



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

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

Reference # CED/TFL 33392 (Dr. M Rizwan Riaz)
Reference of the request letter # LSMP/RE-1/2019/862

Dated: 17-06-2019
Dated: 17-06-2019

Tension Test Report (Page – 1/1)

Date of Test 24-06-2019
Gauge length -----
Description Chain Link Fence Wire Tensile Test as per AASHTO-M-181

| Sr. No. | Diameter Single Wire | Breaking Load | Remarks |
|------------------------------------|----------------------|---------------|---------|
| | (mm) | (kN) | |
| 1 | 3.05 | 3.10 | |
| 2 | 3.05 | 3.20 | |
| 3 | 3.10 | 3.35 | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| Only Three Samples for Test | | | |

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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/06/33399

Dated: 14-06-19

To
Project Director
Park Avenue Housing Scheme,
Infrastructural Development Works at Park Avenue Housing Scheme, Lahore

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76]**

Reference to your letter No. Nil, dated 18.06.2019 on the subject cited above. Four R.C.C. Pipes as received by us have been tested. The results are tabulated as under.

| Sr. No | Nominal Size | Total Length | Loaded Length | External Diameter | Internal Diameter | Wall Thickness | Proof load | Ultimate Load | Proof Stress | Ultimate Stress |
|--------|--------------|--------------|---------------|-------------------|-------------------|----------------|------------|---------------|--------------|-----------------|
| | (mm) | (m) | (m) | (mm) | (mm) | (mm) | (kg) | (kg) | N/m/mm | N/m/mm |
| 1 | 228.6 (9") | 2.376 | 2.225 | 275.00 | 222.34 | 26.33 | 6400 | 11000 | 126.91 | 218.13 |
| 2 | 304.8 (12") | 2.375 | 2.240 | 405.00 | 302.26 | 51.37 | 9300 | 11200 | 134.75 | 162.28 |
| 3 | 457.2 (18") | 2.364 | 2.239 | 585.00 | 451.74 | 66.63 | 12400 | 15000 | 120.27 | 145.48 |
| 4 | 914.4 (36") | 2.419 | 2.314 | 1124.00 | 928.80 | 97.60 | 15910 | 19870 | 72.62 | 90.69 |

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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 VO-2 M-2
Associated Consultancy Center Jv Prime Engineering
Construction of Additional Lanes on Motorway (M-2) between Ravi Toll Plaza and Faizpur Interchange

Reference # CED/TFL **33411** (Dr. M Rizwan Riaz)
Reference of the request letter # RE/VO2-M2/99

Dated: 19-06-2019
Dated: 17-06-2019

Tension Test Report (Page – 1/1)

Date of Test 24-06-2019
Gauge length -----
Description Chain Link Fence Wire Tensile Test as per AASHTO-M-181

| Sr. No. | Diameter Single Wire | Breaking Load | Remarks |
|----------------------------------|----------------------|---------------|---------|
| | (mm) | (kN) | |
| 1 | 3.00 | 3.60 | |
| 2 | 3.00 | 3.60 | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| Only Two Samples for Test | | | |

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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
Xinjing Beixin Road & Bridge Group Co. Ltd
Construction of National Motorway M-4 Shorkot - Khanewal Section Project ICB-M4-IIIB :
Dinpur-Shamkot Section (34.28km)

Reference # CED/TFL **33416** (Dr. M Rizwan Riaz)
Reference of the request letter # BX/M4/Gen/3B/2019/513

Dated: 20-06-2019
Dated: 20-06-2019

Tension Test Report (Page – 1/1)

Date of Test 24-06-2019
Gauge length -----
Description Fence Wire Tensile Test as per AASHTO-M-181

| Sr. No. | Diameter Single Wire | Breaking Load | Remarks |
|----------------------------------|----------------------|---------------|---------|
| | (mm) | (kN) | |
| 1 | 3.00 | 3.90 | |
| 2 | 3.00 | 3.90 | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| Only Two Samples for Test | | | |

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,
 Senior Engineer
 Mansoor Mazhar & Associates
 5 Marla Model House, Parkview Villas, Lahore

Reference # CED/TFL **33418** (Dr. M Rizwan Riaz)
 Reference of the request letter # MMA/PVV/5M.H/S.T/02

Dated: 21-06-2019
 Dated: 21-06-2019

Tension Test Report (Page -1/1)

Date of Test 24-06-2019
 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 | 0.377 | 3 | 0.375 | 0.11 | 0.111 | 3100 | 5000 | 62200 | 61710 | 100200 | 99600 | 1.00 | 12.5 | |
| 2 | 0.378 | 3 | 0.376 | 0.11 | 0.111 | 3300 | 5000 | 66200 | 65540 | 100200 | 99300 | 0.80 | 10.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 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:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,
 Acting Project Director
 Air University Multan Campus
 Construction of Academic Block-I
 (Ittefaq Steel)

Reference # CED/TFL **33419** (Dr. M Rizwan Riaz)
 Reference of the request letter # MUX/AUMC/AB1/2018/92

Dated: 21-06-2019
 Dated: 20-06-2019

Tension Test Report (Page -1/1)

Date of Test 24-06-2019
 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 | 0.368 | 3 | 0.371 | 0.11 | 0.108 | 2600 | 4200 | 52100 | 52930 | 84200 | 85500 | 1.40 | 17.5 | |
| 2 | 0.376 | 3 | 0.375 | 0.11 | 0.111 | 2900 | 4500 | 58200 | 57790 | 90200 | 89700 | 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:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample /Signed Samples



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 Defence Housing Authority.
Lahore Cantt
(Infra Dev Works (Pkg-II, III & IV), DHA PH-IX (Prism)(M/s NLC)

Reference # CED/TFL 33421 (Dr. M Rizwan Riaz) Dated: 21-06-2019
Reference of the request letter # 408/241/E/Lab/618/16053 Dated: 21-06-2019

Tension Test Report (Page -1/1)

Date of Test 24-06-2019
Gauge length -----
Description Deformed Steel Bar Tensile Test as per ASTM-A496

| Sr. No. | Weight (Kg/m) | Diameter/ size | | Area (mm ²) | | Yield load (kg) | Breaking Load (kg) | Yield Stress (Mpa) | | Ultimate Stress (Mpa) | | Remarks |
|--|------------------|-------------------|----------------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|---------|
| | | Nominal (in) | Actual (mm) | Nominal | Actual | | | Nominal | Actual | Nominal | Actual | |
| 1 | 0.265 | 1/4 | 6.56 | 32.26 | 33.80 | 1300 | 1700 | 395 | 377 | 517 | 493 | |
| 2 | 0.251 | 1/4 | 6.37 | 32.26 | 31.92 | 1100 | 1600 | 335 | 338 | 487 | 492 | |
| - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile test | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

I/C Testing Laboratories
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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 Ahad and Associates
Lahore
(76-A Commercial Plaza, Gulberg, Lahore)

Reference # CED/TFL 33422 (Dr. M Rizwan Riaz)
Reference of the request letter # Nil

Dated: 24-06-2019
Dated: 24-06-2019

Tension Test Report (Page -1/1)

Date of Test 24-06-2019
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 | 0.364 | 3 | 0.369 | 0.11 | 0.107 | 4400 | 5500 | 88200 | 90760 | 110200 | 113500 | 0.60 | 7.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only one sample 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
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples