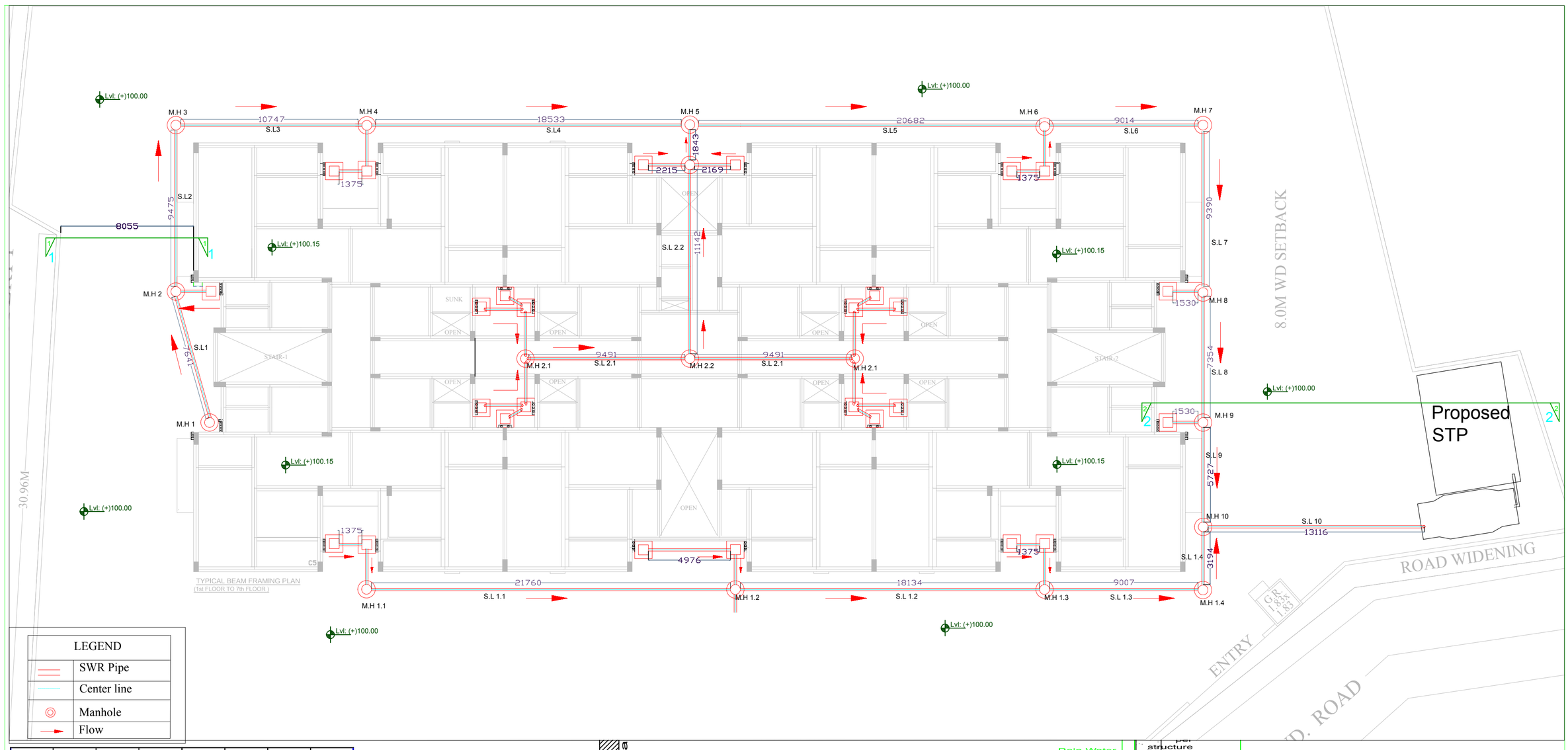
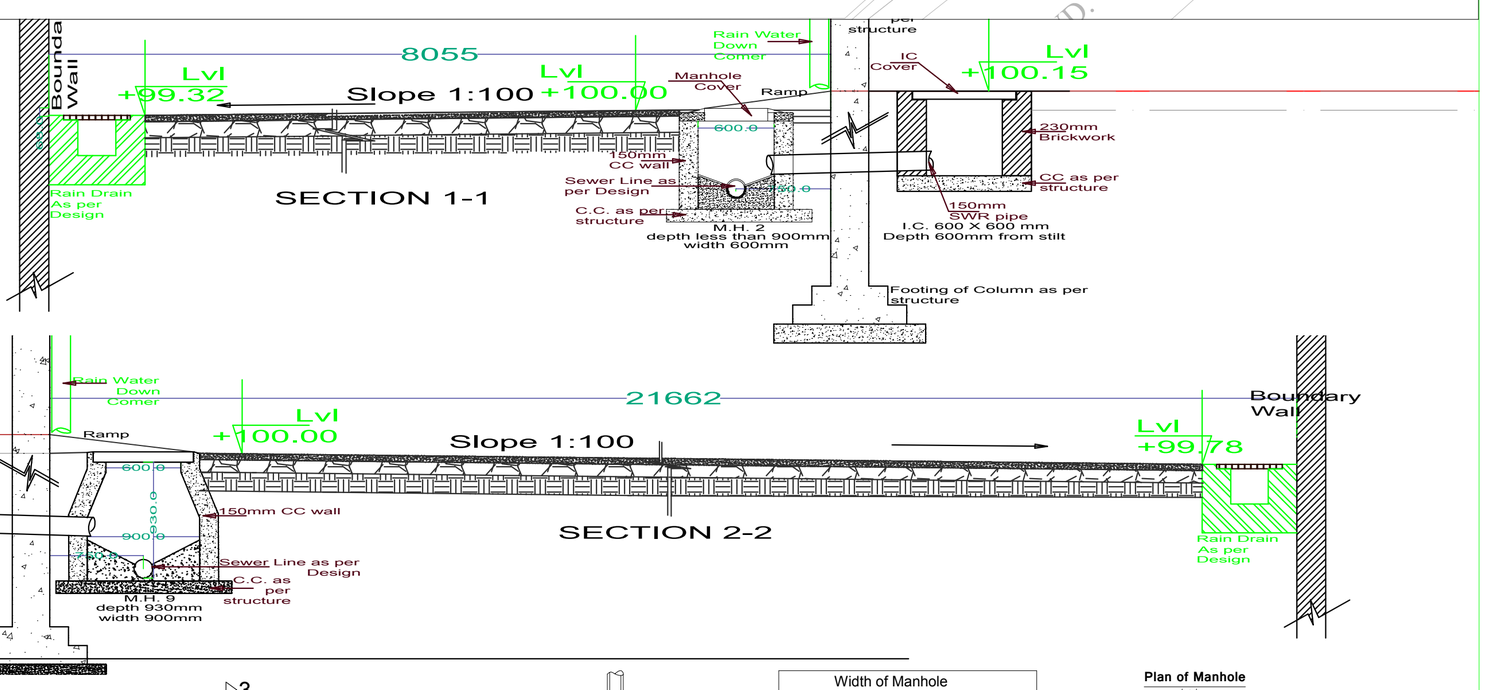
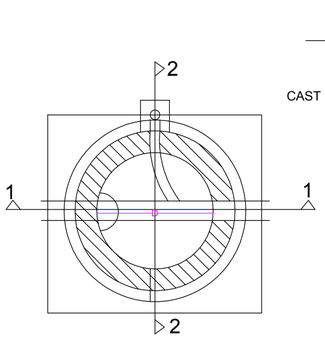
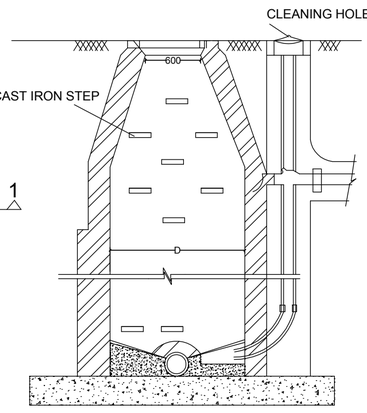


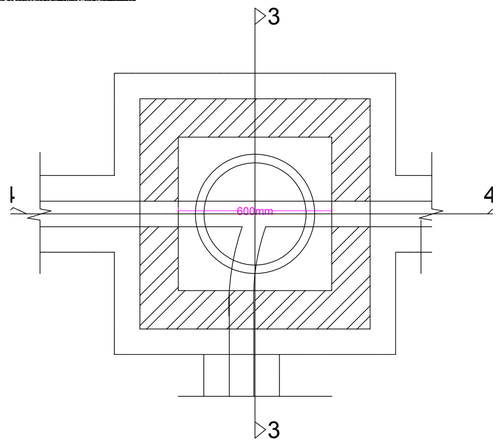
LEGEND	
	SWR Pipe
	Center line
	Manhole
	Flow

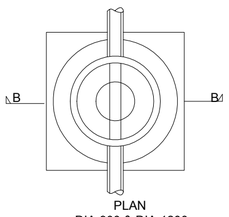
line element no.	starting point	total no. of discharging dwelling unit	pipe size in inches	pipe length in meter	level of pipe line at start point in M from BM	slope ratio 1 in	FFL of start point from BM
TRUNK LINE							
SL-1	MH-1	5	6"	7.64	99.55	211.33	100
SL-2	MH-2	5	6"	9.47	99.514	211.33	100
SL-3	MH-3	0	6"	10.75	99.469	211.33	100
SL-4	MH-4	6	6"	18.53	99.418	211.33	100
SL-5	MH-5	35	6"	20.68	99.330	211.33	100
SL-6	MH-6	6	6"	9.01	99.233	211.33	100
SL-7	MH-7	0	6"	9.39	99.190	211.33	100
SL-8	MH-8	5	6"	7.35	99.146	184.16	100
SL-9	MH-9	5	6"	5.72	99.106	184.16	100
SL-10	MH-10	19	6"	13.12	99.075	184.16	100
BRANCH LINE 1 (From MH 9)							
SL-1.1	MH-1.1	6	6"	21.76	99.55	211.33	100
SL-1.2	MH-1.2	7	6"	18.13	99.447	211.33	100
SL-1.3	MH-1.3	6	6"	9	99.361	211.33	100
SL-1.4	MH-1.4	0	6"	3.2	99.319	211.33	100
BRANCH LINE 2 (From MH 5)							
SL-2.1	MH-2.1	14	6"	9.49	99.55	211.33	100
SL-2.2	MH-2.2	14	6"	11.14	99.505	211.33	100
SL-2.3	MH-2.3	7	6"	1.85	99.452	211.33	100



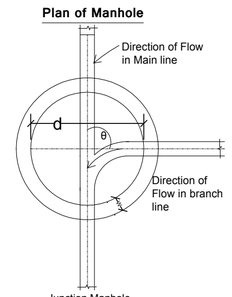


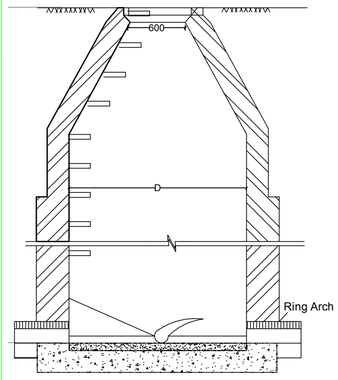


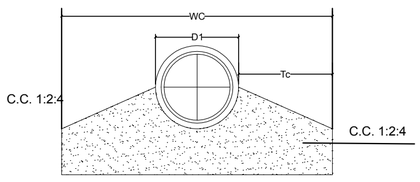


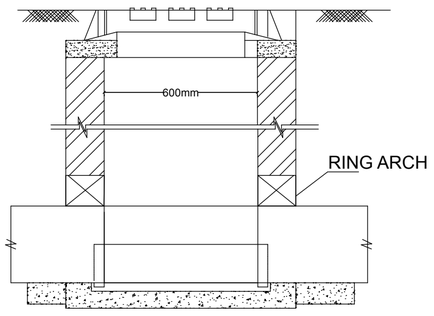


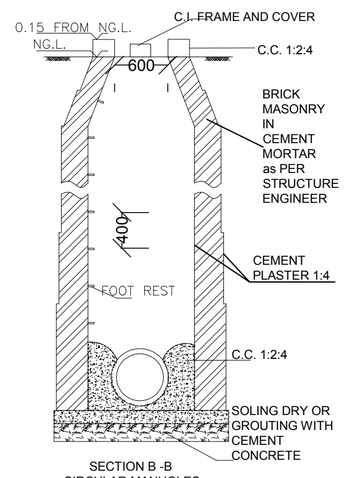
Width of Manhole		
S. No.	Depth	Width
1.	Upto 900 mm	600 mm
2.	900 to 1650 mm	900 mm
3.	1650 to 2300 mm	1200 mm







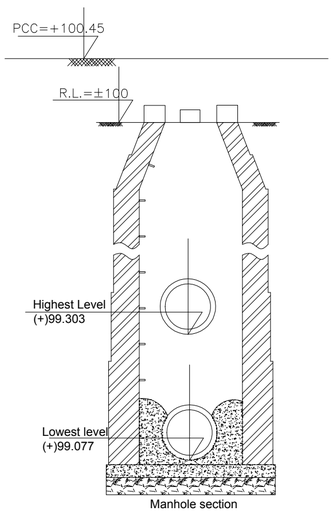




MATERIAL OF CONSTRUCTION - BRICK. /.C. C

TOP OF COVER - PRECAST (R.C.C.)

GRADE - M-20



NOTES-

- THE SEWER LINE SHALL BE LAID ON P.C.C. (150THK) OVER COMPACTED EARTH.
- WHEN MORE THEN TWO PIPES CONNECT AT A POINT, THE CROWN SHALL BE FLUSHED.
- SEWER LINE SHALL BE TESTED FOR ITS LEAKAGE/ INFILTRATION AS RELEVANT IS CODE/MANUAL BEFORE ITS COMMISSIONING.
- ALL MANHOLES SHOULD HAVE UNCUT PIPE INSIDE AT BASE WHICH SHALL BE CUT DURING COMMISSIONING.
- THE MINIMUM INVERT LEVEL SHALL BE 450 MM BELOW EXISTING GROUND.
- MAXIMUM DISTANCE BETWEEN TWO MANHOLES SHALL BE AS PER THE GIVEN TABLE OR AS PER DESIGN.
- DROP MANHOLE SHALL BE PROVIDED WHERE THE DIFFERENCE OF TWO INVERT LEVEL AT A JOINT IS MORE THAN 600 MM.
- ALL PIPES USED UPTO DIAMETER 160MM SHOULD BE SWR CONFORMING TO IS 13592:92 & FITTINGS SHOULD CONFORM TO IS 14735:99 & DIAMETER MORE THAN 160MM SHOULD BE uPVC PRESSURE PIPES & CONFORM TO IS 4985:2000.
- THE WIDTH/DIAMETER OF THE MANHOLE SHOULD NOT BE LESS THAN INTERNAL DIAMETER OF THE SEWER + 150MM BENCHING ON BOTH SIDES (150MM + 150MM).
- MANHOLES SHOULD BE BUILT AT EVERY CHANGE OF ALIGNMENT , GRADIENT OR DIAMETER, AT THE HEAD OF ALL SEWERS & BRANCHES & AT EVERY JUNCTION OF TWO OR MORE SEWERS.
- ON SEWERS WHICH ARE TO BE CLEANED MANUALLY, WHICH CANNOT BE ENTERED FOR CLEANING OR INSPECTION, THE MAXIMUM DISTANCE BETWEEN MANHOLES SHOULD BE 30M.

SECTION B -B
CIRCULAR MANHOLES

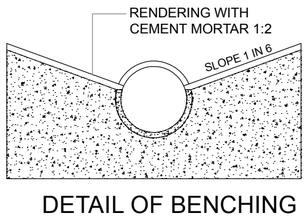
MATERIAL OF CONSTRUCTION - BRICK. /.C. C

TOP OF COVER - PRECAST (R.C.C.)

GRADE - M-20

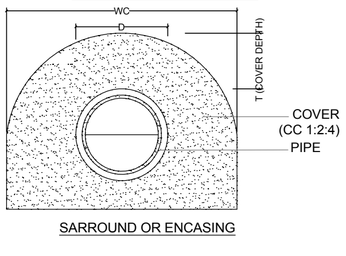
ALL PIPE MATERIAL WITH APPROVED I.S.I MARK

SPECIFICATION



DETAIL OF BENCHING

SECTION OF HAUNCHING



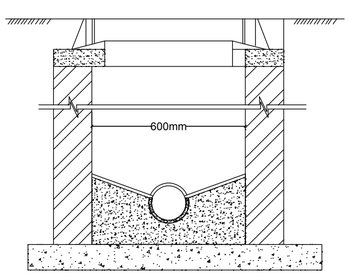
SARROUND OR ENCASING

W=D+ 300 MM

Where D is external diameter of pipe

T=
100 mm for pipe under 150 mm nominal dia
150 mm for pipe under 150 mm nominal dia ana over
FOR LINE 0 TO 1.0 M DEPTH

DETAIL OF MANHOLE
(DEPTH MORE THAN 0.90 M)



DETAIL OF MANHOLE
(DEPTH LESS THAN 0.90 M)

d = 900 mm for depth <1000 mm.
d = 1200 mm for depth >1000 mm.
w = width of outer wall as per structure Engineer.

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PURPOSE OF DRAWING: G.F.C | APPROVAL | CONCEPT

SHEET SIZE :

SHEET NO. : 1

DRG.NO.: DRS/D102/SL/13

DATE: 10-01-2015

DGN.BY: Anand Kr. Pandey

CHKD.BY: DINKAR SAXENA

REVISION NOTES:

No.	DATED	DISCRIPTION
V2.	10/01/2015	Drawing for approval
V1.	13/08/2014	Concept Drawing

PROJECT: Shriji Gardeniya,Mathura

DRG. TITLE: Sewer line

SERVICES CONSULTANT

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CHARTERED ENGINEER
M- 128465-1