



**UNIVERSAL
ENGINEERING SCIENCES**

Consultants in: Geotechnical Engineering • Environmental Sciences
Construction Materials Testing • Threshold Inspection
Private Provider Inspection

Project No.: 0110.0900676.0000
Date Typed: March 26, 2010

Field and Laboratory Report Cover Page

Client: Maschmeyer Concrete Co.
Attn: Jessie James
275 Benson Junction Road
DeBary, Florida 32713

Project: Lab Report Testing, Seminole County, Florida

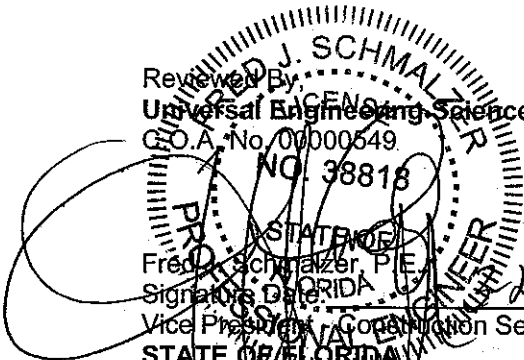
As requested, a representative of Universal Engineering Sciences, Inc. (UES) was at the referenced project to provide construction materials testing services.

Scope of Work

Report No.	Type of Report
829338	Concrete Masonry Unit

The results of the observations and/or tests are summarized on the attached sheets. We hope this information is sufficient for your immediate needs. If you have any questions, please do not hesitate to contact the undersigned.

cc: Client (sburgess@maschmeyer.com)

Reviewed By:

 Universal Engineering Sciences, Inc.
 C.O.A. No. 0000549
 NO. 38818
 STATE OF FLORIDA
 Fred J. Schmalzer, P.E.
 Signature Date: 2/5/10
 Vice President, Construction Services
 STATE OF FLORIDA
 Professional Engineer, No. 38818

Attachments (1)
dc



UNIVERSAL ENGINEERING SCIENCES

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Project No.: 0110.0900676.0000
Report No.: 829338.2
Date: March 25, 2010
Date Revised: April 14, 2010

3532 Maggie Boulevard • Orlando, FL 32811 • (407) 423-0504 • (407) 423-3106

REPORT ON TESTING CONCRETE MASONRY UNITS (ASTM C-140)

Client: Maschmeyer Concrete Co.
Attn: Jessie James
275 Benson Junction Road
DeBary, Florida 32713

Project: Lab Report Testing, Seminole County, Florida

Description of Units: 8x8x16 Commercial

Type of Aggregate: Limestone

Date Cast: 2-9-10

Date Tested: 3-9-10

Tested by: M. Santiago

Age of Sample at Time of Compression Testing: 28

RESULTS OF COMPRESSION TEST

Test No.	Total Load (lbs.)	Gross Area (sq. in.)	Gross Compressive Strength (psi)	Net Area (sq. in.)	Net Compressive Strength (psi)	Compressive Strength Masonry, f _m (psi)
1	195,900	119.2	1,640	62.2	3,150	
2	207,560	119.3	1,740	62.3	3,330	
3	201,980	119.1	1,700	62.2	3,240	
Average:	201,810	119.2	1,690	62.2	3,240	

Compressive strength of masonry per ACI 530.1-02/ASCE 6-02/TMS 602-02/Table 2/Type M or S Mortar

REPORT OF ABSORPTION TEST

Test No.	Unit Weight (pcf)	Weight Class.	Absorption (pcf)	Absorption (%)	Moisture Content of Total Absorption (%)	Received Weight (lbs.)	Date Weighed
4	119.2	Medium	10.70	8.90	30.20	33.42	
5	118.8	Medium	10.60	8.90	35.60	33.40	
6	118.6	Medium	10.80	9.10	33.00	33.33	
Average:	118.8	Medium	10.70	9.00	33.00	33.38	-
Req. Max.							

REPORT ON PHYSICAL REQUIREMENTS

Test No.	Average Width (in.)	Average Height (in.)	Average Length (in.)	Average Minimum FST (in.)	Average Minimum WEB (in.)	Average Equivalent Web Thickness
4	7.629	7.600	15.606	1.39	1.34	4.12
5	7.633	7.564	15.608	1.39	1.34	4.12
6	7.638	7.570	15.608	1.39	1.35	4.14
Average:	7.633	7.578	15.607	1.39	1.34	4.13

Average Equivalent Thickness: 3.99

Fire-Resistance Rating (hours)¹: 2.0

¹Fire-Resistance Rating is based on a direct interpolation of Table 721.32 minimum equivalent thickness (inches) of Bearing or Non-Bearing concrete masonry walls of the 2003 International Building Code.

The CMU's tested do meet the physical requirements.
The CMU's tested do meet the strength requirements.
The CMU's tested do meet the Absorption requirements.

For the mutual protection of Universal's clients, the general public, and ourselves, our reports are submitted as the confidential property of our clients. Accordingly, authorization for reliance upon, or publication of, all or portions of this report is reserved pending our written approval.