



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

Ref: CED/TFL/08/36859

Dated: 11-08-2021

Date of Test: 13-08-2021

To,
Resident Engineer / Engineer's Representative
Dongil Engineering Consultants Co., Ltd.
(JV) Techno Consult International (Pvt) Ltd-Loya Associates-Electra Consultants-Donsung Engineering Co., Ltd
Central Asia Region Economic Cooperation (CAREC) Corridor Development Program - Tranche-1
Project Construction of Additional 2-Lane Carriageway from Ratodero to Shikarpur N-55 (Section-2)
km 0+000 to km 43+400 (43.4 km)

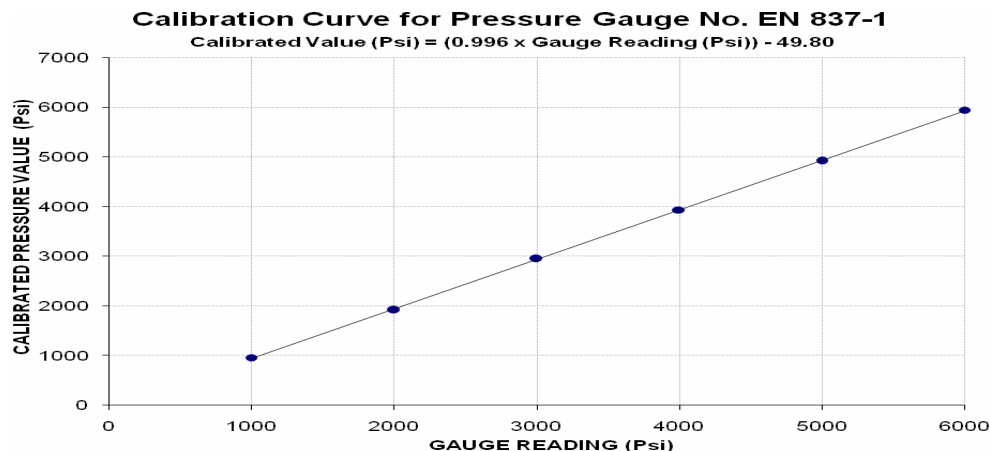
Subject: - CALIBRATION OF PRESSURE GAUGE (MARK: TFL/08/36859) (Page # 1/2)

Reference to your Letter No. RE/RS-2/LB/399, Dated: 04/08/2021 on the subject cited above. One Pressure Gauge No. EN 837-1 as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 15000 (Psi)
Calibrated Range : Zero - 6000 (Psi)

Gauge Reading (Psi)	1000	2000	3000	4000	5000	6000
Calibrated Load (k g)	13400	26700	41100	54800	68500	82700
Calibrated Pressure (Psi)	963	1918	2952	3936	4921	5941

The Ram Area use for Calibration = 198 cm² (Witness by Aashir Ali (Material Inspector Ratodero to Shikarpur Road))



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To,

Resident Engineer / Engineer's Representative

Dongil Engineering Consultants Co., Ltd.

(JV) Techno Consult International (Pvt) Ltd-Loya Associates-Electra Consultants-Donsung Engineering Co., Ltd

Central Asia Region Economic Cooperation (CAREC) Corridor Development Program - Tranche-1
Project Construction of Additional 2-Lane Carriageway from Ratodero to Shikarpur N-55 (Section-2)
km 0+000 to km 43+400 (43.4 km)

Subject: - **CALIBRATION OF DIAL GAUGES (MARK: TFL/06/36579)** (Page # 2/2)

Reference to your Letter No. RE/RS-2/LB/399, Dated: 04/08/2021 on the subject cited above. Three Dial Gauges as received by us have been calibrated on standard calibration device. The results are tabulated as under.

Total Range : Zero - 50 (mm)
Calibrated Range : Zero - 30 (mm)

Standard Reading	Dial Gauge Readings		
	Dial Gauge No. I (H07096)	Dial Gauge No. II (99224)	Dial Gauge No. III (H07135)
200	197	196	197
400	397	395	396
600	595	594	596
800	795	794	795
1000	996	993	994
1200	1196	1193	1194
1400	1395	1393	1394
1600	1598	1593	1593
1800	1797	1792	1793
2000	1997	1992	1992
2200	2196	2192	2192
2400	2395	2391	2393
2600	2595	2591	2593
2800	2795	2791	2792
3000	2995	2991	2991

(Witness by Aashir Ali (Material Inspector Ratodero to Shikarpur Road))

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UET Lahore, Pakistan.

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Test Floor Laboratory
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Ref: CED/TFL/08/36865, 883

Dated: 11-08-2021

Dated of Test: 13-08-2021

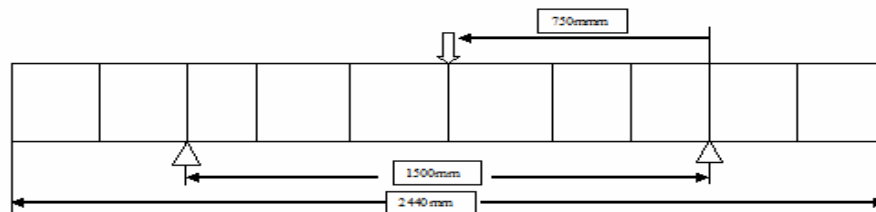
To

**M/S Alfazal Engineering Pakistan Lahore,
(Mangla Refurbishment Project Package IX) (WAPDA, NESPAK, China CAME
Engineering Co., Ltd.)**

Subject: CABLE TRAY FOR LOAD TEST (Page -1/6)

Reference to your letter No. ALF-21-08-0009, dated: 06.08.2021, on the subject cited above. One Cable Tray (Ladder type) (Size: L=2440mm, W=300mm, H=75mm, T=2mm) for load as received by us test has been tested and the results are tabulated below:

Load		Deflection	Remarks
(kN)	(kg)	(mm)	
0	0	0.00	
0.5	51.0	0.15	
1.0	101.9	0.25	
1.5	152.9	0.41	
2.0	203.9	0.53	
2.5	254.8	0.61	
3.0	305.8	0.69	
3.5	356.8	0.79	
4.0	407.7	0.94	
9.3	948.0		Ultimate load



Loading Arrangement

**I/C Testing Laboratories
UET Lahore, Pakistan.**

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Dated: 11-08-2021

Dated of Test: 13-08-2021

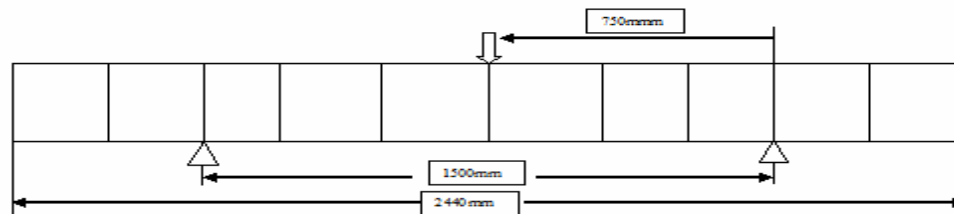
To

**M/S Alfazal Engineering Pakistan Lahore,
(Mangla Refurbishment Project Package IX) (WAPDA, NESPAK, China CAME
Engineering Co., Ltd.)**

Subject: CABLE TRAY FOR LOAD TEST (Page -2/6)

Reference to your letter No. ALF-21-08-0009, dated: 06.08.2021, on the subject cited above. One Cable Tray (Ladder type)((Size: L=2440mm, W=400mm, H=75mm, T=2mm) for load as received by us test has been tested and the results are tabulated below:

Load		Deflection	Remarks
(kN)	(kg)	(mm)	
0	0	0.00	
0.5	51.0	0.76	
1.0	101.9	1.07	
1.5	152.9	1.30	
2.0	203.9	1.57	
2.5	254.8	1.83	
3.0	305.8	1.96	
3.5	356.8	2.36	
4.0	407.7	2.24	
9.62	980.6		Ultimate load



Loading Arrangement

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Dated: 11-08-2021

Dated of Test: 13-08-2021

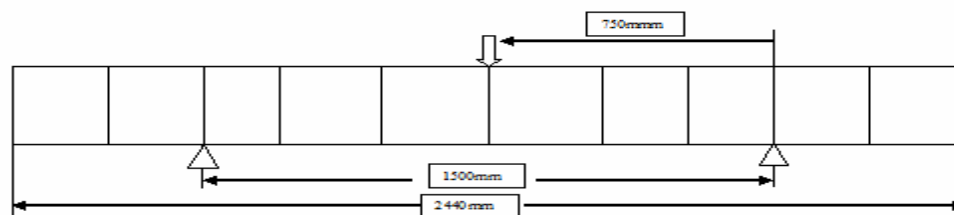
To

**M/S Alfazal Engineering Pakistan Lahore,
(Mangla Refurbishment Project Package IX) (WAPDA, NESPAK, China CAME
Engineering Co., Ltd.)**

Subject: CABLE TRAY FOR LOAD TEST (Page -3/6)

Reference to your letter No. ALF-21-08-0009, dated: 06.08.2021, on the subject cited above. One Cable Tray (Ladder type) (Size: L=2440mm, W=500mm, H=75mm, T=2mm) for load as received by us test has been tested and the results are tabulated below:

Load		Deflection	Remarks
(kN)	(kg)	(mm)	
0	0	0.00	
0.5	51.0	0.41	
1.0	101.9	0.48	
1.5	152.9	0.89	
2.0	203.9	1.07	
2.5	254.8	1.24	
3.0	305.8	1.55	
3.5	356.8	1.88	
4.0	407.7	2.06	
9.9	1009.2		Ultimate load



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Dated: 11-08-2021

Dated of Test: 13-08-2021

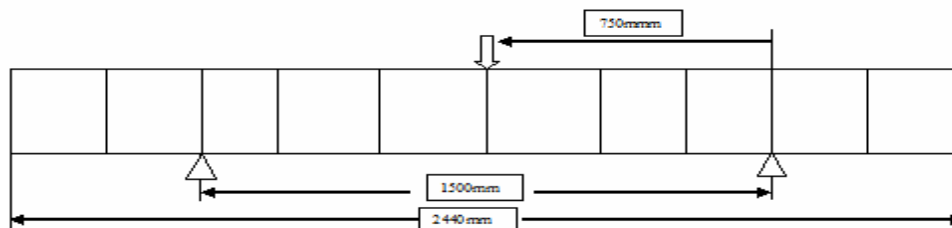
To

**M/S Alfazal Engineering Pakistan Lahore,
(Mangla Refurbishment Project Package IX) (WAPDA, NESPAK, China CAME
Engineering Co., Ltd.)**

Subject: CABLE TRAY FOR LOAD TEST (Page -4/6)

Reference to your letter No. ALF-21-08-0009, dated: 06.08.2021, on the subject cited above. One Cable Tray (Ladder type)((Size: L=2440mm, W=300mm, H=150mm, T=2mm) for load as received by us test has been tested and the results are tabulated below:

Load		Deflection	Remarks
(kN)	(kg)	(mm)	
0	0	0.00	
0.5	51.0	0.25	
1.0	101.9	0.48	
1.5	152.9	0.64	
2.0	203.9	0.69	
2.5	254.8	0.79	
3.0	305.8	0.84	
3.5	356.8	0.91	
4.0	407.7	0.99	
18.05	1840.0		Ultimate load



Loading Arrangement

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Dated: 11-08-2021

Dated of Test: 13-08-2021

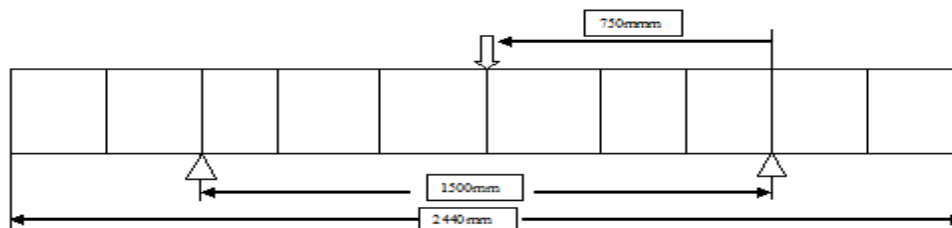
To

**M/S Alfazal Engineering Pakistan Lahore,
(Mangla Refurbishment Project Package IX) (WAPDA, NESPAK, China CAME
Engineering Co., Ltd.)**

Subject: CABLE TRAY FOR LOAD TEST (Page -5/6)

Reference to your letter No. ALF-21-08-0009, dated: 06.08.2021, on the subject cited above. One Cable Tray (Ladder type)((Size: L=2440mm, W=500mm, H=100mm, T=2mm) for load as received by us test has been tested and the results are tabulated below:

Load		Deflection	Remarks
(kN)	(kg)	(mm)	
0	0	0.00	
0.5	51.0	0.56	
1.0	101.9	1.07	
1.5	152.9	1.40	
2.0	203.9	1.45	
2.5	254.8	1.70	
3.0	305.8	2.01	
3.5	356.8	2.41	
4.0	407.7	2.95	
13.12	1337.4		Ultimate load



Loading Arrangement

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Ref: CED/TFL/08/36865, 883

Dated: 11-08-2021

Dated of Test: 13-08-2021

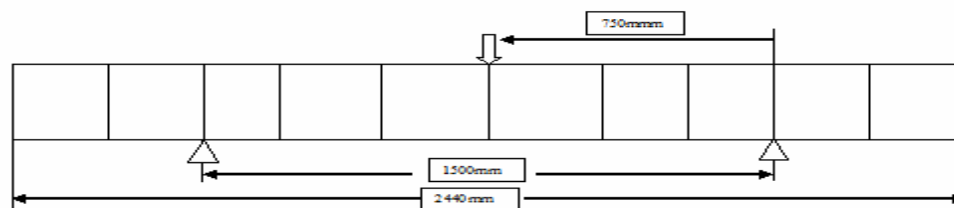
To

**M/S Alfazal Engineering Pakistan Lahore,
(Mangla Refurbishment Project Package IX) (WAPDA, NESPAK, China CAME
Engineering Co., Ltd.)**

Subject: CABLE TRAY FOR LOAD TEST (Page -1/6)

Reference to your letter No. ALF-21-08-0009, dated: 06.08.2021, on the subject cited above. One Cable Tray (Ladder type)((Size: L=2440mm, W=200mm, H=100mm, T=2mm) for load as received by us test has been tested and the results are tabulated below:

Load		Deflection	Remarks
(kN)	(kg)	(mm)	
0	0	0.00	
0.5	51.0	0.89	
1.0	101.9	1.63	
1.5	152.9	1.63	
2.0	203.9	2.13	
2.5	254.8	2.26	
3.0	305.8	2.34	
3.5	356.8	2.39	
4.0	407.7	2.41	
12.7	1294.6		Ultimate load



Loading Arrangement

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Ref: CED/TFL/08/36871, 884

Dated: 12-08-2021

Dated of Test: 13-08-2021

To

Project Engineer

Netracon Technologies (Pvt) Ltd

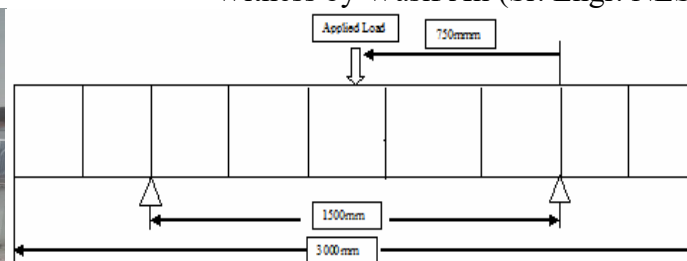
**Design, Manufacture, Supply, Installation, Testing and Commissioning of Plant for
500 / 220 / 132 kv Faisalabad West Sub Station (Al Fazal Engineering)**

Subject: CABLE TRAY FOR LOAD TEST (Page -1/1)

Reference to your letter No. NTT-HO/FSDW-GS/057, dated: 11.08.2021, on the subject cited above. One Cable Tray (Size: L=3000mm, W=500mm, H=75mm, T=2mm) for load as received by us test has been tested and the results are tabulated below:

Load		Deflection	Remarks
(kN)	(kg)	(mm)	
0	0	0.00	
0.5	51.0	0.51	
1.0	101.9	0.89	
1.5	152.9	0.08	
2.0	203.9	1.55	
2.5	254.8	1.93	
3.0	305.8	2.16	
3.5	356.8	2.39	
4.5	407.7	2.72	
5	458.7	2.97	
5.5	560.7	3.56	
8.4	856.3		Ultimate load

Witness by Wasif Ali (Sr. Engr. NESPAK)



Loading Arrangement

**I/C Testing Laboratories
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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
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To,
 Resident Engineer
 ACES (Pvt) Ltd
 Sector-V DHA Multan

Reference # CED/TFL **36872** (Dr. M Rizwan Riaz)

Dated: 12-08-2021

Reference of the request letter # ACES/DHAM/DEV/CONSPLUS/03

Dated: 10-08-2021

Tension Test Report (Page -1/2)

Date of Test 13-08-2021

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A496

Sr. No.	Weight (kg/m)	Diameter/ Size (mm)		Area (mm ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (Mpa)		Ultimate Stress (Mpa)		Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual	
1	0.216	6	5.92	32.30	27.51	1200	1700	364	428	516	606	Ali Brother
2	0.214	6	5.90	32.30	27.30	1200	1600	364	431	486	575	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test												
Bend Test												
6mm Dia Bar Bend Test Through 180° is Satisfactory												

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
Resident Engineer
ACES (Pvt) Ltd
Sector-V DHA Multan

Reference # CED/TFL **36872** (Dr. M Rizwan Riaz)

Dated: 12-08-2021

Reference of the request letter # ACES/DHAM/DEV/CONSPLUS/02

Dated: 10-08-2021

Tension Test Report (Page -2/2)

Date of Test 13-08-2021

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	0.387	10	9.67	0.12	0.114	3300	4700	60627	63870	86347	91000	1.00	12.5	SJ Steel
2	0.385	10	9.64	0.12	0.113	3300	4600	60627	64310	84510	89700	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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To,
 Procurement Officer
 Bismillah Developers
 Bismillah Housing Scheme II
 Manawan Bank Stop G.T Road
 Lahore
 Reference # CED/TFL **36873** (Dr. M Rizwan Riaz)
 Reference of the request letter # Nil

Dated: 12-08-2021
 Dated: 10-08-2021

Tension Test Report (Page -1/)

Date of Test 13-08-2021
 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	0.368	3/8	0.371	0.11	0.108	2200	3200	44100	44820	64200	65200	2.00	25.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
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To,
 Resident Engineer
 NESPAK
 Metropolitan Corporation Lahore (MCL Projects)
 Construction of Security Plan for Ladies and Gents Entry and Exit at Shrine Hazrat Data Gunj
 Bakhsh (R.A) Lahore
 Reference # CED/TFL **36874** (Dr. M Rizwan Riaz) Dated: 12-08-2021
 Reference of the request letter # 4084/BSAM/104/451 Dated: 19-06-2021

Tension Test Report (Page -1/)

Date of Test 13-08-2021
 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	0.355	3	0.364	0.11	0.104	3200	5300	64200	67600	106200	112000	0.90	11.3	
2	0.358	3	0.366	0.11	0.105	3200	5400	64200	67080	108200	113200	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														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
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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,
 Sub Divisional Officer
 Building Sub Division
 Nankana Sahib
 (Construction of Admin Block, Quarter Guard Accommodation, Upper subordinates in Police Lines Nankana)
 Reference # CED/TFL **36876** (Dr. M Rizwan Riaz) Dated: 12-08-2021
 Reference of the request letter # 34/SDO/BSD/NNS Dated: 09-07-2021

Tension Test Report (Page -1/)

Date of Test 13-08-2021
 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	0.370	3	0.372	0.11	0.109	3200	3850	64200	64860	77200	78100	1.30	16.3	
2	0.369	3	0.372	0.11	0.109	3000	3800	60200	60890	76200	77200	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														

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,
 Deputy Director (QCD)
 WASA, LDA, Lahore
 Construction Work at The Building in Green Town Sub Division WASA, L.D.A, Lahore (Part-A). (M/s Stallion Construction Pvt Ltd.)
 Reference # CED/TFL **36878** (Dr. M Rizwan Riaz) Dated: 12-08-2021
 Reference of the request letter # QCD/1066-67 Dated: 05-08-2021

Tension Test Report (Page -1/)

Date of Test 13-08-2021
 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	0.390	3	0.382	0.11	0.115	3500	4300	70200	67340	86200	82800	1.60	20.0	
2	0.389	3	0.382	0.11	0.114	3700	4300	74200	71310	86200	82900	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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.

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,
M/S Imperium Hospitality (Pvt) Limited
Gulberg II, Lahore

Reference # CED/TFL **36879** (Dr. M Rizwan Riaz)
Reference of the request letter # IHPL/Steel/0111

Dated: 13-08-2021
Dated: 11-08-2021

Tension Test Report (Page -1/)

Date of Test 13-08-2021
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	0.375	0.11	0.111	3500	5000	70200	69680	100200	99600	1.00	12.5	PCS Steel
2	0.404	3	0.389	0.11	0.119	3900	5500	78200	72330	110200	102000	0.90	11.3	
3	0.400	3	0.387	0.11	0.118	3700	5400	74200	69280	108200	101200	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only three samples for tensile and two samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														

Witness by Rafi Ullah (IHPL) & Ali Hasnain Khan(Jr. Planning Engr.)

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,
 Resident Engineer
 Allied Engineering Consultants (Pvt) Ltd
 Establishment of Mother & Child Block in sir Ganga Ram Hospital Lahore

Reference # CED/TFL **36881** (Dr. M Rizwan Riaz)
 Reference of the request letter # ACE/MBC/2021/101

Dated: 12-08-2021
 Dated: 09-08-2021

Tension Test Report (Page -1/)

Date of Test 13-08-2021
 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	0.378	3	0.376	0.11	0.111	3700	4800	74200	73440	96200	95300	1.10	13.8	
2	0.375	3	0.375	0.11	0.110	3700	4800	74200	73910	96200	95900	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.

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,
 SDO B&R-III
 702PWS (Jarikas)
 Const of 1 x 192 Men SM BK No. 2, 16 Punjab Regt Loer Jarikas (M/s Tijarrat Developers)

Reference # CED/TFL **36882** (Dr. M Rizwan Riaz)
 Reference of the request letter # 6000/05/E-6

Dated: 12-08-2021
 Dated: 15-07-2021

Tension Test Report (Page -1/)

Date of Test 13-08-2021
 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	0.371	3/8	0.373	0.11	0.109	2800	4100	56200	56630	82200	83000	1.50	18.8	
2	0.367	3/8	0.371	0.11	0.108	2700	4000	54100	55170	80200	81800	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples 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.

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,
 Project Manager (LOT-02)
 China Gansu International Corporation for Economic and Technical Corporation (CGICOP)
 Punjab Intermediate Cities Improvement Investment Program (PICIP),
 Consultancy Services for Engineering, Procurement and Construction Management
 Trunk Main Sewer Lines and Allied Work (NCB-Works/PIPCIIP-03 (Lot-2))
 Reference # CED/TFL **36885** (Dr. M Rizwan Riaz) Dated: 13-08-2021
 Reference of the request letter # EPCM-CGICOP-SA/Lot-02-197 Dated: 12-08-2021

Tension Test Report (Page -1/2)

Date of Test 13-08-2021
 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	0.369	3	0.372	0.11	0.109	3200	5300	64200	64950	106200	107600	1.20	15.0	Fazal Steel
2	0.382	3	0.378	0.11	0.112	3300	5500	66200	64760	110200	108000	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

Witness by Azhar Khalid (Construction Manager CGICOP)

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,
 Project Manager (LOT-02)
 China Gansu International Corporation for Economic and Technical Corporation (CGICOP)
 Punjab Intermediate Cities Improvement Investment Program (PICIP),
 Consultancy Services for Engineering, Procurement and Construction Management
 Trunk Main Sewer Lines and Allied Work (NCB-Works/PIPCIIP-03 (Lot-2))

Reference # CED/TFL **36885** (Dr. M Rizwan Riaz) Dated: 13-08-2021
 Reference of the request letter # EPCM-CGICOP-SA/Lot-02-199 Dated: 12-08-2021

Tension Test Report (Page -2/2)

Date of Test 13-08-2021
 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	0.384	3	0.379	0.11	0.113	4000	5100	80200	78200	102200	99800	0.90	11.3	Amreli teel
2	0.382	3	0.378	0.11	0.112	3800	4900	76200	74660	98200	96300	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 Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
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I/C Testing Laboratories
UET Lahore, Pakistan.

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