

**CONSTRUCTION PLANS**  
 FOR  
**HIDDEN HOLLOW SUBDIVISION**  
**STORM WATER MANAGEMENT SYSTEM IMPROVEMENTS, PHASE 1**

PORTER CO. DEPARTMENT OF DEVELOPMENT & STORM WATER MANAGEMENT  
 DECEMBER 21, 2021

The following Construction Plans shall apply to and govern the project designated as **Hidden Hollow Subdivision – Storm Water Management System Improvements, Phase 1**. 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.

<b>Specification</b>	<b>Issuing Agency</b>	<b>Adopted/Dated</b>
Special Provisions for Hidden Hollow Subdivision – Storm Water Management System Improvements, Phase 1	Porter Co. Department of Development & Storm Water Management	December 21, 2021
Technical Specifications for Hidden Hollow Subdivision – Storm Water Management System Improvements, Phase 1	Porter Co. Department of Development & Storm Water Management	December 21, 2021
Construction Plans for Hidden Hollow Subdivision – Storm Water Management System Improvements, Phase 1	Porter Co. Department of Development & Storm Water Management	December 21, 2021
General Specifications to the Construction & Maintenance Services Agreements	Porter Co. Department of Development & Storm Water Management	February 1, 2022

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# PORTER CO. DEPT. OF DEVELOPMENT & STORM WATER MANAGEMENT

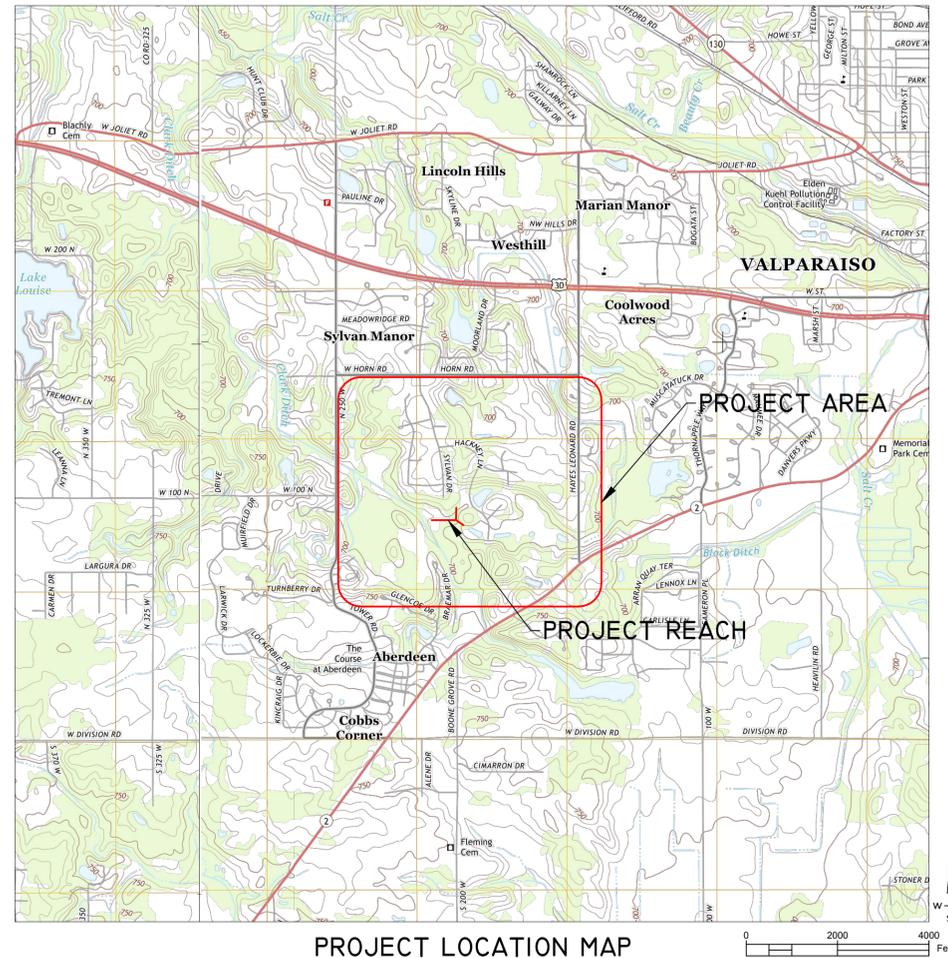
## HIDDEN HOLLOW SUBDIVISION

### STORM WATER MANAGEMENT SYSTEM IMPROVEMENTS, PHASE I

### PORTER COUNTY, IN

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

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



- SHEET INDEX:**
1. COVER
  2. PLAN
  3. PROFILE & STORM SEWER STRUCTURE SCHEDULE
  4. DETAILS
  5. EROSION & SEDIMENT CONTROL PLAN & RESTORATION PLAN

NO.	DATE	REVISION	BY
1	6/02/20	INTERNAL REVIEW	CRG
2	9/08/20	WETLAND DELINEATION	CRG
3	02/11/21	INTERNAL REVIEW	CRG
4	8/5/21	ANNEEN COORDINATION MEETING	CRG
5	12/8/21	INTERNAL REVIEW	CRG
6	12/21/21	FOR BIDDING	CRG

DESIGNED:	CRG
DRAWN:	CRG
CHECKED:	MEN
DATE:	04/12/18
PROJECT NO.:	P21-053



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

PROJECT:	HIDDEN HOLLOW SUBD. - SWM SYSTEM IMPROVEMENTS, PHASE I
LOCATION:	HIDDEN HOLLOW SUBDIVISION - HACKNEY LANE
SHEET TITLE:	SHEET 1 - COVER

SHEET NO.:	1 of 5
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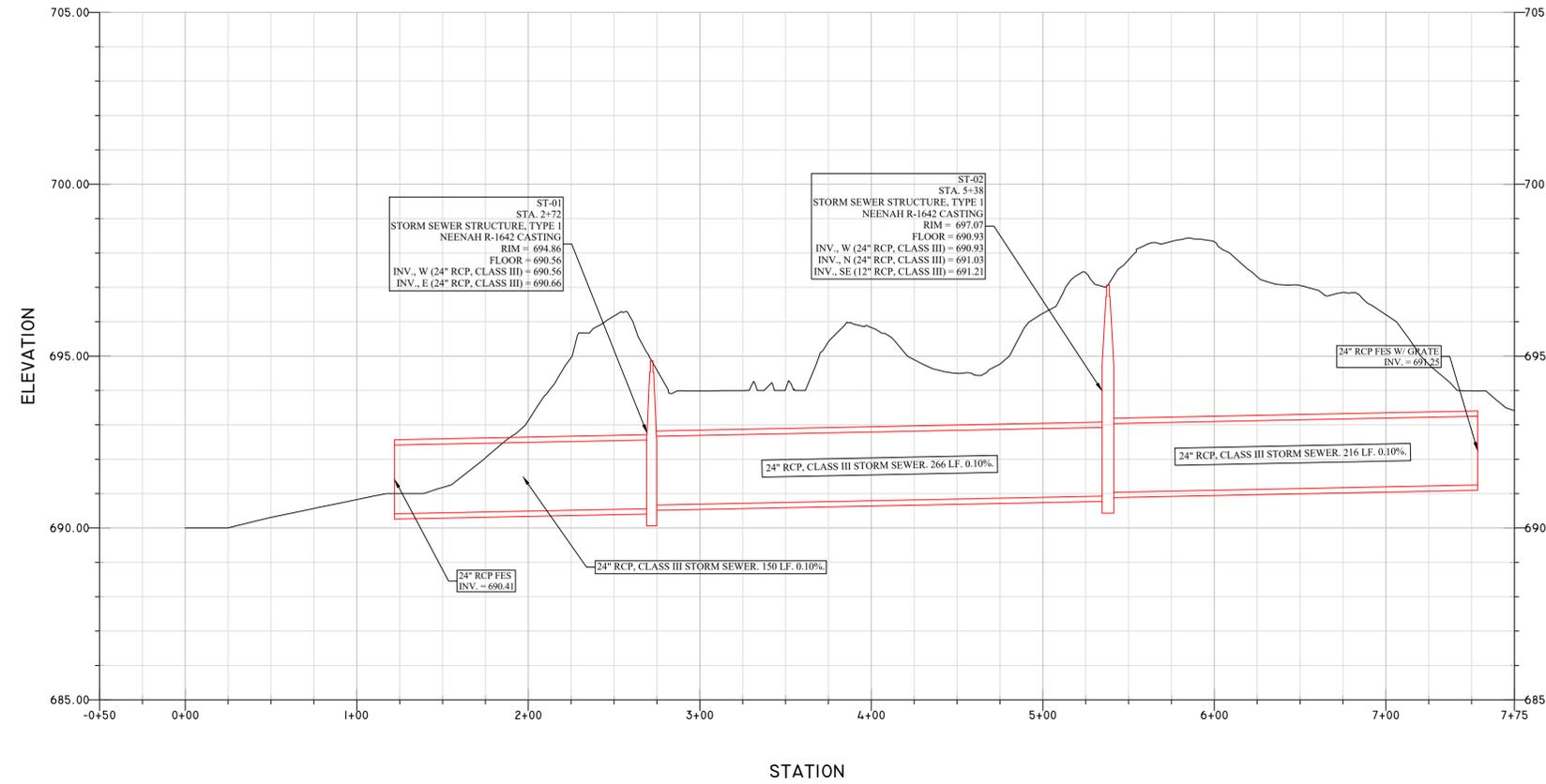
I, THE UNDERSIGNED, A PROFESSIONAL ENGINEER REGISTERED WITH THE STATE OF INDIANA, WHOSE LICENSE IS IN GOOD STANDING, HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION.

CHELSEY R. GORDON, PE  
 INDIANA LICENSED PROFESSIONAL ENGINEER NO. PEI2100019  
 EXPIRES 7/31/2022

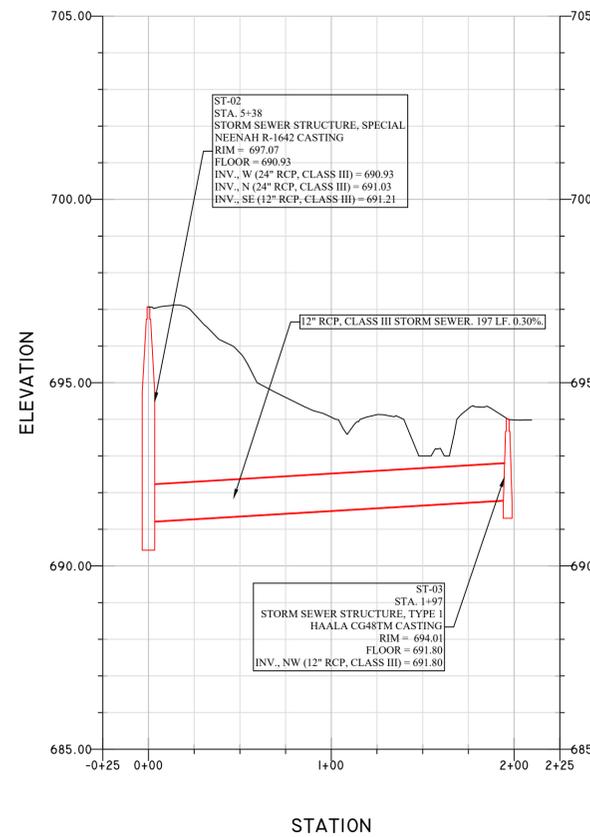
APPROVED FOR CONSTRUCTION BY: \_\_\_\_\_  
 MICHAEL E. NOVOTNEY, PE  
 COUNTY ENGINEER



PROFILE VIEW OF HIDDEN HOLLOW SUBD. SWM SYSTEM IMPROVEMENTS - LINE A



PROFILE VIEW OF HIDDEN HOLLOW SUBD. SWM SYSTEM IMPROVEMENTS - LINE B



HIDDEN HOLLOW SUBD SWM SYSTEM IMPROVEMENTS STORM SEWER STRUCTURE SCHEDULE									
STRUCTURE NO.	STATION	NORTHING	EASTING	DIA.	RIM ELEV.	FLOOR ELEV.	PIPE OUT, INVERT(S)	PIPE IN, INVERT(S) AND ANGLE(S) (FROM OUT)	CASTINGS
ST-01	2+72	2258010.14	2946694.06	5 FT	694.86	690.56	W 24" RCP, CLASS III 690.56	E 24" RCP, CLASS III 690.66, 180°	NEENAH R-1642
ST-02	5+38	2258009.49	2946960.09	6 FT	697.07	690.93	W 24" RCP, CLASS III 690.93	N 24" RCP, CLASS III 691.03, 90° SE 12" RCP, CLASS III 691.21, 214°	NEENAH R-1642
ST-03	1+97	2257900.33	2947123.53	4 FT	694.01	691.80	NW 12" RCP, CLASS III 691.80	N/A	HAALA CG48TM

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4	8/5/21	ANNEK COORDINATION MEETING	CRG
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6	12/21/21	FOR BIDDING	CRG

DESIGNED:	CRG
DRAWN:	CRG
CHECKED:	MEN
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The Department of  
**STORM WATER  
MANAGEMENT**  
Porter County, Indiana

PROJECT: HIDDEN HOLLOW SUBD. - SWM SYSTEM IMPROVEMENTS  
LOCATION: HIDDEN HOLLOW SUBDIVISION - HACKNEY LANE  
SHEET TITLE: SHEET 3 - PROFILE & STORM SEWER STRUCTURE SCHEDULE

SHEET NO.:

NO.	DATE	REVISION
1	6/02/20	INTERNAL REVIEW
2	9/08/20	WETLAND DELINEATION
3	02/11/21	INTERNAL REVIEW
4	8/5/21	ANNEN COORDINATION MEETING
5	12/8/21	INTERNAL REVIEW
6	12/21/21	FOR BIDDING

DESIGNED:	CRG
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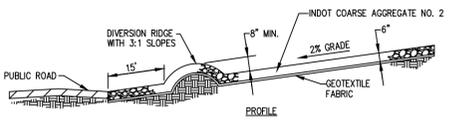


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Porter County, Indiana

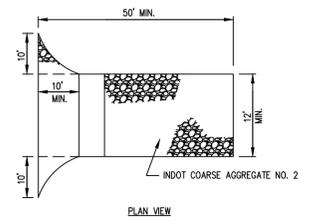
PROJECT:	HIDDEN HOLLOW SUBD. - SWM SYSTEM IMPROVEMENTS, PHASE I
LOCATION:	HIDDEN HOLLOW SUBDIVISION - HACKNEY LANE
SHEET TITLE:	SHEET 4 - DETAILS

**REQUIREMENTS:**  
MATERIAL: 1-2.5 IN. WASHED STONE (INDOT 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.

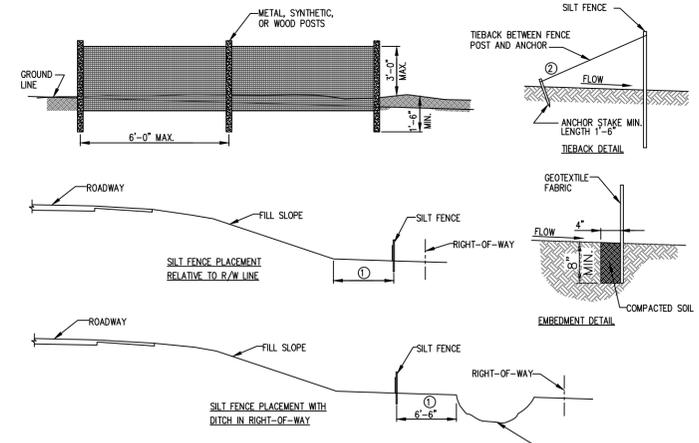
- INSTALLATION:**
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES IN PUBLIC ROADS.
  2. REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA, AND GRADE AND CROWN FOR POSITIVE DRAINAGE.
  3. IF SLOPE TOWARDS THE ROAD EXCEEDS 2%, CONSTRUCT A 6-8 IN.-HIGH WATER BAR (RIDGE) WITH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



**NOTES**

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

**INSTALLATION**

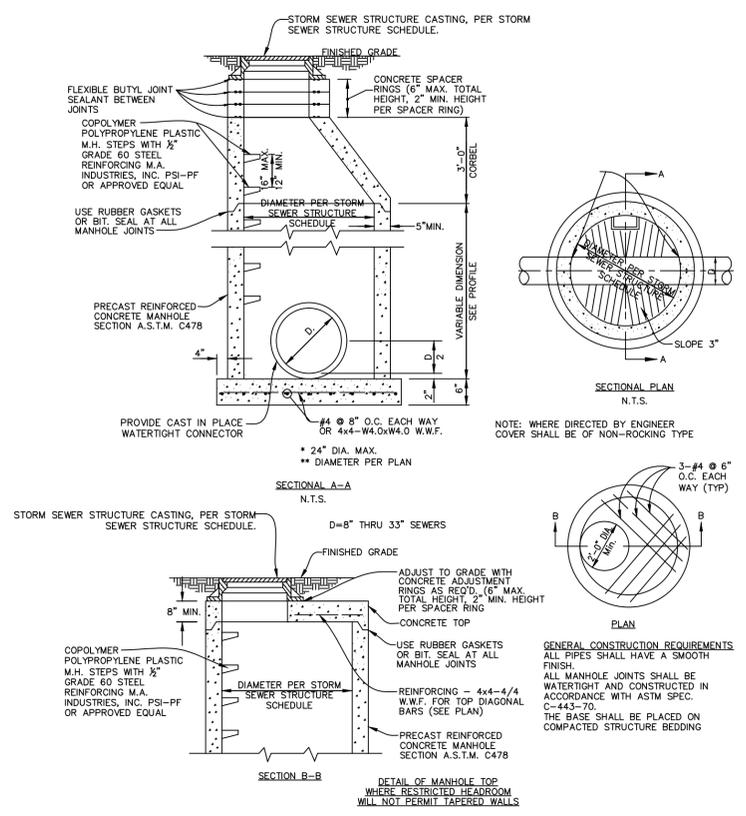
1. THE SILT FENCE SHALL BE ATTACHED TO HARDWOOD STAKES WITH HARDWOOD LATHS AND SECURED WITH FIVE 1-1/2" STAPLES. HARDWOOD STAKES SHALL BE 6' ON CENTER. THE BOTTOM 12" OF FABRIC SHALL BE LEFT UNSECURED TO ALLOW FOR ENTRENCHMENT.
2. A 6" DEEP TRENCH ALONG PROPOSED FENCE LINE SHALL BE CREATED. DRIVE THE STAKES INTO THE TRENCH 8-12" OR UNTIL SECURE. BE SURE TO STRETCH FABRIC TAUT WHEN DRIVING STAKES. STAPLES MUST BE INSTALLED ON THE DOWNHILL OR DOWNSTREAM SIDE OF FENCE. DRAPE LOOSE END OF GEOTEXTILE INTO TRENCH, THEN BACKFILL AND COMPACT ON BOTH SIDES.
3. LIMITED TO 1/4 ACRE PER 100 LINEAR FEET OF FENCE.
4. X SLOPE MAX DISTANCE  

< 50:1	100 FEET
50:1 TO 20:1	75 FEET
> 20:1	PROVIDE SURFACE STABILIZATION.
5. INSTALL PARALLEL TO THE SLOPE CONTOUR.
6. DO NOT USE FOR SHALLOW CONCENTRATED OR CHANNEL FLOW.

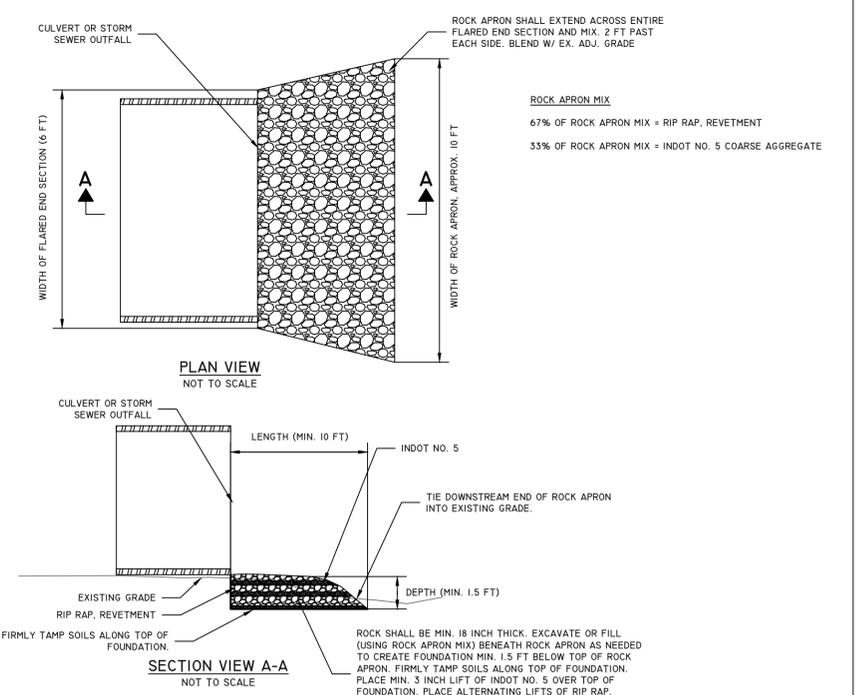
**MAINTENANCE**

1. INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY 7 CALENDAR DAYS.
2. 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.
3. 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.

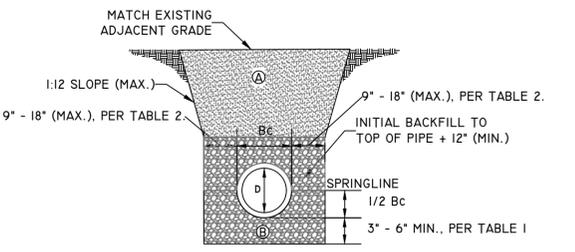
TEMPORARY SILT FENCE



STORM SEWER STRUCTURE, SPECIAL



ROCK APRON



**LEGEND**

- Ⓐ UNDER PAVEMENT AND/OR WITHIN 2 FT OF PAVEMENT, TRENCH BACKFILL SHALL BE USED. ELSEWHERE, SUITABLE EXCAVATED MATERIAL MAY BE USED. INSTALL FINAL BACKFILL & COMPACT IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS.
- Ⓑ CRUSHED STONE OR GRAVEL INDOT NO. 5, NO. 8, OR NO. 9 COARSE AGGREGATE WITH A 50% MECHANICAL CRUSH COUNT.

Bc PIPE OUTSIDE DIAMETER

**NOTES:**

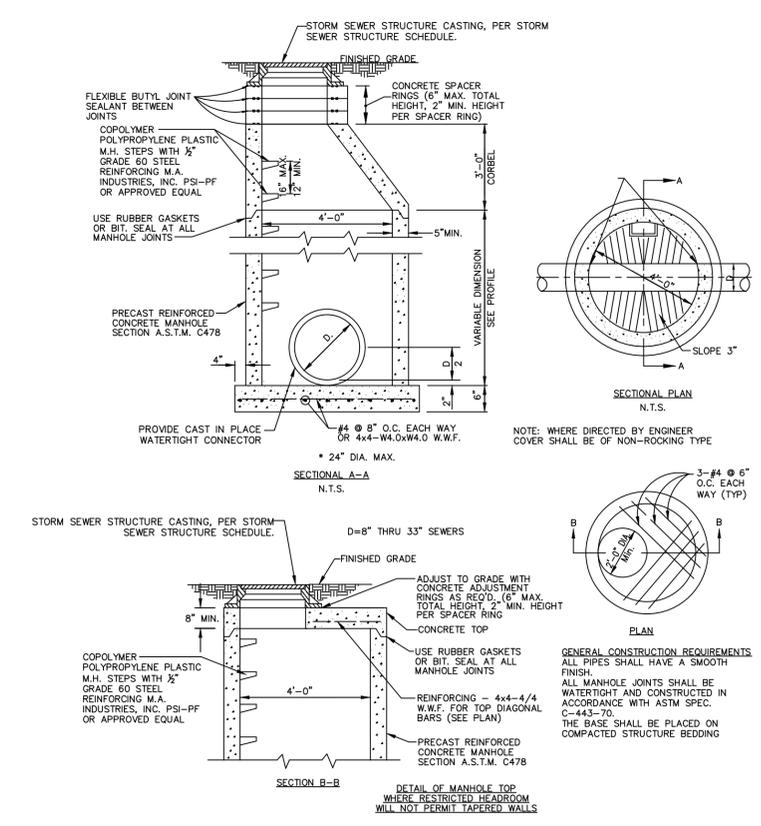
1. ALL BEDDING & INITIAL BACKFILL SHALL BE INSTALLED IN 8" LIFTS (MAX.) & COMPACTED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS. BEDDING & INITIAL BACKFILL MATERIAL SHALL BE HAND PLACED AROUND THE HAUNCH AND SIDES OF THE PIPE TO ENSURE PROPER COMPACTION AND COMPLETE FILLING OF ALL VOIDS.

TABLE 1.

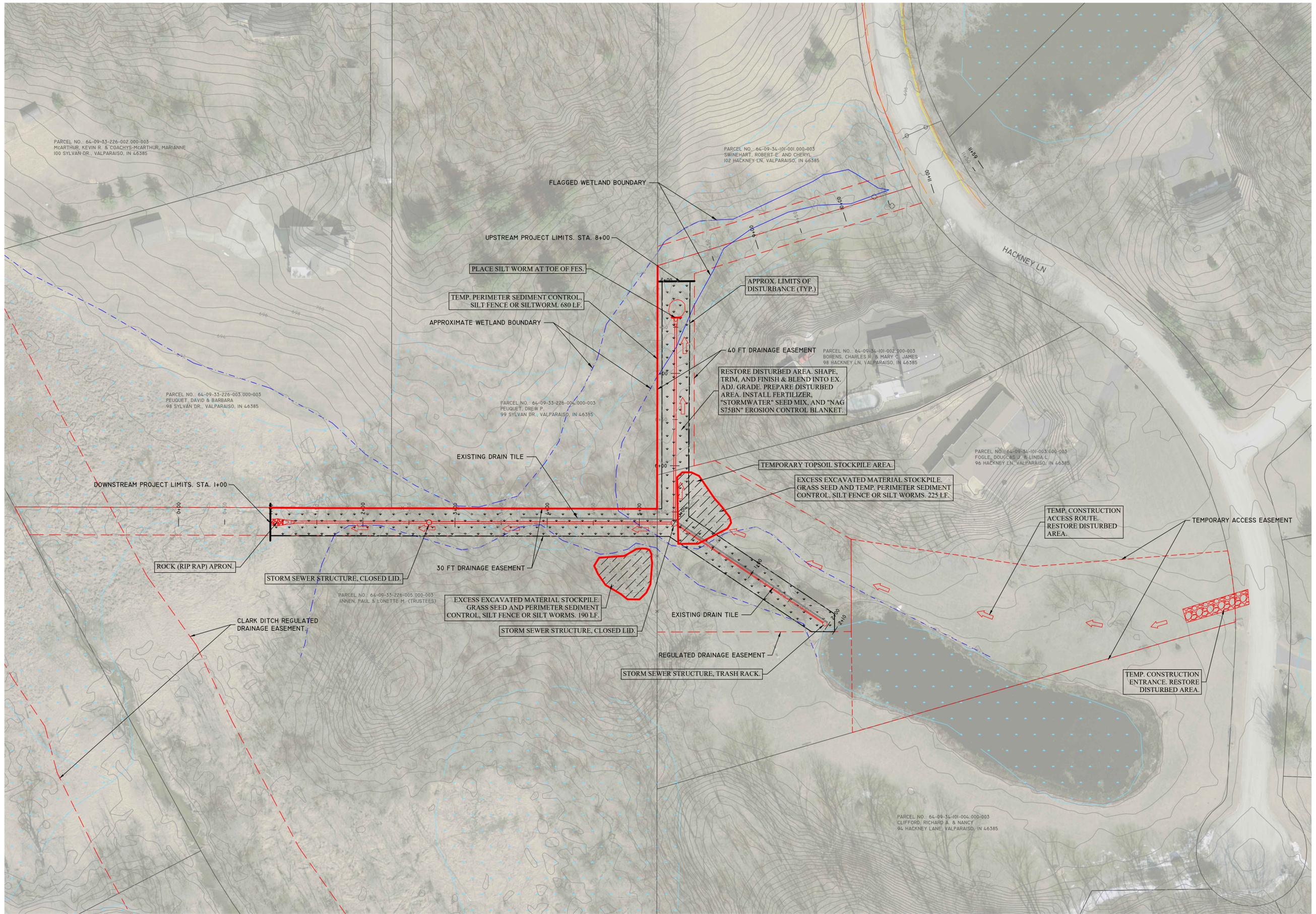
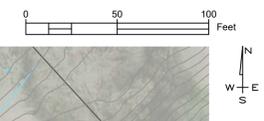
DEPTH OF BEDDING BELOW PIPE	
D	BEDDING (MIN.)
D < 24IN.	3 IN.
24 IN. ≤ D ≤ 60 IN.	4 IN.
D > 60 IN.	6 IN.

TABLE 2.

WIDTH OF TRENCH, EACH SIDE OF PIPE	
D	WIDTH (MAX.)
D < 24IN.	9 IN.
24 IN. ≤ D ≤ 60 IN.	12 IN.
D > 60 IN.	18 IN.



STORM SEWER STRUCTURE, TYPE 1



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PROJECT:	HIDDEN HOLLOW SUBD. - SWM SYSTEM IMPROVEMENTS
LOCATION:	HIDDEN HOLLOW SUBDIVISION - HACKNEY LANE
SHEET TITLE:	SHEET 5-EROSION & SEDIMENT CONTROL PLAN & RESTORATION PLAN

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