



**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/04/1244

Dated: 11-04-2022

Dated of Test: 14-04-2022

To

**M/S StrongForce Private Limited**  
**Lahore**  
**(Emaar Panorama Tower, Karachi)**

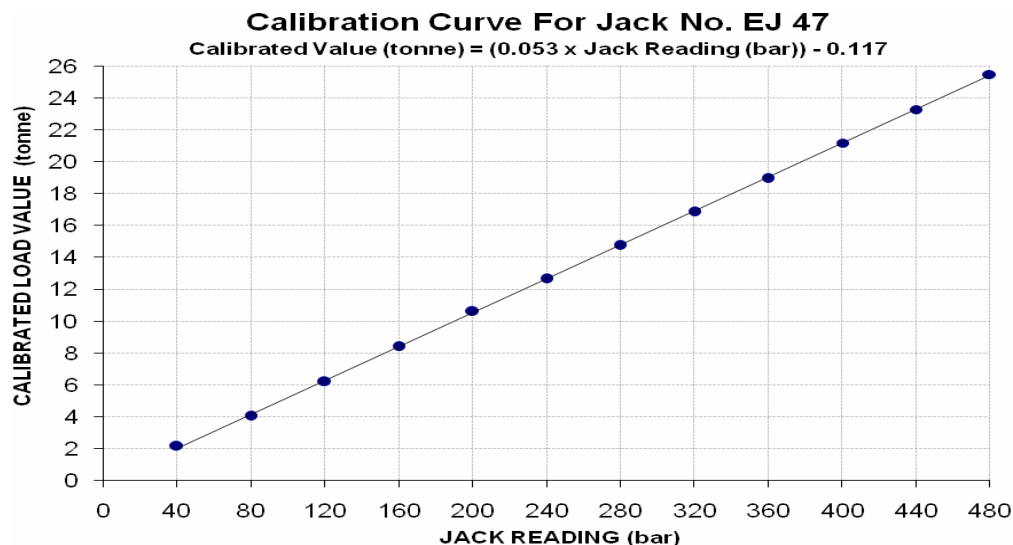
Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/1244)** (Page -1/2)

Reference to your Letter No. L2022-04-11474, dated: 11/04/2022 on the subject cited above. One Hydraulic Jack (Jack No. EJ 47, Gauge No. SF-47) as received by us has been calibrated. The results are tabulated as under:

**Total Range : Zero - 1000 (bar)**  
**Calibrated Range : Zero - 480 (bar)**

Hydraulic Jack Reading (bar)	40	80	120	160	200	240	280	320	360	400	440	480	
Calibrated Load	(kg)	2150	4050	6200	8400	10600	12650	14750	16850	18950	21200	23300	25500
	(Tonne)	2.15	4.05	6.20	8.40	10.60	12.65	14.75	16.85	18.95	21.20	23.30	25.50
Calibrated Pressure (bar)	41.30	77.80	119.11	161.37	203.63	243.01	283.36	323.70	364.04	407.26	447.61	489.87	

(1 Tonne = 1000 kg) The Ram Area of Jack = 51.05 cm<sup>2</sup>



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

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To

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**Lahore**  
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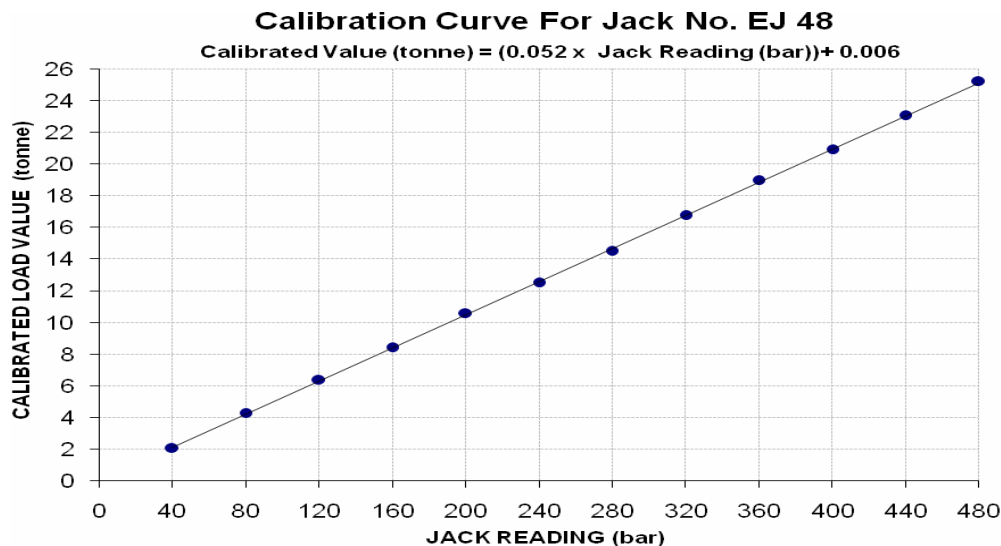
Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/1244)** (Page -2/2)

Reference to your Letter No. L2022-04-11474, dated: 11/04/2022 on the subject cited above. One Hydraulic Jack (Jack No. EJ 48, Gauge No. SF-48) as received by us has been calibrated. The results are tabulated as under:

**Total Range : Zero - 1000 (bar)**  
**Calibrated Range : Zero - 480 (bar)**

Hydraulic Jack Reading (bar)	40	80	120	160	200	240	280	320	360	400	440	480	
Calibrated Load	(kg)	2050	4250	6350	8400	10550	12500	14500	16750	18950	20900	23050	25200
	(Tonne)	2.05	4.25	6.35	8.40	10.55	12.50	14.50	16.75	18.95	20.90	23.05	25.20
Calibrated Pressure (bar)	39.38	81.64	121.99	161.37	202.67	240.13	278.55	321.78	364.04	401.50	442.80	484.11	

(1 Tonne = 1000 kg) The Ram Area of Jack = 51.05 cm<sup>2</sup>



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**UET Lahore, Pakistan.**

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**Pakistan. Ph: 92-42-99029202**

Ref: CED/TFL/04/1253

Dated: 13-04-2022

Dated: 14-04-2022

To

**M/S CGGC Suki Kinari Project Management in Pakistan**

Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/1253)** (Page -1/4)

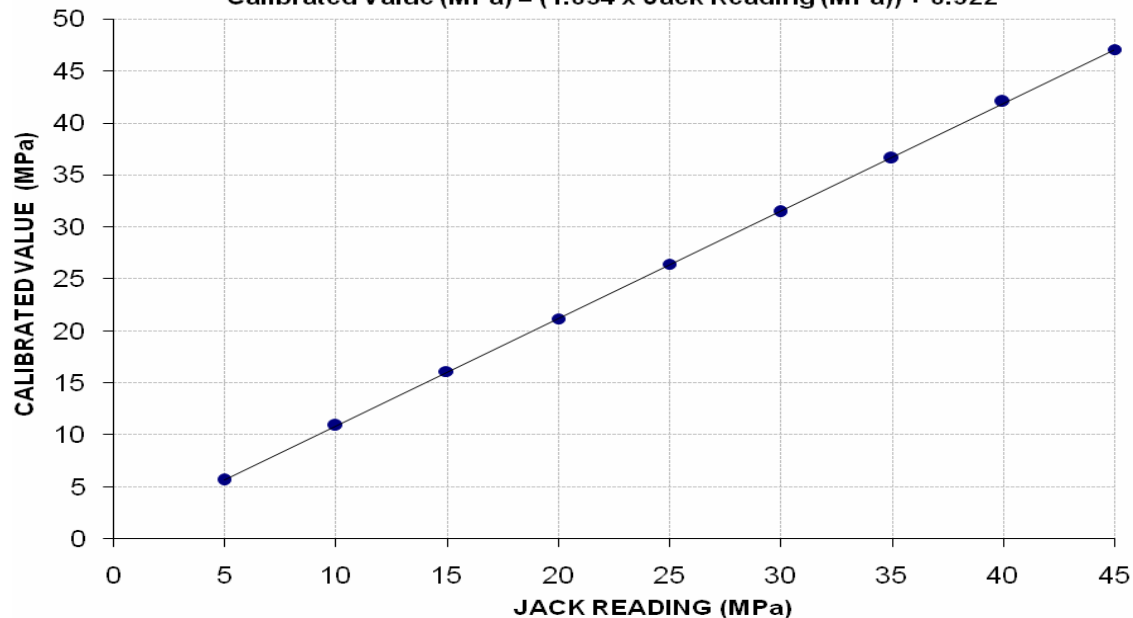
Reference to your Letter No. Nil, dated: 13/04/2022 on the subject cited above. One Hydraulic Jack (Jack No. 1436, Gauge No. 3815) as received by us has been calibrated. The results are tabulated as under:

**Total Range : Zero - 60 (MPa)**  
**Calibrated Range : Zero - 45 (MPa)**

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45
Calibrated Load (Kg)	2750	5300	7850	10300	12850	15300	17800	20450	22900
Calibrated Pressure (Mpa)	5.65	10.89	16.14	21.17	26.41	31.45	36.59	42.04	47.07

The Ram Area of Jack = 298 cm<sup>2</sup>

**Calibration Curve For Jack No. 1436 (Gauge # 3815)**  
**Calibrated Value (MPa) = (1.034 x Jack Reading (MPa)) + 0.522**



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

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Ref: CED/TFL/04/1253

Dated: 13-04-2022

Dated: 14-04-2022

To

**M/S CGGC Suki Kinari Project Management in Pakistan**

**Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/1253) (Page -2/4)**

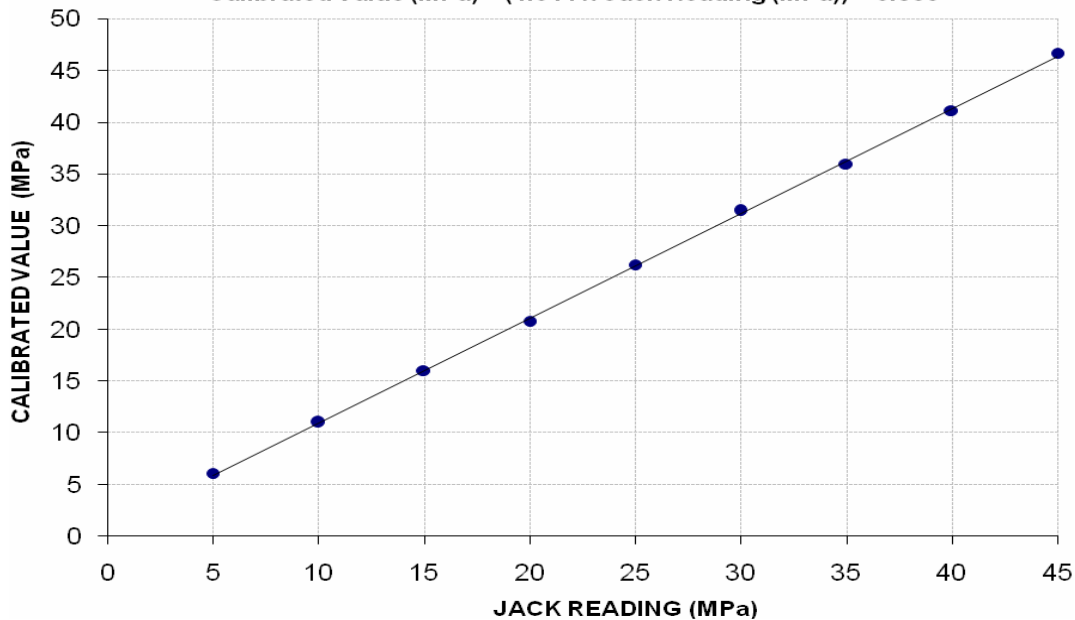
Reference to your Letter No. Nil, dated: 13/04/2022 on the subject cited above. One Hydraulic Jack (Jack No. 1436, Gauge No. 3780) as received by us has been calibrated. The results are tabulated as under:

**Total Range : Zero - 60 (MPa)**  
**Calibrated Range : Zero - 45 (MPa)**

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45
Calibrated Load (Kg)	2950	5350	7800	10100	12750	15300	17500	20000	22700
Calibrated Pressure (Mpa)	6.06	11.00	16.03	20.76	26.21	31.45	35.97	41.11	46.66

The Ram Area of Jack = 47.71 cm<sup>2</sup>

**Calibration Curve For Jack No. 1436 (Gauge # 3780)**  
**Calibrated Value (MPa) = (1.011 x Jack Reading (MPa)) + 0.865**



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**UET Lahore, Pakistan.**

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Ref: CED/TFL/04/1253

Dated: 13-04-2022

Dated: 14-04-2022

To

**M/S CGGC Suki Kinari Project Management in Pakistan**

Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/1253)** (Page -3/4)

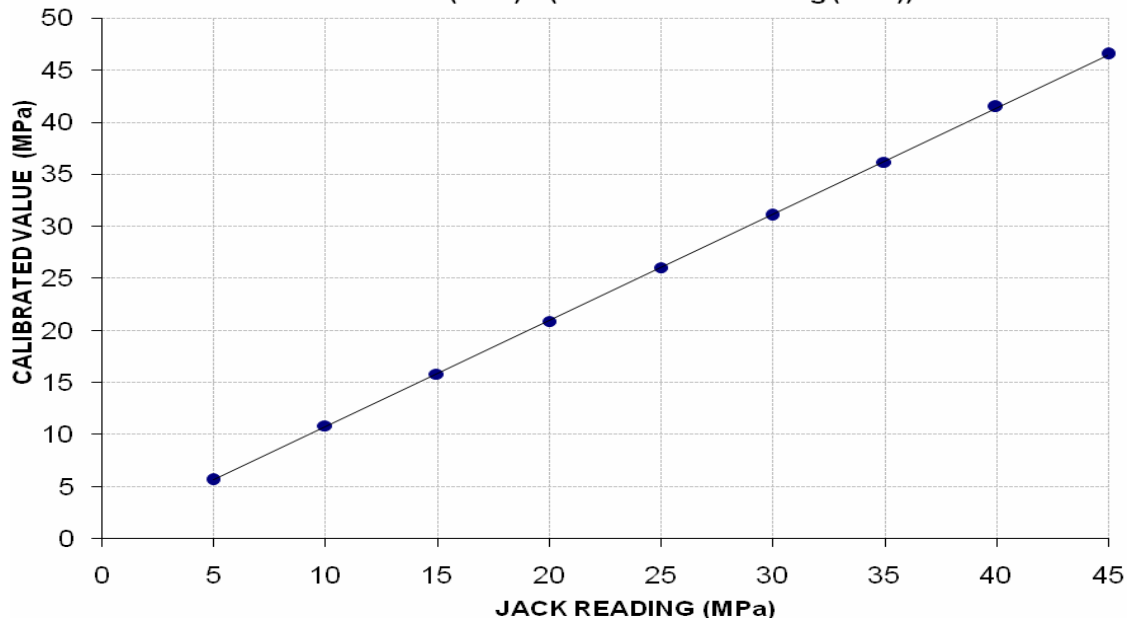
Reference to your Letter No. Nil, dated: 13/04/2022 on the subject cited above. One Hydraulic Jack (Jack No. 18128, Gauge No. 3815) as received by us has been calibrated. The results are tabulated as under:

**Total Range : Zero - 60 (MPa)**  
**Calibrated Range : Zero - 45 (MPa)**

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45
Calibrated Load (Kg)	17200	33000	48000	63400	79200	94400	109800	126000	141400
Calibrated Pressure (Mpa)	5.66	10.86	15.80	20.86	26.06	31.07	36.13	41.47	46.53

The Ram Area of Jack = 298 cm<sup>2</sup>

**Calibration Curve For Jack No. 18128 (Gauge # 3815)**  
**Calibrated Value (MPa) = (1.020 x Jack Reading (MPa)) + 0.533**



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

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**Pakistan. Ph: 92-42-99029202**

Ref: CED/TFL/04/1253

Dated: 13-04-2022

Dated: 14-04-2022

To

**M/S CGGC Suki Kinari Project Management in Pakistan**

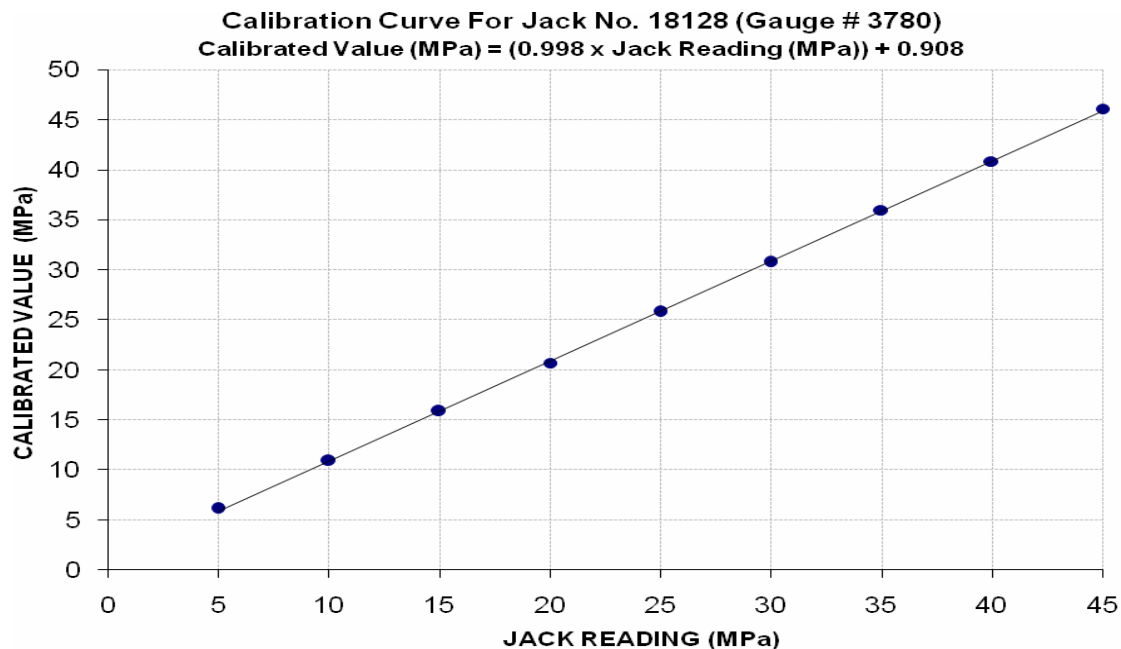
Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/1253)** (Page -1/4)

Reference to your Letter No. Nil, dated: 13/04/2022 on the subject cited above. One Hydraulic Jack (Jack No. 18128, Gauge No. 3780) as received by us has been calibrated. The results are tabulated as under:

**Total Range : Zero - 60 (MPa)**  
**Calibrated Range : Zero - 45 (MPa)**

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45
Calibrated Load (Kg)	18600	33200	48200	62800	78400	93400	109200	124000	140000
Calibrated Pressure (Mpa)	6.12	10.93	15.86	20.67	25.80	30.74	35.94	40.81	46.07

The Ram Area of Jack = 298 cm<sup>2</sup>



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

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**University of Engineering and Technology Lahore, 54890**  
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Ref: CED/TFL/04/1261

Dated: 13-04-2022

Dated of Test: 14-04-2022

To,

**M/S Amjad Engineering Services**  
**Lahore**

Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/1261)** (Page -1/1)

Reference to your Letter No. AN035, Dated: 13/04/2022 on the subject cited above. One Hydraulic Jack (Jack No. J100, Gauge No. AES-J100) as received by us has been calibrated. The results are tabulated as under:

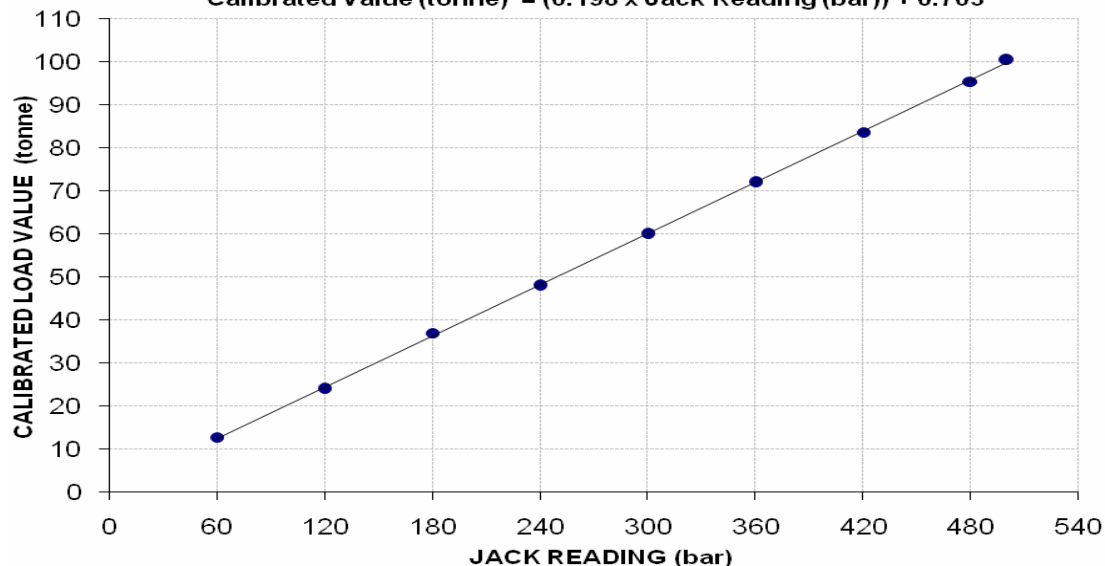
**Total Range : Zero - 1000 (bar)**  
**Calibrated Range : Zero - 500 (bar)**

Hydraulic Jack Reading (bar)	60	120	180	240	300	360	420	480	500	
Calibrated Load	(kg)	12800	24000	37000	48000	60000	72000	83600	95400	100400
	Tonne	12.80	24.00	37.00	48.00	60.00	72.00	83.60	95.40	100.40
Calibrated Pressure (bar)	65.79	123.36	190.18	246.72	308.40	370.08	429.70	490.35	516.05	

1 Tonne = 1000 kg, The Ram Area of Jack = 190.80 cm<sup>2</sup>

**Calibration Curve For Jack No. AES J100**

**Calibrated Value (tonne) = (0.198 x Jack Reading (bar)) + 0.703**



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To,  
M/S Ghousia Engineering & Construction Company  
Gulberg II Lahore  
(Construction of DHA New Life Residency Apartments at 273/1 Q Block Phase # 2 DHA,  
Lahore)

Reference # CED/TFL **1268** (Dr. M Rizwan Riaz) Dated: 14-04-2022  
Reference of the request letter # GHOUSIA/DHA-MID/001A Dated: 14-04-2022

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

Date of Test 14-04-2022  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile 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	0.388	3	0.381	0.11	0.114	3500	4900	70200	67630	98200	94700	1.00	12.5	AF Steel
2	0.382	3	0.378	0.11	0.112	3200	4600	64200	62820	92200	90400	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile test</b>														
Bend Test														

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