To,
Mr. Muhammad Jamil Alam (Head Quality Assurance)
FF Steel Ltd.
Solar Project at Lahore Plant

Reference # CED/TFL **7247** (Dr. Rizwan Riaz) Dated: 21-07-2025
Reference of the request letter # Nil Dated: 21-07-2025

Tension Test Report (Page-1/2)

Date of Test 25-07-2025
Gauge Length 2 inches
Description Aluminium Bar Strips Tensile Test Report

Sr. No.	Designation	Size of Strip	X Section Area	Yield Load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(Inch)	(mm)	(mm^2)	(kg)	(kg)	(MPa)	(MPa)	(inch)		
1	**Z & T Clamps**	**4.20 x 24.50**	**102.90**	**2190**	**2750**	**208.8**	**262.2**	**0.6**	**30.0**	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
Note: Only 1 Samples for Tensile and 0 Samples for Bend test										

Bend Test

Test Performed and Verified by:

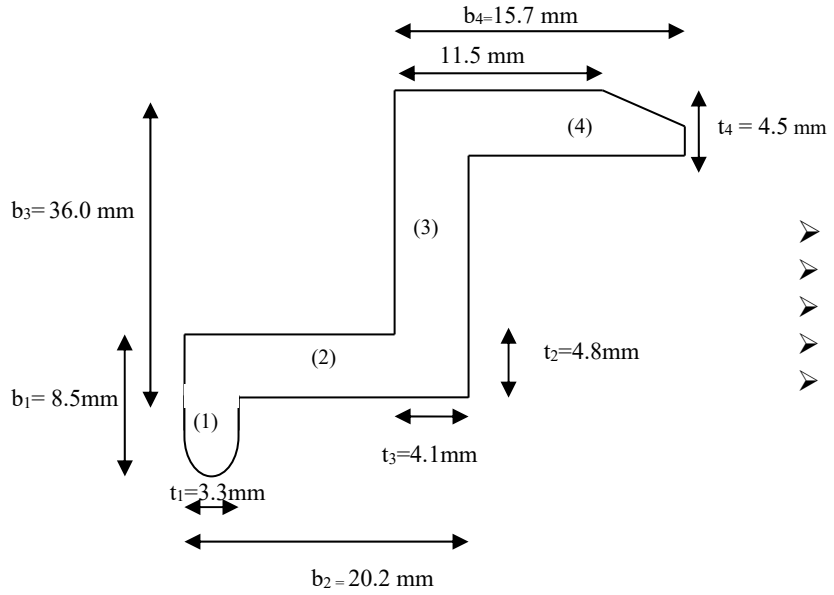
To,
Mr. Jamil Alam (Head Quality Assurance)
FF Steel Ltd.
Solar Project at Lahore Plant

Reference # CED/TFL **7247** (Dr. Rizwan Riaz) Dated: 21-07-2025
Reference of the request letter # Nil Dated: 21-07-2025

Weight &Size Test Report (Page – 2/2)

Date of Test 25-07-2025
Description Unit Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length
	(inch)	(g)	(mm)	(kg/m)
1	**Aluminium Bar (Z & T Clamp)**	**252.0**	**319.0**	**0.79**
-	-	-	-	-
Only one sample for Test				



- This drawing is not to scale
- b_1 x t_1 = 8.5mm x 3.3mm
- b_2 x t_2 = 20.2mm x 4.8mm
- b_3 x t_3 = 36.0mm x 4.1mm
- b_4 x t_4 = 15.7mm x 4.5mm

Test Performed and Verified by:

To,

Mr. Talha Fareed (Project Manager)
Netracon Technologies (Pvt.) Ltd.
The Construction of New 132kV GIS Grid Station, With 2 No(s) 31.5/40MVA Power Transformers at Sector S, DHA Bahawalpur on Turnkey Basis (Witness by: Mr. Saeed (unison))

Reference # CED/TFL **7252** (Dr. Syed Asad Ali Gillani) Dated: 22-07-2025
Reference of the request letter # NTT-HO/DHA-BHW/0077 Dated: 17-07-2025

Tension Test Report (Page-1/1)

Date of Test 25-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)		
1	**0.405**	**3**	**0.389**	**0.110**	**0.119**	**37.70**	**53.70**	**77017**	**71151**	**109704**	**101348**	**1.3**	**16.3**	**Aziz Steel**
2	**0.403**	**3**	**0.389**	**0.110**	**0.119**	**37.00**	**53.20**	**75587**	**70130**	**108682**	**100836**	**1.4**	**17.5**	**Aziz Steel**
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,
Mr. Waqas Javaid (Senior Project Manager)
Infrastructure Development Authority of Punjab
Construction of Pakistan Kidney & Liver Institute and Research Center (PKLI&RC), Lahore
(Package C-1)

Reference # CED/TFL **7260** (Dr. Rizwan Riaz) Dated: 24-07-2025
Reference of the request letter # SPM(PKLI&RC)/IDAP/2025/22989 Dated: 18-07-2025

Tension Test Report

(Page-1/2)

Date of Test 25-07-2025
Gauge Length 2 inches
Description MS Seamless Pipes Strips Tensile Test Report

Sr. No.	Designation	Size of Strip	X Section Area	Yield Load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(Inch)	(mm)	(mm^2)	(kg)	(kg)	(MPa)	(MPa)	(inch)		
1	Seamless Pipes	3.50 x 29.50	103.25	3060	5300	290.7	503.6	0.6	30.0	-
2	Seamless Pipes	3.80 x 29.50	112.10	3410	5100	298.4	446.3	0.7	35.0	-
3	Seamless Pipes	4.80 x 29.70	142.56	4790	7080	329.6	487.2	0.8	40.0	-
4	Seamless Pipes	5.10 x 29.50	150.45	5100	7460	332.5	486.4	0.7	35.0	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

Note: Only 4 Samples for Tensile and 0 Samples for Bend test

Bend Test

Test Performed and Verified by:

To,
Mr. Waqas Javaid (Senior Project Manager)
Infrastructure Development Authority of Punjab
Construction of Pakistan Kidney & Liver Institute and Research Center (PKLI&RC), Lahore
(Package C-1)

Reference # CED/TFL **7260** (Dr. Rizwan Riaz) Dated: 24-07-2025
Reference of the request letter # SPM(PKLI&RC)/IDAP/2025/22989 Dated: 18-07-2025

Weight &Size Test Report (Page – 2/2)

Date of Test 25-07-2025
Description Unit Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	Dia	Thickness	Remark
	(inch)	(g)	(mm)	(kg/m)	(mm)	(mm)	
1	**Seamless Pipe**	**579**	**152.4**	**3.80**	**48.6**	**3.5**	**-**
2	**Seamless Pipe**	**769**	**152.8**	**5.03**	**60.1**	**3.8**	**-**
3	**Seamless Pipe**	**1182**	**150.5**	**7.85**	**73.3**	**4.8**	**-**
4	**Seamless Pipe**	**1632**	**152.2**	**10.72**	**88.6**	**5.1**	**-**
-	-	-	-	-	-	-	-
-	-	-	-	-		-	-
-	-	-	-	-		-	-
-	-	-	-	-		-	-
Only four Samples for Test							

Test Performed and Verified by:

To,

Mr. Fahad Hussain (Material Engineer ECSP)
Engineering Consultancy Services Punjab (PVt.) Ltd.
Revamping of Bansra Gali Zoological Garden, Murree

Reference # CED/TFL **7261** (Dr. Rizwan Riaz) Dated: 24-07-2025
Reference of the request letter # 446/ECSP/RBM/ME/01 Dated: 03-07-2025

Tension Test Report (Page-1/1)

Date of Test 25-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)		
1	**0.378**	**3**	**0.376**	**0.110**	**0.111**	**36.20**	**54.20**	**73953**	**73320**	**110725**	**109777**	**1.2**	**15.0**	-
2	**0.381**	**3**	**0.377**	**0.110**	**0.112**	**37.20**	**52.70**	**75996**	**74759**	**107661**	**105908**	**0.8**	**10.0**	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Only 2 Samples for Tensile and 1 Samples for Bend test

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Ghulam Abbas (XEN)
Garrison Engineer (Army)-II, Lahore Cantt.
CA No. ENC-A-88/2025-Construction of 8 x E Type Flats (G+3) Block No. 2 at PMAD Colony Lahore

Reference # CED/TFL **7262** (Dr. Rizwan Riaz) Dated: 24-07-2025
Reference of the request letter # 6003/21/E6 Dated: 21-07-2025

Tension Test Report (Page-1/1)

Date of Test 25-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)		
1	**0.362**	**3**	**0.368**	**0.110**	**0.106**	**27.00**	**37.50**	**55158**	**56993**	**76609**	**79156**	**1.6**	**20.0**	**3/8"**
2	**0.363**	**3**	**0.369**	**0.110**	**0.107**	**27.50**	**37.70**	**56180**	**57872**	**77017**	**79337**	**1.6**	**20.0**	**3/8"**
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Mughanim Rehman (P.E)
Ittefaq Building Solutions Pvt. Ltd.
Capital Iron Industry
(Hunza Steel)

Reference # CED/TFL **7263** (Dr. Rizwan Riaz) Dated: 24-07-2025
Reference of the request letter # Nil Dated: 24-07-2025

Tension Test Report (Page-1/1)

Date of Test 25-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)		
1	**0.353**	**3**	**0.364**	**0.110**	**0.104**	**34.20**	**45.50**	**69867**	**74002**	**92952**	**98453**	**1.2**	**15.0**	-
2	**0.364**	**3**	**0.369**	**0.110**	**0.107**	**32.50**	**44.70**	**66394**	**68300**	**91318**	**93938**	**1.4**	**17.5**	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Only 2 Samples for Tensile and 1 Samples for Bend test

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Muhammad Aleem Habib (Site Engineer BIE, Bhalwal)
Punjab Industrial Estates
Construction of Drain for Disposal of Stagnant Rain Water at Bhalwal Industrial Estate
(Mughal Supreme Steel)

Reference # CED/TFL **7266** (Dr. Rizwan Riaz) Dated: 24-07-2025
Reference of the request letter # PIE/P&C/Drain/BIE/25/1821 Dated: 21-07-2025

Tension Test Report (Page-1/1)

Date of Test 25-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (mm)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)		
1	**0.361**	**10**	**0.367**	**0.120**	**0.106**	**36.20**	**45.50**	**67790**	**76788**	**85206**	**96515**	**1.2**	**15.0**	-
2	**0.360**	**10**	**0.367**	**0.120**	**0.106**	**35.70**	**45.20**	**66854**	**75868**	**84644**	**96056**	**1.4**	**17.5**	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Only 2 Samples for Tensile and 1 Samples for Bend test

Bend Test
10mm Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. M. Usman Rauf (Resident Engineer)
Nespak (Pvt.) Ltd.
Restoration / Improvement of Road From Chunian to Hujra Road Length = 17.50 Km in District Kasur

Reference # CED/TFL **7269** (Dr. Rizwan Riaz) Dated: 24-07-2025
Reference of the request letter # 4084/103/MUR/104/53 Dated: 12-06-2025

Tension Test Report

Date of Test 25-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	4.347	10	1.275	1.270	1.277	34000	54000	59005	58670	93713	93181	1.3	16.3	Dowel Bar
2	4.351	10	1.276	1.270	1.278	33000	52000	57269	56892	90243	89647	0.9	11.3	Dowel Bar
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test
10 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Kashif Shahzad (Manager-Technical)
Gharibwal Cement Ltd.
-

Reference # CED/TFL **7272** (Dr. Rizwan Riaz) Dated: 25-07-2025
Reference of the request letter # GCL/Purchase/UET/008 Dated: 24-07-2025

Tension Test Report (Page-1/3)

Date of Test 25-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (mm)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	4.148	32	1.246	1.250	1.219	35200	58200	62065	63650	102618	105239	1	12.5	H # 202
2	4.162	32	1.248	1.250	1.223	35000	57800	61712	63075	101913	104164	1	12.5	H # 202
3	4.214	32	1.256	1.250	1.238	34400	58800	60654	61233	103676	104665	1.3	16.3	H # 203
4	4.196	32	1.253	1.250	1.233	34800	58400	61359	62212	102971	104402	1.3	16.3	H # 203
5	4.254	32	1.262	1.250	1.25	33800	56800	59596	59601	100150	100158	1.5	18.75	H # 694
6	4.243	32	1.26	1.250	1.247	34000	57200	59949	60097	100855	101105	1.4	17.5	H # 694
Note: Only 6 Samples for Tensile and 3 Samples for Bend test														

Bend Test
32mm Bar Bend Test Through 180 Degree is Not Satisfactory
32mm Bar Bend Test Through 180 Degree is Satisfactory
32mm Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Kashif Shahzad (Manager-Technical)
Gharibwal Cement Ltd.
-

Reference # CED/TFL **7272** (Dr. Rizwan Riaz) Dated: 25-07-2025
Reference of the request letter # GCL/Purchase/UET/008 Dated: 24-07-2025

Tension Test Report

Date of Test 25-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (mm)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
7	4.187	32	1.252	1.250	1.23	33600	58400	59244	60188	102971	104612	1.4	17.5	H # 198
8	4.296	32	1.268	1.250	1.262	35200	59800	62065	61464	105439	104418	1.4	17.5	H # 198
9	5.162	32	1.390	1.250	1.517	--	58400	--	--	102971	84852	0.4	5.0	H # 700
10	4.210	32	1.255	1.250	1.237	35000	60800	61712	62352	107203	108314	1	12.5	H # 700
11	4.177	32	1.25	1.250	1.227	35400	59800	62417	63569	105439	107385	1.1	13.75	H # 701
12	4.136	32	1.244	1.250	1.215	33000	56000	58186	59845	98739	101555	1.2	15	H # 701
Note: Only 6 Samples for Tensile and 3 Samples for Bend test														

Bend Test
32mm Bar Bend Test Through 180 Degree is Satisfactory
32mm Bar Bend Test Through 180 Degree is Satisfactory
32mm Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Kashif Shahzad (Manager-Technical)
Gharibwal Cement Ltd.
-

Reference # CED/TFL **7272** (Dr. Rizwan Riaz) Dated: 25-07-2025
Reference of the request letter # GCL/Purchase/UET/008 Dated: 24-07-2025

Tension Test Report (Page-3/3)

Date of Test 25-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (mm)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
13	**4.167**	**32**	**1.249**	**1.250**	**1.224**	**34400**	**60000**	**60654**	**61919**	**105792**	**107998**	**1.2**	**15.0**	**H # 699**
14	**4.177**	**32**	**1.250**	**1.250**	**1.227**	**35000**	**60000**	**61712**	**62845**	**105792**	**107734**	**1.2**	**15.0**	**H # 699**
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test
32mm Bar Bend Test Through 180 Degree is Not Satisfactory

Test Performed and Verified by: