



**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  
(Construction of Business Hub, DHA Ph-VIII) (M/s NUCON)  
Reference # CED/TFL **34631** (Dr. Ali Ahmed)  
Reference of the request letter # 408/241/E/Lab/815/0016

Dated: 07-02-2020

Dated: 03-02-2020

**Tension Test Report** (Page – 1/2)

Date of Test 13-02-2020

Gauge length 2 inches

Description MS Pipe Steel Strip Tensile and Bend Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(inch)	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	1	38.40x3.40	130.56	4300	5900	323.09	443.31	0.50	25.00	
2		38.40x3.40	130.56	4500	5700	338.12	428.29	0.50	25.00	
3	1 <sup>1</sup> / <sub>4</sub>	36.00x3.60	129.60	4300	5500	325.49	416.32	0.50	25.00	
4		36.00x3.60	129.60	4600	5500	348.19	416.32	0.50	25.00	
5	1 <sup>1</sup> / <sub>2</sub>	33.70x3.70	124.69	4200	5300	330.44	416.98	0.50	25.00	
6		33.70x3.70	124.69	4400	5500	346.17	432.71	0.50	25.00	
7	2	32.60x4.00	130.40	3800	5600	285.87	421.29	0.50	25.00	
8		32.60x4.00	130.40	4000	5600	300.92	421.29	0.55	27.50	
9	2 <sup>1</sup> / <sub>2</sub>	33.60x5.10	171.36	6000	7300	343.49	417.91	0.50	25.00	
10		32.60x5.10	166.26	6100	7100	359.92	418.93	0.50	25.00	

**Only Ten Samples for Tensile and Five Samples for Bend Test**

**Bend Test**

Strip Taken from MS Pipe (1") Bend Test Through 180° is Satisfactory
Strip Taken from MS Pipe (1 <sup>1</sup> / <sub>4</sub> ") Bend Test Through 180° is Satisfactory
Strip Taken from MS Pipe (1 <sup>1</sup> / <sub>2</sub> ") Bend Test Through 180° is Satisfactory
Strip Taken from MS Pipe (2") Bend Test Through 180° is Satisfactory
Strip Taken from MS Pipe (2 <sup>1</sup> / <sub>2</sub> ") 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  
[http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\\_reports](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 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,  
M/S Defence Housing Authority.  
Lahore Cantt  
(Construction of Business Hub, DHA Ph-VIII) (M/s NUCON)

Reference # CED/TFL **34631** (Dr. Ali Ahmed)  
Reference of the request letter # 408/241/E/Lab/815/0016

Dated: 07-02-2020  
Dated: 03-02-2020

**Tension Test Report** (Page – 2/2)

Date of Test 13-02-2020  
Gauge length 2 inches  
Description MS Pipe Steel Strip Tensile and Bend Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(inch)	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	3	37.00x5.50	203.50	6700	8800	322.98	424.22	0.60	30.00	
2		36.00x5.45	196.20	7000	8400	350.00	420.00	0.55	27.50	
3	4	28.80x6.00	172.80	5600	7600	317.92	431.46	0.60	30.00	
4		29.90x6.00	179.40	5700	7800	311.69	426.52	0.50	25.00	
5	5	29.90x6.40	191.36	6800	8500	348.60	435.75	0.60	30.00	
6		29.20x6.50	189.80	6200	8500	320.45	439.33	0.60	30.00	
7	10	29.90x8.40	251.16	8000	12200	312.47	476.52	0.80	40.00	
8		29.90x8.30	248.17	7500	11300	296.47	446.68	0.80	40.00	
<b>Only Eight Samples for Tensile and Four Samples for Bend Test</b>										
<b>Bend Test</b>										
Strip Taken from MS Pipe (3") Bend Test Through 180° is Satisfactory										
Strip Taken from MS Pipe (4") Bend Test Through 180° is Satisfactory										
Strip Taken from MS Pipe (5") Bend Test Through 180° is Satisfactory										
Strip Taken from MS Pipe (10") Bend Test Through 180° is Satisfactory										

**I/C Testing Laboratories**  
**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](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 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,  
M/S Defence Housing Authority.  
Lahore Cantt  
(Infra Dev Works IVY Green Sector-Z, DHA Ph-VIII (M/s MCC Ruba)

Reference # CED/TFL **34639** (Dr. M Rizwan Riaz)  
Reference of the request letter # 408/241/E/Lab/839/2283

Dated: 10-02-2020  
Dated: 10-02-2020

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

Date of Test 13-02-2020  
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 <sup>2</sup> )		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	0.371	3	0.373	0.11	0.109	3300	5000	66200	66680	100200	101100	1.10	13.8	City Steel
2	0.372	3	0.373	0.11	0.109	3400	5100	68200	68490	102200	102800	1.10	13.8	
3	4.187	10	1.252	1.27	1.231	35600	56400	61800	63750	97900	101000	1.40	17.5	
4	4.198	10	1.254	1.27	1.234	35200	55400	61100	62870	96200	99000	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only four samples for tensile and two samples for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#10 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  
[http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\\_reports](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 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**

Ref: CED/TFL/02/34648

Dated: 11-02-2020

Dated of Test: 13-02-2020

To  
**Assistant Director (QCD)**  
**WASA, LDA, Lahore**  
**(M/s Eagle RCC Pipe Industry)**

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/02/34648)

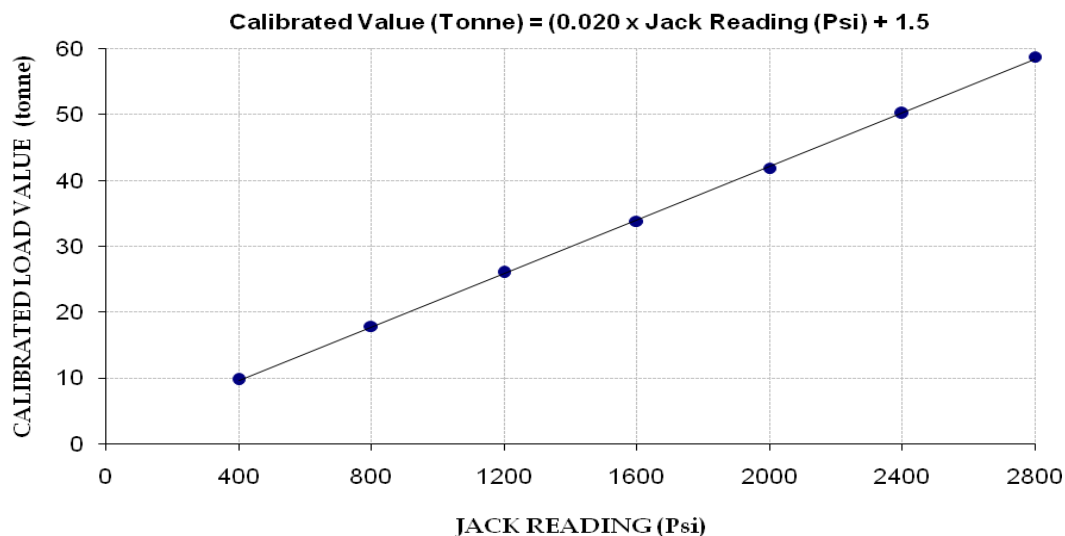
Reference to your Letter No. QCD/24, Dated: 02/01/2020 on the subject cited above. One Hydraulic Jack as received by us has been calibrated. The results are tabulated as under:

**Total Range : Zero - 3500 (Psi)**  
**Calibrated Range : Zero - 2800 (Psi)**

Hydraulic Jack Reading (Psi)	400	800	1200	1600	2000	2400	2800
Calibrated Load (kg)	9700	17900	26000	33800	41900	50200	58800
Calibrated Load (Tonne)	9.70	17.90	26.00	33.80	41.90	50.20	58.80

1 Tonne = 1000 Kg

**Calibration Curve For Jack**



**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](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 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,  
Resident Engineer  
Al-Imam Enterprises Pvt Ltd  
Construction of Penta Square, Phase-V, D.H.A, Lahore

Reference # CED/TFL **34654** (Dr. M Rizwan Riaz)

Dated: 11-02-2020

Reference of the request letter # Al-Imam/746/PS-1/DHA/LHE/1056

Dated: 11-02-2020

**Tension Test Report** (Page – 1/1)

Date of Test 13-02-2020

Gauge length 640 mm

Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)		
1	12.70 (1/2")	775.0	784.0	18200	178.54	19400	190.31	>3.50	xx
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Only one sample for Test									

**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](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 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,  
Dy. Director  
MQC C.E.Lab Dte  
MCI Islamabad  
(Construction of Bridge and Road Safety Works at Park Enclave (Phase-I) Islamabad)

Reference # CED/TFL **34656** (Dr. M Rizwan Riaz) Dated: 11-02-2020  
Reference of the request letter # MCI/DD(MQC)/208(I)/2019-20/188 Dated: 10-02-2020

**Tension Test Report** (Page – 1/2)

Date of Test 13-02-2020  
Gauge length 640 mm  
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	12.70 (1/2")	775.0	781.0	18600	182.47	19600	192.28	198	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only one sample for Test</b>										

Note:

1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

**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](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
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,  
Dy. Director  
MQC C.E.Lab Dte  
MCI Islamabad  
(Construction of Bridge and Road Safety Works at Park Enclave (Phase-I) Islamabad)

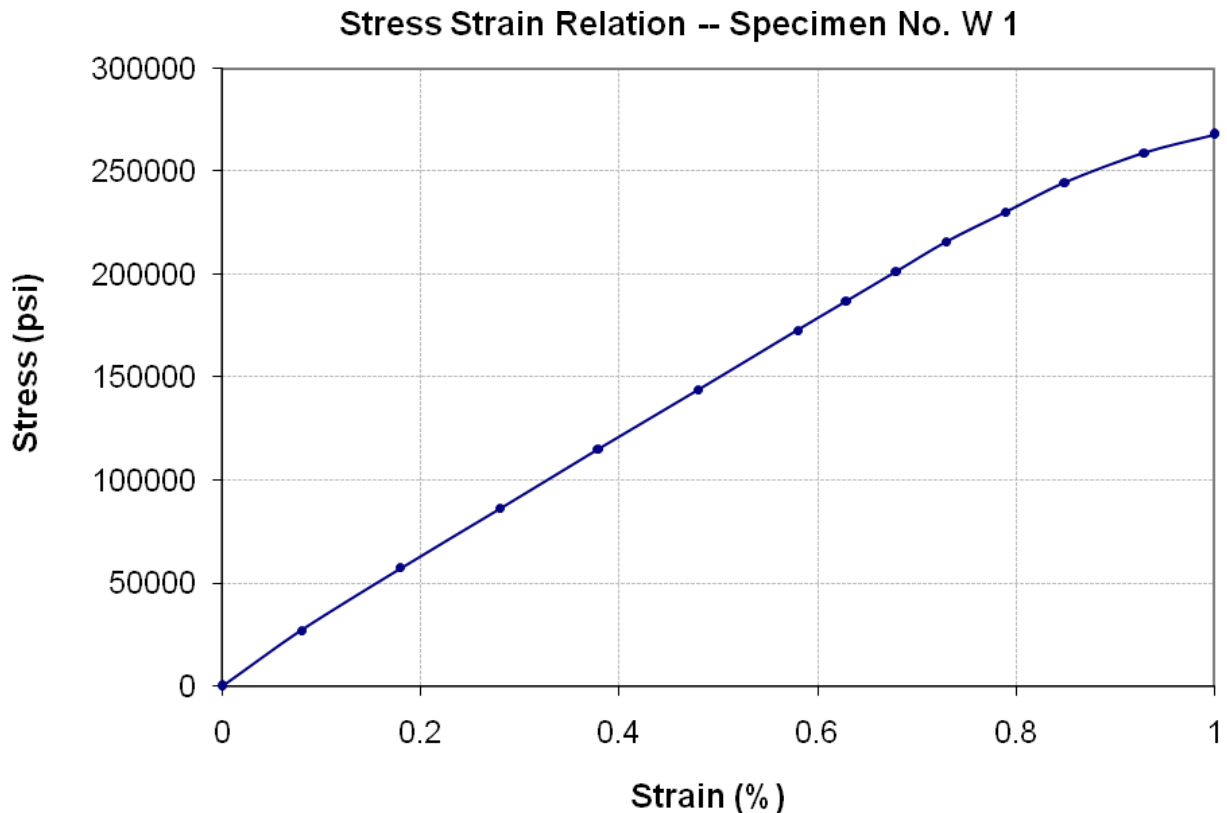
Reference # CED/TFL **34656** (Dr. M Rizwan Riaz)

Dated: 11-02-2020

Reference of the request letter # MCI/DD(MQC)/208(I)/2019-20/188

Dated: 10-02-2020

**Graph** (Page – 2/2)



**I/C Testing Laboratories**  
**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](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 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**

Ref: CED/TFL/02/34657

Dated: 12-02-2020

Dated of Test: 13-02-2020

To  
**Resident Engineer**  
**NESPAK**  
**Infrastructure Works of DHA Housing Scheme Gujranwala**

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

Reference to your letter No. 4055/13/SA/09/540, dated 03.02.2020 on the subject cited above. Two 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)	(foot)	(foot)	(inch)	(kg)	(kg)	Pound/foot /foot	Pound/foot /foot
1	15 (Class III)	7.79	7.36	1.62	1.26	2.21	12000	17000	2865	4059
2	15 (Class II)	7.78	7.36	1.62	1.25	2.24	11600	17500	2781	4196

**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](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 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,  
M/S Transtech Engineering Company  
NESPAK-CMEC  
PTPL  
Construction of 1263 MW Punjab Thermal Power Plant, Jhang (City Steel)

Reference # CED/TFL **34658** (Dr. M Rizwan Riaz)  
Reference of the request letter # TEC/UET/19122701

Dated: 12-02-2020  
Dated: 12-02-2020

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

Date of Test 15-11-2019  
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	Heat No.
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.374	10	9.50	0.12	0.110	3400	5200	62464	68200	95533	104400	1.20	15.0	3778
2	0.375	10	9.52	0.12	0.110	3300	5200	60627	65910	95533	103900	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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:

- 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](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 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,  
 Sub Divisional Officer  
 Building Sub Division  
 Okara  
 (Const: of Additional Class Rooms Under DFID (UK) Project in Punjab (One at Govt. Primary School at kot Faiz Abad Okara)  
 Reference # CED/TFL **34659** (Dr. M Rizwan Riaz) Dated: 12-02-2020  
 Reference of the request letter # 640/SDO/OK Dated: 07-02-2020

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

Date of Test 13-02-2020  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile 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	0.369	3/8	0.371	0.11	0.108	3400	4900	68200	69170	98200	99700	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile test</b>														
Bend Test														

**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](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
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,  
 Sub Divisional Officer  
 Building Sub Division  
 Okara  
 (Const: of Additional Class Rooms Under DFID (UK) Project in Punjab (One at Govt. Primary School at Nawan kot Lalian wala Tehsil Depalpur District Okara)  
 Reference # CED/TFL **34659** (Dr. M Rizwan Riaz) Dated: 12-02-2020  
 Reference of the request letter # 641/SDO/OK Dated: 07-02-2020

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

Date of Test 13-02-2020  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile 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	0.365	3/8	0.370	0.11	0.107	3400	4800	68200	69780	96200	98600	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile test</b>														
Bend Test														

**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](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
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,  
 Divisional Forest Officer  
 Okara Forest Division  
 (Construction of Residential Building in Depalpur Plant, Piplahar District Okara)

Reference # CED/TFL **34660** (Dr. M Rizwan Riaz)  
 Reference of the request letter # 3617/AC

Dated: 12-02-2020  
 Dated: 10-02-2020

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

Date of Test 13-02-2020  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile 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	0.373	3/8	0.374	0.11	0.110	3600	5000	72200	72340	100200	100500	0.90	11.3	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	
<b>Note: only one sample for tensile test</b>														
Bend Test														

**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](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
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,  
 Sub Divisional Officer  
 Building Sub Division, Pakpattan  
 (School Education Sector under construction of Additional Class Rooms Construction of 2 No.  
 Class Rooms in Govt: Primary School Sochan District Pakpattan)

Reference # CED/TFL **34661** (Dr. M Rizwan Riaz)  
 Reference of the request letter # 242/SDO-PPN

Dated: 12-02-2020  
 Dated: 27-01-2020

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

Date of Test 13-02-2020  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile 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	0.369	3	0.372	0.11	0.109	3300	4800	66200	67030	96200	97500	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile test</b>														
Bend Test														

**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](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 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,  
M/S Defence Housing Authority.  
Lahore Cantt  
(Infra Dev Works at Sector-R, Pkg-1, DHA Ph-IX (M/s DHA-C))

Reference # CED/TFL **34663** (Dr. M Rizwan Riaz)  
Reference of the request letter # 408/241/E/Lab/838/650

Dated: 12-02-2020  
Dated: 06-02-2020

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

Date of Test 13-02-2020  
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 <sup>2</sup> )		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	0.377	3	0.376	0.11	0.111	3200	5200	64200	63570	104200	103300	1.10	13.8	Ittefaq Steel
2	0.377	3	0.376	0.11	0.111	3300	5200	66200	65580	104200	103400	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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  
[http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\\_reports](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 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,  
 Estate Engineer  
 Sundar Industrial Estate

Reference # CED/TFL **34664** (Dr. M Rizwan Riaz)  
 Reference of the request letter # BOM/SIE/BCD/5385

Dated: 12-02-2020  
 Dated: 12-02-2020

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

Date of Test 13-02-2020  
 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 <sup>2</sup> )		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	3200	4300	64200	64300	86200	86400	1.70	21.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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  
[http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\\_reports](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples