



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

To,
 RE (E&M) KTDP
 MM Pakistan (Pvt) Ltd
 Kurram Tangi Multipurpose Dam Project Stage – I Kaitu Weir Irrigation & Power Project

Reference # CED/TFL **33888** (Dr. Usman Akmal)
 2019

Dated: 25-09-

Reference of the request letter # SPINWAM/KTDP/SITE/MWSE/MT/019/002
 2019

Dated: 24-09-

Tension Test Report (Page – 1/4)

Date of Test 03-10-2019
 Gauge length 2 inches
 Description HB 360 Strip Tensile Test as per ASTM A36

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
1	HB	29.80x11.50	342.70	9300	14900	266.22	426.52	0.85	42.50	
2	HB	29.80x11.50	342.70	9000	14900	257.63	426.52	0.85	42.50	
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-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile Test										
Bend Test										

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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 2019

Dated: 24-09-

Tension Test Report (Page – 2/4)

Date of Test 03-10-2019
 Gauge length 2 inches
 Description M.S Sheet Steel Strip Tensile Test as per ASTM A36

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(mm)	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	16	28.70x15.90	456.33	13900	21000	298.82	451.45	0.85	42.50	
2	16	28.70x15.90	456.33	14000	21200	300.97	455.75	0.75	37.50	
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-	-	-	-	-	-	-	-	-	-	
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Bend Test										

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Reference of the request letter # SPINWAM/KTDP/SITE/MWSE/MT/019/002 Dated: 24-09-2019

Tension Test Report (Page – 3/4)

Date of Test 03-10-2019
Gauge length 2 inches
Description M.S Sheet Steel Strip Tensile Test as per ASTM A36

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(mm)	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	10	29.70x9.95	295.52	10300	14200	341.92	471.39	0.70	35.00	
2	10	29.60x9.95	294.52	10400	13600	346.41	452.99	0.75	37.50	
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-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile Test										
Bend Test										

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 2019

Dated: 24-09-

Tension Test Report (Page – 4/4)

Date of Test 03-10-2019
 Gauge length 2 inches
 Description M.S Sheet Steel Strip Tensile Test as per ASTM A36

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(mm)	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	20	28.80x19.40	558.72	15000	25400	263.37	445.97	0.90	45.00	
2	20	28.60x19.40	554.84	15300	25300	270.52	447.32	1.00	50.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile Test										
Bend Test										

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Ref: CED/TFL/09/33890

Dated: 25-09-19

Dated of Test: 03-10-19

To
Muhammad Ramzan
Rollout Engineer CMPak Zong
Site ID: 5513, 4624, 4560, 6453

Subject: - TESTING OF R.C.C. MANHOLE COVER

Reference to your letter no. Nil, Dated: 25/09/2019 on the above mentioned subject. Four R.C.C. Manhole Covers as received by us has been tested and results are given below.

Sample No.	Dia of Sample (cm)	Thickness of Sample (cm)	Proof Load (kg)	Breaking Load (kg)
1	53.60	12.50	2500	4200
2	5.60	12.50	4800	5600
3	53.50	12.50	3200	5000
4	53.70	12.50	2200	2700

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Ref: CED/TFL/10/33928

Dated: 01-10-19

To
Deputy Director
PHATA, Sub-Region, Sheikhpura

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

Reference to your letter No. 1902, dated 28.09.2019 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
	(mm)	(m)	(m)	(mm)	(mm)	(mm)	(kg)	(kg)	N/m/mm	N/m/mm
1	228.6 (9")*	1.935	1.826	285.00	227.70	28.65	6000	7100	141.57	167.52
2	304.8 (12")*	2.361	2.225	405.00	303.40	50.80	18800	19800	273.20	287.73

Note: * Old used pipes few cracks already exist.

I/C Testing Laboratories
UET Lahore, Pakistan.

Note:

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Pakistan. Ph: 92-42-99029202

Ref: CED/TFL/10/33929

Dated: 01-10-19

To
Sub Divisional Officer
Public Health Engg; Sub Division
Pattoki

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

Reference to your letter No. 409/P, dated 28.09.2019 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
	(mm)	(m)	(m)	(mm)	(mm)	(mm)	(kg)	(kg)	N/m/mm	N/m/mm
1	228.6 (9")*	2.389	2.215	279.00	219.20	29.90	-----	6100	-----	123.25
2	304.8 (12")*	2.378	2.212	405.00	299.84	52.58	11000	11500	162.70	170.10

Note: * Old used pipes, few cracks already exist.

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
M/S Defence Housing Authority.
Lahore Cantt
(Infra Development Works Sector-M (Extn), DHA PH-V)(M/s AAJ Engrs)

Reference # CED/TFL **33940** (Dr. Usman Akmal)
Reference of the request letter # 408/241/E/Lab/724/184

Dated: 02-10-2019
Dated: 01-10-2019

Tension Test Report (Page -1/1)

Date of Test 03-10-2019
Gauge length -----
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A496

Sr. No.	Weight	Diameter/size		Area (mm ²)		Yield load	Breaking Load	Yield Stress (Mpa)		Ultimate Stress (Mpa)		Remarks
	(Kg/m)	Nominal (in)	Actual (mm)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	
1	0.114	5/32	4.30	12.82	14.50	700	1000	536	473	765	676	
2	0.115	5/32	4.32	12.82	14.65	720	1000	551	482	765	669	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test												
Bend Test												
5/32" Dia Bar Bend Test Through 180° is Satisfactory												

I/C Testing Laboratories
UET Lahore, Pakistan.

Note:

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To,
 Asim Mushtaq
 Home Construction in DHA – EME Lahore

Reference # CED/TFL **33942** (Dr. Waseem Abbas)
 Reference of the request letter # Nil

Dated: 02-10-2019
 Dated: 02-10-2019

Tension Test Report (Page -1/1)

Date of Test 03-10-2019
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile 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	0.365	3	0.370	0.11	0.107	3800	4800	76200	78110	96200	98700	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one samples for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Project Manager
 Typsa-Asian Consulting Engineers (Jv)
 Passenger Terminal Expansion Project at Allama Iqbal International Airport (AIIAP), Lahore,
 Pakistan–Package: Car Parking Area (FF Steel)

Reference # CED/TFL **33943** (Dr. Usman Akmal)
 Reference of the request letter # TYPsa-PK-2797-19

Dated: 02-10-2019
 Dated: 01-10-2019

Tension Test Report (Page -1/1)

Date of Test 03-10-2019
 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	0.376	3	0.375	0.11	0.111	3900	5000	78200	77780	100200	99800	1.30	16.3	
2	0.371	3	0.373	0.11	0.109	3400	4600	68200	68630	92200	92900	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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,
 Resident Engineer
 Ess Ess Associates
 Construction of Family Wing Hospital 500 Beds at Sarfaz Rafique Road Lahore

Reference # CED/TFL **33944** (Dr. Usman Akmal)
 Reference of the request letter # Nil

Dated: 02-10-2019
 Dated: 02-10-2019

Tension Test Report (Page -1/1)

Date of Test 03-10-2019
 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	0.374	3	0.374	0.11	0.110	3300	4900	66200	66220	98200	98400	1.40	17.5	
2	0.372	3	0.373	0.11	0.109	3500	5000	70200	70510	100200	100800	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														

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