2135 South 116th Street
West Allis, WI 53227
414-321-8378

REPORT: **Aggregate Sieve Analysis Test Report**

LAB NO: 16-4447-1
Test Method: See Below

Project:	CTH M - CTH E - CTH GG, Union Pacific Railroad Bridge SP# 6723-00-71	Report Date:	09/09/2016
		Date Sampled:	09/08/2016
Location:		Sampled By:	David Hassman
Client:	Augelli Concrete & Excavating, LLC	By Order Of:	Client
Acct. No:	AUGELLI	Order Number:	
Client PO:		Report No:	16-4447-1
		Project No:	5174

Field Number: A1

TEST RESULTS

Attached are Sieve Analysis laboratory test report(s) for an aggregate sample(s).

Test Methods (If Applicable):ASTM C136, AASHTO T27

Orig: Augelli Concrete & Excavating, LLC
(Richland Center, WI) Attn: Tony Augelli
(1-ec copy)
1-ec Strand Assoc. Attn: Mr. Trenton Diehl

Respectfully Submitted,
GeoTest, Inc.

Andrew Davis, Operations Manager

Greg Schmidt 09-04-15 Version #2

WisDOT QUALITY MANAGEMENT PROGRAM
CONCRETE AGGREGATE SIEVE ANALYSIS

Project: CTH M - Union Pacific RR Bridge

State No.: 6723-00-71

Sampled By: David Hassman (Full Name) DATE: 9/8/2016

SAMPLED FROM:
☐ BELT ☐ STOCKPILE ☑ BIN ☐ TRUCK

SAMPLED AT:
☐ PRODUCTION SITE — Carew / Waupun
☑ BATCH SITE

Mix ID: 4020411026 Ticket No.: 25076
Time: 14:45 Load (CY): 10

BATCH WEIGHTS (SSD)

Fine Aggregate	13900	Cement	4560	
#1 Stone	18220	Fly Ash	1130	
#2 Stone		Slag		
Water	140 gal.	A. E.	84	oz.
Other		W. R.	114	oz.
Pea Gravel		Other		oz.

Fine Aggregate

Lot #: A1 **Sample No.** 16-4447 -1

Moisture Content

Wgt. Of Sample (Moist)	594.4
Wgt. Of Sample (Dry)	575.8
Moisture Loss	18.6
% Moisture	3.2%

Washed? ☑ Yes Washed Wgt. 571.9

Sieve	Wgt. Retained	% Retained	% Passing	Spec.
3/8" (9.5mm)	0	0	100	100
#4 (4.75mm)	6.6	1	99	90-100
#8 (2.36mm)	97.5	17	83	
#16 (1.18mm)	183.6	32	68	45-85
#30 (0.60mm)	270.8	47	53	
#50 (0.30mm)	437.8	76	24	5-30
#100 (0.150mm)	558.5	97	3	0-10
F.M.		2.70		
#200 (0.075mm)	570.5	99.1	0.9	0-3.5
Pan	571.6			

Tested By: David Hassman Reviewed By: Andy Davis

No. 2 Stone

Lot #: **Sample No.** -3

Moisture Content

Wgt. Of Sample (Moist)	
Wgt. Of Sample (Dry)	
Moisture Loss	0
% Moisture	#DIV/0!

Washed? ☐ Yes Washed Wgt.

☐ Crushed Stone ☐ Crushed Gravel

Sieve	Wgt. Retained	% Retained	% Passing	Spec.
2" (50 mm)		#DIV/0!	100	100
1.5" (37.5 mm)		#DIV/0!	100	90-100
1" (25 mm)		#DIV/0!	100	20-55
3/4" (19mm)		#DIV/0!	100	0-15
1/2" (12.5mm)		#DIV/0!	100	
3/8" (9.5mm)		#DIV/0!	100	0-5
#4 (4.75mm)		#DIV/0!	100	
#8 (2.36mm)		#DIV/0!	100	
#16 (1.18mm)		#DIV/0!	100	
#30 (0.60mm)		#DIV/0!	100	
#50 (0.30mm)		#DIV/0!	100	
#100 (0.150mm)		#DIV/0!	100	
#200 (0.075mm)		#DIV/0!	100	0-1.5
Pan				
Tested By:		Reviewed By:		

No. 1 Stone

Lot #: A1 **Sample No.** 16-4447 -2

Moisture Content

Wgt. Of Sample (Moist)	6664.1
Wgt. Of Sample (Dry)	6538.3
Moisture Loss	125.8
% Moisture	1.9%

Washed? ☑ Yes Washed Wgt. 6479.6

☑ Crushed Stone ☐ Crushed Gravel

Sieve	Wgt. Retained	% Retained	% Passing	Spec.
1.5" (37.5 mm)	0	0	100	
1" (25 mm)	0	0	100	100
3/4" (19mm)	272.1	4	96	90-100
1/2" (12.5mm)	3171.2	49	51	
3/8" (9.5mm)	4815.2	74	26	20-55
#4 (4.75mm)	6370.3	97	3	0-10
#8 (2.36mm)	6422	98	2	0-5
#16 (1.18mm)	6432.8	98	2	
#30 (0.60mm)	6437	98	2	
#50 (0.30mm)	6439.3	98	2	
#100 (0.150mm)	6444.1	99	1	
#200 (0.075mm)	6455.8	98.7	1.3	0-1.5
Pan	6463.8			
Tested By:	David Hassman	Reviewed By:	Andy Davis	

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2135 S. 116th Street
West Allis, WI 53227
414.321.8378/414.321/3859

Combined Concrete Aggregate Gradation

Project:	CTH M - Union Pacific RR Bridge	Fine Aggregate Source:	
State No.:	6723-00-71	Coarse Aggregate Source:	
Contractor:	Augelli Concrete & Excavating, LLC	Concrete Batch Site:	Carew - Waupun
Technician:	David Hassman	Sample No.:	16-4447 A1
Concrete Mix ID:	4020411026	Date Sampled:	9/8/2016

Aggregate Batch Proportions

Fine Aggregate	43%	(A)
Coarse Aggregate # 1	57%	(B)
Coarse Aggregate # 2		(C)
Total	100%	

Aggregate Specification

WisDOT Fine Aggregate

WisDOT Coarse Aggregate #1 ☑ Crushed Stone ☐ Crushed Gravel

WisDOT Coarse Aggregate #2 ☐ Crushed Stone ☐ Crushed Gravel

Individual Sieve Analysis Data				Calculated Combined Gradation			
Sieve Size	(E) C.A. #1	(D) C.A. #2	(G) F.A.	C.A. #1 (ExB)	C.A. #2 (DxC)	F.A. (GxA)	Total (G)
2" (50 mm)	100.0	100.0	100.0	56.7	0.0	43.3	100
1.5" (37.5 mm)	100.0	100.0	100.0	56.7	0.0	43.3	100
1" (25 mm)	100.0	100.0	100.0	56.7	0.0	43.3	100
3/4" (19 mm)	95.8	100.0	100.0	54.3	0.0	43.3	98
1/2" (12.7 mm)	51.5	100.0	100.0	29.2	0.0	43.3	72
3/8" (9.5 mm)	26.4	100.0	100.0	14.9	0.0	43.3	58
#4 (4.75 mm)	2.6	100.0	98.9	1.5	0.0	42.8	44
#8 (2.36 mm)	1.8	100.0	83.1	1.0	0.0	36.0	37
#16 (1.16 mm)	1.6	100.0	68.1	0.9	0.0	29.5	30
#30 (0.6 mm)	1.5	100.0	53.0	0.9	0.0	22.9	24
#50 (0.3 mm)	1.5	100.0	24.0	0.9	0.0	10.4	11
#100 (0.15 mm)	1.4	100.0	3.0	0.8	0.0	1.3	2
#200 (0.075 mm)	1.3	100.0	0.9	0.7	0.0	0.4	1.1

Test Result and Combined Specification Limits			WisDOT Bridge Limits (Stone)	WisDOT Bridge Limits (Gravel)	WisDOT Pvmt & Anc. Limits (Stone)	WisDOT Pvmt & Anc. Limits (Gravel)
Sieve Size	Combined Gradation					
2" (50 mm)	100		100	100	100	100
1.5" (37.5 mm)	100					
1" (25 mm)	100		<89	<89	<89 (Pvmt only)	<89 (Pvmt only)
3/4" (19 mm)	98					
1/2" (12.7 mm)	72					
3/8" (9.5 mm)	58					
#4 (4.75 mm)	44		<47	<42	<47	<42
#8 (2.36 mm)	37					
#16 (1.16 mm)	30					
#30 (0.6 mm)	24					
#50 (0.3 mm)	11					
#100 (0.15 mm)	2					
#200 (0.075 mm)	1.1		<2.3	<2.3	<2.3	<2.3

Reviewed By: J. Anderson

Rev. # : 1

Rev. Date: 3/28/12

GeoTest

2135 S. 116th St. West Allis, WI 53227

414.321.8378/414.321.8359

WisDOT Concrete Aggregate Sieve Analysis Lab Form

GeoTest Client: Augelli | GeoTest Job #: 5174

Project: CTH M
State No.: 6723-00-71
Sampled By: Dave Hassman (Full Name) Date: 9-8-16

SAMPLED FROM: ☐ BELT ☒ STOCKPILE ☐ BIN ☐ TRUCK

SAMPLED AT: ☐ PRODUCTION SITE ☒ BATCH SITE: Carew - Wayfan

Mix ID: 40204100 26 Ticket No.: 25076
Time: 14:45 Load (CY): 10

BATCH WEIGHTS (SSD)

Fine Aggregate	13900	Cement	4560
#1 Stone	18220	Fly Ash	1130
#2 Stone	—	Slag	
Water	140 gal.	A. E.	84 oz.
Other		W. R.	114 oz.
Pea Gravel		Other	oz.

Fine Aggregate

Lot #: A1 Sample No. 4447-1

Moisture Content

Wgt. Of Sample (Moist)	594.4
Wgt. Of Sample (Dry)	575.8
Moisture Loss	18.6
% Moisture	3.2%

Washed? ☒ Yes Washed Wgt. 571.9

Sieve	Wgt. Retained	% Retained	% Passing	Spec.
3/8" (9.5mm)	0	0	100	100
#4 (4.75mm)	6.6		99	90-100
#8 (2.36mm)	97.5		83	
#16 (1.18mm)	183.6		68	45-85
#30 (0.60mm)	270.8		53	
#50 (0.30mm)	437.8		24	5-30
#100 (0.150mm)	558.5		3	0-10
F.M.		2.70		
#200 (0.075mm)	570.5		0.9	0-3.5
Pan	571.6			

Tested By: Dave Hassman Reviewed By:

No. 2 Stone

Lot #: Sample No. -3

Moisture Content

Wgt. Of Sample (Moist)	
Wgt. Of Sample (Dry)	
Moisture Loss	
% Moisture	

Washed? ☐ Yes Washed Wgt.
☐ Crushed Stone ☐ Crushed Gravel

Sieve	Wgt. Retained	% Retained	% Passing	Spec.
2" (50 mm)				100
1.5" (37.5 mm)				90-100
1" (25 mm)				20-55
3/4" (19mm)				0-15
1/2" (12.5mm)				
3/8" (9.5mm)				0-5
#4 (4.75mm)				
#8 (2.36mm)				
#16 (1.18mm)				
#30 (0.60mm)				
#50 (0.30mm)				
#100 (0.150mm)				
#200 (0.075mm)				0-1.5
Pan				

Tested By: Reviewed By:

No. 1 Stone

Lot #: A1 Sample No. 4447-2

Moisture Content

Wgt. Of Sample (Moist)	6664.1
Wgt. Of Sample (Dry)	6538.3
Moisture Loss	125.8
% Moisture	1.9%

Washed? ☒ Yes Washed Wgt. 6479.6
☒ Crushed Stone ☐ Crushed Gravel

Sieve	Wgt. Retained	% Retained	% Passing	Spec.
1" (25 mm)	0	0	100	100
3/4" (19mm)	272.1		96	90-100
1/2" (12.5mm)	3171.3		51	
3/8" (9.5mm)	4815.2		26	20-55
#4 (4.75mm)	6370.3		3	0-10
#8 (2.36mm)	6422.0		2	0-5
#16 (1.18mm)	6432.8		2	
#30 (0.60mm)	6437.0		2	
#50 (0.30mm)	6439.3		2	
#100 (0.150mm)	6444.1		1	
#200 (0.075mm)	6455.8		1.3	0-1.5
Pan	6463.8			

Tested By: Dave Hassman Reviewed By:

Form Reviewed By: G. Schmidt
Rev #2
Rev. Date: 02/03/2016

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