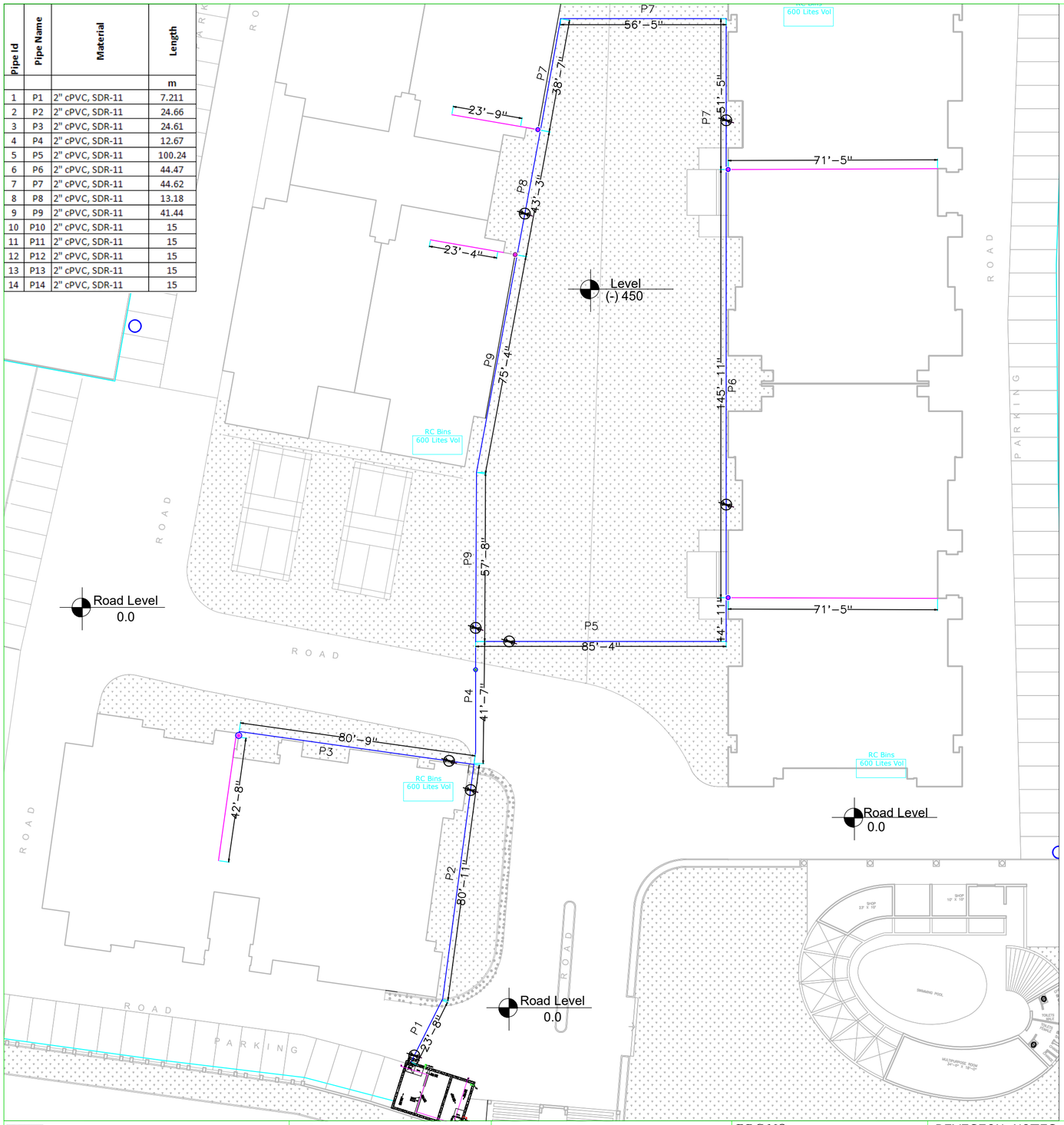
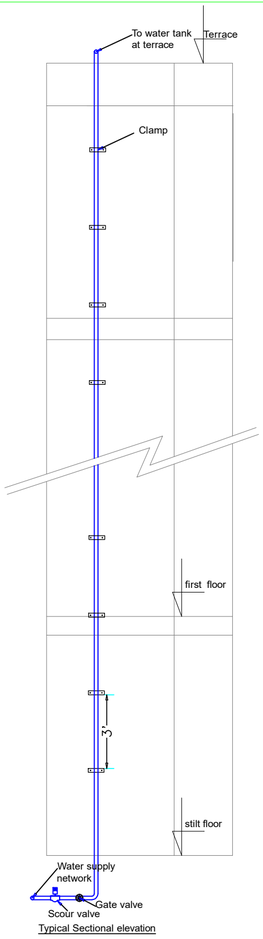
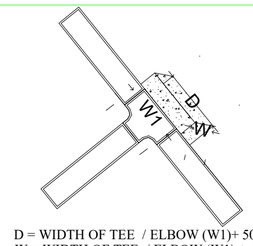
Pipe Id	Pipe Name	Material	Length
			m
1	P1	2" cPVC, SDR-11	7.211
2	P2	2" cPVC, SDR-11	24.66
3	P3	2" cPVC, SDR-11	24.61
4	P4	2" cPVC, SDR-11	12.67
5	P5	2" cPVC, SDR-11	100.24
6	P6	2" cPVC, SDR-11	44.47
7	P7	2" cPVC, SDR-11	44.62
8	P8	2" cPVC, SDR-11	13.18
9	P9	2" cPVC, SDR-11	41.44
10	P10	2" cPVC, SDR-11	15
11	P11	2" cPVC, SDR-11	15
12	P12	2" cPVC, SDR-11	15
13	P13	2" cPVC, SDR-11	15
14	P14	2" cPVC, SDR-11	15





Typical Sectional elevation



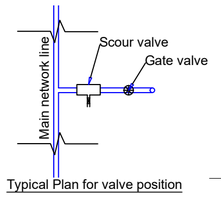
D = WIDTH OF TEE / ELBOW (W1)+ 500
W = WIDTH OF TEE / ELBOW (W1) + 400

THRUST BLOCK FOR TEE / ELBOW JUNCTION

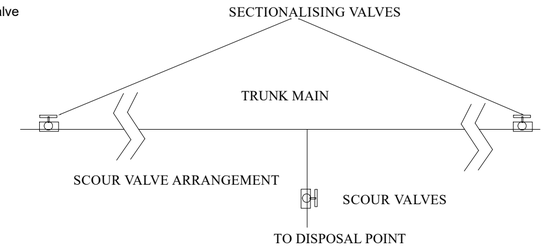
Design of Thrust block at change in alignment up to 90 degree
At BC of soil 10 T /Sq m

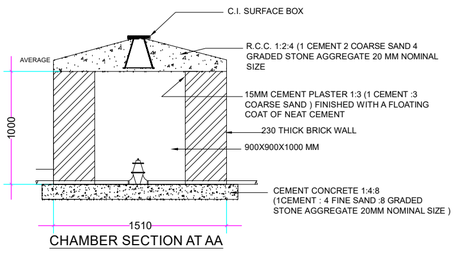
Nominal Pipe Size	Outside Diameter	width of block	Hight of block	Lenght of block
(inches)	*(inches)*	*m*	*m*	*m*
				PVC
2	2.375	0.4	0.4	0.6
2 1/2	2.875	0.4	0.4	0.7
3	3.5	0.4	0.4	0.7
4	4.5	0.4	0.4	1.2
6	6.625	0.45	0.45	2.1
8	8.625	0.5	0.5	3.2
10	10.75	0.55	0.55	4.4

Reinforcement required: 10 mm bar at 200 mm c/c

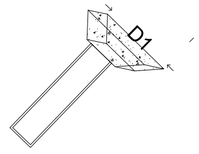


Typical Plan for valve position

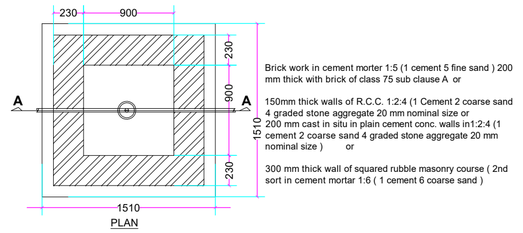




CHAMBER SECTION AT AA



THRUST BLOCK FOR DEAD END
D1 = WIDTH OF END CAP/ FLINCH (W2)+ 500

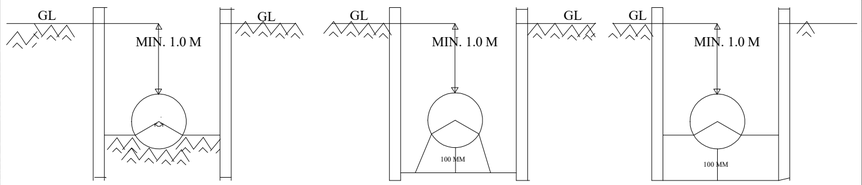


PLAN

Brick work in cement morter 1:5 (1 cement 5 fine sand) 200 mm thick with brick of class 75 sub clause A or

150mm thick walls of R.C.C. 1:2:4 (1 Cement 2 coarse sand 4 graded stone aggregate 20 mm nominal size or 200 mm cast in situ in plain cement conc. walls in1:2:4 (1 cement 2 coarse sand 4 graded stone aggregate 20 mm nominal size) or

300 mm thick wall of squared rubble masonry course (2nd sort in cement mortar 1:6 (1 cement 6 coarse sand)



TRENCHES IN EARTH OR MURUM

TRENCHES INHARD ROCK WITH CEMENT CONCRETE BEDDING

TRENCHES IN HARD ROCK WITH SAND BEDDING

IS CODE 12288 : CODE OF PRACTICE FOR LAYING PIPES

LEGENDS	
	Water supply line
	Air release valve
	Gate Valve
	water supply to tank at terrace vertically
	2" water supply pipe at terrace to OHT

SERVICE CONSULTANTS:
DASS RASAYANIC SERVICES
441 SECTOR 16, SIKANDRA AVAS YOJNA SIKANDRA AGRA 282007, Email:info@wateronline.co.in,
Web: www.wateronline.co.in

For engineering details please refer to see attached calculations.All structural detail are suggestive in nature and are need to haverevision by structural engineers.

PURPOSE OF DRAWING
G.F.C | APPROVAL | TENDER

SHEET SIZE: A2
SHEET NO. : 1

DRG.NO.: DRS/D60/WS/2011
DATE: 15-07-2011
DRN.BY: ASHISH SHARMA
CHKD.BY: DINKAR SAXENA

REVISION NOTES:

No.	DATED	DISCRIPTION
0	29-03-14	

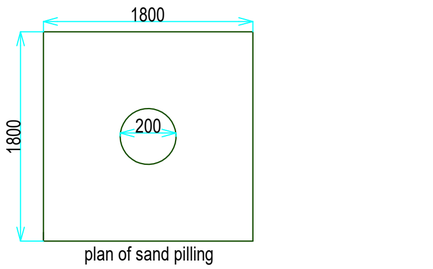
CLIENT: RANGJI BUILDWELL PVT. LTD

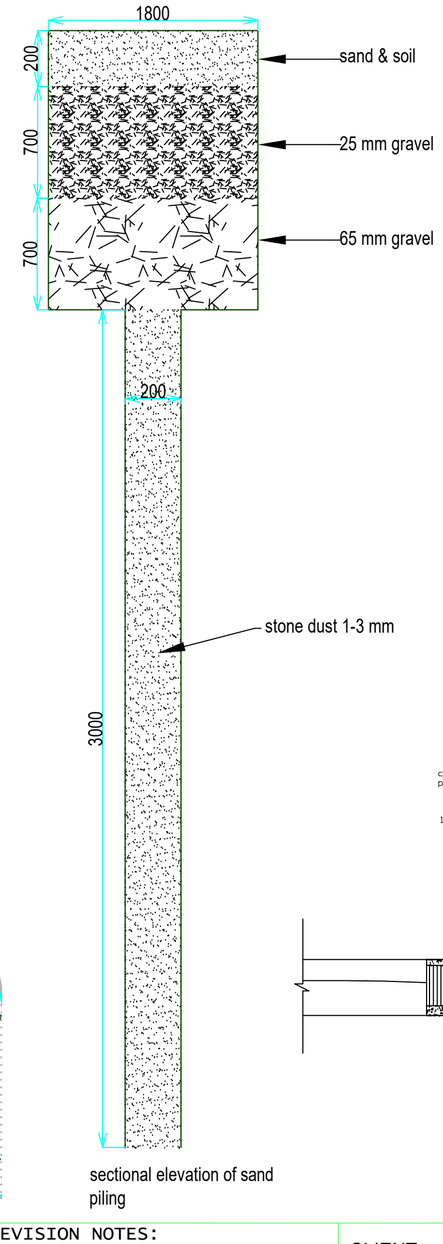
PROJECT: RANGJI HIEGHTS AGRA

DRG. TITLE: external water supply layout

SERVICES CONSULTANT

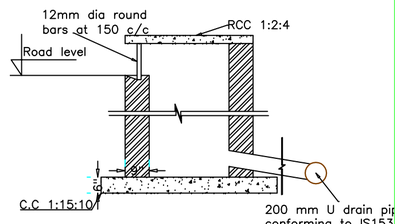
DINKAR SAXENA
M.Sc., M.I.E., C.Eng., F.I.P.H.E.
CHARTERED ENGINEER
M– 128465–1



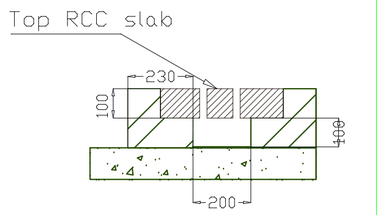


sectional elevation of sand piling

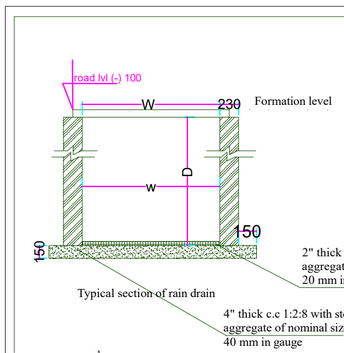
Segment element no.	Drain cross section size in mm (Depth,D X width,W) at strart	Length of drain in foot	actual raod level	Invert of drain at start point in mm from Road level	slop 1 in
RWH-1&2					
Main Line					
SG-1	200X200	50	0	-200	130
SG-2	321X250	50	0	-321	180
SG-3	408X300	50	0	-408	180
SG-4	492X400	50	0	-492	290
SG-5	544X450	50	0	-544	360
SG-6	587X450	50	0	-587	370
SG-7	628x450	50	0	-628	430
SG-8	663x450	50	0	-663	490
SG-9	694x450	50	0	-694	510
SG-10	724x450	50	0	-724	520
SG-11	753x450	50	0	-753	530
SG-12	782x450	50	0	-782	540
SG-13	810x450	50	0	-810	550
Rain drain at park					
SG-1.1	200X200	50	0	-650	130
SG-1.2	321X250	50	0	-771	180
SG-1.3	408X300	50	0	-858	180
SG-1.4	492X400	50	0	-942	290
SG-1.5	544X450	50	0	-994	360
SG-1.6	587X450	50	0	-1037	370
SG-1.7	628x450	50	0	-1078	430
SG-1.8	663x450	50	0	-1113	490
SG-1.9	694x450	50	0	-1144	510
SG-1.10	724x450	50	0	-1174	520



Typical section for road gully



typical Starting drain section



Typical section of rain drain

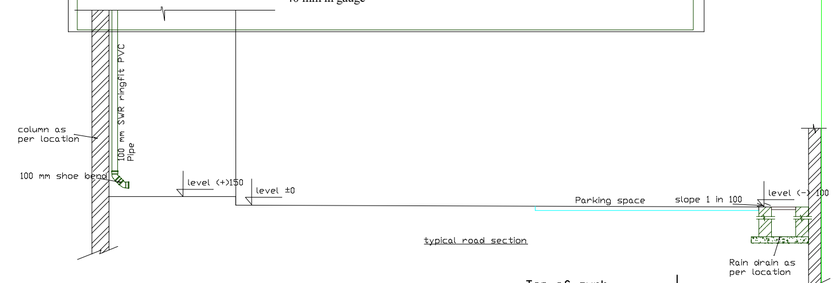
2" thick c.c 1:2:4 with stone aggregate of nominal size of 20 mm in gauge

4" thick c.c 1:2:8 with stone aggregate of nominal size of 40 mm in gauge

D = Depth
W = Width

Note:
RCC slab1:2:4 (thickness as per the design) to be casted in situ in 70 % length.. A removable slab portion 30% length shell be provided, the distance between two such removal slabs should not be more than 20 ref required for proper cleaning of drain.
provisions for vertical RCC pre cast grating shell also be provided to take the rainwater into rain at a suitable distance / level.

the brick masonry shall be in 1:5 cement sand mortar. 12 mm thick cement plaster to be provided inside the brick drain on brick wall shall be 1:4 cement sand and 1mm thick cement rendering.



Total no. of residents = 700
Waste Generated per capita = 500 grams
Toatal waste generated = 350KG
Taking desity of MSW is 500 KG/CUM
Total Waste Generated = 700 Litres.
Thus Refused Collector Bins of 600 Litres Capacity have been placed at every tower having retention period of 2 days each.

Legends:

	Rain drain
SP	Start point
WP	Weir point
	Direction of flow
	over flow
	UG rain

SERVICE CONSULTANTS:
DASS RASAYANIC SERVICES
441 SECTOR 16, SIKANDRA AVAS YOJNA SIKANDRA AGRA 282007, Email:info@wateronline.co.in, Web: www.wateronline.co.in

For engineering details please refer to see attached calculations.All structural detail are suggestive in nature and are need to haverevision by structural engineers.

PURPOSE OF DRAWING
G.F.C | APPROVAL | TENDER

SHEET SIZE: A2
SHEET NO. : 2

DRG.NO.: DRS/D60/RW/2011
DATE: 15-07-2011
DRN.BY: ASHISH SHARMA
CHKD.BY: DINKAR SAXENA

REVISION NOTES:

No.	DATED	DISCRIPTION
03	28-10-13	addition of new catchment

CLIENT: RANGI BUILDWELL PVT. LTD

PROJECT: RANGI HIEGHTS AGRA

DRG. TITLE: RAIN WATER

TYPICAL FLOOR PLAN

SERVICES CONSULTANT

DINKAR SAXENA
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CHARTERED ENGINEER
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