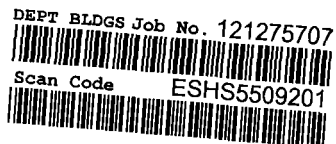




# TR3: Technical Report Concrete Design Mix

Must be typewritten.



The TR3 is required prior to permit

## 1 Location Information Required for all applications.

House No(s) 2461

Street Name BROADWAY

Borough MANHATTAN

Block 1239

Lot 10

BIN 1033583

CB No. 107

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

Director Last Name BANERJEE

Director First Name DEBABRATA

Director Middle Initial

Business Name IMPACT CONCRETE & CONTROL INSPECTION INC

Business Telephone (718) 939-7774

Business Address 15-46 129TH STREET

Business Fax (718) 939-6444

City COLLEGE POIN State NEW YORK Zip 11356

Mobile Telephone (917) 577-7540

E-Mail DBANER@GMAIL.COM

Director's Lic. Number 081431

☒ P.E. ☐ R.A.

Concrete Testing Lab Lic. Number 64

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

				Mix #1	Mix #2	Mix #3
Method of Determining Proportions (Trial Mixture and/or Field Experience)				<input checked="" type="checkbox"/> Trial Mix <input type="checkbox"/> Field Experience	<input type="checkbox"/> Trial Mix <input type="checkbox"/> Field Experience	<input type="checkbox"/> Trial Mix <input type="checkbox"/> Field Experience
Date Trial Mixture Performed				5-7-18		
Specified Strength (f' c)				4000		
Required Strength (f' cr)				5200		
Specified Test Age (Days)				28 Days		
	Material Type	Material Source	ASTM Standard			
Cementitious #1 (lbs)	Cement	MCINNIS I/II	C-150	348 lbs.	lbs.	lbs.
Cementitious #2 (lbs)	Slag	Newcem Grade 120	C-989	232 lbs.	lbs.	lbs.
Cementitious #3 (lbs)				lbs.	lbs.	lbs.
Fine Aggregate (lbs)	Sand	Coram Sand	C-33	1400 lbs.	lbs.	lbs.
Coarse Aggregate #1 (lbs)	Stone # 67	Tilcon (Clinton Point)	C-33	1700 lbs.	lbs.	lbs.
Coarse Aggregate #2 (lbs)				lbs.	lbs.	lbs.
Coarse Aggregate #3 (lbs)				lbs.	lbs.	lbs.
Amount of Water (gals)	Water	NYC	C-94	31.5 gals.	gals.	gals.
Admixture #1 (oz)	Sika	Sika Air	C-260	2.9 oz	oz	oz
Admixture #2 (oz)	HRWR	Viscocrete 2100	C-494	34.1 oz	oz	oz
Admixture #3 (oz)				oz	oz	oz
Other	SUPPLIER MAY ADJUST	ADMIXTURE AS PER	NYC DOB			
Water-Cement Ratio	BULLETIN 2010-018			0.45		
Slump/Spread (inches ± tolerance)				8 ± 1"	±	±
Air Content (% ± tolerance)				6 %± 1.5	%±	%±
Unit Weight (lbs /ft <sup>3</sup> )				147.2 lbs./ft <sup>3</sup>	lbs /ft <sup>3</sup>	lbs./ft <sup>3</sup>

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

I hereby state that the above information is correct and complete to the best of my knowledge and that the above tests were performed in accordance with all Administrative Code Provisions and Departmental Rules, Regulations and Directives

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.

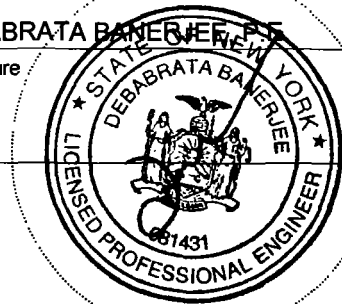
Name (please print)

DEBABRATA BANERJEE, P.E.

Signature

Date

11-05-19



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 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) Alfredo Caruso

Title QC Manager

Signature

Date 11-12-19

NRMCA Certification Expiration Date (BC 1095.8.2) 08-27-20

Business Name Casa Redi mix Concrete Corp

Business Telephone (718) 589-1556

Business Address 886 Edgewater Road

Business Fax: (718) 589-9940

City Bronx

State NY

Zip 10474

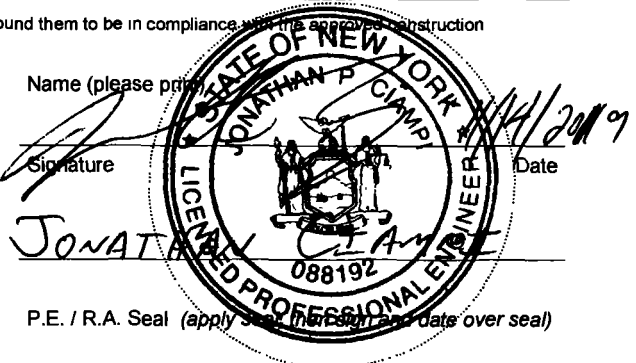
**6 Design Applicant's Statement and Signature** *Required for all applications. Must be filled out by P.E./R.A. responsible for plans.*

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).

Name (please print)

Signature

Date



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 falsified or allowed to be falsified any certificate, form, signed statement, application, report or certification of the correction of 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)

Robert Rosenthal

Title

Authorized Signature

Signature

Date

11/15/19

# IMPACT

Concrete & Control Inspections, INC.

15-46 129th Street, College Point, New York 11356

Tel: (718) 939-7774 Fax: (718) 939-6444

The City of New York Department of Buildings Concrete Testing laboratory #64

## CONCRETE MIX DESIGN REPORT

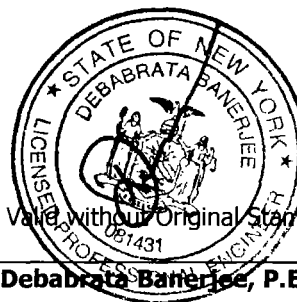
<b>CLIENT:</b>	DEFALCO	<b>DATE:</b>	5/7/18
<b>Project:</b>	QC mix 2016-18 2461 BROADWAY	<b>LAB NO.:</b>	2018-P Slag Air
<b>Supplier:</b>	CASA Redi mix	<b>MIX TYPE:</b>	Trial
		<b>Expire on</b>	5/7/2020
		<b>SAMPLED BY:</b>	Impact
		<b>DELIVERED BY:</b>	Impact

### 4000 psi + 1200 A.E. Concrete Pump 40% Slag @ 28 Days

Product	Source & Type	ASTM	S.G.	NYS Source No.
Cement	McInnis Cement Type I/II	ASTM C150	3.15	
Slag	Lafarge Newcem Grade 120	ASTM C989	2.88	
Fly Ash	-	ASTM C618	2.20	
Silica Fume	-	ASTM C1240	2.20	
Fine Agg.	Coram Sand	ASTM C33	2.63	
Coarse Agg.	Tilcon NY - Clinton Point	ASTM C33	2.81	
Water	NYC Potable	ASTM C94	1.00	
Admixture 1	SIKA - SIKA Air	ASTM C260	1.02	
Admixture 2	Sika -Viscocrete 2100	ASTM C494	1.10	
Admixture 3				

### Recommended Mix Design # 2

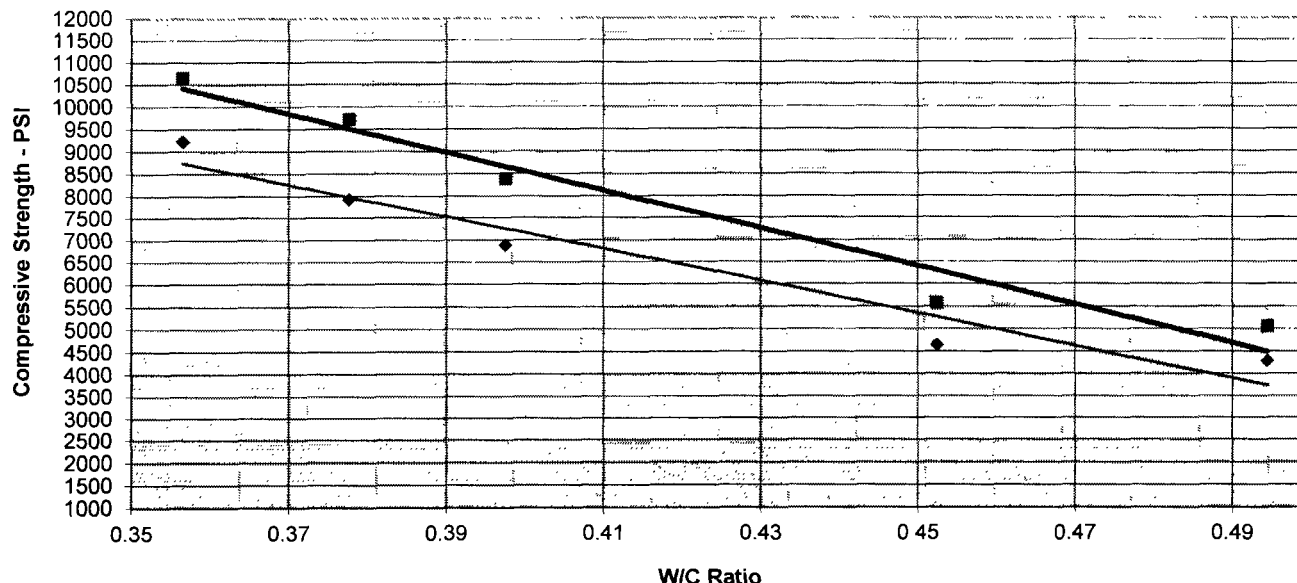
Cement (lbs.)	348
Slag (lbs.)	232
Fly Ash (lbs.)	
Microsilica (lbs.)	
Fine Agg. (lbs.)	1400
Coarse Agg. (lbs)	1700
Water (gals.)	31.5
Admixture 1 (oz.)	2.9
Admixture 2 (oz.)	34.1
Admixture 3 (oz.)	
Slump (in.)	8" +/- 1"
Air Content (%)	6 % +/-1.5%
U. Wt. P.C.F.	147.2
W/C Ratio	0.45



Not Valid without Original Stamp

Debabrata Banerjee, P.E.

### Compressive Strength vs. Water Cement Ratio



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**CONCRETE MIX DESIGN REPORT**

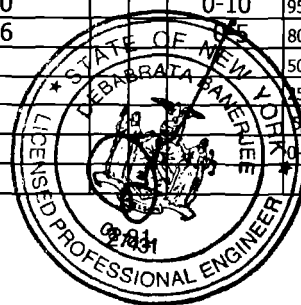
<b>CLIENT:</b>	DEFALCO	<b>DATE:</b>	5/7/18
	0	<b>LAB NO.:</b>	2018-P Slag Air
	0	<b>MIX TYPE:</b>	Trial
<b>PROJECT:</b>	QC mix 2016-18	<b>METHOD:</b>	5/7/2020
	2461 BROADWAY	<b>SAMPLED BY:</b>	Impact
<b>SUPPLIER:</b>	CASA Redi mix	<b>DELIVERED BY:</b>	Impact
<b>4000 psi + 1200 A.E. Concrete Pump 40% Slag @ 28 Days</b>			

### Aggregate Gradation Passing Percent Finer

Sieve Size	Fine Aggregates		#67 Stone		C-33#67	C-33	C-33 #57
2"							
1 1/2"				100.0			100
1"				100.0		100.00	Sand 95-10
3/4"				90.4		90-100	
1/2"				36.9			25-60
3/8"		100.0		20.1		20-55	100
# 4		99.7		2.0		0-10	95-100 0-10
# 8		93.9		0.6			80-100 0-5
# 16		82.4					50-85
# 30		53.4					25-60
# 50		10.8					30
# 100		0.9					10
FM		2.59					

Unit Weight Dry Rodded  
Specific Gravity  
Colometric Test

2.63  
Plate # 1

**TRIAL MIXES - DRY BATCH WEIGHTS (lbs./Cubic Yards)**

Point	Yield	Cement	Slag	FlyAsh	Silica	F.A.	C.A.*	Water	Adx 1	Adx 2	Adx 3	Unit Wt.	Slump(in)	W/C	Air %
1	27.0	324	216	0	0	1420	1700	32.1	2.0	32.1	0.0	147.4	7.00	0.49	5.2
2	27.0	348	232	0	0	1400	1700	31.5	2.9	34.1	0.0	147.2	8.00	0.45	5.3
3	27.0	396	264	0	0	1330	1700	31.5	3.3	36.3	0.0	148.2	8.50	0.40	5.0
4	27.0	423	285	0	0	1280	1700	32.1	3.5	39.5	0.0	147.2	8.75	0.38	5.1
5	27.0	450	300	0	0	1240	1700	32.1	3.9	42.5	0.0	148.6	9.00	0.36	4.5

### COMPRESSIVE STRENGTH RESULTS (ASTM C39) - P.S.I. (4" x 8" Cylinders)

	Point	w/c ratio	7 Days Results		Average	28 Days Results				Average	
	1	0.49	4297	4285	4291	4924	5169	5083		5059	
	2	0.45	4920	4363	4642	5134	5719	5868		5574	
	3	0.40	6876	6899	6888	8992	7813	8372		8392	
	4	0.38	8085	7776	7931	10094	9605	9460		9720	
	5	0.36	9247	9221	9234	10783	10139	11040		10654	
	Point	w/c ratio	3 Days Results		Average	56 Days Results		Average			
	1	0.49	2889	3162	3026			#DIV/0!			
	2	0.45	3380	3531	3456			#DIV/0!			
	3	0.40	5697	5710	5704			#DIV/0!			
	4	0.38	6795	6314	6555			#DIV/0!			