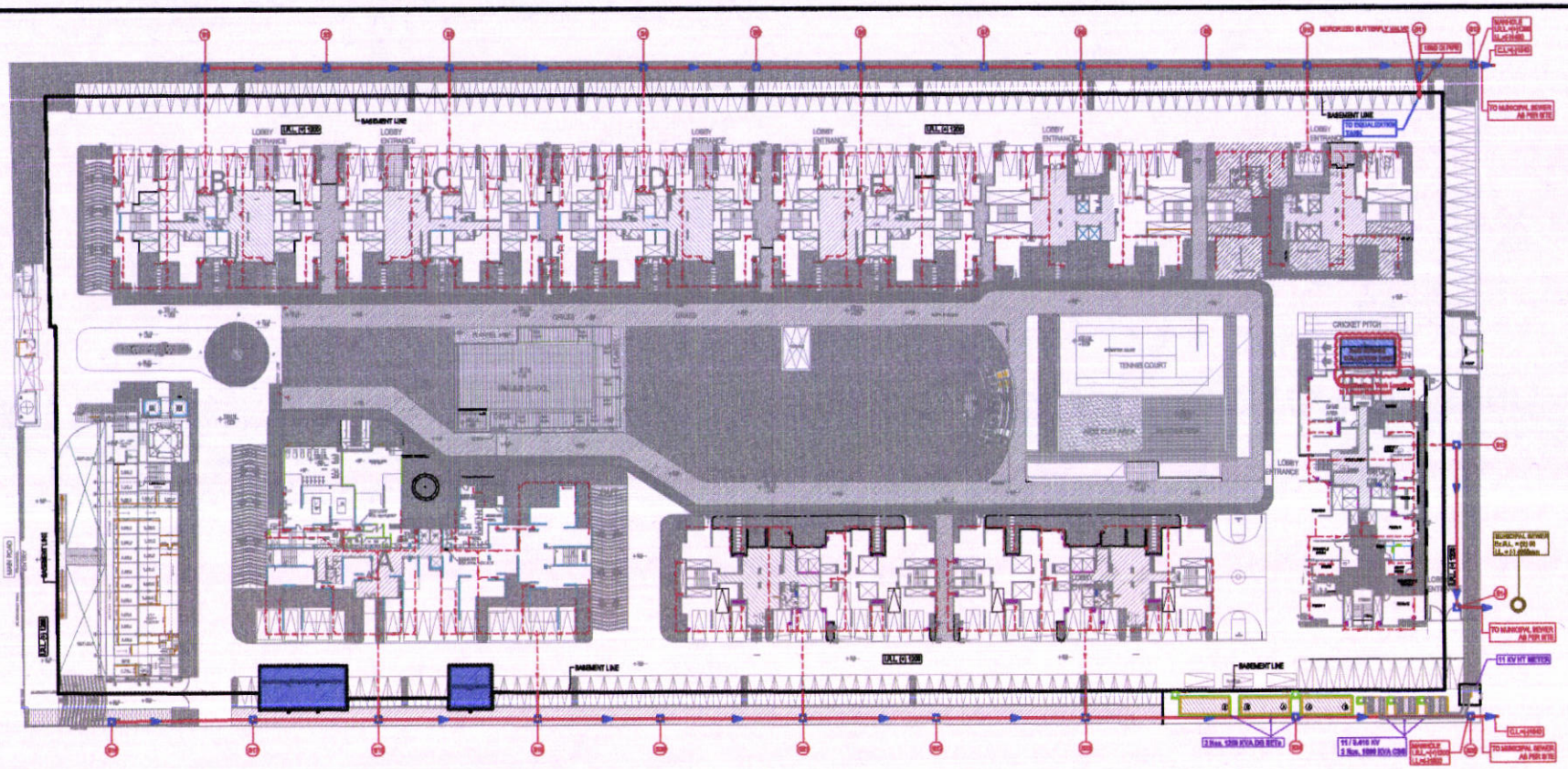
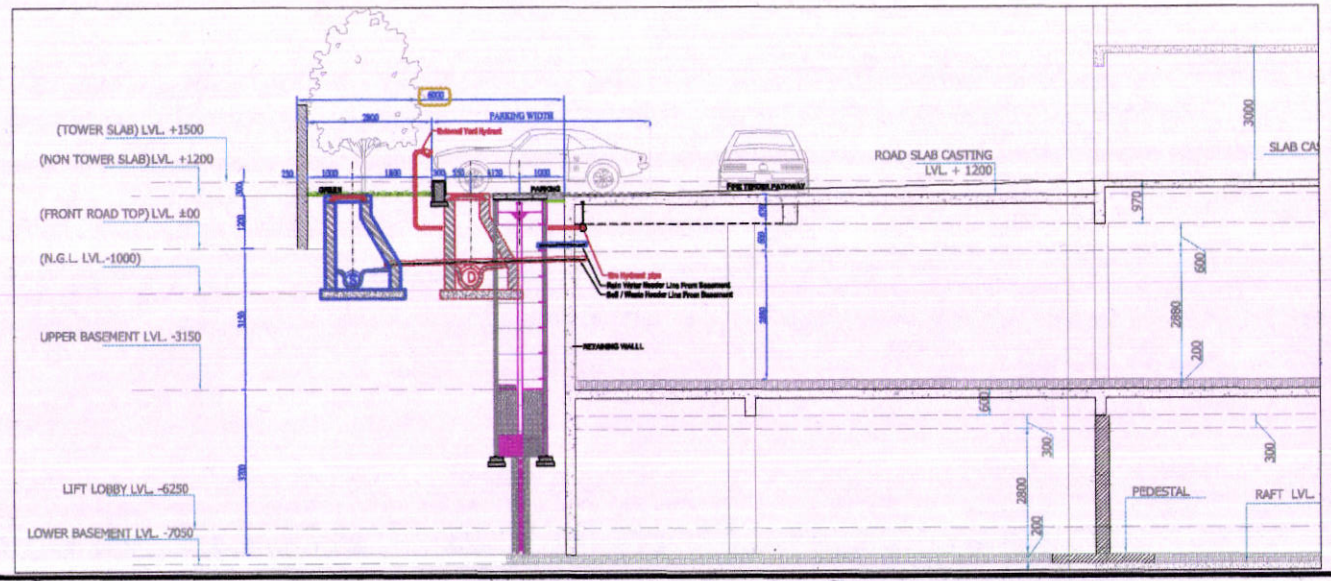
Annexure - 15

3/6





DETAILS OF SEWER LINES										
Manhole No.		Length	Dia.	Slope	MH Top Level	Invert Level	Depth	MH Top Level	Invert Level	Depth
					Upper End			Lower End		
From	To	(m)	(mm)	1 in	(m)	(m)	(m)	(m)	(m)	(m)
S1	S2	22	250	200	1.20	-0.66	1.86	1.20	-0.76	1.96
S2	S3	22	250	200	1.20	-0.76	1.96	1.20	-0.86	2.06
S3	S4	36	250	300	1.20	-0.89	2.09	1.20	-0.97	2.17
S4	S5	36	250	300	1.20	-0.97	2.17	1.20	-1.04	2.24
S5	S6	36	250	300	1.20	-1.04	2.24	1.20	-1.11	2.31
S6	S7	24	250	300	1.20	-1.11	2.31	1.20	-1.19	2.39
S7	S8	18	250	300	1.20	-1.19	2.39	1.20	-1.25	2.45
S8	S9	18	250	300	1.20	-1.25	2.45	1.20	-1.33	2.53
S9	S10	20	250	300	1.20	-1.33	2.53	1.20	-1.39	2.59
S10	S11	20	250	300	1.20	-1.39	2.59	1.20	-1.46	2.66
S11	S12	6	250	300	1.20	-1.46	2.66	1.20	-1.49	2.69
S12	S13	6	250	300	1.20	-1.49	2.69	1.20	-1.54	2.74
S13	S14	30	250	250	1.20	-0.66	1.86	1.20	-0.77	1.97
S14	S15	10	250	250	1.20	-0.77	1.97	1.20	-0.81	2.01
S16	S17	26	250	200	1.20	-0.66	1.86	1.20	-0.76	1.96
S17	S18	24	250	200	1.20	-0.76	1.96	1.20	-0.86	2.06
S18	S19	30	250	250	1.20	-0.88	2.08	1.20	-1.00	2.20
S19	S20	24	250	250	1.20	-1.00	2.20	1.20	-1.09	2.29
S20	S21	26	250	250	1.20	-1.09	2.29	1.20	-1.20	2.40
S21	S22	24	250	300	1.20	-1.20	2.40	1.20	-1.25	2.45
S22	S23	28	250	300	1.20	-1.25	2.45	1.20	-1.37	2.57
S23	S24	36	250	300	1.20	-1.37	2.57	1.20	-1.49	2.69
S24	S25	34	250	300	1.20	-1.49	2.69	1.20	-1.60	2.80
S25	S27	10	250	300	1.20	-1.60	2.80	1.20	-1.64	2.84

LEGEND :

S. No.	SYMBOL	DESCRIPTION
1.	M.H.	MANHOLE
2.		SEWER LINE
3.		BASEMENT RETAINING WALL
4.	I.R.L. +100	INTERNAL ROAD LEVEL
5.	F.L.	FORMATION LEVEL
6.	I.L.	INVERT LEVEL
7.	C.L.	CONNECTION LEVEL

NOTES : SEWERAGE SYSTEM

1. THE SIZE OF MANHOLE SHALL BE AS UNDER(INNER SIZES)
   a) Upto 900 mm.depth — 600 x 600 mm.
   b) 900 to 1650 mm.depth — 900 m.m.dia.
   c) 1650 to 2250 mm. depth — 1200 m.m.dia.
   d) Above 2250 mm. depth — 1500 m.m.dia.
2. the levels of sewer line has been worked out on the basis of carbon ground level and for carbon pipe lengths between two manholes, the invert levels have to be strictly followed. however, the slope of line may be slightly changed.
3. For any discrepancy / omission the matter should refer to the consultants before execution.
4. Manhole shall be provided at following places :-
   a) At the start of each sewer line.
   b) At every junction and position where there is change of size, gradient and alignment.
   d) At not more than 45 meter interval in straight length.
5. Where the diameter of pipe is increased the crown of the pipe shall be fixed at the same level and necessary steps shall be given in the invert of the manhole chamber.
6. The structural design of manholes/pipe bedding heads to be done for breathed conditions with sufficient up and /side cushion and /high side and conditions.
7. This drawing shall be read along with the details/landscape plan & ground floor plan of respective building for exact location of appurtenances /inlet & outlets.
8. Sewer line under the road shall be encased with 150 thick, min 1:2:4 cement
9. Manhole cover should be finished with finished formation level as per landscape drawing. the cover of manhole shall be square cover as mentioned in drawing. Should be co-ordinated with landscape drawing.
10. This drawing shall be coordinated with other drawing i.e. architecture, structural, electrical, landscape & other relevant drawing.
11. Material of pipe :- RCC(NP3) Pipe with rubber ring joint
12. In the areas subject to subsidence or filled up soil due to some excavation etc. for construction of basement, the sewer lines & manhole shall be taken outside support or concrete cradle supported on piles or suitable foundation as per structural design.
13. In case where sewers are laid in high subsoil condition manhole should be constructed in situ, grade m-25.
14. The width of trench for sewer and drainage should be 0.400mm. (in o.d. of pipe)
15. Shoring /Nittering should be adequate to prevent caving in of the trench walls & subsidence of areas adjacent to the trench. an engineer-in-charge in consultation with a structural engineer should provide adequate arrangements prevent caving in.

Note: We have considered 3 sewer connection as discussed.

rev. no.	date	revision
R-02	20.05.2017	REVISED AS PER NEW ARCH. DRAWING
R-01	21.10.2016	REVISED MANHOLE LEVEL

project
PROPOSED GROUP HOUSING PROJECT 'GAUR ATULYAM' AT PLOT NO GH - 1A, SECTOR - OMICRON -1 GREATER NOIDA, UP.

title
LAYOUT PLAN

subtitle
EXTERNAL SEWERAGE SYSTEM

drawing released for
- ☐ APPROVAL
- ☐ SUBMISSION
- ☐ ADVANCE COPY
- ■ CONSTRUCTION

drg. no. CES / GA / SP / PL -01
drawn by S.Bhandari
scale A1@1:400
designed by Shakir Shabbir
date 20.09.2016
checked by Anand Hawale

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ABLAY KHAND-II, INDIRAPURAM, GZB.

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