



**Lockport-Batavia Line #112
Rebuild Project**

Appendix A

Plan & Profile Drawings

Part 1 of 11



**Lockport-Batavia Line #112
Rebuild Project**

Appendix A

Plan & Profile Drawings

NIAGARA MOHAWK POWER CORPORATION D/B/A
NATIONAL GRID
LOCKPORT - BATAVIA 112
REBUILD PROJECT
ENVIRONMENTAL MANAGEMENT & CONSTRUCTION PLAN (EM&CP)
PSC CASE NO. 22-T-0654

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28A	FORESTRY & REAL ESTATE PLAN
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33A	FORESTRY & REAL ESTATE PLAN
33B	CONSTRUCTION PLAN & PROFILE

<u>SHEET NUMBER</u>	<u>TITLE</u>
34A	FORESTRY & REAL ESTATE PLAN
34B	CONSTRUCTION PLAN & PROFILE
35A	FORESTRY & REAL ESTATE PLAN
35B	CONSTRUCTION PLAN & PROFILE
36A	FORESTRY & REAL ESTATE PLAN
36B	CONSTRUCTION PLAN & PROFILE
37A	FORESTRY & REAL ESTATE PLAN
37B	CONSTRUCTION PLAN & PROFILE
38A	FORESTRY & REAL ESTATE PLAN
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40A	FORESTRY & REAL ESTATE PLAN
40B	CONSTRUCTION PLAN & PROFILE
41A	FORESTRY & REAL ESTATE PLAN
41B	CONSTRUCTION PLAN & PROFILE
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48A	FORESTRY & REAL ESTATE PLAN
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62B	STAMP ROAD ACCESS
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64	LEDGE ROAD MARSHALLING YARD

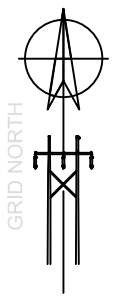
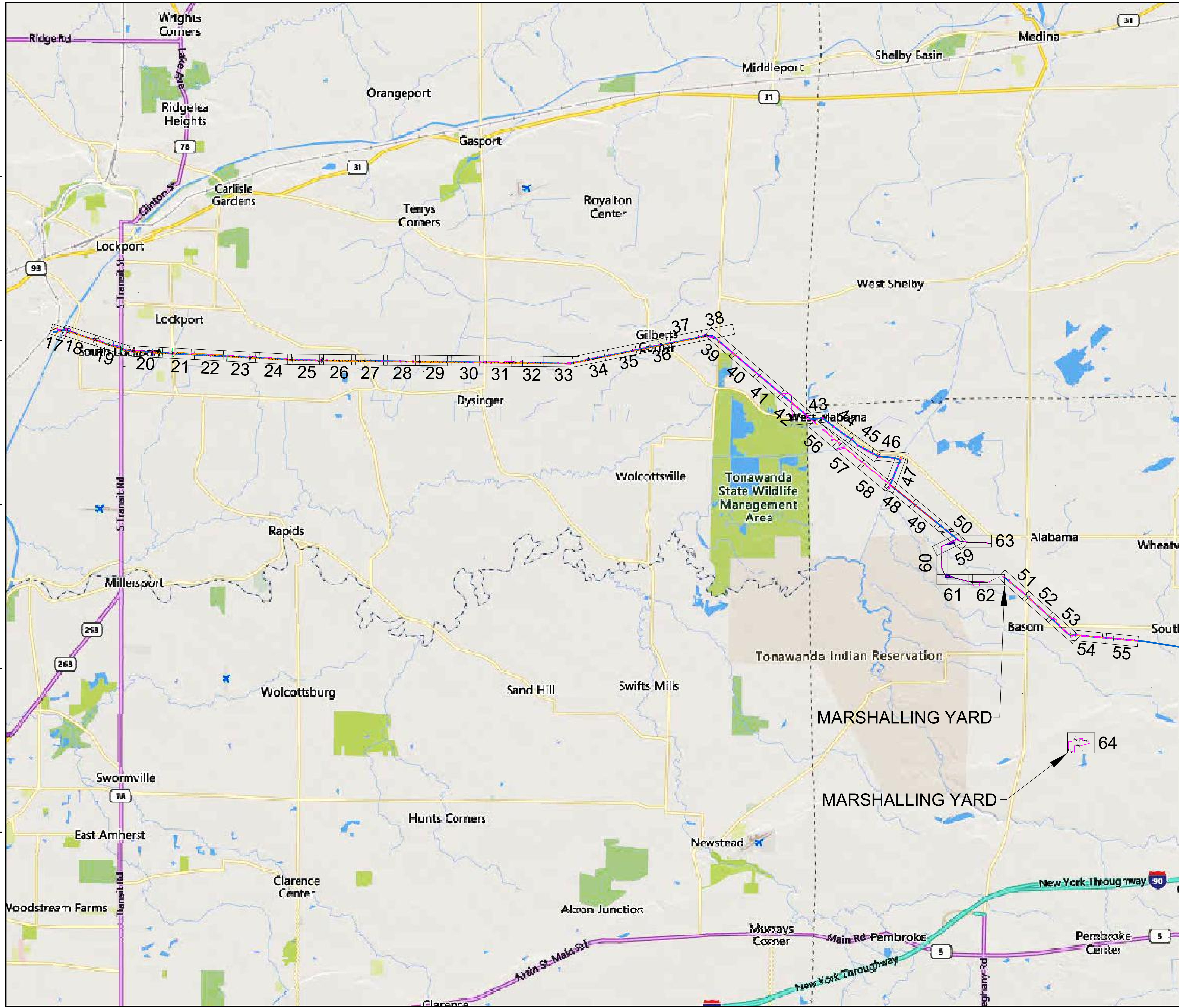
THE INFORMATION PROVIDED IN THE ENVIRONMENTAL
MANAGEMENT AND CONSTRUCTION PLAN SUBJECT TO
THIS COVER HAS BEEN PREPARED AND REVIEWED BY
THE BELOW SIGNED DEPARTMENT LEADS OR BY A
DESIGNEE UNDER THEIR DIRECTION. THE DETAILS
PRESENTED ARE TRUE AND ACCURATE TO THE BEST
KNOWLEDGE OF THE SIGNED.

DEPARTMENT LEAD SIGN-OFF

CONSTRUCTION	Kyle McNulty
ENVIRONMENTAL SERVICES	Mary Bitka
FORESTRY	Ryan Blothenburg
PROJECT MANAGEMENT	Nikki Carlson
REAL ESTATE	Kevin Cramer
SURVEY	Jason McCadden
TRANSMISSION ENGINEERING	Ryan Shene

[illegible]

This document has been reviewed and does not contain Critical Energy/Electric Infrastructure Information (CEII). 06/09/2025



115KV TRANSMISSION LINES LOCKPORT - BATAVIA 112 REBUILD PROJECT	ISSUE DATE	6/06/25	SHEET INDEX 2	1
	FILE #	6.1-L10-M5		
	DRAWING NUMBER	L1-41568		
	NUMBER			
nationalgrid	PREPARED BY		ACCOUNT NUMBER	3
	HP			
	FISHER			
	VL			
	DES.		APPROVED	4
	PR.			
	CK.			
	APP.			
	DR.		APPROVED	5
	CK.			
	APP.			
	DR.			
	DESCRIPTION OF ISSUE OR REVISION			6
DATE				

[illegible]

	A	B	C	D	E	F	G	H
1	INTRODUCTION	The Environmental Management and Construction Plan (EM&CP) Procedures for the Lockport-Batavia 112 Rebuild Project (the "Project") provide the project-specific procedures to be implemented during the construction of the Project to ensure environmental protection.	4.1 DEFINITION OF CLEARING METHODS	4.1.1 TYPE I CLEARING	Type I clearing consists of clearing the designated areas of all woody plants, including the desirable species. All plants will be cut as close to the ground as practical, and after cutting the height of plants will not exceed six (6) inches above the ground line, unless otherwise directed by the Forester. Type I clearing will be utilized in circumstances where woody plants would hinder access and construction activities (i.e, in connection with clearing access roads, structure work areas, and wire-pulling sites). All clearing will be Type I on Sheets A&B unless otherwise indicated.	4.3 DANGER TREES	d. In the area of woods between North/South Feeder Marshes and the Tonawanda Wildlife Management Area east boundary, trees should not be dropped in vernal pools.	ORIGINAL DATE 6/06/25 ISSUE 6.1-L-10-M5 DRAWING NUMBER L1-41568 NUMBER 4
2	1.0 METADATA	Horizontal: NYSPCS Western Zone (NAD83) Vertical NAVD 88, GEOID 09	4.1.2 TYPE II CLEARING	Type II clearing consists of clearing the designated areas of all undesirable species and any woody plant species which have the potential to violate minimum clearance distance. All growth will be cut as close to the ground as practical, but in no case will after-cutting height exceed six (6) inches above ground line unless otherwise directed by the Forester. Reasonable care will be taken, in so far as is practical, to retain desirable species found within Type II clearing zones.	NOTE: Minimum Clearance Distances are at maximum rated operating conditions.	a. Danger trees whose branches extend into Type I or II clearing areas, but whose trunks are outside such areas will be removed. Danger trees whose branches extend into a Type IV clearing area will be pruned or removed, as necessary, to ensure system reliability	b. If conditions of disease, lean, unstable soils, weak variety, or other conditions which may cause a tree to fall and thereby have reasonable risk of contacting a conductor are observed, that tree will be removed.	115KV TRANSMISSION LINES LOCKPORT - BATAVIA 112 REBUILD PROJECT GENERAL NOTES
	2.0 ADDITIONAL INFORMATION	Additional information associated with the EM&CP Drawings can be found in the appendices to the EM&CP narrative. Appendices of note include the following: <ul style="list-style-type: none">Appendix F - Forestry PracticesAppendix G - Stormwater Pollution Prevention Plan (SWPPP)Appendix T - Agricultural GuidelinesAppendix X - Traffic Management PlansAppendix Y - Culvert DrawingsAppendix Z - Grading PlansAppendix AA - Transmission Structure and Hardware DrawingsAppendix AC - Fencing Details, Guard Structures & Typical Drawings for Drain Tile Repairs						
3	2.1 WORK HOURS	Normal work hours are 7:00 am to 7:00 pm (Monday through Saturday).	4.1.3 TYPE III CLEARING	Type III clearing consists of clearing the designated areas, of only those tall-growing species which can be expected to violate the minimum clearance distance over the course of the routine maintenance cycle. Additionally, based on the conductor or ground clearances and species characteristics, in the absence of sufficient densities to manage desired vegetation in the ROW where existing circumstances such as unique landowner agreements, predetermined habitat management areas, desirable stream-buffer cover types, or water supply protection areas, "young" trees may be retained temporarily. Those woody plants which are removed will be cut as close to the ground as practical, but in no case will after-cutting height exceed six (6) inches above ground line unless otherwise directed by the Forester.	4.1.4 TYPE IV CLEARING	Type IV clearing consists of selectively removing or pruning, in the designated areas, those tall growing species which can be expected to violate minimum clearance distance over the course of the routine maintenance cycle.	4.4 DEFINITION OF WOOD DISPOSAL METHODS	nationalgrid
	3.0 DRAWING SET FORMAT	The EM&CP is presented in two page format. The two pages are intended to be used in support of each other and at no time shall one page or the other serve as the sole point of reference for information. Both pages (A & B) associated with a sheet number contain select duplicate information. Examples of this type of information include the bounds of the right-of-way, property owner information, property property acquisition information, existing and relocated circuit centerlines and structure numbers and locations, utility infrastructure not associated with the Project and the means of access to the Project right-of-way. Additionally, any reference drawings associated with particular right-of-way area such as grading, culvert installations are presented on both pages comprising a particular sheet. The first page (A) contains details pertaining to forestry activities and environmental protection details. Clearing and disposal types are presented explicitly on this page along with any and all clearing restrictions. The aerial photography provided on this page is intended to provide a means by which agricultural areas can be readily identified along with the corresponding notes overlaid on the aerial view. The second page (B) contains details associated with the construction of the transmission line itself. Information regarding the proposed transmission line structure, conductor, shield wire, and foundation type is presented on this page. Additionally, right-of-way topography details are presented in both the plan and profile view.						
4	4.0 CLEARING AND SLASH DISPOSAL PROCEDURES	National Grid recognizes and considers the use of five (5) clearing and seven (7) disposal (slash disposal) methods to accomplish its ROW clearing and management goals. Utilizing the potential combinations of those clearing and disposal methods, National Grid conducted a detailed site-by-site analysis of the Project ROW to select the appropriate management technique for each site. The EM&CP drawings show the prescribed clearing and disposal method for each area of the ROW. All clearing and disposal activities will comply with the Invasive Species Control procedures found in the Appendix M of the EM&CP document.	4.1.5 TYPE V CLEARING	Type V clearing consists of selectively removing or pruning, in the designated areas, those tall growing species that National Grid's calculated desirable clear width or are at reasonable risk of falling in the ROW and contacting a conductor.	4.2 PRUNING PROCEDURES	When a tree is specified to be pruned, the specified portion(s) will be removed to prevent excessive broken limbs or other serious damage to the portion of the tree left in place or adjacent nearby or trees and shrubs. OFF-ROW trees that are not danger trees, but have branches that can grow to violate minimum clearance distance, also need to be managed. Those trees will be pruned or removed to achieve desired clearances. National Grid's strategic approach to managing danger trees is to prune or remove them where property rights allow, and to seek permission from land owners for such pruning or removal where such rights are limited. All pruning will be done in accordance with ANSI-A-300 arboricultural standards.	Type D wood disposal consists of dropping and lopping trees so that the slash lies as close to the ground as practical, with branches and limb wood not exceeding an average depth of twenty-four (24) inches.	In wetlands and areas adjacent to streams, Type D wood disposal will adhere to the following additional conditions: <ul style="list-style-type: none">a. Only a selective portion of vegetation, as needed to prevent the blocking of flow and the trapping of debris, is to be removed from the water course and floodway, and all cuttings (regardless of location) are to be cut out and bucked to lie near ground level. However, where tree root bases are attached to the stream bank, they will be left in place. The remainder of the tree will be cut from the base prior to removal. Grubbing of tree roots in sensitive areas will be avoided to the greatest extent practicable; however, if grubbing is necessary, the appropriate erosion and sediment controls will be installed and all disturbed areas will be stabilized by the end of the work day.
5	6						In DEC wetlands and/or the Tonawanda Wildlife Management Area, Type D wood disposal will adhere to the following additional conditions: <ul style="list-style-type: none">a. No trees should be dropped on or near dikes, ditches, mowed administrative roads/areas, grassland/agricultural fields, or in emergent marsh/water areas where logs may end up blocking control boxes.b. Trees should also not be dropped in phragmites areas because this will make control more difficult.c. Trees should be dropped and/or dragged into dryer parts of woods. Placing logs on tops of invasive shrubs such as honeysuckle and autumn olive is also encouraged to help discourage these species.	Vegetation clearing within wetlands and the one hundred foot adjacent areas associated with state-regulated wetlands will be conducted as follows: <ul style="list-style-type: none">a. Only the minimum vegetation necessary to allow proper installation will be removed.b. Slash that is cut may be left in place (drop and lop). Any slash that is not left in place will be removed from the wetland by manual means or tracked equipment in a manner to minimize disturbance to the wetland. No slash will be collected and permanently piled in a wetland. Under the direction of the Environmental Inspector, slash may be used for temporary corduroy road for clearing and construction equipment in place of mats but must be removed from the wetland upon the completion of the clearing activities.c. For vegetation management, the cutting of all undesirable or non-compatible tall-growing tree species which could interfere with transmission lines, and cutting -- but not the elimination or destruction -- of vegetation are allowed.d. Where "danger tree" clearing is required, the cutting of tall-growing species is allowed pursuant to selective clearing techniques. All work will be done in accordance with National Grid's TROWMP.
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A	B	C	D	E	F	G	H								
<div>4.6 PROCEDURE FOR HERBICIDE APPLICATION</div> <div>National Grid and the certified herbicide applicator will utilize only registered herbicides, applied in accordance with sound ROW management principles and consistent with the TROWMP. All herbicide applications will be made in compliance with ECL Article 33, NYDEC rules and regulations, the Occupational Safety and Health Administration ("SHAY") Hazard Communication Standard 29 CFR 1910.1200, and label instructions.</div> <div>All Herbicide applications will be made in accordance with the following specifications:</div> <div><div>a. Foliar spray units will be refilled with water from a supply vehicle. Water will not be pumped directly into the spray tank.</div><div>b. Herbicide concentrate will not be transported on a vehicle used for supplying foliar spray equipment.</div><div>c. Each vehicle used for herbicide application or for transportation of herbicide concentrate on the ROW will be equipped with a shovel and absorptive material for containing and controlling spills. All herbicide spills will be reported immediately to National Grid and applicable agencies as specified in Appendix V of the EM&CP document.</div></div> <div>The herbicide applicator will take the following precautions to protect equipment and materials from vandalism and unauthorized use when left unattended on the ROW or on National Grid property not within a locked fence:</div> <div><div>a. Power-pack or back-pack sprayers will be emptied or stored in locked compartments.</div><div>b. Ignition keys will be removed from all vehicles used for herbicide treatment and vehicles containing herbicide or concentrate or herbicide solution.</div><div>c. Ignition keys will be removed from engines which provide power to pumps on power-driven spray equipment. Engines without lockable ignition systems will have the sparkplug wire disconnected or made inoperable in some similar fashion.</div><div>d. The opening to the spray tank, on power spray units will be locked</div><div>e. Drains on spray tanks will be fitted with lockable valves or threaded caps.</div><div>f. Valves or barrel pumps on containers carrying herbicide concentrate will be locked or removed and replaced with threaded plugs. Threaded plugs will be mechanically tightened to prevent removal by hand.</div><div>g. The pressure control valve will be closed.</div><div>h. Any equipment used for operations involving herbicide applications will not be left unattended within one hundred (100) feet of any stream, wetland, or waterbody.</div></div> <div>Herbicide will not be used within one hundred (100) feet of a potable water supply.</div>				<div>4.7.1 PROCEDURE FOR UTILIZATION OF THE WOOD RESOURCES</div> <div>To discourage trespassing on the ROW, all wood will be chipped, or removed from the ROW except in wetlands or areas that cannot be accessed safely or without damage to sensitive resources. Some cut material may be temporarily used as corduroy to support clearing equipment prior to removal (see 4.5b). Clearing and slash disposal methods will be followed as prescribed and shown on the EM&CP drawings.</div> <div>In all cases, trees and firewood removed from the ROW will be done in an environmentally acceptable manner and in compliance with the invasive Species Control procedures identified in Appendix M of the EM&CP document.</div> <div>Off-site disposal of any material will require approval by National Grid and DPS staff.</div> <div>4.7.2 PROCEDURE FOR OFF-SITE REMOVAL OF STUMPS, CHIPS AND SLASH</div> <div>Where off-site removal of stumps, chips or slash is necessary, all material will become the property of the Contractor. In all cases, all material that is removed from National Grid property will be disposed of in an environmentally acceptable manner and in compliance with all applicable rules and regulations including 6 NYCRR Part 192 and all other invasive species regulations.</div> <div>Off-site disposal of any material will require approval by National Grid and DPS staff.</div> <div>4.7.3 FORESTRY ACCESS</div> <div>All ROW clearing and associated forestry work will be under the supervision of the Environmental Inspector and access for forestry work will be accomplished in the most efficient manner possible with the goal of minimizing ground disturbance. Low ground pressure equipment and matting will be used as necessary when maneuvering equipment off of the main access road.</div> <div>5.0 OFF ROW ACCESS ROADS</div> <div>The entire easement area for all off ROW access will be cleared (horizontally and vertically) of all vegetation and all slash will be removed from easement premises.</div> <div>Off-site disposal of any material will require approval by National Grid and DPS staff.</div> <div>6.0 UNDERGROUND UTILITIES</div> <div>Underground utilities shown hereon are based on above ground features, QLB level survey, and existing mapping. These locations should be considered approximate. NY Dig Safely shall be contacted prior to any excavation.</div> <div>7.0 CONCRETE WASHOUT STATION</div> <div>There are no specific locations for concrete washouts stations shown on the EM&CP drawings. The final location of any concrete washout station shall be determined by the National Grid Construction Field Supervisor or his/her designee and the Environmental Inspector. Concrete washout stations shall not be located in state or federal wetlands, state regulated 100-foot adjacent areas or within 100 feet of streams, wetlands or waterbodies unless 100 feet separation is not possible. Concrete washouts within 100 feet of streams, wetlands or waterbodies must be approved by the Environmental Inspector and the DPS and the double containment concrete washout specification must be used.</div>				<div>8.0 INVASIVE SPECIES CONTROL</div> <div>Equipment coming in contact with invasive species will be cleaned prior to leaving the infested area. Symbols on the EM&CP drawings indicate the proposed general location of invasive species cleaning areas. The exact location of the cleaning area will be determined by the National Grid Construction Field Supervisor or his/her designee and the Environmental Inspector.</div> <div>9.0 REAL ESTATE VALIDATION</div> <div>Property ownership information was gathered from public sources and is current as of March 2024.</div> <div>10.0 STOCKPILING OF SOILS</div> <div>There are no specific locations for temporary soil stockpiling or excess soil disposal shown on the EM&CP drawings. When selecting a proposed site for temporary soil stockpiling or excess soil disposal, all locations will be in upland, non-agricultural areas and within the LOD. At no time will soils be stockpiled or disposed of in State or Federal wetlands, the 100 foot adjacent area associated with State-regulated wetlands, within 100 feet of streams, or in active agriculture areas.</div> <div>11.0 COLOR VISIBILITY</div> <div>The line and symbol colors shown in the legend refer to the construction drawings contained in the set of plans. The line and symbol colors may vary slightly on the real estate drawings (B Sheets) due to the photo background.</div> <div>12.0 RIGHT-OF-WAY CROSS-SECTIONS</div> <div>All cross-sections shown on the EM&CP Plan & Profile Drawings are facing the Lockport Substation.</div> <div>13.0 CONSTRUCTION WORK AREAS - IMPROVE AS NECESSARY (TYPE 1,4,6)</div> <div>Those areas depicted as "Improve as Necessary" (purple hatching and other hatching) on the EM&CP drawings may be improved with aggregate (clean stone or crusher run with fines or other as specified) or matting, to the minimum extent necessary, to provide a level, stable and safe work area. When construction is complete, the work areas will be restored in accordance with the soil restoration specifications in the Blue Book such that there are no impermeable surfaces. All areas will be back bladed, seeded and mulched with topsoil added as necessary to achieve 80% revegetation. Aggregate will remain in place unless it is determined that full revegetation (80% revegetation) cannot be achieved.</div> <div>14.0 CONSTRUCTION WORK AREAS - MATTING (TYPE 5)</div> <div>Areas depicted as requiring matting for construction may be temporarily graded to allow for a stable workpad during construction. Soils removed for temporary grading will be stock piled adjacent to the workpad. Upon removal of the matted areas, grades shall be restored and disturbed soils shall be revegetated to match pre-construction condition to the maximum extent practicable.</div>				<div>15.0 SILT SOCK</div> <div>Silt sock will be used in accordance with the NYSDEC Blue Book specifications for compost filter sock and only in areas where good continuous contact between the sock and the soil can be maintained for its entire length. Silt sock will only be used in areas approved by the Environment Inspector.</div> <div>16.0 SWALES</div> <div>Swales as shown on plans will be restored at the end of the project. Check dams will be installed as required by the Blue Book and as directed by the Environmental Inspector.</div> <div>17.0 MATTING CONSTRUCTION ENTRANCE</div> <div>Where matting is used for construction entrance, contractor shall consult local municipality to confirm use of a rock apron as required by the municipality.</div> <div>18.0 LIMITS OF DISTURBANCE FOR FORESTRY ACTIVITIES</div> <div><div>a. All access roads and work areas will be cleared of all vegetation (typically mowing). The LOD for this clearing will be boundaries of the access roads and work areas as shown on the EM&CP drawings.</div><div>b. Clearing limits for the project will be the same as the LOD.</div><div>c. The LOD for danger tree removal will be limited to the minimum amount of space outside of the LOD required to safely cut and dispose of any tree designated as a danger tree and shall be in accordance with the rights granted by the landowner.</div></div> <div>19.0 DEICING OF MATS IN WETLANDS</div> <div>Sand may be added by hand (shovel) to matting in wetlands to provide a safe driving and work surface. Accumulated sand at the edge of mats should be periodically removed by hand through the winter season, prior to thaw, to prevent sand from entering the wetlands and mixing with the substance. Following the removal of mats, accumulated sand under the mats will be removed by hand and disposed of in an upland area outside the wetlands and regulated adjacent area. Sand should be staged in an upland area outside of wetlands and regulated adjacent areas. No deicing chemical shall be used in wetlands or regulated adjacent areas.</div> <div>20.0 RESTORATION</div> <div>Where temporary grading has occurred, all areas will be restored to a stable condition with slopes not to exceed 3:1. See Appendix Z for areas that will have permanent grading.</div>			
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	A	B	C	D	E	F	G	H
1	GENERAL NOTES:							
	DIG SAFELY NEW YORK: CALL BEFORE YOU DIG:							
	1. CALL BEFORE YOU DIG: IF DIGGING OR EXCAVATION WORK OF ANY TYPE IS PLANNED, THE CONTRACTOR IS REQUIRED BY NEW YORK STATE LAW TO CALL DIG SAFELY NEW YORK PRIOR TO DOING SO.							
	2. WAIT THE REQUIRED TIME: PROVIDE TWO FULL WORKING DAYS NOTICE PRIOR TO STARTING CONSTRUCTION WORK, NOT COUNTING THE DAY OF THE CALL, WEEKENDS OR HOLIDAYS. THIS PROVIDES TIME FOR THE UTILITIES TO LOCATE THE PROPOSED DIG SITE.							
	3. CONFIRM UTILITY RESPONSE: DIG SAFELY NEW YORK WILL NOTIFY ALL MEMBER UTILITIES OF THE PENDING EXCAVATION TO GO TO THE SITE AND MARK THE LOCATION OF THEIR UNDERGROUND LINES. BEFORE DIGGING ON THE STATED COMMENCEMENT DATE, CONFIRM THAT ALL UTILITIES HAVE RESPONDED AND MARKED THE PROPERTY OR INDICATED NO FACILITIES ARE PRESENT.							
	4. RESPECT THE MARKS: PRIOR TO THE COMMENCEMENT OF EXCAVATION, THE CONTRACTOR SHALL WALK THROUGH THE SITE TO BECOME FAMILIAR WITH THE MARKINGS AND THE LOCATIONS OF BURIED FACILITIES.							
	5. DIG WITH CARE: EXCAVATORS SHALL TAKE A PROACTIVE APPROACH TO SAFETY NOT ONLY FOR THEMSELVES BUT FOR THE PUBLIC BY INITIATING THE ONE CALL PROCESS AND ADHERING TO THE FIVE STEPS OF A SAFE EXCAVATION.							
2	STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NOTE:							
	THE EROSION AND SEDIMENT CONTROL MEASURES FOR THIS PROJECT SHALL BE IN COMPLIANCE WITH THE SWPPP PREPARED FOR THE PROJECT IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITY (GP-0-25-001) OR THE GENERAL PERMIT EFFECTIVE AT THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.							
	GENERAL CONSTRUCTION NOTES:							
	1. THE ENVIRONMENTAL INSPECTOR SHALL BE NOTIFIED OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF NATIONAL GRID AND DPS.							
	2. ALL WORK SHALL BE DONE IN STRICT COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES, STANDARDS, ORDINANCES, RULES AND REGULATIONS AND THE EM&CP.							
	3. CONTRACTOR SHALL TAKE CARE TO PREVENT DAMAGE TO EXISTING UTILITIES. DAMAGED UTILITIES SHALL BE IMMEDIATELY REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.							
	4. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY EROSION CONTROL MEASURES IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND THE "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" AND THE EM&CP.							
	5. NO WORK, STORAGE OR TRESPASS SHALL BE PERMITTED BEYOND THE BOUNDARIES OF ANY EASEMENT OR PROPERTY LINE AND SHALL BE WITHIN THE WORK LIMITS SHOWN ON THE EM&CP DRAWINGS.							
	6. UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXISTING FEATURES WHICH ARE DISTURBED OR DAMAGED DURING CONSTRUCTION, (INCLUDING BUT NOT LIMITED TO CULVERT PIPES, SWALES, TREES, SHRUBS, BUSHES, PLANTERS, SIGNS, ASPHALT DRIVES, CONCRETE DRIVES, GRAVEL DRIVES, CURBS, FENCES AND WALKWAYS), SHALL BE RESTORED AND/OR REPLACED IN KIND, SIZE, MATERIAL AND TYPE AS APPLICABLE AND AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.							
	7. RESTORE ALL SURFACES TO AS GOOD OR BETTER CONDITION THAN BEFORE CONSTRUCTION IMMEDIATELY FOLLOWING COMPLETION OF WORK IN ANY AREA, OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.							
	8. RESTRICT LOCATIONS OF ON-SITE MATERIALS AND EQUIPMENT STOCKPILES TO THE AREAS DESIGNATED BY THE ENVIRONMENTAL INSPECTOR. MAINTAIN ACCESS TO ALL BUILDINGS, ROADWAYS, AND WALKWAYS AT ALL TIMES.							
	9. SITE DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE PERIOD OF CONSTRUCTION IN ACCORDANCE WITH THE SWPPP AND EM&CP. ROADS SHALL BE KEPT CLEAR OF MUD AND DEBRIS AT ALL TIMES.							
	10. PROVIDE WATER FOR DUST CONTROL, AS NEEDED AND IN ACCORDANCE WITH THE EM&CP.							
	11. CONTRACTOR OWNED EQUIPMENT TO BE STORED ON SITE SHALL BE LOCATED IN DESIGNATED MARSHALLING YARDS OR WORK AREAS SHOWN ON THE EM&CP DRAWINGS.							
	12. REMOVE ALL SNOW AND ICE AS NEEDED TO PERFORM WORK IN A SAFE MANNER. REMOVAL OPERATIONS SHALL NOT INTERFERE WITH THE OWNER'S AND/OR TOWN'S ABILITY TO REMOVE SNOW AND PROVIDE ICE CONTROL. ICE CONTROL ON MAINS IN WETLANDS SHALL BE DONE IN ACCORDANCE WITH THE EM&CP NOTE 19 ON SHEET SA.							
	13. THE CONTROL OF EROSION AND SEDIMENT ORIGINATING FROM CONSTRUCTION OPERATIONS IS CONSIDERED A CRITICAL RESPONSIBILITY OF THE CONTRACTOR. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED PRIOR TO COMMENCING WORK AND SITE DISTURBANCE UNLESS OTHERWISE APPROVED BY THE ENVIRONMENTAL INSPECTOR.							
	REMOVAL NOTES:							
	1. CONFORM TO APPLICABLE CODES FOR DUST CONTROL, RUNOFF CONTROL, AND HAULING, DISPOSAL AND STORAGE OF DEBRIS. OFFSITE DISPOSAL OF ANY MATERIAL REQUIRES PRIOR APPROVAL BY NATIONAL GRID AND DPS STAFF.							
	2. PROVIDE, ERECT, AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES.							
	3. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. DO NOT INTERRUPT EXISTING UTILITIES SERVING OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED.							
	4. PROTECT EXISTING FEATURES THAT ARE NOT TO BE DEMOLISHED.							
	5. CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE TO PUBLIC OR PRIVATE ACCESSSES.							
	6. MAINTAIN EGRESS AND ACCESS AT ALL TIMES. DO NOT CLOSE OR CONSTRUCT ROADWAYS OR SIDEWALKS WITHOUT OWNER'S PERMISSION. ALL PARKED OR TEMPORARILY PARKED CONSTRUCTION EQUIPMENT AND CONTRACTOR VEHICLES MUST REMAIN IN THE LOD TO THE MAXIMUM EXTENT PRACTICABLE.							
	7. CEASE OPERATIONS IMMEDIATELY IF ADJACENT STRUCTURES APPEAR TO BE IN DANGER.							
	8. ROUGH GRADE AND COMPACT AREAS AFFECTED BY DEMOLITION TO MAINTAIN SITE GRADES AND CONDITIONS.							
	9. FIELD VERIFY EXISTING CONDITIONS TO DETERMINE THE EXTENT OF REMOVALS REQUIRED.							
	10. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH SELECTIVE DEMOLITION OPERATIONS. PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREA AND ERECT TEMPORARY FENCING AS NECESSARY AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.							
6	11. PROPERLY DISPOSE OF DEMOLISHED MATERIALS. ALL DEBRIS RESULTING FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE AT A FACILITY BY NATIONAL GRID AND DPS STAFF. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON SITE. ALL DEBRIS MATERIAL RESULTING FROM THE PROJECT SHALL STAY WITHIN THE LOD AND DESIGNATED WORK AREAS UNTIL PROPERLY DISPOSED OF.							
	A	B	C	D	E	F	G	H

115KV TRANSMISSION LINES		ORIGINAL DATE	6/06/25
LOCKPORT - BATAVIA 112		ISSUE RULE	6.1-L10-M5
REBUILD PROJECT		DRAWING NUMBER	L1-41568
EROSION PREV & SEDIMENT CONTROL NOTES		NUMBER	6
nationalgrid		ACCOUNT NUMBER	
PREPARED BY	HP	FISHER	
	APPROVED	APPROVED	
DESS	APR	CK	
	APR	CK	
		CK	
		CK	
		DR	
		DR	
DESCRIPTION OF ISSUE OR REVISION			
		DATE	

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN STRICT COMPLIANCE WITH "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" NOVEMBER 2016 AND THE EM&CP.
- PRIOR TO SITE DISTURBANCE, CONTRACTOR SHALL INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
- EXCESS SOIL SHALL BE STOCKPILED WITHIN THE LIMITS OF SITE DISTURBANCE IF NOT USED IMMEDIATELY FOR GRADING PURPOSES. STRAW BALE BERMS OR SILT FENCE AROUND THE PERIMETER TO BEGIN INSTALLATION WITHIN ONE BUSINESS DAY IF STOCKPILE SOIL IS EXPECTED TO REMAIN EXPOSED FOR GREATER THAN ONE DAY. STRAW BALE BERMS AND SILT FENCE SHALL BE ANCHORED AND MAINTAINED IN GOOD CONDITION UNTIL STOCKPILES ARE REMOVED AND STOCKPILING AREAS ARE BROUGHT TO FINAL GRADE AND PERMANENTLY STABILIZED.
- APPLY SURFACE STABILIZATION AND RESTORATION MEASURES. AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE WORK IS DELAYED, SUSPENDED, OR INCOMPLETE SHALL BE STABILIZED WITH TEMPORARY VEGETATIVE COVER WITHIN 14 DAYS (7 CALENDAR DAYS IF AUTHORIZED TO DISTURB GREATER THAN FIVE ACRES) AFTER CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS CEASED. AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE WORK IS COMPLETE AND WILL NOT BE REDISTURBED SHALL BE STABILIZED AND RESTORED WITH PERMANENT VEGETATIVE COVER AS SOON AS SITE AREAS ARE AVAILABLE AND WITHIN 14 DAYS (7 CALENDAR DAYS IF AUTHORIZED TO DISTURB GREATER THAN FIVE ACRES) AFTER WORK IS COMPLETE. SEEDING FOR PERMANENT VEGETATIVE COVER SHALL BE WITHIN THE SEASONAL LIMITATIONS. PROVIDE STABILIZATION WITH TEMPORARY VEGETATIVE COVER WITHIN 14 DAYS (7 CALENDAR DAYS IF AUTHORIZED TO DISTURB GREATER THAN FIVE ACRES) AFTER WORK IS COMPLETE, FOR SEEDING OUTSIDE PERMITTED SEEDING PERIODS.
- DISTURBED AREAS SHALL BE SEEDED IN ACCORDANCE WITH SEEDING SPECIFICATIONS IN THE EM&CP.
- THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE COURSE OF CONSTRUCTION. CONTRACTOR TO REMOVE ALL TEMPORARY CONTROLS ONCE 80% VEGETATION IS ESTABLISHED AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST IN ACCORDANCE WITH THE EM&CP.
- WHEN ALL DISTURBED AREAS ARE STABLE AS DETERMINED BY THE ENVIRONMENTAL INSPECTOR, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED.
- SEDIMENT AND EROSION CONTROL MEASURES AS SHOWN ON THE PLANS SHALL BE INSPECTED, REPAIRED AND/OR MAINTAINED BY THE CONTRACTOR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR AND IN ACCORDANCE WITH THE SWPPP INSPECTIONS.
- CLEAN OUT CATCH BASINS, DRAINAGE MANHOLES AND STORM DRAINAGE LINES THAT ARE WITHIN THE WORK LIMITS IF UPON INSPECTION IT IS FOUND THE ACCUMULATED DEBRIS AND SEDIMENT EXISTS FOLLOWING COMPLETION OF WORK.

STABILIZE CONSTRUCTION ENTRANCE:

INSPECT THE ENTRANCE PAD AND CHECK FOR MUD, SEDIMENT BUILD UP AND PAD INTEGRITY. REPAIR/REPLACE AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL. WASH AND REPLACE STONE AS NEEDED. THE STONE IN THE ENTRANCE SHALL BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING TRACKED OFF-SITE BY VEHICLES. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED INTO PUBLIC "RIGHT-OF-WAY" MUST BE REMOVED BY BRUSHING OR SWEEPING.

FILTER BARRIERS (SILT FENCE AND COMPOST FILTER SOCKS):

FILTER BARRIERS SHALL BE INSTALLED PRIOR TO DISTURBANCE OF EXISTING SOIL SURFACES. INSPECT FOR DAMAGE EVERY SEVEN DAYS. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP SLOPE. FACE OF THE BARRIERS BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 THE HEIGHT OF THE BARRIER. IF THE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION IMMEDIATELY.

SOIL STOCKPILE:

INSPECT SEDIMENT CONTROL BARRIERS (SILT FENCE OR STRAW BALE) AND VEGETATION FOR DAMAGE EVERY SEVEN DAYS. STRAW BALES OR SILT FENCE SHALL BE CONSTRUCTED AROUND ALL STOCKPILES OF FILL, TOPSOIL, EXCAVATED OVERBURDEN THAT ARE TO REMAIN EXPOSED FOR PERIODS GREATER THAN ONE DAY. TOPSOIL AND FILL THAT IS TO REMAIN STOCKPILED ON-SITE SHALL BE STABILIZED BY SEEDING. STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN 14 CALENDAR DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED (7 CALENDAR DAYS IF AUTHORIZED TO DISTURB GREATER THAN 5 ACRES). PRIOR TO SEEDING OPERATION, THE STOCKPILED MATERIAL SHALL BE GRADED AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. IF SEDIMENT CONTROL BARRIER TEARS, BEGINS TO DECOMPOSE, OR IN ANYWAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF SEDIMENT CONTROL BARRIER IMMEDIATELY. REVEGETATE DISTURBED AREA TO STABILIZE SOIL STOCK PILE. IN NO CASE SHALL ERODIBLE MATERIALS BE STOCKPILE WITHIN 100 FEET OF ANY DITCH, STREAM, OR OTHER SURFACE WATER BODY. REMOVE THE SEDIMENT CONTROL BARRIER WHEN THE SOIL STOCKPILE HAS BEEN REMOVED.

DUST CONTROL:

DUST CONTROL WILL BE DONE IN ACCORDANCE WITH THE EM&CP AND SWPPP. SCHEDULE CONSTRUCTION OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREAS AT ANY ONE TIME DURING THE COURSE OF WORK. TEMPORARY AND PERMANENT STABILIZATION MEASURE, SUCH AS SEEDING, MULCHING, AND PROVIDING EROSION AND SEDIMENT CONTROL BLANKETS, WILL PREVENT DUST FROM BLOWING OFF SITE. PROVIDE THESE MEASURES AS SOON AS FINAL GRADES ARE REACHED AND ON SOIL STOCKPILES AND DISTURBED AREAS TO BE LEFT FOR LONGER THAN SEVEN DAYS. THE CONTRACTOR SHALL PROVIDE DUST CONTROL AND VEHICLE WASHING TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION WORK AREAS. PAVED AREAS SHALL BE SWEEPED AND KEPT CLEAR OF DUST AND DEBRIS.

CHECK DAMS:

INSPECT CHECK DAMS EVERY SEVEN DAYS. IF SIGNIFICANT EROSION HAS OCCURRED BETWEEN STRUCTURES A LINER OF STONE OR OTHER SUITABLE MATERIALS SHOULD BE INSTALLED IN THAT PORTION OF THE CHANNEL. REMOVE SEDIMENT ACCUMULATED BEHIND THE DAM AS NEEDED TO ALLOW CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. REPLACE STONES AS NEEDED TO MAINTAIN THE DESIGN CROSS SECTION OF THE STRUCTURES. REMOVE CHECK DAMS AS PER APPROVAL OF THE ENGINEER.

EROSION CONTROL BLANKET:

INSPECT THE BLANKET EVERY SEVEN DAYS. REPLACE WIRE STAPLES AS REQUIRED. REPAIR AND RESEED WHERE CRACKS AND DAMAGED VEGETATION IS EVIDENT. WHEN DAMAGED BEYOND REPAIR OR NO LONGER FUNCTIONING, THE BLANKET SHALL BE REPLACED.

DEWATERING BASIN:

IF REQUIRED, DEWATERING BASIN WILL BE CONSTRUCTED IN ACCORDANCE WITH THE DEWATERING BASIN DETAIL. INSPECT THE DAILY DURING OPERATION FOR CLOGGING OR OVERFLOW. CLEAR INLET AND DISCHARGE PIPES OF OBSTRUCTIONS.

GEOTEXTILE FILTER BAGS:

GEOTEXTILE FILTER BAGS MAY BE USED TO FILTER SEDIMENT LADEN WATER PRIOR TO DISCHARGE TO DRAINAGE AREAS AND OFF-SITE. THE BAG TRAPS AND RETAINS SEDIMENT FROM THE WATER. THE BAGS SHALL BE PLACED AT LEAST 50 FEET FROM ALL WETLANDS (IF POSSIBLE), STREAMS, AND SURFACE WATERS IN A VEGETATED, RELATIVELY LEVEL AREA. BAGS SHOULD BE REPLACED WHEN IT HAS REACHED 75% CAPACITY. A STRAW BALE DIKE OR FILTER SOCK MAY BE INSTALLED DOWN GRADIENT IN AREAS WHERE VEGETATED AREAS ARE NOT SUFFICIENT OR TO PROTECT SURFACE WATERS OR ADJACENT PROPERTIES.

SEEDING AND STABILIZATION:

AREAS WHERE SOIL DISTURBANCE HAS TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH SEED AND MULCH. STABILIZATION SHALL BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AFTER COMPLETION OF DISTURBANCE ACTIVITIES AND COMPLETED WITHIN 14 DAYS OF THE SOIL DISTURBANCE ACTIVITY CEASING. IN AREAS DIRECTLY DISCHARGING TO A 303(G) WATERBODY SEGMENT, OR ARE AUTHORIZED TO DISTURB GREATER THAN FIVE ACRES, THE APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN 7 CALENDAR DAYS FROM THE DATE THE SOIL DISTURBANCE ACTIVITY CEASED. THESE AREAS HAVE BEEN IDENTIFIED AT THE FOLLOWING LOCATIONS.

•OAK ORCHARD CREEK, UPPER, AND TRIBUTARIES: STRUCTURE 159 TO 164 AND THEN STRUCTURE 172 TO 187

REFER TO THE SWPPP FOR ADDITIONAL INFORMATION.

TEMPORARY STABILIZATION:

- ROUGH GRADE THE AREA AND REMOVE LARGE ROCKS AND DEBRIS.
- ENSURE SLOPES ARE STABLE.
- APPLY SEED PER THE RECOMMENDED MIXTURE AT THE RATE PROVIDED.
- MULCH THE AREA WITH STRAW AT A RATE OF 2 TONS/ACRE (90 LBS/1000 SF) AND ANCHOR WITH NETTING OR TACKIFIER AS NECESSARY.
- CONSULT WITH THE ENVIRONMENTAL INSPECTOR IF THE LISTED SEED MIX IS UNAVAILABLE.

TEMPORARY SEEDING			
SPRING SUMMER/EARLY FALL			
SEED MIX	VARIETY	RATE (LBS/ACRE)	RATE (LBS/1000 SF)
RYEGRASS	ANNUAL OR PERENNIAL	30	0.7
LATE FALL/EARLY WINTER			
WINTER RYE	CERTIFIED "AROSTOOK"	100	2.5

PERMANENT STABILIZATION:

- COMPACTED SOILS SHALL BE CHISELED OR DISKED TO PROVIDE ADEQUATE ROOTING ZONE TO A MAXIMUM DEPTH OF 12 INCHES. REFER TO THE SOIL RESTORATION STANDARD IN THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL FOR ADDITIONAL INFORMATION.
- REMOVE ROCKS GREATER THAN 4" IN DIAMETER AND DEBRIS FROM THE GROUND SURFACE.
- INCORPORATE SOIL AMENDMENTS INTO THE UPPER 2 INCHES OF SOIL. SOIL SHALL BE TESTED TO DETERMINE THE APPROPRIATE AMOUNT OF AMENDMENT REQUIRED. APPLY GROUND AGRICULTURAL LIMESTONE TO OBTAIN A pH OF 6.0
- APPLY COMMERCIAL FERTILIZER AT A RATE OF 600 LBS/ACRE OF 5-5-10 OR EQUIVALENT.
- APPLY SEED PER THE RECOMMENDED MIXTURE AT THE RATE PROVIDED.
- MULCH THE AREA WITH STRAW AT A RATE OF 2 TONS/ACRE (90 LBS/1000 SF) AND ANCHOR WITH NETTING OR TACKIFIER AS NECESSARY.
- CONSULT WITH THE ENVIRONMENTAL INSPECTOR IF THE LISTED SEED MIX IS UNAVAILABLE.

PERMANENT SEEDING			
APPLICATION	SEED MIX	RATE (LBS/ACRE)	RATE (LBS/1000 SF)
STANDARD EROSION CONTROL MIX	PERENNIAL RYEGRASS	16	0.40
	CREeping RED FESCUE	16	0.40
	TALL FESCUE	10	0.25
	ANNUAL RYEGRASS	5	0.10
	WHITE CLOVER	3	0.10
DITCH AND WATERWAY STABILIZATION MIX	BIRDSFOOT TREEFOIL OR LADINO CLOVER	8	0.20
	TALL FESCUE OR SMOOTH BROME GRASS	20	0.45
	REDTOP	2	0.05

WETLANDS STABILIZATION AND RESTORATION:

- BACKFILL SUBSOIL TO THE EXCAVATED AREA. REPLACE TOPSOIL AND VEGETATIVE ROOT MASS TO AS NEAR TO THE ORIGINAL POSITION AND CONTOUR AS POSSIBLE.
- APPLY SEED PER THE RECOMMENDED MIXTURE AND THE RATE PROVIDED.
- APPLY STRAW AT A RATE OF 2 TONS/ACRE (90 LBS/1000SF).
- CONSULT WITH THE ENVIRONMENTAL INSPECTOR IF THE LISTED SEED MIX IS UNAVAILABLE.
- CONTRACTOR WILL USE NORTHEAST WETLAND DIVERSITY MIX (STCMX-12) FROM SOUTHERN TIER CONSULTING OR FACOW WETLAND MEADOW MIX (ERNMX-122) FROM ERNST CONSERVATION SEEDS, OR A COMPARABLE MIX APPROVED BY DPS AND NYSDEC.
- REMOVE EXCESS SPOIL FROM WETLAND AREA.

RESTORATION OF GRADED AREAS:

- WHERE GRADING HAS OCCURRED, ALL AREAS WILL BE RESTORED TO A STABLE CONDITION WITH SLOPES NOT TO EXCEED 3:1.

RESTORATION OF AGRICULTURAL LANDS:

- AGRICULTURAL LANDS ARE TO BE RESTORED IN ACCORDANCE WITH THE "NEW YORK STATE DEPARTMENT OF AGRICULTURE AND MARKET FERTILIZING, LIME, AND SEEDING RECOMMENDATIONS" FOR RESTORATION OF CONSTRUCTION PROJECTS ON FARMLANDS IN NEW YORK STATE" PROVIDED IN APPENDIX T OF THE EM&CP DOCUMENT AND IN ACCORDANCE WITH SECTION L, AGRICULTURAL RESOURCES, OF THE COMMISSION ORDER.

SOIL RESTORATION:

- SOIL RESTORATION SHALL BE COMPLETED IN ACCORDANCE WITH TABLE 4.6 BELOW (ADOPTED FROM THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL "BLUE BOOK").
- APPLYING 3 INCHES OF COMPOST OVER SUBSOIL. THE COMPOST SHALL BE WELL DECOMPOSED (MATURED AT LEAST 3 MONTHS), WEED-FREE, ORGANIC MATTER. IT SHALL BE AEROBICALLY COMPOSTED, POSSESS NO OBJECTIONABLE ODORS, AND CONTAIN LESS THAN 1% BY DRY WEIGHT, OF MAN-MADE FOREIGN MATTER. THE PHYSICAL PARAMETER OF THE COMPOST SHALL MEET THE STANDARD LISTED IN TABLE 5.2 COMPOST STANDARDS TABLE (OF THE BLUE BOOK), EXCEPT FOR "PARTICLE SIZE" 100% WILL PASS THE 1/2" SIEVE.
- TILL COMPOST INTO SUBSOIL TO A DEPTH OF AT LEAST 12 INCHES USING A CAT-MOUNTED RIPPER, TRACTOR MOUNTED DISC, OR TILLER, TO MIX AND CIRCULATE AIR AND COMPOST IN THE SUBSOIL.
- ROCK-PICK UNTIL UPLIFTED STONE/ROCK MATERIALS OF FOUR INCHES, AND LARGER SIZE ARE CLEANED OFF THE SITE.
- APPLY TOPSOIL TO A DEPTH OF 6 INCHES.
- VEGETATE AS REQUIRED BY THE SEEDING PLAN. USE APPROPRIATE GROUND COVER WITH DEEP ROOTS TO MAINTAIN THE SOIL STRUCTURE.
- TOPSOIL MAY BE MANUFACTURED AS MIXTURE OR A MINERAL COMPONENT AND ORGANIC MATERIALS SUCH AS COMPOST.

TABLE 4.6 SOIL RESTORATION REQUIREMENTS		
TYPE OF SOIL DISTURBANCE	SOIL RESTORATION REQUIREMENT	COMMENTS/EXAMPLES
NO SOIL DISTURBANCE	RESTORATION NOT PERMITTED	PRESERVATION OF NATURAL FEATURES
MINERAL SOIL DISTURBANCE	RESTORATION NOT REQUIRED	CLEARING AND GRUBBING
AREAS WHERE TOPSOIL IS STRIPPED OR NO CHANGE IN GRADE	HSS A&B APPLY 4 SACKS OF TOPSOIL	HSS C&D APPLY 4 SACKS OF TOPSOIL HSS E&F APPLY 4 SACKS OF TOPSOIL
AREAS OF CUT OR FILL	HSS A&B HSS C&D HSS E&F HSS G	HSS G HSS H HSS I HSS J
HEAVY TRAFFIC AREAS ON SITE (ESPECIALLY IN A ZONE 15-25 FEET WIDE) OR AREAS WHERE PLANT ROOTS ARE REMOVED	APPLY FULL SOIL RESTORATION (DEEPENING, COMPOST ENRICHMENT)	
AREAS WHERE PLANT ROOT REDUCTION AND/OR INFILTRATION PRACTICES ARE APPLIED	RESTORATION NOT REQUIRED, BUT MAY BE APPLIED TO ENHANCE PLANT GROWTH AND IMPROVE INFILTRATION	KEEP CONSTRUCTION EQUIPMENT FROM CRUSHING PLANT ROOTS. USE PROTECTIVE MATS TO PREVENT ROOTS FROM BEING CRUSHED OR REMOVED. MAINTAIN A SMALL POND OR OTHER WATER FEATURE.
REDEVELOPMENT PROJECTS	SOIL RESTORATION IS REQUIRED ON ALL AREAS WHERE EXISTING IMPROVED AREAS WILL BE CONVERTED TO PREVIOUS AREAS.	
*NATION REQUIRES THE USE OF THE INCHES SUCH AS TRACTOR-OWNED MEASUREMENTS WITH COLLATED MARKS A NATION SET IN THE SOIL. A ROLLER WITH THE WENT SPEED MEASUREMENTS IN THE SOIL, OR PRACTICES WHICH FUNCTION LIKE A MIN-RODOLLS.		

DEWATERING PLAN:

DEWATERING IS THE REMOVAL OF EXCESS RUNOFF AND GROUNDWATER THAT HAS ACCUMULATED AND IS OCCUPYING THE EXCAVATIONS TO ALLOW FOR THE CONSTRUCTION OF THE FOUNDATIONS AND THEN DRY BACKFILLING. THIS WILL REQUIRE THE FOLLOWING:

- SEDIMENT FILTERING BAGS AND/OR OTHER EQUIVALENT SEDIMENT CONTROL STRUCTURES FOR PUMPED WATER SHOULD BE USED WHENEVER WATER IS PUMPED FROM THE EXCAVATION. SEDIMENT FILTER BAGS (USE ONLY NON-WOVEN GEOTEXTILE FILTER BAGS), WHEN IMPLEMENTED AND MAINTAINED PROPERLY, PREVENT THE DISCHARGE OF HEAVILY SILT-LADEN WATER. EFFECTIVELY TRAPPING PARTICLES LARGER THAN APPROXIMATELY 150 MICRONS. FILTER BAGS SHALL BE USED IN WELL-VEGETATED AREAS, PROVIDING ADDITIONAL FILTRATION UPON DISCHARGE. DISCHARGE TO AGRICULTURAL LANDS WILL NOT BE CONDUCTED IN ACTIVE CROP AREAS UNLESS DRY CONDITIONS ARE PRESENT AND LANDOWNER PERMISSION IS RECEIVED. THE PUMPING RATE SHOULD NOT EXCEED THE MAXIMUM RECOMMENDED BY THE MANUFACTURER (FOR EXAMPLE PUMPING RATE THROUGH THE FILTER BAGS SHALL BE NO GREATER THAN 750 GPM OR ½ THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS). THE FILTER BAGS WILL BE CHANGED WHEN THEY BECOME HALF FULL. THEIR SILT CONTENTS WILL NOT BE DEPOSITED ON AGRICULTURAL LANDS.
- DISCHARGE INTO APPROVED UPLAND VEGETATED (GRASSY) AREAS ONTO STABLE EROSION-RESISTANT AREAS, LOCATED SUCH THAT IT DOES NOT ALLOW THE WATER TO RETURN TO THE ROW DITCH LINE.
- BASED ON PREVIOUS EXPERIENCE, FILTER BAGS HAVE PROVIDED SUCCESSFUL MEANS IN CONTROLLING THE DISCHARGE OF TURBID WATERS. IF THE WATER BEING DISCHARGED FROM THE FILTER BAG APPEARS "MILKY" OR EXCESSIVELY CLOUDY, THEN SEDIMENT CORRALS CAN BE UTILIZED TO AUGMENT FILTER BAG USE, POSITIONED AT LEAST 50- FEET FROM ANY WATERBODY AND CLOSELY MONITORED TO ENSURE PROPER FUNCTION TO PREVENT TURBID WATER FROM ENTERING A WATERBODY.
- DURING TRENCH DEWATERING OPERATIONS, USE FLOATS OR SUPPORTS TO ENSURE THE SUCTION INTAKE IS ELEVATED OFF OF THE BOTTOM OF THE SATURATED TRENCH. THIS WILL REDUCE SEDIMENTS SUSPENDED IN WATER.
- FILTRATION BAGS, A STRAW BALE BASIN, FILTER CLOTH BASINS, OR A COMBINATION OF THESE DEVICES ARE ACCEPTABLE METHODS OF FILTRATION FOR DISCHARGE OF WATER IN AN INSUFFICIENTLY VEGETATED OR WETLAND AREA.



1

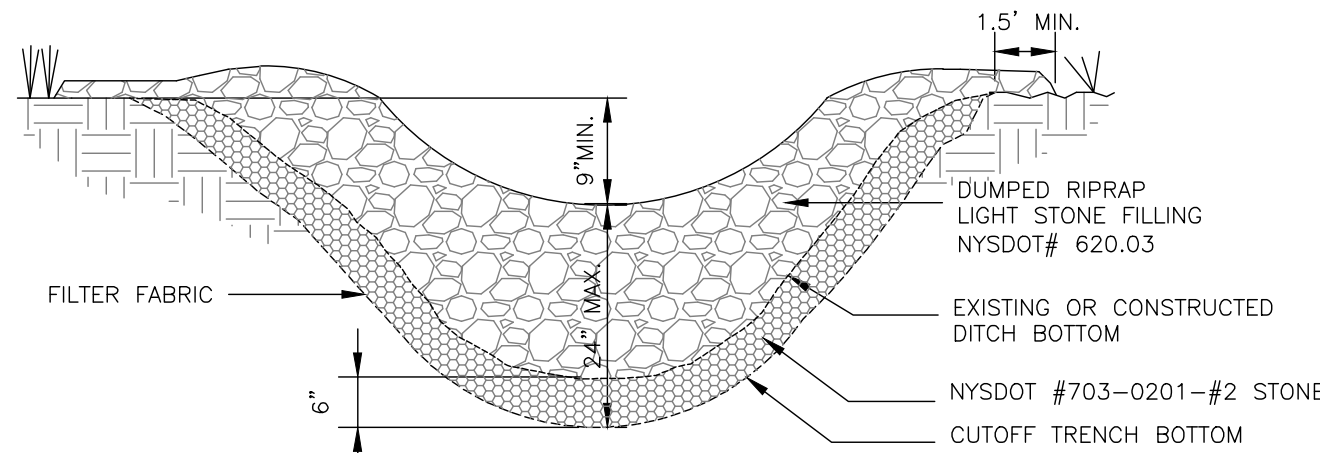
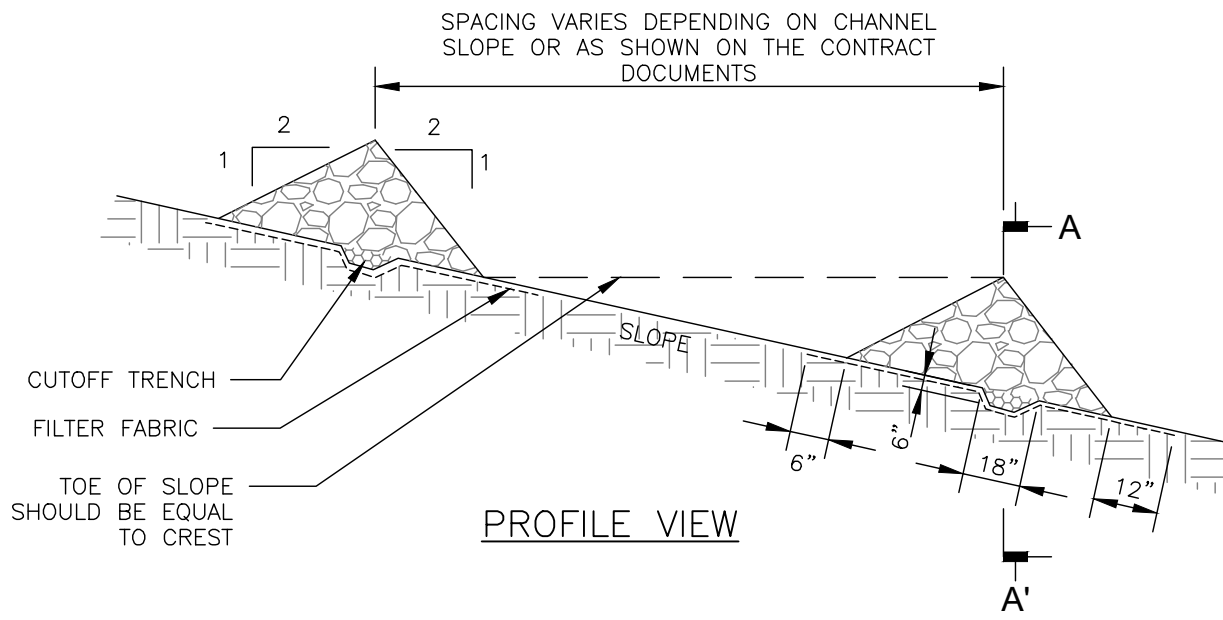
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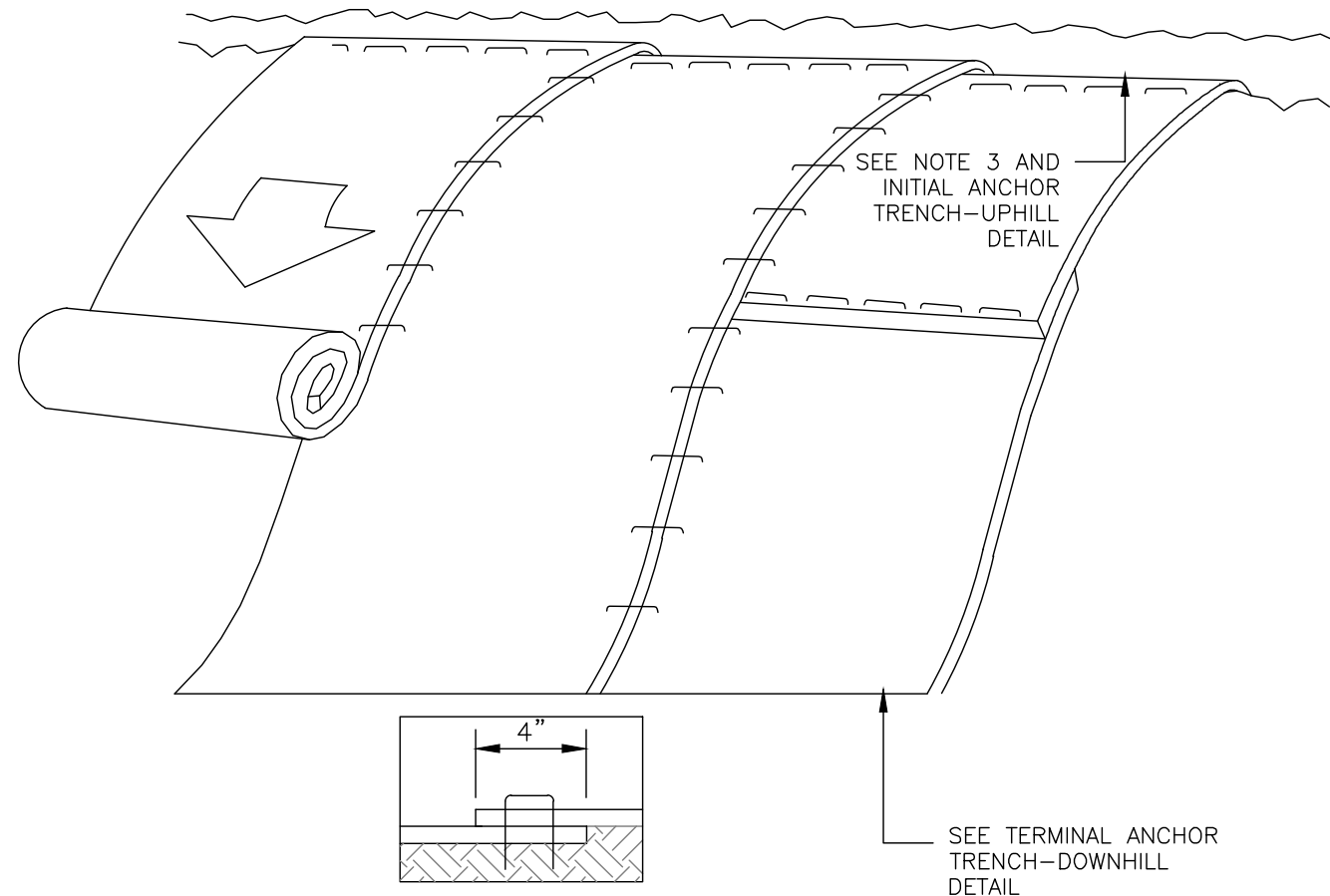
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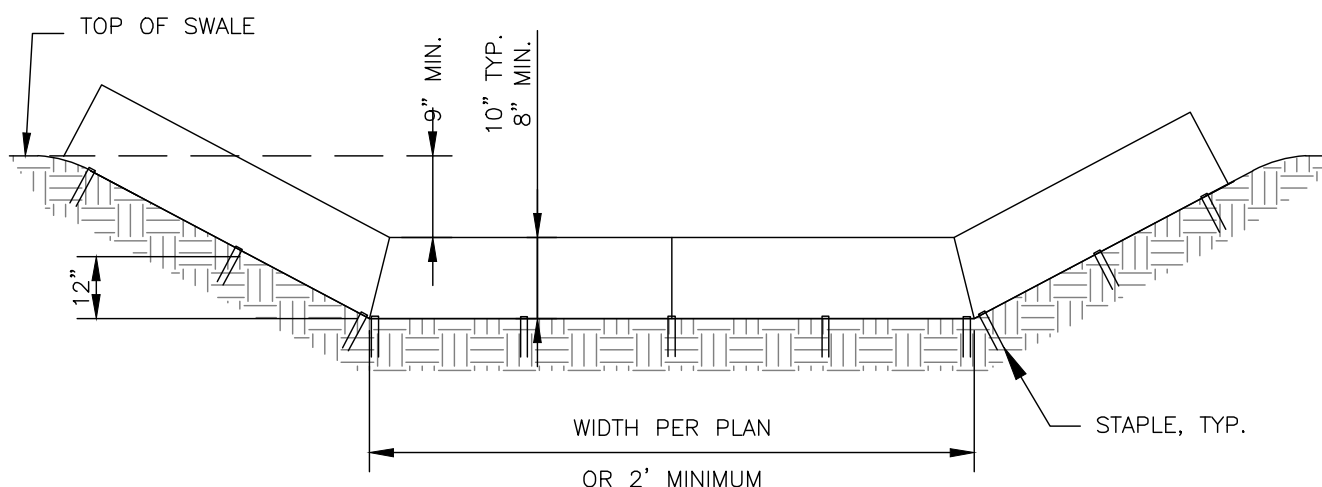
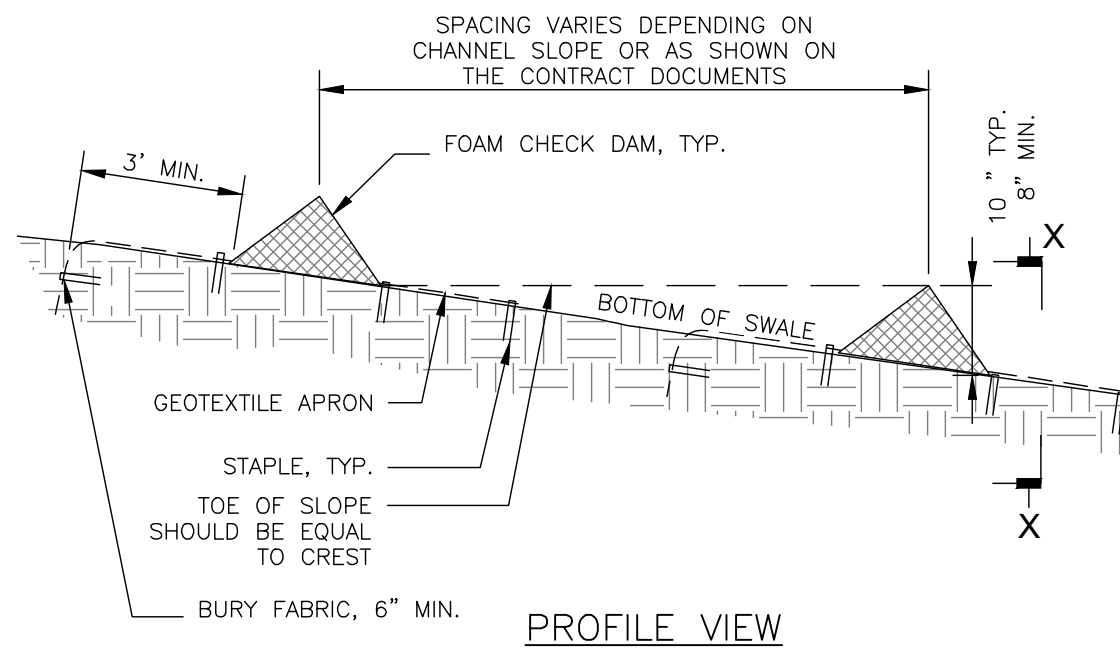
- NOTES:
- STONE SHALL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
 - EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT STORMWATER FROM FLOWING AROUND THE CHECK DAM.
 - ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
 - MAXIMUM DRAINAGE AREA 2 ACRES.

STONE CHECK DAM
NOT TO SCALE



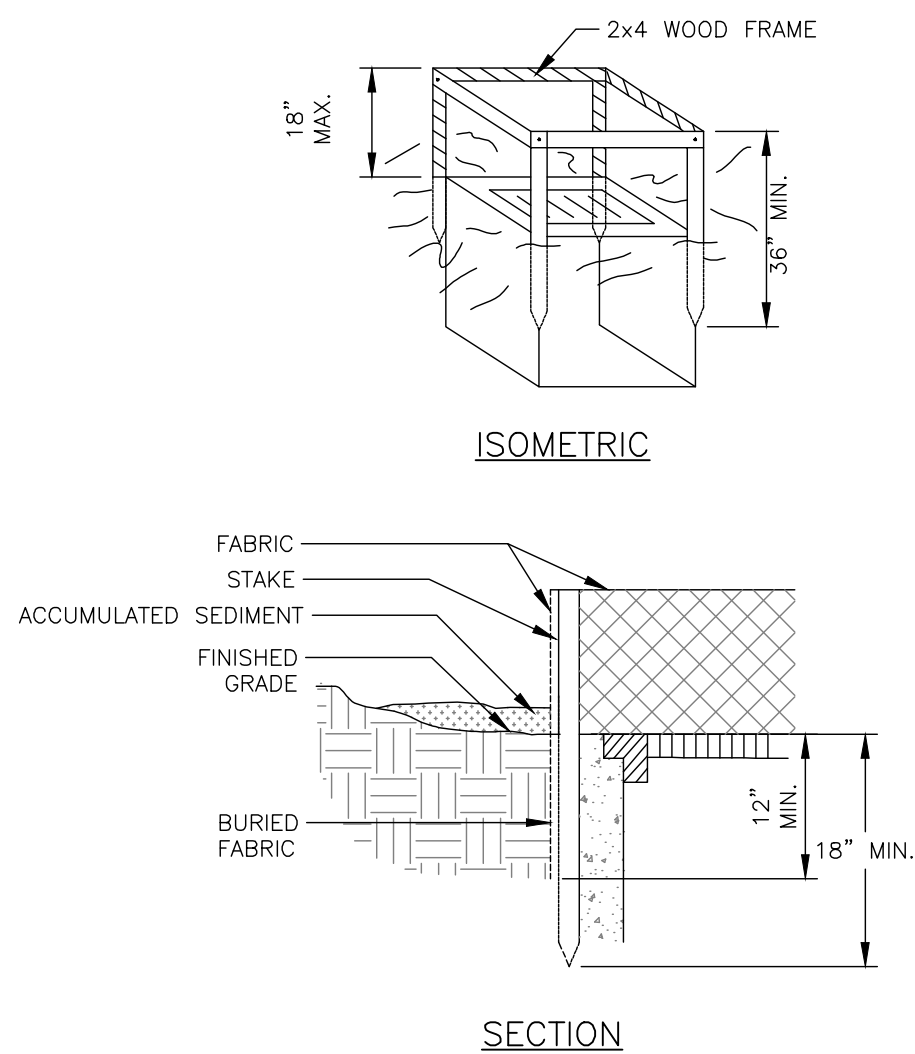
- NOTES:
- TURF REINFORCEMENT MAT (TRM) SHALL BE TENSAR NORTH AMERICAN GREEN P-300, OR APPROVED EQUAL.
 - PREPARE SOIL BEFORE INSTALLING TRM. INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
 - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE TRM IN A TRENCH, AS SHOWN ON THE INITIAL ANCHOR TRENCH-UPHILL DETAIL. ANCHOR THE TRM WITH A ROW OF STAPLES APPROXIMATELY 12" APART IN THE BOTTOM OF TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF TRM BACK OVER THE SEED AND COMPACTED SOIL. SECURE TRM OVER COMPACTED SOIL WITH A ROW OF STAPLES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE ROLLED EROSION CONTROL PRODUCTS.
 - ROLL THE TRM DOWN THE SLOPE. TRM WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL TRM MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE PROVIDED BY MANUFACTURER.
 - THE EDGES OF PARALLEL TRM MUST BE STAPLED WITH 4" MINIMUM OVERLAP. OVER LAP PER MANUFACTURER'S INSTRUCTIONS.
 - CONSECUTIVE TRM SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH A 4" MINIMUM OVERLAP. STAPLE THROUGH OVERLAPPED AREA APPROXIMATELY 12" APART ACROSS ENTIRE TRM WIDTH. NOTE: IN LOOSE SOIL CONDITIONS THE USE OF STAPLE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE TRM.
 - REFER TO TERMINAL ANCHOR TRENCH-DOWNHILL DETAIL FOR TERMINAL ANCHOR TRENCH INSTALLATION.

SLOPE STABILIZATION WITH
ROLLED EROSION CONTROL PRODUCTS
NOT TO SCALE



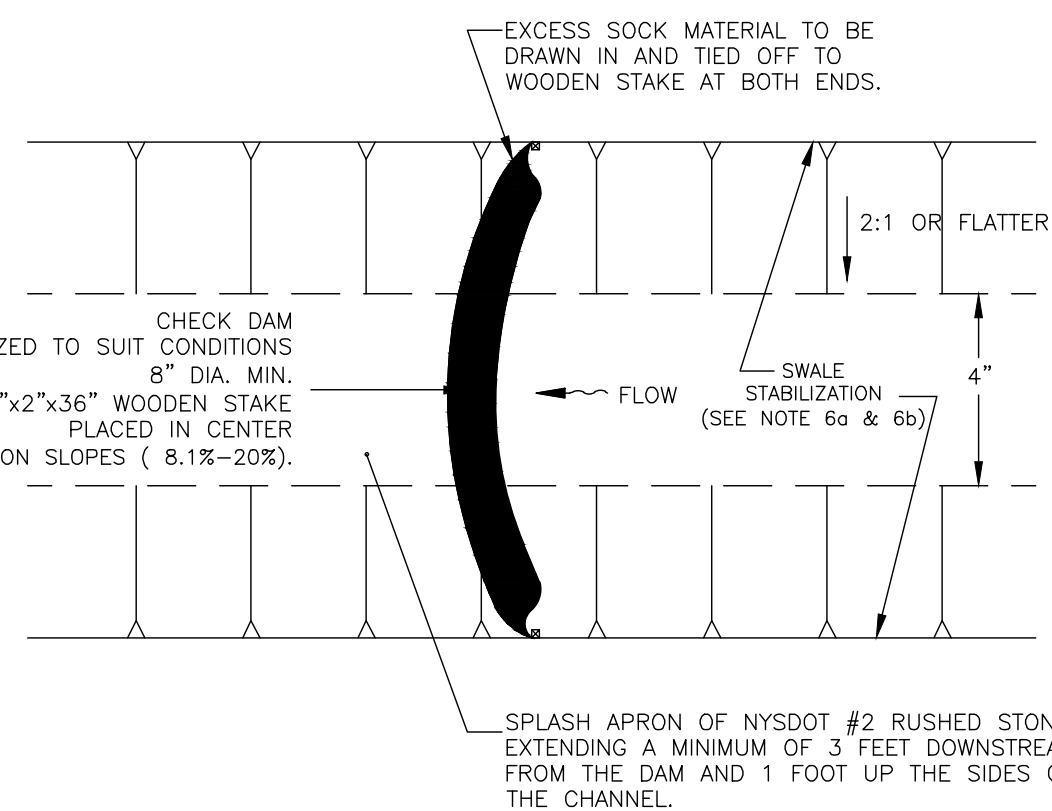
- NOTES:
- PREFABRICATED TEMPORARY CHECK DAMS SHALL BE EITHER URETHANE FOAM (CFC FREE) COVERED WITH GEOTEXTILE FABRIC, TRIANGULAR SILT DIKE BY ACF, GEORIDGE BY NILEX OR EQUAL. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
 - STAPLES SHALL BE PLACED WHERE UNITS OVERLAP AND A DIRECTED BY MANUFACTURERS INSTRUCTIONS.

PREFABRICATED CHECK DAM
NOT TO SCALE



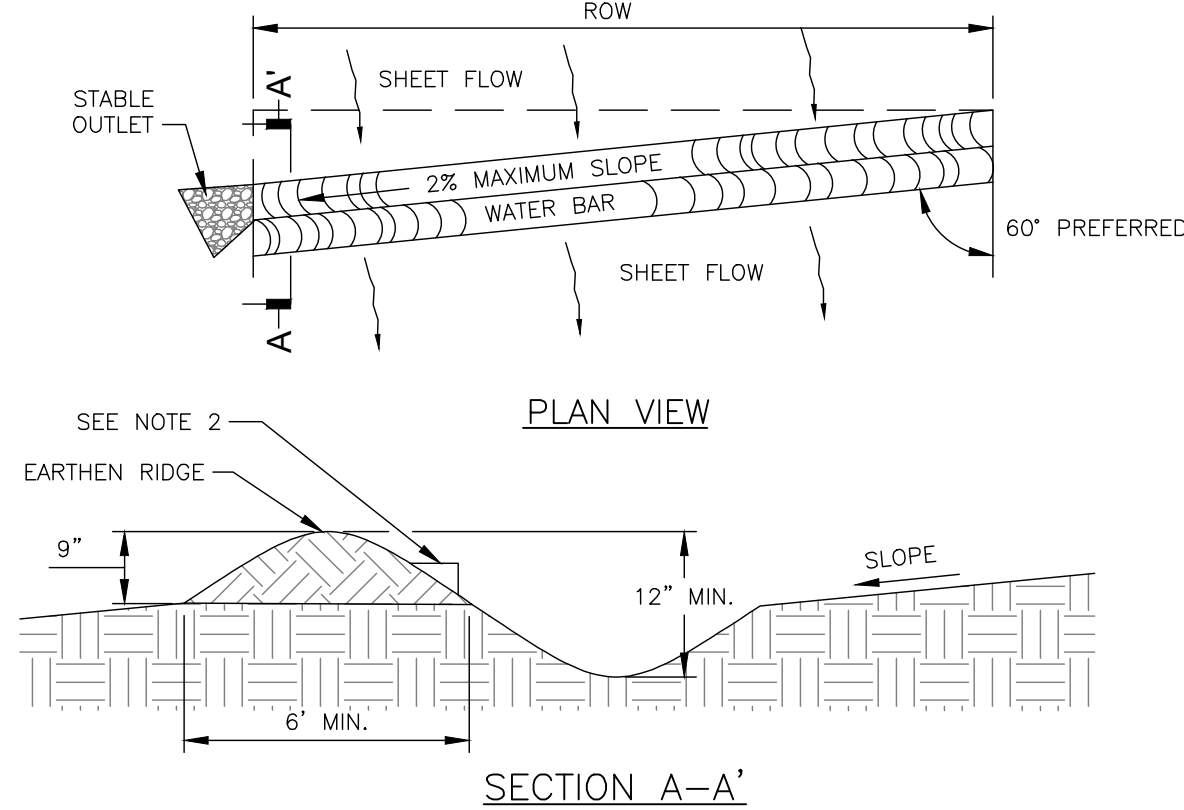
- NOTES:
- FABRIC SHALL HAVE AN EQUIVALENT OPENING SIZE (EOS) OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
 - CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED, THEY SHALL BE OVERLAPPED TO THE NEXT STAKE.
 - STAKE MATERIALS SHALL BE STANDARD 2x4 WOOD OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 3'.
 - SPACE STAKES EVENLY AROUND INLET 3' APART AND DRIVE MINIMUM 18" DEEP. SPANS GREATER THAN 3' MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
 - FABRIC SHALL BE EMBEDDED 12" MINIMUM BELOW GROUND AND BACK-FILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
 - A 2x4 WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.
 - MAXIMUM CONTRIBUTION DRAINAGE AREA SHALL BE 1.0 ACRES.

INLET PROTECTION IN NON-PAVED AREAS
NOT TO SCALE



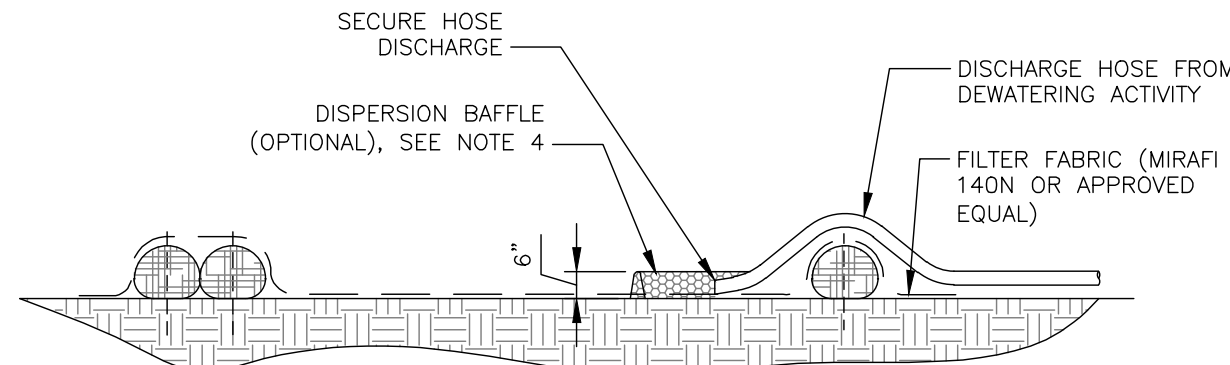
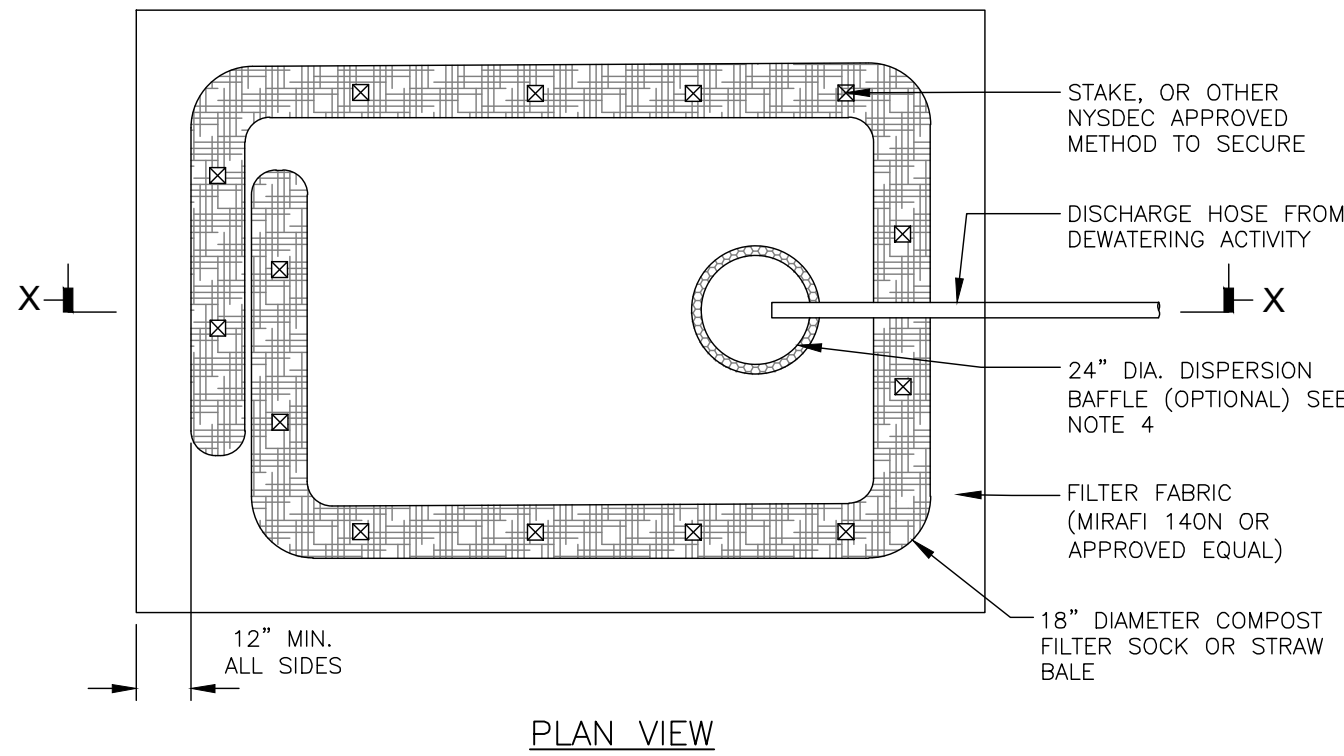
- NOTES:
- CHECK DAMS TO BE 8" DIA. FILTREXX "SILT SOCK" OR APPROVED EQUAL.
 - CHECK DAMS SHOULD BE USED IN DRAINAGE SWALES WITH SLOPES OF 8.1%-20%.
 - SEDIMENT SHOULD BE REMOVED FROM BEHIND CHECK DAM ONCE THE ACCUMULATED HEIGHT HAS REACHED 1/2 THE HEIGHT OF THE CHECK DAM.
 - CHECK DAM CAN BE DIRECT SEED AT THE TIME OF INSTALLATION.
 - CHECK DAM SPACING SHALL BE SUCH THAT THE CREST OF THE DOWNSTREAM DAM IS AT THE ELEVATION OF THE TOE OF THE UPSTREAM DAM, WHICH IS EQUAL TO THE HEIGHT OF THE CHECK DAM DIVIDED BY THE CHANNEL SLOPE.
 - 6a. VEGETATED SWALE STABILIZED WITH HYDRAULICALLY APPLIED CONWED FIBERS HYDRO MULCH 2000 OVER 4" PLANTABLE SOIL BORROW FOR SLOPES 5.1%-8.0%.
 - 6b. VEGETATED SWALE STABILIZED WITH HYDRAULICALLY APPLIED HIGH PERFORMANCE FLEXIBLE GROWTH MEDIUM (HP-FGM) OVER 4" PLANTABLE SOIL BORROW FOR SLOPES 8.1%-20%.
 - ADAPTED FROM NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, STANDARDS AND SPECIFICATIONS FOR CHECK DAM (NOV.2016)

SILT SOCK CHECK DAM
SCALE: N.T.S



- NOTES:
- THE SIDE SLOPES SHALL BE 2H:1V OR FLATTER, 4H:1V OR FLATTER WHERE VEHICLES ARE REQUIRED TO CROSS.
 - THE SPACING OF THE WATER BARS SHALL BE AS SHOWN IN TABLE - 1.
 - THE CHANNEL SLOPE OF THE WATER BAR SHALL NOT EXCEED 2%.
 - INSTALL THE WATER BAR IMMEDIATELY AFTER THE RIGHT OF WAY IS CLEARED AND GRUBBED.
 - DISK OR STRIP THE VEGETATIVE COVER FROM THE BASE FOR THE CONSTRUCTED RIDGE BEFORE PLACING FILL.
 - COMPACT THE RIDGE TO THE DESIGN CROSS SECTION.
 - THE STABLE OUTLET SHALL BE LOCATED ON AN UNDISTURBED AREA. FIELD SPACING WILL BE ADJUSTED TO USE THE MOST STABLE OUTLET AREAS. OUTLET PROTECTION SHALL BE PROVIDED WHEN NATURAL AREAS ARE NOT ADEQUATE OR ARE WITHIN 75' OF A WATERBODY.
 - VEHICLE CROSSING AREAS SHALL BE STABILIZED WITH GRAVEL. EXPOSED AREAS SHALL BE SEED, MULCHED, AND STABILIZED IMMEDIATELY AFTER CONSTRUCTION.
 - INSPECT WATER BARS FOR EROSION DAMAGE AND SEDIMENT DURING SWPPP INSPECTIONS AND AFTER RAIN STORMS. CHECK OUTLET AREAS AND MAKE REPAIRS AS NEEDED TO RESTORE OPERATION.
 - LOCATE DISCHARGE FROM WATER BAR TO ENSURE RUNOFF DOES NOT TRAVEL BACK ONTO ROW.

WATER BAR DETAIL
NOT TO SCALE



- NOTES:
- BASIN SHALL BE SIZED TO PREVENT DISCHARGE WATER FROM OVERTOPPING BASIN, 200 C.F. MIN. VOLUME.
 - BASIN SHALL BE LOCATED AS FAR FROM WETLAND AREAS AS PRACTICAL, MINIMUM OF 50'.
 - DEWATERING BASIN TO BE CLEANED AND REMOVED AS SOON AS DEWATERING IS COMPLETE.
 - INCLUDE A DISPERSION BAFFLE IN DEWATERING BASIN AT END OF DISCHARGE HOSE WHERE NEEDED TO PROMOTE SETTLING OF SEDIMENT. DISPERSION BAFFLE SHALL CONSIST OF A STONE FILTER "PYRAMID" OF NYSDOT #703-0201 - #2 STONE AROUND PERIMETER OF DISCHARGE HOSE OR APPROVED EQUAL.

DEWATERING BASIN
NOT TO SCALE

PREPARED BY

HP APPROVED
FISHER
VR APPROVED
VL APPROVED
RW APPROVED

DES. APP.
DR. CK. DR. CK.

DESCRIPTION OF ISSUE OR REVISION

DATE

115KV TRANSMISSION LINES

LOCKPORT - BATAVIA 112

REBUILD PROJECT

EROSION PREV. & SEDIMENT CONTROL DETAILS

nationalgrid

ACCOUNT NUMBER

HP APPROVED

FISHER

DES. APP.
DR. CK. DR. CK.

DESCRIPTION OF ISSUE OR REVISION

DATE

ORIGINAL DATE

ISSUE DATE

6/06/25

6.1-L-10-M5

LOCKPORT - BATAVIA 112

REBUILD PROJECT

EROSION PREV. & SEDIMENT CONTROL DETAILS

ACCOUNT NUMBER

nationalgrid

ACCOUNT NUMBER

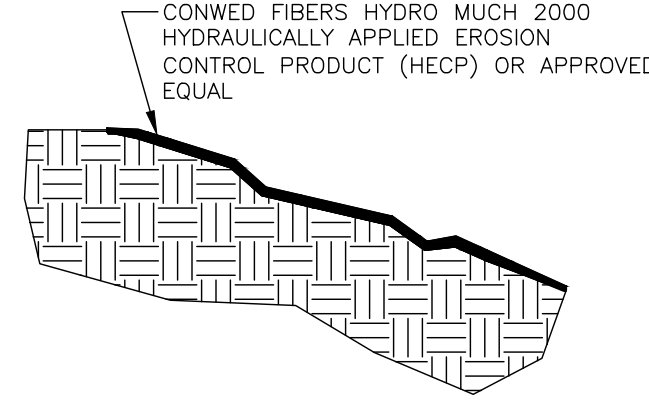
HP APPROVED

FISHER

DES. APP.
DR. CK. DR. CK.

DESCRIPTION OF ISSUE OR REVISION

DATE



INSTALLATION:

STRICTLY COMPLY WITH EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS. USE APPROVED HYDRO-SPRAYING MACHINES WITH FAN-TYPE NOZZLE (50 DEGREES TIP), TO ACHIEVE OPTIMUM SOIL SURFACE COVERAGE. APPLY HM FROM OPPOSING DIRECTIONS TO SOIL SURFACE. ROUGH SURFACES (ROCKY TERRAIN, CAT TRACKS AND RIPPED SOILS) MAY REQUIRE HIGHER APPLICATION RATES TO ACHIEVE 75% COVER. SLOPE INTERRUPTION DEVICES OR WATER DIVERSION TECHNIQUES ARE RECOMMENDED WHEN SLOPE LENGTHS EXCEED 30 FEET (9m). MAXIMUM SLOPE LENGTH IS FOR PRODUCT APPLICATIONS ON A 4H:1V SLOPE. FOR APPLICATION ON STEEPER SLOPES, SLOPE INTERRUPTION LENGTHS MAY NEED TO BE DECREASED BASED ON ACTUAL SITE CONDITIONS. NOT RECOMMENDED FOR CHANNELS OR AREAS WITH CONCENTRATED WATER FLOW. NO CHEMICAL ADDITIVES WITH THE EXCEPTION OF FERTILIZER, LIMING AND BIOSIMULANT MATERIALS SHOULD BE ADDED TO THIS PRODUCT. TO ENSURE PROPER APPLICATION RATES, MEASURE AND STAKE AREA.

1. APPLY FERTILIZER WITH SPECIFIED PRESCRIPTIVE AGRONOMIC FORMULATIONS, SEED AND HM AT A RATE OF 50 LB PER 100 GALLONS(23 KG/380 LITERS) OF WATER OVER PROPERLY PREPARED SURFACES. CONFIRM LOADING RATES WITH EQUIPMENT MANUFACTURER.

DO NOT APPLY ON SATURATED SOILS OR SUBSTRATES. DO NOT APPLY IF PRECIPITATION IS ANTICIPATED WITHIN 24-48 HOURS. APPLICATION RATES: THESE APPLICATION RATES ARE FOR STANDARD CONDITIONS. DESIGNERS MAY NEED TO INCREASE APPLICATION RATES ON ROUGH SURFACES. CONSULT APPLICATION AND LOADING CHARTS TO DETERMINE NUMBER OF BAGS TO BE ADDED FOR DESIRED AND APPLICATION RATE.

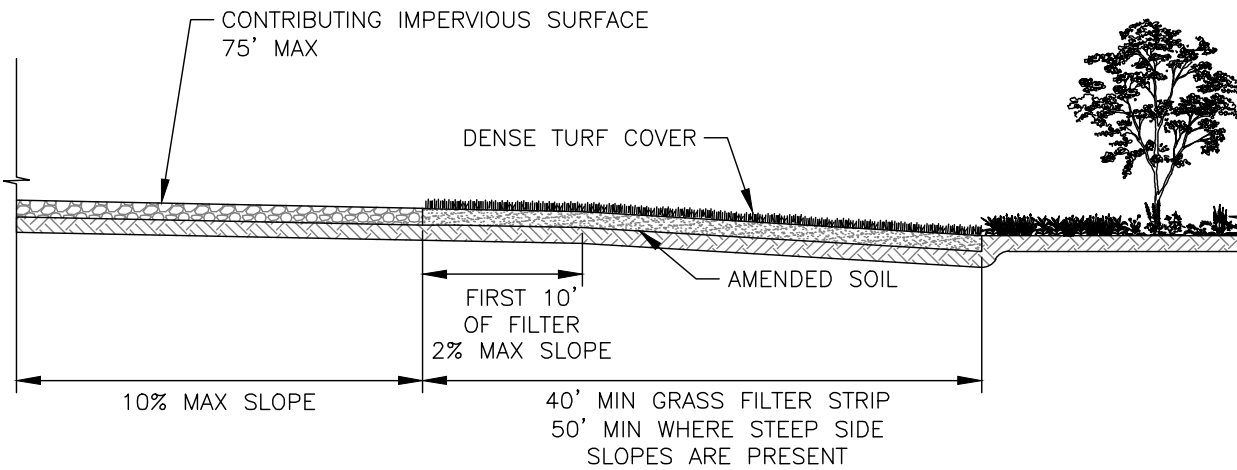
SLOPE GRADIENT/CONDITION	ENGLISH	SI
≤ 4H TO 1V	2000 lb/ac	2250 kg/ha
2H TO 1V AND 5H TO 1V	2500 lb/ac	2800 kg/ha
3H TO 1V AND 5H TO 1V	3000lb/ac	3400 kg/ha

*FOR STABILIZING DISTURBED SLOPES 2H:1V OR STEEPER NOT FOR USE IN DRAINAGE CHANNEL APPLICATIONS.

SEE COMPREHENSIVE CSI FORMATTED SPECIFICATION FOR FURTHER DETAILS

CONWED FIBERS HYDRO MULCH

NOT TO SCALE



SHEET FLOW TO FILTER STRIP
PROFILE VIEW

SHEET FLOW TO RIPARIAN BUFFERS OR FILTER STRIPS (RR-2)

NOT TO SCALE

FLEXTERRA HP-FGM

>BETTER EROSION CONTROL-FLEXTERRA HP-FGM IMMEDIATELY BONDS TO THE SOIL SURFACE. IT'S FLEXIBLE YET STABLE MATRIX RETAINS >99% SOIL, VASTLY REDUCING TURBIDITY OF RUNOFF FOR UP TO 18 MONTHS. HP ALSO FEATURES GREATER WET BOND STRENGTH YIELDING INCREASED RESISTANCE TO SHEET FLOW.

>GREATER SEED GERMINATION AND GROWTH-HIGH PERFORMANCE MATRIX OUTPERFORMS TRADITIONAL FLEXTERRA FGM WITH 600% BETTER INITIAL GERMINATION AND 250% INCREASED BIOMASS DUE TO AA COMBINATION OF OPTIMIZED WATER AND NUTRIENT RETENTION.

>SAFER FOR THE ENVIRONMENT- UNLIKE ROLLED EROSION CONTROL BLANKETS, FLEXTERRA HP-FGM HAS NO NETS OR THREADS TO ENDANGER WILDLIFE. IT USES 100% BIODEGRADABLE CRIMPED INTERLOCKING FIBERS AND 100% RECYCLED AND PHYTO-SANTIZED WOOD FIBERS. FLEXTERRA HP-FGM IS 100% SAFE FOR AQUATIC AND TERRESTRIAL LIFE FORMS.

>EARTH FRIENDLY AND SUSTAINABLE RESULTS-FLEXTERRA HP-FGM IS A RESULT OF PROFILE'S GREEN DESIGN ENGINEERING, CREATING COST-EFFECTIVE AND ENVIRONMENTALLY SUPERIOR SOLUTIONS THROUGH THE DESIGN, MANUFACTURE AND APPLICATION OF SUSTAINABLE EROSION CONTROL AND VEGETATION ESTABLISHMENT TECHNOLOGIES.

TECHNICAL DATA

PHYSICAL PROPERTIES	TEST METHOD	UNITS	MINIMUM VALUE
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• MASS UNIT AREA	ASTM D6586	g/m ² (oz/yd ²)	407(12)
• THICKNESS	ASTM D525	mm(in)	5.6(0.22)
• WET BOND STRENGTH	ASTM D6818	N/m(bu/ft)	131(9)
• GROUND COVER	ASTM D6567	%	99
• WATER-HOLDING CAPACITY	ASTM D7367	%	1700
• MATERIAL COLOR	OBSERVED	r/o	GREEN

ENVIRONMENTAL PROPERTIES	TEST METHOD	UNITS	MINIMUM VALUE
--------------------------	-------------	-------	---------------

• BIODEGRADABILITY	ASTM	%	100
• FUNCTIONAL LONGEVITY	ASTM	r/o	UP TO 18 MONTHS
• EFFLUENT TURBIDITY	LARGE SCALE	NTU	<100

PERFORMANCE PROPERTIES	TEST METHOD	UNITS	MINIMUM VALUE
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• COVER FACTOR	LARGE SCALE	r/o	<0.01
• PERCENT EFFECTIVENESS	LARGE SCALE	%	>99
• CURE TIME	OBSERVED	HOURS	0-2
• VEGETATION ESTABLISHMENT	ASTM D7322	%	>800

PRODUCT COMPOSITION	TYPICAL VALUE
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• THERMALLY PROCESSED WOOD FIBERS (WITHIN A PRESSURIZED VESSEL)	80%±3%
• CROSS-LINKED BIOPOLYMERS AND WATER ABSORBENTS	10%±1%
• CRIMPED, MAN-MADE BIODEGRADABLE INTERLOCKING FIBERS	5%±1%
• PROPRIETARY MINERAL ACTIVATOR	5%±1%

*WHEN UNIFORMLY APPLIED AT A RATE OF 3500 kg/ha (3500 lbs/ac) UNDER LABORATORY CONDITIONS.

1. ASTM TEST METHODS DEVELOPED FOR ROLLED EROSION CONTROL PRODUCTS THAT HAVE BEEN MODIFIED TO ACCOMMODATE HYDRAULIC EROSION CONTROL PRODUCTS.

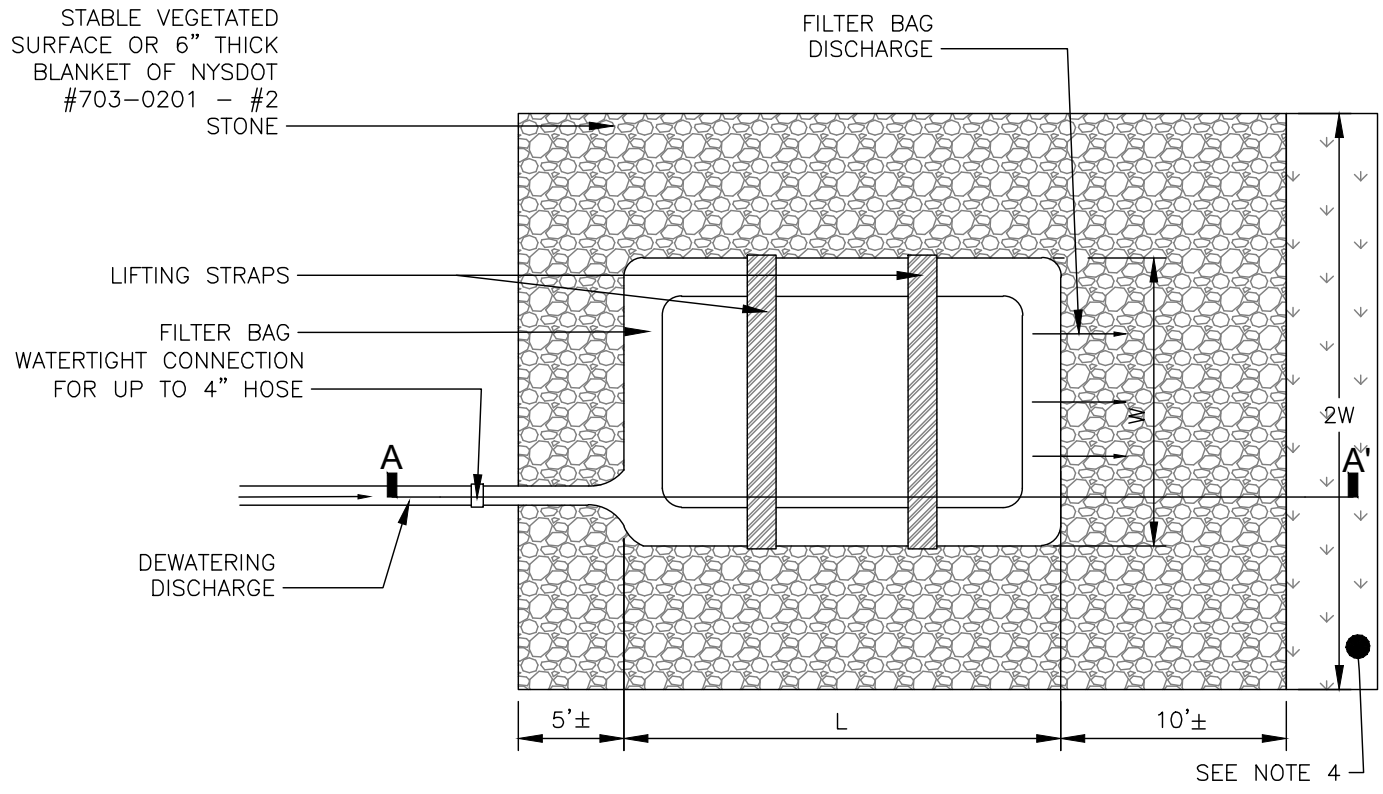
2. FUNCTIONAL LONGEVITY IS THE ESTIMATED TIME PERIOD BASED UPON FIELD OBSERVATIONS THAT A MATERIAL CAN BE ANTICIPATED TO PROVIDE EROSION CONTROL AND AGRONOMIC BENEFITS AS INFLUENCED BY COMPOSITION, AS WELL AS SITE SPECIFIC CONDITIONS, INCLUDING BUT NOT LIMITED TO: TEMPERATURE, WINDSPEED, LIGHT CONDITIONS, SOIL BIOLOGICAL ACTIVITY, VEGETATIVE ESTABLISHMENT AND OTHER ENVIRONMENTAL FACTORS.

3. LARGE SCALE TESTING CONDUCTED AT URM WATER RESEARCH LABORATORY FOR SPREADS TESTING INFORMATION PLEASE CONTACT A PROFILE TECHNICAL SERVICE REPRESENTATIVE AT 866-325-6262.

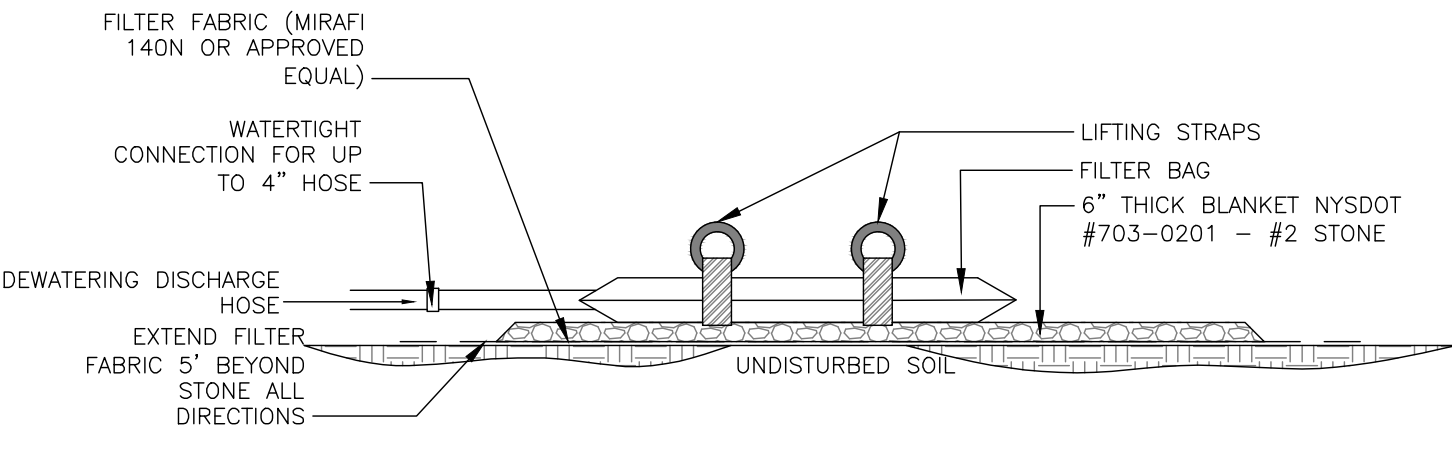
4. COVER FACTOR IS CALCULATED AS SOIL LOSS RATE OF TREATED SURFACE VERSUS AN UNTREATED CONTROL SURFACE.

5. & B EFFECTIVENESS = ONE AREAS COVER FACTOR MULTIPLIED BY 100%.

6. HEATED TO A TEMPERATURE GREATER THAN 143 DEGREES C (290 DEGREES F) FOR 5 MINUTES AT A PRESSURE GREATER THAN 345 kPa (50 psi) IN ORDER TO BE THERMALLY STONED-PROCESSED AND TO ACHIEVE PHYTO-SANTIZATION.



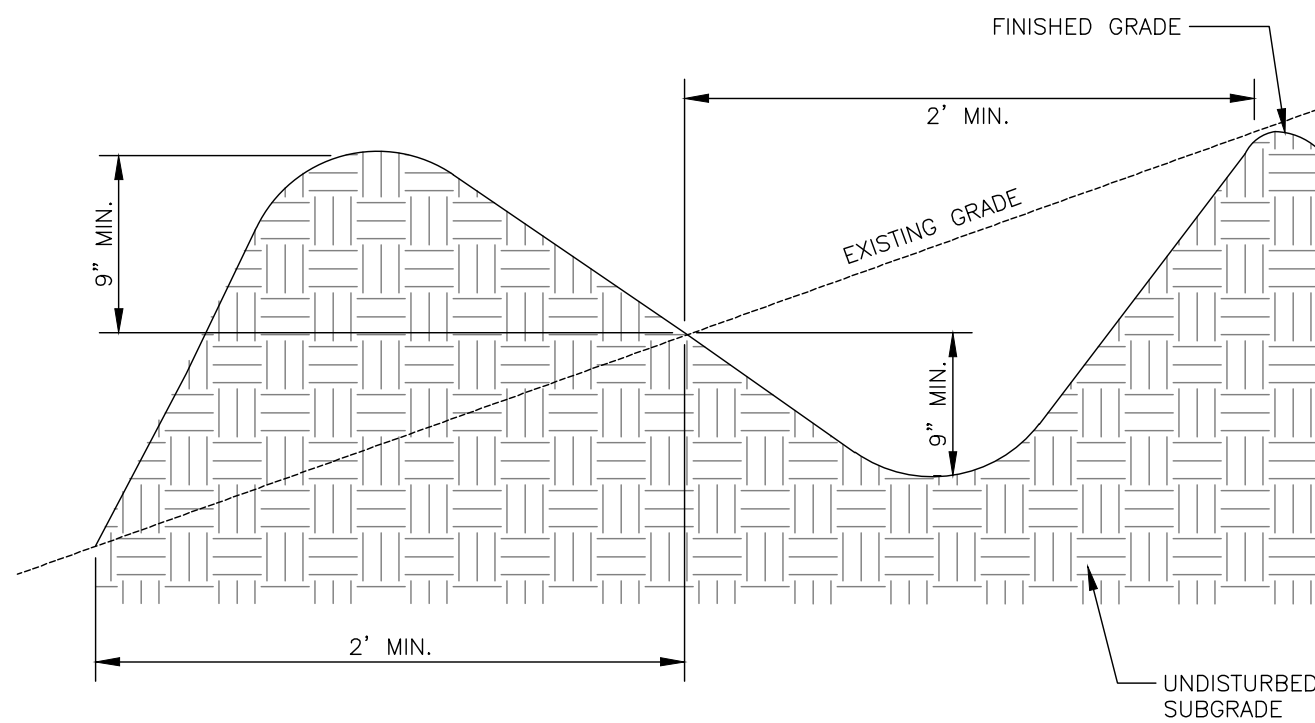
PLAN VIEW



SECTION A-A'

FILTER BAG DETAIL

NOT TO SCALE



CROSS SECTION

NOTES:

- ALL PERIMETER DIKE/SWALE SHALL HAVE UNINTERRUPTED POSITIVE DOWNWARD SLOPE TO A STABILIZED OUTLET.
- DIVERTED RUNOFF FROM DISTURBED AREAS SHALL BE CONVEYED TO A NYSDEC APPROVED SEDIMENT TRAPPING DEVICE.
- DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET INTO AN UNDISTURBED STABILIZED AREA AT A NON-EROSIVE VELOCITY.
- THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED IN THE STANDARD AND SPECIFICATIONS FOR PERIMETER DIKE/SWALE.
- STABILIZATION OF THE AREA DISTURBED BY THE DIKE/SWALE SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATIONS FOR TEMPORARY CONSTRUCTION AREA SEEDING LOCATED ON PAGE 4.58 OF THE 2016 NYSDEC STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
- PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT AND/OR SWPPP INSPECTION.
- MAX DRAINAGE AREA LIMIT: 2 ACRES.

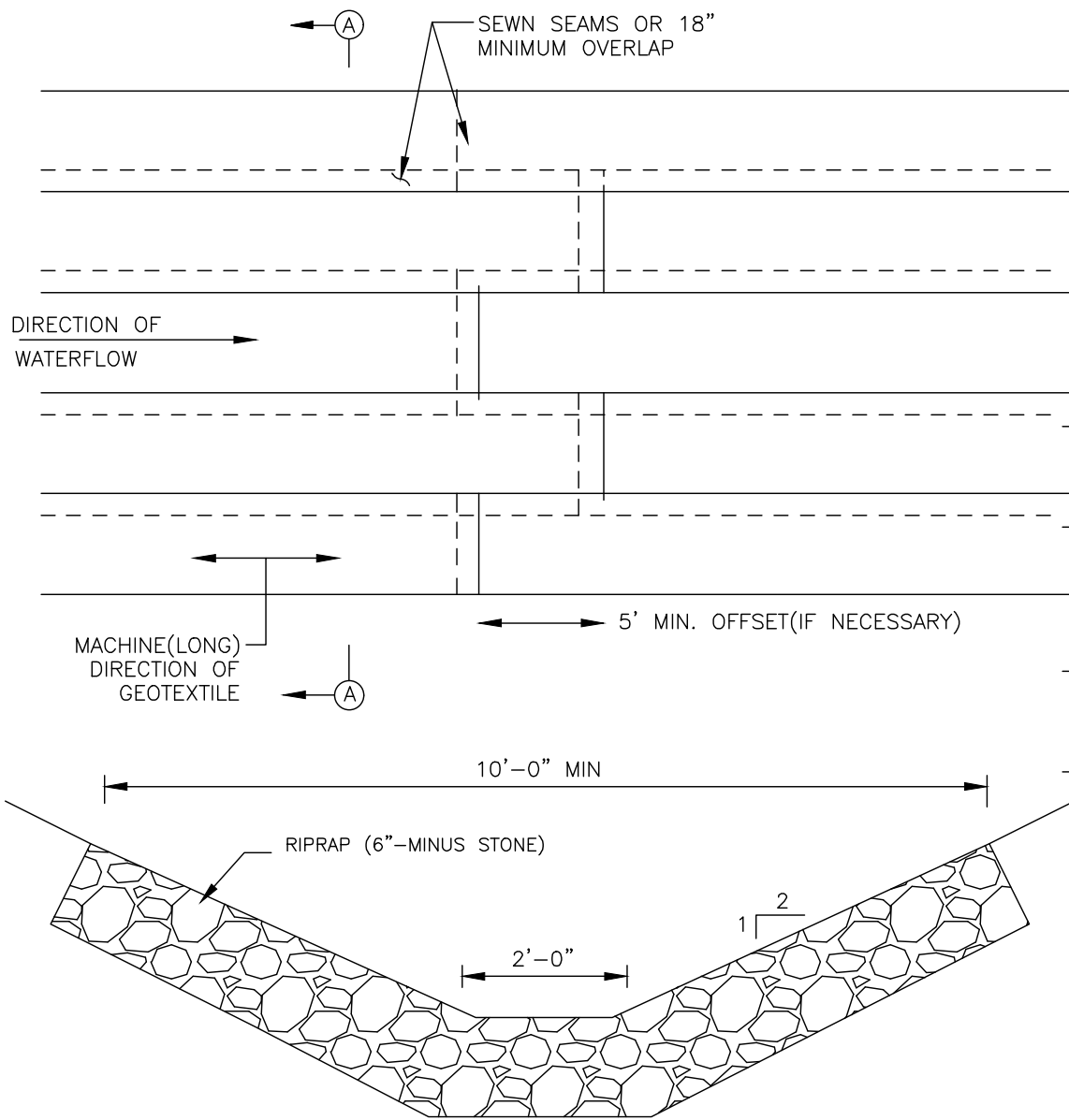
SWALE DETAIL

NOT TO SCALE

TABLE 1: GEOTEXTILE MATERIAL ATTRIBUTES	
MINIMUM GRAB TENSILE STRENGTH	200 lbs.
MINIMUM GRAB TENSILE ELONGATION	50%
MINIMUM TRAPEZOID TEAR STRENGTH	80 lbs.
MULLEN BURST STRENGTH	380 psi
MINIMUM PUNCTURE STRENGTH	130 lbs.
APPARENT OPENING SIZE	40 -80 US SIEVE
MINIMUM UV RESISTANCE	70%
MINIMUM FLOW THRU RATE	70 gpm/sq ft

NOTES

- DO NOT OVER PRESSURIZE FILTER BAG OR DISCHARGE INTO AT A RATE IN EXCESS OF THE MANUFACTURER'S RECOMMENDATIONS.
- LOCATE DISCHARGE SITE ON FLAT, STABILIZED UPLAND AREAS AND A MINIMUM OF 100' FROM STREAMS, WETLANDS, STORM DRAIN INLET, AND POINTS OF CONCENTRATED FLOW.
- DOWN GRADIENT RECEIVING AREA MUST BE WELL VEGETATED OR OTHERWISE STABLE TO PREVENT EROSION.
- INSTALL MANUFACTURER APPROVED LIFTING STRAPS UNDERNEATH BAG PRIOR TO USE.
- PREVENT STORMWATER RUNOFF FROM ENTERING THE AREA OF THE FILTER BAG VIA INSTALLATION LOCATION SELECTION AND/OR TEMPORARY BERMS/SWALES.
- THE BAG SHALL BE REPLACED WHEN IT HAS REACHED 75% SEDIMENT STORAGE CAPACITY OR SOONER IF SEDIMENT PASS THROUGH IS OBSERVED.
- INSPECTION OF DEWATERING FACILITIES IS TO BE PERFORMED FREQUENTLY EACH DAY FOR SIGNS OF SEDIMENT PASS THROUGH, EROSION, AND/OR CONCENTRATED FLOW.
- IF COLLECTED DEWATERING DISCHARGE IS CONTAMINATED WITH GREASE, OR OTHER TOXIC/HAZARDOUS MATERIALS, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE AUTHORITY AND CEASE DEWATERING ACTIVITIES AND WORK IMMEDIATELY.
- THE OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO STOP DEWATERING OPERATIONS AS CONDITIONS DICTATE.



SECTION A-A

RIPRAP SWALE DETAIL

NOT TO SCALE

DATE	DESCRIPTION OF ISSUE OR REVISION	DR.	APP.	CK.	APP.	CK.	RW	APPROVED	VL	APPROVED	FISHER	APPROVED	HP	PREPARED BY	115KV TRANSMISSION LINES LOCKPORT - BATAVIA 112 REBUILD PROJECT			ORIGINAL DATE	6/06/25
																		ISSUE DATE	6.1-L-10-M5
																		DRAWING NUMBER	L1-41568
																		EROSION PREV. & SEDIMENT CONTROL DETAILS	9