



TR3: Technical Report
Concrete Design Mix

Must be typewritten.



The TR3 is required prior to permit

1 Location Information Required for all applications.

House No(s) 137-35

Street Name Northern Blvd

Borough Queens

Block 4960

Lot 1

BIN 4112147

CB No. 407

2 Applicant Information - Licensed Concrete Testing Lab Required for all applications.

Director Last Name Hajjar

Director First Name Sami

Director Middle Initial

Business Name Metric Consulting & Inspection

Business Telephone (516) 433-7454

Business Address 184 Engineers Drive

Business Fax (516) 433-7455

City Hicksville

State NY

Zip 11801

Mobile Telephone

E-Mail

Director's Lic. Number 074931

☒ P.E. ☐ R.A.

Concrete Testing Lab Lic. Number 062

3 Strength Requirements and Design Required for all applications. Attach Trial Mixture Reports and/or Field Experience Results.

				Mix #1	Mix #2	Mix #3
Method of Determining Proportions (Trial Mixture and/or Field Experience)				☒ Trial Mix ☐ Field Experience	☒ Trial Mix ☐ Field Experience	☐ Trial Mix ☐ Field Experience
Date Trial Mixture Performed				11/23/11		
Specified Strength (f'_c)				4000 PSI	PSI	PSI
Required Strength (f_{cr})				5200 PSI	PSI	PSI
Specified Test Age (Days)				28		
	Material Type	Material Source	ASTM Standard			
Cementitious #1 (lbs)	I/II	Keystone	C-150	526 lbs.	lbs.	lbs.
Cementitious #2 (lbs)	Fly Ash	Headwater	C-618	132 lbs.	lbs.	lbs.
Cementitious #3 (lbs)	-	-	-	- lbs.	- lbs.	lbs.
Fine Aggregate (lbs)	Sand	LI Natural	C-33	1245 lbs.	lbs.	lbs.
Coarse Aggregate #1 (lbs)	Stone	Tilcon	C-33	1775 lbs.	- lbs.	lbs.
Coarse Aggregate #2 (lbs)	-	-	-	- lbs.	lbs.	lbs.
Coarse Aggregate #3 (lbs)	-	-	-	- lbs.	lbs.	lbs.
Amount of Water (gals)	City	City	C-94	31.6 gals.	gals.	gals.
Admixture #1 (oz)	Air	Sika Air	C-260	6.6 oz	oz	oz
Admixture #2 (oz)	Water Reducer	Sikament 686	C-494	19.7 oz	oz	oz
Admixture #3 (oz)	-	-	-	- oz	oz	oz
Other	-	-	-	-		
Water-Cement Ratio	-	-	-	0.40		
Slump (inches $\pm$ tolerance)	-	-	C-143	4.0 $\pm$ 1.0	$\pm$	$\pm$
Air Content (% $\pm$ tolerance)	-	-	C-231	6.0 % $\pm$ 1.5	% $\pm$	% $\pm$
Unit Weight (lbs./ft ³)	-	-	C-138	145.2 lbs./ft ³	lbs./ft ³	lbs./ft ³

4 Concrete Testing Lab Director's Statement and Signature Required for all applications.

I hereby state that the information reported in section 3 above is correct and complete and that the tests reported in section 3 above were performed under my supervision in accordance with all applicable New York City Construction Code provisions, and Departmental rules.

Falsification of any statement is a misdemeanor and is punishable by a fine or imprisonment, or both.

It is unlawful to give to a city employee, or for a city employee to accept, any benefit, monetary or otherwise, either as a gratuity for properly performing the job or in exchange for special consideration. Violation is punishable by imprisonment or fine or both.

Name (please print)

Sami Hajjar

Signature

Date

01-26-12



P.E. / R.A. Seal (apply seal, then sign and date over seal)

5 Concrete Producer's Statement and Signature Required for all applications. Must be filled out by Owner of Production Facility.

I certify that the material type and source specified in section 3 above are available at my facility and that I will use such materials to produce the concrete mix(es) specified in section 3. I further certify that I will produce and deliver such mix(es) to the project site in accordance with the applicable code provisions of the NYC construction codes and that such mix(es) are appropriate for the placement conditions for the project identified in section 1 above (BC 1905.8.2).

Name (print) Paul Melis

Title Owner

Signature

- Date 1/27/12

NRMCA Certification Expiration Date (BC 1905.8.2) 11/17/13

Business Name Corona Ready Mix

Business Telephone (718) 271-5940

Business Address 50-25 97th Place

Business Fax: (718) 592-2650

City Corona

State NY

Zip 11368

6 Design Applicant's Statement and Signature Required for all applications. Must be filled out by P.E./R.A. responsible for plans.

☒ I certify I have reviewed the concrete design mix(es) reported by the licensed testing lab and found them to be in compliance with the approved construction documents (BC 1905.6.3.3).

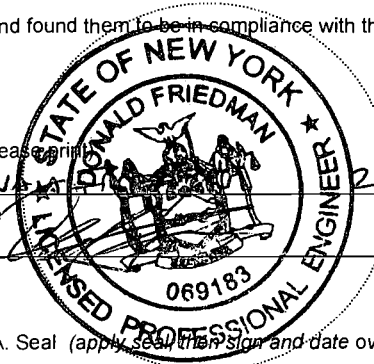
Name (please print)

Donald Friedman

Signature

Date

2-2-12



P.E. / R.A. Seal (apply seal, then sign and date over seal)

7 Building Owner's Statement and Signature Required for all applications.

Falsification of any statement is a misdemeanor and is punishable by a fine or imprisonment, or both. It is unlawful to give to a city employee, or for a city employee to accept, any benefit, monetary or otherwise, either as a gratuity for properly performing the job or in exchange for special consideration. Violation is punishable by a fine or imprisonment, or both. I understand that if I am found after hearing to have knowingly or negligently made a false statement or to have knowingly or negligently falsified or allowed to be falsified any certificate, form, signed statement, application, report or certification of the correction of a violation required under the provisions of this code or of a rule of any agency, I may be barred from filing further applications or documents with the Department.

Name (print)

KONSTANTINOS KRITHARI

Title PROGRAM DIRECTOR

Signature

Date

2/3/12



Engineering - Inspection - Testing

Client: Structuretech NY **Report:** 001-ST-12
90 Sandford Blvd.
Mt. Vernon, NY 10550
Project: 137-35 Northern Blvd **Date:** 11/23/2011
Queens, NY 11354
MIX: 4000 PSI + 1200 A.E.Conv. with Flyash

1) Trial Mix Designed By: METRIC CONSULTING AND INSPECTION
2) Specified Strength: 4000 PSI + 1200 A.E.Conv. with Flyash
3) Method: ACI, NYCDOB CODES
3) Concrete Supplier: CORONA READY MIX, Corona, NY

4) Recommended Mix Design

Cement I/II	526	lbs	
Flyash	132	lbs	
Fine Aggregate	1245	lbs	
Coarse Aggregate	1775	lbs	#57 / 67
Water	31.6	gal.	
Admixture 1	6.6	oz.	
Admixture 2	19.7	oz.	
W/C	0.400		
Slump	4" + / - 1"		
Air Content	6.0 + / - 1.5%		



In accordance with ACI 306, non chloride accelerator (Plastocrete 161FL) may be added to reduce the setting time.
Recommended dosage by manufacturer is 12 to 24 oz/100 # of cementitious materials, depending on ambient and field conditions.

In accordance with ACI 305, set retarding admixture(Plastiment) may be added to increase the setting time. Recommended dosage
by manufacturer is 2 to 4 oz/100 # of cementitious materials, depending on ambient and field conditions.



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	Queens, NY 11354		
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5) Materials (By Brand):

a) Cement: I/II	Keystone
b) Fine aggregate:	LI Natural
c) Coarse Aggregate:	TILCON
d) Admixtures:	SIKA
i) Air Entrainment Agent:	SIKA AIR
ii) Water reducer:	Sikament 686
iii) High Range water Reducer:	
iv) Water Reducing Set Retarding:	
v) Pozzolan:	
a) Fly Ash:	Headwater
b) Slag:	
vi) Water Reducer:	
vii) Accelerator	

6) Gradations:

	a) Fine Aggregate (%)	b) Coarse Aggregate (%) - #57 / 67
1"		100
3/4"		91.2
1/2"		34.5
3/8"	100	22.5
#4	97.6	4.1
#8	88.7	1.2
#16	72.3	
#30	40.5	
#50	12.3	
#100	4.2	
Fineness Modulus	2.85	
Specific Gravity	2.64	2.83

- Aggregate batching weight are S.S.D condition, additional adjustments may be needed.
- City of New York /department of building license # 62



Metric

*Consulting
&
Inspection*

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7)

Batch weights Per Cubic Yard Trial Mixes

	#1	#2	#3	#4
Cement, lbs.	451	489	526	676
Flyash, lbs.	113	122	132	170
Sand, lbs.	1410	1325	1245	890
Stone, lbs.	1775	1775	1775	1775
Total water, gals.	28.4	30.1	31.6	40.6
Admixixture 1, oz.	5.6	6.1	6.6	8.5
Admixixture 2, oz.	16.9	18.3	19.7	25.4
Air content, %	6.75	6.75	6.25	6.00
Final Slump, Inches	3.50	3.50	3.75	4.00
W/C Ratio, lbs./lbs.	0.420	0.410	0.400	0.400
Yield	27.1	27.1	27.0	27.1
UNIT WEIGHT	147.3	146.5	145.2	143.9

Compressive Strenghts Trial Mixes- PSI

	#1	#2	#3	#4
9) Seven (7) Days	3250	3750	4025	5230
	3350	3980	4120	5124
	3425	3900	4350	5390
Average	3342	3877	4165	5248

10) Twenty-eight (28) Days

	4865	4980	5560	7050
	4750	5010	5670	6905
	4875	5130	5745	6890
	4900	5205	5625	6785
Average	4848	5081	5650	6908

11) Fifty-Six (56) Days

	#1	#2	#3	#4
	TBD	TBD	TBD	TBD
	TBD	TBD	TBD	TBD
	TBD	TBD	TBD	TBD
Average	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!





Engineering - Inspection - Testing

CLIENT: Structuretech NY
PROJECT: 137-35 Northern Blvd
CHECKED BY: SAMI HAJJAR, P.E.
MIX: 4000 PSI + 1200 A.E.Conv. with Flyash

