

CONSTRUCTION PLANS
 FOR
KEMPER DITCH, ARM 18
DRAIN TILE RECONSTRUCTION

PORTER CO. DEPARTMENT OF DEVELOPMENT & STORM WATER MANAGEMENT
 NOVEMBER 14, 2024

The following Construction Plans shall apply to and govern the project designated as **Kemper Ditch, Arm 18 - Drain Tile Reconstruction**. Such Construction Plans supplement the specifications contained in the documents listed in the table below and, in case of conflict with any part or parts of said specifications, the Engineer shall determine which specifications shall take precedence and govern. The following hierarchy will be applied by the Engineer in resolving any conflict, error, ambiguity, or discrepancy in or between said specifications.

Specification	Issuing Agency	Adopted/Dated
Special Provisions for Kemper Ditch, Arm 18 – Drain Tile Reconstruction	Porter Co. Department of Development & Storm Water Management	November 14, 2024
Technical Specifications for Kemper Ditch, Arm 18 - Drain Tile Reconstruction	Porter Co. Department of Development & Storm Water Management	November 14, 2024
Construction Plans for Kemper Ditch, Arm 18 - Drain Tile Reconstruction	Porter Co. Department of Development & Storm Water Management	November 14, 2024
General Specifications to the Construction & Maintenance Services Agreements	Porter Co. Department of Development & Storm Water Management	February 1, 2024

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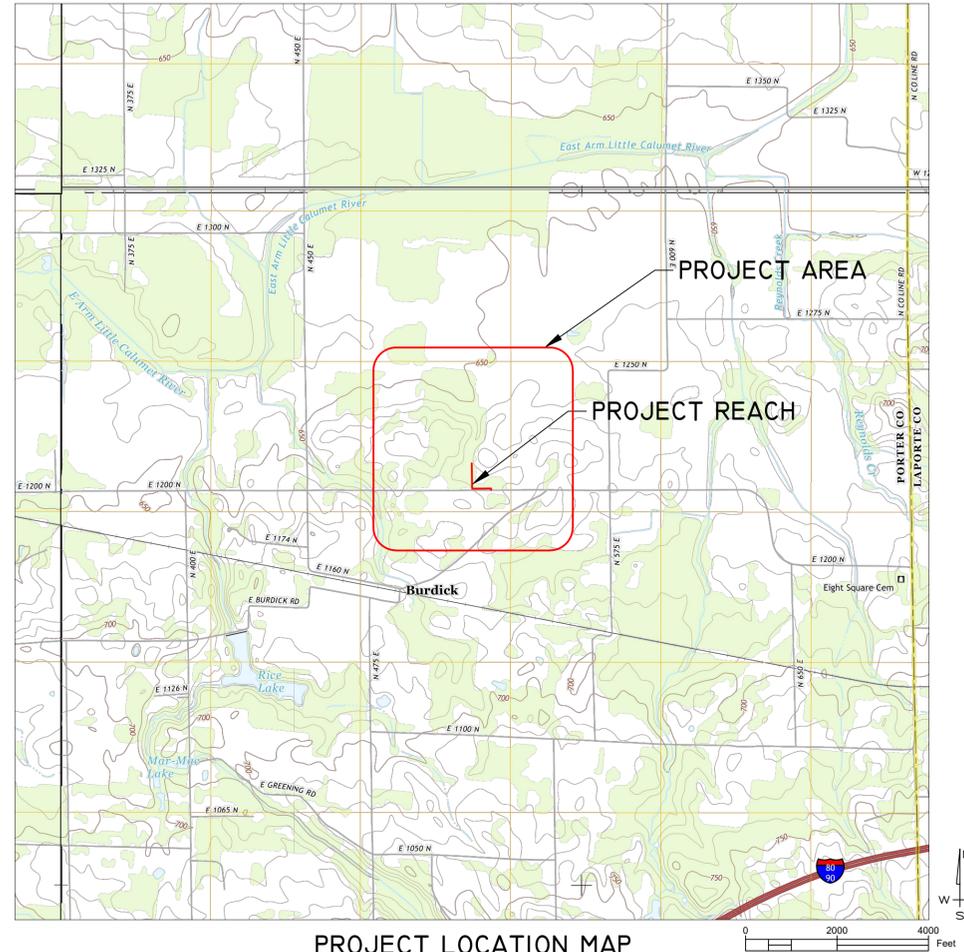
PORTER CO. DEPT. OF DEVELOPMENT & STORM WATER MANAGEMENT

KEMPER DITCH, ARM 18 DRAIN TILE RECONSTRUCTION

PORTER COUNTY, IN

OWNER:
 PORTER CO. DEPT. OF DEVELOPMENT &
 STORM WATER MANAGEMENT
 ATTN: CHELSEY R. GORDON, P.E.
 155 INDIANA AVE. STE. 311
 VALPARAISO, IN 46383
 P: (219) 465-3530

ENGINEER:
 PORTER CO. DEPT. OF DEVELOPMENT &
 STORM WATER MANAGEMENT
 ATTN: CHELSEY R. GORDON, P.E.
 155 INDIANA AVE. STE. 311
 VALPARAISO, IN 46383
 P: (219) 465-3530



PROJECT LOCATION MAP

- SHEET INDEX:**
1. COVER
 2. PLAN
 3. PROFILE
 4. DETAILS
 5. DETAILS

NO.	DATE	REVISION	BY
1	11/17/24	FOR BIDDING	CRG

DESIGNED:	CRG
DRAWN:	CRG
CHECKED:	CRG
DATE:	05/07/24
PROJECT NO.:	P25-003



**The Department of
 DEVELOPMENT &
 STORM WATER
 MANAGEMENT**
 Porter County, Indiana

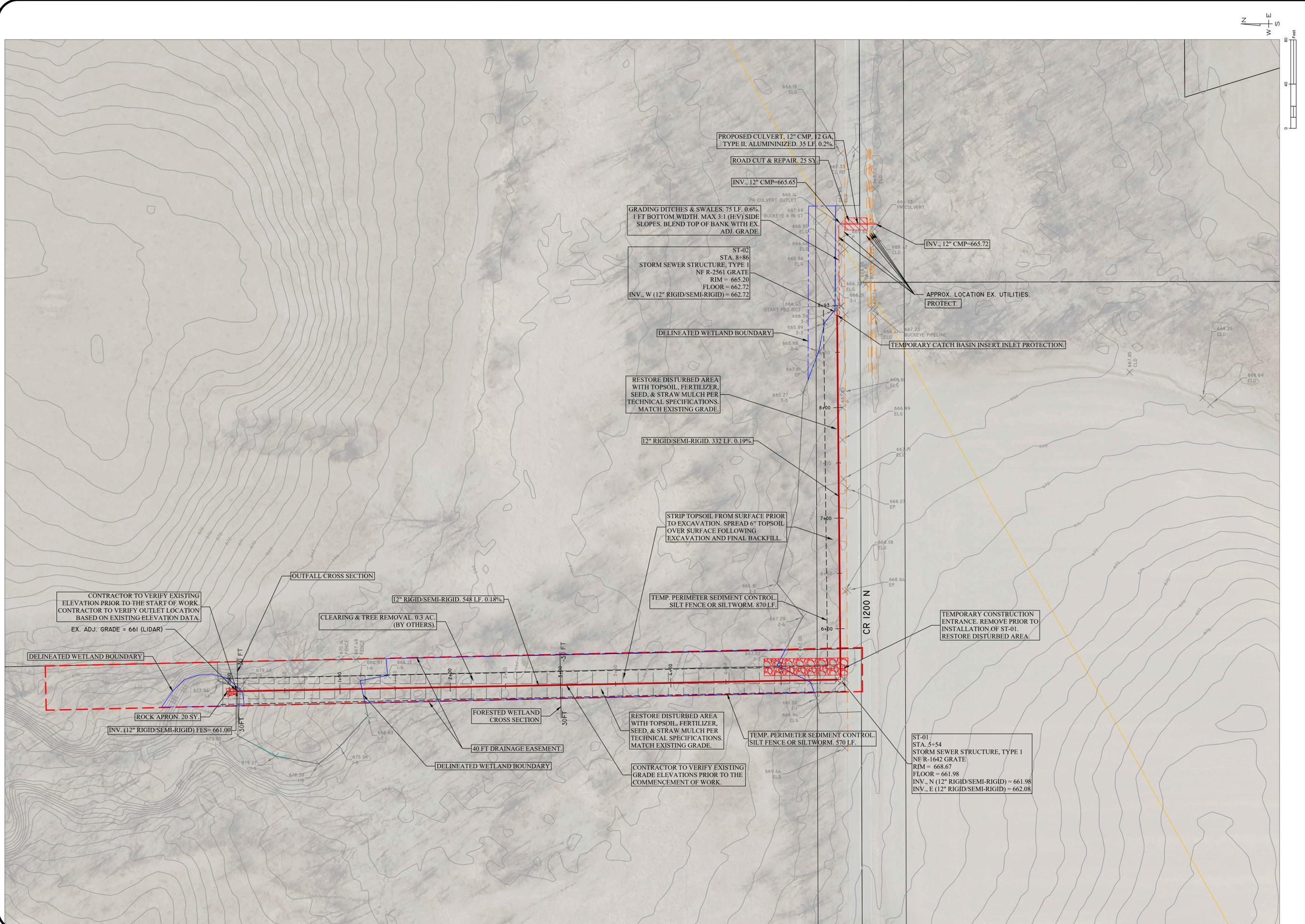
PROJECT:	KEMPER DITCH - ARM 18 DRAIN TILE RECONSTRUCTION	LOCATION:	CR 1200 N
SHEET TITLE:	SHEET 1 - COVER		

I, THE UNDERSIGNED, A PROFESSIONAL ENGINEER REGISTERED WITH THE STATE OF INDIANA, WHOSE LICENSE IS IN GOOD STANDING, HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION.

 CHELSEY R. GORDON, PE
 INDIANA LICENSED PROFESSIONAL ENGINEER NO. PEI2100019
 EXPIRES 7/31/2026

APPROVED FOR CONSTRUCTION BY: -----
 CHELSEY R. GORDON, PE
 STORM WATER PROGRAM MANAGER

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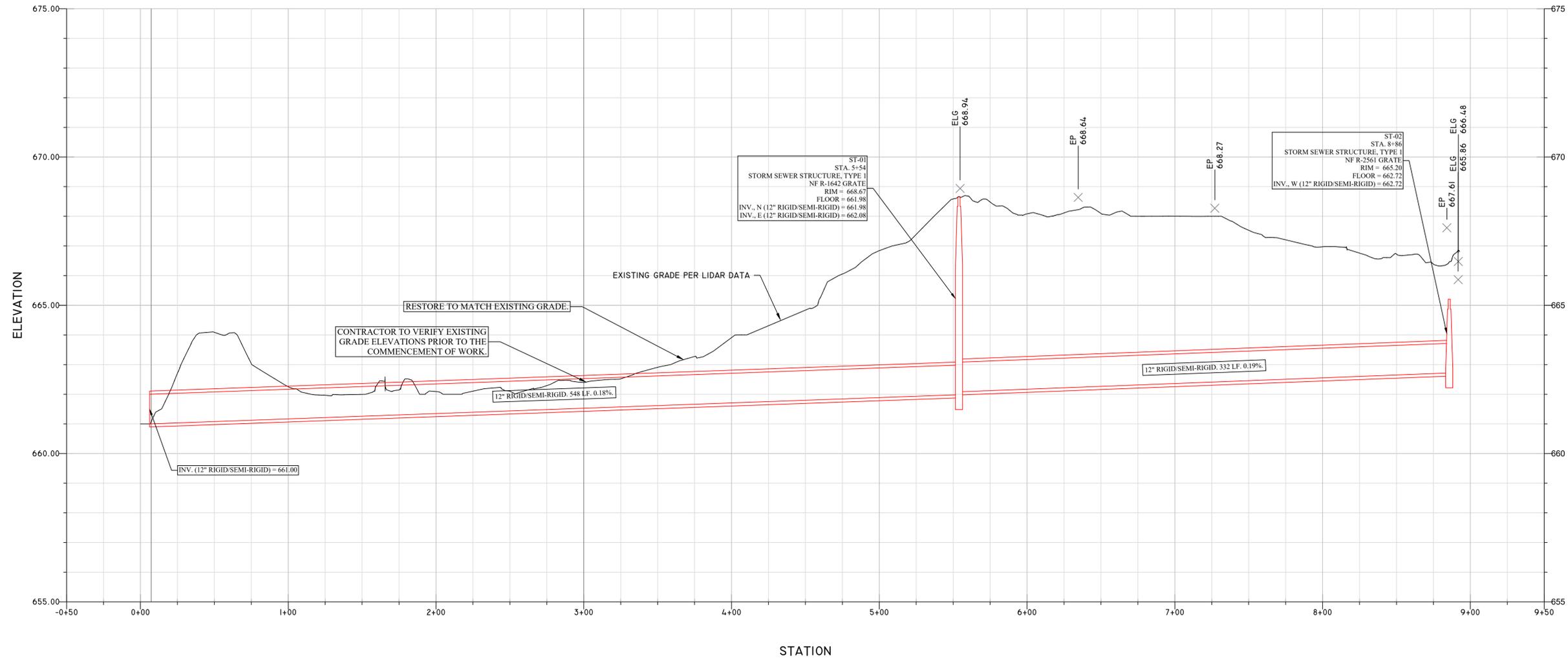


BY:	CRG
REVISION:	FOR BIDDING
DATE:	11/17/24
NO.:	1
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DATE:	05/07/24
PROJECT NO.:	P25-003
PROJECT:	KEMPER DITCH - ARM 18 DRAIN TILE RECONSTRUCTION
LOCATION:	CR 1200 N
SHEET TITLE:	SHEET 2-PLAN
SHEET NO.:	2 OF 5

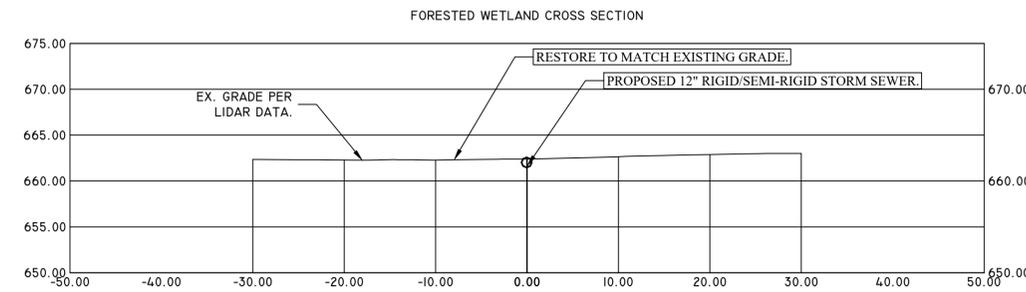
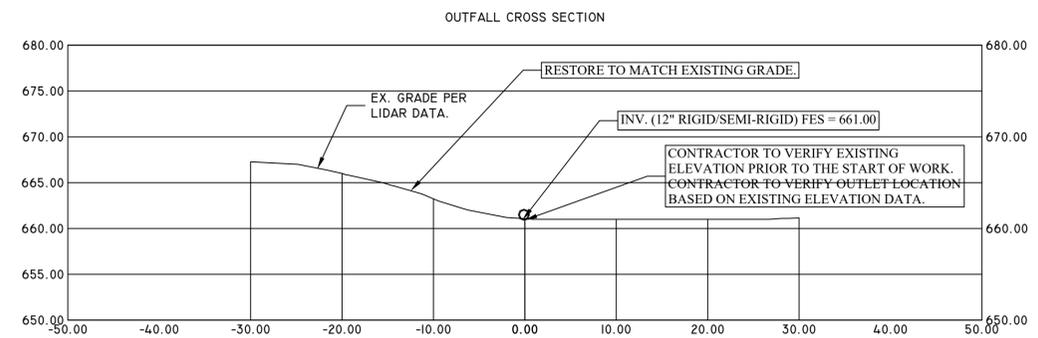


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PROFILE VIEW OF KEMPER DITCH ARM 18



G:\SYSTEM ADMIN\2022 STORM WATER MANAGEMENT\2022 PROJECTS\KEMPER DITCH ARM 18\KEMPER DITCH ARM 18.DWG



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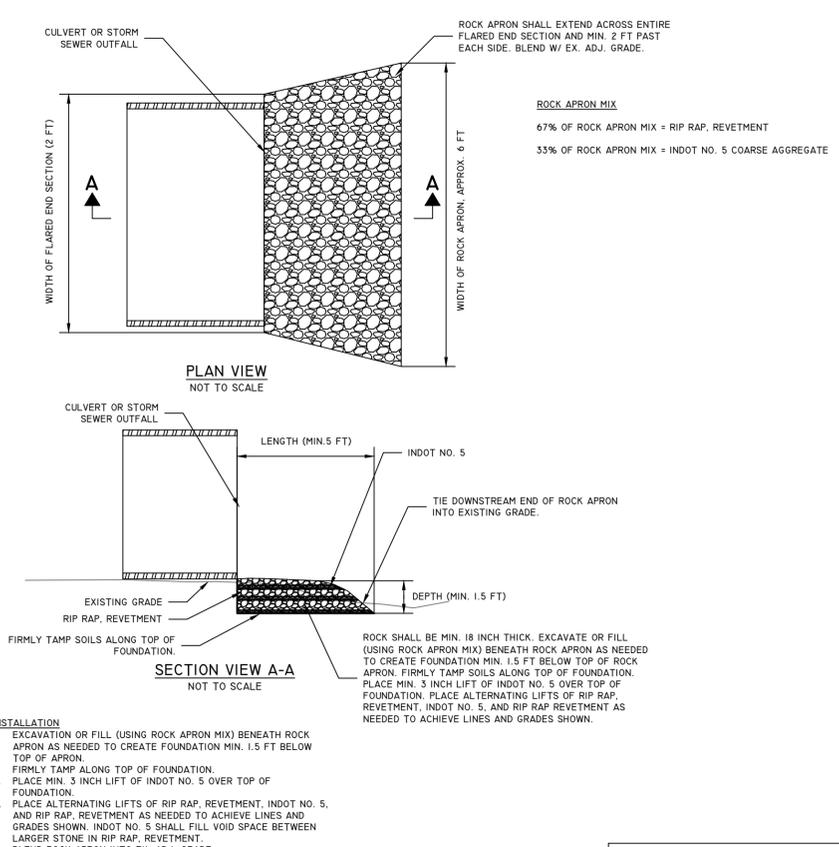
The Department of
STORM WATER MANAGEMENT
 Porter County, Indiana

PROJECT: KEMPER DITCH, ARM 18 DRAIN TILE RECONSTRUCTION

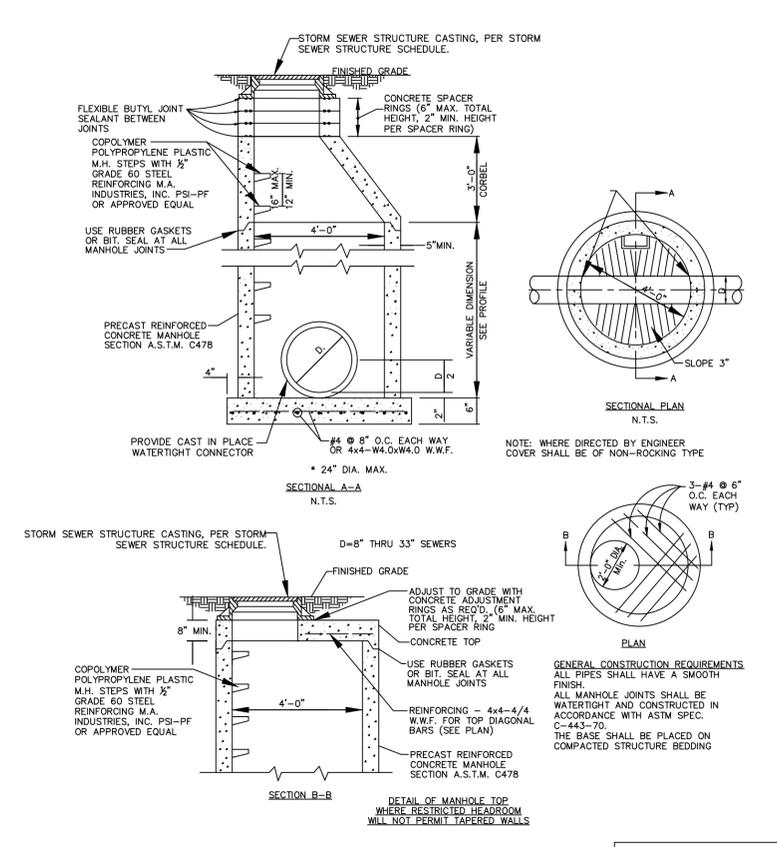
LOCATION: CR 1200 N

SHEET TITLE: SHEET 3-PROFILE

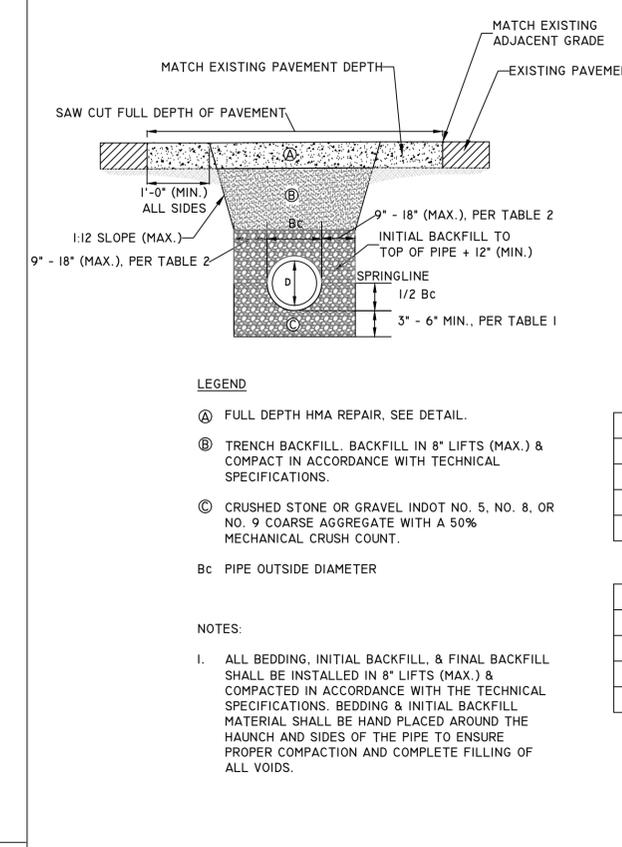
SHEET NO.:



ROCK APRON



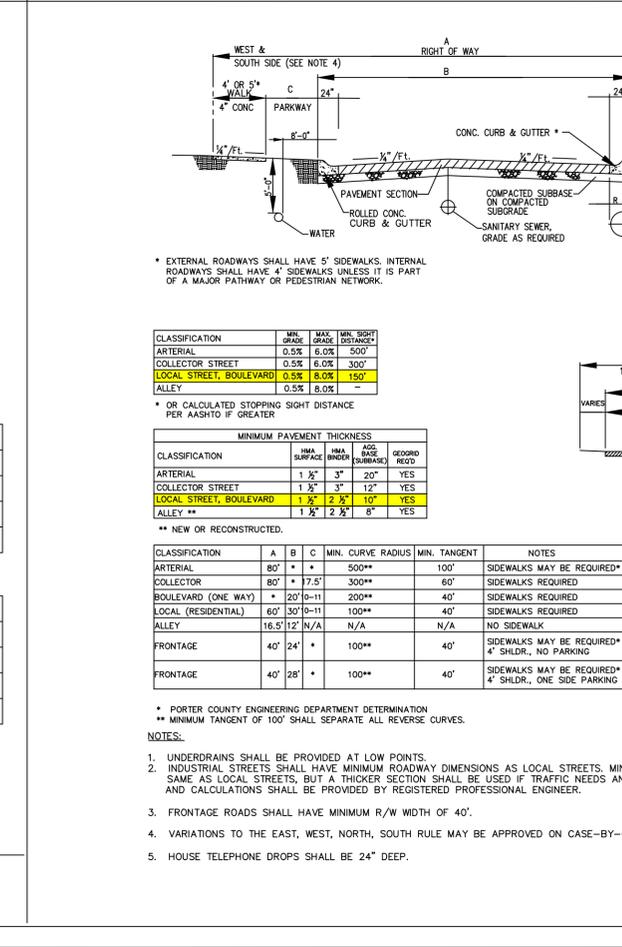
STORM SEWER STRUCTURE, TYPE 1



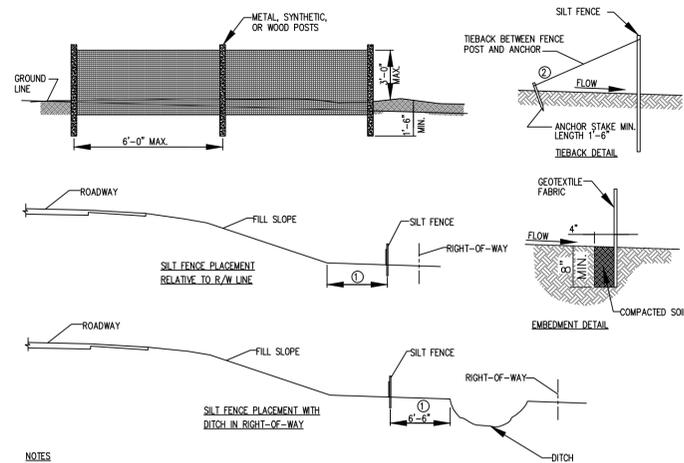
ROAD CUT & REPAIR



DRAIN TILE BEDDING AND BACKFILL



FULL DEPTH HMA REPAIR



NOTES

- DIMENSIONS WILL VARY BASED ON RIGHT-OF-WAY AVAILABILITY. SILT FENCE SHALL BE PLACED AS CLOSE AS POSSIBLE TO EDGE OF CONSTRUCTION LIMITS.
- THE SPACING OF THE TIEBACKS SHALL EQUAL THE SPACING OF THE POSTS. ADDITIONAL POST DEPTH OR TIEBACKS MAY BE REQUIRED IN UNSTABLE SOILS.

INSTALLATION

- THE SILT FENCE SHALL BE ATTACHED TO HARDWOOD STAKES WITH HARDWOOD LATHS AND SECURED WITH FIVE 1-1/2" STAPLES. HARDWOOD STAKES SHALL BE 6" ON CENTER. THE BOTTOM 12" OF FABRIC SHALL BE LEFT UNSECURED TO ALLOW FOR ENTRENCHMENT.
- A 6" DEEP TRENCH ALONG PROPOSED FENCE LINE SHALL BE CREATED. DRIVE THE STAKES INTO THE TRENCH 8-12" OR UNTIL SECURE. BE SURE TO STRETCH FABRIC TAUT WHEN DRIVING STAKES. STAKES MUST BE INSTALLED ON THE DOWNHILL OR DOWNSTREAM SIDE OF FENCE. DRAP LOOSE END OF GEOTEXTILE INTO TRENCH, THEN BACKFILL AND COMPACT ON BOTH SIDES.
- LIMITED TO 1/4 ACRE PER 100 LINEAR FEET OF FENCE.
- | % SLOPE | MAX DISTANCE |
|--------------|-------------------------------|
| < 50:1 | 100 FEET |
| 50:1 TO 20:1 | 75 FEET |
| >20:1 | PROVIDE SURFACE STABILIZATION |
- INSTALL PARALLEL TO THE SLOPE CONTOUR.
- DO NOT USE FOR SHALLOW CONCENTRATED OR CHANNEL FLOW.

MAINTENANCE

- INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY 7 CALENDAR DAYS.
- IF FENCE FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY. NOTE: ALL REPAIRS SHOULD MEET SPECIFICATIONS AS OUTLINED BY THE MANUFACTURER.
- REMOVE DEPOSITED SEDIMENT WHEN IT IS CAUSING THE FILTER FABRIC TO BULGE OR WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT. WHEN CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE THE FENCE AND SEDIMENT DEPOSITS, GRADE THE SITE TO BLEND WITH THE SURROUNDING AREA, AND STABILIZE.

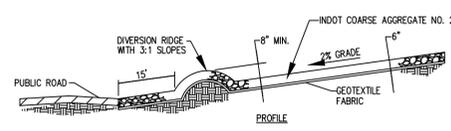
TEMPORARY SILT FENCE

REQUIREMENTS:

MATERIAL: 1-2.5 IN. WASHED STONE (NDOT STONE NO. 2) OVER A STABLE FOUNDATION. THICKNESS: 6 IN. MINIMUM. WIDTH: 12 FT. MINIMUM OR FULL WIDTH OF ENTRANCE/EXIT ROADWAY, WHICHEVER IS GREATER. LENGTH: 50 FT. MINIMUM. THE LENGTH CAN BE SHORTER FOR SMALL SITES SUCH AS FOR AN INDIVIDUAL HOME, BUT SHALL BE OF SUFFICIENT LENGTH TO PREVENT TRACKING. WASHING FACILITY (OPTIONAL): LEVEL AREA WITH 3 IN. WASHED STONE MINIMUM OR A COMMERCIAL RACK, AND WASTE WATER DIVERTED TO A SEDIMENT TRAP OR BASIN. GEOTEXTILE FABRIC UNDERLAYER: REQUIRED TO PROVIDE GREATER BEARING STRENGTH.

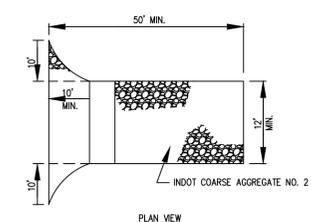
INSTALLATION:

- AVOID LOCATING ON STEEP SLOPES OR AT CURVES IN PUBLIC ROADS.
- REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA, AND GRADE AND CROWN FOR POSITIVE DRAINAGE.
- IF SLOPE TOWARDS THE ROAD EXCEEDS 2%, CONSTRUCT A 6-8 IN.-HIGH WATER BAR (RIDGE) WITH 3:1 SIDE SLOPES ACROSS THE FOUNDATION AREA ABOUT 15 FT. FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE ROAD (SEE PROFILE).
- INSTALL PIPE UNDER THE PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.
- PLACE STONE TO DIMENSIONS AND GRADE SHOWN IN THE EROSION/SEDIMENT CONTROL PLAN, LEAVING THE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.
- DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN.

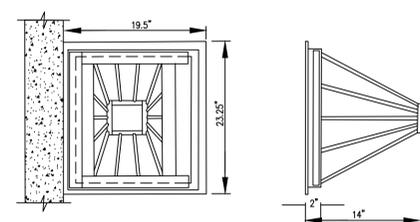
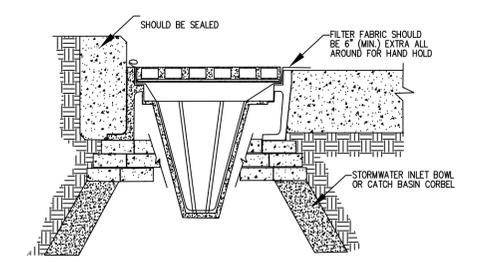


MAINTENANCE

- INSPECT ENTRANCE PAD, SEDIMENT DISPOSAL AREA, AND ALL OTHER EROSION CONTROL MEASURES WEEKLY AND AFTER STORM EVENTS OR HEAVY USE. REQUIRED REPAIRS SHOULD BE COMPLETED IMMEDIATELY.
- RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
- TOPRESS WITH CLEAN STONE AS NEEDED.
- IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. FLUSHING SHOULD ONLY BE USED IF THE WATER IS CONVEYED INTO A SEDIMENT TRAP OR BASIN.
- REPAIR ANY BROKEN ROAD PAVEMENT IMMEDIATELY.



TEMPORARY CONSTRUCTION ENTRANCE



PURPOSE:

- TO PREVENT EXCESSIVE SEDIMENT FROM ENTERING STORM SEWERS AT CURB INLETS, ALLOWING FULL USE OF THE STORM DRAIN SYSTEM DURING THE CONSTRUCTION PERIOD.

REQUIREMENTS:

- BASKET: FABRICATED METAL WITH TOP WIDTH-LENGTH DIMENSIONS SUCH THAT THE BASKET FITS INTO THE INLET WITHOUT CAPS, AND LINE IT WITH GEOTEXTILE FABRIC FOR FILTRATION.

INSTALLATION:

- INSTALL BASKET CURB INLET PROTECTIONS AS SOON AS INLET BOXES ARE INSTALLED IN A NEW DEVELOPMENT OR BEFORE LAND DISTURBING ACTIVITIES BEGIN IN A STABILIZED AREA.
- REMOVE THE GRATE AND PLACE THE BASKET IN THE INLET.
- CUT AND INSTALL A PIECE OF FILTER FABRIC LARGE ENOUGH TO LINE THE INSIDE OF THE BASKET AND EXTEND AT LEAST 6" BEYOND THE FRAME.
- REPLACE THE INLET GRATE WHICH ALSO SERVES TO ANCHOR THE FABRIC.
- FOLLOW INSTRUCTIONS AS PROVIDED BY MANUFACTURER.

MAINTENANCE:

- INSPECT WITHIN 24 HOURS AFTER EACH STORM EVENT.
- REMOVE BUILT-UP SEDIMENT AND REPLACE THE GEOTEXTILE FABRIC AFTER EACH STORM EVENT.
- REPLACE BASKET EVERY SIX (6) MONTHS.
- REPLACE BASKET AFTER ANY OIL, GASOLINE OR SOLVENT SPILL, OR IF THERE IS A HOLE IN THE FABRIC.

CATCH BASIN INSERT INLET PROTECTION

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LOCATION:	CR 1200 N
SHEET TITLE:	SHEET 5-DETAILS

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