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 Vision Engineering (Pvt) Ltd
Lahore

Reference # CED/TFL **4021** (Dr. M Kashif) Dated: 06-10-2023
Reference of the request letter # VECO/2023/1017/8098 Dated: 06-10-2023

Tension Test Report

Date of Test 10-10-2023
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")**	**430.0**	**442.0**	**10300**	**101.04**	**11100**	**108.89**	**>3.50**	**xx**
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-	-	-	-	-	-	-	-	-	
Only one sample for Test									

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
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2. The above results pertain to sample /samples supplied to this laboratory.
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
NESPAK
Construction of Underpass along Bedian Road at Roundabout Near Lahore Ring Road (LRP), Lahore (WMI)

Reference # CED/TFL **4032** (Dr. M Kashif) Dated: 09-10-2023
Reference of the request letter # 3772/103/BU/MHK/04/95 Dated: 07-10-2023

Tension Test Report (Page -1/3)

Date of Test 10-10-2023
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")**	**780.0**	**784.0**	**18100**	**177.56**	**19600**	**192.28**	**198**	**>3.50**	**24836**
2	**12.70 (1/2")**	**780.0**	**791.0**	**17800**	**174.62**	**19300**	**189.33**	**199**	**>3.50**	**34839**
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-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only two 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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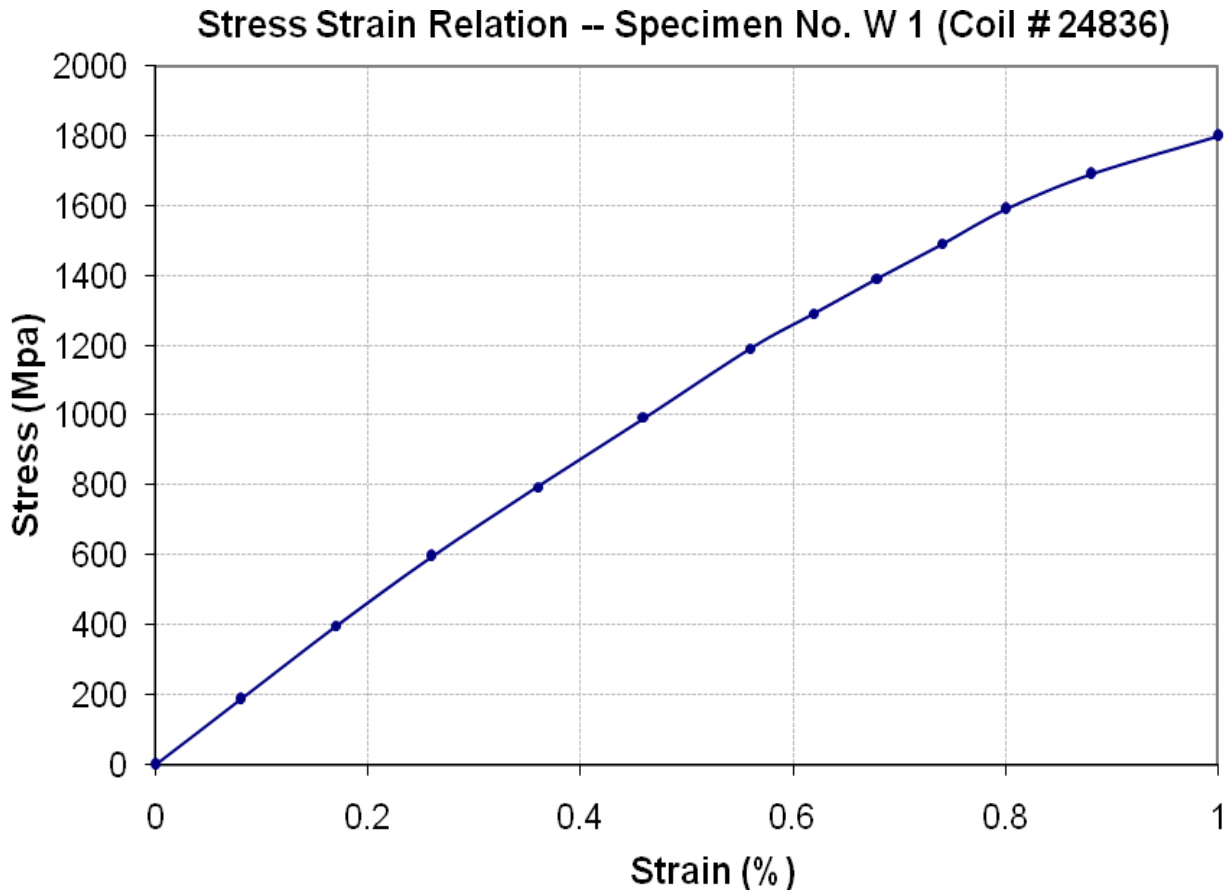
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK
Construction of Underpass along Bedian Road at Roundabout Near Lahore Ring Road (LRP), Lahore (WMI)

Reference # CED/TFL **4032** (Dr. M Kashif) Dated: 09-10-2023
Reference of the request letter # 3772/103/BU/MHK/04/95 Dated: 07-10-2023

Graph (Page – 2/3)



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To,

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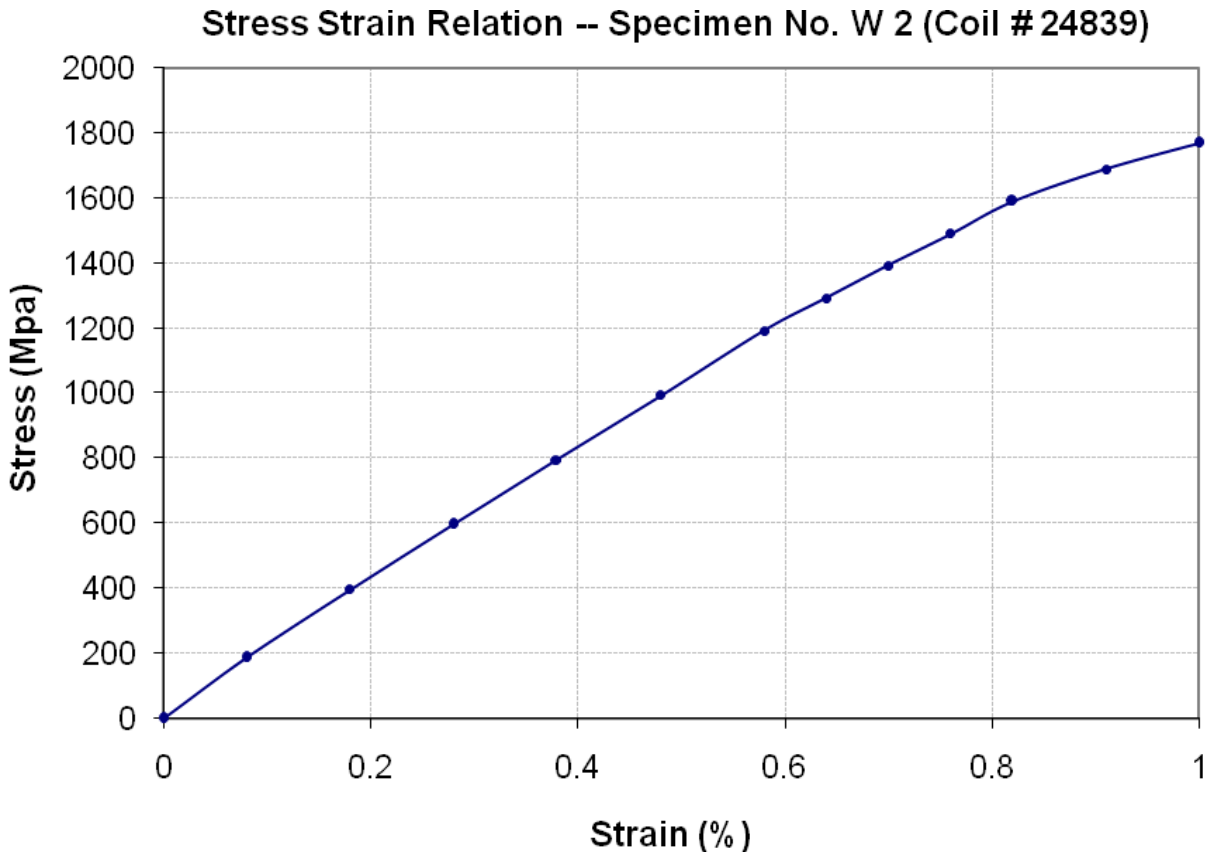
NESPAK
Construction of Underpass along Bedian Road at Roundabout Near Lahore Ring Road (LRP), Lahore (WMI)

Reference # CED/TFL **4032** (Dr. M Kashif) Dated: 09-10-2023
Reference of the request letter # 3772/103/BU/MHK/04/95 Dated: 07-10-2023

Graph (Page – 3/3)



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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 Manager
High-Q Constructions
Construction of High-Q Mall at 3-A, Gulberg II, Lahore.

Reference # CED/TFL **4035** (Dr. M Kashif) Dated: 09-10-2023
Reference of the request letter # QC/HQ/CIVIL/143 Dated: 09-10-2023

Tension Test Report (Page -1/1)

Date of Test 10-10-2023
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (mm)		Area (in^2)		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	0.404	10	9.88	0.12	0.119	3900	6000	71650	72400	110230	111400	1.30	16.3	
2	0.407	10	9.92	0.12	0.120	3800	5900	69812	69970	108393	108700	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
10mm Dia Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
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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 Manager
AJK Engineering (Pvt) Ltd
Construction of Capital Tower, Plot No 59, F-6/G-6. Blue Area, Islamabad

Reference # CED/TFL **4036** (Dr. M Kashif) Dated: 09-10-2023
Reference of the request letter # AJK/UET/2023/10/001 Dated: 09-10-2023

Tension Test Report (Page -1/4)

Date of Test 10-10-2023
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")**	**780.0**	**785.0**	**18000**	**176.58**	**19700**	**193.26**	**199**	**>3.50**	**xx**
2	**12.70 (1/2")**	**780.0**	**784.0**	**18000**	**176.58**	**19800**	**194.24**	**198**	**>3.50**	**xx**
3	**12.70 (1/2")**	**780.0**	**785.0**	**18000**	**176.58**	**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.

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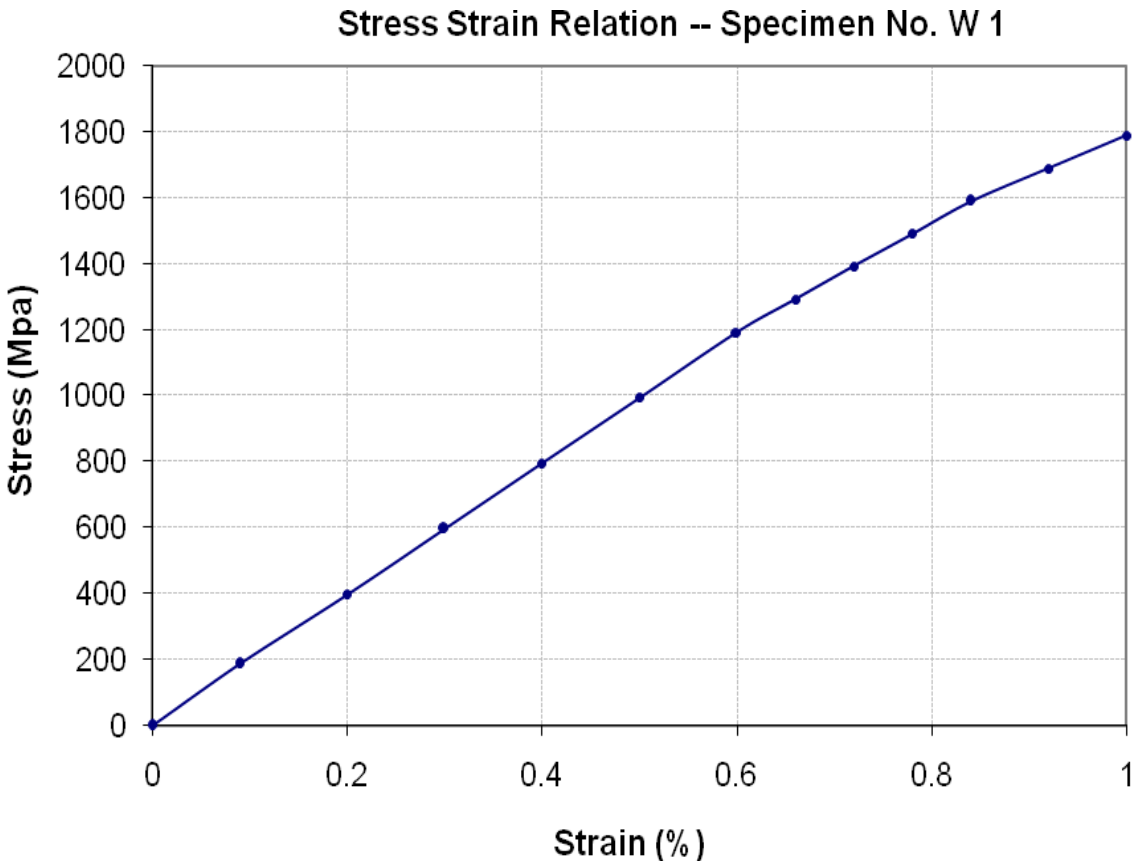
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Project Manager
AJK Engineering (Pvt) Ltd
Construction of Capital Tower, Plot No 59, F-6/G-6. Blue Area, Islamabad

Reference # CED/TFL **4036** (Dr. M Kashif) Dated: 09-10-2023
Reference of the request letter # AJK/UET/2023/10/001 Dated: 09-10-2023

Graph (Page – 2/4)



I/C Testing Laboratoires
UET Lahore, Pakistan.

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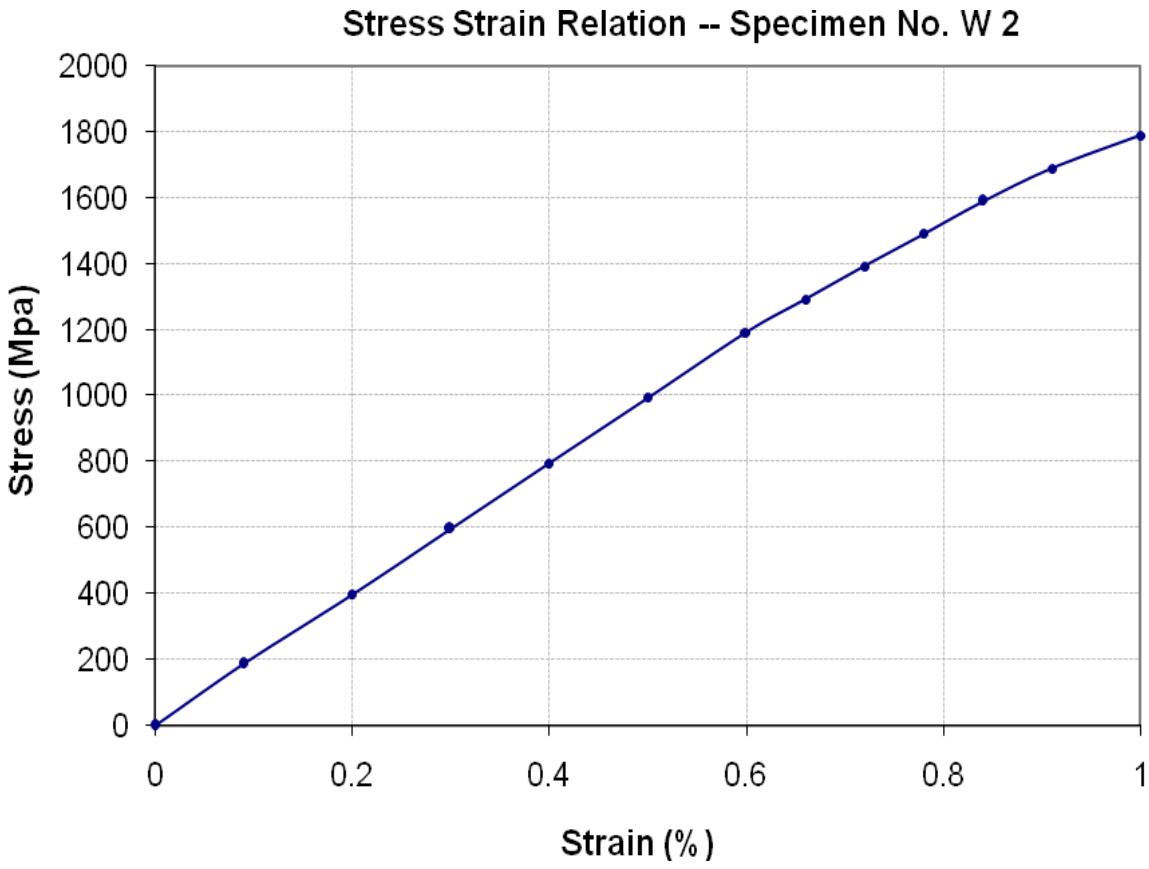
STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Project Manager
AJK Engineering (Pvt) Ltd
Construction of Capital Tower, Plot No 59, F-6/G-6. Blue Area, Islamabad

Reference # CED/TFL **4036** (Dr. M Kashif) Dated: 09-10-2023
Reference of the request letter # AJK/UET/2023/10/001 Dated: 09-10-2023

Graph (Page – 2/4)



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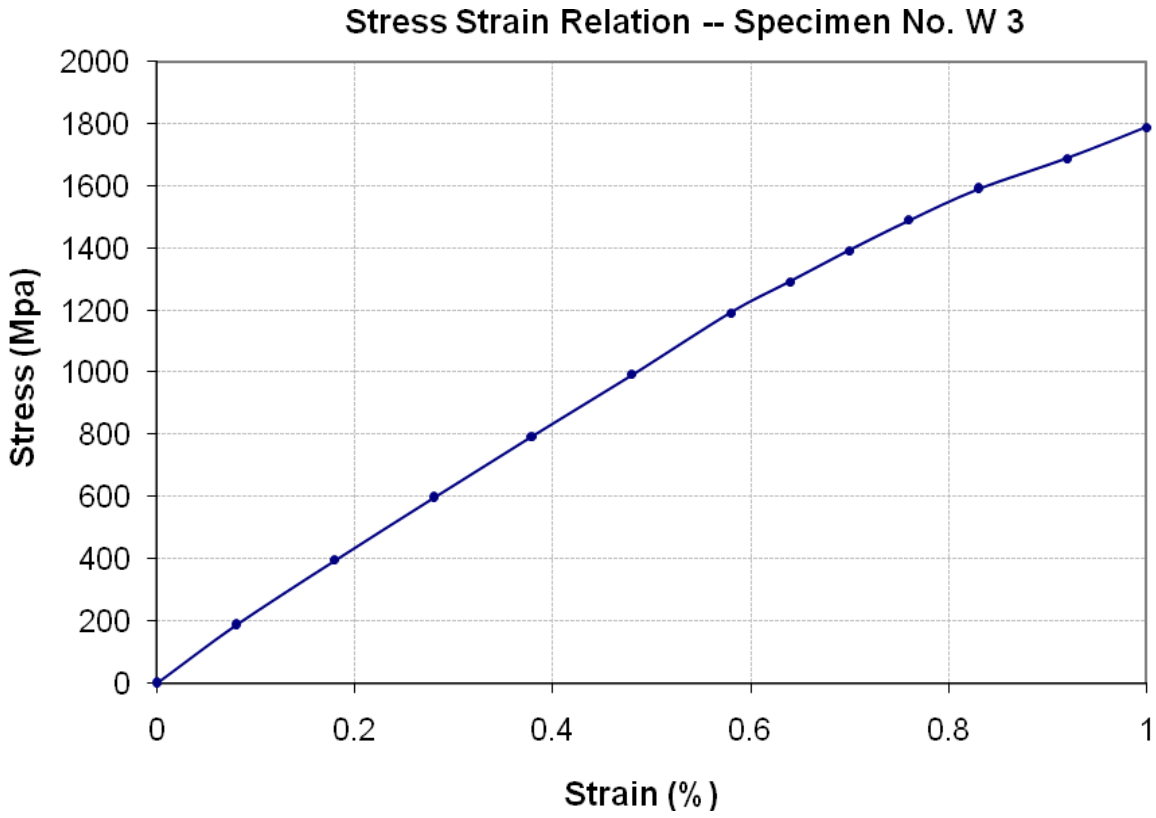
Pakistan. Ph: 92-42-99029202

To,

Project Manager
AJK Engineering (Pvt) Ltd
Construction of Capital Tower, Plot No 59, F-6/G-6. Blue Area, Islamabad

Reference # CED/TFL **4036** (Dr. M Kashif) Dated: 09-10-2023
Reference of the request letter # AJK/UET/2023/10/001 Dated: 09-10-2023

Graph (Page – 2/4)



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,

Asst Dir Infra
Defence Housing Authority, Gujranwala
"Sector L)"

Reference # CED/TFL **4038** (Dr. M Kashif) Dated: 10-10-2023
Reference of the request letter # 111/15/AD/RS/Lab/Sec L/491 Dated: 05-10-2023

Tension Test Report (Page -1/1)

Date of Test 10-10-2023
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		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	0.370	3	0.372	0.11	0.109	3100	4700	62200	62870	94200	95400	1.50	18.8	Sheikhoo Steel
2	0.366	3	0.370	0.11	0.108	3300	4700	66200	67540	94200	96200	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

#3 Bar Bend Test Through 180º is Satisfactory

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
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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,

Manager T/L Projects
EnMasse Pvt. Ltd.
CONSTRUCTION OF ELECTRICAL EQUIPMENT FOUNDATIONS, SWITCHYARD TRENCHES, TRANSFORMER WAY AND SWITCHYARD ELECTRIFICATION AT 132KV GRID STATION DOKRI(CONVERSION FROM 66KV TO 132KV LEVEL)
CONSTRUCTION OF CONTROL HOUSE BUILDING ON SPECIAL PILE FOUNDATIONS DESIGN, SWITCHYARD FENCING ETC AT 132KV GRID STATION DOKRI

Reference # CED/TFL **4039** (Dr. M Kashif) Dated: 10-10-2023
Reference of the request letter # EnMasse/SEPCO/1010-01 Dated: 10-10-2023

Tension Test Report (Page -1/1)

Date of Test 10-10-2023
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (inch)		Area (in^2)		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	0.392	10	9.73	0.12	0.115	3200	4600	58789	61170	84510	88000	1.50	18.8	Ittehad Steel
2	0.395	10	9.77	0.12	0.116	3300	4600	60627	62650	84510	87400	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

10mm Dia Bar Bend Test Through 180º is Satisfactory

Witness by Engr. Muhammad Zubair & Engr. Taimoor Ali Khan (EnMasse)

I/C Testing Laboratoires
UET Lahore, Pakistan.

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