

**METHODS AND MATERIALS**

**A. TEMPORARY METHODS**

**MULCHES**  
SEE MULCHING. SYNTHETIC RESINS MAY BE USED INSTEAD OF ASPHALT TO BIND MULCH MATERIAL.

**VEGETATIVE COVER**  
SEE TEMPORARY SEEDING.

**SPRAY-ON ADHESIVES**  
THESE ARE USED ON MINERALS SOILS. KEEP TRAFFIC OFF THESE AREAS.

**SPRINKLING**  
THE SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED. THIS METHOD IS ESPECIALLY EFFECTIVE ON HAUL ROADS AND OTHER TRAFFIC ROUTES.

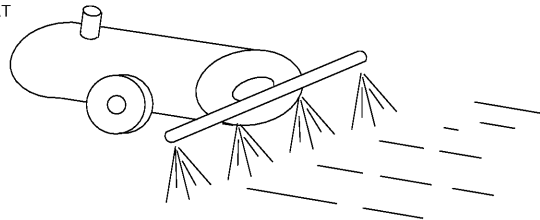
**BARRIERS**  
SOLID BOARD FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 15 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING WIND EROSION.

**B. PERMANENT METHODS**

**PERMANENT VEGETATION**  
SEE STANDARD FOR PERMANENT SEEDING, AND PERMANENT STABILIZATION WITH SOD. EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

**TOPSOILING**  
THIS ENTAILS COVERING THE SURFACE WITH LESS EROSION SOIL MATERIAL. SEE TOPSOILING.

**STONE**  
COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.



SPECIES	BROADCAST RATES 2/ - PLS 3/		RESOURCE AREA	PLANTING DATES												REMARKS
	PER ACRE	PER 1000 SQ. FT.		OPTIMUM						PERMISSIBLE BUT MARGINAL						
				J	F	M	A	M	J	J	A	S	O	N	D	
RYEGRASS, ANNUAL (LOLIUM TEMULENTUM) ALONE	40 LBS	0.9 LB	M-L P C													227,000 SEED PER POUND. DENSE COVER. VERY COMPETITIVE VERY COMPETITIVE AND IS NOT TO BE USED IN MIXTURES
SUDANGRASS (SORGHUM SUDANESE) ALONE	60 LBS	1.4 LB	M-L P C													55,000 SEED PER POUND. GOOD ON DROUGHTY SITES. NOT RECOMMENDED FOR MIXTURES.

**SPECIFICATIONS**

**GRADING AND SHAPING**

- EXCESSIVE WATER RUNOFF SHALL BE REDUCED BY PROPERLY DESIGNED AND INSTALLED EROSION CONTROL PRACTICES SUCH AS CLOSED DRAINS, DITCHES, DIKES, DIVERSIONS, SEDIMENT BARRIERS, AND OTHERS.

**SEEDBED PREPARATION**

- WHEN A HYDRAULIC SEEDER IS USED, SEEDBED PREPARATION IS NOT REQUIRED.
- WHEN USING CONVENTIONAL OR HAND-SEEDING, SEEDBED PREPARATION IS NOT REQUIRED IF THE SOIL MATERIAL IS LOOSE AND NOT SEALED BY RAINFALL.
- WHEN SOIL HAS BEEN SEALED BY RAINFALL OR COMPOSTS OF SMOOTH UNDISTURBED CUT SLOPES, THE SOIL SHALL BE PITTED, TRENCHED, OR OTHERWISE SCARIFIED TO PROVIDE A PLACE FOR SEED TO LODGE AND GERMINATE.

**LIME AND FERTILIZER**

- AGRICULTURAL LIME IS NOT REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE.
- APPLY AGRICULTURAL LIME AT A RATE DETERMINED BY SOIL TEST FOR pH
- APPLY FERTILIZER BEFORE LAND PREPARATION AND DISK, RIP, OR CHISEL TO INCORPORATE.
- ON SLOPED TO STEEP FORMS INACCESSIBLE TO EQUIPMENT, APPLY FERTILIZER HYDRAULICALLY, PREFERABLY IN THE FIRST PASS WASHDOWN AND SOME HYDRAULIC MULCH, THEN TOPPED WITH THE REMAINING REQUIRED APPLICATION RATE

**SEEDING**

- SELECT A GRASS OR GRASS-LIKE LEGUME MIXTURE SUITABLE TO THE AREA AND SEASON OF THE YEAR.
- APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTI-PACKER, SLURRY DRILL, OR HYDRAULIC SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). DRILL OR CULTIPACKER SEEDERS SHOULD NORMALLY PLACE SEED ONE INCH TO ONE AND A HALF INCH DEEP. IF SEED BY HAND, SOIL SHOULD BE 'RAKED' LIGHTLY TO COVER SEED WITH SOIL.

**MULCHING**

- TEMPORARY VEGETATION CAN, IN MOST CASES, BE ESTABLISHED WITHOUT THE USE OF MULCH, PROVIDED THERE IS LITTLE TO NO EROSION POTENTIAL. MULCH WITHOUT SEEDING SHOULD BE CONSIDERED FOR SHORT TERM PROTECTION. SEE DS1 - DISTURBED AREA STABILIZATION (WITH MULCHING ONLY).

**IRRIGATION**

- IF WATER IS APPLIED, IT MUST BE AT A RATE NOT CAUSING RUNOFF AND EROSION. THOROUGHLY WET THE SOIL TO A DEPTH THAT WILL INSURE GERMINATION OF THE SEED. SUBSEQUENT APPLICATIONS SHOULD BE MADE WHEN NEEDED.

\* REVISED PER LATEST EDITION OF MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA.

**C1 DUST CONTROL**

NO SCALE

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MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE. MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE FOR UP TO SIX MONTHS, BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH, DEPENDING ON THE MATERIAL USED, ANCHORED, AND HAVE CONTINUOUS 90% COVER OR GREATER OF THE SOIL SURFACE. MAINTENANCE SHALL BE REQUIRED TO MAINTAIN APPROPRIATE DEPTH AND 90% COVER. TEMPORARY VEGETATION MAY BE EMPLOYED INSTEAD OF MULCH IF THE AREA WILL REMAIN UNDISTURBED FOR LESS THAN SIX MONTHS. IF AN AREA WILL REMAIN UNDISTURBED FOR GREATER THAN SIX MONTHS, PERMANENT VEGETATION TECHNIQUES SHALL BE EMPLOYED. REFER TO Ds2 - DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING) AND Ds3 - DISTURBED AREA STABILIZATION (WITH PERMANENT SEEDING).

**SITE PREPARATION**

- GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH.
- INSTALL NEEDED EROSION CONTROL MEASURES AS REQUIRED SUCH AS DIKES, DIVERSIONS, BERMS, TERRACES, AND SEDIMENT BARRIERS.
- LOOSEN COMPACT SOIL TO A MINIMUM DEPTH OF 3 INCHES.

**APPLYING MULCH**

MULCHING RATE: MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA.

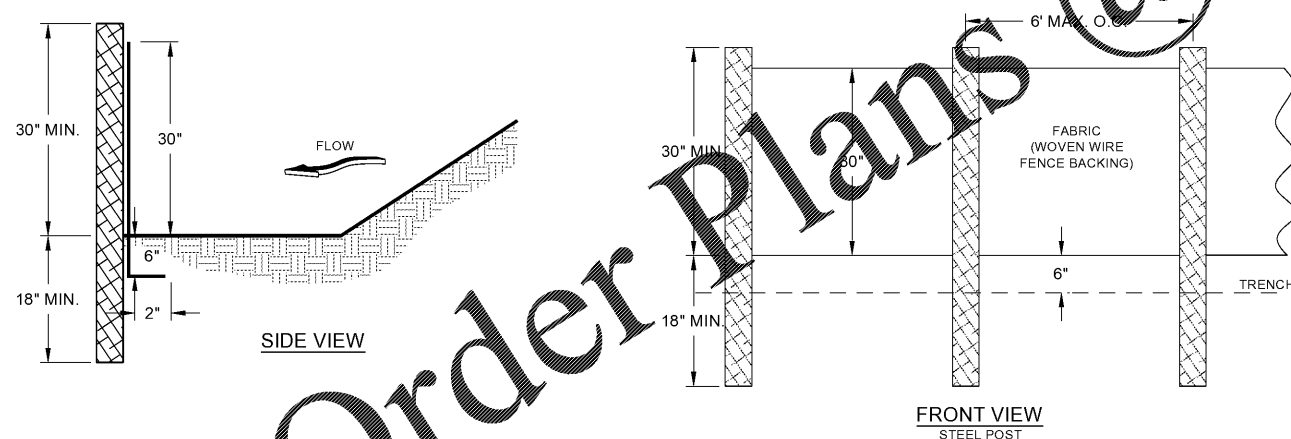
**ANCHORING MULCH**

- EMULSIFIED ASPHALT SHALL BE SPRAYED. USE 100 GALLONS OF WATER PER TON OF MULCH. TACKIFIERS AND BINDERS CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT.
- POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY.

**B1 DISTURBED AREA STABILIZATION (MULCHING ONLY)**

NO SCALE

Ds1



**MAINTENANCE**

SEDIMENT SHALL BE REMOVED ONLY IF IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER. FILTER FABRIC SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF THE FABRIC IS REDUCED (APPROXIMATELY SIX MONTHS). TEMPORARY SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL SEDIMENT ACCUMULATED AT THE BARRIER SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE BARRIER IS REMOVED.

**NOTES**

- USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

**A1 TYPE "S" SILT FENCE**

NO SCALE

Sd1-S

DESIGN PROFESSIONAL:  
JAMES A. SWIFT, P.E.  
LEVEL II CERTIFICATION NO: 0000064846  
EXPIRES : 03/09/2021

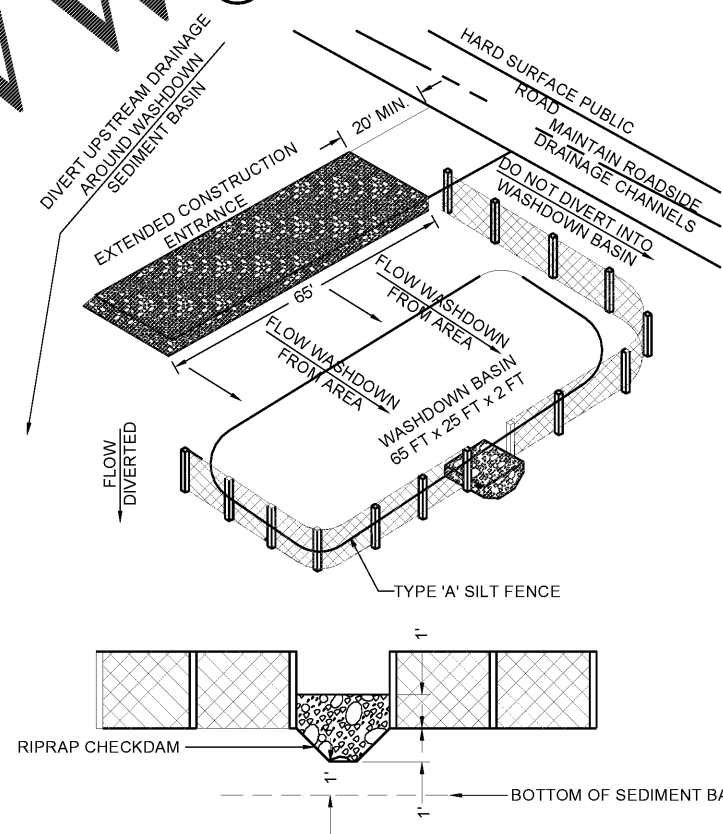
**A3 CONCRETE WASH DOWN AREA**

NO SCALE

**C3 DISTURBED AREA STABILIZATION (TEMPORARY SEEDING)**

NO SCALE

Ds2



**NOTES**

**DESCRIPTION:**

- A STABILIZED PAD OF CRUSHED STONE FOR GENERAL WASHING OF EQUIPMENT AND CONSTRUCTION VEHICLES AND A SEDIMENT BASIN TO CAPTURE THE WASH DOWN RUN OFF.

**APPLICATION:**

- AT ANY SITE WHERE REGULAR WASHING OF VEHICLES AND EQUIPMENT WILL OCCUR. MAY ALSO BE USED AS A FILLING POINT FOR WATER TRUCKS LIMITING EROSION CAUSED BY OVERFLOW OR SPILLAGE OF WATER.

**INSTALLATION/APPLICATION CRITERIA:**

- INSTALL CONSTRUCTION ENTRANCE (SEE CONSTRUCTION ENTRANCE DETAIL) AND EXTEND LENGTH AS SHOWN.
- INSTALL TYPE A FENCE UNDER GRADE OF CONSTRUCTION ENTRANCE (SEE SILT FENCE DETAIL).
- EXCAVATE WASHDOWN BASIN BETWEEN SILT FENCE AND CONSTRUCTION ENTRANCE. ENSURE ALL RUNOFF FROM WASH DOWN AREA IS CHANNLED TOWARD SEDIMENT BASIN.

**LIMITATIONS:**

- CANNOT BE USED FOR WASHING EQUIPMENT OR VEHICLES THAT MAY CAUSE CONTAMINATION OF RUNOFF SUCH AS FERTILIZER EQUIPMENT OR PETROLEUM VEHICLES.

**MAINTENANCE:**

- INSPECT DAILY FOR SEDIMENT BUILD UP. EXCAVATE AND DISPOSE OF CONCRETE & SEDIMENT PROPERLY WHEN 1/4 OF ORIGINAL VOLUME IS FILLED WITH SEDIMENT AND/OR DEBRIS.
- INSPECT ADJACENT AREA FOR SEDIMENT DEPOSITS AND INSTALL ADDITIONAL CONTROLS AS NECESSARY.
- REPAIR AREA AS REQUIRED TO MAINTAIN CONTROL IN GOOD WORKING CONDITION.
- EXPAND STABILIZED AREA AS REQUIRED TO ACCOMODATE ACTIVITIES.
- MAINTAIN SILT FENCE AS OUTLINED IN SILT FENCE SPECIFICATIONS AND DETAILS.
- DIVERT UPSTREAM DRAINAGE AREA AROUND TEMPORARY WASHDOWN AREA.
- REMOVE TEMPORARY WASHDOWN AREA AND RETURN AREA TO ORIGINAL CONDITION WHEN CEMENT TRUCK AND VEHICLE WASHDOWN AREA IS NO LONGER NECESSARY.



DATE	DESCRIPTION	MARK

DESIGNED BY: AS	CHECKED BY: AS	ISSUED FOR CONSTRUCTION: EA
DRAWN BY: AS	DATE: 	

OWNERS REPRESENTATIVE:  
NORFOLK SOUTHERN CORP.  
1200 PEACHTREE STREET, NE  
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LEVEL II CERTIFICATION NO: 0000064846  
EXPIRES: 03/09/2021

ISSUED FOR CONSTRUCTION:  
EA

EROSION AND SEDIMENTATION CONTROL DETAILS

SHEET ID  
**CE501**

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