



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

To,
Chief Resident Engineer
Osmani & Co. (Pvt) Ltd
Swat Motorway Project

Reference # CED/TFL **33269** (Dr. Qasim Khan)
Reference of the request letter # 295/CRE/QAT/SMP/2019

Dated: 21-05-2019
Dated: 16-05-2019

Tension Test Report (Page – 1/2)

Date of Test 29-05-2019
Gauge length 2 inches
Description W-Section & Post Strip Tensile and Bend Test as per AASHTOO A-180

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
1	W-Section	2.67x0.28	0.75	2200	2800	2942.75	3745.32	0.65	32.50	
2	W-Section	2.67x0.28	0.75	2300	3050	3076.51	4079.72	0.60	30.00	
3	Post	2.66x0.70	1.86	7200	9500	3866.81	5102.04	0.60	30.00	
4	Post	2.66x0.70	1.86	7000	9500	3759.40	5102.04	0.65	32.50	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Four Samples for Tensile and Two Samples for Bend Test										
Bend Test										
Strip Taken from W-Section Bend Test Through 180° is Satisfactory										
Strip Taken from Post Bend Test Through 180° is Satisfactory										

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Swat Motorway Project

Reference # CED/TFL **33269** (Dr. Qasim Khan)
Reference of the request letter # 295/CRE/QAT/SMP/2019

Dated: 21-05-2019
Dated: 16-05-2019

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

Date of Test 29-05-2019
Gauge length -----
Description W-Section & Post Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	Thickness	Remark
		(g)	(mm)	(kg/m)	(mm)	
1	W-Section	1145	106.2	10.78	2.80	
2	Post	1149	99.80	11.51	7.15	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
Only Two Samples for Test						

I/C Testing Laboratories
UET Lahore, Pakistan.

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To,
Director QA/QC-II
DBH JVMC, Projects
Islamabad

Reference # CED/TFL **33292** (Dr. Qasim Khan)
Reference of the request letter # DBH/JVMC/QA/QCII/2019/02/UET

Dated: 27-05-2019
Dated: 27-05-2019

Tension Test Report (Page – 1/1)

Date of Test 29-05-2019
Gauge length 2 inches
Description Gabin Wire Tensile Test

Sr. No.	Diameter	Measured Diameter	Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Marks
	(mm)	(cm)	(cm ²)	(kg)	(kg)	(kg/cm ²)	(kg/cm ²)	(inch)		
1	2	0.23	0.042	90	140	2166.19	3369.63	0.5	25.00	
2	2	0.23	0.042	110	160	2647.57	3851.01	0.5	25.00	
3	4	0.40	0.126	460	570	3660.56	4535.92	0.5	25.00	
4	4	0.40	0.126	500	630	3978.87	5013.38	0.5	25.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	

Only Four Samples for Tensile Test

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To,
 Assistant Director Engg-III
 Water and Sanitation Agency
 (GDA) Gujranwala
 (Rehabilitation of Drain at Gondalanwala Road from Qila Mian Singh Minor to Rajkot Main Bazar, Zone-III Model Town ZWASA Gujranwala)
 Reference # CED/TFL **33300** (Dr. Qasim Khan) Dated: 28-05-2019
 Reference of the request letter # WASA/ADE-III-35 Dated: 25-05-2019

Tension Test Report (Page -1/1)

Date of Test 29-05-2019
 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 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	0.375	3/8	0.375	0.11	0.110	3200	4900	64200	64030	98200	98100	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
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
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To,
Lead Material Engineer
CSCEC Pakistan Peshawar-Karachi Motorway (Sukkur-Multan Section) Project
Sukkur-Multan Motorway Section-1

Reference # CED/TFL **33302** (Dr. Qasim Khan) Dated: 28-05-2019
Reference of the request letter # CSCEC/CL/SEC-01/Chain Link Fabric-7/2019 Dated: 25-05-2019

Tension Test Report (Page – 1/1)

Date of Test 29-05-2019
Gauge length -----
Description Chain Link Fabric Wire Tensile Test as per AASHTO-M-181

Sr. No.	Diameter of Wire	Breaking Load		Remarks
	(mm)	(kg)	(kN)	
1	3.40	360	3.53	
2	3.40	360	3.53	
3	3.40	280	2.75	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
Only Three Samples for Test				

I/C Testing Laboratories
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To,
Lead Material Engineer
CSCEC Pakistan Peshawar-Karachi Motorway (Sukkur-Multan Section) Project
Sukkur-Multan Motorway Section-1 (HUA YUAN (China))

Reference # CED/TFL **33303** (Dr. Qasim Khan) Dated: 28-05-2019
Reference of the request letter # CSCEC/CL/SEC-01/Tension Wire-2/2019 Dated: 25-05-2019

Tension Test Report (Page – 1/1)

Date of Test 29-05-2019
Gauge length -----
Description Tension Wire Tensile Test as per AASHTO-M-181

Sr. No.	Diameter of Wire	Breaking Load		Remarks
	(mm)	(kg)	(kN)	
1	3.20	760	7.46	
2	3.20	960	9.42	
3	3.20	720	7.06	
4	3.20	720	7.06	
5	3.20	760	7.46	
6	3.20	840	8.24	
-	-	-	-	
Only Six Samples for Test				

I/C Testing Laboratories
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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 **33306** (Dr. Qasim Khan)
Reference of the request letter # 408/241/E/Lab/587/2576

Dated: 28-05-2019
Dated: 23-05-2019

Tension Test Report (Page -1/2)

Date of Test 29-05-2019
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	0.380	3	0.377	0.11	0.112	3300	5100	66200	65160	102200	100700	1.30	16.3	Moiz Steel
2	0.378	3	0.376	0.11	0.111	3350	5100	67200	66370	102200	101100	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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To,
 M/S Defence Housing Authority.
 Lahore Cantt
 (Proposed Commercial Plaza, DRGCC Ph-III, DHA Ph-VI)(M/s Construct)

Reference # CED/TFL **33306** (Dr. Qasim Khan)
 Reference of the request letter # 408/241/E/Lab/586/2528

Dated: 28-05-2019
 Dated: 23-05-2019

Tension Test Report (Page -2/2)

Date of Test 29-05-2019
 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	0.373	3	0.373	0.11	0.110	3900	4800	78200	78460	96200	96600	1.00	12.5	ASG Steel
2	0.368	3	0.371	0.11	0.108	3800	4800	76200	77370	96200	97800	1.00	12.5	
3	0.366	3	0.370	0.11	0.107	3400	4500	68200	69750	90200	92400	0.80	10.0	
4	0.371	3	0.373	0.11	0.109	3700	4700	74200	74790	94200	95100	1.10	13.8	
5	0.373	3	0.374	0.11	0.110	3600	4700	72200	72310	94200	94500	1.10	13.8	
6	0.371	3	0.373	0.11	0.109	3600	4700	72200	72690	94200	94900	1.10	13.8	
Note: only six samples for tensile and three samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														

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To,
RE, VO-2 (M-2)
ACC-Prime
Construction of Additional Lane on Motorway (M-2)
Between Ravi Toll Plaza and Faizpur interchange

Reference # CED/TFL **33307** (Dr. Qasim Khan)
Reference of the request letter # RE/VO2-M2/Lab/25

Dated: 28-05-2019

Dated: 27-05-2019

Tension Test Report (Page – 1/1)

Date of Test 11-03-2019
Gauge length -----
Description Fencing Wire Tensile Test

Sr. No.	Diameter of Wire	Breaking Load		Remarks
	(mm)	(kg)	(kN)	
1	3.00	240	2.35	
2	3.00	320	3.14	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
Only Two Samples for Test				

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

Reference # CED/TFL **33312** (Dr. Qasim Khan)
Reference of the request letter # LSMP/RE-1/2019/830

Dated: 28-05-2019
Dated: 28-05-2019

Tension Test Report (Page – 1/1)

Date of Test 29-05-2019
Gauge length -----
Description Tension & Chain Link Wire Tensile Test as per AASHTO-M-181

Sr. No.	Diameter of Single Wire	Breaking Load		Remarks
	(mm)	(kg)	(kN)	
1	3.00	560	5.49	Tension Wire
2	3.00	600	5.89	
3	3.20	320	3.14	Chain Link Wire
4	3.20	200	1.96	
-	-	-	-	
-	-	-	-	
-	-	-	-	
Only Four Samples for Test				

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To,
 Assistant Civil Engineer (N)
 SIE-III Gujranwala
 (Construction of RCC Roads SIE 3 EPZ Gujranwala)

Reference # CED/TFL **33314** (Dr. Qasim Khan)
 Reference of the request letter # SIC/SIEG-III(EPZ)/270

Dated: 29-05-2019
 Dated: 28-05-2019

Tension Test Report (Page -1/1)

Date of Test 29-05-2019
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		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	0.356	3/8	0.365	0.11	0.105	2400	3800	48100	50530	76200	80000	1.40	17.5	
2	0.353	3/8	0.364	0.11	0.104	2400	3800	48100	50960	76200	80700	1.30	16.3	
3	0.353	3/8	0.363	0.11	0.104	2300	4300	46100	48920	86200	91500	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only three samples for tensile test														
Bend Test														

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