

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

SPECIAL PROVISION

ATLANTA BELTLINE NORTHEAST TRAIL SEGMENT 2, PHASE 2

SECTION 500 – CONCRETE STRUCTURES

Delete Subsection 500.1.01 Definitions and substitute the following:

500.1.01 Definitions

- A. General Provisions 101 through 150.
- B. Cementitious Materials: materials that have cementing value if used in grout, mortar, or concrete, including Portland cement, blended hydraulic cements, expansive cement, fly ash, raw or calcined natural pozzolan, ground glass pozzolan, slag cement, and silica fume.
- C. Water-to Cementitious Materials Ratio (w/cm): ratio of mass of water, excluding that absorbed by aggregate, to the mass of cementitious materials in a mixture, stated as a decimal.
- D. Sustainable Concrete is an environmentally preferable, cost effective concrete that is proportioned to meet or exceed performance targets for fresh and hardened concrete properties using a mix optimization procedure using materials that may include supplementary cementitious materials, non-cementitious inert fillers, or both, in addition to high-range water-reducing admixtures and a workability-retaining admixture. The optimized mix design shall not adversely affect setting times, strength development or ultimate strength of the concrete mixture.

Delete Subsection 500.1.03.A Table 1 - Concrete Mix Table and substitute the following:

500.1.03.A Concrete Mix Design

TABLE 1 – CONCRETE MIX TABLE			
Class of Concrete	Minimum Compressive Strength at 56 days ¹ (psi)	Exposure Class ²	Nominal Max. Aggregate Size (in)
"D"	5000	N	1
"AA"	3500	N	1
"A"	3000	N	1

NOTES:

1. Acceptable timing to achieve concrete strength gain shall be determined based on contractor input. While a nominal concrete strength of $f'c$ will be utilized for final project acceptance criteria, trial batches shall report the standard deviation for the tested mixes as well as their expected concrete strengths.
2. Concrete Exposure Classes are based on Chapter 19 of ACI 318-14. The Designation "N" indicates the following: F0, S0, W0, C0.

Delete Subsection 500.3.04.D.4.a and b:

~~500.3.04.D.4.a. Replace no more than 15 percent of the cement by weight.~~

~~500.3.04.D.4.b. Replace cement with fly ash at the rate of 1.0 to 1.5 lbs (1.0 to 1.5 kg) of fly ash to 1.0 lb. (1.0 kg) of cement.~~

Delete Subsection 500.3.04.D.5.a and b:

~~500.3.04.D.5.a. Replace no more than 50 percent of the cement by weight.~~

~~500.3.04.D.5.b. Replace cement with slag at the rate of 1.0 lb. (1.0 kg) of slag to 1.0 lb. (1.0 kg) of cement.~~

Delete Subsection 500.3.05.AC.1 Form Removal Time and substitute the following:

500.3.05.AC.1 Form Removal Time

Falsework and forms may be removed at such time as 75% of the concrete design strength is achieved or as specified by the Engineer.

End of Section 500