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 Multi-Level Grade Separation Flyover at Shahdra Morr, Lahore
(United Wire Industries Pvt. Ltd.)

Reference # CED/TFL **3754** (Dr. Rizwan Riaz) Dated: 16-08-2023
Reference of the request letter# 4537/03/MSA/09/98 Dated: 07-08-2023

Tension Test Report (Page -1/1)

Date of Test 22-08-2023
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	**12.70 (1/2")**	**775.0**	**781.0**	**17800**	**174.62**	**20000**	**196.20**	**>3.50**	**3985**
2	**12.70 (1/2")**	**775.0**	**785.0**	**18000**	**176.58**	**19500**	**191.30**	**>3.50**	**4000**
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
Only two samples for Test									

To,

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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Assistant Executive Engineer,
Pakistan Railways, Jhelum
(Proposed Road Underpass Bridge (1 x 74'-9")at km. 1375/2-3 between Choa Kariala – Kharian Stations on Lalamusa - Rawalpindi.)

Reference # CED/TFL **3766** (Dr. Rizwan Azam) Dated: 18-08-2023
Reference of the request letter # 29-W/Golf Residencia. Dated: 18-08-2023

Tension Test Report (Page -1/2)

Date of Test 22-08-2023
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")**	**775.0**	**791.0**	**17700**	**173.64**	**19500**	**191.30**	**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

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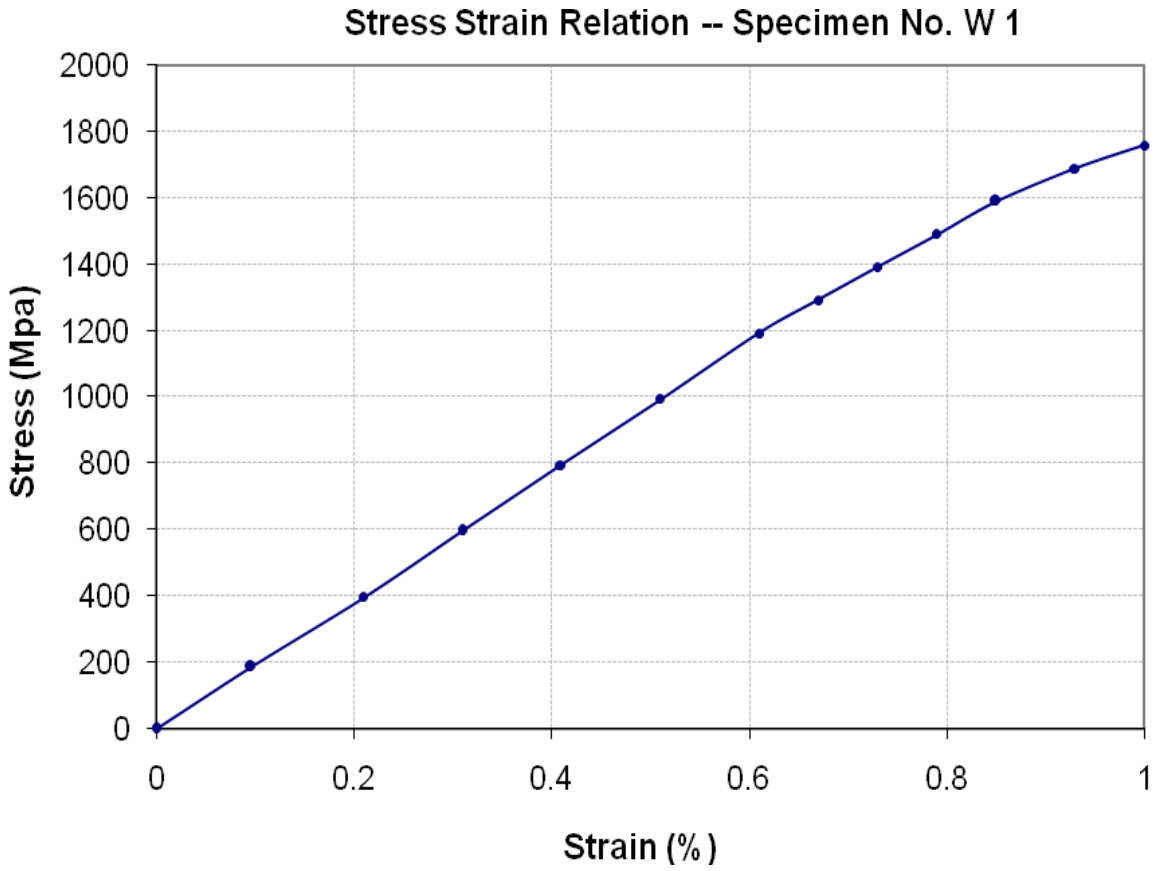
Reference # CED/TFL **3766** (Dr. Rizwan Azam) Dated: 18-08-2023
Reference of the request letter # 29-W/Golf Residencia. Dated: 18-08-2023

Graph (Page – 2/2)



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To,

A/XEN E&M
GE (Air) Rafoqui
"Construction of Main Briefing Room with Allied Facilities at HQ No. 50 TA sqn at PAF Base Rafiqui."

Reference # CED/TFL **3770** (Dr. M Rizwan Riaz) Dated: 21-08-2023
Reference of the request letter # 6689/24/E-6 Dated: 18-08-2023

Tension Test Report (Page -1/2)

Date of Test 22-08-2023
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	0.366	3/8	0.370	0.11	0.108	3800	4800	76200	77790	96200	98300	1.00	12.5	
2	0.365	3/8	0.370	0.11	0.107	3800	4800	76200	78020	96200	98600	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two sample for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180º is Satisfactory														

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