



# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali, Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

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Name of Agency:- M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Venture)

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Itkheda, Chamber Measurement

| Date | Particulars of work  | DETAILS                |         |         |       |       |       | Content of arrears | Last measurement |          | Total Upto Date Quantity |
|------|--|------------------------|---------|---------|-------|-------|-------|--------------------|------------------|----------|--------------------------|
|      |  | No                     |         |         | L     | B     | D     |                    | Page             | Quantity |                          |
|      |  | GL                     | IL      | EX.L    |       |       |       |                    |                  |          |                          |
|      | Item No. : 11 Transportation of earth Transportation charges including loading & unloading     |                        |         |         |       |       |       | 1.460              |                  | 22.919   | 24.379                   |
|      | Item No. 30 :- Refilling the excavated trenches ...  |                        |         |         |       |       |       |                    |                  |          |                          |
|      | <b>Total Excavation(A)=</b>  |                        |         |         |       |       |       | <b>3.705</b>       |                  |          |                          |
|      | <b>Deduction</b>   |                        |         |         |       |       |       |                    |                  |          |                          |
|      | Brick work   | 1.00                   |         | 0.785   | 1.16  | 1.16  | 0.930 | 0.98               |                  |          |                          |
|      | soling   |                        |         |         |       |       |       | 0.00               |                  |          |                          |
|      | PCC  | 1.00                   |         | 0.785   | 1.56  | 1.56  | 0.25  | 0.48               |                  |          |                          |
|      | Murum bedding  |                        |         |         |       |       |       | 0.00               |                  |          |                          |
|      | <b>Total (B)</b>   |                        |         |         |       |       |       | <b>1.46</b>        |                  |          |                          |
|      |  | <b>Net Qty = A - B</b> |         |         |       |       |       |                    |                  | 36.96    | 39.21                    |
|      | <b>IT8.1</b>   |                        |         |         |       |       |       | <b>2.25</b>        |                  |          |                          |
|      | <b>CH42.00</b>   | 540.515                | 540.115 | 539.865 |       |       |       | 0.650              |                  |          |                          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete. |                        |         |         |       |       |       |                    |                  |          |                          |
|      | (a) For Lift 0 to 1.5m   | 1                      |         |         | 0.785 | 4.000 | 0.735 | 2.308              |                  | 60.319   | 62.627                   |
|      | Item No. : 11 Transportation of earth Transportation charges including loading & unloading     |                        |         |         |       |       |       | 0.900              |                  | 24.379   | 25.279                   |
|      | Item No. 30 :- Refilling the excavated trenches ...  |                        |         |         |       |       |       |                    |                  |          |                          |
|      | <b>Total Excavation(A)=</b>  |                        |         |         |       |       |       | <b>2.308</b>       |                  |          |                          |
|      | <b>Deduction</b>   |                        |         |         |       |       |       |                    |                  |          |                          |
|      | Brick work   | 1.00                   |         | 0.785   | 1.16  | 1.16  | 0.400 | 0.42               |                  |          |                          |
|      | soling   |                        |         |         |       |       |       | 0.00               |                  |          |                          |
|      | PCC  | 1.00                   |         | 0.785   | 1.56  | 1.56  | 0.25  | 0.48               |                  |          |                          |
|      | Murum bedding  |                        |         |         |       |       |       | 0.00               |                  |          |                          |
|      | <b>Total (B)</b>   |                        |         |         |       |       |       | <b>0.90</b>        |                  |          |                          |
|      |  | <b>Net Qty = A - B</b> |         |         |       |       |       |                    |                  | 39.21    | 40.61                    |
|      | <b>IT8.2</b>   |                        |         |         |       |       |       | <b>1.41</b>        |                  |          |                          |
|      | <b>CH78.00</b>   | 540.615                | 540.115 | 539.865 |       |       |       | 0.750              |                  |          |                          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete. |                        |         |         |       |       |       |                    |                  |          |                          |
|      | (a) For Lift 0 to 1.5m   | 1                      |         |         | 0.785 | 4.000 | 0.750 | 2.355              |                  | 62.627   | 64.982                   |
|      | (b) For Lift 1.5 to 3.0m   | 1                      |         |         | 0.785 | 4.000 | 0.000 | 0.000              |                  | 3.266    | 3.266                    |
|      | Item No. : 11 Transportation of earth Transportation charges including loading & unloading     |                        |         |         |       |       |       | 1.006              |                  | 25.279   | 26.285                   |
|      | Item No. 30 :- Refilling the excavated trenches ...  |                        |         |         |       |       |       |                    |                  |          |                          |
|      | <b>Total Excavation(A)=</b>  |                        |         |         |       |       |       | <b>2.355</b>       |                  |          |                          |
|      | <b>Deduction</b>   |                        |         |         |       |       |       |                    |                  |          |                          |
|      | Brick work   | 1.00                   |         | 0.785   | 1.16  | 1.16  | 0.500 | 0.53               |                  |          |                          |
|      | soling   |                        |         |         |       |       |       | 0.00               |                  |          |                          |
|      | PCC  | 1.00                   |         | 0.785   | 1.56  | 1.56  | 0.25  | 0.48               |                  |          |                          |
|      | Murum bedding  |                        |         |         |       |       |       | 0.00               |                  |          |                          |
|      | <b>Total (B)</b>   |                        |         |         |       |       |       | <b>1.01</b>        |                  |          |                          |
|      |  | <b>Net Qty = A - B</b> |         |         |       |       |       |                    |                  | 40.61    | 41.96                    |
|      |  |                        |         |         |       |       |       | <b>1.35</b>        |                  |          |                          |



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# AURANGABAD MUNICIPAL CORPORA

(From No.52)

## Measurement Book

Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali, Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main GRP DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to S1P for Aurangabad City.

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Name of Agency:- M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Venture)

Authority No. AMC/Ward B&C/UIDSSMT/2014/184 Date 01.07.2014

### 12th R A BILL MEASUREMENTS CHEMBER ITKHEDA

| SR NO | CHEMBER NUMBER   | DETAILS |         |       | Rebate up to<br>Depth of 1.5 mtr<br>For per 30 cm | Total<br>Rebate Qty<br>for 30 cm |
|-------|--|---------|---------|-------|---|----------------------------------|
|       |  | No      |         |       |   |                                  |
|       |  | GL/MTL  | IL      | DEPTH |   |                                  |
| A     | Extra Item: Providing and constructing on sewer.BBM manhole 0.9 m dia at bottom and 0.5 m dia at top and up to a depth of 1.5 M etc., complete |         |         |       |   |                                  |
| 1     |  |         |         |       |   |                                  |
| 1     | IT1  | 541.120 | 539.740 | 1.380 | 1.500   | -0.12 ✓                          |
| 2     | IT2  | 541.150 | 539.750 | 1.400 | 1.500   | -0.10 ✓                          |
| 3     | IT3  | 541.140 | 539.760 | 1.380 | 1.500   | -0.12 ✓                          |
| 4     | IT4  | 540.960 | 539.770 | 1.190 | 1.500   | -0.31 ✓                          |
| 5     | IT5  | 541.050 | 539.800 | 1.250 | 1.500   | -0.25 ✓                          |
| 6     | IT6  | 541.280 | 539.830 | 1.450 | 1.500   | -0.05 ✓                          |
| 7     | IT7  | 541.250 | 539.900 | 1.350 | 1.500   | -0.15 ✓                          |
| 8     | IT8  | 541.450 | 540.000 | 1.450 | 1.500   | -0.05 ✓                          |
| 9     | IT9  | 541.460 | 540.090 | 1.370 | 1.500   | -0.13 ✓                          |
| 10    | IT10   | 541.750 | 540.190 | 1.560 | 1.500   | 0.06 ✓                           |
| 11    | IT11   | 541.890 | 540.490 | 1.400 | 1.500   | -0.10 ✓                          |
| 12    | IT5.1  | 541.190 | 540.090 | 1.100 | 1.500   | -0.40 ✓                          |
| 13    | IT5.2  | 541.290 | 540.190 | 1.100 | 1.500   | -0.40 ✓                          |
| 14    | IT5.3  | 541.200 | 540.270 | 0.930 | 1.500   | -0.57 ✓                          |
| 15    | IT8.1  | 541.115 | 540.115 | 1.000 | 1.500   | -0.50 ✓                          |
| 16    | IT8.2  | 541.215 | 540.115 | 1.100 | 1.500   | -0.40 ✓                          |
|       |  |         |         |       |   | -3.59 ✓                          |
|       |  |         |         |       |   | -11.97 ✓                         |



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Name of Agency:- M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Veneture)

Authority No. AMC/Ward B&C/UIDSSMT/2014/184 Date 01.07.2014

| SR NO | Discription  | MB/PG | ITEM 1         |               | ITEM 7        | ITEM 11       | ITEM 12        |                | ITEM 13        |                | ITEM 30        | Extra Item 2<br>0-1.5 m | Extra Item 2.a<br>Rebate |
|-------|--------------|-------|----------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|-------------------------|--------------------------|
|       |              |       | 0-1.5          | 1.5-3.0       |               |               | 250mm          | 315mm          | 250mm          | 315mm          |                |                         |                          |
| 1     | For Pipe     |       | 536.701        | 12.065        | 42.205        | 60.027        | 175.300        | 395.900        | 175.300        | 395.900        | 501.652        |                         |                          |
| 2     | For Manhole  |       | 64.982         | 3.266         | *             | 26.285        | *              | *              | *              | *              | 41.963         | 16.000                  | -11.967                  |
|       | <b>Total</b> |       | <b>601.684</b> | <b>15.330</b> | <b>42.205</b> | <b>86.312</b> | <b>175.300</b> | <b>395.900</b> | <b>175.300</b> | <b>395.900</b> | <b>543.615</b> | <b>16.000</b>           | <b>-11.967</b>           |





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Itkheda- 200mm RCC Pipe -MB-I

### 17th RA BILL MEASUREMENTS

| Itkheda (RCC) |  |         |         |         |        |       |       |                 |                  |          |               |
|---------------|--|---------|---------|---------|--------|-------|-------|-----------------|------------------|----------|---------------|
| Date          | Particulars of work  | DETAILS |         |         |        |       |       | Content of area | Last measurement |          | TOTAL TO DATE |
|               |  | No      |         |         | L      | B     | D     |                 | Page             | Quantity |               |
|               |  | GL      | IL      | EX.L    |        |       |       |                 |                  |          |               |
|               | RCC 200mm Dia  |         |         |         |        |       |       |                 |                  |          |               |
|               | Width of Trench - For  |         |         |         |        |       |       |                 |                  |          |               |
|               | Bottom Lift 0.00-1.50m-<br>0.200+0.06+0.06+0.5=0.82m   |         |         |         |        |       |       |                 |                  |          |               |
|               | From Bottom Lift 1.50m-3.00m-<br>0.25+0.06+0.06+0.5+0.4=1.22m  |         |         |         |        |       |       |                 |                  |          |               |
|               | From Bottom Lift 3.00m-4.50m-<br>0.25+0.06+0.06+0.5+0.4+0.4 = 1.62m  |         |         |         |        |       |       |                 |                  |          |               |
| 23/11/16      | ITK0(oid) TO ITK1  |         |         |         |        |       |       |                 |                  |          |               |
|               | CH0.00   | 538.750 | 538.000 | 537.800 |        |       | 0.950 | 1.035           |                  |          |               |
|               | CH8.90   | 539.115 | 538.195 | 537.995 |        |       | 1.120 |                 |                  |          |               |
|               | Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.  |         |         |         |        |       |       |                 |                  |          |               |
|               | (a) For Lift 0 to 1.5m   | 1       |         |         | 7.200  | 0.820 | 0.885 | 5.225           | 0.000            | 5.225    |               |
|               | Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.  |         |         |         |        |       |       |                 |                  |          |               |
|               | (a) For Lift 0 to 1.5m   | 1       |         |         | 7.200  | 0.820 | 0.150 | 0.886           | 0.000            | 0.886    |               |
|               | Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)  | 1       |         |         | 7.200  | 0.820 | 0.200 | 1.181           | 0.000            | 1.181    |               |
|               | Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead |         |         |         |        |       |       | 1.563           | 0.000            | 1.563    |               |
|               | Extra item 9.4 a) : Lowering & Laying RCC NP3 class pipe of 200mm Dia  | 1       |         |         | 8.000  |       |       | 8.000           | 0.000            | 8.000    |               |
|               | Item No 30 :- Refilling the excavated trenches ...   |         |         |         |        |       |       |                 |                  |          |               |
|               | Total Excavation = A   |         |         |         |        |       |       | 6.111           |                  |          |               |
|               | Deduction  |         |         |         |        |       |       |                 |                  |          |               |
|               | pipe area  | 1       |         | 0.785   | 7.200  | 0.260 | 0.260 | 0.382           |                  |          |               |
|               | soling   |         |         |         |        |       |       | 0.000           |                  |          |               |
|               | PCC  |         |         |         |        |       |       | 0.000           |                  |          |               |
|               | Murum bedding  |         |         |         |        |       |       | 1.181           |                  |          |               |
|               | Total = B  |         |         |         |        |       |       | 1.563           |                  |          |               |
|               | Net Qty = A - B  |         |         |         |        |       |       | 4.548           | 0.000            | 4.548    |               |
| 24/11/16      | ITK1 TO ITK2   |         |         |         |        |       |       |                 |                  |          |               |
|               | CH8.90   | 539.115 | 538.195 | 537.995 |        |       | 1.120 | 1.260           |                  |          |               |
|               | CH21.80  | 539.595 | 538.395 | 538.195 |        |       | 1.400 |                 |                  |          |               |
|               | Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.  |         |         |         |        |       |       |                 |                  |          |               |
|               | (a) For Lift 0 to 1.5m   | 1       |         |         | 10.900 | 0.820 | 1.110 | 9.921           | 5.225            | 15.146   |               |
|               | Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.  |         |         |         |        |       |       |                 |                  |          |               |
|               | (a) For Lift 0 to 1.5m   | 1       |         |         | 10.900 | 0.820 | 0.150 | 1.341           | 0.886            | 2.226    |               |
|               | Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)  | 1       |         |         | 10.900 | 0.820 | 0.200 | 1.788           | 1.181            | 2.968    |               |



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Itkheda- 200mm RCC Pipe -MB-I

| Date    | Particulars of work   | DETAILS |         |         |        |       | Content of area | Last measurment |               | TOTAL TO DATE |          |
|---------|---|---------|---------|---------|--------|-------|-----------------|-----------------|---------------|---------------|----------|
|         |   | No      |         |         | L      | B     |                 | D               | Page          |               | Quantity |
|         |   | GL      | IL      | EX.L    |        |       |                 |                 |               |               |          |
|         | Item No. : 11 Transportation of earth<br>Transportation charges including<br>loading & unloading excavated<br>material for a lead beyond initial lead |         |         |         |        |       | 2.366           |                 | 1.563         | 3.929         |          |
|         | Extra Item 9.4 a) : Lowering &<br>Laying RCC NP3 class pipe of 200mm<br>Dia   | 1       |         |         | 12.000 |       | 12.000          |                 | 8.000         | 20.000        |          |
|         | Item No 30 :- Refilling the excavated<br>trenches ...   |         |         |         |        |       |                 |                 |               |               |          |
|         | <b>Total Excavation = A</b>   |         |         |         |        |       | <b>11.262</b>   |                 |               |               |          |
|         | <b>Deduction</b>  |         |         |         |        |       |                 |                 |               |               |          |
|         | pipe area   | 1       |         | 0.785   | 10.900 | 0.260 | 0.260           | 0.578           |               |               |          |
|         | soling  |         |         |         |        |       |                 | 0.000           |               |               |          |
|         | PCC   |         |         |         |        |       |                 | 0.000           |               |               |          |
|         | Murum bedding   |         |         |         |        |       |                 | 1.788           |               |               |          |
|         | <b>Total = B</b>  |         |         |         |        |       | <b>2.366</b>    |                 |               |               |          |
|         |   |         |         |         |        |       | <b>8.896</b>    |                 | <b>4.548</b>  | <b>13.444</b> |          |
|         | <b>Net Qty = A - B</b>  |         |         |         |        |       |                 |                 |               |               |          |
| 14/6/16 | <b>ITK2 TO ITK3</b>   |         |         |         |        |       |                 |                 |               |               |          |
|         | CH21.80   | 539.595 | 538.395 | 538.195 |        |       | 1.400           | 1.440           |               |               |          |
|         | CH38.70   | 539.915 | 538.635 | 538.435 |        |       | 1.480           |                 |               |               |          |
|         | Item No. 1 :- Excavation for<br>foundation/pipe trenches in all<br>typesof soil & soft murum etc<br>complete.   |         |         |         |        |       |                 |                 |               |               |          |
|         | (a) For Lift 0 to 1.5m  | 1       |         |         | 14.900 | 0.820 | 1.290           | 15.761          | 15.146        | 30.907        |          |
|         | Item No. 2 :- Excavation for<br>foundation/pipe trenches in Hard<br>murum etc complete.   |         |         |         |        |       |                 |                 |               |               |          |
|         | (a) For Lift 0 to 1.5m  | 1       |         |         | 14.900 | 0.820 | 0.150           | 1.833           | 2.226         | 4.059         |          |
|         | Item No. 7 :- Filling in plinth and<br>floors/ trenches etc<br>complete.(bedding)   | 1       |         |         | 14.900 | 0.820 | 0.200           | 2.444           | 2.968         | 5.412         |          |
|         | Item No. : 11 Transportation of earth<br>Transportation charges including<br>loading & unloading excavated<br>material for a lead beyond initial lead |         |         |         |        |       |                 | 3.234           | 3.929         | 7.163         |          |
|         | Extra Item 9.4 a) : Lowering &<br>Laying RCC NP3 class pipe of 200mm<br>Dia   | 1       |         |         | 16.000 |       |                 | 16.000          | 20.000        | 36.000        |          |
|         | Item No 30 :- Refilling the excavated<br>trenches ...   |         |         |         |        |       |                 |                 |               |               |          |
|         | <b>Total Excavation = A</b>   |         |         |         |        |       |                 | <b>17.594</b>   |               |               |          |
|         | <b>Deduction</b>  |         |         |         |        |       |                 |                 |               |               |          |
|         | pipe area   | 1       |         | 0.785   | 14.900 | 0.260 | 0.260           | 0.791           |               |               |          |
|         | soling  |         |         |         |        |       |                 | 0.000           |               |               |          |
|         | PCC   |         |         |         |        |       |                 | 0.000           |               |               |          |
|         | Murum bedding   |         |         |         |        |       |                 | 2.444           |               |               |          |
|         | <b>Total = B</b>  |         |         |         |        |       | <b>3.234</b>    |                 |               |               |          |
|         |   |         |         |         |        |       | <b>14.360</b>   |                 | <b>13.444</b> | <b>27.803</b> |          |
|         | <b>Net Qty = A - B</b>  |         |         |         |        |       |                 |                 |               |               |          |
| 14/6/16 | <b>ITK3 TO ITK4</b>   |         |         |         |        |       |                 |                 |               |               |          |
|         | CH38.70   | 539.915 | 538.635 | 538.435 |        |       | 1.480           | 1.445           |               |               |          |
|         | CH58.60   | 540.225 | 539.015 | 538.815 |        |       | 1.410           |                 |               |               |          |
|         | Item No. 1 :- Excavation for<br>foundation/pipe trenches in all<br>typesof soil & soft murum etc<br>complete.   |         |         |         |        |       |                 |                 |               |               |          |
|         | (a) For Lift 0 to 1.5m  | 1       |         |         | 17.900 | 0.820 | 1.295           | 19.008          | 30.907        | 49.915        |          |





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(From No.52)

## Measurement Book

Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali, Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main

Book No. :- 085  
Page No. :-

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Itkheda- 200mm RCC Pipe -MB-1

| Date | Particulars of work   | DETAILS |         |         |                        |       | Content of area | Last measurement |        | TOTAL TO DATE |          |
|------|---|---------|---------|---------|------------------------|-------|-----------------|------------------|--------|---------------|----------|
|      |   | No      |         |         | L                      | B     |                 | D                | Page   |               | Quantity |
|      |   | GL      | HL      | EX.L    |                        |       |                 |                  |        |               |          |
|      | <b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.   |         |         |         |                        |       |                 |                  |        |               |          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 17.900                 | 0.820 | 0.150           | 2.202            | 4.059  | 6.261         |          |
|      | <b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)  | 1       |         |         | 17.900                 | 0.820 | 0.200           | 2.936            | 5.412  | 8.348         |          |
|      | <b>Item No. : 11</b> Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead |         |         |         |                        |       |                 | 3.885            | 7.163  | 11.049        |          |
|      | <b>Extra Item 9.4 a) :</b> Lowering & Laying RCC NP3 class pipe of 200mm Dia  | 1       |         |         | 19.000                 |       |                 | 19.000           | 36.000 | 55.000        |          |
|      | <b>Item No 30 :-</b> Refilling the excavated trenches ...   |         |         |         |                        |       |                 |                  |        |               |          |
|      | <b>Total Excavation = A</b>   |         |         |         |                        |       |                 | 21.210           |        |               |          |
|      | <b>Deduction</b>  |         |         |         |                        |       |                 |                  |        |               |          |
|      | pipe area   | 1       |         | 0.785   | 17.900                 | 0.260 | 0.260           | 0.950            |        |               |          |
|      | soling  |         |         |         |                        |       |                 | 0.000            |        |               |          |
|      | PCC   |         |         |         |                        |       |                 | 0.000            |        |               |          |
|      | Murrum bedding  |         |         |         |                        |       |                 | 2.936            |        |               |          |
|      | <b>Total = B</b>  |         |         |         |                        |       |                 | 3.885            |        |               |          |
|      |   |         |         |         | <b>Net Qty = A - B</b> |       |                 | 17.324           | 27.803 | 45.127        |          |
|      | <b>ITK4 TO ITK5</b>   |         |         |         |                        |       |                 |                  |        |               |          |
|      | CH58.60   | 540.225 | 539.015 | 538.815 |                        |       | 1.410           | 1.405            |        |               |          |
|      | CH76.50   | 540.585 | 539.385 | 539.185 |                        |       | 1.400           |                  |        |               |          |
|      | <b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all typesof soil & soft murum etc complete.   |         |         |         |                        |       |                 |                  |        |               |          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 15.900                 | 0.820 | 1.255           | 16.363           | 49.915 | 66.278        |          |
|      | <b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.   |         |         |         |                        |       |                 |                  |        |               |          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 15.900                 | 0.820 | 0.150           | 1.956            | 6.261  | 8.216         |          |
|      | <b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)  | 1       |         |         | 15.900                 | 0.820 | 0.200           | 2.608            | 8.348  | 10.955        |          |
|      | <b>Item No. : 11</b> Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond Initial lead |         |         |         |                        |       |                 | 3.451            | 11.049 | 14.500        |          |
|      | <b>Extra Item 9.4 a) :</b> Lowering & Laying RCC NP3 class pipe of 200mm Dia  | 1       |         |         | 17.000                 |       |                 | 17.000           | 55.000 | 72.000        |          |
|      | <b>Item No 30 :-</b> Refilling the excavated trenches ...   |         |         |         |                        |       |                 |                  |        |               |          |
|      | <b>Total Excavation = A</b>   |         |         |         |                        |       |                 | 18.318           |        |               |          |
|      | <b>Deduction</b>  |         |         |         |                        |       |                 |                  |        |               |          |
|      | pipe area   | 1       |         | 0.785   | 15.900                 | 0.260 | 0.260           | 0.844            |        |               |          |
|      | soling  |         |         |         |                        |       |                 | 0.000            |        |               |          |
|      | PCC   |         |         |         |                        |       |                 | 0.000            |        |               |          |
|      | Murrum bedding  |         |         |         |                        |       |                 | 2.608            |        |               |          |
|      | <b>Total = B</b>  |         |         |         |                        |       |                 | 3.451            |        |               |          |
|      |   |         |         |         | <b>Net Qty = A - B</b> |       |                 | 14.867           | 45.127 | 59.995        |          |
|      | <b>ITK5 TO ITK6</b>   |         |         |         |                        |       |                 |                  |        |               |          |
|      | CH76.50   | 540.585 | 539.385 | 539.185 |                        |       | 1.400           | 1.405            |        |               |          |
|      | CH99.40   | 541.075 | 539.865 | 539.665 |                        |       | 1.410           |                  |        |               |          |





# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshirawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport). Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshirawadi (Kanchanwadi) STP and Ward No.98 to

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Itkheda- 200mm RCC Pipe -MB-I

| Date     | Particulars of work  | DETAILS |         |         |        |       |       | Content of area | Last measurement |          | TOTAL TO DATE |
|----------|--|---------|---------|---------|--------|-------|-------|-----------------|------------------|----------|---------------|
|          |  | No      |         |         | L      | B     | D     |                 | Page             | Quantity |               |
|          |  | GL      | IL      | EX.L    |        |       |       |                 |                  |          |               |
|          | Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.                                       |         |         |         |        |       |       |                 |                  |          |               |
|          | (a) For Lift 0 to 1.5m   | 1       |         |         | 20.900 | 0.820 | 1.255 | 21.508          |                  | 66.278   | 87.786        |
|          | Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.   |         |         |         |        |       |       |                 |                  |          |               |
|          | (a) For Lift 0 to 1.5m   | 1       |         |         | 20.900 | 0.820 | 0.150 | 2.571           |                  | 8.216    | 10.787        |
|          | Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)  | 1       |         |         | 20.900 | 0.820 | 0.200 | 3.428           |                  | 10.955   | 14.383        |
|          | Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead |         |         |         |        |       |       | 4.537           |                  | 14.500   | 19.037        |
|          | Extra Item 9.4 a) : Lowering & Laying RCC NP3 class pipe of 200mm Dia  | 1       |         |         | 22.000 |       |       | 22.000          |                  | 72.000   | 94.000        |
|          | Item No 30 :- Refilling the excavated trenches ...   |         |         |         |        |       |       |                 |                  |          |               |
|          | Total Excavation = A   |         |         |         |        |       |       | 24.079          |                  |          |               |
|          | Deduction  |         |         |         |        |       |       |                 |                  |          |               |
|          | pipe area  | 1       |         | 0.785   | 20.900 | 0.260 | 0.260 | 1.109           |                  |          |               |
|          | soling   |         |         |         |        |       |       | 0.000           |                  |          |               |
|          | PCC  |         |         |         |        |       |       | 0.000           |                  |          |               |
|          | Murrum bedding   |         |         |         |        |       |       | 3.428           |                  |          |               |
|          | Total = B  |         |         |         |        |       |       | 4.537           |                  |          |               |
|          | Net Qty = A - B  |         |         |         |        |       |       | 19.542          |                  | 59.995   | 79.537        |
| 12/11/16 | ITK6 TO ITK7   |         |         |         |        |       |       |                 |                  |          |               |
|          | CH99.40  | 541.075 | 539.865 | 539.665 |        |       |       | 1.410           |                  |          |               |
|          | CH109.30   | 541.565 | 540.195 | 539.995 |        |       |       | 1.570           |                  | 1.490    |               |
|          | Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.                                       |         |         |         |        |       |       |                 |                  |          |               |
|          | (a) For Lift 0 to 1.5m   | 1       |         |         | 7.900  | 0.820 | 1.340 | 8.681           |                  | 87.786   | 96.462        |
|          | Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.   |         |         |         |        |       |       |                 |                  |          |               |
|          | (a) For Lift 0 to 1.5m   | 1       |         |         | 7.900  | 0.820 | 0.150 | 0.972           |                  | 10.787   | 11.759        |
|          | Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)  | 1       |         |         | 7.900  | 0.820 | 0.200 | 1.296           |                  | 14.383   | 15.678        |
|          | Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead |         |         |         |        |       |       | 1.715           |                  | 19.037   | 20.752        |
|          | Extra Item 9.4 a) : Lowering & Laying RCC NP3 class pipe of 200mm Dia  | 1       |         |         | 9.000  |       |       | 9.000           |                  | 94.000   | 103.000       |
|          | Item No 30 :- Refilling the excavated trenches ...   |         |         |         |        |       |       |                 |                  |          |               |
|          | Total Excavation = A   |         |         |         |        |       |       | 9.652           |                  |          |               |
|          | Deduction  |         |         |         |        |       |       |                 |                  |          |               |
|          | pipe area  | 1       |         | 0.785   | 7.900  | 0.260 | 0.260 | 0.419           |                  |          |               |
|          | soling   |         |         |         |        |       |       | 0.000           |                  |          |               |
|          | PCC  |         |         |         |        |       |       | 0.000           |                  |          |               |
|          | Murrum bedding   |         |         |         |        |       |       | 1.296           |                  |          |               |



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# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport). Construction, Erection, Testing and Commissioning of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main GRP DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

Book No. :- **087**  
Page No. :-

**Name of Agency:-** M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Vencture)

**Authority No.** AMC/Ward B&C/UIDSSMT/2014/184 **Date** 01.07.2014

| Details |  |  |  |  |  | Last |
|---------|--|--|--|--|--|------|
|---------|--|--|--|--|--|------|

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Itkheda- 200mm RCC Pipe -MB-I

| Date                   | Particulars of work   | DETAILS |         |         |        |       | Content of area | Last measurement |         | TOTAL TO DATE |          |
|------------------------|---|---------|---------|---------|--------|-------|-----------------|------------------|---------|---------------|----------|
|                        |   | No      |         |         | L      | B     |                 | D                | Page    |               | Quantity |
|                        |   | GL      | IL      | EX.L    |        |       |                 |                  |         |               |          |
| <b>Total = B</b>       |   |         |         |         |        | 1.715 |                 |                  |         |               |          |
| <b>Net Qty = A - B</b> |   |         |         |         |        | 7.937 |                 | 79.537           | 87.474  |               |          |
| 12/18/14               | ITK7 TO ITK8  |         |         |         |        |       |                 |                  |         |               |          |
|                        | CH109.30  | 541.565 | 540.195 | 539.995 |        | 1.570 | 1.490           |                  |         |               |          |
|                        | CH130.20  | 542.225 | 541.015 | 540.815 |        | 1.410 |                 |                  |         |               |          |
|                        | <b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.  |         |         |         |        |       |                 |                  |         |               |          |
|                        | (a) For Lift 0 to 1.5m  | 1       |         |         | 18.900 | 0.820 | 1.340           | 20.767           | 96.467  | 117.234       |          |
|                        | <b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murum etc complete.  |         |         |         |        |       |                 |                  |         |               |          |
|                        | (a) For Lift 0 to 1.5m  | 1       |         |         | 18.900 | 0.820 | 0.150           | 2.325            | 11.759  | 14.084        |          |
|                        | <b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)  | 1       |         |         | 18.900 | 0.820 | 0.200           | 3.100            | 15.678  | 18.778        |          |
|                        | <b>Item No. : 11</b> Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead |         |         |         |        |       |                 | 4.103            | 20.752  | 24.854        |          |
|                        | <b>Extra Item 9.4 a) :</b> Lowering & Laying RCC NP3 class pipe of 200mm Dia  | 1       |         |         | 20.000 |       |                 | 20.000           | 103.000 | 123.000       |          |
|                        | <b>Item No 30 :-</b> Refilling the excavated trenches ...   |         |         |         |        |       |                 |                  |         |               |          |
|                        | <b>Total Excavation = A</b>   |         |         |         |        |       |                 | 23.092           |         |               |          |
|                        | <b>Deduction</b>  |         |         |         |        |       |                 |                  |         |               |          |
|                        | pipe area   | 1       |         | 0.785   | 18.900 | 0.260 | 0.260           | 1.003            |         |               |          |
|                        | soling  |         |         |         |        |       |                 | 0.000            |         |               |          |
|                        | PCC   |         |         |         |        |       |                 | 0.000            |         |               |          |
|                        | Murum bedding   |         |         |         |        |       |                 | 3.100            |         |               |          |
|                        | <b>Total = B</b>  |         |         |         |        |       |                 | 4.103            |         |               |          |
|                        | <b>Net Qty = A - B</b>  |         |         |         |        |       |                 | 18.989           | 87.474  | 106.464       |          |
|                        | <b>Item No :35</b> Shifting of Existing Utilities Length considered up to 400mm including all and as directed by Engineer in-Charge                 |         |         |         | 0.126  |       |                 |                  | 0.000   | 0.126         |          |



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# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

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Itkheda- 200mm RCC Pipe-MB-II

### 11th R A BILL MEASUREMENTS PVC PIPE

Itkheda (RCC)

| Date  | Particulars of work   | DETAILS |         |         |       |       |       | Content of arrears | Last measurement |                | Total Upto Date Quantity |
|-------|---|---------|---------|---------|-------|-------|-------|--------------------|------------------|----------------|--------------------------|
|       |   | No      |         |         | L     | B     | D     |                    | Page             | Quantity       |                          |
|       |   | GL      | IL      | EX.L    |       |       |       |                    |                  |                |                          |
|       | <b>PVC - 160 mm Dia</b>   |         |         |         |       |       |       |                    |                  |                |                          |
|       | Width of Trench -<br>For Lift 0 to 1.50m-<br>0.160+0.5=0.66m                                    |         |         |         |       |       |       |                    |                  |                |                          |
|       | For Lift 1.5 to 3.00m-<br>0.16+0.5+0.4=1.06m  |         |         |         |       |       |       |                    |                  |                |                          |
|       | For Lift 3.0 to 4.5m-<br>0.16+0.5+0.4+0.4=1.46m   |         |         |         |       |       |       |                    |                  |                |                          |
| 25/11 | <b>ITK4 TO ITK4.1</b>   |         |         |         |       |       |       |                    |                  |                |                          |
|       | CH0.00  | 540.225 | 539.815 | 539.715 |       |       | 0.510 | 0.510              |                  |                |                          |
|       | CH6.00  | 540.425 | 540.015 | 539.915 |       |       | 0.510 |                    |                  |                |                          |
|       | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete. |         |         |         |       |       |       |                    |                  |                |                          |
|       | (a) For Lift 0 to 1.5m  | 1       |         |         | 4.600 | 0.660 | 0.360 | 1.093              | 117.234          | 118.327        |                          |
|       | Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.              |         |         |         |       |       |       |                    |                  |                |                          |
|       | (a) For Lift 0 to 1.5m  | 1       |         |         | 4.600 | 0.660 | 0.150 | 0.455              | 14.084           | 14.539         |                          |
|       | Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)                     | 1       |         |         | 4.600 | 0.660 | 0.100 | 0.304              | 18.778           | 19.082         |                          |
|       | Item No. : 11 Transportation of earth Transportation charges including loading & unloading      |         |         |         |       |       |       | 0.396              | 24.854           | 25.250         |                          |
|       | Extra Item No.9.6(a) :- Lowering & Laying of PVC pipe of 160mm Dia                              | 1       |         |         | 5.100 |       |       | 5.100              | 0.000            | 5.100          |                          |
|       | Item No. 30 :- Refilling the excavated trenches ...   |         |         |         |       |       |       | 1.548              |                  |                |                          |
|       | <b>Total Excavation=</b>  |         |         |         |       |       |       |                    |                  |                |                          |
|       | <b>Deduction</b>  |         |         |         |       |       |       |                    |                  |                |                          |
|       | pipe area   | 1.00    |         | 0.785   | 4.600 | 0.160 | 0.160 | 0.092              |                  |                |                          |
|       | soling  |         |         |         |       |       |       | 0.000              |                  |                |                          |
|       | PCC   |         |         |         |       |       |       | 0.000              |                  |                |                          |
|       | Murrum bedding  |         |         |         |       |       |       | 0.304              |                  |                |                          |
|       |   |         |         |         |       |       |       | 0.396              |                  |                |                          |
|       | <b>Net Qty = A - B</b>  |         |         |         |       |       |       | <b>1.152</b>       | <b>106.464</b>   | <b>107.616</b> |                          |
| 25/11 | <b>ITK5 TO ITK5.1</b>   |         |         |         |       |       |       |                    |                  |                |                          |
|       | CH0.00  | 540.585 | 540.165 | 540.065 |       |       | 0.520 | 0.510              |                  |                |                          |
|       | CH6.00  | 540.650 | 540.250 | 540.150 |       |       | 0.500 |                    |                  |                |                          |
|       | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete. |         |         |         |       |       |       |                    |                  |                |                          |
|       | (a) For Lift 0 to 1.5m  | 1       |         |         | 4.600 | 0.660 | 0.360 | 1.093              | 118.327          | 119.420        |                          |
|       | Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.              |         |         |         |       |       |       |                    |                  |                |                          |
|       | (a) For Lift 0 to 1.5m  | 1       |         |         | 4.600 | 0.660 | 0.150 | 0.455              | 14.539           | 14.994         |                          |



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# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

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Book No. :- 089  
Page No. :-

**Name of Agency:-** M/s Khilari Infrastructure Pvt.Ltd, & GECPL (Joint Venture)

**Authority No.** AMC/Ward B&C/UIDSSMT/2014/184 Date 01.07.2014

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Itkheda- 200mm RCC Pipe-MB-II

| Date | Particulars of work  | DETAILS                |    |       |       |       |       | Content of arrears | Last measurement |                | Total Upto Date Quantity |
|------|--|------------------------|----|-------|-------|-------|-------|--------------------|------------------|----------------|--------------------------|
|      |  | No                     |    |       | L     | B     | D     |                    | Page             | Quantity       |                          |
|      |  | GL                     | IL | EX.L  |       |       |       |                    |                  |                |                          |
|      | Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)  | 1                      |    |       | 4.600 | 0.660 | 0.100 | 0.304              |                  | 19.082         | 19.385                   |
|      | Item No. : 11 Transportation of earth Transportation charges including loading & unloading                                   |                        |    |       |       |       |       | 0.396              |                  | 25.250         | 25.646                   |
|      | Extra Item No.9.6(a) :- Lowering & Laying of PVC pipe of 160mm Dia   | 1                      |    |       | 5.100 |       |       | 5.100              |                  | 5.100          | 10.200                   |
|      | Item No. 30 :- Refilling the excavated trenches ...  |                        |    |       |       |       |       |                    |                  |                |                          |
|      | <b>Total Excavation=</b>   |                        |    |       |       |       |       | <b>1.548</b>       |                  |                |                          |
|      | <b>Deduction</b>   |                        |    |       |       |       |       |                    |                  |                |                          |
|      | pipe area  | 1.00                   |    | 0.785 | 4.600 | 0.160 | 0.160 | 0.092              |                  |                |                          |
|      | soling   |                        |    |       |       |       |       | 0.000              |                  |                |                          |
|      | PCC  |                        |    |       |       |       |       | 0.000              |                  |                |                          |
|      | Murrum bedding   |                        |    |       |       |       |       | 0.304              |                  |                |                          |
|      |  |                        |    |       |       |       |       | <b>0.396</b>       |                  |                |                          |
|      |  | <b>Net Qty = A - B</b> |    |       |       |       |       |                    | <b>1.152</b>     | <b>107.616</b> | <b>108.768</b>           |
|      | Item No :35 Shifting of Existing Utilities Length considered up to 400mm including all and as directed by Engineer in-Charge |                        |    |       | 0.010 |       |       |                    |                  | 0.126          | 0.136                    |



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# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport). Providing, lowering, laying jointing and testing-rising main

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Itkheda- 200mm RCC Chamber-MB

### 12th RA BILL MEASUREMENTS OF CHAMBER

Itkheda (RCC)

| Date | Particulars of work   | DETAILS |         |         |       |       | Content of arrears | Last measurement |       | Total Upto Date Quantity |
|------|---|---------|---------|---------|-------|-------|--------------------|------------------|-------|--------------------------|
|      |   | GL      | IL      | EX.L    | L     | B     |                    | D                | Page  |                          |
|      | Excavation of Chamber :- For 0.9 dia chamber up to 1.5 mt depth -0.9+0.5+0.3+0.3=2m             |         |         |         |       |       |                    |                  |       |                          |
|      | Area for chamber up to 1.5m depth=2 X 2=4m  |         |         |         |       |       |                    |                  |       |                          |
|      | ITK1  |         |         |         |       |       |                    |                  |       |                          |
|      | CH8.90  | 539.115 | 538.195 | 537.945 |       |       | 1.170              |                  |       |                          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete. |         |         |         |       |       |                    |                  |       |                          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 0.785 | 4.000 | 1.020              | 3.203            | 0.000 | 3.203                    |
|      | Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.              |         |         |         |       |       |                    |                  |       |                          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 0.785 | 4.000 | 0.150              | 0.471            | 0.000 | 0.471                    |
|      | Item No. : 11 Transportation of earth Transportation charges                                    |         |         |         |       |       |                    | 1.542            | 0.000 | 1.542                    |
|      | Item No. 30 :- Refilling the excavated trenches ...   |         |         |         |       |       |                    |                  |       |                          |
|      | Total Excavation(A)=  |         |         |         |       |       |                    | 3.674            |       |                          |
|      | Deduction   |         |         |         |       |       |                    |                  |       |                          |
|      | Brick work  | 1       |         | 0.785   | 1.200 | 1.200 | 0.920              | 1.040            |       |                          |
|      | soling  |         |         |         |       |       |                    | 0.000            |       |                          |
|      | PCC   | 1       |         | 0.785   | 1.600 | 1.600 | 0.250              | 0.502            |       |                          |
|      | Murrum bedding  |         |         |         |       |       |                    | 0.000            |       |                          |
|      | Total (B)   |         |         |         |       |       |                    | 1.542            |       |                          |
|      | Net Qty = A - B   |         |         |         |       |       |                    | 2.131            | 0.000 | 2.131                    |
|      | ITK2  |         |         |         |       |       |                    |                  |       |                          |
|      | CH21.80   | 539.595 | 538.395 | 538.145 |       |       | 1.450              |                  |       |                          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete. |         |         |         |       |       |                    |                  |       |                          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 0.785 | 4.000 | 1.300              | 4.082            | 3.203 | 7.285                    |
|      | Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.              |         |         |         |       |       |                    |                  |       |                          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 0.785 | 4.000 | 0.150              | 0.471            | 0.471 | 0.942                    |
|      | Item No. : 11 Transportation of earth Transportation charges                                    |         |         |         |       |       |                    | 1.859            | 1.542 | 3.401                    |
|      | Item No. 30 :- Refilling the excavated trenches ...   |         |         |         |       |       |                    |                  |       |                          |
|      | Total Excavation(A)=  |         |         |         |       |       |                    | 4.553            |       |                          |
|      | Deduction   |         |         |         |       |       |                    |                  |       |                          |
|      | Brick work  | 1       |         | 0.785   | 1.200 | 1.200 | 1.200              | 1.356            |       |                          |
|      | soling  |         |         |         |       |       |                    | 0.000            |       |                          |
|      | PCC   | 1       |         | 0.785   | 1.600 | 1.600 | 0.250              | 0.502            |       |                          |
|      | Murrum bedding  |         |         |         |       |       |                    | 0.000            |       |                          |
|      | Total (B)   |         |         |         |       |       |                    | 1.859            |       |                          |
|      | Net Qty = A - B   |         |         |         |       |       |                    | 2.694            | 2.131 | 4.826                    |



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# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

091

**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakhshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction; Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main GRP DI pipe line from Golwadi SPS to Nakhshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

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Itkheda- 200mm RCCChamber-MB

| Date | Particulars of work   | DETAILS |         |         |                        |       |       | Content of arrears | Last measurement |               | Total Upto Date Quantity |
|------|---|---------|---------|---------|------------------------|-------|-------|--------------------|------------------|---------------|--------------------------|
|      |   | No      |         |         | L                      | B     | D     |                    | Page             | Quantity      |                          |
|      |   | GL      | IL      | EX.L    |                        |       |       |                    |                  |               |                          |
|      | <b>ITK3</b>   |         |         |         |                        |       |       |                    |                  |               |                          |
|      | <b>CH38.70</b>  | 539.915 | 538.635 | 538.385 |                        |       | 1.530 |                    |                  |               |                          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete. |         |         |         |                        |       |       |                    |                  |               |                          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 0.785                  | 4.000 | 1.350 | 4.239              | 7.285            | 11.524        |                          |
|      | (b) For Lift 1.5m to 3.0m +   | 1       |         |         | 0.785                  | 4.000 | 0.030 | 0.094              | 0.000            | 0.094         |                          |
|      | Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.              |         |         |         |                        |       |       |                    |                  |               |                          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 0.785                  | 4.000 | 0.150 | 0.471              | 0.942            | 1.413         |                          |
|      | Item No. : 11 Transportation of earth Transportation charges                                    |         |         |         |                        |       |       | 1.949              | 3.401            | 5.351         |                          |
|      | Item No. 30 :- Refilling the excavated trenches ...   |         |         |         |                        |       |       |                    |                  |               |                          |
|      | <b>Total Excavation(A)=</b>   |         |         |         |                        |       |       | <b>4.804</b>       |                  |               |                          |
|      | <b>Deduction</b>  |         |         |         |                        |       |       |                    |                  |               |                          |
|      | Brick work  | 1       |         | 0.785   | 1.200                  | 1.200 | 1.280 | 1.447              |                  |               |                          |
|      | soling  |         |         |         |                        |       |       | 0.000              |                  |               |                          |
|      | PCC   | 1       |         | 0.785   | 1.600                  | 1.600 | 0.250 | 0.502              |                  |               |                          |
|      | Murrum bedding  |         |         |         |                        |       |       | 0.000              |                  |               |                          |
|      | <b>Total (B)</b>  |         |         |         |                        |       |       | <b>1.949</b>       |                  |               |                          |
|      |   |         |         |         | <b>Net Qty = A - B</b> |       |       | <b>2.855</b>       | <b>4.826</b>     | <b>7.680</b>  |                          |
|      | <b>ITK4</b>   |         |         |         |                        |       |       |                    |                  |               |                          |
|      | <b>CH58.60</b>  | 540.225 | 539.015 | 538.765 |                        |       | 1.460 |                    |                  |               |                          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete. |         |         |         |                        |       |       |                    |                  |               |                          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 0.785                  | 4.000 | 1.310 | 4.113              | 11.524           | 15.637        |                          |
|      | Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.              |         |         |         |                        |       |       |                    |                  |               |                          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 0.785                  | 4.000 | 0.150 | 0.471              | 1.413            | 1.804         |                          |
|      | Item No. : 11 Transportation of earth Transportation charges                                    |         |         |         |                        |       |       | 1.870              | 5.351            | 7.221         |                          |
|      | Item No. 30 :- Refilling the excavated trenches ...   |         |         |         |                        |       |       |                    |                  |               |                          |
|      | <b>Total Excavation(A)=</b>   |         |         |         |                        |       |       | <b>4.584</b>       |                  |               |                          |
|      | <b>Deduction</b>  |         |         |         |                        |       |       |                    |                  |               |                          |
|      | Brick work  | 1       |         | 0.785   | 1.200                  | 1.200 | 1.210 | 1.368              |                  |               |                          |
|      | soling  |         |         |         |                        |       |       | 0.000              |                  |               |                          |
|      | PCC   | 1       |         | 0.785   | 1.600                  | 1.600 | 0.250 | 0.502              |                  |               |                          |
|      | Murrum bedding  |         |         |         |                        |       |       | 0.000              |                  |               |                          |
|      | <b>Total (B)</b>  |         |         |         |                        |       |       | <b>1.870</b>       |                  |               |                          |
|      |   |         |         |         | <b>Net Qty = A - B</b> |       |       | <b>2.714</b>       | <b>7.680</b>     | <b>10.398</b> |                          |
|      | <b>ITK5</b>   |         |         |         |                        |       |       |                    |                  |               |                          |
|      | <b>CH76.50</b>  | 540.585 | 539.385 | 539.135 |                        |       | 1.450 |                    |                  |               |                          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete. |         |         |         |                        |       |       |                    |                  |               |                          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 0.785                  | 4.000 | 1.300 | 4.082              | 15.637           | 19.719        |                          |





# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

092

Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No. 08 and CIDCO (Airport). Providing, Laying, Joining and testing pipes, man

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Itkheda- 200mm RCCChamber-MB

| Date | Particulars of work   | DETAILS |         |         |       |       |       | Content of arrears | Last measurement |          | Total Upto Date Quantity |
|------|---|---------|---------|---------|-------|-------|-------|--------------------|------------------|----------|--------------------------|
|      |   | No      |         |         | L     | B     | D     |                    | Page             | Quantity |                          |
|      |   | GL      | IL      | EX.L    |       |       |       |                    |                  |          |                          |
|      | Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.              |         |         |         |       |       |       |                    |                  |          |                          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 0.785 | 4.000 | 0.150 | 0.471              | 1.884            | 2.355    |                          |
|      | Item No. : 11 Transportation of earth Transportation charges                                    |         |         |         |       |       |       | 1.859              | 7.221            | 9.080    |                          |
|      | Item No. 30 :- Refilling the excavated trenches ...   |         |         |         |       |       |       |                    |                  |          |                          |
|      | Total Excavation(A)=  |         |         |         |       |       |       | 4.553              |                  |          |                          |
|      | Deduction   |         |         |         |       |       |       |                    |                  |          |                          |
|      | Brick work  | 1       |         | 0.785   | 1.200 | 1.200 | 1.200 | 1.356              |                  |          |                          |
|      | soling  |         |         |         |       |       |       | 0.000              |                  |          |                          |
|      | PCC   | 1       |         | 0.785   | 1.600 | 1.600 | 0.250 | 0.502              |                  |          |                          |
|      | Murrum bedding  |         |         |         |       |       |       | 0.000              |                  |          |                          |
|      | Total (B)   |         |         |         |       |       |       | 1.859              |                  |          |                          |
|      | Net Qty = A - B   |         |         |         |       |       |       | 2.694              | 10.395           | 13.089   |                          |
|      | ITK6  |         |         |         |       |       |       |                    |                  |          |                          |
|      | CH99.40   | 541.075 | 539.865 | 539.615 |       |       | 1.460 |                    |                  |          |                          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete. |         |         |         |       |       |       |                    |                  |          |                          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 0.785 | 4.000 | 1.310 | 4.113              | 19.719           | 23.833   |                          |
|      | Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.              |         |         |         |       |       |       |                    |                  |          |                          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 0.785 | 4.000 | 0.150 | 0.471              | 2.355            | 2.826    |                          |
|      | Item No. : 11 Transportation of earth Transportation charges                                    |         |         |         |       |       |       | 1.870              | 9.080            | 10.950   |                          |
|      | Item No. 30 :- Refilling the excavated trenches ...   |         |         |         |       |       |       |                    |                  |          |                          |
|      | Total Excavation(A)=  |         |         |         |       |       |       | 4.584              |                  |          |                          |
|      | Deduction   |         |         |         |       |       |       |                    |                  |          |                          |
|      | Brick work  | 1       |         | 0.785   | 1.200 | 1.200 | 1.210 | 1.368              |                  |          |                          |
|      | soling  |         |         |         |       |       |       | 0.000              |                  |          |                          |
|      | PCC   | 1       |         | 0.785   | 1.600 | 1.600 | 0.250 | 0.502              |                  |          |                          |
|      | Murrum bedding  |         |         |         |       |       |       | 0.000              |                  |          |                          |
|      | Total (B)   |         |         |         |       |       |       | 1.870              |                  |          |                          |
|      | Net Qty = A - B   |         |         |         |       |       |       | 2.714              | 13.089           | 15.803   |                          |
|      | ITK7  |         |         |         |       |       |       |                    |                  |          |                          |
|      | CH109.30  | 541.565 | 540.195 | 539.945 |       |       | 1.620 |                    |                  |          |                          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete. |         |         |         |       |       |       |                    |                  |          |                          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 0.785 | 4.000 | 1.350 | 4.239              | 23.833           | 28.072   |                          |
|      | (b) For Lift 1.5m to 3.0m   | 1       |         |         | 0.785 | 4.000 | 0.120 | 0.377              | 0.094            | 0.471    |                          |
|      | Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.              |         |         |         |       |       |       |                    |                  |          |                          |
|      | (a) For Lift 0 to 1.5m  | 1       |         |         | 0.785 | 4.000 | 0.150 | 0.471              | 2.826            | 3.297    |                          |
|      | Item No. : 11 Transportation of earth Transportation charges                                    |         |         |         |       |       |       | 2.051              | 10.950           | 13.001   |                          |
|      | Item No. 30 :- Refilling the excavated trenches ...   |         |         |         |       |       |       |                    |                  |          |                          |



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(From No.52)

## Measurement Book

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**Name of Agency:-** M/s Khilari Infrastructure Pvt.Ltd. & GECPL. (Joint Vencture)

**Authority No.** AMC/Ward B&C/UIDSSMT/2014/184 Date 01.07.2014

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Itkheda- 200mm RCCChamber-MB

| Date | Particulars of work  | DETAILS                |         |         |       |       | Content of arrears | Last measurement |        | Total Upto Date Quantity |          |
|------|--|------------------------|---------|---------|-------|-------|--------------------|------------------|--------|--------------------------|----------|
|      |  | No                     |         |         | L     | B     |                    | D                | Page   |                          | Quantity |
|      |  | GL                     | IL      | EX.L    |       |       |                    |                  |        |                          |          |
|      | <b>Total Excavation(A)=</b>  |                        |         |         |       |       | 5.087              |                  |        |                          |          |
|      | <b>Deduction</b>   |                        |         |         |       |       |                    |                  |        |                          |          |
|      | Brick work   | 1                      |         | 0.785   | 1.200 | 1.200 | 1.370              | 1.549            |        |                          |          |
|      | soling   |                        |         |         |       |       |                    | 0.000            |        |                          |          |
|      | PCC  | 1                      |         | 0.785   | 1.600 | 1.600 | 0.250              | 0.502            |        |                          |          |
|      | Murum bedding  |                        |         |         |       |       |                    | 0.000            |        |                          |          |
|      | <b>Total (B)</b>   |                        |         |         |       |       | 2.051              |                  |        |                          |          |
|      |  | <b>Net Qty = A - B</b> |         |         |       |       |                    | 3.036            | 15.803 | 18.839                   |          |
|      | <b>ITK8</b>  |                        |         |         |       |       |                    |                  |        |                          |          |
|      | CH130.20   | 542.225                | 541.015 | 540.765 |       |       | 1.460              |                  |        |                          |          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete. |                        |         |         |       |       |                    |                  |        |                          |          |
|      | (a) For Lift 0 to 1.5m   | 1                      |         |         | 0.785 | 4.000 | 1.310              | 4.113            | 28.072 | 32.185                   |          |
|      | (b) For Lift 1.5m to 3.0m  | 1                      |         |         | 0.785 | 4.000 | 0.000              | 0.000            | 0.471  | 0.471                    |          |
|      | Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.              |                        |         |         |       |       |                    |                  |        |                          |          |
|      | (a) For Lift 0 to 1.5m   | 1                      |         |         | 0.785 | 4.000 | 0.150              | 0.471            | 3.297  | 3.768                    |          |
|      | Item No. : 11 Transportation of earth Transportation charges                                   |                        |         |         |       |       |                    | 1.870            | 13.001 | 14.871                   |          |
|      | Item No. 30 :- Refilling the excavated trenches ...  |                        |         |         |       |       |                    |                  |        |                          |          |
|      | <b>Total Excavation(A)=</b>  |                        |         |         |       |       | 4.584              |                  |        |                          |          |
|      | <b>Deduction</b>   |                        |         |         |       |       |                    |                  |        |                          |          |
|      | Brick work   | 1                      |         | 0.785   | 1.200 | 1.200 | 1.210              | 1.368            |        |                          |          |
|      | soling   |                        |         |         |       |       |                    | 0.000            |        |                          |          |
|      | PCC  | 1                      |         | 0.785   | 1.600 | 1.600 | 0.250              | 0.502            |        |                          |          |
|      | Murum bedding  |                        |         |         |       |       |                    | 0.000            |        |                          |          |
|      | <b>Total (B)</b>   |                        |         |         |       |       | 1.870              |                  |        |                          |          |
|      |  | <b>Net Qty = A - B</b> |         |         |       |       |                    | 2.714            | 18.839 | 21.553                   |          |



*Sec. Eng*



# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

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Name of Agency:- M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Vencture)

Authority No. AMC/Ward B&C/UIDSSMT/2014/184 Date 01.07.2014

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Itkheda- 200mm RCC Chamber detail

### 11th R A BILL MEASUREMENTS OF CHAMBER

Itkheda (RCC)

| SR NO | MH NO  | CHAINAGE | DETAILS |         |       | Rebate up to<br>Depth of 1.5 mtr<br>For per 30 cm | Total<br>Rebate Qty<br>for 30 cm |
|-------|--|----------|---------|---------|-------|---|----------------------------------|
|       |  |          | GL      | IL      | DEPTH |   |                                  |
| A     | Extra Item No 02: Providing and constructing on sewer.BBM manhole 0.9 m dia at bottom and 0.5 m dia at top and up to a depth of 1.5 m etc., complete |          |         |         |       |   |                                  |
| 1     | ITK1   | CH8.90   | 539.115 | 538.195 | 0.920 | 1.500   | -0.58 ✓                          |
| 2     | ITK2   | CH21.80  | 539.595 | 538.395 | 1.200 | 1.500   | -0.30 ✓                          |
| 3     | ITK3   | CH38.70  | 539.915 | 538.635 | 1.280 | 1.500   | -0.22 ✓                          |
| 4     | ITK4   | CH58.60  | 540.225 | 539.015 | 1.210 | 1.500   | -0.29 ✓                          |
| 5     | ITK5   | CH76.50  | 540.585 | 539.385 | 1.200 | 1.500   | -0.30 ✓                          |
| 6     | ITK6   | CH99.40  | 541.075 | 539.865 | 1.210 | 1.500   | -0.29 ✓                          |
| 7     | ITK7   | CH109.30 | 541.565 | 540.195 | 1.370 | 1.500   | -0.13 ✓                          |
| 8     | ITK8   | CH130.20 | 542.225 | 541.015 | 1.210 | 1.500   | -0.29 ✓                          |
|       |  |          |         |         |       |   | -2.40 ✓                          |
|       |  |          |         |         |       |   | -8.00 ✓                          |



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# AURANGABAD MUNICIPAL CORPORATION

(From No.52)

## Measurement Book

**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport). Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main GRP DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

Book No. :- **095**  
Page No. :-

**Name of Agency:-** M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Vencture)

**Author**

|                     |  |
|---------------------|--|
| Date of Measurement |  |
|                     |  |

Ikkheda- 200mm RCC Quantity Node Abstract

| 11th R A BILL MEASUREMENTS        |              |                |              |               |               |               |                |              |         |         |                  |                 |                |                |               |               |       |                |                |               |
|-----------------------------------|--------------|----------------|--------------|---------------|---------------|---------------|----------------|--------------|---------|---------|------------------|-----------------|----------------|----------------|---------------|---------------|-------|----------------|----------------|---------------|
| Branch Of Sewer " Ikkheda " (RCC) |              |                |              |               |               |               |                |              |         |         |                  |                 |                |                |               |               |       |                |                |               |
| SR NO                             | Description  | MBPG           |              | ITEM 1        |               | ITEM 2        | ITEM 7         | ITEM 11      | ITEM 30 | ITEM 35 | EIRL 2 Full Rate | EIRL 2.a Rebate | EIRL 9.3 200mm | RCC Pipes      |               | PVC Pipes     |       | EIRL 9.5 160mm | EIRL 9.6 160mm |               |
|                                   |              | 0-1.5          | 1.5-3.0      | 0-1.5         | 14.994        |               |                |              |         |         |                  |                 |                | 19.385         | 25.646        | 108.768       | 0.136 |                |                | 200mm         |
| 1                                 | For Pipe     | 119.420        | -            | 14.994        | 19.385        | 25.646        | 108.768        | 0.136        |         |         | 8.000            | (8.000)         | 123.000        | 123.000        | 10.200        | 10.200        |       |                | 10.200         | 10.200        |
| 2                                 | For Manhole  | 32.185         | 0.471        | 3.768         | 19.385        | 14.871        | 21.553         |              |         |         | 8.000            | (8.000)         |                |                |               |               |       |                |                |               |
|                                   | <b>Total</b> | <b>151.605</b> | <b>0.471</b> | <b>18.762</b> | <b>19.385</b> | <b>40.517</b> | <b>130.321</b> | <b>0.136</b> |         |         | <b>8.000</b>     | <b>-8.000</b>   | <b>123.000</b> | <b>123.000</b> | <b>10.200</b> | <b>10.200</b> |       |                | <b>10.200</b>  | <b>10.200</b> |

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| Total up to Date |  |
|                  |  |



**AURANGABAD MUNICIPAL CORPORATION.**  
(From No.52)



**Measurement Book**

096

Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon. CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main

Book No. :-

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Itkheda (Near Mahanubhav Ashram)- 200mm RCC Pipe -MB-1

**12th R A BILL MEASUREMENTS**

**ITKHEDA(NEAR MAHANUBHAW ASHRAM)**

| Date    | Particulars of work  | DETAILS |         |         |        |       | Content of area | Last measurement |              | TOTAL TO DATE |
|---------|--|---------|---------|---------|--------|-------|-----------------|------------------|--------------|---------------|
|         |  | No      |         |         |        |       |                 | Page             | Quantity     |               |
|         |  | GL      | IL      | EX.L    | L      | B     |                 |                  |              |               |
|         | RCC 200mm Dia  |         |         |         |        |       |                 |                  |              |               |
|         | Width of Trench -<br>For Bottom Lift 0.00-1.50m-<br>0.200+0.06+0.06+0.5=0.82m  |         |         |         |        |       |                 |                  |              |               |
|         | From Bottom Lift 1.50m-3.00m-<br>0.25+0.06+0.06+0.5+0.4=1.22m  |         |         |         |        |       |                 |                  |              |               |
|         | From Bottom Lift 3.00m-4.50m-<br>0.25+0.06+0.06+0.5+0.4+0.4 = 1.62m  |         |         |         |        |       |                 |                  |              |               |
| 16/9/16 | <b>IA6 TO IA7</b>  |         |         |         |        |       |                 |                  |              |               |
|         | CH0.00   | 548.730 | 547.820 | 547.620 |        |       | 1.110           |                  |              |               |
|         | CH18.90  | 548.728 | 547.838 | 547.638 |        |       | 1.090           |                  |              |               |
|         | Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.  |         |         |         |        |       |                 |                  |              |               |
|         | (a) For Lift 0 to 1.5m   | 1       |         |         | 16.900 | 0.820 | 1.100           | 15.244           | 0.000        | 15.244        |
|         | Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)  | 1       |         |         | 16.900 | 0.820 | 0.200           | 2.772            | 0.000        | 2.772         |
|         | Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead |         |         |         |        |       |                 | 3.668            | 0.000        | 3.668         |
|         | Extra item 9.4 a) : Lowering & Laying RCC NP3 class pipe of 200mm Dia  | 1       |         |         | 18.000 |       |                 | 18.000           | 0.000        | 18.000        |
|         | Item No 30 :- Refilling the excavated trenches ...   |         |         |         |        |       |                 |                  |              |               |
|         | <b>Total Excavation = A</b>  |         |         |         |        |       |                 | <b>15.244</b>    |              |               |
|         | <b>Deduction</b>   |         |         |         |        |       |                 |                  |              |               |
|         | pipe area  | 1       |         | 0.785   | 16.900 | 0.260 | 0.260           | 0.897            |              |               |
|         | soling   |         |         |         |        |       |                 | 0.000            |              |               |
|         | PCC  |         |         |         |        |       |                 | 0.000            |              |               |
|         | Murum bedding  |         |         |         |        |       |                 | 2.772            |              |               |
|         | <b>Total = B</b>   |         |         |         |        |       |                 | <b>3.668</b>     |              |               |
|         | <b>Net Qty = A - B</b>   |         |         |         |        |       |                 | <b>11.575</b>    | <b>0.000</b> | <b>11.575</b> |
| 14/9/16 | <b>IA7 TO IA8</b>  |         |         |         |        |       |                 |                  |              |               |
|         | CH18.90  | 548.728 | 547.838 | 547.638 |        |       | 1.090           |                  |              |               |
|         | CH32.30  | 548.735 | 547.935 | 547.735 |        |       | 1.000           |                  |              |               |
|         | Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.  |         |         |         |        |       |                 |                  |              |               |
|         | (a) For Lift 0 to 1.5m   | 1       |         |         | 11.400 | 0.820 | 1.020           | 9.535            | 15.244       | 24.779        |
|         | Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.  |         |         |         |        |       |                 |                  |              |               |
|         | (a) For Lift 0 to 1.5m   | 1       |         |         | 11.400 | 0.820 | 0.025           | 0.234            | 0.000        | 0.234         |
|         | Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)  | 1       |         |         | 11.400 | 0.820 | 0.200           | 1.870            | 2.772        | 4.641         |
|         | Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead |         |         |         |        |       |                 | 2.475            | 3.668        | 6.143         |





# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main

Book No. :-

Page No. :- 097

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Itkheda (Near Mahanubhav Ashram)- 200mm RCC Pipe -MB-I

| Date | Particulars of work  | DETAILS |         |         |        |       | Content of area | Last measurement |        | TOTAL TO DATE |          |
|------|--|---------|---------|---------|--------|-------|-----------------|------------------|--------|---------------|----------|
|      |  | No      |         |         | L      | B     |                 | D                | Page   |               | Quantity |
|      |  | GL      | IL      | EX.L    |        |       |                 |                  |        |               |          |
|      | Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead |         |         |         |        |       | 2.475           |                  | 3.668  | 6.143         |          |
|      | Extra Item 9.4 a) : Lowering & Laying RCC NP3 class pipe of 200mm Dia  | 1       |         |         | 12.500 |       | 12.500          |                  | 18.000 | 30.500        |          |
|      | Item No 30 :- Refilling the excavated trenches ...   |         |         |         |        |       |                 |                  |        |               |          |
|      | Total Excavation = A   |         |         |         |        |       | 9.769           |                  |        |               |          |
|      | Deduction  |         |         |         |        |       |                 |                  |        |               |          |
|      | pipe area  | 1       |         | 0.785   | 11.400 | 0.260 | 0.260           | 0.605            |        |               |          |
|      | soling   |         |         |         |        |       |                 | 0.000            |        |               |          |
|      | PCC  |         |         |         |        |       |                 | 0.000            |        |               |          |
|      | Murum bedding  |         |         |         |        |       |                 | 1.870            |        |               |          |
|      | Total = B  |         |         |         |        |       | 2.475           |                  |        |               |          |
|      |  |         |         |         |        |       | Net Qty = A - B | 7.294            | 11.575 | 18.869        |          |
|      | IA8 TO IA9   |         |         |         |        |       |                 |                  |        |               |          |
|      | CH32.30  | 548.735 | 547.935 | 547.735 |        |       | 1.000           |                  |        |               |          |
|      | CH47.20  | 548.755 | 547.955 | 547.755 |        |       | 1.000           |                  |        |               |          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.  |         |         |         |        |       |                 |                  |        |               |          |
|      | (a) For Lift 0 to 1.5m   | 1       |         |         | 12.900 | 0.820 | 1.000           | 10.578           | 24.779 | 35.357        |          |
|      | Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)  | 1       |         |         | 12.900 | 0.820 | 0.200           | 2.116            | 4.641  | 6.757         |          |
|      | Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead |         |         |         |        |       |                 | 2.800            | 6.143  | 8.943         |          |
|      | Extra Item 9.4 a) : Lowering & Laying RCC NP3 class pipe of 200mm Dia  | 1       |         |         | 14.000 |       |                 | 14.000           | 30.500 | 44.500        |          |
|      | Item No 30 :- Refilling the excavated trenches ...   |         |         |         |        |       |                 |                  |        |               |          |
|      | Total Excavation = A   |         |         |         |        |       |                 | 10.578           |        |               |          |
|      | Deduction  |         |         |         |        |       |                 |                  |        |               |          |
|      | pipe area  | 1       |         | 0.785   | 12.900 | 0.260 | 0.260           | 0.685            |        |               |          |
|      | soling   |         |         |         |        |       |                 | 0.000            |        |               |          |
|      | PCC  |         |         |         |        |       |                 | 0.000            |        |               |          |
|      | Murum bedding  |         |         |         |        |       |                 | 2.116            |        |               |          |
|      | Total = B  |         |         |         |        |       |                 | 2.800            |        |               |          |
|      |  |         |         |         |        |       | Net Qty = A - B | 7.778            | 18.869 | 26.647        |          |
|      | IA9 TO IA10  |         |         |         |        |       |                 |                  |        |               |          |
|      | CH47.20  | 548.755 | 547.955 | 547.755 |        |       | 1.000           |                  |        |               |          |
|      | CH66.10  | 548.798 | 547.998 | 547.798 |        |       | 1.000           |                  |        |               |          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.  |         |         |         |        |       |                 |                  |        |               |          |
|      | (a) For Lift 0 to 1.5m   | 1       |         |         | 16.900 | 0.820 | 1.000           | 13.858           | 35.357 | 49.215        |          |
|      | Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.  |         |         |         |        |       |                 |                  |        |               |          |



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# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CHCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No 98 and CHCO (Airport). Providing, lowering, laying jointing and testing rising main GRP DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

Book No. :- **098**  
Page No. :-

**Name of Agency:-** M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Vencture)

**Authority No.** AMC/Ward B&C/UIDSSMT/2014/184 Date 01.07.2014

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Itkheda (Near Mahanubhav Ashram)- 200mm RCC Pipe -MB-I

| Date | Particulars of work  | DETAILS |    |       |        |       |       | Content of area        | Last measurement |          | TOTAL TO DATE |
|------|--|---------|----|-------|--------|-------|-------|------------------------|------------------|----------|---------------|
|      |  | GL      | No |       | L      | B     | D     |                        | Page             | Quantity |               |
|      |  |         | IL | EX.L  |        |       |       |                        |                  |          |               |
|      | (a) For Lift 0 to 1.5m   | 1       |    |       | 16.900 | 0.820 | 0.000 | 0.000                  |                  |          |               |
|      | Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)  | 1       |    |       | 16.900 | 0.820 | 0.200 | 2.772                  |                  | 0.234    | 0.234         |
|      | Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead |         |    |       |        |       |       | 3.668                  |                  | 6.757    | 9.528         |
|      | Extra Item 9.4 a) : Lowering & Laying RCC NP3 class pipe of 200mm Dia  | 1       |    |       | 18.000 |       |       | 18.000                 |                  | 8.943    | 12.612        |
|      | Item No 30 :- Refilling the excavated trenches ...   |         |    |       |        |       |       |                        |                  | 44.500   | 62.500        |
|      | <b>Total Excavation = A</b>  |         |    |       |        |       |       |                        |                  |          |               |
|      | <b>Deduction</b>   |         |    |       |        |       |       | 13.858                 |                  |          |               |
|      | pipe area  | 1       |    |       |        |       |       |                        |                  |          |               |
|      | soling   |         |    | 0.785 | 16.900 | 0.260 | 0.260 | 0.897                  |                  |          |               |
|      | PCC  |         |    |       |        |       |       | 0.000                  |                  |          |               |
|      | Murrum bedding   |         |    |       |        |       |       | 0.000                  |                  |          |               |
|      | <b>Total = B</b>   |         |    |       |        |       |       | 2.772                  |                  |          |               |
|      |  |         |    |       |        |       |       | 3.668                  |                  |          |               |
|      |  |         |    |       |        |       |       | <b>Net Qty = A - B</b> |                  |          |               |
|      | Item No :35 Shifting of Existing Utilities Length considered up to 400mm including all and as directed by Engineer in-Charge                 |         |    |       | 0.063  |       |       | 10.190                 |                  | 26.647   | 36.837        |
|      |  |         |    |       |        |       |       |                        |                  | 0.000    | 0.063         |



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# AURANGABAD MUNICIPAL CORPORATION.

(S.No. 49) (From No.52)

## Measurement Book

Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali, Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshirawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main

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Itkheda (Near Mahanubhav Ashram)- 200mm RCCChamber-MB

### 12th R A BILL MEASUREMENTS OF CHAMBER ITKHEDA(NEAR MAHANUBHAW ASHRAM)

| Date | Particulars of work   | DETAILS |         |         |       |       |       | Content of arrears | Last measurement |          | Total Upto Date Quantity |
|------|---|---------|---------|---------|-------|-------|-------|--------------------|------------------|----------|--------------------------|
|      |   | No      |         |         | L     | B     | D     |                    | Page             | Quantity |                          |
|      |   | GL      | IL      | EX.L    |       |       |       |                    |                  |          |                          |
|      | Excavation of Chamber - For 0.9 dia chamber up to 1.5 mt depth -0.9+0.5+0.3+0.3=2m<br>Area for chamber up to 1.5m depth=2 X 2=4m<br>IA6 |         |         |         |       |       |       |                    |                  |          |                          |
|      | CH0.00  | 548.730 | 547.820 | 547.570 |       |       | 1.160 |                    |                  |          |                          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.<br>(a) For Lift 0 to 1.5m               | 1       |         |         | 0.785 | 4.000 | 1.160 | 3.642              | 0.000            | 3.642    |                          |
|      | Item No. : 11 Transportation of earth Transportation charges  |         |         |         |       |       |       | 1.531              | 0.000            | 1.531    |                          |
|      | Item No. 30 :- Refilling the excavated trenches ...<br>Total Excavation(A)=   |         |         |         |       |       |       | 3.642              |                  |          |                          |
|      | Deduction   |         |         |         |       |       |       |                    |                  |          |                          |
|      | Brick work  | 1       |         | 0.785   | 1.200 | 1.200 | 0.910 | 1.029              |                  |          |                          |
|      | soling  |         |         |         |       |       |       | 0.000              |                  |          |                          |
|      | PCC   | 1       |         | 0.785   | 1.600 | 1.600 | 0.250 | 0.502              |                  |          |                          |
|      | Murrum bedding  |         |         |         |       |       |       | 0.000              |                  |          |                          |
|      | Total (B)   |         |         |         |       |       |       | 1.531              |                  |          |                          |
|      | Net Qty = A - B   |         |         |         |       |       |       | 2.111              | 0.000            | 2.111    |                          |
|      | IA7   |         |         |         |       |       |       |                    |                  |          |                          |
|      | CH18.90   | 548.728 | 547.838 | 547.588 |       |       | 1.140 |                    |                  |          |                          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.<br>(a) For Lift 0 to 1.5m               | 1       |         |         | 0.785 | 4.000 | 1.115 | 3.501              | 3.642            | 7.143    |                          |
|      | Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.<br>(a) For Lift 0 to 1.5m                              | 1       |         |         | 0.785 | 4.000 | 0.025 | 0.079              | 0.000            | 0.079    |                          |
|      | Item No. : 11 Transportation of earth Transportation charges  |         |         |         |       |       |       | 1.508              | 1.531            | 3.040    |                          |
|      | Item No. 30 :- Refilling the excavated trenches ...<br>Total Excavation(A)=   |         |         |         |       |       |       | 3.580              |                  |          |                          |
|      | Deduction   |         |         |         |       |       |       |                    |                  |          |                          |
|      | Brick work  | 1       |         | 0.785   | 1.200 | 1.200 | 0.890 | 1.006              |                  |          |                          |
|      | soling  |         |         |         |       |       |       | 0.000              |                  |          |                          |
|      | PCC   | 1       |         | 0.785   | 1.600 | 1.600 | 0.250 | 0.502              |                  |          |                          |
|      | Murrum bedding  |         |         |         |       |       |       | 0.000              |                  |          |                          |
|      | Total (B)   |         |         |         |       |       |       | 1.508              |                  |          |                          |
|      | Net Qty = A - B   |         |         |         |       |       |       | 2.071              | 2.111            | 4.182    |                          |
|      | IA8   |         |         |         |       |       |       |                    |                  |          |                          |
|      | CH32.30   | 548.735 | 547.935 | 547.685 |       |       | 1.050 |                    |                  |          |                          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.   |         |         |         |       |       |       |                    |                  |          |                          |



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# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali, Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main

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Itkheda (Near Mahanubhav Ashram)- 200mm RCC Chamber-MB

| Date | Particulars of work  | DETAILS |         |         |       |       |       | Content of arrears | Last measurement |              | Total Upto Date Quantity |
|------|--|---------|---------|---------|-------|-------|-------|--------------------|------------------|--------------|--------------------------|
|      |  | GL      | No      |         | L     | B     | D     |                    | Page             | Quantity     |                          |
|      |  |         | IL      | EX.L    |       |       |       |                    |                  |              |                          |
|      | (a) For Lift 0 to 1.5m   | 1       |         |         | 0.785 | 4.000 | 1.050 | 3.297              |                  |              |                          |
|      | Item No. : 11 Transportation of earth Transportation charges                                   |         |         |         |       |       |       | 1.407              |                  | 7.143        | 10.441                   |
|      | Item No. 30 :- Refilling the excavated trenches ...  |         |         |         |       |       |       |                    |                  | 3.040        | 4.446                    |
|      | <b>Total Excavation(A)=</b>  |         |         |         |       |       |       |                    |                  |              |                          |
|      | <b>Deduction</b>   |         |         |         |       |       |       | <b>3.297</b>       |                  |              |                          |
|      | Brick work   | 1       |         |         | 0.785 | 1.200 | 1.200 | 0.800              |                  |              |                          |
|      | soling   |         |         |         |       |       |       | 0.904              |                  |              |                          |
|      | PCC  | 1       |         |         | 0.785 | 1.600 | 1.600 | 0.250              |                  |              |                          |
|      | Murum bedding  |         |         |         |       |       |       | 0.000              |                  |              |                          |
|      | <b>Total (B)</b>   |         |         |         |       |       |       | <b>0.000</b>       |                  |              |                          |
|      |  |         |         |         |       |       |       | <b>1.407</b>       |                  |              |                          |
|      |  |         |         |         |       |       |       | <b>1.890</b>       |                  | <b>4.182</b> | <b>6.073</b>             |
|      | <b>IA9</b>   |         |         |         |       |       |       |                    |                  |              |                          |
|      | <b>CH47.20</b>   | 548.755 | 547.955 | 547.705 |       |       | 1.050 |                    |                  |              |                          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete. |         |         |         |       |       |       |                    |                  |              |                          |
|      | (a) For Lift 0 to 1.5m   | 1       |         |         | 0.785 | 4.000 | 1.050 | 3.297              |                  | 10.441       | 13.737                   |
|      | Item No. : 11 Transportation of earth Transportation charges                                   |         |         |         |       |       |       | 1.407              |                  | 4.446        | 5.853                    |
|      | Item No. 30 :- Refilling the excavated trenches ...  |         |         |         |       |       |       |                    |                  |              |                          |
|      | <b>Total Excavation(A)=</b>  |         |         |         |       |       |       |                    |                  |              |                          |
|      | <b>Deduction</b>   |         |         |         |       |       |       | <b>3.297</b>       |                  |              |                          |
|      | Brick work   | 1       |         |         | 0.785 | 1.200 | 1.200 | 0.800              |                  |              |                          |
|      | soling   |         |         |         |       |       |       | 0.904              |                  |              |                          |
|      | PCC  | 1       |         |         | 0.785 | 1.600 | 1.600 | 0.250              |                  |              |                          |
|      | Murum bedding  |         |         |         |       |       |       | 0.000              |                  |              |                          |
|      | <b>Total (B)</b>   |         |         |         |       |       |       | <b>0.000</b>       |                  |              |                          |
|      |  |         |         |         |       |       |       | <b>1.407</b>       |                  |              |                          |
|      |  |         |         |         |       |       |       | <b>1.890</b>       |                  | <b>6.073</b> | <b>7.963</b>             |
|      | <b>IA10</b>  |         |         |         |       |       |       |                    |                  |              |                          |
|      | <b>CH66.10</b>   | 548.798 | 547.998 | 547.748 |       |       | 1.050 |                    |                  |              |                          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete. |         |         |         |       |       |       |                    |                  |              |                          |
|      | (a) For Lift 0 to 1.5m   | 1       |         |         | 0.785 | 4.000 | 1.050 | 3.297              |                  | 13.737       | 17.034                   |
|      | Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.               |         |         |         |       |       |       |                    |                  |              |                          |
|      | (a) For Lift 0 to 1.5m   | 1       |         |         | 0.785 | 4.000 | 0.000 | 0.000              |                  | 0.079        | 0.079                    |
|      | Item No. : 11 Transportation of earth Transportation charges                                   |         |         |         |       |       |       | 1.407              |                  | 5.853        | 7.260                    |
|      | Item No. 30 :- Refilling the excavated trenches ...  |         |         |         |       |       |       |                    |                  |              |                          |
|      | <b>Total Excavation(A)=</b>  |         |         |         |       |       |       |                    |                  |              |                          |
|      | <b>Deduction</b>   |         |         |         |       |       |       | <b>3.297</b>       |                  |              |                          |
|      | Brick work   | 1       |         |         | 0.785 | 1.200 | 1.200 | 0.800              |                  |              |                          |
|      | soling   |         |         |         |       |       |       | 0.904              |                  |              |                          |
|      | PCC  | 1       |         |         | 0.785 | 1.600 | 1.600 | 0.250              |                  |              |                          |
|      | Murum bedding  |         |         |         |       |       |       | 0.000              |                  |              |                          |
|      | <b>Total (B)</b>   |         |         |         |       |       |       | <b>0.000</b>       |                  |              |                          |
|      |  |         |         |         |       |       |       | <b>1.407</b>       |                  |              |                          |
|      |  |         |         |         |       |       |       | <b>1.890</b>       |                  | <b>7.963</b> | <b>9.853</b>             |



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# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

Book No. :-  
Page No. :- **101**

**Name of Agency:-** M's Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Venture)

**Authority No.** AMC/Ward B&C/UIDSSMT/2014/184 Date 01.07.2014

1 Itkheda (Near Mahanubhav Ashram)- 200mm RCC Chamber detail

### 14th RA BILL MEASUREMENTS OF CHAMBER ITKHEDA (NEAR MAHANUBHAW ASHRAM)

| SR NO   | MH NO | CHAINAGE | DETAILS |         |       | Rebate up to<br>Depth of 1.5 mtr<br>For per 30 cm | Total<br>Rebate Qty<br>for 30 cm |
|---|-------|----------|---------|---------|-------|---|----------------------------------|
|   |       |          | GL      | IL      | DEPTH |   |                                  |
| <b>A</b> Extra Item No 02: Providing and constructing on sewer.BBM manhole 0.9 m dia at bottom and 0.5 m dia at top and up to a depth of 1.5 m etc., complete |       |          |         |         |       |   |                                  |
| 1   | IA6   | CH0.000  | 548.730 | 547.820 | 0.910 | 1.500   | -0.590                           |
| 2   | IA7   | CH18.900 | 548.728 | 547.838 | 0.890 | 1.500   | -0.610                           |
| 3   | IA8   | CH32.300 | 548.735 | 547.935 | 0.800 | 1.500   | -0.700                           |
| 4   | IA9   | CH47.200 | 548.755 | 547.955 | 0.800 | 1.500   | -0.700                           |
| 5   | IA10  | CH66.100 | 548.798 | 547.998 | 0.800 | 1.500   | -0.700                           |
|   |       |          |         |         |       | <b>-3.300</b>                                     | <b>-11.000</b>                   |



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(From No.52)

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Book No. :- **102**  
Page No. :-

**Name of Agency:-** M/s Kshilari Infrastructure Pvt.Ltd. & GECPL (Joint Venture)

**Authority No.** AMC/Ward B&C/UIDSSMT/2014/184 Date 01.07.2014

| 12th R A BILL MEASUREMENTS                        |              |       |               |              |              |              |               |               |              | Total up to Date |                |               |               |       |               |
|---|--------------|-------|---------------|--------------|--------------|--------------|---------------|---------------|--------------|------------------|----------------|---------------|---------------|-------|---------------|
| Branch Sewer at "ITKHEDA(NEAR MAHANUBHAW ASHRAM)" |              |       |               |              |              |              |               |               |              |                  |                |               |               |       |               |
| SR NO   | Description  | MB/PG | ITEM 1        |              | ITEM 4       | ITEM 7       | ITEM 11       | ITEM 30       | ITEM 35      | EIRL 2           |                | EIRL 2.a      | EIRL 9.3      |       | EIRL 9.4      |
|   |              |       | 0-1.5         | 0-1.5        |              |              |               |               |              | Full Rate        | Rebate         |               | 200mm         | 200mm |               |
| 1   | For Pipe     |       | 49.215        | 0.234        | 0.234        | 9.528        | 12.612        | 36.837        | 0.063        |                  |                |               | 62.500        |       | 62.500        |
| 2   | For Manhole  |       | 17.034        | 0.079        | 0.079        |              | 7.260         | 9.853         |              |                  | 5.000          | (11.000)      |               |       |               |
|   | <b>Total</b> |       | <b>66.249</b> | <b>0.312</b> | <b>0.312</b> | <b>9.528</b> | <b>19.871</b> | <b>46.690</b> | <b>0.063</b> | <b>5.000</b>     | <b>-11.000</b> | <b>62.500</b> | <b>62.500</b> |       | <b>62.500</b> |
|   |              |       |               |              |              |              |               |               |              | 10               |                |               |               |       |               |



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(From No.52)

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Sai Vrundavan Colony-04- 200mm RCC Pipe -MB-I

### 11th R A BILL MEASUREMENTS

#### Sai Vrundavan Colony-04

| Date | Particulars of work  | DETAILS |         |         |        |       | Content of area | Last measurement |       | TOTAL TO DATE |          |
|------|--|---------|---------|---------|--------|-------|-----------------|------------------|-------|---------------|----------|
|      |  | No      |         |         | L      | B     |                 | D                | Page  |               | Quantity |
|      |  | GL      | IL      | EXL     |        |       |                 |                  |       |               |          |
|      | RCC 200mm Dia  |         |         |         |        |       |                 |                  |       |               |          |
|      | Width of Trench - For<br>Bottom Lift 0.00-1.50m-<br>0.200+0.06+0.06+0.5=0.82m  |         |         |         |        |       |                 |                  |       |               |          |
|      | From Bottom Lift 1.50m-3.00m-<br>0.25+0.06+0.06+0.5+0.4=1.22m  |         |         |         |        |       |                 |                  |       |               |          |
|      | From Bottom Lift 3.00m-4.50m-<br>0.25+0.06+0.06+0.5+0.4+0.4 = 1.62m  |         |         |         |        |       |                 |                  |       |               |          |
|      | <b>SVC1 TO SVC2</b>  |         |         |         |        |       |                 |                  |       |               |          |
|      | CH0.00   | 547.080 | 546.180 | 545.980 |        |       | 1.100           |                  |       |               |          |
|      | CH10.90  | 547.080 | 546.180 | 545.980 |        |       | 1.100           |                  |       |               |          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.                                       |         |         |         |        |       |                 |                  |       |               |          |
|      | (a) For Lift 0 to 1.5m   | 1       |         |         | 8.900  | 0.820 | 0.950           | 6.933            | 0.000 | 6.933         |          |
|      | Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.   |         |         |         |        |       |                 |                  |       |               |          |
|      | (a) For Lift 0 to 1.5m   | 1       |         |         | 8.900  | 0.820 | 0.100           | 0.730            | 0.000 | 0.730         |          |
|      | Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.  |         |         |         |        |       |                 |                  |       |               |          |
|      | (a) For Lift 0 to 1.5m   | 1       |         |         | 8.900  | 0.820 | 0.050           | 0.365            | 0.000 | 0.365         |          |
|      | Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)  | 1       |         |         | 8.900  | 0.820 | 0.200           | 1.460            | 0.000 | 1.460         |          |
|      | Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead |         |         |         |        |       |                 | 1.932            | 0.000 | 1.932         |          |
|      | Extra Item 9.4 a) : Lowering & Laying RCC NP3 class pipe of 200mm Dia  | 1       |         |         | 10.000 |       |                 | 10.000           | 0.000 | 10.000        |          |
|      | Item No 30 :- Refilling the excavated trenches ...   |         |         |         |        |       |                 |                  |       |               |          |
|      | <b>Total Excavation = A</b>  |         |         |         |        |       |                 | 8.028            |       |               |          |
|      | <b>Deduction</b>   |         |         |         |        |       |                 |                  |       |               |          |
|      | pipe area  | 1       |         | 0.785   | 8.900  | 0.260 | 0.260           | 0.472            |       |               |          |
|      | soling   |         |         |         |        |       |                 | 0.000            |       |               |          |
|      | PCC  |         |         |         |        |       |                 | 0.000            |       |               |          |
|      | Murrum bedding   |         |         |         |        |       |                 | 1.460            |       |               |          |
|      | <b>Total = B</b>   |         |         |         |        |       |                 | 1.932            |       |               |          |
|      | <b>Net Qty = A - B</b>   |         |         |         |        |       |                 | 6.096            | 0.000 | 6.096         |          |
|      | <b>SVC2 TO SVC3</b>  |         |         |         |        |       |                 |                  |       |               |          |
|      | CH10.90  | 547.080 | 546.180 | 545.980 |        |       | 1.100           |                  |       |               |          |
|      | CH16.80  | 547.140 | 546.240 | 546.040 |        |       | 1.100           |                  |       |               |          |
|      | Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.                                       |         |         |         |        |       |                 |                  |       |               |          |
|      | (a) For Lift 0 to 1.5m   | 1       |         |         | 3.900  | 0.820 | 1.000           | 3.198            | 6.933 | 10.131        |          |
|      | Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.  |         |         |         |        |       |                 |                  |       |               |          |
|      | (a) For Lift 0 to 1.5m   | 1       |         |         | 3.900  | 0.820 | 0.100           | 0.320            | 0.365 | 0.685         |          |



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(From No.52)

## Measurement Book

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Sai Vrundavan Colony-04- 200mm RCC Pipe -MB-1

| Date     | Particulars of work  | DETAILS |         |         |                        |       | Content of area | Last measurement |      | TOTAL TO DATE |               |
|----------|--|---------|---------|---------|------------------------|-------|-----------------|------------------|------|---------------|---------------|
|          |  | No      |         |         | L                      | B     |                 | D                | Page |               | Quantity      |
|          |  | GL      | IL      | EX.L    |                        |       |                 |                  |      |               |               |
|          | Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)  | 1       |         |         | 3.900                  | 0.820 | 0.200           | 0.640            |      | 1.460         | 2.099         |
|          | Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead |         |         |         |                        |       |                 | 0.847            |      | 1.932         | 2.778         |
|          | Extra Item 9.4 a) : Lowering & Laying RCC NP3 class pipe of 200mm Dia  | 1       |         |         | 5.000                  |       |                 | 5.000            |      | 10.000        | 15.000        |
|          | Item No 30 :- Refilling the excavated trenches ...   |         |         |         |                        |       |                 |                  |      |               |               |
|          | <b>Total Excavation = A</b>  |         |         |         |                        |       |                 | <b>3.518</b>     |      |               |               |
|          | Deduction  |         |         |         |                        |       |                 |                  |      |               |               |
|          | pipe area  | 1       |         | 0.785   | 3.900                  | 0.260 | 0.260           | 0.207            |      |               |               |
|          | soling   |         |         |         |                        |       |                 | 0.000            |      |               |               |
|          | PCC  |         |         |         |                        |       |                 | 0.000            |      |               |               |
|          | Murum bedding  |         |         |         |                        |       |                 | 0.640            |      |               |               |
|          | <b>Total = B</b>   |         |         |         |                        |       |                 | <b>0.847</b>     |      |               |               |
|          |  |         |         |         | <b>Net Qty = A - B</b> |       |                 | <b>2.671</b>     |      | <b>6.096</b>  | <b>8.767</b>  |
| 29/11/16 | SVC3 TO SVC4   |         |         |         |                        |       |                 |                  |      |               |               |
|          | CH16.80  | 547.140 | 546.240 | 546.040 |                        |       |                 | 1.100            |      |               |               |
|          | CH22.70  | 547.210 | 546.310 | 546.110 |                        |       |                 | 1.100            |      |               |               |
|          | Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.  |         |         |         |                        |       |                 |                  |      |               |               |
|          | (a) For Lift 0 to 1.5m   | 1       |         |         | 3.900                  | 0.820 | 1.000           | 3.198            |      | 10.131        | 13.329        |
|          | Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.  |         |         |         |                        |       |                 |                  |      |               |               |
|          | (a) For Lift 0 to 1.5m   | 1       |         |         | 3.900                  | 0.820 | 0.100           | 0.320            |      | 0.685         | 1.005         |
|          | Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)  | 1       |         |         | 3.900                  | 0.820 | 0.200           | 0.640            |      | 2.099         | 2.739         |
|          | Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead |         |         |         |                        |       |                 | 0.847            |      | 2.778         | 3.625         |
|          | Extra Item 9.4 a) : Lowering & Laying RCC NP3 class pipe of 200mm Dia  | 1       |         |         | 5.000                  |       |                 | 5.000            |      | 15.000        | 20.000        |
|          | Item No 30 :- Refilling the excavated trenches ...   |         |         |         |                        |       |                 |                  |      |               |               |
|          | <b>Total Excavation = A</b>  |         |         |         |                        |       |                 | <b>3.518</b>     |      |               |               |
|          | Deduction  |         |         |         |                        |       |                 |                  |      |               |               |
|          | pipe area  | 1       |         | 0.785   | 3.900                  | 0.260 | 0.260           | 0.207            |      |               |               |
|          | soling   |         |         |         |                        |       |                 | 0.000            |      |               |               |
|          | PCC  |         |         |         |                        |       |                 | 0.000            |      |               |               |
|          | Murum bedding  |         |         |         |                        |       |                 | 0.640            |      |               |               |
|          | <b>Total = B</b>   |         |         |         |                        |       |                 | <b>0.847</b>     |      |               |               |
|          |  |         |         |         | <b>Net Qty = A - B</b> |       |                 | <b>2.671</b>     |      | <b>8.767</b>  | <b>11.438</b> |
| 29/11/16 | SVC4 TO SVC5   |         |         |         |                        |       |                 |                  |      |               |               |
|          | CH22.70  | 547.210 | 546.310 | 546.110 |                        |       |                 | 1.100            |      |               |               |
|          | CH28.60  | 547.090 | 546.390 | 546.190 |                        |       |                 | 0.900            |      |               |               |
|          | Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.  |         |         |         |                        |       |                 |                  |      |               |               |



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