

February 19, 2014



Materials Testing and Inspection

File: L13-0606PT

Whitacre Greer Compamy 1400 South Mahoning Avenue Alliance, Ohio 44601

Attn.: Mr. Colby Dehoff

CDehoff@wgpaver.com

Dear Sirs;

Clay Paver	Testing	

Further to receipt of eight (8) clay paving stones in our laboratory on December 11, 2013, Davroc Testing Laboratories Inc. is pleased to report the results of our testing.

The samples were identified as 4 x 8 x 2 3/4 Shade 36 using Davroc Sample No. 2935.

As requested, eight (8) paver samples were tested for dimension checks. Five (5) samples were randomly selected for compressive strength testing, and the remaining three (3) samples are were tested for freeze-thaw durability. All testing was conducted in accordance with CSA Standard A231.2-06 "Precast Concrete Pavers". The paver samples were tested in the as received condition with no conditioning or curing.

The results of our tests are given on the attached tables.

### **Comments**

The test specimens meet the CSA A231.2-06 requirements for dimensions, compressive strength and freeze-thaw durability.



File: L13-0606PT 2.

Should you have any questions, please do not hesitate to contact the undersigned.

Yours very truly, Davroc Testing Laboratories Inc.

Fabio Fregonese, C.E.T. Manager Materials Testing Services

Sal Fasullo, C.E.T. Vice President

SF/ff 13-0606-2



## LABORATORY TESTING OF PRECAST CONCRETE PAVERS

Project No.: L13-0606PT

Manufacturer: Whitacre Greer Company

Date Manufactured: Not Given

**Lab No.:** 29354

Pavers Type:  $4 \times 8 \times 2^{3/4}$  Clay

Pavers Colour: Shade 36

Date Tested: December 18, 2013

DAVROC/ CLIENT SAMPLE No.	WEIGHT AS REC=D		DIMENSIONS			VE STRENGTH N SAMPLE		
	(GRAMS)	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	CUBE SIZE (mm)	STRENGTH (MPa)	*24 HOURS ABSORPTION %	*DENSITY (SSD KG/M3)
2935-1	3115.6	198.7	99.0	69.0	70.0	88.3	-	-
2935-2	3079.6	199.3	98.1	69.5	69.9	86.1	-	-
2935-3	2990.0	199.0	98.6	69.0	70.2	80.0	-	-
2935-4	3041.3	200.0	99.4	68.2	70.6	71.8	-	-
2935-5	3036.0	199.4	99.0	68.0	70.3	83.1	-	-
2935-6	3025.9	200.0	99.0	68.2	-	-	-	-
2935-7	2970.5	200.0	98.5	68.4	-	-	-	_
2935-8	3060.1	199.0	98.5	69.0	_	-	-	-
Mean	3039.9	199.4	98.8	68.7	70.4	**81.7		-
CSA A231. Specificat		+2.0 -1.0	+2.0 -1.0	+3.0 -3.0	Average: Specified	Minimum 50.0 MPa Minimum : 45.0 MPa	No Limit	No Limit

**REMARKS:** \*\*- Samples were tested in air dry condition.

Sample No's. 2935-6, 2935-7 and 2935-8 are being tested for freeze-thaw durability.

NOTE:

Unless otherwise noted testing was conducted in accordance with CSA Standard A231.2-06

"Precast Concrete Pavers".

\*Testing was performed in general accordance with ASTM C140.

Distribution:

Sal Fasullo, C.E.T Vice-President December 18, 2013



# LABORATORY TESTING OF PRECAST CONCRETE PAVERS FREEZE - THAW DURABILITY TESTS

Project: L13-0606PT

Manufacturer: Whitacre Greer Company

Date of Manufacture: Not Given

Paver Type: 4x8x2 3/4 Clay

Paver Colour: Shade 36

Date Test Started: December 16, 2013

Specimen	Specimen Weight Before	Accumulat	Accumulative Loss in Mass (grams/square metre)	lare metre)
N0.	Testing (grams)	7 Cycles	28 Cycles	49 Cycles
2935-6	3025.9	7.5	12.4	*
2935-7	2970.5	7.5	15.0	*
2935-8	3060.1	10.0	15.0	*
Mean	3018.8	8,3	14.1	*

# Comments

\* The specimens tested have meet the CSA requirement after 28 cycles of freezing and thawing noted below, and therefore testing has been discontinued.

## Notes

- Unless otherwise noted, testing was conducted in accordance with CSA Standard A231.2-06 "Precast Concrete Pavers". \_;
- CSA requires a maximum allowable average loss of mass of three (3) full-size pavers shall not be greater than 225 g/m<sup>2</sup> after 28 cycles of freezing and thawing. If this requirement is not met the test should be continued up to 49 cycles where the maximum allowable average loss should not exceed 500 g/m<sup>2</sup>. 7