

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

FOR

CAPITOL PRESERVATION COMMITTEE STORAGE FACILITY

SUSQUEHANNA TOWNSHIP

DAUPHIN COUNTY, PENNSYLVANIA

MAY 3, 2019

OWNER CERTIFICATION & DEDICATION
 COMMONWEALTH OF PENNSYLVANIA
 COUNTY OF DAUPHIN
 ON THIS THE _____ DAY OF _____, 20____ BEFORE ME THE
 UNDERSIGNED PERSONALLY APPEARED _____
 OWNER(S) _____ OWNER(S) _____
 WHO BEING DULY SWORN ACCORDING TO LAW, DEPOSE AND SAY THAT THEY
 ARE THE OWNERS OF THE PROPERTY SHOWN ON THIS PLAN AND THAT THEY
 ACKNOWLEDGE THE SAME TO BE THEIR ACT AND DEED AND DESIRE THE SAME
 TO BE RECORDED AS SUCH ACCORDING TO LAW.
 WITNESS MY HAND AND NOTARIAL SEAL THE DAY AND DATE ABOVE WRITTEN,

 NOTARY _____ MY COMMISSION EXPIRES _____

OWNERS DEDICATION
 IT IS HEREBY CERTIFIED THAT THE UNDERSIGNED ARE THE OWNERS OF THE
 PROPERTY SHOWN ON THIS PLAT AND THAT ALL STREETS OR PARTS THEREOF,
 IF NOT PREVIOUSLY DEDICATED, ARE HEREBY TENDERED FOR DEDICATION TO
 PUBLIC USE.

 OWNER(S) _____ OWNER(S) _____

STORMWATER MANAGEMENT CERTIFICATION
 I/WE _____
 BEING THE OWNERS IS/ARE RESPONSIBLE FOR THE PERPETUAL OPERATION
 AND MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM, AND
 ACKNOWLEDGES THAT THE STORMWATER MANAGEMENT SYSTEM IS TO BE A
 PERMANENT FIXTURE WHICH CANNOT BE ALTERED OR REMOVED WITHOUT
 PRIOR APPROVAL OF SUSQUEHANNA TOWNSHIP.

SUSQUEHANNA TOWNSHIP PLANNING COMMISSION
 THIS PLAN RECOMMENDED FOR APPROVAL BY THE SUSQUEHANNA TOWNSHIP
 PLANNING COMMISSION,
 THIS _____ DAY OF _____, 20____.

 CHAIRMAN _____ SECRETARY _____

SUSQUEHANNA TOWNSHIP BOARD OF COMMISSIONERS
 THIS PLAN APPROVED BY THE SUSQUEHANNA TOWNSHIP BOARD OF
 COMMISSIONERS, AND ALL CONDITIONS IMPOSED WITH RESPECT TO SUCH
 APPROVAL WERE COMPLETED ON THIS _____ DAY OF _____, 20____.

 PRESIDENT _____ SECRETARY _____

SUSQUEHANNA TOWNSHIP ENGINEER
 THIS PLAN REVIEWED BY THE SUSQUEHANNA TOWNSHIP ENGINEER,
 THIS _____ DAY OF _____, 20____.

 TOWNSHIP ENGINEER _____

DAUPHIN COUNTY PLANNING COMMISSION
 REVIEWED BY THE THE DAUPHIN COUNTY PLANNING COMMISSION,
 THIS _____ DAY OF _____, 20____.

 CHAIRMAN _____ SECRETARY _____

SURVEYOR'S CERTIFICATION
 I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE SURVEY
 SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE
 ACCURACY REQUIRED BY THE SUSQUEHANNA TOWNSHIP SUBDIVISION
 AND LAND DEVELOPMENT ORDINANCE (ERROR OF CLOSURE NO GREATER
 THAN ONE FOOT IN TEN THOUSAND FEET).

 KEITH E. McARDLE, PLS
 NAVARRO & WRIGHT CONSULTING ENGINEERS, INC.
 151 RENO AVENUE
 NEW CUMBERLAND, PA. 17070
 (717) 441-2216

 SURVEYOR SIGNATURE _____ DATE _____

WETLANDS CERTIFICATION
 I, _____, HEREBY CERTIFY THAT THERE ARE NO
 WETLANDS WITHIN THE PROPOSED LIMITS OF DISTURBANCE, THE
 PROPOSED PROJECT WILL NOT IMPACT THESE WETLANDS, AND WETLAND
 PERMITS ARE NOT REQUIRED FROM THE STATE OR FEDERAL GOVERNMENT.

LIMESTONE CERTIFICATION
 I, _____, CERTIFY THAT THE PROPOSED
 UNDERGROUND DETENSION BASINS ARE NOT UNDERLAIN BY LIMESTONE

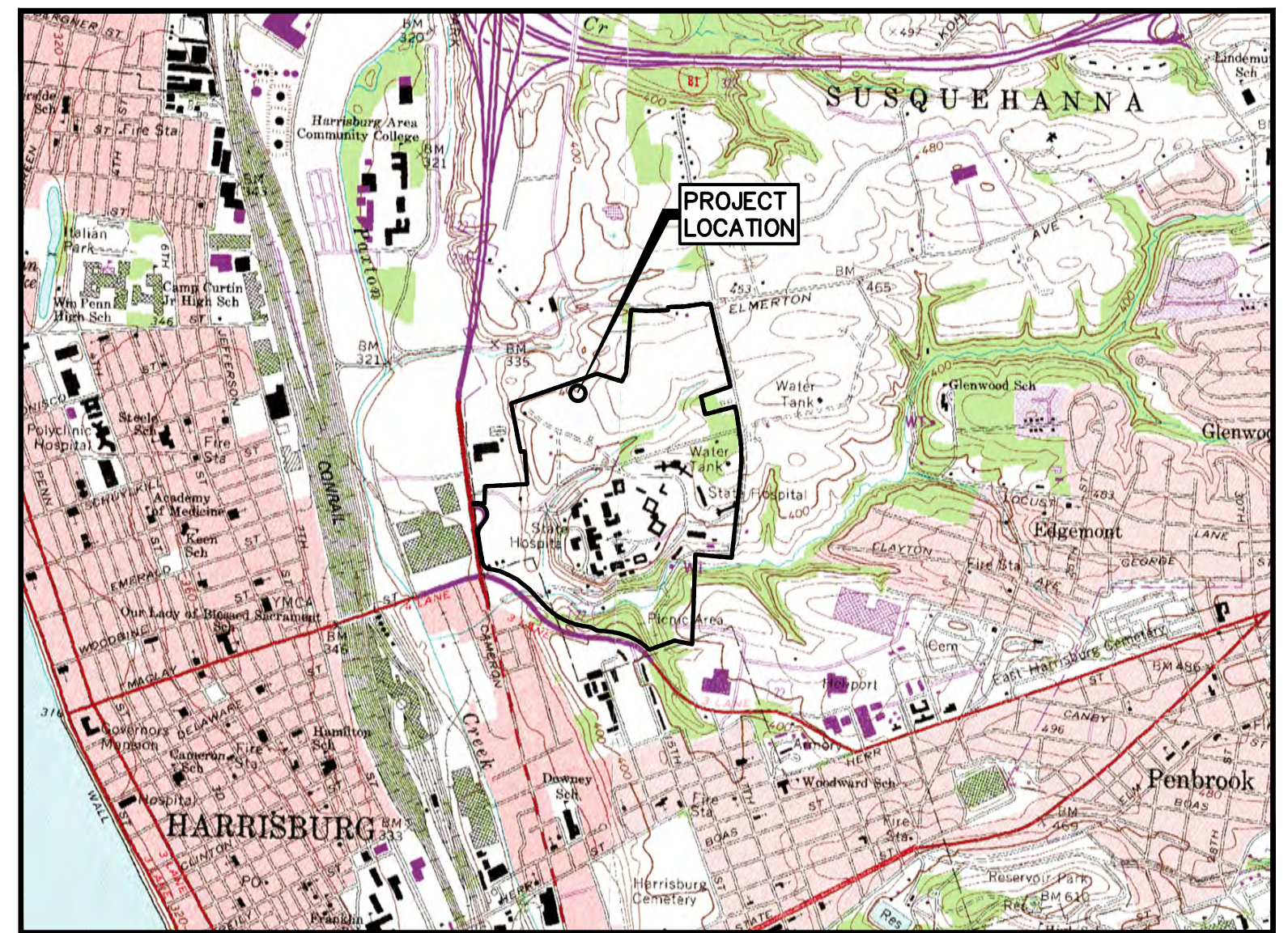
ENGINEER'S CERTIFICATION
 I HEREBY CERTIFY THAT THIS PLAN TO BE CORRECT AS SHOWN TO THE
 BEST OF MY KNOWLEDGE.

 JASON D. GUTSHALL, PE
 NAVARRO & WRIGHT CONSULTING ENGINEERS, INC.
 151 RENO AVENUE
 NEW CUMBERLAND, PA. 17070
 (717) 441-2216

 ENGINEER SIGNATURE _____ DATE _____

GENERAL NOTES

1. THE INTENT OF THIS PLAN IS TO CONSTRUCT A 17,200 SQUARE FEET BUILDING WITH 6,000 SQUARE FEET FUTURE BUILDING EXPANSION AND UTILITIES ON APPROX. 2.24 ACRES OF THE FORMER STATE HOSPITAL GROUNDS.
2. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES, TEMPORARY AS WELL AS PERMANENT, THROUGHOUT THE LIFE OF THE PROJECT.
3. PROPOSED WATER SUPPLY: PUBLIC
4. PROPOSED SEWAGE DISPOSAL: PUBLIC
5. BENCH MARK TOP EXISTING INLET GRATE, ELEV.= 392.87.
6. ALL PARKING AREAS ARE INTENDED TO REMAIN IN PRIVATE OWNERSHIP AND ARE NOT INTENDED TO BE DEDICATED TO THE TOWNSHIP.
7. STORMWATER MANAGEMENT FACILITIES FROM INLETS TO OUTLET STRUCTURE SHALL BE MAINTAINED BY THE OWNER. FINANCIAL SECURITY FOR THESE FACILITIES SHALL BE PROVIDED IN ACCORDANCE WITH SUSQUEHANNA TOWNSHIP LAND DEVELOPMENT ORDINANCE.
8. NO LOT SHALL BE ALTERED SO AS TO HAVE AN ADVERSE IMPACT ON THE SUSQUEHANNA TOWNSHIP STORMWATER PLAN.
9. ALL OFF STREET PARKING SHALL BE PAVED AND STRIPED.
10. ALL CUT AND FILL SLOPES GREATER THAN 2:1 AND 3:1 RESPECTIVELY, SHALL BE PROTECTED WITH A EROSION BLANKET AS PER THE MANUFACTURERS SPECIFICATIONS.
11. ALL EXISTING UTILITIES HAVE BEEN SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY ALL UTILITIES PRIOR TO COMMENCING WORK.
12. THE DEVELOPER SHALL COMPLY WITH ALL APPLICABLE TOWNSHIP ORDINANCES IN EFFECT AT THE TIME OF SUBMISSION OF THE FINAL PLAN.
13. DURING CONSTRUCTION, CONTRACTOR SHALL PROTECT ALL DRAINAGE STRUCTURES, WALKWAYS AND ROADWAYS FROM SEDIMENTATION.
14. CONTOURS AND SPOT ELEVATIONS ARE CONTROLS ONLY. ALL GRADES SHALL BE SMOOTH AND CONTINUOUS. TOPS AND BOTTOMS OF SLOPES SHALL BE ROUNDED.
15. PROPOSED ELEVATIONS ON PAVED SURFACES INDICATE FINISHED GRADES.
16. ALL DISTURBED AREAS AND AREAS WITH EROSION PROBLEMS ARE TO BE DRESSED WITH TOPSOIL, SEEDED AND MULCHED.
17. ALL LAWN AREAS ADJACENT TO CURBING AND CONCRETE WALKS SHALL BE FLUSH WITH THE TOP OF CURB AND/OR SIDEWALK.
18. THERE ARE NO FEMA DELINEATED FLOODPLAINS ON THE PROJECT SITE.
19. ALL CONSTRUCTION SHALL CONFORM TO PENNDOT PUBLICATIONS 408 AND 72 STANDARDS AND ALL APPLICABLE SUSQUEHANNA TOWNSHIP ORDINANCES.
20. NO PROTECTIVE COVENANTS EXIST OR ARE PROPOSED ON THIS PARCEL.
21. THE TOWNSHIP HAS THE RIGHT TO ENTER THE PROPERTY FOR THE PURPOSE OF ACCESSING STORMWATER FACILITIES.
22. THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A MINIMUM OF 48 HOURS NOTICE AND TO COORDINATE WITH THE TOWNSHIP/HRG, INC IN REGARDS TO ALL MUNICIPAL INSPECTION WORK REQUIRED OF THE PROJECT SITE.



LOCATION MAP
 SCALE = 1"=2000'

INDEX

- C100 COVER SHEET
- C200 EXISTING CONDITIONS PLAN (KEY MAP)
- C201 EXISTING CONDITIONS PLAN
- C300 LAYOUT PLAN
- C301 EASEMENT PLAN
- C400 GRADING, DRAINAGE AND UTILITY PLAN
- C600 PROFILES AND SANITARY SEWER DETAILS
- C700 SITE CONSTRUCTION DETAILS
- C701 SITE CONSTRUCTION DETAILS
- C702 STORMWATER DETAILS
- C800 LANDSCAPE PLAN & DETAILS
- C900 LIGHTING PLAN & DETAILS
- C1000 AUTO TURN EXHIBIT
- ESPC-1 EROSION & SEDIMENTATION CONTROL PLAN
- ESPC-2 EROSION & SEDIMENTATION CONTROL NOTES & DETAILS
- PCSM-1 POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
- PCSM-2 POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

SITE DATA:

ITEM	DESCRIPTION
RECORD OWNER	COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES 18TH AND HERR STS HARRISBURG, PA. 17125
BUILDING OWNER	PENNSYLVANIA CAPITOL PRESERVATION COMMITTEE ROOM 630 MAIN CAPITOL BUILDING HARRISBURG, PA. 17120 (717) 783-6484
TAX PARCEL	62-026-004-000-0000

ZONING INFORMATION:

LOCATION: SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PA			
ZONE: C - CONSERVATION DISTRICT			
ITEM #	ITEM	REQUIRED	PROPOSED
1	LAND USE	-	GOVERNMENT STORAGE FACILITY
2	MINIMUM TRACT AREA	1 ACRE	466.2 ACRES
3	MINIMUM LOT WIDTH	100 FT	250 FT
4	MIN. FRONT BUILDING SETBACK	BUILDING = 50 FT	>50 FT
5	MINIMUM SIDE YARD SETBACK	BUILDING = 40 FT	>40 FT
6	MINIMUM REAR YARD SETBACK	BUILDING = 50 FT	50 FT
7	WATER SUPPLY	PUBLIC	PUBLIC
8	SANITARY SEWAGE DISPOSAL	PUBLIC	PUBLIC
9	MAX. BUILDING HEIGHT	30 FT	30 FT

OFF STREET PARKING:

USE	REQUIREMENTS	PROPOSED
NOT PROVIDED IN ORDINANCE	1 SPACE PER EMPLOYEE = 6 SPACES (CONFIRMATION LETTER FROM OWNER PROVIDED WITH LAND DEVELOPMENT SUBMISSION TO TOWNSHIP)	6 SPACES

WAIVER REQUESTS

REQUESTED WAIVER	DATE APPROVED
SLDO SEC. 22-404 PRELIMINARY PLAN PROCEDURE	_____

RECORDER OF DEEDS CERTIFICATE

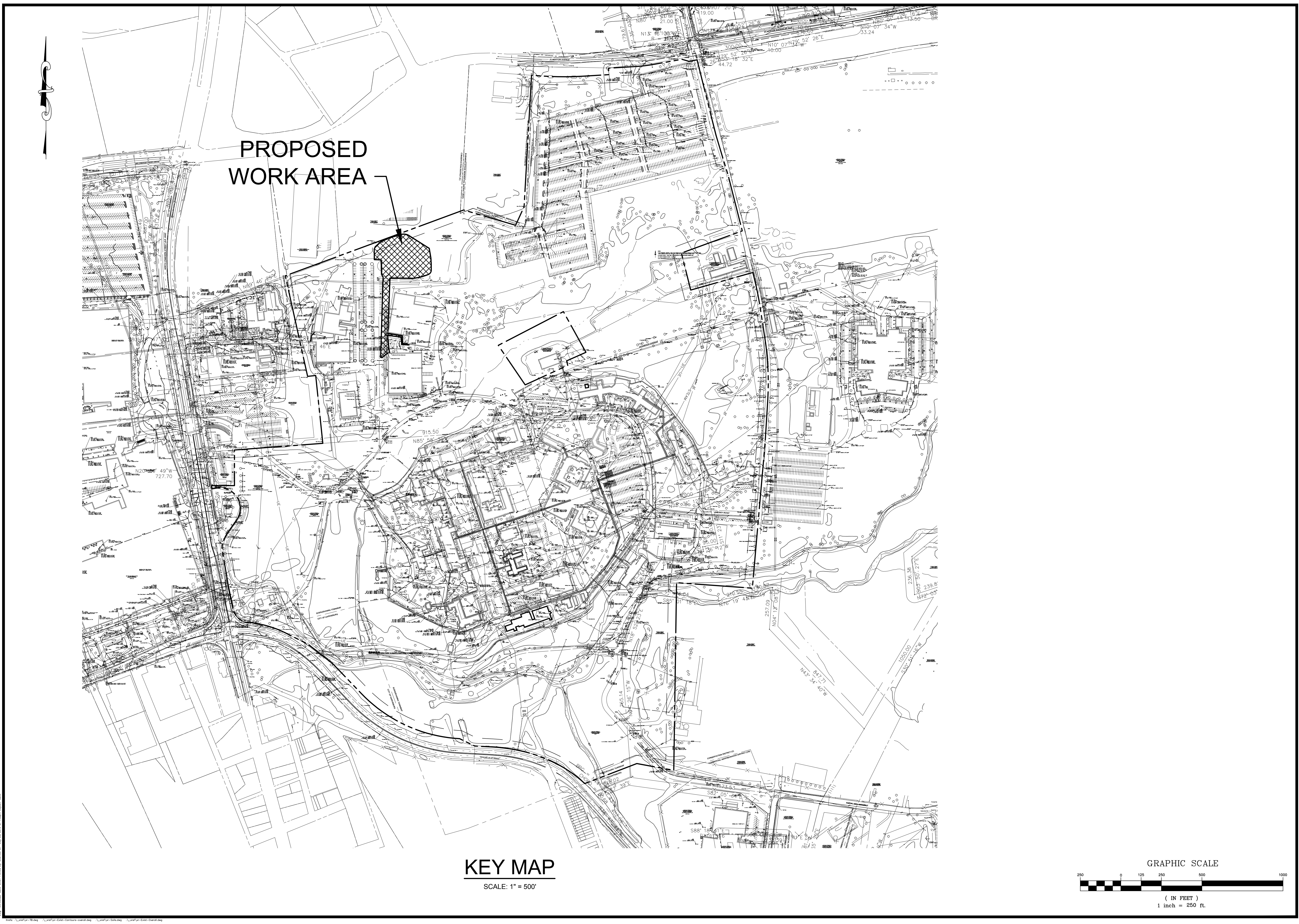
RECORDED IN THE OFFICE FOR RECORDING OF DEEDS, IN AND FOR DAUPHIN COUNTY,
 PENNSYLVANIA, IN INSTRUMENT NUMBER _____
 THIS _____ DAY OF _____, 20____.



NAVARRO & WRIGHT
CONSULTING ENGINEERS, INC.
 CORPORATE OFFICE
 151 RENO AVENUE
 NEW CUMBERLAND, PA 17070
 PHONE: (717) 441-2216
 FAX: (717) 441-2218

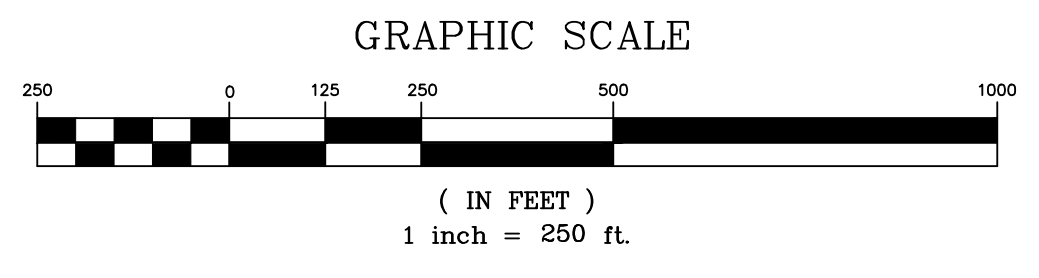
JOB NUMBER: 1901SC022
 DRAWN BY: BKS
 CHECKED BY: JDG
 DATE: 5/6/2019
 DRAWING NUMBER:
 1901SC022-C100-COVER
 SHEET:
C100

Title: 1901SC022-C100-COVER Printed by: bks on: May 03, 2019 at 1:54pm



PROPOSED
WORK AREA

KEY MAP
SCALE: 1" = 500'

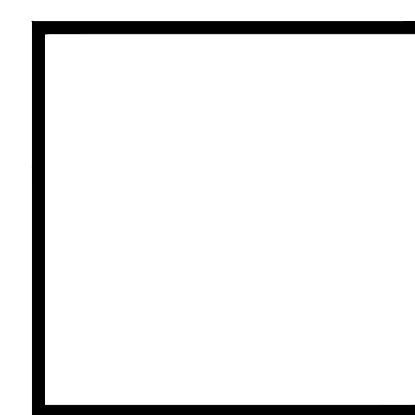
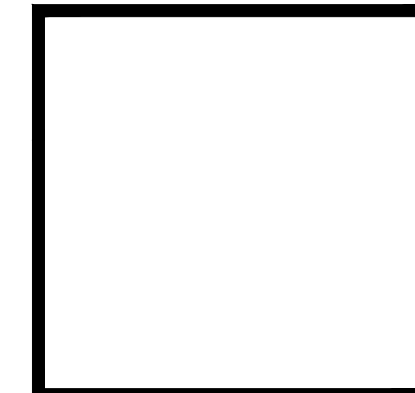


NO.	DATE	REVISIONS	BY

NAVARRO & WRIGHT
CONSULTING ENGINEERS, INC.

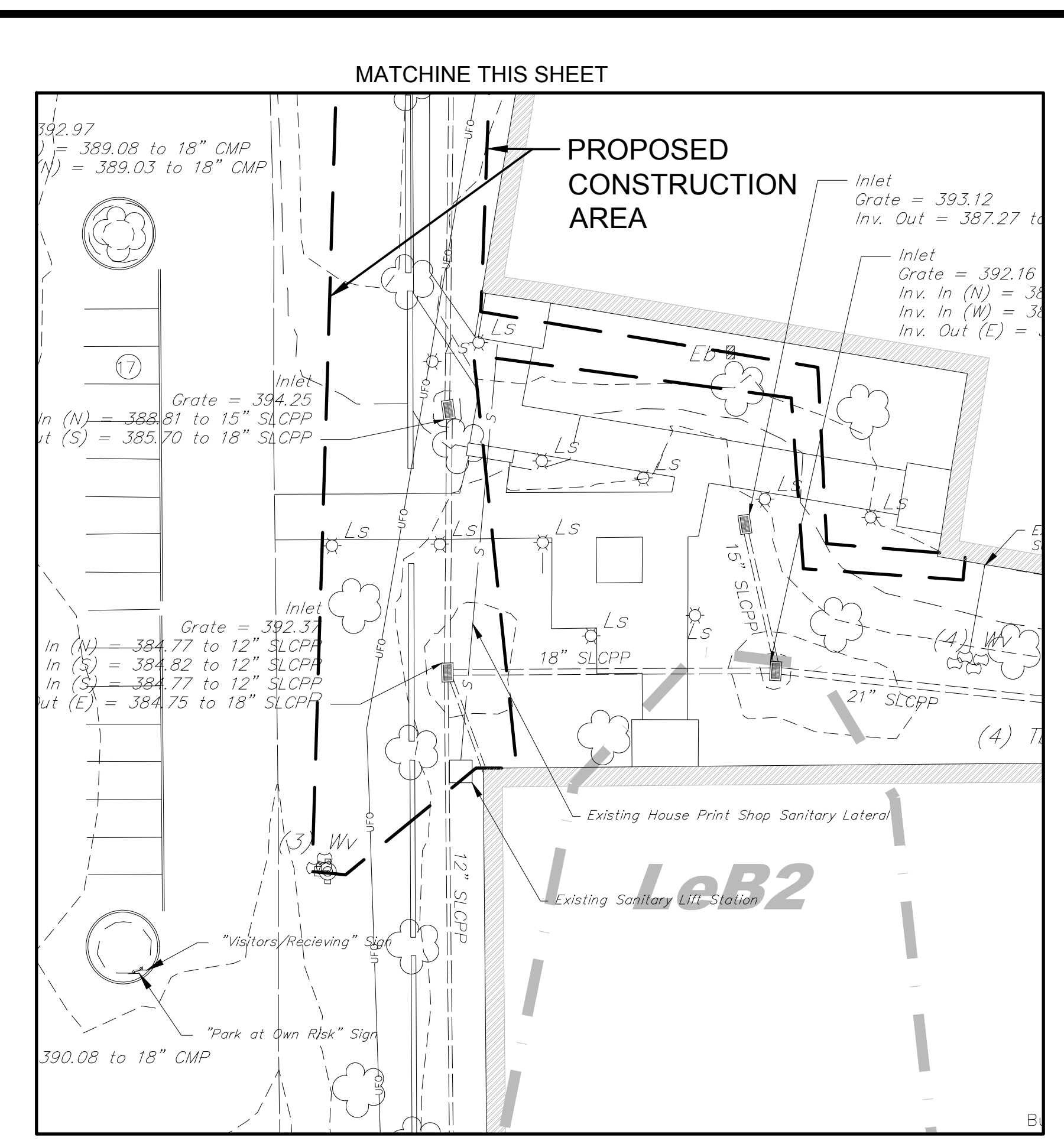
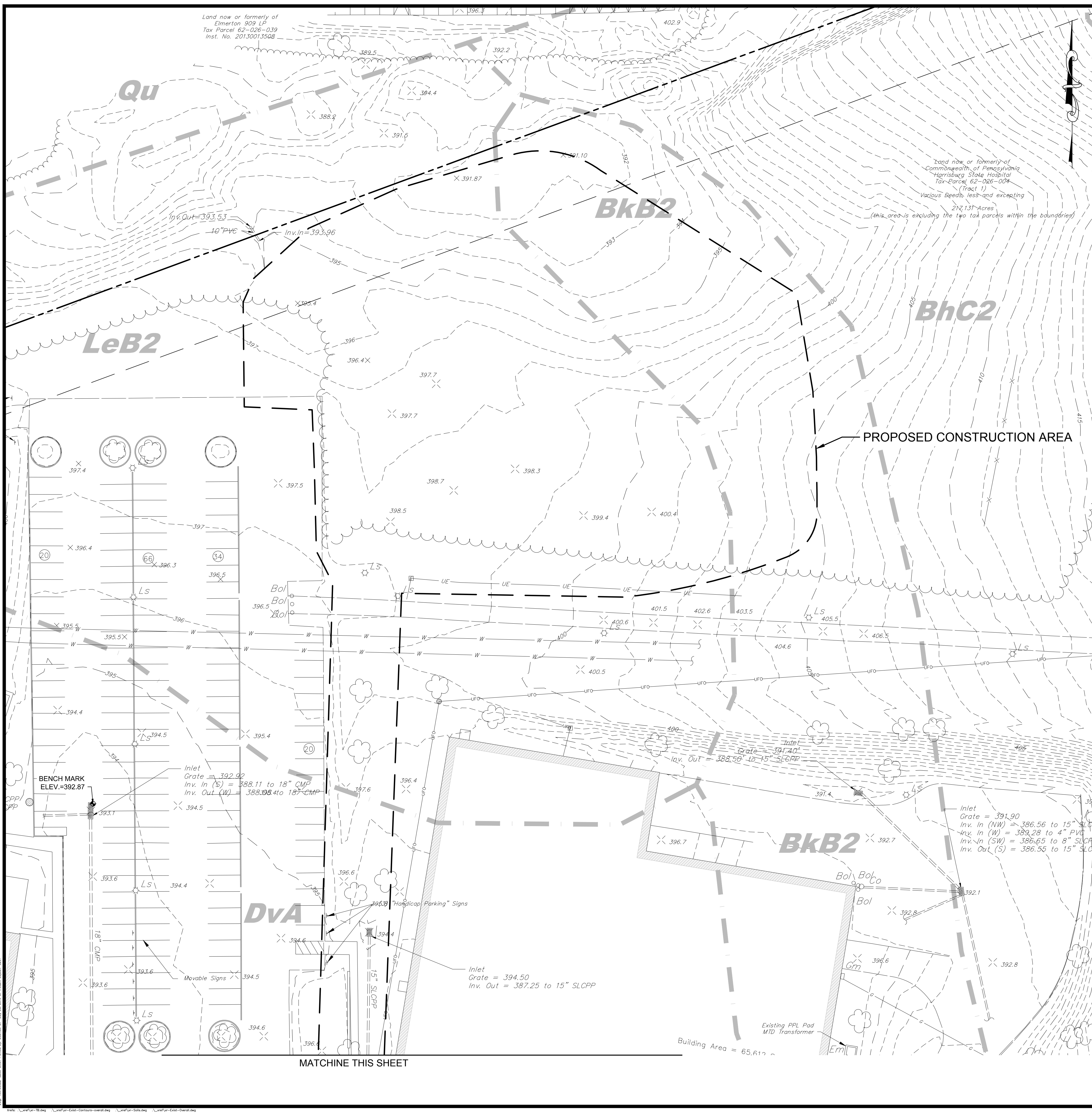
151 RENO AVENUE
NEW CUMBERLAND, PA 17070

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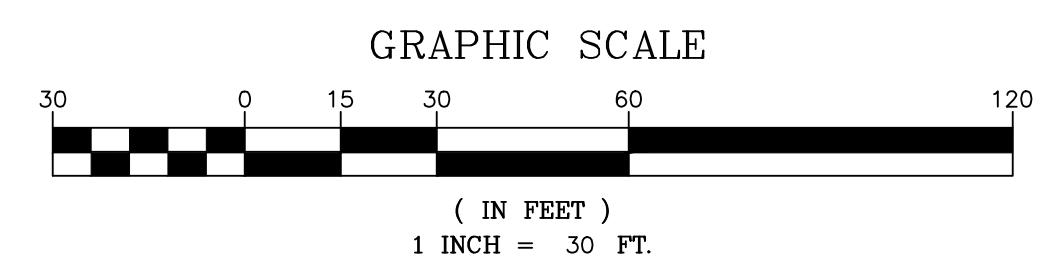
EXISTING CONDITIONS PLAN
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN
FOR
CAPITOL PRESERVATION
COMMITTEE STORAGE FACILITY
SUSQUEHANNA TOWNSHIP
DAUPHIN COUNTY, PA

JOB NUMBER:	1901SC022
DRAWN BY:	BKS
CHECKED BY:	JDG
SCALE:	1" = 250'
DATE:	5/3/19
DRAWING NUMBER:	1901SC022-C200-EXIST
SHEET:	C200



EXISTING LEGEND

---	PROPERTY LINE
---	EASEMENT
---	ZONING
---	RIGHT OF WAY
---	EDGE OF MACADAM
---	WATER LINE
---	SANITARY SEWER W/ MANHOLE
---	STORMWATER W/ INLET
---	FIBER OPTICS
---	CURB
---	GAS
---	CONTOUR MAJOR
---	CONTOUR MINOR
---	TREE LINE
---	TREE
---	LIGHT STANDARD

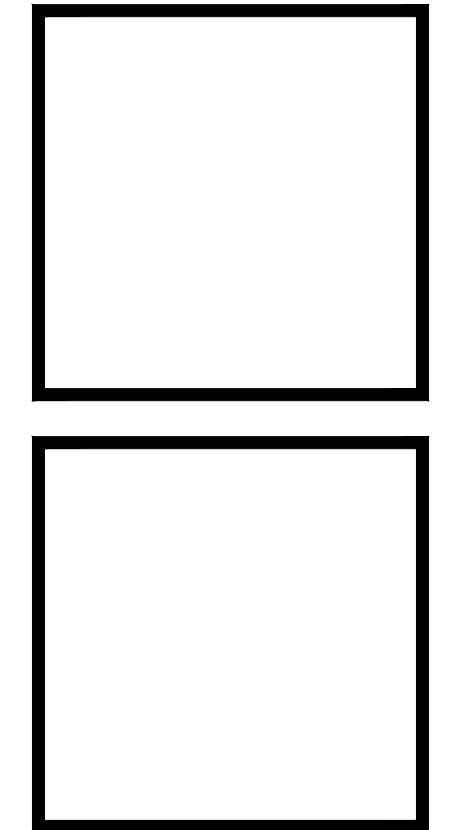


NO.	DATE	REVISIONS	BY

NAVARRO & WRIGHT
CONSULTING ENGINEERS, INC.

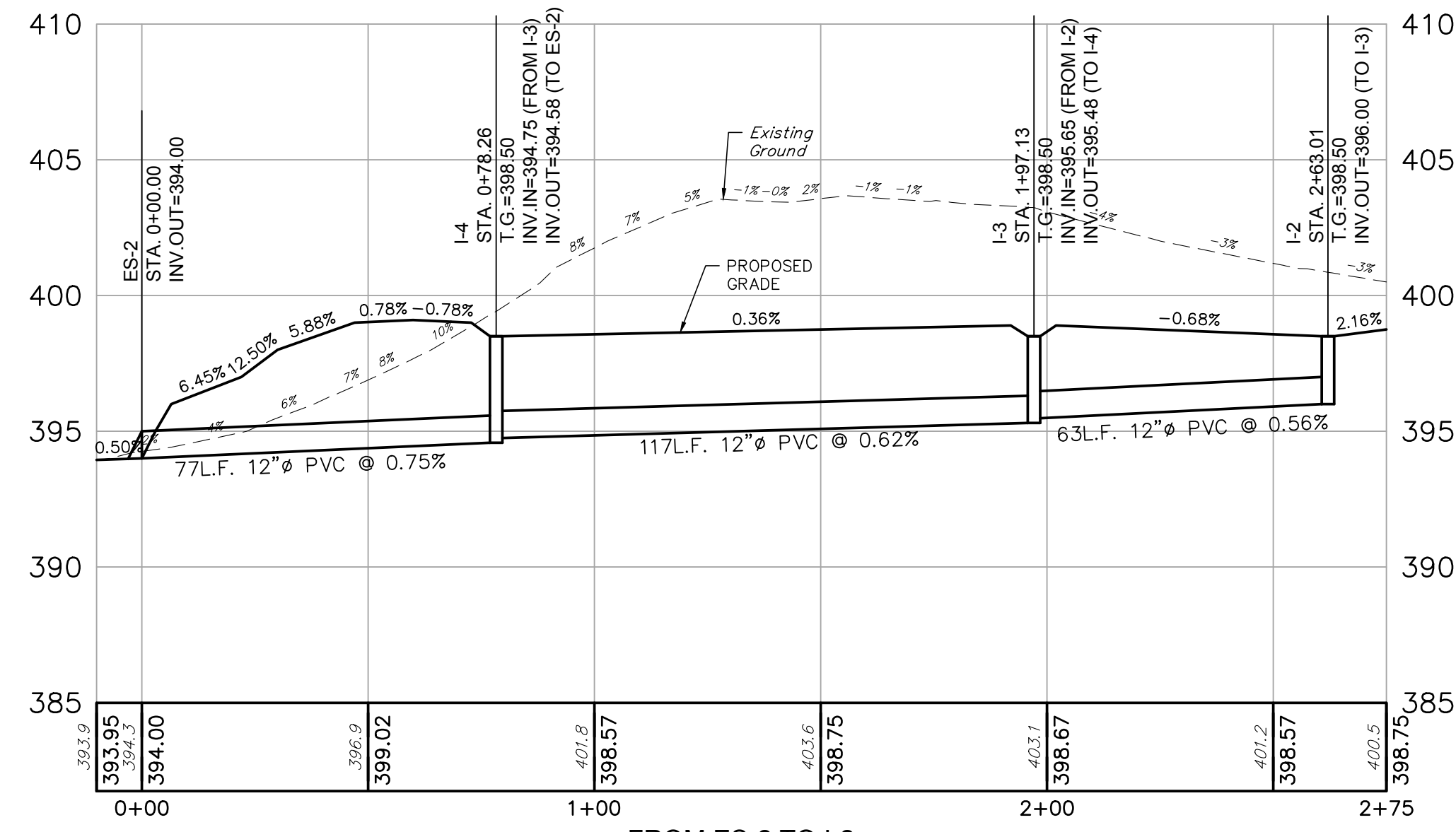
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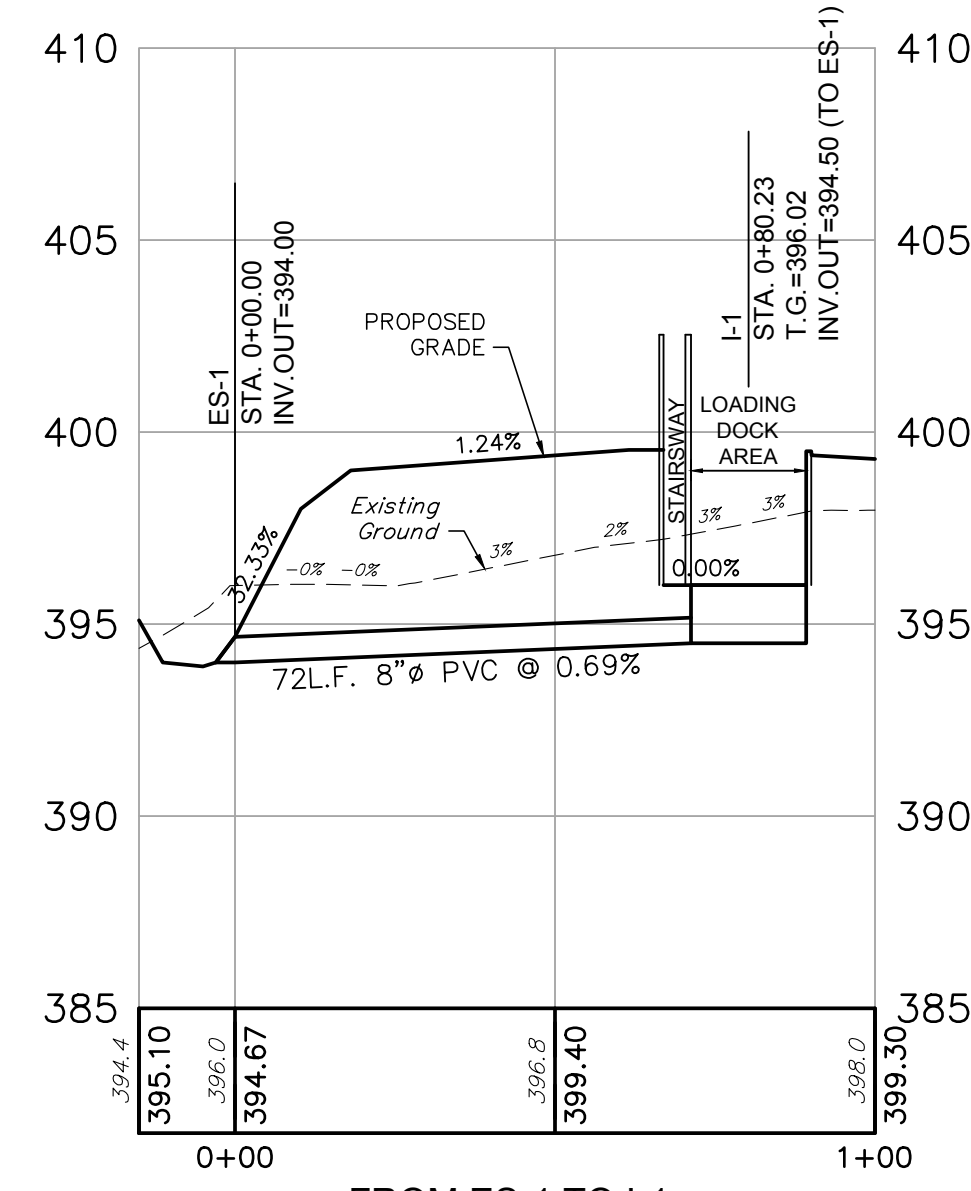
EXISTING CONDITIONS PLAN
FOR
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN
FOR
CAPITOL PRESERVATION
COMMITTEE STORAGE FACILITY
DAUPHIN COUNTY, PA
SUSQUEHANNA TOWNSHIP

JOB NUMBER:	1901SC022
DRAWN BY:	BKS
CHECKED BY:	JDG
SCALE:	1" = 30'
DATE:	5/3/19
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SHEET:	C201



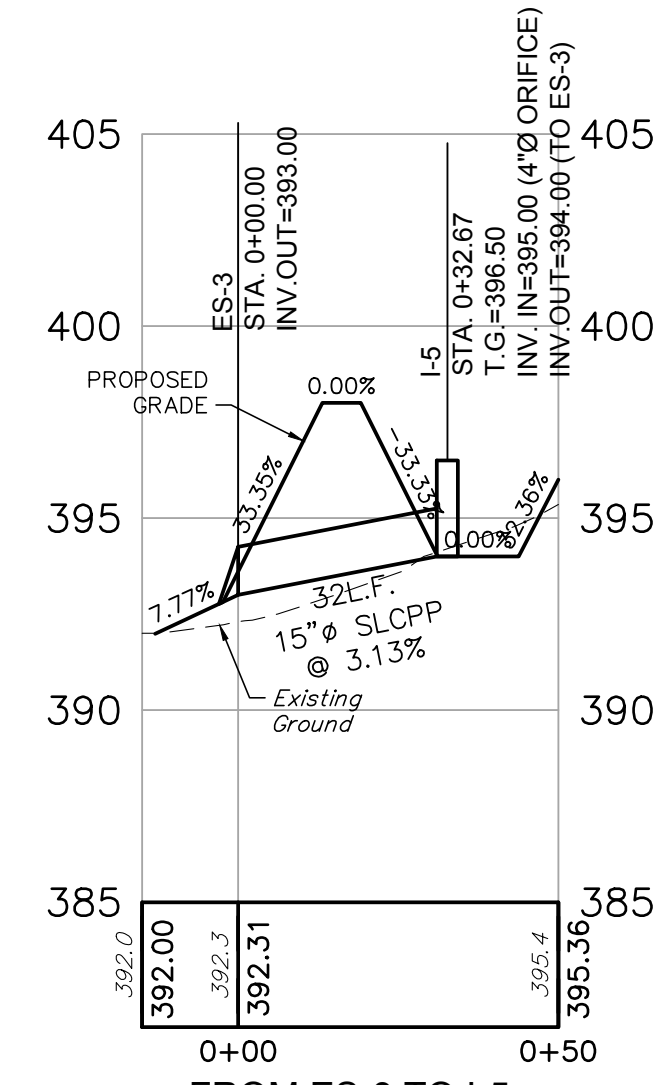
FROM ES-2 TO I-2
STORMWATER PROFILE

SCALE: HORZ. 1"=30'
VERT. 1"=5'



FROM ES-1 TO I-1
STORMWATER PROFILE

SCALE: HORZ. 1"=30'
VERT. 1"=5'



FROM ES-3 TO I-5
STORMWATER PROFILE

SCALE: HORZ. 1"=30'
VERT. 1"=5'

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CONSULTING ENGINEERS, INC.

151 RENO AVENUE
NEW CUMBERLAND, PA 17070

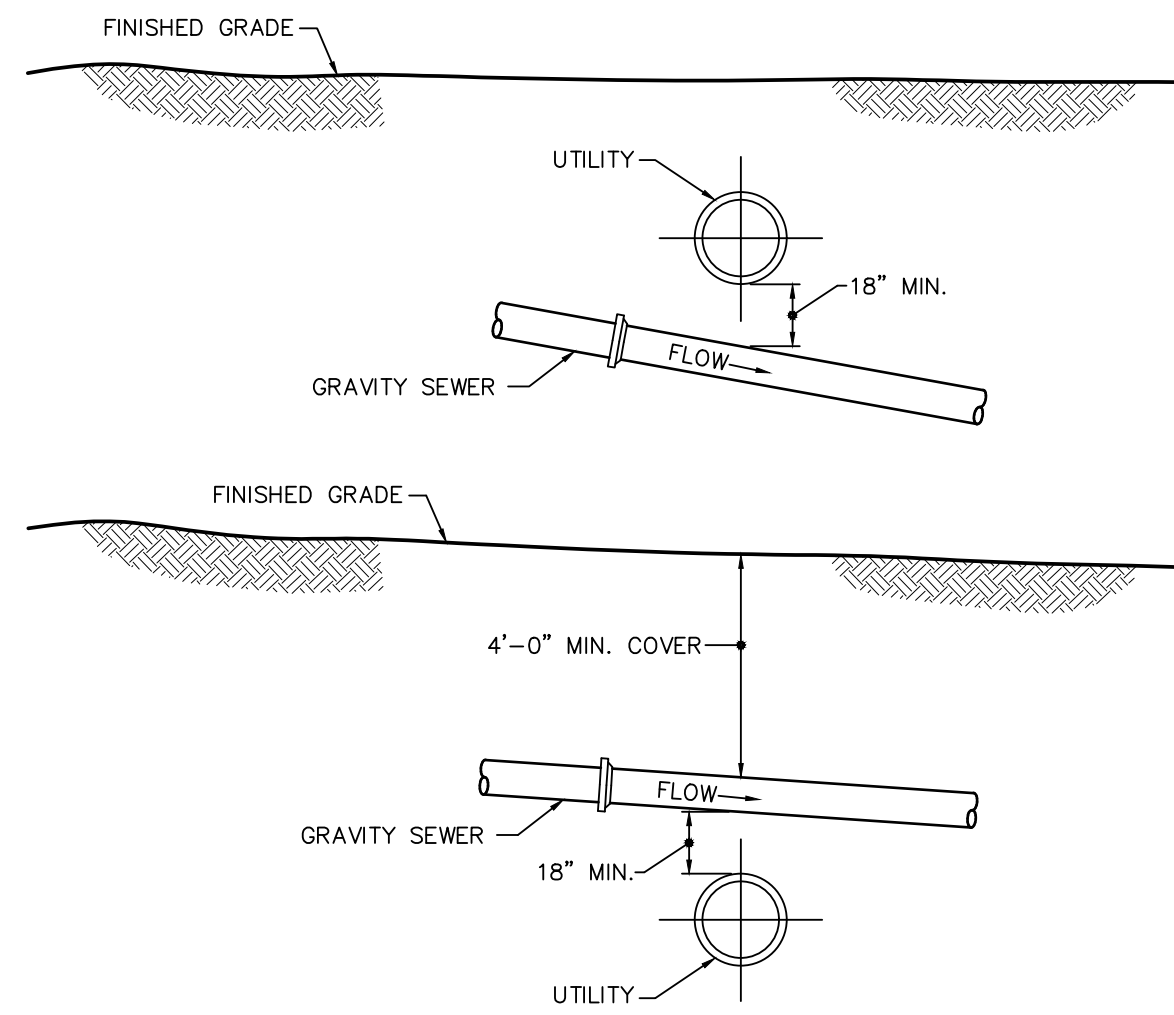
PHONE: (717) 441-2216
FAX: (717) 441-2218

DATE	REVISIONS	BY

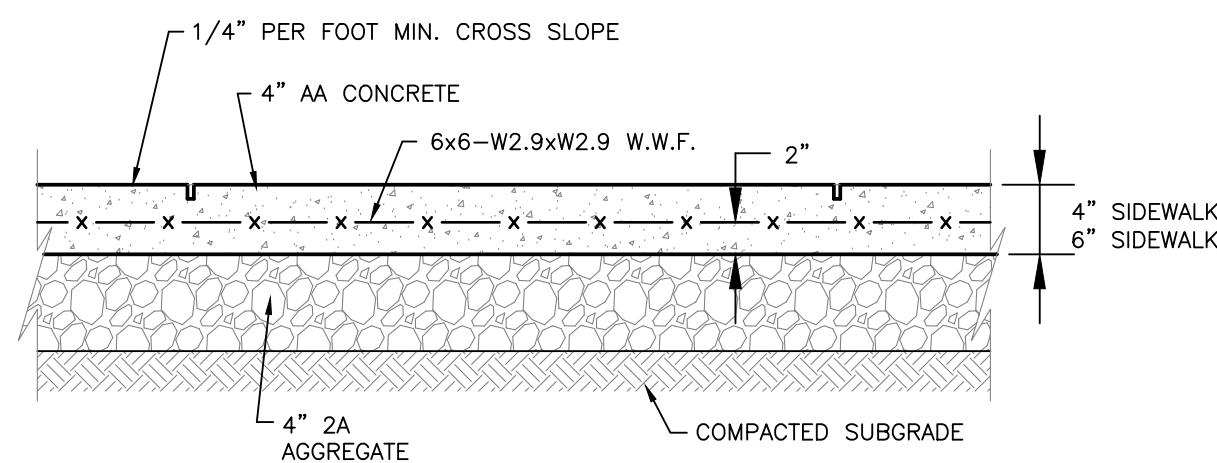
PROFILES
FOR
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN
FOR
CAPITOL PRESERVATION
COMMITTEE STORAGE FACILITY
SUSQUEHANNA TOWNSHIP
DAUPHIN COUNTY, PA

JOB NUMBER:	1901SC022
DRAWN BY:	BKS
CHECKED BY:	JDG
SCALE:	AS SHOWN
DATE:	5/3/19
DRAWING NUMBER:	1901SC022-C500-PROFILES
SHEET:	C500

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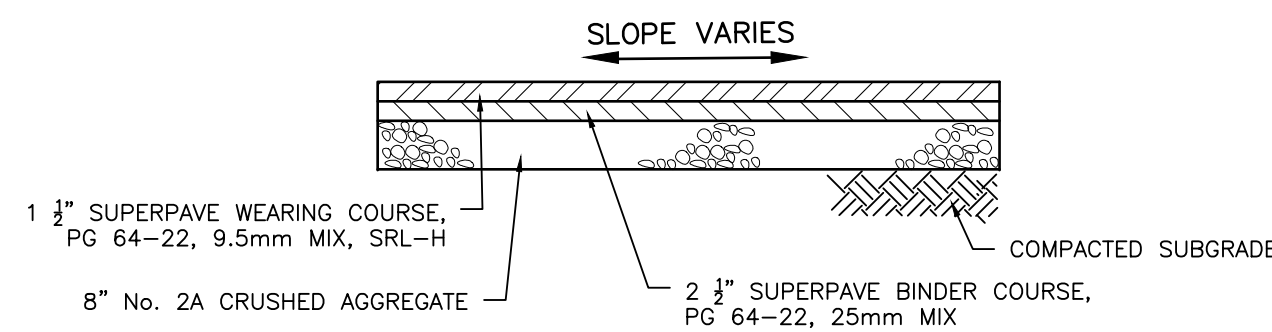


NOTE: MAINTAIN SLOPE OF PROPOSED SEWER AT ALL CROSSINGS.
GRAVITY SEWER CROSSING UTILITIES DETAIL
 NOT TO SCALE

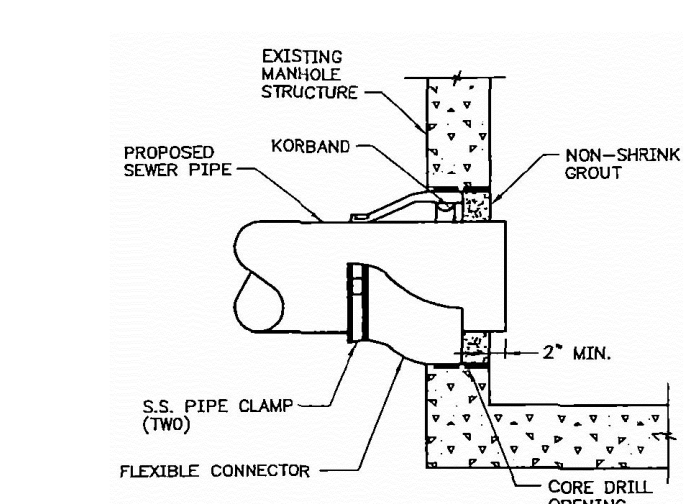


NOTE: 1.) WHERE THE SIDEWALK ABUTS CURB OR OTHER PERMANENT STRUCTURES, PLACE AN 1/2" EXPANSION JOINT. PROVIDE 1/2" TOOLED CONTRACTION JOINTS AT MAXIMUM 4'-0" SPACING. PROVIDE 1/2" EXPANSION JOINTS AT MAXIMUM 20'-0" SPACING.
 2.) THE THICKNESS OF CONCRETE SHALL BE 4" AT SIDEWALK, 6" AT DRIVEWAY CROSSINGS.

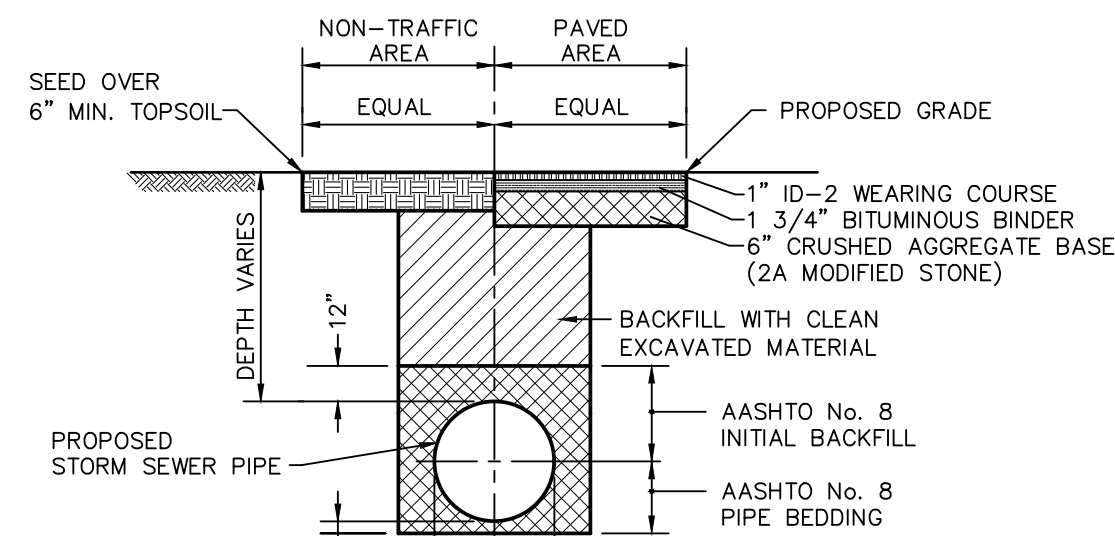
CONCRETE SIDEWALK DETAIL
 NOT TO SCALE



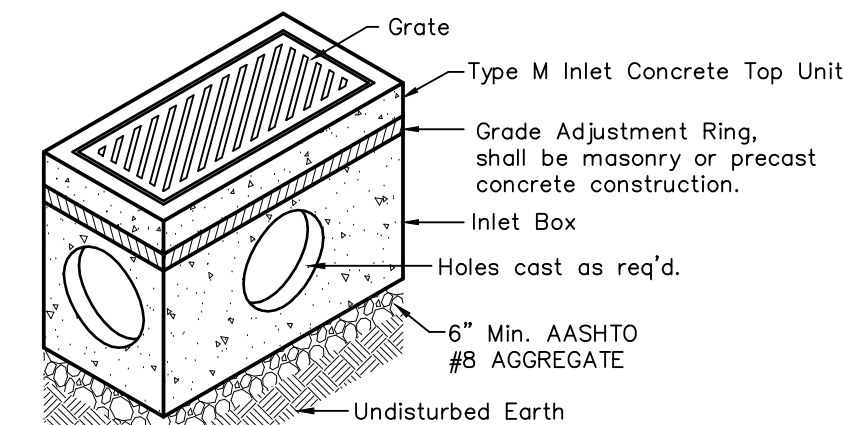
PAVEMENT SECTION
 NOT TO SCALE



MANHOLE PIPE CONNECTION DETAIL
 NOT TO SCALE

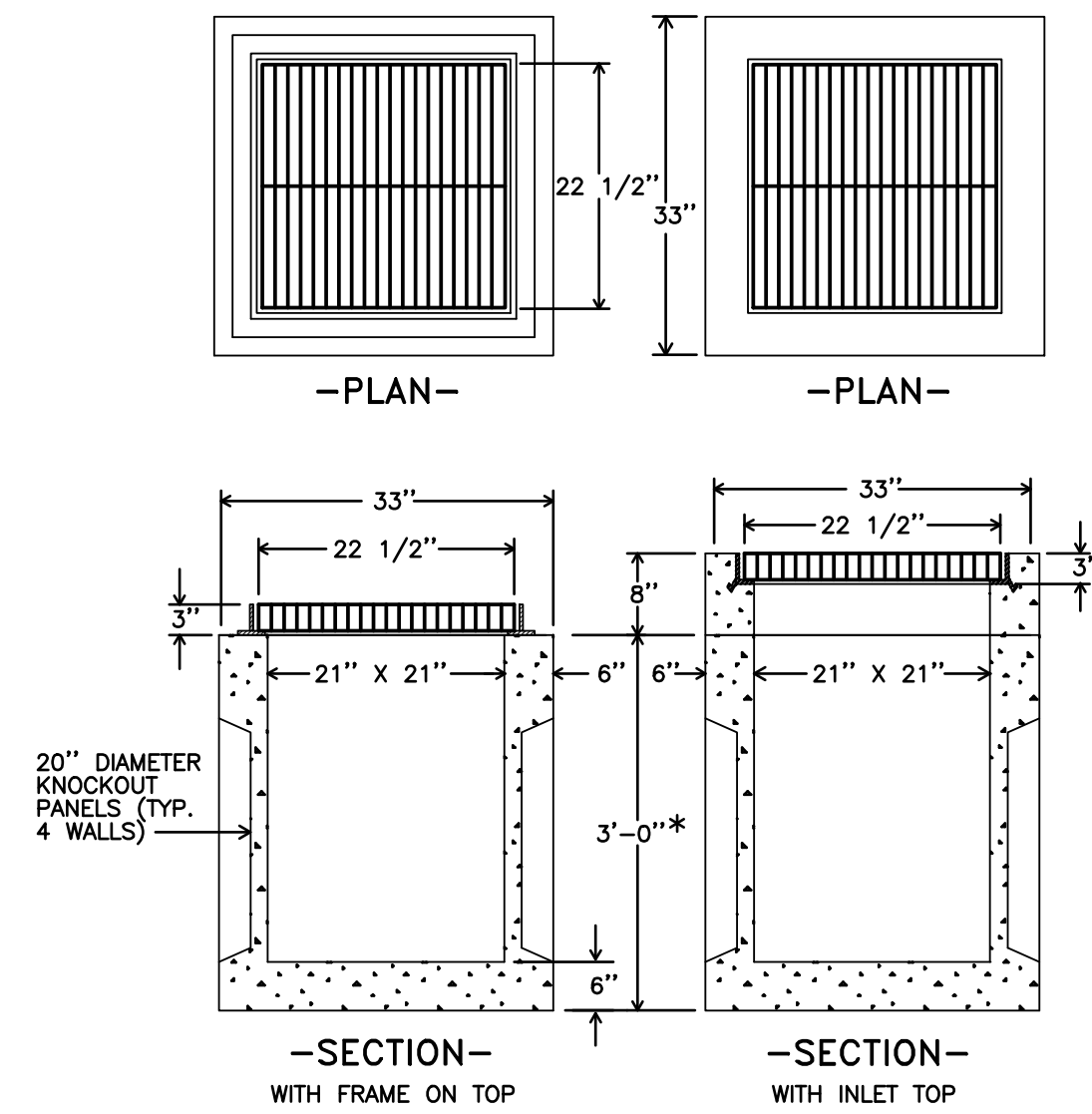


SANITARY/STORM WATER PIPE TRENCH DETAIL
 NOT TO SCALE

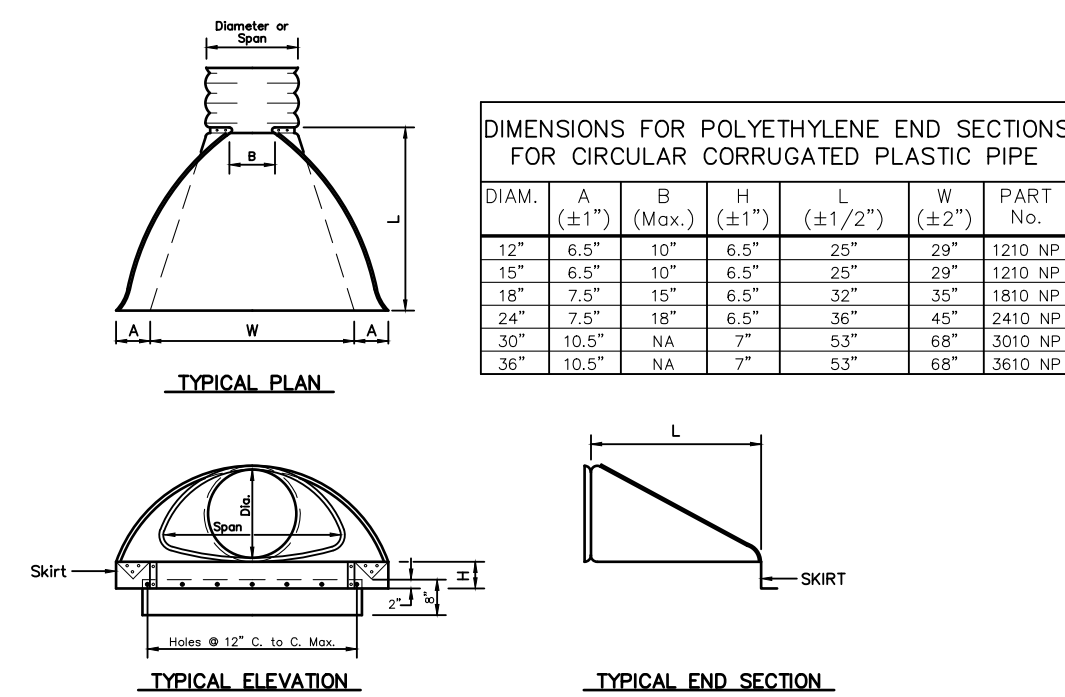


NOTE:
 1. ALL INLETS GREATER THAN 5 FEET IN DEPTH SHALL BE PROVIDED WITH ALUMINUM MANHOLE TYPE STEPS, NO GREATER THAN 12" APART.

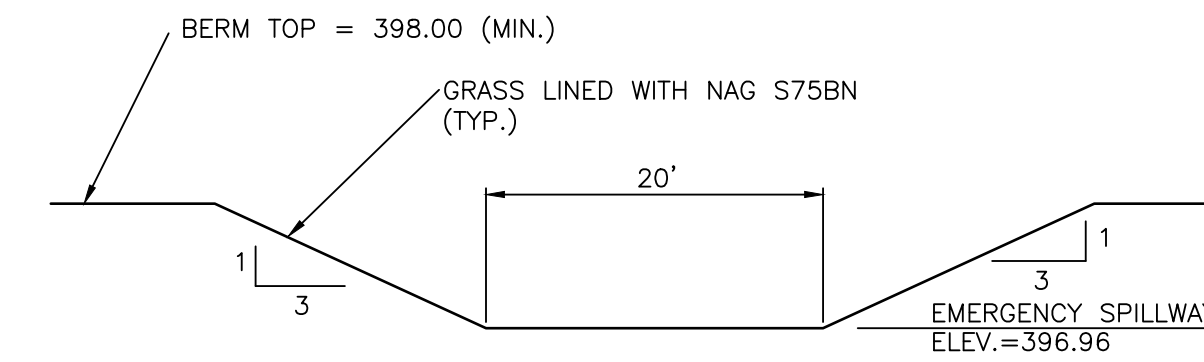
TYPE "M" INLET
 NOT TO SCALE



24" X 24" CATCH BASIN
 NOT TO SCALE

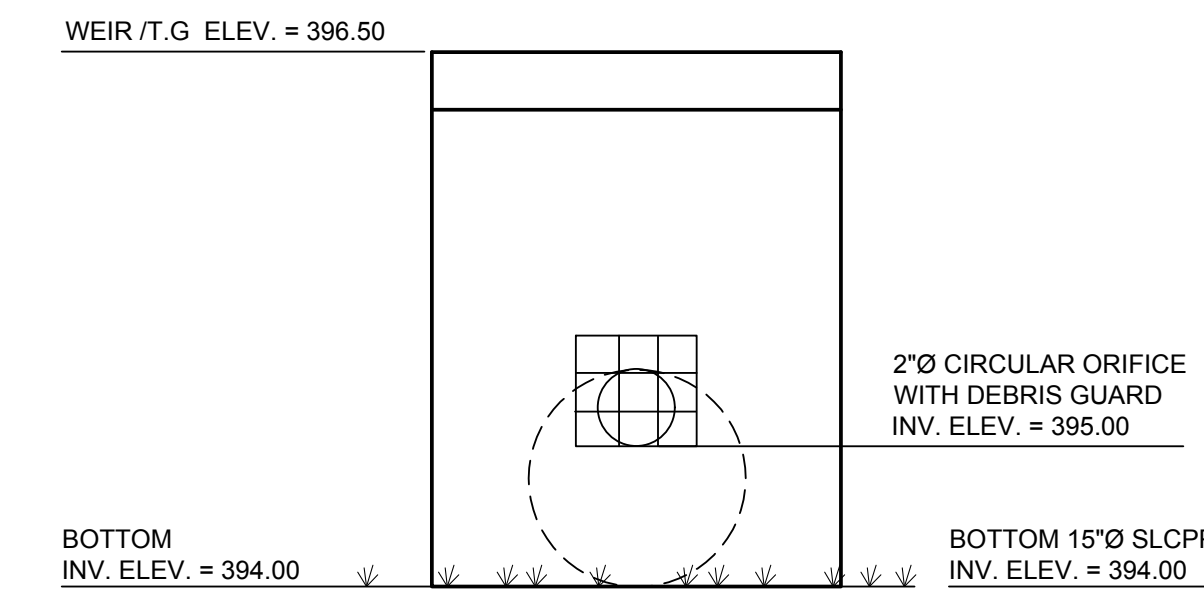


FLARED END SECTION DETAIL
 NOT TO SCALE

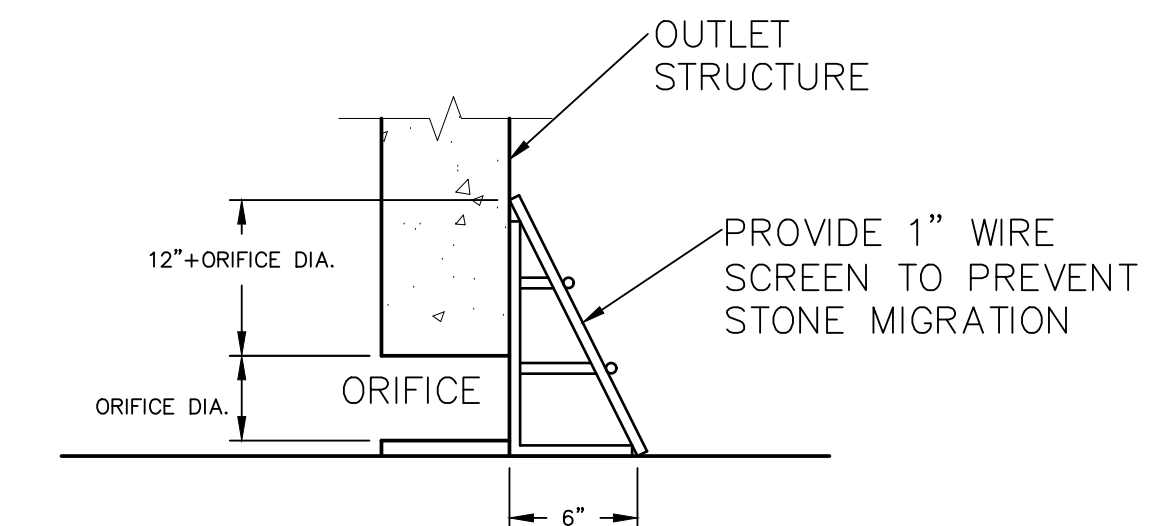


EMERGENCY SPILLWAY
 NOT TO SCALE

PROVIDE NORTH AMERICAN GREEN S75BN TEMPORARY LINER FOR BOTH EMERGENCY SPILLWAYS AND THEIR CHANNELS



OUTLET STRUCTURE OS-1
 SCALE: NO SCALE

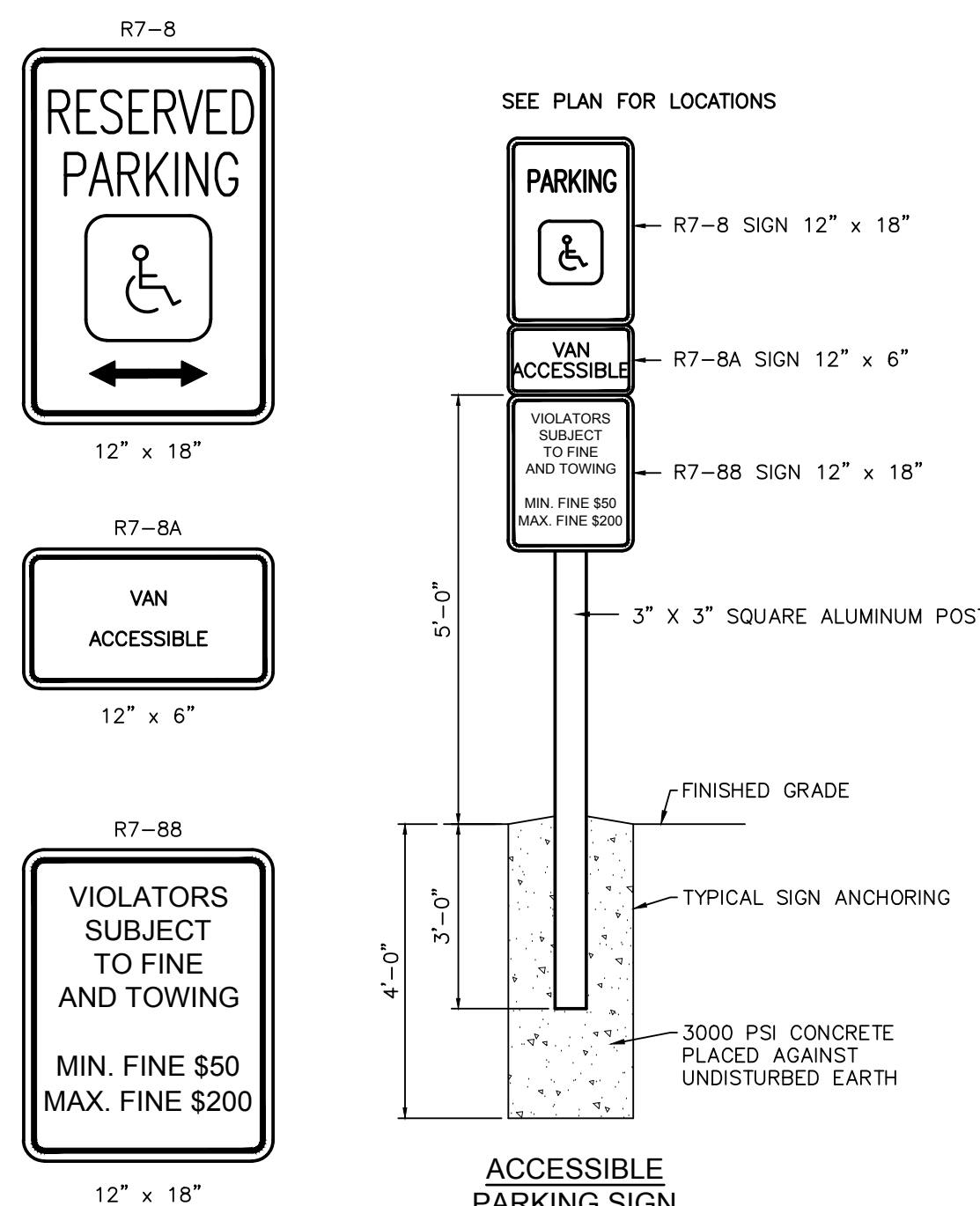


CIRCULAR ORIFICE BASIN BOTTOM
SCREEN DETAIL FOR OUTLET STRUCTURES

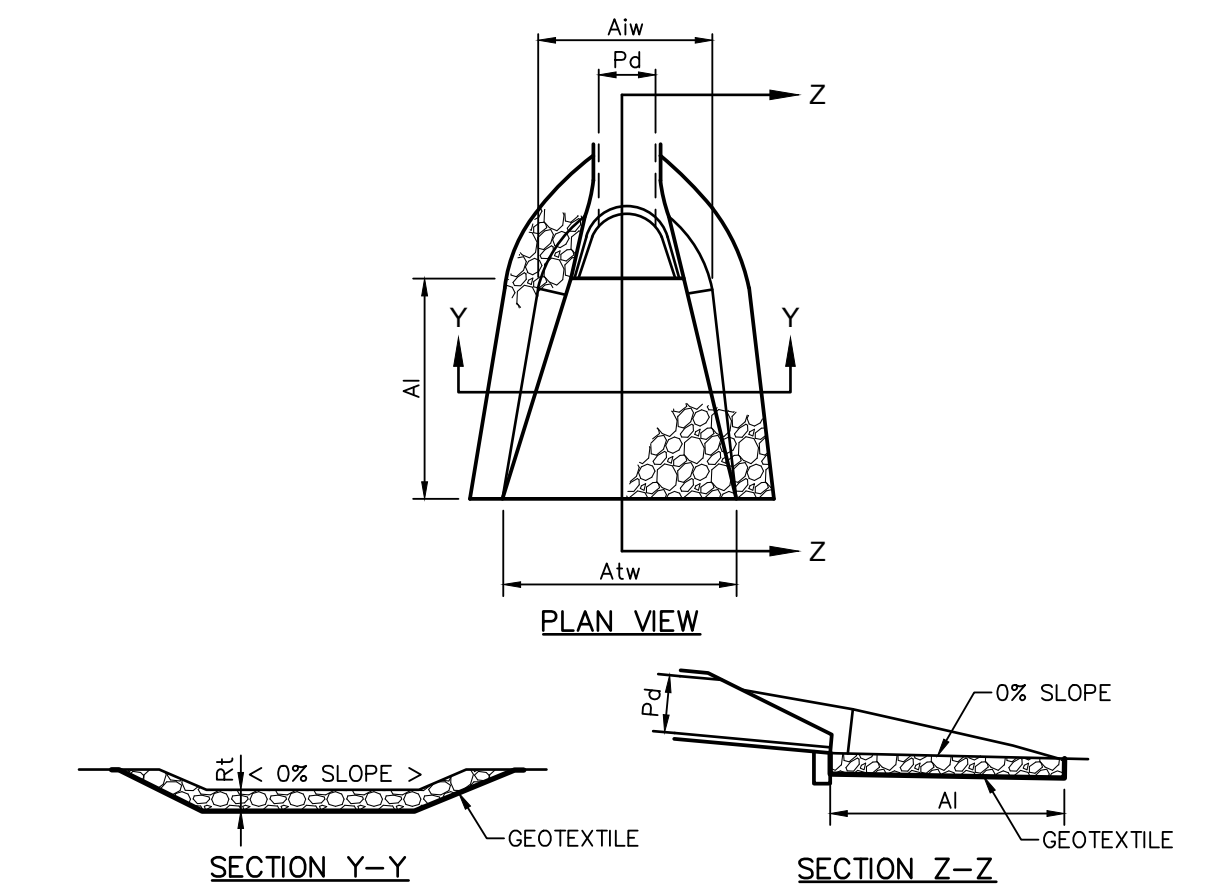
NOTE:
 ALL ORIFICE SCREENS SHALL BE INSTALLED WITH STAINLESS STEEL FASTENERS.

NOTES:

- ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
- ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
- MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
- FILTER FABRIC:** A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
- FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
- BEDDING:** SUITABLE MATERIAL SHALL BE CLASS I OR II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" FOR 4"-24" (100mm-600mm); 6" FOR 30"-60".
- INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
- MINIMUM COVER:** MINIMUM COVER OVER ALL RETENTION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" - 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.



ACCESSIBLE PARKING SIGN
 NOT TO SCALE



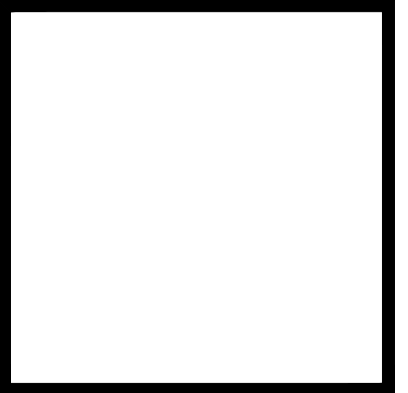
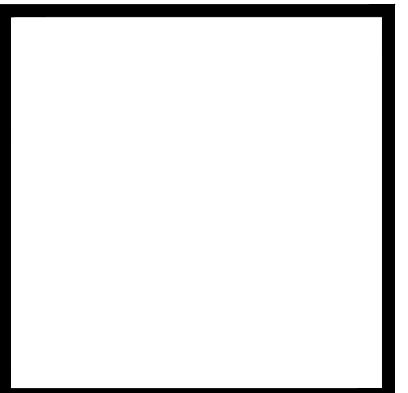
OUTLET NO.	PIPE DIA. PD (IN)	RIPRAP		APRON	
		SIZE (R-)	THICK. Rt (IN)	LENGTH AI (FT)	TERMINAL WIDTH Atw (FT)
ES-1	8	3	12	8	2
ES-2	12	3	12	8	3
ES-3	15	4	12	8	3.75

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.
 ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.
 EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.

STANDARD CONSTRUCTION DETAIL #9-1
RIPRAP APRONS AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL
 NOT TO SCALE

NO.	DATE	REVISIONS	BY

NAVARRO & WRIGHT
 CONSULTING ENGINEERS, INC.
 151 RENO AVENUE
 NEW CUMBERLAND, PA 17070
 PHONE: (717) 441-2216
 FAX: (717) 441-2218



DETAILS
 PRELIMINARY/FINAL LAND DEVELOPMENT PLAN FOR
CAPITOL PRESERVATION
COMMITTEE STORAGE FACILITY
 DAUPHIN COUNTY, PA
 SUSQUEHANNA TOWNSHIP

JOB NUMBER: 1901SC022
 DRAWN BY: BKS
 CHECKED BY: JDG
 SCALE: AS SHOWN
 DATE: 5/3/19
 DRAWING NUMBER:
 1901SC022-C600-DETAILS
 SHEET:

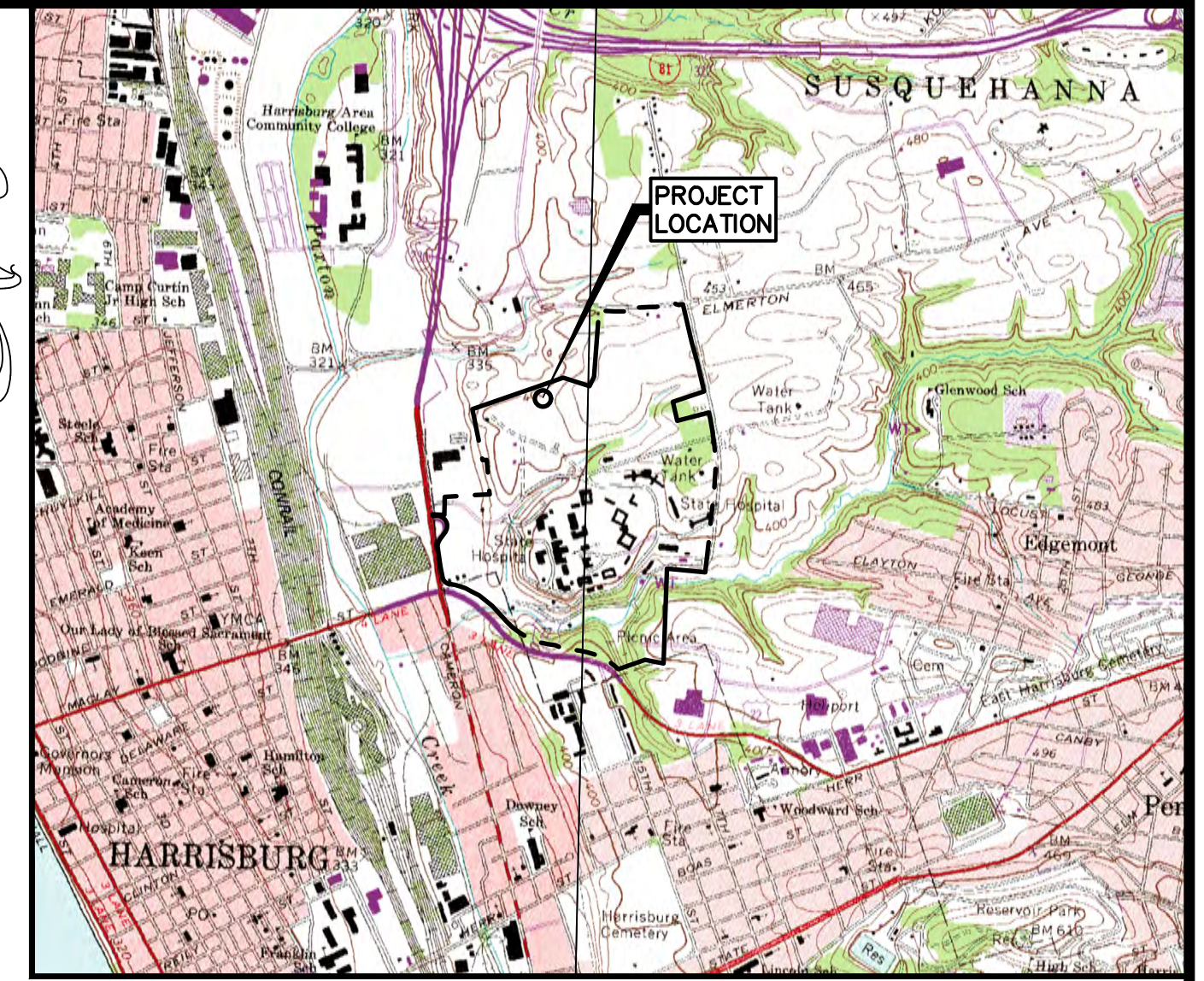
C600

EROSION AND SEDIMENTATION POLLUTION CONTROL PLAN PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

FOR CAPITOL PRESERVATION COMMITTEE STORAGE FACILITY

SUSQUEHANNA TOWNSHIP DAUPHIN COUNTY, PENNSYLVANIA

MAY 3, 2019



LOCATION MAP

SCALE = 1"=200'

GENERAL E&S CONTROL

- THE PURPOSE OF THIS PLAN IS TO PROVIDE EROSION AND SEDIMENTATION CONTROLS DURING CONSTRUCTION OF CAPITOL PRESERVATION COMMITTEE STORAGE FACILITY AND STORMWATER MANAGEMENT FACILITIES.
- ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO THE IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
- CLEARING, GRUBBING AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPs SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
- AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN. ALL VEHICLES MUST ENTER AND EXIT THE PROJECT SITE THROUGH THE ROCK CONSTRUCTION ENTRANCES.
- TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
- THE PERMITTEE AND CO-PERMITTEE MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED WEEKLY, AND AFTER EACH MEASURABLE PRECIPITATION EVENT BY QUALIFIED PERSONNEL. TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL, TO ASCERTAIN THAT THE EROSION AND SEDIMENT CONTROL (E & S) BEST MANAGEMENT PRACTICES (BMPs) ARE OPERATION AND EFFECTIVE IN PREVENTING POLLUTION TO THE WATERS OF THE COMMONWEALTH. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT, AND INCLUDE:
 - A SUMMARY OF THE SITE CONDITIONS, E&S BMPs, AND COMPLIANCE; AND
 - THE DATE, TIME AND THE NAME OF THE PERSON CONDUCTING THE INSPECTION
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
- ALL TEMPORARY STOCKPILED NON-STABILIZED MATERIALS SHALL BE COVERED WITH A TARP, MULCH, OR OTHER SUITABLE STABILIZATION IN ORDER TO PREVENT WASH-OFF WHEN PRECIPITATION IS IMMINENT.
- WHERE DUST OR WIND EROSION IS A PROBLEM, THE UNSTABLE SURFACES SHALL BE TREATED WITH WATER OR OTHER SUITABLE DUST SUPPRESSOR.
- TEMPORARY SEEDING SHALL BE PLACED IN ACCORDANCE WITH THE TEMPORARY SEEDING SPECIFICATIONS. TEMPORARY SEEDING SHALL BE APPLIED TO THOSE AREAS THAT ARE A POTENTIAL EROSION RISK AND THOSE AREAS WHERE CONSTRUCTION ACTIVITIES HAVE ENDED.
- AN EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL DISTURBED SLOPES 3H:1V OR STEEPER.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROL BMPs MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEANOUT, REPAIR, REPLACEMENT, RE-GRADING, RESEEDING, RE-MULCHING AND RE-NETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ANY EXCESS MATERIAL AND SHALL ENSURE THAT ALL OFF SITE WASTE AND BORROW AREAS RECEIVING EXCESS MATERIAL HAVE AN APPROVED EROSION AND SEDIMENTATION CONTROL PLAN THAT COMPLIES WITH THE CONDITIONS OF CHAPTER 102 AND/OR OTHER FEDERAL, STATE, AND LOCAL REGULATIONS. THE PLAN SHOULD BE APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT AND BE FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-601 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
- SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AN DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVED, OR SWEEP INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
- ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH PA DEP'S SOLID WASTE MANAGEMENT REGULATIONS AT TITLE 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 BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE THE DISTURBED AREAS, DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE (1) YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN ONE (1) YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
- FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPs MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

TABLE 11.2
Soil Amendment Application Rate Equivalents

Soil Amendment	Permanent Seeding Application Rate			Notes
	Per Acre	Per 1,000 sq. ft.	Per 1,000 sq. yd.	
Agricultural lime	6 tons	240 lb.	2,480 lb.	Or as per soil test; may not be required in agricultural fields
10-10-20 fertilizer	1,000 lb.	25 lb.	210 lb.	Or as per soil test; may not be required in agricultural fields
Temporary Seeding Application Rate				
Agricultural lime	1 ton	40 lb.	410 lb.	Typically not required for topsoil stockpiles
10-10-10 fertilizer	500 lb.	12.5 lb.	100 lb.	Typically not required for topsoil stockpiles

Adapted from Penn State, "Erosion Control and Conservation Plantings on Noncropland"

NOTE: A compost blanket which meets the standards of this chapter may be substituted for the soil amendments shown in Table 11.2.

MAINTENANCE PROGRAM (INFILTRATION BASIN)

- CATCH BASINS AND INLETS (UP GRADIENT OF INFILTRATION BASIN) SHOULD BE INSPECTED AND CLEANED AT LEAST TWO TIMES PER YEAR AND AFTER RUNOFF EVENTS.
- THE VEGETATION ALONG THE SURFACE OF THE INFILTRATION BASIN SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED AS SOON AS POSSIBLE.
- VEHICLES SHOULD NOT BE PARKED OR DRIVEN ON AN INFILTRATION BASIN, AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS.
- INSPECT THE BASIN AFTER RUNOFF EVENTS AND MAKE SURE THAT RUNOFF DRAINS DOWN WITHIN 72 HOURS. MOSQUITO'S SHOULD NOT BE A PROBLEM IF THE WATER DRAINS IN 72 HOURS. MOSQUITOES REQUIRE A CONSIDERABLY LONG BREEDING PERIOD WITH RELATIVELY STATIC WATER LEVELS.
- ALSO INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, EROSION CONTROL MEASURES, SIGNS OF WATER CONTAMINATION/SPILLS, AND SLOPE STABILITY IN THE BERMS.
- MOW ONLY AS APPROPRIATE FOR VEGETATIVE COVER SPECIES.
- REMOVE ACCUMULATED SEDIMENT FROM BASIN AS REQUIRED. RESTORE ORIGINAL CROSS SECTION AND INFILTRATION RATE. PROPERLY DISPOSE OF SEDIMENT.

SEEDING AND MULCH SPECIFICATIONS

TEMPORARY COVER - PENNDOT FORMULA E	
SPECIES	ANNUAL RYE GRASS (80% PURE LIVE SEED)
APPLICATION RATE	18 LB. PER 1000 SQUARE YARD
APPLICATION DATE	MARCH 15 TO OCTOBER 15
PERMANENT COVER - PENNDOT FORMULA B	
SPECIES	PERENNIAL GRASS MIXTURE (20% BY WEIGHT, 98% PURE LIVE SEED) CREEPING RED FESCUE (30% BY WEIGHT, 98% PURE LIVE SEED) KENTUCKY BLUE GRASS MIXTURE (50% BY WEIGHT, PURE LIVE)
APPLICATION RATE	21 LB. PER 1000 SQUARE YARD
APPLICATION DATE	MARCH 15 TO LINE 1 AUGUST 1 TO OCTOBER 15

"VEGETATIVE STABILIZATION WILL BE PERIODICALLY INSPECTED FOR PROPER GROWTH. ANY AREAS NOT RESPONDING WILL BE PROMPTLY RESEEDED. AREAS, WHICH SHOWS SIGNS OF EROSION PRIOR TO STABILIZATION SHALL BE GRADED, RESEEDED, AND RE-MULCHED AS SOON AS POSSIBLE.

MULCHING SPECIFICATIONS:
HAY OR STRAW - AIR-DRIED, FREE OF SEED AND COARSE MATERIAL. INSTALLATION RATE FOR PERMANENT AND TEMPORARY STABILIZATION IS THREE (3) TONS PER ACRE AND SHALL BE CRIMPED IN. THE MULCHING WILL BE UTILIZED DURING WINTER MONTHS AS A GOOD GROUND COVER ON TOPSOIL STOCKPILES, GRADED SLOPES AND OTHER AREAS TO BE GRASSED. THE DISTURBED AREAS WILL BE SEEDDED WITHIN THE FIRST WEEK OF THE DESIGNATED GROWING SEASON OR BEFORE IF THE WEATHER IS FAVORABLE.

SOIL SUPPLEMENT SPECIFICATIONS:
SUPPLEMENTS SHALL CONFORM TO THE REQUIREMENTS OF PENNDOT PUBLICATION 408, SECTION 804:
TEMPORARY
LIMING - PULVERIZED AGRICULTURAL LIMESTONE - APPLIED AT 600 LB/1000 S.Y. FERTILIZER - 10-20-20 - APPLIED AT 600 LB. PER ACRE

PERMANENT
LIMING - PULVERIZED AGRICULTURAL LIMESTONE - APPLIED AT 4 TONS PER ACRE FERTILIZER - 10-20-20 - APPLIED AT 1000 LB. PER ACRE

WETLAND SEEDING MIXTURE SPECIFICATIONS:
SEE POST CONSTRUCTION STORMWATER MANAGEMENT DETAIL SHEET

EARTHWORK DUE DILIGENCE

- CLEAN FILL AND ENVIRONMENTAL DUE DILIGENCE:
 - IF THE SITE WILL HAVE EXCESS FILL THAT WILL NEED TO BE EXPORTED TO AN OFF-SITE LOCATION, THE RESPONSIBILITY OF CLEAN FILL DETERMINATION AND ENVIRONMENTAL DUE DILIGENCE RESTS WITH THE APPLICANT.
 - IF ALL CUT AND FILL MATERIALS WILL BE USED ON THE SITE, A CLEAN FILL DETERMINATION IS NOT REQUIRED BY THE OPERATOR UNLESS THERE IS A BELIEF THAT A SPILL, OR RELEASE OF A REGULATED SUBSTANCE OCCURRED ON THE SITE.
- CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, USED ASPHALT, AND BRICK. BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)
- ENVIRONMENTAL DUE DILIGENCE:
INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO: VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE.

PENALTIES

FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPs MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

RECYCLING OR DISPOSAL OF MATERIALS

ALL BUILDING MATERIALS AND 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 BURIED, DUMPED, OR DISCHARGED AT THE SITE.

THERMAL IMPACT NOTE

THE PROPOSED PAVED SURFACES HAVE THE ABILITY TO ABSORB HEAT AND MAY CAUSE A SLIGHT INCREASE IN THE TEMPERATURES OF THE STORMWATER RUNOFF. IMPROVISED COVERAGE WILL BE REDUCED BY 0.35 AC IN POST DEVELOPMENT CONDITION. THERMAL IMPACT WILL BE REDUCED BY INCREASING GREEN SPACE.

SOIL LIMITATIONS & RESOLUTIONS

- AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL.
- ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
- ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
- FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.

SEQUENCE OF CONSTRUCTION

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED AND IMMEDIATELY STABILIZED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING, GRUBBING AND TOPSOIL STRIPPING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. THE ANTICIPATED EARTH DISTURBANCE DURATION IS FROM OCTOBER 2019 TO OCTOBER 2020.

CONTACT DAUPHIN COUNTY CONSERVATION DISTRICT (DCCD) AT (717) 921-8100 A MINIMUM OF THREE (3) DAYS PRIOR TO COMMENCEMENT OF EARTH DISTURBANCE ACTIVITIES.

ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER UNDISTURBED VEGETATED AREAS.

ALL BEST MANAGEMENT PRACTICES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS AND LOCATIONS SHOWN ON THE PLANS.

THE ORDER OF THE FOLLOWING SEQUENCE IS SUBJECT TO CHANGE DUE TO SITE SPECIFIC CONDITIONS AND CONSTRUCTION METHODS. ALL CHANGES SHALL BE APPROVED BY THE DCCD.

- FIELD-LOCATE THE PROPOSED LIMITS OF DISTURBANCE.
- INSTALL THE STABILIZED ROCK CONSTRUCTION ENTRANCE AS SHOWN ON THE PLAN AND IN ACCORDANCE WITH THE DETAIL PROVIDED ON THE PLAN.
- INSTALL INLET PROTECTION ON ALL ADJACENT EXISTING INLETS AS SHOWN ON THE PLAN AND IN ACCORDANCE WITH THE DETAILS PROVIDED.
- INSTALL FILTER SOCKS (OR APPROVED EQUIVALENT) AT LOCATIONS SHOWN ON THE PLAN AND IN ACCORDANCE WITH THE DETAILS PROVIDED.
- STRIP AND STOCKPILE TOPSOIL. TOPSOIL CAN BE PLACED AT THE TEMPORARY STOCKPILE LOCATION PROVIDED ON THE PLAN. PLACE 18" FILTER SOCKS DOWNSLOPE OF THE TEMPORARY TOPSOIL STOCKPILE. SEED THE STOCKPILE WITH A TEMPORARY SEEDING MIXTURE. ALL STOCKPILES SHALL BE A MAXIMUM OF 35 FEET IN HEIGHT WITH SIDE SLOPES OF 2H:1V OR FLATTER.
- BEGIN ROUGH GRADING OF THE SITE.
- INSTALL ALL UNDERGROUND UTILITIES, INCLUDING STORM SEWER AND ASSOCIATED RIP RAP APPROX PROTECTION
- STABILIZE FINISHED AREAS WITH TOPSOIL, SEED, MULCH AND APPROPRIATE GROUND COVERS. TOPSOIL SHALL BE PLACED AT A MINIMUM DEPTH OF SIX (6) INCHES. THE BUILDING PAD SHOULD ALSO BE STABILIZED IN ACCORDANCE WITH THE ARCHITECTURAL DRAWINGS.
- BEGIN CONSTRUCTION OF THE BUILDING.
- INSTALL SILT SOCK INLET PROTECTION IN EACH NEW INLET.
- FINE GRADE THE SITE.
- INSTALL INFILTRATION BASIN FACILITIES AS SHOWN ON THE PLAN AND IN ACCORDANCE WITH THE DETAILS PROVIDED ON THE PLAN. CONNECT ROOF DRAINS FROM THE BUILDINGS.
- WHEN THE UPSLOPE AREA TO THE PROPOSED INFILTRATION BASIN IS STABILIZED, EXCAVATE AND INSTALL THE SUBSURFACE STONE STORAGE, CONSTRUCT THE DOWN SLOPE BERM OF THE BASIN, INSTALL OUTLET STRUCTURES AND CONNECTION PIPES TO THE EXISTING INLETS, INSTALL MULCH LAYERS AND PLANT WETLAND VEGETATION IN ACCORDANCE WITH THE DETAILS PROVIDED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN.
- UPON PERMANENT STABILIZATION OF THE SITE, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION AND WITH THE CONSENT OF THE DAUPHIN COUNTY CONSERVATION DISTRICT, E AND S BEST MANAGEMENT PRACTICES (BMPs), SUCH AS SILT SOCK AND SILT SACK INLET PROTECTION CAN BE REMOVED. ALL DISTURBED SOILS RESULTING FROM BMP REMOVAL SHALL BE STABILIZED WITH SEED AND MULCH IMMEDIATELY.
- THE CONTRACTOR SHALL CONTACT DCCD TO ESTABLISH A DATE FOR FINAL INSPECTION OF THE PROJECT SITE. THE OWNER/OPERATOR SHALL CONTACT THE DCCD FOR A FINAL INSPECTION PRIOR TO THE REMOVAL OF THE BMPs.
- THE CONTRACTOR SHALL ENSURE ALL STORMWATER MANAGEMENT BMPs ARE PROPERLY FINISHED, STABILIZED, AND FUNCTIONING AS DESIGNED PRIOR TO DEMOLITION FROM THE SITE.

TOTAL DISTURBED AREA

TOTAL DISTURBANCE/MPDES IS 99,376 SQ FT (2.28 ACRES)

MAINTENANCE PROGRAM

- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROL DEVICES AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, RE-MULCHING, AND RE-NETTING, MUST BE PERFORMED IMMEDIATELY.
- A ROCK CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE POINT OF CONSTRUCTION INGRESS AND EGRESS AS NOTED ON THE PLAN. THE STRUCTURE WILL PREVENT TRACKING AND FLOWING OF SEDIMENT ONTO EXISTING STABILIZED AREAS. CLEAN AND REDRESS THE ROCK CONSTRUCTION ENTRANCE WHEN THE VOIDS BECOME CHOKED WITH MUD AND SEDIMENT. THE ENTRANCE SHALL REMAIN FUNCTIONAL FOR THE DURATION OF THE PROJECT.
- WHERE DUST OR WIND EROSION IS A PROBLEM, THE UNSTABLE SURFACE(S) SHALL BE SPRINKLED WITH WATER OR OTHER SUITABLE DUST SUPPRESSOR.
- ANY TEMPORARY EROSION CONTROL MEASURE APPLIED TO EXPOSED SOIL SURFACES SHALL REMAIN FUNCTIONAL UNTIL VEGETATIVE COVER IS SUFFICIENTLY ESTABLISHED.
- PERMANENT SOIL PROTECTION WILL BE COMPLETED AS EARLY AS PRACTICAL.
- ANY DEBRIS ACCUMULATED AT SILT BARRIERS SHALL BE REMOVED AND PROPERLY DISPOSED. BARRIERS SHALL BE CHECKED DAILY AND RE-ALIGNED OR RE-SET AS REQUIRED. REMOVE SEDIMENT WHEN IT REACHES ONE HALF OF FENCE HEIGHT.
- ALL CHANNELS MUST BE KEPT FREE OF OBSTRUCTIONS SUCH AS FILL GROUND, FALLEN LEAVES & WOODY DEBRIS, ACCUMULATED SEDIMENT, AND CONSTRUCTION MATERIALS/WASTES. CHANNELS SHOULD BE KEPT MOWN AND/OR FREE OF ALL WEEDY, BRUSHY OR WOODY GROWTH. ANY UNDERGROUND UTILITIES RUNNING ACROSS/ THROUGH THE CHANNEL(S) SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL(S) REPAIRED AND STABILIZED PER THE CHANNEL CROSS-SECTION DETAIL.
- VEGETATED CHANNELS SHALL BE CONSTRUCTED FREE OF ROCKS, TREE ROOTS, STUMPS OR OTHER PROJECTIONS THAT WILL IMPEDE NORMAL CHANNEL FLOW AND/OR PREVENT GOOD UNITS TO SOIL CONTACT. THE CHANNEL SHALL BE INITIALLY OVER-EXCAVATED TO ALLOW FOR THE PLACEMENT OF TOPSOIL.
- VEGETATIVE STABILIZATION SHALL BE PERIODICALLY INSPECTED FOR PROPER GROWTH. ANY AREAS NOT RESPONDING SHALL BE PROMPTLY RESEEDED. AREAS WHICH SHOW SIGNS OF EROSION PRIOR TO STABILIZATION SHALL BE GRADED, RESEEDED AND RE-MULCHED AS SOON AS POSSIBLE. SOD SHALL BE UTILIZED AT AREAS WHERE SEEDING DOES NOT APPEAR TO BE PROPERLY STABILIZING AN AREA.
- CLEAN AND REDRESS THE ROCK FILTER BERMS WHEN THE VOIDS BECOME CHOKED WITH MUD AND SEDIMENT. ROCK FILTER BERMS SHALL REMAIN FUNCTIONAL FOR THE DURATION OF THE PROJECT.

STABILIZATION SPECIFICATIONS

- UPON TEMPORARY CESSATION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY WHERE A CESSATION OF EARTH DISTURBANCE ACTIVITIES WILL EXCEED 4 DAYS, THE SITE SHALL BE IMMEDIATELY SEEDDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION PENDING FUTURE EARTH DISTURBANCE ACTIVITIES.
- PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
- TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN DRAWINGS IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS TOPSOIL STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SIDE SLOPES MUST BE 2:1 OR FLATTER.
- AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES - 6 TO 12 INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES TO TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING.
- TOPSOIL SHOULD NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION. COMPACTED SOILS SHOULD BE SCARIFIED 6 TO 12 INCHES ALONG CONTOUR WHENEVER POSSIBLE PRIOR TO SEEDING.
- IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE THE DISTURBED AREAS, DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
- AN EROSION CONTROL BLANKET WILL BE INSTALLED ON ALL DISTURBED SLOPES 3:1 OR STEEPER, ALL AREAS OF CONCENTRATED FLOWS, AND DISTURBED AREAS WITHIN 50' OF A SURFACE WATER

STREAM CLASSIFICATION

THE RECEIVING STREAM IS A TRIBUTARY TO PAXTON WHICH IS CLASSIFIED AS A WARM WATER FISHERY (WWF) BY PENNSYLVANIA CODE, TITLE 26, "ENVIRONMENTAL PROTECTION", CHAPTER 93, "WATER QUALITY STANDARDS"

TOPSOIL SPECIFICATIONS

- Graded areas should be scarified or otherwise loosened to a depth of 3 to 5 inches to permit bonding of the topsoil to the surface areas and to provide a roughened surface to prevent topsoil from sliding down slope.
- Topsoil should be uniformly distributed across the disturbed area to a depth of 4 to 8 inches minimum - 2 inches on fill outcrops. Spreading should be done in such a manner that sodding or seeding can proceed with a minimum of additional preparation or tillage. Irregularities in the surface resulting from topsoil placement should be corrected in order to prevent formation of depressions unless such depressions are part of the PCSM plan.
- Topsoil should not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet, or in a condition that may otherwise be detrimental to proper grading and seedbed preparation. Compacted soils should be scarified 6 to 12 inches along contour wherever possible prior to seeding.

SOIL TYPES

SOIL TYPES FOUND ON OR NEAR THE PROJECT SITE ARE:

LeB2	LAWRENCEVILLE VERY FINE SANDY LOAM, 2 TO 8 PERCENT SLOPES, MODERATELY ERODED
BkC2	BERKS SHALY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
BhC2	BERKS CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES

ESPC PLAN SHEET INDEX

DESCRIPTION

COVER SHEET AND NOTES
EROSION AND SEDIMENTATION POLLUTION CONTROL - PROPOSED PLAN
EROSION AND SEDIMENTATION POLLUTION CONTROL - DETAILS

SHEET

ESCP-1
ESCP-2
ESCP-3

BUILDING OWNER

PENNSYLVANIA CAPITOL PRESERVATION COMMITTEE
ROOM 630 MAIN CAPITOL BUILDING
HARRISBURG, PA. 17120
(717) 783-6484

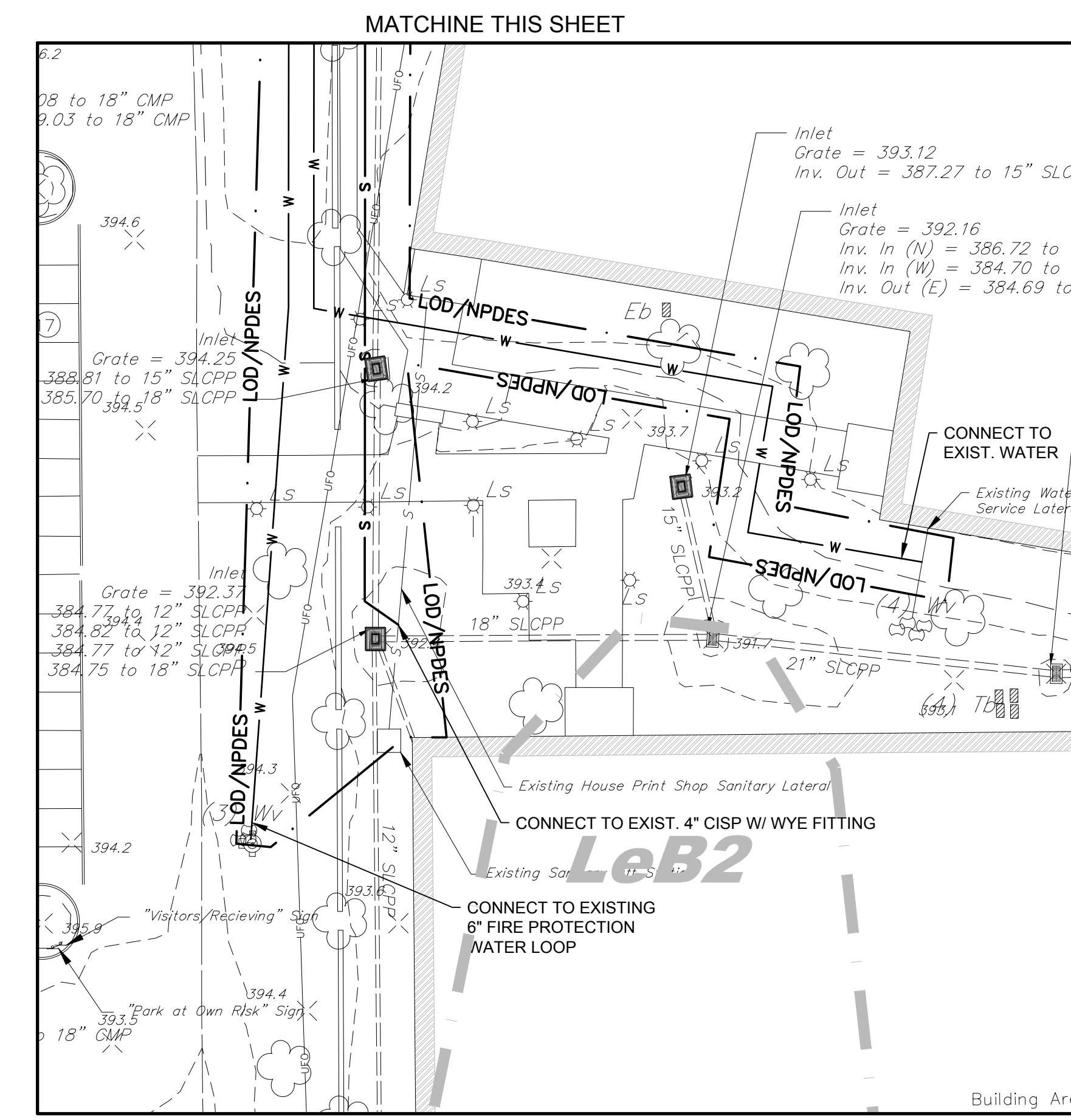
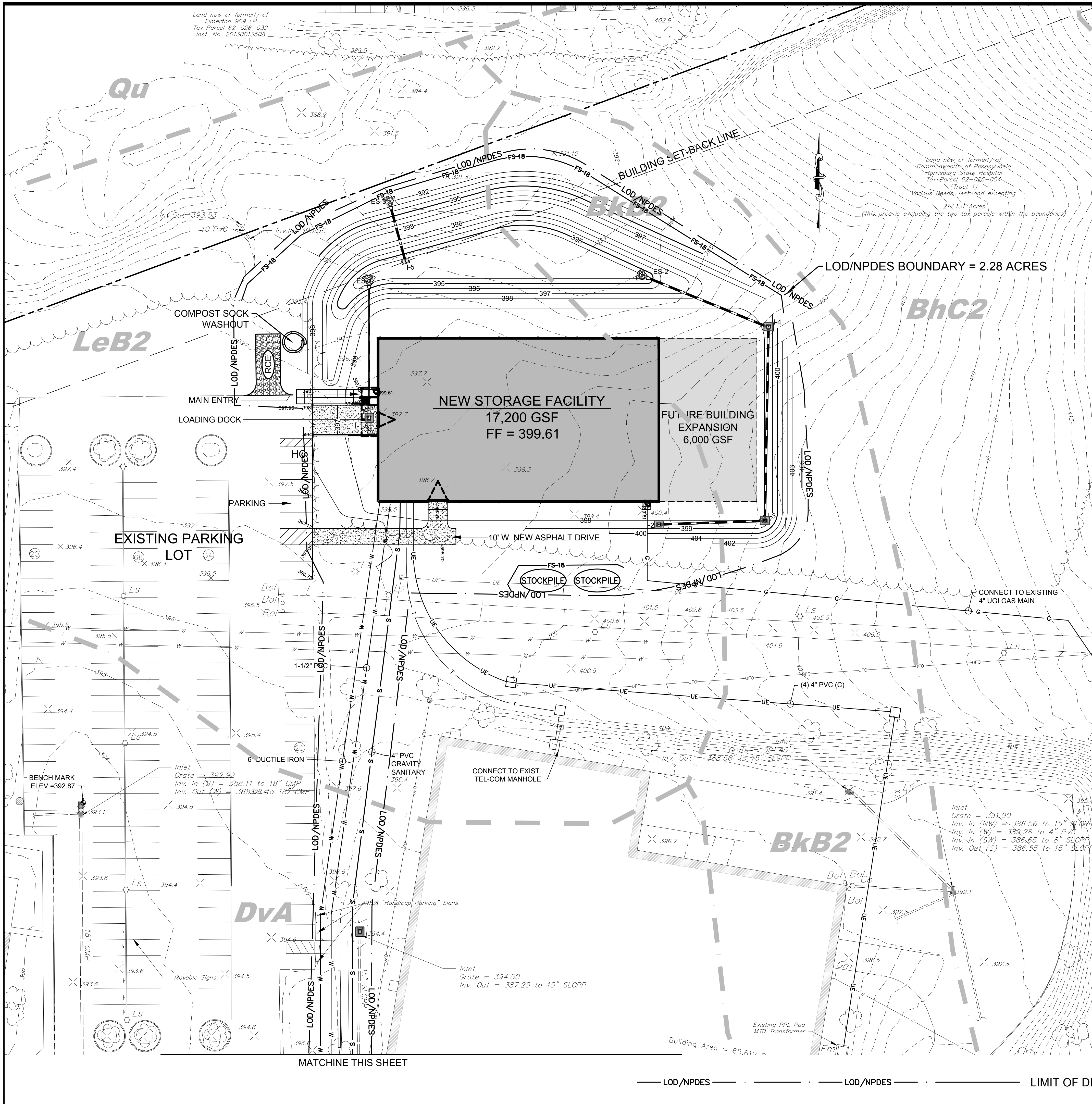
SOURCE OF TITLE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
18TH AND HERR STS
HARRISBURG, PA. 17125
TAX PARCEL #62-026-004-000-0000

ENGINEER/SURVEYOR

NAVARRO & WRIGHT CONSULTING ENGINEERS, INC.
151 RENO AVE.
NEW CUMBERLAND, PA 17070
PHONE # (717) 441-2216
JASON D. GUTSHALL, P.E.

	NAVARRO & WRIGHT CONSULTING ENGINEERS, INC.	JOB NUMBER: 1901SC022
		DRAWN BY: BKS
	CHECKED BY: JDG	DATE: MAY 3, 2019
	DRAWING NUMBER: 1901SC022-ESCP	SHEET:
		ESCP-1
151 RENO AVENUE NEW CUMBERLAND, PA 17070	PHONE: (717) 441-2216 FAX: (717) 441-2218	



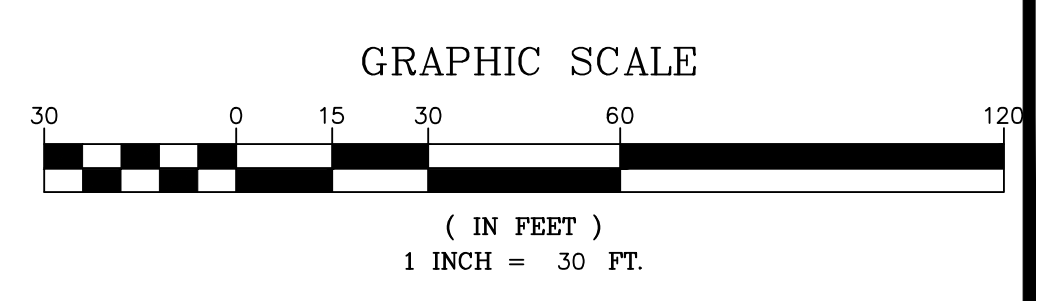
- EXISTING LEGEND**
- PROPERTY LINE
 - EASEMENT
 - ZONING
 - RIGHT OF WAY
 - EDGE OF MACADAM
 - WATER LINE
 - SANITARY SEWER w/MANHOLE
 - STORMWATER w/INLET
 - CURB
 - GAS
 - FIBER OPTICS
 - CONTOUR MAJOR
 - CONTOUR MINOR
 - TREE LINE
 - TREE
 - LIGHT STANDARD
- PROPOSED LEGEND**
- PROPERTY LINE
 - EASEMENT
 - EDGE OF MACADAM
 - WATER LINE
 - SANITARY SEWER w/MANHOLE
 - STORMWATER w/INLET
 - CURB
 - GAS
 - ELECTRIC
 - TEL-COM

- LEGEND EROSION & SEDIMENTATION CONTROL PLAN**
- RCE - ROCK CONSTRUCTION ENTRANCE
 - ERM - EROSION CONTROL MATTING
 - RIP-RAP - RIP-RAP OUTLET PROTECTION
 - IP - INLET PROTECTION
 - CFS - COMPOST FILTER SOCK (SIZE)
 - LD - LIMIT OF DISTURBANCE
 - STOCKPILE - TOPSOIL STOCKPILE
 - CSW - COMPOST SOCK WASHOUT

SOIL TYPES

SOIL TYPES FOUND ON OR NEAR THE PROJECT SITE ARE:

- LeB2 LAWRENCEVILLE VERY FINE SANDY LOAM, 2 TO 8 PERCENT SLOPES, MODERATELY ERODED
- BkC2 BERKS SHALY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
- BkB2 BERKS CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES



NO.	DATE	REVISIONS	BY

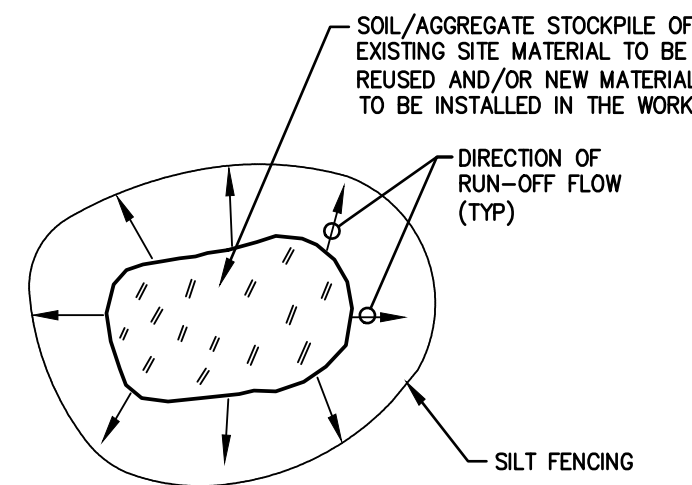
NAVARRO & WRIGHT CONSULTING ENGINEERS, INC.

151 RENO AVENUE
NEW CUMBERLAND, PA 17070

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EROSION & SEDIMENTATION CONTROL PLANS
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN
FOR
CAPITOL PRESERVATION COMMITTEE STORAGE FACILITY
SUSQUEHANNA TOWNSHIP
DAUPHIN COUNTY, PA

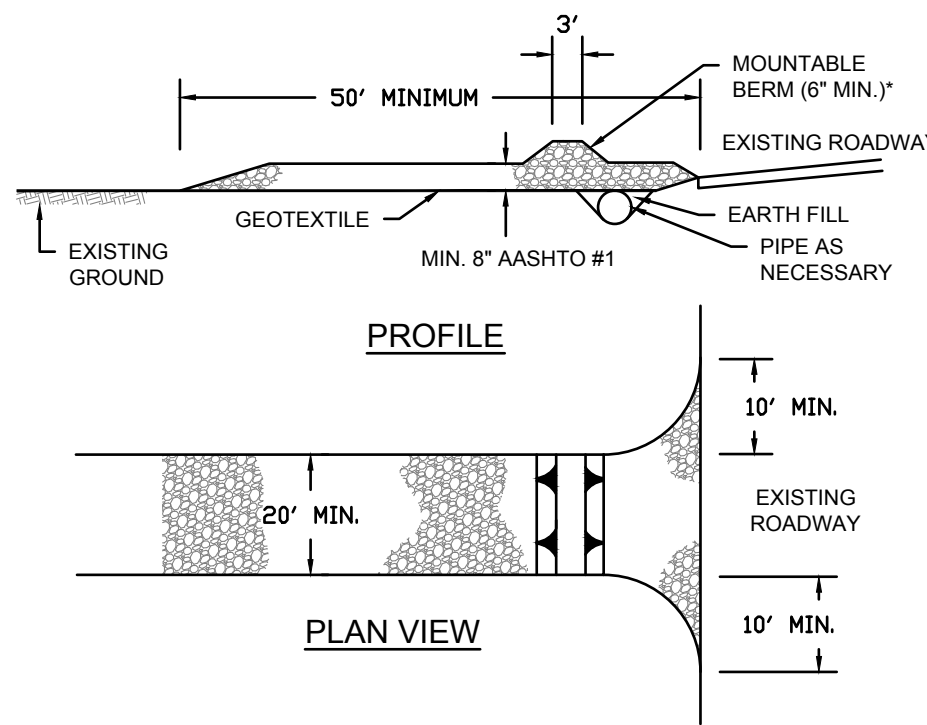
JOB NUMBER: 1901SC022
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SCALE: 1" = 30'
DATE: 5/3/19
DRAWING NUMBER: 1901SC022-ESCP
SHEET:
ESCP-2



- NOTES:
- ALL EXISTING EXCAVATED MATERIAL THAT IS NOT TO BE REUSED IN THE WORK IS TO BE IMMEDIATELY REMOVED FROM THE SITE AND PROPERLY DISPOSED OF.
 - SOIL/AGGREGATE STOCKPILE SITES TO BE WHERE SHOWN ON THE DRAWINGS.
 - RESTORE STOCKPILE SITES TO PRE-EXISTING PROJECT CONDITION AND RESEED AS REQUIRED.

MATERIAL STOCKPILE

NOT TO SCALE



REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

RUNOFF SHALL BE DIVERTED FROM ROADWAY TO SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROAD DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

**STANDARD CONSTRUCTION DETAIL #3-1
ROCK CONSTRUCTION ENTRANCE**

NOT TO SCALE

MULCH SPECIFICATIONS

ON ALL DISTURBED AREAS WHICH DO NOT HAVE AN EROSION CONTROL BLANKET SPECIFIED FOR INSTALLATION, STRAW MULCH SHALL BE APPLIED AT THE RATE OF 3.0 TONS PER ACRE IMMEDIATELY AFTER SEEDING THE SURFACE. ON STEEP SLOPES OF 3:1 OR GREATER, MULCH SHALL BE ANCHORED THROUGH THE USE OF JUTE NETTING OR MIXING WITH ASPHALT AT THE RATE OF 100 GALLONS PER 3 TONS OF STRAW MULCH.

SOIL AMENDMENTS SPECIFICATIONS:

- APPLY THE FOLLOWING SOIL SUPPLEMENTS PRIOR TO TEMPORARY AND PERMANENT SEEDING:
- PULVERIZED AGRICULTURAL LIMESTONE CONFORMING TO PENN D.O.T. FORM 408, SECTION 804, APPLIED AT A RATE OF 1 TON PER ACRE.
 - 10-10-10 ANALYSIS COMMERCIAL FERTILIZER CONFORMING TO PENN D.O.T. FORM 408, SECTION 804, APPLIED AT A RATE OF 50 POUNDS PER ACRE FOR TEMPORARY SEEDING.
 - 10-20-10 COMMERCIAL FERTILIZER CONFORMING TO PENN D.O.T. FORM 408, SECTION 804, APPLIED AT A RATE OF 150 POUNDS PER ACRE FOR PERMANENT SEEDING.
 - FOR LAWN AREAS, A SUITABLE LAWN MIXTURE, SUCH AS AGWAY'S ROAL GREEN, SHALL BE SUBSTITUTED FOR ITEM 3 OF THE PERMANENT SEED MIXTURE AND APPLIED AT THE SEEDING RATE DIRECTED BY THE MANUFACTURER.

EARTHWORK DUE DILIGENCE

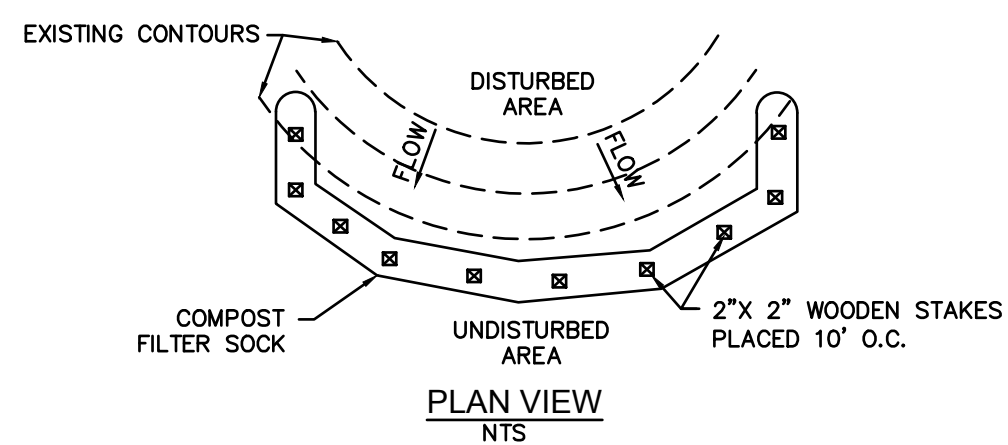
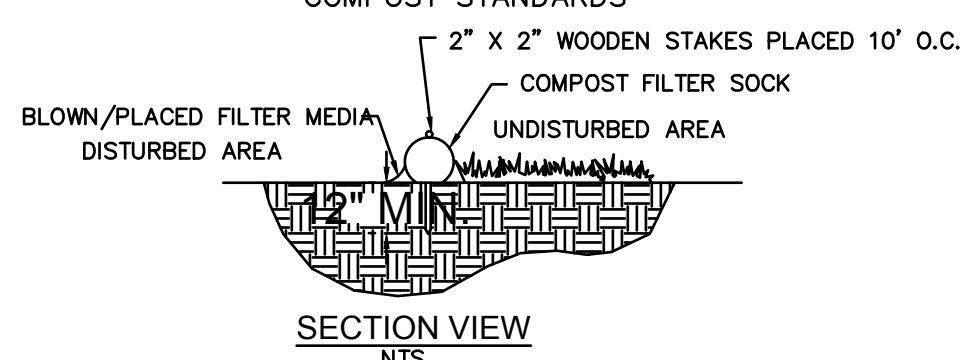
- CLEAN FILL AND ENVIRONMENTAL DUE DILIGENCE:
 - IF THE SITE WILL HAVE EXCESS FILL THAT WILL NEED TO BE EXPORTED TO AN OFF-SITE LOCATION, THE RESPONSIBILITY OF CLEAN FILL DETERMINATION AND ENVIRONMENTAL DUE DILIGENCE RESTS WITH THE APPLICANT.
 - IF ALL CUT AND FILL MATERIALS WILL BE USED ON THE SITE, A CLEAN FILL DETERMINATION IS NOT REQUIRED BY THE OPERATOR UNLESS THERE IS A BELIEF THAT A SPILL OR RELEASE OF A REGULATED SUBSTANCE OCCURRED ON THE SITE.
- CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREGGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)
- ENVIRONMENTAL DUE DILIGENCE: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE.

COMPOST SHALL MEET THE FOLLOWING STANDARDS:

by dry weight) of man-made foreign matter. The compost product should not resemble the raw material from which it was derived. Wood and bark chips, ground construction debris or reprocessed wood products are not acceptable as the organic component of the mix. The physical parameters of the compost should comply with the standards in Table 4.2. The standards contained in the PennDOT Publication 408 are an acceptable alternative.

ORGANIC MATTER CONTENT	80% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
PH	5.5 - 8.0
MOISTURE CONTENT	35% - 55%
PARTICLE SIZE	98% PASS THROUGH 1" SCREEN
SOLUBLE SALT CONCENTRATION	5.0 DS MAXIMUM

TABLE 4.2
COMPOST STANDARDS



SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT (FIGURE 4.1). MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN ON FIGURE 4.2. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

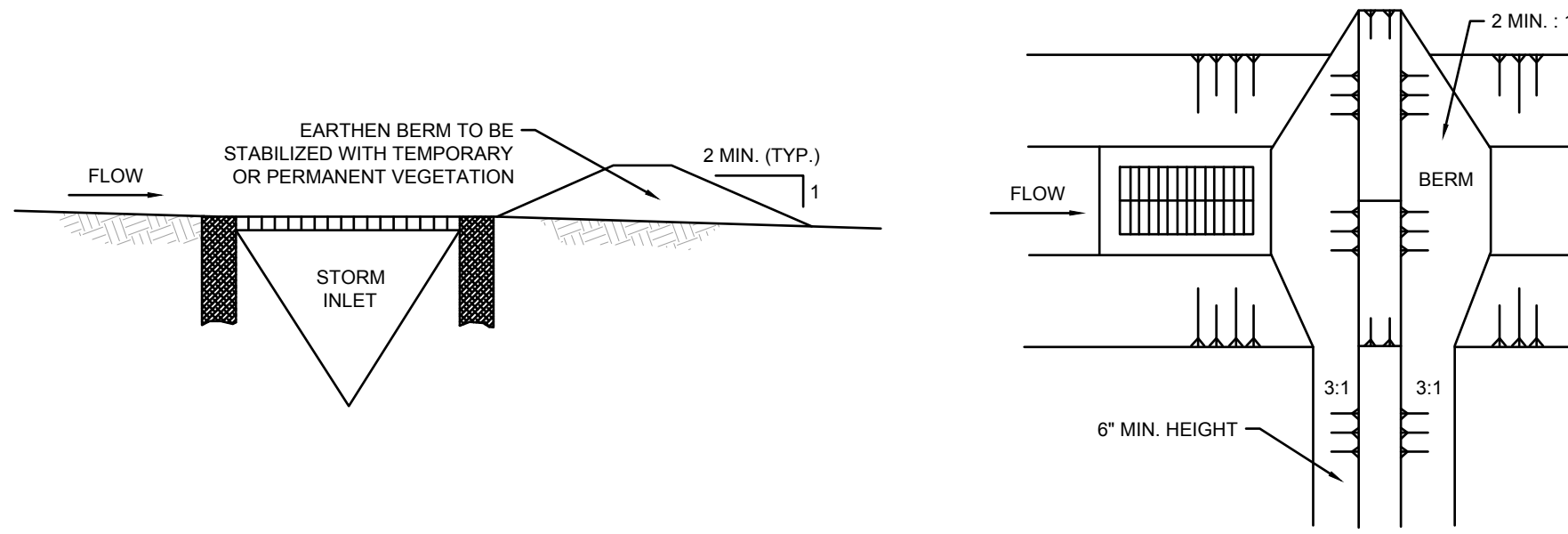
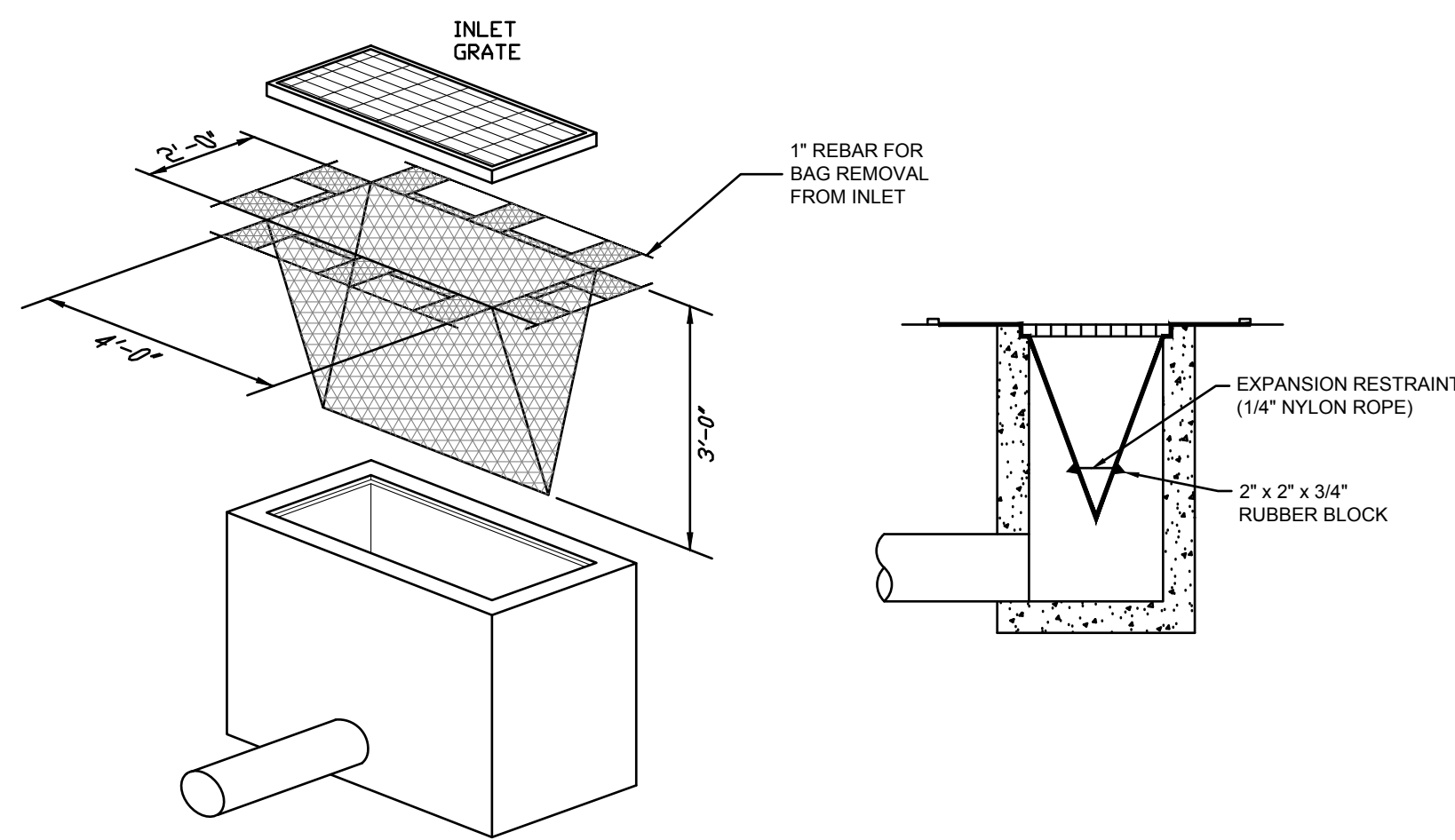
SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

**STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK**

NOT TO SCALE



MAXIMUM DRAINAGE AREA = 12 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.

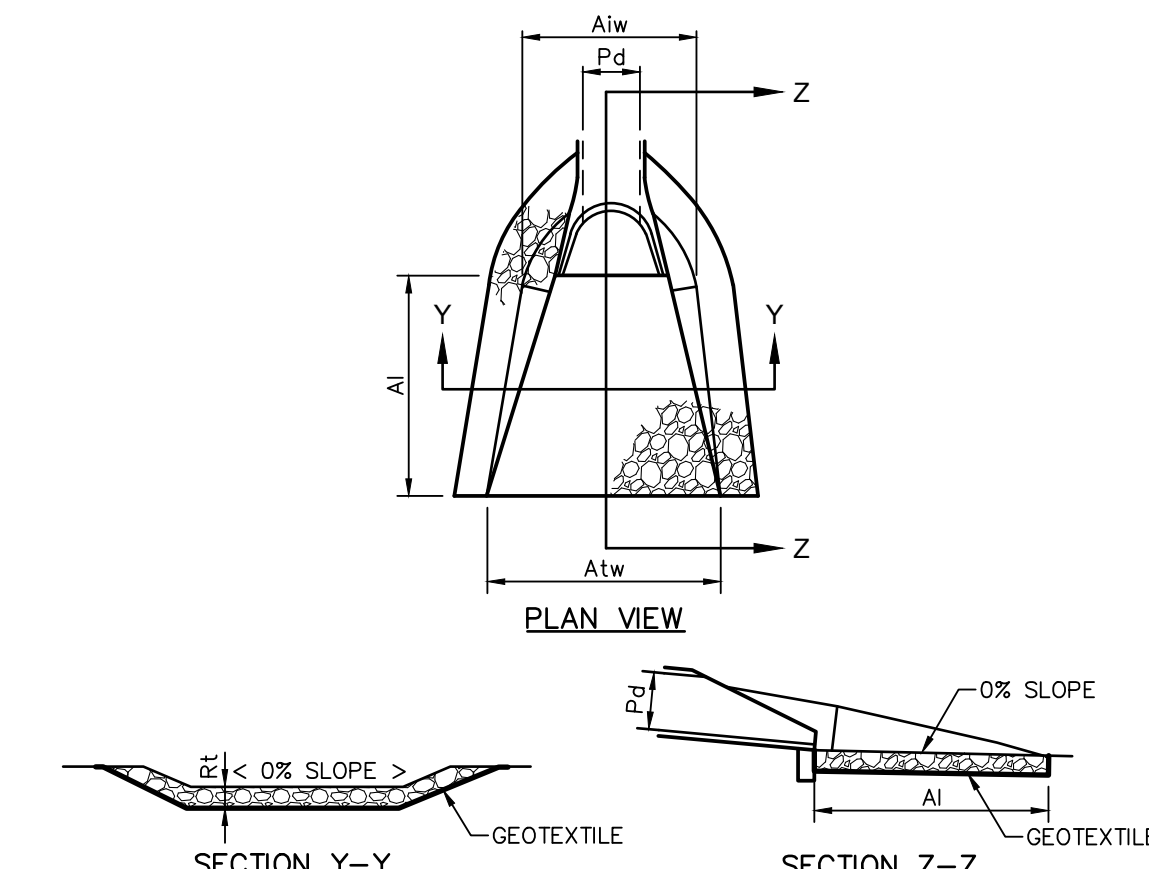
AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS. A MINIMUM BURST STRENGTH OF 300 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDERING MAY CAUSE TRAFFIC HAZARDS.

**STANDARD CONSTRUCTION DETAIL #4-16
FILTER BAG INLET PROTECTION - TYPE M INLET**

NOT TO SCALE



OUTLET NO.	PIPE DIA. PD (IN)	RIPRAP		APRON		
		SIZE (R-)	THICK. Rt (IN)	LENGTH A1 (FT)	INITIAL WIDTH A1w (FT)	TERMINAL WIDTH Atw (FT)
ES-1	8	3	12	8	2	12
ES-2	12	3	12	8	3	12
ES-3	15	4	12	8	3.75	12

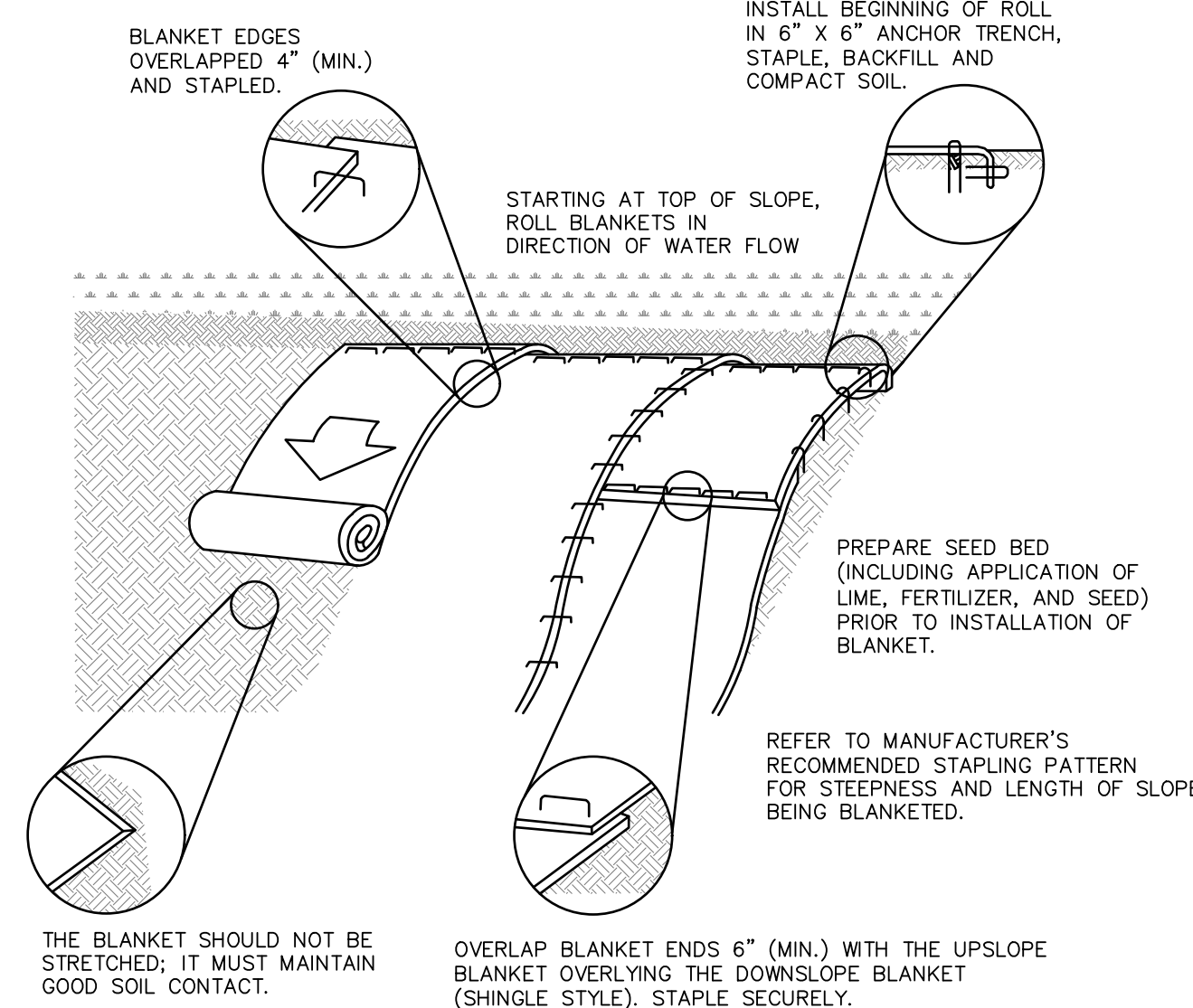
ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.

**STANDARD CONSTRUCTION DETAIL #9-1
RIPRAP APRONS AT PIPE OUTLET WITH
FLARED END SECTION OR ENDWALL**

NOT TO SCALE



SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

BLANKET AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

**STANDARD CONSTRUCTION DETAIL #11-1
EROSION CONTROL BLANKET INSTALLATION**

NOT TO SCALE

* - USE NORTH AMERICAN GREEN S75BN

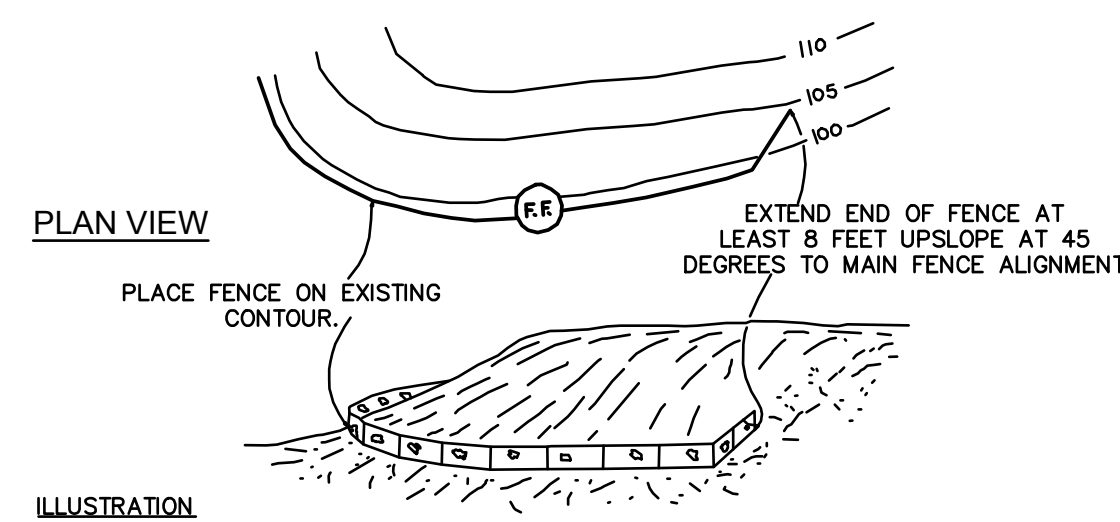
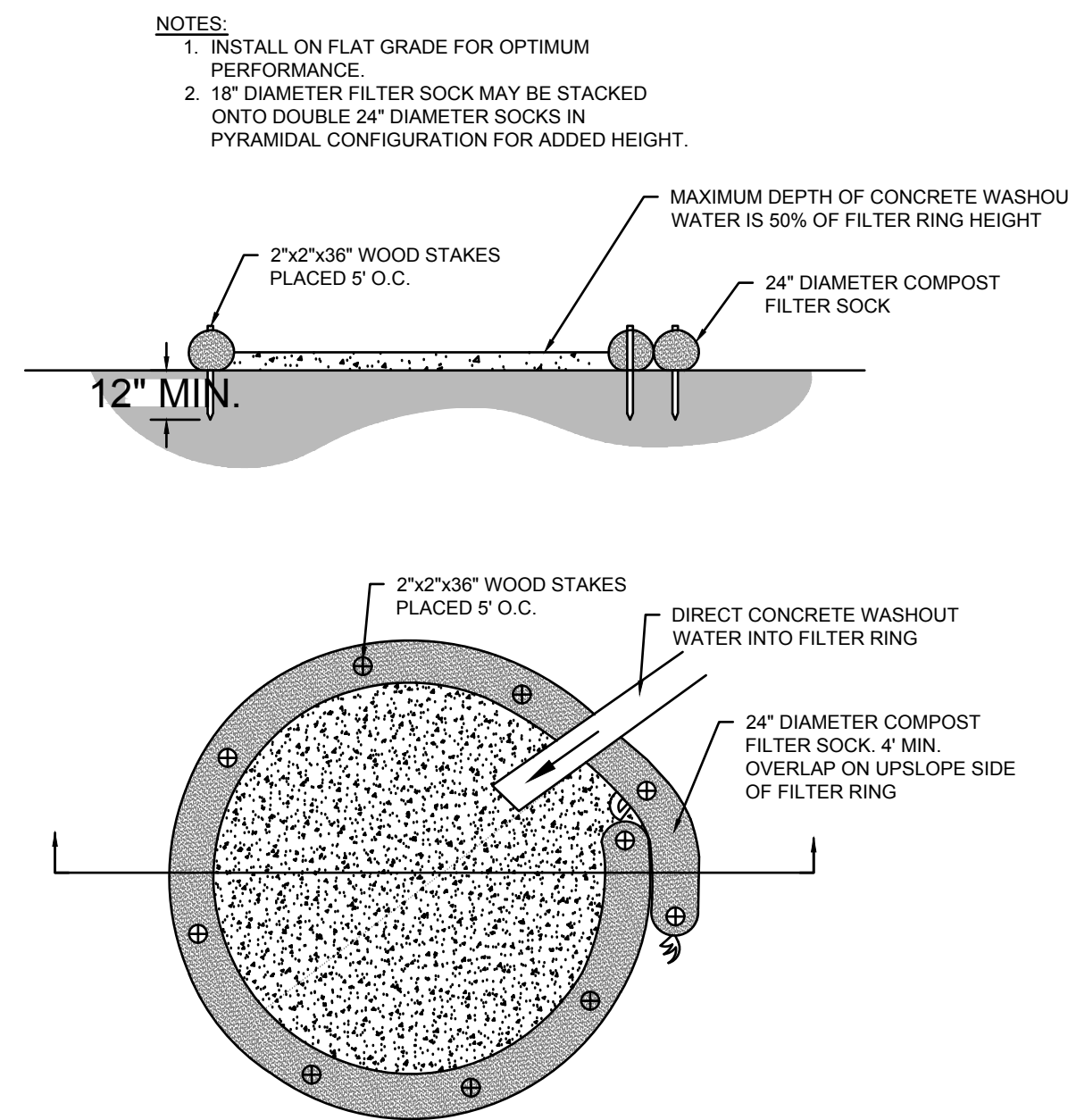


TABLE 4.1
COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	MULTI-FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	% AT 1000 HR.	23% AT 1000 HR.		100 % AT 1000 HR.	100 % AT 1000 HR.
TWO-PLY SYSTEMS					
INNER CONTAINMENT NETTING	HDPE BIAXIAL NET CONTINUOUSLY WOUND FUSION-WELDED JUNCTURES 3/4" x 3/4" MAX. APERTURE SIZE				
	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER & NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH) 3/16" MAX. APERTURE SIZE				
OUTER FILTRATION MESH					
SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.					

**FIGURE 4.1
SEDIMENT BARRIER ALIGNMENT**

NOT TO SCALE



**FIGURE 3.18
TYPICAL COMPOST SOCK WASHOUT INSTALLATION**

NOT TO SCALE

A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS.

NO.	REVISIONS	DATE	BY

NAVARRO & WRIGHT CONSULTING ENGINEERS, INC.

151 RENO AVENUE
NEW CUMBERLAND, PA 17070

PHONE: (717) 441-2216
FAX: (717) 441-2218

EROSION & SEDIMENTATION CONTROL PLANS
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN FOR
CAPITOL PRESERVATION COMMITTEE STORAGE FACILITY
SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PA

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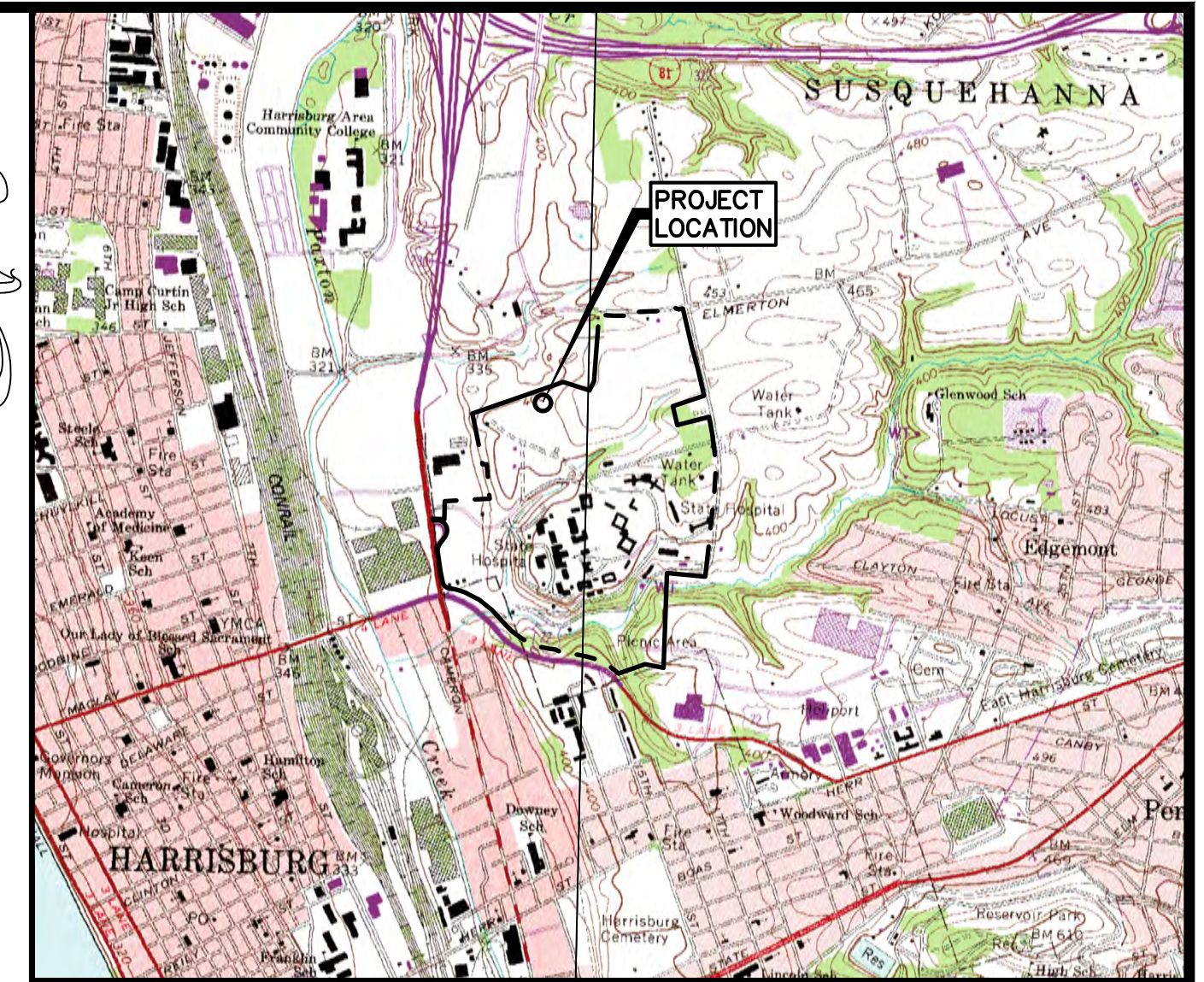
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SCALE: NOT TO SCALE
DATE: 5/3/19
DRAWING NUMBER: 1901SC022-ESCP
SHEET: ESCP-3

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

FOR CAPITOL PRESERVATION COMMITTEE STORAGE FACILITY SUSQUEHANNA TOWNSHIP DAUPHIN COUNTY, PENNSYLVANIA MAY 3, 2019



LOCATION MAP
SCALE = 1"=200'

SEEDING AND MULCH SPECIFICATIONS

TEMPORARY COVER - PENNDOT FORMULA E	
SPECIES	ANNUAL RYE GRASS (98% PURE LIVE SEED)
APPLICATION RATE	18 LB. PER 1000 SQUARE YARD
APPLICATION DATE	MARCH 15 TO OCTOBER 15
PERMANENT COVER - PENNDOT FORMULA B	
SPECIES	PERENNIAL GRASS MIXTURE (20% BY WEIGHT, 98% PURE LIVE SEED) CREEPING RED FESCUE (30% BY WEIGHT, 98% PURE LIVE SEED) KENTUCKY BLUE GRASS MIXTURE (50% BY WEIGHT, PURE LIVE)
APPLICATION RATE	21 LB. PER 1000 SQUARE YARD
APPLICATION DATE	MARCH 15 TO JUNE 1 AUGUST 1 TO OCTOBER 15

"VEGETATIVE STABILIZATION WILL BE PERIODICALLY INSPECTED FOR PROPER GROWTH. ANY AREAS NOT RESPONDING WILL BE PROMPTLY RESEED. AREAS, WHICH SHOWS SIGNS OF EROSION PRIOR TO STABILIZATION SHALL BE GRADED, RESEED, AND RE-MULCHED AS SOON AS POSSIBLE.

MULCHING SPECIFICATIONS:
HAY OR STRAW - AIR-DRIED, FREE OF SEED AND COARSE MATERIAL. INSTALLATION RATE FOR PERMANENT AND TEMPORARY STABILIZATION IS THREE (3) TONS PER ACRE AND SHALL BE CRIMPED IN. THE MULCHING WILL BE UTILIZED DURING WINTER MONTHS AS A GOOD GROUND COVER ON TOPSOIL STOCKPILES, GRADED SLOPES AND OTHER AREAS TO BE GRASSED. THE DISTURBED AREAS WILL BE SEED WITHIN THE FIRST WEEK OF THE DESIGNATED GROWING SEASON OR BEFORE IF THE WEATHER IS FAVORABLE.

SOIL SUPPLEMENT SPECIFICATIONS:

TABLE 11.2
Soil Amendment Application Rate Equivalents

Soil Amendment	Permanent Seeding Application Rate			Notes
	Per Acre	Per 1,000 sq. ft.	Per 1,000 sq. yd.	
Agricultural lime	6 tons	240 lb.	2,480 lb.	Or as per soil test; may not be required in agricultural fields
10-10-20 fertilizer	1,000 lb.	25 lb.	210 lb.	Or as per soil test; may not be required in agricultural fields
Temporary Seeding Application Rate				
Agricultural lime	1 ton	40 lb.	410 lb.	Typically not required for topsoil stockpiles
10-10-10 fertilizer	500 lb.	12.5 lb.	100 lb.	Typically not required for topsoil stockpiles

Adapted from Penn State, "Erosion Control and Conservation Plantings on Noncropland"

NOTE: A compost blanket which meets the standards of this chapter may be substituted for the soil amendments shown in Table 11.2.

WETLAND SEEDING MIXTURE SPECIFICATIONS:
SEE POST CONSTRUCTION STORMWATER MANAGEMENT DETAIL SHEET

MAINTENANCE & OPERATION PROGRAM

THE PURPOSE OF THESE INSTRUCTIONS IS TO IDENTIFY THE OWNERSHIP AND MAINTENANCE ACTIVITIES ASSOCIATED WITH THE PROPOSED POST-CONSTRUCTION STORMWATER MANAGEMENT FACILITIES. THE SUBJECT SITE HAS BEEN DESIGNED SUCH THAT THE INCREASE IN STORMWATER VOLUME SHALL BE ATTENUATED BY THE FOLLOWING BEST MANAGEMENT PRACTICES (BMP's):

INFILTRATION BASIN SEED MIXTURE

IN ORDER TO MEET THE NPDES PHASE II REQUIREMENTS THESE FACILITIES HAVE BEEN DESIGNED TO PARTIALLY OR COMPLETELY MITIGATE THE INCREASE IN STORMWATER RUNOFF VOLUME DURING THE 2 YEAR, 24 HOUR STORM EVENT AND/OR PROVIDE WATER QUALITY MITIGATION IF INFILTRATION CANNOT BE ACCOMPLISHED.

THE AFOREMENTIONED FACILITIES SHALL BE THE RESPONSIBILITY OF THE LOT OWNERS ON WHICH THE STORMWATER INFILTRATION FACILITY IS LOCATED, OR AN ESTABLISHED COMMUNITY ASSOCIATION THAT HAS MAINTENANCE RESPONSIBILITIES FOR FACILITIES WITHIN COMMON USE AREAS. IN ACCORDANCE WITH THE TOWNSHIP'S STORMWATER MANAGEMENT ORDINANCE, THE LOT OWNER SHALL ENTER INTO A LEGALLY BINDING AGREEMENT WITH THE TOWNSHIP TO INSURE THE FACILITIES ARE MAINTAINED PROPERLY IN ACCORDANCE WITH THE FOLLOWING PROPOSED MAINTENANCE SCHEDULE PROGRAM.

OPERATION AND MAINTENANCE OF FACILITIES:

ALL STORMWATER MANAGEMENT FACILITIES ON THIS SITE WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER AND ALL MEANS OF CONVEYANCE OF STORMWATER TO THE FACILITY. THESE FACILITIES AND PROPOSED MAINTENANCE OF EACH ARE DETAILED ON THE LAND DEVELOPMENT PLAN WHICH IS PROVIDED IN CONJUNCTION WITH THIS REPORT.

INFILTRATION BASIN FACILITY MAINTENANCE NOTES:

- CATCH BASINS AND INLETS (UP GRADIENT OF INFILTRATION BASIN) SHOULD BE INSPECTED AND CLEANED AT LEAST TWO TIMES PER YEAR AND AFTER RUNOFF EVENTS.
- THE VEGETATION ALONG THE SURFACE OF THE INFILTRATION BASIN SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED AS SOON AS POSSIBLE.
- VEHICLES SHOULD NOT BE PARKED OR DRIVEN ON AN INFILTRATION BASIN, AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS.
- INSPECT THE BASIN AFTER RUNOFF EVENTS AND MAKE SURE THAT RUNOFF DRAINS DOWN WITHIN 72 HOURS. MOSQUITO'S SHOULD NOT BE A PROBLEM IF THE WATER DRAINS IN 72 HOURS. MOSQUITOES REQUIRE A CONSIDERABLY LONG BREEDING PERIOD WITH RELATIVELY STATIC WATER LEVELS.
- ALSO INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, EROSION CONTROL MEASURES, SIGNS OF WATER CONTAMINATION/SPILLS, AND SLOPE STABILITY IN THE BERMS.
- MOW ONLY AS APPROPRIATE FOR VEGETATIVE COVER SPECIES.
- REMOVE ACCUMULATED SEDIMENT FROM BASIN AS REQUIRED. RESTORE ORIGINAL CROSS SECTION AND INFILTRATION RATE. PROPERLY DISPOSE OF SEDIMENT.

SOIL TYPES

SOIL TYPES FOUND ON OR NEAR THE PROJECT SITE ARE:

LeB2	LAWRENCEVILLE VERY FINE SANDY LOAM, 2 TO 8 PERCENT SLOPES, MODERATELY ERODED
BkB2	BERKS SHALY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
BhC2	BERKS CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES

SEQUENCE OF CONSTRUCTION

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED AND IMMEDIATELY STABILIZED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING, GRUBBING AND TOPSOIL STRIPPING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. THE ANTICIPATED EARTH DISTURBANCE DURATION IS FROM AUGUST 2019 TO AUGUST 2020.

CONTACT DAUPHIN COUNTY CONSERVATION DISTRICT (DCCD) AT (717) 921-8100 A MINIMUM OF THREE (3) DAYS PRIOR TO COMMENCEMENT OF EARTH DISTURBANCE ACTIVITIES.

ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER UNDISTURBED VEGETATED AREAS.

ALL BEST MANAGEMENT PRACTICES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS AND LOCATIONS SHOWN ON THE PLANS.

THE ORDER OF THE FOLLOWING SEQUENCE IS SUBJECT TO CHANGE DUE TO SITE SPECIFIC CONDITIONS AND CONSTRUCTION METHODS. ALL CHANGES SHALL BE APPROVED BY THE DCCD.

- FIELD-LOCATE THE PROPOSED LIMITS OF DISTURBANCE.
- INSTALL THE STABILIZED ROCK CONSTRUCTION ENTRANCE AS SHOWN ON THE PLAN AND IN ACCORDANCE WITH THE DETAIL PROVIDED ON THE PLAN. INSTALL INLET PROTECTION ON ALL ADJACENT EXISTING INLETS AS SHOWN ON THE PLAN AND IN ACCORDANCE WITH THE DETAILS PROVIDED.
- INSTALL FILTER SOCKS (OR APPROVED EQUAL) AT LOCATIONS SHOWN ON THE PLAN AND IN ACCORDANCE WITH THE DETAILS PROVIDED.
- STRIP AND STOCKPILE TOPSOIL. TOPSOIL CAN BE PLACED AT THE TEMPORARY STOCKPILE LOCATION PROVIDED ON THE PLAN. PLACE 18" FILTER SOCKS DOWNSLOPE OF THE TEMPORARY TOPSOIL STOCKPILE. SEED THE STOCKPILE WITH A TEMPORARY SEEDING MIXTURE. ALL STOCKPILES SHALL BE A MAXIMUM OF 35 FEET IN HEIGHT WITH SIDE SLOPES OF 2H:1V OR FLATTER.
- BEGIN ROUGH GRADING OF THE SITE.
- INSTALL ALL UNDERGROUND UTILITIES, INCLUDING STORM SEWER AND ASSOCIATED RIP RAP PROTECTION.
- STABILIZE FINISHED AREAS WITH TOPSOIL, SEED, MULCH AND APPROPRIATE GROUND COVERS. TOPSOIL SHALL BE PLACED AT A MINIMUM DEPTH OF SIX (6) INCHES.
- BEGIN CONSTRUCTION OF THE BUILDING.
- INSTALL SILT SOCK INLET PROTECTION IN EACH NEW INLET.
- FINE GRADE THE SITE.
- INSTALL PAVED SURFACES AS SHOWN ON THE PLAN, EFFECTIVELY REMOVING THE STABILIZED ROCK CONSTRUCTION ENTRANCE IN THE PROCESS.
- SPREAD TOPSOIL, SEED, AND MULCH, AND PLACE APPROPRIATE GROUND COVERS FOR FINISHED AREAS. TOPSOIL SHALL BE PLACED AT A MINIMUM DEPTH OF SIX (6) INCHES.
- INSTALL INFILTRATION BASIN FACILITIES AS SHOWN ON THE PLAN AND IN ACCORDANCE WITH THE DETAILS PROVIDED ON THE PLAN. CONNECT ROOF DRAINS FROM THE BUILDING.
- WHEN THE UPSLOPE AREA TO THE PROPOSED INFILTRATION BASIN IS STABILIZED, EXCAVATE AND INSTALL THE SUBSURFACE STONE STORAGE, CONSTRUCT THE DOWN SLOPE BERM OF THE BASIN, INSTALL OUTLET STRUCTURES AND CONNECTION PIPES TO THE EXISTING INLETS, INSTALL MULCH LAYERS AND PLANT WETLAND VEGETATION IN ACCORDANCE WITH THE DETAILS PROVIDED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN.
- UPON PERMANENT STABILIZATION OF THE SITE (PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION) AND WITH THE CONSENT OF THE DAUPHIN COUNTY CONSERVATION DISTRICT, E AND S BEST MANAGEMENT PRACTICES (BMP'S), SUCH AS SILT SOCK AND SILT SACK INLET PROTECTION CAN BE REMOVED. ALL DISTURBED SOILS RESULTING FROM BMP REMOVAL SHALL BE STABILIZED WITH SEED AND MULCH IMMEDIATELY.
- THE CONTRACTOR SHALL CONTACT DCCD TO ESTABLISH A DATE FOR FINAL INSPECTION OF THE PROJECT SITE. THE OWNER/OPERATOR SHALL CONTACT THE DCCD FOR A FINAL INSPECTION PRIOR TO THE REMOVAL OF THE BMP'S.
- THE CONTRACTOR SHALL ENSURE ALL STORMWATER MANAGEMENT BMP'S ARE PROPERLY FINISHED, STABILIZED, AND FUNCTIONING AS DESIGNED PRIOR TO DEMOBILIZATION FROM THE SITE.

SEQUENCE OF CONSTRUCTION (INFILTRATION BASIN):

- PROTECT INFILTRATION BASIN AREA FROM COMPACTION PRIOR TO INSTALLATION.
- IF POSSIBLE, INSTALL INFILTRATION BASIN DURING LATER PHASES OF SITE CONSTRUCTION TO PREVENT SEDIMENTATION AND/OR DAMAGE FROM CONSTRUCTION ACTIVITY. AFTER INSTALLATION, PREVENT SEDIMENT LADEN WATER FROM ENTERING INLETS AND PIPES.
- INSTALL AND MAINTAIN PROPER EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
- IF NECESSARY, EXCAVATE INFILTRATION BASIN BOTTOM TO AN UNCOMPACTED SUBGRADE FREE FROM ROCKS AND DEBRIS. DO NOT COMPACT SUBGRADE.
- INSTALL OUTLET CONTROL STRUCTURES.
- SEED AND STABILIZE TOPSOIL. (VEGETATE IF APPROPRIATE WITH NATIVE PLANTINGS.)
- DO NOT REMOVE INLET PROTECTION OR OTHER EROSION AND SEDIMENT CONTROL MEASURES UNTIL SITE IS FULLY STABILIZED.

NOTES:

- NO CONSTRUCTION REQUIRING TOWNSHIP BUILDING PERMITS, SHALL BEGIN UNTIL APPROVAL OF THE FINAL PLAN AND UNTIL ANY OTHER REQUIRED GOVERNMENTAL AUTHORIZATIONS ARE OBTAINED.

OWNERSHIP AND MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES

MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES DURING CONSTRUCTION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL INCLUDE:

- FOLLOWING THE REQUIREMENTS OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- REMOVAL OF SILT FROM ALL BASINS, OR OTHER STRUCTURES OR MEASURES WHEN THIRTY (30%) PERCENT OF CAPACITY IS FILLED WITH SILT, AND COMPLETE REMOVAL OF SILT TO ENSURE THE DESIGNED VOLUME IS PROVIDED.
- ESTABLISHMENT OR RE-ESTABLISHMENT OF VEGETATION BY SEEDING AND MULCHING OR SODDING OF SCoured AREAS WHERE VEGETATION HAS NOT SUCCESSFULLY BEEN ESTABLISHED.
- INSTALLATION OF NECESSARY CONTROLS TO CORRECT UNFORESEEN PROBLEMS CAUSED BY STORM EVENTS WITHIN DESIGNED FREQUENCIES.
- REMOVAL OF ALL TEMPORARY MEASURES AND INSTALLATION OF PERMANENT MEASURES UPON COMPLETION OF PROJECT.
- REQUIREMENTS OF THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, CHAPTER 102 REGULATIONS.

MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES AFTER CONSTRUCTION SHALL BE THE SOLE RESPONSIBILITY OF THE OWNER AND SHALL INCLUDE:

- MAINTAIN VEGETATED CHANNELS AND OTHER AREAS ACCORDING TO SPECIFICATIONS IN THE PADEP "SOIL EROSION AND SEDIMENTATION CONTROL MANUAL."
- RE-ESTABLISHMENT OF VEGETATION BY SEEDING AND MULCHING OR SODDING OF SCoured AREAS OR AREAS WHERE VEGETATION HAS NOT BEEN SUCCESSFULLY ESTABLISHED.
- MOWING AS NECESSARY AND WHERE PERMITTED TO MAINTAIN ADEQUATE STANDS OF GRASS TO CONTROL WEEDS.
- REMOVAL OF SILT FROM ALL PERMANENT STRUCTURES WHICH TRAP SILT OR SEDIMENT IN ORDER TO KEEP THE MATERIAL FROM BUILDING UP IN THE GRASS WATERWAYS THUS REDUCING THEIR CAPACITY.
- REGULAR INSPECTION OF THE AREAS IN QUESTION TO ASSURE PROPER MAINTENANCE AND CARE.
- REMOVAL OF SILT FROM ALL PERMANENT DRAINAGE STRUCTURES IN ORDER TO MAINTAIN THE DESIGN STORAGE VOLUMES. REGULAR MAINTENANCE PROGRAMS SHALL BE ESTABLISHED AND MAINTAINED.
- REQUIREMENTS OF THE POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN, INCLUDING BUT NOT LIMITED TO THE FOLLOWING PERMANENT STORMWATER CONTROL STRUCTURES:
 - INFILTRATION BASIN

PCSM GENERAL NOTES

1. NAVARRO AND WRIGHT CONSULTING ENGINEERS, INC. BEARS NO RESPONSIBILITY FOR THE LOCATION, ACCURACY AND COMPLETENESS OF EXISTING FEATURES SHOWN HEREON, INCLUDING UNDERGROUND UTILITIES. CONTRACTOR IS TO VERIFY ALL EXISTING SITE FEATURES INFORMATION.

2. REFER TO ACCOMPANYING DOCUMENTS INCLUDING BUT NOT LIMITED TO LAND DEVELOPMENT OR SUBDIVISION PLANS AND THEIR NARRATIVES FOR ADDITIONAL INFORMATION ON EXISTING AND PROPOSED FEATURES PRESENTED WITHIN THIS PLAN. A STORMWATER MANAGEMENT PLAN FOR MUNICIPAL APPROVAL (SMP-MA) MAY INCORPORATE DESIGN FEATURES ON THIS PLAN.

3. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL COMPLY WITH ALL REQUIREMENTS OF THE NPDES PERMIT FOR THE PROJECT SITE, INCLUDING OBTAINING STATUS AS A CO-PERMITTEE OF THE PERMIT. FOR INFORMATION REGARDING COMPLIANCE WITH THE NPDES PERMIT, CONTACT:

DAUPHIN COUNTY CONSERVATION DISTRICT
1451 PETERS MOUNTAIN ROAD
DAUPHIN, PA 17018
PHONE: (717) 921-8100
FAX: (717) 921-8276

4. THE OPERATION AND MAINTENANCE (O&M) AGREEMENT SHALL BE PART OF THIS SWM SITE PLAN.

5. AN AS-BUILT DRAWING SHALL BE PROVIDED FOR ALL STORMWATER MANAGEMENT FACILITIES PRIOR TO OCCUPANCY OF LAND OR STRUCTURES, OR THE RELEASE OF FINANCIAL SECURITY FOR SAID FACILITIES.

6. ALL INLETS IN PAVED AREAS SHALL HAVE HEAVY DUTY BICYCLE-SAFE GRATING CONSISTENT WITH THE LATEST EDITION OF PennDOT PUBLICATION 72M.

7. INLETS MUST BE SIZED TO ACCEPT THE SPECIFIED PIPE SIZES WITHOUT KNOCKING OUT ANY OF THE INLET CORNERS.

8. ALL PIPES ENTERING OR EXITING INLETS SHALL BE CUT FLUSH WITH THE THE INLET WALL.

9. INLETS SHALL NOT HAVE A SUMP CONDITION IN THE BOTTOM (UNLESS DESIGNED AS A WATER QUALITY BMP). OUTLET PIPES SHALL BE FLUSH WITH THE BOTTOM OF THE BOX OR CONCRETE CHANNELS SHALL BE POURED.

10. INLETS, MANHOLES, PIPES AND CULVERTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS SET FORTH IN PennDOT'S PUBLICATION 408, LATEST EDITION, AND AS DETAILED IN PennDOT'S PUBLICATION 72M - STANDARDS FOR ROADWAY CONSTRUCTION (RC), LATEST EDITION, OR AS APPROVED BY THE TOWNSHIP ENGINEER.

11. ALL FRAMES, CONCRETE TOP UNITS, AND GRADE ADJUSTMENT RINGS SHALL BE SET IN A BED OF FULL MORTAR ACCORDING TO PUBLICATION 408, LATEST EDITION.

12. TOWNSHIP OFFICIALS AND THEIR AGENTS OR EMPLOYEES HAVE THE RIGHT OF ACCESS TO THE PROPERTY FROM THE PUBLIC RIGHT-OF-WAY FOR INSPECTION OF AND, IN CASE OF CONSTRUCTION DEFAULT, CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITIES.

13. NOTHING SHALL BE PLACED, PLANTED, OR SET WITHIN AN EASEMENT OR RIGHT-OF-WAY WHICH WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT OR RIGHT-OF-WAY, OR CONFLICT WITH ANY CONDITIONS ASSOCIATED WITH SUCH EASEMENT OR RIGHT-OF-WAY.

14. NO PERSON SHALL MODIFY, REMOVE, FILL, LANDSCAPE, OR ALTER ANY EXISTING STORMWATER BMP, FACILITIES, AREAS, OR STRUCTURES UNLESS IT IS PART OF AN APPROVED MAINTENANCE PROGRAM, WITHOUT THE WRITTEN APPROVAL OF THE TOWNSHIP.

15. NO PERSON SHALL PLACE ANY STRUCTURE, FILL, LANDSCAPE, OR VEGETATION INTO A STORMWATER BMP, FACILITIES, AREAS, STRUCTURES, OR WITHIN A DRAINAGE EASEMENT THAT WOULD LIMIT OR ALTER THE FUNCTIONING OF THE BMP WITHOUT THE WRITTEN APPROVAL OF THE TOWNSHIP.

TOTAL DISTURBED AREA

TOTAL DISTURBANCE NPDES IS 99.376 SQ FT (2.29 ACRES)

PCSM PLAN SHEET INDEX

DESCRIPTION

POST CONSTRUCTION STORMWATER MANAGEMENT COVER SHEET AND NOTES
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN AND DETAILS

SHEET

PCSM-1
PCSM-2

BUILDING OWNER

PENNSYLVANIA CAPITOL PRESERVATION COMMITTEE
ROOM 630 MAIN CAPITOL BUILDING
HARRISBURG, PA. 17120
(717) 783-6484

SOURCE OF TITLE

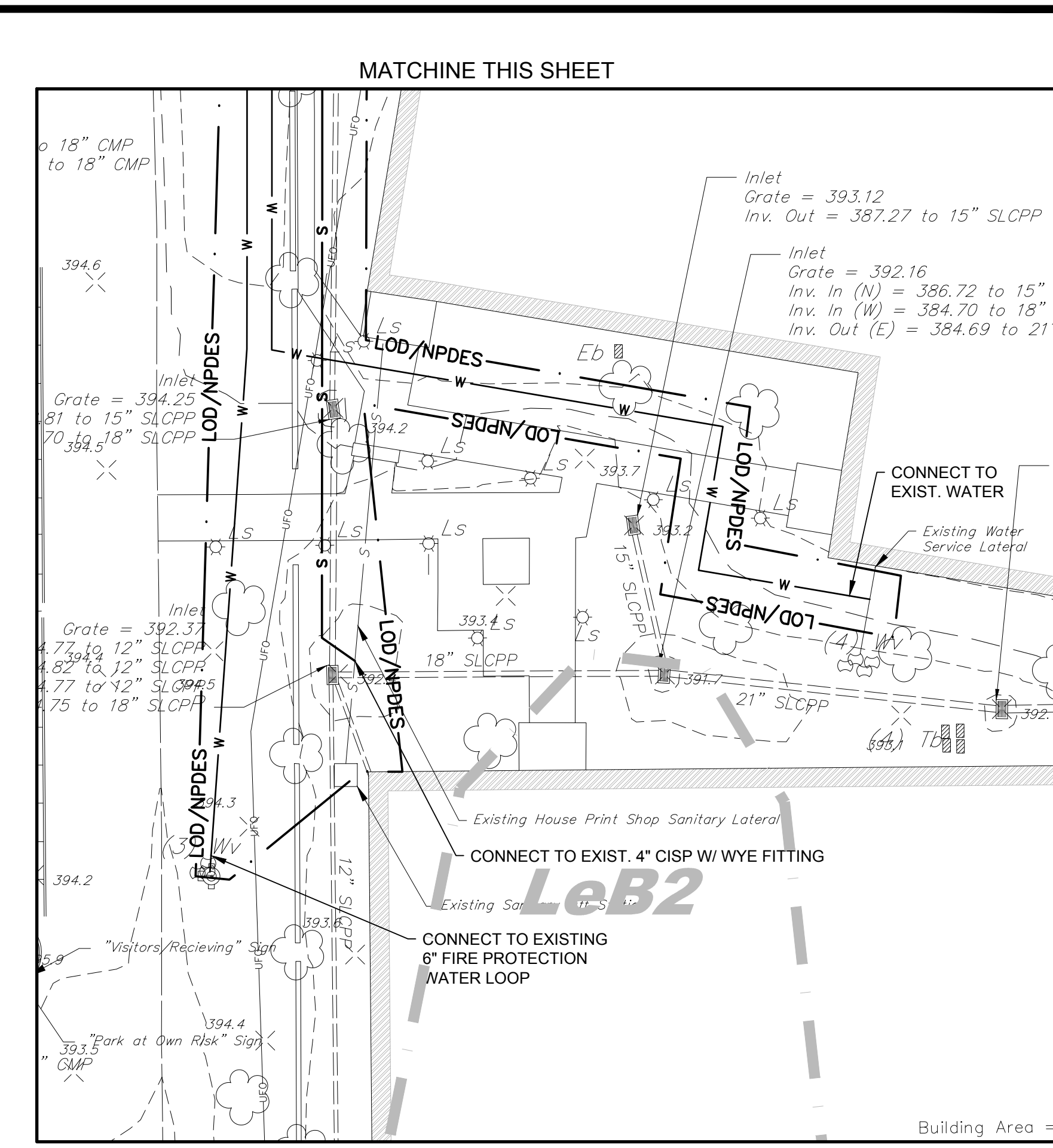
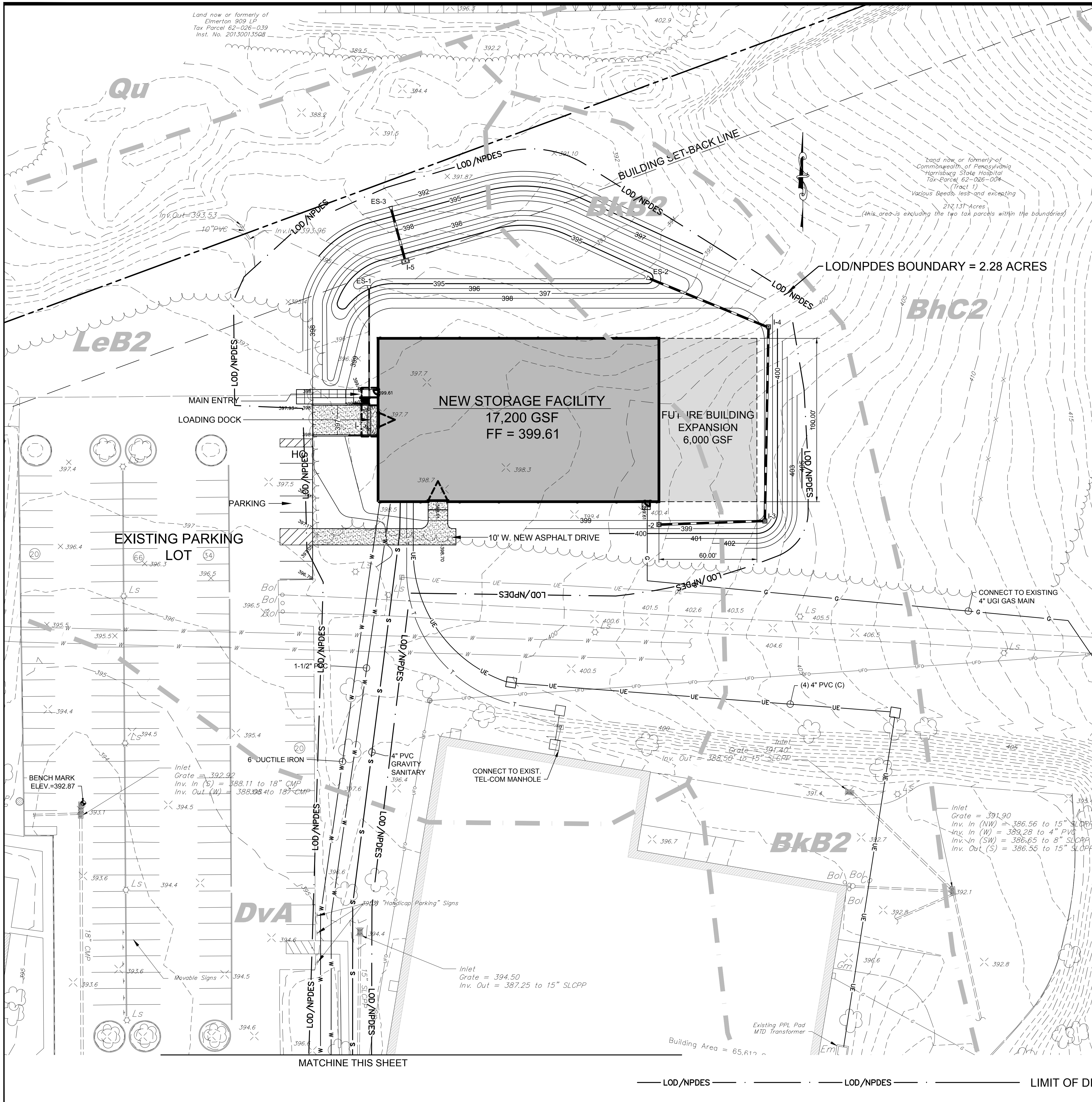
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
18TH AND HERR STS
HARRISBURG, PA. 17125
TAX PARCEL #62-026-004-000-0000

ENGINEER/SURVEYOR

NAVARRO & WRIGHT CONSULTING ENGINEERS, INC.
151 RENO AVE.
NEW CUMBERLAND, PA 17070
PHONE # (717) 441-2216
JASON D. GUTSHALL, P.E.

WETLAND CERTIFICATION	
I, _____, HEREBY CERTIFY THAT THERE ARE WETLANDS ON THE SUBJECT PROPERTY, THE PROPOSED PROJECT WILL NOT IMPACT OFF-SITE WETLANDS, AND PERMITS ARE NOT REQUIRED FROM THE STATE OR FEDERAL GOVERNMENT.	
QUALIFIED DESIGN PROFESSIONAL	
I, _____, HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE LOWER SWATARA TOWNSHIP STORMWATER MANAGEMENT ORDINANCE, CHAPTER 174.	
LANDOWNER	
I, _____, HEREBY ACKNOWLEDGE THAT THE STORMWATER BMP'S ARE FIXTURES THAT CANNOT BE ALTERED OR REMOVED WITHOUT PRIOR APPROVAL BY THE TOWNSHIP.	

	NAVARRO & WRIGHT CONSULTING ENGINEERS, INC.	JOB NUMBER: 1901SC022 DRAWN BY: BKS CHECKED BY: JDG DATE: MAY 3, 2019 DRAWING NUMBER: 1901SC022-PCSM SHEET: PCSM-1
	151 RENO AVENUE NEW CUMBERLAND, PA 17070	PHONE: (717) 441-2216 FAX: (717) 441-2218



Land now or formerly of
Elmerton 909 LP
Tax Parcel 62-026-039
Inst. No. 201300135028

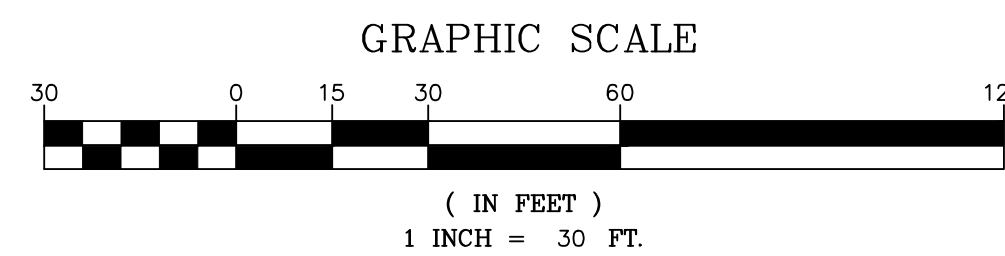
Land now or formerly of
Commonwealth of Pennsylvania
Harrisburg State Hospital
Tax-Parcel 62-026-004
(Tract 1)
Various deeds, less-and excepting
212.131-Acres
(This area is excluding the two tax parcels within the boundaries)

LOD/NPDES BOUNDARY = 2.28 ACRES

MATCHLINE THIS SHEET

MATCHLINE THIS SHEET

LOD/NPDES LIMIT OF DISTURBANCE/NPDES PERMIT LINE

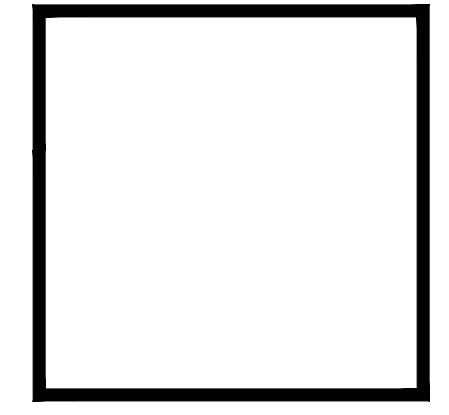
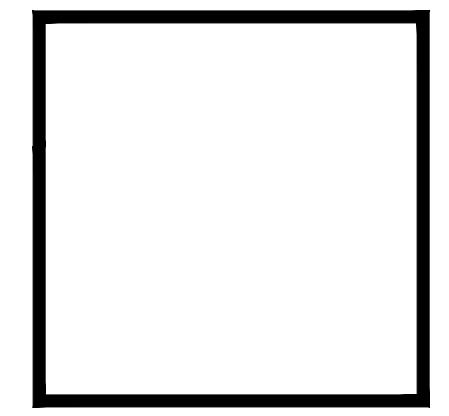


NO.	REVISIONS	DATE	BY

NAVARRO & WRIGHT
CONSULTING ENGINEERS, INC.

151 RENO AVENUE
NEW CUMBERLAND, PA 17070

PHONE (717) 441-2218
FAX (717) 441-2218



POST CONSTRUCTION STORMWATER
MANAGEMENT PLANS
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN
FOR
CAPITOL PRESERVATION
COMMITTEE STORAGE FACILITY
SUSQUEHANNA TOWNSHIP
DAUPHIN COUNTY, PA

JOB NUMBER: 1901SC022
DRAWN BY: BKS
CHECKED BY: JDG
SCALE: 1" = 30'
DATE: 5/3/19
DRAWING NUMBER:
1901SC022-PCSM
SHEET:
PCSM-2