



**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 Additional Block at Pakistan Engineering Council (PEC) Headquarters, G-5/2,  
Islamabad  
(WMI)  
Reference # CED/TFL **1975** (Dr. Usman Akmal)  
Reference of the request letter # 4125/321/NS/03/480

Dated: 19-09-2022  
Dated: 08-09-2022

**Tension Test Report** (Page -1/3)

Date of Test 22-09-2022  
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	780.0	17500	171.68	19300	189.33	199	>3.50	xx
2	12.70 (1/2")	775.0	778.0	17100	167.75	19300	189.33	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:

- 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.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



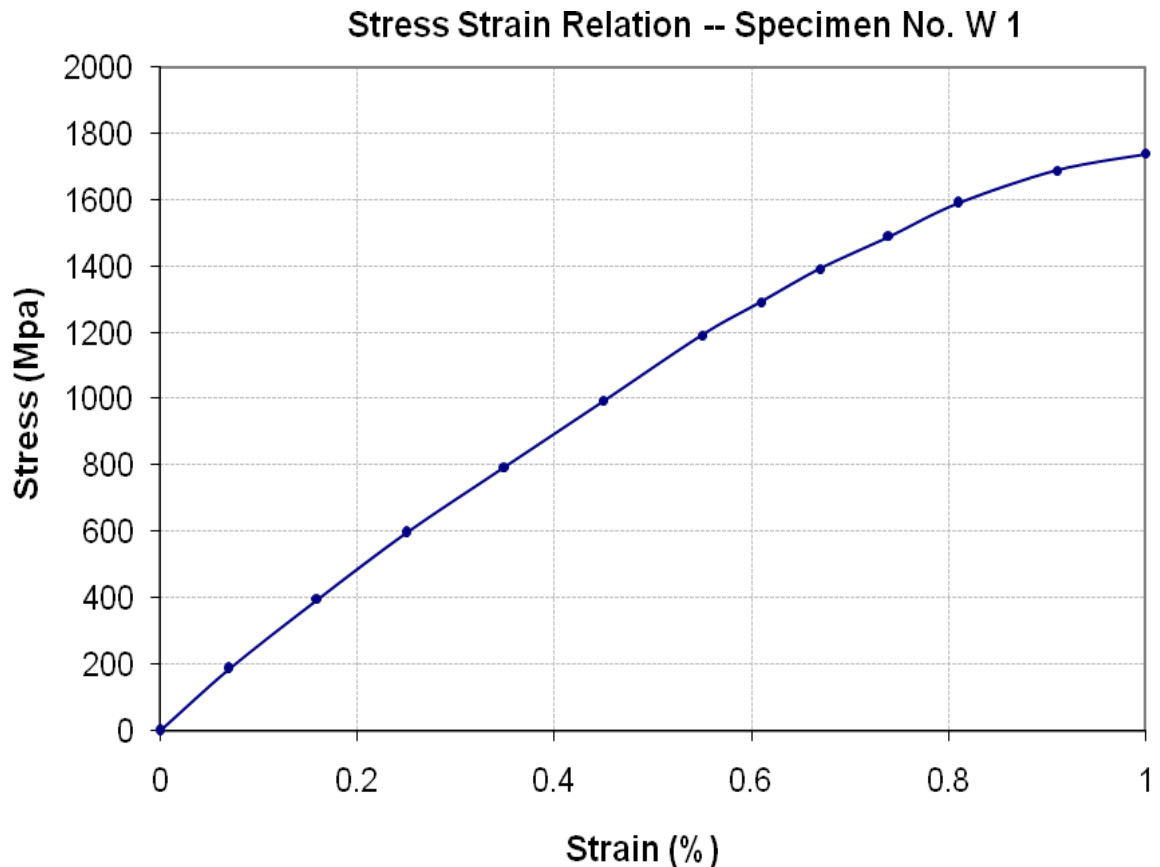
**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
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To,  
Resident Engineer  
NESPAK  
Construction of Additional Block at Pakistan Engineering Council (PEC) Headquarters, G-5/2,  
Islamabad  
(WMI)  
Reference # CED/TFL 1975 (Dr. Usman Akmal)  
Reference of the request letter # 4125/321/NS/03/480

Dated: 19-09-2022

Dated: 08-09-2022

**Graph** (Page – 2/3)



**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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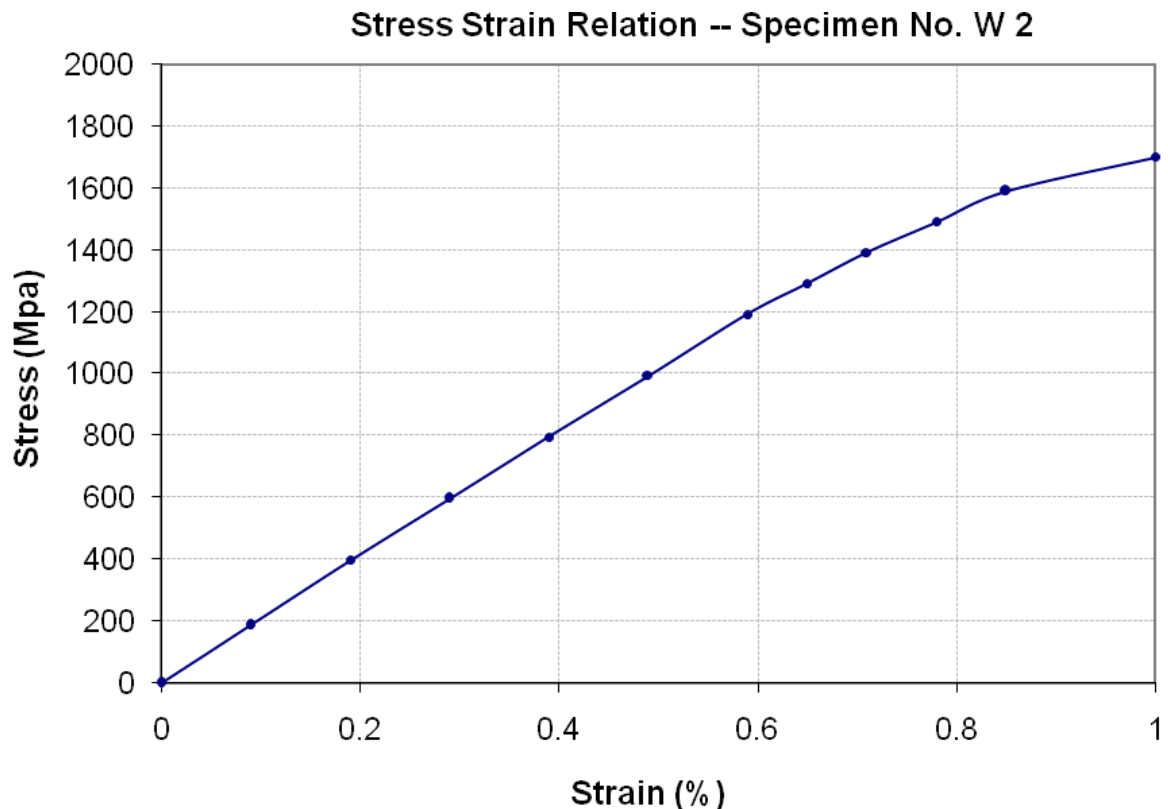
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To,  
Resident Engineer  
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Construction of Additional Block at Pakistan Engineering Council (PEC) Headquarters, G-5/2,  
Islamabad  
(WMI)  
Reference # CED/TFL 1975 (Dr. Usman Akmal)  
Reference of the request letter # 4125/321/NS/03/480

Dated: 19-09-2022

Dated: 08-09-2022

**Graph** (Page – 3/3)



**I/C Testing Laboratories**  
**UET Lahore, Pakistan.**

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

To,  
M/S United Wire Industries (Pvt) Ltd  
Lahore  
(M/S Malir Expressway Project)

Reference # CED/TFL **1981** (Dr. Usman Akmal)  
Reference of the request letter # UWIL/D-1775

Dated: 19-09-2022  
Dated: 19-09-2022

**Tension Test Report** (Page – 1/1)

Date of Test 22-09-2022  
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)		% Elongation	Remarks/ Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)		
1	12.70 (1/2")	775.0	775.0	18200	178.54	20000	196.20	>3.50	xx
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Only one sample for Test									

**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,  
 Manager Civil  
 Nishat Mills Limited  
 Construction of Nishat Stitching Bath Division, Lahore

Reference # CED/TFL **1983** (Dr. Usman Akmal)  
 Reference of the request letter # NDF/ST/001

Dated: 20-09-2022  
 Dated: 20-09-2022

**Tension Test Report** (Page -1/1)

Date of Test 22-09-2022  
 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 <sup>2</sup> )		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	0.402	10	9.85	0.12	0.118	3900	5100	71650	72760	93696	95200	1.30	16.3	Agha Steel
2	0.409	10	9.94	0.12	0.120	3900	5200	71650	71470	95533	95300	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
10mm Dia Bar Bend Test Through 180° 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,  
Resident Engineer  
NESPAK  
Dualization of Road from Mandibauddin City to Srari Alamgir Canal Pul Mian GT Road

Reference # CED/TFL **1984** (Dr. Usman Akmal)  
Reference of the request letter # 4376-D/03/KT/01/87

Dated: 20-09-2022  
Dated: 19-09-2022

**Tension Test Report** (Page -1/2)

Date of Test 22-09-2022  
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	780.0	17900	175.60	19500	191.30	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only one sample for Test</b>										

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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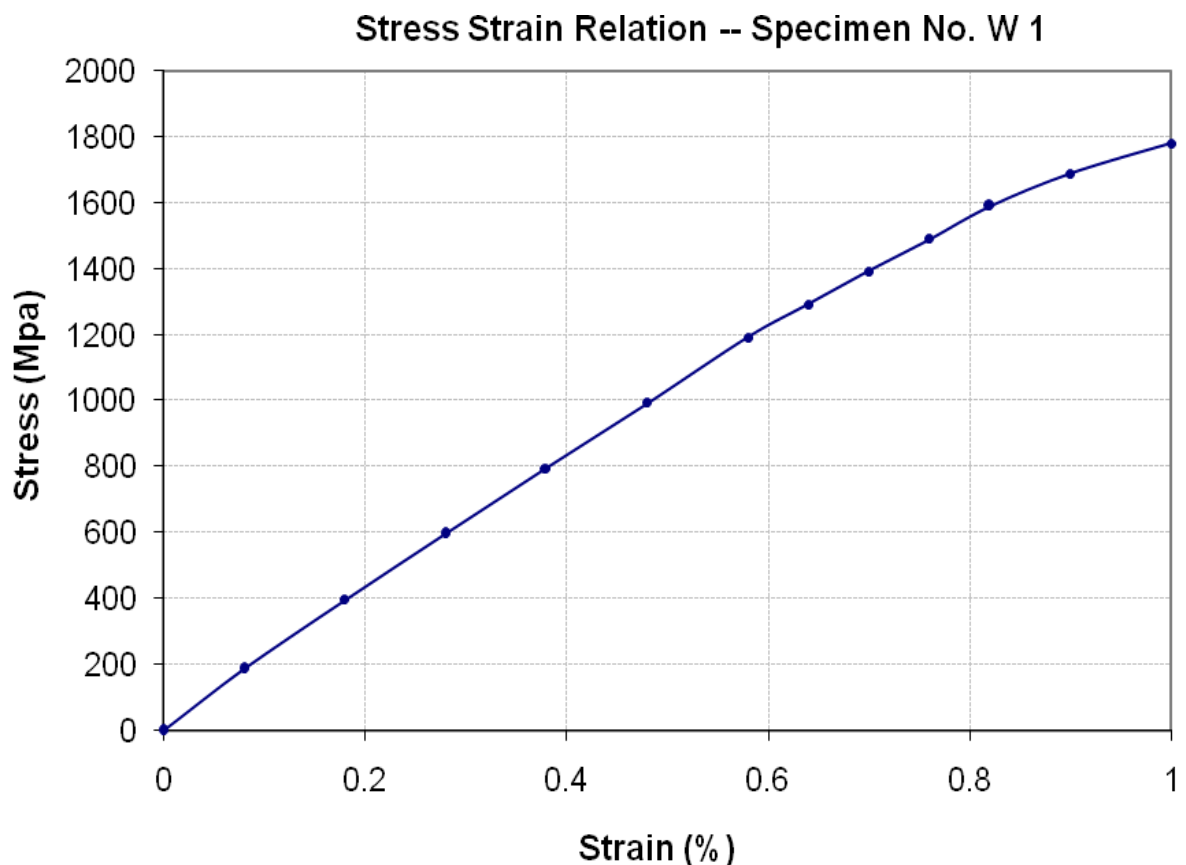
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**Department of Civil Engineering**  
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To,  
Resident Engineer  
NESPAK  
Dualization of Road from Mandibauddin City to Srailamgir Canal Pul Mian GT Road

Reference # CED/TFL **1984** (Dr. Usman Akmal)  
Reference of the request letter # 4376-D/03/KT/01/87

Dated: 20-09-2022  
Dated: 19-09-2022

**Graph** (Page – 2/2)



**I/C Testing Laboratories**  
**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,  
 Resident Engineer (QA/QC Department)  
 Bahria Town Private Limited  
 Muhammad Ali Jinnah Masjid Block "D" Bahria Orchard Lahore

Reference # CED/TFL **1986** (Dr. Usman Akmal)  
 Reference of the request letter # QA/QC/Steel-2815

Dated: 20-09-2022  
 Dated: 19-09-2022

**Tension Test Report** (Page -1/1)

Date of Test 22-09-2022  
 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 <sup>2</sup> )		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	0.374	3	0.374	0.11	0.110	3700	4900	74200	74130	98200	98200	1.40	17.5	
2	0.372	3	0.373	0.11	0.109	3400	4700	68200	68520	94200	94800	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratories**  
**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  
 Usman Ibrahim Construction  
 Construction of HIGH-Q Mall at 3-A, Gulberg II, Lahore

Reference # CED/TFL **1988** (Dr. Usman Akmal)  
 Reference of the request letter # QC/HQ/CIVIL/20

Dated: 20-09-2022  
 Dated: 20-09-2022

**Tension Test Report** (Page -1/1)

Date of Test 22-09-2022  
 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 <sup>2</sup> )		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	0.403	10	9.86	0.12	0.118	3300	4600	60627	61460	84510	85700	1.50	18.8	
2	0.410	10	9.94	0.12	0.120	3600	4800	66138	65910	88184	87900	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratories**  
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**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

Ref: CED/TFL/09/1991

Dated: 20-09-2022

Dated of Test: 22-09-2022

To

**Sub Divisional Officer**  
**Public Health Engg: Sub Division**  
**Mianwali**  
**(Revamping /Comprehensive Sewerage & Drainage including Tuff Tile and PCC Scheme for Mianwali City ADP. 1695) (Group - 3)**

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a] (Page -1/4)**

Reference to your letter No. 510/II/MI, dated 05.09.2022 on the subject cited above. One 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
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	12	7.74	7.32	16.06	11.77	2.14	14800	16800	4543	5157

**I/C Testing Laboratories**  
**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**

Ref: CED/TFL/09/1991

Dated: 20-09-2022

Dated of Test: 22-09-2022

To

**Sub Divisional Officer**  
**Public Health Engg: Sub Division**  
**Mianwali**  
**(Revamping /Comprehansive Sewerage & Drairage including Tuff Tile and**  
**PCC Scheme for Mianwali City ADP. 1695) (Group - 4)**

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a] (Page -2/4)**

Reference to your letter No. 526/II/MI, dated 05.09.2022 on the subject cited above. One 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
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	12	7.74	7.35	16.14	11.94	2.10	15500	17600	4673	5306

**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**

Ref: CED/TFL/09/1991

Dated: 20-09-2022

Dated of Test: 22-09-2022

To

**Sub Divisional Officer**  
**Public Health Engg: Sub Division**  
**Mianwali**  
**(Revamping /Comprehansive Sewerage & Draiage including Tuff Tile and**  
**PCC Scheme for Mianwali City ADP. 1695) (Group - 3)**

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a] (Page -3/4)**

Reference to your letter No. 508/II/MI, dated 05.09.2022 on the subject cited above. One 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
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	9	7.78	7.35	10.94	8.63	1.16	7500	9500	3128	3963

**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**

Ref: CED/TFL/09/1991

Dated: 20-09-2022

Dated of Test: 22-09-2022

To

**Sub Divisional Officer**  
**Public Health Engg: Sub Division**  
**Mianwali**  
**(Revamping /Comprehansive Sewerage & Draiage including Tuff Tile and**  
**PCC Scheme for Mianwali City ADP. 1695) (Group - 4)**

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a] (Page -4/4)**

Reference to your letter No. 524/II/MI, dated 05.09.2022 on the subject cited above. One 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
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	9	7.79	7.35	10.94	8.54	1.20	7000	8200	2952	3458

**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,  
 Resident Engineer  
 NESPAK  
 Sewerage Scheme Kotla Toley Khan, Bahadur Par, Kotla Waris Shah, Sydan Wali, Raza Abad

Reference # CED/TFL **1993** (Dr. Rizwan Azam)  
 Reference of the request letter # 4362/11/IA/01/190

Dated: 21-09-2022  
 Dated: 28-05-2022

**Tension Test Report** (Page -1/1)

Date of Test 22-09-2022  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		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	0.167	1/4	0.250	-----	0.049	1100	1700	-----	49380	-----	76400	1.10	13.8	
2	0.169	1/4	0.252	-----	0.050	1200	1900	-----	53200	-----	84300	1.30	16.3	
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<b>Note: only two samples for tensile and two samples for bend test</b>														
Bend Test														
1/4" Dia Bar Bend Test Through 180° is Satisfactory														
1/4" Dia Bar Bend Test Through 180° 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**

Ref: CED/TFL/09/1994

Dated: 21-09-2022

Date of Test: 22-09-2022

To,

**Director**  
**ConDrill (Pvt) Ltd**  
**Kot Lakhpat, Lahore**

**Subject: - CALIBRATION OF DIAL GAUGES (MARK: TFL/09/1994) (Page # 1/1)**

Reference to your Letter No. CD/MISC/2022/8810, Dated: 20/09/2022 on the subject cited above. Three Dial Gauges as received by us have been calibrated on standard calibration device. The results are tabulated as under.

**Total Range : Zero - 100 (mm)**  
**Calibrated Range : Zero - 50 (mm)**

<b>Standard Reading</b>	<b>Dial Gauge Readings</b>		
	<b>Dial Gauge No. I (8822007)</b>	<b>Dial Gauge No. II (8115815)</b>	<b>Dial Gauge No. III (8A03442)</b>
<b>400</b>	<b>399</b>	<b>399</b>	<b>399</b>
<b>800</b>	<b>799</b>	<b>799</b>	<b>799</b>
<b>1200</b>	<b>1199</b>	<b>1199</b>	<b>1198</b>
<b>1600</b>	<b>1599</b>	<b>1600</b>	<b>1599</b>
<b>2000</b>	<b>1999</b>	<b>2000</b>	<b>1999</b>
<b>2400</b>	<b>2400</b>	<b>2400</b>	<b>2399</b>
<b>2800</b>	<b>2799</b>	<b>2800</b>	<b>2799</b>
<b>3200</b>	<b>3200</b>	<b>3200</b>	<b>3198</b>
<b>3600</b>	<b>3599</b>	<b>3600</b>	<b>3598</b>
<b>4000</b>	<b>3999</b>	<b>4000</b>	<b>3999</b>
<b>4400</b>	<b>4399</b>	<b>4400</b>	<b>4399</b>
<b>4800</b>	<b>4798</b>	<b>4800</b>	<b>4798</b>
<b>5000</b>	<b>5000</b>	<b>5000</b>	<b>4999</b>

**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  
 State Grid  
 Design, Supply, Installation, Testing & Commissioning of 500kV/D/C Transmission Line Nokhar  
 S/S – Lahore North S/S- Lahore HVDC Switching / Converter Station  
 (Kamran Steel) (Sharaqpur Warehouse)  
 Reference # CED/TFL **1995** (Dr. Rizwan Azam) Dated: 21-09-2022  
 Reference of the request letter # CET/ADB-301A/SEC-II/UET-22-713 Dated: 21-09-2022

**Tension Test Report** (Page -1/1)

Date of Test 22-09-2022  
 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 <sup>2</sup> )		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	0.394	3	0.384	0.11	0.116	3200	4600	64200	60890	92200	87600	0.80	10.0	
2	0.390	3	0.382	0.11	0.115	3300	4600	66200	63370	92200	88400	1.40	17.5	
3	4.281	10	1.266	1.27	1.258	40400	58000	70200	70760	100700	101600	1.40	17.5	
4	4.301	10	1.269	1.27	1.264	39800	58000	69100	69380	100700	101200	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only four samples for tensile and four samples for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														

Witness by Ibrar Ahmed (Jr. Engr. NESPAK) & Engr. Usman Ghafoor (P.E, CET)

**I/C Testing Laboratories**  
**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 Director  
 New Metro City Housing Scheme  
 Sara-I-Alamgir

Reference # CED/TFL **1997** (Dr. Usman Akmal)  
 Reference of the request letter # BSM/NMC/QA/103

Dated: 21-09-2022  
 Dated: 15-09-2022

**Tension Test Report** (Page -1/2)

Date of Test 22-09-2022  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		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	3/8	0.382	0.11	0.115	3700	4900	74200	71160	98200	94300	0.90	11.3	Farooq Supreme Steel
2	0.394	3/8	0.384	0.11	0.116	3800	4800	76200	72380	96200	91500	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° 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 Director  
 New Metro City Housing Scheme  
 Sara-I-Alamgir

Reference # CED/TFL 1997 (Dr. Usman Akmal)  
 Reference of the request letter # BSM/NMC/QA/102

Dated: 21-09-2022  
 Dated: 15-09-2022

**Tension Test Report** (Page -2/2)

Date of Test 22-09-2022  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		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	0.395	3/8	0.385	0.11	0.116	3900	4900	78200	73990	98200	93000	1.00	12.5	AF Steel
2	0.375	3/8	0.375	0.11	0.110	4000	5200	80200	79920	104200	103900	0.70	8.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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

To,  
 C.E.O  
 Tameer Karo Costruisci (Pvt) Ltd  
 C-31-20 Lake City Lahore

Reference # CED/TFL **1998** (Dr. Rizwan Azam)  
 Reference of the request letter # Nil

Dated: 22-09-2022  
 Dated: 22-09-2022

**Tension Test Report** (Page -1/1)

Date of Test 22-09-2022  
 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 <sup>2</sup> )		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	0.364	3	0.369	0.11	0.107	3200	4800	64200	65840	96200	98800	1.20	15.0	
2	0.363	3	0.369	0.11	0.107	3100	4700	62200	64010	94200	97100	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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