

**City Council Special Meeting Agenda
September 29, 2025**

1. Call the Special Meeting to Order at 7:00 PM.
 2. Roll call
 3. Approval of agenda
 4. Public Hearing to hear comments on the Planned Unit Development (PUD) Modification.
 - * 5. Presentation of final site plan and conduct first reading of **Ordinance 632**.
 - ✓ 6. Consider road closure of Green Street for Halloween.
 - ✓ 7. Consider interlocal agreement.
 - ✓ 8. Adjourn Special Meeting.
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- * Items with enclosures.
✓ Motion under agenda heading requires roll call vote.

Guidelines for Public Comment

Public Comment is welcomed and appreciated. Please follow these simple guidelines to ensure all have an opportunity to be heard.

All comments and questions will be made through the chair. All comments will be made in a courteous and civil manner; profanity and personal attacks will not be tolerated. Please limit the length of your comments to 3 minutes. If you are a member of a group, please appoint a spokesperson to speak on behalf of the group (those speaking on behalf of a group may be provided additional time). Please state your name before offering comment.



Regular Council Agenda Item Memorandum

To: Mayor Tossava and City Council

From: Dan King

Subject: 420 E Mill PUD

Meeting Date: September 29, 2025

Recommended Action:

Motion to approve the final site plan and amended Planned Unit Development (PUD) for parcels located at 328 and 420 East Mill Street as recommended by the Planning Commission and conduct first reading of **Ordinance 632**.

Background Information:

420 E Mill PUD was established on July 24, 2023, with adoption of Ordinance #619. Due to the reorientation of the buildings, minor square footage increase in the commercial building, as well as the addition of a Child Care Center use in the commercial building, major changes to the PUD required the Planning Commission to conduct a public hearing during a special meeting on September 26, 2025, to review and consider final site plan approval and Planned Unit Development amendment. Per Section 90-670 (a) of the Municipal Code, after receiving the recommendation of the Planning Commission, Council shall hold a public hearing and either approve, deny, or approve with conditions the PUD application and final site plan.

Financial Implications:

There are no direct financial implications from this request.

Attachments:

- Public Hearing Notice
- Site Plan
- Ordinance # 632

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

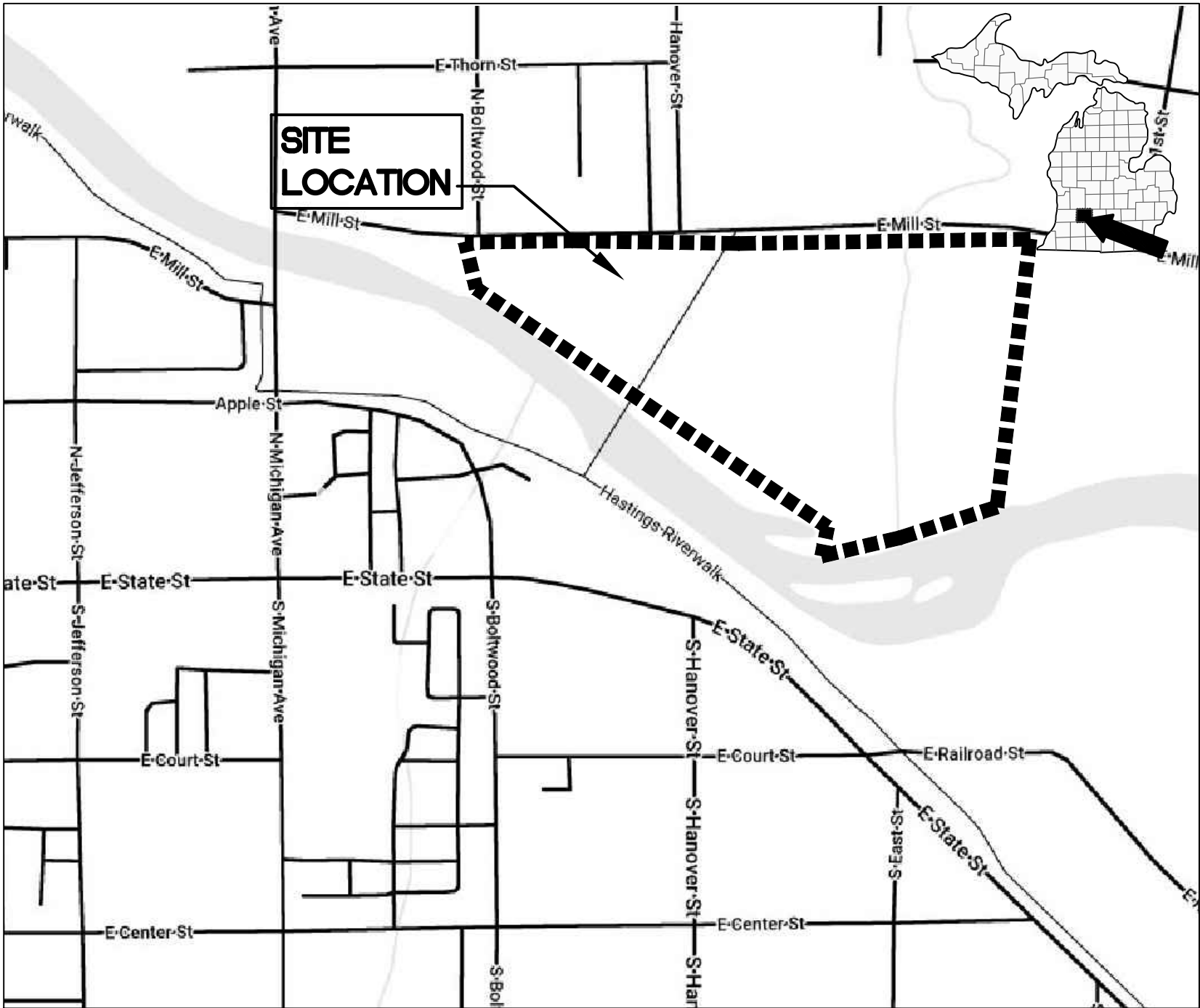


SPENCER O'DELL, P.E.

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

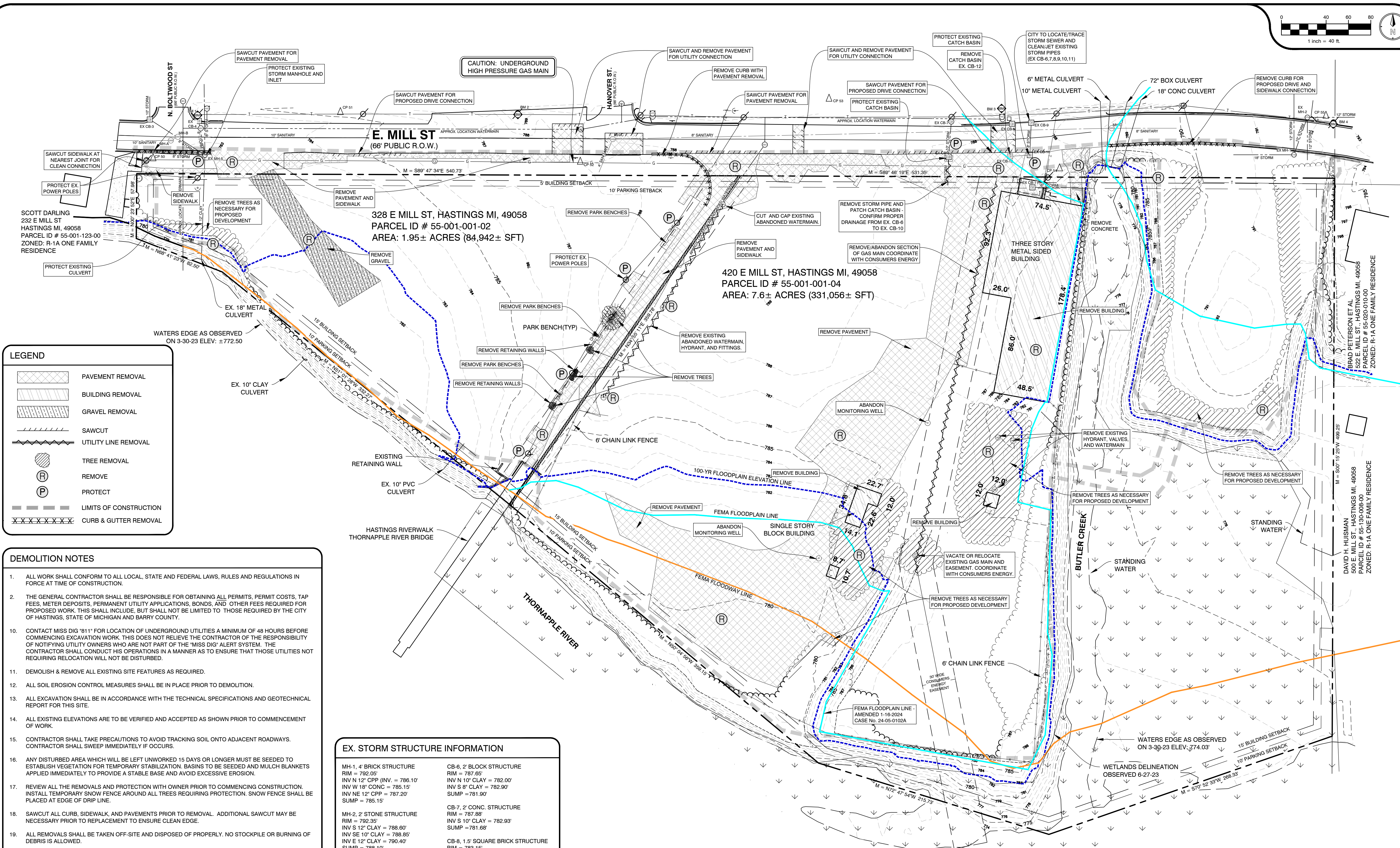
ALL OF LOTS 322 THOROUGH 328, LOTS 336 THROUGH 348, PART OF LOTS 329 AND 335, ALL OF THE BLANK LOTS LYING WEST OF LOT 348, SOUTH OF APPLE STREET AND NORTHERLY OF THE THRONAPPLE RIVER, AND PART OF VACATED HANOVER, EAST AND APPLE STREETS, ALL IN THE ORIGINAL PLAT OF THE VILLAGE (NOW CITY) OF HASTINGS, 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 NNW 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 = 783.32' 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 779.27'	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.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:
0	07/23/2025	sao	SITE PLAN REVIEW
1	09/09/2025	sao	CITY REVISIONS
2			
3			
4			

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
09/09/2025

SHEET NUMBER
C1.0

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

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

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.

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

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

5. OPEN SPACE
REQUIRED = 10% (0.95 ACRES)
PROVIDED = 36% (3.50 ACRES)

6. PARKING:
REQUIRED:
MULTI-FAMILY DWELLING UNITS - 1.5 PER EACH DWELLING UNIT, 1/3 OF WHICH SHALL BE WITH A GARAGE OR CARPORT
COMMERCIAL/RETAIL/OFFICE - 1 PER 200 SQ FT

BUILDING A = 51 UNITS X 1.5 = 77 SPACES
BUILDING B = 54 UNITS X 1.5 = 81 SPACES
BUILDING C = 30 UNITS X 1.5 = 45 SPACES
COMMERCIAL = 11,200 SFT / 200 = 56 SPACES
(NET AREA WITH MEZZANINE) + 56 SPACES
TOTAL REQUIRED SPACES = 259 SPACES

PROVIDED = STANDARD 9' X 18' SPACES = 159
CARPORT SPACES = 94
BARRIER FREE SPACES = 14
TOTAL PROVIDED = 267

7. BUILDING:
THREE-STORY
MAXIMUM HEIGHT: N/A
SEE ARCH PLANS FOR BUILDING SIZES AND DETAILS
PROPOSED BUILDING COVERAGE: 16%
MAXIMUM BUILDING COVERAGE: N/A

8. LOT:
MINIMUM LOT SIZE: 2,500 SFT
MINIMUM LOT WIDTH: 35 FT
LOT SIZE: 415,998 SFT / 9.55 ACRES
LOT DIMENSIONS: IRREGULAR

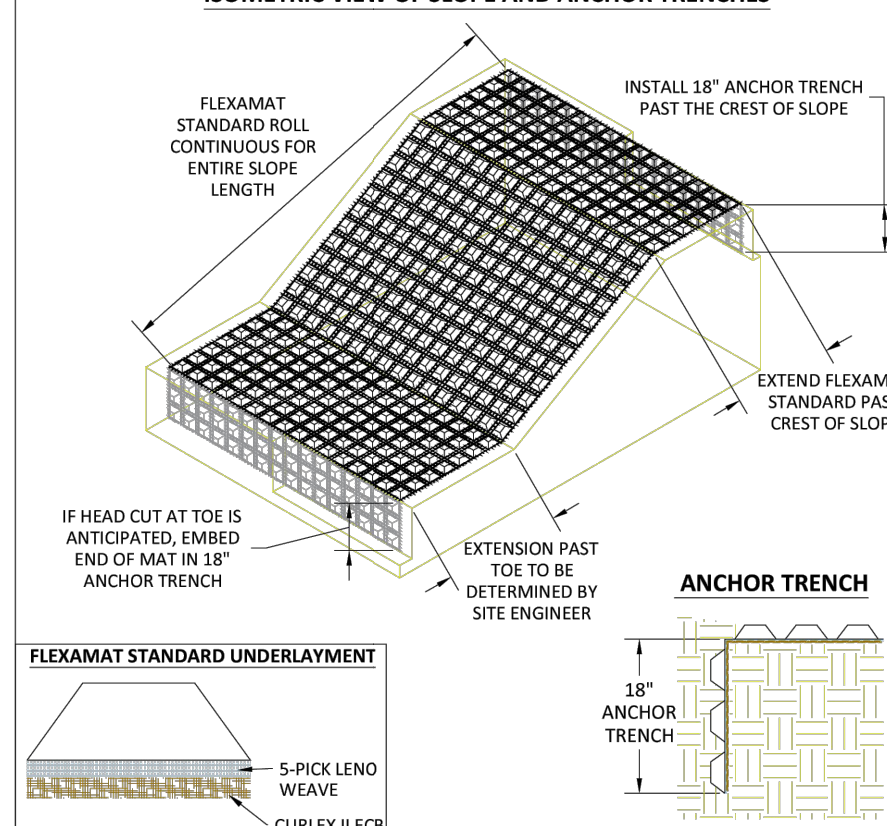
9. LANDSCAPING:
SHALL BE IN ACCORDANCE WITH LANDSCAPING PLAN.

10. STORM WATER DETENTION REQUIRED:
STORM WATER MANAGEMENT SHALL BE IN ACCORDANCE WITH CITY AND COUNTY STORM WATER GUIDELINES.

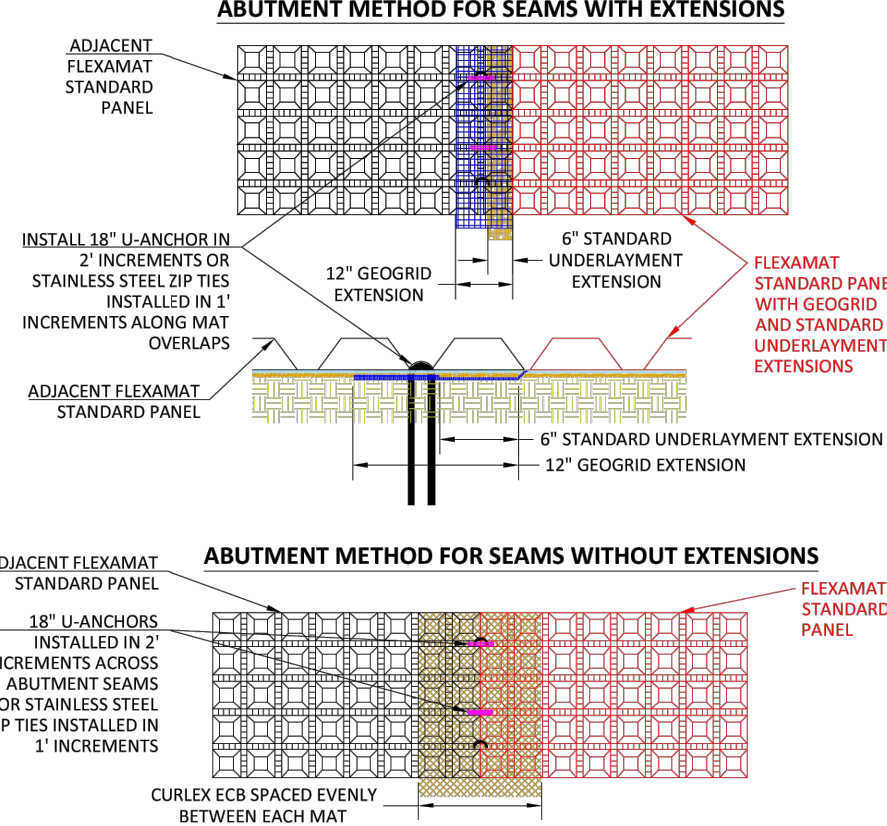
SITE PLAN NOTES

- 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

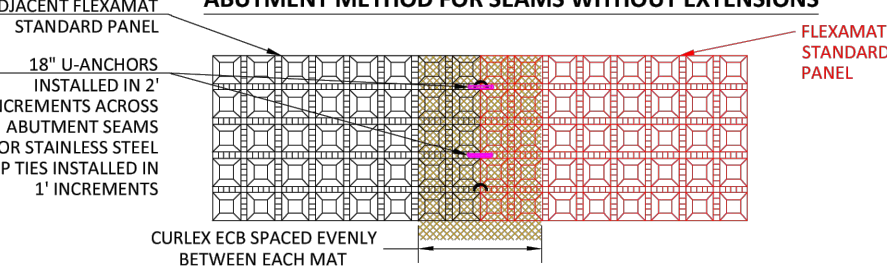
ISOMETRIC VIEW OF SLOPE AND ANCHOR TRENCHES



ABUTMENT METHOD FOR SEAMS WITH EXTENSIONS



ABUTMENT METHOD FOR SEAMS WITHOUT EXTENSIONS



FLEXAMAT STANDARD - SLOPE ARMORING

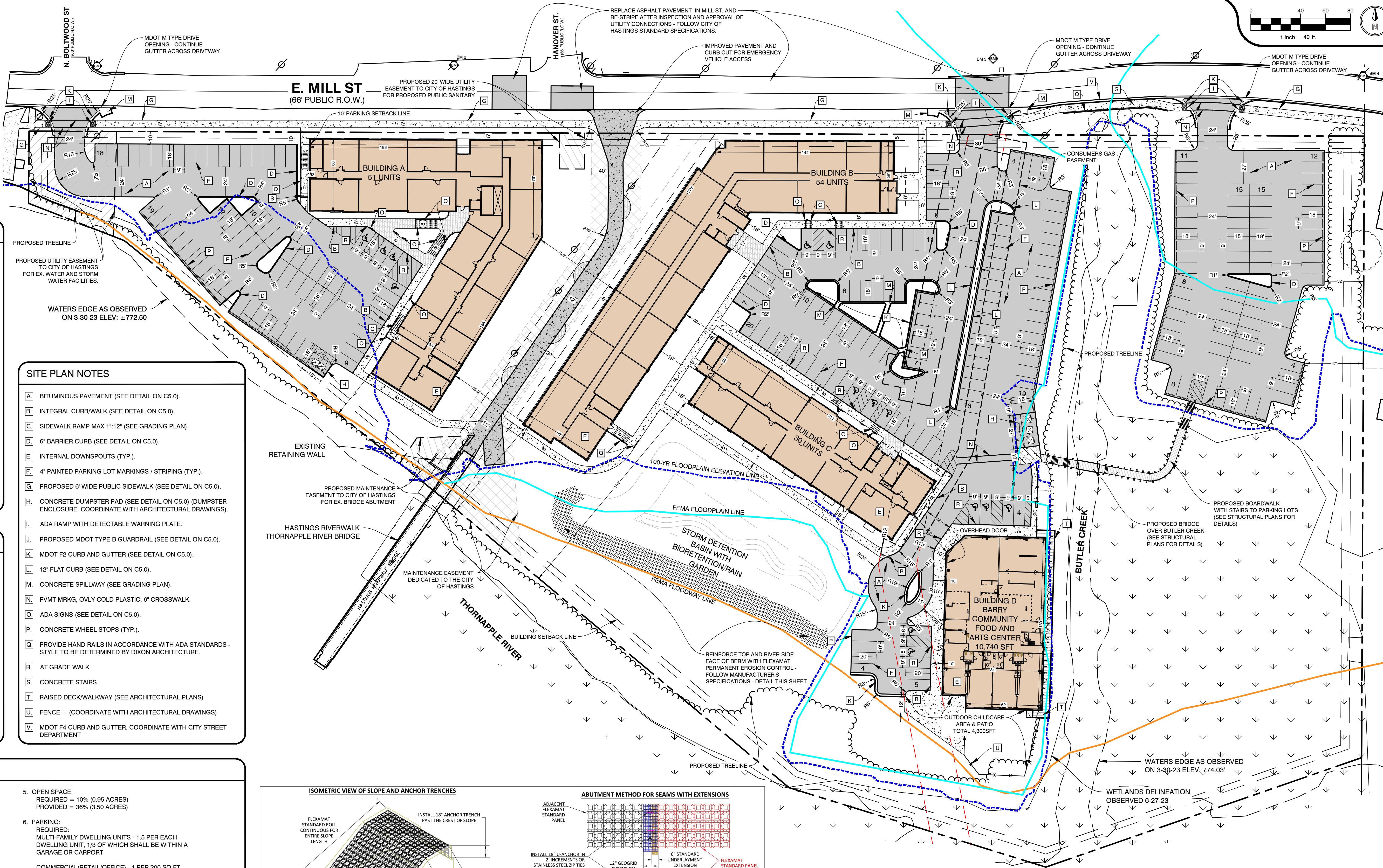
CONSTRUCTION NOTES:

1. AN ENGINEER OR MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE FOR THE START OF THE INSTALLATION.
2. 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.
3. PRIOR TO FLEXAMAT STANDARD INSTALLATION SEED AND FERTILIZE SUBGRADE WITH SITE SPECIFIC SEED MIX IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
4. 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 MATTING EXTENDS PAST THE CREST OF SLOPE AND INTO AN 18" ANCHOR TRENCH.
- 4.1. 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.
- 4.2. ARMORED SLOPE LENGTHS LONGER THAN 16', INSTALL NEXT MAT OVER EXTENSIONS.
5. INSTALL SUBSEQUENT MATS OVER THE EXTENSION AND STANDARD UNDERLAYERMENT EXTENSION OF THE PREVIOUSLY INSTALLED MAT. ENSURE THE GEOGRID AND STANDARD UNDERLAYERMENT EXTENSIONS ARE LAYING FLAT ON THE SUBGRADE BEFORE INSTALLING ADJACENT MAT OVER THE EXTENSIONS.
6. INSTALL #3 REBAR 18" U-ANCHORS IN 2' INCREMENTS ACROSS THE GEOGRID AND STANDARD UNDERLAYERMENT EXTENSION. INSTALL ANCHORS PERPENDICULAR TO THE SLOPE DIRECTLY BEHIND FIRST ROW OF BLOCKS ON THE ADJACENT MAT.
7. 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

Flexamat
PERMANENT EROSION CONTROL

REV-1



PLANS PREPARED BY:

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

DRAWN: eeg
CHECKED: SAO



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

No.	DATE	BY	ISSUED FOR:
0	07/23/2025	sao	SITE PLAN REVIEW
1	09/09/2025	sao	CITY REVISIONS
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
09/09/2025

SHEET NUMBER

C2.0



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

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 SUMP = 781.68'
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 = 783.15 STRUCTURE COLLAPSED AND FULL
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-9, 2" BLOCK STRUCTURE RIM = 787.57 INV S 8" CONC = 784.17 SUMP = 783.72'
EX CB-4, 2" BLOCK STRUCTURE RIM = 783.15 INV SE 8" CLAY = 781.45 SUMP = 781.15'	EX CB-10, 1.5" SQUARE BRICK STRUCTURE RIM = 787.41 INV W 10" CLAY = 780.66 INV W 10" CLAY = 780.56 SUMP = 780.56'
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-11, 1.5" SQUARE CONC. STRUCTURE RIM = 786.62 INV E 10" CLAY = 785.32 SUMP = 784.72'
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 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'

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 SE 12" N12 HDPE NW	780.30 780.30	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 = 785.21 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 O2 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	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	OS-16, 4.0' DIA. EJW 1020 SOLID RIM = 787.46 12" N12 HDPE W 12" N12 HDPE N	780.46 780.46
CB-6, 4.0' DIA. EJW 5105 RIM = 783.62 12" N12 HDPE NW 12" N12 HDPE SE	780.30 780.30	MH-17, 6.0' DIA. TREATMENT SEE C3.1 RIM = 784.16 18" N12 HDPE NW 18" N12 HDPE SE	778.80 778.80	OS-19, 4.0' DIA. EJW 1020 O2 BEE HIVE RIM = 784.50 12" N12 HDPE SW 4" N12 HDPE N	774.55 774.55
CB-7, 4.0' DIA. EJW 5105 RIM = 783.67 12" N12 HDPE NW 12" N12 HDPE SE	780.08 780.08	CB-12, 4.0' DIA. EJW 5105 RIM = 785.21 15" N12 HDPE NE 12" N12 HDPE S 15" N12 HDPE W	780.44 781.17 780.44	CB-20, 4.0' DIA. EJW 5105 RIM = 784.50 12" N12 HDPE NW 18" N12 HDPE SE 12" N12 HDPE N	778.76 778.76 779.76
CB-8, 4.0' DIA. EJW 5105 RIM = 783.67 12" N12 HDPE NW 12" N12 HDPE SE	780.08 780.08	YD-21, 2.0' DIA. EJW 1020 O2 BEE HIVE RIM = 784.55 12" N12 HDPE S	781.80	MH-26, 4.0' DIA. EJW 1020 SOLID RIM = 783.52 8" N12 HDPE NW 8" N12 HDPE S	781.47 781.47
CB-9, 4.0' DIA. EJW 5105 RIM = 783.67 12" N12 HDPE NW 12" N12 HDPE SE	780.08 780.08	YD-22, 2.0' DIA. EJW 1020 O2 BEE HIVE RIM = 784.74 8" N12 HDPE SW 8" N12 HDPE SE	781.07	CB-23, 4.0' DIA. EJW 5105 RIM = 784.42 12" N12 HDPE N	781.42
CB-10, 4.0' DIA. EJW 5105 RIM = 783.67 12" N12 HDPE NW 12" N12 HDPE SE	780.08 780.08	MH-25, 6.0' DIA. TREATMENT SEE C3.1 RIM = 784.30 15" N12 HDPE E 15" N12 HDPE W	780.36 780.36	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-11, 4.0' DIA. EJW 5105 RIM = 783.67 12" N12 HDPE NW 12" N12 HDPE SE	780.08 780.08	YD-31, 1.5' DIA. ADS NYLOPLAST RIM = 786.74 12" N12 HDPE W 12" N12 HDPE S	780.07 780.07	YD-32, 1.5' DIA. ADS NYLOPLAST RIM = 786.73 12" N12 HDPE N 12" N12 HDPE SW 12" N12 HDPE W	779.82 779.82
CB-12, 4.0' DIA. EJW 5105 RIM = 783.67 12" N12 HDPE NW 12" N12 HDPE SE	780.08 780.08	YD-33, 1.5' DIA. ADS NYLOPLAST RIM = 786.61 12" N12 HDPE E 12" N12 HDPE W	780.64 780.64		

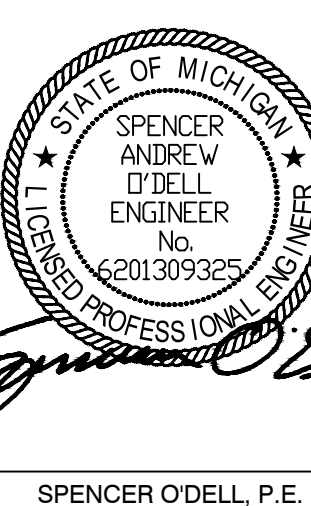


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PLANS PREPARED BY:



DRAWN: eeg
CHECKED: SAO



No.	DATE	BY	ISSUED FOR:
0	07/23/2025	SAO	SITE PLAN REVIEW
1	09/09/2025	SAO	CITY REVISIONS
2			
3			
4			

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

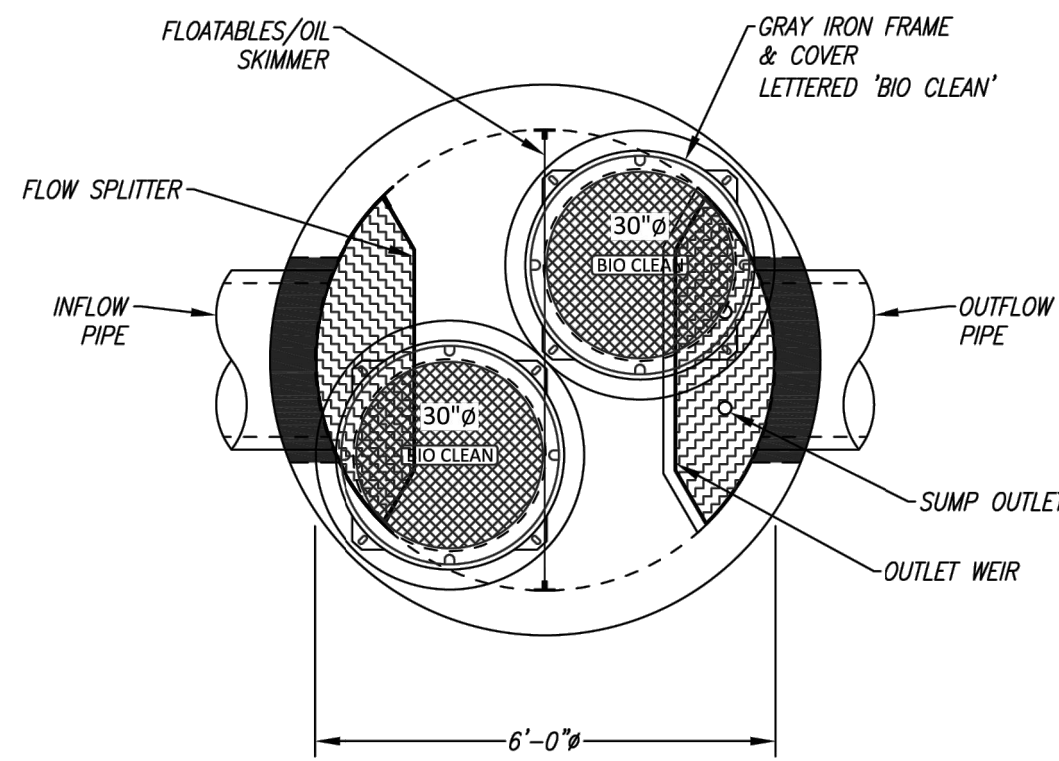
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DATE
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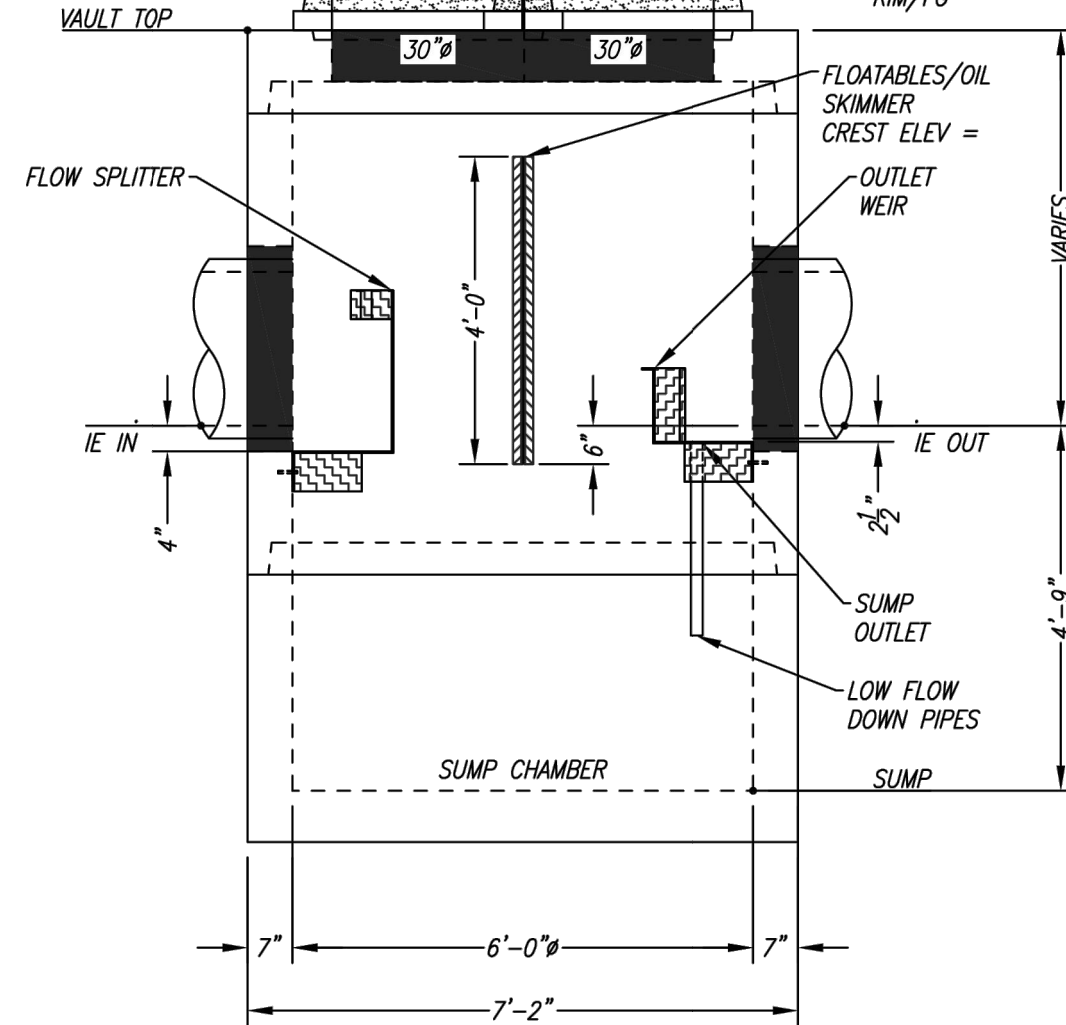
SITE SPECIFIC DATA*			
PROJECT NUMBER	.		
PROJECT NAME	.		
PROJECT LOCATION	.		
STRUCTURE ID	SCX-06		
WATER QUALITY FLOW RATE (CFS)	4.09		
PEAK FLOW RATE (CFS)	.		
PEAK STORM DURATION (YEARS)	.		
PIPE DATA	I.E.	MATERIAL	DIAMETER
INFLOW PIPE 1	.	.	.
OUTFLOW PIPE 1	.	.	.
RIM ELEVATION	.		
SUMP ELEVATION	###		
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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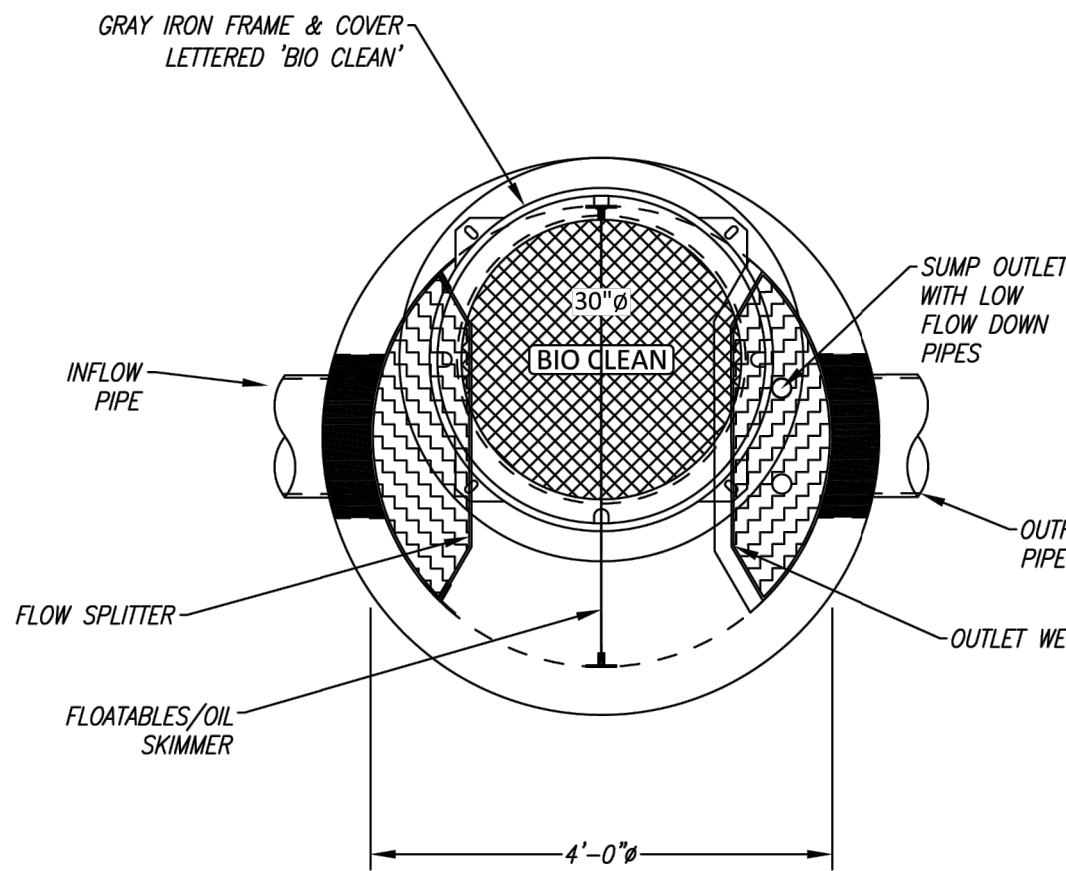
BioClean
A Forterra Company

SCICLONE SCX-06
HYDRODYNAMIC SEPARATOR
STANDARD DETAIL

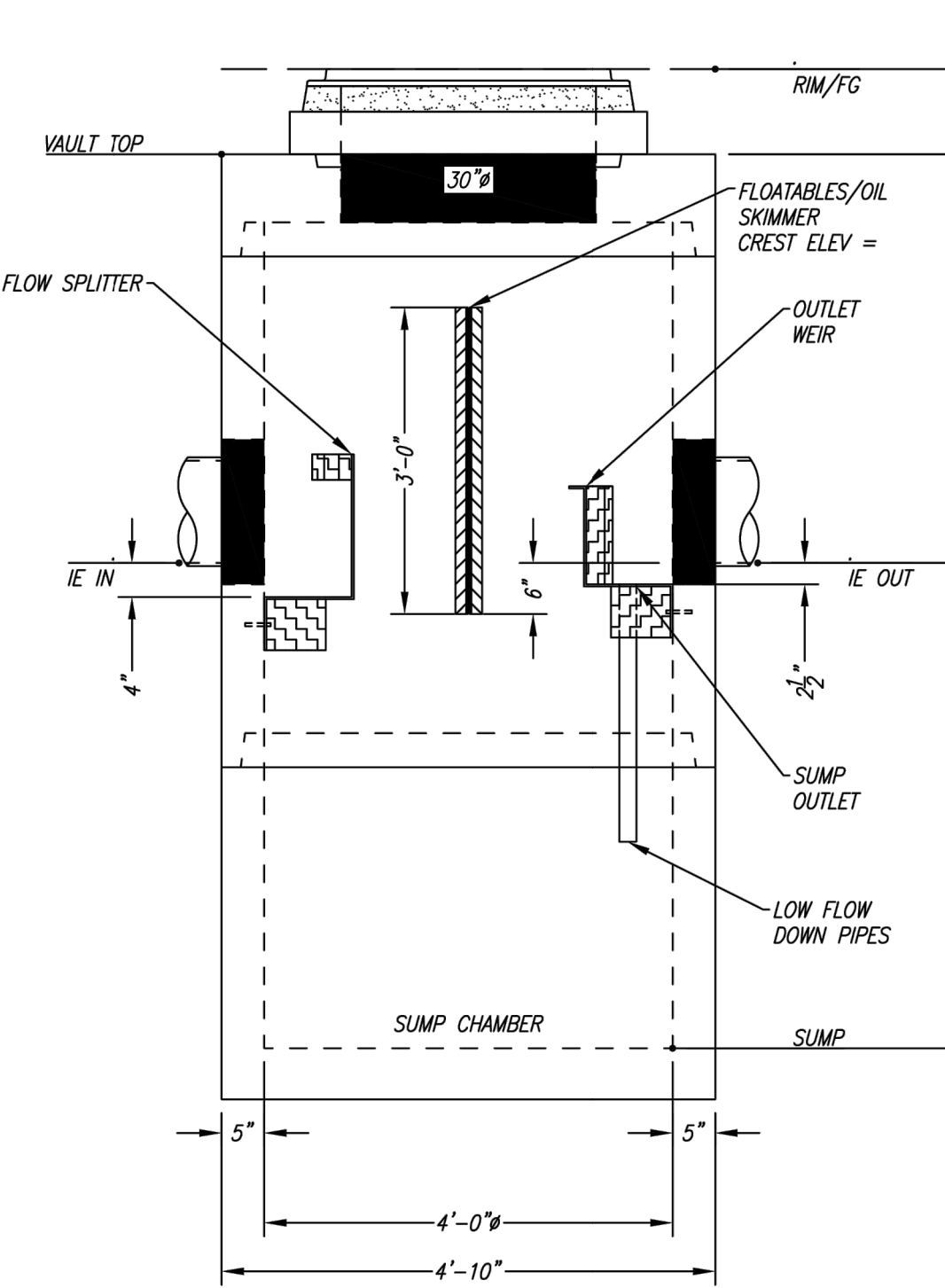
SITE SPECIFIC DATA*			
PROJECT NUMBER	.		
PROJECT NAME	.		
PROJECT LOCATION	.		
STRUCTURE ID	SCX-04		
WATER QUALITY FLOW RATE (CFS)			1.82
PEAK FLOW RATE (CFS)			.
PEAK STORM DURATION (YEARS)			.
PIPE DATA	I.E.	MATERIAL	DIAMETER
INFLOW PIPE 1	.	.	.
OUTFLOW PIPE 1	.	.	.
RIM ELEVATION	.		
SUMP ELEVATION	###		
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

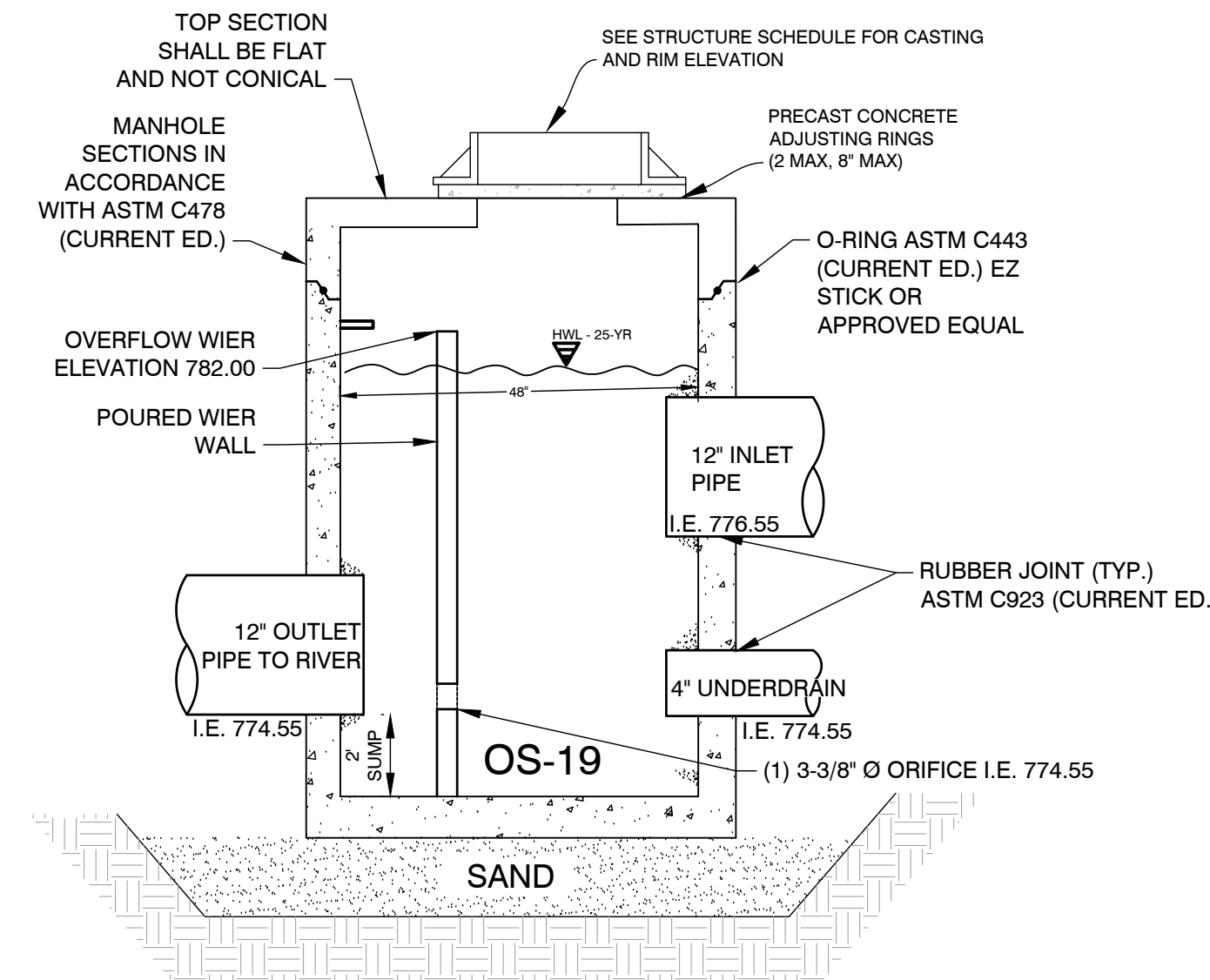
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- ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS, AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS, AND ACCESSORIES PLEASE CONTACT BIO CLEAN.

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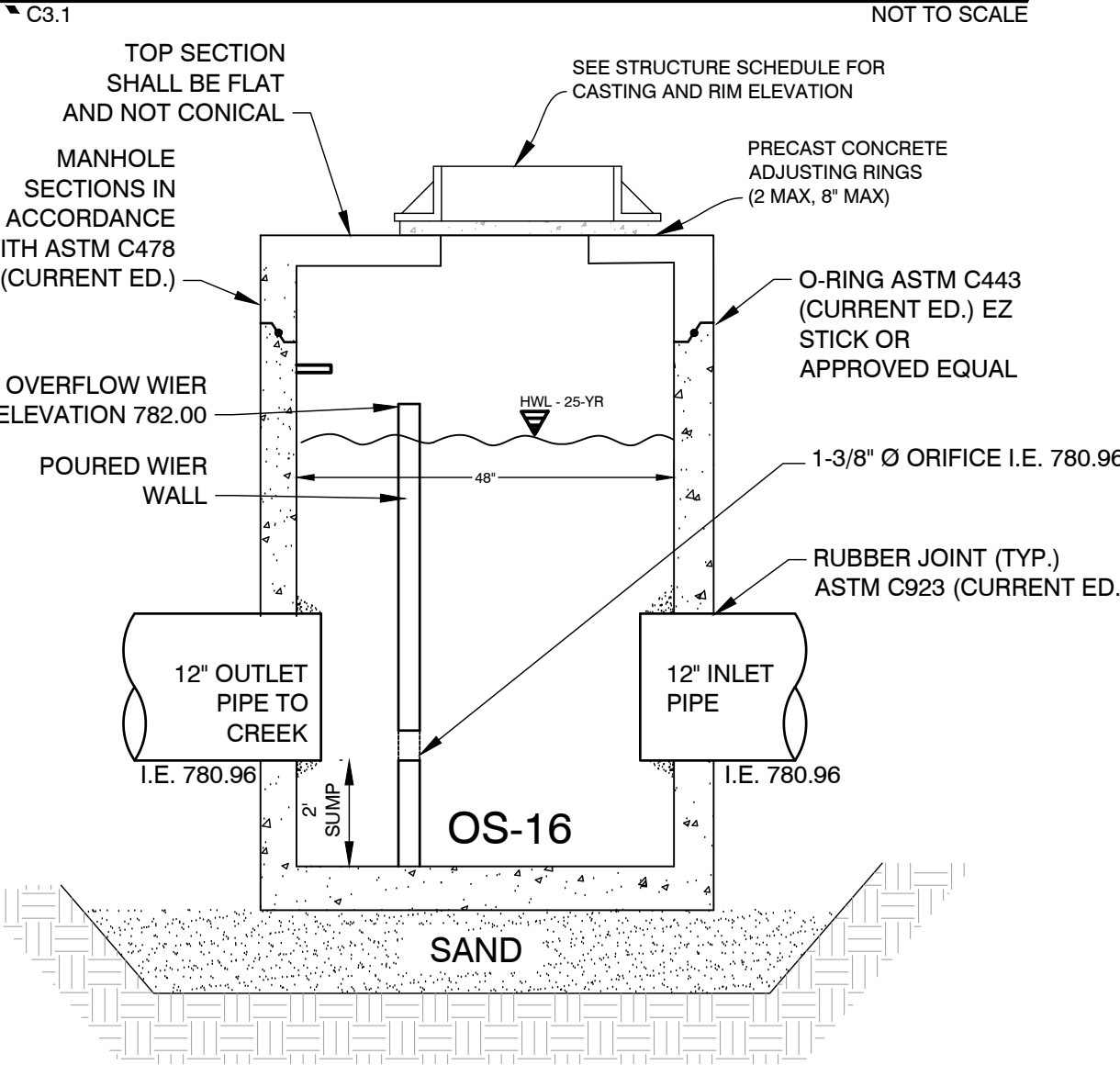
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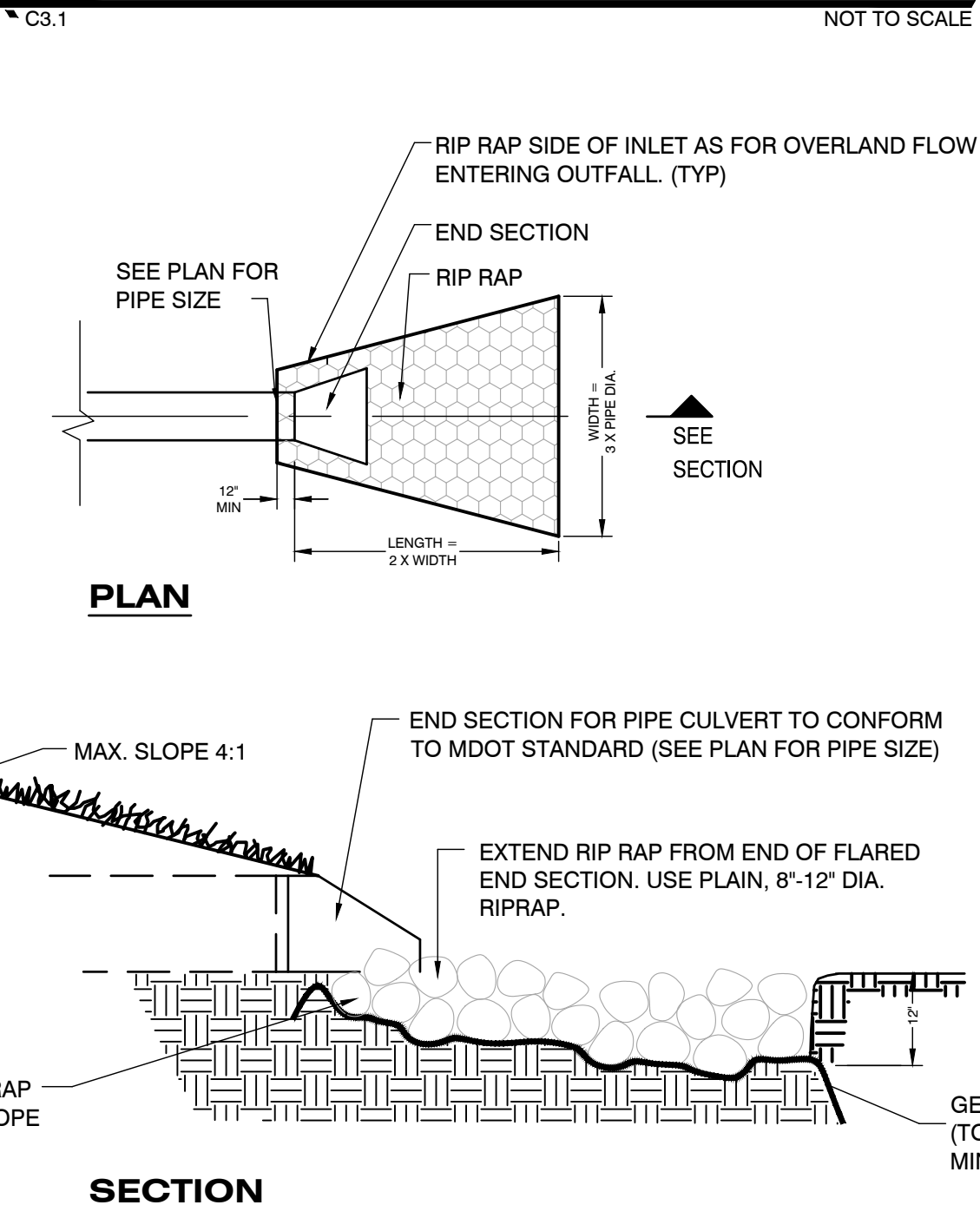
SCICLONE SCX-04
HYDRODYNAMIC SEPARATOR
STANDARD DETAIL



OS-19 SLOW RELEASE OVERFLOW DETAIL



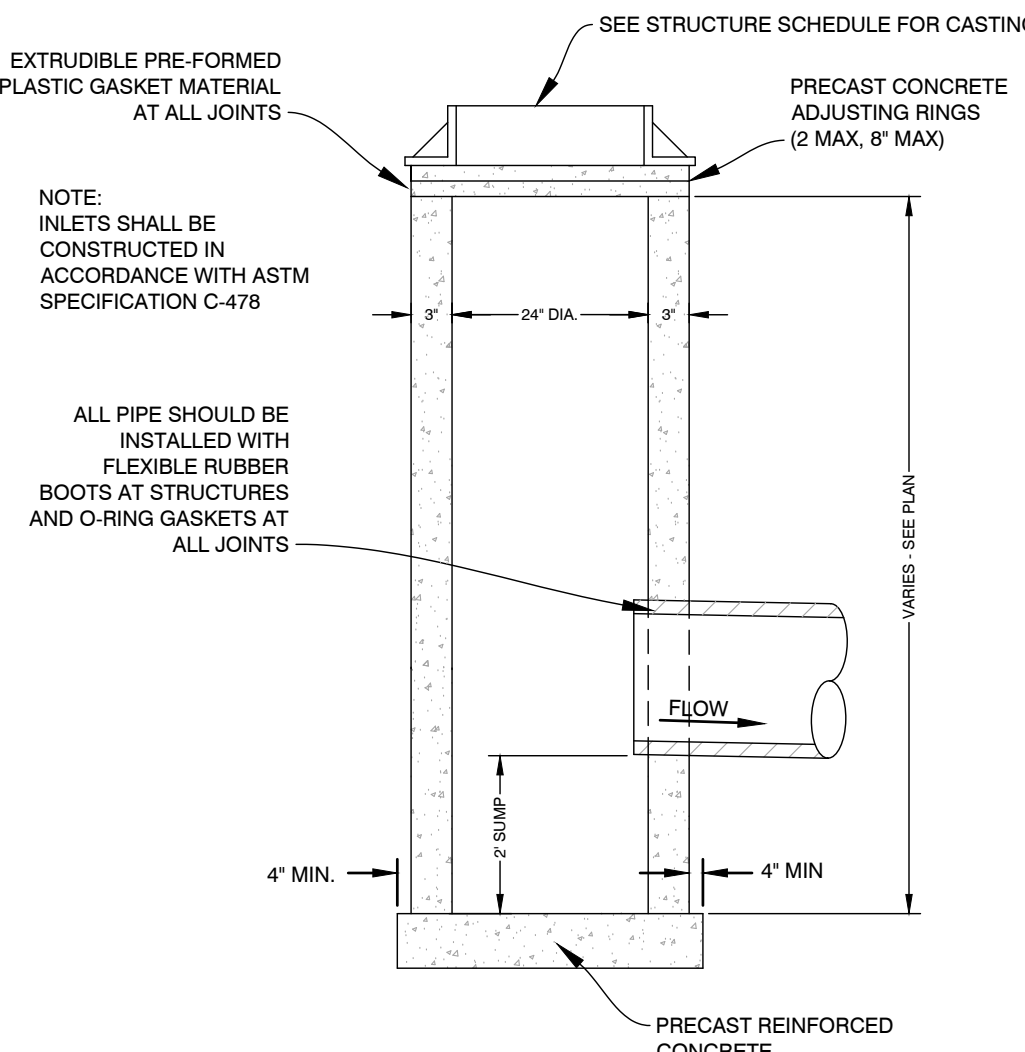
OS-16 SLOW RELEASE OVERFLOW DETAIL



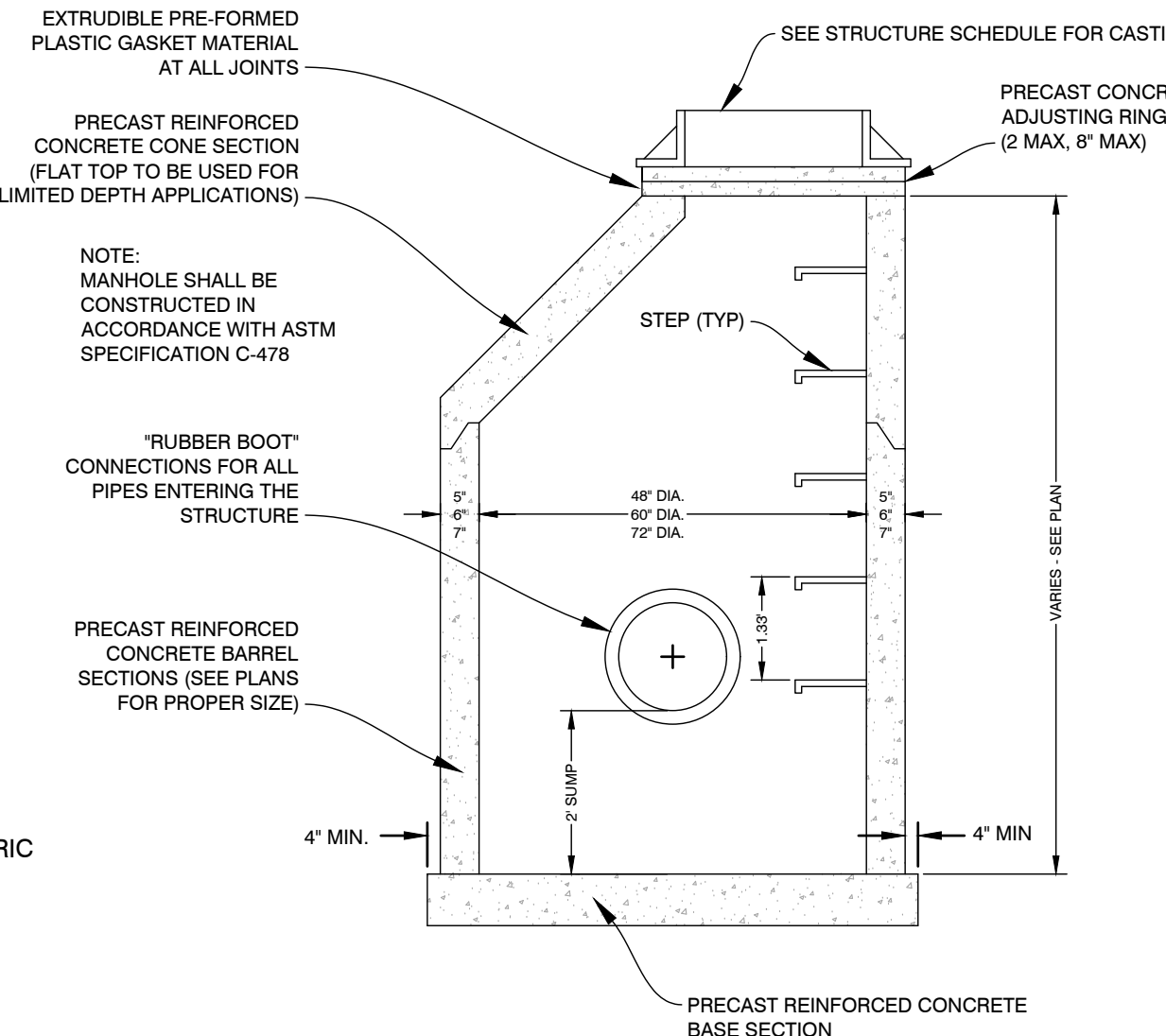
PIPE CULVERT WITH FLARED END SECTION DETAIL

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



STORM CATCH BASIN DETAIL

PLANS PREPARED BY:

AR ENGINEERING
CIVIL ENGINEERING & SURVEYING
MICHIGAN | INDIANA | ILLINOIS | OHIO
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DRAWN: eeg
CHECKED: SAO

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

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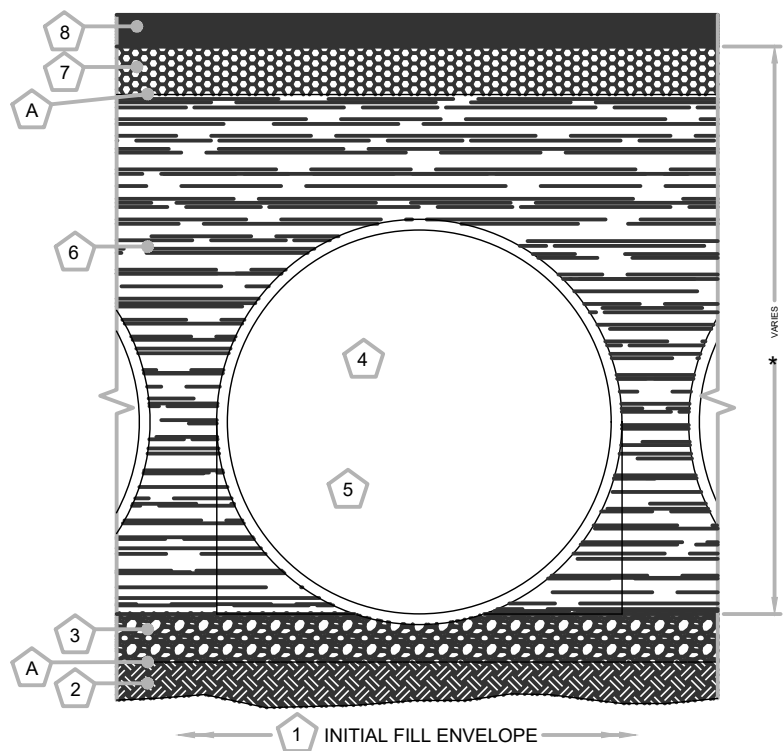
STRUCTURE DETAILS
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

SHEET TITLE:
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- 1 MINIMUM WIDTH DEPENDS ON SITE CONDITIONS AND ENGINEERING JUDGEMENT
- 2 FOUNDATION/BEDDING PREPARATION
- 3 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.
- 4 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 (2) INCH 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

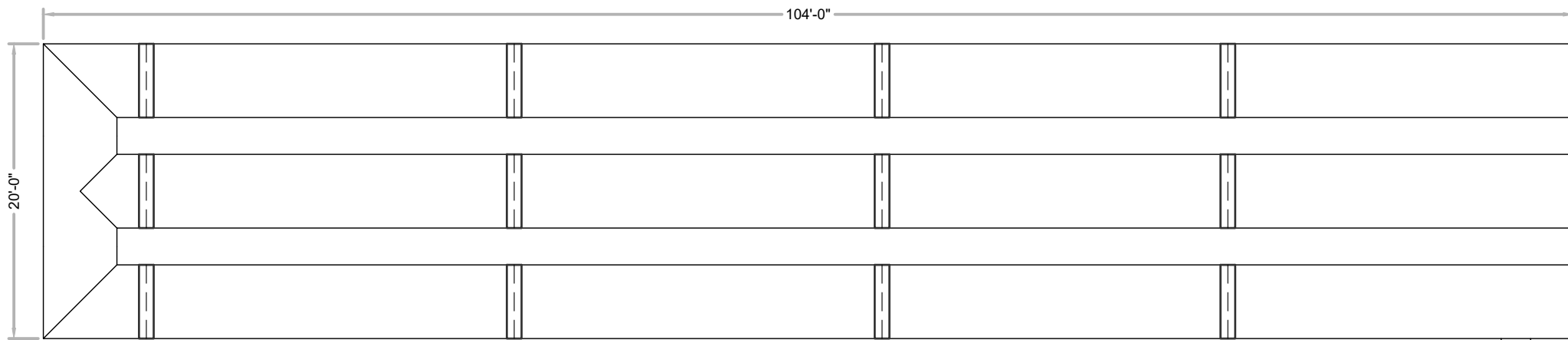
- DIAMETER = 60"
- CORRUGATION = 5x1
- GAGE = 16
- COATING = ALT2
- WALL TYPE = SOLID
- BARREL SPACING = 30"

BACKFILL DETAILS

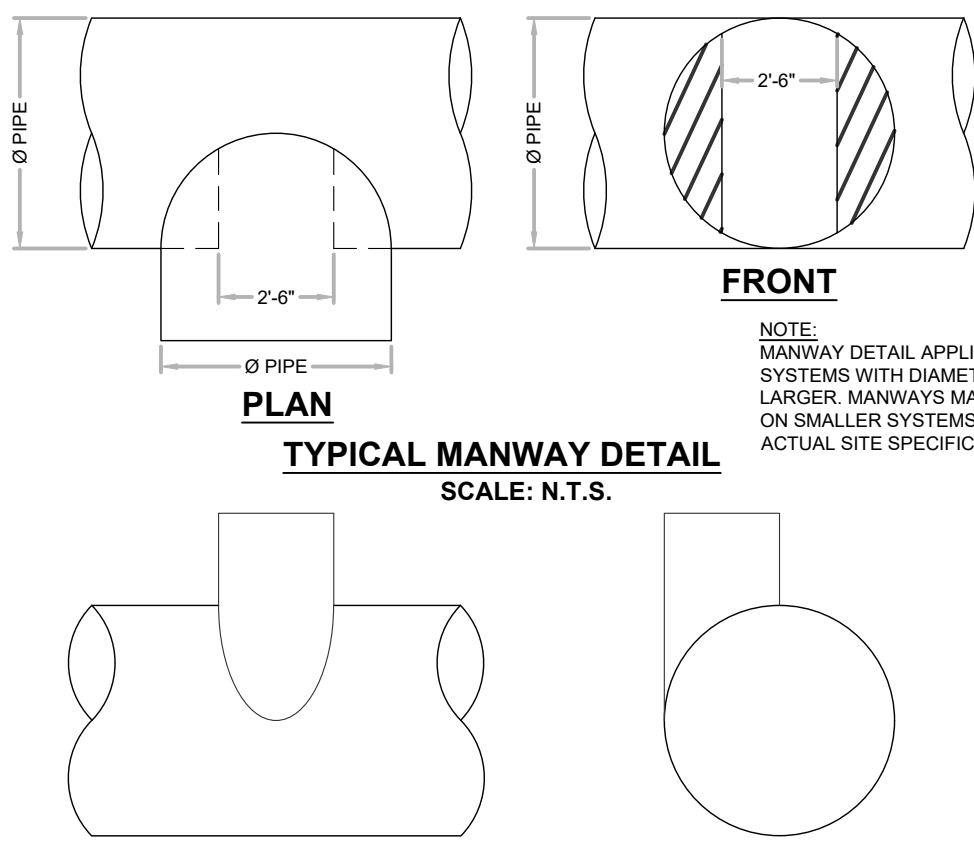
- WIDTH AT ENDS = 12"
- ABOVE PIPE = 0"
- WIDTH AT SIDES = 12"
- BELOW PIPE = 0"

NOTES

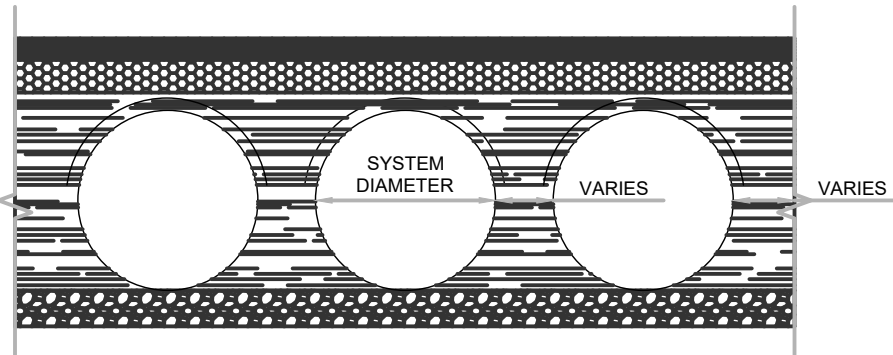
- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 24" x 24" CORRUGATION AND 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'



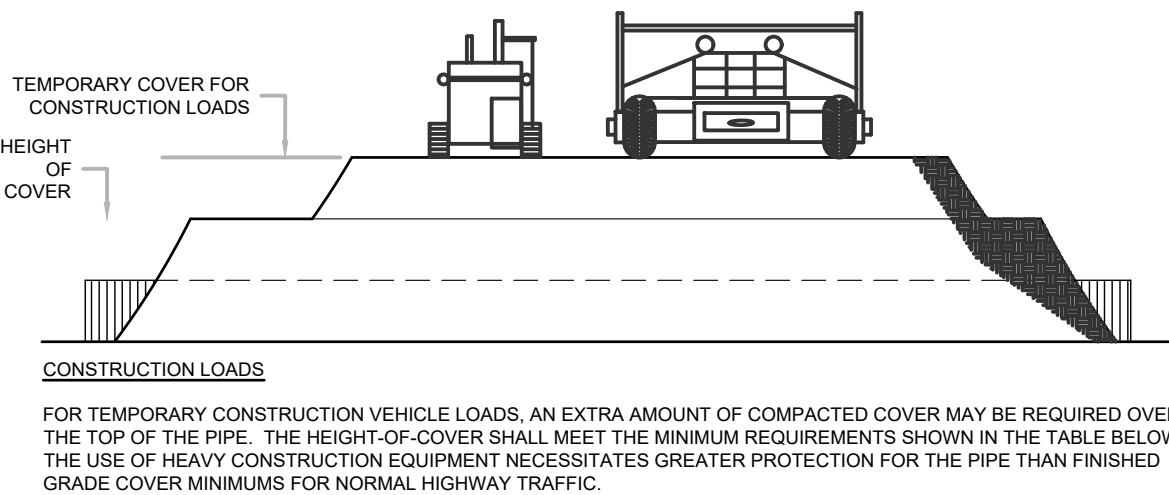
TYPICAL RISER DETAIL
SCALE: N.T.S.



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.

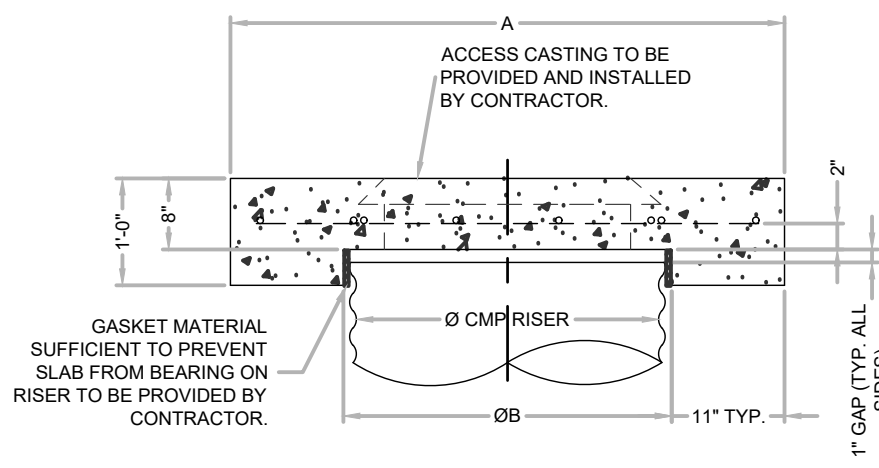
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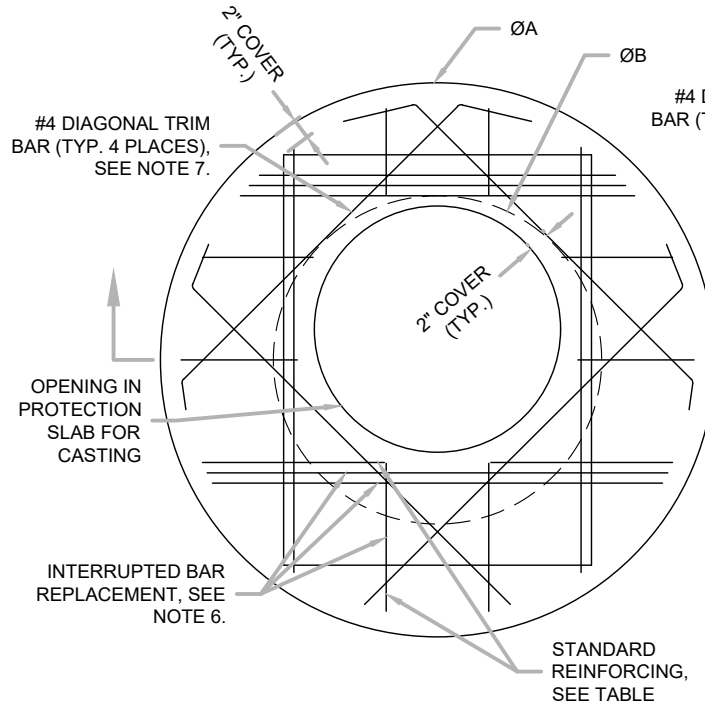
PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*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.



SECTION VIEW



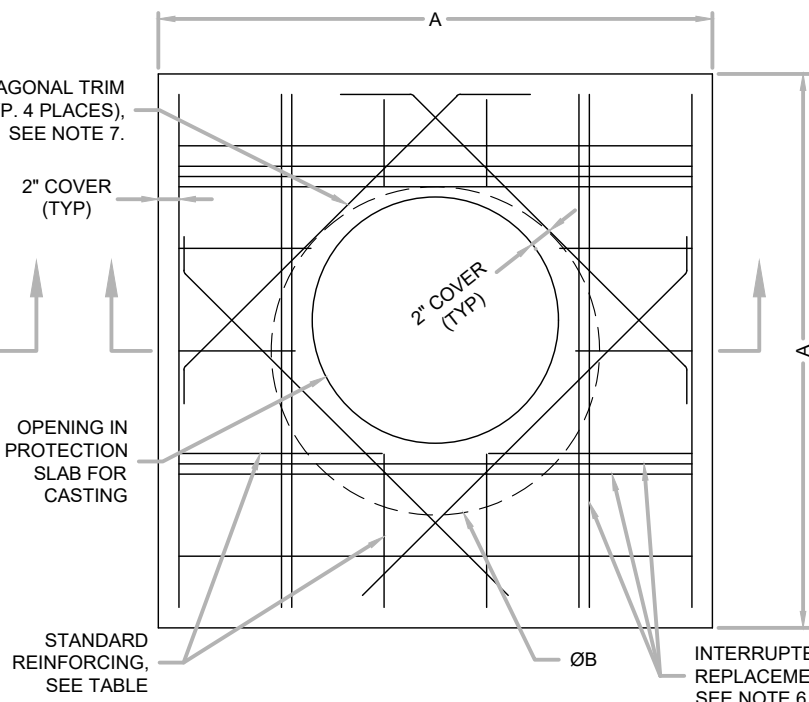
ROUND OPTION PLAN VIEW

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.

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' 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' 6' X 6'	50"	#5 @ 9" OCEW #5 @ 8" OCEW	1,600 1,100

** ASSUMED SOIL BEARING CAPACITY



SQUARE OPTION PLAN VIEW

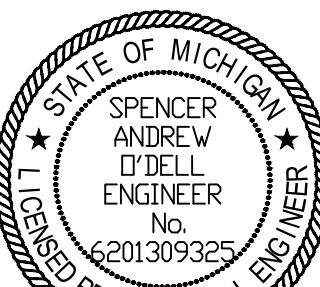
7. TRIM OPENING WITH DIAGONAL #4 BARS. EXTEND BARS A MINIMUM OF 12" BEYOND OPENING. BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON, NY.

MANHOLE CAP DETAIL
SCALE: N.T.S.

PLANS PREPARED BY:



DRAWN: eeg
CHECKED: SAO



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

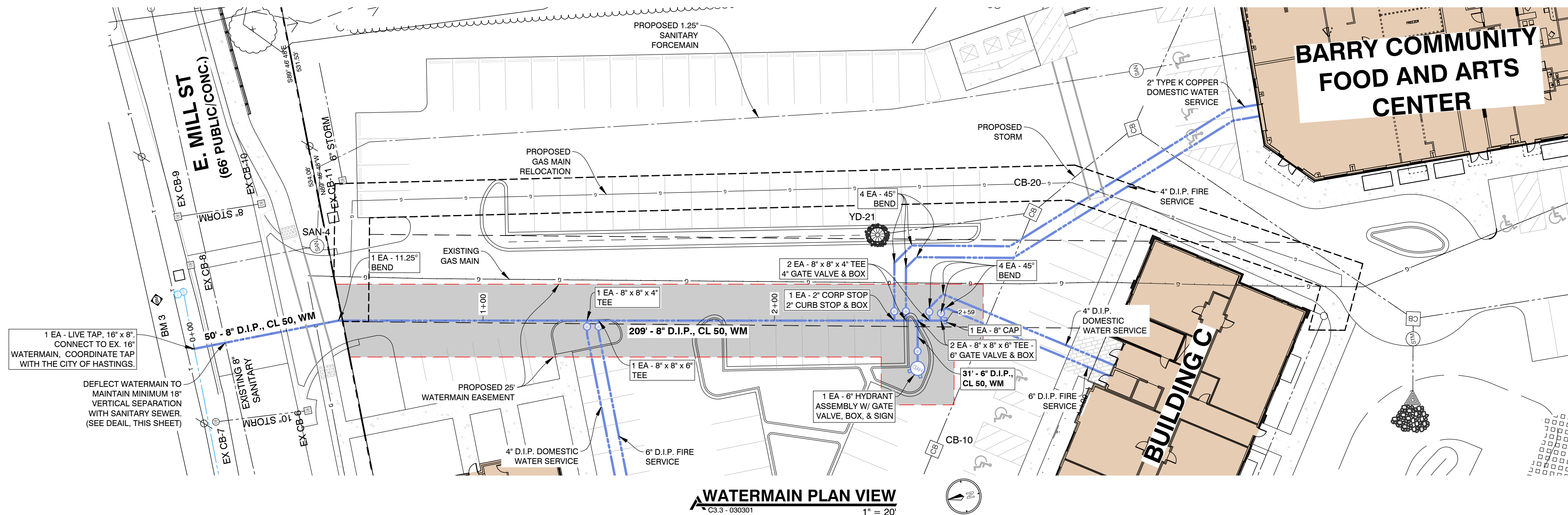
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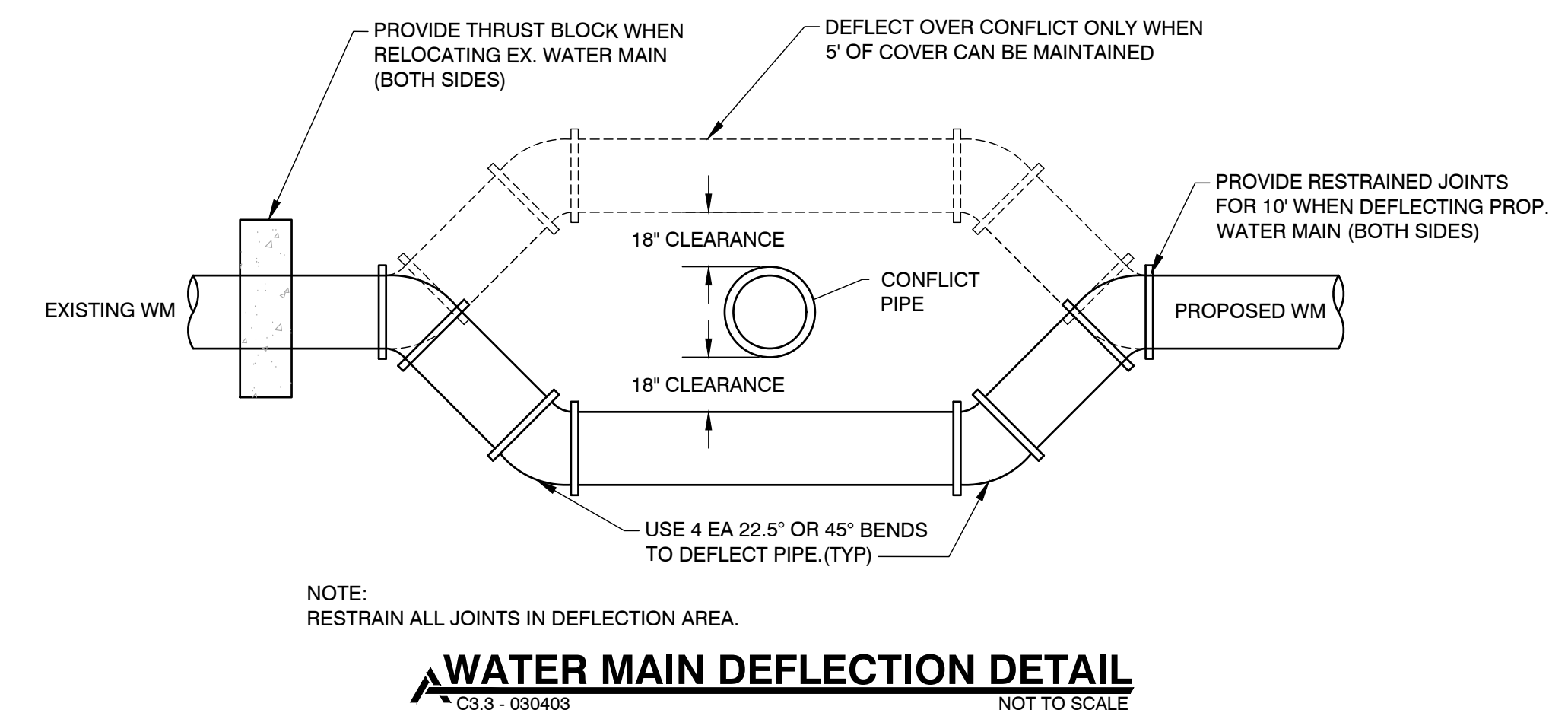
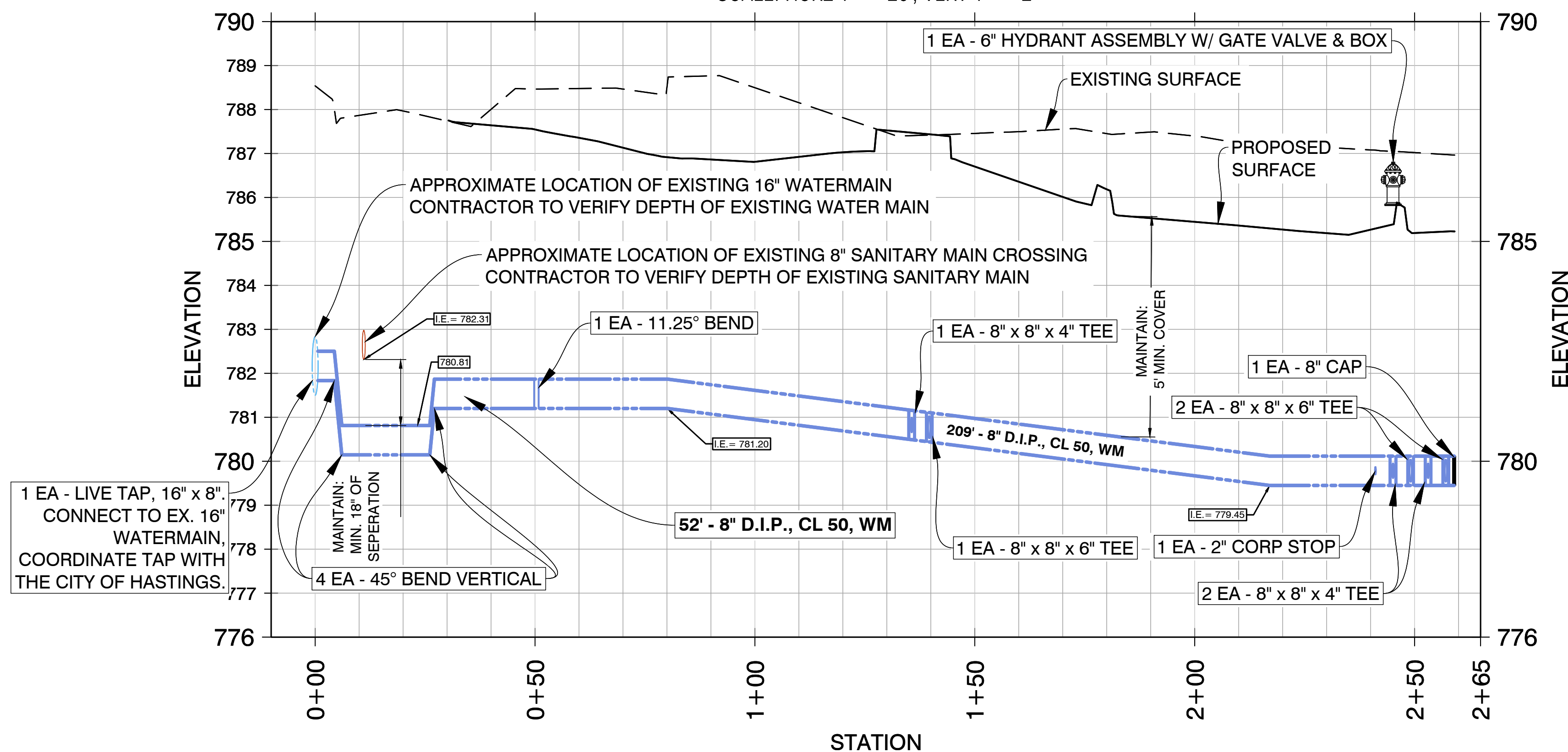
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Watermain Profile View

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

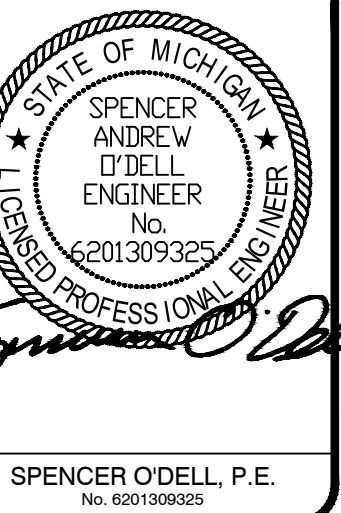


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PLANS PREPARED BY:



DRAWN: eeg
CHECKED: SAO



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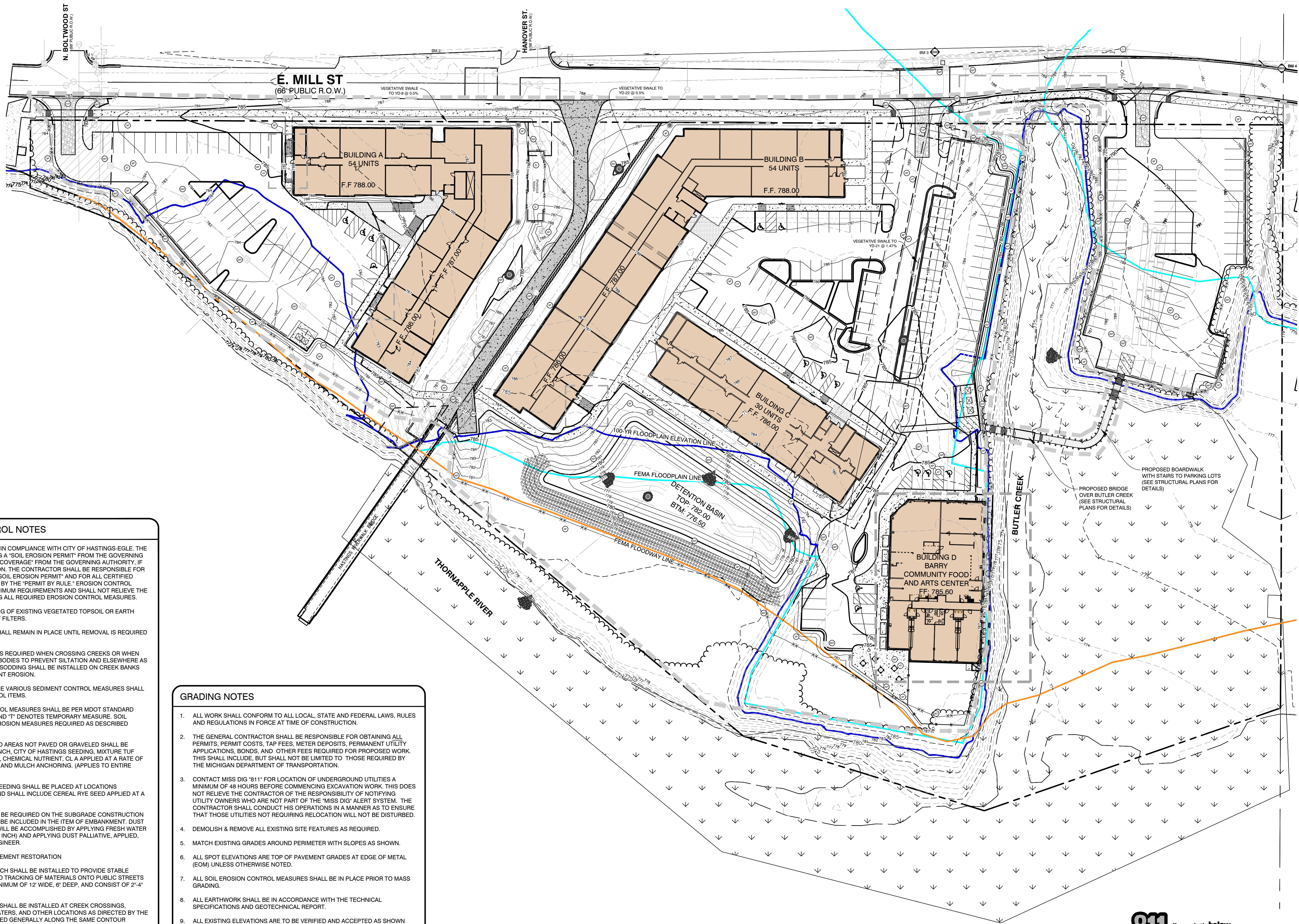
WATERMAIN PLAN & PROFILE
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

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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.

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.

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, CAC₂ (TON) AS DIRECTED BY THE PROJECT ENGINEER.

DENOTES AGGREGATE COVER/PERMANENT PAVEMENT RESTORATION

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.

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.

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.

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

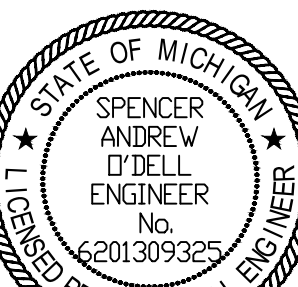


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PLANS PREPARED BY:



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

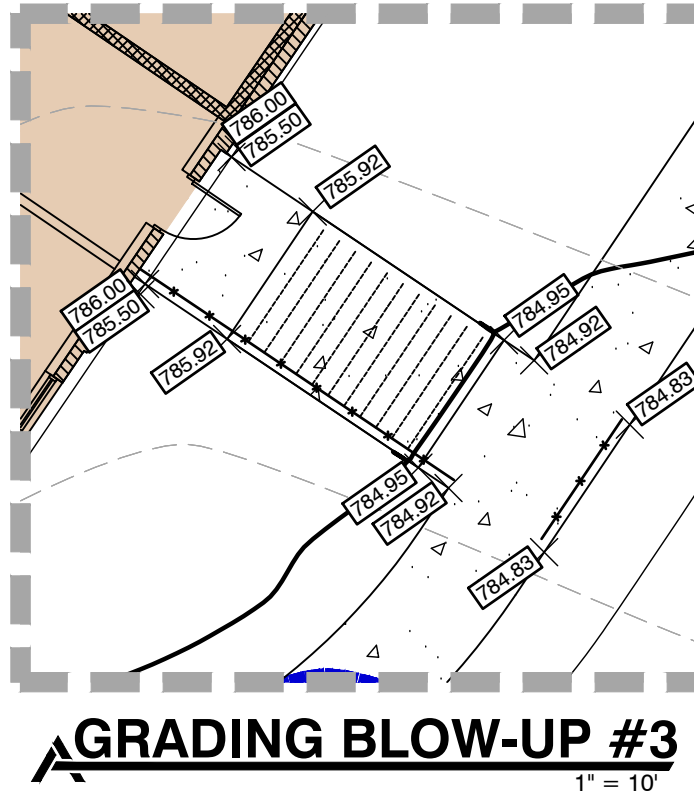
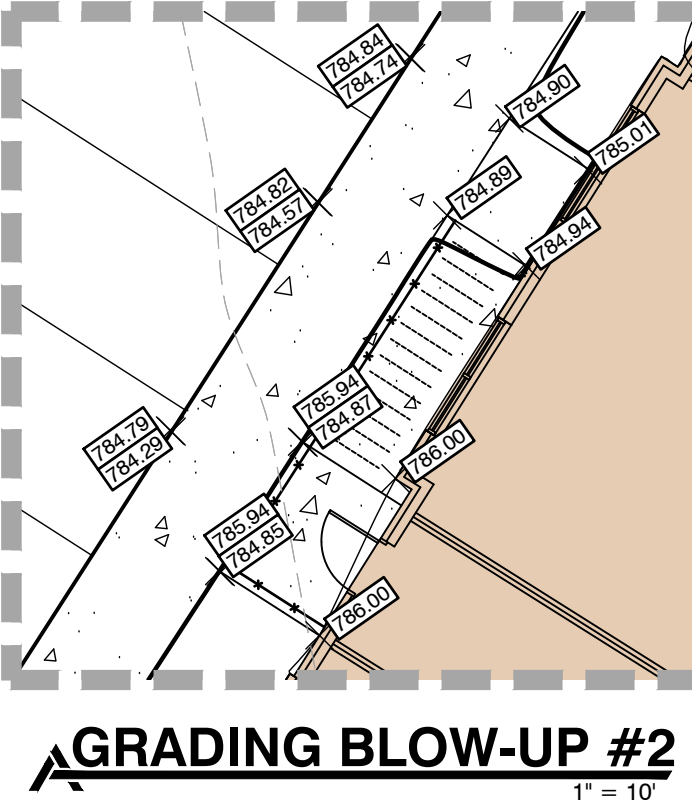
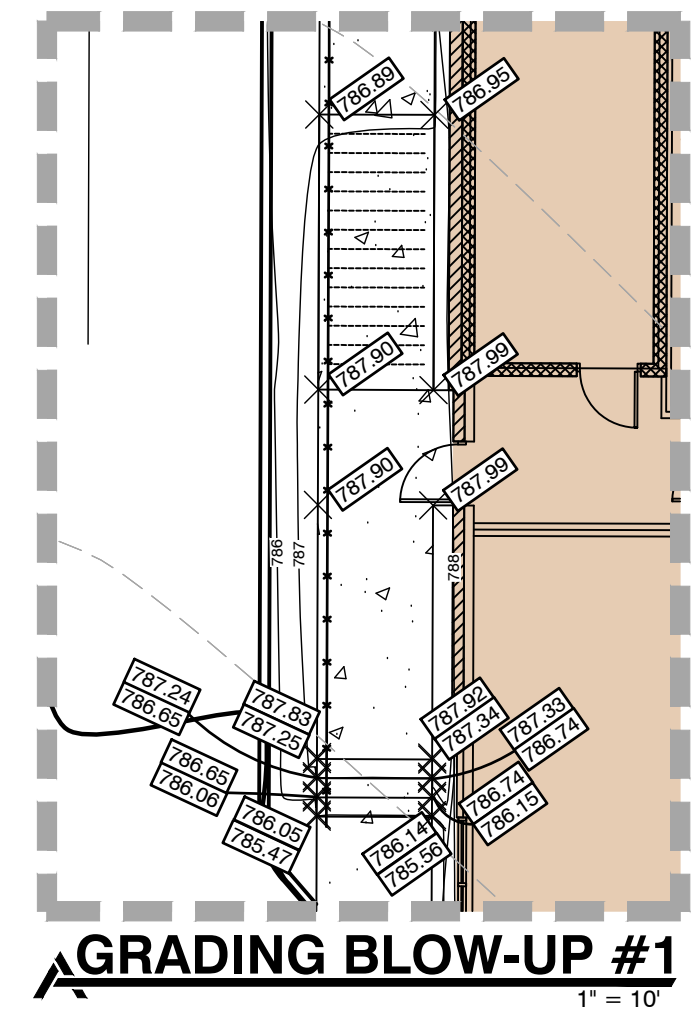
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SOIL EROSION & SEDIMENT CONTROL NOTES

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.

(#) 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)

(3P) 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.

(3T) 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.

(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 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.

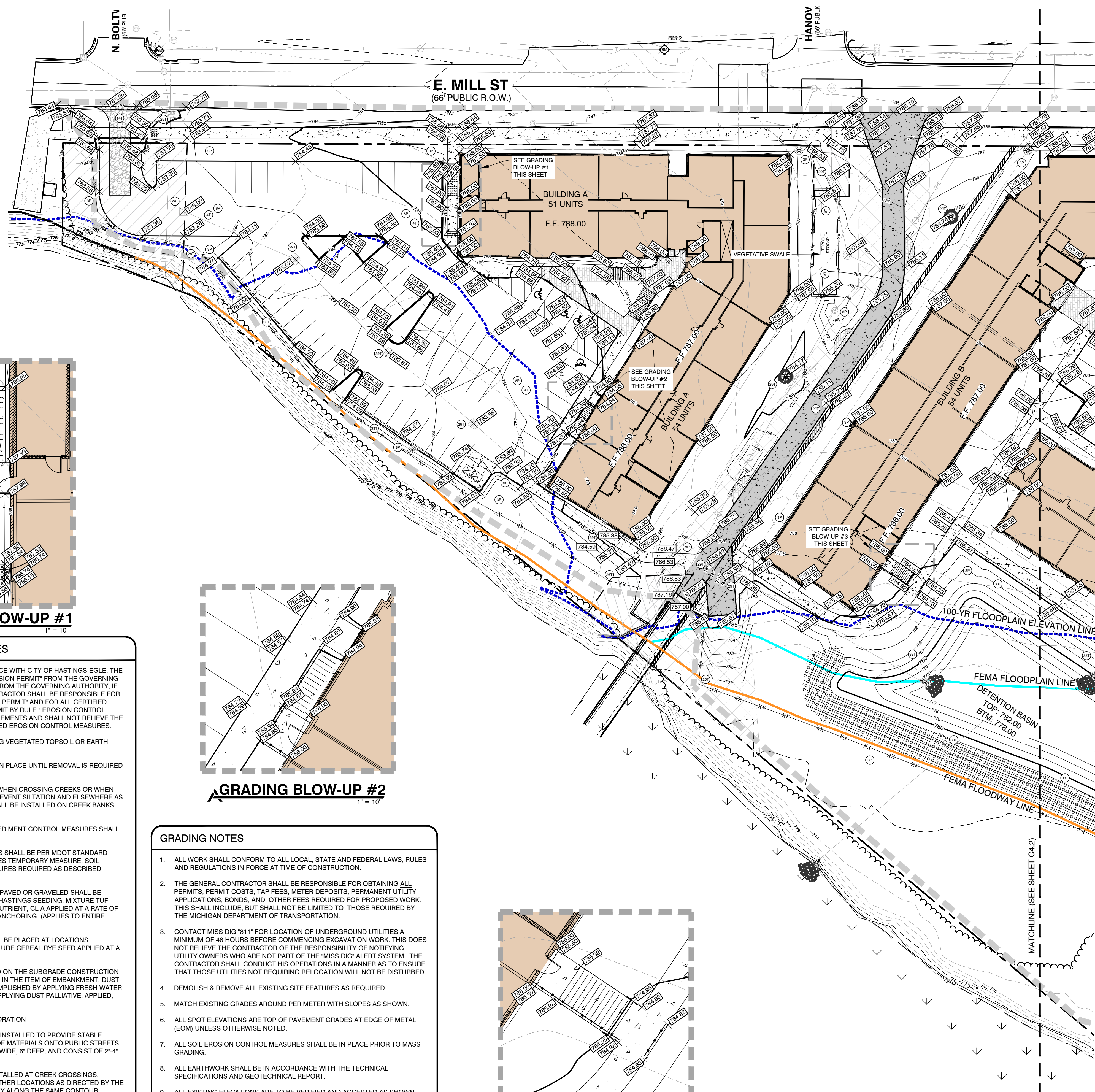
LEGEND

--- LIMITS OF CONSTRUCTION

--- SILT FENCE

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

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:

AR ENGINEERING
CIVIL ENGINEERING & SURVEYING

MICHIGAN | INDIANA | ILLINOIS | OHIO
289.250.5991 PHONE | 866.560.0604 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.	ISSUED FOR:	DATE	BY
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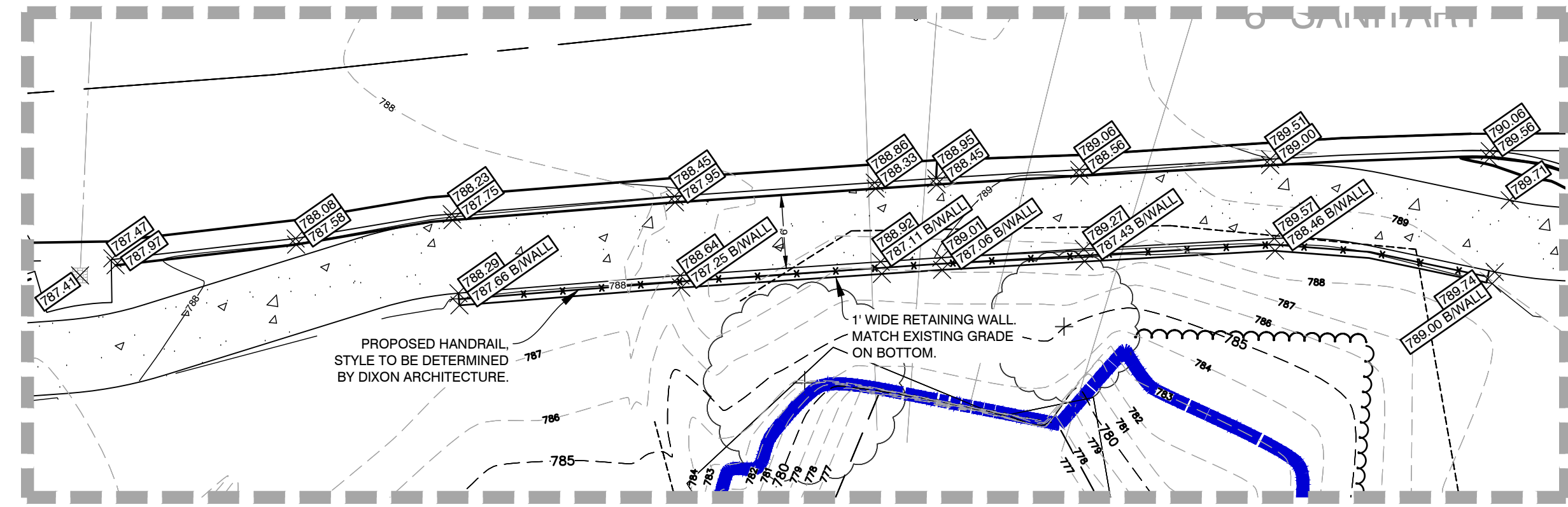
GRADING & SESC PLAN - WEST
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

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

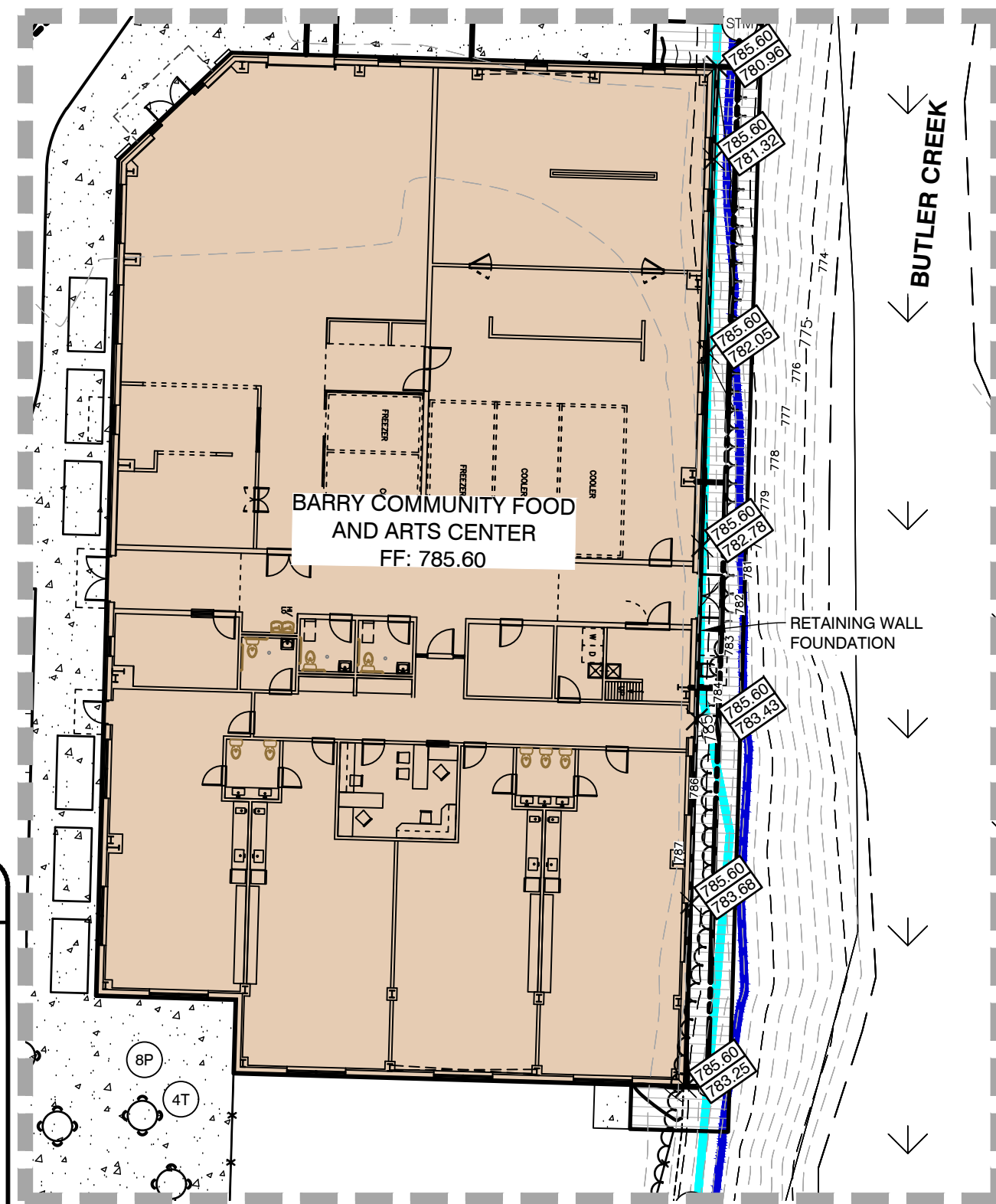
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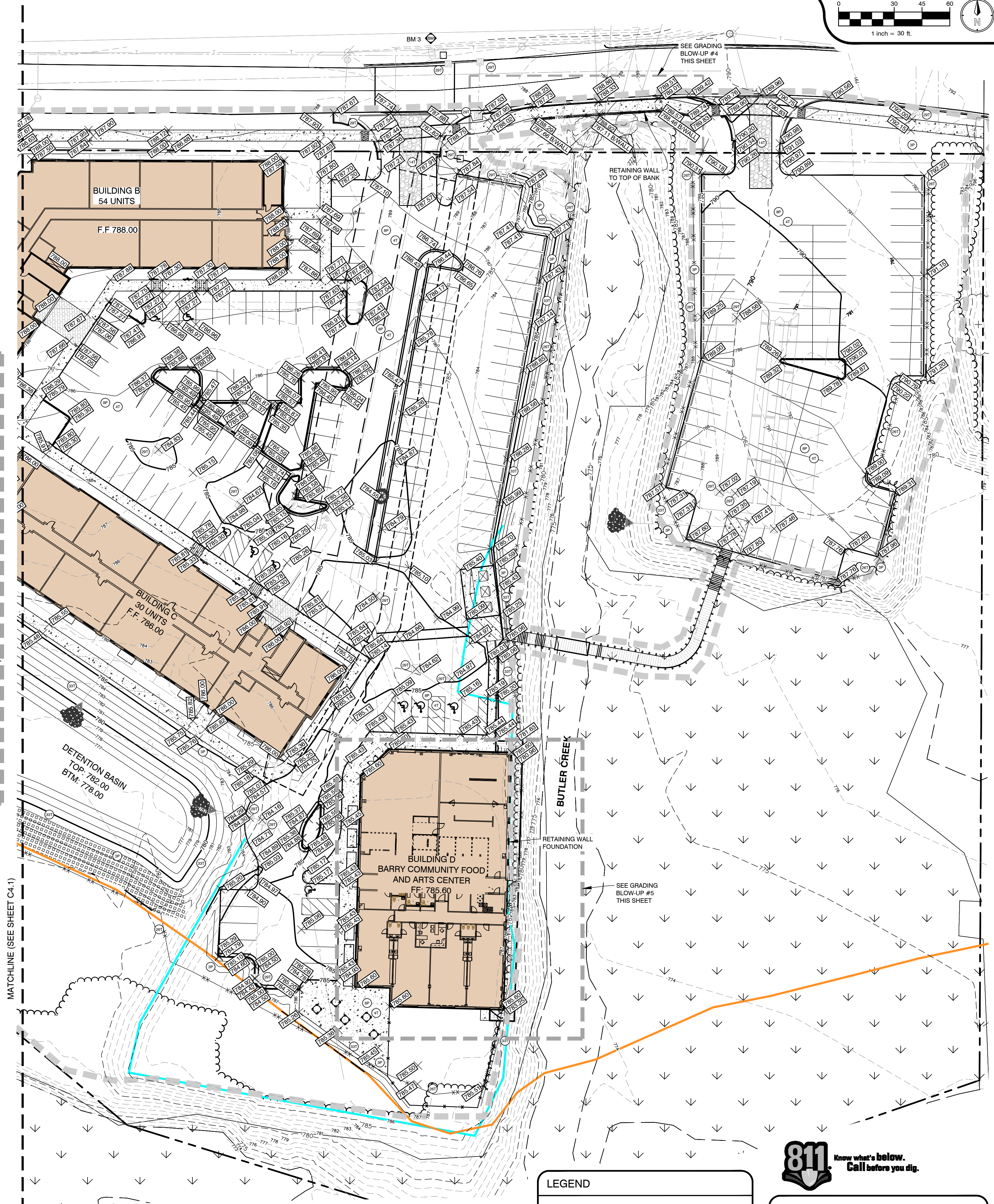
SHEET NUMBER
C4.1



GRADING BLOW-UP #4
1" = 10'



GRADING BLOW-UP #5
1" = 20'



SOIL EROSION & SEDIMENT CONTROL NOTES

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LEGEND

- LIMITS OF CONSTRUCTION
- SILT FENCE

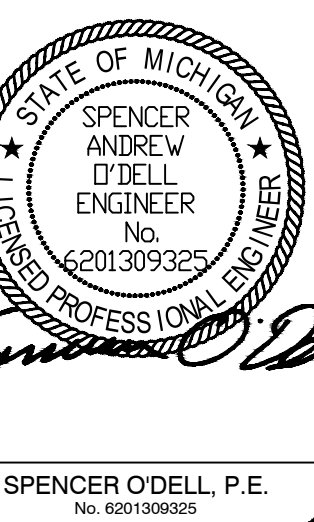


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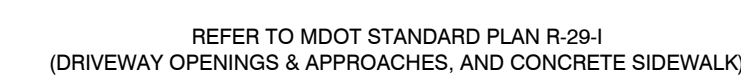
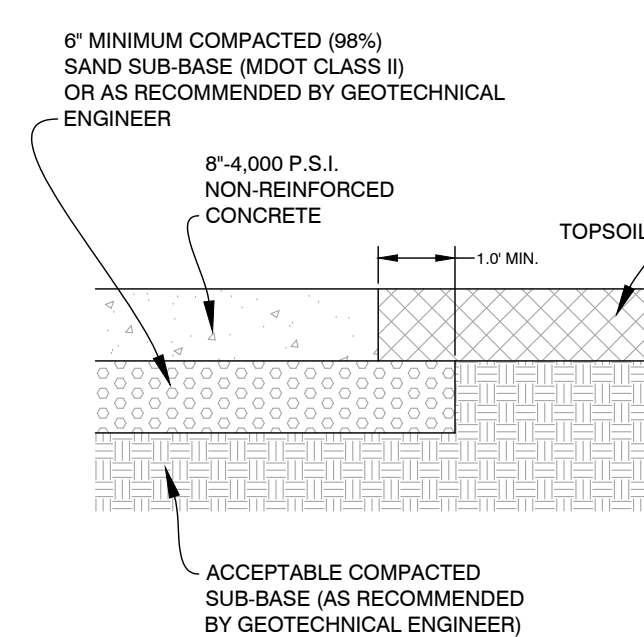
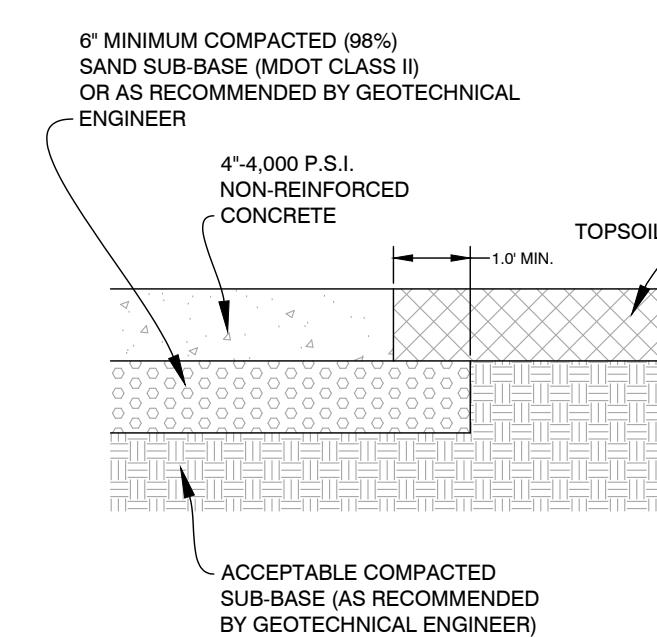
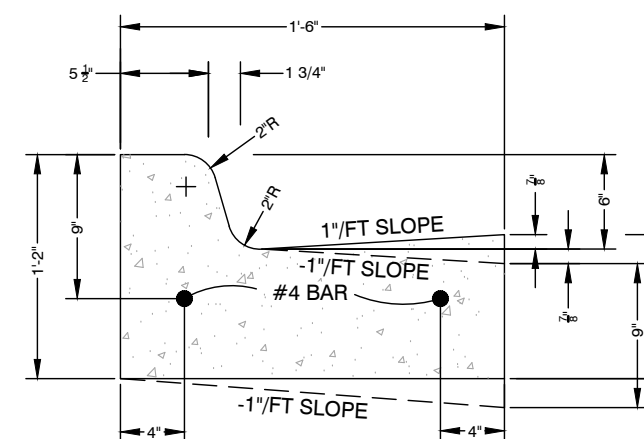
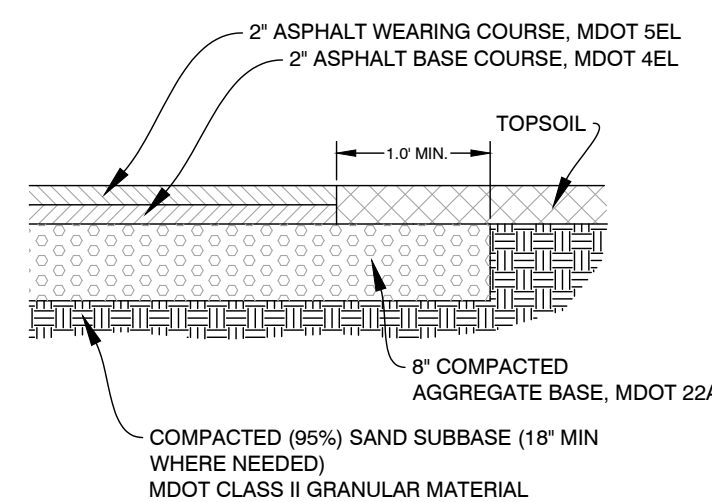
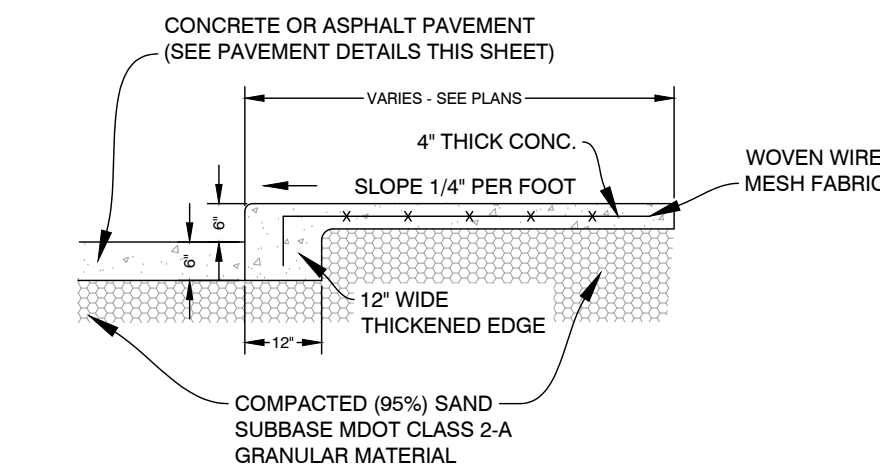
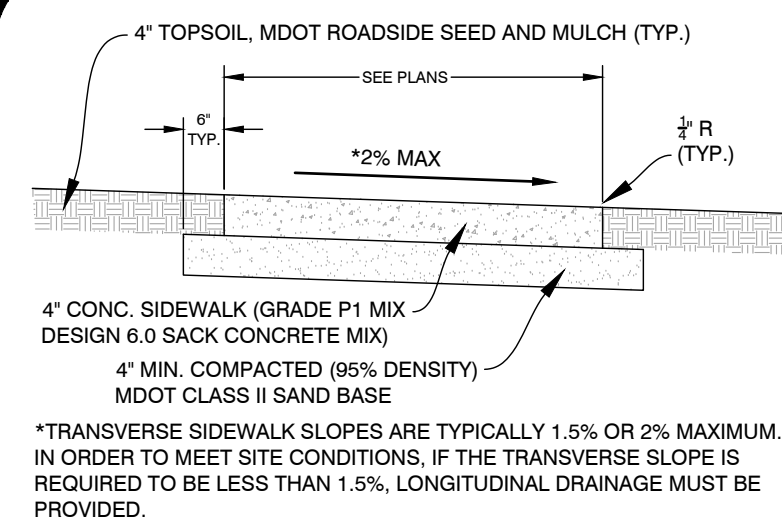


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GRADING & SESC PLAN - EAST
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

JOB NUMBER
23144001
DATE
09/09/2025

SHEET NUMBER
C4.2



SIDEWALK SECTION
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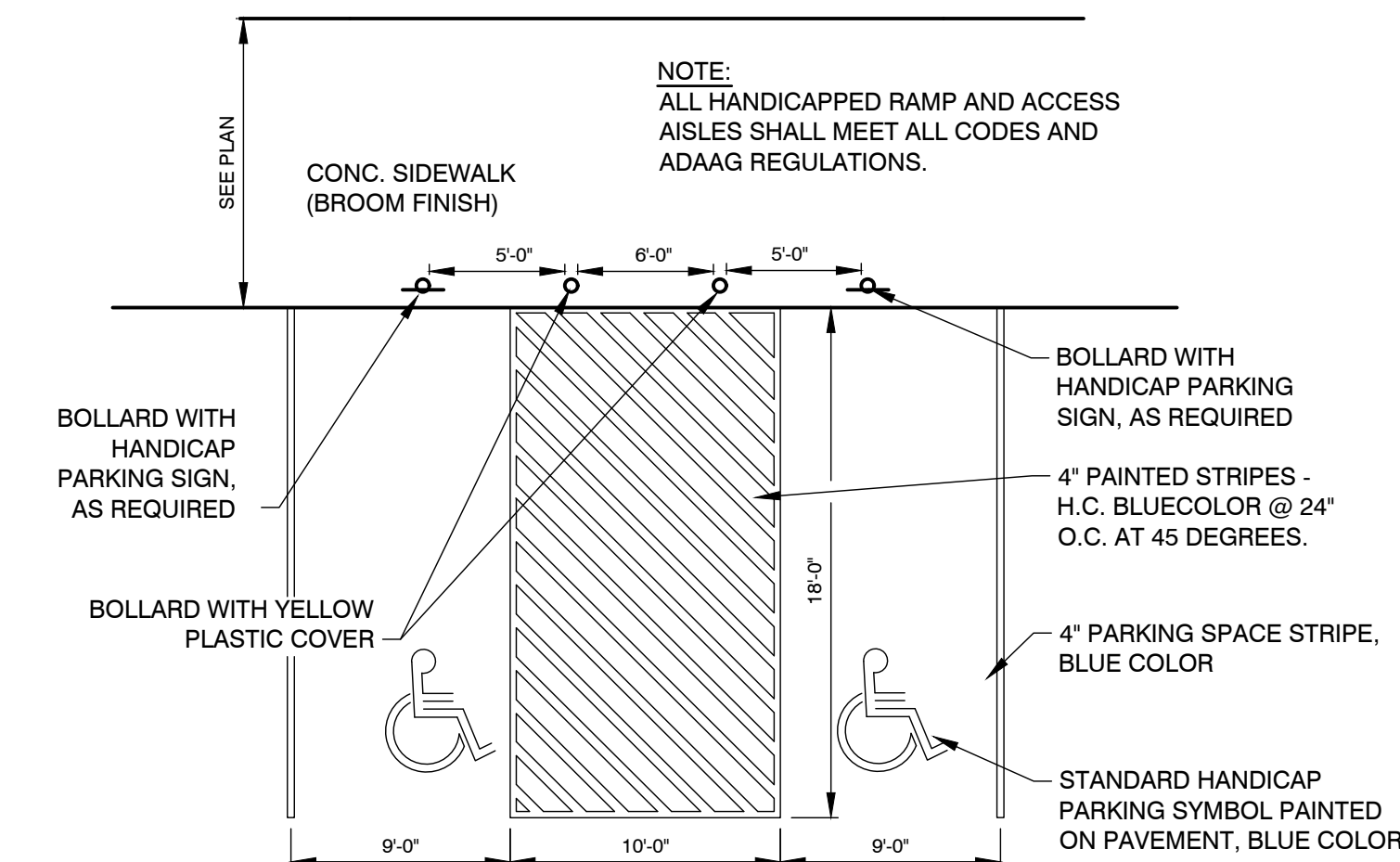
RAISED WALK SECTION
C5.0 - 030303 NOT TO SCALE

ASPHALT SECTION
C5.0 - 030401 NOT TO SCALE

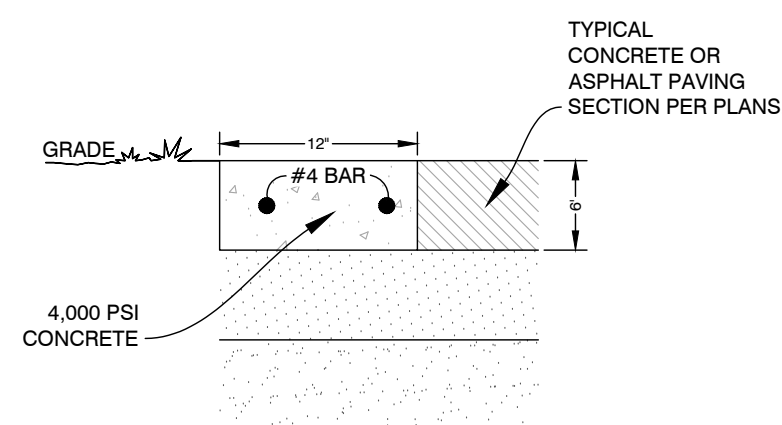
MDOT F2 CONC.
CURB & GUTTER
C5.0 - 030109 NOT TO SCALE

CONC. PAVEMENT SECTION
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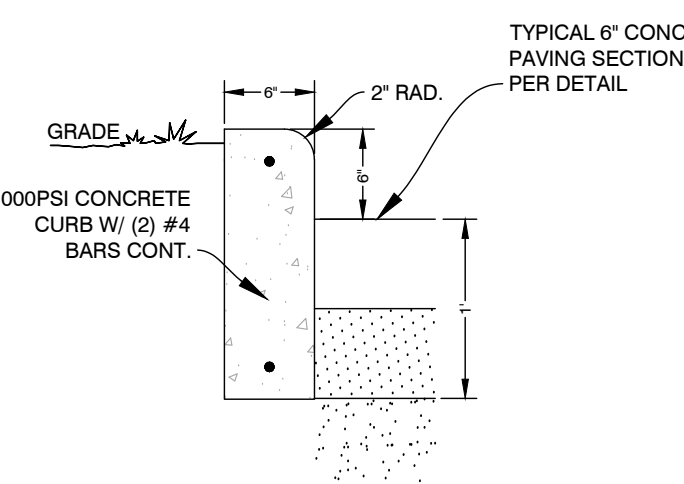
**HEAVY DUTY CONC.
PAVEMENT SECTION**



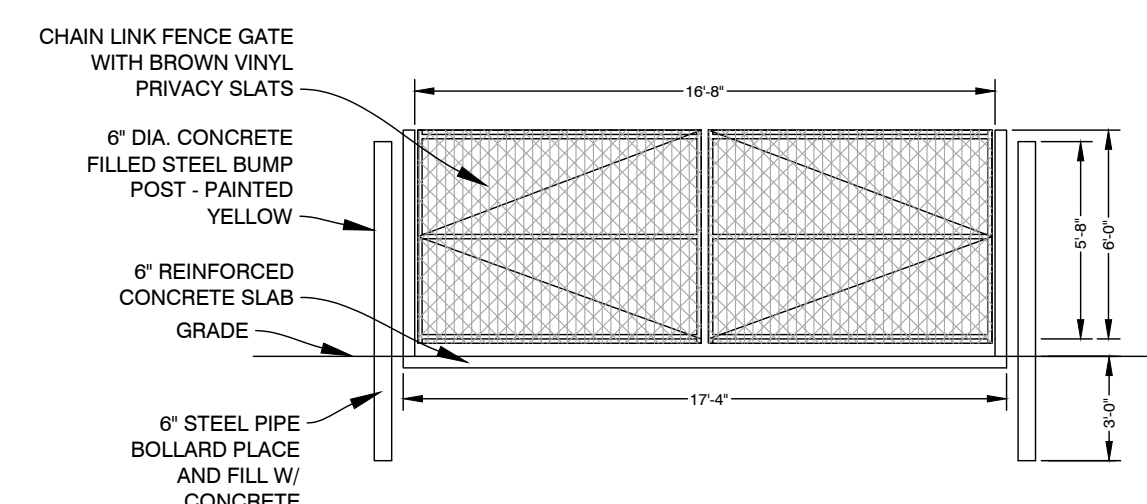
HANDICAP PARKING DETAIL



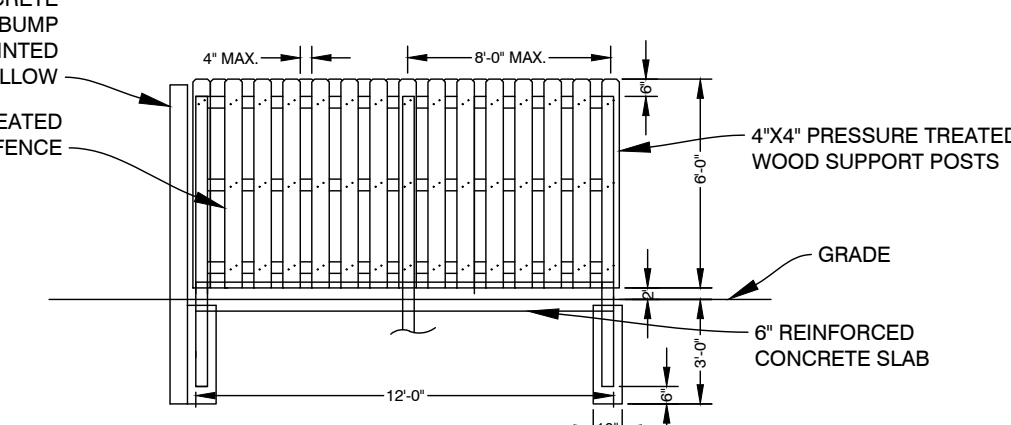
FLAT CURB DETAIL
C5.0 - 030106 NOT TO SCALE



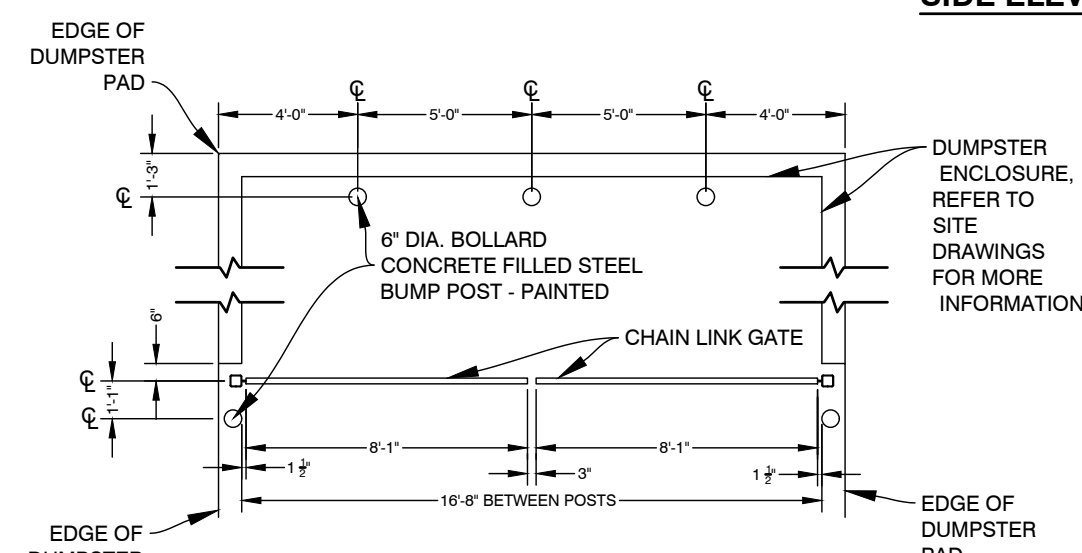
BARRIER CURB REINF. DETAIL
C5.0 - 030105 NOT TO SCALE



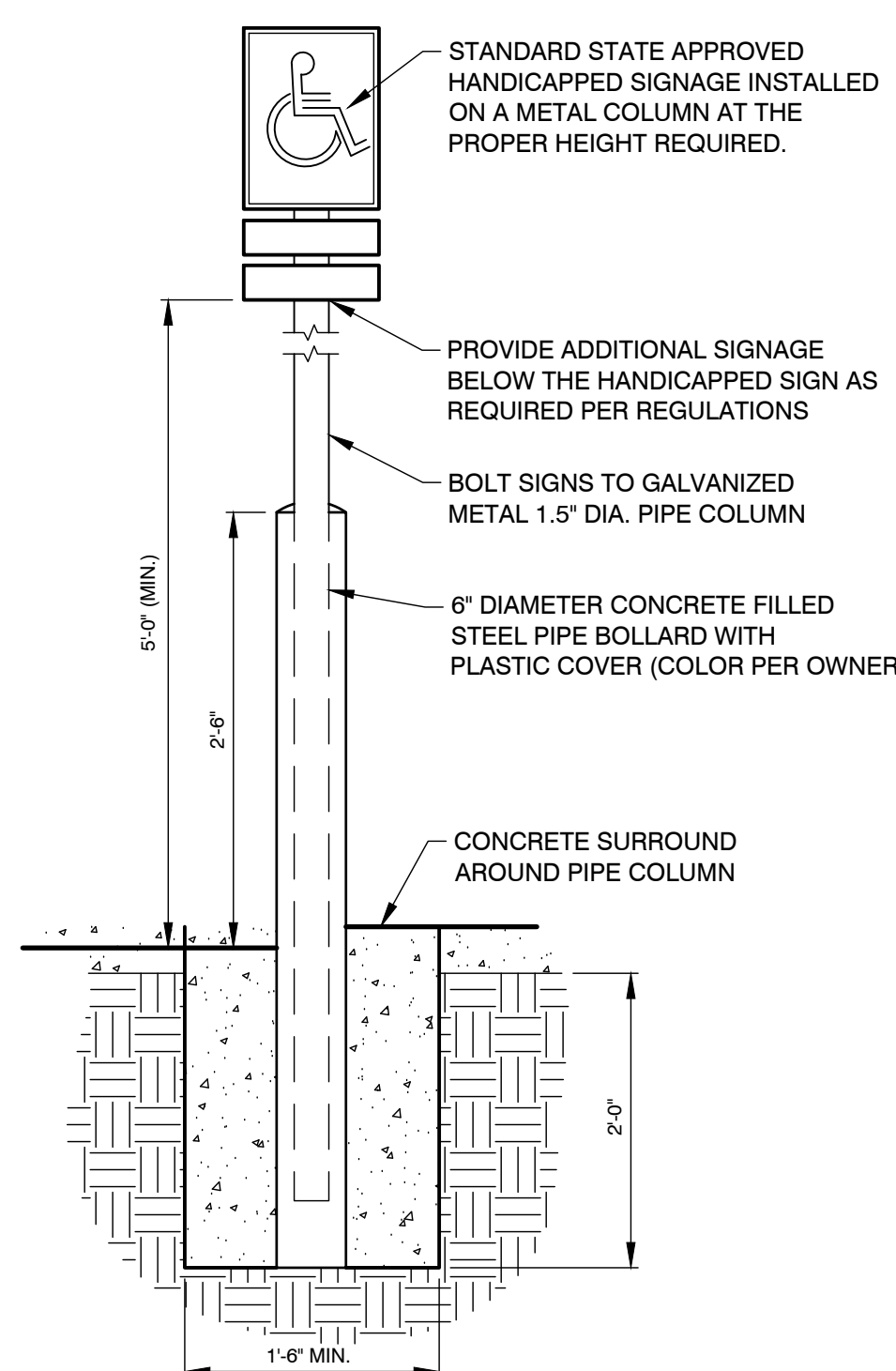
FRONT ELEVATION



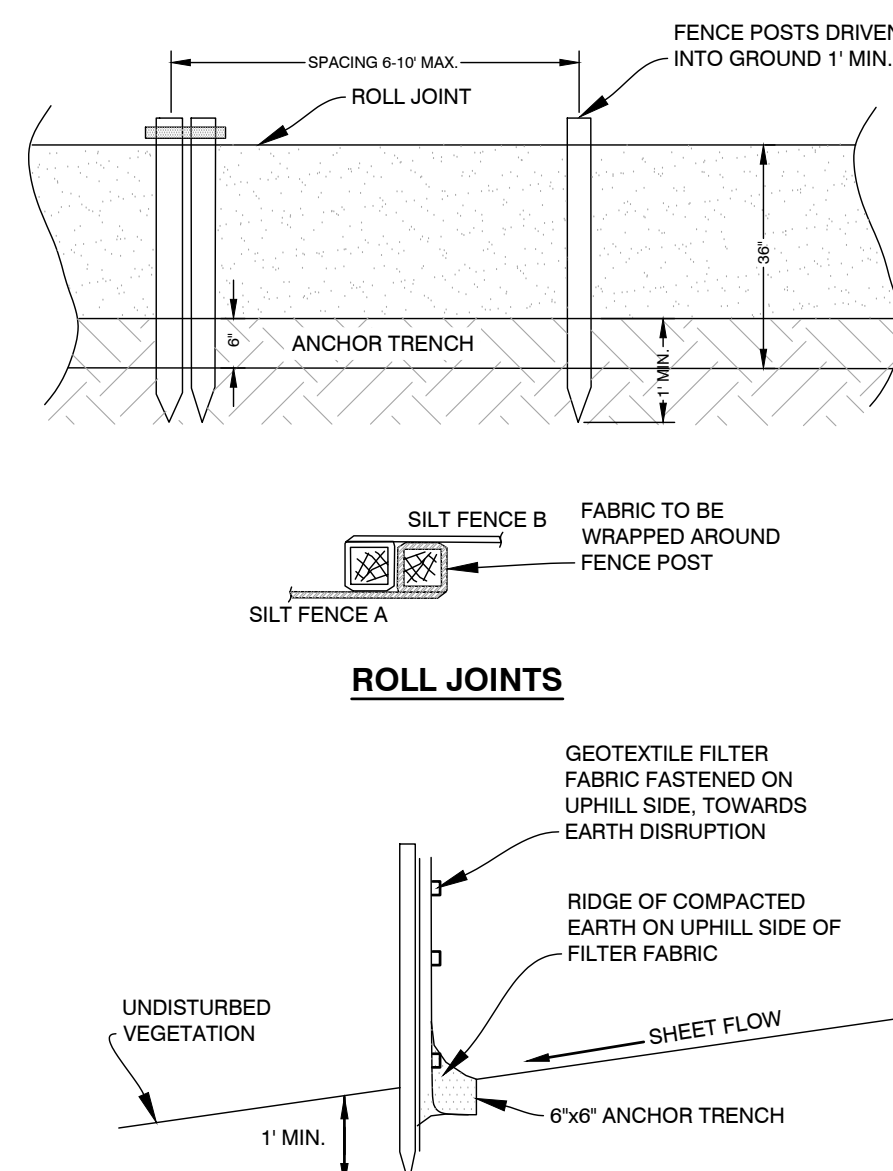
SIDE ELEVATION



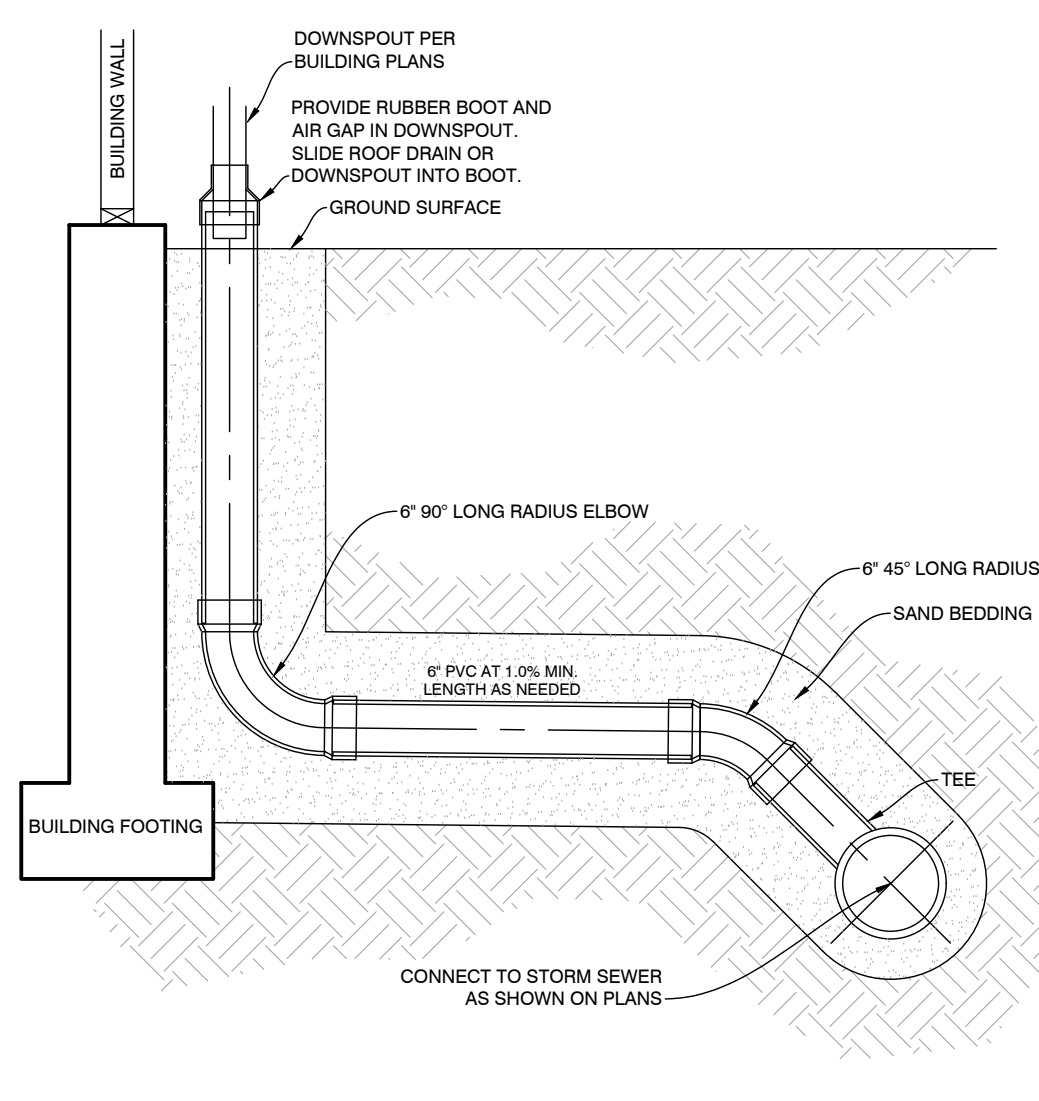
DUMPSTER ENCLOSURE DETAIL



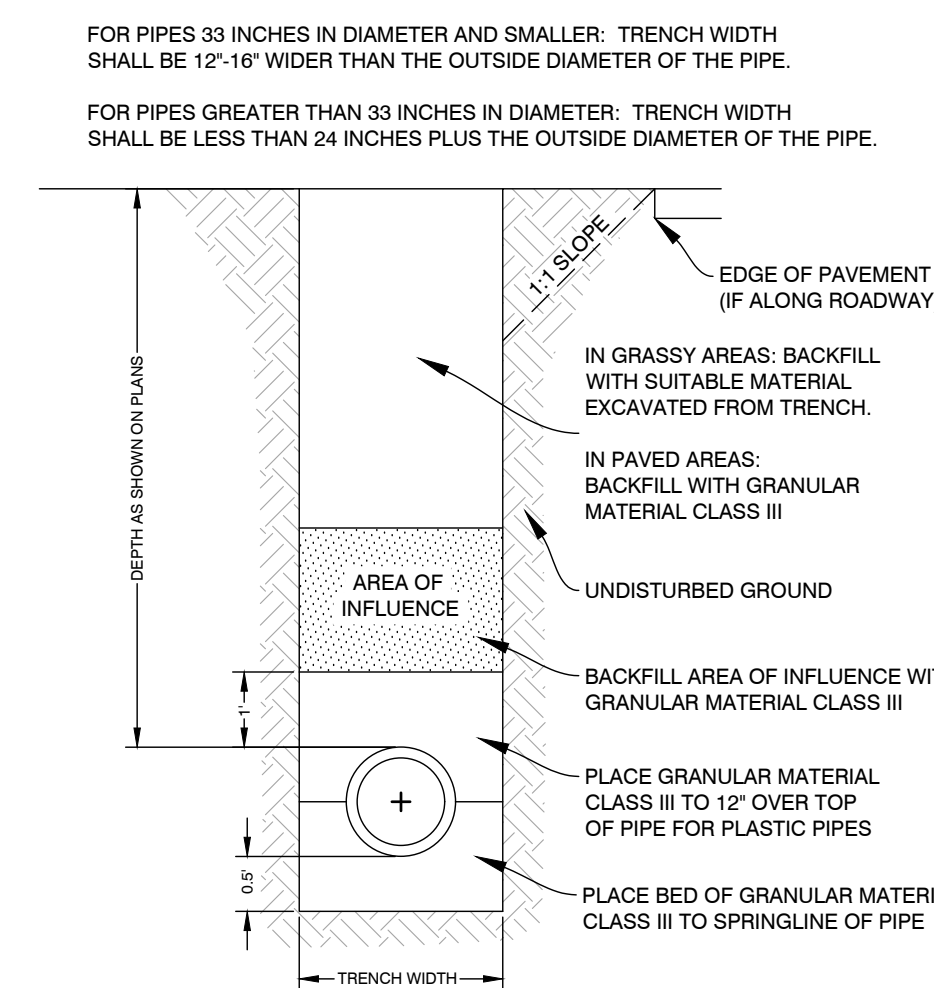
HANDICAP PARKING SIGN DETAIL



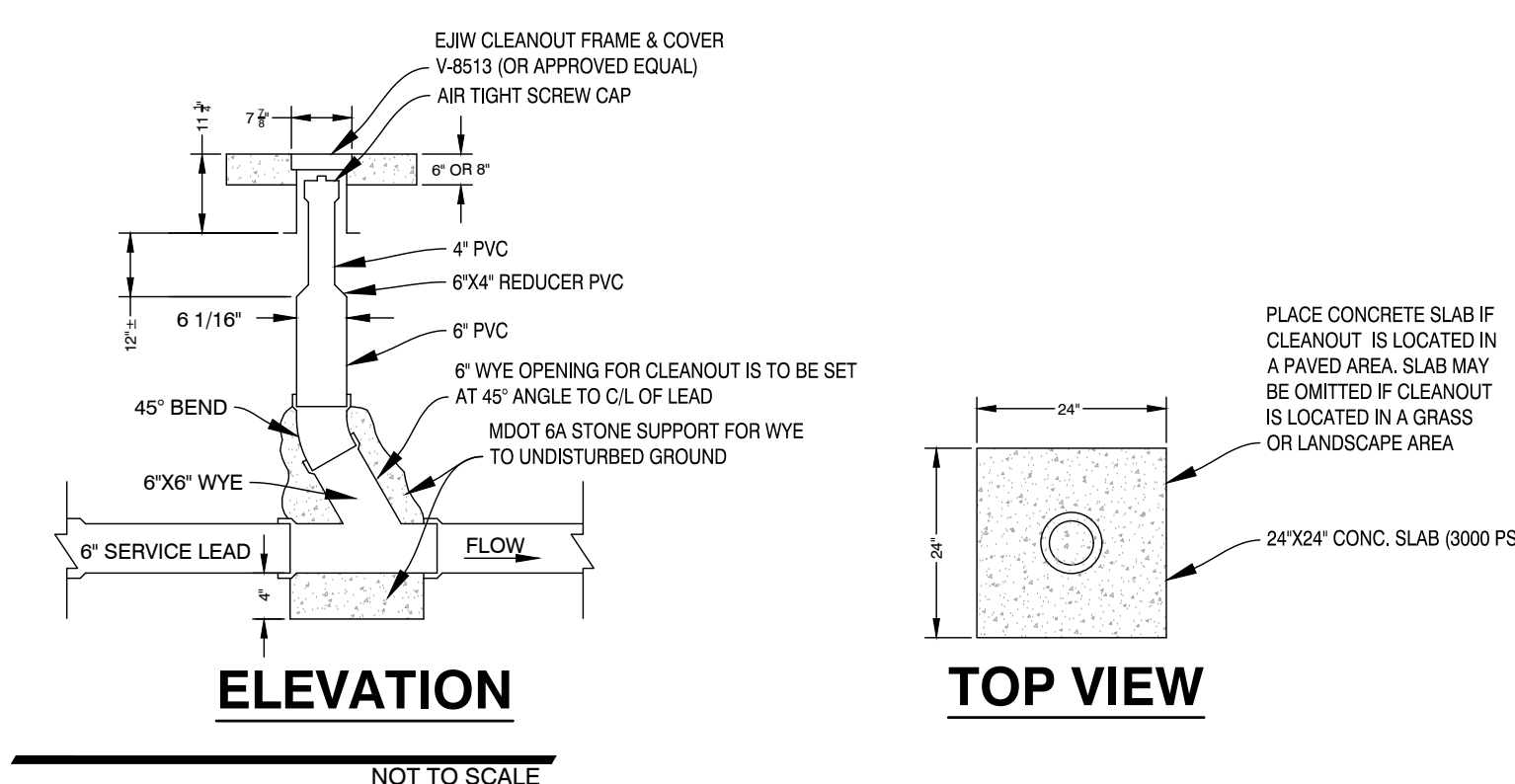
36" SILT FENCE DETAIL



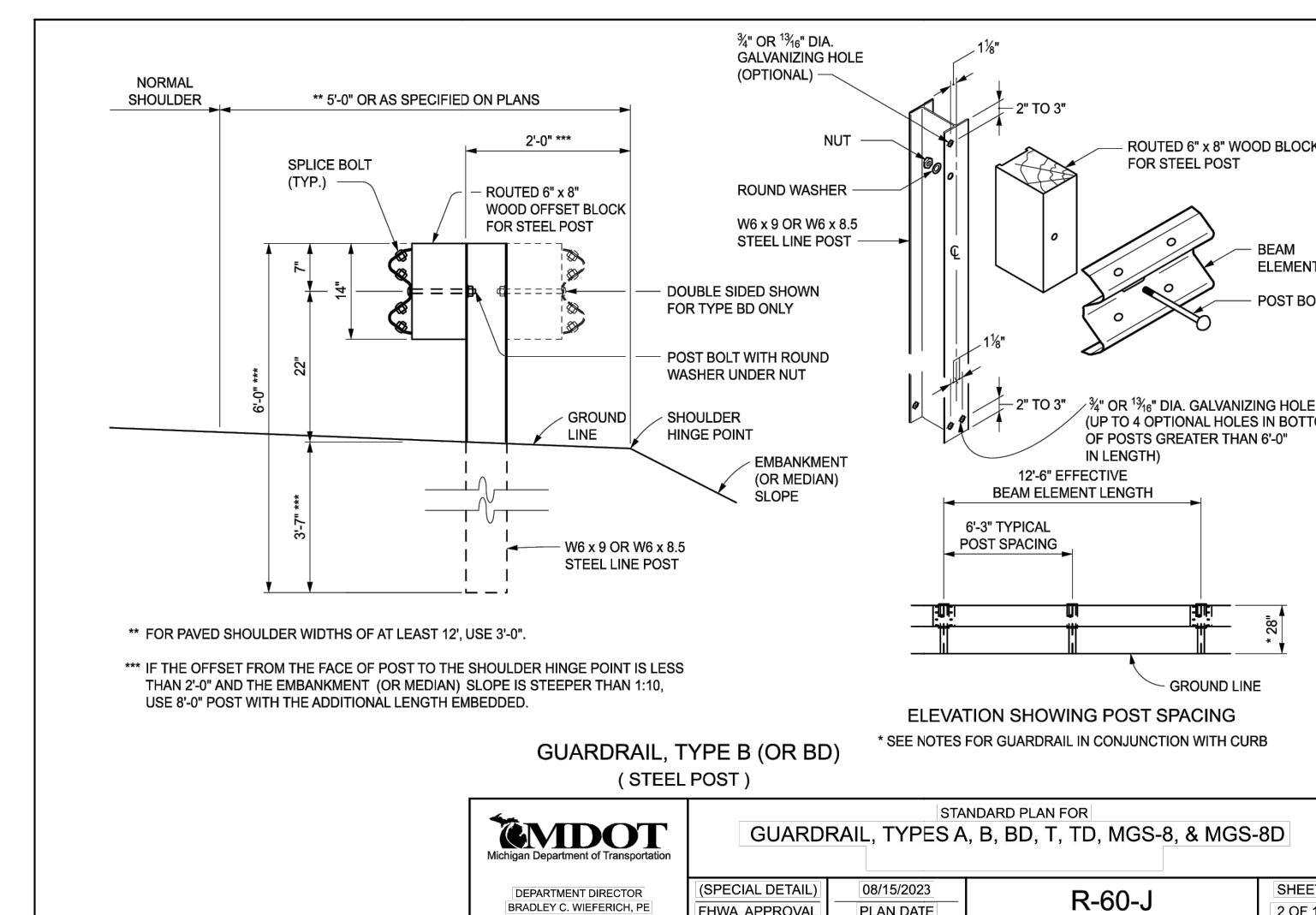
ROOF LEAD/DOWNSPOUT DETAIL
C5.0 - 050004 NOT TO SCALE



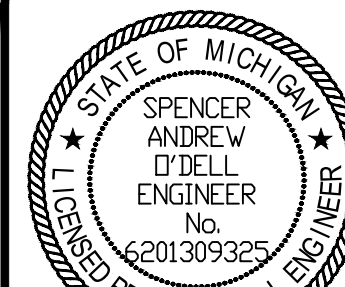
TRENCH BACKFILL DETAIL
C5.0 - 020102 NOT TO SCALE



SANITARY SEWER CLEANOUT DETAIL



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CHECKED:	SAO



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

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3	.	.	.
4	.	.	.

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

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

JOB NUMBER
23144001

DATE
09/09/2025

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

PLANS PREPARED BY:

AR ENGINEERING
CIVIL ENGINEERING & SURVEYING
MICHIGAN | INDIANA | ILLINOIS | OHIO
269.250.5991 PHONE | 866.560.0604 FAX
www.arengineeringllc.com

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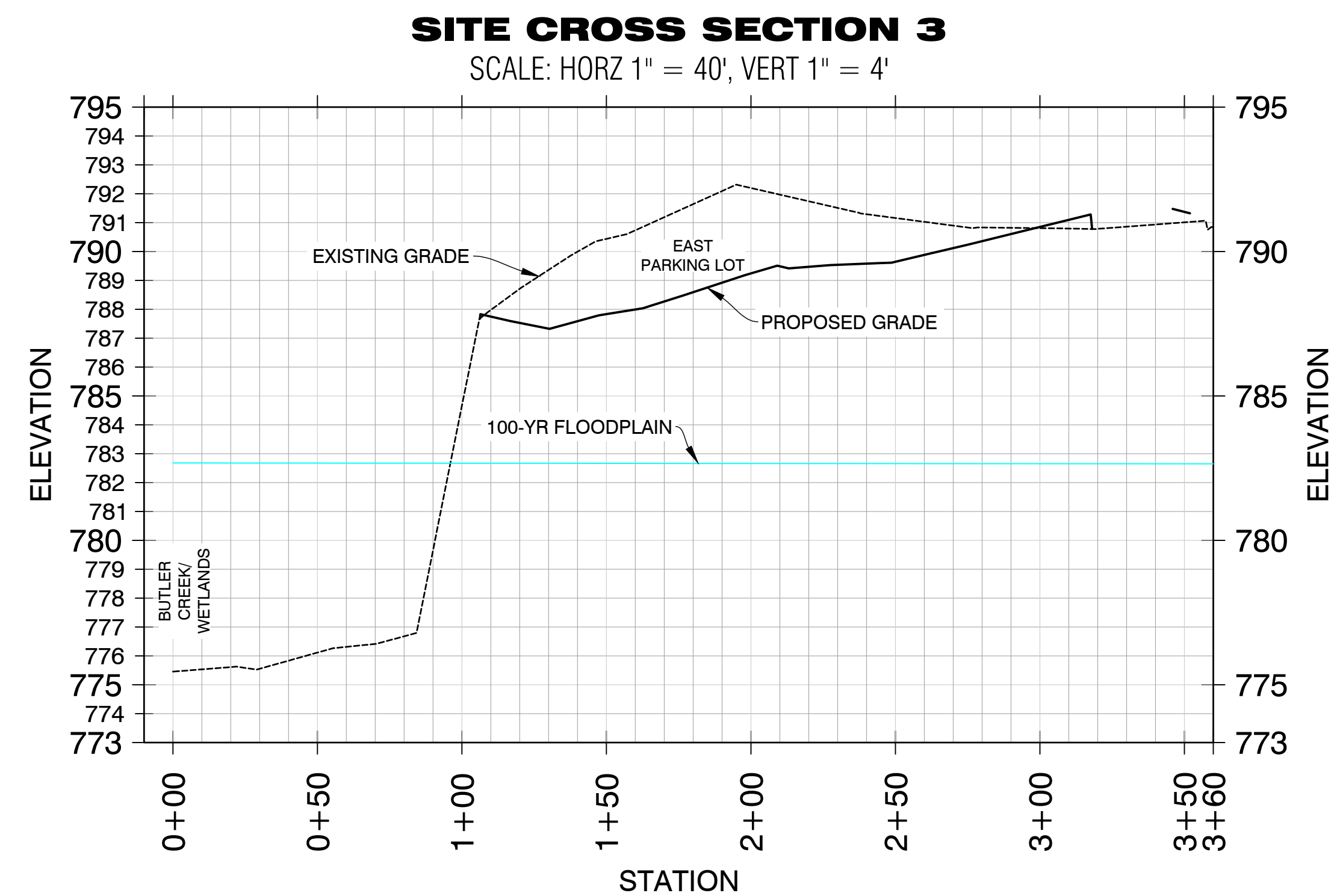
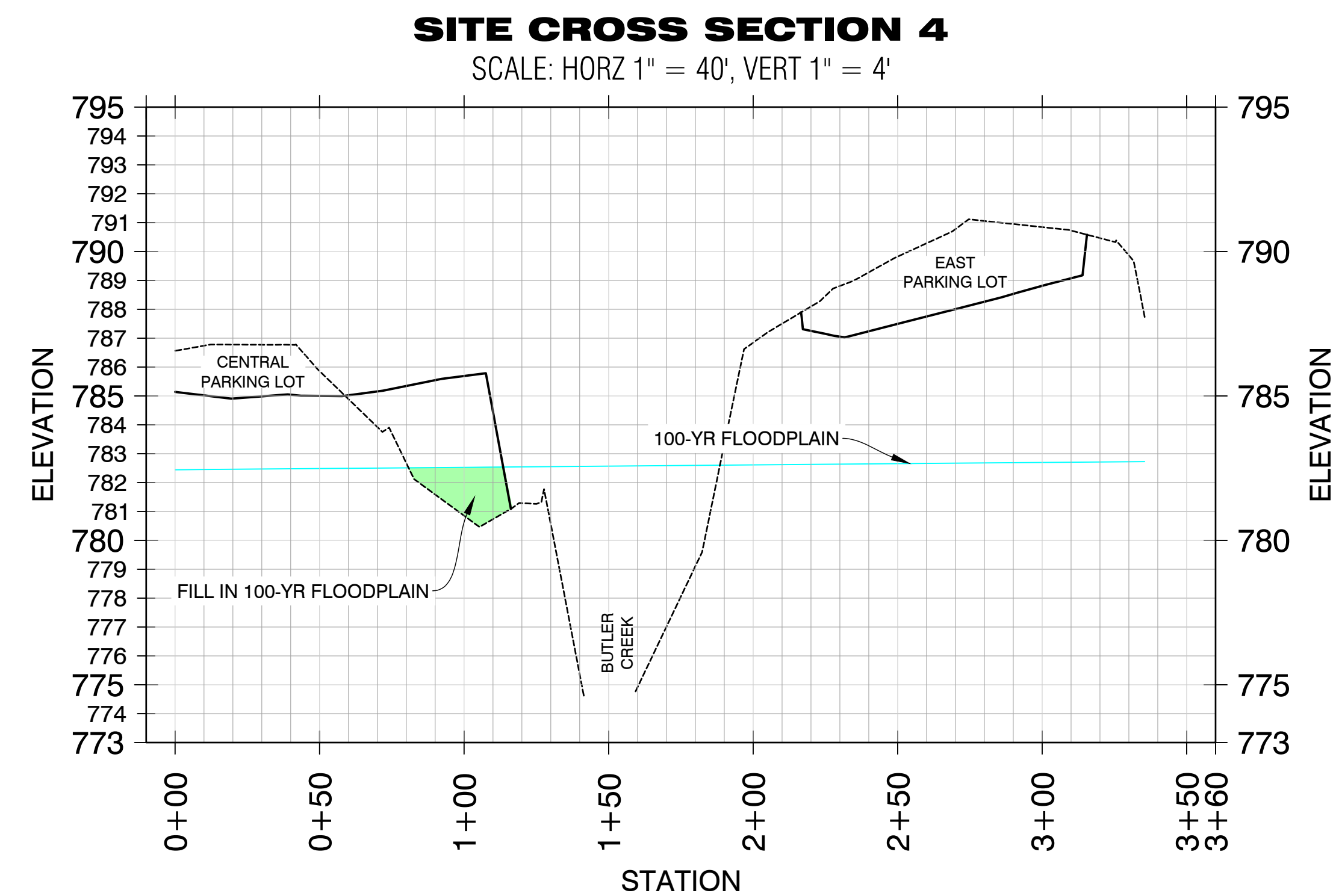
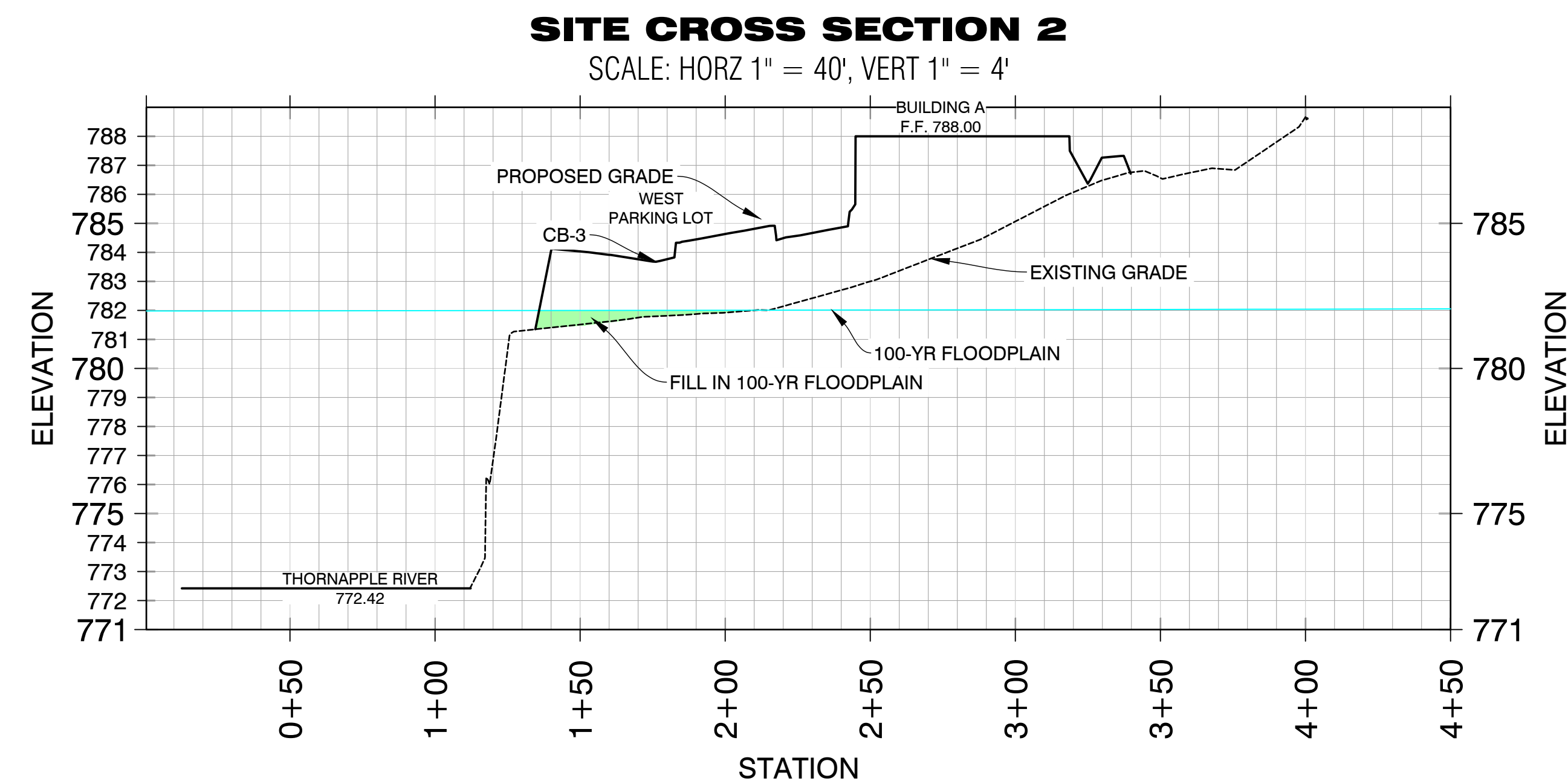
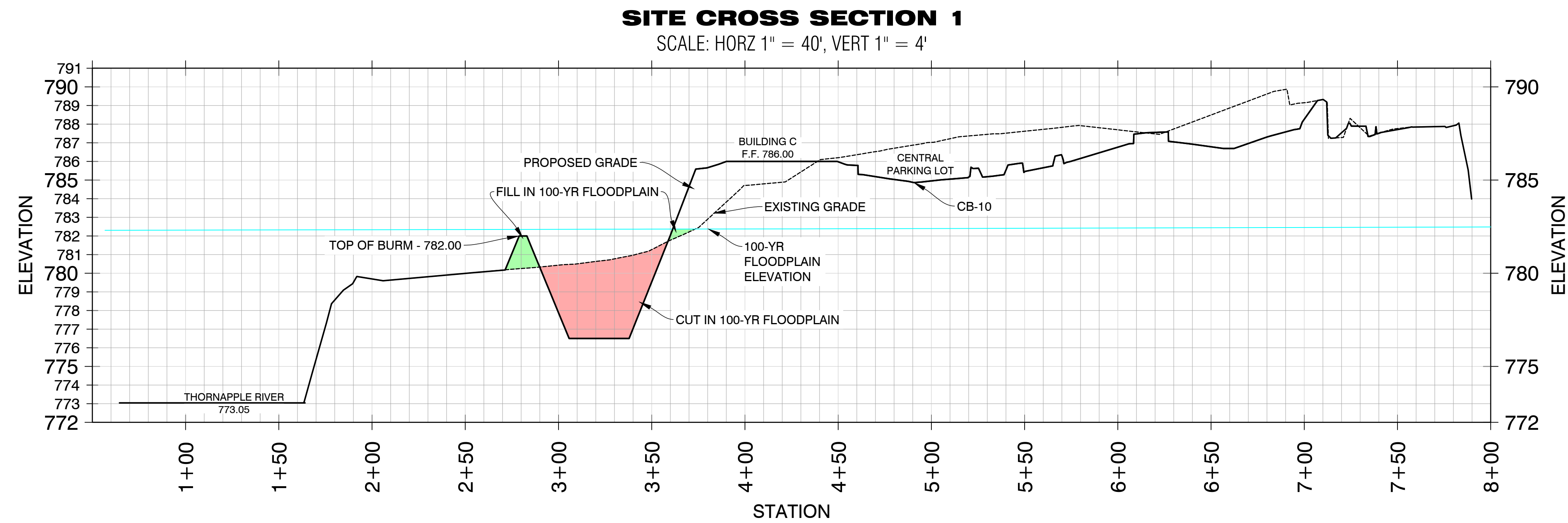
SITE CUT & FILL IN FLOODPLAIN
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

SHEET TITLE:
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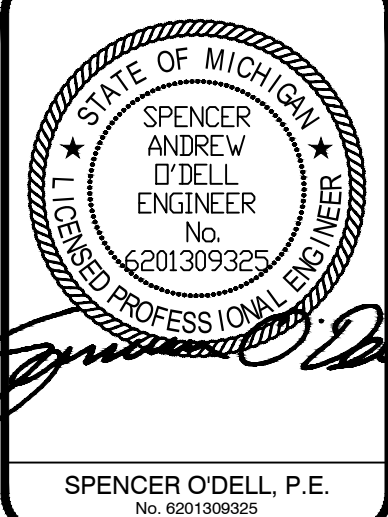
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PLANS PREPARED BY:



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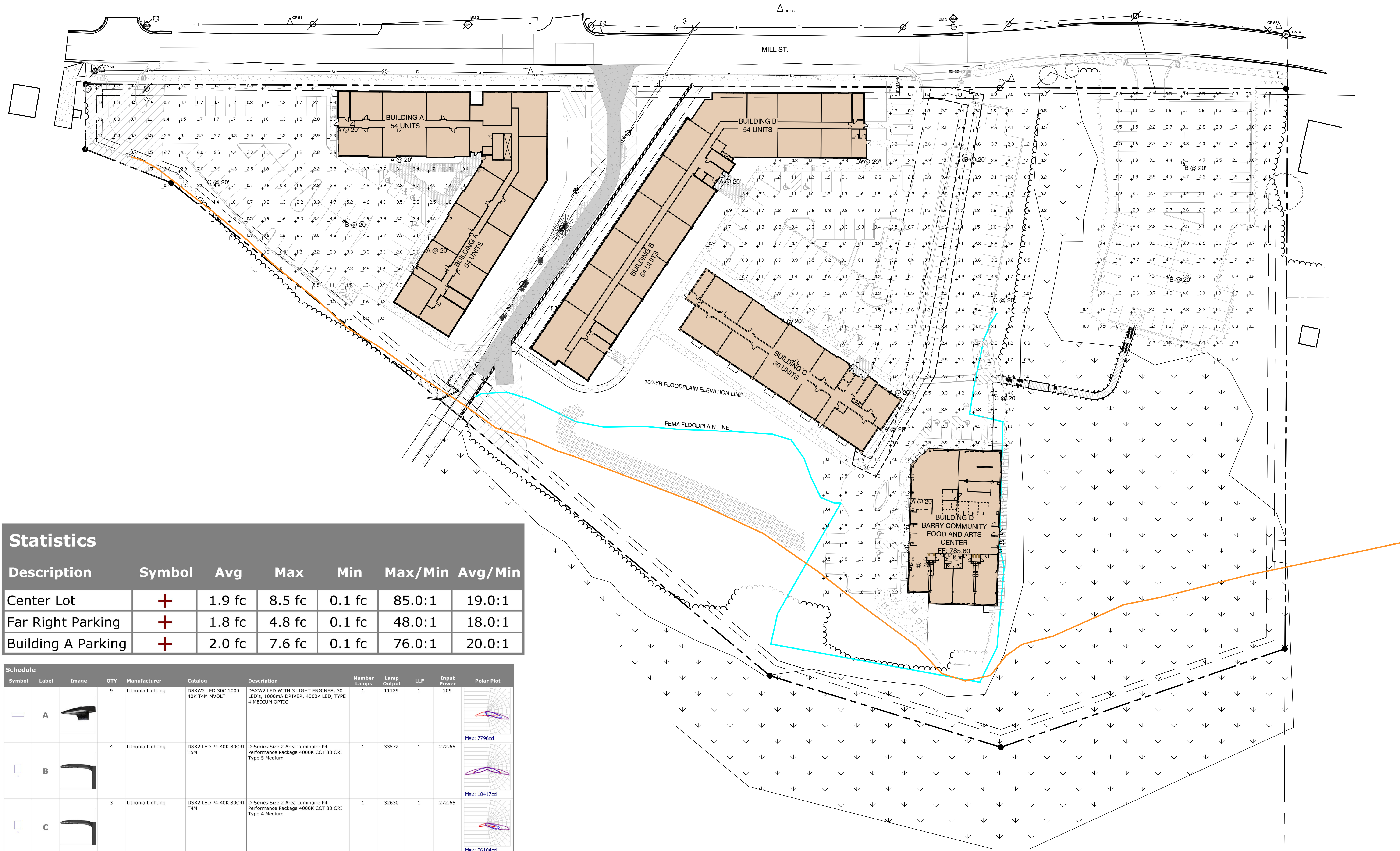


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SITE CROSS SECTIONS
THORNAPPLE RIVER MILL
COPPER ROCK
420 E. MILL STREET
SECTION 07, T03N, R08W

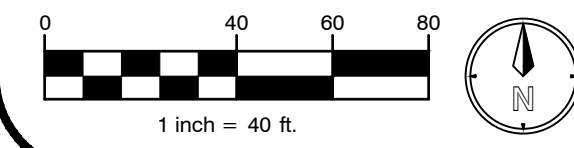
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Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Center Lot	+	1.9 fc	8.5 fc	0.1 fc	85.0:1	19.0:1
Far Right Parking	+	1.8 fc	4.8 fc	0.1 fc	48.0:1	18.0:1
Building A Parking	+	2.0 fc	7.6 fc	0.1 fc	76.0:1	20.0:1

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



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CHECKED: SAO

No.	ISSUED FOR:	DATE	BY
0	SITE PLAN REVIEW	07/23/2025	SAO
1	CITY REVISIONS	09/09/2025	SAO
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
09/09/2025

SHEET NUMBER
L2.0

City of Hastings
COUNTY OF BARRY, STATE OF MICHIGAN

ORDINANCE NO. ~~619~~-632

AN ORDINANCE TO AMEND CHAPTER 90 OF THE HASTINGS CODE OF 1970, AS
AMENDED, BY ~~DELETING ARTICLE VII-C ROYAL COACH PUD AND ADDING~~
AMENDING ARTICLE VII-C 420 E MILL PUD

As recommended by the Planning Commission on September 26, 2025

THE CITY OF HASTINGS ORDAINS:

SECTION I.

Chapter 90 of the Code of Ordinances, City of Hastings, Michigan, is amended to
~~DELETE~~ Article VII-C and **ADDING to amend** Article VII-C as follows:

Amended Text in BOLD

Article VII-C: 420 E MILL PUD

Sec. 90-730.13. - Zoning map.

The zoning ordinance of the City of Hastings is hereby amended by rezoning the following described lands from the D-1, Industrial District to the PUD, Planned Unit Development District, in accordance with the final development plan of the 420 E Mill Planned Unit Development, subject to all the terms and conditions of this division:

DESCRIPTION

ALL OF LOTS 330, 332, 333, AND 334 AND PART OF LOTS 329, 331, AND 335 AND PART OF VACATED PLATTED HANOVER STREET, AND PART OF VACATED PLATTED 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 ¼ CORNER OF SECTION 17, TOWN 3 NORTH, RANGE 8 WEST: THENCE S00°15'23"W, 1121.83 FEET ALONG THE NORTH-SOUTH ¼ LINE OF SAID SECTION 17 TO THE SOUTH LINE OF PLATTED MILL STREET; THENCE ALONG SAID SOUTH LINE N89°46'48"W, 534.08 FEET TO THE TRUE POINT OF BEGINNING; THENCE S34°44'13"W, 359.13 FEET TO AN INTERMEDIATE TRAVERSE LINE OF THE NORTH BAND OF THE THORNAPPLE RIVER; THENCE ALONG SAID TRAVERSE LINE N50°51'15"W, 331.34 FEET; THENCE CONTINUING ALONG SAID TRAVERSE LINE N68°47'24"W, 82.56 FEET TO THE END OF SAID INTERMEDIATE TRAVERSE LINE;

THENCE ALONG THE WEST LINE OF VACATED BOLTWOOD STREET N00°19'59"E, 58.15 FEET TO SAID SOUTH LINE OF MILL STREET; THENCE ALONG SAID SOUTH LINE S89°46'48"E, 538.24 FEET TO THE POINT OF BEGINNING. INCLUDING LAND LYING BETWEEN SAID INTERMEDIATE TRAVERSE LINE AND THE WATERS OF THE THORNAPPLE RIVER, AS LIMITED BY THE SIDE LINES EXTENDED TO THE WATER EDGE. CONTAINING 1.95 ACRES OF LAND, MORE OR LESS, TO SAID INTERMEDIATE TRAVERSE LINE, PLUS AS UNDETERMINED AND VARIABLE AREA BETWEEN SAID TRAVERSE LINE AND THE WATERS OF THE THORNAPPLE RIVER. SPLIT/COMBINED ON 01/13/2017 FROM 55-001-001-00.

General Location: 328 E Mill St. This parcel contains approximately 2.152 acres.
and;

The zoning ordinance of the City of Hastings is hereby amended by rezoning the following described lands from Royal Coach PUD to Planned Unit Development, in accordance with the final development plan of 420 E Mill Planned Unit Development, subject to all the terms and conditions of this division:

DESCRIPTION

ALL OF LOTS 322 THRU 328, LOTS 336 THRU 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 THORNAPPLE 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 S00°15'25"W 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 S00°15'25"W, 499.60 FEET ALONG SAID 1/4 LINE TO AN INTERMEDIATE TRAVERSE LINE OF THE NORTH BANK OF THE THORNAPPLE RIVER; THENCE S70°55'22"W, 268.20 FEET ALONG SAID INTERMEDIATE TRAVERSE LINE; THENCE N72°46'49"W, 215 .56 FEET ALONG SAID INTERMEDIATE TRAVERSE LINE; THENCE N50°12'27"W, 358 .27 FEET TO THE END OF SAID INTERMEDIATE TRAVERSE LINE; THENCE N34 °44'13"E, 360 .42 FEET TO SAID SOUTH LINE OF MILL STREET; THENCE S89°46'48"E, 531.53 FEET ALONG SAID SOUTH LINE TO THE POINT OF BEGINNING. INCLUDING ALL LAND LYING BETWEEN SAID INTERMEDIATE TRAVERSE LINE AND THE WATERS OF THE THORNAPPLE RIVER AS LIMITED BY THE SOUTHERLY EXTENSION OF THE SIDELINES. CONTAINING 7.71 ACRES OF LAND, MORE OR LESS, TO SAID INTERMEDIATE TRAVERSE LINE, PLUS AN UNDETERMINED AND VARIABLE AREA BETWEEN SAID TRAVERSE LINE AND THE WATERS OF THE THORNAPPLE RIVER.

General Location: 420 E Mill St. This parcel contains approximately 8.21 acres.

Sec. 90-730.14. - Development plan.

The rezoning of the above-described lands to the planned unit development district, in accordance with the final **amended** PUD plan of the 420 E Mill Planned Unit Development ("the development") is subject to all the following terms and conditions:

The 420 E Mill Planned Unit Development shall comply in all respects with the final PUD plan of the development. The final development plan has a date of ~~June 15, 2023,~~ **July 23, 2025**, as prepared by ~~Dixon Engineering~~ **AR Engineering** on behalf of CopperRock Construction and includes the application for planned unit development rezoning, the PUD narrative, architectural elevation drawings of the proposed buildings and other materials submitted with the application, except to the extent that any such materials may be inconsistent with this division.

In the case of conflicts or discrepancies between any part of the final **amended** development plan and the terms of this division, this division shall control.

Sec. 90-730.15. - Permitted uses.

Only the principal and accessory uses noted below shall be allowed in the 420 E Mill PUD District:

- (a) Building "A" consisting of Eighteen (18) one-bedroom units, thirty (30) two-bedroom units, and three (3) three-bedroom units for an overall unit count of fifty-one (51).
- (b) Building "B" consisting of nine (9) one-bedroom units, forty-two (42) two-bedroom units, and three (3) three-bedroom units for an overall unit count of fifty-four (54) units.
- (c) Building "C" consisting of nine (9) one-bedroom units, nineteen (19) two-bedroom units, and two (2) three-bedroom units for an overall unit count of thirty (30) units.
- (d) ~~Phase II shall~~ **Building "D" Barry County Food and Arts Center** ~~consist~~ **consisting** of the ~~land and~~ parking lot areas to the **west and** northeast of the ~~proposed commercial building "D" consisting of 10,080~~ **10,740** square feet with a ~~use~~ **Child Care Center and other uses** consistent with this Article.

Sec. 90-730.16. – District Regulations.

The district regulations for the 420 E Mill PUD will be the same as A-1 (Sec. 90-394) with the following departures:

- (a) Building front setback for multi-family buildings with more than four dwelling units is a minimum of 5 feet.
- (b) The unit density is 24.5 units per acre of development area and multiple family buildings to exceed 24 units per building.
- (c) Maximum building height is 40 feet.
- (d) 30 feet building separation

Sec. 90-730.17. - Development requirements.

- (1) *Street and access.*
 - (a) Ingress and egress shall be by way of three (3) driveways from Mill Street to the north.
 - (b) Pedestrian access will also be by the existing trestle bridge over the Thornapple River.
- (2) *Utilities.* The uses shall be served by public water and sanitary sewer as approved by the director of public services for the City of Hastings.
- (3) *Surface water drainage.* Stormwater management plan as approved by director of public services for the City of Hastings with review by the Department of Energy, Great Lakes, and Environment.
- (4) *Open space.* Development will provide approximately 3.50 acres or 35% of open space on the site.
- (5) *Preservation of natural area.* Placement of buildings, site improvements, and open space is largely respectful of wetlands, floodplain, Butler Creek, and the Thornapple River frontage.
- (6) *Landscaping.* Landscaping shall be provided in compliance with Article XII and approved by administrative staff.
- (7) *Lighting.* Lighting plans shall be approved by administrative staff.
- (8) *Signs.* Signs for the 420 E Mill PUD shall comply with all regulations of article XI of the Hastings Zoning Ordinance as are applicable to the use.
- (9) *Parking.* ~~254~~ **259** parking spaces required, and ~~282~~ **267** parking spaces will be provided.
- (10) *Uses and development regulations not specified.* For all uses and development regulations not specified in this division, the requirements of the multifamily buildings shall use the requirements of the A-1 zone.

Sec. 90-730.18. - Findings.

The city council hereby determines that the final **amended** site plan and PUD zone for 420 E Mill project complies with the provisions of the Hastings Zoning Ordinance and promotes its intent and purposes. The council also finds that granting the PUD rezoning will result in a recognizable and substantial benefit to the users of the project and to the community and that the proposed type and density of use shall not result in a material increase in the need for public services, facilities and utilities, and shall not place a material burden upon the subject or surrounding land or property owners and occupants or the natural environment.

The council further finds that based on the design of the PUD, the proposed use is appropriate for the proposed location and is not likely to lead to a significant change in the uses master planned in the area adjacent to the 420 E Mill PUD. Also, the proposed development will not have a significant negative impact on the surrounding area and the proposed development will be under single ownership and control for completing the project in conformity with this article.

SECTION II.

If any article, section, subsection, sentence, clause, phrase, or portion of this ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of this ordinance.

SECTION III.

All ordinances or part of ordinances in conflict herewith are hereby repealed.

SECTION IV

This ordinance shall become effective upon its adoption and publication as provided by City Charter.

Moved by Member ~~Cary~~, with support by Member Resseguie, that **Ordinance No. 619 XXX** be adopted as read.

YEAS: ~~Barlow, Bowers, Cary, Furrow, Jarvis, Nesbitt, Resseguie and Tossava.~~
NAYS: ~~None.~~
ABSENT: ~~McLean.~~

CITY OF HASTINGS

Adoption Date: ~~July 24, 2023~~
Effective Date: ~~July 28, 2023~~

By: ~~Christopher R. Bever~~
Linda Perin
City Clerk

CERTIFICATE

The undersigned, being the duly qualified and acting Clerk of the City of Hastings, Michigan, does hereby certify that the foregoing is a true and complete copy of an Ordinance adopted by the Hastings City Council, of the City of Hastings, at a regular meeting of the City Council on the ~~24th day of July 2023~~, at which meeting a quorum was present and remained throughout, and that the original of said Ordinance is on file in the records of the City of Hastings. I further certify that the meeting was conducted, and public notice was given pursuant to and in compliance with Act No. 267, Public Acts of Michigan of 1976, as amended, and that minutes were kept and will be or have been made available as required thereby.

~~Christopher R. Bever~~
Linda Perin
City Clerk



Regular Council Agenda Item Memorandum

To: Honorable Mayor and City Council

From: Chief Dale Boulter

Subject: Green Street closure for Halloween

Meeting Date: September 29th, 2025

Recommended Action:

Motion to request to close Green Street on **Friday, October 31, 2025** for Halloween Trick or Treating. The closure requested is on Green St. from Broadway Ave to Cass St. to include all intersecting roadways in between. The closure requested is from **5:00 PM until 7:30 PM**.

Background Information:

The Hastings Police Department has historically closed Green St on Halloween from 5:00 PM until 7:30 PM the night of Halloween. We have done so to provide an area for parents and children to participate in the events of Halloween night without concern of vehicular traffic.

For several years, many volunteers help line the intersecting roadways and participate in the night's events. We also are provided support from DPS and the Hastings Fire Department with equipment and the Hastings firepit to add to the night's enjoyment.

The actual event is from 5:00 PM until 7:30 PM but to safely establish the road closure we would like to begin shutting the road down at 4:45 PM. The closure will be removed starting at 7:30 PM and taking approximately ten minutes to fully open the route.

Contact with area support services (EMS/Central Dispatch) will be made to notify them of the closure and to provide alternate routes.

Those who live in the closed section of the roadway will be allowed access with an escort to provide safe travel.



Regular Council Agenda Item Memorandum

Financial Implications:

Community policing event budgeted.

Respectfully submitted,

Dale Boulter

Chief of Police



Regular Council Agenda Item Memorandum

To: Hastings City Council

From: Sarah Moyer-Cale, City Manager

Subject: Interlocal Agreement

Meeting Date: September 29, 2025

Recommended Action:

Motion to approve the Interlocal Agreement with Hastings Area School System as presented and to authorize the Mayor and Clerk to sign the document.

Background Information:

Last month, we became aware that an error occurred, resulting in the school's sinking fund millage not being included on the Winter 2024 tax bills. The total amount that should have been collected was \$246,520.42.

After discussions with the city attorney and various local officials and state agencies, we have found what we believe to be the best resolution. The City's Board of Review will need to correct the qualified error so that we can collect the previously authorized sinking fund millage which was 0.9481 mills. This cannot occur until the Board meets in December. The school needs the funds by October, so we will advance them the funds next month and retain the balance of what is collected for the sinking fund millage when the amount is collected over the winter.

We are grateful for the cooperation of the school district and the county in helping us resolve this issue and believe this resolution will serve all parties. Finance Director Perin and I have discussed how to prevent confusion for taxpayers on the upcoming bill, and we believe that our vendor has options that will help us communicate the invoice item effectively. We have also been reviewing new measures to verify that future billings are correct and cross-checked.

Financial Implications:

None.



Regular Council Agenda Item Memorandum

Attachments:

- Interlocal Agreement

INTERLOCAL AGREEMENT

THIS INTERLOCAL AGREEMENT (the “Agreement”) dated and as of _____, 2025, by and between **CITY OF HASTINGS** (the "City"), a Michigan municipal corporation with offices at City Hall, 201 East State Street, Hastings, Michigan 49508, and the **HASTINGS AREA SCHOOL SYSTEM** (the “School District”), with offices as 232 W Grand Street, Hastings, MI 49058.

RECITALS

WHEREAS, the Urban Cooperation Act, Public Act 7 of 1967 (“Act 7”) provides that a public agency (defined to include both a city and a school district) may enter into an interlocal agreement with other public agencies to exercise jointly any power, privilege, or authority that the agencies share in common and that each might exercise separately; and

WHEREAS, the City collects property taxes levied by the School District for the School District’s Sinking Fund of \$0.9481 per \$1,000 of assessed valuation (0.9481 mills) (the “Sinking Fund Millage).

WHEREAS, the City made a "qualified error" as defined in MCL 211.53b, resulting in the failure to collect the Sinking Fund Millage and the School District not receiving sufficient revenues for its sinking fund; and

WHEREAS, utilizing the Board of Review process as provided for by the General Property Tax Act, Public Act 206 of 1893, as amended, the City intends to correct the qualified error and to collect the Sinking Fund Millage as previously authorized by the voters; and

WHEREAS, the City and School District now desire to enter into this Agreement for the City to advance funds to the School District to support its financial needs until the collection of the Sinking Fund Millage; and

WHEREAS, any delinquent sinking fund millage uncollected by the City that is subsequently collected and advanced to the School District will be forwarded to the City to be made whole; and

WHEREAS, Barry County is aware of, and hereby acknowledges, the proposed method of correction and the City’s intent to collect the Sinking Fund Millage.

NOW, THEREFORE, the parties hereto agree as follows:

Section 1. Advance of Millage Revenues. The City agrees to advance Two Hundred and Forty Sixty Thousand Five Hundred Twenty Dollars and Forty Two Cents (\$246,520.42) to the School District on or prior to October 20, 2025. Such funds shall be deposited into the School District’s Capital Projects Sinking Fund and exclusively used by the School District for sinking fund purposes and in compliance with Section 1212 of the Revised School Code and the State of Michigan Department of Treasury Letter No. 2023-1.

Section 2. Millage Collection; Retention by City. The School District agrees that the City will retain the Sinking Fund Millage, which is anticipated to be collected in December 2025 pursuant to the procedure under MCL 211.53b, as repayment for the advanced funds described in Section 1 herein. Additionally, any delinquent Sinking Fund Millage uncollected by the City that is subsequently collected and advanced to the School District will be forwarded to the City to be made whole. Such funds may be used as the City determines necessary.

Section 3. Term. The term of this Agreement shall begin on the date first set forth above and end on the date all actions proscribed hereunder are completed, which shall be no later than December 31, 2026.

Section 4. Informal Nature. This Agreement is not intended to create a formal debt obligation but is a temporary financial arrangement between the parties.

Section 5. Amendment. This Agreement may only be amended by written agreement signed by all the parties hereto.

Section 6. Entire Agreement. This Agreement shall constitute the entire agreement between the parties hereto regarding the subject matter hereof.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be signed as of the date and year first written above.

CITY OF HASTINGS

By: _____
Its: Mayor

Attest: _____
Its: Clerk

HASTINGS PUBLIC SCHOOL DISTRICT

By: _____
Its: Superintendent

Attest: _____
Its: President, Board of Education

Acknowledged by:

BARRY COUNTY

By: _____

Its: County Treasurer