



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 China Gezhouba Group Co., Ltd
CGGC Dasu Hydropower Project Management in Pakistan

Reference # CED/TFL **37795** (Engr. Amina Rajput)
Reference of the request letter # Nil

Dated: 27-01-2022
Dated: 25-01-2022

Tension Test Report (Page – 1/1)

Date of Test 04-02-2022
Gauge length 8 inches
Description Wire Mesh Tensile and Bend Test

Sr. No.	Weight (kg/m)	Diameter/ size		Area (mm ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (MPa) Actual	Ultimate Stress (MPa) Actual	Elongation (inch)	% Elongation	Remarks
		Nominal (mm)	Actual (mm)	Nominal	Actual							
1	0.110	-----	4.23	-----	14.1	840	1040	586	725	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for Bend test												
Bend Test												
Wire Taken from Wire Mesh 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
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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,
M/S Jamal Pipe Industries (Pvt) Ltd
Lahore

Reference # CED/TFL **37804** (Engr. Amina Rajput)
Reference of the request letter # JPI/MISC/2022

Dated: 31-01-2022

Dated: 20-01-2022

Tension Test Report (Page – 1/2)

Date of Test 04-02-2022
Gauge length 2 inches
Description Angle Iron 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 ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	A	13.90x5.00	69.50	2800	4300	395	607	0.40	20.00	
2	S	13.90x5.00	69.50	2900	4500	409	635	0.40	20.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile and Two Samples for Bend Test										
Bend Test										
Strip Taken from Angle Iron (A) Bend Test Through 180° is Satisfactory										
Strip Taken from Angle Iron (A) Bend Test Through 180° is Satisfactory										

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
M/S Jamal Pipe Industries (Pvt) Ltd
Lahore

Reference # CED/TFL **37804** (Engr. Amina Rajput)
Reference of the request letter # JPI/MISC/2022

Dated: 31-01-2022

Dated: 20-01-2022

Size Test Report (Page – 2/2)

Date of Test 04-02-2022

Gauge length -----

Description Angle Iron Thickness Test

Sr. No.	Designation	Thickness	Remark
		(mm)	
1	A	5.00	
2	S	5.00	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
Only Two Samples for Test			

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,
 Design Manager
 Stallion Steel Engineering (Pvt) Ltd
 Pre-Fab Shed Stitching Unit Nishat Chunian

Reference # CED/TFL **37823** (Engr. Amina Rajput)
 Reference of the request letter # SE/470/MT/01

Dated: 01-02-2022
 Dated: 27-01-2022

Tension Test Report (Page – 1/1)

Date of Test 04-02-2022
 Gauge length 2 inches
 Description Flat Bar Steel Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(mm)	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	6	27.00x8.00	216.00	9400	11700	427	531	0.70	35.00	
2		27.20x7.90	214.88	9800	12000	447	548	0.70	35.00	
-	8	27.00x9.80	264.60	8500	13200	315	489	0.80	40.00	
-		27.00x9.80	264.60	8900	13400	330	497	0.80	40.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Four Samples for Tensile Test										
Bend Test										

I/C Testing Laboratoires
UET Lahore, Pakistan.

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

To,
 Project Manager
 Elite Engineering Pvt Limited
 DHA Rtotal Parco Lahore

Reference # CED/TFL **37826** (Engr. Amina Rajput)
 Reference of the request letter # Nil

Dated: 02-02-2022
 Dated: 02-02-2022

Tension Test Report (Page -1/1)

Date of Test 04-02-2022
 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 ²)		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	3400	4900	68200	67720	98200	97600	1.20	15.0	Kamran Steel
2	0.372	3	0.373	0.11	0.109	3300	4800	66200	66500	96200	96800	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
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To,
M/S Uninited Wire Industries (Pvt) Limited
Lahore

Reference # CED/TFL **37827** (Engr. Amina Rajput)
Reference of the request letter # UWIL/D-

Dated: 02-02-2022

Dated: 01-02-2022

Tension Test Report (Page – 1/2)

Date of Test 04-02-2022
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	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	E, GPa		
1	15.24 (0.6")	1102.0	1105.0	24800	243.29	27700	271.74	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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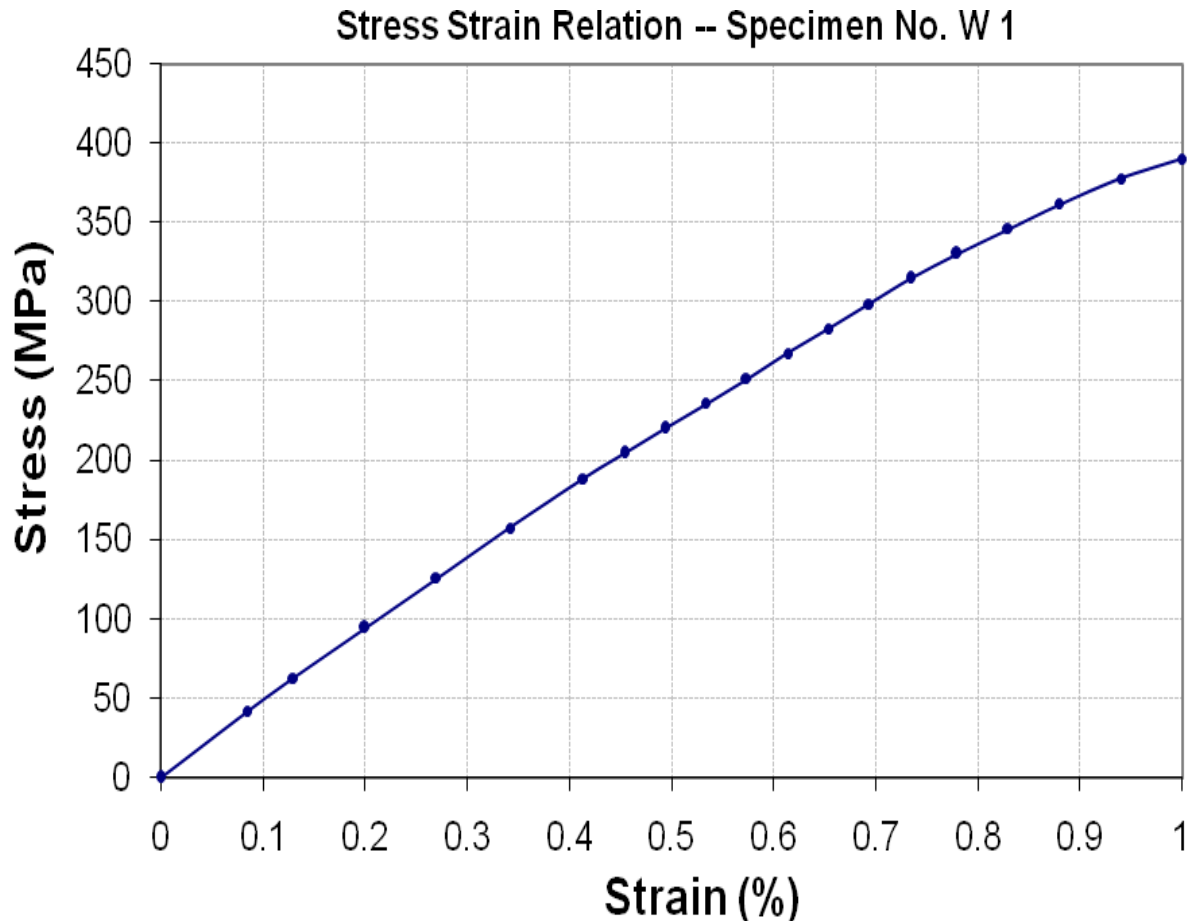
To,
M/S Uninited Wire Industries (Pvt) Limited
Lahore

Reference # CED/TFL 37827 (Engr. Amina Rajput)
Reference of the request letter # UWIL/D-

Dated: 02-02-2022

Dated: 01-02-2022

Graph (Page – 2/2)



I/C Testing Laboratoires
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Pakistan. Ph: 92-42-99029202

To,
M/S Abdullah Bin Subayyal Developers Pvt Ltd
Lahore

Reference # CED/TFL **37828** (Engr. Amina Rajput)
Reference of the request letter # Nil

Dated: 03-02-2022
Dated: 03-02-2022

Tension Test Report (Page -1/1)

Date of Test 04-02-2022
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	0.412	3/8	0.393	0.11	0.121	3800	5720	76200	69080	114700	104000	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
3/8" Dia 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,
 Resident Engineer
 NESPAK
 Construction of Underpass Across Bedian Road Connecting Phase-VI with Phase-IX DHA,
 Lahore

Reference # CED/TFL **37829** (Engr. Amina Rajput)
 Reference of the request letter # 3790/102/IUK/UET/01/34

Dated: 03-02-2022
 Dated: 31-01-2022

Tension Test Report (Page -1/1)

Date of Test 04-02-2022
 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 ²)		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	4.371	10	1.279	1.27	1.285	43600	57200	75700	74800	99300	98200	1.80	22.5	SJ Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
#10 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,
 Project Engineer
 Engineerio Tech
 Rippah International University Extension Project

Reference # CED/TFL **37830** (Engr. Amina Rajput)
 Reference of the request letter # 0193-Q-CE-PK-21/UET-LHR

Dated: 03-02-2022
 Dated: 02-02-2022

Tension Test Report (Page -1/1)

Date of Test 04-02-2022
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		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	0.379	3	0.376	0.11	0.111	3200	4800	64200	63370	96200	95100	1.00	12.5	Ittehad Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test														
Bend Test														

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,
Sub Divisional Officer
Highway Sub Division
Taxila
(Dualization of Road from Motorway Interchange Jang Bahatar to Wah, Length = 3.00 km,
Tehsil Taxila District Rawalpindi (Group-II Bridge Portion))

Reference # CED/TFL **37831** (Engr. Amina Rajput)
Reference of the request letter # 156/T

Dated: 03-02-2022
Dated: 26-01-2022

Tension Test Report (Page -1/4)

Date of Test 04-02-2022
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	783.0	18300	179.52	19700	193.26	198	>3.50	xx
2	12.70 (1/2")	775.0	786.0	17600	172.66	19700	193.26	199	>3.50	xx
3	12.70 (1/2")	775.0	783.0	18600	182.47	19800	194.24	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

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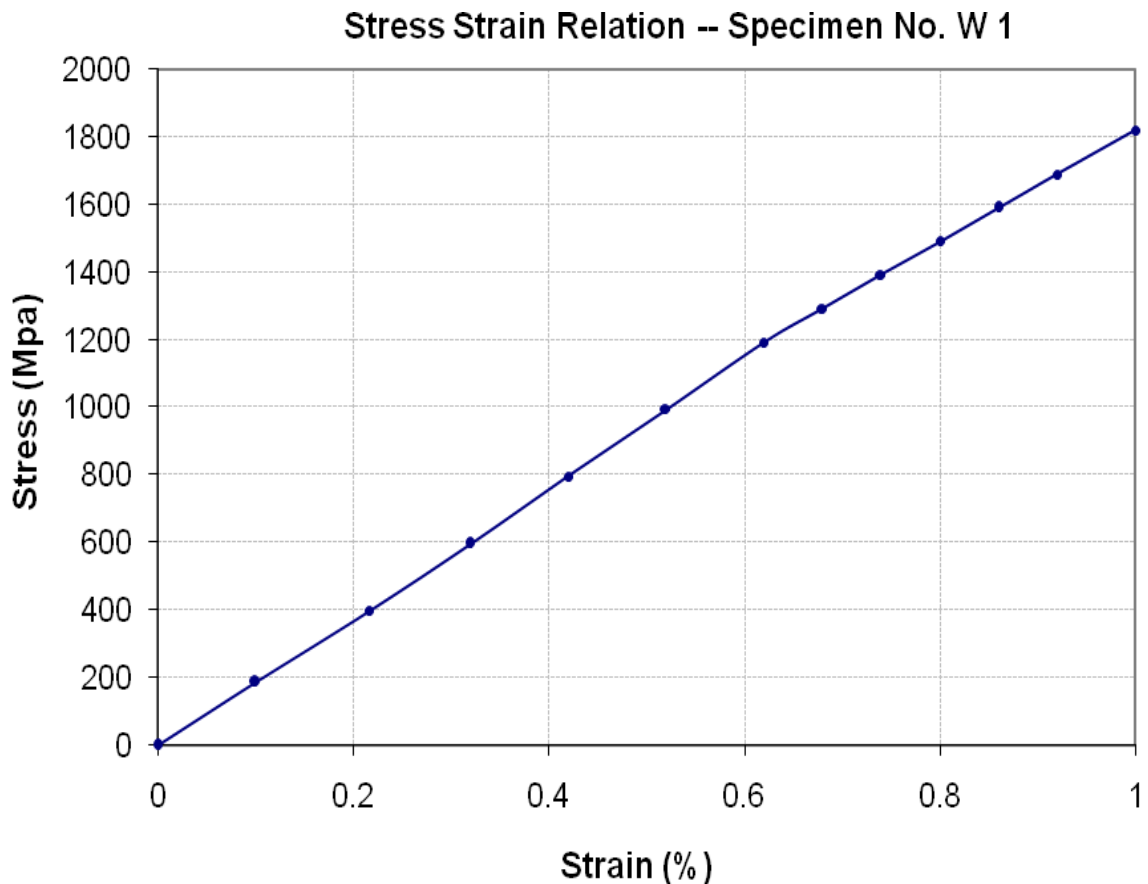
STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
Sub Divisional Officer
Highway Sub Division
Taxila
(Dualization of Road from Motorway Interchange Jang Bahatar to Wah, Length = 3.00 km,
Tehsil Taxila District Rawalpindi (Group-II Bridge Portion))

Reference # CED/TFL **37831** (Engr. Amina Rajput)
Reference of the request letter # 156/T

Dated: 03-02-2022
Dated: 26-01-2022

Graph (Page – 2/4)



I/C Testing Laboratories
UET Lahore, Pakistan.

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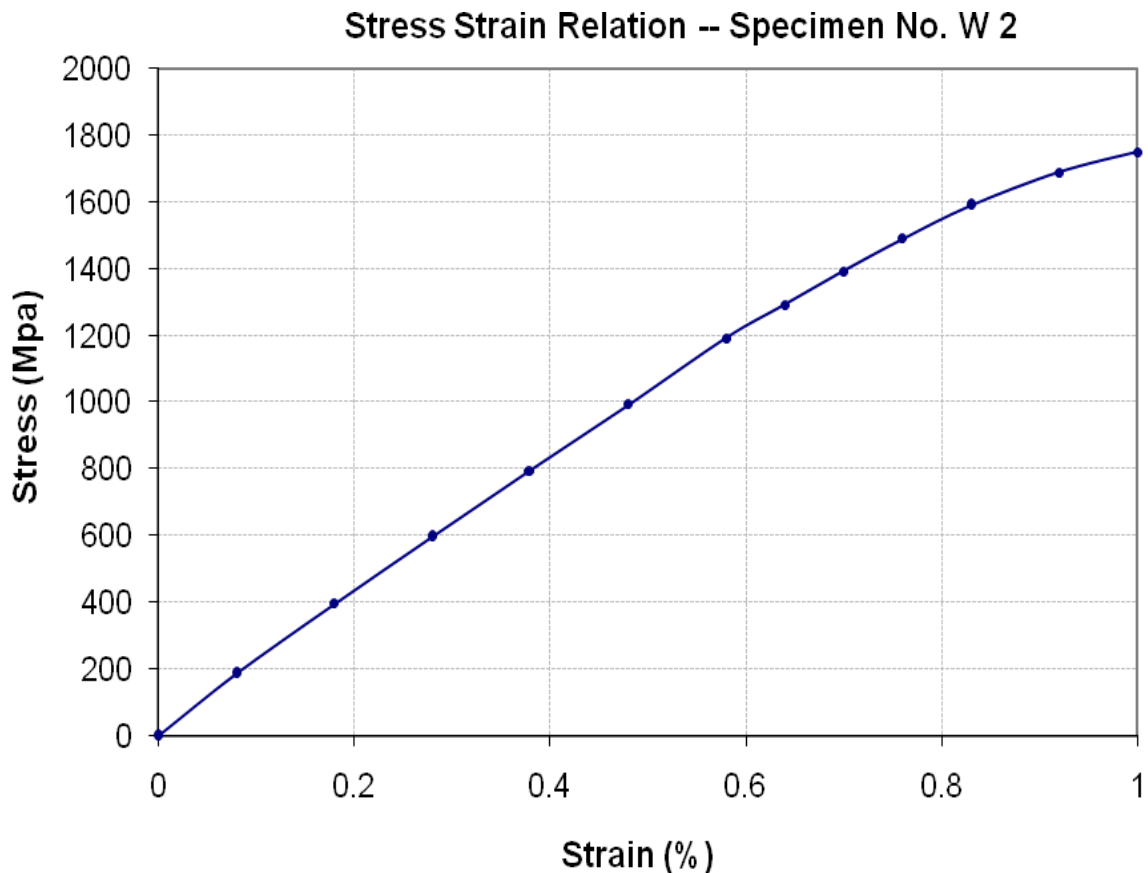
To,
Sub Divisional Officer
Highway Sub Division
Taxila
(Dualization of Road from Motorway Interchange Jang Bahatar to Wah, Length = 3.00 km,
Tehsil Taxtila District Rawalpindi (Group-II Bridge Portion))

Reference # CED/TFL **37831** (Engr. Amina Rajput)
Reference of the request letter # 156/T

Dated: 03-02-2022

Dated: 26-01-2022

Graph (Page – 2/4)



I/C Testing Laboratories
UET Lahore, Pakistan.

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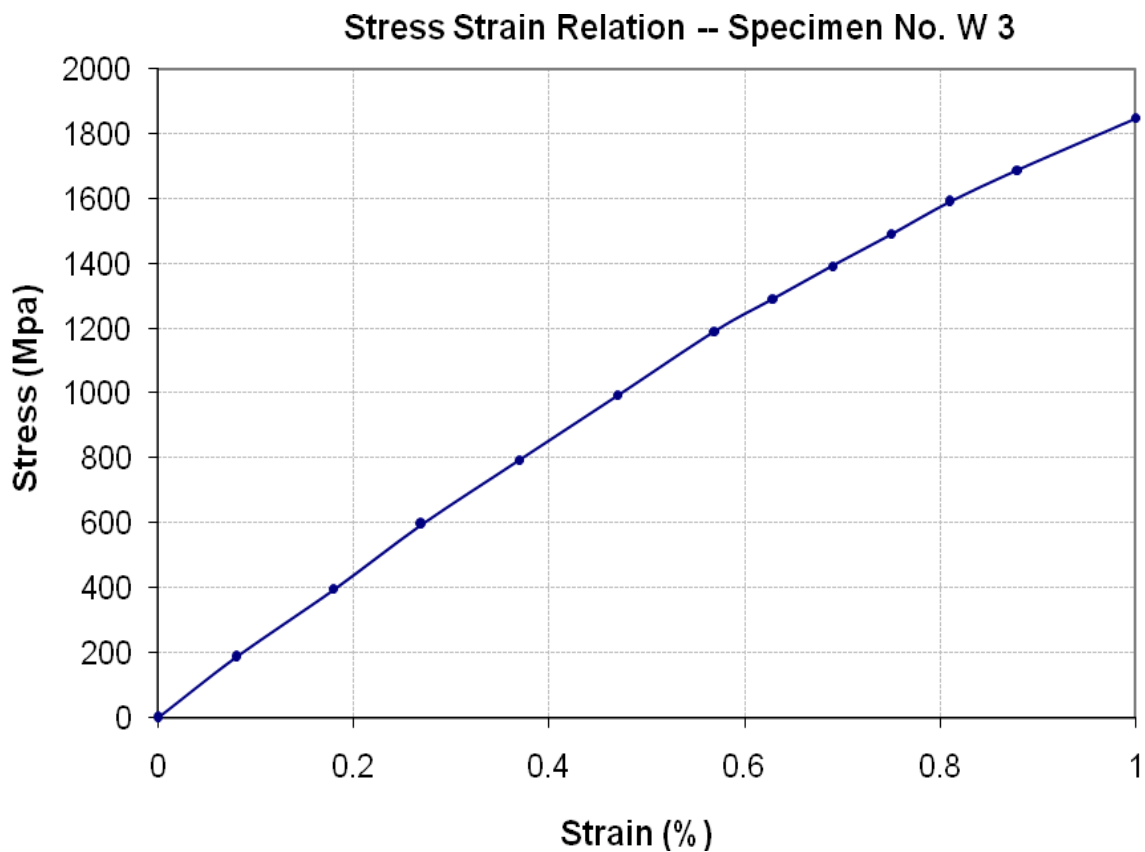
STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
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To,
Sub Divisional Officer
Highway Sub Division
Taxila
(Dualization of Road from Motorway Interchange Jang Bahatar to Wah, Length = 3.00 km,
Tehsil Taxila District Rawalpindi (Group-II Bridge Portion))

Reference # CED/TFL **37831** (Engr. Amina Rajput)
Reference of the request letter # 156/T

Dated: 03-02-2022
Dated: 26-01-2022

Graph (Page – 4/4)



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,
 Project Co-Ordinator
 Pacific Builders (Pvt) Ltd
 Union Tower Sialkot

Reference # CED/TFL **37832** (Engr. Amina Rajput)
 Reference of the request letter # Nil

Dated: 03-02-2022
 Dated: 03-02-2022

Tension Test Report (Page -1/1)

Date of Test 04-02-2022
 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 ²)		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	0.361	3	0.368	0.11	0.106	4400	5400	88200	91410	108200	112200	0.90	11.3	Afco Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Executive Engineer PWD
 Highway Division Bhimber
 (Construction of RCC Pre-stressed Bridge 30Meter Span with Upgradation of Jandala Pirgali Road (Part-I) Length 09 km, District Bhimber)

Reference # CED/TFL **37833** (Engr. Amina Rajput)
 Reference of the request letter # 202

Dated: 03-02-2022
 Dated: 02-02-2022

Tension Test Report (Page -1/1)

Date of Test 04-02-2022
 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 ²)		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	4.226	10	1.258	1.27	1.242	35200	54400	61100	62450	94500	96600	1.90	23.8	
2	5.188	11	1.393	1.56	1.525	41400	67400	58500	59840	95300	97500	1.70	21.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and two samples for bend test														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														
#11 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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- 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 – I
NESPAK
Construction of Sheranwala Flyover, Lahore
(WMI)

Reference # CED/TFL **37834** (Engr. Amina Rajput)
Reference of the request letter # 3772/SF/103/MWA/04/239

Dated: 03-02-2022
Dated: 22-01-2022

Tension Test Report (Page -1/2)

Date of Test 04-02-2022
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	772.0	17200	168.73	19200	188.35	199	>3.50	23241
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
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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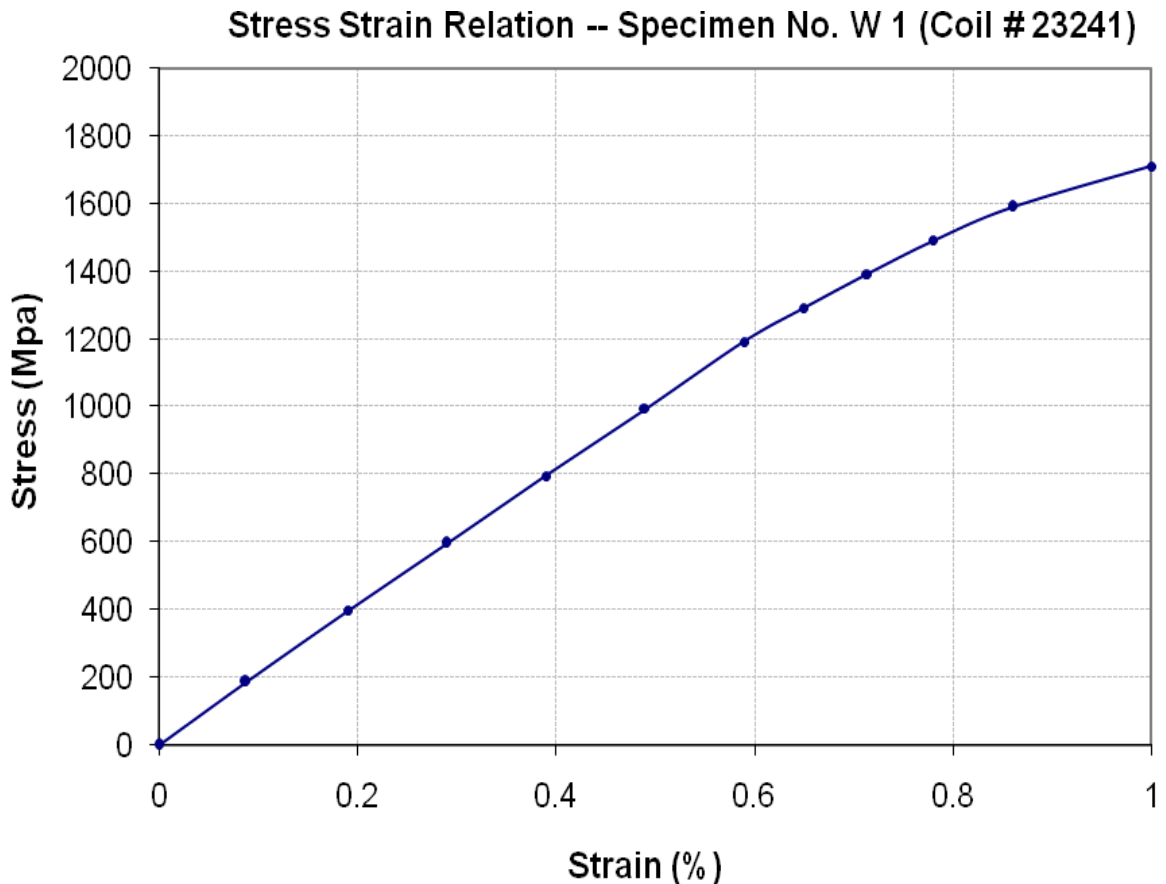
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Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
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To,
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Construction of Sheranwala Flyover, Lahore
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Reference # CED/TFL **37834** (Engr. Amina Rajput)
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Dated: 03-02-2022
Dated: 22-01-2022

Graph (Page – 2/2)



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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 – I
NESPAK
Construction of Sheranwala Flyover, Lahore
(WMI)

Reference # CED/TFL **37835** (Engr. Amina Rajput)
Reference of the request letter # 3772/SF/103/MWA/04/240

Dated: 03-02-2022
Dated: 22-01-2022

Tension Test Report (Page -1/2)

Date of Test 04-02-2022
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	17400	170.69	19100	187.37	199	>3.50	23253
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
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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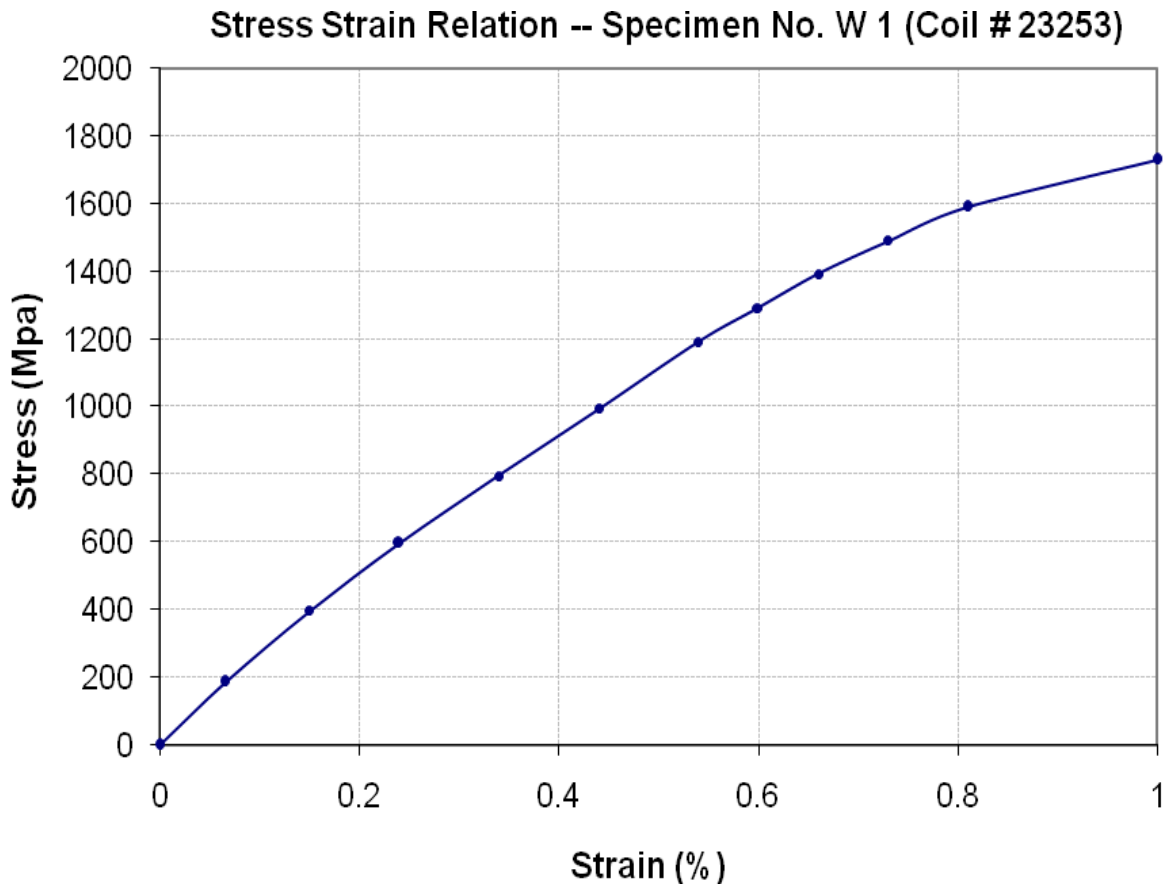
STRUCTURAL ENGINEERING DIVISION
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Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
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To,
Resident Engineer – I
NESPAK
Construction of Sheranwala Flyover, Lahore
(WMI)

Reference # CED/TFL **37835** (Engr. Amina Rajput)
Reference of the request letter # 3772/SF/103/MWA/04/240

Dated: 03-02-2022
Dated: 22-01-2022

Graph (Page – 2/2)



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,
 Resident Engineer
 Associated Consulting Engineers ACE Limited
 Secretariat office Building Multan & Allied Work

Reference # CED/TFL **37838** (Dr. Umbreen us Sahar)
 Reference of the request letter # ACE/RE/CSM/2021/0029

Dated: 04-02-2022
 Dated: 03-02-2022

Tension Test Report (Page -1/2)

Date of Test 04-02-2022
 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 ²)		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	3810	4940	76400	76560	99000	99300	1.20	15.0	Union Steel
2	0.376	3	0.375	0.11	0.111	3720	4860	74600	74190	97400	97000	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Resident Engineer
 Associated Consulting Engineers ACE Limited
 Secretariat office Building Multan & Allied Work

Reference # CED/TFL **37838** (Dr. Umbreen us Sahar)
 Reference of the request letter # ACE/RE/CSM/2021/0032

Dated: 04-02-2022
 Dated: 03-02-2022

Tension Test Report (Page -2/2)

Date of Test 04-02-2022
 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 ²)		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	0.379	0.11	0.113	3840	4860	77000	74860	97400	94800	1.20	15.0	FF Steel
2	0.380	3	0.377	0.11	0.112	3980	4960	79800	78620	99400	98000	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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