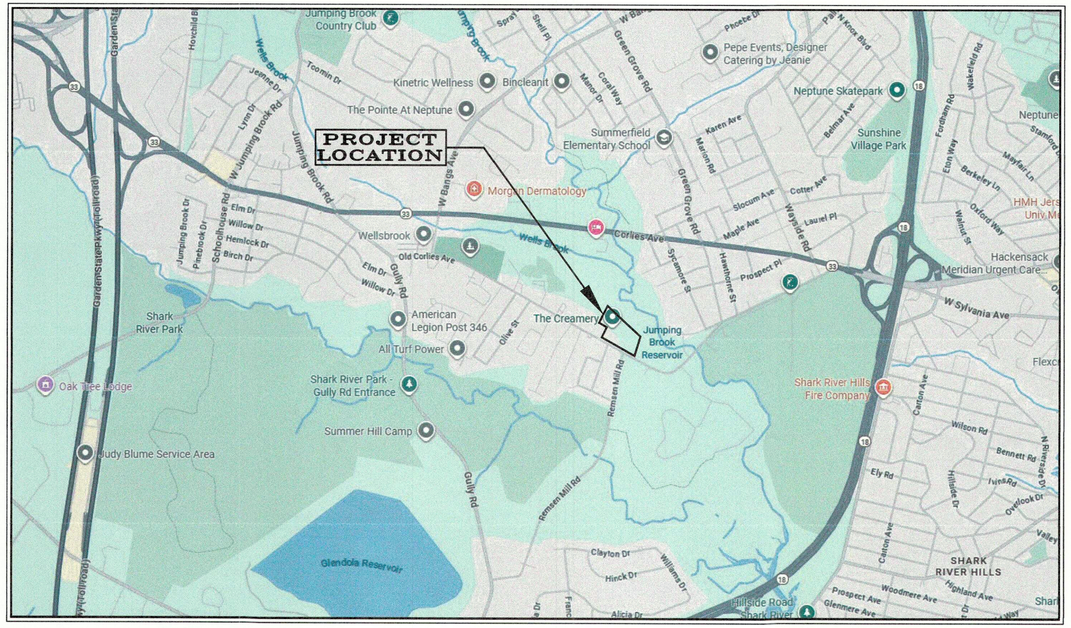
IMPROVEMENTS TO WELSH FARMS PARK

IN THE

TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY, NEW JERSEY

TOWNSHIP OF NEPTUNE	
MAYOR :	ROBERT LANE, JR.
DEPUTY MAYOR :	KEVIN McMILLAN
COMMITTEE MEMBERS :	JASON A. JONES DEREL M. STROUD TASSIE D. YORK



LOCATION MAP
NOT TO SCALE

LIST OF DRAWINGS	
NUMBER	DESCRIPTION
1	COVER SHEET
2	EXISTING CONDITIONS / DEMOLITION PLAN
3	SITE PLAN
4	SOIL EROSION & SEDIMENT CONTROL DETAILS PLAN
5	CONSTRUCTION DETAILS PLAN
6	CONSTRUCTION DETAILS PLAN

Neptune Township - NJ
Where Community, Business & Tourism Prosper

COVER SHEET

REV.	DESCRIPTION	BY	CHK.	DATE

LSA
LEON S. AVAKIAN, INC.
Consulting Engineers
788 WAYSIDE ROAD
NEPTUNE , NEW JERSEY 07753
OFFICE: (732) 922-9229 FAX: (732) 922-0044

SAMUEL J. AVAKIAN, P.E.
PROFESSIONAL ENGINEER N.J. LIC. NO. GE42589

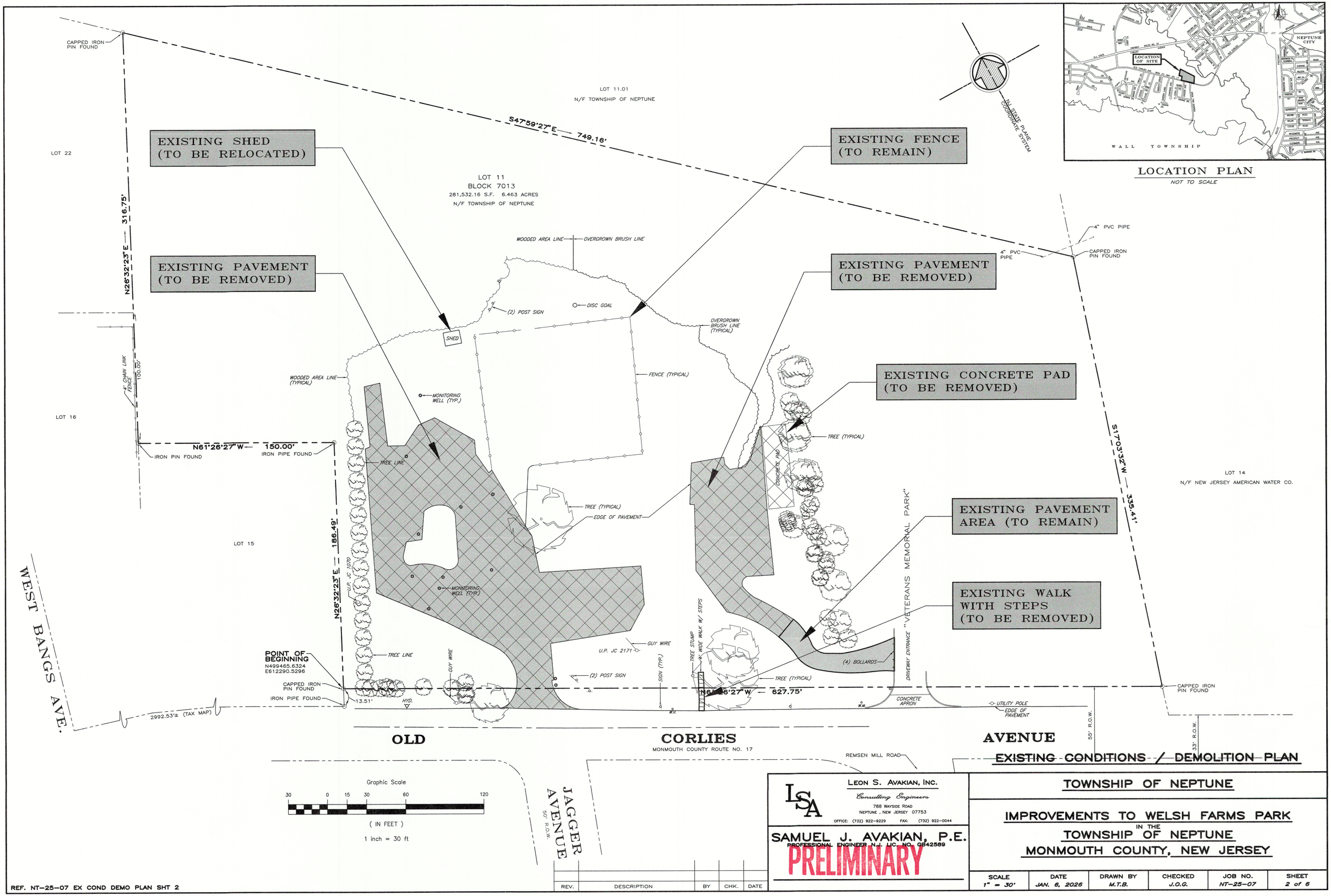
PRELIMINARY

TOWNSHIP OF NEPTUNE

IMPROVEMENTS TO WELSH FARMS PARK
IN THE
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY, NEW JERSEY

SCALE	DATE	DRAWN BY	CHECKED	JOB NO.	SHEET
NOT TO SCALE	JAN. 6, 2026	M.T.B.	J.O.G.	NT-25-07	1 of 6

REF. NT-25-07 COVER SHT 1



LOCATION PLAN

NOT TO SCALE

EXISTING CONDITIONS / DEMOLITION PLAN

REF. NT-25-07 EX COND DEMO PLAN SHT 2

REV.	DESCRIPTION	BY	CHK.	DATE

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IN THE
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY, NEW JERSEY

SCALE	DATE	DRAWN BY	CHECKED	JOB NO.	SHEET
1" = 30'	JAN. 6, 2026	M.T.B.	J.O.G.	NT-25-07	2 of 6

PROPOSED
10' WIDE POROUS
(H.M.A) HOT MIX ASPHALT WALKWAY
(SEE DETAIL SHEET 5 OF 6)

PROPOSED
5' (FT.) HIGH ORNAMENTAL
ALUMINUM FENCE (TYPICAL)
(SEE DETAIL SHEET 6 OF 6)

EXISTING
SHED (TO BE
RELOCATED)

PROPOSED
GRAVEL PARKING AREA

PROPOSED
24'x24' PICNIC
PAVILION, (2-3)
PICNIC TABLES
(SEE DETAIL
SHEET 5 OF 6)

PROPOSED
TRASH RECEPTACLE (TYPICAL)
(SEE DETAIL ON SHEET 5 OF 6)

PROPOSED
VARIOUS LOCATIONS
OF OUTDOOR GAMES
(SEE DETAILS
SHEET 6 OF 6)

PROPOSED
PARK (TYPICAL)
(SEE DETAIL ON SHEET 5 OF 6)

PROPOSED
(2) LADDER BALL ON
CONCRETE PADS,
6" THICK

PROPOSED
TREE PLANTINGS

PROPOSED
(2) CORNHOLE ON
CONCRETE PADS,
6" THICK

PROPOSED
SPREAD OUTDOOR
FITNESS EQUIPMENT
ALONG WALKWAY
(SEE SHEET 6 OF 6)

PROPOSED
CHESS CHECKERS (2) TABLES
ON CONCRETE PADS, 6" THICK

PROPOSED
TOPSOIL AND SEED
ENTIRE AREA
WITHIN ASPHALT
WALKWAY

EXISTING
24' WIDE
ACCESS DRIVEWAY

PROPOSED
WATER FOUNTAIN/
FILLING STATION
TO BE CONNECTED
TO EXISTING WATER
AT CURB STOP
(SEE DETAIL
SHEET 6 OF 6)

PROPOSED
10' WIDE CROSSWALK
STRIPING (WHITE)
(SEE DETAIL
SHEET 5 OF 6)

PROPOSED
PARK SIGN
"THE CREAMERY
RECREATIONAL PARK"
(SEE DETAIL
SHEET 5 OF 6)

PROPOSED
(H.M.A) HOT MIX
ASPHALT ENTRANCE

PROPOSED
CONCRETE DRIVEWAY
APRON, 6" THICK

LOCATION PLAN
NOT TO SCALE

SITE PLAN

Graphic Scale
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft

REF. NT-25-07 SITE PLAN SHT 3

REV.	DESCRIPTION	BY	CHK.	DATE

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SCALE	DATE	DRAWN BY	CHECKED	JOB NO.	SHEET
1" = 30'	JAN. 6, 2026	M.T.B.	J.O.G.	NT-25-07	3 of 6

SOIL EROSION AND SEDIMENT CONTROL NOTES

1. THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY.
2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
3. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.
4. N.J.S.A. 4:24-39 ET. SEQ. REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH THE CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND A REPORT OF COMPLIANCE HAS BEEN ISSUED. UPON WRITTEN REQUEST FROM THE APPLICANT, THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT-BY-LOT OR SECTION-BY-SECTION BASIS, PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE WORK.
5. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY (60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF 2 TO 2 ½ TONS PER ACRE, ACCORDING TO THE STANDARD OF STABILIZATION WITH MULCH ONLY.
6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. SOIL STOCKPILES, STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AND A MULCH ANCHOR, IN ACCORDANCE WITH STATE STANDARDS.
7. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF PRELIMINARY GRADING.
8. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A PAD OF CLEAN CRUSHED STONE AT POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ACCESS CONSISTING OF ONE INCH TO TWO INCH (1"-2") STONE FOR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF.
9. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAYS WILL BE REMOVED IMMEDIATELY.
10. PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING.
11. AT THE TIME THAT SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
12. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A pH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE ULTIMATELY PLACE OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS/ACRE, OR 450 LBS/1,000 SQ. FT. OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12" OF SETTLED SOIL WITH A pH OF 5 OR MORE, OR 24" WHERE TREES OF SHRUBS ARE TO BE PLANTED.
13. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
14. UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH THE STANDARD FOR DEWATERING.
15. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED BY THE STANDARD FOR DUST CONTROL.
16. STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES IF AN AREA GREATER THAN 5,000 SQUARE FET IS DISTURBED.
17. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #6.
18. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

GENERAL NOTES

STOCKPILES SHALL NOT BE PLACED WITHIN THE PROJECT LIMITS. ANY EXCESS MATERIAL SHALL BE IMMEDIATELY REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

TABLE 4-2
PERMANENT STABILIZATOIN MIXTURES FOR VARIOUS USES

APPLICATION	PLANTING MIXTURES BY SOIL DRAINAGE CLASS/1 (SEE TABLE 4-3)		
	EXCESSIVELY DRAINED	WELL TO MODERATELY WELL DRAINED	SOMEWHAT POORLY TO POORLY DRAINED
RESIDENTIAL/COMMERCIAL LOTS	10, 12, 15	6, 10, 12, 13, 14, 15	16
POND AND CHANNEL BANKS, DIKES, BERMS AND DAMS	2, 5, 6, 10	5, 6, 7, 8, 9, 15	2, 8, 16, 17
DRAINAGE DITCHES, SWALES, DETENTION BASINS	2, 9, 11	2, 7, 9, 11, 12, 17	2, 9, 16, 17
FILTER STRIPS	12	11, 12	11, 12
GRASSES WATERWAY, SPILLWAYS	2, 3, 9, 10, 12	6, 7, 9, 10, 11, 12	2, 9, 11, 12
RECREATION AREAS, ATHLETIC FIELDS	5, 12, 15, 18	12, 13, 14, 15, 18	16
SPECIAL PROBLEM SITES STEEP SLOPES AND BANKS, ROADSIDES, BORROW AREAS	2, 3, 4, 6	2, 3, 5, 7, 8, 9, 10, 15, 18	2, 9, 10, 11, 12
SAND AND GRAVEL PITS, SANITARY LANDFILLS	1, 2, 3, 4, 6, 20	1, 2, 3, 4, 6, 8, 15, 20	2, 8
DREDGED MATERIAL, SPOILBANKS, BORROW AREAS	2, 3, 6, 20	2, 3, 6, 11	2, 8
STREAMBANKS & SHORELINES 2	2, 8, 20, 21a	2, 8, 19, 20, 21a, 21b	2, 8, 19a, 21a,b,c,d
UTILITY RIGHTS-OF-WAY	3, 7, 180	3, 7	8, 9, 17

1. REFER TO SOIL SURVEYS FOR DRAINAGE CLASS DESCRIPTIONS.
2. REFER TO SOIL BIOENGINEERING STANDARD FOR ADDITIONAL SEED MIXTURES
3. SPILLWAYS ONLY
4. SEE APPENDIX E FOR DESCRIPTION OF TURF GRASSES AND CULTIVARS

DUST CONTROL NOTE

DUST GENERATION SHALL BE CONTROLLED ON A CONSISTENT BASIS BY WETTING THE SURFACE AND/OR APPLICATION OF CALCIUM CHLORIDE.

NOTE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION. THE PROPERTY OWNERS SHALL ASSUME THIS RESPONSIBILITY AFTER CONSTRUCTION HAS BEEN COMPLETED AND CERTIFICATES OF OCCUPANCY ARE ISSUED.

CONSTRUCTION SEQUENCE

CONSTRUCTION COMMENCEMENT DATE: SPRING OF 2026

INSTALLATION OF SILT FENCE ALONG LIMIT OF DISTURBANCE LINE IN AREAS DELINEATED ON " SOIL EROSION CONTROL PLANS "	2 DAYS
INSTALLATION OF STONE TRACKING PADS AT CONSTRUCTION ENTRANCE	3 DAY
CONSTRUCTION OPERATIONS	2 WEEKS
LANDSCAPING WITH PERMANENT SEEDING	2 WEEKS

TEMPORARY VEGETATIVE COVER

METHODS AND MATERIALS

1. SITE PREPARATION
   - A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING, PG. 19-1
   - B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.
   - C. IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).
2. SEEDBED PREPARATION
   - A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM 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. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMITING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.
   - B. WORK LIME AND FERTILIZER INTO THE SOIL AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OF DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
   - C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.
   - D. SOILS HIGH IN SULFIDES OR HAVING A pH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, PG. 1-1

CONTRACTOR TO PERFORM SOIL TEST TO DETERMINE LIME RATE.

3. SEEDING
   - A. SELECT SEED FROM RECOMMENDATIONS IN TABLE 7-2.

PERMANENT VEGETATIVE COVER

SITE PREPARATION

A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

SEEDBED PREPARATION

A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION SOIL SAMPLE MAILERS AREA AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
B. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED ID PREPARED.
C. HIGH ACID PRODUCING SOIL. SOILS HAVING A pH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A pH OF 5 OR MORE BEFORE INITIATING SEEDBED REPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID-PRODUCING SOILS FOR SPECIFIC REQUIREMENTS.

SEEDING

A. SELECT A MIXTURE FROM TABLE 4-3 OR USE A MIXTURE RECOMMENDED BY RUTGERS COOPERATIVE EXTENSION OR NATURAL RESOURCES CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT. SEED GERMINATION SHALL HAVE BEEN TESTED WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 MONTHS OLD UNLESS RETESTED.
   1. SEEDING RATES SPECIFIED ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION IS ESTABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVERAGE WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOWED ONCE.
   2. WARM-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 85°F AND ABOVE. SEE TABLE 4-3 MIXTURES 1 TO 7. PLANTING RATES FOR WARM-SEASON GRASSES SHALL BE THE AMOUNT OF PURE LIVE SEED (PLS) AS DETERMINED BY GERMINATION TESTING RESULTS.
   3. COOL-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 85°F. MANY GRASSES BECOME ACTIVE AT 65°F. 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.

B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDED, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDLINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF ¼ TO ½ INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE ¼ INCH DEEPER ON COARSE-TEXTURED SOIL
C. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.
D. 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.

A. STRAW OR HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.
APPLICATION-SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT AT LEAST 85% OF THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.
ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.
   1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVE BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
   2. MULCH NETTINGS - STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
   3. CRIMPER (MULCH ANCHORING COULTER TOOL) - A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC 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.
   4. LIQUID MULCH-BINDERS - MAY BE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCH.
      a. APPLICATION SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE.
      b. USE ONE OF THE FOLLOWING:
      (1) ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER-BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURF GRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS. MANY NEW PRODUCTS ARE AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE.
      (2) SYNTHETIC BINDERS-HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND, FOLLOWING APPLICATION OF MULCH, DRYING AND CURING, SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. BINDER SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.

NOTE: ALL NAMES GIVE ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

B. WOOD-FIBER OR PAPER-FIBER MULCH - SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT A RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. **MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED.** USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.
C. PELLETIZED MULCH - COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS, AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LBS/1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEED-SEED FREE MULCH IS DESIRED, OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE. APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

IRRIGATION (WHERE FEASIBLE)

IF SOIL MOISTURE IS DEFICIENT SUPPLY NEW SEEDING WITH ADEQUATE WATER (A MINIMUM OF ¼ INCH APPLIED UP TO TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDING ARE MADE IN ABNORMALLY DRY OR HOT WEATHER 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 TOPDRESSING IS MANDATORY. AN EXCEPTION MAY BE MADE WHERE GROSS NITROGEN DEFICIENCY EXISTS IN THE SOIL TO THE EXTENT THAT TURF FAILURE MAY DEVELOP. IN THAT INSTANCE, TOPDRESS WITH 10-10-10 OR EQUIVALENT AT 300 POUNDS PER ACRE OR 7 POUNDS PER 1,000 SQUARE FEET EVERY 3 TO 5 WEEKS UNTIL THE GROSS NITROGEN DEFICIENCY IN THE TURF IS AMELIORATED.

ESTABLISHING PERMANENT VEGETATIVE STABILIZATION

THE QUALITY OF PERMANENT VEGETATION RESTS WITH THE CONTRACTOR. THE TIMING OF SEEDING, PREPARING THE SEEDBED, APPLYING NUTRIENTS, MULCH AND OTHER MANAGEMENT ARE ESSENTIAL. THE SEED APPLICATION RATES IN TABLE 4-3 ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN APPLICATION RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO REQUESTING A REPORT OF COMPLIANCE FROM THE DISTRICT. THESE RATES APPLY TO ALL METHODS OF SEEDING. **ESTABLISHING PERMANENT VEGETATION MEANS 50% VEGETATIVE COVER (OF THE SEEDED SPECIES) AND MOWED ONCE.** NOTE THIS DESIGNATION OF MOWED ONCE DOES NOT GUARANTEE THE PERMANENCY OF THE TURF SHOULD OTHER MAINTENANCE FACTORS BE NEGLECTED OR OTHERWISE MISMANAGED. **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.

PERMANENT VEGETATIVE MIXTURES, PLANTING RATES, AND DATES[1]

SEED MIXTURE 2	PLANTING RATE/3		PLANTING DATES (O=OPTIMAL PLANTING PERIOD A=ACCEPTABLE PLANTING PERIOD) PLANT HARDINESS ZONES (SEE FIGURE 4-1)									MAINTENANCE LEVEL/4	REMARKS
			ZONE 5b,6a			ZONE 6b			ZONE 7a,7b				
	LBS/ACRE	LBS/1000 SQ. FT.	3/15-5/31	6/1-7/31	8/1-10/1	3/1-4/30	5/1-8/14	8/15-10/15	2/1-4/30	5/1-8/14	8/15-10/10		
WARM SEASON SEED MIXTURES													
1A. FOR PINELANDS NATIONAL RESERVE SEED MIXTURES SEE TABLE 4-4 PAGE 4-17			O			O			O				
1. SWITCHGRASS AND/OR COASTAL PANICGRASS PLUS OR FLATPEA	15 15 20	.35 .13 .45	O			O			O			C-D	
2. DEERTONGUE OR SWITCHGRASS REDTOP	15 20 1	.35 .45 .1	O			O			O			C-D	USE DEERTONGUE IF pH < 4.0. SWITCHGRASS IS SUPERIOR WILDLIFE PLANT. USE FOR WATERWAYS. REDTOP PROVIDES QUICK COVER.
3. SWITCHGRASS DEERTONGUE LITTLE BLUESTEM SHEEP FESCUE PLUS PARTRIDGE PEA	15 20 20 20 10	.35 .25 .45 .45 .25	O			O			O			C-D	PINELANDS MIXTURE
4. SWITCHGRASS BIG BLUESTEM LITTLE BLUESTEM SAND LOVEGRASS COASTAL PANICGRASS	10 5 5 4 10	.25 .10 .10 .10 .25	O			O			O			C-D	NATIVE WARM-SEASON MIXTURE
5. BERMUDAGRASS ZOYSIAGRASS (SEED) ZOYSIAGRASS (SPRIGS) WARM SEED MIX TO BE UTILIZED	15 30	.35 .70	O			O			O			A-D	BERMUDAGRASS HAS SUPERIOR SALT TOLERANCE. ZOYSIA HAS GREATER WEAR TOLERANCE
COOL SEASON SEED MIXTURES	130	3	A	A5	O	A	A5	O	A	A5	O		GENERAL LOW-MAINTENANCE MIXTURE
6. FINE FESCUE (BLEND) HARD FESCUE CHEWINGS FESCUE STRONG CREEPING RED FESCUE KENTUCKY BLUEGRASS PERENNIAL RYEGRASS PLUS WHITE CLOVER (SEE NOTE AT RIGHT)	45 20 5	.1 .5 .10										B-D	WHITE CLOVER CAN BE REMOVED WHEN USED TO ESTABLISHED LAWNS
7. STRONG CREEPING RED FESCUE KENTUCKY BLUEGRASS PERENNIAL RYEGRASS OR REDTOP PLUS WHITE CLOVER	130 50 20 10 5	.3 1 .5 .25 .10	A	A5	O	A	A5	O	A	A5	O	B-D	SUITABLE WATERWAY MIX. CANADA BLUEGRASS MORE DROUGHT TOLERANT. USE REDTOP FOR INCREASED DROUGH-TOLERANCE.
8. TALL FESCUE (TURF-TYPE) OR STRONG CREEPING RED FESCUE OR PERENNIAL RYEGRASS FLATPEA	130 30 30 25	.7 .7 .7 .60	O	A6		O	A6		O	A6		B-D	TALL FESCUE BEST SELECTED FOR DROUGHTY CONDITIONS. USE CREEPING RED FESCUE IN HEAVY SHADE. USE FLATPEA TO SUPPRESS WOODY VEGETATION
9. DEERTONGUE REDTOP WILD RYE (ELYMUS) SWITCHGRASS WET SEED MIX TO BE UTILIZED	20 2 15 25	.345 .05 .35 .60	O			O			O			C-D	NATIVE WET MIX
10. TALL FESCUE (TURF-TYPE) PERENNIAL RYEGRASS OR WHITE CLOVER (SEE NOTE AT RIGHT)	265 20 5	6 5 .10	O	A5	A5	O	A5	A5	O	A5	A5	C-D	WHITE CLOVER CAN BE EXCLUDED ON LAWN SITES
11. KENTUCKY BLUEGRASS TURF-TYPE TALL FESCUE	45 22	1 5	A	A5	O	A	A5	O	A	A5	O	C-D	FILTER STRIP USE FOR NUTRIENT UPTAKE
12. TURF-TYPE TALL FESCUE (BLEND OF 3 CULTIVARS)	350	8	A	A5	O	A	A5	O	A	A5	O	C-D	USE IN A MANAGED FILTER STRIP FOR NUTRIENT UPTAKE
13. HARD FESCUE AND/OR CHEWING FESCUE AND/OR STRONG CREEPING RED FESCUE PERENNIAL RYEGRASS KY. BLUEGRASS (BLEND)	175 45 45	4 1 1	A	A5	O	A	A5	O	A	A5	O	A-C	GENERAL LAW/RECREATION
14. TALL FESCUE KY. BLUEGRASS (BLEND) PERENNIAL RYEGRASS (BLEND)	265 20 20	6 0.50 0.50	A	A5	O	A	A5	O	A	A5	O	A-B	ATHLETIC FIELD/3 CULTIVAR MIX OF KENTUCKY BLUEGRASS
15. HARD FESCUE CHEWINGS FESCUE STRONG CREEPING RED FESCUE PERENNIAL RYEGRASS COOL SEED MIX TO BE UTILIZED	130 45 45 10	3 1 1 .25	A	A5	O	A	A5	O	A	A5	O	C-D	LOW-MAINTENANCE FINE FESCUE LAWN MIX
16. ROUGH BLUEGRASS STRONG CREEPING RED FESCUE	90 130	2.0 3	A	A5	O	A	A5	O	A	A5	O	C-D	MOIST SHADE
17. CREEPING BENTGRASS CREEPING RED FESCUE ALKALI SALTGRASS	45 45 45	1 1 1	A	A5	O	A	A5	O	A	A5	O	B-D	USE BENTGRASS UNDER WETTER CONDITIONS. SALTGRASS WILL ONLY PERSISTENT UNDER SALINE CONDITIONS
18. HARD OR SHEEPS FESCUE N.E. WILDFLOWER MIXTURE	25 12	0.60 0.35	O	A5	O	O	A5	O	O	A5	O	C-D	REGIONAL WILDFLOWER MIX HYDROSEEDING NOT RECOMMENDED
19. A. SMOOTH CORDGRASS B. SALTMEADOW CORDGRASS	VEG VEG					O	BEFORE JULY 1		O	BEFORE JULY 1		D	PLANTED IN THE INTERTIDAL ZONE. PLANTED ABOVE MEAN HIGH TIDE.
20. AMERICAN BEACHGRASS COASTAL PANICGRASS	VEG 20	.45				BEFORE APRIL 1			O			D	COASTAL PANICGRASS MAY BE INTERSEEDED BETWEEN ROWS OF BEACHGRASS
21. A. PURPLEOSIER WILLOW B. DWARF WILLOW C. REDOSIER DOGWOOD D. SILKY DOGWOOD	VEG VEG VEG VEG		BEFORE MAY 10			BEFORE MAY 10			BEFORE MAY 1			D	ALSO REFER TO CHAPTERS 16 AND 18 OF USDA NRCS ENGINEERING FIELD HANDBOOK

STANDARDS FOR TOPSOILING

MATERIALS

A. TOPSOIL SHOULD BE FRIABLE, LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSE CHEMICAL OR PHYSICAL CONDITION THAT MAY BE HARMFUL TO PLAN GROWTH. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER. MORE THAN 0.5 MILLIMHOS MAY DESICATE SEEDLINGS AND ADVERSELY IMPACT GROWTH). TOPSOIL HAULED IN FROM OFFSITE SHOULD HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES.

B. TOPSOIL SUBSTITUTE IS A SOIL MATERIAL WHICH MAY HAVE BEEN AMENDED WITH SAND, SILT, CLAY, ORGANIC MATTER, FERTILIZER OR LIME AND HAS THE APPEARANCE OF TOPSOIL. TOPSOIL SUBSTITUTES MAY BE UTILIZED ON SITES WITH INSUFFICIENT TOPSOIL FOR ESTABLISHING PERMANENT VEGETATION. ALL TOPSOIL SUBSTITUTE MATERIAL 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.

STRIPPING AND STOCKPILING

A. FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WEATHER QUANTITY AND OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.

B. STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.

C. WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL pH TO APPROXIMATELY 6.5. IN LIEU OF SOIL TESTS, SEE LIME RATE GUIDE IN SEEDBED PREPARATION FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, PG. 4-1.

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

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

F. STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS PREVIOUSLY DESCRIBED HEREIN; SEE STANDARDS FOR PERMANENT (PG. 4-1) OR TEMPORARY (PG. 7-1) VEGETATIVE COVER FOR SOIL STABILIZATION. WEEDS SHOULD NOT BE ALLOWED TO GROW ON STOCKPILES.

SITE PREPARATION

A. GRADE AT THE ONSET OF THE OPTIMAL SEEDING PERIOD SO AS TO MINIMIZE THE DURATION AND AREA OF EXPOSURE OF DISTURBED SOIL TO EROSION. IMMEDIATELY PROCEED TO ESTABLISH VEGETATIVE COVER IN ACCORDANCE WITH THE SPECIFIED SEED MIXTURE. TIME IS OF THE ESSENCE.

B. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE. SEE THE STANDARD FOR LAND GRADING, PG. 19-1.

C. AS GUIDANCE FOR IDEAL CONDITIONS, SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT. LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL TO A pH OF APPROXIMATELY 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.

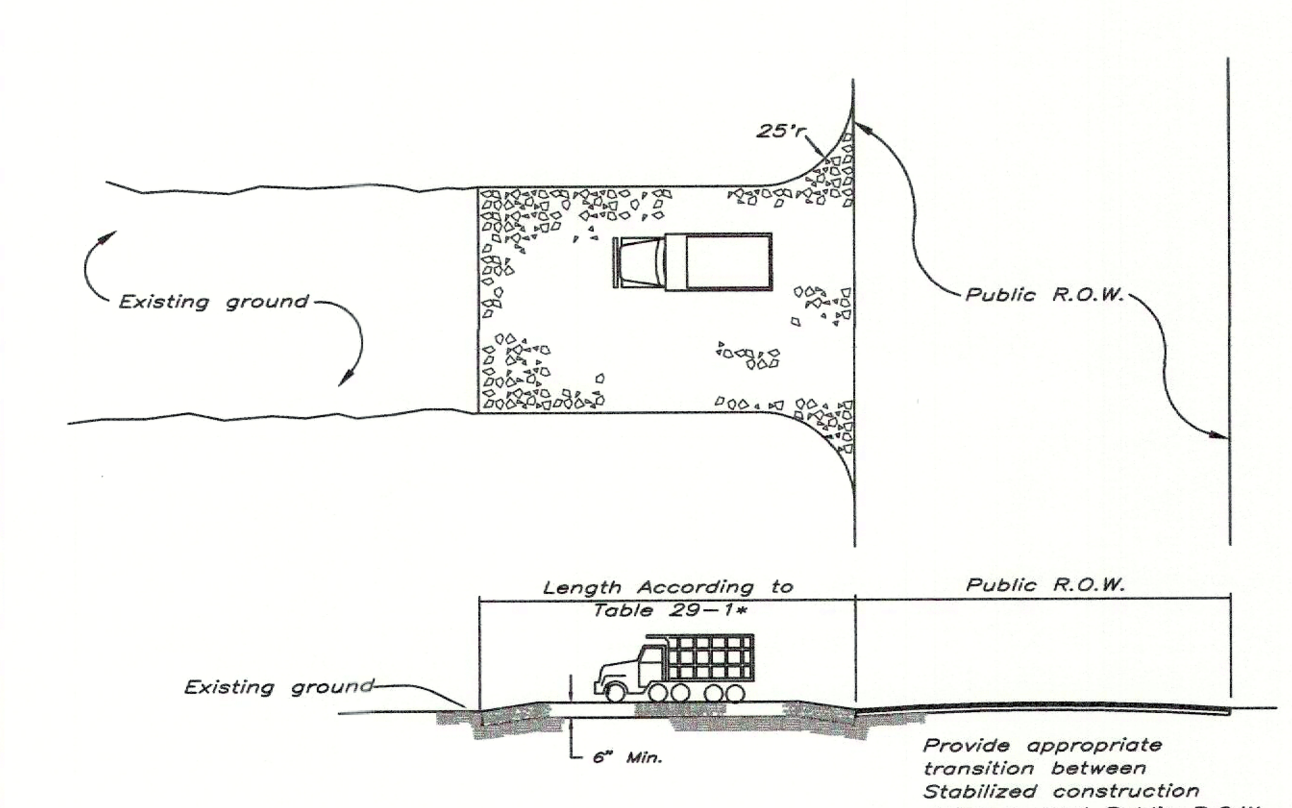
D. IMMEDIATELY PRIOR TO TOPSOILING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS WILL HELP INSURE A GOOD BOND BETWEEN THE TOPSOIL AND SUBSOIL. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).

E. EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.

APPLYING TOPSOIL

A. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE; I.E., LESS THAN FIELD CAPACITY (SEE GLOSSARY).

B. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS RECOMMENDED. SOILS WITH A pH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A pH OF 5.0 OR MORE, IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL (PG. 1-1).



* INDIVIDUAL LOT ACCESS POINTS MAY REQUIRE STABILIZATION THICKNESS SHOWN IS FOR STONE CONSTRUCTION ENTRANCE ONLY (TYP.)

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GR?AINED SOILS	FINE GR?AINED SOILS
0 TO 2%	50 FT.	100 FT.
2 TO 5%	100 FT.	200 FT.
>5%	ENTIRE SURF?ACE STABILIZED WITH F?ABC BASE COURSE	

1. AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY.

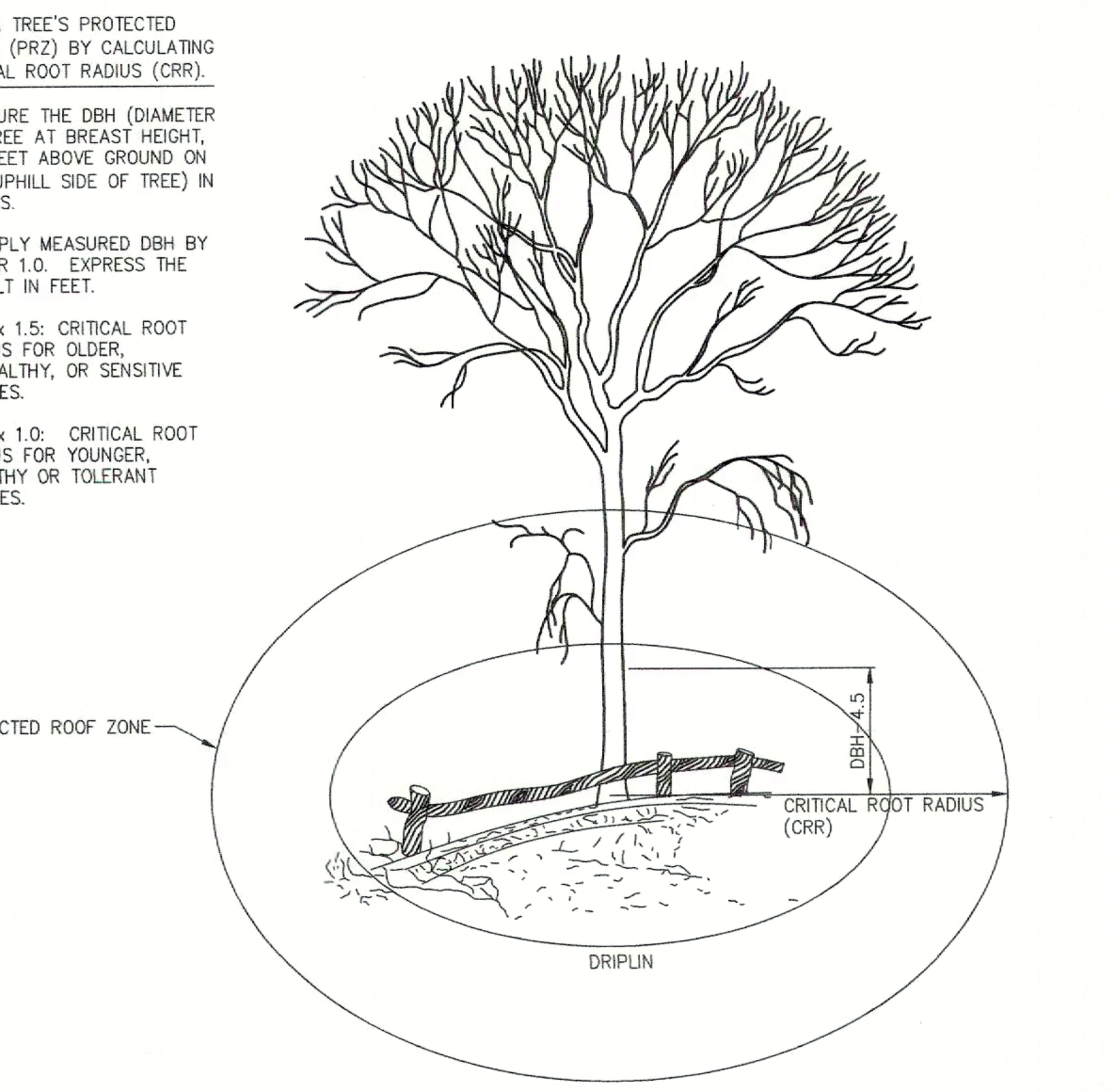
STABILIZED CONSTRUCTION ENTRANCE
Not To Scale

ESTIMATE A TREE'S PROTECTED ROOT ZONE (PRZ) BY CALCULATING THE CRITICAL ROOT RADIUS (CRR).

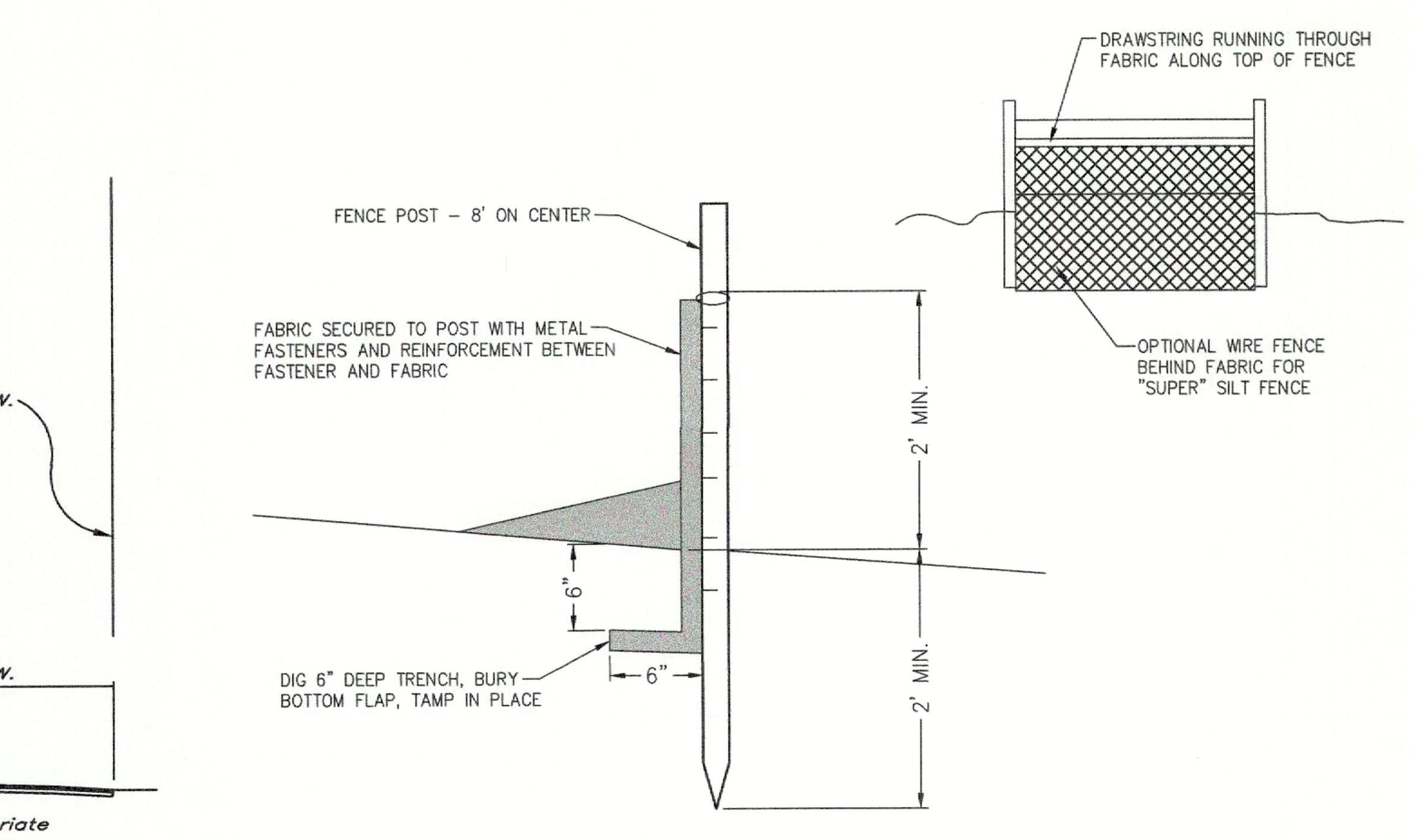
1. MEASURE THE DBH (DIAMETER OF TREE AT BREAST HEIGHT, 4.5 FEET ABOVE GROUND ON THE UPHILL SIDE OF TREE) IN INCHES.
2. MULTIPLY MEASURED DBH BY 1.5 OR 1.0. EXPRESS THE RESULT IN FEET.

   DBH x 1.5: CRITICAL ROOT RADIUS FOR OLDER, UNHEALTHY, OR SENSITIVE SPECIES.

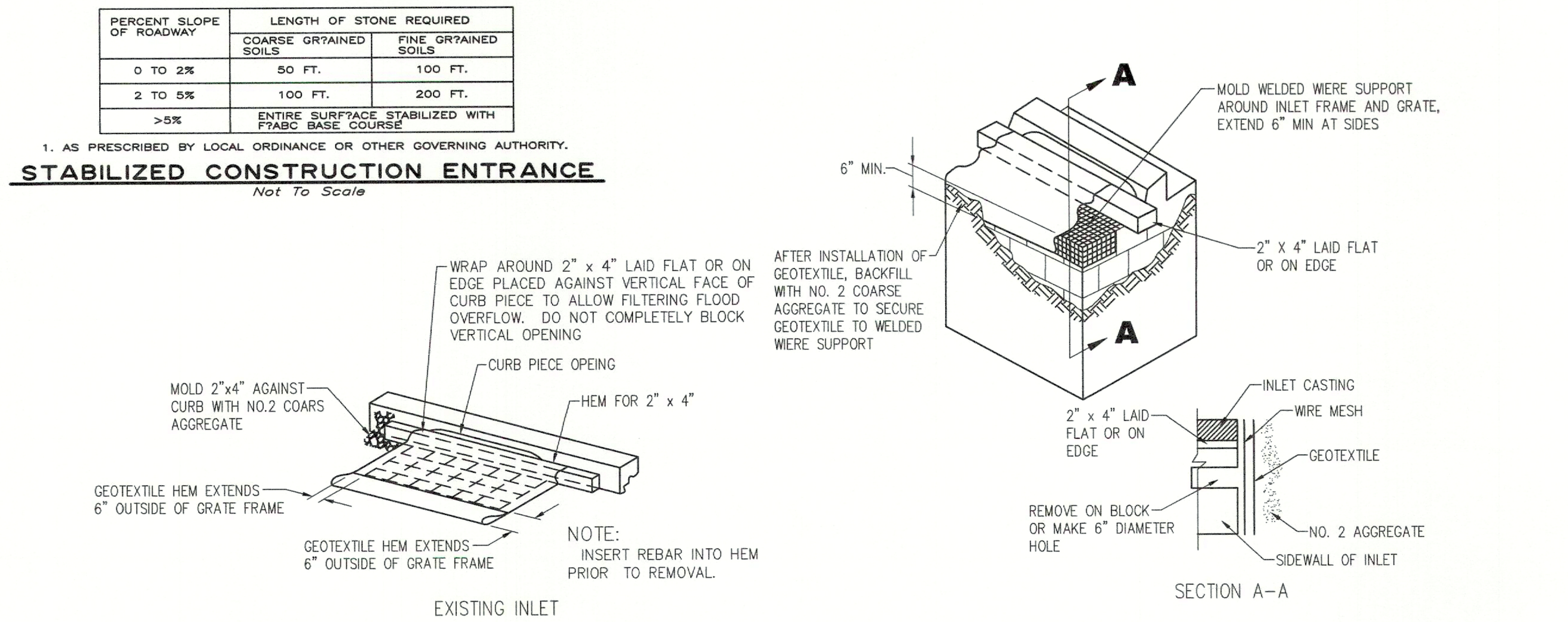
   DBH x 1.0: CRITICAL ROOT RADIUS FOR YOUNGER, HEALTHY OR TOLERANT SPECIES.



ROOT PROTECTION DURING CONSTRUCTION GUIDE
Not To Scale



SILTATION FENCE DETAIL
Not To Scale



INLET FILTERS, TYPE I
Not To Scale

SOIL EROSION AND SEDIMENT CONTROL DETAILS PLAN

REV.	DESCRIPTION	BY	CHK.	DATE

LSA
LEON S. AVAKIAN, INC.
Consulting Engineers
788 WAYSIDE ROAD
NEPTUNE , NEW JERSEY 07753
OFFICE: (732) 922-9229 FAX: (732) 922-0044

SAMUEL J. AVAKIAN, P.E.
PROFESSIONAL ENGINEER N.J. LIC. NO. GB42589

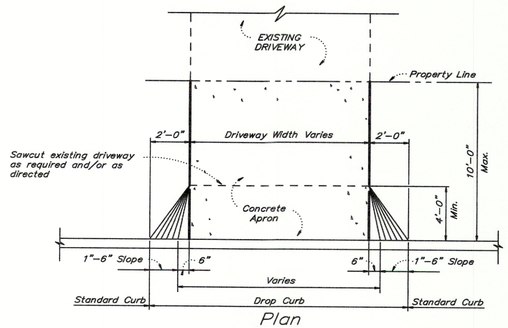
PRELIMINARY

TOWNSHIP OF NEPTUNE

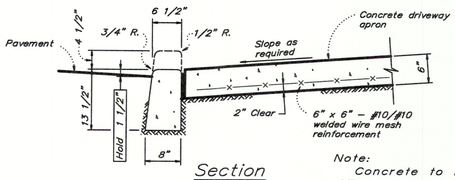
IMPROVEMENTS TO WELSH FARMS PARK
IN THE
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY, NEW JERSEY

SCALE	DATE	DRAWN BY	CHECKED	JOB NO.	SHEET
NOT TO SCALE	JAN. 6, 2026	M.T.B.	J.O.G.	NT-25-07	4 of 6

SQUARE PAVILION—24'x24'



Plan
Not To Scale



Section
Not To Scale

Note:
Concrete to be 4500 p.s.i. at the end of 28 days

DRIVEWAY DROP CURB AND CONCRETE APRON DETAILS

1. The cross slope of all sidewalks accross driveway aprons must be 2.0% or less.

LANDMARK SERIES™ TRASH CANS

RUBBERMAID®

Handsome River Rock paneled trash cans provide permanence and stability.

- Domed top keeps rain out. Opens easily to remove trash.
- Rugged UV-resistant plastic top lasts for years.
- 4-way entry for convenient trash disposal.
- Includes removable leakproof rigid trash liner.

RUBBERMAID® LANDMARK SERIES™ TRASH CANS - DOMED TOP — SPECIFY FRAME COLOR: Brown or Black

MODEL NO.	DESCRIPTION	CAPACITY	SIZE L x W x H	WT. (LBS.)	PRICE EACH 1	PRICE EACH 2+	ADD TO CART
H-3570	Domed Top	35 Gallon	26 x 26 x 40"	81	$895	$875	Specify Color
H-1209		50 Gallon	26 x 26 x 46 1/2"	105	995	975	Specify Color

SHIPS UNASSEMBLED VIA MOTOR FREIGHT

RUBBERMAID® LANDMARK SERIES™ TRASH CANS - ASH TRAY TOP — SPECIFY FRAME COLOR: Brown or Black

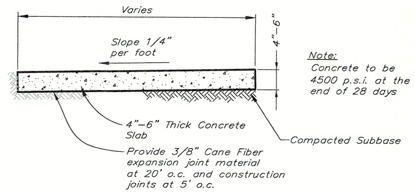
MODEL NO.	DESCRIPTION	CAPACITY	SIZE L x W x H	WT. (LBS.)	PRICE EACH 1	PRICE EACH 2+	ADD TO CART
H-3571	Ash Tray Top	35 Gallon	26 x 26 x 40"	83	$995	$975	Specify Color
H-1210*		50 Gallon	26 x 26 x 46 1/2"	107	1,125	1,095	1 ADD

*Not available in Brown

SHIPS UNASSEMBLED VIA MOTOR FREIGHT

TRASH RECEPTABLE DETAIL

Not to Scale

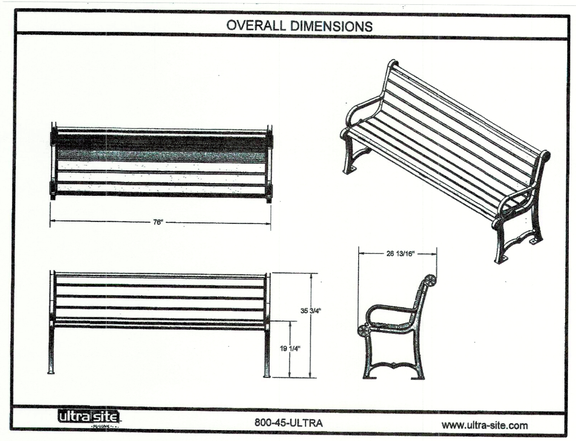


Note:
Concrete to be 4500 p.s.i. at the end of 28 days

1. THE PAVILION SLAB SHALL BE 4" MINIMUM THICKNESS REINFORCED CONCRETE SLAB.
2. REINFORCEMENT SHALL BE 6"X 6"–#10/#10 WELDED WIRE MESH REINFORCEMENT PLACED 2" ABOVE THE BOTTOM OF THE SLAB.

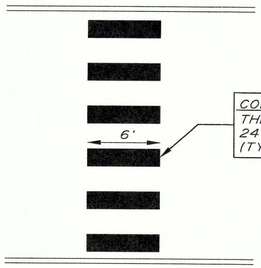
CONCRETE SLAB DETAIL

Not To Scale



BENCH DETAIL

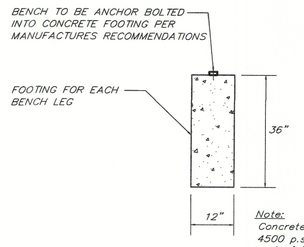
Not To Scale



CONSTRUCT:
THERMOPLASTIC TRAFFIC STRIPING 24" SOLID WHITE (2' To 5' APART) (TYPICAL)

HIGH DENSITY CROSSWALK DETAIL

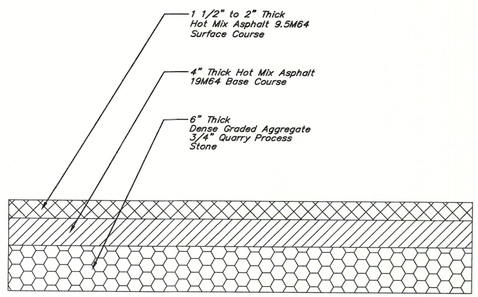
Not To Scale



Note:
Concrete to be 4500 p.s.i. at the end of 28 days

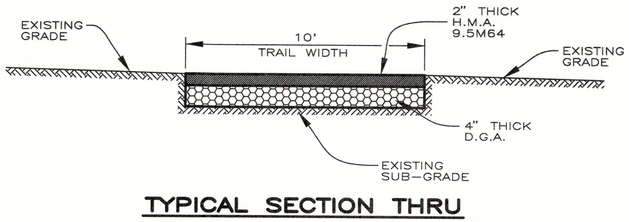
BENCH FOOTING DETAIL

Not To Scale



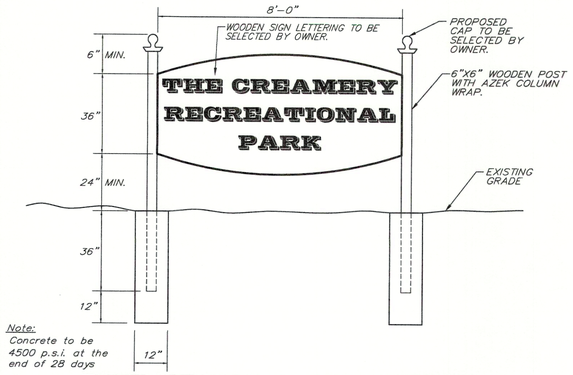
FULL DEPTH PAVEMENT DETAIL

Not to Scale



TYPICAL SECTION THRU ASPHALT WALKWAY TRAIL

Not To Scale



Note:
Concrete to be 4500 p.s.i. at the end of 28 days

FREE STANDING SIGN DETAIL

Not To Scale

CONSTRUCTION DETAILS PLAN

LEON S. AVAKIAN, INC.
Consulting Engineers
788 WAYSIDE ROAD
NEPTUNE, NEW JERSEY 07753
OFFICE: (732) 922-9229 FAX: (732) 922-0044

SAMUEL J. AVAKIAN, P.E.
PROFESSIONAL ENGINEER N.J. LIC. NO. GE42589

PRELIMINARY

TOWNSHIP OF NEPTUNE

IMPROVEMENTS TO WELSH FARMS PARK
IN THE
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY, NEW JERSEY

SCALE	DATE	DRAWN BY	CHECKED	JOB NO.	SHEET
NOT TO SCALE	JAN. 6, 2026	M.T.B.	J.O.G.	NT-25-07	5 of 6

REV.	DESCRIPTION	BY	CHK.	DATE

REF. NT–25–07 CONST DET PLAN SHT 5

Model #: WBB1811824 MPN #: GRJ85-PF

Murdock® Outdoor Round Pedestal Drinking Fountain w/ Pet Fountain, Round

Write a Review | Questions & Answers (0)

Shop All Outdoor Freestanding Drinking Fountains

Product Description

Model GRJ85-PF is a barrier free, pedestal mounted, vandal resistant, round drinking fountain made from 18 gauge, 304 stainless steel. The basin is mounted onto a green powder coated, heavy duty, 12 gauge welded stainless steel pedestal. This unit is activated by a front mounted self-closing button, requiring less than 5 pounds of force, which activates an internally mounted valve with an adjustable stream regulator controlling the water flow. The bubbler is lead-free stainless steel with a non-squirt feature and operates on a water pressure range of 20-105 PSIG. The pet fountain attaches to the side. The unit features push button operation mounted on the pedestal. The fountain bowl is constructed from 18 gauge, 304 stainless steel and has a chrome plated brass bubbler. This unit adheres to ANSI A117.1 and Americans with Disabilities Act of 2010 frontal approach and protruding objects requirements, Adult ADA parallel and frontal approach and ANSI/NSF 61, Section 9 and Public Law 111-380.

Specifications

Weights & Dimensions

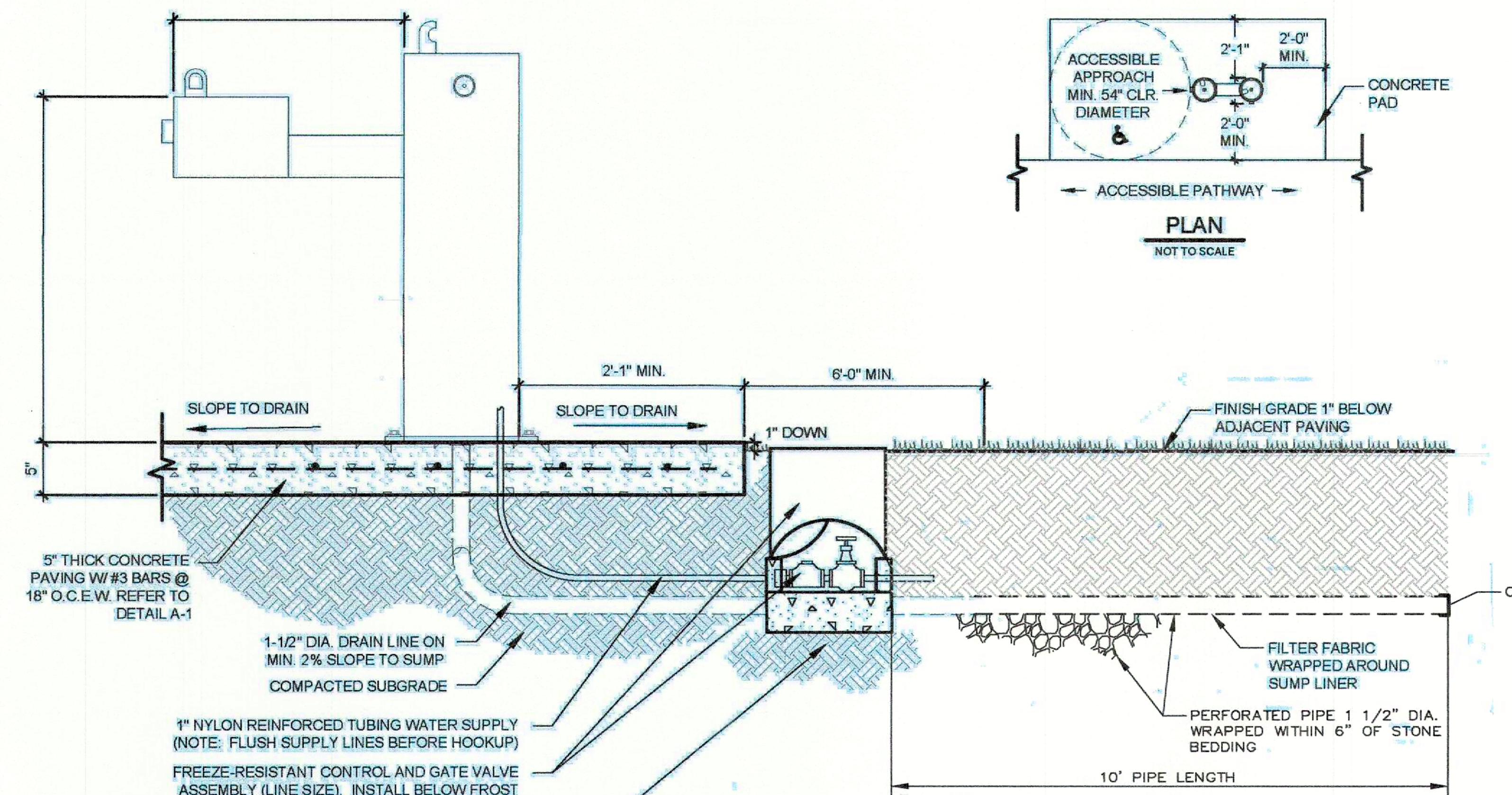
Length	13 in	Height	40 in
Width	44 in	Gauge	18

Product Details

Pet Stations	1	Material	304 Stainless Steel
Color	Green	Manufacturers Part Number	GRJ85-PF
For Outdoor Use	Yes	Filter	No
Freeze/Frost Resistant	No	Installation Type	Floor
Number of Stations	1	Shape	Round
Bubbler	Lead-Free Stainless Steel	Brand	Murdock

Compliance & Certifications

ADA Compliant	Yes



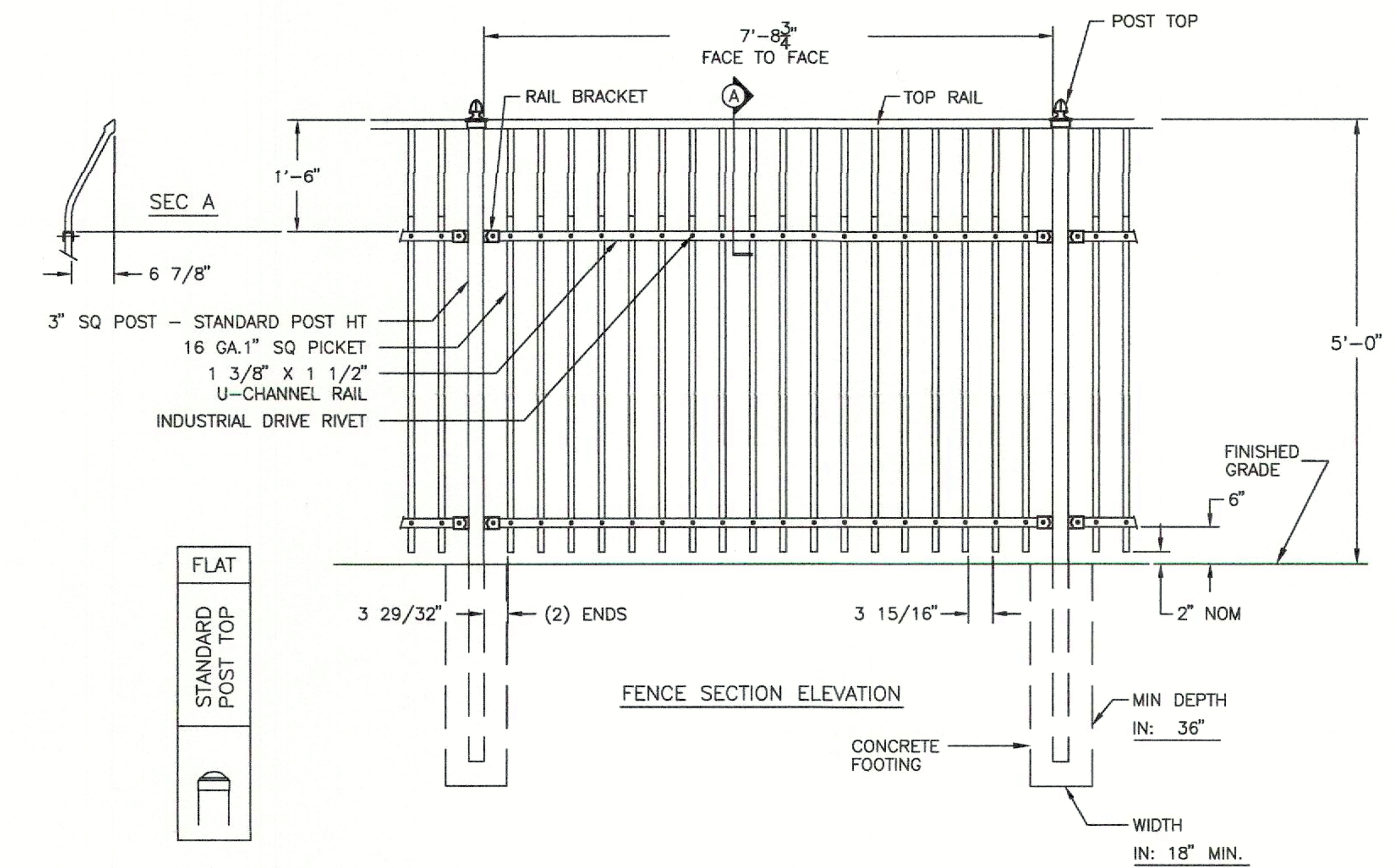
GENERAL NOTES:

1. DRINKING FOUNTAIN MUST BE INSTALLED ADJACENT TO AN ACCESSIBLE ROUTE.
2. SPECIFIED DRINKING FOUNTAIN TO BE IN ACCORDANCE W/ TEXAS ACCESSIBILITY STANDARDS.
3. BASED ON PROJECT SPECIFICATIONS, MODEL MAY INCLUDE DOG BOWL AND/OR JUG FILLER. REFERENCE MANUFACTURER'S PRODUCT CATALOG FOR ACCESSORY ITEMS.

OUTDOOR DRINKING FOUNTAIN DETAIL

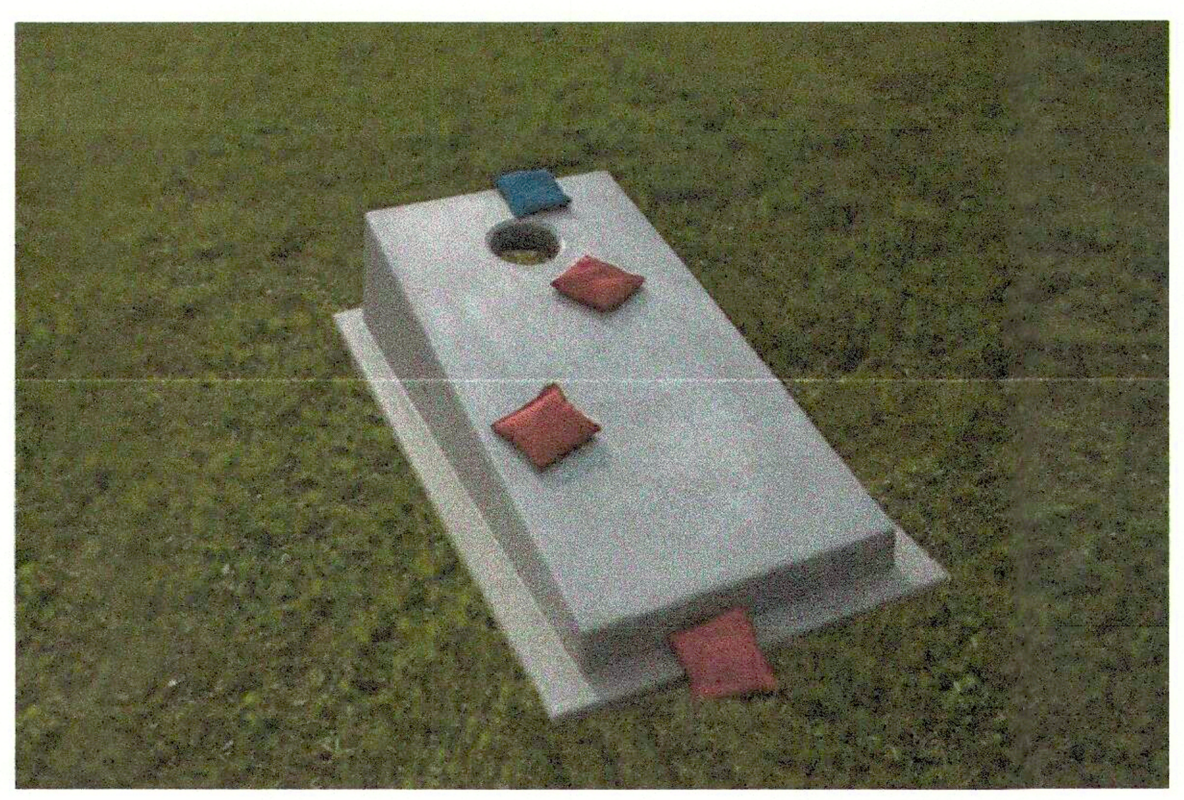
WITH DOG WATER FOUNTAIN
OR APPROVED EQUAL
NOT TO SCALE

NOTE: FOOTING AS PER MANUFACTURE



5' (FT.) HIGH ORNAMENTAL FENCE DETAIL

Not To Scale

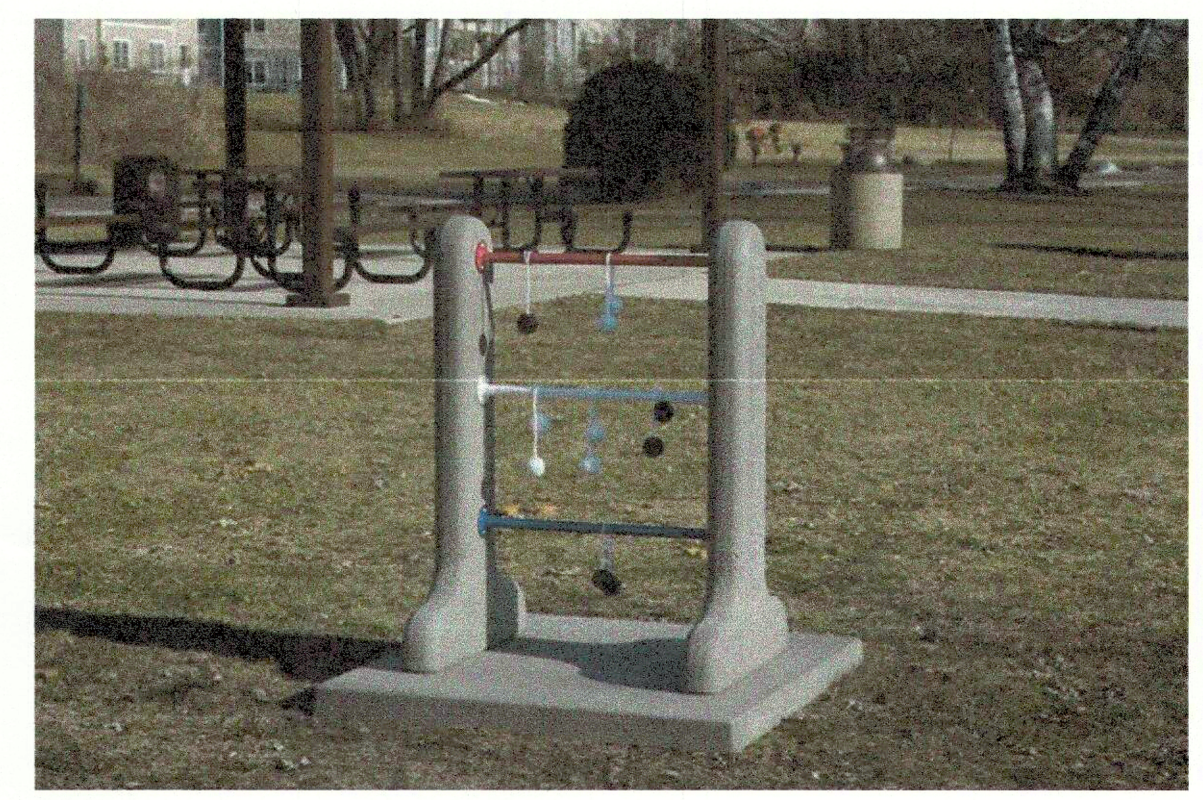


CORNHOLE STATION

Not To Scale

CHESS-CHECKERS STATION

Not To Scale



LADDER BALL STATION

Not To Scale

PULL UP STATION

Not To Scale

PULL DOWN STATION

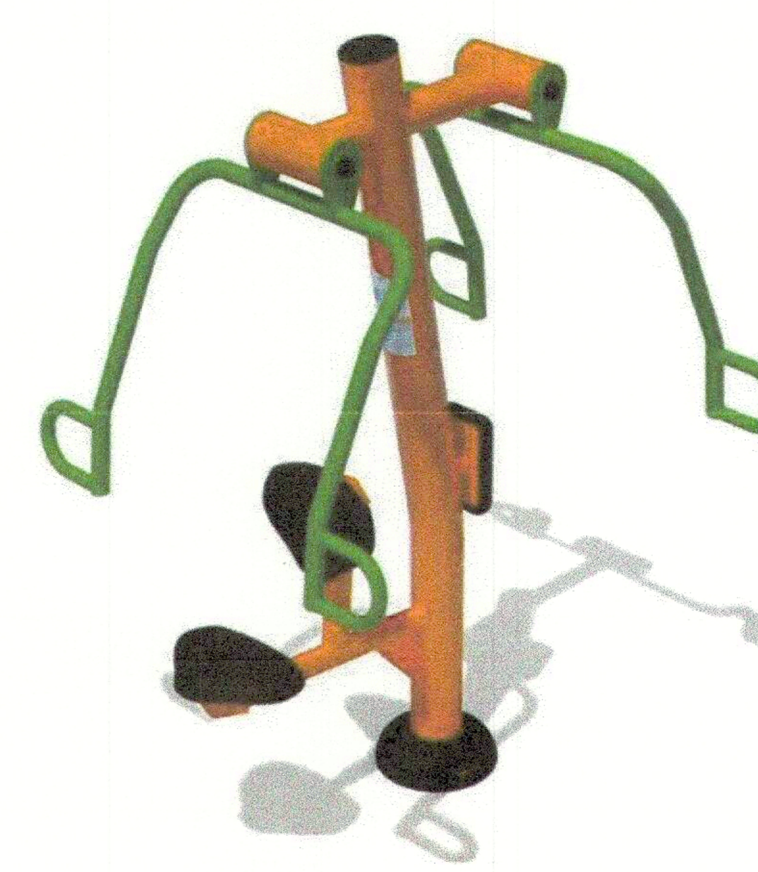
Not To Scale

LEG PRESS STATION

Not To Scale

ABS-CRUNCHES STATION

Not To Scale



CHEST PRESS STATION

Not To Scale

CARDIO WALKER STATION

Not To Scale

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