



STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

Ref: CED/TFL/02/2886

Dated: 06-03-2023

Dated of Test: 07-03-2023

To

Resident Engineer
NESPAK

Infrastructure Development at Chahar Bagh under Ravi Riverfront Urban Development Project.

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a]**

Reference to your letter No. 4490/13/WM/09/044, dated 04.02.2023 on the subject cited above. Two R.C.C. Pipes as received by us have been tested. The results are tabulated as under.

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	Proof Stress	Ultimate Stress
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	12	7.72	7.32	15.91	11.43	2.24	14500	18000	4585	5692
2	18	7.72	7.32	22.80	17.63	2.58	9000	14000	1844	2868

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 M/S Project Managers
 Allied Bank Limited
 Plot No. 14 Block A3 Gulbarg III Lahore

Reference # CED/TFL **2825** (Dr. M Kashif)
 Reference of the request letter # Nil

Dated: 22-02-2023
 Dated: 22-02-2023

Tension Test Report (Page -1/1)

Date of Test 07-03-2023
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.369	3	0.371	0.11	0.108	3800	4700	76200	77310	94200	95700	1.20	15.0	Mughal Steel
2	0.370	3	0.372	0.11	0.109	3800	4800	76200	77080	96200	97400	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratories
UET Lahore, Pakistan.

Note:

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Pakistan. Ph: 92-42-99029202

Ref: CED/TFL/03/2883

Dated: 03-03-2023

Dated of Test: 07-03-2023

To

Chief Engineer
Zaitoon (New Lahore City)
Infrastructure Work Zaitoon City (Iftikhar & Brothers)

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a]**

Reference to your letter No. NLC/CE/145, dated 23.02.2023 on the subject cited above. One R.C.C. Pipes as received by us has been tested. The results are tabulated as under.

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	Proof Stress	Ultimate Stress
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	12	7.76	7.19	16.14	12.24	1.95	10500	14500	3155	4357

Witness by M Azhar Rais (Asst. Lab Incharge - Zaitoon)

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Flight Lieutenant
 AD (Tech) AFOHS Det Lhr

Reference # CED/TFL **2884** (Dr. M Kashif)
 Reference of the request letter # AHQ/74314/AFOHS

Dated: 06-03-2023
 Dated: 01-03-2023

Tension Test Report (Page -1/1)

Date of Test 07-03-2023
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.369	3/8	0.372	0.11	0.108	3100	4900	62200	62990	98200	99600	1.10	13.8	SJ Steel
2	0.376	3/8	0.375	0.11	0.111	3100	5000	62200	61820	100200	99700	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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Ref: CED/TFL/03/2886

Dated: 06-03-2023

Dated of Test: 07-03-2023

To

Resident Engineer
NESPAK

Infrastructure Development at Chahar Bagh under Ravi Riverfront Urban Development Project.

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a]**

Reference to your letter No. 4490/13/MAA/09/054, dated 27.02.2023 on the subject cited above. Two R.C.C. Pipes as received by us have been tested. The results are tabulated as under.

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	Proof Stress	Ultimate Stress
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	15	7.77	7.32	19.49	14.76	2.36	5500	10000	1347	2450
2	21	7.78	7.15	26.30	21.47	2.41	12500	17500	2154	3015

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
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To,

M/S Imran Sadiq Associates
 Lahore
 (CA No. ENC-N-92/2022, Const of 1 x Block Having 12 x D Type Flats G + S at SRE Land Lahore)

Reference # CED/TFL **2889** (Dr. M Kashif)
 Reference of the request letter # Nil

Dated: 06-03-2023
 Dated: 06-03-2023

Tension Test Report (Page -1/1)

Date of Test 07-03-2023
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.377	3/8	0.376	0.11	0.111	3000	4300	60200	59700	86200	85600	1.60	20.0	G-40
2	0.377	3/8	0.376	0.11	0.111	3000	4300	60200	59700	86200	85600	1.50	18.8	
3	0.371	3/8	0.373	0.11	0.109	3900	4900	78200	78750	98200	99000	1.20	15.0	G-60
4	0.371	3/8	0.373	0.11	0.109	3900	4800	78200	78750	96200	97000	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only four samples for tensile and two samples for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
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Pakistan. Ph: 92-42-99029202

Ref: CED/TFL/03/2890

Dated: 06-03-2023

Dated of Test: 07-03-2023

To

M/S Hamza RCC Pipe Factory
Okara

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a]**

Reference to your letter No. Nil, dated 06.03.2023 on the subject cited above. One R.C.C. Pipes as received by us has been tested. The results are tabulated as under.

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	Proof Stress	Ultimate Stress
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	12	7.72	7.32	16.06	11.79	2.14	12000	20000	3676	6127

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Site In-Charge
 Capital Contractors
 Fast (NU), Plot # 852-B, Faisal Town, Lahore

Reference # CED/TFL **2894** (Dr. M Kashif)
 Reference of the request letter # Nil

Dated: 06-03-2023
 Dated: 03-03-2023

Tension Test Report (Page -1/1)

Date of Test 07-03-2023
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.373	3/8	0.374	0.11	0.110	3200	4800	64200	64300	96200	96500	1.20	15.0	Ittehad Steel
2	0.372	3/8	0.373	0.11	0.109	3100	4800	62200	62560	96200	96900	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

Ref: CED/TFL/03/2895

Dated: 06-03-2023

Dated of Test: 07-03-2023

To

Resident Engineer
NESPAK
Infrastructure Development at Chahar Bagh under Ravi Riverfront Urban
Development Project.

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a]** (Page # 1/2)

Reference to your letter No. 4490/13/MAA/09/053, dated 27.02.2023 on the subject cited above. One R.C.C. Pipe as received by us has been tested. The results are tabulated as under.

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	Proof Stress	Ultimate Stress
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	9	7.76	7.30	11.10	9.16	0.97	6000	10500	2374	4155

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

Ref: CED/TFL/03/2895

Dated: 06-03-2023

Dated of Test: 07-03-2023

To

Resident Engineer

NESPAK

Infrastructure Development at Chahar Bagh under Ravi Riverfront Urban Development Project.

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a]** (Page # 2/2)

Reference to your letter No. 4490/13/MAA/09/056, dated 06.03.2023 on the subject cited above. One R.C.C. Pipe as received by us has been tested. The results are tabulated as under.

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	Proof Stress	Ultimate Stress
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	24	7.86	7.16	29.53	23.92	2.80	7430	9550	1148	1475

Note: Initial cracks and spalling of the plaster inside the pipe were observed.

I/C Testing Laboratories
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
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Pakistan. Ph: 92-42-99029202

To,

Al-Mustafa Contractor (Pvt) Limited
Lahore
(101 Group)
(Construction of Grey Structure Works for Main Entrance Gate at District One Housing,
Jaati Umrah, Lahore)

Reference # CED/TFL **2896** (Dr. Ali Ahmed)
Reference of the request letter # AMC/UET/1529-23

Dated: 07-03-2023

Dated: 06-03-2023

Tension Test Report (Page -1/1)

Date of Test 07-03-2023

Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in ²)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.368	3	0.371	0.11	0.108	3200	4900	64200	65160	98200	99800	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
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University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Resident Engineer
 ACE CSM
 Secretariat Office Building Multan & Allied Work

Reference # CED/TFL **2899** (Dr. Ali Ahmed)
 Reference of the request letter # ACE/RE/CSM/2022/485

Dated: 07-03-2023
 Dated: 03-03-2023

Tension Test Report (Page -1/1)

Date of Test 07-03-2023
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.383	3	0.379	0.11	0.113	3600	4900	72200	70410	98200	95900	1.20	15.0	FF Steel
2	0.381	3	0.378	0.11	0.112	3500	4900	70200	68820	98200	96400	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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To,
 M/S Five Star Steel Mill Pvt Ltd
 Sheikhpura

Reference # CED/TFL **2900** (Dr. Ali Ahmed)
 Reference of the request letter # FSSM/Letter # 01

Dated: 07-03-2023
 Dated: 07-03-2023

Tension Test Report (Page -1/1)

Date of Test 07-03-2023
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.366	9.5	9.40	0.110	0.107	3000	4600	60200	61530	92200	94400	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test														
Bend Test														

I/C Testing Laboratoires
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