

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

Ref: <u>CED/TFL/09/3855</u> 2023 Dated of Test: 06-09-2023 Dated: 04-09-

То

#### **Construction Manager**

#### State Grid

### China Power Equipment and Technology Co., Ltd.

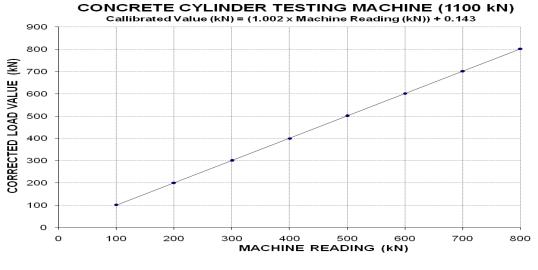
Procurement of Plant, Design, Supply, Installation, Testing and Commissioning of 500/220/132kV Lahore North Substation and Extension Works at 500/220/132kV Nokhar Substation.

# Subject:- CALIBRATION OF CONCRETE CYLINDER TESTING MACHINE (MARK: CED/TFL/09/3855)

Reference to your letter No. CET/ADB-300AR/S/2023-24, dated: 01/09/2023 on the subject cited above. One Concrete Cylinder Testing Machine has been calibrated by using standard calibration device. The results are tabulated as under:

| Total Range      | : | Zero – 1100 (kg) |
|------------------|---|------------------|
| Calibrated Range | : | Zero - 800 (kg)  |

| Machine Reading (kN)      | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Corrected Load Value (kN) | 102 | 200 | 300 | 400 | 500 | 602 | 702 | 802 |



I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

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Ref: <u>CED/TFL/09/3861</u>

Dated: 05-09-2023

Dated of Test: 06-09-2023

То

Resident Engineer Asian Consulting Engineers Punjab Rural Sustainable Water Supply & Sanitation Project (PRSWSSP) Engineering Design and Construction Supervision of Cluster South-I

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

Reference to your letter No. AsCE/PRSWSSP/CS1/SITE-010, dated

04.09.2023 on the subject cited above. One R.C.C. Pipe as received by us has been tested.

The results are tabulated as under.

| Sr.<br>No | Nominal<br>Size | Total<br>Length | Loaded<br>Length | External<br>Diameter | Internal<br>Diameter | Wall<br>Thickness | Proof load | Ultimate<br>Load | Proof<br>Stress           | Ultimate<br>Stress        |
|-----------|-----------------|-----------------|------------------|----------------------|----------------------|-------------------|------------|------------------|---------------------------|---------------------------|
| •         | (inch)          | (foot)          | (foot)           | (inch)               | (inch)               | (inch)            | (kg)       | (kg)             | Pound/Linear<br>foot/foot | Pound/Linear<br>foot/foot |
| 1         | 12              | 7.79            | 7.33             | 16.14                | 11.84                | 2.15              | 12000      | 15500            | 3658                      | 4724                      |

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To

# STRUCTURAL ENGINEERING DIVISION

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

Umair Latif, Development Engineer, University of the Punjab, Lahore. "Construction of Law College Graduate Block (Phase-I) at University Law College at Q.A.C, University of the Punjab, Lahore. Reference # CED/TFL **3873** (Dr. M. Yousaf) Dated: 06-09-2023 Reference of the request letter # D-3357-DE Dated: 05-09-2023

**Tension Test Report** (Page -1/2)

Date of Test 06-09-2023

Gauge length 8 inches Description

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

| Sr. No. | Weight   | Diameter/<br>Size |                  | Area<br>(in²) |           | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |          | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks |
|---------|----------|-------------------|------------------|---------------|-----------|------------|------------------|-----------------------|----------|--------------------------|--------|------------|--------------|---------|
| S       | (lbs/ft) | Nominal<br>(#)    | Actual<br>(inch) | Nominal       | Actual    | (kg)       | (kg)             | Nominal               | Actual   | Nominal                  | Actual | (inch)     | % E          | Re      |
| 1       | 0.372    | 3                 | 0.373            | 0.11          | 0.109     | 4000       | 4680             | 80200                 | 80590    | 93800                    | 94300  | 1.00       | 12.5         |         |
| 2       | 0.372    | 3                 | 0.373            | 0.11          | 0.109     | 4000       | 4640             | 80200                 | 80640    | 93000                    | 93600  | 0.90       | 11.3         |         |
| -       | -        | -                 | -                | -             | -         | -          | -                | -                     | -        | -                        | -      | -          | -            |         |
| -       | -        | -                 | -                | -             | -         | -          | -                | -                     | -        | -                        | -      | -          | -            |         |
| -       | -        | -                 | -                | -             | -         | -          | -                | -                     | -        | -                        | -      | -          | -            |         |
| -       | -        | -                 | -                | -             | -         | -          | -                | -                     | -        | -                        | -      | -          | -            |         |
|         |          |                   | N                | ote: on       | ly two s  | amples f   | or tensile       | and one               | sample f | or bend t                | test   |            |              |         |
|         |          |                   |                  |               |           |            |                  |                       |          |                          |        |            |              |         |
|         |          |                   |                  |               |           |            | Bend T           | est                   |          |                          |        |            |              |         |
| #3      | Bar Ben  | d Test 7          | Fhrough          | 180° is       | s Satisfa | ictory     |                  |                       |          |                          |        |            |              |         |
|         |          |                   |                  |               |           |            |                  |                       |          |                          |        |            |              |         |

I/C Testing Laboratoires UET Lahore, Pakistan.

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

To,

Assistant Engineer (Civil) University of Engineering and Technology, Lahore "Construction of Upper Floor of Existing Building of the Department Computer Science, Main Campus UET Lahore" Reference # CED/TFL <u>3859 (Dr. M Kashif)</u> Dated: 04-09-2023 Reference of the request letter # B&W/ECSCE/11 Dated: 01-09-2023

# Tension Test Report(Page -2/2)Date of Test05-09-2023Gauge length8 inchesDescriptionDeformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No. | Weight   | Diameter/<br>Size |                  | Area<br>(in²) |           | Yield load | Breaking<br>Load<br>isd) B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B |         |           |           | Ultimate Stress<br>(psi) |        | % Elongation | Remarks |
|---------|----------|-------------------|------------------|---------------|-----------|------------|--|---------|-----------|-----------|--------------------------|--------|--------------|---------|
| S       | (lbs/ft) | Nominal<br>(#)    | Actual<br>(inch) | Nominal       | Actual    | (kg)       | (kg)   | Nominal | Actual    | Nominal   | Actual                   | (inch) | % E          | Re      |
| 1       | 0.382    | 3                 | 0.378            | 0.11          | 0.112     | 4380       | 5100   | 87800   | 85880     | 102200    | 100000                   | 1.00   | 12.5         |         |
| 2       | 0.381    | 3                 | 0.378            | 0.11          | 0.112     | 4380       | 5150   | 87800   | 86230     | 103200    | 101400                   | 1.00   | 12.5         |         |
| -       | -        | -                 | -                | -             | -         | -          | -  | -       | -         | -         | -                        | -      | -            |         |
| -       | -        | -                 | -                | -             | -         | -          | -  | -       | -         | -         | -                        | -      | -            |         |
| -       | -        | -                 | -                | -             | -         | -          | -  | -       | -         | -         | -                        | -      | -            |         |
| -       | -        | -                 | -                | -             | -         | -          | -  | -       | -         | -         | -                        | -      | -            |         |
|         |          |                   | N                | ote: on       | ly one s  | sample fo  | or tensile   | and one | sample fo | or bend t | est                      |        |              |         |
|         |          |                   |                  |               |           |            | Bend T   | 'est    |           |           |                          |        |              |         |
| #3      | Bar Ben  | d Test 🛛          | Fhrough          | 180° is       | s Satisfa | ctory      | Dena 1   | -51     |           |           |                          |        |              |         |
|         |          |                   |                  |               |           |            |  |         |           |           |                          |        |              |         |
|         |          |                   |                  |               |           |            |  |         |           |           |                          |        |              |         |

I/C Testing Laboratoires UET Lahore, Pakistan.

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To

Engr. Naveed Sadiq, Resident Engineer, Orbit Housing

### Subject:"The Springs Apartment Homes"

Reference # CED/TFL **3877** (Dr.Kashif) Reference of the request letter # NIL

Dated: 06-09-2023 Dated: 06-09-2023

Remarks

|         | Т        | ension         | Test l           | Repor                      | t (P       | age -1/2)                      |           |                       |             |          |                  |            |            |  |
|---------|----------|----------------|------------------|----------------------------|------------|--------------------------------|-----------|-----------------------|-------------|----------|------------------|------------|------------|--|
|         | Da       | ate of T       | est              | 06                         | 06-09-2023 |                                |           |                       |             |          |                  |            |            |  |
|         | Ga       | auge ler       | ngth             | 8                          | 8 inches   |                                |           |                       |             |          |                  |            |            |  |
|         | De       | escriptio      | on               | D                          | eformed    | l Steel Ba                     | r Tensile | and Bend              | l Test as p | ber ASTM | <b>1-</b> A615   |            |            |  |
| Sr. No. | Weight   |                |                  | Area<br>(in <sup>2</sup> ) |            | Yield load<br>Breaking<br>Load |           | Yield Stress<br>(psi) |             |          | te Stress<br>si) | Elongation | Elongation |  |
|         | (lbs/ft) | Nominal<br>(#) | Actual<br>(inch) | Nominal                    | Actual     | (kg)                           | (kg)      | Nominal               | Actual      | Nominal  | Actual           | (inch)     | % E        |  |
| 1       | 0.367    | 3              | 0.371            | 0.11                       | 0.108      | 3520                           | 4900      | 70600                 | 71900       | 98200    | 100100           | 0.90       | 11.3       |  |
| 2       | 0.365    | 3              | 0.370            | 0.11                       | 0.107      | 3180                           | 4640      | 63800                 | 65260       | 93000    | 95300            | 0.90       | 11.3       |  |
| -       | -        | -              | -                | -                          | -          | -                              | -         | -                     | -           | -        | -                | -          | -          |  |
| -       | -        | -              | -                | -                          | -          | -                              | -         | -                     | -           | -        | -                | -          | -          |  |
|         |          |                |                  |                            |            |                                |           |                       |             |          |                  |            |            |  |

Note: only two samples for tensile and one sample for bend test

Bend Test

I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

#3 Bar Bend Test Through 180° is Satisfactory

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