



## KEY PLAN

|                                 |                                                                                     |                                   |                                                                                     |
|---------------------------------|-------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------|
| 1. HYDRANT PIPE                 |  | 7. SINGLE HEAD HYDRANT VALVE (SH) |  |
| 2. SPRAY PIPE                   |  | 8. WATER MONITOR (WM)             |  |
| 3. PIPE RUNNING UNDERGROUND     |  | 9. DELUGE VALVE (DV) IN HOUSE     |  |
| 4. PIPE RUNNING IN TRENCH       |  | 10. REDUCER/ENLARGER              |  |
| 5. HUME PIPE                    |  | 11. FIRE ESCAPE HYDRANT           |  |
| 6. ISOLATION VALVE (GATE VALVE) |  |                                   |                                                                                     |

| DETAILS                         |        | TAG NO.          | QTY |
|---------------------------------|--------|------------------|-----|
| SINGLE HEADED EXTERNAL HYDRANTS |        | SH-01 TO 54      | 58  |
| WATER MONITORS                  |        | WM-01 TO 20      | 20  |
| ISOLATION VALVES                | 200 NB | GTV-200-01 TO 09 | 09  |
|                                 | 150 NB | GTV-150-01 TO 09 | 09  |
|                                 | 80 NB  | GTV-80-01        | 01  |
| DELUGE VALVES                   |        | DV-01 TO 12      | 12  |
| FIRE ESCAPE HYDRANTS            |        | SH-01 TO 12      | 12  |
| HUME PIPES                      |        | H-01 TO 72C      | 94  |

1. PLOT PLAN : PE-DG-427-100-M001  
2. PLANT ROAD LAYOUT : PE-DG-427-603-C002  
3. PLANT DRAIN LAYOUT : PE-DG-427-603-C004

| S.L.NO | DESCRIPTION                        | M.O.C                                                                                                                                  |
|--------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 1.     | FIRE WATER PIPES (150NB AND BELOW) | M.S. ERW PIPE AS PER IS.1239,<br>PART-1(MEDIUM GRADE)                                                                                  |
| 2.     | FIRE WATER PIPES (200NB AND ABOVE) | M.S. ERW PIPE AS PER IS.3589,<br>THICKNESS : 6.35MM FOR 200NB TO 350NB<br>THICKNESS : 7.14MM FOR 400NB<br>THICKNESS : 8MM BEYOND 400NB |

| DELUGE VALVE DISTRIBUTION TABLE |                       |             |       |
|---------------------------------|-----------------------|-------------|-------|
| S.NO.                           | EQUIPMENT DESCRIPTION | DV TAG NO.  | SIZE  |
| 1                               | STATION TRANSFORMER   | DV-01 TO 10 | 100NB |
| 2                               | BOILER                | DV-11 TO 12 | 100NB |
|                                 |                       |             |       |

| S.NO. | EQUIPMENT DESCRIPTION | DV TAG NO.  | SIZE  |
|-------|-----------------------|-------------|-------|
| 1     | STATION TRANSFORMER   | DV-01 TO 10 | 100NB |
| 2     | BOILER                | DV-11 TO 12 | 100NB |
|       |                       |             |       |

|    |                            |    |                             |    |                                           |    |                           |    |                                    |    |                                                       |    |                                |    |                                                    |
|----|----------------------------|----|-----------------------------|----|-------------------------------------------|----|---------------------------|----|------------------------------------|----|-------------------------------------------------------|----|--------------------------------|----|----------------------------------------------------|
| 01 | TG BUILDING                | 07 | CHIMNEY                     | 13 | AHP COMPRESSOR CUM WATER PUMP HOUSE       | 19 | COAL STOCK PILE           | 25 | FIRE WATER P/H & MAKE-UP WATER P/H | 31 | DELETED                                               | 35 | CW TREATMENT PLANT             | 41 | CHP MATERIAL STORAGE YARD                          |
| 02 | TRANSFORMER YARD           | 08 | ESP CONTROL ROOM            | 14 | COOLING TOWER                             | 20 | CHP CONTROL ROOM          | 26 | F.G.D. SYSTEM FACILITIES           |    |                                                       |    | CHLORINE DIOXIDE DOSING SYSTEM | 42 | STACKER RECLAIMER MATERIAL STORAGE / ASSEMBLY YARD |
| 03 | GIS SWITCHYARD             | 09 | NEW ADMINISTRATIVE BUILDING | 15 | CWPH                                      | 21 | COAL SETTLING POND        | 27 | AIR WASHER ROOM (ON ROOF OF CW PH) | 32 | FLY ASH SILO, DECANING SYSTEM & H/CSD PUMP HOUSE AREA | 37 | DELETED                        | 43 | AHP MATERIAL STORAGE YARD                          |
| 04 | BOILER HOUSE               | 10 | INTERMEDIATE ASH SILO       | 16 | CLARIFIED WATER STORAGE TANK              | 22 | WAGON TIPLER              | 28 | PT PLANT                           |    |                                                       | 38 | RAIN WATER HARVESTING POND     | 44 | PLANT COMPRESSOR ROOM                              |
| 05 | MILL BAY                   | 11 | ASH SLURRY PUMP HOUSE       | 17 | STP (IN DMP & CHP AREA)                   | 23 | WAGON TIPLER CONTROL ROOM | 29 | O&M STORE                          | 33 | SERVICE BUILDING (EXISTING)                           | 39 | SERVICE WATER TANK & P/H       | 45 | CENTRAL LUBE OIL BUILDING                          |
| 06 | ELECTROSTATIC PRECIPITATOR | 12 | EMERGENCY DG STATION        | 18 | DM STORAGE TANK & DM WATER TRANSFER PUMPS | 24 | ETP & GUARD POND          | 30 | CRUSHER HOUSE                      | 34 | CONSTRUCTION STORE                                    | 40 | DELETED                        |    |                                                    |

| REV  | DATE | ALTERED  | REV  | DATE | ALTERED  | REV  | DATE | ALTERED  | REV  | DATE | ALTERED  | REV  | DATE | ALTERED  | REV  | DATE | ALTERED  | REV  | DATE | ALTERED  |
|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|
| ZONE |      | CHD/APPD | ZONE |      | CHD/APPD | ZONE |      | CHD/APPD | ZONE |      | CHD/APPD | ZONE |      | CHD/APPD | ZONE |      | CHD/APPD | ZONE |      | CHD/APPD |
| 1    |      |          | 2    |      |          | 3    |      |          | 4    |      |          | 5    |      |          | 6    |      |          | 7    |      |          |

|                                                                                                                                                                     |      |        |          |          |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------|----------|----------|-----|
|  BHARAT HEAVY ELECTRICALS LTD.<br>HYDERABAD<br>PROJECT ENGG & SYSTEMS DIVISION | NAME | SIGN.  | DATE     | NO.      | VAF |
|                                                                                                                                                                     | DRN. | DSTS   | -SD-     | 08.04.17 |     |
|                                                                                                                                                                     | CHD. | SUMANT | -SD-     | 08.04.17 |     |
| APPD.                                                                                                                                                               | AMIT | -SD-   | 08.04.17 |          |     |

|                                                        |                             |                                                                                       |                 |                                                          |                            |                  |                  |
|--------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------|----------------------------|------------------|------------------|
| DEPT.<br>PED<br>CODE<br>450                            | UNTL. DIMS.<br>GR<br>9/11/1 |  | SCALE<br>1:1200 | WEIGHT (KG)<br>-NA-                                      | REF. TO ASSY. DRG.<br>-NA- | ITEM NO.<br>-NA- | ITEM NO.<br>-NA- |
| TITLE<br>COMPOSITE LAYOUT OF<br>HYDRANT & SPRAY SYSTEM |                             |                                                                                       | CARD CODE<br>NA | BHEL. DRG. NO.<br>PY-LP-1-M087-8315-11<br>CUST. DRG. NO. |                            | REVISION<br>0    |                  |
|                                                        |                             |                                                                                       | 15              | SHT. NO 01                                               |                            | NO. OF SHT. 03   |                  |
|                                                        |                             |                                                                                       |                 | 16                                                       |                            |                  |                  |