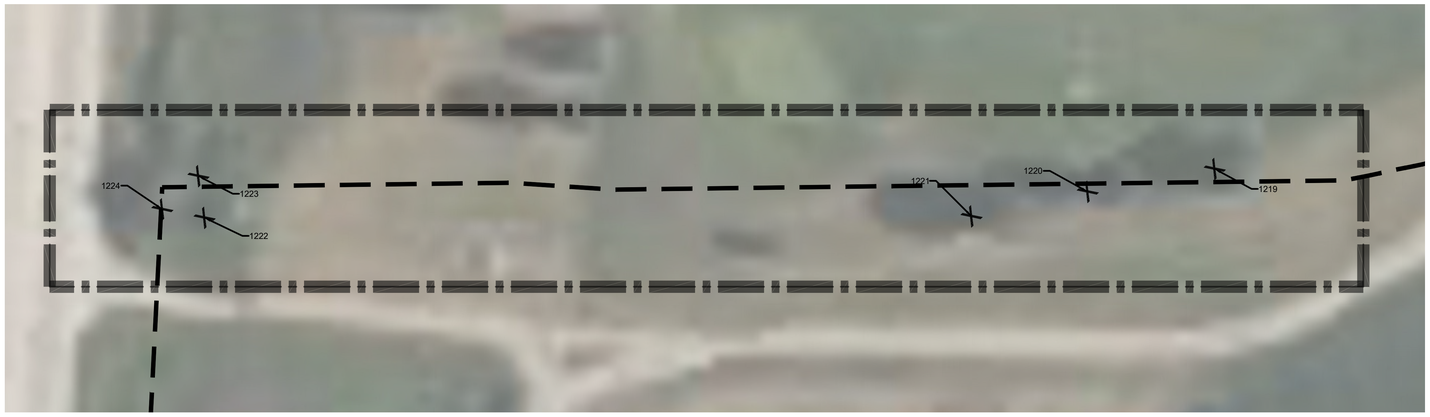
ENLARGEMENT L-6.3B

SCALE: 1"=30'

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 30' 60'



ENLARGEMENT L-6.3C

SCALE: 1"=30'

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 30' 60'

EXISTING TREE INVENTORY ENLARGEMENT

HGA

333 East Erie Street
Milwaukee, Wisconsin 53202
Telephone 414.278.8200

CIVIL ENGINEER/ LANDSCAPE ARCHITECT

PINNACLE ENGINEERING GROUP
20725 W. WATERTOWN ROAD,
SUITE 100
BROOKFIELD, WI 53186
(414) 588-5851

STRUCTURAL ENGINEER/ MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

HGA, Inc.

SunCap PROPERTY GROUP®

1407 Stuart Engals
Boulevard - 2nd floor
Mt. Pleasant, SC 29464

PROJECT GRAVITY

CONFIDENTIAL – FOR PROJECT TEAM ONLY

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

TREE INVENTORY ENLARGEMENT

DATE: JULY 2, 2026

PRE DESIGN

L-6.3

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Tree Number	Tree Species	Diameter	Tree Condition	Single / MultiStem
1	Malus X - Crabapple	10	Good	Multi Stem
2	Acer - Maple	7	Good	Single Stem
3	Acer - Maple	5	Good	Single Stem
4	Acer - Maple	6	Good	Single Stem
5	Acer - Maple	7	Good	Single Stem
6	Acer - Maple	7	Good	Single Stem
7	Acer - Maple	4	Good	Single Stem
8	Acer - Maple	5	Good	Single Stem
9	Acer - Maple	5	Good	Single Stem
10	Acer - Maple	5	Good	Single Stem
11	Acer - Maple	4	Good	Single Stem
12	Acer - Maple	4	Good	Single Stem
13	Acer - Maple	9	Good	Single Stem
14	Ulmus - Elm	5	Good	Single Stem
15	Malus X - Crabapple	5	Good	Single Stem
16	Salix - Willow	34	Good	Multi Stem
17	Ulmus - Elm	10	Fair	Single Stem
18	Salix - Willow	54	Good	Multi Stem
19	Ulmus - Elm	11	Good	Single Stem
20	Acer - Maple	8	Good	Single Stem
21	Prunus Serotina - Black Cherry	10	Good	Single Stem
22	Acer - Maple	6	Good	Single Stem
23	Acer - Maple	10	Good	Single Stem
24	Ulmus - Elm	5	Good	Single Stem
25	Acer - Maple	6	Good	Single Stem
26	Ulmus - Elm	11	Good	Single Stem
28	Acer - Maple	4	Good	Single Stem
29	Acer - Maple	4	Good	Single Stem
30	Acer - Maple	5	Good	Single Stem
31	Juniper - Cedar	4	Good	Single Stem
33	Ulmus - Elm	5	Good	Single Stem
34	Ulmus - Elm	7	Good	Single Stem
35	Acer - Maple	11	Good	Single Stem
36	Quercus - Oak	46	Good	Single Stem
37	Acer - Maple	4	Good	Single Stem
38	Ulmus - Elm	4	Good	Single Stem
39	Ulmus - Elm	4	Good	Single Stem
40	Malus X - Crabapple	15	Good	Multi Stem
43	Acer - Maple	42	Poor	Single Stem
44	Acer - Maple	55	Good	Multi Stem
45	Quercus - Oak	47	Good	Multi Stem
46	Acer - Maple	42	Good	Multi Stem
47	Acer - Maple	5	Good	Single Stem
48	Acer - Maple	18	Good	Single Stem
49	Acer - Maple	16	Fair	Single Stem
50	Ulmus - Elm	11	Poor	Single Stem
51	Ulmus - Elm	4	Good	Single Stem
52	Ulmus - Elm	8	Good	Single Stem
53	Acer - Maple	6	Good	Single Stem
54	Prunus Serotina - Black Cherry	9	Good	Single Stem
55	Prunus Serotina - Black Cherry	4	Good	Single Stem
56	Prunus Serotina - Black Cherry	7	Fair	Single Stem
57	Prunus Serotina - Black Cherry	6	Good	Single Stem
58	Acer - Maple	5	Good	Single Stem
59	Crataegus - Hawthorns	24	Good	Multi Stem
60	Juglans - Black Walnut	4	Good	Single Stem
61	Prunus Serotina - Black Cherry	9	Good	Single Stem
62	Prunus Serotina - Black Cherry	4	Good	Single Stem
63	Ulmus - Elm	4	Good	Single Stem
64	Prunus Serotina - Black Cherry	5	Good	Single Stem
65	Prunus Serotina - Black Cherry	5	Fair	Single Stem
66	Prunus Serotina - Black Cherry	4	Good	Single Stem
68	Prunus Serotina - Black Cherry	7	Fair	Single Stem
69	Prunus Serotina - Black Cherry	11	Poor	Single Stem
70	Ulmus - Elm	7	Good	Single Stem
71	Prunus Serotina - Black Cherry	6	Fair	Single Stem
72	Prunus Serotina - Black Cherry	6	Fair	Single Stem
73	Acer - Maple	4	Good	Single Stem
74	Prunus Serotina - Black Cherry	8	Fair	Single Stem
75	Prunus Serotina - Black Cherry	17	Poor	Multi Stem
76	Juglans - Black Walnut	8	Good	Single Stem
77	Prunus Serotina - Black Cherry	5	Fair	Single Stem
78	Prunus Serotina - Black Cherry	11	Good	Single Stem
79	Prunus Serotina - Black Cherry	5	Good	Single Stem
80	Prunus Serotina - Black Cherry	14	Good	Multi Stem
81	Malus - Apple	8	Good	Single Stem
82	Prunus Serotina - Black Cherry	9	Good	Multi Stem
83	Prunus Serotina - Black Cherry	5	Good	Single Stem
84	Prunus Serotina - Black Cherry	4	Good	Single Stem
85	Prunus Serotina - Black Cherry	5	Good	Single Stem
86	Prunus Serotina - Black Cherry	5	Good	Single Stem
92	Prunus Serotina - Black Cherry	6	Good	Single Stem
93	Prunus Serotina - Black Cherry	6	Good	Single Stem
94	Prunus Serotina - Black Cherry	7	Fair	Single Stem
95	Prunus Serotina - Black Cherry	5	Good	Single Stem
96	Prunus Serotina - Black Cherry	4	Good	Single Stem
97	Prunus Serotina - Black Cherry	5	Good	Single Stem
98	Prunus Serotina - Black Cherry	5	Good	Single Stem
100	Prunus Serotina - Black Cherry	6	Good	Single Stem
106	Prunus Serotina - Black Cherry	9	Good	Multi Stem
107	Prunus Serotina - Black Cherry	7	Fair	Multi Stem
108	Prunus Serotina - Black Cherry	7	Good	Single Stem
109	Prunus Serotina - Black Cherry	4	Fair	Single Stem
110	Prunus Serotina - Black Cherry	5	Fair	Single Stem
111	Prunus Serotina - Black Cherry	6	Good	Single Stem
112	Prunus Serotina - Black Cherry	5	Good	Single Stem
114	Prunus Serotina - Black Cherry	9	Good	Multi Stem
115	Prunus Serotina - Black Cherry	4	Good	Single Stem
116	Prunus Serotina - Black Cherry	6	Good	Single Stem
117	Prunus Serotina - Black Cherry	4	Good	Single Stem
118	Prunus Serotina - Black Cherry	7	Good	Single Stem
119	Prunus Serotina - Black Cherry	4	Good	Single Stem
120	Acer - Maple	19	Excellent	Single Stem
121	Prunus Serotina - Black Cherry	4	Good	Single Stem
122	Prunus Serotina - Black Cherry	4	Good	Single Stem
123	Prunus Serotina - Black Cherry	5	Fair	Single Stem
124	Carya Ovata - Shagbark Hickory	8	Good	Single Stem
125	Carya Ovata - Shagbark Hickory	6	Good	Multi Stem
126	Juglans - Black Walnut	12	Good	Single Stem
127	Prunus Serotina - Black Cherry	25	Poor	Multi Stem
128	Acer - Maple	12	Excellent	Single Stem
129	Prunus Serotina - Black Cherry	7	Good	Single Stem
130	Prunus Serotina - Black Cherry	7	Good	Single Stem
131	Prunus Serotina - Black Cherry	7	Fair	Single Stem
132	Acer - Maple	10	Good	Single Stem
133	Prunus Serotina - Black Cherry	6	Poor	Single Stem
134	Prunus Serotina - Black Cherry	5	Good	Single Stem
135	Prunus Serotina - Black Cherry	11	Good	Multi Stem
136	Acer - Maple	5	Good	Single Stem
137	Prunus Serotina - Black Cherry	7	Good	Single Stem
138	Prunus Serotina - Black Cherry	5	Good	Single Stem
173	Prunus Serotina - Black Cherry	5	Good	Single Stem
174	Prunus Serotina - Black Cherry	7	Good	Single Stem
175	Prunus Serotina - Black Cherry	6	Good	Single Stem
176	Prunus Serotina - Black Cherry	7	Good	Multi Stem
177	Prunus Serotina - Black Cherry	4	Good	Single Stem
178	Prunus Serotina - Black Cherry	21	Good	Multi Stem
179	Prunus Serotina - Black Cherry	6	Fair	Multi Stem
180	Prunus Serotina - Black Cherry	6	Fair	Single Stem
181	Prunus Serotina - Black Cherry	6	Good	Single Stem
182	Prunus Serotina - Black Cherry	11	Fair	Single Stem
183	Prunus Serotina - Black Cherry	9	Fair	Single Stem
184	Prunus Serotina - Black Cherry	6	Good	Single Stem
185	Prunus Serotina - Black Cherry	5	Good	Single Stem
186	Prunus Serotina - Black Cherry	6	Good	Single Stem
187	Prunus Serotina - Black Cherry	5	Good	Single Stem
188	Prunus Serotina - Black Cherry	8	Good	Single Stem
189	Prunus Serotina - Black Cherry	9	Good	Single Stem
190	Prunus Serotina - Black Cherry	5	Good	Single Stem
191	Prunus Serotina - Black Cherry	6	Good	Single Stem
192	Prunus Serotina - Black Cherry	5	Good	Single Stem
193	Prunus Serotina - Black Cherry	5	Good	Single Stem
194	Prunus Serotina - Black Cherry	6	Good	Single Stem
195	Prunus Serotina - Black Cherry	6	Good	Single Stem
196	Prunus Serotina - Black Cherry	4	Dead	Single Stem
197	Carya Ovata - Shagbark Hickory	9	Good	Single Stem
198	Carya Ovata - Shagbark Hickory	7	Good	Single Stem
199	Acer - Maple	14	Good	Single Stem
200	Acer - Maple	15	Good	Single Stem
201	Prunus Serotina - Black Cherry	9	Good	Single Stem
202	Carya Ovata - Shagbark Hickory	7	Good	Single Stem
203	Prunus Serotina - Black Cherry	8	Fair	Single Stem
204	Carya Ovata - Shagbark Hickory	8	Good	Single Stem
205	Carya Ovata - Shagbark Hickory	4	Good	Single Stem
206	Carya Ovata - Shagbark Hickory	7	Good	Single Stem
207	Carya Ovata - Shagbark Hickory	6	Good	Single Stem
208	Carya Ovata - Shagbark Hickory	6	Good	Single Stem
209	Prunus Serotina - Black Cherry	20	Good	Multi Stem
210	Carya Ovata - Shagbark Hickory	8	Good	Multi Stem
211	Carya Ovata - Shagbark Hickory	6	Good	Single Stem
212	Carya Ovata - Shagbark Hickory	9	Good	Single Stem
213	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
214	Carya Ovata - Shagbark Hickory	14	Good	Single Stem
215	Tillia - Basswood/Linden	17	Good	Single Stem
216	Carya Ovata - Shagbark Hickory	11	Good	Multi Stem
217	Ulmus - Elm	6	Good	Single Stem
218	Carya Ovata - Shagbark Hickory	7	Good	Single Stem
219	Carya Ovata - Shagbark Hickory	6	Good	Single Stem
220	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
221	Carya Ovata - Shagbark Hickory	4	Good	Single Stem
222	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
223	Carya Ovata - Shagbark Hickory	4	Good	Single Stem
224	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
225	Prunus Serotina - Black Cherry	5	Good	Single Stem
226	Prunus Serotina - Black Cherry	4	Good	Single Stem
227	Prunus Serotina - Black Cherry	5	Good	Single Stem
228	Carya Ovata - Shagbark Hickory	9	Good	Single Stem
229	Carya Ovata - Shagbark Hickory	7	Good	Single Stem
230	Prunus Serotina - Black Cherry	7	Good	Single Stem
231	Carya Ovata - Shagbark Hickory	4	Good	Single Stem
232	Carya Ovata - Shagbark Hickory	8	Good	Single Stem
233	Prunus Serotina - Black Cherry	9	Good	Single Stem
234	Prunus Serotina - Black Cherry	5	Good	Single Stem
235	Prunus Serotina - Black Cherry	6	Good	Single Stem
236	Prunus Serotina - Black Cherry	4	Good	Single Stem
237	Prunus Serotina - Black Cherry	5	Good	Single Stem
238	Prunus Serotina - Black Cherry	9	Good	Single Stem
239	Malus - Apple	12	Fair	Multi Stem
242	Prunus Serotina - Black Cherry	5	Good	Single Stem
243	Prunus Serotina - Black Cherry	6	Good	Single Stem
267	Prunus Serotina - Black Cherry	7	Good	Single Stem
268	Prunus Serotina - Black Cherry	6	Good	Single Stem
270	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
271	Carya Ovata - Shagbark Hickory	4	Good	Single Stem
272	Carya Ovata - Shagbark Hickory	7	Good	Single Stem
273	Carya Ovata - Shagbark Hickory	7	Good	Single Stem
274	Prunus Serotina - Black Cherry	4	Good	Single Stem
275	Prunus Serotina - Black Cherry	4	Good	Single Stem
276	Prunus Serotina - Black Cherry	9	Good	Single Stem
277	Prunus Serotina - Black Cherry	9	Good	Single Stem
278	Carya Ovata - Shagbark Hickory	9	Good	Single Stem
279	Carya Ovata - Shagbark Hickory	6	Good	Single Stem
280	Carya Ovata - Shagbark Hickory	7	Good	Single Stem
281	Carya Ovata - Shagbark Hickory	9	Good	Single Stem
282	Prunus Serotina - Black Cherry	4	Good	Single Stem
283	Carya Ovata - Shagbark Hickory	9	Good	Single Stem
284	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
285	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
286	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
287	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
288	Carya Ovata - Shagbark Hickory	7	Good	Single Stem
289	Carya Ovata - Shagbark Hickory	4	Good	Single Stem
290	Carya Ovata - Shagbark Hickory	25	Good	Single Stem
291	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
292	Prunus Serotina - Black Cherry	6	Fair	Single Stem
293	Carya Ovata - Shagbark Hickory	4	Good	Single Stem
294	Carya Ovata - Shagbark Hickory	8	Good	Single Stem
295	Carya Ovata - Shagbark Hickory	6	Good	Single Stem
296	Carya Ovata - Shagbark Hickory	4	Good	Single Stem
297	Carya Ovata - Shagbark Hickory	10	Good	Single Stem
298	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
299	Carya Ovata - Shagbark Hickory	7	Good	Single Stem
300	Carya Ovata - Shagbark Hickory	4	Good	Single Stem
301	Carya Ovata - Shagbark Hickory	7	Good	Single Stem
302	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
303	Carya Ovata - Shagbark Hickory	4	Good	Single Stem
304	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
305	Acer - Maple	15	Good	Single Stem
306	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
307	Carya Ovata - Shagbark Hickory	7	Good	Single Stem
308	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
309	Carya Ovata - Shagbark Hickory	6	Good	Single Stem
310	Prunus Serotina - Black Cherry	9	Fair	Single Stem
311	Prunus Serotina - Black Cherry	5	Fair	Single Stem
312	Prunus Serotina - Black Cherry	8	Poor	Single Stem
313	Quercus - Oak	8	Fair	Single Stem
317	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
318	Juglans - Black Walnut	8	Good	Single Stem
319	Juglans - Black Walnut	12	Good	Single Stem
320	Juglans - Black Walnut	11	Good	Single Stem
321	Juglans - Black Walnut	14	Good	Single Stem
322	Carya Ovata - Shagbark Hickory	6	Good	Single Stem
323	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
324	Juglans - Black Walnut	10	Good	Single Stem
325	Ulmus - Elm	6	Good	Single Stem
327	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
328	Carya Ovata - Shagbark Hickory	6	Good	Single Stem
329	Carya Ovata - Shagbark Hickory	4	Good	Single Stem
330	Carya Ovata - Shagbark Hickory	6	Good	Single Stem
331	Carya Ovata - Shagbark Hickory	6	Good	Single Stem
332	Ulmus - Elm	8	Good	Single Stem
333	Ulmus - Elm	9	Good	Single Stem
334	Ulmus - Elm	7	Good	Single Stem
335	Ulmus - Elm	5	Good	Single Stem
336	Ulmus - Elm	6	Good	Single Stem
337	Acer - Maple	12	Good	Multi Stem
338	Acer - Maple	10	Good	Single Stem
339	Acer - Maple	6	Good	Single Stem
341	Acer - Maple	5	Good	Single Stem
342	Prunus Serotina - Black Cherry	7	Fair	Single Stem
343	Acer - Maple	8	Good	Single Stem
344	Acer - Maple	4	Good	Single Stem
345	Acer - Maple	9	Good	Single Stem
347	Acer - Maple	25	Good	Single Stem
352	Acer - Maple	16	Fair	Single Stem
353	Carya Ovata - Shagbark Hickory	4	Good	Single Stem
354	Carya Ovata - Shagbark Hickory	4	Good	Single Stem
355	Acer - Maple	5	Fair	Single Stem
356	Acer - Maple	24	Good	Multi Stem
357	Acer - Maple	8	Good	Single Stem
358	Acer - Maple	28	Good	Multi Stem
359	Acer - Maple	6	Good	Single Stem
360	Carya Ovata - Shagbark Hickory	7	Good	Single Stem
361	Acer - Maple	15	Good	Single Stem
362	Acer - Maple	14	Good	Multi Stem
363	Carya Ovata - Shagbark Hickory	7	Good	Single Stem
364	Acer - Maple	11	Good	Single Stem
365	Carya Ovata - Shagbark Hickory	8	Good	Single Stem
366	Carya Ovata - Shagbark Hickory	5	Poor	Single Stem
367	Acer - Maple	6	Good	Single Stem
404	Ulmus - Elm	10	Good	Single Stem
405	Acer - Maple	14	Good	Single Stem
406	Ulmus - Elm	5	Good	Single Stem
407	Ulmus - Elm	5	Good	Single Stem
408	Acer - Maple	5	Good	Single Stem
409	Acer - Maple	6	Good	Single Stem
411	Acer - Maple	12	Good	Single Stem
431	Acer - Maple	4	Good	Single Stem
432	Quercus - Oak	19	Fair	Single Stem
433	Acer - Maple	55	Good	Single Stem
434	Ulmus - Elm	12	Good	Single Stem
435	Acer - Maple	7	Good	Single Stem
438	Acer - Maple	26	Fair	Single Stem
439	Acer - Maple	7	Good	Single Stem
440	Quercus - Oak	20	Good	Single Stem
441	Ulmus - Elm	10	Good	Single Stem
442	Acer - Maple	5	Good	Single Stem
444	Ulmus - Elm	7	Good	Single Stem
461	Ulmus - Elm	10	Good	Single Stem
466	Quercus - Oak	36	Good	Single Stem
467	Tillia - Basswood/Linden	43	Good	Multi Stem
468	Acer - Maple	9	Good	Single Stem
469	Acer - Maple	4	Good	Single Stem
470	Acer - Maple	6	Good	Single Stem
471	Tillia - Basswood/Linden	7	Good	Single Stem
472	Ulmus - Elm	9	Fair	Single Stem
473	Acer - Maple	6	Good	Single Stem
474	Quercus - Oak	31	Fair	Single Stem
475	Quercus - Oak	19	Good	Single Stem
479	Acer - Maple	6	Good	Single Stem
480	Prunus Serotina - Black Cherry	5	Good	Single Stem
481	Acer - Maple	5	Good	Single Stem
514	Acer - Maple	5	Good	Single Stem
517	Quercus - Oak	20	Good	Single Stem
518	Quercus - Oak	7	Good	Single Stem
519	Acer - Maple	7	Good	Single Stem
520	Acer - Maple	4	Good	Single Stem
521	Acer - Maple	6	Good	Single Stem
523	Acer - Maple	5	Good	Single Stem
524	Ulmus - Elm	12	Fair	Single Stem
525	Ulmus - Elm	24	Poor	Multi Stem
526	Acer - Maple	5	Good	Single Stem
527	Acer - Maple	5	Good	Single Stem
528	Acer - Maple	6	Good	Single Stem
529	Ulmus - Elm	8	Good	Single Stem
532	Tillia - Basswood/Linden	4	Good	Single Stem
533	Juglans - Black Walnut	13	Good	Single Stem
534	Acer - Maple	4	Good	Single Stem
535	Ulmus - Elm	6	Fair	Single Stem
536	Acer - Maple	7	Poor	Single Stem
537	Acer - Maple	5	Poor	Single Stem
538	Acer - Maple	4	Good	Single Stem
539	Acer - Maple	4	Good	Single Stem
540	Acer - Maple	4	Good	Single Stem
541	Acer - Maple	5	Good	Single Stem
542	Acer - Maple	5	Good	Single Stem
544	Acer - Maple	5	Good	Single Stem
545	Acer - Maple	4	Poor	Single Stem
546	Acer - Maple	7	Fair	Single Stem
547	Acer - Maple	6	Good	Single Stem
548	Acer - Maple	4	Good	Single Stem
674	Acer - Maple	60	Good	Multi Stem
675	Juglans - Black Walnut	12	Good	Single Stem
676	Acer - Maple	9	Good	Multi Stem
677	Juglans - Black Walnut	28	Good	Single Stem
678	Celtis Occidentalis - Hackberry	4	Good	Single Stem
679	Tillia - Basswood/Linden	5	Good	Single Stem
680	Tillia - Basswood/Linden	6	Good	Single Stem
681	Juglans - Black Walnut	11	Good	Single Stem
682	Acer - Maple	15	Good	Single Stem
683	Acer - Maple	4	Good	Single Stem
684	Crataegus - Hawthorns	13	Good	Multi Stem
685	Tillia - Basswood/Linden	8	Good	Single Stem
686	Acer - Maple	16	Good	Single Stem
687	Tillia - Basswood/Linden	18	Good	Multi Stem
688	Acer - Maple	6	Good	Single Stem
689	Tillia - Basswood/Linden	34	Good	Multi Stem
690	Tillia - Basswood/Linden	26	Good	Multi Stem
691	Acer - Maple	12	Good	Multi Stem
692	Juglans - Black Walnut	5	Good	Single Stem
693	Quercus - Oak	20	Poor	Multi Stem
694	Quercus - Oak	40	Fair	Multi Stem
695	Tillia - Basswood/Linden	29	Good	Multi Stem
696	Tillia - Basswood/Linden	63	Fair	Multi Stem
697	Quercus - Oak	11	Good	Single Stem
698	Acer - Maple	5	Good	Single Stem
699	Ulmus - Elm	8	Good	Single Stem
700	Quercus - Oak	20	Good	Single Stem
701	Ulmus - Elm	7	Good	Single Stem
702	Quercus - Oak	11	Good	Single Stem
704	Quercus - Oak	5	Good	Single Stem
909	Ulmus - Elm	9	Good	Single Stem
911	Tillia - Basswood/Linden	7	Good	Single Stem
912	Juglans - Black Walnut	12	Good	Single Stem
1021	Ulmus - Elm	55	Good	Single Stem
1022	Ulmus - Elm	30	Good	Single Stem
1148	Prunus Serotina - Black Cherry	10	Good	Single Stem
1149	Boxelder Maple	6	Good	Single Stem
1150	Boxelder Maple	12	Good	Multi Stem
1151	Boxelder Maple	8	Good	Single Stem
1152	Boxelder Maple	12	Good	Multi Stem
1153	Boxelder Maple	5	Good	Single Stem
1154	Boxelder Maple	4	Good	Single Stem
1155	Boxelder Maple	29	Good	Multi Stem
1156	Boxelder Maple	11	Good	Multi Stem
1174	Ulmus - Elm	9	Poor	Multi Stem
1175	Ulmus - Elm	10	Good	Multi Stem
1176	Boxelder Maple	17	Good	Multi Stem
1177	Celtis Occidentalis - Hackberry	6	Good	Single Stem
1178	Ulmus - Elm	9	Good	Single Stem
1179	Ulmus - Elm	4	Poor	Single Stem
1180	Ulmus - Elm	4	Good	Single Stem
1181	Ulmus - Elm	7	Good	Multi Stem
1183	Ulmus - Elm	7	Good	Multi Stem
1184	Ulmus - Elm	4	Good	Single Stem
1185	Salix - Willow	8	Good	Single Stem
1186	Ulmus - Elm	5	Good	Single Stem
1187	Acer - Maple	19	Good	Multi Stem
1188	Acer - Maple	26	Good	Multi Stem
1189	Morus Alba - Mulberry	32	Good	Multi Stem
1190	Boxelder Maple	7	Good	Single Stem
1191	Boxelder Maple	25	Good	Single Stem
1192	Boxelder Maple	12	Good	Single Stem
1193	Boxelder Maple	43	Good	Multi Stem
1194	Boxelder Maple	16	Good	Multi Stem
1195	Morus Alba - Mulberry	23	Poor	Single Stem
1196	Boxelder Maple	7	Good	Single Stem
1197	Boxelder Maple	8	Good	Single Stem
1198	Boxelder Maple	11	Good	Single Stem
1199	Boxelder Maple	24	Good	Single Stem
1200	Morus Alba - Mulberry	21	Good	Single Stem
1201	Morus Alba - Mulberry	20	Good	Single Stem
1202	Morus Alba - Mulberry	18	Good	Single Stem
1203	Juniper - Cedar	34	Excellent	Multi Stem
1204	Malus - Apple	23	Poor	Single Stem
1205	Ulmus - Elm	10	Good	Multi Stem
1206	Ulmus - Elm	9	Good	Single Stem
1207	Ulmus - Elm	8	Good	Multi Stem
1208	Morus Alba - Mulberry	9	Good	Multi Stem
1209	Boxelder Maple	4	Good	Single Stem
1210	Boxelder Maple	5	Good	Single Stem
1211	Malus - Apple	10	Good	Single Stem
1212	Boxelder Maple	9	Good	Multi Stem
1213	Ulmus - Elm	6	Good	Single Stem
1214	Ulmus - Elm	9	Fair	Single Stem
1215	Boxelder Maple	15	Good	Multi Stem
1216	Morus Alba - Mulberry	22	Good	Single Stem
1219	Acer - Maple	15	Excellent	Single Stem
1220	Acer - Maple	14	Excellent	Single Stem
1221	Acer - Maple	16	Excellent	Single Stem
1222	Ulmus - Elm	12	Good	Single Stem
1223	Quercus - Oak	6	Fair	Single Stem
1224	Salix - Willow	16	Poor	Single Stem
1229	Ulmus - Elm	21	Fair	Multi Stem
1230	Juglans - Black Walnut	6	Good	Single Stem
1231	Ulmus - Elm	7	Good	Single Stem
1232	Ulmus - Elm	9	Excellent	Single Stem
1233	Celtis Occidentalis - Hackberry	12	Good	Single Stem
1234	Ulmus - Elm	20	Good	Single Stem
1235	Tillia - Basswood/Linden	29	Good	Multi Stem
1236	Tillia - Basswood/Linden	28	Good	Single Stem
1237	Tillia - Basswood/Linden	19	Good	Multi Stem
1238	Tillia - Basswood/Linden	13	Good	Single Stem
1239	Tillia - Basswood/Linden	29	Good	Multi Stem
1240	Tillia - Basswood/Linden	20	Fair	Multi Stem
1241	Acer - Maple	9	Fair	Single Stem
1242	Tillia - Basswood/Linden	20	Good	Multi Stem
1244	Tillia - Basswood/Linden	5	Good	Single Stem
1245	Tillia - Basswood/Linden	34	Fair	Multi Stem
1246	Tillia - Basswood/Linden	17	Good	Single Stem
1247	Juglans - Black Walnut	8	Good	Single Stem
1248	Juglans - Black Walnut	12	Good	Single Stem
1249	Juglans - Black Walnut	11	Good	Single Stem
1250	Ulmus - Elm	6	Poor	Single Stem
2125	Ulmus - Elm	4	Good	Single Stem
5054	Juglans - Black Walnut	20	Good	Single Stem
5055	Ulmus - Elm	9	Good	Single Stem
5056	Ulmus - Elm	10	Good	Single Stem
5076	Tillia - Basswood/Linden	6	Good	Single Stem
5077	Tillia - Basswood/Linden	10	Good	Single Stem
5078	Tillia - Basswood/Linden	4	Good	Single Stem
5079	Tillia - Basswood/Linden	6	Good	Single Stem
5080	Tillia - Basswood/Linden	4	Good	Single Stem
5081	Quercus - Oak	12	Good	Single Stem
5082	Tillia - Basswood/Linden	12	Good	Single Stem
5083	Tillia - Basswood/Linden	4	Good	Single Stem
5084	Quercus - Oak	12	Good	Single Stem
5085	Tillia - Basswood/Linden	15	Good	Multi Stem
5086	Juglans - Black Walnut	9	Good	Single Stem
5087	Juglans - Black Walnut	11	Good	Single Stem
5088	Ulmus - Elm	7	Good	Single Stem
5089	Juglans - Black Walnut	8	Good	Single Stem
5090	Juglans - Black Walnut	9	Good	Single Stem
5091	Juglans - Black Walnut	8	Good	Single Stem
5092	Juglans - Black Walnut	16	Good	Single Stem
5110	Ulmus - Elm	52	Good	Multi Stem
5111	Ulmus - Elm	12	Good	Single Stem
5112	Juglans - Black Walnut	24	Good	Single Stem
5114	Celtis Occidentalis - Hackberry	14	Good	Single Stem
5115	Ulmus - Elm	8	Good	Single Stem
5116	Ulmus - Elm	7	Good	Single Stem
5117	Ulmus - Elm	6	Good	Single Stem
5118	Juglans - Black Walnut	5	Good	Single Stem
5119	Ulmus - Elm	15	Good	Single Stem
5120	Carya Ovata - Shagbark Hickory	5	Good	Single Stem
5121	Ulmus - Elm	16	Good	Single Stem
5122	Prunus Serotina - Black Cherry	8	Fair	Single Stem
5123	Prunus Serotina - Black Cherry	8	Good	Single Stem
5124	Acer - Maple	13	Good	Single Stem
5126	Boxelder Maple	6	Good	Single Stem
5127	Prunus Serotina - Black Cherry	10	Good	Single Stem
5128	Juglans - Black Walnut	10	Good	Single Stem
5129	Prunus Serotina - Black Cherry	11	Good	Single Stem
5130	Prunus Serotina - Black Cherry	9	Good	Single Stem
5131	Prunus Serotina - Black Cherry	7	Good	Single Stem
5132	Prunus Serotina - Black Cherry	9	Good	Single Stem
5133	Crataegus - Hawthorns	7	Good

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PUBLIC UTILITY PLANS
FOR
PROJECT GRAVITY
NEW BERLIN, WI
PLANS PREPARED FOR
SUNCAP PROPERTY GROUP
6101 CARNEGIE BOULEVARD SUITE 180
CHARLOTTE, NC 28209

INDEX OF SHEETS

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C-2.0	GENERAL NOTES
C-3.0	EXISTING CONDITIONS PLAN
C-4.0	PUBLIC WATERMAIN OVERVIEW
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C-5.0 - C-5.1	CONSTRUCTION DETAILS

REQUIRED SUBMITTALS FOR APPROVAL

1. WATER MAIN PIPES, VALVES, HYDRANTS & FITTINGS
2. TRACER WIRE
3. UNDERGROUND UTILITY LOCATION RECORD DRAWING

REQUIRED SUBMITTALS FOR APPROVAL

1. PIPE BEDDING & TRENCH BACKFILL - GRADATION

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ptheodossiou@suncappg.com

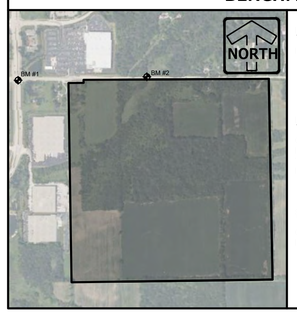
LEGEND

	EXISTING	PROPOSED
SANITARY MANHOLE	◎	◉
STORM MANHOLE	◎	◉
CATCH BASIN	○	●
INLET	□	■
PRECAST FLARED END SECTION	◁	▶
CONCRETE HEADWALL	⊂	⊂
VALVE VAULT	⊗	⊖
VALVE BOX	▪	◪
FIRE HYDRANT	⊄	⊄
BUFFALO BOX	⊚	•
CLEANOUT	⊡	▣
SANITARY SEWER	——▷——	——▶——
FORCE MAIN	——\——\——	——\——\——
STORM SEWER	——)——	——)——
WATER MAIN	—— W ——	—— W ——
UTILITY CROSSING		—— ⓧ ——
GRANULAR TRENCH BACKFILL		▨▨▨▨▨
LIGHTING	⊸☼⊸	⊸☼⊸
ELECTRICAL CABLE	—— E ——	—— E ——
ELECTRICAL TRANSFORMER OR PEDESTAL	E	◪
POWER POLE	⊸○⊸	⊸●⊸
POWER POLE WITH LIGHT	⊸☼⊸	⊸☼⊸
GUY WIRE	◂	◂
STREET SIGN	▷	▶
GAS MAIN	—— G ——	—— G ——
TELEPHONE LINE	—— T ——	—— T ——
CONTOUR	749	749
SPOT ELEVATION	×(750.00)	×750.00
WETLANDS	— · — · —	— · — · —
FLOODWAY	——— ———	——— ———
FLOODPLAIN	- - - - -	- - - - -
HIGH WATER LEVEL (HWL)	— · · — · ·	— · · — · ·
NORMAL WATER LEVEL (NWL)	— · — · —	— · — · —
DIRECTION OF SURFACE FLOW	——→	——→
DITCH OR SWALE	——→	——→
DIVERSION SWALE	⊸▷⊸▷⊸	⊸▶⊸▶⊸
OVERFLOW RELIEF ROUTING		
TREE WITH TRUNK SIZE	6"	6"
SOIL BORING	B-1	B-1
TOPSOIL PROBE	P-1	P-1
FENCE LINE, TEMPORARY SILT	—— SF ——	—— SF ——
FENCE LINE, WIRE	——×——	——×——
FENCE LINE, CHAIN LINK OR IRON	——○——	——○——
FENCE LINE, WOOD OR PLASTIC	——□——	——□——
CONCRETE SIDEWALK		
CURB AND GUTTER		
DEPRESSED CURB		
REVERSE PITCH CURB & GUTTER		
EASEMENT LINE	— — —	— — —
PROPERTY LINE		

ABBREVIATIONS

BL	BASE LINE	NSI	NATIVE SOIL INTERFACE
C	LONG CHORD OF CURVE	NWL	NORMAL WATER LEVEL
C & G	CURB AND GUTTER	PC	POINT OF CURVATURE
CB	CATCH BASIN	PT	POINT OF TANGENCY
CL	CENTERLINE	PVI	POINT OF VERTICAL INTERSECTION
D	DEGREE OF CURVE	R	RADIUS
EP	EDGE OF PAVEMENT	ROW	RIGHT-OF-WAY
FF	FINISHED FLOOR	SAN	SANITARY SEWER
FG	FINISHED GRADE	ST	STORM SEWER
FL	FLOW LINE	T	TANGENCY OF CURVE
FP	FLOODPLAIN	TB	TOP OF BANK
FR	FRAME	TC	TOP OF CURB
FW	FLOODWAY	TF	TOP OF FOUNDATION
HWL	HIGH WATER LEVEL	TS	TOP OF SIDEWALK
INV	INVERT	TW	TOP OF WALK
L	LENGTH OF CURVE	WM	WATER MAIN
MH	MANHOLE	△	INTERSECTION ANGLE

BENCHMARKS



NOTE

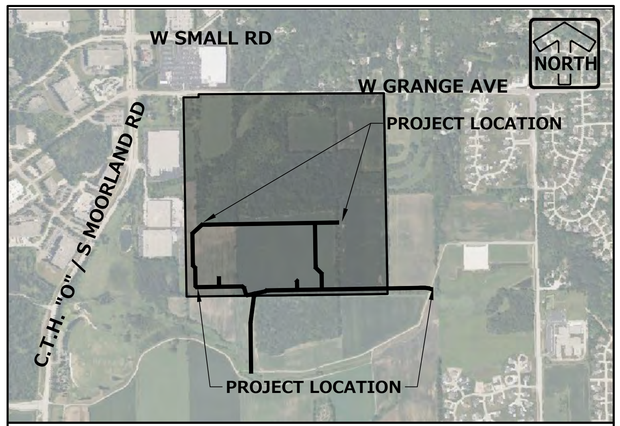
NORTH AMERICAN VERTICAL DATUM OF 1988(12), (NAVD88)

REFERENCE BENCHMARK (BM #1)

CONCRETE MONUMENT WITH BRASS CAP AT THE NORTHWEST CORNER OF THE NORTHWEST 1/4 SECTION 35, TOWNSHIP 6 NORTH, RANGE 20 EAST
ELEV = 882.05

SITE BENCHMARKS (BM #2)

CHISELED SQUARE IN CONCRETE HEAD
ELEV = 866.40



LOCATION MAP
SCALE 1" = 1,000'

GENERAL NOTES

1. THE INTENTION OF THE PLANS AND SPECIFICATIONS IS TO SET FORTH PERFORMANCE AND CONSTRUCTION MATERIAL STANDARDS FOR THE PROPER EXECUTION OF WORK. ALL WORKS CONTAINED WITHIN THE PLANS AND SPECIFICATIONS SHALL BE COMPLETED IN ACCORDANCE WITH ALL REQUIREMENTS FROM LOCAL, STATE, FEDERAL OR OTHER GOVERNING AGENCY'S LAWS, REGULATIONS, JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., AND THE OWNER'S DIRECTION.
2. A GEOTECHNICAL REPORT FOR THIS SITE HAS BEEN PREPARED BY GILES ENGINEERING ASSOCIATES DATED APRIL 6, 2026. THE DATA ON SUB-SURFACE SOIL CONDITIONS IS NOT INTENDED AS A REPRESENTATION OR WARRANTY OF THE CONTINUITY OF SUCH CONDITIONS BETWEEN BORINGS OR INDICATED SAMPLING LOCATIONS. IT SHALL BE EXPRESSLY UNDERSTOOD THAT OWNER WILL NOT BE RESPONSIBLE FOR ANY INTERPRETATIONS OR CONCLUSIONS DRAWN THERE FROM BY THE CONTRACTOR. DATA IS MADE AVAILABLE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ANY ADDITIONAL SOILS INVESTIGATIONS THEY FEEL IS NECESSARY FOR THE PROPER EVALUATION OF THE SITE FOR PURPOSES OF PLANNING, BIDDING, OR CONSTRUCTING THE PROJECT AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR IS RESPONSIBLE TO REVIEW AND UNDERSTAND ALL COMPONENTS OF THE PLANS AND SPECIFICATIONS, INCLUDING FIELD VERIFYING SOIL CONDITIONS, PRIOR TO SUBMISSION OF A BID PROPOSAL.
4. THE CONTRACTOR SHALL PROMPTLY REPORT ANY ERRORS OR AMBIGUITIES LEARNED AS PART OF THEIR REVIEW OF PLANS, SPECIFICATIONS, REPORTS AND FIELD INVESTIGATIONS.
5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE COMPUTATION OF QUANTITIES AND WORK REQUIRED TO COMPLETE THIS PROJECT. THE CONTRACTOR'S BID SHALL BE BASED ON ITS OWN COMPUTATIONS AND IN NO SUCH INSTANCE RELY ON THE ENGINEER'S ESTIMATE.
6. QUESTIONS/CLARIFICATIONS WILL BE INTERPRETED BY ENGINEER/OWNER PRIOR TO THE AWARD OF CONTRACT. ENGINEER/OWNER WILL SUBMIT OFFICIAL RESPONSES IN WRITING. INTERPRETATIONS PRESENTED IN OFFICIAL RESPONSES SHALL BE BINDING ON ALL PARTIES ASSOCIATED WITH THE CONTRACT. IN NO WAY SHALL WORD-OF-MOUTH DIALOG CONSTITUTE AN OFFICIAL RESPONSE.
7. PRIOR TO START OF WORK, CONTRACTOR SHALL BE COMPLETELY FAMILIAR WITH ALL CONDITIONS OF THE SITE, AND SHALL ACCOUNT FOR CONDITIONS THAT AFFECT, OR MAY AFFECT CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, LIMITATIONS OF WORK ACCESS, SPACE LIMITATIONS, OVERHEAD OBSTRUCTIONS, TRAFFIC PATTERNS, LOCAL REQUIREMENTS, ADJACENT ACTIVITIES, ETC. FAILURE TO CONSIDER SITE CONDITIONS SHALL NOT BE CAUSE FOR CLAIM OF JOB EXTRAS.
8. COMMENCEMENT OF CONSTRUCTION SHALL EXPLICITLY CONFIRM THAT THE CONTRACTOR HAS REVIEWED THE PLANS AND SPECIFICATIONS IN ENTIRETY AND CERTIFIES THAT THEIR SUBMITTED BID PROPOSAL CONTAINS PROVISIONS TO COMPLETE THE PROJECT, WITH THE EXCEPTION OF UNFORESEEN FIELD CONDITIONS; ALL APPLICABLE PERMITS HAVE BEEN OBTAINED; AND CONTRACTOR UNDERSTANDS ALL OF THE REQUIREMENTS OF THE PROJECT.
9. SHOULD ANY DISCREPANCIES OR CONFLICTS IN THE PLANS OR SPECIFICATIONS BE DISCOVERED AFTER THE AWARD OF CONTRACT, ENGINEER SHALL BE NOTIFIED IN WRITING IMMEDIATELY AND CONSTRUCTION OF ITEMS AFFECTED BY THE DISCREPANCIES/CONFLICTS SHALL NOT COMMENCE, OR CONTINUE, UNTIL A WRITTEN RESPONSE FROM ENGINEER/OWNER IS DISTRIBUTED. IN THE EVENT OF A CONFLICT BETWEEN REFERENCED CODES, STANDARDS, SPECIFICATIONS AND PLANS, THE ONE ESTABLISHING THE MOST STRINGENT REQUIREMENTS SHALL BE FOLLOWED.
10. THE CONTRACTOR SHALL, AT ITS OWN EXPENSE, OBTAIN ALL NECESSARY PERMITS AND LICENSES TO COMPLETE THE PROJECT. OBTAINING PERMITS, OR DELAYS, IS NOT CAUSE FOR DELAY OF THE CONTRACT OR SCHEDULE. CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS.
11. THE CONTRACTOR SHALL NOTIFY ALL INTERESTED GOVERNING AGENCIES, UTILITY COMPANIES AFFECTED BY THIS CONSTRUCTION PROJECT, AND DIGGER'S HOTLINE IN ADVANCE OF CONSTRUCTION TO COMPLY WITH ALL JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., PERMIT STIPULATIONS, AND OTHER APPLICABLE STANDARDS.
12. SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE TO INITIATE, INSTITUTE, ENFORCE, MAINTAIN, AND SUPERVISE ALL SAFETY PRECAUTIONS AND JOB SITE SAFETY PROGRAMS IN CONNECTION WITH THE WORK.
13. CONTRACTOR SHALL KEEP THE JOBSITE CLEAN AND ORDERLY AT ALL TIMES. ALL LOCATIONS OF THE SITE SHALL BE KEPT IN A WORKING MANNER SUCH THAT DEBRIS IS REMOVED CONTINUOUSLY AND ALL RESPECTIVE CONTRACTORS OPERATE UNDER GENERAL "GOOD HOUSEKEEPING."
14. THE CONTRACTOR SHALL INDEMNIFY THE CITY, CITY ENGINEER, CITY BUILDING INSPECTOR, OWNER, ENGINEER, AND THEIR AGENTS FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.
15. PRIOR TO CONSTRUCTION, A PRECONSTRUCTION MEETING MUST BE HELD AT THE CITY OFFICES. THE PRECONSTRUCTION MEETING SHALL BE SCHEDULED AND MODERATED BY THE DESIGN ENGINEER OF RECORD.

DIGGERS HOTLINE
Toll Free (800) 242-8511
Milwaukee Area (414) 259-1181
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

EXPIRATION DATE: JULY 31, 2026

PINNACLE ENGINEERING GROUP, LLC
ENGINEER'S LIMITATION

PINNACLE ENGINEERING GROUP, LLC AND THEIR CONSULTANTS DO NOT WARRANT OR GUARANTEE THE ACCURACY AND COMPLETENESS OF THE DELIVERABLES HEREIN BEYOND A REASONABLE DILIGENCE. IF ANY MISTAKES, OMISSIONS, OR DISCREPANCIES ARE FOUND TO EXIST WITHIN THE DELIVERABLES, THE ENGINEER SHALL BE PROMPTLY NOTIFIED PRIOR TO BID SO THAT HE MAY HAVE THE OPPORTUNITY TO TAKE WHATEVER STEPS NECESSARY TO RESOLVE THEM. FAILURE TO PROMPTLY NOTIFY THE ENGINEER OF SUCH CONDITIONS SHALL ABSOLVE THE ENGINEER FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES OF SUCH FAILURE. ACTIONS TAKEN WITHOUT THE KNOWLEDGE AND CONSENT TO THE ENGINEER, OR IN CONTRADICTION TO THE ENGINEER'S DELIVERABLES OR RECOMMENDATIONS, SHALL BECOME THE RESPONSIBILITY NOT OF THE ENGINEER BUT OF THE PARTIES RESPONSIBLE FOR TAKING SUCH ACTION.

FURTHERMORE, PINNACLE ENGINEERING GROUP, LLC IS NOT RESPONSIBLE FOR CONSTRUCTION SAFETY OR THE MEANS AND METHODS OF CONSTRUCTION.

DRAFTED: DRL
DESIGNED: APH
REVIEWED: TGM

PLAN | DESIGN | DELIVER
www.pinnacle-engr.com

PINNACLE ENGINEERING GROUP
ENGINEERING | NATURAL RESOURCES | SURVEYING

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CHICAGO | MILWAUKEE : NATIONWIDE

PROJECT GRAVITY

NEW BERLIN, WI

COVER SHEET

REVISIONS

PEG JOB NO. 594.00A
PEG PM TGM
PLAN DATE 07/02/26
SCALE N.T.S.

SHEET
C-1.0
OF
C-5.1

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COVER SHEET

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EROSION & SEDIMENT CONTROL NOTES

1. ALL EROSION CONTROL PLANS FOR A CONSTRUCTION AND POST CONSTRUTION SITE SHALL BE IN ACCORDANCE WITH "CH. NR 216.47, AND NR 151 OF THE WISCONSIN ADMININSTRATION CODE". ALL EROSION CONTROL, SITE STABILIZATION PRACTICES, AND SEDIMENT CONTROL PRACTICES USED SHALL FOLLOW WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) TECHNICAL STANDARDS AND BEST MANAGEMENT PRACTICES FOR CONSTRUCTION SITES.
2. ALL EROSION CONTROL AND STORMWATER PRODUCTS SHALL FOLLOW THE WISCONSIN DEPARTMENT OF TRANSPORTATION PRODUCT ACCEPTIBILITY LIST (PAL) FOR EROSION MATS, TACKTIFIERS, SOIL STABILIZERS, INLET PROTECTION, AND TEMPORARY DITCH CHECKS FOR PRODUCTS AND INSTALLATION STANDARDS.
3. ALL CONSTRUCTION SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT ("WPDES" PERMIT NO. WI-S067831-4) FOR CONSTRUCTION SITE LAND DISTURBANCE ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL TECHNICAL STANDARDS AND PROVISIONS IN EFFECT AT THE TIME OF CONSTRUCTION. THESE PROCEDURES AND STANDARDS SHALL BE REFERRED TO AS BEST MANAGEMENT PRACTICES (BMP'S). IT IS THE RESPONSIBILITY OF ALL CONTRACTORS ASSOCIATED WITH THE PROJECT TO OBTAIN A COPY OF, AND UNDERSTAND, THE BMP'S PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
4. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL CONTROL MEASURES AS DIRECTED BY OWNER/ENGINEER OR GOVERNING AGENCIES SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
5. POST WDNR CERTIFICATE OF PERMIT COVERAGE ON SITE AND MAINTAIN UNTIL CONSTRUCTION ACTIVITIES HAVE CEASED, THE SITE IS STABILIZED, AND A NOTICE OF TERMINATION IS FILES WITH WDNR.
6. KEEP A COPY OF THE CURRENT EROSION CONTROL PLAN ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
7. KEEP A COPY OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN THE FIELD OFFICE THROUGHOUT THE DURATION OF THE PROJECT. ANY MODIFICATIONS TO THE APPROVED SWPPP IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS ARE ALLOWED IF MODIFICATIONS CONFORM TO APPLICABLE BMP'S. ALL MODIFICATIONS MUST BE APPROVED BY OWNER/ENGINEER/GOVERNING AGENCY PRIOR TO DEVIATION OF THE APPROVED PLAN.
8. INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCES, SILT FENCE AND EXISTING INLET PROTECTION) PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN IN ORDER TO PROTECT ADJACENT PROPERTIES/STORM SEWER SYSTEMS FROM SEDIMENT TRANSPORT.
9. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL LOCATIONS OF VEHICLE INGRESS/EGRESS POINTS. CONTRACTOR IS RESPONSIBLE TO COORDINATE LOCATION(S) WITH THE PROPER AUTHORITIES, PROVIDE NECESSARY FEES AND OBTAIN ALL REQUIRED APPROVALS OR PERMITS. ADDITIONAL CONSTRUCTION ENTRANCES OTHER THAN AS SHOWN ON THE PLANS MUST BE APPROVED BY THE APPLICABLE GOVERNING AGENCIES PRIOR TO INSTALLATION.
10. PAVED SURFACES ADJACENT TO CONSTRUCTION ENTRANCES SHALL BE SWEPT AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST IMMEDIATELY AND AS REQUESTED BY GOVERNING AGENCIES.
11. ALL EXISTING STORM SEWER FACILITIES THAT WILL COLLECT RUNOFF FROM DISTURBED AREAS SHALL BE PROTECTED TO PREVENT SEDIMENT DEPOSITION WITHIN STORM SEWER SYSTEMS. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL EXISTING AND INSTALLED STORM SEWER STRUCTURES WITHIN THE PROJECT ARE OR AS DIRECTED BY THE ENGINEER. ALL INLETS, STRUCTURES, PIPES, AND SWALES SHALL BE KEPT CLEAN AND FREE OF SEDIMENTATION AND DEBRIS.
12. EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, WATER MAIN, ETC.) OUTSIDE OF THE PERIMETER CONTROLS SHALL INCORPORATE THE FOLLOWING:
    - 12.1. PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
    - 12.2. BACKFILL, COMPACT AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
    - 12.3. DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH BMP'S PRIOR TO RELEASE INTO STORM SEWER OR DITCHES.
13. AT A MINIMUM, SEDIMENT BASINS AND NECESSARY TEMPORARY DRAINAGE PROVISIONS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE BEGINNING OF SIGNIFICANT MASS GRADING OPERATIONS TO PREVENT OFFSITE DISCHARGE OF UNTREATED RUNOFF.
14. ALL WATERCOURSES AND WETLANDS SHALL BE PROTECTED WITH SILT FENCE TO PREVENT ANY DIRECT DISCHARGE FROM DISTURBED SOILS, IF APPLICABLE.
15. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE OWNER WILL BE RESPONSIBLE IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT.
16. TOPSOIL STOCKPILES SHALL HAVE A PERIMETER BERM OR TRENCH AND SILT FENCE INSTALLED TO CONTROL SILT. IF TOPSOIL STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IS REQUIRED.
17. EROSION CONTROL MEASURES TEMPORARILY REMOVED FOR UNAVOIDABLE CONSTRUCTION ACTIVITIES SHALL BE IN WORKING ORDER IMMEDIATELY FOLLOWING COMPLETION OF SUCH ACTIVITIES OR PRIOR TO THE COMPLETION OF EACH WORKDAY, WHICH EVER OCCURS FIRST.
18. MAINTAIN SOIL EROSION CONTROL DEVICES THROUGH THE DURATION OF THIS PROJECT. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. DISTURBANCES ASSOCIATED WITH EROSION CONTROL REMOVAL SHALL BE IMMEDIATELY STABILIZED.
19. PUMPS MAY BE USED AS BYPASS DEVICES. IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS. PUMP DISCHARGE SHALL BE DIRECTED INTO AN APPROVED FILTER BAG OR APPROVED SETTLING DEVICE.
20. GRADING EFFORTS SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. EROSION AND SEDIMENT CONTROL MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY OR PERMANENT MEASURES. ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR A PERIOD OF SEVEN (7) DAYS REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH TECHNICAL STANDARDS.
21. ALL DISTURBED SLOPES 4:1 OR GREATER, SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S75BN EROSION MATTING (OR APPROVED EQUAL) AND ALL CHANNELS SHALL BE STABILIZED WITH NORTH AMERICAN GREEN C125BN (OR APPROVED EQUAL) OR APPLICATION OF AN APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED. EROSION MATTING AND/OR NETTING USED ONSITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES.
22. DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL KEEP A WATER TRUCK ON SITE FOR THE PURPOSE OF WATERING DOWN SOILS WHICH MAY OTHERWISE BECOME AIRBORNE.THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING WIND EROSION (DUST) DURING CONSTRUCTION AT HIS/HER EXPENSE.
23. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE VISUALLY INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM ON A DAILY BASIS.
24. QUALIFIED PERSONNEL (PROVIDED BY THE GENERAL/PRIME CONTRACTOR) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AND EROSION AND SEDIMENT CONTROLS WITHIN 24 HOURS OF ALL 0.5-INCH, OR MORE, PRECIPITATION EVENTS WITH A MINIMUM INSPECTION INTERVAL OF ONCE EVERY SEVEN (7) CALENDAR DAYS IN THE ABSENCE OF A QUALIFYING RAIN OR SNOWFALL EVENT. REPORTING SHALL BE IN ACCORDANCE WITH OF THE GENERAL PERMIT. CONTRACTOR SHALL IMMEDIATELY ARRANGE TO HAVE ANY DEFICIENT ITEMS REVEALED DURING INSPECTIONS REPAIRED/REPLACED.
25. SEE ADDITIONAL NOTES AND DETAILS ON THE CONSTRUCTION DETAIL SHEET(S).

GENERAL UTILITY NOTES

1. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN (LATEST EDITION AND ADDENDUM) AND THE CITY OF NEW BERLIN INFRASTRUCTURE STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.
2. EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE TYPE, LOCATION, SIZE AND ELEVATION OF UNDERGROUND UTILITIES AS THEY DEEM NECESSARY FOR PROPOSED UTILITY CONNECTIONS AND/OR TO AVOID DAMAGE THERETO. CONTRACTOR SHALL CALL "DIGGER'S HOTLINE" PRIOR TO ANY CONSTRUCTION.
3. LENGTHS OF PROPOSED UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS ARE SHOWN FOR CONTRACTOR CONVENIENCE ONLY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPUTATIONS OF MATERIALS REQUIRED TO COMPLETE WORK. LENGTHS SHALL BE FIELD VERIFIED DURING CONSTRUCTION.
4. CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT EXISTING UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH FINISHED GRADES OF THE AREAS DISTURBED DURING CONSTRUCTION.
5. CONTRACTOR SHALL FIELD VERIFY LOCATIONS, ELEVATIONS, AND SIZES OF PROPOSED UTILITIES AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS PRIOR TO ATTEMPTING CONNECTIONS AND BEGINNING UTILITY CONSTRUCTION AND NOTIFY THE OWNER OF ANY DISCREPANCIES OR CONFLICTS.
6. ALL NEW ON-SITE SANITARY, STORM AND WATER UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER, EXCEPT FOR THOSE UTILITIES IDENTIFIED AS PUBLIC.
7. THE CONTRACTOR SHALL CONTACT THE NEW BERLIN PUBLIC WORKS DEPARTMENT AND/OR UTILITIES DEPARTMENT, A MINIMUM OF, 48-HOURS IN ADVANCE OF SANITARY, WATER AND STORM CONNECTIONS TO THE MUNICIPAL-OWNED SYSTEM TO SCHEDULE INSPECTIONS.
8. ROUTING OF GAS, ELECTRIC AND TELEPHONE SERVICES ARE SHOWN ON THE ARCHITECTURAL PLANS AND SUBJECT TO CHANGE BASED UPON FINAL REVIEW AND APPROVAL BY RESPECTIVE UTILITY COMPANIES AND OWNER. CONTRACTOR SHALL CONTACT EACH UTILITY COMPANY AND COORDINATE FINAL LOCATIONS FOR ALL UTILITY SERVICES PRIOR TO START OF CONSTRUCTION.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROPER AUTHORITIES FOR ANY REQUIRED PERMITS, AUTHORIZATIONS, TRAFFIC CONTROL AND ANY PERMIT FEES REQUIRED.
10. SEE UTILITY SPECIFIC PLANS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION.

WATER UTILITY NOTES

1. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN (LATEST EDITION AND ADDENDUM) AND THE CITY OF NEW BERLIN INFRASTRUCTURE STANDARDS AND SPECIFICATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.
2. PIPE MATERIALS:
    - 2.1. WATER MAIN SHALL BE POLYVINYL CHLORIDE (PVC) PIPE MEETING THE REQUIREMENTS OF AWWA STANDARD C-900, CLASS 200, DR-18, WITH PUSH-ON TYPE INTEGRAL ELASTOMERIC BELL AND SPIGOT JOINTS.
    - 2.2. CONTRACTOR TO REFER TO CITY OF NEW BERLIN INFRASTRUCTURE STANDARDS FOR LIST OF ACCEPTABLE MANUFACTURERS OF PVC WATER PIPE.
3. STRUCTURES:
    - 3.1. VALVES AND VALVE BOXES -- BUTTERFLY VALVES SHALL BE USED FOR 12" AND LARGER DIAMETER PIPE. RW GATE VALVES SHALL BE USED FOR 10" AND SMALLER DIAMETER PIPE. VALVES AND VALVE BOXES SHALL CONFORM TO AWWA C504-94 AND CHAPTER 8.27.0 OF THE "STANDARD SPECIFICATIONS" AND THE CITY OF NEW BERLIN INFRASTRUCTURE STANDARDS.
    - 3.2. HYDRANTS - HYDRANTS MEET THE REQUIREMENTS OF FILE NO. 38 OF THE "STANDARD SPECIFICATIONS" AND SHALL CONFORM TO THE CITY OF NEW BERLIN INFRASTRUCTURE STANDARDS.
    - 3.3. ALL DUCTILE FITTINGS, VALVES, AND VALVE BOXES SHALL CONFORM WITH ALL GOVERNING MUNICIPAL REQUIREMENTS AND SHALL BE TRIPLE WRAPPED AND SECURELY TAPED AROUND WITH POLYETHYLENE AS SPECIFIED IN CHAPTER 4.4.4 AND 8.21.0 OF THE "STANDARD SPECIFICATIONS" AND AS SPECIFIED IN THE CITY OF NEW BERLIN INFRASTRUCTURE STANDARDS.
4. BACKFILL, BEDDING AND COVER MATERIAL:
    - 4.1. PIPE BEDDING - SHALL BE 3/8" LIMESTONE CHIPS FOR PVC/PVCO PIPE AND HDPE SERVICES, ALL DUCTILE IRON PIPE, FITTINGS AND COPPER SERVICES SHALL USE "TORPEDO" SAND. NO. 1 CLEAN STONE SHALL BE PLACED WITHIN A 5 FOOT RADIUS OF VALVES AND VALVE BOXES. BEDDING SHALL CONFORM TO CHAPTER 8.43.2 OF THE "STANDARD SPECIFICATIONS" AND THE CITY OF NEW BERLIN INFRASTRUCTURE STANDARDS.
    - 4.2. COVER MATERIAL - SHALL NOT BE STONE, ROCK OR OTHER SIMILAR MATERIAL WITH A SIEVE SIZE GREATER THAN 1" AND SHALL CONFORM TO CHAPTER 8.43.3 OF THE "STANDARD SPECIFICATIONS" AND THE CITY OF NEW BERLIN INFRASTRUCTURE STANDARDS.
    - 4.3. SPOIL BACKFILL - BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 2.6.0 AND CHAPTER 8.43.5 OF THE "STANDARD SPECIFICATIONS" AND CONFORM TO THE CITY OF NEW BERLIN INFRASTRUCTURE STANDARDS.
    - 4.4. GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 2.6.0, CHAPTER 8.43.4, AND CHAPTER 8.43.6 OF THE "STANDARD SPECIFICATIONS" AND CONFORM TO THE CITY OF NEW BERLIN INFRASTRUCTURE STANDARDS.
    - 4.5. SLURRY BACK FILL IS REQUIRED UNDER PUBLIC ROAD PAVEMENT. SLURRY PLACEMENT LIMITS: FROM TOP OF COVER STONE TO TOP OF THE AGGREGATE BASE ELEVATION. SLURRY TO BE 1-BAG PORTLAND MIX. MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 8.43.8 OF THE "STANDARD SPECIFICATIONS" AND CONFORM TO THE CITY OF NEW BERLIN INFRASTRUCTURE STANDARDS.
    - 4.6. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED TRENCH SPOIL MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".
5. SEE ADDITIONAL NOTES AND DETAILS ON THE CONSTRUCTION DETAIL SHEET(S).

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BROOKFIELD, WI 53186
(262) 754-8888
CHICAGO I MILWAUKEE : NATIONWIDE

PROJECT GRAVITY

NEW BERLIN, WI

CONSTRUCTION DETAILS

REVISIONS

PEG JOB No. 594.00A
PEG PM TGM
PLAN DATE 07/02/26
SCALE N.T.S.

SHEET
C-2.0
OF
C-5.1

GENERAL NOTES

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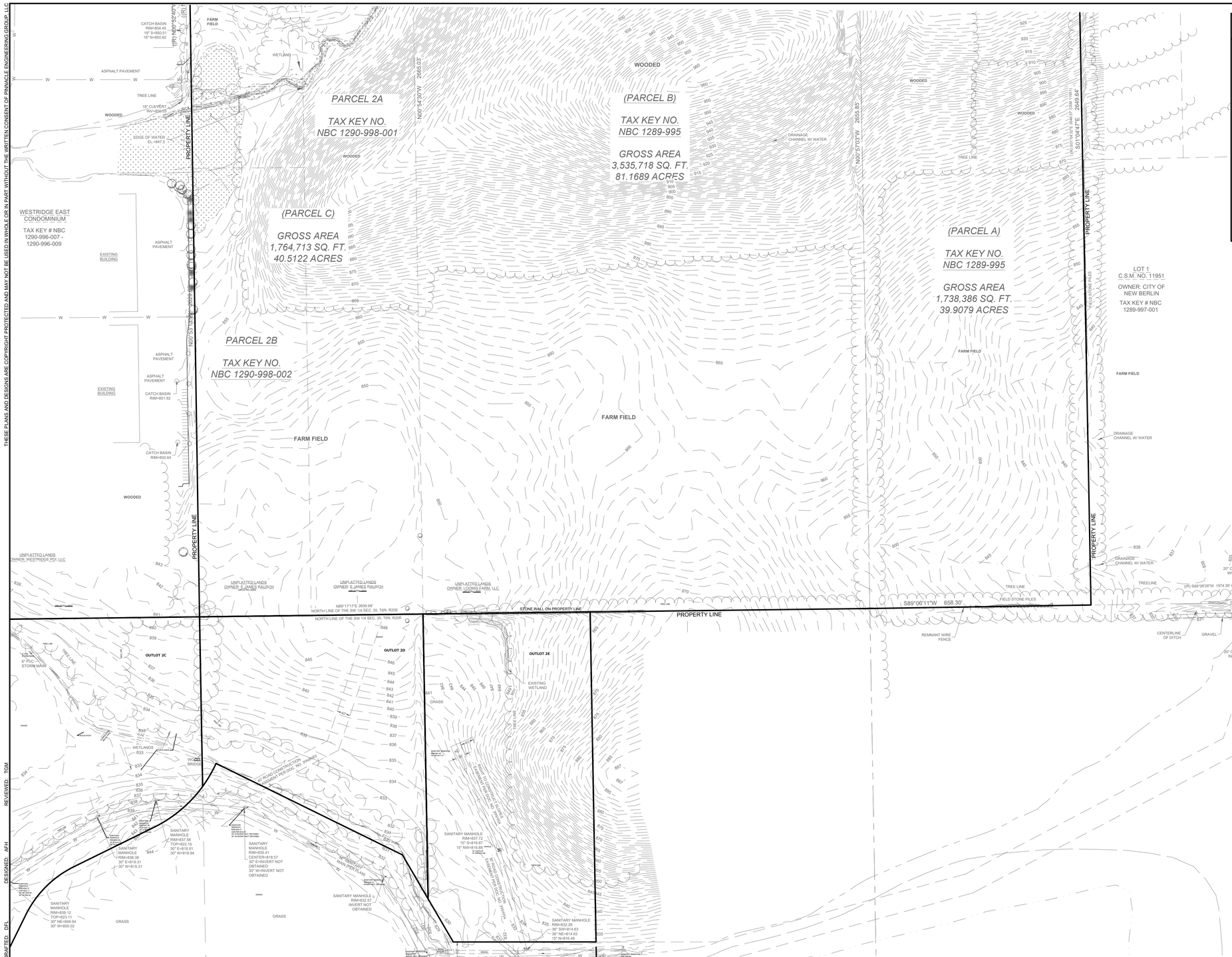
PARCEL 2A
TAX KEY NO.
NBC 1290-998-001
PARCEL 2B
TAX KEY NO.
NBC 1290-998-002
(PARCEL C)
GROSS AREA
1,764,713 SQ. FT.
40.5122 ACRES
(PARCEL B)
TAX KEY NO.
NBC 1289-995
GROSS AREA
3,535,718 SQ. FT.
81.1689 ACRES
(PARCEL A)
TAX KEY NO.
NBC 1289-995
GROSS AREA
1,738,386 SQ. FT.
39.9079 ACRES
WESTRIDGE EAST CONDOMINIUM
TAX KEY # NBC
1290-996-007 -
1290-996-009
LOT 1
C.S.M. NO. 11951
OWNER: CITY OF NEW BERLIN
TAX KEY # NBC
1289-997-001
PROPERTY LINE
FARM FIELD
WOODED
WETLAND
EXISTING BUILDING
ASPHALT PAVEMENT
TREE LINE
EDGE OF WATER
DRAINAGE CHANNEL W/ WATER
STONE WALL ON PROPERTY LINE
FIELD STONE PILES
REMNANT WIRE FENCE
UNPLATTED LANDS
OWNER: WESTRIDGE PDI, LLC
UNPLATTED LANDS
OWNER: E JAMES RAUPACH
UNPLATTED LANDS
OWNER: LOOMIS FARM, LLC
OUTLOT 2C
OUTLOT 2D
OUTLOT 2E
EXISTING WETLAND
GRASS
GRAVEL
ASPAHLT
CENTERLINE OF DITCH
TREELINE
24" CULVERT INV=826.65
24" CULVERT INV=825.90
20" CULVERT INV=824.63
20" CULVERT INV=824.35
20" CULVERT INV=823.19
20" CULVERT INV=823.44
EDGE OF WATER
N89°17'17"E 2659.99'
NORTH LINE OF THE SW 1/4 SEC. 35, T9N, R20E
S89°06'11"W 658.30'
N00°54'30"W 2665.03'
N00°57'03"W 2665.85'
S00°04'44"E 2649.68'
(IR) N89°06'26"E 1974.39' (CSM 11951)
(IR) N89°32'40"E 1974.39'
CATCH BASIN RIM=854.45 18" S=850.51 18" N=850.62
CATCH BASIN RIM=851.92
CATCH BASIN RIM=850.64
6" PVC STORM MAIN
WETLANDS
WOOD BRIDGE
10' ROAD CONSTRUCTION EASEMENT PER DOC. NO. 2149429
RIGHT TO CONNECT (ALSO EASEMENT PER DOC. NO. 2149429)
SANITARY MANHOLE RIM=837.72 15" S=816.87 15" NW=816.88
SANITARY MANHOLE RIM=832.26 36" SW=814.63 36" NE=814.63 12" N=816.46
SANITARY MANHOLE RIM=837.56 TOP=822.16 30" E=818.91 30" W=818.94
SANITARY MANHOLE RIM=838.38 30" E=819.31 30" W=819.31
SANITARY MANHOLE RIM=835.41 CENTER=818.57 30" E=INVERT NOT OBTAINED 30" W=INVERT NOT OBTAINED
SANITARY MANHOLE RIM=832.57 INVERT NOT OBTAINED
SANITARY MANHOLE RIM=835.12 TOP=823.11 30" NE=649.94 30" W=850.02
SANITARY MAIN (PER PLAN)
GREASE INTERCEPTOR MANHOLE RIM=838.20 INVERT IN=824.20 INVERT OUT=824.00

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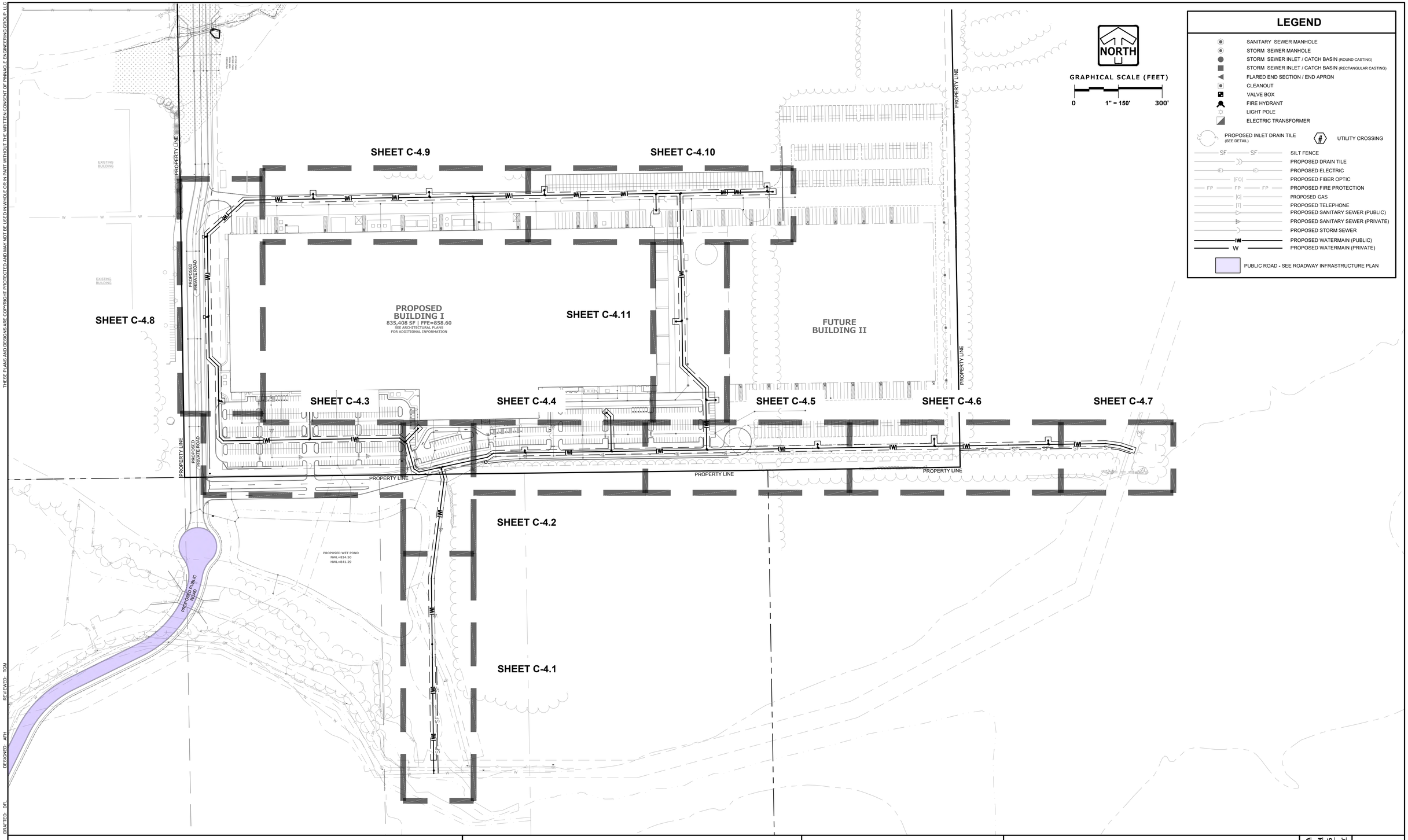

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DRAFTED DFL

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PROJECT GRAVITY

NEW BERLIN, WI

PUBLIC WATERMAIN OVERVIEW

REVISIONS

PEG JOB No. 594.00A
PEG PM TGM
PLAN DATE 07/02/26
SCALE 1" = 150'

SHEET
C-4.0
OF
C-5.1

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PUBLIC WATERMAIN OVERVIEW

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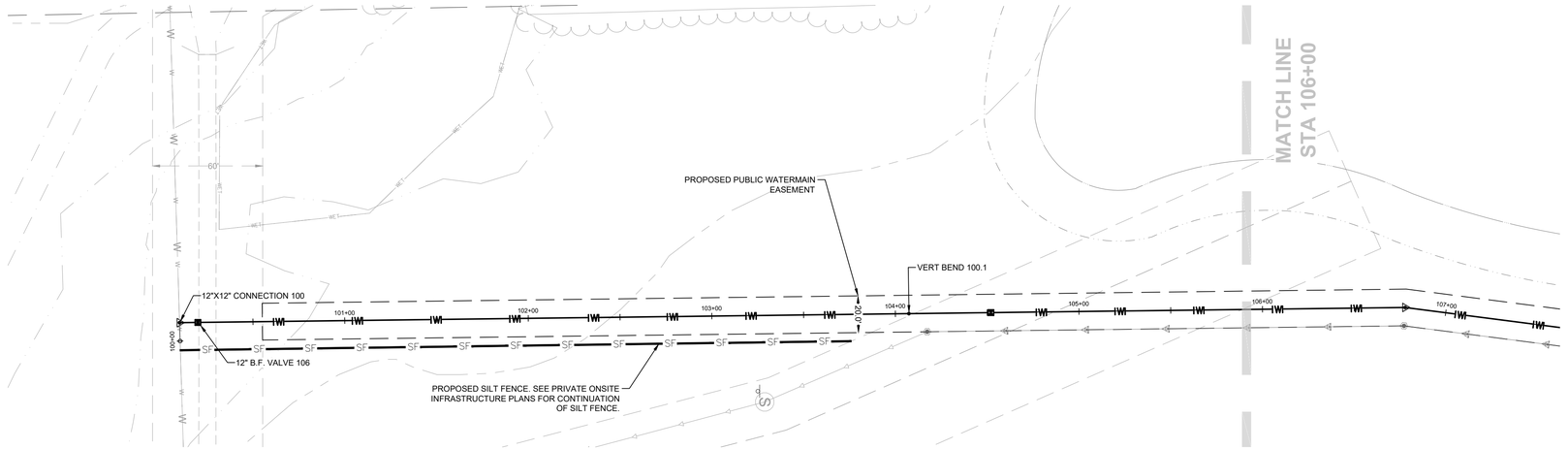
NORTH

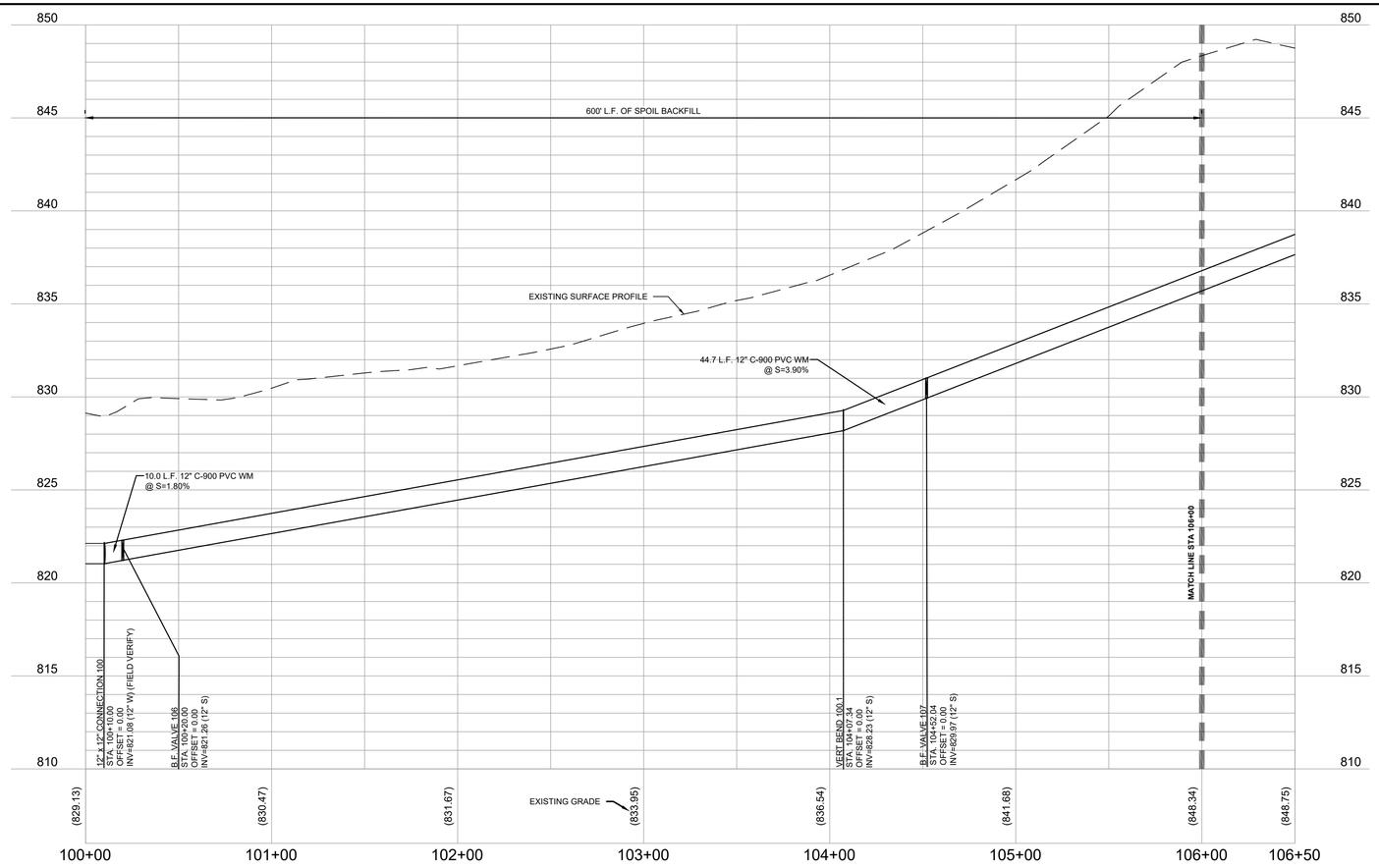
GRAPHICAL SCALE (FEET)

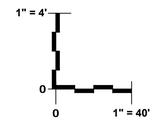
0 1" = 40' 80'



LEGEND

- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- FLARED END SECTION / END APRON
- CLEANOUT
- VALVE BOX
- FIRE HYDRANT
- LIGHT POLE
- ELECTRIC TRANSFORMER
- PROPOSED INLET DRAIN TILE (SEE DETAIL)
- UTILITY CROSSING (#)
- SILT FENCE
- PROPOSED DRAIN TILE
- PROPOSED ELECTRIC
- PROPOSED FIBER OPTIC
- PROPOSED FIRE PROTECTION
- PROPOSED GAS
- PROPOSED TELEPHONE
- PROPOSED SANITARY SEWER (PUBLIC)
- PROPOSED SANITARY SEWER (PRIVATE)
- PROPOSED STORM SEWER
- PROPOSED WATERMAIN (PUBLIC)
- PROPOSED WATERMAIN (PRIVATE)
- PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN





EROSION CONTROL TO BE COORDINATED WITH ONSITE CONSTRUCTION

DISTURBED AREAS SHALL BE TOPSOILED (6") AND HYDROSEEDED PER MANUFACTURERS SPECIFICATIONS

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PEG JOB No. 594.00A
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SCALE 1"= 40'

SHEET
C-4.1
OF
C-5.1

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PUBLIC WATERMAIN PLAN & PROFILE

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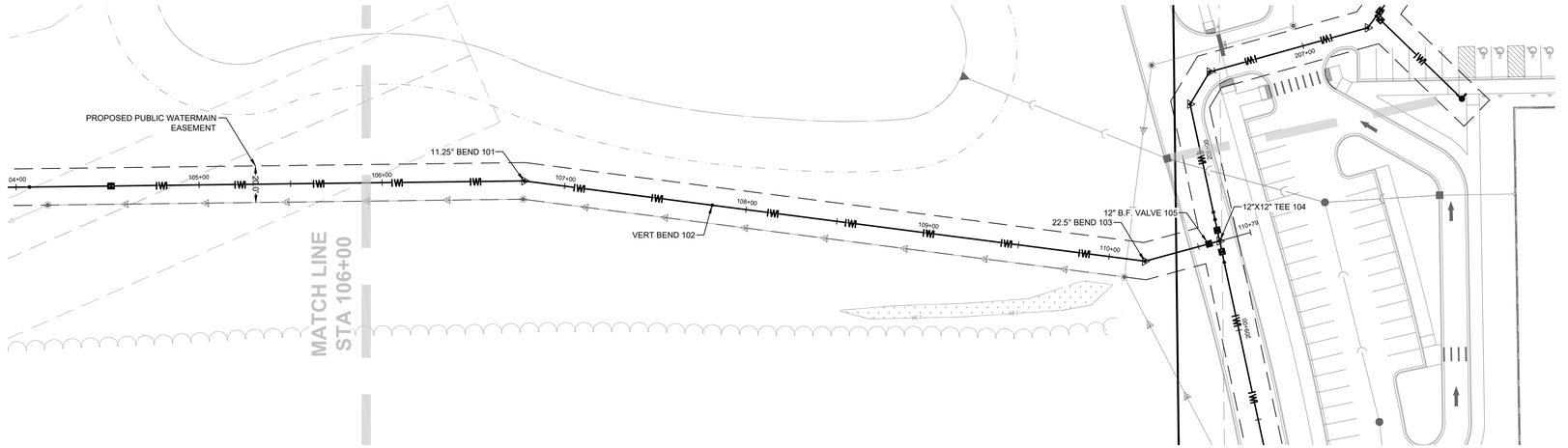

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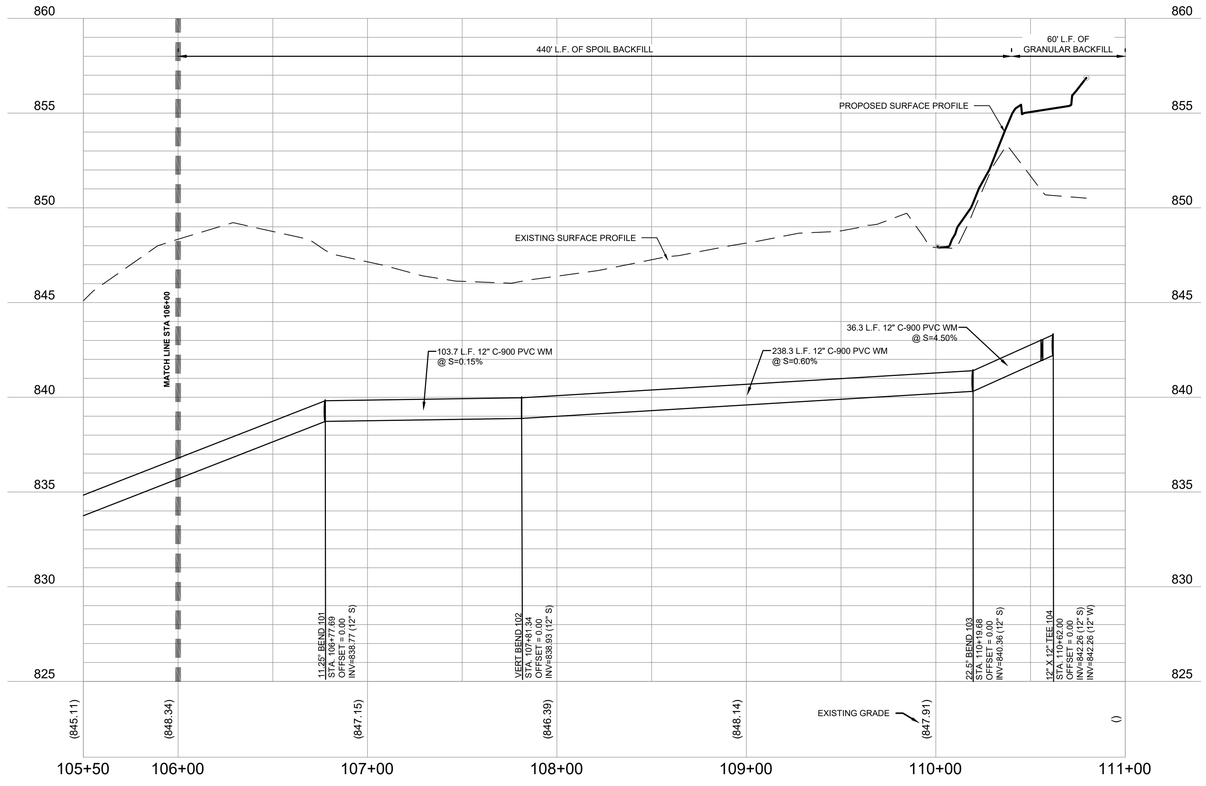
- PROPOSED ELECTRIC
- PROPOSED FIBER OPTIC
- PROPOSED FIRE PROTECTION
- PROPOSED GAS
- PROPOSED TELEPHONE
- PROPOSED SANITARY SEWER (PUBLIC)
- PROPOSED SANITARY SEWER (PRIVATE)
- PROPOSED STORM SEWER
- PROPOSED WATERMAIN (PUBLIC)
- PROPOSED WATERMAIN (PRIVATE)
- PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN



EROSION CONTROL TO BE COORDINATED WITH ONSITE CONSTRUCTION

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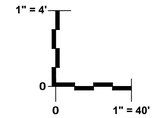

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REVISIONS

PEG JOB No. 594.00A
PEG PM TGM
PLAN DATE 07/02/26
SCALE 1"= 40'

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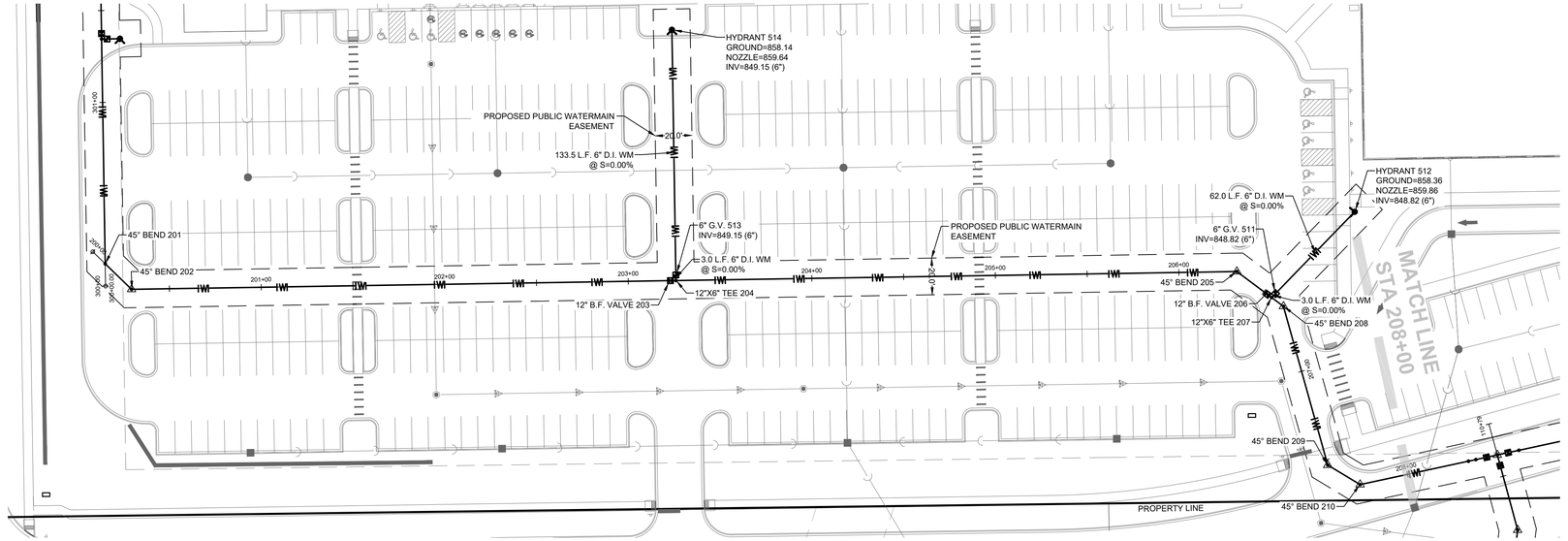
NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'



LEGEND

- SANITARY SEWER MANHOLE
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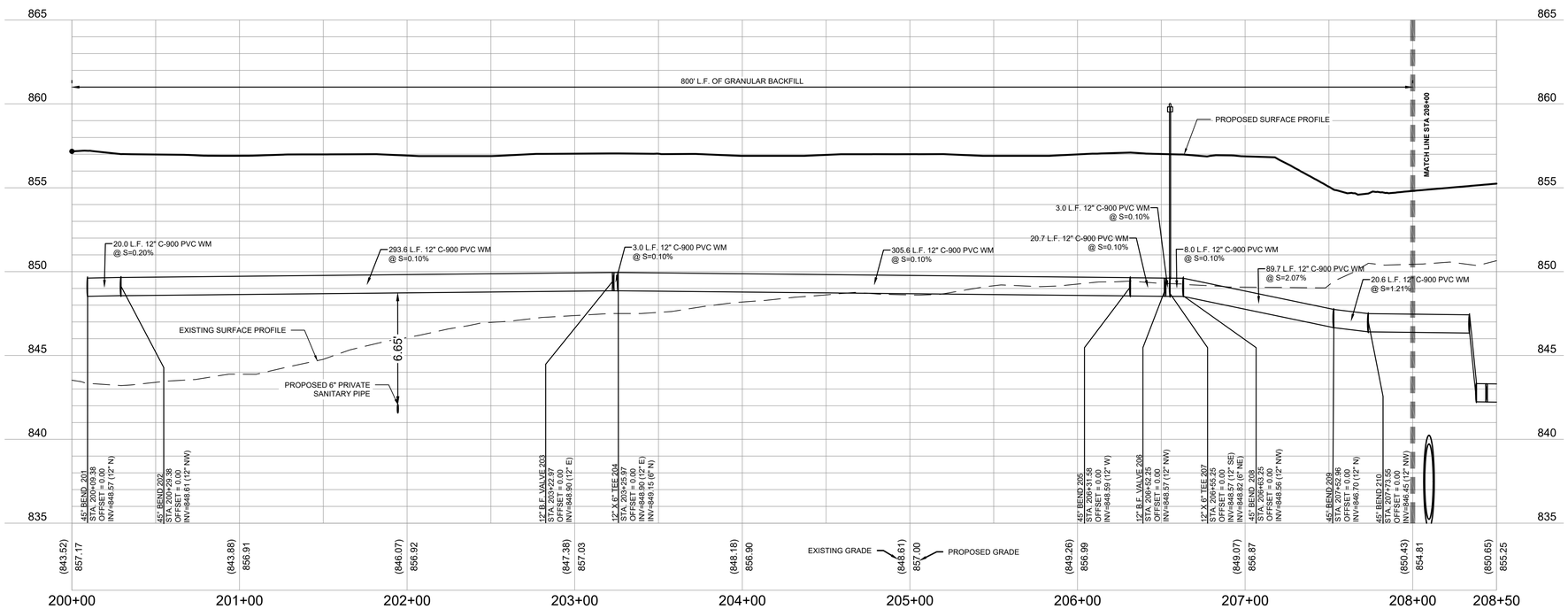

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PEG JOB No. 594.00A
PEG PM TGM
PLAN DATE 07/02/26
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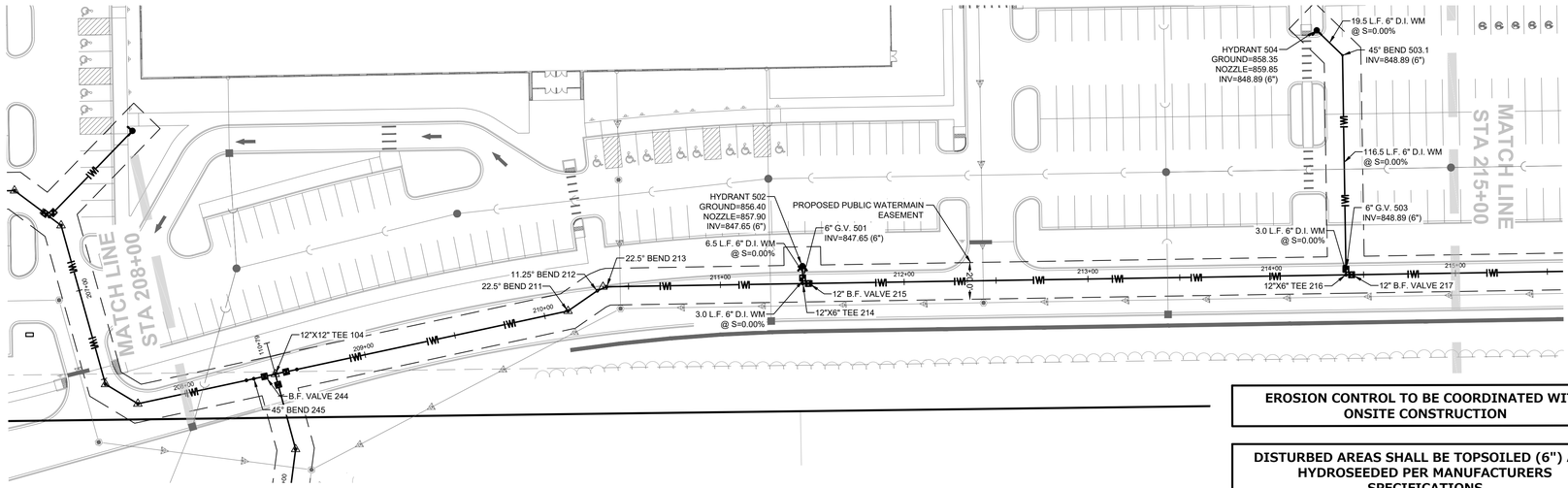
NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'



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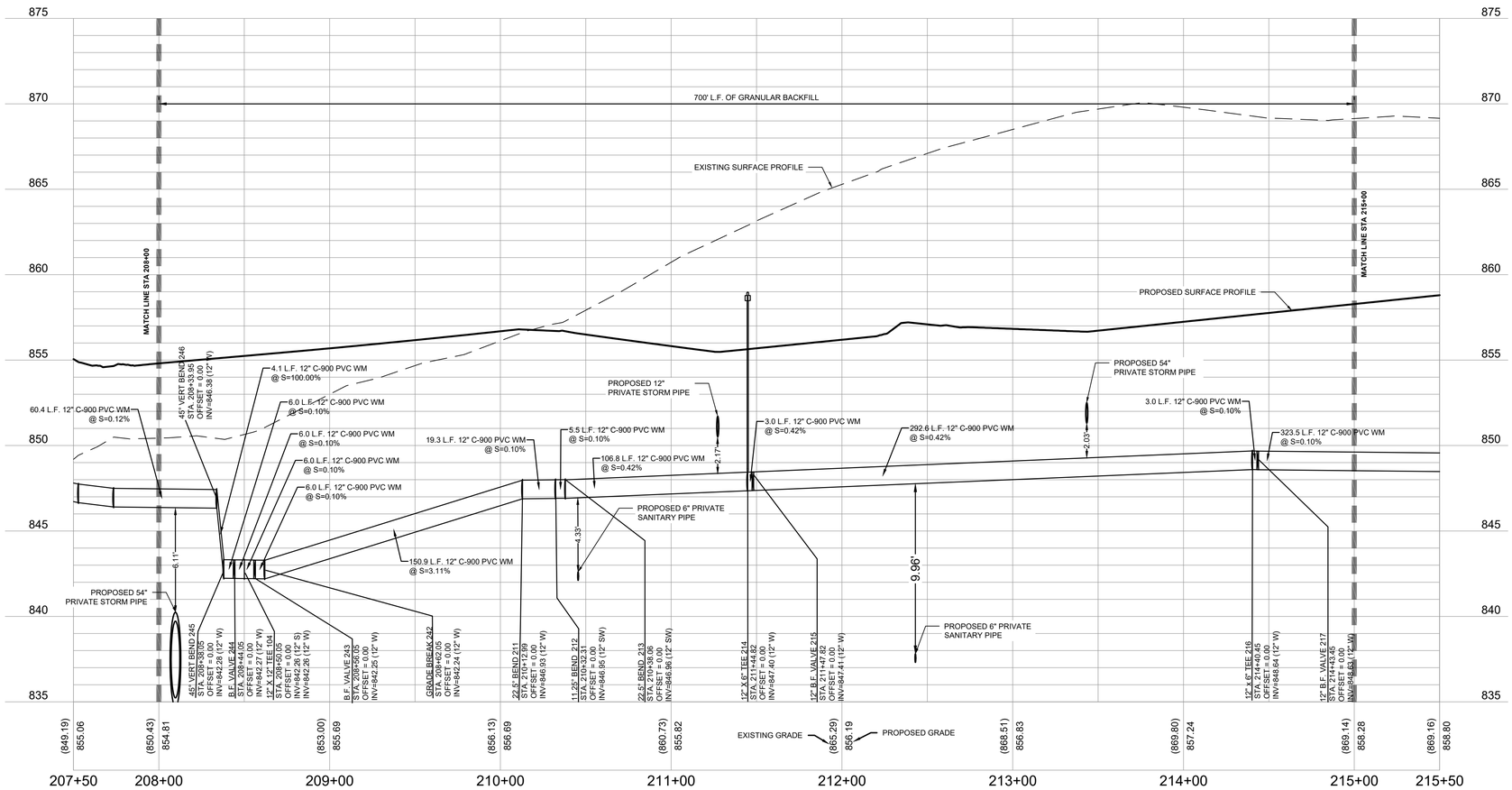

1" = 4'
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NORTH

GRAPHICAL SCALE (FEET)

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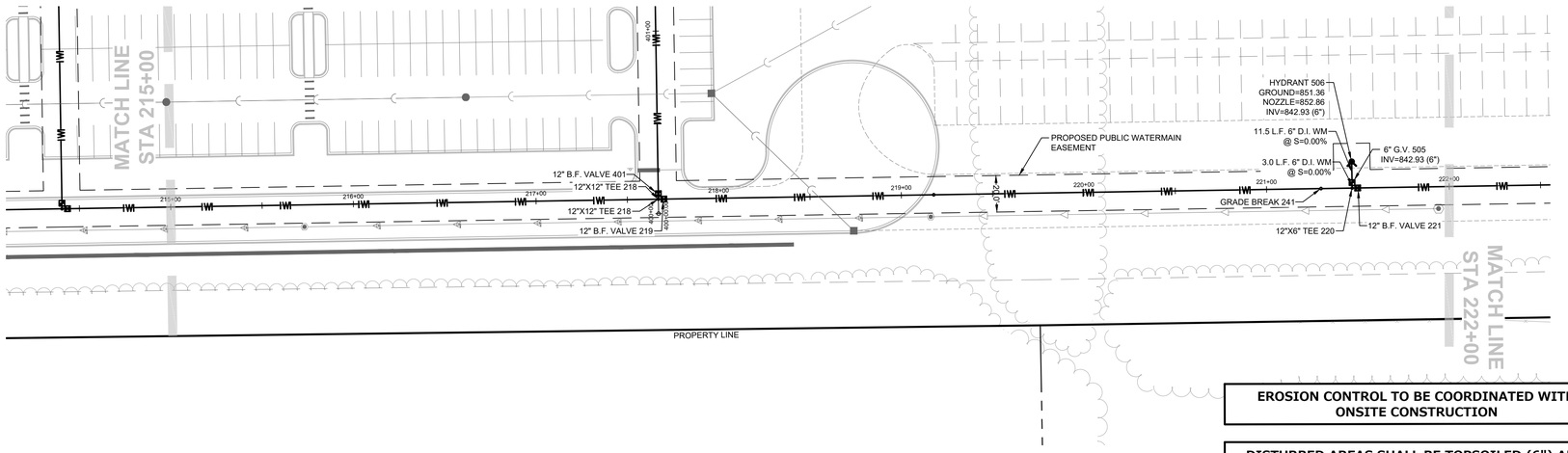

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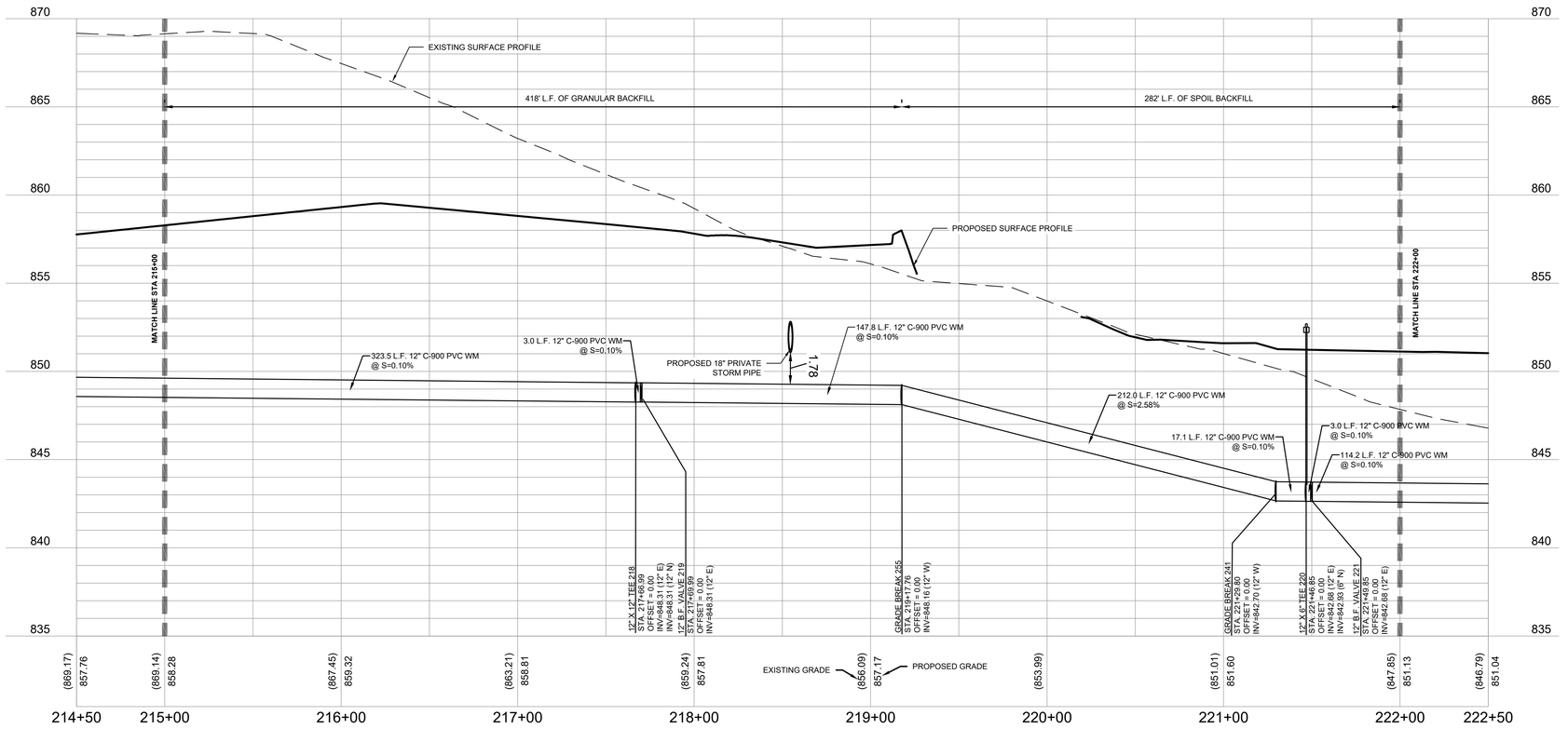

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PEG PM TGM
PLAN DATE 07/02/26
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NORTH

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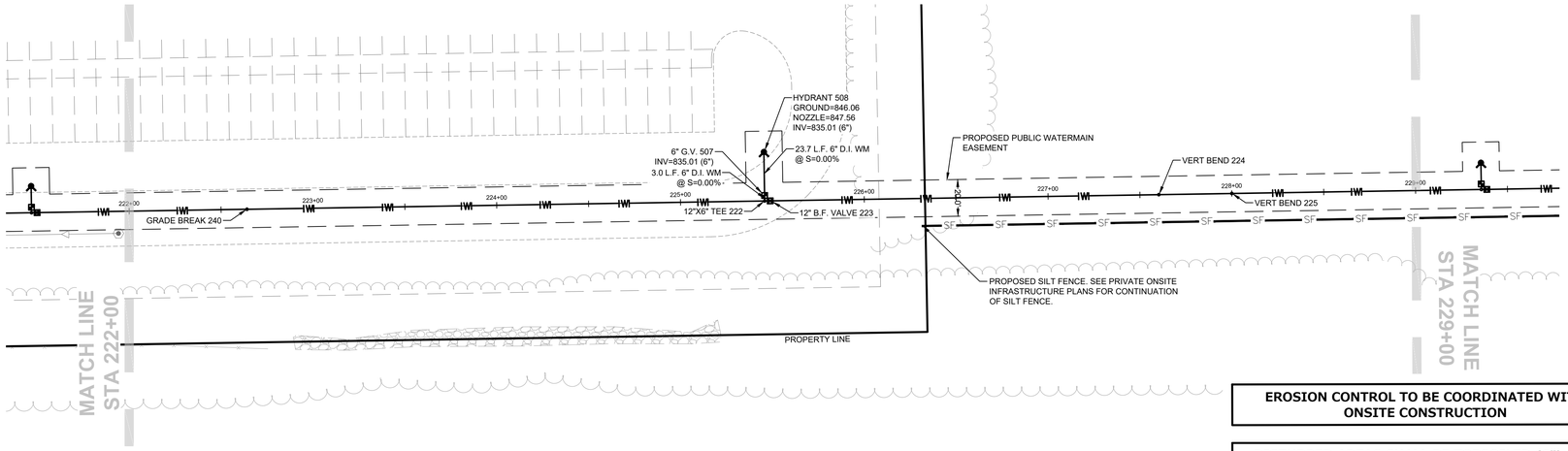

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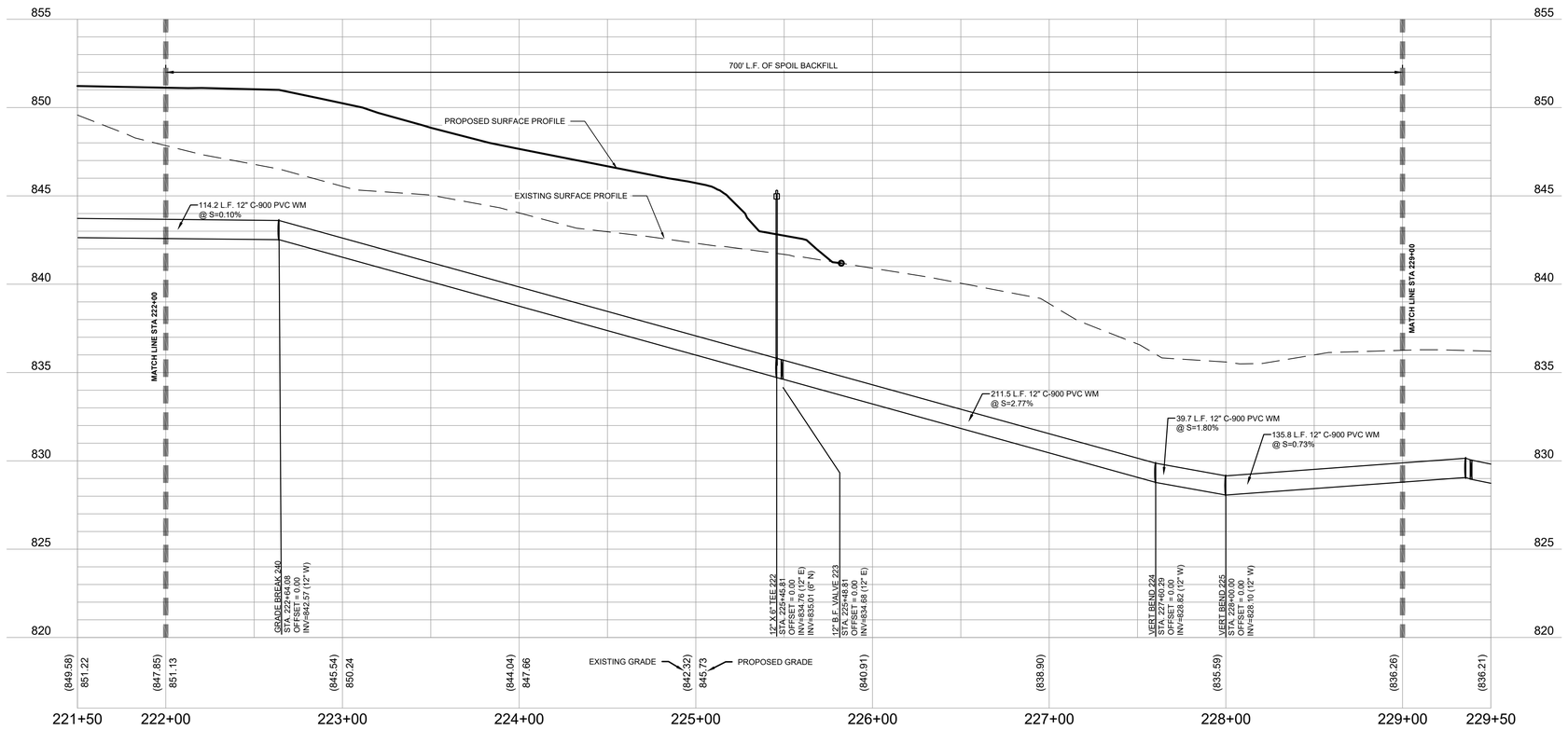

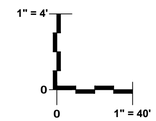

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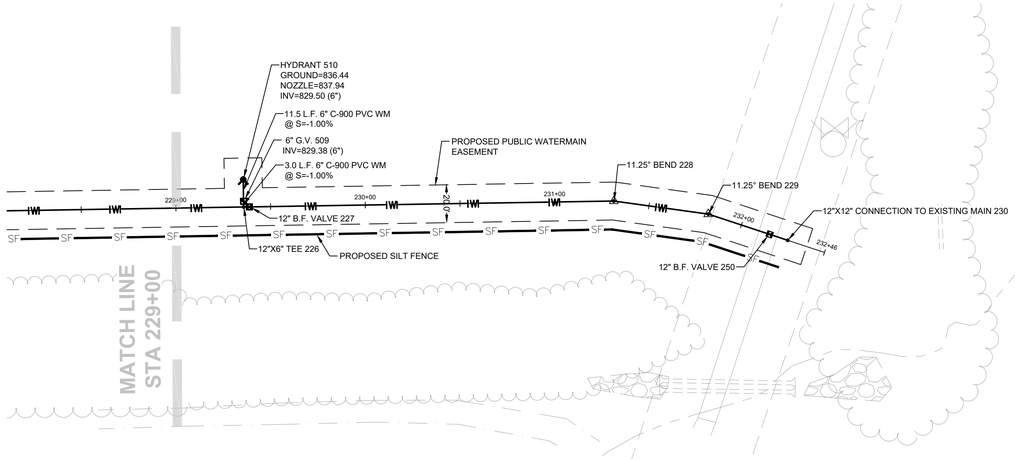

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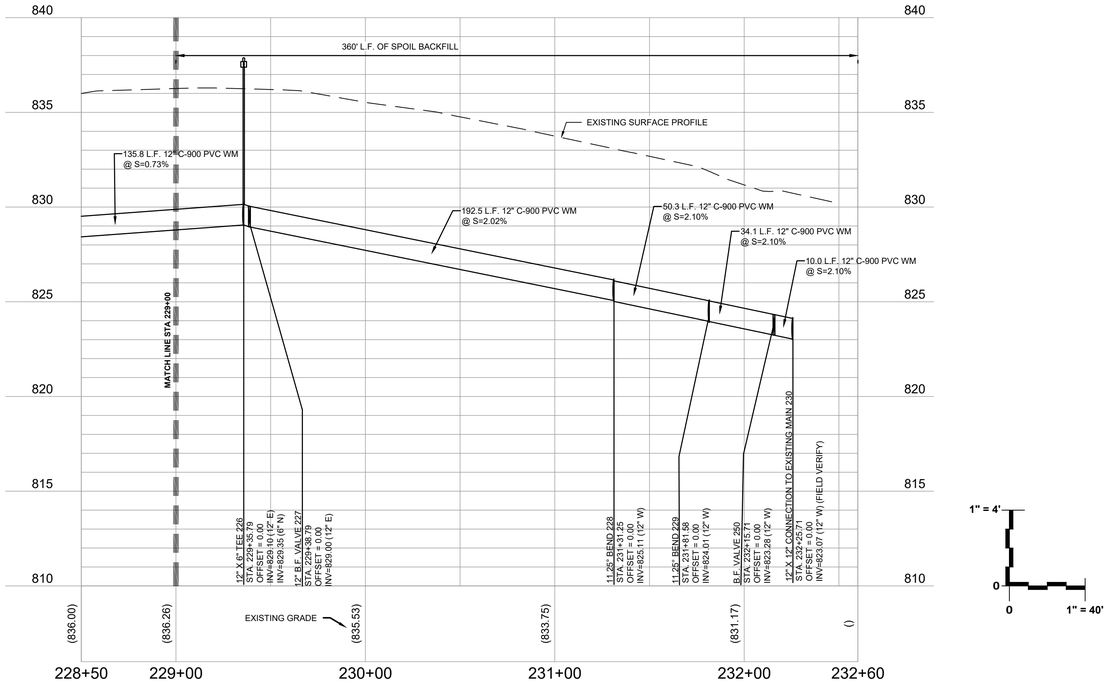

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NORTH

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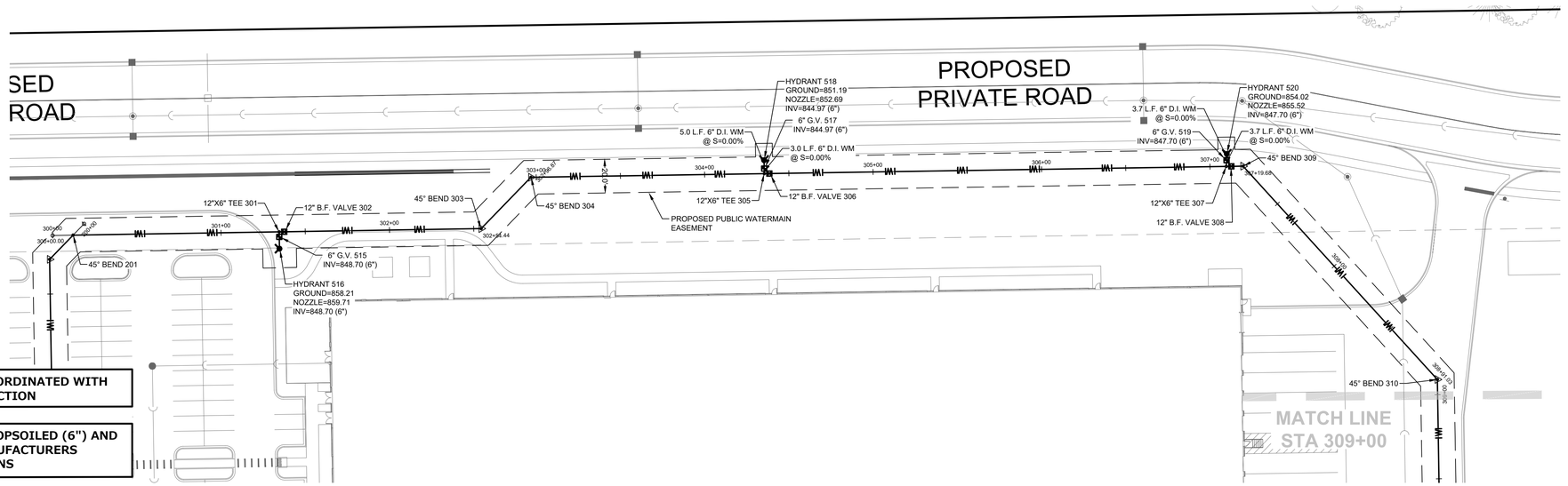

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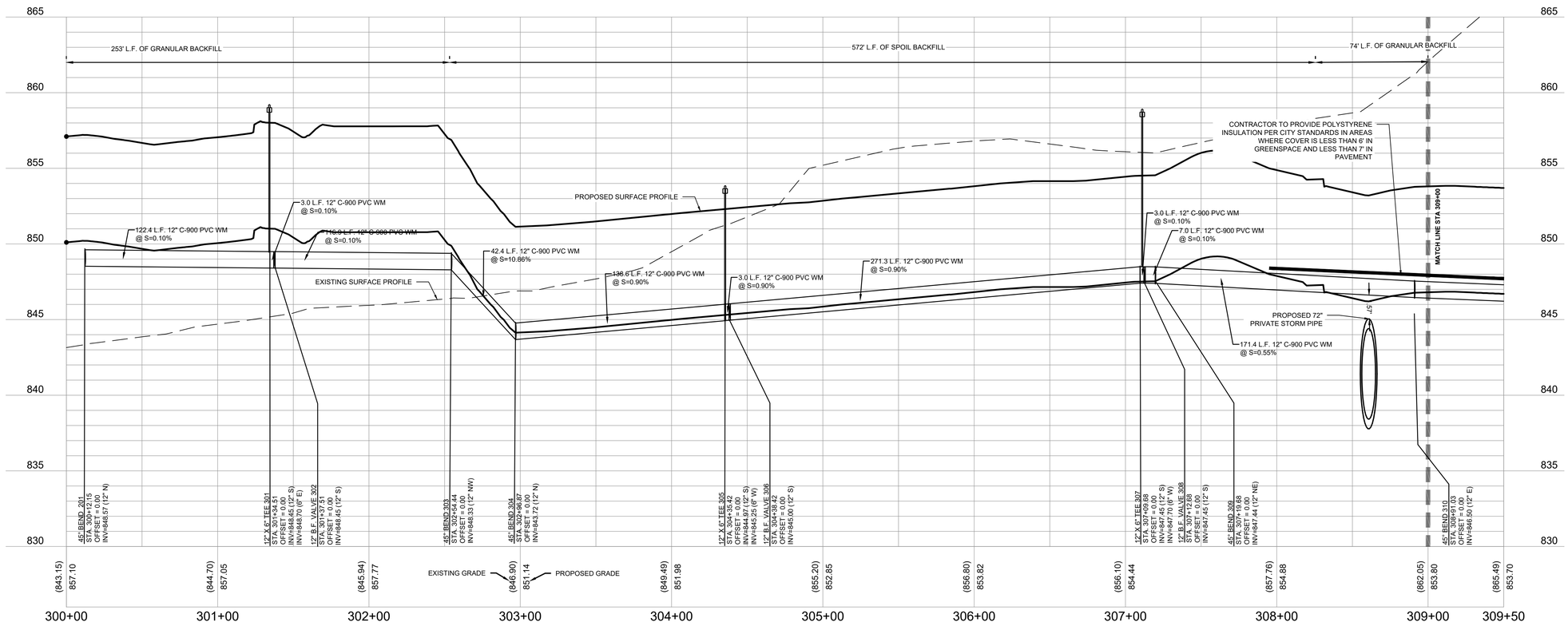

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NORTH

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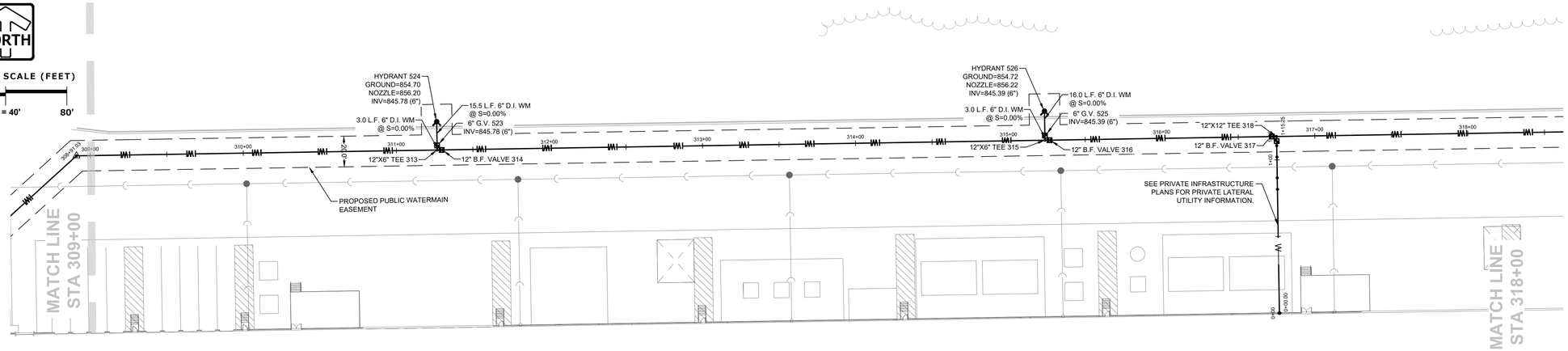

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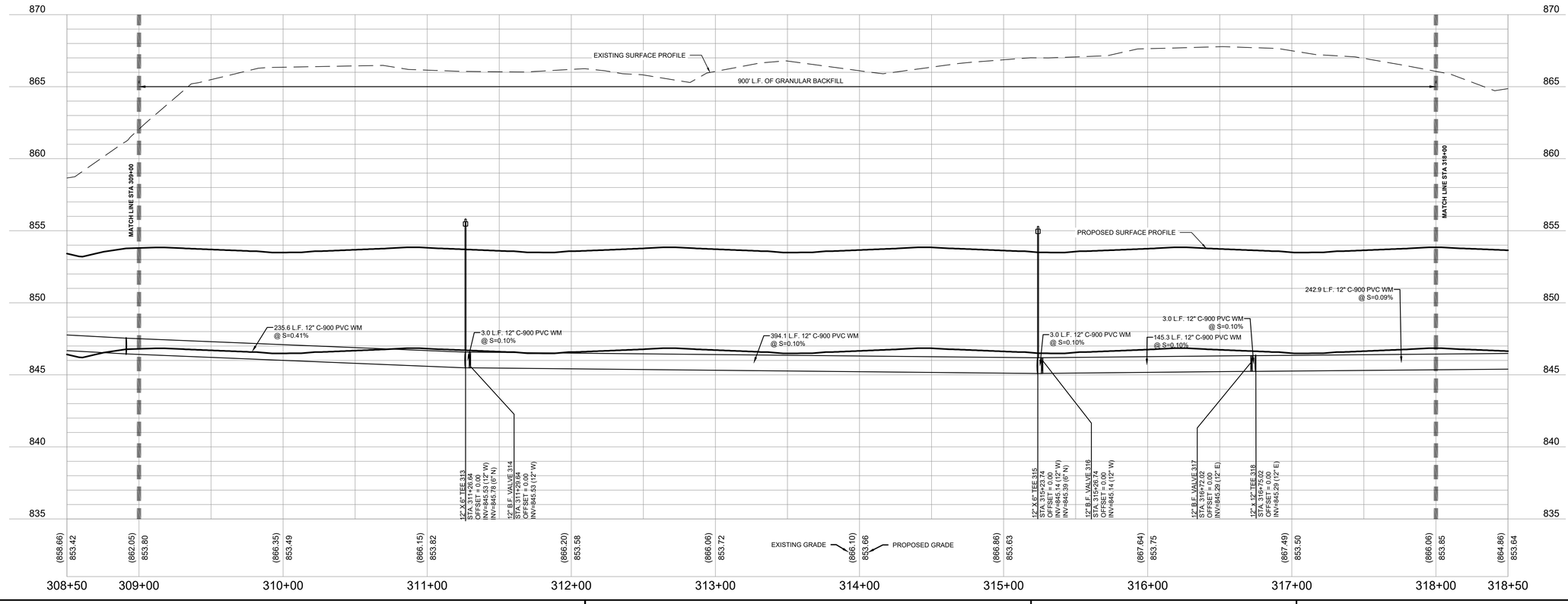

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PLAN DATE | 1" = 40'
SCALE

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NORTH

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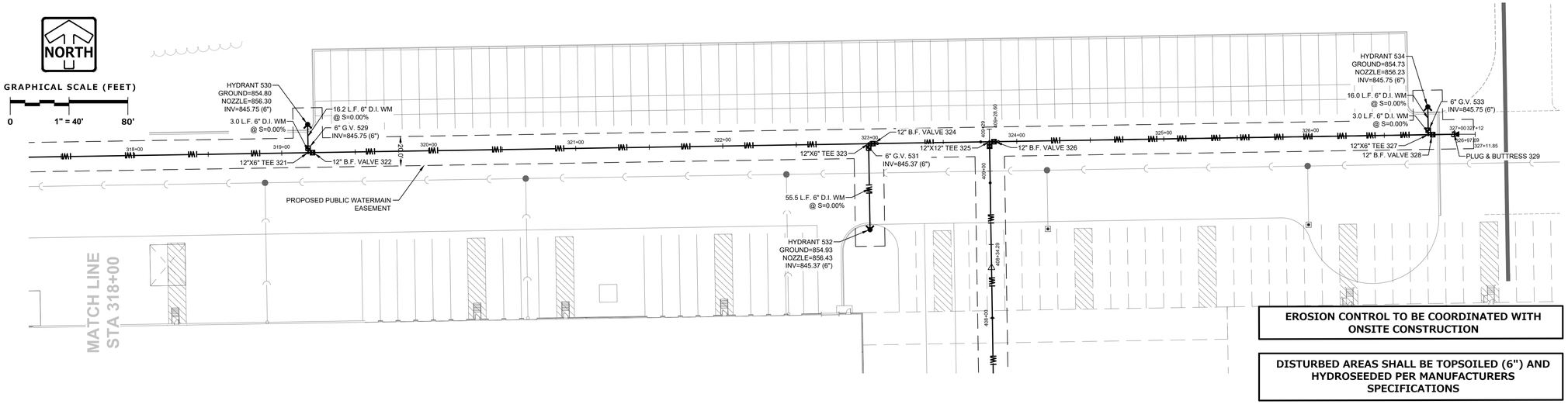

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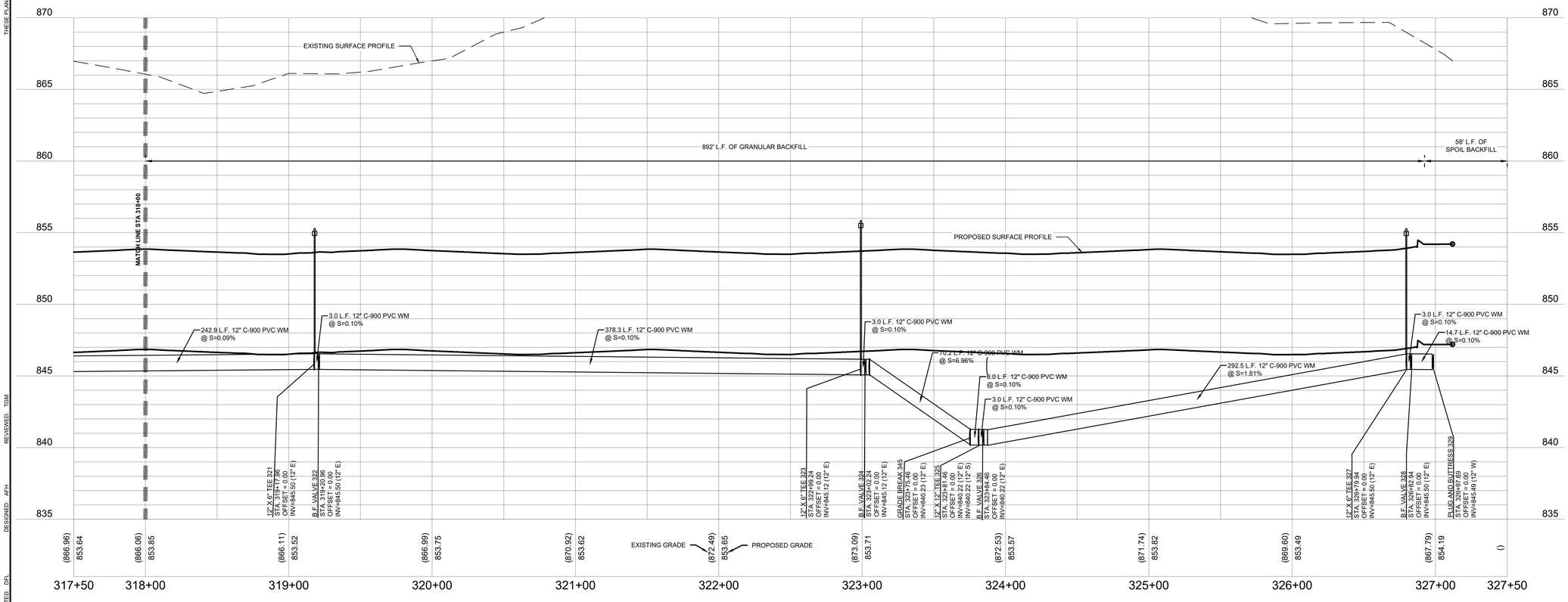
- VALVE BOX
- FIRE HYDRANT
- LIGHT POLE
- ELECTRIC TRANSFORMER
- PROPOSED INLET DRAIN TILE (SEE DETAIL)
- UTILITY CROSSING
- SILT FENCE
- PROPOSED DRAIN TILE
- PROPOSED ELECTRIC
- PROPOSED FIBER OPTIC
- PROPOSED FIRE PROTECTION
- PROPOSED GAS
- PROPOSED TELEPHONE
- PROPOSED SANITARY SEWER (PUBLIC)
- PROPOSED SANITARY SEWER (PRIVATE)
- PROPOSED STORM SEWER
- PROPOSED WATERMAIN (PUBLIC)
- PROPOSED WATERMAIN (PRIVATE)
- PUBLIC ROAD - SEE ROADWAY INFRASTRUCTURE PLAN

EROSION CONTROL TO BE COORDINATED WITH ONSITE CONSTRUCTION

DISTURBED AREAS SHALL BE TOPSOILED (6") AND HYDROSEEDED PER MANUFACTURERS SPECIFICATIONS



DRAFTED: DFL
DESIGNED: AFH
REVIEWED: TGM

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PINNACLE ENGINEERING GROUP
ENGINEERING I NATURAL RESOURCES I SURVEYING

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(262) 754-8888
CHICAGO I MILWAUKEE I NATIONWIDE

PROJECT GRAVITY

NEW BERLIN, WI

PUBLIC WATERMAIN PLAN & PROFILE

REVISIONS

PEG JOB No. 594.00A
PEG PM TGM
PLAN DATE 07/02/26
SCALE 1" = 40'

SHEET
C-4.10
OF
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PUBLIC WATERMAIN PLAN & PROFILE

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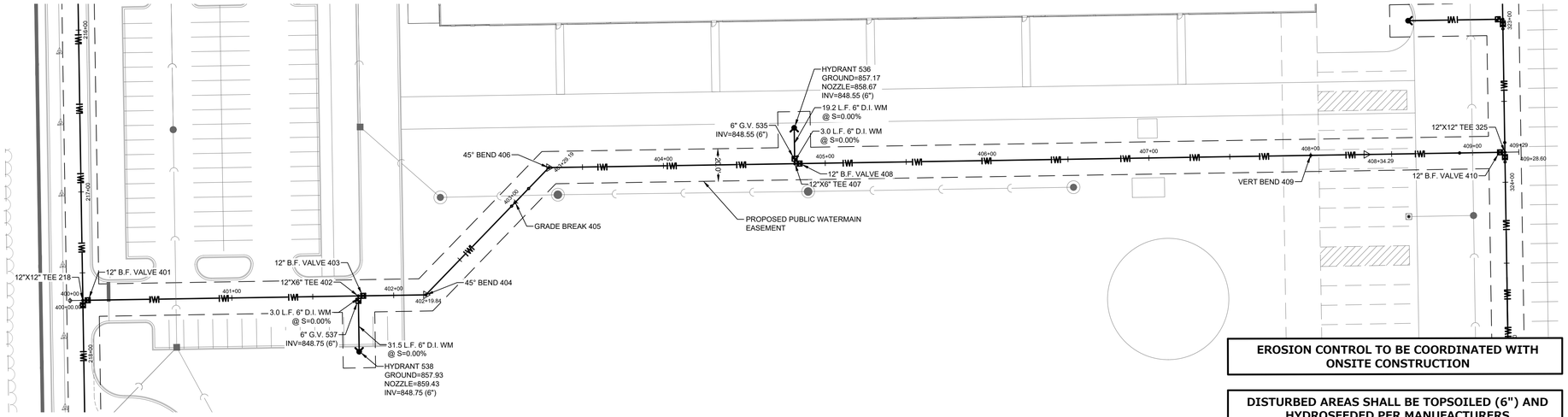
NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'



LEGEND

- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER INLET / CATCH BASIN (ROUND CASTING)
- STORM SEWER INLET / CATCH BASIN (RECTANGULAR CASTING)
- FLARED END SECTION / END APRON
- CLEANOUT
- VALVE BOX
- FIRE HYDRANT
- LIGHT POLE
- ELECTRIC TRANSFORMER
- PROPOSED INLET DRAIN TILE (SEE DETAIL)
- UTILITY CROSSING
- SILT FENCE
- PROPOSED DRAIN TILE
- PROPOSED ELECTRIC
- PROPOSED FIBER OPTIC
- PROPOSED FIRE PROTECTION
- PROPOSED GAS
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- PROPOSED SANITARY SEWER (PUBLIC)
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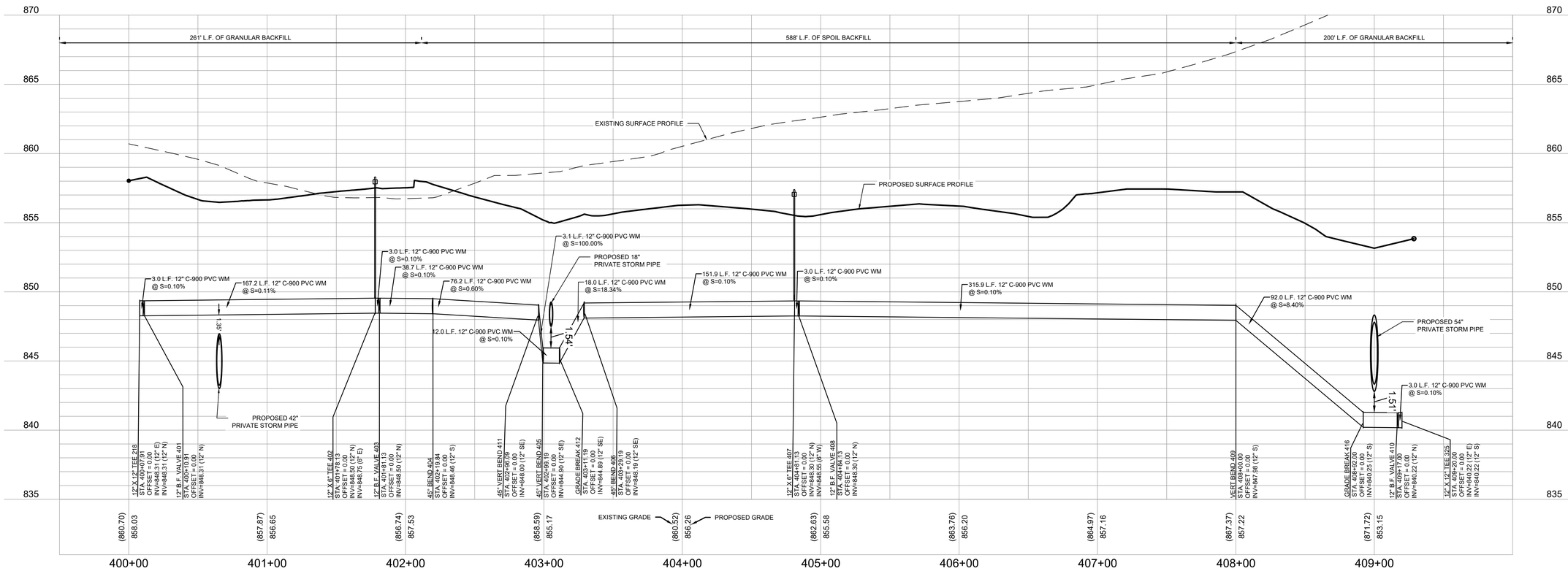

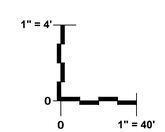

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1.0 POTENTIAL POLLUTANT SOURCES

GIVEN THE PROPOSED ACTIVITY ON THE PROJECT SITE, THE PRIMARY POTENTIAL POLLUTANT SOURCE ASSOCIATED WITH THIS CONSTRUCTION PROJECT IS SOIL EROSION AND TRANSPORTATION; REFER TO SECTION 4 OF THIS PLAN. ADDITIONAL POTENTIAL SOURCES OF POLLUTION MAY INCLUDE: FUEL TANKS, WASTE CONTAINERS, OIL OR OTHER PETROLEUM PRODUCTS, DETERGENTS, PAINTS, CONSTRUCTION DEBRIS, SANITARY STATIONS, FERTILIZERS, AND DUST; REFER TO SECTION 5 OF THIS PLAN.

2.0 EROSION AND SEDIMENT CONTROL IMPLEMENTATION

THE FOLLOWING ARE DESCRIPTIONS OF THE EROSION AND SEDIMENT CONTROL PRACTICES THAT SHALL BE IMPLEMENTED DURING CONSTRUCTION OF THIS PROJECT. IN ADDITION TO THESE MEASURES, CONTRACTOR SHALL DISTURB ONLY AREAS NECESSARY TO COMPLETE THE CONSTRUCTION PROJECT. ALL PRACTICES SHALL BE CONDUCTED IN ACCORDANCE WITH THE BEST MANAGEMENT PRACTICES (BMP).

2.1 CONSTRUCTION AND EROSION CONTROL SEQUENCING

CONSTRUCTION SEQUENCING WILL BE UTILIZED AS A MEANS OF CONTROLLING EROSION AND LIMITING SEDIMENT TRANSPORT. SEQUENCING AS LISTED BELOW IS GENERAL IN NATURE AND MAY VARY DEPENDING ON WEATHER CONDITIONS AND/OR PHASING OF CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A DETAILED SITE SEQUENCING PLAN TO OWNER FOR APPROVAL AT LEAST 5 BUSINESS DAYS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM 6 AS NEEDED TO COMPLETE CONSTRUCTION ONLY IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL REQUIREMENTS.

1. INSTALL TEMPORARY CONSTRUCTION ENTRANCES, INLET PROTECTION ON EXISTING STORM SEWER AND CULVERT INLET LOCATIONS, AND PERIMETER SILT FENCING.
2. INSTALL SILT FENCING ALONG THE PERIMETER OF PROPOSED TOPSOIL STOCKPILE LOCATIONS. THE FIRST TOPSOIL DEPOSITED WITHIN THE STOCKPILE LIMITS SHALL BE PLACED TO CREATE TEMPORARY BERMING ALONG THE SILT FENCE TO PREVENT DIRECT STORMWATER RUNOFF AGAINST SILT FENCING. CONTRACTOR SHALL LIMIT LAND DISTURBING ACTIVITIES ASSOCIATED WITH TEMPORARY BERMING TO A MINIMUM.
3. STRIP TOPSOIL WITHIN THE LIMITS OF THE SEDIMENT TRAPS THAT WILL BE USED FOR TEMPORARY SEDIMENT CONTROL. STRIPPED TOPSOIL SHALL BE PLACED TO CONSTRUCT DIVERSION BERMING OR PLACED WITHIN THE STOCKPILE LIMITS.
4. STRIP TOPSOIL ALONG THE REMAINDER OF DIVERSION BERMING AND IMMEDIATELY PLACE TOPSOIL TO CREATE THE BERMING. MASS TOPSOIL STRIPPING SHALL NOT OCCUR UNTIL ALL DOWNSTREAM SEDIMENT CONTROLS ARE IN PLACE.
5. CONDUCT ROUGH GRADING OPERATIONS AND UTILITY PIPING INSTALLATION. DRAIN TILE SHALL NOT BE INSTALLED UNTIL UPLAND AREAS CONTRIBUTING STORMWATER RUNOFF ARE STABILIZED. DITCH CHECKS SHALL BE INSTALLED WITHIN DRAINAGE DITCHES IMMEDIATELY FOLLOWING CREATION OF DITCHES AND INLET PROTECTION SHALL BE INSTALLED TO PROTECT ANY STORM SEWER OR CULVERTS THAT WILL FUNCTION DURING CONSTRUCTION.
6. FINE GRADE SUB-GRADE SOILS WITHIN PAVEMENT AND BUILDING LIMITS. PLACE STONE BASE MATERIAL AS SOON AS POSSIBLE FOLLOWING COMPLETION OF FINE GRADING EFFORTS.
7. FINE GRADE REMAINING DISTURBED AREAS. PLACE SALVAGED TOPSOIL, EROSION BLANKETS/MATTING, AND SEED/MULCH AS SOON AS POSSIBLE FOLLOWING COMPLETION OF FINE GRADING EFFORTS.
8. EROSION CONTROLS SHALL NOT BE REMOVED UNTIL SITE IS FULLY STABILIZED OR 70% VEGETATIVE COVER IS ESTABLISHED. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF SILT FENCE, TEMPORARY FENCING/PRETECTION, DITCH CHECKS, AND OTHER TEMPORARY CONTROLS, AND RESTORATION PRACTICES AS NECESSARY, TO THE SATISFACTION OF THE OWNER.

2.2 STABILIZATION PRACTICES

THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, AND WHEN STABILIZATION MEASURES ARE INITIATED, SHALL BE RECORDED ON THE STABILIZATION SCHEDULE FOR MAJOR GRADING ACTIVITIES.

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. NO MORE THAN SEVEN (7) DAYS SHALL PASS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS PERMANENTLY CEASED UNLESS:

THE INITIATION OF STABILIZATION MEASURES BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASE IS PRECLUDED BY SNOW COVER. IN THAT EVENT, STABILIZATION MEASURE SHALL BE INITIATED AS SOON AS PRACTICABLE.

CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN FOURTEEN (14) DAYS FROM WHEN ACTIVITIES CEASED, (I.E. THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN FOURTEEN (14) DAYS), IN THAT EVENT, STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED. SEE THE SOIL PROTECTION CHART PRESENTED IN THE CONSTRUCTION DOCUMENTS FOR RATES OF PERMANENT AND TEMPORARY VEGETATION.

STABILIZATION MEASURES SHALL BE DETERMINED BASED ON SITE CONDITIONS AT THE TIME CONSTRUCTION ACTIVITY HAS CEASED, INCLUDING BUT NOT LIMITED TO WEATHER CONDITIONS AND LENGTH OF TIME MEASURE MUST BE EFFECTIVE. THE FOLLOWING ARE ACCEPTABLE STABILIZATION MEASURES.

PERMANENT SEEDING; IN ACCORDANCE WITH APPROVED LANDSCAPING PLAN
TEMPORARY SEEDING MAY CONSIST OF SPRING OATS (100LBS/ACRE) AND/OR WHEAT OR CEREAL RYE (150LBS/ACRE)
HYDRO-MULCHING WITH A TACKIFIER
GEOTEXTILE EROSION MATTING
SODDING

2.3 STRUCTURAL PRACTICES

THE FOLLOWING ARE DESCRIPTIONS OF STRUCTURAL PRACTICES TO BE IMPLEMENTED TO DIVERT FLOWS FROM EXPOSED SOILS, STORE FLOWS, OR OTHERWISE LIMIT THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE INCLUDING THE PROPOSED AND EXISTING WETLAND AREAS. SUCH PRACTICES COULD INCLUDE SILT FENCE, PROTECTION FENCE, CONSTRUCTION ENTRANCE, DITCH CHECK, EROSION CONTROL MATTING, DIVERSION BERM/SWALE, SEDIMENT TRAP, LEVEL SPREADER, INLET PROTECTION, OUTLET PROTECTION, AND TEMPORARY OR PERMANENT SEDIMENT BASIN. THE FOLLOWING STRUCTURAL PRACTICES ARE TO BE UTILIZED DURING THIS PROJECT.

SILT FENCE SHALL BE PLACED DOWN SLOPE OF DISTURBED AREAS OF THE CONSTRUCTION SITE AND AROUND THE PERIMETER OF THE TOPSOIL STOCKPILE. THIS INCLUDES PROTECTION OF EXISTING WETLAND AREAS TO BE MAINTAINED. SILT FENCE MAY ALSO BE USED AS A TEMPORARY CONTROL DEVICE WHERE SEDIMENTATION RUNOFF IS DISCOVERED.

CONSTRUCTION ENTRANCE SHALL BE INSTALLED TO REDUCE SOIL EROSION POLLUTANTS FROM LEAVING THE SITE DURING CONSTRUCTION ACTIVITIES. IF THE CRUSHED STONE DOES NOT ADEQUATELY REMOVE MUD FROM VEHICLE TIRES, THEY SHALL BE HOSED OFF BEFORE ENTERING A PAVED ROADWAY. ANY SOIL DEPOSITED ON THE PUBLIC PAVED ROAD WAY SHALL BE REMOVED IMMEDIATELY.

DITCH CHECK (STRAW BALES) SHALL BE INSTALLED IN DRAINAGE CHANNELS AS NEEDED.

EROSION CONTROL MATTING SHALL BE PLACED ON AREAS OR EMBANKMENTS HAVING SLOPES GREATER THAN OR EQUAL TO 3H:1V, BEFORE VEGETATION IS ESTABLISHED.

DIVERSION BERM/SWALE SHALL BE CONSTRUCTED TO DIVERT RUNOFF AROUND THE SITE AND TO DIVERT RUNOFF FROM THE DISTURBED AREA TO A SEDIMENT TRAP OR OTHER CONTROL. BERMS/SWALES SHALL BE STABILIZED WITH EQUIPMENT TRACKING AND TEMPORARY SEEDING.

SEDIMENT TRAPS/BASIN SHALL BE CONSTRUCTED TO COLLECT RUNOFF AND RUNOFF FROM SITE DIVERSION BERMS/SWALES.

INLET PROTECTION SHALL BE INSTALLED AT STORMWATER DRAINAGE INLETS TO REDUCE SEDIMENT WITHIN STORM SEWER CONVEYANCE FEATURES.

OUTLET SCOUR PROTECTION SHALL BE INSTALLED AT STORMWATER DRAINAGE OUTLETS TO DIFFUSE FLOWS.

3.0 ADDITIONAL PRACTICES

ADDITIONAL POLLUTANT CONTROL MEASURES TO BE IMPLEMENTED DURING CONSTRUCTION ACTIVITIES SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING.

CONSTRUCTION WASTE SHALL BE PROPERLY DISPOSED OF. THIS INCLUDES ALL CONSTRUCTION SITE WASTE MATERIAL, SANITARY WASTE, AND WASTE FROM VEHICLE TRACKING OF SEDIMENTS. THE CONTRACTOR SHALL ENSURE THAT NO MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, BURNED, OR DISCHARGED TO THE WATERS OF THE STATE, VEHICLES HAULING MATERIAL AWAY FROM THE SITE SHALL BE COVERED WITH A TARPAULIN TO PREVENT BLOWING DEBRIS.

DUST CONTROL SHALL BE ACCOMPLISHED BY ONE OR MORE OF THE FOLLOWING METHODS:

COVERING 30% OR MORE OF THE SOIL SURFACE WITH A NON-ERODIBLE MATERIAL.

ROUGHENING (EQUIPMENT TRACKING) THE SOIL TO PRODUCE RIDGES PERPENDICULAR TO THE PREVAILING WIND. RIDGES SHALL BE AT LEAST SIX (6) INCHES IN HEIGHT.

FREQUENT WATERING OF EXCAVATION AND FILL AREAS.

PROVIDING GRAVEL OR PAVING AT ENTRANCE/EXIT DRIVES, PARKING AREAS AND TRANSIT PATHS.

STREET SWEEPING SHALL BE PERFORMED TO IMMEDIATELY REMOVE ANY SEDIMENT TRACKED ON PAVEMENTS.

4.0 EROSION AND SEDIMENT STRUCTURAL PRACTICE MAINTENANCE

THE FOLLOWING MAINTENANCE PRACTICES SHALL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES, AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN. UPON IDENTIFICATION, DEFICIENCIES IN STORMWATER CONTROLS SHALL BE ADDRESSED IMMEDIATELY. THE MAINTENANCE PROCEDURES FOR THIS DEVELOPMENT SHALL INCLUDE, BUT NOT BE LIMITED TO THE BELOW.

SILT FENCE - REPAIR OR REPLACE ANY DAMAGED FILTER FABRIC AND/OR STAKES. REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE-HALF THE ABOVE GROUND HEIGHT OF THE FENCE.

CONSTRUCTION ENTRANCE - AS NEEDED, ADD STONE TO MAINTAIN CONSTRUCTION ENTRANCE DIMENSIONS AND EFFECTIVENESS.

DITCH CHECK (STRAW BALES) - RE-SECURE STAKES; ADJUST OR REPOSITION BALES TO ADDRESS PROPER FLOW OF STORMWATER; AND REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE-HALF THE HEIGHT OF THE BALE.

EROSION CONTROL MATTING - REPAIR MATTING IMMEDIATELY IF INSPECTION REVEALS BREACHED OR FAILED CONDITIONS. REPAIR AND RE-GRADE SOIL WHERE CHANNELIZATION HAS OCCURRED.

DIVERSION BERM/SWALE - REPLACE OR RE-COMPACT THE CONSTRUCTION MATERIALS AS NECESSARY.

SEDIMENT TRAP - REMOVE AND DISPOSE OF THE ACCUMULATED SEDIMENT WHEN IT HAS REACHED THE SEDIMENT STORAGE ELEVATION.

INLET PROTECTION - CLEAN, REPAIR OR REPLACE FILTER FABRIC AND/OR STONE WHEN CONTROL MEASURE IS CLOGGED. INLET FILTER BAGS SHALL BE REPLACED ONCE ONE-HALF FULL OF SEDIMENT.

OUTLET PROTECTION - CLEAN, REPAIR OR REPLACE FILTER FABRIC, TURF REINFORCEMENT MATTING AND/OR STONE WHEN CONTROL MEASURE IS ONE-HALF FULL OF SEDIMENT.

SEDIMENT BASIN - AT THE END OF CONSTRUCTION, CONTRACTOR SHALL REMOVE AND DISPOSE OF THE ACCUMULATED SEDIMENT AND RESTORE BASIN AREA TO INTENDED POST-CONSTRUCTION DESIGN GRADES.

5.0 INSPECTION

INSPECTIONS SHALL BE COMPLETED WITHIN TWENTY-FOUR (24) HOURS OF THE END OF A RAINFALL EVENT THAT IS ONE-HALF INCH OR GREATER OR EQUIVALENT SNOWFALL, OR AT A MINIMUM ONCE EVERY SEVEN (7) CALENDAR DAYS. INSPECTIONS SHALL BE UNDERTAKEN BY QUALIFIED PERSONNEL PROVIDED BY THE CONTRACTOR, AND SHALL INCLUDE: DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. A STORMWATER POLLUTION PREVENTION PLAN INSPECTION REPORT SHALL BE COMPLETED AND ADDED TO THE SWPPP. RAINFALL SHALL BE RECORDED ON THE SWPPP RAINFALL LOG. CONTRACTOR SHALL IMMEDIATELY ARRANGE FOR REPAIR OR REPLACEMENT OF ANY DAMAGED OR DEFICIENT CONTROL MEASURES OBSERVED DURING THE INSPECTION.

QUALIFIED PERSONNEL MEANS A PERSON KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICES OF EROSION AND SEDIMENT CONTROL MEASURES, SUCH AS A LICENSED PROFESSIONAL ENGINEER, A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL, A CERTIFIED EROSION SEDIMENT OR STORMWATER INSPECTOR, OR OTHER TRAINED INDIVIDUAL.

6.0 SPILL PREVENTION

6.1 GENERAL MATERIAL MANAGEMENT PRACTICES

THE GOOD HOUSEKEEPING PRACTICES LISTED BELOW SHALL BE FOLLOWED THROUGHOUT THE CONSTRUCTION PROJECT.

1. CONTRACTOR SHALL STORE ONLY ENOUGH PRODUCTS REQUIRED TO COMPLETE THIS PROJECT.
2. ALL MATERIAL SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR ORIGINAL CONTAINERS CONTAINING MANUFACTURER'S LABEL.
3. MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
4. MATERIALS REQUIRED TO HAVE A MATERIAL SAFETY DATA SHEET (MSDS) SHALL HAVE A COPY STORED IN THE PROJECT'S MSDS DATABASE.

6.2 SPILL CONTROL PRACTICES

THE PRACTICES LISTED BELOW SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP.

1. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE MAINTAINED ONSITE.
2. IMMEDIATELY UPON DISCOVERY, ALL SPILLS SHALL BE CLEANED UP ACCORDING TO THE MANUFACTURERS' RECOMMENDED METHODS.
3. PERSONNEL CLEANING UP A SPILL SHALL USE PERSONAL PROTECTIVE EQUIPMENT.
4. IMMEDIATELY UPON DISCOVERY, SPILLS OF TOXIC OR HAZARDOUS MATERIALS SHALL BE REPORTED TO THE OWNER AND GENERAL CONTRACTOR.
5. NOTIFICATION AND REPORTING TO THE APPROPRIATE FEDERAL, STATE, AND LOCAL GOVERNMENT AGENCIES SHALL BE MADE AS REQUIRED.

GENERAL INFORMATION:

THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN DEVELOPED TO FULFILL ONE OF THE REQUIREMENTS OF THE GENERAL ENVIRONMENTAL PROTECTION AGENCY (EPA) NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (WISCONSIN POLLUTION DISCHARGE ELIMINATION SYSTEM "WPDES" PERMIT NO. WI-S067831-4) FOR THE DISCHARGE OF STORMWATER ASSOCIATED WITH CONSTRUCTION PROJECTS DISTURBING ONE ACRE OR MORE. THE OWNER AND CONTRACTORS SHALL COMPLY WITH ALL REQUIREMENTS OF THE WPDES FOR ALL SUCH CONSTRUCTION PROJECTS. THE STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY FROM THIS SITE ARE SUBJECT TO THE CONDITIONS AND REQUIREMENTS OF THE PERMITS.

THE EXECUTED OWNER CERTIFICATION AND THE CONTRACTOR CERTIFICATIONS SHALL BE KEPT ONSITE WITH THE APPROVED PLANS.

SWPPP AVAILABILITY:

THE OWNER SHALL RETAIN A COPY OF THE SWPPP AT THE CONSTRUCTION SITE FROM THE DATE OF THE PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

KEEPING PLANS CURRENT:

THE CONTRACTOR SHALL AMEND THE PLAN WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, WHICH HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS TO THE WATERS OF THE STATE AND WHICH HAS NOT OTHERWISE BEEN ADDRESSED IN THE PLAN OR IF THE PLAN PROVES TO BE INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY CONTROLLING POLLUTANTS IN STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SITE ACTIVITY. IN ADDITION, THE THE PLAN SHALL BE AMENDED TO IDENTIFY ANY NEW CONTRACTOR AND/OR SUBCONTRACTOR THAT WILL IMPLEMENT A MEASURE OF THE PLAN. AMENDMENTS TO THE PLAN MAY BE REQUIRED BY THE MUNICIPALITY, OWNER, OR OTHER REVIEWING AGENCY. COPIES OF THE AMENDMENTS SHALL BE KEPT ONSITE AS PART OF THE SWPPP.

RETENTION OF RECORDS:

THE OWNER SHALL RETAIN COPIES OF THIS AND ALL REPORTS AND NOTICES REQUIRED BY THIS PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT, FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE PERMIT COVERAGE EXPIRES OR IS TERMINATED. THIS PERIOD MAY BE EXTENDED BY THE REQUEST OF THE AGENCY AT ANY TIME. IN ADDITION, THE OWNER SHALL RETAIN A COPY OF THE PLAN REQUIRED BY THIS PERMIT AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

A NOTICE OF INTENT (NOI) APPLICATION MUST BE COMPLETED AND INCORPORATED INTO THE SWPPP.

WPDES NOTICE OF TERMINATION GUIDANCE:

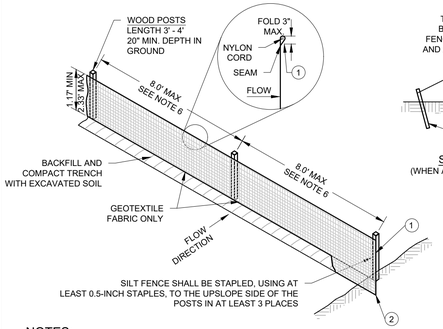
WHEN A SITE HAS BEEN FINALLY STABILIZED AND ALL STORMWATER DISCHARGES FROM CONSTRUCTION SITES THAT ARE AUTHORIZED BY THE PERMIT ARE ELIMINATED, THE OWNER OF THE FACILITY MUST SUBMIT A COMPLETED NOTICE OF TERMINATION THAT IS SIGNED IN ACCORDANCE WITH THE PERMIT. CONTRACTOR SHALL SUBMIT A COMPLETED NOTICE OF TERMINATION TO OWNER FOR EXECUTION PRIOR TO THEIR FINAL PAY APPLICATION REQUEST.

CONTROL MEASURE GROUP	CONTROL MEASURE	CONTROL MEASURE CHARACTERISTICS
VEGETATIVE SOIL COVER	TEMPORARY SEEDING	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE.
	PERMANENT SEEDING	PROVIDES PERMANENT VEGETATIVE COVER TO CONTROL EROSION, FILTERS SEDIMENT FROM WATER, MAY BE PART OF FINAL LANDSCAPE PLAN.
NON VEGETATIVE SOIL COVER	AGGREGATE COVER	PROVIDES TEMPORARY COVER ON ROADS AND PARKING LOTS AND AREAS WHERE VEGETATION CANNOT BE ESTABLISHED. PREVENTS MUD FROM BEING PICKED UP AND TRANSPORTED OFF-SITE.
	PAVING	PROVIDES PERMANENT COVER ON PARKING LOTS AND ROADS OR OTHER AREAS WHERE VEGETATION CANNOT BE ESTABLISHED.
DIVERSIONS	DIVERSION BERM / SWALE	DIVERTS RUNOFF TO A SEDIMENT TRAP OR OTHER CONTROL.
ENCLOSED DRAINAGE	STORM SEWER	CONVEYS SEDIMENT LADEN WATER TO A SEDIMENT BASIN.
OUTLETS	APRON ENDWALL OR RIPRAP	PROTECTS DOWNSTREAM CHANNEL FROM HIGH VELOCITY OF FLOW DISCHARGING FROM STRUCTURE.
SEDIMENT BASINS	TEMPORARY SEDIMENT TRAP	CONSTRUCTED TO REMOVE SILTATION FROM RUNOFF FROM SITE DIVERSION BERMS/SWALES AND IN OVERLAND FLOOD ROUTE, CAN BE CONVERTED TO PERMANENT SEDIMENT BASIN.
SEDIMENT FILTERS	SILT FENCE	PLACED DOWN SLOPE OF DISTURBED AREA TO KEEP RUNOFF CONTAINED ON-SITE.
	INLET PROTECTION	INSTALLED IN OPEN GRATE STRUCTURES TO COLLECT SEDIMENT.
	DITCH CHECK	PLACED IN DRAINAGE CHANNELS TO FILTER SEDIMENT FROM RUNOFF.
MUD AND DUST CONTROL	CONSTRUCTION ENTRANCE	REDUCES SOIL EROSION POLLUTANTS BEING TRANSPORTED OFF-SITE.
	STREET SWEEPING	REDUCES POLLUTANTS TRACKED FROM CONSTRUCTION SITE.
	DUST CONTROL	PREVENTS DUST FROM LEAVING CONSTRUCTION SITE.

STABILIZATION EFFECTIVENESS (TIME OF YEAR)

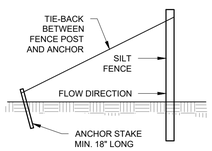
STABILIZATION TYPE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
	STABILIZATION UTILIZATION PERIODS											
PERMANENT SEEDING			A	*	*	*	*	*	*			
DORMANT SEEDING	B	←	→							B	←	→
TEMPORARY SEEDING			C	*	*	*	D	*	→			
SODDING			E	*	*	*	*	*	*	→		

A. KENTUCKY BLUEGRASS 90 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 30 LBS/ACRE.
B. KENTUCKY BLUEGRASS 135 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 45 LBS/ACRE + 2 TONS STRAW MULCH/ACRE.
C. SPRING OATS 100 LBS/ACRE.
D. WHEAT OR CEREAL RYE 150 LBS/ACRE.
E. SOD.
F. STRAW MULCH 2 TONS/ACRE.
* IRRIGATION/WATERING REQUIRED TO SUPPORT ESTABLISHMENT AS NEEDED.

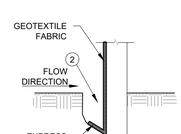


NOTES:

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2, CLASS I WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
2. SILT FENCE SHALL BE ANCHORED BY SPREADING AT LEAST 8-INCHES OF FABRIC IN A 4-INCH WIDE AND 6-INCH DEEP TRENCH OR 6-INCH DEEP V-TRENCH ON THE UPSLOPE SIDE OF THE FENCE. TRENCHES SHALL NOT BE EXCAVATED WIDER OR DEEPER THAN NECESSARY FOR PROPER INSTALLATION.
3. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
4. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1.125-INCHES x 1.125-INCHES OF DRIED OAK OR HICKORY.
5. SILT FENCE TO EXTEND ABOVE THE TOP OF PIPE, WHERE APPLICABLE.
6. POST SPACING SHALL BE SELECTED BASED ON GEOTEXTILE FABRIC (8-FEET FOR WOVEN AND 3-FEET FOR NON-WOVEN).

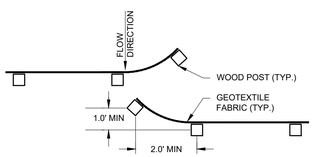


SILT FENCE TIE BACK
(WHEN ADDITIONAL SUPPORT REQUIRED)

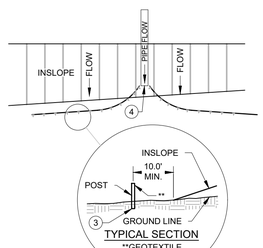


NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

TRENCH DETAIL

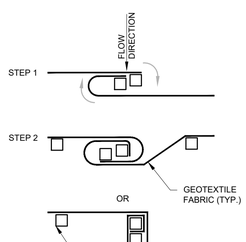


JOINT (HOOK METHOD)



TYPICAL SECTION
**GEOTEXTILE FABRIC

SILT FENCE ALONG SLOPES & OUTFALLS



JOINT (TWIST METHOD)

SILT FENCE

#100-A 10-02-12

REVIEWED: TGM
DESIGNED: AFH
DRAFTED: DR

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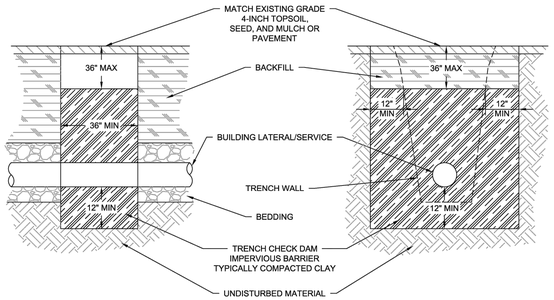

TRENCH CHECK DAM

FIGURE NO. 20	
TRENCH CHECK DAM	
CITY OF NEW BERLIN ENGINEERING DEPARTMENT	
DRAWN BY: NLH	DATE: 6/18
ISSUE: NTS	

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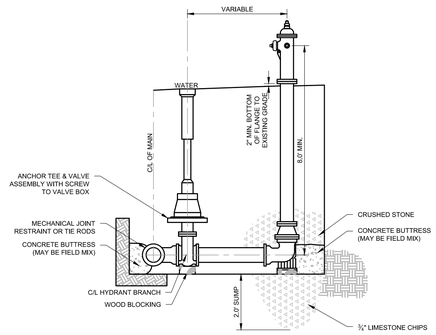
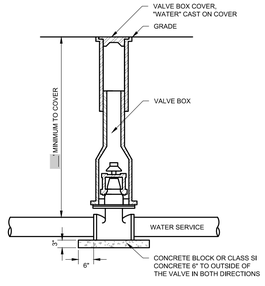


NOTES:

1. MEGALUG RESTRAINING GLANDS ON ALL MECHANICAL JOINTS, THE BOLTS & NUTS ARE TO BE HIGH STRENGTH LOW ALLOY STEEL (CORTEN) AS PER SECTION 11.6.5 OF A.W.W.A. C-111.
2. THE FOLLOWING HYDRANTS SHALL BE ALLOWED:

   MUELLER SUPER CENTURION 250 3-WAY FIRE HYDRANT
   U.S. PIPE METROPOLITAN / M-94 DUCTILE IRON FIRE HYDRANT
   WATEROUS 5½" PACER FIRE HYDRANT

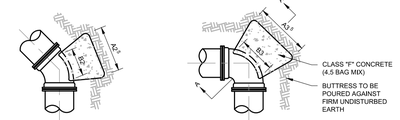
FIRE HYDRANT



NOTES:

1. THE CONTRACT UNIT PRICE EACH FOR VALVES OF THE SIZE AND TYPE SPECIFIED SHALL INCLUDE PROVIDING & INSTALLING THE VALVE BOX

SERVICE VALVE



PIPE SIZE	22 1/2° BENDS A1	22 1/2° BENDS B1	45° BENDS A2	45° BENDS B2	90° BENDS A3	90° BENDS B3
6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-4"	1'-2"
8"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-6"
12"	1'-4"	1'-4"	1'-10"	1'-10"	2'-8"	2'-3"
16"	1'-10"	1'-8"	2'-6"	2'-4"	3'-10"	2'-10"
20"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"
24"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"
30"	3'-6"	3'-0"	5'-4"	3'-10"	8'-0"	4'-8"

NOTES:

1. PROVIDE THRUST BLOCKING TO PREVENT MOVEMENT OF LINES UNDER PRESSURE AT BENDS, TEES, CAPS, VALVES, HYDRANTS, AND AT POINTS SPECIFIED BY THE ENGINEER
2. ALL BLOCKING SHALL BE WITH POURED CLASS SI CONCRETE AGAINST UNDISTURBED VERTICAL EARTH SURFACE
3. THRUST BLOCKS TO BE AT ALL BENDS 11¼° OR GREATER
4. THE COST OF INSTALLING THE THRUST BLOCK SHALL BE INCIDENTAL TO THE CONSTRUCTION OF THE WATER
5. DIMENSION A2 & A3 SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH M.J BOLTS

THRUST BLOCK

C = Depth of Cover (4.0' min - 9.0' max)
Dw = Diameter of Water Main
t = Thickness of Insulation
W = Width of Insulation (4' min)

C Depth of Cover (ft)	INSULATION t Thickness (in)	INSULATION W Width
>4.0 to 5.0	3	5Dw
>5.0 to 6.0	2	4Dw
>6.0 to 7.0 (a)	1	3Dw
>7.0 to 9.0 (b)	-	-
(a) Insulation only required in paved areas		
(b) Maximum depth of cover is 9.0'		

FIGURE NO. 21	
INSULATION REQUIREMENTS PROPOSED WATER MAIN	
CITY OF NEW BERLIN ENGINEERING DEPARTMENT	
DRAWN BY: NLH	DATE: 6/18
SCALE: NTS	

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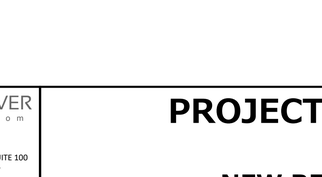

Dw = Diameter of Water Main
Ds = Diameter of Storm Sewer
S = Depth of Separation (1.5' Min)
L = Length of Insulation (5' Min)
t = Thickness of Insulation
W = Width of Insulation (4' Min)

S Depth of Separation (ft)	INSULATION t Thickness (in)	INSULATION W Width	INSULATION L Length
>1.5 to 2.5	3	5Dw	5Ds
>2.5 to 3.5	2	4Dw	5Ds
>3.5 to 4.5	1	3Dw	5Ds
>4.5	-	-	-

FIGURE NO. 24	
INSULATION REQUIREMENTS WATER MAIN BELOW STORM SEWER	
CITY OF NEW BERLIN ENGINEERING DEPARTMENT	
DRAWN BY: NLH	DATE: 6/18
SCALE: NTS	

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Dw = Diameter of Water Main
Ds = Diameter of Storm Sewer
S = Depth of Separation (1' Min)
L = Length of Insulation (4' min)
t = Thickness of Insulation
W = Width of Insulation

S Depth of Separation (ft)	INSULATION t Thickness (in)	INSULATION W Width	INSULATION L Length
>1.0 to 1.5	3	5Dw	4Ds
>1.5 to 2.0	2	4Dw	4Ds
>2.0 to 2.5	1	3Dw	4Ds
>2.5	-	-	-

FIGURE NO. 25	
INSULATION REQUIREMENTS WATER MAIN ABOVE STORM SEWER	
CITY OF NEW BERLIN ENGINEERING DEPARTMENT	
DRAWN BY: NLH	DATE: 6/18
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DRAFTED: DFL DESIGNED: AFH REVIEWED: TGM

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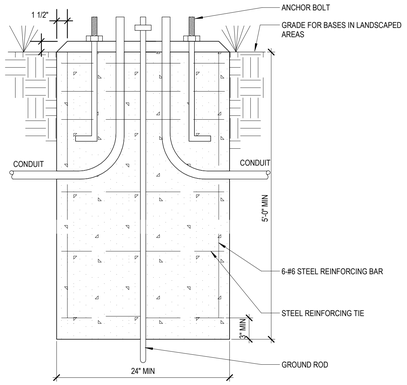
LUMINAIRE SCHEDULE

AUTHOR: XXX

TYPE	DESCRIPTION	MOUNTING	LENS/REFLECTOR	LAMP/LUMENS	BALLAST/POWER SUPPLY	WATTS	VOLTAGE	MANUFACTURER	CATALOG NUMBER	EQUAL MANUFACTURERS	NOTES	REVISION HISTORY
PX1	SINGLE HEAD LED AREA LIGHT- FULL CUTOFF	25'-0" OAH, INCLUDING BASE	SL3, BACK LIGHT SHIELD	9000 LM, LED, 840	INTEGRAL, OC DIM TO 50%	0 VA	0 V	COOPER	GALN-SA3C-840-U-SL3-BCS			
PX2	SINGLE HEAD LED AREA LIGHT- FULL CUTOFF	25'-0" OAH, INCLUDING BASE	TYPE 4 WIDE	25000 LM, LED, 840	INTEGRAL, OC DIM TO 50%	0 VA	0 V	COOPER	GALN-SA4D-840-U-T4W			
PX3	SINGLE HEAD LED AREA LIGHT- FULL CUTOFF	25'-0" OAH, INCLUDING BASE	TYPE 5 WIDE SQUARE	25000 LM, LED, 840	INTEGRAL, OC DIM TO 50%	0 VA	0 V	COOPER	GALN-SA4D-840-U-S5Q			
WX1	WALL MOUNTED AREA LIGHT- FULL CUTOFF	SURFACE WALL AT 25'-0" AFG	TYPE 4 WIDE	25000 LM, LED, 840	INTEGRAL, OC DIM TO 50%	0 VA	0 V	COOPER	GALN-SA4D-840-U-T4W			
WX2	WALL MOUNTED AREA LIGHT- FULL CUTOFF	SURFACE WALL AT 20'-0" AFG	TYPE 4 WIDE	25000 LM, LED, 840	INTEGRAL, OC DIM TO 50%	0 VA	0 V	COOPER	GALN-SA4D-840-U-T4W			

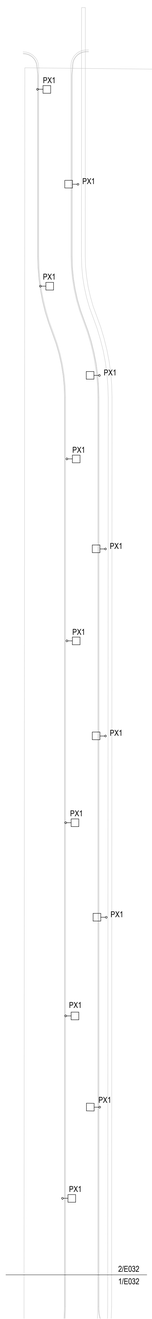


3 POLE BASE
NTS

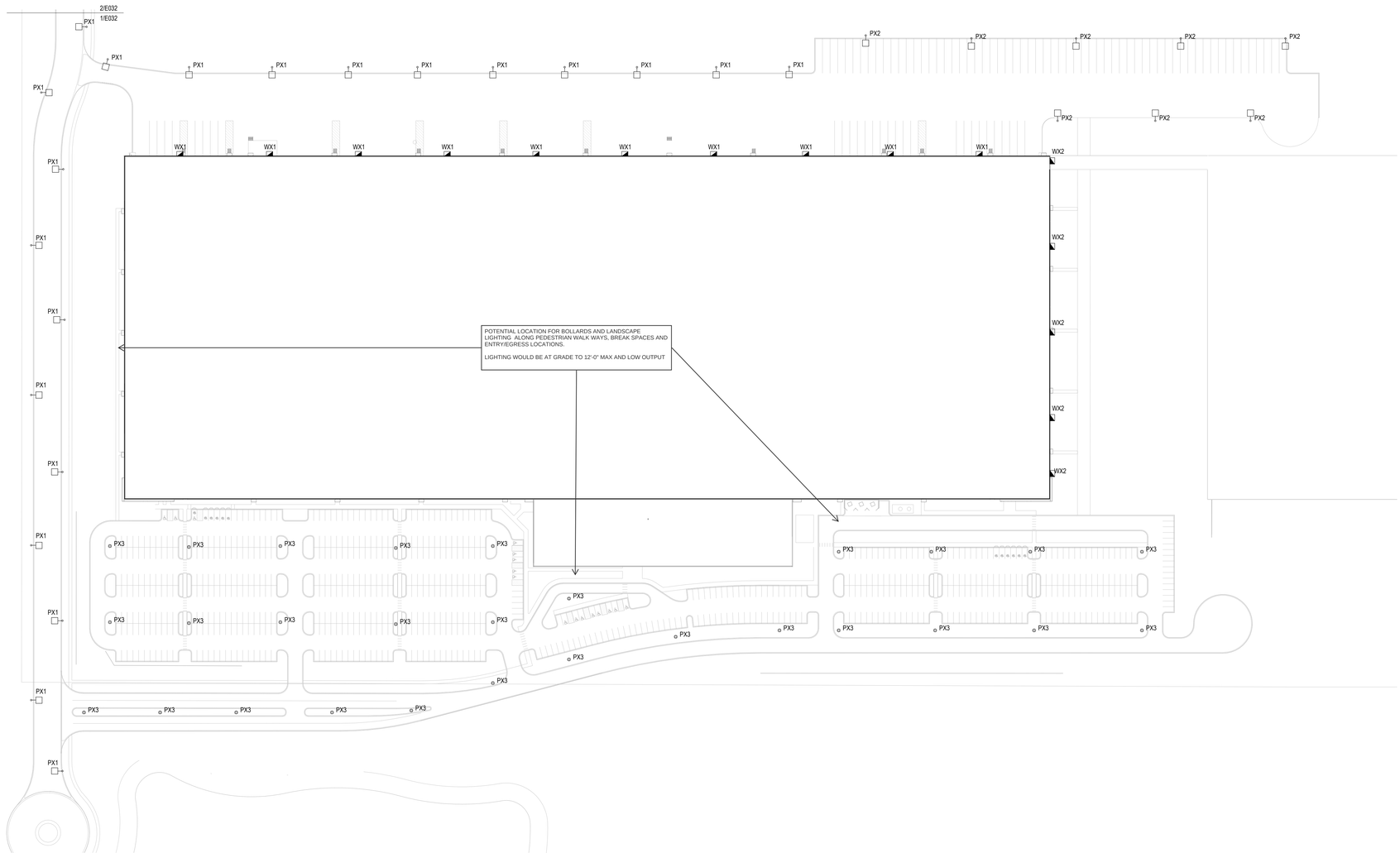
NOTES:
A. PROVIDE SCHEDULE 40 PVC CONDUITS IN SIZE AS INDICATED ON PLANS. PROVIDE PROJECTIONS PER POLE MANUFACTURERS RECOMMENDATIONS.
B. GROUNDING:
- PROVIDE 5/8" X 8'-0" COPPER GROUND ROD WITH CAST BRONZE CAP
- PROVIDE ONE ROD PER POLE BASE
- PROVIDE #10 CONDUCTOR FROM GROUND ROD TO POLE BASE
- TERMINATE GROUND CONDUCTOR WITHIN CONDUIT ON BASE GROUND ROD CLAMP
C. USE READY-MIX 3000 PSI MINIMUM AIR-ENTRAINED CONCRETE.
D. PROVIDE ANCHOR BOLT SIZE, SPACING, AND PROJECTIONS PER POLE MANUFACTURERS RECOMMENDATIONS.
E. PROVIDE THREE #3 STEEL REINFORCING TIES 4" OC AT THE TOP OF THE BASE. SPACE ADDITIONAL #3 TIES 12" OC THROUGHOUT THE REMAINDER OF THE BASE. MAINTAIN 1 1/2" MINIMUM CONCRETE COVER FROM THE HOOP TO THE EDGE OF THE BASE.
F. INSTALL VERTICAL REINFORCING BARS OFFSET FROM ANCHOR BOLTS.
G. ALL REINFORCING STEEL TO BE EPOXY COATED. ANCHOR BOLTS, WASHERS, AND NTS TO BE GALVANIZED.

POLE HEIGHT	BASE DIAMETER	BASE DEPTH (BELOW GRADE)	STEEL REINFORCING BARS
UP TO 12'	18" MIN	5'-0"	4 - #6
16' TO 20'	24" MIN	5'-0"	6 - #6
25' TO 30'	24" MIN	7'-0"	6 - #6
> 30'	CONSULT STRUCT DEPT		

IF POOR SOIL CONDITIONS, COORDINATE WITH STRUCT DEPT AND GEOTECHNICAL AGENCY



2 LIGHTING SITE PLAN - ROADWAY (1)
1" = 80'-0"



1 LIGHTING SITE PLAN - MAIN CAMPUS
1" = 80'-0"

GENERAL NOTES

A. SITE UTILITY SCOPE TO BE COORDINATED WITH (INSERT LOCAL UTILITY).
B. REFER TO GROUNDING PLAN FOR GROUNDING REQUIREMENTS.
C. REFER TO ELECTRICAL DETAILS SHEETS FOR POLE BASE INFORMATION, LIGHTING CONTROL DIAGRAMS, AND ZONE SCHEDULES.
D. CONDUIT ROUTES AS SHOWN ARE DIAGRAMMATIC IN NATURE. FIELD VERIFY ACTUAL CONDUIT ROUTES PRIOR TO INSTALLING CONDUIT. PULLBOXES PROVIDE PULL BOXES FOR SITE CABLING AS REQUIRED, BUT NOT TO EXCEED MORE THAN 200' BETWEEN BOXES.
E. PROVIDE A MINIMUM OF 1" SCH. 80 PVC RACEWAY AND #8 AWG CONDUCTORS FOR ALL SITE LIGHTING AND RECEPTACLE CIRCUITS INCLUDING HOMERUNS AND CONDUCTORS DOWNSTREAM OF HOMERUNS UNLESS NOTED OTHERWISE.

KEYNOTES

#	NOTE

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KEYPLAN

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NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

LIGHTING SITE PLAN

DATE: MAY 29, 2026

BASIS OF DESIGN

E031

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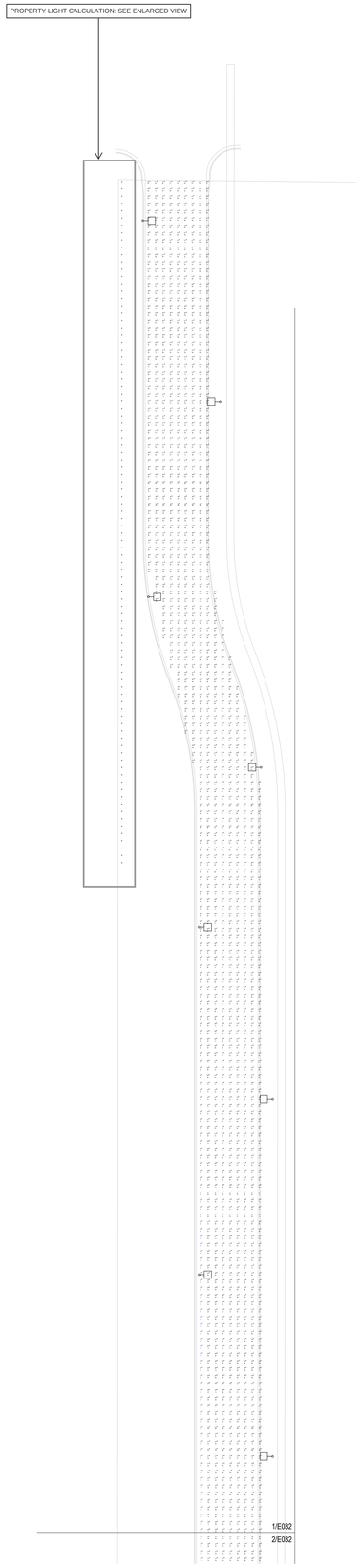
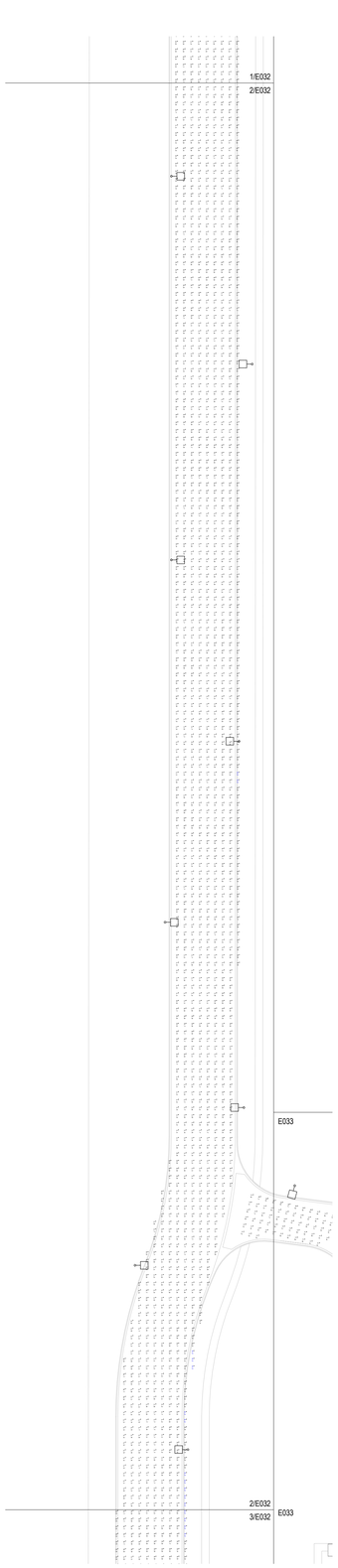
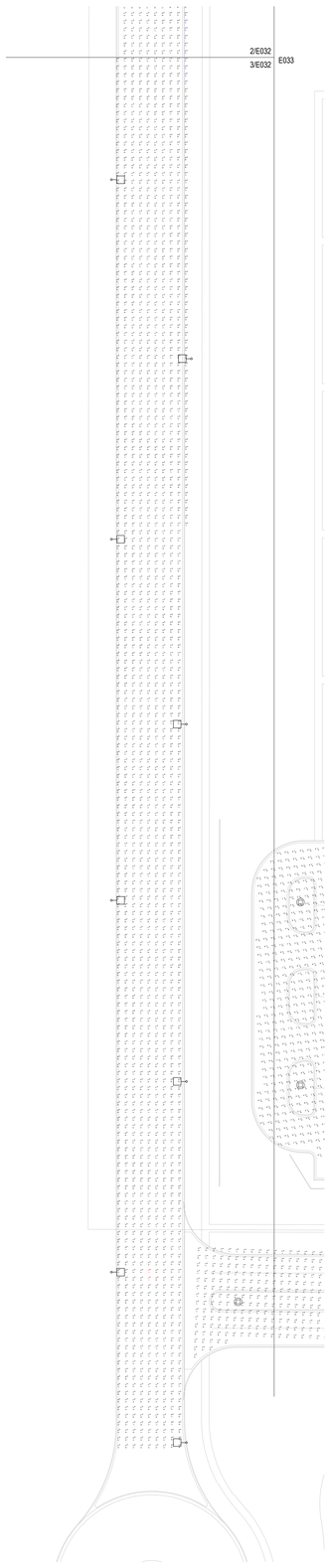


1 LIGHTING SITE PHOTOMETRIC PLAN - ROADWAY (1)
1" = 40'-0"



2 LIGHTING SITE PHOTOMETRIC PLAN - ROADWAY (2)
1" = 40'-0"



3 LIGHTING SITE PHOTOMETRIC PLAN - ROADWAY (3)
1" = 40'-0"

SITE PHOTOMETRY SUMMARY:

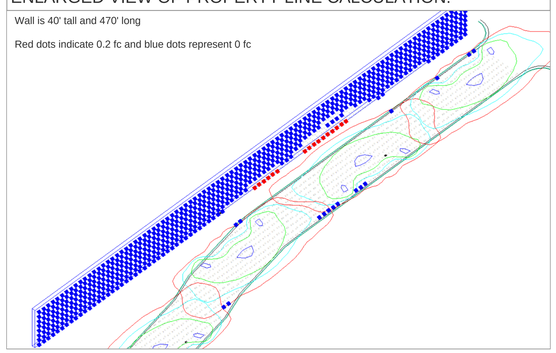
Private Road- Grange to Site
Illuminance (Fc)
Average=1.18 Maximum=2.6 Minimum=0.3 Avg/Min=3.93 Max/Min=8.67

Property line spill - vertical plane at Grange
Illuminance (Fc)
Average=0.01 Maximum=0.2 Minimum=0.0 Avg/Min=N.A. Max/Min=N.A.

ENLARGED VIEW OF PROPERTY LINE CALCULATION:

Wall is 40' tall and 470' long

Red dots indicate 0.2 fc and blue dots represent 0 fc



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KEYPLAN

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NO	DESCRIPTION	DATE

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LIGHTING SITE PHOTOMETRIC PLAN - ROADWAY

DATE: MAY 29, 2026

BASIS OF DESIGN

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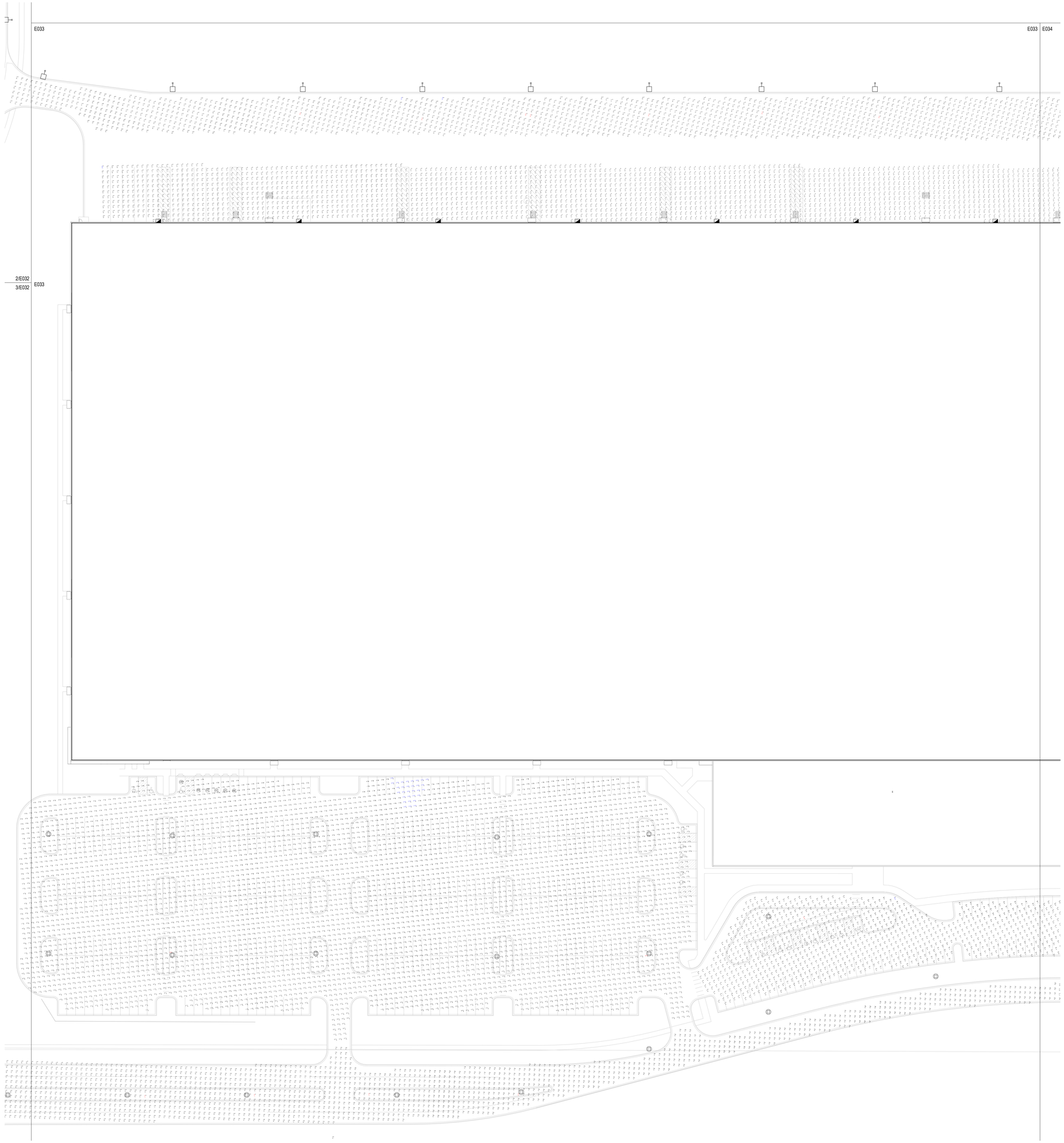

1 LIGHTING SITE PHOTOMETRIC PLAN - MAIN CAMPUS (1)
1" = 40'-0"

SITE PHOTOMETRY SUMMARY:

Entry Parking
Illuminance (Fc)
Average=1.62 Maximum=4.0 Minimum=0.4 Avg/Min=4.05 Max/Min=10.00

North Entry drive
Illuminance (Fc)
Average=1.28 Maximum=2.3 Minimum=0.3 Avg/Min=4.27 Max/Min=7.67

North Loading
Illuminance (Fc)
Average=2.18 Maximum=5.4 Minimum=0.6 Avg/Min=3.63 Max/Min=9.00

SW parking
Illuminance (Fc)
Average=1.48 Maximum=3.8 Minimum=0.3 Avg/Min=4.93 Max/Min=12.67

South Drive
Illuminance (Fc)
Average=1.72 Maximum=3.7 Minimum=0.4 Avg/Min=4.30 Max/Min=9.2

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AREA A | AREA B | AREA C
AREA D | AREA E | AREA F
AREA G

KEYPLAN

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

LIGHTING SITE PHOTOMETRIC PLAN - MAIN CAMPUS (1)

DATE: MAY 29, 2026

BASIS OF DESIGN

E033

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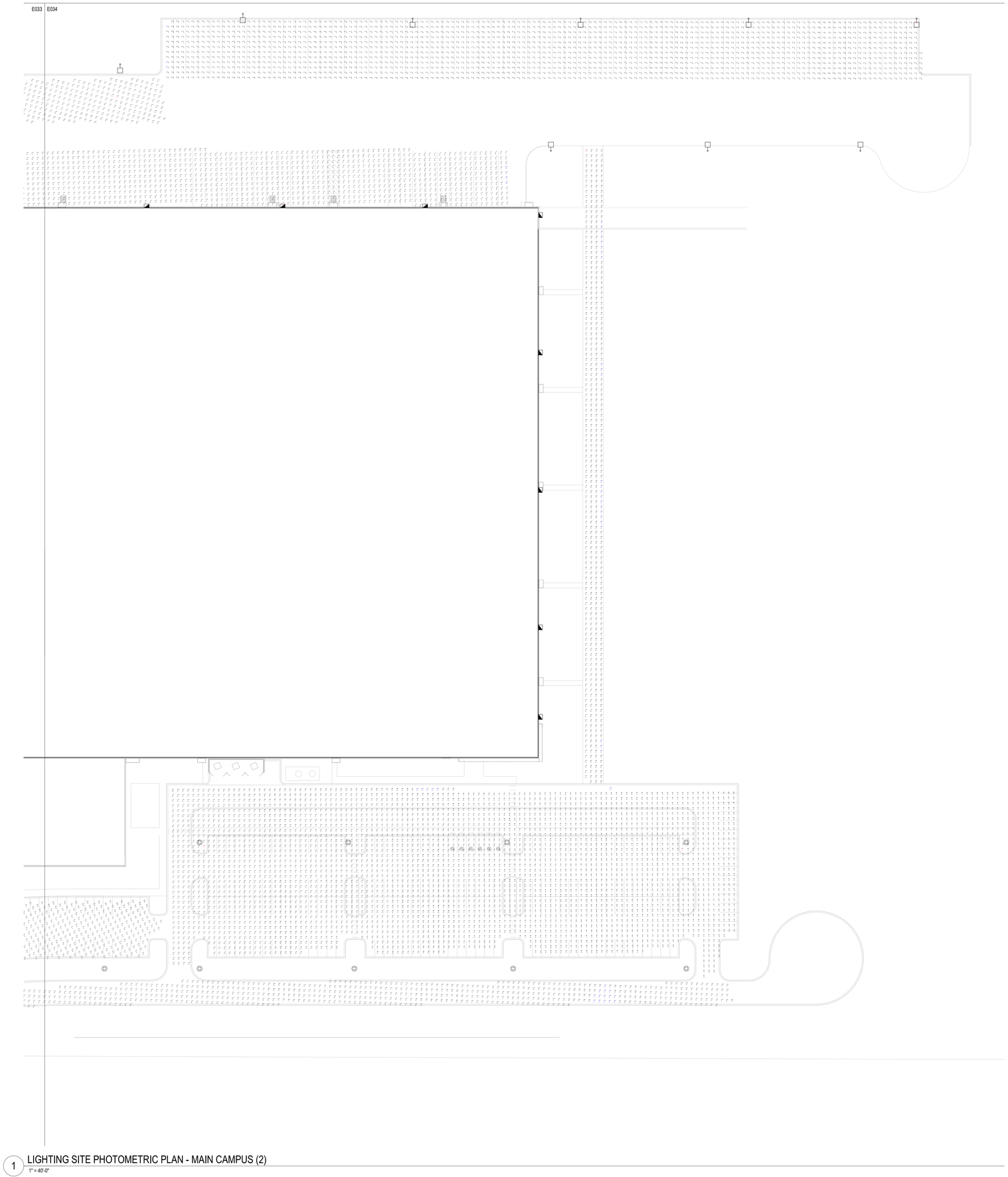
Author 5/21/2026 9:49:55 AM Autodesk Docs://Project Gravity 5533-001-00/E26_Project Gravity_5533-001-00.rvt



1 LIGHTING SITE PHOTOMETRIC PLAN - MAIN CAMPUS (2)
1" = 40'-0"

SITE PHOTOMETRY SUMMARY:

East Fire Lane
Illuminance (Fc)
Average=0.78 Maximum=3.4 Minimum=0.3 Avg/Min=2.60 Max/Min=11.33

North Entry drive
Illuminance (Fc)
Average=1.28 Maximum=2.3 Minimum=0.3 Avg/Min=4.27 Max/Min=7.67

Trailer parking
Illuminance (Fc)
Average=1.80 Maximum=5.4 Minimum=0.4 Avg/Min=4.50 Max/Min=13.50

SE Parking
Illuminance (Fc)
Average=1.42 Maximum=3.7 Minimum=0.4 Avg/Min=3.55 Max/Min=9.25

South Drive
Illuminance (Fc)
Average=1.72 Maximum=3.7 Minimum=0.4 Avg/Min=4.30 Max/Min=9.2

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AREA D | AREA E | AREA F
AREA G

KEYPLAN

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

LIGHTING SITE PHOTOMETRIC PLAN - MAIN CAMPUS (2)

DATE: MAY 29, 2026

BASIS OF DESIGN

E034

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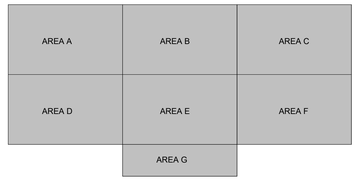
KEY PLAN:



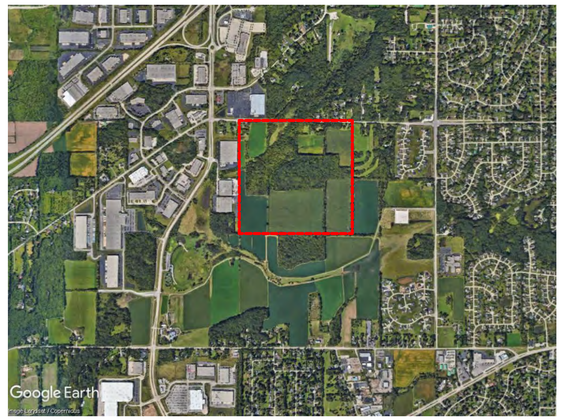
HGA COMMISSION NUMBER: 5533-001-00

May 29, 2026

NOTE: RENDERING NOT FOR CONSTRUCTION USE

DEVELOPMENT USE SUBMITTAL

MAP: ADDRESS



DRAWING INDEX

REV #	NUMBER	SHEET NAME
1-GENERAL		
	G000	COVERSHEET
8-ARCHITECTURAL		
	A201.	OVERALL FLOOR PLAN - LEVEL 01
	A400	OVERALL EXTERIOR ELEVATIONS - MFG
	A401	OVERALL EXTERIOR ELEVATIONS - OFFICE
	A402	RENDERING 1
	A403	RENDERING 2
	A404	MATERIAL SAMPLE BOARD
	A410	BUILDING SECTIONS

Grand total: 8

NOT FOR CONSTRUCTION

G000

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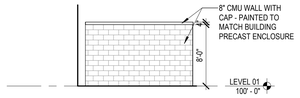
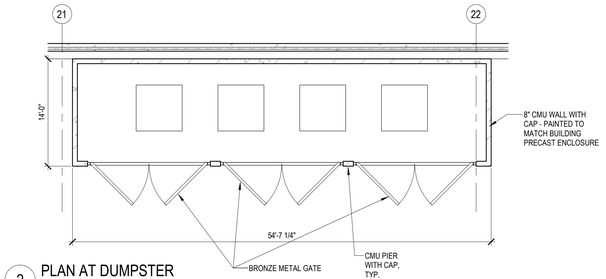
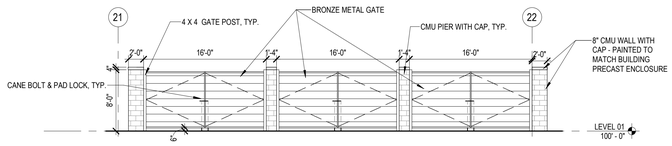


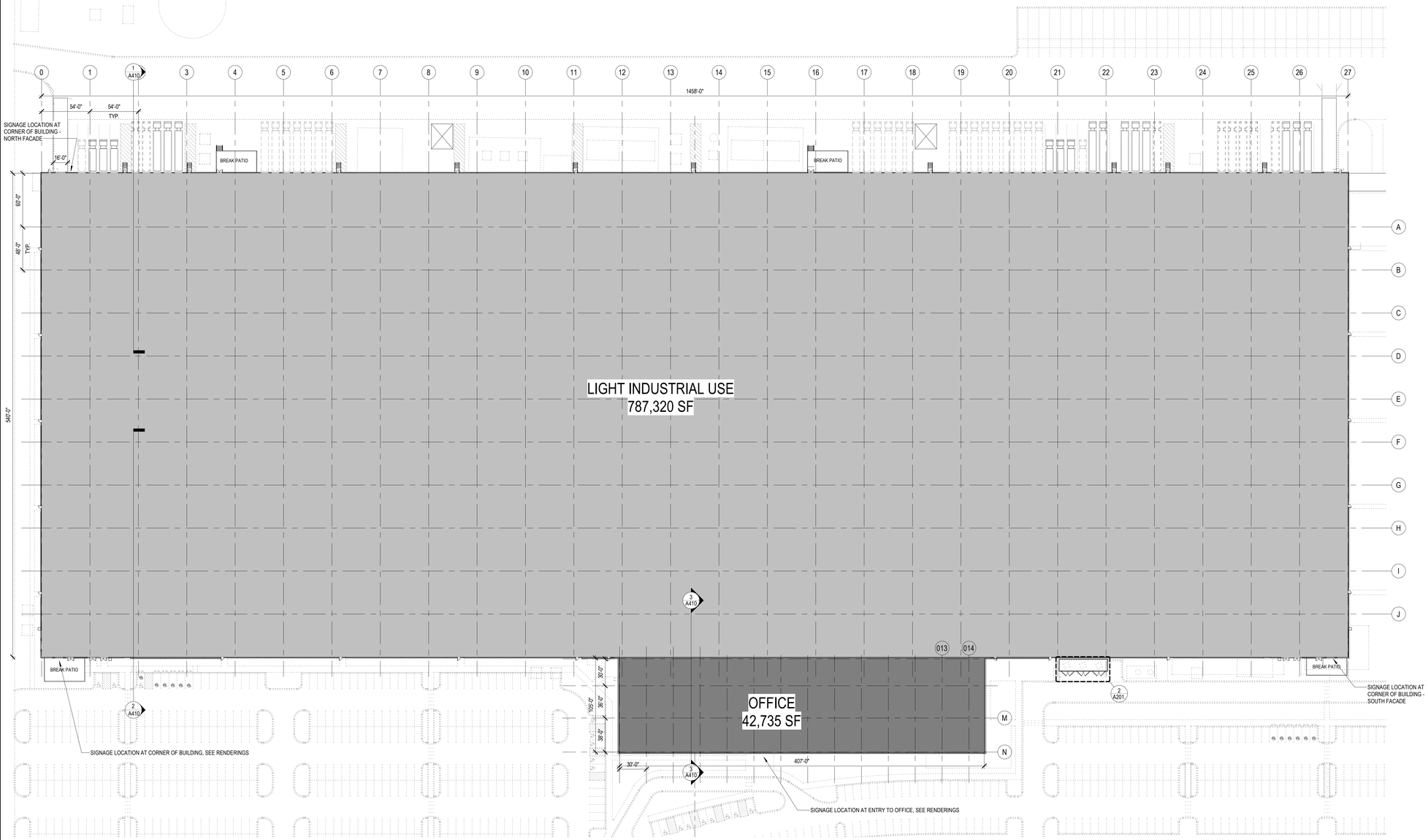
4 SIDE ELEVATION AT DUMPSTER
1/8" = 1'-0"



2 PLAN AT DUMPSTER
1/8" = 1'-0"



3 FRONT ELEVATION @ DUMPSTER
1/8" = 1'-0"



1 FLOOR PLAN - LEVEL 01
1" = 50'-0"

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	AREA G	

KEYPLAN

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

OVERALL FLOOR PLAN - LEVEL 01

DATE: MAY 29, 2026

DEVELOPMENT USE SUBMITTAL

A201

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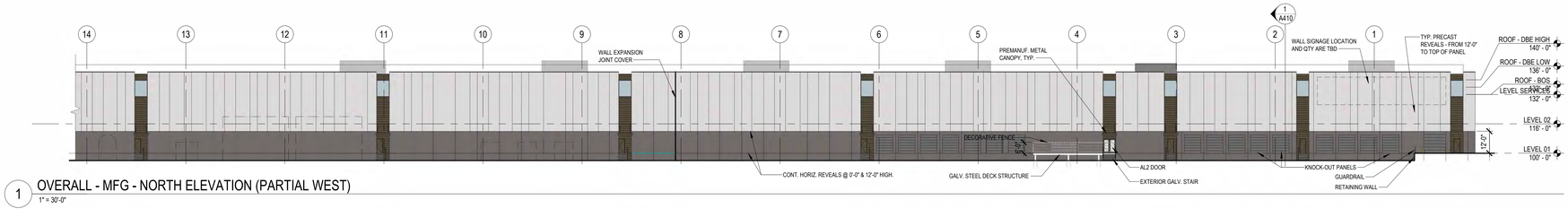
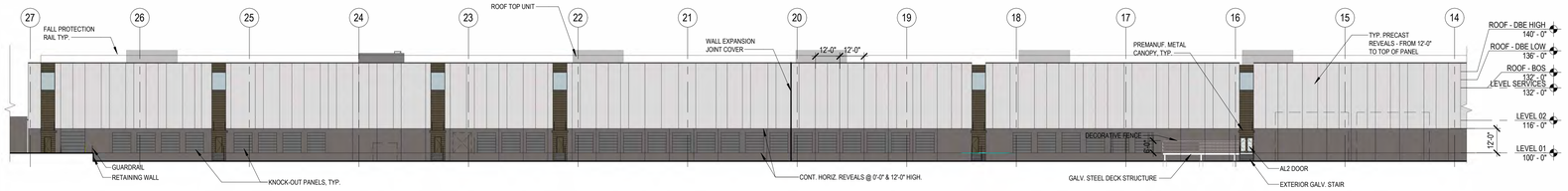
GENERAL NOTES - EXTERIOR ELEVATIONS

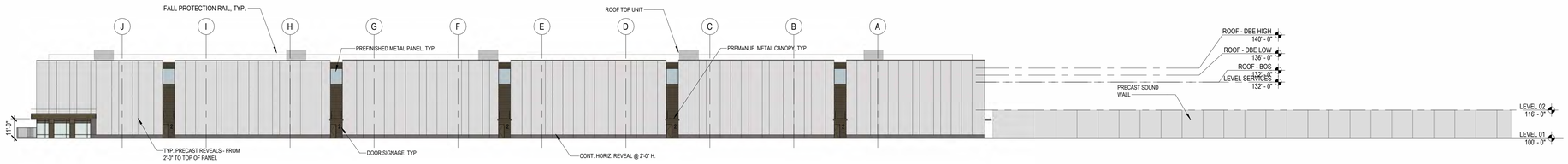
A. ELEVATIONS OF EXISTING FLOORS ARE BASED ON SURVEY INFORMATION AND/OR AS-BUILT DRAWINGS PROVIDED BY THE OWNER. THE SURVEY DATA MAY NOT BE COMPLETE AND THE ACTUAL EXISTING ELEVATIONS MAY VARY IN DIFFERENT PORTIONS OF THE EXISTING BUILDING. ALL INFORMATION MUST BE FIELD VERIFIED AND COORDINATED BETWEEN NEW AND EXISTING CONSTRUCTION TO PROVIDE MATCHING FLOOR ELEVATIONS WHERE REQUIRED.



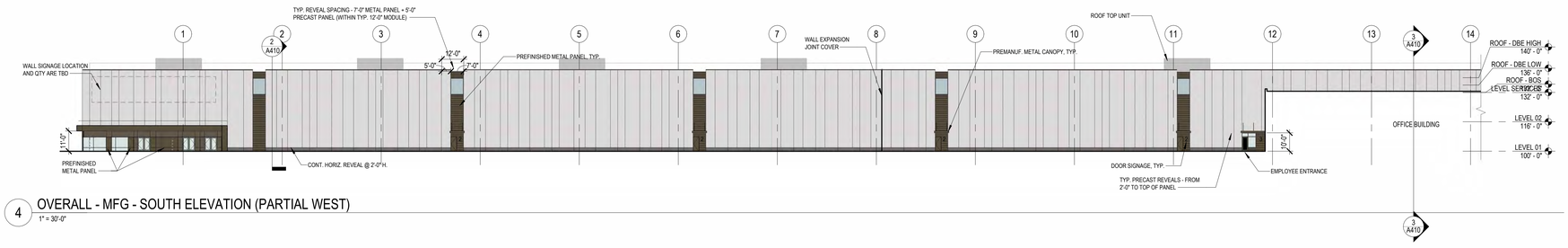
1 OVERALL - MFG - NORTH ELEVATION (PARTIAL WEST)
1" = 30'-0"



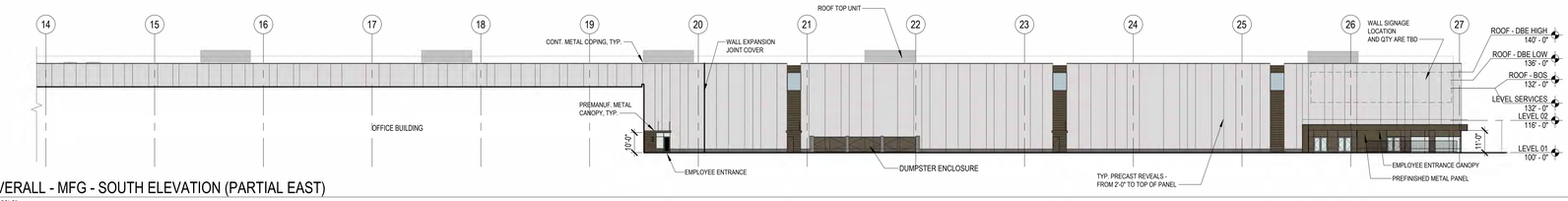
2 OVERALL - MFG - NORTH ELEVATION (PARTIAL EAST)
1" = 30'-0"



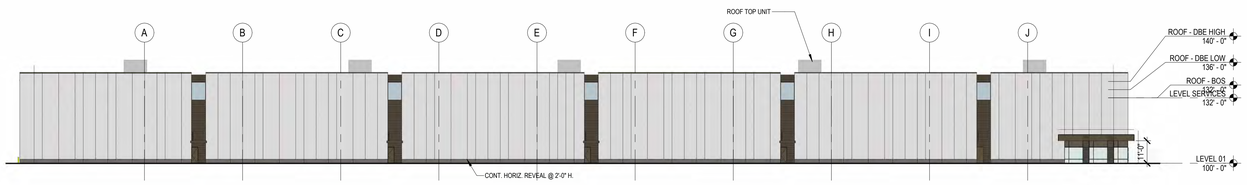
3 OVERALL - MFG - EAST ELEVATION
1" = 30'-0"



4 OVERALL - MFG - SOUTH ELEVATION (PARTIAL WEST)
1" = 30'-0"



5 OVERALL - MFG - SOUTH ELEVATION (PARTIAL EAST)
1" = 30'-0"



6 OVERALL - MFG - WEST ELEVATION
1" = 30'-0"

KEYNOTES

#	NOTE

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ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

OVERALL EXTERIOR ELEVATIONS - MFG

DATE: MAY 29, 2026

DEVELOPMENT USE SUBMITTAL

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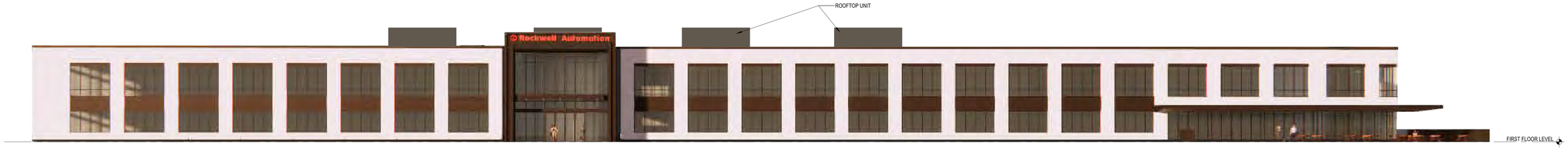
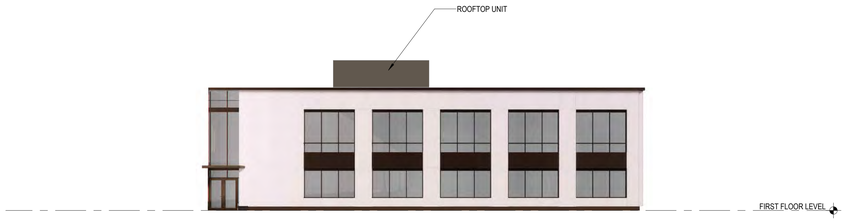


SOUTH ELEVATION

EAST ELEVATION



WEST ELEVATION

1 EXTERIOR ELEVATION AT OFFICE
1/16" = 1'-0"

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KEYPLAN

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ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

OVERALL EXTERIOR ELEVATIONS - OFFICE

DATE: MAY 29, 2026

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PERSPECTIVE FROM SITE ENTRY

FOR ILLUSTRATIVE PURPOSES ONLY

APPROACH TO OFFICE ENTRY

FOR ILLUSTRATIVE PURPOSES ONLY

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ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

RENDERING 1

DATE: MAY 29, 2026

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OFFICE PATIO AND DINING - EAST ELEVATION

FOR ILLUSTRATIVE PURPOSES ONLY

LOADING DOCKS | SERVICE AREA - NORTH OF BUILDING

FOR ILLUSTRATIVE PURPOSES ONLY

OFFICE ENTRY

FOR ILLUSTRATIVE PURPOSES ONLY

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HGA NO: 5533-001-00

RENDERING 2

DATE: MAY 29, 2026

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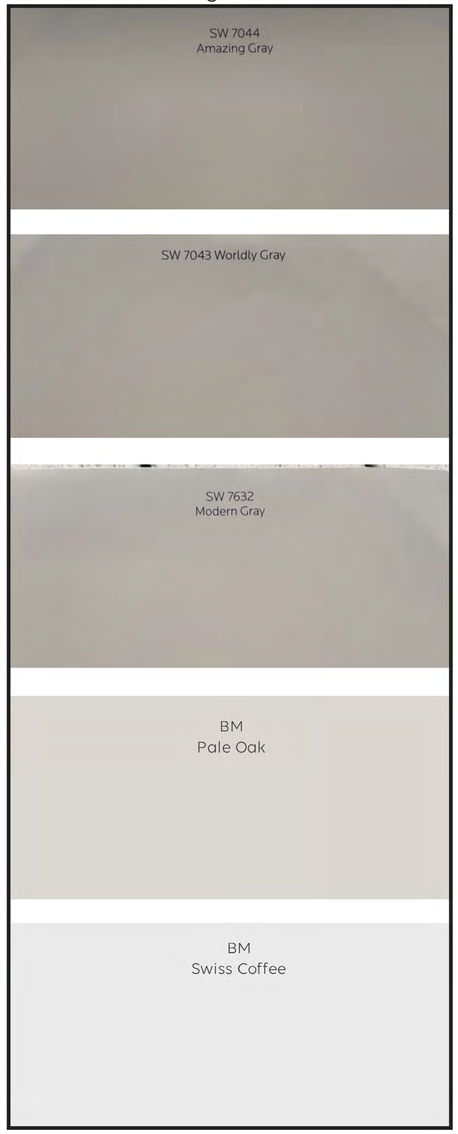
Color Palette For Light Color Consideration



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AREA D | AREA E | AREA F
AREA G

KEYPLAN

NOT FOR CONSTRUCTION

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

MATERIAL SAMPLE BOARD

DATE: MAY 29, 2026

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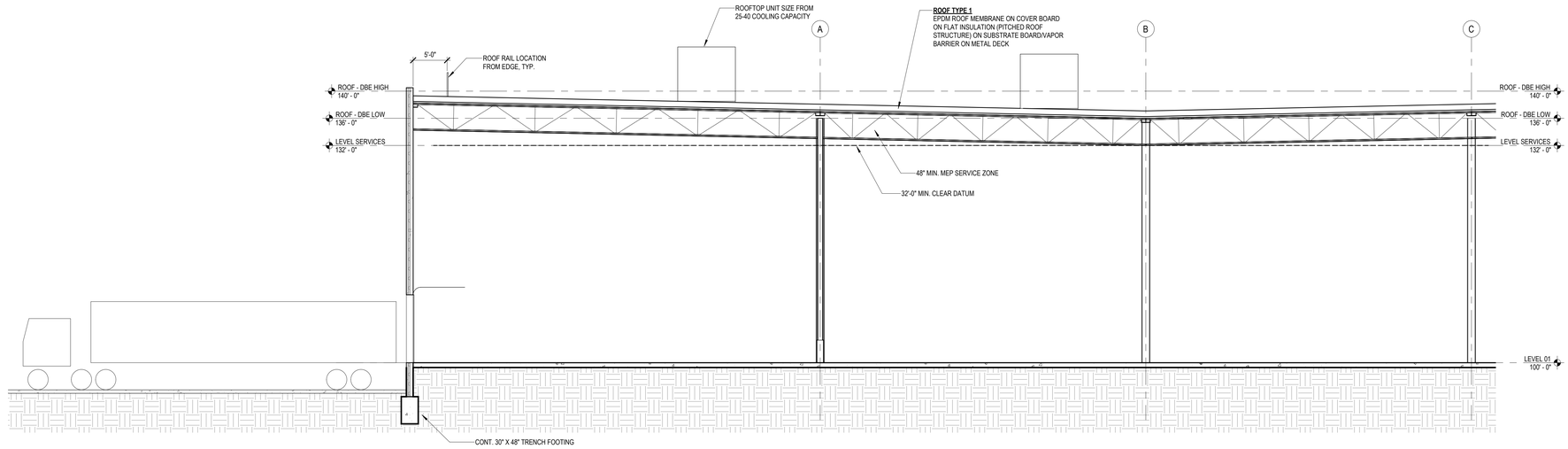
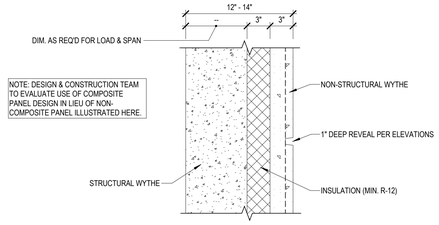
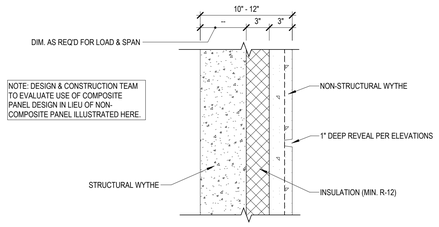


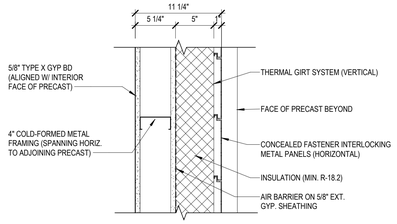
1 BUILDING SECTION - NORTH/SOUTH1
1/8" = 1'-0"



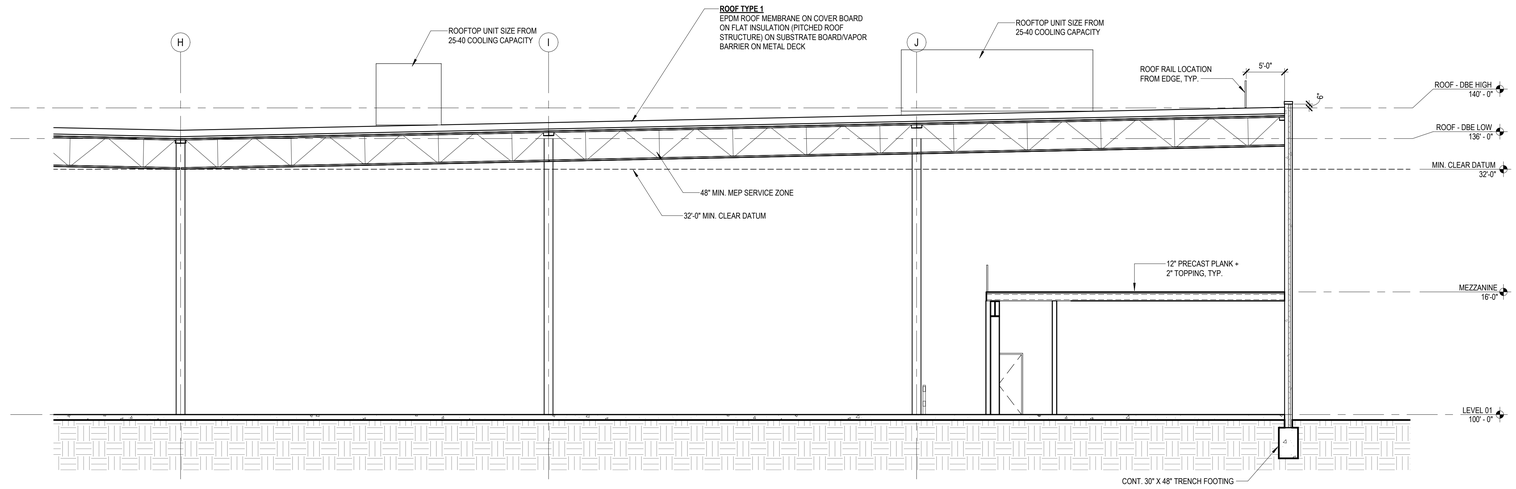
4 LOAD-BEARING INSULATED PRECAST (NON-COMPOSITE)
1 1/2" = 1'-0"



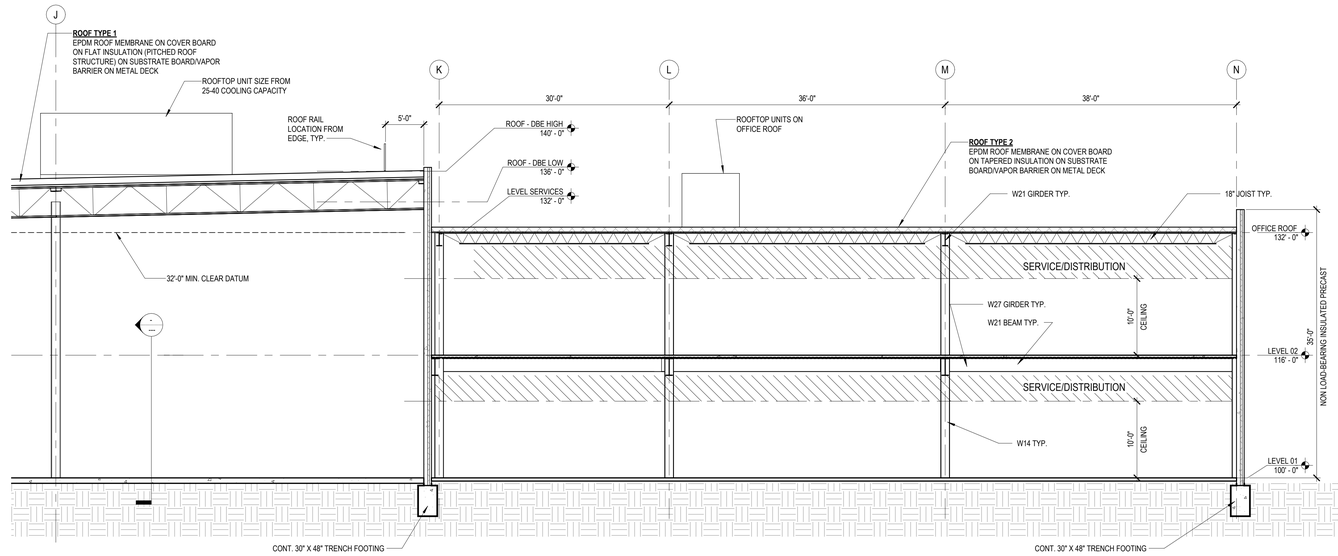
5 NON LOAD-BEARING INSULATED PRECAST (NON-COMPOSITE)
1 1/2" = 1'-0"



6 COLD-FORMED FRAMING W/ METAL PANEL
1 1/2" = 1'-0"



2 BUILDING SECTION - NORTH/SOUTH
1/8" = 1'-0"



3 BUILDING SECTION - NORTH/SOUTH OFFICE
1/8" = 1'-0"

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	AREA G	

KEYPLAN

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NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 5533-001-00

BUILDING SECTIONS

DATE: MAY 29, 2026

DEVELOPMENT USE SUBMITTAL

A410

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STAFF REPORT
EXECUTIVE SUMMARY

APPLICANT/PROJECT:	**Chris Strzok with Little Muskego Lake District**
LOCATION:	**5805 S. Martin Road**
REQUEST:	**Use Approval for Little Muskego Lake District to allow composting piles located at 5805 S. Martin Road**
D.R.C. RECOMMENDATION:	**Recommend denial of the request to allow composting piles for Little Muskego Lake District located at 5805 S. Martin Road, subject to the application, plans on file and the following reasons:**

Background

1. **Zoning Permit UA-11-037 was issued on 6/16/2011 (see attached). The conditions of approval stated, "This approval is on a temporary basis until October 1, 2011. The applicant may re-apply for composting on the site on a permanent basis with a conditional use application and Plan Commission approval. A wetland delineation report and rezoning application should be submitted at the time of the Conditional Use application."**
    a. **The applicant has not submitted applications for:**
        i. **Conditional Use**
        ii. **Wetland Registration**
        iii. **Rezoning**
    b. **The Plan Commission shall determine if it is still its intent that the applicant submit these materials to adequately review this type of use on the site, given the past history of nuisance complaints.**
2. **Violation Letter CO-11-202 was mailed on 6/8/2011 (see attached). The past use of this property which included this accessory use was reported to be a nuisance to the surrounding properties and hence absent the establishment of conditions to mitigate those issues through a conditional use permit, staff recommends denial because of the noxious odors associated with the decomposing vegetation, as per:**
    a. **175-3H, " Noxious odors, etc. Any use of property, substances or things within the City emitting or causing any foul, offensive, noisome, nauseous, noxious or disagreeable odors, gases, effluvia or stenches extremely repulsive to the physical senses of ordinary persons which annoy, discomfort, injure or inconvenience the health of any appreciable number of persons within the City."**
    b. **275-40N, "Hazardous uses. No use, in any district, which is hazardous, harmful, noxious, offensive or is a nuisance shall be permitted. Any use which becomes hazardous, harmful, noxious, offensive or is a nuisance to the neighborhood shall be corrected and improved, or removed, in accordance with measures specified by the Plan Commission consistent with reasonable technological and economic practicality."**

Review Comments (if the Plan Commission would recommend approval of the applicants request, the following conditions would apply):

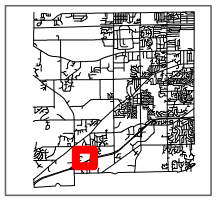
1. **Any tracking of dirt or debris onto the roadway shall be cleaned up immediately.**
2. **The composting rows shall be placed in such a way as to not channelize or direct water run off onto neighboring properties.**
3. **Erosion control measures should be taken into consideration to protect the wetlands from particulates.**
4. **DNR mapping shows wetlands on this property. Provide a wetland delineation and proof of approval for a wetland crossing from the DNR.**
5. **A wetland delineation completed within the last 5 years is required.**
6. **Provide documentation from the DNR of compliance with composting regulations, including but not limited to minimum setback requirements.**
7. **You may need a DNR Construction Site Storm Water Permit.**
8. **No grading submitted or approved as part of this permit.**
9. **Blocking of drainage is prohibited.**
10. **Easements have been checked only for those granted to the City (drainage, sanitary, and water main) or major transmission mains. Descriptions for the individual easements for service (gas, electric, and telephone) are not available.**
11. **The applicant shall employ measures to reduce and mitigate the noxious odors in order to minimize the adverse impacts on surrounding properties.**
12. **Erosion control measures shall be placed within 24 hours after beginning the excavating.**
13. **You are responsible for complying with state and federal laws concerning construction near or on wetlands, lakes, and streams. Wetlands that are not associated with open water can be difficult to identify. Failure to comply may result in removal or modification of construction that violates the law or other penalties or costs. For more information, visit the Department of Natural Resources Wetlands Identification web page or contact a department of natural resources service center. http://www.dnr.wi.gov/topic/wetlands/locating.html**

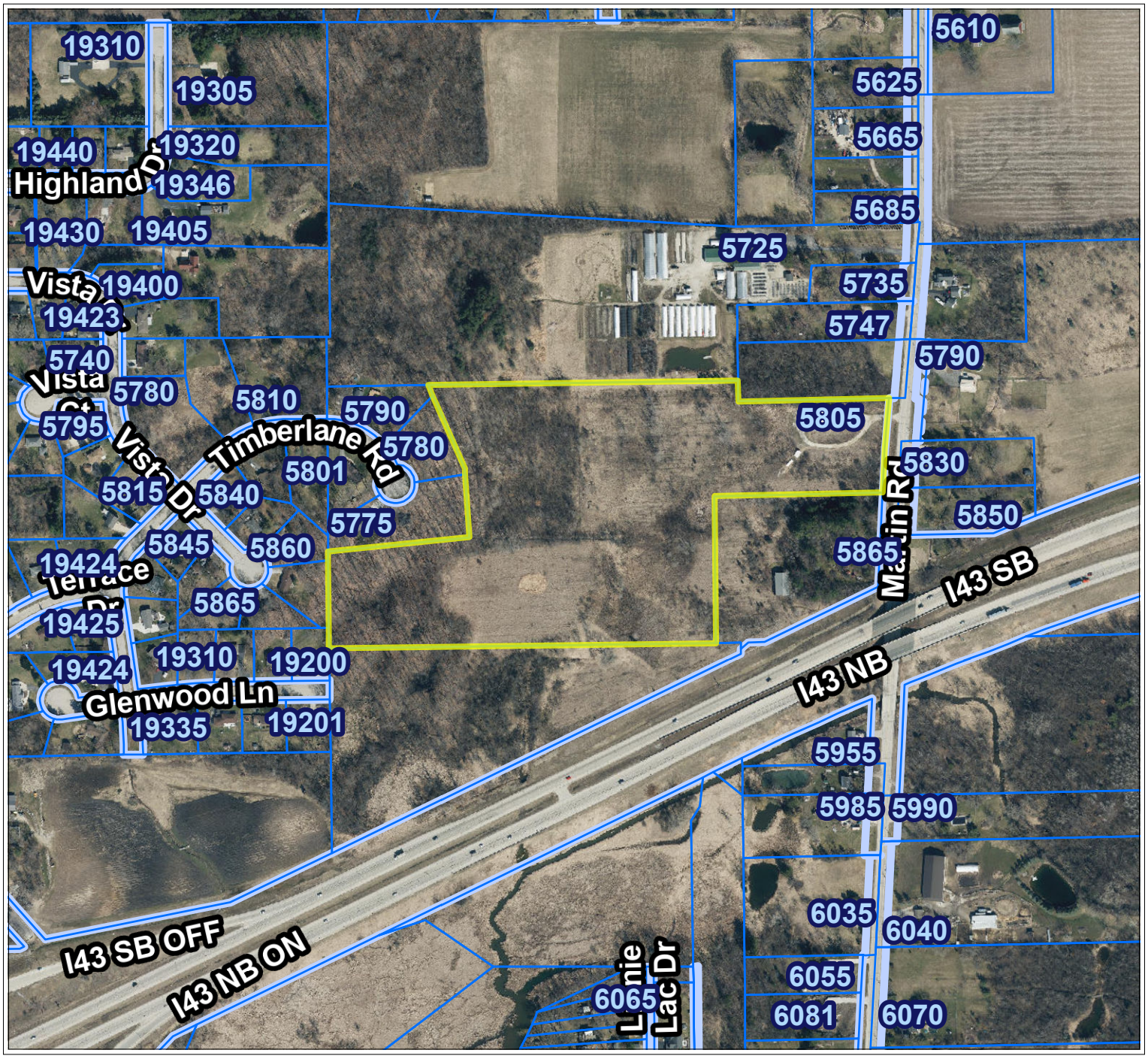
ATTACHMENTS:

Location Map
Plan of Operation
Plan
Zoning Permit UA-11-037
Violation Letter CO-11-202

City of New Berlin
Community Development

UA-2601134
Muskego Lakes
5805 S. Martin Road





Parcels
Road Right-of-Way
Conservation Easement
Environmental Corridor

Floodplain FEMA DFIRM
FEMA DFIRM - Zone A
FEMA DFIRM - Zone AE
FEMA DFIRM - 0.2% Chance

Wetland

Zoning Wetland Registration
Registered Wetland
Outside Wetland

Zoning Overlay
PUD
Special Conditions Apply
SPO

Zoning Boundaries

N

0 220 440
ft

Scale is estimate - not survey

City of New Berlin
Department of Community Development
3805 S Casper Dr.
New Berlin WI 53151
(262) 797-2445
www.newberlin.org

The information and depictions herein have been produced using data available through photogrametric means by the City of New Berlin. The informations and depictions herein are for informational purposes and the City of New Berlin specifically disclaims accuracy in this reproduction and specifically admonishes and advises that any and all depiction, measurements, distances depicted herein and as to which specific or precise accuracy is required should be determined by procurement of certified maps, surveys, plats, Flood Insurance Studies, or other official means.

TAGLaw International Lawyers

Thor C. Jeppson
Direct Telephone
608-661-3988
Thor.jeppson@vonbriesen.com

May 7, 2026

Ms. Kristen Hogan
City of New Berlin, Planning Division
3805 S. Casper Drive
New Berlin, WI 53151

RE: Zoning Permit Application for Accessory Composting Use at 5805 S. Martin Road

On behalf of the property owner, Little Muskego Lake District, we respectfully submit the enclosed zoning permit application for an accessory composting use at 5805 S. Martin Road.

The property is currently used by the District for storage of maintenance equipment, both within the existing structure and on the surrounding grounds. The District proposes to utilize portions of the rear yard zoned A-2 and R-1/R-2 for the seasonal composting of aquatic plant materials harvested from Little Muskego Lake. All identified wetlands on site will be avoided. The District has previously received temporary zoning permits for this use, most recently in 2011.

Project Description

Operations and Equipment: The proposed operation will compost aquatic vegetation harvested from the lake as part of the District's ongoing lake management and conservation activities. Plant material will be transported to the site by single-axle dump trucks in loads of approximately 3–9 cubic yards, with access provided via the existing driveway on S. Martin Road. Upon delivery, materials will be spread to promote drying and initiate the composting process.

As the vegetation dries and decomposes, the material will naturally reduce in volume by half every few weeks. After roughly two months, the material will reach a stable condition suitable for final use. Finished compost will either be incorporated into the soil using a compact tractor or track skid loader, or hauled off-site for disposal or beneficial reuse if excess material remains.

Location: Composting activities will occur within designated rear yard areas shown on the submitted project map. One compost pile will be located in Rear Yard Area #1 within the A-2 zoning district, and another in Rear Yard Area #2 within the R-1/R-2 zoning district. Rear Yard Area #3 may be used as a contingency area if access to the primary locations becomes constrained.

All compost piles will be maintained at a maximum height of six feet and will be set back at least five feet from all property lines. Composting activities will be located away from wetlands to avoid potential environmental impacts.

Duration and Schedule: The composting operation will run seasonally from mid-May through the end of August. Activities will occur Monday through Friday between 7:00 a.m. and 5:00 p.m. Each batch of

material will require approximately two months to fully decompose before being incorporated into the soil or removed from the site. Material will be delivered in loads of approximately 3 to 5 cubic yards according to the following anticipated schedule:

- **May**: approximately 35 total loads (average 3.5 loads per day)
- **June**: approximately 100 total loads (average 5 loads per day)
- **July**: approximately 150 total loads (average 7.5 loads per day)
- **August**: approximately 150 total loads (average 7.5 loads per day)

Site Management Practices*:* Compost piles will be managed to promote efficient drying and decomposition while minimizing potential impacts. Materials will be spread promptly upon delivery to avoid excessive accumulation and reduce the potential for odor. Compost piles will be kept under 6 feet in height and at least 5 feet from property lines at all times.

The District is aware that odor concerns were raised during previous composting operations. At that time, compost piles were periodically turned, which can increase odor generation. Current best management practices instead recommend leaving smaller piles undisturbed so that a natural crust forms, which helps contain odors while accelerating drying and decomposition. If odor concerns arise, the District will utilize commercially available biological odor-control products to further minimize impacts.

Zoning Compliance

In prior correspondence, City staff indicated that a conditional use permit may be required due to conditions associated with **Permit #UA-11-37**. However, that permit granted temporary approval for composting activities in 2011 and expired on October 1, 2011. Accordingly, those conditions are no longer applicable, and the proposed operation should be evaluated independently under the current zoning code.

Section 275-70 of the City Code defines an accessory use as a use that is subordinate to the principal use located on the same lot. The proposed composting activity clearly meets this definition, as it is seasonal in nature and directly supports the District's ongoing lake maintenance operations conducted on the property.

Section 275-42(I) further provides that compost piles with a maximum height of six feet are permitted as an accessory use in all zoning districts, provided they are located in the rear yard and set back at least five feet from property lines. The District's proposal complies with each of these requirements.

Pursuant to **Sections 275-24(D)** and **275-15(D)(3)** of the Municipal Code, zoning permits that comply with applicable standards may be reviewed administratively by the Department of Community Development.

Based on the foregoing, the proposed accessory composting use is permitted by right under the current zoning code and may be approved through the administrative zoning permit process.

We appreciate your review of this application and are happy to provide any additional information you may require. Please do not hesitate to contact us with any questions.

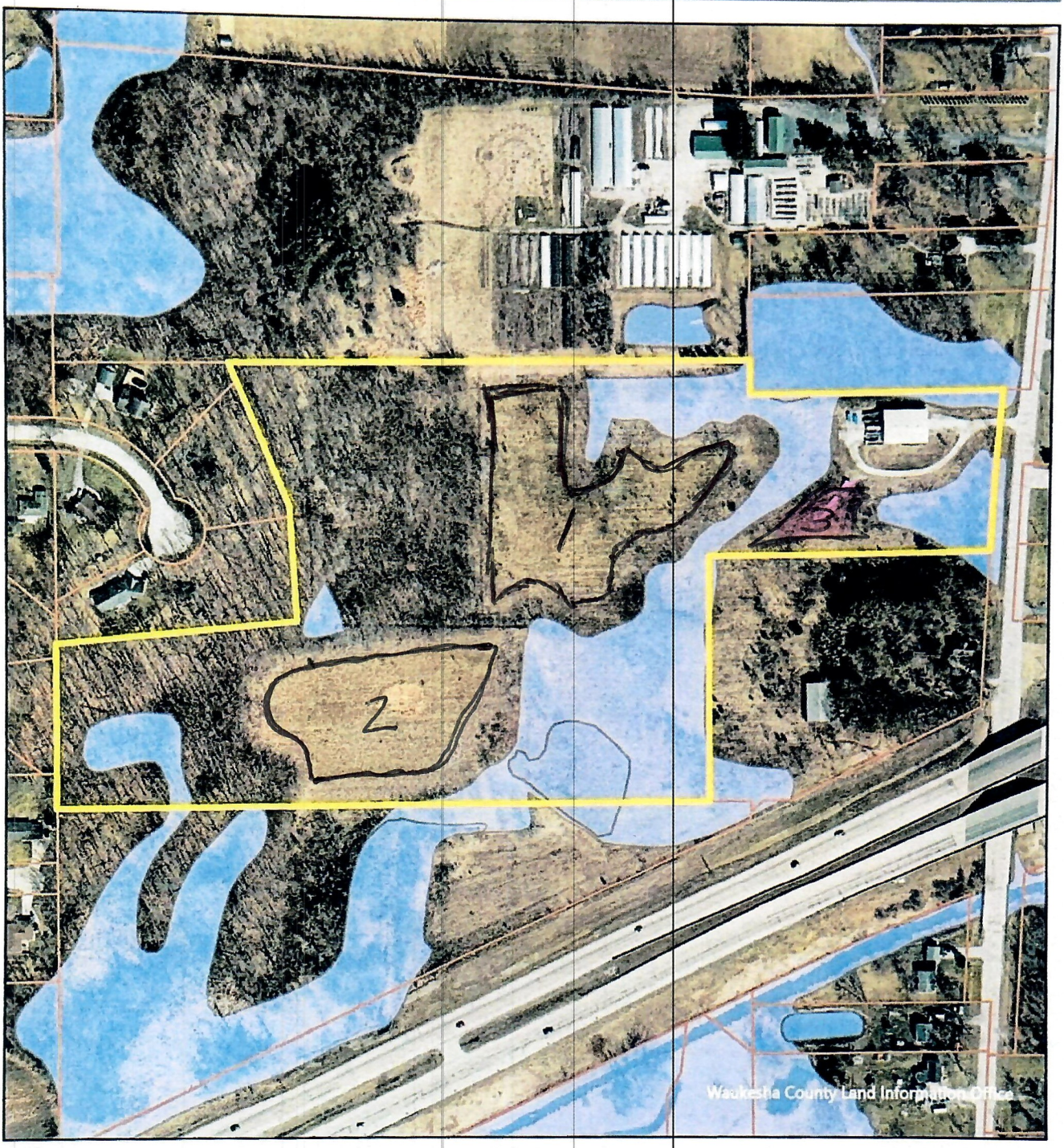
Very truly yours,

von BRIESEN & ROPER, s.c.

Thor Jeppson, Land Use & Development Advisor

TCJ:TCJ

Appendix B.4
Potential Harvesting Disposal Site on Martin Rd



Potential Harvesting Disposal Sites

Wetlands

(1) "REAR" YARD #1

(2) "REAR" YARD #2

(3) SIDE YARD #1

N

0 70 140 280 Feet

Source: Waukesha County, LMLD, and SEWRPC

ZONING PERMIT
CITY OF NEW BERLIN PLANNING DEPARTMENT

City of New Berlin
city living with a touch of country

Name: Little Muskego Lake Protection & Rehabilitation District

Address: 5805 S. Martin Road

For: Compost of Aquatic Plants in the Area Zoned A-2

This Zoning Permit authorizes the above establishment to conduct business or operate in accordance with all approved plans on file, any and all applicable City, State and Federal codes, and as described below:

1) This approval is on a temporary basis until **October 1, 2011**. The applicant may re-apply for composting on the site on a permanent basis with a conditional use application and Plan Commission approval. A wetland delineation report and rezoning application should be submitted at the time of the Conditional Use application.
2) Aquatic plants shall be spread out, and a cover crop planted.
3) Unresolved complaints due to odor may be cause for the Plan Commission to revoke temporary approval.

Expiration date: Per New Berlin Municipal Code Chapter 275-24(E), if the proposed construction, activity, or preparation of land has not commenced by **10-1-2011** the Zoning Permit shall be considered expired and invalid.

Occupancy Permit: Per New Berlin Municipal Code Chapter 275-26(B)(4), "The Building Inspector shall inspect the building, site, or premises for compliance with all current codes, plans, specifications, and conditions of approval prior to issuance of an occupancy permit. No occupancy shall be allowed if any other outstanding violations exist on the site. As-built plans may be required to substantiate or verify that certain conditions of the zoning permit, use approval, conditional use permit, developer's agreement, or building permit have complied with."

Building Permit: Per New Berlin Municipal Code Chapter 275-25(A), "No building or structure shall be erected, altered, relocated, moved, extended, or enlarged until a building permit has been issued by the Buildings, Inspection, and Zoning staff, certifying that such building, as proposed, would be in compliance with the provisions of this chapter and with the adopted City Building Code." A separate fee is required prior to the start of any construction. Please follow Codes and instructions of the Building Inspection Department (797-2449) when applying for your Building Permit.

Signage: Per New Berlin Municipal Code Chapter 275-61(B)(1) " No sign shall hereafter be located, erected, moved, reconstructed, extended, enlarged, converted or structurally altered, nor shall the face of a sign be changed without a Sign Permit and conforming with the provisions of this Ordinance. No Sign Permit shall be issued to a business or property that does not have a Zoning Permit." Signs require separate applications and approval.

Utilities: Per New Berlin Municipal Code Chapter 235-30(A) "Facilities for the distribution of electric, cable, telephone utility, and communication facilities service shall be buried underground in accordance with the specifications of the State Electrical Code. This shall include feeder cables and individual service connections. Transformers, meter points or similar equipment may be installed upon the ground surface provided that the location, architecture, and adequate screening have been approved by the Plan Commission."

Per New Berlin Municipal Code Chapter 235-30(B) "All relocation, upgrades, and reconstruction of above ground utilities shall be underground."

Other Permits: It is the responsibility of the permit applicant to secure all other necessary permits required by any federal, state, or local agency. This includes, but is not limited to, a water use permit pursuant to Chapter 30 or 31, Wis. Stats, or a wetland fill permit pursuant to Section 404 of the Federal Water Pollution Control Act.

Transferability: Per New Berlin Municipal Code Chapter 275-24(F) "Zoning permits are not transferable from one applicant to another without approval of the Plan Commission. Zoning permits are site specific and thus are not transferable from one site to another under any circumstances"

Failure to comply: Failure to comply with conditions of the Zoning Permit may be enforced pursuant to New Berlin Municipal Code Chapter275-68 (B) of the Zoning Ordinance," Whenever an order of the Director, Building Inspector, City Engineer, or other city official, pursuant to this Ordinance, has not been complied with, or where written agreements for compliance have not been made by the property owner, the City Attorney shall institute appropriate legal action or proceedings to prohibit the owner, agent, or occupant from using such structure, land, or water. The City may seek a court order in the nature of mandamus, abatement, or other action or proceeding to abate or remove a violation or to otherwise restore the premises in question to the condition in which they existed prior to the violation."

Permit Authorized By:

Name _____ Date 6/13/11

Amy L. Bennett, AICP
Associate Planner

Permit # UA-11-37

Cc: Building Inspection/Permit Tech
Code Compliance
Fire
Property Owner
Assessor

COMPLETED

Department of Community Development
3805 South Casper Drive
P.O. Box 510921
New Berlin, Wisconsin 53151-0921

Engineering Services
Inspection Services
Planning Services
Water Resources Management Utility

Phone Number: 262-797-2445
Department Fax: 262-780-4612
Website: www.newberlin.org/dcd

June 28, 2011

Sent USPS and Email famerson@mac.com

LITTLE MUSKEGO LAKE PROTECTION & REHABILITATION DISTRICT
12201 W BURLEIGH ST STE 6
WAUWATOSA, WI 53222

Re: Violations of City of New Berlin Municipal Zoning Codes and Use Approval Permit for Little Muskego Lake Protection & Rehabilitation Districts at 5805 S. Martin Road, New Berlin, WI, Tax Key 1277995.

Dear Property Owner and Fay Amerson;

It has been brought to the attention of this department that Little Muskego Lake Protection & Rehabilitation District located at 5805 S. Martin Road, New Berlin, is in violation of their Temporary Use Approval Zoning Permit No. UA-11-37 and City of New Berlin Municipal Code and Zoning Ordinances. Several complaints were received that a noxious odor was coming from your property due to the compost piles. Upon inspection on June 28, 2011, a noxious odor was detected coming from your property and several compost piles were outside of the designated disposal area, which is a violation of City of New Berlin Municipal Code Sections 275-67 A (3), Use inconsistent with conditions of approval and 175-3, Public nuisance and is subject to Section 275-68 (B) Remedies and enforcement powers.

Temporary Use Approval Zoning Permit No. UA-11-37 condition number 2 states, "Aquatic plants shall be spread out and a cover crop planted." Condition number 3 states, "Unresolved complaints due to odor may be cause for the Plan Commission to revoke temporary approval," which is outlined in City of New Berlin Municipal Zoning Code Section 275-68 (B) Remedies and enforcement powers.

Please see to it that the following conditions are met by Friday, July 1, 2011:

1. **The compost piles are to be spread out and a cover crop planted.**
2. **Aquatic plants are to be placed within the approved disposal area.**

If further complaints of noxious odors are received, the City shall take measures to revoke Zoning Permit No. UA-11-37. I have outlined the specific sections of the code that you are in violation of below and enclosed a copy of the Use Approval Permit, site map, and included pictures of the violation. Please see to it that the violations are cleared up by the deadline dates.

VIOLATIONS:

§ 175-3 Public nuisances affecting health.

H. Noxious odors, etc. Any use of property, substances or things within the city emitting or causing any foul, offensive, noisome, nauseous, noxious or disagreeable odors, gases, effluvia or stenches extremely repulsive to the physical senses of ordinary persons which annoy, discomfort, injure or inconvenience the health of any appreciable number of persons within the city.

§ 275-67 A (4) Violations

(4) Development, use, or sign inconsistent with conditions of approval. To violate, by act or omission, any term, condition, or qualification placed by a decisionmaking body upon any permit or other form of authorization;

§ 275-68 Remedies and enforcement powers.

B. Types of remedies and enforcement powers. The City shall have the following remedies and enforcement powers:

(1) Revoke permits. Any development permit or other form of authorization required under this chapter may be revoked when the Director and the Plan Commission determine that:

(a) There is departure from the plans, specifications, or conditions as required under terms of the permit;

(b) The development permit was procured by false representation or was issued in error; or

(c) Any of the provisions of this chapter are being violated.

A final inspection will be performed on or after the deadline date. Although this office anticipates your full cooperation, failure to comply with the New Berlin Zoning Ordinance could lead to legal action by the City Attorney, including but not limited to civil suit, injunction and possible forfeitures on your part. Each and every day this violation exists constitutes a separate offense.

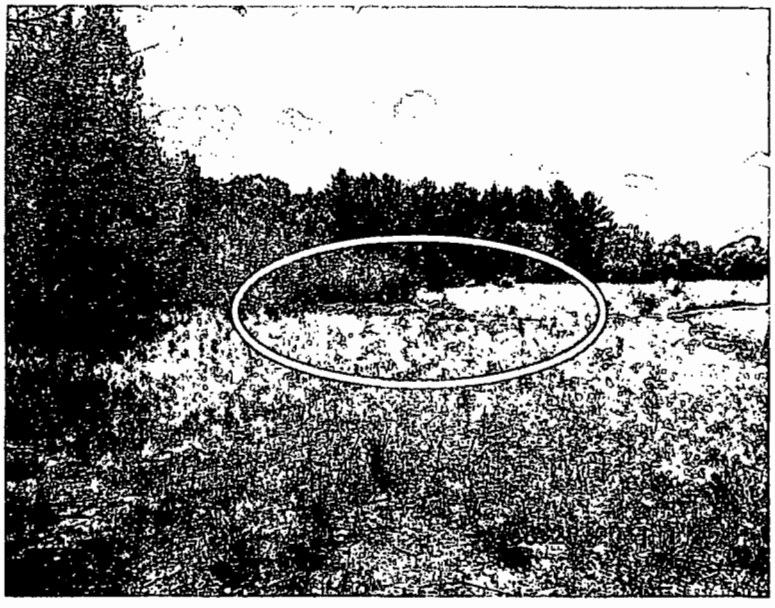
If you have any questions, please call me at 262-797-2445, ext. 2249.

Sincerely,
CITY OF NEW BERLIN

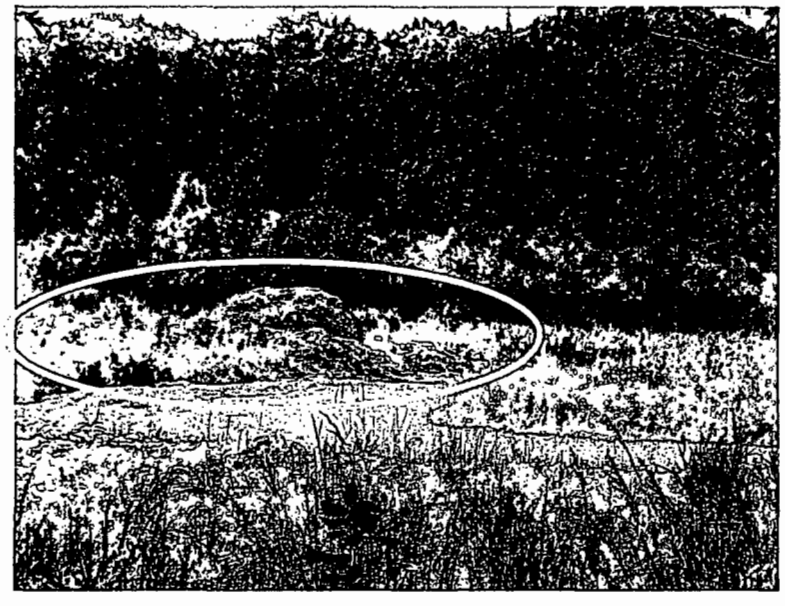
Corliss Tischer

Corliss Tischer
Code Compliance Specialist

CC Alderman Harenda
Mayor Jack Chiovatero
Greg Kessler, Director of Community Development



Piles east of the disposal area and closest to the Martin Road



Piles on west side within the disposal area

Department of Community Development
Planning Department
City of New Berlin
3805 S. Casper Drive
New Berlin, WI. 53151-3097
Phone: (262) 797-2445
Fax: (262) 780-4612

MEMO TO: David Ament, Mayor
Plan Commissioners

MEMO FROM: Greg Kessler, Director of Community Development

MEMO RE: 2026 Plan Commission Meeting Schedule

January 7

February 2

March 2

April 15 *– 3rd Wednesday of the Month, due to the Election.*

May 4

June 1

July 15 *– City Hall will be closed July 4th in observance of Independence Day.*

August 19 *– 3rd Wednesday of the Month, due to the Election.*

October 5

November 4 *– First Wednesday of the Month, following the General Election. Moved from original date of November 17th, due to the possible Primary for the Special Election.*

December 7

January 13, 2027 *– Please note that this is a Wednesday due to New Years.*

*** Meetings in bold italics are modified and do not occur on the first Monday of the Month.*

Updated 8/6/2026