

Township of Egg Harbor

Atlantic County, New Jersey

2022 Stormwater Grant - Municipal Parking Lot Green Infrastrucutre Improvements - REBID

Contract No. 132

June 2026

Township Committee

Laura Pfrommer, Mayor
Ray Ellis, Jr., Deputy Mayor
Paul W. Hodson
William Pauls
Pete Castellano

Township Administrator

Thomas J. D'Intino

Township Clerk

Janice F. Hughes, RMC



ESTIMATE OF QUANTITIES

| ITEM NO. | DESCRIPTION | UNIT | NJDOT SECTION # | PLAN QUANTITY | IF AND WHERE QUANTITY | CONTRACT QUANTITY | AS-BUILT QUANTITY |
|----------|--|----------|-----------------|---------------|-----------------------|-------------------|-------------------|
| 1 | CLEARING SITE | LUMP SUM | 159 | 1 | 0 | 1 | |
| 2 | TREE & SHRUB REMOVAL | LUMP SUM | 201 801,802 | 1 | 0 | 1 | |
| 3 | SOIL EROSION AND SEDIMENT CONTROL | LUMP SUM | 158 | 1 | 0 | 1 | |
| 4 | BIOSWALE EXCAVATION | C.Y. | 202 | 400 | 0 | 400 | |
| 5 | HMA MILLING, 2" & VARIABLE | S.Y. | 401 | 6,200 | 0 | 6,200 | |
| 6 | HOT MIX ASPHALT SURFACE COURSE, MIX 9.5M64, 2" THICK | TON | 401 | 850 | 0 | 850 | |
| 7 | REMOVE & REPLACE CONCRETE VERTICAL CURB | L.F. | 607 | 170 | 0 | 170 | |
| 8 | TRAFFIC MARKINGS, LINES, LONG-LIFE, THERMOPLASTIC, 24" THICK | S.F. | 610 | 20 | 0 | 20 | |
| 9 | TRAFFIC STRIPES, LINES, LONG-LIFE, EPOXY RESIN, 4" THICK | L.F. | 610 | 2,800 | 0 | 2,800 | |
| 10 | TRAFFIC MARKINGS, SYMBOLS, LONG-LIFE, THERMOPLASTIC | S.F. | 610 | 6 | 0 | 6 | |
| 11 | BLOCK RETAINING WALL | L.F. | 513 | 40 | 0 | 40 | |
| 14 | RIP RAP, D50- 4"-6" | S.Y. | 0 | 100 | 0 | 100 | |
| 15 | BIOSEED MIX | C.Y. | 0 | 220 | 0 | 220 | |
| 16 | BETULA POPULIFOLIA, "BIRCH GRAY" | UNIT | 802 | 2 | 0 | 2 | |
| 17 | CARINUS CAROLINIANA, "HORNBEAM, AMERICAN" | UNIT | 802 | 2 | 0 | 2 | |
| 18 | ACER SACCHARINUM, "MAPLE, SILVER" | UNIT | 802 | 2 | 0 | 2 | |
| 19 | CLETHRA ALNIFOLIA, "RED MAPLE" | UNIT | 802 | 4 | 0 | 4 | |
| 20 | SPIRAEA TOMENTOSA, "STEEPLE-BUSH" | UNIT | 802 | 4 | 0 | 4 | |
| 21 | VIBURNUM CASSINOIDES, "WITH-ROD" | UNIT | 802 | 4 | 0 | 4 | |
| 22 | TOPSOILING, 4" THICK | S.Y. | 804 | 500 | 0 | 500 | |
| 23 | HYDROSEEDING | S.Y. | 806 | 500 | 0 | 500 | |
| 24 | CONSTRUCTION SIGNS | S.F. | 159 | 250 | 0 | 250 | |
| 25 | DRUM | UNIT | 159 | 25 | 0 | 25 | |
| 26 | TRAFFIC CONES | UNIT | 159 | 50 | 0 | 50 | |
| 27 | FUEL PRICE ADJUSTMENT | LUMP SUM | 160 | 1 | 0 | 1 | |

General Notes

1. The locations of all existing utilities shown on this plan are approximate. The Contractor is responsible for verifying the location and depths of all existing subsurface utilities prior to the start of construction. It is also the Contractor's responsibility to obtain a mark-out of all existing utilities by calling 1-800-272-1000 prior to any land disturbance.

2. Prior to the start of construction the Contractor shall verify all topographic information for the entire site.

3. The Contractor shall be completely responsible for ensuring that all materials, methods and details for the construction of the improvements shall conform to the current applicable statutes, regulations, ordinances and standards over the governmental bodies having jurisdiction over such work. This responsibility shall include, but not be limited to the following:

- Conformity with the approved plans as well as standards and specifications of the municipality.
- Correction of all defects in the work, no matter what the cause, until the date of acceptance and thereafter for the period of any guarantee which runs beyond the date of acceptance.
- Solution of any problem, unforeseen at the time of the approval of the plans, which may or do impair the integrity of any improvements, including problems such as high ground water, unstable soil, clay under basin bottom, etc.

4. The Contractor shall procure **ALL** required permits, licenses, inspections, pay all charges and fees and give notices necessary for and incidental to the due and lawful prosecution of the work.

5. The Contractor shall be responsible for all clearing, grubbing, restoring, paving, topsoiling, fertilizing and seeding all areas disturbed by his activities, as directed by the Engineer or as shown on the plans.

6. Efforts shall be made by the Contractor to retain existing trees, vegetation and natural characteristics of the site when possible.

7. All soil erosion and sediment control measures shall be in accordance with the details herein and the "Standards for Soil Erosion and Sediment Control in New Jersey" as amended.

8. No material shall be placed, nor any disturbance permitted beyond the project property line or right-of-way without the written permission of the property owners directly involved. Evidence of any such agreement must be submitted to the Engineer.

9. The Contractor is responsible for providing traffic control, as directed by the Township Engineer and/or the Local Police Department, in accordance with the MUTCD standards as amended, and NJDOT Specifications for Road and Bridge Construction 2019, Section 617, as amended. Traffic Control shall be included within the bid price, no separate bid item is designated for this.

10. Construction details are included with this set of plans. Any required detail not included with this set shall come from the NJDOT's "Standard Roadway Construction Details" (English Units), issued 2019 as amended. If there is a conflict between NJDOT Standard Detail and the Details included in this set of plans, the Details included herewith shall govern.

11. The Contractor is advised to use the Site Benchmarks as listed and to not use ground elevations from the profiles or cross-sections.

12. No development, including clearing and land disturbance, is permitted in wetlands or wetland buffers.

13. All material left over from excavation and stripping shall be removed from the project site at the contractors own expense.

14. "The New Jersey Department of Transportation Standard Roadway Construction/Traffic Control/Bridge Construction Details Booklet dated 2019 and Electrical Bureau Standard Details, 2019", as amended, and All baseline Document Changes made to these construction Details, shall govern except for Those details contained Herein. All work is obligated to comply with latest edition of MUTCD.

15. The project scope/limits are: The reconstruction of the existing parking lot to improve and expand the local green infrastructure.

Location Map

Scale: 1" = 2,000'

MOTT WATKINS
ASSOCIATES, LLC

CONSULTING ENGINEERS & PLANNERS

3120 Fire Road, Suite B201
Egg Harbor Township, New Jersey 08234
(609) 569-1551

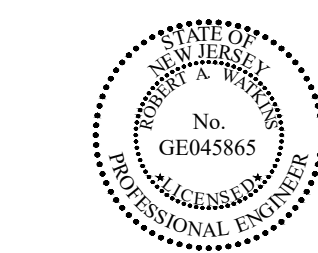
Index of Drawings

| Order | Sheet | Description |
|-------|------------|--|
| 1 | COVER | COVER |
| 2 | SESC-NOTES | SOIL EROSION & SEDIMENT CONTROL NOTES |
| 3 | LAND-DETS | LANDSCAPING DETAILS |
| 4 | EX-DEMO | EXISTING CONDITIONS, DEMO, & SESC PLAN |
| 5 | PROP-SITE | PROPOSED SITE & LANDSCAPING PLAN |
| 6 | GRADE | SITE GRADING PLAN |

| Utilities Information | |
|-------------------------------|----------------|
| South Jersey Gas | 1-800-582-7060 |
| Atlantic City Electric | 1-800-833-7476 |
| Verizon Telephone | 1-800-837-4966 |
| Comcast Cable | 1-800-934-6489 |
| New Jersey American Water Co. | 1-800-652-6987 |
| Egg Harbor Twp. MUA | 1-609-926-2671 |
| Utility Markout | 1-800-272-1000 |

Robert A. Watkins
Professional Engineer & Planner
New Jersey License No. 4586500

Robert A. Watkins



DATE: 6/17/2026

GENERAL NOTES

1. THE SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY LAND DISTURBANCE.

CAPE ATLANTIC CONSERVATION DISTRICT
6260 OLD HARDING HIGHWAY
MAYS LANDING, NJ 08330
(609) 625-3144 OR (609) 625-7000 EXT. 6154
FAX: (609) 625-7360

2. SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.

3. A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN INCLUDING REVISION THEREOF MUST BE MAINTAINED ON THE PROJECT SITE DURING CONSTRUCTION.

4. IN NO CASE SHALL THE CERTIFICATION OF THE PROJECT BY THE DISTRICT EXTEND BEYOND THREE AND ONE HALF YEARS OF THE ORIGINAL CERTIFICATION DATE.

5. PRIOR TO ANY GRADING OPERATION AND/OR INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES, A NIDES REQUEST FOR AUTHORIZATION (RFA) FORM FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITY MUST BE FILED WITH NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION ("NDEP") IF THE CONSTRUCTION WILL DISTURB MORE THAN ONE ACRE. THE APPLICATION MUST BE COMPLETED BY THE ENTITY RESPONSIBLE FOR MAINTENANCE OF SOIL EROSION CONTROL MEASURES DURING CONSTRUCTION, TYPICALLY THE DEVELOPER OR CONTRACTOR. THE APPLICATION IS A SIMPLE FORM FILED ON THE NIDEP WEBSITE USING PROJECT CODES PROVIDED BY THE SOIL CONSERVATION DISTRICT. IF REQUIRED, THE ENGINEER WILL ASSIST THE DEVELOPER OR CONTRACTOR BY PROVIDING TECHNICAL INFORMATION TO COMPLETE THE APPLICATION.

6. ALL APPLICABLE SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN PLACE PRIOR TO ANY GRADING OPERATION AND/OR INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES.

7. ANY CHANGES TO THE SITE PLAN WILL REQUIRE THE SUBMISSION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN TO THE DISTRICT. THE REVISED PLAN MUST BE IN ACCORDANCE WITH THE CURRENT NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL.

8. THE CONTRACTOR SHALL PERFORM ALL WORK, FURNISH ALL MATERIALS AND INSTALL ALL MEASURES REQUIRED TO REASONABLY CONTROL SOIL EROSION RESULTING FROM CONSTRUCTION OPERATIONS AND PREVENT EXCESSIVE FLOW OF SEDIMENT FROM THE CONSTRUCTION SITE.

9. THE DISTRICT MAY REQUIRE ADDITIONAL SOIL EROSION MEASURES TO BE INSTALLED, AS DETERMINED BY THE DISTRICT

10. OFFSITE LAND DISTURBANCE MAY REQUIRE ADDITIONAL SOIL EROSION AND SEDIMENT CONTROL MEASURES TO BE DETERMINED BY THE DISTRICT.

11. STAGED CONSTRUCTION METHODS TO MINIMIZE EXPOSED SURFACES, WHERE APPLICABLE.

12. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.

13. SOIL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS AND AFTER EVERY STORM EVENT.

14. APPLICABLE SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE LEFT IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND/OR THE AREA IS STABILIZED.

15. NUSA 4:24-39, ET SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY, TEMPORARY OR PERMANENT, BE ISSUED BEFORE ALL PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLIED WITH PERMANENT MEASURES. ALL SITE WORK FOR THE PROJECT MUST BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE AS A PREREQUISITE TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY. INSPECTION FOR THE CERTIFICATE OF OCCUPANCY MUST BE SCHEDULED AT LEAST A WEEK IN ADVANCE.

16. NUSA 4:24-39, ET SEQ., REQUIRES THAT UPON PERMANENT SITE STABILIZATION AND COMPLETION OF THE CONTRACTOR SHALL APPLY TO THE DISTRICT FOR FINAL COMPLIANCE INSPECTION TO CHECK THAT ALL THE PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES.

17. ANY CONVEYANCE OF THIS PROJECT, OR PORTION THEREOF, PRIOR TO ITS COMPLETION WILL TRANSFER FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CERTIFIED PLAN TO ANY SUBSEQUENT OWNERS. THE DISTRICT MUST BE NOTIFIED IN WRITING OF ANY CHANGE IN OWNERSHIP.

18. A CRUSHED STONE, TIRE CLEANING PAD WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS EXISTS. THE STABILIZED PAD WILL BE INSTALLED ACCORDING TO THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS. THE PAD MUST BE 100 FEET IN LENGTH AND THE STONE MUST BE 1.5 - 4 INCHES IN SIZE, PLACED 12" THICK AND THE FULL WIDTH OF THE ENTRANCE. THE PAD SHALL BE UNDERLAIN WITH A SUITABLE SYNTHETIC FILTER FABRIC AND MAINTAINED. IF A CONSTRUCTION ACCESS IS TO BE USED AS AN EXIT ONTO A MAJOR HIGHWAY, A THIRTY (30) PAVED TRANSITION AREA SHALL BE INSTALLED. CONSTRUCTION ACCESS ONTO INDIVIDUAL LOTS MUST BE STABILIZED WITH 2.5" CRUSHED STONE OR SUBBASE.

19. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.

20. ALL CATCH BASIN INLETS WILL BE PROTECTED ACCORDING TO THE CERTIFIED PLAN.

21. ALL STORM DRAINAGE OUTLETS SHALL BE STABILIZED AS REQUIRED BEFORE THE DISCHARGE POINT BECOMES OPERATION.

22. NATURAL VEGETATION AND SPECIES SHALL BE RETAINED WHERE SPECIFIED ON THE LANDSCAPE PLAN.

23. ADJOINING PROPERTIES SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS ON THE CONSTRUCTION SITE.

24. THE DEVELOPER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

25. IMMEDIATELY AFTER THE COMPLETION OF STRIPPING AND STOCKPILING OF TOPSOIL, THE STOCKPILE MUST BE STABILIZED ACCORDING TO THE STANDARD FOR TEMPORARY VEGETATIVE COVER. STABILIZE TOPSOIL PILE WITH STRAW MULCH FOR PROTECTION IF THE SEASON DOES NOT PERMIT THE APPLICATION AND ESTABLISHMENT OF TEMPORARY SEEDING.

26. ALL SOIL STOCKPILES ARE NOT TO BE LOCATED WITHIN FIFTY (50) FEET OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY AND THE BASE MUST BE PROTECTED WITH SEDIMENT BARRIER.

27. MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT BE CONSTRUCTED STEEPER THAN 3:1 UNLESS OTHERWISE APPROVED BY THE SOIL CONSERVATION DISTRICT.

28. ALL CRITICAL AREAS SUBJECT TO SOIL EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH AT A RATE OF 92 POUNDS PER 1000 SQUARE FEET ACCORDING TO THE NEW JERSEY STANDARDS IMMEDIATELY FOLLOWING ROUGH GRADING.

29. TEMPORARY AND PERMANENT SEEDING MEASURES MUST BE APPLIED ACCORDING TO THE NEW JERSEY STANDARDS, AND MULCHED WITH SALT HAY OR EQUIVALENT AND ANCHORED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS (I.E. PEG AND TWINE, MULCH NETTING OR LIQUID MULCH BINDER)

30. MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT BE CONSTRUCTED STEEPER THAN 3:1 UNLESS OTHERWISE APPROVED BY THE SOIL CONSERVATION DISTRICT.

31. ANY DISTURBED AREA THAT IS TO BE LEFT EXPOSED FOR MORE THAN THIRTY (30) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING AND FERTILIZATION IN ACCORDANCE WITH THE NEW JERSEY STANDARDS AND THEIR RATES SHOULD BE IN ACCORDANCE WITH THE TEMPORARY SEEDING SPECIFICATION. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREAS WILL BE MULCHED WITH SALT HAY OR THE EQUIVALENT AND ANCHORED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS (I.E. PEG AND TWINE, MULCH NETTING OR LIQUID MULCH BINDER).

32. MULCHING IS REQUIRED ON ALL SEEDD AREAS TO ENSURE AGAINST SOIL EROSION BEFORE GRASS IS ESTABLISHED TO PROMOTE EARLIER VEGETATION COVER.

33. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE CONFIRMATION OF LIME, FERTILIZER AND SEED APPLICATION AND RATES OF APPLICATION AT THE REQUEST OF THE SOIL CONSERVATION DISTRICT.

34. ALL VEGETATIVE MATERIAL SHALL BE SELECTED IN ACCORDANCE WITH AMERICAN STANDARDS FOR NURSERY STOCK OF THE AMERICAN ASSOCIATION OF THE NURSEYMEN AND IN ACCORDANCE WITH THE NEW JERSEY STANDARDS.

35. ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA. THE SEDIMENT FILTER SHOULD BE COMPOSED OF A SUITABLE FILTER FABRIC. (SEE DETAIL) THE SEDIMENT FILTER MUST BE CAPABLE OF FILTERING THE SEDIMENT AND BE PLACED SO AS NOT TO CAUSE EROSION OF THE DOWNSTREAM AREA. FIELD PLACEMENT AND USE OF THE STRUCTURE MUST BE APPROVED BY THE DISTRICT PRIOR TO COMMENCEMENT OF DEWATERING ACTIVITIES. THE WATER QUALITY BASIN MUST BE DEWATERED TO NORMAL POOL WITHIN 10 DAYS OF THE DESIGN STORM.

36. DUST IS TO BE CONTROLLED BY AN APPROVED METHOD ACCORDING TO THE NEW JERSEY STANDARDS AND INCLUDE WATERING WITH A SOLUTION OF CALCIUM CHLORIDE AND WATER.

37. METHODS FOR THE MANAGEMENT OF HIGH ACID PRODUCING SOILS SHALL BE IN ACCORDANCE WITH THE NEW JERSEY STANDARDS. HIGH ACID PRODUCING SOILS ARE THOSE FOUND TO CONTAIN IRON SULFIDES OR HAVE A PH OF 4 OR LESS.

WORK HOURS AND NOISE CONTROL

1. CONSTRUCTION HOURS

A. MONDAY THRU FRIDAY: 7:00AM-6:00PM

B. SATURDAY: 8:00AM-4:30PM

C. SUNDAY: NO WORK TO BE PERFORMED.

D. THE HOURS STATED SHALL BE ADHERED TO UNLESS DUE TO WEATHER AND OR SCHEDULE CHANGES. THE CITY OF ABSECON SHALL BE NOTIFIED OF ALL TIME CHANGES.

2. NOISE CONTROL EQUIPMENT TO BE UTILIZED SHALL BE STANDARD EARTH MOVING EQUIPMENT, CRANES, MIXERS, ETC. WHICH MEET STANDARDS ESTABLISHED BY STATE AND FEDERAL LAWS REGARDING THE AMOUNT OF NOISE PRODUCED.

DETAILED CONSTRUCTION SEQUENCE

1. INSTALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES.

A. PLACE STABILIZED CONSTRUCTION ENTRANCE WHERE INDICATED ON PLAN.

B. PLACE SILT FENCE AND INLET PROTECTION FOR EXISTING INLETS WHERE INDICATED ON PLAN.

2. CLEAR AND GRUB CONSTRUCTION AREA.

A. PLACE TOPSOIL STOCKPILE AREAS WHERE INDICATED ON PLANS.

B. EXCAVATE BASINS AND INSTALL FILTER FABRIC IN BOTTOM.

3. ROUGH GRADE PAVEMENT AREA BED AND BUILDING PADS

4. INSTALL UNDERGROUND UTILITIES AND COMMENCE BUILDING CONSTRUCTION

6. INSTALL TEMPORARY INLET PROTECTION.

7. CONSTRUCT CURBING AND SUBBASE FOR PAVEMENT AREAS.

8. CONSTRUCT BASE PAVEMENT COURSE.

9. ESTABLISH FINAL GRADING, PERMANENT VEGETATIVE COVER AND FINAL BASIN CLEAN-UP. ADD K5 SAND MATERIAL TO BASIN BOTTOM.

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.

10. LANDSCAPE AS NECESSARY.

11. CONSTRUCT FINAL PAVEMENT COURSE.

12. REMOVE SOIL CONSERVATION MEASURES WHEN CONSTRUCTION IS COMPLETED AND/OR SITE IS STABILIZED.

13. REQUEST REPORT OF COMPLIANCE FROM THE SOIL CONSERVATION DISTRICT.

TEMPORARY AND PERMANENT STABILIZATION

STABILIZATION COVER SHALL BE ACCOMPLISHED BY THE FOLLOWING METHODS AND MATERIALS:

A. SITE PREPARATION

1) PREPARE SUBGRADE AS NEEDED AND FEASIBLE TO ALLOW USE OF CONVENTIONAL EQUIPMENT FOR TOPSOILING, SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.

2) INSTALL NEEDED SOIL EROSION CONTROL PRACTICES OR MEASURES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

3) THE SUBGRADE SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6 INCHES TO ENHANCE THE ESTABLISHMENT OF VEGETATIVE COVER. IF TESTING INDICATES EXCESSIVE SUBGRADE COMPACTION, THE SUBGRADE SHALL BE DE-COMPACTED TO A DEPTH OF 6 INCHES PRIOR TO THE APPLICATION OF TOPSOIL. THE SUBGRADE SHALL BE SCARIFIED TO A DEPTH OF 6" TO 12" WHERE THERE HAS BEEN EXCESSIVE SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY IN AREAS WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).

4) THE SUBGRADE SHALL BE TESTED TO DETERMINE WHETHER COMPACTION EXCEEDS THE MAXIMUM THRESHOLDS INDICATED FOR THE SIMPLIFIED TESTING METHODS. THE TEST SHALL BE PERFORMED AT ONE-HALF ACRE INTERVALS FOR SITES ONE ACRE OR MORE. FOR SITES LESS THAN ONE ACRE, AT LEAST TWO TESTS ARE REQUIRED REGARDLESS OF THE SIZE. CONTIGUOUS AREAS OF 500 SQUARE FEET OR LESS ARE EXEMPT FROM TESTING OR REMEDIATION. COMPACTION TESTING METHODS SHALL INCLUDE (1) PROBING WIRE TEST, (2) HAND-HELD PENETROMETER TEST, (3) TUBE BULK DENSITY TEST, OR (4) NUCLEAR DENSITY TEST. THE MAXIMUM THRESHOLD FOR THE PROBING WIRE TEST IS DETERMINED IF A 15 GAGE WIRE BENDS WHEN INSERTED INTO THE SUBGRADE TO A DEPTH OF 6 INCHES OR FOR THE PENETROMETER TEST IF THE PRESSURE AT A DEPTH OF 6 INCHES IS 300 PSI OR MORE. IF COMPACTION EXCEEDS THE MAXIMUM THRESHOLD, THE CONTRACTOR SHALL HAVE THE OPTION TO PERFORM EITHER (1) COMPACTION MITIGATION OVER THE ENTIRE MITIGATION AREA, 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.

B. STRIPPING AND STOCKPILING

1) FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND/OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.

2) STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.

3) WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TEST TO BRING THE SOIL PH TO APPROXIMATELY 6.5. IN LIEU OF SOIL TEST, SEE LINE RATE GUIDE IN SEEDBED PREPARATION.

4) A 4 TO 6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.

5) STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE.

6) STOCKPILES OF TOPSOIL SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS FOR PERMANENT OR TEMPORARY STABILIZATION. WEEDS SHOULD NOT BE ALLOWED TO GROW ON STOCKPILES.

C. TOPSOILING - THE CONTRACTOR SHALL PREPARE AREAS TO BE STABILIZED WITH PERMANENT VEGETATIVE COVER BY APPLYING TOPSOIL TO A UNIFORM DEPTH OF 6 INCHES. 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.

TOPSOIL SUBSTITUTES MAY BE UTILIZED ON SITES WITH INSUFFICIENT TOPSOIL FOR ESTABLISHING PERMANENT VEGETATION. 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. 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.

D. SEEDBED PREPARATION - APPLY LIME/STONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY RUTGERS UNIVERSITY SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, THE CONTRACTOR MAY APPLY PULVERIZED DOLOMITIC LIMESTONE AT THE RATE OF 90 POUNDS PER 1000 SQUARE FEET. APPLY 10-20-10 FERTILIZER OR EQUIVALENT AT THE RATE OF 11 POUNDS PER 1000 SQUARE FEET. IN ADDITION, 300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED IN LIEU OF TOPDRESSING. APPLY LIME/STONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDES) AS FOLLOWS:

SOIL TEXTURE TONS / ACRE

| | |
|-------------------------------------|---|
| CLAY, CLAY LOAM & HIGH ORGANIC SOIL | 4 |
| SANDY LOAM, LOAM & SILT LOAM | 3 |
| LOAMY SAND, SAND | 2 |

THE LIME AND FERTILIZER SHALL THEN BE "WORKED" INTO THE SOIL TO A DEPTH OF 4" WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT.

E. TEMPORARY VEGETATION SEEDING - ESTABLISH TEMPORARY VEGETATIVE COVER ON SOILS EXPOSED FOR PERIODS OF TWO TO SIX MONTHS WHICH ARE NOT BEING GRADED, NOT UNDER ACTIVE CONSTRUCTION OR NOT SCHEDULED FOR PERMANENT SEEDING WITHIN 60 DAYS. SEEDING SHALL CONSIST OF PERENNIAL RYEGRASS APPLIED AT THE RATE OF 1 POUND PER 1000 SQUARE FEET DURING COOL SEASON OR WEEPING LOVEGRASS AT 5 LBS. PER ACRE DURING WARM SEASON PLANTING.

F. PERMANENT VEGETATION SEEDING - IMMEDIATELY FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES AT THE SITE, THE CONTRACTOR SHALL STABILIZE WITH PERMANENT VEGETATIVE COVER, ALL EXPOSED AND DISTURBED SOILS.

| | | |
|----------------------------|----------|---------------|
| #15 MIXTURE (LAWN) | LBS/ACRE | LBS/1000 S.F. |
| HARD FESCUE | 130 | 3.00 |
| CHEWING FESCUE | 45 | 1.00 |
| STRONG CREEPING RED FESCUE | 45 | 1.00 |
| PERENNIAL RYEGRASS | 10 | 0.25 |

| | | |
|-----------------------|----------|---------------|
| #11 MIXTURE (SWALE) | LBS/ACRE | LBS/1000 S.F. |
| KENTUCKY BLUEGRASS | 45 | 1.00 |
| TURF-TYPE TALL FESCUE | 22 | 0.50 |

IF HYDROSEEDING IS USED ALL SEEDING RATES SHALL BE INCREASED BY 25% IF SODDING IS USED SEE SOD SPECIFICATIONS.

G. SEEDING DATES - SEEDING DATES FOR VEGETATION SHALL OCCUR BETWEEN MARCH 1 AND APRIL 30 (OPTIMAL PLANTING PERIOD) OR BETWEEN AUGUST 15 AND NOVEMBER 15. IF SEED IS NOT PLANTED WITHIN THESE DATES, THE CONTRACTOR SHALL STABILIZE WITH MULCH AS SPECIFIED ABOVE.

E. MULCHING - THE CONTRACTOR SHALL MULCH ALL NEWLY SEEDD AREAS WITH UNROTTED SMALL GRAIN STRAW OR HAY FREE OF SEEDS AT THE RATE OF 70 TO 90 POUNDS PER 1,000 SQUARE FEET. IT SHALL BE ANCHORED THROUGH THE USE OF THE PEG AND TWINE METHOD. THE PEG AND TWINE METHOD OF MULCH ANCHORING SHALL CONSIST OF DRIVING 8-10 INCH WOODEN PEGS TO WITHIN 2-3 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.

F. SODDING

1) CULTIVATED SOD IS PREFERRED OVER NATIVE SOD. SPECIFY "CERTIFIED SOD", OR OTHER HIGH QUALITY CULTIVATED SOD. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH). SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 10 PERCENT OF THE STRIP. BROKEN PADS OR TORN OR UNEVEN ENDS WILL NOT BE ACCEPTED. FOR DROUGHTY SITES, A SOD OF KENTUCKY 31 TALL FESCUE AND BLUEGRASS IS PREFERRED OVER A STRAIGHT BLUEGRASS SOD. ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS.

2) REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO SOIL CONTACT AND REMOVE ALL OTHER DEBRIS SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLOUDS, LUMPS OR OTHER UNSUITABLE MATERIAL.

3) INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS ABOVE.

4) SOD PLACEMENT:

A) SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.

B) PLACE SOD STRIPS WITH SNUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.

C) ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS.

D) ON SLOPES GREATER THAN 3:1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES, OR SPLIT SHINGLES (8" TO 10" LONG BY 3/4" WIDE).

SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST

LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER- CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.

E) IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.

F) TOPDRESSING - IF SLOW RELEASE NITROGEN (300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT) IS USED IN ADDITION TO SUGGESTED FERTILIZER, THEN A FOLLOW-UP OF TOPDRESSING IS NOT MANDATORY.

FALL INSTALLATION OF SOD WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10-20-10 OR EQUIVALENT AT 400 POUNDS PER ACRE OR 10 POUNDS PER 1000 SQUARE FEET BETWEEN SEPTEMBER 1 AND OCTOBER 15.

MANAGEMENT OF HIGH ACID-PRODUCING SOILS

HIGH ACID-PRODUCING SOILS ARE SOILS WITH A PH OF 4.0 OR LESS OR CONTAIN IRON SULFIDE. HIGH ACID-PRODUCING SOILS MAY BE PRESENT IN UNDISTURBED SOILS AT VARYING DEPTHS, INCLUDING NEAR THE SOIL SURFACE TO EXCAVATIONS OR DEEP DISTURBANCES. ITS PRESENCE ON A SITE MAY BE SIGNIFICANT OR LIMITED IN THE SOIL PROFILE. HIGH ACID- PRODUCING SOILS ARE COMMONLY BLACK, DARK BROWN, GRAY OR GREENISH WITH SILVERY PYRITE OR MARCASITE NUGGETS OR FLAKES. ALTERNATIVELY, SANDY SOILS OR REDDISH, YELLOWISH OR LIGHT TO MEDIUM BROWN SOIL MATERIALS ARE USUALLY FREE OF HIGH ACID-PRODUCING DEPOSITS.

TO PREVENT OR LIMIT EXPOSURE AREA, TIME, AND SPREADING BY EQUIPMENT OR RAINFALL ON- AND OFF-SITE AND TO MINIMIZE EROSION, SEDIMENTATION AND ACID LEACHATE-RELATED DAMAGES, HIGH ACID-PRODUCING SOIL MAY BE EXPOSED DURING EXCAVATION AND LAND GRADING ACTIVITIES, OR MAY BE INTRODUCED IN DREDGED SEDIMENT, SOILS AND SEDIMENT CONTAINING IRON SULFIDE, CHARACTERIZED BY PYRITE OR MARCASITE NUGGETS OR GREENSANDS, ARE CHEMICALLY OXIDIZED WHEN EXPOSED TO AIR, PRODUCING SULFURIC ACID AND RESULT IN SOIL PH LEVELS FALLING TO PH 4.0 AND LOWER. MOST VEGETATION IS INCAPABLE OF GROWTH AT THIS PH LEVEL. ADJACENT LAND AND RECEIVING WATERS WILL BE NEGATIVELY IMPACTED BY THE ACID LEACHATE. CALCIUM-CONTAINING MATERIALS SUCH AS SIDEWALKS, CULVERTS AND OTHER STRUCTURES AND SOME METALLIC MATERIALS ARE ALSO SUSCEPTIBLE TO DEGRADATION. AGRICULTURAL LIMESTONE MATERIALS APPLIED AT RATES OF 8 TONS PER ACRE HAVE RESULTED IN ONLY A TEMPORARY BUFFERING EFFECT, AND "LIMING-ONLY" IS THEREFORE NOT CONSIDERED AN ACCEPTABLE MITIGATION PRACTICE.

METHODS AND MATERIALS OF MANAGING HIGH ACID-PRODUCING SOILS

1. LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH ACID-PRODUCING SOILS ARE ENCOUNTERED.

2. TOPSOIL STRIPPED FROM THE SITE SHALL BE STORED SEPARATELY FROM TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOILS.

3. STOCKPILES OF HIGH ACID-PRODUCING SOIL SHOULD BE LOCATED ON LEVEL LAND TO MINIMIZE ITS MOVEMENT, ESPECIALLY WHEN THIS MATERIAL HAS A HIGH CLAY CONTENT.

4. TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOIL MATERIAL TO BE STORED MORE THAN 48 HOURS SHOULD BE COVERED WITH PROPERLY ANCHORED, HEAVY GRADE SHEETS OF POLYETHYLENE WHERE POSSIBLE. IF NOT POSSIBLE, STOCKPILES SHALL BE COVERED WITH A MINIMUM OF 3 TO 6 INCHES OF WOOD CHIPS TO MINIMIZE EROSION OF THE STOCKPILE. SILT FENCE SHALL BE INSTALLED AT THE TOE OF THE SLOPE TO CONTAIN MOVEMENT OF THE STOCKPILED MATERIAL. TOPSOIL SHALL NOT BE APPLIED TO THE STOCKPILES TO PREVENT TOPSOIL CONTAMINATION WITH HIGH ACID-PRODUCING SOIL.

5. HIGH ACID-PRODUCING SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE (INCLUDING BORROW FROM CUTS OR DREDGED SEDIMENT) SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS PER ACRE (OR 450 POUNDS PER 1,000 SQUARE FEET OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12 INCHES OF SETTLED SOIL WITH A PH OF 5.0 OR MORE EXCEPT AS FOLLOWS:

A. AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF 24 INCHES OF SOIL WITH A PH OF 5 OR MORE.

B. DISPOSAL AREAS SHALL NOT BE LOCATED WITHIN 24 INCHES OF ANY SURFACE OF A SLOPE OR BANK, SUCH AS BERMS, STREAM BANKS, DITCHES, AND OTHERS, TO PREVENT POTENTIAL LATERAL LEACHING DAMAGES.

6. EQUIPMENT USED FOR MOVEMENT OF HIGH ACID-PRODUCING SOILS SHOULD BE CLEANED AT THE END OF EACH DAY TO PREVENT SPREADING OF HIGH ACID-PRODUCING SOIL MATERIALS TO OTHER PARTS OF THE SITE, INTO STREAMS OR STORMWATER CONVEYANCES, AND TO PROTECT MACHINERY FROM ACCELERATED RUSTING.

7. NON-VEGETATIVE EROSION CONTROL PRACTICES (STONE TRACKING PADS, STRATEGICALLY PLACED LIMESTONE CHECK DAM, SEDIMENT BARRIER, WOOD CHIPS) SHOULD BE INSTALLED TO LIMIT THE MOVEMENT OF HIGH ACID-PRODUCING SOILS FROM, AROUND, OR OFF THE SITE.

8. FOLLOWING BURIAL OR REMOVAL OF HIGH ACID-PRODUCING SOIL, TOPSOILING AND SEEDING OF THE SITE (SEE TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, AND TOPSOILING), MONITORING MUST CONTINUE FOR A MINIMUM OF 6 MONTHS TO ENSURE THERE IS ADEQUATE STABILIZATION AND THAT NO HIGH ACID-PRODUCING SOIL PROBLEMS EMERGE. IF PROBLEMS STILL EXIST, THE AFFECTED AREA MUST BE TREATED AS INDICATED ABOVE TO CORRECT THE PROBLEM.

DUST CONTROL:

DUST CONTROL SHALL BE ACCOMPLISHED BY THE METHODS DESCRIBED BELOW.

| MATERIAL | WATER DILUTION | TYPE OF NOZZLE | APPLY GALLONS/AC |
|---|--|----------------|------------------|
| ANIONIC ASPHALT EMULSION | 7:1 | COARSE SPRAY | 1200 |
| LATEX EMULSION | 12.5: 1 | FINE SPRAY | 235 |
| RESIN IN WATER | 4:1 | FINE SPRAY | 300 |
| POLYACRYLAMIDE (PAM) SPRAY ON POLYACRYLAMIDE (PAM) DRY SPREAD | APPLY ACCORDING TO MANUFACTURES INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD, P.26-1 | | |
| ACIDULATED SOY BEAN SOAP STICK | NONE | COARSE SPRAY | 1200 |

TILLAGE: TO ROUGHEN SURFACE AND BRING CLOUDS 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 PLACED 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 SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.

CALCIUM CHLORIDE: SHALL BE IN THE FORM OF LOOSE, DRY GRANULES 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

EXISTING UTILITY INFORMATION SHOWN ON THE PLANS IS FURNISHED BY THE UTILITY COMPANIES AND/OR THE SURVEYOR AND THE ACCURACY THEREOF IS NOT THE RESPONSIBILITY OF MOTT WATKINS ASSOCIATES LLC. IT IS THE RESPONSIBILITY OF THE OWNERS AND/OR CONTRACTOR TO CALL

LANDSCAPE SPECIFICATIONS

1. QUALITY OF WORK AND MATERIALS

A. THE LANDSCAPE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK IN ACCORDANCE WITH THESE SPECIFICATIONS, APPROVED OR FINAL DRAWINGS, AND INSTRUCTIONS PROVIDED BY THE PROJECT LANDSCAPE ARCHITECT, MUNICIPAL OFFICIALS, OR OWNER/OWNER'S REPRESENTATIVE. ALL WORK COMPLETED AND MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH THE INTENTION OF THE SPECIFICATIONS, DRAWINGS, AND INSTRUCTIONS AND EXECUTED WITH THE STANDARD LEVEL OF CARE FOR THE LANDSCAPE INDUSTRY.

2. WEATHER CONDITIONS

A. WORK MUST BE CARRIED OUT ONLY DURING WEATHER CONDITIONS FAVORABLE TO LANDSCAPE CONSTRUCTION AND TO THE HEALTH AND WELFARE OF PLANTS. THE SUITABILITY OF SUCH WEATHER CONDITIONS SHALL BE DETERMINED BY THE PROJECT LANDSCAPE ARCHITECT OR GOVERNING MUNICIPAL OFFICIAL.

3. SAMPLES

A. IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR, BEFORE ORDERING OR PURCHASING MATERIALS, TO PROVIDE SAMPLES OF THOSE MATERIALS TO THE PROJECT LANDSCAPE ARCHITECT OR GOVERNING MUNICIPAL OFFICIAL FOR APPROVAL, IF SO REQUESTED.

B. THE LANDSCAPE CONTRACTOR IS TO SUBMIT CERTIFICATION TAGS FROM TREES, SHRUBS AND SEED VERIFYING TYPE AND PURITY.

4. NOTIFICATION OF DELIVERY

A. UNLESS OTHERWISE AUTHORIZED BY THE PROJECT LANDSCAPE ARCHITECT OR GOVERNING MUNICIPAL OFFICIAL, THE LANDSCAPE CONTRACTOR SHALL PROVIDE NOTICE AT LEAST FORTY-EIGHT HOURS (48 HRS.) IN ADVANCE OF THE ANTICIPATED DELIVERY DATE OF ANY PLANT MATERIALS TO THE PROJECT SITE. A LEGIBLE COPY OF THE INVOICE, SHOWING VARIETIES AND SIZES OF MATERIALS INCLUDED FOR EACH SHIPMENT SHALL BE FURNISHED TO THE PROJECT LANDSCAPE ARCHITECT, OR GOVERNING MUNICIPAL OFFICIAL.

B. THE PROJECT LANDSCAPE ARCHITECT OR GOVERNING MUNICIPAL OFFICIAL RESERVES THE RIGHT TO INSPECT AND REJECT PLANTS AT ANY TIME AND AT ANY PLACE.

5. PROTECTION OF EXISTING VEGETATION

A. BEFORE COMMENCING WORK, ALL EXISTING VEGETATION WHICH COULD BE IMPACTED AS A RESULT OF THE PROPOSED CONSTRUCTION ACTIVITIES MUST BE PROTECTED FROM DAMAGE BY THE INSTALLATION OF TREE PROTECTION FENCING. FENCING SHALL BE LOCATED IN THE DRIP-LINE OR LIMIT OF DISTURBANCE AS DEPICTED WITHIN THE APPROVED OR FINAL PLAN SET, ESTABLISHING THE TREE PROTECTION ZONE. FENCE INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE PROTECTION FENCE DETAIL." NO WORK MAY BEGIN UNTIL THIS REQUIREMENT IS FULFILLED. THE FENCING SHALL BE INSPECTED REGULARLY BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

B. IN ORDER TO AVOID DAMAGE TO ROOTS, BARK OR LOWER BRANCHES, NO VEHICLE, EQUIPMENT, DEBRIS, OR OTHER MATERIALS SHALL BE DRIVEN, PARKED OR PLACED WITHIN THE TREE PROTECTION ZONE. ALL ON-SITE CONTRACTOR'S SHALL USE ANY AND ALL PRECAUTIONARY MEASURES WHEN PERFORMING WORK AROUND TREES, WALKS, PAVEMENTS, UTILITIES, AND ANY OTHER FEATURES EITHER EXISTING OR PREVIOUSLY INSTALLED, UNDER THIS CONTRACT.

C. IN RARE INSTANCES WHERE EXCAVATING, FILL, OR GRADING IS REQUIRED WITHIN THE DRIP-LINE OF TREES TO REMAIN, THE WORK SHALL BE PERFORMED AS FOLLOWS:

1. TRENCING: WHEN TRENCING OCCURS AROUND TREES TO REMAIN, THE TREE ROOTS SHALL NOT BE CUT, BUT THE TRENCH SHALL BE TUNNELED UNDER OR AROUND THE ROOTS BY CAREFUL HAND DIGGING AND WITHOUT INJURY TO THE ROOTS. NO ROOTS, LIMBS, OR WOODS ARE TO HAVE ANY PAINT OR MATERIAL APPLIED TO ANY SURFACE.

2. RAISING GRADES: WHEN THE GRADE AT AN EXISTING TREE IS BELOW THE NEW FINISHED GRADE, AND FILL NOT EXCEEDING 6 INCHES (6") IS REQUIRED, CLEAN, WASHED GRAVEL FROM ONE TO TWO INCHES (1" - 2") IN SIZE SHALL BE PLACED DIRECTLY AROUND THE TREE TRUNK. THE GRAVEL SHALL EXTEND OUT FROM THE TRUNK ON ALL SIDES A MINIMUM OF 18 INCHES (18") AND FINISH APPROXIMATELY TWO INCHES (2") ABOVE THE FINISH GRADE AT TREE. INSTALL GRAVEL BEFORE ANY EARTH FILL IS PLACED. NEW EARTH FILL SHALL NOT BE LEFT IN CONTACT WITH THE TRUNK OF ANY TREE REQUIRING FILL. WHERE FILL EXCEEDING 6 INCHES (6") IS REQUIRED, A DRY LAID TREE WELL SHALL BE CONSTRUCTED. IF APPLICABLE, TREE WELL INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE WELL DETAIL."

3. LOWERING GRADES: EXISTING TREES LOCATED IN AREAS WHERE THE NEW FINISHED GRADE IS TO BE LOWERED, SHALL HAVE RE-GRADING WORK DONE BY HAND TO THE INDICATED ELEVATION, NO GREATER THAN SIX INCHES (6"). ROOTS SHALL BE CUT CLEANLY THREE INCHES (3") BELOW FINISHED GRADE UNDER THE DIRECTION OF A LICENSED ARBORIST. WHERE CUT EXCEEDING 6 INCHES (6") IS REQUIRED, A DRY LAID RETAINING WALL SHALL BE CONSTRUCTED. IF APPLICABLE, THE RETAINING WALL INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE RETAINING WALL DETAIL."

6. SOIL AMENDMENTS

A. LANDSCAPE CONTRACTOR SHALL OBTAIN A SOIL TEST OF THE IN-SITU TOPSOIL BY A CERTIFIED SOIL LABORATORY PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL ALLOW FOR A TWO WEEK TURNAROUND TIME FROM SUBMITTAL OF SAMPLE TO NOTIFICATION OF RESULTS.

B. BASED ON SOIL TEST RESULTS, ADJUST THE RATES OF LIME AND FERTILIZER THAT SHALL BE MIXED INTO THE TOP SIX INCHES (6") OF TOPSOIL. THE LIME AND FERTILIZER RATES PROVIDED WITHIN THE "SEED SPECIFICATION" OR "SOD SPECIFICATION" IS APPROXIMATE AND FOR BIDDING PURPOSES ONLY. IF ADDITIONAL AMENDMENTS ARE NECESSARY, ADJUST THE TOPSOIL AS FOLLOWS:

MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM.

MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

7. TOPSOIL

A. TOPSOIL SHALL BE FRIABLE, LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONE, AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSE CHEMICAL OR PHYSICAL CHARACTERISTICS THAT MAY BE HARMFUL TO PLANT GROWTH. OBTAINED FROM A WELL-DRAINED ARABLE SITE, FREE FROM ALL CLAY, LUMPS, COARSE SANDS, STONES, PLANTS, ROOTS, STICKS, AND OTHER FOREIGN MATERIAL GREATER THAN ONE INCH (1").

B. TOPSOIL SHALL HAVE A PH RANGE OF 5.0-7.0 (APPROXIMATELY 6.5) AND SHALL HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75% AND CONTAIN LESS THAN 6% ORGANIC MATTER BY WEIGHT.

C. OBTAIN TOPSOIL ONLY FROM LOCAL SOURCES OR FROM AREAS HAVING SIMILAR SOIL CHARACTERISTICS TO THAT FOUND AT THE PROJECT SITE.

D. CONTRACTOR SHALL PROVIDE A SIX INCH (6") DEEP LAYER OF TOPSOIL IN ALL PLANTING AREAS. TOPSOIL SHALL BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN SOIL CONDITIONS.

8. FINISHED GRADING

A. UNLESS OTHERWISE NOTED IN THE CONTRACT, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBED AREA OF THE SITE.

B. LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE SUB-GRADE ELEVATION MEETS THE FINISHED GRADE ELEVATION (LESS THE REQUIRED TOPSOIL), IN ACCORDANCE WITH THE APPROVED OR FINAL GRADING PLAN. THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION.

C. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THE APPROVED OR FINAL CONSTRUCTION SET UNLESS OTHERWISE DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT OR MUNICIPAL OFFICIAL.

D. ALL PLANTING AND LAWN AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW A FREE FLOW OF SURFACE WATER.

9. LAWN (SEED OR SOD)

A. SEED MIXTURE SHALL BE FRESH, CLEAN, NEW CROP SEED. SOD SHALL BE STRONGLY ROOTED, UNIFORM IN THICKNESS, AND FREE OF WEEDS, DISEASE, AND PESTS.

B. SEED OR SOD SHALL BE PURCHASED FROM A RECOGNIZED DISTRIBUTOR AND SHALL BE COMPOSED OF THE MIX OR BLEND WITHIN THE PROVIDED "SEED SPECIFICATION" OR "SOD SPECIFICATION", AS PER THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY, 7TH EDITION, JANUARY 2014, REVISED JULY 2017.

C. REFERENCE LANDSCAPE PLAN FOR AREAS TO BE SEEDDED OR LAID WITH SOD.

D. SEEDING SHALL NOT BE PERFORMED IN WINDY WEATHER. IF THE SEASON OF THE PROJECT COMPLETION PROHIBITS PERMANENT STABILIZATION, TEMPORARY STABILIZATION SHALL BE PROVIDED IN ACCORDANCE WITH THE "TEMPORARY SEEDING SPECIFICATION."

E. PROTECT NEW LAWN AREAS AGAINST TRESPASSING WHILE THE SEED IS GERMINATING. FURNISH AND INSTALL FENCES, SIGNS, BARRIERS OR ANY OTHER NECESSARY TEMPORARY PROTECTIVE DEVICES. DAMAGE RESULTING FROM TRESPASSING, EROSION, WASHOUT, SETTLEMENT OR OTHER CAUSES SHALL BE REPAIRED BY THE LANDSCAPE CONTRACTOR AT HIS EXPENSE. REMOVE ALL FENCES, SIGNS, BARRIERS OR OTHER TEMPORARY PROTECTIVE DEVICES ONCE LAWN HAS BEEN ESTABLISHED.

10. PLANT QUALITY

A. ALL PLANT MATERIAL SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014) OR LATEST REVISION AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.

B. IN ALL CASES, BOTANICAL NAMES LISTED WITHIN THE APPROVED OR FINAL PLANT LIST SHALL TAKE PRECEDENCE OVER COMMON NAMES.

C. ALL PLANTS SHALL BE OF SELECTED SPECIMEN QUALITY, EXCEPTIONALLY HEAVY, TIGHTLY KNIT, SO TRAINED OR FAVORED IN THEIR DEVELOPMENT AND APPEARANCE AS TO BE SUPERIOR IN FORM, NUMBER OF BRANCHES, COMPACTNESS AND SYMMETRY. ALL PLANTS SHALL HAVE A NORMAL HABIT OR SOUND, HEALTHY, VIGOROUS PLANTS WITH WELL DEVELOPED ROOT SYSTEM. PLANTS SHALL BE FREE OF DISEASE, INSECT PESTS, EGGS OR LARVAE.

THE HEALTHY DEVELOPMENT OF THE PLANT. NO PLANT SHALL BE ACCEPTED WHEN THE BALL OF EARTH SURROUNDING ITS ROOTS HAS BEEN BADLY CRACKED OR BROKEN PREPARATORY TO OR DURING THE PROCESS OF PLANTING. THE BALLS SHALL REMAIN INTACT DURING ALL OPERATIONS. ALL PLANTS THAT CANNOT BE PLANTED AT ONCE MUST BE HEeled-IN BY SETTING IN THE GROUND AND COVERING THE BALLS WITH SOIL OR MULCH AND THEN WATERING. HEEL BURLAP AND TWINE IS PREFERABLE TO TREATED. IF TREATED BURLAP IS USED, ALL TWINE IS TO BE CUT FROM AROUND THE TRUNK AND ALL BURLAP IS TO BE REMOVED.

H. UNLESS SPECIFICALLY NOTED AS MULTI-STEM, THE TRUNK OF EACH TREE SHALL BE A SINGLE TRUNK GROWING FROM A SINGLE CROWN OF ROOTS. NO PART OF THE TRUNK SHALL BE CONSPICUOUSLY CROOKED AS COMPARED WITH NORMAL TREES OF THE SAME VARIETY.

1. PLANTS TRANSPORTED TO THE PROJECT IN OPEN VEHICLES SHALL BE COVERED WITH TAPPS OR OTHER SUITABLE COVERS SECURELY FASTENED TO THE BODY OF THE VEHICLE TO PREVENT INJURY TO THE PLANTS. CLOSED VEHICLES SHALL BE ADEQUATELY VENTILATED TO PREVENT OVERHEATING OF THE PLANTS. EVIDENCE OF INADEQUATE PROTECTION FOLLOWING DIGGING, CARELESSNESS WHILE IN TRANSIT, OR IMPROPER HANDLING OR STORAGE SHALL BE CAUSE FOR REJECTION OF PLANT MATERIAL. ALL PLANTS SHALL BE KEPT MOIST, FRESH, AND PROTECTED. SUCH PROTECTION SHALL ENCOMPASS THE ENTIRE PERIOD DURING WHICH THE PLANTS ARE IN TRANSIT, BEING HANDLED, OR ARE IN TEMPORARY STORAGE.

11. PLANT MEASUREMENTS

A. PLANTS SHALL BE MEASURED WHEN BRANCHES ARE IN THEIR NORMAL POSITION.

B. SHRUBS SHALL MEET THE REQUIREMENTS FOR SPREAD, HEIGHT OR CONTAINER SIZE STATED IN THE APPROVED OR FINAL PLANT LIST. THE MEASUREMENTS ARE TO BE TAKEN FROM THE GROUND LEVEL TO THE AVERAGE HEIGHT OF THE SHRUB AND NOT TO THE LONGEST BRANCH.

C. CALIPER MEASUREMENTS FOR NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE NATURAL GROUND LEVEL FOR TREES UP TO FOUR INCHES (4") IN CALIPER, AND AT A POINT 12 INCHES (12") ABOVE THE NATURAL GROUND LEVEL FOR TREES EXCEEDING FOUR INCHES (4") IN CALIPER.

D. THE MEASUREMENTS SPECIFIED ARE THE MINIMUM SIZE ACCEPTABLE AND, WHERE PRUNING IS REQUIRED, ARE THE MEASUREMENTS AFTER PRUNING.

12. PLANTING OPERATIONS

A. THE LANDSCAPE CONTRACTOR SHALL PROVIDE SUFFICIENT TOOLS AND EQUIPMENT REQUIRED TO CARRY OUT THE PLANTING OPERATIONS.

B. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE CORRESPONDING LANDSCAPE PLAN AND PLANTING DETAILS.

C. LANDSCAPE CONTRACTOR SHALL MAKE BEST EFFORT TO INSTALL PLANTINGS ON THE SAME DAY AS DELIVERY. PLANTS THAT REMAIN UNPLANTED FOR A PERIOD OF TIME GREATER THAN THREE (3) DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH AND WATERED AS REQUIRED TO PRESERVE ROOT MOISTURE.

D. NO PLANT MATERIAL SHALL BE PLANTED IN MUDDY OR FROZEN SOIL.

E. PLANTS WITH INJURED ROOTS OR BRANCHES SHALL BE PRUNED PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY DISEASED OR INJURED PLANTS SHALL BE REMOVED.

F. IF ROCK OR OTHER UNDERGROUND OBSTRUCTION IS ENCOUNTERED, THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO RELOCATE OR ENLARGE PLANTING PITS OR DELETE PLANT MATERIAL FROM THE CONTRACT.

G. INSTALLATION OF PLANT MATERIAL WITHIN SIGHT TRIANGLES IS DISCOURAGED. IF PLANTS MUST BE PLANTED WITHIN SIGHT TRIANGLES, TREES SHALL BE LIMBED AND MAINTAINED TO A HEIGHT OF EIGHT FEET (8') ABOVE GRADE, AND SHRUBS, GROUNDS, PERENNIALS, AND ANNUALS SHALL BE MAINTAINED TO A HEIGHT NOT TO EXCEED TWO FEET (2') ABOVE GRADE UNLESS OTHERWISE NOTED OR SPECIFIED BY THE GOVERNING MUNICIPALITY OR AGENCY.

H. INSTALLATION SHALL OCCUR DURING THE FOLLOWING SEASONS:

PLANTS (MARCH 15 - DECEMBER 15)

LAWNS (MARCH 15 - JUNE 15 OR SEPTEMBER 1 - DECEMBER 1)

I. THE FOLLOWING TREES ARE SUSCEPTIBLE TO TRANSPLANT SHOCK AND SHALL NOT BE PLANTED DURING THE FALL SEASON (STARTING SEPTEMBER 15):

| | | |
|--------------------------|---------------------------|--------------------------------------|
| ABIES CONCOLOR | CORNUS VARIETIES | OSTRYA VIRGINIANA |
| ACER BURGERIANUM | CRATAEGUS VARIETIES | PINUS NIGRA |
| ACER FREEMANII | CUPRESSOCYPARIS LEVLANDII | PLATANUS VARIETIES |
| ACER RUBRUM | FAGUS VARIETIES | POPULUS VARIETIES |
| ACER SACCHARINUM | HALESIA VARIETIES | PRUNUS VARIETIES |
| ALNUS VARIETIES | ILEX X FOSTERII | PYRUS VARIETIES |
| CARPINUS VARIETIES | ILEX NELLIE STEVENS | QUERCUS VARIETIES (NOT Q. PALUSTRIS) |
| CEDRUS DEODARA | ILEX OPACA | SALIX WEeping VARIETIES |
| CELTIS VARIETIES | JUNIPERUS VIRGINIANA | SORBUS VARIETIES |
| CORDYLOPHYLLUM VARIETIES | KOELREUTERIA PANICULATA | TAXODIUM VARIETIES |
| CERCIS CANADENSIS | LIQUIDAMBAR VARIETIES | TAXUS B. REPANDENS |
| CORNUS VARIETIES | LIRIODENDRON VARIETIES | TILIA TOMENTOSA VARIETIES |
| CRATAEGUS VARIETIES | MALUS IN LEAF | ULMUS PARVIFOLIA VARIETIES |
| | NYSSA SYLVATICA | ZELKOVA VARIETIES |

13. PLANT SUBSTITUTIONS

A. THE LANDSCAPE CONTRACTOR SHALL MAKE HIS BEST EFFORT TO LOCATE THE PLANT MATERIAL SPECIFIED ON THE APPROVED OR FINAL PLANT LIST.

B. IF A PLANT IS UNATTAINABLE OR ON THE HILL DIGGING HAZARD LIST AN EQUIVALENT SPECIES OF THE SAME SIZE MAY BE REQUESTED FOR SUBSTITUTION OF THE ORIGINAL PLANT.

C. ALL SUBSTITUTIONS SHALL BE APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR MUNICIPAL OFFICIAL PRIOR TO ORDERING AND INSTALLATION.

14. MULCH

A. DOUBLE SHREDDED HARDWOOD MULCH OR APPROVED EQUAL SHALL BE USED AS A FOUR INCH (4") TOP DRESSING IN ALL SHRUB PLANTING BEDS AND AROUND ALL TREES PLANTED BY LANDSCAPE CONTRACTOR. GROUND COVER, PERENNIAL, AND ANNUAL PLANTING BEDS SHALL BE MULCHED WITH A TWO INCH (2") TOP DRESSING. SINGLE TREES OR SHRUBS SHALL BE MULCHED TO AVOID CONTACT WITH TRUNK OR PLANT STEM. MULCH SHALL BE OF SUFFICIENT CHARACTER AS NOT TO BE EASILY DISPLACED BY WIND OR WATER RUNOFF.

15. IRRIGATION

A. LANDSCAPE CONTRACTOR SHALL WATER NEW PLANTINGS FROM TIME OF INSTALL AND THROUGHOUT REQUIRED 90-DAY MAINTENANCE PERIOD UNTIL PLANTS ARE ESTABLISHED. IF ON-SITE WATER IS NOT AVAILABLE AT THE PROJECT LOCATION, THE LANDSCAPE CONTRACTOR SHALL FURNISH IT BY MEANS OF A WATERING TRUCK OR OTHER ACCEPTABLE MEANS.

B. THE QUANTITY OF WATER APPLIED AT ONE TIME SHALL BE SUFFICIENT TO PENETRATE THE SOIL TO A MINIMUM OF EIGHT INCHES (8") IN SHRUB BEDS AND SIX INCHES (6") IN TURF AREAS AT A RATE WHICH WILL PREVENT SATURATION OF THE SOIL. (A MINIMUM OF 1/2 INCH APPLIED UP TO TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED).

C. IF AN AUTOMATIC IRRIGATION SYSTEM HAS BEEN INSTALLED, IT CAN BE USED FOR WATERING PLANT MATERIAL. HOWEVER, FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY OF PLANT HEALTH AND ESTABLISHMENT.

16. CLEAN UP

A. DURING THE COURSE OF CONSTRUCTION/PLANT INSTALLATION, EXCESS AND WASTE MATERIALS SHALL BE CONTINUOUSLY AND PROMPTLY REMOVED AT THE END OF EACH WORK DAY. ALL DEBRIS, MATERIALS, AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF AND ALL PAVED AREAS SHALL BE CLEANED.

B. THE LANDSCAPE CONTRACTOR SHALL DISPOSE OF ALL RUBBISH AND EXCESS SOIL AT HIS EXPENSE TO AN OFF-SITE LOCATION AS APPROVED BY THE LOCAL MUNICIPALITY.

17. GUARANTEE

TWO YEARS

A. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF FROM THE DATE OF FINAL ACCEPTANCE (IE: PERFORMANCE BOND RELEASE), AFTER WHICH THE PLANT MATERIAL SHALL BE PERMANENTLY MAINTAINED IN ACCORDANCE WITH SECTION 181-403.06.F.11.D. LANDSCAPE CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND IN THE AMOUNT OF 10% OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND ONCE FINAL ACCEPTANCE HAS BEEN GRANTED BY THE PROJECT LANDSCAPE ARCHITECT, MUNICIPAL OFFICIAL, OR OWNER/OWNER'S REPRESENTATIVE.

B. THE LANDSCAPE CONTRACTOR SHALL REMOVE AND REPLACE DYING, DEAD, OR DEFECTIVE PLANT MATERIAL AT HIS EXPENSE. THE LANDSCAPE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS COMPANY'S OPERATIONS.

C. ALL REPLACEMENT PLANTS SHALL BE OF THE SAME SPECIES AND SIZE AS SPECIFIED ON THE APPROVED OR FINAL PLANT LIST. REPLACEMENTS RESULTING FROM REMOVAL, LOSS, OR DAMAGE DUE TO OCCUPANCY OF THE PROJECT IN ANY PART, WANDALISM, PHYSICAL DAMAGE BY ANIMALS, VEHICLES, ETC., AND LOSSES DUE TO CURTAILMENT OF WATER BY LOCAL AUTHORITIES SHALL BE APPROVED AND PAID FOR BY THE OWNER.

18. LANDSCAPE MAINTENANCE

A. A 90-DAY MAINTENANCE PERIOD SHALL BEGIN IMMEDIATELY AFTER ALL PLANTS HAVE BEEN SATISFACTORILY INSTALLED.

B. MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO, REPLACING MULCH THAT HAS BEEN DISPLACED BY EROSION OR OTHER MEANS, REPAIRING AND RESHAPING WATER RINGS OR SAUCERS, MAINTAINING STAKES AND GUYs IF ORIGINALLY REQUIRED, WATERING WHEN NEEDED OR DIRECTED, WEEDING, PRUNING, SPRAYING, FERTILIZING, MOWING THE LAWN, AND PERFORMING ANY OTHER WORK REQUIRED TO KEEP THE PLANTS IN A HEALTHY CONDITION.

SEEDING SPECIFICATIONS

1. PRIOR TO SEEDING, MIX TOP 6" LAYER OF TOPSOIL WITH FERTILIZER AND LIME. 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.

2. 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 DONE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.

3. 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 PREPARATION.

4. TOPSOIL SHALL BE TILLED, FINE GRADED, AND RAKED FREE OF ALL DEBRIS LARGER THAN 1" IN DIAMETER. ALL LAWN AREAS SHALL BE SLOPED TO DRAIN OR PER THE APPROVED GRADING PLAN.

5. CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS AND IMPLEMENT AS REQUIRED PRIOR TO APPLICATION OF SEED.

6. GENERAL LOW MAINTENANCE SEED MIX (#15)

| SEED MIXTURE | LBS/ACRE | LBS/1,000 S.F. | OPTIMAL PLANTING DATES |
|----------------------------|----------|----------------|------------------------|
| HARD FESCUE | 130 | 3 | ZONE 7A = 2/1-4/30 |
| CHEWINGS FESCUE | 45 | 1 | 8/15-10/30 |
| STRONG CREEPING RED FESCUE | 45 | 1 | |
| PERENNIAL RYEGRASS | 10 | .25 | |

MAINTENANCE LEVEL

(B) PERIODIC MOWING (4-7 DAYS), OCCASIONAL FERTILIZATION, LIME AND WEED CONTROL

(C) FREQUENT MOWING (7-14 DAYS), OCCASIONAL FERTILIZATION AND LIME

(D) INFREQUENT OR NO MOWING, FERTILIZATION AND LIME THE FIRST YEAR OF ESTABLISHMENT

7. SEED SHALL BE APPLIED IN TWO DIRECTIONS AT RIGHT ANGLES TO EACH OTHER. ONCE APPLIED, FIRM THE SOIL WITH A CORRUGATED LAWN ROLLER TO PROMOTE SEED-TO-SOIL CONTACT.

8. APPLY UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, OR SALT HAY TO ALL SEEDED AREAS AT THE RATE OF 1 1/2 - 2 TONS PER ACRE OR 70-90 POUNDS PER 1,000 S.F. SPREAD MULCH SO THAT APPROXIMATELY 85% OF THE SOIL SURFACE IS COVERED. ANCHORING OF MULCH SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE ACCOMPLISHED BY ONE OF THE FOLLOWING METHODS: PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH-BINDER.

9. IRRIGATE NEWLY SEEDDED AREAS WITH A MINIMUM OF 1/4 INCH OF WATER TWICE A DAY (NOT DURING PERIODS OF INTENSE SUN) UNTIL VEGETATION IS WELL ESTABLISHED.

SPACING "D" ROW "A"

| | |
|----------|--------|
| 6" O.C. | 5.20" |
| 8" O.C. | 6.93" |
| 10" O.C. | 8.66" |
| 12" O.C. | 10.40" |
| 15" O.C. | 13.00" |
| 18" O.C. | 15.60" |
| 24" O.C. | 20.80" |
| 30" O.C. | 26.00" |
| 36" O.C. | 30.00" |

SPACING CHART

NOT TO SCALE

PLANTED ON CENTER (SEE SPACING CHART)

GROUND COVER/PERENNIAL/ANNUAL PLANTING DETAIL

NOT TO SCALE

NOTES:

1. THOROUGHLY SOAK THE GROUND COVER ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.

2. SOIL AMENDMENTS:

*MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM

*MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX

3. ALL GROUND COVER AREAS SHALL BE TREATED WITH A PRE-EMERGENT PER MANUFACTURER'S SPECIFICATIONS

2" DOUBLE SHREDDED HARDWOOD MULCH (DO NOT PLACE MULCH AGAINST THE BASE OF THE PLANT)

GENTLY PULL ROOTS AWAY FROM TOPSOIL MASS WITH FINGERS

BACKFILL SOIL

*1 PART SOIL AMENDMENT (BASED ON SOIL TEST)

*3 PARTS NATIVE TOPSOIL

UNDISTURBED SUBGRADE

ROPEs AT TOP OF BALL SHALL BE CUT AND REMOVED. FOLD BACK TOP 1/3 OF BURLAP. ALL NON-BIODEGRADABLE MATERIAL SHALL BE REMOVED.

HOLE SHALL BE 3 TIMES THE WIDTH OF THE ROOT BALL

6" WIDE SAUCER MIN.

6" WIDE SAUCER MIN.

4" DOUBLE SHREDDED HARDWOOD MULCH (DO NOT PLACE MULCH AGAINST THE BASE OF THE PLANT)

CONTAINER-GROWN PLANT WITH ROOTS PULLED OUT OF BALL

BACKFILL SOIL SHALL BE SITE SOIL ONLY (NO FERTILIZER TO BE ADDED TO SHRUB PIT)

UNDISTURBED SUBGRADE

SOIL SURFACE ROUGHENED TO BIND WITH BACKFILL SOIL.

REFERENCES ARCHITECTURAL GRAPHIC STANDARDS COPYRIGHT 2000

DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL

NOT TO SCALE

NOTES:

1. FOR CONTAINER-GROWN SHRUBS, USE FINGERS OR SMALL HAND TOOL TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.

2. THOROUGHLY SOAK THE SHRUB ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.

3. SOIL AMENDMENTS:

*MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM

*MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX

NOTES:

1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER

2. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.

3. SOIL AMENDMENTS:

*MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM

*MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX

TYPICAL STAKING INSTALLATION: STAKING, HOSES, AND WIRE TO BE REMOVED AFTER ONE YEAR

4" DOUBLE SHREDDED HARDWOOD MULCH (DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK)

HOLE SHALL BE 3 TIMES THE WIDTH OF THE ROOT BALL

ROPEs AT TOP OF BALL SHALL BE CUT AND REMOVED. FOLD BACK TOP 1/3 OF BURLAP. ALL NON-BIODEGRADABLE MATERIAL SHALL BE REMOVED.

UNDISTURBED SUBGRADE

DIG WIDE, SHALLOW HOLE WITH TAPERED SIDES

6" WIDE SAUCER MIN.

6" WIDE SAUCER MIN.

4" DOUBLE SHREDDED HARDWOOD MULCH (DO NOT PLACE MULCH AGAINST THE BASE OF THE PLANT)

CONTAINER-GROWN PLANT WITH ROOTS PULLED OUT OF BALL

BACKFILL SOIL SHALL BE SITE SOIL ONLY (NO FERTILIZER TO BE ADDED TO TREE PIT)

4-6" DEEPER THAN ROOT BALL

TAMP SOIL SOLIDLY AROUND BASE OF ROOT BALL

SET ROOT BALL ON FIRM PAD IN BOTTOM OF HOLE

THE CENTRAL LEADER OF ALL SHADE TREES SHALL NOT BE PRUNED. ANY TREES WITH DAMAGED, BROKEN, OR MULTIPLE LEADERS WILL BE REJECTED.

SET ROOT BALL FLUSH TO GRADE OR SEVERAL INCHES HIGHER IN POORLY DRAINING SOILS

CUT BANDS OF WIRE BASKET AND FOLD AWAY FROM TOP OF ROOT BALL

4" BUILT-UP EARTH SAUCER

BACKFILL SOIL SHALL BE SITE SOIL ONLY (NO FERTILIZER TO BE ADDED TO TREE PIT)

4-6" DEEPER THAN ROOT BALL

TAMP SOIL SOLIDLY AROUND BASE OF ROOT BALL

SET ROOT BALL ON FIRM PAD IN BOTTOM OF HOLE

REFERENCES ARCHITECTURAL GRAPHIC STANDARDS COPYRIGHT 2000

EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE

NOTES:

1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER

2. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.

3. SOIL AMENDMENTS:

*MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM

*MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX

TYPICAL STAKING INSTALLATION: STAKING, HOSES, AND WIRE TO BE REMOVED AFTER ONE YEAR

HOLE SHALL BE 3 TIMES THE WIDTH OF THE ROOT BALL

4" DOUBLE SHREDDED HARDWOOD MULCH (DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK)

ROPEs AT TOP OF BALL SHALL BE CUT AND REMOVED. FOLD BACK TOP 1/3 OF BURLAP. ALL NON-BIODEGRADABLE MATERIAL SHALL BE REMOVED.

UNDISTURBED SUBGRADE

DIG WIDE, SHALLOW HOLE WITH TAPERED SIDES

6" WIDE SAUCER MIN.

6" WIDE SAUCER MIN.

4" DOUBLE SHREDDED HARDWOOD MULCH (DO NOT PLACE MULCH AGAINST THE BASE OF THE PLANT)

CONTAINER-GROWN PLANT WITH ROOTS PULLED OUT OF BALL

BACKFILL SOIL SHALL BE SITE SOIL ONLY (NO FERTILIZER TO BE ADDED TO SHRUB PIT)

UNDISTURBED SUBGRADE

SOIL SURFACE ROUGHENED TO BIND WITH BACKFILL SOIL.

REFERENCES ARCHITECTURAL GRAPHIC STANDARDS COPYRIGHT 2000

DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE

NOTES:

1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOL TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.

2. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.

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*MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX

MOTT WATKINS ASSOCIATES, LLC

CONSULTING ENGINEERS & PLANNERS

3120 Fire Road, Suite B201

Egg Harbor Township, New Jersey 08234

Phone: (609) 569-1551

Fax: (609) 569-1521

State Board of Professional Engineers & Land Surveyors

Certificate of Authorization No. GA 283208

No. GE045865

PROFESSIONAL ENGINEER

Robert A. Watkins PE, PP, CME, CFM

Professional Engineer

New Jersey License No. 45865

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Township of Egg Harbor

Atlantic County, New Jersey 08234

SVM 2022 - Municipal Parking Lot - REBID

LANDSCAPING DETAILS

TOWNSHIP OF EGG HARBOR

ATLANTIC COUNTY, N.J.

Founded 1710

| Date | Revision - Description |
|-------------------|------------------------|
| ---- | ---- |
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| Designed PJW | Drawn PJW |
| Checked RAW | Date 6/17/2026 |
| Job No. 1509.1 | Sheet LAND-DETS |
| | SHT.# Total |
| | 3 6 |

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811

Know what's below. Call before you dig.

NOT TO SCALE





NOT TO SCALE

NOT TO SCALE
















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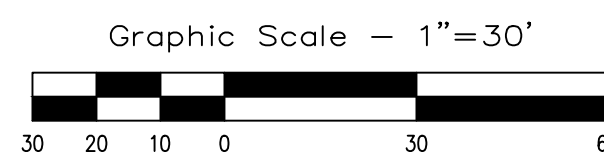
BARGAINTOWN ROAD (41.5' R.O.W.)
(COUNTY ROUTE 651)

NOT TO SCALE

| PLANTING SCHEDULE | | | | | | |
|---|------|-----------------------------|-----------------------|-----|--------|----------|
| | ABB. | BOTANICAL NAME | COMMON NAME | QTY | SIZE | COMMENTS |
| TREES | | | | | | |
|  | BP | <i>Betula papyrifera</i> | Birch, gray | 2 | 8'-10' | B & B |
|  | HA | <i>Castus caroliniana</i> | Honeysuckle, American | 2 | 8'-10' | B & B |
|  | AS | <i>Acer saccharinum</i> | Maple, Silver | 2 | 8'-10' | B & B |
| SHRUBS | | | | | | |
|  | CA | <i>Clethra alnifolia</i> | Red Maple | 4 | 3 Gal. | B & B |
|  | ST | <i>Spiraea tomentosa</i> | Steepile-bush | 4 | 3 Gal. | B & B |
|  | VC | <i>Viburnum cassinoides</i> | Withe-rod | 4 | 3 Gal. | B & B |

SYMBOL LEGEND

| | |
|---|--------------------------|
|  | Storm Drainage Manhole |
|  | Sanitary Sewer Manhole |
|  | Water Meter |
|  | Sanitary Sewer Clean Out |
|  | Gas Valve |
|  | Water Valve |
|  | Sign |
|  | Guy Wire |
|  | Utility Pole |
|  | Benchmark |
|  | Utility Box |
|  | Concrete Monument / Pin |
|  | Tree |
|  | Gas Utility |
|  | Light Pole |



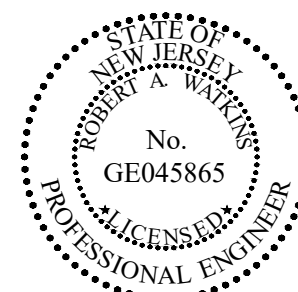
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ASSOCIATES, LLC
CONSULTING ENGINEERS & PLANNERS

3120 Fire Road, Suite B201
Egg Harbor Township, New Jersey 08234
Phone: (609) 569-1551
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State Board of Professional Engineers & Land Surveyors
Certificate of Authorization No. GA 283208



_____ Date 6/17/2026

Robert A. Watkins PE, PP, CME, CFM
Professional Engineer
New Jersey License No. 45865

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Township of Egg Harbor
Atlantic County, New Jersey 08234

SWM 2022 - Municipal Parking Lot - REBID

PROPOSED SITE & LANDSCAPING PLAN



| Date | Revision - Description |
|-------------------|------------------------|
| ---- | ----- |
| ---- | ----- |
| ---- | ----- |
| ---- | ----- |
| ---- | ----- |
| ---- | ----- |
| Designed PJW | Drawn PJW |
| Checked RAW | Date 6/17/2026 |
| Job No. 1509.1 | Sheet PROP-SITE |
| | SHT_# 5 |
| | Total 6 |



NOTES:

- 1) FILTER FABRIC SHALL BE INSTALLED AT A DEPTH OF 6" BELOW FINAL GRADE ON SLOPES OF THE BASINS AND AT 24" BELOW FINAL GRADE OF BASIN BOTTOM. FABRIC SHALL ALSO BE INSTALLED 1' BEYOND TOP OF BASIN, AT A DEPTH OF 6" BELOW FINAL GRADE ON SLOPES. FILTER FABRIC SHALL BE INCLUDED IN THE BID-SEED MIX UNIT PRICE, ITEM NO. 15. FABRIC SHALL BE NON-WOVEN GEOTEXTILE.



| ITEM NO. | DESCRIPTION | UNIT | NJDOT SECTION # | CONTRACT QUANTITY | SHEET QUANTITY | AS-BUILT QUANTITY |
|----------|---|------|--------------------|----------------------|-------------------|----------------------|
| 5 | HMA MILLING, 2" & VARIABLE | S.Y. | 401 | 6200 | 6,200 | |
| 6 | HOT MIX ASPHALT SURFACE COURSE, MIX 9.5M64, 2" THICK | TON | 401 | 850 | 850 | |

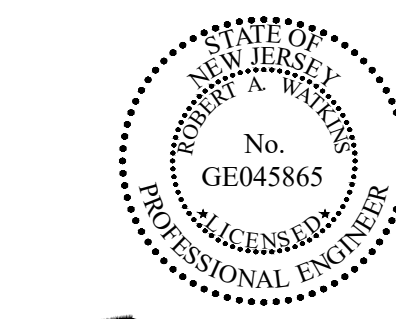
| ITEM NO. | DESCRIPTION | UNIT | NJDOT SECTION # | CONTRACT QUANTITY | SHEET QUANTITY | AS-BUILT QUANTITY |
|----------|---|------|--------------------|----------------------|-------------------|----------------------|
| 5 | HMA MILLING, 2" & VARIABLE | S.Y. | 401 | 6200 | 6,200 | |
| 6 | HOT MIX ASPHALT SURFACE COURSE, MIX 9.5M64, 2" THICK | TON | 401 | 850 | 850 | |

Test Pit Logs for Retention Basin #1

| | |
|--|--|
| Client: | Egg Harbor Township |
| Location: | Block 5610- Lot 13 Township of Egg Harbor, Atlantic County |
| Date: | 3/17/2026 |
| Log By: | Robert Watkins of Most Watkins Associates |
| Test Pit #1: Existing Surface Elevation: 32.48 | |
| Depth (in.) | Color |
| 0 - 6 | Organic Matter |
| 6 - 16 | Yellowish brown 10YR5/4 sandy loam, SAB, friable |
| 16 - 29 | Yellowish brown 10YR5/6 sandy clay loam, SAB, firm 2" Soil Sample |
| 29 - 64 | Yellowish brown 10YR5/6 loamy sand, SAB, very friable 5" Soil Sample |
| 64 - 84 | Light Yellowish brown 10YR6/4 sandy loam, SAB, loose (Bottom of pit elevation: 25.48) |
| SHWT not encountered. | |

Test Pit Logs for Retention Basin #2

| | |
|------------|---|
| Client: | Egg Harbor Township |
| Location: | Block 5610- Lot 13 Township of Egg Harbor, Atlantic County |
| Date: | 3/17/2026 |
| Log By: | Robert Watkins of Mott Watkins Associates |
| | Test Pit #2, Existing Surface Elevation: 30.51 |
| Depth (m.) | Color |
| 0 - 4 | Organic Matter |
| 4 - 18 | Yellowish brown 10YR5/4 loamy sand, SAB, friable |
| 18 - 30 | Strong brown 7.5YR5/6 sandy clay loam, SAB, firm 28" Soil Sample |
| 30 - 64 | Very pale brown 10YR7/4 loamy sand, SAB, friable 58" Soil Sample |
| 64 - 84 | Pale brown 10YR6/3 gray brown, SAB, loose (Bottom of pit elevation: 23.51) |
| SHWT | not encountered. |



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Township of Egg Harbor
Atlantic County, New Jersey 08234

SWM 2022 - Municipal Parking Lot - REBID



| Date | Revision - Description |
|-----------------------|------------------------|
| ***** | ***** |
| ***** | ***** |
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| ***** | ***** |
| ***** | ***** |
| ***** | ***** |
| ***** | ***** |
| Designed PJW | Drawn PJW |
| Checked RAW | Date 6/17/2026 |
| Job No. 1509.1 | Sheet GRADE |
| SHT_# 6 | Total 6 |

EXISTING UTILITY INFORMATION SHOWN ON THE PLANS IS FURNISHED BY THE UTILITY COMPANIES AND/OR THE SURVEYOR AND THE ACCURACY THEREOF IS NOT THE RESPONSIBILITY OF MOTT WATKINS ASSOCIATES LLC. IT IS THE RESPONSIBILITY OF THE OWNERS AND/OR CONTRACTOR TO CALL 1-800-272-1000 FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.



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