



**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  
IDAP  
Infrastructure Development Authority of Punjab  
Design, Procurement, Deployment and Commissioning of CCTV, Control Room and  
Data Centre (Computer & Core Network) Infrastructure on EPC/Turnkey Basis for  
Punjab Police Integrated Command, Control and Communication (PPIC3) Gujranwala.

Reference # CED/TFL **4699** (Dr. Safer Abbass)

Dated: 27-02-2024

Reference of the request letter # PPIC3-GUJ/IDAP/2024/0007

Dated: 20-02-2024

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

Date of Test 29-02-2024

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	0.365	3	0.370	0.11	0.107	3330	4690	66800	68340	94000	96300	1.50	18.8	Moiz Steel
2	0.366	3	0.370	0.11	0.107	3360	4690	67400	68920	94000	96200	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  
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2. The above results pertain to sample /samples supplied to this laboratory.
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**Pakistan. Ph: 92-42-99029202**

To,  
Structural Engineer  
UNICEF PCO  
Construction of EPI Warehouse at Manga Mandi, Lahore.

Reference # CED/TFL **4700** (Dr. Safer Abbass)  
Reference of the request letter # ST-2024-03

Dated: 27-02-2024  
Dated: 26-02-2024

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

Date of Test 29-02-2024  
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	0.362	3	0.368	0.11	0.106	3520	4740	70600	72960	95000	98300	1.10	13.8	FF Steel
2	0.369	3	0.372	0.11	0.109	3790	4910	76000	76920	98400	99700	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two sample 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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**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

Construction of Flyover at 47/Pull Length 4400 Rft in District Sargodha.

Reference # CED/TFL **4703** (Dr. Safer Abbass)

Dated: 27-02-2024

Reference of the request letter # 4376/SMH/24/6006

Dated: 12-02-2024

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

Date of Test 29-02-2024

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	4.131	10	1.243	1.27	1.214	41600	52800	72200	75510	91700	95900	1.10	13.8	Sheikhoo Steel	
2	4.146	10	1.246	1.27	1.219	40200	52700	69800	72700	91500	95400	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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**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
Sub Divisional Officer  
Highway Sub Division, Pakattan  
(Construction of New Grain Market Pakpattan (Road Work))

Reference # CED/TFL **4704** (Dr. Safer Abbass)  
Reference of the request letter # 758/HSD/PK

Dated: 27-02-2024  
Dated: 16-02-2024

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

Date of Test 29-02-2024  
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	0.367	3	0.371	0.11	0.108	3640	5150	73000	74290	103200	105200	1.30	16.3	
2	0.368	3	0.371	0.11	0.108	3540	5150	71000	72160	103200	105000	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 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,

Assistant Executive Engineer-I  
 Central Civil Division No. 1  
 Pak PWD, Lahore  
 Up-Gradation of Infrastructure (Solarization) of Academic Blocks, Boundary Wall and  
 Strengthening of Management, Lahore.  
 Sub Head: Construction of Boundary Wall and Security Measures at National Institute of  
 Management (NIM) Lahore.

Reference # CED/TFL **4705** (Dr. Safer Abbass)

Dated: 27-02-2024

Reference of the request letter # AEE-I/CCD-I/LHR/02

Dated: 12-02-2024

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

Date of Test 29-02-2024

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	0.406	3/8	0.390	0.11	0.119	3380	4960	67800	62460	99400	91700	1.20	15.0	
2	0.406	3/8	0.390	0.11	0.119	3490	5050	70000	64520	101200	93400	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples 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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**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
Resident Engineer  
Bahria Town Private Limited.  
"MASjid at Bahria Rose Thokar."

Reference # CED/TFL **4706** (Dr. Safer Abbass)  
Reference of the request letter # QA/QC-Steel-3567

Dated: 27-02-2024  
Dated: 27-02-2024

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

Date of Test 29-02-2024  
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	3820	5200	76600	73960	104200	100700	1.20	15.0	
2	0.390	3	0.382	0.11	0.115	3790	5200	76000	72940	104200	100100	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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.**

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**University of Engineering and Technology Lahore, 54890**  
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To,  
Engineer  
Dy Dir Infra  
Defence Housing Authority, Gujranwala  
“Sector L”

Reference # CED/TFL **4712** (Dr. Safer Abbass)  
Reference of the request letter # 111/15/DD/RS/Lab/Sec L/787

Dated: 29-02-2024  
Dated: 26-02-2024

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

Date of Test 29-02-2024  
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	0.378	3	0.376	0.11	0.111	3720	5170	74600	73850	103600	102700	1.10	13.8	FF Steel
2	0.376	3	0.375	0.11	0.111	3590	4960	72000	71550	99400	98900	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**  
**UET Lahore, Pakistan.**

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

To,  
 PE/ HEAD CIVIL  
 KCI.

Reference # CED/TFL **4758** (Dr. Asad Gillani)  
 Reference of the request letter # LPO(24/395)-122.12/24/1517.23

Dated: 07-03-2024  
 Dated: 07-03-2024

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

Date of Test 07-03-2024  
 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	0.376	3	0.375	0.11	0.111	3920	5300	78600	78100	106200	105600	1.00	12.5	FF Steel
2	0.373	3	0.374	0.11	0.110	4040	5320	81000	81200	106600	107000	1.20	15.0	
-	0.377	3	0.376	0.11	0.111	3900	5220	78200	77550	104600	103800	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only three samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
<b>Witness by: Sami Ilyas (Head Defence &amp; Chinese Projects)</b>														

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**STRUCTURAL ENGINEERING DIVISION**  
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To,

Resident Engineer  
Diamer Basha Consultants Group (DBCg)  
NESPAK - ACE -MMP - MWH - ROYRY - DOLSAR Jv  
Diamer Basha Dam Project

Reference # CED/TFL **4714** (Dr. Safer Abbass)  
Reference of the request letter # DBCG/Lab/PF JV/2024/001

Dated: 29-02-2024  
Dated: 15-01-2024

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

Date of Test 29-02-2024  
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	15.24 (0.6")	1102.0	1114.0	24200	237.40	27500	269.78	199	>3.50	PST-S3-2024-01
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only one sample for Test										

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**  
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To,

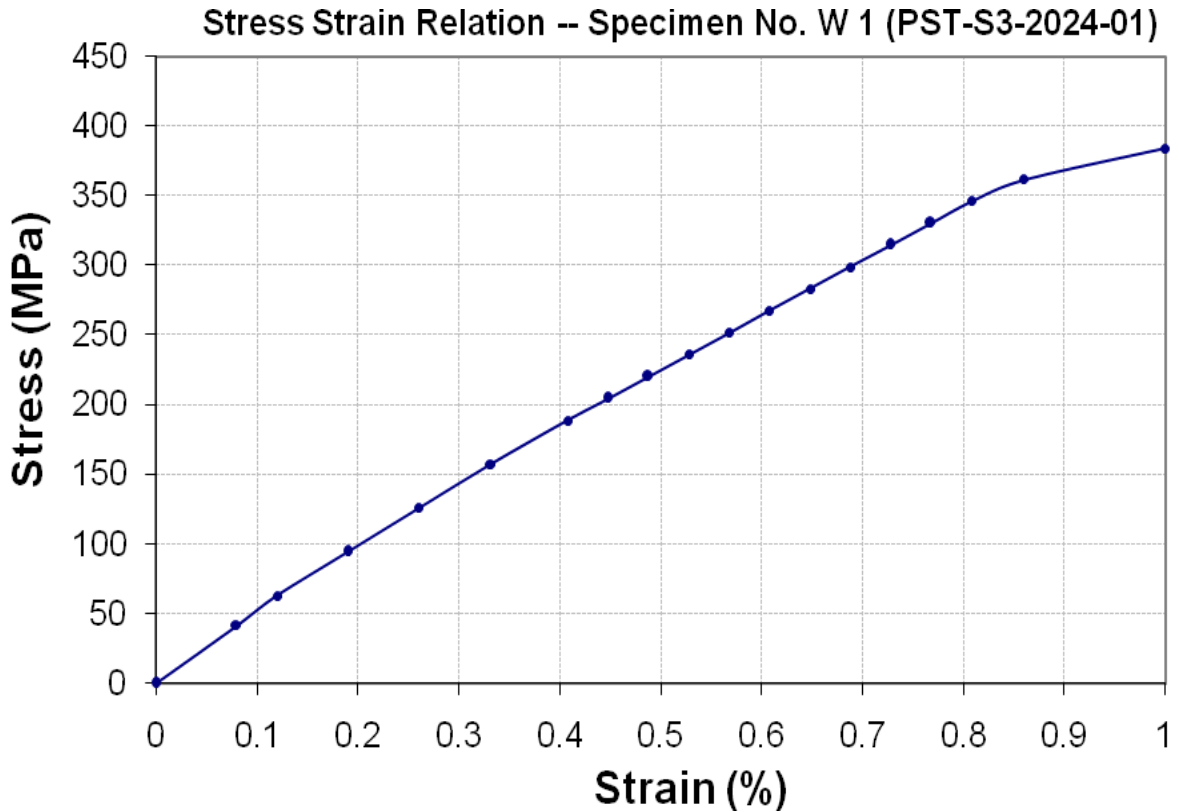
Resident Engineer  
Diamer Basha Consultants Group (DBCg)  
NESPAK - ACE -MMP - MWH - ROYRY - DOLSAR Jv  
Diamer Basha Dam Project

Reference # CED/TFL **4714** (Dr. Safer Abbass)  
Reference of the request letter # DBCG/Lab/PF JV/2024/001

Dated: 29-02-2024

Dated: 15-01-2024

**Graph** (Page – 2/2)



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

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