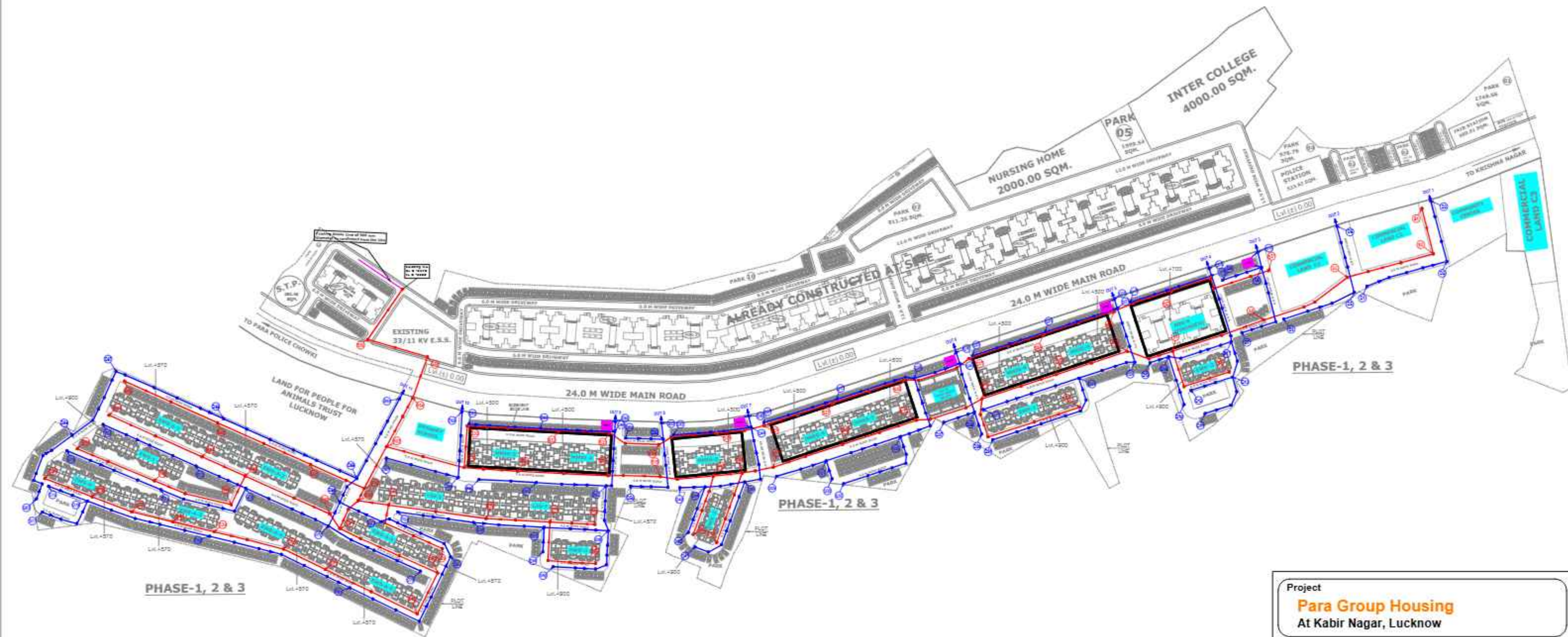




Project
Para Group Housing
At Kabir Nagar, Lucknow

Title
External Coordination Plan

Subtitle
Sewer & Drainage Layout

Drawing released for
☐ APPROVAL ☐ SUBMISSION
☐ ADVANCE COPY ☒ CONSTRUCTION

Drg. No. **PARA / EXT / PL - 04** Drawn by **Mahesh**

Scale **1:1.6** Designed by **Devesh Agarwal**

Date **JAN 2024** Checked by **Devesh Agarwal**

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R3	08.05.2024	REVISED A S PER UPDATED LEVEL S
R2	24.04.2024	REVISED A S PER EXTENDED BASEMENT
R1	14.04.2024	ADDED REFERENCE LEVEL S
R0	30.03.2024	ISSUED A S GFC
Rev. No.	Date	Revision

S. No.	SYMBOL	DESCRIPTION
1.		SEWER LINE
2.		DRAINAGE LINE
3.		SEWER MANHOLE
4.		DRAINAGE CATCHPIT
5.		EXISTING SEWER MANHOLE
6.		EXISTING SEWER LINE OF 900 mm DIAMETER
7.		RAIN WATER HARVESTING PIT

NOTES : DRAINAGE SYSTEM

- THE SIZE OF CATCHPIT SHALL BE AS UNDER (INNER SIZES)
 - Upto 600 m.m. depth 600 x 900 m.m.
 - 900 to 1800 m.m. depth 900 m.m. dia.
 - Above 1800 m.m. depth 1200 m.m. dia.
- The levels of drainage lines has been worked out on the basis of certain ground level and for certain pipe lengths between two catchpits, the invert levels has to be strictly followed, however, the slope of line may be slightly changed.
- For any discrepancy / omission the matter should refer to the consultants before execution.
- Catchpit shall be provided at following places :-
 - At the start of each drain line.
 - At every junction where there is change of size, gradient and alignment.
 - At not more than 15 meter interval in straight length.
- The structural design of catchpit / pipe bedding has to be done for local field conditions such as filled up soil / black cotton soil / high sub soil conditions.
- This drawing shall be read along with the detailed landscape plan & ground floor plan of respective building for exact location of appurtenances / catchpit etc.
- Drainage line under the road shall be ensased with 160 thick, pos 1:2.4 allround.
- Catchpit cover should be finished with finished formation level as per landscape drawing, the cover of catch pit shall be square as per appurtenances drawing & should be co-ordinated with landscape drawing.
- This drawing shall be coordinated with other drawing i.e. architecture, structural, electrical, landscape & other relevant drawing.
- Material of pipe :- PE PIPE (SH-4) IS 10026 (PART - 2) DVC TYPE
- In the areas subject to subsidence or filled up soil (due to excess excavation at site for construction of basement) the drain lines & catchpit should be laid on suitable support or concrete cradle supported on piles or suitable foundation as per structural design.
- In case where drain are laid in high subsoil conditions catchpits should be constructed in r.c.c. grade m-25.
- The width of trench for sewer and drainage should be 4-400mm. (d= o.d. of pipe).
- Shoring / timbering should be adequate to prevent caving-in of the trench walls of subsidence of areas adjacent to the trench, an engineer-in-charge in consultation with a structural engineer should provide adequate arrangement to prevent caving-in.
- While taking up the execution, the feasibility of connection of drain with the outside drainage may please be checked, any discrepancy may be reported to the consultant.

NOTES : SEWERAGE SYSTEM

- THE SIZE OF MANHOLE SHALL BE AS UNDER (INNER SIZES)
 - Upto 600 m.m. depth 600 x 900 m.m.
 - 900 to 1800 m.m. depth 900 m.m. dia.
 - 1800 to 2400 m.m. depth 1200 m.m. dia.
 - Above 2400 m.m. depth 1600 m.m. dia.
- The levels of sewer lines has been worked out on the basis of certain ground level and for certain pipe lengths between two manholes, the invert levels has to be strictly followed, however, the slope of line may be slightly changed.
- For any discrepancy / omission the matter should refer to the consultants before execution.
- Manhole shall be provided at following places :-
 - At the start of each sewer line.
 - At every junction and position where there is change of size, gradient and alignment.
 - At not more than 45 meter interval in straight length.
- Where the diameter of pipe is increased the crown of the pipe shall be fixed at the same level and necessary slope shall be given in the invert of the manhole.
- The structural design of manholes / pipe bedding has to be done for local field conditions such as filled up soil / black cotton soil / high sub soil conditions.
- This drawing shall be read along with the detailed landscape plan & ground floor plan of respective building for exact location of appurtenances / man holes etc.
- Sewer line under the road shall be ensased with 160 thick, pos 1:2.4 allround.
- Manhole cover should be finished with finished formation level as per landscape drawing, the cover of manhole shall be square as per appurtenances drawing & should be co-ordinated with landscape drawing.
- This drawing shall be coordinated with other drawing i.e. architecture, structural, electrical, landscape & other relevant drawing.
- Material of pipe :- PE PIPE (SH-4) IS 10026 (PART - 2) DVC TYPE
- In the areas subject to subsidence or filled up soil (due to excess excavation at site for construction of basement) the sewer lines & manhole should be laid on suitable support or concrete cradle supported on piles or suitable foundation as per structural design.
- In case where sewers are laid in high subsoil conditions manholes should be constructed in r.c.c. grade m-25.
- The width of trench for sewer and drainage should be 4-400mm. (d= o.d. of pipe).
- Shoring / timbering should be adequate to prevent caving-in of the trench walls of subsidence of areas adjacent to the trench, an engineer-in-charge in consultation with a structural engineer should provide adequate arrangement to prevent caving-in.