



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
Dongil Engineering Consultants Co., Ltd.
Central Asia Regional Economic Cooperation (CAREC) Corridor Development Program – Tranche-1 Project
Construction of Additional 2-Lane Carriageway from Ratodero to Shikarpur Section-2 (N-55) from km 0+000 to km 43+400 (43.4km)
Reference # CED/TFL **1606** (Dr. Qasim Khan) Dated: 24-06-2022
Reference of the request letter # RE/RS/S-2/N55/LB/773 Dated: 19-06-2022

Tension Test Report (Page -1/3)

Date of Test 27-06-2022
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	787.0	17100	167.75	18800	184.43	199	>3.50	23707
2	12.70 (1/2")	775.0	784.0	17300	169.71	19400	190.31	199	>3.50	23713
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
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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.

Note:

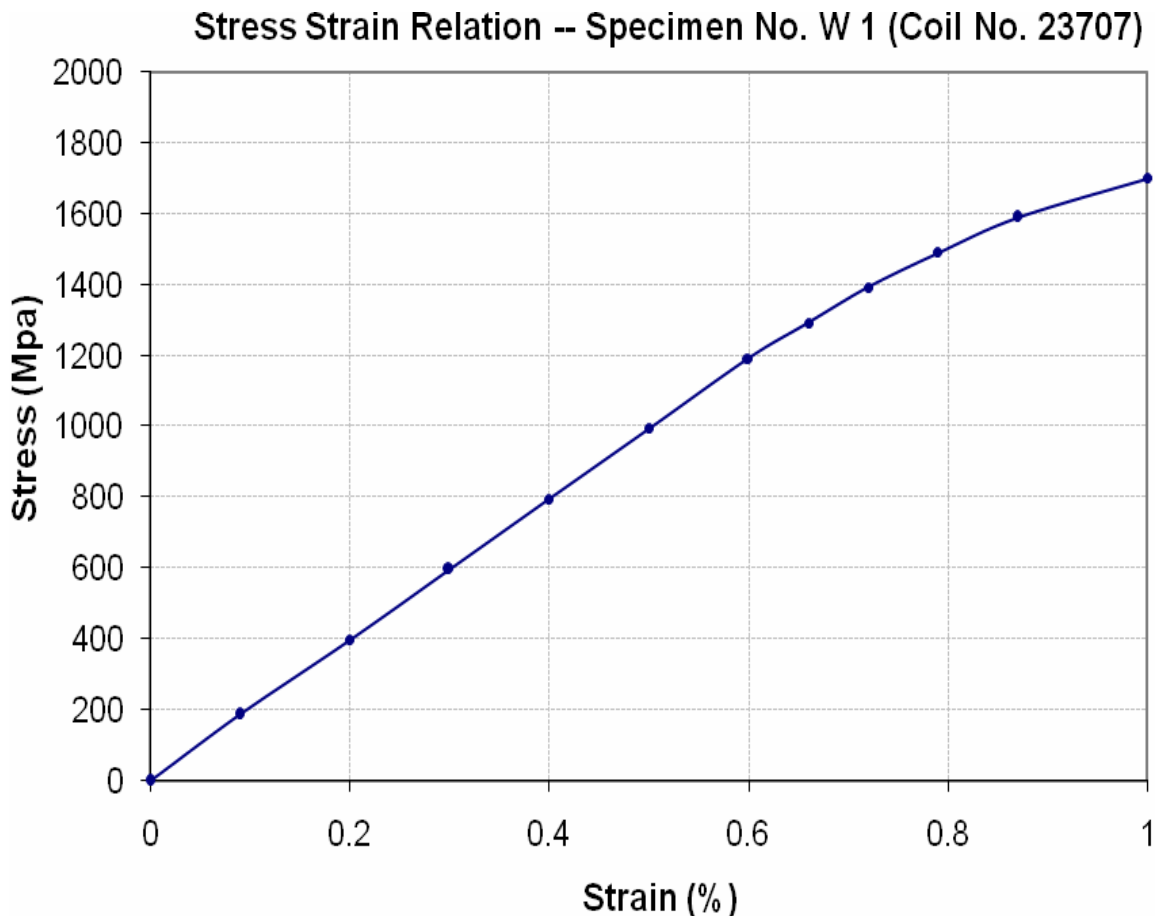
- 1- You can See your reports On Internet in the following web site
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2. The above results pertain to sample /samples supplied to this laboratory.
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To,
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Graph (Page – 2/3)



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Note:

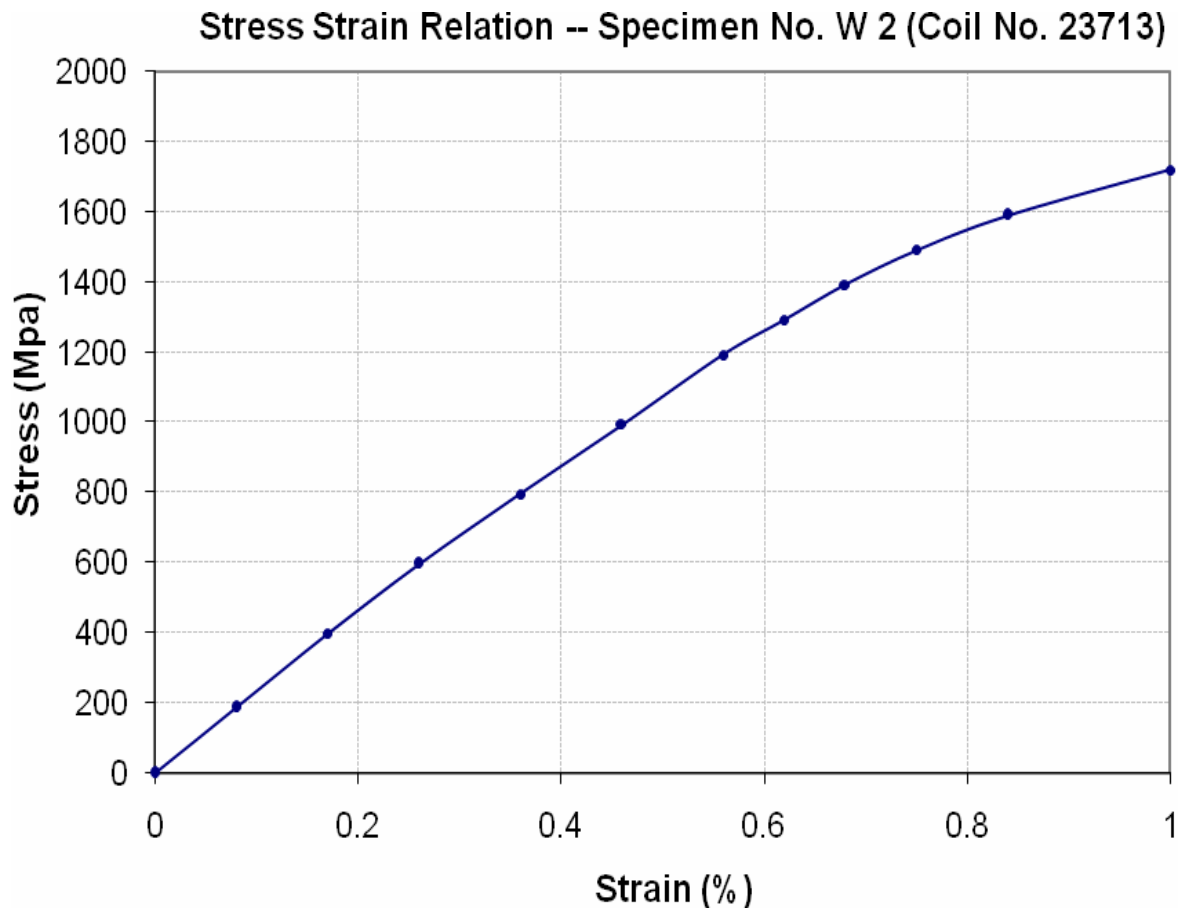
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Graph (Page – 3/3)



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To,
 Resident Engineer
 City Survey & Engineering Consultants
 Green View Executive Apartments Phase-V

Reference # CED/TFL **1607** (Dr. Rizwan Azam)
 Reference of the request letter # GVA/RE/08/22

Dated: 24-06-2022
 Dated: 24-06-2022

Tension Test Report (Page -1/1)

Date of Test 27-06-2022
 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	0.369	3	0.372	0.11	0.108	4000	4960	80200	81310	99400	100900	1.20	15.0	
2	0.378	3	0.376	0.11	0.111	4200	5150	84200	83410	103200	102300	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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,
 Sub Divisional Officer
 Buildings Sub Division
 Minchinabad
 (Rehabilitation & Upgradation of Fish Seed Hatcheries to Enhance Fish Seed Production in Punjab One at Minchinabad, Bahawalnagar)

Reference # CED/TFL **1608** (Dr. Rizwan Azam)
 Reference of the request letter # 270/MBD

Dated: 24-06-2022
 Dated: 28-05-2022

Tension Test Report (Page -1/1)

Date of Test 27-06-2022
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile 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	0.442	3/8	0.407	0.11	0.130	4590	5580	92000	77790	111900	94600	1.10	13.8	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
Sub Divisional Officer
Buildings Sub Division
Minchinabad
(Establishment of Govt. Associate College Minchinabad, Bahawalnagar)

Reference # CED/TFL **1609** (Dr. Rizwan Azam)
Reference of the request letter # 241/MBD

Dated: 24-06-2022
Dated: 16-05-2022

Tension Test Report (Page -1/1)

Date of Test 27-06-2022
Gauge length 8 inches
Description Deformed Steel Bar Tensile 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	0.438	3/8	0.405	0.11	0.129	4590	5560	92000	78650	111500	95300	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test														
Bend Test														

I/C Testing Laboratoires
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To,
 Assistant Engineer
 Local Govt. & Community Dev, Civil Sub Div Mianwali.
 (Const of New Office Building Union Council Thammay Wali Distt. Mianwali)

Reference # CED/TFL **1616** (Dr. Asad Ali Gillani)
 Reference of the request letter # 844/LG

Dated: 27-06-2022
 Dated: 11-06-2022

Tension Test Report (Page -1/1)

Date of Test 28-06-2022
 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 (inch)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.412	3/8	0.392	0.11	0.121	4100	5200	82200	74710	104200	94800	1.00	12.5	
2	0.416	3/8	0.394	0.11	0.122	4180	5400	83800	75400	108200	97500	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8 Dia Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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