Appendix E: Activity Details

NEW YORK STATE | Department of Environmental Conservation

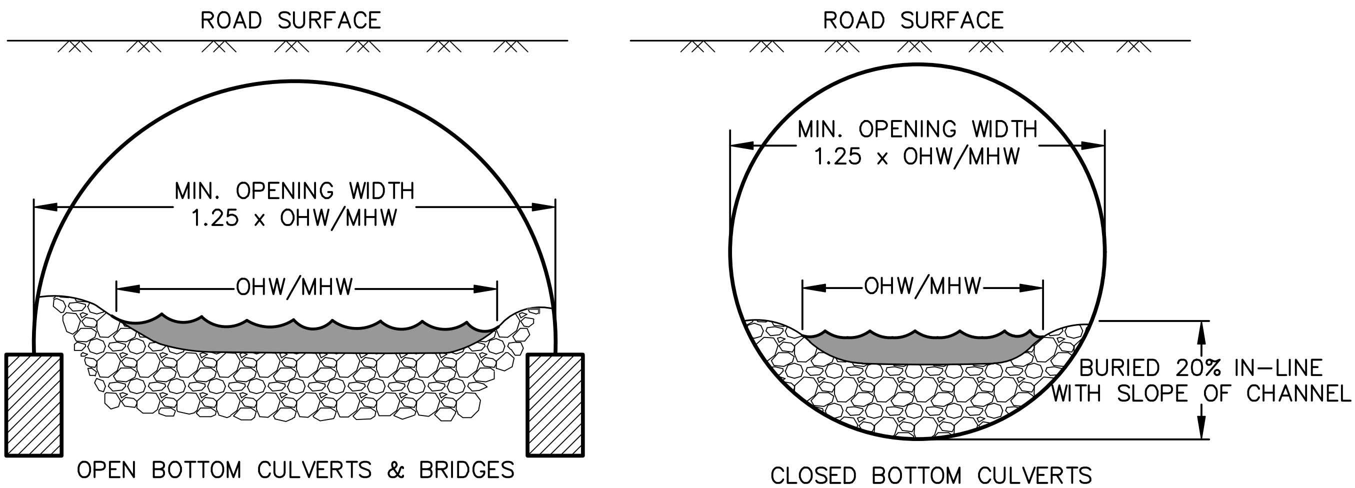
STATE PROGRAMMATIC GENERAL PERMIT (SPGP)-1
FOR EMERGENCY RESPONSE AND STORM RECOVERY ACTIVITIES IN
REGULATED WATERS IN NEW YORK STATE
EXCLUDING NYSDEC REGIONS 1, 2 AND PORTIONS OF REGION 3

US Army Corps of Engineers

ACTIVITY DETAIL 1 – CULVERTS & BRIDGES

CROSS SECTION VIEW

N.T.S.



<u>CONDITIONS OF AUTHORIZATION</u>

- CULVERTS OR BRIDGES MUST HAVE BEEN EXISTING AND FUNCTIONAL PRIOR TO THE STORM EVENTS.
- THE FINAL INSTALLED CULVERT OR BRIDGE MUST BE WITHIN THE SAME FOOTPRINT AS THE PREVIOUS STRUCTURE OR 1) NO MORE THAN 50 FEET FROM ITS PRE-STORM LOCATION (OUTSIDE EDGE OF EXISTING STRUCTURE TO OUTSIDE EDGE OF NEW STRUCTURE) OR 2) MUST NOT EXTEND MORE THAN 25% OF THE LENGTH OF THE PREVIOUS STRUCTURE.
- WHEN REPLACING A CULVERT, ON OPEN-BOTTOM CULVERT MUST BE INSTALLED UNLESS THE APPLICANT PROVIDES JUSTIFICATION FOR THE USE OF CLOSED BOTTOM CULVERT BASED ON SITE-SPECIFIC CONDITIONS. AGENCY APPROVED CLOSED BOTTOM CULVERTS SHALL BE EMBEDDED AT LEAST 20% OF THE TOTAL HEIGHT BELOW THE STREAM BED FOR ITS ENTIRE LENGTH. FINAL HYDRAULIC CAPACITY SHALL BE BASED ON THE EMBEDDED CONDITION.
- SITE SPECIFIC INFORMATION (I.E., STREAM BED SLOPE, TYPE AND SIZE OF STREAM BED MATERIAL, STREAM TYPE, EXISTING NATURAL OR MANMADE BARRIERS, POTENTIAL FOR EROSION, ETC.) SHALL BE EVALUATED TO DETERMINE THE APPROPRIATE CROSSING DESIGN. THE DESIGN OF THE REPLACEMENT CROSSING SHALL PROVIDE FOR PROPER MANAGEMENT OF FLOWS TO ENSURE AQUATIC ORGANISM PASSAGE AND STREAM STABILITY. FURTHER THE CROSSING DESIGN SHALL ENSURE THAT THE UPSTREAM AND DOWNSTREAM DIMENSION, PATTERN AND PROFILE OF THE STREAM CHANNEL ARE NOT PERMANENTLY MODIFIED BY CHANGES TO THE WIDTH OR DEPTH OF THE CHANNEL.
- IF STREAM CHANNEL REALIGNMENT IS PART OF THE SCOPE OF WORK ASSOCIATED WITH THE CULVERT OR BRIDGE, SUCH REALIGNMENT SHALL BE LESS THAN 100 LINEAR FEET AS CALCULATED BY THE TOTAL LENGTH OF WORK AT OR BELOW OHW/MHW AT EITHER SIDE OF THE CHANNEL.
- STONE APRONS, SCOUR PROTECTION, AND/OR BED ARMOR SHALL BE 1) INSTALLED FLUSH WITH THE INVERT ELEVATION; 2) FILLED WITH NATIVE STREAM BED MATERIAL AND IF REQUIRED SUPPLEMENTED WITH SIMILARLY SIZED MATERIAL TO FILL INTERSTITIAL SPACES; AND 3) KEYED INTO THE STREAM BED.
- NEW CONCRETE APRONS ARE PROHIBITED.
- CURED-IN-PLACE PIPE LININGS MUST BE IN ACCORDANCE WITH NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) SPECIFICATIONS SEC. 602-REHABILTATION OF CULVERT AND STORM DRAIN PIPE.
- WORK AREAS SHALL BE ISOLATED FROM STREAM FLOW TO REDUCE DOWNSTREAM IMPACTS FROM TURBIDITY AND SEDIMENTATION.
- UNLESS A WAIVER IS OBTAINED FROM THE AGENCIES, IN-STREAM WORK IS PROHIBITED IN COLD WATER TROUT FISHERIES (WATERS CLASSIFIED UNDER ARTICLE 15 OF NEW YORK'S ENVIRONMENTAL CONSERVATION LAW WITH A "T" OR "TS" DESIGNATION), BEGINNING OCTOBER 1 AND ENDING MAY 31.

<u>CATEGORY C ACTIVITIES</u>

- CROSSINGS THAT DO NOT MEET THE MINIMUM OPENING WIDTH AND/OR REQUIRED BURIAL DEPTH.
- INSTALLATION OF A CULVERT OR BRIDGE THAT RESULTS IN A DECREASE OF HYDRAULIC CAPACITY FROM PRE-STORM CONDITIONS.
- GREATER THAN 0.1 ACRE OF LOSS OF REGULATED WATERS.
- STONE SCOUR PROTECTION EXCEEDING AN AVERAGE OF 1 CY PER LINEAR FOOT PLACED BELOW THE OHW/MHW LEVEL OR BED ARMORING EXCEEDING GREATER THAN 50 FEET FROM THE EDGE OF THE NEW STRUCTURE.
- CULVERT EXTENSIONS GREATER THAN 25% OF TOTAL LENGTH OF THE EXISTING CULVERT.
- GREATER THAN 100 LINEAR FEET OF STREAM CHANNEL REALIGNMENT TO IMPROVE FLOW THROUGH THE CULVERT OR BRIDGE.
- ANY DEVIATIONS FROM CONDITIONS OF AUTHORIZATION.

DATE: SEPTEMBER, 2023	NOTE: THIS IS A TYPICAL DETAIL FOR REFERENCE PURPOSES ONLY. IT IS THE PERMITTEE'S RESPONSIBILITY TO ENSURE THE STRUCTURE IS APPROPRIATELY DESIGNED AND CONSTRUCTED.

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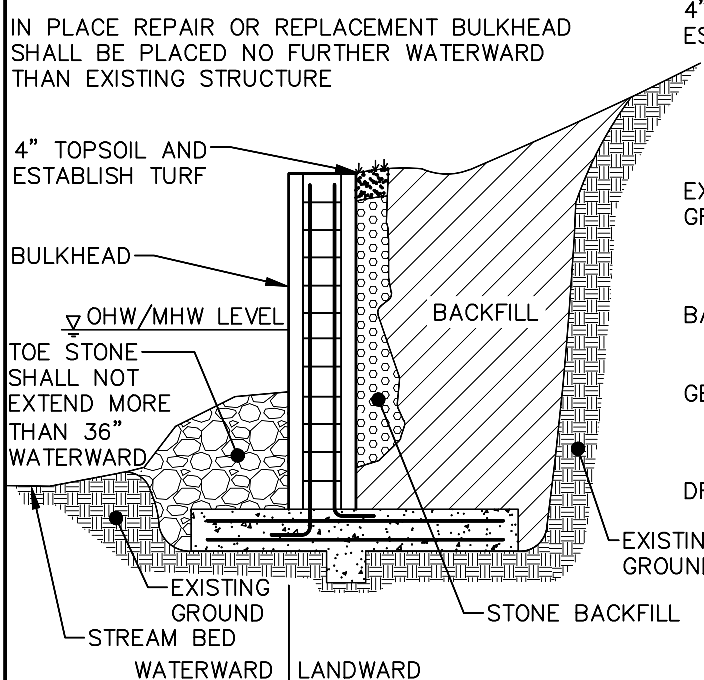
US Army Corps of Engineers

ACTIVITY DETAIL 2 – VERTICAL STABILIZATION STRUCTURES

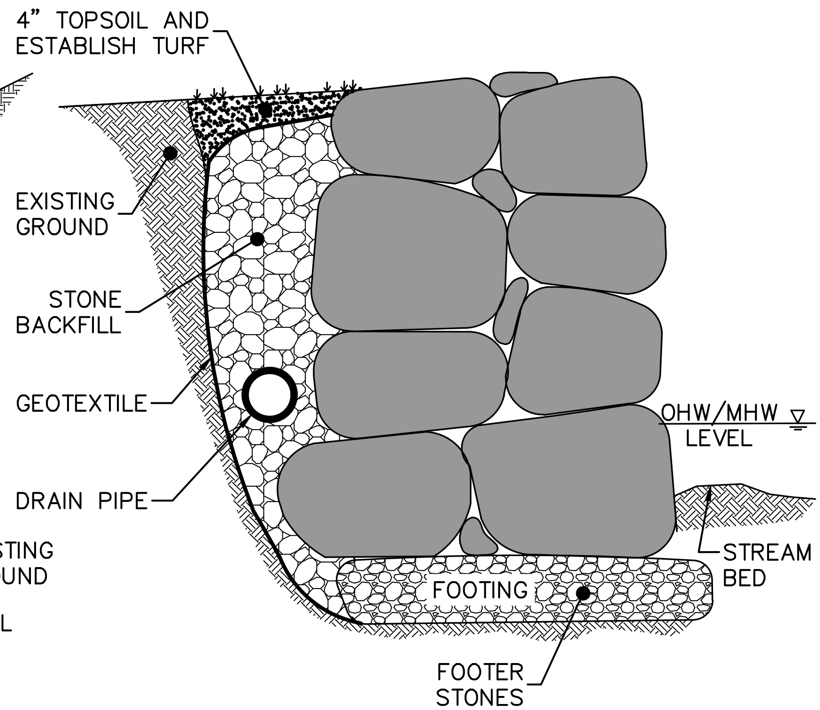
BULKHEAD CROSS SECTION VIEW

N.T.S.



VERTICAL WALL CROSS SECTION VIEW

N.T.S.



CONDITIONS OF AUTHORIZATION

- FOR THE PURPOSES OF THIS SPGP, VERTICAL STABILIZATION STRUCTURES ("STRUCTURES") INCLUDE VERTICAL WALLS OR BULKHEADS, CONSTRUCTED OF STONE, ROCK, TIMBER, METAL OR CONCRETE.
- VERTICAL STRUCTURES SHALL ONLY BE INSTALLED WHEN NON–VERTICAL STABILIZATION MEASURES ARE NOT PRACTICABLE.
- STRUCTURES MUST HAVE BEEN EXISTING AND FUNCTIONAL PRIOR TO THE STORM EVENTS.
- THE STRUCTURE'S DIMENSIONS MUST: 1) BE WITHIN THE SAME FOOTPRINT AS THE PREVIOUS STRUCTURE OR FURTHER LANDWARD AND 2) BE THE SAME LENGTH AS THE PREVIOUS STRUCTURE ALONG THE BANK OR SHORE.
- STRUCTURES SHALL NOT BE RAISED ABOVE THE EXISTING GROUND ELEVATION AND SHALL NOT CUT OFF ACCESS TO FLOODPLAINS.
- THE APPLICANT SHALL PROVIDE 1) A DRAWING SHOWING THE LOCATION OF THE STRUCTURE IN RELATION TO THE EXISTING OHW/MHW OF THE REGULATED WATER AS MEASURED FROM AT LEAST THREE FIXED POINTS AND 2) QUANTIFICATION OF FILL IN CY BELOW OHW/MHW LEVEL.
- DEWATERING/WATER HANDLING METHODS (E.G., COFFERDAMS) SHALL BE UTILIZED TO ISOLATE WORK AREAS FROM REGULATED WATERS AND REDUCE WATER QUALITY IMPACTS FROM TURBIDITY AND SEDIMENTATION. IN TIDALLY INFLUENCED AREAS, WORK SHALL BE CONDUCTED DURING LOW TIDE.
- UNLESS A WAIVER IS OBTAINED FROM THE AGENCIES, IN–WATER WORK IS PROHIBITED IN COLD WATER TROUT FISHERIES (WATERS CLASSIFIED UNDER ARTICLE 15 OF NEW YORK'S ENVIRONMENTAL CONSERVATION LAW WITH A "T" OR "TS" DESIGNATION), BEGINNING OCTOBER 1 AND ENDING MAY 31.

CATEGORY C ACTIVITIES

- NEW VERTICAL STABILIZATION STRUCTURES TO PROTECT PUBLIC INFRASTRUCTURE IN NON–TIDAL STREAMS/RIVERS WHERE SITE CONDITIONS PRECLUDE PRACTICABLE USE OF OTHER STABILIZATION STRUCTURES.
- REPLACEMENT OF STRUCTURE WATERWARD OF THE PREVIOUS STRUCTURE.
- NEW TOE STONE EXCEEDING AN AVERAGE OF 1 CY PER LINEAR FOOT PLACED BELOW THE OHW/MHW LEVEL OR EXTENDING GREATER THAN 36–INCHES WATERWARD OF THE STRUCTURE.
- GREATER THAN 0.1 ACRE OF LOSS OF REGULATED WATERS.
- ANY DEVIATIONS FROM CONDITIONS OF AUTHORIZATION.

NON–ELIGIBLE ACTIVITIES

- RESTORATION OF NON–FUNCTIONAL VERTICAL STABILIZATION STRUCTURES AND THEIR REMNANTS.
- REPAIR AND/OR REPLACEMENT OF STRUCTURES THAT EXTEND GREATER THAN 18 INCHES WATERWARD FROM THE PRE–STORM LOCATION.
- REPLACEMENT OR INSTALLATION OF NEW GABION ROCK WALLS IN REGULATED WATERS.
- INSTALLATION OF NEW VERTICAL STABILIZATION STRUCTURES IN LAKES AND TIDAL WATERS.

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ACTIVITY DETAIL 3A – REPAIR OR REPLACEMENT OF UTILITY LINES FEDERAL NAVIGABLE WATERS

CONDITIONS OF AUTHORIZATION FOR AERIAL CROSSINGS

ALL AERIAL CROSSINGS OVER FEDERAL NAVIGABLE WATERS MUST COMPLY WITH THE ELEVATION CLEARANCES SPECIFIED IN 33 CFR 322.5(I)(2) AND 33 CFR 322.5(I)(3). THE FOLLOWING TABLE PERTAINS TO AERIAL TRANSMISSION LINES ACROSS FEDERAL NAVIGABLE WATERS, IS LOCATED AT 33 CFR 322.5(I)(2), AND IS INCLUDED HERE FOR EASY REFERENCE:

NOMINAL SYSTEM VOLTAGE (KV)	MIN. ADDITIONAL CLEARANCE (FT) ABOVE CLEARANCE REQUIRED FOR BRIDGES
115 AND BELOW	20
136	22
161	24
230	26
350	30
500	35
700	42
750 AND ABOVE	45

CONDITIONS OF AUTHORIZATION FOR SUBMERGED CROSSINGS

FOR SUBMERGED CABLES AND PIPELINES BURIED WITHIN FEDERAL NAVIGABLE WATERWAYS:

i. THE TOP OF THE CABLE OR PIPELINE CROSSING ANY FEDERAL PROJECT CHANNEL, FLEETING OR ANCHORAGE AREA, SHALL BE LOCATED A MINIMUM OF 12 FEET BELOW THE AUTHORIZED PROJECT CHANNEL DEPTH.

ii. THE BURIAL DEPTH IS MEASURED FROM THE AUTHORIZED PROJECT CHANNEL DEPTH TO THE TOP OF THE OUTERMOST LAYER OF THE UTILITY LINE.

iii. IN CASES WHERE THE CHANNEL'S EXISTING BOTTOM IS ALREADY DEEPER THAN THE AUTHORIZED PROJECT DEPTH, THE UTILITY LINE SHALL BE LOCATED A MINIMUM OF 4 FEET BELOW THE EXISTING BOTTOM IN SEDIMENT AND 2 FEET BELOW THE EXISTING BOTTOM IN COMPACTED ROCK.

iv. IN AREAS OUTSIDE OF FEDERAL PROJECT CHANNELS, FLEETING OR ANCHORAGE AREAS, THE TOP OF THE UTILITY LINE SHALL BE LOCATED A MINIMUM OF 4 FEET BELOW THE EXISTING BOTTOM IN SEDIMENT AND 2 FEET BELOW THE EXISTING BOTTOM IN COMPACTED ROCK.

v. THE DISTRICT ENGINEER, ON A CASE-BY-CASE BASIS, MAY MODIFY THESE DEPTH REQUIREMENTS WHERE CIRCUMSTANCES ARE DEEMED APPROPRIATE (I.E. WATER INTAKE LINES, DRY HYDRANTS, ETC.). ANY REQUEST TO MODIFY THESE DEPTH REQUIREMENTS MUST INCLUDE A DISCUSSION OF POTENTIAL EFFECTS OF THE UTILITY LINE TO PUBLIC SAFETY ASSOCIATED WITH PUBLIC USE OF THE WATERWAY (I.E. FISHING ANCHORAGE, BOATING, SWIMMING, NAVIGATION, ETC.), HOW THE LINE WILL BE PROTECTED FROM ICE SCOUR AND MOVEMENT BY WAVES OR CURRENTS AND DETAILS AS TO ANY ANCHORING SYSTEMS.

vi. WHERE TRENCHING AND BACKFILLING ARE PROPOSED, BACKFILL MATERIAL SHALL CONSIST OF SUITABLE HEAVY MATERIALS AND SHALL BE PLACED NO HIGHER OR LOWER THAN THE ADJACENT RIVER BOTTOM ELEVATION.

FOR PROPOSED SUBMERGED CABLES AND PIPELINES PLACED ON THE WATERWAY BOTTOM WITHIN NAVIGABLE WATERS: THE APPLICATION SUBMITTED FOR CATEGORY C REVIEW SHALL INCLUDE JUSTIFICATION FOR THE NEED TO PLACE THE UTILITY LINE ON THE WATERWAY BOTTOM, A DISCUSSION ON POTENTIAL EFFECTS OF THE PROPOSED EXPOSED UTILITY LINE TO PUBLIC SAFETY ASSOCIATED WITH PUBLIC USE OF THE WATERWAY (I.E. FISHING, ANCHORAGE, BOATING, SWIMMING, NAVIGATION, ETC.), HOW THE LINE WILL BE PROTECTED FROM ICE SCOUR AND MOVEMENT BY WAVES OR CURRENTS AND DETAILS AS TO ANY ANCHORING SYSTEMS.

WHEN NOT PRESENT ALREADY, WITHIN 15 DAYS AFTER COMPLETION OF THE AUTHORIZED WORK, THE PERMITTEE SHALL POST VISIBLE SIGNAGE ON WEATHERPROOF PLACARDS NO SMALLER THAN 4 FEET BY 4 FEET ON EACH SHORELINE AT THE LOCATION OF THE AUTHORIZED CROSSING. THE PLACARD SHALL CONTAIN LANGUAGE INFORMING WATERWAY USERS OF THE PRESENCE OF A CABLE OR PIPELINE CROSSING (E.G., "WARNING – CABLE [OR PIPELINE] CROSSING"), UNLESS SPECIFICALLY AUTHORIZED OTHERWISE BY THE DISTRICT ENGINEER. THE SIGN SHALL BE MAINTAINED IN PLACE FOR AS LONG AS THE PIPELINE REMAINS IN PLACE.

DISCHARGES INTO WATERS OF THE UNITED STATES OF ANY DRILLING MUDS THAT MAY BE GENERATED THROUGH SUCH METHODS AS DIRECTIONAL BORING OR DRILLING ARE NOT AUTHORIZED. FURTHER, ANY DIRECTIONAL DRILLING OR BORING ACTIVITIES MUST INCLUDE A PLAN THAT ADDRESSES PREVENTION, CONTAINMENT AND CLEANUP OF ANY ACCIDENTAL DISCHARGES KNOWN AS "INADVERTENT RETURNS".

ELIGIBLE ACTIVITY NUMBER 3 DOES NOT SPECIFICALLY AUTHORIZE BANK OR CHANNEL STABILIZATION ACTIVITIES FOR UTILITY REPAIR AND REPLACEMENT PROJECTS. REFER TO ACTIVITIES NUMBERS 5 AND 6 ON THE ELIGIBLE ACTIVITIES TABLE IN THIS SPGP, AND ASSOCIATED ACTIVITY DETAIL DRAWINGS, FOR ADDITIONAL AUTHORIZATIONS THAT MAY BE NEEDED FOR THIS WORK.

NO MINOR DEVIATIONS ARE AUTHORIZED UNDER CATEGORY B FOR AERIAL AND BURIED UTILITY LINES IN FEDERAL NAVIGABLE WATERS, OR FOR UTILITY LINES PLACED ON THE BED OF FEDERAL NAVIGABLE WATERS. IN FEDERAL NAVIGABLE WATERS, CATEGORY C REVIEW IS REQUIRED FOR ANY DEVIATIONS FROM CONDITIONS OF AUTHORIZATION IN HEIGHT ABOVE WATER, SHALLOWER DEPTH BELOW THE BED, CHANGE IN ALIGNMENT, AND/OR ANY INCREASE IN SIZE.

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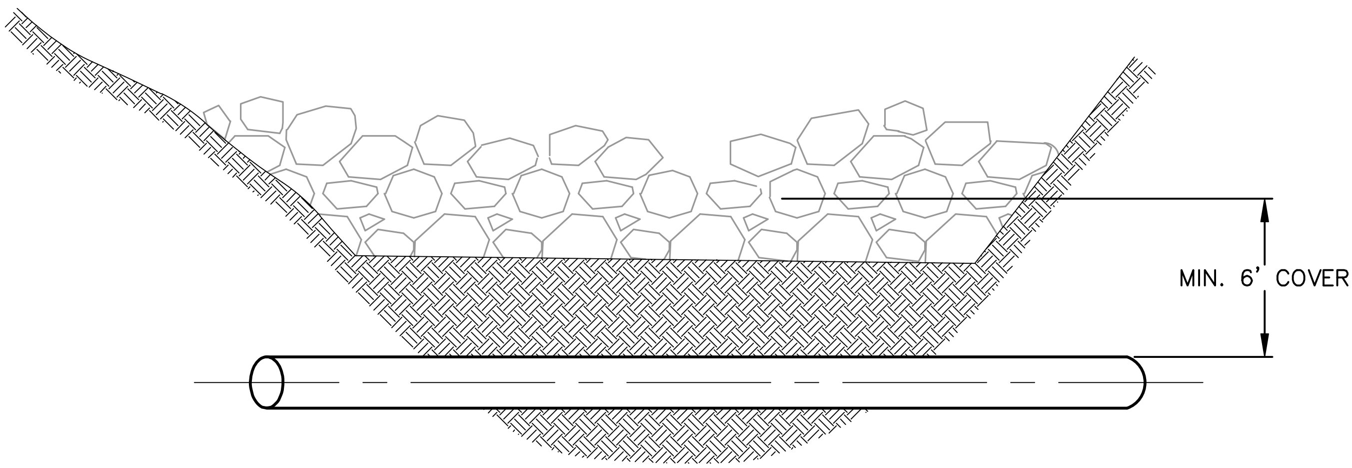
ACTIVITY DETAIL 3B – REPAIR OR REPLACEMENT OF UTILITY LINES NON-FEDERAL NAVIGABLE WATERS

CROSS SECTION VIEW

N.T.S.



CONDITIONS OF AUTHORIZATION

- WORK AREAS SHALL BE ISOLATED FROM STREAMS AND/OR WATERBODIES. WATERS ACCUMULATED IN THE ISOLATED WORK AREA SHALL BE DISCHARGED TO AN UPLAND SETTLING BASIN OR A WELL-VEGETATED AREA TO PROVIDE FOR SETTLING AND FILTERING OF SOLIDS AND SEDIMENTS BEFORE WATER IS RETURNED TO THE STREAM. RETURN WATERS SHALL BE AS CLEAR AS THE FLOWING WATER UPSTREAM FROM THE WORK AREA. TRENCHLESS INSTALLATIONS THAT DO NOT REQUIRE EXCAVATION OF THE BED OR BANKS ARE NOT REQUIRED TO DEWATER.
- TEMPORARY DEWATERING STRUCTURES AND ASSOCIATED FILL SHALL BE COMPLETELY REMOVED AND THE BANKS REGRADED AND RE-VEGETATED IMMEDIATELY FOLLOWING THE COMPLETION OF WORK.
- ANY DISTURBANCE TO STREAM/RIVERS INTRODUCED BY ACTIVITIES AUTHORIZED BY THIS SPGP SHALL BE RESTORED TO THE FOLLOWING CONDITIONS:
  - o THE STREAM/RIVER CHANNEL SHALL BE PROPERLY SIZED AND STABILIZED TO THE NATURAL SIZE AND CONFIGURATION PREDATING STORM DAMAGE. A NATURAL UNDISTURBED REFERENCE REACH CAN BE USED FOR SIZING OR DIMENSIONS CAN BE DERIVED FROM THE ESI MANUAL, AND
  - o A LOW-FLOW CHANNEL (THALWEG) SHALL BE ESTABLISHED, AND
  - o THE LOW-FLOW CHANNEL SHALL ALLOW FOR AQUATIC ORGANISM PASSAGE (AOP) IN A MANNER THAT EXISTED PRIOR TO THE STORM EVENT.
- REPLACEMENT UTILITIES SHALL BE INSTALLED AT LEAST 6' BELOW STREAM/RIVER BEDS, UNLESS OTHERWISE APPROVED BY THE AGENCIES. IF REQUIRED BY THE AGENCIES, A TECHNICAL ASSESSMENT, SUCH AS A VERTICAL ADJUSTMENT POTENTIAL ANALYSIS WHICH SHOWS THAT UTILITIES WILL NOT BE EXPOSED BY EROSION DURING A FLOOD, SHALL BE PROVIDED WITH THE APPLICATION.
- WHERE PRACTICABLE, NATIVE BED MATERIALS SHALL BE UTILIZED TO PROVIDE COVER OVER THE UTILITY.
- ARTICULATED CONCRETE MATS MAY BE AUTHORIZED PROVIDED THAT THE FOLLOWING CONDITIONS ARE MET:
  - a. THE ARTICULATED MAT IS COVERED WITH NATIVE STREAM BED MATERIAL.
  - b. THE MAT IS PLACED IN A MANNER THAT MAINTAINS A LOW FLOW CHANNEL (I.E., THALWEG) AND DOES NOT IMPEDE AOP.
  - c. THE MAT IS KEYED INTO THE BED AND BANKS TO ENSURE IT IS SECURED AND WILL RESIST REMOBILIZATION OF THE MATERIAL DURING NORMAL OR EXPECTED HIGH FLOW EVENTS.
  - d. ALL APPLICATIONS THAT PROPOSE THE INSTALLATION OF ARTICULATED CONCRETE MATS SHALL INCLUDE JUSTIFICATION FOR THIS USE, INCLUDING WHY OTHER ALTERNATIVES ARE NOT PRACTICABLE.
- TRENCHLESS INSTALLATIONS INCLUDING DIRECTIONAL DRILLING AND BORING ACTIVITIES SHALL INCLUDE A PLAN THAT ADDRESSES PREVENTION, CONTAINMENT AND CLEANUP OF ANY ACCIDENTAL DISCHARGES OF DRILLING MUDS INTO REGULATED WATERS KNOWN AS "INADVERTENT RETURNS" OR "FRACK-OUTS". INADVERTENT RETURNS INTO REGULATED WATERS ARE NOT AUTHORIZED BY THIS PERMIT.
- ANY EXTENSION OF A STRUCTURE OR FILL SHALL BE NECESSARY TO MAINTAIN THE PRE-STORM FUNCTION OF THE FACILITY.

CATEGORY C ACTIVITIES

- WORK RESULTS IN THE LOSS OF GREATER THAN 0.05 ACRE OF REGULATED WATERS.
- REPLACEMENT UTILITIES THAT DO NOT OVERLAP THE FOOTPRINT OF THE PRE-STORM STRUCTURE AND/OR FILL AREA.
- ANY DEVIATIONS FROM CONDITIONS OF AUTHORIZATION.
- ELIGIBLE ACTIVITY NUMBER 3 DOES NOT SPECIFICALLY AUTHORIZE BANK OR CHANNEL STABILIZATION ACTIVITIES FOR UTILITY REPAIR AND REPLACEMENT PROJECTS. REFER TO ACTIVITIES NUMBERS 5 AND 6 ON THE ELIGIBLE ACTIVITIES TABLE IN THIS SPGP, AND ASSOCIATED ACTIVITY DETAIL DRAWINGS, FOR ADDITIONAL AUTHORIZATIONS THAT MAY BE NEEDED FOR THIS WORK.

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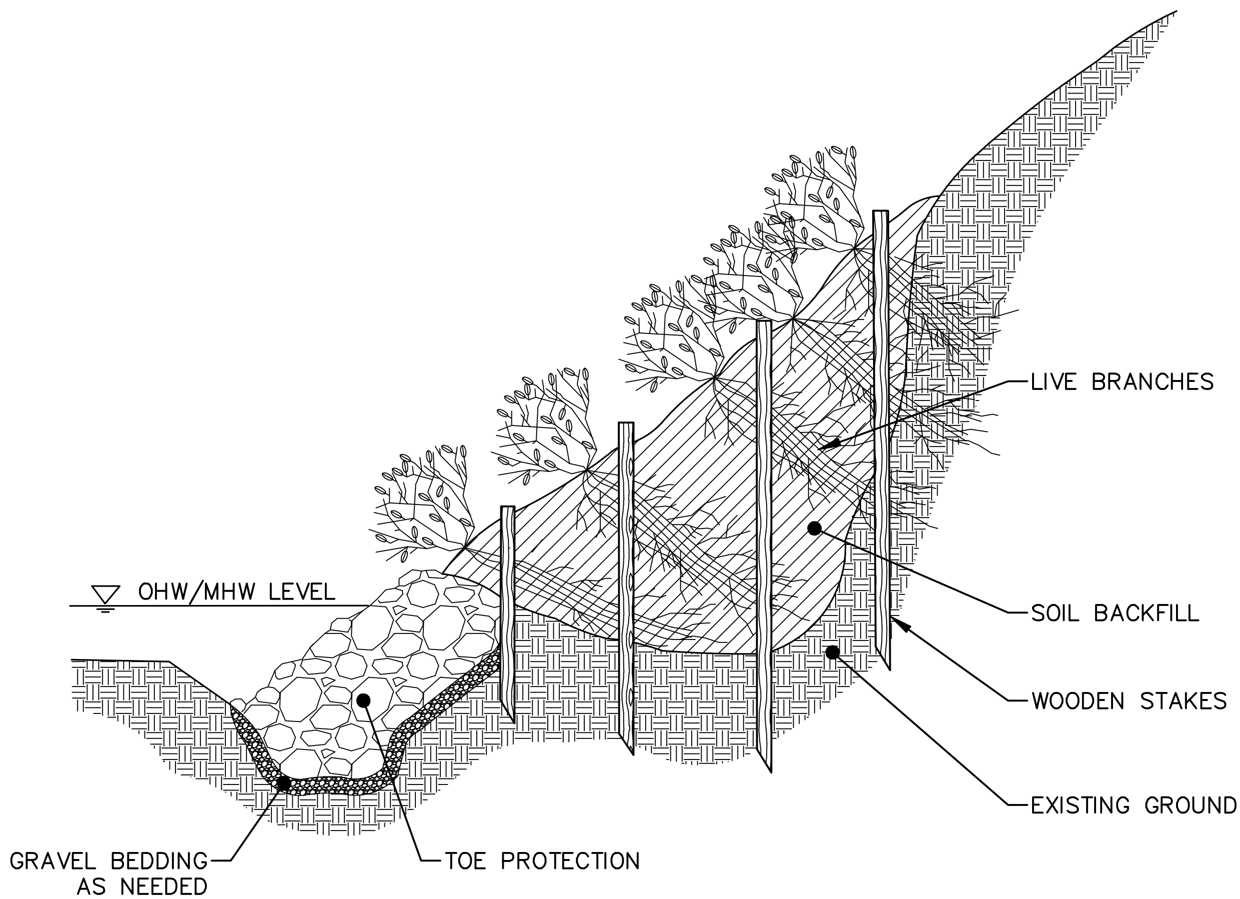
ACTIVITY DETAIL 4A – VEGETATED BANKS

CROSS SECTION VIEW

N.T.S.



CONDITIONS OF AUTHORIZATION

- SOFT ARMORING USING LIVE PLANTS AND SOIL BIOENGINEERING STABILIZATION MEASURES SUCH AS LIVE STAKES AND LIVE CUTTINGS, SHALL BE UTILIZED WHENEVER FEASIBLE TO STABILIZE BANKS.
- BANKS SHALL BE GRADED TO THE GENTLEST SLOPE SUSTAINABLE FOR THE SELECTED TREATMENT (I.E., 2H:1V).
- TOE PROTECTION SHALL BE PROPERLY KEYED INTO BANKS TO PREVENT DISLODGING DURING HIGH FLOW EVENTS.
- WHEN POSSIBLE, VEGETATION SHALL BE PLANTED IN THE VOIDS OF THE ROCKS. ALL VEGETATION USED TO PLANT THE VOIDS SHALL BE NATIVE AND NON-INVASIVE.
- WORK AREAS SHALL BE ISOLATED FROM STREAM FLOW TO REDUCE DOWNSTREAM IMPACTS FROM TURBIDITY AND SEDIMENTATION.
- UNLESS A WAIVER IS OBTAINED FROM THE AGENCIES, IN-STREAM WORK IS PROHIBITED IN COLD WATER TROUT FISHERIES (WATERS CLASSIFIED UNDER ARTICLE 15 OF NEW YORK'S ENVIRONMENTAL CONSERVATION LAW WITH A "T" OR "TS" DESIGNATION), BEGINNING OCTOBER 1 AND ENDING MAY 31.
- FILL MATERIAL MUST CONSIST OF SOIL IN AN AMOUNT SUITABLE FOR THE DEVELOPMENT OF ROOTS.

CATEGORY C ACTIVITIES

- BANK STABILIZATION OVER 500 LINEAR FEET.
- ANY ACTIVITIES THAT WOULD RESULT IN FILL MATERIAL BEING PLACED IN EXCESS OF AN AVERAGE OF 1 CUBIC YARD PER RUNNING LINEAR FOOT AT OR BELOW THE PLANE OF THE OHW/MHW MARK.
- GREATER THAN 0.1 ACRE OF LOSS OF REGULATED WATERS.

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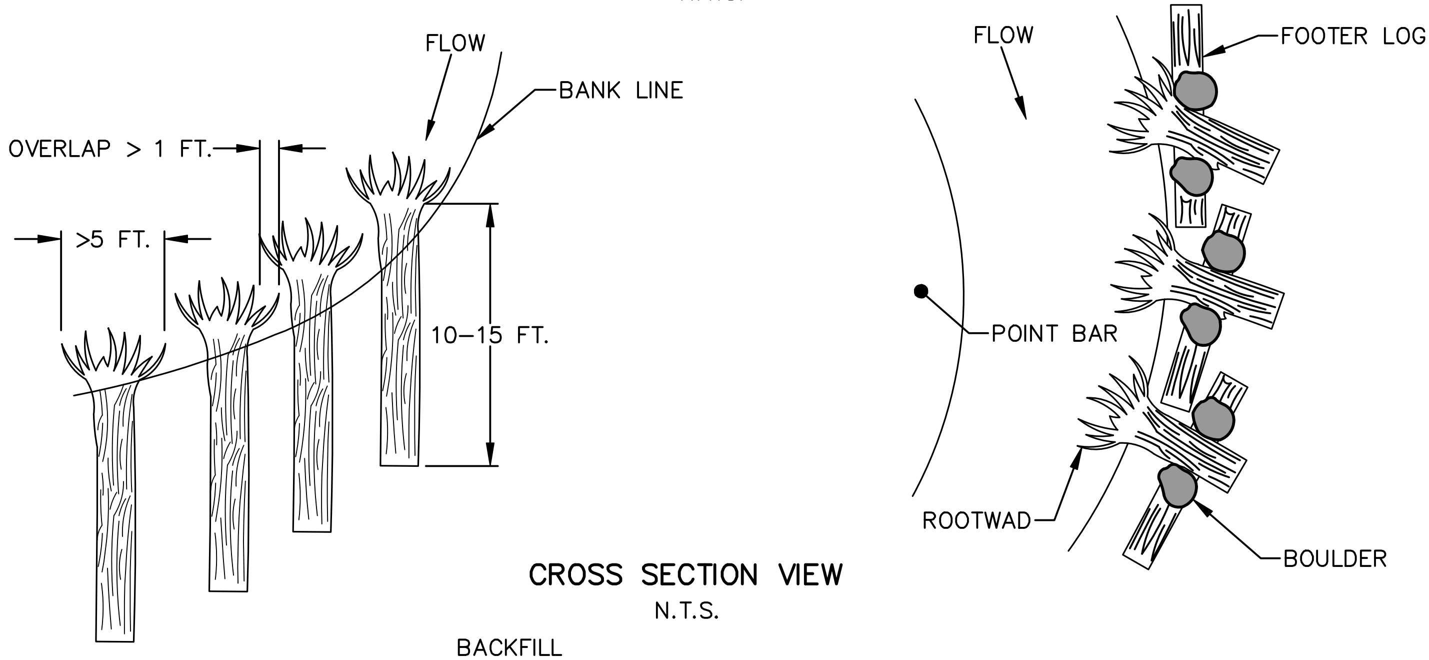
ACTIVITY DETAIL 4B – ROOT WADS

PLAN VIEW

N.T.S.



CROSS SECTION VIEW

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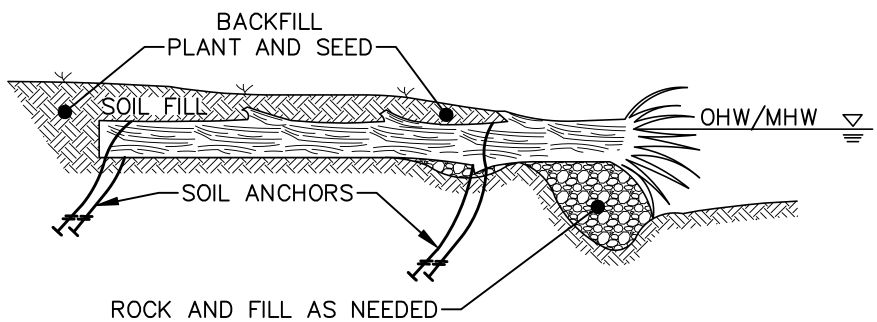

CONDITIONS OF AUTHORIZATION

- ROOT WADS CONSIST OF THE ROOT BALL OF A TREE PLUS A PORTION OF THE TREE TRUNK. ROOT WADS ARE USED TO DEFLECT STREAM FLOWS AWAY FROM THE OUTER BEND OF STREAM BANKS AND TO PROVIDE ARMORING TO THE STREAM BANK.
- THE TRUNK OF THE ROOT WAD SHOULD HAVE A BASAL DIAMETER OF 10 INCHES OR LARGER, DEPENDING ON STREAM VELOCITIES.
- ROOT WADS SHALL BE INSTALLED EITHER BY EXCAVATING A TRENCH TO LAY THE TRUNK IN OR BY DRIVING THE ROOT WAD DIRECTLY INTO THE STREAM BANK. IF A TRENCH IS USED, IT SHALL BE BACKFILLED AND PLANTED ONCE THE ROOT WAD IS INSTALLED.
- ROOT WADS SHALL BE INSTALLED POINTING UPSTREAM SO THAT THE STREAM FLOW MEETS THE ROOT BALL AT A 90–DEGREE ANGLE AND SHALL BE PLACED AT THE TOE OF THE BANK WITH APPROXIMATELY 1/3 OF THE ROOT WAD BELOW BASEFLOW ELEVATION.
- FOOTER LOGS SHALL BE INSTALLED WHEN SCOUR DEPTHS ARE HIGH.
- WORK AREAS SHALL BE ISOLATED FROM STREAM FLOW TO REDUCE DOWNSTREAM IMPACTS FROM TURBIDITY AND SEDIMENTATION.
- UNLESS A WAIVER IS OBTAINED FROM THE AGENCIES, IN–STREAM WORK IS PROHIBITED IN COLD WATER TROUT FISHERIES (WATERS CLASSIFIED UNDER ARTICLE 15 OF NEW YORK'S ENVIRONMENTAL CONSERVATION LAW WITH A "T" OR "TS" DESIGNATION), BEGINNING OCTOBER 1 AND ENDING MAY 31.

CATEGORY C ACTIVITIES

- BANK STABILIZATION OVER 500 LINEAR FEET.
- ANY ACTIVITIES THAT WOULD RESULT IN FILL MATERIAL BEING PLACED IN EXCESS OF AN AVERAGE OF 1 CUBIC YARD PER RUNNING LINEAR FOOT AT OR BELOW THE PLANE OF THE OHW/MHW MARK.
- GREATER THAN 0.1 ACRE OF LOSS OF REGULATED WATERS.

DATE: SEPTEMBER, 2023

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ACTIVITY DETAIL 4C – BIOENGINEERING STABILIZATION

CROSS SECTION VIEW

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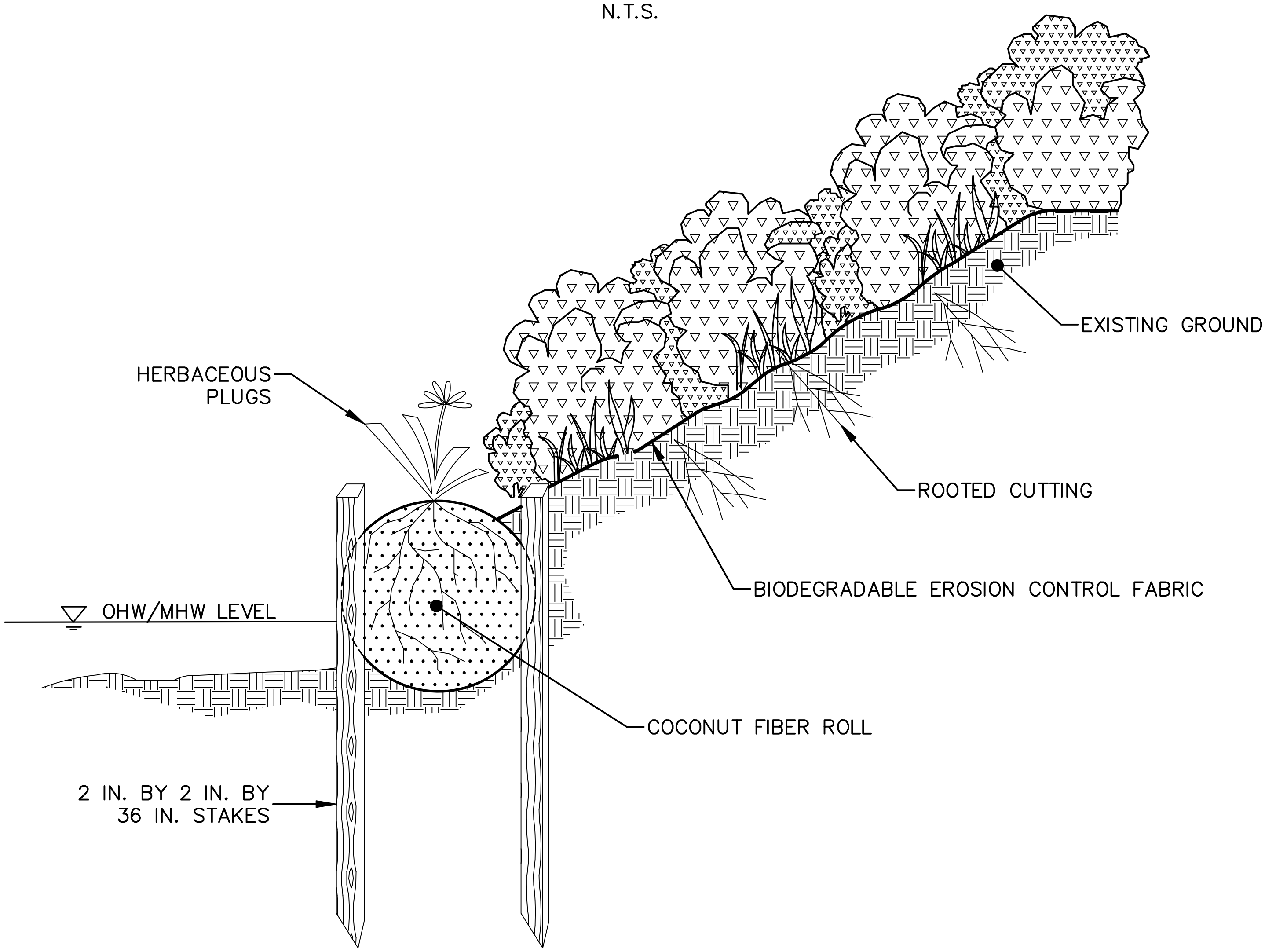

CONDITIONS OF AUTHORIZATION

- SOFT ARMORING USING LIVE PLANTS AND SOIL BIOENGINEERING STABILIZATION MEASURES SUCH AS LIVE STAKES AND LIVE CUTTINGS, SHALL BE UTILIZED WHENEVER FEASIBLE TO STABILIZE BANKS.
- BANKS SHALL BE GRADED TO THE GENTLEST SLOPE SUSTAINABLE FOR THE SELECTED TREATMENT (I.E., 2H:1V).
- WHEN POSSIBLE, VEGETATION SHALL BE PLANTED IN THE VOIDS OF THE ROCKS. ALL VEGETATION USED TO PLANT THE VOIDS SHALL BE NATIVE AND NON–INVASIVE.
- BIOENGINEERING MEASURES SHALL BE PROPERLY KEYED INTO BANKS TO PREVENT DISLODGING DURING HIGH FLOW EVENTS.
- WORK AREAS SHALL BE ISOLATED FROM STREAM FLOW TO REDUCE DOWNSTREAM IMPACTS FROM TURBIDITY AND SEDIMENTATION.
- UNLESS A WAIVER IS OBTAINED FROM THE AGENCIES, IN–STREAM WORK IS PROHIBITED IN COLD WATER TROUT FISHERIES (WATERS CLASSIFIED UNDER ARTICLE 15 OF NEW YORK'S ENVIRONMENTAL CONSERVATION LAW WITH A "T" OR "TS" DESIGNATION), BEGINNING OCTOBER 1 AND ENDING MAY 31.
- USE BIODEGRADABLE EROSION CONTROL FABRIC. PHOTODEGRADABLE PLASTIC NETTING IS NOT PERMITTED.

CATEGORY C ACTIVITIES

- BANK STABILIZATION OVER 500 LINEAR FEET.
- ANY ACTIVITIES THAT WOULD RESULT IN FILL MATERIAL BEING PLACED IN EXCESS OF AN AVERAGE OF 1 CUBIC YARD PER RUNNING LINEAR FOOT AT OR BELOW THE PLANE OF THE OHW/MHW MARK.
- GREATER THAN 0.1 ACRE OF LOSS OF REGULATED WATERS.

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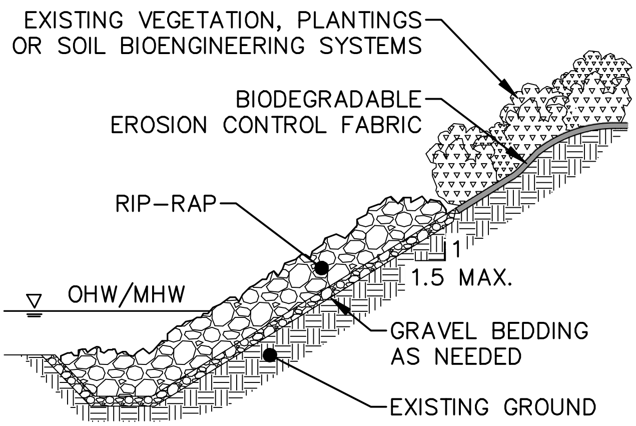
NEW YORK STATE | Department of Environmental Conservation

STATE PROGRAMMATIC GENERAL PERMIT (SPGP)-1
FOR EMERGENCY RESPONSE AND STORM RECOVERY ACTIVITIES IN REGULATED WATERS IN NEW YORK STATE
EXCLUDING NYSDEC REGIONS 1, 2 AND PORTIONS OF REGION 3

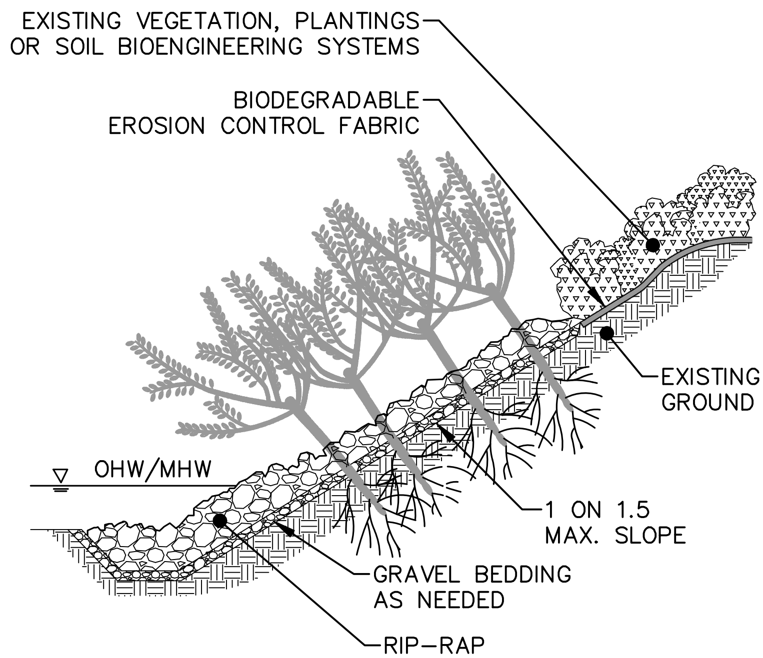
US Army Corps of Engineers

ACTIVITY DETAIL 4D – RIP-RAP SLOPE PROTECTION

ALTERNATIVE A
RIP-RAP CROSS SECTION VIEW
N.T.S.



ALTERNATIVE B
PLANTED RIP-RAP CROSS SECTION VIEW
N.T.S.



CONDITIONS OF AUTHORIZATION

- ROCK RIP-RAP SHALL ONLY BE USED WHEN THE VELOCITY OF STREAM FLOW OR INTENSITY OF WAVE ACTION PRECLUDES THE USE OF VEGETATIVE STABILIZATION MEASURES.
- ROCK SHALL BE LIMITED TO THE MINIMUM NECESSARY TO STABILIZE BANKS/SHORELINES.
- BANK ROCK SHALL BE PROPERLY SIZED TO PREVENT MOVEMENT OR MIGRATION OF ROCK DURING HIGH WATER EVENTS.
- TOE ROCK SHALL BE PROPERLY SIZED AND ANCHORED TO PREVENT SCOUR AND UNDERMINING AND PLACED IN A MANNER THAT MINIMIZES THE HORIZONTAL WATERWARD EXTENSION OF THE ROCK.
- WHEN POSSIBLE, VEGETATION SHALL BE PLANTED IN THE VOIDS OF THE ROCKS. ALL VEGETATION USED TO PLANT THE VOIDS SHALL BE NATIVE AND NON-INVASIVE.
- WORK AREAS SHALL BE ISOLATED FROM STREAM FLOW TO REDUCE DOWNSTREAM IMPACTS FROM TURBIDITY AND SEDIMENTATION.
- STACKED STONE WALLS ARE NOT COVERED UNDER THIS ACTIVITY.
- UNLESS A WAIVER IS OBTAINED FROM THE AGENCIES, IN-STREAM WORK IS PROHIBITED IN COLD WATER TROUT FISHERIES (WATERS CLASSIFIED UNDER ARTICLE 15 OF NEW YORK'S ENVIRONMENTAL CONSERVATION LAW WITH A "T" OR "TS" DESIGNATION), BEGINNING OCTOBER 1 AND ENDING MAY 31.
- USE BIODEGRADABLE EROSION CONTROL FABRIC. PHOTODEGRADABLE PLASTIC NETTING IS NOT PERMITTED.

CATEGORY C ACTIVITIES

- BANK/SHORELINE STABILIZATION OVER 500 LINEAR FEET.
- ANY ACTIVITIES THAT WOULD RESULT IN FILL MATERIAL BEING PLACED IN EXCESS OF AN AVERAGE OF 1 CUBIC YARD PER RUNNING LINEAR FOOT AT OR BELOW THE PLANE OF THE OHW/MHW MARK.
- GREATER THAN 0.1 ACRE OF LOSS OF REGULATED WATERS

DATE: SEPTEMBER, 2023

NOTE: THIS IS A TYPICAL DETAIL FOR REFERENCE PURPOSES ONLY. IT IS THE PERMITTEE'S RESPONSIBILITY TO ENSURE THE STRUCTURE IS APPROPRIATELY DESIGNED AND CONSTRUCTED.

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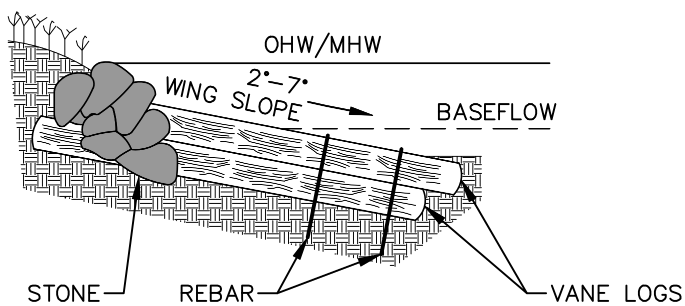
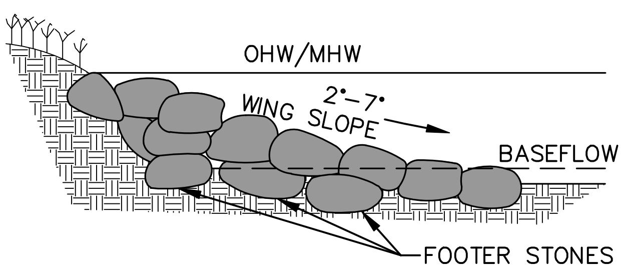
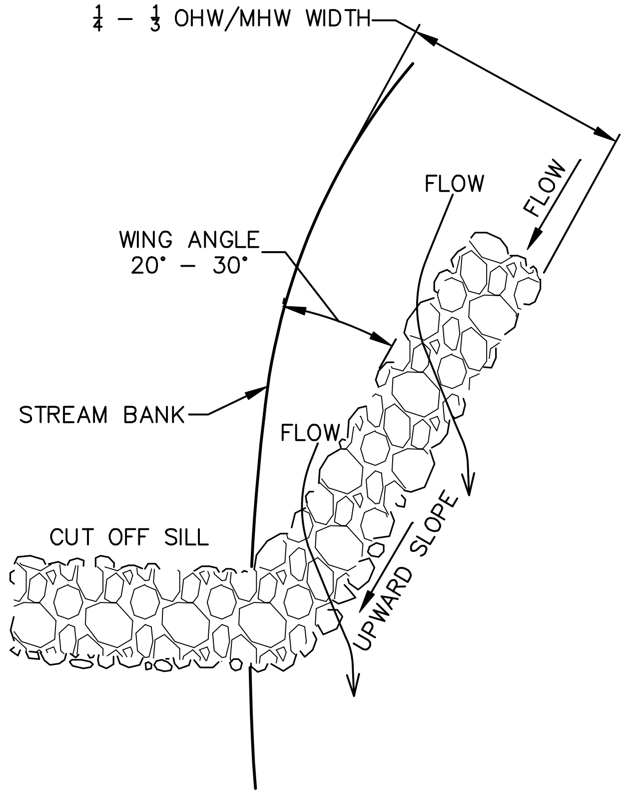
ACTIVITY DETAIL 5 – VANES



CROSS SECTION VIEW OF LOG VANE
N.T.S.



CROSS SECTION VIEW OF ROCK VANE
N.T.S.



PLAN VIEW OF ROCK VANE
N.T.S.

CONDITIONS OF AUTHORIZATION

- VANES ARE STRUCTURES PLACED WITHIN A STREAM CHANNEL TO REDIRECT FLOW TOWARDS THE CENTER OF THE STREAM TO TAKE PRESSURE OFF THE STREAM BANKS.
- VANES ARE LINEAR STRUCTURES CONSTRUCTED OF LOGS OR ROCK. VANES GENERALLY EXTEND OUT FROM THE STREAM BANK 1/3 OF THE BANKFULL WIDTH AND ARE ANGLED UPSTREAM AT A 20 TO 30–DEGREE ANGLE.
- VANES SHALL BE PROPERLY KEYED INTO STREAM BANKS AND FOOTER STONES SHALL BE USED AS NECESSARY TO PLACE VANES AT THE PROPER ELEVATION.
- IF ROCKS ARE USED TO CONSTRUCT THE VANE, THE ROCKS SHALL BE ADEQUATELY SIZED FOR THE VELOCITY OF THE STREAM TO PREVENT MOBILIZATION DURING HIGH FLOW EVENTS.
- WORK AREAS SHALL BE ISOLATED FROM STREAM FLOW TO REDUCE DOWNSTREAM IMPACTS FROM TURBIDITY AND SEDIMENTATION.
- UNLESS A WAIVER IS OBTAINED FROM THE AGENCIES, IN–STREAM WORK IS PROHIBITED IN COLD WATER TROUT FISHERIES (WATERS CLASSIFIED UNDER ARTICLE 15 OF NEW YORK'S ENVIRONMENTAL CONSERVATION LAW WITH A "T" OR "TS" DESIGNATION), BEGINNING OCTOBER 1 AND ENDING MAY 31.

CATEGORY C ACTIVITIES

- GREATER THAN 0.1 ACRE OF LOSS OF REGULATED WATERS.
- INSTALLATION OF IN–STREAM GRADE OR DIRECTIONAL CONTROL STRUCTURES THAT SPAN THE ENTIRE CHANNEL.

DATE: SEPTEMBER, 2023	NOTE: THIS IS A TYPICAL DETAIL FOR REFERENCE PURPOSES ONLY. IT IS THE PERMITTEE'S RESPONSIBILITY TO ENSURE THE STRUCTURE IS APPROPRIATELY DESIGNED AND CONSTRUCTED.