



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

To,
 Office Manager
 IVCC Engineering (Pvt) Ltd
 Lahore

Reference # CED/TFL **34741** (Dr. M Rizwan Riaz)
 Reference of the request letter # 05/CX-Samples/15

Dated: 24-02-2020
 Dated: 22-02-2020

Tension Test Report (Page – 1/3)

Date of Test 27-02-2020
 Gauge length 2 inches
 Description Sheet 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	Coil No.
	(mm)	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	6	24.80x6.00	148.80	5000	7200	329.64	474.68	0.80	40.00	1904123102
2		24.10x6.00	144.60	4800	7100	325.64	481.68	0.75	37.50	
3	6	24.40x6.00	146.40	4400	7200	294.84	482.46	0.80	40.00	1904053001
4		24.40x6.00	146.40	4500	7200	301.54	482.46	0.80	40.00	
5	6	24.30x6.00	145.80	5000	7200	336.42	484.44	0.70	35.00	1904053004
6		24.30x6.00	145.80	4300	7200	289.32	484.44	0.70	35.00	
7	6	24.30x6.00	145.80	4200	7100	282.59	477.72	0.65	32.50	1904053602
8		25.40x6.00	152.40	4500	7200	289.67	463.46	0.65	32.50	
9	6	24.10x6.00	144.60	5000	7300	339.21	495.25	0.70	35.00	1904123105
10		23.10x6.00	138.60	4100	7100	290.19	502.53	0.70	35.00	
Only Ten Samples for Tensile and Five Samples for Bend Test										
Bend Test										
Strip taken from Sheet 6mm Bend Test Through 180° is Satisfactory (Coil No. 1904123102)										
Strip taken from Sheet 6mm Bend Test Through 180° is Satisfactory (Coil No. 1904053001)										
Strip taken from Sheet 6mm Bend Test Through 180° is Satisfactory (Coil No. 1904053004)										
Strip taken from Sheet 6mm Bend Test Through 180° is Satisfactory (Coil No. 1904053602)										
Strip taken from Sheet 6mm Bend Test Through 180° is Satisfactory (Coil No. 1904123105)										

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,
 Office Manager
 IVCC Engineering (Pvt) Ltd
 Lahore

Reference # CED/TFL **34741** (Dr. M Rizwan Riaz)
 Reference of the request letter # 05/CX-Samples/15

Dated: 24-02-2020
 Dated: 22-02-2020

Tension Test Report (Page – 2/3)

Date of Test 27-02-2020
 Gauge length 2 inches
 Description Sheet 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	Coil No.
	(mm)	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	10	22.50x10.00	225.00	6600	11200	287.76	488.32	0.65	32.50	1904178104
2		28.00x10.00	280.00	8500	12700	297.80	444.95	0.65	32.50	
3	10	28.50x10.00	285.00	8500	12700	292.58	437.15	0.65	32.50	1904178102
4		28.30x10.00	283.00	8400	12600	291.18	436.77	0.65	32.50	
5	10	27.00x10.00	270.00	8400	12600	305.20	457.80	0.65	32.50	1904178101
6		27.00x10.00	270.00	8400	12700	305.20	461.43	0.65	32.50	
7	3	42.50x3.00	127.50	4200	6800	323.15	523.20	0.65	32.50	1904124301
8		42.50x3.00	127.50	4600	6600	353.93	507.81	0.65	32.50	

Only Eight Samples for Tensile and Four Samples for Bend Test

Bend Test

Strip taken from Sheet 10mm Bend Test Through 180° is Satisfactory (Coil No. 1904178104)

Strip taken from Sheet 10mm Bend Test Through 180° is Satisfactory (Coil No. 1904178102)

Strip taken from Sheet 10mm Bend Test Through 180° is Satisfactory (Coil No. 1904178101)

Strip taken from Sheet 3mm Bend Test Through 180° is Satisfactory (Coil No. 1904124301)

I/C Testing Laboratories
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 Lahore

Reference # CED/TFL **34741** (Dr. M Rizwan Riaz)
 Reference of the request letter # 05/CX-Samples/15

Dated: 24-02-2020
 Dated: 22-02-2020

Tension Test Report (Page – 3/3)

Date of Test 20-11-2018
 Gauge length 2 inches
 Description Welded Sheet Tensile and Bend Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Remarks
	(mm)	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	
1	6	18.00x6.00	108.00	-----	5600	-----	508.67	Broken at the location other than weld
2		17.60x6.00	105.60	-----	5200	-----	483.07	Broken at the location other than weld
3	10	12.00x10.00	120.00	-----	5700	-----	465.98	Broken at the location other than weld
4		12.50x10.00	125.00	-----	6200	-----	486.58	Broken at the location other than weld
5	3	33.00x3.00	99.00	-----	5200	-----	515.27	Broken at the location other than weld
6		33.00x3.00	99.00	-----	5200	-----	515.27	Broken at the location other than weld
Only Six Samples for Tensile and Three Samples for Bend Test								
Bend Test								
Strip taken from Welded Sheet (6mm) Bend Test Through 180° is Satisfactory								
Strip taken from Welded Sheet (10mm) Bend Test Through 180° is Satisfactory								
Strip taken from Welded Sheet (3mm) Bend Test Through 180° is Satisfactory								

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
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To,
 Material Engineer
 NESPAK
 Up-Gradation/Dualization of Motorway Link from Kohat via Jand Pindigheb, Khushal Garh to Kohat (Pkg-3)

Reference # CED/TFL **34744** (Dr. M Rizwan Riaz)
 Reference of the request letter # 36264/103/JH/041

Dated: 25-02-2020
 Dated: 15-02-2020

Tension Test Report (Page -1/1)

Date of Test 27-02-2020
 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	5.371	11	1.418	1.56	1.579	40400	52400	57100	56410	74100	73200	1.50	18.8	Al-Moez
2	5.358	11	1.416	1.56	1.575	34600	46800	48900	48420	66200	65500	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#11 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
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Pakistan. Ph: 92-42-99029202

To,
 Resident Engineer
 Metroplan – Asian JV
 Resident Construction Supervision for Establishment of 200 Bedded Mother & Child Hospital
 and Nursing College, District Mianwali

Reference # CED/TFL **34745** (Dr. M Rizwan Riaz) Dated: 25-02-2020
 Reference of the request letter # Metroplan Asian JV-Nexus-MMCH-RE-070 Dated: 22-02-2020

Tension Test Report (Page -1/1)

Date of Test 27-02-2020
 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	4.273	10	1.265	1.27	1.256	39400	55400	68400	69150	96200	97300	1.50	18.8	
2	4.271	10	1.264	1.27	1.255	39400	55400	68400	69170	96200	97300	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Pakistan. Ph: 92-42-99029202

To,
M/S Markhor Developers (Pvt) Ltd
Lahore

Reference # CED/TFL **34746** (Dr. M Rizwan Riaz)
Reference of the request letter # Nil

Dated: 26-02-2020
Dated: 26-02-2020

Tension Test Report (Page -1/1)

Date of Test 27-02-2020
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	0.360	3	0.367	0.11	0.106	3100	4300	62200	64580	86200	89600	0.90	11.3	
2	0.368	3	0.371	0.11	0.108	3200	4400	64200	65170	88200	89700	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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Test Floor Laboratory
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To,
M.E
AS Enterprises
Sapphire Textile Mill # 10 Faroz Watwa War Barton Road
(AA Associates)(Afce)

Reference # CED/TFL **34748** (Dr. M Rizwan Riaz)
Reference of the request letter # USD/ASE/01

Dated: 26-02-2020
Dated: 26-02-2020

Tension Test Report (Page -1/1)

Date of Test 27-02-2020
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	0.415	10	10.01	0.12	0.122	3900	5300	71650	70420	97370	95700	1.10	13.8	
2	0.418	10	10.05	0.12	0.123	4500	5600	82673	80740	102881	100500	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
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To,
 M Adeel
 Danish Apperal, MM Alam Road

Reference # CED/TFL **34749** (Dr. M Rizwan Riaz)
 Reference of the request letter # Nil

Dated: 26-02-2020
 Dated: 26-02-2020

Tension Test Report (Page -1/1)

Date of Test 27-02-2020
 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	0.375	3	0.375	0.11	0.110	3200	4700	64200	64010	94200	94100	1.40	17.5	
2	0.372	3	0.373	0.11	0.109	3100	4800	62200	62520	96200	96800	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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 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,
 Resident Engineer
 Orbit Housing
 The Spring Apartment Homes, Canal Road, Lahore

Reference # CED/TFL **34751** (Dr. M Rizwan Riaz)
 Reference of the request letter # Nil

Dated: 27-02-2020
 Dated: 27-02-2020

Tension Test Report (Page -1/1)

Date of Test 27-02-2020
 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	0.362	3	0.368	0.11	0.107	3400	4700	68200	70360	94200	97300	1.20	15.0	
2	0.371	3	0.373	0.11	0.109	3500	4800	70200	70690	96200	97000	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
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To,
M/S Defence Housing Authority.
Lahore Cantt
(Proposed Commercial Plaza, DRGCC Ph-III, DHA Ph-VI (M/s Construct))

Reference # CED/TFL **34754** (Dr. M Rizwan Riaz)
Reference of the request letter # 408/241/E/Lab/860/4788

Dated: 27-02-2020
Dated: 27-02-2020

Tension Test Report (Page -1/1)

Date of Test 27-02-2020
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	0.392	3	0.383	0.11	0.115	3600	5300	72200	68860	106200	101400	1.30	16.3	Kamran Steel
2	0.393	3	0.383	0.11	0.115	3600	5300	72200	68770	106200	101300	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														

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