



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

To,  
 Dy Dir MTL  
 Defence Housing Authority  
 Const of Entry Gate Towards Ring Road Sector-F, Prism-9 DHA - IX - (M/s NA Associates)  
 Reference # CED/TFL **36051** (Dr. Waseem Abbass) Dated: 08-02-2021  
 Reference of the request letter # 408/241/E/Lab/25/87 Dated: 08-02-2021

**Tension Test Report** (Page – 1/4)

Date of Test 15-02-2021  
 Gauge length 2 inches  
 Description Steel Structure Steel Strip Tensile Test as per ASTM A-36

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	MS Angle Iron	6x6x1/2	25.60x11.95	305.92	10100	17000	323.88	545.14	0.60	30.00	
2			25.60x12.10	309.76	10500	17600	332.53	557.39	0.65	32.50	
3	MS Angle Iron	4x4x1/4	25.40x6.80	172.72	6000	9600	340.78	545.25	0.50	25.00	
4			25.40x6.75	171.45	6300	9600	360.47	549.29	0.60	30.00	
5	MS Angle Iron	3x3x1/4	25.60x6.70	171.52	7800	11200	446.12	640.58	0.50	25.00	
6			25.50x6.65	169.58	7300	10700	422.31	619.00	0.50	25.00	
7	MS Angle Iron	2x2x1/4	21.40x6.30	134.82	6400	9700	465.69	705.81	0.50	25.00	
8			21.30x6.70	142.71	7000	10100	481.19	694.28	0.40	20.00	
9	MS Box Pipe	4x4x1/4	25.60x6.00	153.60	6100	8800	389.59	562.03	0.40	20.00	
10			25.60x6.00	153.60	6200	8800	395.98	562.03	0.40	20.00	
11	MS Plate	10mm	25.70x9.80	251.86	19300	20900	751.74	814.06	0.40	20.00	
12			25.80x9.70	250.26	17200	19400	674.23	760.47	0.45	22.50	
<b>Only Twelve Samples for Tensile Test</b>											
<b>Bend Test</b>											

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

**Note:**

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To,  
Dy Dir MTL  
Defence Housing Authority  
Const of Entry Gate Towards Ring Road Sector-F, Prism-9 DHA - IX - (M/s NA Associates)

Reference # CED/TFL **36051** (Dr. Waseem Abbass)  
Reference of the request letter # 408/241/E/Lab/25/87

Dated: 08-02-2021  
Dated: 08-02-2021

**Weight & Size Test Report** (Page – 2/4)

Date of Test 15-02-2021  
Description MS Angle Iron Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	L-1	L-2	Wall Thickness	Remark
	(inch)	(g)	(cm)	(kg/m)	(mm)	(mm)	(mm)	
1	6x6x1/2	16650	60.0	277.50	151.00	152.00	12.80	
2	4x4x1/4	6250	61.60	101.46	101.00	101.00	6.80	
3	3x3x1/4	4450	61.50	72.36	74.00	75.00	6.45	
4	2x2x1/4	2850	59.60	47.82	50.00	51.00	6.70	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
<b>Only Four Samples for Test</b>								

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**UET Lahore, Pakistan.**

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Reference of the request letter # 408/241/E/Lab/25/87

Dated: 08-02-2021  
Dated: 08-02-2021

**Weight & Size Test Report** (Page – 3/4)

Date of Test 24-08-2020  
Description MS Box Pipe Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	Outer Dimensions		Wall Thickness	Remark
					X	Y		
	(inch)	(g)	(cm)	(kg/m)	(mm)	(mm)	(mm)	
1	4x4x1/4	10900	61.10	178.40	101.00	102.00	6.25	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
<b>Only One Sample for Test</b>								

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To,  
Dy Dir MTL  
Defence Housing Authority  
Const of Entry Gate Towards Ring Road Sector-F, Prism-9 DHA - IX - (M/s NA Associates)

Reference # CED/TFL **36051** (Dr. Waseem Abbass)  
Reference of the request letter # 408/241/E/Lab/25/87

Dated: 08-02-2021  
Dated: 08-02-2021

**Weight & Size Test Report** (Page – 4/4)

Date of Test 18-01-2019  
Description MS Plate Weight and Size Test

Sr. No.	Designation	Weight	Length	Width (b)	Weight per Unit Area	Thickness	Remark
	(mm)	(g)	(cm)	(cm)	(kg/m <sup>2</sup> )	(mm)	
1	10	6850	38.00	23.80	75.74	9.70	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
<b>Only One Sample for Test</b>							

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

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**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
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To,  
Resident Engineer  
Techno Consultant International (Pvt) Ltd  
CPEC Package-1

Reference # CED/TFL **36076** (Dr. Waseem Abbass)  
Reference of the request letter # RE/CPEC/DIK/2021/756

Dated: 12-02-2021  
Dated: 20-01-2021

**Tension Test Report** (Page – 1/2)

Date of Test 16-02-2021  
Gauge length -----  
Description Chain Link Fence Fabric and Tension Wire Wire Tensile Test

Sr. No.	Diameter Wire	Breaking Load	Remarks
	(mm)	(kN)	
1	3.30	6.35	Chain Link Fence Fabric Wire
2	3.30	6.30	
3	3.30	6.17	Tension Wire
4	3.30	6.17	
-	-	-	-
-	-	-	
-	-	-	
-	-	-	
<b>Only Four Samples for Test</b>			

**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  
Techno Consultant International (Pvt) Ltd  
CPEC Package-1

Reference # CED/TFL **36076** (Dr. Waseem Abbass)  
Reference of the request letter # RE/CPEC/DIK/2021/757

Dated: 12-02-2021  
Dated: 20-01-2021

**Tension Test Report** (Page – 2/2)

Date of Test 16-02-2021  
Gauge length -----  
Description Chain Link Fence Fabric and Tension Wire Wire Tensile Test

Sr. No.	Diameter Wire	Breaking Load	Remarks
	(mm)	(kN)	
1	3.30	6.30	Chain Link Fence Fabric Wire
2	3.30	6.25	
3	3.30	6.32	Tension Wire
4	3.30	6.40	
-	-	-	-
-	-	-	
-	-	-	
-	-	-	
<b>Only Four Samples for Test</b>			

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

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To,  
 Project Incharge  
 Royal Orchard Sahiwal  
 Infrastructure Dev Works Royal Orchard Sahiwal

Reference # CED/TFL **36082** (Dr. Waseem Abbass)  
 Reference of the request letter # HRL/ROS/2021/094

Dated: 15-02-2021  
 Dated: 15-02-2021

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

Date of Test 16-02-2021  
 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	0.385	3	0.380	0.11	0.113	3500	4700	70200	68180	94200	91600	1.10	13.8	Pak Steel
2	0.377	3	0.376	0.11	0.111	-----	6000	-----	-----	120300	119500	0.60	7.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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.**

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To,  
M/S Defence Housing Authority.  
Lahore Cantt  
(External Electrification System (U/G) Sector-M & B DHA Ph-IX) (M/s NLC)

Reference # CED/TFL **36084** (Dr. Waseem Abbass)  
Reference of the request letter # 408/241/E/Lab/27/101

Dated: 15-02-2021  
Dated: 11-02-2021

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

Date of Test 16-02-2021  
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	0.388	3	0.381	0.11	0.114	4200	5400	84200	81210	108200	104500	0.90	11.3	Mughal Steel
2	0.385	3	0.379	0.11	0.113	4100	5100	82200	79900	102200	99400	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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**  
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**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
 Deputy Director, Engg.  
 Sec I&II, Package -I, LOLMTP  
 LDA, Lahore  
 (Construction of TMA Office, Shalamar Town, Lahore, Orange Line Metro Train Project (Package-I))

Reference # CED/TFL **36085** (Dr. Waseem Abbass)

Dated: 15-02-2021

Reference of the request letter # DD/PKG-I/LOLMTP/LDA/14

Dated: 12-02-2021

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

Date of Test

16-02-2021

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	0.387	3	0.381	0.11	0.114	4400	5500	88200	85190	110200	106500	1.00	12.5	
2	0.388	3	0.381	0.11	0.114	4100	5100	82200	79290	102200	98700	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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To,  
M/S Ali Industry  
Lahore

Reference # CED/TFL **36092** (Dr. Waseem Abbass)  
Reference of the request letter # Nil

Dated: 16-02-2021  
Dated: 16-02-2021

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

Date of Test 16-02-2021  
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	0.394	3/8	0.384	0.11	0.116	4600	5700	92200	87600	114300	108600	0.75	9.4	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile test</b>														
Bend Test														

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