



# 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) 501

Street Name West 30th Street

Borough Manhattan

Block 702

Lot 50

BIN

CB No.

## 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 Point

State NY

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 000064

## 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)				<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				10/18/12		
Specified Strength ( $f'_c$ )				6000 PSI	PSI	PSI
Required Strength ( $f'_{cr}$ )				7200 PSI	PSI	PSI
Specified Test Age (Days)				28		
	Material Type	Material Source	ASTM Standard			
Cementitious #1 (lbs)	Cement	Lehigh-II	C-150	525 lbs.	lbs.	lbs.
Cementitious #2 (lbs)	Slag	Allcem	C-989	225 lbs.	lbs.	lbs.
Cementitious #3 (lbs)				lbs.	lbs.	lbs.
Fine Aggregate (lbs)	Sand	LI NATURAL	C-33	1220 lbs.	lbs.	lbs.
Coarse Aggregate #1 (lbs)	Stone	NYSAND & STONE	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	C94	33.0 gals.	gals.	gals.
Admixture #1 (oz)	Air	Euclid- AE92	C-260	1.2 oz	oz	oz
Admixture #2 (oz)	HRWR	Euclid- Plastol 5000	C464	52.6 oz	oz	oz
Admixture #3 (oz)				oz	oz	oz
Other	Tags: 52945-54	Supplier can adjust				
Water-Cement Ratio	Admixtures per NYC	DOB bulletin		0.37		
Slump (inches $\pm$ tolerance)	2010-018	dated 06-18-10		8" $\pm$ 1	$\pm$	$\pm$
Air Content (% $\pm$ tolerance)				6 % $\pm$ 1.5	% $\pm$	% $\pm$
Unit Weight (lbs./ft <sup>3</sup> )				146. 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 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.

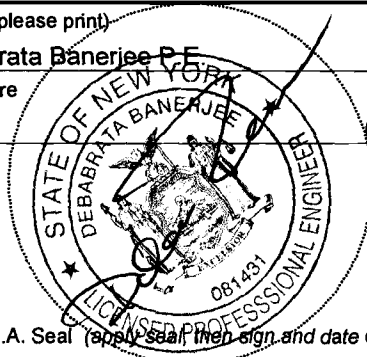
Name (please print)

Debabrata Banerjee P.E.

Signature

Date

07-30-13



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) ANGELO DEPERINO

Title OPER. MGR.

Signature [Signature] Date 7/30/13

NRMCA Certification Expiration Date (BC 1905.8.2) 9/19/13

Business Name Empire transit Mix

Business Telephone (718) 384-3000

Business Address 430 Maspeth Avenue

Business Fax: 718 384 3113

City Brooklyn

State NY

Zip 11211

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

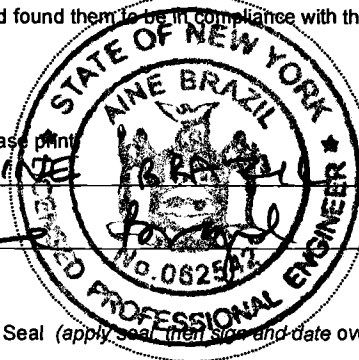
☐ I certify I have reviewed the concrete design mix(es) reported by the licensed testing lab and found them to be in compliance with the approved construction documents (BC 1905.6.3.3).

Name (please print)

Signature

Date

8/11/13



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

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

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Name (print)

Title

Signature

Date

# IMPACT

**Concrete & Control Inspections, INC.**  
**15-46 129th Street, College Point, New York 11356**  
**Tel: (718) 939-7774 Fax: (718) 939-6444**

## CONCRETE MIX DESIGN REPORT

<b>CLIENT:</b>	Tutor Perini Building Corp 360 West 31 Street - Suite 1510 New York, NY 10001	<b>DATE:</b>	10/18/12
<b>Project:</b>	501 West 30 th Street	<b>LAB NO.:</b>	2012-2-18-12
<b>Supplier:</b>	Empire Transit Mix	<b>MIX TYPE:</b>	3/4 - Pump Mix
		<b>METHOD:</b>	Trial
		<b>SAMPLED BY:</b>	Ricky / Dave
		<b>Expire on:</b>	10/18/2013

6000 PSI +1200 Psi Normal wt concrete Pump Mix @28 Days

Product	Source & Type	ASTM	S.G.	NYS Source No.
Cement	Lehigh-II	ASTM C150	3.15	
Slag	Lehigh- Allcem	ASTM C989	2.88	-
Fly Ash	-	ASTM C618	2.20	-
Silica Fume	-	ASTM C1240	2.20	-
Fine Agg.	L I Natural	ASTM C33	2.63	-
Coarse Agg.	NY Stand & Stone(#67)	ASTM C33	2.66	-
Water	NYC Potable	ASTM C94	1.00	-
Admixture 1	Euclid AE92	ASTM C260	1.03	-
Admixture 2	Euclid- Plastol 5000	ASTM C494	1.20	-
Admixture 3		-	-	-

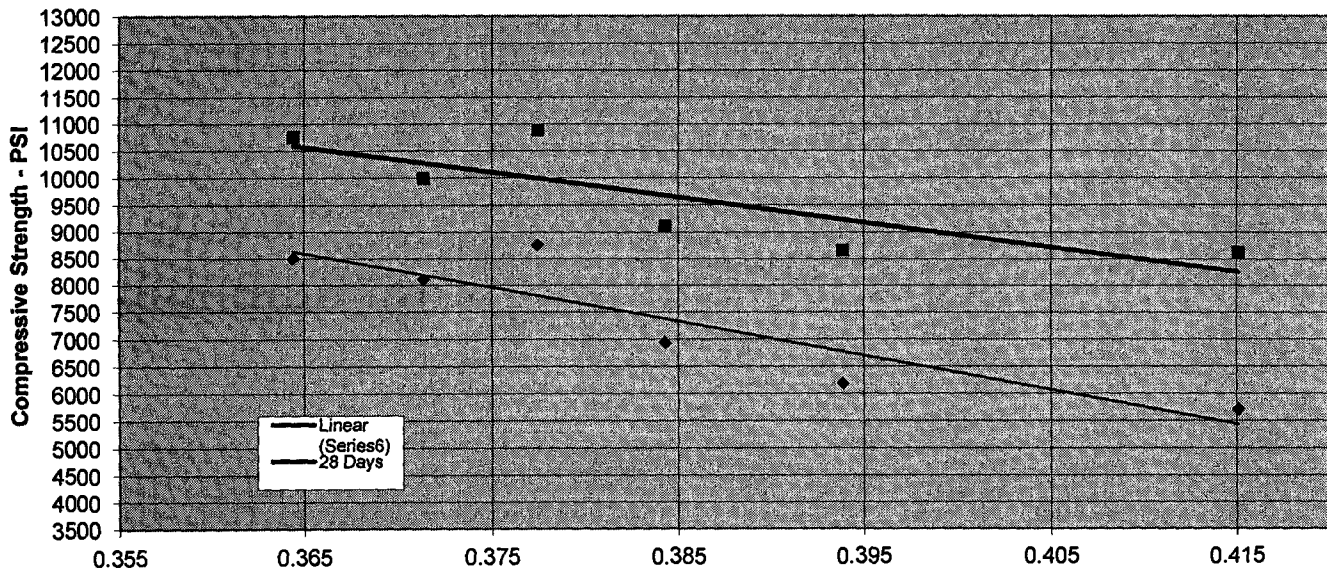
Recommended Mix Design		#4	
Cement (lbs.)	525	Sacks	7.98
Slag (lbs.)	225		
Fly Ash (lbs.)	0		
Microsilica (lbs.)	0		
Fine Agg. (lbs.)	1220		
Coarse Agg. (lbs.)	1700		
Water (gals.)	33.0		
Admixture 1 (oz.)	1.2		
Admixture 2 (oz.)	52.6		
Admixture 3 (Gal.)			
Slump (in.)	8"±1"		
Air Content (%)	6 % ±1.5%		
U. Wt. P.C.F.	146.4		
W/C Ratio	0.37		

Supplier Can adjust Admixture per NYC DOB  
 Bulletin 2010-018 Dated 6/18/10  
 Air Entrainment Admixture can be adjusted  
 by supplier per NYC DOB bulletin 2010-018

Not Valid without original Signature



## Compressive Strength vs. Water Cement Ratio



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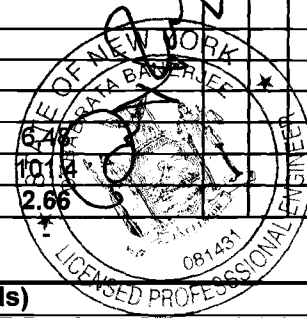
## CONCRETE MIX DESIGN REPORT

<b>CLIENT:</b>	Tutor Perini Building Corp 360 West 31 Street - Suite 1510 New York, NY 10001	<b>DATE:</b>	10/18/12
<b>PROJECT:</b>	501 West 30 th Street 0	<b>LAB NO.:</b>	2012-2-18-12
<b>SUPPLIER:</b>	Empire Transit Mix	<b>MIX TYPE:</b>	3/4 - Pump Mix
		<b>METHOD:</b>	Trial
		<b>SAMPLED BY:</b>	Ricky / Dave
		<b>DELIVERED BY:</b>	10/18/2013

**6000 PSI +1200 Psi Normal wt concrete Pump Mix @28 Days**

### Aggregate Gradation Passing Percent Finer

Sieve Size	F.A.	C.A. #67
2"		
1 1/2"		100.00
1"		100.0
3/4"		95.10
1/2"		60.30
3/8"	100.0	44.40
# 4	95.5	9.7
# 8	87.9	2.6
# 16	80.4	
# 30	56.8	
# 50	14.0	
# 100	1.6	
FM	2.64	
Unit Weight Dry Rodded	102.0	
Specific Gravity	2.63	
Colometric Test	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	27.2	425	185	0	0	1350	1700	30.0	1.0	39.7	0.0	144.8	7.00	0.42	5.1
2	27.3	465	195	0	0	1300	1700	30.8	1.0	46.1	0.0	141.6	7.5	0.39	6.8
3	27.1	495	210	0	0	1200	1700	32.1	1.0	49.4	0.0	145.2	7.75	0.38	5.0
4	27.0	525	225	0	0	1220	1700	33.0	1.2	52.6	0.0	146.4	8.50	0.37	4.5
5	27.0	565	240	0	0	1170	1700	36.0	1.5	59.4	0.0	146.0	8.25	0.38	4.7
6	27.0	595	255	0	0	1125	1700	36.7	1.8	65.4	0.0	145.6	9.00	0.36	4.8

### COMPRESSIVE STRENGTH RESULTS (ASTM C39) - P.S.I. (4" x8" Cylinders)---

Point	w/c ratio	7 Days Results			Average	28 Days Results			Average
1	0.415	5731	5695	5713	8710	8590	8596		8632
2	0.394	5870	6509	6190	8519	8473	8997		8663
3	0.384	7175	6702	6939	9119	9253	8983		9118
4	0.371	8405	7819	8112	10097	9661	10236		9998
5	0.377	8960	8563	8762	11089	10621	10960		10890
6	0.364	8474	8540	8507	11009	10560	10725		10765
Point	w/c ratio	48 Hr Results			Average	56 Days Results			Average
1	0.415	3209	3320	3265	8956	8867	8574		8799
2	0.394	3578	3498	3538	9417	9661	9164		9414
3	0.384	3784	3724	3754	9125	9129	9537		9264
4	0.371	4023	4293	4158	10565	10223	10543		10444
5	0.377	4450	4284	4367	11259	11457	11382		11366
6	0.364	4553	4513	4533	11702	10830	11508		11347