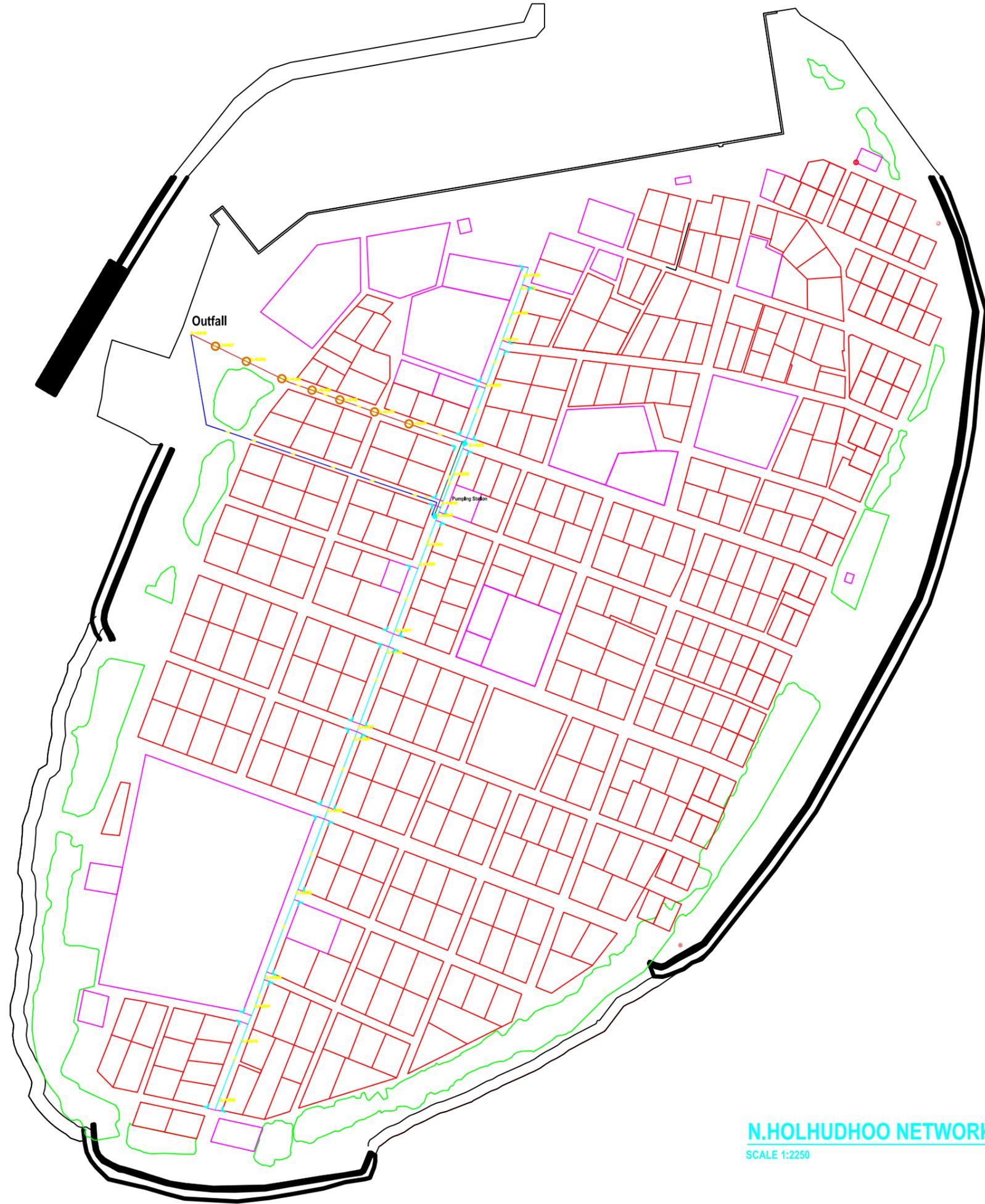


NOTE
 1. ALL LEVELS SHOWN ARE IN METERS.
 2. ALL LEVELS SHOWN ARE FROM MEAN SEA LEVEL.
 3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.
 4. ALL GRAVITY DRAINAGE PIPES SHALL BE HDPE TO BS EN 1519: 2000.

LEGEND

	800mm x 600 mm Box Culvert	- 150 m
	200mm Ø HDPE Gravity Drainage (PN8, SDR41)	- 7 nos
	350 mm Ø HDPE Pump Outfall Pipe (PN8, SDR41)	- 180 m
	350mm Ø HDPE Gravity Drainage Main (PN8, SDR41)	- 400 m
	350mm Ø HDPE Gravity Drainage Main (PN8, SDR41)	- 40 m
	600mm x 600mm Manholes	- 7 nos
	Curb Drains	- 34 nos

 **PRIMARY BENCH MARKS**
 PSM 0001; 307851.833E, 636637.696N, 1.147Z



N.HOLHUDHOO NETWORK LAYOUT
 SCALE 1:2250



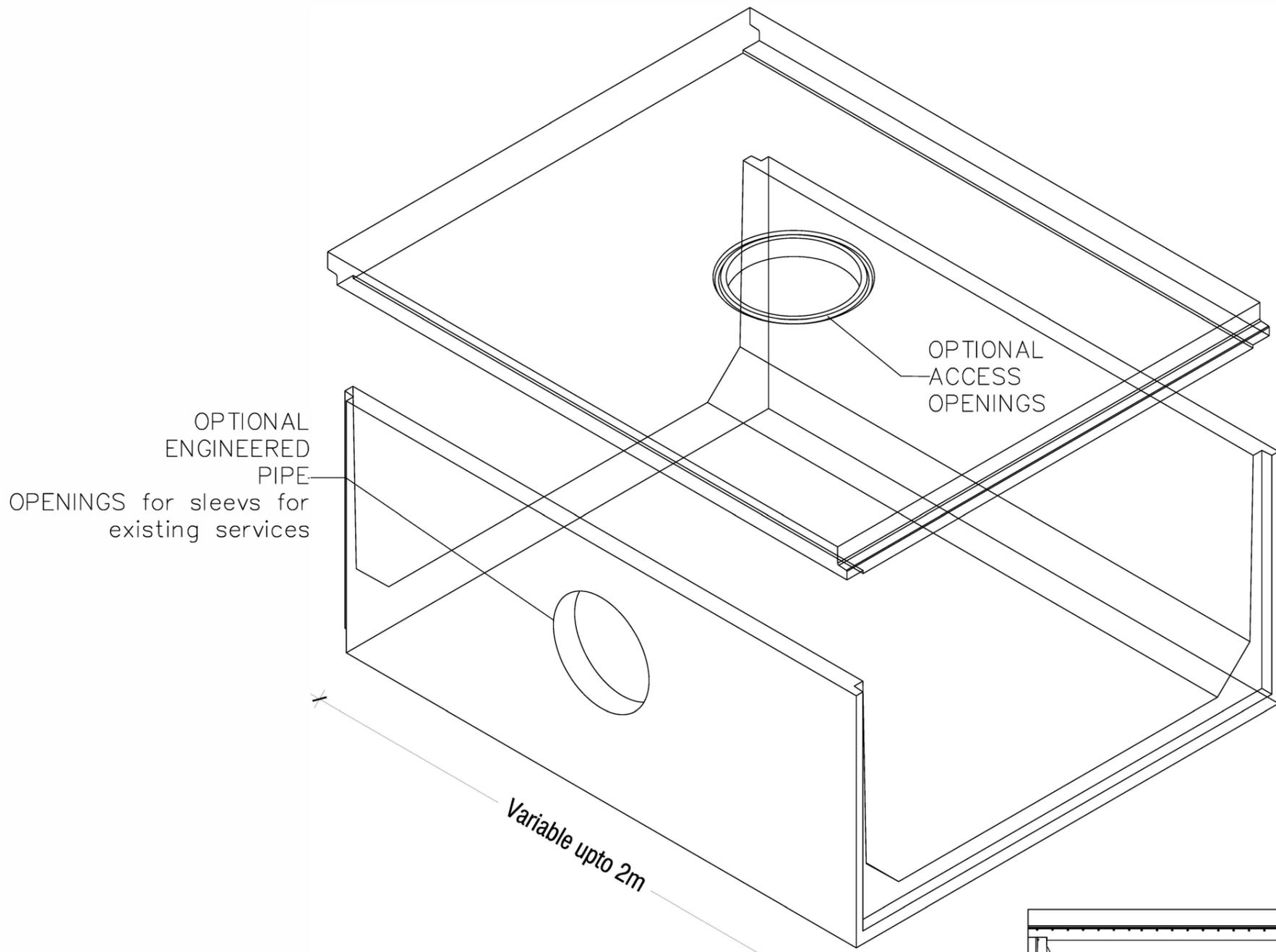
CONSULTANCY SERVICES FOR FLOOD MITIGATION IN N.HOLHUDHOO
 CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY
 PROJECT NUMBER: -
 DATE: -
 ENGINEER: -
 CHECKED BY: -
 DRAWN BY: -

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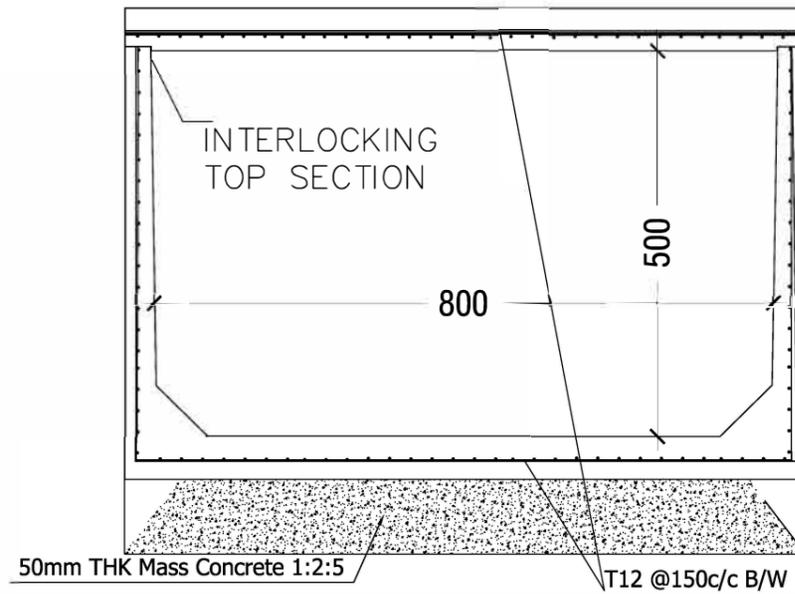
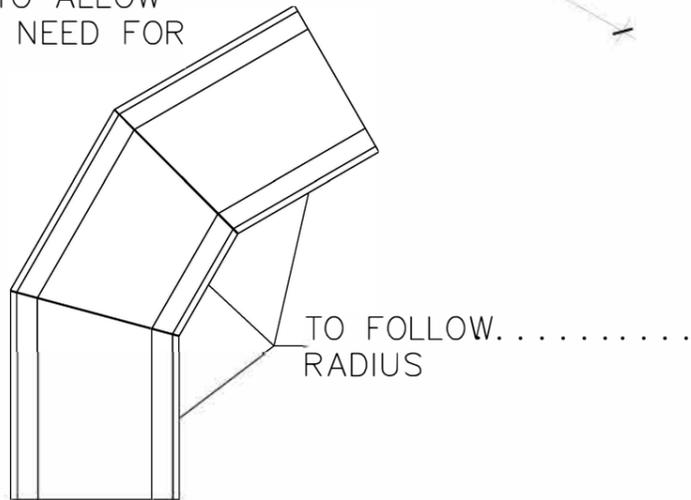
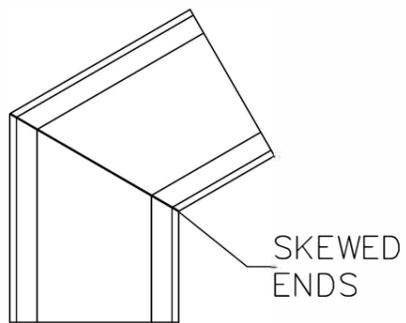

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Title: N.HOLHUDHOO
 Site Plan
 Page: NA - 01

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ENDS CAN BE ENGINEERED SKEWS TO ALLOW FOR CURVES IN CULVERT RUN- NO NEED FOR SECONDARY FILLER POUR.



FLOOD MITIGATION IN N.HOLHUDHOO, MALDIVES
 CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY

PROJECT NUMBER: -
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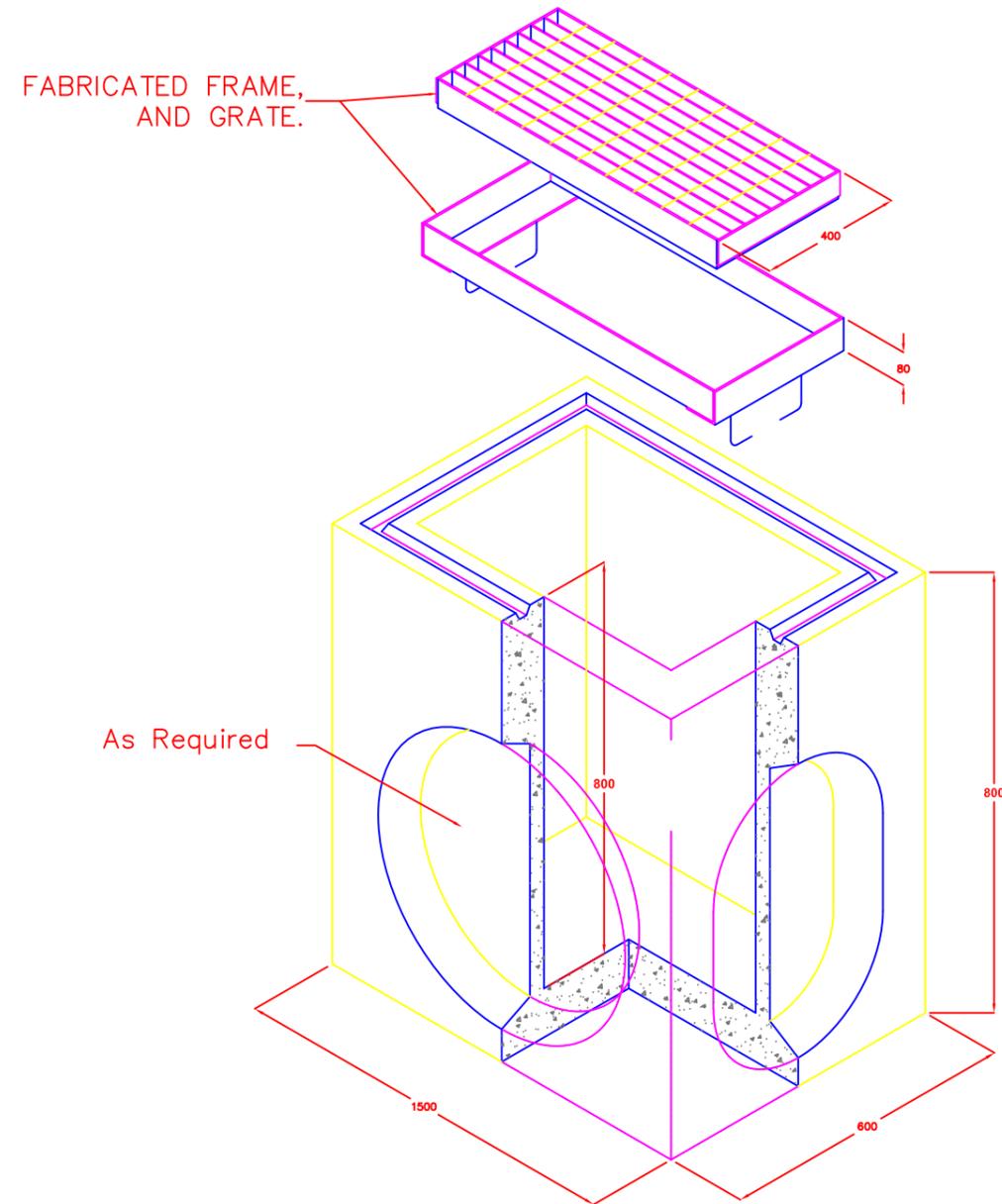
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NOTE:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.
3. ALL STRUCTURAL CONCRETE SHALL BE OF GRADE C35A.
4. ALL CASTINGS SHALL BE DONE USING SULPHATE RESISTANT PORTLAND CEMENT TO BS 4027:1996.
5. ALL STRUCTURAL REINFORCEMENT STEEL SHALL BE EPOXY COATING OF NON- PRE-STRESSED REINFORCEMENT TO ASTM A775/A775M.
6. MINIMUM CONCRETE COVER TO REINFORCEMENT SHALL BE 50MM.
7. LEAN CONCRETE SHALL BE 75mm THICK GRADE G15.
8. FOR COLD JOINTS:
 - WATER BAR SHOULD BE PLACED AT ALL JOINTS.
 - BONDING AGENT SHOULD BE USED, 10mins PRIOR TO START POURING OF CONCRETE.
9. REQUIRED SOIL BEARING PRESSURE FOR THE FOUNDATION IS 150KN/M², THE CONTRACTOR SHALL CARRYOUT GEOTECHNICAL TESTING TO ENSURE THAT THIS IS ACHIEVED AND NECESSARY GROUND IMPROVEMENTS SHALL BE DONE IF REQUIRED.
10. FOR ALL EXPOSED CONCRETE SURFACES PROVIDE BITUMINOUS COATING IF NECESSARY.
11. ALL INTERNAL CONCRETE SURFACES SHALL BE PROTECTED WITH EPOXY COATING OF THICKNESS 500MICRON.
12. ALL G.I/STEEL MEMBERS SHALL BE PROTECTED WITH UNIVERSAL PRIMER & 2 COATS OF ANTI CORROSIVE PAINT.

FLOOD MITIGATION IN N.HOLHUDHOO, MALDIVES
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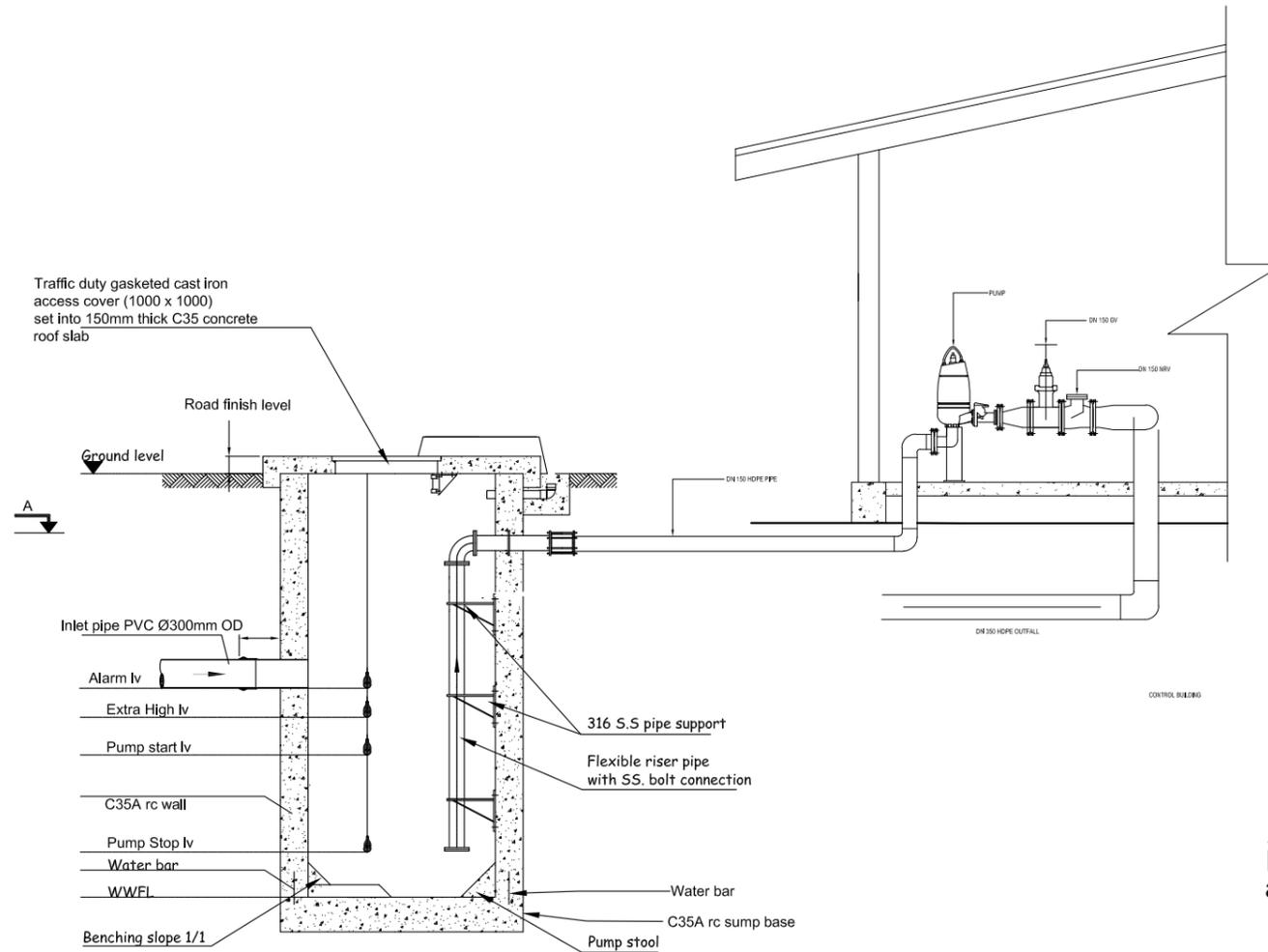
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Note: Concrete surface protection to pump well /valve chamber

1. Internal concrete surfaces to be coated with 5mm thickness of epoxy resin bonded glass fibre and finished with gel coat or 500 microns epoxy paint coating.
2. External concrete surfaces to be painted with 3 coats of bitumen/rubber emulsion and protected by 500 micron polythene.



TYPICAL PUMPING STATION DETAIL - LONGITUDINAL SECTION
Scale: N.T.S

Note:
Pumps, pipework and fittings to be installed in accordance with manufactureres recommendations

FLOOD MITIGATION IN N.HOLHUHOO, MALDIVES
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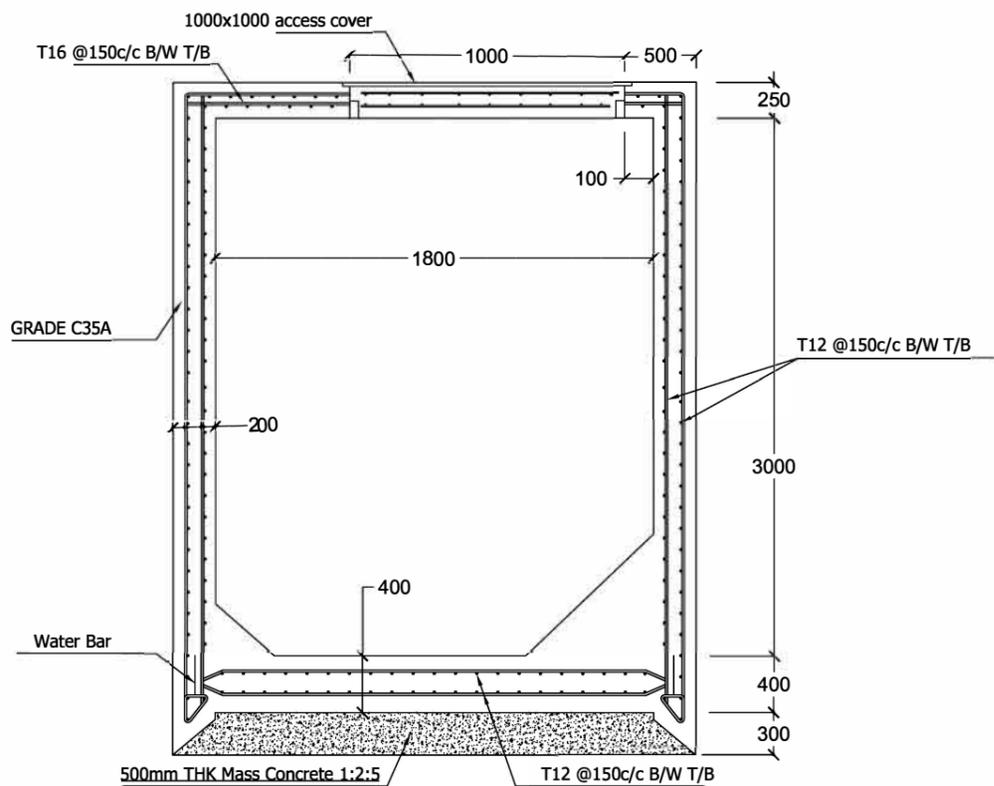


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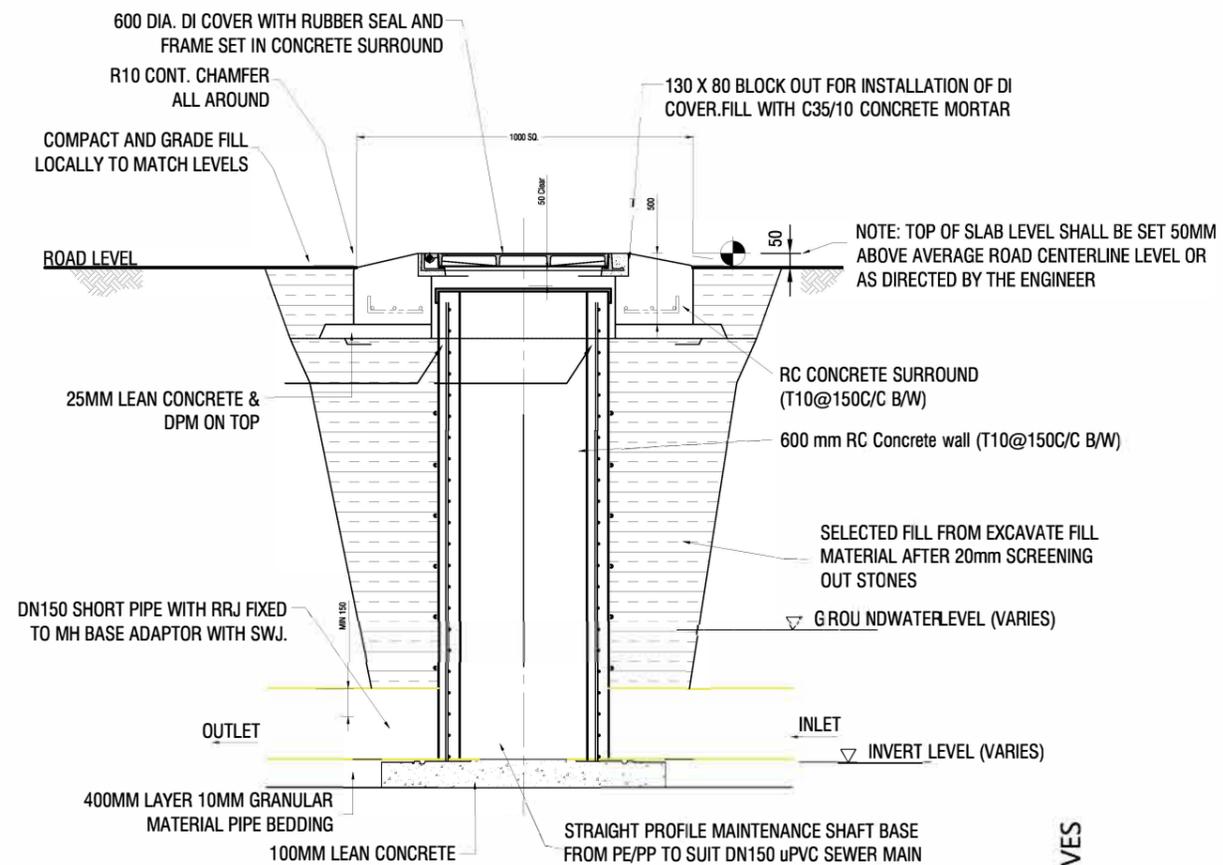
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Title: TYPICAL PUMPING STATION DETAIL - LONGITUDINAL SECTION
Page: NA - 05

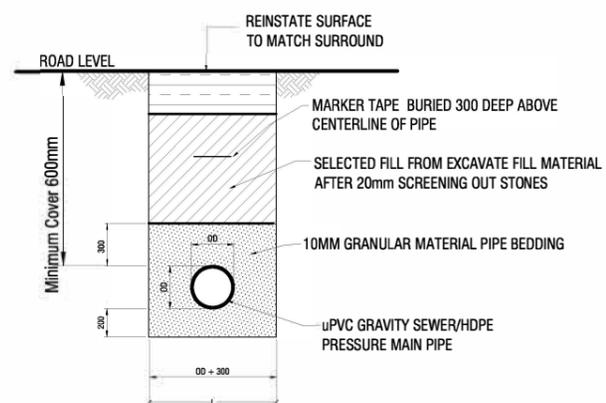
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PUMP STATION DETAIL



ELEVATION - MAINTENANCE SHAFT FOR CULVERT (MH)
Scale 1:20



TRENCH & BEDDING DETAILS
Scale 1:20

Note:

1. All structural concrete shall be of grade C35A.
2. All castings shall be done using Sulpahte Resistant Portland Cement to BS 4027:1996.
3. All structural reinforcement shall be epoxy coating of non-pre-stressed reinforcement to ASTM-A775/A775M.

FLOOD MITIGATION IN N.HOLHUHOO, MALDIVES
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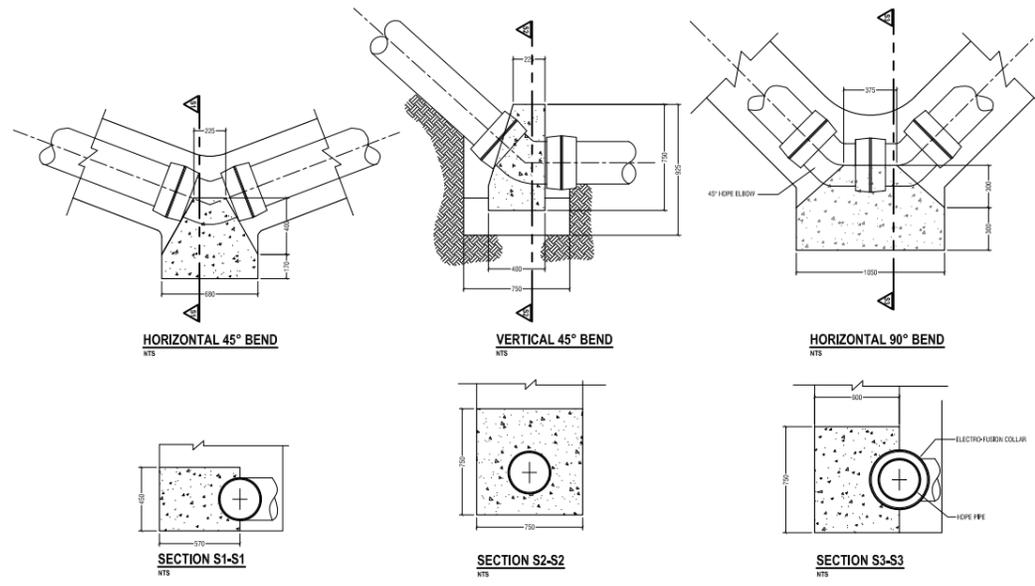


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HORIZONTAL 45° BEND
NTS

VERTICAL 45° BEND
NTS

HORIZONTAL 90° BEND
NTS

SECTION S1-S1
NTS

SECTION S2-S2
NTS

SECTION S3-S3
NTS

THRUST BLOCK DETAIL - FORCE MAINS ONLY
SCALE 1:50

FLOOD MITIGATION IN HILUHIDOO MALDIVES
 CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY
 PROJECT NO: MEE/2017/001
 DRAWING NO: 100-04
 DATE: 10/01/2017

Project Manager: MWH
 Engineer: MWH
 Designer: MWH
 Checker: MWH
 Approver: MWH

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