

STANDARD & SPECIFICATIONS FOR RECREATION AREA IMPROVEMENT

DEFINITION:

ESTABLISHING GRASSES, LEGUMES, NINES, SHRUBS, TREES, OR OTHER PLANTS, OR SELECTIVELY REDUCING STAND DENSITY AND TRIMMING WOODY PLANTS, TO IMPROVE AN AREA FOR RECREATION.

PURPOSE:

TO INCREASE THE ATTRACTIVENESS AND USEFULNESS OF RECREATION AREAS AND TO PROTECT THE SOIL AND PLANT RESOURCES.

CONDITIONS WHERE PRACTICE APPLIES:

ON ANY AREA PLANNED FOR RECREATION USE, LAWNS, AND AREAS THAT WILL BE MAINTAINED IN A CLOSELY MOVED CONDITION.

SPECIFICATIONS:

ESTABLISHING GRASSES (PURPOSE): THE FOLLOWING AREAS FOR PLAYGROUNDS, PARKS, ATHLETIC FIELDS, CAMPING AREAS, PICNIC AREAS, PASSIVE RECREATION AREAS SUCH AS LAWNS, AND SIMILAR AREAS.

1.) TIME OF PLANTING:

A.) PLANTING IS PREFERRED SEED AFTER AUGUST 15. IN THE SPRING, PLANT UNTIL MAY 15. IF SEEDING IS DONE BETWEEN MAY 15 AND AUGUST 15, IRRIGATION MAY BE NECESSARY TO ENSURE A SUCCESSFUL SEEDING.

2.) SITE PREPARATION:

A.) INSTALL NEEDED WATER AND EROSION CONTROL MEASURES AND BRING AREA TO BE SEEDED TO DESIRED GRADE. SEEDING MUST BE SEENED WITHIN 24 HOURS OF DISTURBANCE OR SCARIFICATION OF THE SURFACE. SEEDING IS NOT NECESSARY PRIOR TO SEEDING.

B.) SEE STANDARD AND SPECIFICATION FOR TOPSOILING.

C.) PREPARE SEEDBED BY LOOSENING SOIL TO A DEPTH OF 4-6 INCHES.

D.) LIME TO A PH OF 8.5.

E.) FERTILIZE AS PER SOIL TEST OR, IF SOIL MUST BE FERTILIZED BEFORE RESULTS OF A SOIL TEST, THEN FERTILIZE AS PER APPROVED COMMERCIAL FERTILIZER AT 850 POUNDS OF 5-10-10 OR EQUIVALENT PER ACRE (20 LBS./1000 SQ. FT.).

F.) INCORPORATE LIME AND FERTILIZER IN TOP 2-4 INCHES OF TOPSOIL.

G.) SMOOTH, REMOVE STICKS, FOREIGN MATTER, AND STONES OVER 1 INCH IN DIAMETER, FROM THE SURFACE. FIRM THE SEEDBED.

3.) PLANTING:

A.) USE A CULTIPACKER TYPE SEEDER IF POSSIBLE. SEED TO A DEPTH OF 1/8 TO 1/4 INCH. IF SEED IS TO BE BROADCAST, CULTIPACK OR ROLL AFTER SEEDING. IF HYDROSEED, LIME AND FERTILIZER MAY BE APPLIED THROUGH THE SEEDER, AND ROLLING IS NOT PRACTICAL.

4.) MULCHING:

A.) MULCH ALL SEEDBEDS IN ACCORDANCE WITH STANDARD AND SPECIFICATIONS FOR MULCHING. SMALL GRAIN STRAW IS THE BEST MATERIAL.

5.) SEED MIXTURES:

A.) SELECT SEED MIXTURE FOR SITE CONDITIONS AND INTENDED USE FROM TABLE 3.2.

6.) CONTACT CORNELL COOPERATIVE EXTENSION TURF SPECIALIST FOR SUITABLE VARIETIES

A.) WHEN KENTUCKY BLUEGRASS IS USED, IT IS DESIRABLE TO USE TWO OR MORE VARIETIES IN THE PLANTING. THESE VARIETIES HAVE DIFFERENT ROOTING PATTERNS.

B.) TURF-TYPE TALL FESCUES HAVE REPLACED THE OLD KY1 TALL FESCUES. NEW VARIETIES HAVE FINER LEAVES AND ARE THE MOST RESISTANT GRASS TO FOOT TRAFFIC. DO NOT MIX IT WITH THE OLD KY1 TALL FESCUE.

C.) COMMON RYEGRASS AND REDTOP, WHICH ARE RELATIVELY SHORT LIVED SPECIES, PROVIDE QUICK GREEN COVER. IMPROVED LAWN CULTIVARS OF PERENNIAL RYEGRASS PROVIDE EXCELLENT QUALITY TURF, BUT CONTINUE TO LACK WINTER HARDINESS.

D.) COMMON BROMEGRASS IS USED IN THE PLANTING. IF PLANTED AT THE RATE OF 1-2 LBS./ACRE TO HELP MAINTAIN GREEN COLOR DURING THE SUMMER DRY PERIOD; HOWEVER, THEY WILL NOT WITHSTAND HEAVY TRAFFIC. AVOID USING AROUND SWIMMING AREAS AS FLOWERS ATTRACT BEES WHICH CAN BE EASILY STEPPED ON.

7.) FERTILIZING-FIRST YEAR:

A.) APPLY FERTILIZER TO THE SOIL TEST THREE TO FOUR WEEKS AFTER SEEDING (SPRING SEEDING). IF SEEDING RESULTS HAVE NOT BEEN OBTAINED, APPLY 1 POUND NITROGEN/1,000 SQUARE FEET. IF SEEDING HAS NOT BEEN OBTAINED, APPLY 1 POUND NITROGEN/1,000 SQUARE FEET. POUR FERTILIZER OVER A FERTILIZER WITH A 2-1-1 OR 4-1-3 RATIO. SUMMER AND EARLY FALL SEEDINGS, APPLY AS ABOVE UNLESS AIR TEMPERATURES ARE ABOVE 80°F FOR AN EXTENDED PERIOD. WAIT FOR COOLER TEMPERATURES TO FERTILIZE. LATE FALL/WINTER SEEDINGS, APPLY AS POUR FERTILIZER.

8.) RESTRICT USE:

A.) PLANTING AREAS SHOULD BE PROTECTED FROM USE FOR ONE FULL YEAR TO ALLOW DEVELOPMENT OF A DENSE SOD WITH GOOD ROOT STRUCTURE.

MAINTAINING GRASSES:

1.) MAINTAIN A PH OF 8.0 - 7.0.

2.) FERTILIZE IN LATE MAY TO EARLY JUNE AS FOLLOWS WITH 10-10-10 ANALYSIS FERTILIZER AT THE RATE OF 10 LBS./1,000 SQ. FT., AND REPEAT IN LATE AUGUST IF SOIL DEPTH IS NOT ADEQUATE AND THE FERTILIZING HEAT IS GREATER THAN 80°F. TOP DRESS MEAN SOIL IN THE SPRING, BUT AT LEAST ONCE EVERY 2 TO 3 YEARS, IT IS RECOMMENDED TO FERTILIZE ACCORDING TO SOIL TEST ANALYSIS, AFTER DETERMINING ADEQUATE TOPSOIL DEPTH EXIST.

3.) AERATE COMPACTED OR HEAVILY USED AREAS, LIKE ATHLETIC FIELDS, ANNUALLY AS SOON AS SOIL MOISTURE CONDITIONS PERMIT. AERATE AREA SIX TO EIGHT TIMES USING A SPOON OR HOLLOW TUBE AERATOR. DO NOT USE SOIL SPRINKLER EQUIPMENT.

4.) RESEED BARE AND THIN AREAS ANNUALLY WITH ORIGINAL SEED MIX.

STANDARD AND SPECIFICATIONS FOR TOPSOILING

DEFINITION:

SPREADING A SPECIFIED QUALITY AND QUANTITY OF TOPSOIL MATERIALS ON GRADED OR CONSTRUCTED SUBSOIL AREAS.

PURPOSE:

TO PROVIDE ACCEPTABLE PLANT COVER GROWING CONDITIONS, THEREBY REDUCING EROSION; TO REDUCE IRRIGATION WATER NEEDS; AND TO REDUCE THE NEED FOR NITROGEN FERTILIZER APPLICATION.

CONDITIONS WHERE PRACTICE APPLIES:

TOPSOIL IS APPLIED TO SUBSOILS THAT ARE DROUGHT LOWLY AVAILABLE MOISTURE FOR PLANTS, STONY, SLOWLY PERMEABLE, SALTY OR EXTREMELY ACID. IT IS ALSO USED TO BACKFILL AROUND SHRUB AND TREE TRANSPLANTS. THIS STANDARD DOES NOT APPLY TO WETLAND SOILS.

DESIGN CRITERIA:

1.) PRESERVE EXISTING TOPSOIL IN PLACE WHERE POSSIBLE, THEREBY REDUCING THE NEED FOR ADDED TOPSOIL.

2.) CONSERVE BY STOCKPILING TOPSOIL AND FRIBLLE FINE TEXTURED SUBSOILS THAT MUST BE STRIPPED FROM THE EXCAVATED SITE AND APPLIED AFTER FINAL GRADING WHERE VEGETATION WILL BE ESTABLISHED.

3.) REFER TO USDA SOIL CONSERVATION SERVICE (PRESENTLY NATURAL RESOURCE CONSERVATION SERVICE) SOIL SURVEYS OR SOIL INTERPRETATION RECORD SHEETS FOR FURTHER SOIL TEXTURE INFORMATION FOR SELECTING APPROPRIATE DESIGN TOPSOIL DEPTHS.

SITE PREPARATION:

1.) AS NEEDED, INSTALL EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, CHANNELS, SEDIMENT TRAPS, AND STABLING MEASURES, OR MAINTAIN IF ALREADY INSTALLED.

2.) COMPLETE ROUGH GRADING AND FINAL GRADE, ALLOWING FOR DEPTH OF TOPSOIL TO BE ADDED.

3.) SCARIFY ALL COMPACT, SLOWLY PERMEABLE, MEDIUM AND FINE TEXTURED SUBSOIL AREAS, SPARING AT APPROXIMATELY 80% ANGLES TO THE SLOPE DIRECTION IN SOIL AREAS THAT ARE STEEPER THAN 5 PERCENT. AREAS THAT HAVE BEEN OVER COMPACTED SHALL BE DECOMPACTED TO A MINIMUM DEPTH OF 12 INCHES WITH A DEEP RIPPER OR CHISEL PLOW PRIOR TO TOPSOILING.

4.) REMOVE REFUSE, WOODY PLANT PARTS, STONES OVER 3 INCHES IN DIAMETER, AND OTHER LITTER.

TOPSOIL MATERIALS:

1.) TOPSOIL SHALL HAVE AT LEAST 6 PERCENT BY WEIGHT OF FINE TEXTURED STABLE ORGANIC MATERIAL, AND NO GREATER THAN 20 PERCENT, MUCK SOIL SHALL NOT BE CONSIDERED TOPSOIL.

2.) TOPSOIL SHALL HAVE NOT LESS THAN 20 PERCENT FINE TEXTURED MATERIAL (PASSING THE NO. 200 SIEVE) AND NO MORE THAN 15 PERCENT CLAY.

3.) TOPSOIL TREATED WITH SOIL STERILANTS OR HERBICIDES SHALL BE SO IDENTIFIED TO THE PURCHASER.

4.) TOPSOIL SHALL BE RELATIVELY FREE OF STONES OVER 1/2 INCHES IN DIAMETER, TRASH, NOXIOUS WEEDS SUCH AS NUT SEDGE AND QUACKGRASS, AND WILL HAVE LESS THAN 10 PERCENT GRAVEL.

5.) TOPSOIL CONTAINING SOLUBLE SALTS GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.

APPLICATION AND GRADING:

1.) TOPSOIL SHALL BE DISTRIBUTED TO A UNIFORM DEPTH OVER THE AREA. IT SHALL NOT BE PLACED WHEN IT IS PARTLY FROZEN, MUDDY, OR ON FROZEN SLOPES OR OVER ICE, SNOW, OR STANDING WATER PUDDLES.

2.) TOPSOIL PLACED AND GRADED ON SLOPES STEEPER THAN 5 PERCENT SHALL BE PROMPTLY FERTILIZED, SEEDED, MULCHED, AND STABILIZED BY "TRACKING" WITH SUITABLE EQUIPMENT.

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5.) REFER TO USDA SOIL CONSERVATION SERVICE (PRESENTLY NATURAL RESOURCE CONSERVATION SERVICE) SOIL SURVEYS OR SOIL INTERPRETATION RECORD SHEETS FOR FURTHER SOIL TEXTURE INFORMATION FOR SELECTING APPROPRIATE DESIGN TOPSOIL DEPTHS.

EROSION CONTROL BLANKETS

USE TO REINFORCE SOILS GREATER THAN 5% AS SHOWN ON THE PLANS. EROSION CONTROL BLANKETS SHALL CONSIST OF A LIGHTWEIGHT, PHOTOGRAPHIC POLYPROPYLENE NET WITH AN APPROXIMATE WEIGHT OF 1.64 LBS./1000 SQUARE FEET, DEGRADABLE THREAD, STRAW FIBER WITH AN APPROXIMATE WEIGHT OF 0.5 LBS./SQUARE YARD, WITH MANUFACTURER'S DOT STAPLE SYSTEM AND 6 INCH BISTAKES BIODEGRADABLE BLANKET FASTENERS. USE DEGRADABLE DOUBLE NET STRAW BLANKET, PRODUCT NO. S150 BY NORTH AMERICAN GREEN, OR APPROVED EQUIVALENT.

SITE PREPARATION

LIMITS OF CLEARING AND DISTURBANCE SHALL BE CLEARLY IDENTIFIED. EROSION AND SEDIMENT CONTROLS SHALL BE IN ACCORDANCE WITH THE PLANS AND/OR WHERE EROSION AND SEDIMENTATION MAY OCCUR. FURTHERMORE EROSION AND SEDIMENT CONTROL SYSTEMS SHALL BE PLACED AS SHOWN BY SITE CONDITIONS IN THE PLANS. CLEARING AND GRUBBING AND REMOVAL OF ANY TREES, OTHER VEGETATION AND/OR EXCAVATION FROM AREAS TO BE DISTURBED MAY BEGIN ONLY WHEN EROSION AND SEDIMENT CONTROL SYSTEMS ARE IN PLACE AND FULLY FUNCTIONAL.

TEMPORARY CRITICAL AREA PLANTING SPECIFICATIONS

1.) WATER MANAGEMENT PRACTICES MUST BE INSTALLED AS APPROPRIATE FOR SITE CONDITIONS. THE AREA MUST BE ROUGH GRADED AND SLOPES PHYSICALLY STABILE. LARGE DEBRIS AND ROCKS ARE OF THE SURFACE. SEEDING MUST BE SEENED WITHIN 24 HOURS OF DISTURBANCE OR SCARIFICATION OF THE SURFACE. SEEDING IS NOT NECESSARY PRIOR TO SEEDING.

2.) FERTILIZER AND LIME ARE NOT TYPICALLY USED FOR TEMPORARY SEDIMENTATION.

3.) PLANTING IN SPRING OR SUMMER OR EARLY FALL, THEN SEED THE AREA WITH RYEGRASS (ANNUAL OR PERENNIAL) AT 30 LBS. PER ACRE (2.5 LBS./1000 SQ. FT. OR 1 LB./1000 SQ. FT.).

4.) PLANTING IN LATE FALL OR EARLY WINTER, THEN SEED CERTIFIED "AROSTOCK" WINTER RYE (CEREAL RYE) AT 100 LBS. PER ACRE (2.5 LBS./1000 SQ. FT.).

5.) ANY SEEDING METHOD THAT USES MULCH, SOIL, OR OTHER MATERIALS THAT WOULD INTERFERE WITH, OR PREVENT, CONSTRUCTION OF SATISFACTORY PLANTS.

6.) ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPAGE, SETTLEMENT, SUBSIDENCE, OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

7.) ALL SITES SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 3 INCHES IN THICKNESS.

8.) EXCEPT FOR APPROVED LANDFILLS OR NONSTRUCTURAL FILLS, FILL MATERIAL SHALL BE FREE OF FINE PARTICLES, BRUSH, ROOTS, SOIL, OR OTHER FOREIGN OBJECTIVE MATERIALS THAT WOULD INTERFERE WITH, OR PREVENT, CONSTRUCTION OF SATISFACTORY PLANTS.

9.) FINE MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS OR STRUCTURAL FILLS.

10.) FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.

11.) ALL BENCHES SHALL BE KEPT FREE OF SEDIMENT DURING ALL PHASES OF DEVELOPMENT.

12.) SEEP'S OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN ON PAGE 58-44 OF THE "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" OR OTHER APPROVED METHODS.

13.) ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

14.) STOCKPILES, BORROW AREAS, AND SPOIL AREAS SHALL BE SHOWN ON THE PLANS AND SHALL BE SUBJECT TO THE PROVISIONS OF THIS STANDARD AND SPECIFICATIONS.

ESTABLISHING AND MAINTAINING TREES, SHRUBS, AND VINES

GENERAL:

1.) PLANTS SHALL CONFORM TO THE SPECIES, VARIETY, SIZE, NUMBER, AND CONDITIONS AS STATED ON LANDSCAPE DRAWINGS. "AMERICAN STANDARD FOR NURSERY STOCK" QUALITY OF PLANT MATERIALS.

2.) DELIVERABLE LEGIBLE LABELS WITH THE SCIENTIFIC AND COMMON NAME AND CULTIVAR SHALL BE SECURELY ATTACHED TO PLANTS, BUNDLES OF SEEDLINGS, CONTAINERS, AND/PLATS.

3.) PLANTS SHALL BE PLANTED IN A MANNER THAT IS APPROPRIATE FOR THE PLANT AND THE SITE. SMALL GRAIN STRAW IS THE BEST MATERIAL.

PLANTING TIME

1.) DECIDUOUS TREES AND SHRUBS: APRIL 1 TO JUNE 1 AND OCTOBER 15 TO DECEMBER 15.

2.) EVERGREEN TREES AND SHRUBS: APRIL 1 TO JUNE 1 AND SEPTEMBER 1 TO NOVEMBER 15.

SEEDING:

1.) ALL TREES AND SHRUBS SHALL BE PLANTED AS SPECIFIED ON LANDSCAPE DRAWINGS OR AS SPECIFIED IN THE FIELD BY THE DESIGN ENGINEERS OR LANDSCAPE ARCHITECT.

2.) FOR CLUMPS, PLANT SPACING SO MATURE SHRUBS WILL BE TOUCHING OR OVERLAPPING BY ONLY 1 OR 2 FEET.

SITE PREPARATION:

1.) INDIVIDUAL SITES FOR PLANTING SEEDLINGS SHALL BE PREPARED BY SCALING THE SOD AWAY FROM A FOUR FOOT SQUARE AREA WHERE THE TREE OR SHRUB IS TO BE PLANTED.

2.) PLANTED SEEDBEDS SHALL BE CULTIVATED TO A DEPTH OF 8 INCHES, OR CHEMICALLY TREATED FOR WEED CONTROL.

PLANTING:

1.) PLANTS SHALL BE LOCATED AS SHOWN ON PLANS AND/OR DRAWINGS AND, WHERE NECESSARY, LOCATED ON SITE BY STAKES, FLAGS OR OTHER MEANS.

2.) PRIOR TO PLANTING, REMOVE DECIDUOUS WIRE BASKET SECURING ROOT BALL, UNTE AND ROLL DOWN BURLAP, AND REMOVE TIE RIBBON OR OTHER MATERIAL.

3.) PLANTS SHALL BE SET UPRIGHT IN HOLES.

4.) THE PLANTING HOLE SHALL BE THREE TIMES WIDER THAN THE DIAMETER OF THE PLANT, AT A DEPTH THAT ALLOWS THE ROOT FLARE TO BE ABOVE FINISHED GRADE AND SHALL BE BACKFILLED WITH NATIVE SOIL.

5.) ALL PLANTS SHALL BE THOROUGHLY WATERED ON THE SAME DAY OF PLANTING. PLANTS THAT HAVE SETTLED SHALL BE RESET TO GRADE.

WRAPPING:

1.) IMMEDIATELY AFTER PLANTING, WRAP DECIDUOUS TREE TRUNKS FROM THE BOTTOM TO THE FIRST LIMB WITH A 4 INCH MICE BITUMEN IMPREGNATED, INSECT RESISTANT TAPE OR PAPER MANUFACTURED WITH JUTE (BAG STRINGS) AT TOP AND BOTTOM, THE WRAP SHOULD BE REMOVED PER NURSERY RECOMMENDATIONS.

MULCHING:

1.) FOLLOW THE DISTRICT AREA AROUND INDIVIDUAL TREES AND SHRUBS WITH A 2-3" LAYER OF WOOD CHIPS. PULL WOOD CHIPS 1 INCH AWAY FROM THE BASE OF SHRUBS TO AVOID FUNGUS DEVELOPMENT.

PRUNING:

1.) AFTER PLANTING, PRUNE TO REMOVE INJURED TWIGS AND BRANCHES. THE NATURAL SHAPE OF THE PLANT SHOULD NOT BE CHANGED.

CLEANUP AND MAINTENANCE:

1.) AFTER ALL WORK IS COMPLETED, ALL EXCESS SOIL, DEBRIS, ETC., SHALL BE REMOVED FROM THE SITE.

2.) WATER PLANTS TWO WEEKS AFTER PLANTING, FOR TWO YEARS. WATER PLANTS EVERY TWO WEEKS DURING DRY PERIODS, WHICH EXCEED THREE WEEKS WITHOUT A GOOD SOAKING RAIN. SHRUBS MAY REQUIRE 3 TO 5 GALLONS AND TREES, 20 TO 30 GALLONS FOR EACH WATERING.

3.) REMOVE TRUNK WRAP ONE YEAR AFTER PLANTING OR AS RECOMMENDED BY NURSERY.

PRUNING:

1.) REMOVE GREEN LEAVES AND LIMB STUBS TO THE FOLLOWING WIDTHS AND HEIGHTS SPECIFIED FOR THE INTENDED USE.

2.) REMOVE DEAD, DISEASED, OR DYING LIMBS.

3.) DO NOT REMOVE MORE THAN ONE-THIRD OF THE LIVE CROWN OF A TREE IN A YEAR.