

LOCATION MAP

LEGEND EXISTING FEATURES

EXISTING PROPERTY BOUNDARY EXISTING ADJOINING PROP. LINE EXISTING RIGHT-OF-WAY LINE EXISTING EASEMENT EXISTING SETBACK BOUNDARY EXISTING FLOOD PLAIN EXISTING STREAM WL A78 EXISTING WETLANDS

SCALE: 1'' = 200

EXISTING BUILDING EXISTING 1' CONTOURS EXISTING 5' CONTOURS EXISTING SPOT ELEVATION EXISTING SOIL TYPE EXISTING CURB EXISTING EDGE OF PAVEMENT EXISTING FENCE

EXISTING STORM INLET AND PIPE ==== ♥ ==== EXISTING STORM MANHOLE AND PIPE EXISTING SAN. MANHOLE AND PIPE EXISTING U/G FIRE LINE EXISTING U/G WATER LINE EXISTING U/G ELECTRIC LINE EXISTING U/G TELEPHONE LINE EXISTING U/G GAS LINE EXISTING OVERHEAD WIRES EXISTING LIGHT POLE EXISTING SIGN EXISTING UTILITY POLE

> EXISTING DECIDUOUS TREE EXISTING TREE & SHRUB LINE

> > SLOPES 15-25%

EXISTING CONIFEROUS TREE

SLOPES 25% AND GREATER

# SURVEY NOTES:

BEING: 300 LONGFELLOW ROAD, WYNCOTE, PA 19095 ASSESSMENT MAP BLOCK 158 UNIT 1 DEED BOOK 5143, PAGE 1500. NET TRACT AREA: 34.11 ACRES

3. BOUNDARY INFORMATION SHOWN HEREON IS TAKEN FROM A PLAN PREPARED BY MCNEILL LAND SURVEYING LLC DATED 08/06/15, AND IS BASED UPON A FIELD SURVEY PERFORMED IN MAY & JUNE 2015. BOUNDARY DELINEATION WAS BASED ON DEEDS, PLANS OF RECORD, & PHYSICAL EVIDENCE LOCATED AT THE TIME OF THE SURVEY AND WITHOUT THE BENEFIT OF A TITLE REPORT. THE PROPERTY IS SUBJECT TO ANY EASEMENT, RIGHT-OF-WAY, OR OTHER RESTRICTIONS AND AGREEMENTS WHICH AN ACCURATE TITLE SEARCH MAY DISCLOSE. LOCATIONS OF EXISTING STRUCTURES AND FACILITIES SHOWN HEREON HAVE BEEN FIELD LOCATED. UNDERGROUND UTILITIES ARE SHOWN ONLY TO THE EXTENT OF VISIBLE SURFACE STRUCTURES THAT WERE EVIDENT

AT THE TIME OF THE SURVEY. 4. ELEVATIONS BASED UPON NATIONAL GEODETIC VERTICAL DATUM OF

- 5. BEARING BASIS FOR THE SURVEY AS SHOWN ARE ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 SOUTH ZONE.
- 6. THE TOPOGRAPHY AND IMPROVEMENTS TAKEN FROM EXISTING FEATURES PLAN AND GRADING AND DRAINAGE PLAN FOR ADDITIONS AND ALTERATIONS TO: CEDARBROOK MIDDLE SCHOOL, SCHOOL DISTRICT OF CHELTENHAM TOWNSHIP, DATED 01/18/2016, LAST REVISED 02/24/2016 PREPARED BY RENEW DESIGN GROUP. 7. PARTIAL FIELD SURVEY WAS PERFORMED IN THE PROPOSED
- DEVELOPMENT AREAS ON 12/27/24 BY CHESTER VALLEY ENGINEERS,
- 8. WETLANDS ANALYSIS AND DELINEATION WAS PERFORMED BY DELVAL SOIL & ENVIRONMENTAL CONSULTANTS, INC OF DOYLESTOWN, PA., ON JUNE 15, 2015 AND FLAGGING WAS FIELD SURVEYED BY MCNEILL LAND SURVEYING, LLC DURING JUNE 2015. 9. BY GRAPHIC PLOTTING ONLY, THE PREMISES SHOWN HEREON DOES NOT
- LIE WITHIN A SPECIAL FLOOD HAZARD ZONE. THE PREMISES LIES WITHIN AN AREA DESIGNATED AS ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP (FIRM) 42091C0383G, PREPARED BY FEDERAL EMERGENCY MANAGEMENT AGENCY, REVISED DATE MARCH 2, 2016.

  10. SOILS INFORMATION TAKEN FROM USDA NRCS WEB SOIL SURVEY MAP.
- 11. INV. B.O.S. IS INVERT BOTTOM OF SNOUT. INV. WL IS INVERT WATER LINE.

# EXISTING CONDITIONS PLAN

NO. DATE

PRELIMINARY LAND DEVELOPMENT PLANS

**CEDARBROOK MIDDLE SCHOOL-BUILDING ADDITIONS & RENOVATIONS** HELTENHAM TWP. - MONTGOMERY COUNTY - PENNSYLVANIA

ChesterValley | 22408 610-644-4623 www.chesterv.com DRAWN BY CHECKED BY

ENGINEER

Scale in Feet

1'' = 80'

04/11/2025 RRB JRM

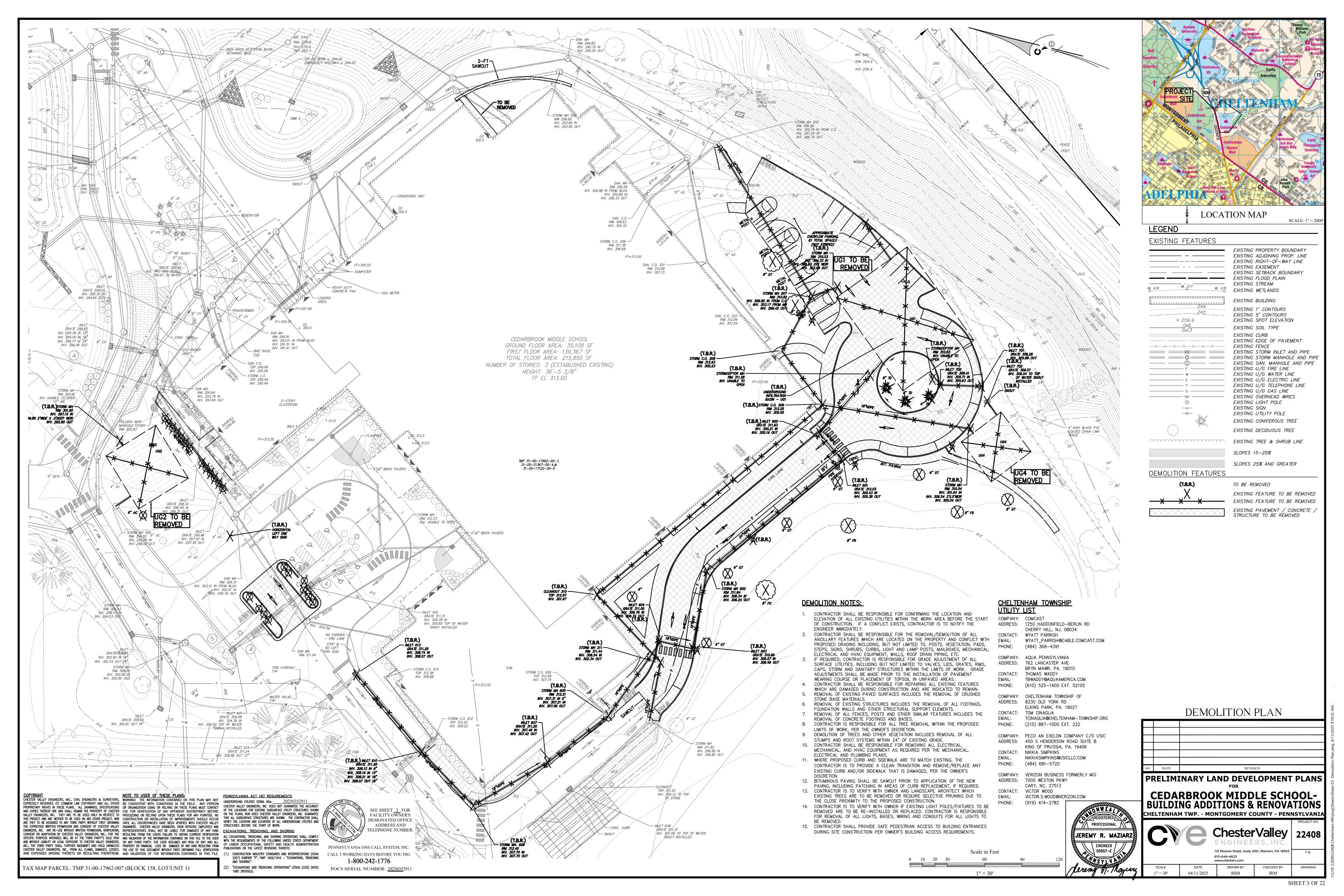
TAX MAP PARCEL: TMP 31-00-17962-007 (BLOCK 158, LOT/UNIT 1)

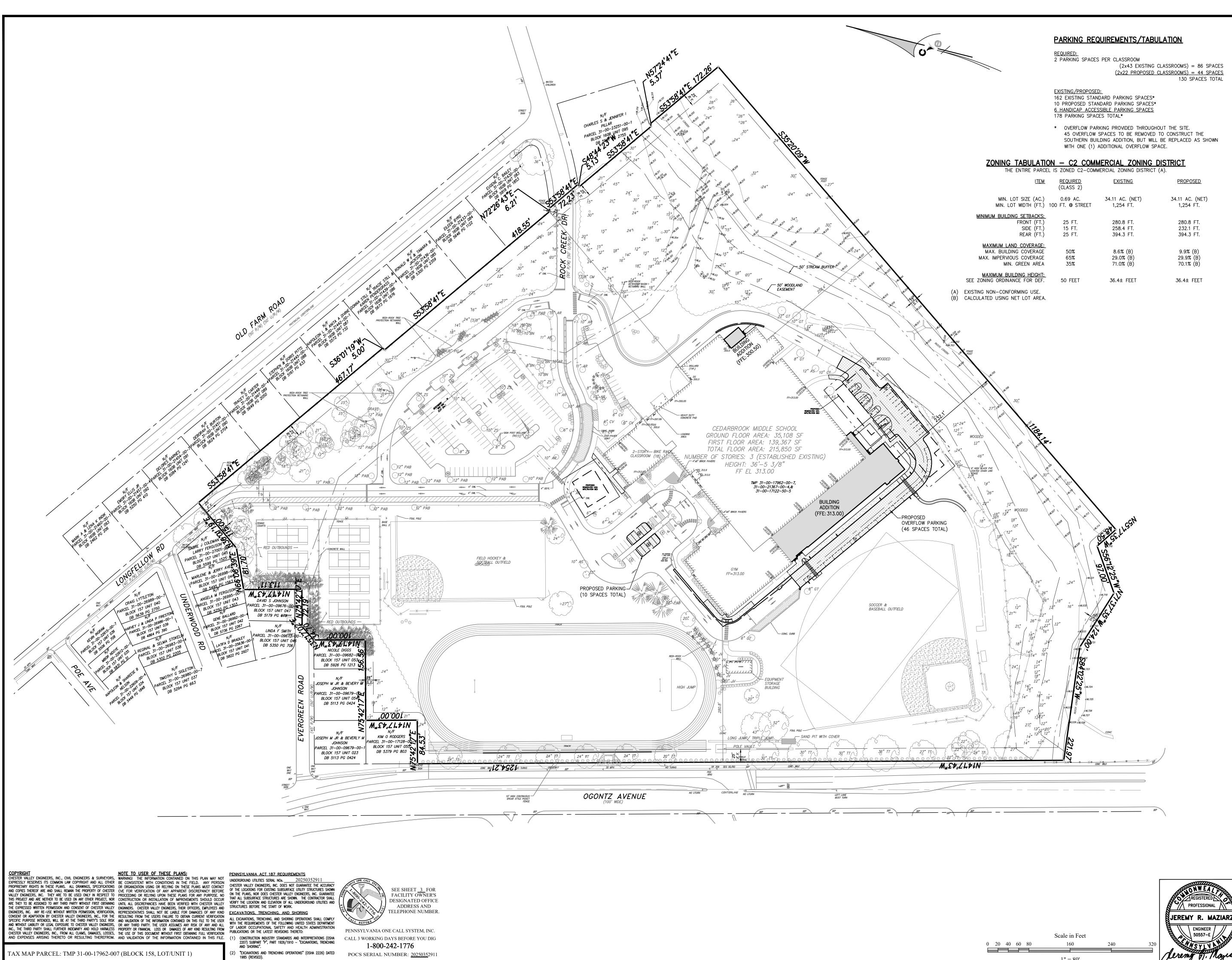
"EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED

PENNSYLVANIA ONE CALL SYSTEM, INC. CALL 3 WORKING DAYS BEFORE YOU DIG 2207) SUBPART "P", PART 1926/1910 — "EXCAVATIONS, TRENCHING AND SHORING". 1-800-242-1776

DEPTH TO
SEASONALLY HIGH DEPTH TO FREQUENCY OF: HYDROLOGIC HYDRIC SOIL
WATER TABLE BEDROCK FLOODING PONDING SOIL GROUP RATING Ch 0% TO 3% SLOPES 18" TO 36" 72"-99" OCCASIONAL NONE URBAN LAND-UDORTHENTS UugB 0% TO 8% SLOPES POCS SERIAL NUMBER: <u>2025035</u>2911

UugD 8% TO 25% SLOPES 60**"** 20"-70" NONE NONE C





Aradia University

Millans

Park

Reconstructions

Recons

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EGEND				
XISTING	FEATURI	ES		
			EXISTING	PROPE

EXISTING PROPERTY BOUNDARY
EXISTING ADJOINING PROP. LINE
EXISTING RIGHT—OF—WAY LINE
EXISTING EASEMENT
EXISTING SETBACK BOUNDARY
EXISTING FLOOD PLAIN
EXISTING STREAM
EXISTING WETLANDS

EXISTING BUILDING
EXISTING CURB
EXISTING EDGE OF PAVEMENT

EXISTING FENCE

EXISTING LIGHT POLE
EXISTING SIGN
EXISTING UTILITY POLE
EXISTING CONIFEROUS TREE
EXISTING DECIDUOUS TREE

PROPOSED BUILDING
PROPOSED HEAVY DUTY

PAVEMENT SECTION

PROPOSED CONCRETE CURB

NUMBER OF PROPOSED PARKING SPACES

PROPOSED SIGN & LABEL

EXISTING TREE & SHRUB LINE

PROPOSED CONCRETE PAD/SIDEWALK

SCALE: 1'' = 200

PROPOSED FEATURES

(4) (A)

IMPE	RVIOUS CO	VERAGE SU	IMMARY TA	BLE
ITEM	EXISTING	TO BE REMOVED	PROPOSED	TOTAL
SCHOOL BUILDING	126,379 S.F.	0 S.F.	18,972 S.F.	145,351 S.I
STORAGE BUILDING	1,195 S.F.	0 S.F.	0 S.F.	1,195 S.F.
DRIVEWAY & PAVEMENT	197,257 S.F.	-30,948 S.F.	25,613 S.F.	191,922 S.I
CONCRETE	28,864 S.F.	-5,702 S.F.	6,003 S.F.	29,165 S.F
BITUMINOUS TRAIL/WALKS	3,961 S.F.	-1,035 S.F.	500 S.F.	3,426 S.F.
TRACK & FIELD	34,318 S.F.	0 S.F.	0 S.F.	34,318 S.F
TENNIS COURTS	37,036 S.F.	0 S.F.	0 S.F.	37,036 S.F
WALLS	1,411 S.F.	−73 S.F.	0 S.F.	1,338 S.F.
MISC. *	634 S.F.	0 S.F.	0 S.F.	634 S.F.
TOTAL	431,055 S.F.	-37,758 S.F.	51,088 S.F.	444,385 S.

EXISTING BUILDING COVERAGE: 127,574 / 1,485,867 = 8.59% EXISTING IMPERVIOUS COVERAGE: 431,055 / 1,485,867 = 29.01% PROPOSED BUILDING COVERAGE: 146,546 / 1,485,867 = 9.86%

## SITE LAYOUT PLAN

PROPOSED IMPERVIOUS COVERAGE: 444,385 / 1,485,867 = 29.91%

		SHELATOUTPLAN
NO.	DATE	REVISION

PRELIMINARY LAND DEVELOPMENT PLANS

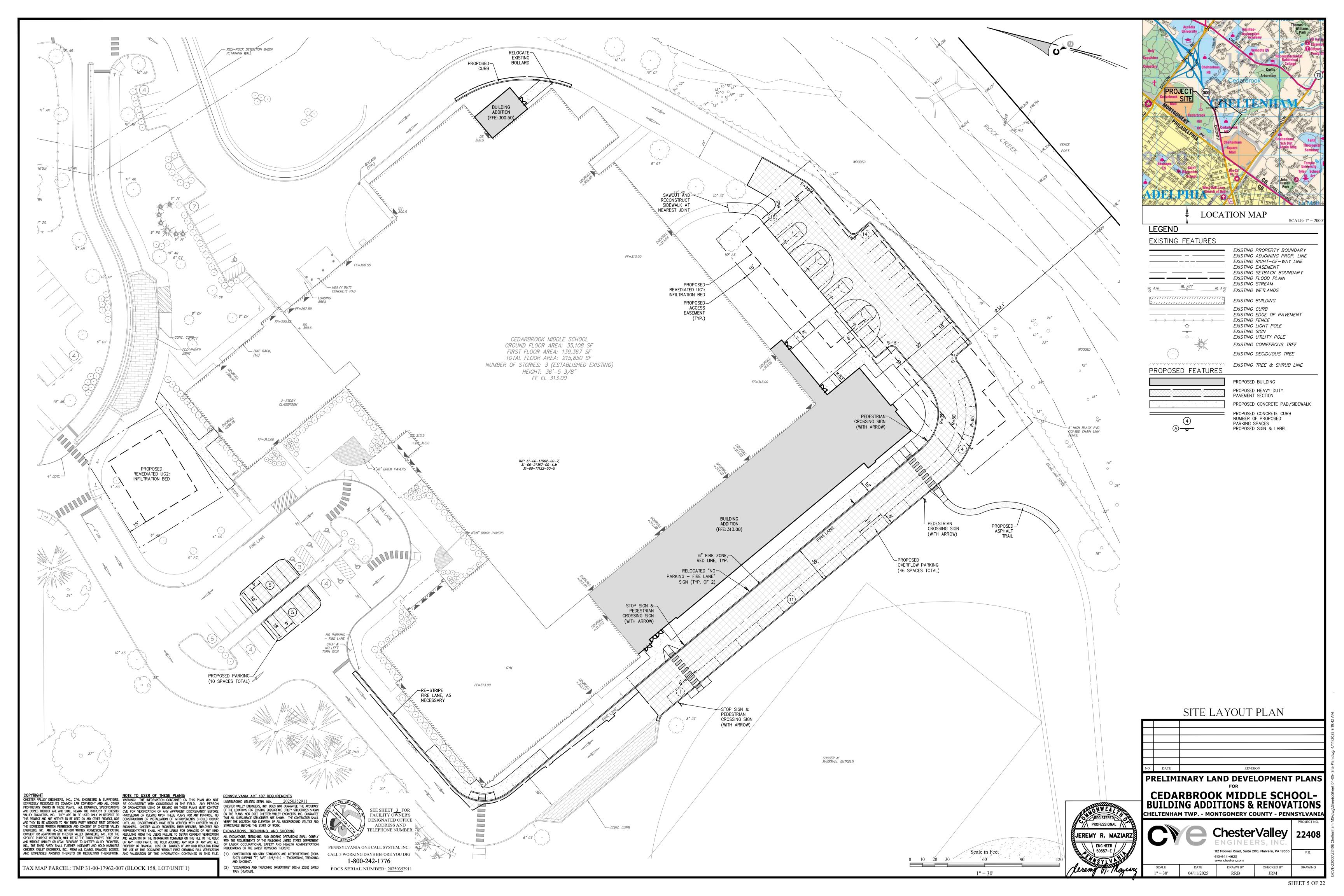
CEDARBROOK MIDDLE SCHOOL-BUILDING ADDITIONS & RENOVATIONS
CHELTENHAM TWP. - MONTGOMERY COUNTY - PENNSYLVANIA

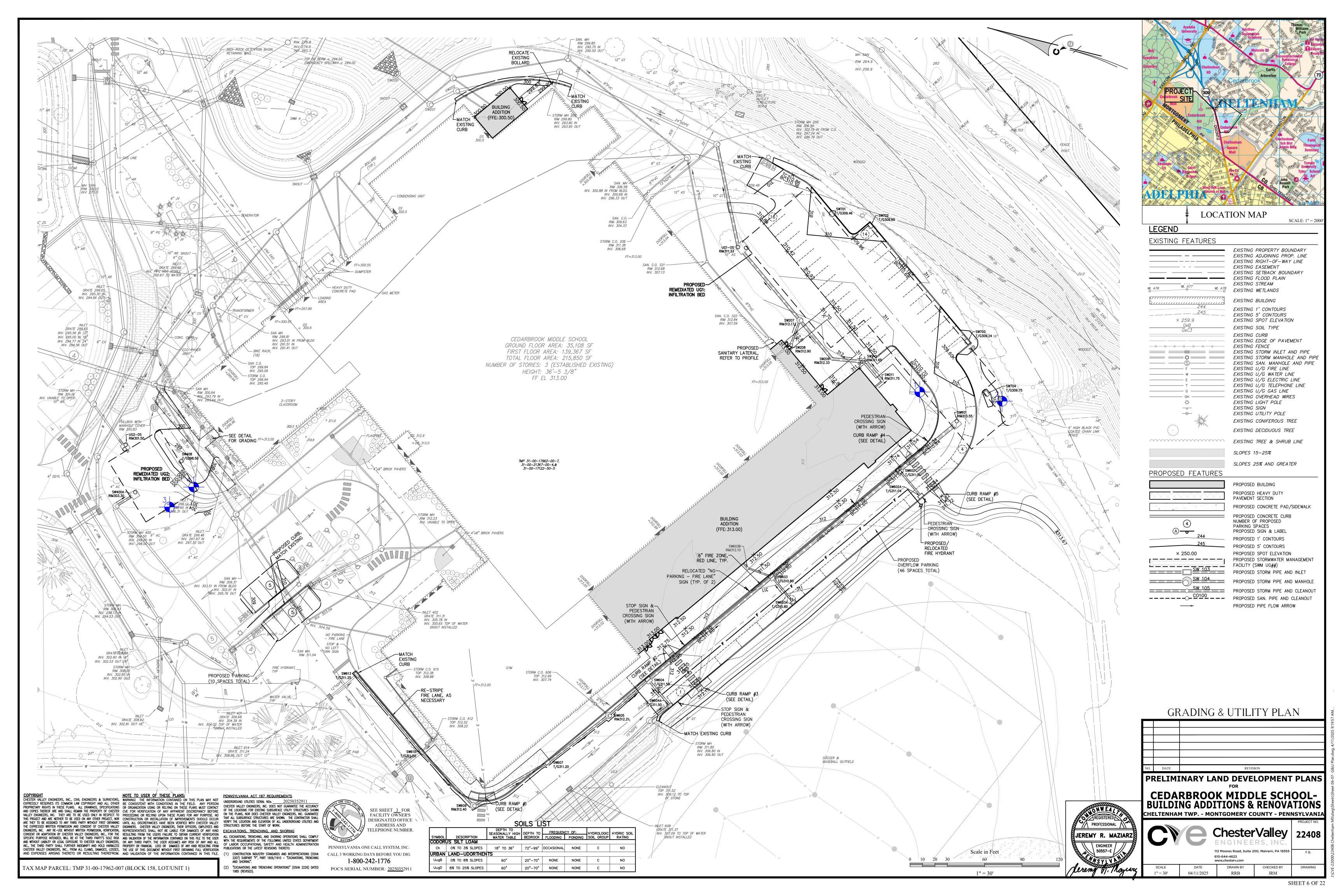
Chester Valley
ENGINEERS, INC.

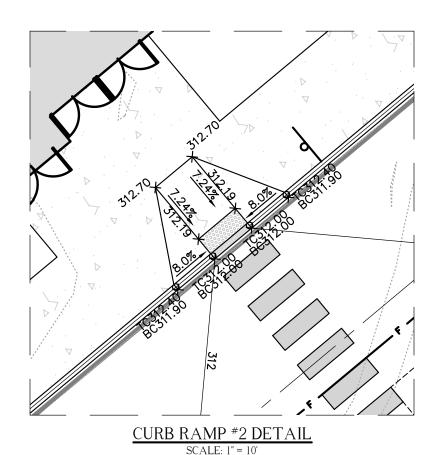
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chesterv.com

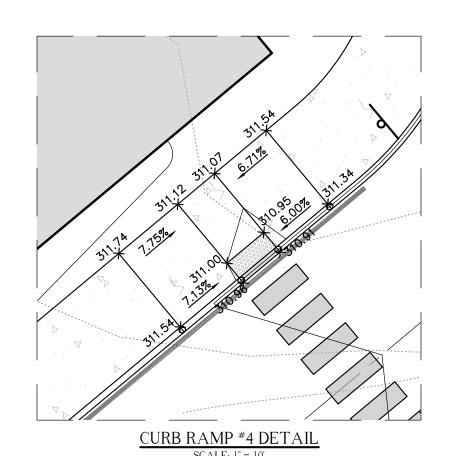
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DRAWING
D' 04/11/2025
RRB
JRM

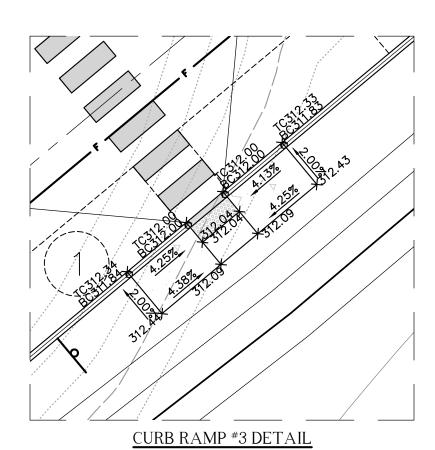
SHEET 4 OF 22

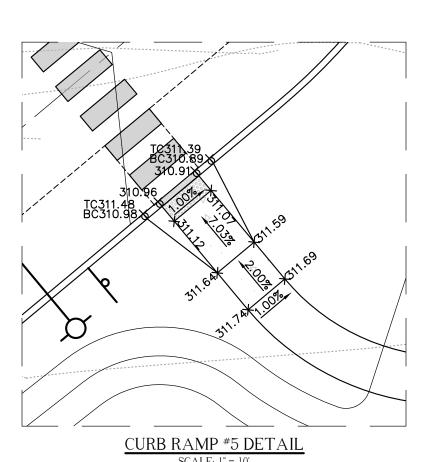


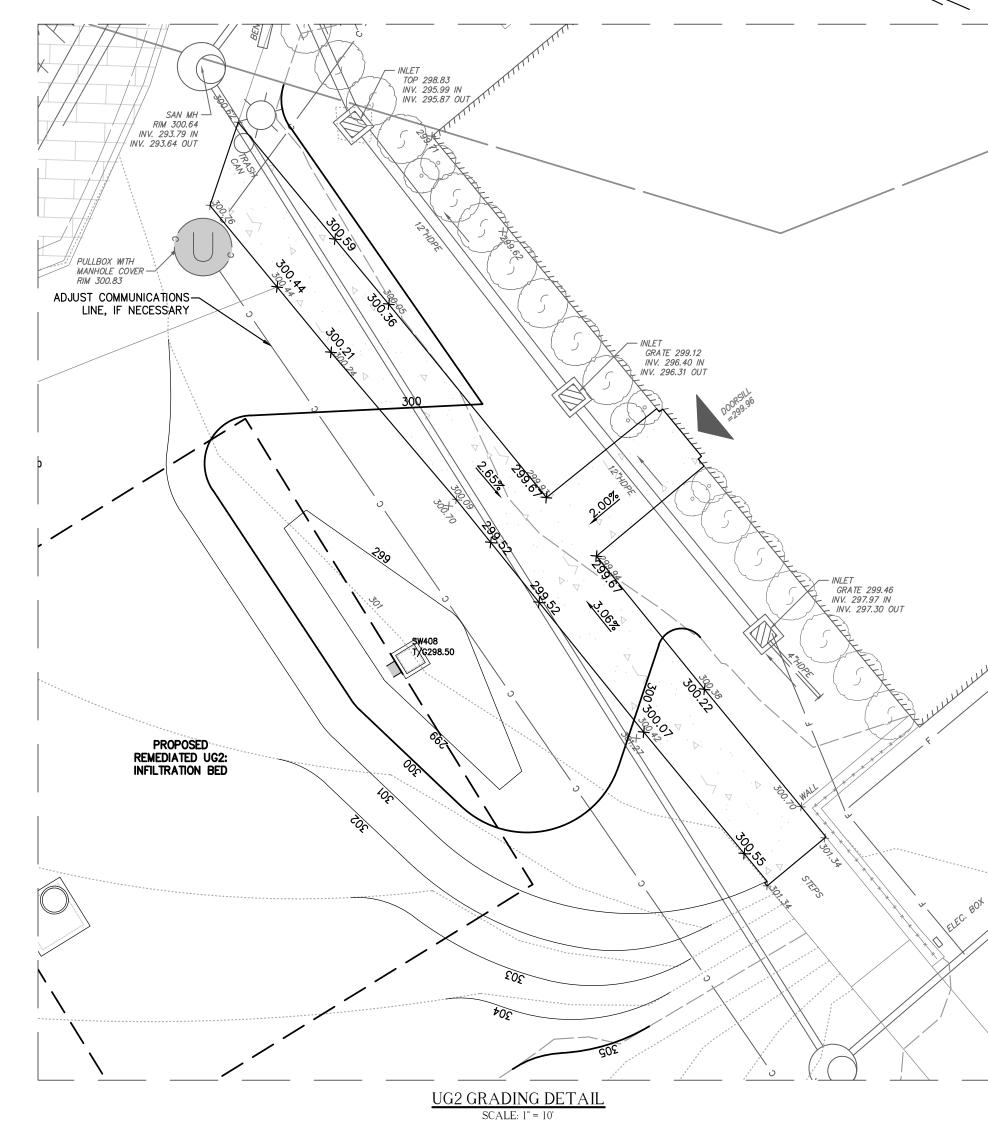












THIS PLAN PROPOSES TO CONSTRUCT BUILDING ADDITIONS (18,972 SF) WITH THE NECESSARY PARKING, ASSOCIATED UTILITIES AND INFRASTRUCTURE. 2. THIS SITE IS SERVED BY PUBLIC SEWER AND WATER.

NO WORK IS PROPOSED WITHIN PENNDOT RIGHT OF WAY. 4. SPOT ELEVATIONS ALONG THE PROPOSED CURB EDGE SIGNIFIES FINISHED PAVEMENT AT THE FACE OF CURB ALSO REFERRED TO AS BOTTOM OF CURB. SPOT ELEVATIONS NOT SHOWN ALONG CURB EDGE SIGNIFIES FINISHED GRADE OR PAVEMENT ELEVATIONS. 6. SPOT ELEVATIONS SHOWN AT DRAINAGE STRUCTURES REPRESENT THE TOP OF UNIT ELEVATION AT THE CENTER OF THE

7. ALL SITE PLAN DIMENSIONS ARE FROM FACE-OF-CURB TO FACE-OF-CURB AND ALL CURB RADII ARE MEASURED AT FACE 8. ALL DETAILS AND SPECIFICATIONS NOT SHOWN ON THESE PLANS SHALL BE IN ACCORDANCE WITH CHELTENHAM TOWNSHIP STANDARDS AND SPECIFICATIONS AND/OR PADOT PUBL. 408.

9. ALL EXISTING IMPROVEMENTS WITHIN OR ADJACENT TO THE PROJECT AREA INCLUDING BUT NOT LIMITED TO SIGNAGE, BIKE RACKS, TRASH CANS, LIGHTS, GUIDE RAIL, ETC. THAT MAY BE DISTURBED DURING CONSTRUCTION ARE TO BE MAINTAINED AND/OR REMOVED/RELOCATED BY THE SITE CONTRACTOR PER THE OWNER'S DISCRETION. 10. ALL BUILDING ADDITIONS, ENTRANCES, RAMPS, STAIRS AND PATIO RAILINGS/FALL PROTECTION DESIGN AND DETAILS ARE TO BE PER THE ARCHITECTURAL PLANS. 11. WHERE PROPOSED CURB AND SIDEWALK ARE TO MATCH EXISTING, THE CONTRACTOR IS TO PROVIDE A CLEAN TRANSITION

AND REMOVE/REPLACE ANY EXISTING CURB AND/OR SIDEWALK THAT IS DAMAGED AT THE OWNER'S DISCRETION.

12. ALL CURB RÁDII SHALL BE 5-FEET UNLESS NOTÉD OTHERWISE. 13. ALL CURB SHALL BE 6" REVEAL UNLESS NOTED OTHERWISE. 14. THE FOLLOWING PENNDOT ROADWAY CONSTRUCTION STANDARD DETAILS SHALL BE UTILIZED FOR THIS PROJECT:

RC-39M STANDARD MANHOLES

RC-45M INLET TOPS, GRATES, AND FRAME RC-46M INLET BOXES

RC-64M CURBS AND GUTTERS

RC-67M CURB RAMPS AND SIDEWALKS 15. BITUMINOUS PAVING SHALL BE SAWCUT PRIOR TO APPLICATION OF NEW PAVING, INCLUDING PATCHING IN AREAS OF CURB REPLACEMENT, IF REQUIRED. 16. ALL PAVED/NON-PAVED SURFACES SHALL SLOPE AWAY FROM THE BUILDING AT A MINIMUM SLOPE OF 1/4"/FOOT.

17. SITE CONTRACTOR IS RESPONSIBLE FOR ALL TREE AND/OR SHRUB REMOVAL WITHIN THE PROPOSED LIMITS OF WORK. 18. SITE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ALL LANDSCAPING AND SITE STABILIZATION IN ACCORDANCE WITH E&S AND LANDSCAPE PLANS. ALL STABILIZATION & LANDSCAPE INSTALLATION SHALL BE DONE DURING ACCEPTABLE PLANTING SEASONS.

19. ALL CONTRACTORS SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES WITHIN THE WORK AREA BEFORE THE START OF CONSTRUCTION. IF A CONFLICT EXISTS, CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY, FOR RESOLUTION.

20. IF REQUIRED, THE SITE CONTRACTOR IS RESPONSIBLE FOR GRADE ADJUSTMENT OF ALL SURFACE UTILITIES, INCLUDING BUT NOT LIMITED TO VALVES, LIDS, GRATES, RIMS, CAPS, STORM AND SANITARY STRUCTURES WITHIN THE LIMITS OF WORK. GRADE ADJUSTMENTS SHALL BE MADE PRIOR TO THE INSTALLATION OF PAVEMENT WEARING COURSE OR PLACEMENT OF TOPSOIL IN UNPAVED AREAS.

21. UNLESS NOTED OTHERWISE, SITE CONTRACTOR RESPONSIBLE FOR ALL SITE UTILITY INSTALLATION UP TO 5' OUTSIDE OF BUILDING. RESPECTIVE UTILITY CONTRACTOR (ELECTRICAL, PLUMBING, ETC.) SHALL ASSUME RESPONSIBILITY AT THIS POINT. 22. ALL UTILITY TRENCHES SHALL BE MECHANICALLY BACKFILLED IN EIGHT INCH (8) LAYERS AND COMPACTED TO NINETY FIVE PERCENT (95%) OF THE MAXIMUM DRY WEIGHT DENSITY OF THE FILL OR BACKFILL MATERIAL.

23. SITE CONTRACTOR IS TO COORDINATE THE PROPOSED CONDUIT INSTALLATION (FOR LIGHTING AND SECURITY) WITH THE ELECTRICAL CONTRACTOR AND THE OWNER. 24. PROPOSED UTILITY SERVICE CONNECTIONS TO SERVICE THE PROPOSED BUILDING (WATER (DOMESTIC AND FIRE), SEWER, ELECTRIC, GAS, TELECOMMUNICATIONS, ETC.) ARE TO BE PROVIDED IN ACCORDANCE WITH THE APPROPRIATE UTILITY

SERVICE PROVIDER. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL REQUIRED UTILITY SERVICES TO THE BUILDING. ALL ELECTRIC, TELEPHONE, AND COMMUNICATION SERVICES SHALL BE PROVIDED BY UNDERGROUND CABLES. 25. ALL MANHOLE OR CLEANOUT COVERS SHALL BE STAMPED WITH ONE OF THE FOLLOWING UTILITY CALLOUTS WHICH MAY INCLUDE BUT IS NOT LIMITED TO, "SANITARY", "STORM", "WATER", "ELECTRIC", "GAS" OR "TELE".

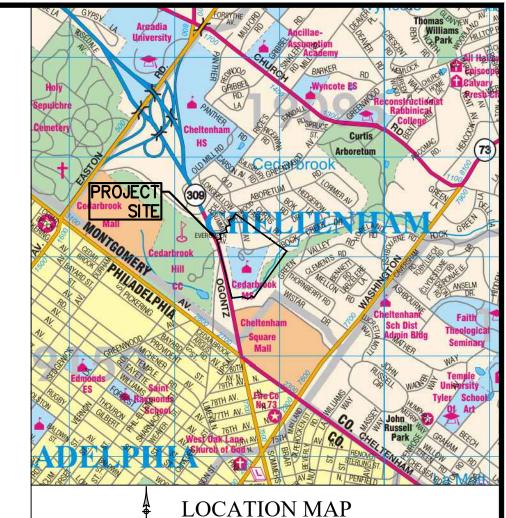
26. ALL INLETS SHALL BE SET FLUSH WITH THE WEARING COURSE. 27. ALL HDPE STORM SEWER PIPE SHALL BE ADS N-12 SMOOTH-BORE PIPE, OR LANE HD100/HD100EC, OR EQUIVALENT, UNLESS OTHERWISE NOTED.

28. ALL STORM DRAINAGE STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT PENNDOT STANDARDS, DETAILS AND SPECIFICATIONS.

29. WATERTIGHT PIPE CONNECTIONS ARE REQUIRED FOR ALL STORM DRAINAGE PIPING. 30. FOR ALL EXISTING STORM PIPE CONNECTIONS TO PROPOSED STRUCTURES (MANHOLES AND/OR INLETS), THE CONTRACTOR IS TO PROVIDE A CLEAN, SEALED AND WATERTIGHT CONNECTION. IF A PIPE EXTENSION OF EXISTING STORM PIPE IS

REQUIRED FOR PROPER CONNECTION, THE CONTRACTOR IS TO PROVIDE AS REQUIRED.

31. THE TOWNSHIP SHALL HAVE THE RIGHT, BUT NOT THE DUTY, TO ACCESS EVERY BMP AND CONVEYANCE FROM A PUBLIC RIGHT-OF-WAY OR PUBLIC ROADWAY TO CONDUCT PERIODIC INSPECTIONS AND TO UNDERTAKE OTHER ACTIONS THAT MAY BE NECESSARY TO ENFORCE THE REQUIREMENTS OF THIS CHAPTER, OR OF ANY APPLICABLE O&M PLAN OR O&M AGREEMENT. WHERE ROADWAYS WILL NOT BE DEDICATED TO THE TOWNSHIP, THE TOWNSHIP SHALL BE GRANTED ACCESS TO THE PRIVATE ROADWAYS AS NECESSARY TO ACCESS EVERY BMP AND CONVEYANCE.



**LEGEND** EXISTING FEATURES

EXISTING PROPERTY BOUNDARY EXISTING ADJOINING PROP. LINE EXISTING RIGHT-OF-WAY LINE EXISTING EASEMENT EXISTING SETBACK BOUNDARY EXISTING FLOOD PLAIN EXISTING STREAM WL A78 EXISTING WETLANDS EXISTING BUILDING

SCALE: 1'' = 200

EXISTING 1' CONTOURS EXISTING 5' CONTOURS EXISTING SPOT ELEVATION EXISTING SOIL TYPE EXISTING CURB EXISTING EDGE OF PAVEMENT EXISTING FENCE EXISTING STORM INLET AND PIPE ==== ♥ ==== EXISTING STORM MANHOLE AND PIPE EXISTING SAN. MANHOLE AND PIPE EXISTING U/G FIRE LINE EXISTING U/G WATER LINE EXISTING U/G ELECTRIC LINE EXISTING U/G TELEPHONE LINE EXISTING U/G GAS LINE EXISTING OVERHEAD WIRES EXISTING LIGHT POLE

> EXISTING SIGN EXISTING UTILITY POLE EXISTING CONIFEROUS TREE EXISTING DECIDUOUS TREE

EXISTING TREE & SHRUB LINE SLOPES 15-25%

SLOPES 25% AND GREATER PROPOSED FEATURES PROPOSED BUILDING PROPOSED HEAVY DUTY

PAVEMENT SECTION PROPOSED CONCRETE PAD/SIDEWALK PROPOSED CONCRETE CURB NUMBER OF PROPOSED PARKING SPACES (A) ——— PROPOSED SIGN & LABEL

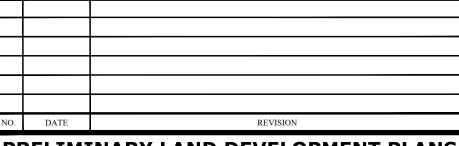
PROPOSED 1' CONTOURS PROPOSED 5' CONTOURS × 250.00 PROPOSED SPOT ELEVATION PROPOSED STORMWATER MANAGEMENT \_\_\_\_\_\_\_\_\_\_ FACILITY (SWM UG##) SW 103 PROPOSED STORM PIPE AND INLET

PROPOSED STORM PIPE AND MANHOLE SW 105

PROPOSED STORM PIPE AND CLEANOUT PROPOSED SAN. PIPE AND CLEANOUT PROPOSED PIPE FLOW ARROW

Scale in Feet 20

# GRADING & UTILITY PLAN



1'' = 10'

PRELIMINARY LAND DEVELOPMENT PLANS **CEDARBROOK MIDDLE SCHOOL-**



PROFESSIONAL

JEREMY R. MAZIARZ

ENGINEER /

50557-E

ChesterValley | 22408 610-644-4623 DRAWN BY CHECKED BY 04/11/2025 RRB

TAX MAP PARCEL: TMP 31-00-17962-007 (BLOCK 158, LOT/UNIT 1)

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2207) SUBPART "P", PART 1926/1910 - "EXCAVATIONS, TRENCHING "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED POCS SERIAL NUMBER: <u>2025035</u>2911



PENNSYLVANIA ONE CALL SYSTEM, INC. CALL 3 WORKING DAYS BEFORE YOU DIG 1-800-242-1776

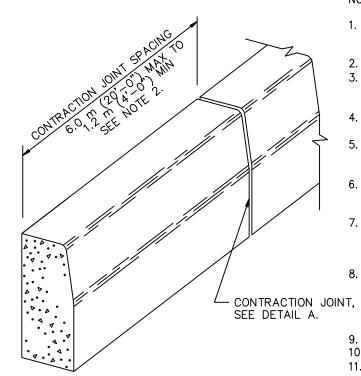
DEPTH TO
SEASONALLY HIGH DEPTH TO WATER TABLE BEDROCK FLOODING PONDING SOIL GROUP RATING Ch 0% TO 3% SLOPES 18" TO 36" 72"-99" OCCASIONAL NONE URBAN LAND-UDORTHENTS UugB 0% TO 8% SLOPES UugD 8% TO 25% SLOPES 60**"** 20"-70" NONE NONE C

SOILS LIST

CONCRETE CURB DETAIL

PARKING LOT/DRIVEWAY STANDARD STRAIGHT

N.T.S.



PROPOSED CURB

WHERE NOTED ON PLAN -

1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408, SECTION 630

. PLACE 3/4" PREMOLDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES, AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS-SECTIONAL AREA OF CURB. 4. ALL CURBS SHOULD BE CONSTRUCTED OF CLASS A CEMENT CONCRETE W/ A 3,300 PSI 28-DAY STRENGTH, AND SHALL BE CONSTRUCTED IN 10-FOOT LENGTHS. . A PREMOLDED BITUMINOUS IMPREGNATED 1/2 INCH EXPANSION JOINT SHALL BE PLACED BETWEEN SECTIONS OF CURBING AT INTERVALS OF NOT MORE THAN

. DEPRESSED CURB AT DRIVEWAYS SHALL BE BETWEEN ONE AND 1/2 INCHES ABOVE THE FINISHED STREET GRADE. PIPES, GRATES, WOOD PLANKS OR OTHER MATERIALS SHALL NOT BE PLACED IN THE GUTTER TO FORM A DRIVEWAY RAMP. WHEN CURBING MUST BE CUT FOR DEPRESSED CURB INSTALLATION, THE LENGTH OF THE REMAINING SECTION SHALL BE NO LESS THAN FOUR FEET BETWEEN EXPANSION JOINTS AND THE CUT SHALL BE MADE IN A NEAT MANNER WITH A POWER SAW EQUIPPED WITH A PROPER MASONRY CUTTING BLADE. 8. ANY DEPRESSED CURB SECTIONS THAT ARE UNUSED WHEN A DEVELOPMENT OR PHASE OF A DEVELOPMENT IS COMPLETED, SHALL BE COMPLETELY REMOVED AND REPLACED WITH FULL SECTION UPRIGHT CURBING TO LINE AND GRADE OF ADJACENT CURBING. FORMING AND POURING VERTICAL CURBING ON TOP OF AN EXISTING CURB

DEPRESSION WILL NOT BE PERMITTED. ALL CURBING SHALL BE 6" REVEAL UNLESS NOTED OTHERWISE. 10. EXPOSED CURB FACES SHALL HAVE A BRUSHED FINISH. 11. BASE UNDER CONCRETE CURB SHALL BE MINIMUM 4" OF 2A MODIFIED AGGREGATE. 12. CONCRETE CURBS SHALL BE SEALED W/ AC-20 OR OTHER TOWNSHIP APPROVED SEALER. THE SEAL MATERIALS SHALL EXTEND OUT A MINIMUM OF 12" FROM FACE OF

CURB AND A MINIMUM 2" UP FACE. THE PAVEMENT AND FACE SHALL BE PROPERLY CLEANED PRIOR TO SEALING TO PROVIDE FOR MAXIMUM ADHERENCE OF THE SEALING

CLASS A CONCRETE —

APPLICATION OF DRY SAND.

DEPRESSED CURBS FOR CURB RAMPS

1. CONSTRUCT DEPRESSED CURB FOR CURB RAMPS FLUSH

ELEVATIONS AT THE FLOW LINE TO ENSURE POSITIVE

PROVIDE POSITIVE DRAINAGE. AT THE JOINT BETWEEN

SEALER AND COVER THE SEALED AREA WITH A LIGHT

DRAINAGE AND PREVENT PONDING. FOR LEVEL TURNING

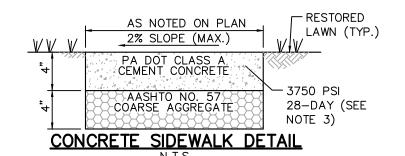
SPACES BEHIND DEPRESSED CURB, ADJUST SLOPES TO

DEPRESSED CURB AND ROADWAYS, REMOVE EXCESS JOINT

TO ADJACENT ROADWAY GRADE EDGE OF ROAD

# 1/2" FULL DEPTH EXPANSION JOINT FORM OUTSIDE EDGES AND JOINTS WITH A 1/4" RADIUS-EDGING TOOL 4" CLASS 'A' CONCRETE - 1/2" DEEP SCORE 4" AASHTO NO. 57 COARSE AGGREGATE

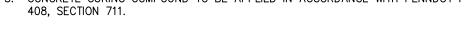
SIDEWALK SHALL BE PROVIDED WITH A LIGHT BROOM FINISH. 2. CONSTRUCT SIDEWALK IN ACCORDANCE WITH PENNDOT PUBLICATION 408.

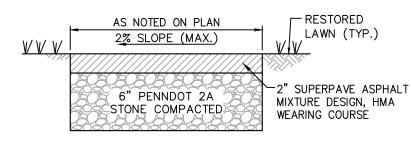


FLARED SLOPE SURFACE

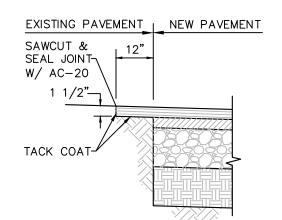
(SEE NOTE 2)

- 1. PLACE 1/4" THICK PREMOLDED EXPANSION JOINT FILLER WHERE SIDEWALK ABUTS
- 2. CONSTRUCT SIDEWALK IN 30' LENGTHS, EXCEPT FOR CLOSURES. SEPARATE SLABS W/ A TRANSVERSE 1/4" THICK PREMOLDED EXPANSION JOINT FILLER. DIVIDE SLABS BETWEEN EXPANSION JOINTS W/ TRANSVERSE SCORES AT 5' SPACING.
- 3. PADOT CLASS "AA" CEMENT CONCRETE (3750 PSI) SHALL BE USED FOR ALL SIDEWALKS CONSTRUCTED WITHIN THE RIGHT-OF-WAY OF TOWNSHIP STREETS.
- 4. LAWN RESTORATION TO CONSIST OF 4" (MIN.) TOPSOIL AND PERMANENT SEED
- 5. CONCRETE CURING COMPOUND TO BE APPLIED IN ACCORDANCE WITH PENNDOT PUB.





**ASPHALT TRAIL DETAIL** 



PAVING NOTCH DETAIL

### STANDARD PROCTOR (ASTM D-698) DENSITY IN THE UPPER 2' BELOW SUBGRADE AND TO AT LEAST 95% OF THE STANDARD PROCTOR (ASTM D-698) MAXIMUM DRY DENSITY ELSEWHERE. SEALING MATERIAL FOR FILLING PAVEMENT JOINTS SHALL MEET THE REQUIREMENTS OF ASTM D3405 OR D1190. ALTERNATIVELY, LOW MODULUS MATERIALS SUCH AS SILICONE, HOT OR COLD-POURED RUBBERIZED ASPHALT OR NITRILE RUBBER MEETING THE MANUFACTURER'S SPECIFICATIONS MAY BE USED. 6. CAR TRAFFIC SHOULD SHOULD NOT BE ALLOWED ON THE NEW PAVEMENT FOR AT LEAST 3-DAYS; SIMILARLY NO TRUCK TRAFFIC FOR 7-DAYS.

PAVEMENT MARKING NOTES:

**PROFESSIONAL** 

ENGINEER

50557-E

AS PER MODIFIED PROCTOR (ASTM D-1557).

WEARING COURSE

BASE COURSE

MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE DEPARTMENT'S SPECIFICATIONS, PUBLICATION 408. THESE PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE REGULATIONS GOVERNING THE DESIGN, LOCATION, AND OPERATION OF ALL OFFICIAL TRAFFIC SIGNS, SIGNALS, AND MARKINGS ON AND ALONG HIGHWAYS WITHIN THE COMMONWEALTH OF PENNSYLVANIA.

WEARING COURSE

BASE COURSE

SUBBASE

COMPACTED SUBGRADE

REQUIRED BITUMINOUS PAVEMENT SECTION

LOCATION

FOR PAVEMENT WHERE UNCURBED, EXTEND SUBBASE

AND/OR BASE COURSE EIGHT INCHES BEYOND EACH

APPLY TACK COAT IN BETWEEN PAVEMENT LAYERS

REQUIRED EDGE OF THE BINDER AND SURFACE COURSES.

BITUMINOUS PAVEMENT SPECIFICATIONS, ALL SECTIONS, AS APPLICABLE

NOTE:

1. PAVEMENT SHOULD BE INSTALLED LATE IN CONSTRUCTION WHEN MOST HEAVY CONSTRUCTION TRAFFIC WILL

2. FOR PAVEMENT WHERE UNCURBED, EXTEND SUBBASE AND/OR BASE COURSE EIGHT INCHES BEYOND EACH

3. FLEXIBLE (AGGREGATE) BASE SHOULD BE COMPACTED TO 100% OF THE MATERIAL'S MAXIMUM DRY DENSITY

4. PAVEMENT MUST BE PLACED OVER WELL PREPARED SUBRADE COMPACTED TO AT LEAST 98% OF THE

NO LONGER BE ON-SITE. PRIOR TO PAVING, THE SITE SHOULD BE PROOFROLLED AGAIN, NEW SOFT AREAS

TREATED IN ACCORDANCE WITH SOIL REMEDIATION NOTES, THE BASE LEVELED AND THICKENED AS

BINDER:

SUBBASE:

REQUIRED, AND THE SITE PAVED AT THE END OF CONSTRUCTION.

REQUIRED EDGE OF THE BINDER AND SURFACE COURSES.

BASE (AS NOTED):

BITUMINOUS PAVEMENT

ON-SITE HEAVY DUTY

PAVEMENT

1-1/2"

NONE

5" BCBC

COARSE AGGREGATE

(SEE NOTE)

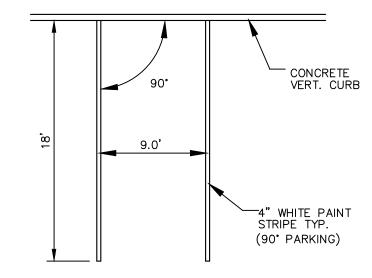
SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE,

PG 64S-22, 3 TO <10 MILLION ESALS, 9.5 MM MIX, SRL-H

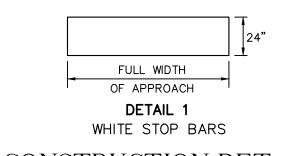
SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE,

PG 64S-22, 3 TO <10 MILLION ESALS, 25.0 MM MIX

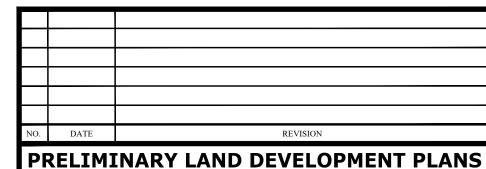
- ALL PAVEMENT MARKING SHALL BE REFLECTORIZED. 4. THE CONTRACTOR SHALL PREPARE THE PAVEMENT SURFACE FOR THE PROPER ADHESION. ANY SWEEPING OR REMOVAL OF DEBRIS, GRAVEL, DIRT, OR OTHER FOREIGN MATERIALS SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE NEW PAVEMENT MARKINGS, AND NO SEPARATE PAYMENT SHALL BE MADE
- 5. THE CONTRACTOR SHALL REMOVE ALL PREVIOUS PAVEMENT MARKINGS, WHICH IN THE OPINION OF THE ENGINEER CONFLICT WITH THE NEW PAVEMENT MARKINGS. UNLESS SPECIFICALLY STATED OTHERWISE THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE NEW PAVEMENT MARKINGS, AND NO SEPARATE PAYMENT WILL BE MADE THEREFORE.
- PRIOR TO THE APPLICATION, THE CONTRACTOR SHALL FIELD CHECK AND LOCATE ALL PAVEMENT MARKINGS TO THE SATISFACTION OF THE INSPECTOR.
- 7. ALL MARKING IMPROPERLY APPLIED OR LOCATED SHALL BE COMPLETELY REMOVED AND CORRECTLY REMOVED AND CORRECTLY REMOVED AND CORRECTLY 8. WHERE BITUMINOUS SEALANTS PREVENTS OR MAKES IMPRACTICAL THE EXTENDING OF LINES TO THE FACE OF CURB, THE CONTRACTOR SHALL EXTEND LINES TO EDGE OF SEALANT OR WITHIN ONE FOOT OF THE
- FACE OF CURB, WHICHEVER IS LESS. 9. ALL PROPOSED PAVEMENT MARKINGS (ARROWS, STOP BARS, CROSSWALKS, ETC.) MUST BE HOT THERMOPLASTIC ON BITUMINOUS PAVEMENT, INCLUDING LONG AND SHORT LINES AND PAVEMENT MARKING LEGENDS. ALL PROPOSED PAVEMENT MARKINGS MUST BE EPOXY ON CONCRETE PAVEMENT, INCLUDING LONG AND SHORT LINES AND PAVEMENT MARKING LEGENDS.



## TYPICAL PARKING STALL STRIPING



# CONSTRUCTION DETAILS



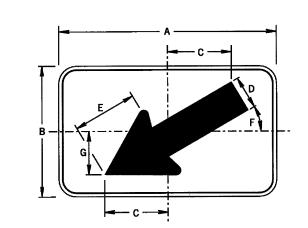
# CEDARBROOK MIDDLE SCHOOL-



610-644-4623 www.chesterv.com DRAWN BY CHECKED BY 04/11/2025 RRB JRM

W16-7P DIAGONAL DOWNWARD POINTING ARROW PLAQUE

The Diagonal Downward Pointing Arrow Plaque (W16-7P) may be used below the Pedestrian Sign (W11-2), the School Sign (S1-1) and other crossing signs when the crossing sign is installed at the crossing location. The W16-7P sign may be used below any standard warning or regulatory sign, when used with a warning sign, the W16-7P sign shall have the same legend, border and background color as the warning sign with which it is displayed. When used with a regulatory sign , the W16-7P sign shall have a black legend and border on a white background.



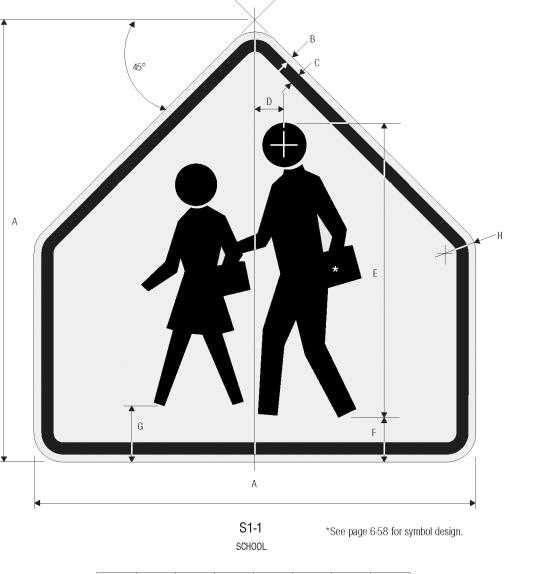
			DIME	NSIO	<b>VS</b> –	IN		
SIGN SIZE A x B	С	D	E	F	G	MAR- GIN	BOR- DER	BLANK STD.
24" x 12"	5.8	3	5.9	30°	3.9	0.4	0.6	B5-2412
30" x 18"	8.7	4.5	8.8	30°	5.9	0.6	0.8	B5-3018

ARROW AND BORDER: BLACK (NON-REFLECTORIZED)

> YELLOW OR FLUORESCENT YELLOW GREEN (REFLECTORIZED)

OR WHITE (REFLECTORIZED)

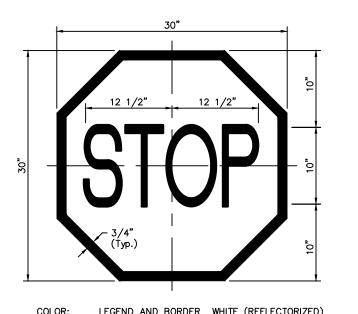
APPROVED FOR THE SECRETARY OF TRANSPORTATION 



A B C D E F G H 
 30
 .5
 .75
 2
 20
 3
 3.75
 1.875

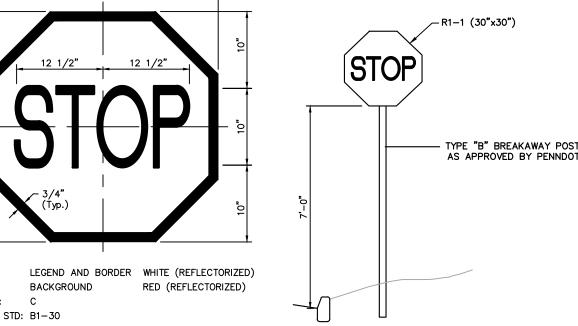
 36
 .625
 .875
 2.5
 24
 3.5
 4.5
 2.25
 48 .75 1.25 3.25 32 5 6 3

BACKGROUND— YELLOW (RETROREFLECTIVE) FLOURESCENT YELLOW GREEN (RETROREFLECTIVE) OPTIONAL

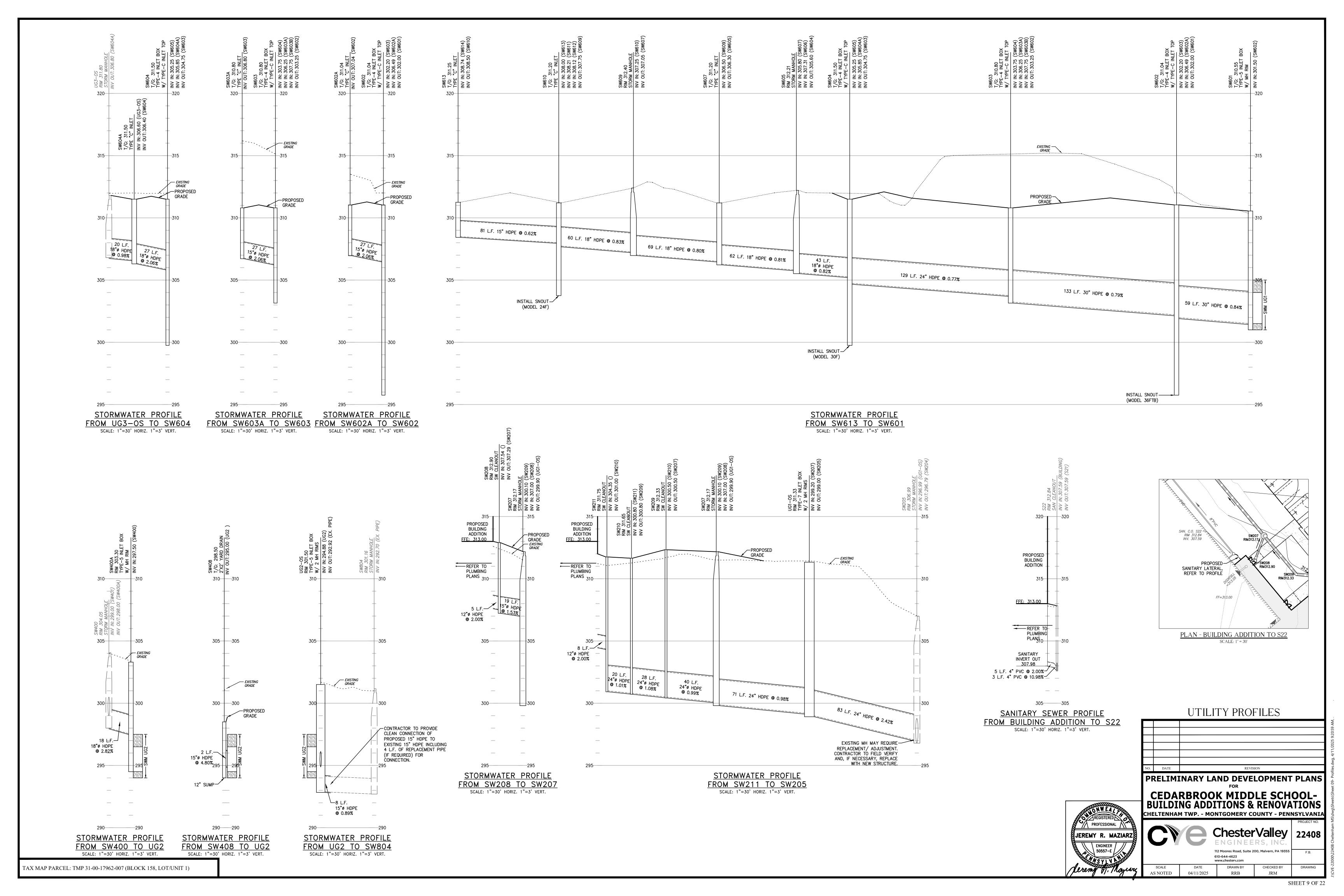


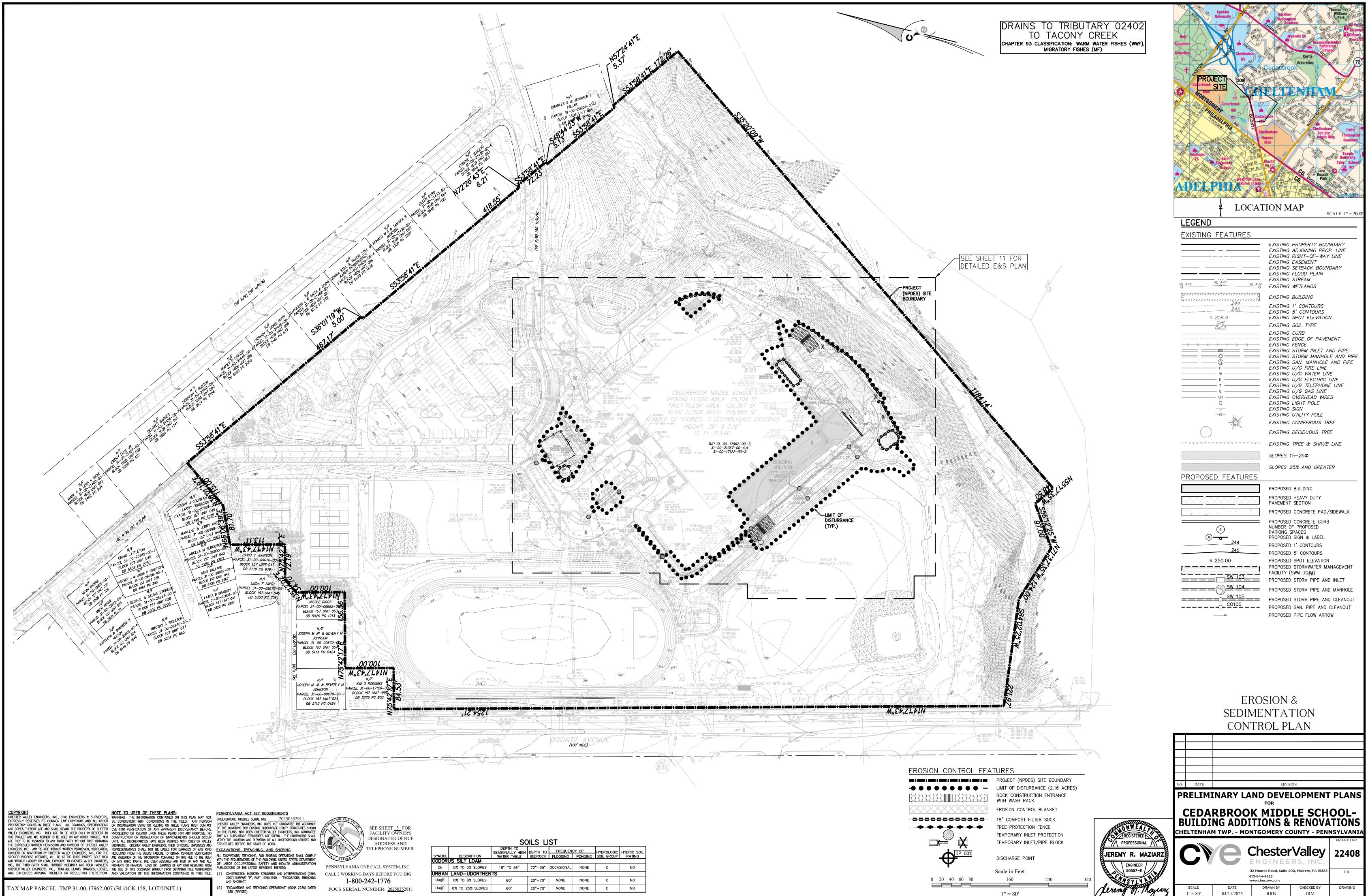
BACKGROUND SERIES: BLANK STD: B1-30

30" STOP SIGN R1-1

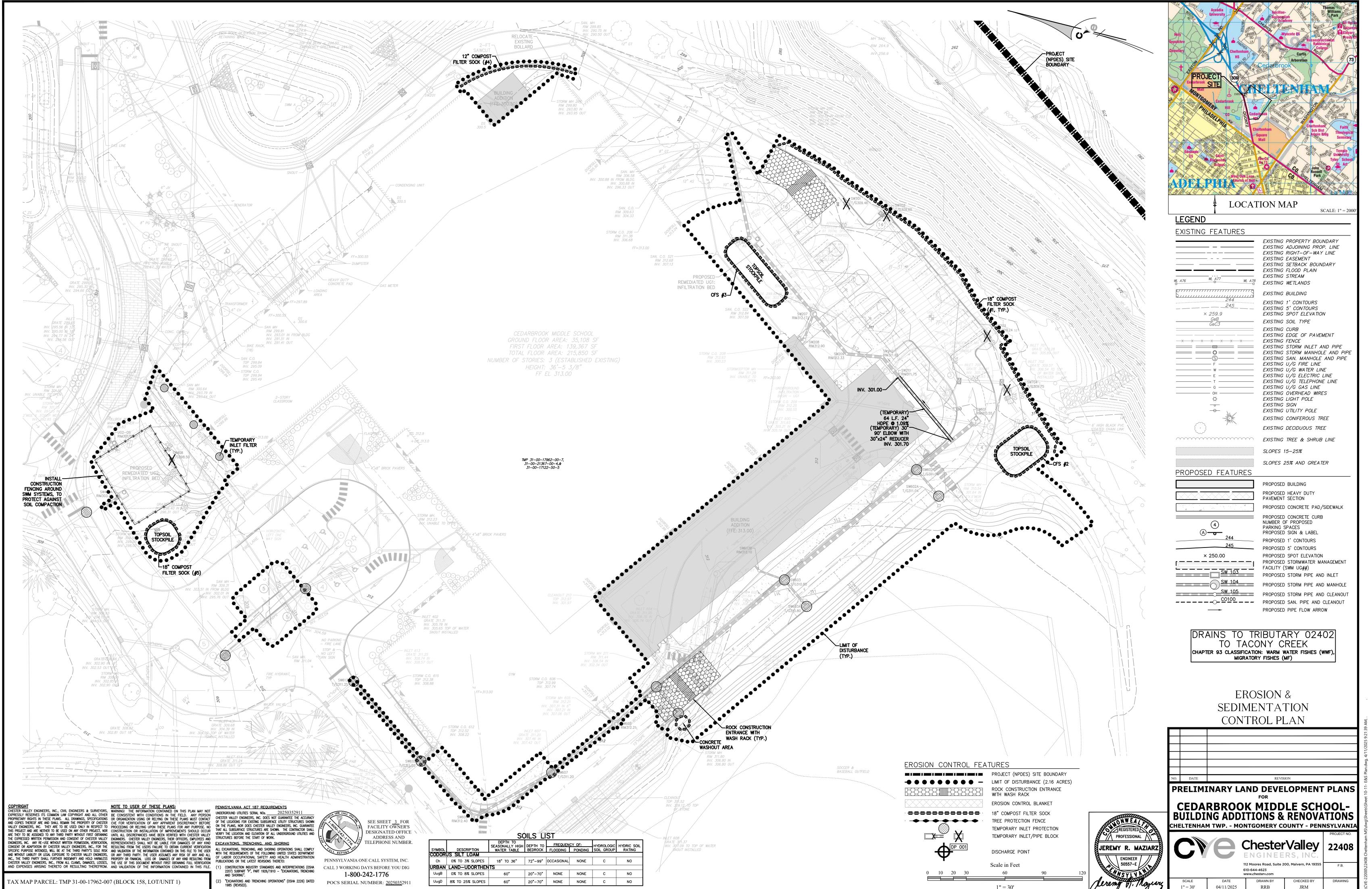


TYPICAL STOP SIGN





SHEET 10 OF 22



SHEET 11 OF 22

CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED WITHIN THESE PLANS.

ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS, SHALL BE DONE IN ACCORDANCE WITH APPROVED E&S PLANS. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN (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.

THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE COUNTY CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.

- 1. THE MONTGOMERY COUNTY CONSERVATION DISTRICT (MCCD)
- 143 LEVEL ROAD COLLEGEVILLE, PA 19426
- PHONE: (610) 489-4506 FAX: (610) 489-9795
- 2. THE RECEIVING WATER FOR THIS PROJECT IS TRIBUTARY 02402 TO TACONY CREEK. THE CHAPTER 93 CLASSIFICATION FOR TRIBUTARY 02402 TO TACONY CREEK IS WARM WATER FISHES, MIGRATORY FISHES (WWF-MF).
- 3. NOTIFY THE MONTGOMERY COUNTY CONSERVATION DISTRICT AND ARRANGE A PRE-CONSTRUCTION MEETING FOR ALL INVOLVED PARTIES (INCLUDING MCCD, APPLICANT, ENGINEER, AND TOWNSHIP OFFICIALS).
- 4. NOTIFY THE TOWNSHIP ENGINEER AT LEAST 48 HOURS PRIOR TO ANY EARTH DISTURBANCE ACTIVITIES. 5. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN A MANNER SUCH THAT ALL EROSION AND AIR/WATER POLLUTION IS MINIMIZED. STATE AND LOCAL
- LAWS CONCERNING ABATEMENT SHALL BE FOLLOWED. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. THE LIMITS OF WORK SHOWN ON THIS PLAN ARE THE REAL EXTENT REQUIRED FOR CONSTRUCTION. THE CONTRACTOR SHALL ADHERE TO THESE LIMITS IN MINIMIZING DISTURBED LAND, AND ALL CONSTRUCTION SHALL BE CONDUCTED WITHIN THESE LIMITS. 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. TOPSOIL TAKEN FROM CONSTRUCTION AREAS SHALL BE SEEDED WITH A VEGETATIVE COVER AND STOCKPILED FOR REUSE IN FINISH GRADING. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2:1 OR FLATTER. SEDIMENT BARRIER SHALL BE INSTALLED ON THE LOW SIDE OF THE
- PILE. THERE SHALL BE NO EARTH DISTURBANCE WITHIN THE STOCKPILE AREA. 9. SHOULD UNFORESEEN EROSIVE CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AND STREAMS IN ACCORDANCE WITH PADOT 408, SECTION 845. STOCKPILES OF CRUSHED STONE AND
- MULCHES MUST BE MAINTAINED AT THE SITE IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION 10. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL
- NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE. CONSTRUCTION WASTES MUST BE RECYCLED TO THE EXTENT PRACTICABLE, AND DISPOSAL METHODS MUST COMPLY WITH FEDERAL, STATE AND LOCAL REQUIREMENTS.
- 11. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED. 12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 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. 13. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF
- ALL EROSION AND SEDIMENTATION BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. 14. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT
- UPON REQUEST. 15. ALL PREVENTIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING, MUST BE PREFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF
- THOSE INSTALLED WILL BE NEEDED. 16. SEDIMENT TRACKED ONTO A PUBLIC ROADWAY OR SIDEWALK SHALL BE IMMEDIATELY RETURNED TO THE CONSTRUCTION SITE. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER. 17. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS
- 18. AREAS WHICH ARE TO BE TOP-SOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES (6 TO 12 INCHES ON COMPACTED SOILS) PRIOR TO THE PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING, I.E.
- 19. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES. 20. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.
- 21. 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. 22. FROZEN MATERIALS OF SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- 23. FILLS SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES. 24. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATIONS FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD
- 25. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE
- BLANKETED ACCORDING TO THE STANDARDS OF THE PLAN. 26. ANY DISTURBED AREA, ON WHICH ACTIVITY HAS CEASED FOR ANY AMOUNT OF TIME, MUST BE SEEDED AND MULCHED IMMEDIATELY. DURING NON-GERMINATING PERIODS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. DISTURBED AREAS WHICH ARE NOT AT FINISH GRADE AND WHICH WILL BE RE-DISTURBED WITHIN ONE YEAR MAY BE SEEDED AND MULCHED WITH A QUICK GROWING TEMPORARY SEED MIXTURE AND MULCH. DISTURBED AREAS WHICH ARE EITHER AT FINISH GRADE OR WILL NOT BE RE-DISTURBED WITHIN ONE YEAR MUST BE SEEDED WITH A
- PERMANENT SEED MIXTURE AND MULCHED. 27. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED PERMANENT STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION. CUT AND FILL SLOPES SHALL BE
- CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS. 28. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
- 29. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS. 30. AFTER FINAL STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT
- POST-CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING THE REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID VEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON. 31. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR
- SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION. 32. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT LADEN RUNOFF FROM LEAVING THE 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 STREAM LAW. THE CLEAN STREAM LAW PROVIDES FOR UP TO \$10,000 PER DAY CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR OR CRIMINAL PENALTIES FOR EACH VIOLATION. 33. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER
- RESOURCES, CHAPTER 102, EROSION CONTROL 34. THE PERMITTEE SHALL NOTIFY THE MONTGOMERY COUNTY CONSERVATION DISTRICT IMMEDIATELY PRIOR TO ANY CESSATION IN EARTHMOVING ACTIVITIES. 35. EROSION AND SEDIMENTATION CONTROLS MUST BE CONSTRUCTED, STABILIZED AND FUNCTIONAL BEFORE GENERAL SITE DISTURBANCE WITHIN THE TRIBUTARY AREA OF THOSE CONTROLS BEGINS. RUNOFF FROM DISTURBED AREAS MUST PASS THROUGH A SEDIMENT REMOVAL OR RETENTION FACILITY
- BEFORE LEAVING THE SITE 36. ONLY LIMITED UP SLOPE DISTURBANCE WILL BE PERMITTED TO PROVIDE ACCESS TO SEDIMENT TRAPS AND CHANNELS OF CONVEYANCE FOR GRADING AND ACQUIRING BORROW TO CONSTRUCT THOSE CONTROLS. 37. WHERE BMPS ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING
- INFORMATION: A. THE LOCATION AND SEVERITY OF THE BMPS FAILURE AND ANY POLLUTION EVENTS. B. ALL STEPS TAKEN TO, REDUCE, ELIMINATE AND PREVENT THE RECURRENCE OF THE NON-COMPLIANCE.
- 39. ACCUMULATED SILT SHALL BE REMOVED ALONG SILT FENCING OR COMPOST FILTER SOCKS. REGRADED. AND STABILIZED ELSEWHERE ON THE SITE. SILT SHALL ALSO BE REMOVED FROM THE SEDIMENT TRAPS AT THE CLEANOUT ELEVATIONS. THE SILT SHALL BE SPREAD ELSEWHERE ON THE SITE AND SEEDED. 40. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE TO BE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO THE DISCHARGE OF OR STABILIZING OF SURFACES INVOLVED. ADDITIONAL MEASUREMENT MUST BE IMPLEMENTED IMMEDIATELY BY THE OWNER / DEVELOPER

C. THE TIME FRAME TO CORRECT THE NON—COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.

- TO ELIMINATE SUCH PROBLEMS 41. CHANNELS, SEDIMENTATION BASINS, SEDIMENTATION TRAPS AND STOCKPILES MUST BE SEEDED AND MULCHED IMMEDIATELY. 42. GRADED AREAS ARE TO BE TEMPORARILY SEEDED AND MULCHED IMMEDIATELY FOLLOWING EARTHMOVING PROCEDURES. TEMPORARY SEED SHALL BE
- ANNUAL RYE GRASS APPLIED AT THE RATES SPECIFIED. MULCH SHALL BE HAY OR STRAW APPLIED AT THE RATE OF AT LEAST 3 TONS PER ACRE. 43. LIME SHALL BE APPLIED TO ALL TEMPORARILY SEEDED AREAS AT A MINIMUM RATE AS SPECIFIED.
- 44. ALL TEMPORARILY SEEDED AREAS SHALL HAVE 5-5-5 FERTILIZER APPLIED AT THE MINIMUM RATES SPECIFIED. 45. ESTABLISH PERMANENT SEEDING AS SOON AS POSSIBLE AFTER FINAL GRADING IS COMPLETED. PERMANENT SEEDING SHALL BE AT THE RATES SPECIFIED.
- FERTILIZER AND LIME SHALL BE APPLIED AT THE MINIMUM RATES SPECIFIED. 46. PERMANENTLY SEEDED AREAS SHALL HAVE HAY OR STRAW APPLIED AT THE RATE OF AT LEAST 3 TONS PER ACRE. 47. ANY AREAS WHERE HYDROSEED IS USED, MULCH IS NEEDED AT A MINIMUM RATE OF 3 TONS PER ACRE.
- 48. SILT FENCING AND COMPOST FILTER SOCKS ARE TO BE MAINTAINED, AND REPLACED IF NECESSARY, DURING THE ENTIRE CONSTRUCTION PERIOD UNTIL A
- PERMANENT VEGETATIVE COVER WITHIN THE TRIBUTARY AREA IS ESTABLISHED. 49. DUST CONTROL SHALL BE PROVIDED BY THE CONTRACTOR AT ALL TIMES DURING CONSTRUCTION.
- 50. CONSTRUCTION VEHICLES LEAVING THE SITE SHALL NOT DEPOSIT ANY MATERIAL OUTSIDE OF THE PROJECT SITE BOUNDARIES AND/OR A PUBLIC RIGHT-OF-WAY. ANY MATERIAL DEPOSITED SHALL BE IMMEDIATELY REMOVED.
- 51. IF ANY SIGNIFICANT CHANGES ARE TO BE MADE TO THE EROSION AND SEDIMENTATION CONTROL PLAN, THE BUILDER OR LANDOWNER WILL CONTACT THE MONTGOMERY COUNTY CONSERVATION DISTRICT FOR THE ADEQUACY OF THESE CHANGES. 52. SEDIMENT MUST BE REMOVED FROM STORMWATER INLETS NOT DRAINING TO A SEDIMENT TRAP WITH INLET PROTECTION AFTER EACH RUNOFF EVENT.
- 53. EACH SEDIMENT TRAP/BASIN MUST BE STABILIZED AND FUNCTIONING PROPERLY PRIOR TO ANY FURTHER EARTH DISTURBANCE ACTIVITY. UPON INSTALLATION OF THE TEMPORARY SEDIMENT TRAP/BASIN RISER(S), AN IMMEDIATE INSPECTION OF THE RISER(S) SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE PROPER RISER IS INSTALLED AND
- SEALED, PER PLAN. SEDIMENT TRAPS/BASINS MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES. 54. UPON REQUEST, THE PERMIT HOLDER AND/OR HIS CONTRACTOR SHALL PROVIDE AN AS-BUILT FOR ANY SEDIMENT BASIN OR TRAP TO THE MUNICIPAL INSPECTOR, LOCAL CONSERVATION DISTRICT, OR DEP.
- 55. BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E & S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
- 6. ALL CONCRETE TRUCKS SHALL UTILIZE THE CONCRETE WASHOUT AREA PRIOR TO LEAVING THE SITE
- 57. UTILITY LINE TRENCH EXCAVATION NOTES: A. LIMIT ADVANCED CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE
- COMPLETED IN ONE DAY. B. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
- C. ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH. D. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME
- E. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND / OR BACKFILLING
- BEGINS. WATER REMOVED FROM THE TRENCH SHALL BE PUMPED THROUGH A FILTRATION DEVICE. F. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND IMMEDIATELY
- STABILIZED.

SPECIAL GEOLOGIC AND SOIL CONDITIONS SPECIAL SOIL OR GEOLOGICAL ISSUES ARE KNOWN.

## CONSTRUCTION SEQUENCE

AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES (INCLUDING CLEARING AND GRUBBING), THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE COUNTY CONSERVATION DISTRICT, TOWNSHIP ENGINEER/INSPECTOR, AND LICENSED PROFESSIONAL ENGINEER OR DESIGNEE TO AN ON-SITE PRE-CONSTRUCTION MEETING.

UPON INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE TOWNSHIP.

AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF

ALL FARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED BY THE TOWNSHIP PRIOR TO IMPLEMENTATION. EACH STEP OF THE SEQUENCE SHALL BE COMPLETED BEFORE PROCEEDING TO THE NEXT STEP, EXCEPT WHERE NOTED.

PRIOR TO EARTH DISTURBANCE ACTIVITY DESCRIBED IN ANY STEP OF THE CONSTRUCTION SEQUENCE, CLEAR AND GRUB AND STRIP TOPSOIL. STOCKPILE TOPSOIL IN THE DESIGNATED LOCATIONS.

UPON COMPLETION OR TEMPORARY CESSATION OF EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

### ANTICIPATED CONSTRUCTION START DATE: WINTER 2025 ANTICIPATED CONSTRUCTION END DATE: WINTER 2026

## BUILDING ADDITIONS & RENOVATIONS

- FIELD DELINEATE LIMITS OF DISTURBANCE PRIOR TO EARTH MOVING ACTIVITIES. 2. INSTALL TREE PROTECTION FENCING AND COMPOST FILTER SOCKS. NOTIFY THE TOWNSHIP ENGINEER FOLLOWING THE
- INSTALLATION OF PROTECTIVE MEASURES AND PRIOR TO EARTH DISTURBANCE. 3. INSTALL THE ROCK CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT AREA AS DEPICTED ON THE EROSION &
- SEDIMENTATION CONTROL PLANS. 4. THROUGHOUT CONSTRUCTION, THE CONTRACTOR SHALL ENSURE THAT ALL SITE STORM WATER, INCLUDING THAT COMING OFF OF THE ROCK CONSTRUCTION ENTRANCE (RCE), IS DIRECTED INTO AN E&S CONTROL BMP.
- 5. PRIOR TO DEMOLITION, ALL EXISTING UTILITIES TO BE RELOCATED (WATER, ELECTRIC, TELECOMMUNICATIONS, ETC.) ARE TO BE SHUT DOWN. B. PERFORM DEMOLITION ACTIVITIES, AS INDICATED ON THE PLANS. RELOCATE EXISTING UTILITIES AS NECESSARY. CLEAR AND GRUB, STRIP TOPSOIL AND STOCKPILE IN LOCATIONS SHOWN ON EROSION & SEDIMENTATION CONTROL PLAN.
- TEMPORARILY STABILIZE TOPSOIL STOCKPILE 8. NOW OR LATER, BEGIN PROPOSED UG2 REMEDIATION. REFER TO CONSTRUCTION SEQUENCE BELOW. THIS PORTION OF THE PROJECT MAY PROCEED INDEPENDENTLY OF THE "BUILDING ADDITIONS & RENOVATIONS" SEQUENCE.
- PERFORM ROUGH GRADING. 10. INSTALL THE FOLLOWING STORM DRAIN RUNS, INCLUSIVE OF STORM CONVEYANCE PIPE AND TEMPORARY PIPE: SW613-SW602 & SW211-UG1-OS.
- 11. BEGIN CONSTRUCTION OF THE BUILDING ADDITIONS. 12. CONTRACTOR SHALL GUARANTEE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS, WALLS, SIDEWALKS AND ADA RAMPS. 13. BEGIN CONSTRUCTION OF SWM UG1. INSTALL STORMWATER MANAGEMENT FACILITY WITH ASSOCIATED STORM STRUCTURES
- AND STORAGE MODULES. CRITICAL STAGE OF CONSTRUCTION: CONTACT ENGINEER PRIOR TO EXCAVATION AND FINAL GRADING OF SWM UG1. CONTACT ENGINEER PRIOR TO PLACEMENT OF GEOTEXTILE FABRIC, STONE AND STORAGE MODULES INSIDE SWM UG1.
- TEMPORARILY SEAL INLETS AS INDICATED ON THE PLANS. CONTRACTOR SHOULD ENSURE THAT NO SEDIMENT OR SEDIMENT LADEN RUNOFF IS ALLOWED TO ENTER THE INFILTRATION BMPS DURING SITE CONSTRUCTION. ONLY AFTER THE TRIBUTARY DRAINAGE AREA TO THE INFILTRATION BMPS IS FULLY STABILIZED (I.E. 70% STABILIZATION), CAN RUNOFF BE INTRODUCED TO THESE FACILITIES. IF SEDIMENT ENTERS THE STONE WITHIN THESE FACILITIES, THE STONE SHALL BE REMOVED AND REPLACED
- 14. INSTALL REMAINING STORM STRUCTURES AND ASSOCIATED PIPES. IMMEDIATELY BLOCK/SEAL INLETS AS INDICATED ON THE PLANS. THESE INLETS MUST REMAIN BLOCKED/SEALED UNTIL THE TRIBUTARY DRAINAGE AREA ACHIEVES FINAL
- STABILIZATION. 15. BEGIN CONSTRUCTION OF THE ACCESS DRIVEWAY, PARKING SPACES & HARDSCAPE AREAS. STABILIZE WITH STONE BASE AS CONSTRUCTION ALLOWS.
- 16. FINALIZE BUILDING CONSTRUCTION.
- 17. FINE GRADE ALL PREVIOUSLY DISTURBED AREAS THAT ARE READY FOR FINAL STABILIZATION. STABILIZE WITH SEEDING AND HAY OR STRAW MULCH CONSISTENT WITH STABILIZATION CRITERIA.
- 18. REMOVE TEMPORARY PIPE, INCLUSIVE OF TEMPORARY FITTINGS, AND COMPLETE CONNECTION OF SW602 TO SW601
- 19. INSTALL WEARING COURSE AND PAVEMENT STRIPING AS INDICATED ON THE PLANS AND DETAILS.
- 20. COLLECT ALL SILT AND SEDIMENT DEPOSITS IN EROSION CONTROL DEVICES AND PLACE ON SITE IN NON-ERODIBLE AREAS. PERMANENTLY STABILIZE ALL DISTURBED AREAS. TEMPORARY EROSION CONTROLS MAY NOT BE REMOVED UNTIL STABILIZATION IS ATTAINED (70% UNIFORM COVERAGE OF A PERENNIAL VEGETATIVE SPECIES) 21. UPON STABILIZATION OF TRIBUTARY DRAINAGE AREAS, UNBLOCK ALL PREVIOUSLY BLOCKED/SEALED STORM INLETS. INSTALL
- SNOUTS AS INDICATED ON THE PLANS. CRITICAL STAGE OF CONSTRUCTION: CONTACT ENGINEER FOR A SITE ENGINEERING INSPECTION FOR THE INSTALLATION OF SNOUTS. 22. UPON STABILIZATION OF ALL DISTURBED AREAS, REMOVE REMAINING SEDIMENT BARRIERS AND CONTROLS, IMMEDIATELY
- STABILIZE AREAS DISTURBED BY REMOVAL PROCESS IN ACCORDANCE WITH PERMANENT SEED AND MULCH SPECIFICATIONS. 23. CRITICAL STAGE OF CONSTRUCTION: ENGINEER TO VERIFY THAT ALL PCSM BMPS ARE INSTALLED, FUNCTIONING, AND HAVE NOT BEEN IMPACTED BY CONSTRUCTION ACTIVITIES.
- 24. SUBMIT A NOTICE OF TERMINATION TO THE COUNTY CONSERVATION DISTRICT ONCE ALL TEMPORARY E&S BMPS HAVE BEEN REMOVED AND THE ENTIRE PROJECT SITE IS PERMANENTLY STABILIZED.

## PROPOSED UG2 REMEDIATION

THE FOLLOWING INFORMATION:

- 1. PERFORM DEMOLITION ACTIVITIES, AS INDICATED ON THE PLANS. RELOCATE EXISTING UTILITIES AS NECESSARY 2. CLEAR AND GRUB, STRIP TOPSOIL AND STOCKPILE IN LOCATIONS SHOWN ON EROSION & SEDIMENTATION CONTROL PLAN.
- TEMPORARILY STABILIZE TOPSOIL STOCKPILE. PERFORM ROUGH GRADING.
- 4. PERFORM UG2 REMEDIATION. THE INSTALLATION OF UG2 MUST OCCUR DURING DRY WEATHER CONDITIONS. INSTALL STORMWATER MANAGEMENT FACILITY WITH ASSOCIATED STORM STRUCTURES AND STORAGE MODULES.
- CRITICAL STAGE OF CONSTRUCTION: CONTACT ENGINEER PRIOR TO EXCAVATION AND FINAL GRADING OF SWM UG2. CONTACT ENGINEER PRIOR TO PLACEMENT OF GEOTEXTILE FABRIC, STONE AND STORAGE MODULES INSIDE SWM UG2.
- TEMPORARILY SEAL INLETS AS INDICATED ON THE PLANS. CONTRACTOR SHOULD ENSURE THAT NO SEDIMENT OR SEDIMENT LADEN RUNOFF IS ALLOWED TO ENTER THE INFILTRATION BMPS DURING SITE CONSTRUCTION. ONLY AFTER THE TRIBUTARY DRAINAGE AREA TO THE INFILTRATION BMPS IS FULLY STABILIZED (I.E. 70% STABILIZATION), CAN RUNOFF BE INTRODUCED TO THESE FACILITIES. IF SEDIMENT ENTERS THE STONE WITHIN THESE FACILITIES, THE STONE SHALL BE REMOVED AND REPLACED. IF NECESSARY, UTILIZE PUMPED WATER FILTER BAG TO DEWATER THE FACILITY.
- 5. INSTALL REMAINING STORM STRUCTURES AND ASSOCIATED PIPES. IMMEDIATELY BLOCK/SEAL INLETS AS INDICATED ON THE PLANS. THESE INLETS MUST REMAIN BLOCKED/SEALED UNTIL THE TRIBUTARY DRAINAGE AREA ACHIEVES FINAL
- 6. INSTALL SIDEWALK AND PERFORM FINAL GRADING.
- 7. CONTINUE WITH "BUILDING ADDITIONS & RENOVATIONS" SEQUENCE, DESCRIBED ABOVE.

# OPERATION AND MAINTENANCE PROCEDURE

- TEMPORARY EROSION AND SEDIMENT CONTROL BMPs

  1. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROL MEASURES. INSPECTION/MAINTENANCE OF THESE MEASURES SHALL BE CONDUCTED ON A WEEKLY BASIS AND AFTER EVERY MEASURABLE RAINFALL. A WRITTEN REPORT DOCUMENTING THE
- INSPECTION AND APPLICABLE REPAIRS SHALL BE KEPT ON SITE AND AVAILABLE FOR INSPECTION UPON REQUEST. THE OPERATION AND MAINTENANCE REQUIREMENTS FOR THE TEMPORARY E&S BMPs FOR THIS PROJECT INCLUDE THE FOLLOWING: A. COMPOST FILTER SOCK SHALL BE INSPECTED/MAINTAINED TO ENSURE THAT THE WOODEN STAKES AND FABRIC
- CONFORM TO THE STANDARD DETAIL. FABRIC WHICH IS TORN, DISTENDED/DEFORMED OR OTHERWISE COMPROMISED SHALL BE REPLACED. ALL MATERIAL DEPOSITED BEHIND THE COMPOST FILTER SOCK SHALL BE DISTRIBUTED ON SITE AND IMMEDIATELY STABILIZED USING SEED AND MULCH. B. STABILIZED CONSTRUCTION ENTRANCE (SCE) - THE SCE SHALL BE INSPECTED/MAINTAINED TO ENSURE THAT THE
- STRUCTURE CONFORMS TO THE STANDARD DETAIL. ROCK SHOULD BE MAINTAINED AT FULL DEPTH AND MAY REQUIRE REPLACEMENT AND/OR REDISTRIBUTION. MATERIAL DEPOSITED ON THE SCE SHALL BE DISTRIBUTED ON SITE AND IMMEDIATELY STABILIZED USING SEED AND MULCH. C. INLET PROTECTION - SHALL BE CLEARED AND CLEANED AFTER EACH RUNOFF EVENT, SEDIMENT SHALL BE
- DISTRIBUTED ON SITE AND IMMEDIATELY STABILIZED. D. ROCK FILTER OUTLET - IF INSTALLED, OUTLET SHALL BE INSPECTED/MAINTAINED TO ENSURE THAT MATERIAL IS
- NOT DISPLACED OR DAMAGED.
- STAGING OF EARTH MOVING ACTIVITIES

  1. THE OVERALL SCHEDULE OF THE PROJECT IS THAT CONSTRUCTION WILL START APPROXIMATELY DURING WINTER, 2025. THE CONTRACTOR MAY SELECT HIS SCHEDULE FOR THE SPECIFIC PORTIONS OF THE PROJECT, UNLESS OTHERWISE SPECIFIED EROSION CONTROL MEASURES AND FACILITIES INCLUDING BUT NOT LIMITED TO CONSTRUCTION ENTRANCES MUST
- BE INSTALLED AND BE OPERATIONAL PRIOR TO ANY EARTH MOVING ACTIVITIES WITHIN THE UPSLOPE DRAINAGE AREAS. FOR PIPELINE CONSTRUCTION WITHIN DRIVEWAYS AND PAVED AREAS, THE FOLLOWING STAGES ARE TO BE IMPLEMENTED SEQUENTIALLY AS WORK PROCEEDS: A. INSTALL INLET PROTECTION AND OTHER MEASURES AS SHOWN ON THE PLANS. THESE MEASURES SHALL BE
- INSTALLED AT LEAST 500 FEET AHEAD OF PIPE INSTALLATION. B. EXCAVATE TRENCHES AND DISCHARGE MATERIAL DIRECTLY INTO TRUCKS. CLEAN UP SPILLAGE WITH EACH TRUCKLOAD.
- C. INSTALL PIPELINE AND BACKFILL. EROSION CONTROL FACILITIES MAY BE REMOVED WHEN TEMPORARY OR PERMANENT REPAVING IS INSTALLED AND THE AREA HAS BEEN CLEANED OF ALL DEBRIS. D. PLACE TEMPORARY PAVING OR GRAVEL SURFACE OVER TRENCH AT THE END OF EACH WORK DAY.

## EROSION CONTROL MAINTENANCE PROGRAM TEMPORARY

UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMP'S ON A DAILY BASIS AND AFTER EACH RUNOFF EVENT. ALL SITE INSPECTIONS SHALL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION SHALL BE NOTED. THE INSPECTION LOG SHALL BE KEPT ON SITE AT ALL TIMES. AND MADE AVAILABLE TO THE TOWNSHIP UPON REQUEST.

ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEANOUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.

A) THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS.

WHERE BMPS ARE FOUND TO FAIL TO ALLEVIATE EROSION AND SEDIMENTATION POLLUTION, THE CONTRACTOR SHALL INCLUDE

B) ALL STEPS TAKEN TO REDUCE, ELIMINATE AND PREVENT THE RECURRENCE OF THE NON—COMPLIANCE. C) THE TIME FRAME TO CORRECT THE NON—COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO

## **VEGETATIVE STABILIZATION NOTES**

- 1. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (I.E. ANTICIPATE THE COMPLETION DATE AND SCHEDULE THE SEEDER). IN NO CASE SHOULD AN AREA EXCÈEDING 15.000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING IS COMPLETED BEFORE MAKING PREPARATIONS FOR SEEDING AND MULCHING IS NOT ACCEPTABLE. THIS REQUIREMENT SHOULD BE CLEARLY STATED IN THE SEEDING AND MULCHING SPECIFICATIONS CONTAINED ON THE PLAN DRAWINGS.
- 2. BEFORE THE SEEDING BEGINS, TOPSOIL SHOULD BE APPLIED AND ANY REQUIRED SOIL AMENDMENTS WORKED INTO THE SOIL TO A DEPTH OF 4 TO 6 INCHES. IF COMPOST IS TO BE ADDED TO THE TOPSOIL IT SHOULD BE WORKED INTO THE SOIL WITH THE OTHER SOIL AMENDMENTS UNLESS IT IS BEING APPLIED AS AN EROSION CONTROL BMP.
- 3. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY IN A SPECIAL PROTECTION WATERSHED, THAT PORTION OF THE PROJECT SITE TRIBUTARY TO THE SPECIAL PROTECTION WATERS MUST BE IMMEDIATELY STABILIZED. IN ALL OTHER WATERSHEDS, CESSATION OF ACTIVITY FOR AT LEAST 4 DAYS REQUIRES TEMPORARY STABILIZATION.
- 4. SURFACE ROUGHENING SHOULD BE APPLIED TO SLOPES 3H:1V OR STEEPER UNLESS A STABLE ROCK FACE IS PROVIDED OR IT CAN BE SHOWN THAT THERE IS NOT A POTENTIAL FOR SEDIMENT POLLUTION TO SURFACE WATERS. FOR ROUGHENED SURFACES WITHIN 50 FEET OF A SURFACE WATER, AND WHERE BLANKETING OF SEEDED AREAS IS PROPOSED AS THE MEANS TO ACHIEVING PERMANENT STABILIZATION, SPRAY ON TYPE BLANKETS ARE RECOMMENDED.
- 5. FILL SLOPES SHOULD BE SEEDED AND MULCHED AT REGULAR VERTICAL INCREMENTS 15 TO 25 FEET MAXIMUM - AS THE FILL IS BEING CONSTRUCTED. THIS WILL ALLOW THE BOTTOM OF THE FILL TO PROGRESS TOWARD STABILIZATION WHILE WORK CONTINUES ON THE UPPER PORTION, MAKING FINAL STABILIZATION EASIER TO ACHIEVE AND PROVIDING SOME VEGETATIVE BUFFERING AT THE BOTTOM OF THE
- 6. WHEREVER SEED AND MULCH IS APPLIED BY HYDROSEEDING METHODS, THE SEED AND MULCH SHOULD BE APPLIED IN SEPARATE APPLICATIONS WITH THE SEED BEING APPLIED FIRST AND THE MULCH SPRAYED ON TOP OF THE SEED. THIS IS TO ENSURE THAT THE SEED MAKES CONTACT WITH THE UNDERLYING SOIL SOIL PREPARATION SHOULD BE COMPLETED PRIOR TO ADDING SEED TO THE HYDROSEEDING EQUIPMENT. RUNNING SEED THROUGH THE PUMPING SYSTEM CAN RESULT IN EXCESSIVE ABRASION OF THE SEED AND REDUCE THE PERCENTAGE OF PURE LIVE SEED IN THE APPLICATION. THEREFORE ALL SITE PREPARATION SHOULD BE COMPLETED PRIOR TO THE ARRIVAL OF THE HYDROSEEDER.
- 7. IN CRITICAL AREAS (E.G. ADJACENT TO OR WITHIN 50 FEET OF STREAMS, PONDS, OR WETLANDS) A PROTECTIVE BLANKET SHOULD BE PROVIDED FOR ALL SEEDED AREAS. CONSIDERATION SHOULD BE GIVEN TO USE OF MULCH WITH NETTING OR PROTECTIVE BLANKETS FOR ALL SEEDED AREAS ON SLOPES 3H:1V OR
- 8. VEHICULAR TRAFFIC SHOULD BE RESTRICTED FROM AREAS TO BE SEEDED TO PREVENT SOIL COMPACTION.
- 9. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER AREAS DISTURBED DURING CONSTRUCTION, REACH FINAL GRADE, STABILIZE IMMEDIATELY, IN ACCORDANCE WITH SEEDING, MULCHING AND STABILIZATION SPECIFICATIONS.
- 10. NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA REACH FINAL GRADE BEFORE INITIATING SEEDING AND MULCHING OPERATIONS.
- 11. CESSATION OF ACTIVITY FOR 4 DAYS OR LONGER REQUIRES TEMPORARY STABILIZATION.

## SOIL TYPE USE LIMITATIONS AND RESOLUTIONS

TOPSOIL

- 1. SOIL TYPES POORLY SUITED AS SOURCES OF TOPSOIL RESTRICT OR PLACE CONDITIONS ON PLANNING VEGETATIVE STABILIZATION. ACIDIC, LOW FERTILITY, EXCESSIVE DRYNESS AND EXCESSIVE WETNESS LIMIT PLANT GROWTH. RESOLUTIONS: IDENTIFYING AND RESOLVING CHARACTERISTICS, THAT RENDER THE SOIL TYPES POORLY, SUITED AS
- ACIDIC SOIL TYPES EXHIBITING PH REACTION VALUES LOWER THAN ABOUT 5.5, LIMIT VEGETATIVE STABILIZATION. SOIL TESTS MIGHT BE NECESSARY TO DETERMINE SITE SPECIFIC PH REACTION. RESOLUTIONS: APPLYING LIME CONSISTENT WITH RATES DETERMINED BY SOIL TESTING; SELECTING VEGETATIVE SPECIES TOLERANT TO ACIDIC SOIL CONDITIONS; AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE.
- LOW FERTILITY SOIL TYPES LACKING IN SUFFICIENT AMOUNTS OF ESSENTIAL PLANT NUTRIENTS SUCH AS: NITROGEN. PHOSPHOROUS. POTASSIUM. SULFER, MAGNESIUM. CALCIUM, IRON, MANGANESE, BORON, CHLORINE, ZINC, COPPER AND MOLYBDENUM, LIMÍT VEGETÁTION STABILÍZATION. SOIL TESTS MIGHT BE NECESSARY TO DETERMINE SITE SPECIFIC SOIL FERTILITY
- RESOLUTIONS: INCORPORATING SOIL NUTRIENTS CONSISTENT WITH RATES DETERMINED BY SOIL TESTING; SELECTIVE VEGETATIVE SPECIES TOLERANT TO LOW FERTILITY SOIL CONDITIONS, AND IMPLEMENTING COMBINATIONS OF THESE AND OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE FROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE.
- ERODIBLE SOIL TYPES EXHIBITING K VALUES GREATER THAN 0.36 OR PLASTICITY INDEX VALUES LOWER THAN 10, LIMIT VEGETATIVE STABILIZATION OF CHANNELS. RESOLUTIONS: PROVIDING TEMPORARY CHANNEL LINING, PROVIDING PERMANENT CHANNEL LINING, DECREASING CHANNEL GRADE, INCREASING CHANNEL WIDTH, SELECTING VEGETATIVE WITH GREATER RETARDANCE, SELECTING PERMANENT LININGS OTHER THAN GRASSES, AND IMPLEMENTING COMBINATION OF THESE AND/OR METHODS.
- VEGETATIVE RETARDANCE INFORMATION IS PROVIDED IN TABLES 6 AND 7 OF THE EROSION AND SEDIMENT POLLUTION CONTROL MANUAL PUBLISHED BY PADEP. WET SOIL TYPES HAVE EXCESSIVE ROOT ZONE AND SOIL MOISTURES. SOME SOIL SURVEYS INDICATE WETNESS, HIGH WATER TABLE AND FLOODING. THIS INDICATOR IS AFFECTED BY SOIL DISTURBANCE.
- RESOLUTIONS: SELECTING VEGETATIVE SPECIES TOLERANT TO WET CONDITIONS, TILING VEGETATIVE AREAS, AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY
- DRY SOIL TYPES LACK SUFFICIENT ROOT ZONE SOIL MOISTURES. THIS INDICATOR IS AFFECTED BY SOIL DISTURBANCE. RESOLUTIONS: SELECTING VEGETATIVE SPECIES TOLERANT TO DRY CONDITIONS, IRRIGATING VEGETATED AREAS
- AND IMPLEMENTING COMBINATION OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY SOIL TYPES SUSCEPTIBLE TO SINKHOLE AND SOLUTION CHANNEL/CHAMBER FORMATION POSE LIMITATIONS ON

LOCATING RESERVOIR AREAS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION BASINS, AND

- RESOLUTIONS: LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, LINING RESERVOIR AREAS WITH IMPERMEABLE LININGS, LIMITING STANDING WATER DEPTHS, LIMITING RETENTION TIMES AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS.
- SOIL TYPES THAT EXHIBIT INSTABILITY IN POND EMBANKMENTS OR SUSCEPTIBILITY TO PIPING AND SEEPING POSE LIMITATIONS ON PLANNING EMBANKMENTS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION
- RESOLUTIONS: IMPORTING OTHER SOIL FOR EMBANKMENT OF THOSE FACILITIES, LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, LIMITING EMBANKMENT SLOPE STEEPNESS AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS.
- SOILS THAT ARE DIFFICULT TO COMPACT, UNSUITABLE FOR WINTER GRADING, OR SUSCEPTIBLE TO FROST ACTION POSE LIMITATIONS ON PLANNING EMBANKMENTS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORM WATER RETENTION BASINS AND STORMWATER DETENTION BASINS. RESOLUTIONS: IMPORTING OTHER SOIL FOR EMBANKMENT OF THOSE FACILITIES, LOCATING THOSE FACILITIES ON OTHER SOILS TYPES, NOT CONSTRUCTING EMBANKMENTS DURING PERIODS PRONE TO FROST AND IMPLEMENTING

## DISPOSAL AND RECYCLING

STORMWATER DETENTION BASINS.

CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL DEMOLISHED OR UNUSED CONSTRUCTION MATERIALS. GARBAGE SHALL BE COLLECTED ON-SITE UNTIL RETRIEVED BY AN APPROVED DISPOSAL OR RECYCLING COMPANY, CONTRACTOR SHALL NOT INCINERATE EXCESS MATERIALS.

LIKELY WASTE TO BE GENERATED AT THIS SITE: UNUSED CONCRETE TO BE PLACED IN CONCRETE WASHOUT AREAS;

COMBINATIONS OF THESE AND/OR OTHER METHODS.

 EXCESS SILT SOCK AND FENCING MATERIALS; GENERAL RUBBISH AND DEBRIS

## THERMAL IMPACTS

HE RUNOFF FROM THE PROJECT AREA THAT OUTLETS TO SURFACE WATERS OR EXISTING STORM SEWER FLOWS THROUGH COMPOST FILTER SOCKS.

INTERCEPTING THE RUNOFF WITH THE ONSITE TEMPORARY BMP'S WILL TEMPORARILY STORE THE SEDIMENT LADEN WATER BEHIND THE PROPOSED E&S MEASURES AND SLOWLY ALLOW CLEAN WATER TO FILTER THROUGH (I.E. REDUCING FLOW RATE AND VELOCITY). THE NATURAL COOLING EFFECTS OF FILTERING SEDIMENT LADEN WATER WILL HELP TO DISSIPATE THE HEAT ENERGY ABSORBED BY THE STORMWATER.

## EROSION AND SEDIMENT CONTROL PLAN OBJECTIVES

DIRECT RUNOFF AWAY FROM BARE SOIL AREAS.

- 1. FIT THE LAND-DISTURBING ACTIVITY TO THE TERRAIN THROUGH MATCHING PROPOSED GRADES AS CLOSE TO EXISTING AS POSSIBLE. 2. MINIMIZE BARE SOIL EXPOSURE AND THE EXTENT AND DURATION OF EARTH DISTURBANCE THROUGH THE USE OF TEMPORARY STABILIZATION TECHNIQUES AND A DETAILED CONSTRUCTION SEQUENCE.
- 3. RETAIN EXISTING VEGETATION WHENEVER FEASIBLE AND APPROPRIATE BY MAXIMIZING PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION. 4. MINIMIZE SOIL COMPACTION BY DELINEATING LIMITS OF DISTURBANCE IN ONLY THOSE AREAS NECESSARY FOR CONSTRUCTION. 5. STABILIZE DISTURBED AREAS IMMEDIATELY AFTER GRADING WITH TEMPORARY SEEDING AND MULCHING.

8. UTILIZE OTHER MEASURES OR CONTROLS THAT PREVENT OR MINIMIZE GENERATION OF INCREASED

MINIMIZE LENGTH AND STEEPNESS OF SLOPES BY IMPLEMENTING THE APPROPRIATE TEMPORARY E&S BMP.

STORMWATER RUNOFF. 9. PREPARE DRAINAGE WAYS AND OUTLETS TO HANDLE INCREASED RUNOFF AND CONCENTRATION FLOWS. 10. REDUCE SEDIMENTATION BY APPLYING EROSION CONTROL AND WATER QUALITY PRACTICES ON-SITE. 11. AVOID, MINIMIZE OR MITIGATE THERMAL IMPACTS.

## SEEDING AND MULCHING SPECIFICATIONS

SEEDING SHALL BE ANNUAL RYE GRASS APPLIED AT 48 LBS. PER ACRE. LIMING TO BE APPLIED AT 1 TON/ACRE.

10-10-10 FERTILIZER TO BE APPLIED AT 500 LBS. /ACRE HAY OR STRAW MULCH TO BE APPLIED AT 3 TONS/ACRE.

LIMING TO BE APPLIED AT 6 TON/ACRE. 10-20-20 FERTILIZER TO BE APPLIED AT 1000 LBS./ACRE HAY OR STRAW MULCH TO BE APPLIED AT 3 TONS/ACRE.

CONTRACTOR SHALL VERIFY PERMANENT SEEDING CRITERIA WITH OWNER PRIOR TO APPLICATION.

NON-STEEP AREAS < 3:1, HIGHLY MAINTAINED AND MOWED, USE ONLY ON TOP SOIL AREAS. • SEEDING SHALL BE 50% KENTUCKY BLUEGRASS, 30% RED FESCUE, AND 20% PERENNIAL RYE GRASS, AT A RATE OF 21 LBS. PER 1000 SQUARE YARDS.

### SLOPES STEEPER THAN 3:1, NO-MOW AREAS . THERE ARE NO AREAS OF NO-MOW STEEP SLOPE ON THIS PROJECT.

### THE NON-GERMINATING PERIODS ARE BETWEEN JUNE 15 THRU AUGUST 15, AND SEPTEMBER 30 THRU APRIL 15. AREAS DISTURBED DURING THESE PERIODS MUST BE LIMED, FERTILIZED, SEEDED AND MULCHED WITHIN TWENTY (20)

TRAPS, BASINS AND STOCKPILES MUST BE SEEDED AND MULCHED IMMEDIATELY.

- DAYS OF THE ENDING OF THOSE PERIODS. ALL SEED MIXTURES SHALL HAVE A MINIMUM LIVE SEED AND GERMINATION PERCENTAGE OF 85% TO 95%. TOPSOIL TAKEN FROM CONSTRUCTION AREAS SHALL BE SEEDED WITH VEGETATIVE COVER AND STOCKPILED FOR RE-USE IN FINISH GRADING. THERE IS TO BE NO EARTH DISTURBANCE OR VEGETATIVE CLEARING IN AREAS OF
- STAKED (OR FENCED) WETLANDS. EARTH DISTURBANCE WITHIN THESE AREAS WITHOUT THE REQUIRED PERMITS WILL RESULT IN POTENTIAL VIOLATION OF COMMONWEALTH AND FEDERAL WETLANDS REGULATIONS. 4. ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED AND WHICH WILL REMAIN EXPOSED MUST BE SEEDED AND MULCHED IMMEDIATELY. DISTURBED AREAS WHICH ARE NOT A FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN ONE (1) YEAR MAY BE SEEDED AND MULCHED WITH A QUICK GROWING, TEMPORARY SEEDING MIXTURE AND MULCH. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE RE-DISTURBED WITHIN ONE (1

YEAR MUST BE SEEDED AND MULCHED WITH A PERMANENT SEED MIXTURE AND MULCH. CHANNELS, SEDIMENTATION

## MULCHING NOTES

- ALL SEEDED AREAS SHOULD BE MULCHED OR BLANKETED TO MINIMIZE THE POTENTIAL FOR FAILURE TO ESTABLISH AN ADEQUATE VEGETATIVE COVER. MULCHING MAY ALSO BE USED AS A TEMPORARY STABILIZATION OF SOME
- DISTURBED AREAS IN NON-GERMINATING SEASONS STRAW AND HAY MULCH SHOULD BE ANCHORED OR TACKIFIED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN, A TRACTOR-DRAWN IMPLEMENT MAY BE USED TO "CRIMP" THE STRAW OR HAY INTO THE SOIL -ABOUT 3 INCHES. THIS METHOD SHOULD BE LIMITED TO SLOPES NO STEEPER THAN 3H: 1V. THE MACHINERY SHOULD BE OPERATED ON THE CONTOUR. NOTE: CRIMPING OF HAY OR STRAW BY RUNNING OVER IT WITH TRACKED MACHINERY IS NOT RECOMMENDED.
- 3. POLYMERIC AND GUM TACKIFIERS MIXED AND APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS MAY BE USED TO TACK MULCH. AVOID APPLICATION DURING RAIN AND ON WINDY DAYS. A 24-HOUR CURING PERIOD AND A SOIL TEMPERATURE HIGHER THAN 45 DEG. FAHRENHEIT ARE TYPICALLY REQUIRED. APPLICATION SHOULD BE GENERALLY BE HEAVIEST AT EDGES OF SEEDED AREAS AND AT CRESTS OF RIDGES AND BANKS TO PREVENT LOSS BY WIND. THE REMAINDER OF THE AREA SHOULD HAVE BINDER APPLIED UNIFORMLY. BINDERS MAY BE APPLIED AFTER MULCH IS SPREAD OR SPRAYED INTO THE MULCH AS IT IS BEING BLOWN ONTO THE SOIL. APPLYING STRAW
- AND BINDER TOGETHER IS GENERALLY MORE EFFECTIVE. 4. SYNTHETIC BINDERS, OR CHEMICAL BINDERS, MAY BE USED AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH PROVIDED SUFFICIENT DOCUMENTATION IS PROVIDED TO SHOW THEY ARE NON-TOXIC TO NATIVE PLANT AND ANIMAL SPECIES.
- 5. MULCH ON SLOPES OF 8% OR STEEPER SHOULD BE HELD IN PLACE WITH NETTING. LIGHTWEIGHT PLASTIC, FIBER, OR PAPER NETS MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO KEEP BASIN SEEDING UNIFORMLY SPREAD THROUGHOUT BASIN BOTTOM IN THE EVENT SEEDS COLLECT IN ONE AREA OR DISCHARGE FROM THE BASIN, THE CONTRACTOR SHALL RE-SEED, REMULCH AND SECURE SEED/MULCH WITH THE APPROPRIATE LIGHTWEIGHT PLASTIC, FIBER OR PAPER NETTING, IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

MAY BE APPLIED ON STEEPER SLOPES PROVIDED A TACKIFIER IS USED. THE APPLICATION RATE FOR ANY

7. SHREDDED PAPER HYDROMULCH SHOULD NOT BE USED ON SLOPES STEEPER THAN 5%. WOOD FIBER HYDROMULCH

# TOPSOIL APPLICATION NOTES

DEPRESSIONS ARE PART OF THE PCSM PLAN.

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 SIX (6) INCHES MINIMUM. 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
- 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 SEEDED PREPARATION. COMPACTED SOILS SHOULD BE SCARIFIED 6 TO 12 INCHES ALONG CONTOUR WHEREVER POSSIBLE PRIOR TO SEEDING.

## SOIL AMENDMENT APPLICATION RATE EQUIVALENTS

HYDROMULCH SHOULD BE AS NOTED IN THE MULCHING CHART (SEE THIS SHEET).

	PERMANENT SE	EDING APPLICATION		
SOIL AMENDMENT	PER ACRE	PER 1,000 SF	PER 1,000 SY	
AGRICULTURAL LIME	6 TONS	240 LB.	2,480 LB.	OR AS PER SOIL TEST; MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS
10-20-20 FERTILIZER	1,000 LB	25 LB.	210 LB.	OR AS PER SOIL TEST; MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS
	TEMPORARY SE	N RATE (MIN.)		
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

# MULCH APPLICATION RATES

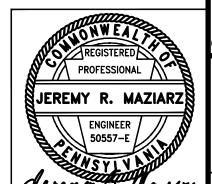
	APF	PLICATION RATE (N	IIN.)	
MULCH TYPE	PER ACRE	PER 1,000 SF	PER 1,000 SY	
STRAW	3 TONS	140 LB.	1,240 LB.	EITHER WHEAT OR OAT STRAW, FREE OF WEEDS, NOT CHOPPED OR FINELY BROKEN
HAY	3 TONS	140 LB.	1,240 LB.	TIMOTHY, MIXED CLOVER AND TIMOTHY OR OTHER NATIVE FORAGE GRASSES
WOOD CHIPS	4-6 TONS	185–275 LB.	1,650-2,500 LB.	MAY PREVENT GERMINATION OF GRASSES AND LEGUMES
HYDROMULCH	1 TON	47 LB.	415 LB.	SEE LIMITATIONS ABOVE

## TOPSOIL APPLICATION RATES

DEPTH (IN)	PER 1,000 SF	PER ACRE
1	3.1 CY	134 CY
2	6.2 CY	268 CY
3	9.3 CY	403 CY
4	12.4 CY	537 CY
5	15.5 CY	672 CY
6	18.6 CY	806 CY
7	21.7 CY	940 CY
8	24.8 CY	1,074 CY

EROSION & SEDIMENTATION CONTROL NOTES

PRELIMINARY LAND DEVELOPMENT PLANS



CEDARBROOK MIDDLE SCHOOL **BUILDING ADDITIONS & RENOVATIONS** CHELTENHAM TWP. - MONTGOMERY COUNTY - PENNSYLVANIA



ΓAX MAP PARCEL: TMP 31-00-17962-007 (BLOCK 158, LOT/UNIT 1)

**SHEET 12 OF 22** 

## Installation Made Easy

erosion control products can't function to their full potential without proper installation and anchoring, North American Green supplies a wide variety of fastener options for nearly every application and soil type.

For use in cohesive soils, wire staples are a cost-effective means to fasten RollMax™ System Rolled Erosion Control Products (RECPs). Available in 6 in., 8 in., 10 in. and 12 in. lengths, our U-shaped staples reach various depths to ensure adequate pull-out resistance. For installation using our handy

Pin Pounder installation tool, 6 in. V-top staples or 6 in. circle top pins are available.

lengths and provide an environmentally friendly alternative to metal staples. For an even more durable, deeper reaching yet all-natural anchoring option, our wood EcoStakes® are

Proper staple patterns must be used to achieve optimal results in RECP installation. We recommend the followin general stapling patterns as guidance for use with our RECPs

as seen in (Figure 1). Site-specific staple pattern recommen-Our biodegradable BioStakes® are available in 4 in. and 6 in. dations based on soil type and severity of application may Software (ECMDS®), www.ecmds.com

For severe applications needing the ultimate, long-lasting

hold, try our 12 in, and 18 in, rebar staples, our 12 in, plastic

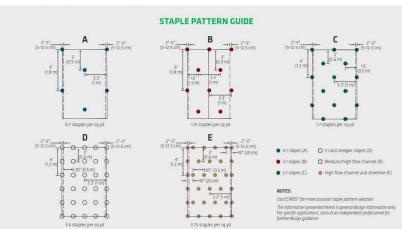
oreMax® stakes, or our complete line of percussion earth

offer enhanced anchoring in the worst conditions. Our variety of

anchors. The earth anchors reach deep into the soil strata to

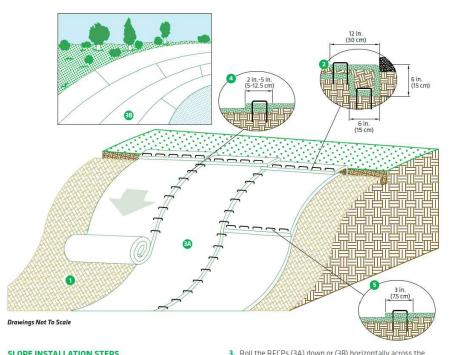
earth anchors are designed for durability and holding power

under extreme hydraulic stresses and adverse soil conditions.



## Slope Installation

The following slope guide outlines general recommendations for installing RollMax™ System temporary and/or permanent RECPs on sloping applications. Consult the staple pattern guide (Figure 1) for fastener spacing recommendations based on the slope severity.



# SLOPE INSTALLATION STEPS

application of lime fertilizer and seed 2. Begin at the top of the slope by anchoring the RECPs in

a 6 in. (15 cm) deep x 6 in. (15 cm) wide trench with approximately 12 in. (30 cm) of RECPs extended beyond the upslope portion of the trench. Anchor the RECPs with a row of staples/stakes approximately 12 in. (30 cm) apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to the compacted soil and fold the remaining 12 in. (30 cm) portion of RECPs back over

12 in. (30 cm) apart across the width of the RECPs.

the seed and compacted soil. Secure RECPs over compacted

4. The edges of parallel RECPs must be stapled with an approximately 2 in.-5 in. (5-12.5 cm) overlap depending on

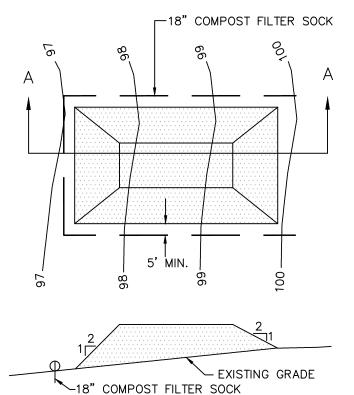
Consecutive RECPs spliced down the slope must be end over-end (shingle style) with an approximate 3 in. (7.5 cm) overlap. Staple through overlapped area, approximately 12 in. (30 cm) apart across entire RECPs width.\*

slope. RECPs will unroll with appropriate side against the

as shown in the staple pattern guide.

surface by placing staples/stakes in appropriate locations

IF SLOPES EXCEED 4:1, USE NAG S75 WITH STAPLE PATTERN "C"



SECTION A-A

1. PLACE STOCKPILES AT LOCATIONS AS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN.

ALL SIDE SLOPES SHALL BE 2 TO 1 OR FLATTER. STOCKPILE SHALL RECEIVE A VEGETATIVE COVER IN ACCORDANCE WITH MINIMUM STABILIZATION REQUIREMENTS. COMPOST FILTER SOCK SHALL BE INSTALLED AS DETAILED HEREON. LOCATION OF PROPOSED STOCKPILE WHICH AFFECT EROSION CONTROLS

ARE SHOWN SCHEMATICALLY ONLY. ACTUAL STOCKPILE LOCATION MAY CHANGE DURING CONSTRUCTION. 6. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET.

<u>STOCKPILE DETAIL</u>

FOR BAG REMOVAL FROM INLET

**INSTALLATION DETAIL ISOMETRIC VIEW** 

EARTHEN BERM TO BE STABILIZED WITH TEMPORARY OR PERMANENT VEGETATION -STORM NLET

6" MIN. HEIGHT PLAN VIEW

EXPANSION RESTRAINT

2" × 2" × 3/4"

RUBBER BLOCK

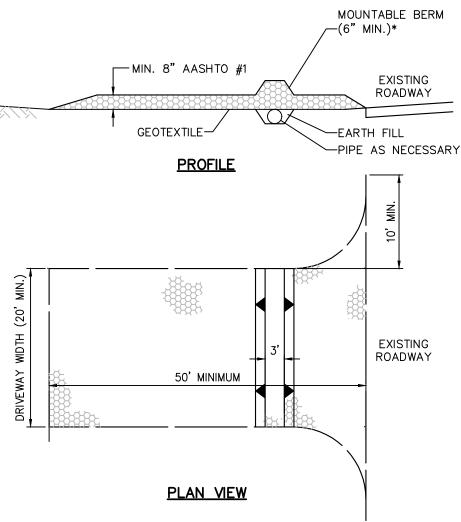
(1/4" NYLON ROPE)

## **ELEVATION VIEW** FILTER BAG INLET PROTECTION - TYPE M INLET DETAIL

## 1. MAXIMUM DRAINAGE AREA = $\frac{1}{2}$ ACRE.

- 2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL
- 3. ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.
- 4. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 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.
- 5. 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 OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

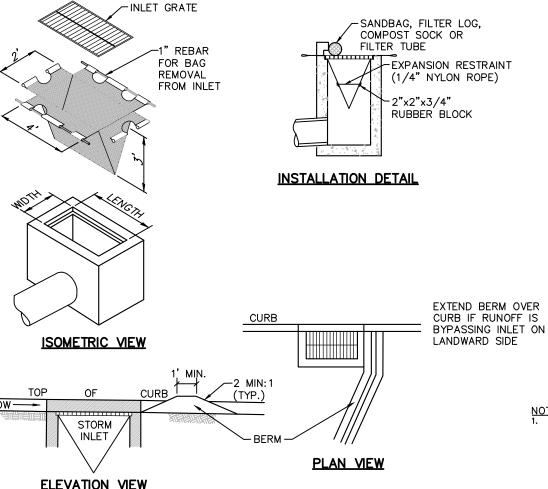
DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.



- \* MOUNTABLE BERM USED TO PROVIDE COVER FOR PIPE.
- . REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
- 2. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
- 3. 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.

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 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE

COURSES IS NOT ACCEPTABLE. **ROCK CONSTRUCTION ENTRANCE DETAIL** 



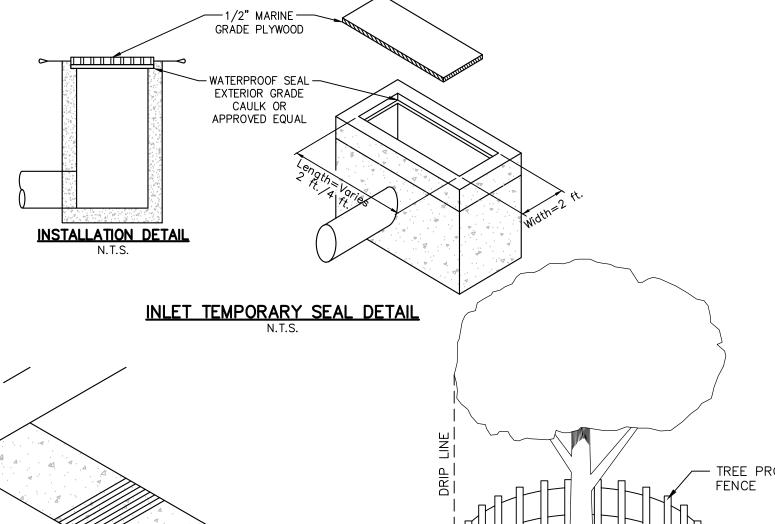
# **ELEVATION VIEW**

FILTER BAG INLET PROTECTION - TYPE C INLET DETAIL

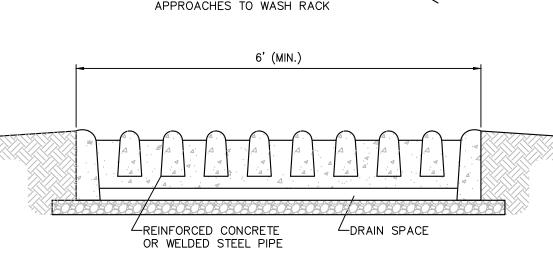
## 1. MAXIMUM DRAINAGE AREA = ½ ACRE

- 2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
- 3. ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT
- 4. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 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
- 5. 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 OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

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



GRATE 2'x2' or 2'x4'



WASH RACK-

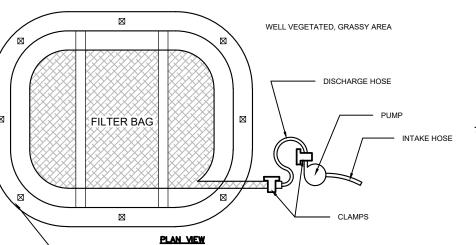
AASHTO #1 ROCK (8" THICK)-EXTENDING 25' MIN. ON BOTH

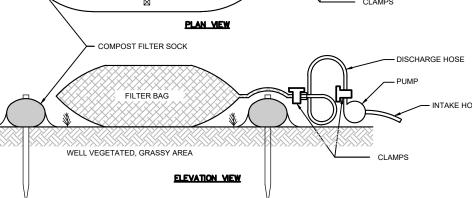
## ROCK CONSTRUCTION ENTRANCE WITH WASH RACK DETAIL

- 1. WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS. 2. WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE
- ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC. 3. A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.

ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK. ALL SEDIMENT DEPOSITED ON ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER

DRAINAGE COURSES IS NOT ACCEPTABLE.





# <u>PUMPED WATER FILTER BAG WITH COMPOST SOCK DETAIL</u>

NOTES:

1. LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

- 2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME ½ FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.
- 3. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.
- 4. NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.
- 5. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE. 6. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR ½ THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

TREE PROTECTION FENCE DETAIL

BE PROTECTED FROM EQUIPMENT DAMAGE BY FENCING OR OTHER

UNLESS PRIOR DETERMINATION HAS BEEN MADE BY THE TOWNSHIP

EQUIPMENT OR BY SEDIMENT BUILDUP AROUND THE ROOTS. TREE

ARE NOT PERMITTED BEYOND THAT POINT.

THE MANUFACTURERS' INSTRUCTIONS.

ENGINEER / LANDSCAPE ARCHITECT REGARDING A MORE APPROPRIATE

**DESCRIPTION:** TREES ARE OFTEN DAMAGED BY MOVING CONSTRUCTION

PROTECTION FENCING, WHEN PLACED ALONG OR AROUND TREES, SERVES

AS A BOUNDARY MARKER TO INDICATE THAT CLEARING AND STOCKPILING

WHEN USED: TREE PROTECTION FENCE MAY BE USED WHENEVER THERE

REQUIREMENTS FOR INSTALLATION: THE TREE PROTECTION FENCE

IS INSTALLED BY HAMMERING WOOD OR METAL STAKES INTO THE GROUND

PLACE THE TREE PROTECTION FENCE ALONG THE DRIPLINES OF TREES OR 1

THIS IS GENERALLY THE OUTER BOUNDARY FOR TREE ROOTS. IF THE TREE

PROTECTION FENCE IS PLACED ANY CLOSER TO A TREE, ITS PURPOSE MAY

MAINTENANCE: INSPECT THE TREE PROTECTION FENCING PERIODICALLY

DURING CONSTRUCTION TO MAKE SURE THAT IT IS POSITIONED SECURELY.

AND CONNECTING THE FENCING MATERIAL SECURELY TO THE POSTS PER

FOOT FROM THE TREE TRUNK FOR EVERY INCH OF TRUNK DIAMETER,

WHICHEVER IS GREATER. A DRIPLINE IS AN IMAGINARY LINE EXTENDING

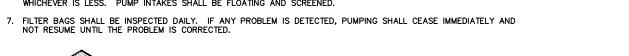
DOWN FROM THE OUTER-MOST BRANCHES OF A TREE TO THE GROUND.

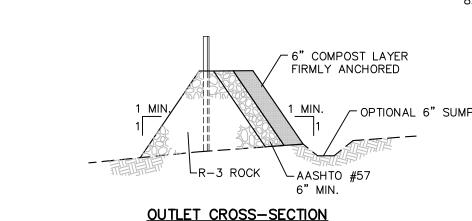
ARE SPECIFIC TREES OR WOODED AREAS THAT MUST BE PROTECTED.

ALL WOODY VEGETATION TO BE RETAINED WITHIN 25 FEET OF A BUILDING SITE, PARKING AREA, DRIVEWAY OR OTHER PROPOSED IMPROVEMENT SHALL

EFFECTIVE BARRIERS APPROVED BY THE TOWNSHIP ENGINEER / LANDSCAPE

ARCHITECT. FENCING OR BARRIERS SHALL BE PLACED AS NOTED BELOW,





—MAXIMUM DEPTH OF CONCRETE

WASHOUT WATER IS 50% OF

FILTER RING

2"x2"x36" WOODEN

STAKES PLACED 5' O.C.

SECTION VIEW

PLAN VIEW

COMPOST FILTER SOCK CONCRETE WASHOUT DETAIL

18" DIAMETER SILT SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER

SILK SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.

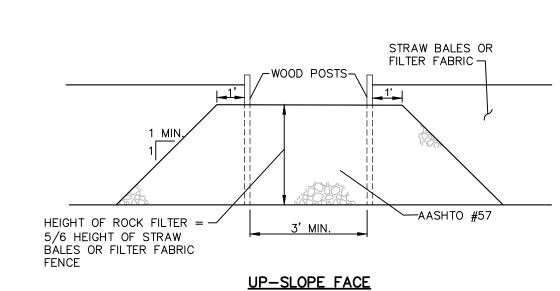
LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS.

. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE

INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.

~2"x2"x36" WOODEN

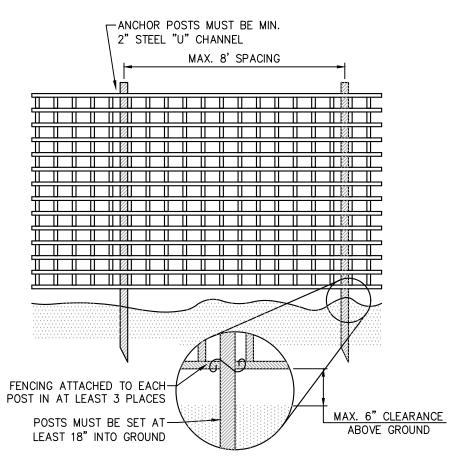
STAKES PLACED 5' O.C.



# ROCK FILTER OUTLET DETAIL

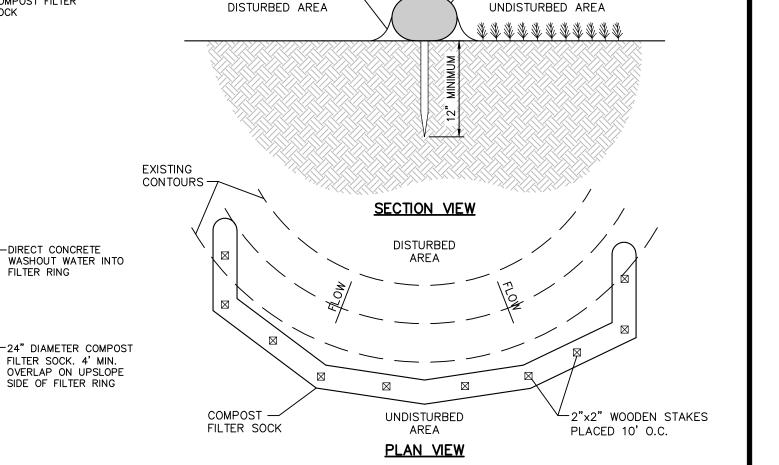
1. A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.

2. IF INSTALLED, INSPECT WEEKLY AND AFTER EACH RUNOFF EVENT. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE



- PROTECTION BARRIER SHALL BE 4 FEET HIGH, CONSTRUCTED OF DURABLE AND HIGHLY VISIBLE MATERIAL (PLASTIC ORANGE CONSTRUCTION FENCE AND/OR SNOW-FENCE MAY BE USED).
- PROTECTION BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK AT THE SITE.

TREE PROTECTION BARRIER FENCE DETAIL



BLOWN/PLACED FILTER MEDIA-

─2"x2" WOODEN STAKES PLACED 10' O.C

-COMPOST FILTER SOCK

SOCK FABRIC SHALL MEET THE STANDARDS OF TABLE 4.1. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2. 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. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS. 4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF TECH SOCK AND DISPOSED IN THE MATTER DESCRIBED ELSEWHERE IN THE

5. 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 6. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE

SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. 7. 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. 8. REFER TO E&S PLAN FOR COMPOST SOCK LOCATIONS, SIZE, IDENTIFICATIONS AND CONSTRUCTION SPECIFICATIONS.

## COMPOST FILTER SOCK DETAIL N.T.S.

TABLE 4.1 - COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

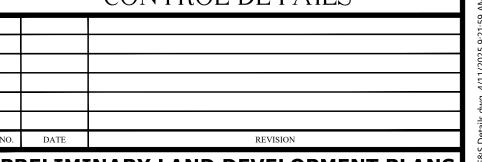
MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTO- DEGRADABLE	PHOTO- DEGRADABLE	BIO- DEGRADABLE	PHOTO- DEGRADABLE	PHOTO- DEGRADABLE
		12"	12"	12"	12"
soc	12"	18"	18"	18"	18"
DIAMETERS	18"	24"	24"	24"	24"
		32"	32"	32"	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)	23% AT 1000 HR.	23% AT 1000 HR.		100% AT 1000 HR.	100% AT 1000 HR.
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	6 MONTHS	6 MONTHS	1 YEAR	2 YEARS
		TWO-PLY	SYSTEMS	•	
				HDPE BIAXIAL NET	-

CONTINUOUSLY WOUND INNER CONTAMINANT NETTING FUSION-WELDING JUNCTURES 3/4" x 3/4" MAX. APERTURE SIZE COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER AND NON-WOVEN FLEECE OUTER FILTRATION MESH MECHANICALLY FUSED VIA NEEDLE PUNCH) 3/16" MAX. APERTURE SIZE SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.

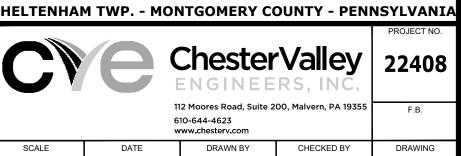
# TABLE 4.2 - COMPOST STANDARDS

ORGANIC MATTER CONTENT	80% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
рН	5.5 - 8.0
MOISTURE CONTENT	35% — 55%
PARTICLE SIZE	98% PASS THROUGH 1" SCREEN
SOLUBLE SALT CONCENTRATION	5.0 dS/m (mmhos/cm) MAXIMUM

# **EROSION & SEDIMENTATION** CONTROL DETAILS



PRELIMINARY LAND DEVELOPMENT PLANS CEDARBROOK MIDDLE SCHOOL-**BUILDING ADDITIONS & RENOVATIONS** 



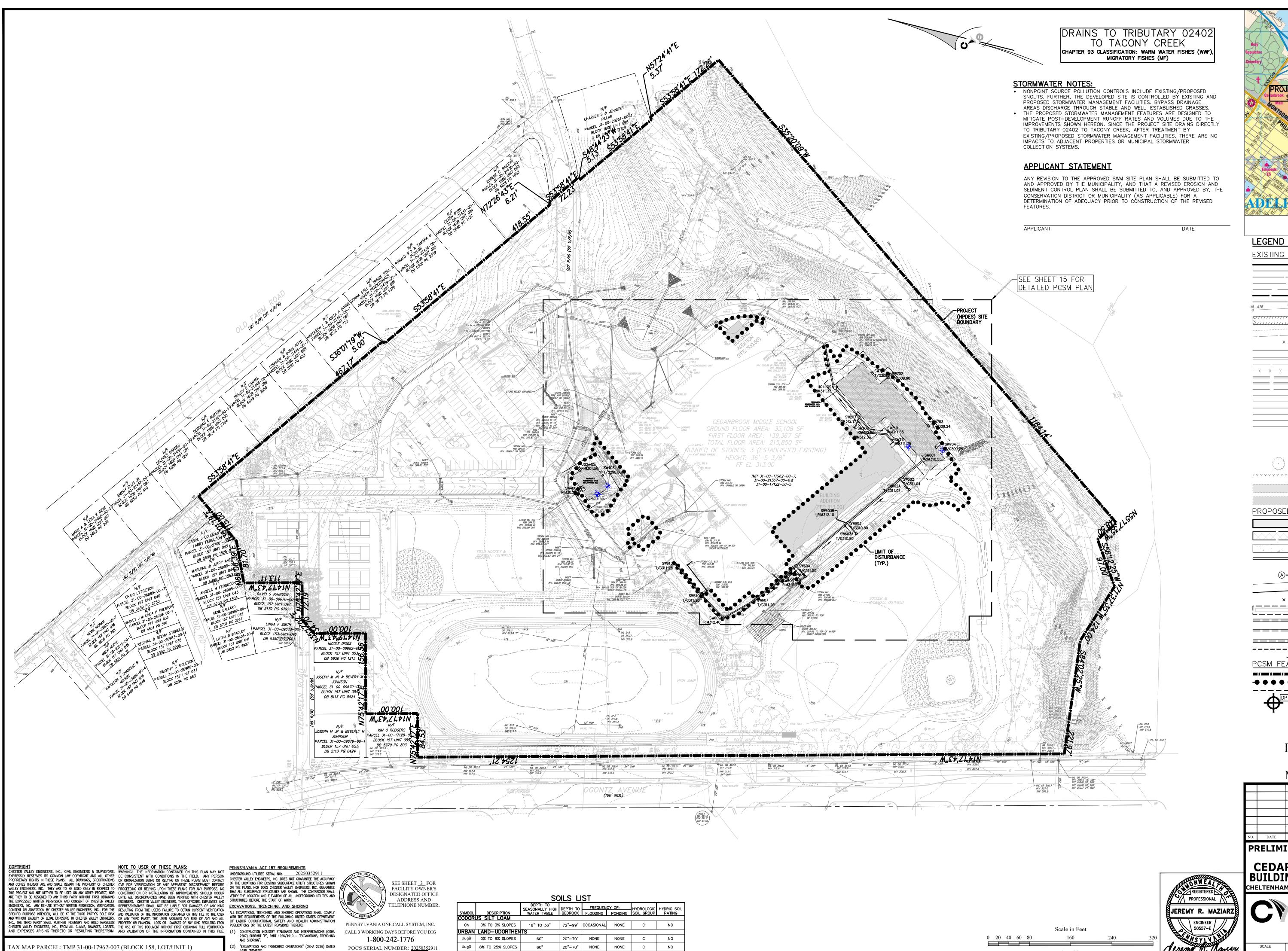
RRB

PROFESSIONAL JEREMY R. MAZIAR | ENGINEER | 50557-E

04/11/2025

TAX MAP PARCEL: TMP 31-00-17962-007 (BLOCK 158, LOT/UNIT 1)

SHEET 13 OF 22



LOCATION MAP

EXISTING FEATURES

EXISTING PROPERTY BOUNDARY EXISTING ADJOINING PROP. LINE EXISTING RIGHT-OF-WAY LINE EXISTING EASEMENT EXISTING SETBACK BOUNDARY EXISTING FLOOD PLAIN EXISTING STREAM WL A78 EXISTING WETLANDS

SCALE: 1'' = 200

EXISTING BUILDING EXISTING 1' CONTOURS EXISTING 5' CONTOURS EXISTING SPOT ELEVATION EXISTING SOIL TYPE EXISTING CURB EXISTING EDGE OF PAVEMENT EXISTING FENCE 

EXISTING STORM INLET AND PIPE ==== ♥ ■== EXISTING STORM MANHOLE AND PIPE EXISTING SAN. MANHOLE AND PIPE EXISTING U/G FIRE LINE EXISTING U/G WATER LINE EXISTING U/G ELECTRIC LINE EXISTING U/G TELEPHONE LINE EXISTING U/G GAS LINE EXISTING OVERHEAD WIRES EXISTING LIGHT POLE EXISTING SIGN

EXISTING CONIFEROUS TREE EXISTING DECIDUOUS TREE EXISTING TREE & SHRUB LINE

SLOPES 15-25%

EXISTING UTILITY POLE

SLOPES 25% AND GREATER PROPOSED FEATURES

PROPOSED BUILDING PROPOSED HEAVY DUTY PAVEMENT SECTION

PROPOSED CONCRETE PAD/SIDEWALK PROPOSED CONCRETE CURB NUMBER OF PROPOSED PARKING SPACES PROPOSED SIGN & LABEL PROPOSED 1' CONTOURS PROPOSED 5' CONTOURS × 250.00 PROPOSED SPOT ELEVATION

\_\_\_\_\_\_ \_\_\_\_\_<u>C0100</u>

PCSM FEATURES

1'' = 80'

PROJECT (NPDES) SITE BOUNDARY LIMIT OF DISTURBANCE (2.16 ACRES) — — — — — — DRAINAGE AREA TO PCSM BMPS DISCHARGE POINT

PROPOSED STORMWATER MANAGEMENT

PROPOSED STORM PIPE AND CLEANOUT

PROPOSED SAN. PIPE AND CLEANOUT PROPOSED PIPE FLOW ARROW

PROPOSED STORM PIPE AND INLET PROPOSED STORM PIPE AND MANHOLE

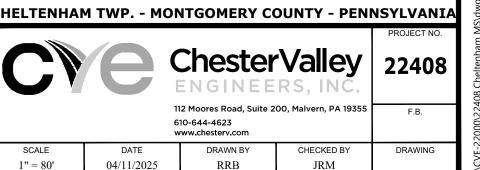
FACILITY (SWM UG##)

POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN

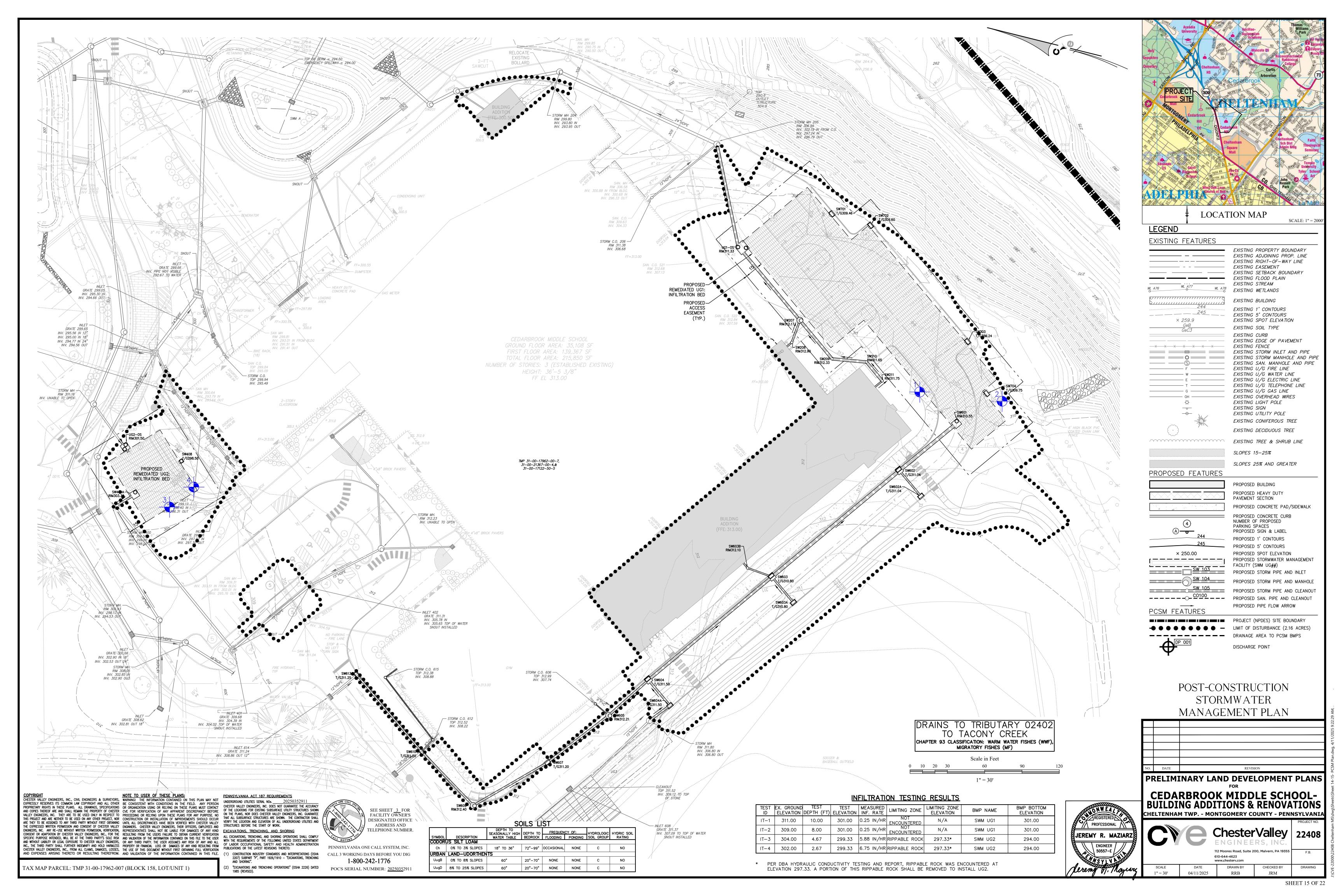
NO. DATE

PRELIMINARY LAND DEVELOPMENT PLANS

CEDARBROOK MIDDLE SCHOOL-**BUILDING ADDITIONS & RENOVATIONS** 



SHEET 14 OF 22



## **GENERAL NOTES:**

STORMWATER MANAGEMENT DESIGN:

REFER TO THE "POST-CONSTRUCTION STORMWATER MANAGEMENT REPORT", PREPARED BY CHESTER VALLEY ENGINEERS.

- 2. MAINTENANCE NOTES:
  - A. THE BMP'S LISTED BELOW WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.
  - UG1 & UG2: INFILTRATION BEDS
  - WATER QUALITY SNOUT(S) STORM SEWER AND ASSOCIATED STRUCTURES
- DESIGN CONSIDERATIONS:

SUBSURFACE BED(S) DESIGNED TO STORE AND MITIGATE POST-DEVELOPMENT RUNOFF TO RATES LESS THAN THOSE REQUIRED BY TOWNSHIP CODE. SUBSURFACE BED(S) DESIGNED TO MITIGATE THE POST—DEVELOPMENT VOLUME INCREASE DUE TO DEVELOPMENT. WATÈR´QUALITY FILTERS DESIGNED TO FILTER ALL SURFACE RUNOFF

- 4. THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN HAS BEEN DESIGNED TO MEET THE FOLLOWING GOALS AND GUIDELINES:
  - PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL,
  - BIOLOGICAL AND CHEMICAL QUALITIES OF RECEIVING STREAMS. PREVENT AN INCREASE IN THE RATE OF STORMWATER RUNOFF MINIMIZE ANY INCREASE IN STORMWATER RUNOFF VOLUME.
  - MINIMIZE IMPERVIOUS AREAS. MAXIMIZE THE PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION. MINIMIZE LAND CLEARING AND GRADING.
  - MINIMIZE SOIL COMPACTION. H. UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL BMP'S THAT PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF.
- 5. THE RECEIVING WATER FOR THIS PROJECT IS TRIBUTARY 02402 TO TACONY CREEK. THE CHAPTER 93 CLASSIFICATION FOR TRIBUTARY 02402 TO TACONY CREEK IS WARM WATER FISHES, MIGRATORY FISHES (WWF-MF).
- THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE. CONSTRUCTION WASTES MUST BE RECYCLED TO THE EXTENT PRACTICABLE, AND DISPOSAL METHODS MUST COMPLY WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS.
- THE PERMITTEE SHALL PROVIDE ENGINEERING CONSTRUCTION OVERSIGHT FOR THE PROPOSED STORMWATER BMPS. A LICENSED PROFESSIONAL ENGINEER KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF STORMWATER BMPS, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.
- AS-BUILT PLANS OF THE STORMWATER BMP'S SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH PHASE. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PA REGISTERED PROFESSIONAL ENGINEER. 9. A NOTICE OF TERMINATION (NOT) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING APPROVAL OF THE
- FINAL AS-BUILT PLANS. PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION TO ENSURE SITE STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF STORMWATER BMP'S.
- 10. PCSM REPORTING AND RECORDKEEPING. THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.
- 11. FINAL CERTIFICATION. THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS

"I (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 PA.C.S.A. \$ 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND RELIEF, 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."

- (1) THE PERMITTEE SHALL RETAIN A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN.
- (2) THE PERMITTEE SHALL PROVIDE A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN TO THE PERSON IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS.
- 12. UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY UNDER § 102.22(A)(2) (RELATING TO PERMANENT STABILIZATION), AND INSTALLATION OF BMPS IN ACCORDANCE WITH AN APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH §§ 102.4 AND 102.8 (RELATING TO EROSION AND SEDIMENT CONTROL REQUIREMENTS; AND PCSM REQUIREMENTS), THE PERMITTEE OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE DEPARTMENT OR CONSERVATION DISTRICT.
  - THE NOTICE OF TERMINATION MUST INCLUDE: (1) THE FACILITY NAME, ADDRESS AND LOCATION.
- (2) THE OPERATOR NAME AND ADDRESS. (3) THE PERMIT NUMBER.
- (5) IDENTIFICATION OF THE PERSONS WHO HAVE AGREED TO AND WILL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS IN ACCORDANCE WITH §102.8(M) AND PROOF OF

PRIOR TO ACCEPTING THE NOT. THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION AND APPROVE OR DENY THE NOTICE OF TERMINATION.

## GENERAL CONSERVATION NOTES AND SPECIFICATIONS

INTENT OF CONSERVATION PROGRAM: THE INTENT OF THIS PROGRAM IS TO PREVENT ACCELERATED EROSION OF THE EXPOSED SITE SOILS DURING THE CONSTRUCTION AND PERMANENT LIFE PERIODS OF THE DEVELOPMENT. THE PROGRAM REQUIRES RETENTION OF ALL SEDIMENTS ON THE CONSTRUCTION SITE TO MINIMIZE THE IMPACT OF DEVELOPMENT ON EXISTING STREAMS AND ADJACENT PROPERTY OWNERS. THESE OBJECTIVES WILL BE ACHIEVED BY MINIMIZING THE EXPOSURE TIME OF POTENTIALLY EROSIVE SOILS TO RUNOFF AND INSTALLATION OF THE TEMPORARY CONSTRUCTION. THE INTENT OF THIS PROGRAM SHOULD BE UNDERSTOOD AND IMPLEMENTED THROUGHOUT THE ENTIRE DEVELOPMENT. THE VARIOUS CONSTRUCTION TRADES SHOULD BE APPRAISED OF THIS PROGRAM AND DIRECTED TO PREVENT UNDUE DISTURBANCE OF PREPARED AND PROTECTED SURFACES.

SURFACE STABILIZATION CRITERIA: ALL DISTURBED SOIL SURFACES, INCLUDING SOIL STOCKPILES, ARE SUBJECT TO EROSION AND SHALL BE STABILIZED EITHER TEMPORARILY OR PERMANENTLY. IMMEDIATELY DURING NON-GERMINATION PERIODS. MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. CRUSHED STONE ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE PROTECTION. ALL DISTURBED ZONES AND VEGETATED REGIONS SHALL BE STABILIZED. PREFERABLY WITH A PERMANENT TREATMENT.

## CRITICAL VEGETATION AREAS (CVA)

CRITICAL VEGETATION AREAS ARE TO BE GRADED, HYDROSEEDED, AND MULCHED WITHIN 10 DAYS OF THE BEGINNING OF EXCAVATION. IN GENERAL, CRITICAL VEGETATION AREAS ARE DEFINED AS CUT SLOPES STEEPER THAN 3:1, ALL FILL SLOPES STEEPER THAN 4:1 AND IN ALL DRAINAGE SWALES.

## DISPOSAL AND RECYCLING

CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL DEMOLISHED OR UNUSED CONSTRUCTION MATERIALS. GARBAGE SHALL BE COLLECTED ON-SITE UNTIL RETRIEVED BY AN APPROVED DISPOSAL OR RECYCLING COMPANY, CONTRACTOR SHALL NOT INCINERATE EXCESS MATERIALS.

- LIKELY WASTE TO BE GENERATED AT THIS SITE: • UNUSED CONCRETE TO BE PLACED IN CONCRETE WASHOUT AREAS;
- EXCESS SILT SOCK AND FENCING MATERIALS; GENERAL RUBBISH AND DEBRIS

# THERMAL IMPACT

STORMWATER RUNOFF FROM THE DRIVEWAY AND PARKING AREAS DRAIN TO A SUBSURFACE INFILTRATION BED AND UNDERGROUND STORM DRAIN PIPES. THEREFORE, THE INITIAL RUNOFF THAT IS MOST LIKELY TO WARMER IS SENT UNDERGROUND AND NOT DISCHARGED TO THE WATERCOURSE. WATER HAS TIME TO COOL PRIOR TO LEAVING THE SITE AND DRAINING TO THE WATER COURSE.

## SPECIAL GEOLOGIC AND SOIL CONDITIONS

NO SPECIAL SOIL OR GEOLOGICAL ISSUES ARE KNOWN.

## CRITICAL STAGES OF CONSTRUCTION

A LICENSED ENGINEER OR HIS DESIGNEE SHALL BE PRESENT TO OBSERVE AND VERIFY INSTALLATION AND CONSTRUCTION OF THE PCSWM PLAN AT THE FOLLOWING CRITICAL

- 1. EXCAVATION AND FINAL GRADING OF SWM UG1 & UG2.
- 2. PLACEMENT OF GEOTEXTILE FABRIC, STONE AND STORAGE MODULES INSIDE SWM UG1
- & UG2. INSTALLATION OF SNOUTS.
- 4. FOLLOWING CONSTRUCTION, ENGINEER TO VERIFY THAT ALL PCSM BMPS ARE INSTALLED, FUNCTIONING, AND HAVE NOT BEEN IMPACTED BY CONSTRUCTION ACTIVITIES.

## POST CONSTRUCTION STORMWATER MANAGEMENT PCSWM) LONG-TERM OPERATIONS AND MAINTENANCE REQUIREMENTS

- 1. UNTIL THE PERMITTEE OR CO-PERMITTEE HAS RECEIVED WRITTEN APPROVAL OF A NOTICE OF TERMINATION, THE PERMITTEE OR CO-PERMITTEE WILL REMAIN RESPONSIBLE FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSWM BMPs ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.
- 2. THE PERMITTEE OR CO-PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PCSWM BMPs UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSWM BMPs.
- . FOR ANY PROPERTY CONTAINING A PCSWM BMP. THE PERMITTEE OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSWM BMP AND THE RELATED OBLIGATIONS IN THE ORDINARY COURSE OF A TITLE SEARCH OF THE SUBJECT PROPERTY. THE RECORDED INSTRUMENT MUST IDENTIFY THE PCSWM BMP, PROVIDE FOR NECESSARY ACCESS RELATED TO LONG-TERM OPERATION AND MAINTENANCE FOR PCSWM BMPs AND PROVIDE NOTICE THAT THE RESPONSIBILITY FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSWM BMP IS A COVENANT THAT RUNS WITH THE LAND THAT IS BINDING UPON AND ENFORCEABLE BY THE SUBSEQUENT GRANTEES. AND PROVIDE PROOF OF FILING WITH THE NOTICE OF TERMINATION UNDER \$ 102.7(b)(5) (RELATING TO PERMIT TERMINATION).
- THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE MAY ENTER INTO AN AGREEMENT WITH ANOTHER PERSON INCLUDING A CONSERVATION DISTRICT, NONPROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION OR OTHER PERSON, TO TRANSFER THE RESPONSIBILITY FOR PCSWM BMPs OR TO PERFORM LONG-TERM OPERATION AND MAINTENANCE AND PROVIDE NOTICE THEREOF TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION..
- 5. A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE PCSWM BMP OR OTHERWISE FAILS TO COMPLY WITH THIS REQUIREMENT SHALL REMAIN JOINTLY AND SEVERALLY RESPONSIBLE WITH THE LANDOWNER FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSWM BMPs LOCATED ON THE
- 6. IN THE EVENT THAT THE BMP IS NOT FUNCTIONING PROPERLY. THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE SHALL BE REQUIRED TO REPAIR OR REPLACE THE BMP TO ENSURE FUNCTION AND OPERATION.
- 7. THE PERMITTEE SHALL BE REQUIRED TO SUBMIT A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES TO THE TOWNSHIP, CONSERVATION DISTRICT, AND THE DEPARTMENT UPON REQUEST.

# BMP FAILURE NOTES (PER PROTOCOL 2 OF THE BMP

- THE TERM "FAILURE" FOR THE PROPOSED SUBSURFACE BED SHALL BE DEFINED 1) THE LOSS OF FUNCTIONALITY OF THE PROPOSED OUTLET STRUCTURE
- OR DISCHARGE PIPE THE LOSS OF STRUCTURAL INTEGRITY OF THE STONE AND MODULES 3) THE ACCUMULATION OF SEDIMENT, TRASH OR DEBRIS IN PERIMETER DRAINAGE STRUCTURES
- 4) STANDING WATER IS OBSERVED IN THE BASIN AFTER 72 HOURS THE PERMITTEE SHALL MAKE THE NECESSARY REPAIRS TO THE OUTLET STRUCTURE. DISCHARGE PIPING. STONE. AND STORMTANKS AS NEEDED. IF STANDING WATER IS OBSERVED AFTER 72 HOURS, CONSULT ENGINEER FOR
- THE TERM "FAILURE" FOR THE PROPOSED WATER QUALITY INLETS (FILTER INSERTS) SHALL BE DEFINED AS:
- DISCOVER EVIDENCE OF DAMAGED FILTER MEDIA 2) DISCOVER EVIDENCE OF THE FILTER MEDIA'S INABILITY TO SUPPORT ACCUMULATED SEDIMENT OR DEBRIS.

THE PERMITTEE SHALL REPAIR BMP FAILURE BY REPLACING THE FILTER MEDIA IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

## POST CONSTRUCTION STORMWATER MANAGEMENT REPORTING AND RECORD KEEPING

A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPOARI AND MAINTENANCE ACTIVITIES MUST BE PROVIDED AS PART OF THE LONG-TERM OPERATION AND MAINTENANCE PROGRAM.

THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN, INSPECTION REPORTS. AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

## SNOUT OIL AND DEBRIS STOP

REMEDIATION OF THE UNDERGROUND BED.

IT SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER TO INSPECT, MAINTAIN, AND KEEP RECORDS OF SUCH INSPECTIONS AND MAINTENANCE OF THE SNOUT.

## INSPECTION REQUIREMENTS

1. THE SNOUT SHOULD BE CHECKED EVERY 2 MONTHS AND AFTER EACH MAJOR RAINFALL EVENT (>2") FOR THE FIRST YEAR FOLLOWING INITIATION OF SNOUT SERVICE. MEASURE DEPTH FROM WATER LEVEL TO TOP OF SEDIMENT AS DESCRIBED IN E. BELOW, AND RECORD THE MEASUREMENTS IF WARRANTED AT ANY OF THESE INITIAL CHECKS, PERFORM 1 OR MORE OF THE ROUTINE ANNUAL INSPECTION/ MAINTENANCE ACTIVITIES DESCRIBED BELOW AS NEEDED. THEREAFTER, UNLESS SUCH FIRST YEAR OBSERVATIONS INDICATE OTHERWISE, INSPECT AND MAINTAIN THE SNOUT

## **DURING ROUTINE ANNUAL INSPECTIONS:**

LESS THAN 30" WITHIN 1 YEAR.

- A. CHECK TO ENSURE THE SNOUT REMAINS SECURELY FASTENED TO THE
- B. CHECK GASKETS (VENT PIPE, AND BODY OF SNOUT TO STRUCTURE). REPLACE IF DETERIORATED.
- C. RINSE AND FLUSH THE ANTI-SIPHON VENT. USE AIR, WATER, OR GENTLY ROD WITH A FLEXIBLE WIRE.
- D. NOTE SURFACE POLLUTANTS AND DEBRIS. REMOVE E. MEASURE AND RECORD DEPTH FROM WATER LEVEL TO TOP OF SEDIMENT AT SEVERAL LOCATIONS. CALCULATE AVERAGE DEPTH. USE A VACUUM TRUCK TO REMOVE ACCUMULATED SOLIDS. SOLIDS REMOVAL CAN BE DEFERRED TO A FUTURE INSPECTION IF THE AVERAGE CALCULATED DEPTH (FROM WATER LEVEL TO TOP OF SEDIMENT) IS AT LEAST 36" AND PAST READINGS INDICATE A RATE OF ACCUMULATION SUCH THAT DEPTH (FROM WATER LEVEL TO TOP OF SEDIMENT) IS NOT LIKELY TO DROP TO

<u>INSTALLATION OF SNOUTS.</u>

- BMP FAILURE IS DEFINED AS DISCOVERING EVIDENCE OF BROKEN, MISSING OR MALFUNCTIONING PIECES WHICH CAUSE AN INABILITY TO CAPTURE SEDIMENT OR DEBRIS, OR IMPEDE FLOW.
- REPAIR BMP FAILURE BY REPLACING THE MALFUNCTIONING ITEM OR ENTIRE SNOUT ASSEMBLY, AS RECOMMENDED BY THE MANUFACTURER, IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

MATERIAL REMOVED BY THE SNOUT SHALL BE DISPOSED OF IN ACCORDANCE WITH DEP REGULATIONS FOR THAT TYPE OF SOLID WASTE.

CRITICAL STAGE OF CONSTRUCTION: CONTACT ENGINEER TO VERIFY

# SUBSURFACE INFILTRATION BEDS

THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM(S)

(SWM UG1-UG2) IT SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN

- AGGREGATE: AGGREGATE FOR BEDS SHALL BE 3/8 INCH TO 3/4 INCH UNIFORMLY GRADED COARSE AGGREGATE, AASHTO NUMBER 57 PER TABLE
- 4, AASHTO SPECIFICATIONS, PART I, 13TH ED., 1998 (P. 47). 2. NON-WOVEN GEOTEXTILE: SHALL CONSIST OF NEEDLED NON-WOVEN POLYPROPYLENE FIBERS AND MEET THE FOLLOWING PROPERTIES:
- GRAB TENSILE STRENGTH (ASTM-D4632): 120 LBS MULLEN BURST STRENGTH (ASTM-D3786): 225 PSI. FLOW RATE (ASTM-D4491): 95 GPM/FT<sup>2</sup> UV RESISTANCE AFTER 500 HOURS (ASTM-D4355%): 70%
- HEAT-SET OR HEAT-CALENDARED FABRICS ARE NOT PERMITTED. ACCEPTABLE TYPES INCLUDE MIRAFI 140N, AMOCO 4547, AND GEOTEX 451. STORAGE UNITS: STORMTANK MODULE, PROPRIETARY LOAD RATED
- STORAGE SYSTEM CONSISTING OF INJECTION MOLDED POLYPROPLYLENE TOP, BOTTOM AND PERIMETER PANELS SUPPORTED BY EXTRUDED PVC COLUMNS MANUFACTURED BY BRENTWOOD INDUSTRIES, 610 MORGANTOWN ROAD. READING. PA 19611. PHONE 610-374-5109. SIMPLE ASSEMBLY OF THE MODULES ON-SITE EFFECTS A STORAGE VOLUME WITH A VOID RATIO OF AT LEAST 95.5%.

## NSPECTION REQUIREMENTS

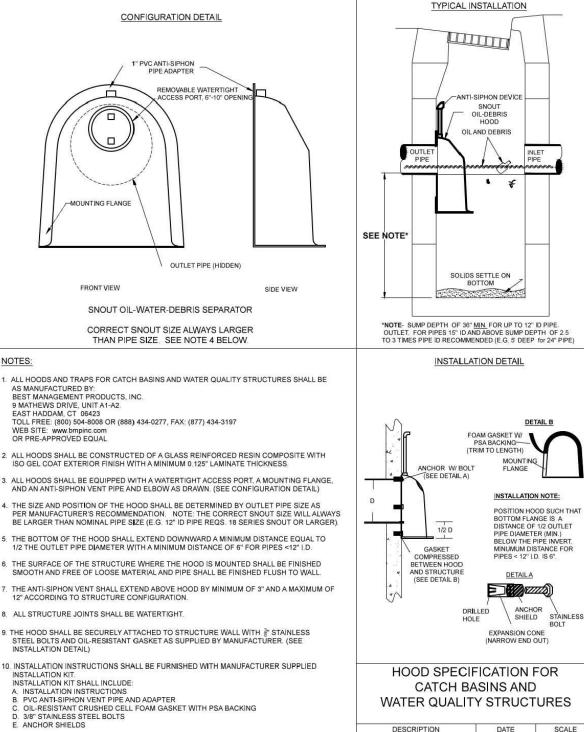
- ALL STORMWATER MANAGEMENT SYSTEMS SHALL BE INSPECTED ANNUALLY, OR AFTER EACH RAINFALL EVENT IN EXCESS OF TWO (2") INCHES (MAJOR STORM EVENT), FOR TRASH AND DEBRIS; ANY DISCOVERED TRASH OR DEBRIS SHALL BE REMOVED IMMEDIATELY.
- GENERAL MAINTENANCE NOTES

  1. ACCESS FOR VIEWING OR VACUUMING IS PROVIDED THROUGH OBSERVATION PORTS AND STORM STRUCTURES.
- REMOVE SEDIMENT/TRASH/DEBRIS FROM PERIMETER DRAINAGE STRUCTURES AND OUTLET STRUCTURE.
- THE OVERLYING VEGETATION OF SUBSURFACE INFILTRATION FEATURES SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED AS SOON AS POSSIBLE.
- 4. ALL CATCH BASINS AND INLETS SHOULD BE INSPECTED AND CLEANED AT LEAST TWO (2) TIMES PER YEAR.
- VEHICULAR ACCESS ON SUBSURFACE INFILTRATION AREAS SHOULD BE PROHIBITED IN UNPAVED AREAS, AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS. IF CONTINUAL ACCESS IS NEEDED. USE OF PERMEABLE, TURF REINFORCEMENT SHOULD BE CONSIDERED.
- 6. CONTACT QUALIFIED ENGINEER IMMEDIATELY AFTER DISCOVERY OF SINKHOLE OCCURRENCE, SINKHOLE SHOULD BE PROMPTLY AND PROPERLY REPAIRED.

### CONSTRUCTION SEQUENCE INSTALL AND MAINTAIN ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.

- 2. THE LOCATIONS OF THE PROPOSED INFILTRATION BEDS SHOULD BE SURROUNDED BY ORANGE CONSTRUCTION FENCING BEFORE, DURING AND AFTER CONSTRUCTION TO PROTECT THOSE AREAS FROM COMPACTION.
- 3. INSTALL UPSTREAM AND DOWNSTREAM CONTROL STRUCTURES, CLEANOUTS, STORAGE MODULES, AND ALL OTHER NECESSARY STORMWATER STRUCTURES.
- 4. THE BOTTOM OF THE INFILTRATION BEDS SHALL BE SCARIFIED A MINIMUM OF 6" PRIOR TO PLACEMENT OF THE NON-WOVEN GEOTEXTILE FABRIC ON THE BOTTOM OF THE BED.
- CRITICAL STAGE OF CONSTRUCTION: CONTACT ENGINEER PRIOR TO PLACEMENT OF GEOTEXTILE. GEOTEXTILE, STORAGE MODULES, AND BED AGGREGATE SHOULD BE PLACED IMMEDIATELY AFTER APPROVAL OF SUB GRADE PREPARATION AND INSTALLATION OF STRUCTURES. GEOTEXTILE SHOULD BE PLACED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS.
- 6. CLEAN-WASHED, UNIFORMLY GRADED AGGREGATE SHOULD BE PLACED IN THE BED IN MAXIMUM 6-INCH LIFTS. EACH LAYER SHOULD BE LIGHTLY COMPACTED. WITH CONSTRUCTION EQUIPMENT KEPT OFF THE BED BOTTOM.
- 7. APPROVED SOIL MEDIA OR PAVEMENT BASE COURSES SHOULD BE PLACED OVER DETENTION BED IN MAXIMUM 6-INCH LIFTS. SEED AND STABILIZE AREA IF APPLICABLE.
- 8. DO NOT REMOVE INLET PROTECTION OR OTHER EROSION AND SEDIMENT CONTROL MEASURES UNTIL SITE IS FULLY STABILIZED.

Canada Patent # 2285146, 2690156, 2690156 others pending



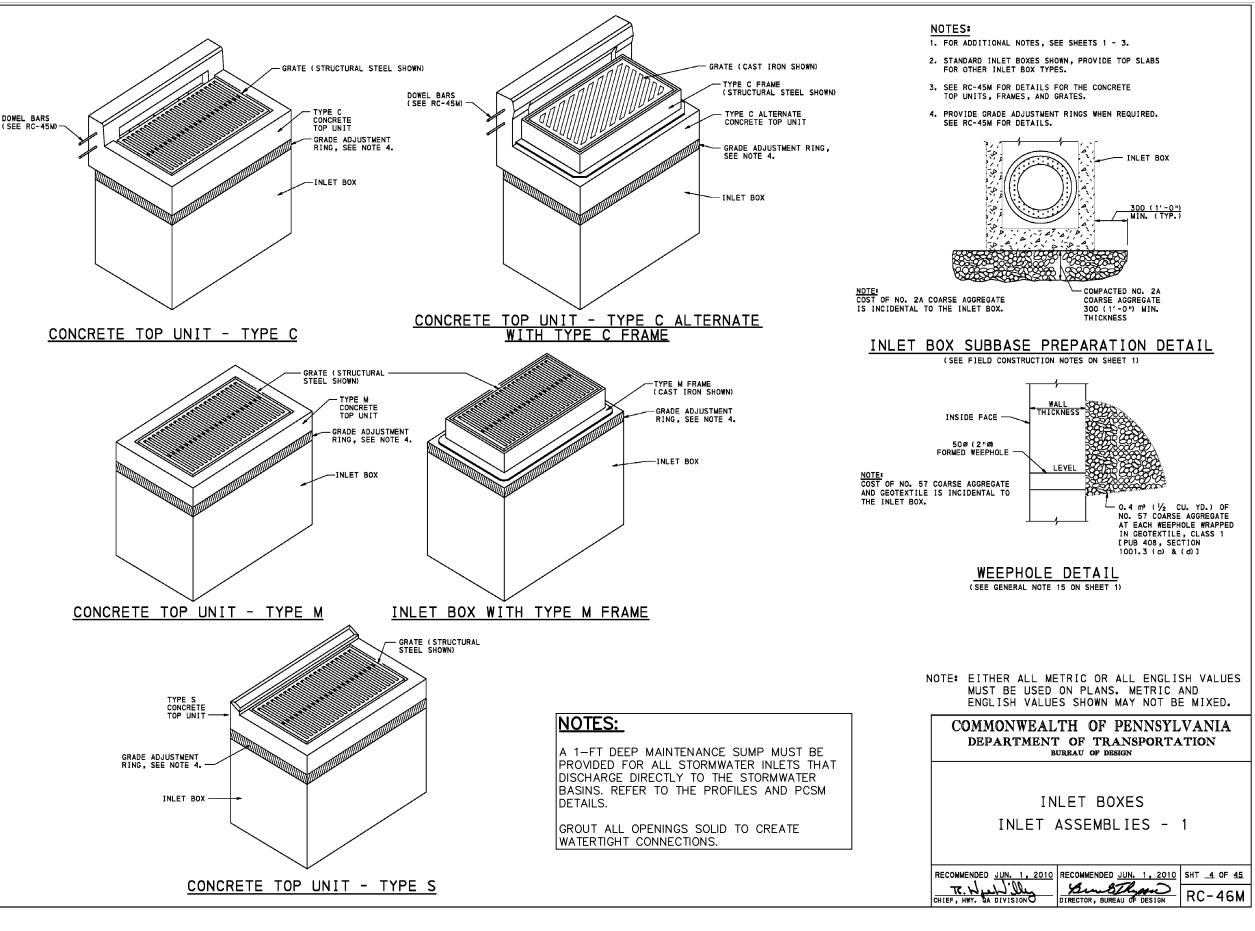
OIL- DEBRIS HOOD

SPECIFICATION AND

INSTALLATION

01/08/20 NONE

DRAWING NUMBER

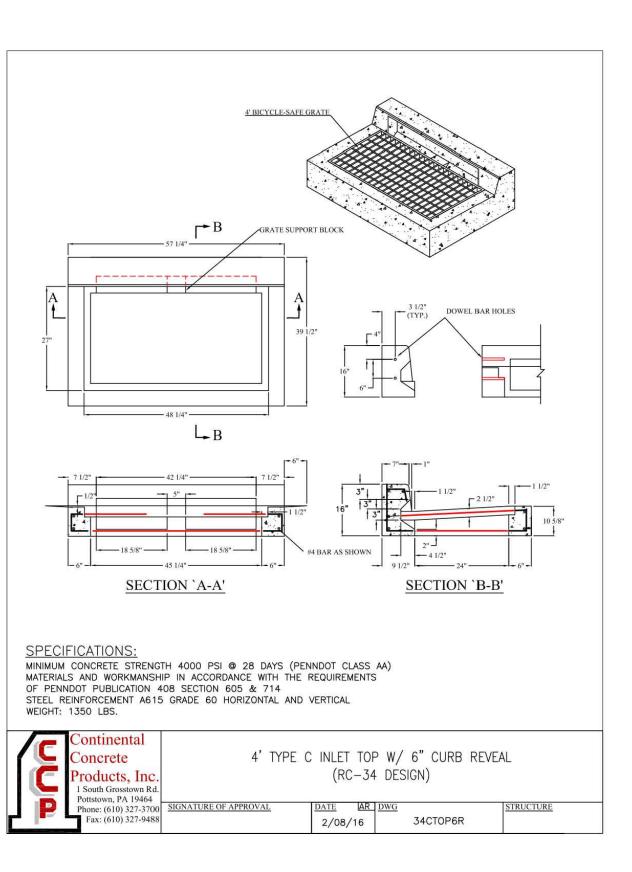


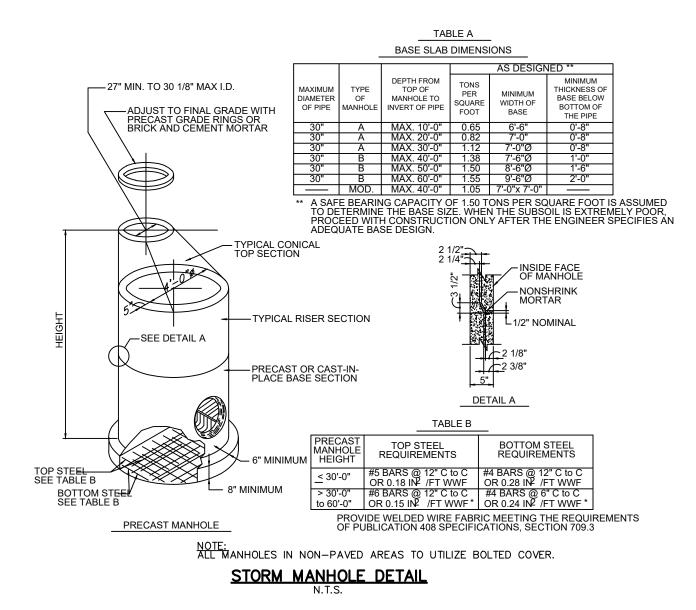
STORM SEWER

NSPECTION REQUIREMENTS ALL STORM COLLECTION STRUCTURES SHALL BE INSPECTED ANNUALLY, OR AFTER EACH RAINFALL EVENT IN EXCESS OF TWO (2") INCHES (MAJOR STORM EVENT). FOR TRASH, DEBRIS OR EVIDENCE OF PIPE LEAKAGE OR SAGGING; REMOVE TRASH OR DEBRIS IMMEDIATELY; IMMEDIATELY REPAIR OR REPLACE LEAKING/SAGGING DRAINAGE FEATURES.

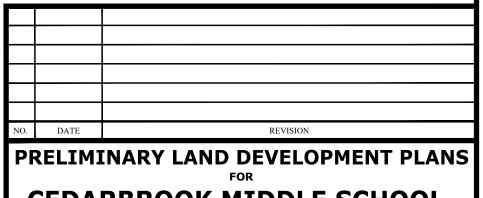
## GENERAL MAINTENANCE NOTES:

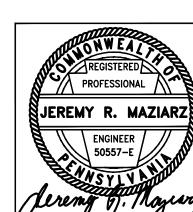
- ACCESS CAN BE GAINED TO EACH COLLECTION STRUCTURE THROUGH THE REMOVABLE INLET GRATE OR MANHOLE LID. STEEL OR OTHER APPROVED RUNGS HAVE BEEN INSTALLED ON THE INSIDE OF EACH STRUCTURE OVER FOUR FEET DEEP FOR ANY NECESSARY ENTRY. GRATES AND LIDS SHALL
- BE REPLACED SECURELY IMMEDIATELY AFTER MAINTENANCE. CONTACT DESIGN ENGINEER IMMEDIATELY AFTER DISCOVERY OF SINKHOLE OCCURRENCE, SINKHOLE SHOULD BE PROMPTLY AND PROPERLY REPAIRED. IF SEDIMENT/TRASH/DEBRIS IS FOUND IN THE CONVEYANCE SYSTEM, THE
- SYSTEM SHALL BE JETTED AND VACUUMED TO REMOVE ALL SEDIMENT/TRASH/DEBRIS AND DISPOSED OF APPROPRIATELY. REFER TO WATER QUALITY INLET MAINTENANCE GUIDELINES FOR ADDITIONAL DETAIL IN CLEANING OF THOSE STRUCTURES WITH WATER QUALITY APPARATUS INSTALLED.





POST-CONSTRUCTION STORMWATER MANAGEMENT NOTES & DETAILS



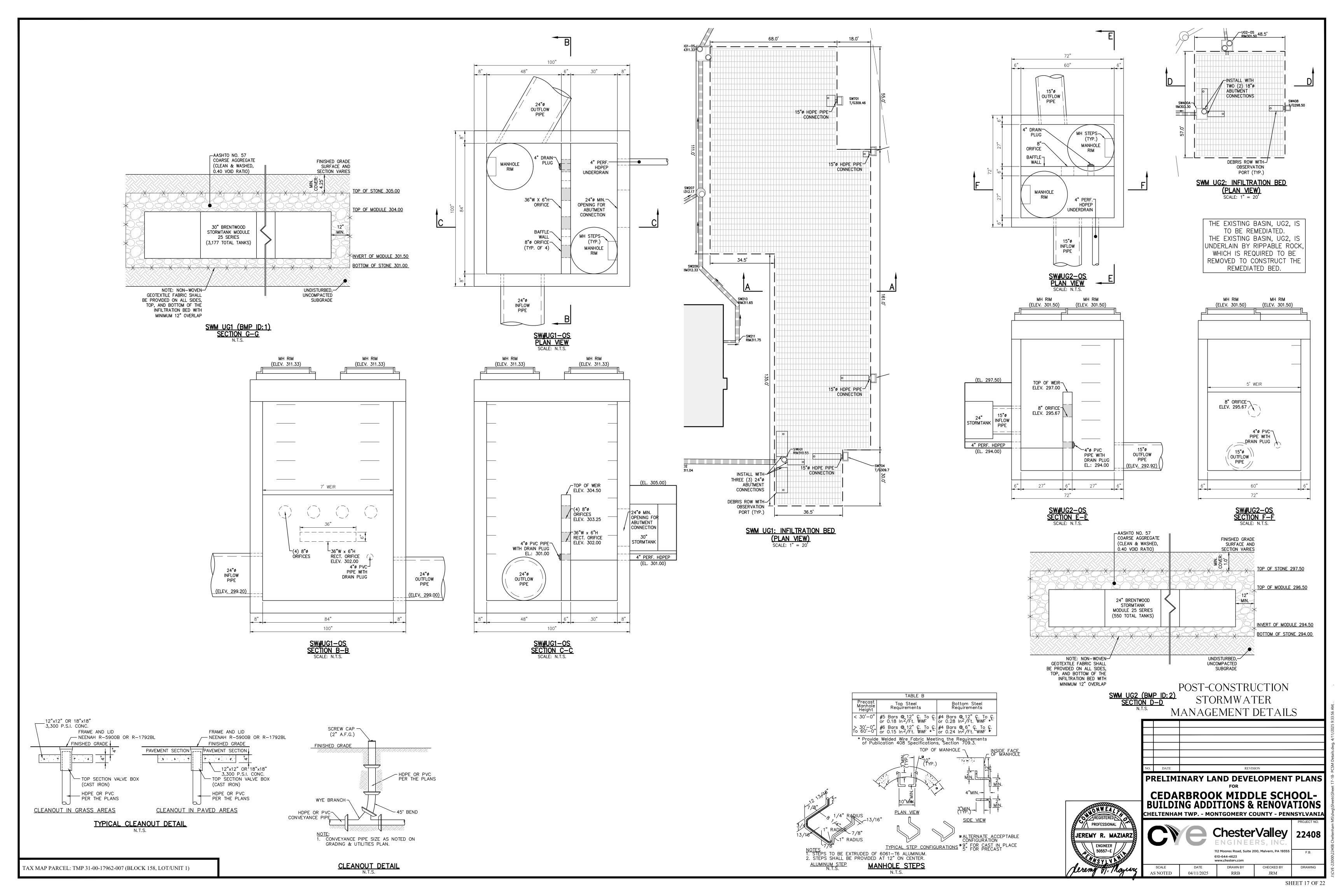


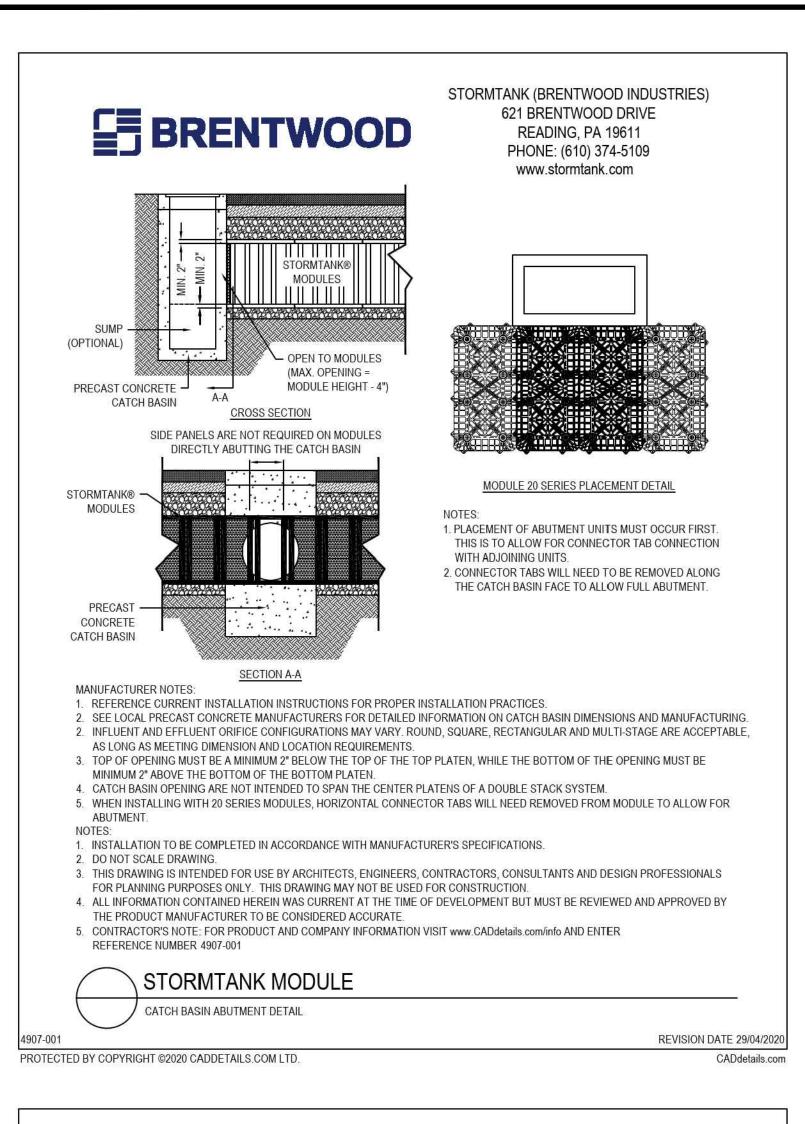
CEDARBROOK MIDDLE SCHOOL-**BUILDING ADDITIONS & RENOVATIONS** HELTENHAM TWP. - MONTGOMERY COUNTY - PENNSYLVANIA

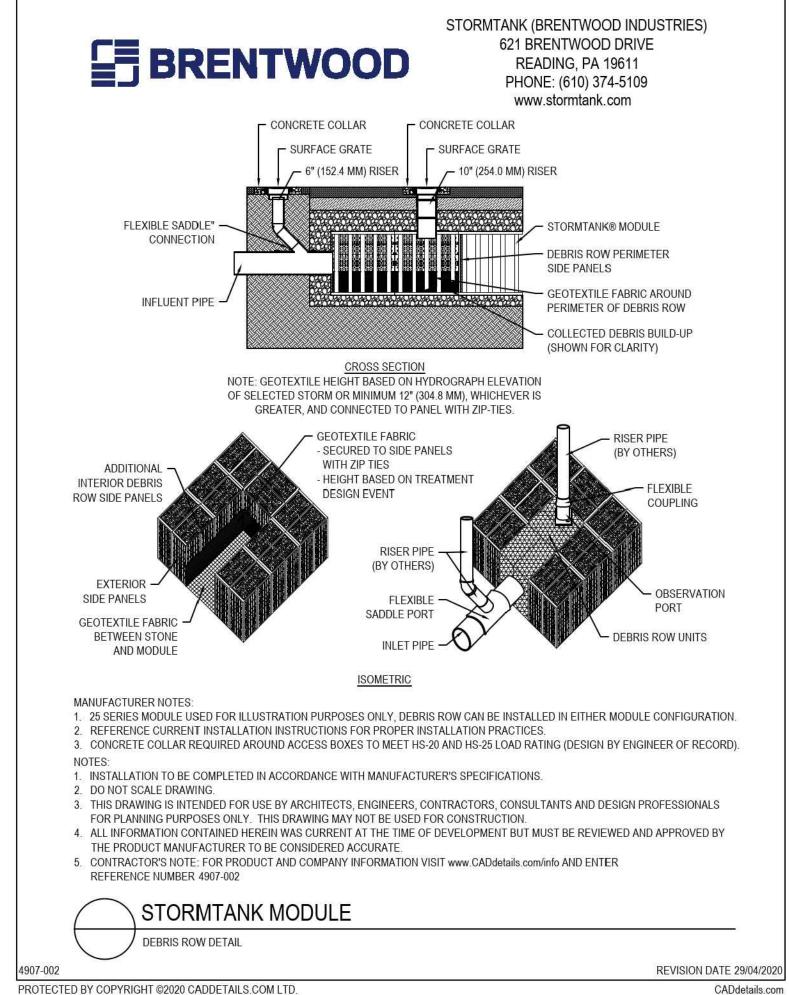
610-644-4623 www.chesterv.cor DRAWN BY CHECKED BY 04/11/2025 RRB JRM

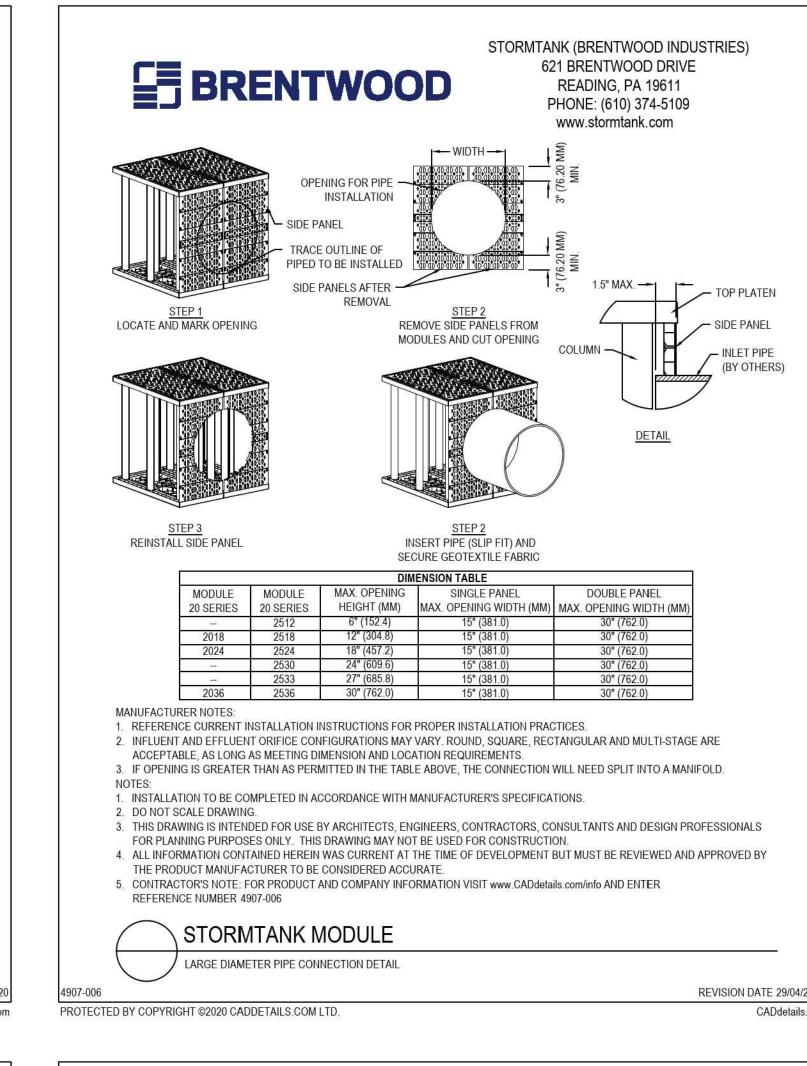
ΓAX MAP PARCEL: TMP 31-00-17962-007 (BLOCK 158, LOT/UNIT 1)

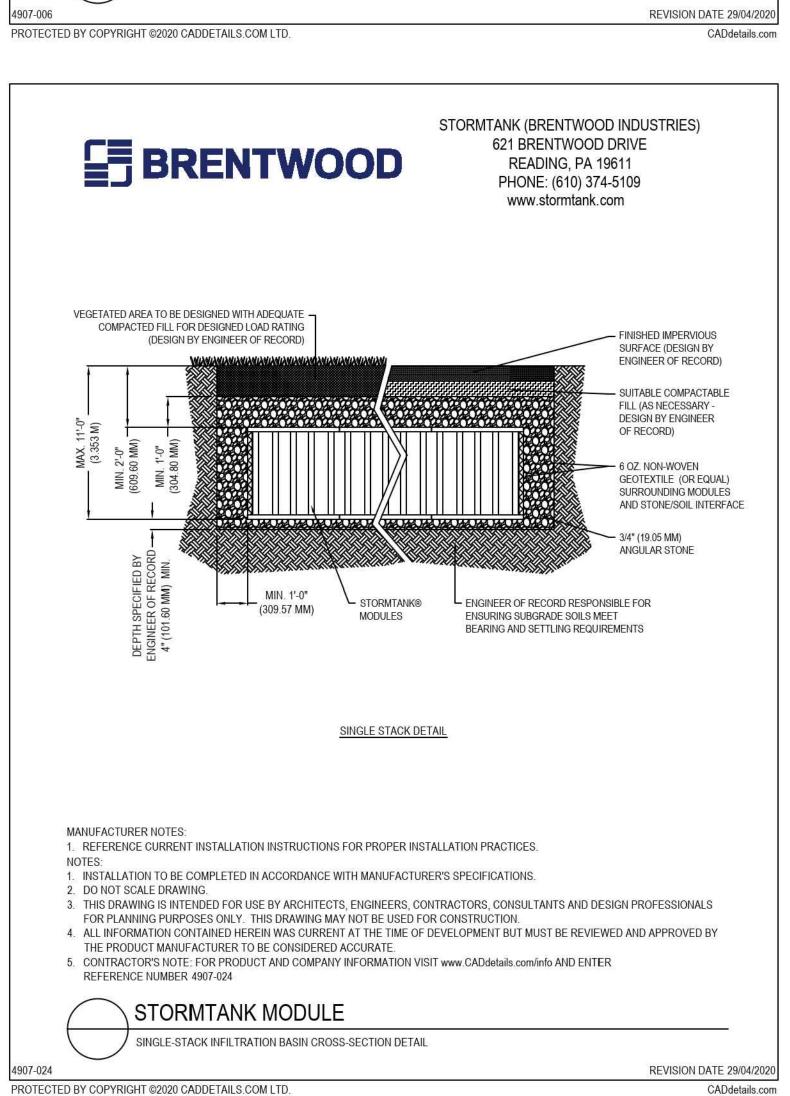
**SHEET 16 OF 22** 

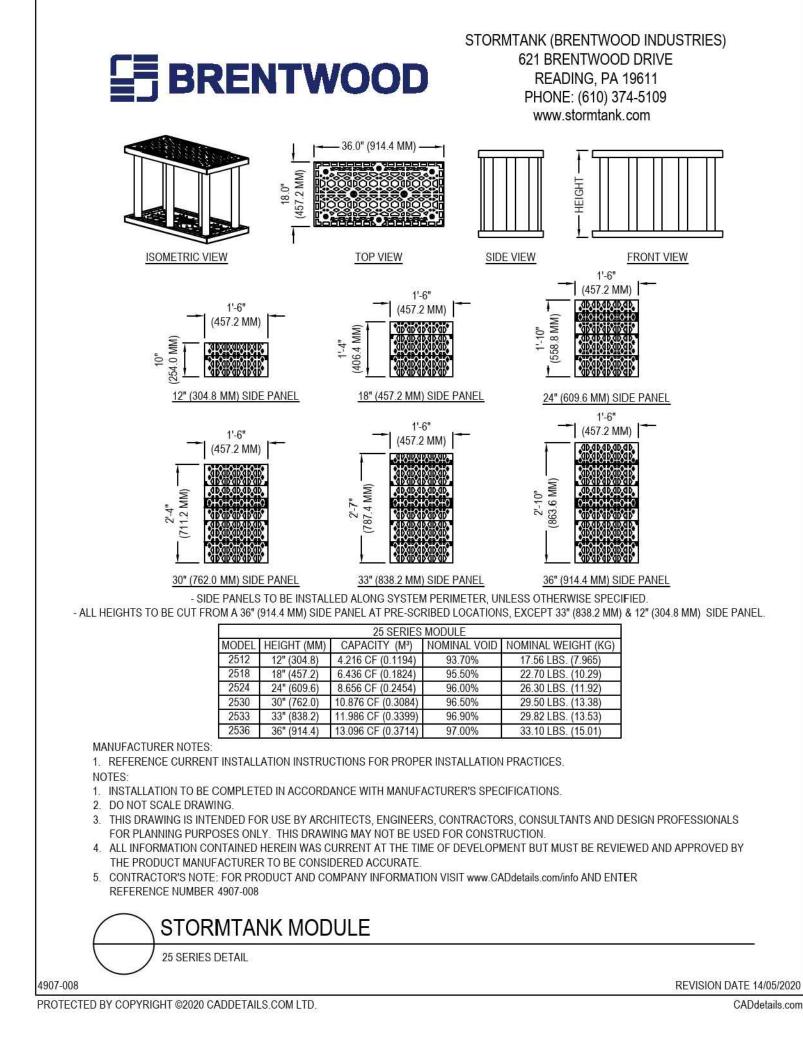


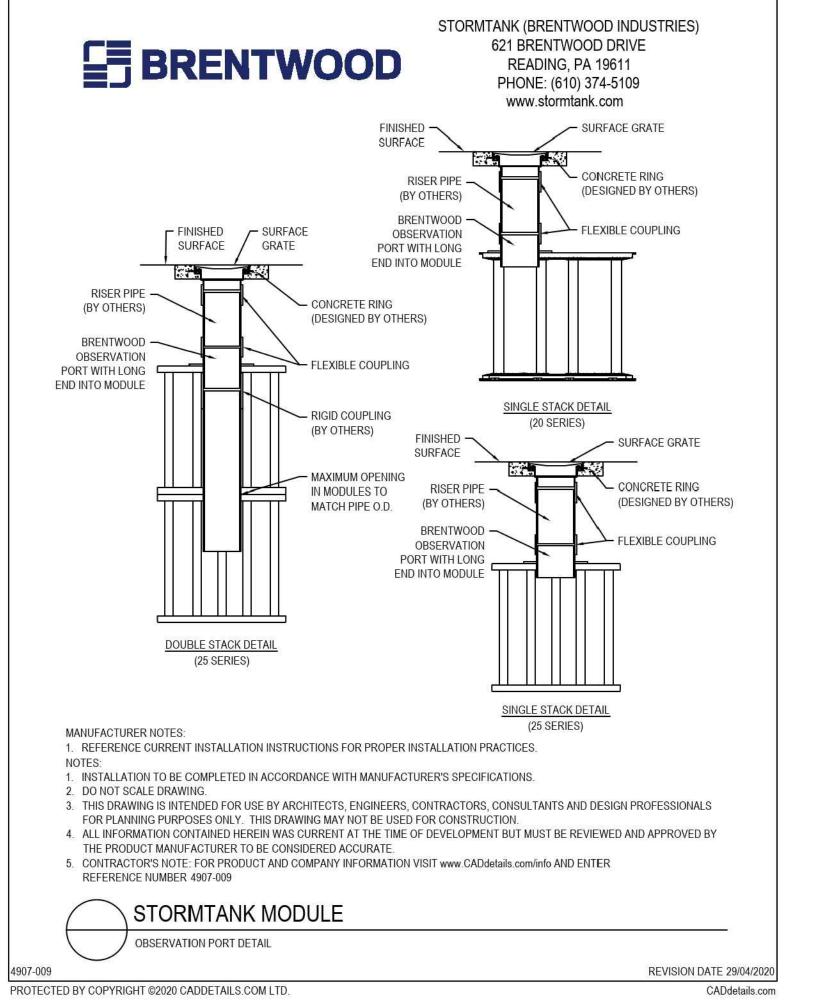


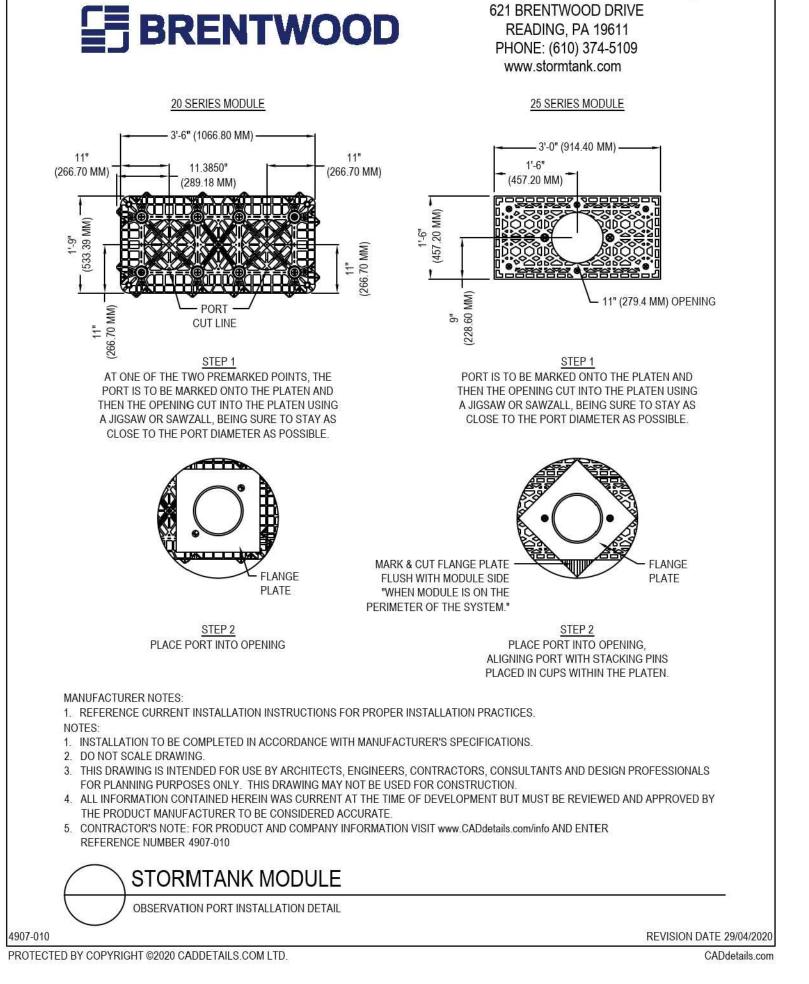




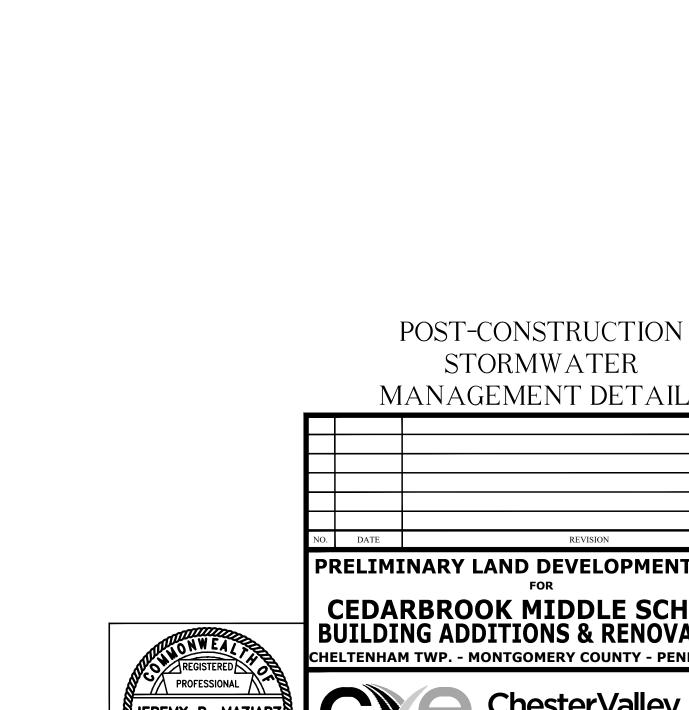






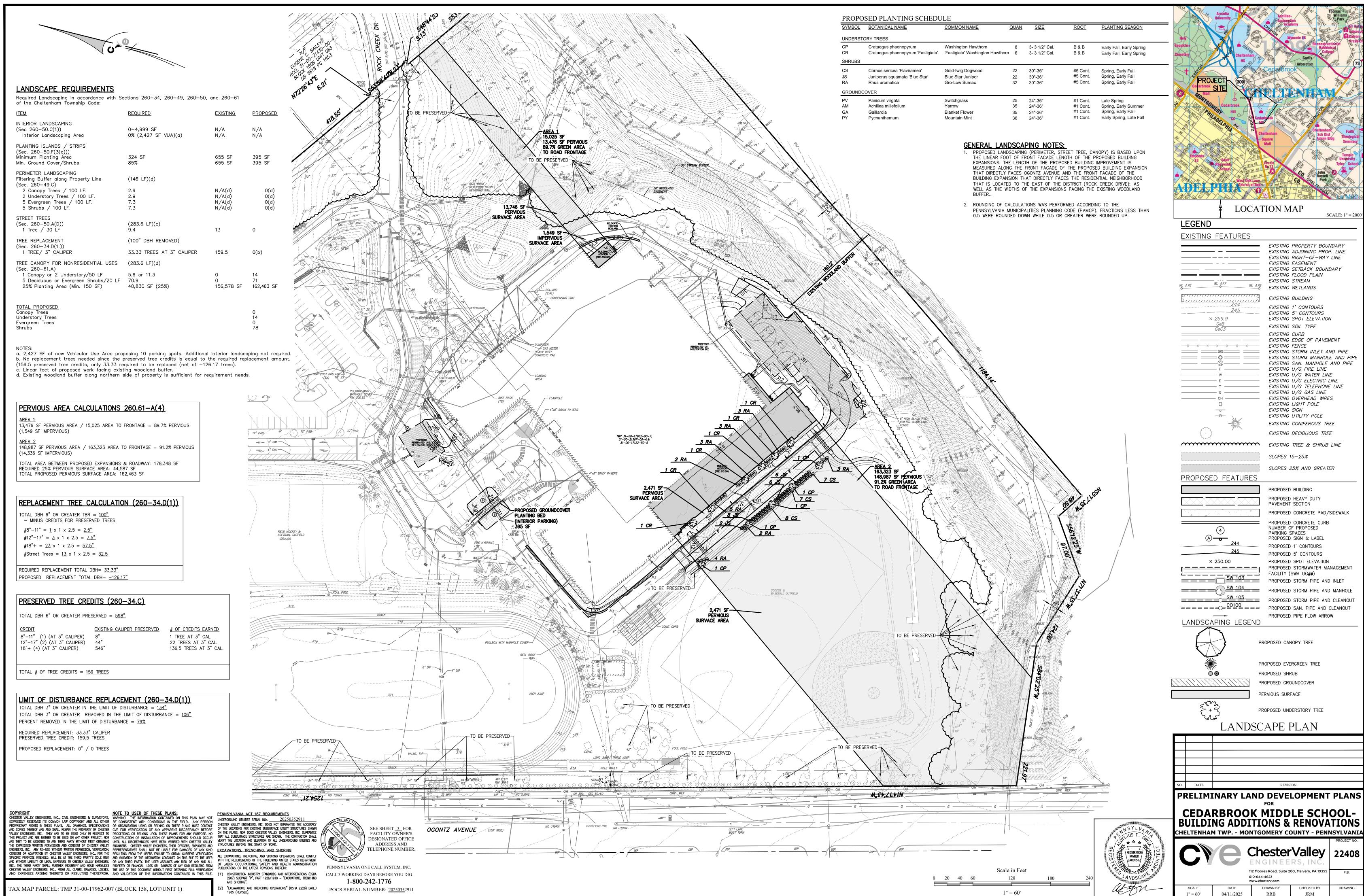


STORMTANK (BRENTWOOD INDUSTRIES)

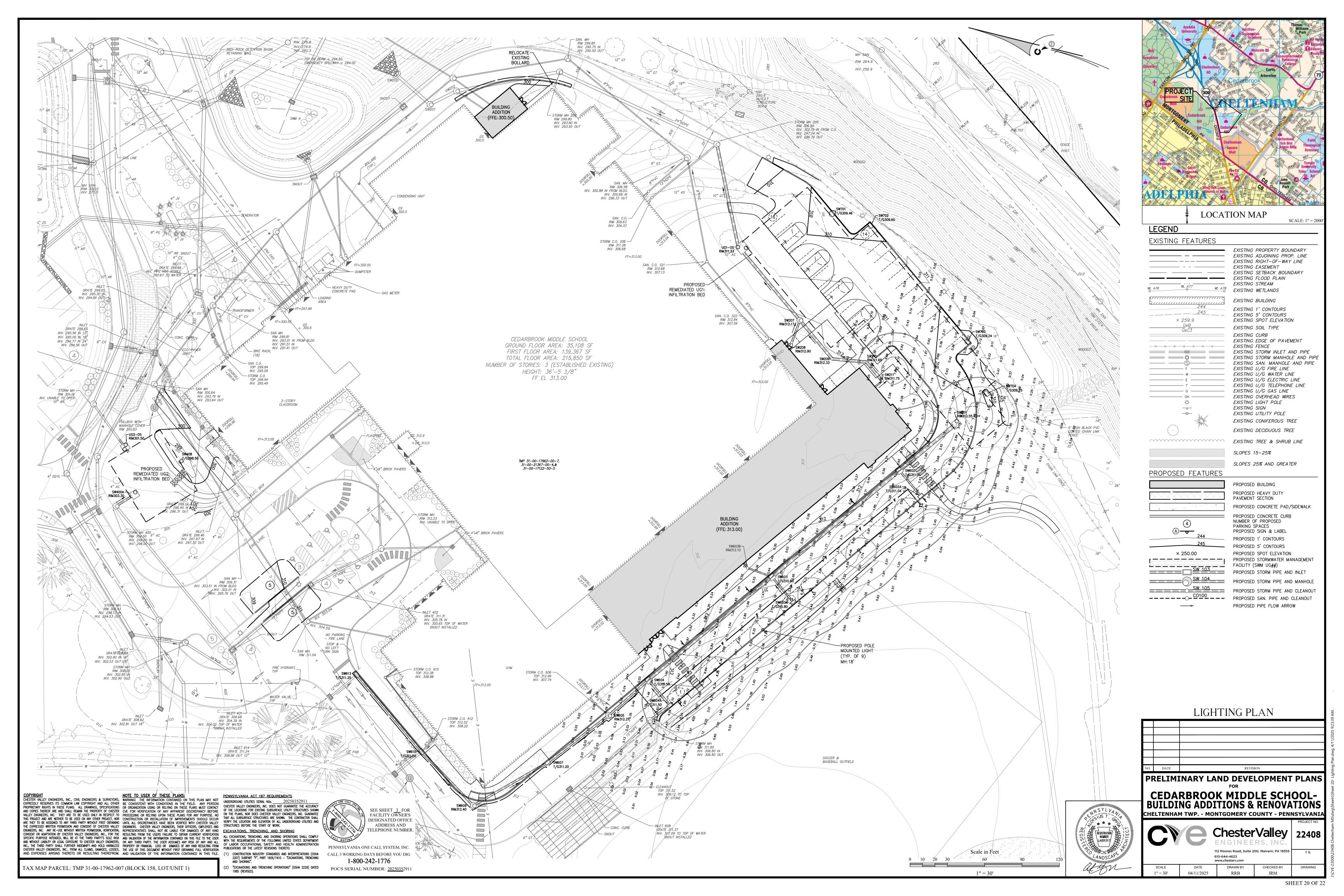


STORMWATER MANAGEMENT DETAILS PRELIMINARY LAND DEVELOPMENT PLANS CEDARBROOK MIDDLE SCHOOL-**BUILDING ADDITIONS & RENOVATIONS** HELTENHAM TWP. - MONTGOMERY COUNTY - PENNSYLVANIA 610-644-4623

CHECKED BY



**SHEET 19 OF 22** 



## **GENERAL LIGHTING NOTES**

THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED

BY THE NOTED MANUFACTURERS.

### INSTALLATION NOTES:

- 1.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FIELD VERIFICATION OF ALL EXISTING UNDERGROUND STRUCTURES AND UTILITIES, SUCH AS WATER MAINS, SANITARY AND STORM SEWERS, TELEPHONE AND ELECTRIC CONDUITS, AND GAS LINES, ETC. AND ABOVE GROUND UTILITIES WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION OPERATIONS.
- 2.) DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL ELEVATIONS, INVERTS, AND DIMENSIONS IN THE FIELD PRIOR TO THE COMMENCEMENT OF WORK.
- 3.) THE PENNSYLVANIA ONE CALL NUMBER IS 1-800-242-1776. THE CONTRACTOR IS REQUIRED TO SUBMIT VERIFICATION TO THE MUNICIPALITY THAT A ONE "ONE-CALL" HAS BEEN PLACED PRIOR TO THE START OF DEMOLITION WORK.
- 4.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS FROM THE MUNICIPALITY RELATIVE TO THE PROPOSED PROJECT.
- 5.) THE CONTRACTOR SHALL REPAIR ALL UTILITY TRENCHING WORK LOCATED WITHIN EXISTING PAVED STREETS.
- 6.) THE CONTRACTOR SHALL COMPLY WITH ALL CITY, STATE, AND FEDERAL REGULATIONS IN EFFECT AT THE TIME OF CONSTRUCTION.
- 7.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL.
- 8.) ALL AREAS DISTURBED AS A RESULT OF THE INSTALLATION OF LIGHTING IMPROVEMENTS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
- 9.) THE LIGHT LEVELS DEPICTED ON THIS PLAN WERE CALCULATED BASED ON THE LLF SHOWN IN THE LUMINAIRE SCHEDULE.
- 10.) THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED.
- 11.) ILLUMINATION LEVELS ARE SHOWN IN FOOT-CANDLES (FC).
- 12.) THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDING AND OR ROTATED OPTICS ARE INSTALLED AS INDICATED ON
- THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY APPROVED.

LIGHTING CONTROLS AND SURGE PROTECTION: ALL NEW FIXTURES ARE TO BE EQUIPPED WITH DIMONOFF RME-XBP PHOTOCELLS AND ABLE POWER PRODUCTS RWL-S SURGE DEVICE. FIXTURES MUST BE EQUIPPED WITH ALL-MODE PROTECTION (L-N, L-G, N-G). SURGE PROTECTION INTEGRAL

TO THE PHOTOCONTROL SHOULD HAVE 3 MODES OF PROTECTION, LINE-TO-NEUTRAL, LINE-TO-GROUND AND NEUTRAL-TO-GROUND. THE MINIMUM SURGE PROTECTION SPECIFICATIONS SHOULD BE 10KA IN, 25KA IMAX AND 20KV UOC.

WHEN SAFETY OR SECURITY LIGHTING IS PROPOSED FOR AFTER-HOURS ILLUMINATION, IT SHALL NOT BE IN EXCESS OF 25% OF NORMAL

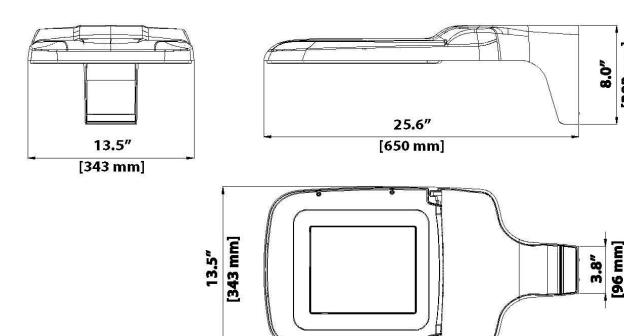
LIGHT OUTPUT REQUIRED OR PERMITTED AS PER MUNICIPAL CODE. LIGHTING FIXTURES ARE FULL-CUTOFF COMPLIANT AS PER MUNICIPAL CODE.

LIGHTING FIXTURES UTILIZE 3K LAMP COLOR AS PER MUNICIPAL CODE REQUIRES.

SET ONE SMART PHOTOCELL TO CONTROL ALL OTHER SITE LIGHTING FIXTURES (DIMONOFF #RME-XBP).

PLEASE CONTACT INDEPENDENCE LIGHTING FOR PRICING:

DIRECT: 610-363-5271



## PARKING LOT LUMINARY SPECIFICATIONS

LEOTEK ARIETA LUMINARE

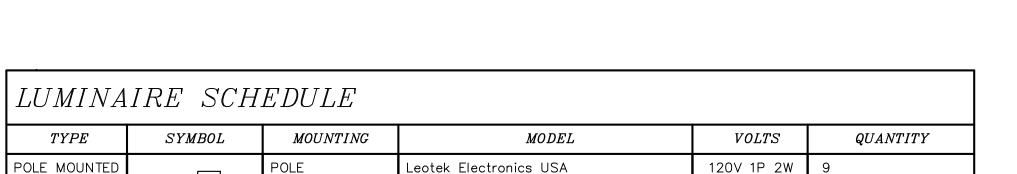
MODEL: (SEE LUMINAIRE SCHEDULE)

- DISTRIBUTION TYPE (SEE LUMINAIRE SCHEDULE)
- COLOR: BLACK

• IES FULL CUTOFF

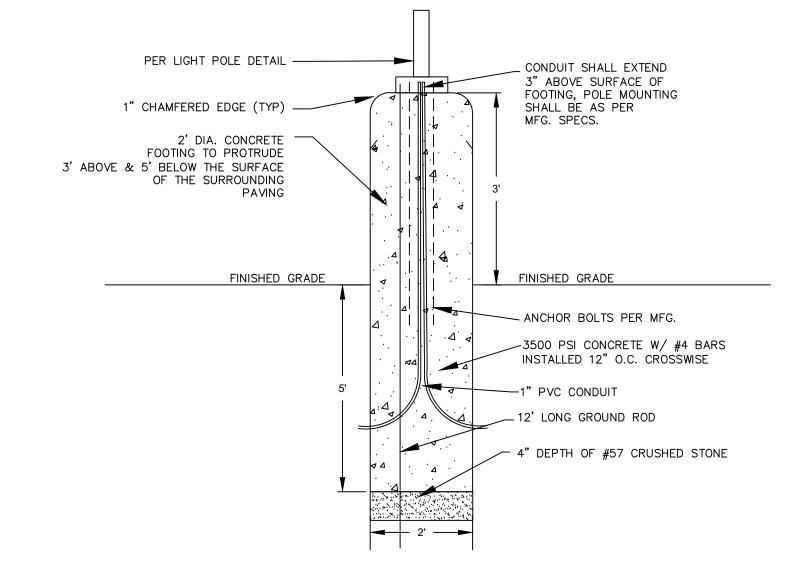
- QTY: 9 (10 IF REPLACEMENT NEEDED)
- OPTIONS: DIMONOFF PHOTOCELL & RWL-S SURGE DEVICE

POLE MOUNTED LIGHTING FIXTURE DETAIL

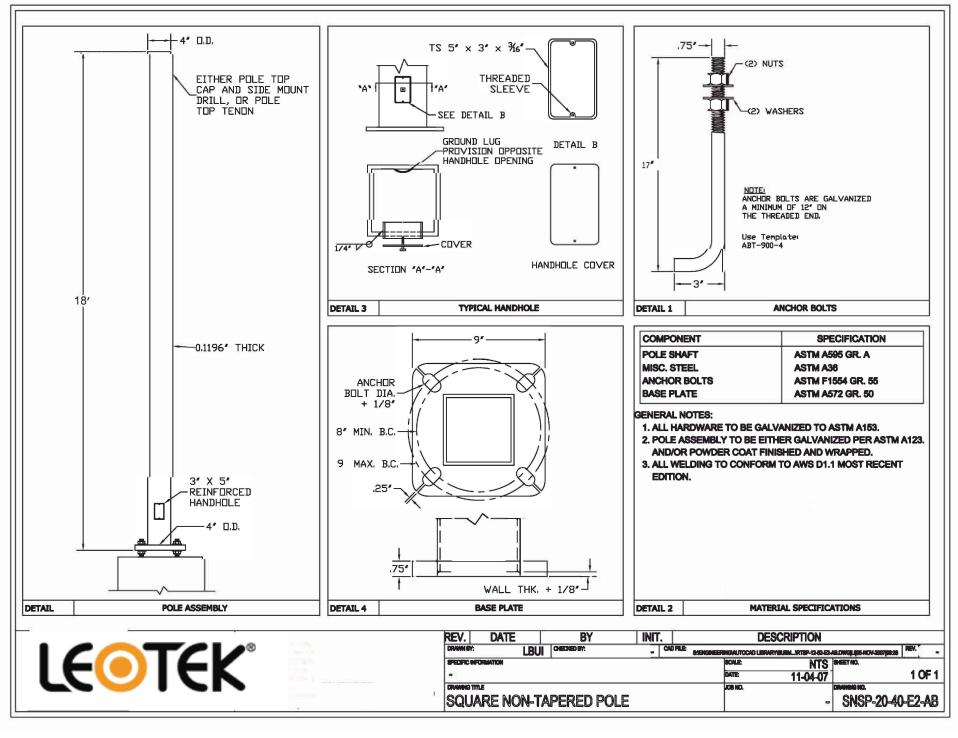


AR13-CG2-N-MV-30K-T5-WH-115

GENERAL PHOTOMETRIC SCHEDULE					
AVERAGE FOOT-CANDLES	1.29				
MAXIMUM FOOT-CANDLES	17.16				
MINIMUM FOOT-CANDLES	0.00				
MINIMUM TO MAXIMUM FC RATIO	0.00				
MAXIMUM TO MINIMUM FC RATIO	21910.22				
AVERAGE TO MINIMUM FC RATIO	1646.72				



LIGHT POLE FOOTING DETAIL



LIGHT POLE DETAIL

## **PLANTING NOTES**

- 1. THE LANDSCAPE PLAN IS INTENDED TO BE USED FOR LANDSCAPING PURPOSES
- 2. LANDSCAPE CONTRACTOR SHALL CALL PA ONE CALL (1-800-242-1776) OR CONFIRM WITH GENERAL CONTRACTOR THAT THE SITE HAS BEEN MARKED FOR UNDERGROUND UTILITY LOCATIONS. NO PLANTINGS SHALL BE PLACED WITHOUT UNDERGROUND UTILITY MARKINGS.
- 3. TREES AND SHRUBS SHALL NOT BE PLANTED OVER ANY UNDERGROUND UTILITY, NOR WITHIN ANY UNDERGROUND UTILITY EASEMENT (MINIMUM OF 10' FROM THE CENTER OF THE PIPE). CONTRACTOR SHALL VERIFY LOCATION OF ALL
- UNDERGROUND UTILITIES PRIOR TO STARTING WORK. 4. LANDSCAPE CONTRACTOR SHALL INSPECT THE SITE AND BECOME FAMILIAR WITH THE PLANTING AREA PRIOR TO THE INSTALLATION OF ANY PLANT MATERIAL. THE TOWNSHIP LANDSCAPE ARCHITECT/ENGINEER SHALL BE NOTIFIED PRIOR TO
- 5. THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS SHOWN ON THE DRAWINGS, AS SPECIFIED, AND IN QUANTITIES INDICATED ON THE PLANT LIST.

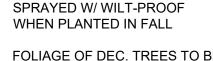
BEGINNING PLANING OPERATIONS, IN WRITING.

- 6. PLANT MATERIAL QUANTITIES LISTED FOR THE CONVENIENCE OF THE CONTRACTOR. ACTUAL NUMBERS OF SYMBOLS SHALL TAKE PRECEDENCE OVER QUANTITIES LISTED IN CASES OF CONFLICT.
- 7. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR SUPPLYING ALL MATERIALS. SUPPLIES, EQUIPMENT AND LABOR REQUIRED TO INSTALL THE LANDSCAPING SHOWN ON THESE PLANS.
- 8. ALL PLANT MATERIAL SUBJECT TO APPROVAL BY THE OWNER OR OWNERS REPRESENTATIVE PRIOR TO INSTALLATION. PLANT MATERIAL SHALL BE NURSERY GROWN LOCALLY, FRESHLY DUG, SHALL BE FREE OF DISEASE AND PESTS, AND SHALL BE FULL AND WELL SHAPED. ANY MATERIAL FOUND TO BE UNACCEPTABLE SHALL BE REPLACED WITH ACCEPTABLE MATERIAL AT NO COST TO THE OWNER.
- 9. WHEN PLANTS OF A SPECIFIED KIND OR SIZE ARE NOT AVAILABLE WITHIN A REASONABLE DISTANCE, SUBSTITUTIONS MAY BE MADE UPON REQUEST BY THE CONTRACTOR IF APPROVED BY THE OWNER OR THEIR REPRESENTATIVE AND THE TOWNSHIP. CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF ANY PLANT MATERIALS WHICH THEY FEEL WILL NOT BE AVAILABLE OR NOT LIKELY TO THRIVE IN THE LOCATIONS INDICATED ON THE PLAN.
- 10. ALL PLANT MATERIAL SHALL BE NURSERY GROWN AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK OF THE AMFRICAN ASSOCIATION OF NURSERYMEN (AS LAST REVISED) AND WITH THE GENERAL PLANTING SPECIFICATIONS OF THE MUNICIPALITY.
- 11. ALL PLANT MATERIAL SHALL BE OF THE MINIMUM SIZE NOTED ON THE PLANTING SCHEDULE. PLANT MATERIAL SHALL BE MEASURED IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK AS LAST REVISED.
- 12. ALL AREAS TO BE LANDSCAPED, ESPECIALLY NEXT TO BUILDING AREAS, SHALL BE EXCAVATED OF ALL BUILDING MATERIAL, DEBRIS AND POOR SOILS TO A MINIMUM DEPTH OF 12"-18" AND BACKFILLED WITH A GOOD, MEDIUM TEXTURED PLANTING SOIL. ALL LAWN AREAS SHALL HAVE A MINIMUM OF 4"-6" OF TOPSOIL SPREAD PRIOR TO SEEDING OR SODDING AS MAY BE SPECIFIED. AREAS ADJACENT TO CURBS AND WALKS SHALL BE CROWNED A MINIMUM OF 4" HIGHER THAN THE TOP OF CURB OR WALK TO ALLOW FOR SETTLING, HOWEVER FINISHED GRADE IMMEDIATELY ADJACENT TO THE CURB OR WALK SHALL BE SUFFICIENTLY DEPRESSED TO ALLOW FOR THE SURFACE OF ANY MULCHING OR SOD TO BE EVEN WITH THE TOP OF CURB OR WALK.
- 13. PERMANENT SEED MIX SHALL BE AS NOTED ON THE EROSION AND SEDIMENT CONTROL PLAN NOTES. FALL PLANTINGS SEASON SHALL EXTEND FROM SEPTEMBER 1 TO OCTOBER 15, AND SPRING PLANTING SEASON SHALL EXTEND FROM APRIL 1 TO MAY 15.
- 14. ALL BORDERS BETWEEN LAWN AREAS AND PLANTING BEDS SHALL NOT HAVE EDGING UNLESS OTHERWISE NOTED ON THE PLANS.
- 15. COMPACTED EXISTING SOILS SHALL BE REMEDIATED WITH SOIL ADDITIVES OR SOIL REPLACEMENT PRIOR TO PLANTING.
- 16. SEE TREE PLANTING DETAILS FOR TREE PLANTING AND STAKING/STAPLING DIRECTIONS. SEE SHRUB PLANTING DETAILS FOR SHRUB PLANTING DIRECTIONS.TREE SHALL BE STAKED OR STAPLED IMMEDIATELY AFTER PLANTING.
- 17. REMOVE ALL TWINE AND WIRE FROM TREE AND SHRUB ROOT BALLS. REMOVE ALL BURLAP AND TWINE FROM ALL PLANT MATERIAL PRIOR TO PLANTING. UNTIL ALL TWINE AND/OR BURLAP FROM THE TRUNK OF THE PLANT MATERIAL AND REMOVE FROM PLANT. REMOVE ALL PLANT CONTAINERS PRIOR TO PLANTING.
- 18. PRUNE ALL PLANT MATERIAL AFTER PLANTING IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS. FINE PRUNE ALL PLANTS TO SHAPE. BUT DO NOT DISFIGURE PLANT MATERIAL. PRUNE ALL DEAD BRANCHES FROM PLANT MATERIAL.
- 19. LIMB DECIDUOUS, HIGH CANOPY (SHADE) TREES TO 8' ABOVE GRADE.
- 20. ALL PLANTINGS SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE LANDSCAPE PLANS. MINOR ADJUSTMENTS FOR FIELD CONDITIONS MAY BE REQUIRED. SIGNIFICANT ADJUSTMENTS NEEDS TO BE APPROVED BY THE OWNER PRIOR TO PLANTING. THE CONTRACTOR SHALL NOTIFY THE TOWNSHIP'S REPRESENTATIVE IF MAJOR ADJUSTMENTS ARE REQUIRED.
- 21. CANOPY TREES TO BE PLACED A MINIMUM OF 30" FROM PAVED AREAS AND WALKWAYS UNLESS OTHERWISE DIRECTED.
- 22. CONTRACTOR SHALL FINAL GRADE ALL PLANTING AREAS AND BERMS AS NECESSARY PRIOR TO THE INSTALLATION OF THE PLANT MATERIAL UNLESS FINAL GRADING IS TO BE PERFORMED BY OTHERS. REGARDLESS, PLANTING AREAS SHALL BE FINE RAKED SMOOTH AND EVEN AFTER THE INSTALLATION OF THE PLANT MATERIAL AND PRIOR TO MULCHING. NO PLANT MATERIAL SHALL BE INSTALLED AND NO RAKING SHALL OCCUR IF THE SOILS ARE SATURATED OR
- 23. TREES PLANTED IN LAWN AREAS TO BE MULCHED WITH A RING A MINIMUM OF 2' WIDE WITH A MINIMUM OF 3" OF MULCH UNLESS OTHERWISE NOTED OR REQUIRED FOR TREE PROTECTION. SHRUB BEDS TO BE MULCHED TO A MINIMUM DEPTH OF
- 24. SHRUB GROUPINGS SHOWN ON THE LANDSCAPE PLANS SHALL BE PLANTED AS A SINGLE BED.
- 25. MULCH TO BE SHREDDED HARDWOOD BARK. PRIOR TO INSTALLATION OF THE MULCH, SPREAD A PRE-EMERGIENT HERBICIDE.
- 26. PLANT MATERIAL SHALL BE INSTALLED THE SAME DAY AS IT IS DELIVERED TO THE SITE TO THE EXTENT PRACTICAL. ANY PLANT MATERIAL THAT IS NOT PLANTED THE SAME DAY IT ARRIVES SHALL BE PROTECTED FROM DRYING OUT BY THE CONTRACTOR UNTIL IT CAN BE PLANTED. TEMPORARY WATER SYSTEMS ARE TO BE USED FOR PLANT MATERIALS WHICH WILL BE STORED FOR MORE THAN ONE WEEK
- 27. CONTRACTOR SHALL THOROUGHLY WATER ALL MATERIAL PLANTED AT THE END OF EACH DAY.
- 28. CONTRACTOR SHALL APPLY ANTI-DESICCANT TO PLANT MATERIAL FOR LATE SUMMER AND FALL PLANTINGS.
- 29. UPON COMPLETION OF PLANTING AND MULCHING AND AT THE END OF EACH DAY, CONTRACTOR SHALL REMOVE ALL EXTRANEOUS MATERIAL AND DEBRIS, BROOM SWEEP AND WASH THE AREA CLEAN.
- 30. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF 18 MONTHS FROM THE DATE OF ACCEPTANCE BY THE OWNER. ALL PLANT MATERIAL THAT DOES NOT SURVIVE THE GUARANTEE PERIOD SHALL BE REPLACED BY THE CONTRACTOR. DEAD PLANTS SHALL BE REPLACED NO LATER THAN THE NEXT PLANTING SEASON.
- 31. CONTRACTOR SHALL NOTIFY THE OWNER 48 HOURS BEFORE THE COMPLETION OF THE GUARANTEE PERIOD AND SCHEDULE A FINAL INSPECTION OF THE PLANT MATERIAL AND LAWN AREAS. AT OR BEFORE THE FINAL INSPECTION, CONTRACTOR SHALL REMOVE ANY REMAINING TREE STAKES/STAPLES AND PRUNE THE PLANT MATERIAL AS NEEDED UNLESS OTHERWISE DIRECTED BY THE OWNER. FINAL INSPECTION OF LANDSCAPING SHALL BE PERFORMED WHILE TREES ARE FULLY LEAFED OUT, TYPICALLY MAY 15 - NOVEMBER 1.
- 32. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES THAT ARE NOT SHOWN TO BE PLANTING BEDS ON THE LANDSCAPE PLANS, SHALL BE SEEDED AS LAWN AREAS PER THE SEEDING SPECIFICATIONS ON THE EROSION AND SEDIMENT CONTROL NOTES WITHIN THESE PLANS.
- 33. CONTRACTOR SHALL PROVIDE ALL TOPSOIL, FERTILIZERS AND OTHER ADDITIVES AS REQUIRED UNLESS OTHERWISE DIRECTED BY THE OWNER. ALL MATERIALS USED SHALL BE AS SPECIFIED OR BETTER.
- 34. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE PLANT MATERIAL UNTIL SUCH TIME AS THE PROJECT IS ACCEPTED BY THE OWNER.
- 35. THE CONTRACTOR SHALL REMOVE ALL TREE MESH GUARDS AT THE END OF THE GUARANTEE PERIOD.
- 36. CONTRACTOR SHALL PROVIDE THE OWNER WITH WRITTEN INSTRUCTIONS REGARDING THE CARE OF THE PLANT MATERIAL AND ANY SPECIAL

CIRCUMSTANCES.

- LONG EDGE OF STAPLE EDGE OF ROOT BALL TREE TRUNK

STAPLE SPACING DIAGRAM



**EVERGREEN PLANTINGS TO BE** 

TREE STAPLE CHART

REE STAPLE

MODEL

TS24 (24")

TS36 (36")

TS42 (42")

CALIPER

1 - 2"

2 - 4"

4 - 6"

NO. OF TREE

STAPLE PER

TREE

2 with up to 16

2 with a 24"

3 with a 30" -

Root Ball

FOLIAGE OF DEC. TREES TO BE PRUNED BACK BY ONE-THIRD. CUTTING OFF WHOLE BRANCHES, NOT TIPS. RETAIN NATURAL SHAPE, DO NOT CUT LEADER

INSTALL PLASTIC MESH TREE GUARDS ON ALL PROPOSED TREES (4" W x 36" H) BY A.M. LEONARD TOOL & SUPPLY CO. (1-800-543-8985) OR EQUAL. (PLACE ON DECIDUOUS TREES ONLY)

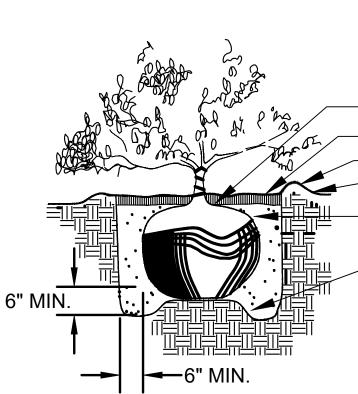
GRADE AT WHICH TREE GREW 3" OF APPROVED MULCH

6" SAUCER

CUT AND REMOVE ALL TWINE AND BURLAP, EXPOSING ENTIRE SURFACE OF ROOT BALL

**BACKFILL MIX: 20 PERCENT COMPOST** MIXED WITH 80 PERCENT NATIVE SOILS. COMPOST SHALL CONSIST OF ORGANIC MATERIALS, EXCLUDING SAWDUST AND WOODCHIPS. LOOSEN AND BREAK UP ANY CLODS OF SOIL BEFORE BACKFILLING. ALLOW NO AIR POCKETS IN BACKFILL

TREE PLANTING DETAIL



GRADE AT WHICH SHRUB GREW

NTS

— 3" OF APPROVED MULCH

- FINISHED GRADE

CUT AND REMOVE BURLAP OR POLY CONTAINER FROM ROOT BALL

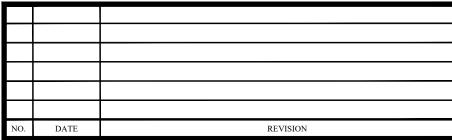
BACKFILL MIX: 20 PERCENT COMPOST MIXED WITH 80 PERCENT NATIVE SOILS. COMPOST SHALL CONSIST OF ORGANIC MATERIALS, EXCLUDING SAWDUST AND WOODCHIPS. LOOSEN AND BREAK UP ANY CLODS OF SOIL BEFORE BACKFILLING. ALLOW

NO AIR POCKETS IN BACKFILL

SHRUB PLANTING DETAIL

NTS

LANDSCAPE & LIGHTING DETAILS



PRELIMINARY LAND DEVELOPMENT PLANS CEDARBROOK MIDDLE SCHOOL



AS NOTED

HAN



ChesterValley | 22408 610-644-4623 www.chesterv.cor DRAWN BY CHECKED BY DRAWING 04/11/2025 RRB

JRM

SHEET 21 OF 22

TAX MAP PARCEL: TMP 31-00-17962-007 (BLOCK 158, LOT/UNIT 1)

