Join For Water

# FEASIBILITY STUDY, DETAILED ENGINEERING DESIGN FOR CONSTRUCTION OF A WATER SUPPLY SYSTEM IN NORTH DIVISIOIN OF FORT-PORTAL CITY

BOOK OF DRAWINGS

OCTOBER, 2025

# TABLE OF CONTENTS



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**PROJECT:**

**FEASIBILITY STUDY, DETAILED ENGINEERING DESIGN FOR CONSTRUCTION OF A WATER SUPPLY SYSTEM IN NORTH DIVISIOIN OF FORT-PORTAL CITY**

**CONSULTANTS**


Plot 36, Ntinda Avenue, Ministers' Village Ntinda,
Kampala - Uganda
P.O.Box 2064, Kampala Uganda
Email; info.uganda@ewb-ea.org
Tel. +256 (0) 200 906 107
Web: www.ewb-ea.org


REVISIONS :

| No | Date | Description |
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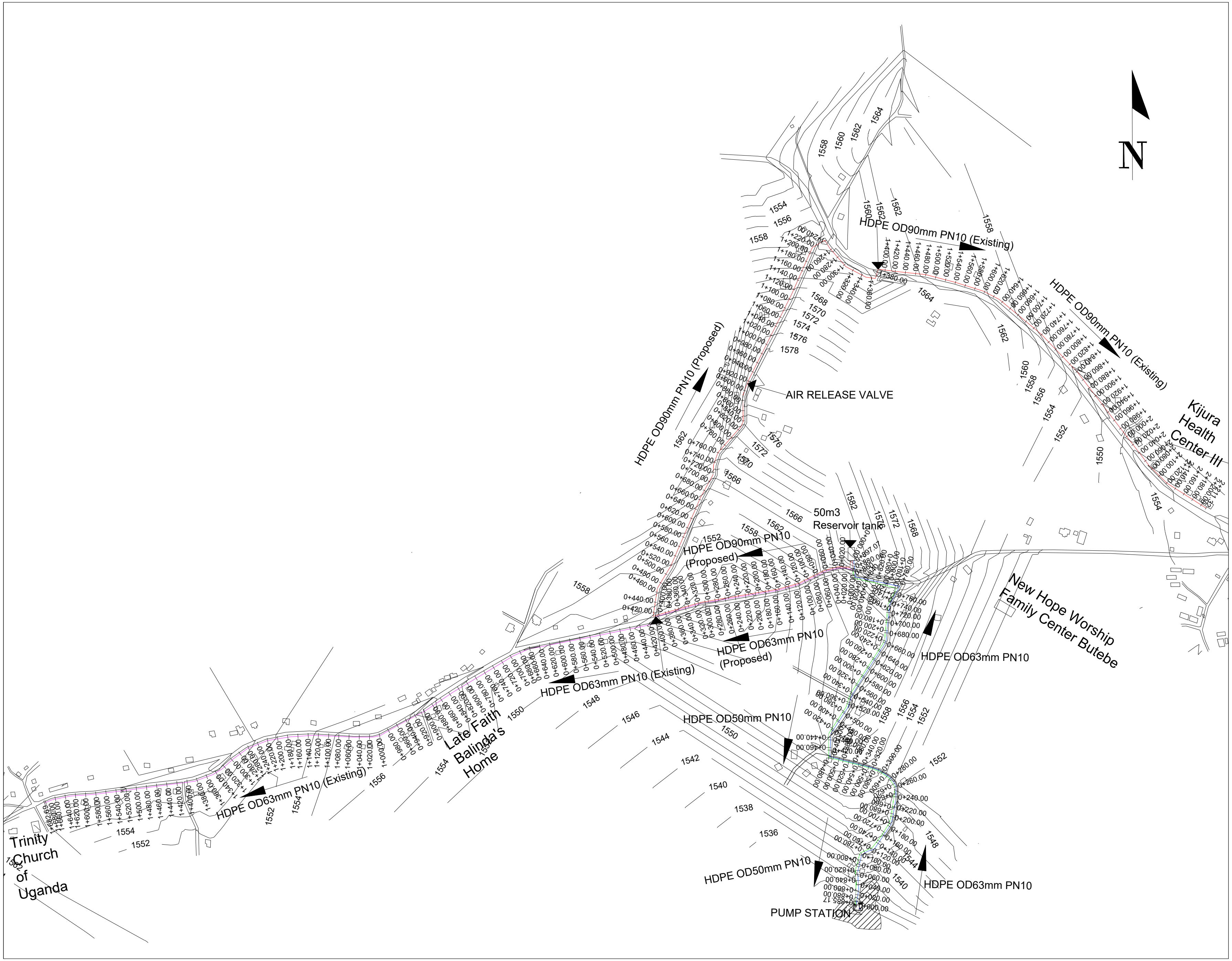
**DRAWING TITLE**

DRAWING INDEX

| | | | |
|---|---|---|---|
| **SCALE** | AS SHOWN | **DRAWING No.** | XX-XXX-1.0.0 |
| **SURVEYED** | EJM | **DESIGNED** | EJM |
| **DRAWN** | EJB | **CHECKED** | NM |
| **DATE** | OCTOBER, 2025 | **APPROVED** | LK |




## Legend

- Forest
- Road
- House
- Contour

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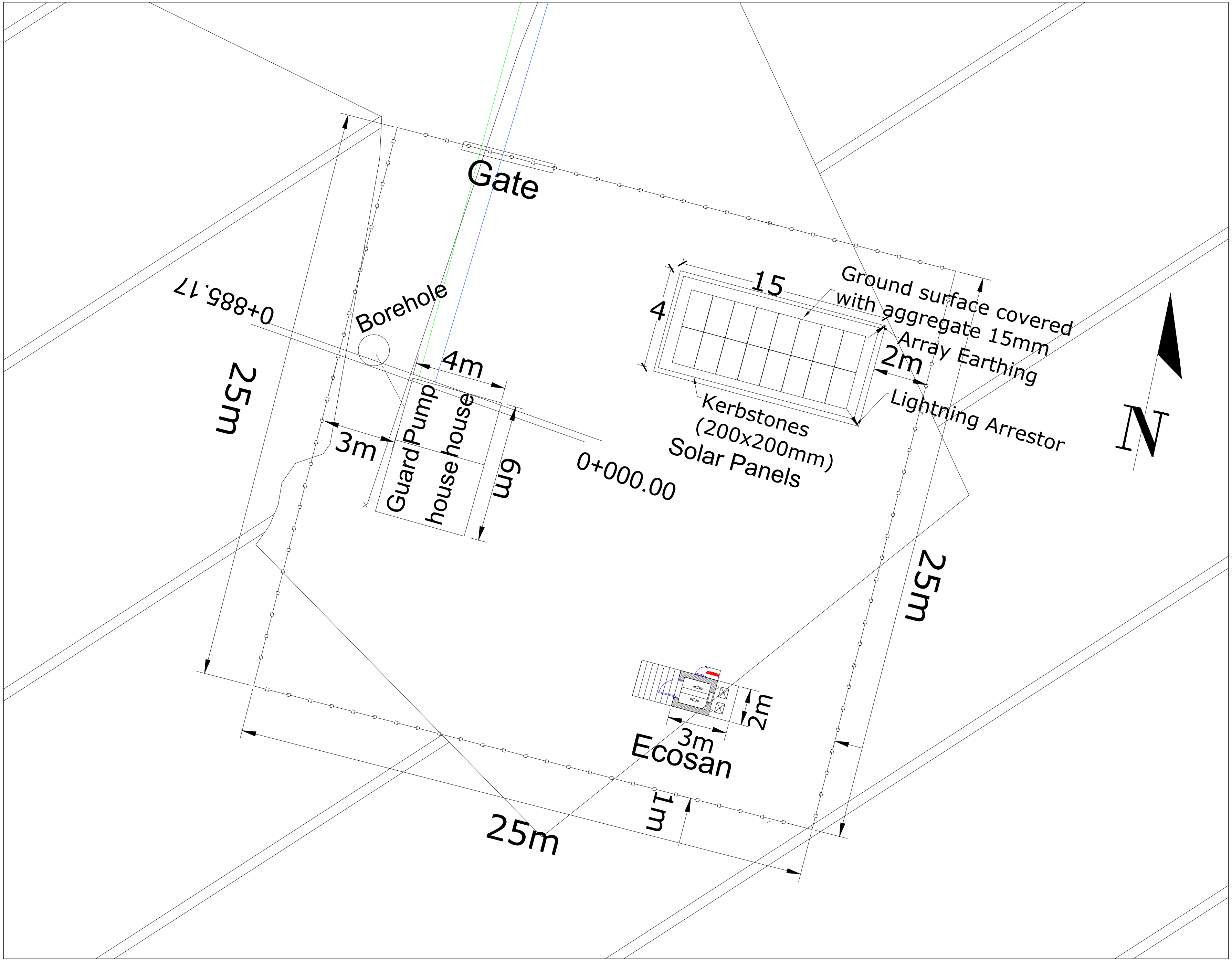
**REVISIONS :**

| No | Date | Description |
|---|---|---|
| | | |

**DRAWING TITLE**

GENERAL LAYOUT

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |




Legend

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REVISIONS :

| No | Date | Description |
|---|---|---|
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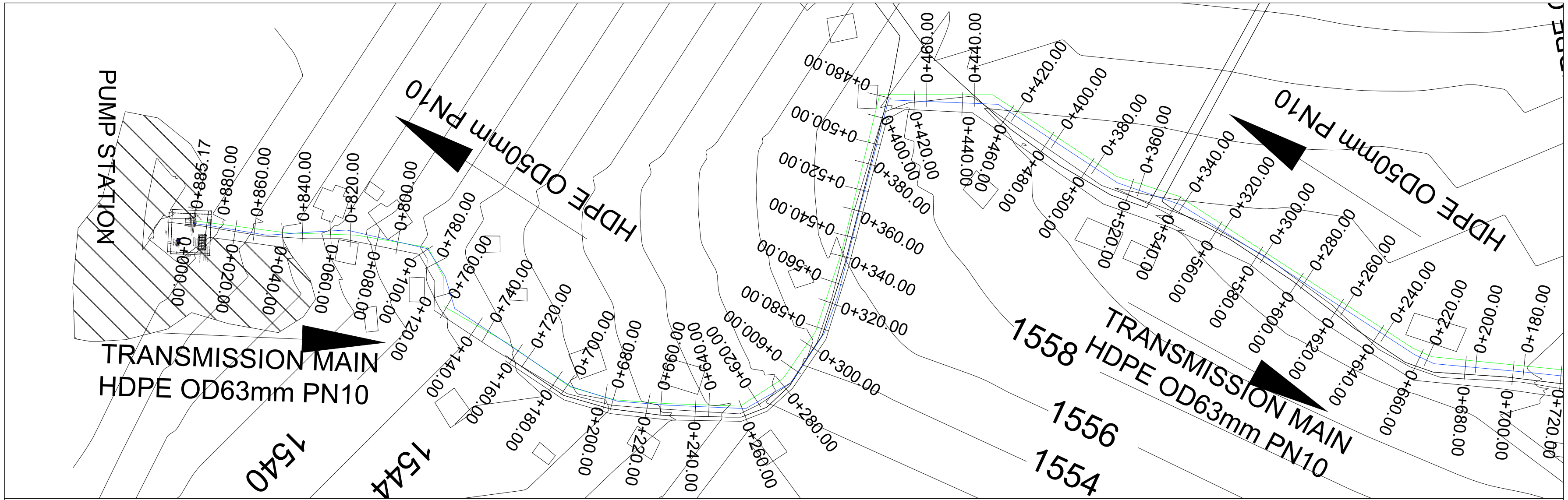
| | | |

DRAWING TITLE

PUMP STATION

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |

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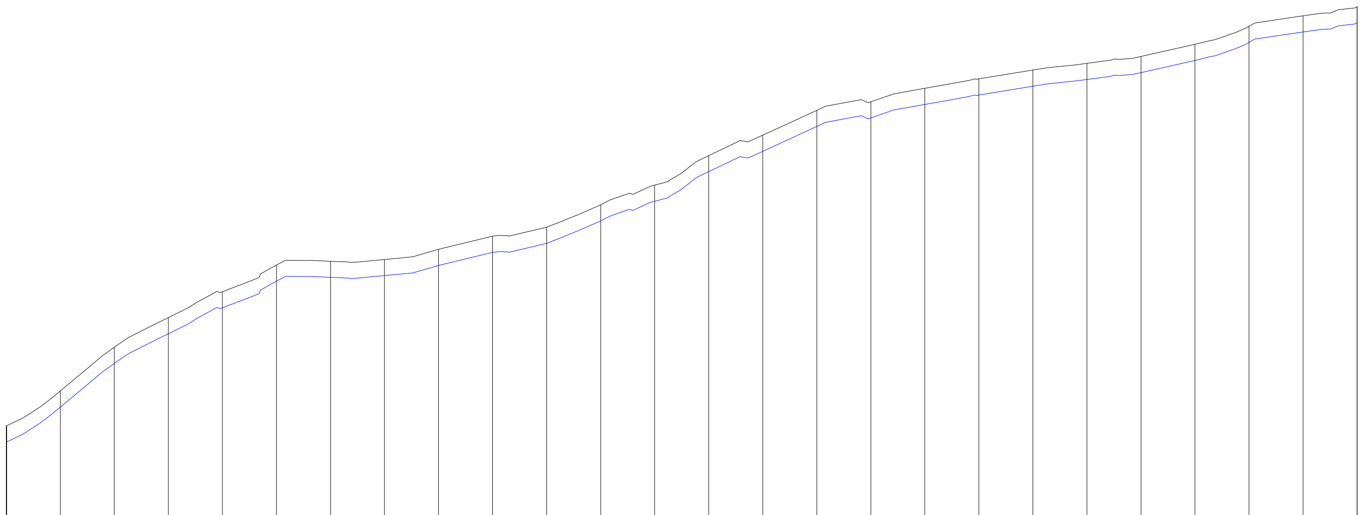

Vert Exag 2.000
Datum 1525.000

| | | | | | | | | | | | | | |
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| CHAINAGE | 0+000.00 | 0+020.00 | 0+040.00 | 0+060.00 | 0+080.00 | 0+100.00 | 0+120.00 | 0+140.00 | 0+160.00 | 0+180.00 | 0+200.00 | 0+220.00 | 0+240.00 |
| EXISTING LEVEL | 1530.671 | 1533.253 | 1536.485 | 1538.678 | 1540.603 | 1542.570 | 1542.851 | 1542.983 | 1543.732 | 1544.709 | 1545.371 | 1547.026 | 1548.482 |
| INVERT DEPTH | 1529.671 | 1532.253 | 1535.485 | 1537.678 | 1539.603 | 1541.570 | 1541.851 | 1541.983 | 1542.732 | 1543.709 | 1544.371 | 1546.026 | 1547.482 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHAINAGE | 0+260.00 | 0+280.00 | 0+300.00 | 0+320.00 | 0+340.00 | 0+360.00 | 0+380.00 | 0+400.00 | 0+420.00 | 0+440.00 | 0+460.00 | 0+480.00 | 0+500.00 |
| EXISTING LEVEL | 1550.668 | 1552.181 | 1554.017 | 1554.649 | 1555.646 | 1556.346 | 1557.000 | 1557.495 | 1558.003 | 1558.905 | 1560.240 | 1561.011 | 1561.076 |
| INVERT DEPTH | 1549.668 | 1551.181 | 1553.017 | 1553.649 | 1554.646 | 1555.346 | 1556.000 | 1556.495 | 1557.003 | 1557.905 | 1559.240 | 1560.011 | 1560.076 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |

PIPE DETAILS: TRANSMISSION MAIN HDPE OD63mm PN10

CLIENT

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PROJECT:

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CONSULTANTS

ENGINEERS WITHOUT BORDERS EAST AFRICA CONSULT LTD.
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|---|---|---|
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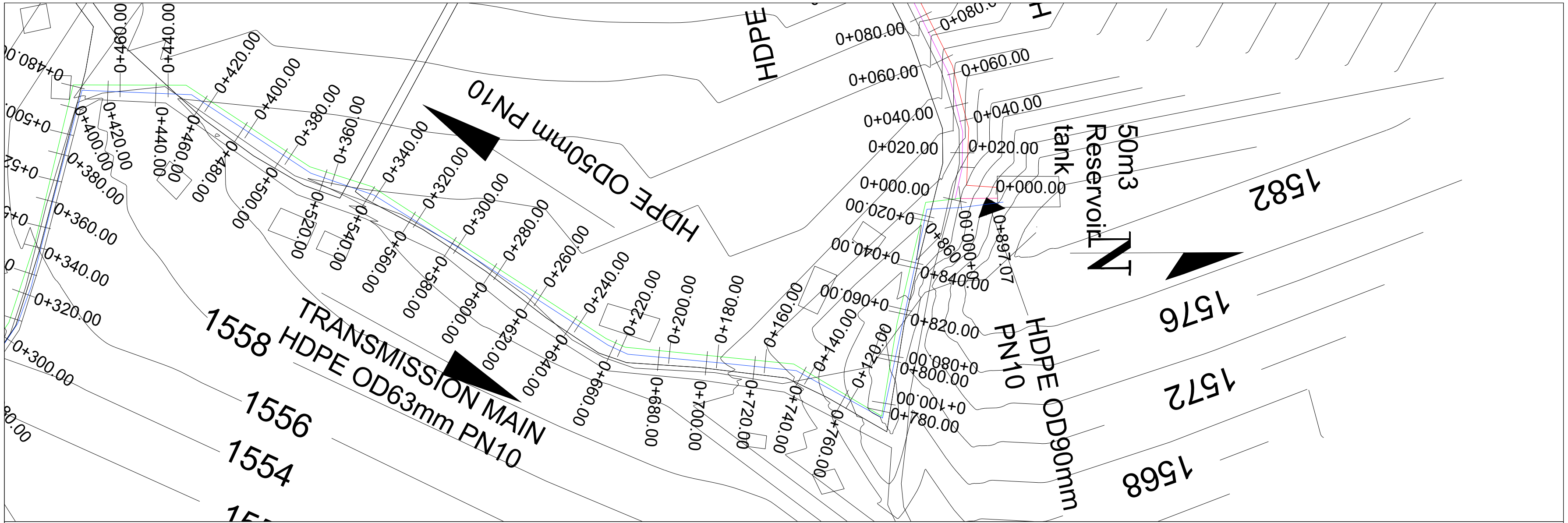
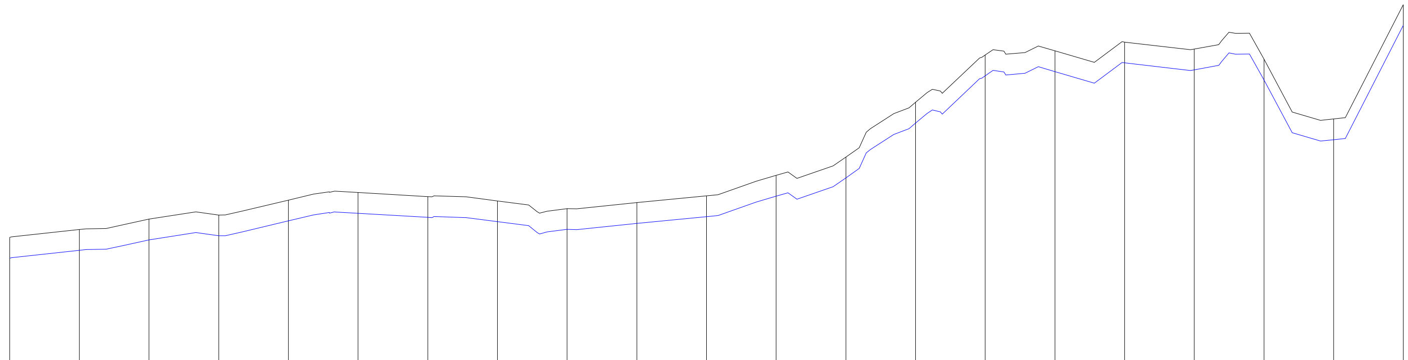
| | | |

DRAWING TITLE

TRANSMISSION MAIN HDPE OD63mm PN10 (CH 0+000 TO 0+500)

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |



Vert Exag 2.000
Datum 1555.000

| CHAINAGE | 0+500.00 | 0+520.00 | 0+540.00 | 0+560.00 | 0+580.00 | 0+600.00 | 0+620.00 | 0+640.00 | 0+660.00 | 0+680.00 | 0+700.00 | 0+720.00 | 0+740.00 | 0+760.00 | 0+780.00 | 0+800.00 | 0+820.00 | 0+840.00 | 0+860.00 | 0+880.00 | 0+897.07 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EXISTING LEVEL | 1561.076 | 1561.523 | 1562.123 | 1562.356 | 1563.209 | 1563.644 | 1563.413 | 1563.165 | 1562.724 | 1563.068 | 1563.453 | 1564.628 | 1565.679 | 1568.818 | 1571.533 | 1571.772 | 1572.272 | 1571.874 | 1571.293 | 1567.865 | 1574.421 |
| INVERT DEPTH | 1560.076 | 1560.523 | 1561.123 | 1561.356 | 1562.209 | 1562.644 | 1562.413 | 1562.165 | 1561.724 | 1562.068 | 1562.453 | 1563.628 | 1564.679 | 1567.818 | 1570.533 | 1570.772 | 1571.272 | 1570.874 | 1570.293 | 1566.865 | 1573.421 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |
| PIPE DETAILS | TRANSMISSION MAIN HDPE OD63mm PN10 | | | | | | | | | | | | | | | | | | | | |

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- Forest
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- House
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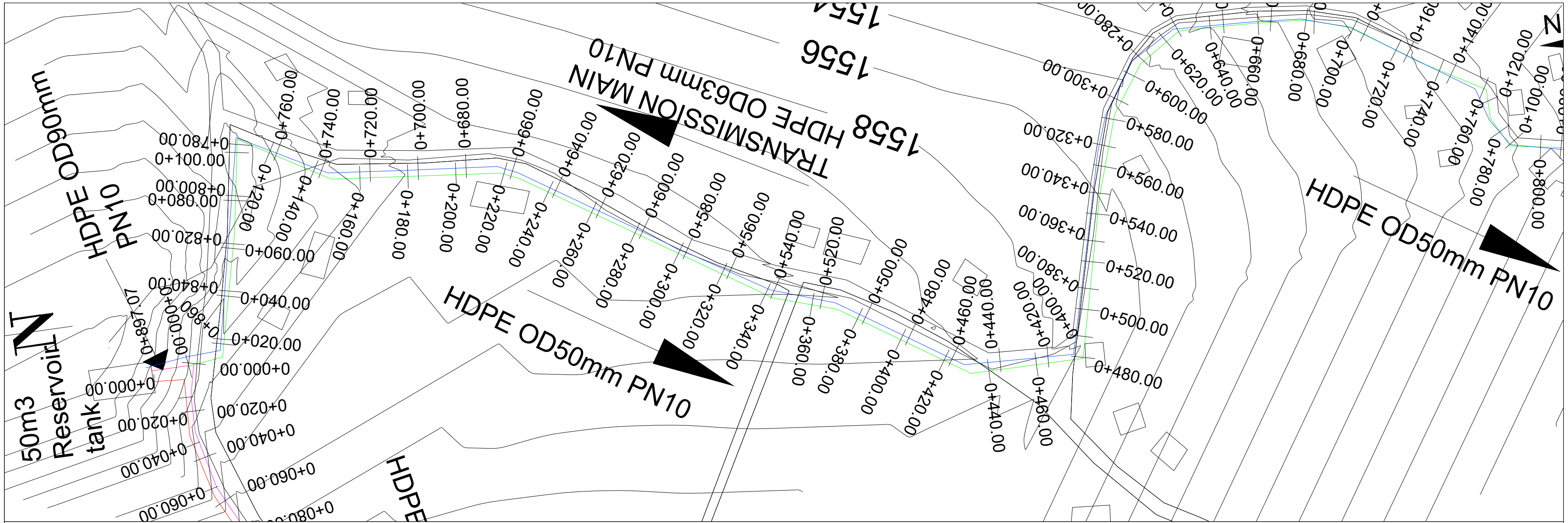
REVISIONS :

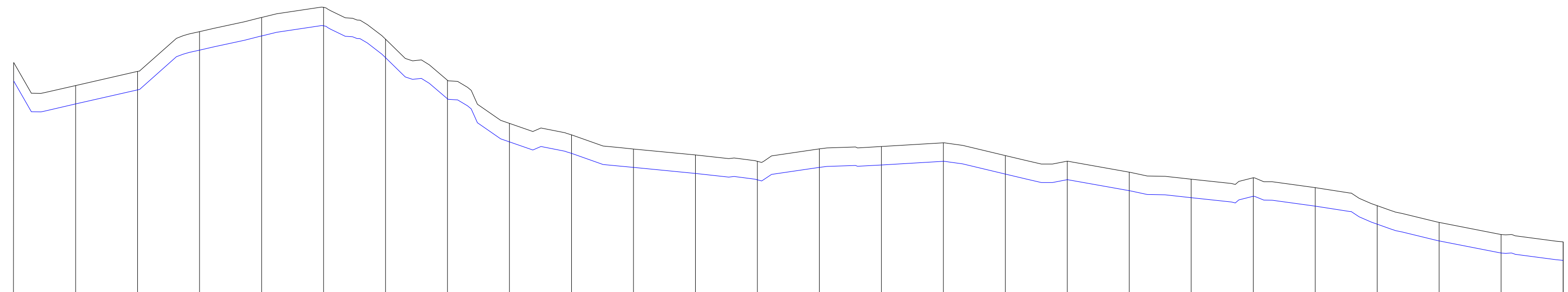
| No | Date | Description |
|---|---|---|
| | | |

DRAWING TITLE

TRANSMISSION MAIN HDPE OD63mm PN10 (CH 0+500 TO 0+897.07)

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |



Vert Exag 2.000
Datum 1555.000

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHAINAGE | 0+000.00 | 0+020.00 | 0+040.00 | 0+060.00 | 0+080.00 | 0+100.00 | 0+120.00 | 0+140.00 | 0+160.00 | 0+180.00 | 0+200.00 | 0+220.00 | 0+240.00 | 0+260.00 | 0+280.00 | 0+300.00 | 0+320.00 | 0+340.00 | 0+360.00 | 0+380.00 | 0+400.00 | 0+420.00 | 0+440.00 | 0+460.00 | 0+480.00 | 0+500.00 |
| EXISTING LEVEL | 1568.906 | 1567.419 | 1568.326 | 1570.892 | 1571.806 | 1572.463 | 1570.402 | 1567.754 | 1564.973 | 1564.234 | 1563.327 | 1562.944 | 1562.533 | 1563.333 | 1563.488 | 1563.720 | 1562.899 | 1562.538 | 1561.836 | 1561.382 | 1561.470 | 1560.835 | 1559.671 | 1558.589 | 1557.813 | 1557.335 |
| INVERT DEPTH | 1567.906 | 1566.419 | 1567.326 | 1569.892 | 1570.806 | 1571.463 | 1569.402 | 1566.754 | 1563.973 | 1563.234 | 1562.327 | 1561.944 | 1561.533 | 1562.333 | 1562.488 | 1562.720 | 1561.899 | 1561.538 | 1560.836 | 1560.382 | 1560.470 | 1559.835 | 1558.671 | 1557.589 | 1556.813 | 1556.335 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |
| PIPE DETAILS | HDPE OD50mm PN10 | | | | | | | | | | | | | | | | | | | | | | | | | |

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- Forest
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|---|---|---|
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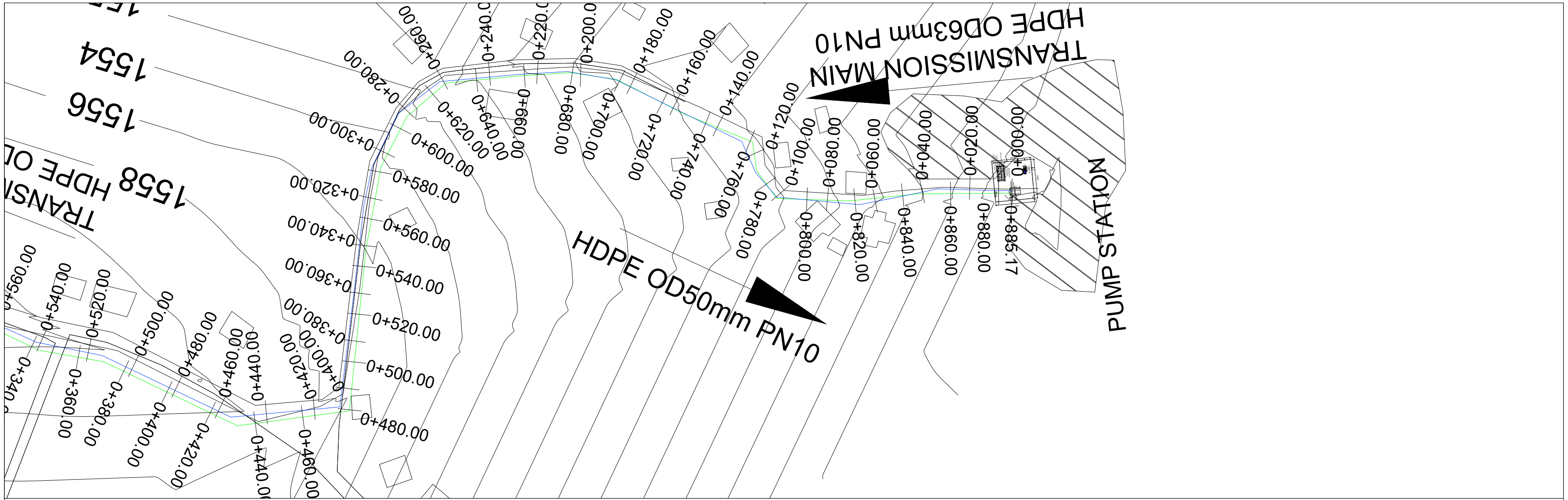
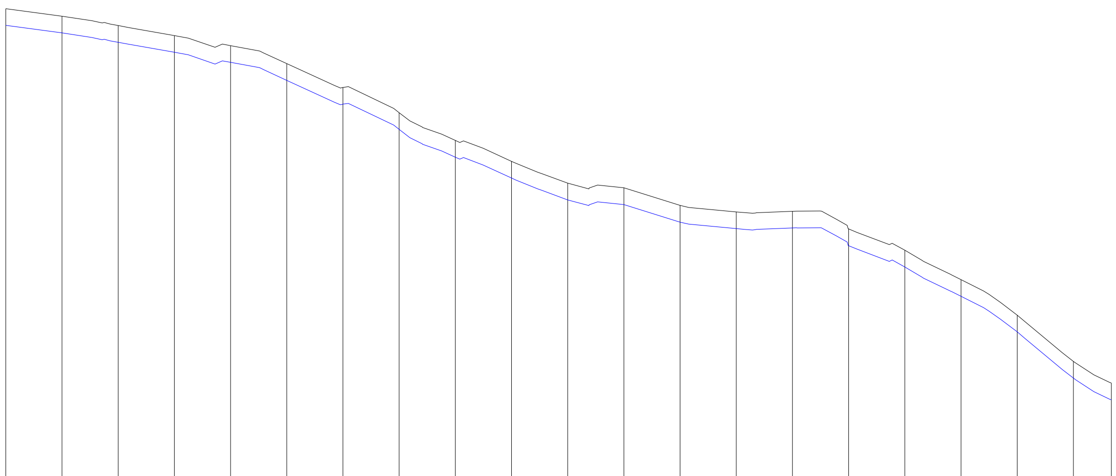
DRAWING TITLE

HDPE OD50mm PN10 (CH 0+000 TO 0+500)

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |



Vert Exag 2.000
Datum 1525.000

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHAINAGE | 0+500.00 | 0+520.00 | 0+540.00 | 0+560.00 | 0+580.00 | 0+600.00 | 0+620.00 | 0+640.00 | 0+660.00 | 0+680.00 | 0+700.00 | 0+720.00 | 0+740.00 | 0+760.00 | 0+780.00 | 0+800.00 | 0+820.00 | 0+840.00 | 0+860.00 | 0+880.00 | 0+885.17 |
| EXISTING LEVEL | 1557.335 | 1556.798 | 1556.128 | 1555.416 | 1554.702 | 1553.419 | 1551.725 | 1549.927 | 1547.946 | 1546.460 | 1544.902 | 1544.574 | 1543.323 | 1542.860 | 1542.904 | 1541.644 | 1540.131 | 1538.037 | 1535.508 | 1532.217 | 1530.671 |
| INVERT DEPTH | 1556.335 | 1555.798 | 1555.128 | 1554.416 | 1553.702 | 1552.419 | 1550.725 | 1548.927 | 1546.946 | 1545.460 | 1543.902 | 1543.574 | 1542.323 | 1541.860 | 1541.904 | 1540.644 | 1539.131 | 1537.037 | 1534.508 | 1531.217 | 1529.671 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |
| PIPE DETAILS | HDPE OD50mm PN10 | | | | | | | | | | | | | | | | | | | | |

## Legend

- Forest
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- Contour

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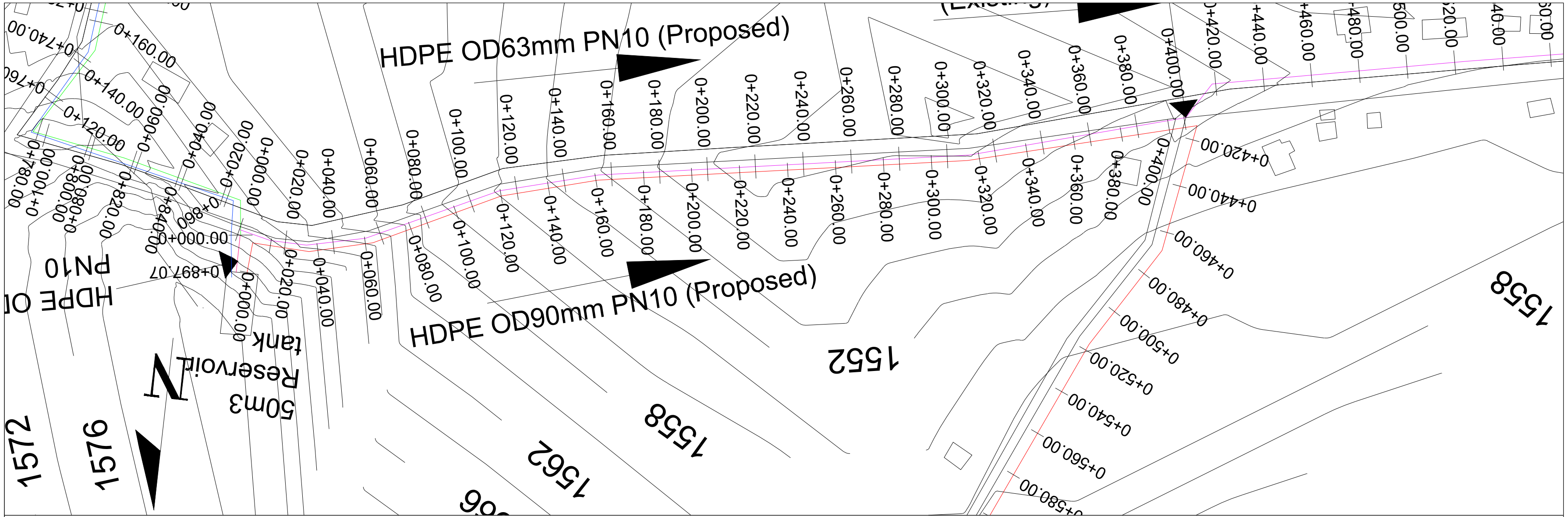
REVISIONS :

| No | Date | Description |
|---|---|---|
| | | |

**DRAWING TITLE**

HDPE OD50mm PN10 (CH 0+500 TO 0+885.17)

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |




## Legend

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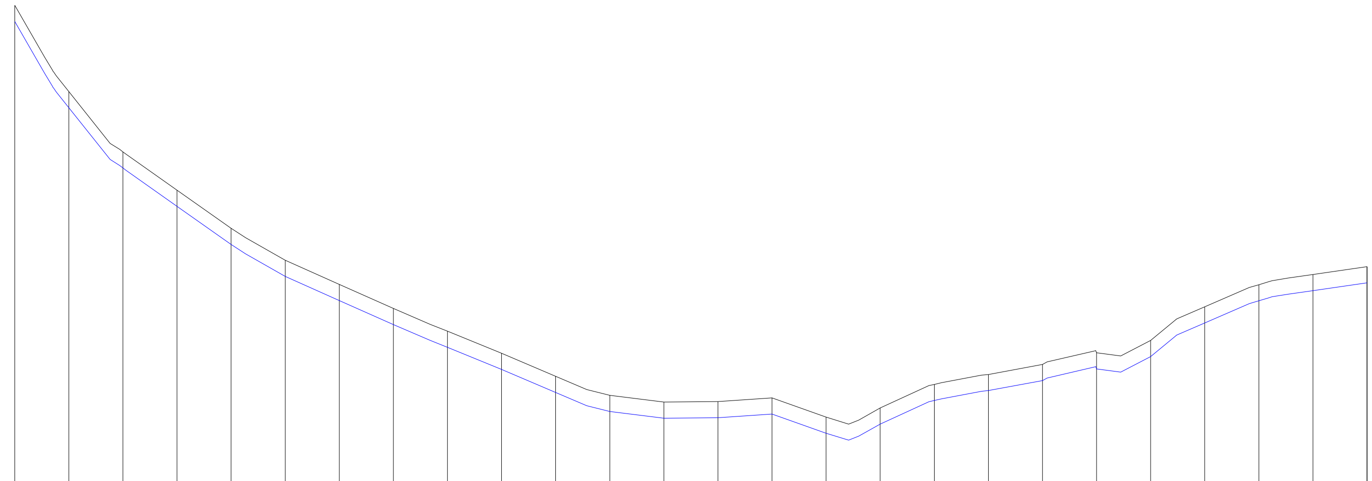

Vert Exag 2.000
Datum 1540.000

| CHAINAGE | 0+000.00 | 0+020.00 | 0+040.00 | 0+060.00 | 0+080.00 | 0+100.00 | 0+120.00 | 0+140.00 | 0+160.00 | 0+180.00 | 0+200.00 | 0+220.00 | 0+240.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EXISTING LEVEL | 1574.435 | 1568.060 | 1563.602 | 1560.772 | 1557.951 | 1555.586 | 1553.806 | 1552.025 | 1550.346 | 1548.717 | 1547.010 | 1545.608 | 1545.105 |
| INVERT DEPTH | 1573.435 | 1567.060 | 1562.602 | 1559.772 | 1556.951 | 1554.586 | 1552.806 | 1551.025 | 1549.346 | 1547.717 | 1546.010 | 1544.608 | 1544.105 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |

| CHAINAGE | 0+260.00 | 0+280.00 | 0+300.00 | 0+320.00 | 0+340.00 | 0+360.00 | 0+380.00 | 0+400.00 | 0+420.00 | 0+440.00 | 0+460.00 | 0+480.00 | 0+500.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EXISTING LEVEL | 1545.140 | 1545.413 | 1543.995 | 1544.667 | 1546.417 | 1547.148 | 1547.887 | 1548.751 | 1549.665 | 1552.150 | 1553.785 | 1554.538 | 1555.116 |
| INVERT DEPTH | 1544.140 | 1544.413 | 1542.995 | 1543.667 | 1545.417 | 1546.148 | 1546.887 | 1547.751 | 1548.665 | 1551.150 | 1552.785 | 1553.538 | 1554.116 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |

PIPE DETAILS: HDPE OD90mm PN10 (Proposed)

CLIENT

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REVISIONS :

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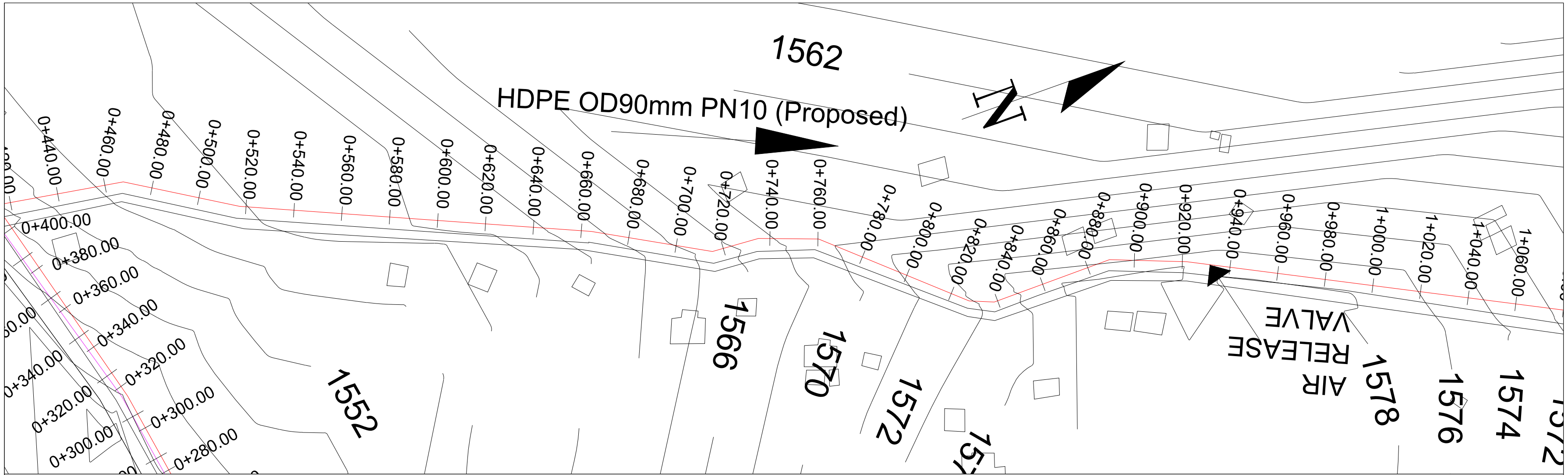
DRAWING TITLE

HDPE OD90mm PN10 (CH 0+000 TO 0+500)

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |

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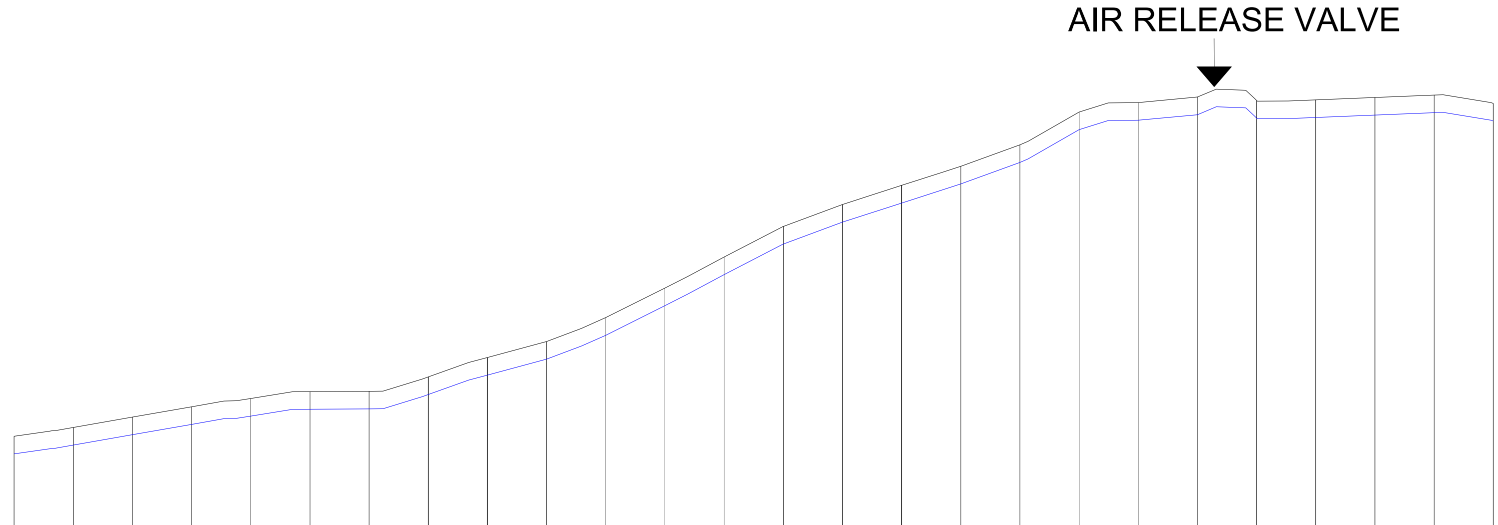


Vert Exag 2.000
Datum 1550.000

| CHAINAGE | 0+500.00 | 0+520.00 | 0+540.00 | 0+560.00 | 0+580.00 | 0+600.00 | 0+620.00 | 0+640.00 | 0+660.00 | 0+680.00 | 0+700.00 | 0+720.00 | 0+740.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EXISTING LEVEL | 1555.116 | 1555.714 | 1556.414 | 1557.113 | 1557.676 | 1558.138 | 1558.161 | 1559.129 | 1560.447 | 1561.528 | 1563.142 | 1565.134 | 1567.234 |
| INVERT DEPTH | 1554.116 | 1554.714 | 1555.414 | 1556.113 | 1556.676 | 1557.138 | 1557.161 | 1558.129 | 1559.447 | 1560.528 | 1562.142 | 1564.134 | 1566.234 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |
| PIPE DETAILS | HDPE OD90mm PN10 (Proposed) | | | | | | | | | | | | |

| CHAINAGE | 0+760.00 | 0+780.00 | 0+800.00 | 0+820.00 | 0+840.00 | 0+860.00 | 0+880.00 | 0+900.00 | 0+920.00 | 0+940.00 | 0+960.00 | 0+980.00 | 1+000.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EXISTING LEVEL | 1569.305 | 1570.791 | 1572.081 | 1573.374 | 1574.822 | 1577.043 | 1577.680 | 1578.054 | 1576.988 | 1577.863 | 1578.025 | 1578.187 | 1577.625 |
| INVERT DEPTH | 1568.305 | 1569.791 | 1571.081 | 1572.374 | 1573.822 | 1576.043 | 1576.680 | 1577.054 | 1575.988 | 1576.863 | 1577.025 | 1577.187 | 1576.625 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |
| PIPE DETAILS | | | | | | | | | | | | | |

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FEASIBILITY STUDY, DETAILED ENGINEERING DESIGN FOR CONSTRUCTION OF A WATER SUPPLY SYSTEM IN NORTH DIVISIOIN OF FORT-PORTAL CITY

CONSULTANTS

Plot 36, Ntinda Avenue, Ministers' Village Ntinda,
Kampala - Uganda
P.O.Box 2064, Kampala Uganda
Email: info.uganda@ewb-ea.org
Tel. +256 (0) 200 906 107
Web: www.ewb-ea.org

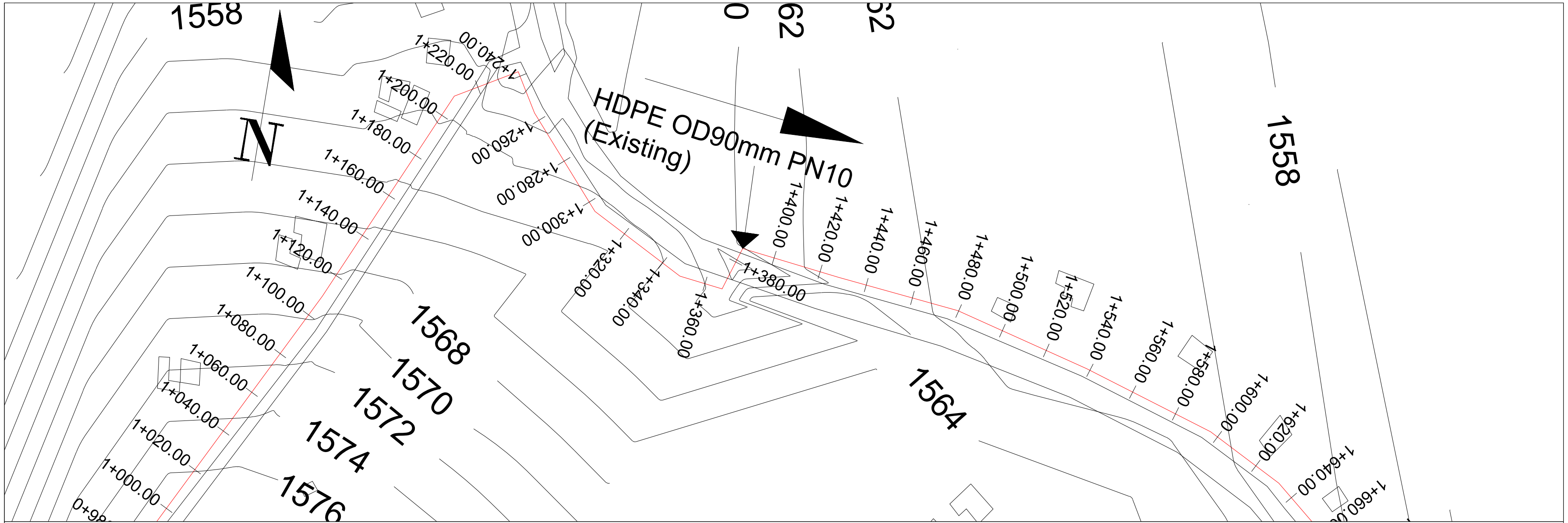
REVISIONS :

| No | Date | Description |
|---|---|---|
| | | |

DRAWING TITLE

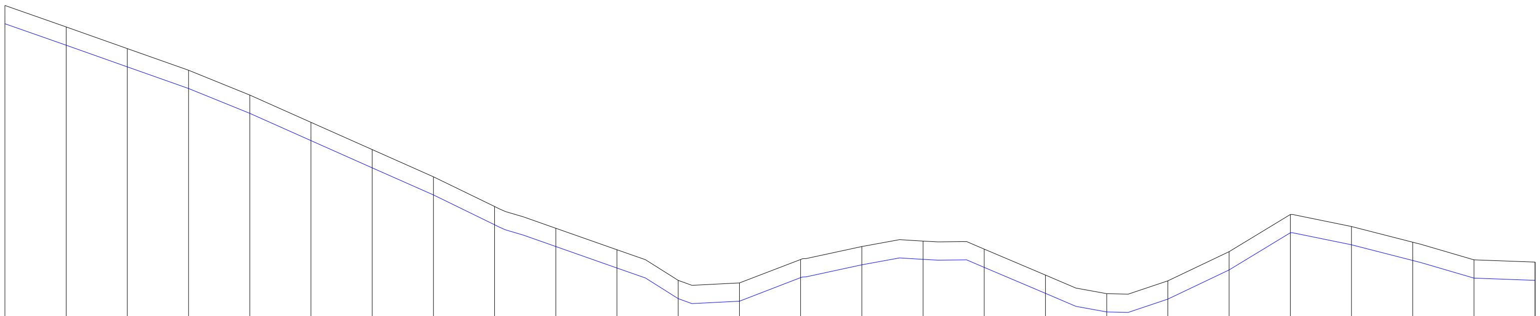
HDPE OD90mm PN10 (CH 0+500 TO 1+000)

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |




## Legend

- Forest
- Road
- House
- Contour



Vert Exag 2.000
Datum 1555.000

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CHAINAGE | 1+000.00 | 1+020.00 | 1+040.00 | 1+060.00 | 1+080.00 | 1+100.00 | 1+120.00 | 1+140.00 | 1+160.00 |
| EXISTING LEVEL | 1577.625 | 1576.219 | 1574.814 | 1573.394 | 1571.774 | 1569.999 | 1568.225 | 1566.451 | 1564.511 |
| INVERT DEPTH | 1576.625 | 1575.219 | 1573.814 | 1572.394 | 1570.774 | 1568.999 | 1567.225 | 1565.451 | 1563.511 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CHAINAGE | 1+180.00 | 1+200.00 | 1+220.00 | 1+240.00 | 1+260.00 | 1+280.00 | 1+300.00 | 1+320.00 | 1+340.00 |
| EXISTING LEVEL | 1563.092 | 1561.693 | 1559.697 | 1559.525 | 1561.056 | 1561.895 | 1562.255 | 1561.727 | 1560.036 |
| INVERT DEPTH | 1562.092 | 1560.693 | 1558.697 | 1558.525 | 1560.056 | 1560.895 | 1561.255 | 1560.727 | 1559.036 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CHAINAGE | 1+360.00 | 1+380.00 | 1+400.00 | 1+420.00 | 1+440.00 | 1+460.00 | 1+480.00 | 1+500.00 |
| EXISTING LEVEL | 1557.734 | 1559.662 | 1561.563 | 1563.988 | 1563.201 | 1562.178 | 1561.027 | 1560.886 |
| INVERT DEPTH | 1556.734 | 1558.662 | 1560.563 | 1562.988 | 1562.201 | 1561.178 | 1560.027 | 1559.886 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |

| | | |
|---|---|---|
| PIPE DETAILS | HDPE OD90mm PN10 (Proposed) | HDPE OD90mm PN10 (Existing) |

CLIENT

Join For Water

PROJECT:

**FEASIBILITY STUDY, DETAILED ENGINEERING DESIGN FOR CONSTRUCTION OF A WATER SUPPLY SYSTEM IN NORTH DIVISIOIN OF FORT-PORTAL CITY**

CONSULTANTS

Engineers Without Borders East Africa Consult Ltd.
Engineering for a Resilient Future
Plot 36, Ntinda Avenue, Ministers' Village Ntinda, Kampala - Uganda
P.O.Box 2064, Kampala Uganda
Email; info.uganda@ewb-ea.org
Tel. +256 (0) 200 906 107
Web: www.ewb-ea.org

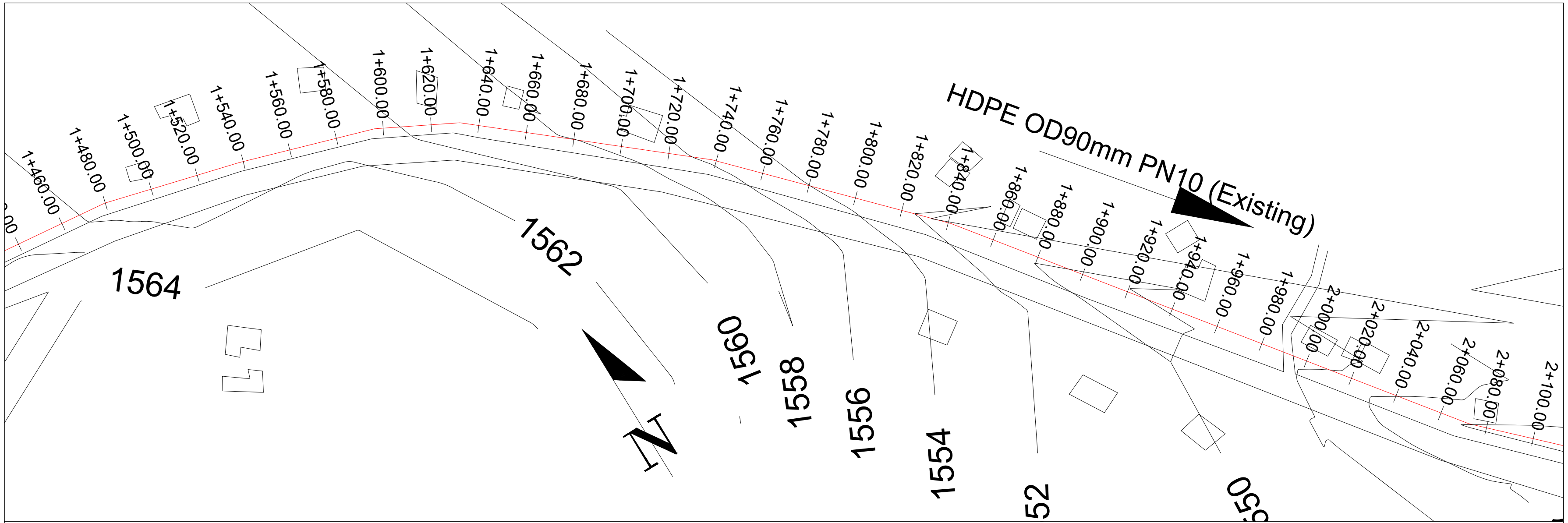
REVISIONS :

| No | Date | Description |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

DRAWING TITLE

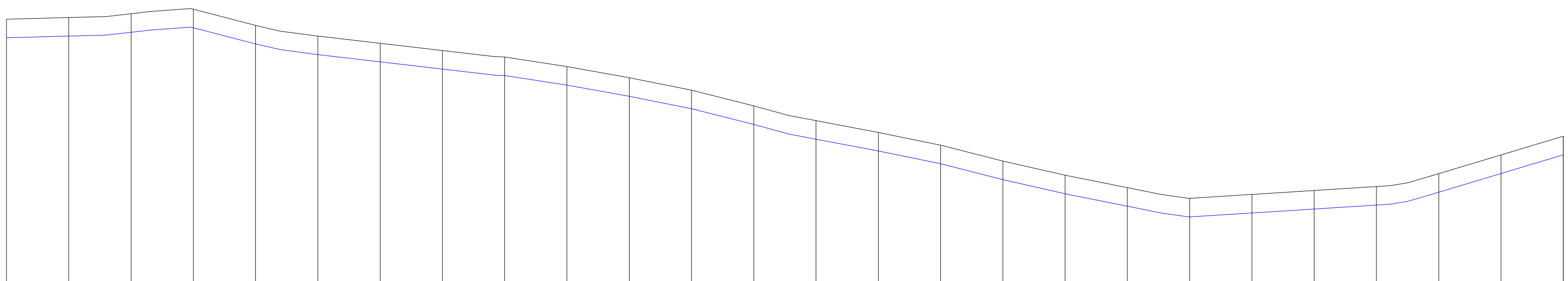
HDPE OD90mm PN10 (CH 1+000 TO 1+500)

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |




## Legend

- Forest
- Road
- House
- Contour



Vert Exag 2.000
Datum 1545.000

| CHAINAGE | EXISTING LEVEL | INVERT DEPTH | DEPTH |
|---|---|---|---|
| 1+500.00 | 1560.886 | 1559.886 | -1.000 |
| 1+520.00 | 1560.995 | 1559.995 | -1.000 |
| 1+540.00 | 1561.241 | 1560.241 | -1.000 |
| 1+560.00 | 1561.530 | 1560.530 | -1.000 |
| 1+580.00 | 1560.495 | 1559.495 | -1.000 |
| 1+600.00 | 1559.804 | 1558.804 | -1.000 |
| 1+620.00 | 1559.339 | 1558.339 | -1.000 |
| 1+640.00 | 1558.873 | 1557.873 | -1.000 |
| 1+660.00 | 1558.467 | 1557.467 | -1.000 |
| 1+680.00 | 1557.851 | 1556.851 | -1.000 |
| 1+700.00 | 1557.134 | 1556.134 | -1.000 |
| 1+720.00 | 1556.337 | 1555.337 | -1.000 |
| 1+740.00 | 1555.324 | 1554.324 | -1.000 |
| 1+760.00 | 1554.375 | 1553.375 | -1.000 |
| 1+780.00 | 1553.620 | 1552.620 | -1.000 |
| 1+800.00 | 1552.800 | 1551.800 | -1.000 |
| 1+820.00 | 1551.780 | 1550.780 | -1.000 |
| 1+840.00 | 1550.873 | 1549.873 | -1.000 |
| 1+860.00 | 1550.072 | 1549.072 | -1.000 |
| 1+880.00 | 1549.388 | 1548.388 | -1.000 |
| 1+900.00 | 1549.640 | 1548.640 | -1.000 |
| 1+920.00 | 1549.892 | 1548.892 | -1.000 |
| 1+940.00 | 1550.146 | 1549.146 | -1.000 |
| 1+960.00 | 1550.975 | 1549.975 | -1.000 |
| 1+980.00 | 1552.174 | 1551.174 | -1.000 |
| 2+000.00 | 1553.373 | 1552.373 | -1.000 |

PIPE DETAILS: HDPE OD90mm PN10 (Existing)

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Join For Water

PROJECT:
FEASIBILITY STUDY, DETAILED ENGINEERING DESIGN FOR CONSTRUCTION OF A WATER SUPPLY SYSTEM IN NORTH DIVISIOIN OF FORT-PORTAL CITY

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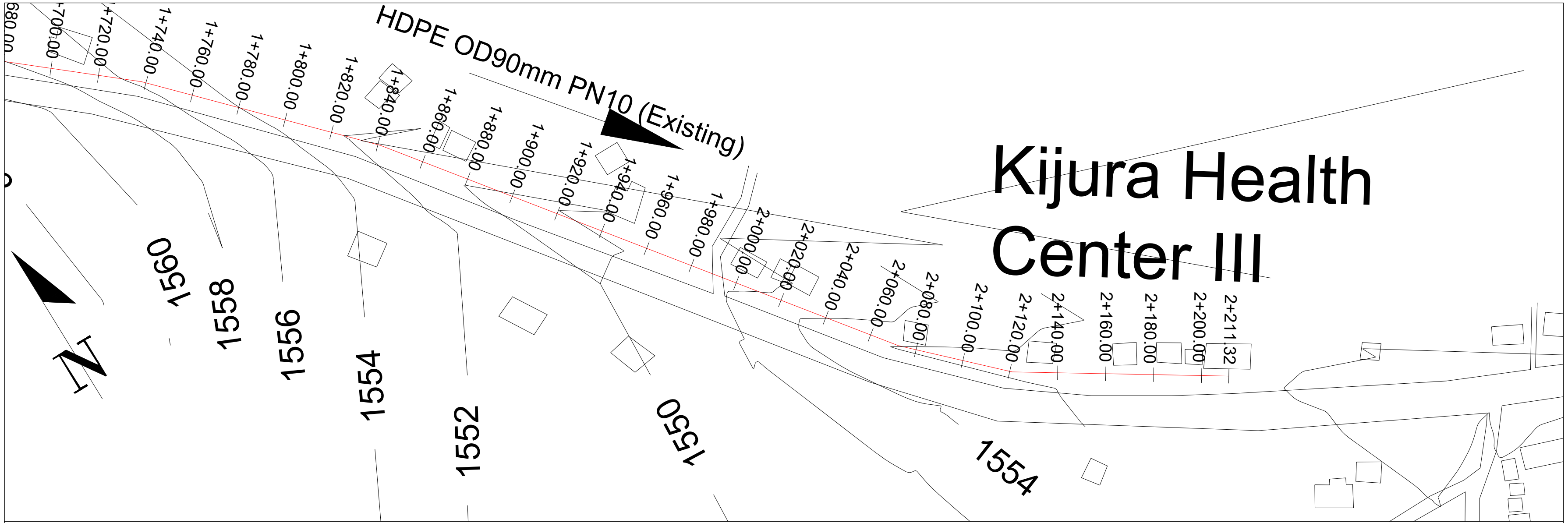
REVISIONS :

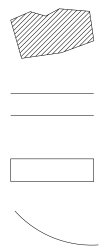
| No | Date | Description |
|---|---|---|
| | | |

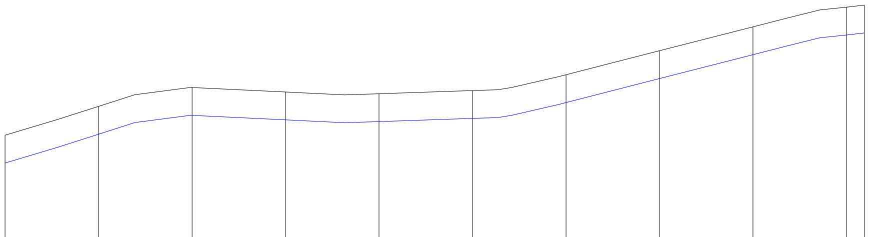
DRAWING TITLE
HDPE OD90mm PN10 (CH 1+500 TO 2+000)

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |




Legend



Vert Exag 2.000
Datum 1550.000

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CHAINAGE | 2+000.00 | 2+020.00 | 2+040.00 | 2+060.00 | 2+080.00 | 2+100.00 | 2+120.00 | 2+140.00 | 2+160.00 | 2+180.00 | 2+211.32 |
| EXISTING LEVEL | 1553.373 | 1554.609 | 1555.417 | 1555.222 | 1555.150 | 1555.284 | 1555.963 | 1556.988 | 1558.013 | 1558.854 | 1558.944 |
| INVERT DEPTH | 1552.373 | 1553.609 | 1554.417 | 1554.222 | 1554.150 | 1554.284 | 1554.963 | 1555.988 | 1557.013 | 1557.854 | 1557.944 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |
| PIPE DETAILS | HDPE OD90mm PN10 (Existing) | | | | | | | | | | |

CLIENT

Join For Water

PROJECT:

FEASIBILITY STUDY, DETAILED ENGINEERING DESIGN FOR CONSTRUCTION OF A WATER SUPPLY SYSTEM IN NORTH DIVISIOIN OF FORT-PORTAL CITY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Tel. +256 (0) 200 906 107
Web: www.ewb-ea.org


REVISIONS :

| No | Date | Description |
|---|---|---|
| | | |
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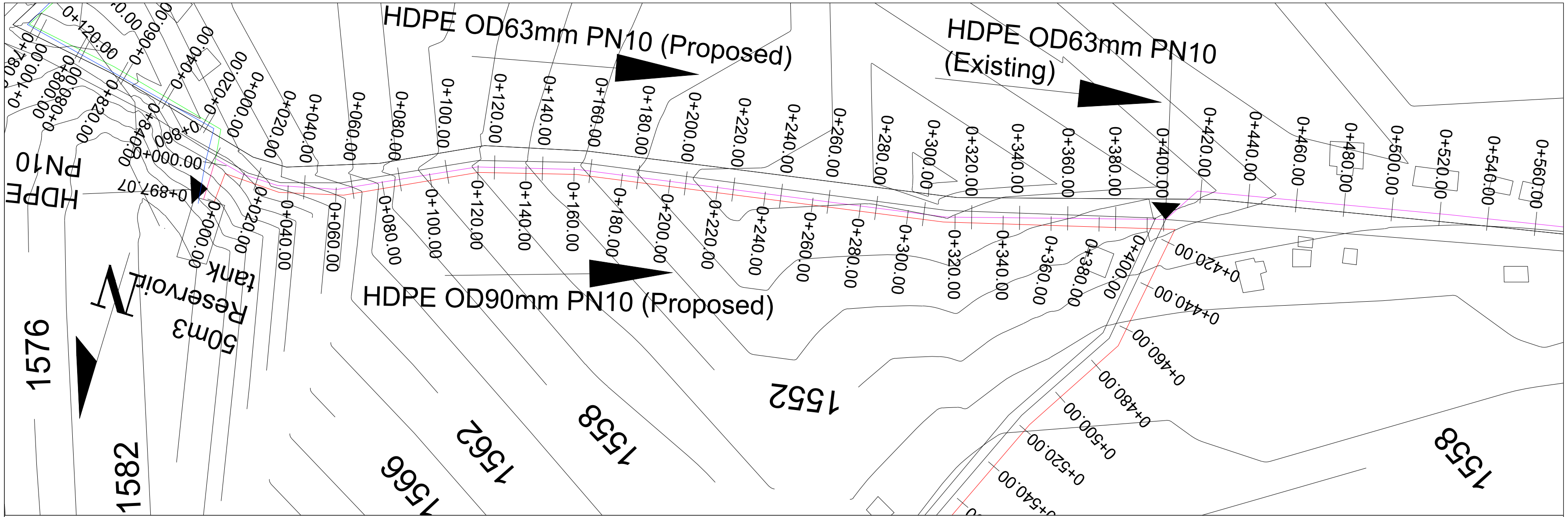
| | | |
| | | |

DRAWING TITLE

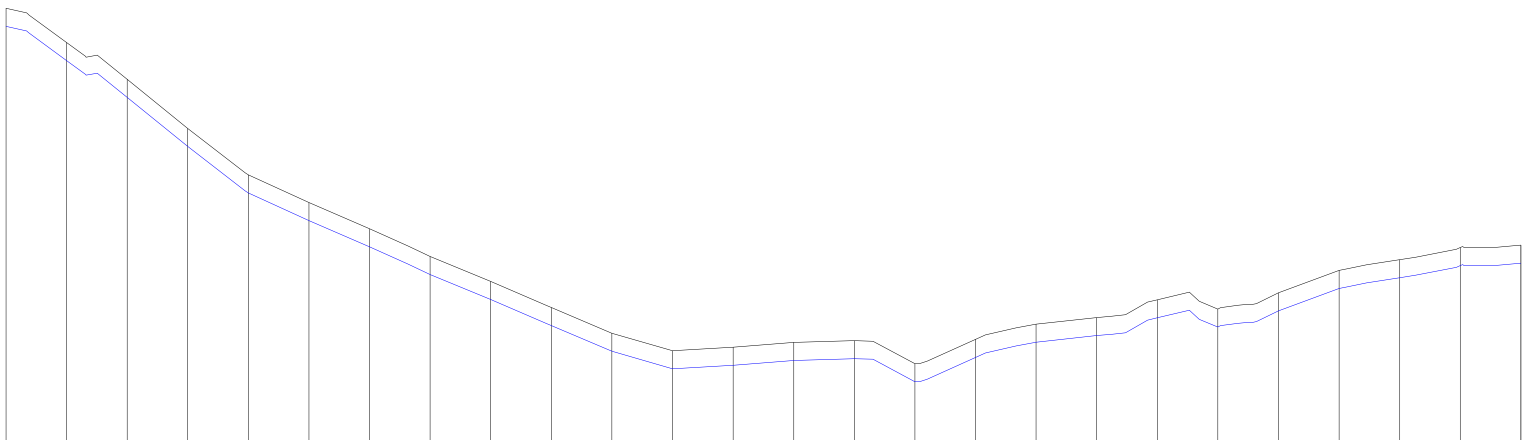
HDPE OD90mm PN10 (CH 2+000 TO 2+211.32)

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |




Legend

- Forest
- Road
- House
- Contour



Vert Exag 2.000
Datum 1540.000

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHAINAGE | 0+000.00 | 0+020.00 | 0+040.00 | 0+060.00 | 0+080.00 | 0+100.00 | 0+120.00 | 0+140.00 | 0+160.00 | 0+180.00 | 0+200.00 | 0+220.00 | 0+240.00 |
| EXISTING LEVEL | 1567.560 | 1565.304 | 1562.871 | 1559.634 | 1556.564 | 1554.741 | 1553.003 | 1551.177 | 1549.530 | 1547.810 | 1546.115 | 1544.956 | 1545.194 |
| INVERT DEPTH | 1566.560 | 1564.304 | 1561.871 | 1558.634 | 1555.564 | 1553.741 | 1552.003 | 1550.177 | 1548.530 | 1546.810 | 1545.115 | 1543.956 | 1544.194 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHAINAGE | 0+260.00 | 0+280.00 | 0+300.00 | 0+320.00 | 0+340.00 | 0+360.00 | 0+380.00 | 0+400.00 | 0+420.00 | 0+440.00 | 0+460.00 | 0+480.00 | 0+500.00 |
| EXISTING LEVEL | 1545.506 | 1545.625 | 1543.631 | 1545.706 | 1546.709 | 1547.150 | 1548.322 | 1547.710 | 1548.785 | 1550.262 | 1550.970 | 1551.766 | 1551.925 |
| INVERT DEPTH | 1544.506 | 1544.625 | 1542.631 | 1544.706 | 1545.709 | 1546.150 | 1547.322 | 1546.710 | 1547.785 | 1549.262 | 1549.970 | 1550.766 | 1550.925 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |

PIPE DETAILS: HDPE OD63mm PN10 (Proposed) — HDPE OD63mm PN10 (Existing)

CLIENT

Join For Water

PROJECT:

**FEASIBILITY STUDY, DETAILED ENGINEERING DESIGN FOR CONSTRUCTION OF A WATER SUPPLY SYSTEM IN NORTH DIVISIOIN OF FORT-PORTAL CITY**

CONSULTANTS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P.O.Box 2064, Kampala Uganda
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Tel. +256 (0) 200 906 107
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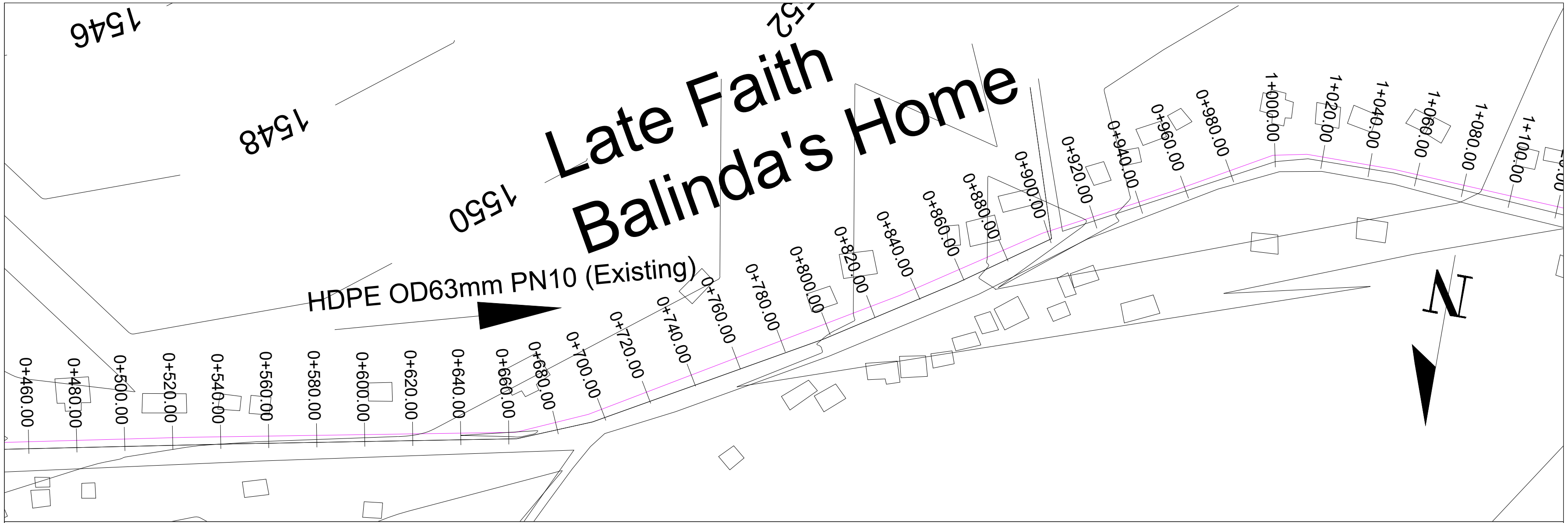
REVISIONS :

| No | Date | Description |
|---|---|---|
| | | |

DRAWING TITLE

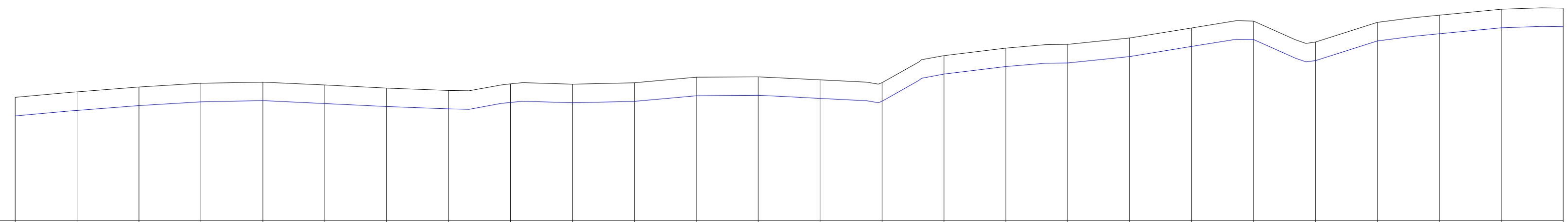
HDPE OD63mm PN10 (CH 0+000 TO 0+500)

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |




Legend

- Forest
- Road
- House
- Contour



Vert Exag 2.000
Datum 1545.000

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHAINAGE | 0+500.00 | 0+520.00 | 0+540.00 | 0+560.00 | 0+580.00 | 0+600.00 | 0+620.00 | 0+640.00 | 0+660.00 | 0+680.00 | 0+700.00 | 0+720.00 | 0+740.00 |
| EXISTING LEVEL | 1551.925 | 1552.281 | 1552.590 | 1552.832 | 1552.905 | 1552.721 | 1552.527 | 1552.376 | 1552.789 | 1552.770 | 1552.861 | 1553.226 | 1553.249 |
| INVERT DEPTH | 1550.925 | 1551.281 | 1551.590 | 1551.832 | 1551.905 | 1551.721 | 1551.527 | 1551.376 | 1551.789 | 1551.770 | 1551.861 | 1552.226 | 1552.249 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |
| PIPE DETAILS | HDPE OD63mm PN10 (Existing) | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHAINAGE | 0+760.00 | 0+780.00 | 0+800.00 | 0+820.00 | 0+840.00 | 0+860.00 | 0+880.00 | 0+900.00 | 0+920.00 | 0+940.00 | 0+960.00 | 0+980.00 | 1+000.00 |
| EXISTING LEVEL | 1553.054 | 1552.870 | 1554.616 | 1555.097 | 1555.332 | 1555.744 | 1556.392 | 1556.835 | 1555.484 | 1556.751 | 1557.213 | 1557.595 | 1557.664 |
| INVERT DEPTH | 1552.054 | 1551.870 | 1553.616 | 1554.097 | 1554.332 | 1554.744 | 1555.392 | 1555.835 | 1554.484 | 1555.751 | 1556.213 | 1556.595 | 1556.664 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |
| PIPE DETAILS | | | | | | | | | | | | | |

CLIENT
Join For Water

PROJECT:
FEASIBILITY STUDY, DETAILED ENGINEERING DESIGN FOR CONSTRUCTION OF A WATER SUPPLY SYSTEM IN NORTH DIVISIOIN OF FORT-PORTAL CITY

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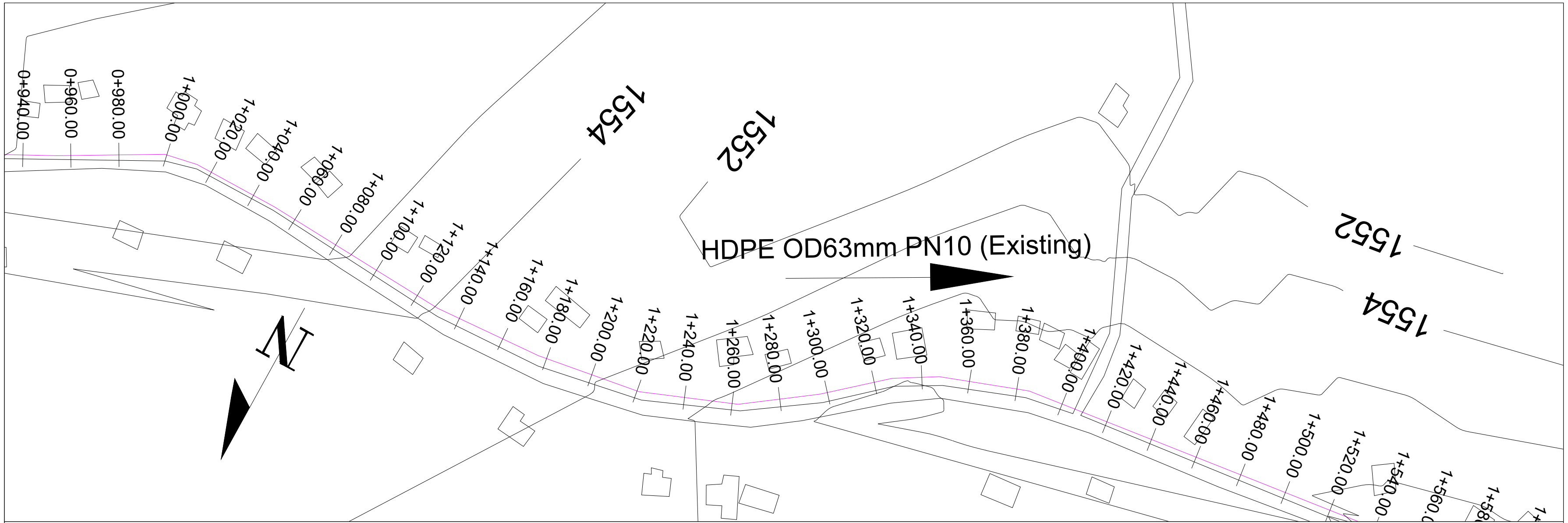
P.O.Box 2064, Kampala Uganda
Email; info.uganda@ewb-ea.org
Tel. +256 (0) 200 906 107
Web: www.ewb-ea.org

REVISIONS :

| No | Date | Description |
|---|---|---|
| | | |

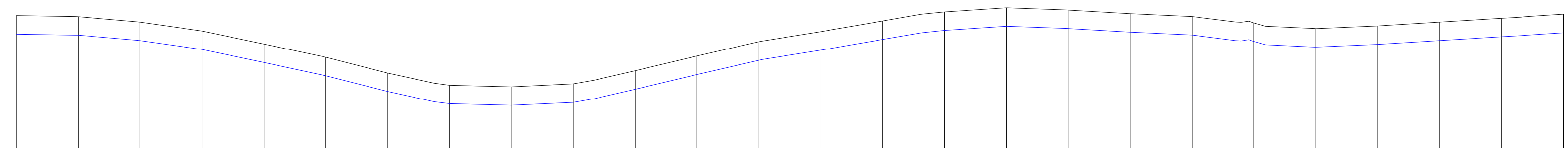
DRAWING TITLE
HDPE OD63mm PN10 (CH 0+500 TO 1+000)

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |




Legend

- Forest
- Road
- House
- Contour



Vert Exag 2.000
Datum 1550.000

| EXISTING LEVEL | 1+000.00 | 1+020.00 | 1+040.00 | 1+060.00 | 1+080.00 | 1+100.00 | 1+120.00 | 1+140.00 | 1+160.00 | 1+180.00 | 1+200.00 | 1+220.00 | 1+240.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHAINAGE | 1557.664 | 1557.598 | 1557.253 | 1556.680 | 1555.839 | 1554.982 | 1553.967 | 1553.174 | 1553.076 | 1553.265 | 1554.114 | 1555.064 | 1555.984 |
| INVERT DEPTH | 1556.664 | 1556.598 | 1556.253 | 1555.680 | 1554.839 | 1553.982 | 1552.967 | 1552.174 | 1552.076 | 1552.265 | 1553.114 | 1554.064 | 1554.984 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |

| EXISTING LEVEL | 1+260.00 | 1+280.00 | 1+300.00 | 1+320.00 | 1+340.00 | 1+360.00 | 1+380.00 | 1+400.00 | 1+420.00 | 1+440.00 | 1+460.00 | 1+480.00 | 1+500.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHAINAGE | 1556.639 | 1557.323 | 1557.905 | 1558.170 | 1558.027 | 1557.793 | 1557.606 | 1557.200 | 1556.830 | 1557.006 | 1557.250 | 1557.494 | 1557.756 |
| INVERT DEPTH | 1555.639 | 1556.323 | 1556.905 | 1557.170 | 1557.027 | 1556.793 | 1556.606 | 1556.200 | 1555.830 | 1556.006 | 1556.250 | 1556.494 | 1556.756 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |

PIPE DETAILS: HDPE OD63mm PN10 (Existing)

CLIENT

Join For Water

PROJECT:

**FEASIBILITY STUDY, DETAILED ENGINEERING DESIGN FOR CONSTRUCTION OF A WATER SUPPLY SYSTEM IN NORTH DIVISIOIN OF FORT-PORTAL CITY**

CONSULTANTS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Tel. +256 (0) 200 906 107
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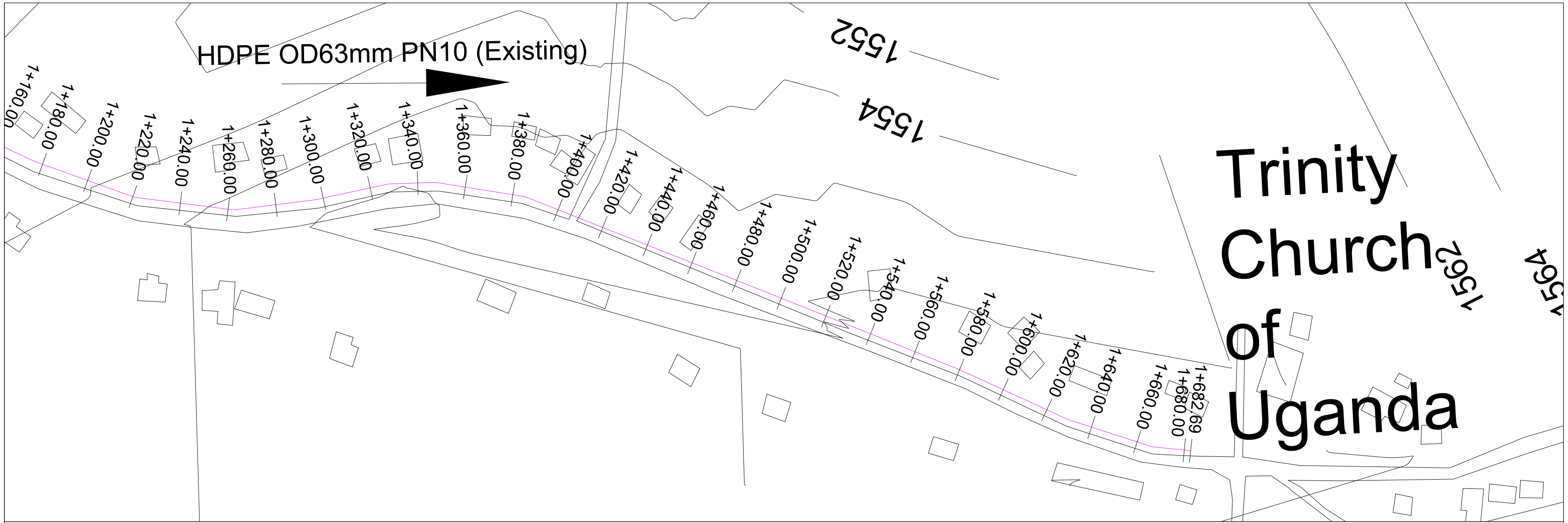
REVISIONS :

| No | Date | Description |
|---|---|---|
| | | |

DRAWING TITLE

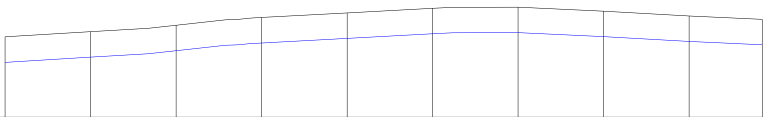
HDPE OD63mm PN10 (CH 1+000 TO 1+500)

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |




Legend

- Forest
- Road
- House
- Contour



Vert Exag 2.000
Datum 1555.000

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| EXISTING LEVEL | 1+500.00 | 1+520.00 | 1+540.00 | 1+560.00 | 1+580.00 | 1+600.00 | 1+620.00 | 1+640.00 | 1+660.00 | 1+682.69 |
| CHAINAGE | 1557.756 | 1557.996 | 1558.296 | 1558.662 | 1558.876 | 1559.090 | 1559.146 | 1558.956 | 1558.732 | 1558.575 |
| INVERT DEPTH | 1556.756 | 1556.996 | 1557.296 | 1557.662 | 1557.876 | 1558.090 | 1558.146 | 1557.956 | 1557.732 | 1557.575 |
| DEPTH | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 | -1.000 |
| PIPE DETAILS | HDPE OD63mm PN10 (Existing) | | | | | | | | | |

CLIENT

Join For Water

PROJECT:

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DRAWING TITLE

HDPE OD63mm PN10 (CH 1+500 TO 1+682.69)

| | | | |
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| SURVEYED | EJM | DESIGNED | EJM |
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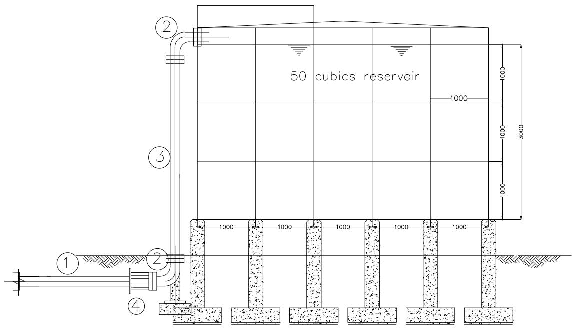
| DATE | OCTOBER, 2025 | APPROVED | LK |

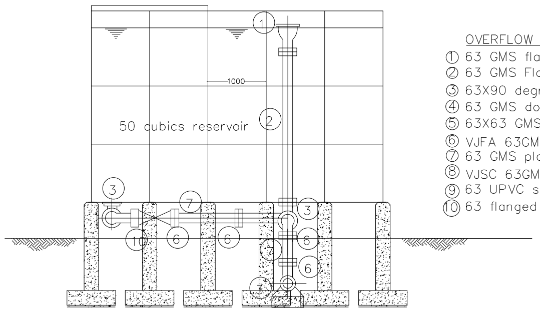
# RESERVOIR LAYOUT PLAN




INLET PIPEWORK

**INLET PIPEWORK TRANSMISSION 1:**

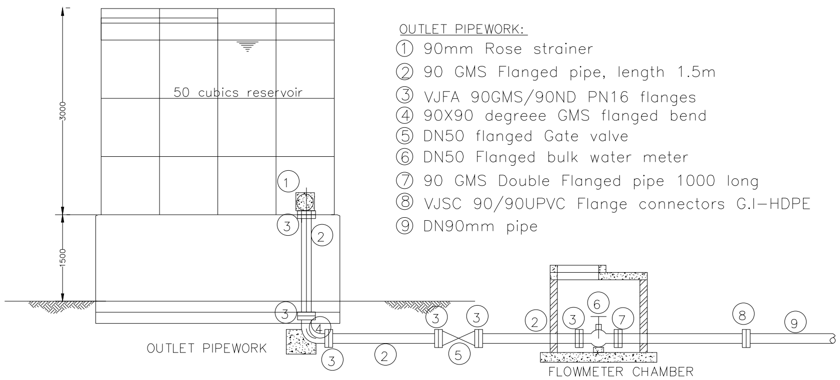
1. 63HDPE Transmission Line
2. 2 DN50 Flanged 90 degree bends
3. DN50 double flanged pipe
4. Flanged adaptor




OVERFLOW AND WASHOUT PIPEWORK:

**OVERFLOW AND WASHOUT PIPEWORK:**

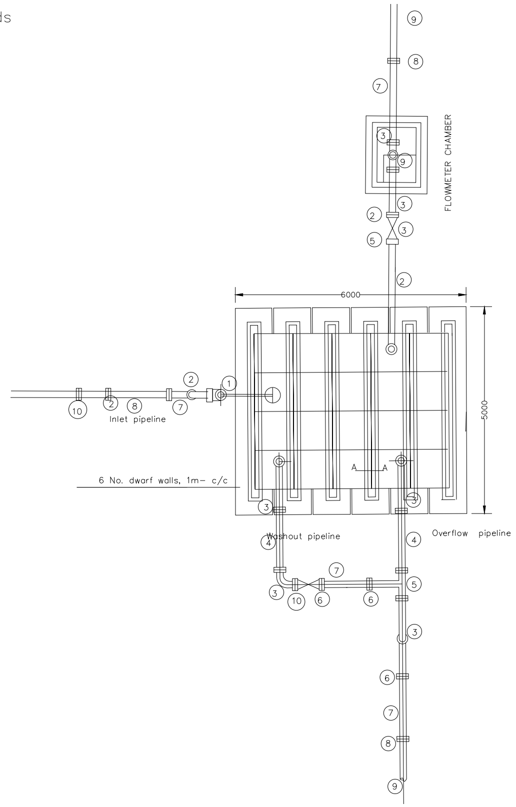
1. 63 GMS flanged Bellmouth
2. 63 GMS Flanged pipe, length to suit
3. 63X90 degree GMS flanged bend
4. 63 GMS double flanged pipe, 200 long
5. 63X63 GMS all flanged Tee
6. VJFA 63GMS/63ND PN16 flanges
7. 63 GMS plain pipe, length to suit
8. VJSC 63GMS/63UPVC
9. 63 UPVC scour and washout pipeline
10. 63 flanged Gate valve with hand wheel




OUTLET PIPEWORK

**OUTLET PIPEWORK:**

1. 90mm Rose strainer
2. 90 GMS Flanged pipe, length 1.5m
3. VJFA 90GMS/90ND PN16 flanges
4. 90X90 degreee GMS flanged bend
5. DN50 flanged Gate valve
6. DN50 Flanged bulk water meter
7. 90 GMS Double Flanged pipe 1000 long
8. VJSC 90/90UPVC Flange connectors G.I-HDPE
9. DN90mm pipe




**CLIENT**

Join For Water

**PROJECT:**

**FEASIBILITY STUDY, DETAILED ENGINEERING DESIGN FOR CONSTRUCTION OF A WATER SUPPLY SYSTEM IN NORTH DIVISIOIN OF FORT-PORTAL CITY**

**CONSULTANTS**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**DRAWING TITLE**

RESERVOIR DRAWINGS

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| **SURVEYED** EJM | | **DESIGNED** | EJM |
| **DRAWN** EJB | | **CHECKED** | NM |
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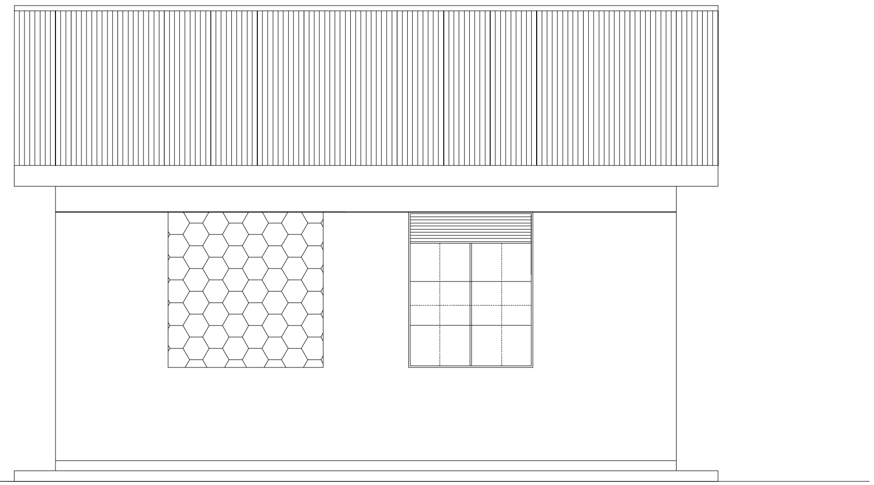
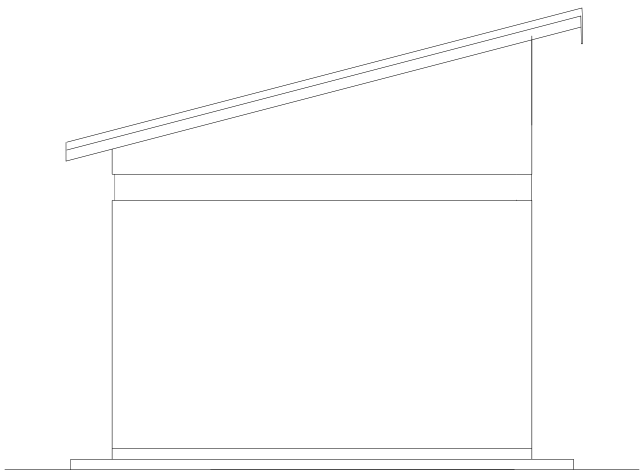
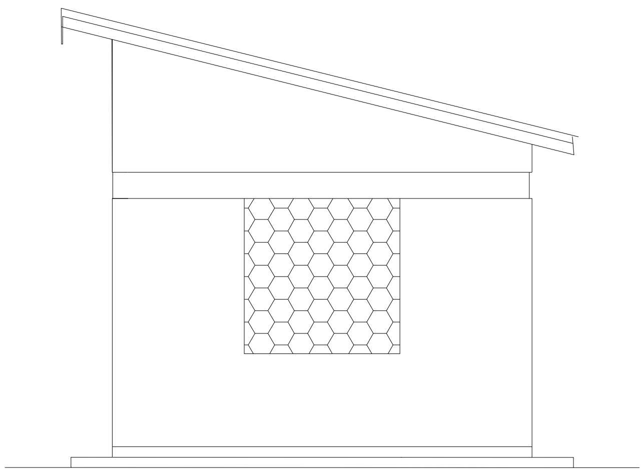
FRONT ELEVATION(SCALE 1:50)



REAR ELEVATION(SCALE 1:50)



LEFT ELEVATION(SCALE 1:50)



RIGHT ELEVATION(SCALE 1:50)

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**DRAWING TITLE**

PUMP HOUSE ELEVATIONS

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| **SCALE** | AS SHOWN | **DRAWING No.** | XX-XXX-1.0.0 |
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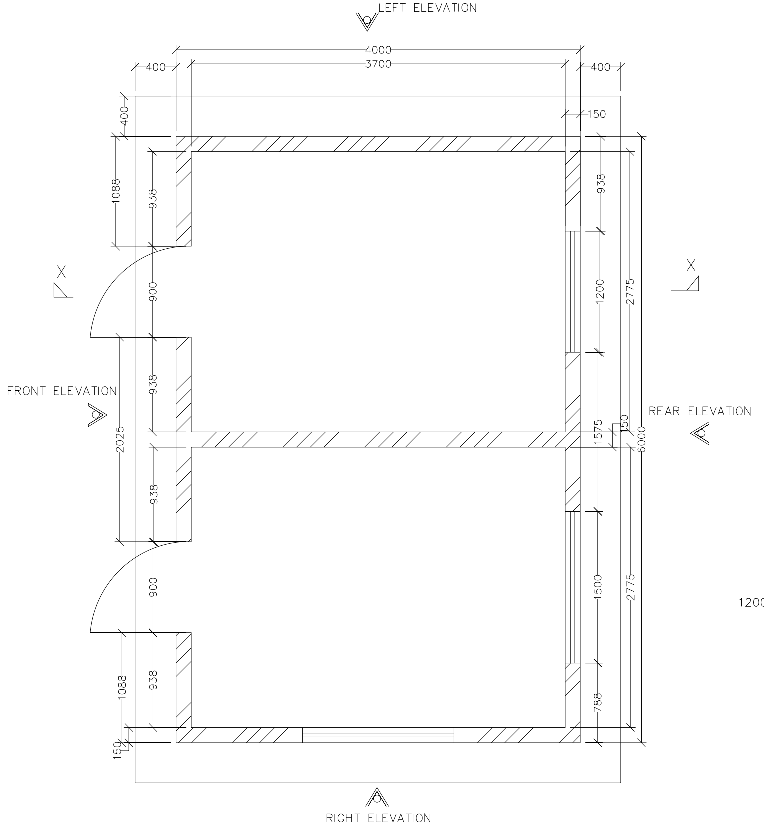
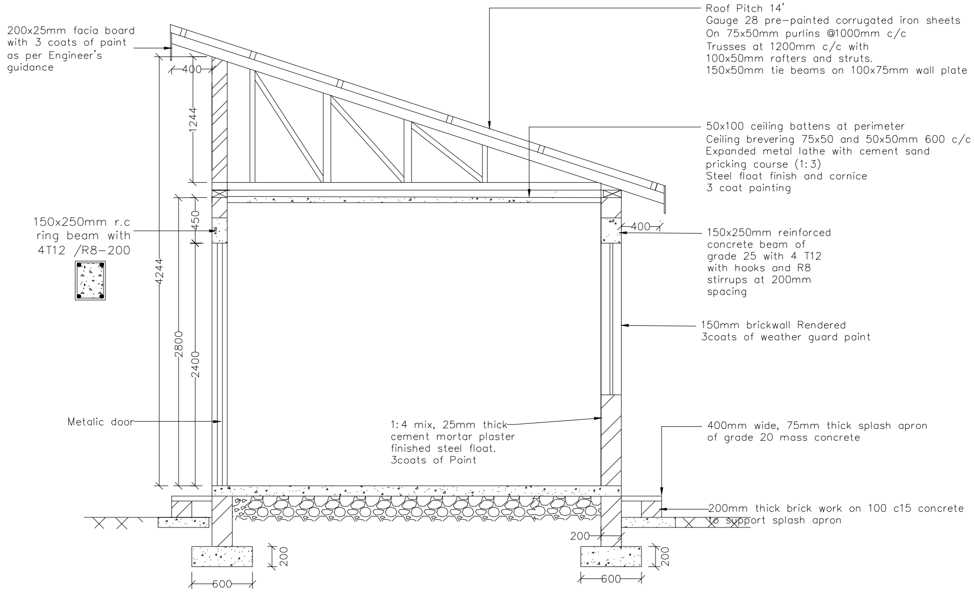


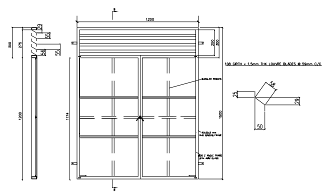

GROUND PLAN(SCALE 1:50)



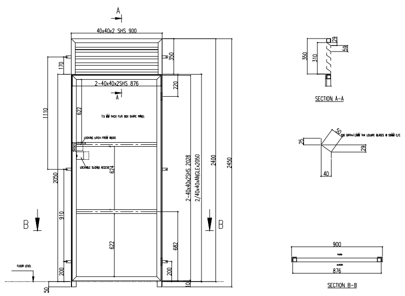

SECTION X–X(SCALE 1:50)

Foundation Construction notes
- 25 cement screed (1:3) floor finish and
- 150mm wide DPC
- 100mm C20 conc.slab with A142 brc mesh,
- 1000mm gauge polythene paper
- 200mm thick brick work foundation plinth wall 1;3 mortar mix
- 200x600 C15 strip foundation
- 200mm well compacted hardcore on compacted fill

1200



WINDOW (SCALE 1:50)




DOOR (SCALE 1:50)

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DRAWING TITLE
PUMP & GUARD HOUSE PLAN & SECTIONS

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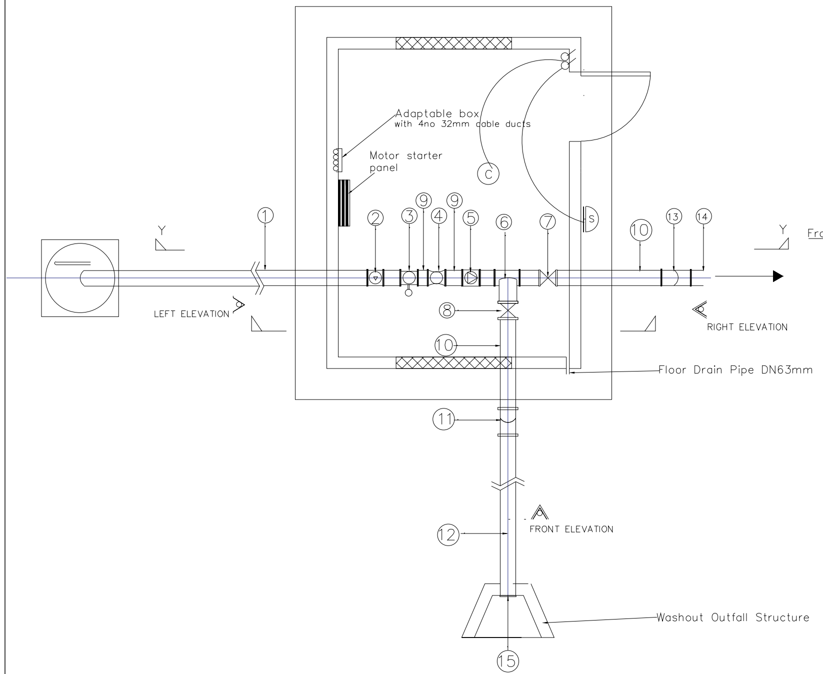
### Electrical Installations

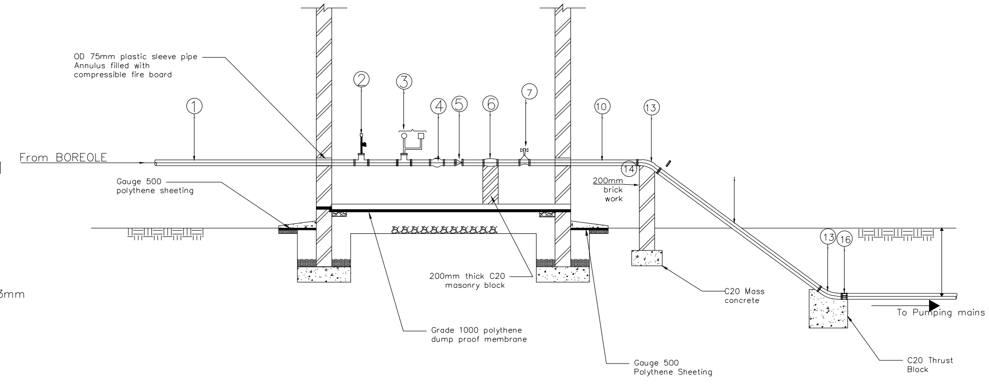
- 2gang 2 Way Switch
- Lighting Bulb
- Security Bulk Head

### Pipe fittings Schedule (All Flanged)

1. DN32 GI Pipe
2. 32mm Single Orifice Air release Valve with isolating Gate Valve and Pressure Switch asembly
3. No flow switch, pressure gauge and switch
4. Water meter (DN32mm)
5. Non-Return Valve (DN32mm)
6. DN32mm Flanged Tee
7. DN32mm Gate Valve
8. 32mm Gate Valve
9. DN32 Dismantling Pieces
10. DN32 Flanged GI Pipe
11. 45 deg long radius bends of 2no.
12. DN32 Pipe specials to outfall structure
13. 45 deg long radius bends of 63mm
14. DN32mm Flap Valve
15. DN32mm Flanged Adaptor




PUMP STATION LAYOUT(SCALE 1:60)




SECTION Y-Y

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PUMP FITTINGS AND ARRANGEMENTS

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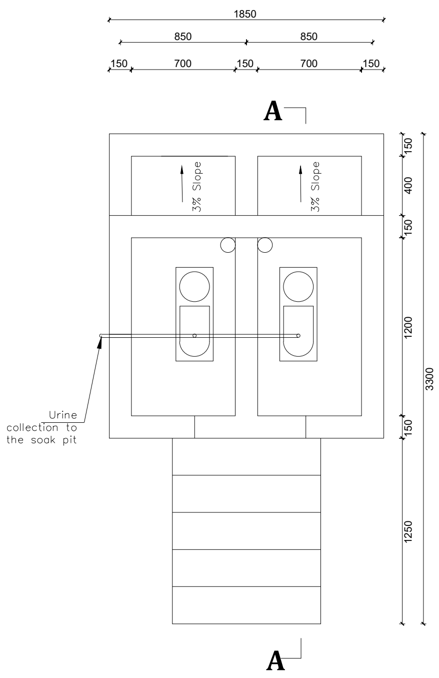
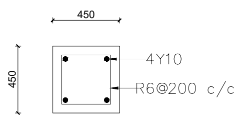
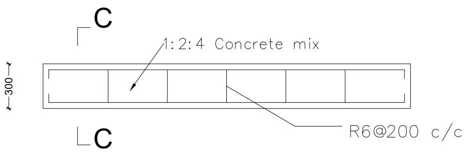



## GROUND PLAN




## SECTION C-C

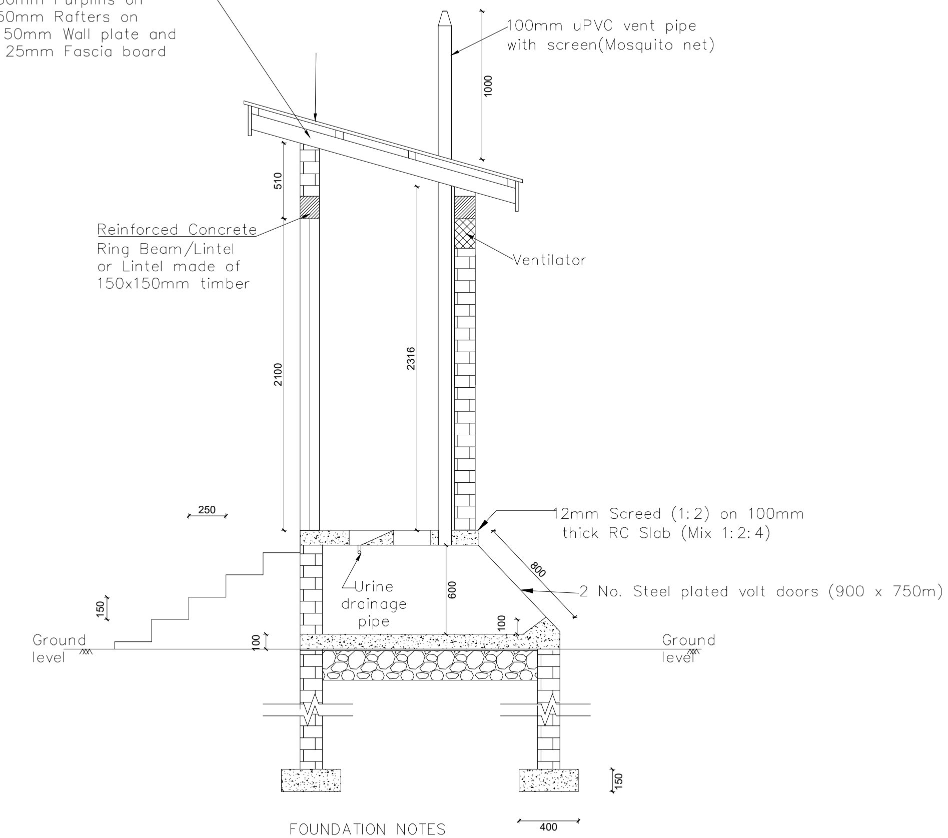



SECTION A–A

REINFORCED CONCRETE RING BEAM / LINTEL

ROOF SPECIFICATIONS

Roof pitch 10
G.I sheets G30 on
50 x 50mm Purplins on
75 x 50mm Rafters on
100 x 50mm Wall plate and
225 x 25mm Fascia board




FOUNDATION NOTES

50mm thick cement/sand screed on
100mm site concrete mix (1:3:6) on DPM
50mm Blinding on
200mm Well compacted hardcore filling on firm ground

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ECOSAN PLAN

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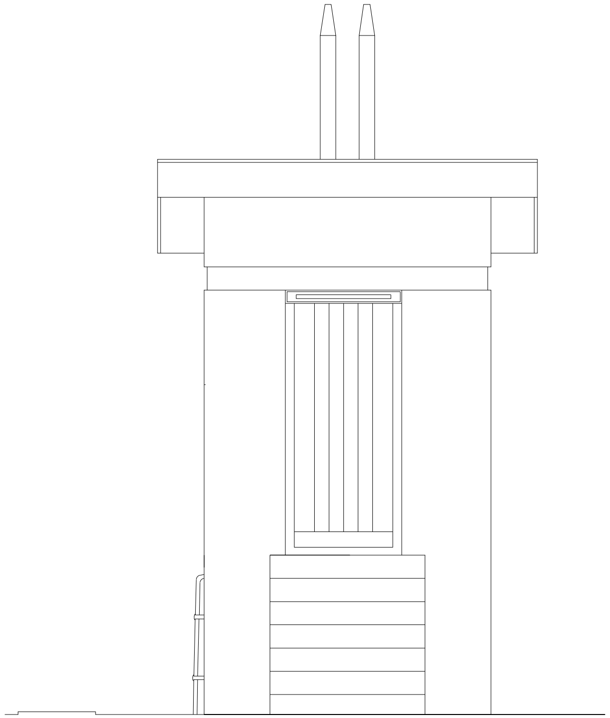
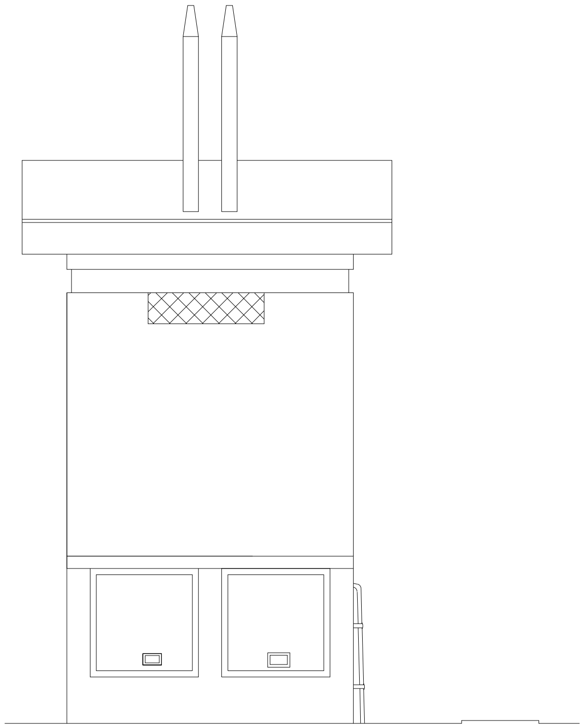
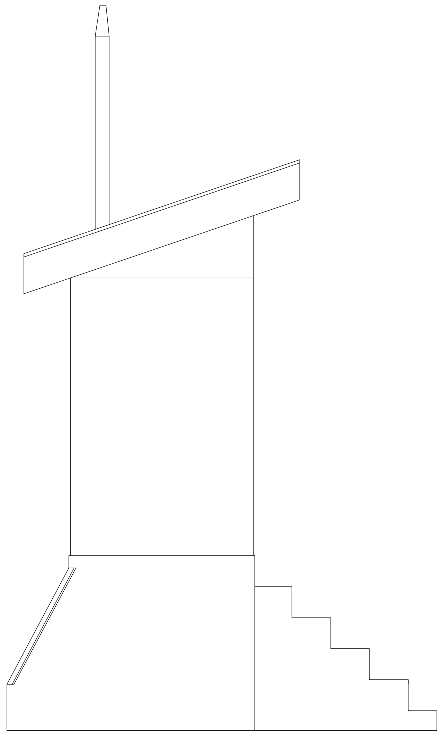


**FRONT ELEVATION**



**REAR ELEVATION**



**SIDE ELEVATION**

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ECOSAN ELEVATION

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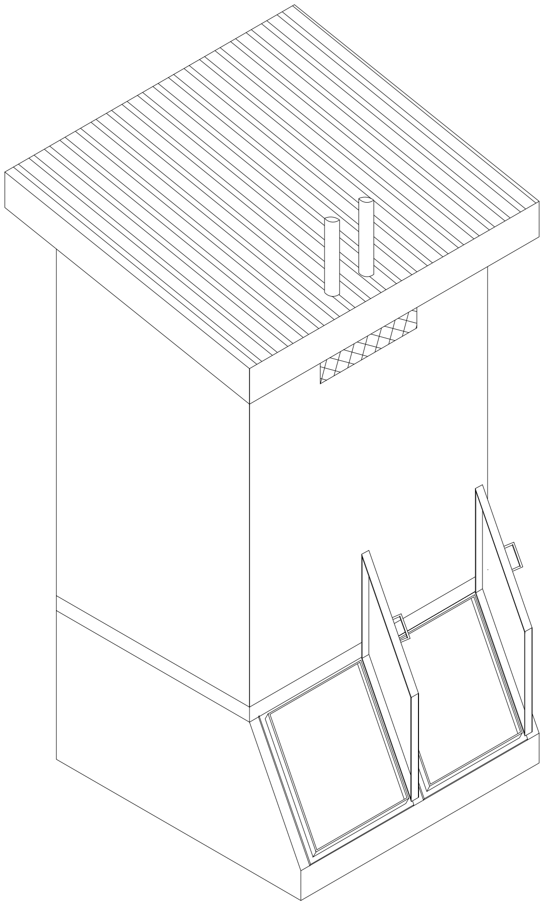
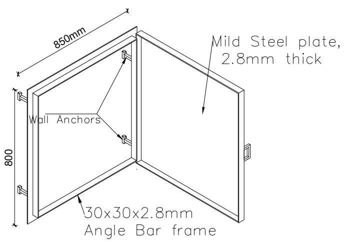
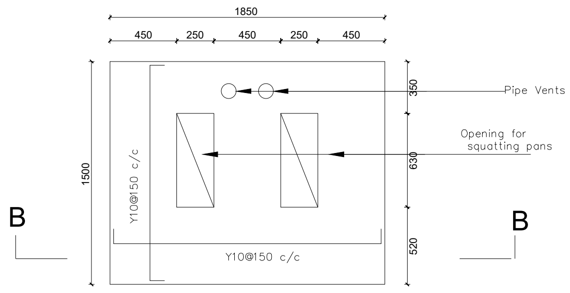
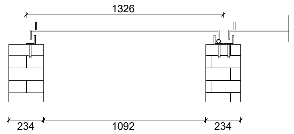




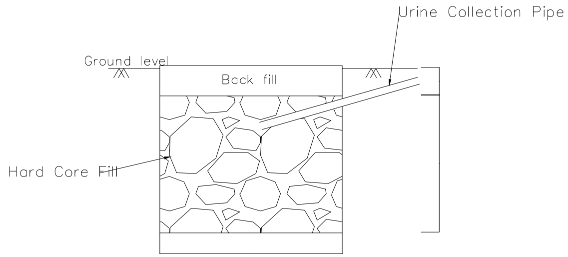

**SOLAR HEATER**



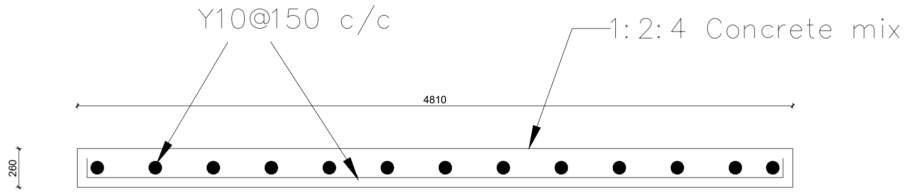

**SUSPENDED SLAB DETAILS**




**SECTION THROUGH SOLAR HEATER**




**URINE COLLECTION SOAK PIT**




**SECTION B-B**

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ECOSAN DETAILS

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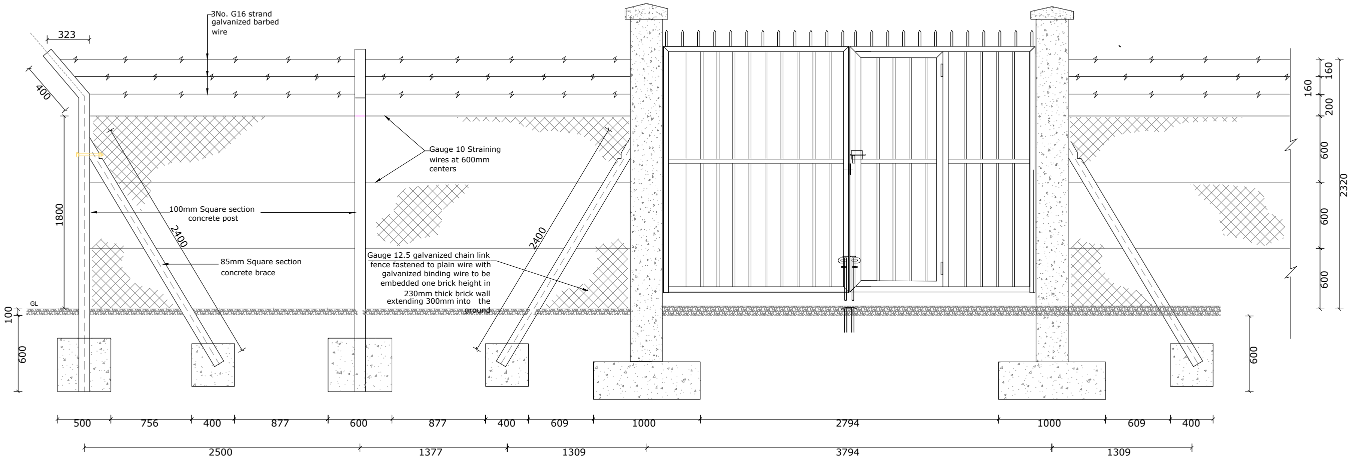
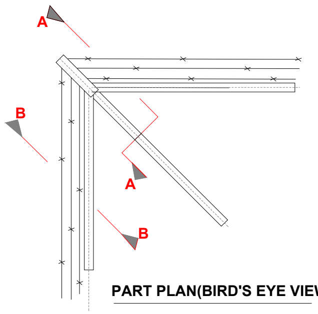


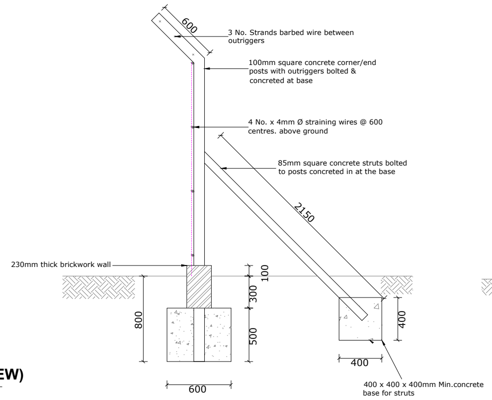

DOUBLE GATE AND FENCE DETAILS
1800mm HIGH

## CORNER POSTS

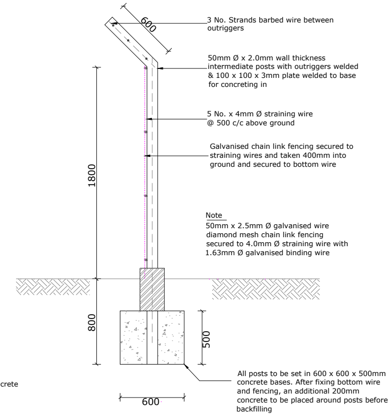
150 x 4mm wall thickness at corners end and change in direction

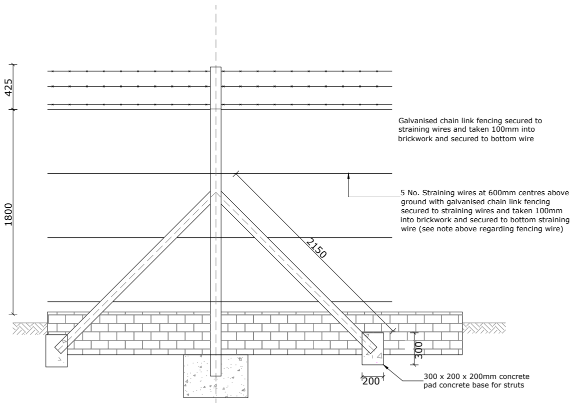



PART PLAN(BIRD'S EYE VIEW)




CORNER/END POSTS




INTERMEDIATE POST WITH STRUTS - ELEVATION (30.00m c/c)

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FENCE

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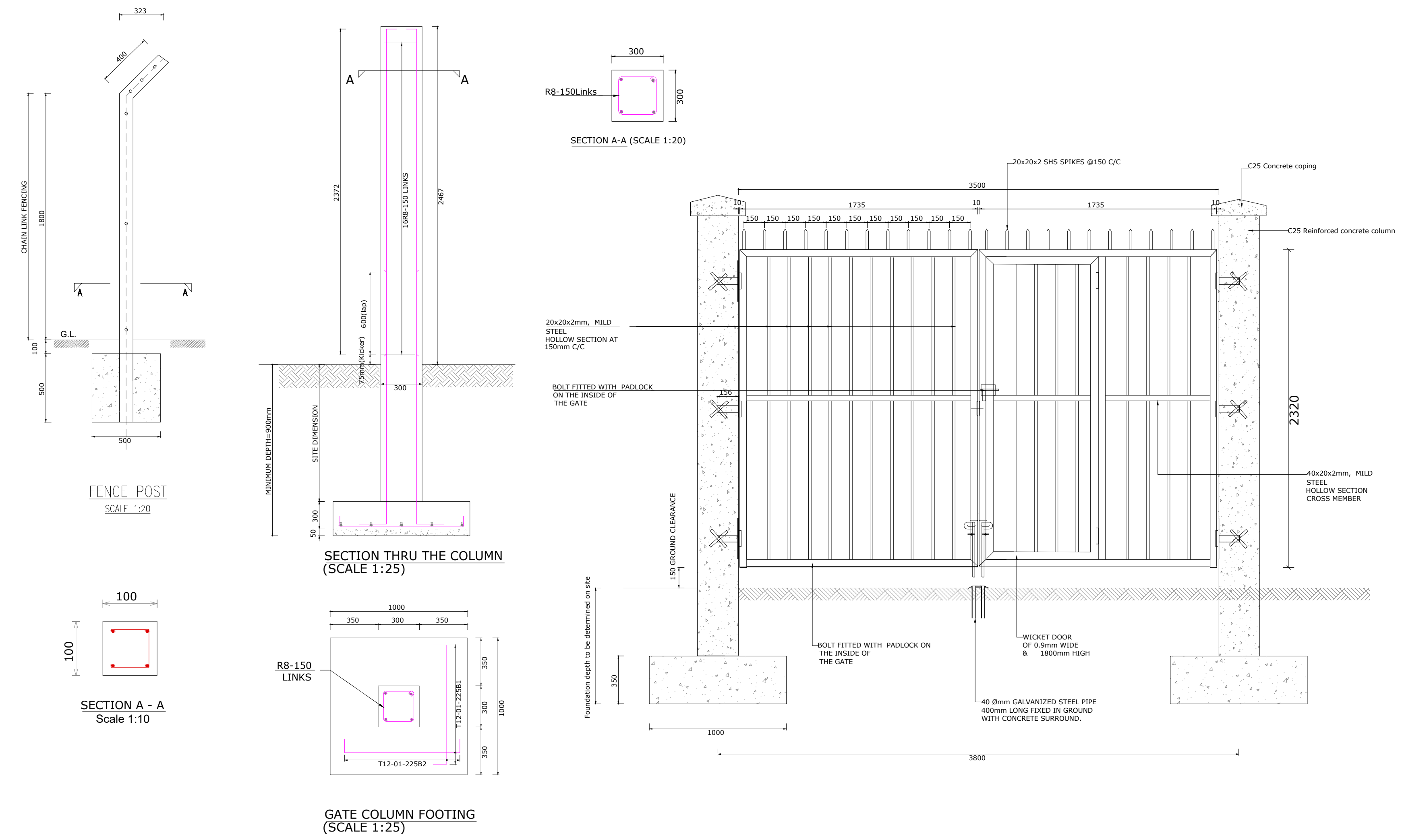


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FENCE DETAILS

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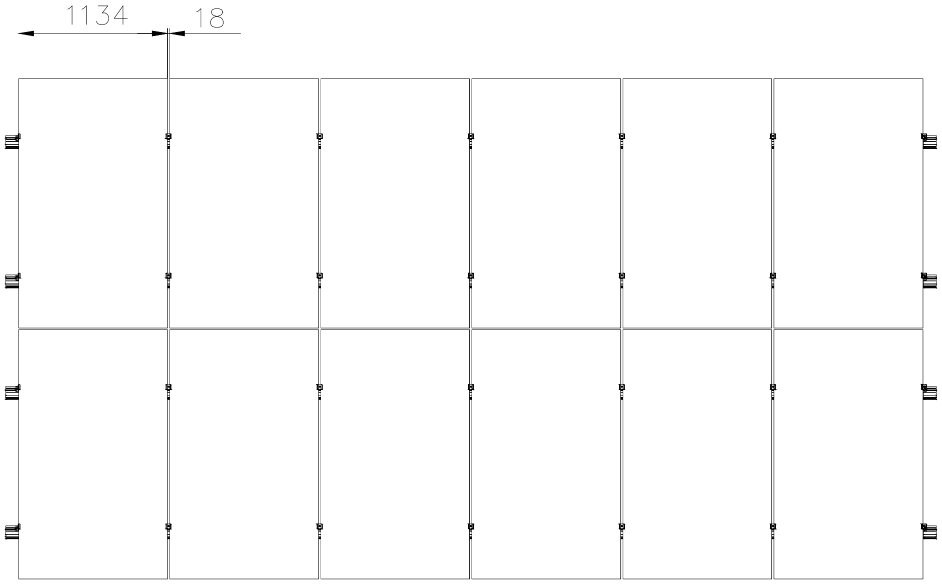
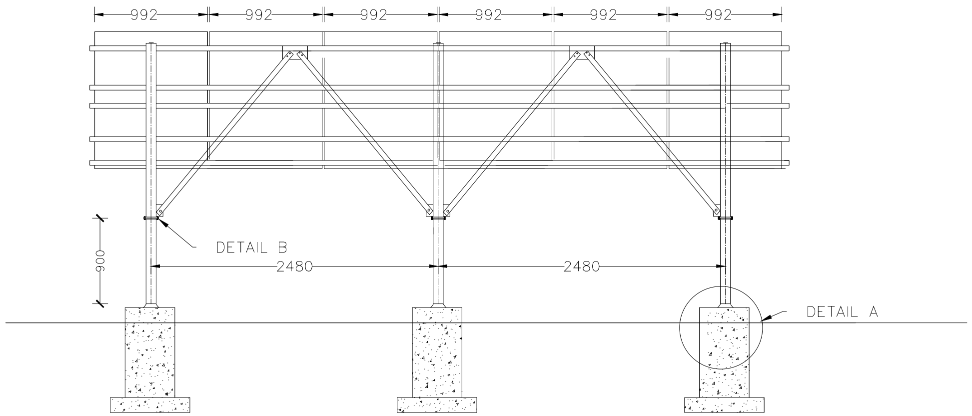
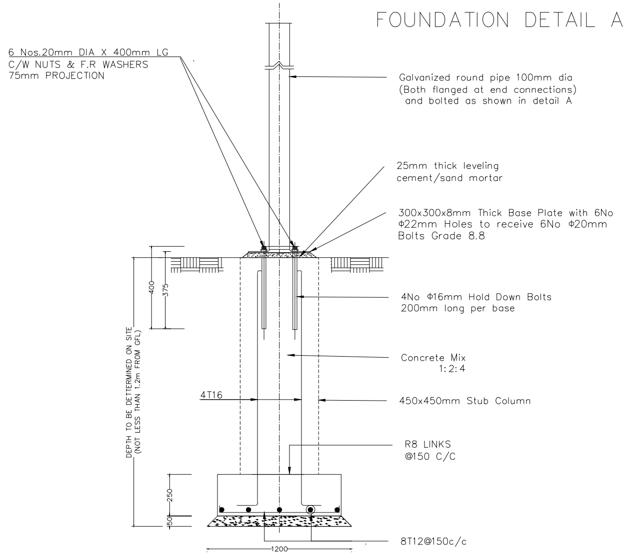



ELEVATION M—M

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**DRAWING TITLE**

SOLAR PANELS PLACEMENT I

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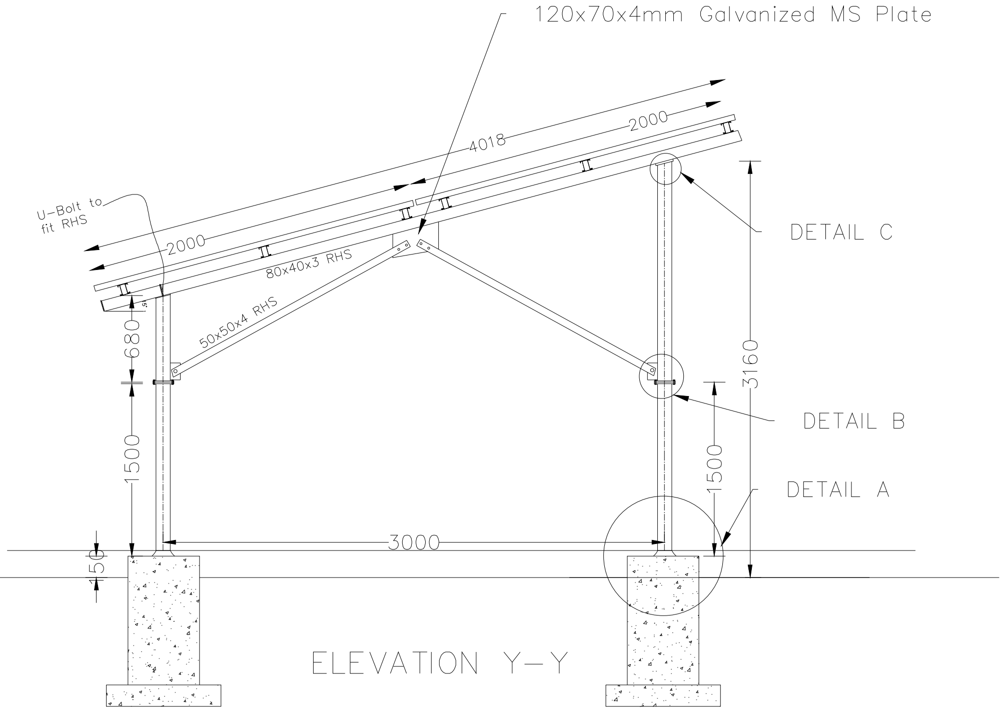
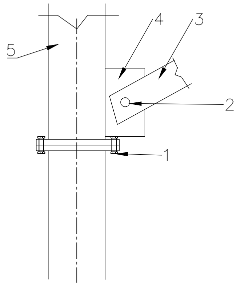
| **DRAWN** | EJB | **CHECKED** | NM |
| **DATE** | OCTOBER, 2025 | **APPROVED** | LK |



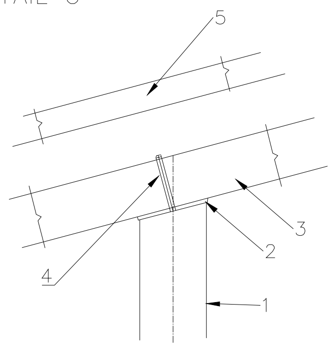

ELEVATION Y-Y

DETAIL B




1. 50mm Galvanized MS Flange
2. 6mm Galvanized Bolt
3. 50x50x4mmGalvanized RHS
4. 120x70x4mm Galvanized MS Plate
5. 100mm Galvanized MS pipe

DETAIL C




1. 120x70x4mm Galvanized MS Plate
2. 120X120X4mm MS Fixing Plate
3. 80x40x3mm Galvanized RHS
4. U.Bolt to fit RHS

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PROJECT:

FEASIBILITY STUDY, DETAILED ENGINEERING DESIGN FOR CONSTRUCTION OF A WATER SUPPLY SYSTEM IN NORTH DIVISIOIN OF FORT-PORTAL CITY

CONSULTANTS

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Web: www.ewb-ea.org

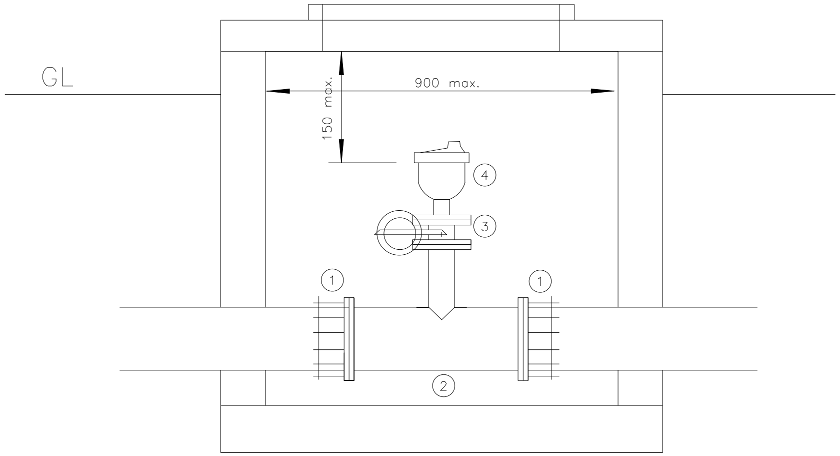
REVISIONS :

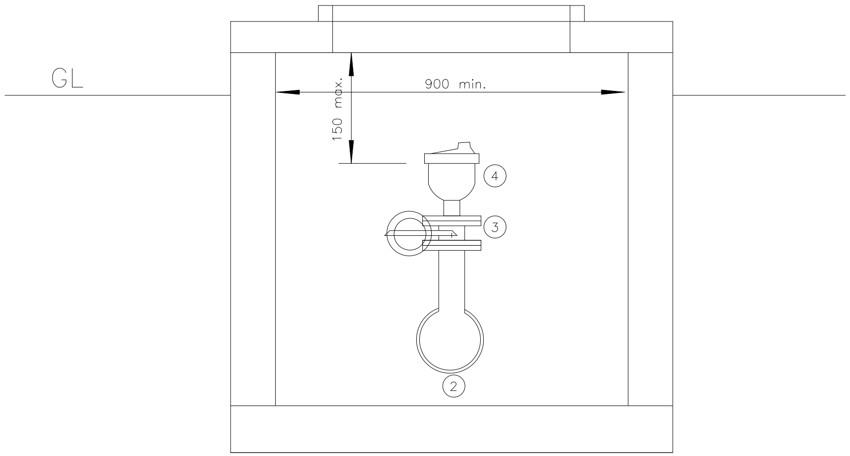
| No | Date | Description |
|---|---|---|
| | | |

DRAWING TITLE

SOLAR PANELS PLACEMENT II

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |




# NOTES

1 All dimensions are in millimetres

2 Chamber to be 900x900 internal dimensions

3 Chamber Base to be reinforced concrete C20 150mm with drain hol
Reinforcement Y8 200mm C/C

4 Chamber Walls to be reinforced concrete C20 100mm thick
Reinforcement BRC Mesh A142

4 Chamber Cover slab to be reinforced concrete C20 100mm thick
Reinforcement Y10 200mm C/C with moveable cover 600x600 and fr

# SCHEDULE

1 Adaptor

2 Adapter Tee

3 Isolating Gatevalve

4 Air valve DN32mm

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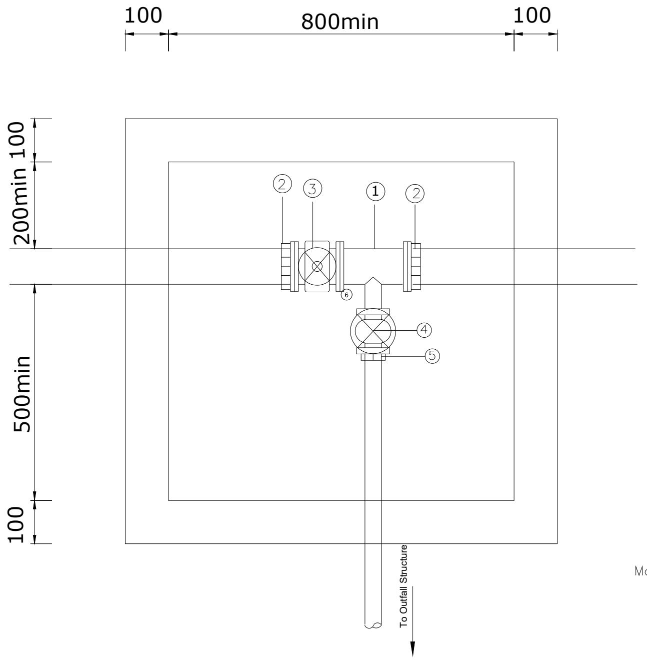
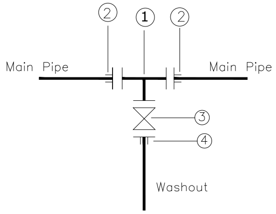
DRAWING TITLE

AIR RELEASE VALVE

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |

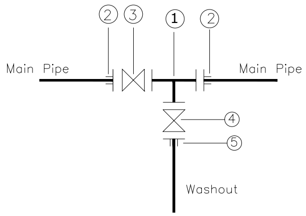



WO TYPE 1




1. 1No Tee DN A/B
2. 2No Adaptor, Maxi type or similar type DN A
3. 1No Gate Valve DN A
4. 1No Adaptor, Maxi type or similar DN B

WO TYPE 2




1. 1No Tee DN A/B
2. 2No Adaptor, Maxi type or similar type DN A
3. 1No Gate Valve DN A
4. 1No Gate Valve DN B
5. 1No Adaptor, Maxi type or similar DN B

# NOTES

1 All dimensions are in millimetres

2 Chamber to have internal dimensions as indicated

3 Chamber Base to be reinforced concrete C20 150mm with drain hole Reinforcement Y8 200mm C/C

4 Chamber Walls to be reinforced concrete C20 100mm thick Reinforcement BRC Mesh A142

4 Chamber Cover slab to be reinforced concrete C20 100mm thick Reinforcement Y10 200mm C/C with moveable cover 600x600 and frame

| Pipe Diameter | | Fittings Diameter | |
|---|---|---|---|
| Main Pipe | Washout | A | B |
| OD 50 | OD 50 | DN 40 | DN 40 |
| OD 63 | OD 63 | DN 50 | OD 50 |
| OD 90 | OD 63 | DN 80 | OD 50 |
| OD 110 | OD 63 | DN 100 | OD 50 |
| OD 160 | OD 63 | DN 150 | OD 50 |
| OD 218 | OD 110 | DN 200 | OD 100 |
| OD 250 | OD 110 | DN 250 | OD 100 |

NOTE: Pressure ratings of Washouts and Fittings shall be similar to those of the main pipe on which the washout is to be installed

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CONSULTANTS

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Engineering for a Resilient Future

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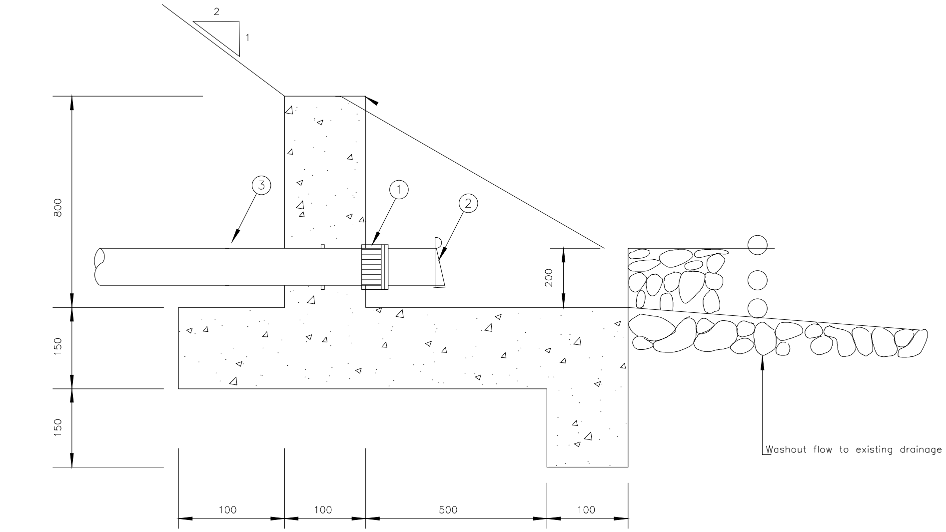
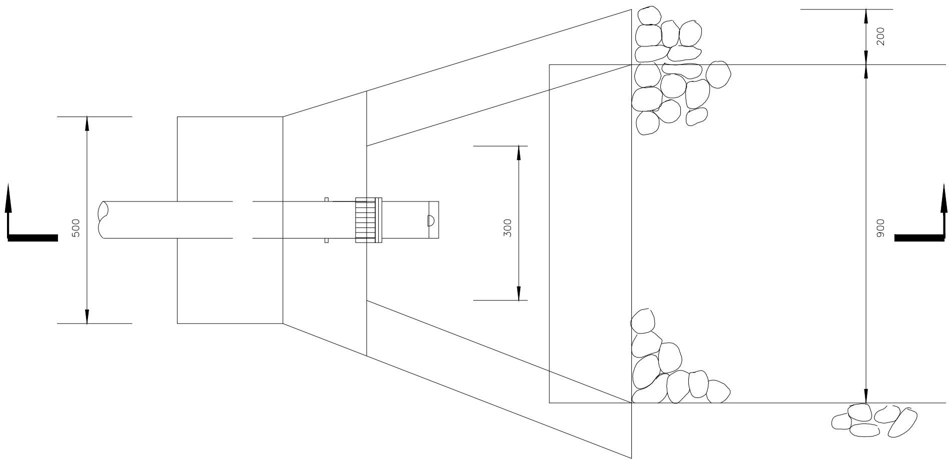
DRAWING TITLE

WASHOUT

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |




## NOTES

Reinforcement to be one layer A142 mesh throughout

For Pipe fittings diameter and pressure ratings, see relevant drawing No.

1 1No. Adaptor

2 1No. flap valve

3 1No. Washout pipe

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DRAWING TITLE

WASHOUT FLOW DETAILS

| | | | |
|---|---|---|---|
| SCALE | AS SHOWN | DRAWING No. | XX-XXX-1.0.0 |
| SURVEYED | EJM | DESIGNED | EJM |
| DRAWN | EJB | CHECKED | NM |
| DATE | OCTOBER, 2025 | APPROVED | LK |