

HASTINGS PLANNING COMMISSION A G E N D A

Tuesday September 2, 2025

- 1. Call to Order/Roll Call** (Regular meeting starts at 7:00 p.m.)
- 2. Pledge of Allegiance**
- 3. Approval / additions / deletions to agenda**
- 4. Approval of Minutes** May 5, 2025, Draft Meeting Minutes of the Planning Commission *
- 5. Informative Items:** None
- 6. Public Hearings:**
 - A. Public hearing to review and consider site plan and special use permit approval from Matt Koning of Broadmoor Motor Group at 1504 South Hanover. *
- 7. New Business:**
 - A. Preliminary site plan review and PUD amendment for 420 E Mill PUD. *
 - B. Unofficial Site Plan Review for North Ridge Estate Condominiums at 1700 N. Jefferson Street. *
 - C. Administrative Site Plan Approval for Meadowstone Apartments III. *
 - D. Administrative Site Plan Approval for Par Tee Real Estate LLC. *
 - E. Administrative Site Plan Approval for T-Mobile. *
 - F. Administrative Site Plan Approval for Co-Dee Realty, LLC *
- 8. Old Business:**
 - A. Receive JPA / JPC Update.
 - B. Consider Planning Commission 2025 General Work Task List. *
 - C. Report Regarding Tracking and Terms and Conditions Imposed by the Planning Commission. *
 - D. 3-4 Family Overlay District Draft Text *
 - E. Land Division (Subdivision) Ordinance vs. Site Condo Regulations *
- 9. Open Public Discussion and Comments**
- 10. Staff Comments**
- 11. Commissioner Comments**
- 12. Adjourn**

*Indicates attachment

CITY OF HASTINGS
PLANNING COMMISSION MEETING MINUTES
May 5, 2025

The meeting was called to order at 7:00 p.m. by Chairperson Hatfield with the following Commissioners present: Scott Darling, Chelsey Foster, David Hatfield, Nichole Lyke, Bill Mattson, Jacquie McLean, Sarah Moyer-Cale, and Dave Tossava. Student member Meredith Ansorge was also present.
Absent: Levi Bolthouse

Also present: Planning Consultant Rebecca Harvey.

It was MOVED by McLean and SECONDED by Foster to approve the agenda as presented. All members present voting yes; motion carried.

It was MOVED by Mattson and SECONDED by Foster that the proposed minutes of the Regular Meeting of March 3, 2025 be approved with the correction of the spelling of Mattson's name. All members present voting yes; motion carried.

None.

Applicant Terry Dennison presented an overview of the request and his vision for the museum. Harvey presented her staff report regarding the special land use application and noted several areas in which compliance with the ordinance could not be determined due to a lack of information. The public comment portion of the hearing was opened at 7:09 p.m. No comments were received, and the public comment period closed at 7:09 p.m.

Discussion was held by the commission regarding the merits of the application and whether or not there was sufficient documentation to make a decision.

It was MOVED by Foster and SECONDED by Tossava to approve the special land use and site plan for 220 W Colfax contingent upon the applicant's submittal of a revised site plan with complete, required information that conforms to the zoning ordinance.

Voting yes: Foster, Hatfield, Lyke, Mattson, Moyer-Cale, Tossava
Voting no: Darling, McLean
Absent: Bolthouse
Motion Carried.

Moyer-Cale reported that the JPA held a brief meeting and JPC will meet next month.

No changes to the work task list were noted.

None noted.

Call to Order

Approval of the Agenda

Approval of the Minutes

Informative Items:

Public Hearing:
SLU for "Off Broadway" museum at 220 W Colfax

New Business:
PUD plan for Bachman Fields, 900 Bachman Rd

Old Business
JPA/JPC Update

Work Task List

Tracking Terms and Conditions

Public Comment

No public comment was received.

None.

McLean commented that applicants need to submit complete information with their requests to be properly reviewed by the Planning Commission and make better use of staff resources.

It was MOVED by Mattson and SECONDED by McLean to adjourn the meeting. All members present voting yes; motion carried. The meeting was adjourned at 7:38 p.m.

Respectfully submitted,

Sarah Moyer-Cale,
Secretary

Staff Comments

Commission Comments

Adjournment

City of Hastings

NOTICE OF PUBLIC HEARING ON A SPECIAL USE PERMIT FOR 1504 SOUTH HANOVER

The Planning Commission for the City of Hastings will hold a Public Hearing for the purpose of hearing written and/or oral comments from the public regarding the request for a Special Use Permit and Site Plan Review from Matt Koning of Broadmoor Motor Group for construction of a vehicle repair shop located at 1504 South Hanover Street, Hastings, Michigan 49058. The public hearing will be held at 7:00 PM on Tuesday September 2, 2025, in the Council Chambers, second floor of City Hall, 201 East State Street, Hastings, MI 49058. Please check the City of Hastings website at www.hastingsmi.gov or contact City Hall at 269-945-2468 for details.

All interested citizens are encouraged to attend and to submit comments.

A copy of the plans and additional background materials are available for public inspection from 9:00 AM to 4:00 PM Monday through Friday at the Office of the Community Development Director, 201 E. State Street, Hastings, MI 49058. Questions or comments can be directed to Dan King, Community Development Director at 269-945-2468 or dking@hastingsmi.gov.

The City will provide necessary reasonable aids and services upon five days' notice to the City Clerk at 269.945.2468 or TDD call relay services 800.649.3777.

Linda Perin
City Clerk

Please publish in the August 14, 2025 edition of the
Hastings Banner.



Application for Planning Commission

City of Hastings
Hastings, MI 49058
269-945-2468



Date: 8-6-2025

Applicant Name: Koning (last) Matt (First) (M.I.)
Address: 1420 S Hanover St Hastings, MI 49058
(Street) (City, State, zip)
Telephone: 269-320-6304 616-299-8280
(Business) (Cellular)
Email: mkoning@broadmoormotors.com

Applicants Interest in Property: Owner

Owners Name (If Different From Above):

Request:

- | | | |
|---|--|---|
| <input type="checkbox"/> Rezoning | <input checked="" type="checkbox"/> Special Use Permit | <input type="checkbox"/> Plat or Condo |
| <input type="checkbox"/> Site Plan Review | <input type="checkbox"/> PUD | <input type="checkbox"/> PUD Phase Approval |
| <input type="checkbox"/> Other: | | |

Address of Property: 1504 S Hanover, Hastings, MI 49058

Legal Description:

Lot 20, Supervisor's Plat Glasgow's Addn NO 1, EX TH S 132 Ft

Current Zoning: B-6 Proposed Zoning: B-6

Applicable Fees: \$250.00 application - \$1,250.00 pscrw. \$1500.00 total

Applicants Signature: [Signature]

Staff Signature: [Signature]

CDO/ZA
(Title)

Office Use Only

Application Number:		Date Advertised:	8-11-25
Filing Date:	8-11-25	Date of Meeting:	9-2-25
Fees Paid:	8-11-25	Board Action:	
To Clerks Office On:		Effective Date:	

CITY OF HASTINGS
201 E STATE STREET
HASTINGS MI 49058-1954

269-945-2468

Receipt No: 1.156838

Aug 11, 2025

MATT KONING

CHARGES FOR SERVICES - APPLICATION FEE (IE BEIG) APPLICATION FOR PLANNING COMMISSION MATT KONING 1420 S HANOVER ST 101-100-648-000 Application Fees	250.00
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Total:	250.00
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OTHER REVENUE - ESCROW FOR MATT KONING 1420 S HANOVER ST BMG 101-000-283-430 Perf Dep - Broadmoor Motors	1,250.00
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Total:	1,250.00
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CHECK	Check No: 147	1,500.00
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Payor: MATT KONING

Total Applied:	1,500.00
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Change Tendered:	.00
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Duplicate Copy

08/11/2025 3:52 PM

- Scale 1" = 60'
- = Concrete
 - = Asphalt
 - D = Description dimension
 - M = Measured dimension
 - P = Platted dimension
 - = Set iron stake
 - = Found iron stake

Property Description: (Tax Description)
LOT 20, SUPERVISOR'S PLAT GLASGOW'S
ADDN NO 1, EX TH S 132 FT.



By:
Adam C. Burgess, Licensed Professional Surveyor No. 55446

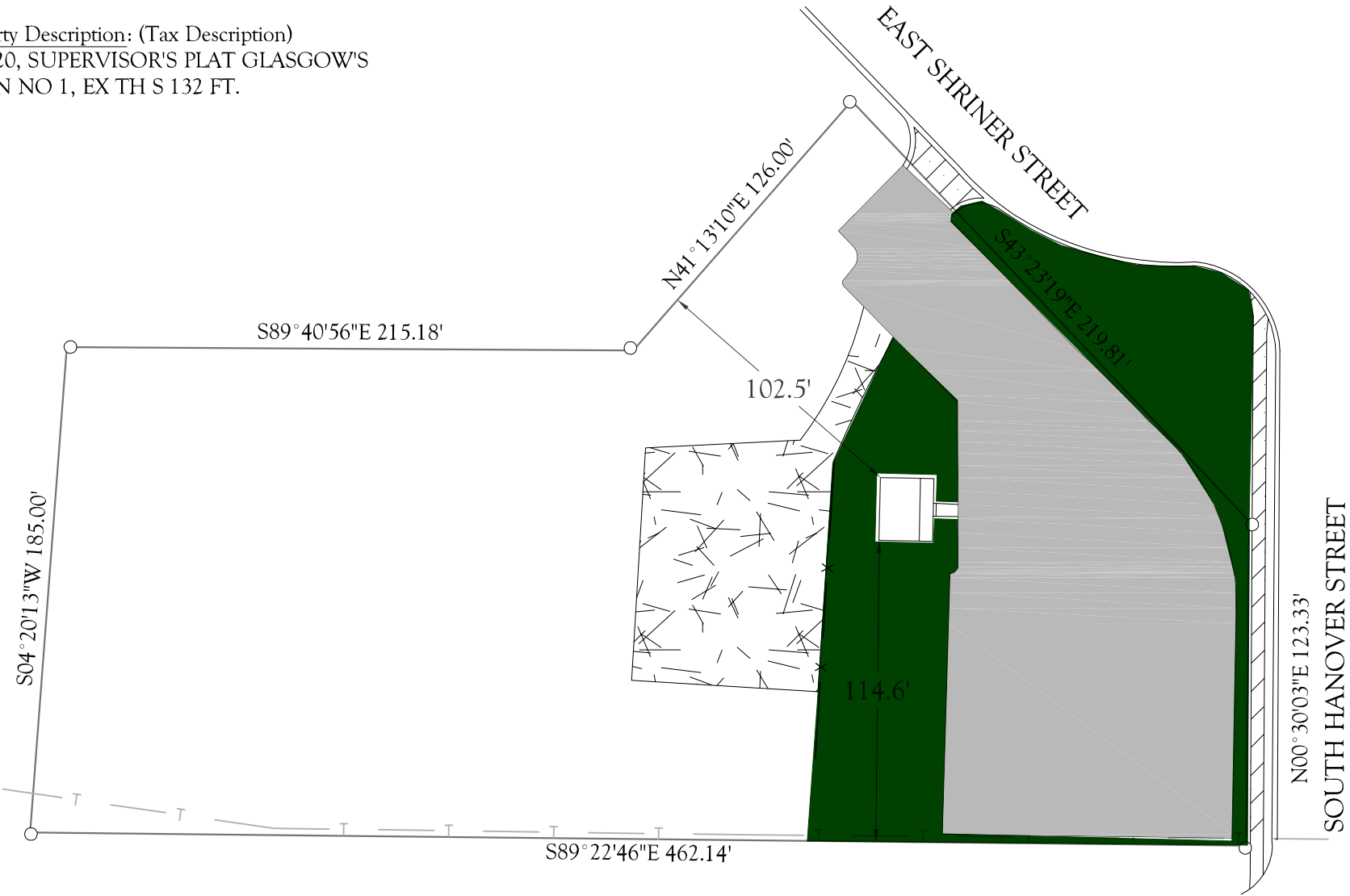
Broadmoor Motor Group
1504 S. Hanover

BURGESS
Surveying

2486 84th Street, SW, Byron Center, MI 49315
www.burgesssurveying.com

Date: May 5, 2025

Drawn By: JTB



EXISTING SITE PLAN

This drawing was made from the description shown above.
The description should be compared with the Abstract of
Title or Title Policy for accuracy, easements and exceptions.

Scale 1" = 60'

= Concrete

= Asphalt

D = Description dimension

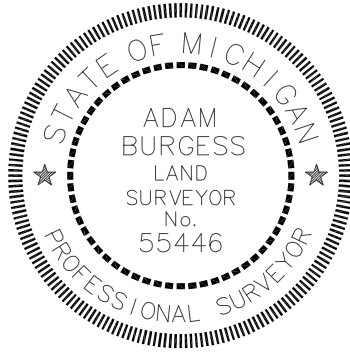
M = Measured dimension

P = Platted dimension

● = Set iron stake

○ = Found iron stake

Property Description: (Tax Description)
LOT 20, SUPERVISOR'S PLAT GLASGOW'S
ADDN NO 1, EX TH S 132 FT.



By:
Adam C. Burgess, Licensed Professional Surveyor No. 55446

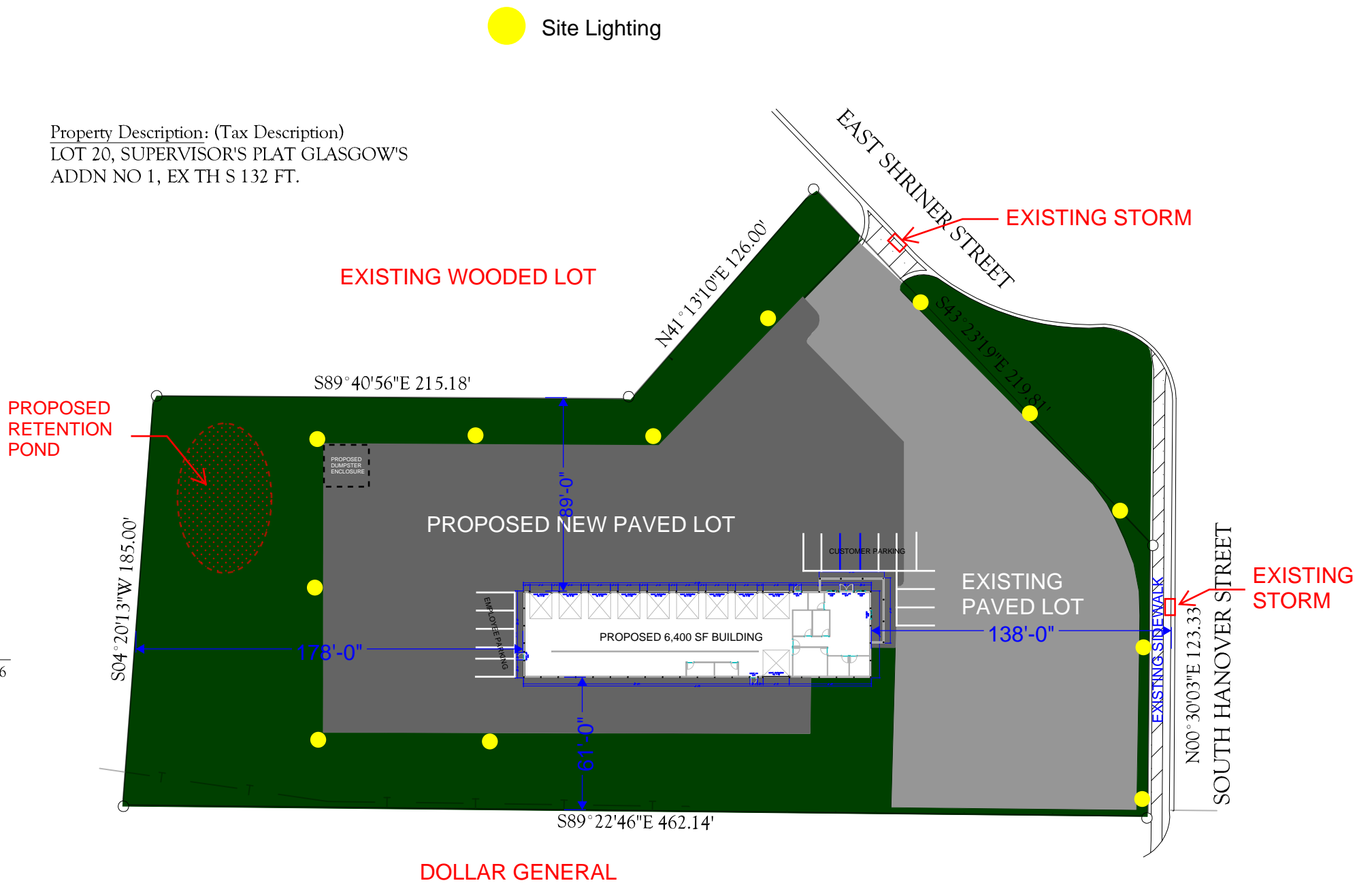
Broadmoor Motor Group
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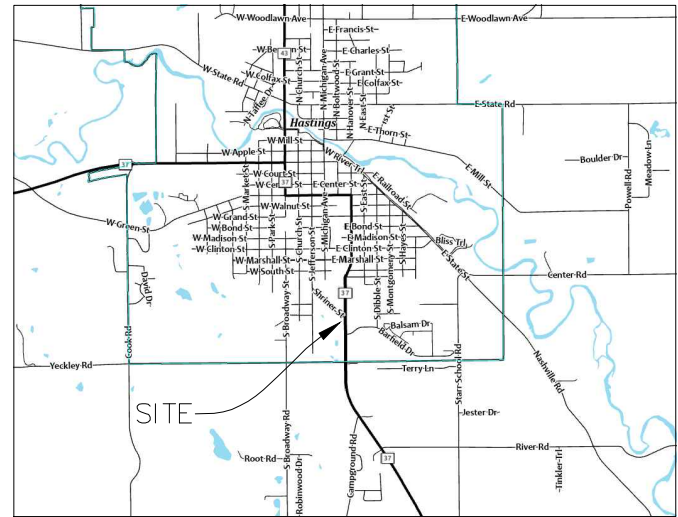
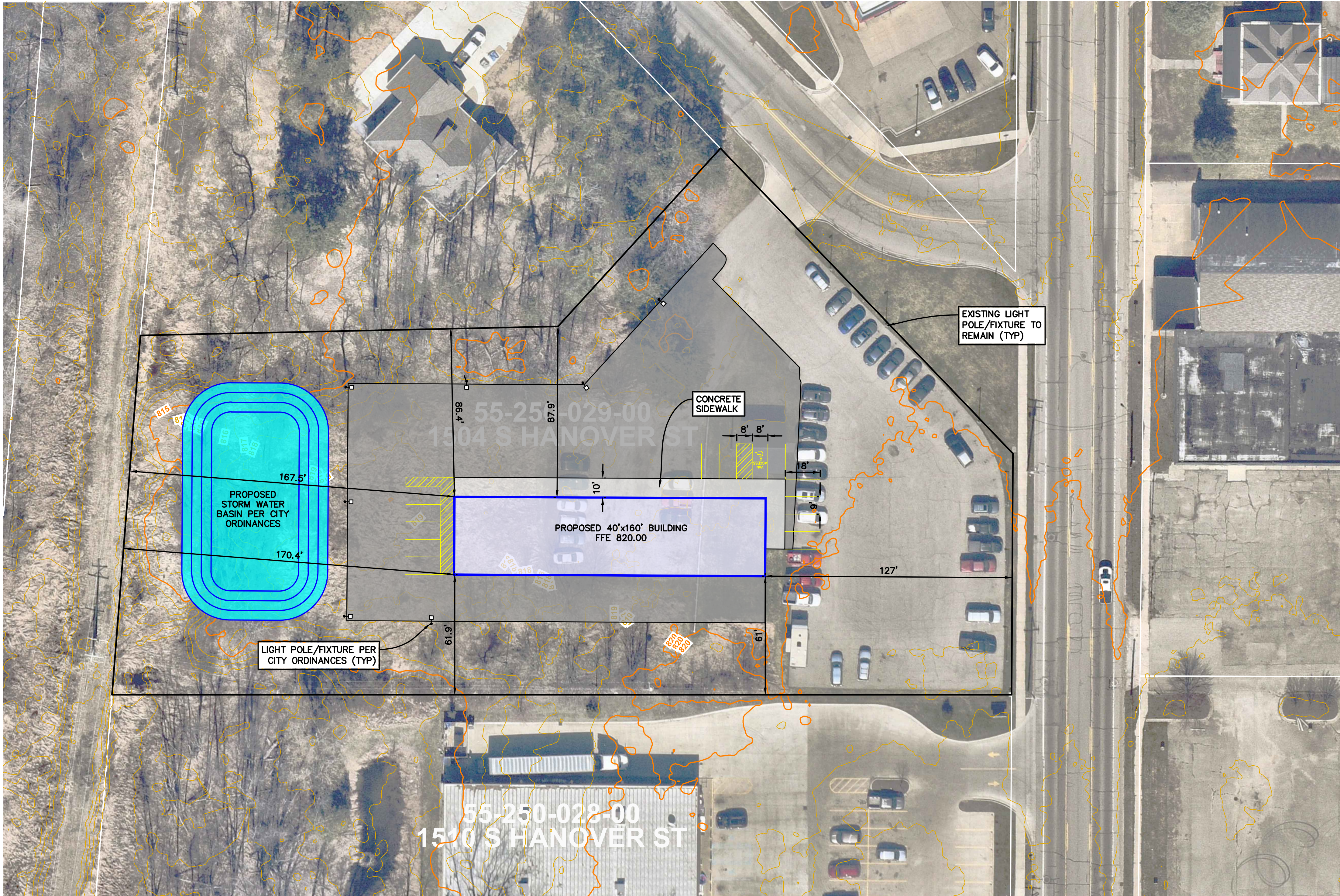
Date: May 5, 2025

Drawn By: JTB



PROPOSED SITE PLAN

This drawing was made from the description shown above.
The description should be compared with the Abstract of
Title or Title Policy for accuracy, easements and exceptions.



TAX DESCRIPTION:
LOT 20, SUPERVISOR'S PLAT GLASGOW'S ADDN NO 1, EX TH S 132 FT.

- SITE PLAN GENERAL NOTES:**
1. THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND SURETY AS PART OF THIS WORK.
 2. THE CONTRACTOR SHALL CALL MISS DIG 3 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
 3. ALL STORM SEWER PIPE SHALL BE ADS N-12 PLASTIC PIPE UNLESS OTHERWISE SPECIFIED.
 4. ALL CATCH BASINS AND MANHOLES SHALL BE MINIMUM 4' DIAMETER PRECAST CONCRETE, UNLESS NOTED OTHERWISE.
 5. UNLESS OTHERWISE SPECIFIED, REINFORCED CONCRETE AREAS SHALL BE CONSTRUCTED WITH:
8" MDOT CL-2 SAND SUBBASE (C.I.P.)
8" MDOT GRADE P1 OR S2, 3,500 PSI, 28-DAY, 5-7% AIR ENTRAINED, BROOM FINISH
2 LAYERS, 6X6/6X6 WOVEN WIRE FABRIC.
 6. THE PAVED AREAS SUBJECT TO TRUCK TRAFFIC SHALL BE CONSTRUCTED WITH:
12" MDOT CL-2 SAND SUBBASE (C.I.P.)
8" 21AA GRAVEL BASE (C.I.P.)
2" 3EL HMA LEVELING COURSE
2" 5EML HMA WEARING COURSE
 7. ALL OTHER PAVED AREAS SHALL BE CONSTRUCTED WITH:
12" MDOT CL-2 SAND SUBBASE (C.I.P.)
6" 21AA GRAVEL BASE (C.I.P.)
1 1/2" 3EL HMA LEVELING COURSE
1 1/2" 5EL HMA WEARING COURSE
 8. THE CONTRACTOR SHALL BED AND BACKFILL ALL UNDERGROUND PIPING WITH MDOT CL-2 SAND TO A MINIMUM OF 95% MAXIMUM DRY DENSITY PER ASTM- 1557.
 9. THIS SITE PLAN SHALL NOT BE USED TO STAKE THE LOCATION OF PROPOSED BUILDING COLUMN LINES. THE SURVEYORS ARE TO USE THE BUILDING FOUNDATION PLANS.
 10. THE CONTRACTOR SHALL PLACE AND COMPACT FILL UNDER THE PROPOSED BUILDING AREA TO A MINIMUM OF 95% MAXIMUM DRY DENSITY PER ASTM-1557. ALL OTHER AREAS SHALL BE COMPACTED TO A MINIMUM OF 90% MAXIMUM DENSITY.
 11. THE CONTRACTOR SHALL PIPE ALL BUILDING ROOF WATER TO THE STORM WATER MANAGEMENT SYSTEM AS SHOWN AND SPECIFIED.

- LANDSCAPING GENERAL NOTES:**
1. SITE LANDSCAPING SHALL BE PROVIDED PER CITY OF HASTINGS ORDINANCES.
 2. ALL TREES TO HAVE CLAY OR CLAY LOAM BALLS, TREES WITH SAND BALLS WILL BE REJECTED.
 3. ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.
 4. ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER; TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED.
 5. ALL MULTI-STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNS; ONE SIDED TREES OR THOSE WITH THIN OR OPEN CROWNS SHALL NOT BE ACCEPTED.
 6. ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE GROWING SEASONS.
 7. SHRUBS AND PERENNIALS SHALL BE FULL AND WELL ROOTED. INSTALLATION SHALL BE MARCH 1 - NOVEMBER 30, ANNUALLY.
 8. ALL PLANT MATERIALS SHALL BE NORTHERN NURSERY GROWN, NO. 1 GRADE AND INSTALLED ACCORDING TO ACCEPTED PLANTING PROCEDURES. ALL PLANT MATERIALS SHALL MEET CURRENT AMERICAN ASSOCIATION OF NURSERYMAN STANDARDS.
 9. ALL PROPOSED MULCH TO BE NATURAL COLOR, DOUBLE PROCESSED, SHREDDED HARDWOOD BARK, 4" THICK BARK MULCH FOR TREES IN A 4-FOOT DIAMETER CIRCLE WITH 3" PULLED AWAY FROM THE TRUCK, 3" THICK BARK FOR SHRUBS AND 2" THICK BARK FOR PERENNIALS, TYP.
 10. THE CONTRACTOR SHALL GUARANTEE ALL PLANTINGS FOR A TIME PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE OF ALL WORK ITEMS. DURING THIS GUARANTEE PERIOD, THE CONTRACTOR SHALL IMMEDIATELY REPLACE ALL PLANT MATERIALS THAT DIE OR ARE DISEASED.
 11. YARD AREAS ARE TO BE RESTORED WITH 4" OF TOPSOIL, CLASS A SEED AT 200g/ACRE, FERTILIZER & MULCH (MULCH BLANKET ON SLOPES 1:3 OR STEEPER).

PLAN REVISIONS



Application for Planning Commission

City of Hastings
Hastings, MI 49058
269-945-2468



420 E. Mills, L.L.C. / Copper Rock

Date: 8/14/25

Applicant Name: GREGORY (Last) TAYLOR (First) (M.I.)

Address: 601 Fifth St, NW, Suite 300 (Street) Grand Rapids, MI 49504 (City, State, Zip)

Telephone: (Business) 616-840-5516 (Cellular)

Email: gregt@copperrockconstruction.com

Applicants Interest in Property:

Owners Name (If Different From Above): (420 E. Mills, L.L.C.)

Request:

- | | | |
|---|---|---|
| <input type="checkbox"/> Rezoning | <input type="checkbox"/> Special Use Permit | <input type="checkbox"/> Plat or Condo |
| <input type="checkbox"/> Site Plan Review | <input type="checkbox"/> PUD | <input type="checkbox"/> PUD Phase Approval |
| <input type="checkbox"/> Other: | | |

Address of Property: 328-420 E. Mill Street, Hastings, MI

Legal Description:

Current Zoning: PUD Proposed Zoning: PUD

Applicable Fees: \$1,250⁰⁰ PSRRW only.

Applicants Signature: [Signature] SENIOR DEVELOPMENT SPECIALIST (Title)

Staff Signature: [Signature] CDD / Z A (Title)

Office Use Only

Application Number:		Date Advertised:	
Filing Date:	8-14-25	Date of Meeting:	9-2-25
Fees Paid:	8-14-25	Board Action:	
To Clerks Office On:		Effective Date:	

CITY OF HASTINGS
201 E STATE STREET
HASTINGS MI 49058-1954

269-945-2468

Receipt No: 1.156924

Aug 14, 2025

420 E Mills LLC

CHARGES FOR SERVICES - 420 E Mills LLC Escrow
Deposit 328-420 E Mill St
101-100-648-000 Application Fees

1,250.00

Total:

1,250.00

CREDIT/DEBIT CARD
Payor: 420 E Mills LLC

1,250.00

Total Applied:

1,250.00

Change Tendered:

.00

Duplicate Copy

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MCKENNA

September 2, 2025

Planning Commission
City of Hastings
201 East State Street
Hastings, MI 49058

Subject: 420 E Mill PUD

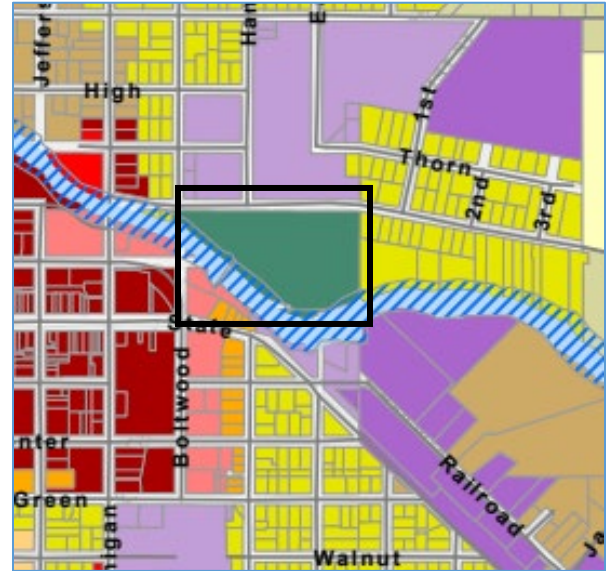
*(Previously Approved Site of Royal
Coach PUD)*

Location: 328/420 East Mill Street

Zoning: 420 E Mill PUD

Request: Modification of a PUD

Zoning Map



 PUD Planned Unit Development District

Specifically, the following modifications to the approved 420 E Mill PUD are proposed:

- Relocate (shift) 51-unit residential building (Building A) 6 ft to the west
- Increase the size of the Barry County Food & Arts Center from 10,080 sq ft to 10,740 sq ft and reorient the building on the site (in the same general location as previously approved)
- Locate a Child Care Center within the Barry County Food & Arts Center, including an outdoor childcare area/patio

Per Sec 90-674, the proposed modifications constitute ‘major changes’ to the PUD site plan and are subject to the ‘filing procedures for a PUD’. Review of the requested PUD Final Development Plan Amendment shall be guided by Section 90-667 (e) and (f) – Final Development Plan Submission and Content and Section 90-668 – Standards of Approval.

Article VII – Planned Unit Development

Sec 90-663 – Qualifying Conditions – *no change*

Sec 90-664 – Development Requirements


- Density – *no change*
- Open Space – *no change*
- Mixed Uses – **The appropriateness of increasing the size of the Barry County Food & Arts Center building and adding a child care center to the previously approved mix of residential and nonresidential uses shall be determined by the Planning Commission in consideration of the following PUD objectives:**
 - *Will encourage the use of land in accordance with its character and adaptability.*
 - *Will promote the conservation of natural features and resources.*
 - *Will encourage innovation in land use planning and development.*
 - *Will promote the enhancement of housing, employment, shopping, traffic circulation, and recreational opportunities for the people of the city.*
 - *Will promote and ensure greater compatibility of design and use between neighboring properties.*

Sec 90-665 – Applicable Regulations

Requirements for lot size, width, area, yard setbacks, structure height, signs, parking, and landscaping shall be based on the applicable requirements of the A-1 District, **unless otherwise modified by the City to better meet the intent of the PUD.**

- Lot Size/Width/Area/Coverage/ Building Height/Landscaping – *no change*
- Setbacks –
 - Building A - side and rear setback requirements met; 5 ft front setback approved – *no change*
 - Barry County Food & Arts Center Building – all setback requirements met
 - Building separation – *no change*



- 
- Signs – **any proposed signage shall comply with Article XI and be reviewed/approved through the sign permit process.**
 - Parking – parking is modified in compliance with applicable requirements.

The proposed child care center shall also be reviewed for compliance with **Sec 90-1079.**

- **The proposed child care center shall be licensed by the State per PA 116 of 1973.**
- The proposed child care center is not located closer than 800 ft to a substance abuse treatment facility, correction center, resident home, halfway house or similar facility.
- The subject site exceeds 17,000 sq ft in size and 132 ft in width.
- A child drop off/pickup area is provided off the public street.
- The child care center is located in excess of required building setbacks.
- The outdoor play area is not located within the front yard and is enclosed by a fence.
- The Barry County Food & Arts Center building represents a ‘safe environment’, free from nuisance or hazardous conditions. **The proximity of Butler Creek and Thornapple River should be considered in assessing safety risks.**
- A child care center located within a larger principal building on the site of a high-density residential development will not alter the character of the site/area.
- The child care center is located within a 9.55-acre planned development site and is provided adequate access/parking through the internal access drive and parking lot system.
- The approved landscape plan for the site provides the required buffer zones.
- The child care center (and the site at large) is served by public water and sewer.
- The child care center is located on a parcel with frontage on a primary city street.

Sec 90-666 – PUD Design Considerations

The proposed modifications to the approved Final Development Plan do not alter the initial findings of compliance with the 12 specific design considerations set forth in this Section.

Sec 90-668 – Standards of Approval

The proposed modifications to the approved Final Development Plan do not alter the initial findings of compliance with the 5 standards for approval set forth in this Section.



GENERAL NOTES

- DIMENSIONS TAKE PRECEDENCE OVER SCALE. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD.
- IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
- ALL CURB RADI AND DIMENSIONS ARE TO FACE OF CURB. CURB TO BE PROVIDED WHERE SHOWN AND INTEGRAL WITH SIDEWALK AT PAVING EDGE.
- SLOPE GRADES UNIFORMLY BETWEEN ELEVATIONS SHOWN. NOMINAL GRADING, SLOPE SIDEWALKS AWAY FROM BUILDING AT 1/4" PER FOOT ON ENTRY WALK.

LEGEND

- ASPHALT PAVEMENT
(SEE DETAIL ON C5.0)
- CONCRETE SIDEWALK
(SEE DETAIL ON C5.0)
- HEAVY DUTY CONCRETE
(SEE DETAIL ON C5.0)
- MAINTENANCE EASEMENT
AREA
- FLEXAMAT PERMANENT
EROSION CONTROL
(SEE DETAIL THIS SHEET)
- PROPOSED BUILDING
- DECORATIVE STAMPED
CONCRETE - STYLE TO BE
DETERMINED BY DIXON
ARCHITECTURE

BENCHMARKS

BM-1: ELEV: 785.69
SET MAG NAIL IN SOUTH SIDE OF POWER POLE
LOCATED APPROX. TWENTY FEET NORTH OF
CENTERLINE OF MILL ST. & APPROX TWENTY
FEET EAST OF CENTERLINE OF BOLTWOOD
STREET.

BM-2: ELEV: 790.05
SET MAG NAIL IN SOUTH SIDE OF POWER POLE
LOCATED APPROX. TWENTY FEET NORTH OF
CENTERLINE OF MILL ST. & APPROX NINETY
FEET WEST OF CENTERLINE OF HANOVER ST.

BM-3: ELEV: 789.80
TOP OF NORTH EAST FLANG BOLT ON HYDRANT
LOCATED APPROX. TWENTY FIVE FEET NORTH
OF CENTERLINE OF MILL ST. AND APPROX. 8' ±
FEET WEST OF CATCH BASIN IN MILL ST.

BM-4: ELEV: 794.54
SET MAG NAIL IN SOUTH SIDE OF POWER POLE
LOCATED APPROX. FIFTEEN FEET NORTH FROM
CENTERLINE OF MILL ST. & APPROX. 23' ± FEET
EAST OF MH-2.

SITE DATA

- PROPERTY INFORMATION:
PARCEL #S: 55-001-001-02
55-001-001-04

SITE AREA: 415,998 SF (9.55 AC)

OWNER: ROYAL COACH ACQUISITIONS, LLC
402 E MILL STREET
HASTINGS, MI 49058

DEVELOPER: COPPERROCK CONSTRUCTION
601 FIFTH STREET NW, SUITE 300
GRAND RAPIDS, MI 49504

- ZONING:
PROPERTY CURRENTLY ZONED:
PUD - PLANNED UNIT DEVELOPMENT
ABUTTING PROPERTY CURRENTLY ZONED:
NORTH: D-1 INDUSTRIAL DISTRICT
SOUTH: R-P - THORNAPPLE RIVER PROTECTION
OVERLAY ZONE
EAST: R-1A - ONE FAMILY RESIDENTIAL DISTRICT
WEST: R-P - THORNAPPLE RIVER PROTECTION
OVERLAY ZONE

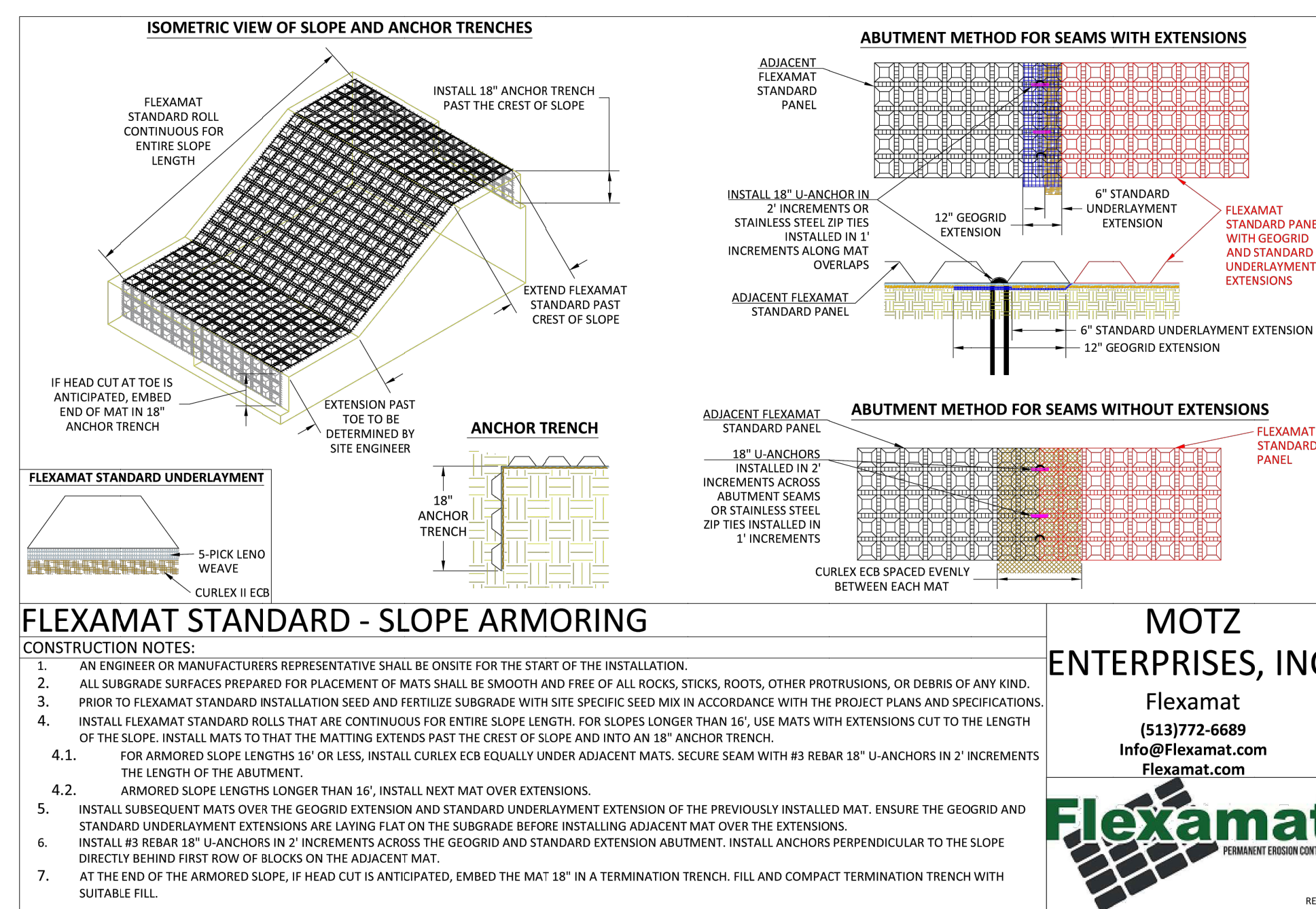
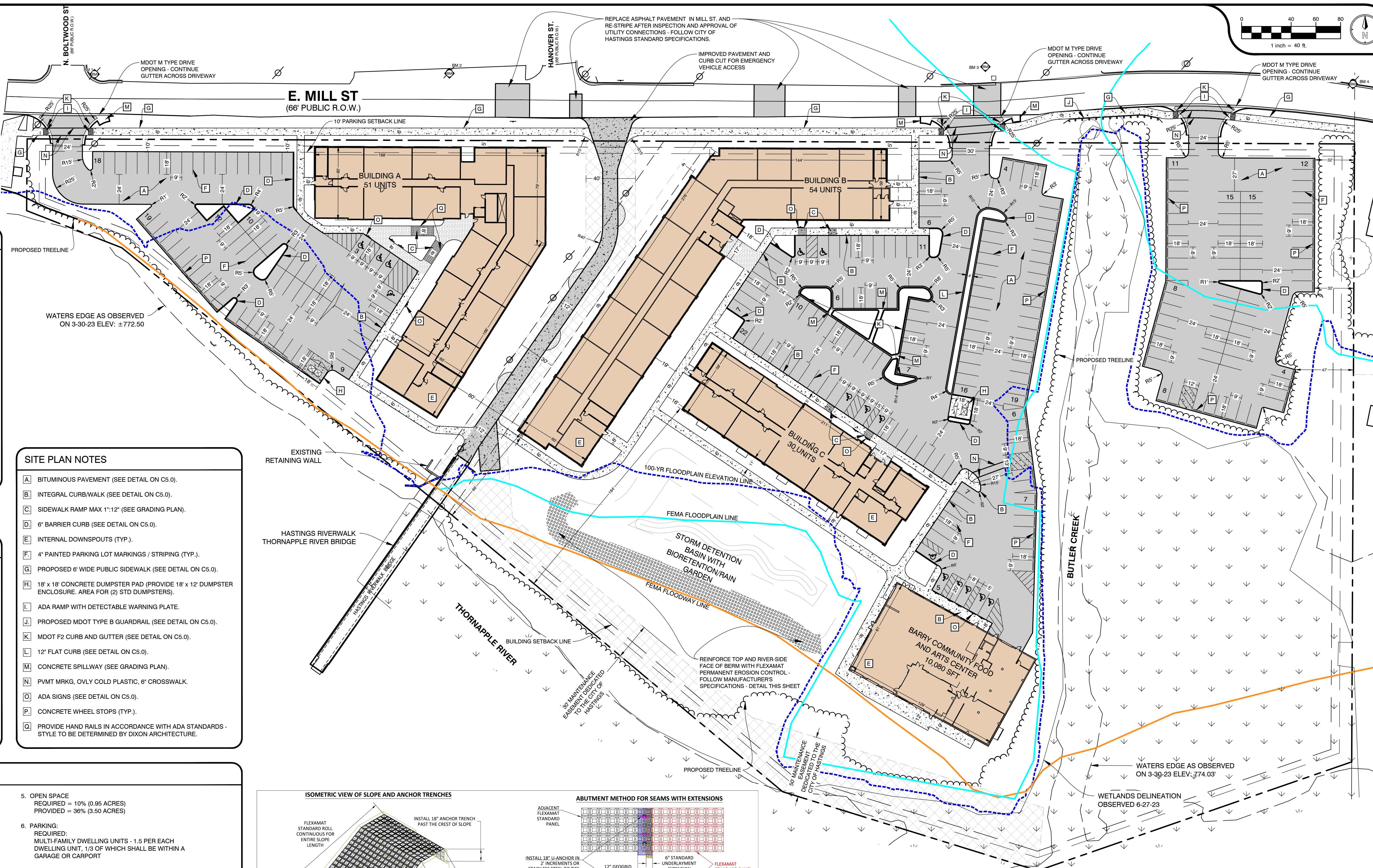
PROPOSED LAND USE = MIXED USE
*PERMITTED USE IN PUD

- SETBACKS
FRONT = 5'
SIDES = 15'
REAR = 15'

- DENSITY
135 UNITS
NET DEVELOPABLE AREA
SITE - FLOODPLAIN = 5.75 ACRES
UNIT DENSITY = 23.4 UNITS/ACRE

SITE PLAN NOTES

- A. BITUMINOUS PAVEMENT (SEE DETAIL ON C5.0).
- B. INTEGRAL CURB/WALK (SEE DETAIL ON C5.0).
- C. SIDEWALK RAMP MAX 1":12" (SEE GRADING PLAN).
- D. 6" BARRIER CURB (SEE DETAIL ON C5.0).
- E. INTERNAL DOWNSPOUTS (TYP.).
- F. 4" PAINTED PARKING LOT MARKINGS / STRIPING (TYP.).
- G. PROPOSED 6' WIDE PUBLIC SIDEWALK (SEE DETAIL ON C5.0).
- H. 18' x 18' CONCRETE DUMPSTER PAD (PROVIDE 18' x 12' DUMPSTER ENCLOSURE. AREA FOR (2) STD DUMPSTERS).
- I. ADA RAMP WITH DETECTABLE WARNING PLATE.
- J. PROPOSED MDOT TYPE B GUARDRAIL (SEE DETAIL ON C5.0).
- K. MDOT F2 CURB AND GUTTER (SEE DETAIL ON C5.0).
- L. 12" FLAT CURB (SEE DETAIL ON C5.0).
- M. CONCRETE SPILLWAY (SEE GRADING PLAN).
- N. PVMT MRKG, OVLY COLD PLASTIC, 6" CROSSWALK.
- O. ADA SIGNS (SEE DETAIL ON C5.0).
- P. CONCRETE WHEEL STOPS (TYP.).
- Q. PROVIDE HAND RAILS IN ACCORDANCE WITH ADA STANDARDS - STYLE TO BE DETERMINED BY DIXON ARCHITECTURE.



FLEXAMAT STANDARD - SLOPE ARMORING

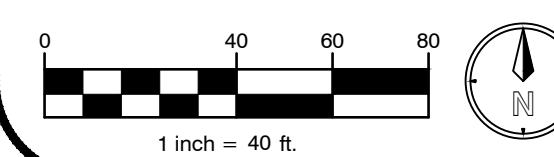
CONSTRUCTION NOTES:

- AN ENGINEER OR MANUFACTURER'S REPRESENTATIVE SHALL BE ON-SITE FOR THE START OF THE INSTALLATION.
- ALL SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND.
- PRIOR TO FLEXAMAT STANDARD INSTALLATION SEED AND FERTILIZE SUBGRADE WITH SITE SPECIFIC SEED MIX IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
- INSTALL FLEXAMAT STANDARD ROLLS THAT ARE CONTINUOUS FOR ENTIRE SLOPE LENGTH. FOR SLOPES LONGER THAN 16', USE MATS WITH EXTENSIONS CUT TO THE LENGTH OF THE SLOPE. INSTALL MATS TO THAT THE MATTINGS EXTENDS PAST THE CREST OF SLOPE AND INTO AN 18" ANCHOR TRENCH.
- FOR ARMORED SLOPE LENGTHS 16' OR LESS, INSTALL CURLEX ECB EQUALLY UNDER ADJACENT MATS. SECURE SEAM WITH #3 REBAR 18" U-ANCHORS IN 2' INCREMENTS THE LENGTH OF THE ABUTMENT.
- ARMORED SLOPE LENGTHS LONGER THAN 16', INSTALL NEXT MAT OVER EXTENSIONS.
- INSTALL SUBSEQUENT MATS OVER THE EXTENSION AND STANDARD UNDERLAYMENT EXTENSION OF THE PREVIOUSLY INSTALLED MAT. ENSURE THE GEOGRID AND STANDARD UNDERLAYMENT EXTENSIONS ARE LAYING FLAT ON THE SUBGRADE BEFORE INSTALLING ADJACENT MAT OVER THE EXTENSIONS.
- INSTALL #3 REBAR 18" U-ANCHORS IN 2' INCREMENTS ACROSS THE GEOGRID AND STANDARD UNDERLAYMENT ABUTMENT. INSTALL ANCHORS PERPENDICULAR TO THE SLOPE DIRECTLY BEHIND FIRST END OF SLOOPS ON THE ADJACENT MAT.
- AT THE END OF THE ARMORED SLOPE, IF HEAD CUT IS ANTICIPATED, EMBED THE MAT 18" IN A TERMINATION TRENCH. FILL AND COMPACT TERMINATION TRENCH WITH SUITABLE FILL.

MOTZ
ENTERPRISES, INC.
Flexamat
(513)772-6689
Info@Flexamat.com
Flexamat.com



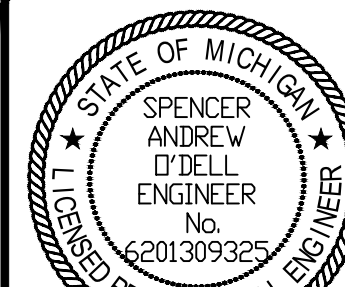
REV - 1



PLANS PREPARED BY:



DRAWN: eeg
CHECKED: SAO



SPENCER O'DELL, P.E.
No. 6201309325

No.	ISSUED FOR:	DATE	BY
0	IFC	04/16/2024	SAO
1			
2			
3			
4			

SITE LAYOUT
THORNAPPLE RIVER MILL
COPPERROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

SHEET TITLE:
PROJECT:
CLIENT:
SITE ADDRESS:
SITE SECTION:

JOB NUMBER
23144001

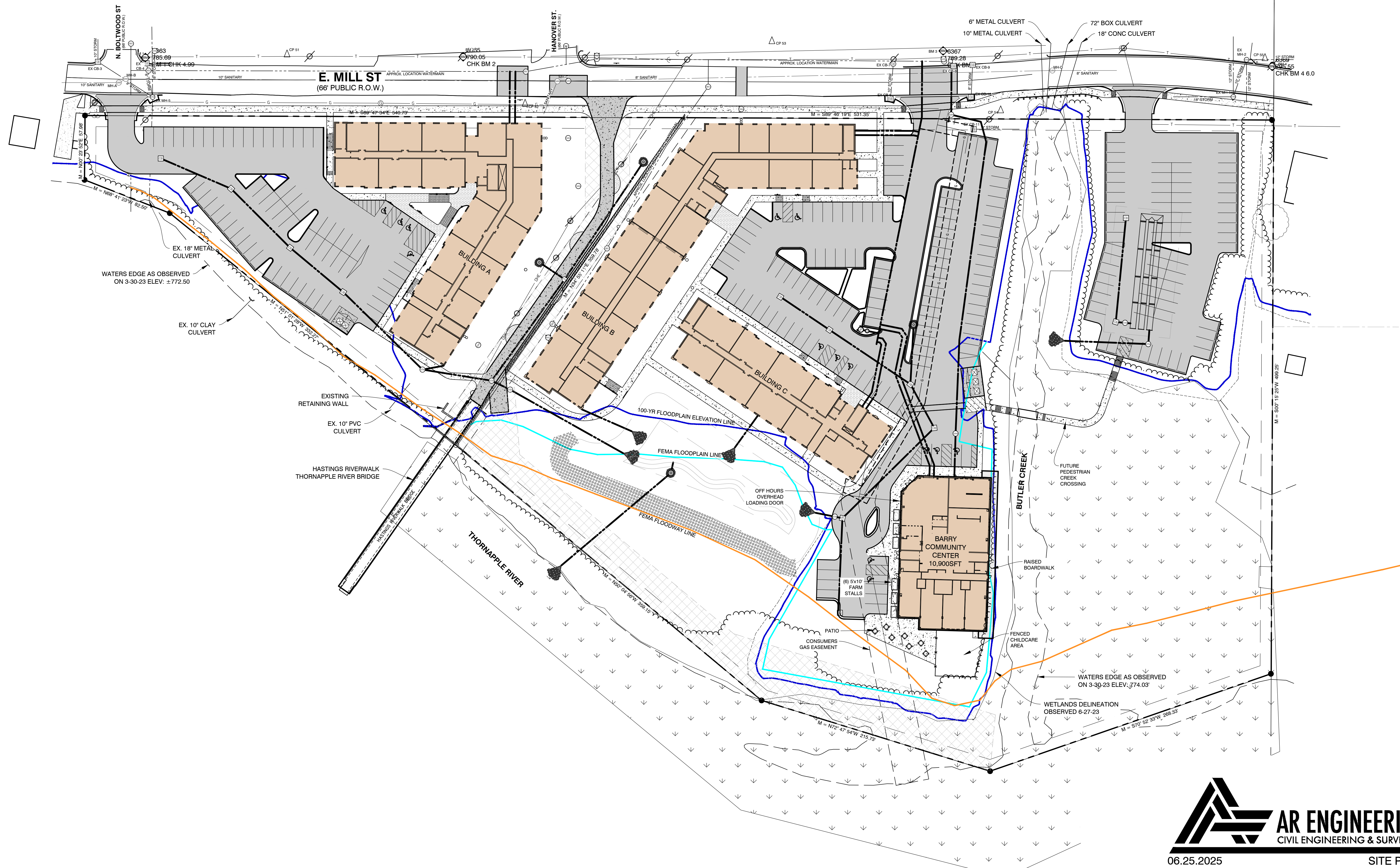
DATE
04/16/2024

SHEET NUMBER

C2.0



ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA. FIELD WORK PERFORMED BY: AR ENGINEERING



HASTINGS RIVERWALK APARTMENTS

**420 E. MILL STREET
SECTION 07, T.03N, R.08W
CITY OF HASTINGS
BARRY COUNTY, MI**

SITE DEVELOPMENT PLANS JULY 23, 2025

ISSUED FOR: SITE PLAN REVIEW

SHEET INDEX

No.	SHEET TITLE
T1.0	TITLE SHEET
C1.0	EX CONDITIONS - DEMO PLAN
C2.0	SITE LAYOUT
C3.0	UTILITY PLAN
C3.1	STRUCTURE DETAILS
C3.2	UNDERGROUND STORM DETAILS
C3.3	WATERMAIN PLAN & PROFILE
C4.0	GRADING - SESC PLAN
C4.1	GRADING & SESC PLAN - WEST
C4.2	GRADING & SESC PLAN - EAST
C5.0	DETAILS
C6.0	SITE CUT & FILL IN FLOODPLAIN
L1.0	LANDSCAPE PLAN
L2.0	PHOTOMETRIC PLAN

DEVELOPER:

COPPERROCK CONSTRUCTION
601 FIFTH STREET NW, SUITE 300
GRAND RAPIDS, MI 49504

CIVIL ENGINEER:

AR ENGINEERING, LLC.
5725 VENTURE PARK DRIVE, SUITE A
KALAMAZOO, MI 49008
TEL. (269) 250-5991 FAX. (866) 569-0604

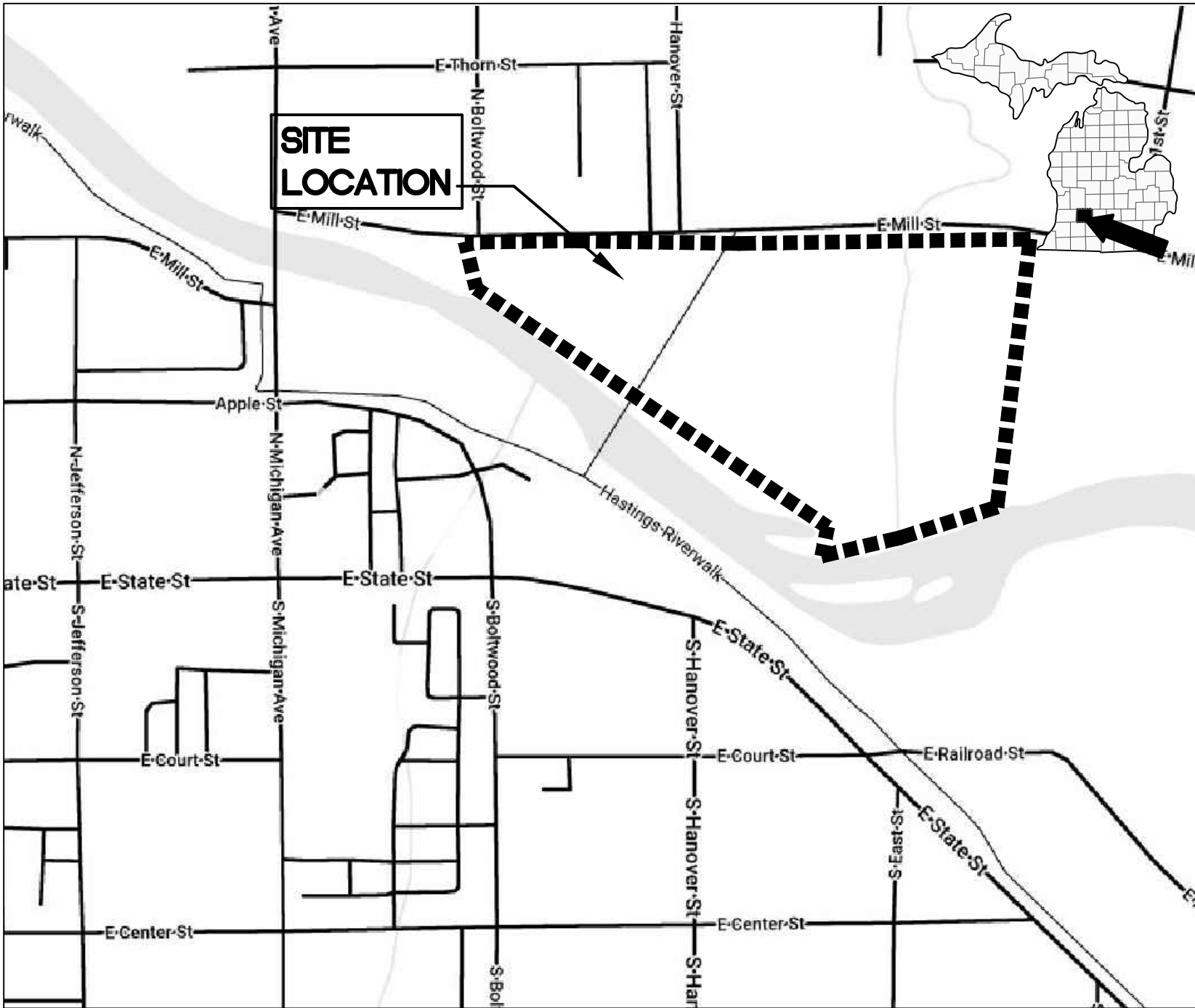


SPENCER O'DELL, P.E.

DATE

LOCATION MAP

NOT TO SCALE



42°39'00.91"N 85°16'58.91"W

LEGAL DESCRIPTION

PARCEL #: 55-001-001-02, 55-001-001-04

THE LAND REFERRED TO IN THIS COMMITMENT IS DESCRIBED AS FOLLOWS:

PARCEL 1

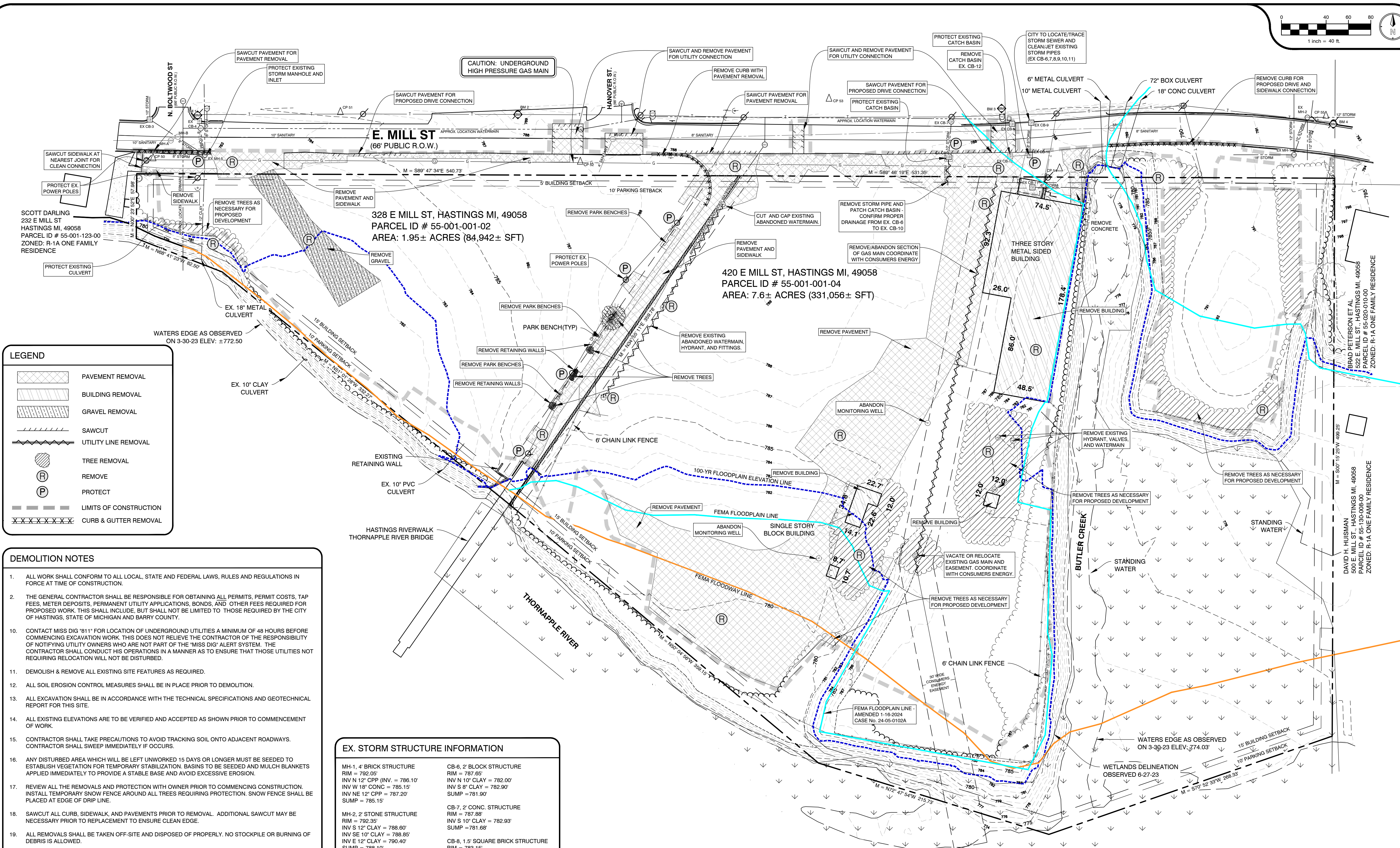
ALL OF LOTS 322 THOROUGH 328, LOTS 336 THROUGH 348, PART OF LOTS 329 AND 335, ALL OF THE BLANK LOTS LYING WEST OF LOT 348, SOUTH OF APPLE STREET AND NORTHERLY OF THE THRONAPPLE RIVER, AND PART OF VACATED HANOVER, EAST AND APPLE STREETS, ALL IN THE ORIGINAL PLAT OF THE VILLAGE (NOW CITY) OF HASTINGS, BARRY COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTH 1/4 POST OF SECTION 17, TOWN 3 NORTH, RANGE 8 WEST, HASTINGS TOWNSHIP, BARRY COUNTY, MICHIGAN: THENCE SOUTH 00 DEGREES 15 MINUTES 25 SECONDS WEST 1121.72 FEET ALONG THE NORTH-SOUTH 1/4 LINE OF SAID SECTION 17 TO THE SOUTH LINE OF PLATTED MILL STREET (SAID POINT LYING 1.39 FEET EAST OF AN IRON PIPE); THENCE SOUTH 00 DEGREES 15 MINUTES 25 SECONDS WEST 499.80 FEET ALONG SAID 1/4 LINE TO AN INTERMEDIATE TRAVERSE LINE OF THE NORTH BANK OF THE THRONAPPLE RIVER; THENCE SOUTH 70 DEGREES 55 MINUTES 22 SECONDS WEST 268.20 FEET ALONG SAID INTERMEDIATE TRAVERSE LINE; THENCE NORTH 72 DEGREES 46 MINUTES 49 SECONDS WEST 215.56 FEET ALONG SAID INTERMEDIATE TRAVERSE LINE; THENCE NORTH 50 DEGREES 12 MINUTES 27 SECONDS WEST 358.27 FEET TO THE END OF SAID INTERMEDIATE TRAVERSE LINE; THENCE NORTH 34 DEGREES 44 MINUTES 13 SECONDS EAST 360.42 FEET TO SAID SOUTH LINE OF MILL STREET; THENCE SOUTH 89 DEGREES 46 MINUTES 48 SECONDS EAST 531.53 FEET ALONG SAID SOUTH LINE TO THE POINT OF BEGINNING, INCLUDING ALL LAND LAYING BETWEEN SAID INTERMEDIATE TRAVERSE LINE AND THE WATERS FOR THE THRONAPPLE RIVER AS LIMITED BY THE SOUTHER EXTENSION OF THE SIDELINES

PARCEL 2

ALL OF LOTS 330, 332, 333 AND 334 AND PART OF LOTS 329, 331 AND 335 AND THE PART OF VACATED PLATTED HANOVER STREET AND PART OF VACATED BOLTWOOD STREET, ALL IN THE ORIGINAL PLAT OF THE VILLAGE (NOW CITY) OF HASTINGS, BARRY COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIBED AS: COMMENCING AT THE NORTH 1/4 CORNER OF SECTION 17, TOWN 7 NORTH, RANGE 8 WEST; THENCE SOUTH 00 DEGREES 15 MINUTES 23 SECONDS WEST 1121.83 FEET ALONG THE NORTH-SOUTH 1/4 LINE OF SAID SECTION 17 TO THE SOUTH LINE OF PLATTED MILL STREET; THENCE ALONG THE NORTH-SOUTH 1/4 LINE OF SAID SECTION 17 TO THE SOUTH LINE OF PLATTED MILL STREET; THENCE ALONG SAID SOUTH LINE NORTH 89 DEGREES 46 MINUTES 48 SECONDS WEST 534.08 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 34 DEGREES 44 MINUTES 48 SECONDS WEST 359.13 FEET TO AN INTERMEDIATE TRAVERSE LINE OF THE NORTH BANK OF THRONAPPE RIVER; THENCE ALONG SAID TRAVERSE LINE NORTH 50 DEGREES 51 MINUTES 15 SECONDS WEST 331.34 FEET; THENCE CONTINUING ALONG SAID TRAVERSE LINE NORTH 68 DEGREES 47 MINUTES 24 SECONDS WEST 82.56 FEET TO THE END OF SAID INTERMEDIATE TRAVERSE LINE; THENCE ALONG THE WEST LINE OF VACATED BOLTWOOD STREET NORTH 00 DEGREES 19 MINUTES 59 SECONDS EAST 58.15 FEET TO SAID SOUTH LINE OF MILL STREET; THENCE ALONG SAID SOUTH LINE SOUTH 89 DEGREES 46 MINUTES 48 SECONDS EAST 538.24 FEET TO THE POINT OF BEGINNING. INCLUDING LAND LAYING BETWEEN SAID INTERMEDIATE TRAVERSE LINE AND THE WATER OF THE THRONAPPLE RIVER, AS LIMITED BY THE SIDE LINES EXTENDED TO THE WATERS EDGE

UTILITY CONTACTS

CABLE	XFINITY (866) 477-2179	TELEPHONE	AT&T (877) 368-2737
WATER	HASTINGS DEPARTMENT OF PUBLIC SERVICES 201 E STATE ST HASTINGS, MI 49058 (269) 945-2468	SEWER	HASTINGS DEPARTMENT OF PUBLIC SERVICES 201 E STATE ST HASTINGS, MI 49058 (269) 945-2468
GAS	CONSUMERS ENERGY (800) 477-5050	ELECTRIC	CONSUMERS ENERGY (800) 477-5050
		MISS DIG	811



LEGEND

- PAVEMENT REMOVAL
- BUILDING REMOVAL
- GRAVEL REMOVAL
- SAWCUT
- UTILITY LINE REMOVAL
- TREE REMOVAL
- REMOVE
- PROTECT
- LIMITS OF CONSTRUCTION
- CURB & GUTTER REMOVAL

- DEMOLITION NOTES**
- ALL WORK SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL LAWS, RULES AND REGULATIONS IN FORCE AT TIME OF CONSTRUCTION.
 - THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PERMIT COSTS, TAP FEES, METER DEPOSITS, PERMANENT UTILITY APPLICATIONS, BONDS, AND OTHER FEES REQUIRED FOR PROPOSED WORK. THIS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO THOSE REQUIRED BY THE CITY OF HASTINGS, STATE OF MICHIGAN AND BARRY COUNTY.
 - CONTACT MISS DIG "811" FOR LOCATION OF UNDERGROUND UTILITIES A MINIMUM OF 48 HOURS BEFORE COMMENCING EXCAVATION WORK. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO ARE NOT PART OF THE "MISS DIG" ALERT SYSTEM. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.
 - DEMOLISH & REMOVE ALL EXISTING SITE FEATURES AS REQUIRED.
 - ALL SOIL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO DEMOLITION.
 - ALL EXCAVATION SHALL BE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS AND GEOTECHNICAL REPORT FOR THIS SITE.
 - ALL EXISTING ELEVATIONS ARE TO BE VERIFIED AND ACCEPTED AS SHOWN PRIOR TO COMMENCEMENT OF WORK.
 - CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID TRACKING SOIL ONTO ADJACENT ROADWAYS. CONTRACTOR SHALL SWEEP IMMEDIATELY IF OCCURS.
 - ANY DISTURBED AREA WHICH WILL BE LEFT UNWORKED 15 DAYS OR LONGER MUST BE SEEDED TO ESTABLISH VEGETATION FOR TEMPORARY STABILIZATION. BASINS TO BE SEEDED AND MULCH BLANKETS APPLIED IMMEDIATELY TO PROVIDE A STABLE BASE AND AVOID EXCESSIVE EROSION.
 - REVIEW ALL THE REMOVALS AND PROTECTION WITH OWNER PRIOR TO COMMENCING CONSTRUCTION. INSTALL TEMPORARY SNOW FENCE AROUND ALL TREES REQUIRING PROTECTION. SNOW FENCE SHALL BE PLACED AT EDGE OF DRIP LINE.
 - SAWCUT ALL CURB, SIDEWALK, AND PAVEMENTS PRIOR TO REMOVAL. ADDITIONAL SAWCUT MAY BE NECESSARY PRIOR TO REPLACEMENT TO ENSURE CLEAN EDGE.
 - ALL REMOVALS SHALL BE TAKEN OFF-SITE AND DISPOSED OF PROPERLY. NO STOCKPILE OR BURNING OF DEBRIS IS ALLOWED.
 - ALL REMOVALS SHALL BE TO THE LIMITS INDICATED ABOVE UNLESS OTHERWISE DIRECTED BY THE ENGINEER. UNAUTHORIZED REMOVALS AND SUBSEQUENT REPLACEMENT SHALL BE AT THE CONTRACTOR'S EXPENSE.
 - REMOVE, STORE, AND RESET ANY EXISTING SIGNS AS DIRECTED BY THE ENGINEER/OWNER.
 - REMOVE ALL TREES TO THE CLEARING LIMITS AS SHOWN. REMOVE ALL EXISTING TREES, STUMPS AND BRUSH FROM THE SITE AS NECESSARY TO CONSTRUCT THE IMPROVEMENTS.
 - THE CONTRACTOR SHALL DEMOLISH AND REMOVE ANY ITEMS REMAINING FROM THE EXISTING BUILDING, IN ITS ENTIRETY, INCLUDING WALLS, FOUNDATIONS AND FOOTINGS. ALL BUILDING DRAINS AND UTILITY LEADS SHALL BE LOCATED AND PROPERLY PLUGGED. UTILITY LEAD WORK SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.
 - BACKFILL EXCAVATED AREAS WITH CLEAN GRANULAR FILL COMPACTED TO 95% OF THE MATERIAL UNIT WEIGHT BY MODIFIED PROCTOR.
 - CONTROL SHALL BE MAINTAINED OVER THE SITE AND OPERATION TO ELIMINATE HAZARDS TO THE PUBLIC. NAILS OR OTHER TIRE PUNCTURING ITEMS SHALL NOT BE DROPPED ON STREETS, ALLEYS AND ADJACENT PROPERTY. PUBLIC STREETS, CURBS AND SIDEWALKS SHALL BE PROTECTED FROM DAMAGE. THE PERSON ENGAGED IN THE DEMOLITION WORK SHALL BE LIABLE FOR ANY AND ALL DAMAGE TO CURBS, STREETS, SIDEWALKS AND OTHER PUBLIC OR PRIVATE PROPERTY AND FOR ANY BODILY INJURY OCCURRING AS A RESULT OF THE DEMOLITION WORK.

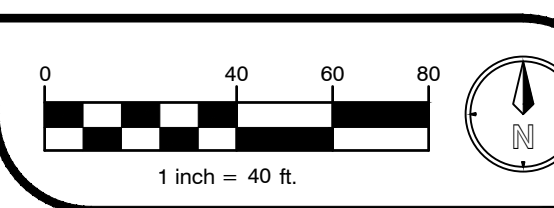
EX. STORM STRUCTURE INFORMATION

MH-1, 4' BRICK STRUCTURE RIM = 792.05' INV N 12" CPP (INV. = 786.10' INV W 18" CONC = 785.15' INV NE 12" CPP = 787.20' SUMP = 785.15'	CB-6, 2' BLOCK STRUCTURE RIM = 787.65' INV N 10" CLAY = 782.00' INV S 8" CLAY = 782.90' SUMP = 781.90'
MH-2, 2' STONE STRUCTURE RIM = 792.35' INV S 12" CLAY = 788.80' INV SE 10" CLAY = 788.85' INV E 12" CLAY = 790.40' SUMP = 788.10'	CB-7, 2' CONC. STRUCTURE RIM = 787.88' INV S 10" CLAY = 782.93' SUMP = 781.68'
CB-3, 2' BLOCK STRUCTURE RIM = 783.29' INV N 10" CLAY = 781.29' INV SE 8" CLAY = 784.17' SUMP = 780.54'	CB-8, 1.5' SQUARE BRICK STRUCTURE RIM = 783.15' STRUCTURE COLLAPSED AND FULL
CB-4, 2' BLOCK STRUCTURE RIM = 783.15' INV SE 8" CLAY = 781.45' SUMP = 781.15'	CB-9, 2' BLOCK STRUCTURE RIM = 787.57' INV S 8" CONC = 784.17' SUMP = 783.72'
MH-5, 2' BLOCK STRUCTURE RIM = 783.15' INV NNW 8" CLAY = 780.20' INV N 8" CLAY = 780.15' INV NW 8" CLAY = 780.35' INV S 12" CLAY = 779.95' INV E 8" CLAY = 781.45' SUMP = 779.90'	CB-10, 1.5' SQUARE BRICK STRUCTURE RIM = 787.41' INV SE 8" CLAY = 780.66' INV W 10" CLAY = 780.56' SUMP = 780.56'
	CB-11, 1.5' SQUARE CONC. STRUCTURE RIM = 786.62' INV E 8" CLAY = 785.32' SUMP = 784.72'
	CB-12, 1.5' SQUARE BRICK STRUCTURE RIM = 787.46' (BROKEN STRUCTURE) INV E 10" CLAY = 781.11' INV W 10" CLAY = 781.06' SUMP = 781.06'

- BENCHMARKS**
- BM-1: ELEV: 785.69
SET MAG NAIL IN SOUTH SIDE OF POWER POLE LOCATED APPROX. TWENTY FEET NORTH OF CENTERLINE OF MILL ST. & APPROX TWENTY FEET EAST OF CENTERLINE OF BOLTWOOD STREET.
 - BM-2: ELEV: 790.05
SET MAG NAIL IN SOUTH SIDE OF POWER POLE LOCATED APPROX. TWENTY FEET NORTH OF CENTERLINE OF MILL ST. & APPROX NINETY FEET WEST OF CENTERLINE OF HANOVER ST.
 - BM-3: ELEV: 789.80
TOP OF NORTH EAST FLANG BOLT ON HYDRANT LOCATED APPROX. TWENTY FIVE FEET NORTH OF CENTERLINE OF MILL ST. AND APPROX. 8' ± FEET WEST OF CATCH BASIN IN MILL ST.
 - BM-4: ELEV: 794.54
SET MAG NAIL IN SOUTH SIDE OF POWER POLE LOCATED APPROX. FIFTEEN FEET NORTH FROM CENTERLINE OF MILL ST. & APPROX. 23' ± FEET EAST OF MH-2.

EX. SANITARY STRUCTURE INFORMATION

MH-A, 4' CONC. STRUCTURE RIM = 783.27' INV NE 10" PVC 779.12' INV W 10" PVC 779.02'	MH-C, 4' BRICK STRUCTURE RIM = 783.27' INV E 8" CLAY = 781.01' INV W 8" CLAY = 780.96' INV SW 4" METAL = 782.96'
MH-B, 2' BLOCK STRUCTURE RIM = 783.27' INV SW 10" PVC 779.17' INV E 10" CLAY 782.88'	MH-D, 4' CONC. STRUCTURE RIM = 789.18' INV E 8" CLAY 782.88' PLPE W = FULLY COVERED



PLANS PREPARED BY:

AR ENGINEERING
CIVIL ENGINEERING & SURVEYING
MICHIGAN | INDIANA | ILLINOIS | OHIO
289.250.5991 PHONE | 800.560.0604 FAX
www.ar-engineering.com

DRAWN: eeg
CHECKED: SAO

STATE OF MICHIGAN
SPENCER O'DELL
ENGINEER
No. 2201309325
LICENSED PROFESSIONAL ENGINEER

SPENCER O'DELL, P.E.
No. 6501390025

No.	DATE	BY	ISSUED FOR:
0	07/23/2025	sao	SITE PLAN REVIEW
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REPRODUCTION, COPYING OR OTHER USE OF THIS DRAWING WITHOUT WRITTEN CONSENT IS PROHIBITED BY AR ENGINEERING - 2025

EXISTING CONDITIONS & DEMO PLAN
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

SHEET TITLE:
PROJECT:
CLIENT:
SITE ADDRESS:
SITE SECTION:

JOB NUMBER
23144001

DATE
07/23/2025

SHEET NUMBER
C1.0

GENERAL NOTES

1. DIMENSIONS TAKE PRECEDENCE OVER SCALE. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD.
2. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
3. ALL CURB RADI AND DIMENSIONS ARE TO FACE OF CURB. CURB TO BE PROVIDED WHERE SHOWN AND INTEGRAL WITH SIDEWALK AT PAVING EDGE.
4. SLOPE GRADES UNIFORMLY BETWEEN ELEVATIONS SHOWN. NOMINAL GRADING, SLOPE SIDEWALKS AWAY FROM BUILDING AT 1/4" PER FOOT ON ENTRY WALK.

LEGEND

- ASPHALT PAVEMENT (SEE DETAIL ON C5.0)
- CONCRETE SIDEWALK (SEE DETAIL ON C5.0)
- HEAVY DUTY CONCRETE (SEE DETAIL ON C5.0)
- MAINTENANCE EASEMENT AREA
- FLEXAMAT PERMANENT EROSION CONTROL (SEE DETAIL THIS SHEET)
- PROPOSED BUILDING
- DECORATIVE STAMPED CONCRETE - STYLE TO BE DETERMINED BY DIXON ARCHITECTURE
- PROPOSED UTILITY EASEMENTS

BENCHMARKS

BM-1: ELEV: 785.69
SET MAG NAIL IN SOUTH SIDE OF POWER POLE LOCATED APPROX. TWENTY FEET NORTH OF CENTERLINE OF MILL ST. & APPROX TWENTY FEET EAST OF CENTERLINE OF BOLTWOOD STREET.

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SET MAG NAIL IN SOUTH SIDE OF POWER POLE LOCATED APPROX. FIFTEEN FEET NORTH FROM CENTERLINE OF MILL ST. & APPROX. 23' ± FEET EAST OF MH-2.

SITE DATA

1. PROPERTY INFORMATION:
PARCEL #S: 55-001-001-02
55-001-001-04
SITE AREA: 415,998 SF (9.55 AC)

OWNER: ROYAL COACH ACQUISITIONS, LLC
402 E MILL STREET
HASTINGS, MI 49058

DEVELOPER: COPPERROCK CONSTRUCTION
601 FIFTH STREET NW, SUITE 300
GRAND RAPIDS, MI 49504

2. ZONING:
PROPERTY CURRENTLY ZONED: PUD - PLANNED UNIT DEVELOPMENT
ABUTTING PROPERTY CURRENTLY ZONED:
NORTH: D-1 INDUSTRIAL DISTRICT
SOUTH: R-P - THORNAPPLE RIVER PROTECTION OVERLAY ZONE
EAST: R-1A - ONE FAMILY RESIDENTIAL DISTRICT
WEST: R-P - THORNAPPLE RIVER PROTECTION OVERLAY ZONE

PROPOSED LAND USE = MIXED USE
*PERMITTED USE IN PUD

3. SETBACKS
FRONT = 5'
SIDES = 15'
REAR = 15'

4. DENSITY
135 UNITS
NET DEVELOPABLE AREA
SITE - FLOODPLAIN = 5.75 ACRES
UNIT DENSITY = 23.4 UNITS/ACRE

SITE PLAN NOTES

- A BITUMINOUS PAVEMENT (SEE DETAIL ON C5.0).
- B INTEGRAL CURB/WALK (SEE DETAIL ON C5.0).
- C SIDEWALK RAMP MAX 1:12" (SEE GRADING PLAN).
- D 6" BARRIER CURB (SEE DETAIL ON C5.0).
- E INTERNAL DOWNSPOUTS (TYP.).
- F 4" PAINTED PARKING LOT MARKINGS / STRIPING (TYP.).
- G PROPOSED 6' WIDE PUBLIC SIDEWALK (SEE DETAIL ON C5.0).
- H CONCRETE DUMPSTER PAD (SEE DETAIL ON C5.0) (DUMPSTER ENCLOSURE. COORDINATE WITH ARCHITECTURAL DRAWINGS).
- I ADA RAMP WITH DETECTABLE WARNING PLATE.
- J PROPOSED MDOT TYPE B GUARDRAIL (SEE DETAIL ON C5.0).
- K MDOT F2 CURB AND GUTTER (SEE DETAIL ON C5.0).
- L 12" FLAT CURB (SEE DETAIL ON C5.0).
- M CONCRETE SPILLWAY (SEE GRADING PLAN).
- N PVMT MRKG, OVLY COLD PLASTIC, 6" CROSSWALK.
- O ADA SIGNS (SEE DETAIL ON C5.0).
- P CONCRETE WHEEL STOPS (TYP.).
- Q PROVIDE HAND RAILS IN ACCORDANCE WITH ADA STANDARDS - STYLE TO BE DETERMINED BY DIXON ARCHITECTURE.
- R AT GRADE WALK
- S CONCRETE STAIRS
- T RAISED DECK/WALKWAY (SEE ARCHITECTURAL PLANS)
- U FENCE - (COORDINATE WITH ARCHITECTURAL DRAWINGS)
- V MDOT F4 CURB AND GUTTER, COORDINATE WITH CITY STREET DEPARTMENT

MDOT M TYPE DRIVE OPENING - CONTINUE GUTTER ACROSS DRIVEWAY

E. MILL ST
(66' PUBLIC R.O.W.)

PROPOSED 20' WIDE UTILITY EASEMENT TO CITY OF HASTINGS FOR PROPOSED PUBLIC SANITARY

10' PARKING SETBACK LINE

WATERS EDGE AS OBSERVED ON 3-30-23 ELEV: ±772.50

PROPOSED UTILITY EASEMENT TO CITY OF HASTINGS FOR EX. WATER AND STORM WATER FACILITIES.

PROPOSED TREELINE

REPLACE ASPHALT PAVEMENT IN MILL ST. AND RE-STRIPE AFTER INSPECTION AND APPROVAL OF UTILITY CONNECTIONS - FOLLOW CITY OF HASTINGS STANDARD SPECIFICATIONS.

IMPROVED PAVEMENT AND CURB CUT FOR EMERGENCY VEHICLE ACCESS

MDOT M TYPE DRIVE OPENING - CONTINUE GUTTER ACROSS DRIVEWAY

MDOT M TYPE DRIVE OPENING - CONTINUE GUTTER ACROSS DRIVEWAY

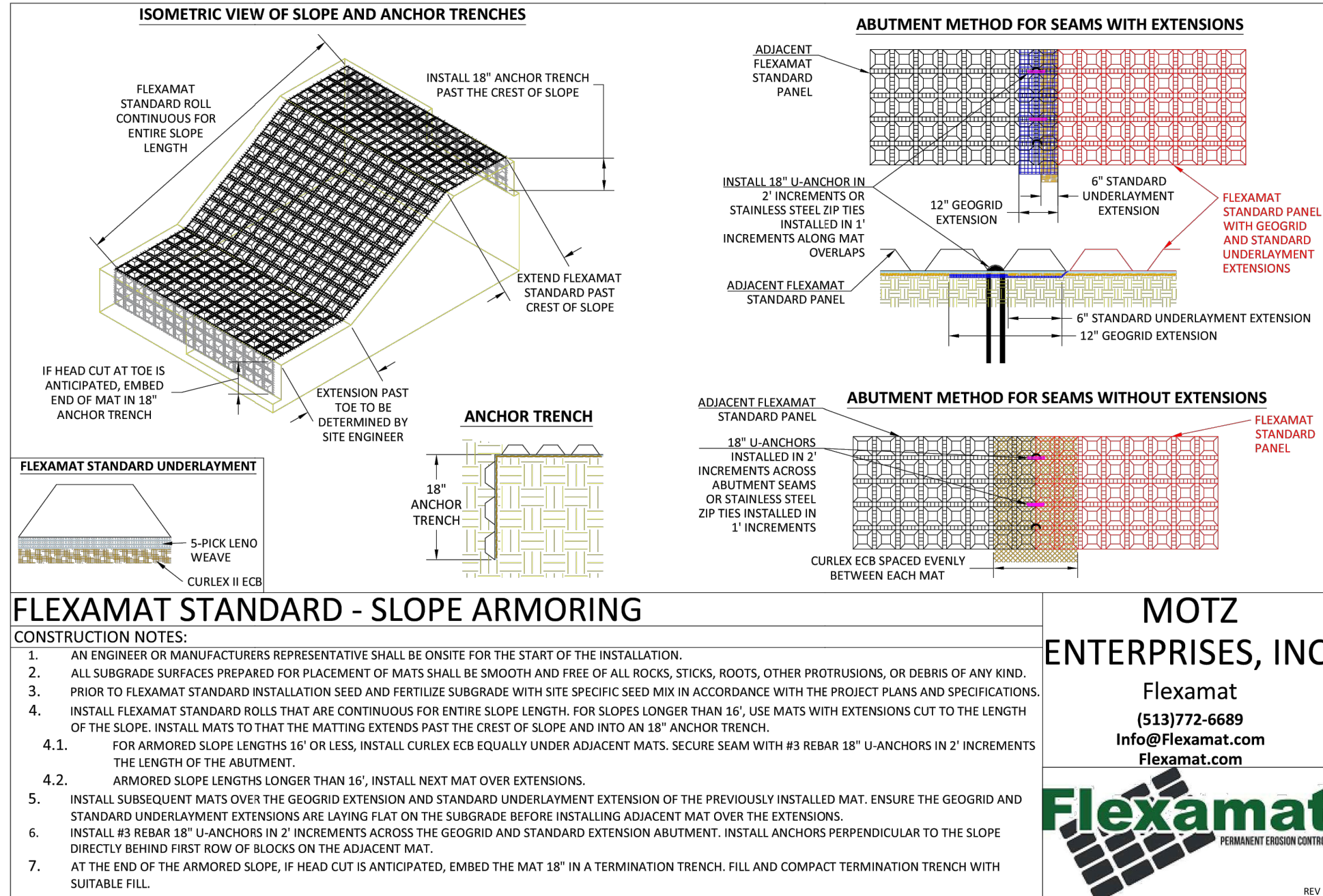
MDOT M TYPE DRIVE OPENING - CONTINUE GUTTER ACROSS DRIVEWAY

CONSUMERS GAS EASEMENT

PROPOSED TREELINE

WATERS EDGE AS OBSERVED ON 3-30-23 ELEV: 774.03'

WETLANDS DELINEATION OBSERVED 6-27-23

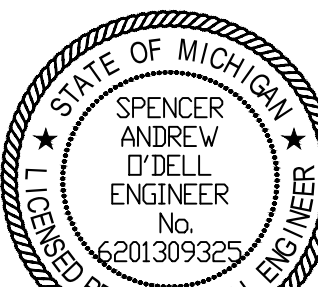


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PLANS PREPARED BY:



DRAWN: eeg
CHECKED: SAO

SPENCER O'DELL, P.E.
No. 6201309325

No.	ISSUED FOR:	DATE	BY
0	SITE PLAN REVIEW	07/23/2025	sao
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SITE LAYOUT
THORNAPPLE RIVER MILL
COPPERROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

SHEET TITLE:
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JOB NUMBER
23144001DATE
07/23/2025

SHEET NUMBER

C2.0

UTILITY PLAN NOTES

- 4" DIP DOMESTIC WATER SERVICE. COORDINATE CONNECTION WITH PLUMBING PLANS.
- 6" DIP FIRE SERVICE. COORDINATE CONNECTION WITH PLUMBING PLANS.
- LIVE TAP EXISTING WATER MAIN, WITH TAPPING SLEEVE AND VALVE. COORDINATE WITH CITY OF HASTINGS - 269-645-2468
- SANITARY SERVICE. COORDINATE CONNECTION WITH PLUMBING PLANS.
- CONNECT TO EXISTING SEWER MAIN WITH WYE. COORDINATE WITH CITY OF HASTINGS - 269-645-2468
- ELECTRIC SERVICE.
- TELEPHONE SERVICE.
- GAS SERVICE.
- FLARED END SECTION WITH RIP RAP AND REFUSE SCREEN. MATCH PIPE SIZE (SEE DETAIL ON C3.1)
- TWO-WAY SANITARY YARD CLEANOUT (SEE DETAIL SHEET).
- DOWNSPOUT TO CONNECT TO STORM HEADER (TYP.).
- SLOW-RELEASE / OVERFLOW STRUCTURE. (SEE DETAIL ON C3.1).
- SANITARY SEWER CLEANOUT
- SANITARY MONITORING MANHOLE
- 160 LF - 8" WIDE BIORETENTION/RAIN GARDEN WITH BOTTOM DRAIN (SEE CITY DETAIL THIS SHEET).
- WATER-TIGHT PVC SLEEVE 4" LARGER DIA. THAN UTILITY LINE - CENTER UTILITY WITH SPACER - EXTEND SLEEVE 1' OUTSIDE FOUNDATION WALL.
- 2" TYPE K COPPER DOMESTIC WATER SERVICE. COORDINATE CONNECTION WITH PLUMBING PLANS.
- 4" DIP FIRE SERVICE. COORDINATE CONNECTION WITH PLUMBING PLANS.
- STORM SEWER CLEANOUT.

GENERAL NOTES

- ALL WORK SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL LAWS, RULES AND REGULATIONS IN FORCE AT TIME OF CONSTRUCTION.
- ELECTRICAL WORK SHALL BE PERFORMED BY A STATE OF MICHIGAN LICENSED ELECTRICIAN ACCORDING TO THE N.E.P.A. NATIONAL ELECTRICAL CODE AS MODIFIED BY THE STATE OF MICHIGAN. FURNISH AND INSTALL ALL MATERIALS AND LABOR TO PROVIDE A COMPLETE WORKING SYSTEM.
- ALL PLUMBING WORK SHALL BE PERFORMED BY A STATE OF MICHIGAN LICENSED PLUMBER ACCORDING TO THE INTERNATIONAL PLUMBING CODE AS MODIFIED BY THE STATE OF MICHIGAN AND LOCAL HEALTH DEPARTMENT. FURNISH AND INSTALL ALL MATERIALS AND LABOR TO PROVIDE A FULL WORKING SYSTEM.
- ALL MECHANICAL WORK SHALL BE PERFORMED ACCORDING TO THE INTERNATIONAL MECHANICAL CODE AS MODIFIED BY THE STATE OF MICHIGAN AND THE MICHIGAN ENERGY CODE. FURNISH AND INSTALL ALL MATERIALS AND LABOR TO PROVIDE A FULL WORKING SYSTEM.
- ALL WORK SHALL CONFORM TO THE MICHIGAN HANDICAPPED ACCESSIBILITY CODE AND THE AMERICANS WITH DISABILITIES ACT.
- WATER SERVICE PRESSURE TESTING AND CHLORINATION SHALL BE PER EGLE AND THE CITY OF HASTINGS REQUIREMENTS.
- SANITARY SEWER INSTALLATION AND TESTING MUST MEET THE REQUIREMENTS OF THE CITY OF HASTINGS AND EGLE.
- ALL REGULATORY SIGNAGE (IF SPECIFIED) SHALL BE PER THE MICHIGAN DEPARTMENT OF TRANSPORTATION.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PERMIT COSTS, TAP FEES, METER DEPOSITS, PERMANENT UTILITY APPLICATIONS, BONDS, AND OTHER FEES REQUIRED FOR PROPOSED WORK.
- CONTACT MISS DIG "811" FOR LOCATION OF UNDERGROUND UTILITIES A MINIMUM OF 48 HOURS BEFORE COMMENCING EXCAVATION WORK. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO ARE NOT PART OF THE "MISS DIG" ALERT SYSTEM. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.
- ANY SANITARY SEWER, SANITARY SEWER SERVICE LEADS, WATER MAIN, WATER SERVICES, OR STORM SEWER WHICH IS DAMAGED BY THE CONTRACTOR DURING HIS OPERATIONS SHALL BE REPAIRED TO THE OWNERS SATISFACTION, AND AT THE CONTRACTORS EXPENSE. IF ANY ELEMENTS OF THE SANITARY SEWER SYSTEM ARE DAMAGED AND NEED REPAIRED, IT MUST MEET THE CITY OF HASTINGS STANDARD CONSTRUCTION SPECIFICATIONS DATED JULY 2016.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE ELECTRICAL TRANSFORMER PAD PER THE UTILITY COMPANY SPECIFICATIONS.
- THE TELEPHONE UTILITY COMPANY SHALL PROVIDE UNDERGROUND TELEPHONE TO THE BUILDING AT THE OWNERS EXPENSE.
- REFER TO ELECTRICAL DRAWINGS FOR UNDERGROUND ELECTRICAL REQUIREMENTS FOR SITE LIGHTING & SITE DETAILS SHEETS FOR THE FIXTURE AND POLE SPECIFICATIONS.
- DESIGN, INSTALLATION AND SPECIFICATION FOR IMPROVEMENTS RELATED TO GAS, TELEPHONE, ELECTRIC AND CABLE TELEVISION SERVICES SHALL BE COORDINATED BY THE CONTRACTOR.
- CONTRACTOR SHALL COORDINATE TELEPHONE, ELECTRIC, AND CABLE TELEVISION CONDUITS WITH THE APPROPRIATE UTILITY PRIOR TO PAVEMENT INSTALLATION.
- CONTRACTOR IS TO UNCOVER AND CONFIRM ALL TAP LOCATIONS. LOCATION DISCREPANCIES ARE TO BE BROUGHT TO THE ENGINEERS ATTENTION FOR RESOLUTION.
- THE CONTRACTOR IS TO PROVIDE THE WATER SERVICE PIPING FROM THE BUILDING TO THE EXISTING MAIN. THE CONTRACTOR SHALL MAKE THE CONNECTION TO THE SHUT OFF VALVE. THE CONTRACTOR SHALL COORDINATE SERVICES WITH THE CITY OF HASTINGS.
- CONTRACTOR/OWNER SHALL OBTAIN UTILITY CONNECTION PERMITS AND SETTLE APPLICABLE UTILITY ASSESSMENTS PRIOR TO EXTENSION OF PUBLIC UTILITIES ONSITE.
- MANHOLE AND CATCH BASIN STRUCTURES SHALL BE PRECAST AND HAVE A MAXIMUM OF 2 ADJUSTING RINGS FOR FINISH GRADE ADJUSTMENT. STORM STRUCTURES MUST ALL HAVE A SUMP OF TWO FEET.
- ALL WATER MAIN TO HAVE A BURIAL DEPTH AS REQUIRED BY EGLE FOR THE SPECIFIC REGION OF WORK IN CITY OF HASTINGS.
- DEMOLISH & REMOVE ALL EXISTING SITE FEATURES AS REQUIRED.
- THE CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT PREPARED BY SME.
- DRIVEWAY LAYOUT AND CONNECTION TO E MILLS STREET SHALL COMPLY WITH ALL ASPECTS OF THE CITY OF HASTINGS DRIVE PERMIT.

SANITARY STRUCTURES

SAN-1, 4" DIA. EJW 1020 SOLID RIM = 785.68 8" N 8" SDR 35 SE	781.53 781.53
SAN-2, 5" DIA. EJW 1020 SOLID RIM = 786.11 8" N 8" S 8" SDR 35 W	781.26 781.35 781.35
SAN-3, 4" DIA. EJW 1020 SOLID RIM = 788.12 8" EXISTING W 8" EXISTING E 8" S	781.05 781.05 781.05
SAN-5, 5" DIA. EJW 1020 SOLID RIM = 787.82 6" PVC I.E. 782.82' S 1.25" FORCEMAIN I.E. 783.82' S	
SAN-6, 3.5" DIA. LIFT STATION LIBERTY PUMPS D3696-SERIES DUPLEX GRINDER PUMP VAULT OR APPROVED EQUAL RIM = 784.87 1.25" FORCEMAIN I.E. 782.50' W 6" PVC I.E. 782.18' S	

EX. STORM STRUCTURES

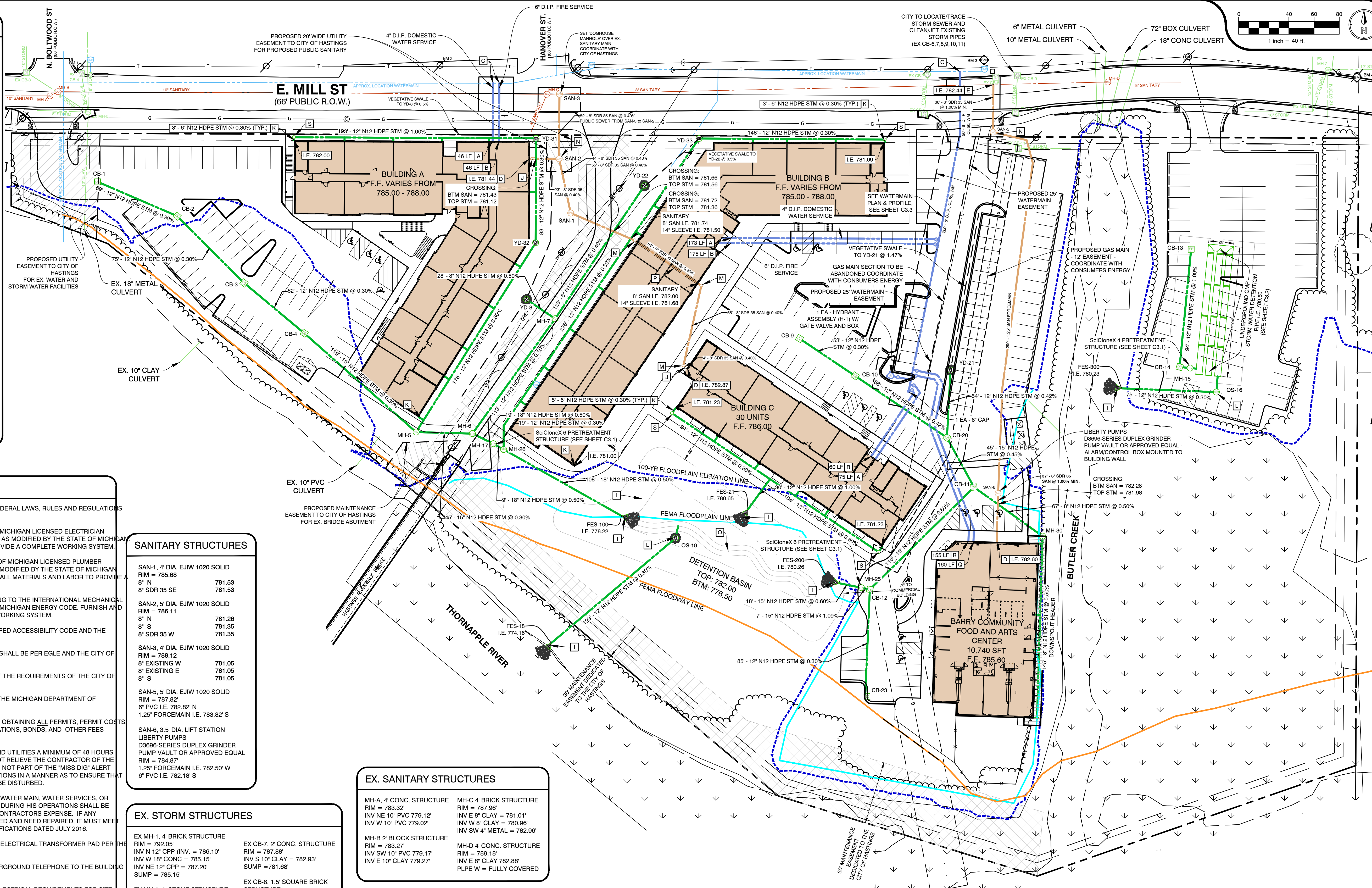
EX MH-1, 4" BRICK STRUCTURE RIM = 792.05 INV N 12" CPP (INV. = 786.10) INV W 18" CONC = 785.15 INV NE 12" CPP = 787.20 SUMP = 785.15'	EX CB-7, 2" CONC. STRUCTURE RIM = 787.88 INV S 10" CLAY = 782.93 INV NE 10" CLAY = 781.68 SUMP = 783.72
EX MH-2, 2" STONE STRUCTURE RIM = 792.35 INV S 12" CLAY = 788.60 INV SE 10" CLAY = 788.85 INV E 12" CLAY = 790.40 SUMP = 788.10'	EX CB-8, 1.5" SQUARE BRICK STRUCTURE RIM = 787.41 INV E 10" CLAY = 780.66 INV W 10" CLAY = 780.56 SUMP = 780.56'
EX CB-3, 2" BLOCK STRUCTURE RIM = 783.29 INV N 10" CLAY = 781.29 INV SE 8" CLAY = 781.24 SUMP = 780.54'	EX CB-10, 1.5" SQUARE BRICK STRUCTURE RIM = 787.41 INV W 10" CLAY = 780.56 INV E 10" CLAY = 780.56 SUMP = 780.56'
EX CB-4, 2" BLOCK STRUCTURE RIM = 783.15 INV SES 8" CLAY = 781.45 SUMP = 781.15'	EX CB-11, 1.5" SQUARE CONC. STRUCTURE RIM = 786.62 INV E 6" CLAY = 785.32 SUMP = 784.72
EX MH-5, 2" BLOCK STRUCTURE RIM = 783.15 INV NNW 8" CLAY = 780.20 INV N 8" CLAY = 780.15 INV NW 8" CLAY = 780.35 INV S 12" CLAY = 779.95 INV E 8" CLAY = 781.45 SUMP = 779.90	EX CB-12, 1.5" SQUARE BRICK STRUCTURE RIM = 787.46 INV W 10" CLAY = 781.11 INV W 10" CLAY = 781.06 SUMP = 781.06'
EX CB-6, 2" BLOCK STRUCTURE RIM = 787.65 INV N 10" CLAY = 782.00 INV S 8" CLAY = 782.90 SUMP = 781.90'	

EX. SANITARY STRUCTURES

MH-A, 4" CONC. STRUCTURE RIM = 783.32 INV NE 10" PVC 779.12 INV W 10" PVC 779.02	MH-C, 4" BRICK STRUCTURE RIM = 787.96 INV E 8" CLAY = 781.01 INV W 8" CLAY = 780.96 INV SW 4" METAL = 782.96'
MH-B, 2" BLOCK STRUCTURE RIM = 783.27 INV SW 10" PVC 779.17 INV E 10" CLAY 779.27	MH-D, 4" CONC. STRUCTURE RIM = 789.18 INV E 8" CLAY 782.88 PLPE W = FULLY COVERED

STORM STRUCTURES

CB-1, 2.0' DIA. EJW 5105 RIM = 783.00 12" N12 HDPE SE	780.51	MH-6, 4.0' DIA. EJW 1020 SOLID RIM = 786.42 15" N12 HDPE W 18" N12 HDPE SE 12" N12 HDPE NE	779.15 778.90 780.00	CB-11, 4.0' DIA. EJW 5105 RIM = 784.62 15" N12 HDPE NW 15" N12 HDPE SW 12" N12 HDPE SE	781.14 781.14 781.14
CB-2, 4.0' DIA. EJW 5105 RIM = 783.62 12" N12 HDPE NW	780.30	MH-7, 4.0' DIA. EJW 1020 SOLID RIM = 784.77 12" N12 HDPE SW 8" N12 HDPE S 8" N12 HDPE NE	780.56 780.90 780.56	CB-12, 4.0' DIA. EJW 5105 RIM = 784.16 15" N12 HDPE NE 12" N12 HDPE S 15" N12 HDPE W	780.44 781.17 780.44
CB-3, 4.0' DIA. EJW 5105 RIM = 783.67 12" N12 HDPE NW 12" N12 HDPE SE	780.08 780.08	YD-8, 2.0' DIA. EJW 1020 BEE HIVE RIM = 784.77 8" N12 HDPE SE	781.03	CB-13, 4.0' DIA. EJW 5105 RIM = 785.56 12" N12 HDPE S	785.14
CB-4, 4.0' DIA. EJW 5105 RIM = 783.58 12" N12 HDPE NW 15" N12 HDPE SE	779.89 779.64	CB-9, 2.0' DIA. EJW 5105 RIM = 784.87 12" N12 HDPE SE	782.12	CB-14, 4.0' DIA. EJW 5105 RIM = 787.02 12" N12 HDPE N 12" N12 HDPE E	784.20 784.20
MH-5, 4.0' DIA. EJW 1020 SOLID RIM = 785.19 15" N12 HDPE NW 15" N12 HDPE E 12" N12 HDPE NE	779.29 779.29 779.29	CB-10, 4.0' DIA. EJW 5105 RIM = 784.83 12" N12 HDPE SE	781.96	MH-15, 4.0' DIA. TREATMENT SEE C3.1 RIM = 787.19 12" N12 HDPE W 12" N12 HDPE E	784.17 784.17
CB-5, 4.0' DIA. EJW 5105 RIM = 783.00 12" N12 HDPE SE	780.51	OS-16, 4.0' DIA. EJW 1020 SOLID RIM = 787.46 12" N12 HDPE W 12" N12 HDPE N	780.46 780.46	YD-22, 2.0' DIA. EJW 1020 BEE HIVE RIM = 784.74 8" N12 HDPE SW 8" N12 HDPE SE	781.07 781.07
CB-6, 4.0' DIA. EJW 5105 RIM = 783.62 12" N12 HDPE NW	780.30	MH-17, 6.0' DIA. TREATMENT SEE C3.1 RIM = 788.85 18" N12 HDPE NW 18" N12 HDPE SE	778.80 778.80	CB-23, 4.0' DIA. EJW 5105 RIM = 784.42 12" N12 HDPE N	781.42
CB-7, 4.0' DIA. EJW 5105 RIM = 783.67 12" N12 HDPE NW 12" N12 HDPE SE	780.08 780.08	OS-19, 4.0' DIA. EJW 1020 BEE HIVE RIM = 784.50 12" N12 HDPE SW 4" N12 HDPE N	774.55 774.55	MH-25, 6.0' DIA. TREATMENT SEE C3.1 RIM = 784.30 15" N12 HDPE E 15" N12 HDPE W	780.36 780.36
CB-8, 4.0' DIA. EJW 5105 RIM = 783.58 12" N12 HDPE NW 18" N12 HDPE SE 12" N12 HDPE N	778.76 778.76 778.76	CB-20, 4.0' DIA. EJW 5105 RIM = 784.50 12" N12 HDPE NW 18" N12 HDPE SE 12" N12 HDPE N	778.76 778.76 778.76	MH-26, 4.0' DIA. EJW 1020 SOLID RIM = 784.50 18" N12 HDPE NW 18" N12 HDPE SE 12" N12 HDPE N	778.76 778.76 778.76
MH-9, 4.0' DIA. EJW 1020 SOLID RIM = 785.19 15" N12 HDPE NW 15" N12 HDPE E 12" N12 HDPE NE	779.29 779.29 779.29	YD-21, 2.0' DIA. EJW 1020 BEE HIVE RIM = 784.55 12" N12 HDPE S	781.80	MH-30, 2.0' DIA. EJW 1020 SOLID RIM = 783.52 8" N12 HDPE NW 8" N12 HDPE S	781.47 781.47



PLANS PREPARED BY:



DRAWN: eeg
CHECKED: SAO



No.	DATE	BY	ISSUED FOR:
0	07/23/2025	SAO	SITE PLAN REVIEW
1			
2			
3			
4			

UTILITY PLAN
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

JOB NUMBER
23144001

DATE
07/23/2025

SHEET NUMBER

C3.0



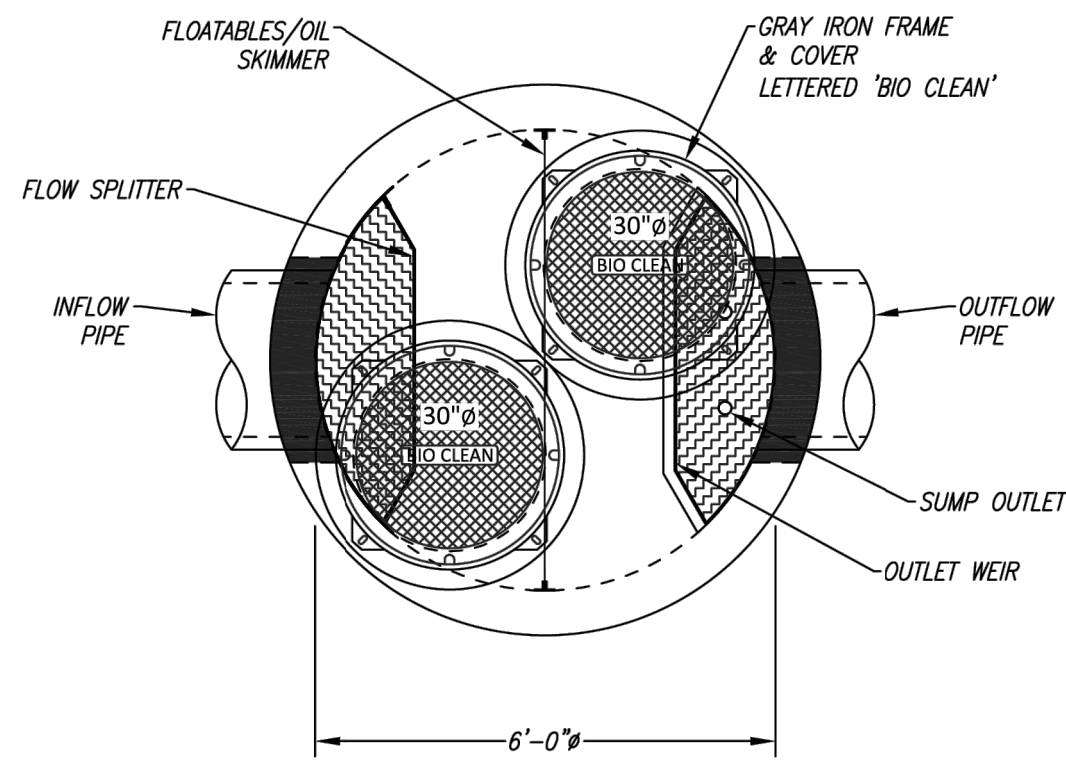
ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA. FIELD WORK PERFORMED BY: AR ENGINEERING

SITE SPECIFIC DATA*			
PROJECT NUMBER	.		
PROJECT NAME	.		
PROJECT LOCATION	.		
STRUCTURE ID	SCX-06		
WATER QUALITY FLOW RATE (CFS)	4.09		
PEAK FLOW RATE (CFS)	.		
PEAK STORM DURATION (YEARS)	.		
PIPE DATA	I.E.	MATERIAL	DIAMETER
INFLOW PIPE 1	.	.	.
OUTFLOW PIPE 1	.	.	.
RIM ELEVATION	.		
SUMP ELEVATION	###		
SURFACE LOADING REQUIREMENT			HS20
FRAME AND COVER	(2) #30"		
SKIMMER WALL HEIGHT			STANDARD
KNOWN GROUNDWATER ELEVATION	NA		
NOTES: CONCEPT ONLY. NOT FOR CONSTRUCTION.			
*PER ENGINEER OF RECORD			
PERFORMANCE DATA			
TREATMENT FLOW RATE (CFS)	---		
TSS REMOVAL EFFICIENCY	---		
SUMP CHAMBER CAPACITY			
DIAMETER (FT)	AREA (SF)	HEIGHT (FT)	TOTAL (CF)
6	28.26	4.75	134.2

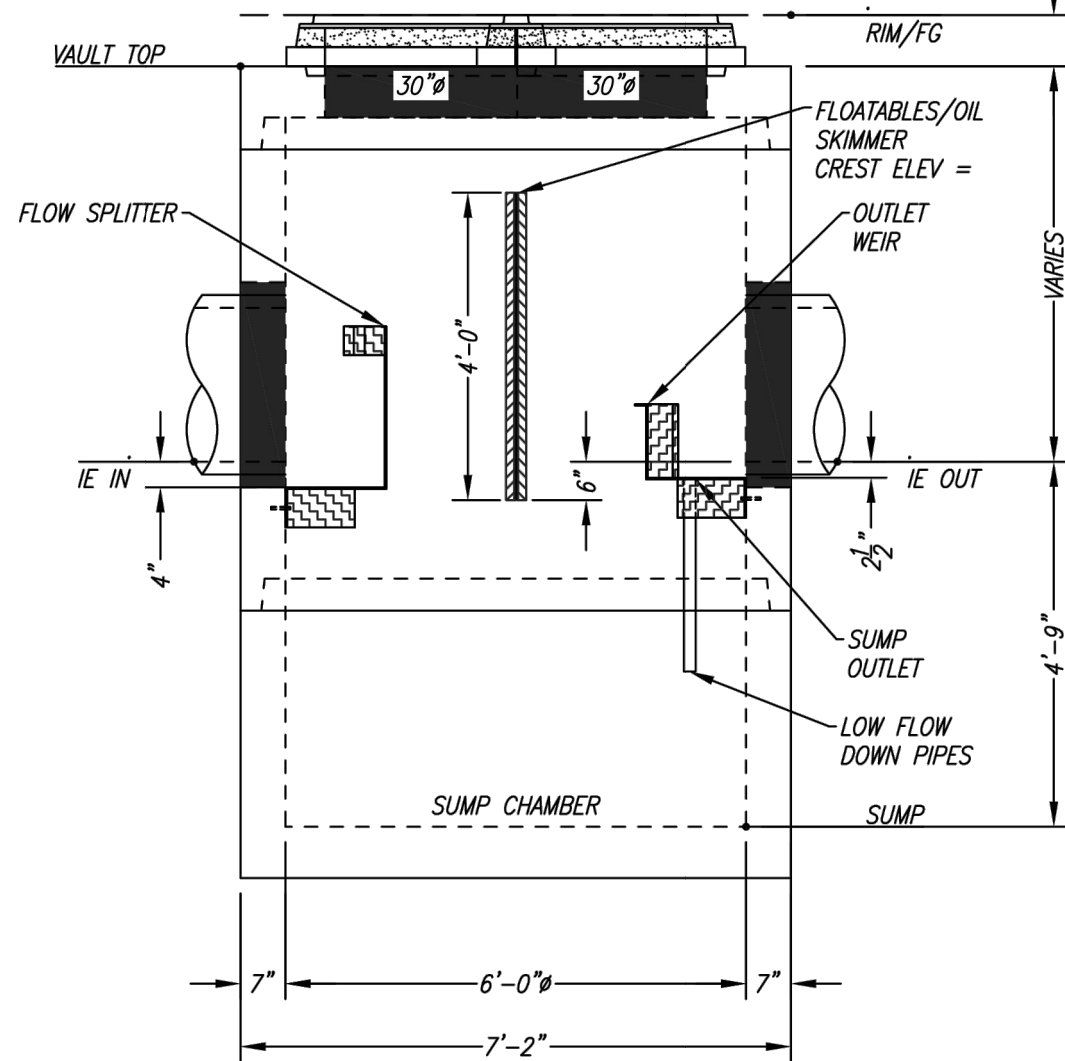
INSTALLATION NOTES

- CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SCICLONEX UNIT AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.
- MANUFACTURER RECOMMENDS A 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROJECT ENGINEER'S RECOMMENDED BASE SPECIFICATIONS.
- ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE (PIPES CANNOT INTRUDE BEYOND FLUSH).
- ALL GAPS AROUND PIPES SHALL BE SEALED WATERTIGHT WITH A NON-SHRINK GROUT PER MANUFACTURER'S STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
- CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS AND MANHOLES. ALL COVERS SHALL BE SHIPPED LOOSE. CONTRACTOR TO USE GROUT AND/OR BRICKS TO MATCH COVERS WITH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.

1:30 SCALE



PLAN VIEW



ELEVATION VIEW

MH-17 & MH-12 TREATMENT STRUCTURE

GENERAL NOTES

- BIO CLEAN TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS, AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS, AND ACCESSORIES PLEASE CONTACT BIO CLEAN.

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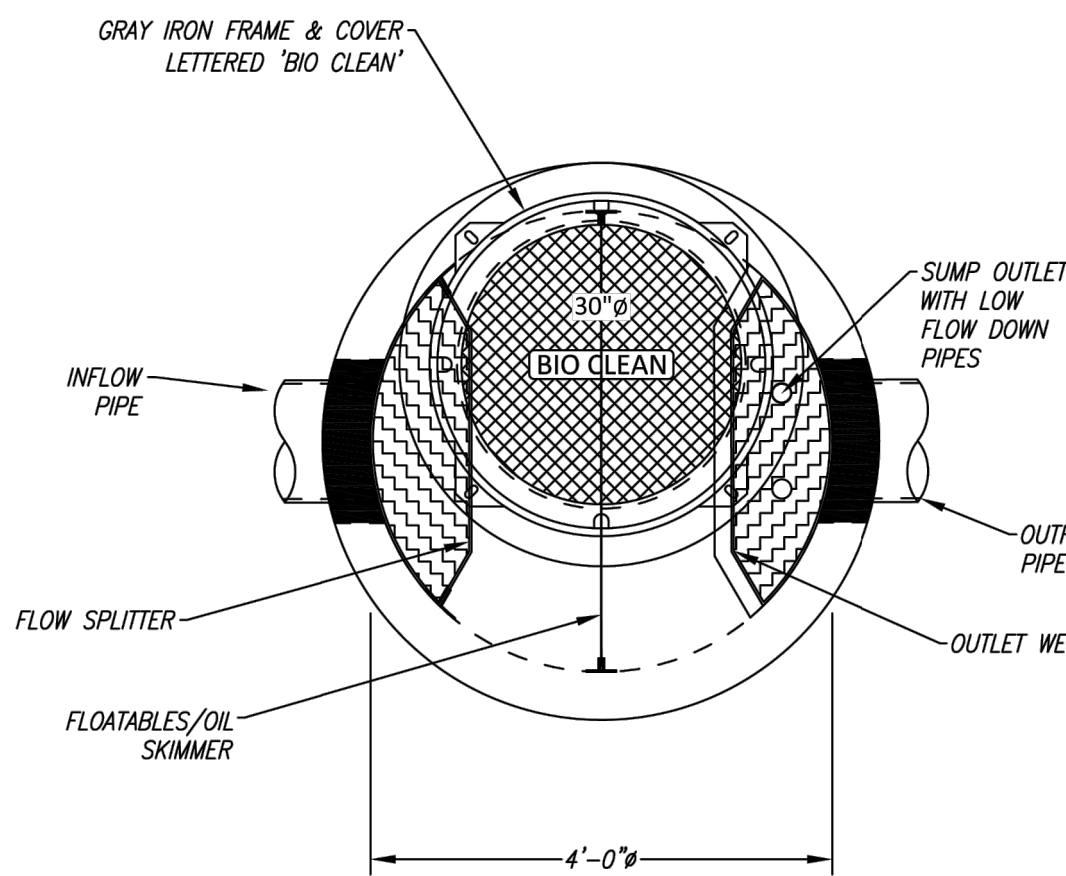
SCICLONE SCX-06
HYDRODYNAMIC SEPARATOR
STANDARD DETAIL

SITE SPECIFIC DATA*			
PROJECT NUMBER	.		
PROJECT NAME	.		
PROJECT LOCATION	.		
STRUCTURE ID	SCX-04		
WATER QUALITY FLOW RATE (CFS)			1.82
PEAK FLOW RATE (CFS)			.
PEAK STORM DURATION (YEARS)			.
PIPE DATA	I.E.	MATERIAL	DIAMETER
INFLOW PIPE 1	.	.	.
OUTFLOW PIPE 1	.	.	.
RIM ELEVATION	.		
SUMP ELEVATION	###		
SURFACE LOADING REQUIREMENT			HS20
FRAME AND COVER			(1) #30"
SKIMMER WALL HEIGHT			STANDARD
KNOWN GROUNDWATER ELEVATION			NA
NOTES: CONCEPT ONLY. NOT FOR CONSTRUCTION.			
*PER ENGINEER OF RECORD			
PERFORMANCE DATA			
TREATMENT FLOW RATE (CFS)			----
TSS REMOVAL EFFICIENCY			----
SUMP CHAMBER CAPACITY			
DIAMETER (FT)	AREA (SF)	HEIGHT (FT)	TOTAL (CF)
4	12.56	4.75	59.7

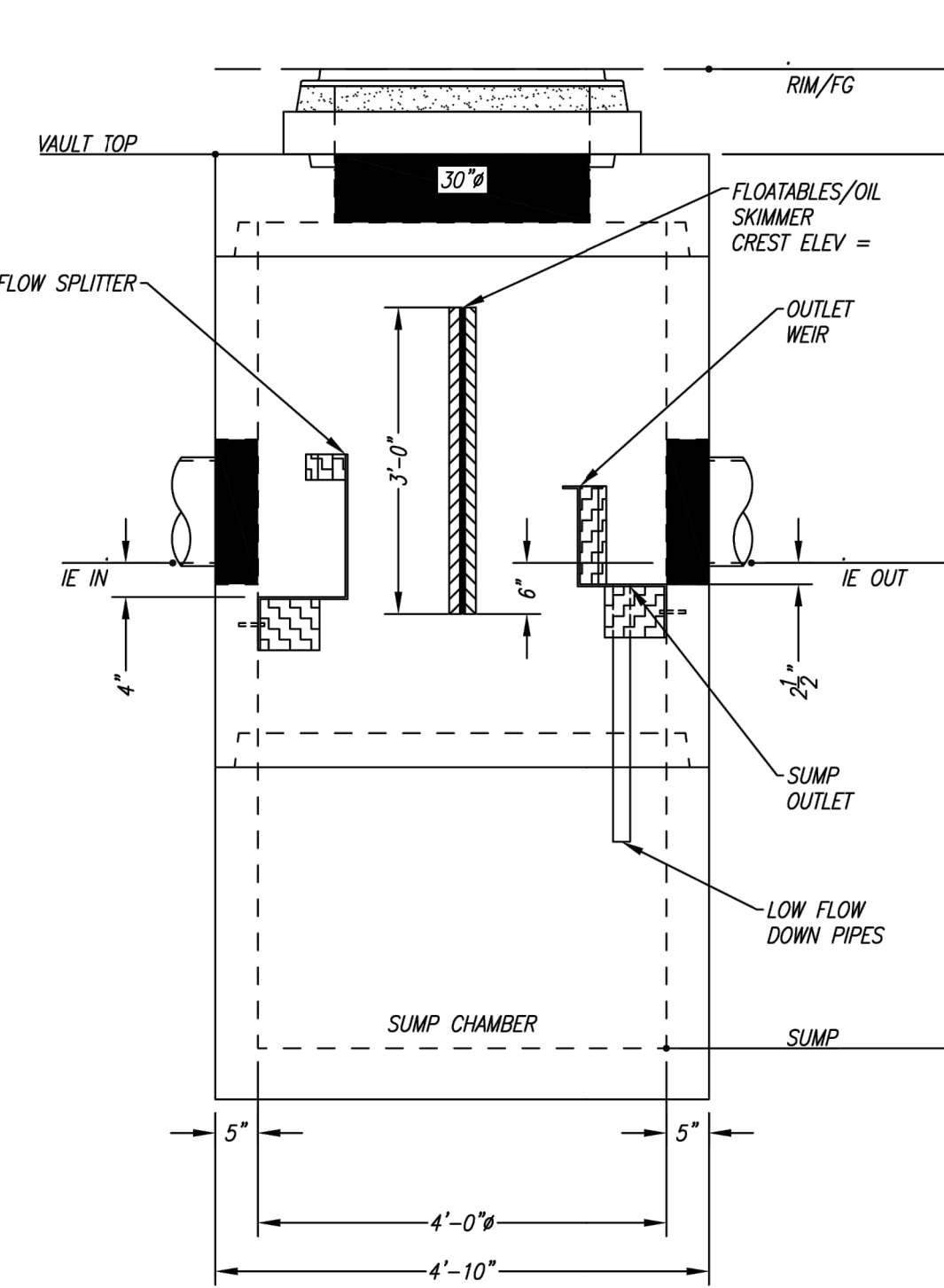
INSTALLATION NOTES

- CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SCICLONEX UNIT AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.
- MANUFACTURER RECOMMENDS A 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROJECT ENGINEER'S RECOMMENDED BASE SPECIFICATIONS.
- ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE (PIPES CANNOT INTRUDE BEYOND FLUSH).
- ALL GAPS AROUND PIPES SHALL BE SEALED WATERTIGHT WITH A NON-SHRINK GROUT PER MANUFACTURER'S STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
- CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS AND MANHOLES. ALL COVERS SHALL BE SHIPPED LOOSE. CONTRACTOR TO USE GROUT AND/OR BRICKS TO MATCH COVERS WITH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.

1:20 SCALE



PLAN VIEW



ELEVATION VIEW

MH-15 TREATMENT STRUCTURE

GENERAL NOTES

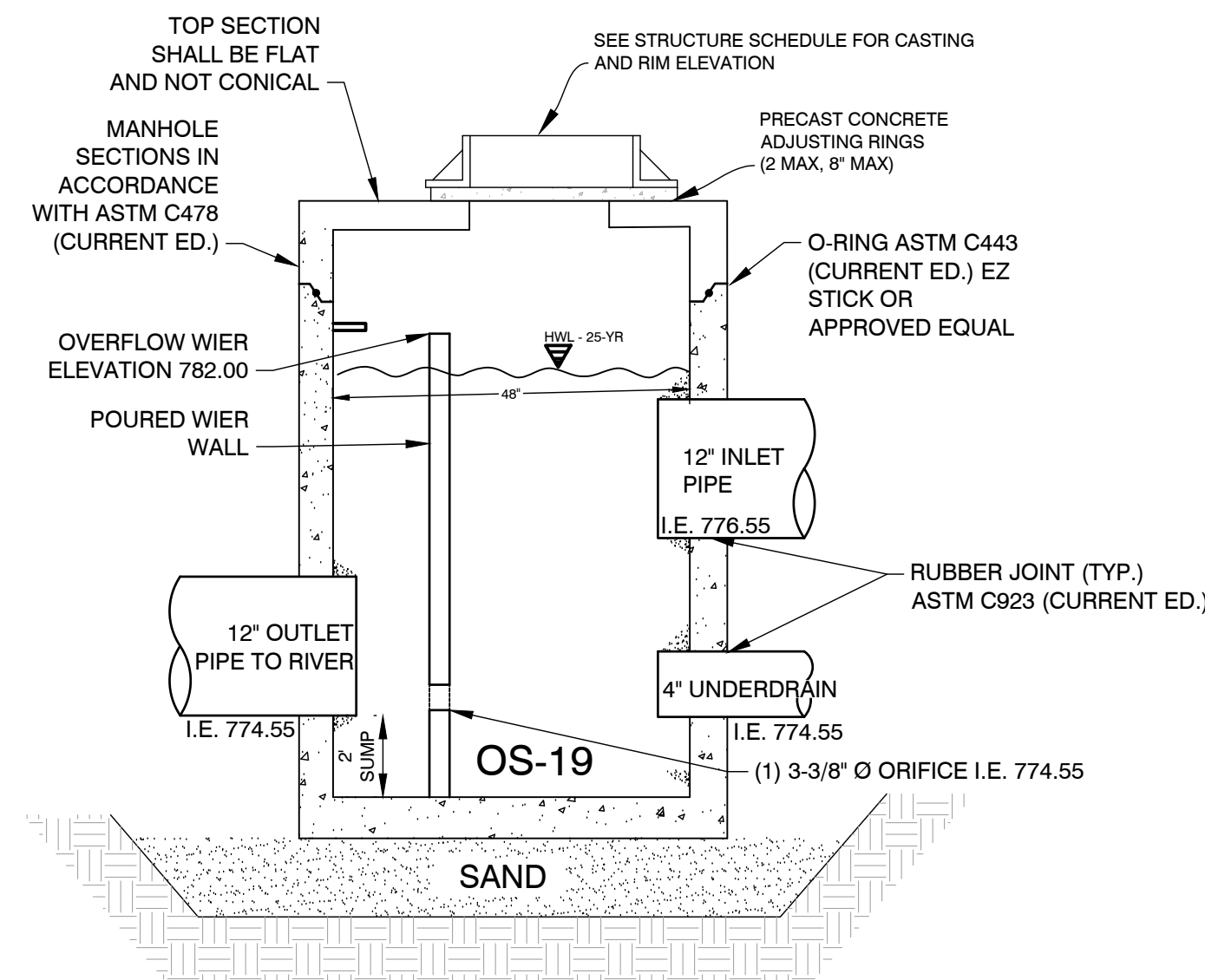
- BIO CLEAN TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS, AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS, AND ACCESSORIES PLEASE CONTACT BIO CLEAN.

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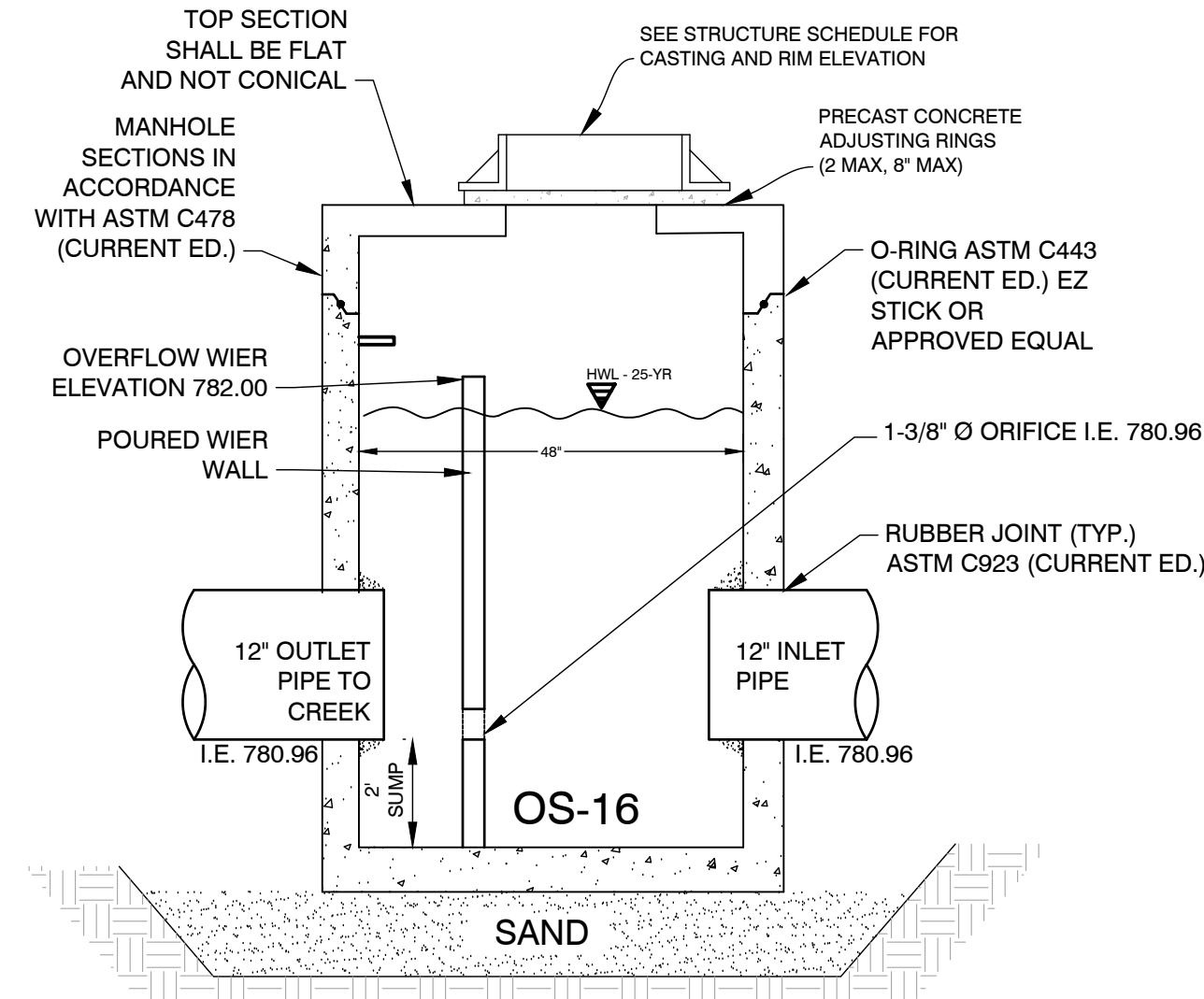
SCICLONE SCX-04
HYDRODYNAMIC SEPARATOR
STANDARD DETAIL



OS-19 SLOW RELEASE OVERFLOW DETAIL

C3.1

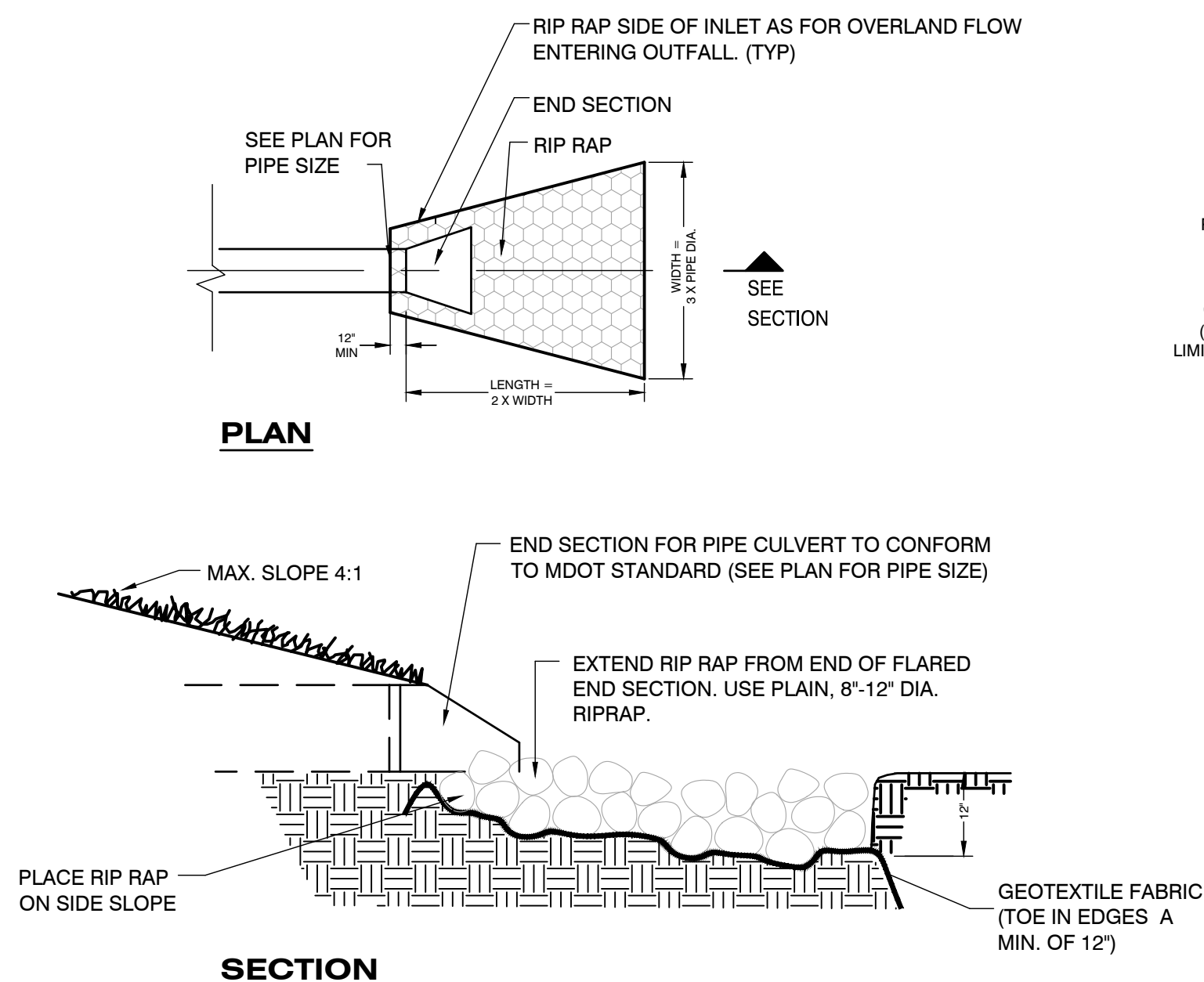
NOT TO SCALE



OS-16 SLOW RELEASE OVERFLOW DETAIL

C3.1

NOT TO SCALE



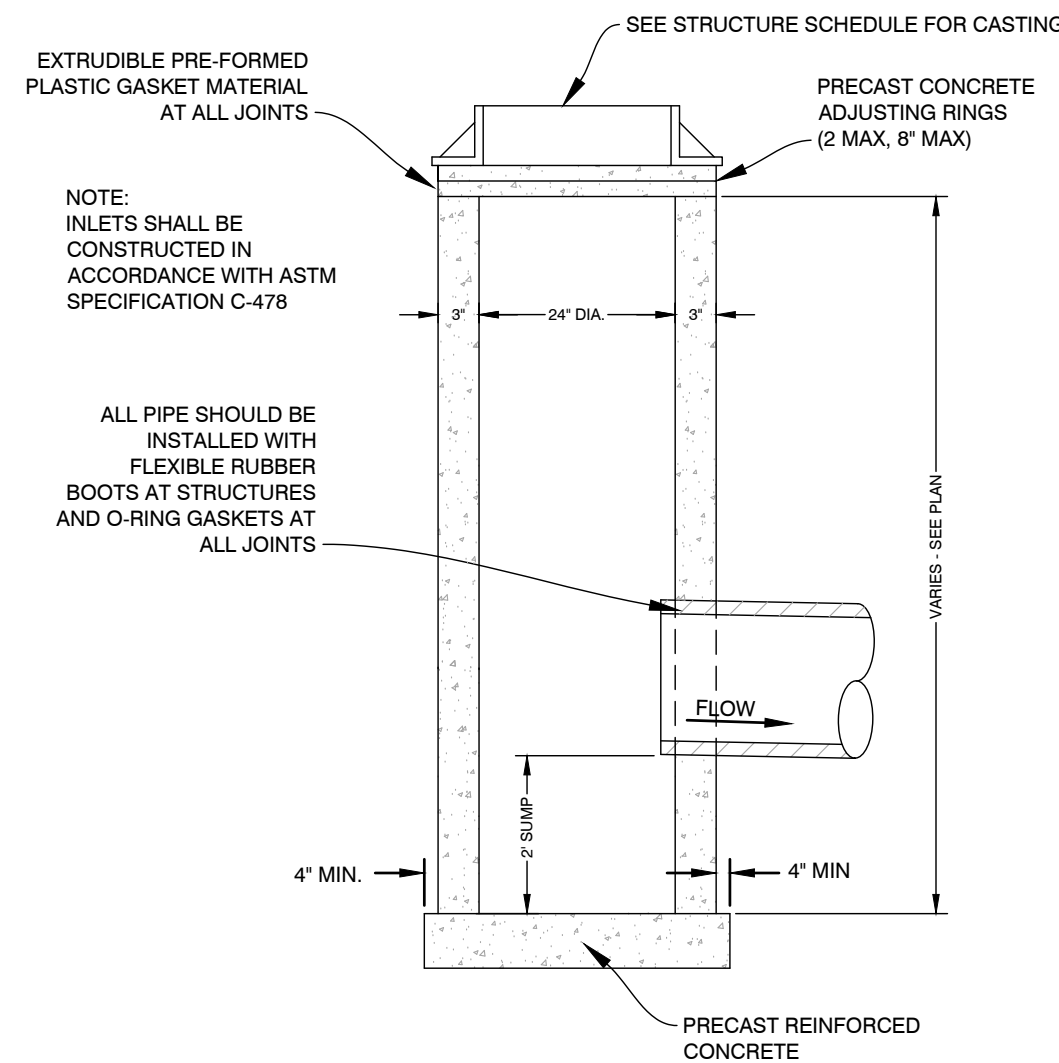
PIPE CULVERT WITH FLARED END SECTION DETAIL

C3.1 - 050002

NOT TO SCALE

SITE MATERIALS & CONSTRUCTION NOTES

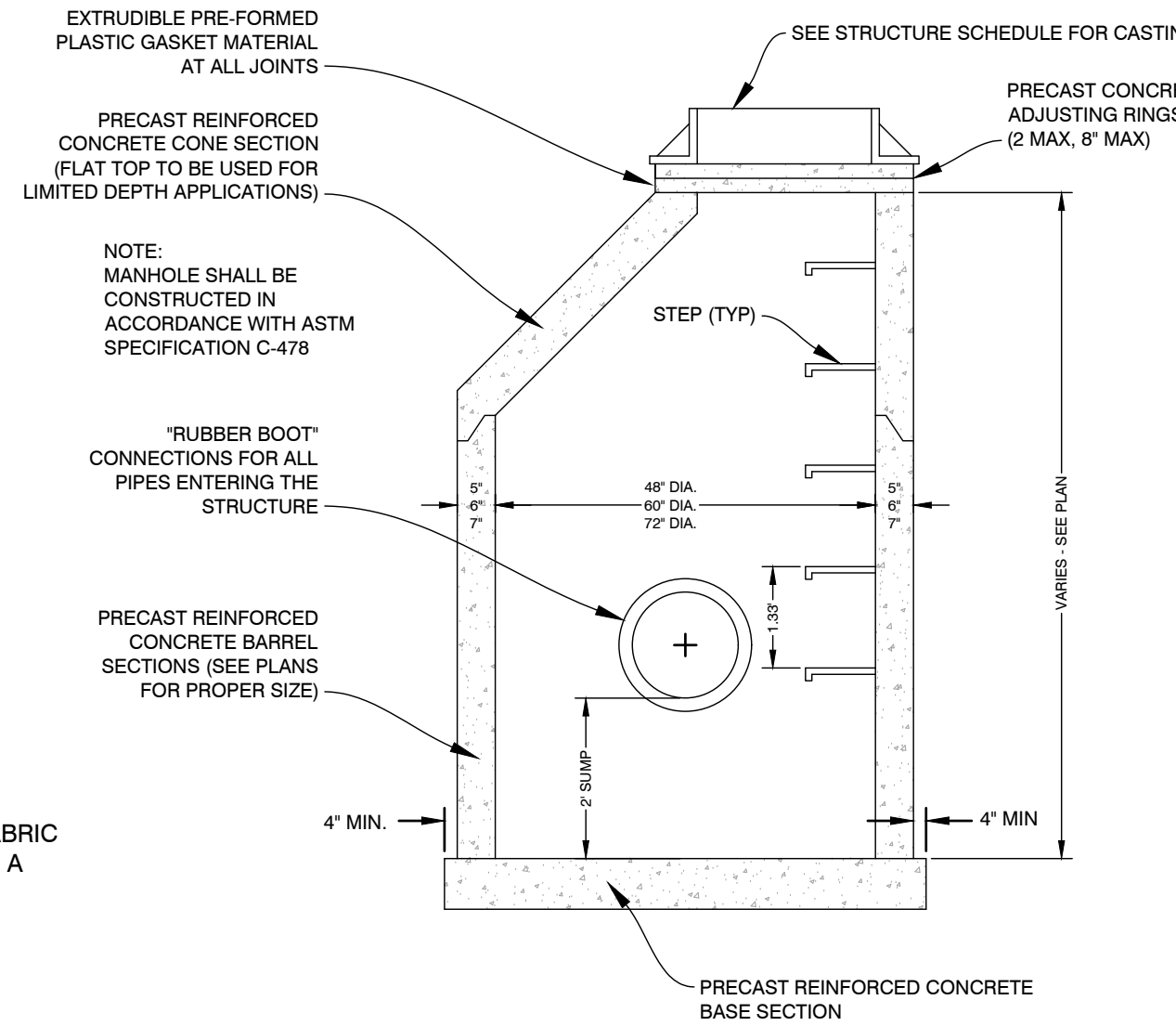
- SOILS EXPOSED IN THE BASE OF ALL SATISFACTORY FOUNDATION EXCAVATIONS SHOULD BE PROTECTED AGAINST ANY DETRIMENTAL CHANGES IN CONDITION SUCH AS FROM DISTURBANCE, RAIN AND FREEZING. SURFACE RUN-OFF WATER SHOULD BE DRAINED AWAY FROM THE EXCAVATION AND NOT ALLOWED TO POND. IF POSSIBLE, ALL FOOTING CONCRETE SHOULD BE POURED THE SAME DAY THE EXCAVATION IS MADE. IF THIS IS NOT PRACTICAL, THE FOOTING EXCAVATIONS SHOULD BE ADEQUATELY PROTECTED.
- REMOVE ALL SUBGRADE GRADE MATERIAL THAT MAY BE SOFTENED BY RAINS, FREEZING, OR CONSTRUCTION TRAFFIC, ETC. AND REPLACE WITH COMPACTED GRANULAR FILL.
- STORM SEWER SHALL BE CORRUGATED HDPE PIPE WITH SMOOTH INTERIOR WALL. BY ADS OR EQUAL. LEACHING BASINS AND MANHOLES ARE TO BE REINFORCED CONCRETE WITH RIM AND SLOTTED GRATING (AS SHOWN). STORM SEWER & LEACHING BASINS ARE TO BE WRAPPED WITH FILTER FABRIC.
- SANITARY SEWER PIPE SHALL BE PVC SDR 3034 MATERIAL.
- ALL WATER SERVICE LINES SHALL DUCTILE IRON AND BE SIZED PER PLAN. PROVIDE 5' COVER FROM FINISHED GRADE.
- PROVIDE MINIMUM 5' COVER FROM FINISHED GRADE FOR ALL WATER SERVICE LINES. IF COVER CANNOT BE MAINTAINED DUE TO SITE CONDITIONS OR INVERT ELEVATIONS THE ENTIRE LENGTH OF THE EXTERIOR PIPE MUST BE PROTECTED WITH 2" RIGID INSULATION BOARD ON THE TOP AND SIDES.
- PROVIDE MINIMUM 5' COVER FROM FINISHED GRADE FOR ALL SANITARY SEWER LINES. IF COVER CANNOT BE MAINTAINED DUE TO SITE CONDITIONS OR INVERT ELEVATIONS THE ENTIRE LENGTH OF THE EXTERIOR PIPE MUST BE PROTECTED WITH 2" RIGID INSULATION BOARD ON THE TOP AND SIDES.
- MAINTAIN 10 FOOT MINIMUM HORIZONTAL SEPARATION BETWEEN THE SEWER AND WATER MAIN UTILITIES. PROVIDE 18" MINIMUM VERTICAL SEPARATION WHERE UTILITIES CROSS.
- THE CONTRACTOR SHALL INSTALL A PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVERNIGHT AS REQUIRED.
- EXTERIOR CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4000 PSI AND SHALL HAVE LIMESTONE AGGREGATE AND SHALL HAVE 4 - 6 % AIR ENTRAINMENT WITH A BROOM FINISH.
- EXPANSION JOINTS IN CONCRETE PAVEMENT AND WALLS SHALL BE 1/2" ASPHALT IMPREGNATED FULL DEPTH 40" O.C. MAXIMUM & AT SIDEWALK INTERSECTIONS. CRACK CONTROL SCORING AT SIDEWALK WIDTH DIMENSION AND @ 10'-0" O.C. IN DRIVES.



24" STORM INLET DETAIL

C3.1 - 050005

NOT TO SCALE



STORM CATCH BASIN DETAIL

C3.1 - 050003

NOT TO SCALE

PLANS PREPARED BY:

AR ENGINEERING
CIVIL ENGINEERING & SURVEYING
MICHIGAN | INDIANA | ILLINOIS | OHIO
269.250.5991 PHONE | 800.560.0604 FAX
www.arengineeringllc.com

DRAWN: eeg
CHECKED: SAO

STATE OF MICHIGAN
SPENCER O'DELL
ENGINEER
No. 6201309325
LICENSED PROFESSIONAL ENGINEER

SPENCER O'DELL, P.E.
No. 6201309325

No.	DATE	BY	ISSUED FOR:
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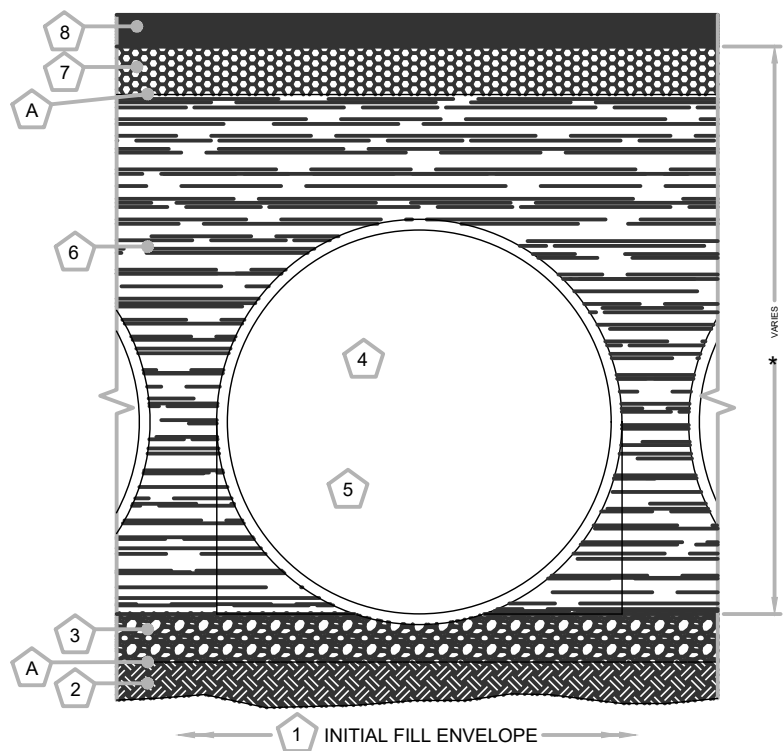
STRUCTURE DETAILS
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

SHEET TITLE:
PROJECT:
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C3.1



- 1 MINIMUM WIDTH DEPENDS ON SITE CONDITIONS AND ENGINEERING JUDGEMENT FOUNDATION/BEDDING PREPARATION
- 2 PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER.
- 5 HAUNCH ZONE MATERIAL SHALL BE PLACED AND UNIFORMLY COMPACTED WITHOUT SOFT SPOTS.

BACKFILL

WHEN PLACING THE FIRST LIFTS OF BACKFILL IT IS IMPORTANT TO MAKE SURE THAT THE BACKFILL IS PROPERLY COMPACTED UNDER AND AROUND THE PIPE HAUNCHES. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO LIFT (10") DIFFERENTIAL BETWEEN ANY OF THE PIPES AT ANY TIME DURING THE BACKFILL PROCESS. THE BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE DETENTION SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON THE PIPE.

OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS, AS APPROVED BY SITE ENGINEER.

STORAGE SUMMARY

- STORAGE VOLUME REQUIRED = 6,189 CF
- PIPE STORAGE VOLUME = 6,224 CF
- BACKFILL STORAGE VOLUME = 0 CF
- TOTAL STORAGE PROVIDED = 6,268 CF

PIPE DETAILS

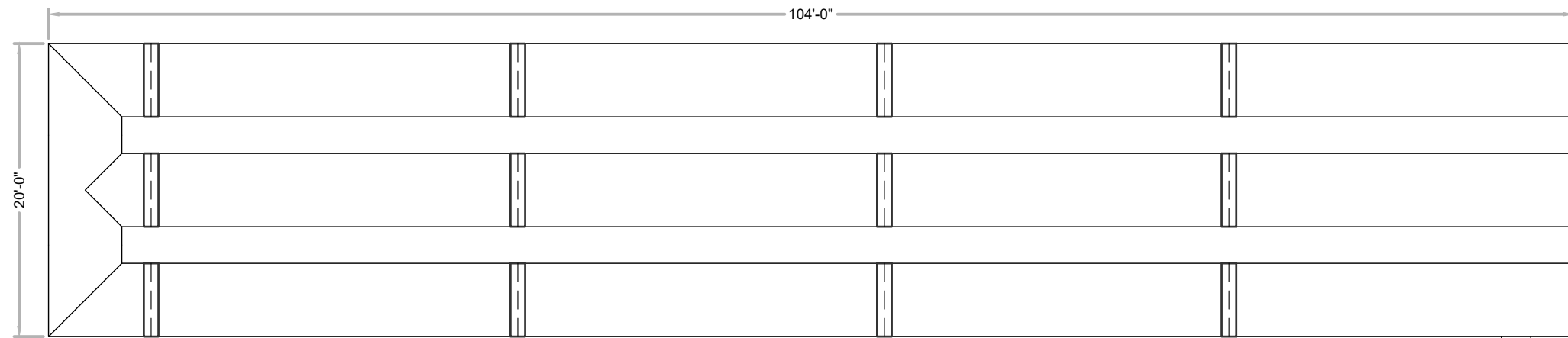
- DIAMETER = 60"
- CORRUGATION = 5x1
- GAGE = 16
- COATING = ALT2
- WALL TYPE = SOLID
- BARREL SPACING = 30"

BACKFILL DETAILS

- WIDTH AT ENDS = 12"
- ABOVE PIPE = 0"
- WIDTH AT SIDES = 12"
- BELOW PIPE = 0"

NOTES

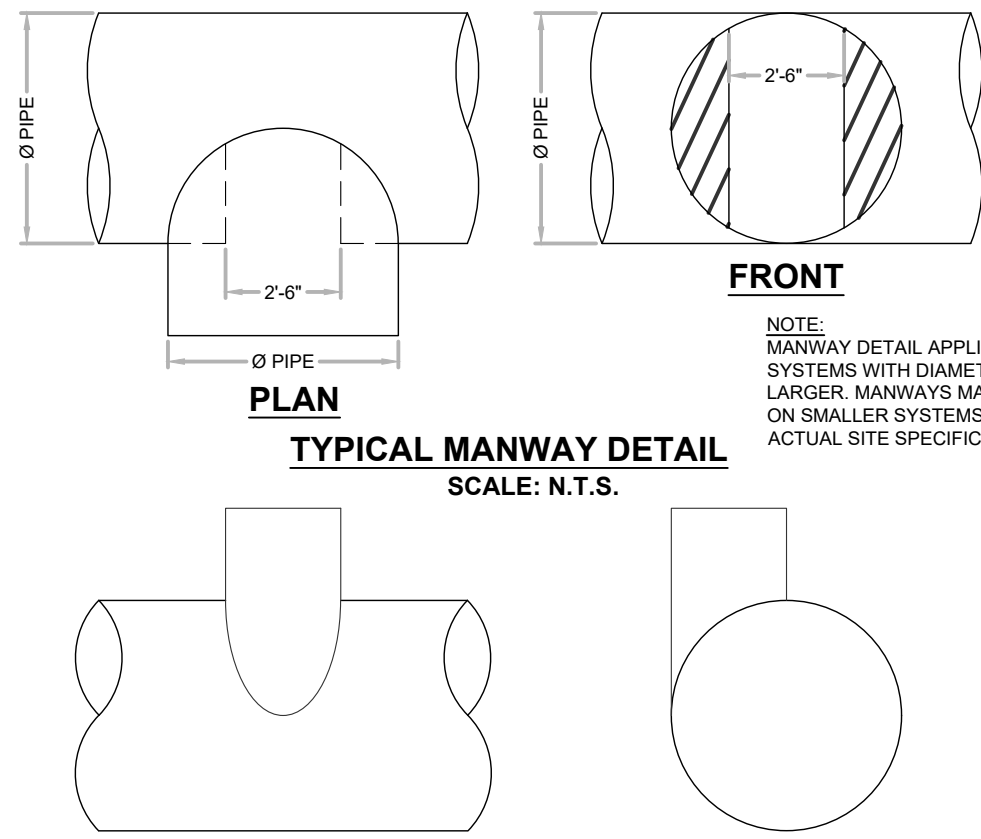
- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 24" x 24" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN. QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.



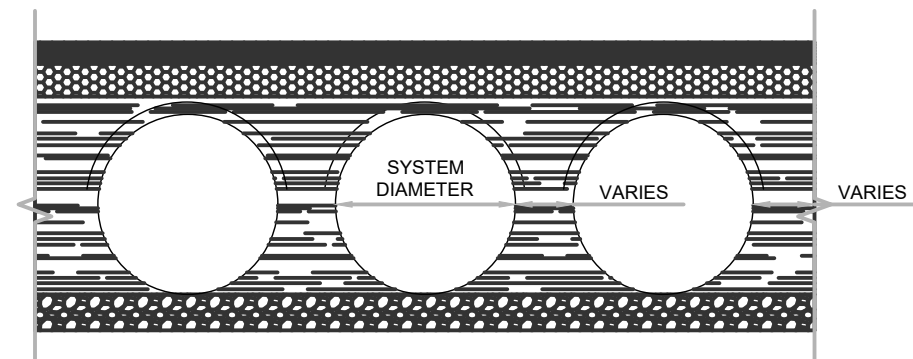
ASSEMBLY
SCALE: 1" = 10'

DETENTION SYSTEMS - CMP DETENTION / CMP DRAINAGE			
Material Location	Description	Material Designation	Designation
8 7 6 5 4 3 2 1	Rigid or Flexible Pavement (if applicable)		
8 7 6 5 4 3 2 1	Road Base (if applicable)		
8 7 6 5 4 3 2 1	Geotextile Layer	Non-Woven Geotextile	CONTECH C-40 or C-45
8 7 6 5 4 3 2 1	Backfill	Well graded granular material which may contain small amounts of silt or clay.	AASHTO M 145- A-1, A-2, A-3
8 7 6 5 4 3 2 1	Bedding Stone	Well graded granular bedding material with maximum particle size of 3"	AASHTO M 63- 3.59/4.48/ 5, 56, 57
8 7 6 5 4 3 2 1	Geotextile Layer	Non-Woven Geotextile	CONTECH C-40 or C-45

Note: Backfill using controlled low-strength material (CLSM, "foam fill" or "flowable fill") when the spacing between the pipes will not allow for placement and adequate compaction of the backfill.



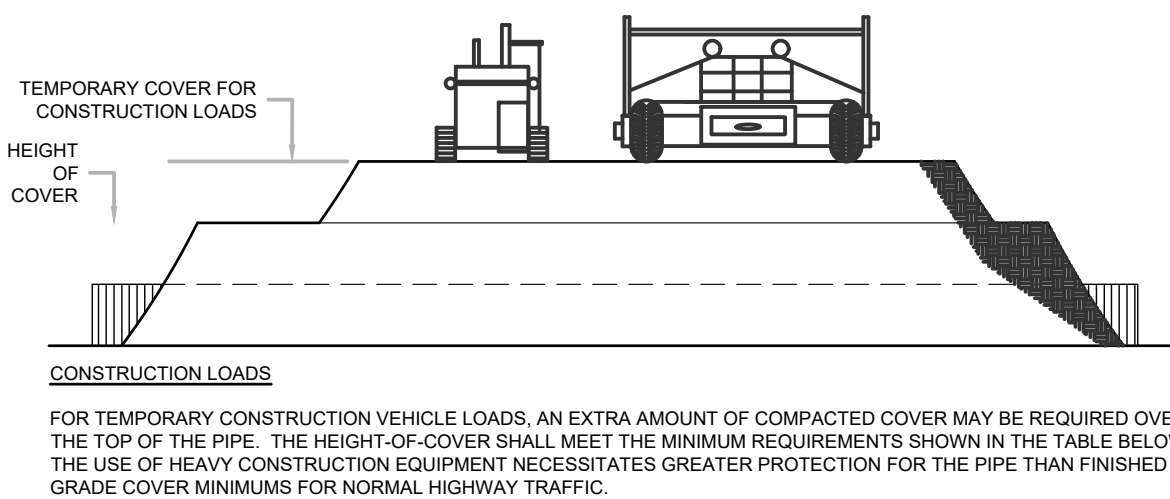
ELEVATION
TYPICAL RISER DETAIL
SCALE: N.T.S.



TYPICAL SECTION VIEW
LINER OVER ROWS
SCALE: N.T.S.

NOTE: IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, AN HDPE MEMBRANE LINER IS RECOMMENDED WITH THE SYSTEM. THE IMPERMEABLE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.

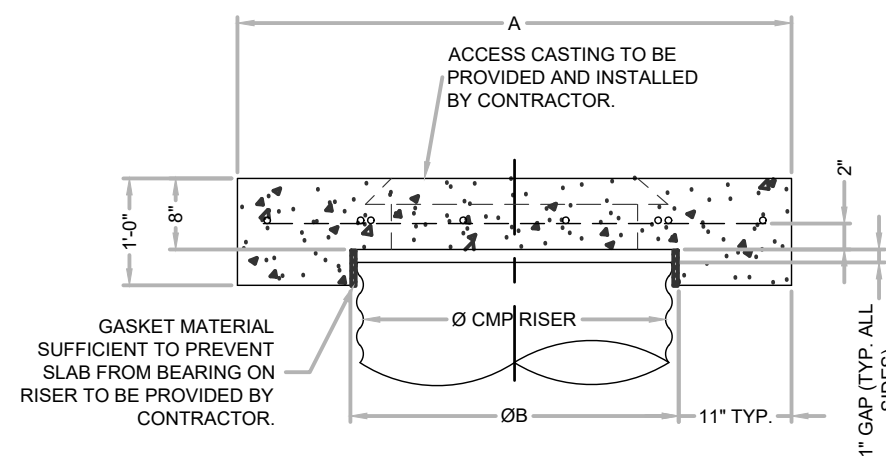
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PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

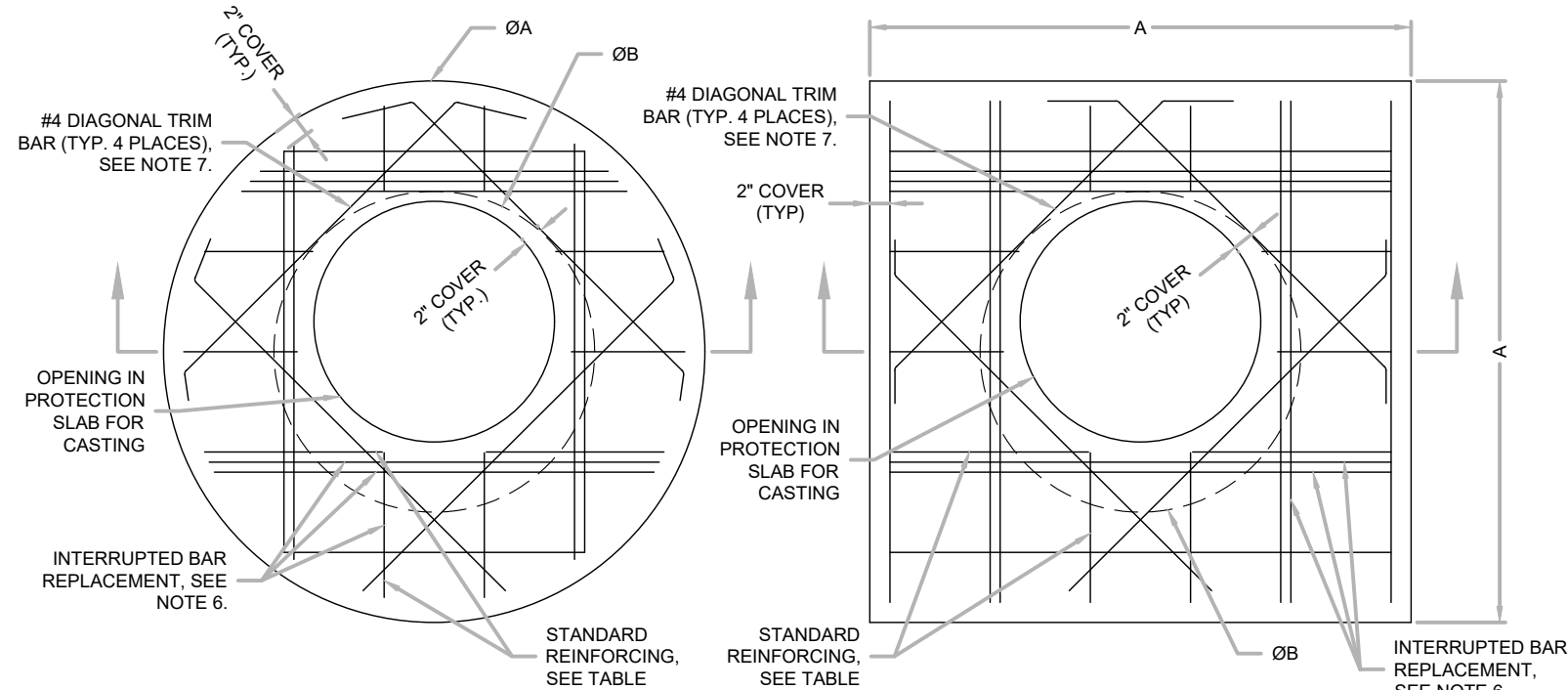
CONSTRUCTION LOADING DIAGRAM
SCALE: N.T.S.



REINFORCING TABLE

Ø CMP RISER	A	Ø B	REINFORCING	**BEARING PRESSURE (PSF)
24"	Ø 4" 4'x4"	26"	#5 @ 12" OCEW #5 @ 12" OCEW	2,410 1,780
30"	Ø 4-6" 4'-6" X 4'-6"	32"	#5 @ 12" OCEW #5 @ 12" OCEW	2,120 1,530
36"	Ø 5" 5' X 5'	38"	#5 @ 10" OCEW #5 @ 10" OCEW	1,890 1,390
42"	Ø 5-6" 5'-6" X 5'-6"	44"	#5 @ 10" OCEW #5 @ 9" OCEW	1,720 1,210
48"	Ø 6" 6' X 6'	50"	#5 @ 9" OCEW #5 @ 8" OCEW	1,600 1,100

** ASSUMED SOIL BEARING CAPACITY



NOTES

1. DESIGN IN ACCORDANCE WITH AASHTO, 17TH EDITION.
2. DESIGN LOAD HS25.
3. EARTH COVER = 1' MAX.
4. CONCRETE STRENGTH = 3,500 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.

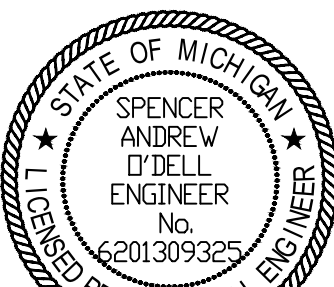
7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON, NY.

MANHOLE CAP DETAIL
SCALE: N.T.S.

PLANS PREPARED BY:



DRAWN: eeg
CHECKED: SAO



SPENCER O'DELL, P.E.
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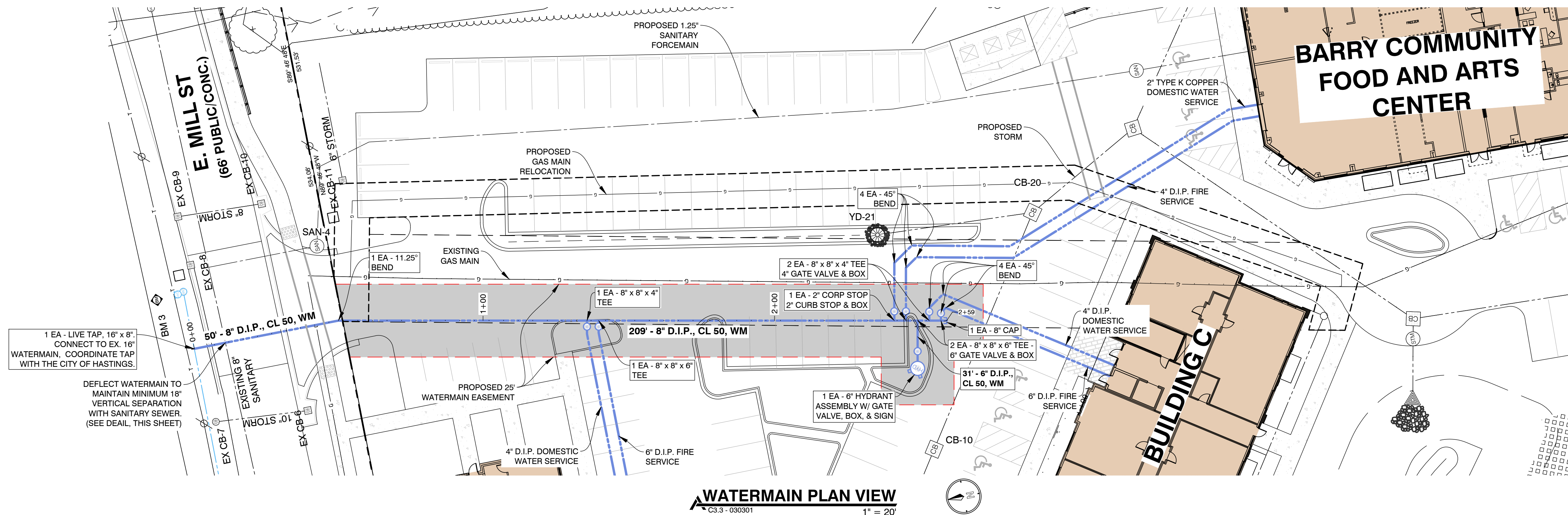
UNDERGROUND STORM DETAILS
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

SHEET TITLE:
PROJECT:
CLIENT:
SITE ADDRESS:
SITE SECTION:

JOB NUMBER
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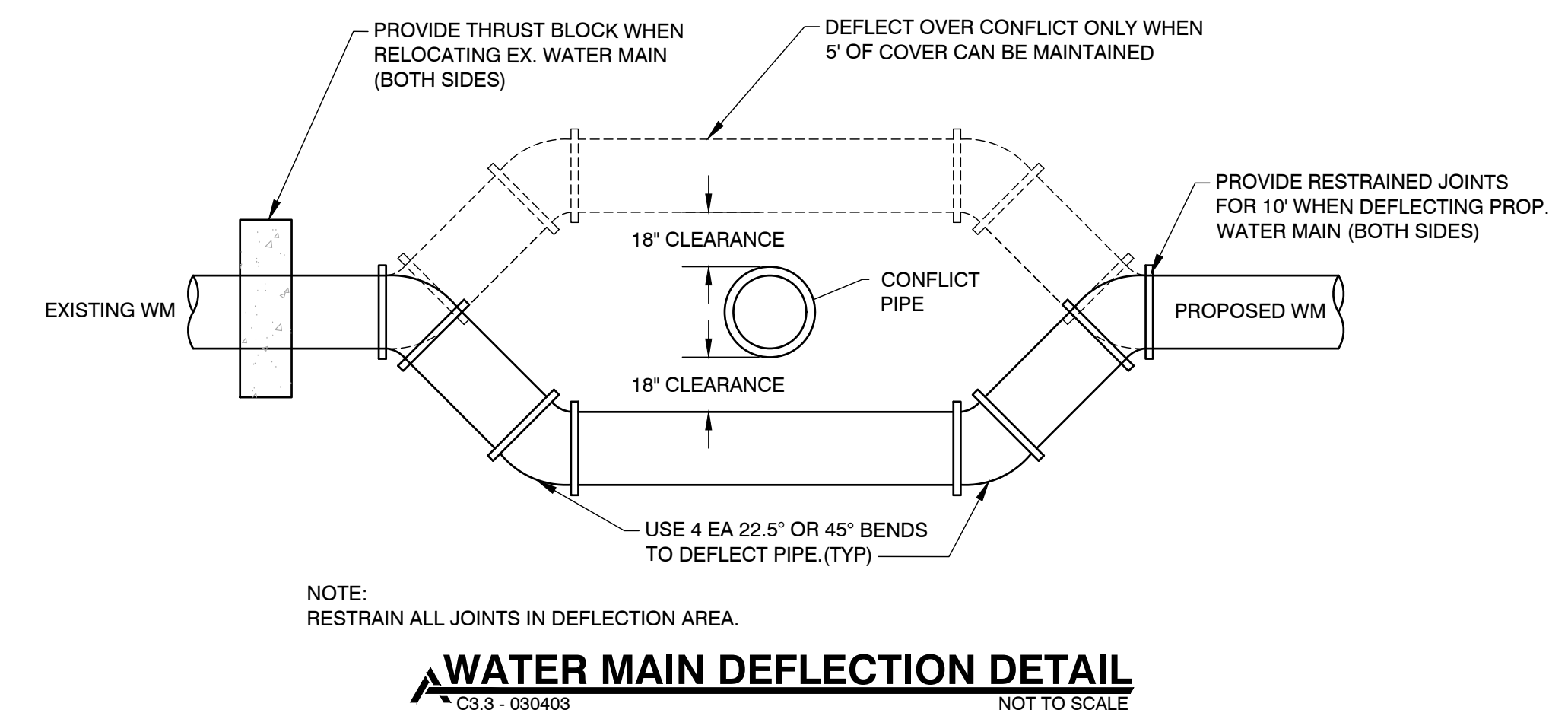
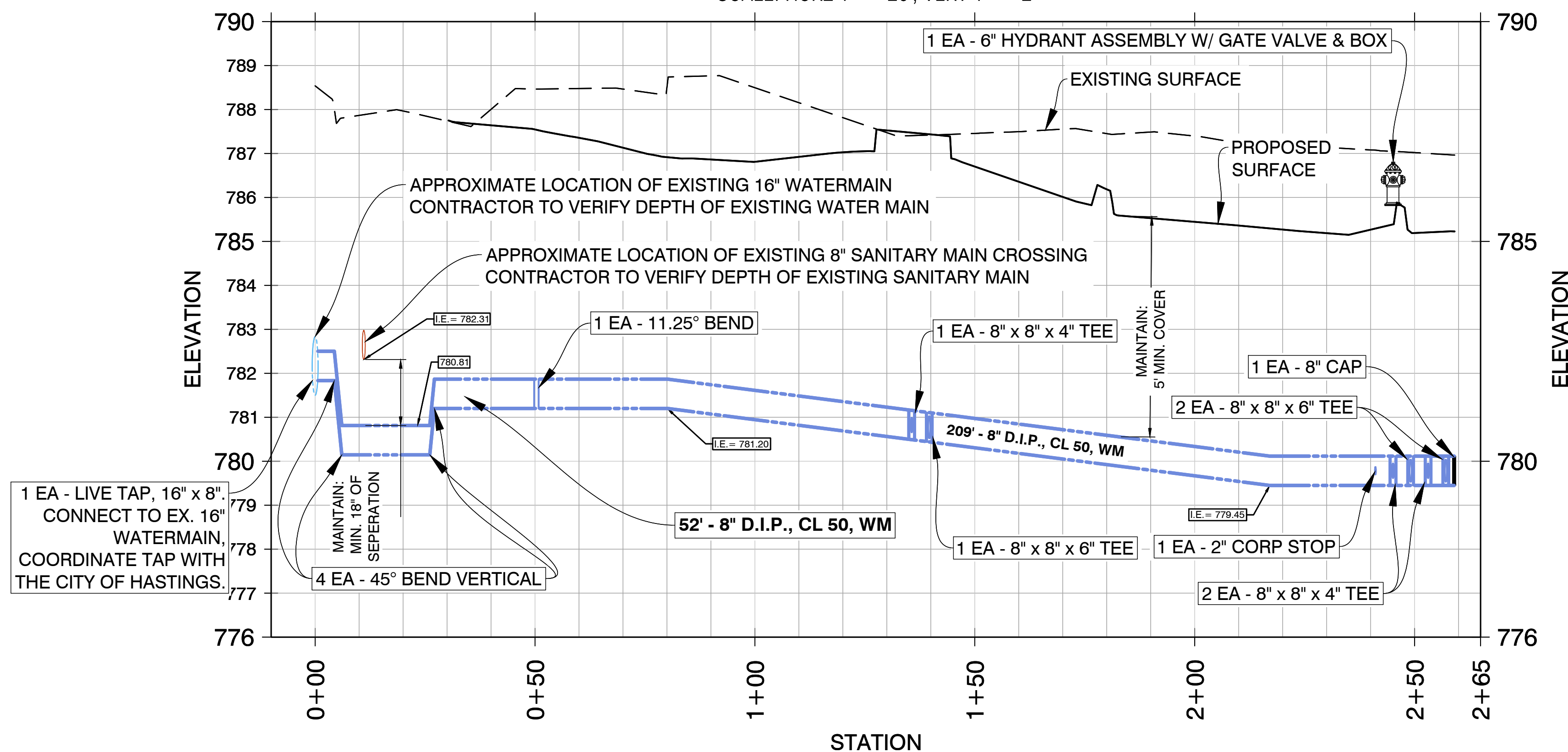
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07/23/2025

SHEET NUMBER
C3.2



Watermain Profile View

SCALE: HORZ 1" = 20', VERT 1" = 2'

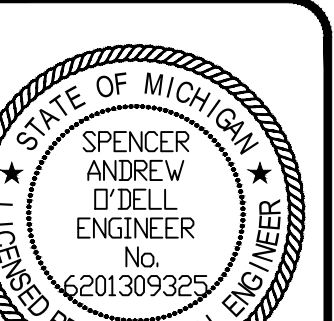


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PLANS PREPARED BY:



DRAWN: eeg
CHECKED: SAO



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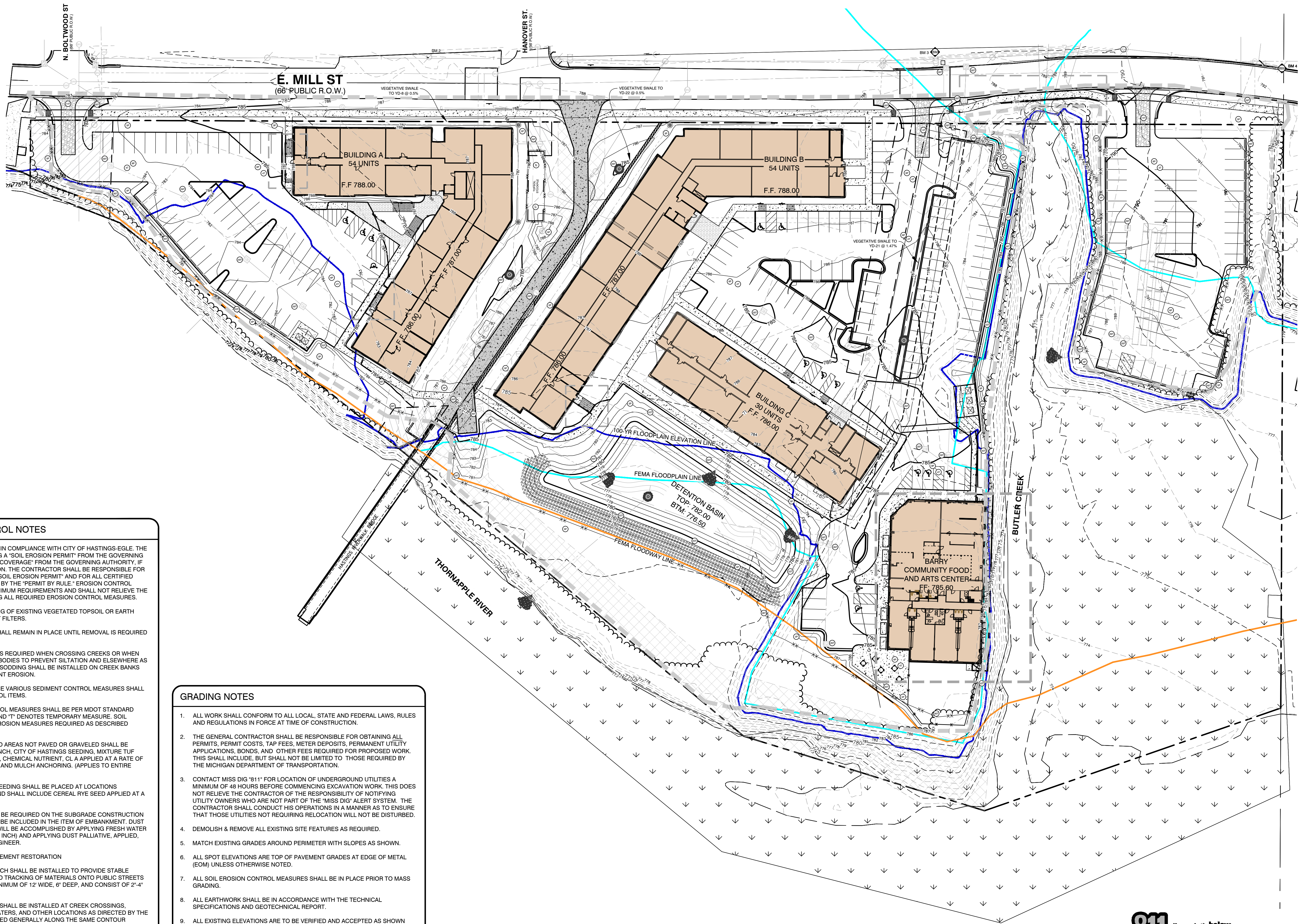
WATERMAIN PLAN & PROFILE
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

SHEET TITLE:
PROJECT:
CLIENT:
SITE ADDRESS:
SITE SECTION:

JOB NUMBER
23144001

DATE
07/23/2025

SHEET NUMBER
C3.3



SOIL EROSION & SEDIMENT CONTROL NOTES

1. ALL CONSTRUCTION METHODS SHALL BE DONE IN COMPLIANCE WITH CITY OF HASTINGS-EGLE. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING A "SOIL EROSION PERMIT" FROM THE GOVERNING AUTHORITY AND A "PERMIT BY RULE/NOTICE OF COVERAGE" FROM THE GOVERNING AUTHORITY, IF APPLICABLE, PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL REQUIREMENTS OF THE "SOIL EROSION PERMIT" AND FOR ALL CERTIFIED STORM WATER INSPECTION SERVICE REQUIRED BY THE "PERMIT BY RULE." EROSION CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS AND SHALL NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR PROVIDING ALL REQUIRED EROSION CONTROL MEASURES.

2. AVOID UNNECESSARY DISTURBING OR REMOVING OF EXISTING VEGETATED TOPSOIL OR EARTH COVER. THESE COVER AREAS ACT AS SEDIMENT FILTERS.

3. ALL TEMPORARY SOIL EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL REMOVAL IS REQUIRED FOR FINAL CLEAN UP AND APPROVAL.

4. GEOTEXTILE SILT FENCE SHALL BE INSTALLED AS REQUIRED WHEN CROSSING CREEKS OR WHEN ADJACENT TO WETLANDS OR SURFACE WATER BODIES TO PREVENT SILTATION AND ELSEWHERE AS DIRECTED BY THE ENGINEER. SEEDING AND/OR SODDING SHALL BE INSTALLED ON CREEK BANKS IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION.

5. MAINTENANCE, CLEANING, AND REMOVAL OF THE VARIOUS SEDIMENT CONTROL MEASURES SHALL BE INCLUDED IN THE VARIOUS EROSION CONTROL ITEMS.

ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE PER MDOT STANDARD DETAILS. "P" DENOTES PERMANENT MEASURE AND "T" DENOTES TEMPORARY MEASURE. SOIL EROSION CONTROL PLANS DENOTE MINIMUM EROSION MEASURES REQUIRED AS DESCRIBED BELOW.

3P DENOTES PERMANENT SEEDING. ALL DISTURBED AREAS NOT PAVED OR GRAVELED SHALL BE RESTORED. PLACE TOPSOIL SURFACE, SALV. 3 INCH. CITY OF HASTINGS SEEDING, MIXTURE TUF APPLIED AT A RATE OF 220 LB/ACRE; FERTILIZER, CHEMICAL NUTRIENT, CL A APPLIED AT A RATE OF 228 LB/ACRE; MULCH AT A RATE OF 2 TON/ACRE AND MULCH ANCHORING. (APPLIES TO ENTIRE PROJECT)

3T DENOTES TEMPORARY SEEDING. TEMPORARY SEEDING SHALL BE PLACED AT LOCATIONS DETERMINED BY THE ENGINEER IN THE FIELD AND SHALL INCLUDE CEREAL RYE SEED APPLIED AT A RATE OF 70 LB/ACRE AND MULCH.

4T DENOTES DUST CONTROL. DUST CONTROL MAY BE REQUIRED ON THE SUBGRADE CONSTRUCTION AND WILL INCLUDE APPLYING FRESH WATER TO BE INCLUDED IN THE ITEM OF EMBANKMENT. DUST CONTROL ON THE AGGREGATE BASE COURSE WILL BE ACCOMPLISHED BY APPLYING FRESH WATER (INCLUDED IN THE ITEM OF AGGREGATE BASE, 6 INCH) AND APPLYING DUST PALIATIVE, APPLIED, CACL₂ (TON) AS DIRECTED BY THE PROJECT ENGINEER.

8P DENOTES AGGREGATE COVER/PERMANENT PAVEMENT RESTORATION

14T DENOTES GRAVEL ACCESS APPROACH. APPROACH SHALL BE INSTALLED TO PROVIDE STABLE ACCESS TO ROADWAYS AND MINIMIZE DUST AND TRACKING OF MATERIALS ONTO PUBLIC STREETS AND HIGHWAYS. THE APPROACH SHALL BE A MINIMUM OF 12' WIDE, 6" DEEP, AND CONSIST OF 2"-4" AGGREGATE.

26T DENOTES TEMPORARY SILT FENCE. SILT FENCE SHALL BE INSTALLED AT CREEK CROSSINGS, ADJACENT TO ALL WETLANDS AND SURFACE WATERS, AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER. EACH SILT FENCE SHALL BE INSTALLED GENERALLY ALONG THE SAME CONTOUR ELEVATION.

29T DENOTES INLET PROTECTION FABRIC DROP. SHALL BE INSTALLED AT EXISTING AND PROPOSED STORM SEWER INLETS TO PROVIDE SETTLING AND FILTERING OF SILT LADEN WATER PRIOR TO ENTRY INTO THE DRAINAGE SYSTEM.

35T DENOTES MULCH BLANKET OR MATTING. SHALL BE NORTH AMERICAN GREEN DS150, OR APPROVED EQUAL. MULCH BLANKETS SHALL BE PLACED ON ALL 1:3 SLOPES OR GREATER, IN AND AROUND DITCH BOTTOMS WHERE THERE IS NO BIOSWALE BY CONTRACTOR RESPONSIBLE FOR RESTORING THAT AREA.

GRADING NOTES

1. ALL WORK SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL LAWS, RULES AND REGULATIONS IN FORCE AT TIME OF CONSTRUCTION.

2. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PERMIT COSTS, TAP FEES, METER DEPOSITS, PERMANENT UTILITY APPLICATIONS, BONDS, AND OTHER FEES REQUIRED FOR PROPOSED WORK. THIS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO THOSE REQUIRED BY THE MICHIGAN DEPARTMENT OF TRANSPORTATION.

3. CONTACT MISS DIG "811" FOR LOCATION OF UNDERGROUND UTILITIES A MINIMUM OF 48 HOURS BEFORE COMMENCING EXCAVATION WORK. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO ARE NOT PART OF THE "MISS DIG" ALERT SYSTEM. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.

4. DEMOLISH & REMOVE ALL EXISTING SITE FEATURES AS REQUIRED.

5. MATCH EXISTING GRADES AROUND PERIMETER WITH SLOPES AS SHOWN.

6. ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT GRADES AT EDGE OF METAL (EOM) UNLESS OTHERWISE NOTED.

7. ALL SOIL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO MASS GRADING.

8. ALL EARTHWORK SHALL BE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS AND GEOTECHNICAL REPORT.

9. ALL EXISTING ELEVATIONS ARE TO BE VERIFIED AND ACCEPTED AS SHOWN PRIOR TO COMMENCEMENT OF WORK.

10. CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID TRACKING SOIL ONTO ADJACENT ROADWAYS. CONTRACTOR SHALL SWEEP IMMEDIATELY IF OCCURS.

11. ANY DISTURBED AREA WHICH WILL BE LEFT UNWORKED 15 DAYS OR LONGER MUST BE SEED TO ESTABLISH VEGETATION FOR TEMPORARY STABILIZATION. BASINS TO BE SEED AND MULCH BLANKETS APPLIED IMMEDIATELY TO PROVIDE A STABLE BASE AND AVOID EXCESSIVE EROSION.

LEGEND

- LIMITS OF CONSTRUCTION
- X-X- SILT FENCE

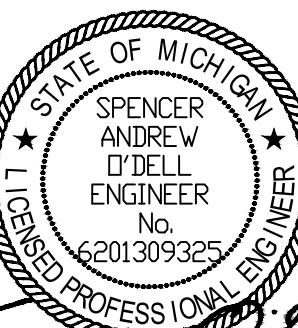


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PLANS PREPARED BY:



DRAWN: eeg
CHECKED: SAO



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GRADING & SESC PLAN - OVERALL
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

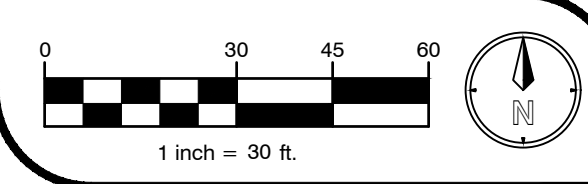
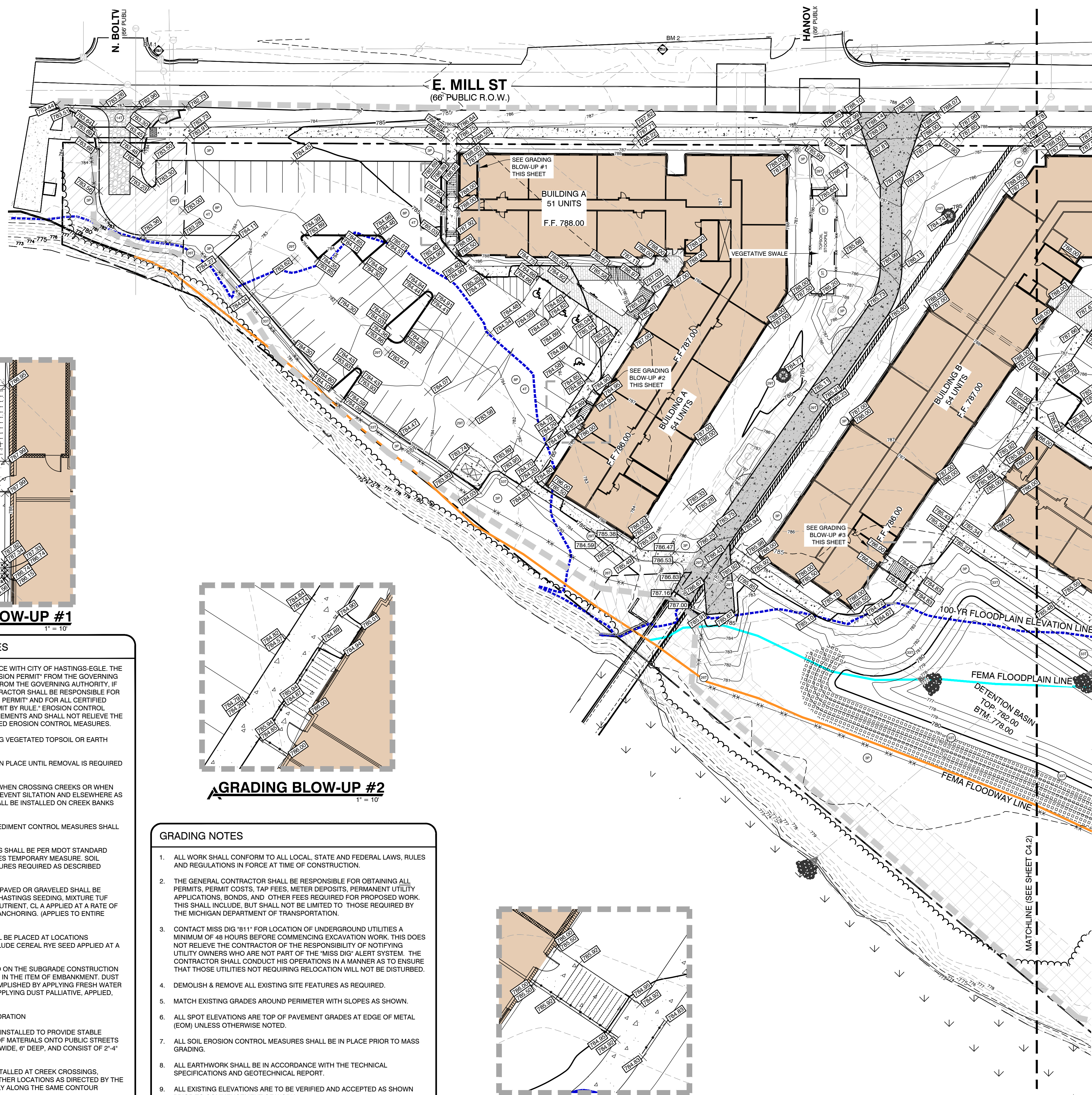
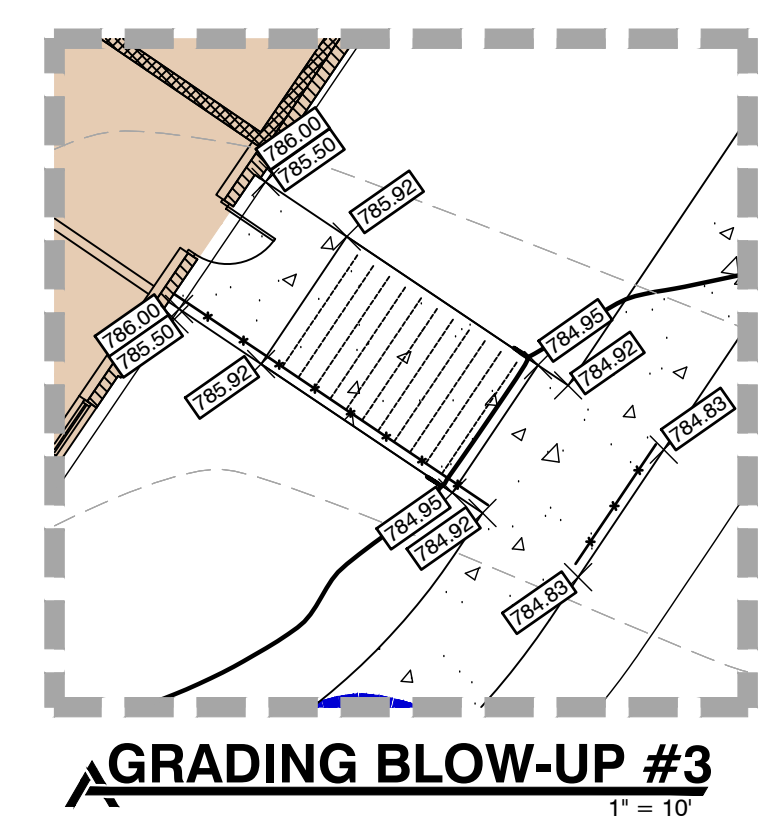
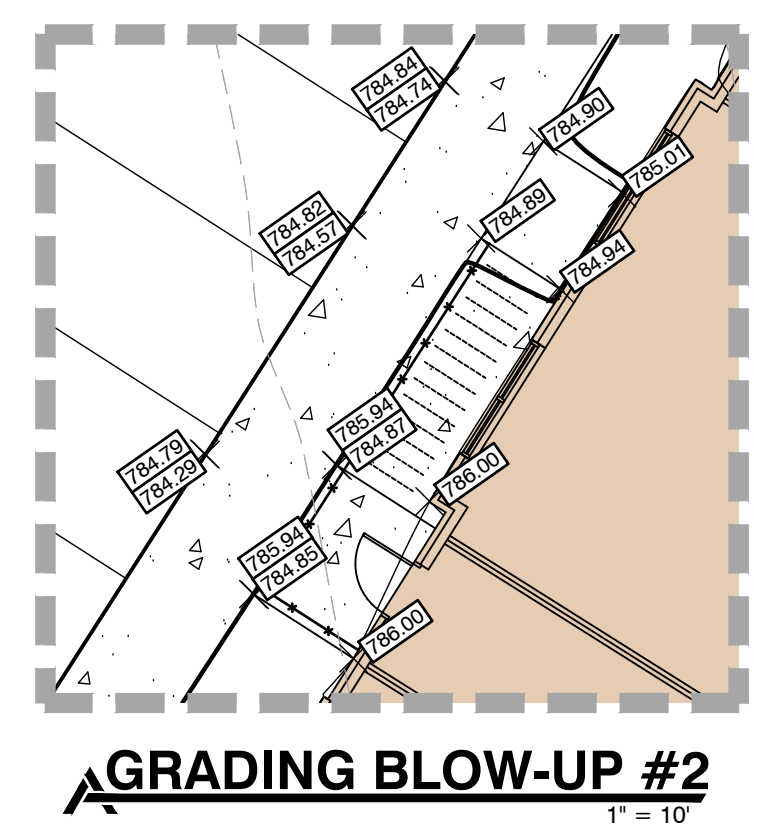
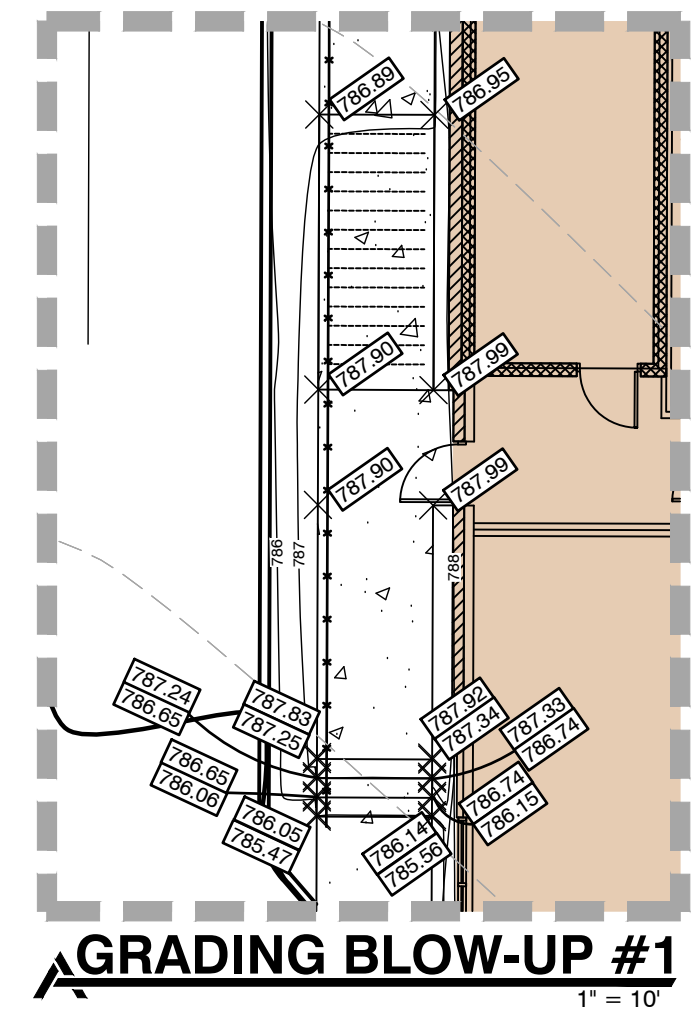
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C4.0



SOIL EROSION & SEDIMENT CONTROL NOTES

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(8P) DENOTES AGGREGATE COVER/PERMANENT PAVEMENT RESTORATION

(14T) DENOTES GRAVEL ACCESS APPROACH. APPROACH SHALL BE INSTALLED TO PROVIDE STABLE ACCESS TO ROADWAYS AND MINIMIZE DUST AND TRACKING OF MATERIALS ONTO PUBLIC STREETS AND HIGHWAYS. THE APPROACH SHALL BE A MINIMUM OF 12' WIDE, 6" DEEP, AND CONSIST OF 2"-4" AGGREGATE.

(26T) DENOTES TEMPORARY SILT FENCE. SILT FENCE SHALL BE INSTALLED AT CREEK CROSSINGS, ADJACENT TO ALL WETLANDS AND SURFACE WATERS, AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER. EACH SILT FENCE SHALL BE INSTALLED GENERALLY ALONG THE SAME CONTOUR ELEVATION.

(29T) DENOTES INLET PROTECTION FABRIC DROP. SHALL BE INSTALLED AT EXISTING AND PROPOSED STORM SEWER INLETS TO PROVIDE SETTLING AND FILTERING OF SILT LADEN WATER PRIOR TO ENTRY INTO THE DRAINAGE SYSTEM.

(32T) DENOTES MULCH BLANKET OR MATTING. SHALL BE NORTH AMERICAN GREEN DS150, OR APPROVED EQUAL. MULCH BLANKETS SHALL BE PLACED ON ALL 1:3 SLOPES OR GREATER, IN AND AROUND DITCH BOTTOMS WHERE THERE IS NO BIOSWALE BY CONTRACTOR RESPONSIBLE FOR RESTORING THAT AREA.

GRADING NOTES

1. ALL WORK SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL LAWS, RULES AND REGULATIONS IN FORCE AT TIME OF CONSTRUCTION.

2. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PERMIT COSTS, TAP FEES, METER DEPOSITS, PERMANENT UTILITY APPLICATIONS, BONDS, AND OTHER FEES REQUIRED FOR PROPOSED WORK. THIS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO THOSE REQUIRED BY THE MICHIGAN DEPARTMENT OF TRANSPORTATION.

3. CONTACT MISS DIG "811" FOR LOCATION OF UNDERGROUND UTILITIES A MINIMUM OF 48 HOURS BEFORE COMMENCING EXCAVATION WORK. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO ARE NOT PART OF THE "MISS DIG" ALERT SYSTEM. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.

4. DEMOLISH & REMOVE ALL EXISTING SITE FEATURES AS REQUIRED.

5. MATCH EXISTING GRADES AROUND PERIMETER WITH SLOPES AS SHOWN.

6. ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT GRADES AT EDGE OF METAL (EOM) UNLESS OTHERWISE NOTED.

7. ALL SOIL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO MASS GRADING.

8. ALL EARTHWORK SHALL BE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS AND GEOTECHNICAL REPORT.

9. ALL EXISTING ELEVATIONS ARE TO BE VERIFIED AND ACCEPTED AS SHOWN PRIOR TO COMMENCEMENT OF WORK.

10. CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID TRACKING SOIL ONTO ADJACENT ROADWAYS. CONTRACTOR SHALL SWEEP IMMEDIATELY IF OCCURS.

11. ANY DISTURBED AREA WHICH WILL BE LEFT UNWORKED 15 DAYS OR LONGER MUST BE SEED TO ESTABLISH VEGETATION FOR TEMPORARY STABILIZATION. BASINS TO BE SEED AND MULCH BLANKETS APPLIED IMMEDIATELY TO PROVIDE A STABLE BASE AND AVOID EXCESSIVE EROSION.

LEGEND

--- LIMITS OF CONSTRUCTION

--- SILT FENCE



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STATE OF MICHIGAN
SPENCER O'DELL
ENGINEER
No. 6201309325
LICENSED PROFESSIONAL ENGINEER

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No. 6201309325

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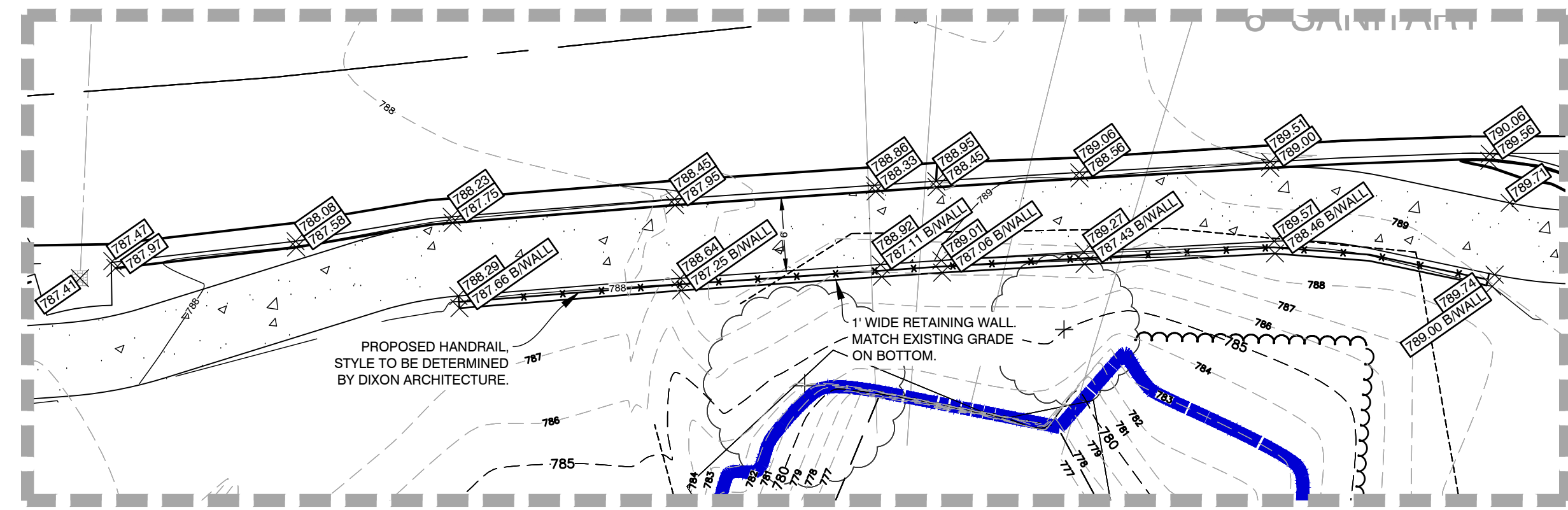
GRADING & SESC PLAN - WEST
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

SHEET TITLE:
PROJECT:
CLIENT:
SITE ADDRESS:
SITE SECTION:

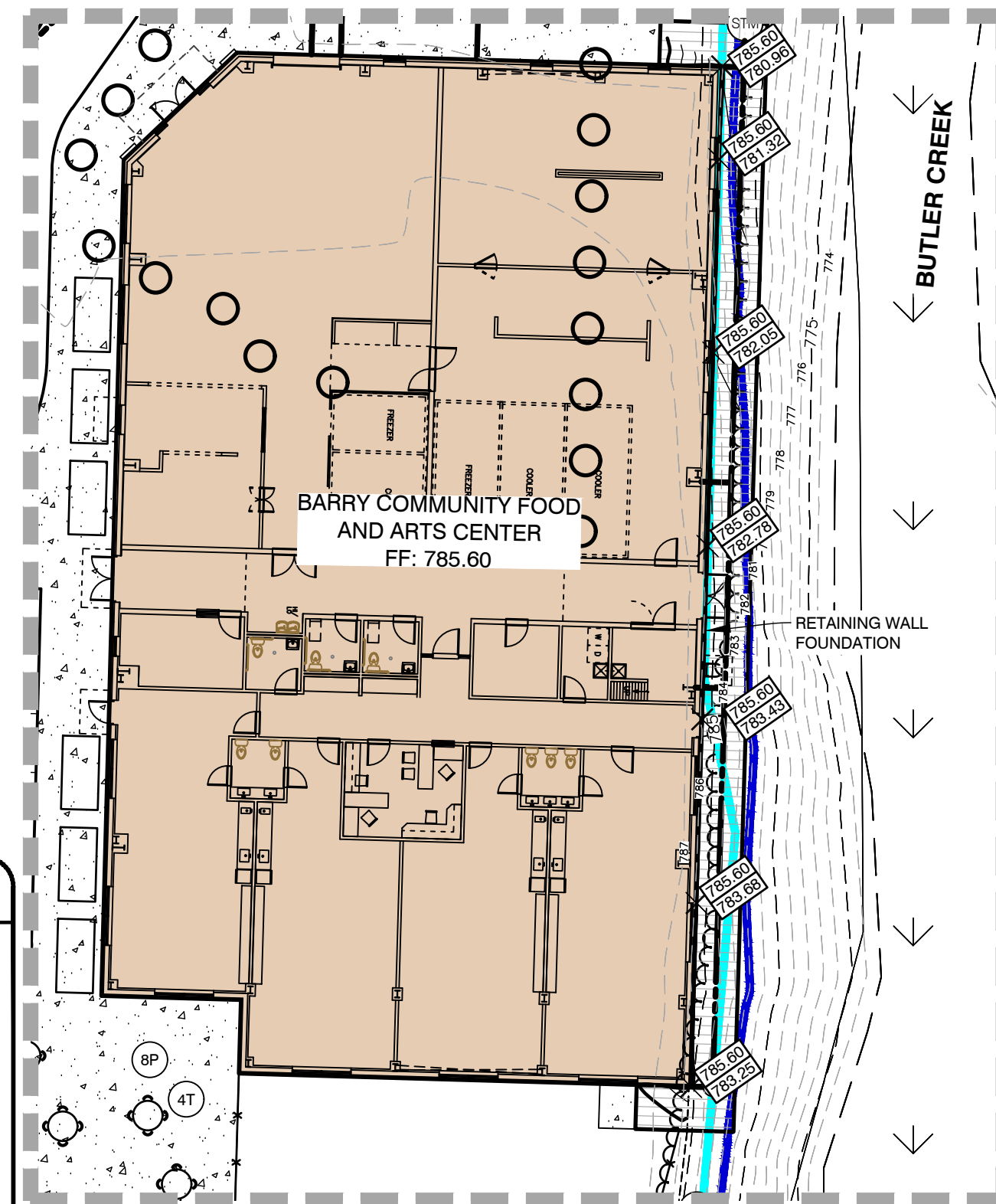
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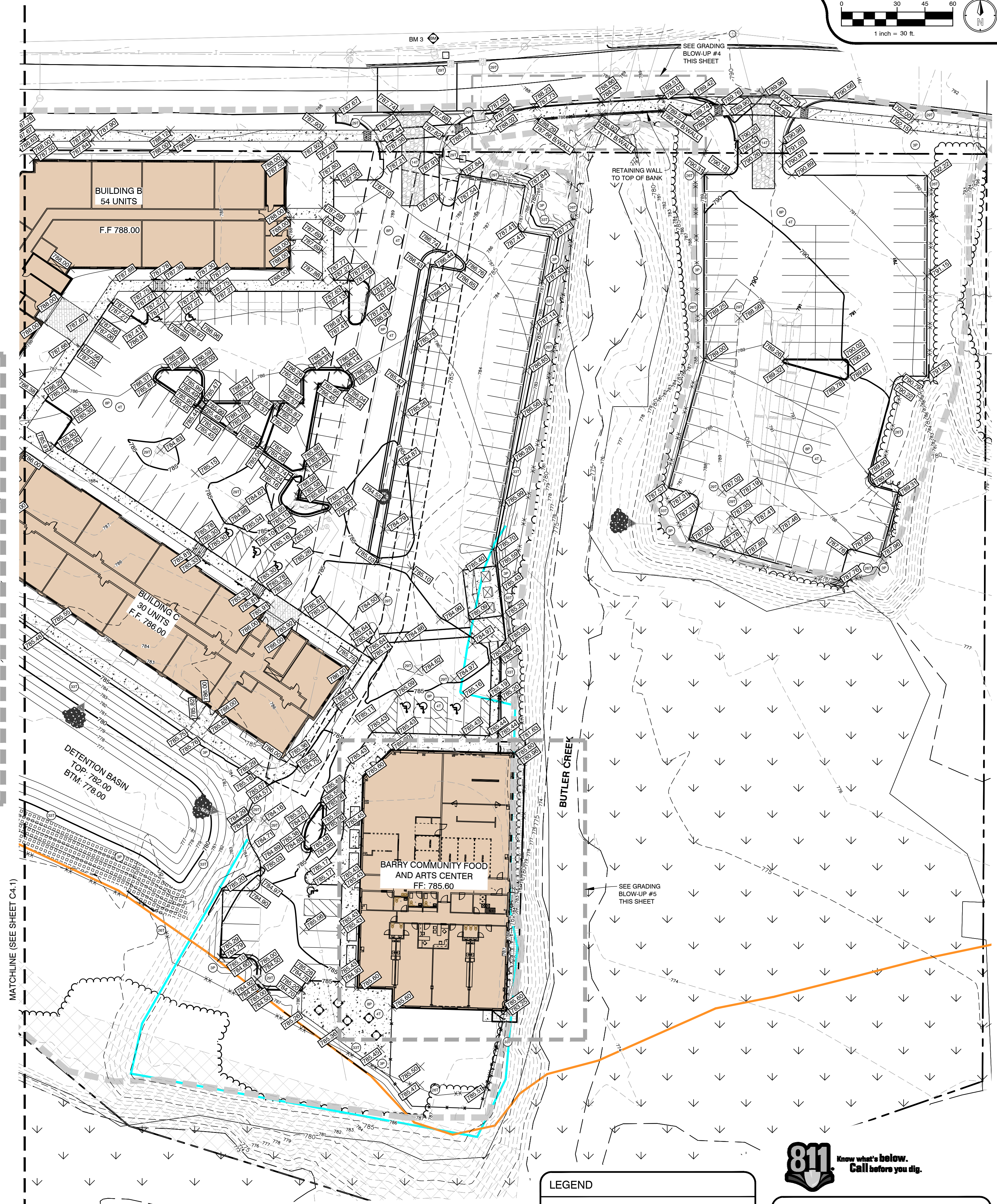
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C4.1



GRADING BLOW-UP #4
1" = 10'



GRADING BLOW-UP #5
1" = 20'



MATCHLINE (SEE SHEET C4.1)

SOIL EROSION & SEDIMENT CONTROL NOTES

- ALL CONSTRUCTION METHODS SHALL BE DONE IN COMPLIANCE WITH CITY OF HASTINGS-EGLE. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING A "SOIL EROSION PERMIT" FROM THE GOVERNING AUTHORITY AND A "PERMIT BY RULE/NOTICE OF COVERAGE" FROM THE GOVERNING AUTHORITY, IF APPLICABLE, PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL REQUIREMENTS OF THE "SOIL EROSION PERMIT" AND FOR ALL CERTIFIED STORM WATER INSPECTION SERVICE REQUIRED BY THE "PERMIT BY RULE." EROSION CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS AND SHALL NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR PROVIDING ALL REQUIRED EROSION CONTROL MEASURES.
 - AVOID UNNECESSARY DISTURBING OR REMOVING OF EXISTING VEGETATED TOPSOIL OR EARTH COVER. THESE COVER AREAS ACT AS SEDIMENT FILTERS.
 - ALL TEMPORARY SOIL EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL REMOVAL IS REQUIRED FOR FINAL CLEAN UP AND APPROVAL.
 - GEOTEXTILE SILT FENCE SHALL BE INSTALLED AS REQUIRED WHEN CROSSING CREEKS OR WHEN ADJACENT TO WETLANDS OR SURFACE WATER BODIES TO PREVENT SILTATION AND ELSEWHERE AS DIRECTED BY THE ENGINEER. SEEDING AND/OR SODDING SHALL BE INSTALLED ON CREEK BANKS IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION.
 - MAINTENANCE, CLEANING, AND REMOVAL OF THE VARIOUS SEDIMENT CONTROL MEASURES SHALL BE INCLUDED IN THE VARIOUS EROSION CONTROL ITEMS.
- ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE PER MDOT STANDARD DETAILS. "P" DENOTES PERMANENT MEASURE AND "T" DENOTES TEMPORARY MEASURE. SOIL EROSION CONTROL PLANS DENOTE MINIMUM EROSION MEASURES REQUIRED AS DESCRIBED BELOW.
- DENOTES PERMANENT SEEDING. ALL DISTURBED AREAS NOT PAVED OR GRAVELED SHALL BE RESTORED. PLACE TOPSOIL SURFACE, SALV. 3 INCH. CITY OF HASTINGS SEEDING, MIXTURE TUF APPLIED AT A RATE OF 220 LB/ACRE. FERTILIZER, CHEMICAL NUTRIENT, CL. A APPLIED AT A RATE OF 228 LB/ACRE. MULCH AT A RATE OF 2 TON/ACRE AND MULCH ANCHORING. (APPLIES TO ENTIRE PROJECT)
- DENOTES TEMPORARY SEEDING. TEMPORARY SEEDING SHALL BE PLACED AT LOCATIONS DETERMINED BY THE ENGINEER IN THE FIELD AND SHALL INCLUDE CEREAL RYE SEED APPLIED AT A RATE OF 70 LB/ACRE AND MULCH.
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LEGEND

- LIMITS OF CONSTRUCTION
- SILT FENCE

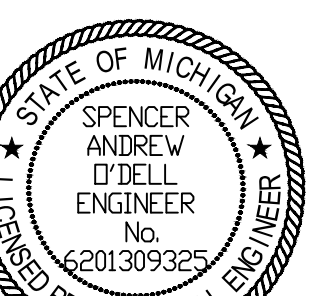


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GRADING & SESC PLAN - EAST
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

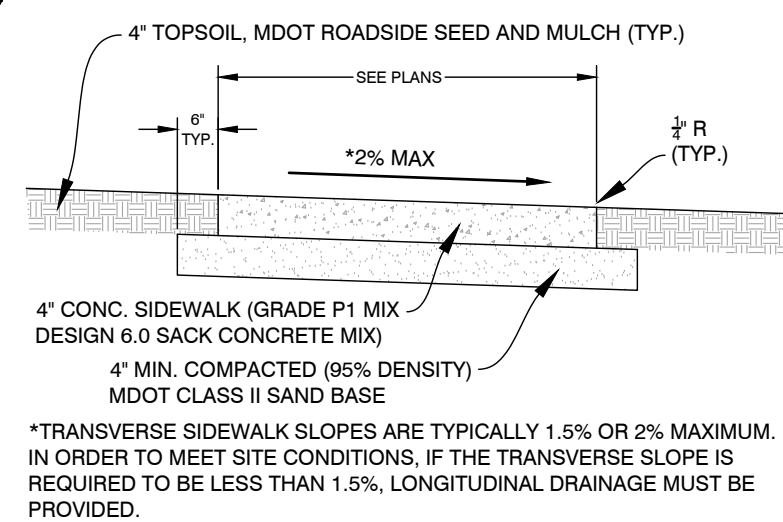
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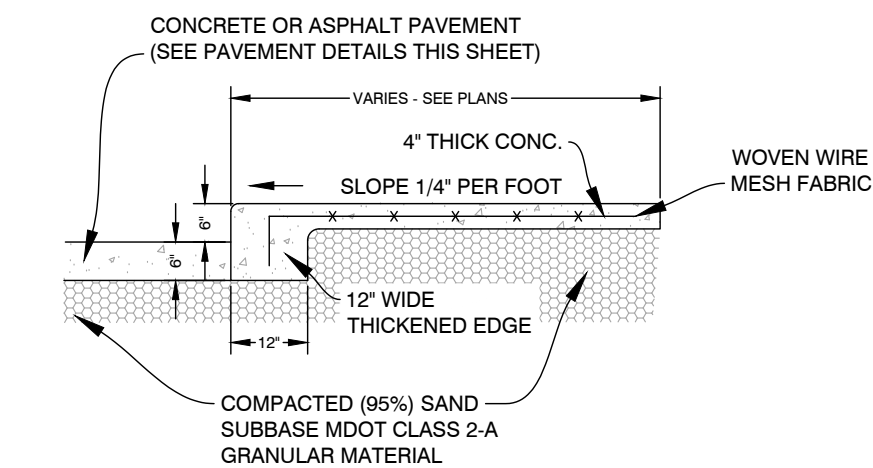
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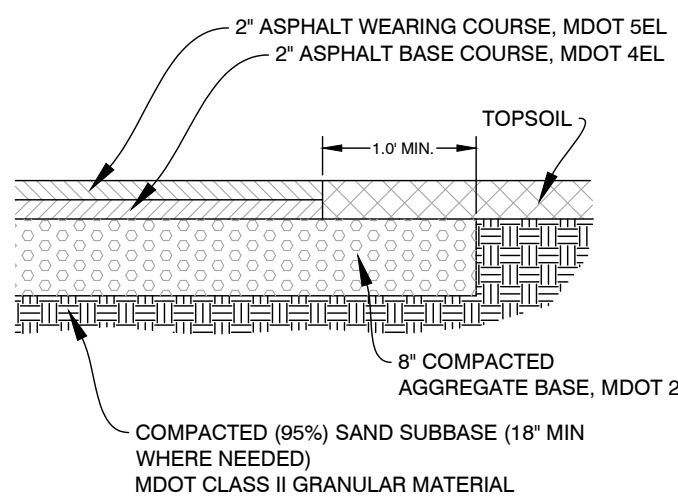
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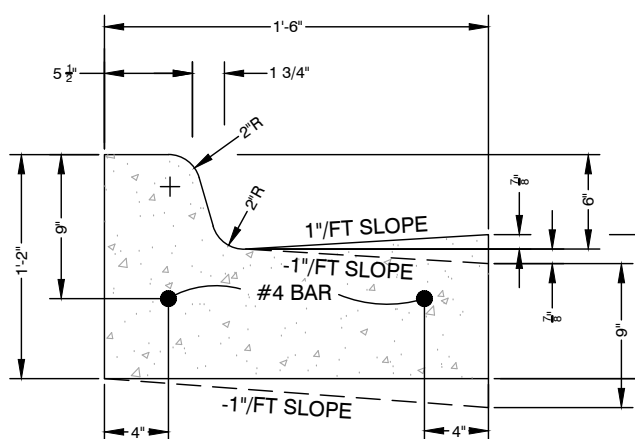
SIDEWALK SECTION
C5.0 - 030301 NOT TO SCALE



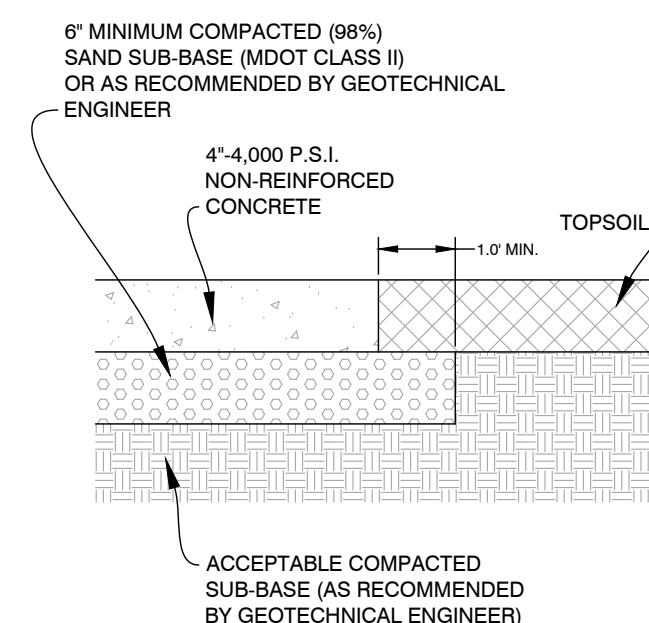
RAISED WALK SECTION
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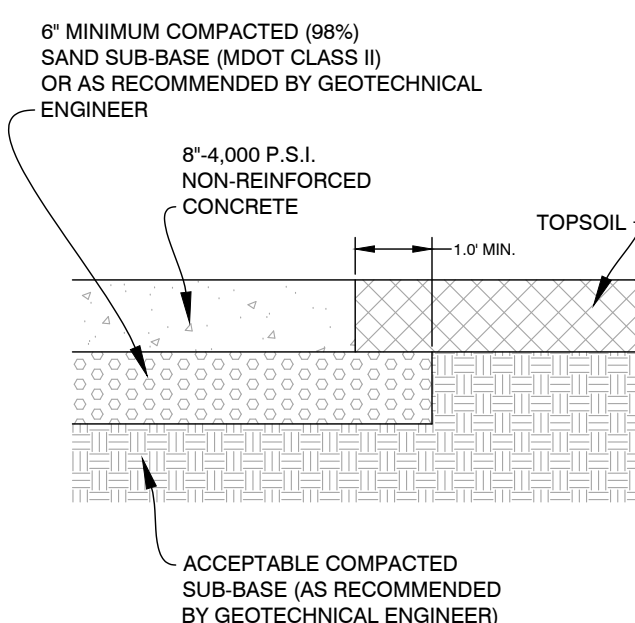
ASPHALT SECTION
C5.0 - 030401 NOT TO SCALE



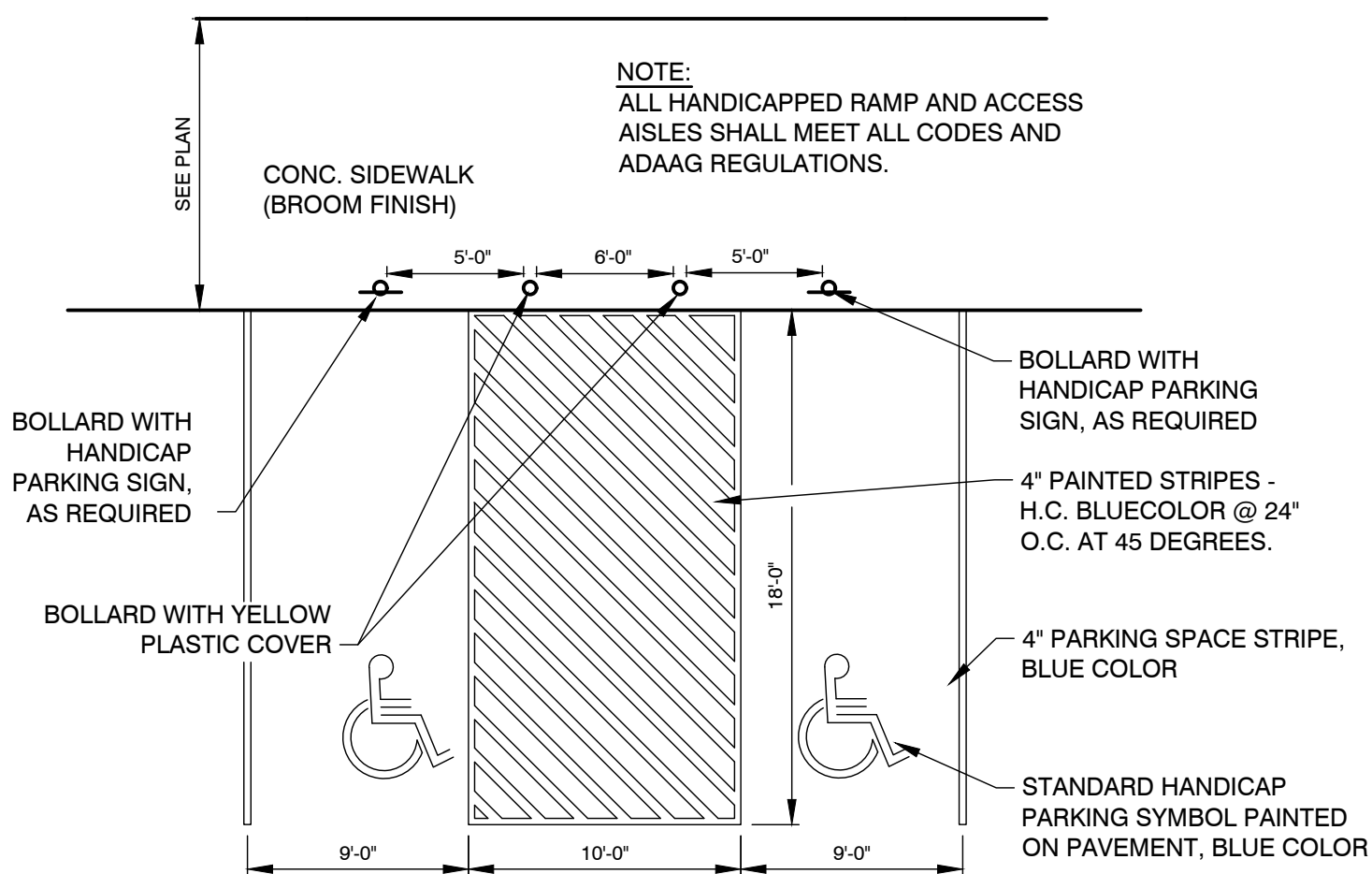
MDOT F2 CONC. CURB & GUTTER
C5.0 - 030109 NOT TO SCALE



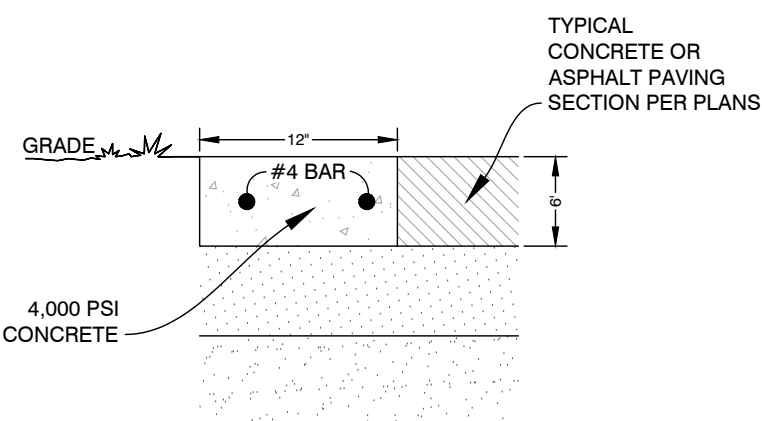
CONC. PAVEMENT SECTION
C5.0 - 030402 NOT TO SCALE



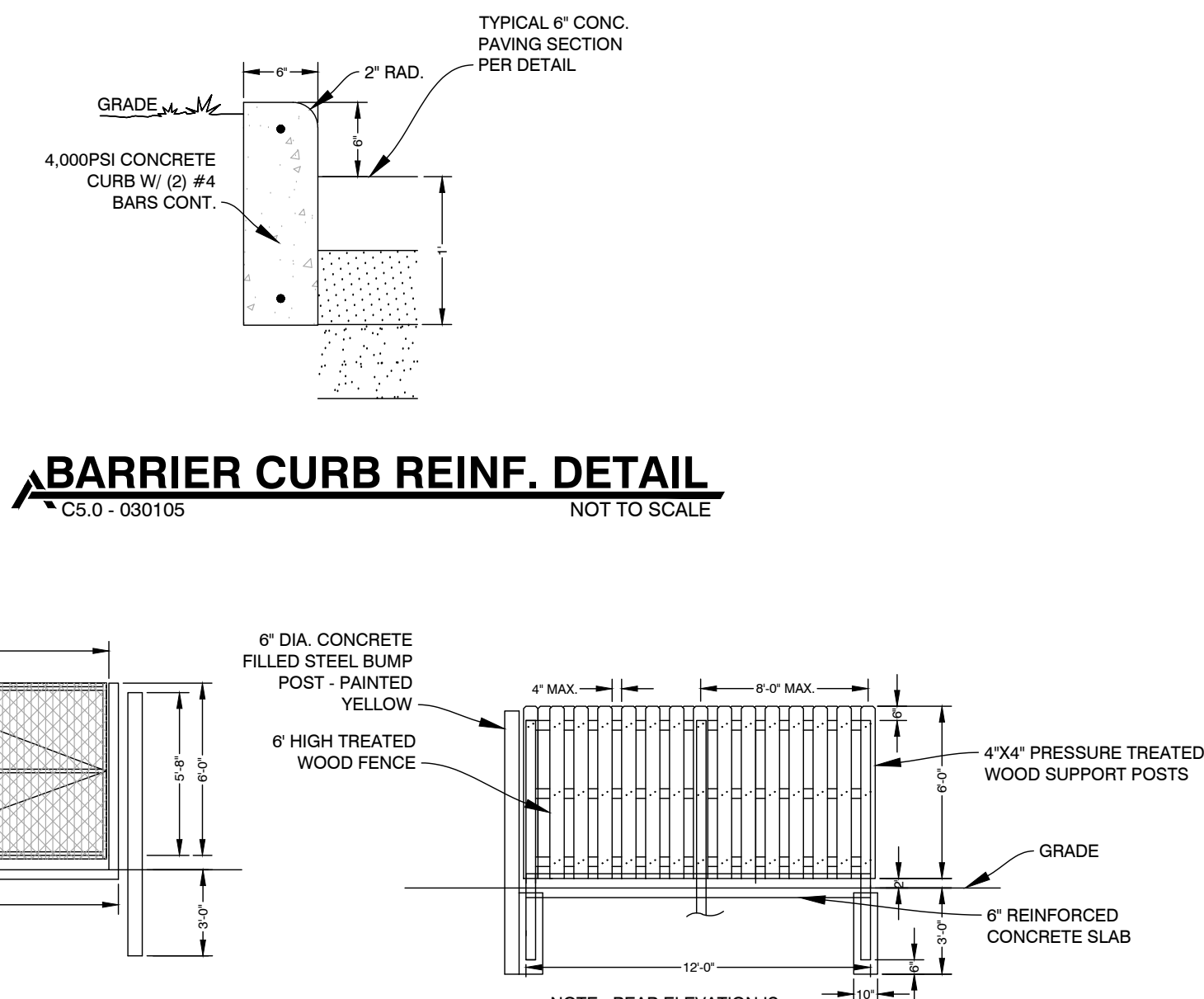
HEAVY DUTY CONC. PAVEMENT SECTION
C5.0 - 030402 NOT TO SCALE



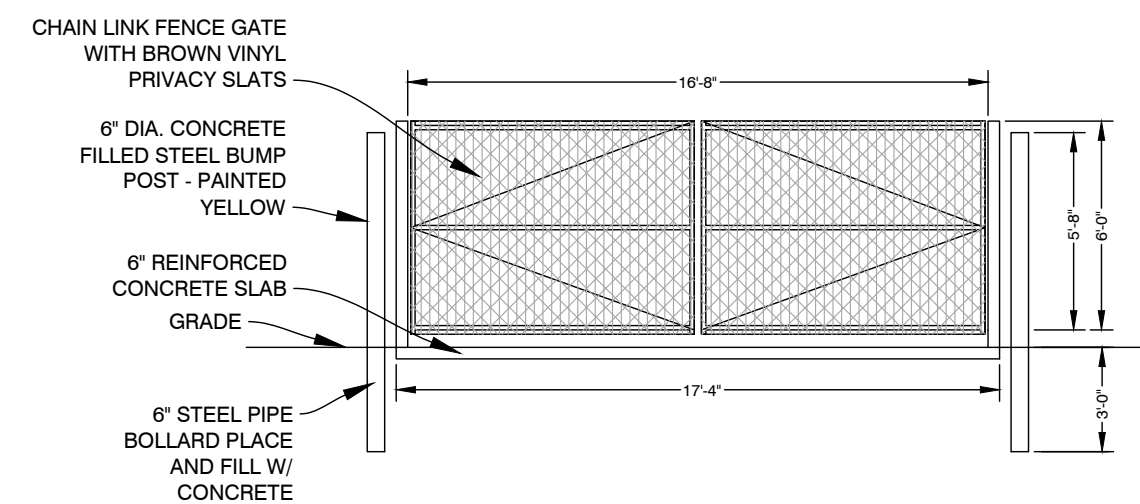
HANDICAP PARKING DETAIL
C5.0 - 040902 NOT TO SCALE



FLAT CURB DETAIL
C5.0 - 030106 NOT TO SCALE

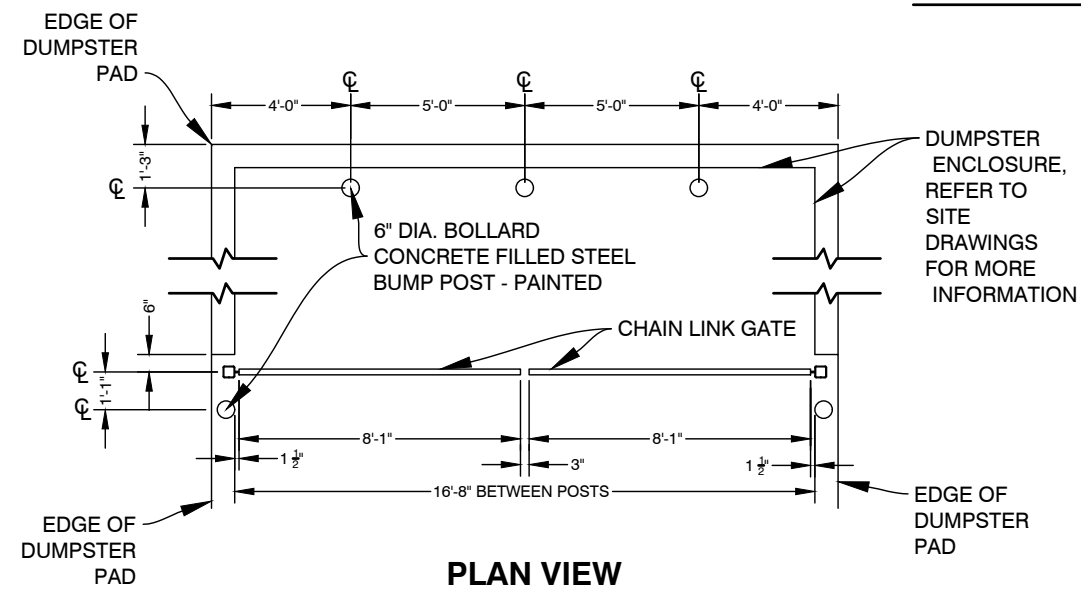


BARRIER CURB REINF. DETAIL
C5.0 - 030105 NOT TO SCALE



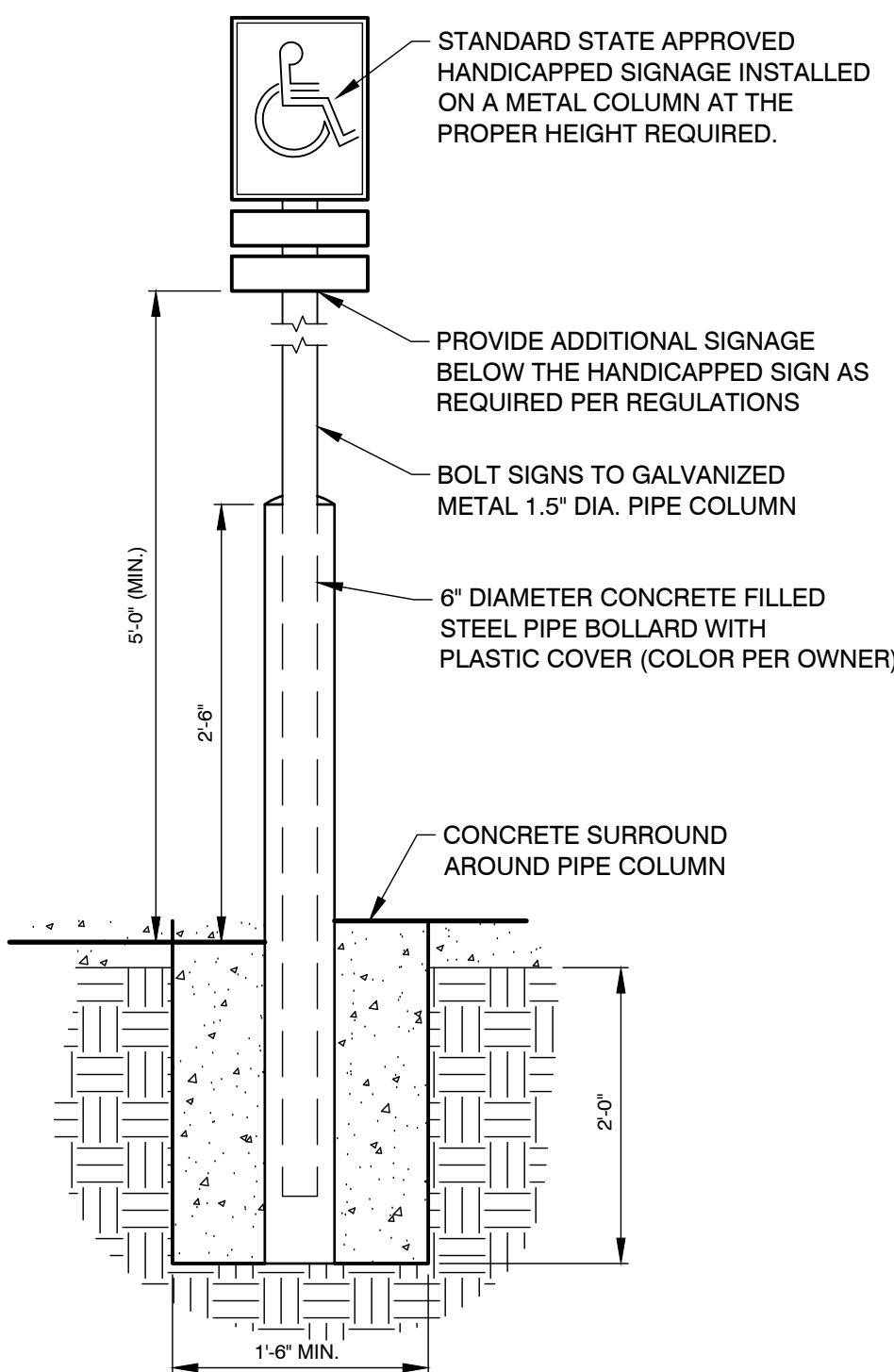
FRONT ELEVATION

SIDE ELEVATION

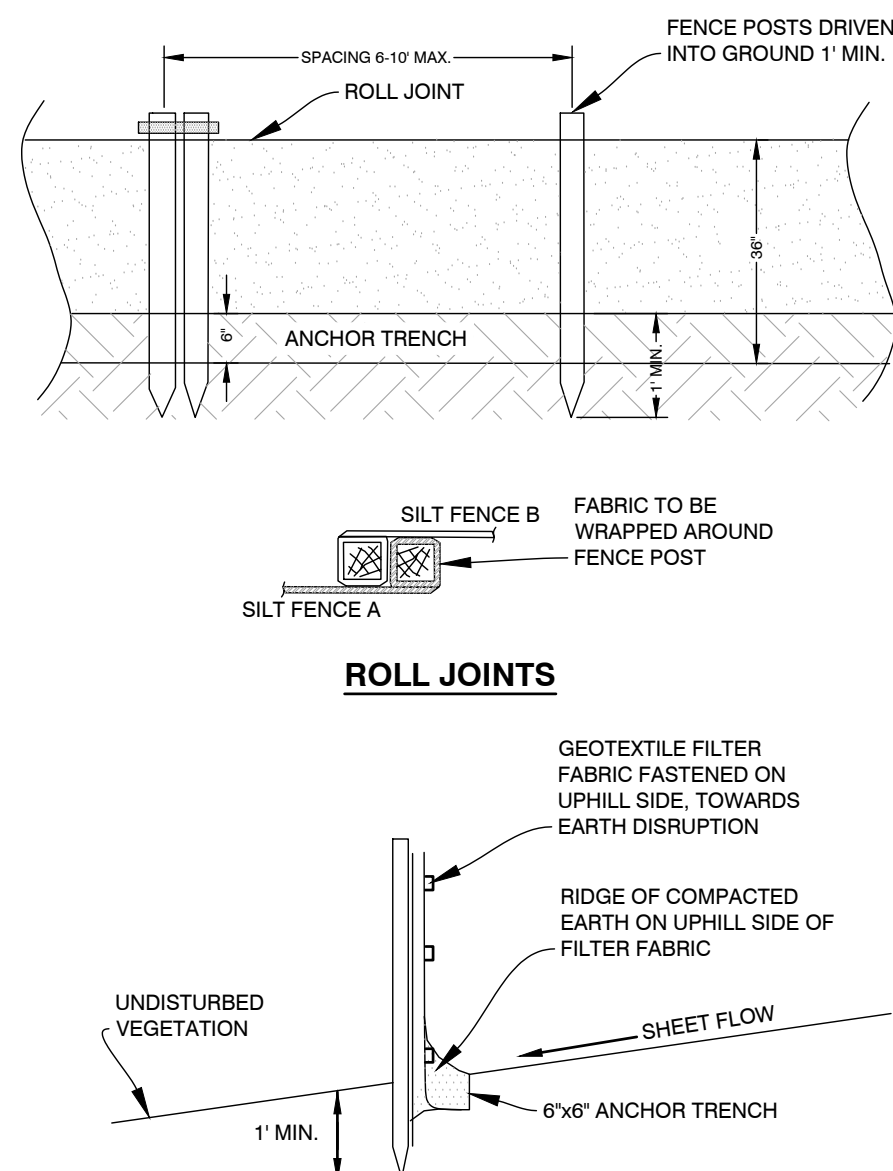


PLAN VIEW

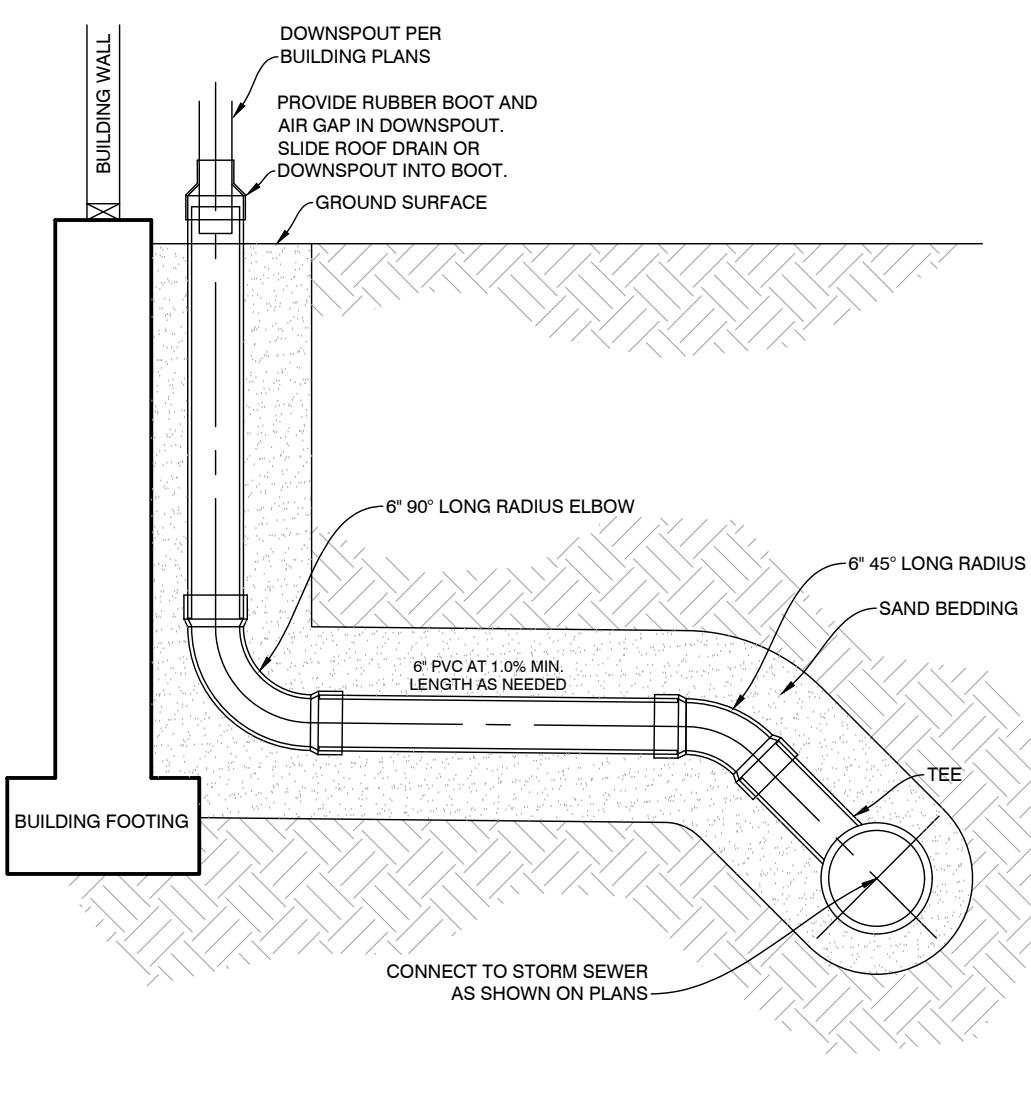
DUMPSTER ENCLOSURE DETAIL
C5.0 - 110105 NOT TO SCALE



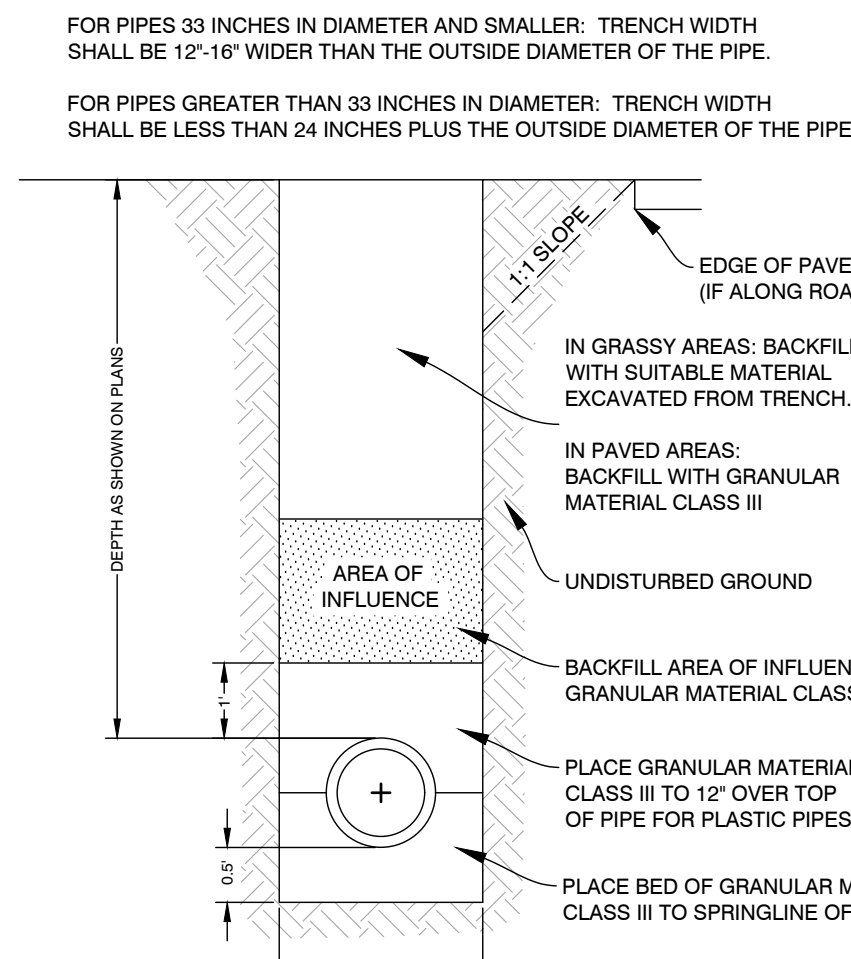
HANDICAP PARKING SIGN DETAIL
C5.0 - 090102 NOT TO SCALE



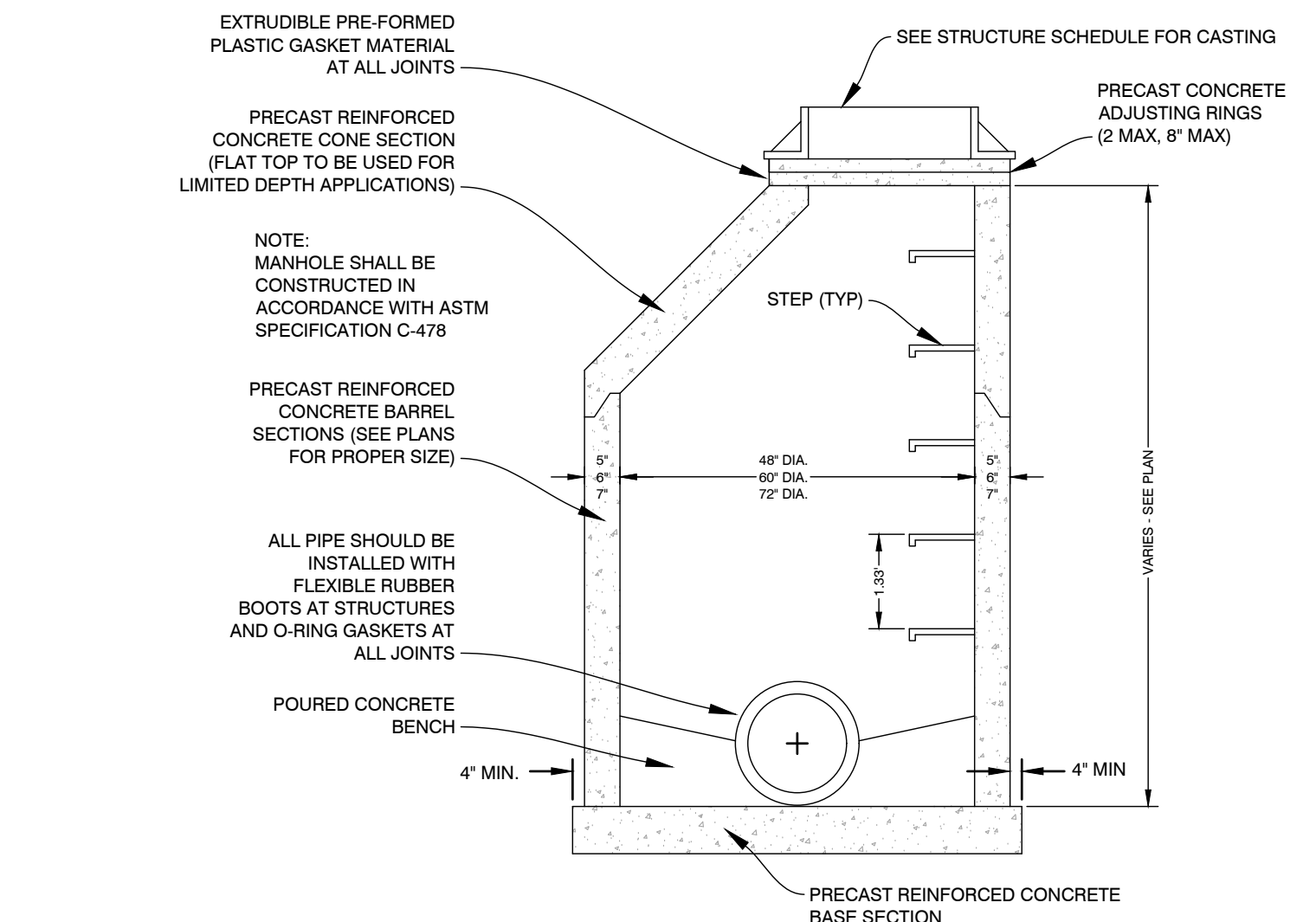
36" SILT FENCE DETAIL
C5.0 - 130104 NOT TO SCALE



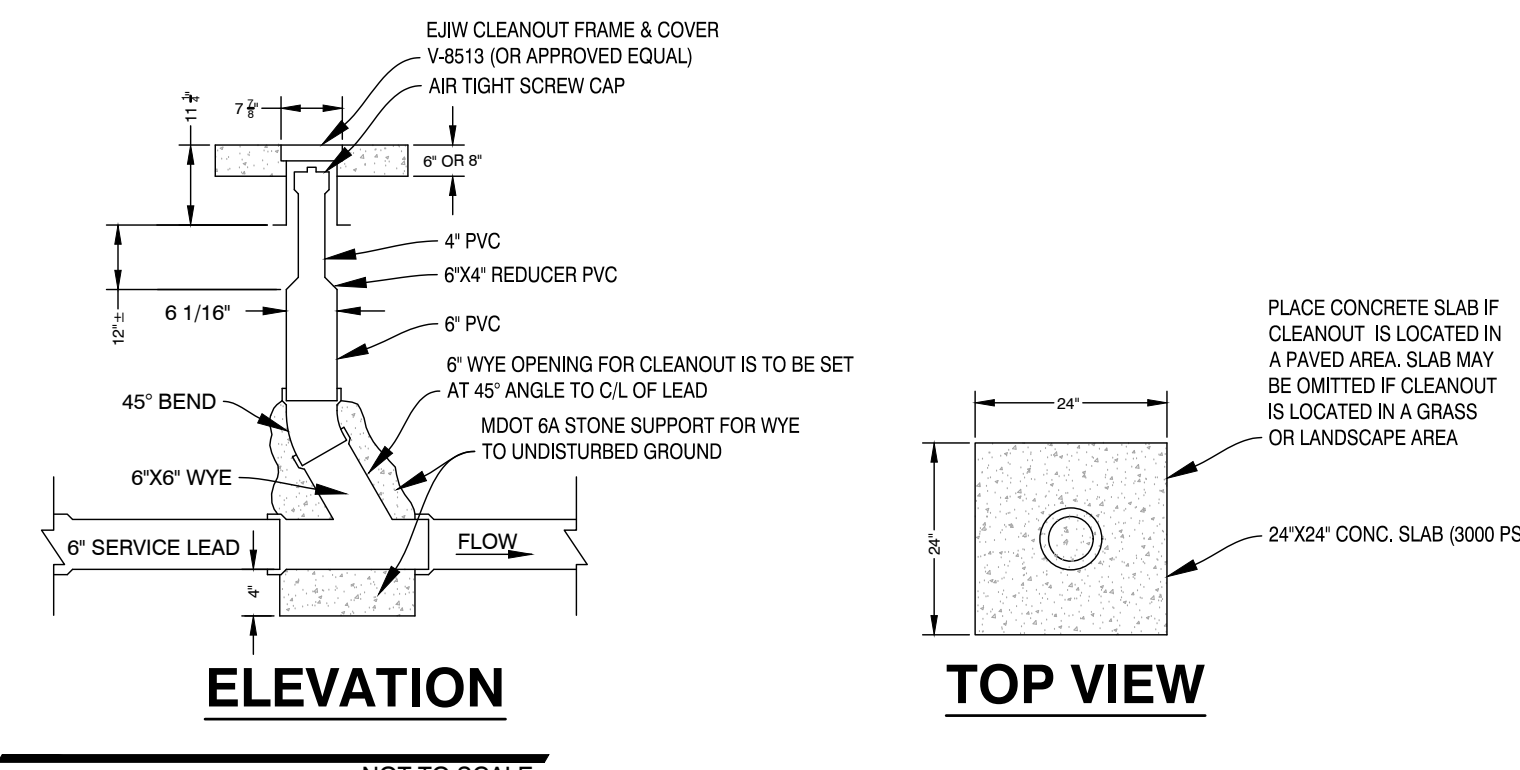
ROOF LEAD/DOWNSPOUT DETAIL
C5.0 - 050004 NOT TO SCALE



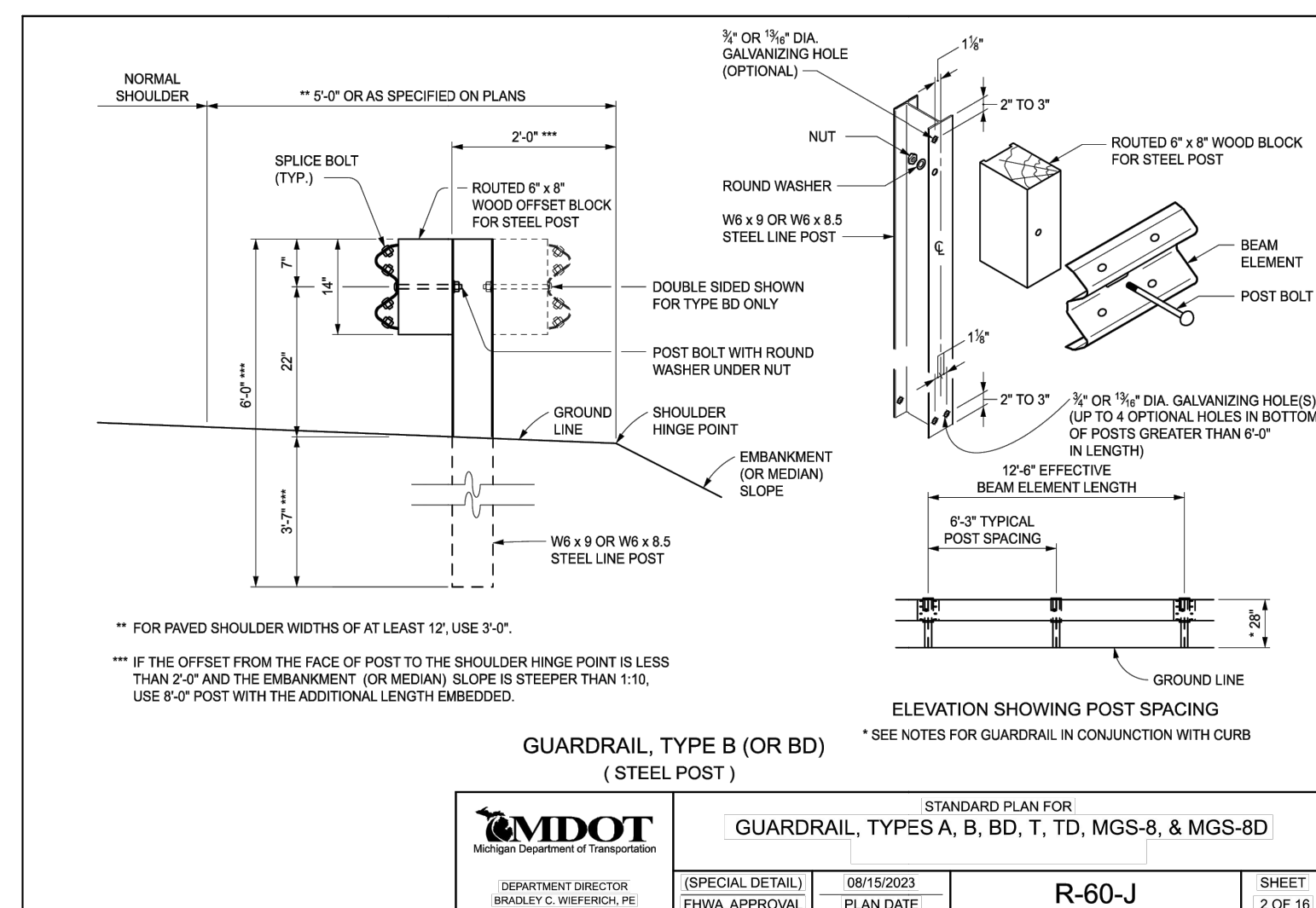
TRENCH BACKFILL DETAIL
C5.0 - 020102 NOT TO SCALE



SANITARY MANHOLE DETAIL
C5.0 - 060108 NOT TO SCALE



SANITARY SEWER CLEANOUT DETAIL
C5.0 - 090109



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DETAILS

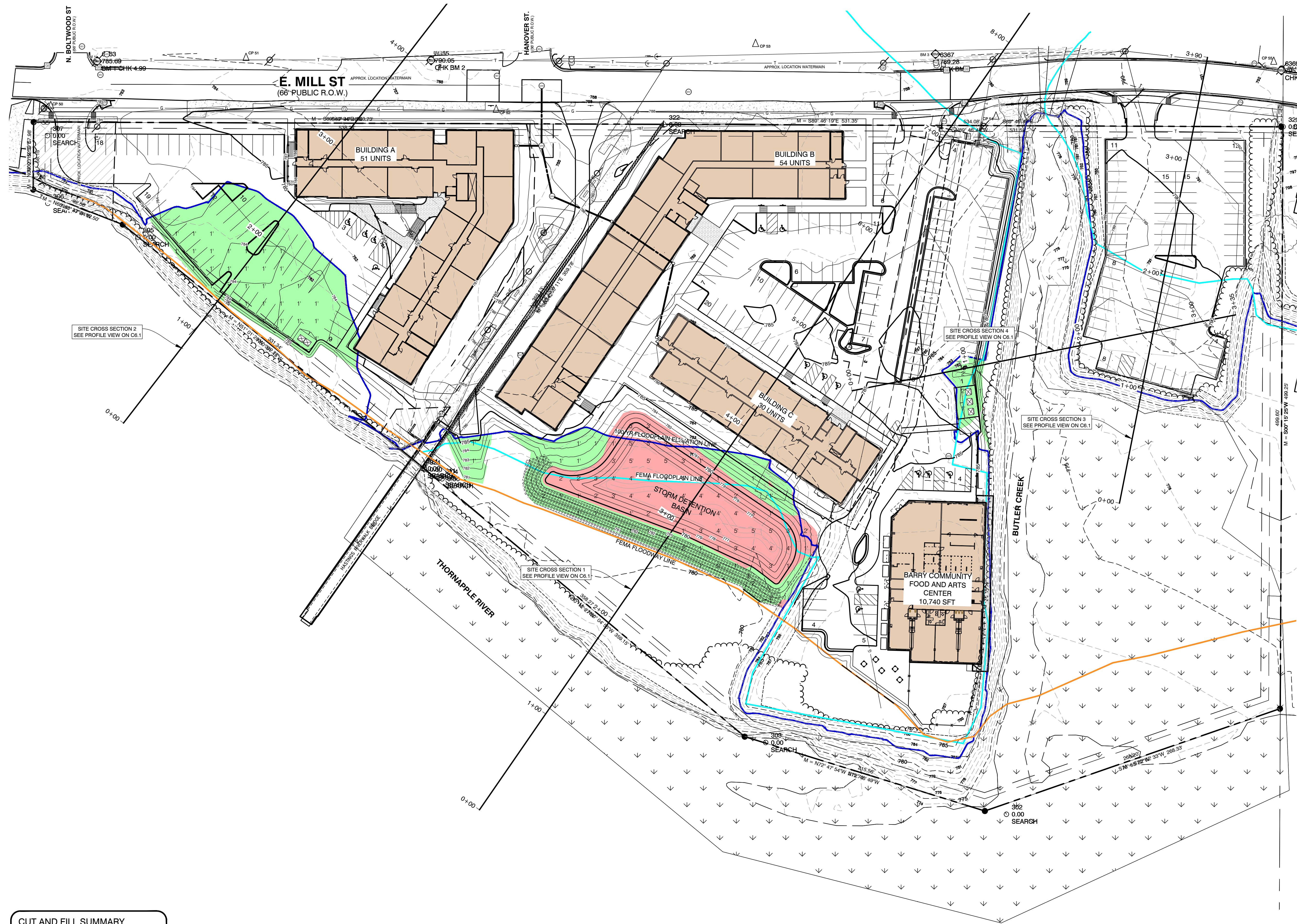
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

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SHEET NUMBER
C5.0



LEGEND

AREA OF FILL

AREA OF CUT

CUT AND FILL SUMMARY

CUT VOLUME 1,568.42 CYD.
FILL VOLUME 579.66 CYD.
NET VOLUME 988.77 CYD. (CUT)

VOLUMES ARE CALCULATED COMPARING
PROPOSED AND EXISTING GRADE BELOW
FLOODPLAIN ELEVATION (782.40)
- SEE SHEET C6.1 FOR CROSS SECTIONS

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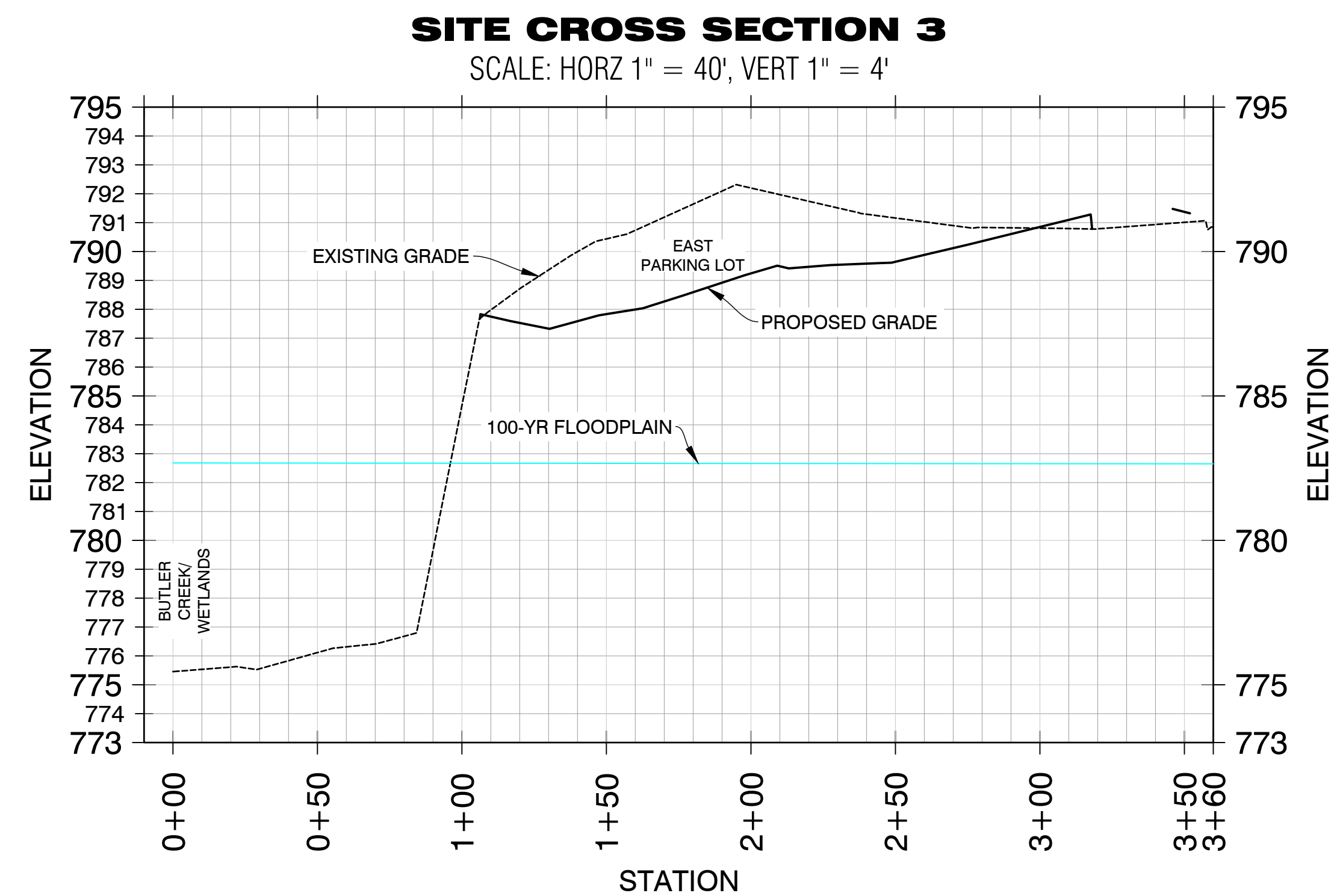
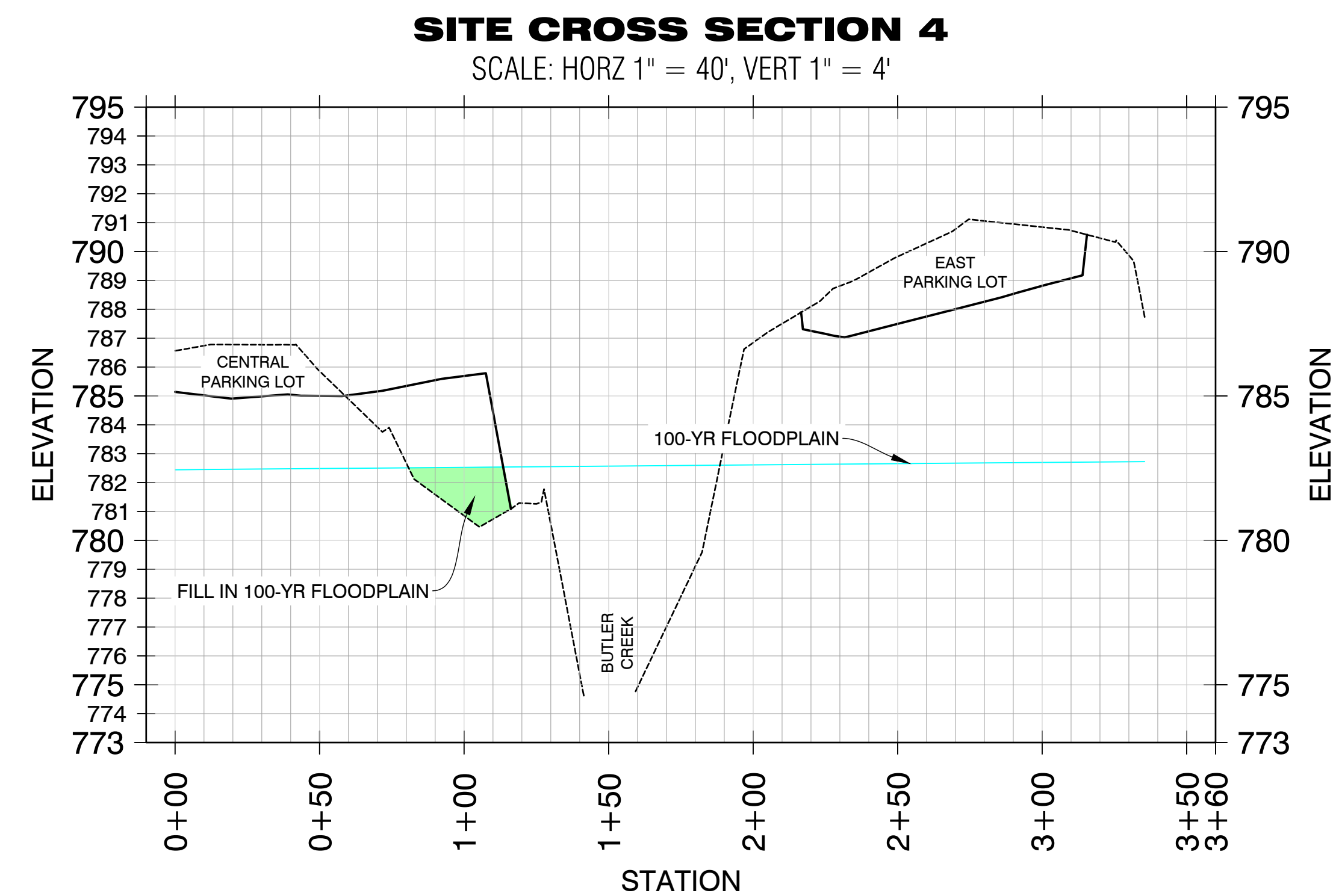
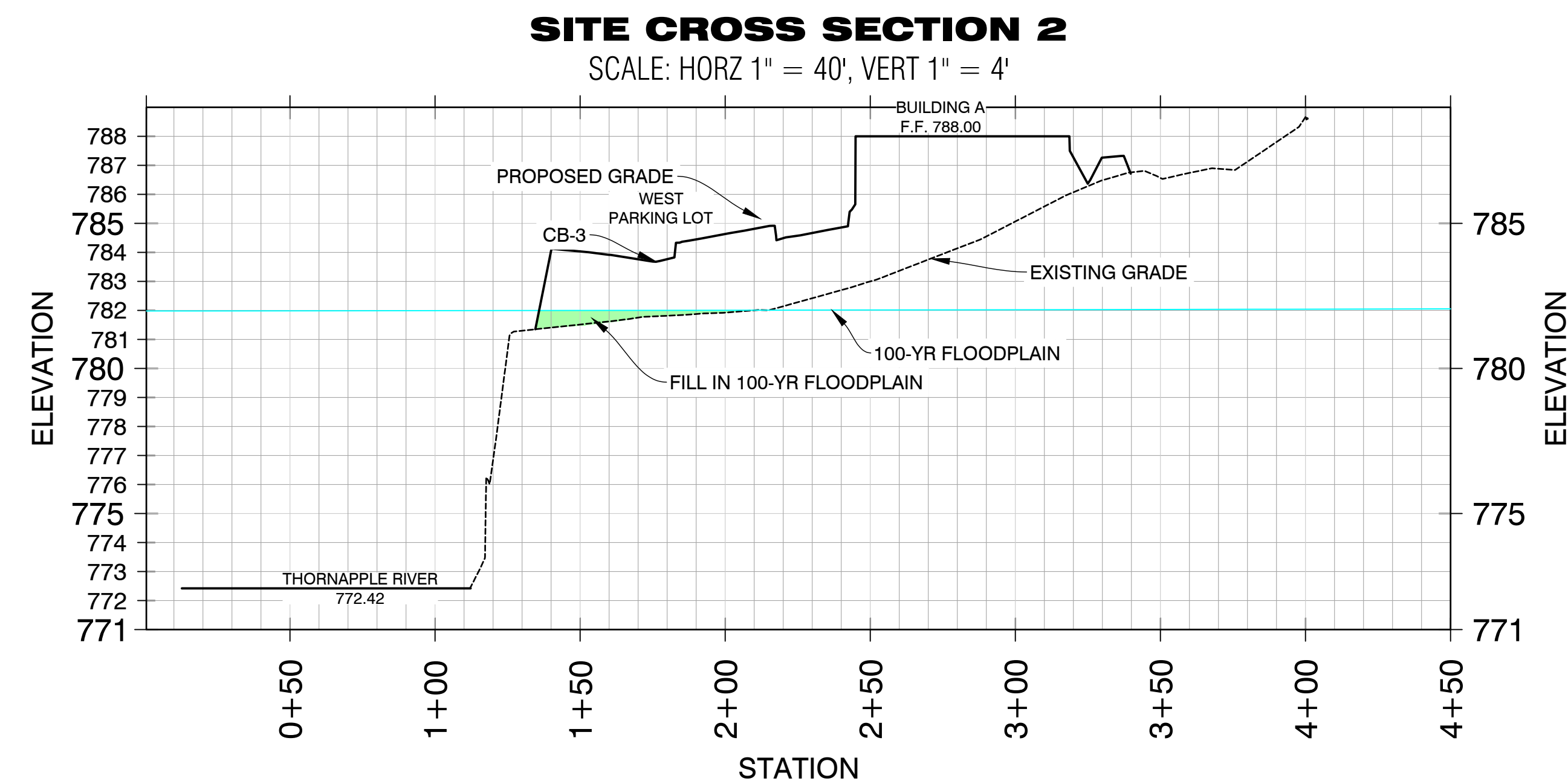
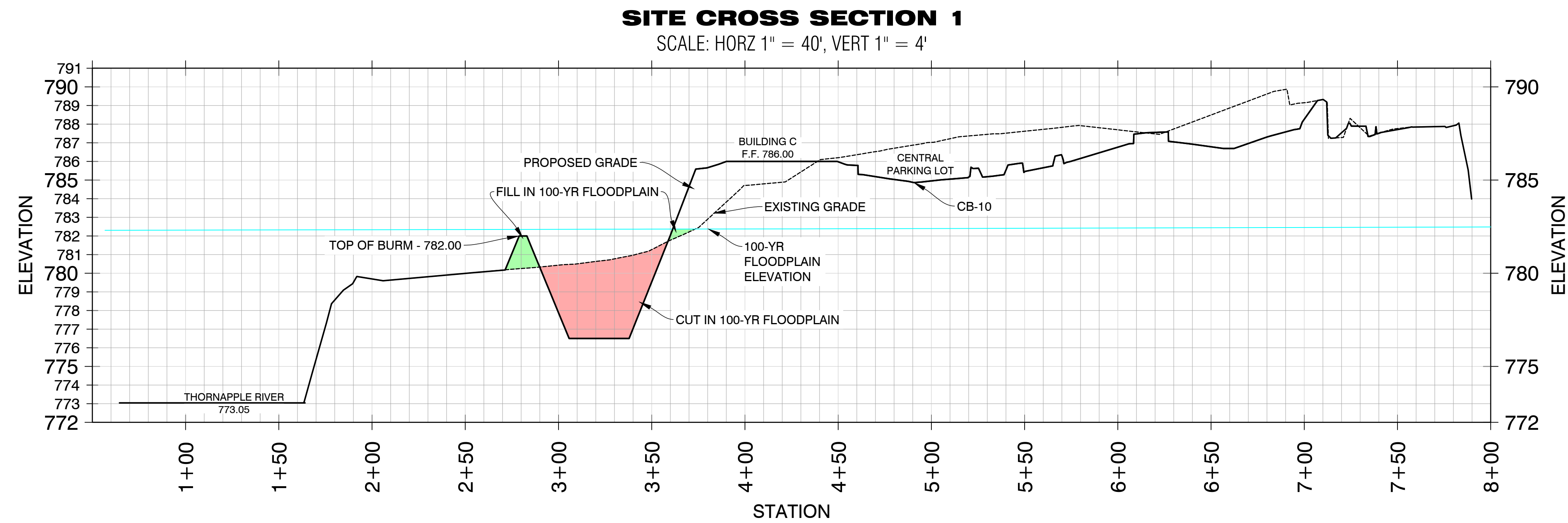
SITE CUT & FILL IN FLOODPLAIN
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

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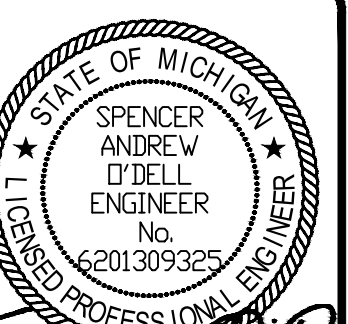
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SITE CROSS SECTIONS
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

SHEET TITLE:
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C6.1

LANDSCAPING NOTES

LANDSCAPE REQUIRED:

1. BUFFER ZONE:
10 FOOT WIDE BUFFER
PLANTINGS REQUIRED PER 100 LINEAR FEET OF BUFFER ZONE
- 2 CANOPY TREES
 - 2 ORNAMENTAL TREES
 - 2 EVERGREEN TREES
 - 4 SHRUBS

- WEST BUFFER ZONE = 50' / 100' = 0.5 TREES
- 2 * 0.5 = 1 CANOPY TREE
 - 2 * 0.5 = 1 ORNAMENTAL TREES
 - 2 * 0.5 = 1 EVERGREEN TREES
 - 4 * 0.5 = 2 SHRUBS

- EAST BUFFER ZONE = 400' / 100' = 4 TREES
- 2 * 4 = 8 CANOPY TREE
 - 2 * 4 = 8 ORNAMENTAL TREES
 - 2 * 4 = 8 EVERGREEN TREES
 - 4 * 4 = 16 SHRUBS

2. FRONT YARD LANDSCAPING:
- 1 CANOPY TREE AND 2 EVERGREEN TREES PLUS 1 CANOPY AND 1 EVERGREEN FOR EACH 75 FEET IN ROAD FRONTAGE
 - 1 ORNAMENTAL TREE PLUS 1 FOR EACH 75 FEET IN ROAD FRONTAGE
 - SHRUBS AT A RATE OF 1 PER EACH TREE REQUIRED

- 1,072 FEET OF ROAD FRONTAGE / 75 = 14.3 ≈ 15 ADDITIONAL TREES
- 16 CANOPY TREES, 16 EVERGREEN TREES
 - 16 ORNAMENTAL TREES
 - 50 SHRUBS

3. PARKING LANDSCAPING

- 1 CANOPY TREE FOR EVERY 20 SPACES
- 282 SPACES / 20 = 14.1 = 14 TREES
- 1 TREE PER LANDSCAPE ISLAND
- 10 LANDSCAPE ISLAND = 10 TREES
- 24 TOTAL PARKING LOT TREES

4. 10% OPEN SPACE REQUIRED
415,998 * 0.10 = 41,599 SFT

NOTE:
STAKING OF BALL AND BURLAP TREES REQUIRED AT THE DISCRETION OF THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL STAKING AT END OF ONE YEAR WARRANTY PERIOD.

AT PLANTING PRUNE ONLY CROSSING LIMBS, CO-DOMINANT LEADERS, SUCKERS AT ROOT BALL, BROKEN OR DEAD BRANCHES AND ANY BRANCHES THAT POSE A HAZARD TO PEDESTRIANS. DO NOT CUT TERMINAL LEADER.

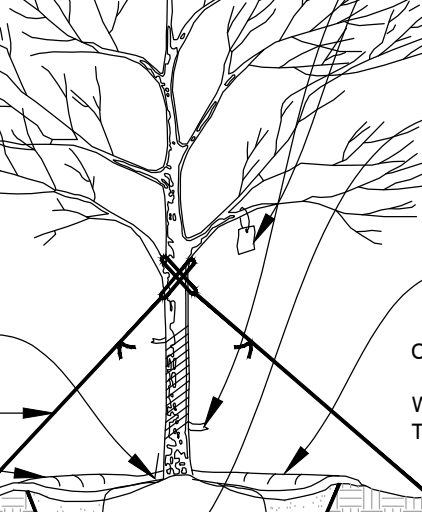
USE FLEXIBLE GUYS AND TIES WITH A BROAD SMOOTH SURFACE. TIE AT ONE THIRD FULL HEIGHT OF TREE. REMOVE AFTER ONE YEAR.

PLANT TREE SO TOP OF BALL IS 2" TO 3" ABOVE THE LEVEL OF THE SURROUNDING SOIL.

CREATE A 3" EARTH SAUCER WITH MULCH RING AT EDGE OF PLANTING HOLE

BACKFILL WITH 1/2 CLEAN EXIST. SOIL, 1/4 CERTIFIED TOPSOIL & 1/4 ORGANIC MATERIAL APPROVED BY THE COUNTY. USE WATER TO SETTLE OUT VOIDS IN BACKFILLED SOIL.

ADD MYCORRHIZAL LANDSCAPE INOCULANT TO PLANTING HOLE WITH BACKFILL.



REMOVE ANY TAGS, RIBBONS, OR PACKAGING FROM TREE BRANCHES AND TRUNK.

CUT AND REMOVE ALL WRAPPING INCLUDING BURLAP, TWINE, AND BASKET FROM TOP 1/3 OF BALL AND REMOVE FROM SITE.

2" TO 4" SHREDDED HARDWOOD MULCH LEAVE 3" RING UNMULCHED AT TREE BASE.

CENTER TRUNK OF TREE IN PIT

WATER THOROUGHLY TWICE WITHIN THE FIRST 48 HOURS

STAKING OPTIONAL. STAKES OR GUYS RE TO BE INSTALLED USING ACCEPTED ARBORICULTURE PRACTICE

3" WOOD OR STEEL STAKES SIZED APPROPRIATELY TO STABILIZE TREE.

SCARIFY EDGES OF PLANTING HOLE PRIOR TO BACKFILLING.

PLACE ROOT BALL ON UNDISTURBED SOIL.

NOTE:
STAKING OF BALL AND BURLAP TREES REQUIRED AT THE DISCRETION OF THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL STAKING AT END OF ONE YEAR WARRANTY PERIOD.

AT PLANTING PRUNE ONLY CROSSING LIMBS, CO-DOMINANT LEADERS, BROKEN OR DEAD BRANCHES AND ANY BRANCHES THAT POSE A HAZARD TO PEDESTRIANS. DO NOT CUT TERMINAL LEADER.

PLANT TREE SO TOP OF BALL IS 2" TO 3" ABOVE THE LEVEL OF THE SURROUNDING SOIL AND TRUNK FLARE IS VISIBLE.

3" EARTH SAUCER CREATE WATERING DISH WITH MULCH RING AT EDGE OF PLANTING HOLE.

BACKFILL WITH 1/2 CLEAN EXIST. SOIL, 1/4 CERTIFIED TOPSOIL & 1/4 ORGANIC MATERIAL APPROVED BY COUNTY. USE WATER TO SETTLE OUT VOIDS IN BACKFILLED SOIL.

ADD MYCORRHIZAL LANDSCAPE INOCULANT TO PLANTING HOLE WITH BACKFILL.

REMOVE BURLAP AND BASKET FROM TOP 1/3 OF BALL AND REMOVE FROM SITE.

2" TO 4" SHREDDED HARDWOOD MULCH. LEAVE 3" RING UNMULCHED AT TREE BASE.

CENTER TRUNK OF TREE IN PIT

WATER THOROUGHLY TWICE WITHIN THE FIRST 48 HOURS

STAKING OPTIONAL. STAKES OR GUYS ARE TO BE INSTALLED USING ACCEPTED ARBORICULTURE PRACTICE

SCARIFY EDGES OF PLANTING HOLE PRIOR TO BACKFILLING.

PLACE ROOT BALL ON UNDISTURBED SOIL.

PLANT SHRUB SO TOP OF ROOT BALL IS LEVEL WITH EXISTING GRADE.

CONSTRUCT EARTH SAUCER WITH 3" HIGH BEAM. WATER THOROUGHLY TWICE WITHIN THE FIRST 48 HOURS

ADD MYCORRHIZAL LANDSCAPE INOCULANT TO PLANTING HOLE WITH BACKFILL.

3" HARDWOOD MULCH. LEAVE 3" RING UNMULCHED AT SHRUB BASE.

2" MULCH EXTENDING OVER BEAM

CUT AND REMOVE ALL WRAPPING INCLUDING TWINE, BURLAP AND WIRE CAGES FROM TOP ONE THIRD OF ROOT BALL.

BACKFILL WITH 1/2 CLEAN EXISTING SOIL, 1/4 SAND, 1/4 ORGANIC MATTER. BACKFILL WITH NATIVE SOIL AND USE WATER TO SETTLE OUT VOIDS IN BACKFILLED SOIL.

PLACE ROOT BALL ON UNDISTURBED SOIL.

TYPICAL CONIFEROUS TREE PLANTING DETAIL

L1.0 - 170101

NOT TO SCALE

LEGEND

1 NUMBER AND TYPE OF PLANTS TO BE PROVIDED AND INSTALLED

PROPOSED ORNAMENTAL TREE

PROPOSED SHADE TREE

PROPOSED EVERGREEN TREE

PROPOSED SHRUB DECIDUOUS/ EVERGREEN

OPEN SPACE

SOD LAWN WITH IRRIGATION ON 4" TOPSOIL

PERENNIAL RYE GRASS WITHOUT IRRIGATION ON 4" TOPSOIL

ALL PLANTINGS AND LANDSCAPED BEDS REQUIRE IRRIGATION - EITHER DRIP LINE OR MISTERS AS REQUIRED TO ESTABLISH GROWTH AND MAINTAIN HEALTH OF ALL PLANTINGS/LANDSCAPED BEDS.

LANDSCAPING CONTRACTOR RESPONSIBLE FOR TOUCHING-UP AND FINISH-LEVELING OF TOPSOIL AS NECESSARY TO ENSURE HYDROSEED AND SOD ARE INSTALLED ON A SMOOTH AND LEVEL SURFACE FREE OF CLUMPS, STICKS, HOLES, ETC.

LANDSCAPING NOTES

- INSTALL CONSTRUCTION FENCE AROUND DRIP LINES OF EXISTING TREES TO REMAIN. NO COMPACTION OR INCREASED DEPTH OF SOIL OVER THE ROOT SYSTEM AREA PRIOR TO AND DURING CONSTRUCTION.
- ALL LAWN AREAS SHALL BE SEEDED WITH THE FOLLOWING MIXTURE: 20% IMPROVED PERENNIAL RYEGRASS, 40% FINE FESCUE, AND 40% KENTUCKY BLUEGRASS AT A RATE OF 3-4 LBS/ 1000 SFT.
- ALL EDGING SHALL BE STANDARD COMMERCIAL-STEEL EDGING 3/4" X 4", ROLLED EDGE, FABRICATED IN SECTIONS OF STANDARD LENGTHS, WITH LOOPS STAMPED FROM OR WELDED TO FACE OF SECTIONS TO RECEIVE STAKES IN STANDARD FINISH OF GREEN PAINT.
- PROVIDE QUALITY, SIZE, GENUS, SPECIES, AND VARIETY OF EXTERIOR PLANTS INDICATED, COMPLYING WITH APPLICABLE REQUIREMENTS IN ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK" MEASURE ACCORDING TO ANSI Z60.1 STANDARDS. MAINTAIN AND ESTABLISH LAWN BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, REPLANTING, AND OTHER OPERATIONS. ROLL, REGRADE, AND REPLANT BARE OR ERODED AREAS AND REMULCH TO PRODUCE A UNIFORMLY SMOOTH LAWN.
- BEGIN LAWN MAINTENANCE IMMEDIATELY AFTER EACH AREA IS PLANTED AND CONTINUE UNTIL ACCEPTABLE LAWN IS ESTABLISHED: A MINIMUM OF 60 DAYS AFTER SUBSTANTIAL COMPLETION.
- PROTECT ADJACENT AND ADJOINING STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND PLANTINGS FROM HYDROSEEDING OVER-SPRAY AND DAMAGE CAUSED BY PLANTING OPERATIONS.
- REMOVE STONES LARGER THAN 1" IN ANY DIMENSION AND STICK, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER FROM SITE.
- MAINTAIN LAWN UNTIL A HEALTHY, UNIFORM, CLOSE STAND OF GRASS HAS BEEN ESTABLISHED, FREE OF WEEDS AND SURFACE IRREGULARITIES, WITH COVERAGE EXCEEDING 90% OVER ANY 10 SFT AND BARE SPOTS DO NOT EXCEED 5 BY 5 INCHES.
- MAINTAIN TREES AND SHRUBS FOR ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION BY PRUNING, CULTIVATING, WATERING, WEEDING, FERTILIZING, RESTORING PLANTING SAUCERS, TIGHTENING AND REPAIRING STAKES AND GUY SUPPORTS, AND RESETTling TO PROPER GRADES OR VERTICAL POSITION, AS REQUIRED TO ESTABLISH HEALTHY VIABLE PLANTINGS. SPRAY AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE.
- REMOVE AND REPLACE DEAD PLANTS IMMEDIATELY. REPLACE PLANTS THAT ARE MORE THAN 25% DEAD OR IN AN UNHEALTHY CONDITION AT END OF WARRANTY PERIOD. A LIMIT OF ONE REPLACEMENT OF EACH PLANT WILL BE REQUIRED, EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE TO COMPLY WITH REQUIREMENTS.
- TREES, AND SHRUBS SHALL BE WARRANTED FOR ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM INCIDENTS THAT ARE BEYOND CONTRACTORS CONTROL.

TYPICAL SHRUB PLANTING DETAIL

L1.0 - 170103

NOT TO SCALE

Shrub Planting Schedule

Symbol	Latin Name	Common Name	Size	Container Type	Comments
Sp	Spiraea x bumalda 'Goldflame'	Goldflame Spiraea	24" Ht.	3-5 gallon cont.	3' o.c.
Gb	Buxus 'Green Gem'	Green Gem Boxwood	24" Ht.	B&B or Cont.	3' o.c.

Tree Planting Schedule

Symbol	Latin Name	Common Name	Size	Container Type	Comments
As	Acer rubrum 'October Glory'	October Glory Red Maple	2.5" Cal.	B&B	
Av	Thuja orientalis	Aborvitae	4' Ht.	B&B	
Gd	Gleditsia triacanthos 'Skycole'	Skyline Honey Locust	2.5 - 3" Cal.	B&B	
Ls	Liquidambar styraciflua	Sweetgum	2.5 - 3" Cal.	B&B	



ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA. FIELD WORK PERFORMED BY: AR ENGINEERING

PLANS PREPARED BY:



DRAWN: eeg
CHECKED: SAO

No.	DATE	BY	ISSUED FOR:
0	07/23/2025	sao	SITE PLAN REVIEW
1			
2			
3			
4			

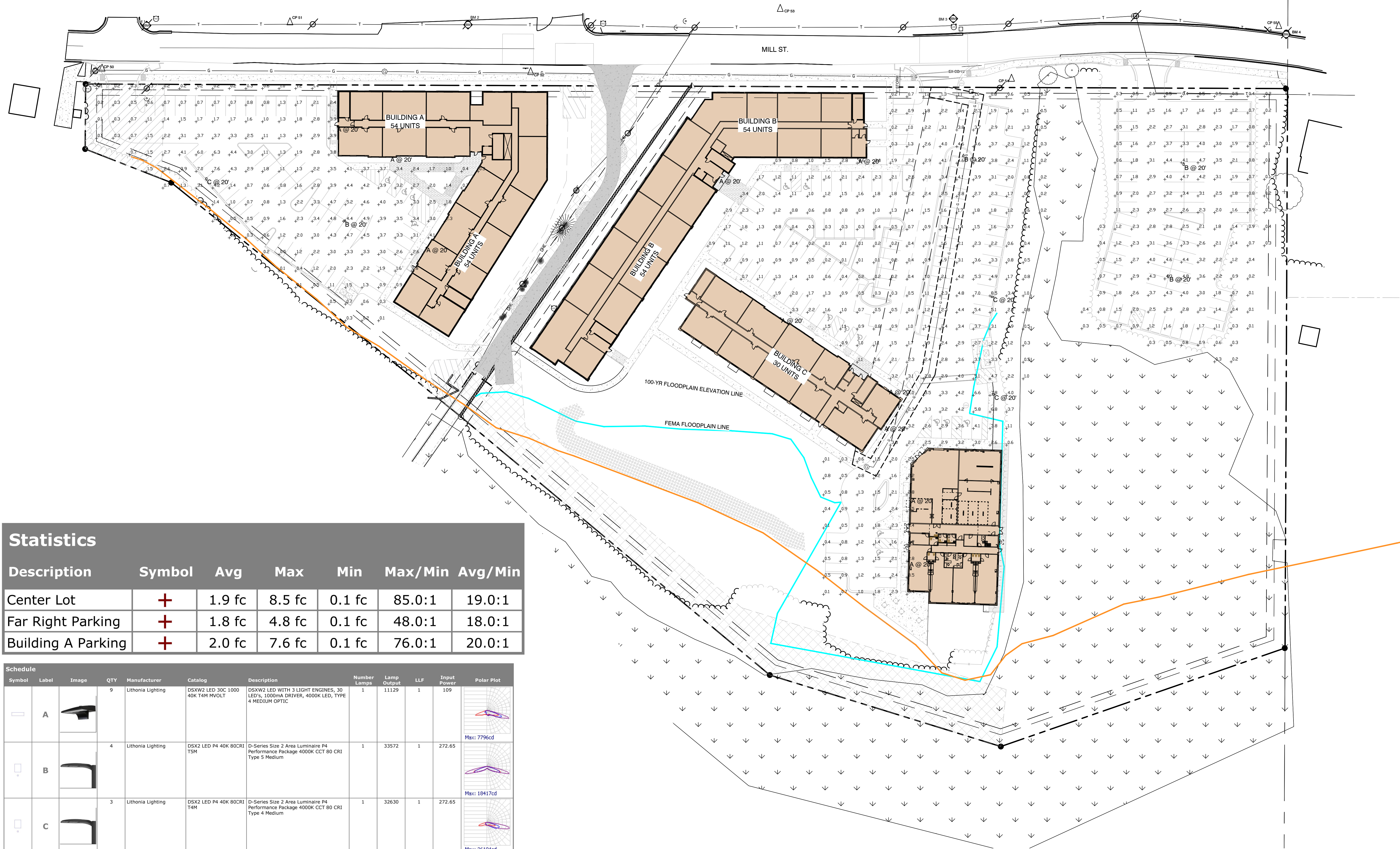
LANDSCAPING PLAN
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

JOB NUMBER
23144001

DATE
07/23/2025

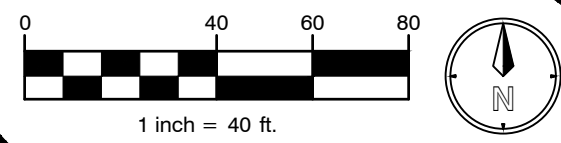
SHEET NUMBER

L1.0



Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Center Lot	+	1.9 fc	8.5 fc	0.1 fc	85.0:1	19.0:1
Far Right Parking	+	1.8 fc	4.8 fc	0.1 fc	48.0:1	18.0:1
Building A Parking	+	2.0 fc	7.6 fc	0.1 fc	76.0:1	20.0:1

Schedule										
Symbol	Label	Image	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Input Power
	A		9	Lithonia Lighting	DSXW2 LED 30C 1000 40K T4M MVOLT	DSXW2 LED WITH 3 LIGHT ENGINES, 30 LED'S, 1000mA DRIVER, 4000K LED, TYPE 4 MEDIUM OPTIC	1	11129	1	109
	B		4	Lithonia Lighting	DSX2 LED P4 40K 80CRI TSM	D-Series Size 2 Area Luminaire P4 Performance Package 4000K CCT 80 CRI Type 5 Medium	1	33572	1	272.65
	C		3	Lithonia Lighting	DSX2 LED P4 40K 80CRI T4M	D-Series Size 2 Area Luminaire P4 Performance Package 4000K CCT 80 CRI Type 4 Medium	1	32630	1	272.65



PLANS PREPARED BY:



DRAWN: eeg
CHECKED: SAO

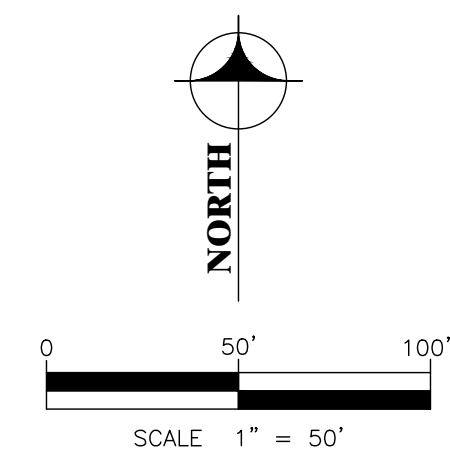
No.	ISSUED FOR:	DATE	BY
0	SITE PLAN REVIEW	07/23/2025	SAO
1			
2			
3			
4			

PHOTOMETRIC PLAN
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

SHEET TITLE:
PROJECT:
CLIENT:
SITE ADDRESS:
SITE SECTION:

JOB NUMBER
23144001
DATE
07/23/2025

SHEET NUMBER
L2.0



- NOTES:
- WOULD REQUIRE CHANGE TO A-1 ZONING
 - TOTAL GROSS ACRES: 8
 - TOTAL NET ACRES (EXCLUDING PUBLIC ROADS): 6.7
 - PROPOSED UNITS: 38
 - DENSITY: 5.7 UNITS PER ACRE

**NORTH RIDGE
ESTATES CONDOMINIUMS
WITH PRIVATE DRIVE
LAYOUT**

HASTINGS, MI

PREPARED FOR:
SCOTT CHANDLER

PREPARED BY:

Pathfinder
Engineering, Inc.

795 Clyde Court S.W. Suite "C"
Phone 1-616-878-3885 Fax 1-616-878-4559
DATE: 8-12-25 PROJECT NO.: 25030

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Z:\25030\DWG\25030 PRELIM SITE LAYOUT 8-6-25.dwg



City of *Hastings* Michigan

(269) 945-2468
FAX (269) 948-9544

201 E. State Street 49058

August 14, 2025

Re: Meadowstone Apartments III LLC 712-720 Barfield Drive, Hastings, Michigan 49058
PP # 08-55-250-016-55

This letter is in response to the plans provided by Exxel Engineering to remove approximately 100' of sidewalk directly south of Building "A" to accommodate the installation of condenser units. The subject sidewalk was approved as part of the total site plan.

Per Chapter 90, Article 90-VII, Division 90-VII-2, Section 90-674 (a) of the Municipal Code, minor changes to a PUD site plan may be approved administratively by the building inspector provided the changes comply with all applicable requirements of this chapter and all other city regulations or state law. Minor changes subject to administrative review include dimension changes, building relocation, parking and driveways, change in landscaping, signs, lighting, decrease in building size and increase in building size that does not exceed 5,000 square feet or five percent of the gross floor area, whichever is smaller.

Upon review of the site plan and site plan information, compliance with Section 90-674 (a) has been noted and can be approved administratively. The site plan submittal is approved, and you may now proceed to obtain the applicable building and electrical permits.

If you have any questions or concerns, please feel free to contact me.

Dan King
Community Development Director/Zoning Administrator
201 East State Street
Hastings, Michigan 49058
269-945-6001
dking@hastingsmi.gov



City of *Hastings* Michigan

(269) 945-2468
FAX (269) 948-9544

201 E. State Street 49058

August 7, 2025

Re: Par Tee Real Estate, LLC, 1550 N. Broadway. Hastings, MI 49058
c/o Nathan Tagg

This letter is in response to the plans provided to relocate an existing driving range from the center of the golf course property to the north side of the private drive commonly known as Country Club Drive. The proposed dimensions of the driving range will be approximately 235' from south to north and 765' from east to west encompassing approximately 4.25 square acres. The rectangular shaped driving range will be surrounded on the south, north, and east sides by transparent netting mounted on 35' poles at intervals sufficient to support the netting. Typical driving range features include grass fairway and landing areas, and tee boxes with appropriate flat foundational infrastructure. Although no lighting has been indicated on the site plan, per Section 90-1081(d) Golf Courses of the Municipal Code requires: Lighting shall be no brighter than necessary to provide for safe use of the recreational facility and shall be directed away from adjoining properties and public rights-of-way.

Per Chapter 90, Article 90-XII, Division 90-XIII-1, Section 90-1052 (a) of the Municipal Code states: Any person or agency for which a special land use has been approved shall notify the zoning administrator of any proposed amendment to the approved use and site plan. Any minor change such as dimension changes, increase in parking, drive relocation, landscaping changes, or movement of lighting or signs may be approved by the zoning administrator, who shall notify the planning commission in writing of such amendments. A copy shall be placed in the file of the original permit requested.

Upon review of the site plan and site plan information, compliance with Section 90-1052 (a) has been noted. The site plan submittal is approved, and you may now proceed to obtain the applicable building and electrical permits.

Please note that all storm water runoff must be managed on site. If you have any questions or concerns, please feel free to contact me.

Dan King
Community Development Director/Zoning Administrator
201 East State Street
Hastings, Michigan 49058
269-945-6001
dking@hastingsmi.gov



City of *Hastings* Michigan

(269) 945-2468
FAX (269) 948-9544

201 E. State Street 49058

August 25, 2025

Re: T-Mobile c/o Jesse Kurzyniec Site Location 107 W. Blair St., Hastings, MI 49058

This letter is in response to the plans provided to decommission three (3) 1900 radios, associated radio ground/coax, three (3) Sprint hybrids, and two (2) Sprint cabinets, and install one (1) 8' x 12' canopy and adjust site lighting for T-Mobile equipment at 107 W. Blair St., Hastings, MI 49058.

Per Chapter 90, Article 90-XIII – 2, Section 90-1085 (c) of the Municipal Code, the site plan can be reviewed administratively if compliance with subsections 1-5 are confirmed.

Upon review of the site plan and site plan information, compliance with subsections 1-5 of Section 90-1085 (c) has been noted. The site plan submittal is approved, and you may now proceed to obtain the applicable building and electrical permits.

If you have any questions or concerns, please feel free to contact me.

Dan King
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201 East State Street
Hastings, Michigan 49058
269-945-6001
dking@hastingsmi.gov



City of *Hastings* Michigan

(269) 945-2468
FAX (269) 948-9544

201 E. State Street 49058

August 29, 2025

Re: Co-Dee Realty, LLC, 1657 Star School Rd., Hastings, MI 49058
c/o Bruce Hammond

This letter is in response to the plans provided to construct a 2,560 square foot detached cold storage building east of the primary building. The building will be constructed on a 6" reinforced 4,000 PSI concrete slab. All proposed setbacks conform to D-2 Zoning District standards. Building height conforms to D-2 Zoning District standards. Storm water management will be similar to existing building.

Per Chapter 90, Article 90-IV, Section 90-127 (b)(1)(2) of the Municipal Code, the site plan can be reviewed administratively if a change in the use of a building or property or an expansion of the building or use which does not result in the need for more parking spaces required by this chapter and construction of a building or structure which is accessory to the principal building or use.

Upon review of the site plan and site plan information, compliance with Section 90-127 (b)(1)(2) has been noted. The site plan submittal is approved, and you may now proceed to obtain the applicable building and electrical permits.

If you have any questions or concerns, please feel free to contact me.

Dan King
Community Development Director/Zoning Administrator
201 East State Street
Hastings, Michigan 49058
269-945-6001
dking@hastingsmi.gov

City of Hastings
Planning Commission
Work Tasks for 2025
STATUS REPORT FOR SEPTEMBER 2025

1. Consider development of “Complete Streets” ordinance or policy and review subdivision text regarding street width.
2. Review zoning map for consolidation/simplification. Review to include, but not be limited to, Action Items identified in the GAP analysis of the Master Plan. **Planning Consultant Harvey to provide recommendation.**
3. Review Division 90-IX-6 Open Space Preservation Projects for lot size, cap limits, and other regulations. Master Plan action item. Open for discussion in 2025.
4. Review Section 90-425 and others requiring Planning Commission approval for parking reduction and Section 90-472(1) to consider increasing distance from municipal parking lots from 300 feet to 500 feet for off-street parking requirements. Master Plan action item.
5. Review live-work standards for occupancy and total square footage adjustments. Master Plan action item.
6. Review landscape buffer requirements between multiple family zones and the B-1 district for waste of developable space. Master Plan action item.
7. Review Article 90-VII Planned Unit Development for complete amendment consideration.
8. Consider development of a Planned Residential District zoning classification to allow for higher density housing through smaller lot sizes and smaller dwelling square footage requirements. **Refer to Housing Committee for discussion.**
9. Review text regarding multi-family dwellings for possible modification. Master Plan action item.

Items highlighted in **green** are currently under consideration by the Planning Commission.

Items highlighted in **yellow** are currently under consideration by the Housing Committee.

Items highlighted in **red** require no further action at this time.

Site Plan Tracker

Project Name and Address	App and fees paid	Site plan and prints to staff	PC Agenda Date	PC Decision	Conditions for completion	COI
Meadowtone Mobile Home Park 1812 Lavender Drive Maintenance Building	1.13.22	1.13.22	1.13.22	Approved	Refuse disposal enclosure Landscaping Driveway width Elevations to be reviewed for façade Sidewalk installation prior to COI	
City of Hastings and Barry County Central Dispatch 1037 East State Street	NA	3.27.23	5.1.23	Approved	Administrative approval of performance standards. Waiver of side setback requirement	
420 E Mill Street PUD	5.30.23	5.31.23	7.3.23	Approved	24.5 units/acre 40 ft building height 5 feet front setback 30 ft building separation Delineation of phased development Lighting, landscaping, building exterior to be approved administratively. Acceptance of parking lot/100 yr FP DPS and Fire approval.	
Meadowstone Apartments III 710 Barfield Drive	6.12.23	6.12.23	8.7.23	Approved	Exterior finish subject to administrative approval. Utility and storm management subject to approval by DPS Director	

Site Plan Tracker

Project Name and Address	App and fees paid	Site plan and prints to staff	PC Agenda Date	PC Decision	Conditions for completion	COI
Chad Stora 1000 Enterprise Drive	7.12.24	7.12.24	8.5.24	Approved	Zoning Administrator review of uses. Compliance with refuse screening.	
Zach Santmier 128 S. Jefferson	9.16.24	9.16.24	10.7.24	Approved	The height of the first-floor windows approved to be 48" to 52" above the sidewalk with slightly tinted window	
Woodlawn Meadows Retirement Village II 1813 N. East Street	9.17.24	9.17.24	11.04.24	Approved	<p>The modified lot sizes (7,700 sq ft - 18,000 sq ft) and lot widths (56-66 ft) are approved as proposed and the ordinance authorizing the proposed PUD will list the modified requirements</p> <p>The zoning notes of the Final Development Plan will reflect the R-1 lot width requirements</p> <p>The 25-foot front, and 25-ft rear, and 15/6 foot side setbacks are approved as proposed and the ordinance for the proposed PUD will list the modified requirements</p> <p>Proposed extension of East Street as private road with 28 feet width and rolled curb. Stormwater management plan, utility system, and private street extension approved by City</p> <p>Master Deed and PUD conform to S/C</p>	

Site Plan Tracker

Project Name and Address	App and fees paid	Site plans and prints to staff	PC Agenda Date	PC Decision	Conditions for Completion	COI
Bacman Fields 900 Bachman Road	2.11.25	2.11.25		4.7.25	Several. See draft ordinance	
Terry Dennison 220 W. Colfax	4.9.25	4.9.25	5.5.25	5.5.25	Proposed plan for refuse disposal Lighting plan Landscape plan	



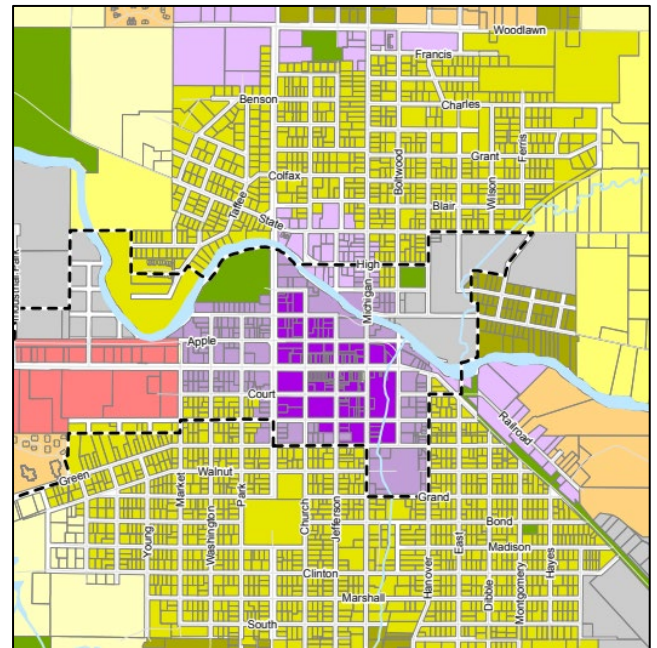
January 28, 2025

Subject: Housing Committee - Three- and Four-Family Dwellings

3-4 FAMILY DWELLING OVERLAY DISTRICT – Draft #5

Purpose

- A. The 3-4 Family Dwelling Overlay District is designed to be considered generally for application to those lands identified by the City of Hastings Master Plan *Future Land Use Map* as *Residential Growth C – Multiple Family*; *Core Neighborhood*; *Neighborhood Center*; or *Downtown Edge*.
- B. This District is intended to recognize the usefulness of ‘gentle density’ housing near employment areas such as the downtown but also encourages the preservation of single-family homes near the center of the City.
- C. This District further recognizes that there are older, large homes near the downtown that have already been divided into two or more dwelling units and require careful review of further divisions to ensure the character of the area is maintained.
- D. This District is designed to provide for *Missing Middle* housing opportunities, allowing attached single-family housing and smaller, multi-dwelling buildings consistent with the overall density of the surrounding area.



- Residential Growth C - Multiple-Family
- Core Neighborhood
- Neighborhood Center
- Downtown Edge

- E. This District should not be applied where resulting overall density of the block will exceed 6 dwelling units per acre.

For purposes of this Overlay District, 'block' is defined as *'the space for buildings within the street pattern of the City, where a street extends through the middle with lots fronting on either side, bounded by streets on both ends.'* The Planning Commission shall determine the boundaries of the block in consideration of this definition.

Avg size of city block in Hastings

- 330 ft x 335 ft (~2.5 A)



- *Density Scenarios:*

10 lots (SF)

= 4 d.u./acre

8 lots (SF)

1 lot (2F)

1 lot (4F)

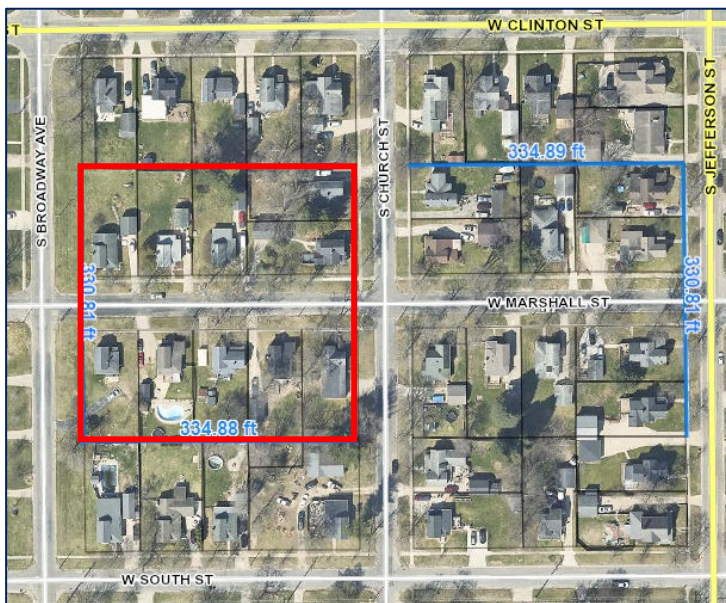
= 5.6 d.u./acre

8 lots (SF)

1 lot (3F)

1 lot (4F)

= 6 units/acre



Applicability

- A. The 3-4 Family Dwelling Overlay District shall be an overlay district that applies over existing zoning districts. Use and development of land within the overlay district shall be regulated as follows:
 - 1. Any existing lawfully conforming use shall be permitted to continue, and the use shall be subject to the requirements of the underlying district and not the requirements of the 3-4 Family Dwelling Overlay District.
 - 2. Any new use may elect to develop pursuant to either the underlying district or the 3-4 Family Dwelling Overlay District.

Permitted Uses

- A. Three- and four-family dwellings.
- B. Attached single-family dwellings, with no more than four (4) attached dwelling units.



District Regulations

Property within the 3-4 Family Dwelling Overlay District shall be subject to the regulations set forth in Sec 90-216 of this Ordinance for the R-D District related to lot size/width, lot coverage, and yard setbacks.

(The following table is included here for reference only)

Minimum Lot Size	9900 sq ft
Minimum Lot Width	75 ft



Maximum Lot Coverage	30%
Maximum/Minimum Front Yard Setback	30 ft
Minimum Side Yard Setback	25/10 ft
Minimum Rear Yard Setback	25 ft
Maximum Building Height	35 ft
Minimum Floor Area	720 sq ft per dwelling unit

Building Form Standards

New buildings, building expansions, and/or exterior building renovations within the 3-4 Family Dwelling Overlay District shall be subject to the following building form standards.

Architectural Style	Buildings shall have an architectural style respecting the scale, proportion, character, and materials of nearby existing buildings. Building mass shall be de-emphasized in a variety of ways, including the use of projecting and recessed sections to reduce the apparent overall bulk and volume and provide visual appeal.
Exterior Building Materials	Exterior wall materials may consist of brick, stucco, wood, vinyl aggregate or split-face block, stone or similar decorative material which is similar to the exteriors of nearby buildings. Metal-sided buildings, including accessory buildings, may be acceptable provided the appearance of such buildings is compatible with the style and materials of nearby existing buildings.
Roofs	Roofs shall be pitched and have overhanging eaves. Materials for pitched roofs shall include shingles (either wood or asphalt composition), slate, or tiles. Metal roofing may be acceptable provided the appearance of the roofing is compatible




	with the roofing of nearby existing buildings.
Building Entrance	<p><i>3-4 Family Dwelling</i> - An entrance to the building shall be visible from and face the street from which the address of the building is derived.</p> <p><i>Attached Single-Family Dwelling</i> - The primary entrance to each dwelling unit shall be visible from and face the street from which the address of the dwelling unit is derived.</p>
Minimum Front Porch Area (if provided)	70 sq ft; enclosed porches are allowed

Site Design Standards

- A. *Vehicle Access*: Vehicle access to the property shall be determined during the site plan review process. An existing driveway(s) may be required to be closed in order to achieve safe access.
- B. *Parking*: Off-street parking in the 3-4 Family Dwelling Overlay District shall be regulated by Article X of this Ordinance, except 1) the garage/carport requirement of Section 90-924 shall not apply, and 2) the Planning Commission may reduce the parking requirements by no more than 30 percent if it can be demonstrated that the required number of parking spaces is not needed. The Commission may take into consideration the location and availability of authorized off-site parking arrangements, such as on-street parking spaces or municipal parking lots located within 300 feet of the proposed building. Parking on site must be located behind the principal building and be designed so vehicles do not back into the public street when exiting the site.
- C. *Pedestrian Access*: A walkway shall be provided from the existing or proposed sidewalk along the property frontage to the primary building entrance.
- D. *Refuse Disposal*: Dumpsters shall be kept within a fenced or brick walled area which shall be at least 6 feet high and located so that their use, including emptying, does not pose a nuisance to nearby neighbors.



- 
- E. *Landscaping*: Landscaping shall be provided in accordance with the requirements of Article XII. Shade trees shall be emphasized to provide shade and continuity in landscape design within the neighborhood.

Modification of Standards

The Building Form and Site Design Standards of this District may be modified by the Planning Commission upon determination that:

- A. The modification shall satisfy the purposes of the Overlay District stated in subsection ____.
- B. The modification will result in the alteration of an existing building or the construction of a new building, which is visually compatible and comparable with nearby existing buildings and which maintains or improves upon the character of the surrounding neighborhood through the use of similar building materials or site design.

Additional Regulations

- A. Site plan review as regulated by Article IV of this chapter is required, except as modified by this Section.
- B. Site plan review by the Planning Commission is required for 1) new construction, and/or 2) the expansion of an existing building.
- C. Site plan review by the Zoning Administrator is required for 1) a change in the use (increase in density) of an existing building that does not involve an expansion of the building, and/or 2) exterior building renovations.
- D. Each site plan submitted for official review under this Article shall meet the site plan content requirements of Sec 90-130, except as modified by the Planning Commission or Zoning Administrator.
- E. Where exterior building renovations are proposed, the site plan submittal shall include building elevations or sketches showing the proposed changes to the building exterior.





July 31, 2025

Subject: Land Division (Subdivision) Ordinance vs. Site Condominium Regs

Subdivision Ordinance	Site Condominium Regs (ZO)	Observations	Strategies
PROCESS			
Major Subd Minor Subd (unplatted)	Major SC Minor SC	Not sure of the benefit of making this distinction	PC review recommended
Sketch Plat (optional) – PC Preliminary Plat Review : Preliminary – PC : Tentative – CC : Final – Agencies/CC (~ 1 year process) Final Plat Review – CC	Preliminary Plan Review – PC Final Plan Review – CC (~ 3-6 month process)	No public hearing required for either Minor subdivisions (i.e. unplatted land divisions) are subject to PC review Subdivision review process is established by State law	PC review recommended
	Master Deed required	State law requirement for Site Condo	
Amendment process not detailed in Subdivision Ordinance	Major Change – PC/CC Minor Change – PC Exempt Change - Staff		CC review recommended
Variances – PC/CC	Variances – PC/CC	Only for standards established within the land division section . . not for ZO dimensional standards	
Preliminary Plats Effective Period – 2 years	Effective Period – 1 yr	Subdivision review process is established by State law	

Fee – ?	Fee – ?	The fee structure should be similar since the review processes are the same	CC review recommended
DESIGN			
Inspections	Inspections		
Performance Bond	Performance Bond		
Master Plan/Zoning Map	Master Plan/Zoning Map	This appears to be tied to use standards and service area designations	
Density: Complete Utility Subd. Partial Utility Subd Private Service Subd	Density: Complete Utility Subd. Partial Utility Subd Private Service Subd	This approach is used in both land division approaches . . . but requires lower density than allowed for unplatted	Revise to allow same density as unplatted . . or greater density if City wants to encourage planned land divisions (plats/site condos)
Streets	Streets		PC review for consistency with the Master Plan, City regs, PUD provisions, and best practices recommended
Lots	Lots		
Block Length	Block Length		
Easements	Easements		
Open Space	Open Space		

