



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
MAK Engineering Services Jv Wadaan Consultants
Construction of Khushal Khan Khattak University Karak
(Project Titled “External / Allied Development Work” (Package-B))

Reference # CED/TFL **2745** (Dr. M Rizwan Riaz)

Dated: 07-02-2023

Reference of the request letter # MAK.E.S/HTW-1/KKUK-ED/23

Dated: 22-01-2023

Tension Test Report (Page -1/2)

Date of Test 10-02-2023

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	783.0	17900	175.60	19600	192.28	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.

Note:

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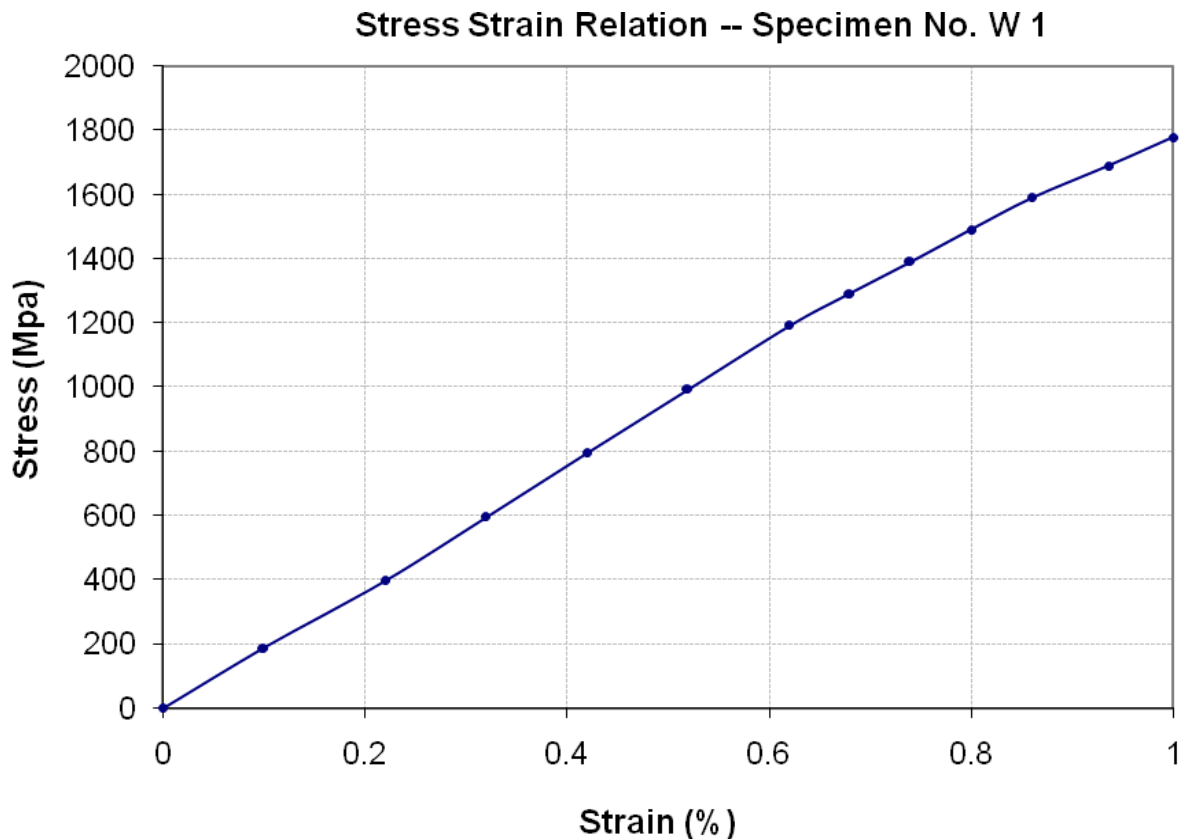
Reference # CED/TFL **2745** (Dr. M Rizwan Riaz)

Dated: 07-02-2023

Reference of the request letter # MAK.E.S/HTW-1/KKUK-ED/23

Dated: 22-01-2023

Graph (Page – 2/2)



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To,
 Manager Civil
 Nishat Mills Limited
 Dyeing & Finishing Plant
 Lahore

Reference # CED/TFL **2753** (Dr. M Kashif)
 Reference of the request letter # NDF/SST/011

Dated: 08-02-2023
 Dated: 08-02-2023

Tension Test Report (Page -1/1)

Date of Test 10-02-2023
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		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	0.390	10	9.71	0.12	0.115	3700	5400	67975	71090	99207	103800	1.40	17.5	Siraj Steel
2	0.385	10	9.64	0.12	0.113	3600	5300	66138	70070	97370	103200	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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Pakistan. Ph: 92-42-99029202

To,

M.E
AS Enterprises
AS Enterprises Ware House Layyah
(AA Associates)

Reference # CED/TFL **2754** (Dr. M Kashif)
Reference of the request letter # WHL/ASE/01

Dated: 09-02-2023

Dated: 08-02-2023

Tension Test Report (Page -1/1)

Date of Test 10-02-2023
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		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	0.383	10	9.61	0.12	0.112	2900	4400	53278	56840	80835	86300	1.70	21.3	Islamabad Supreme
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratories
UET Lahore, Pakistan.

Note:

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o,
 Manager Civil
 Stylers International
 Construction of Sunshine

Reference # CED/TFL **2755** (Dr. M Kashif)
 Reference of the request letter # SPS/BML/013/2023

Dated: 09-02-2023
 Dated: 08-02-2023

Tension Test Report (Page -1/1)

Date of Test 10-02-2023
 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	0.371	3	0.372	0.11	0.109	3400	4800	68200	68810	96200	97200	1.50	18.8	
2	0.370	3	0.372	0.11	0.109	3300	4700	66200	66970	94200	95400	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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 Laboratories
UET Lahore, Pakistan.

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To,

M/S Unze Trading (Pvt) Limited
Lahore
(Owned PCC Polce Plant Sahiwala FIEDMC Faisalabad)

Reference # CED/TFL **2758** (Dr. M Kashif)
Reference of the request letter # Unze/05/2023

Dated: 09-02-2023
Dated: 07-02-2023

Tension Test Report (Page -1/1)

Date of Test 10-02-2023
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")	432.0	448.0	8500	83.39	10400	102.02	>3.50	xx
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Only one sample for Test									

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Pakistan. Ph: 92-42-99029202

To,

Manager Construction
 Trans – Continental Freight (Pvt) Limited
 ‘Construction of TAQ House – Gulberg’ at Plot No. 6F, Main Market, Gulberg – II,
 Lahore.

Reference # CED/TFL **2759** (Dr. M Kashif)
 Reference of the request letter# THG/031/UET

Dated: 09-02-2023
 Dated: 07-02-2023

Tension Test Report (Page -1/1)

Date of Test 10-02-2023
 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	0.367	0.11	0.106	3400	4500	68200	70690	90200	93600	1.30	16.3	Mughal Steel
2	0.365	3	0.370	0.11	0.107	3700	4600	74200	76010	92200	94500	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														

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UET Lahore, Pakistan.

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To,

Resident Engineer,
 NESPAK
 Bridge over U.J.C Canal & Bhimber Nullah on Gujrat Bypass (N-5) Industrial Area-II,
 District Gujrat.

Reference # CED/TFL **2760** (Dr. M Kashif)

Dated: 09-02-2023

Reference of the request letter# 103/UJC/ML/Lab/04

Dated: 06-02-2023

Tension Test Report (Page -1/1)

Date of Test 10-02-2023

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	0.378	3	0.376	0.11	0.111	4000	4800	80200	79270	96200	95200	0.90	11.3	
2	0.378	3	0.376	0.11	0.111	3800	4600	76200	75340	92200	91200	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														

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To,
 Resident Engineer,
 Orbit Developers Private Limited
 The Spring, Gulberg Lahore

Reference # CED/TFL **2763** (Dr. M Kashif)
 Reference of the request letter# NIL

Dated: 09-02-2023
 Dated: 09-02-2023

Tension Test Report (Page -1/1)

Date of Test 10-02-2023
 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	3500	5000	70200	70350	100200	100500	1.40	17.5	
2	0.372	3	0.373	0.11	0.109	3500	5000	70200	70490	100200	100700	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														

I/C Testing Laboratories
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To,
Dr. Zafar Nazeer
Muridke

Reference # CED/TFL **2764** (Dr. Asad Ali)
Reference of the request letter# NIL

Dated: 10-02-2023
Dated: 10-02-2023

Tension Test Report (Page -1/1)

Date of Test 10-02-2023
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	0.388	3	0.381	0.11	0.114	3540	4960	71000	68460	99400	96000	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test														
Bend Test														

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