



Somat Engineering, Inc.

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ASTM D6938

REPORT NUMBER: 201 SHEET: 2 OF 2

DENSITY & MOISTURE DETERMINATION REPORT

DATE: 10/16/2020

JOB NUMBER: 2019057B

PROJECT NAME: Kercheval Streetscape(PW-7005)

LOCATION: Detroit, MI

GAUGE NUMBER: 33531

CLIENT: AECOM & City of Detroit

OWNER: City of Detroit (Public Works)

CONTRACTOR: Major Concrete

PROJECT ENGINEER: Allen Ostrowski (AECOM)

WEATHER: Clear

TEST PERFORMED ON:			SUBGRADE	SUBBASE	AGGREGATE BASE	X	BACKFILL	OTHER									
STRUCTURE: Existing Subgrade for under sidewalk. Stone Subbase on top of subgrade & Stone for curb line to be poured.																	
TEST			WET DENSITY		MOISTURE			DRY DENSITY		TEST LOCATION							
ORIG.	RETEST	DEPTH	DENSITY COUNTS	WET DENSITY	MOIST. COUNTS	MOIST.	MOIST.	DRY DENSITY	MAX DENSITY	COMPACT.	STATIONING/LOCATION	OFFSET OF CL (FT)		DBG (FT)			
		INCH	DC	PCF	MC	PCF	%	PCF	PCF	%		LEFT	RIGHT				
1		8	1374	120.4	92	7.9	7.0	112.5	113.9	98.8	55+00	34.0		1			
2		8	1480	117.3	103	9.0	8.3	108.3	113.9	95.1	50+00	33.0		1			
3		8	1431	118.7	107	9.4	8.6	109.3	113.9	96.0	45+00	33.0		1			
4		4	2361	126.0	107	9.4	8.0		127.8	98.6	56+50	32.0		0.5			
5		4	2376	125.7	101	8.8	7.5		127.8	98.3	50+00	28.0		0.5			
6		4	2509	122.8	105	9.2	8.1		127.8	96.1	55+00	29.0		1			
7		4	2461	123.8	104	9.1	7.9		127.8	96.9	52+00	34.0		1			
8		4	2422	124.6	109	9.6	8.3		127.8	97.5	45+00	30.0		1			
MAXIMUM DETERMINATION (FIELD) NOTE: To convert (g) to (lbs): Wt (g) / 453.59 = Wt. (lbs)											STANDARDIZATION						
TEST #	MOIST. %	MOLD VOL. (CFT)	WET SOIL + MOLD (g)	MOLD (g)	WET SOIL (g)	WET SOIL (lbs)	COMPACTED WET SOIL PCF	MAX DENSITY	OPTIMUM MOIST. %	MATERIAL	READING 1	DENSITY	MOISTURE				
1	7	0.0447	4338	1890	2448	5.40	120.7	113.9	13.8	Existing Subgrade	READING 2	1900	595				
4	8	0.0333	4103	2172	1931	4.26	127.8	127.8	6.5-9.5	Recycled Stone	READING 3	1915	600				
											READING 4	1902	597				
											OPERATING STANDARD (READING 5)						
											DENSITY		MOISTURE				
											1918		599				
MIN. COMPACTION REQUIRED:					100.0%				98.0%	X	95.0%			90.0%			OTHER
MAXIMUM DRY DENSITY BY:			X		MICH. CONE				D1557		T-99	X	T-180				OTHER
REMARKS:																	
SOMAT FIELD REPRESENTATIVE: Cody Cervelli											DATE: 10/16/2020						
SOMAT PROJECT MANAGER(s): Steve Drummond, P.E.											DATE: 10/17/2020						

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