



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

Ref: CED/TFL/10/33963, 983
2019
Dated of Test: 10-10-2019

Dated: 04-10-

To
Resident Engineer
NESPAK
Punjab Government Servants Housing Scheme (PGSHS), Sialkot

Subject: TESTING OF R.C.C. PIPE [ASTM-C76]

Reference to your letter No. 3730/31/KM/09/632, dated 02.10.2019 on the subject cited above. Five R.C.C. Pipes as received by us have been tested. The results are tabulated as under.

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	Proof Stress	Ultimate Stress
	(mm)	(m)	(m)	(mm)	(mm)	(mm)	(kg)	(kg)	N/m/mm	N/m/mm
1	228.6 (9")	2.367	2.214	310.00	220.86	44.57	11600	15700	232.72	314.97
2	228.6 (9")	2.368	2.225	315.00	220.66	47.17	11500	14900	229.78	297.72
3	304.8 (12")	2.371	2.248	403.00	301.00	51.00	10500	14600	152.23	211.67
4	304.8 (12")	2.364	2.200	407.00	301.66	52.67	8200	13400	121.21	198.08
5	685.8 (27")	2.458	2.368	850.00	676.66	86.67	16590	27270	101.57	166.96

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
Resident Engineer
NESPAK
Construction of Khazana Bypass Bridge Over River Panjkora District Lowe Dir
(WMI)

Reference # CED/TFL **33971** (Dr. Safeer Abbas)
Reference of the request letter # 3956/021/NUK/19/185

Dated: 07-10-2019
Dated: 06-10-2019

Tension Test Report (Page – 1/2)

Date of Test 10-10-2019
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	788.00	18400	180.50	20300	199.14	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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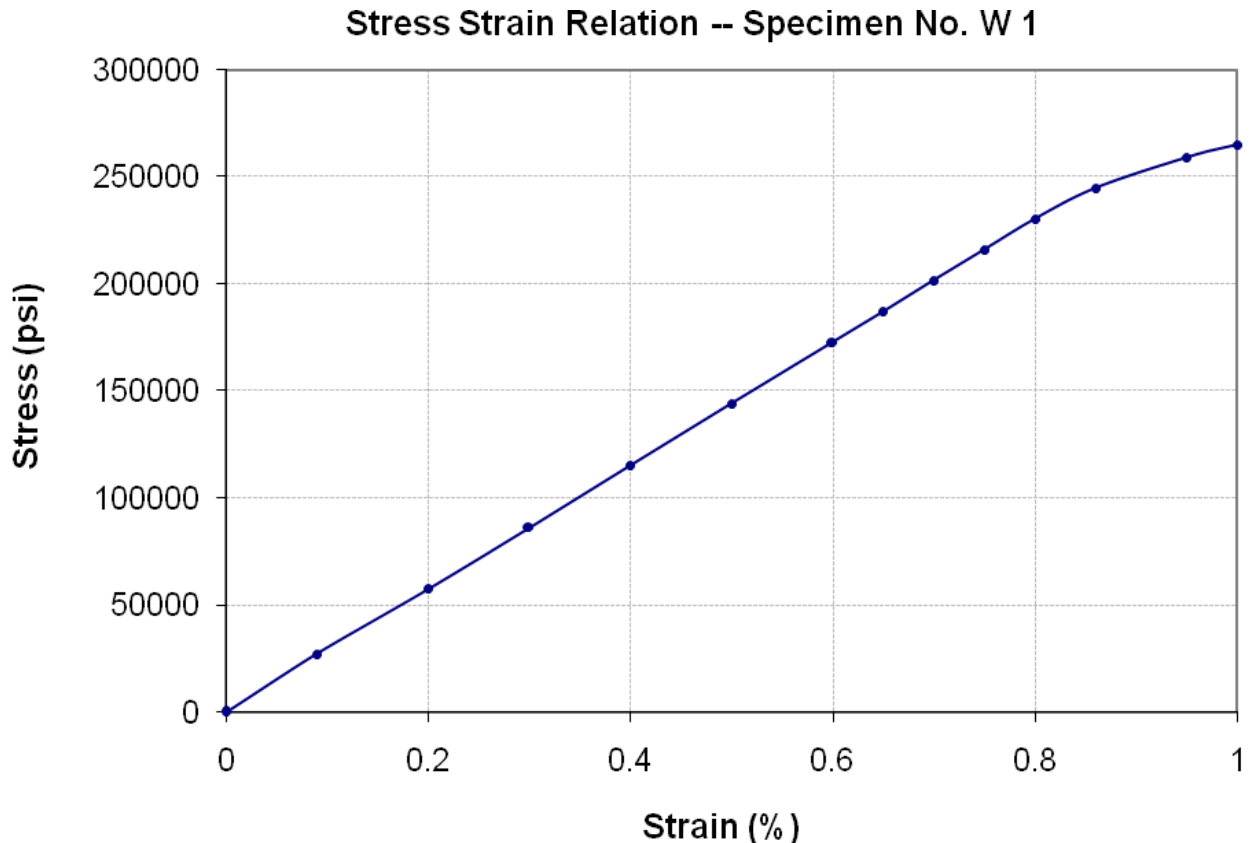
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To,
Resident Engineer
NESPAK
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Reference # CED/TFL **33971** (Dr. Safeer Abbas)
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Dated: 07-10-2019
Dated: 06-10-2019

Graph (Page – 2/2)



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To,
 Assistant Engineer (Civil)
 University of Okara
 Extension, Renovation and Maintenance at Guest House Phase 2 at Uni of Okara

Reference # CED/TFL **33984** (Dr. Safeer Abbas)
 Reference of the request letter # ENGG.CELL/2019/462

Dated: 09-10-2019
 Dated: 27-08-2019

Tension Test Report (Page -1/1)

Date of Test 10-10-2019
 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	0.358	3	0.366	0.11	0.105	3600	4600	72200	75320	92200	96300	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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 Laboratories
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
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To,
M/S Fiaz Brother & Co
Lahore

Reference # CED/TFL **33985** (Dr. Usman Akmal)
Reference of the request letter # Nil

Dated: 09-10-2019

Dated: 09-10-2019

Tension Test Report (Page – 1/1)

Date of Test 10-10-2019

Gauge length -----

Description Barbed Wire, Fence Wire & Razor Wire Tensile Test

Sr. No.	Diameter Wire	Breaking Load	Remarks
	(mm)	(kN)	
1	2.75	2.73	Barbed Wire
2	3.80	5.43	Fence Wire
3	3.30	9.27	Razor Wire
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
Only Three Samples for Test			

I/C Testing Laboratories
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
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University of Engineering and Technology Lahore, 54890
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To,
Sub Divisional Officer PWD
Highway Sub Division Bagh
(Prestressed RCC Bridge 192 Meter Span at Rera Bagh AJK)

Reference # CED/TFL **33986** (Dr. Waseem Abbas)

Dated: 09-10-2019

Reference of the request letter # 872-73/SDO/High Ways/2019

Dated: 07-10-2019

Tension Test Report (Page – 1/2)

Date of Test 10-10-2019

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	784.0	17600	172.66	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

I/C Testing Laboratories
UET Lahore, Pakistan.

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To,
Sub Divisional Officer PWD
Highway Sub Division Bagh
(Prestressed RCC Bridge 192 Meter Span at Rera Bagh AJK)

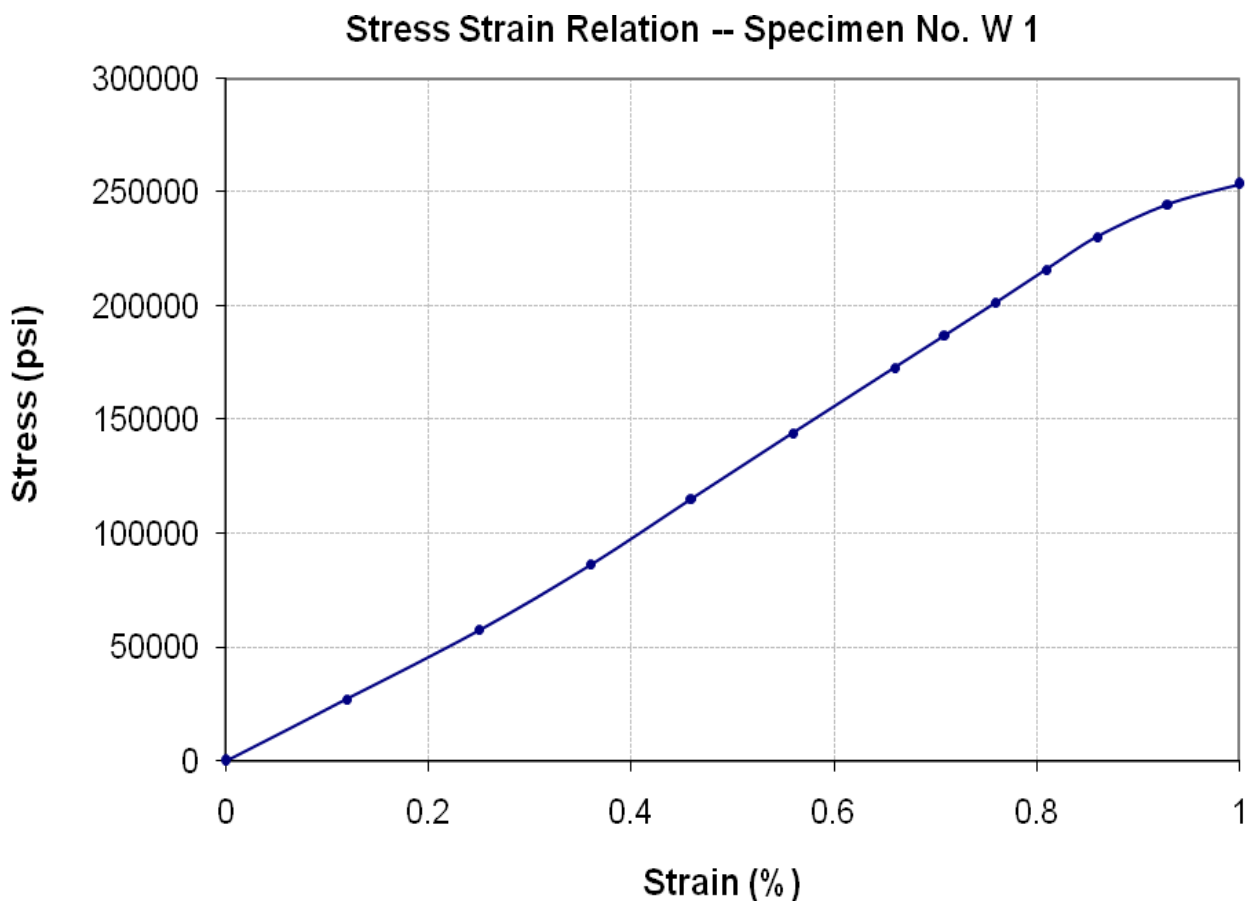
Reference # CED/TFL **33986** (Dr. Waseem Abbas)

Dated: 09-10-2019

Reference of the request letter # 872-73/SDO/High Ways/2019

Dated: 07-10-2019

Graph (Page – 2/2)



I/C Testing Laboratories
UET Lahore, Pakistan.

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To,
DCRE/RE-1
Zeeruk International (Pvt) Ltd
Lahore Sialkot Motorway Project

Reference # CED/TFL **33988** (Dr. Usman Akmal)
Reference of the request letter # LSM/RE-1/2019/1133

Dated: 09-10-2019
Dated: 09-10-2019

Tension Test Report (Page – 1/1)

Date of Test 10-10-2019
Gauge length -----
Description Chain Link Fence Wire Tensile Test

Sr. No.	Diameter Wire	Breaking Load	Remarks
	(mm)	(kN)	
1	3.05	4.70	
2	3.05	4.00	
3	3.05	3.90	
4	3.05	3.68	
5	3.05	2.60	
6	3.05	4.16	
-	-	-	
-	-	-	
Only Six Samples for Test			

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To,
 Senior Manager Civil - OTL
 Orient
 Orient Sqaure Hostel Tower Project FTC Johar Town, Lahore
 (Afco Steel)

Reference # CED/TFL **33994** (Dr. Usman Almal)

Dated: 10-10-2019

Reference of the request letter # ORIENT/AFCO/Hostel Tower/Steel/011

Dated: 10-10-2019

Tension Test Report (Page -1/1)

Date of Test 10-10-2019

Gauge length 8 inches

Description Deformed Steel Bar Tensile 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	4.045	32	31.25	1.25	1.189	32600	52800	57496	60440	93122	97900	1.30	16.3	
2	4.022	32	31.16	1.25	1.182	32200	52500	56790	60030	92593	97900	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

Witness Umair (S.E Orient), Naveed (M.E Izhar Group) & Imran (Afco)

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