

M.J.D.B.P.

COASTAL RESILIENCY CRANT PROJECT - MARINA / DITCH ENHANCEMENTS

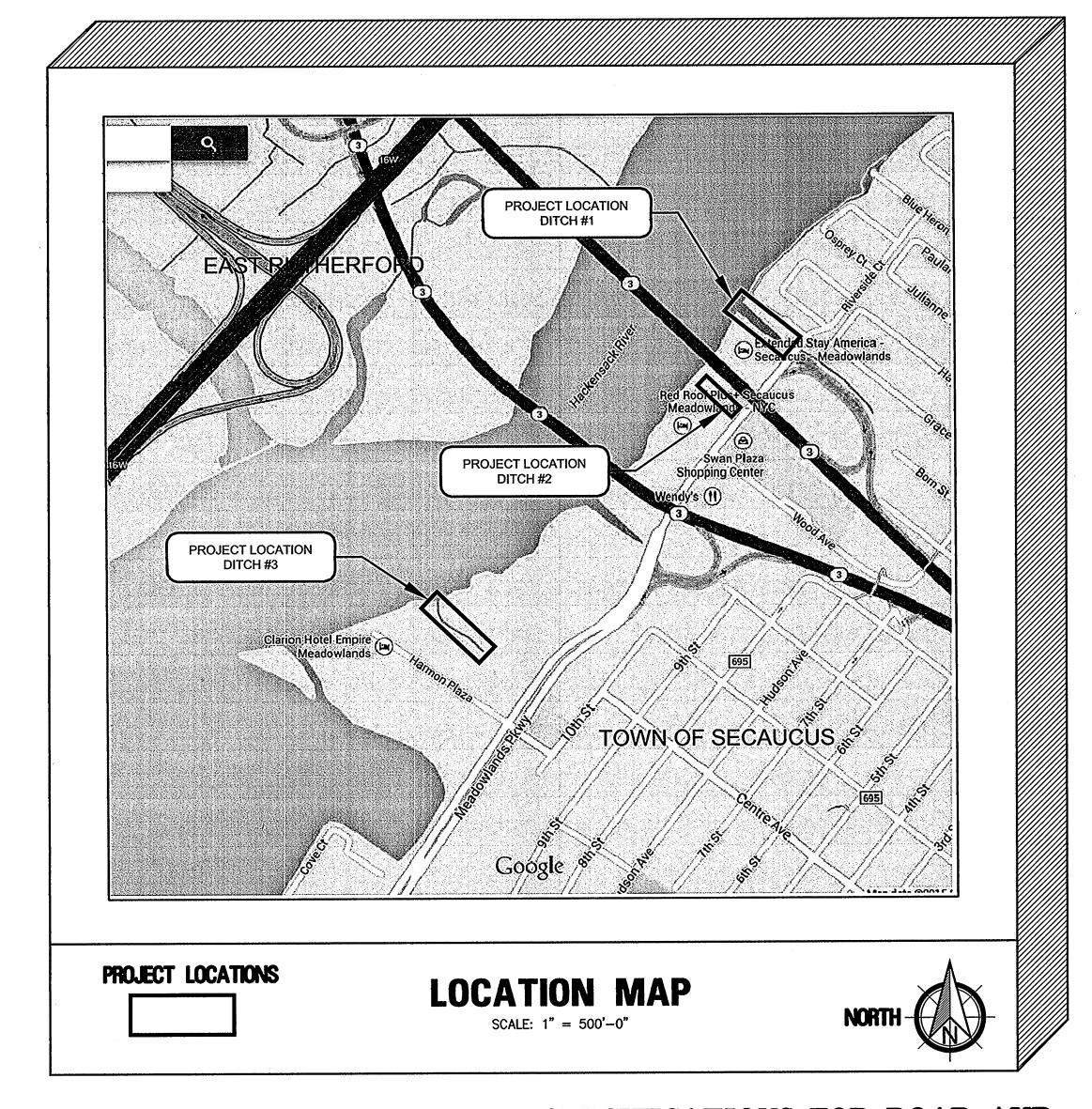


	UTILITIES	
WATER:	UNITED WATER 60 DEVOE PLACE HACKENSACK, NJ 07601 ATTN: JOHN REGER 201-457-7964	
SANITARY SEWER:	SECAUCUS MUA 110 KOELLE BOULEVARD SECAUCUS, NJ 07094 - 3287 ATTN: BRIAN BIGLER, EXECUTIVE DIRECTOR 201-330-2089 BBIGLER@SECAUCUS.NET	
ELECTRIC:	PSE&G - ELECTRIC PALISADES DIVISION 325 COUNTY AVENUE MAIL CODE 207 SECAUCUS, NJ 07094 ATTN: JOSEPH VALENTE, DISTRIBUTION SUPER. 201-330-6570	
GAS:	PSE&G GAS DIVISION 444 ST. PAUL'S AVENUE JERSEY CITY, NJ 07306 ATTN: JAMES CAVANAGH OR DANIEL AMICO 201-420-3944	
CABLE:	TIME WARNER CABLE AND SECURITY 200 ROOSEVELT PL STE 1 PALISADES PARK, NJ 07650 201-592-7600 GENERAL ATTN: MICHAEL MALIK 201-346-2213	
TELEPHONE:	VERIZON 114 PATERSON STREET PATERSON, NJ 732-703-0562 ATTN:CARLOS CRUZ	



CALL FOR FREE MARKOUTS NOT LESS THAN THREE (3) FULL BUSINESS DAYS OR MORE THAN TEN (10) FULL BUSINESS DAYS BEFORE YOU DIG IN NEW JERSEY - 1-800-272-1000.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT NJ ONE CALL PRIOR TO THE START OF CONSTRUCTION.



THE NJDOT 2007 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS SUPPLEMENTED WITH CONTRACT SPECIFICATIONS SHALL GOVERN THIS PROJECT

TOWN OF SECAUCUS

HUDSON COUNTY, NEW JERSEY JANUARY 2016

SHEET INDEX							
SHEET #	DESCRIPTION						
1	COVER SHEET						
2	QUANITIES NOTES AND LEGEND						
3	EXISTING TOPOGRAPHIC CONDITIONS AND CONSTRUCTION PLAN - DITCH #1						
4	EXISTING TOPOGRAPHIC CONDITIONS AND CONSTRUCTION PLAN - DITCH #2						
5	EXISTING TOPOGRAPHIC CONDITIONS AND CONSTRUCTION PLAN - DITCH #3						
6	DETAILS SHEET #1						
7	DETAILS SHEET #2						
8	SOIL EROSION AND SEDIMENT CONTROL DETAILS						

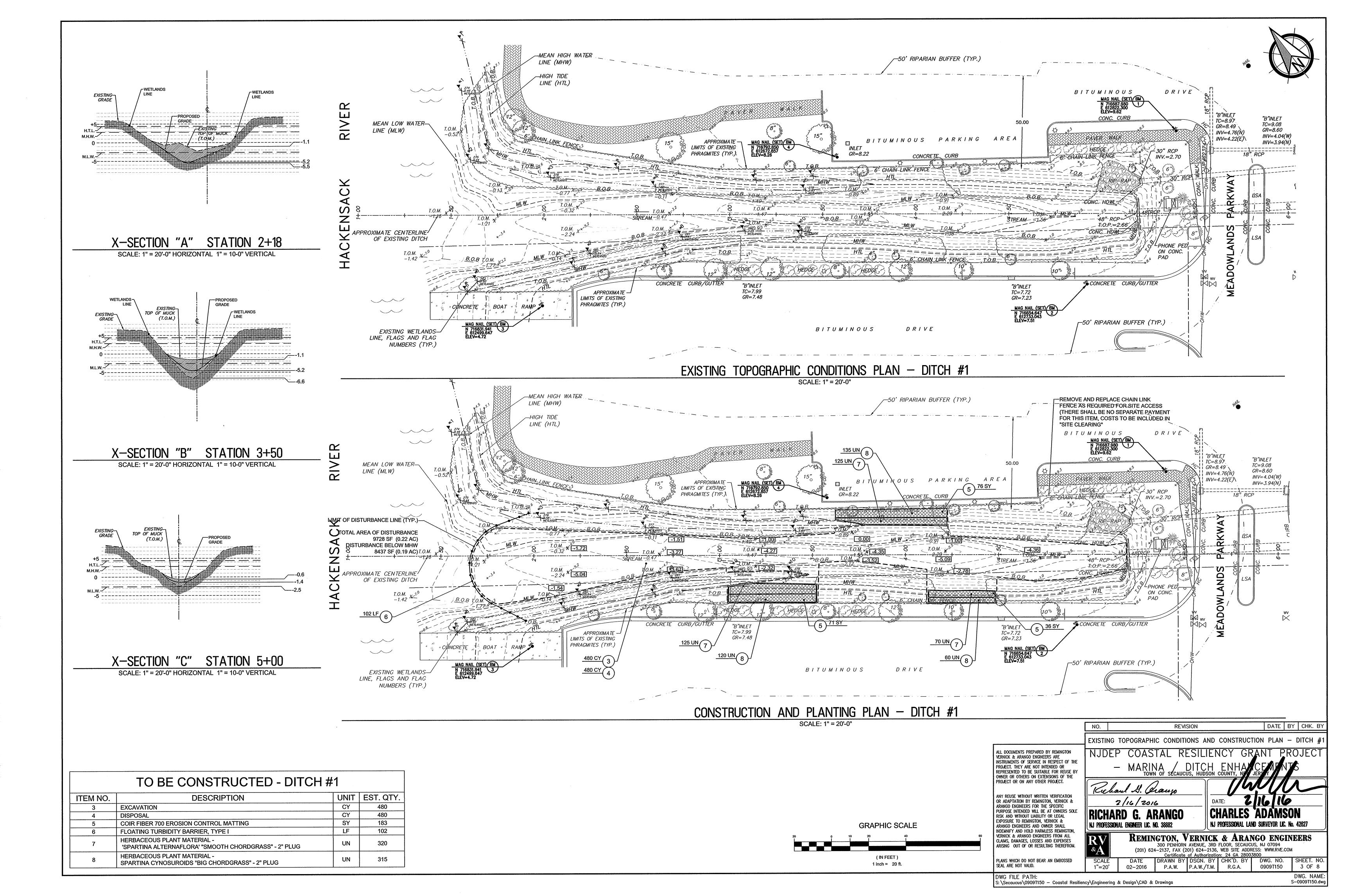
FUNDING SOURCE:
FEDERAL &
THE TOWN OF SECAUCUS

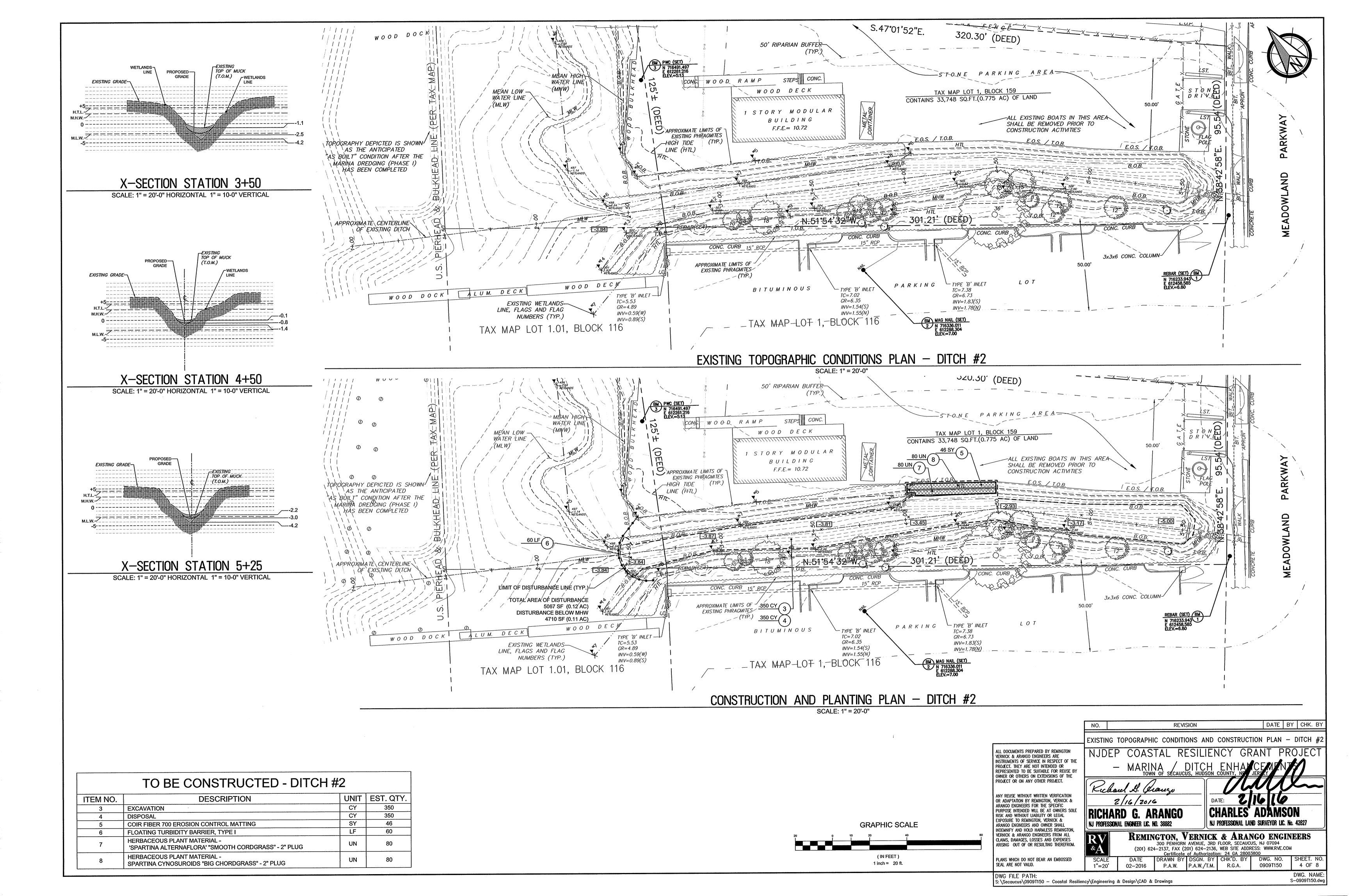
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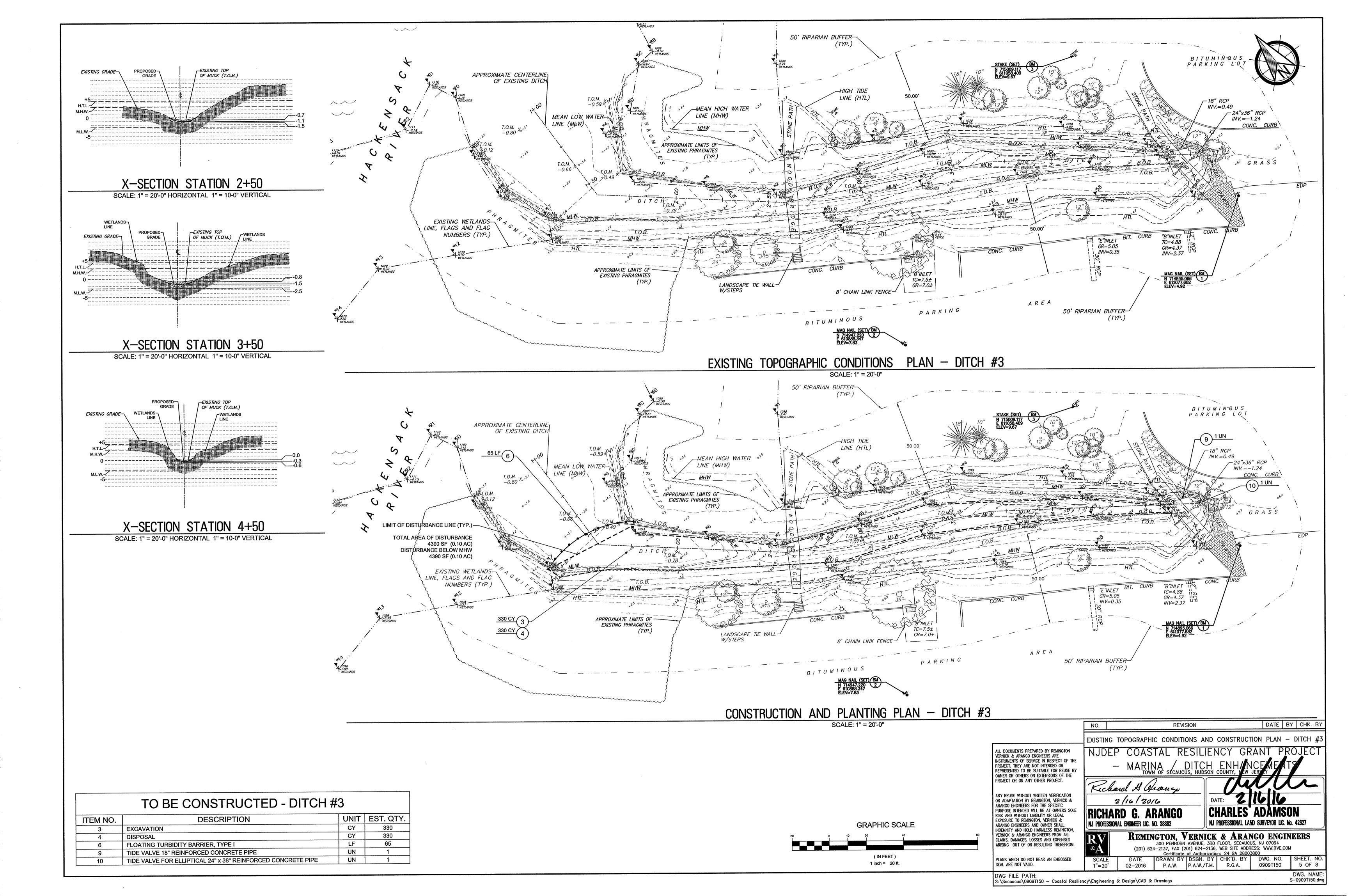
	NO.		REVIS	SION	,	DATE E	SY CHE
ALL DOCUMENTS PREPARED BY REMINGTON VERNICK & ARANGO ENGINEERS ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR			CO/	VER SI	HEET		
REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT.	NJDEP	COAS	TAL RE	SILIEN	ICY GF	RANT PR	OJE
ANY REUSE WITHOUT WRITTEN VERIFICATION	, <u></u> -	MARIN	I OF SECAUCI	OITCH JS, HUDSON	ENHAN COUNTY, NEW	ICEMENT JERSEY	ſS_
OR ADAPTATION BY REMINGTON, VERNICK & ARANGO ENGINEERS FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL	Richa	nd G. C	granzo		DATE	2/16/20	016
EXPOSURE TO REMINGTON, VERNICK & ARANGO ENGINEERS AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS REMINGTON.	RICHAR		ANGÓ		IJ PROFESSION	IAL ENGINEER LIC). No. 38
VERNICK & ARANGO ENGINEERS FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.	RV &A		300 PENHORN 1–2137, FAX (2	AVENUE, 3RD 01) 624-2136,	FLOOR, SECAUC	ress: www.rve.co	
PLANS WHICH DO NOT BEAR AN EMBOSSED	SCALE	DATE	DRAWN BY		CHK'D. BY		SHEET

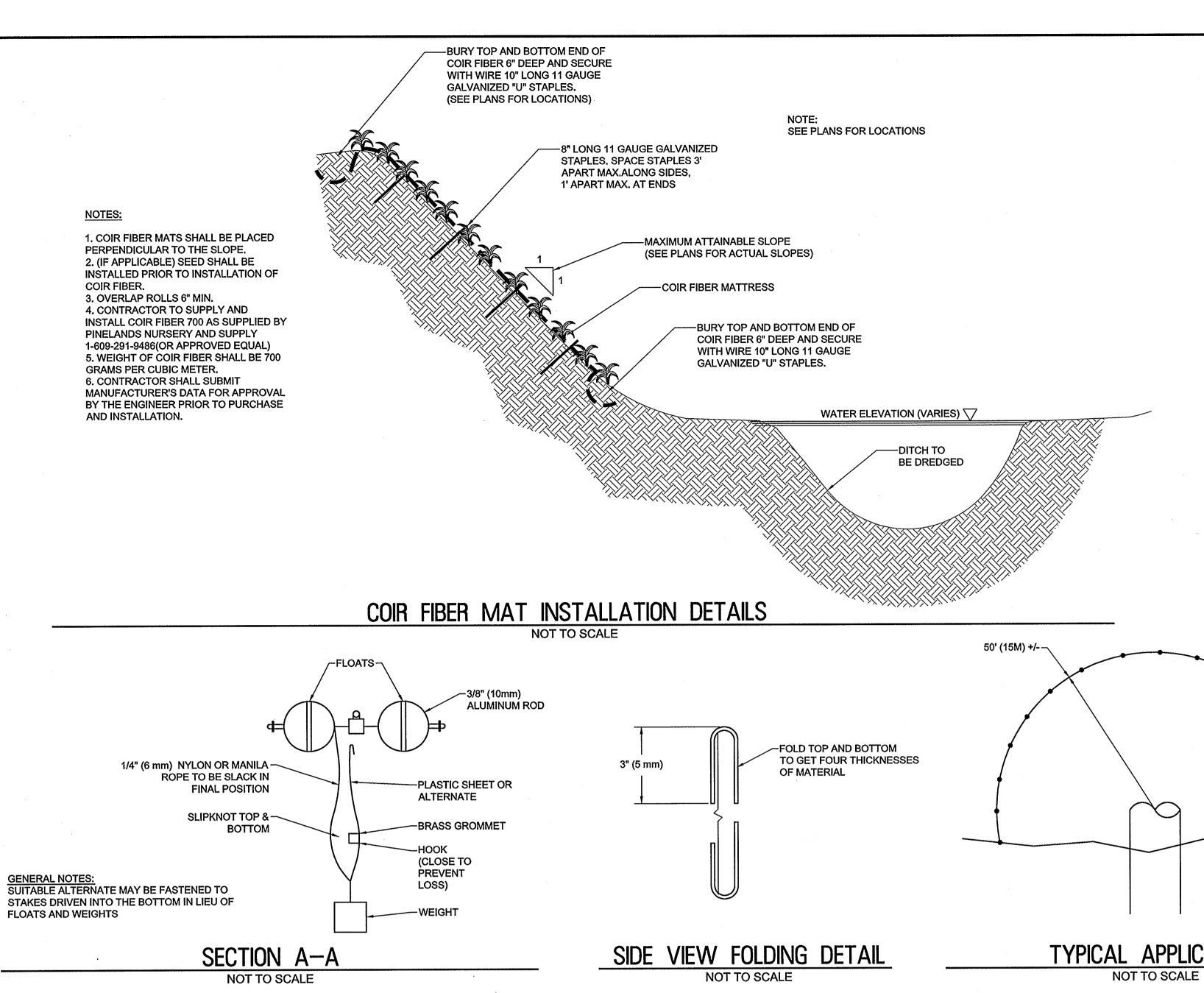
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		STA	ANDARE NOTE: ALL SYMBOLS MA	LEGEN Y NOT BE USED.			ESTIMATE	OF	QUANTITIES
ITEM	DESCRIPTION	EXISTING	PROPOSED	ITEM DESCRIPTION	EXISTING	PROPOSED			PLAN QUANTITIES
	SANITARY SEWER (DRAWN TO SIZE 12" AND LARGE STORM SEWER (DRAWN TO SIZE 12" AND LARGE CABLE TELEVISION WATER MAIN (DRAWN TO SIZE 12" AND LARGE GAS MAIN (SIZE LABELED) TELEPHONE CONDUIT ELECTRIC CONDUIT	GER) = = = = = = = = = = = = = = = = = = =	(SIZE AND TYPE) FLOW ⇒ (SIZE AND TYPE) FLOW ⇒ W	CROWS FEET MONUMENT D.H DRILL HOLE P.K PK NAIL I.P IRON PIN STAKE	• •	•	ITEM NO. 1 CLEARING SITE 2 NO ITEM 3 EXCAVATION 4 DISPOSAL		
	FORCE MAIN (SIZE LABELED) FIBER OPTIC CABLE ELECTRIC CONDUIT, HIGHWAY POWER LINE OVERHEAD	EXISTING 4" FORCE MAIN FM FO FO OHW	——————————————————————————————————————	BASELINES TWP., CITY, COUNTY LINE	OSURVEY	S CONSTRUCTION S	15 GOIR IF IBER 700 EROSION CONTROL MARTING	G	LF 102 60 65 227 23 250 UN 320 80 0 400 100 500 UN 315 80 0 395 105 500 UN 0 0 1 1 0 1
UTILITIES	CURB STOP (WATER SHUT-OFF) WATER METER WATER VALVE WATER GATE VALVE GAS GATE VALVE (GAS SHUT-OFF) BLOW-OFF VALVE	*** *** ** ** ** ** ** ** **	** ** ** ** ** ** ** ** ** **	DECIDUOUS TREES(SIZE, KIND) SHRUBS EVERGREENS TREE LINE	₩ ₩ 		######################################		
	SEWER VENT CLEANOUT WATER HYDRANT MANHOLES	© SANITARY © DRAINAGE © CABLE © WATER © GAS © TELEPHONE	(PROPOSED HYDRANT) (COMPLETE) PROPOSED RECONSTRUCT RESET NEW MANHOLE HEAD, SQUARE	WOOD STOCKADE FENCE CHAIN LINK/ WIRE FENCE WIRE ROPE GUARD FENCE	0	×——×			TIDE DATUM CHART DATUM DESCRIPTION ELEVATION HTL HIGH TIDE LEVEL 4.381** MHWS MEAN HIGH WATER SPRING 3.25* MHHW MEAN HIGH WATER 3.15* MHW MEAN HIGH WATER 2.82* MTL MEAN TIDE LEVEL 0.10*
RAINAGE	"B" OR "E" INLET "A" INLET "B" OR "E" DOUBLE INLET CITY INLET R.C. FLARED END SECTION HEADWALL	© ELECTRIC © UNIDENTIFIED	TYPICAL FOR ALL INLETS) RECONSTRUCT RESET HEAD CAST IRON EXTENSION FRAME FOR EXISTING INLET RESET HEAD	BORING LOCATION MONITORING WELL LOCATION GPS/GIS CONTROL POINT SAMPLE LOCATION TEST PIT LOCATION FRESHWATER WETLAND FLAGS	## CPS-# TP TP	OF MW/BORING/GPS)	GENERAL NOTES: 1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. ANY ERRORS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY. 2. UNLESS OTHERWISE DESCRIBED THE LOCATION OF EXISTING UTILITIES MUST BE VERIFIED IN THE FIELD PRIOR TO THE START OF		MILW MEAN LOW WATER -2.62* MLLW MEAN LOW LOW WATER -2.87* MLWS MEAN LOW WATER SPRING -3.05* * TIDE DATUM INFO TAKEN FROM THE WOOD HOLE REPORT AUTHORIZED BY THE NJ MEADOWLANDS COMMISSION FOR TIDE STATION #9 LOCATED ALONG THE HACKENSACK RIVER IN SECAUCUS, NJ. ALL ELEVATIONS ARE IN FEET UTILIZING NAVD88 DATUM. ELEVATIONS ARE BASED ON OBSERVED DATA. ** HTL ELEVATION CALCULATED UTILIZING NOAA TIDE PREDICTIONS / TIDAL INFO METHODOLOGY PROVIDED BY USACE. ELEVATION IS IN FEET UTILIZING NAVD88 DATUM
	HEADWALL W/WINGS HEADWALL W/WINGS & APRON DRAINAGE FLOW EDGE OF PAVING (CONCRETE AND BITUMINOUS)	HIGH POINT LOW POINT LOW POINT	~	FRESHWATER WETLANDS LINES FRESHWATER WETLANDS BUFFER EXCAVATION/TEST PIT LIMIT LINE PHOTO LOCATIONS SPOT GRADE	× 70.25	× 70.2	CONSTRUCTION. 3. THE CONTRACTOR SHALL USE EXCAVATED MATERIALS FOR BACKFILL UNLESS OTHERWISE DIRECTED BY THE ENGINEER. 4. ALL PAVED AND CONCRETE AREA DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION AT LEAST EQUAL TO THAT WHICH EXISTED PRIOR TO THE START OF CONSTRUCTION. 5. ALL GRASSED AND WOODED AREAS DISTURBED DURING CONSTRUCTION SHALL BE TOPSOILED AND SEEDED. 6. ALL FILL SHALL BE PLACED IN 12" LAYERS AND THOROUGHLY COMPACTED TO THE SATISFACTION OF THE ENGINEER. IF BORROW	SURVE	Y REFERENCE NOTES: DITCH #1 AND DITCH #3
JADWAY	CURB (SIZE, SLOPE, OR VERTICAL) PAVEMENT/SIDEWALK/DRIVEWAY		MILLING EXCAVATION CONCRETE BITUMINOUS	CONTOUR DITCH SWALE 9"x18" CONCRETE VERTICAL CURB CONCRETE SIDEWALK		· · · · · · · · · · · · · · · · · · ·	FILL IS REQUIRED, IT SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF UNDERGROUND AND SURFACE UTILITIES AND STRUCTURES AT OR ADJACENT TO THE SITE OF CONSTRUCTION AND IT SHALL BE AT HIS / HER OWN EXPENSE TO REPAIR OR REPLACE ANYTHING THAT HE / SHE DAMAGES. 8. ALL CONSTRUCTION DETAILS NOT SHOWN SHALL BE IN ACCORDANCE WITH N.J.D.O.T. STANDARDS AS DETAILED IN:	THE VER' ELEVATION 2. PROPER' LOCATION HUDSON FOR GRA 3. EXISTING VERNICK	RIZONTAL DATUM IS BASED ON NAD-1983 (GRID COORDINATES) AND TICAL DATUM IS BASED ON NAVD-1988.(ADD 1.06' TO THESE ONS TO CONVERT TO NGVD-1929 DATUM) TY AND RIGHT-OF-WAY LINES SHOWN ON THESE PLANS ARE APPROXIMATE NS BASED ON THE CURRENT TAX MAPS OF THE TOWN OF SECAUCUS, COUNTY, NEW JERSEY. PROPERTY AND RIGHT-OF-WAY LINES ARE SHOWN APHICAL INFORMATION ONLY AND HAVE NOT BEEN FIELD VERIFIED. TOPOGRAPHIC CONDITIONS WERE SURVEYED BY REMINGTON & CENGINEERS UNDER THE SUPERVISION OF CHARLES E. ADAMSON,
R	RIGHT OF WAY LINES ACCESS PERMITTED NO ACCESS BRIDGE (PLAN VIEW) RAIL ROAD	——————————————————————————————————————		STORM SEWER SANITARY SEWER PARKING SPACES ADA ACCESSIBLE SPACES UTILITY POLE	15" RCP ===================================	(SIZE AND TYPE) FLOW ⇒ (SIZE AND TYPE) FLOW ⇒ (SIZE AND TYPE) FLOW ⇒ 5 SPACES	*"STANDARD ROADWAY CONSTRUCTION / TRAFFIC CONTROL / BRIDGE CONSTRUCTION DETAILS." *"ELECTRICAL BUREAU STANDARD DETAILS." INCLUDING ALL APPLICABLE BASELINE DOCUMENT CHANGES AND APPENDICES. THESE DETAILS MAY BE PURCHASED THROUGH THE N.J.D.O.T. PLANS AND SPECIFICATIONS CENTER AT: 1035 PARKWAY AVENUE TRENTON, NEW JERSEY 08625-0600	APRIL 7, 2 SURVE 1. THE HOR THE VER ELEVATION	LICENSE NO. 42627. THE SURVEY WORK WAS COMPLETED ON 2015. EY REFERENCE NOTES: DITCH #2 AND MARINA RIZONTAL DATUM IS BASED ON NAD-1983 (GRID COORDINATES) AND CITICAL DATUM IS BASED ON NAVD-1988.(ADD 1.06' TO THESE ONS TO CONVERT TO NGVD-1929 DATUM) E TOPOGRAPHIC CONDITIONS WERE SURVEYED BY REMINGTON &
	POLE NO. & TYPE (UTILITY, GUY, LIGHT, ETC.) LIGHT POST TRAFFIC CONTROL BOX	ారు -<	ு ்	UTILITY POLE W/GUY WIRE LIGHT SIGN FRESHWATER WETLANDS LINE AND FLAGS FRESHWATER WETLANDS TRANSITION AREA LIMIT LINE	~ ~	**	(TELEPHONE: 1-609-530-2098) 9. ALL RIGHT-OF-WAY LINES ARE APPROXIMATELY LOCATED. 10. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE N.J.D.O.T. DETAILS TCD-1 THROUGH TCD-5. SITE SPECIFIC NOTES:	VERNICK N.J.P.L.S. APRIL 7, 3. DEED TO 7850, PAG 4 DEED TO PAGE 779 5 DEED TO	CENGINEERS UNDER THE SUPERVISION OF CHARLES E. ADAMSON, LICENSE NO. 42627. THE SURVEY WORK WAS COMPLETED ON 2015. TOWN OF SECAUCUS DATED MARCH 15, 2006 AND RECORDED IN DEED BOOK GE 255 (LOT 1, BLOCK 159). FMW RRI LLC DATED AUGUST 25, 2011 AND RECORDED IN DEED BOOK 8819 (LOT 1, BLOCK 116). BRE/ESA P PORTFOLIO LLC DATED JULY 11, 2005 AND RECORDED IN DEED
TRAFFIC	TRAFFIC LIGHT W/MAST ARM & BASE (ELECTRICAL PLAN)			INLET TREE SHRUBS	□ 5" TREE {{}}	■ ∰ ©	1. THE CONTRACTOR SHALL DREDGE AND REMOVE CUBIC YARD QUANTITIES OF RIVER MUCK FROM THE EXISTING DITCHES AS INDICATED IN THE LINE ITEMS FOR "EXCAVATION". THE CONTRACTOR SHALL THEN TRANSITION FROM THE PROPOSED DREDGED ELEVATION TO MEET THE EXISTING SIDE SLOPES. COIR FIBER MATTING SHALL BE "TOED IN", (TRENCHED AND EMBEDDED) INTO THE BANK (TOP AND BOTTOM) AS INDICATED ON PLANS (SEE DETAILS). THE COIR FIBER MATTING SHALL BE INSTALLED WITH	6. THE CUR 7. THE ENT ALL DOCUMENTS PREPARED VERNICK & ARANGO ENGIN INSTRUMENTS OF SERVICE	NEERS ARE IN RESPECT OF THE OLIANITIES NOTES AND LEGEND
TRA	TRAFFIC LIGHT W/MAST ARM & BASE (TRAFFIC PLAN) SIGNS (REGULATORY, WARNING, GUIDE, ETC.)	1 V3	• • • • • • • • • • • • • • • • • • •	TYPICAL SECTION ARROW GRADES	× 00.00 TC00,00 G00.00	xoo.oo <u>TCOO,00</u> GOO.OO	PROPER STAKING AND SHALL BE OVERLAPPED A MINIMUM OF 6", PER MANUFACTURER'S RECOMMENDATIONS. 2. COIR FIBER MATS SHALL BE PLANTED w/ HERBACEOUS PLANT MATERIALS. SEE PLANT LIST AND DETAILS FOR TYPES OF VEGETATION. (SEE DETAILS FOR MORE INSTALLATION INSTRUCTIONS). 3. ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED FROM THE	PROJECT. THEY ARE NOT I REPRESENTED TO BE SUIT/ OWNER OR OTHERS ON EX PROJECT OR ON ANY OTHE ANY REUSE WITHOUT WRITT OR ADAPTATION BY REMINI ARANGO ENGINEERS FOR T PURPOSE INTENDED WILL B RISK AND WITHOUT LIABILIT	INTENDED OR ABLE FOR REUSE BY CITENSIONS OF THE ER PROJECT. TEN VERIFICATION IGTON, VERNICK & THE SPECIFIC T
	BEAM GUIDE RAIL	·		TYPICAL NORTH ARROW			ADJACENT PARKING AREAS AND/OR UPLAND PROPERTIES. THE PROPOSED CONSTRUCTION EQUIPMENT (ie. CRANE AND / OR LONG ARM EXCAVATOR) SHALL REACH OVER THE BANKS IN ORDER TO PREVENT ANY DISTURBANCE TO WETLANDS AND OUTSIDE OF THE CHANNEL / DITCH. 4. ALL VEGETATIVE PLANTINGS SHALL BE PERFORMED BY HAND, WITH NO ADDITIONAL GRADING ACTIVITIES.	EXPOSURE TO REMINGTON, ARANGO ENGINEERS AND O INDEMNIFY AND HOLD HARD VERNICK & ARANGO ENGING CLAIMS, DAMAGES, LOSSES ARISING OUT OF OR RESUPENCE OF THE PATH: DWG FILE PATH:	RICHARD G ARANGO NJ PROFESSIONAL ENGINEER LIC. No. 38882 RICHARD G ARANGO REERS FROM ALL S AND EXPENSES ULTING THEREFROM. REMINGTON, VERNICK & ARANGO ENGINEERS 300 PENHORN AVENUE, 3RD FLOOR, SECAUCUS, NJ 07094 (201) 624–2137, FAX (201) 624–2136, WEB SITE ADDRESS: WWW.RVE.COM Certificate of Authorization: 24 GA 28003800









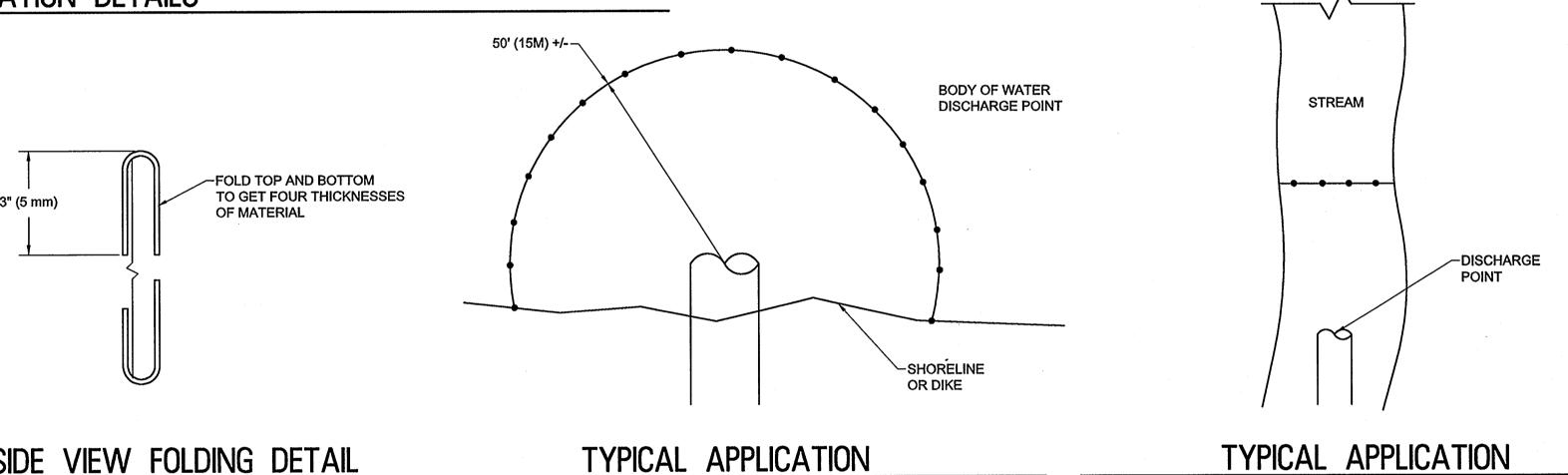
TIDE DATUM CHART **ELEVATION** DATUM DESCRIPTION HIGH TIDE LEVEL 4.381** HTL MHWS MEAN HIGH WATER SPRING 3.25* MHHW MEAN HIGH HIGH WATER 3.15* 2.82* MHW MEAN HIGH WATER MTL MEAN TIDE LEVEL 0.10* -2.62* MLW MEAN LOW WATER MLLW MEAN LOW LOW WATER -2.87* MEAN LOW WATER SPRING -3.05* * TIDE DATUM INFO TAKEN FROM THE WOOD HOLE REPORT AUTHORIZED BY THE NJ MEADOWLANDS COMMISSION FOR TIDE STATION #9 LOCATED ALONG THE HACKENSACK RIVER IN SECAUCUS, NJ. ALL ELEVATIONS ARE IN FEET UTILIZING NAVD88 DATUM. ELEVATIONS ARE BASED ON OBSERVED DATA. ** HTL ELEVATION CALCULATED UTILIZING NOAA TIDE

PREDICTIONS / TIDAL INFO METHODOLOGY PROVIDED BY USACE. ELEVATION IS IN FEET UTILIZING NAVD88 DATUM.

TIDAL DATUM CHART

NOT TO SCALE

NOT TO SCALE



GENERAL NOTES:
PLACE SILT BARRIER TO PREVENT DRIFTING OF SILT CAUSED BY DISCHARGE OF STORM SEWERS DURING CONSTRUCTION, DREDGING OR FILLING OPERATIONS.

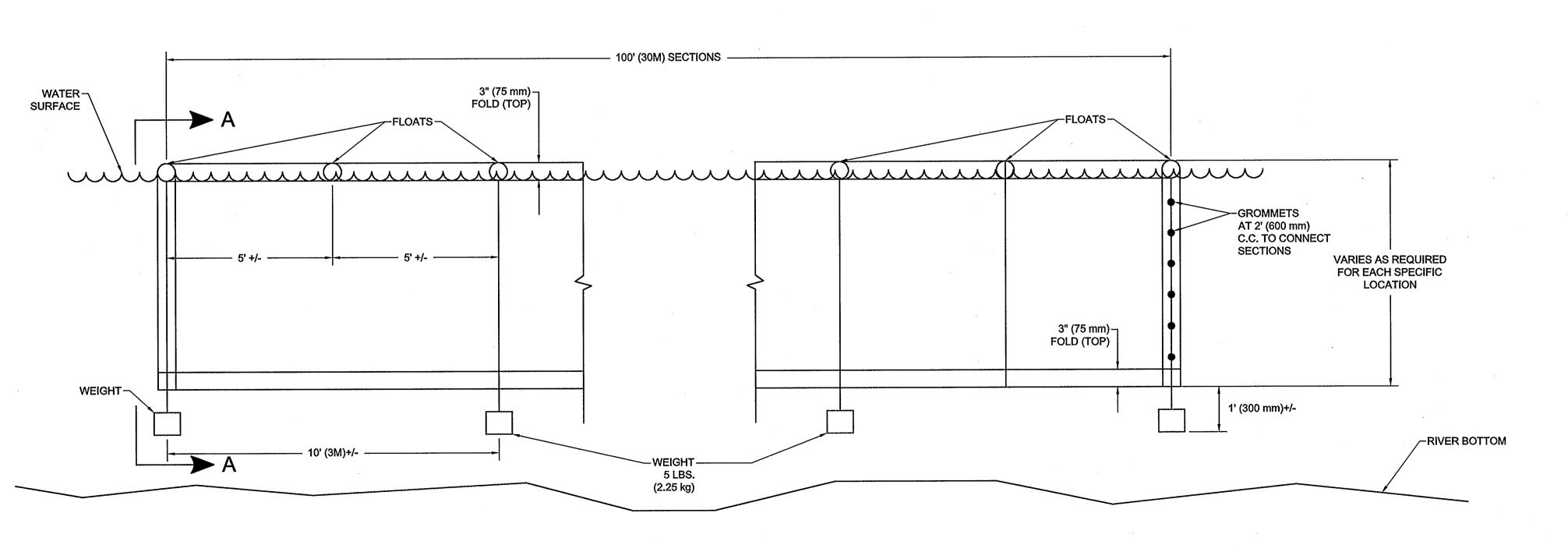
EXACT PLACEMENT OF SILT BARRIER SHALL BE SO AS TO EFFECTIVELY CONTROL SILT DISPERSION UNDER THE CONDITIONS PRESENT ON A PARTICULAR PROJECT.

THE DETAILS SHOWN ON THIS SHEET ARE SUGGESTED METHODS ONLY. ALTERNATE SOLUTIONS AND USAGE OF MATERIALS, MAY BE USED AS APPROVED.

1/4" (6 mm) NYLON OR MANILA ROPE FORMS REINFORCEMENT AND AID IN REMOVAL OR RELOCATION OF BARRIER BY SERVING AS A PICK UP LINE FOR WEIGHTS.

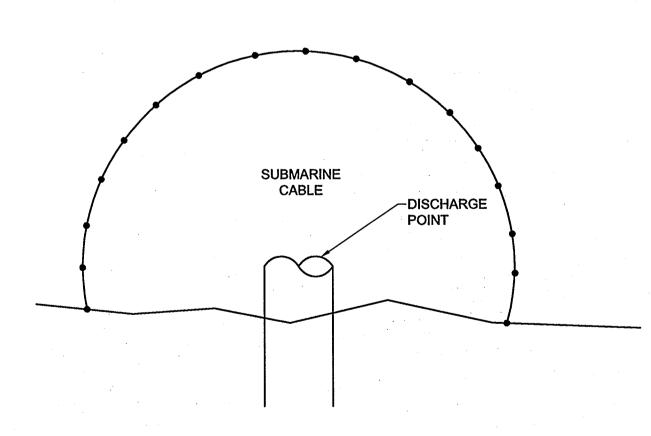
ROPES AND WEIGHTS ARE TO BE ATTACHED TO END FLOATS AND EVERY SECOND FLOAT BETWEEN END FLOATS

10 MII POLYETHYLENE PLASTIC SHEET OR SUITABLE ALTERNATE TO FIT EXISTING CONDITION AS APPROVED BY ENGINEER.



FLOATING TURBIDITY BARRIER

NOT TO SCALE



WET EXCAVATION OR BRIDGE STRUCTURE (WET) NOT TO SCALE

ALL DOCUMENTS PREPARED BY REMINGTON VERNICK & ARANGO ENGINEERS ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE	NO.	REVISION	SUFFT #1	DATE	BY	CHK. E
PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY		DETAILS S		\		150
OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT.		COASTAL RESILI				
ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY REMINGTON, VERNICK &		MARINA DITCI	H ENHANC	EMEN	1TS)
ARANGO ENGINEERS FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL	Richo	nd H. Grange	DATE:	2/16	/20	16
EXPOSURE TO REMINGTON, VERNICK & ARANGO ENGINEERS AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS REMINGTON.	RICHAR	D G ARANGO	NJ PROFESSIONAL	ENGINEER	LIC. N	lo. 38882
VERNICK & ARANGO ENGINEERS FROM ALL	RV	REMINGTON, VERNI	OF A DANG	O 77310	TATES	EDC

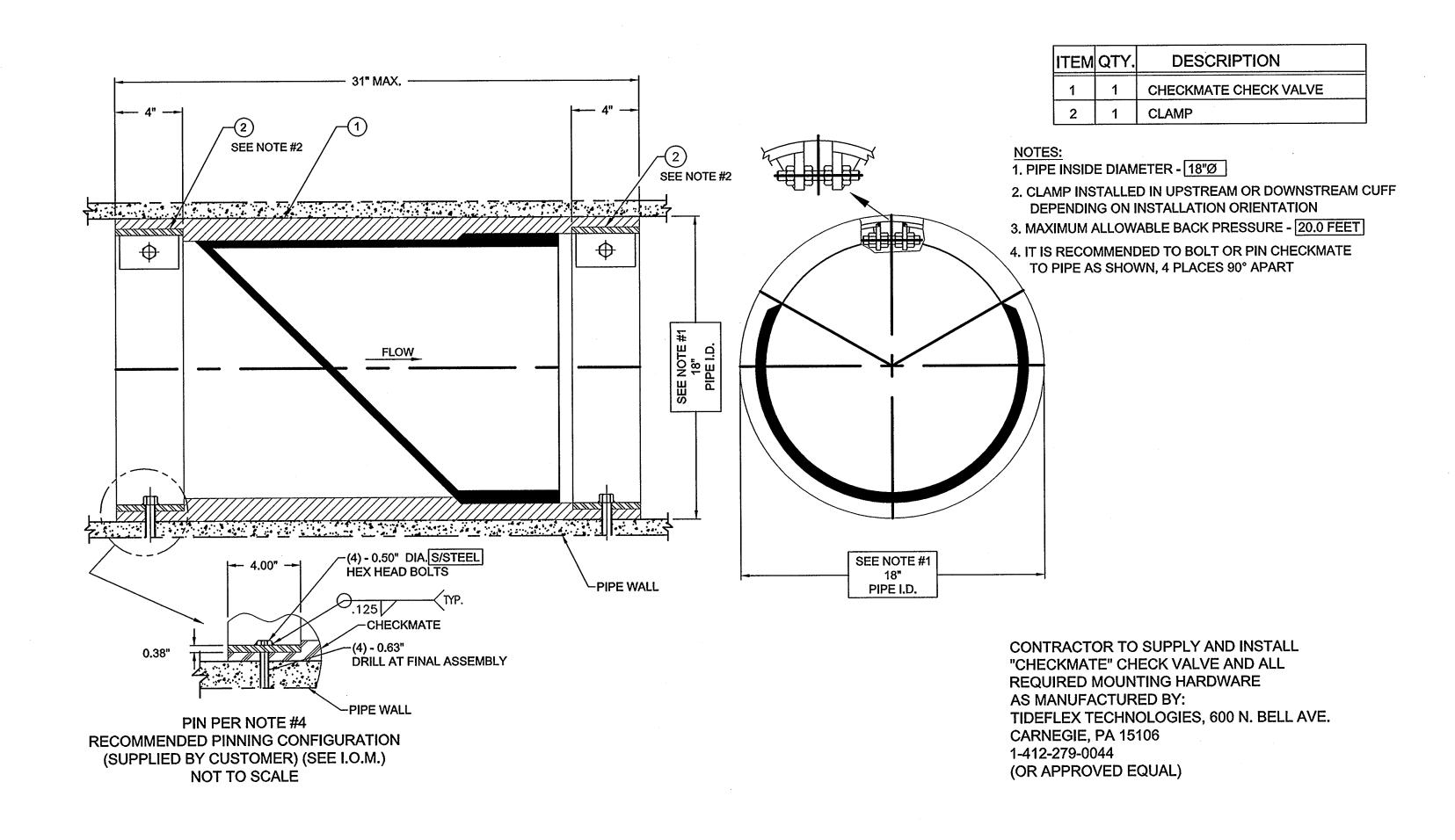
Certificate of Authorization: 24 GA 28003800

DRAWN BY DSGN. BY CHK'D. BY DWG. NO. SHEET. NO. PLANS WHICH DO NOT BEAR AN EMBOSSED SEAL ARE NOT VALID. P.A.W. P.A.W./T.M. R.G.A. N.T.S. 07-2015 DWG FILE PATH: S: \Secaucus\0909T150 - Coastal Resiliency\Engineering & Design\CAD & Drawings

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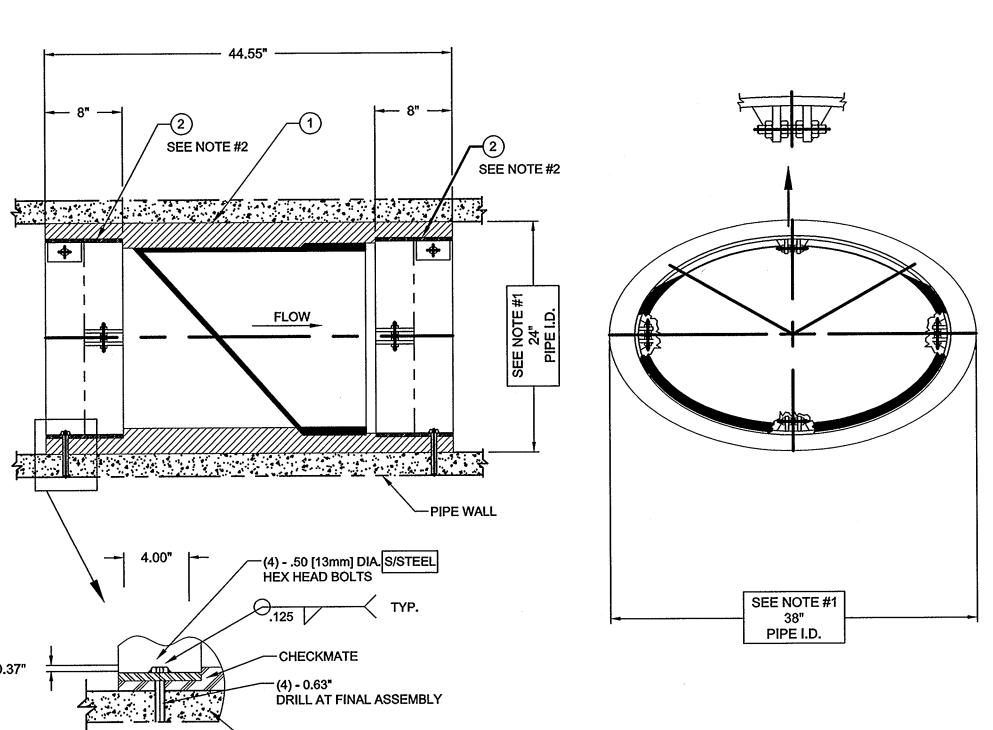
6 OF 8

0909T150



CHECK VALVE DETAIL FOR 18"Ø REINFORCED CONCRETE PIPE

NOT TO SCALE



PIN PER NOTE #4

RECOMMENDED PINNING CONFIGURATION

(SUPPLIED BY CUSTOMER) (SEE I.O.M.)

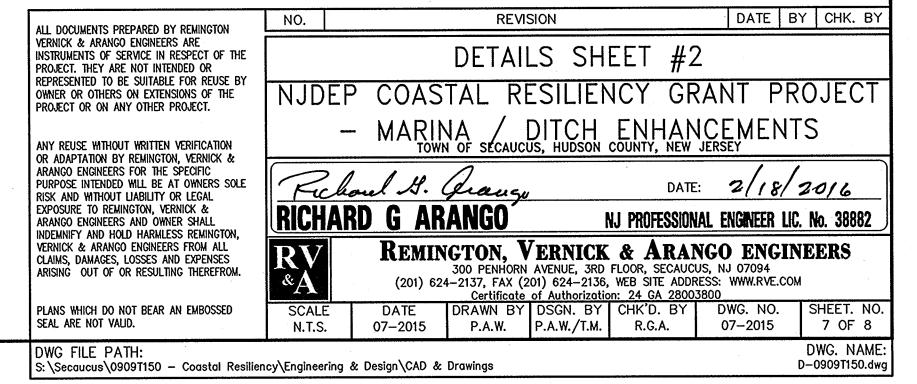
NOT TO SCALE

ITEM	QTY.	DESCRIPTION	
1	1	CHECKMATE CHECK VALVE	
2	2	CLAMP	

- 1. PIPE INSIDE DIAMETER 24.00" x 38.00"
- 2. CLAMPS INSTALLED IN UPSTREAM OR DOWNSTREAM CUFF DEPENDING ON INSTALLATION ORIENTATION
- 3. MAXIMUM ALLOWABLE BACK PRESSURE 20.0 FEET
- 4. IT IS RECOMMENDED TO BOLT OR PIN CHECKMATE TO PIPE AS SHOWN, 4 PLACES 90° APART

CONTRACTOR TO SUPPLY AND INSTALL "CHECKMATE" CHECK VALVE AND ALL REQUIRED MOUNTING HARDWARE AS MANUFACTURED BY: TIDEFLEX TECHNOLOGIES, 600 N. BELL AVE. CARNEGIE, PA 15106 1-412-279-0044 (OR APPROVED EQUAL)

CHECK VALVE DETAIL FOR 24" x 38" ELLIPTICAL REINFORCED CONCRETE PIPE



SOIL EROSION AND SEDIMENT CONTROL NOTES

- 1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN WILL BE CONSTRUCTED IN ACCORDANCE WITH THE "NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL" 7TH EDITION LAST REVISED JANUARY 2014. THESE MEASURES WILL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- ALL SOIL TO BE EXPOSED OR STOCKPILED FOR A PERIOD OF GREATER THAN 14 DAYS, AND NOT UNDER ACTIVE CONSTRUCTION, WILL BE TEMPORARILY SEEDED AND HAY MULCHED OR OTHERWISE PROVIDED WITH VEGETATIVE COVER. THIS TEMPORARY COVER SHALL BE MAINTAINED UNTIL SUCH TIME WHEREBY PERMANENT
- RESTABILIZATION IS ESTABLISHED. . SEEDING DATES: THE FOLLOWING SEEDING DATES ARE BEST RECOMMENDED TO ESTABLISH PERMANENT VEGETATIVE COVER WITHIN MOST LOCATIONS IN THE HEPSCD: SPRING - 3/1-5/15 AND FALL - 8/15 - 10/1
 4. SEDIMENT FENCES ARE TO BE PROPERLY TRENCHED AND MAINTAIN UNTIL PERMANENT VEGETATIVE COVER IS
- ESTABLISHED. 5. ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY ONE OF THE PRACTICES ACCEPTED IN THE STANDARDS AND PROTECTION SHALL REMAIN UNTIL PERMANENT STABILIZATION HAS BEEN ESTABLISHED. STORM DRAINAGE OUTLET POINTS SHALL BE PROTECTED AS REQUIRED BEFORE THEY BECOME FUNCTIONAL
- 6. MULCH MATERIALS SHALL BE UN-ROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 70-90 POUNDS PER 1000 SQUARE FEET (1.5-2.0 TONS/ACRE) AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION
- 7. ALL EROSION CONTROL DEVICES SHALL BE PERIODICALLY INSPECTED, MAINTAINED AND CORRECTED BY THE CONTRACTOR, ANY DAMAGE INCURRED BY EROSION SHALL BE RECTIFIED IMMEDIATELY.
- THE HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT WILL BE NOTIFIED IN WRITING AT LEAST 48 HOURS PRIOR TO ANY SOIL DISTURBING ACTIVITIES. FAX - (973) 364-0784 OR EMAIL - INFORMATION@HEPSCD.C
- THE APPLICANT MUST OBTAIN A DISTRICT ISSUED REPORT-OF-COMPLIANCE PRIOR TO APPLYING FOR THE CERTIFICATE OF OCCUPANCY OR TEMPORARY CERTIFICATE OF OCCUPANCY FROM THE RESPECTIVE
 MUNICIPALITY, NJ - DCA OR ANY OTHER CONTROLLING AGENCY. CONTACT THE DISTRICT AT 973-364-0786 TO
 REQUEST A FINAL INSPECTION, GIVING ADVANCED NOTICE UPON COMPLETION OF THE RESTABILIZATION
- MEASURES. A PERFORMANCE DEPOSIT MAY BE POSTED WITH THE DISTRICT WHEN WINTER WEATHER OR SNOW COVER PROHIBITS THE PROPER APPLICATION OF SEED, MULCH, FERTILIZER OR HYDRO-SEED. 10. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES. DO NOT UTILIZE A FIRE OR GARDEN HOSE TO CLEAN ROADS UNLESS THE RUNOFF IS DIRECTED TO A PROPERLY DESIGNED AND FUNCTIONING SEDIMENT BASIN. WATER PUMPED OUT OF THE EXCAVATED AREAS CONTAINS SEDIMENTS THAT MUST BE REMOVED PRIOR TO
- DISCHARGING TO RECEIVING BODIES OF WATER USING REMOVABLE PUMPING STATIONS, SUMP PITS, PORTABLE SEDIMENTATION TANKS AND/OR SILT CONTROL BAGS. 11. ALL SURFACES HAVING LAWN OR LANDSCAPING AS FINAL COVER ARE TO BE PROVIDED TOPSOIL PRIOR TO RE-SEEDING, SODDING OR PLANTING. A DEPTH OF 5 INCHES (UNSETTLED) IS RECOMMENDED.
- 12. ALL PLAN REVISIONS MUST BE SUBMITTED TO THE DISTRICT FOR PROPER REVIEW AND APPROVAL 13. A CRUSHED STONE WHEEL CLEANING TRACKING-PAD IS TO BE INSTALLED AT ALL SITE EXITS USING 2 1/2 - 1" CRUSHED ANGULAR STONE (ASTM 2 OR 3) TO A MINIMUM LENGTH OF 50 FEET AND MINIMUM DEPTH OF 6". ALL DRIVEWAYS MUST BE PROVIDED WITH CRUSHED STONE UNTIL PAVING IS COMPLETE.

14. STEEP SLOPES INCURRING DISTURBANCE MAY REQUIRE ADDITIONAL STABILIZATION MEASURES. THESE

"SPECIAL" MEASURES SHALL BE DESIGNED BY THE APPLICANT'S ENGINEER AND BE APPROVED BY THE SOIL CONSERVATION DISTRICT. OF ANY PORTION OF THE PROJECT OR FOR THE SALE OF INDIVIDUAL LOTS. NEW OWNERS' INFORMATION SHALL BE PROVIDED. ADDITIONALMEASURES DEEMED NECESSARY BY DISTRICT OFFICIALS SHALL BE

SEQUENCE OF CONSTRUCTION

IMPLEMENTED AS CONDITIONS WARRANT.

SEE SHEET 1 OF 2 FOR SEQUENCE OF CONSTRUCTION.

TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING, PG. 19-1.
- B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.
- C. IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION, THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).
- 2. SEEDBED PREPARATION A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1.000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. APPLY LIMESTONE AT THE RATE OF 2 TONS/ACRE UNLESS SOIL TESTING INDICATES OTHERWISE. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.
- B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS DREDARED
- C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE. D. SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH
- 3. SEEDING A. CONVENTIONAL SEEDING. APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL, TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING, DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE TEXTURED SOIL.
- B. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION IV MULCHING) HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. POOR SEED TO SOIL CONTACT OCCURS REDUCING SEED GERMINATION AND GROWTH. HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS,
- STUMPS, ETC. C. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.
- MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING
- A. STRAW OR HAY. UNNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE, MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH, HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED. APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 95% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH
- ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.
- 1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRIS-CROSS AND A SQUARE PATTERN, SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS. 2. MULCH NETTINGS. STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A
- DEGRADABLE NETTING IN AREAS TO BE MOWED. 3. CRIMPER (MULCH ANCHORING TOOL). A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF
- SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS
- I. <u>LIQUID MULCH-BINDERS.</u> MAY BE USED TO ANCHOR HAY OR STRAW MULCH. A. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE.
- B. USE ONE OF THE FOLLOWING: (1) ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS, MANY NEW PRODUCTS ARE AVAILABLE, SOME OF WHICH MAY NEED FURTHER
- **EVALUATION FOR USE IN THIS STATE.** 2) SYNTHETIC BINDERS - HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES RECOMMENDED BY THE
- MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS. NOTE: ALL NAMES GIVE ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A COMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS. FIBER OR PAPER-FIBER MULCH. SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING
- NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 PONDS PER ACRE (OR AS RECOMMENDED BY THE PROJECT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL. PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY
- CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORMA MULCH MAT. PELLETIZED MULCH SHALL BE APPLIES IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LBS./1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEE FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEED-SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE. APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL

TEMPORARY SEEDING MIXTURE

THIS SEEDING MIXTURE IS COMPOSED OF A SINGLE SPECIES WHICH GERMINATES QUICKLY IN ORDER TO REDUCE SOIL EROSION UNTIL A PERMANENT VEGETATIVE COVER CAN BE ESTABLISHED. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.

THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE ONE (1) POUND / 1000 SQUARE FEET OR 100 POUNDS PER ACRE.

RECOMMENDED SEEDING PERIODS ARE MARCH1 - MAY 15 AND AUGUST 15 - OCTOBER 1. SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION

PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

- A, GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
- B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING. C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL
- STRUCTURE, A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING. D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
- 2. SEEDBED PREPARATION A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5
- B. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM
- C. HIGH ACID PRODUCING SOIL. SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED REPARATION, SEE STANDARD FOR MANAGEMENT OF HIGH ACID-PRODUCING SOILS FOR SPECIFIC
- 3. SEEDING A. SELECT A MIXTURE FROM TABLE 4-3 OR USE A MIXTURE RECOMMENDED BY RUTGERS COOPERATIVE EXTENSION OR NATURAL RESOURCES CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT. SEED GERMINATION SHALL HAVE BEEN TESTED WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 MONTHS OLD UNLESS RETESTED.
- 1. SEEDING RATES SPECIFIED ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING, ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVERAGE WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOWED ONCE. 2. WARM-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 850 F AND ABOVE, SEE TABLE 4-3 MIXTURES 1 TO 7. PLANTING RATES FOR WARM-SEASON GRASSES SHALL BE THE AMOUNT OF PURE LIVE SEED (PLS) AS DETERMINED BY
- GERMINATION TESTING RESULTS. 3. COOL-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 850F, MANY GRASSES BECOME ACTIVE AT 650F. SEE TABLE 4-3, MIXTURES 8-20. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PLS IS NOT REQUIRED FOR COOL SEASON
- B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER, EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL.
- C. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED
- D. HYDROSEFDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR TRAILER-MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT-FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE ECTION 4-MULCHING BELOW). HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH.
- 4. MULCHING MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL PROTECT AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING
- A. STRAW OR HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED. APPLICATION - SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT AT LEAST 85% OF THE SOIL SURFACE IS COVERED, FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION. ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA,
- STEEPNESS OF SLOPES, AND COSTS. 1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN, SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.

2. MULCH NETTINGS - STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A

- DEGRADABLE NETTING IN AREAS TO BE MOWED. 3. CRIMPER (MULCH ANCHORING COULTER TOOL) - A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC ARROW, ESPECIALLY DESIGNED TO PUSH OR OUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES.
- STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED. 4. LIQUID MULCH-BINDERS - MAY BE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCH. A. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE.
- B. USE ONE OF THE FOLLOWING: 1. ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER-BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURF GRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS. MANY NEW PRODUCTS ARE AVAILABLE. SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE.
- 2. SYNTHETIC BINDERS HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND. FOLLOWING APPLICATION OF MULCH, DRYING AND CURING, SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER, BINDER SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.
- NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS. 3. WOOD-FIBER OR PAPER-FIBER MULCH - SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING O GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL
- C. PELLETIZED MULCH COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS, AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LBS/1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEED-SEED FREE MULCH IS DESIRED, OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE. APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.
- IF SOIL MOISTURE IS DEFICIENT SUPPLY NEW SEEDING WITH ADEQUATE WATER (A MINIMUM OF 1/4 INCH APPLIED UP TO TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SITES.
- 6. TOPDRESSING SINCE SOIL ORGANIC MATTER CONTENT AND SLOW RELEASE NITROGEN FERTILIZER (WATER INSOLUBLE) ARE PRESCRIBED IN SECTION 2A - SEEDBED PREPARATION IN THIS STANDARD, NO FOLLOW-UP OF TOPDRESSING IS MANDATORY, AN EXCEPTION MAY BE MADE WHERE GROSS NITROGEN DEFICIENCY EXISTS IN THE SOIL TO THE EXTENT THAT TURF FAILURE MAY DEVELOP. IN THAT INSTANCE, TOPDRESS WITH 10-10-10 OR EQUIVALENT AT 300 POUNDS PER ACRE OR 7 POUNDS PER 1,000 SQUARE FEET EVERY 3 TO 5 WEEKS UNTIL THE GROSS NITROGEN DEFICIENCY IN THE TURF IS AMELIORATED.
- 7 FSTARI ISHING PERMANENT VEGETATIVE STABILIZATION THE QUALITY OF PERMANENT VEGETATION RESTS WITH THE CONTRACTOR. THE TIMING OF SEEDING, PREPARING THE SEEDBED, APPLYING NUTRIENTS. MULCH AND OTHER MANAGEMENT ARE ESSENTIAL. THE SEED APPLICATION RATES IN TABLE 4-3 ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN APPLICATION RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO REQUESTING A REPORT OF COMPLIANCE FROM THE DISTRICT. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVER (OF THE SEEDED SPECIES) AND MOWED ONCE. NOTE THIS DESIGNATION OF MOWED ONCE DOES NOT GUARANTEE THE PERMANENCY OF THE TURF SHOULD OTHER MAINTENANCE FACTORS BE NEGLECTED OR OTHERWISE MISMANAGED. ULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING

PERMANENT SEEDING MIXTURE (DRY)

- THIS SEEDING MIXTURE IS COMPOSED OF DROUGHT-TOLERANT SPECIES WHICH CAN THRIVE WITH LOW MAINTENANCE, THE PROPRIETARY NAME OF THE MIXTURE IS RECLAIM CONSERVATION MIX-DRY FORMULA AS MANUFACTURED BY LOFTS, INC., BOUND BROOK, N.J. 08805, (800)526-3890. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.
- BOTANICAL NAME FESTUCA ARUNDINACEA "CLEMFINE" CLEMFINE TALL FESCUE ERAGRASTIS CURVULA WEEPING LOVEGRASS
- RELIANT HARD FESCUE FESTUCA LONGIFOLIA "RELIANT" JAMESTOWN CHEWING FESCUE FESTUCA RUBRA VAR. COMMUTATA "JAMESTOWN" LOLIUM PERENNE "PALMER" PALMER PERENNIAL RYE WHITE CLOVER TRIFOLIUM REPENS
- PANICUM VIRGATUM "BLACKWELL" BLACKWELL SWITCHGRASS THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FOUR (4) POUNDS/1000 SQUARE FEET
- RECOMMENDED SEEDING PERIODS ARE APRIL 1-MAY 31 AND AUGUST 16-OCTOBER 15. SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE

PERMANENT SEEDING MIXTURE (MOIST

OR 175 POUNDS/ACRE.

SUCCESSFUL GERMINATION.

RED CANARY GRASS

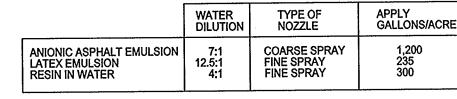
- THIS SEEDING MIXTURE IS COMPOSED OF MOISTURE-TOLERANT SPECIES WHICH CAN THRIVE WITH LOW MAINTENANCE, THE PROPRIETARY NAME OF THE MIXTURE IS RECLAIM CONSERVATION MIX-MOIST FORMULA AS MANUFACTURED BY LOFTS, INC., BOUND BROOK, N.J. 08805, (800)526-3890. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.
- BOTANICAL NAME FESTUCA ARUNDINACEA "CLEMFINE" CLEMFINE TALL FESCUE NASSAU KENTUCKY BLUEGRASS POA PRANTENSIS "NASSAU" PALMER PERENNIAL RYE LOLIUM PERENNE "PALMER POA TRIVALIS "LASER" LASER POA TRIVALIS AFROSTIS ALBA "STREAKER" STEAKER REDTOP
- THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FOUR (5) POUNDS/1000 SQUARE FEET OR 220 POUNDS/ACRE.
- RECOMMENDED SEEDING PERIODS ARE APRIL 1-MAY 31 AND AUGUST 16-OCTOBER 15. SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

PHI ARIS ARLINDINACEA

- TOPSOIL SHALL BE USED WHERE SOILS ARE TO BE DISTURBED AND WILL BE REVEGETATED.
- 1. MATERIALS A. TOPSOIL SHOULD BE FRIABLE, LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSE CHEMICAL OR PHYSICAL CONDITION THAT MAY BE HARMFUL TO PLANT GROWTH. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER. MORE THAN 0.5 MILLIMHOS MAY DESICATE SEEDLINGS AND ADVERSELY IMPACT GROWTH). TOPSOIL HAULED IN FROM OFFSITE SHOULD HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES.
- B. TOPSOIL SUBSTITUTE IS A SOIL MATERIAL WHICH MAY HAVE BEEN AMENDED WITH SAND, SILT, CLAY, ORGANIC MATTER, FERTILIZER OR LIME AND HAS THE APPEARANCE OF TOPSOIL. TOPSOIL SUBSTITUTES MAY BE UTILIZED ON SITES WITH INSUFFICIENT TOPSOIL FOR ESTABLISHING PERMANENT VEGETATION. ALL TOPSOIL SUBSTITUTE MATERIALS SHALL MEET THE REQUIREMENTS OF TOPSOIL NOTED ABOVE. SOIL TESTS SHALL BE PERFORMED TO DETERMINE THE COMPONENTS OF SAND, SILT, CLAY, ORGANIC MATTER, SOLUBLE SALTS AND PH LEVEL.
- 2. STRIPPING AND STOCKPILING A FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.
- B. STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA. C, WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL PH TO APPROXIMATELY 6.5. IN LIEU OF SOIL TESTS, SEE LIME RATE GUIDE IN SEEDBED
- PREPARATION FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, PG. 4-1. D. A 4-6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL E. STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE
- OFF-SITE ENVIRONMENTAL DAMAGE. F. STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS PREVIOUSLY DESCRIBED HEREIN; SEE STANDARDS FOR PERMANENT (PG. 4-1) OR TEMPORARY (PG.7-1) VEGETATIVE COVER FOR SOIL STABILIZATION. WEEDS SHOULD NOT BE ALLOWED TO GROW ON STOCKPILES.
- 3. SITE PREPARATION A. GRADE AT THE ONSET OF THE OPTIMAL SEEDING PERIOD SO AS TO MINIMIZE THE DURATION AND AREA OF EXPOSURE OF DISTURBED SOIL TO EROSION. IMMEDIATELY PROCEED TO ESTABLISH VEGETATIVE COVER IN ACCORDANCE WITH THE SPECIFIED SEED MIXTURE. TIME IS OF THE ESSENCE
- B. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE. C. AS GUIDANCE FOR IDEAL CONDITIONS, SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT. LIMESTONE, IF
- NEEDED, SHOULD BE APPLIED TO BRING SOIL TO A PH OF APPROXIMATELY 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES. D. IMMEDIATELY PRIOR TO TOPSOILING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS WILL HELP INSURE A GOOD BOND BETWEEN THE TOPSOIL AND SUBSOIL, THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES,
- E. EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES. CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS. SEE
- STANDARDS 11 THROUGH 42. A. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL
- STRUCTURE: I.E., LESS THAN FIELD CAPACITY (SEE GLOSSARY) B. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS RECOMMENDED. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE, IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL (PG. 1-1).

STANDARD FOR DUST CONTROL

- THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT. CONSULT WITH LOCAL MUNICIPAL ORDINANCES ON
- WATER QUALITY ENHANCEMENT
 SEDIMENTS DEPOSITED AS "DUST" ARE OFTEN FINE COLLODIAL MATERIAL WHICH IS EXTREMELY DIFFICULT TO REMOVE FROM WATER ONCE IT BECOMES SUSPENDED. USE OF THIS STANDARD WILL HELP TO CONTROL THE GENERATION OF DUST FROM CONSTRUCTION SITES AND SUBSEQUENT BLOWING AND
- DEPOSITION INTO LOCAL SURFACE WATER RESOURCES. THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST: MULCHES: SEE STANDARDS FOR: STABILIZATION WITH MULCHES ONLY (P.5-1).
- VEGETATIVE COVER: SEE STANDARDS FOR: TEMPORARY VEGETATIVE COVER (P.7-1), PERMANENT VEGETATIVE COVER (P.4-1). AND PERMANENT STABILIZATION WITH SOD (P.6-1. SPRAY ON ADHESIVES: ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.



TILLAGE: TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE, CHISEL TYPE PLOWS SPACED ABOUT 12 INCHES APART, AND SPRING TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

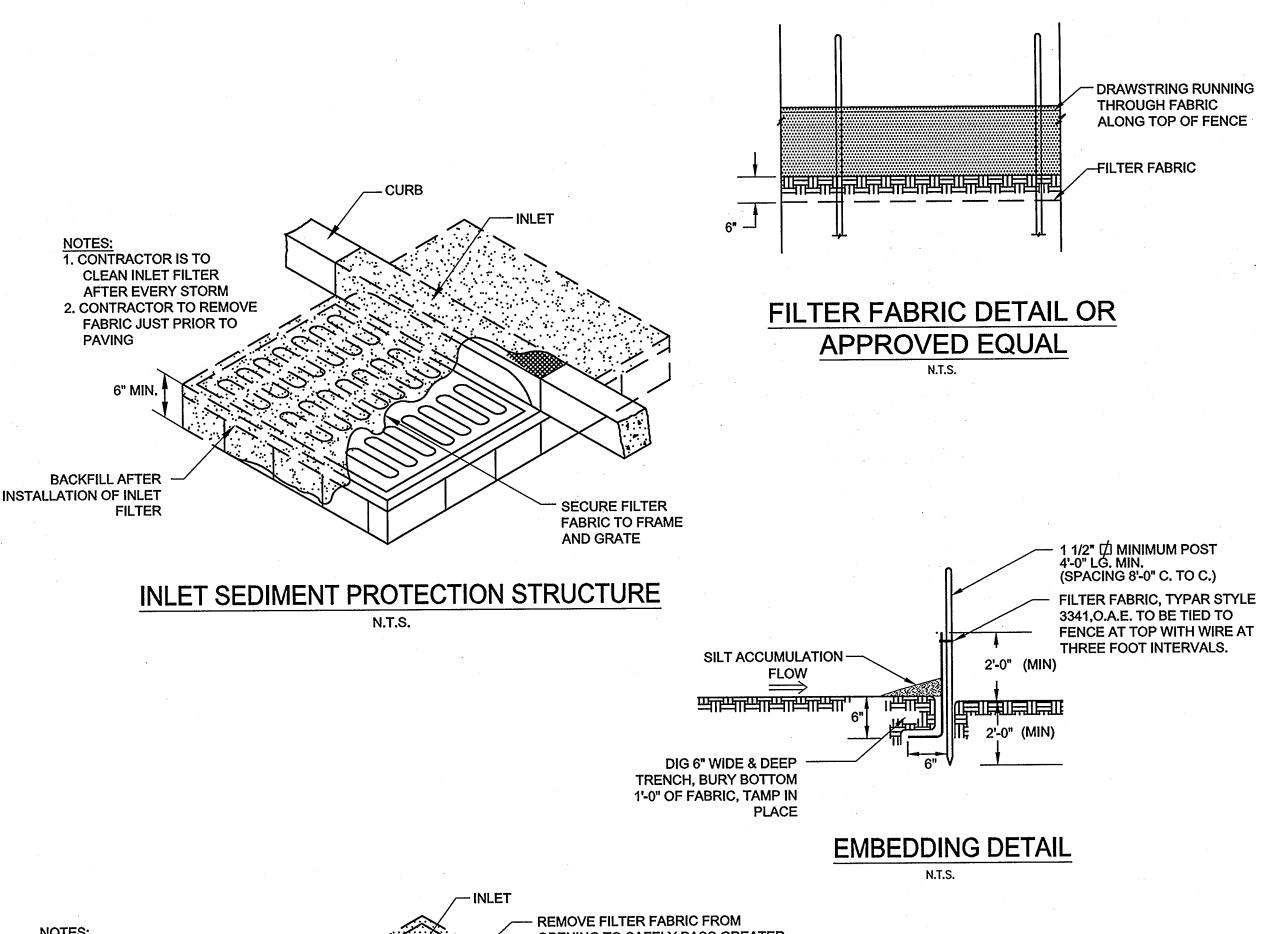
SPRINKLING: SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

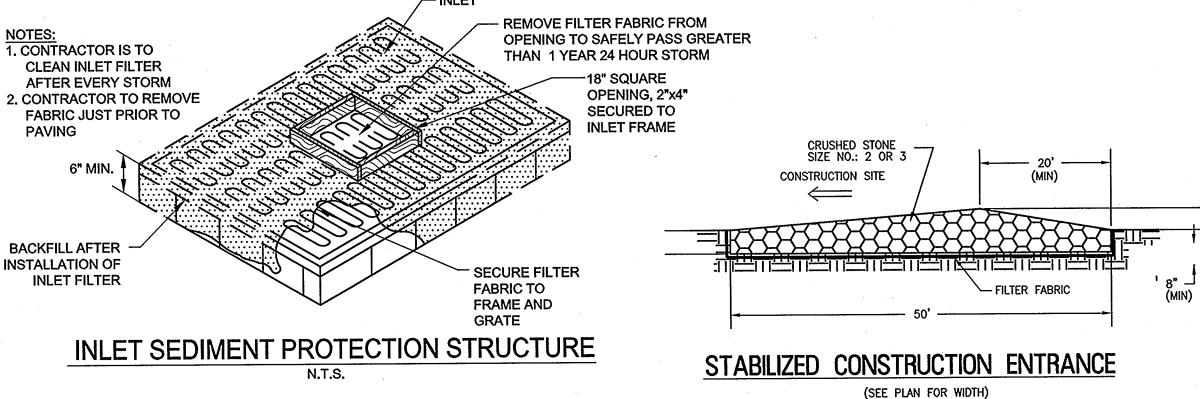
- BARRIERS: SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY, AND SIMILIAR MATERIALS CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. CALCIUM CHLORIDE: SHALL BE IN THE FORM OF LOOSE, DRY GRANULAR OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS.
- STONE: COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

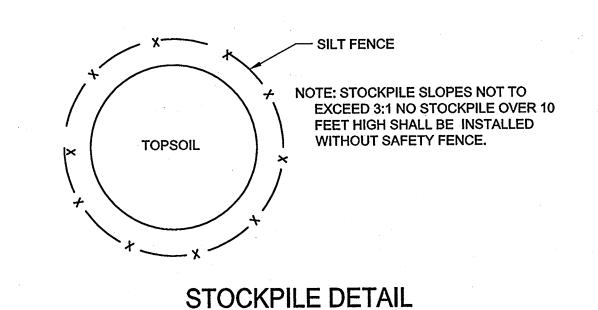
SPECIAL NOTES

- 1. TEMPORARY STABILIZATION ALL EXPOSED AREAS NOT TO BE CONSTRUCTED UPON WITHIN 30 DAYS SHOULD RECEIVE TEMPORARY STABILIZATION, ACCORDING TO THE TEMPORARY VEGETATIVE COVER SPECIFICATIONS. 2. PERMANENT STABILIZATION - ALL EXPOSED AREAS WHICH ARE TO BE PERMANENTLY VEGETATED SHOULD BE SEEDED WITHIN 10 DAYS OF FINAL GRADING, ACCORDING TO THE PERMANENT SEEDING SPECIFICATIONS.
- TOTAL AREA OF DISTURBANCE 0.44 ACRES

THIS SHEET TO BE USED FOR SOIL EROSION AND SEDIMENT CONTROL PURPOSES ONLY!







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