

# STATE OF NEW HAMPSHIRE

DEPARTMENT OF ADMINISTRATIVE SERVICES  
 DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION

## NORTHWOOD MEADOWS STATE PARK MEADOW LAKE DAM #D183016

755 FIRST NH TURNPIKE  
 NORTHWOOD, NEW HAMPSHIRE 03261

SDPW PROJECT 81270  
 FEASIBILITY STUDY



7 Hazen Drive PO Box 483 Room 250  
 Concord, New Hampshire 03301  
 p 603-271-3516 f 603-271-3515

COMMISSIONER-DEPARTMENT OF ADMINISTRATIVE SERVICES

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

ADMINISTRATOR-DIVISION OF PUBLIC WORKS

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

COMMISSIONER-DEPARTMENT OF USING AGENCY

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

LOCUS MAP



REVISIONS

DATE \_\_\_\_\_

DESCRIPTION \_\_\_\_\_

DATE \_\_\_\_\_

DESCRIPTION \_\_\_\_\_

DATE \_\_\_\_\_

DESCRIPTION \_\_\_\_\_

PROJECT NAME  
 NORTHWOOD MEADOWS STATE PARK  
 MEADOW LAKE DAM #D183016

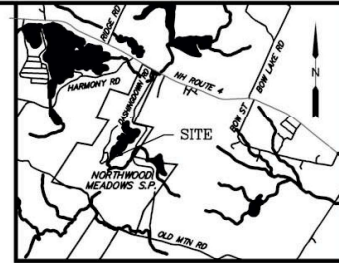
PROJECT NUMBER  
 81270

ISSUE DATE  
 03/08/2023

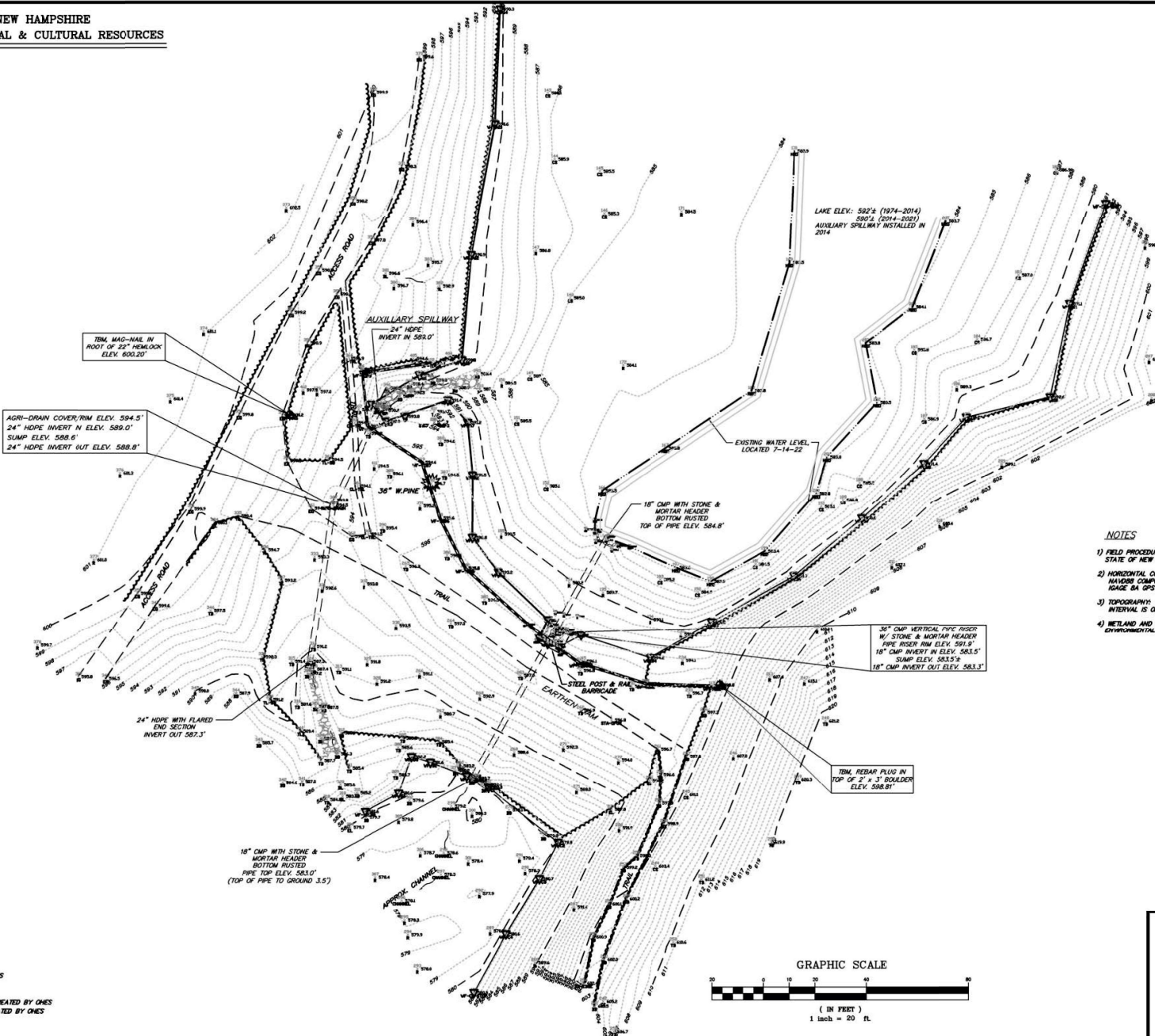
SHEET NUMBER  
**T-1**

CIVIL	STRUCTURAL	MECHANICAL	ELECTRICAL	ARCHITECT
H.L. TURNER GROUP  27 LOCKE ROAD CONCORD, NH 03301 (603) 228-1122				





LOCATION MAP



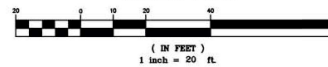
**NOTES**

- 1) FIELD PROCEDURE: TOPCON GM-50 TOTAL STATION INSTRUMENT CONDUCTED JULY 14-15, 2022 BY STATE OF NEW HAMPSHIRE, ONOR SURVEY SECTION.
- 2) HORIZONTAL COORDINATES ARE TIED TO NEW HAMPSHIRE STATE PLANE HAZED AND ELEVATIONS ARE HAZED COMPUTED USING GEOD 1983. COORDINATES WERE DERIVED FROM STATIC OBSERVATIONS USING RANGE SA GPS RECEIVERS AND PROCESSED VIA OPUS.
- 3) TOPOGRAPHY: CONTOURS SHOWN WERE DERIVED FROM AN EXISTING FIELD SURVEY. THE CONTOUR INTERVAL IS ONE FOOT.
- 4) WETLAND AND TOB (TOP OF BANK) DELINEATIONS WERE FLAGGED BY DAN GERGER OF OAK HILL ENVIRONMENTAL SERVICES OF LONDON, NH JULY 08, 2022.

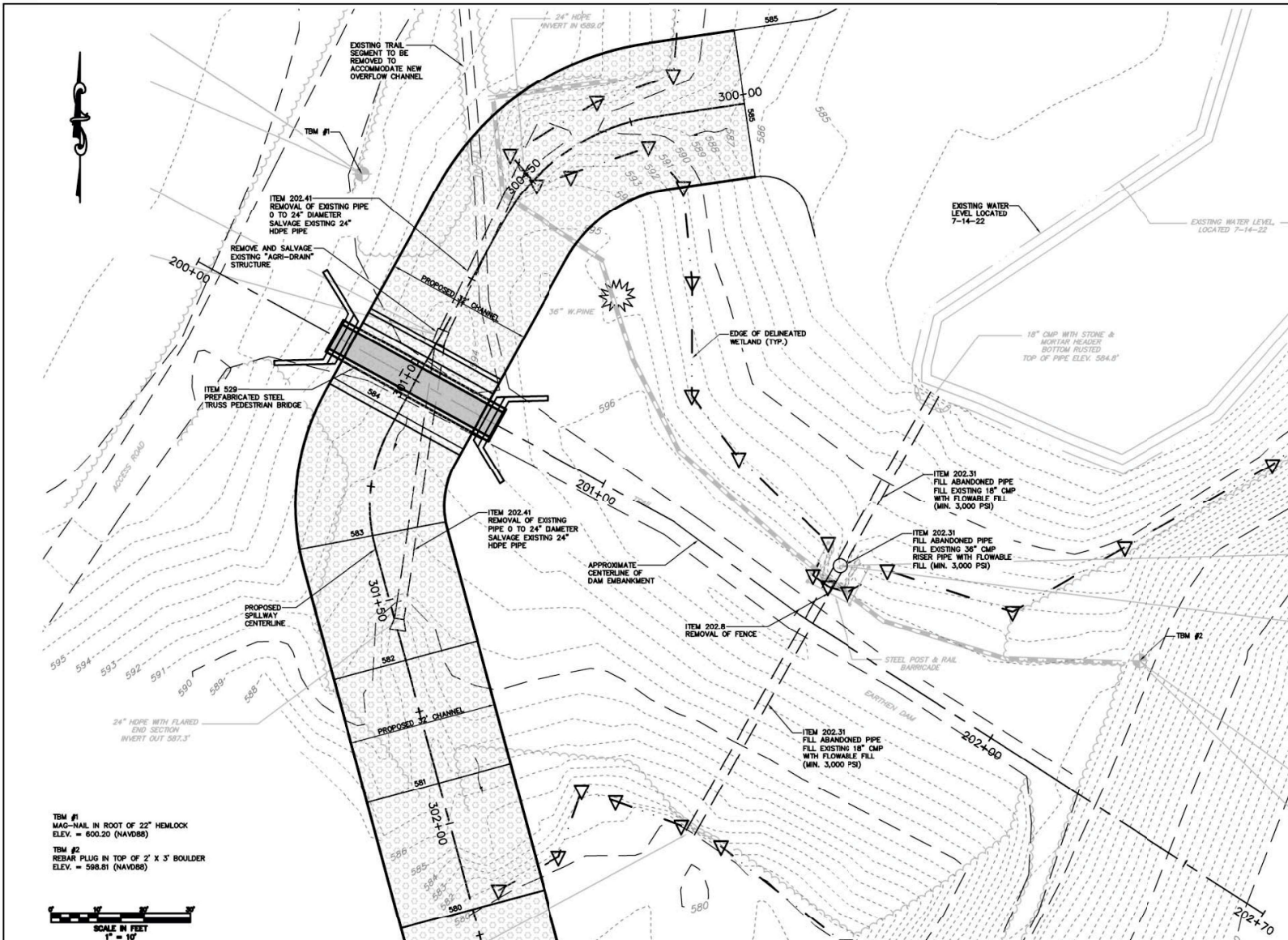
**LEGEND**

- EDGE OF TREELINE, MIXED WOODS
- BENCHMARK
- STONE & MORTAR HEADWALL
- WETLAND FLAGS (OH) AS DELINEATED BY OHES
- TOP OF BANK (TOB) AS DELINEATED BY OHES
- DRAINAGE FLOW
- STONE LINED SWALE

**GRAPHIC SCALE**



NHDES DAM #183.16  
EXISTING CONDITIONS PLAN  
OF  
MEADOW LAKE DAM  
Dashingdown Road Western Extension  
Northwood, Rockingham County, New Hampshire  
Date: August 9, 2022 Scale: 1" = 20'



- SITE NOTES.**
1. SEE ALL PROJECT SHEETS, NOTES, DETAILS, SPECIFICATIONS, ETC., FOR ALL PROJECT INFORMATION NOT SHOWN ON THIS SHEET.
  2. COORDINATE ALL WORK WITH ENGINEER AND OWNER PRIOR TO CONSTRUCTION.
- SITE PREPARATION NOTES:**
1. REFER TO TEMPORARY EROSION AND SEDIMENT CONTROL NOTES AND DETAILS (TEC NOTES) FOR ADDITIONAL INFORMATION.
  2. BEFORE COMMENCING ANY DISTURBANCE, CONTRACTOR SHALL IDENTIFY WORK AREA LIMITS WITH ORANGE CONSTRUCTION FENCE, FLAGGING, OR TEMPORARY SECURITY FENCING AND CORRECTLY INSTALL PERIMETER CONTROLS, CONSTRUCT TEMPORARY SEDIMENTATION TRAP AND CONSTRUCTION ENTRANCE TO PREVENT SEDIMENTATION OF AREAS OUTSIDE OF THE CONSTRUCTION LIMITS (SITE DISTURBANCES SHALL BE LIMITED TO THE AREAS SHOWN ON THESE PLANS).
  3. CONTRACTOR SHALL PROTECT AND MAINTAIN ALL PROPERTY BOUNDS. ANY BOUNDS DISTURBED BY THE CONTRACTOR'S ACTIONS SHALL BE RE-ESTABLISHED BY A NH LICENSED LAND SURVEYOR AT NO EXPENSE TO THE DEPARTMENT OF NATURAL AND CULTURAL RESOURCES.
  4. CONTRACTOR SHALL COORDINATE LOCATION OF STAGING/STOCKPILE AREA IN FIELD WITH THE TOWN OF NORTHWOOD, SOIL DISTURBANCES SHALL BE SURROUNDED BY SILT FENCE OR STRAW WATTLES TO CONTAIN SEDIMENT AND SHALL BE COVERED OR TEMPORARILY SEEDED TO PREVENT EROSION.
  5. ANY ITEMS TO BE REMOVED SHALL BE DISPOSED OF OFFSITE (UNLESS NOTED OTHERWISE).
  6. CONTRACTOR SHALL REPAIR ANY ITEMS DAMAGED BY HIS NEGLIGENCE AT NO COST TO THE DEPARTMENT OF NATURAL AND CULTURAL RESOURCES.
  7. CONTRACTOR SHALL NOT CAUSE OR CONTRIBUTE TO, OR ALLOW THE ACTIVITY TO CAUSE OR CONTRIBUTE TO, ANY VIOLATIONS OF THE SURFACE WATER QUALITY STANDARDS ESTABLISHED IN ENV-NO. 1700.
  8. CONTRACTOR SHALL INSTALL FILTER LOGS, STUMP GRINDING BERMS, STONE CHECK DAMS, DIVERSION SWALES OR OTHER APPROVED MEASURES AT THE TOP OF SLOPES TO PREVENT CONCENTRATED FLOW FROM IMPACTING THE SLOPES AND CAUSING SEDIMENTATION IN AREAS OUTSIDE OF THE CONSTRUCTION LIMITS.
  9. CONTRACTOR SHALL PROTECT AND MAINTAIN ALL VEGETATION AND SITE FEATURES (SIGNAGE, FENCES, WALLS, EQUIPMENT...) UNLESS NOTED OTHERWISE. IF THERE IS ANY VEGETATION REMOVAL SHALL REMAIN, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR CLARIFICATION.
  10. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION. ALL DEBRIS SHALL BE LAWFULLY DISPOSED OF OFFSITE.
  11. IF INVASIVE SPECIES ARE IDENTIFIED WITHIN THE PROJECT LIMITS, CONTRACTOR IS RESPONSIBLE FOR REMOVING AND DISPOSING OF THEM IN ACCORDANCE WITH AGR-3800 AND RSA 430:53.
- LEGEND**
- CLASS XX RIPRAP
  - PROPOSED CHANNEL
  - HPIRM SLOPE STABILIZATION
  - CONCRETE SLAB ON GRADE
  - EDGE OF TREELINE, MIXED WOODS
  - BENCHMARK
  - STONE & MORTAR HEADWALL
  - WETLAND FLAGS (OHM) AS DELINEATED BY OHES
  - TOP OF BANK (TOB) AS DELINEATED BY OHES
  - DRAINAGE FLOW
- GENERAL SITE PLAN**  
SCALE: 1"=10'

TBM #1  
MAG-NAIL IN ROOT OF 22" HEMLOCK  
ELEV. = 600.20 (NAVDB8)

TBM #2  
REBAR PLUG IN TOP OF 2' X 3' BOULDER  
ELEV. = 598.81 (NAVDB8)



P:\5297\H209\Meadow Lake Dam\Drawings\CL\_Civil\DWG\5297\_Site\_Plan.dwg

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REVISIONS:	
NO.	DESCRIPTION

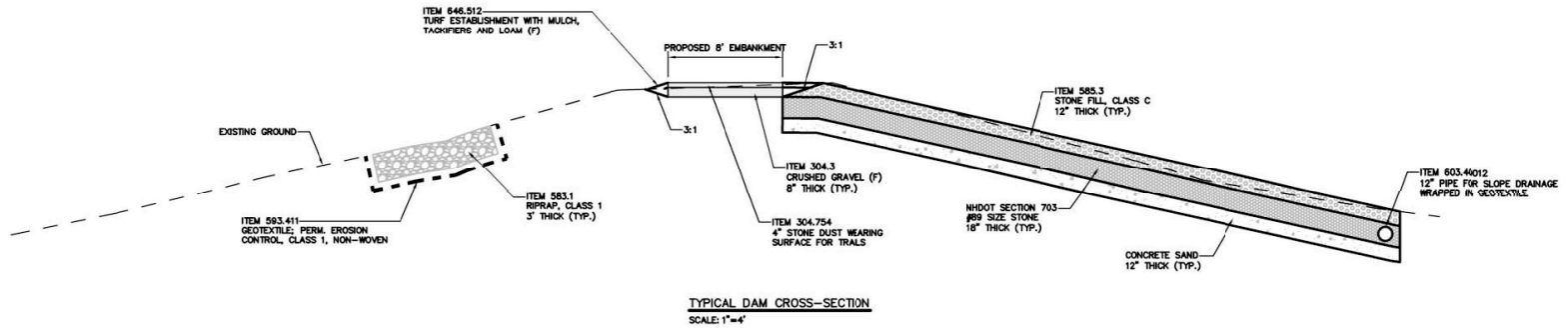
**NORTHWOOD MEADOWS STATE PARK -**  
**MEADOW LAKE DAM #183016**  
755 FIRST NH TURNPIKE  
NORTHWOOD, NH

SITE PLAN

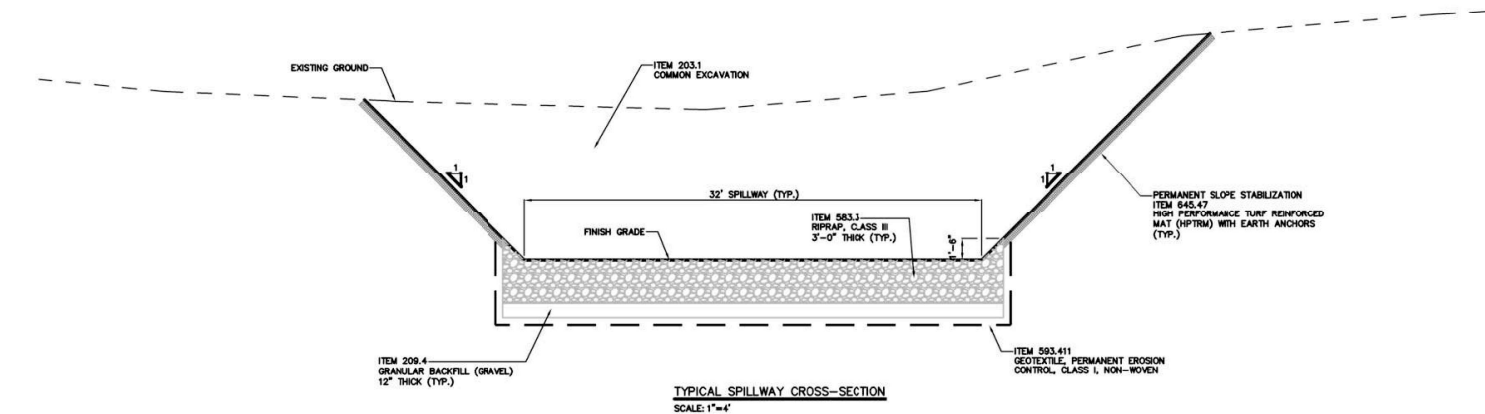
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BY: AS NOTED

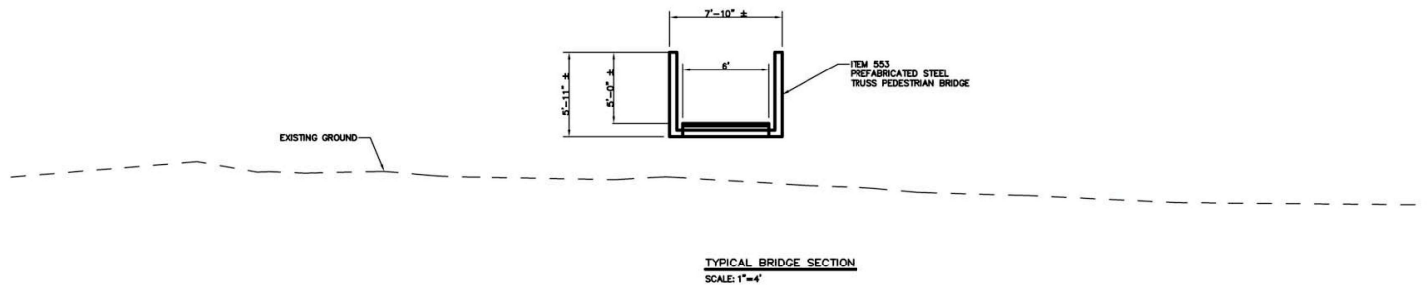
C-1



TYPICAL DAM CROSS-SECTION  
SCALE: 1"=4'



TYPICAL SPILLWAY CROSS-SECTION  
SCALE: 1"=4'



TYPICAL BRIDGE SECTION  
SCALE: 1"=4'

P:\5237 NHSPW Meadows Lake Dam Drawings\01\_Civil\DWG\5237 Typical Sections.dwg

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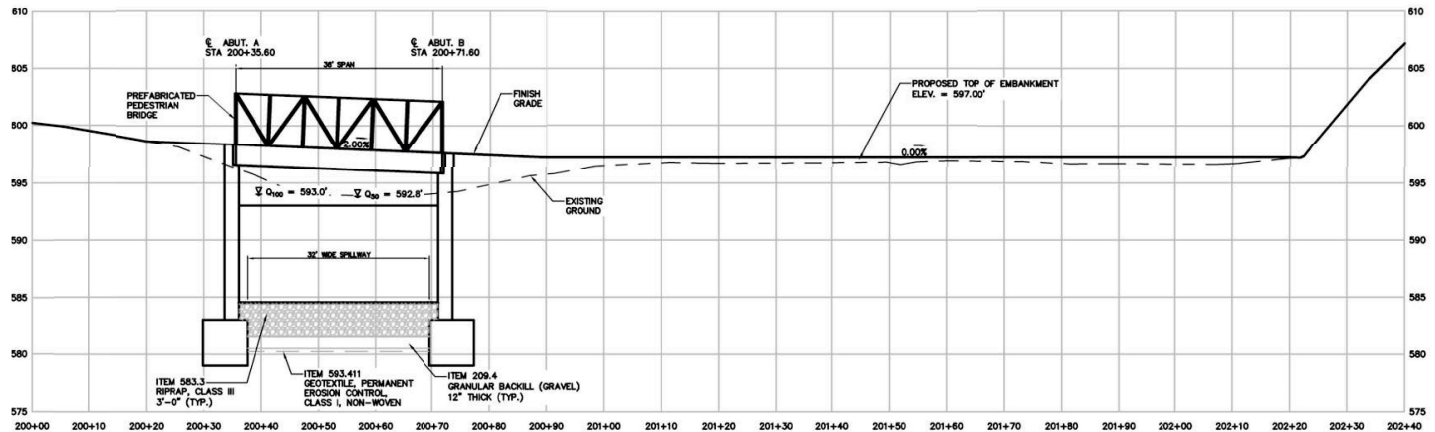
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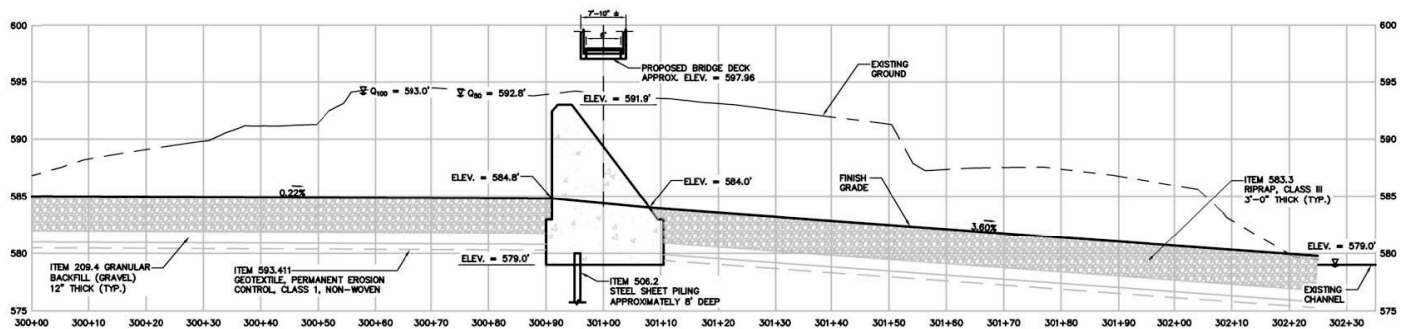
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NORTHWOOD MEADOWS STATE PARK -  
MEADOW LAKE DAM #D183016  
755 FIRST NH TURNPIKE  
NORTHWOOD, NH  
TYPICAL SECTIONS  
DATE: 03.08.2023  
BY: SJC  
AS NOTED  
C-2



**DAM CENTERLINE PROFILE**  
SCALE: 1"=10'H / 5"V



**SPILLWAY PROFILE**  
SCALE: 1"=10'H / 5"V

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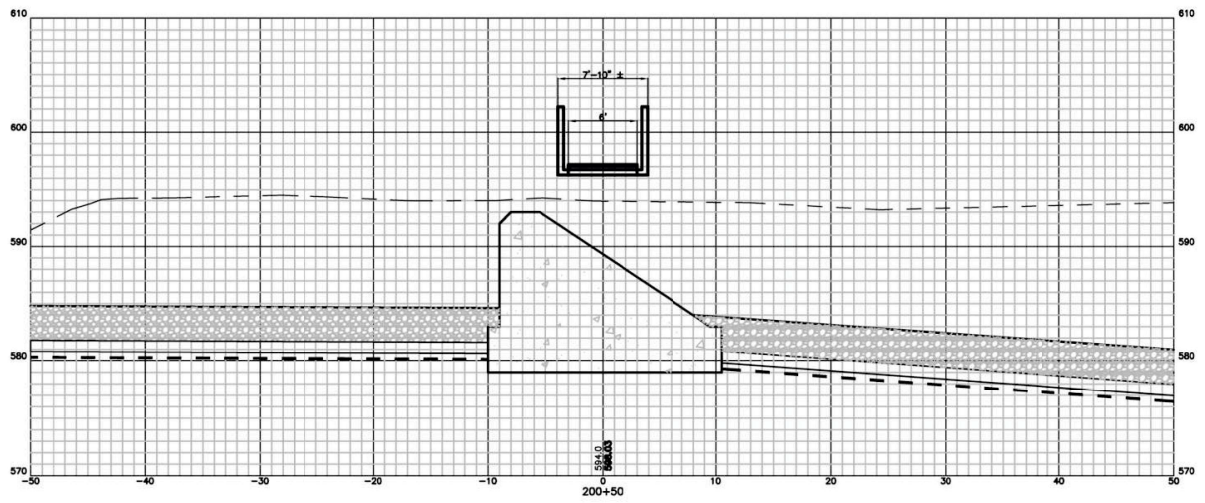
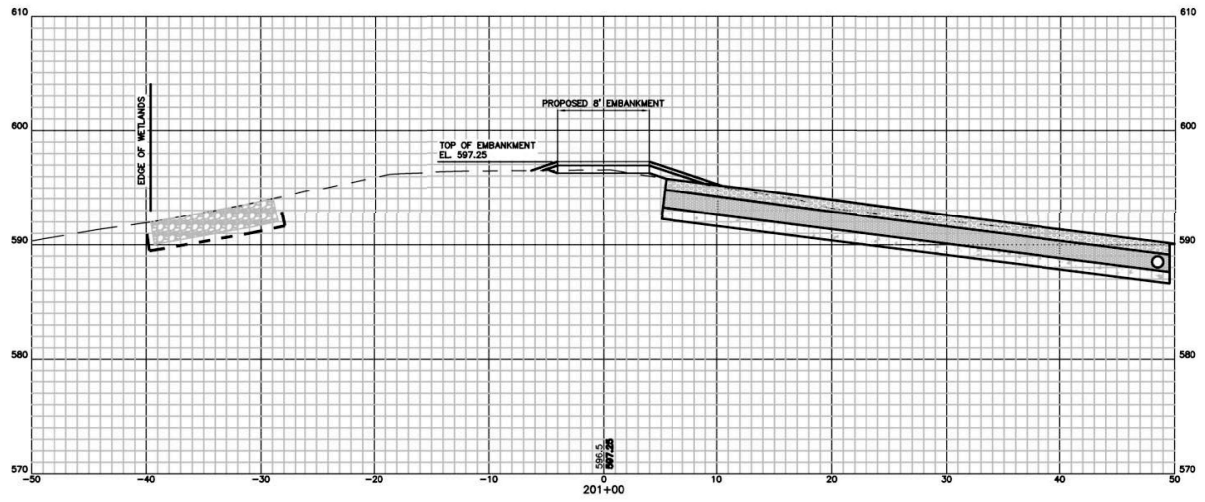
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DATE	REVISION

**NORTHWOOD MEADOWS STATE PARK -**  
**MEADOW LAKE DAM #D183016**  
755 FIRST NH TURNPIKE  
NORTHWOOD, NH  
DAM & SPILLWAY PROFILES  
DATE: 03.08.2023  
BY: SJC  
AS NOTED  
C-5

P:\5237\MEOW\MEOW - Dam\Drawings\1\_Civil\DWG\5237 Dam Cross-Sections.dwg



**DAM EMBANKMENT SECTIONS**  
SCALE: 1"=5'

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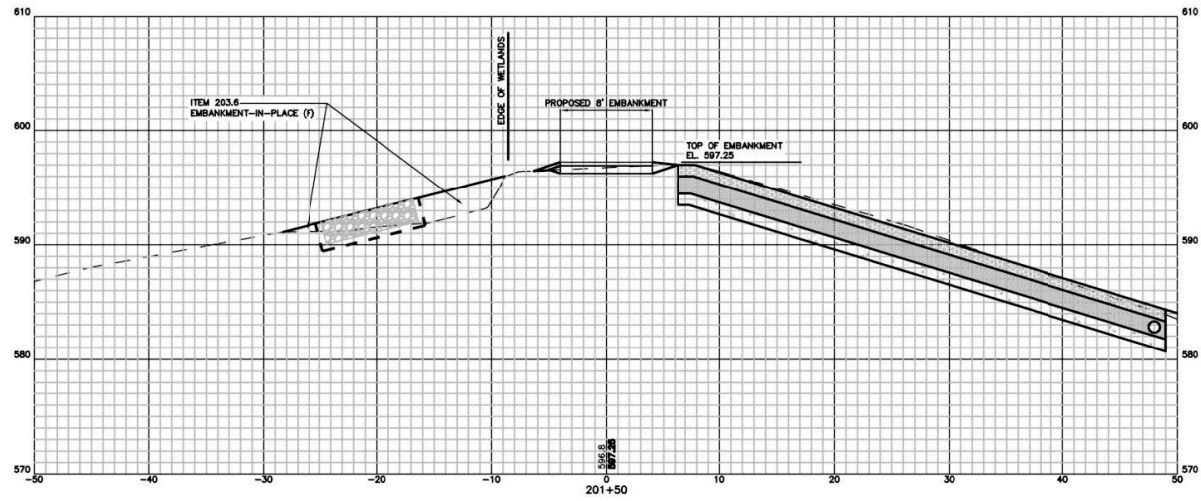
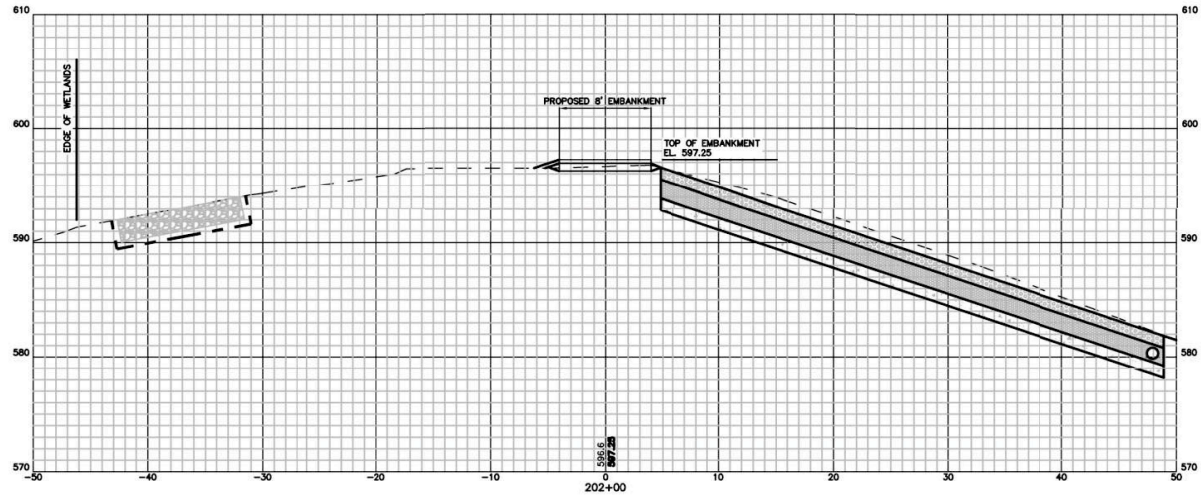
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REVISIONS:	
DATE	REVISION

**NORTHWOOD MEADOWS STATE PARK -**  
**MEADOW LAKE DAM #D183016**  
755 FIRST NH TURNPIKE  
NORTHWOOD, NH  
DAM EMBANKMENT SECTIONS  
DATE: 03.08.2023  
BY: SJC  
CHECKED BY: AS NOTED  
SCALE: 1"=5'

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**DAM EMBANKMENT SECTIONS**  
SCALE: 1"=5'

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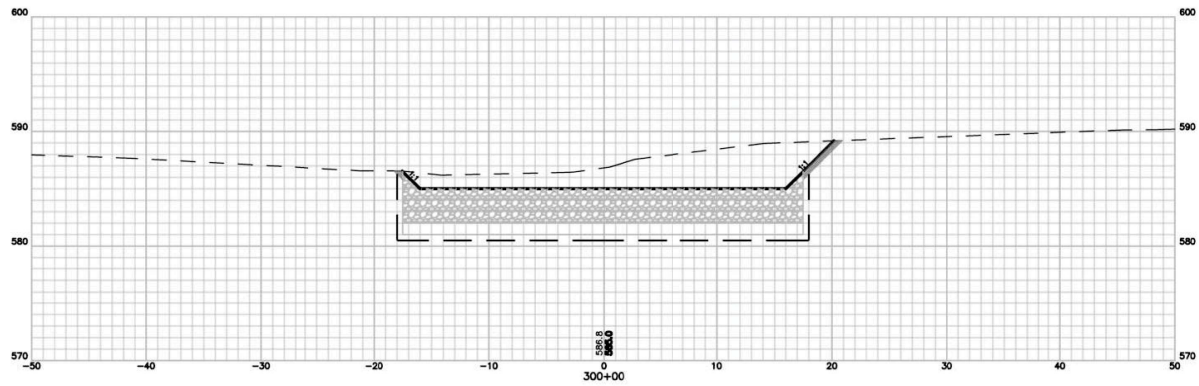
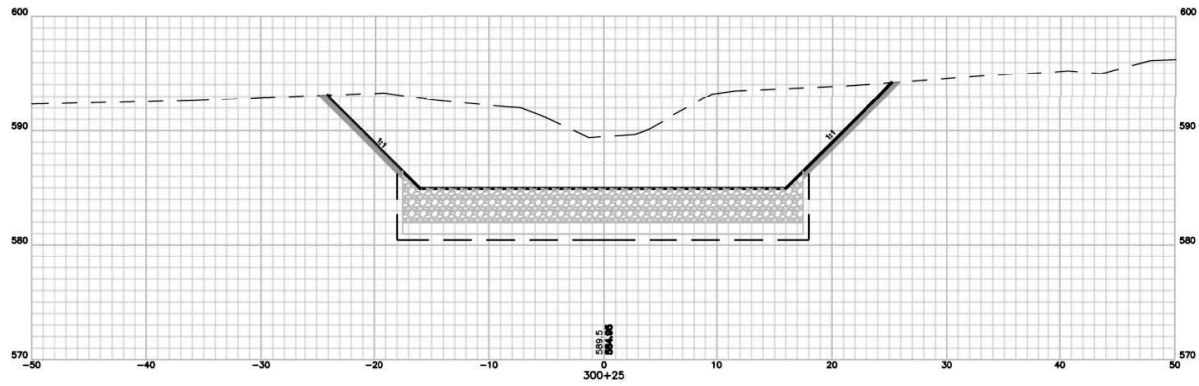
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**NORTHWOOD MEADOWS STATE PARK -**  
**MEADOW LAKE DAM #D183016**  
755 FIRST NH TURNPIKE  
NORTHWOOD, NH  
DAM EMBANKMENT SECTIONS  
DATE: 03.08.2023  
BY: SJC  
CHECKED BY: AS NOTED  
PROJECT NO.: 181270  
SHEET NO.: C-5



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**SPILLWAY SECTIONS**  
SCALE: 1"=5'

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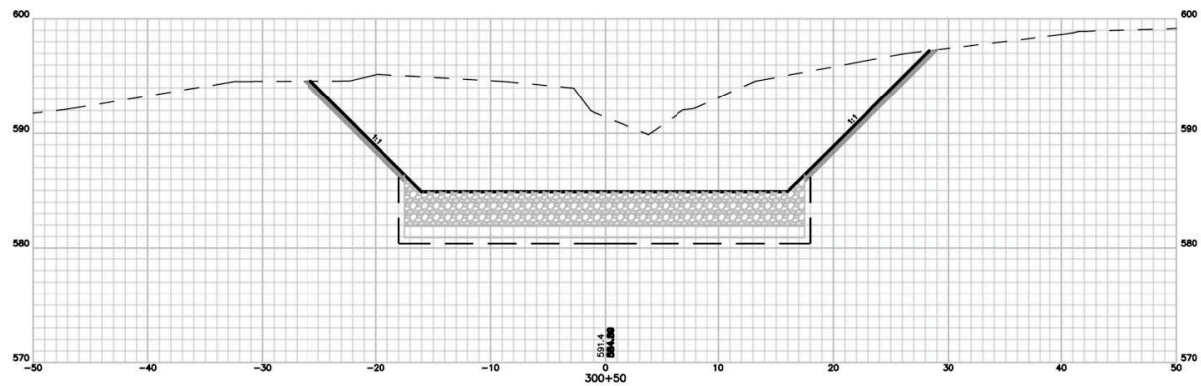
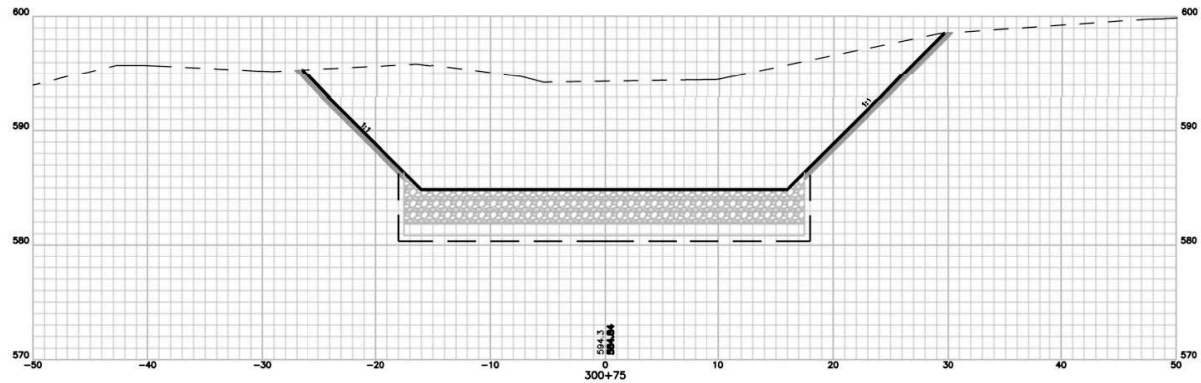
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REVISIONS:	
DATE	REVISION

**NORTHWOOD MEADOWS STATE PARK -**  
**MEADOW LAKE DAM #D183016**  
755 FIRST NH TURNPIKE  
NORTHWOOD, NH  
SPILLWAY SECTIONS  
DATE: 03.08.2023  
BY: AS NOTED  
C-6

P:\5237\NHDPS\MEADOW Lake Dam Drawings\01\_Civil\DWG\5237 Spillway Cross-Sections.dwg



**SPILLWAY SECTIONS**  
SCALE: 1"=5'

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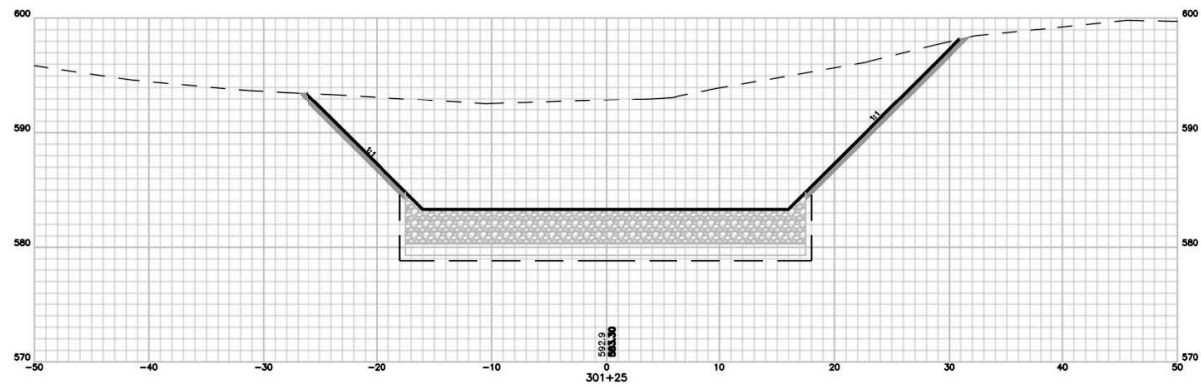
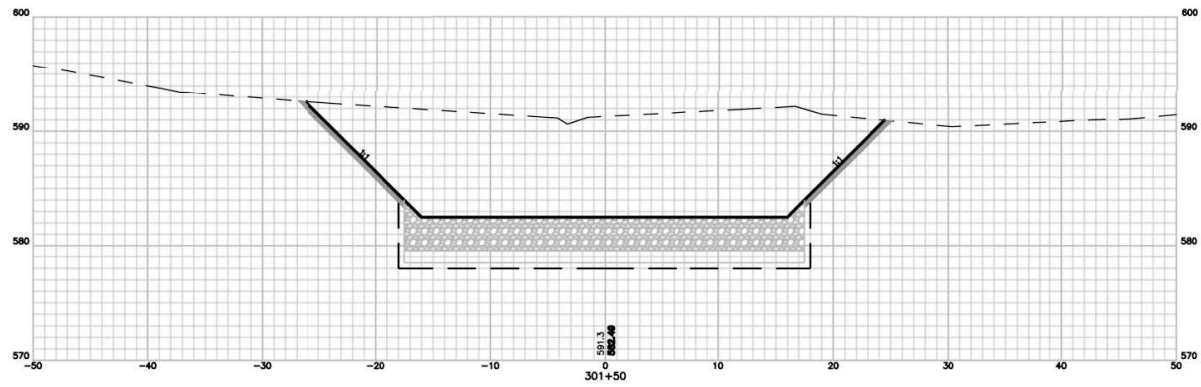
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**NORTHWOOD MEADOWS STATE PARK -**  
**MEADOW LAKE DAM #D183016**  
755 FIRST NH TURNPIKE  
NORTHWOOD, NH  
SPILLWAY SECTIONS  
DATE: 03.08.2023  
BY: SJC  
CHECKED BY: AS NOTED  
SCALE: 1"=5'

P:\5237 NHDP\ Meadows Lake Dam Drawings\01\_Civil\DWG\5237 Spillway Cross-Sections.dwg



**SPILLWAY SECTIONS**  
SCALE: 1"=5'

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PROJECT: MEADOW LAKE DAM  
DATE: 03.08.2023  
DRAWN BY: JLA/AG  
CHECKED BY: JLA  
APPROVED BY: JLA/AG

REVISIONS:

NO.	DATE	REVISION

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**MEADOW LAKE DAM #D183016**  
755 FIRST NH TURNPIKE  
NORTHWOOD, NH

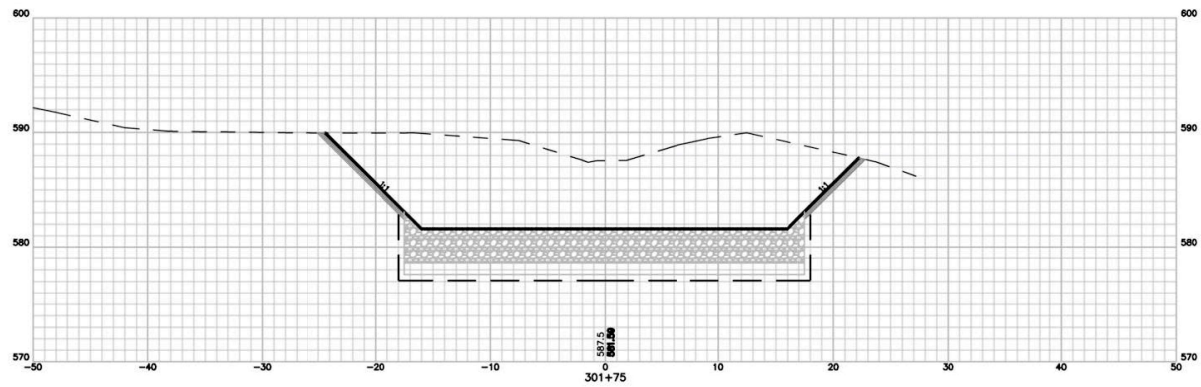
SPILLWAY SECTIONS

DATE: 03.08.2023  
DRAWN BY: JLA/AG  
CHECKED BY: JLA  
APPROVED BY: JLA/AG  
SCALE: 1"=5'

81270

C-8

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**SPILLWAY SECTIONS**  
SCALE: 1"=5'

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REVISIONS:	
DATE	DESCRIPTION

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**MEADOW LAKE DAM #D183016**  
755 FIRST NH TURNPIKE  
NORTHWOOD, NH  
SPILLWAY SECTIONS  
DATE: 03.08.2023  
DRAWN BY: SJC  
CHECKED BY: AS NOTED  
SCALE: 1"=5'

81270  
C-9



**SITE DESCRIPTION**

PROJECT NAME: MEADOW LAKE DAM NORTHWOOD, NH  
PROJECT DESCRIPTION: THE OWNER IS CONSTRUCTION IS EXPECTED TO OCCUR IN XXXX 20XX/20XX.

SOIL DISTURBING ACTIVITIES WILL INCLUDE: CONCRETE REMOVAL AND PLACEMENT OF STONES.

CONSTRUCTION ACTIVITIES WILL INCLUDE: CONCRETE REMOVAL, PLACEMENT OF STONES, INSTALLATION OF PERIMETER AND OTHER SEDIMENT CONTROLS, TRANSPORT AND REMOVAL OF EXCAVATION MATERIALS.

SITE AREA: THE PROPERTY ENCOMPASSES OVER 79 ACRES; CONSTRUCTION ACTIVITY WILL DISTURB LESS THAN 0.1 ACRE.

CRITICAL AREAS: THESE AREAS ARE SUBJECT TO POTENTIAL EROSION PROBLEMS:  
1. EXCAVATIONS  
2. SITE GRADING

NAME OF RECEIVING WATERS: PENNICHUCK BROOK WHICH FLOWS TO HARRIS POND AND SUPPLY POND.

**GENERAL CONSTRUCTION SEQUENCE NOTES**

NOTE: CONTRACTOR SHALL SUBMIT A DETAILED CONSTRUCTION SEQUENCE TO THE OWNER AND ENGINEER PRIOR TO MOBILIZATION.

- 1. INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS, AND PLACE CONSTRUCTION EQUIPMENT IN AREAS AWAY FROM JURISDICTIONAL WETLANDS. PRIOR TO DEMOLITION, CONTROLS SHALL BE INSPECTED AND MAINTAINED UNTIL PROJECT IS PERMANENTLY STABILIZED.
- 2. WORK SHALL OCCUR DURING SEASONAL DRY PERIODS IF POSSIBLE.
- 3. TRIM TREES AND SHRUBS TO EXTENTS INDICATED ON PLAN. REMOVE CONCRETE, PLACE STONES TO STABILIZE SLOPE.
- 4. REGRADE AREAS DISTURBED FROM CONSTRUCTION ACTIVITIES. PLACE 6" LOAM AND SEED ON DISTURBED AREAS AND STABILIZE WITH CLEAN STRAW MULCH.
- 5. PERFORM FINAL SITE CLEANUP AND DEMOBILIZE.
- 6. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY OTHER LOCAL, STATE OR FEDERAL PERMITS REQUIRED FOR CONSTRUCTION.

**GENERAL NOTES**

- 1. THE CONTRACTOR SHALL NOT CAUSE OR CONTRIBUTE TO, OR ALLOW THE ACTIVITY TO CAUSE OR CONTRIBUTE TO, ANY VIOLATIONS OF THE SURFACE WATER QUALITY STANDARDS ESTABLISHED IN ENY-WQ 1700.
- 2. ALL BEST MANAGEMENT PRACTICES CONTAINED HEREIN ARE TO BE REVIEWED AND MONITORED BY THE CONSTRUCTION SUPERINTENDENT AND SHALL BE IN ACCORDANCE WITH THE NHDES STORMWATER MANUAL, VOLUMES 1-3. THE PROJECT ADMINISTRATOR RETAINS THE RIGHT TO MODIFY, TERMINATE, OR REQUIRE ADDITIONAL PRACTICES AS REQUIRED BY THE SITE CONDITIONS.
- 3. EROSION CONTROL MEASURES ARE TO BE CORRECTLY INSTALLED BEFORE ANY DEMOLITION, CLEARING, EXCAVATION, CONSTRUCTION, DEMATERING, OR WATER DIVERSION ACTIVITIES ARE UNDERTAKEN. ALL DRAINAGE OUTLETS SHALL BE STABLE BEFORE INTRODUCING RUNOFF INTO THE STRUCTURES AND APPURTENANCES.
- 4. THESE EROSION AND SEDIMENT CONTROL PLANS AND DETAILS (TEC) ARE ONLY APPLICABLE FOR PERMITTING, THE ESTABLISHMENT AND MAINTENANCE OF EROSION CONTROL, SEDIMENT CONTROL, STORMWATER MANAGEMENT, AND DEMATERING ASSOCIATED WITH CONSTRUCTION ACTIVITIES OF THE PROJECT. THESE DRAWINGS ARE TO BE UTILIZED PRIOR TO AND DURING CONSTRUCTION OF THIS PROJECT.
- 5. CONTRACTOR SHALL COORDINATE LOCATION OF STAGING/STOCKPILE AREA(S), TEMPORARY SEDIMENTATION MEASURES, STABILIZED CONSTRUCTION EXIT(S), AND VEHICLE WASHOUT AREA(S) IN THE FIELD WITH THE OWNER. IN ALL INSTANCES THEY SHALL BE LOCATED SO AS NOT TO CONSTITUTE A VIOLATION OF ANY CONDITION OUTLINED HEREIN.

- 6. AUTHORIZED STORMWATER DISCHARGES:  
a. STORMWATER DISCHARGES, INCLUDING STORMWATER RUNOFF, SNOWMELT RUNOFF, AND SURFACE RUNOFF AND DRAINAGE, ASSOCIATED WITH CONSTRUCTION ACTIVITIES.  
b. STORMWATER DISCHARGES DESIGNATED BY EPA AS NEEDING A PERMIT UNDER 40 CFR 122.26(A)(1)(V) OR 122.26(B)(15)(II).  
c. STORMWATER DISCHARGES FROM CONSTRUCTION SUPPORT ACTIVITIES.  
d. STORMWATER DISCHARGES FROM EARTH-DISTURBING ACTIVITIES ASSOCIATED WITH THE CONSTRUCTION OF STAGING AREAS AND THE CONSTRUCTION OF ACCESS ROADS CONDUCTED PRIOR TO ACTIVE MINING.

- 7. AUTHORIZED NON-STORMWATER FIRE-FIGHTING:  
a. DISCHARGES FROM EMERGENCY FIRE-FIGHTING ACTIVITIES;  
b. FIRE HYDRANT FLUSHINGS;  
c. LANDSCAPE IRRIGATION;  
d. WATER USED TO WASH VEHICLES & EQUIPMENT, PROVIDED THERE IS NO DISCHARGE OF SOAPS, SOLVENTS, OR DETERGENTS;  
e. WATER USED TO CONTROL EROSION;  
f. POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHINGS;  
g. EXTERNAL BUILDING WASHDOWN, PROVIDED SOAPS, SOLVENTS, & DETERGENTS ARE NOT USED AND EXTERNAL SURFACES DO NOT CONTAIN HAZARDOUS SUBSTANCES;  
h. PAVEMENT WASH WATER, PROVIDED SPILLS OR LEAKS OF TOXIC OR HAZARDOUS SUBSTANCES HAVE NOT OCCURRED (UNLESS ALL SPILL MATERIAL HAS BEEN REMOVED) AND WHERE SOAPS, SOLVENTS, & DETERGENTS ARE NOT USED;  
i. UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;  
j. UNCONTAMINATED, NON-TURBID DISCHARGES OF GROUND WATER OR SPRING WATER;  
k. FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS SUCH AS SOLVENTS OR CONTAMINATED GROUND WATER; AND  
l. CONSTRUCTION DEMATERING WATER DISCHARGE.

**PROHIBITED DISCHARGES:**

- a. WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE CONTROL;  
b. WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS, & OTHER CONSTRUCTION MATERIALS;  
c. FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE & EQUIPMENT OPERATION & MAINTENANCE;  
d. SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE & EQUIPMENT WASHING OR EXTERNAL BUILDING WASHDOWN; AND  
e. TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

**CONROLS**

**EROSION AND SEDIMENT CONTROLS:**

SITATION FENCING - WILL BE INSTALLED CONTINUOUSLY AT SLOPE LIMITS WHERE RUNOFF WILL OCCUR AS SHEET FLOW, AND NOT IN CHANNELS OR DRAINAGE WAYS. MAXIMUM SLOPE ABOVE THE FENCE SHALL BE 2:1 AND BELOW THE FENCE SHALL BE 3:1. SLOPE ABOVE FENCE WILL BE 100% MAXIMUM AREAS DRAINING TO FENCE SHALL BE 1/4 ACRE PER 100' OF FENCE. FENCING SHALL FOLLOW THE CONTOURS OF THE LAND AND FLOW UPSLOPE AT THE ENDS. EMBED FABRIC IN AN EXCAVATED TRENCH (MIN. 4"X4"). IF TERRAIN DOES NOT PERMIT TRENCH INSTALLATION, EMBED BARS OF FABRIC IN MIN. 8" OF 1/2-INCH STAIN. OVERLAP ADJACENT SECTIONS OF FENCE MIN. 6". MANUFACTURER'S INSTALLATION RECOMMENDATIONS SHALL BE FOLLOWED.

EROSION CONTROL MIX - EROSION CONTROL MIX MAY BE PLACED TO PROVIDE FOR TEMPORARY CONTROL OF EROSION OR SEDIMENTATION INCLUDING: SLOPE STABILIZATION, CHECK DAMS AND BERMS, INLET CONTROL, OR WHERE ORDERED, THE MIX SHALL HAVE AN ORGANIC CONTENT BETWEEN 25% AND 65%, DRY WEIGHT BASIS, AND BE FIBROUS AND ELONGATED SUCH AS FROM SPROGLED BARN, STUMP, GRASSHOPPER, COMPOSTED BARK, OR EQUIVALENT MANUFACTURED PRODUCTS. THE MIX SHALL NOT CONTAIN SILTS, CLAYS, OR FINE SANDS. THE PH OF THE MIX SHALL BE BETWEEN 5.0 AND 8.0 AND A PARTICLE SIZE OF 100% PASSING A 3-INCH SCREEN, 80%-100% PASSING A 1-INCH SCREEN, 70%-80% PASSING A 0.75-INCH SCREEN, AND 30%-70% PASSING A 0.25-INCH SCREEN.

EROSION CONTROL MIX BERMS - SHALL BE USED IN AREAS WHERE RUNOFF WILL OCCUR AS SHEET FLOW AND NOT IN CHANNELS OR DRAINAGE WAYS. MAXIMUM SLOPE ABOVE THE BERM SHALL BE 1:20. BERMS SHALL FOLLOW THE CONTOURS OF THE LAND AND BE AT LEAST 12-INCHES HIGH AND 2- FEET WIDE. EROSION CONTROL MIX MATERIAL SHALL BE PER EPA 125.05 AND CANNOT CONSIST OF WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS, OR REPROCESSED WOOD PRODUCTS.

STONE CHECK DAMS - SHALL BE CONSTRUCTED TO THE LINES, GRADES, AND LOCATIONS SHOWN ON THE PLANS AND DETAILS OR AS DIRECTED. REMOVE STONE AS DIRECTED WHEN NO LONGER NEEDED. STABILIZE ANY SEDIMENT WHICH IS PERMITTED TO REMAIN IN PLACE WITH PERMANENT SEED. ADD STONE AS NECESSARY THROUGHOUT THE PROJECT TO MAINTAIN CORRECT DAM HEIGHT. CHECK DAMS SHALL REMAIN IN PLACE UNTIL PERMANENT SITE STABILIZATION IS ACHIEVED.

TEMPORARY INLET PROTECTION - INSPECT DEVICES WEEKLY AND AFTER EVERY RAINFALL EVENT OF 0.25" OR GREATER. REFILL, CLEAN, OR REMOVE MEASURES AS DIRECTED. IF THE INLET BECOMES OBSTRUCTED, CLEAR DEBRIS AWAY IMMEDIATELY. INLET PROTECTION SHALL REMAIN IN PLACE UNTIL FINAL SITE STABILIZATION IS ACHIEVED.

EROSION CONTROL MATTING - SHALL BE INSTALLED TO STABILIZE ALL DISTURBED EARTHEN SLOPES OF 3:1 OR STEEPER AND ALL VEGETATED SWALES. MATTING SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS WITHIN 24 HOURS AFTER SEED HAS BEEN SOWN. REMOVE STONES AND TRASH FROM THE SLOPE PRIOR TO INSTALLING MATTING. ANCHOR MATS AT THE TOP OF THE SLOPE IN A TRENCH PER INSTRUCTIONS. UNROLL MATTING IN THE DIRECTION OF WATER FLOW, OVERLAPPING THE EDGES AND STAPLING AS REQUIRED. LAY BLANKETS LOOSELY, MAINTAINING SOIL CONTACT AND NOT STRETCHING THE MATERIAL.

STABILIZED CONSTRUCTION EXIT - WILL BE CONSTRUCTED AS SHOWN ON THE PLANS OR AS DIRECTED IN THE FIELD PER THE CONSTRUCTION DETAILS. ALL TRAFFIC EXITING THE CONSTRUCTION AREA SHALL PASS OVER THE STABILIZED EXIT. MINIMUM STONE OR ROCK TRACKED FROM THE SITE IS A MIN. DEPTH OF 6-INCHES. PLACE GEOTEXTILE FILTER FABRIC BETWEEN THE STONE AND THE EARTH BENEATH. TOPRESSOR OR REPLACE STONE WHEN SOIL PATCHES OR LOGS THE VEHICLE SUCH THAT SEDIMENTS ARE TRACKED OFF-SITE. STABILIZED CONSTRUCTION EXIT SHALL BE MAINTAINED IN WORKING ORDER UNTIL THE PERMANENT MAINTENANCE EXIT SHALL BE CONSTRUCTED TO SLOPE TOWARD THE CONSTRUCTION WORK AREA.

WORK AREA DEMATERING SYSTEMS - WILL BE CONSTRUCTED WITHIN THE LIMITS OF THE WORK AREA. DEMATERING SYSTEMS SHALL BE ONE OR MULTIPLE APPLICATIONS OF THE DETAILS INCLUDED HEREIN. NO CONSTRUCTION RUNOFF SHALL BE ALLOWED TO RUN DIRECTLY INTO WETLANDS, DRAINAGE CHANNELS, OR TO ARIATING PROPERTIES, OR INTO CLOSED DRAINAGE SYSTEMS. DEMATERING OPERATIONS SHALL IMMEDIATELY CEASE IF THE RECEIVING AREAS SHOW SIGNS OF INSTABILITY OR EROSION. ALL CHANNELS, SWALES, AND DITCHES EXCAVATED FOR DEMATERING DISCHARGE SHALL BE STABLE PRIOR TO RECEIVING DISCHARGES. NO DISCHARGE OF TOXIC OR HAZARDOUS SUBSTANCES WHERE POSSIBLE. DEMATERING DISCHARGE SHALL DRAIN TO A VEGETATED BUFFER BY SHEET FLOW.

TEMPORARY SEDIMENTATION DEVICES - WILL BE CONSTRUCTED/INSTALLED TO PROVIDE FOR THE INTENTIONAL OF SEDIMENT-LADEN DISCHARGE FROM DEMATERING OPERATIONS, AND SHALL BE STABILIZED PRIOR TO RECEIVING DISCHARGE. DEVICES SHALL BE APPROPRIATELY SIZED PER NHDES REGULATIONS FOR VOLUME OF DISCHARGE EXPECTED.

CONTRACTOR'S ATTENTION IS ALSO DIRECTED TO THE CONTRACT DRAWINGS FOR ADDITIONAL TEMPORARY EROSION CONTROL MEASURES.

**STABILIZATION PRACTICES:**

TEMPORARY STABILIZATION - TOPSOIL STOCKPILES, EARTH BERMS, AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 14 DAYS WILL BE STABILIZED WITH TEMPORARY SEED. AREAS SEEDING BETWEEN MAY 15 AND AUGUST 15 SHALL BE COVERED WITH HAY OR STRAW MULCH, AS PER THE NHDES STORMWATER MANUAL. TEMPORARY SEEDING SHALL OCCUR PRIOR TO SEPTEMBER 15. TEMPORARY SEEDING SHOULD BE INSPECTED WEEKLY AND AFTER ANY RAINFALL EXCEEDING 0.25 INCHES IN 24 HOURS ON ACTIVE SITES. TEMPORARY SEEDING SHALL BE INSPECTED JUST PRIOR TO SEPTEMBER 15 TO ASCERTAIN WHETHER ADDITIONAL SEEDING IS REQUIRED TO PROVIDE STABILIZATION OVER THE WINTER PERIOD. SEED SELECTION SHALL BE IN ACCORDANCE WITH THE NHDES STORMWATER MANUAL, VOL. 3, TABLE 4-1 (P. 56).

PERMANENT STABILIZATION - DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED WILL BE STABILIZED WITH PERMANENT SEED OR BARE GRASS NO LATER THAN 30 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. PERMANENTLY SEEDING AREAS SHALL BE INSPECTED AT LEAST MONTHLY DURING THE COURSE OF CONSTRUCTION, AND CONTINUE UNTIL THE OWNER ASSUMES CONTROL OF THE SITE. MOW SEEDING AREAS TO MAINTAIN A HEALTHY STAND OF VEGETATION. PERMANENT SEEDING SHOULD BE COMPLETED AS DAYS PRIOR TO THE FIRST KILLING FROST. IF THE DISTURBED AREA HASN'T DEMONSTRATED 85% VEGETATIVE COVER BY OCTOBER 15, TEMPORARY STABILIZATION MEASURES SHALL BE INSTALLED TO PREVENT EROSION. PERMANENT SEEDING AND PERMANENT SEED STABILIZATION WILL BE COMPLETED DURING THE NEXT GROWING SEASON. SEED SELECTION SHALL BE IN ACCORDANCE WITH THE NHDES STORMWATER MANUAL, VOL. 3, TABLES 4-2 AND 4-3 (P. 65,66).

**OTHER CONTROLS:**

STAGING AREA - PERIMETER SHALL BE ENCLOSED WITH SILT FENCING, AND CARE WILL BE TAKEN TO SECURE MATERIAL (SEE SPILL PREVENTION NOTES, THIS SHEET).

HAULING - DUMP TRUCKS IMPORTING OR REMOVING MATERIALS FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARP/AULIN.

CONCRETE TRUCKS - CONCRETE TRUCKS WILL CONDUIT WASHOUT AND DISCHARGE EXCESS CONCRETE TO A TEMPORARY RETENTION BASIN. ONCE HARDENED, THE MATERIAL WILL BE REMOVED AND LAWFULLY DISPOSED OF OFFSITE.

WASTE MATERIALS - ALL CONSTRUCTION WASTE MATERIALS WILL BE COLLECTED AND STORED IN A COVERED METAL VESSEL PROVIDED BY THE SOLID WASTE MANAGEMENT COMPANY CONTRACTED FOR THIS PROJECT. THE CONTAINER SHALL BE EMPLOYED A MINIMUM OF ONCE PER WEEK. NO CONSTRUCTION WASTE MATERIALS WILL BE BURIED ONSITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE SEPARATION AND DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED IN THE OFFICE TRAILER AND THE CONSTRUCTION SUPERINTENDENT WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTE - ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF ACCORDING TO LOCAL OR STATE REGULATIONS OR PER THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE CONSTRUCTION SUPERINTENDENT WILL BE RESPONSIBLE FOR ENSURING COMPLIANCE.

SANITARY WASTE - COORDINATE THE USE OF ON-SITE PORTABLE UNITS WITH THE OWNER PRIOR TO MOBILIZATION. ON-SITE SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS BY A SANITARY WASTE MANAGEMENT CONTRACTOR, LICENSED IN THE STATE OF NEW HAMPSHIRE, AS REQUIRED BY LOCAL REGULATIONS OR USAGE.

DUST CONTROL - THE HAIL ROADS AND CONSTRUCTION SITE SUBJECT TO VEHICLE TRAFFIC AND ACTIVITIES WILL BE TREATED WITH WATER APPLICATIONS TO RESTRICT BLOWING AND MOVEMENT OF DUST PARTICLES. WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 3 DAYS, OR WHERE CONTINUED TREATMENT IS NOT FEASIBLE FOLLOWING TEMPORARY TERMINATION OF ACTIVITIES, TEMPORARY WATERING OR MULCHING SHALL BE UTILIZED.

OFFSITE VEHICLE TRACKING - A STABILIZED CONSTRUCTION EXIT SHALL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEEP DAILY TO REMOVE ANY EXCESS MUD, DIRT, OR ROCK TRACKED FROM THE SITE. PAVED STREET ENTRANCES SHALL BE MAINTAINED FREE OF MUD AND TRACKING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARP/AULIN.

**MAINTENANCE:**

THE INSPECTION AND MAINTENANCE SCHEDULE SHALL BE FOLLOWED THROUGHOUT THE YEAR. PERMANENT MAINTENANCE SHALL BE PERFORMED AS REQUIRED. IN THE SPRING, THE CONTRACTOR SHALL INSPECT ALL STABILIZED AREAS, AND REPAIR DAMAGES AND BARE SPOTS.

**EROSION & SEDIMENT CONTROL**

1. EROSION CONTROL MEASURES SHALL BE INSTALLED PER PLANS AND DETAILS. PERIMETER CONTROLS SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF EARTH-MOVING, LOGGING, OR DEMOLITION OPERATIONS. CONTRACTOR SHALL MAINTAIN ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCE, STONE, MATTING, SEED ETC.) FOR THE DURATION OF THE PROJECT.

2. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE THE DISTURBED AREA HAS STABILIZED.

3. THE PROJECT WILL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:5.3 AND NHDES CHAPTER AGR 3000 RELATIVE TO INVASIVE SPECIES. REMOVAL AND DISPOSAL OF INVASIVE SPECIES IS ACCORDANCE WITH AGR 3000 IS THE RESPONSIBILITY OF THE SITE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THE PRESENCE, OR LACK OF, INVASIVE SPECIES WITHIN THE PROJECT AREA PRIOR TO COMMENCING CONSTRUCTION.

4. ALL AREAS OF UNSTABILIZED SOIL SHALL BE STABILIZED AS SOON AS PRACTICAL BUT NO LATER THAN 45 DAYS AFTER INITIAL DISTURBANCE, AND SHALL BE PERMANENTLY STABILIZED NO LATER THAN 3 DAYS AFTER FINAL GRADING.

5. AN AREA SHALL BE CONSIDERED STABLE IF ONE OR MORE OF THE FOLLOWING HAS OCCURRED:  
A) BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED  
B) A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED  
C) A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED  
D) EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED

6. AREAS REMAINING TEMPORARILY UNSTABILIZED FOR A PERIOD OF MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND MULCHED. ALL AREAS TO BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE, AND FILL SLOPES SHALL BE LOADED/SEEDED/MULCHED WITHIN 72 HOURS OF ACHIEVING FINAL GRADE, AND NEW PAVEMENT AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINAL GRADE.

7. IN AREAS TO BE SEEDING, REMOVE ALL STONES AND TRASH FROM THE AREA. ON SLOPES 5:1 OR STEEPER, FINAL PREPARATION SHALL INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE WITH BULDOZER OR SIMILAR TRACKED PIECE OF EQUIPMENT TO CATCH SEED AND REDUCE RUNOFF (TRACKING). FERTILIZER APPLICATION SHALL COMPLY WITH DEPT. OF ENVIRONMENTAL SERVICES REGULATIONS. DIVERT ALL RUNOFF FROM THE SEEDING AREA. ALL SEEDING SHALL OCCUR PRIOR TO SEPTEMBER 15. AREAS SEEDING BETWEEN MAY 15 AND AUGUST 15 SHALL BE COVERED WITH ANCHORED HAY OR STRAW MULCH APPLIED AT A RATE OF 2 BALES PER 1000 SF (90-100 BALES PER ACRE) TO COVER 70% OF SURFACE. MIN. 85% VEGETATED GROWTH COVER SHALL BE ACHIEVED PRIOR TO OCTOBER 15. ALL SLOPES OF 3:1 AND STEEPER SHALL BE MATTED.

8. INSTALL AND STABILIZE ANY NECESSARY DETENTION BASINS AND SWALES PRIOR TO DISTURBING THE SITE. DETENTION BASINS AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF INTO THEM.

9. DISTURBED AREAS NOT IN DRIVEWAYS, PARKING LOTS, OR OTHERWISE SHOWN TO BE TREATED SHALL BE COVERED WITH 6-INCHES OF LOAM AND SEED AS INDICATED ON THE PLANS.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING EROSION CONTROL MEASURES IN ORDER TO PREVENT OFF-SITE TRACKING OF EARTH, SEDIMENT AND DEBRIS.

11. DUST SHALL BE CONTROLLED AS NECESSARY THROUGH THE USE OF WATER.

12. SOILS TO BE STOCKPILED FOR A PERIOD OF MORE THAN 14 DAYS SHALL BE STABILIZED WITH TEMPORARY SEED AND MULCH, AND SURROUNDED WITH A FILTRATION BARRIER AT THE TOE OF SLOPE.

13. TEMPORARY SEEDING SHALL USE TYPE A OR TYPE C PERENNIAL RYEGRASS, APPLIED AT A RATE OF 30 LBS/ACRE (0.7 LBS/100 SF). REFER TO THE NHDES STORMWATER MANUAL, VOL. 3, TABLE 4-1 (P. 66).

14. PERMANENT SEEDING SHALL COMPLY WITH NHDES TYPE C MIXTURE AS SPECIFIED IN THE NHDES STORMWATER MANUAL, VOL. 3, TABLE 4-3 (P.66). THE MIXTURE SHALL BE APPLIED AT A RATE OF 48 LBS/ACRE AND SHALL CONSIST OF THE FOLLOWING:  
TALL FESCUE - 20 LBS/ACRE  
MIN. 85% VEGETATED GROWTH COVER  
CRESPING RED FESCUE - 20 LBS/ACRE  
RED CLOVER - 20 LBS/ACRE

15. REPAIR, CLEAN, AND REPLACE ANY SEDIMENT CONTROLS DAMAGED DURING AND/OR AFTER RAINFALL EVENTS.

16. AREAS WHICH WERE TEMPORARILY OR PERMANENTLY SEEDING SHALL BE MULCHED WITH CLEAN HAY OR STRAW IMMEDIATELY FOLLOWING SEEDING.

17. FOLLOWING PERMANENT STABILIZATION, TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND ACCUMULATED SEDIMENT IS TO BE DISPOSED OF IN AN APPROVED LOCATION, OUTSIDE OF JURISDICTIONAL WETLANDS. TEMPORARY MEASURES SHALL BE REMOVED IN A MANNER THAT WILL NOT DISTURB THE UNDERLYING SOILS.

18. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED NO LESS FREQUENT THAN ONCE EVERY 7 DAYS.

**CONSTRUCTION MATERIALS INVENTORY**

THE FOLLOWING MATERIALS ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION:  
PETROLEUM BASED PRODUCTS, GRANULAR FILL, PRECAST CONCRETE, QUARRIED MATERIAL, AND PLASTICS.

**WINTER CONSTRUCTION NOTES**

TO PROTECT WATER QUALITY DURING COLD WEATHER AND DURING SPRING RUNOFF, THE STABILIZATION TECHNIQUES SPECIFIED HEREIN SHALL BE EMPLOYED BETWEEN OCTOBER 15 AND MAY 15.

1. WINTER CONSTRUCTION SHALL BE CONDUCTED SUCH THAT NO MORE THAN 1 ACR OF THE SITE IS DESTABILIZED AT ANY ONE TIME. THE EXPOSED AREA SHOULD BE LIMITED TO ONLY THOSE AREAS IN WHICH WORK WILL OCCUR DURING THE FOLLOWING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW OR RAINFALL EVENT. SUBSEQUENT WORK AREAS SHOULD NOT BE EXPOSED UNTIL THE PREVIOUSLY EXPOSED WORK AREA HAS BEEN FULLY STABILIZED. DOUBLE ROWS OF SEDIMENT BARRIERS WILL BE PLACED BETWEEN ANY NATURAL RESOURCE (WETLANDS, STREAMS) AND THE DISTURBED AREA. DURING FROZEN CONDITIONS, EROSION CONTROL MIX BERMS OR GROUND STUMP BARRIERS MAY BE USED IF SILT FENCE OR MATTING IS NOT AVAILABLE. MATTING SHALL BE INSTALLED IN THE AREA SHALL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW, OR EROSION CONTROL MATTING (SEE NOTES 4 AND 5 BELOW). ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY THAW OR SPRING MELT EVENT.

2. AN AREA IS CONSIDERED EXPOSED UNTIL STABILIZED WITH COMPACTED GRAVEL BASE FOR A ROAD OR PARKING AREA, PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MIX, EROSION CONTROL MATS, OR RIPRAP.

3. ALL EROSION AND SEDIMENT CONTROL MEASURES INSTALLED FOR THE PROJECT SHALL HAVE ROUTINE MAINTENANCE AND CLEANING COMPLETED, AND SHALL BE INSPECTED AND REPAIRED AS NEEDED IN PREPARATION FOR THE CONSTRUCTION SEASON. TEMPORARY EMBANKMENTS SHOULD BE FULLY VEGETATED OR OTHERWISE STABILIZED BY ACCEPTED METHODS DESCRIBED HEREIN.

4. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW GREATER THAN 1-INCH IN DEPTH OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS. ALL MULCH APPLIED DURING WINTER WILL BE ANCHORED.

5. ALL STONE-COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY OCTOBER 15.

6. STOCKPILES OF SOIL MATERIALS SHOULD BE MULCHED FOR OVER-WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A FOUR-INCH LAYER OF EROSION CONTROL MIX. MULCHING SHOULD BE DONE WITHIN 24 HOURS OF STOCKPILING, AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. NO SOIL STOCKPILE SHOULD BE PLACED WITHIN 100 FEET FROM ANY WETLAND OR OTHER WATER RESOURCE AREA.

7. FROZEN MATERIALS SHOULD BE STOCKPILED SEPARATELY AND IN A LOCATION THAT IS AWAY FROM AN AREA NEEDING TO BE PROTECTED.

8. ALL GRASS-LINED DITCHES AND CHANNELS SHOULD BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHOULD BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS, AS DETERMINED BY A PROFESSIONAL ENGINEER OR A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC). IF STONE LINING IS NECESSARY, THE CONTRACTOR MAY NEED TO REGRADE THE DITCH AS REQUIRED TO PROVIDE ADEQUATE CROSS-SECTION AFTER ALLOWING FOR PLACEMENT OF STONE.

9. ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY OCTOBER 15.

10. AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING AREAS WHERE WORK HAS STOPPED FOR THE WINTER SEASON SHALL BE PROTECTED WITH A MINIMUM 3-INCH LAYER OF CRUSHED GRAVEL PER NHDOT ITEM 304-3.

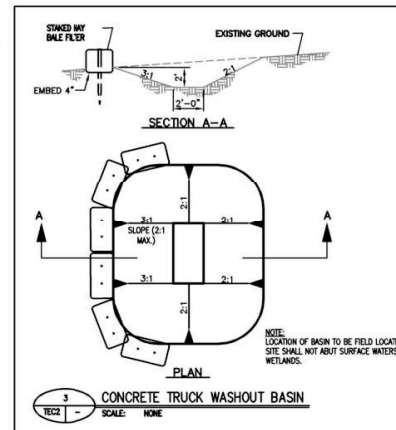
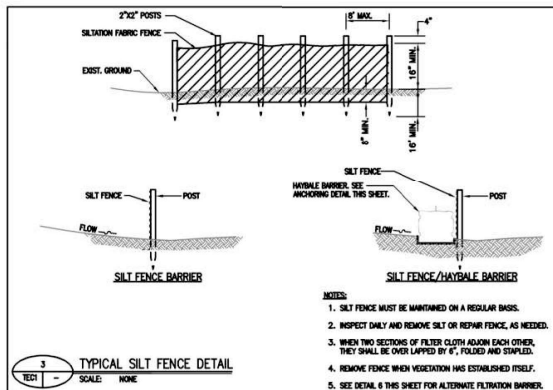
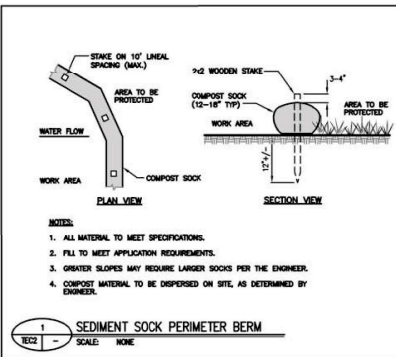
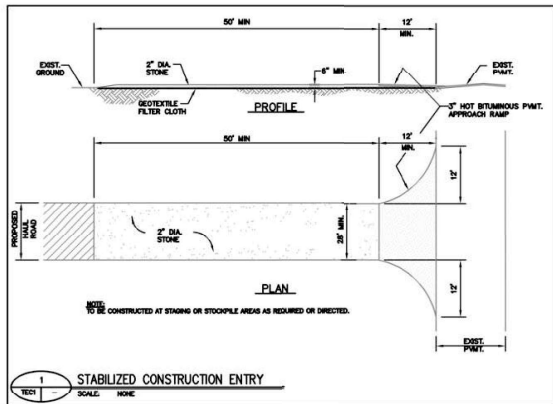
11. SEDIMENT BARRIERS THAT ARE INSTALLED DURING FROZEN CONDITIONS SHOULD CONSIST OF EROSION CONTROL MIX BERMS OR CONTINUOUSLY CONTAINED BERMS. SILT FENCES AND HAY BALES SHOULD NOT BE INSTALLED WHEN FROZEN CONDITIONS PREVENT PROPER EMBEDMENT OF THESE BARRIERS.

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STATE OF NEW HAMPSHIRE		REVISIONS:		NORTHWOOD MEADOWS STATE PARK -	
DEPARTMENT OF ADMINISTRATIVE SERVICES		NO.	DATE	MEADOW LAKE DAM #D183016	
DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION				755 FIRST NH TURNPIKE NORTHWOOD, NH	
				EROSION CONTROL NOTES	
				81270	
				03.08.2023	
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**SPILL PREVENTION**  
THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

**GOOD HOUSEKEEPING** - THE FOLLOWING PRACTICES WILL BE FOLLOWED ON-SITE DURING THE CONSTRUCTION PROJECT:

- STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB
- ALL MATERIALS STORED ON-SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
- SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
- MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- THE SITE SUPERINTENDENT WILL INSPECT THE AREA DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ON-SITE.

**HAZARDOUS PRODUCTS** - THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:

- PRODUCTS SHALL BE USED PROPERLY ACCORDING TO MANUFACTURER'S LOCAL, STATE AND OSHA RECOMMENDED METHODS AND ARE TO BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- ORIGINAL LABELS AND SAFETY DATA SHEETS SHALL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
- IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

**PRODUCT SPECIFIC PRACTICES** - THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON-SITE:

- **PETROLEUM PRODUCTS** - ALL ON-SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS THAT ARE CLEARLY LABELED. ANY FUEL STORAGE TANKS STORED ON-SITE SHALL HAVE A SECONDARY CONTAINMENT. ANY ASPHALT SUBSTANCES USED ON-SITE WILL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

**FERTILIZER MANAGEMENT** - FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER AND IN COMPLIANCE WITH THE SHORLAND WATER QUALITY PROTECTION ACT. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

**PAINTS** - ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO ANY STORM SEWER SYSTEM OR NATURAL DRAINAGE WAY BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND/OR STATE AND LOCAL REGULATIONS.

**SPILL CONTROL PRACTICES** - IN ADDITION TO THE PRACTICES PREVIOUSLY DISCUSSED, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

**MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP** WILL BE CLEARLY POSTED AND THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ENSURING SITE PERSONNEL ARE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

**MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP** WILL BE KEPT IN THE MATERIAL STORAGE AREA ON-SITE. EQUIPMENT AND MATERIALS MAY INCLUDE, BUT NOT BE LIMITED TO, BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY.

THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SPILL SIZE.

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM RECURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER. A DESCRIPTION OF THE SPILL WHAT CAUSED IT, AND THE CLEANUP MEASURES TAKEN WILL ALSO BE INCLUDED.

THE CONSTRUCTION SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE WILL DESIGNATE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ON-SITE.

**CONTACT INFORMATION:** IN THE EVENT OF A SPILL, THE FOLLOWING AGENCIES SHOULD BE CONTACTED, IN THE ORDER LISTED BELOW:

- HAZARDOUS WASTE SPILL**
1. LOCAL FIRE DEPARTMENT 911; (603) 994-3651.
  2. NHDES EMERGENCY RESPONSE GROUP (603) 271-3899 (M-F, 8-4).
  3. NH DEPT. OF SAFETY (603) 223-4361 (24 HRS/DAY).

- PETROLEUM SPILL**
1. NHDES EMERGENCY RESPONSE GROUP (603) 271-3899 (M-F, 8-4).
  2. NH DEPT. OF SAFETY (603) 223-4361 (24 HRS/DAY).

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