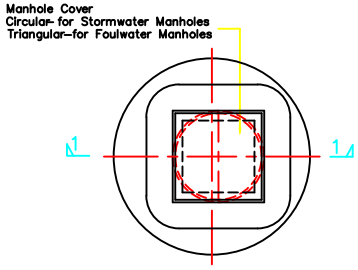
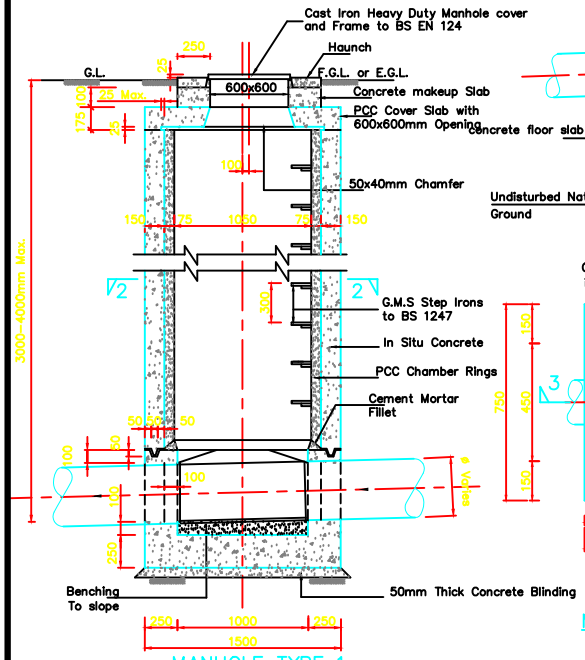
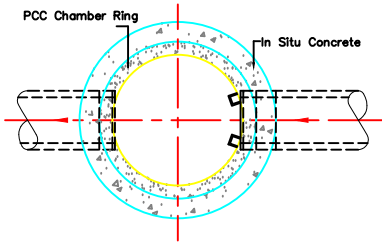
Verify all dimensions prior to construction — Do not scale



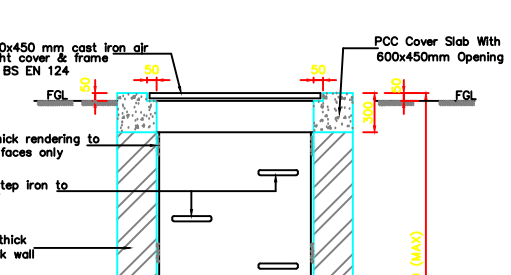
PLAN OF SURFACE OF MANHOLE TYPE 1
1:20



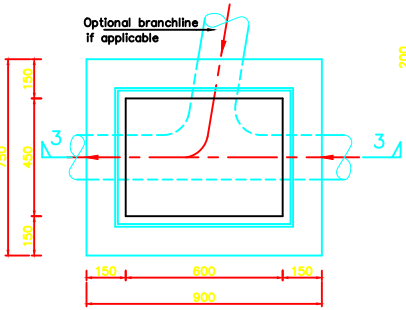
MANHOLE TYPE 1
SECTION 1–1
1:20



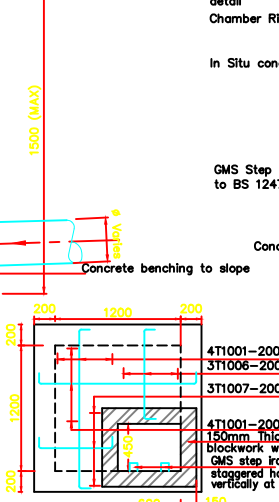
SECTIONAL PLAN 2–2
1:20



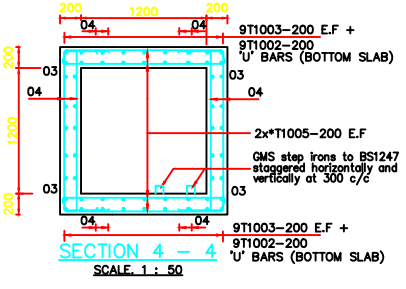
SECTION 3–3
1:10



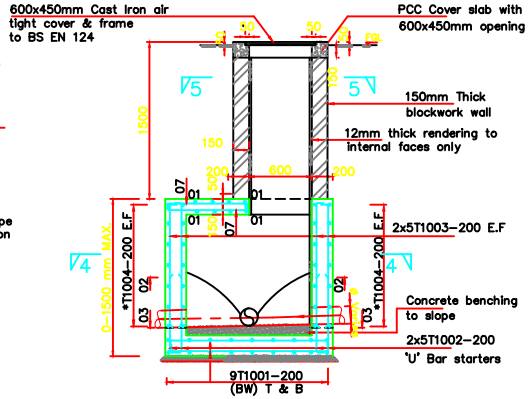
PLAN
MANHOLE TYPE 2
1:10



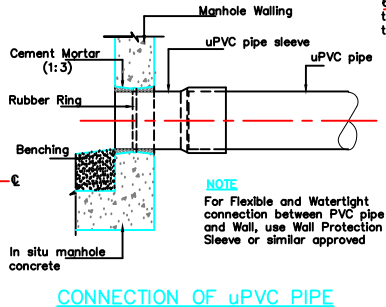
SECTION (5 – 5)
SCALE. 1 : 50



SECTION 4 – 4
SCALE. 1 : 50

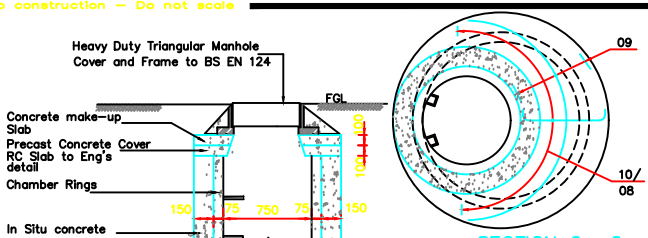


FOUL WATER DRAINAGE SERVICE
MANHOLE TYPE 4 (FOR DEPTHS 1500–3000mm)
SCALE. 1 : 50

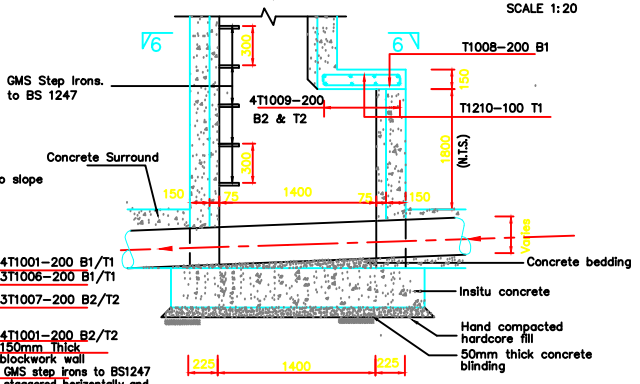


NOTE
For Flexible and Watertight connection between PVC pipe and Wall, use Wall Protection Sleeve or similar approved

CONNECTION OF uPVC PIPE TO MANHOLE
N.T.S.

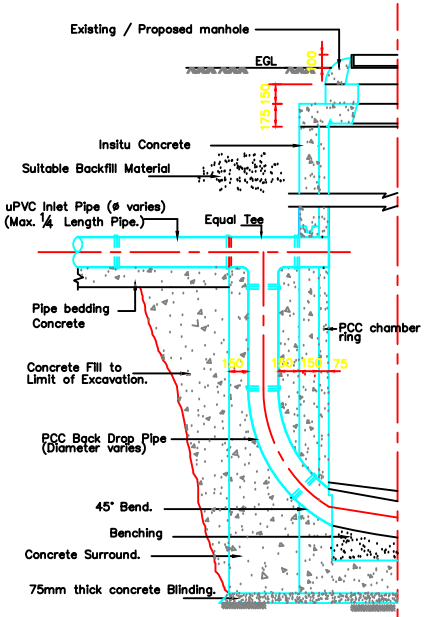


SECTION 6– 6
SCALE 1:20



RING MANHOLE WITH SHAFT FOR DEPTHS >4000mm
SCALE 1:20

MANHOLE TYPE 3



BACK–DROP MANHOLE DETAIL
1:20

AS BUILT

NOTES:

1. All dimensions are in millimetres unless stated otherwise.
2. This drawing should be read in conjunction with Drg. No. 2571–101–C–PP–552 (Power Station Foul & Contaminated water drainage)
   2571–101–C–SF–004.(NRB North Foul & Contaminated water drainage)
   2571–101–C–CS–898.(Manhole covers R.C. details).
3. All corners of precast units to have a chamfer of 20mm.
4. For general notes refer to Drg. No. 2571–101–S–CS–900.
5. All exposed concrete are wrought finished.
6. All exposed concrete members have a chamfer of 25mm unless stated otherwise.
7. All steel manhole covers were painted after fabrication with two coats of Zinc based primer.
8. Stepirons are only required where Chamber is greater than 600mm deep.
9. Minimum cover to all reinforcement is 40mm.

MANHOLE TYPE 1:

10. Used for drain/sewer pipes upto DN450 with depth to invert exceeding 3.0m but not exceeding 4.0m
11. All uPVC Pipes are manufactured to B.S 5481 and all PCC Pipes are manufactured to BS5911
12. All joints to precast concrete slabs, rings and shafts are well bedded in 1:3 cement mortar.
13. For drain/sewer pipes with Dia. exceeding 450mm but not exceeding 900mm, 1400mm Dia. manholes are used

MANHOLE TYPE 2:

14. Used for sewer/drain pipes upto DN450 with depth to invert not exceeding 1.5m

MANHOLE TYPE 3:

15. Used for drain/sewer pipes upto DN900 with depth to invert exceeding 4.0m

MANHOLE TYPE 4:

16. Used for drain/sewer pipes upto DN450 with depth of invert exceeding 1.5m but not exceeding 3.0m

LEGEND:–

F.G.L. – Finished Ground Level
G.L. – Ground Level
E.G.L. – Existing Ground Level
c.c. – Centre to Centre
D – External Diameter
d – Internal Diameter
Dia. – Diameter
PCC. – Precast Concrete
uPVC. – Unplasticized Polyvinyl Chloride
GMS – Galvanised Mild Steel.
ø – Diameter
℄ – Centre line

Rev	Reason	By	Chk	Appr.	Date
Z	ISSUED AS BUILT	PMN	EGG	ADP	SEPT. '03
Scales	AS SHOWN	Drawn	FOO	Designed	GM
Date	JUNE '99	CAD Ref	903–Z	Checked	ADP

Client
The Kenya Electricity Generating Company Ltd.
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Fax: +254-2-248848
KenGen

Consultants
SINCLAIR KNIGHT MERZ
Sinclair Knight Merz Ltd.
Sub-Consultants
Howard Humphreys
Consulting Engineers
PB Kennedy & Donkin Limited

OLKARIA II GEOTHERMAL POWER PROJECT
ENGINEERING DETAILS
MANHOLE DETAILS

Drawing 2571-101-S-CS-903
Revision Z

ISSUE STATUS

Client Design		
Bid		
Construction		
As built	18.09.03	Z