



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/07/33586

Dated: 18-07-19

To
Additional Director Development
DHA Phase-XI (Rahbar)
Construction of MT Parking Area in Sector-I, DHA Phase-XI (Rahbar)

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

Reference to your letter No. MT/Parking Shed/Sec-I/1/19/2193, dated 17.07.2019 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
	(mm)	(m)	(m)	(mm)	(mm)	(mm)	(kg)	(kg)	N/m/mm	N/m/mm
1	228.6 (9")	2.385	2.228	280.00	221.20	29.40	6200	7700	123.41	153.27

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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To,
DCRE/RE-1
Zeeruk International (Pvt) Ltd
Lahore Sialkot Motorway Project

Reference # CED/TFL **33760** (Dr. Waseem Abbas)
Reference of the request letter # LSMP/RE-1/2019/1034

Dated: 30-08-2019
Dated: 30-08-2019

Tension Test Report (Page – 1/1)

Date of Test 04-09-2019
Gauge length -----
Description Chain Link Wire & Tension Wire Tensile Test

Sr. No.	Diameter of Single Wire	Breaking Load	Remarks
	(mm)	(kN)	
1	3.20	3.50	Chain Link Wire
2	3.20	4.00	
3	3.20	7.00	Tension Wire
4	3.20	7.00	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
Only Four Samples for Test			

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Ref: CED/TFL/09/33773

Dated: 02-09-19

Date of Test : 05-09-19

To
Chief Resident Engineer, Package-1
NESPAK
Construction/ Improvement & Rehabilitation of at Grade Works along Lahore
Orange Line Metro Train Corridor Package-1 (Section-II) from Shalamar Station to
Coop Store (Left Side)

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

Reference to your letter No. 4042/13/FAM/RCC-Pipe-055, dated 13-07.2019 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
	(mm)	(m)	(m)	(mm)	(mm)	(mm)	(kg)	(kg)	N/m/mm	N/m/mm
1	228.6 (9")	2.370	2.232	283.00	225.40	28.80	4600	6500	89.70	126.75

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Resident Engineer
 PEPAC
 Establishment of Workers Welfare Complex (Phase-I) Adjacent to Sundar Industrial Estate,
 District Kasur (Package-Q)

Reference # CED/TFL **33785** (Dr. Usman Akmal)
 Reference of the request letter # RE/PEPAC/WWC/95-00

Dated: 03-09-2019
 Dated: 31-08-2019

Tension Test Report (Page -1/1)

Date of Test 05-09-2019
 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	3800	5100	76200	76420	102200	102600	1.00	12.5	
2	0.366	3/8	0.370	0.11	0.107	3600	4800	72200	73860	96200	98500	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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 Laboratories
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
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To,
 Development Engineer
 University of The Punjab
 Construction of Bus Shed at M.T Park at QAC

Reference # CED/TFL **33787** (Dr. Usman Akmal)
 Reference of the request letter # PU/MTP/Steel/EB

Dated: 04-09-2019
 Dated: 27-08-2019

Tension Test Report (Page -1/1)

Date of Test 05-09-2019
 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	Grad
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.365	3	0.370	0.11	0.107	2600	4100	52100	53390	82200	84200	1.30	16.3	40
2	0.374	3	0.374	0.11	0.110	3600	5100	72200	72220	102200	102400	0.80	10.0	60
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: only two samples for tensile and two samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Sr. Engineer (Civil), SWP
 Pakistan Atomic Energy Commission
 D.G. Khan
 (M/s Khan Contractor, D.G. Khan)

Reference # CED/TFL **33788** (Dr. Usman Akmal)
 Reference of the request letter # SWP/W(2328)/2019

Dated: 04-09-2019
 Dated: 03-09-2019

Tension Test Report (Page -1/1)

Date of Test 05-09-2019
 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	0.386	3	0.380	0.11	0.113	3700	5300	74200	71870	106200	103000	0.90	11.3	
2	0.384	3	0.379	0.11	0.113	3500	5200	70200	68400	104200	101700	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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.

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To,
 Sr. Engineer (Civil), SWP
 Pakistan Atomic Energy Commission
 D.G. Khan
 (M/s Khan Contractor, D.G. Khan)

Reference # CED/TFL **33789** (Dr. Usman Akmal)
 Reference of the request letter # SWP/W(2349)/2019

Dated: 04-09-2019
 Dated: 03-09-2019

Tension Test Report (Page -1/1)

Date of Test 05-09-2019
 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	0.370	3	0.372	0.11	0.109	3800	5000	76200	76910	100200	101200	0.90	11.3	
2	0.366	3	0.370	0.11	0.108	3700	4900	74200	75740	98200	100300	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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.

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To,
DCRE/RE-1
Zeeruk International (Pvt) Ltd
Lahore Sialkot Motorway Project
(M/s Star Engineering)(M/s Saeed & Co.)

Reference # CED/TFL **33790** (Dr. Usman Akmal)
Reference of the request letter # LSMP/RE-1/2019/1044

Dated: 04-09-2019
Dated: 04-09-2019

Tension Test Report (Page – 1/1)

Date of Test 05-09-2019
Gauge length -----
Description Chain Link Wire & Tension Wire Tensile Test

Sr. No.	Diameter of Single Wire	Breaking Load		Remarks
	(mm)	(kg)	(kN)	
1	3.20	480	4.71	Chain Link Wire
2	3.20	360	3.53	
3	3.20	1120	10.99	Tension Wire
4	3.20	1120	10.99	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
Only Four Samples for Test				

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To,
 Project Coordinator
 China CAMC Engineering Co., Ltd
 CAMCE Pakistan branch office
 Mangla Package IX Switchyard GMHD-09

Reference # CED/TFL **33791** (Dr. Usman Akmal)
 Reference of the request letter # CAMCE/CHB/003

Dated: 05-09-2019
 Dated: 04-09-2019

Tension Test Report (Page -1/1)

Date of Test 05-09-2019
 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	0.373	3	0.374	0.11	0.110	3100	4900	62200	62310	98200	98500	1.20	15.0	
2	0.374	3	0.374	0.11	0.110	3100	4950	62200	62100	99200	99200	1.30	16.3	
3	0.375	3	0.375	0.11	0.110	3100	5000	62200	61930	100200	99900	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only three samples for tensile and two samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														

Witness by Muhammad Sohaib (QC Engr. CAMC)

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To,
M/S Defence Housing Authority.
Lahore Cantt
(Proposed Commercial Plaza, DRGCC Ph-III, DHA Ph-VI)(M/s Construction)

Reference # CED/TFL **33795** (Dr. Waseem Abbas)
Reference of the request letter # 408/241/E/Lab/686/3508

Dated: 05-09-2019
Dated: 05-09-2019

Tension Test Report (Page -1/1)

Date of Test 05-09-2019
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	0.361	3	0.368	0.11	0.106	3000	4500	60200	62300	90200	93500	1.00	12.5	Kamran Steel
2	0.358	3	0.366	0.11	0.105	2800	4300	56200	58670	86200	90100	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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UET Lahore, Pakistan.

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