



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

To,  
 Assistant Engineer  
 UET Narowal Lahore Campus  
 (Construction of Student services Center and Senior Staff Residences (Balance Work))(Kamran Steel)

Reference # CED/TFL **34851-55** (Dr. Rizwan Raiz)  
 Reference of the request letter # Uni/NRL/AEN/159

Dated: 20-04-2020  
 Dated: 19-03-2020

**Tension Test Report** (Page -1/1)

Date of Test 22-04-2020  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No.                                                                | Weight<br>(lbs/ft) | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load<br>(kg) | Breaking<br>Load<br>(kg) | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation<br>(inch) | % Elongation | Remarks |
|------------------------------------------------------------------------|--------------------|-------------------|------------------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|----------------------|--------------|---------|
|                                                                        |                    | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual |                    |                          | Nominal               | Actual | Nominal                  | Actual |                      |              |         |
| 1                                                                      | 0.372              | 3                 | 0.373            | 0.11                       | 0.109  | 3100               | 4500                     | 62200                 | 62540  | 90200                    | 90800  | 1.20                 | 15.0         |         |
| 2                                                                      | 0.372              | 3                 | 0.373            | 0.11                       | 0.109  | 3400               | 4900                     | 68200                 | 68450  | 98200                    | 98700  | 1.30                 | 16.3         |         |
| -                                                                      | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -                                                                      | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -                                                                      | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -                                                                      | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| <b>Note: only two samples for tensile and one sample for bend test</b> |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
| Bend Test                                                              |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
| # 3 Dia 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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- 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,  
 Resident Engineer  
 Metroplan-Asian Jv  
 Resident Construction Supervision for Establishment of 200 Bedded Mother & Child Hospital  
 and Nursing College, District Mianwali

Reference # CED/TFL **34852** (Dr. M Rizwan Riaz) Dated: 21-04-2020  
 Reference of the request letter # Metroplan Asian Jv-Nexus-MMCH-RE-131 Dated: 20-04-2020

**Tension Test Report** (Page -1/1)

Date of Test 22-04-2020

Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No.                                                                  | Weight<br>(lbs/ft) | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load<br>(kg) | Breaking<br>Load<br>(kg) | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation<br>(inch) | % Elongation | Remarks    |
|--------------------------------------------------------------------------|--------------------|-------------------|------------------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|----------------------|--------------|------------|
|                                                                          |                    | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual |                    |                          | Nominal               | Actual | Nominal                  | Actual |                      |              |            |
| 1                                                                        | 0.370              | 3                 | 0.372            | 0.11                       | 0.109  | 3000               | 4900                     | 60200                 | 60840  | 98200                    | 99400  | 1.50                 | 18.8         | Moiz Steel |
| 2                                                                        | 0.368              | 3                 | 0.371            | 0.11                       | 0.108  | 3100               | 5000                     | 62200                 | 63100  | 100200                   | 101800 | 1.30                 | 16.3         |            |
| 3                                                                        | 4.227              | 10                | 1.258            | 1.27                       | 1.242  | 49400              | 62400                    | 85800                 | 87640  | 108300                   | 110700 | 1.20                 | 15.0         |            |
| 4                                                                        | 4.256              | 10                | 1.262            | 1.27                       | 1.251  | 49200              | 62200                    | 85400                 | 86680  | 108000                   | 109600 | 1.20                 | 15.0         |            |
| -                                                                        | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |            |
| -                                                                        | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |            |
| <b>Note: only four samples for tensile and two samples for bend test</b> |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |            |
| Bend Test                                                                |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |            |
| #3 Bar Bend Test Through 180° is Satisfactory                            |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |            |
| #10 Bar Bend Test Through 180° is Satisfactory                           |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |            |

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**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 IVY Green Sector-Z DHA Ph-VIII (M/s MCC Ruba)

Reference # CED/TFL **34853** (Dr. M Rizwan Riaz)  
Reference of the request letter # 408/241/E/Lab/885/2364

Dated: 21-04-2020  
Dated: 21-04-2020

**Tension Test Report** (Page -1/1)

Date of Test 22-04-2020  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No.                                                                | Weight<br>(lbs/ft) | Diameter/<br>size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load<br>(kg) | Breaking<br>Load<br>(kg) | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation<br>(inch) | % Elongation | Remarks     |
|------------------------------------------------------------------------|--------------------|-------------------|------------------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|----------------------|--------------|-------------|
|                                                                        |                    | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual |                    |                          | Nominal               | Actual | Nominal                  | Actual |                      |              |             |
| 1                                                                      | 0.388              | 3                 | 0.381            | 0.11                       | 0.114  | 3400               | 4800                     | 68200                 | 65690  | 96200                    | 92800  | 1.10                 | 13.8         | Bilal Steel |
| 2                                                                      | 0.386              | 3                 | 0.380            | 0.11                       | 0.114  | 3500               | 4700                     | 70200                 | 67910  | 94200                    | 91200  | 1.20                 | 15.0         |             |
| -                                                                      | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |             |
| -                                                                      | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |             |
| -                                                                      | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |             |
| -                                                                      | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |             |
| <b>Note: only two samples for tensile and one sample for bend test</b> |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |             |
| Bend Test                                                              |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |             |
| #3 Bar Bend Test Through 180° is Satisfactory                          |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |             |
|                                                                        |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |             |
|                                                                        |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |             |

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To,  
 Project Manager  
 Dupak Properties (Pvt) Ltd  
 Defence view Apartments at Shanghai Road, Lahore

Reference # CED/TFL **34854** (Dr. M Rizwan Riaz)  
 Reference of the request letter # Dupak/DVA/044

Dated: 21-04-2020  
 Dated: 21-04-2020

**Tension Test Report** (Page -1/1)

Date of Test 22-04-2020  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No.                                                                | Weight<br>(lbs/ft) | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load<br>(kg) | Breaking<br>Load<br>(kg) | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation<br>(inch) | % Elongation | Remarks |
|------------------------------------------------------------------------|--------------------|-------------------|------------------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|----------------------|--------------|---------|
|                                                                        |                    | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual |                    |                          | Nominal               | Actual | Nominal                  | Actual |                      |              |         |
| 1                                                                      | 0.371              | 3                 | 0.373            | 0.11                       | 0.109  | 3700               | 5300                     | 74200                 | 74700  | 106200                   | 107100 | 1.20                 | 15.0         |         |
| 2                                                                      | 0.375              | 3                 | 0.375            | 0.11                       | 0.110  | 3800               | 5400                     | 76200                 | 75970  | 108200                   | 108000 | 1.10                 | 13.8         |         |
| -                                                                      | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -                                                                      | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -                                                                      | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -                                                                      | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| <b>Note: only two samples for tensile and one sample for bend test</b> |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
| Bend Test                                                              |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
| #3 Bar Bend Test Through 180° is Satisfactory                          |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
|                                                                        |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
|                                                                        |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |         |

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