



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

To,
 R. E NESPAK
 Sahiwal Division

1) Widening / Repairing / Rehabilitation of Road from (Chichawatni Burewala Road) Adda Sain De Khoi to Mor Chak no. 11/11L, I/C Link to Janaz Ghah (35/12-L) District Sahiwal, (Length = 3.27 km).

2) Rehabilitation / Widening Kasowal G.T Road to Iqbal Nagar Kamand Road via 8/14L, 13/14L via 17/14L, Carpet Road Length 10km in Tehsil Chichawatni District Sahiwal.

Reference # CED/TFL **2141** (Dr. Rizwan Azam)

Dated: 19-10-2022

Reference of the request letter # 4267/Sahiwal/ADP/AF/108

Dated: 27-09-2022

Tension Test Report (Page -1/1)

Date of Test 20-10-2022

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 | 3500 | 4300 | 70200 | 69370 | 86200 | 85300 | 1.40 | 17.5 | |
| 2 | 0.380 | 3 | 0.377 | 0.11 | 0.112 | 3500 | 4300 | 70200 | 69080 | 86200 | 84900 | 1.30 | 16.3 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two 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 | | | | | | | | | | | | | | |

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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2. The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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To,
 Assistant Resident Engineer
 Allied Engineering Consultants (Pvt) Ltd.
 Renovation and Construction Offices Women Barracks and Multi Purpose Training Rooms at
 The Office of The Superintendent Railway Police Rawalpindi Division.
 (Ladies Barracks and Academic Block (Package-2))

Reference # CED/TFL **2144** (Dr. Rizwan Azam)

Dated: 19-10-2022

Reference of the request letter # ACE/RP/RWP/2022/13495

Dated: 15-10-2022

Tension Test Report (Page -1/1)

Date of Test 20-10-2022

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 | 0.381 | 3 | 0.378 | 0.11 | 0.112 | 3300 | 5000 | 66200 | 64860 | 100200 | 98300 | 1.30 | 16.3 | |
| 2 | 0.379 | 3 | 0.377 | 0.11 | 0.111 | 3300 | 5000 | 66200 | 65240 | 100200 | 98900 | 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 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

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Pakistan. Ph: 92-42-99029202

To,
 Project Manager
 Union Developers
 Construction of Union Luxury Apartments, Etihad Town, Lahore

Reference # CED/TFL **2145** (Dr. Rizwan Riaz)
 Reference of the request letter # UA/SO/2022/028

Dated: 19-10-2022
 Dated: 17-10-2022

Tension Test Report (Page -1/1)

Date of Test 20-10-2022
 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 | 0.381 | 3 | 0.378 | 0.11 | 0.112 | 3800 | 4800 | 76200 | 74760 | 96200 | 94500 | 0.80 | 10.0 | Afco Steel |
| 2 | 0.382 | 3 | 0.378 | 0.11 | 0.112 | 3700 | 4700 | 74200 | 72610 | 94200 | 92300 | 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 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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I/C Testing Laboratoires
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STRUCTURAL ENGINEERING DIVISION
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To,
M/S Rockwell Corporation Pvt Ltd
Lahore
(Sitara Chemical Industries Ltd.)

Reference # CED/TFL **2150** (Dr. Rizwan Azam)
Reference of the request letter # Nil

Dated: 19-10-2022
Dated: 19-10-2022

Tension Test Report (Page -1/1)

Date of Test 20-10-2022
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 | 0.404 | 10 | 9.88 | 0.12 | 0.119 | 4900 | 6100 | 90021 | 90890 | 112067 | 113200 | 0.90 | 11.3 | Afco Steel |
| 2 | 0.405 | 10 | 9.89 | 0.12 | 0.119 | 5000 | 6200 | 91858 | 92640 | 113904 | 114900 | 0.80 | 10.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| 10mm Dia Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

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To,
M/S Prime Steel Re-Rolling Mills
Sheikhupura

Reference # CED/TFL **2153** (Dr. Asif Hameed)

Dated: 20-10-2022

Reference of the request letter # Nil

Dated: 20-10-2022

Tension Test Report (Page -1/1)

Date of Test 20-10-2022

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 | 0.395 | 3 | 0.384 | 0.11 | 0.116 | 3500 | 5400 | 70200 | 66520 | 108200 | 102700 | 1.10 | 13.8 | Prime Steel |
| 2 | 0.412 | 3 | 0.393 | 0.11 | 0.121 | 3800 | 5500 | 76200 | 69220 | 110200 | 100200 | 1.30 | 16.3 | |
| 3 | 0.399 | 3 | 0.386 | 0.11 | 0.117 | 3600 | 5200 | 72200 | 67710 | 104200 | 97800 | 1.40 | 17.5 | |
| 4 | 0.405 | 3 | 0.389 | 0.11 | 0.119 | 3500 | 5100 | 70200 | 64880 | 102200 | 94600 | 1.30 | 16.3 | |
| 5 | 0.412 | 3 | 0.393 | 0.11 | 0.121 | 3600 | 5100 | 72200 | 65550 | 102200 | 92900 | 1.50 | 18.8 | |
| 6 | 0.421 | 3 | 0.397 | 0.11 | 0.124 | 4100 | 6200 | 82200 | 73040 | 124300 | 110500 | 0.80 | 10.0 | |

Note: only six samples for tensile and six 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,
 Project Manager
 Union Developers
 Construction of Union Luxury Apartments, Etihad Town, Lahore

Reference # CED/TFL **2206** (Dr. M Rizwan Riaz)
 Reference of the request letter # UA/SO/2022/029

Dated: 31-10-2022
 Dated: 29-10-2022

Tension Test Report (Page -1/1)

Date of Test 01-11-2022
 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 | 0.386 | 3 | 0.380 | 0.11 | 0.113 | 4300 | 5000 | 86200 | 83530 | 100200 | 97200 | 0.80 | 10.0 | Afco Steel |
| 2 | 0.382 | 3 | 0.378 | 0.11 | 0.112 | 4200 | 4900 | 84200 | 82520 | 98200 | 96300 | 0.90 | 11.3 | |
| 3 | 0.382 | 3 | 0.378 | 0.11 | 0.112 | 4400 | 5100 | 88200 | 86410 | 102200 | 100200 | 1.00 | 12.5 | |
| 4 | 0.385 | 3 | 0.380 | 0.11 | 0.113 | 4200 | 4900 | 84200 | 81780 | 98200 | 95500 | 0.75 | 9.4 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only four 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 | | | | | | | | | | | | | | |

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