SECTION 03 30 53
MISCELLANEOUS CONCRETE – STRUCTURAL BACKFILL

PART 1 – GENERAL

1.01 SECTION INCLUDES

A. PRODUCT: STRUCTURAL BACKFILL
   Definition: A formulated mix design of clean stone, cement and water that creates a permeable homogeneous zone (mass) when placed behind the retaining wall units.

B. CEMENTITIOUS MATERIALS
   1. Use materials meeting the following requirements
      a. Hydraulic cement Type I: ASTM C 150 or ASTM C 1157
      b. Fly ash: ASTM C 618
      c. Slag: ASTM C 989
   2. Normal-weight aggregate: ASTM C 33
   3. Water: Potable
   4. Chemical admixtures:
      a. Water reducers, accelerating and retarding: ASTM C 494
      b. Admixtures with no standard designation shall be used only with the permission of the design professional when its use for specific properties is required.

C. STRUCTURAL BACKFILL
   1. Application: Retaining wall backfill
   2. Exposure: Possible sulfate, depending on soil-specific conditions
      a. For Sulfate Resistance, use Type II or Type V Portland Cement
   3. Nominal maximum aggregate size: 3/8 to 3/4-inch
   4. Air Voids: 15 – 25%
   5. Water-cementitious materials ratio by weight: 0.3 – 0.5
   6. Aggregate-cementitious materials ratio by weight: 4.5 – 6.0:1
   7. Design target unit weight (in-place): 112pcf (minimum)