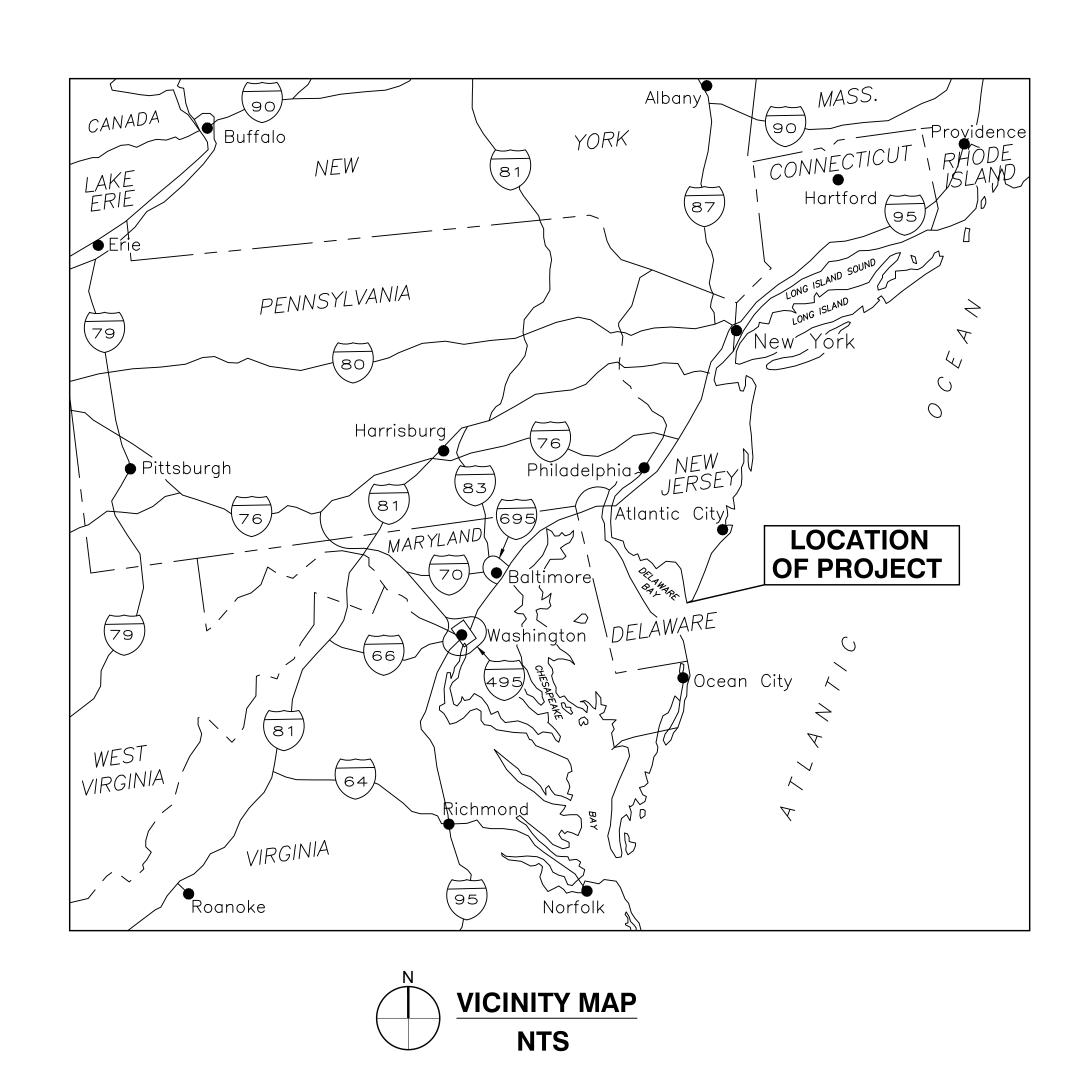
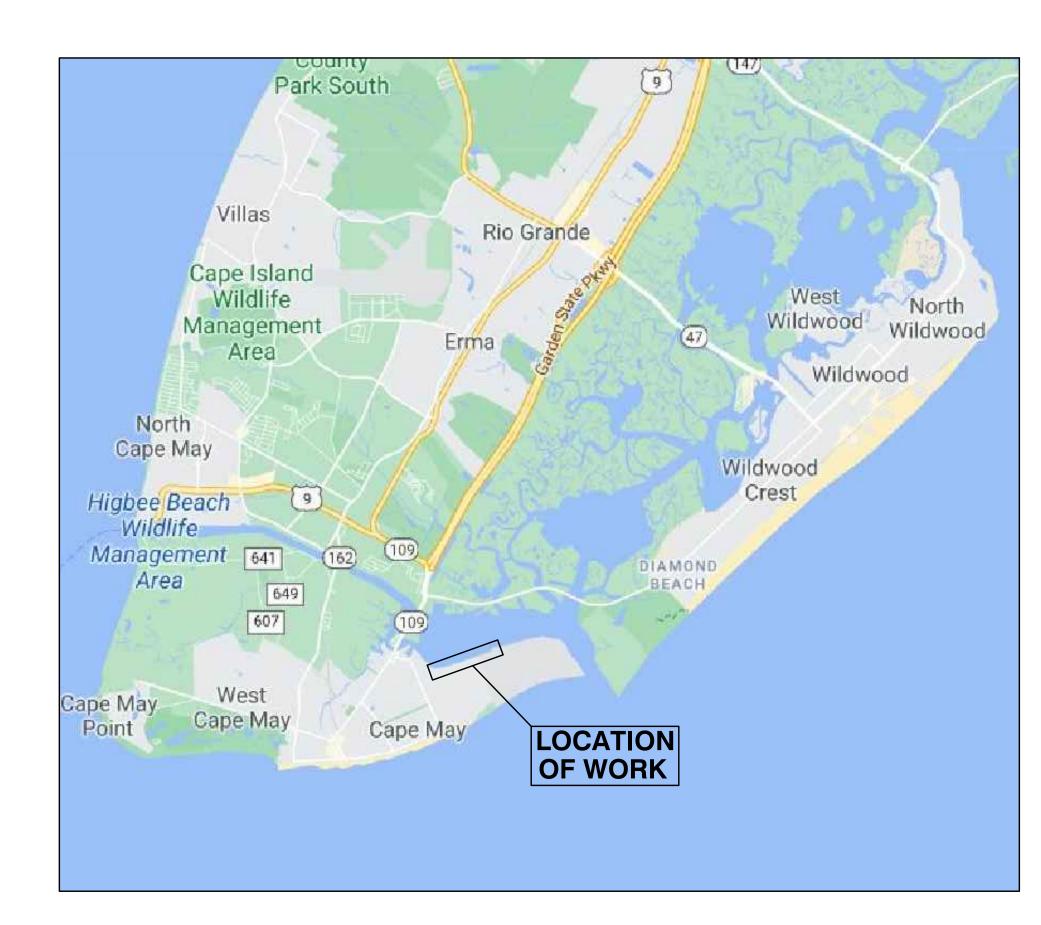


DELAWARE AVENUE REVETMENT

CAPE MAY, NEW JERSEY CAPE MAY COUNTY, NEW JERSEY







SOLICITATION NO:TBD

CONTRACT NO:TBD

ISSUE/SUBMITTAL DATE:90% 01 JUNE 2023

	DRAWINGS INDEX
SHEET NUMBER	SHEET TITLE
	GENERAL
G-001	COVER SHEET
	CIVIL
BB101	EXPLORATION LOCATION PLAN
C-001	GENERAL INFORMATION SHEET
C-002	GENERAL PLAN
CD101	EXISTING CONDITIONS & DEMOLITION PLAN
CD102	EXISTING CONDITIONS & DEMOLITION PLAN
CD103	EXISTING CONDITIONS & DEMOLITION PLAN
CD104	EXISTING CONDITIONS & DEMOLITION PLAN
C-101	PLAN - STA. 0+00 TO STA. 6+00
C-102	PLAN - STA. 6+00 TO STA. 13+27
C-103	PLAN - STA. 13+27 TO STA. 20+54
C-104	PLAN - STA. 20+54 TO STA. 26+77
C-201	PROFILE - NATURE CENTER RAMP
C-202	PROFILE - EXISTING OUTFALLS
C-203	PROFILE - OUTFALL WORK
C-301	TYPICAL SECTIONS
C-302	TYPICAL SECTIONS
C-303	CROSS SECTIONS - STA. 0+00 TO STA. 6+50
C-304	CROSS SECTIONS - STA. 7+00 TO STA. 12+50
C-305	CROSS SECTIONS - STA. 13+00 TO STA. 19+50
C-306	CROSS SECTIONS - STA. 20+00 TO STA. 24+00
C-501	DETAILS
CE001	EROSION AND SEDIMENT CONTROL NOTES
CE101	EROSION AND SEDIMENT CONTROL PLAN
CE102	EROSION AND SEDIMENT CONTROL PLAN
CE501	EROSION AND SEDIMENT CONTROL DETAILS
	REFERENCE DRAWINGS
R-101	EXISTING CONDITION SHEET 1 OF 2
R-102	EXISTING CONDITION SHEET 2 OF 2

THIS PROJECT WAS DESIGNED BY THE PHILADELPHIA DISTRICT OF THE U.S.

ARMY CORPS OF ENGINEERS. THE

REGISTRATION DESIGNATIONS OF INDIVIDUALS APPEAR ON THESE PROJECT DOCUMENTS WITHIN THE

SCOPE OF THEIR EMPLOYMENT AS

INITIALS OR SIGNATURES AND

REQUIRED BY ER 1110-1-8152.

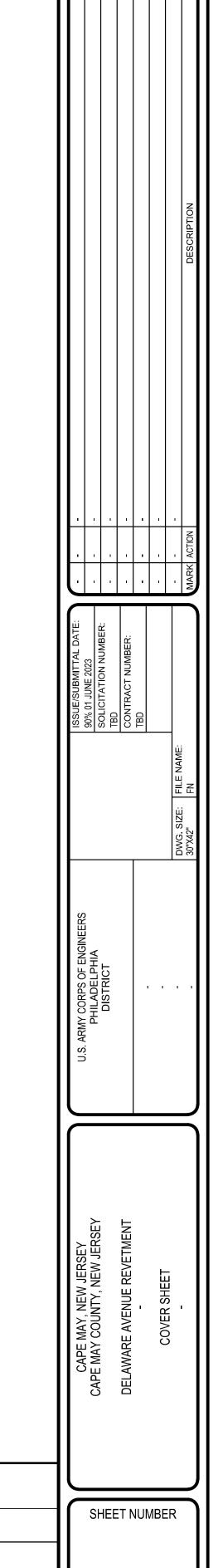
SUBMITTED:

ANDREW J. SCHWAIGER, P.E.

PETER M. TRANCHIK, P.E.

CHIEF, ENGINEERING BRANCH

CHIEF, ENGINEERING AND CONSTRUCTION DIVISION



G-001



LEGEND:

APPROXIMATE HAND AUGER LOCATION PERFORMED JUNE 25 2021 BY USACE-NAP.

HAND AUG	ER LOCA	TIONS
HA#	NORTHING	EASTING
1	41418.6	379836.5
2	40984.2	378217.1
3	41039.6	378471.3
4	41109.2	378708.9
5	41222.6	378975.6
6	41251.2	379263.9



NOTES:

- SEE SPECIFICATIONS FOR DETAILED BORING INFORMATION AT HAND AUGER LOCATIONS.
- 2. SEE TABLE FOR COORDINATES OF HAND AUGER LOCATIONS.

US Army Corps ® of Engineers PHILADELPHIA DISTRICT

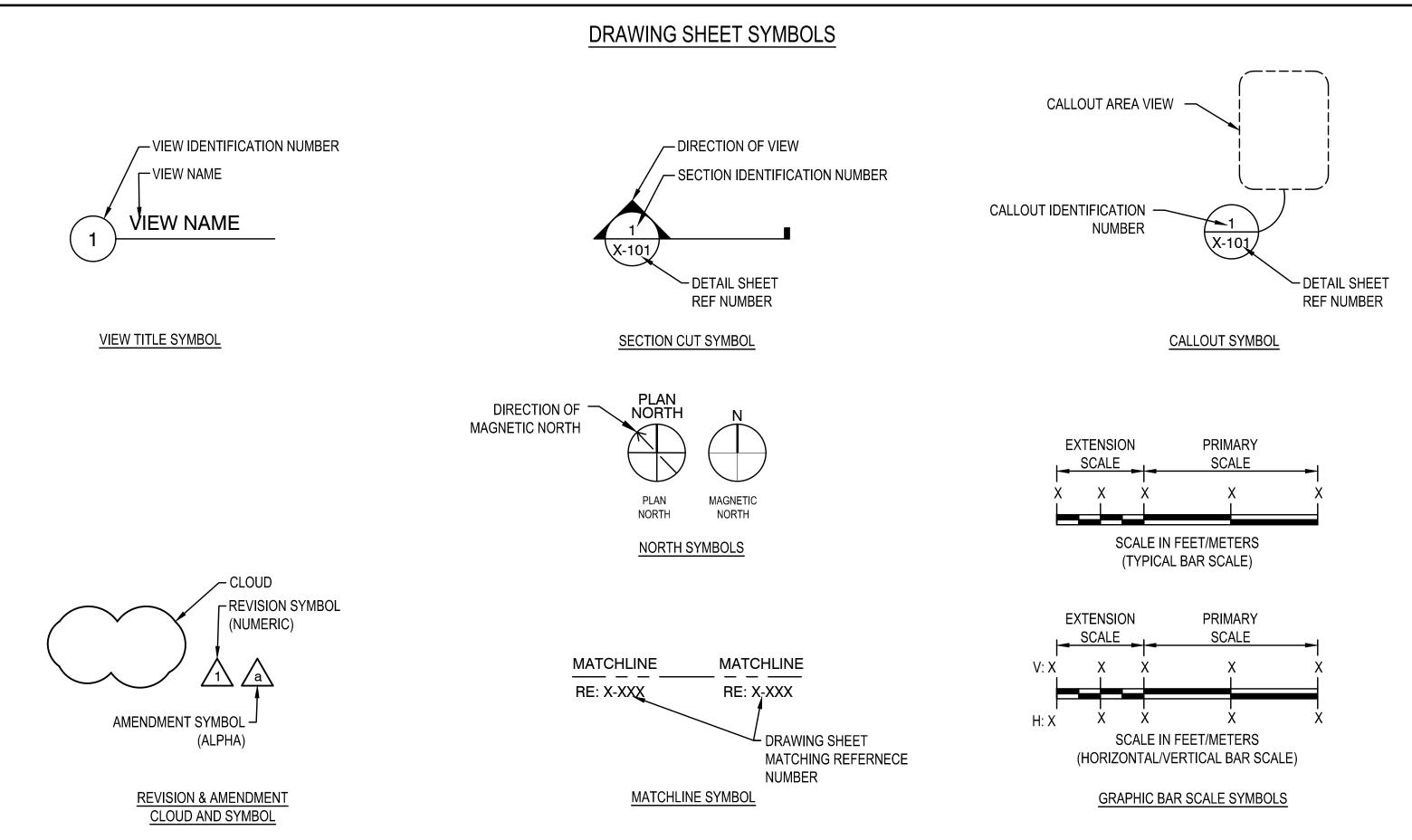
1 JUNE 2023 CITATION NUMBER:	
TRACT NUMBER:	
FRACT NUMBER:	
· .	•
ON LOCATION PLAN dwg MARK ACTION	DESCRIPTION DATE

CAPE MAY, NEW JERSEY
CAPE MAY COUNTY, NEW JERSEY
EXPLORATION LOCATION PLAN

SHEET NUMBER

BB101

SYMBOLS, ABBREVIATIONS AND GENERAL NOTES



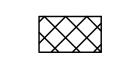
			ABBREVIATIONS		
ABBRV	DESCRIPTION	ABBRV	DESCRIPTION	ABBRV	DESCRIPTION
CP	ASBESTOS-CEMENT PIPE	FIG	FIGURE SINGLE	PVC	POLYVINYL CHLORIDE
۸D	AREA DRAIN	FDN	FOUNDATION	PVI	POINT OF VERTICAL INFLECTION
ADDL	ADDITIONAL	FF	FINISH FLOOR	RAD	RADIUS
\FF	ABOVE FINISHED FLOOR	FIN	FINISH	RCP	REINFORCED CONCRETE PIPE
3D	BOARD	FL	FLOOR	REINF	REINFORCEMENT
BIT	BITUMINOUS	FM	FORCE MAIN	REM	REMOVABLE
SL or B	BASE LINE	FT	FOOT, FEET	ROW	RIGHT OF WAY
BLDG	BUILDING	FTG	FOOTING	S	SOUTH
BM	BEAM	G	GROUND	SCH	SCHEDULE
BMPS	BEST MANAGEMENT PRACTICES	GOVT	GOVERNMENT	SECT	SECTION
OT	ВОТТОМ	GR	GRADE	SPEC	SPECIFICATION
VCE	BEGINNING OF VERTICAL CURVE ELEVATION	HDPE	HIGH DENSITY POLYETHYLENE	SPRT	SUPPORT
VCS	BEGINNING OF VERTICAL CURVE STATION	HORIZ	HORIZONTAL	SQ	SQUARE
L or Q	CENTERLINE	HS	HIGH STRENGTH	SST	STAINLESS STEEL
MP	CORRUGATED METAL PIPE	HT	HEIGHT	STA	STATION
MU	CONCRETE MASONRY UNIT	HVY	HEAVY	STD	STANDARD
O	CLEAN OUT	IN	INCH	STRUCT	STRUCTURAL
COL	COLUMN	INSUL	INSULATION, INSULATED	SUSP	SUSPENDED
ONC	CONCRETE	IINT	INTERIOR	SYS	SYSTEM
CONSTR	CONSTRUCTION	INV	INVERT	TEMP	TEMPORARY
CONT	CONTINUOUS	LL	LIVE LOAD	TD	TRENCH DRAIN
COR	CONTRACTING OFFICER REPRESENTATIVE	LP	LOW POINT	TDO	TRENCH DRAIN OUTLET PIPE
CTRL	CONTROL	LT	LIGHT	TELE	TELEPHONE
CWL	CONTRACTOR WORK LIMITS	LVC	LENGTH OF VERTICAL CURVE	TOPO	TOPOGRAPHY
DET	DETAIL	JCT	JUNCTION	TYP	TYPICAL
)GA	DENSE GRADED AGGREGATE	MATL	MATERIAL	UD	UNDERDRAIN
)IA	DIAMETER	MAX	MAXIMUM	UDO	UNDERDRAIN OUTLET PIPE
DIM	DIMENSION	MIN	MINIMUM	UE	UNDERGROUND ELECTRIC
)L	DEAD LOAD	MISC	MISCELLANEOUS	UGND	UNDERGROUND
)WG	DRAWING	N	NORTHING	UNO	UNLESS NOTED OTHERWISE
	EASTING	NLT	NOT LESS THAN	UOP	UNDERDRAIN OUTLET PIPE
A	EACH	NTS	NOT TO SCALE	UXO	UNEXPLODED ORDINANCE
ECM	EROSION CONTROL MAT	ОС	ORIGINAL CONSTRUCTION	VB	VINYL BASE
IJ	EXPANSION JOINT	OD	OUTSIDE DIAMETER	VC	VERTICAL CURVE
<u>L</u>	ELEVATION	OH	OVERHEAD	VCT	VINYL COMPOSITION TILE
LEC	ELECTRIC	OPG	OPENING	VOL	VOLUME
:OP	EDGE OF PAVEMENT	OPP	OPPOSITE	VERT	VERTICAL
OS	EDGE OF SHOULDER	PC	POINT OF CURVE	VTR	VENT THROUGH ROOF
.Q	EQUAL	PD	PAVEMENT DRAIN	W/	WITH
QUIP	EQUIPMENT	PI	POINT OF INFLECTION	W	WEST
:&S	EROSION AND SEDIMENT	PIV	POST INDICATOR VALVE	WL	WATER LEVEL
XH	EXHAUST	POT	POINT OF TANGENT	WS	WATER SURFACE
XIST or (E)	EXISTING	PMP	PROBABLE MAXIMUM PRECIPITATION	W/O	WITHOUT
XP	EXPANSION, EXPOSED	PNL	PANEL	USCG	UNITED STATES COAST GUARD
XP JT	EXPANSION JOINT	PSF	POUNDS PER SQUARE FOOT		
XT	EXTERIOR	PSI	POUNDS PER SQUARE INCH		

PLAN SYMBOLS LEGEND Ø UTILITY POLE SIGN POST BOLLARD UTILITY POLE W/GUY CATCH BASIN SLOPE LINE (BENCH MARK) FIRE HYDRANT SPOT ELEVATION STORM DRAIN INLET INLET PROTECTION CONTROL POINT SURVEY MONUMENT EXIST POLE W/ ELECTRIC EXIST POLE EXISTING FEATURE LOCATION MANHOLE ്—MH−# EXISTING SIGN LOCATION TG= XX INV=XXEXISTING TIMBER PILE LOCATION **EXISTING LARGE DEBRIS LOCATION** STABILIZED CONSTRUCTION ENTRANCE

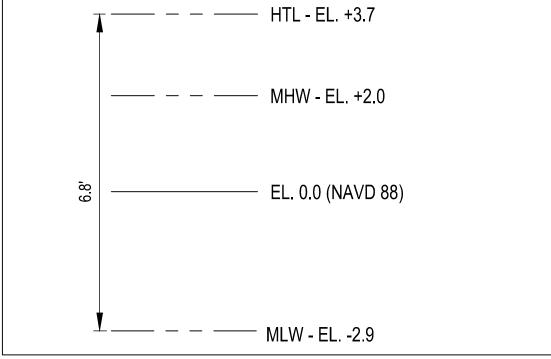
GENERAL NOTES:

- 1. ELEVATIONS ARE EXPRESSED IN FEET AND TENTHS OF A FOOT AND REFER TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.
- 2. HORIZONTAL CONTROL IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM (NAD 1983).
- 3. THE CONTRACTOR WORK LIMIT SHALL BE AS SHOWN ON SHEET C-002.
- 4. THE CONTRACTOR SHALL STAGE AND ACCESS THE SITE FROM THE LOCATIONS SHOWN ON SHEET C-002.
- 5. THE SITE CONDITION SURVEYS ARE A RESULT OF SURVEYS CONDUCTED ON 26 FEBRUARY 2021, AND CAN ONLY BE CONSIDERED REPRESENTATIVE OF THE CONDITIONS OCCURRING
- 6. INFORMATION FROM THE 26 FEB 21 SURVEY HAS BEEN INCLUDED WITHIN THE PROJECT DRAWINGS FOR REFERENCE. SEE SHEETS R-101 AND R-102.
- 7. THE CONTRACTOR SHALL NOTE THAT THE CONSTRUCTION BASELINE IS ALSO THE ROAD CENTERLINE OF DELAWARE AVENUE.
- 8. THE CONTRACTOR MUST COORDINATE WITH ALL APPROPRIATE UTILITY COMPANIES AND THE USACE RESIDENT OFFICE FOR MARK-OUT OF ONSITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
- 9. THE CONTRACTOR SHALL UTILIZE NJ ONE CALL FOR UTILITY MARKOUT.
- 10. THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH THE NJ HIGH VOLTAGE PROXIMITY ACT.
- 11. THE FOLLOWING PROJECT PARTNERS HAVE INTEREST IN THIS PROJECT: THE UNITED STATES COAST GUARD (USCG), THE CORINTHIAN YACHT CLUB, THE NATURE CENTER OF CAPE MAY, THE CITY OF CAPE MAY AND THE COUNTY OF CAPE MAY. THE COUNTY OF CAPE MAY IS THE NON-FEDERAL SPONSOR.
- 12. THE EROSION AND SEDIMENT CONTROL PLAN INCLUDED IN THIS SET OF PLANS IS FOR BIDDING PURPOSES ONLY. THE CONTRACTOR SHALL PRODUCE THEIR OWN PLAN AND ACQUIRE ALL REQUIRED PERMITS, SEE SPECIFICATIONS.
- 13. ALL EXISTING UPLAND FEATURES SUCH AS SIGNS, BENCHES, BIKE RACKS, BOAT RACKS, PLANTERS ETC. WITHIN THE WORK ZONE SHALL BE RETURNED TO ITS PRE EXISTING CONDITION PRIOR TO COMPLETION OF THE PROJECT. CONTRACTOR SHALL RELOCATE ALL FEATURES TO PRE-EXISTING LOCATIONS UNLESS OTHERWISE INDICATED ON THE PLANS OR DIRECTED BY THE COR.
- 14. THE EXISTING WETLANDS LIMITS SHOWN ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. THE CONTRACTOR WILL BE REQUIRED TO DEMARCATE THE WETLANDS LIMITS IN COORDINATION WITH THE COR PRIOR TO REMOVAL.





SPARTINA PLANTINGS CONCRETE/SIDEWALK TOPSOIL & SEED WETLANDS



TIDAL/DATUM REFERENCE (NAVD88) CAPE MAY HARBOR

CROSS SECTION/PROFILE LEGEND

	RIPRAP		BEDD	ING STONE
	TOPSOIL & SEED	44	FLOV	/ABLE FILL
				EXIST GROUND
	Х	×		GEOTEXTILE
				LIMIT OF EXCAVATION
	- — — — — — — —			EXIST PROPERTY LI
				REVETMENT CENTE
				0011 074511 17471011

UTILITIES LINE TYPE LEGEND

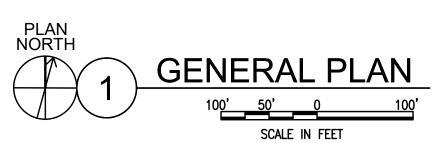
 — Е _х — -	—— E ^x —	EXIST OVERHEAD ELECTRIC
 SD _x	— SD _x ———	EXIST STORM DRAIN/OUTFALL PIPI
 — FM —	— FM ———	EXIST 8" ACP WATER MAIN
 - W -	W	EXIST SALT WATER INTAKE PIPE
 — — сомм — —	— сомм ——	EXIST OVERHEAD COMM LINE
 - SD	— SD ———	STORM DRAIN/OUTFALL PIPE

CIVIL SITE WORK LINE TYPE LEGEND

	ROAD CENTERLINE/SURVEY- CONSTRUCTION BASELINE (B
	CONTOUR LINE
CWL	CONTRACTOR WORK LIMIT
• • •	LIMIT OF EXCAVATION
———— MHW ——————	MEAN HIGH WATER LINE
MLW	MEAN LOW WATER LINE
- O	PLASTIC FENCE
	SILT FENCE
	SAND FILL
	WETLANDS LIMIT
$\longrightarrow \hspace{0.5cm} \cdot \longrightarrow \hspace{0.5cm} \cdot \longrightarrow \hspace{0.5cm} \cdot \longrightarrow \hspace{0.5cm} \cdot$	STAGING AREA ACCESS PATH

US Army Corps ® of Engineers PHILADELPHIA DISTRICT





CWL CC	ORDINAT	ES
POINT NUMBER	NORTHING	EASTING
1	40960.5	377647.6
2	40747.4	377723.4
3	40768.8	377783.5
4	41402.7	380053.3
5	41402.7	380053.3

NOTES:

- 1. SEE SHEET C-001 FOR GENERAL NOTES.
- 2. EXISTING CONDITIONS AND PROPOSED SITE WORK NOT SHOWN FOR CLARITY. SEE SHEETS CD101 THROUGH CD104 FOR EXISTING CONDITIONS AND DEMOLITION AND SHEETS C-101 THROUGH C-104 FOR PROPOSED SITE WORK.
- 3. STAGING AREA A INCLUDES: THE GRAVEL LOT ADJACENT TO DELAWARE AVENUE, PORTION OF THE GRASSED AREA BETWEEN STATION 2+50 AND 7+00 AND THE EASTBOUND LANE OF DELAWARE AVENUE BETWEEN STATION 0+50 AND 22+05.
- 4. THE PORTION OF THE STAGING AREA THAT IS ON THE DELAWARE AVENUE EAST BOUND LANE SHALL BE REPAIRED BY THE CONTRACTOR IF DAMAGI OCCUR DURING CONSTRUCTION. AT MINIMUM, THE CONTRACTOR SHALL MILL AND PAVE THE EXISTING SURFACE COURSE OF DAMAGED ROADWAY WITHIN THE STAGING AREA. SEE TYPICAL SECTION 5/C-302 FOR REFERENCE OF EXISTING PAVEMENT SECTION. THE CONTRACTOR SHALL ALSO REPLACE ANY SHOULDER OR ROAD CENTERLINE STRIPING WITHIN REPAIR AREAS.
- 5. THE CONTRACTOR MAY UTILIZE THE PROJECT AREA BETWEEN THE DESIGNATED UPLAND STAGING AREA AND THE WATERWARD LIMIT OF THE CWL TO TEMPORARILY STORE PLANT AND EQUIPMENT. HOWEVER, THE CONTRACTOR SHALL BE AWARE OF THE SEMI-DIURNAL CHANGE IN TIDES AND SHALL MANAGE THE WORK ZONE ACCORDINGLY. NO STAGING SHALL OCCUR ON EXISTING STRUCTURES OR AREAS DESIGNATED AS WETLANDS TO REMAIN.
- 6. STAGING AREA B SHALL SERVE AS THE LOCATION OF THE PROJECT TRAILER AND EMPLOYEE PARKING. THE CONTRACTOR SHALL ACCESS THE PORTION OF THE LOT TO BE USED FOR STAGING VIA THE ACCESS PATH SHOWN. SEE SHEET CE102 FOR ACCESS PATH DIMENSIONS. THE CONTRACTOR SHALL RESTORE THE LOT TO ITS PRE-EXISTING CONDITIONS UPON COMPLETION OF THE PROJECT.
- 7. AT NO POINT SHALL THE CONTRACTOR ENTER THE USCG TRAINING CENTER. THE CONTRACTOR SHALL ALSO ENSURE THEIR OPERATIONS DO NOT BLOCK OR IMPEDE ACCESS TO THE FACILITY ENTRANCE FOR SECURITY PURPOSES.
- 8. THE CONTRACTOR SHALL BE AWARE OF AN EXISTING OVERHEAD COMMUNICATION LINE THAT RUNS ALONG A PORTION OF THE HARBOR SIDE OF DELWARE AVENUE AND ACROSS THE ROAD AT THE BROOKLYN AVENUE INTERSECTION. THE CONTRACTOR SHALL EVALUATE THE AVAILABLE CLEARANCE AND PLAN EQUIPMENT AND MATERIAL DELIVERIES ACCORDINGLY.
- 9. THE CONTRACTOR MAY CONSTRUCT AN ACCESS TO THE EXISTING BEACH ANYWHERE WITHIN THE CWL FROM CAPE MAY COUNTY PROPERTY.

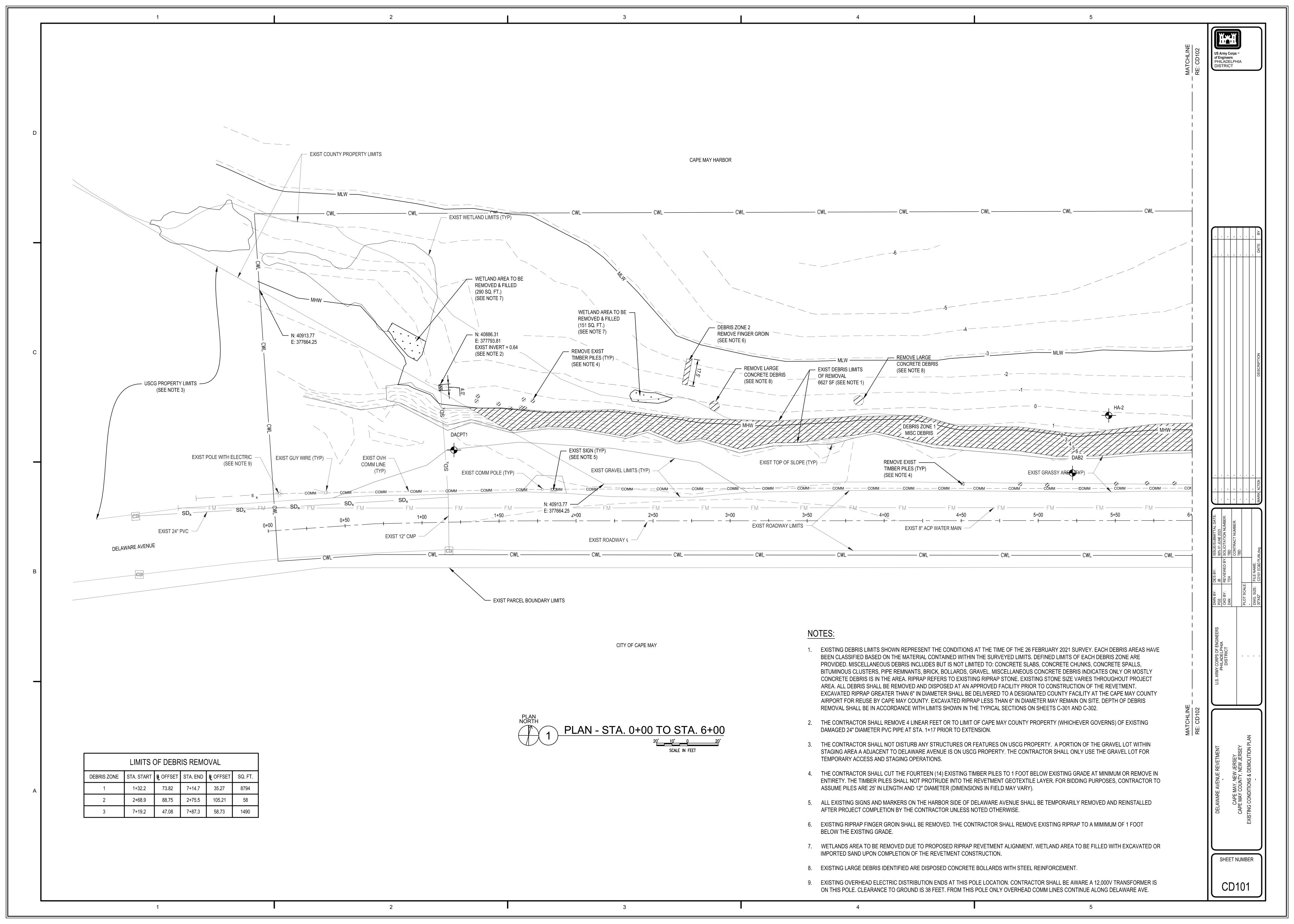
US Army Corps ® of Engineers
PHILADELPHIA
DISTRICT

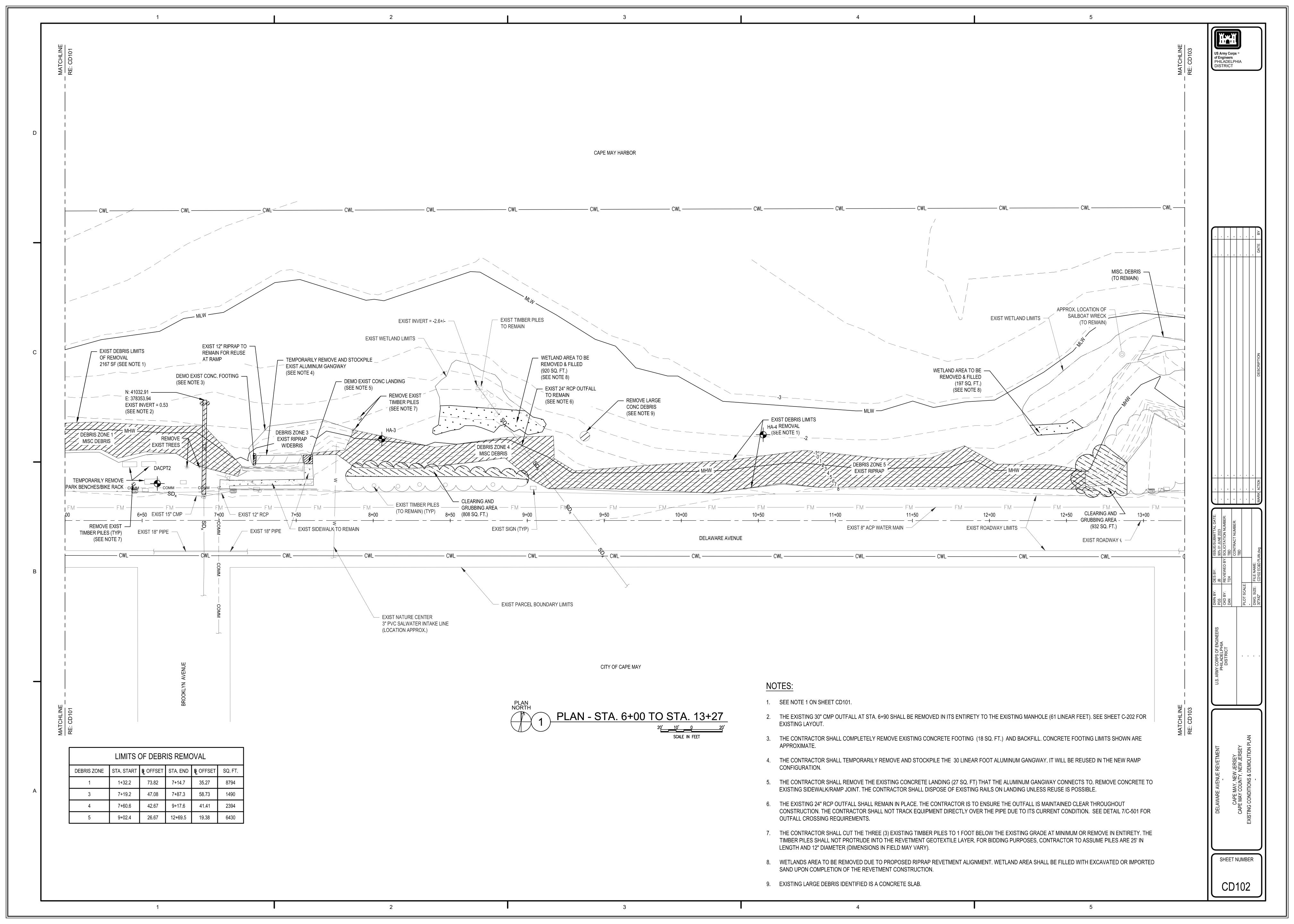
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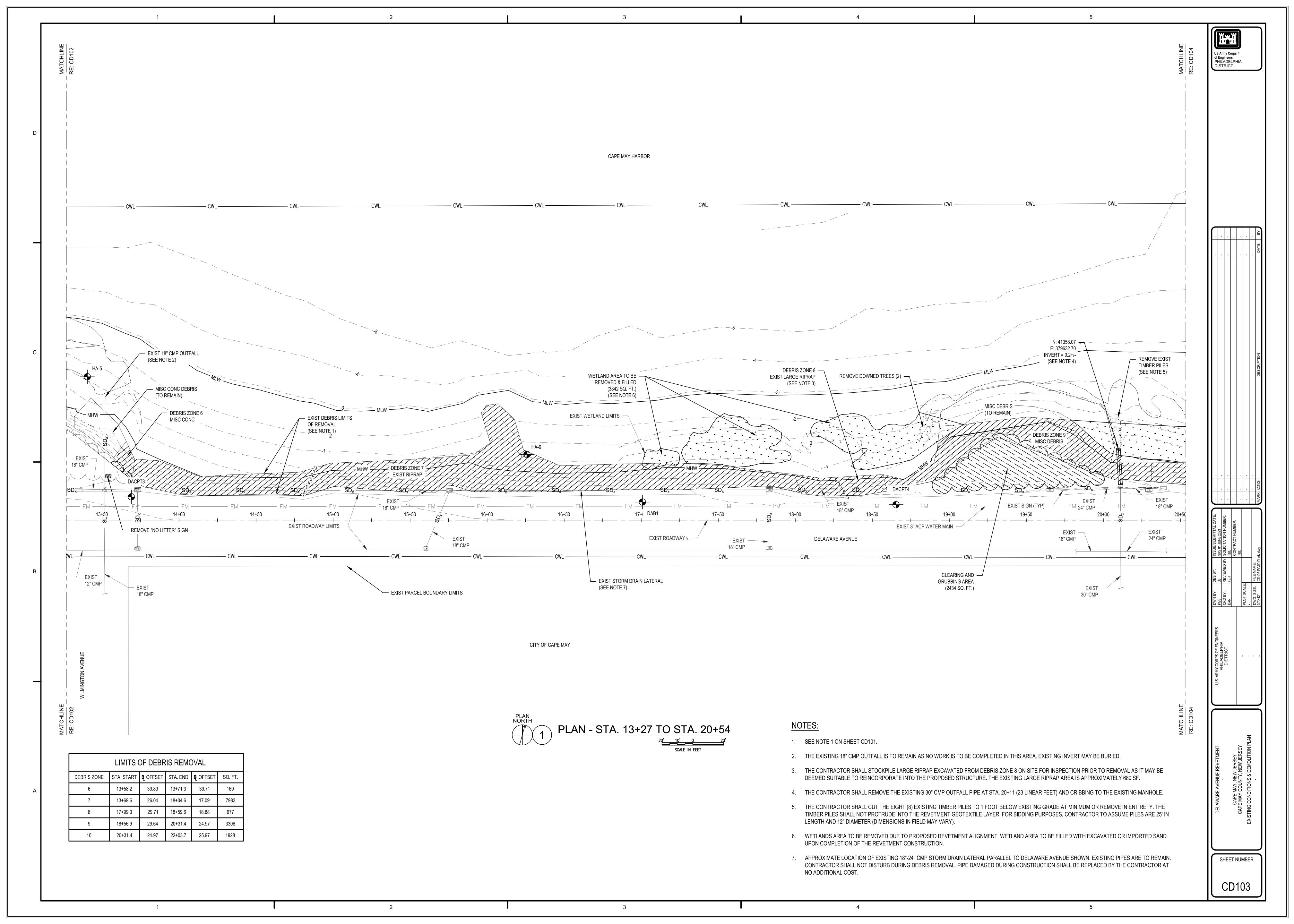
CAPE MAY, NEW JERSEY CAPE MAY COUNTY, NEW JERSEY GENERAL PLAN

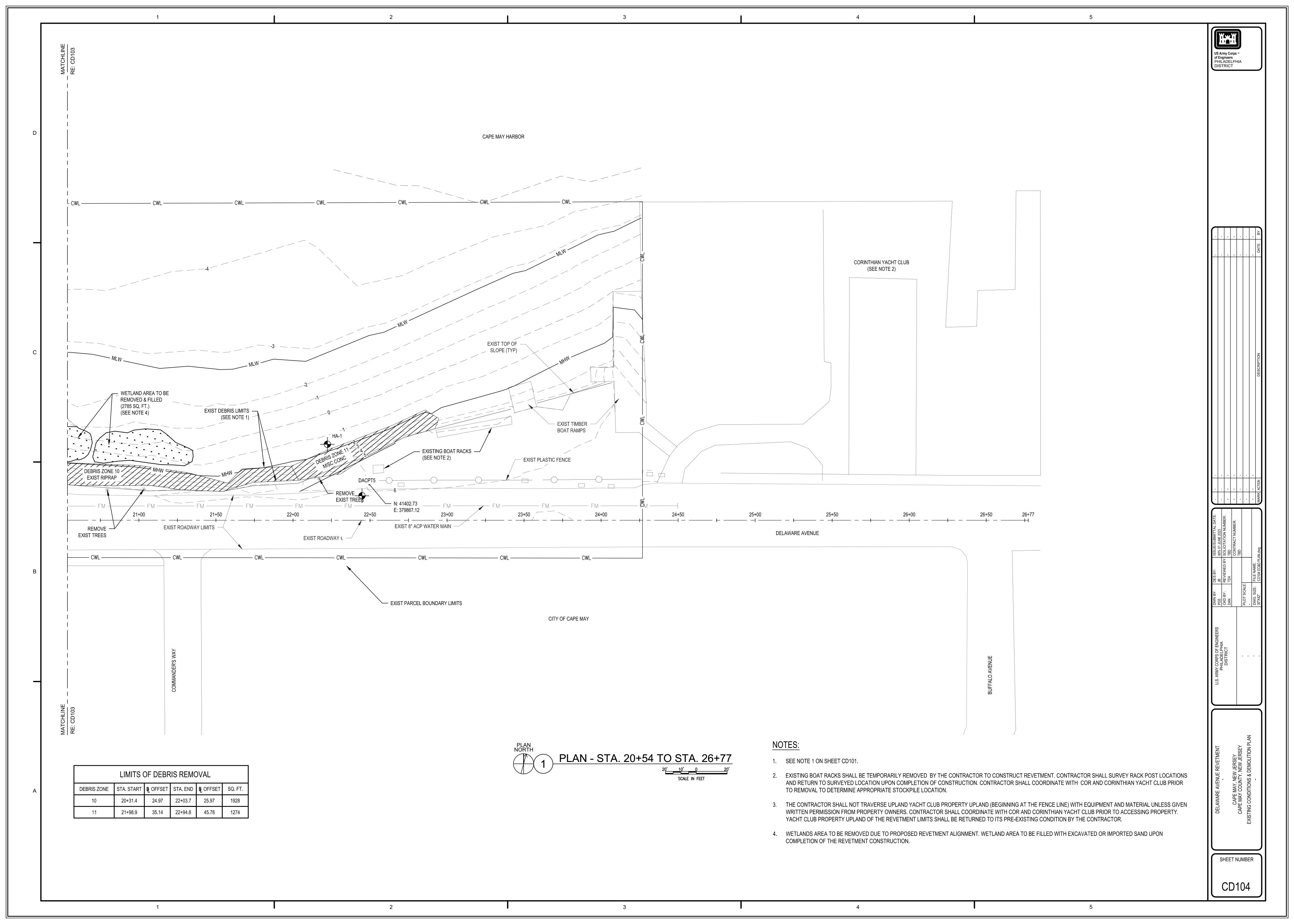
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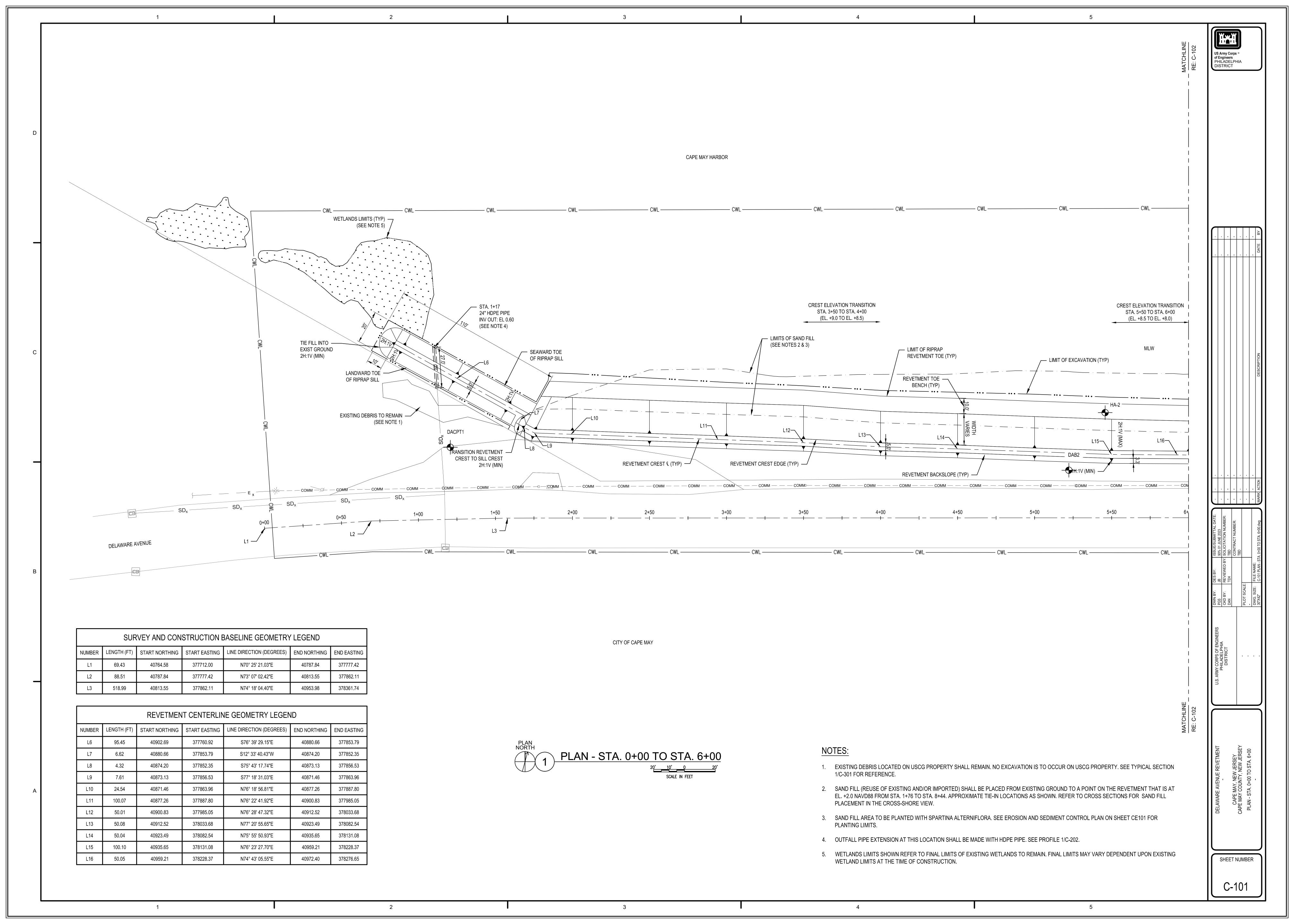
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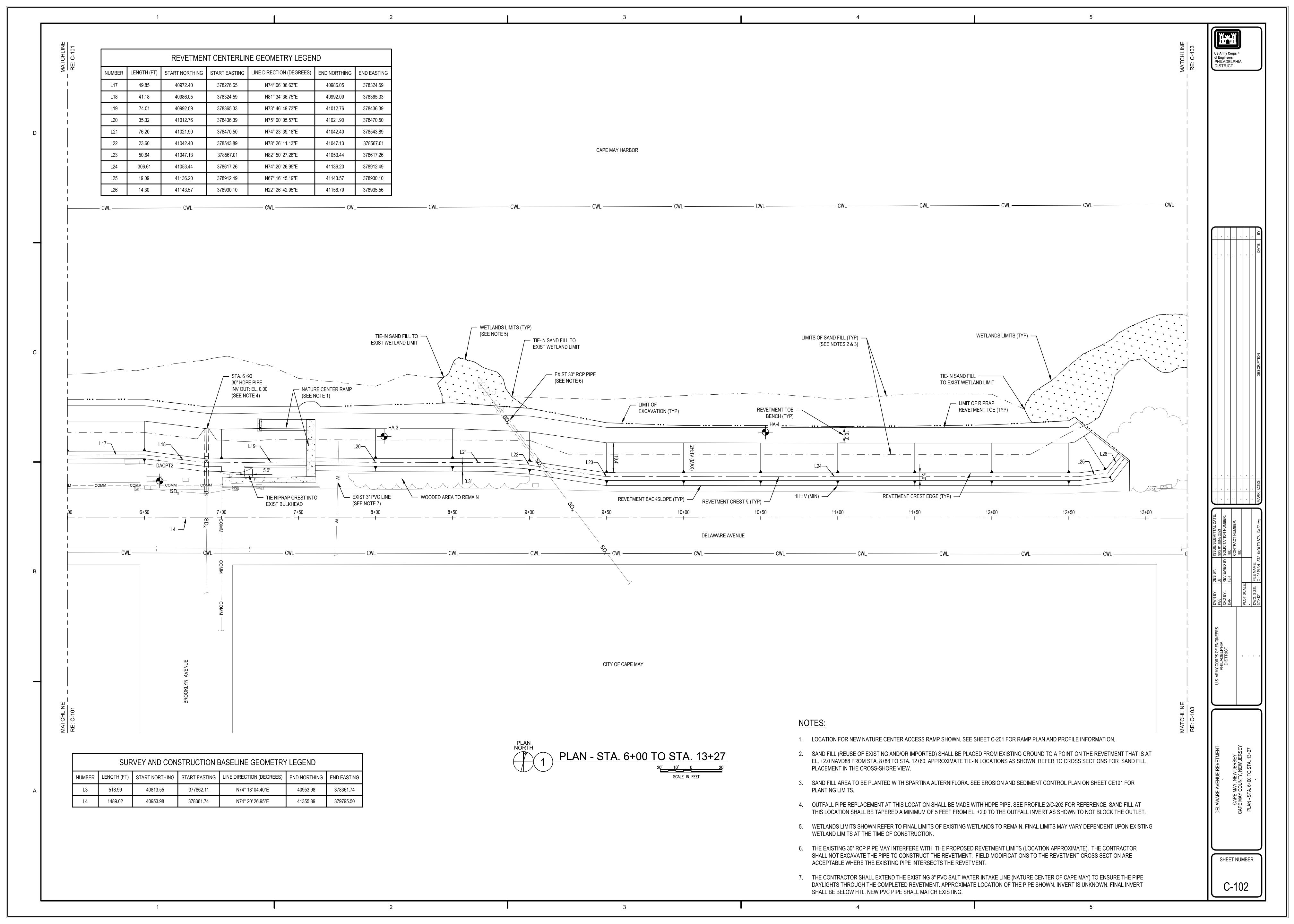


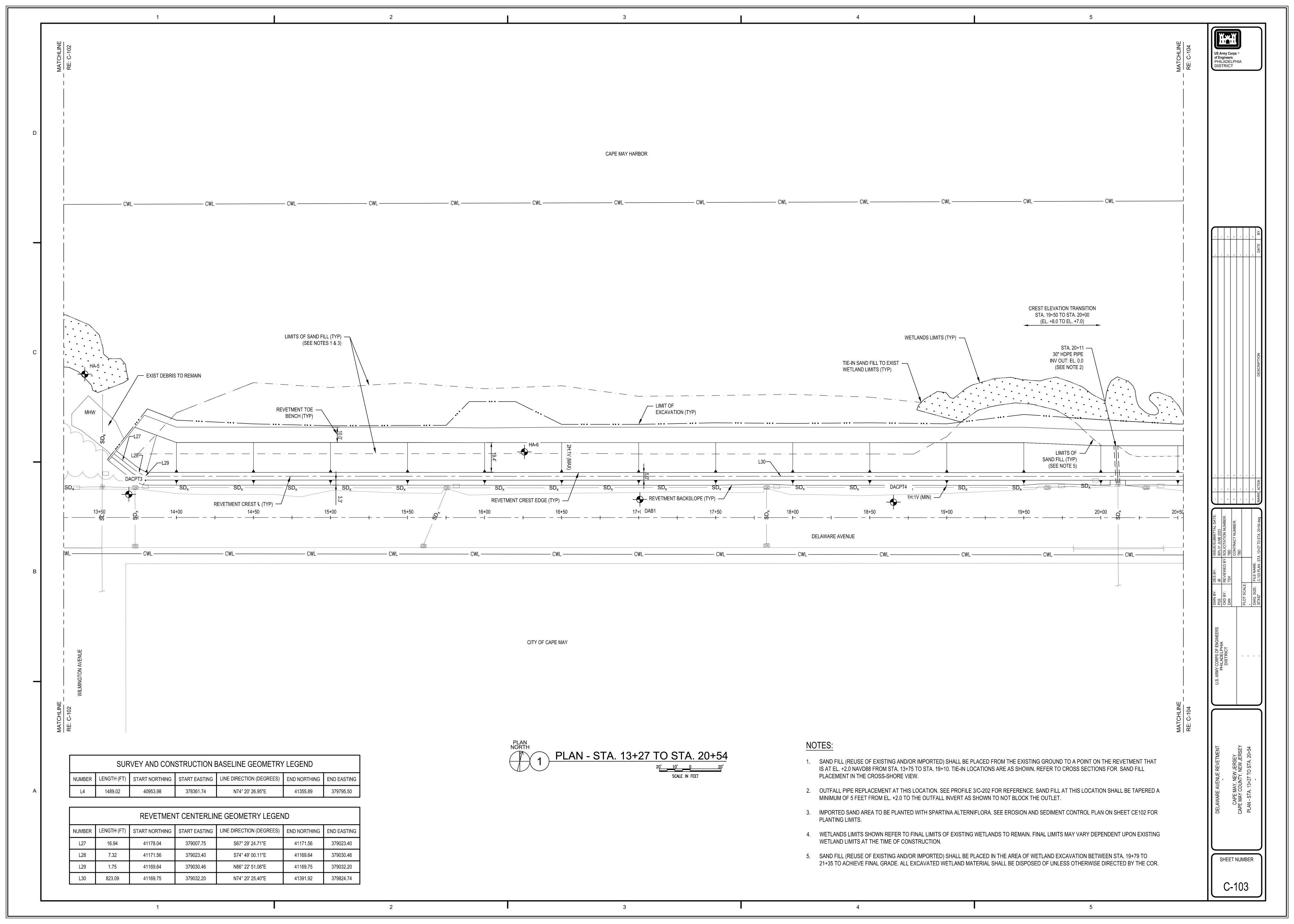


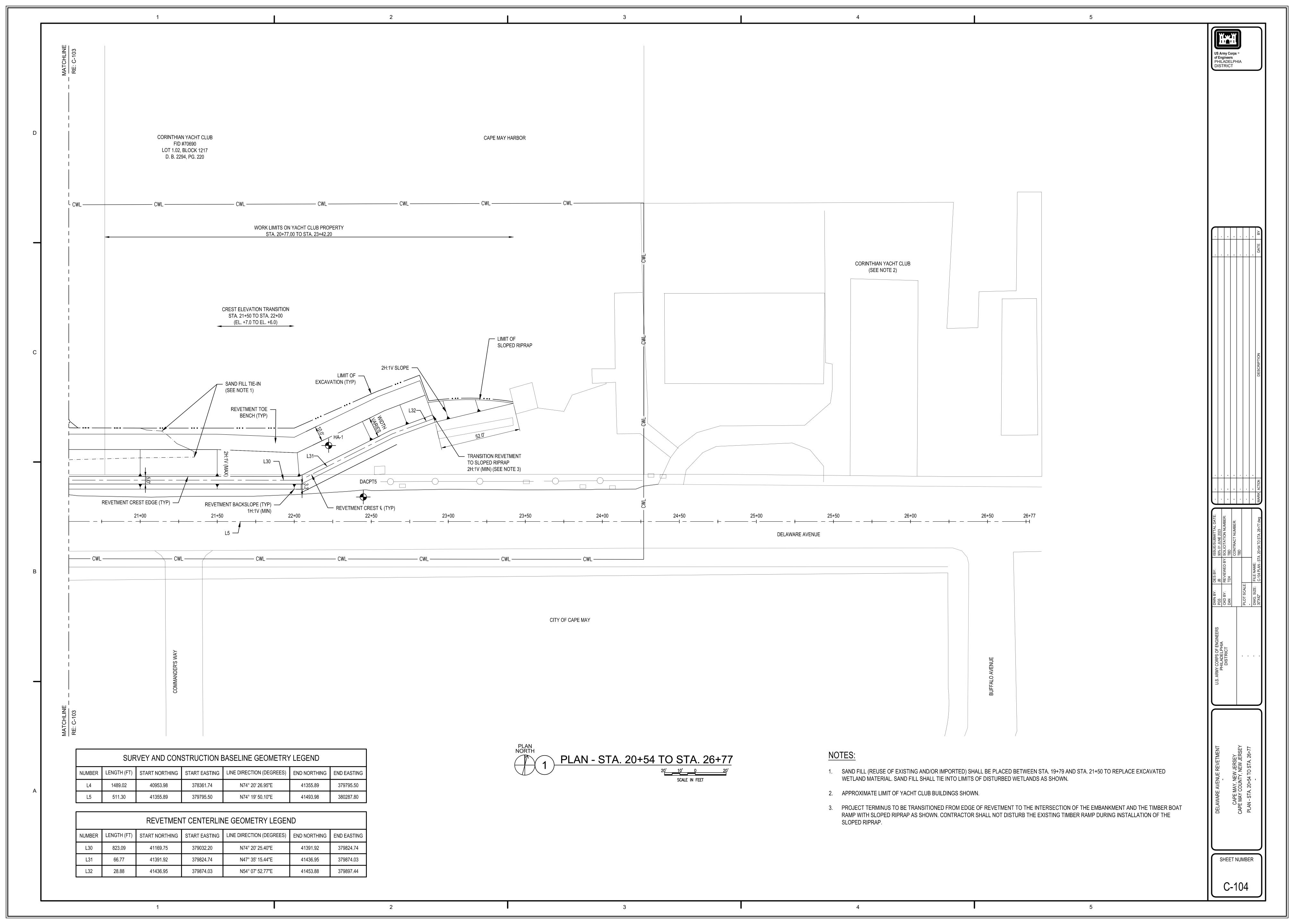


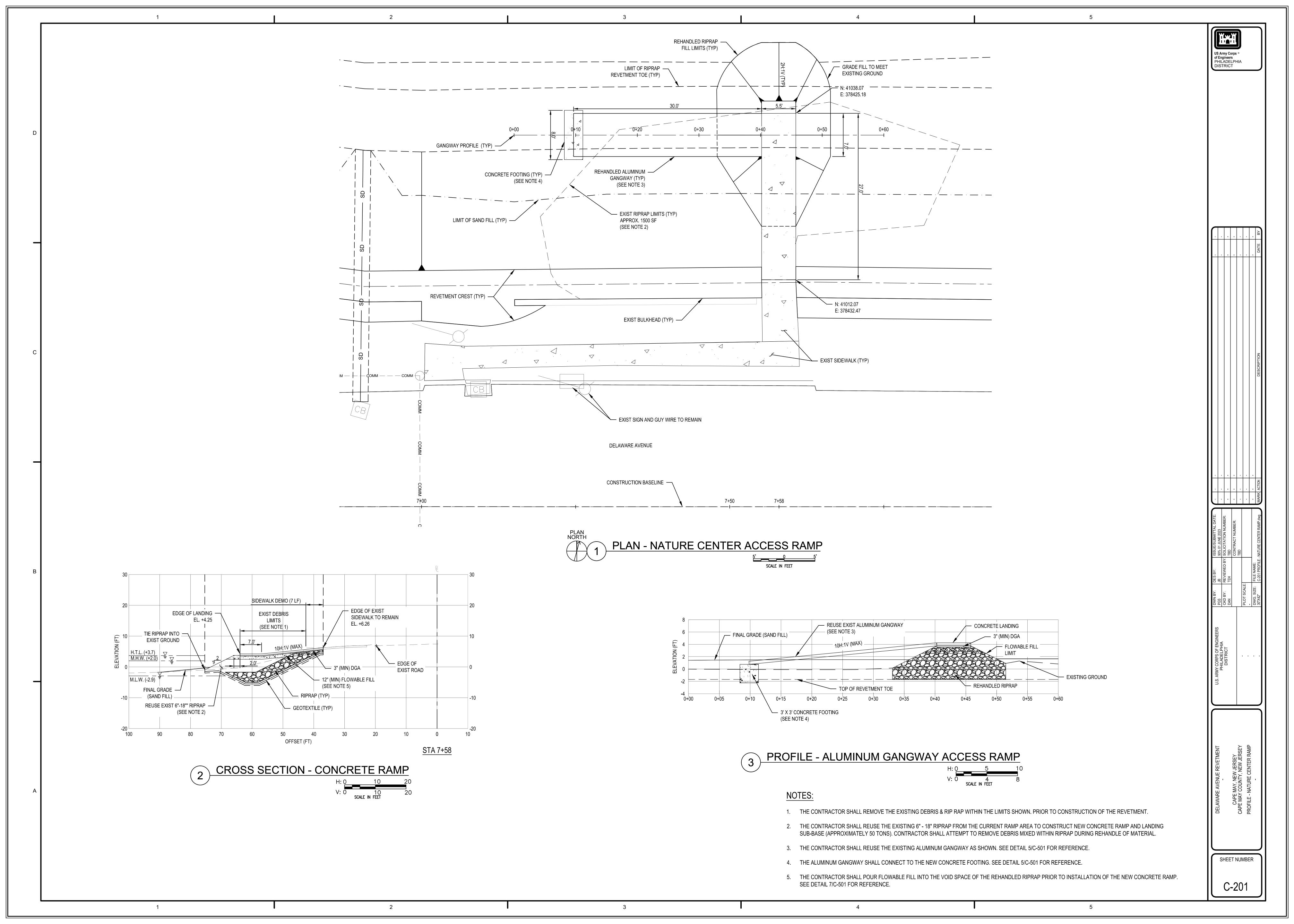


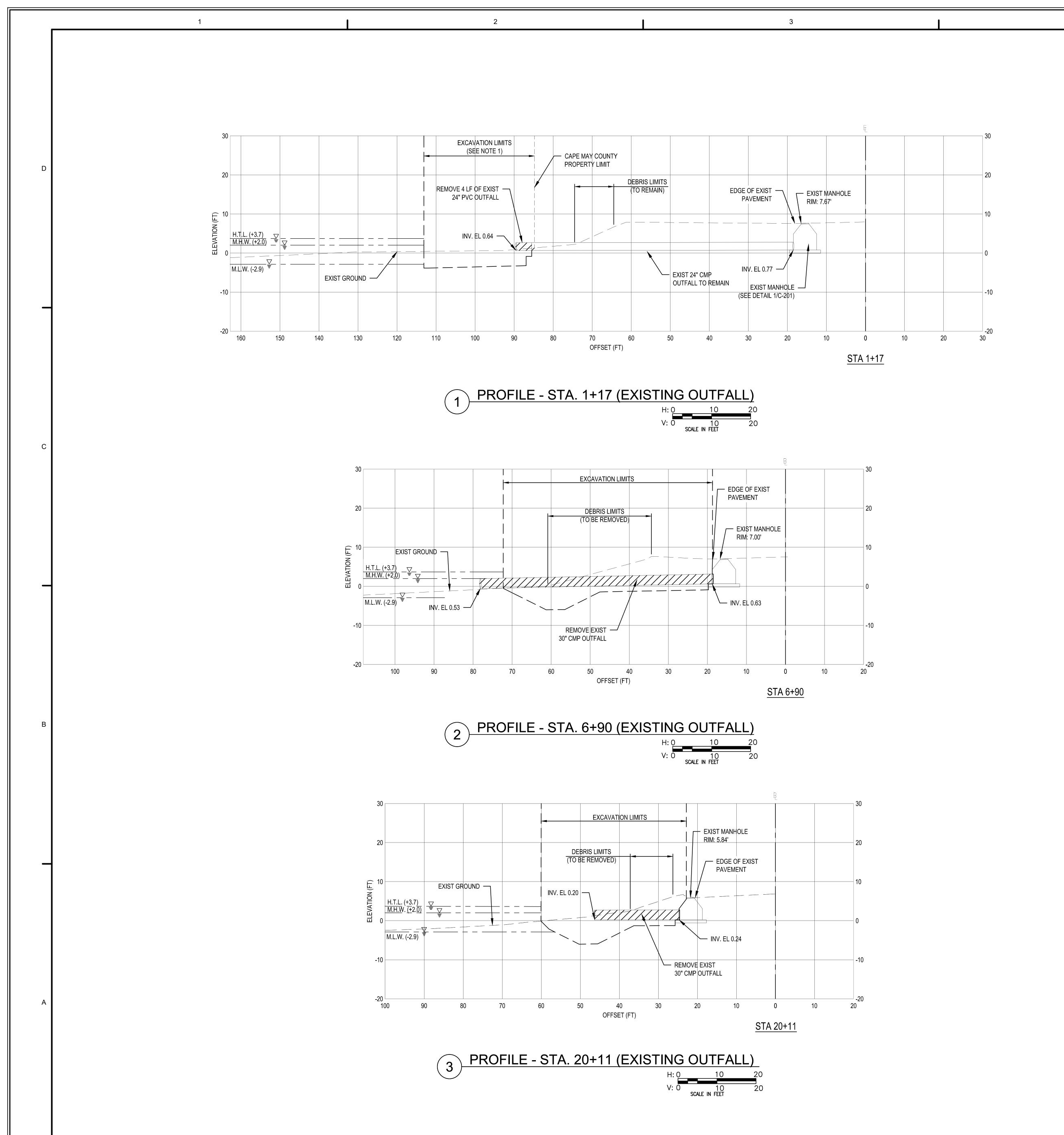


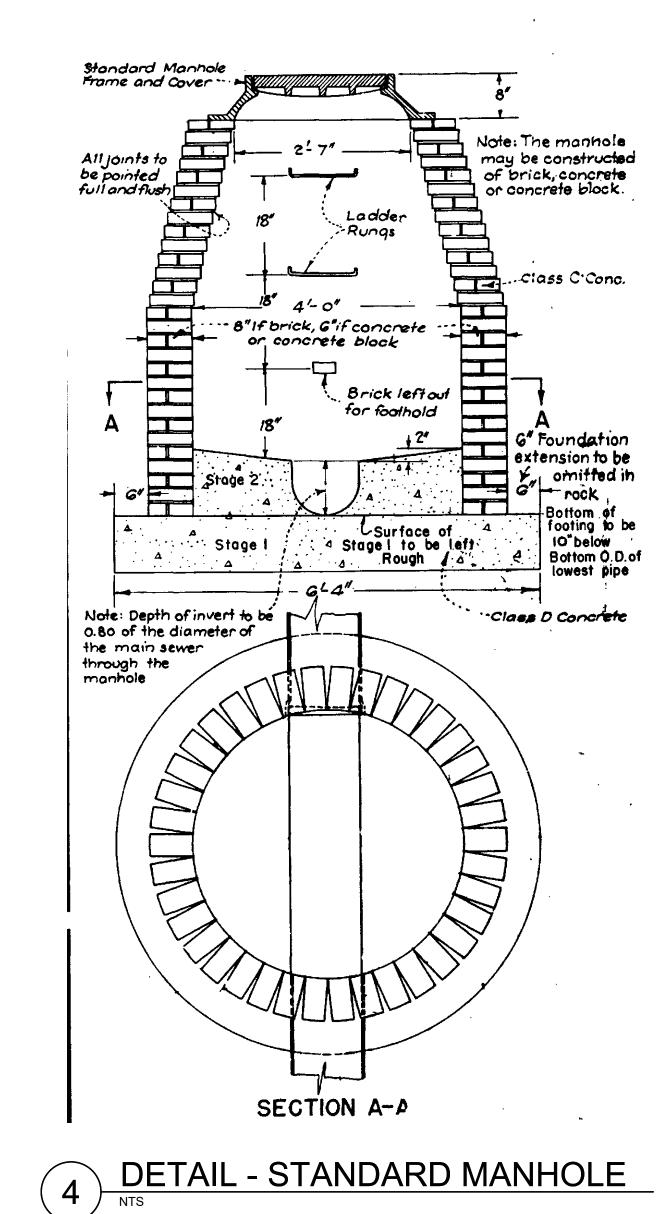












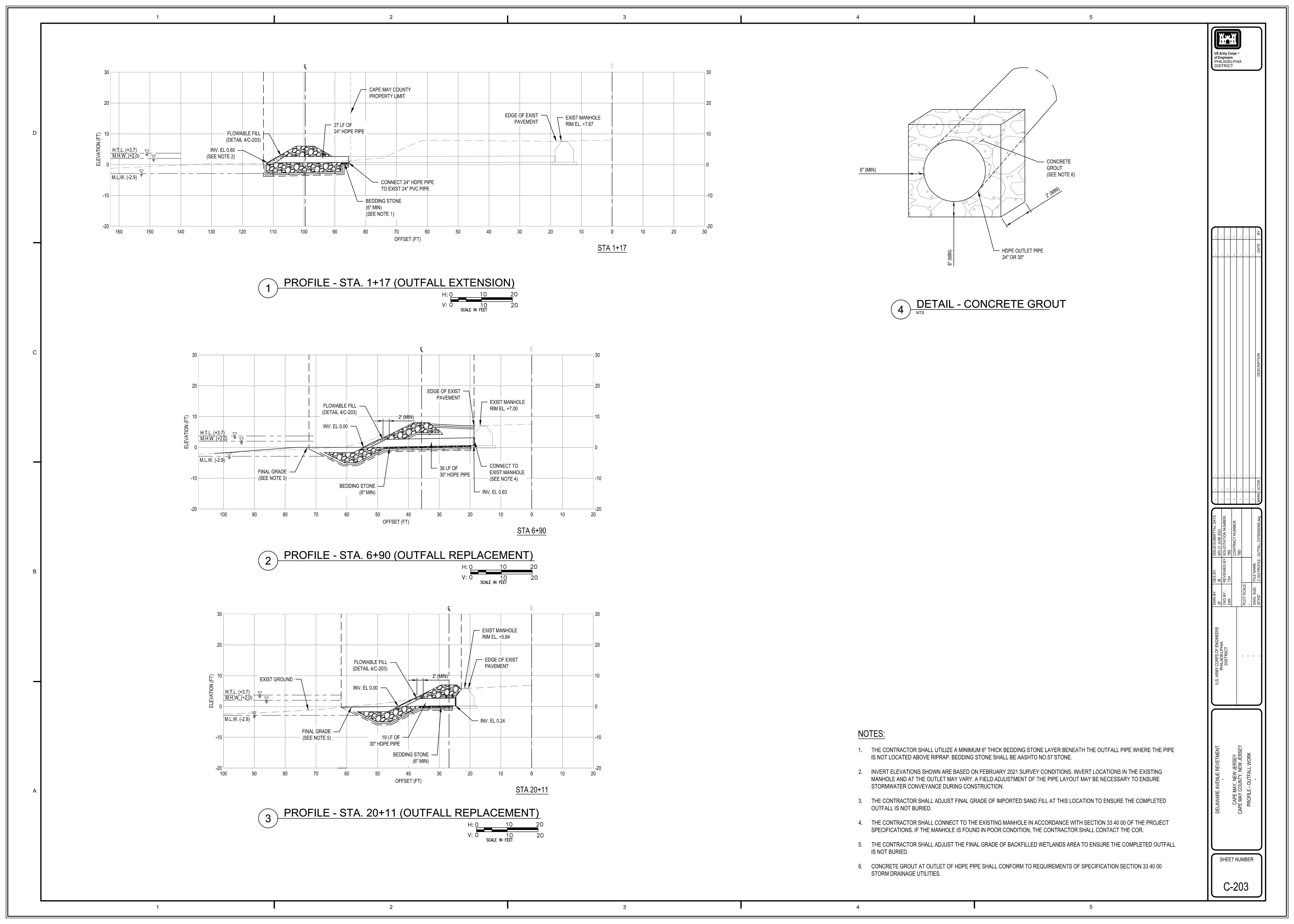
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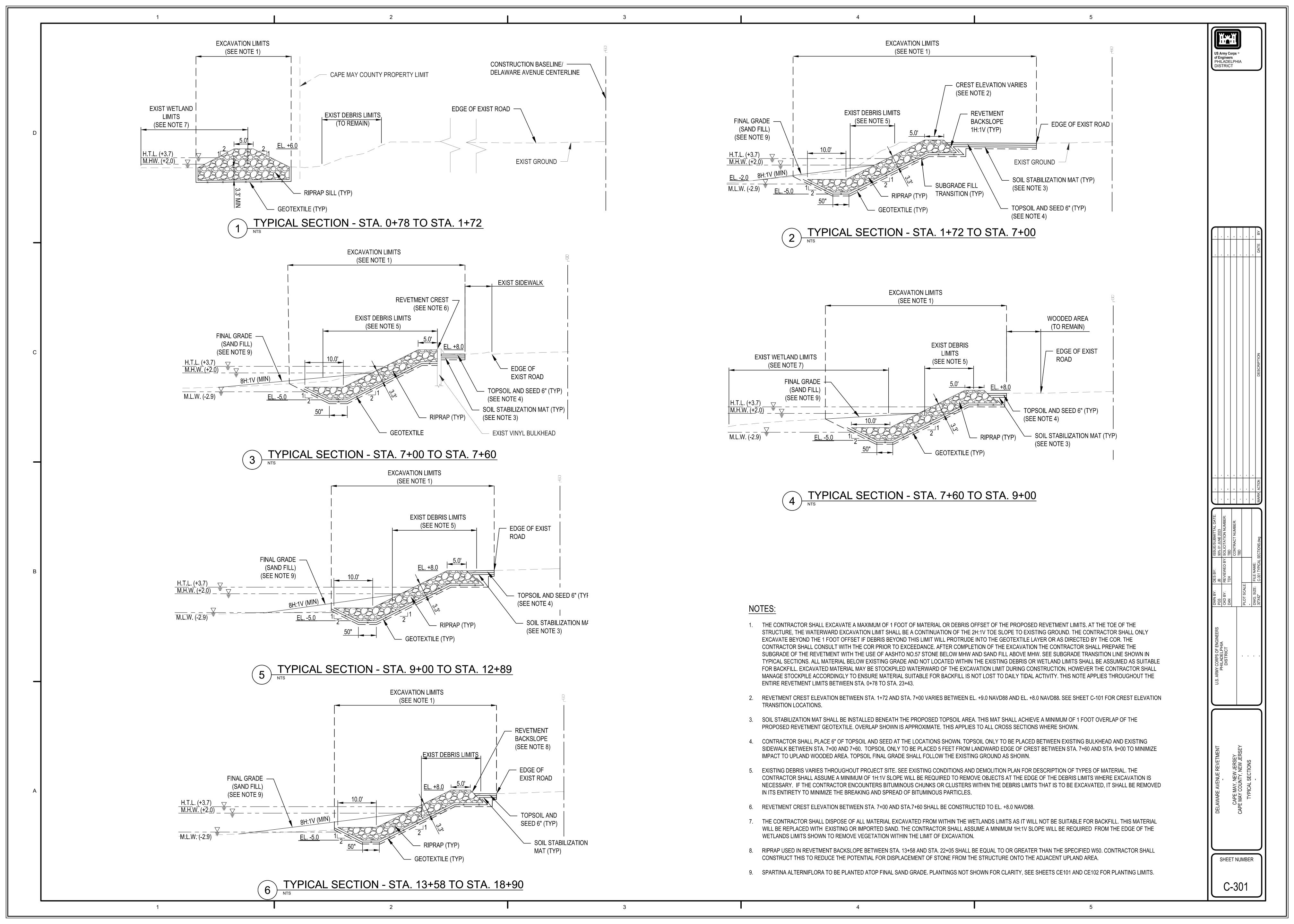
- EXCAVATION LIMITS ACCOUNT FOR THE CROSS-SECTIONAL AREA TO BE REMOVED FOR THE INSTALLATION OF THE RIPRAP
 REVETMENT/SILL AND THE OUTFALL PIPES. NO EXCAVATION SHALL OCCUR BEYOND CAPE MAY COUNTY PARCEL LIMITS AT THE
 STA. 1+17 OUTFALL.
- 2. INVERT ELEVATIONS SHOWN ARE BASED ON FEBRUARY 2021 SURVEY CONDITIONS. INVERT LOCATIONS IN THE EXISTING MANHOLE AND AT THE OUTLET MAY VARY. A FIELD ADJUSTMENT OF THE PIPE LAYOUT MAY BE NECESSARY TO ENSURE STORMWATER CONVEYANCE DURING CONSTRUCTION.
- 3. EXISTING CONFIGURATION OF THE STANDARD DELAWARE AVENUE MANHOLE SHOWN FOR REFERENCE IN DETAIL 4/C-202.

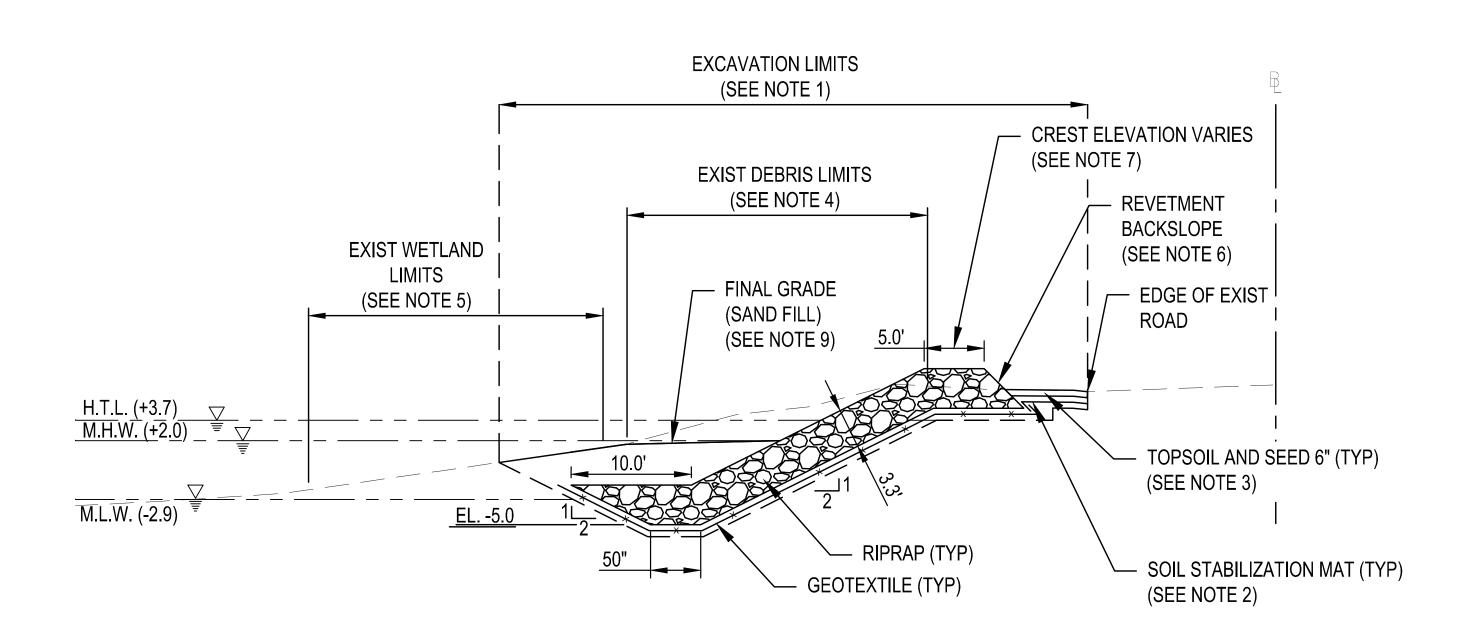
US Army Corps [®] of Engineers PHILADELPHIA DISTRICT

C-202

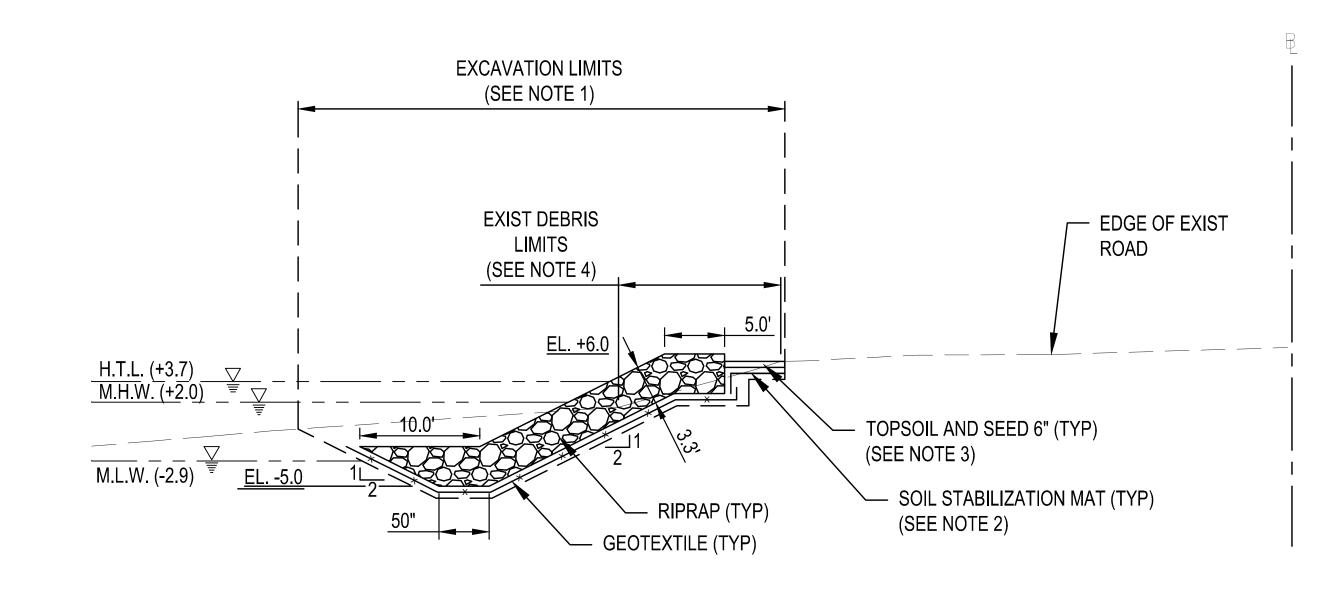
SHEET NUMBER



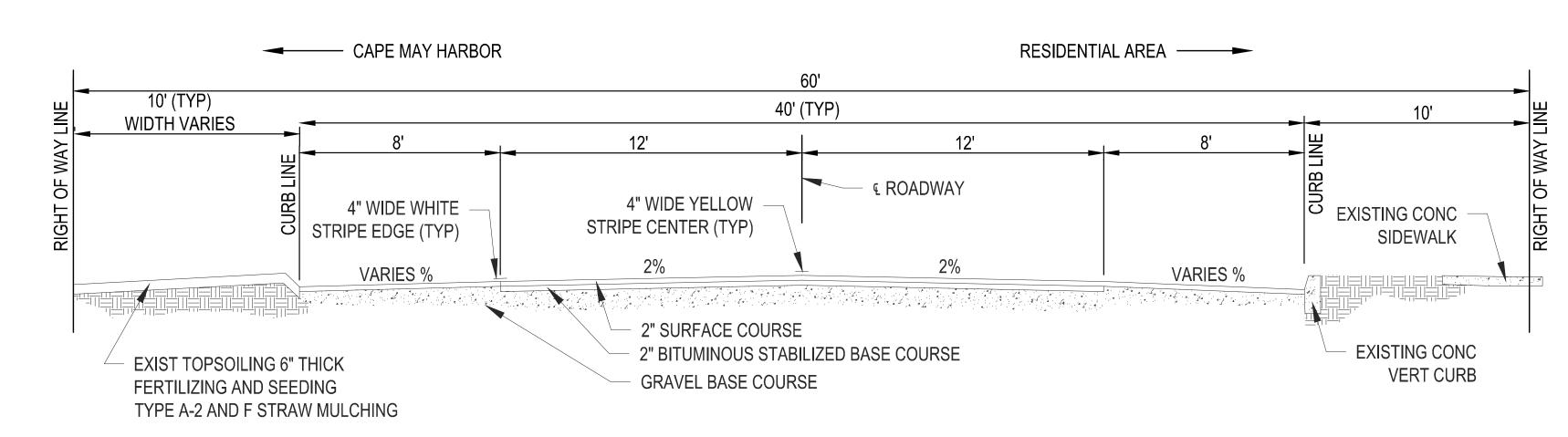




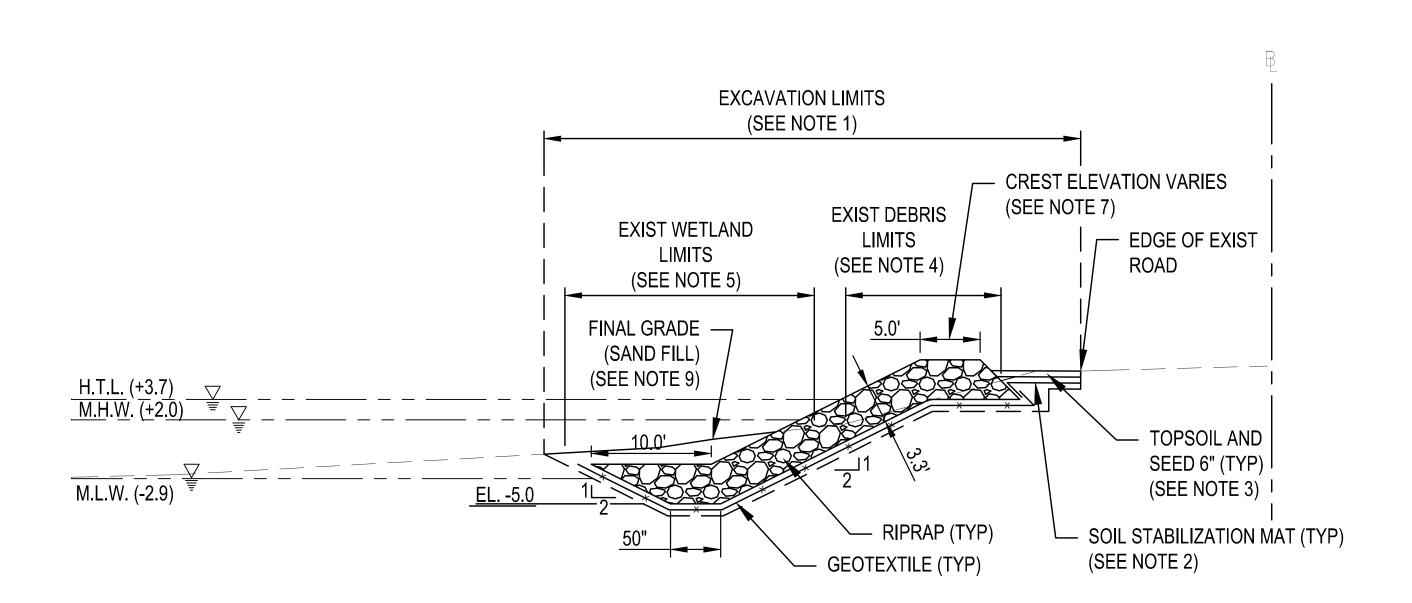
TYPICAL SECTIONS - STA. 18+90 TO STA. 20+10



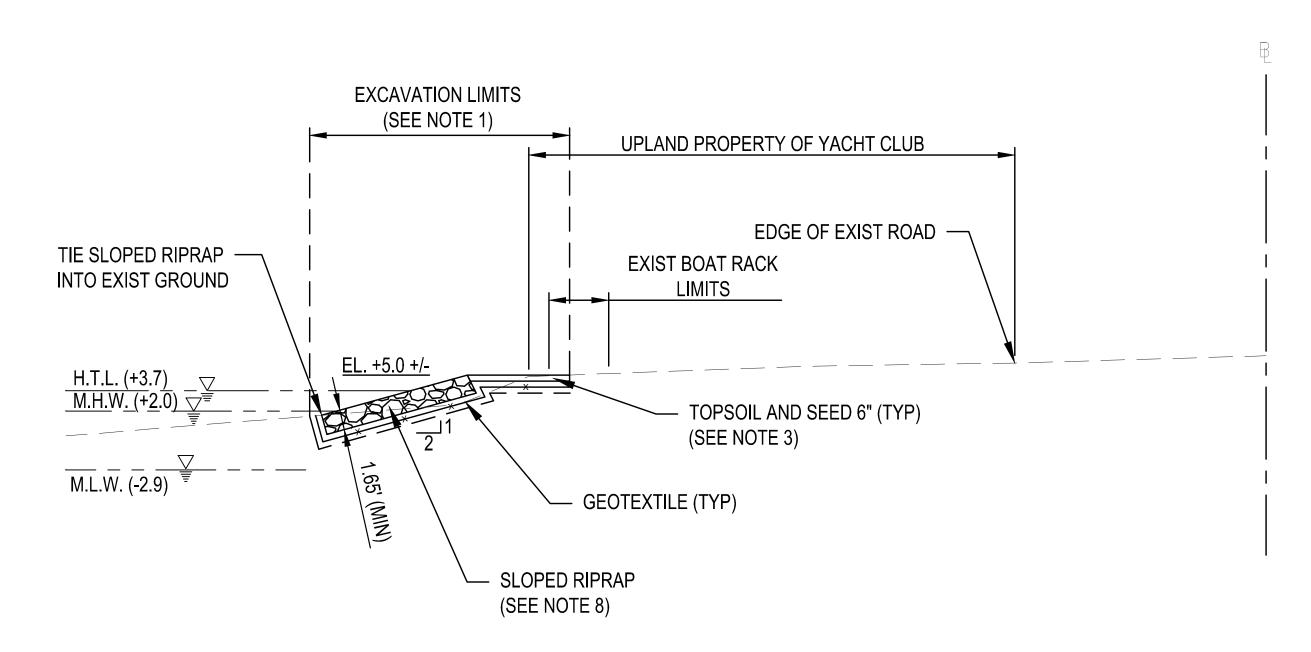
TYPICAL SECTIONS - STA. 22+05 TO STA. 22+75



TYPICAL SECTIONS - STA. 0+50 TO STA. 22+05 - PAVEMENT SECTION



TYPICAL SECTIONS - STA. 20+10 TO STA. 22+05



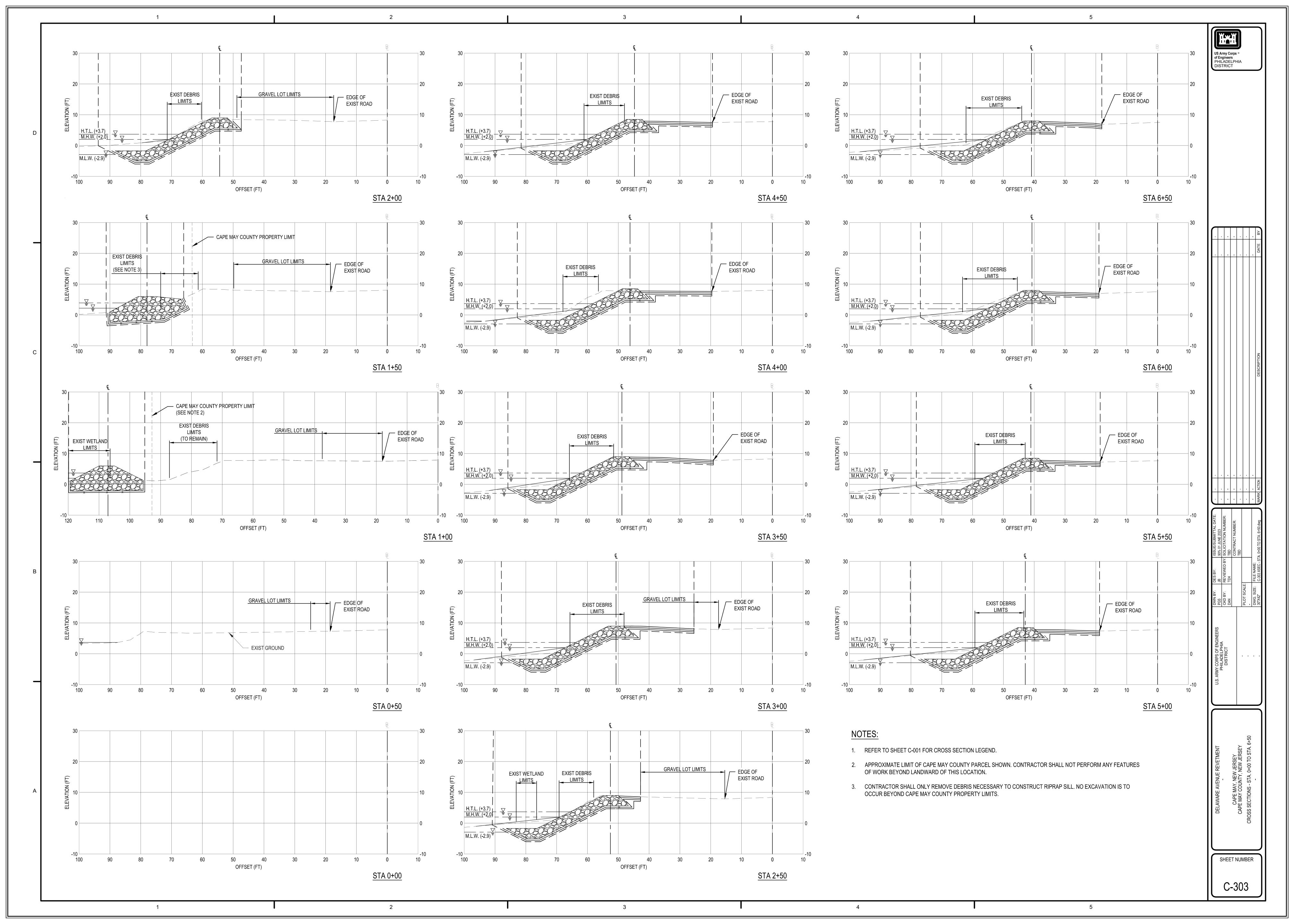
TYPICAL SECTIONS - STA. 22+75 TO STA. 23+42

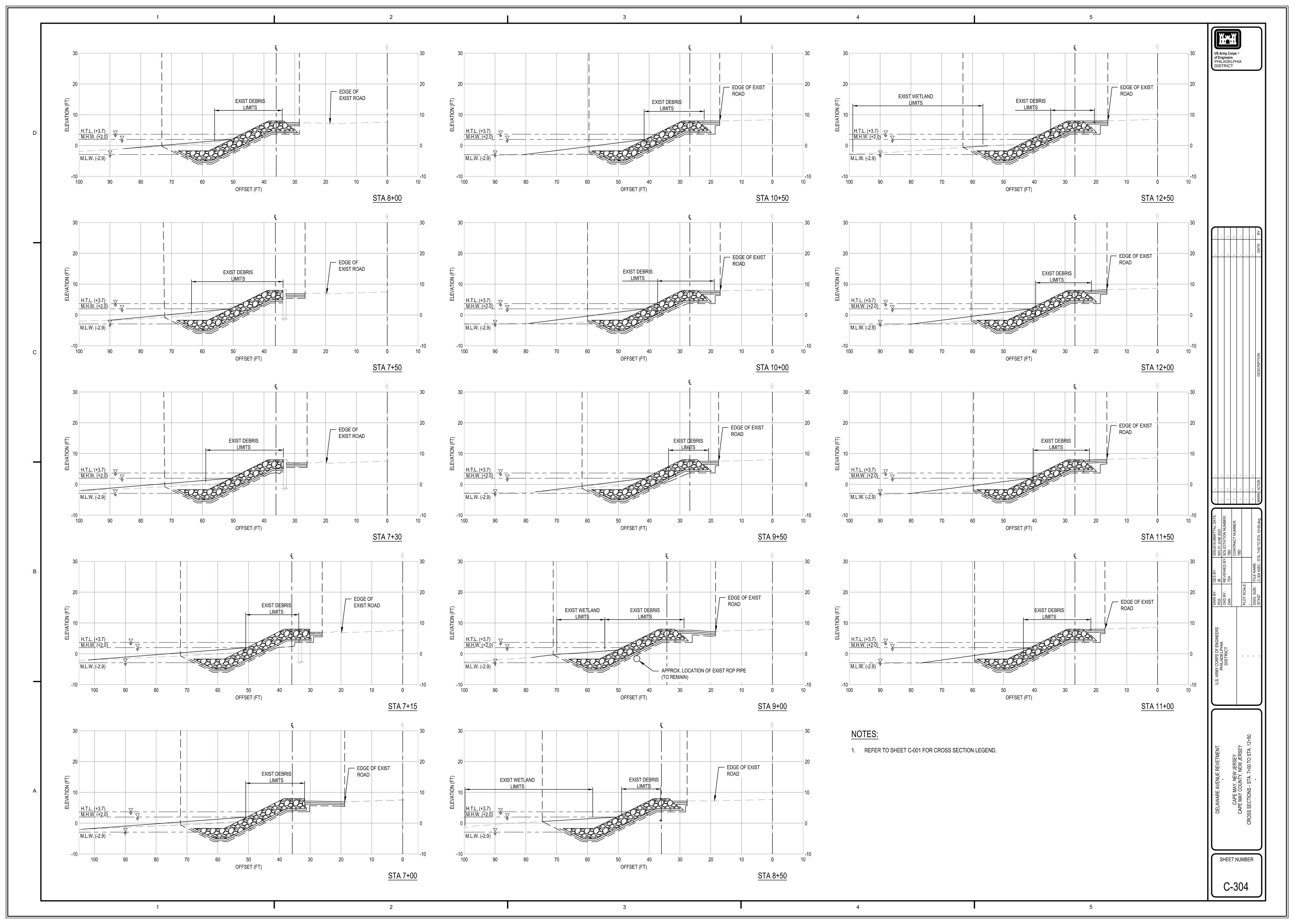
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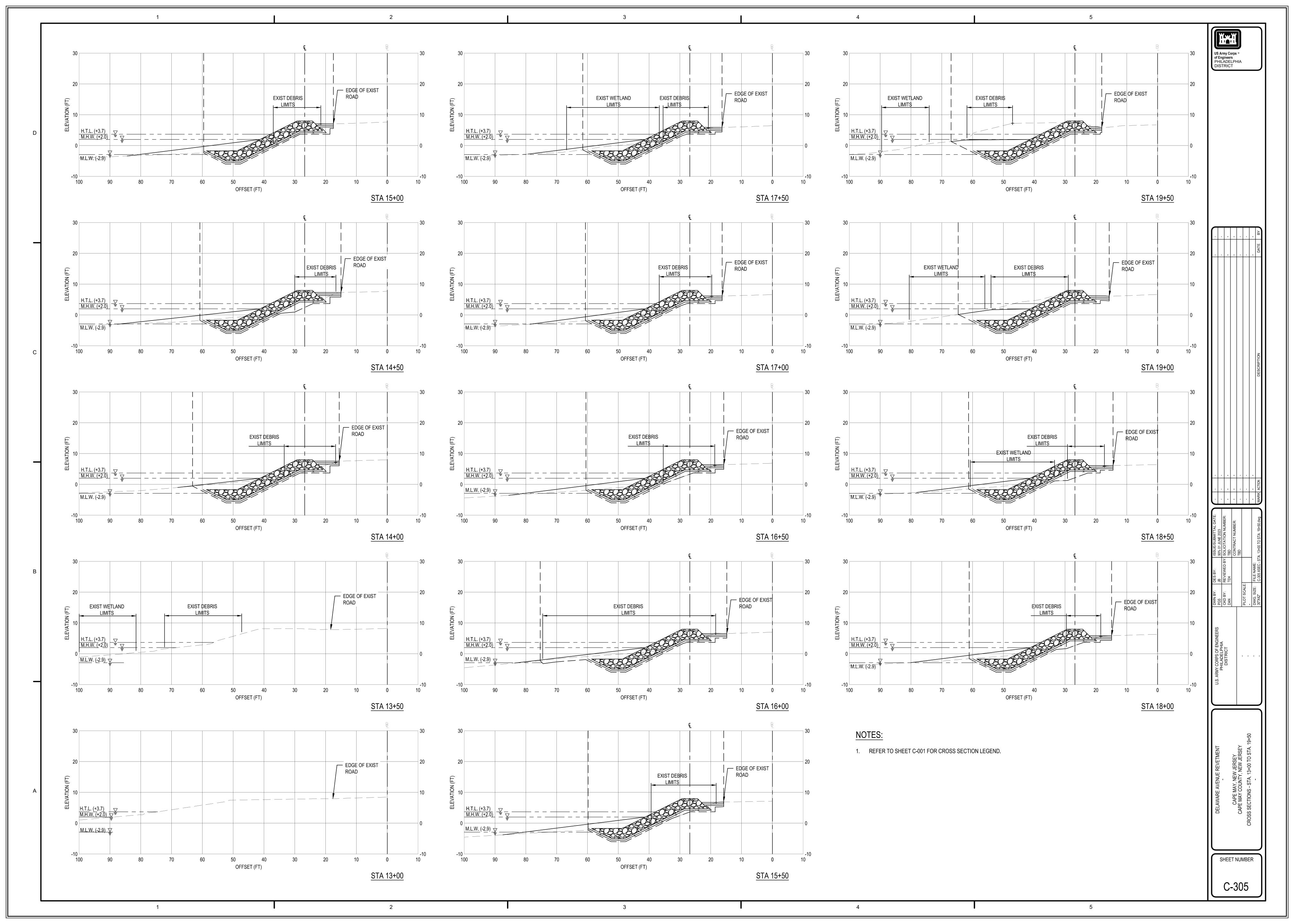
- 1. SEE NOTE 1 ON SHEET C-302.
- 2. SOIL STABILIZATION MAT SHALL BE INSTALLED BENEATH THE PROPOSED TOPSOIL AREA. THIS MAT SHALL ACHIEVE A MINIMUM OF 1 FOOT OVERLAP OF THE PROPOSED REVETMENT GEOTEXTILE. OVERLAP SHOWN IS APPROXIMATE.
- 3. CONTRACTOR SHALL PLACE 6" OF TOPSOIL AND SEED AT THE LOCATIONS SHOWN. TOPSOIL FINAL GRADE SHALL FOLLOW THE EXISTING GROUND AS SHOW
- 4. EXISTING DEBRIS VARIES THROUGHOUT PROJECT SITE. SEE SITE PLAN FOR DESCRIPTION OF TYPES OF MATERIAL. THE CONTRACTOR SHALL ASSUME A MINIMUM OF 1H:1V SLOPE WILL BE REQUIRED TO REMOVE OBJECTS AT THE EDGE OF THE DEBRIS LIMITS WHERE EXCAVATION IS NECESSARY. IT SHALL ALSO BE ASSUMED THAT AI EXCAVATED MATERIAL FROM WITHIN THE DEBRIS LIMITS WILL BE REPLACED WITH IMPORTED SAND FILL. IF THE CONTRACTOR ENCOUNTERS BITUMINOUS CHUNKS OF CLUSTERS WITHIN THE DEBRIS LIMITS THAT IS TO BE EXCAVATED, IT SHALL BE REMOVED IN ITS ENTIRETY TO MINIMIZE THE BREAKING AND SPREAD OF BITUMINOUS PARTICLES.
- 5. THE CONTRACTOR SHALL ASSUME THAT ALL MATERIAL EXCAVATED FROM WITHIN THE WETLANDS LIMITS WILL NOT BE SUITABLE FOR BACKFILL. THIS MATERIAL WILL BE REPLACE WITH SAND EXCAVATED FROM THE SITE OR IMPORTED SAND FILL. THE CONTRACTOR SHALL ASSUME A MINIMUM 1H:1V SLOPE WILL BE REQUIRED FROM THE EDGE OF THE WETLANDS LIMITS SHOWN TO REMOVE VEGETATION WITHIN THE LIMIT OF EXCAVATION.
- 6. RIPRAP USED IN REVETMENT BACKSLOPE BETWEEN STA. 13+58 AND STA. 22+05 SHALL BE EQUAL TO OR GREATER THAN THE SPECIFIED W50. CONTRACTOR SHALL DO THIS TO REDUCE THE POTENTIAL FOR DISPLACEMENT OF STONE FROM THE STRUCTURE ONTO THE ADJACENT UPLAND AREA OR ROADWAY.
- 7. REVETMENT CREST ELEVATION BETWEEN STA. 18+90 AND STA. 21+10 VARIES BETWEEN EL. +8.0 AND EL. +7.0. REVETMENT CREST ELEVATION BETWEEN STA. 21+10 AND 22+05 VARIES BETWEEN EI. +7.0 AND EL. +6.0 NAVD88. SEE SHEETS C-103 AND C-104 FOR CREST ELEVATION TRANSITION LOCATIONS.
- 8. RIPRAP USED IN THE SLOPED RIPRAP TERMINUS OF THE PROJECT SHALL BE EQUAL TO OR GREATER THAN THE SPECIFIED W50. CONTRACTOR SHALL CONSTRUCT THIS TO REDUCE THE POTENTIAL FOR DISPLACEMENT OF STONE FROM THE SLOPE.
- 9. SPARTINA ALTERNIFLORA TO BE PLANTED ATOP FINAL SAND GRADE IN SELECT LOCATIONS. PLANTINGS NOT SHOWN FOR CLARITY. SEE SHEETS CE101 AND CE102 FOR PLANTING LIMITS.

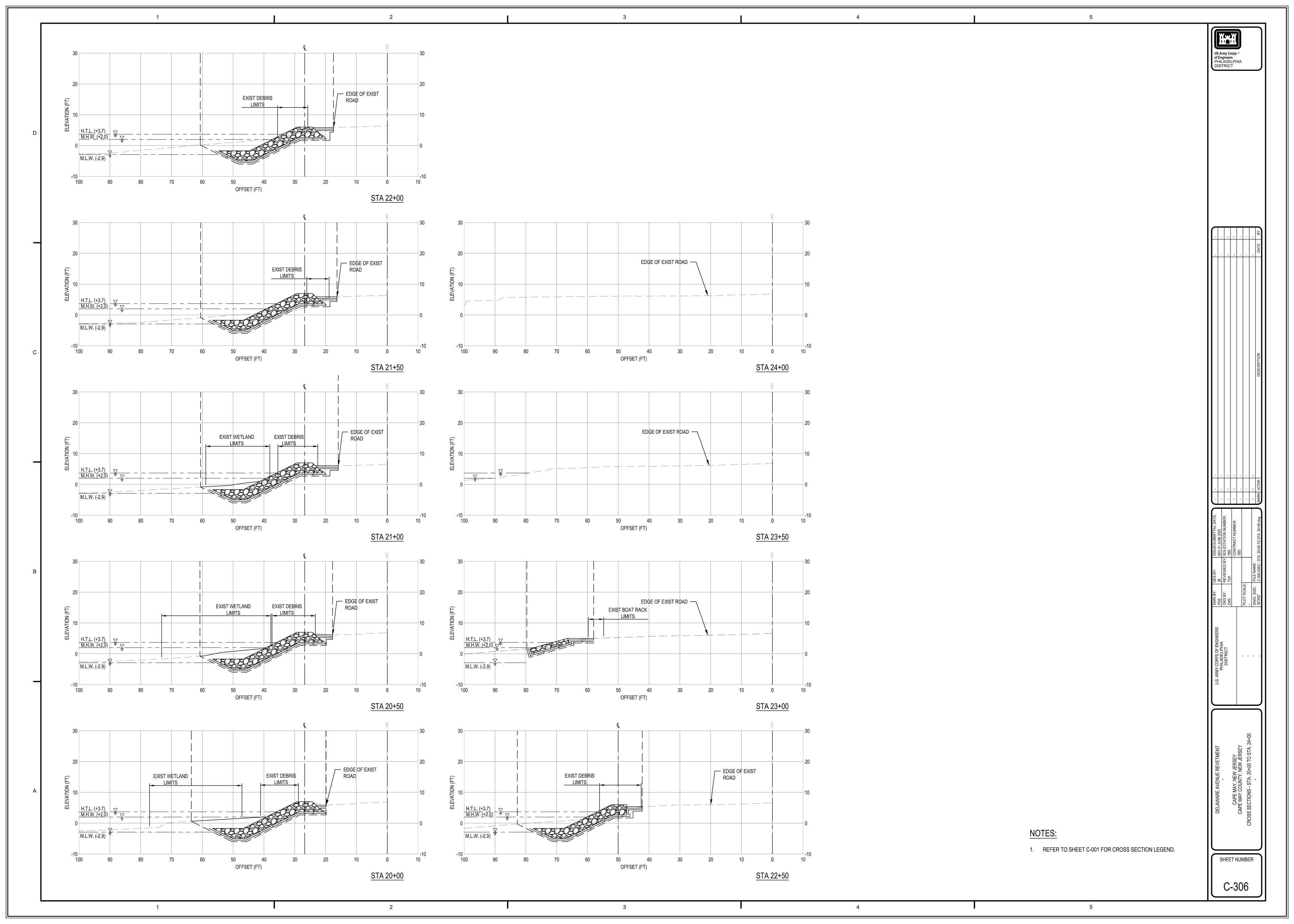
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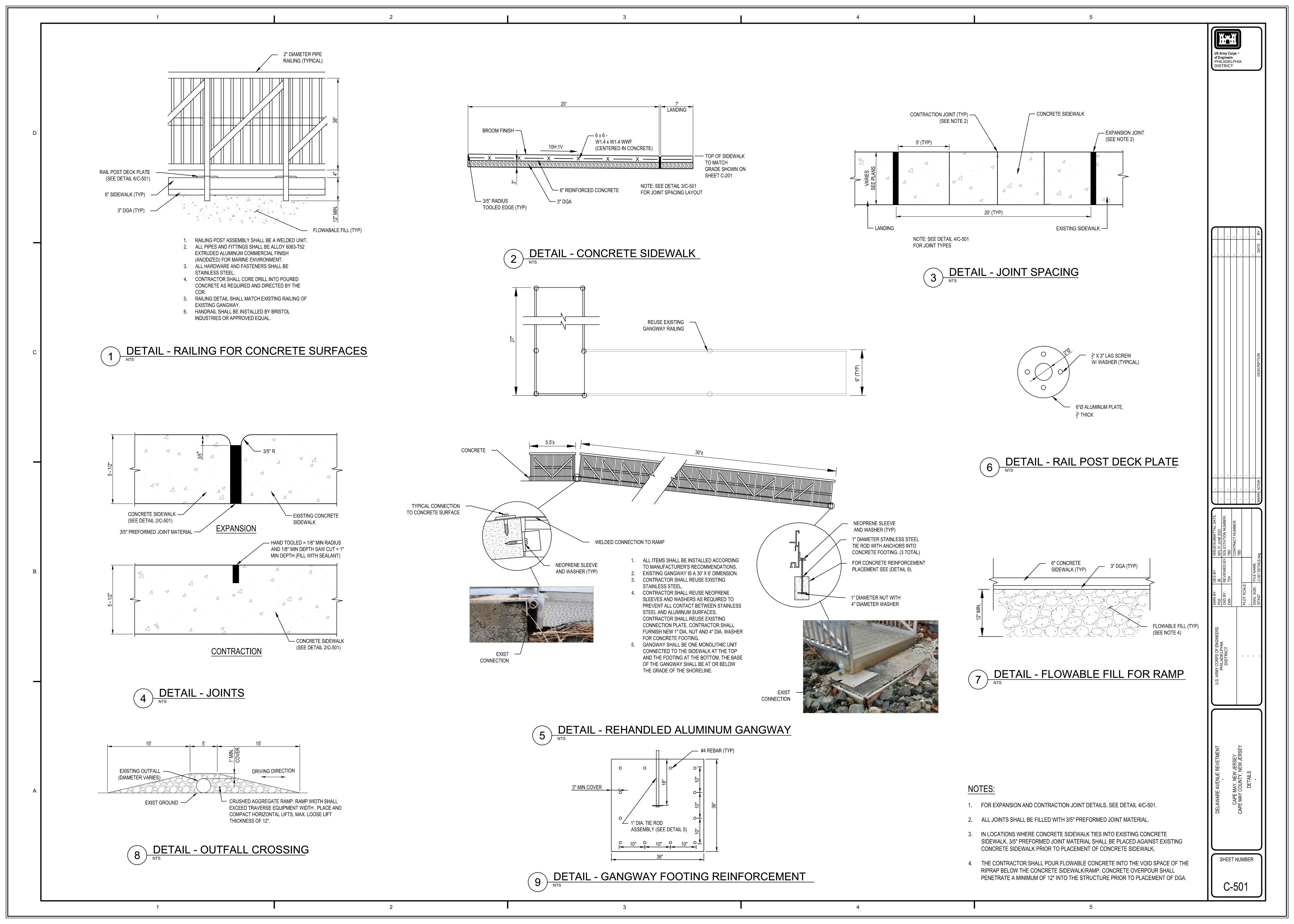
C-302











SOIL EROSION AND SEDIMENT CONTROL NOTES:

- 1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT (E&S) PLAN.
- 2. ALL WORK MUST BE DONE IN ACCORDANCE WITH THE "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY". 7TH EDITION, JANUARY 2014, REVISED JULY 2017.
- 3. CONTACT THE CAPE ATLANTIC SOIL CONSERVATION DISTRICT 48 HOURS IN ADVANCE OF THE START OF ANY LAND DISTURBANCE ACTIVITIES.
- 4. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE CONTRACTOR SHALL INVITE ALL CONTRACTORS IINVOLVED IN THOSE ACTIVITIES. ALL APPROPRIATE MUNICIPAL OFFICIALS. THE CONTRACTING OFFICER, AND THE CAPE ATLANTIC SOIL CONSERVATION DISTRICT TO AN ON-SITE MEETING.
- 5. AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE NEW JERSEY ONE CALL SYSTEM AT 1-800-272-1000 FOR BURIED UTILITIES LOCATIONS.
- REMOVE ANY SEDIMENT THAT MAY BE SPILLED, DROPPED, OR TRACKED OFF OF THE PROJECT SITE. ALL PAVED RIGHTS-OF-WAY ADJACENT TO THE PROJECT SITE MUST BE MAINTAINED IN A CLEAN, SWEPT CONDITION THROUGHOUT CONSTRUCTION. INSTALL CRUSHED STONE PAD(S) TO HELP REDUCE OFF-SITE TRACKING OF SEDIMENT.
- CONTROL THE WASHING OR BLOWING OF SEDIMENT OFF OF THE PROJECT SITE. INSTALL SEDIMENT BARRIERS TO HELP REDUCE OFF-SITE SEDIMENTATION. MEASURES TO CONTROL DUST AND WIND EROSION MUST BE UTILIZED (I.E. WETTING OF SITE).
- 8. THE PROPERTY MUST BE GRADED IN A MANNER THAT WILL NOT CAUSE EROSION OR SEDIMENTATION PROBLEM ON THE PROJECT SITE, OR TO ADJACENT PROPERTIES. AREAS SUBJECT TO SOIL RESTORATION MEASURES MUST COMPLY WITH THE STANDARD FOR LAND GRADING.
- 9. SITE MUST BE PROPERLY MULCHED FOR NON-GROWING SEASONS USING STRAW MULCH @ 90-115 LBS./1,000 SQ. FT. (3 BALES), PROPERLY ANCHORED OR TACKED.
- 10. WHEN REQUIRED. SITE MUST BE SEEDED TO ESTABLISH A TEMPORARY VEGETATIVE COVER. PERENNIAL RYEGRASS @ 1LB./1,000 SQ. FT. MAY BE UTILIZED.
- 11. PREPARE AREAS TO BE PERMANENTLY VEGETATED BY TOPSOILING (A MINIMUM OF 5" IS REQUIRED), FERTILIZING @ 11 LBS./1,000 SQ. FT. OF 10-20-10, AND APPLYING LIME @ 90 LBS./1,000 SQ. FT.
- 12. SEED THE SITE TO ESTABLISH A PERMANENT VEGETATIVE COVER UTILIZING A TURF-TYPE TALL FESCUE/PERENNIAL RYEGRASS MIX @ 6-8 LBS./1,000 SQ. FT., OR EQUIVALENT. APPLY STRAW MULCH @ 70-90 LBS./1,000 SQ. FT. (2 BALES), AND PROPERLY ANCHOR OR TACK. SOD, STONE COVER OR MULCHED LANDSCAPE BEDS MAY BE SUBSTITUTED FOR SEEDING TO ESTABLISH A PERMANENT COVER.
- 13. STAGING AREA ENTRANCE MUST BE STABILIZED WITH A PERMANENT MATERIAL SUCH AS ASPHALT, CONCRETE, PAVING BLOCKS, CRUSHED STONE, CRUSHED CONCRETE OR DENSE GRADED AGGREGATE. SEE SHEET CE-101 FOR LOCATION OF STABILIZED CONSTRUCTION ENTRANCE. REFER TO SHEET CE501 FOR DETAILS.
- 14. ALL SIDEWALKS, DRIVEWAY APRONS, AND CURBING IF REQUIRED BY THE MUNICIPALITY MUST BE COMPLETED PRIOR TO DEMOBILIZATION.
- 15. A REPORT OF COMPLIANCE MUST BE OBTAINED FROM THE DISTRICT UPON COMPLETION OF CONSTRUCTION. REQUESTS FOR A DISTRICT INSPECTION FOR THE RELEASE OF A REPORT OF COMPLIANCE MUST BE MADE 5 WORKING DAYS IN ADVANCE. A REPORT OF COMPLETE COMPLIANCE IS ISSUED WHEN PERMANENT EROSION CONTROLS HAVE BEEN ADDRESSED. A REPORT OF CONDITIONAL COMPLIANCE MAY BE ISSUED WHEN THE SEASON OR OTHER CONDITIONS MAY NOT BE SUITABLE FOR ESTABLISHING A PERMANENT VEGETATIVE COVER. A CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED BY A MUNICIPALITY UNLESS THE DISTRICT HAS ISSUED A REPORT OF COMPLIANCE, THIS APPLIES TO BOTH THE COMPLETE (FINAL) AND CONDITIONAL (TEMPORARY) CERTIFICATES.
- 16. THE "SOIL COMPACTION MITIGATION VERIFICATION FORM" MUST BE SUBMITTED TO THE DISTRICT PRIOR TO THE ISSUANCE OF A REPORT OF COMPLIANCE WHEN YOUR SOIL EROSION AND SEDIMENT CONTROL PLAN DENOTES AREAS OF THE SITE THAT ARE SUBJECT OF SOIL COMPACTION MITIGATION (TESTING AND/OR REMEDIATION).
- 17. THE FOLLOWING "SEQUENCE OF CONSTRUCTION" MUST BE FOLLOWED FOR IMPLEMENTATION OF EROSION CONTROL MEASURES:
- 17.1. INSTALLATION OF TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES.
- 17.2. INSTALLATION OF DRAINAGE MEASURE (WHERE APPLICABLE).
- 17.3. CONSTRUCTION OF THE FACILITY.
- 17.4. IMPLEMENTATION OF SOIL RESTORATION MEASURES (WHERE APPLICABLE).
- 17.5. INSTALLATION OF A PERMANENT COVER. 17.6. REMOVAL OF SOIL EROSION AND SEDIMENT CONTROL MEASURES.
- 18. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES,
- VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
- 19. 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.
- 20. DEGRADABLE EROSION CONTROL MATS MAY BE REQUIRED AS PART OF THE TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES TO ENSURE SEEDING GERMINATES AND ADEQUATE GROWTH IS ACHIEVED. SEE SECTION 31 32 11 OF THE PROJECT SPECIFICATIONS.
- 21. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
- 22. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.

- 23. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
- 24. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
- 25. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES OR 6 TO 12 INCHES ON COMPACTED SOILS PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
- 26. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
- 27. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 12 INCHES IN THICKNESS.
- 28. 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.
- 29. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- 30. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- 31. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
- 32. 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 THIS PLAN.
- 33. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
- 34. 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.
- 35. CONTRACTOR SHALL UTILIZE TEMPORARY EROSION CONTROL BLANKET OVER TOPSOIL AREA TO ALLOW VEGETATION TO GERMINATE. THIS SHALL BE SEPARATE FROM THE PROPOSED SOIL STABILIZATION MAT
- 36. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
- 37. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES.
- 38. SEDIMENT BARRIER OR SILT FENCE LOCATIONS ARE SHOWN ON SHEETS CE101 AND CE102 FOR REFERENCE.
- 39. CONTRACTOR SHALL MAINTAIN ALL EXISTING INLETS AND ENSURE THEY ARE KEPT FREE FROM SEDIMENT-LADEN RUNOFF LEAVING THE CONSTRUCTION SITE, PROTECTION IS TO REMAIN IN PLACE UNTIL REMOVAL IS APPROVED BY THE CONTRACTING OFFICER. EXISTING INLETS TO BE PROTECTED HAVE BEEN IDENTIFIED ON SHEETS CE101 AND CE102.
- 40. CONTRACTOR SHALL ENSURE TEMPORARY STORMWATER CONVEYANCE MEASURES ARE UTILIZED DURING REPAIR/REPLACEMENT OF EXISTING OUTFALL STRUCTURES. TEMPORARY MEASURES MAY NEED TO REMAIN IN PLACE FOR EXTENDED DURATION IF OUTFALL DISTURBANCE IS PROLONGED.

of Engineers PHILADELPHIA DISTRICT

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