Du DUST CONTROL ON DISTURBED AREAS

DEFINITION

CONTROLLING SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITES, ROADS AND DEMOLITION SITES.

PURPOSE

TO PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES AND REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY BE HARMFUL OR INJURIOUS TO HUMAN HEALTH, WELFARE, OR SAFETY, OR TO ANIMALS OR PLANT LIFE.

CONDITIONS

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST WHERE ON AND OFF-SITE DAMAGE MAY OCCUR WITHOUT TREATMENT.

METHODS AND MATERIALS

A. TEMPORARY METHODS
MULCHES: SEE STANDARD DS1 – DISTURBED AREA STABILIZATION (WITH MULCHING ONLY) IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, CURRENT EDITION. SYNTHETIC RESINS MAY BE USED INSTEAD OF ASPHALT TO BIND MULCH MATERIAL. TACKIFIERS, BINDERS, AND RESINS SUCH AS CURASOL OR TERRATACK SHOULD BE USED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
VEGETATIVE COVER: SEE STANDARD DS2 – DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING).
SPRAY-ON ADHESIVES: THESE ARE USED ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.
TILLAGE: THIS PRACTICE IS DESIGNED TO ROUGHEN AND BRING CLODS TO THE SURFACE. IT IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE WIND EROSION STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
IRRIGATION: THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED.
BARRIERS: SOLID BOARD FENCES, SNOWFENCES, BURLAP FENCES, CRATE WALL, BALES OF HAY AND SIMILAR MATERIALS CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 15 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING WIND EROSION.
B. PERMANENT METHODS
PERMANENT VEGETATION: SEE STANDARD DS3 – DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION). EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.
TOPSOILING: THIS ENTAILS COVERING THE SURFACE WITH LESS EROSIVE SOIL MATERIAL.
STONE: COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

ADHESIVE	WATER DILUTION	TYPE OF NOZZLE	APPLICATION RATE (Gallons/Acre)
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1,200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN-IN-WATER EMULSION	4:1	FINE SPRAY	300

EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL MINIMIZE THE AREAS TO BE DISTURBED SIMULTANEOUSLY.
2. A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE AT ALL TIMES.
3. THE CONTRACTOR SHALL VERIFY WITH ENGINEER THE NOTICE OF INTENT HAS BEEN SUBMITTED TO EPD PRIOR TO CONSTRUCTION.
4. TREE PROTECTION FENCING SHOULD BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBANCE ACTIVITY AND MAINTAINED UNTIL FINAL LANDSCAPE IS INSTALLED. THE TREE PROTECTION FENCING SHOULD BE INSPECTED DAILY. ANY FAILURES OF SAID FENCING SHOULD BE REPAIRED IMMEDIATELY.
5. AFTER INSTALLATION OF INITIAL EROSION CONTROL MEASURES, THE SITE CONTRACTOR SHALL SCHEDULE AN INSPECTION BY THE PROJECT DESIGN PROFESSIONAL. NO OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR UNTIL THE PROJECT DESIGN PROFESSIONAL APPROVES THE INSTALLATION OF SAID EROSION CONTROL MEASURES. IF UNFORESEEN CONDITIONS EXIST IN THE FIELD THAT WARRANT ADDITIONAL EROSION CONTROL MEASURES, THE CONTRACTOR MUST CONSTRUCT ANY ADDITIONAL EROSION CONTROL DEVICES DEEMED NECESSARY BY THE SITE INSPECTION.
6. ALL DISTURBED AREAS LEFT MULCHED AFTER 30 DAYS SHALL BE STABILIZED WITH TEMPORARY VEGETATION.
7. SEDIMENT AND EROSION CONTROL MEASURES SHOULD BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED PER REQUIREMENTS OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".
8. THE CONSTRUCTION AREA SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.
9. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN CAREFUL SCHEDULING AND PERFORMANCE TO ENSURE THAT LAND STRIPPED OF ITS NATURAL GROUND COVER IS EXPOSED ONLY IN SMALL QUANTITIES AND THEREFORE LIMITED DURATIONS, BEFORE PERMANENT EROSION PROTECTION IS ESTABLISHED.
10. SEDIMENT SHALL NOT BE WASHED INTO INLETS. IT SHALL BE REMOVED FROM THE SEDIMENT TRAPS AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLETS AGAIN.
11. EROSION CONTROL DEVICES SHALL BE INSTALLED IMMEDIATELY AFTER GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE DESIGN PROFESSIONAL IMMEDIATELY.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING BARRIERS AT THE TOE OF ALL SLOPES UNDER CONSTRUCTION. THESE BARRIERS SHALL BE AS SHOWN IN THE PLANS. THESE BARRIERS MAY BE RELOCATED AND REUSED AFTER PERMANENT SLOPE STABILIZATION BECOMES FULLY ESTABLISHED. AS THEY ARE RELOCATED, ANY DEFECTIVE MATERIALS IN THE BARRIER SHALL BE REPLACED. IN ADDITION, ALL DEBRIS AND SILT AT THE PREVIOUS LOCATION SHALL BE REMOVED.
13. CUT AND FILL SLOPES ARE NOT TO EXCEED 2H:1V.
14. ALL SLOPES STEEPER THAN 2.5:1 AND WITH A HEIGHT OF TEN FEET OR GREATER, AND CUTS AND FILLS WITHIN STREAM BUFFERS, SHALL BE STABILIZED WITH SOD. SEE SEPARATE DETAILS FOR ADDITIONAL INFORMATION.
15. TYPE "A" SILT FENCE SHALL BE PLACED AT THE TOE OF ALL DIRT STOCKPILE AREAS.
16. CHECK DAMS SHALL BE INSTALLED IN AREAS OF CONCENTRATED FLOWS AS SHOWN ON THE PLAN.
17. **ALL DRAINAGE SWALES SHALL BE APPLIED WITH VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED.**
18. **ALL GRADED AREAS SHALL BE APPLIED WITH VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED.**
19. **ALL ROADWAY AND PARKING SHOULDERS SHOULD BE APPLIED WITH VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED.**
20. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
21. UPON COMPLETION OF THE PROJECT AND RECEIPT OF CERTIFICATE OF OCCUPANCY, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND DISPOSE OF THEM UNLESS NOTED ON PLANS.

Ds2 DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

DEFINITION

THE ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDLINGS FOR SEASONAL PROTECTION ON DISTURBED OR DENUDED AREAS.

PURPOSE

- TO REDUCE RUNOFF AND SEDIMENT DAMAGE OF DOWNSTREAM RESOURCES
- TO PROTECT THE SOIL SURFACE FROM EROSION
- TO IMPROVE WILDLIFE HABITAT
- TO IMPROVE AESTHETICS
- TO IMPROVE TILTH, INFILTRATION AND AERATION AS WELL AS ORGANIC MATTER FOR PERMANENT PLANTINGS.

CONDITIONS

THIS PRACTICE IS APPLICABLE ON AREAS SUBJECT TO EROSION FOR UP TO SIX MONTHS OR UNTIL THE ESTABLISHMENT OF FINISHED GRADE OR PERMANENT VEGETATIVE COVER. TEMPORARY VEGETATIVE MEASURES SHOULD BE COORDINATED WITH PERMANENT MEASURES TO ENSURE ECONOMICAL AND EFFECTIVE STABILIZATION.

SPECIFICATIONS

1. GRADING AND SHAPING
1.1. EXCESSIVE WATER RUN-OFF MUST BE CONTROLLED BY PLANNED AND INSTALLED EROSION CONTROL PRACTICES SUCH AS CLOSED DRAINS, DITCHES, DIKES, DIVERSIONS, SEDIMENT BASINS AND OTHERS.
1.2. NO SHAPING OR GRADING IS REQUIRED IF SLOPES CAN BE STABILIZED BY HAND-SEEDED VEGETATION OR IF HYDRAULIC SEEDING EQUIPMENT IS TO BE USED.
2. SEEDBED PREPARATION
2.1. WHEN A HYDRAULIC SEEDER IS USED, SEEDBED PREPARATION IS NOT REQUIRED.
2.2. WHEN USING CONVENTIONAL OR HAND-SEEDING, SEEDBED PREPARATION IS NOT REQUIRED IF THE SOIL MATERIAL IS LOOSE AND NOT SEALED BY RAIN.
2.3. WHEN SOIL HAS BEEN SEALED BY RAINFALL OR CONSISTS OF SMOOTH UNDISTURBED CUT SLOPES, THE SOIL SHALL BE PITTED, TRENCHED OR OTHERWISE SCARIFIED TO PROVIDE A PLACE FOR SEED TO LODGE AND GERMINATE.
3. LIME AND FERTILIZER
3.1. AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE. GRADED AREAS REQUIRE LIME APPLICATION.
3.2. SOILS CAN BE TESTED TO DETERMINE IF FERTILIZER IS NEEDED. ON REASONABLY FERTILE SOILS OR SOIL MATERIAL, FERTILIZER IS NOT REQUIRED.
3.3 ON SOILS OF VERY LOW FERTILITY, USE 500 TO 700 POUNDS OF 10-10-10 FERTILIZER OR THE EQUIVALENT PER ACRE (12-16 LBS./1,000SQ.FT.). IF THE SITE WILL PERMIT, APPLY BEFORE LAND PREPARATION AND DISK, RIP OR CHISEL TO INCORPORATE.
4. SEEDING: SELECT A GRASS OR GRASS-LEGUME MIXTURE SUITABLE TO THE AREA AND SEASON OF THE YEAR.
5. IRRIGATION
5.1. DURING TIMES OF DROUGHT, WATER SHALL BE APPLIED AT A RATE NOT CAUSING RUNOFF AND EROSION.
5.2. THE SOIL SHALL BE THOROUGHLY WETTED TO A DEPTH THAT WILL ENSURE GERMINATION OF THE SEED.
5.3. SUBSEQUENT APPLICATIONS SHOULD BE MADE WHEN NEEDED.

SEEDING RATES FOR TEMPORARY SEEDING

SPECIES	ALONE: RATE PER 1,000 SQ.FT.	ALONE: RATE PER ACRE *	IN MIXTURE: RATE PER 1,000 SQ.FT.	IN MIXTURE: RATE PER ACRE *	PLANTING DATES ** COASTAL AREA
Barley	3.3 lbs.	3 bushels	0.8 lbs.	1/2 bushel	9/1–12/31
Annual Lespedeza	0.9 lbs.	40 lbs.	0.2 lbs.	10 lbs.	1/15–3/15
Weeping Lovegrass	0.1 lbs.	4 lbs.	0.05 lbs.	2 lbs.	2/14–6/15
Browntop Millet	0.9 lbs.	40 lbs.	0.2 lbs.	10 lbs.	4/1–7/15
Pearl Millet	1.1 lbs.	50 lbs.	NOT RECOMMENDED FOR MIXTURES		4/1–8/31
Oats	2.9 lbs.	4 bushels	0.7 lbs.	1 bushel	9/1–11/30
Rye	3.9 lbs.	3 bushels	0.6 lbs.	1/2 bushel	9/1–2/28
Ryegrass	0.9 lbs.	40 lbs.	NOT TO BE USED IN MIXTURES		8/15–3/31
Sudangrass	1.4 lbs.	60 lbs.	NOT RECOMMENDED FOR MIXTURES		3/1–7/31
Triticale	3.3 lbs.	3 bushels	0.6 lbs.	1/2 bushel	1/1–1/31, 9/15–10/15, 12/15–12/31
Wheat	4.1 lbs.	3 bushels	0.7 lbs.	1/2 bushel	10/15–1/31

* UNUSUAL SITE CONDITIONS MAY REQUIRE HEAVIER SEEDING RATES
** SEEDING DATES MAY NEED TO BE ALTERED TO FIT TEMPERATURE VARIATIONS AND CONDITIONS.

CONSTRUCTION SCHEDULE

ACTIVITY	JAN 2024	FEB 2024	MAR 2024	APR 2024	MAY 2024	JUN 2024	JUL 2024	AUG 2024	SEP 2024	OCT 2024	NOV 2024	DEC 2024	JAN 2025
CLEARING & GRUBBING	X												
EROSION CONTROL DEVICES	X	X	X	X	X	X	X	X	X	X	X	X	X
GRADING	X	X	X										
BUILDING CONSTRUCTION					X	X	X	X	X	X	X	X	X
STORM DRAINAGE	X	X	X										
WATER, SEWER, UTILITIES		X	X	X									
PAVING					X								
FINE GRADING & LANDSCAPING					X								
TEMPORARY GRASSING AND TYPE OF GRASS	PEARL MILLET (APR-AUG) RYEGRASS, ANNUAL (SEP-MAR)												
FINAL GRASSING	SEE NOTE BELOW												

NOTE: FINAL GRASSING SHALL CONSIST OF SODDING ALL DISTURBED AREAS AFTER BUILDING CONSTRUCTION IS COMPLETED. IF ALL AREAS ARE NOT SODDED, THE FOLLOWING GRASSES SHALL BE PLANTED UNTIL PERMANENT VEGETATIVE COVER CAN BE ESTABLISHED:
BROWNTOP MILLET–JUNE THROUGH OCTOBER
UNHULLED BERMUDA–NOVEMBER THROUGH JANUARY
HULLED BERMUDA–FEBRUARY THROUGH MAY

Ds3 DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

DEFINITION

THE PLANTING OF PERENNIAL VEGETATION SUCH AS TREES, SHRUBS, VINES, GRASSES, OR LEGUMES ON EXPOSED AREAS FOR FINAL PERMANENT STABILIZATION. PERMANENT PERENNIAL VEGETATION SHALL BE USED TO ACHIEVE FINAL STABILIZATION.

PURPOSE

- TO PROTECT THE SOIL FROM EROSION
- TO REDUCE DAMAGE FROM SEDIMENT AND RUNOFF TO DOWNSTREAM AREAS.
- TO IMPROVE WILDLIFE HABITAT AND VISUAL RESOURCES.
- TO IMPROVE AESTHETICS.

REQUIREMENT FOR REGULATORY COMPLIANCE

THIS PRACTICE SHALL BE APPLIED IMMEDIATELY TO ROUGH GRADED AREAS THAT WILL BE UNDISTURBED FOR LONGER THAN SIX MONTHS. THIS PRACTICE OR SODDING SHALL BE APPLIED TO ALL AREAS AT FINAL GRADE. "FINAL STABILIZATION" MEANS THAT ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED, AND THAT FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES AND AREAS LOCATED OUTSIDE THE WASTE DISPOSAL LIMITS OF A LANDFILL CELL THAT HAS BEEN CERTIFIED BY EPD FOR WASTE DISPOSAL, 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR LANDSCAPED ACCORDING TO THE PLAN (UNIFORMLY COVERED WITH LANDSCAPING MATERIALS IN PLANNED LANDSCAPED AREAS), OR EQUIVALENT PERMANENT STABILIZATION MEASURES AS DEFINED IN THE MANUAL (EXCLUDING A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET CROP PERENNIALS APPROPRIATE FOR THE REGION). FINAL STABILIZATION APPLIES TO EACH PHASE OF CONSTRUCTION. FOR LINEAR CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL OR SILVICULTURAL PURPOSES, FINAL STABILIZATION MAY BE ACCOMPLISHED BY STABILIZING THE DISTURBED LAND FOR ITS AGRICULTURAL OR SILVICULTURAL USE. UNTIL THIS STANDARD IS SATISFIED AND PERMANENT CONTROL MEASURES AND FACILITIES ARE OPERATIONAL, INTERIM STABILIZATION MEASURES AND TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL NOT BE REMOVED.

CONDITIONS

PERMANENT PERENNIAL VEGETATION IS USED TO PROVIDE A PROTECTIVE COVER FOR EXPOSED AREAS INCLUDING CUTS, FILLS, DAMS, AND OTHER DENUDED AREAS.

CONSTRUCTION SPECIFICATIONS

1. GRADING AND SHAPING
1.1. GRADING AND SHAPING MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED. VERTICAL BANKS SHALL BE SLOPED TO ENABLE PLANT ESTABLISHMENT.
1.2. WHEN CONVENTIONAL SEEDING AND FERTILIZING ARE TO BE DONE, GRADE AND SHAPE WHERE FEASIBLE AND PRACTICAL, SO THAT EQUIPMENT CAN BE USED SAFELY AND EFFICIENTLY DURING SEEDBED PREPARATION, SEEDING, MULCHING, AND MAINTENANCE OF VEGETATION.
2. LIME AND FERTILIZER RATES AND ANALYSIS
2.1. AGRICULTURAL LIME IS REQUIRED AT THE RATE OF ONE TO TWO TONS PER ACRE UNLESS SOIL TESTS INDICATE OTHERWISE. GRADED AREAS REQUIRE LIME APPLICATION. IF LIME IS APPLIED WITHIN SIX MONTHS OF PLANTING PERMANENT PERENNIAL VEGETATION, ADDITIONAL LIME IS NOT REQUIRED. AGRICULTURAL LIME SHALL BE WITHIN THE SPECIFICATIONS OF THE GEORGIA DEPARTMENT OF AGRICULTURE.
2.2. LIME SPREAD BY CONVENTIONAL EQUIPMENT SHALL BE "GROUND LIMESTONE". GROUND LIMESTONE IS DOLOMITIC LIMESTONE GROUND SO THAT 90 PERCENT OF THE MATERIAL WILL PASS THROUGH A 10-MESH SIEVE, NOT LESS THAN 50 PERCENT WILL PASS THROUGH A 50-MESH SIEVE AND NOT LESS THAN 25 PERCENT WILL PASS THROUGH A 100-MESH SIEVE.
2.3. AGRICULTURAL LIME SPREAD BY HYDRAULIC SEEDING EQUIPMENT SHALL BE "FINELY GROUND LIMESTONE". FINELY GROUND LIMESTONE IS DOLOMITIC LIMESTONE GROUND SO THAT 98 PERCENT OF THE MATERIAL WILL PASS THROUGH A 20-MESH SIEVE AND NOT LESS THAN 70 PERCENT WILL PASS THROUGH A 100-MESH SIEVE.
3. LIME AND FERTILIZER APPLICATION
3.1. WHEN HYDRAULIC SEEDING EQUIPMENT IS USED, THE INITIAL FERTILIZER SHALL BE MIXED WITH SEED, INNOCULANT (IF NEEDED), AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH AND APPLIED IN A SLURRY. THE INNOCULANT, IF NEEDED, SHALL BE MIXED WITH THE SEED PRIOR TO BEING PLACED INTO THE HYDRAULIC SEEDER. THE SLURRY MIXTURE WILL BE SPREAD UNIFORMLY OVER THE AREA WITHIN ONE HOUR AFTER BEING PLACED IN THE HYDROSEEDER.
3.2. FINELY GROUND LIMESTONE WILL BE MIXED WITH WATER AND APPLIED IMMEDIATELY AFTER MULCHING IS COMPLETED OR IN COMBINATION WITH THE TOP DRESSING.
3.3. WHEN CONVENTIONAL PLANTING IS TO BE DONE, LIME AND FERTILIZER SHALL BE APPLIED UNIFORMLY IN ONE OF THE FOLLOWING WAYS:
3.3.1. APPLY BEFORE LAND PREPARATION SO THAT IT WILL BE MIXED WITH THE SOIL DURING SEEDBED PREPARATION.
3.3.2. MIX WITH THE SOIL USED TO FILL THE HOLES, DISTRIBUTE IN FURROWS.
3.3.3. BROADCAST AFTER STEEP SURFACES ARE SCARIFIED, PITTED OR TRENCHED.
3.3.4. A FERTILIZER PELLET SHALL BE PLACED AT ROOT DEPTH IN THE CLOSING HOLE BESIDE EACH PINE TREE SEEDLING.
4. PLANT SELECTION
4.1. PLANTS SHALL BE SELECTED ON THE BASIS OF SPECIES CHARACTERISTICS, SITE AND SOIL CONDITIONS, PLANNED USE AND MAINTENANCE OF THE AREA; TIME OF YEAR OF PLANTING, METHOD OF PLANTING; AND THE NEEDS AND DESIRES OF THE LAND USER.
4.2. SOME PERENNIAL SPECIES ARE EASILY ESTABLISHED AND CAN BE PLANTED ALONE. EXAMPLES OF THESE ARE COMMON BERMUDA AND WEEPING LOVEGRASS.
4.3. OTHER PERENNIALS SUCH AS BAHIA GRASS AND SERICEA LESPEDEZA, ARE SLOW TO BECOME ESTABLISHED AND SHOULD BE PLANTED WITH ANOTHER PERENNIAL SPECIES. THE ADDITIONAL SPECIES WILL PROVIDE QUICK COVER AND AMPLE SOIL PROTECTION UNTIL THE TARGET PERENNIAL SPECIES BECOME ESTABLISHED.
4.4. PLANT SELECTION MAY ALSO INCLUDE ANNUAL COMPANION CROPS. ANNUAL COMPANION CROPS SHOULD BE USED ONLY WHEN THE PERENNIAL SPECIES ARE NOT PLANTED DURING THEIR OPTIMUM PLANTING PERIOD. A COMMON MIXTURE IS BROWN TOP MILLET WITH COMMON BERMUDA IN MID-SUMMER. CARE SHOULD BE TAKEN IN SELECTING COMPANION CROP SPECIES AND SEEDING RATES BECAUSE ANNUAL CROPS WILL COMPETE WITH PERENNIAL SPECIES FOR WATER, NUTRIENT AND GROWING SPACE. A HIGH SEEDING RATE OF THE COMPANION CROP MAY PREVENT THE ESTABLISHMENT OF PERENNIAL SPECIES.
4.5. RYEGRASS SHALL NOT BE USED IN ANY SEEDING MIXTURES CONTAINING PERENNIAL SPECIES DUE TO ITS ABILITY TO OUT-COMPETE DESIRED SPECIES CHOSEN FOR PERMANENT PERENNIAL COVER.
5. SEEDBED PREPARATION
5.1. SEEDBED PREPARATION MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS USED. WHEN CONVENTIONAL SEEDING IS TO BE USED, SEEDBED PREPARATION WILL BE DONE AS FOLLOWS FOR BROADCAST PLANTINGS:
5.2. TILLAGE AT A MINIMUM, SHALL ADEQUATELY LOOSEN THE SOIL TO A DEPTH OF 4 TO 6 INCHES; ALLEVIATE COMPACTION; INCORPORATE LIME AND FERTILIZER; SMOOTH AND FIRM THE SOIL; ALLOW FOR THE PROPER PLACEMENT OF SEED, SPRIGS, OR PLANTS; AND ALLOW FOR THE ANCHORING OF STRAW OR HAY MULCH IF A DISK IS USED.
5.3. TILLAGE MAY BE DONE WITH ANY SUITABLE EQUIPMENT.
5.4. TILLAGE SHOULD BE DONE ON THE CONTOUR WHERE FEASIBLE.
5.5. ON SLOPES TOO STEEP FOR THE SAFE OPERATION OF TILLAGE EQUIPMENT, THE SOIL SURFACE WILL BE PITTED OR TRENCHED ACROSS THE SLOPE WITH APPROPRIATE HAND TOOLS TO PROVIDE TWO PLACES 6 TO 8 INCHES APART IN WHICH SEED MAY LODGE AND GERMINATE. HYDRAULIC SEEDING MAY ALSO BE USED.
6. PLANTING
6.1. HYDRAULIC SEEDING
MIX THE SEED, INOCULANT, FERTILIZER, AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH WITH WATER AND APPLY IN A SLURRY UNIFORMLY OVER THE AREA TO BE TREATED. APPLY WITHIN ONE HOUR AFTER THE MIXTURE IS MADE.
6.2. CONVENTIONAL SEEDING
SEEDING WILL BE DONE ON A FRESHLY PREPARED AND FIRMED SEEDBED. FOR BROADCAST PLANTING, USE A CULTIPACKER-SEEDER, DRILL, ROTARY SEEDER, OTHER MECHANICAL SEEDER, OR HAND SEEDING TO DISTRIBUTE THE SEED UNIFORMLY OVER THE AREA TO BE TREATED. COVER THE SEED LIGHTLY WITH 1/8 TO 1/4 INCH OF SOIL FOR SMALL SEED AND 1/2 TO 1 INCH FOR LARGE SEED WHEN USING A CULTIPACKER OR OTHER SUITABLE EQUIPMENT.
6.3. NO-TILL SEEDING
NO-TILL SEEDING IS PERMISSIBLE INTO ANNUAL COVER CROPS WHEN PLANTING IS DONE FOLLOWING MATURITY OF THE COVER CROP OR IF THE TEMPORARY COVER STAND IS SPARSE ENOUGH TO ALLOW ADEQUATE GROWTH OF THE PERMANENT (PERENNIAL) SPECIES. THE SEED MUST BE UNIFORMLY DISTRIBUTED AND PLANTED AT THE PROPER DEPTH.
7. MULCHING
7.1. MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED.
7.2. DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2½ TONS PER ACRE. SERICEA LESPEDEZA HAY SHALL BE APPLIED AT THE RATE OF 3 TONS PER ACRE.
7.3. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING.
7.4. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 3/4:1 OR STEEPER.
7.5. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED.
7.6. BITUMINOUS TREATED ROVING MAY BE APPLIED ON PLANTED AREAS ON SLOPES, IN DITCHES OR DRY WATERWAYS TO PREVENT EROSION. BITUMINOUS TREATED ROVING SHALL BE APPLIED WITHIN 24 HOURS AFTER AN AREA HAS BEEN PLANTED. APPLICATION RATES AND MATERIALS MUST MEET GEORGIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
7.7. WOOD CELLULOSE AND WOOD PULP FIBERS SHALL NOT CONTAIN GERMINATION OR GROWTH INHIBITING FACTORS. THEY SHALL BE EVENLY DISPERSED WHEN AGITATED IN WATER. THE FIBERS SHALL CONTAIN A DYE TO ALLOW VISUAL METERING AND AID IN UNIFORM APPLICATION DURING SEEDING.
8. IRRIGATION
8.1. IF WATER IS APPLIED, IT MUST BE AT A RATE NOT CAUSING RUNOFF AND EROSION. THOROUGHLY WET THE SOIL TO A DEPTH THAT WILL ENSURE GERMINATION OF THE SEED.
9. USE AND MANAGEMENT
9.1. MOW SERICEA LESPEDEZA ONLY AFTER FROST TO ENSURE THAT THE SEEDS ARE MATURE. MOW BETWEEN NOVEMBER AND MARCH.
9.2. BERMUDAGRASS AND BAHIAGRASS MAY BE MOWED AS DESIRED. MAINTAIN AT LEAST 6 INCHES OF TOP GROWTH UNDER ANY USE AND MANAGEMENT. MODERATE USE OF TOP GROWTH IS BENEFICIAL AFTER ESTABLISHMENT.
9.3. EXCLUDE TRAFFIC UNTIL THE PLANTS ARE WELL ESTABLISHED.

SEEDING RATES FOR PERMANENT VEGETATION

SPECIES	ALONE: RATE PER 1,000 SQ.FT.	ALONE: RATE PER ACRE *	WITH OTHER PERENNIALS: RATE PER 1,000 SQ.FT.	WITH OTHER PERENNIALS: RATE PER ACRE *	PLANTING DATES ** COASTAL AREA
Pensacola Bahia	1.4 lbs.	60 lbs.	0.7 lbs.	30 lbs.	1/1–12/31
Common Bermuda (Hulled seed)	0.2 lbs.	10 lbs.	0.7 lbs.	6 lbs.	2/14–6/30
Common Bermuda*** (Unhulled seed)	0.2 lbs.	10 lbs.	0.1 lbs.	6 lbs.	11/1–1/31
Sericea Lespedeza (scarified)	1.4 lbs.	60 lbs.	1.4 lbs.	60 lbs.	2/14–6/15
Sericea Lespedeza (unscarified)	1.7 lbs.	75 lbs.	1.7 lbs.	75 lbs.	1/1–12/31
Lespedeza (scarified)	1.4 lbs.	60 lbs.	1.4 lbs.	60 lbs.	2/14–5/31
Weeping Lovegrass****	0.1 lbs.	4 lbs.	0.05 lbs.	2 lbs.	2/1–6/15
Panicgrass, Atlantic Coastal	0.5 lbs.	20.0 lbs.	0.5 lbs.	20.0 lbs.	2/1–4/30
Sunflower 'Aztec'	0.2 lbs.	10 lbs.	0.2 lbs.	10 lbs.	4/1–5/31

* UNUSUAL SITE CONDITIONS MAY REQUIRE HEAVIER SEEDING RATES.
** SEEDING DATES MAY NEED TO BE ALTERED TO FIT TEMPERATURE VARIATIONS AND CONDITIONS.
*** PLANT WITH TEMPORARY COVER SUCH AS WINTER ANNUALS.
**** DROUGHT TOLERANT. GROWS WELL WITH SERICEA LESPEDEZA ON ROADBANKS.

FERTILIZER REQUIREMENTS

SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
Cool season grasses	First	6-12-12	1500 lbs/ac.	50-100 lbs/ac. 1/2/
	Second	6-12-12	1000 lbs/ac.	-
	Maintenance	10-10-10	400 lbs/ac.	30 lbs/ac.
Cool season grasses and legumes	First	6-12-12	1500 lbs/ac.	0-50 lbs/ac. 1/
	Second	0-10-10	1000 lbs/ac.	-
	Maintenance	0-10-10	400 lbs/ac.	-
Warm season grasses	First	6-12-12	1500 lbs/ac.	50-100 lbs/ac. 2/3/
	Second	6-12-12	800 lbs/ac.	50-100 lbs/ac. 2/
	Maintenance	10-10-10	400 lbs/ac.	30 lbs/ac.
Warm season grasses and legumes	First	6-12-12	1500 lbs/ac.	50 lbs/ac. 3/
	Second	0-10-10	1000 lbs/ac.	-
	Maintenance	0-10-10	400 lbs/ac.	-

1/ APPLY IN SPRING FOLLOWING SEEDING.
2/ APPLY IN SPLIT APPLICATIONS WHEN HIGH RATES ARE USED.
3/ APPLY WHEN PLANTS GROW TO A HEIGHT OF 2 TO 4 INCHES.

LEA
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OLD CLYATTVILLE ROAD WIDENING
PI#0016285

LAND LOT 64 & 29 OF THE 11TH LAND DISTRICT
CITY OF VALDOSTA
LOWNDES COUNTY
STATE OF GEORGIA

REVISIONS	
DATE	DESCRIPTION

SCALE: N.T.S.
DESIGNED BY: DEA
CHECKED BY: MCM
SUBMITTAL DATE: 03-24-23
JOB NO. 0026-40

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DRAFT

ESPC DETAILS (SHEET 2 OF 3)

51-002

S:\0026-40 (City of Valdosta, Old Clyattville Road Widening)\DWG-PRODUCTION\51-001 ESPC Notes.dwg 6/7/2023 2:38 PM