Thomas, Bennett & Hunter, Inc.

Established 1909

"The Right Mix"

TRIAL BATCH REPORT

Date: April 20, 2016
Type: 6000 PSI AE Self-Consolidating Concrete (SCC)
Report Number: 16-A2-1855T

Mix Design per Cubic Yard

Material	Amount	Units	ASTM	Description
Portland Cement	560	lb	C150	Lehigh Cement Co., Type I-II, U.Bridge
Ground Granulated Blast Furnace Slag 15%	120	lb	C989	NewCem, Grade 120, Lafarge Sparrows Pt.
Fly Ash 15%	120	lb	C618	ProAsh Class F, Separation Technologies
Total Cementitious Material	800	lb	C595	Blended Hydraulic Cement, Type IP
Coarse Aggregate, #7 crushed limestone	1200	lb SSD	C33	Martin Marietta Materials, Pinesburg, MD
Concrete Sand, natural	1525	lb SSD	C33	Valley Quarries, Mt Cydonia, Fayetteville PA
Water	36.0	gal	C94	Barrick Quarry, Woodsboro, MD
Hydration Stabilizer (4.0 oz/cwt cement)	4.0	oz	C494	MasterMatrix VMA 362, BASF
HRWR, Type F (12.0 oz/cwt cement)	96.0	oz	C494	MasterGlenium 3030, BASF
AEA (0.6 oz/cwt cement)	2.4	oz	C260	MasterAir VR 10, BASF
Water/Cement ratio by weight	0.38			

Aggregate Physical Properties

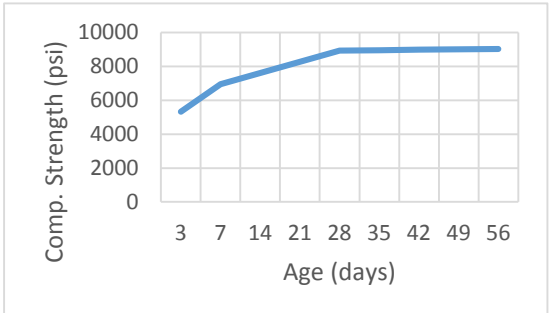
ASTM C33 GRADING SIZE No.	#7 Stone PERCENT PASSING	#7 Stone ASTM C33 SPEC	Concrete Sand % Passing	SAND ASTM C33 Sand SPEC
1"	100	100	Nat	
¾	100	100		
½	97.8	90-100		
3/8	64.0	40-70	100	100
#4	4.7	0-15	99	95-100
#8	1.7	0-5	88	80-100
#16			77	50-85
#30			60	25-60
#50			22	5-30
#100			6	0-10
#200			1.2	
S.G.	2.75		2.61	
ABS %	0.3		0.7	
DRUW pcf	103.6			
F.M.	6.3		2.49	

Plastic Test Results		
Slump Flow	22.0	Inches
Air content	6.9	%
Unit weight	136.9	pcf
Mix temperature	68	°F

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 21217, Expiration Date: 5/12/2016

ASTM C31 & C39, Cylinder Compressive Strength Test Results

3-day	7-day	28-day	56-day
5230	6980	8830	9010
5410	6940	8910	9070
		9050	
5320 psi avg	**6960 psi avg**	**8930 psi avg**	**9040 psi avg**



Proportioning procedure was performed in accordance with ACI recommended practices.
Trial batching, mixing, sampling and testing per applicable ASTM standard specifications.

70 John St., Westminster, MD 21157 ● 410-848-9030 ● Fax: 410-876-0733