

MAP NOTE	
1.	A BUILDING PERMIT IS REQUIRED FOR RETAINING WALLS IN EXCESS OF 4 FEET. PLANS MUST BE SUBMITTED TO THE TOWN BUILDING INSPECTOR FOR THE RETAINING WALL.

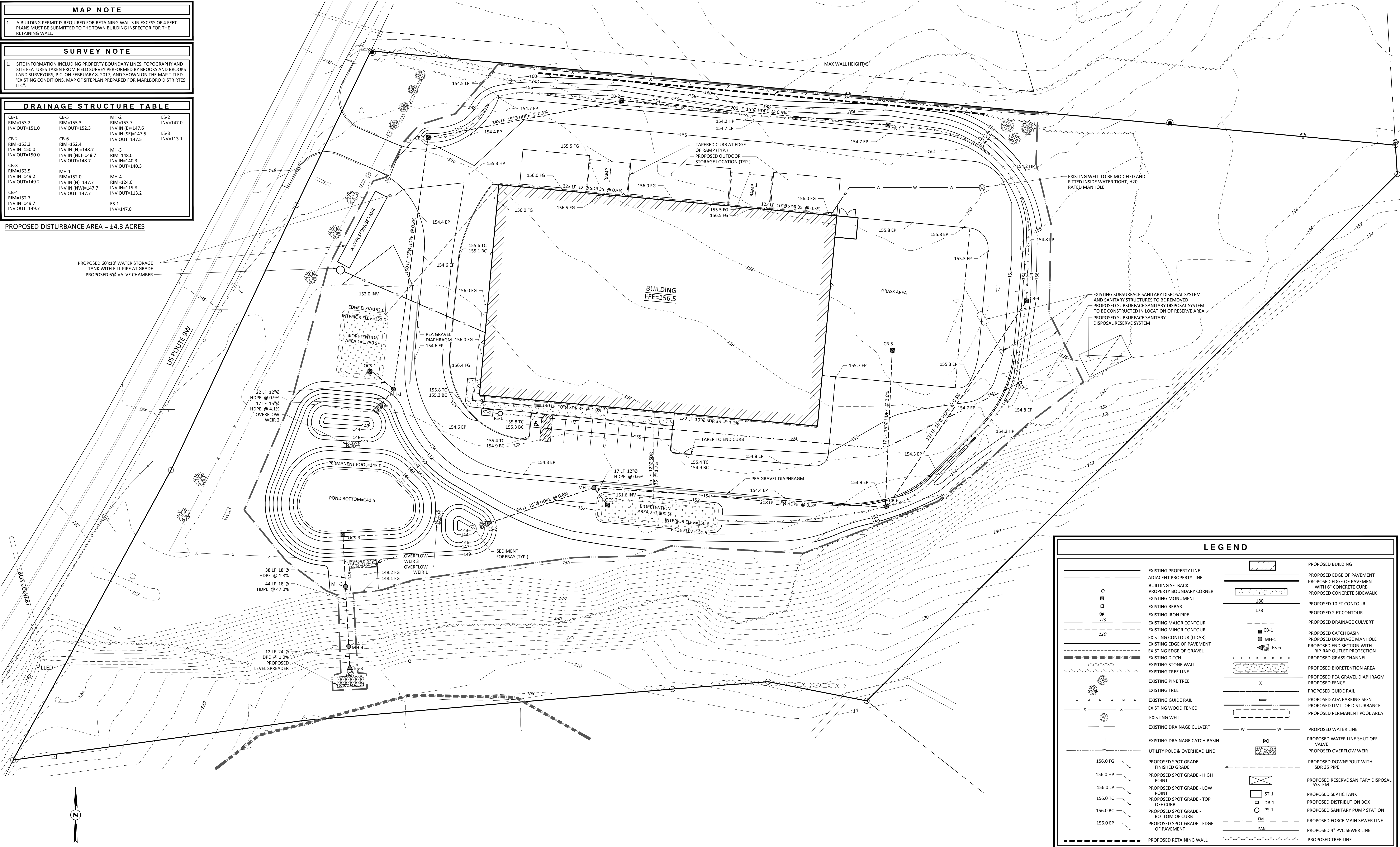
SURVEY NOTE

1. SITE INFORMATION INCLUDING PROPERTY BOUNDARY LINES, TOPOGRAPHY AND SITE FEATURES TAKEN FROM FIELD SURVEY PERFORMED BY BROOKS AND BROOKS LAND SURVEYORS, P.C. ON FEBRUARY 8, 2017, AND SHOWN ON THE MAP TITLED 'EXISTING CONDITIONS, MAP OF SITEPLAN PREPARED FOR MARLBORO DISTR RTE9 LLC'.

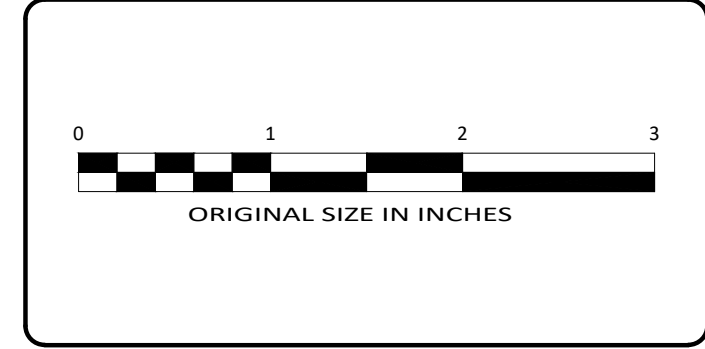
DRAINAGE STRUCTURE TABLE

CB-1	CB-5	MH-2	ES-2
RIM=153.2	RIM=155.3	RIM=153.7	INV=147.0
INV OUT=151.0	INV OUT=152.3	INV IN (N)=147.6	
		INV IN (SE)=147.5	ES-3
		INV OUT=147.5	INV=113.1
CB-2	CB-6		
RIM=153.2	RIM=152.4		
INV IN=150.0	INV IN (N)=148.7	MH-3	
INV OUT=150.0	INV IN (NE)=148.7	RIM=148.0	
	INV OUT=148.7	INV IN=140.3	
		INV OUT=140.3	
CB-3	MH-1		
RIM=153.5	RIM=152.0	MH-4	
INV IN=149.2	INV IN (N)=147.7	RIM=124.0	
INV OUT=149.2	INV IN (NW)=147.7	INV IN=119.8	
	INV OUT=147.7	INV OUT=113.2	
CB-4			
RIM=152.7		ES-1	
INV IN=149.7		INV=147.0	
INV OUT=149.7			

PROPOSED DISTURBANCE AREA = ±4.3 ACRES



LEGEND			
	EXISTING PROPERTY LINE		PROPOSED BUILDING
	ADJACENT PROPERTY LINE		PROPOSED EDGE OF PAVEMENT WITH 6" CONCRETE CURB
	BUILDING SETBACK		PROPOSED CONCRETE SIDEWALK
	PROPERTY BOUNDARY CORNER		
	EXISTING MONUMENT		PROPOSED 10 FT CONTOUR
	EXISTING REBAR		PROPOSED 2 FT CONTOUR
	EXISTING IRON PIPE		PROPOSED DRAINAGE CULVERT
	EXISTING MAJOR CONTOUR		PROPOSED CATCH BASIN
	EXISTING MINOR CONTOUR		PROPOSED DRAINAGE MANHOLE
	EXISTING CONTOUR (LIDAR)		PROPOSED END SECTION WITH RIP-RAP OUTLET PROTECTION
	EXISTING EDGE OF PAVEMENT		PROPOSED GRASS CHANNEL
	EXISTING EDGE OF GRAVEL		PROPOSED BIORETENTION AREA
	EXISTING DITCH		PROPOSED PEA GRAVEL DIAPHRAGM
	EXISTING STONE WALL		PROPOSED FENCE
	EXISTING TREE LINE		PROPOSED GUIDE RAIL
	EXISTING PINE TREE		PROPOSED ADA PARKING SIGN
	EXISTING TREE		PROPOSED LIMIT OF DISTURBANCE
	EXISTING GUIDE RAIL		PROPOSED PERMANENT POOL AREA
	EXISTING WOOD FENCE		
	EXISTING WELL		
	EXISTING DRAINAGE CULVERT		
	EXISTING DRAINAGE CATCH BASIN		
	UTILITY POLE & OVERHEAD LINE		
	PROPOSED SPOT GRADE - FINISHED GRADE		
	PROPOSED SPOT GRADE - HIGH POINT		
	PROPOSED SPOT GRADE - LOW POINT		
	PROPOSED SPOT GRADE - TOP OFF CURB		
	PROPOSED SPOT GRADE - BOTTOM OF CURB		
	PROPOSED SPOT GRADE - EDGE OF PAVEMENT		
	PROPOSED RETAINING WALL		



ALL RIGHTS RESERVED. COPY OR REPRODUCTION OF THIS PLAN OR ANY PORTION THEREOF IS PROHIBITED WITHOUT THE WRITTEN PERMISSION OF THE DESIGN ENGINEER, SURVEYOR, OR ARCHITECT.

UNDER ARTICLE 145 (ENGINEERING), SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW, IT IS UNLAWFUL FOR ANY PERSON TO ALTER ANY ITEM ON THIS DRAWING, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED SURVEYOR. IF ANY ITEM IS ALTERED, THE ALTERING ENGINEER AND/OR SURVEYOR SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

UNDER ARTICLE 145 (ENGINEERING), SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW, IT IS UNLAWFUL FOR ANY PERSON TO ALTER ANY ITEM ON THIS DRAWING, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED SURVEYOR. IF ANY ITEM IS ALTERED, THE ALTERING ENGINEER AND/OR SURVEYOR SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



willingham
engineering

10 Main Street - Suite 321
New Paltz, New York 12561
T 845.255.0210 F 845.256.8110
www.willinghamengineering.com

1	01/26/18	REVISIONS PER TOWN PLANNING BOARD
REV	DATE	DESCRIPTION

GRADING AND UTILITY PLAN

MARLBORO II DISTRIBUTION

1100 US ROUTE 9W

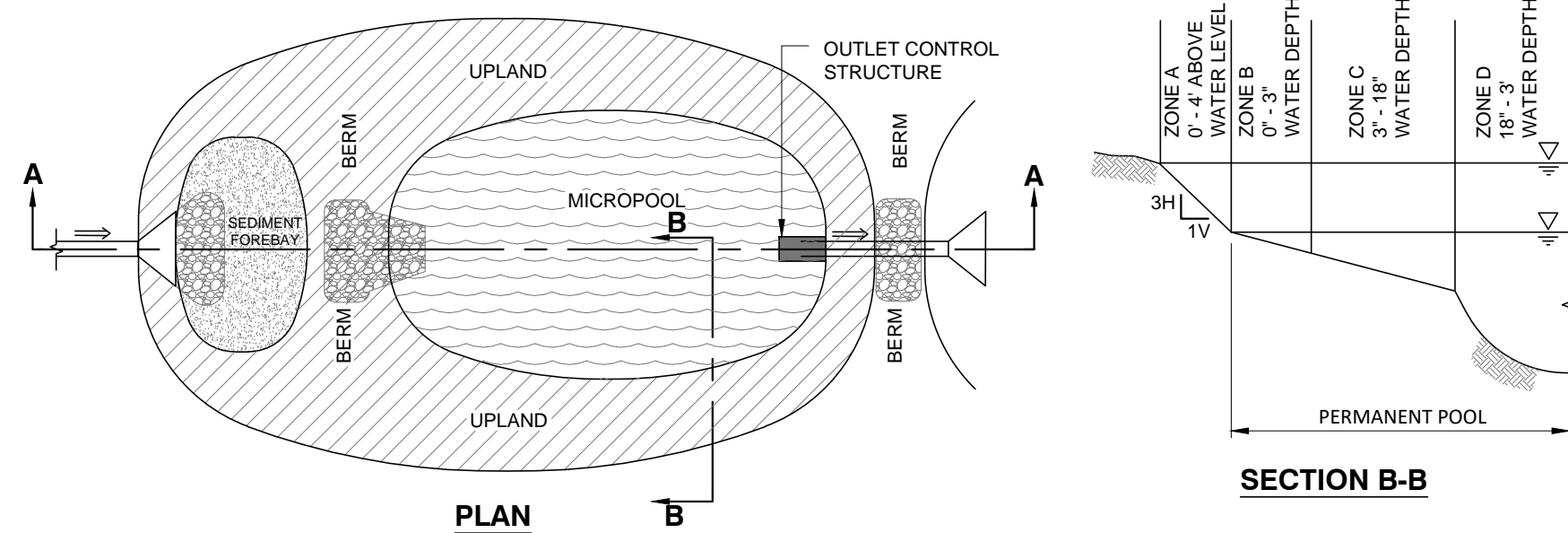
TOWN OF MARLBOROUGH, ULSTER COUNTY, NEW YORK

MARLBORO II DISTRIBUTION

1100 US ROUTE 9W

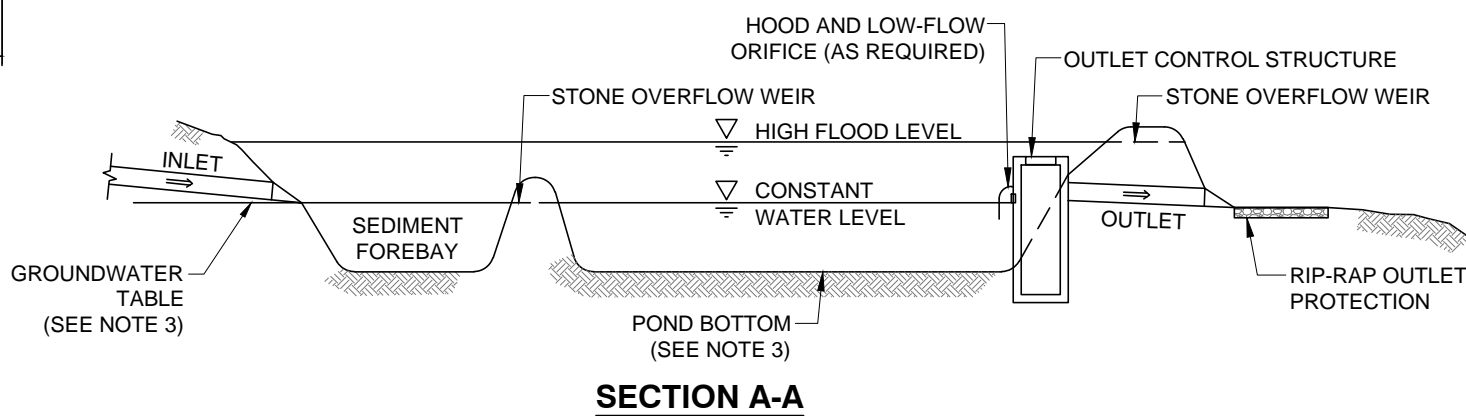
TOWN OF MARLBOROUGH, ULSTER COUNTY, NEW YORK

DRAWN BY	CHECKED BY
MLT	AVW
DATE	SCALE
01/05/18	1"=30'
PROJECT NO.	
17003	
SHEET NO.	
GU-1	



1. RETAINING WALL SHALL BE REDIROCK GRAVITY BLOCK WALL OR EQUAL.
2. FOR WALL CONSTRUCTION, FOLLOW MANUFACTURER'S INSTRUCTIONS.

SCALE: N.T.S.



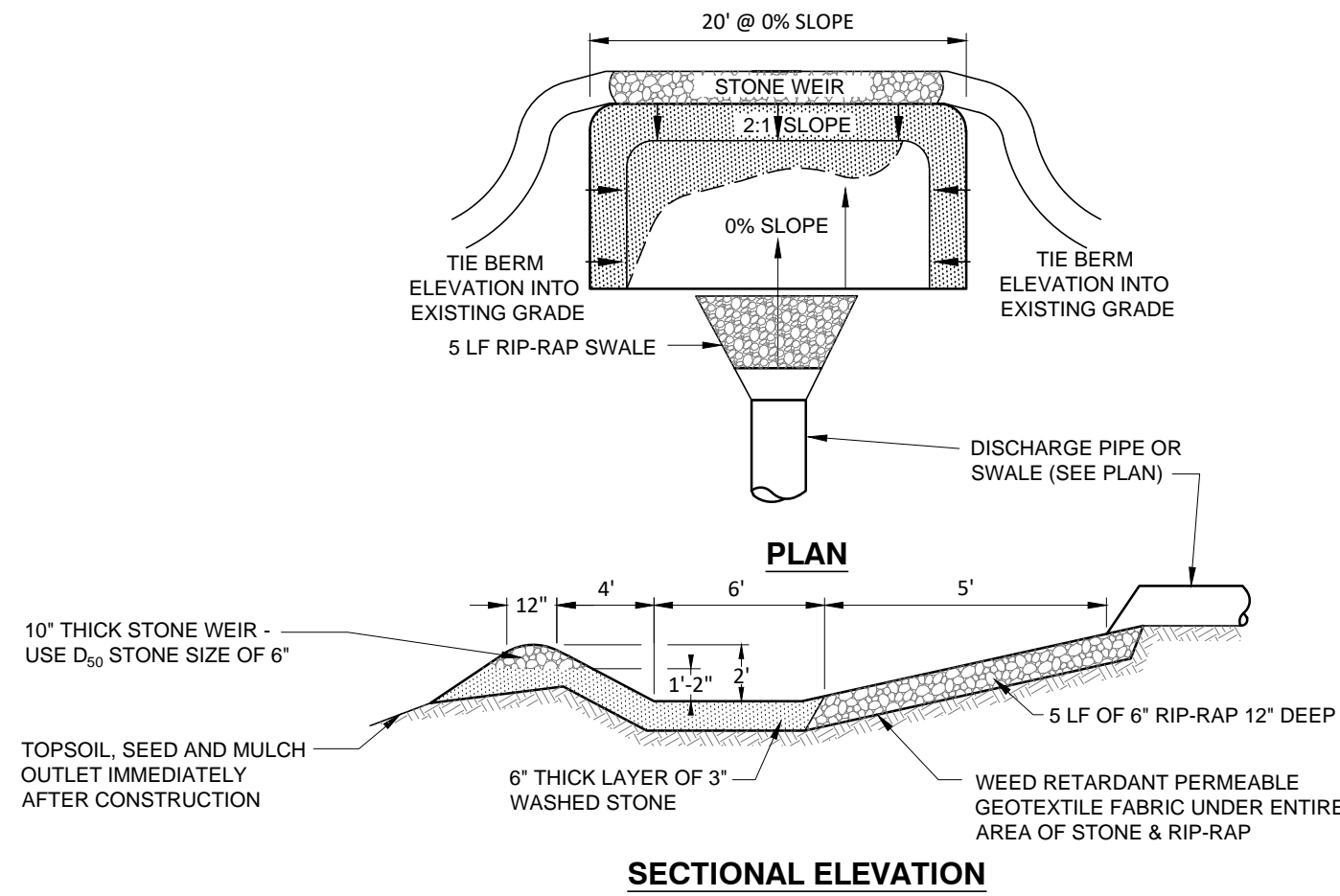
1. POND SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH "THE NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL", LATEST EDITION.

2. CONSTANT WATER ELEVATION SHALL BE SET BY THE ORIFICE INVERT OF THE OUTLET CONTROL STRUCTURE OR OTHER LOWEST OUTLET INVERT SPECIFIED.

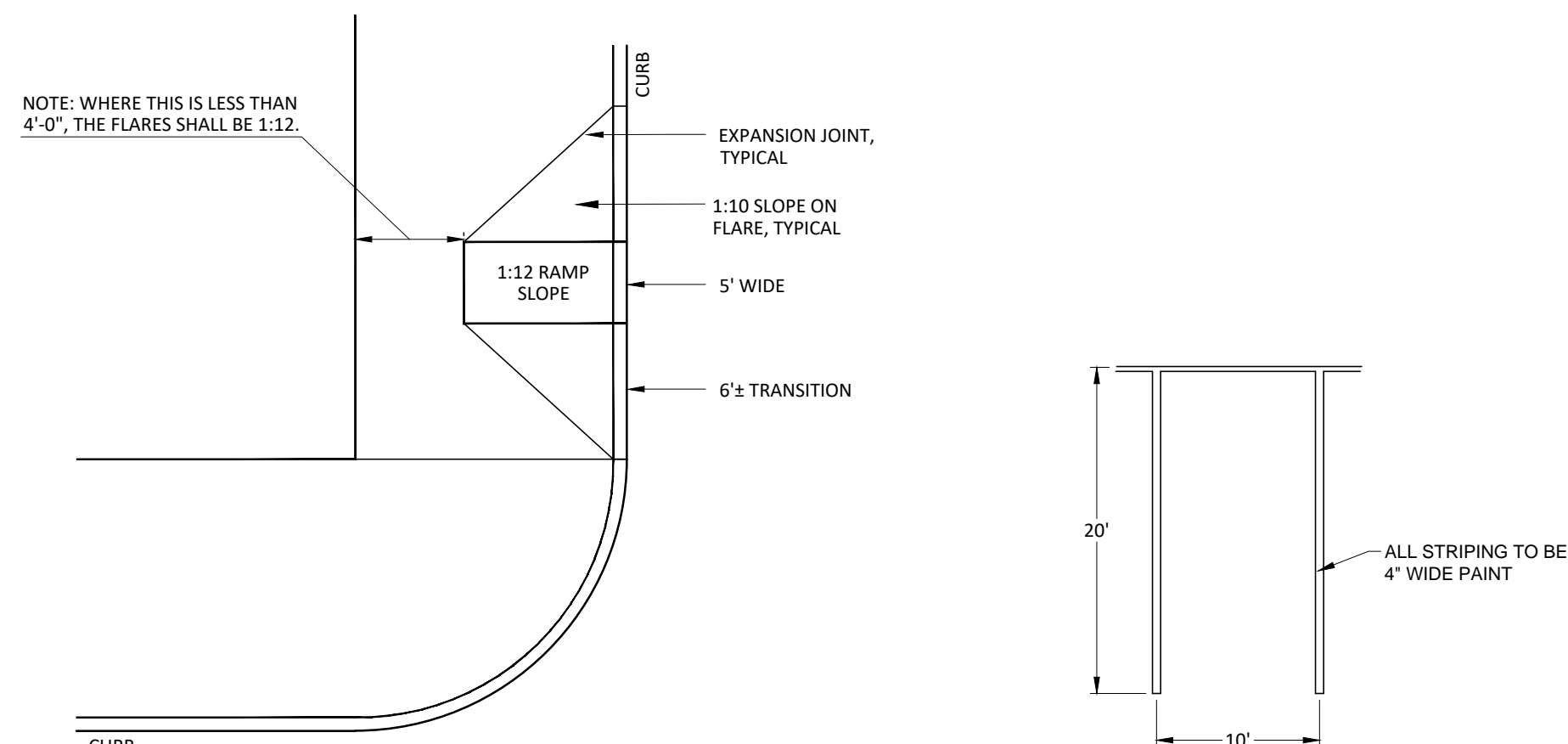
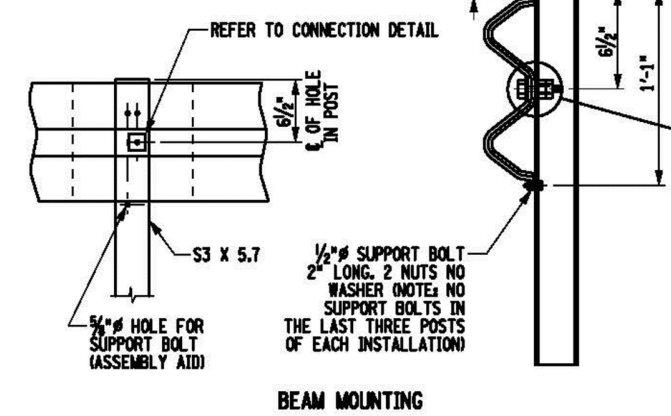
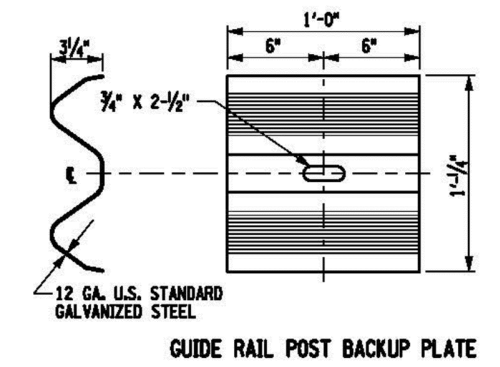
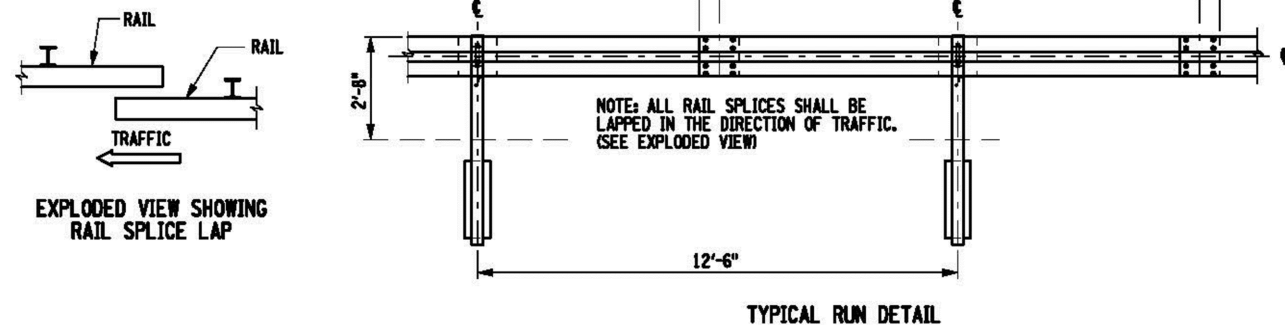
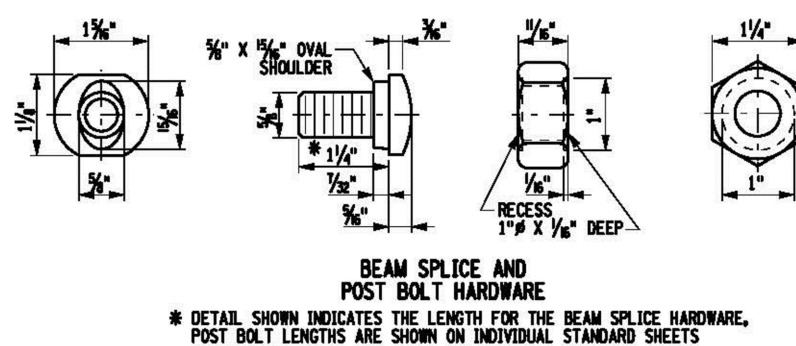
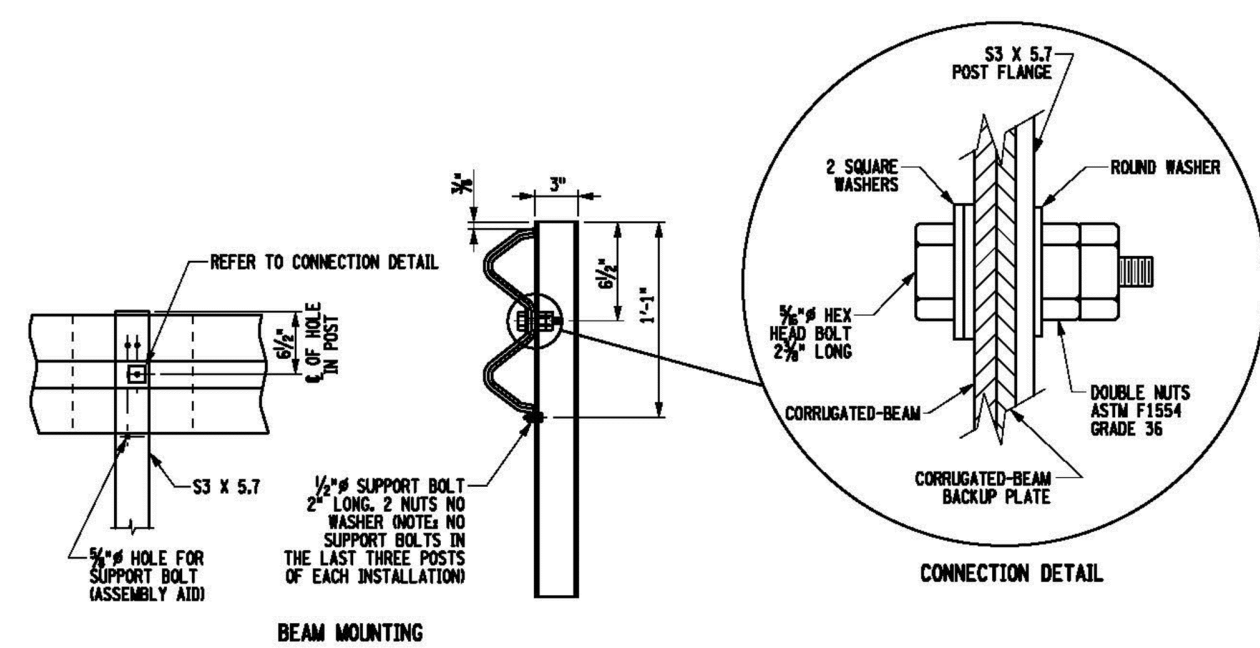
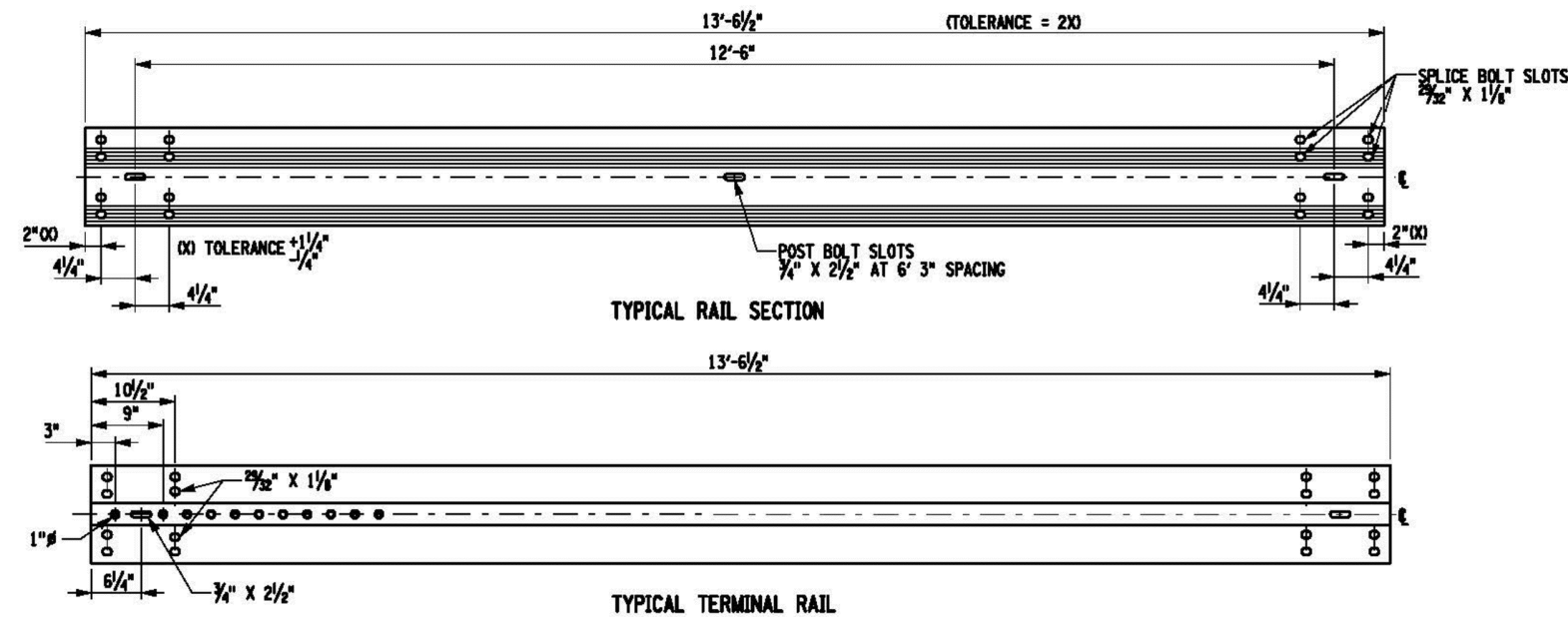
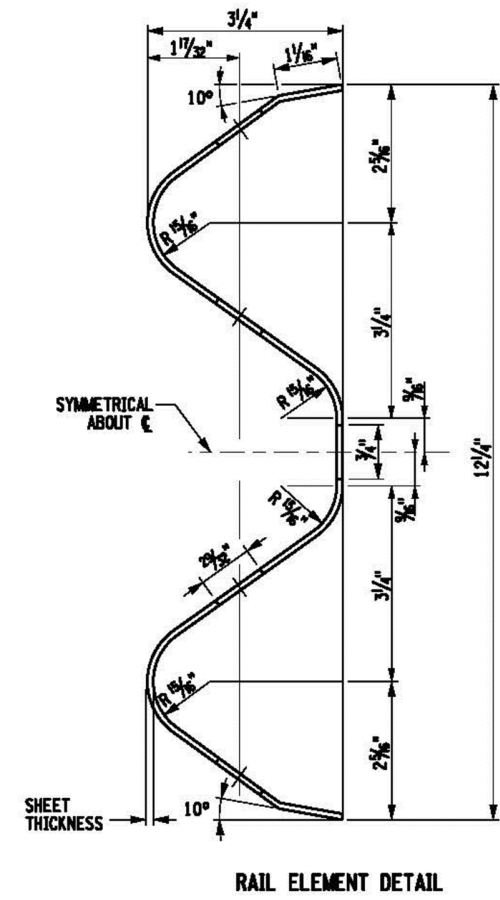
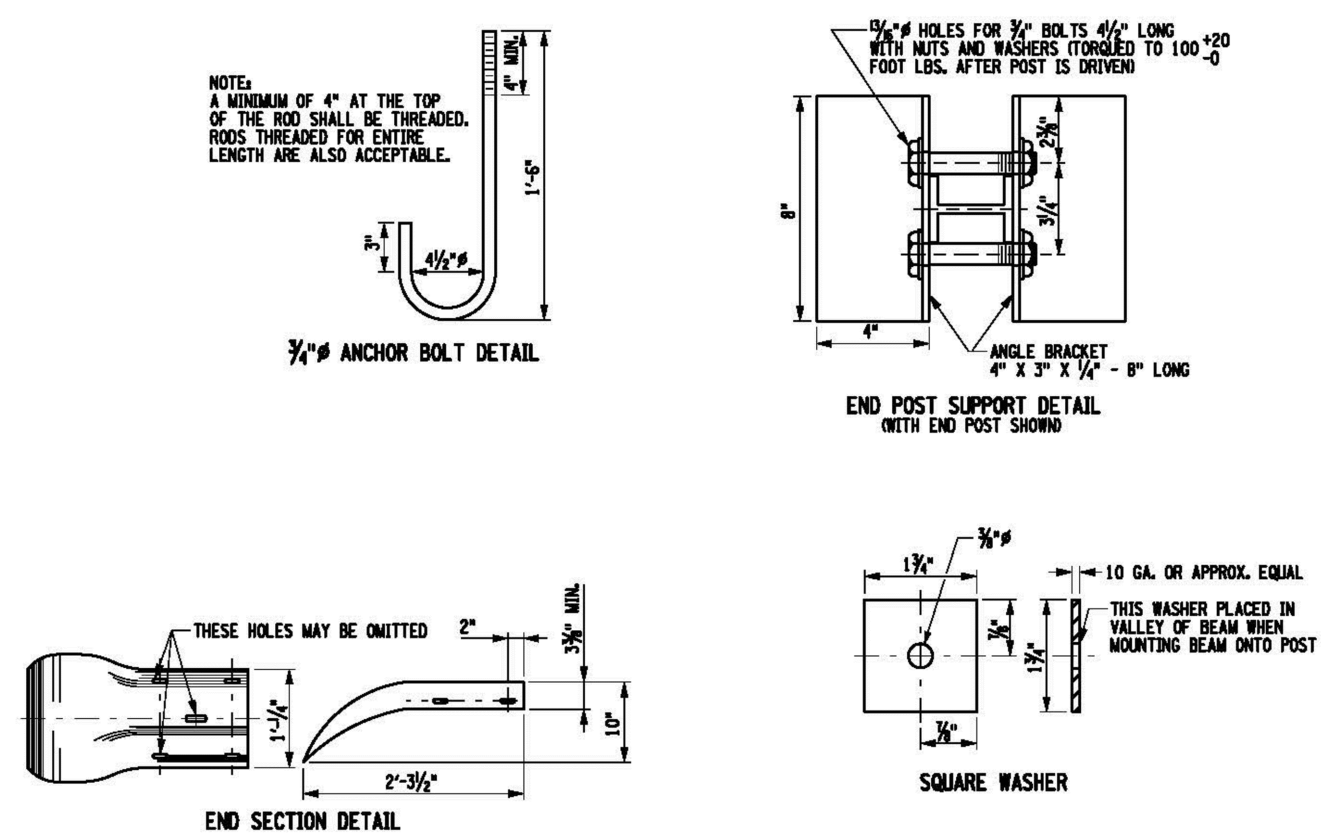
3. CONSTANT WATER ELEVATION SHALL BE MAINTAINED BY A HIGH GROUNDWATER TABLE. IF A HIGH GROUNDWATER TABLE IS NOT PRESENT, A POND LINER SHALL BE USED. THE ACCEPTABLE LINER OPTIONS ARE AS FOLLOWS:

A) 9 INCHES OF CLAY SOIL (MINIMUM 50% PASSING THE #200 SIEVE AND A MAXIMUM PERMEABILITY OF 1×10^{-5} CM/SEC)
B) BENTONITE

D) A DESIGN PREPARED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK



SCALE: N.T.S

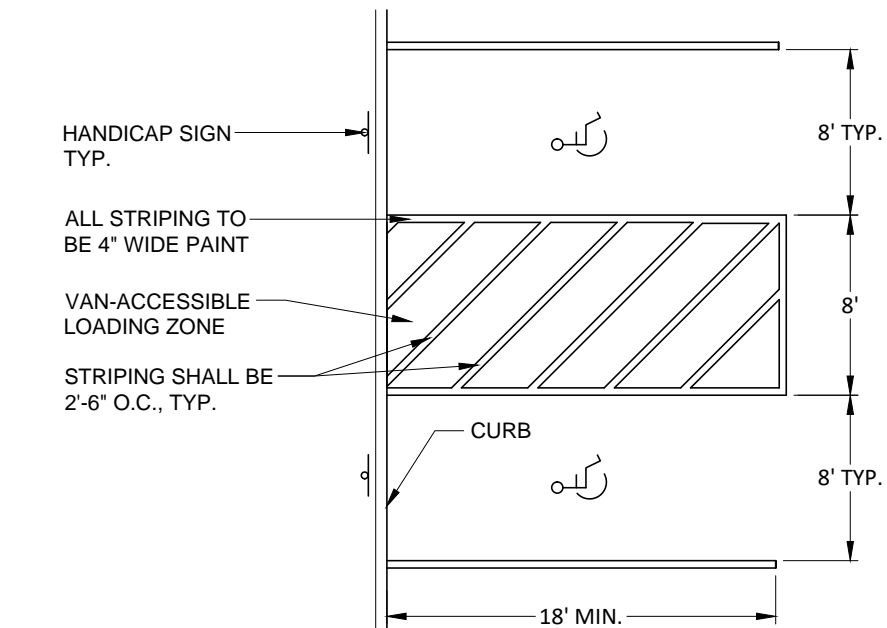


CL

NOTE:-

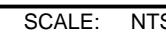
FOR MORE DETAILED INFORMATION REFER TO "ADA STANDARDS FOR ACCESSIBLE DESIGN" PUBLISHED BY THE US DEPARTMENT OF JUSTICE.

5 ADA ACC



THE SLOPE OF THE HANDICAP PARKING AREA SHALL NOT EXCEED 2% IN ANY DIRECTION.

SCALE: N.T.S.



ALL RIGHTS RESERVED. COPY OR REPRODUCTION OF THIS PLAN OR ANY PORTION THEREOF, IS PROHIBITED WITHOUT THE WRITTEN PERMISSION OF THE DESIGN ENGINEER, SURVEYOR, OR ARCHITECT.

UNDER ARTICLE 145 (ENGINEERING), SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW, IT IS UNLAWFUL FOR ANY PERSON TO ALTER ANY ITEM ON THIS DRAWING, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED SURVEYOR. IF ANY ITEM IS ALTERED, THE ALTERING ENGINEER AND/OR SURVEYOR SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



willingham
engineering

10 Main Street - Suite 321
New Paltz, New York 12561
T 845.255.0210 F 845.256.8110
www.willinghamengineering.com

1	01/26/18	REVISIONS PER PLANNING BOARD COMMENTS
REV	DATE	DESCRIPTION

MARLBORO II DISTRIBUTION

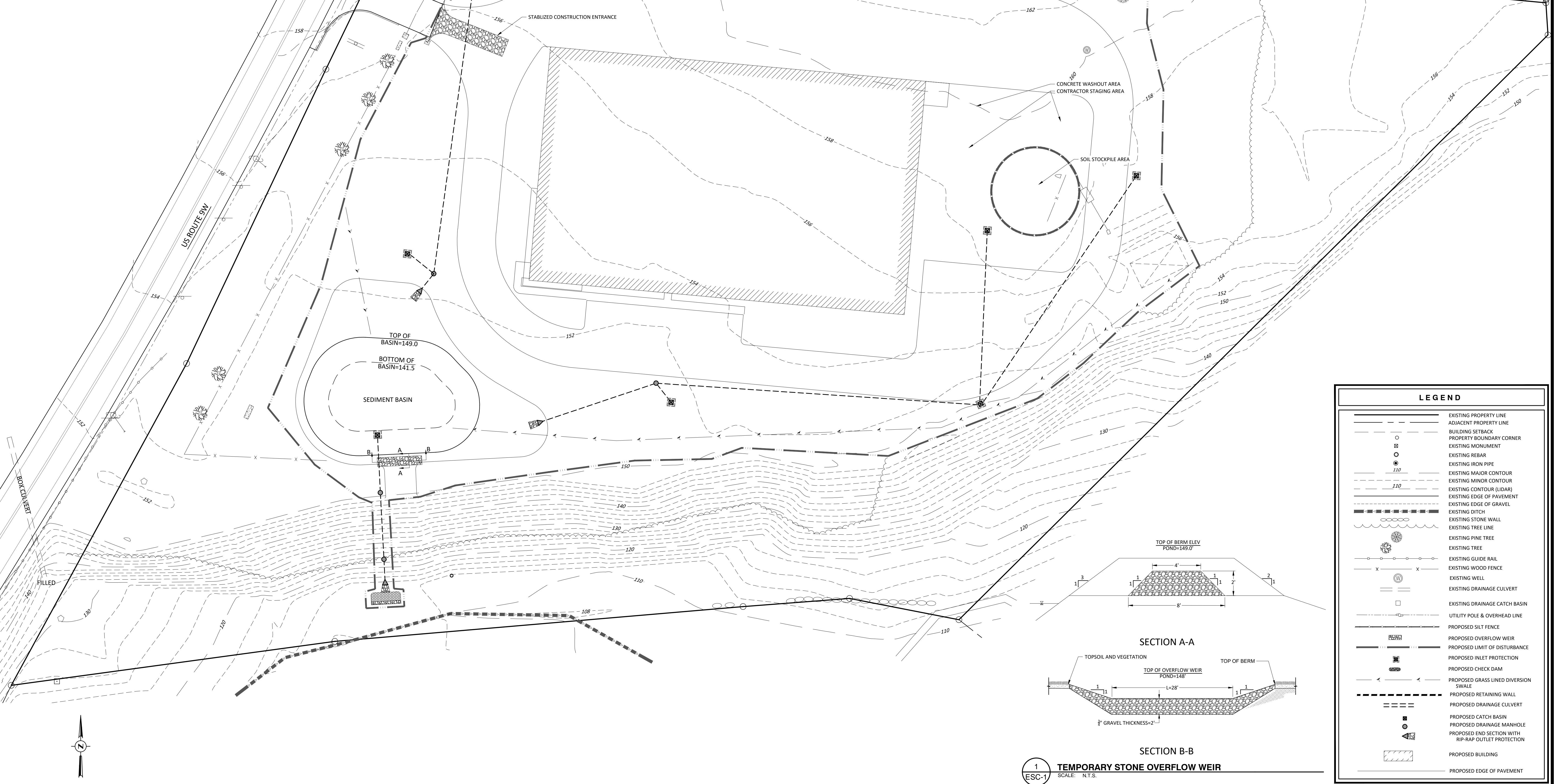
1100 US ROUTE 9W

TOWN OF MARLBOROUGH, ULSTER COUNTY, NEW YORK

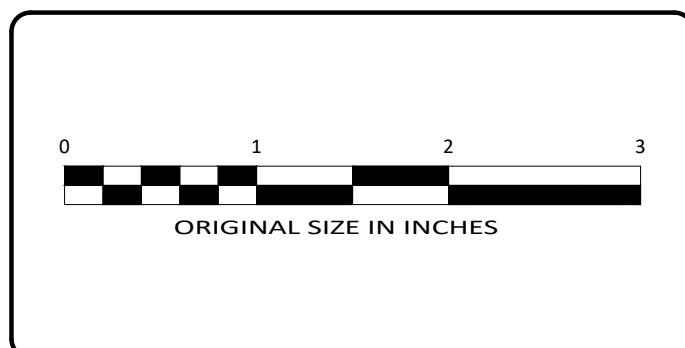
DRAWN BY	CHECKED BY
MLT	AVW
DATE	SCALE
01/05/18	1"=30'
PROJECT NO.	
17003	
SHEET NO.	
SD-2	

- CONSTRUCTION SEQUENCING SCHEDULE**
1. ESTABLISH THE WORK LIMITS AND LOCATIONS OF PROPOSED IMPROVEMENTS INCLUDING PROPOSED EROSION AND SEDIMENT CONTROL MEASURES.
 2. INSTALL STABILIZED CONSTRUCTION ENTRANCE TO PROVIDE SITE ACCESS. INSTALL ALL PERIMETER EROSION AND SEDIMENT CONTROLS.
 3. ROUGH GRADE STORMWATER POND CLEARING AS NECESSARY. POND AREA SHALL BE USED AS TEMPORARY SEDIMENT BASIN DURING CONSTRUCTION. CONSTRUCT TEMPORARY STONE OUTLET FILTER (SEE DETAIL).
 4. INSTALL ALL OTHER EROSION CONTROL MEASURES TO PROTECT ADJACENT PROPERTIES FROM SEDIMENT RUNOFF DURING CONSTRUCTION. ALL SEDIMENT AND EROSION CONTROL MEASURES MUST BE MAINTAINED AND ALTERED / IMPROVED AS NECESSARY DURING CONSTRUCTION ACTIVITIES.
 5. CLEAR / DEMO SITE AS NECESSARY. ROUGH GRADE SITE. INSTALL DRIVEWAY MATERIALS, BUILDING FOUNDATION AND ASSOCIATED IMPROVEMENTS.
 6. REMOVE AND DISPOSE OF ALL SEDIMENTS COLLECTED IN SEDIMENT BASINS. FINALIZE CONSTRUCTION OF PERMANENT STORMWATER MANAGEMENT FEATURES.
 7. APPLY SURFACE STABILIZATION MEASURES. TOPSOIL AS NECESSARY, FERTILIZE, SEED AND MULCH ALL DISTURBED AREAS, INCLUDING GRASSED DITCHES AND EXPOSED SLOPES. NO DISTURBED AREAS SHALL BE LEFT EXPOSED.
 8. WHERE WORK IS DELAYED OR COMPLETED SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN 14 DAYS.

PROPOSED DISTURBANCE AREA = ±4.3 ACRES



LEGEND	
	EXISTING PROPERTY LINE
	ADJACENT PROPERTY LINE
	BUILDING SETBACK
	PROPERTY BOUNDARY CORNER
	EXISTING MONUMENT
	EXISTING REBAR
	EXISTING IRON PIPE
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EXISTING CONTOUR (LIDAR)
	EXISTING EDGE OF PAVEMENT
	EXISTING EDGE OF GRAVEL
	EXISTING DITCH
	EXISTING STONE WALL
	EXISTING TREE LINE
	EXISTING PINE TREE
	EXISTING TREE
	EXISTING GUIDE RAIL
	EXISTING WOOD FENCE
	EXISTING WELL
	EXISTING DRAINAGE CULVERT
	EXISTING DRAINAGE CATCH BASIN
	UTILITY POLE & OVERHEAD LINE
	PROPOSED SILT FENCE
	PROPOSED OVERFLOW WEIR
	PROPOSED LIMIT OF DISTURBANCE
	PROPOSED INLET PROTECTION
	PROPOSED CHECK DAM
	PROPOSED GRASS LINED DIVERSION SWALE
	PROPOSED RETAINING WALL
	PROPOSED DRAINAGE CULVERT
	PROPOSED CATCH BASIN
	PROPOSED DRAINAGE MANHOLE
	PROPOSED END SECTION WITH RIP-RAP OUTLET PROTECTION
	PROPOSED BUILDING
	PROPOSED EDGE OF PAVEMENT



ALL RIGHTS RESERVED. COPY OR REPRODUCTION OF THIS PLAN OR ANY PORTION THEREOF, IS PROHIBITED WITHOUT THE WRITTEN PERMISSION OF THE DESIGN ENGINEER, SURVEYOR, OR ARCHITECT.

UNDER ARTICLE 145 (ENGINEERING), SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW, IT IS UNLAWFUL FOR ANY PERSON TO ALTER ANY ITEM ON THIS DRAWING, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED SURVEYOR. IF ANY ITEM IS ALTERED, THE ALTERING ENGINEER AND/OR SURVEYOR SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

10 Main Street - Suite 321
New Paltz, New York 12561
T 845.255.0210 F 845.256.8110
www.willinghamengineering.com

REV	DATE	REVISIONS PER PLANNING BOARD COMMENTS
1	01/26/18	REVISIONS PER PLANNING BOARD COMMENTS

EROSION AND SEDIMENT CONTROL PLAN

MARLBORO II DISTRIBUTION

1100 US ROUTE 9W

TOWN OF MARLBOROUGH, ULSTER COUNTY, NEW YORK

DRAWN BY	CHECKED BY
MLT	AVW
DATE	SCALE
01/05/18	1"=30'
PROJECT NO.	
17003	
SHEET NO.	
ESC-1	

EROSION AND SEDIMENT CONTROL NOTES - GENERAL

ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE STANDARDS AND PRINCIPLES AS OUTLINED IN THE "NEW YORK STATE STANDARDS FOR SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" AND THE LOCAL MUNICIPALITY'S EROSION AND SEDIMENT CONTROL STANDARDS AND PRACTICES, IF SUCH A DOCUMENT EXISTS. THE INTENT OF THE OUTLINED MEASURES IS TO MINIMIZE EROSION AND SEDIMENTATION DURING CONSTRUCTION, STABILIZE AND PROTECT THE SITE FROM EROSION AFTER CONSTRUCTION IS COMPLETE AND MITIGATE ANY ADVERSE IMPACTS TO STORMWATER QUALITY RESULTING FROM SEDIMENT RUNOFF CAUSED BY DEVELOPMENT ACTIVITIES.

NO SOIL STOCKPILE OR GRADED AREA SHALL REMAIN EXPOSED FOR MORE THAN 14 DAYS. THE EXPOSED AREAS OR SOIL STOCKPILE SHALL BE STABILIZED WITHIN THE 14 DAY PERIOD. STABILIZATION MEASURES TO BE USED INCLUDE TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING AND STONE RIP RAP. DURING CONSTRUCTION, RUNOFF SHALL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING, OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE SHALL BE PROVIDED WITH BARRIER FILTERS. STONE RIP RAP SHALL BE PROVIDED AT THE OUTLETS OF DRAINAGE PIPES WHERE EROSION VELOCITIES ARE ENCOUNTERED.

TIMING OF CONTROL MEASURES

AS INDICATED ABOVE IN THE CONSTRUCTION SCHEDULING SCHEDULE, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO COMMENCING ANY CLEARING OR GRADING OF THE SITE. STRUCTURAL CONTROLS SHALL BE INSTALLED CONCURRENTLY WITH THE APPLICABLE ACTIVITY. AFTER CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN TWENTY ONE (21) DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN FOURTEEN (14) DAYS OF THE LAST DISTURBANCE. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, SILT FENCES AND HAY BALE BARRIERS AND ANY EARTH DIKES WILL BE REMOVED ONCE PERMANENT MEASURES AND STABILIZATION ARE ESTABLISHED.

GENERAL INSPECTION AND MAINTENANCE PRACTICE

THESE ARE THE GENERAL INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO IMPLEMENT THE PLAN DURING CONSTRUCTION.

1. THE SMALLEST PRACTICAL PORTION OF THE SITE WILL BE DISTURBED AT ONE TIME.
2. ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE EACH WEEK.
3. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
4. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE COURSE OF CONSTRUCTION.

INSTALLATION NOTES

1. TEMPORARY SEEDING SHOULD BE MADE WITHIN 24 HOURS OF CONSTRUCTION OR DISTURBANCE. IF NOT, THE SOIL MUST BE SCARIFIED PRIOR TO SEEDING.
2. IN ORDER FOR MULCH TO BE EFFECTIVE IT MUST BE PLACED PRIOR TO MAJOR STORM EVENTS. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER PREDICTIONS TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS.
3. THE TIME PERIOD TO MULCH CAN RANGE FROM 14 TO 21 DAYS OF INACTIVITY ON AN AREA, THE LENGTH OF TIME VARYING WITH SITE CONDITIONS. PROFESSIONAL JUDGMENT SHALL BE USED TO EVALUATE THE INTERACTION OF SITE CONDITIONS (SOIL ERODABILITY, SEASON OF YEAR, EXTENT OF DISTURBANCE, PROXIMITY TO SENSITIVE RESOURCES, ETC.) AND THE POTENTIAL IMPACT OF EROSION ON ADJACENT AREAS IN ORDER TO CHOOSE AN APPROPRIATE TIME RESTRICTION.
4. WHEN MULCH IS APPLIED TO PROVIDE PROTECTION OVER WINTER (PAST THE GROWING SEASON) IT SHALL BE AT THE RATE OF 6,000 LBS OF HAY OR STRAW PER ACRE. A TACKIFIER MAY BE ADDED TO THE MULCH.

SEDIMENT BARRIERS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUING DRAINAGE AREA ABOVE THEM. (REFER TO CONSTRUCTION SEQUENCING SCHEDULE IN SWPP REPORT FOR FURTHER INFORMATION).

- 130 (MIN.) POUNDS PURE LIVE SEED PER ACRE
- MULCH: LAYER OF COMMON HAY OR STRAW; 2 TONS PER ACRE
- FERTILIZER: COMMERCIAL 30-10-20, SLOW RELEASE APPLICATION RATE AS PER MANUFACTURER'S RECOMMENDATIONS (NO MORE THAN 1 LB NITROGEN PER 1000 SF)
- 4" MIN.
- TOPSOIL: MIN. OF 4" DEPTH IN MOWED AREAS, 2" IN UNMOWED AREAS

SEEDING NOTES:
1. PROVIDE FRESH, CLEAN, NEW SEED COMPLYING WITH ESTABLISHED TOLERANCES FOR GERMINATION AND PURITY IN ACCORDANCE WITH THE U.S. DEPARTMENT OF AGRICULTURE RULES AND REGULATIONS UNDER THE LATEST EDITION OF THE FEDERAL SEED ACT. SEED SHALL BE MIXED BY THE DEALER AND SHALL BE DELIVERED TO THE SITE IN SEALED CONTAINERS WHICH SHALL BEAR THE DEALER'S GUARANTEE ANALYSIS.

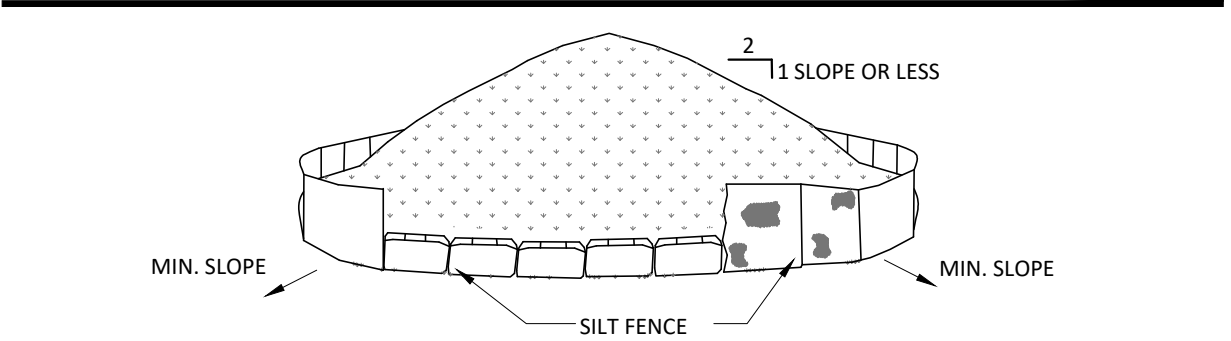
2. SEED MIXTURES:
FOR TEMPORARY SEEDING - OR - AREAS THAT WILL NOT BE MAINTAINED:
RAPIDLY GERMINATING ANNUAL RYEGRASS: 30 LBS PER ACRE PERENNIAL RYEGRASS: 100 LBS PER ACRE CEREAL RYE: 30 LBS PER ACRE FOR USE ON LAWN AREAS (AREAS TO BE MAINTAINED)
ALTERNATE A (SUNNY SITE)
65% KENTUCKY BLUE GRASS BLEND: 85-114 LBS PER ACRE 20% PERENNIAL RYEGRASS: 26-35 LBS PER ACRE 15% FINE FESCUE: 19-26 LBS PER ACRE TOTAL: 130-175 LBS PER ACRE
ALTERNATE B (SHADY SITE)
80% KENTUCKY BLUE GRASS BLEND*: 105-138 LBS PER ACRE 20% PERENNIAL RYEGRASS: 25-37 LBS PER ACRE TOTAL: 130-175 LBS PER ACRE
3. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, OR HYDRO SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). HYDRO-SEEDINGS, WHICH INCLUDE MULCH, MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10% WHEN HYDRO-SEEDING.
4. MULCH SEEDER AREAS WITH STRAW MULCH (2000 LBS PER ACRE).
5. IRRIGATE TO FULLY SATURATE SOIL LAYER, BUT NOT TO DISLODGE PLANTING SOIL.
6. SEED BETWEEN APRIL 1ST AND MAY 15TH OR AUGUST 15TH AND OCTOBER 15TH. SEEDING MAY OCCUR BETWEEN MAY 15TH AND AUGUST 15TH IF ADEQUATE IRRIGATION IS PROVIDED.

1. TOPSOIL APPLICATION NOTES:
TOPSOIL SHALL BE DISTURBED TO A UNIFORM DEPTH OVER THE AREA. IT SHALL NOT BE PLACED WHEN IT IS PARTIALLY FROZEN, MUDDY OR ON FROZEN SLOPES OVER ICE, SNOW OR STANDING WATER.
2. TOPSOIL PLACED AND GRADED ON SLOPES STEEPER THAN 5% SHALL BE PROMPTLY FERTILIZED, SEEDED AND STABILIZED BY "TRACKING" EQUIPMENT.
3. APPLY TOPSOIL IN THE FOLLOWING AMOUNTS FOR INTENDED USE:
MOWED LAWN: 4-8 INCHES UNMOWED AREA: 2-4 INCHES
4. COMPLETE ROUGH GRADING AND FINAL GRADE, ALLOWING FOR DEPTH OF TOPSOIL TO BE ADDED. SCARIFY ALL COMPACT, SLOWLY PERMEABLE, MEDIUM AND FINE TEXTURED SUBSOIL AREAS. SCARIFY AT APPROXIMATELY RIGHT ANGLES TO THE SLOPE DIRECTION IN SOIL AREAS THAT ARE STEEPER THAN 5%.
5. REMOVE REFUSE, WOODY PLANT PARTS, STONES OVER 3 INCHES IN DIAMETER, AND OTHER LITTER.

TOPSOIL MATERIAL NOTES:
THE FURNISHINGS OF NEW TOPSOIL SHALL BE OF A BETTER OR EQUAL QUALITY OF THE EXISTING ADJACENT TOPSOIL AND SHALL MEET THE FOLLOWING CRITERIA:

- TOPSOIL SHALL HAVE AT LEAST 2%, BUT NOT MORE THAN 6% BY WEIGHT OF FINE TEXTURED STABLE ORGANIC MATERIAL.
 - TOPSOIL SHALL HAVE NOT LESS THAN 20% FINE TEXTURED MATERIAL (PASSING THE NO. 200 SIEVE) AND NOT MORE THAN 15% CLAY.
 - TOPSOIL SHALL BE RELATIVELY FREE OF STONES OVER 1" DIAMETER, THRASH, NOXIOUS WEEDS, AND WILL HAVE LESS THAN 10% GRAVEL BY VOLUME.
- INSPECTION & MAINTENANCE NOTES:
1. TEMPORARY SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND UNHEALTHY GROWTH.
 2. TEMPORARY SEEDINGS SHALL BE PERIODICALLY INSPECTED, AT A MINIMUM 95% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES USED IN THE INTERIM. (MULCH, FILTER BARRIERS, CHECK DAMS, ETC.)
 3. ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE APPLIED IMMEDIATELY.
 4. AERATE COMPACTED OR HEAVY USED AREAS, ANNUALLY AS SOON AS THE SOIL MOISTURE CONDITIONS PERMIT. AERATE AREA 6 TO 8 TIMES USING A SPOON HOLLOW TINE TYPE AERATION. DO NOT USE SPIKE EQUIPMENT.
 5. RESEED BARE AND THIN AREAS ANNUALLY WITH ORIGINAL SPECIES.
 6. SOIL SHALL MAINTAIN A pH OF 6.0-7.0.

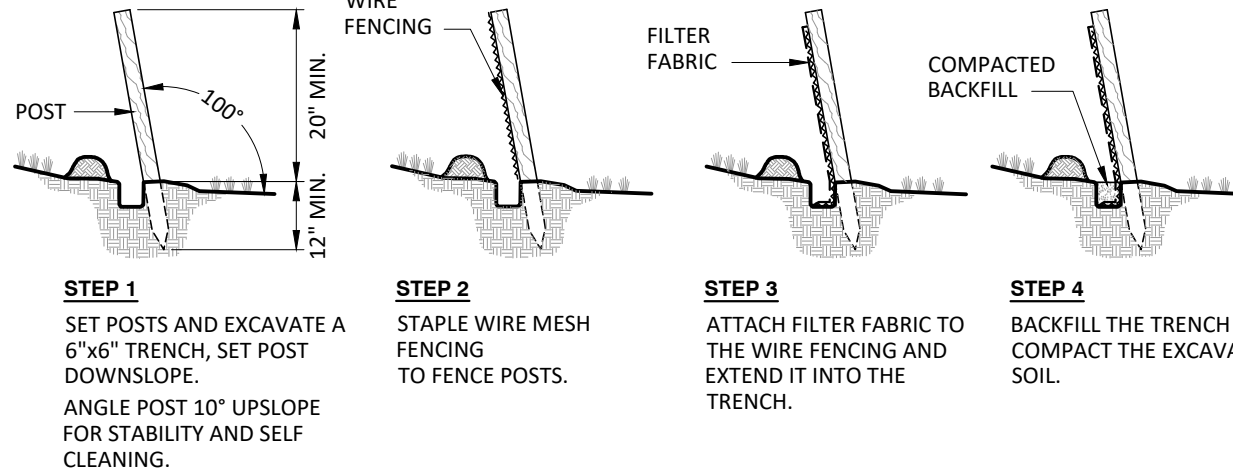
TOPSOIL, SEED AND MULCH DETAIL



- SPECIFICATION AND INSTALLATION NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
 2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
 3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR HAY BALES AND STABILIZED WITH VEGETATION OR COVERED WITH MULCH.
 4. SEE SPECIFICATIONS ON INSTALLATION OF SILT FENCE.
- INSPECTION & MAINTENANCE NOTES:
1. SOIL AND TOPSOIL STOCKPILE SHOULD BE SEEDED IF THEY ARE TO REMAIN DORMANT FOR 30 DAYS.
 2. SEE SILT FENCE DETAIL FOR MAINTENANCE AND INSPECTIONS.

SOIL STOCKPILE DETAIL

SCALE: NTS



MATERIAL NOTES:

1. SYNTHETIC FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 DEGREES TO 120 DEGREE F. SYNTHETIC FILTER FABRIC SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIERS AS CONFORMING TO THE FOLLOWING REQUIREMENTS:

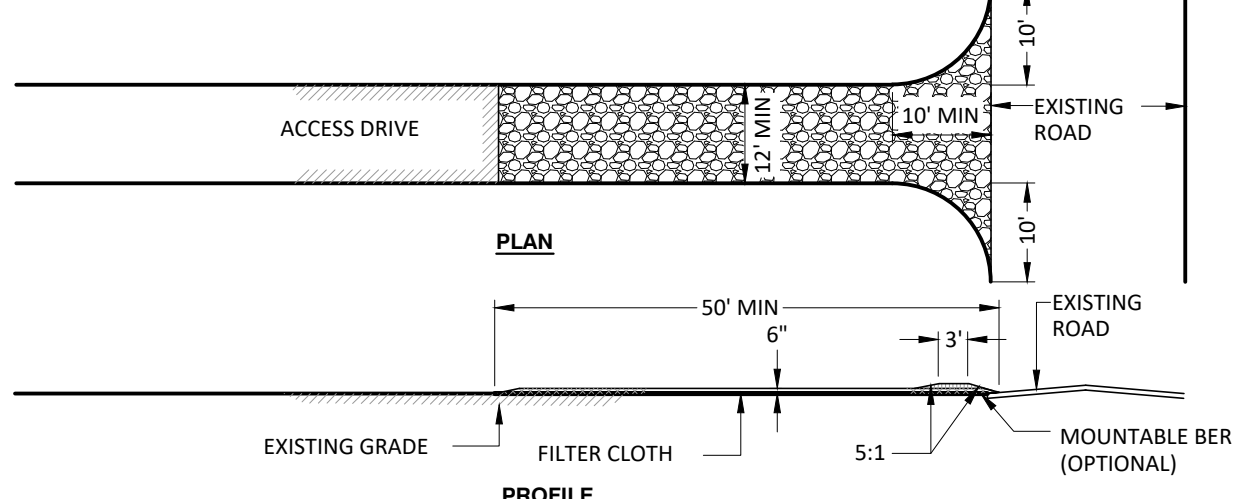
FABRIC PROPERTIES	MIN. ACCEPTED VALUE	TEST METHOD
GRAB TENSILE STRENGTH (lbs)	90	ASTM D1682
ELONGATION FAILURE AT (%)	50	ASTM D1682
MULLEN BURST STRENGTH (PSI)	190	ASTM D3786
PUNCTURE STRENGTH (lbs)	40	ASTM D751 (MODIFIED)
SLURRY FLOW RATE (gal/min/sf)	0.3	
EQUIVALENT OPENING SIZE	40-80	US STD SIEVE CW-02215
ULTRAVIOLET RADIATION STABILITY (%)	90	ASTM G-26

2. THE HEIGHT OF THE SILT FENCE SHALL NOT EXCEED 36 INCHES.
 3. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPICED TOGETHER ONLY AT SUPPORT POSTS, WITH A 6 INCH OVERLAP MINIMUM AND SHALL BE SECURELY SEALED.
- INSTALLATION NOTES:
1. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST ONE (1) INCH LONG, TIE WIRES, OR HOG RINGS. THE WIRE SHALL EXTEND NO MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACES.
 2. THE "STANDARD STRENGTH" FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND EIGHT (8) INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
 3. WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS APPLYING.
 4. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
 5. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AND DRIVEN SECURELY INTO THE GROUND.

- INSPECTION AND MAINTENANCE NOTES:
1. STRAW BALE BARRIER AND SILT FENCE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. THEY SHALL BE REPAIRED IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. ANY REQUIRED REPAIRS SHALL BE MADE WITHIN 24 HOURS OF CONTRACTOR NOTIFICATION. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.
 2. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
 3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD (1/3) THE HEIGHT OF THE BARRIER.
 4. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED, AND SEEDED.
 5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" IN THE SILT FENCES DEVELOP.

SILT FENCE DETAIL

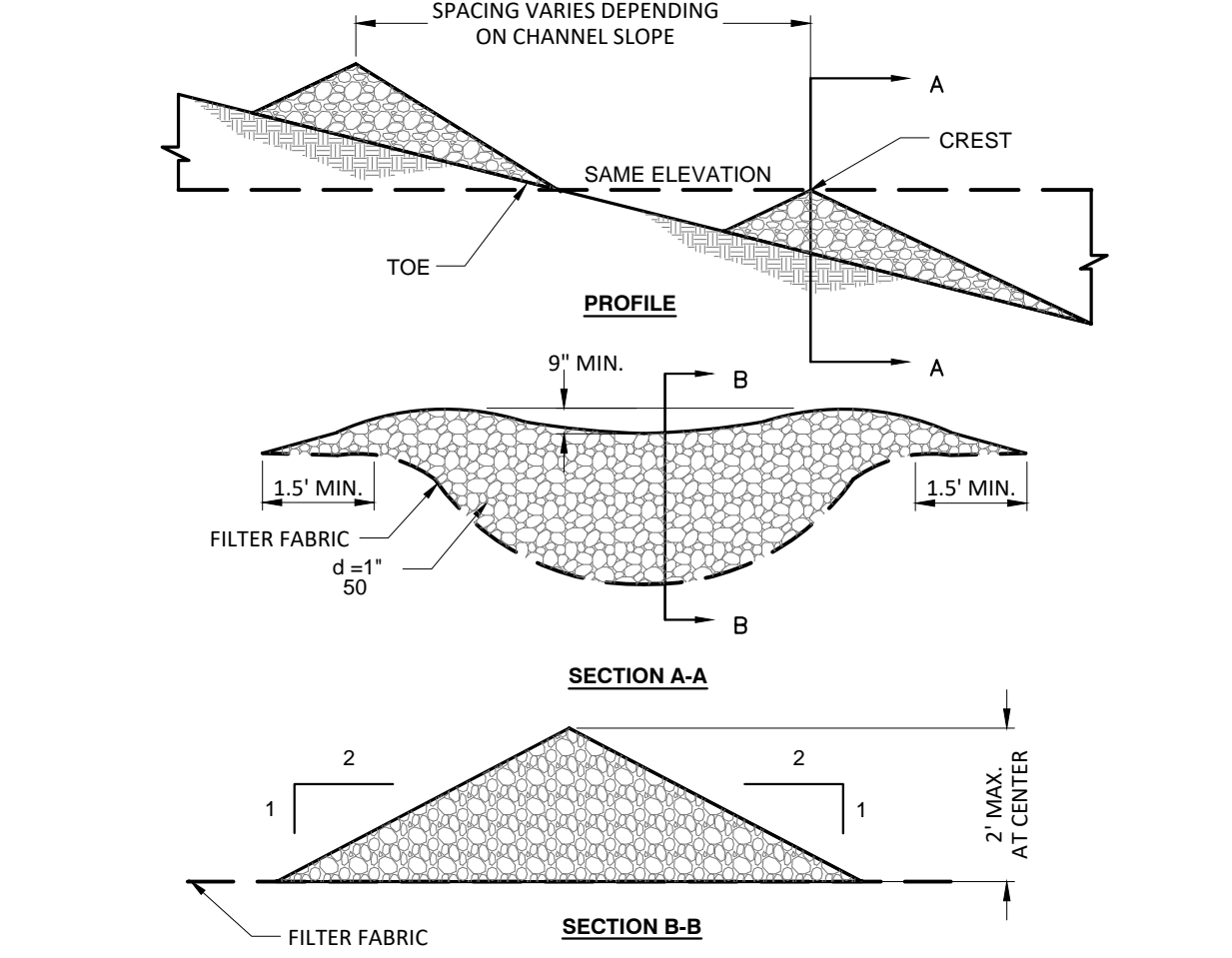
SCALE: NTS



- SPECIFICATIONS AND INSTALLATION NOTES:
1. PRIOR TO INITIATION OF CONSTRUCTION ACTIVITIES AT THE PROJECT SITE, STABILIZED CONSTRUCTION ENTRANCED SHALL BE CONSTRUCTED AT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS.
 2. STONE SIZE - USE 2" STONE OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
 3. THICKNESS - NOT LESS THAN 6 INCHES.
 4. WIDTH - 12 FEET MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
 5. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET.
 6. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. THE FILTER CLOTH SHALL BE WOVEN.
 7. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- INSPECTION & MAINTENANCE NOTES:
1. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAINFALL.
 2. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ON TO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT-TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES OR WATERWAYS.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

SCALE: NTS



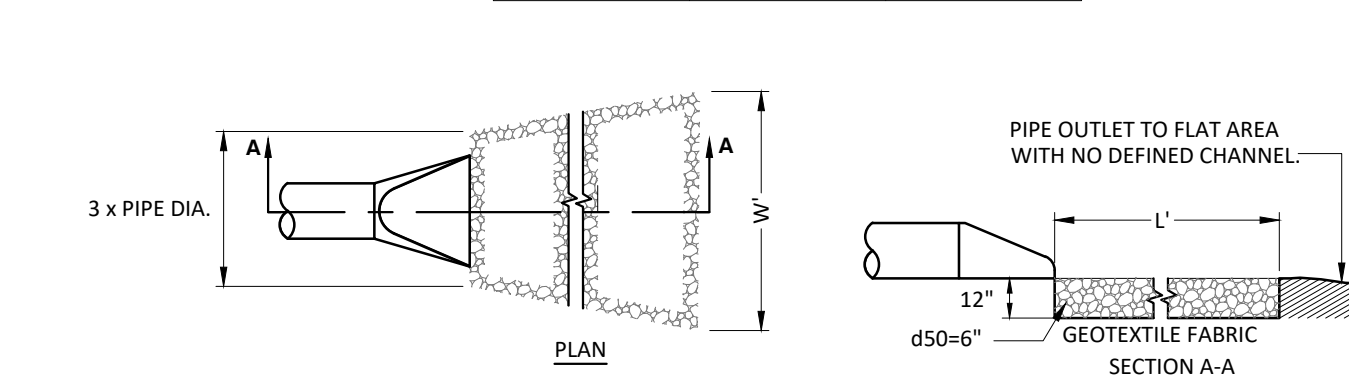
- SPECIFICATIONS AND INSTALLATION NOTES:
1. STONE SHALL BE PLACED ON A FILTER FABRIC FOUNDATION.
 2. SET SPACING OF CHECK DAMS SUCH THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS THE SAME AS THE TOE OF THE UPSTREAM DAM.
 3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEFORE THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
 4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
 5. ENSURE THAT CHANNEL APPURTENANCE SUCH AS CULVERT ENTRANCED BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

- INSTALLATION AND MAINTENANCE NOTES:
1. THE CHECK DAMS SHALL BE INSPECTED PERIODICALLY. CONTRACTOR SHALL CORRECT THE DAMAGE WITHIN 24 HOURS OF NOTIFICATION.
 2. REMOVE SEDIMENT ACCUMULATED BEHIND DAM AS NEEDED TO ALLOW CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM.
 3. REPLACE STONE AS NEEDED TO MAINTAIN THE DESIGN CROSS SECTION OF THE STRUCTURES.

STONE CHECK DAM DETAIL

SCALE: NTS

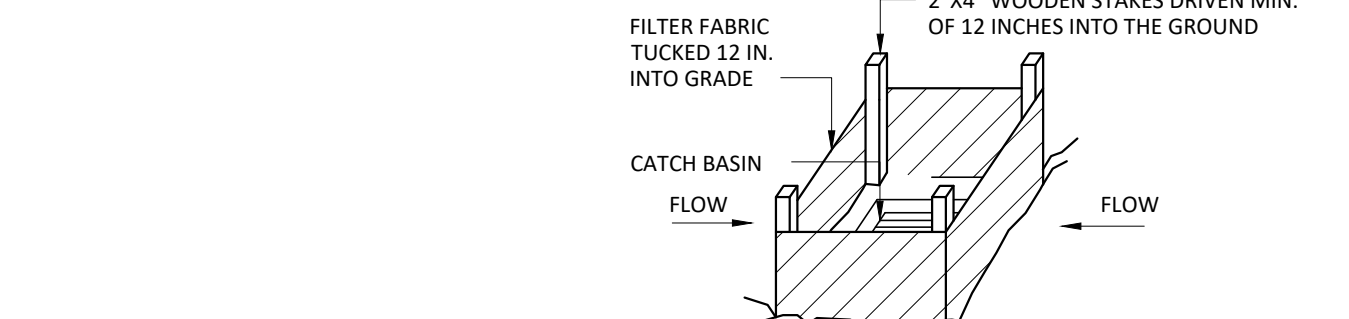
ID	L (FT)	WIDTH (FT)
ES-1	6	4
ES-2	6	4
ES-3	5	6



- SPECIFICATIONS AND INSTALLATION NOTES:
1. ANY FILT REQUIRED IN THE SUBGRADE SHALL BE SUITABLY COMPACTED.
 2. THE ROCK OR GRAVEL SHALL CONFORM TO THE SPECIFIED GRADING LIMITS.
 3. FILTERING CLOTH SHALL BE PROTECTED FROM PUNCHING, CUTTING, OR TEARING. ANY DAMAGE OTHER THAN THE OCCASIONAL SMALL HOLE SHALL BE REPAIRED BY PLACING ANOTHER PIECE OF CLOTH OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE CLOTH. ALL OVERLAPS WHETHER FOR REPAIRS OR FOR JOINING TWO PIECES OF CLOTH SHALL BE A MINIMUM OF 1 FOOT.
 4. STONE FOR RIP RAP MAY BE PLACED BY EQUIPMENT. IT SHALL BE CONSTRUCTED TO THE FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. THE STONE RIP RAP SHALL BE PLACED IN A MANNER THAT WILL INSURE THAT THE RIP RAP IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES FILLING THE VOIDS BETWEEN THE LARGER STONES. RIP RAP SHALL BE PLACED IN A MANNER TO PREVENT DAMAGE TO THE FILTER CLOTH.

- INSPECTION & MAINTENANCE NOTES:
1. INSPECT THE STRUCTURE PERIODICALLY AND AFTER MAJOR STORM EVENTS.
 2. REPAIR OR REPLACE FAILING STRUCTURES IMMEDIATELY.
 3. CHECK CHANNEL FOR SCOUR OR DEBRIS AND LOSS OF ROCK FROM APRONS.
- RIPRAP OUTLET PROTECTION DETAIL

SCALE: NTS

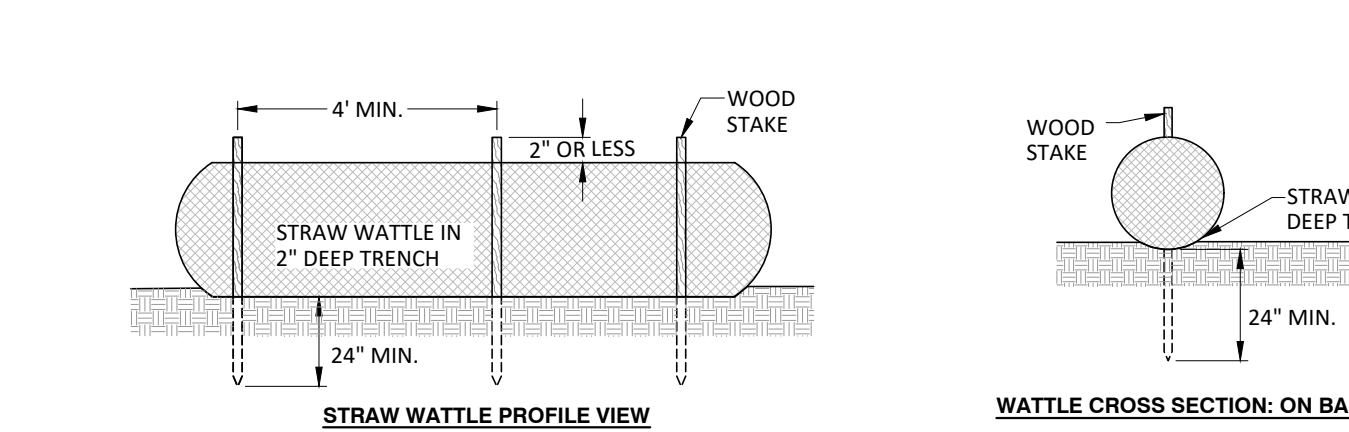


- SPECIFICATIONS AND INSTALLATION NOTES:
1. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY AFTER INSTALLATION OF CATCH BASIN OR YARD DRAIN AND BE MAINTAINED UNTIL UNTIL DRAINAGE AREA IS STABILIZED.
 2. REFER TO SILT FENCE DETAIL. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
 3. STAKE MATERIALS WILL BE STANDARD 2X4 WOOD WITH A MINIMUM LENGTH OF 3 FEET.
 4. SPACE STAKES EVENLY AROUND INLET. 3 FEET APART AND DRIVE INTO THE GROUND A MINIMUM OF 18 INCHES. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
 5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GRADE AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.

- INSPECTION & MAINTENANCE NOTES:
1. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER REACHING 1/2 OF THE HEIGHT OF THE FABRIC, OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.
 2. THE INLET PROTECTION SHALL BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL, OR DAILY DURING EXTENDED PERIODS OF PRECIPITATION.
 3. REPAIRS SHALL BE MADE IMMEDIATELY, AS NECESSARY, TO PREVENT PARTICLES FROM REACHING THE DRAINAGE SYSTEM AND/OR CAUSING SURFACE FLOODING.
 4. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED WITHIN 24 HOURS OF CONTRACTOR NOTIFICATION.

CATCH BASIN / YARD INLET PROTECTION DETAIL

SCALE: NTS

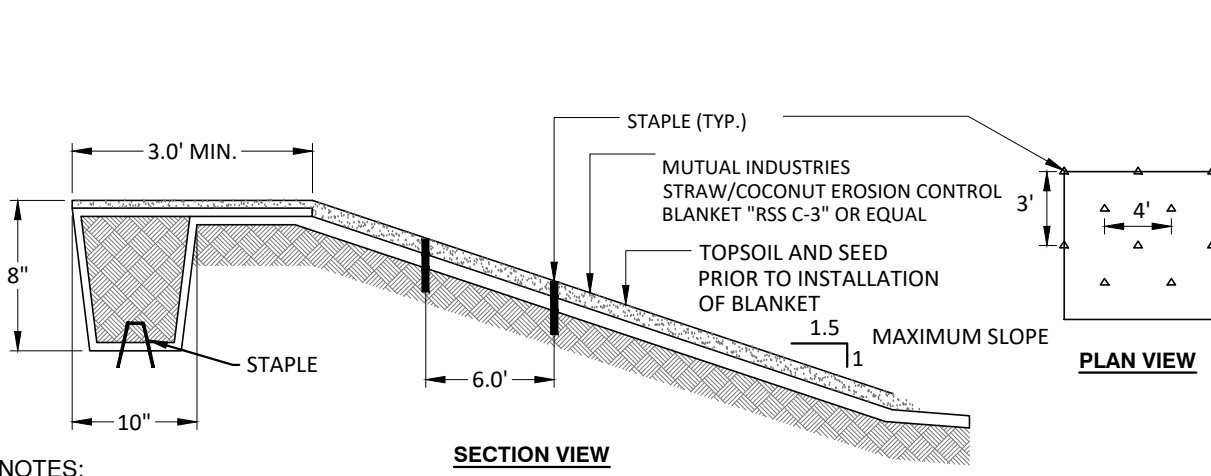


- MATERIAL NOTES:
1. WATTLES SHALL BE AMERICAN EXCELSIOR COMPANY'S PREMIER STRAW WATTLES OR APPROVED EQUAL.
 2. ORGANIC, AGRICULTURAL STRAW FIBERS MUST BE WEED FREE ENCASED IN POLYPROPYLENE OR FIBERNET.
 3. 75% OF FIBERS MUST BE A MINIMUM OF 4" LONG.
 4. NET OPENINGS MUST BE APPROXIMATELY 0.5" WIDE BY 1.0" LONG.
 5. ALL COMPONENTS MUST BE BIODEGRADABLE.

- INSTALLATION NOTES:
1. INSTALL WATTLE IN A 2" DEEP TRENCH CONSTRUCTED ALONG THE CONTOUR, PERPENDICULAR TO THE SLOPE OR DIRECTION OF FLOW.
 2. ENDS OF WATTLES SHALL BE TURNED UP THE SLOPE SO AS TO RETAIN WATER AND PREVENT ITS RELEASE FROM THE END OF THE WATTLE.
 3. WATTLES SHALL BE SECURED TO THE SUBGRADE BY WOODEN STAKES SPACED EVERY FOUR LINEAL FEET ACROSS THE LENGTH OF THE WATTLE. STAKES SHALL BE DRIVEN THROUGH THE CENTER OF THE WATTLE AND INTO THE GROUND A MINIMUM OF 24" WITH LESS THAN TWO INCHES PROJECTING ABOVE THE TOP OF THE WATTLE. A STAKE SHALL BE PLACED WITHIN 2 FEET OF THE END OF THE WATTLE.
 4. IF WATTLES ARE JOINED TOGETHER BY ABUTTING THE ENDS, TIE THE ENDS TOGETHER USING HEAVY TWINE OR PLASTIC LOCKING TIES.
 5. WHEN INSTALLING IN A CHANNEL BOTTOM, WATTLE INSTALLATION SHALL CONTINUE THREE FEET ABOVE THE ANTICIPATED HIGH WATER MARK.
 6. WATTLE SHALL REMAIN IN PLACE UNTIL FULLY ESTABLISHED VEGETATION AND ROOT SYSTEMS ARE PRESENT AND CAN SURVIVE ON THEIR OWN. WATTLES ARE NOT REMOVED AND WILL DEGRADE IN PLACE.
- INSPECTION AND MAINTENANCE NOTES:
1. STRAW WATTLES SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. THEY SHALL BE REPAIRED IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. ANY REQUIRED REPAIRS SHALL BE MADE WITHIN 24 HOURS OF CONTRACTOR NOTIFICATION. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.
 2. SHOULD THE STRAW WATTLE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, IT SHALL BE REPLACED.
 3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF (1/2) THE HEIGHT OF THE BARRIER.
 4. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE WATTLE IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED, AND SEEDED. WHEN THE WATTLE IS NO LONGER NEEDED, STAKES SHALL BE REMOVED.

STRAW WATTLE DETAIL

SCALE: NTS



- NOTES:
1. GRADE AND COMPACT AREA OF INSTALLATION, REMOVING ALL ROCKS, VEGETATION, ETC.
 2. INSTALL TOPSOIL, SEED AND MULCH PER DETAIL.
 3. EXTEND BLANKET 2" OVER CREST OF SLOPE AND EXCAVATE A 12"X6" TERMINAL ANCHOR TRENCH.
 4. ANCHOR BLANKET IN TRENCH WITH STAPLES @ SPACING PER MANUFACTURER, BACKFILL AND COMPACT SOIL.
 5. UNROLL BLANKET DOWN SLOPE.
 6. OVERLAP ADJACENT ROLLS AT LEAST 3" AND ANCHOR PER MANUFACTURER.
 7. LAY BLANKET LOOSE TO MAINTAIN DIRECT CONTACT WITH SOIL (DO NOT PULL TAUGHT).
 8. SECURE BLANKET TO GROUND SURFACE. STAPLES WITH PATTERN PER MANUFACTURER.
 9. TRIM TO BE STAPLED PARALLEL TO CONTOUR.
 10. EROSION CONTROL BLANKET SHALL BE CURLEX DOUBLE NET (CURLEX II).
- EROSION CONTROL BLANKET DETAIL

SCALE: NTS



CONDITIONS WHERE PRACTICE APPLIES:

WASHOUT FACILITIES SHALL BE PROVIDED FOR EVERY PROJECT WHERE CONCRETE WILL BE POURED OR OTHERWISE FORMED ON THE SITE. THIS FACILITY WILL RECEIVE HIGHLY ALKALINE WASH WATER FROM THE CLEANING OF CHUTES, MIXERS, HOPPERS, VIBRATORS, PLACING EQUIPMENT, TROWELS, AND SCREDS. UNDER NO CIRCUMSTANCES WILL WASH WATER FROM THESE OPERATIONS BE ALLOWED TO INFILTRATE INTO THE SOIL OR ENTER SURFACE WATERS.

DESIGN CAPACITY:

THE WASHOUT FACILITY SHOULD BE SIZED TO CONTAIN SOLIDS, WASH WATER, AND RAINFALL AND SIZED TO ALLOW FOR THE EVAPORATION OF THE WASH WATER AND RAINFALL. WASH WATER SHALL BE ESTIMATED AT 7 GALLONS PER CHUTE AND 50 GALLONS PER HOPPER OF THE CONCRETE PUMP TRUCK AND/OR DISCHARGING DRUM. THE MINIMUM SIZE SHALL BE 8 FEET BY 8 FEET AT THE BOTTOM AND 2 FEET IF EXCAVATED, THE SIDE SLOPES SHALL BE 2 HORIZONTAL TO 1 VERTICAL.

LOCATION:

LOCATE THE FACILITY A MINIMUM OF 100 FEET FROM DRAINAGE SWALES, STORM DRAIN INLETS, WETLANDS, STREAMS AND OTHER SURFACE WATERS. PREVENT SURFACE WATER FROM ENTERING THE STRUCTURE EXCEPT FOR THE ACCESS ROAD. PROVIDE APPROPRIATE ACCESS WITH A GRAVEL ACCESS ROAD SLOPED DOWN TO THE STRUCTURE. SIGNS SHALL BE PLACED TO DIRECT DRIVERS TO THE FACILITY AFTER THEIR LOAD IS DISCHARGED.

LINER:

ALL WASHOUT FACILITIES WILL BE LINED TO PREVENT LEACHING OF LIQUIDS INTO THE GROUND. THE LINER SHALL BE PLASTIC SHEETING WITH A MINIMUM THICKNESS OF 30 MILS WITH NO HOLES OR TEARS, AND ANCHORED BEYOND THE TOP OF THE PIT WITH AN EARTHEN BERM, SAND BAGS, STONE, OR OTHER STRUCTURAL APPURTENANCE EXCEPT AT THE ACCESS POINT. IF PRE-FABRICATED WASHOUTS ARE USED THEY MUST ENSURE THE CAPTURE AND CONTAINMENT OF THE CONCRETE WASH AND BE SIZED BASED ON THE EXPECTED FREQUENCY OF CONCRETE POURS. THEY SHALL BE SITED AS NOTED IN THE LOCATION CRITERIA.

MAINTENANCE:

1. ALL CONCRETE WASHOUT FACILITIES SHALL BE INSPECTED DAILY. DAMAGED OR LEAKING FACILITIES SHALL BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY. EXCESS RAINWATER THAT HAS ACCUMULATED OVER HARDENED CONCRETE SHOULD BE PUMPED TO A STABILIZED AREA, SUCH AS A GRASS FILTER RIP.
2. ACCUMULATED HARDENED MATERIAL SHALL BE REMOVED WHEN 75% OF THE STORAGE CAPACITY OF THE STRUCTURE IS FILLED. ANY EXCESS WASH WATER SHALL BE PUMPED INTO A CONTAINMENT VESSEL AND PROPERLY DISPOSED OF OFF-SITE.
3. DISPOSE OF THE HARDENED MATERIAL OFF-SITE IN A CONSTRUCTION/DEMOLITION LANDFILL. ON-SITE DISPOSAL MAY BE ALLOWED IF THIS HAS BEEN APPROVED AND ACCEPTED AS PART OF THE PROJECT'S SWPPP. IN THAT CASE, THE MATERIAL SHOULD BE RECYCLED AS SPECIFIED, OR BURIED AND COVERED WITH A MINIMUM OF 2 FEET OF CLEAN COMPACTED EARTHILL THAT IS PERMANENTLY STABILIZED TO PREVENT EROSION.
4. THE PLASTIC LINER SHALL BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.
5. INSPECT THE PROJECT SITE FREQUENTLY TO ENSURE THAT NO CONCRETE DISCHARGES ARE TAKING PLACE IN NON-DESIGNATED AREAS.

CONCRETE WASHOUT FACILITY

SCALE: NTS

CONDITIONS WHERE PRACTICE APPLIES:

ON CONSTRUCTION ROADS, ACCESS POINTS, AND OTHER DISTURBED AREAS SUBJECT TO SURFACE DUST MOVEMENT AND DUST BLOWING WHERE OFF-SITE DAMAGE MAY OCCUR IF DUST IS NOT CONTROLLED.

DESIGN CRITERIA:

CONSTRUCTION OPERATIONS SHOULD BE SCHEDULED TO MINIMIZE THE AMOUNT OF AREA DISTURBED AT ONE TIME. BUFFER AREAS OF VEGETATION SHOULD BE LEFT WHERE PRACTICAL. TEMPORARY OR PERMANENT STABILIZATION MEASURES SHALL BE INSTALLED. NO SPECIFIC DESIGN CRITERIA IS GIVEN; SEE CONSTRUCTION SPECIFICATIONS BELOW FOR COMMON METHODS OF DUST CONTROL.

WATER QUALITY MUST BE CONSIDERED WHEN MATERIALS ARE SELECTED FOR DUST CONTROL. WHERE THERE IS A POTENTIAL FOR THE MATERIAL TO WASH OFF TO A STREAM, INGREDIENT INFORMATION MUST BE PROVIDED TO THE NYSDCE.

NO POLYMER APPLICATION SHALL TAKE PLACE WITHOUT WRITTEN APPROVAL FROM THE NYSDCE.

DESIGN CRITERIA:

- A. NON-DRIVING AREAS - THESE AREAS USE PRODUCTS AND MATERIALS APPLIED OR PLACED ON SOIL SURFACES TO PREVENT AIRBORNE MIGRATION OF SOIL PARTICLES.

VEGETATIVE COVER - FOR DISTURBED AREAS NOT SUBJECT TO TRAFFIC, VEGETATION PROVIDES THE MOST PRACTICAL METHOD OF DUST CONTROL.

MULCH (INCLUDING GRAVEL MULCH) - MULCH OFFERS A FAST EFFECTIVE MEANS OF CONTROLLING DUST. THIS CAN ALSO INCLUDE ROLLED EROSION CONTROL BLANKETS.

SPRAY ADHESIVES - THESE ARE PRODUCTS GENERALLY COMPOSED OF POLYMERS IN A LIQUID OR SOLID FORM THAT ARE MIXED WITH WATER TO FORM AN EMULSION THAT IS SPRAYED ON THE SOIL SURFACE WITH TYPICAL HYDROSEEDING EQUIPMENT. THE MIXING RATIOS AND APPLICATION RATES WILL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR THE SPECIFIC SOILS ON THE SITE. IN NO CASE SHOULD THE APPLICATION OF THESE ADHESIVES BE MADE ON WET SOILS OR IF THERE IS A PROBABILITY OF PRECIPITATION WITHIN 48 HOURS OF ITS PROPOSED USE. MATERIAL SAFETY DATA SHEETS WILL BE PROVIDED TO ALL APPLICATORS AND OTHERS WORKING WITH THE MATERIAL.

- B. DRIVING AREAS - THESE AREAS UTILIZE WATER, POLYMER EMULSIONS, AND BARRIERS TO PREVENT DUST MOVEMENT FROM THE TRAFFIC SURFACE INTO THE AIR.

SPRINKLING - THE SITE MAY BE SPRAYED WITH WATER UNTIL THE SURFACE IS WET. THIS IS ESPECIALLY EFFECTIVE ON HAUL ROADS AND ACCESS ROUTE TO PROVIDE SHORT TERM LIMITED DUST CONTROL.

POLYMER ADDITIVES - THESE POLYMERS ARE MIXED WITH WATER AND APPLIED TO THE DRIVING SURFACE BY A WATER TRUCK WITH A GRAVITY FEED DRIP BAR, SPRAY BAR OR AUTOMATED DISTRIBUTOR TRUCK. THE MIXING RATIOS AND APPLICATION RATES WILL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. INCORPORATION OF THE EMULSION INTO THE SOIL WILL BE DONE TO THE APPROPRIATE DEPTH BASED ON EXPECTED TRAFFIC. COMPACTION AFTER INCORPORATION WILL BE BY VIBRATORY ROLLER TO A MINIMUM OF 95%. THE PREPARED SURFACE SHALL BE MOST AND NO APPLICATION OF THE POLYMER WILL BE MADE IF THERE IS A PROBABILITY OF PRECIPITATION WITHIN 48 HOURS OF ITS PROPOSED USE. MATERIAL SAFETY DATA SHEETS WILL BE PROVIDED TO ALL APPLICATORS WORKING WITH THE MATERIAL.

BARRIERS - WOVEN GEO-TEXTILES CAN BE PLACED ON THE DRIVING SURFACE TO EFFECTIVELY REDUCE DUST THROW AND PARTICLE MIGRATION ON HAUL ROADS. STONE CAN ALSO BE USED FOR CONSTRUCTION ROADS FOR EFFECTIVE DUST CONTROL.

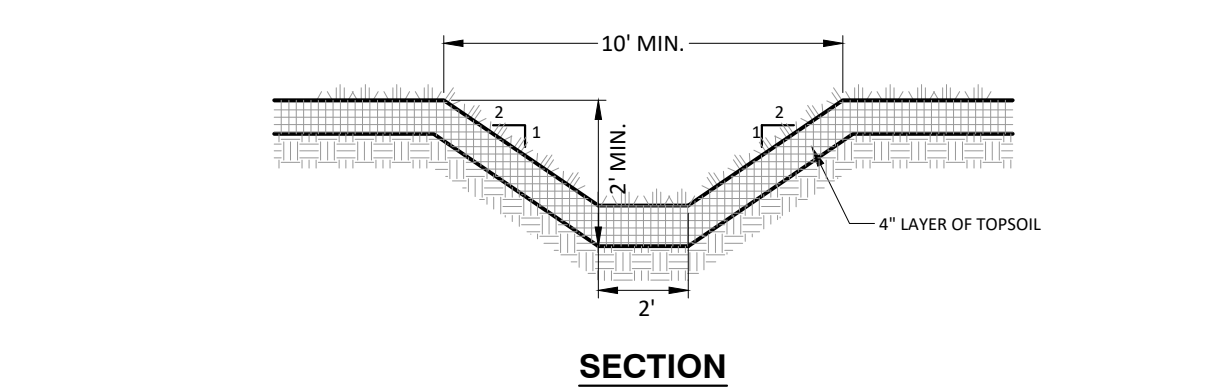
WINDBREAK - A SILT FENCE OR SIMILAR BARRIER CAN CONTROL AIR CURRENTS AT INTERVALS EQUAL TO TEN TIMES THE BARRIER HEIGHT. PRESERVE EXISTING WIND BARRIER VEGETATION AS MUCH AS PRACTICAL.

MAINTENANCE:

MAINTAIN DUST CONTROL MEASURES THROUGH DRY WEATHER PERIODS UNTIL ALL DISTURBED AREAS ARE STABILIZED.

DUST CONTROL NOTES

SCALE: NTS



- NOTES:
1. STABILIZATION OF THE SWALE SHALL BE COMPLETED WITHIN 10 DAYS OF INSTALLATION.
 2. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO OUTLET.
 3. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
 4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE FUNCTIONING OF THE SWALE.
 5. THE SWALE SHALL BE EXCAVATED OR SHAPED AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE