



CAROLINA STALITE COMPANY

MANUFACTURERS OF LIGHTWEIGHT AGGREGATE "STALITE"

PHONE 704-637-1515 FAX 704-642-1572

DRAWER 1037 SALISBURY, N.C. 28145-1037

GOLD HILL RESEARCH LABORATORY

LABORATORY ANALYSIS POROSITY AND VOID RATIO 5/16" STRUCTURAL AGGREGATE

On January 12, 2005 a sample of 5/16" structural aggregate obtained from the stockpile was tested for void ratio and porosity.

CALCUALTIONS

Porosity = Volume Voids/ Volume Total

Void Ratio = Volume Voids/ Volume Solids

RESULTS

Mass of Bucket = 19.90 lb

Mass of Bucket and Dry Aggregate = 44.50 lb

Mass of dry solids = 24.60 lb

Mass of Bucket, Saturated material and Water = 60.4 lb

Mass of water (total) = 15.90

Volume Solids = $24.6/1.60/62.4 = .246$ cf

Volume Voids = $15.9/62.4 = .255$ cf

Volume Total = .501 cf

Porosity = $.255 / .501 = .509$

Void Ratio = $.255 / .246 = 1.037$