



**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 Transtech Engineering Company  
NESPAK-CMEC  
PTPL  
Construction of 1263 MW Punjab Power Plant, Jhang (City Steel)(Heat No. 15100)

Reference # CED/TFL **32502** (Dr. Rizwan Azam)  
Reference of the request letter # TEC/UET/19012201

Dated: 24-01-2019  
Dated: 24-01-2019

**Tension Test Report** (Page -1/1)

Date of Test 06-02-2019  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (mm)		Area (in <sup>2</sup> )		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.414	10	10.00	0.11	0.122	3500	5400	70200	63370	108200	97800	1.50	18.8	
2	0.412	10	9.98	0.11	0.121	3500	5400	70200	63670	108200	98300	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
10mm 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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**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
Resident Engineer (PMD)  
AL-Imam Enterprises Pvt.Ltd  
Construction of Penta Square, Phase-V, DHA, Lahore

Reference # CED/TFL 32506 (Dr. Rizwan Samor)

Dated: 25-01-2019

Reference of the request letter # Am-Imam/746/PS-1/DHA/LHE/764

Dated: 25-01-2019

**Tension Test Report** (Page – 1/3)

Date of Test 06-02-2019

Gauge length 2 inches

Description MS Pipes Steel Strip Tensile Test (ASTM A 106)

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	-----	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	Pipe(3")	26.70x5.30	141.51	4800	7000	332.75	485.26	0.70	35.00	
2	Pipe(3")	26.40x5.30	139.92	5100	6900	357.56	483.76	0.60	30.00	
3	Pipe(4")	26.70x5.70	152.19	6400	8400	412.53	541.45	0.55	27.50	
4	Pipe(4")	26.70x5.70	152.19	6500	8500	418.98	547.90	0..50	25.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Four Samples for Tensile Test										
Bend Test										

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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To,  
Resident Engineer (PMD)  
AL-Imam Enterprises Pvt.Ltd  
Construction of Penta Square, Phase-V, DHA, Lahore

Reference # CED/TFL 32506 (Dr. Rizwan Samor)

Dated: 25-01-2019

Reference of the request letter # Am-Imam/746/PS-1/DHA/LHE/764

Dated: 25-01-2019

**Seamless/Flattening Test Report** (Page – 2/3)

Date of Test 06-02-2019

Description Test as per ASTM A 106

Sr. No.	Designation	Test Type	Observation/Results
1	Pipe(3")	Ductility	No crack was observed
		Soundness	No evidence of lamination noticed
2	Pipe(4")	Ductility	No crack was observed
		Soundness	No evidence of lamination noticed
-	-	-	-
		-	-
-	-	-	-
		-	-
-	-	-	-
		-	-
-	-	-	-
		-	-
Only Two Samples for Test			

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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

To,  
Resident Engineer (PMD)  
AL-Imam Enterprises Pvt.Ltd  
Construction of Penta Square, Phase-V, DHA, Lahore

Reference # CED/TFL 32506 (Dr. Rizwan Samor)

Dated: 25-01-2019

Reference of the request letter # Am-Imam/746/PS-1/DHA/LHE/764

Dated: 25-01-2019

**Weight & Size Test Report** (Page – 3/3)

Date of Test 06-02-2019

Gauge length -----

Description MS Pipes Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	External Diameter	Internal Diameter	Wall Thickness	Remark
	inch	(g)	(mm)	(kg/m)	(mm)	(mm)	(mm)	
1	Pipe(3)	650	59.8	10.87	89.00	78.40	5.30	
2	Pipe(4)	881	59.4	14.83	104.30	92.70	5.80	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
Only Two Samples for Test								

**I/C Testing Laboratories**  
**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**

Ref: CED/TFL/01/32525

Dated: 29-01-19

To  
M/S Army Welfare Trust  
Lahore  
(Sewerage System of Addl 35 Kanal Land AWT Housing Sceme Phase-2, Lahore)

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

Reference to your letter No. AWRES/Dev/AL-II, dated 28.01.2019 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")	2.382	2.229	278.00	223.60	27.20	7000	8700	137.78	171.24
2	228.6 (9")	2.381	2.230	276.00	224.14	25.93	4700	6200	92.24	121.68

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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To,  
HH Cold Rolling & Tube Mills Pvt.Ltd  
Javaid Sultan  
Manager Marketing

Reference # CED/TFL 32536 (Dr. Rizwan Samor)  
Reference of the request letter # NIL

Dated: 30-01-2019  
Dated: 30-01-2019

**Tension Test Report** (Page – 1/1)

Date of Test 06-02-2019  
Gauge length 2 inches  
Description MS Pipes Steel Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	-----	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	Pipe(4")	26.70x4.90	130.83	5200	7100	389.91	532.37	0.50	25.00	
2	Pipe(4")	26.40x4.90	130.83	5200	7100	389.91	532.37	0.50	25.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile Test										
Bend Test										

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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To,  
 Sub Divisional Officer  
 Public Health Engg; S/Divn  
 Depalpur  
 (Rural Water Supply & Drainage Scheme Chak Kamboh Distt : Okara)

Reference # CED/TFL **32546** (Dr. Rizwan Azam)  
 Reference of the request letter # 382

Dated: 01-02-2019  
 Dated: 29-01-2019

**Tension Test Report** (Page -1/4)

Date of Test 06-02-2019  
 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 <sup>2</sup> )		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	0.384	3/8	0.379	0.11	0.113	4000	4900	80200	78170	98200	95800	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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To,  
 Sub Divisional Officer  
 Public Health Engg; S/Divn  
 Depalpur  
 (Rural Water Supply & Drainage Scheme Sray Amar Singh Distt : Okara)

Reference # CED/TFL **32546** (Dr. Rizwan Azam)  
 Reference of the request letter # 383

Dated: 01-02-2019  
 Dated: 29-01-2019

**Tension Test Report** (Page -2/4)

Date of Test 06-02-2019  
 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 <sup>2</sup> )		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	0.385	3/8	0.380	0.11	0.113	4100	5000	82200	79840	100200	97400	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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**STRUCTURAL ENGINEERING DIVISION**  
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**University of Engineering and Technology Lahore, 54890**  
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To,  
 Sub Divisional Officer  
 Public Health Engg; S/Divn  
 Depalpur  
 (Rural Water Supply & Drainage Scheme Sahni Wal Distt : Okara)

Reference # CED/TFL **32546** (Dr. Rizwan Azam)  
 Reference of the request letter # 384

Dated: 01-02-2019  
 Dated: 29-01-2019

**Tension Test Report** (Page -3/4)

Date of Test 06-02-2019  
 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 <sup>2</sup> )		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	0.386	3/8	0.380	0.11	0.113	4200	5200	84200	81610	104200	101100	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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**STRUCTURAL ENGINEERING DIVISION**  
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**University of Engineering and Technology Lahore, 54890**  
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To,  
 Sub Divisional Officer  
 Public Health Engg; S/Divn  
 Depalpur  
 (Rural Water Supply & Drainage Scheme Doula Mustqem Distt : Okara)

Reference # CED/TFL **32546** (Dr. Rizwan Azam)  
 Reference of the request letter # 385

Dated: 01-02-2019  
 Dated: 29-01-2019

**Tension Test Report** (Page -4/4)

Date of Test 06-02-2019  
 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 <sup>2</sup> )		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	0.383	3/8	0.378	0.11	0.112	3800	4700	76200	74470	94200	92200	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
 Resident Engineer, Cardiology  
 AZ Engineering Associates, Multan Residency  
 Construction of New OPD & Inpatient Block CPE Institute of Cardiology Multan (Group No. 1)

Reference # CED/TFL **32547** (Dr. Rizwan Azam)  
 Reference of the request letter # RE/AZEA/Multan/425

Dated: 01-02-2019  
 Dated: 31-01-2019

**Tension Test Report** (Page -1/1)

Date of Test 06-02-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (inch)		Area (in <sup>2</sup> )		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.378	3/8	0.376	0.11	0.111	3300	4900	66200	65410	98200	97200	0.90	11.3	
2	0.371	3/8	0.373	0.11	0.109	3100	4900	62200	62610	98200	99000	1.10	13.8	
3	0.373	3/8	0.374	0.11	0.110	3200	4900	64200	64300	98200	98500	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only three samples for tensile and three samples for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
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**Test Floor Laboratory**  
**Department of Civil Engineering**  
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**Pakistan. Ph: 92-42-99029202**

To,  
 Resident Engineer  
 EA Consulting (Pvt) Ltd  
 Sukkur – Multan Motorway Project  
 Section – III (Talib Enterprises Lahore)  
 Reference # CED/TFL **32552** (Dr. Usman Akmal)  
 Reference of the request letter # CRE/EA/M.P-III/316 -2019

Dated: 01-02-2019  
 Dated: 31-01-2019

**Tension Test Report** (Page -1/1)

Date of Test 06-02-2019  
 Gauge length 8 inches  
 Description Anchor Bolt Tensile Test

Sr. No.	Weight	Diameter/ size		Area (mm <sup>2</sup> )		Yield load	Breaking Load	Yield Stress (MPa)	Ultimate Stress (MPa)	Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (mm)	Actual (mm)	Nominal	Actual	(kg)	(kg)	Actual	Actual	(inch)		
1	6.21	32	31.75	-----	791.54	35000	56200	434	697	1.80	22.5	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile test</b>												
<b>Bend Test</b>												

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

To,  
Resident Engineer  
RENARDET S.A ((M-4), Package-III A)  
Construction Supervision of Four Lane from Faisalabad to Khanewal Motorway Project (M-4)  
184 km, Package-3A, Shorkot-Dinpur, Section (31 km) (Nizami Wire)((M/s GRC)

Reference # CED/TFL **32556** (Dr. Rizwan Azam)  
Reference of the request letter # RE/M-4/3A/2019/287

Dated: 01-02-2019  
Dated: 31-01-2019

**Tension Test Report** (Page – 1/2)

Date of Test 06-02-2019  
Gauge length -----  
Description Tension Wire Tensile Test as per AASHTO-M-181

Sr. No.	Diameter of Single Wire	Breaking Load		Remarks
	(mm)	(kg)	(kN)	
1	3.20	1400	13.73	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
Only One Sample for Test				

**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**

To,  
Resident Engineer  
RENARDET S.A ((M-4), Package-III A)  
Construction Faisalabad - Khanewal Motorway (M-4) Project, Package-III A, (Nizami Brothers)((M/s GRC)

Reference # CED/TFL **32556** (Dr. Rizwan Azam)  
Reference of the request letter # RE/M-4/3A/2019/285

Dated: 01-02-2019  
Dated: 31-01-2019

**Tension Test Report** (Page – 2/2)

Date of Test 06-02-2019  
Gauge length -----  
Description Chain Link Fence Wire Tensile Test as per AASHTO-M-181

Sr. No.	Diameter of Wire	Breaking Load		Remarks
	(mm)	(kg)	(kN)	
1	3.20	720	7.06	
2	3.20	720	7.06	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
Only Two Samples for Test				

**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**

To,  
 Sub Divisional Officer  
 Public Health Engg: Sub Division  
 Kamoke  
 (Improvement of Sewerage, Soling, Drainage Tatlay Alli Road Kamoke)

Reference # CED/TFL **32558** (Dr. Rizwan Azam)  
 Reference of the request letter # 430/K

Dated: 01-02-2019  
 Dated: 01-12-2018

**Tension Test Report** (Page -1/1)

Date of Test 06-02-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (inch)		Area (in <sup>2</sup> )		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.347	3/8	0.360	0.11	0.102	3700	4700	74200	79970	94200	101600	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile test</b>														
<b>Bend Test</b>														

**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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**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 Defence Housing Authority.  
Lahore Cantt  
(Renovation of Labrary Sector-Z DHA Ph-III)(M/s Allied Engineers)

Reference # CED/TFL **32559** (Dr. Rizwan Azam)  
Reference of the request letter # 408/241/E/Lab/439/163

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

**Tension Test Report** (Page -1/1)

Date of Test 06-02-2019  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ size		Area (in <sup>2</sup> )		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	0.366	3	0.370	0.11	0.108	3200	5300	64200	65540	106200	108600	0.90	11.3	Afco Steel
2	0.361	3	0.367	0.11	0.106	3300	5300	66200	68600	106200	110200	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
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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**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 Mian Brothers Precast (Pvt) Ltd  
8km- Shahkot Nankana Road, Teh: Shahkot

Reference # CED/TFL **32560** (Dr.Rizwan Azam)  
Reference of the request letter # MBP/UET/19/0517

Dated: 01-02-2019

Dated: 01-02-2019

**Tension Test Report** (Page -1/1)

Date of Test 06-02-2019  
Gauge length 8 inches  
Description Wire Tensile Test

Sr. No.	Weight	Diameter/ size		Area (mm <sup>2</sup> )		Yield load	Breaking Load	Yield Stress (MPa)	Ultimate Stress (MPa)	Elongation	% Elongation	Remarks
	(kg/m)	Nominal (mm)	Actual (mm)	Nominal	Actual	(kg)	(kg)	Actual	Actual	(inch)		
1	0.152	5	4.96	-----	19.4	1200	1500	608	760	0.6	7.5	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile test</b>												
Bend Test												

**I/C Testing Laboratories**  
**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/02/32562

Dated: 04-02-19

To  
Project Manager  
Kingcrete Builders  
Construction of DHA Business Hub

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/02/32562)

Reference to your Letter No. KBL/BHUB/CAL, dated: 01/02/2019 on the subject cited above. One Hydraulic (Jack No. COF 100N 150, Gauge No. 30455) as received by us has been calibrated. The results are tabulated as under:

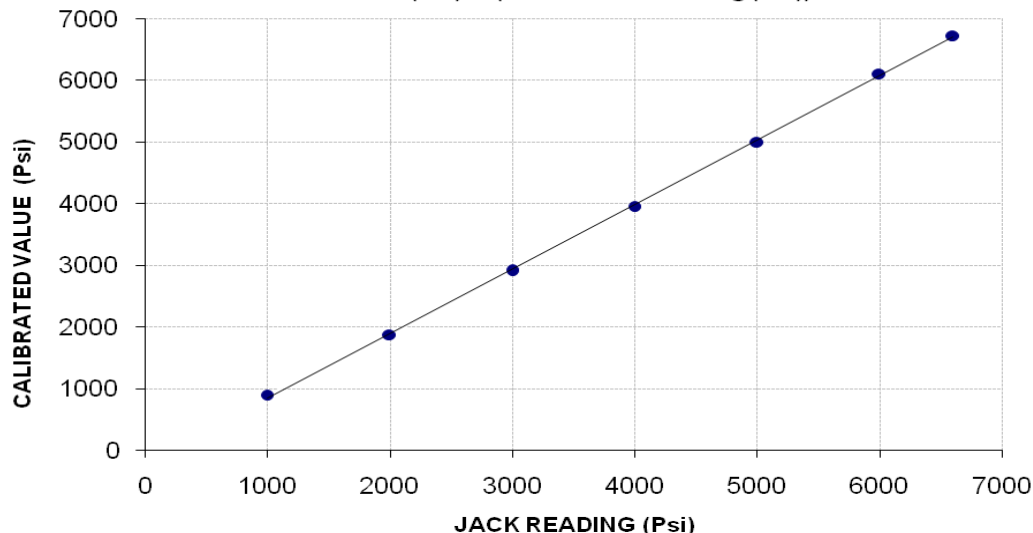
Total Range : Zero - 10000 (Psi)  
Calibrated Range : Zero - 6600 (Psi)

Hydraulic Jack Reading (Psi)	1000	2000	3000	4000	5000	6000	6600
Calibrated Load (kg)	8400	17600	27300	37100	46900	57300	63100
Calibrated Pressure (Psi)	894.93	1875.09	2908.52	3952.61	4996.69	6104.70	6722.63

The Ram Area of Jack = 133.55 cm<sup>2</sup>

**Calibration Curve For Jack**

**Calibrated Value (Psi) = (1.045 x Jack Reading (Psi)) - 200.4**



**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,  
 Project Engineer  
 Sadaat Enterprises  
 "Construction of Main Gate DHA Gujranwala"

Reference # CED/TFL **32563** (Dr. Rizwan Azam)  
 Reference of the request letter # SE/MAN/29-01/006

Dated: 04-02-2019  
 Dated: 29-01-2019

**Tension Test Report** (Page -1/1)

Date of Test 06-02-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (inch)		Area (in <sup>2</sup> )		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.384	3/8	0.379	0.11	0.113	3700	5300	74200	72250	106200	103500	1.00	12.5	
2	0.396	3/8	0.385	0.11	0.116	3800	5400	76200	71980	108200	102300	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and two samples for bend test</b>														
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 Laboratories**  
**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,  
 Manager Engineer  
 Ali Zaman (Pvt) Limited  
 Akzo Nobel (Pvt) Ltd

Reference # CED/TFL **32564** (Dr. Rizwan Azam)  
 Reference of the request letter # azl-281-2019

Dated: 04-02-2019  
 Dated: 01-02-2019

**Tension Test Report** (Page -1/1)

Date of Test 06-02-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (inch)		Area (in <sup>2</sup> )		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.374	3/8	0.374	0.11	0.110	3100	4700	62200	62130	94200	94200	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
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**

To,  
 Resident Engineer  
 Renardet S.A. (M-4) Package-IIIB  
 Construction of Faisalabad-Khanewal Motorway (M-4) Project, Package-IIIB, Dinpur-Khanewal, Section 3B

Reference # CED/TFL **32565** (Dr. Rizwan Azam)  
 Reference of the request letter # RE/M-4/3B/2019/405

Dated: 04-02-2019  
 Dated: 29-01-2019

**Tension Test Report** (Page -1/1)

Date of Test 06-02-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (mm)		Area (in <sup>2</sup> )		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.413	10	9.98	0.11	0.121	3800	5500	76200	69070	110200	100000	1.10	13.8	
2	0.416	10	10.03	0.11	0.122	3800	5500	76200	68440	110200	99100	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

**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,  
 Resident Engineer  
 Renardet S.A. (M-4) PAackage-IIIB  
 Construction of Faisalabad-Khanewal Motorway (M-4) Project, Package-IIIB, Dinpur-Khanewal, Section 3B

Reference # CED/TFL **32566** (Dr. Rizwan Azam)  
 Reference of the request letter # RE/M-4/3B/2019/406

Dated: 04-02-2019  
 Dated: 01-02-2019

**Tension Test Report** (Page -1/2)

Date of Test 06-02-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		Area (in <sup>2</sup> )		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	4.035	32	31.21	1.27	1.186	24000	38600	41700	44600	67000	71800	2.40	30.0	
2	4.051	32	31.28	1.27	1.191	26000	39400	45200	48120	68400	73000	2.80	35.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
32mm Dia Bar Bend Test Through 180° is Satisfactory														

**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,  
 Resident Engineer  
 Renardet S.A. (M-4) PAackage-IIIB  
 Construction of Faisalabad-Khanewal Motorway (M-4) Project, Package-IIIB, Dinpur-Khanewal, Section 3B

Reference # CED/TFL **32566** (Dr. Rizwan Azam)  
 Reference of the request letter # RE/M-4/3B/2019/395

Dated: 04-02-2019  
 Dated: 29-01-2019

**Tension Test Report** (Page -2/2)

Date of Test 06-02-2019  
 Gauge length 8 inches  
 Description Plain Steel Bar Tensile and Bend Test

Sr. No.	Weight	Diameter/ Size (mm)		Area (in <sup>2</sup> )		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.215	6	7.21	-----	0.063	1600	2300	-----	55710	-----	80100	1.80	22.5	
2	0.232	6	7.48	-----	0.068	2000	2700	-----	64720	-----	87400	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
6mm Dia 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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**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
Resident Engineer  
NESPAK – Zeeruk (Jv)  
CPEC (Western Route), Package-II  
Isakhel

Reference # CED/TFL **32569** (Dr. Rizwan Azam)  
Reference of the request letter # RE/NESPAK/P-2/CPEC-WR/302

Dated: 04-02-2019  
Dated: 01-02-2019

**Tension Test Report** (Page – 1/1)

Date of Test 06-02-2019  
Gauge length -----  
Description Fence Wire Tensile Test as per AASHTO-M-181

Sr. No.	Diameter of Wire	Breaking Load		Remarks
	(mm)	(kg)	(kN)	
1	3.00	280	2.75	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
Only One Sample for Test				

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

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- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples





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

To,  
 Project Manager  
 Liberty Builders  
 Construction of Zee Avenue Project, 17-A Cooper Road Lahore

Reference # CED/TFL **32570** (Dr. Rizwan Samor)  
 Reference of the request letter # CONC-20190206

Dated: 06-02-2019  
 Dated: 06-02-2019

**Tension Test Report** (Page -1/1)

Date of Test 06-02-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in <sup>2</sup> )		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	4.272	10	1.264	1.27	1.256	43200	55600	75000	75830	96500	97600	1.70	21.3	Moiz Steel
2	4.180	10	1.251	1.27	1.229	42000	54400	72900	75340	94500	97600	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														

**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,  
Resident Engineer  
NESPAK – Zeeruk (Jv)  
CPEC(Western Route), Package-II  
Isakhel

Reference # CED/TFL **32572** (Dr. M Rizwan Riaz)  
Reference of the request letter # RE/NESPAK/P-2/CPEC-WR/677a

Dated: 06-02-2019  
Dated: 22-01-2019

**Tension Test Report** (Page – 1/2)

Date of Test 06-02-2019  
Gauge length 2 inches  
Description Steel Plate Steel Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	-----	(cm)	(cm <sup>2</sup> )	(kg)	(kg)	(kg/cm <sup>2</sup> )	(kg/cm <sup>2</sup> )	(in)		
1	Plate	2.81x0.30	0.84	2600	3600	3084.22	4270.46	0.40	20.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only One Sample for Tensile Test										
Bend Test										

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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