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
CCECC-MATRACON-HABIB Joint Venture
Re-Construction of & Up-gradation of Main Runway (18L/36R) at Allama Iqbal International Airport (AIIAP), Lahore
(Zahid Interprises, Lahore)
Reference # CED/TFL **37444** (Dr. Usman Akamal) Dated: 30-11-2021
Reference of the request letter # AIIAP/CCECC-MATRACON-HABIB Jv/2021/781
Dated: 29-11-2021

Tension Test Report (Page -1/1)

Date of Test 02-12-2021
Gauge length 8 inches
Description Plain Steel Dowel Bar Tensile Test

Sr. No.	Diameter / size	Reduced Dia	Reduced Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Heat No.
	(mm)	(mm)	(mm^2)	(kg)	(kg)	(MPa)	(MPa)	(inch)		
1	50	35.40	984.23	42000	72800	419	726	1.40	17.50	52
2	50	35.20	973.14	42600	72800	429	734	1.30	16.25	
3	50	35.10	967.62	41400	73400	420	744	1.50	18.75	184
4	50	35.40	984.23	42000	73000	419	728	1.30	16.25	
5	50	35.30	978.68	41800	72600	419	728	1.40	17.50	3109
6	50	35.40	984.23	42600	73200	425	730	1.30	16.25	
Note: only six sample for tensile test										
-	-	-	-	-	-	-	-	-	-	
Bend Test										

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
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To,
Project Manager
Liberty Builders
Construction of Zee Avenue-Ramada Hotel & Suites 17-A Cooper Road, Lahore

Reference # CED/TFL **37445** (Dr. Usman Akmal) Dated: 01-12-2021
Reference of the request letter # ST/UET/20211130 Dated: 30-11-2021

Tension Test Report (Page -1/1)

Date of Test 02-12-2021
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.380	3	0.377	0.11	0.112	3800	4800	76200	74910	96200	94700	1.10	13.8	Mughal Steel
2	0.381	3	0.378	0.11	0.112	3900	4900	78200	76780	98200	96500	1.00	12.5	
3	0.379	3	0.376	0.11	0.111	3800	4800	76200	75250	96200	95100	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only three samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

Witness by Bilal Ashraf (Site Supervisor)

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UET Lahore, Pakistan.

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Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
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To,
Sub Divisional Officer
Buildings Sub Division No. 2
Lahore
(Construction of Garages & Proper Sewerage System in The Civil Defence Office Lahore)

Reference # CED/TFL **37447** (Dr. Usman Akmal) Dated: 01-12-2021
Reference of the request letter # 928/SDO2nd Dated: 19-11-2021

Tension Test Report (Page -1/1)

Date of Test 02-12-2021
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (inch)		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.402	3/8	0.388	0.11	0.118	3100	5000	62200	57870	100200	93400	1.20	15.0	
2	0.402	3/8	0.388	0.11	0.118	3000	4900	60200	55910	98200	91400	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one samples for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Department of Civil Engineering
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Pakistan. Ph: 92-42-99029202

To,
Sub Divisional Office
Highway Sub Division D.G. Khan
(Construction of Pile Foundation Bridge at Basti Gajjuji & Tigyani at D.G. Khan Canal

Reference # CED/TFL **37448** (Dr. Usman Akmal) Dated: 01-12-2021
Reference of the request letter # 2451 Dated: 21-10-2021

Tension Test Report (Page -1/1)

Date of Test 02-12-2021
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.378	3	0.376	0.11	0.111	3200	5200	64200	63480	104200	103200	1.40	17.5	
2	0.367	3	0.371	0.11	0.108	3100	5000	62200	63320	100200	102200	1.30	16.3	
3	4.292	10	1.267	1.27	1.262	38800	55600	67400	67790	96500	97200	1.60	20.0	
4	4.279	10	1.265	1.27	1.258	38400	55200	66700	67300	95800	96800	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only four samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														
#10 Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
Resident Engineer
ESAC
Sector K DHA Multan
Construction of Monuments at Pakistan Square in DHA Multan

Reference # CED/TFL **37450** (Dr. Asad Ullah Qazi) Dated: 02-12-2021
Reference of the request letter # RE/ESAC/PS/02/16 Dated: 01-12-2021

Tension Test Report (Page -1/1)

Date of Test 02-12-2021
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.369	3	0.372	0.11	0.109	2800	4700	56200	56830	94200	95400	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
Resident Engineer
Orbit Developers Private Limited
The Spring Apartment Homes

Reference # CED/TFL **37454** (Dr. Usman Akmal) Dated: 02-12-2021
Reference of the request letter # Nil Dated: 02-12-2021

Tension Test Report (Page -1/1)

Date of Test 02-12-2021
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.386	3	0.380	0.11	0.113	3500	4900	70200	68020	98200	95300	1.00	12.5	
2	0.392	3	0.383	0.11	0.115	4100	5500	82200	78510	110200	105400	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

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