



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
 RENARDET S.A ((M-4), Package-II)
 Construction of Faisalabad-Khanewal Motorway (M-4) Project, Package-II, Gojra-Jamani,
 Section 2A

Reference # CED/TFL **32336** (Dr. Nauman Khurram)
 Reference of the request letter # RE/M-4/2A/2018/456

Dated: 01-01-2019
 Dated: 04-12-2018

Tension Test Report (Page – 1/1)

Date of Test 04-01-2019
 Gauge length 2 inches
 Description W-Section Steel Strip Tensile and Bend Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
1	W-Section	2.10x0.275	0.58	2200	2950	3809.52	5108.23	0.50	25.00	S-1
2		2.10x0.275	0.58	2250	2900	3896.10	5021.65	0.50	25.00	
3	W-Section	2.10x0.275	0.58	2300	3050	3982.68	5281.39	0.60	30.00	S-2
4		2.07x0.275	0.57	2150	2800	3776.90	4918.75	0.70	35.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Four Samples for Tensile and Four Samples for Bend Test										
Bend Test										
Strip Taken from W-Section Bend Test Through 180° is Satisfactory										
Strip Taken from W-Section Bend Test Through 180° is Satisfactory										
Strip Taken from W-Section Bend Test Through 180° is Satisfactory										
Strip Taken from W-Section Bend Test Through 180° is Satisfactory										

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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To,
 Resident Engineer
 RENARDET S.A ((M-4), Package-III-B)
 Construction of Faisalabad - Khanewal (M-4) Project Package-III, Dinpur-Khanewal Section 3B
 (M/s Xinjiang Beixin Road & Bridge Group Co, Ltd.)

Reference # CED/TFL **32340** (Dr. Qasim Khan)
 Reference of the request letter # RE/M-4/3B/2018/379

Dated: 01-01-2019
 Dated: 27-12-2018

Tension Test Report (Page – 1/2)

Date of Test 04-01-2019
 Gauge length 2 inches
 Description Vertical Post Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
1	Vertical Post	2.40x0.600	1.44	5350	7300	3715.28	5069.44	0.60	30.00	S-1
2	Vertical Post	2.40x0.610	1.46	5600	7750	3825.14	5293.72	0.70	35.00	S-1
3	Vertical Post	2.40x0.610	1.46	5900	7700	4030.05	5259.56	0.65	32.50	S-2
4	Vertical Post	2.29x0.610	1.40	5000	7500	3579.35	5369.03	0.70	35.00	S-2
5	Vertical Post	2.29x0.610	1.40	5000	7700	3579.35	5512.21	0.70	35.00	S-3
6	Vertical Post	2.29x0.610	1.40	5100	7600	3650.94	5440.62	0.70	35.00	S-3
7	Vertical Post	2.40x0.610	1.46	5300	7700	3620.22	5259.56	0.65	32.50	S-4
8	Vertical Post	2.40x0.610	1.46	5400	7600	3688.52	5191.26	0.60	30.00	S-4
Only Eight Samples for Tensile Test										
Bend Test										

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To,
Resident Engineer
RENARDET S.A ((M-4), Package-III-B)
Construction of Faisalabad - Khanewal (M-4) Project Package-III, Dinpur-Khanewal Section 3B
(M/s Xinjiang Beixin Road & Bridge Group Co, Ltd.)

Reference # CED/TFL **32340** (Dr. Qasim Khan)
Reference of the request letter # RE/M-4/3B/2018/379

Dated: 01-01-2019
Dated: 27-12-2018

Weight & Size Test Report (Page – 2/2)

Date of Test 02-01-2019
Gauge length -----
Description Vertical Post Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	Web Thickness (t _w)	Remark
		(g)	(cm)	(kg/m)	(mm)	
1	Vertical Post	12620	91.40	13.81	6.15	S-1
2	Vertical Post	12484	91.0	13.72	6.15	S-2
3	Vertical Post	12439	90.80	13.70	6.15	S-3
4	Vertical Post	12507	91.00	13.74	6.15	S-4
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
Only Four Samples for Test						

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To,
 CEO
 Amarrat Construction Pvt Limited
 Construction of 98-E, Model Town, Lahore

Reference # CED/TFL **32357** (Dr. Qasim Khan)
 Reference of the request letter # IC/MT/0001/2019

Dated: 03-01-2019
 Dated: 03-01-2019

Tension Test Report (Page -1/1)

Date of Test 04-01-2019
 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	0.367	3	0.371	0.11	0.108	3850	4850	77200	78570	97200	99000	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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 Laboratoires
UET Lahore, Pakistan.

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To,
M/S Al-Hamd General Engineering Services
Canal Road, Lahore

Reference # CED/TFL **32358** (Dr. Qasim Khan)
Reference of the request letter # Nil

Dated: 03-01-2019

Dated: 03-01-2019

Tension Test Report (Page -1/1)

Date of Test 04-01-2019
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	0.377	3	0.376	0.11	0.111	3700	4600	74200	73610	92200	91600	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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To,
 Project Manager
 Daelim-Lotte
 102MW-Gulpur Hydropower Project

Reference # CED/TFL **32360** (Dr.Waseem Abbas)
 Reference of the request letter # DLJV-OT-QA-162

Dated: 03-01-2019
 Dated: 02-01-2019

Tension Test Report (Page – 1/1)

Date of Test 04-01-2019
 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	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	E, GPa		
1	15.24 (0.6")	1102.0	1099.0	-----	-----	18000	176.58	-----	<3.50 Not ok	5897
2	15.24 (0.6")	1102.0	1105.0	-----	-----	21000	206.01	-----	<3.50 Not ok	5898
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only two samples for Test										

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