

GEORGIA DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
SUPPLEMENTAL SPECIFICATION

Section 814—Soil Base Materials

Delete Subsection 814.1.01 and substitute the following:

814.1.01 Related References

A. Standard Specifications

[Section 209—Subgrade Construction](#)

[Section 301—Soil-Cement Construction](#)

[Section 800—Coarse Aggregate](#)

[Section 810—Roadway Materials](#)

[Section 831—Admixtures](#)

B. Referenced Documents

AASHTO T 89

AASHTO T 90

ASTM D 516

[GDT 4](#)

[GDT 6](#)

[GDT 7](#)

[GDT 65](#)

[GDT 67](#)

[GDT 98](#)

Delete 814.2.02 and substitute the following:

814.2.02 Soil-Cement Material

A. Requirements

1. Ensure that the material for soil-cement base will:
 - a. Meet the requirements of [Subsection 810.2.01](#) for Classes IA1, IA2, IA3, or IIB1 with the following modifications:

Clay content	4 to 25%
Volume change	18% maximum
Liquid Limit	25% maximum
Plasticity Index	10% maximum
Maximum dry density	95 lb/ft ³ (1520 kg/m ³) minimum

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Sulfates	4000 ppm
pH	4.0 minimum

- b. Be friable and not contain large amounts of heavy or plastic clay lumps, organic material, roots, or other substances that would interfere with how the Portland cement sets, plant production, or the finished surface of the base and meet the requirements of [Subsection 301.3.05.A.2, “Pulverization”](#) or [Subsection 301.3.05.B.1, “Soil”](#).
 - c. Produce a laboratory unconfined compressive strength of at least 450 psi (3.1 MPa). To make the sample, mix in a maximum of 8 percent Type I Portland cement, moist-cure for 7 days, and test with [GDT 65](#).
1. Analyze the soil-cement design and create a Job Mix Formula for each Project where soil-cement base or subbase is specified. Have the Job Mix Formula approved by the Engineer before starting base or subbase construction.
 2. You may use fly ash or slag that meets the requirements of [Subsection 831.2.03](#) as admixtures for poorly reacting soils when the blend of soil and fly ash, or slag, meets the design requirements in this Subsection.
 3. Ensure that subgrade material used underneath the soil-cement base meets the sulfate and pH requirements of this subsection (See Subsection 209.3.05.A.7).

B. Fabrication

General Provisions 101 through 150.

C. Acceptance

Test as follows:

Test	Method
Soil gradation	GDT 4
Volume Change	GDT 6
Maximum density	GDT 7 or GDT 67
Soil-Cement Design	GDT 65
pH	GDT 98
Sulfates	ASTM D 516
Liquid Limit	AASHTO T 89
Plastic Limit and Plasticity Index	AASHTO T 90

D. Materials Warranty

General Provisions 101 through 150.