



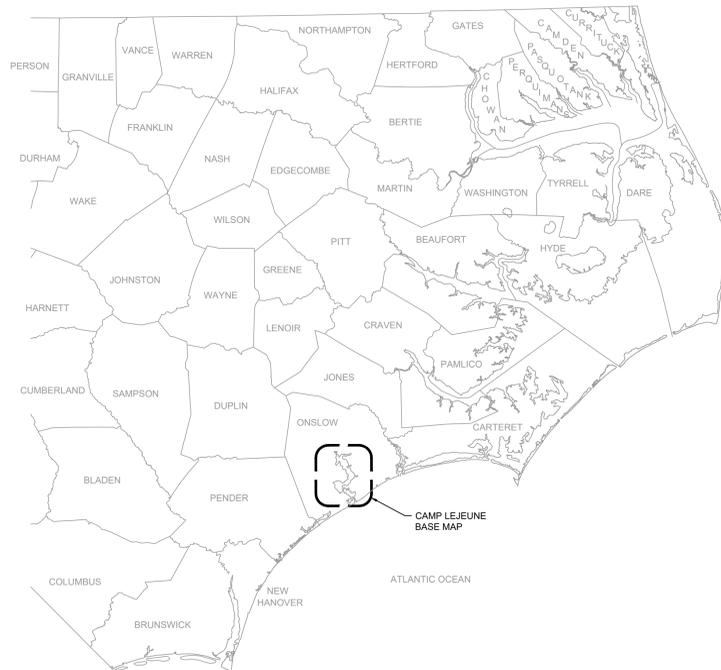
CAMP LEJEUNE

HOME OF
EXPEDITIONARY
FORCES IN READINESS

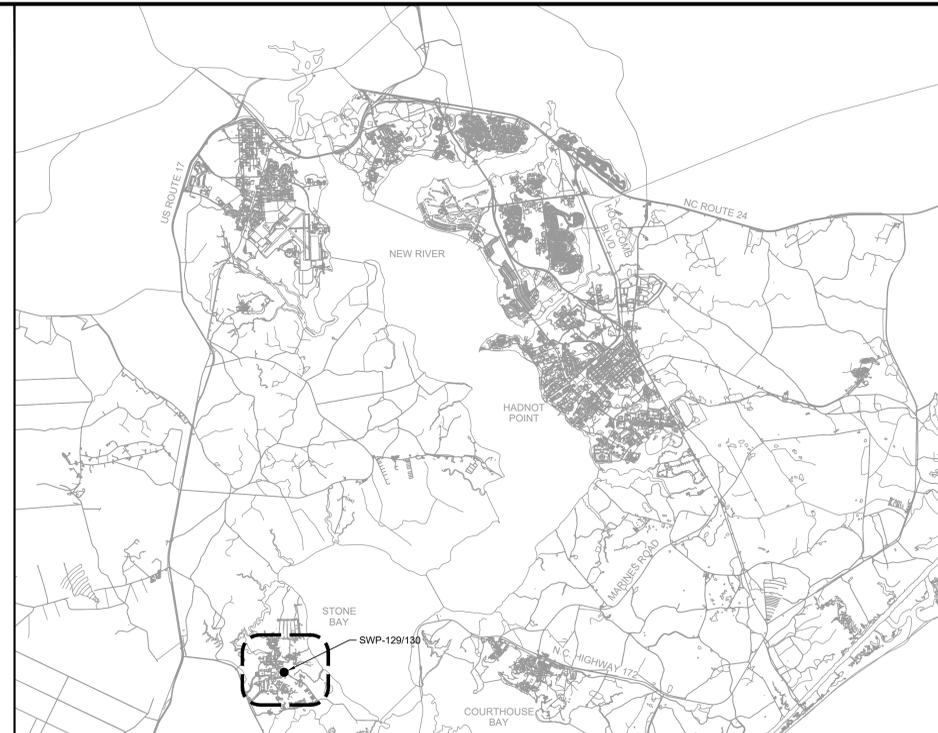


REVISIONS			
SYM	DATE	APPROVED	

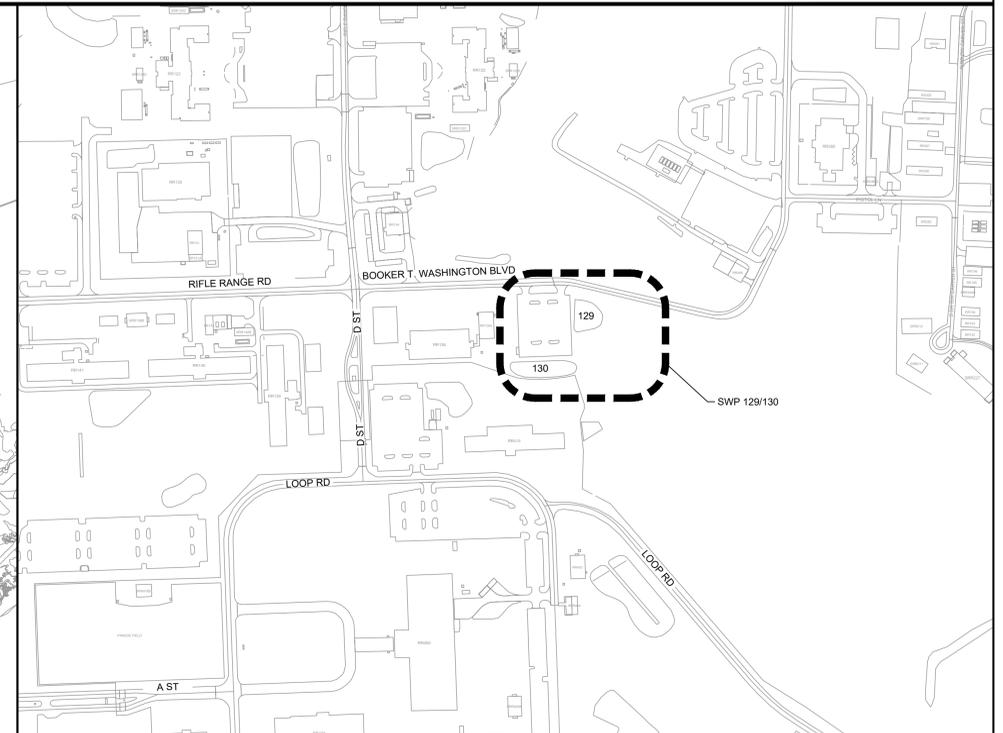
REPAIR SWP129/130 AND RESTORE WETLANDS



1 LOCATION MAP
NOT TO SCALE



2 BASE MAP
1" = 600 FEET



3 ENLARGED BASE MAP
1" = 20 FEET

INDEX OF DRAWINGS

GENERAL			
SHEET NAME	NAVFAC DRAWING NO.	PAGE	SHEET DESCRIPTION
G-001	60037084	1	COVER
EXISTING CONDITIONS			
SHEET NAME	NAVFAC DRAWING NO.	PAGE	SHEET DESCRIPTION
VF100	60037085	2	CIVIL EXISTING CONDITIONS
CIVIL			
SHEET NAME	NAVFAC DRAWING NO.	PAGE	SHEET DESCRIPTION
C-001	60037086	3	CIVIL GENERAL INFO
CD100	60037087	4	CIVIL DEMOLITION PLAN
CG100	60037088	5	CIVIL REPAIR PLAN
CG101	60037089	6	WETLANDS RESTORATION PLAN
C-500	60037090	7	CIVIL DETAILS - 1
C-501	60037091	8	CIVIL DETAILS - 2
C-502	60037092	9	CIVIL DETAILS - 3

DISCLOSURE OF INFORMATION:

CONTRACTOR SHALL COMPLY AS FOLLOWS:

A. THE CONTRACTOR SHALL NOT RELEASE TO ANYONE OUTSIDE THE CONTRACTOR'S ORGANIZATION ANY UNCLASSIFIED INFORMATION, REGARDLESS OF MEDIUM (E.G. FILM, TAPE, DOCUMENT), PERTAINING TO ANY PART OF THIS CONTRACT OR ANY PROGRAM RELATED TO THIS CONTRACT, UNLESS-

1. THE CONTRACTING OFFICER HAS GIVEN PRIOR WRITTEN APPROVAL; OR
2. THE INFORMATION IS OTHERWISE IN THE PUBLIC DOMAIN BEFORE THE DATE OF THE RELEASE.

B. REQUESTS FOR APPROVAL SHALL IDENTIFY THE SPECIFIC INFORMATION TO BE RELEASED, THE MEDIUM TO BE USED, AND THE PURPOSE FOR THE RELEASE. THE CONTRACTOR SHALL SUBMIT ITS REQUEST TO THE CONTRACTING OFFICER AT LEAST 45 DAYS BEFORE THE PROPOSED DATE FOR RELEASE.

C. THE CONTRACTOR AGREES TO INCLUDE A SIMILAR REQUIREMENT IN EACH SUBCONTRACT UNDER THIS CONTRACT. SUBCONTRACTORS SHALL SUBMIT REQUESTS FOR AUTHORIZATION TO RELEASE THROUGH THE PRIME CONTRACTOR TO THE CONTRACTING OFFICER.

FINAL

12-06-2022

G-001

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

**REPAIR SWP129/130
AND RESTORE WETLANDS**

COVER

DES. WEB
DR. WEB
CHK. MTH
SUBMITTED BY: MTH

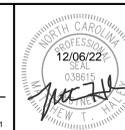
DESIGN DIR. JENNI P. REED, P.E.

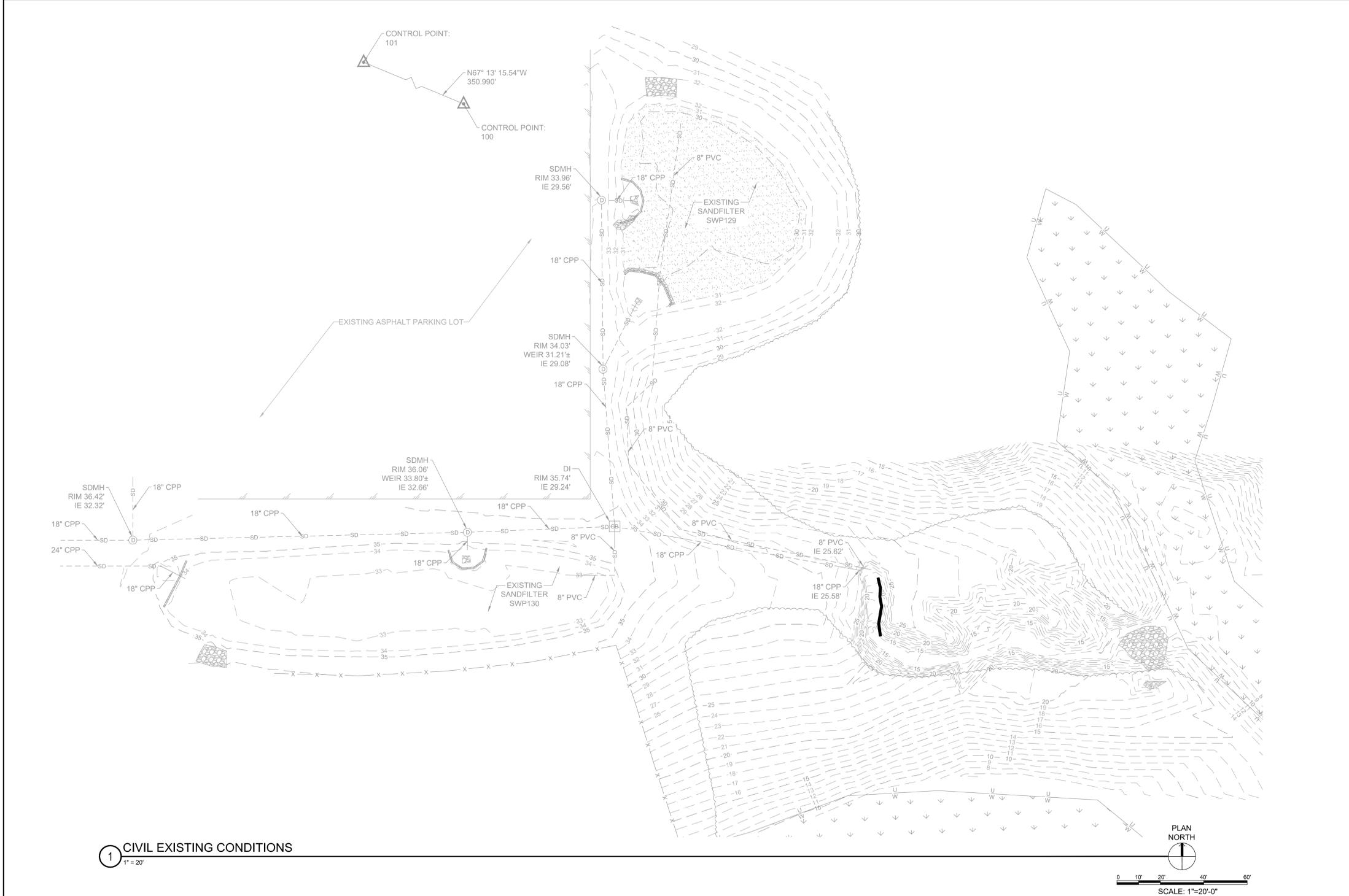
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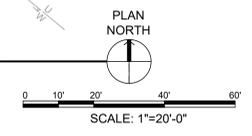
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CONST. CONTR.

SCALE: NOTED SPEC. 05-22-0008 SHEET 01 OF 09





1 CIVIL EXISTING CONDITIONS
1" = 20'



REVISIONS		
SYM	DATE	APPROVED

GENERAL SHEET NOTES

- SEE SHEET C-001 FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS.

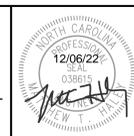
SHEET KEYNOTES

SURVEY CONTROL DATA

- EXISTING CONDITIONS SURVEY PERFORMED BY CAPE FEAR ENGINEERING ON JULY 25, 2022.
- SURVEY CONTROL DATA ESTABLISHED, UTILIZING NORTH CAROLINA VIRTUAL REFERENCE STATION (VRS) SYSTEM.
- HORIZONTAL DATUM IS NAD '83 AND ELEVATIONS ARE BASED ON NAVD '88 (2011) VERTICAL DATUM.
- CONTROL POINTS:
 - 100
N: 308337.96'
E: 2467538.02'
ELEV: 34.87'
 - 101
N: 308473.85'
E: 2467214.41'
ELEV: 43.53'
- WETLANDS SHOWN PER MCBCL G.I.S.

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET G-001

FINAL 12-06-2022		VF100	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA			
REPAIR SWP129/130 AND RESTORE WETLANDS			
CIVIL EXISTING CONDITIONS			
DES. WEB	DR. WEB	CHK. MTH	SUBMITTED BY: MTH
DESIGN DIR. JENNI P. REED, P.E.		APPROVED: PWO OR OICC	DATE
SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.	
E1	80091	60037085	
SATISFACTORY TO:		DATE	CONST. CONTR.
SCALE: NOTED		SPEC. 05-22-0008	SHEET 02 OF 09



CIVIL GENERAL NOTES:

- REFER TO THE PROJECT SPECIFICATIONS IN ALL SITUATIONS. BRING CONFLICTS BETWEEN PROJECT SPECIFICATIONS AND PLANS TO THE ATTENTION OF THE CONTRACTING OFFICER AND/OR ENGINEER FOR RESOLUTION. ALL MATERIALS AND WORKMANSHIP MUST CONFORM TO THE PROJECT SPECIFICATIONS.
- EXISTING UTILITY INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. LOCATION, VERIFICATION, SUPPORT AND PROTECTION OF ALL ABOVE GROUND AND UNDERGROUND UTILITIES TO REMAIN IN PLACE, INCLUDING ANY UTILITIES NOT INDICATED ON CONTRACT DRAWINGS IS REQUIRED. ANY CONFLICTS OR DISCREPANCIES MUST BE BROUGHT TO THE CONTRACTING OFFICER'S AND/OR ENGINEER'S ATTENTION IMMEDIATELY. CAPE FEAR ENGINEERING HAS NOT PHYSICALLY LOCATED ANY UNDERGROUND UTILITIES.
- PRIOR TO ANY EXCAVATION, CONTRACTOR MUST HAVE THE EXISTING UNDERGROUND LINES MARKED ON THE GROUND SURFACE IN THE AREAS OF CONSTRUCTION. POTHOLE AND PHYSICALLY VERIFY DEPTH AND LOCATION OF ALL UTILITY LINES IN THE WORK AREA THAT REQUIRE COORDINATION WITH WORK ITEMS. POTHOLE VERIFICATION MUST BE DONE WELL IN ADVANCE OF ACTUAL WORK SO THAT POTENTIAL UTILITY CONFLICTS CAN BE VERIFIED AND RESOLVED WITHOUT CAUSING SCHEDULE DELAYS.
- PROTECT ALL EXISTING STRUCTURES, TREES, PAVEMENT, UTILITIES, AND OTHER PROPERTY UNLESS THEY ARE TO BE DEMOLISHED. ANY PROPERTY NOT AUTHORIZED FOR REMOVAL, BUT DAMAGED BY THE CONTRACTOR MUST BE RESTORED BY THE CONTRACTOR TO THEIR PRE-CONSTRUCTION CONDITION OR BETTER AT NO ADDITIONAL EXPENSE TO THE OWNER.
- MAKE EVERY EFFORT TO SAVE PROPERTY IRONS, MONUMENTS, OTHER PERMANENT POINTS AND LINES OF REFERENCE AND CONSTRUCTION STAKES. PROPERTY IRONS, MONUMENTS, AND OTHER PERMANENT POINTS OF REFERENCE DESTROYED BY THE CONTRACTOR MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- WORK PERFORMED UNDER THIS CONTRACT MUST NOT IMPACT THE OPERATION OF ANY ADJACENT PROPERTIES UNLESS A UTILITY OUTAGE HAS BEEN APPROVED IN ADVANCE.
- SEQUENCE WORK AS NECESSARY TO ENSURE THAT ALL UTILITY SERVICES, INCLUDING FIRE HYDRANTS, REMAIN OPERATIONAL DURING CONSTRUCTION.
- RESTORE ANY ACCESS ROADS AND STAGING AREAS USED BACK TO THEIR PRE-CONSTRUCTION CONDITION OR BETTER. VEGETATE ALL DISTURBED AREAS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- TAKE ADEQUATE PROTECTIVE MEASURES TO ENSURE THAT EXISTING PAVEMENT SURFACES ARE NOT DAMAGED FROM TRACKED CONSTRUCTION EQUIPMENT OR ANY OTHER POSSIBLE SOURCE WHEN EQUIPMENT IS BEING MOVED. REPAIR ANY PAVED AREAS DAMAGED DURING CONSTRUCTION TO THEIR PRE-CONSTRUCTION CONDITION OR BETTER.
- EXISTING PAVEMENTS AND ALL OTHER AREAS ADJACENT TO THE SITE MUST BE KEPT CLEAN AT ALL TIMES. DO NOT ALLOW BUILD UP OF SOIL, MUD, DUST OR OTHER DEBRIS.
- CONTRACTOR IS RESPONSIBLE FOR ALL SURVEYING AND STAKING TO COMPLETE THE WORK.
- ANY AND ALL MATERIAL QUANTITIES INDICATED ON THIS PLAN SET ARE FOR REFERENCE ONLY. CONTRACTOR MUST VERIFY ALL MATERIAL QUANTITIES SHOWN.
- KEEP REDLINE MARK-UPS OF ANY CHANGES MADE FROM THE APPROVED PLAN AND PROVIDE COPY OF REDLINES TO ENGINEER UPON PROJECT COMPLETION.

EXISTING CONDITION NOTES:

- SEE SHEET VF100 FOR EXISTING CONDITIONS AND SURVEY INFORMATION.

OFFSITE BORROW AREA NOTES

- CONTRACTOR IS RESPONSIBLE FOR ENSURING OFFSITE BORROW AREA HAS AN APPROVED EROSION CONTROL PERMIT AND APPROPRIATE MEASURES IN PLACE PRIOR TO LAND DISTURBING ACTIVITY.
- NO BORROW MATERIALS ARE AVAILABLE ON GOVERNMENT PROPERTY.

DEMOLITION PLAN NOTES:

- LOCATE UNDERGROUND UTILITIES AND COORDINATE DEMOLITION AND / OR RELOCATION WORK. SPECIFICALLY TAKE EXTRA CAUTIONARY MEASURES TO PREVENT DISRUPTION OF ANY TELECOM FIBER IN THE PROJECT AREA. ONCE LOCATED IN THE FIELD, POSITIVE VERIFICATION BY POT-HOLING IS REQUIRED. REPORT ANY CONFLICTS OR DISCREPANCIES TO ENGINEER.
- LIMITS OF DEMOLITION AND DIMENSIONS ARE SHOWN FOR GENERAL REFERENCE. CONTRACTOR MUST BE RESPONSIBLE FOR REMOVAL OF ALL ITEMS, INCLUDING ALL EXCAVATED MATERIALS NECESSARY TO COMPLETE WORK WITHIN THIS CONTRACT.
- WHERE ASPHALT/CONCRETE DEMOLITION IS REQUIRED, USE A SAW CUT AT THE LIMITS OF DEMOLITION OR NEAREST JOINT TO OBTAIN A CLEAN VERTICAL EDGE.
- DEDICATED DEMOLITION AND OTHER WASTE AREAS/EARTHEN MATERIAL STOCKPILES MUST BE LOCATED AT LEAST 50' FROM STORMDRAINS OR STREAMS.
- REPORT ANY UNSUITABLE SOILS, CONTAMINATED SOILS, AND BURIED CONCRETE AND DEBRIS TO THE CONTRACTING OFFICER.
- CONTRACTOR MUST SEQUENCE DEMOLITION OF STORM SEWER TO ENSURE ALL SYSTEMS REMAIN ONLINE DURING WORK. CONTRACTOR MUST PROVIDE TEMPORARY CAPS AND PLUGS FOR SEQUENCING OF DEMOLITION AND NEW WORK.
- UNDERGROUND UTILITIES SHOWN ON THE DEMOLITION PLANS MAY EXTEND FURTHER THAN SHOWN. CONTRACTOR IS RESPONSIBLE FOR COMPLETE REMOVAL OF UTILITIES WITHIN THE ENTIRE PROJECT SITE UNLESS OTHERWISE NOTED.

SIGNAGE, STRIPING, AND MARKING NOTES:

- THE CONTRACTOR IS RESPONSIBLE FOR ALL PEDESTRIAN AND VEHICULAR TRAFFIC DETOURS AND MUST USE APPROPRIATE SIGNAGE AND BARRICADES IN ACCORDANCE WITH ALL BASE, STATE, AND FEDERAL REQUIREMENTS.
- ALL ROAD AND LANE CLOSURES MUST BE REQUESTED AND APPROVED BY THE CONTRACTING OFFICER PRIOR TO CLOSING OF ANY ROADWAYS.

- ALL ROAD CLOSURES MUST BE SUBMITTED TO THE CONTRACTING OFFICER A MINIMUM OF 15 DAYS PRIOR TO THE REQUIRED DATE OF CLOSURE AND MUST INCLUDE A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH MUTCD AND EM 385-1-1.
- ALL TRAFFIC CONTROL METHODS AND DEVICES, BOTH TEMPORARY AND PERMANENT, MUST BE IN ACCORDANCE WITH THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), MOST RECENT EDITION AND THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT).
- ANY EXISTING PAVEMENT MARKINGS IN THE VICINITY OF THE PROJECT LIMITS THAT ARE DAMAGED DURING CONSTRUCTION MUST BE REPAIRED OR REPLACED TO THE CONTRACTING OFFICER'S SATISFACTION.

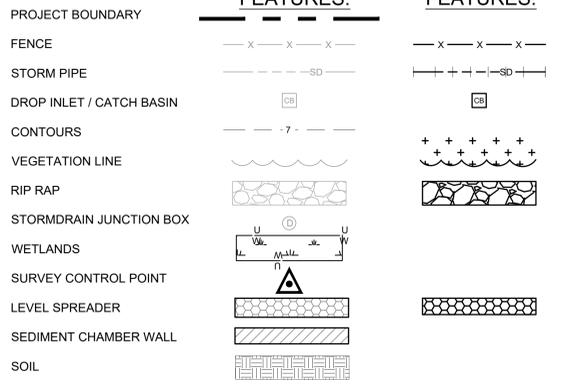
STORMWATER AND GRADING NOTES:

- ALL CUT OR FILL SLOPES MUST BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
- DURING CONSTRUCTION, PERFORM GRADING IN A MANNER AND SEQUENCE THAT WILL PROVIDE PROPER DRAINAGE AT ALL TIMES.
- ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- ALL STORM PIPE MUST BE CLASS III REINFORCED CONCRETE PIPE (RCP), UNLESS OTHERWISE NOTED ON THE PLANS.
- UPON THE COMPLETION OF CONSTRUCTION AND SITE STABILIZATION, ALL NEW PIPES AND EXISTING PIPES IMPACTED BY CONSTRUCTION MUST BE CLEANED TO REMOVE ALL ACCUMULATED SILT, SEDIMENT AND DEBRIS.
- ALL STORM PIPE ENTERING STRUCTURES (NEW AND EXISTING) MUST BE CUT FLUSH TO INSIDE OF THE BOX AND GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATER TIGHT; MAXIMUM PROTRUSION MUST BE 6 INCHES.
- ALL STORMWATER STRUCTURES IN PAVED AREAS MUST BE FLUSH WITH PAVEMENT AND BE HEAVY-DUTY TRAFFIC RATED.

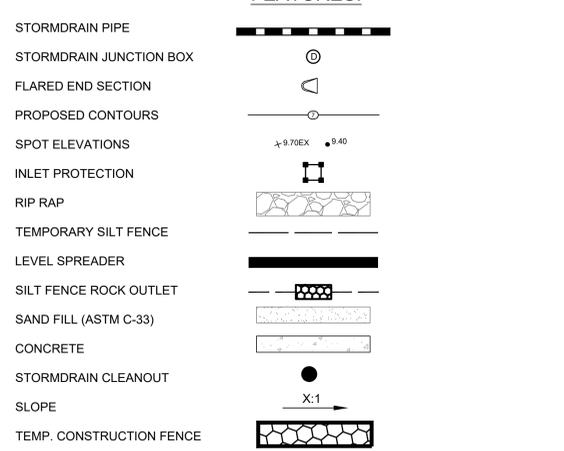
EROSION CONTROL NOTES:

- TOTAL DISTURBED AREA IS LESS THAN 1.0 ACRE. A LAND DISTURBANCE PERMIT IS NOT REQUIRED.
- ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN ACCORDANCE WITH THE NORTH CAROLINA SEDIMENTATION AND EROSION CONTROL DESIGN MANUAL (LATEST EDITION).
- DIMENSIONS AND GRADES SHOWN ON THE PLANS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER IN WRITING IF DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES.
- PROVIDE POSITIVE DRAINAGE AWAY FROM THE SITE AT ALL TIMES.

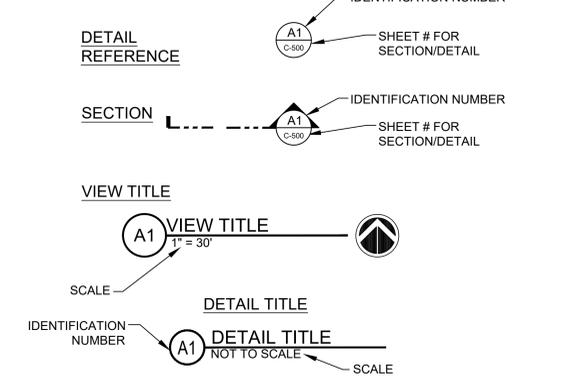
LEGEND:



LEGEND:



SYMBOL LEGEND:



REVISIONS		
SYM	DATE	APPROVED

ABBREVIATIONS

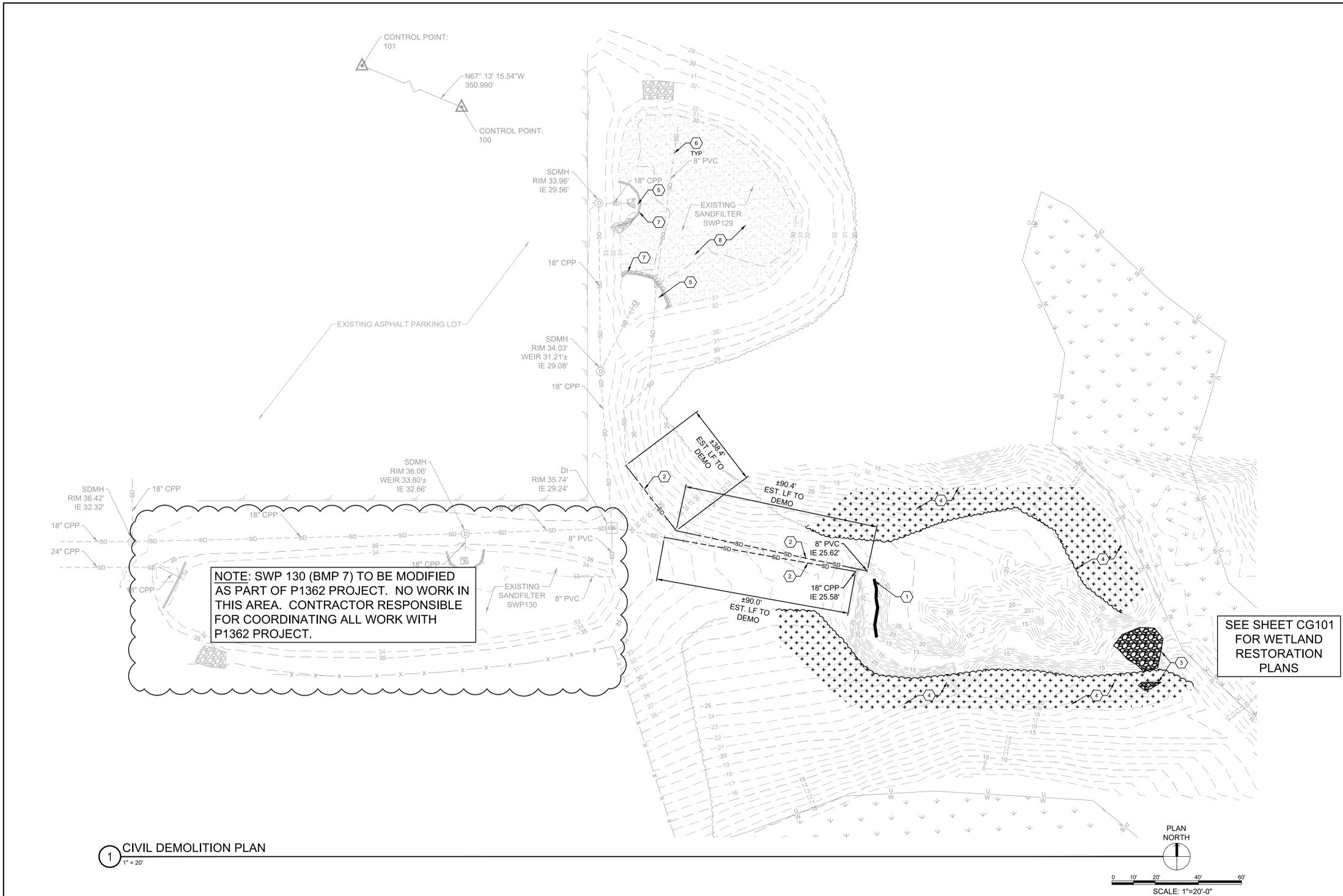
A/C	AIR CONDITIONER
ATFP	ANTI TERRORISM FORCE PROTECTION BUILDING
BLDG	BUILDING
BMP	BEST MANAGEMENT PRACTICE
BW	BARBED WIRE
C&G	CURB AND GUTTER
CB	CATCH BASIN
CC	CONCRETE CURB
CI	CURB DROP INLET
CJ	CONTRACTION JOINT
CLF	CHAIN LINK FENCE
CMH	COMMUNICATION MANHOLE
CONC	CONCRETE
D/B	DESIGN/BUILD
DCJ	DOWELED CONSTRUCTION JOINT
DI	DROP INLET
DPW	DEPARTMENT OF PUBLIC WORKS
DUMP	DUMPSTER
E	EAST
EHH	ELECTRICAL HANDHOLE
EG	EXISTING GAS
EJ	EXPANSION JOINT
ELEC	ELECTRIC
EMH	ELECTRICAL MANHOLE
EL	ELEVATION
FDC	FIRE DEPARTMENT CONNECTION
FES	FLARED END SECTION
FFC	FINISH FLOOR ELEVATION
FL	FLOW LINE
GFGI	GOVERNMENT FURNISHED, GOVERNMENT INSTALLED
HW	HEAD WALL
IE	INVERT ELEVATION
LP	LIGHT POLE
LSA	LANDSCAPE STONE
MAT	MATERIAL
MH	MANHOLE
MOF	METAL ORNAMENTAL FENCE
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
N	NORTH
NCDEQ	NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY
NCDOT	NORTH CAROLINA DIVISION OF TRANSPORTATION
NE	NORTHEAST
NIC	NOT IN CONTRACT
NOAA	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NW	NORTHWEST
PNG	PIEDMONT NATURAL GAS
PP	POWER POLE
PT	PHYSICAL TRAINING
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
S	SOUTH
SCM	STORMWATER CONTROL MEASURE
SDMH	STORM DRAIN MANHOLE
SE	SOUTHEAST
SEP	SEPARATION
SMH	SANITARY SEWER MANHOLE
STA	STATION
STY	STORY
SW	SOUTHWEST
TC	TOP OF CURB
TD	TRENCH DRAIN
TE	THICKENED EDGE
TEJ	THICKENED EDGE EXPANSION JOINT
THH	TELECOMMUNICATION MANHOLE
TMH	TELECOMMUNICATION MANHOLE
TRANS	TRANSFORMER
TSB	TEMPORARY SEDIMENT BASIN
TYP	TYPICAL
UG	UNDERGROUND
UNK	UNKNOWN
W	WEST
W/BW	WITH BARBED WIRE
WV	WATER VALVE
WW	WING WALL

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET G-001

FINAL 12-06-2022		C-001	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA			
DES.	WEB	REPAIR SWP129/130 AND RESTORE WETLANDS	
DR.	WEB		
CHK.	MTH		
SUBMITTED BY: MTH		CIVIL GENERAL INFO	
DESIGN DIR. JENNI P. REED, P.E.		SIZE	CODE IDENT. NO
APPROVED: PWO OR OICC DATE		E1	80091
SATISFACTORY TO: DATE		NAVFAC DRAWING NO. 60037086	
		SCALE: NOTED	SPEC. 05-22-0008
		SHEET 03 OF 09	

CAPE FEAR ENGINEERING
151 Poole Rd. Suite 100 | Leland, NC, 28451
TEL (910) 383-1044 | FAX (910) 383-1045
www.capefearengineering.com | N.C. LICENSE # C-1621

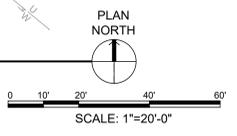
PROFESSIONAL ENGINEER
JENNIFER P. REED, P.E.
12/06/22
S.E.# 036615
NEW YORK STATE



NOTE: SWP 130 (BMP 7) TO BE MODIFIED AS PART OF P1362 PROJECT. NO WORK IN THIS AREA. CONTRACTOR RESPONSIBLE FOR COORDINATING ALL WORK WITH P1362 PROJECT.

SEE SHEET CG101 FOR WETLAND RESTORATION PLANS

1 CIVIL DEMOLITION PLAN
1" = 20'



REVISIONS		
SYM	DATE	APPROVED

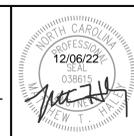
GENERAL SHEET NOTES

- SEE SHEET VF100 FOR EXISTING CONDITIONS.
- SEE SHEET C-001 FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS.

- SHEET KEYNOTES**
- REMOVE EXISTING CONCRETE LEVEL SPREADER. APPROXIMATE LOCATION DEPICTED.
 - REMOVE EXISTING STORMDRAIN.
 - REMOVE EXISTING RIP-RAP CHECK DAM.
 - CLEAR AND GRUB AS REQUIRED FOR NEW VEGETATED FILTER STRIP GRADING.
 - REMOVE ALL WOODY DEBRIS AND ACCUMULATED SEDIMENT.
 - CLEAN AND CAMERA EXISTING SANDFILTER UNDERDRAINS. PROVIDE POST-CLEANING VIDEO FOOTAGE TO CONTRACTING OFFICER AND ENGINEER.
 - FILL WASHOUT IN FRONT OF EXISTING SEDIMENT CHAMBER WALL.
 - REMOVE MINIMUM 8" OF EXISTING SOIL AND ALL VEGETATION WITHIN SAND FILTER. PROTECT EXISTING UNDERDRAINS TO REMAIN. SMALL TREES AND SHRUBBERY MUST BE REMOVED. ALL ROOT MATS MUST BE REMOVED A MINIMUM 5-FT FROM TRUNK. AVOID CONSTRUCTION EQUIPMENT ON SAND FILTER.

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET G-001

FINAL 12-06-2022		CD100	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA			
DES. WEB		REPAIR SWP129/130 AND RESTORE WETLANDS	
DR. WEB		CIVIL DEMOLITION PLAN	
CHK. MTH		DESIGN DIR. JENNI P. REED, P.E.	
SUBMITTED BY: MTH		APPROVED: PWO OR OICC DATE	
APPROVED: PWO OR OICC DATE		SIZE E1	CODE IDENT. NO 80091
SATISFACTORY TO: DATE		NAVFAC DRAWING NO. 60037087	
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SPEC. 05-22-0008		SHEET 04 OF 09	



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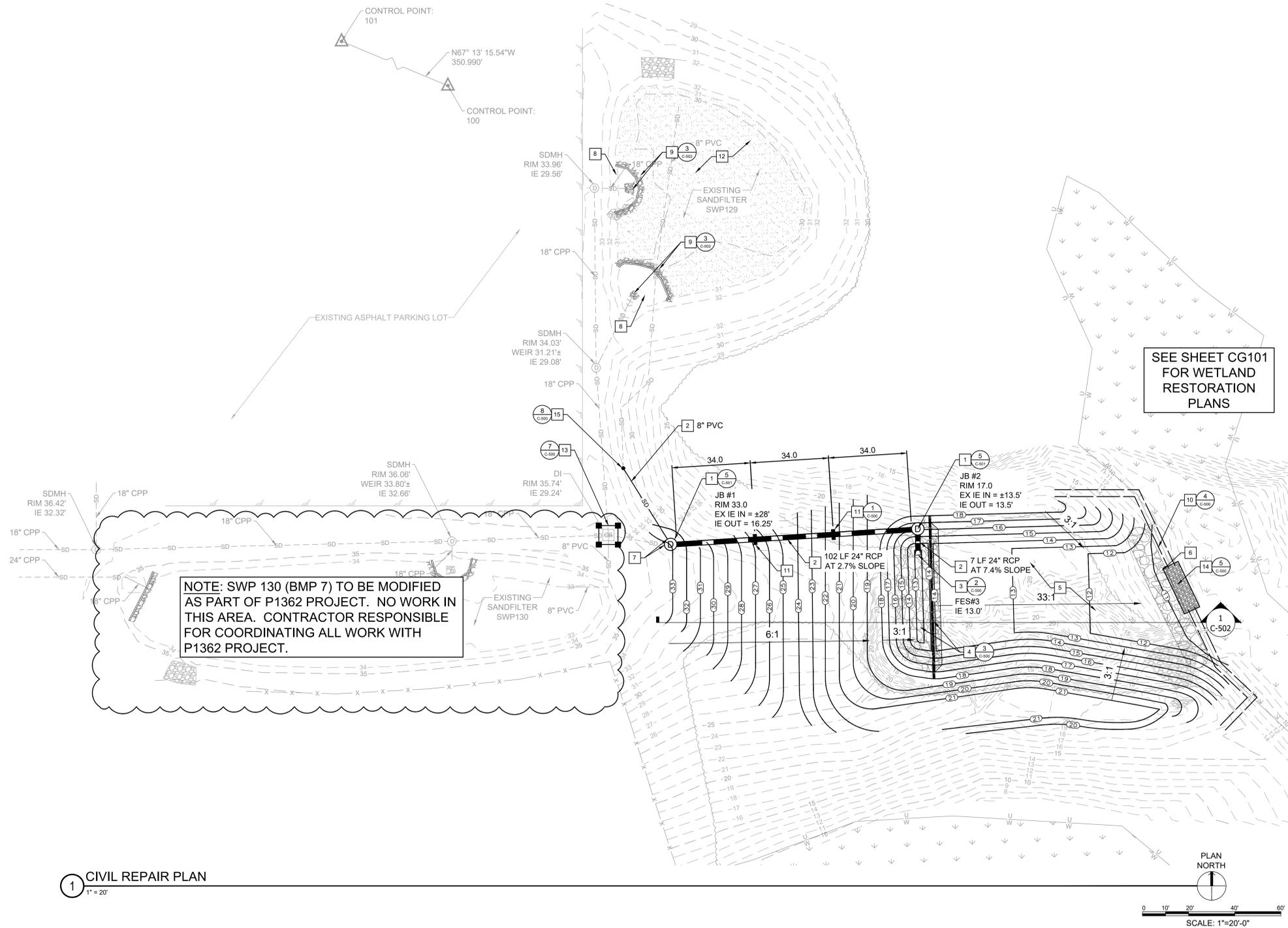
SYM	DATE	APPROVED

GENERAL SHEET NOTES

- SEE SHEET VF100 FOR EXISTING CONDITIONS.
- SEE SHEET C-001 FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS.
- TEMPORARY EROSION CONTROL MEASURES (KEYNOTES - 10, 14, AND 16) TO BE REMOVED AND AREA RESTORED AFTER SITE HAS BEEN STABILIZED.

SHEET KEYNOTES

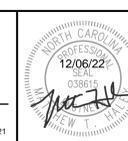
- STORMWATER JUNCTION BOX
- STORMDRAIN (CLASS III RCP)
- FLARED END SECTION
- CONCRETE LEVEL SPREADER WITH RIP-RAP LINED PLUNGE POOL
- VEGETATED FILTER STRIP (CENTIPEDE SOD)
- RE-GRADE ERODED AREA. INSTALL RIP-RAP ALONG FACE OF NEWLY GRADED SLOPE.
- TIE EXISTING PVC UNDERDRAIN INTO NEW JUNCTION BOX.
- RE-SOD SEDIMENT CHAMBER
- NEW RIP-RAP ENERGY DISSIPATER AT TOE OF EXISTING WALL AND AROUND EXISTING INLET PIPE
- TEMPORARY SILT FENCE
- ANTI-SEEPAGE COLLAR
- BACKFILL BOTTOM OF SANDFILTER WITH SAND (ASTM C-33) TO BOTTOM ELEVATION 30.17'
- INLET PROTECTION
- TEMPORARY SILT FENCE ROCK OUTLET
- STORMDRAIN CLEANOUT
- TEMPORARY CONSTRUCTION ENTRANCE



1 CIVIL REPAIR PLAN
1" = 20'

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET G-001

FINAL 12-06-2022		CG100	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA			
DES. WEB		REPAIR SWP129/130 AND RESTORE WETLANDS	
DR. WEB		CIVIL REPAIR PLAN	
CHK. MTH		DESIGN DIR. JENNI P. REED, P.E.	
SUBMITTED BY: MTH		SIZE E1	CODE IDENT. NO. 80091
APPROVED: PWO OR OICC DATE		NAVAC DRAWING NO. 60037088	CONST. CONTR.
SATISFACTORY TO: DATE		SCALE: NOTED	SPEC. 05-22-0008 SHEET 05 OF 09



NOTE: WETLAND RESTORATION EXHIBIT FOR SWP 129/130 PROVIDED BY MARINE CORPS INSTALLATIONS EAST-MARINE CORPS BASE CAMP LEJEUNE'S RESPONSE TO NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY'S NOTICE OF VIOLATION (NOV-2022-WT-0003).

REVISIONS		
SYM	DATE	APPROVED

WETLAND RESTORATION NOTES

- CONTRACTOR RESPONSIBLE FOR COORDINATING ACCESS INTO WORK AREA WITH CONTRACTING OFFICER AND EMD.
- CONTRACTOR TO HAVE PRE-CONSTRUCTION MEETING WITH EMD PRIOR TO BEGINNING WORK.
- CONTRACTOR TO REMOVE FILL FROM STREAM/WETLAND UNTIL ORIGINAL GRADE IS RESTORED AND THE NATIVE SOIL LAYER IS MOSTLY EXPOSED.
- EXCAVATION TO START FROM THE MOST UPSTREAM FAILURE LOCATION AND MOVE DOWNSLOPE.
- REMOVE UPPER LAYER OF SEDIMENT USING MECHANIZED EQUIPMENT UNTIL IT IS APPROXIMATELY 4-6 INCHES ABOUT THE ORIGINAL GROUND (THIS MAY BE MORE OR LESS DUE TO THE UNEVEN NATURE OF THE SYSTEM)
- REMAINING SEDIMENT TO BE REMOVED BY HAND AND ALL OF THE REMOVED SEDIMENT TO BE TAKEN OFFSITE AND DISPOSED OF.
- SEDIMENT TO BE REMOVED UNTIL THE NATURAL DARK ORGANIC SURFACE IS MOSTLY EXPOSED.
- AVOID IMPACTS TO PLANT ROOT SYSTEMS TO PROMOTE NATURAL REGROWTH.
- CONTRACTOR TO DEWATER AS NECESSARY DURING EXCAVATION AND REMOVAL OF SEDIMENT.
- FORESTRY MATS AND PLANKS TO BE USED IN AREAS SUSCEPTIBLE TO RUTTING TO MINIMIZE IMPACTS.
- EQUIPMENT TO USE SMOOTH BUCKETS TO AVOID FURTHER DISTURBING REMAINING VEGETATIVE ROOT MAT.
- EQUIPMENT USED TO REMOVE SEDIMENT MAY INCLUDE THE FOLLOWING:
 - MINI EXCAVATORS
 - MINI TRACK HOES
 - MINI SKID STEERS
 - MINI FRONT END LOADERS
 - GEORGIA BUGGIES
 - PUMPS AND HOSES TO HELP BY-PASS EXISTING STREAM WITHIN THE SYSTEM TO ALLOW FOR BETTER WORKING CONDITIONS
 - FORESTRY MATS AND/OR PLANKS
 - BUCKETS
 - SHOVELS
 - RAKES/CULTIVATOR RAKES
 - COIR FIBER LOGS, STAKES, AND PINS
 - ADDITIONAL EQUIPMENT WITH APPROVAL FROM MCBCL BASE ENVIRONMENTAL.

VEGETATION

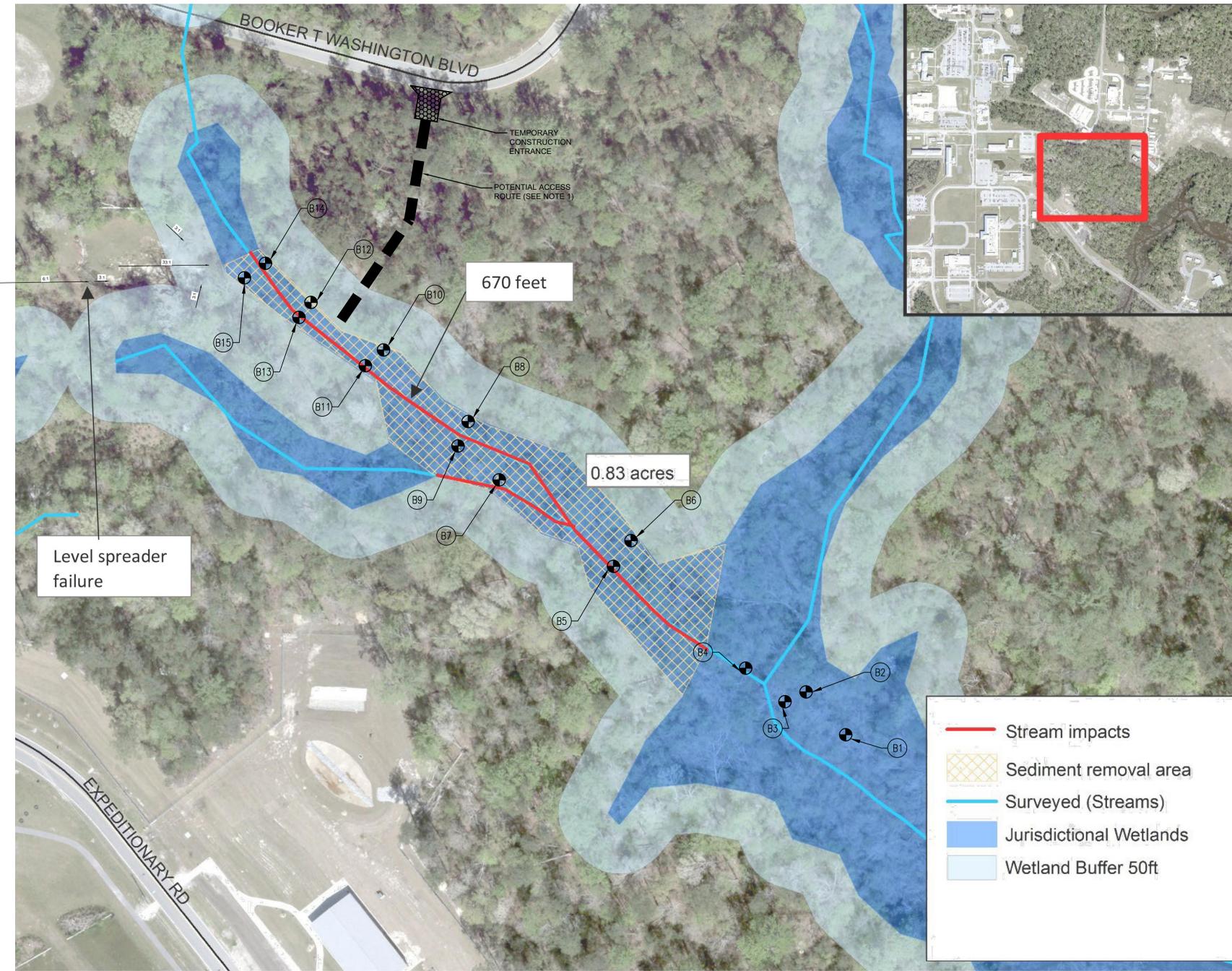
- IN ORDER TO MOBILIZE EQUIPMENT INTO THE INCISED SYSTEM, CONTRACTOR WILL NEED TO CUT TRAILS / PATHWAYS ON SLOPES OF THE SYSTEM. ONLY TREES NECESSARY TO CREATE LIMITED PATHS FOR SITE ACCESS TO BE CUT AT GROUND LEVEL.
- WITHIN THE WETLAND, VEGETATION MAY BE CLEARED/CUT IN ORDER TO MAKE THE SEDIMENT REMOVAL MORE EFFICIENT.
- VEGETATION TO BE CUT/CLEARED SHALL BE LIMITED TO MAXIMUM 1.5" IN DIAMETER.
- CUT VEGETATION TO BE REMOVED FROM WETLANDS AND DISPOSED OF GOVERNMENT PROPERTY.
- DEBRIS AND DEAD TREES TO BE REMOVED IN ORDER TO EXPEDITE REMOVAL OF SEDIMENT. ALL DEBRIS AND DEAD TREES TO BE DISPOSED OF GOVERNMENT PROPERTY.
- AFTER SEDIMENT HAS BEEN REMOVED AND RESTORATION HAS BEEN APPROVED BY MCBCL BASE ENVIRONMENTAL, THE SITE WILL BE SEEDED WITH WETLAND SEED MIX THAT IS APPROPRIATE FOR THE WETLAND TYPE AND GEOLOCATION.

WORK IN THE DRY

- ALL WORK WILL BE IN THE DRY UNTIL THE SEDIMENT DEPTH REACHES 4-6 INCHES IN DEPTH. AT THIS TIME (OR WHEN THE SEDIMENT IS UNABLE TO SUPPORT MACHINERY), ALL MECHANICAL EQUIPMENT WILL BE REMOVED FROM THE WETLAND.
- HAND TOOLS, BUCKETS, AND GEORGIA BUGGIES ON WOODEN PATHS MUST COMPLETE THE SEDIMENT REMOVAL.
- IF WATER BEGINS TO FILL THE WORK AREA DURING EXCAVATION, CREATE A COLLECTION AREA AND PUMP CLEAN WATER INTO THE ADJACENT STREAM IN A NON-EROSIVE MANNER.

EROSION PREVENTION

- EXISTING COIR FIBER LOGS TO CONTINUE BEING USED FOR EROSION CONTROLS.
- PROVIDE NEW COIR FIBER LOGS AS NEEDED TO PREVENT THE MOVEMENT OF SEDIMENT OUTSIDE OF CURRENT FOOTPRINT DURING RESTORATION ACTIVITIES.
- COIR LOGS TO BE INSTALLED BY PLACING THE LOG IN A SHALLOW TRENCH (APPROXIMATELY 3 INCHES DEEP AND THE WIDTH OF THE LOG) TO PREVENT ADDITIONAL SEDIMENT FROM PASSING BENEATH THE COIR FIBER LOGS). PROVIDE TWO SETS OF WOODEN STAKE CROSSES AT APPROXIMATELY 12' FROM THE ENDS ON EACH LOG AND PLACE STAPLES AT APPROXIMATELY 1-FOOT INTERVALS BETWEEN THE STAKES TO KEEP THE LOGS IN PLACE AND IN CONTACT WITH THE GROUND.
- A WETLAND SEED MIX WILL BE APPLIED IN THE DISTURBED AREA FOR STABILIZATION AND RESTORATION. WETLAND MIX TO BE COMPOSED OF NATIVE SPECIES AND FROM A LOCAL PROVIDER.



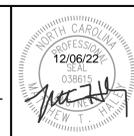
SWP 129/130 - BORING DEPTHS	
BORING NUMBER	APPROXIMATE SEDIMENT DEPTH (INCHES)
B1	2
B2	4
B3	3
B4	6
B5	8
B6	12
B7	12
B8	10
B9	12
B10	12
B11	16
B12	16
B13	16
B14	12
B15	12

NOTE: DEPTHS PROVIDED ARE RESULTS OF CFE SURVEY AND FIELD INVESTIGATIONS IN JULY 2022
 NOTE: CONTRACTOR SHALL FIELD VERIFY QUANTITIES OF SEDIMENT DEPOSITS DUE TO COLLAPSING HOLES DURING AUGER SAMPLING AT TIME OF CFE FIELD INVESTIGATION. ANY DISCREPANCIES SHALL BE REPORTED TO THE CONTRACTING OFFICER.

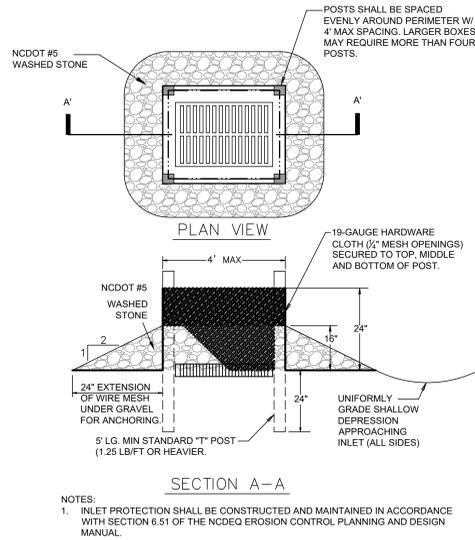
1 WETLAND RESTORATION PLAN
 1" = 50'

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET G-001

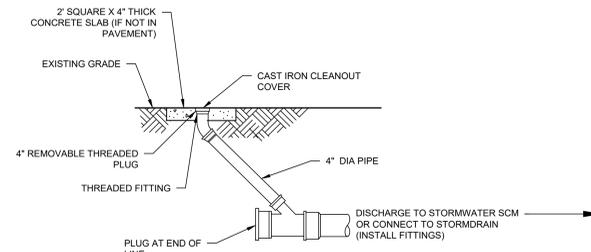
FINAL 12-06-2022		CG101	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND			
MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA			
REPAIR SWP129/130 AND RESTORE WETLANDS			
WETLAND RESTORATION PLAN			
DES. WEB	DR. WEB	CHK. MTH	SUBMITTED BY: MTH
DESIGN DIR. JENNI P. REED, P.E.		APPROVED: PWO OR OICC	DATE
SIZE E1	CODE IDENT. NO. 80091	NAVFAC DRAWING NO. 60037089	CONST. CONTR.
SATISFACTORY TO:	DATE	SCALE: NOTED	SPEC. 05-22-0008 SHEET 06 OF 09



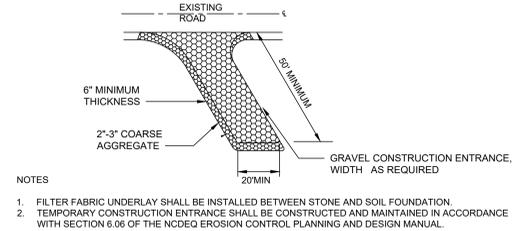
REVISIONS		
SYM	DATE	APPROVED



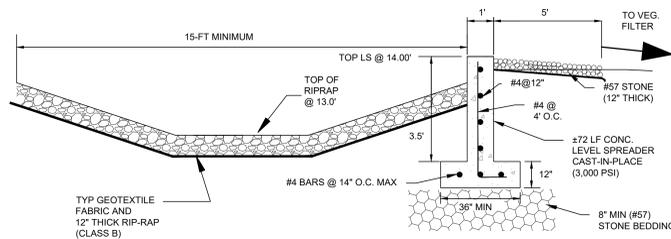
7 TEMPORARY INLET PROTECTION
NOT TO SCALE



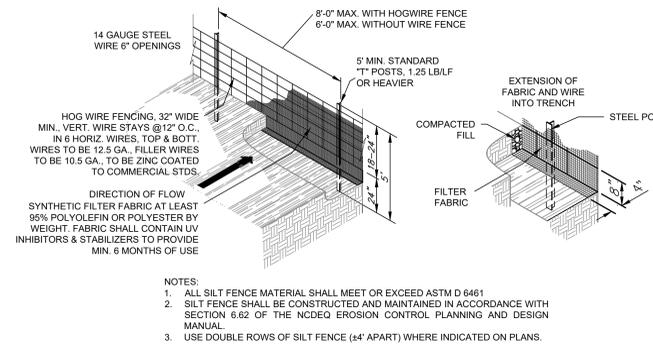
8 STORMDRAIN CLEANOUT
NOT TO SCALE



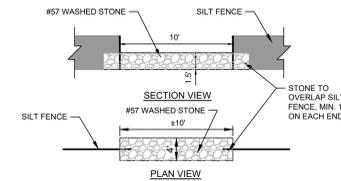
9 TEMPORARY CONSTRUCTION ENTRANCE
NOT TO SCALE



3 LEVEL SPREADER SECTION
NOT TO SCALE



4 TEMPORARY SILT FENCE
NOT TO SCALE



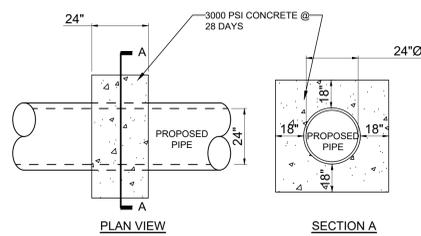
5 TEMPORARY SILT FENCE ROCK OUTLET
NOT TO SCALE

PERMANENT STABILIZATION
PROVIDE SAND-BASED CENTIPEDE SOD (EREMOCHLOA OPHUROIDES) FOR ALL TURF AREAS. SODDING SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH SECTION 6.12 OF THE NCDEQ EROSION CONTROL PLANNING AND DESIGN MANUAL AND PROJECT SPECIFICATIONS.

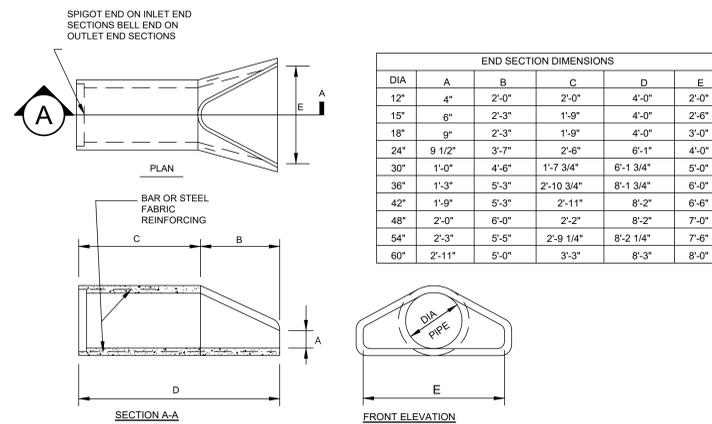
TEMPORARY SEEDING				
TIME OF SEEDING	GRASS TYPE	AMOUNT/ ACRE	FERTILIZATION/ ACRE	FERTILIZATION/ACRE MAINTENANCE
DEC 1 - APR 15	RYE (GRAIN) & LESPEDEZA, KOBE	120 LBS. & 50 LBS.	750 LBS. 10-10-10	NA NA
APRIL 15-AUG 15	GERMAN MILLET	40 LBS.	750 LBS. 10-10-10	NA NA
AUG 15-DEC 30	RYE (GRAIN)	120 LBS.	1,000 LBS. 10-10-10	NA NA

NEW STABILIZATION TIMEFRAMES		
SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES

6 VEGETATION SCHEDULE
NOT TO SCALE



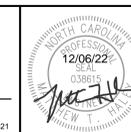
1 ANTI-SEEPAGE COLLAR
NOT TO SCALE



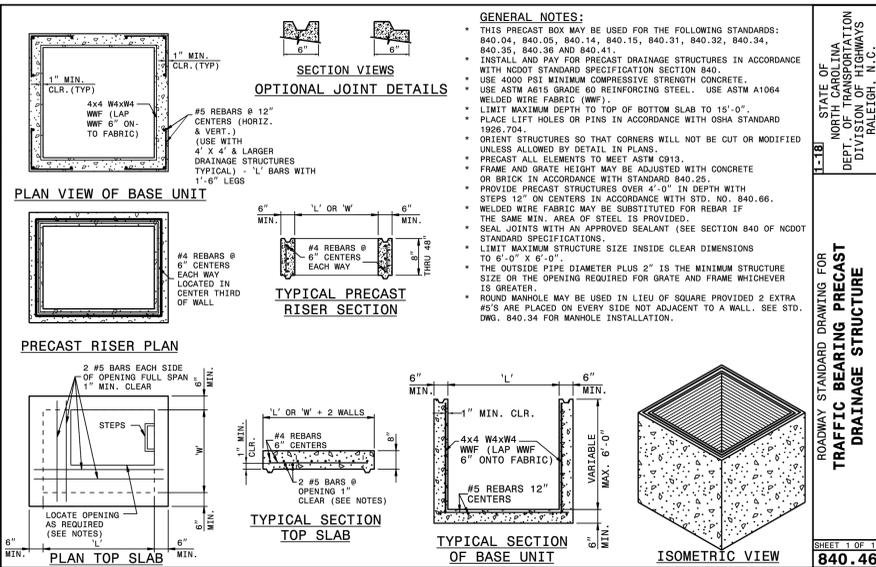
2 FLARED END SECTION (FES)
NOT TO SCALE

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET G-001

FINAL 12-06-2022		C-500	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA			
REPAIR SWP129/130 AND RESTORE WETLANDS			
DES. WEB	DR. WEB	MTH	
CHK. MTH	SUBMITTED BY: MTH		
DESIGN DIR. JENNI P. REED, P.E.			
CIVIL DETAILS - 1			
APPROVED: PWO OR OICC	DATE	SIZE: E1	CODE IDENT. NO: 80091
SATISFACTORY TO:		DATE	NAVAC DRAWING NO. 60037090
SCALE: NOTED		SPEC. 05-22-0008	SHEET 07 OF 09



SYM	DATE	APPROVED

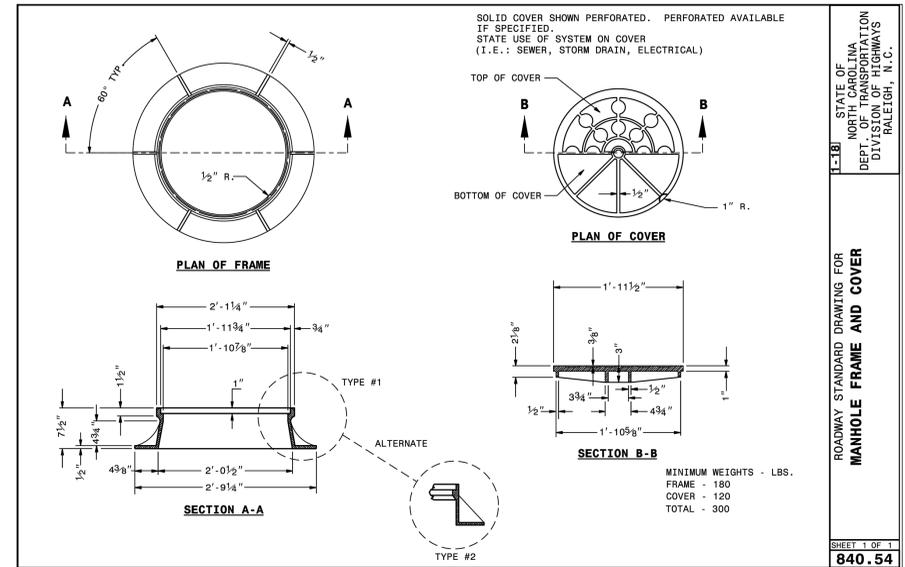


STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR TRAFFIC BEARING PRECAST DRAINAGE STRUCTURE

SHEET 1 OF 1
840.46

3 PRECAST DRAINAGE STRUCTURE
NOT TO SCALE

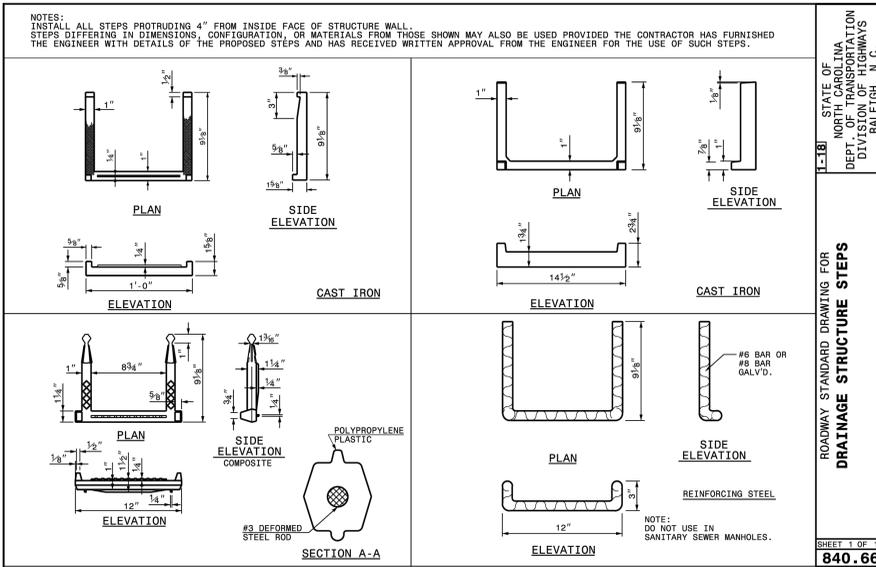


STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR MANHOLE FRAME AND COVER

SHEET 1 OF 1
840.54

4 MANHOLE FRAME AND COVER
NOT TO SCALE

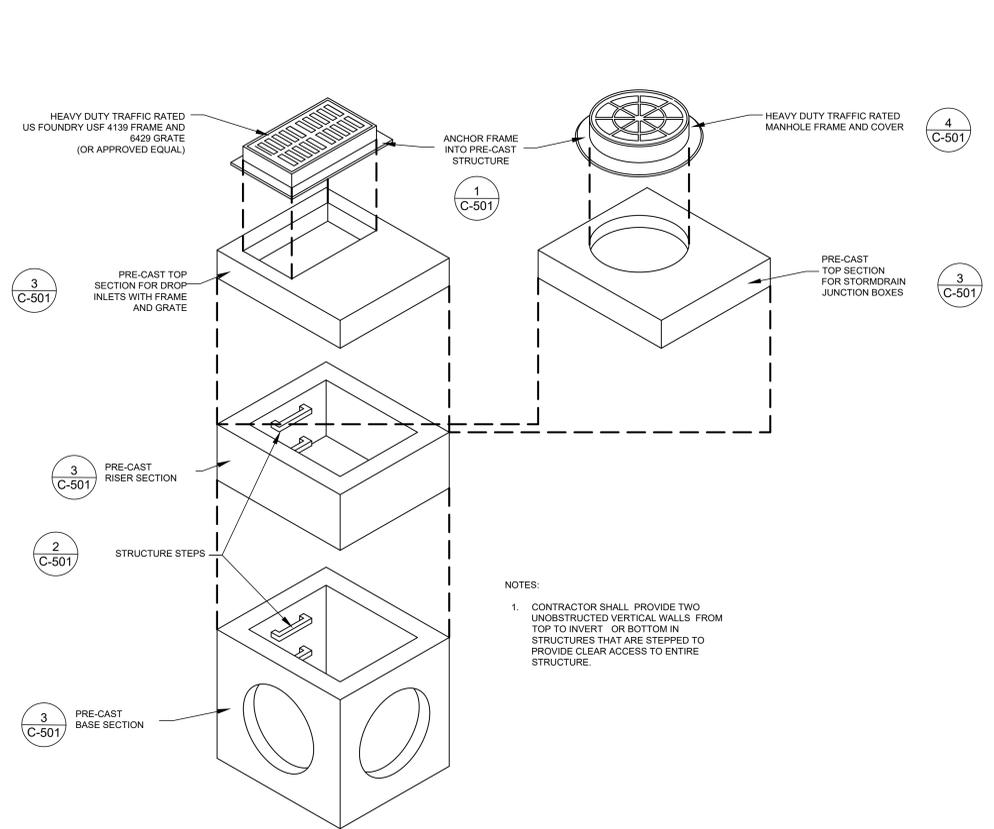


STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR DRAINAGE STRUCTURE STEPS

SHEET 1 OF 1
840.66

2 DRAINAGE STRUCTURE STEPS
NOT TO SCALE

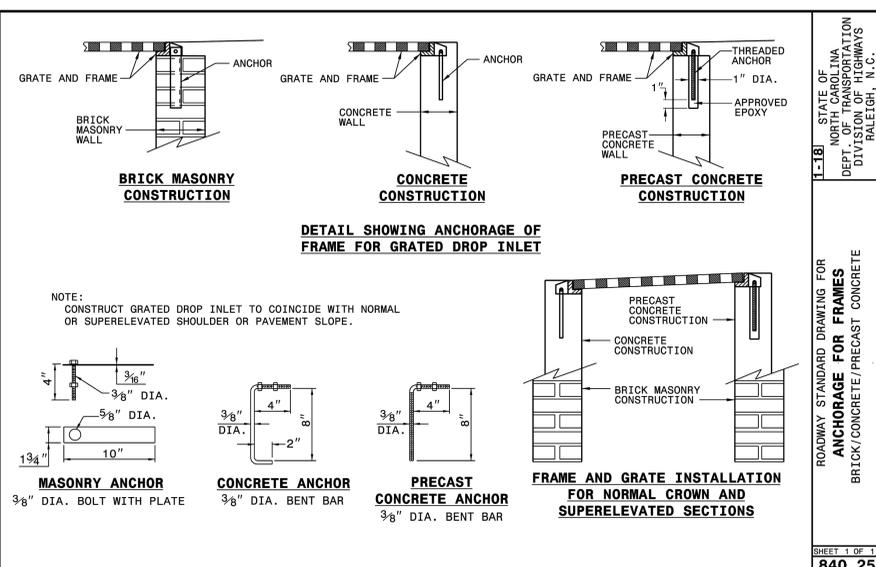


STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR ANCHORAGE FOR FRAMES BRICK/CONCRETE/PRECAST CONCRETE

SHEET 1 OF 1
840.25

5 TYPICAL STORMDRAIN STRUCTURE
NOT TO SCALE



STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR ANCHORAGE FOR FRAMES BRICK/CONCRETE/PRECAST CONCRETE

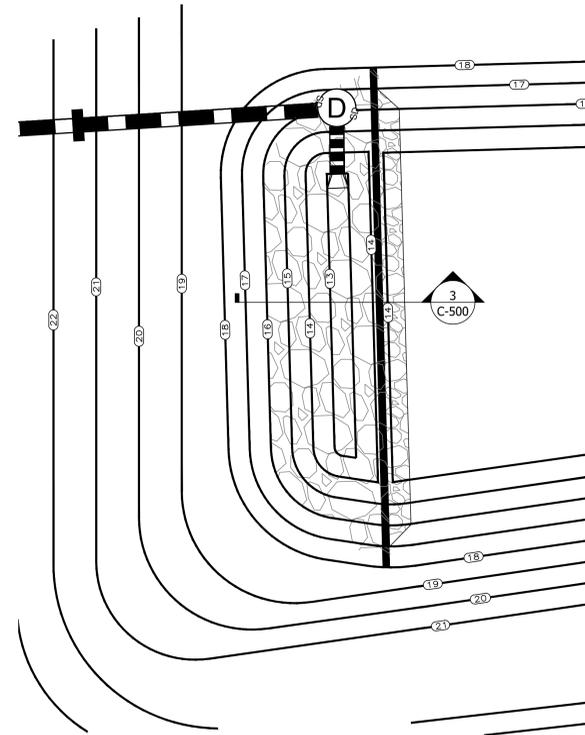
SHEET 1 OF 1
840.25

1 NCDOT ANCHORAGE FOR FRAMES
NOT TO SCALE

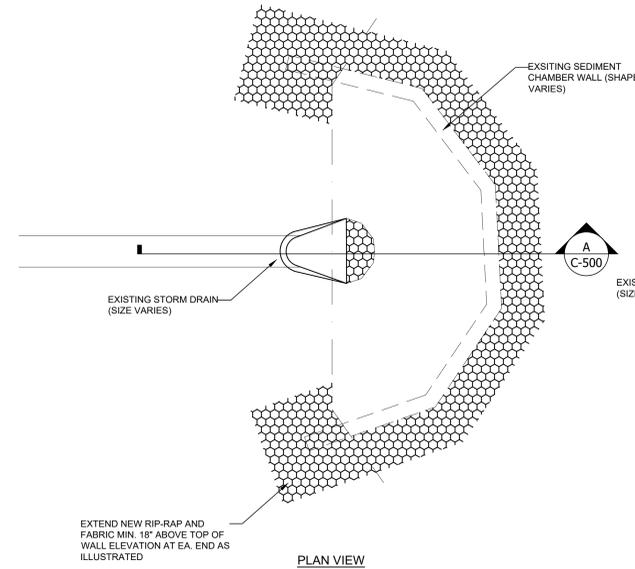
SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET G-001

FINAL 12-06-2022		C-501	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS BASE CAMP LEJUNE, NORTH CAROLINA			
DES. WEB	REPAIR SWP129/130 AND RESTORE WETLANDS		
DR. WEB	CIVIL DETAILS - 2		
CHK. MTH	DESIGN DIR. JENNI P. REED, P.E.		
SUBMITTED BY: MTH	SIZE E1	CODE IDENT. NO. 80091	NAVFAC DRAWING NO. 60037091
APPROVED: PWO OR OICC	DATE	CONST. CONTR.	
SATISFACTORY TO:	DATE	SCALE: NOTED	SPEC. 05-22-0008 SHEET 08 OF 09

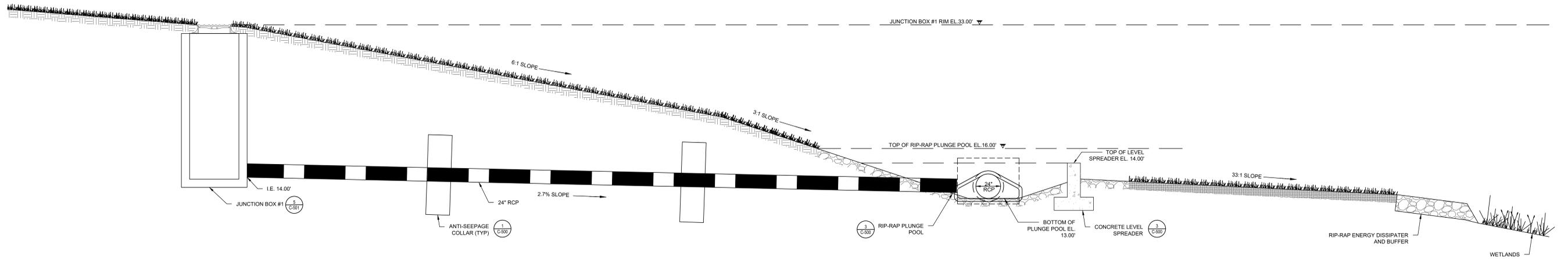
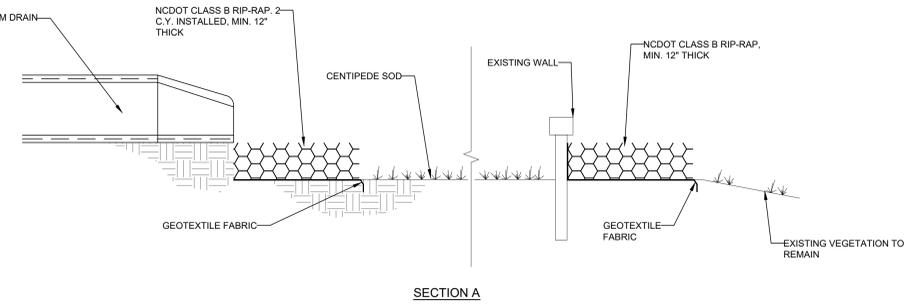
REVISIONS		
SYM	DATE	APPROVED



2 RIP-RAP PLUNGE POOL & LEVEL SPREADER - PLAN VIEW
SCALE: 1" = 10'



3 RIP-RAP AT EXISTING SEDIMENT CHAMBER WALLS
NOT TO SCALE



1 LEVEL SPREADER AND PLUNGE POOL SECTION
NOT TO SCALE

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET G-001

FINAL 12-06-2022		C-502	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA			
DES. WEB		REPAIR SWP129/130 AND RESTORE WETLANDS	
DR. WEB		CIVIL DETAILS - 3	
CHK. MTH		NAVFAC DRAWING NO. 60037092	
SUBMITTED BY: MTH		CONST. CONTR.	
DESIGN DIR. JENNI P. REED, P.E.		SIZE: E1	CODE IDENT. NO: 80091
APPROVED: PWO OR OICC		DATE:	SCALE: NOTED
SATISFACTORY TO:		DATE:	SPEC. 05-22-0008
			SHEET 09 OF 09

