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REPORT

Attn: Mr. Bimal Seebaran

Project Code: EC03826544/24

Client: ABEL BUILDING SOLUTIONS – ANSA MCAL ENTERPRISES LTD

Client Address: Depot Road Longdenville, Chaguanas

Report Title: Testing of 8" x 8" x 16" C1600 concrete blocks

Report No: 0402/24/01

Project Chief: Lisa Ramoutar

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Reviewed By: Neal Hassim **Date:** 2024/02/06

Neal Hassim, Civil Technologist

Authorized By: Lisa Ramoutar **Date:** 2024/02/06

Lisa Ramoutar, Laboratory Manager

Copy No: 1 of 1 **Appendices:** ☐

Report Version: **ORIGINAL** ☒ **RE-ISSUE** ☐ **AMENDED** ☐

Introduction

The client submitted six (6) 8 inch concrete blocks labeled "190 x 190 x 390 C1600" for water absorption and compressive strength determination. The samples were submitted on November 20, 2023 and were assigned CARIRI Identification numbers T240324 to T240329.

Approach

Guidelines given in *ASTM C140-18: Standard test method for sampling and testing of concrete masonry units* were used in the investigation.

Results

Testing period: January 04 to 19, 2024.

Test results are presented in Tables 1 and 2.

Table 1: Compressive strength results of 8 inch concrete blocks

CARIRI ID	Client ID	Avg. overall dimensions LxBxH (mm)	Net cross-sectional area (mm^2)	Load (N)	Net area compressive strength (N/mm^2)	Requirements of ASTM C90-16a
T240324	190x190x390 C1600	392.5×190.0×190.0	38200	1220100	32.0	**Min. net area compressive strength** Average of 3 units - 13.8 N/mm^2 Individual unit - 12.4 N/mm^2
T240325		390.0×190.0×190.0	38150	1207250	31.6	
T240326		390.0×190.0×190.0	37950	887300	23.4	
				Average	29.0	

Date tested: January 19, 2024

Table 2: Water absorption results of 8 inch concrete blocks

CARIRI ID	Client ID	Oven dry density (kg/m^3)	Water absorption (kg/m^3)	Requirements of ASTM C90-16a
T240327	190x190x390 C1600	2131	119	**Max. water absorption** For conc. density >2000 kg/m^3 Average of 3 units - 208 kg/m^3 Individual unit – 240 kg/m^3
T240328		2205	108	
T240329		2205	108	
	Average	2180	112	

Date tested: January 04 to 16, 2024

END OF REPORT