P-1102 WEAPONS MAGAZINE & ORDNANCE OPERATIONS FACILITY

WETLAND MITIGATION

NAVAL SUBMARINE BASE NEW LONDON, GROTON, CONNECTICUT

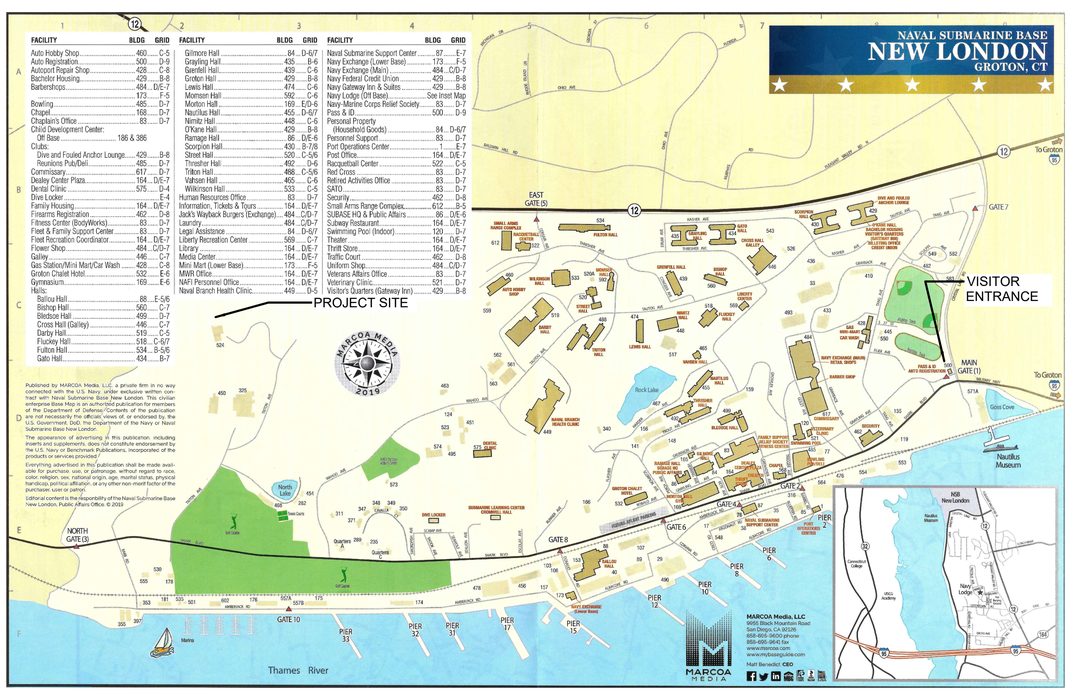
NAVAL FACILITIES ENGINEERING COMMAND MID-ATLANTIC

NAVFAC FACILITIES ENGINEERING AND ACQUISITION DIVISION (FEAD)

6/11/2026

VICINITY MAP

FACILITY	BLDG	GRID
Auto Hobby Shop	460	C-5
Auto Registration	500	D-9
Autocourt Repair Shop	428	C-8
Bachelor Housing	429	B-8
Barbershops	484	D/E-7
	1/73	F-5
Bowling	485	D-7
Chapel	168	D-7
Chaplain's Office	83	D-7
Child Development Center:		
Off Base	186 & 386	
Clubs:		
Dive and Fouled Anchor Lounge	429	B-8
Reunions Pub/Deli	485	D-7
Commissary	617	D-7
Dealey Center Plaza	164	D/E-7
Dental Clinic	575	D-4
Dive Locker		E-4
Family Housing	164	D/E-7
Firearms Registration	462	D-8
Fitness Center (Body/Works)	83	D-7
Fleet & Family Support Center	83	D-7
Fleet Recreation Coordinator	164	D/E-7
Flower Shop	484	C/D-7
Galley	446	C-7
Gas Station/Mini Mart/Car Wash	428	C-8
Groton Chalet Hotel	532	E-6
Gymnasium	169	E-6
Halls:		
Ballou Hall	88	E-5/6
Bishop Hall	560	D-7
Bledsoe Hall	459	D-7
Cross Hall (Galley)	446	C-7
Darby Hall	519	C-5
Fluckey Hall	518	C-6/7
Fulton Hall	534	B-5/6
Gato Hall	434	B-7
Gilmore Hall	84	D-6/7
Grayling Hall	435	B-6
Gurnsey Hall	439	C-6
Groton Hall	429	B-8
Lewis Hall	474	C-6
Morrison Hall	592	C-6
Morton Hall	169	E/G-6
Nautilus Hall	455	D-6/7
Nimitz Hall	448	C-6
O'Kane Hall	429	B-8
Ramage Hall	86	D/E-6
Scorpion Hall	430	B-7/8
Street Hall	520	C-5/6
Threadfin Hall	492	D-6
Tilton Hall	468	C-5/6
Vahsen Hall	465	C-6
Wilkinson Hall	533	C-5
Human Resources Office	83	D-7
Information, Tickets & Tours	164	D/E-7
Jack's Wayback Burgers (Exchange)	484	C/D-7
Laundry	484	C/D-7
Legal Assistance	84	D-6/7
Liberty Recreation Center	569	C-5
Library	164	D/E-7
Media Center	164	D/E-7
Mini Mart (Lower Base)	173	F-5
MWR Office	164	D/E-7
NAFI Personnel Office	164	D/E-7
Naval Branch Health Clinic	449	D-5
Naval Submarine Support Center	87	E-7
Navy Exchange (Lower Base)	173	F-5
Navy Exchange (Main)	484	C/D-7
Navy Federal Credit Union	429	B-8
Navy Gateway Inn & Suites	429	B-8
Navy Lodge (Off Base)	See Inset Map	
Navy-Marine Corps Relief Society	83	D-7
Pass & ID	500	D-9
Personal Property (Household Goods)	84	D-6/7
Personnel Support	83	D-7
Port Operations Center		E-7
Post Office	164	D/E-7
Racquetball Center	522	C-5
Red Cross	83	D-7
Retired Activities Office	83	D-7
SATO	83	D-7
Security	462	D-8
Small Arms Range Complex	612	B-5
SUBASE HQ & Public Affairs	86	D/E-6
Subway Restaurant	164	D/E-7
Swimming Pool (Indoor)	120	D-7
Theater	164	D/E-7
Thrift Store	164	D/E-7
Traffic Court	462	D-8
Uniform Shop	484	C/D-7
Veterans Affairs Office	83	D-7
Veterinary Clinic	521	D-7
Visitor's Quarters (Gateway Inn)	429	B-8



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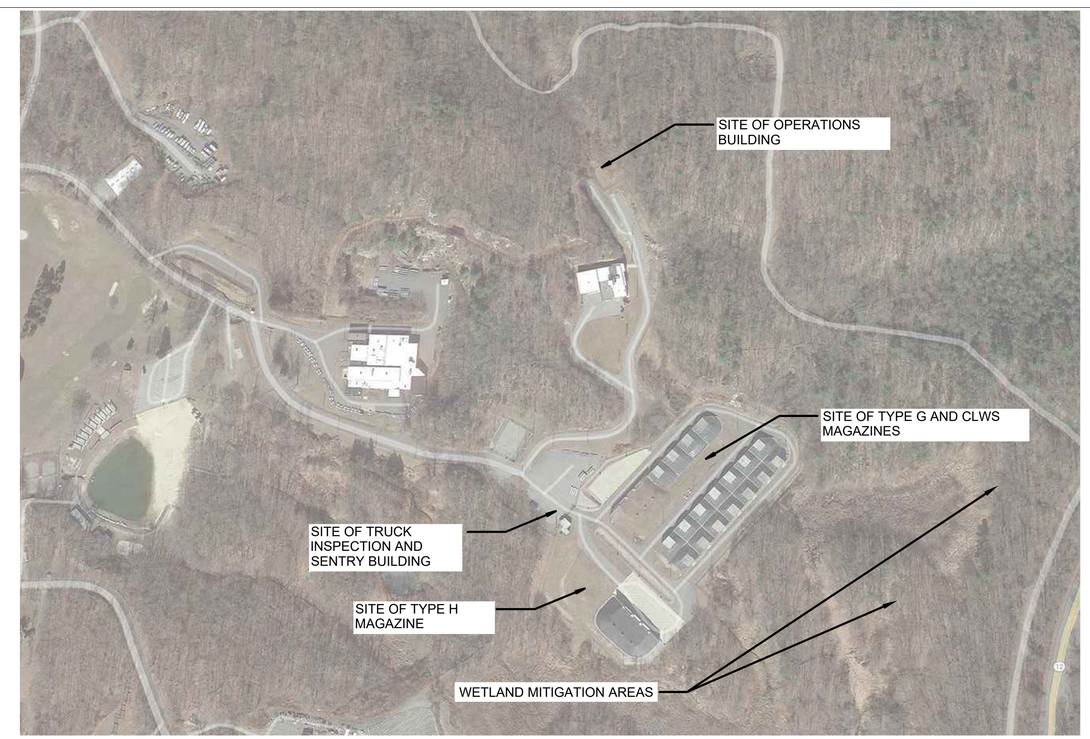
LOCATION MAP



SYM	DESCRIPTION	DATE	APVD
1	REVISIONS FOR AMENDMENT	6/11/2026	

Jacobs
1100 NORTH GLEBE ROAD
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ARLINGTON, VIRGINIA 22201
571.218.1000
FAX: 571.218.1600

A/E INFO

APPROVED
FOR COMMANDER NAVFAC 6/12/2026

ACTIVITY
APPROVED BY LCDR ELIZABETH OLOKODE NAVFAC NLOD FEAD
DIRECTOR NEW LONDON, GROTEN, CT

SATISFACTORY TO DATE 05/27/2025

DES	MD	DRW MD	CHK RC
PM/DM	SMS/CWJ		
BRANCH MANAGER	NEK		
CHIEF ENG/ARCH	JWJ		
FIRE PROTECTION	HPN		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
MID-ATLANTIC

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL STATION - NORFOLK, VA
NAVAL SUBMARINE BASE NEW LONDON
GROTON, CONNECTICUT
P-1102 WEAPONS MAGAZINE & ORDNANCE OPERATIONS FACILITY
WETLAND MITIGATION
COVER SHEET

SCALE: AS NOTED
EPROJECT NO.: 1667770
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12898114
SHEET 1 OF 6
G-001

FILE NAME: C:\pw_workdir\dms003\jcb2mhll_jconum\d1503110\WETLAND-G-001 - COVER SHEET.dwg LAYOUT NAME: G-001 PLOTTED: Wednesday, June 10, 2026 - 1:13pm USER: jconum

PROJECT DESCRIPTION

1. THE P-1102 NEW LONDON WEAPONS COMPOUND MAGAZINE RECAPITALIZATION PROJECT WILL REPLACE 18 EXISTING MAGAZINES WITH 6 CONTAINERIZED LONG WEAPONS STORAGE (CLWS), 2 TYPE G MAGAZINES, 1 TYPE H MAGAZINE, REPLACE BUILDING 524 (ORDNANCE OPERATIONS BUILDING), AND REPLACE BUILDING 393 (TRUCK INSPECTION AND SENTRY BUILDING).
2. THE PROJECT IS LOCATED WITHIN THE EXISTING WEAPONS STORAGE COMPOUND LOCATED AT THE NORTHERN END OF THE NAVAL SUBMARINE BASE NEW LONDON ALONG TRITON DRIVE.

EXISTING CONDITIONS

1. THE UNDEVELOPED PORTIONS OF NAVAL SUBMARINE BASE NEW LONDON ARE WOODED. THE CLEAR ZONE AROUND THE SECURITY FENCE IS MOWED GRASS. INSIDE THE SECURITY FENCE IS PRIMARILY DEVELOPED WITH EXISTING STRUCTURES, PAVEMENT, AND SOME GRAVEL.
2. WETLANDS ARE LOCATED WITHIN THE PROJECT SITE LOCATED ON THE EAST SIDE OF THE WEAPONS STORAGE COMPOUND.
3. PROJECT SITE AND DISTURBANCE IS LOCATED WITHIN THE SECURE PERIMETER OF NAVAL SUBMARINE BASE NEW LONDON.

SOILS

THERE ARE MULTIPLE SOIL TYPES FOUND AT THE SITE. THE SOILS ARE IDENTIFIED ON THE EROSION AND SEDIMENT CONTROL PLAN. THESE SOILS ARE LISTED BELOW:

73C - CHARLTON-CHATFIELD COMPLEX, 0 TO 15 % SLOPES, VERY ROCKY
PROPERTIES AND QUALITIES
HYDROLOGIC SOIL GROUP: B

75E - HOLLIS-CHATFIELD-ROCK OUTCROP COMPLEX, 3 TO 15 % SLOPES
PROPERTIES AND QUALITIES
HYDROLOGIC SOIL GROUP: D

306 - UDORTHENTS-URBAN LAND COMPLEX
PROPERTIES AND QUALITIES
HYDROLOGIC SOIL GROUP: B

GENERAL E & S NOTES

1. THE US GOVERNMENT IS THE OWNER OF RECORD ASSOCIATED WITH THIS PROJECT.
2. THE GENERAL CONTRACTOR IS THE OPERATOR OF THE SITE AND RESPONSIBLE FOR PROVIDING AND MAINTAINING EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION OPERATIONS.
3. PROVIDE SEDIMENT AND EROSION CONTROLS IN ACCORDANCE WITH THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST EDITION; AND THE CONTRACT DOCUMENTS.
4. KEEP A COPY OF THE GUIDELINES ON-SITE FOR REFERENCE DURING CONSTRUCTION.

BEST MANAGEMENT PRACTICES

1. DEWATERING - THE REMOVAL OF WATER BY PUMPING, INFILTRATION, OPEN AIR DRYING OR OTHER METHODS; DRAINAGE OF THE SOIL PROFILE.
2. GEOTEXTILE - FABRIC OR SYNTHETIC MATERIAL PLACED (1) BETWEEN THE SOIL AND A PIPE, GABION, STONE, OR RETAINING WALL TO ENHANCE WATER MOVEMENT AND/OR RETARD SOIL MOVEMENT, (2) AS A BLANKET OR MAT TO ADD REINFORCEMENT AND/OR SEPARATION (3) TO PROVIDE AN ABOVE GROUND SEDIMENT BARRIER.
3. GEOTEXTILE SILT FENCE - A TEMPORARY SEDIMENT BARRIER CONSISTING OF A GEOTEXTILE FABRIC PULLED TAUT AND ATTACHED TO SUPPORTING POSTS AND ENTRENCHED.
4. PERMANENT STABILIZATION - ESTABLISHMENT OF PERMANENT STAND OF GRASS AND/OR LEGUMES BY SEEDING AND MULCHING EXPOSED SOILS WITH A SEED MIXTURE FOR LONG TERM STABILIZATION ON DISTURBED OR ERODIBLE SOILS THAT HAVE BEEN BROUGHT TO FINAL GRADE.
5. TEMPORARY STABILIZATION - ESTABLISHMENT OF TEMPORARY STAND OF GRASS AND/OR LEGUMES BY SEEDING AND MULCHING SOILS THAT WILL BE EXPOSED FOR A PERIOD GREATER THAN 1 MONTH BUT LESS THAN 12 MONTHS.

MANAGEMENT STATEGIES

1. CONSTRUCTION MUST BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
2. AREAS WHICH ARE NOT TO BE DISTURBED MUST BE CLEARLY MARKED BY SIGNS, FLAGS, ETC.

MATERIALS

1. EROSION & SEDIMENT CONTROL MATERIALS MUST MEET THE REQUIREMENTS OF THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST EDITION.

MONITORING & MAINTENANCE

1. E&S PLAN AND REVISIONS MUST IDENTIFY AN AGENT OR AGENTS WHO HAVE THE RESPONSIBILITY AND AUTHORITY FOR THE IMPLEMENTATION, OPERATION, MONITORING AND MAINTENANCE OF E&S MEASURES. SUCH AGENT(S) MUST BE FAMILIAR WITH EACH CONTROL MEASURE USED INCLUDING ITS LIMITATIONS, INSTALLATION, INSPECTION AND MAINTENANCE. WHEN CONTROL MEASURES FAIL, OR ARE FOUND INEFFECTIVE, SUCH AGENT(S) MUST COORDINATE PLAN REVISIONS WITH A PROFESSIONAL EXPERIENCED IN EROSION AND SEDIMENT CONTROL AND APPROVING AGENCY, WHEN THAT AGENCY'S APPROVAL IS REQUIRED. SUCH AGENT(S) MUST HAVE THE ADDITIONAL RESPONSIBILITY FOR ENSURING EROSION AND SEDIMENT CONTROLS ARE INSTALLED AND MAINTAINED ACCORDING TO STATE OF CONNECTICUT STANDARDS. INSPECT CONSTRUCTION SITE BEFORE PREDICTED MAJOR STORMS. A MAJOR STORM IS DEFINED AS A STORM PREDICTED BY THE NATIONAL OFFICE OF ATMOSPHERIC ADMINISTRATION (NOAA) WEATHER SERVICE WITH WARNINGS OF FLOODING, SEVERE THUNDERSTORMS OR SIMILARLY SEVERE WEATHER CONDITIONS OR EFFECTS.
2. EACH MEASURE REQUIRE INSPECTIONS AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER.

OFF-SITE AREAS

1. PROVIDE REQUIRED PERMITS AND EROSION AND SEDIMENT CONTROL ASSOCIATED WITH OFF-SITE BORROW OR SPOIL AREAS.

CONSTRUCTION SEQUENCE

1. FLAG LIMITS OF CONSTRUCTION NECESSARY TO FACILITATE THE PRE-CONSTRUCTION MEETING.
2. HOLD PRE-CONSTRUCTION MEETING ONSITE WITH CONTRACTOR, NAVFAC, AND ENVIRONMENTAL LEAD.
3. WETLAND MITIGATION MUST BE PROVIDED BETWEEN DELINEATED WETLAND LINE AND UPLAND EDGE. THE ENVIRONMENTAL LEAD WILL MARK TREES GREATER THAN 6" DIAMETER AT BREAST HEIGHT AND PROTECT THEM FROM REMOVAL. MATURE TREES MUST BE SAVED AND INCORPORATED INTO THE WETLAND MITIGATION.
4. PROVIDE EROSION AND SEDIMENT CONTROLS AND TREE PROTECTION DEVICES IN ACCORDANCE WITH THE PLANS.
5. PREPARE SUB-BASE, SLOPES, AND OTHER AREA OF DISTURBANCE FOR FINAL GRADING.
6. GRADE MICROTOPOGRAPHY IN ACCORDANCE WITH THE PLANS.
7. MITIGATION AREAS MUST BE GRADED SO THAT FINISHED GRADE MEETS THE EXISTING WETLAND ELEVATIONS.
8. TREE AND SHRUB SPECIES MUST BE PLANTED ON-CENTER, AS PROVIDED IN THE PLANS. SPACING REFERS TO DIAGONAL MEASUREMENT BETWEEN PLANTS, AS SHOWN. PLANTING LOCATIONS MY BE ADJUSTED IN THE FIELD IN CONSULTATION WITH THE ENVIRONMENTAL LEAD.
9. SUBMIT PROPOSED PLANTING MEDIUM SPECIFICATION TO THE ENVIRONMENTAL LEAD FOR APPROVAL PRIOR TO INSTALLATION.
10. PLANT CONTAINER BOUND TREE AND SHRUB SPECIES WITHOUT GUY SUPPORT.
11. SHRUBS MUST HAVE A WARRANTY FOR PLANT GROWTH TO BE IN VIGOROUS GROWING CONDITION FOR A MINIMUM 12 MONTH PERIOD, WHICH MUST BE PROVIDED REGARDLESS OF THE CONTRACT PERIOD. FURNISHED SHRUBS MUST BE MAINTAINED AS NECESSARY DURING THE WARRANTY PERIOD, WHICH MUST INCLUDE BUT NOT TO BE LIMITED TO STRAIGHTENING PLANT MATERIAL, STRAIGHTENING STAKES, CORRECTING GIRDLING, SUPPLEMENTING MULCH PRUNING DEAD OR BROKEN BRANCH TIPS, MAINTAINING PLANT MATERIAL LABELS, ERADICATING WEEDS, INSECTS AND DISEASE. AT THE END OF THE WARRANTY PERIOD, A FINAL INSPECTION MUST BE PERFORMED ON FURNISHED PLANT MATERIAL. THE CONTRACTOR AND ENVIRONMENTAL LEAD WILL CONDUCT THE INSPECTION. PLANT MATERIAL THAT IS DETERMINED TO BE UNHEALTHY MUST BE IMMEDIATELY REPLACED BY THE CONTRACTOR.
12. AT THE END OF EACH WORK DAY, THE CONTRACTOR MUST MAKE REASONABLE EFFORTS TO KEEP THE WORK AREA CLEAN AND FREE OF CONSTRUCTION DEBRIS, RUBBISH, SPOILS, TRASH, AND OTHER FOREIGN MATERIALS. RUBBISH, DEBRIS AND LIKE MATERIALS MUST BE DISPOSED OF IN ACCORDANCE WITH RULES AND REGULATIONS OF THE JURISDICTIONAL AUTHORITY, INCLUDING ENVIRONMENTAL REGULATIONS.
13. ADDITIONAL EROSION CONTROLS MUST BE INSTALLED AS CONDITIONS WARRANT, OR AS DIRECTED BY THE ENVIRONMENTAL LEAD.
14. DURING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL MAINTENANCE AND MUST INSPECT AND/OR REPLACE CONTROLS, AS NEEDED.
15. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL.
16. MAINTAIN MITIGATION AREAS, PROVIDING IDENTIFIED AND REQUIRED MAINTENANCE, AS WELL AS REPLACE PLANTINGS THAT HAVE NOT SURVIVED FOR LENGTH OF CONSTRUCTION PLUS AN ADDITIONAL 1 YEAR AFTER CONSTRUCTION COMPLETION.

SYM	DESCRIPTION	DATE	APP
1	REVISIONS FOR AMENDMENT	6/11/2026	

NAVFAC

STATE OF CONNECTICUT
JOSHUA D. CORUM
36276
LICENSED
PROFESSIONAL ENGINEER
6/11/26

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APPROVED
FOR COMMANDER NAVFAC 6/12/2026

ACTIVITY
APPROVED BY LCDR ELIZABETH OLOKODE NAVFAC NLOD FEAD DIRECTOR NEW LONDON, GROTEN, CT

SATISFACTORY TO DATE	05/27/2025
DES KP	DRW NM / CHK RC
PM/DM	SMS/CWJ
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	JWJ
FIRE PROTECTION	HPN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
MID-ATLANTIC
NAVAL SUBMARINE BASE NEW LONDON

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL STATION - NORFOLK, VA
GROTON, CONNECTICUT
P-1102 WEAPONS MAGAZINE & ORDNANCE OPERATIONS FACILITY
WETLAND MITIGATION
CONSTRUCTION AND PLANTING NOTES

SCALE: AS NOTED
EPROJECT NO.: 1667770
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12898115
SHEET 2 OF 6
CE001

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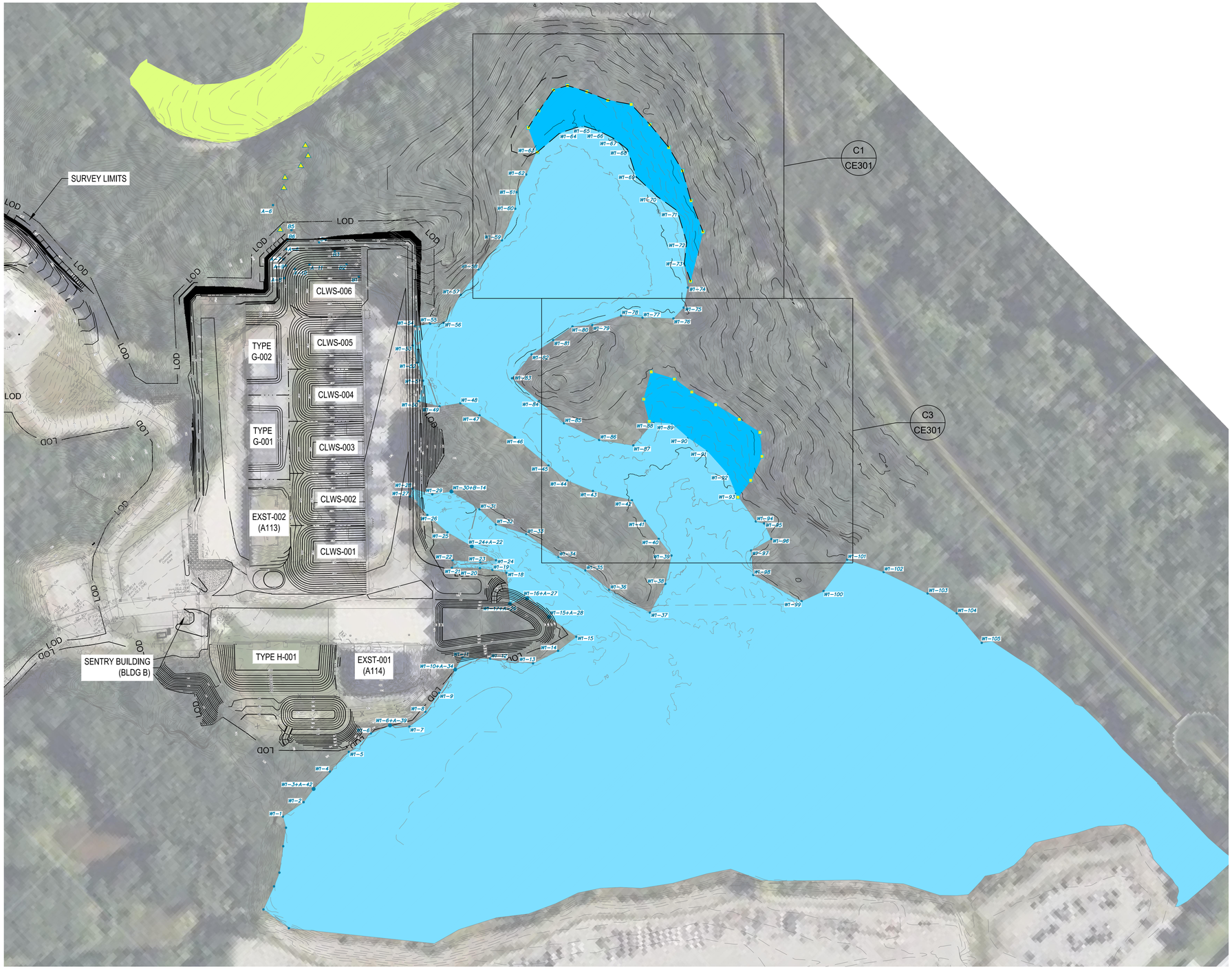

A1 WETLAND MITIGATION PLAN - OVERALL

1" = 100'

GENERAL SHEET NOTES

1. EXISTING CONTOURS ARE BASED ON 20XX US ARMY CORPS OF ENGINEERS (USACE) NCMP TOPOBATHY LIDAR, DOWNLOADED FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ASSOCIATION (NOAA) ON XXXX XX, XXXX (https://coast.noaa.gov/dataviewer/#/lidar/search/).
2. VERTICAL DATUM IS NAVD 88.
3. DIMENSIONS ARE US SURVEY FEET UNLESS NOTED OTHERWISE.

LEGEND

- STREAM DELINEATION FLAG
- W1-3+A-42 DELINEATION FLAG HUNG OVER OBSERVED AVINIZIS' FLAG
- W1-1 WETLAND DELINEATION FLAG
- PROPOSED MITIGATION AREAS
- OTHER DELINEATED WETLANDS
- LOD PROJECT LOD
- PROPOSED MITIGATION AREA
- DELINEATED WETLANDS 4-9-2026

GRAPHIC SCALE

1"=100' 0' 100' 200'

PLAN NORTH

SYM	DESCRIPTION	DATE	APPD
1	REVISIONS FOR AMENDMENT	6/11/2026	

NAVFAC

STATE OF CONNECTICUT · JOSHUA D. CORUM · 36275 · LICENSED PROFESSIONAL ENGINEER · 6/11/2026

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APPROVED
FOR COMMANDER NAVFAC 6/12/2026

ACTIVITY
APPROVED BY LCDR ELIZABETH OLOKODE NAVFAC NLOD FEAD DIRECTOR NEW LONDON, GROTEN, CT

SATISFACTORY TO DATE 05/27/2025

DES	KP	DRW NM	CHK RC
PM/DM	SMS/CWJ		
BRANCH MANAGER	DLB		
CHIEF ENG/ARCH	JWJ		
FIRE PROTECTION	HPN		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
MID-ATLANTIC

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL STATION - NORFOLK, VA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CONNECTICUT

P-1102 WEAPONS MAGAZINE & ORDNANCE OPERATIONS FACILITY
WETLAND MITIGATION

WETLAND MITIGATION PLAN - OVERALL

SCALE: AS NOTED
EPROJECT NO.: 1667770
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12898116
SHEET 3 OF 6
CE100

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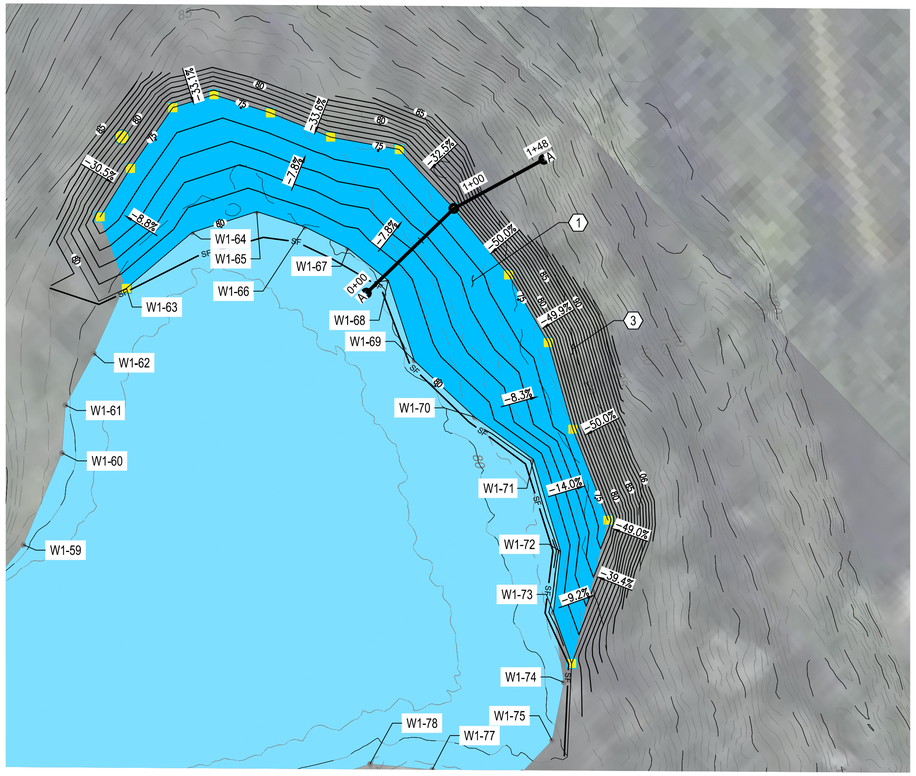
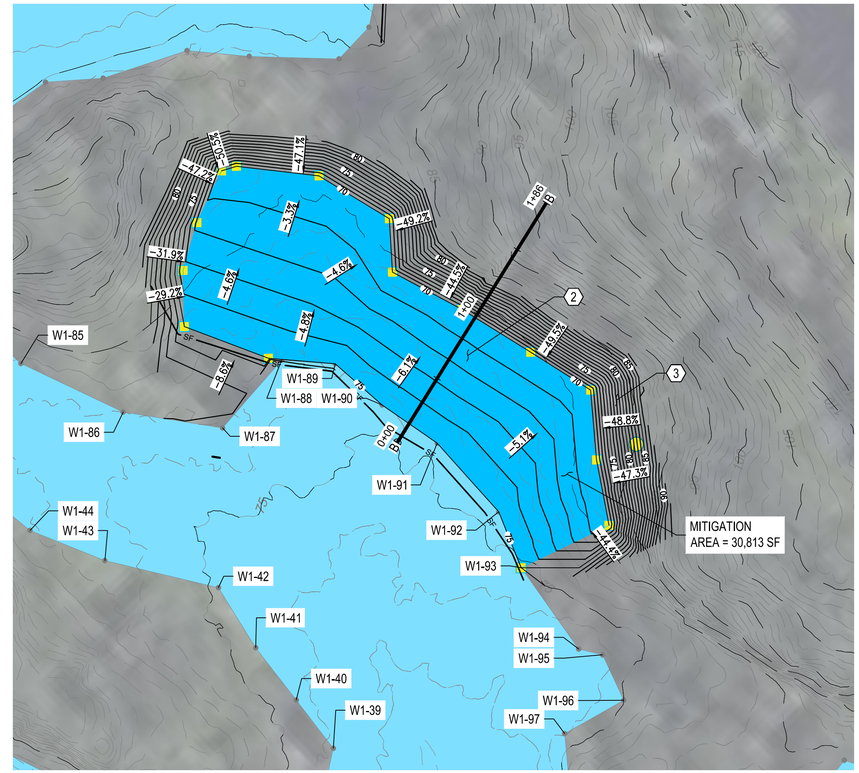


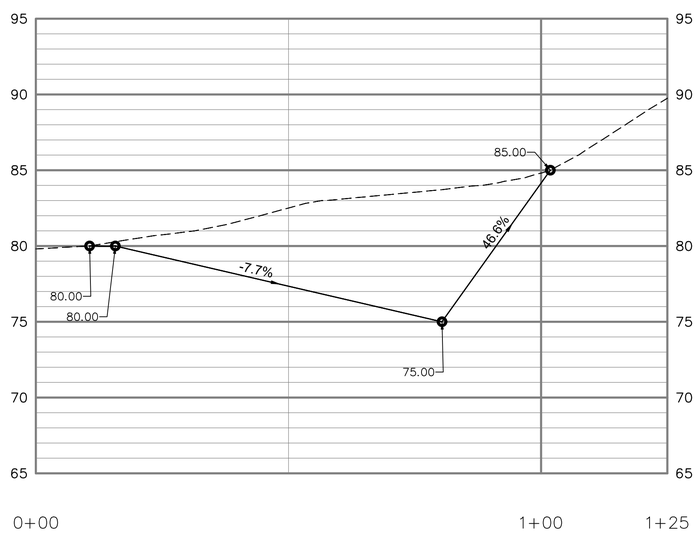
C1 NORTH MITIGATION AREA

1" = 50'



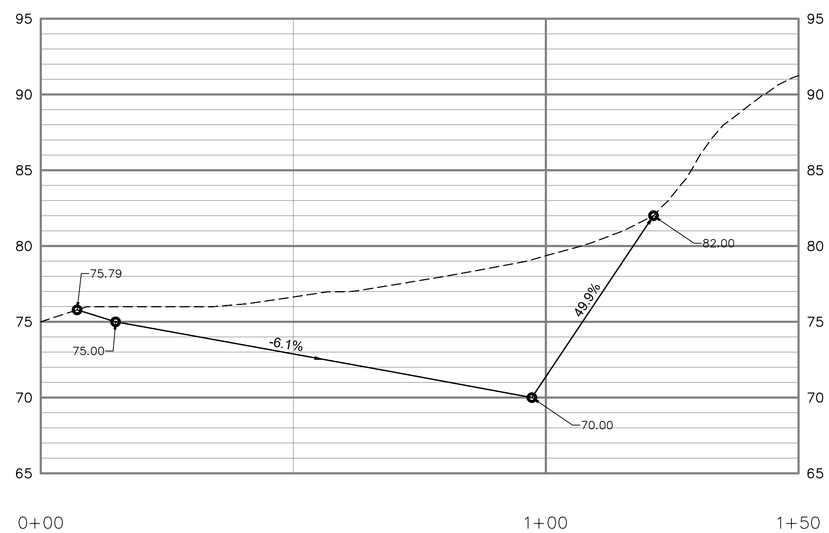
C3 SOUTH MITIGATION AREA

1" = 50'



A1 NORTH MITIGATION AREA SECTION A-A

1" = 15' (HORZ.)
1" = 5' (VERT.)



A3 SOUTH MITIGATION AREA SECTION B-B

1" = 15' (HORZ.)
1" = 5' (VERT.)

GENERAL SHEET NOTES

1. EXISTING CONTOURS ARE BASED ON U.S. ARMY CORPS OF ENGINEERS (USACE) NCMP TOPOBATHY LIDAR, DOWNLOADED FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ASSOCIATION (NOAA) (https://coast.noaa.gov/dataviewer/#/lidar/search/).
2. VERTICAL DATUM IS NAVD 88.
3. DIMENSIONS ARE US SURVEY FEET UNLESS NOTED OTHERWISE.
4. PROVIDE MICROTOPOGRAPHIC RELIEF IN ADDITION TO THE FINISHED GRADE INDICATED TO CREATE LOCALIZED HUMMOCKS, TUSSOCKS, AND VARIABILITY TO PROMOTE SUCCESS OF PLANTING, PLUGS, AND SEEDING.
5. PROVIDE MICROTOPOGRAPHY BETWEEN THE 80 TO 75 CONTOURS IN THE NORTH MITIGATION AREA AND THE 76 TO 70 CONTOURS IN THE SOUTH MITIGATION AREA, REFER TO A1/CE502.
6. PROVIDE DEWATERING STRCTURES OUTSIDE OF DELINEATED WETLANDS AND MITIGATION AREAS., REFER TO C4/CE501. COORDINATE LOCATIONS WITH THE DOR, ENVIRONMENTAL LEAD, AND CONTRACTING OFFICER.
7. PROVIDE EROSION CONTROL PROTECTION ON STOCKPILED SOIL MATERIAL, REFER TO C2/CE501.
8. REFER TO C1/CE502 FOR PLANTING REQUIREMENTS WITHIN THE MITIGATION AREAS.

KEYED NOTES

1. MITIGATION AREA = 30,171 SF
2. MITIGATION AREA = 30,813 SF
3. PROVIDE EROSION CONTROL BLANKET ON SLOPES STEEPER THAN 4 HORIZONTAL TO 1 VERTICAL, REFER TO A1/CE501

LEGEND

W1–1	WETLAND DELINEATION FLAG
	PROPOSED MITIGATION AREAS
SF	SILT FENCE, REFER TO C1/CE501
	PROPOSED MITIGATION AREA
	DELINEATED WETLANDS 4-9-2026

GRAPHIC SCALE

1"=50' 0' 50' 100'

PLAN NORTH

SYM	DESCRIPTION	DATE	APPR.
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NAVFAC

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JOSHUA D. CORUM
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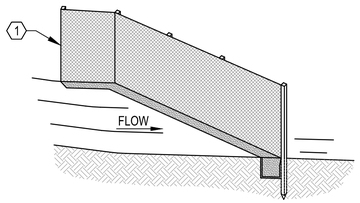
CHIEF ENG/ARCH	JWJ		
FIRE PROTECTION	HPN		

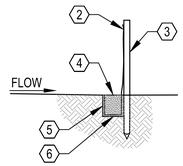
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
MID-ATLANTIC
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL STATION - NORFOLK, VA
NAVAL SUBMARINE BASE NEW LONDON
GROTON, CONNECTICUT
P-1102 WEAPONS MAGAZINE & ORDNANCE OPERATIONS FACILITY
WETLAND MITIGATION
WETLAND MITIGATION PLAN AND SECTIONS

SCALE: AS NOTED
EPROJECT NO.: 1667770
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12898117
SHEET 4 OF 6
CE301

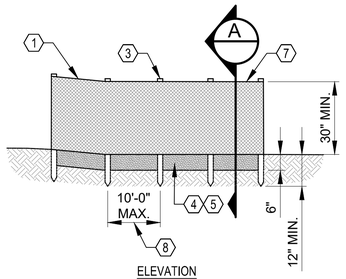
FILE NAME: C:\pw_workdir\den003\jcorum\d0919642\P1102_CE301.dwg LAYOUT NAME: CE301 PLOTTED: Wednesday, June 10, 2026 - 1:56pm USER: jcorum



ISOMETRIC VIEW



SECTION A



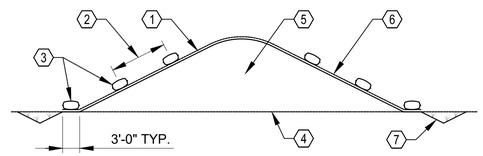
ELEVATION

1. PROVIDE WING WHEN FENCE IS MORE THAN 4' FROM TOP OF SLOPE AND FENCE LINE GRADIENT IS 5% OR MORE.
2. FASTEN GEOTEXTILE FABRIC FENCE TO WOOD STAKE JOINTS ONLY AT SUPPORT POSTS WITH MIN. 6" OVERLAP, SECURELY SEALED
3. WOOD STAKE MIN. DIMENSIONS 1.5" x 1.5" x 42"
4. EXCAVATE TRENCH 6" x 6" MIN.
5. BACKFILL AND COMPACT OVER GEOTEXTILE FABRIC FENCE WITH SOIL
6. BURY BOTTOM OF GEOTEXTILE FENCE 6" BELOW FINISHED GRADE
7. GEOTEXTILE FABRIC FENCE
8. PROVIDE A 5' POST SPACING ON SLOPES 2:1 OR STEEPER

GEOTEXTILE SILT FENCE (C1)

SCALE: NTS

CE301 | CE501



1. REINFORCED BLACK PLASTIC COVERING, 6 MIL MINIMUM
2. 10'-0" MAX.
3. SAND BAGS, TYP.
4. EXISTING GROUND
5. TEMPORARY STOCKPILED MATERIAL
6. 2H:1V MAXIMUM SLOPE
7. GRASS LINED DITCH AROUND STOCKPILE, 2H:1V MAXIMUM SIDE SLOPES, TYP.

GENERAL NOTES:

1. TAPE OR WEIGH DOWN SEAMS FULL LENGTH. PROVIDE MINIMUM 12" OVERLAP ON SEAMS.
2. ON SEAMS PARALLEL TO SLOPE CONTOUR PLACE UPHILL SHEET OVER DOWNHILL SHEET.
3. DO NOT ALLOW SURFACE RUN-OFF TO RUN UNDER PLASTIC COVERING.
4. CONTROL DRAINAGE FROM AREAS COVERED BY REINFORCED PLASTIC SHEETING SO NO DISCHARGE OCCURS DIRECTLY ONTO UNCONTROLLED DISTURBED AREAS OF THE CONSTRUCTION SITE.
5. MAINTAIN SAND BAGS IN PLACE WITH ROPE.

TEMPORARY STOCKPILE COVERING (C2)

SCALE: NTS

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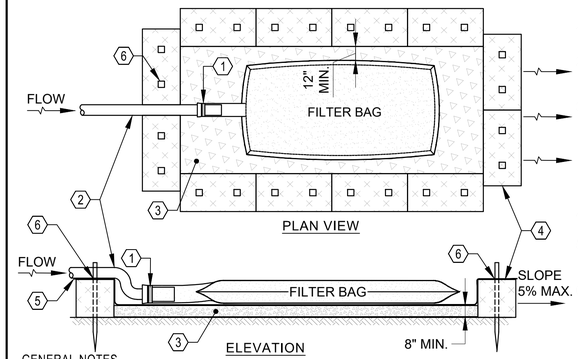

1. STRAP
2. PUMP DISCHARGE HOSE
3. NON-WOVEN GEOTEXTILE FABRIC ON MULCH, LEAF/COMPOST, WOOD CHIPS, OR SAND
4. STRAW BALES
5. NON-WOVEN GEOTEXTILE FABRIC
6. STAKE GEOTEXTILE TO STRAW BALES

GENERAL NOTES

1. TIGHTLY SEAL SLEEVE AROUND PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
2. PLACE FILTER BAG ON BASE (E.G. MULCH, LEAF/WOOD COMPOST, WOOD CHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12" FROM EDGES OF BAG.
3. CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
4. REMOVE AND DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD DE-WATERED SEDIMENT FROM BAG IN AN APPROVED UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY END OF WORK DAY. RESTORE SURFACE AREA BENEATH BAG TO ORIGINAL CONDITION UPON REMOVAL OF DEVICE.
5. USE NON-WOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MAXIMUM 4" DIAMETER PUMP DISCHARGE HOSE. BAG MUST BE MANUFACTURED FROM NON-WOVEN GEOTEXTILE THAT MEETS OR EXCEEDS MINIMUM AVERAGE ROLL VALUES (MARV) FOR THE FOLLOWING:

GRAB TENSILE	250 LB	ASTM D-4632
PUNCTURE	150 LB	ASTM D-4833
FLOW RATE	70 GAL/MIN/FT^2	ASTM D-4491
PERMITTIVITY (SEC^{-1})	1.2 SEC^{-1}	ASTM D-4491
UV RESISTANCE	70% STRENGTH @ 500 HOURS	ASTM D-4355
APPARENT OPENING SIZE	0.15-0.18 MM	ASTM D-4751
SEAM STRENGTH	90%	ASTM D-4632

6. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.

PROPOSED DEWATERING STRUCTURE (C4)

SCALE: NTS

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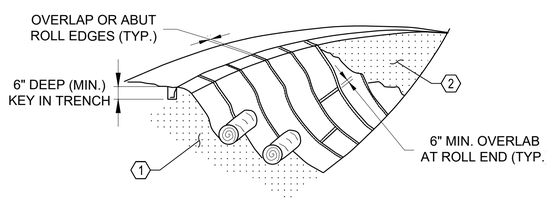


ISOMETRIC VIEW

1. PREPARED SLOPE WITH SEED IN PLACE
2. FILL MAT VOIDS, REFER TO NOTE 9

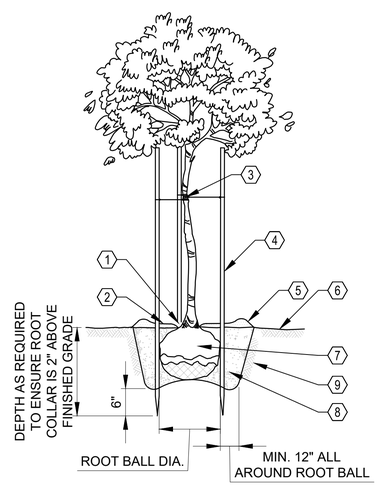
GENERAL NOTES

1. PROVIDE MATTING WITH SHEAR STRESS STRENGTH FOR THE APPLICATION.
2. PROVIDE SOIL STABILIZATION MATTING MADE OF OPEN WEAVE, BIODEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING WOOD STAKES.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWN SLOPE. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE DOWN SLOPE MAT.
7. KEY IN TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. IF SPECIFIED BY THE MANUFACTURER, AND DEPENDING ON THE TYPE OF MAT BEING PROVIDED, ONCE MATTING IS KEYED AND STAPLED IN PLACE, FILL MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.

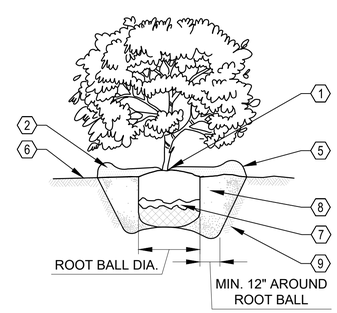
EROSION CONTROL BLANKET FOR STEEP SLOPES (A1)

SCALE: NTS

CE301 | CE501



TREE



SHRUB

1. MULCH MUST NOT TOUCH PLAN STEM
2. 3" MULCH
3. 3 WIRE TIES AND HOSES/TREE POSITION BETWEEN 50-75% TREE HEIGHT
4. (3) - 4" U CHANNEL STEEL POSTS IN COLOR GREEN
5. 4" MULCH SAUCER
6. FINISHED GRADE
7. REMOVE BURLAP FROM TOP $\frac{2}{3}$ OF ROOT BALL
8. BACKFILL MIX
9. UNAMENDED NATIVE SOIL

NOTE: PROVIDE AND MAINTAIN GATOR BAGS OR SIMILAR FOR ALL TREES THROUGH ESTABLISHMENT PERIOD

TREE AND SHRUB PLANTING (A3)

SCALE: NTS

CE502 | CE501

SYM	DESCRIPTION	DATE	APPD
1	REVISIONS FOR AMENDMENT	6/11/2026	

NAVFAC

STATE OF CONNECTICUT — JOSHUA D. CORUM — 36276 — LICENSED PROFESSIONAL ENGINEER — 6/11/26

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571.218.1000
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A/E INFO

APPROVED
FOR COMMANDER NAVFAC 6/12/2026

ACTIVITY
APPROVED BY LCDR ELIZABETH OLOKODE NAVFAC NLOD FEAD DIRECTOR NEW LONDON, GROTEN, CT

SATISFACTORY TO DATE 05/27/2025

DES	KP	DRW	NM	CHK	RC
PM/DM	SMS/CWJ				
BRANCH MANAGER	DLB				
CHIEF ENG/ARCH	JWJ				
FIRE PROTECTION	HPN				

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
MID-ATLANTIC

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VA

NAVAL SUBMARINE BASE NEW LONDON
GROTON, CONNECTICUT
P-1102 WEAPONS MAGAZINE & ORDNANCE OPERATIONS FACILITY
WETLAND MITIGATION

WETLAND MITIGATION DETAILS

SCALE: AS NOTED
EPROJECT NO.: 1667770
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12898118
SHEET 5 OF 6

CE501

FILE NAME: C:\pw_workdir\dm0033\ch2mhill_jcorum\d0919642\P1102_CE501.dwg LAYOUT NAME: CE501 PLOTTED: Wednesday, June 10, 2026 - 2:02pm USER: jcorum

PLANTINGS FOR MITIGATION AREAS

STRATUM	SPECIES	SIZE	PLANTING SPECIFICATIONS	APPROXIMATE QUANTITIES	PREFERENCES
TREES	RED MAPLE (*Acer Rubrum*)	4-6' ROOT BALL	SPACED APPROXIMATELY 10 FEET APART	40	FULL SUN TO FULL SHADE
	YELLOW BIRCH (*Betula alleghaniensis*)	4-6' ROOT BALL	SPACED APPROXIMATELY 10 FEET APART	40	FULL SUN TO PARTIAL SHADE
SHRUBS	SILKY DOGWOOD (*Cornus amomum*)	2-3' ROOT BALL	SPACED APPROXIMATELY 6 FEET APART	50	FULL SUN TO PARTIAL SHADE
	HIGHBUSH BLUEBERRY (*Vaccinium corymbosum*)	2-3' ROOT BALL	SPACED APPROXIMATELY 6 FEET APART	50	FULL SUN TO PARTIAL SHADE
	NORTHERN ARROWWOOD (*Viburnum dentatum*)	2-3' ROOT BALL	SPACED APPROXIMATELY 6 FEET APART	50	FULL SUN TO FULL SHADE
	NANNYBERRY (*Viburnum lentago*)	2-3' ROOT BALL	SPACED APPROXIMATELY 6 FEET APART	50	FULL SUN TO FULL SHADE
	STEEPLEBUSH (*Spiraea tomentosa*)	2-3' ROOT BALL	SPACED APPROXIMATELY 6 FEET APART	50	FULL SUN
FERNS	SENSITIVE FERN (*Onoclea sensibilis*)	#1 CONTAINERS	PLANTED IN MASSES, 18" OFF-CENTER	500 CONTAINERS	FULL SUN TO FULL SHADE
HERBACEOUS	LURID SEDGE (*Carex lurida*)	2" PLUGS	40,000 PLUGS/ACRE	20,000 PLUGS	FULL SUN TO PARTIAL SHADE
SEED MIX	NEW ENGLAND WETLANDS PLANTS WETMIX	N/A	1 LB./2,500 SQ. FT. OR 18 LBS./ACRE	~25 POUNDS (24.39 POUNDS)	N/A

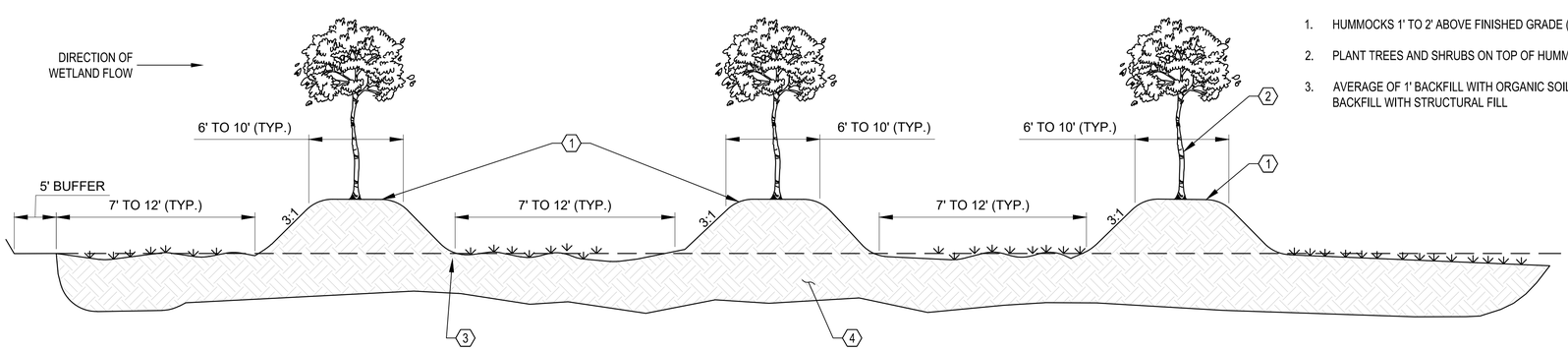
GENERAL NOTES:

1. SPLIT EVENLY IN QUANTITIES A MIX OF SPECIES IN THE TREE, SHRUB, AND HERBACEOUS STRATUMS BETWEEN THE NORTH AND SOUTH MITIGATION AREAS. TREES AND SHRUBS SPECIES MUST BE PLANTED BELOW THE 83 FOOT CONTOUR IN THE NORTH MITIGATION AREA AND THE 78 FOOT CONTOUR IN THE SOUTH MITIGATION AREA. STAKE THE LOCATION OF EACH, INDIVIDUAL TREE AND SHRUB FOR DOR, CONTRACTING OFFICER, AND ENVIRONMENTAL LEAD REVIEW AND APPROVAL PRIOR TO INSTALLATION.
2. FERN AND HERBACEOUS SPECIES MUST OVERLAP TREES AND SHRUBS BY PLANTING ABOVE THE 82 FOOT CONTOUR IN THE NORTH MITIGATION AREA AND 77 FOOT CONTOUR IN THE SOUTH MITIGATION AREA. EQUAL QUANTITIES OF FERNS AND PLUGS MUST BE EVENLY DISPERSED AMONG THE NORTH AND SOUTH MITIGATION AREAS. PROVIDE AN OVERLAP BETWEEN THE STRATUMS TO PROVIDE ADDED VARIABILITY, RESILIENCY, PROMOTE SUCCESSIONAL GROWTH BEYOND A SCRUB-SHRUB WETLAND IN THE WESTERN PORTIONS, AND EMERGENT WETLAND IN THE EASTERN PORTIONS.
3. PLANTS MUST BE OBTAINED FROM LOCAL NATIVE NURSERIES. PROVIDE LOCALLY SOURCED PLANTS FOR BETTER PERFORMANCE AND ARE ADAPTED TO LOCAL AND REGIONAL CONDITIONS. SEEDS MUST BE OBTAINED FROM LOCAL SOURCES TO REPRESENT NATIVE SPECIES. IN ADDITION TO THE PLANTINGS, SEEDING MUST OCCUR IN THE HABITAT TYPE SCRUB-SHRUB WETLAND AND THE EMERGENT WETLAND. SEED AREAS IMMEDIATELY AFTER FINAL GRADING TO PROVIDE IMMEDIATE NATIVE COVER.
4. SOILS FOR THE SITE ARE ANTICIPATED TO BE A FINE LOAMY MATERIAL SUITABLE FOR THE PLANTINGS. ONCE FINISHED GRADE IS ACHIEVED, THE FINAL GRADE MUST REMAIN ROUGH TO PROVIDE VOIDS AND MICROTOPOGRAPHY FOR PLANTINGS, PLUGS, SEED ESTABLISHMENT, AND MICROHABITATS FOR AMPHIBIAN AND REPTILIAN POPULATIONS TO PROMOTE HABITAT DIVERSITY.
5. ELEVATION RANGE FOR THE PROPOSED PLANTINGS MUST OVERLAP TO PROVIDE A MIX OF SHRUB SPECIES.
6. OVERLAP OF SPECIES MUST ENHANCE SPECIES SURVIVAL WITH SEASONAL VARIATIONS IN THE RANGE OF HYDROLOGICAL INFLUENCE AND CREATE MICROHABITATS. PLANTS MUST BE ESTABLISHED AT THE PREFERRED SATURATED REGIME WITH AN EXPECTED NATURAL DIE-OFF AFTER PLANTING. PROVIDE SUPPLEMENTAL PLANTING TO ACHIEVE NATURAL VEGETATIVE AERIAL COVER.
7. REFER TO A3/CE501 FOR PLANTING DETAILS.

PLANTING PLAN

SCALE: NTS

C1 CE301 CE502



1. HUMMOCKS 1' TO 2' ABOVE FINISHED GRADE (TYP.)
2. PLANT TREES AND SHRUBS ON TOP OF HUMMOCKS
3. AVERAGE OF 1' BACKFILL WITH ORGANIC SOIL AND 1' BACKFILL WITH STRUCTURAL FILL

MICROTOPOGRAPHIC GRADING

SCALE: NTS

A1 CE301 CE502

SYM	DESCRIPTION	DATE	APPD
1	REVISIONS FOR AMENDMENT	6/11/2026	

NAVFAC

STATE OF CONNECTICUT — JOSHUA D. CORUM — 36275 — LICENSED PROFESSIONAL ENGINEER — 6/11/26

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APPROVED: FOR COMMANDER NAVFAC 6/12/2026

ACTIVITY: APPROVED BY LCDR ELIZABETH OLOKODE NAVFAC NLOD FEAD DIRECTOR NEW LONDON, GROTEN, CT

SATISFACTORY TO DATE 05/27/2025

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NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
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WETLAND MITIGATION
WETLAND MITIGATION DETAILS

SCALE: AS NOTED
EPROJECT NO.: 1667770
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12898119
SHEET 6 OF 6

CE502

FILE NAME: C:\pw_workdir\dms03\pb2mhsll_jcorum\d0919642\P1102_CE502.dwg LAYOUT NAME: CE502 PLOTTED: Wednesday, June 10, 2026 - 2:05pm USER: jcorum