

**DRAFT SPECIFICATION: COMPOSTED MULCH
MAY 2006**

DESCRIPTION

Furnish and place composted mulch as shown on the plans and in accordance with the criteria described below. Composted mulch provider must be registered with or permitted by the New Mexico Environment Department Solid Waste Bureau and must be in compliance with 20 NMAC 9.1

MATERIALS

Composted mulch is defined as the product of a controlled aerobic thermophilic biological decomposition process that meets the quality requirements in Table 1. Raw materials used in producing composted mulch may include green waste, animal manure, animal bedding, paper waste, food waste, biosolids or other non-toxic organic matter, but shall not include animal mortalities.

Table 1. Quality Requirements for Composted Mulch

	Measure	Method	Criterion
All Composted Mulches	Moisture Content*	Evaporative loss at 105°C	No more than 60%
	Particle Size	Sieve	40% to 70% of material passes 3/4 inch screen; 100% of pieces smaller than 4 inches in length and 2 inches in diameter
	Electrical Conductivity*	1:5 slurry (mass basis)	<10 mmho/cm
	pH*	1:5 slurry (mass basis)	pH 5.0 – pH 8.0
	Organic Matter*	Loss on ignition at 550°C	25% - 70% of dry weight
	Maturity	Minimum 50% germination to second set of leaves for marigold seeds in 50:50 (volume basis) mixture of 3/4 inch screened composted mulch and twice-rinsed nursery sand.	
	Stability	Maximum core temperature of 110°F after 48 hours in 5 foot tall conical pile, with moisture adjusted to between 40% and 60%.	
	Debris	Less than 1% inorganic debris by volume, including, but not limited to, glass, plastic, stones and metal.	
Composted Mulches with Wastewater Biosolids	Trace Metals*	HNO ₃ digestion	Complies with Table 3 of 40CFR503.13
	Fecal Coliforms*	MPN with A-1 broth	<1000 MPN/dry gram

* Tests marked with asterisks must be performed by a suitable analytical laboratory; other tests may be performed by the composted mulch producer (there is a soil, water and agricultural testing lab at NMSU – contact info (505) 646-4422).

CONSTRUCTION REQUIREMENTS

Composted mulch shall be used on slope ratios up to 2:1, as directed in the plans. A maximum layer of 2 inches of composted mulch shall be spread evenly over slopes previously prepared in accordance with Section 632 of the NMDOT Standard Specifications Handbook.

Composted mulch shall be applied to prepared slopes with mechanical blower, pneumatic blower, manure spreader, mechanical spreader, manual application, front-end or skid-steer loader, or other method determined in the field by the project manager or landscape architect during the pre-project conference required in the plans. Newly placed composted mulch shall be watered in within 24 hours after placement, without disrupting the composted mulch layer, by evenly applying 12,000 gallons of water per acre of treated area. For composted mulch applications less than 2 inches deep, water application shall be reduced proportionately.

If required, seeding of treated slopes shall be accomplished in accordance with Section 632 of the NMDOT Standard Specifications Handbook.

ACCEPTANCE

Before delivering composted mulch, provider shall furnish documentation that includes the following:

- The raw materials, by percentage, used in the production of the delivered composted mulch;
- Daily temperature records for at least 20% of the piles or batches used to produce the delivered composted mulch, illustrating attainment of at least 130°F for at least 7 consecutive days;
- A laboratory analysis for criteria shown in Table 1, performed on composted mulch no more than 180 days prior to composted mulch delivery; and
- An affidavit, signed by a responsible company representative, confirming that the composted mulch meets each requirement shown in Table 1.

The project manager or landscape architect will inspect and approve the composted mulch application during installation and upon completion of the project.

QUALITY CONTROL:

If it is determined that already-applied compost does not meet the requirements in Table 1, then such applied compost shall, at the sole expense of the Contractor, be removed and replaced with product that complies with the standards in Table 1, and reseeded. Copies of registration and certification of source material must be provided and verified for each project.

METHOD OF MEASUREMENT

Delivery of composted mulch shall be specified and measured in number of acres treated.

BASIS OF PAYMENT

Payment to provider shall be based on the number of acres satisfactorily treated.