

THOMPSON LAKE DAM IMPROVEMENTS

SECTION 25, TOWN 3 NORTH, RANGE 4 EAST,
CITY OF HOWELL, LIVINGSTON COUNTY, MICHIGAN



BRIAN JONCKHEERE
LIVINGSTON COUNTY DRAIN COMMISSIONER

THOMPSON LAKE
A PART OF SECTION 25, CITY OF HOWELL,
T3N, R4E, LIVINGSTON COUNTY, MICHIGAN

Attention:
0 1"

If this scale bar does not measure
1" then drawing is not original scale.

1	11/14/24	BID SET	BJC
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Designed:

Checked:

Drawn:

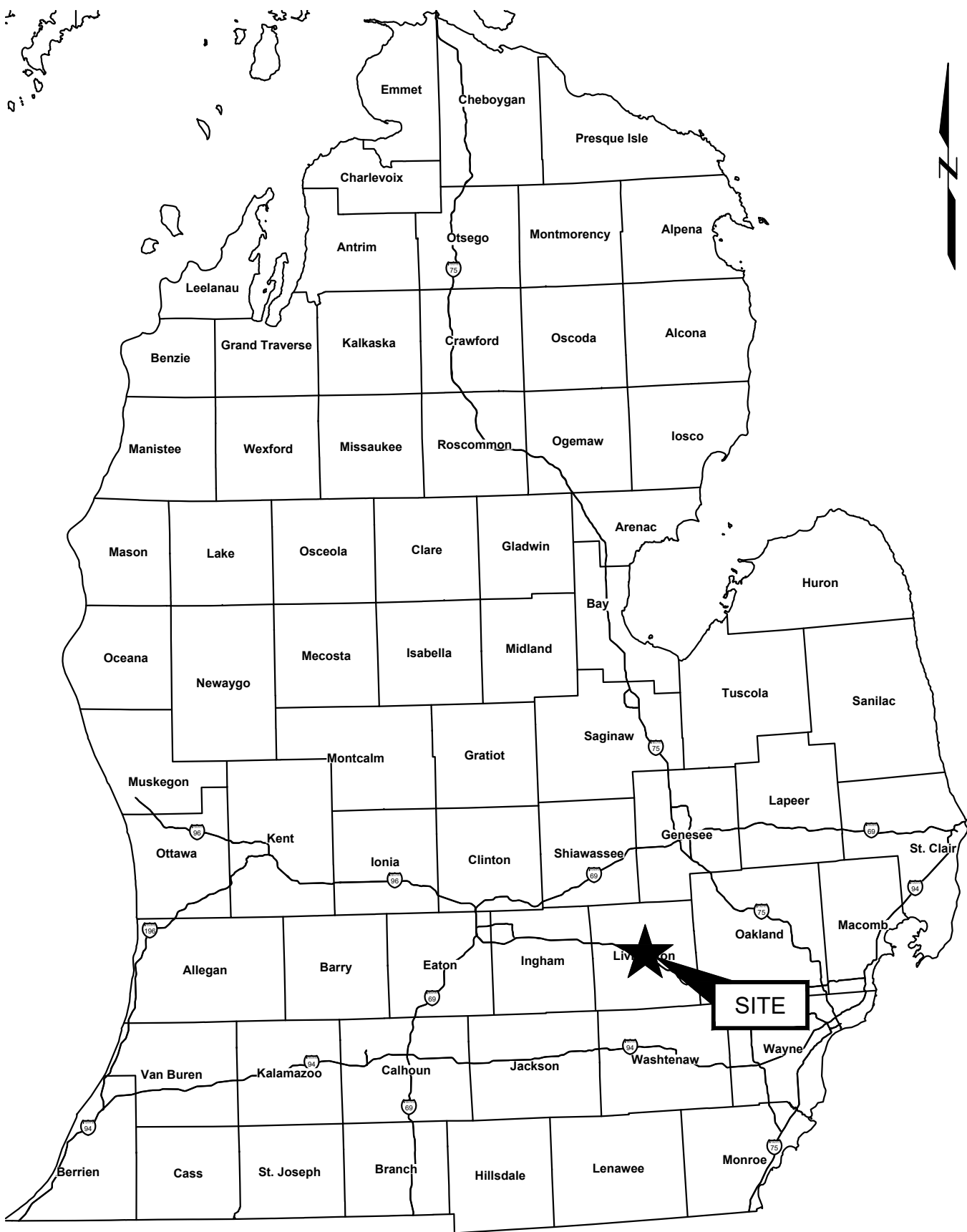
Approved By:

COVER SHEET

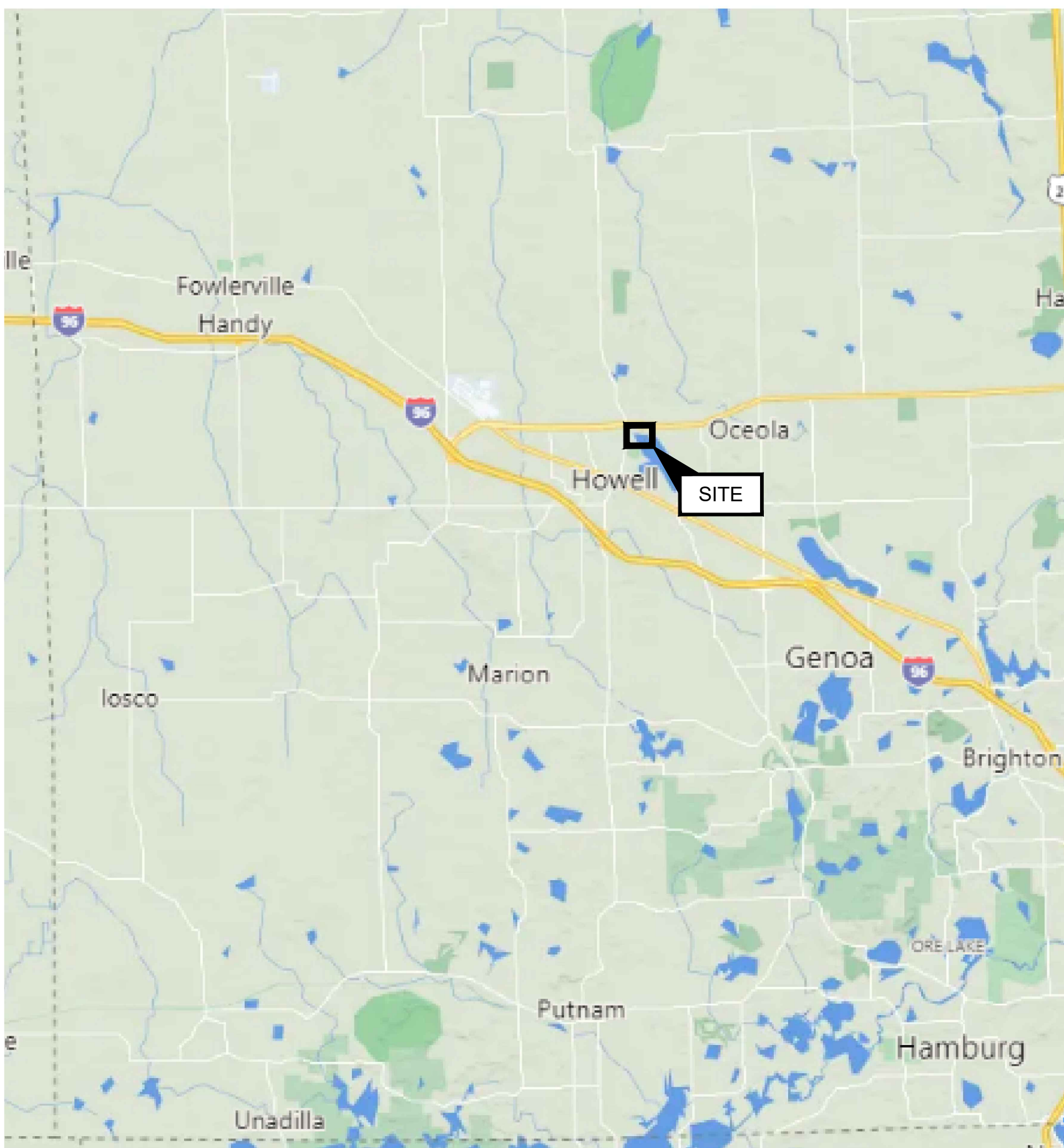
GEI Project 2400583

SHEET NO.

1

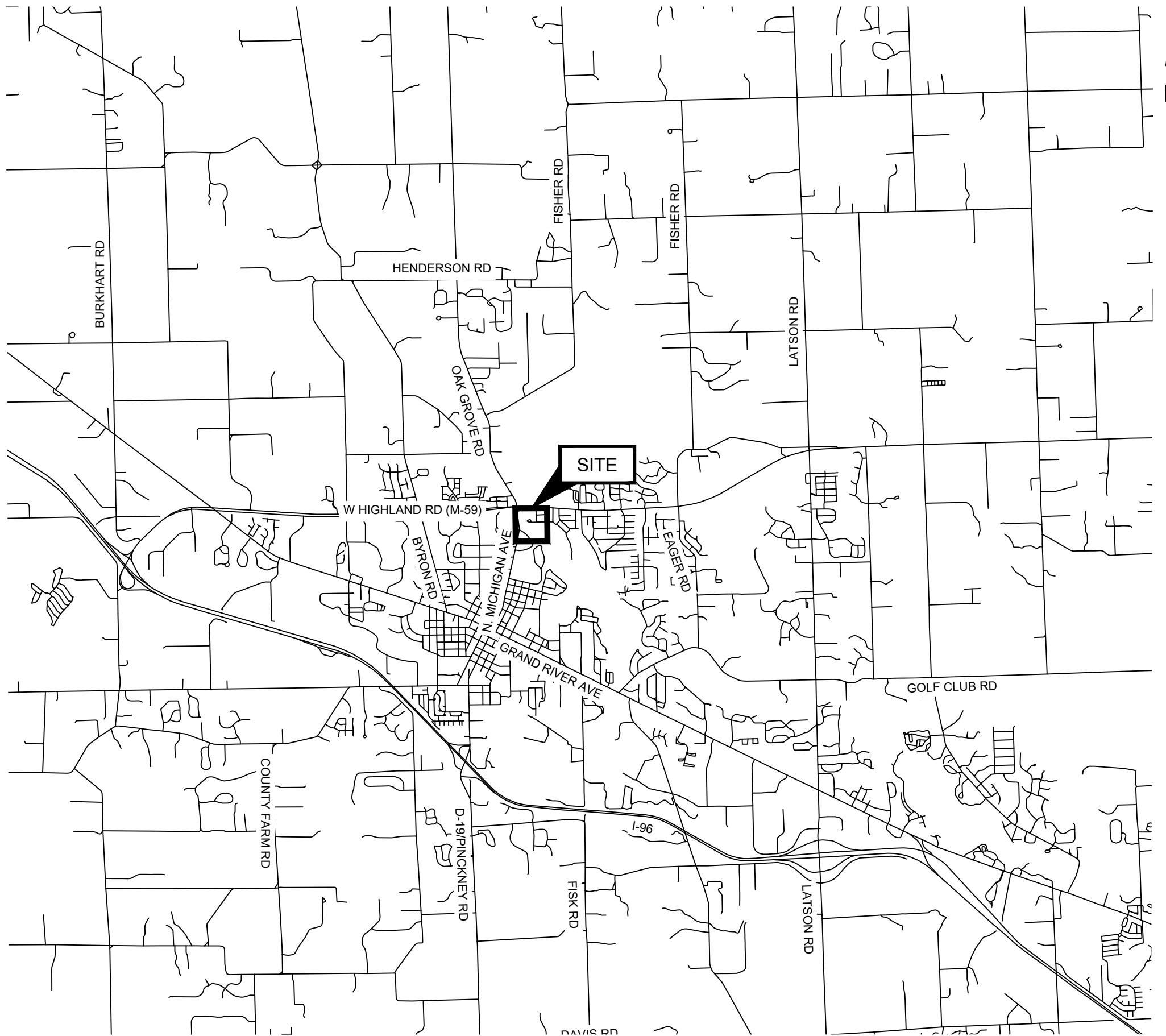


STATE MAP
NOT TO SCALE



SOURCE:
BING MAPS

COUNTY MAP
NOT TO SCALE



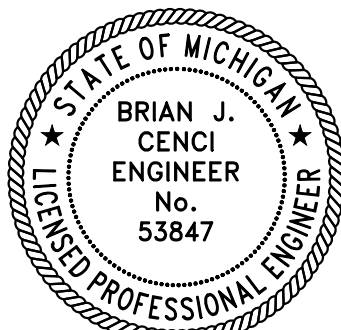
SITE LOCATION MAP
NOT TO SCALE

SHEET SET LIST

Sheet Number	Sheet Title
1	COVER SHEET
2	CULVERT PLAN & PROFILE
3	CULVERT DETAILS
4	THOMPSON LAKE DAM DETAILS
5	SESC PLAN
6	MISCELLANEOUS DETAILS

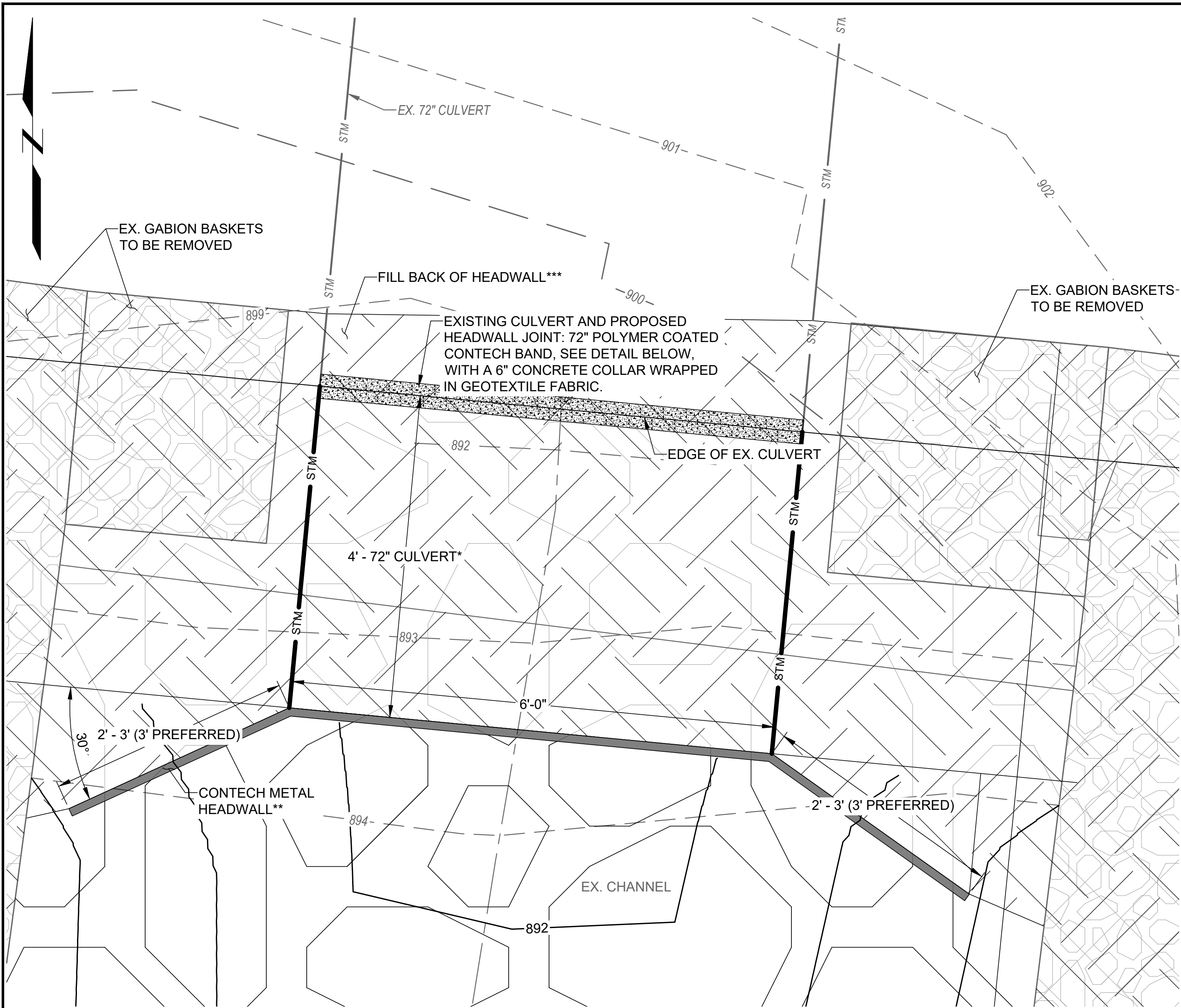
ENGINEER OF RECORD:

BRIAN J. CENCI, P.E. #53847



11/14/2024
DATE

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PLAN VIEW
SCALE: 1:1

*CULVERT PIECE SHALL BE 12-GAUGE POLYMER COATED PIPE (MATCH EXISTING CORRUGATIONS OR 5 BY 1 CORRUGATIONS)

**HEADWALL AND CULVERT PIECE SHALL BE ONE CONTINUOUS PIECE. CONTACT ANTHONY.NESTOR@CONTECHES.COM (810-217-9156) FOR PROCUREMENT.

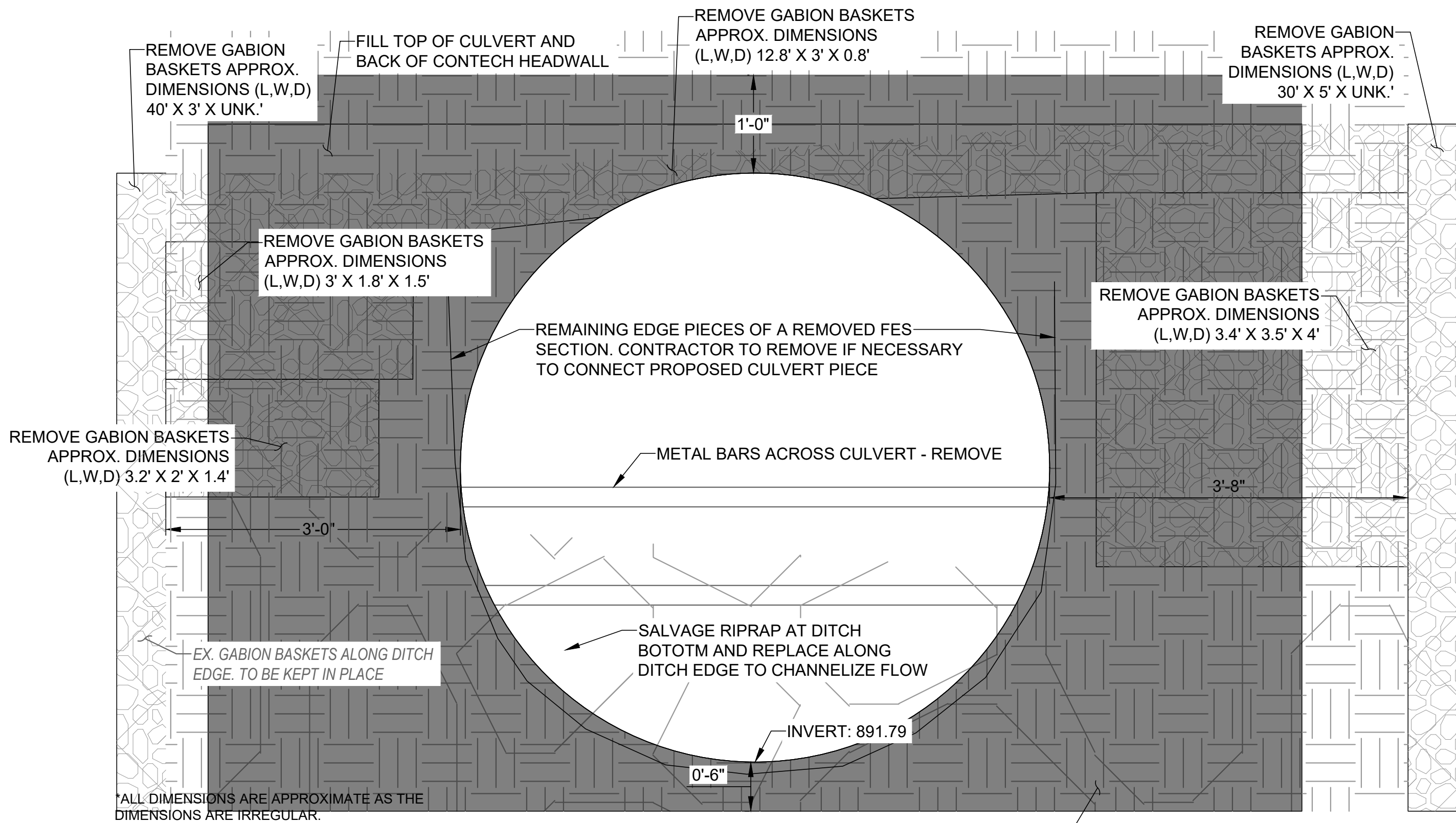
HEADWALL TO BE 7-GAUGE STEEL, DIPPED IN GALVANIZING ZINC AFTER CORRUGATING WITH A POLYMER COATING.

HEADWALL CAN BE DIRECTLY PERPENDICULAR TO CULVERT OR ANGLED WINGWALLS (ANGLED EDGES (WINGWALLS) ARE PREFERRED)

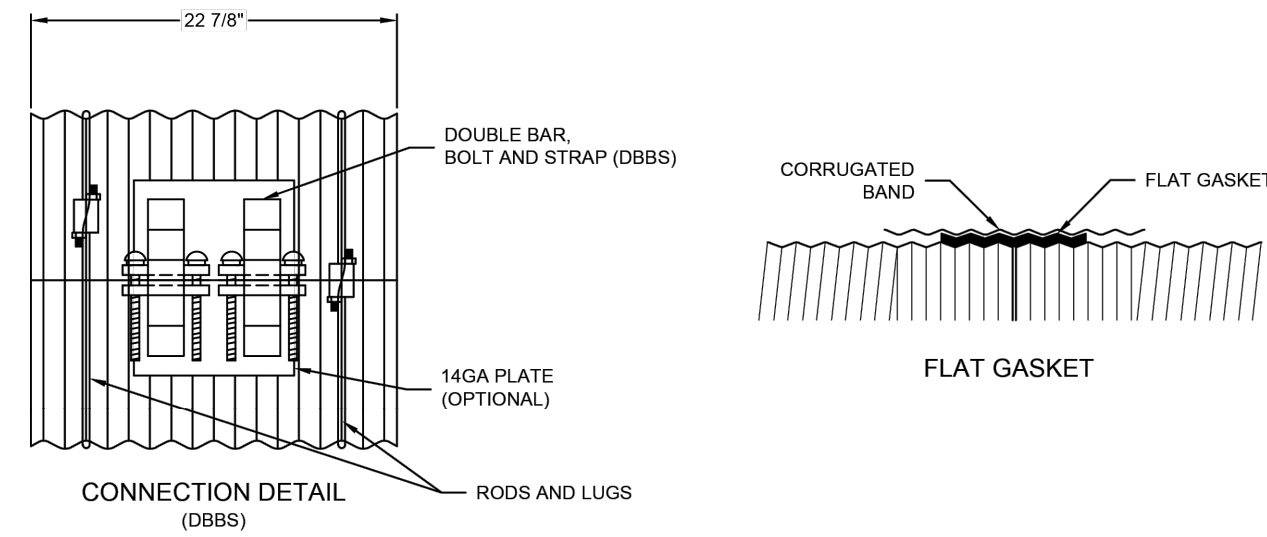
*** ALL FILL TO BE CLEAN, COMPACTED FILL THAT MEETS MDOT SPECIFICATIONS

LEGEND

- FILL
- CONTECH HEADWALL**
- EXISTING RIPRAP TO BE REMOVED AND SALVAGED
- LOCATION OF SALVAGED RIPRAP
- GABION BASKETS TO BE REMOVED
- CONCRETE COLLAR AND METAL COUPLING



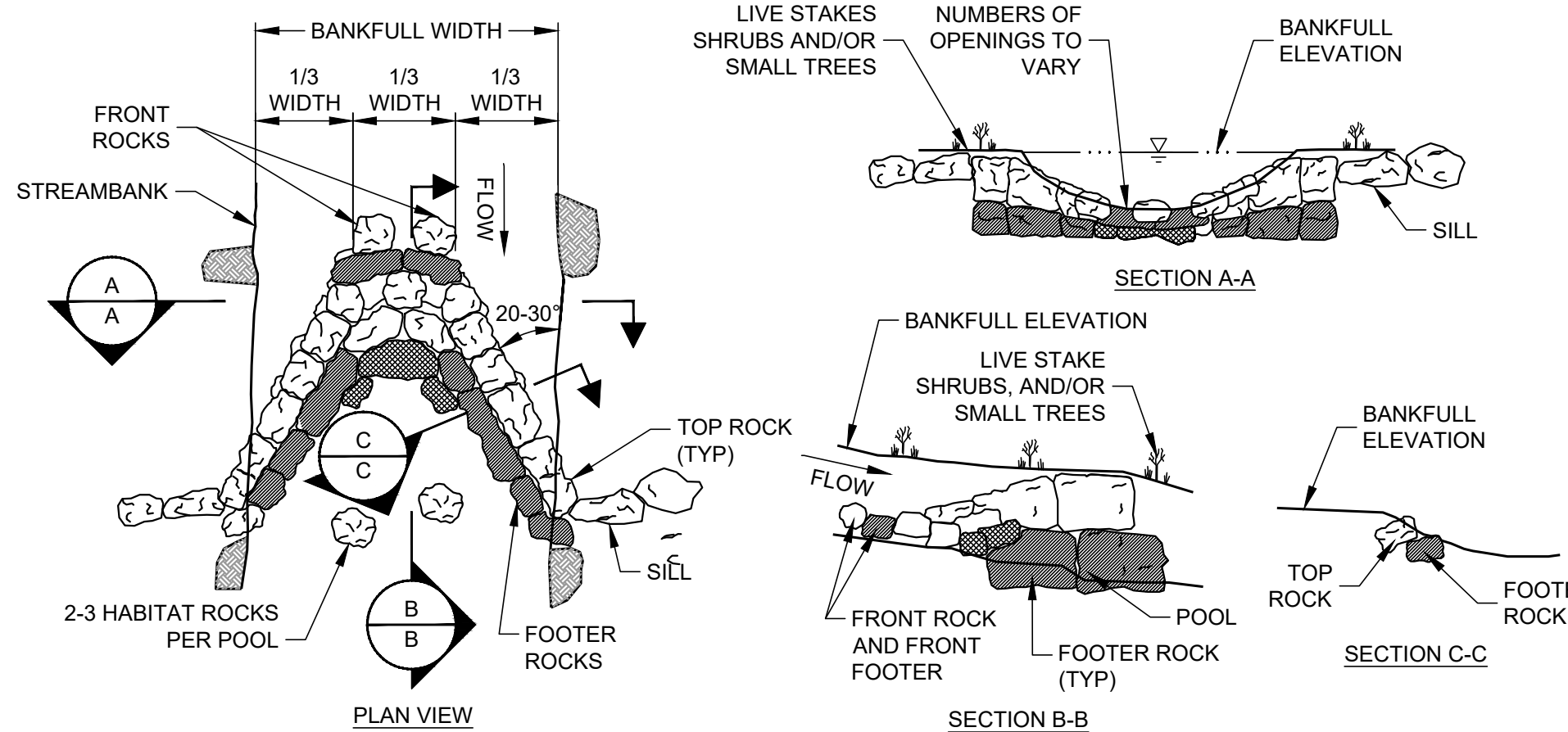
SECTION VIEW
SCALE: 1:1



2 2/3"x1/2" RE-ROLLED END HEL-COR PIPE

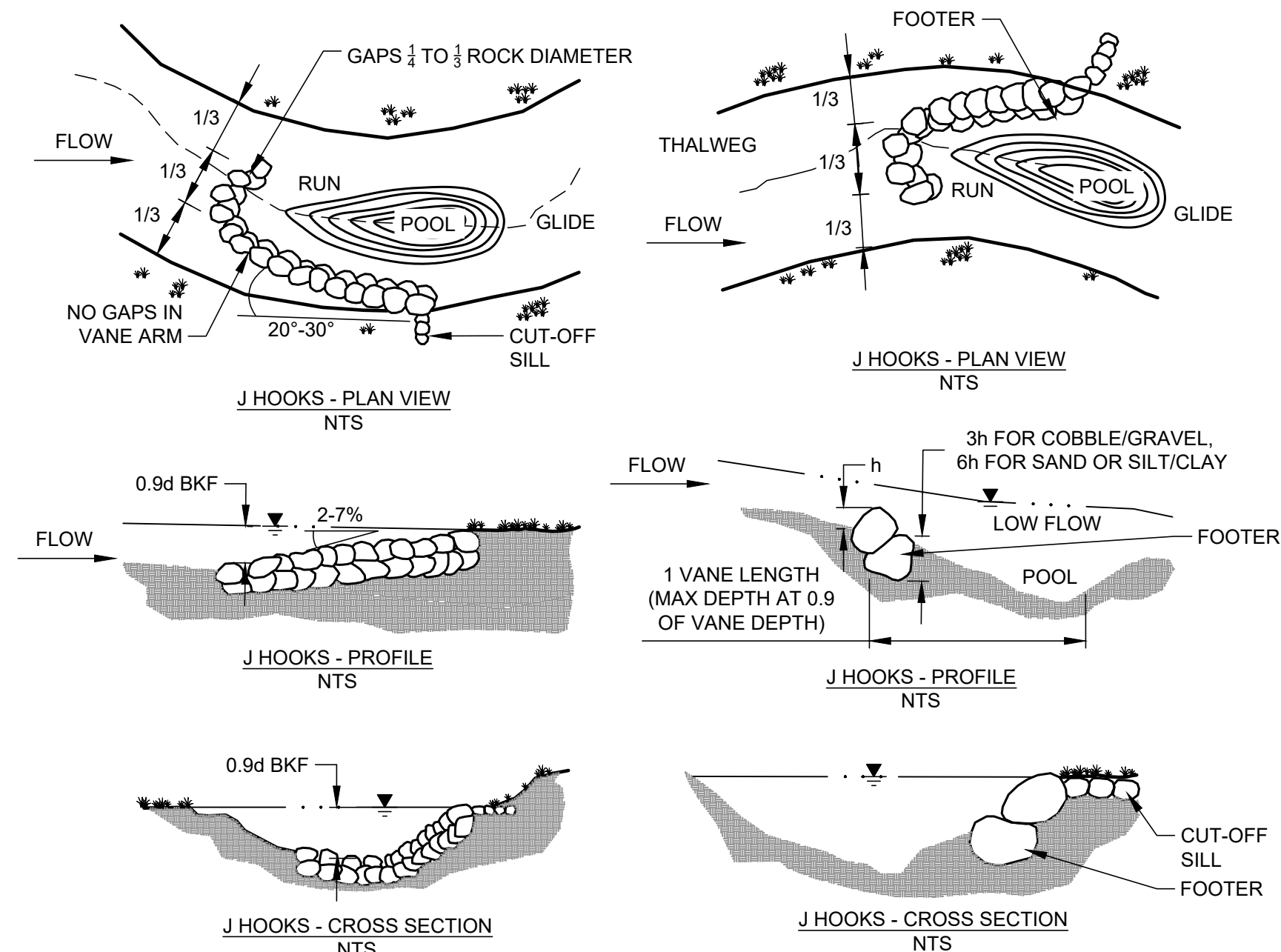
- GENERAL NOTES:
- JOINT IS TO BE ASSEMBLED PER AASHTO BRIDGE CONSTRUCTION SPECIFICATION SEC 26.4.2.4.
 - BAND MATERIALS AND/OR COATING CAN VARY BY LOCATION. CONTACT YOUR CONTECH REPRESENTATIVE FOR AVAILABILITY.
 - BANDS ARE SHAPED TO MATCH THE PIPE-ARCH WHEN APPLICABLE.
 - BANDS ARE NORMALLY FURNISHED AS FOLLOWS:
 - 12" THRU 48" 1-PIECE
 - 54" THRU 96" 2-PIECES
 - 102" THRU 144" 3-PIECES
 - BAND FASTENERS ARE ATTACHED WITH SPOT WELDS, RIVETS OR HAND WELDS.
 - ALL CMP IS RE-ROLLED TO HAVE ANNUAL END CORRUGATIONS OF 2 2/3"x1/2"
 - DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
 - ORDER SHALL DESIGNATE GASKET OPTION, IF REQUIRED (SEE DETAILS ABOVE).

9-C / 10-C BAND DETAIL
NOT TO SCALE



- NOTES:
- ROCK SHALL BE APPROX 24"Wx36"(L)x6"-36"(H) AND SHALL BE APPROVED BY ENGINEER PRIOR TO CONSTRUCTION (CONTRACTOR TO USE EXISTING RIPRAP IN CHANNEL AND MATCH SIZE OF RIPRAP TO NOTE AS ABLE)
 - LENGTH AND WIDTH SHALL BE AS SHOWN ON THE PLANS AND MAY BE MODIFIED BY ENGINEER BASED ON INDIVIDUAL SITE CONDITIONS.
 - ROCK CROSS VANES SHALL REST ON FOOTER ROCKS. USE ROCKS PROVIDED ON SITE.
 - ROCK VANES SHALL BE KEYED INTO UNDISTURBED BANK WITH SILL ROCKS.
 - CHOKE VOIDS IN VANES WITH SMALLER ROCKS (CONTRACTOR TO PROVIDE)
 - INSTALL HABITAT ROCKS PER ENGINEER'S DIRECTION
 - ROCK SHALL CONSIST OF LIMESTONE OR DOLOMITE, CONCRETE, SHALE, OR SANDSTONE SHALL BE USED

ROCK CROSS VANE
SCALE: NTS



ROCK J-HOOK
SCALE: NTS



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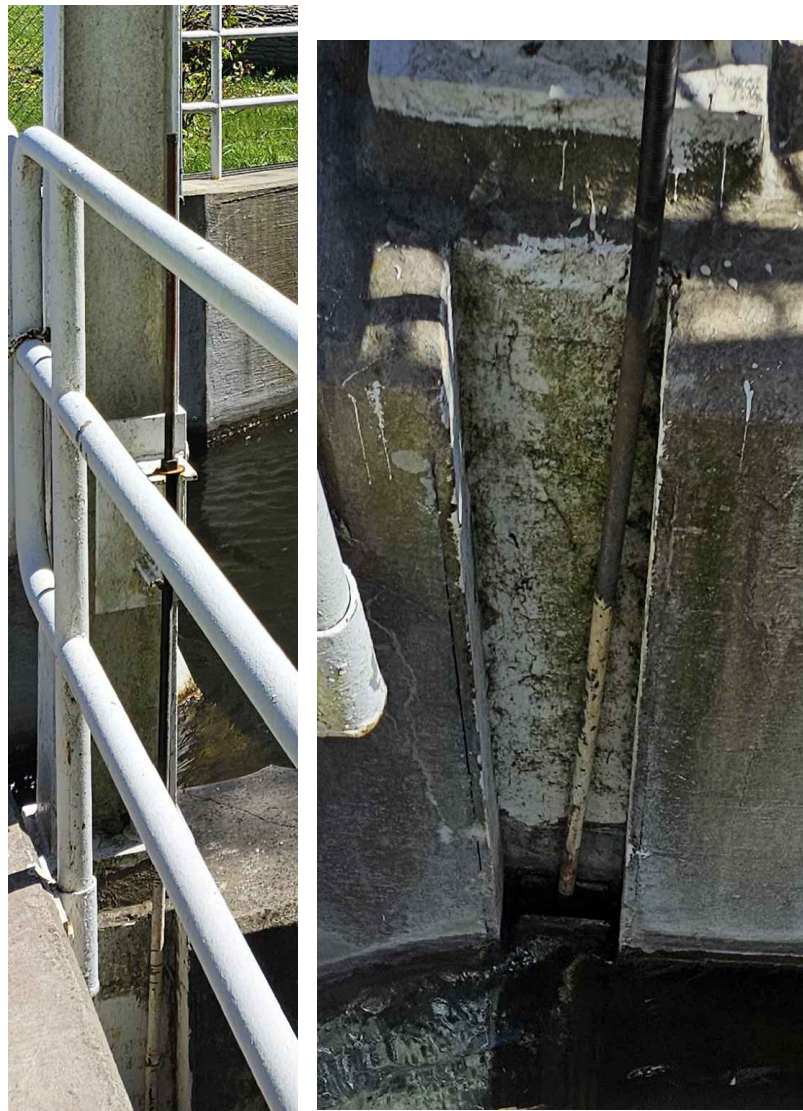
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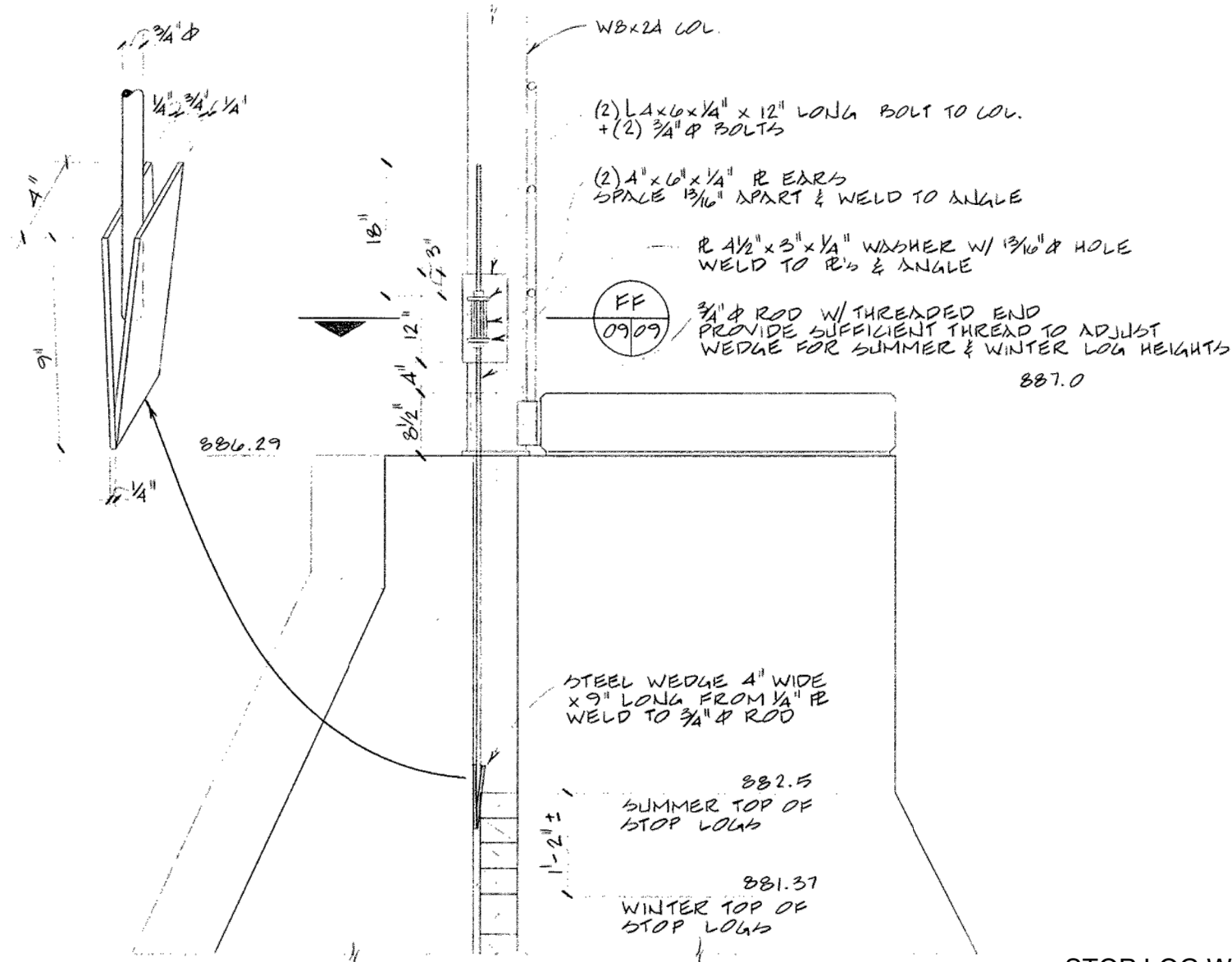
CULVERT DETAILS

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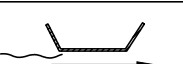

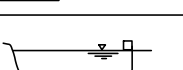
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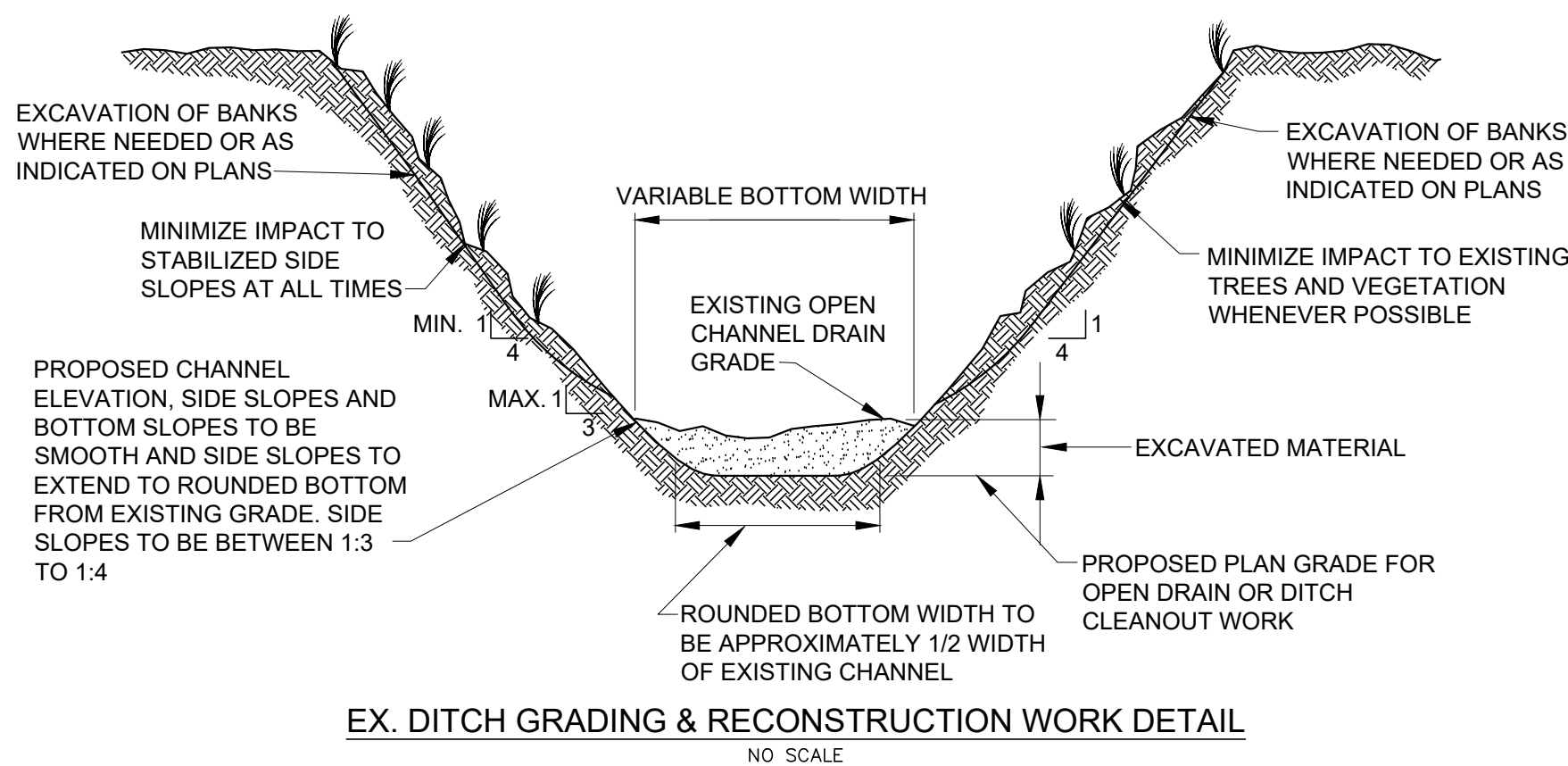


STOP LOG WEDGE DETAIL IS FROM PAST PROJECT FOR THE HI-LAND LAKE DAM STRUCTURE. THIS DETAIL TO BE USED AS A GUIDE FOR THOMPSON LAKE DAM. CONTRACTOR TO NOTIFY ENGINEER OF ANY CONFLICTS OF THIS DETAIL.



STOP LOG WEDGE DETAIL
SCALE: $\frac{3}{4}" = 1'-0"$

KEY	SESC MEASURE	SYMBOL	WHERE USED
1	Seeding		When bare soil is exposed, temporarily or permanently, to erosive forces from wind and or water on flat areas, mild slopes, grassed waterways and spillways, diversion ditches and dikes, borrow and stockpile areas, and spoil piles.
2	Mulch		On flat areas, slopes, grassed waterways and spillways, diversion ditches and dikes, borrow and stockpile areas, and spoil piles when areas are subject to raindrop impact, and erosive forces from wind or water.
5	Perimeter Sediment Control Measures (Silt Fence, Straw Wattles, etc.)		As a temporary measure used to capture sediment from sheet flow. May also divert small volumes of sheet flow to protected outlets.
7	Storm Drain Inlet Protection		Around the entrance to a catch basin or an inlet that will capture runoff from an earth change activity.
10	Soil Binding Polymers		Over all exposed soil surfaces or prepared seed beds that need protection from precipitation impact, sheet flow, fill flow or wind prior to erosive force impact.
15	Riprap		Along drain banks, shorelines, or where concentrated flows occur. Slows velocity, reduces erosion and sediment load.
26	Dust Control		As a temporary measure on exposed and unstabilized areas that must be protected from wind or water erosion.
38	Sheet Piling		As a permanent measure in locations where a vertical bank is required and other erosion control measures have failed. As a weir. As a temporary cofferdam during construction.
39	Dewatering/Bypass Pumping		When construction or maintenance activities are limited by the presence of water and a dry work area is required.
40	Turbidity Curtain		Within a stream or drain parallel to flow when a slack water area is necessary to isolate earth change activities from a lake or channel.



NO SCALE

1	11/14/24	BID SET	BJ

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