



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
Highway Division
Isa Khel
(Construction of Road from Alif Khel to Chapri via Mohabbat Khel Length 4.55 km Tehsil Essa Khel District Mianwali. (Part-B Bridge Portion and Its Approches))
Reference # CED/TFL **36449** (Dr. Qasim Khan) Dated: 20-05-2021
Reference of the request letter # 289 Dated: 08-05-2021

Tension Test Report (Page – 1/2)

Date of Test 24-05-2021
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	779.0	17400	170.69	18700	183.45	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
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
UET Lahore, Pakistan.

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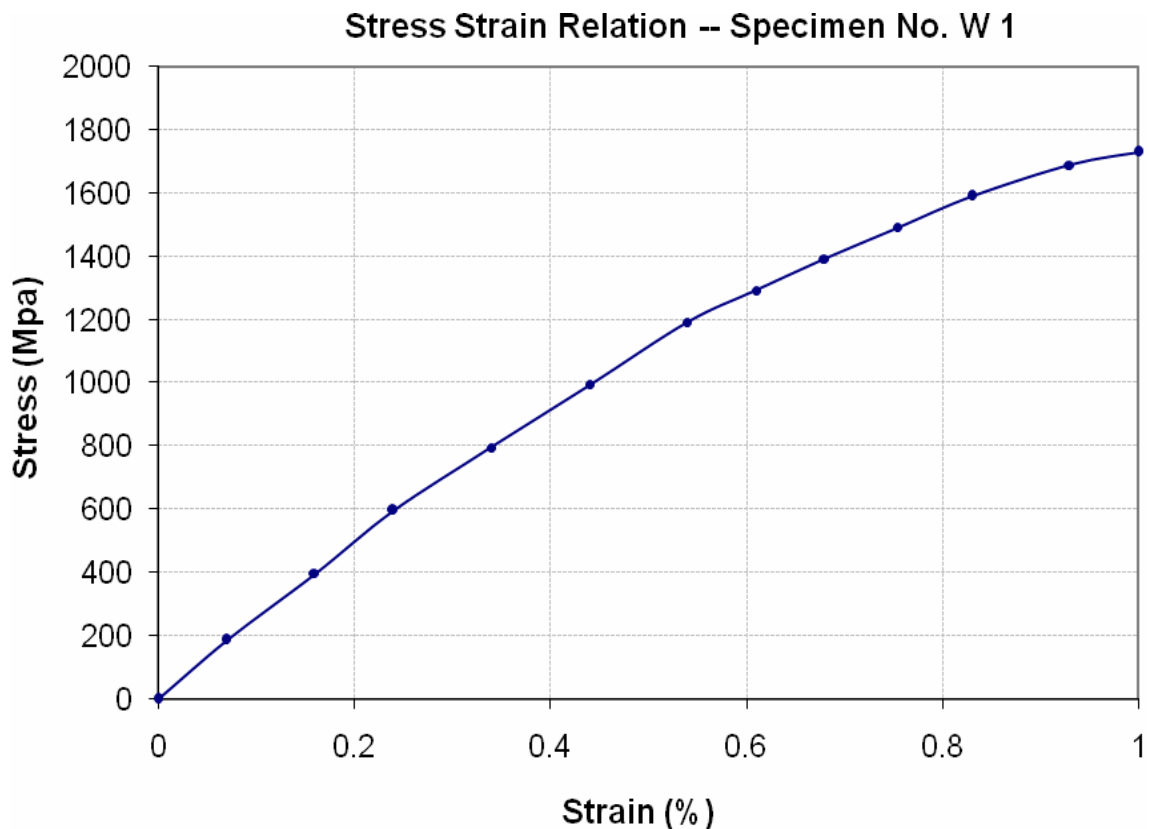
To,
Sub Divisional Officer
Highway Division
Isa Khel
(Construction of Road from Alif Khel to Chapri via Mohabbat Khel Length 4.55 km Tehsil Essa Khel District Mianwali. (Part-B Bridge Portion and Its Approches))

Reference # CED/TFL **36449** (Dr. Qasim Khan)
Reference of the request letter # 289

Dated: 20-05-2021

Dated: 08-05-2021

Graph (Page – 2/2)



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To,
M/S Sajjad Enterprises
Faisalabad

Reference # CED/TFL **36450** (Dr. M Rizwan Riaz)
Reference of the request letter # Nil

Dated: 20-05-2021
Dated: 20-05-2021

Tension Test Report (Page -1/1)

Date of Test 24-05-2021
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 ²)		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	0.357	3/8	0.366	0.11	0.105	3500	4600	70200	73520	92200	96700	1.00	12.5	
2	0.362	3/8	0.368	0.11	0.106	3700	4800	74200	76580	96200	99400	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
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
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Ref: CED/TFL/05/36452

Dated: 20-05-2021

Date of Test: 24-05-2021

To,
Resident Engineer
PEAS Consulting (Pvt) Ltd
Desert Canal Bridge, Kashmore

Subject: - **CALIBRATION OF PRESSURE GAUGE (MARK: TFL/05/36452)** (Page # 1/2)

Reference to your Letter No. RE/PEAS/BR/2021/SN/09, Dated: 18/05/2021 on the subject cited above. One Pressure Gauge no. EN 837-1 as received by us has been calibrated. The results are tabulated as under:

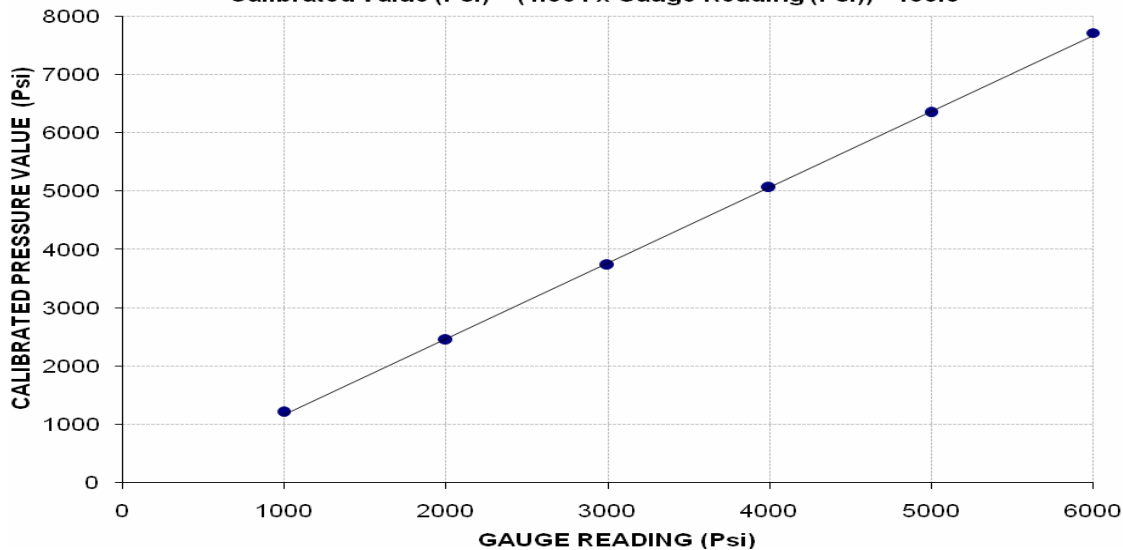
Total Range : Zero - 10000 (Psi)
Calibrated Range : Zero - 6000 (Psi)

Gauge Reading (Psi)	1000	2000	3000	4000	5000	6000
Calibrated Load (k g)	13100	26500	40400	54800	68700	83500
Calibrated Pressure (Psi)	1210	2448	3733	5063	6347	7715

The Ram Area use for Calibration = 198 cm²

Calibration Curve for Pressure Gauge

Calibrated Value (Psi) = (1.301 x Gauge Reading (Psi)) - 135.5



I/C Testing Laboratoires
UET Lahore, Pakistan.

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Pakistan. Ph: 92-42-99029202

Ref: CED/TFL/05/36452

Dated: 20-05-2021

Date of Test: 24-05-2021

To,

Resident Engineer

PEAS Consulting (Pvt) Ltd

Desert Canal Bridge, Kashmir

Subject: - CALIBRATION OF DIAL GAUGES (MARK: TFL/05/36452) (Page # 2/2)

Reference to your Letter No. RE/PEAS/BR/2021/SN/09, Dated: 18/05/2021 on the subject cited above. Three Dial Gauges as received by us have been calibrated on standard calibration device. The results are tabulated as under.

Total Range : Zero - 100 (mm)
Calibrated Range : Zero - 30 (mm)

Standard Reading	Dial Gauge Readings		
	Dial Gauge No. I (4324445)	Dial Gauge No. II (6310162)	Dial Gauge No. III (0802467)
200	197	197	199
400	397	398	399
600	596	599	599
800	796	799	800
1000	995	999	997
1200	1195	1197	1197
1400	1395	1398	1398
1600	1595	1598	1598
1800	1795	1798	1797
2000	1994	1997	1997
2200	2194	2195	2196
2400	2394	2397	2396
2600	2594	2596	2597
2800	2794	2795	2796
3000	2994	2995	2995

I/C Testing Laboratories
UET Lahore, Pakistan.

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To,
 Resident Engineer
 New Vision Engineering Consultant
 Strengthening Infrastructure and Academic Programs of Government College Women University
 Sialkot (External Development Work Group No. 04)

Reference # CED/TFL **36453** (Dr. M Rizwan Riaz)
 Reference of the request letter # NVC/GCWUS/T-04

Dated: 20-05-2021
 Dated: 17-04-2021

Tension Test Report (Page -1/1)

Date of Test 24-05-2021
 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 ²)		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	0.396	3/8	0.385	0.11	0.116	3500	5300	70200	66340	106200	100500	1.30	16.3	
2	0.390	3/8	0.382	0.11	0.115	3400	5300	68200	65420	106200	102000	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
M/S Al-Abdullah Constructors (Pvt.) Ltd
Karachi

Reference # CED/TFL **36456** (Dr. Qasim Khan)
Reference of the request letter # Nil

Dated: 21-05-2021
Dated: 20-05-2021

Tension Test Report (Page – 1/1)

Date of Test 24-05-2021
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	9.53 (3/8")	432.0	437.0	10200	100.06	11200	109.87	>3.50	xx
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Only one sample for Test									

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To,
 Manager Construction
 Orient Electronics (Pvt) Ltd
 Construction of Orient Square Hotel Tower Johar Town

Reference # CED/TFL **36458** (Dr. M Rizwan Riaz)
 2021

Dated: 21-05-

Reference of the request letter # OSH-SO/UET/KamrnSteelTest/20521-10 Dated: 21-05-2021

Tension Test Report (Page -1/1)

Date of Test 24-05-2021
 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 ²)		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	0.404	10	9.88	0.12	0.119	3800	5600	69812	70510	102881	103900	1.10	13.8	
2	0.418	10	10.05	0.12	0.123	4000	5700	73487	71770	104719	102300	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Ref: CED/TFL/05/36462

Dated: 24-05-2021

Date of Test: 24-05-2021

To,
CEO
M/S Mian Superior
100 MW Huzanfa Power Project Layyah

Subject: - CALIBRATION OF DIAL GAUGES (MARK: TFL/05/36462) (Page # 1/1)

Reference to your Letter No. Nil, Dated: 29/04/2021 on the subject cited above. Two Dial Gauges as received by us have been calibrated on standard calibration device. The results are tabulated as under.

Total Range : Zero - 100 (mm)
Calibrated Range : Zero - 50 (mm)

Standard Reading	Dial Gauge Readings	
	Dial Gauge No. I (3062 F)	Dial Gauge No. II (3062-S-19)
400	398	406
800	802	807
1200	1195	1204
1600	1594	1604
2000	1994	2003
2400	2399	2402
2800	2799	2801
3200	3197	3200
3600	3596	3598
4000	3998	3997
4400	4397	4403
4800	4796	4805
5000	4997	5000

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