



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
 NESPAK
 Kotla Mosa Khan to Kachi Mor Ans Flyover at Firdus Cinema Phatak, District Bahawalpur

Reference # CED/TFL **2017** (Dr. M Rizwan Riaz)
 Reference of the request letter # RE/MSA/BWP/02

Dated: 26-09-2022
 Dated: 21-09-2022

Tension Test Report (Page -1/1)

Date of Test 26-09-2022
 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 | 4.306 | 10 | 1.269 | 1.27 | 1.266 | 39600 | 53000 | 68800 | 68960 | 92000 | 92300 | 1.40 | 17.5 | FF Steel |
| 2 | 4.309 | 10 | 1.270 | 1.27 | 1.267 | 38000 | 52800 | 66000 | 66130 | 91700 | 91900 | 1.50 | 18.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| #10 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

Ref: CED/TFL/09/1992

Dated: 20-09-2022

Dated of Test: 27-09-2022

To

Resident Engineer

NESPAK

Infrastructure Development of Quaid-e-Azam Business Park on Motorway M-2, District Sheikhpura

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a]** (Page -1/1)

Reference to your letter No. 4163/11/MY/02/213, dated 08.09.2022 on the subject cited above. Five 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 |
|--------|--------------|--------------|---------------|-------------------|-------------------|----------------|------------|---------------|------------------------|------------------------|
| | (inch) | (foot) | (foot) | (inch) | (inch) | (inch) | (kg) | (kg) | Pound/Linear foot/foot | Pound/Linear foot/foot |
| 1 | 12 | 7.79 | 7.38 | 15.83 | 11.56 | 2.13 | 16000 | 19500 | 4963 | 6048 |
| 2 | 15 | 7.78 | 7.26 | 19.69 | 14.95 | 2.37 | 9000 | 13000 | 2194 | 3170 |
| 3 | 18 | 7.81 | 7.26 | 23.19 | 18.30 | 2.44 | 13000 | 15200 | 2587 | 3025 |
| 4 | 21 | 7.72 | 7.16 | 26.77 | 20.89 | 2.94 | 7860 | 12710 | 1391 | 2249 |
| 5 | 24 | 7.79 | 7.16 | 30.08 | 23.45 | 3.31 | 13680 | 19500 | 2156 | 3073 |

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,
 Deputy Director (Maint)
 NHA, Wazirabad
 (Extension of Existing Steel Motorcyclist Ramp near Lalamusa at km 1397 + 300 on N-5)

Reference # CED/TFL **1999** (Dr. M Rizwan Riaz) Dated: 22-09-2022
 Reference of the request letter # BC-PN-19-05-06/DD(M)/WZD/22/1075 Dated: 02-09-2022

Tension Test Report (Page – 1/3)

Date of Test 27-09-2022
 Gauge length 2 inches
 Description Steel Structure Steel Strip Tensile Test

| Sr. No. | Designation | | Size of Strip | X Section Area | Yield load | Breaking Load | Yield Stress | Ultimate Stress | Elongation | % Elongation | Remarks |
|---|-----------------|---------|---------------|----------------|------------|---------------|--------------|-----------------|------------|--------------|---------|
| | (mm) | (mm) | | | | | | | | | |
| 1 | H-Section | 150x150 | 26.80x9.90 | 265.32 | 9000 | 14700 | 333 | 544 | 0.70 | 35.00 | |
| 2 | I Beam | 125x300 | 26.90x8.80 | 236.72 | 12000 | 15200 | 497 | 630 | 0.70 | 35.00 | |
| 3 | Channel | 200x75 | 26.80x8.80 | 235.84 | 9000 | 13900 | 374 | 578 | 0.90 | 45.00 | |
| 4 | Channel | 150x75 | 26.80x7.60 | 203.68 | 7800 | 12200 | 376 | 588 | 1.00 | 50.00 | |
| 5 | Chequered Plate | 5 | 26.70x4.90 | 130.83 | 3900 | 5900 | 292 | 442 | 1.00 | 50.00 | |
| - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | |
| Only Five Samples for Tensile Test | | | | | | | | | | | |
| | | | | | | | | | | | |
| Bend 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,
Deputy Director (Maint)
NHA, Wazirabad
(Extension of Existing Steel Motorcyclist Ramp near Lalamusa at km 1397 + 300 on N-5)

Reference # CED/TFL **1999** (Dr. M Rizwan Riaz) Dated: 22-09-2022
Reference of the request letter # BC-PN-19-05-06/DD(M)/WZD/22/1075 Dated: 02-09-2022

Weight & Size Test Report (Page – 2/3)

Date of Test 27-09-20222
Description H-Section, I-Beam and Channel Weight and Size Test

| Sr. No. | Designation | | Weight | Length | Weight per Unit Length | Depth (d) | Flange Width (bf) | Flange Thickness (tf) | Web Thickness (tw) | Remark |
|-----------------------------------|-------------|---------|--------|--------|------------------------|-----------|-------------------|-----------------------|--------------------|--------|
| | (mm) | | (g) | (mm) | (kg/m) | mm | mm | mm | mm | |
| 1 | H-Section | 150x150 | 3524 | 102.70 | 34.31 | 155.80 | 151.20 | 10.50 | 9.70 | |
| 2 | I Beam | 125x300 | 4402 | 101.80 | 43.24 | 296.30 | 126.60 | 11.90 | 8.80 | |
| 3 | Channel | 200x75 | 2553 | 102.60 | 24.88 | 200.00 | 73.70 | 9.80 | 9.00 | |
| 4 | Channel | 150x75 | 2017 | 102.00 | 19.77 | 151.10 | 77.90 | 8.80 | 7.90 | |
| - | - | | - | - | - | - | - | - | - | |
| - | - | | - | - | - | - | - | - | - | |
| - | - | | - | - | - | - | - | - | - | |
| - | - | | - | - | - | - | - | - | - | |
| Only Four 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,
Deputy Director (Maint)
NHA, Wazirabad
(Extension of Existing Steel Motorcyclist Ramp near Lalamusa at km 1397 + 300 on N-5)

Reference # CED/TFL **1999** (Dr. M Rizwan Riaz) Dated: 22-09-2022
Reference of the request letter # BC-PN-19-05-06/DD(M)/WZD/22/1075 Dated: 02-09-2022

Weight & Size Test Report (Page – 2/3)

Date of Test 27-09-20222
Description Chequered Plate Weight and Size Test

| Sr. No. | Designation | Weight | Length | Width (b) | Weight per Unit Area | Thickness | Remark |
|---------------------------------|-------------|--------|--------|-----------|----------------------|-----------|--------|
| | (mm) | (g) | (mm) | (mm) | (kg/m ²) | (mm) | |
| 1 | 5 | 414 | 102.00 | 102.30 | 39.68 | 4.90 | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| Only One Sample for 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,
Ghaffar Ahmed
Faisalabad

Reference # CED/TFL **2000** (Dr. M Rizwan Riaz)
Reference of the request letter # Nil

Dated: 22-09-2022

Dated: 22-09-2022

Tension Test Report (Page – 1/1)

Date of Test 26-09-2022
Gauge length 2 inches
Description Sheet Strip Tensile Test

| Sr. No. | Designation | Size of Strip | X Section Area | Yield load | Breaking Load | Yield Stress | Ultimate Stress | Elongation | % Elongation | Remarks |
|---|-------------|---------------|--------------------|------------|---------------|--------------|-----------------|------------|--------------|---------|
| | ----- | (mm) | (mm ²) | (kg) | (kg) | (MPa) | (MPa) | (in) | | |
| 1 | Sheet | 43.00x0.40 | 17.20 | 700 | 800 | 399 | 456 | 0.60 | 30.00 | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| Only One Sample for Tensile Test | | | | | | | | | | |
| Bend 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,
Executive Director - Projects
The Lake City Developers (Pvt) Ltd

Reference # CED/TFL **2004** (Dr. M Rizwan Riaz)
Reference of the request letter # LCRG/Test/007

Dated: 22-09-2022
Dated: 22-09-2022

Tension Test Report (Page -1/1)

Date of Test 27-09-2022
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 | 0.358 | 3 | 0.366 | 0.11 | 0.105 | 3400 | 4800 | 68200 | 71150 | 96200 | 100500 | 0.80 | 10.0 | |
| 2 | 0.359 | 3 | 0.367 | 0.11 | 0.106 | 3400 | 4700 | 68200 | 70920 | 94200 | 98100 | 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 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

Witness by Jafar Khan (Land Supervisor Unison Pvt)

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/09/2007

Dated: 23-09-2022

Dated of Test: 27-09-2022

To
Engineer's Representative
NESPAK
Construction of Additional Block at Pakistan Engineering Council (PEC)
Headquarters, G-5/2, Islamabad

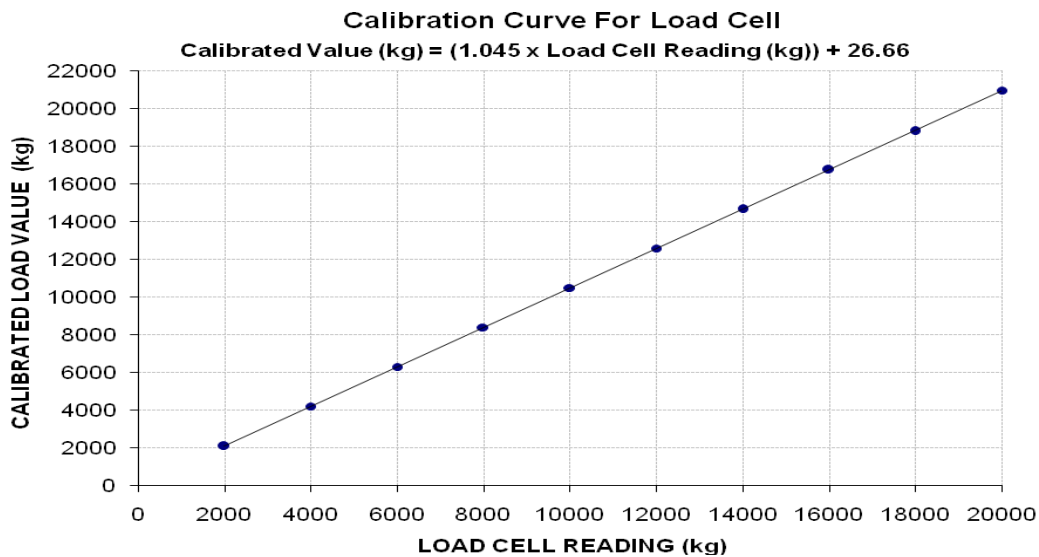
Subject: - CALIBRATION OF LOAD CELL (MARK: TFL/09/2007) (Page -1/2)

Reference to your Letter No. 4125/321/NS/05/482, Dated: 22/09/2022 on the subject cited above. One Load Cell as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 50000 (kg)
Calibrated Range : Zero - 20000 (kg)

| Load Cell Reading (kg) | 2000 | 4000 | 6000 | 8000 | 10000 | 12000 | 14000 | 16000 | 18000 | 20000 |
|------------------------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| Calibrated Load (kg) | 2100 | 4200 | 6300 | 8400 | 10500 | 12600 | 14650 | 16750 | 18800 | 20950 |

Witness by Amir Ali (Principal Engr. NESPAK)



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

Ref: CED/TFL/09/2007
2022

Dated: 23-09-

Dated of Test: 27-09-2022

To
Engineer's Representative
NESPAK
Construction of Additional Block at Pakistan Engineering Council (PEC)
Headquarters, G-5/2, Islamabad

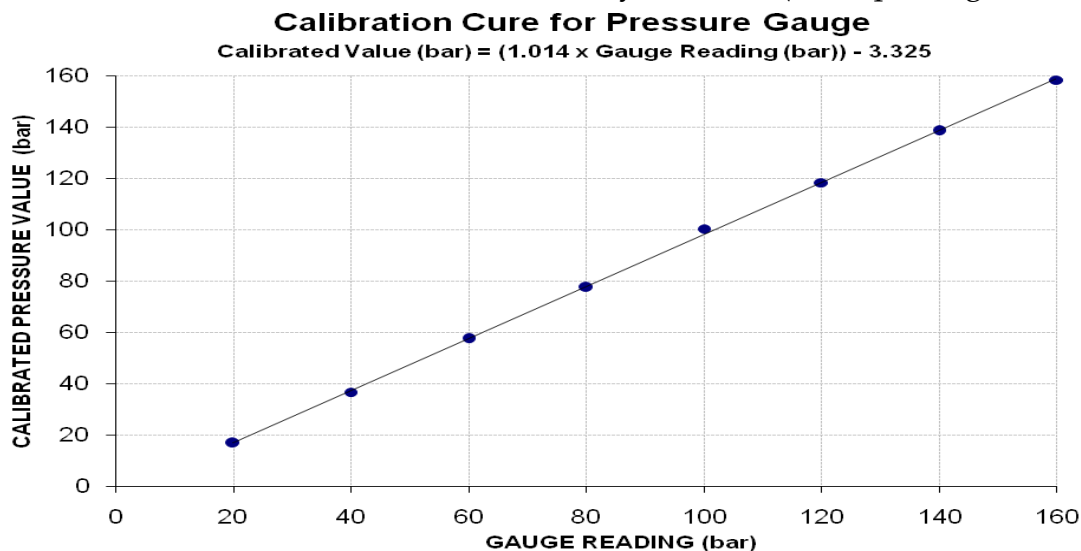
Subject: - **CALIBRATION OF PRESSURE GAUGE (MARK: TFL/09/2007)** (Page # 2/2)

Reference to your Letter No. 4125/321/NS/05/482, Dated: 22/09/2022 on the subject cited above. One Pressure Gauge as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 250 (bar)
Calibrated Range : Zero - 160 (bar)

| | | | | | | | | |
|-------------------------------------|-------|-------|-------|-------|--------|--------|--------|--------|
| Pressure Gauge Reading (bar) | 20 | 40 | 60 | 80 | 100 | 120 | 140 | 160 |
| Calibrated Load (kg) | 3400 | 7400 | 11600 | 15650 | 20250 | 23900 | 27950 | 31950 |
| Calibrated Pressure (bar) | 16.84 | 36.65 | 57.46 | 77.51 | 100.30 | 118.38 | 138.44 | 158.25 |

The Ram Area of Calibration = 198 cm² Witness by Amir Ali (Principal Engr. NESPAK)



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 Asia Poultry Feed (Pvt) Ltd.
Lahore
(Solar Project)

Reference # CED/TFL **2011** (Dr. M Rizwan Riaz)
Reference of the request letter # Nil

Dated: 23-09-2022
Dated: 23-09-2022

Tension Test Report (Page – 1/1)

Date of Test 27-09-2022
Gauge length 2 inches
Description Steel Strip Tensile Test

| Sr. No. | Designation | Size of Strip | X Section Area | Yield load | Breaking Load | Yield Stress | Ultimate Stress | Elongation | % Elongation | Remarks |
|--|-------------|---------------|--------------------|------------|---------------|--------------|-----------------|------------|--------------|---------|
| | ----- | (mm) | (mm ²) | (kg) | (kg) | (MPa) | (MPa) | (in) | | |
| 1 | Girder | 25.50x2.90 | 73.95 | 3300 | 4700 | 438 | 623 | 0.40 | 20.00 | |
| 2 | Channel | 24.10x2.90 | 69.89 | 2700 | 3900 | 379 | 547 | 0.60 | 30.00 | |
| 3 | Angle | 25.70x2.70 | 69.39 | 2500 | 3400 | 353 | 481 | 0.60 | 30.00 | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| Only Three Samples for Tensile Test | | | | | | | | | | |
| | | | | | | | | | | |
| Bend 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,
 Resident Engineer
 ESS-I-AAR Consultant
 Construction of Flyover at Railway Track Khan Pur District Rahim Yar Khan

Reference # CED/TFL **2012** (Dr. M Rizwan Riaz)
 Reference of the request letter # RE/ADP/R.Y.K/2321

Dated: 23-09-2022
 Dated: 15-09-2022

Tension Test Report (Page -1/1)

Date of Test 27-09-2022
 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 | 0.391 | 3 | 0.383 | 0.11 | 0.115 | 3500 | 5000 | 70200 | 67100 | 100200 | 95900 | 1.40 | 17.5 | FFC Steel |
| 2 | 0.372 | 3 | 0.373 | 0.11 | 0.109 | 3600 | 4600 | 72200 | 72570 | 92200 | 92800 | 1.40 | 17.5 | |
| 3 | 4.198 | 10 | 1.254 | 1.27 | 1.234 | 38800 | 53200 | 67400 | 69300 | 92400 | 95100 | 1.90 | 23.8 | |
| 4 | 4.348 | 10 | 1.276 | 1.27 | 1.278 | 40200 | 56200 | 69800 | 69340 | 97600 | 97000 | 1.90 | 23.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only four samples for tensile and two samples for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| #3 Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
| #10 Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |

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 FWO Fabrication Yard (FFY)
C/O HQ 495 Engineering Group
Lahore

Reference # CED/TFL **2016** (Dr. M Rizwan Riaz)
Reference of the request letter # 607/FFY

Dated: 26-09-2022
Dated: 26-09-2022

Tension Test Report (Page – 1/2)

Date of Test 27-09-2022
Gauge length 2 inches
Description W-Section Strip Tensile Test as per AASHTOO M-180

| Sr. No. | Designation | Size of Strip | X Section Area | Yield load | Breaking Load | Yield Stress | Ultimate Stress | Elongation | % Elongation | Remarks |
|---|-------------|---------------|--------------------|------------|---------------|-----------------------|-----------------------|------------|--------------|---------|
| | (mm) | (cm) | (cm ²) | (kg) | (kg) | (kg/cm ²) | (kg/cm ²) | (in) | | |
| 1 | W-Section | 2.680x0.27 | 0.72 | 5400 | 6800 | 7463 | 9397 | 0.40 | 20.00 | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| Only One Sample for Tensile Test | | | | | | | | | | |
| Bend 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,
M/S FWO Fabrication Yard (FFY)
C/O HQ 495 Engineering Group
Lahore

Reference # CED/TFL **2016** (Dr. M Rizwan Riaz)
Reference of the request letter # 607/FFY

Dated: 26-09-2022
Dated: 26-09-2022

Tension Test Report (Page – 2/2)

Date of Test 27-09-2022
Gauge length 2 inches
Description Post Strip Tensile Test as per ASTM A183

| Sr. No. | Designation | Size of Strip | X Section Area | Yield load | Breaking Load | Yield Stress | Ultimate Stress | Elongation | % Elongation | Remarks |
|---|-------------|---------------|--------------------|------------|---------------|--------------|-----------------|------------|--------------|---------|
| | (mm) | (mm) | (mm ²) | (kg) | (kg) | (MPa) | (MPa) | (in) | | |
| 1 | Post | 26.80x6.20 | 166.16 | 5400 | 7300 | 319 | 431 | 0.70 | 35.00 | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| Only One Sample 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,
 Project Manager
 Icon Valley
 Phase II
 Signature by Icon

Reference # CED/TFL **2019** (Dr. M Rizwan Riaz)
 Reference of the request letter # IV-18

Dated: 26-09-2022
 Dated: 26-09-2022

Tension Test Report (Page -1/1)

Date of Test 27-09-2022
 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 | 0.364 | 3 | 0.369 | 0.11 | 0.107 | 3500 | 5000 | 70200 | 72030 | 100200 | 102900 | 1.10 | 13.8 | |
| 2 | 0.364 | 3 | 0.369 | 0.11 | 0.107 | 3600 | 5100 | 72200 | 74070 | 102200 | 105000 | 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
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
 NESPAK
 Construction of Flyover Rajjar Railway Crossing at Sarai Alamgir District Gujrat

Reference # CED/TFL **2020** (Dr. M Rizwan Riaz)
 Reference of the request letter # 103/GF/ML/Lab/02

Dated: 26-09-2022
 Dated: 20-09-2022

Tension Test Report (Page -1/1)

Date of Test 27-09-2022
 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 | 0.367 | 3 | 0.371 | 0.11 | 0.108 | 3100 | 4900 | 62200 | 63280 | 98200 | 100100 | 1.20 | 15.0 | |
| 2 | 0.368 | 3 | 0.371 | 0.11 | 0.108 | 3200 | 4900 | 64200 | 65240 | 98200 | 99900 | 1.20 | 15.0 | |
| 3 | 4.192 | 10 | 1.253 | 1.27 | 1.232 | 31000 | 40400 | 53800 | 55460 | 70200 | 72300 | 1.50 | 18.8 | |
| 4 | 4.186 | 10 | 1.252 | 1.27 | 1.230 | 26400 | 36400 | 45900 | 47290 | 63200 | 65200 | 1.40 | 17.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only four samples for tensile and two samples for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| #3 Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
| #10 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