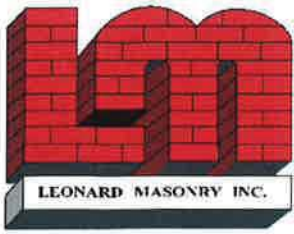


TRANSMITTAL LETTER



Leonard Masonry, Inc.

5925 Fee Fee Road
St. Louis, MO 63042

Transmittal # **945-01**

Date: 6/10/2016
Phone: (314) 731-5500
Fax: (314) 731-3366

Project Name: Webster University Interdisciplinary Science Building

Project #: 945

To: Paric Corporation
Attn: Devin Gates
77 Westport Plaza Drive
Suite 250
St. Louis, MO 63146

Items listed are being sent

- ☒ Enclosed
☐ Under Separate Cover
☐ Via

SUBJECT: Submittal 945-01, Rev #0 Masonry materials

Phone: (636) 561-9500 **Fax:** (636) 561-9501

We are transmitting the following to you:

- ☒ Product Data
☐ Architectural Drawings
☐ Engineering Drawings
☐ Samples
☐ Letters
☐ Change Order Requests

- ☒ Submittals: Submittal 945-01, Rev #0 Masonry materials
☐ Shop Drawings
☐ Specifications
☐ O & M Manuals
☐ Prints
☐ Plans
☐ Addenda
☐

Submittal: Masonry materials - Rev#0

Code/Spec	Copies	For	Product #	Summary Item
	1	Approval		Face brick test report
	1	Approval		Type N mortar certification
	1	Approval		Mortar color product data
	1	Approval		Veneer anchor product data
	1	Approval		Weep vent product data
	1	Approval		Cavity drainage material product data
	1	Approval		Termination bar product data
	1	Approval		Cavity-wall insulation product data
	1	Approval		Masonry cleaner product data

Remarks:

COPIES TO:

By: Ken Westhoff
Project Manager

Received by: _____

Date: _____



**Dimensions, Absorption, and Compressive
Strength of Facing Brick**
ASTM C67-11 and ASTM C216-10

PROJECT: Ragland Lab Testing	JOB NO: 1823071749
CLIENT: Ragland Clay Products	MADE BY: Client
GRADE: SW	TYPE: FBS
UNIT: Select	DATE TESTED : 8/5/2011

Specimen No.	Oven Dry Weight (grams)*	Dimensions - L x W x H (Inches)*	24 Hour Cold Water Absorption (%)	24 Hour Cold Water Absorption Requirement (%)
2A	1710.5	7.75 x 2.81 x 2.75	4.5	≤8
2B	1701.3	7.75 x 2.88 x 2.75	4.0	≤8
2C	1692.9	7.75 x 2.81 x 2.75	5.2	≤8
2D	1697.3	7.75 x 2.88 x 2.75	4.9	≤8
2E	1671.6	7.88 x 2.81 x 2.75	5.1	≤8
Average	1694.7			

Specimen No.	Tested Size L x W (inches)	Area (inches)	Maximum Load (lbs)	Compressive Strength (psi)	Compressive Strength Requirement (psi)
2A	4.04 x 2.85	11.51	96966	8420	2500
2B	3.85 x 2.89	11.13	90425	8130	2500
2C	3.91 x 2.87	11.22	85398	7610	2500
2D	3.89 x 2.86	11.13	87198	7840	2500
2E	3.95 x 2.85	11.26	89201	7920	2500
Average				7980	3000

Remarks: *Measurements taken on whole units. The absorption and compressive strength tests were performed on half units.

Product Certification Letter

KEEP GOING. KEEP MOVING. KEEP WORKING.™

SPEC MIX®

May 14, 2013

Product Description: 80 lb. SPEC MIX® **Portland Lime & Sand Mortar / Type N**
3000 lb. Mix 204 N (PLN)
Item Number: 19008
SR20001
Manufacturing Plant: QUIKRETE® - St. Louis (Valley Park)

To: Whom It May Concern

This letter certifies that SPEC MIX Portland Lime & Sand Mortar / Type N as referenced above meets the requirements of ASTM C 1714 and the *property* specifications for an ASTM C 270, *Standard Specification for Mortar for Unit Masonry*, Type N Mortar. Please reference the Material Test Report for Item Number SR20001 for test results of the design.

The raw materials used in this product formulation meeting the standard specifications include: Type I/II Portland Cement meeting ASTM C 150, *Standard Specification for Portland Cement*, Hydrated Lime Type S meeting ASTM C 207, *Standard Specification for Hydrated Lime for Masonry Purposes*, and Mason Sand meeting ASTM C 144, *Standard Specification for Aggregate for Masonry Mortar*.

It is available as a standard gray, as well as in a variety of standard and custom colors. For custom colors, or versions with integral water repellent, the finished product item number will vary from the base design item number above depending upon the integral water repellent and / or specific pigment. These versions will also meet the specifications described above.

Mortar property characteristics including compressive strength are specified according to ASTM C 270 with laboratory testing. ASTM C 270 (property specification) is not for use to specify minimum compressive strengths to be achieved by field mixed mortars. Field mixed mortar may be tested according to ASTM C 780 to evaluate mortar properties such as mortar water content or consistency. As defined in ASTM C 1586, compressive strength values determined through ASTM C 780 in the field are not expected nor required to achieve the compressive strengths of laboratory tested ASTM C 270 specification mortars.

We are pleased to be of service to you. If you have any questions, please let us know.



Wendy Henry
Quality Assurance Manager

WMH: JKS

THE QUIKRETE® COMPANIES Inc.
Technical and Engineering Center
500 Marathon Parkway
Lawrenceville, GA 30046
770.216.9580 • www.quikrete.com
651.994.7120 • www.specmix.com

Material Test Report

KEEP GOING. KEEP MOVING. KEEP WORKING.™

SPEC MIX

Item # and Product Description: SR20001, Mix 204 N (PLN)

Manufacturing Plant: QUIKRETE® - St. Louis (Valley Park)

Sample Identification

Initial Testing

Test Date:	12/26/2013	Test	Specification	Results
Lab Code:	PR-5431-2	Water (%)	As required	18.9
		Consistency	105 - 115 @ 25d	107
		Unit Weight	Measure	128.6
		Set Time		
		Air (%)		

Strength Testing

Test	Compressive Strength (psi)		Flexural Strength (psi)	
Age	Specification	Result	Specification	Result
1 day				
3 day				
7 day	Measure	1940		
28 day	750	2370		

Other Testing

Test	Specification	Test Results
Water Retention	>= 75%	93.5

Certified by:

Wendy Henry

Wendy Henry
Quality Assurance Manager

THE QUIKRETE® COMPANIES Inc.
Technical and Engineering Center
500 Marathon Parkway
Lawrenceville, GA 30046
770.216.9580 • www.quikrete.com
651.994.7120 • www.specmix.com



Material Certification Report

Material: Portland Cement
Type: I-II

Test Period: 01-May-2014
To: 31-May-2014

Certification

This Holcim cement meets the specifications of ASTM C150 for Type I-II cement, and complies with AASHTO M85 specifications for Type I-II cement.

General Information

Supplier: Holcim (US) Inc.
Address: 2942 US Highway 61
Bloomsdale, MO 63627
Telephone: 636-524-8155
Date Issued: 16-Jun-2014

Source Location: Ste. Genevieve Plant
2942 US Highway 61
Bloomsdale, MO 63627
Contact: Erin Watson

The following information is based on average test data during the test period.
The data is typical of cement shipped by Holcim; individual shipments may vary.

Tests Data on ASTM Standard Requirements

Chemical			Physical		
Item	Limit ^A	Result	Item	Limit ^A	Result
SiO ₂ (%)	-	19.7	Air Content (%)	12 max	7
Al ₂ O ₃ (%)	6.0 max	4.5	Blaine Fineness (m ² /kg)	260 min	380
Fe ₂ O ₃ (%)	6.0 max	3.2			
CaO (%)	-	64.3	Autoclave Expansion (%) (C151)	0.80 max	0.06
MgO (%)	6.0 max	2.5	Compressive Strength MPa (psi):		
SO ₃ (%)	3.0 max ^B	3.5	3 days	12.0 (1740) min	29.9 (4340)
Loss on Ignition (%)	3.0 max	2.6	7 days	19.0 (2760) min	36.7 (5320)
Insoluble Residue (%)	0.75 max	0.36	Initial Vical (minutes)	45-375	83
CO ₂ (%)	-	1.3			
Limestone (%)	5.0 max	3.3	Mortar Bar Expansion (%) (C1038)	-	0.012
CaCO ₃ in Limestone (%)	70 min	89			
Inorganic Processing Addition (%)	5.0 max	0.0			
Potential Phase Compositions ^C					
C ₃ S (%)	-	62			
C ₂ S (%)	-	7			
C ₃ A (%)	8 max	6			
C ₄ AF (%)	-	9			
C ₃ S + 4.75C ₃ A (%)	-	91.5			

Tests Data on ASTM Optional Requirements

Chemical			Physical		
Item	Limit ^A	Result	Item	Limit ^A	Result
Equivalent Alkalies (%)	0.60 max	0.53	False Set (%)	50 min	77

Notes

^A Dashes in the limit / result columns mean Not Applicable.

^B It is permissible to exceed the specification limit provided that ASTM C1038 Mortar Bar Expansion does not exceed 0.020 % at 14 days.

^C Adjusted per Annex A1.6 of ASTM C150 and AASHTO M85.

^D Test result represents most recent value and is provided for information only. Analysis of Heat of Hydration has been carried out by CTLGroup, Skokie, IL.

Equivalent Alkalies (%) Minimum = 0.61, Maximum = 0.55

This data may have been reported on previous mill certificates.

Additional Data

Inorganic Processing Addition Data			Base Cement Phase Composition		
Item	Result ^A		Item	Result	
Type	-		C ₃ S (%)	64	
Amount (%)	-		C ₂ S (%)	7	
SiO ₂ (%)	-		C ₃ A (%)	6	
Al ₂ O ₃ (%)	-		C ₄ AF (%)	10	
Fe ₂ O ₃ (%)	-				
CaO (%)	-				
SO ₃ (%)	-				

By

, Quality Manager



WesternLime

P.O. BOX 57, WEST BEND, WI 53095

DATE: 10-17-12

LOT: 101712

CERTIFICATE OF ANALYSIS
Dolomitic Type S Masons Lime

CaO 44.98%

MgO 28.02%

PASSING 30 MESH 99.49%

100 MESH 97.97%

200 MESH 96.21%

FREE MOISTURE 25

PLASTICITY 536.96



IRON OXIDE PIGMENTS FOR THE CONSTRUCTION INDUSTRY

www.solomoncolors.com

CONCRETE COLORS • SOLID COLOR COATINGS • COLOR FLY ASHES • DISPENSING EQUIPMENT • READY MIX COLORS • DECORATIVE CONCRETE SYSTEMS

February 29, 2012

To Whom it may Concern:

This letter is to certify that all Iron Oxide, Chromium Oxide, Cobalt Mixed Metal Oxides and Titanium Dioxide Pigments supplied by Solomon Pigments comply with all requirements set forth by **ASTM C979-10**.

Please do not hesitate to contact me for further assistance.

Best regards,

John C Ciente
Technical Sales Manager
Solomon Colors

647.224.4461

jciente@solomoncolors.com

Corporate Offices: P.O. Box 8288, Springfield IL 62791 • 4050 Color Plant Road, Springfield, IL 62702 / PH: (800) 624-0261 / (217) 622-3112 • FAX: (800) 624-3147 / (217) 522-3145

Western Facility: 1251 W. Durst Drive, Rialto, CA 92376 / PH: (866) 747-2656 / (909) 873-9444 • FAX: (909) 874-9444

Brickform: 11061 Jersey Blvd, Rancho Cucamonga, CA 91730 / PH: (800) 483-9628 / (909) 484-3399 • FAX: (909) 484-3318

Legacy Decorative Concrete Systems: P.O. Box 8288, Springfield, IL 62791 • 4050 Color Plant Road, Springfield, IL 62702 / PH: (866) 684-9394

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

WEBSTER UNIVERSITY ISB	
PROJECT NAME	
8274 BIG BEND BLVD	
ADDRESS	
NUMBER	
WEBSTER UNIVERSITY	
OWNER	
CANNON DESIGN	
ARCHITECT / ENGINEER	
Joe Voypick	
SUBMITTED BY	
042000-013	
CONTRACTOR / CM SUBMITTAL NO.	CANNON DESIGN SUBMITTAL NO.
	042000
DRAWING / DETAIL REFERENCE	SPECIFICATION SECTION / PARAGRAPH
Leonard Masonry	
MANUFACTURER / SUPPLIER	ITEM / PRODUCT ID
REQUIRED DATE	PRIORITY
	CRITICAL

ITEM BEING SUBMITTED (check only one)

- | | | |
|--|--|--|
| ☒ Shop Drawings | ☐ Certification / | ☐ Coordination Drawing |
| ☐ Samples | ☐ Qualifications | ☐ Calculations |
| (_____ copies) | ☐ Record Documents | ☐ Schedules |
| ☐ LEED Submittal | ☐ Product Data | ☐ O&M Manuals |
| ☐ Other _____ | | |

ITEM BEING SUBMITTED FOR (check only one)

- ☒ Action ☐ Information Only ☐ Record

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION (SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)



PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

By:

Devin D. Gates

To be completed by Reviewer

04 2000-013
CANNON DESIGN SUBMITTAL NUMBER
6/17/16
RECEIVED DATE

- ☐ A. No Exceptions Taken
No further review of submittal is required.
- ☐ B. Make Corrections Noted
Incorporate corrections in work; resubmission is not required.
- ☒ C. Revise and Resubmit
Revise as noted, and resubmit for review.
- ☐ D. Rejected
Submittal is not in compliance with Contract Documents; provide new submittal.
- ☐ E. For Record / Information Only
Submittal was reviewed for Record / Information purposes only.
- ☐ F. Not Required for Review
Submittal is not required by Contract Documents and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

A/E COMMENTS

☐ See attached sheet(s) for additional comments

Per previous submittal 007

1. Please flag correct item submitted and reference correct specification number 04 20 00.
2. Please carefully review specification section 04 20 00 and submit manufacturer's product documentation, samples, certifications and accessories as one package.

Per submittal 013

1. Please comply with items 1 and 2 above
2. submit product data for each item listed in specification section 04200. example of items not included 2.4 D,F & G
- 3 Provide documentation proving compliance with specifications

Joe Voypick	6/17/16
REVIEWED BY	DATE

Kathy Williams	06/28/16
REVIEWED BY	DATE



77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0088

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 06/17/2016

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

RE: Masonry product data REVI

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☒ Shop Drawings	☒ Approval	☒ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	SENT VIA:	☐ Returned
☐ Specifications	☐ Attached	☐ Returned for Corrections
☐ Other:	☐ Separate Cover Via:	☐ Due Date:

<i>Item</i>	<i>Package</i>	<i>Code</i>	<i>Rev.</i>	<i>Copies</i>	<i>Date</i>	<i>Description</i>	<i>Status</i>
Submittal		042000-13	2		06/17/2016	Masonry product data REVI	Submitted

NOTES:

CC: Paric Corporation, Kathy Bathe

Project Coordinator: Paric Corporation, Kathy Bathe

Signed: _____
Devin Gates