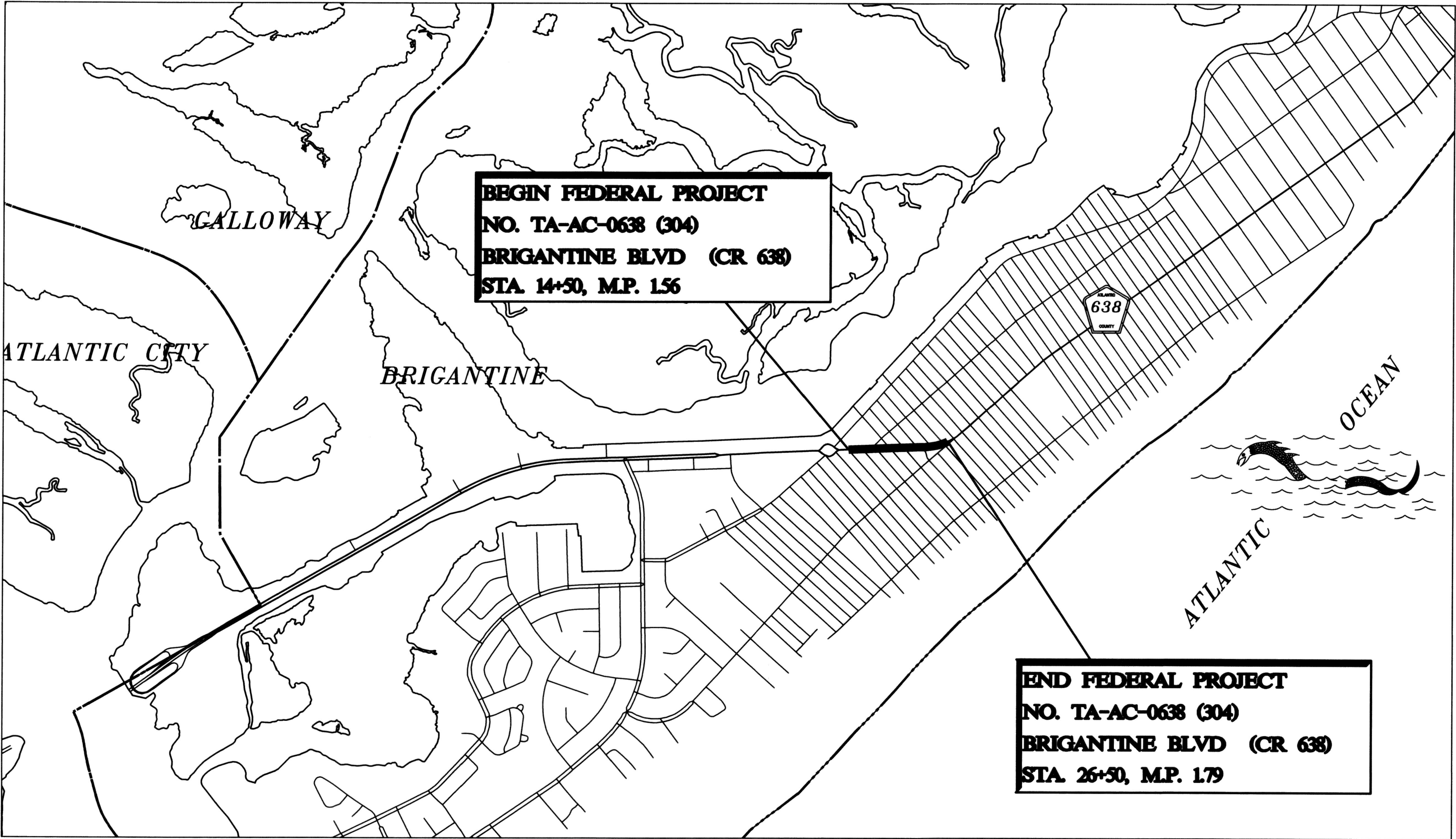


UTILITIES
ACE (ELECTRIC) ATTN: SCOTT HOOVER PHONE: (609) 247-1272
SJ GAS (GAS) ATTN: STEVE OWENS PHONE: (609) 561-9000
COMCAST (CABLE) ATTN: BOB MAYEUX PHONE: (609) 677-7302
VERIZON (TELEPHONE) ATTN: STEPHANIE WEBSTER PHONE: (856) 306-8612
BRIGANTINE DPW (WATER & SEWER) ATTN: MATT DORAN PHONE: (609) 266-7600 EXT. 215

BEFORE STARTING WORK THE CONTRACTOR WILL NOTIFY ALL UTILITY COMPANIES AND OTHER INTERESTED PARTIES OF THE SCHEDULE AND STARTING DATE. LOCATION OF UTILITIES AS SHOWN ON THESE PLANS ARE APPROXIMATE AND NOT GUARANTEED AS TO EXACTNESS. THE CONTRACTOR IS TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION TO DETERMINE EXACT LOCATION AND DEPTH OF UTILITIES. THE CONTRACTOR SHALL USE THE UTILITY LOCATIONS SHOWN AS AN AID IN DETERMINING EXACT LOCATIONS.

BRIGANTINE LIGHTHOUSE DISTRICT STREETSCAPE IMPROVEMENTS

CITY OF BRIGANTINE
ATLANTIC COUNTY - NEW JERSEY
NJDOT JOB NO. 5503313



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41-43	CONSTRUCTION DETAILS

STANDARD ROADWAY CONSTRUCTION - TRAFFIC CONTROL - BRIDGE CONSTRUCTION DETAILS BOOKLET 2016, AND STANDARD ELECTRICAL DETAILS BOOKLET, 2016 ARE APPLICABLE TO THIS PROJECT EXCEPT FOR THOSE DETAILS CONTAINED HEREIN

CHANGES MADE TO THESE PLANS SINCE SIGNATURE BY THE CONSULTANT MAY BE DETERMINED BY COMPARISON OF THE PLANS FILED AT THE DEPARTMENT WITH THOSE FILED AT THE OFFICE OF THE CONSULTANT

Greenman-Pedersen Inc.
Certification of Authorization No. 24GA27959500

Brian W. Mausert 8/24/22
Brian W. Mausert Date
New Jersey Professional Engineer License No. 24GE04647900

KEY MAP

1000' 0 1000' 2000'

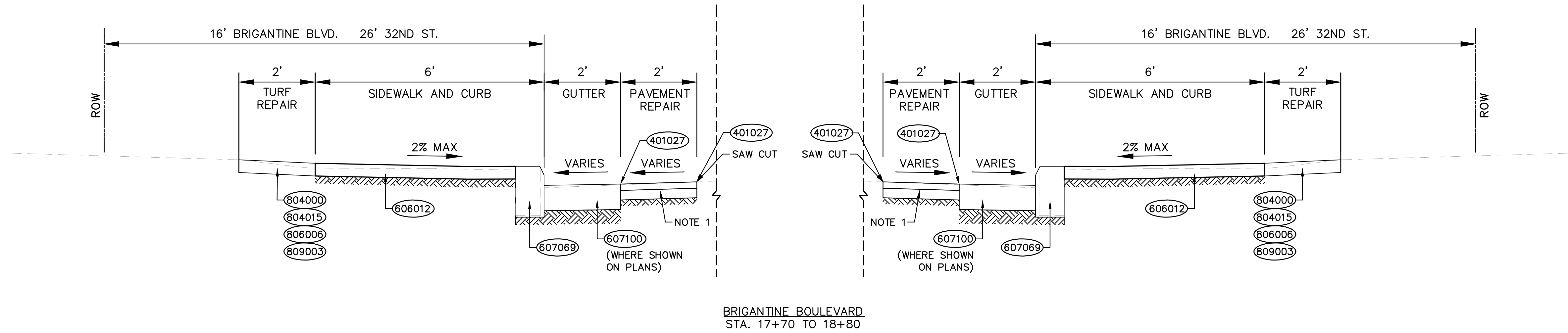
OCTOBER 2022

Submitted by *Brian W. Mausert* 8/24/22
Project Manager, Greenman-Pedersen Inc. Date
Approved by *John Dain* 8/29/22
City Official, Brigantine City Date

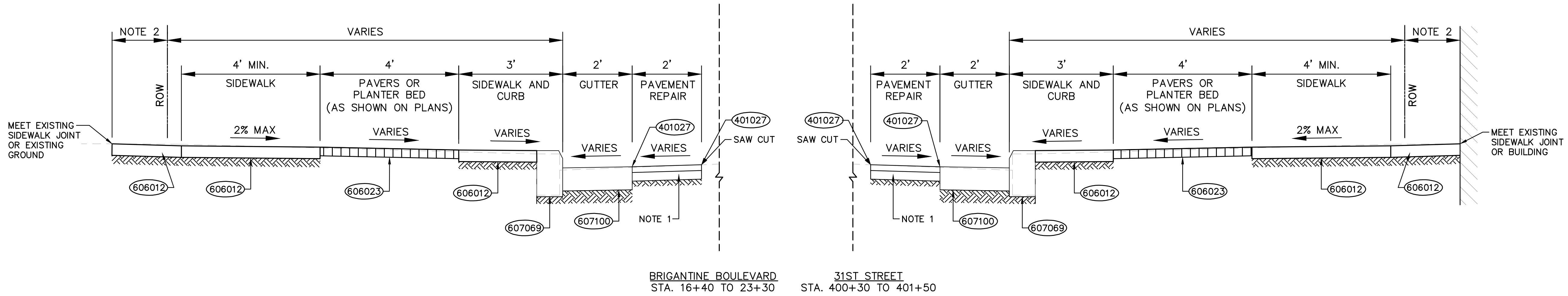
TOTAL LENGTH OF FEDERAL PROJECT NO. TA-AC-0638(304) ■ 1,200 LIN. FT. OR 0.227 MILES
2019 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
AS AMENDED BY THE SPECIAL PROVISIONS TO GOVERN

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ESTIMATE-DISTRIBUTION OF QUANTITIES

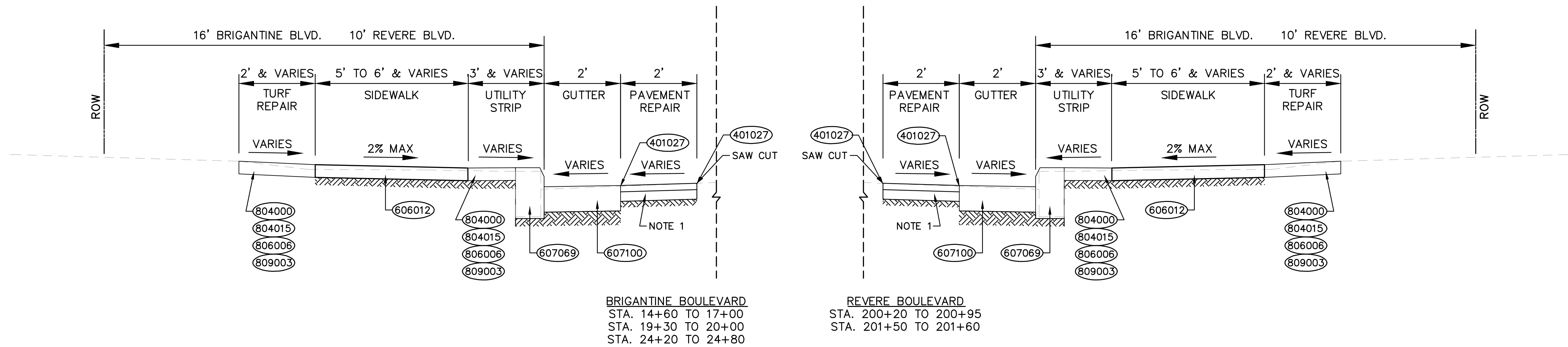


BRIGANTINE BOULEVARD
STA. 17+70 TO 18+80



BRIGANTINE BOULEVARD
STA. 16+40 TO 23+30

31ST STREET
STA. 400+30 TO 401+50



BRIGANTINE BOULEVARD
STA. 14+60 TO 17+00
STA. 19+30 TO 20+00
STA. 24+20 TO 24+80

REVERE BOULEVARD
STA. 200+20 TO 200+95
STA. 201+50 TO 201+60

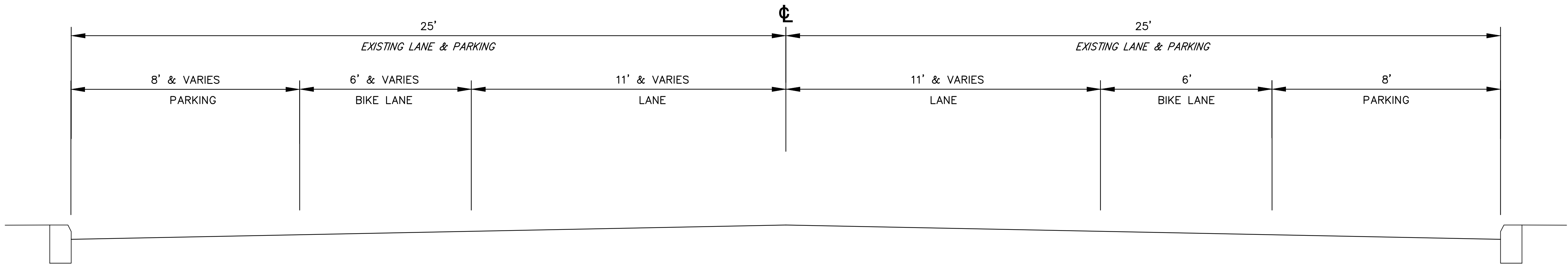
N.T.S.

NEW JERSEY DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION

LIGHTHOUSE DISTRICT STREETSCAPE
IMPROVEMENTS
CITY OF BRIGANTINE

GREENMAN-PEDERSEN, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA27959500
Brian W. Mausert
BRIAN W. MAUSER
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04647900



BRIGANTINE BOULEVARD
STA. 14+75 TO 20+88

ITEM NO.	PROPOSED MATERIALS
401027	POLYMERIZED JOINT ADHESIVE
606012	CONCRETE SIDEWALK, 4" THICK
606023	PRECAST CONCRETE PAVERS
607069	9" X VARIABLE HEIGHT CONCRETE VERTICAL CURB
607100	CONCRETE GUTTER
804000	TOPSOIL SPREADING _" THICK
804015	BORROW TOPSOIL
806006	FERTILIZING AND SEEDING, TYPE A-3
809003	STRAW MULCHING

- NOTES:
- SEE CONSTRUCTION DETAILS FOR REPAIR PAVEMENT COURSES AND THICKNESSES. PAYMENT FOR PAVEMENT REPAIR INCLUDED IN THE VARIOUS CURB AND GUTTER PAY ITEMS.
 - WHERE WORK EXTENDS BEYOND THE PUBLIC RIGHT-OF-WAY, REFER TO THE RIGHT-OF-ENTRY AGREEMENTS.
 - PROPOSED MATERIALS TABLE APPLIES TO SECTIONS ON SHEET TS-1.

N.T.S.

TS-2
TS-2

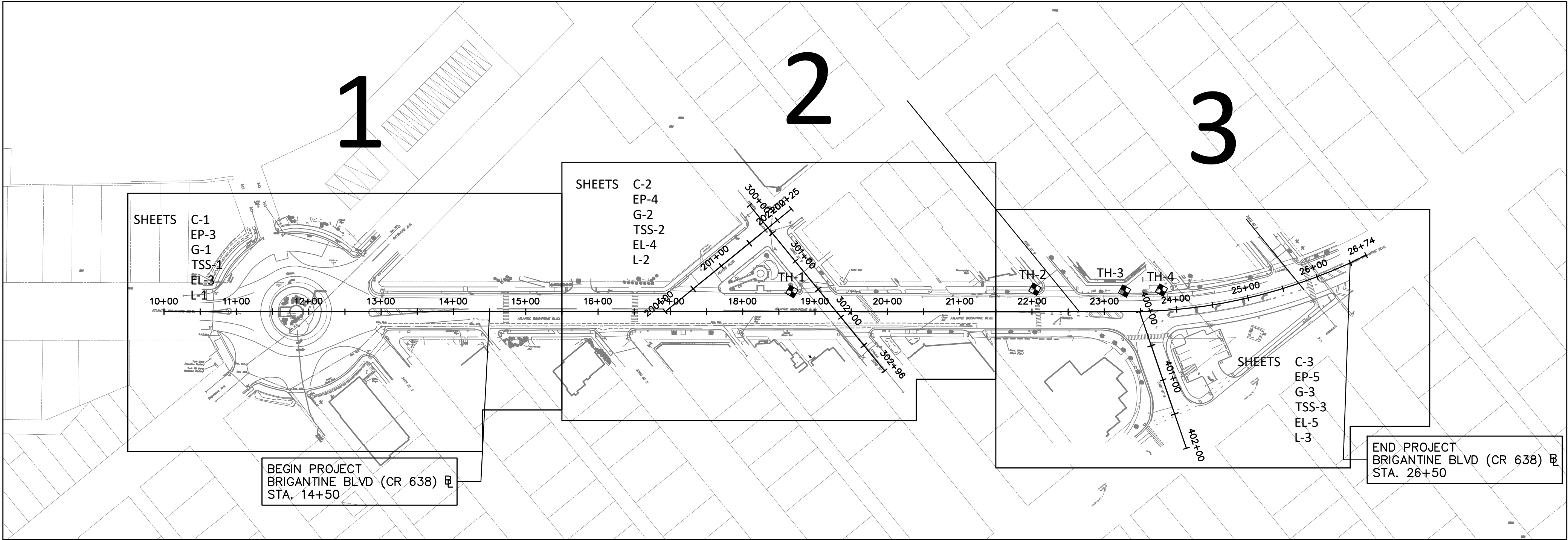
NEW JERSEY DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION

LIGHTHOUSE DISTRICT STREETSCAPE
IMPROVEMENTS
CITY OF BRIGANTINE

GREENMAN-PEDERSEN, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA27959500
Brian W. Mausert
BRIAN W. MAUSERT
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04647900

STATE	FEDERAL PROJECT NO.	N.J.DOT JOB NO.
N.J.	TA-AC-0638 (304)	5503313



PSI-1
PSI-1

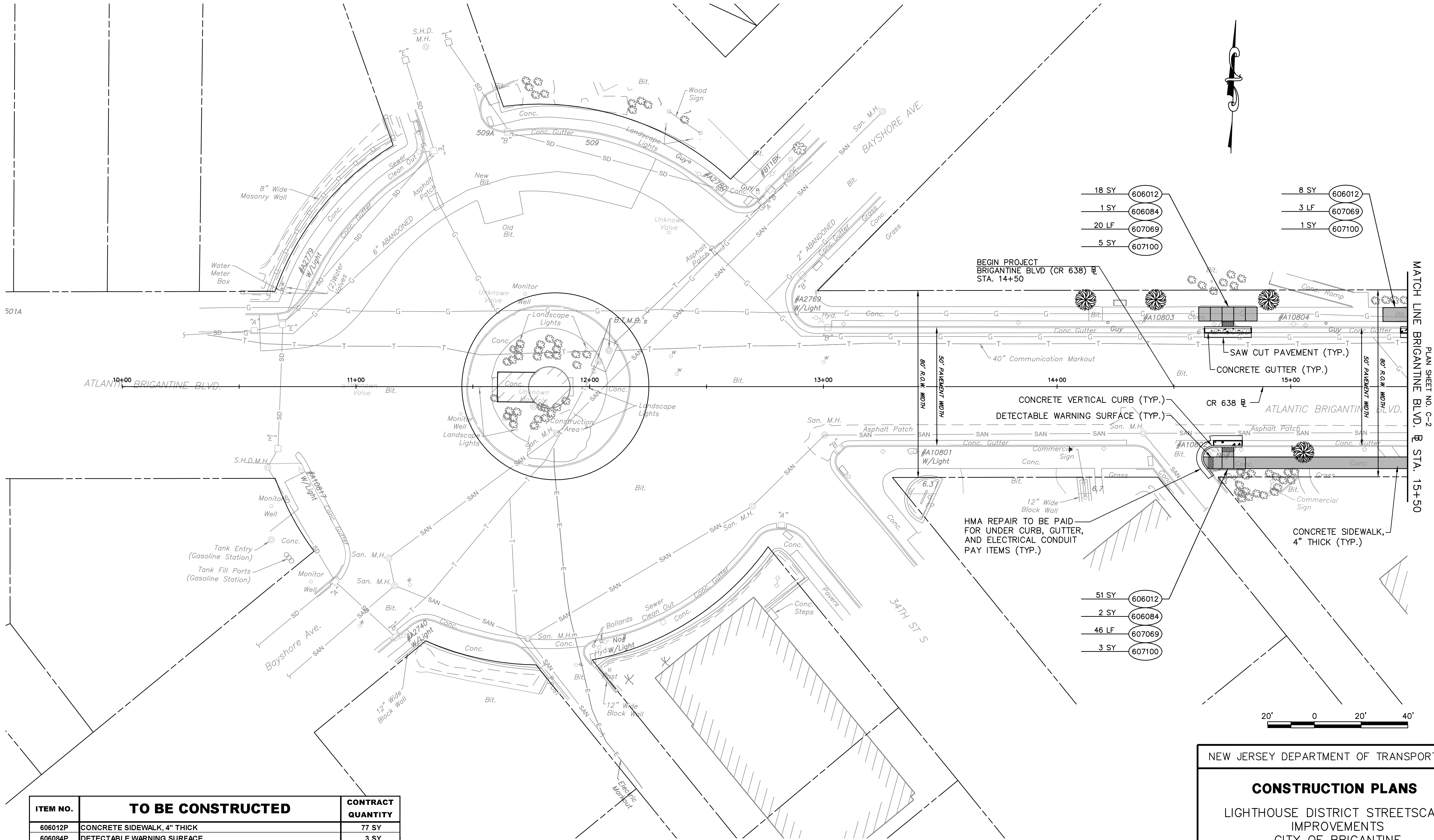
NEW JERSEY DEPARTMENT OF TRANSPORTATION

PLAN SHEET INDEX

LIGHTHOUSE DISTRICT STREETScape
IMPROVEMENTS
CITY OF BRIGANTINE

GREENMAN-PEDERSEN, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA27959500
Brian W. Mausert
BRIAN W. MAUSER
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04647900

L:\2016 NUDOT TAP Design Assistance TP-173\2019707.00 Brigantine Lighthouse Dist Streetscape Proj\CaddHwy\05 Const\CL-01.dwg Aug 29, 2022 - 2:38pm



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
606012P	CONCRETE SIDEWALK, 4" THICK	77 SY
606084P	DETECTABLE WARNING SURFACE	3 SY
607069P	9" X VARIABLE HEIGHT CONCRETE VERTICAL CURB	69 LF
NS607100	CONCRETE GUTTER	9 SY

18 SY	606012
1 SY	606084
20 LF	607069
5 SY	607100

8 SY	606012
3 LF	607069
1 SY	607100

51 SY	606012
2 SY	606084
46 LF	607069
3 SY	607100



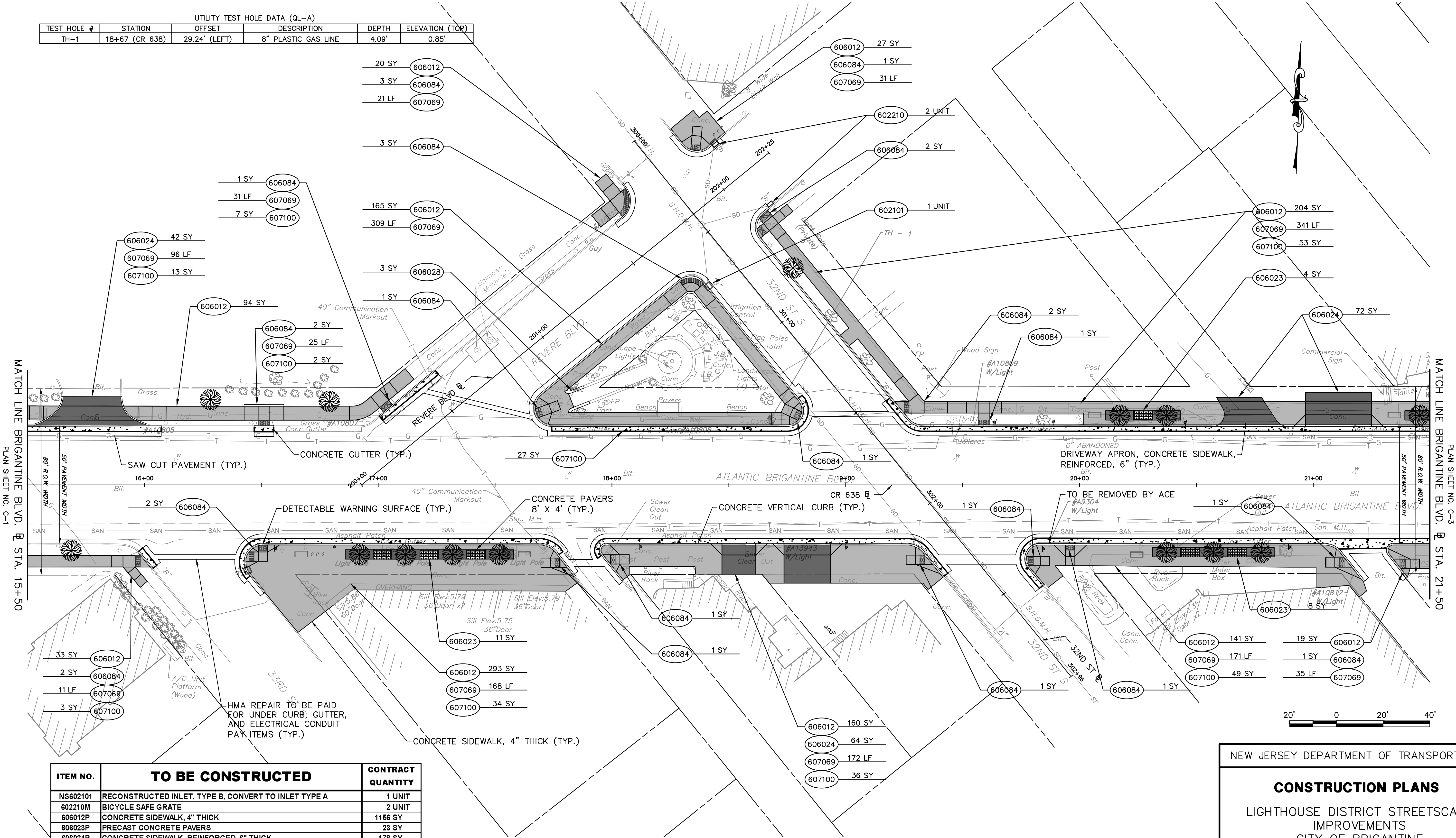
NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLANS

LIGHTHOUSE DISTRICT STREETSCAPE IMPROVEMENTS
CITY OF BRIGANTINE

GREENMAN-PEDERSEN, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA27959500
BRIAN W. MAUSER
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04647900

UTILITY TEST HOLE DATA (QL-A)					
TEST HOLE #	STATION	OFFSET	DESCRIPTION	DEPTH	ELEVATION (TOP)
TH-1	18+67 (CR 638)	29.24' (LEFT)	8" PLASTIC GAS LINE	4.09'	0.85'



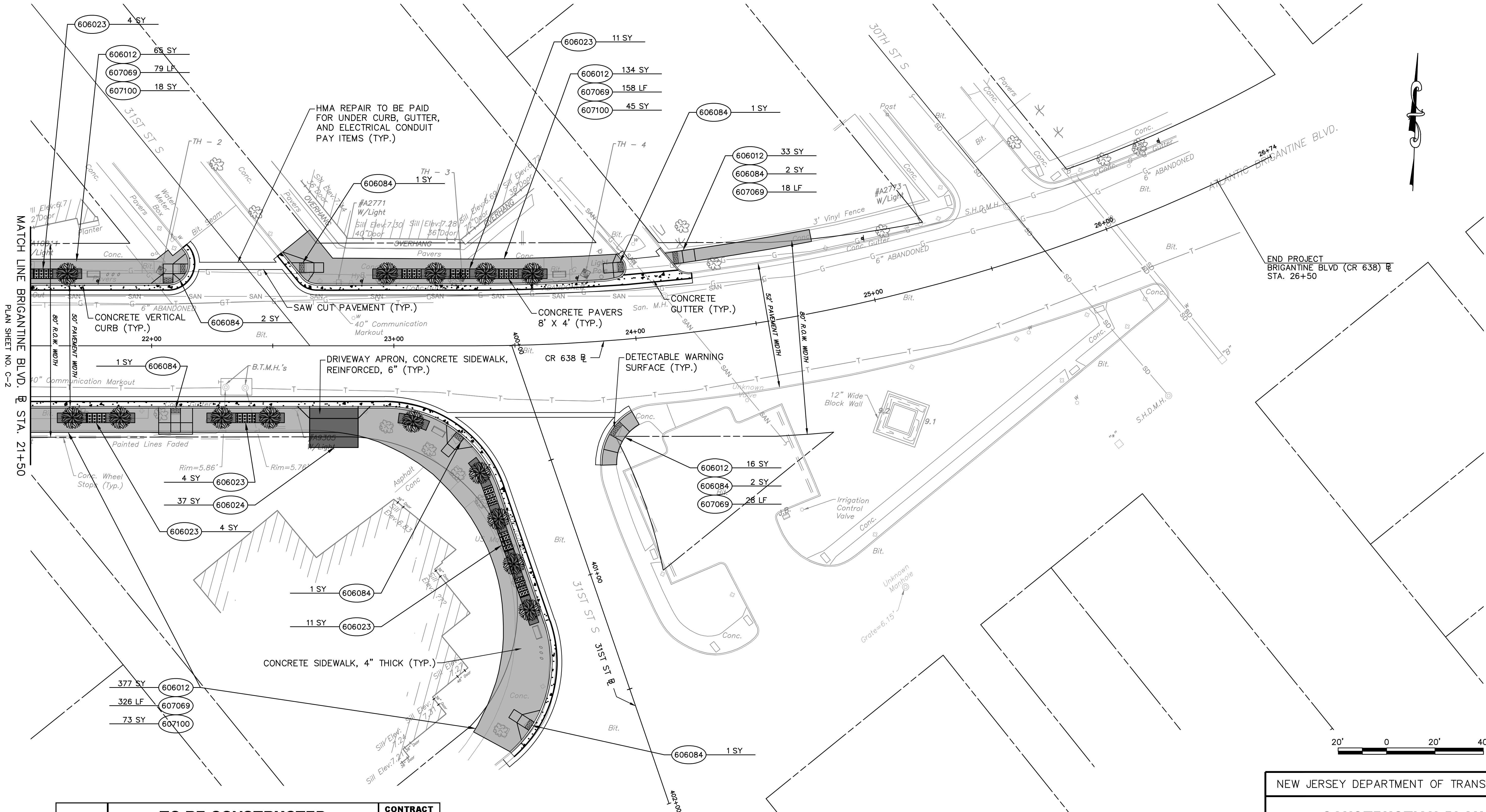
ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
NS602101	RECONSTRUCTED INLET, TYPE B, CONVERT TO INLET TYPE A	1 UNIT
602210M	BICYCLE SAFE GRATE	2 UNIT
606012P	CONCRETE SIDEWALK, 4" THICK	1166 SY
606023P	PRECAST CONCRETE PAVERS	23 SY
606024P	CONCRETE SIDEWALK, REINFORCED, 6" THICK	178 SY
606028P	RESET PRECAST CONCRETE PAVERS	3 SY
606084P	DETECTABLE WARNING SURFACE	28 SY
607069P	9" X VARIABLE HEIGHT CONCRETE VERTICAL CURB	1411 LF
NS607100	CONCRETE GUTTER	224 SY

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLANS

LIGHTHOUSE DISTRICT STREETScape
IMPROVEMENTS
CITY OF BRIGANTINE

GREENMAN-PEDERSEN, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA27959500
BRIAN W. MAUSER
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04647900



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
606012P	CONCRETE SIDEWALK, 4" THICK	626 SY
606023P	PRECAST CONCRETE PAVERS	34 SY
606024P	CONCRETE SIDEWALK, REINFORCED, 6" THICK	37 SY
606084P	DETECTABLE WARNING SURFACE	11 SY
607069P	9" X VARIABLE HEIGHT CONCRETE VERTICAL CURB	609 LF
NS607100	CONCRETE GUTTER	136 SY

UTILITY TEST HOLE DATA (QL-A)					
TEST HOLE #	STATION	OFFSET	DESCRIPTION	DEPTH	ELEVATION (TOP)
TH-2	22+03 (CR 638)	29.08' (LEFT)	8" PLASTIC GAS LINE	3.95'	2.18'
TH-3	23+27 (CR 638)	29.53' (LEFT)	8" PLASTIC GAS LINE	3.24'	3.13'
TH-4	23+81 (CR 638)	28.19' (LEFT)	8" PLASTIC GAS LINE	2.65'	3.71'

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLANS

LIGHTHOUSE DISTRICT STREETSCAPE IMPROVEMENTS
CITY OF BRIGANTINE

GREENMAN-PEDERSEN, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA27959500
Brian W. Mausert
BRIAN W. MAUSER
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04647900

L:\2016 NJDOT TAP Design Assistance TP-173\20190700.00 Brigantine Lighthouse Dist. Streetscape Proj\03\cd\dwg Aug 30, 2022 - 1:38pm

PERMANENT SOIL STABILIZATION (STD 4)

- SITE PREPARATION**
 - 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.
 - IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
 - 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.
 - INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
- SEEDBED PREPARATION**
 - 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 CO-OPERATIVE 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 WEEKS AFTER SEEDING.
 - WORK LINE 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 SEEDBED IS PREPARED.
 - HIGH ACID PRODUCING 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 REQUIREMENTS.
- SEEDING**
 - THE SEEDING MIXTURE SHALL BE:

TALL TYPE FESCUE (THREE BLEND MIX) 265 LBS/ACRE OR 6 LBS/1,000 SQ.FT.,
CHEWING FESCUE 45 LBS/ACRE OR 1.0 LBS/1,000 SQ.FT.,
PERENNIAL RYEGRASS 45 LBS/ACRE OR 1.0 LBS/1,000SQ.FT.,
DATES FOR SEEDING 3/1-4/30 ACCEPTABLE AND 8/15-10/15 OPTIMUM

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.
 - 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 SEEDBED AREA AND MOWED ONCE.
 - WARM-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 85F 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.
 - COOL-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 85F. MANY GRASSES BECOME ACTIVE AT 65F. SEE TABLE 4-3, MIXTURES 8-20. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PLS IS NOT REQUIRED FOR COOL SEASON GRASSES.
 - CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTPACKED 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.
 - AFTER SEEDING, FIRING 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.
 - 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 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.
- 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 REQUIREMENT.

 - 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.
 - 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.
 - MULCH NETTINGS - STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
 - CRIMPER (MULCH ANCHORING COULTER 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 REQUIRED.
 - LIQUID MULCH-BINDERS - MAY BE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCH.
 - 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.
 - USE ONE OF THE FOLLOWING:
 - 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 PHYTOXIC 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.
 - 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.
 - WOOD-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 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER.
 - 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 SEEDBED 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 RENOVATION AREAS WHERE WOOD-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.
- IRRIGATION (WHERE FEASIBLE)**

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.
- 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 TOP DRESSING 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, TOP DRESS 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.
- ESTABLISHING PERMANENT VEGETATIVE STABILIZATION**

THE QUALITY OF PERMANENT VEGETATION RESULTS 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 SEEDBED 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.

TEMPORARY SOIL STABILIZATION (STD 7)

- SITE PREPARATION**
 - 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.
 - 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.
 - 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.).
- SEEDBED PREPARATION**
 - 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 CO-OPERATIVE 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. LIMING RATES SHALL BE ESTABLISHED VIA SOIL TESTING. 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.
 - WORK LINE 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 PREPARED.
 - INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.
 - SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, PG. 1-1.
- SEEDING**
 - THE SEEDING MIXTURE AS SPECIFIED SHALL BE:

PERENNIAL RYEGRASS 100 LBS/ACRE PF 1.0 LBS/SQ.FT.
DATES FOR SEEDING 2/15-4/30, 8/15-10/30 OPTIMUM

CONVENTIONAL SEEDING. APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTPACKED 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.
 - 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.
 - AFTER SEEDING, FIRING 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**

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 REQUIREMENT.

 - STRAW OR HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (90 TO 115 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 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.
 - 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.
 - MULCH NETTINGS. STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
 - 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 REQUIRED.
 - LIQUID MULCH-BINDERS - MAY BE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCH.
 - 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.
 - USE ONE OF THE FOLLOWING:
 - 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 PHYTOXIC 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.
 - 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.
 - WOOD-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 POUNDS 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 SEEDBED 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, SEEDBED AREAS WHERE WOOD-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.

STABILIZATION WITH MULCH ONLY (STD 5)

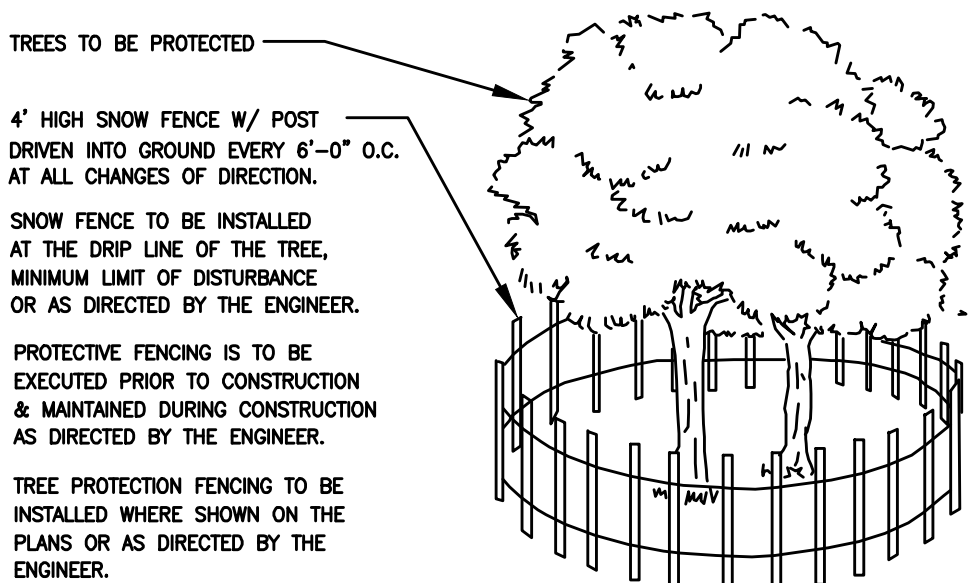
- SITE PREPARATION**
 - GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.
 - INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.
- PROTECTIVE MATERIALS**
 - UNROTTED SMALL-GRAIN STRAW, AT 2.0 TO 2.5 TONS PER ACRE, IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A DISC OR ANCHORING TOOL. LIQUID MULCH BINDERS OR NETTING THE DOWN OTHER SUITABLE MATERIALS BE USED TO ANCHOR MULCH BY THE SOIL CONSERVATION DISTRICT. THE APPROVED RATES ABOVE HAVE BEEN MET WHEN THE MULCH COVERS THE GROUND COMPLETELY UPON VISUAL INSPECTION, I.E. THE SOIL CANNOT BE SEEN BELOW THE MULCH.
 - SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES AS RECOMMENDED BY THE MANUFACTURER.
 - WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYDROSEEDER.
 - MULCH NETTING SUCH AS PAPER JUTE, EXCELSIOR, COTTON, OR PLASTIC, MAY BE USED.
 - WOODCHIPS APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 2 INCHES MAY BE USED. WOODCHIPS WILL NOT BE USED ON AREAS WHERE FLOWING WATER COULD WASH THEM INTO AN INLET AND PLUG IT.
 - GRAVEL, CRUSHED STONE, OR SLAG AT THE RATE OF 9 CUBIC YARDS PER 1,000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM C-33) IS RECOMMENDED.
- MULCH ANCHORING** - SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA AND STEEPNESS OF SLOPES.
 - 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.
 - MULCH NETTINGS - STAPLE PAPER, COTTON, OR PLASTIC NETTINGS OVER MULCH. USE DEGRADABLE NETTING IN AREAS TO BE MOWED. NETTING IS USUALLY AVAILABLE IN ROLLS 4 FEET WIDE AND UP TO 300 FEET LONG.
 - CRIMPER (MULCH ANCHORING COULTER TOOL) - A TRACTOR-DRAWN IMPLEMENT ESPECIALLY DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE. THIS PRACTICE AFFORDS MAXIMUM EROSION CONTROL, BUT ITS USE IS LIMITED TO THOSE SLOPES UPON WHICH THE TRACTOR CAN OPERATE SAFELY. SOIL PENETRATION SHOULD BE ABOUT 3 TO 4 INCHES. ON SLOPING LAND, THE OPERATION SHOULD BE ON THE CONTOUR.
 - LIQUID MULCH-BINDERS
 - APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE.
 - USE ONE OF THE FOLLOWING:
 - ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS THAT MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANE NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTO-TOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. VEGETABLE BASED GELS SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER.
 - 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 AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.

MAINTAINING VEGETATION (STD 3)

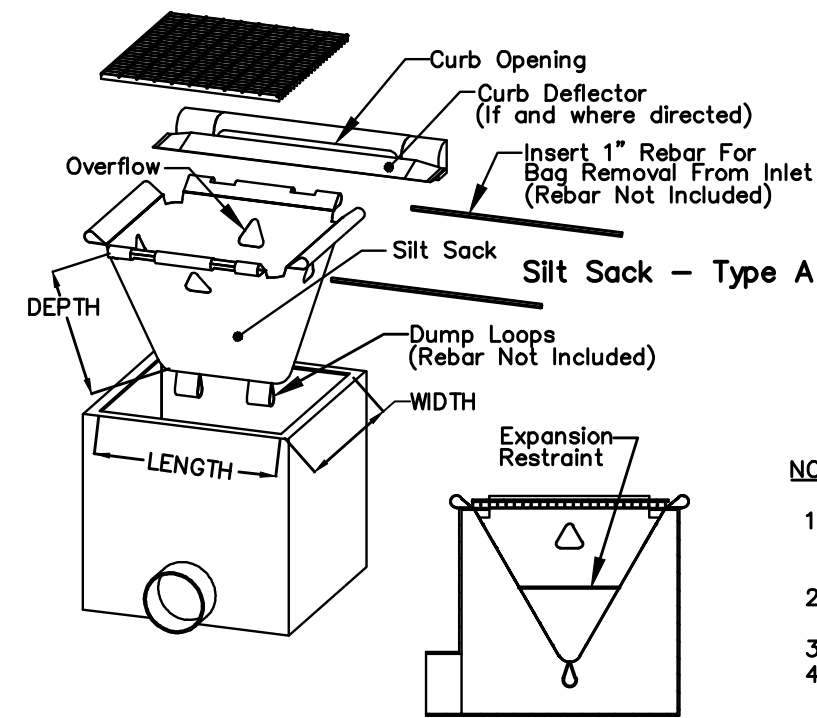
- MOWING IS A RECURRING PRACTICE AND ITS INTENSITY DEPENDS UPON THE FUNCTION OF THE GROUND COVER. ON HIGH TO MODERATE (A TO B) MAINTENANCE AREAS, SUCH AS LAWS, CERTAIN RECREATION FIELDS, AND PICKING AREAS, MOWING WILL BE FREQUENT (2 TO 7 DAY INTERVALS) AND TYPICALLY AT A HEIGHT OF 2.5 TO 3 INCHES. RETURN CLIPPINGS FROM MOWING (MULCHING MOWER) TO THE TURF TO REDUCE THE AMOUNT OF FERTILIZER NEEDED TO MAINTAIN THE TURF BY AS MUCH AS 50%. SOME TURF MIXTURES CAN BE MANAGED AS NATURALIZED STANDS REQUIRING ONLY ONE (COOL SEASON MIXTURES) OR TWO (WARM SEASON MIXTURES) MOWINGS PER YEAR. MOWING OF NATURALIZED AREAS IS TYPICALLY DONE AT HEIGHTS NO LESS THAN 4 INCHES AND SHOULD NOT BE DONE BETWEEN APRIL 1ST H1.53846X/AND JULY 15TH H1.53846X/TO AVOID DISTURBING GROUND NESTING BIRDS. THE LARGE AMOUNT OF CLIPPING DEBRIS GENERATED BY MOWING NATURALIZED AREAS WILL NEED TO BE REMOVED AND/OR DISPERSED SO THE VEGETATION IS NOT SMOTHERED. BURNING OF NATURALIZED AREAS IS ANOTHER PROCEDURE USED TO MANAGE NATURALIZED TURFS. LOW MAINTENANCE (D) AREAS MAY BE LEFT UNMOWED TO PERMIT NATURAL SUCCESSION. SEE PG. 4-13 FOOTNOTE #4. MAINTENANCE LEVELS A, B, C AND D IN THE STANDARD FOR PERMANENT VEGETATIVE COVER, TABLE 4-3*.
- INCORPORATION OF ORGANIC MATTER (FOR EXAMPLE, MATURE COMPOST) INTO THE SOIL WILL SUBSTANTIALLY REDUCE THE NEED FOR FERTILIZER AND IRRIGATION INPUTS.
- FERTILIZER AND LIME SHOULD BE APPLIED AS NEEDED TO MAINTAIN A DENSE STAND OF DESIRABLE SPECIES. FREQUENTLY MOWED AREAS AND THOSE ON SANDY SOILS WILL REQUIRE MORE FREQUENT FERTILIZATION BUT AT LOWER NUTRIENT RATES PER APPLICATION.
- LIME REQUIREMENT SHOULD BE DETERMINED BY SOIL TESTING EVERY 2 OR 3 YEARS. FERTILIZATION MAY INCREASE THE NEED FOR LIMING. CONTACT THE LOCAL COUNTY EXTENSION OFFICE FOR DETAILS ON SOIL TESTING AND FERTILIZATION AND PEST CONTROL RECOMMENDATIONS ONLINE AT HTTP://NJAES.RUTGERS.EDU/COUNTY/.
- FERTILIZATION AND ADDITIONS OF OTHER SOIL AMENDMENTS ARE NOT RECOMMENDED FOR MANAGING NATIVE VEGETATION SUCH AS IN THE PINELANDS NATIONAL RESERVE. SEE THE STANDARD FOR PERMANENT VEGETATIVE STABILIZATION FOR SPECIFIC REQUIREMENTS IN THE PNR.
- WEED INVASION MAY RESULT FROM ABUSIVE MOWING AND FROM INADEQUATE FERTILIZING AND LIMING. MANY NEWLY ESTABLISHED GRASSES WILL NOT SURVIVE IF MOWED AT HEIGHTS BELOW 2.5 INCHES AND AT INTERVALS GREATER THAN 7 DAYS. BRUSH INVASION IS A COMMON CONSEQUENCE OF LACK OF MAINTENANCE. THE AMOUNT OF WEEDS OR BRUSH THAT CAN BE TOLERATED IN ANY VEGETATED AREA DEPENDS UPON THE INTENDED USE OF THE LAND. DRAINAGE WAYS ARE SUBJECT TO RAPID INFESTATION BY WEED AND WOODY PLANTS. THESE SHOULD BE CONTROLLED, SINCE THEY OFTEN REDUCE DRAINAGE WAY EFFICIENCY. CONTROL OF WEEDS OR BRUSH IS ACCOMPLISHED BY USING HERBICIDES OR MECHANICAL METHODS.
- IF HAZARDOUS OR INADEQUATE VEGETATION HAS ACCUMULATED, THE TALLER THE VEGETATION, THE GREATER THE HAZARD.
- PRUNE TREES AND SHRUBS TO REMOVE DEAD OR DAMAGED BRANCHES. REMOVE UNDESIRABLE OR INVASIVE PLANTS TO MAINTAIN INTEGRITY OF THE LANDSCAPE AND ENHANCE QUALITY OF PERMANENT VEGETATIVE COVER.

SEQUENCE OF CONSTRUCTION

- | | |
|---|----------|
| 1. NOTIFY DISTRICT 48 HOURS BEFORE START OF CONSTRUCTION | N/A |
| 2. INSTALLATION OF INLET PROTECTION AND SILT FENCES. INSTALLATION OF TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSTALLED AT THE INITIATION OF LAND DISTURBANCE ACTIVITIES. ALL TEMPORARY SOIL EROSION MEASURES MUST BE INCLUDED (SILT FENCE, STONE TRACKING PAD, TREE PROTECTION, AND INLET PROTECTION AS NEEDED AND/OR AS DIRECTED) | 1 Week |
| 3. SITE CLEARING/DEMOLITION | 4 Weeks |
| 4. CONSTRUCT ALL IMPROVEMENTS INCLUDING SIDEWALK, ACCESSIBLE RAMPS, CURBS, LIGHTING, LANDSCAPE, AND ALL OTHER STREETSCAPE IMPROVEMENTS. | 6 Months |
| 6. SCARIFY STILL SUBGRADE TO A 4" MIN. DEPTH PER SECTION 19.1 OF "THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY", 7TH EDITION, JANUARY 2014, REVISED JULY 2017 | 2 Weeks |
| 7. UNIFORMLY APPLY TOPSOIL TO AN AVERAGE DEPTH OF 5", MINIMUM OF 4", FIRMED IN PLACE. | 2 Weeks |
| 8. PERMANENT SEEDING AND MULCH. PERMANENT STABILIZE AS PER SOIL EROSION & SEDIMENT CONTROL PLAN. | 1 Week |
| 9. REMOVE SOIL EROSION AND SEDIMENT CONTROL DEVICES. | 1 Week |
| 10. NOTIFY DISTRICT OF COMPLETION OF PROJECT | N/A |



TREE PROTECTION DETAIL



INLET FILTER DETAIL

- NOTE:
- CATEGORICAL EXCLUSION DOCUMENT (CED) WAS APPROVED ON 12/18/2020. ENVIRONMENTAL COMMITMENTS IN THE CED ARE:
 - NO PERMITS ARE REQUIRED FOR THIS PROJECT.
 - SOIL EROSION AND SEDIMENT BARRIER CONTROL MEASURES WILL BE IMPLEMENTED DURING CONSTRUCTION.
 - IF PROJECT PLANS CHANGE, THE ENTIRE PROJECT WILL BE REVIEWED BY BEPR TO DETERMINE IF ANY ADDITIONAL ENVIRONMENTAL WORK IS NEEDED

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL, SOIL EROSION, & SEDIMENT CONTROL PLANS

LIGHTHOUSE DISTRICT STREETSCAPE IMPROVEMENTS

CITY OF BRIGANTINE

GREENMAN-PEDERSEN, INC.

CERTIFICATION OF AUTHORIZATION NO. 24GA27959500

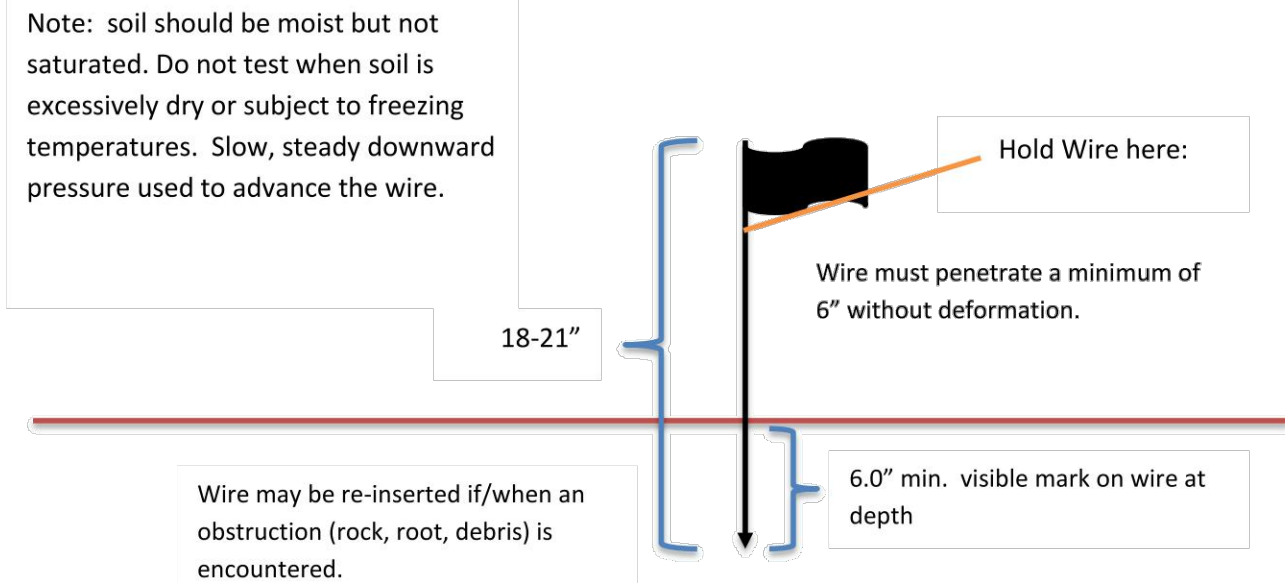
BRIAN W. MAUSER

NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04647900

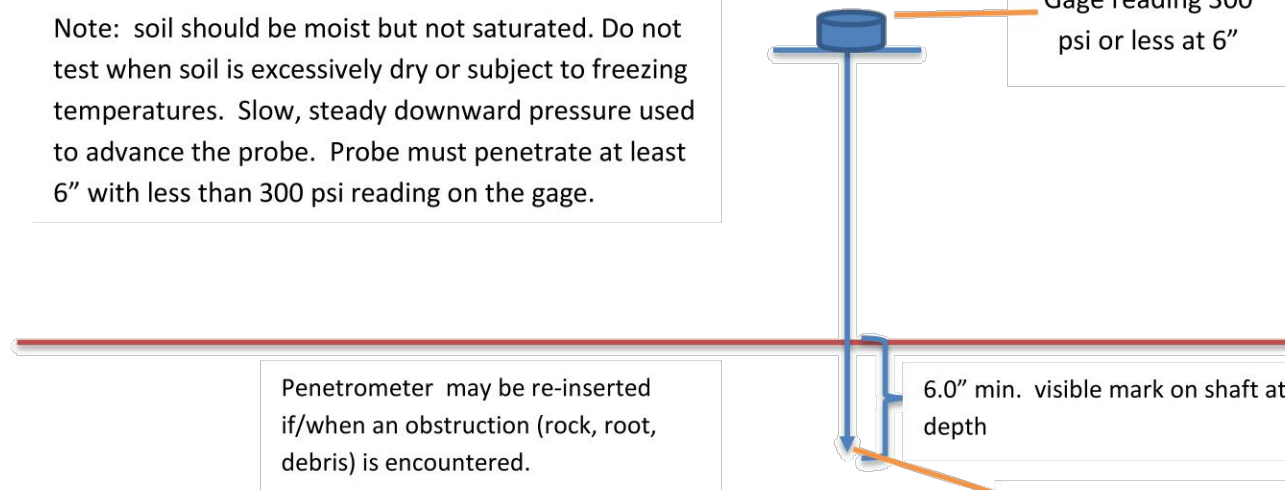
SEDIMENT BARRIER REQUIREMENTS (STD 23)

<i>Standards for Soil Erosion and Sediment Control in New Jersey</i>	<i>January 2014</i>	<i>Standards for Soil Erosion and Sediment Control in New Jersey</i>	<i>January 2014</i>
STANDARD FOR SEDIMENT BARRIERS			
Definition			
A temporary barrier installed across or at the toe of a slope.			
Purpose			
The purpose of a sediment barrier is to intercept and detain small amounts of sediment from unprotected areas of limited extent.			
Conditions Where Practice Applies			
The sediment barrier is used where:			
1. No other practice is feasible,		C. Requirements for silt fence:	
2. There is no concentration of water in a channel or other drainage way above the barrier, and		1. Fence posts shall be spaced 8 feet center-to-center or closer. They shall extend at least 2 feet into the ground and extend at least 2 feet above ground (Fig. 23-2). [*] Posts shall be constructed of hardwood with a minimum diameter thickness of 1 ½ inches.	
3. Erosion would occur in the form of sheet and rill erosion.		2. “Super” silt fence - A metal fence with 6 inch or smaller mesh openings and at least 2 feet high may be utilized, fastened to the fence posts, to provide reinforcement and support to the geotextile fabric. Posts may be spaced less than 8 feet on center and may be constructed of heavier wood or metal as needed to withstand heavier sediment loading. This practice is appropriate where space for other practices is limited and heavy sediment loading is expected. “Super” silt fence is not to be used in place of properly designed diversions (pg. 15-1) [*] which may be needed to control surface runoff rates and velocities.	
Design Criteria		3. A geotextile fabric, recommended for such use by the manufacturer, shall be buried at least 6 inches deep in the ground. The fabric shall extend at least 2 feet above the ground. The fabric must be securely fastened to the posts using a system consisting of metal fasteners (nails or staples) and a high strength reinforcement material (nylon webbing, grommets, washers etc.) placed between the fastener and the geotextile fabric. The fastening system shall resist tearing away from the post. The fabric shall incorporate a drawstring in the top portion of the fence for added strength.	
A. All types of sediment barriers:		D. Requirements for stone barrier:	
1. Contributing drainage area is less than 1 acre and the length of slope above the barrier is less than 150 feet.		1. The stone shall be piled to a natural angle of repose with a height of at least 2 feet.	
2. The slope of the contributing drainage area for at least 30 feet adjacent to the barrier shall not exceed 5%.		2. The stone shall meet ASTM C-33 size No. 2 (2.5 to 1.5) or 3 (2 to 1 inch).	
3. The barrier shall be constructed so water cannot bypass the barrier around the ends.		Maintenance	
4. Inspection shall be frequent and repair or replacement shall be made promptly as needed.		1. Sediment shall be removed from the upstream face of the barrier when it has reached a depth of ½ the barrier height.	
5. The barrier shall be removed when the contributing drainage area has been stabilized so as not to block or impede storm flow or drainage.		2. Repair or replace barrier (fabric, posts, bales etc.) when damaged.	
B. Requirements for bale barrier (e.g., straw, hay, or other acceptable vegetative material):		3. Barriers shall be inspected daily for signs of deterioration and sediment removal.	
1. All bales shall be securely tied and staked on the contour (Fig. 23-1). [*]			
2. Bales shall be placed in a row with ends tightly abutting the adjacent bales.			
3. Each bale shall be embedded in the soil a minimum of 4 inches.			
4. Bales shall be securely anchored in place by two stakes or re-bars driven through each bale. The first stake in each bale shall be driven toward previously laid bale to force bales together.			

Probing Wire Test- 15.5 ga steel wire (survey flag)



Handheld Soil Penetrometer Test



MINIMUM SOIL EROSION AND SEDIMENT CONTROL REQUIREMENTS DURING CONSTRUCTION OF SINGLE-FAMILY DWELLINGS AND DUPLEXES, OR LAND GRADING AND DEMOLITION ACTIVITIES LESS THAN 1 ACRE

1. ALL WORK MUST BE DONE IN ACCORDANCE WITH THE "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY". 7TH EDITION, JANUARY 2014, REVISED JULY 2017.
2. CONTACT THE DISTRICT 48 HOURS IN ADVANCE OF THE START OF ANY LAND DISTURBANCE ACTIVITIES.
3. REMOVE ANY SEDIMENT THAT MAY BE SPILLED, DROPPED, OR TRACKED OFF OF THE PROJECT SITE. ALL PAVED RIGHTS-OF-WAY ADJACENT TO THE PROJECT SITE MUST BE MAINTAINED IN A CLEAN, SWEEP CONDITION THROUGHOUT CONSTRUCTION. INSTALL CRUSHED STONE PAD(S) TO HELP REDUCE OFF-SITE TRACKING OF SEDIMENT.
4. CONTROL THE WASHING OR BLOWING OF SEDIMENT OFF OF THE PROJECT SITE. INSTALL SEDIMENT BARRIERS TO HELP REDUCE OFF-SITE SEDIMENTATION. MEASURES TO CONTROL DUST AND WIND EROSION MUST BE UTILIZED (IE. WETTING OF THE SITE).
5. THE PROPERTY MUST BE GRADED IN A MANNER THAT WILL NOT CAUSE EROSION OR SEDIMENTATION PROBLEMS ON THE PROJECT SITE, OR TO ADJACENT PROPERTIES. AREAS SUBJECT TO SOIL RESTORATION MEASURES MUST COMPLY WITH THE STANDARD FOR LAND GRADING.
6. SITE MUST BE PROPERLY MULCHED FOR NON-GROWING SEASONS USING STRAW MULCH @ 90-115 LBS./1,000 SQ. FT. (3 BALES), PROPERLY ANCHORED OR TACKED.
7. WHEN REQUIRED, SITE MUST BE SEEDED TO ESTABLISH A TEMPORARY VEGETATIVE COVER. PERENNIAL RYEGRASS @ 1 LB./1,000 SQ. FT. MAY BE UTILIZED.
8. PREPARE AREAS TO BE PERMANENTLY VEGETATED BY TOPSOILING (A MINIMUM OF 5" IS REQUIRED), FERTILIZING @ 11 LBS./1,000 SQ. FT. OF 10-20-10, AND APPLYING LIME @ 90 LBS./1,000 SQ. FT.
9. SEED THE SITE TO ESTABLISH A PERMANENT VEGETATIVE COVER UTILIZING A TURF-TYPE TALL FESCUE/PERENNIAL RYEGRASS MIX @ 6-8 LBS./1,000 SQ. FT., OR EQUIVALENT. APPLY STRAW MULCH @ 70-90 LBS./1,000 SQ. FT. (2 BALES), AND PROPERLY ANCHOR OR TACK. SOD, STONE COVER OR MULCHED LANDSCAPE BEDS MAY BE SUBSTITUTED FOR SEEDING TO ESTABLISH A PERMANENT COVER.
10. DRIVEWAY MUST BE STABILIZED WITH A PERMANENT MATERIAL SUCH AS ASPHALT, CONCRETE, PAVING BLOCKS, CRUSHED STONE, CRUSHED CONCRETE OR DENSE GRADED AGGREGATE.
11. ALL SIDEWALKS, DRIVEWAY APRONS, AND CURBING IF REQUIRED BY THE MUNICIPALITY MUST BE COMPLETED.
12. A REPORT OF COMPLIANCE MUST BE OBTAINED FROM THE DISTRICT UPON COMPLETION. REQUESTS FOR A DISTRICT INSPECTION FOR THE RELEASE OF A REPORT OF COMPLIANCE MUST BE MADE 5 WORKING DAYS IN ADVANCE. A REPORT OF COMPLETE COMPLIANCE IS ISSUED WHEN PERMANENT EROSION CONTROLS HAVE BEEN ADDRESSED. A REPORT OF CONDITIONAL COMPLIANCE MAY BE ISSUED WHEN THE SEASON OR OTHER CONDITIONS MAY NOT BE SUITABLE FOR ESTABLISHING A PERMANENT VEGETATIVE COVER. A CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED BY A MUNICIPALITY UNLESS THE DISTRICT HAS ISSUED A REPORT OF COMPLIANCE. THIS APPLIES TO BOTH THE COMPLETE (FINAL) AND CONDITIONAL (TEMPORARY) CERTIFICATES.
13. THE "SOIL COMPACTION MITIGATION VERIFICATION FORM" MUST BE SUBMITTED TO THE DISTRICT PRIOR TO THE ISSUANCE OF A REPORT OF COMPLIANCE WHEN YOUR SOIL EROSION AND SEDIMENT CONTROL PLAN DENOTES AREAS OF THE SITE THAT ARE SUBJECT TO SOIL COMPACTION MITIGATION (TESTING AND/OR REMEDIATION).
14. THE FOLLOWING "SEQUENCE OF CONSTRUCTION" MUST BE FOLLOWED:
 1. INSTALLATION OF TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES.
 2. CONSTRUCTION OF DWELLING (WHERE APPLICABLE).
 3. INSTALLATION OF DRAINAGE MEASURES (WHERE APPLICABLE).
 4. IMPLEMENTATION OF SOIL RESTORATION MEASURES (WHERE APPLICABLE).
 5. INSTALLATION OF A PERMANENT COVER.
 6. REMOVAL OF SOIL EROSION AND SEDIMENT CONTROL MEASURES.

SOIL COMPACTION TESTING REQUIREMENTS

1. SUBGRADE SOILS PRIOR TO THE APPLICATION OF TOPSOIL (SEE PERMANENT SEEDING AND STABILIZATION NOTES FOR TOPSOIL REQUIREMENTS) SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6.0 INCHES TO ENHANCE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER
2. AREAS OF THE SITE WHICH ARE SUBJECT TO COMPACTION TESTING AND/OR MITIGATION ARE GRAPHICALLY DENOTED ON THE CERTIFIED SOIL EROSION CONTROL PLAN. SEE EXAMPLE SITE PLAN AT: HTTP://WWW.NJ.GOV/AGRICULTURE/DIVISIONS/ANR/NRC/NJEROSION.HTML
3. COMPACTION TESTING LOCATIONS ARE DENOTED ON THE PLAN. A COPY OF THE PLAN OR PORTION OF THE PLAN SHALL BE USED TO MARK LOCATIONS OF TESTS, AND ATTACHED TO THE SOIL COMPACTION MITIGATION VERIFICATION FORM, AVAILABLE FROM THE LOCAL SOIL CONSERVATION DISTRICT OR HTTP://WWW.NJ.GOV/AGRICULTURE/DIVISIONS/ANR/NRC/NJEROSION.HTML. THIS FORM MUST BE FILLED OUT AND SUBMITTED PRIOR TO RECEIVING A CERTIFICATE OF COMPLIANCE FROM THE DISTRICT.
4. IN THE EVENT THAT TESTING INDICATES COMPACTION IN EXCESS OF THE MAXIMUM THRESHOLDS INDICATED FOR THE SIMPLIFIED TESTING METHODS (SEE DETAILS BELOW), THE CONTRACTOR/OWNER SHALL HAVE THE OPTION TO PERFORM EITHER (1) COMPACTION MITIGATION OVER THE ENTIRE MITIGATION AREA DENOTED ON THE PLAN (EXCLUDING EXEMPT AREAS), OR (2) PERFORM ADDITIONAL, MORE DETAILED TESTING TO ESTABLISH THE LIMITS OF EXCESSIVE COMPACTION WHEREUPON ONLY THE EXCESSIVELY COMPACTED AREAS WOULD REQUIRE COMPACTION MITIGATION. ADDITIONAL DETAILED TESTING SHALL BE PERFORMED BY A TRAINED, LICENSED PROFESSIONAL.

COMPACTION TESTING METHODS

- A. PROBING WIRE TEST (SEE DETAIL)
- B. HAND-HELD PENETROMETER TEST (SEE DETAIL)
- C. TUBE BULK DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)
- D. NUCLEAR DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)

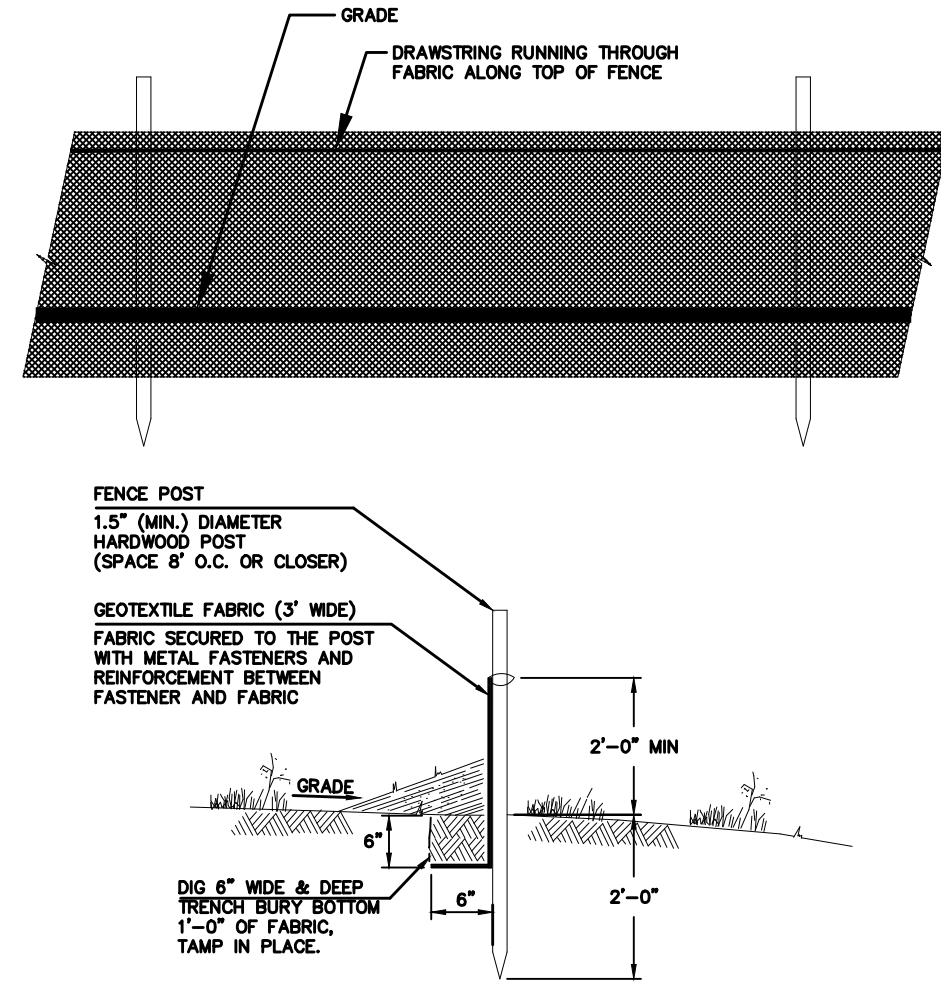
NOTE: ADDITIONAL TESTING METHODS WHICH CONFORM TO ASTM STANDARDS AND SPECIFICATIONS, AND WHICH PRODUCE A DRY WEIGHT, SOIL BULK DENSITY MEASUREMENT MAY BE ALLOWED SUBJECT TO DISTRICT APPROVAL.

SOIL COMPACTION TESTING IS NOT REQUIRED IF/WHEN SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) OR SIMILAR) IS PROPOSED AS PART OF THE SEQUENCE OF CONSTRUCTION.

PROCEDURES FOR SOIL COMPACTION MITIGATION

PROCEDURES SHALL BE USED TO MITIGATE EXCESSIVE SOIL COMPACTION PRIOR TO PLACEMENT OF TOPSOIL AND ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.

RESTORATION OF COMPACTED SOILS SHALL BE THROUGH DEEP SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.). IN THE ALTERNATIVE, ANOTHER METHOD AS SPECIFIED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER MAYBE SUBSTITUTED SUBJECT TO DISTRICT APPROVAL.



* SEE "THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY", 7TH EDITION, JANUARY 2014, REVISED JULY 2017

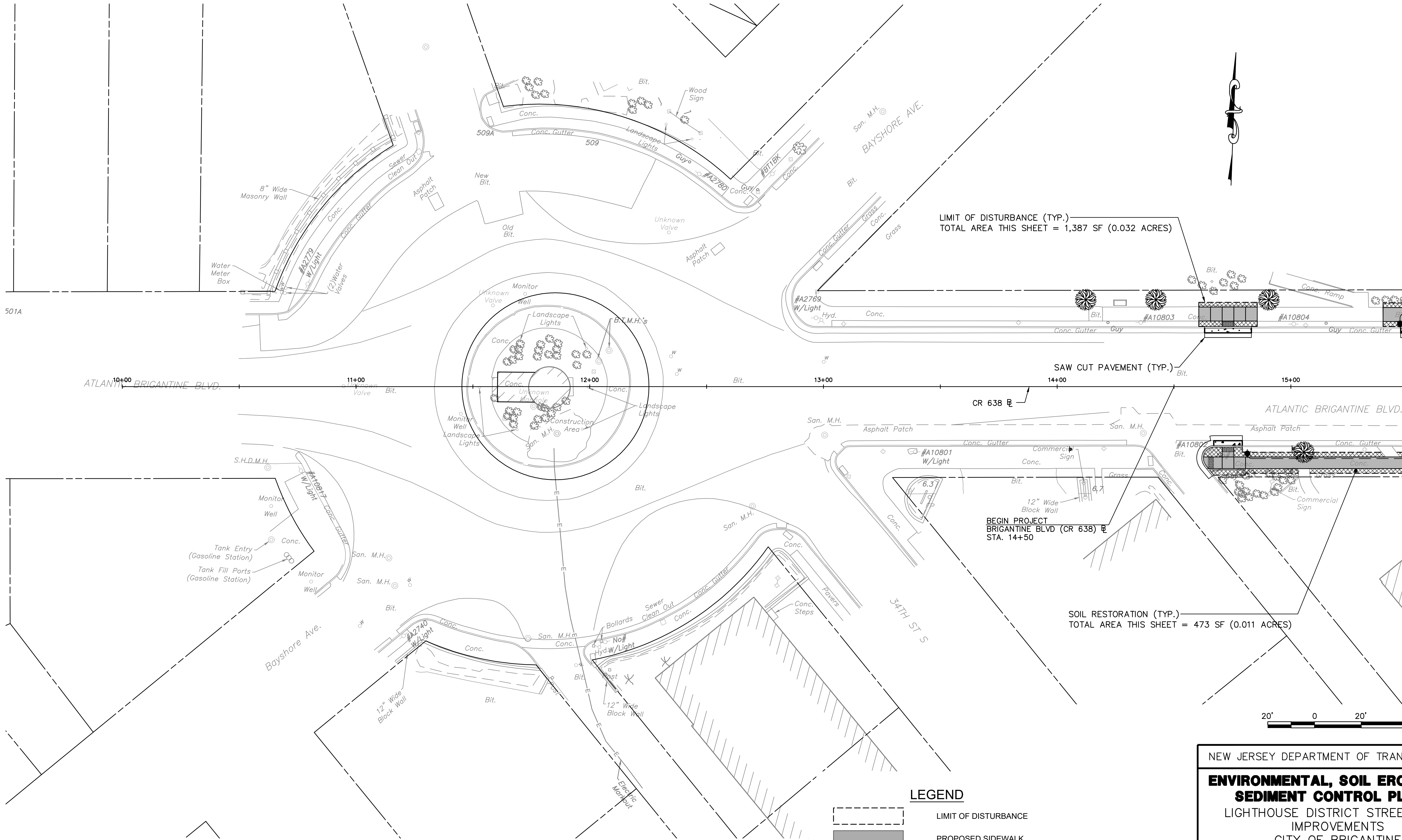
NEW JERSEY DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL, SOIL EROSION, & SEDIMENT CONTROL PLANS

LIGHTHOUSE DISTRICT STREETScape IMPROVEMENTS
CITY OF BRIGANTINE

GREENMAN-PEDERSEN, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA27959500
Brian W. Mausert
BRIAN W. MAUSER
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04647900

STATE	FEDERAL PROJECT NO.	N.J.DOT JOB NO.
N.J.	TA-AC-0638 (304)	6503313



LIMIT OF DISTURBANCE (TYP.)
TOTAL AREA THIS SHEET = 1,387 SF (0.032 ACRES)

SAW CUT PAVEMENT (TYP.)

BEGIN PROJECT
BRIGANTINE BLVD (CR 638) @
STA. 14+50

SOIL RESTORATION (TYP.)
TOTAL AREA THIS SHEET = 473 SF (0.011 ACRES)

MATCH LINE BRIGANTINE BLVD. @ STA. 15+50

LEGEND

- LIMIT OF DISTURBANCE
- PROPOSED SIDEWALK
- SOIL RESTORATION AREA
- PROPOSED INLET FILTER

NOTES:

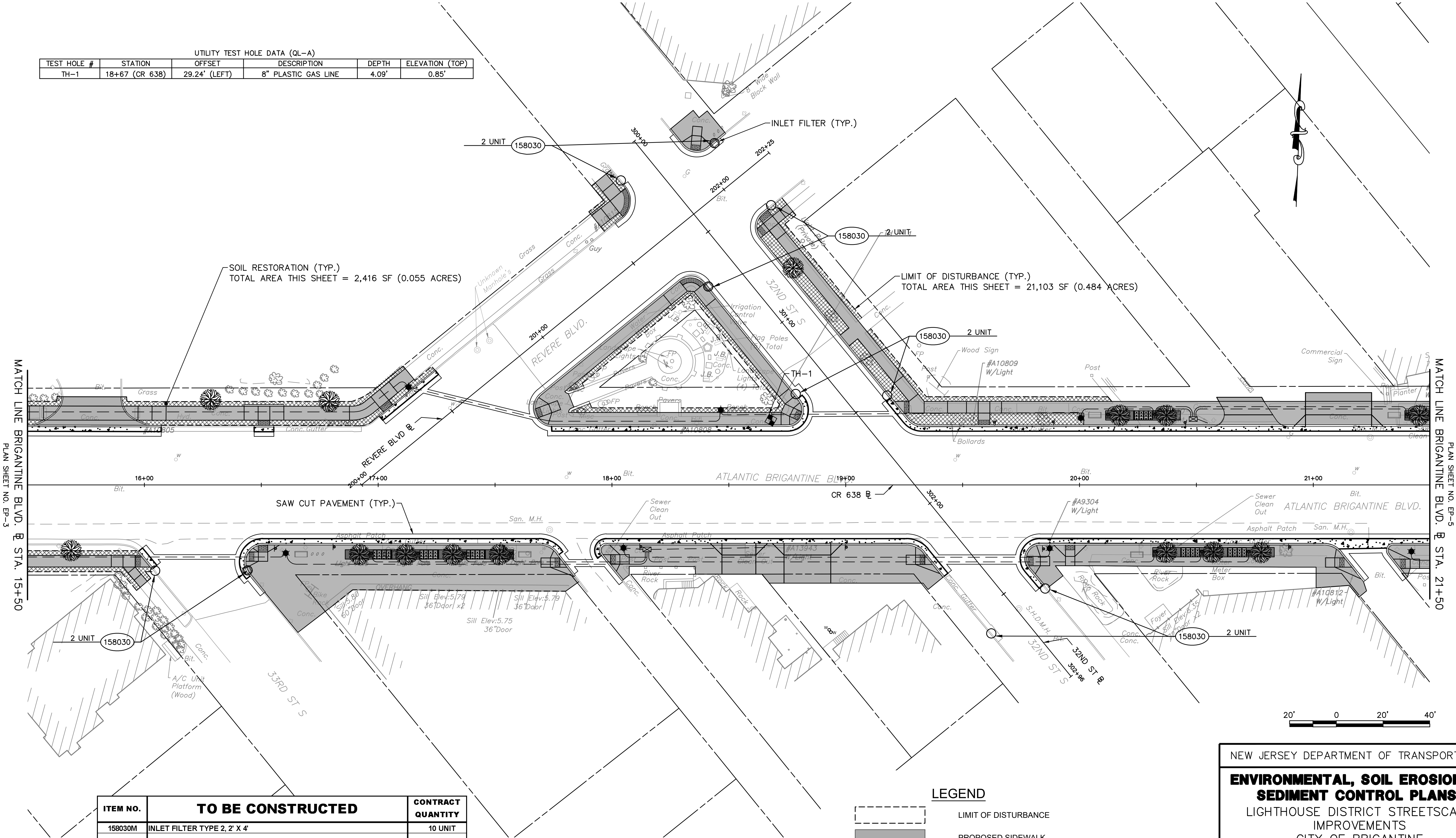
- ENTIRE PROJECT IS LOCATED ON PSAMMAQUENTS, SULFIDIC SUBSTRATUM, 0 TO 2 PERCENT SLOPE, FREQUENTLY FLOODED (Patat.) SOILS.
- ENTIRE PROJECT IS LOCATED WITHIN A TIDAL FLOOD HAZARD AREA (FEMA PANEL 0344F).

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL, SOIL EROSION, & SEDIMENT CONTROL PLANS
LIGHTHOUSE DISTRICT STREETScape IMPROVEMENTS
CITY OF BRIGANTINE

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UTILITY TEST HOLE DATA (QL-A)					
TEST HOLE #	STATION	OFFSET	DESCRIPTION	DEPTH	ELEVATION (TOP)
TH-1	18+67 (CR 638)	29.24' (LEFT)	8" PLASTIC GAS LINE	4.09'	0.85'



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
158030M	INLET FILTER TYPE 2, 2' X 4'	10 UNIT

NOTES:

- ENTIRE PROJECT IS LOCATED ON PSAMMAQUENTS, SULFIDIC SUBSTRATUM, 0 TO 2 PERCENT SLOPE, FREQUENTLY FLOODED (PatA) SOILS.
- ENTIRE PROJECT IS LOCATED WITHIN A TIDAL FLOOD HAZARD AREA (FEMA PANEL 0344F).

LEGEND

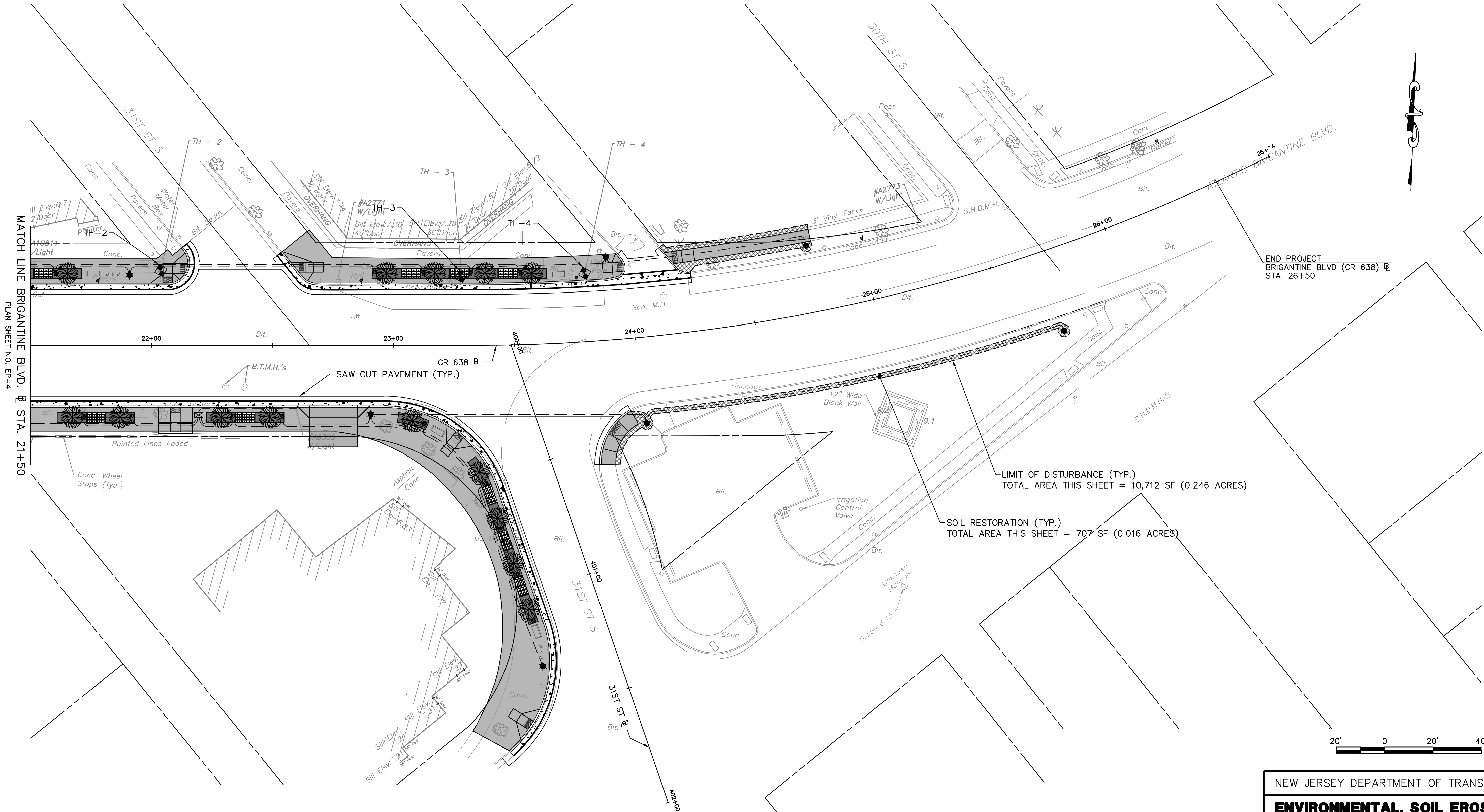
	LIMIT OF DISTURBANCE
	PROPOSED SIDEWALK
	SOIL RESTORATION AREA
	PROPOSED INLET FILTER

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL, SOIL EROSION, & SEDIMENT CONTROL PLANS
LIGHTHOUSE DISTRICT STREETScape IMPROVEMENTS
CITY OF BRIGANTINE

GREENMAN-PEDERSEN, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA27959500
Brian W. Mausert
BRIAN W. MAUSER
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04647900

STATE	FEDERAL PROJECT NO.	N.J.DOT JOB NO.
N.J.	TA-AC-0638 (304)	5503313



MATCH LINE BRIGANTINE BLVD. @ STA. 21+50
PLAN SHEET NO. EP-4

END PROJECT
BRIGANTINE BLVD (CR 638) @
STA. 26+50

LIMIT OF DISTURBANCE (TYP.)
TOTAL AREA THIS SHEET = 10,712 SF (0.246 ACRES)

SOIL RESTORATION (TYP.)
TOTAL AREA THIS SHEET = 707 SF (0.016 ACRES)

NOTES:

- ENTIRE PROJECT IS LOCATED ON PSAMMAQUENTS, SULFIDIC SUBSTRATUM, 0 TO 2 PERCENT SLOPE, FREQUENTLY FLOODED (PaAt) SOILS.
- ENTIRE PROJECT IS LOCATED WITHIN A TIDAL FLOOD HAZARD AREA (FEMA PANEL 0344F).

	LIMIT OF DISTURBANCE
	PROPOSED SIDEWALK
	SOIL RESTORATION AREA
	PROPOSED INLET FILTER

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL, SOIL EROSION, & SEDIMENT CONTROL PLANS
LIGHTHOUSE DISTRICT STREETScape IMPROVEMENTS
CITY OF BRIGANTINE

GREENMAN-PEDERSEN, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA27959500
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