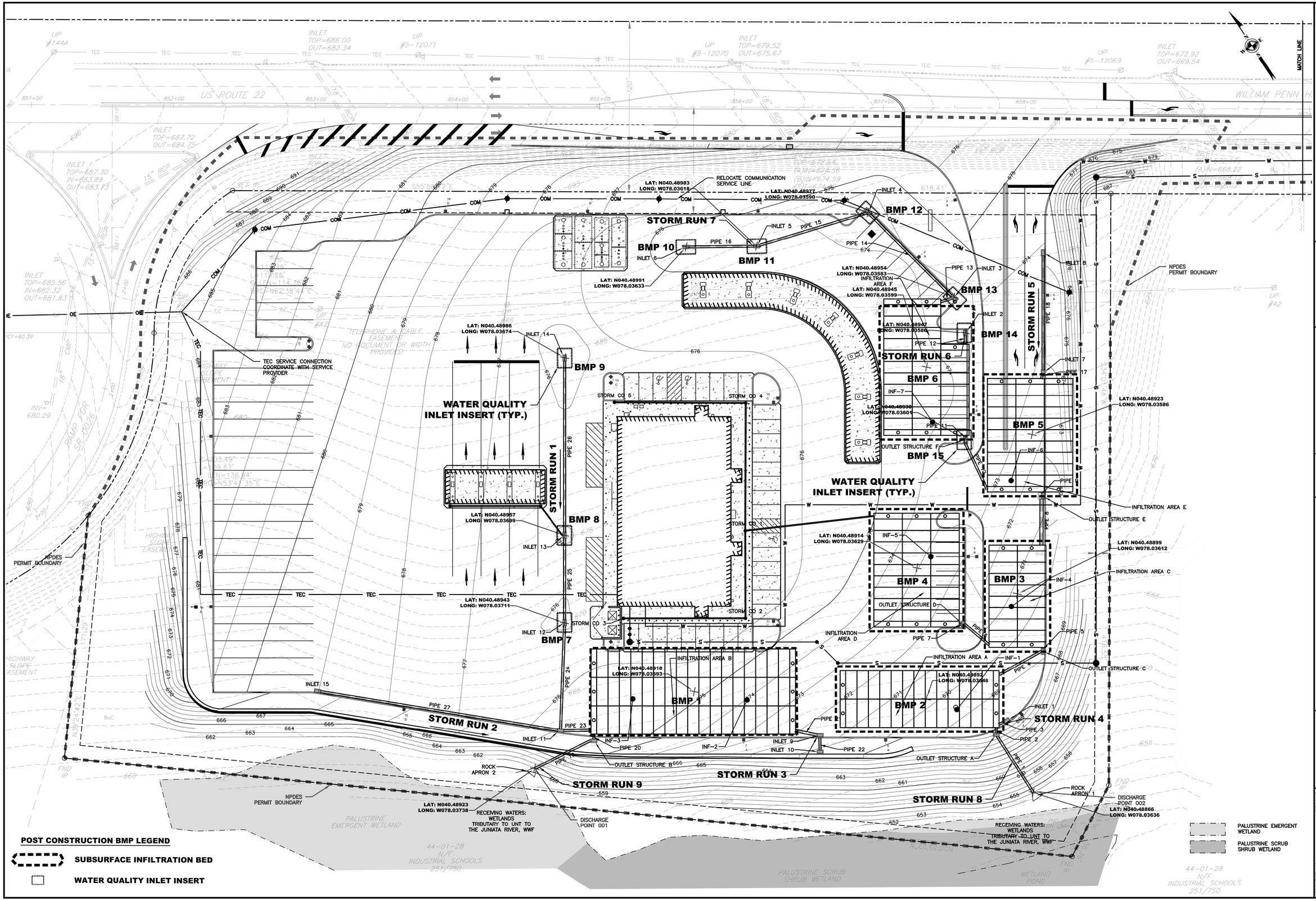

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POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

HUNTINGDON RUTTER'S STORE #93

SMITHFIELD TOWNSHIP, HUNTINGDON COUNTY
PENNSYLVANIA

DATE & INITIALS	REVISION DESCRIPTION
03/17/22 BSP	HCDD COMMENTS
02/24/22 BSP	NPDES PERMIT SUBMISSION

SCALE: 1"=30'

30' 0' 30'

PROJECT NO.:	3746-5
FILE NAME:	PCSWM.DWG
DATE:	10/21/21
DESIGNED BY:	BSP
DRAWN BY:	BSP
CHECKED BY:	---

PCSM1

PALUSTRINE EMERGENT WETLAND

PALUSTRINE SCRUB SHRUB WETLAND

POST CONSTRUCTION BMP LEGEND

SUBSURFACE INFILTRATION BED

WATER QUALITY INLET INSERT

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HUNTINGDON RUTTER'S STORE #93

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PCSM2

PROJECT DESCRIPTION/SITE CHARACTERISTICS

LAND USE PAST FARMLAND PRESENT VACANT/IDLE LAND PROPOSED CONVENIENCE STORE WITH FUELING ISLANDS
RECEIVING WATERS ADJACENT WETLANDS

CONSTRUCTION NOTES

SEQUENCE OF INSTALLATION OF PCSM BMP'S

NOTE: CRITICAL STAGE REQUIRING OVERSIGHT BY LICENSED PROFESSIONAL

1. WHEN ALL SURFACES TRIBUTARY TO THE PCSM BMP'S, RAIN GARDENS, VEGETATED SWALE, VOLUME STORAGE BMP'S, AND LANDSCAPE RESTORATION AREAS, HAVE ACHIEVED PERMANENT VEGETATION, DEFINED AS THE ESTABLISHMENT OF A UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES OR COVERED WITH AN ACCEPTABLE PERMANENT BMP; SUCH AS, PAVEMENT FOR STREETS AND SIDEWALKS, THE PCSM BMP'S CAN BE CONSTRUCTED ACCORDING TO THE FOLLOWING SEQUENCE:

SUBSURFACE INFILTRATION BED PCSM BMP'S

2. EXCAVATE BMP'S TO THE DEPTH NEEDED TO ADD THE ROCK LAYER AND TERRE ARCH STRUCTURES TO THE REQUIRED FINAL DEPTH. SCARIFY THE BASIN FLOOR TO A MINIMUM DEPTH OF 18 INCHES AND AVOID COMPACTION OF THE BASIN FLOOR.
3. OUTFALL DEVICES; SUCH AS, PIPES AND RISERS, CAN NOW BE INSTALLED AND BECOME OPERATIONAL.
4. BACKFILL AREA WITH STONE AS REQUIRED BY MANUFACTURERS SPECIFICATIONS.
5. COMPLETE FINAL LEVELING TO ACHIEVE PROPOSED DESIGN ELEVATIONS.
6. STABILIZE ALL SURROUNDING DISTURBED SOIL SURFACES BY SEEDING AND MULCHING
7. ADDITIONAL SITE LANDSCAPE PLANTINGS CAN TAKE PLACE AT THIS TIME OR IN THE NEAR FUTURE.

RECYCLING & DISPOSAL OF WASTE MATERIALS

- UPON COMPLETION OF CONSTRUCTION THE OWNER IS RESPONSIBLE TO ASSURE WASTES THAT RESULT FROM NORMAL MAINTENANCE OF THE PCSM BMP'S ARE PROPERLY DISPOSED. LITTER AND TRASH THAT COULD ACCUMULATE IN DRAINAGE FACILITIES MUST BE REMOVED DURING MAINTENANCE AND PROPERLY DISPOSED ACCORDING TO DEP REGULATORY REQUIREMENTS, SEE BELOW. DEAD OR DYING VEGETATION OR GRASS CLIPPINGS MUST BE DISPOSED AT AN APPROVED YARD WASTE RECYCLING FACILITY. ACCUMULATED SEDIMENT THAT IS REMOVED DURING REPAIR AND MAINTENANCE MUST BE PLACED IN AN UPLAND LOCATION OR REMOVED FROM THE PROPERTY AND IMMEDIATELY STABILIZED WITH SEED AND MULCH.
- ALL WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- SHOULD SHALE BEDROCK BE EXPOSED DURING EXCAVATION THE FOLLOWING STEPS MUST BE TAKEN: NOTIFY THE GEOTECHNICAL ENGINEER–OF–RECORD (GER) IMMEDIATELY IF DECOMPOSED, WEATHERED AND/OR INTACT SHALE BEDROCK IS ENCOUNTERED. THE GER SHALL VISIT THE SITE WITHIN 24 HOURS TO DETERMINE IF ADDITIONAL LABORATORY TESTING (TOTAL SULFUR AND NEUTRALIZATION POTENTIAL) IS WARRANTED. ADDITIONAL COMMUNICATION BETWEEN THE SITE CIVIL ENGINEER, THE GER AND THE PADEP WILL BE REQUIRED TO REVIEW ANY LABORATORY RESULTS AND TO DETERMINE THE MOST APPROPRIATE REMEDIAL PROGRAM, IF WARRANTED

LICENSED PROFESSIONAL MUST OVERSEE IMPLEMENTATION OF ALL PCSM BMP'S

SUBSURFACE INFILTRATION BED BMP'S

THIS INVOLVES INSTALLATION OF A PROPRIETARY SUBSURFACE STORMWATER STORAGE SYSTEM, TERRE ARCH PROVIDED BY CONTECH. CONTRACTOR IS RESPONSIBLE FOR OBTAINING INSTALLATION AND MAINTENANCE SPECIFICATIONS FROM CONTECH TO ASSURE PROPER IMPLEMENTATION OF THESE BMP'S.

MAINTENANCE NOTES

REGULAR MAINTENANCE IS NEEDED INITIALLY AFTER CONSTRUCTION AND CONTINUING INSPECTION AND MAINTENANCE IS REQUIRED TO ASSURE PROPER OPERATION OF ALL BMP'S. THE CONTRACTOR MUST MAINTAIN A WRITTEN REPORT ON THE PROJECT SITE DOCUMENTING EACH INSPECTION AND ALL REPAIR OR REPLACEMENTS AND MAINTENANCE ACTIVITIES.

SHOULD ROUTINE INSPECTION REVEAL THAT A PCSM BMP IS NOT FUNCTIONING AS DESIGNED, THE OWNER MUST IMMEDIATELY TAKE ACTION TO CORRECT THE PROBLEM. STRUCTURAL FAILURES SUCH AS, BROKEN OR CLOGGED PIPES CAN BE RESOLVED BY REPLACING AND REPAIRING THE BMP TO THE ORIGINAL DESIGN (SEE PCSM BMP MAINTENANCE GUIDELINES FOR THIS PROJECT'S SPECIFIC BMP'S SHOWN BELOW). SHOULD A PCSM BMP CONSTRUCTED TO THE ORIGINAL DESIGN SPECIFICATIONS FAIL TO FUNCTION, THE OWNER MUST IMMEDIATELY CONTACT A STORMWATER DESIGN ENGINEER/PROFESSIONAL TO EVALUATE THE PROBLEM AND RECOMMEND CORRECTIONS. ANY MODIFICATION PROPOSED TO ADDRESS THE PROBLEM MUST BE SUBMITTED TO THE BEDFORD COUNTY CONSERVATION DISTRICT AND DEP FOR REVIEW AND APPROVAL PRIOR TO INITIATING IMPLEMENTATION OF CORRECTIVE ACTIONS.

IN ACCORDANCE WITH PERMIT CONDITIONS,, WHERE PCSM BMP'S ARE FOUND TO BE INOPERATIVE OR INEFFECTIVE DURING AN INSPECTION OR ANY OTHER TIME THE PERMITTEE BECOMES AWARE OF ANY INCIDENT CAUSING OR THREATENING POLLUTION AS DESCRIBED IN TITLE 25 PA CODE § 91.33, AS REQUIRED IN TITLE 25 PA CODE § 92A.41(B), THE PERMITTEE AND CO–PERMITTEE SHALL WITHIN 24 HOURS CONTACT THE DEPARTMENT OR AUTHORIZED COUNTY CONSERVATION DISTRICT BY PHONE OR PERSONAL CONTACT, FOLLOWED BY SUBMISSION OF A WRITTEN REPORT WITHIN FIVE (5) DAYS OF THE INITIAL CONTACT.

SUBSURFACE INFILTRATION BED BMP'S

MANUFACTURER SPECIFIED MAINTENANCE PROGRAM MUST BE IMPLEMENTED FOR THIS BMP.

PROFESSIONAL CERTIFICATION:

UPON COMPLETION OF THE PROJECT AND SUBMISSION OF THE REQUIRED NOTICE OF TERMINATION (NOT) THE RECORD DRAWINGS SHALL INCLUDE THE FOLLOWING EXECUTED CERTIFICATION, WITH THE PROFESSIONAL'S SEAL:

"I (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 PA.C.S.A. § 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS–BUILT CONDITIONS, ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES."

OWNERSHIP/OPERATION/MAINTENANCE:

M&G REALTY/RUTTERS, AS THE OWNER OF THIS DEVELOPMENT, WILL BE RESPONSIBLE FOR THE DAY TO DAY OPERATION AND MAINTENANCE OF THE PERMANENT FACILITIES AND WILL BE ULTIMATELY RESPONSIBLE FOR LONG–TERM MAINTENANCE OF THE PERMANENT STORMWATER BMP'S. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF THE PERMANENT VEGETATION, THE BIO–RETENTION AREAS SHALL BE INSPECTED AND REPAIRED AS NEEDED ACCORDING TO THE ABOVE NOTES. A WRITTEN REPORT WILL BE MAINATIANED AT THE SITE DOCUMENTING ALL INSPECTION AND MAINTENANCE ACTIVITIES.

TERRE ARCH 48

PERFORMANCE, DESIGN & INSTALLATION SPECIFICATIONS

THE TERRE ARCH 48 IS A PRECAST CONCRETE MODULAR ROMAN ARCH STRUCTURE WITH 5000PSI COMPRESSIVE STRENGTH CONSISTING OF THREE CONNECTED PARALLEL VAULTS FOR SUBSURFACE STORAGE OF STORMWATER.

1. INFILTRATION TO RECHARGE THE GROUND WATER; DETENTION WHERE SITE CONDITIONS REQUIRE
2. HS–25 LOAD RATING ON THE CROWN OF THE ARCH; NO MINIMUM COVER OR FILL REQUIREMENTS; NO REQUIREMENT FOR STONE BETWEEN THE ARCHES OR ABOVE THE STRUCTURE; DIRECT ACCESS FOR HEAVY INSTALLATION EQUIPMENT. (PERIMETER STONE FILL IS REQUIRED PRIOR TO INSTALLATION EQUIPMENT ACCESS);
3. MINIMUM STONE SUB–BASE DEPTH OF SIX (6") INCH WITH A MINIMUM SUBSURFACE BEARING CAPACITY OF 3000 PSF; STONE BASE MAY BE INCREASED BY ENGINEER, IF REQUIRED TO BALANCE LOADS;
4. MAXIMUM COVER UP TO 20 FT. (VERIFY SUB–BASE DEPTH AND SOIL BEARING CAPACITY);
5. A WATER QUALITY TREATMENT DEVICE, SUCH AS TERRE KLEEN, SHOULD BE PLACED UPSTREAM FROM THE TERRE ARCH TO PREVENT ENTRY OF SEDIMENT, OIL, GREASE, LITTER, AND DEBRIS INTO TERRE ARCH
6. 160 FT 2 (8 FEET BY 20 FEET) INFILTRATION SURFACE PER STRUCTURE;
7. 638 FT 3 (5.32FT 3 /FT 2) OF IN CUSTOMARY INSTALLATION (I.E. 6' STONE BED (5' #8 AND 1' #5 STONE) AND VALLEYS BETWEEN ARCHES FILLED WITH 4' OF STONE TO THE TOP OF THE BUTTRESSES & 6' OF STONE COVER);
8. TERRE ARCH 48 WEIGHS 15,700 LBS.; PLACEMENT FROM TRUCK INTO THE PREPARED EXCAVATION BY CRANE;
9. VENT AND DRAIN HOLES CAST AT THE TOP OF THE ARCH AND IN THE VALLEY AREAS OF THE TERRE ARCH;
10. DISTRIBUTION HOLES ARE CAST INTO THE LEGS OF THE ARCHES TO ALLOW FLOW BETWEEN ALL SECTIONS;
11. THE ANTI–SCOUR AND EROSION MAT REQUIRED UNDER MANIFOLD AND TERRE ARCH WHERE INFLOW OCCURS;
12. NO GRADE SUBSIDENCE OR MISALIGNMENT WITH PROPER INSTALLATION;
13. NO REQUIREMENT FOR SPACING OR BACKFILLING BETWEEN EACH STRUCTURE;
14. NO REQUIREMENT FOR GEOTEXTILE SEPARATION LAYER BELOW. USE FILTER FABRIC OR GEOTEXTILE WHERE SILT MIGRATION FROM THE SIDES OR TOP INTO THE STONE'S VOID SPACE IS POSSIBLE.
15. MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AND SUCH OTHER INFORMATION REQUESTED BY ENGINEER;
16. EACH TERRE ARCH SHALL HAVE FOUR (4) LIFTING POINTS WITH UNI–LIFT PINS. CONTRACTOR SHALL PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING CAPACITY TO UNLOAD AND SET THE TERRE ARCH;
17. CONTRACTOR SHALL EXCAVATE, DEWATER AND SHORE AS REQUIRED BY ENGINEER OR SAFETY REGULATIONS;
18. TERRE ARCH DISTRIBUTION BOX SHALL INCLUDE RISER SECTIONS THAT EXTEND TO GRADE WITH MANHOLE ACCESS INTO ENTIRE TERRE ARCH SYSTEM.
19. WARRANTY: 4 YEARS FROM DATE OF SUBSTANTIAL COMPLETION FOR LABOR AND MATERIAL IN THE EVENT THAT THE MATERIAL SUPPLIED IS NOT FREE FROM DEFECTS; STRUCTURE SHALL BE INSTALLED ONLY FOR THE PARTICULAR APPLICATION FOR WHICH IT WAS SPECIFICALLY MANUFACTURED;
20. TERRE ARCH INSTALLATION MAY REQUIRE DISTRIBUTION BOX(ES) AND END CAPS AS SHOWN ON THE DRAWINGS.

PRODUCT SUBSTITUTION PROCEDURES

1. NO SUBSTITUTE SYSTEM SHALL BE APPROVED AS EQUIVALENT TO TERRE ARCH SYSTEM UNLESS THE ENGINEER SHALL RECEIVE AND APPROVE DRAWINGS AND SPECIFICATIONS STAMPED AND SEALED BY A PROFESSIONAL ENGINEER SHOWING THE FOLLOWING:
   a. PROJECT SPECIFIC SIZING CALCULATIONS CLEARLY SHOWING THAT THE UNIT MEETS OR EXCEEDS THE PERFORMANCE, DESIGN AND INSTALLATION SPECIFICATIONS OF THE TERRE ARCH.
   b. SYSTEM SHALL ALLOW ACCESS FROM GRADE THROUGH MANHOLE INTO THE ENTIRE UNDERGROUND SYSTEM

MAINTENANCE PROCEDURES

1. WHEN A PROPER WATER QUALITY DEVICE IS PLACED IN FRONT OF THE TERRE ARCH SYSTEM NO CLEAN OUT OR
2. MAINTENANCE IS ANTICIPATED;
3. INSPECTION CAN BE ACCOMPLISHED FROM GRADE WITH PROPER EQUIPMENT, BY ENTRY THROUGH THE MANHOLE OPENINGS IN THE DISTRIBUTION MANIFOLD.
4. SYSTEM SHALL CONTAIN SUFFICIENT DISTRIBUTION MANIFOLDS TO ALLOW ENTRY FOR INSPECTION AND MAINTENANCE INTO EACH ARCH ROW OF EACH TERRE ARCH.

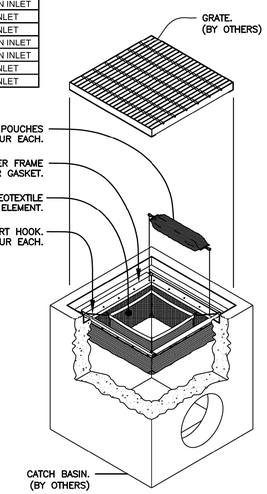
WATER QUALITY INLET INSERT

RECOMMENDED FREQUENCY OF SERVICE:
DRAINAGE PROTECTION SYSTEMS (DPS) RECOMMENDS THAT INSTALLED FLOGARD+PLUS CATCH BASIN INSERT FILTERS BE SERVICED ON A RECURRING BASIS. EACH INSTALLATION BE SERVICED A MINIMUM OF THREE TIMES PER YEAR, WITH A CHANGE OF FILTER MEDIUM ONCE PER YEAR. DPS TECHNICIANS ARE AVAILABLE TO DO AN ON–SITE EVALUATION, UPON REQUEST.

RECOMMENDED TIMING OF SERVICE:
DPS GUIDELINES FOR THE TIMING OF SERVICE ARE AS FOLLOWS:
1. FOR AREAS WITH A DEFINITE RAINY SEASON: PRIOR TO, DURING AND FOLLOWING THE RAINY SEASON.
2. FOR AREAS SUBJECT TO YEAR–ROUND RAINFALL: ON A RECURRING BASIS (AT LEAST THREE TIMES PER YEAR).
3. FOR AREAS WITH WINTER SNOW AND SUMMER RAIN: PRIOR TO AND JUST AFTER THE SNOW SEASON AND DURING THE SUMMER RAIN SEASON.
4. FOR INSTALLED DEVICES NOT SUBJECT TO THE ELEMENTS (WASH RACKS, PARKING GARAGES, ETC.): ON A RECURRING BASIS (NO LESS THAN THREE TIMES PER YEAR).

SERVICE PROCEDURES:
1. THE CATCH BASIN GRATE SHALL BE REMOVED AND SET TO ONE SIDE. THE CATCH BASIN SHALL BE VISUALLY INSPECTED FOR DEFECTS AND POSSIBLE ILLEGAL DUMPING. IF ILLEGAL DUMPING HAS OCCURRED, THE PROPER AUTHORITIES AND PROPERTY OWNER REPRESENTATIVE SHALL BE NOTIFIED AS SOON AS PRACTICABLE.
2. USING AN INDUSTRIAL VACUUM, THE COLLECTED MATERIALS SHALL BE REMOVED FROM THE LINER. (NOTE: DPS USES A TRUCK–MOUNTED VACUUM FOR SERVICING FLOGARD+PLUS CATCH BASIN INSERTS).
3. WHEN ALL OF THE COLLECTED MATERIALS HAVE BEEN REMOVED, THE FILTER MEDIUM POUCHES SHALL BE REMOVED BY UNSNAPPING THE TETHER FROM THE D–RING AND SET TO ONE SIDE. THE FILTER LINER, GASKETS, STAINLESS STEEL FRAME AND MOUNTING BRACKETS, ETC., SHALL BE INSPECTED FOR CONTINUED SERVICEABILITY. MINOR DAMAGE OR DEFECTS FOUND SHALL BE CORRECTED ON–THE–SPOT AND A NOTATION MADE ON THE MAINTENANCE RECORD. MORE EXTENSIVE DEFICIENCIES THAT AFFECT THE EFFICIENCY OF THE FILTER (TORN LINER, ETC.), IF APPROVED BY THE CUSTOMER REPRESENTATIVE, WILL BE CORRECTED AND AN INVOICE SUBMITTED TO THE REPRESENTATIVE ALONG WITH THE MAINTENANCE RECORD.
4. THE FILTER MEDIUM POUCHES SHALL BE INSPECTED FOR DEFECTS AND CONTINUED SERVICEABILITY AND REPLACED AS NECESSARY, AND THE POUCH TETHERS RE–ATTACHED TO THE LINER'S D–RING.
5. THE GRATE SHALL BE REPLACED REPLACEMENT AND DISPOSAL OF EXPOSED FILTER MEDIUM AND COLLECTED DEBRIS THE FREQUENCY OF FILTER MEDIUM EXCHANGE WILL BE IN ACCORDANCE WITH THE EXISTING DPS–CUSTOMER MAINTENANCE CONTRACT. DPS RECOMMENDS THAT THE MEDIUM BE CHANGED AT LEAST ONCE PER YEAR. DURING THE APPROPRIATE SERVICE, OR IF SO DETERMINED BY THE SERVICE TECHNICIAN DURING A NON–SCHEDULED SERVICE, THE FILTER MEDIUM WILL BE REPLACED WITH NEW MATERIAL. ONCE THE EXPOSED POUCHES AND DEBRIS HAVE BEEN REMOVED, DPS HAS POSSESSION AND MUST DISPOSE OF IT IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL AGENCY REQUIREMENTS.

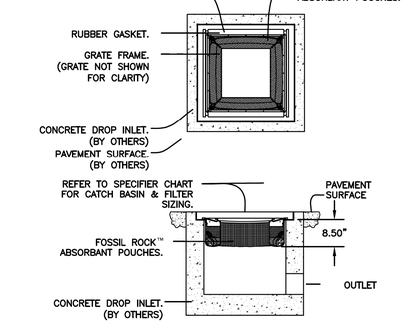
SPECIFIER CHART			
MODEL	INLET ID	GRATE OD	COMMENTS
FF-12D	12" X 12"	15" X 15"	GRATED INLET
FF-16D	16" X 16"	18" X 18"	GRATED INLET
FF-18D	18" X 18"	20" X 20"	GRATED INLET
FF-1836SD	18" X 36"	18" X 40"	GRATED INLET
FF-1836DGO	18" X 36"	18" X 40"	COMBINATION INLET
FF-24D	24" X 24"	26" X 26"	GRATED INLET
FF-2436SD	24" X 36"	24" X 40"	GRATED INLET
FF-24DGO	24" X 24"	18" X 26"	COMBINATION INLET
FF-2436DGO	24" X 36"	24" X 40"	COMBINATION INLET
FF-36D (2 PIECE)	36" X 36"	36" X 40"	GRATED INLET
FF-3648D (2 PIECE)	36" X 48"	40" X 48"	GRATED INLET

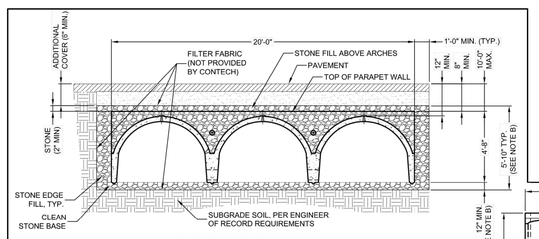


WATER QUALITY INLET INSERT

NOTES:

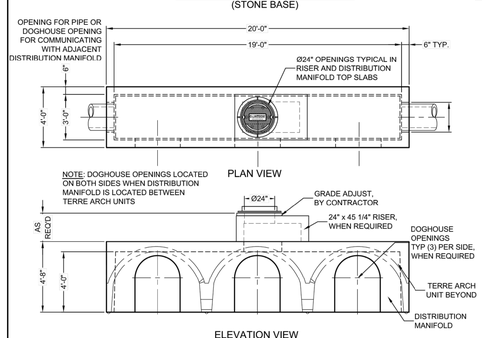
1. FILTER INSERT SHALL HAVE A HIGH FLOW BYPASS FEATURE.
2. FILTER SUPPORT FRAME SHALL BE CONSTRUCTED FROM STAINLESS STEEL TYPE 304.
3. FILTER MEDIUM SHALL BE FOSSIL ROCKF, INSTALLED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
4. STORAGE CAPACITY REFLECTS 80% OF MAXIMUM SOLIDS COLLECTION PRIOR TO IMPEDING FILTERING BYPASS.



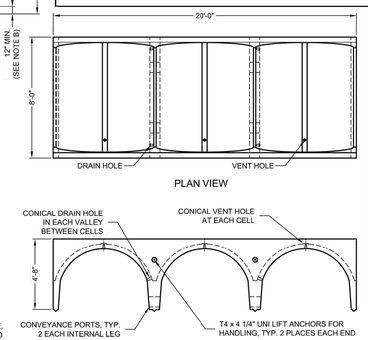


TYPICAL BACKFILL DETAIL

(STONE BASE)



TYPICAL DISTRIBUTION MANIFOLD

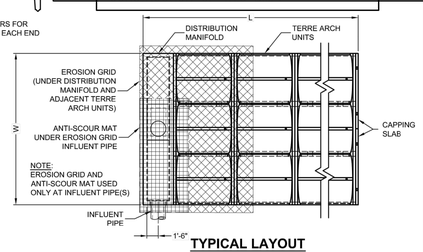


TERRE ARCH 48 STRUCTURE

SUBSURFACE INFILTRATION BED BMP SCHEDULE:

BMP AREA	A	B	C	D	E	F
TERRE ARCH 48 UNITS	26	51	16	27	27	29
PONDING DEPTH (PD)	2.0 FT	1.5 FT	1.5 FT	2.0 FT	1.5 FT	0 FT
FOUNDATION STONE DEPTH (SD)	1.0'	1.0'	1.0'	1.0'	1.0'	1.0'
COVER STONE DEPTH (SD)	0.5'	0.5'	0.5'	0.5'	0.5'	0.5'
OUTLET STRUCTURE TOP UNIT	M TOP	M TOP	C TOP	C TOP	C TOP	C TOP
OUTLET STRUCTURE TYPE	RISER	RISER	RISER	RISER	RISER	ORIFICE
OUTLET STRUCTURE CREST ELEV.	660.00	663.00	665.00	666.00	666.50	667.00
100 YR WATER SURFACE ELEV.	1062.58	1061.33	1062.07	1055.98	1059.37	1060.98
2 YR WATER SURFACE ELEV.	1060.48	1059.85	1058.54	1055.25	1056.43	1058.83
FLOOR ELEV.	657.00	660.50	662.50	663.00	664.00	666.00
STURCTURE BOTTOM ELEV.	658.00	661.50	663.50	664.00	665.00	667.00
STURCTURE TOP ELEV.	669.00	675.50	669.10	671.00	671.20	673.10
DISCHARGE PIPE INV.	655.00	661.00	663.50	664.00	666.00	667.00
DISCHARGE PIPE OUTLET INV.	654.00	660.50	658.00	663.50	663.00	665.00
DISCHARGE PIPE	PIPE 1	PIPE 19	PIPE 4	PIPE 6	PIPE 8	PIPE 10

NOTE:
A LICENSED PROFESSIONAL SHALL OVERSEE CONSTRUCTION OF THIS BMP.



TYPICAL LAYOUT

GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. TERRE ARCH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
4. STRUCTURE SHALL MEET AASHTO HS25 LOAD RATING, ASSUMING EARTH COVER OF 1' - 10' ABOVE TOP OF ARCH.
5. FILTER FABRIC OR GEOTEXTILE IS RECOMMENDED WHERE SILT MIGRATION FROM THE SIDES OR TOP INTO THE VOID SPACE OF THE STONE IS POSSIBLE

INSTALLATION NOTES

A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE TERRE ARCH AND ASSOCIATED STRUCTURES (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL TERRE ARCH STRUCTURES, DISTRIBUTION MANIFOLDS AND CAPPING SLAB SECTIONS
D. CONTRACTOR TO INSTALL TWO STRAP CONNECTIONS (PROVIDED BY CONTECH) AT EACH CAPPING SLAB.
E. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH ALL PIPE INVERTS WITH FINAL CONTECH CONTRACT DRAWINGS.
F. 1' MINIMUM EARTH COVE ABOVE TOP OF ARCH. CONTECH RECOMMENDS STONE FOR THE FIRST 6" OF COVER.

TERRE ARCH SCOUR PROTECTION NOTES:

1. SCOUR PROTECTION MATS ARE SPECIFIED AND FURNISHED BY THE TERRE ARCH SUPPLIER, CONTECH ENGINEERED SOLUTIONS.
2. SCOUR PROTECTION MATTING IS TO BE PLACED AT ALL INFLUENT PIPE LOCATIONS.
3. ANTI SCOUR MATS ARE TO BE PLACED ON THE STONE BASE AND COVERED WITH THE EROSION MATS AS SHOWN PRIOR TO INSTALLING THE TERRE ARCH UNITS.
4. EROSION MAT:
   SIZE: 15'x22'
   TYPE: SYNTEEN SF 12 GEOGRID
5. ANTI SCOUR MAT:
   SIZE: 6'–6"x15'
   TYPE: TENCATE WOVEN FILTRATION MEDIA WHITE HONEYCOMB FILTER

SUBSURFACE INFILTRATION BED

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SCALE: 1"=30'

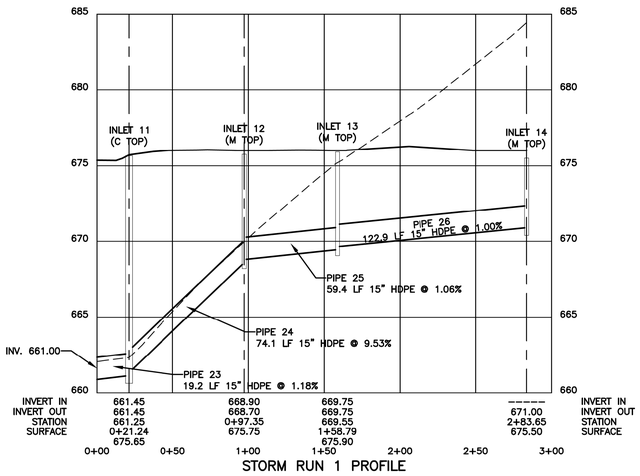
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

HUNTINGDON RUTTER'S STORE #93

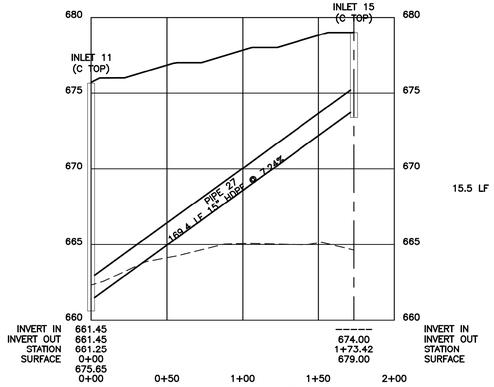
SMITHFIELD TOWNSHIP, HUNTINGDON COUNTY PENNSYLVANIA

PROJECT NO.:	3746–5
FILE NAME:	PCSWALDWG
DATE:	10/21/21
DESIGNED BY:	BSP
DRAWN BY:	BSP
CHECKED BY:	----

PCSM3



STORM RUN 1 PROFILE



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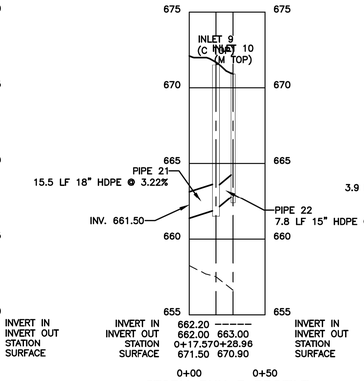

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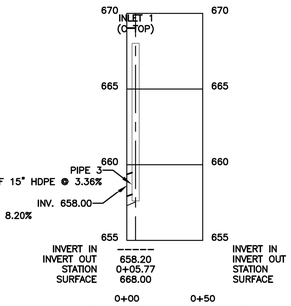

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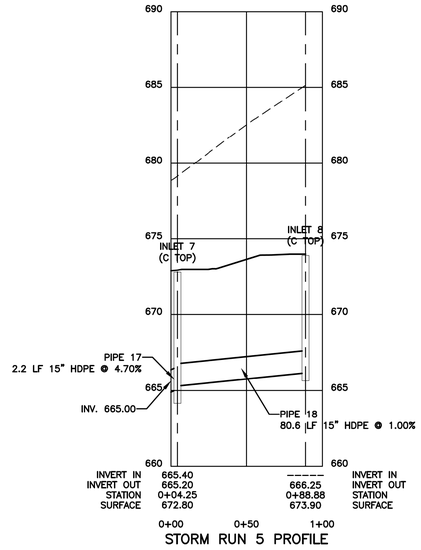

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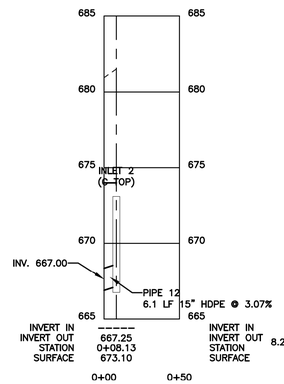

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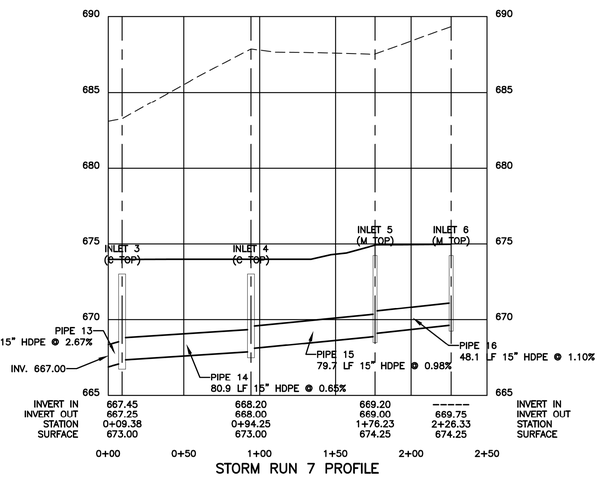

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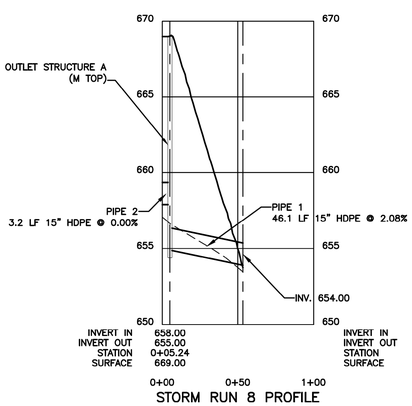
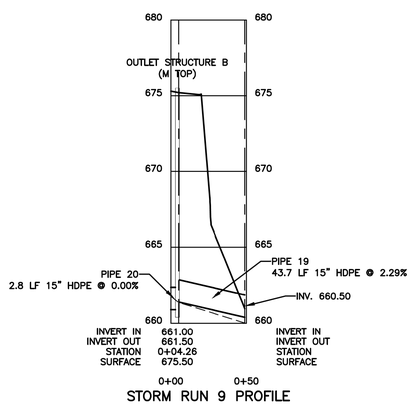


STORM RUN 8 PROFILE



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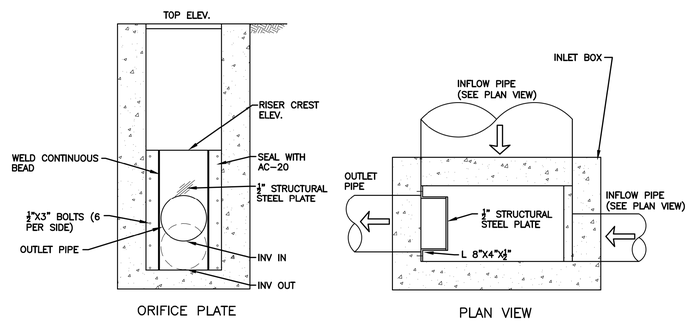

PIPE DETENTION OUTLET STRUCTURE

OUTLET STRUCTURE SCHEDULE:

BMP AREA	A	B	C	D	E	F
OUTLET PIPE	PIPE 1	PIPE 19	PIPE 4	PIPE 6	PIPE 8	PIPE 10
OUTLET PIPE DIA.	15"	15"	15"	15"	24"	15"
INV. OUT	655.00	661.50	663.50	664.00	665.00	667.00
INV. IN	658.00	661.00	663.50	664.00	665.00	667.00
TOP ELEV.	669.00	675.50	669.10	671.00	671.20	673.10
INLET BOX	STANDARD	STANDARD	STANDARD	STANDARD	TYPE 4	STANDARD
OUTLET STRUCTURE TOP UNIT	M TOP	M TOP	C TOP	C TOP	C TOP	C TOP
OUTLET STRUCTURE TYPE	RISER	RISER	RISER	RISER	RISER	ORIFICE
RISER CREST ELEV.	660.00	663.00	665.00	666.00	666.50	NA
RISER CREST LENGTH	4 FT	2 FT	4 FT	2 FT	4 FT	NA

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Hollidaysburg, PA 16648
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DATE & INITIALS	REVISION DESCRIPTION
02/24/22 BSP	NPDES PERMIT SUBMISSION

50' HORIZONTAL 0' 5' VERTICAL

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

HUNTINGDON RUTTER'S STORE #93

SMITHFIELD TOWNSHIP, HUNTINGDON COUNTY
PENNSYLVANIA

PROJECT NO.:	3746-5
FILE NAME:	PCSWM.DWG
DATE:	10/21/21
DESIGNED BY:	BSP
DRAWN BY:	BSP
CHECKED BY:	---

PCSM4