



SMITH-EMERY LABORATORIES

An Independent Commercial Testing Laboratory

781 E. Washington Boulevard, Los Angeles, California 90021 ♦ (213) 745-5333 ♦ Fax (213) 749-7232

Project No.: 43300-1

Lab No.: L-17-1019

October 19, 2017

CLIENT: DAVID SAVANT

EJ CO.

2020 WEST 14TH STREET

LONG BEACH, CA 90813-1110

SUBJECT: Composite Manhole Frame and Cover Cyclic Load Test

SPECIFICATIONS: L.A. City Standard Plan S-601-3; Loading Procedure Fig. 3(A) Page 14.

SOURCE: Submitted to Smith-Emery Laboratories by Client on October 17, 2017.

Cover I.D.: EJ GMI 2400, Made in USA

Ring I.D.: EJ Made in USA

Date Tested: 5/10/18/2017

REPORT OF TEST

PROCEDURE:

The manhole frame and cover was placed in calibrated 0-300,000 pound DK No. 1 Universal testing machine and a concentrated load was applied at center using a 1/4-inch thick reinforced rubber pad (shore hardness "A" 80) on which a 1-inch thick 9-inch by 9-inch square steel plate was placed.

5 percent of the required load, 2,600 pounds was applied for 1 minute and deflection was set on zero.

For cyclic Test: Load of 2,600lbs. was applied for one minute and deflection was recorded, then the load was increased to 40,000 lbs. which was applied for one minute and deflection was recorded. The load was released to 2,600 lbs. maintained for one minute and deflection was recorded as permanent set. Then, the load was increased to 53,200 lbs maintained for one minute and deflection was recorded, and then released to 2,600 lbs. maintained for one minute and deflection was recorded as permanent set.

After completing the cycle test, the assembly was loaded at a rate of 50,000 lbs. per minute until failure occurred.

DEFLECTION (inch)					Maximum Load, Lbs.
@ 2,600 Lbs.	@ 40,000 Lbs.	@ 2,600 Lbs.	@ 53,200 Lbs.	@ 2,600 Lbs.	
2.469	1.661	2.378	1.447	2.359	103,434
	0.808	0.091	1.022	0.110	

Permanent Set:

0.091

0.110

Weight, Lbs.		Requirements, Lbs.	
Cover	Ring	Cover	Ring
-	-	-	-

Cover Number	Foundry Identification	Diameter Inches	Load, Pounds	Results Pass/Fail
1	EJ	24"	103,434	-

Requirements: Deflection at any load cycle shall not exceed 0.500 inches and permanent set 0.125 inches.

Respectfully submitted

SMITH-EMERY LABORATORIES

G. Janeth Quintero, P.E.

Registered Civil Engineer No.: C73066 exp. 12/31/18

Registration Expires: 12-31-18

klr



☐ Materials Tested Comply With Specifications.

☐ Materials Tested Did Not Comply With Specifications.

☐ No Established Criteria For Acceptable Limits.

☒ For Information Only

Kent Willing / Dave Badgley

Witnessed by

Joe Martinez

Tested by



SMITH-EMERY LABORATORIES

An Independent Commercial Testing Laboratory

781 E. Washington Boulevard, Los Angeles, California 90021 ♦ (213) 745-5333 ♦ Fax (213) 749-7232

Project No.: 43300-1
Lab No.: L-17-1019

October 19, 2017

TEST #1





SMITH-EMERY LABORATORIES

An Independent Commercial Testing Laboratory

781 E. Washington Boulevard, Los Angeles, California 90021 ♦ (213) 745-5333 ♦ Fax (213) 749-7232

EJ GMI 2400 (#1)

