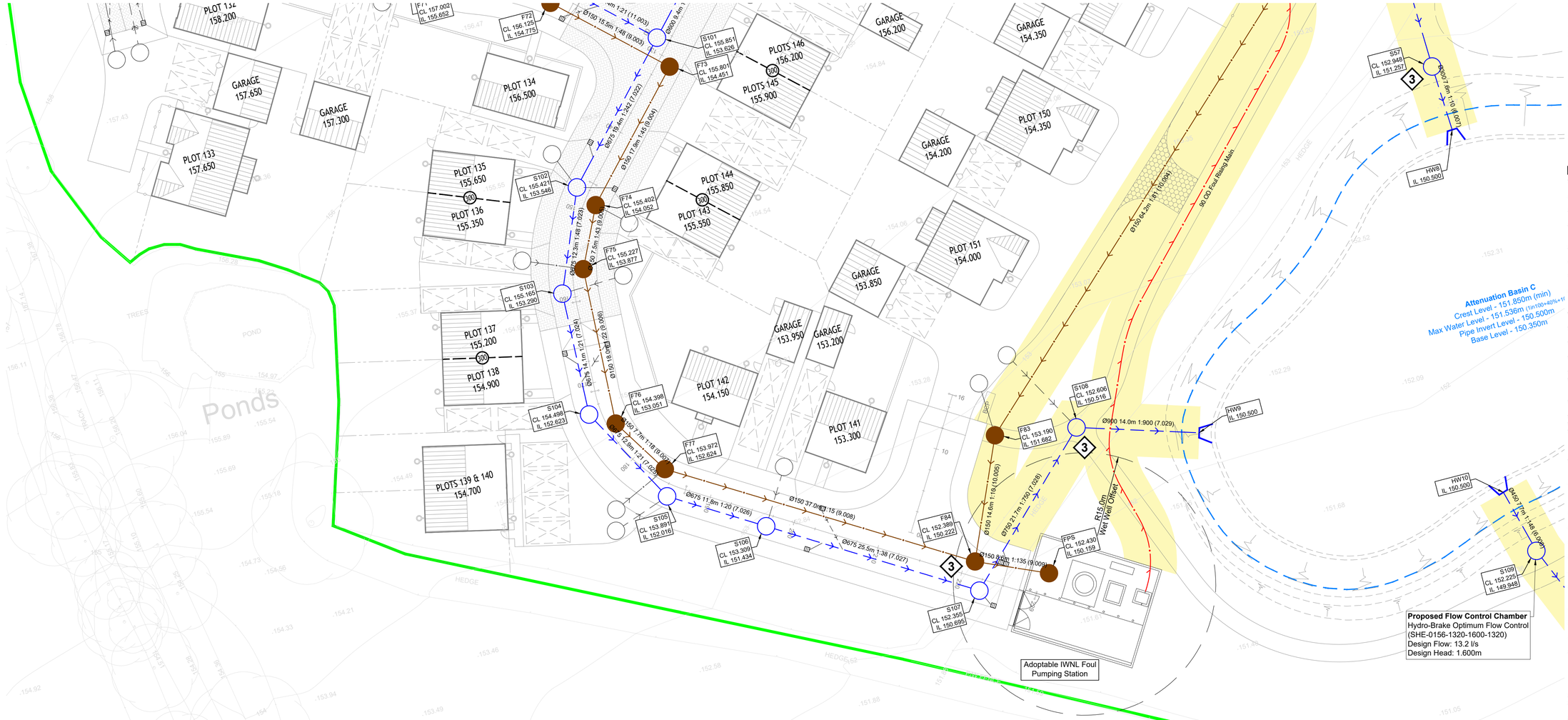

General Notes

1. DO NOT SCALE.
2. This drawing is to be read in conjunction with all other relevant drawings and details.
3. Should there be any conflict between the details indicated on this drawing and those on other drawings the Engineer should be informed PRIOR to construction on site.
4. Until technical approval has been obtained from the relevant Authority, it should be understood that all drawings issued are Preliminary and NOT for construction. Should the Contractor commence site work prior to such approval being given it is entirely at their own risk.
5. Sketch proposals are for illustrative purposes only and as such are subject to detailed site investigation including ground conditions / contaminants, drainage, design and planning / density negotiations.
6. All dimensions are in millimetres unless otherwise stated.
7. The Farrow Walsh Consulting Designers Risk Assessments for this project must be reviewed PRIOR to the commencement of any works on site.

NOTES

1. This drawing to be read in conjunction with all other relevant Engineers and Architect's details.
2. All work is to be carried out in accordance with the current British Standards, codes of practice, building regulations and Sewer Sector Guidance.
3. All drainage offered for adoption has been designed to not attenuate flows in excess of the 1:30 year return storm event.
4. The exact position, level, size and use of existing sewers to be confirmed on site by the Contractor. Any discrepancies to be reported to the Engineer prior to commencement of works.
5. All uncovered and shallow pipework to be protected against construction traffic as part of the Contractor's temporary works requirements.
6. Exact location line and level of existing stubs to existing manholes in the road to be confirmed on site prior to construction.
7. All connections to road gullies and channels shall be 150mm nominal bore pipework. No pipe work to be downsized in the direction of flow.
8. Connections to foul terminal fittings to be 100mm nominal bore pipework subject to confirmation of above ground pipe diameters and/or design flow. No pipe work to be downsized in the direction of flow.
9. All pipework to be U-PVC type in accordance with WIS 4-35-01 unless otherwise noted.
10. All pipes connecting to adopted manholes up to and including 300mm dia. to be HAPAS Certified Plastic.
11. All pipes connecting to adopted manholes greater than 300mm dia. to be Concrete or Polypipe Ridgisewer.
12. Pipes of different diameters entering manholes should be installed with soffits at the same level.
13. Pre-formed channels to be used at all manholes.
14. High strength concrete benching to be steel trowelled to a dense smooth face neatly shaped and finished to all branch connections and laid in accordance with the specification.
15. Precast concrete manhole rings will not be cut under any circumstances. Other options, manhole built up with concrete or brick work to the top of the pipe.
16. All catchpits shall not be adopted.
17. Pipe bends to be provided to suit direction of flow.
18. All manhole covers to comply with Clause E2.32, 600mm x 600mm clear opening in accordance with the new Design and Construction Guidance v2. Class D400 kite marked covers and frames to be ductile iron heavy duty double triangular type, embossed 'FW' or 'SW' as appropriate, where applicable.
19. All new drainage to be constructed adjacent new and proposed tree planting to be protected against root activity. Sewers To be protected against tree root intrusion in accordance with Sewer Sector Guidance, section B7.6
20. First flexible joint in pipes adjacent to a manhole shall be 600mm max. From inside face of manhole, connecting to rocker pipe. For pipe diameters 150mm - 450mm the rocker pipe length shall be 500mm - 750mm and for pipe diameters 451mm - 675mm the rocker pipe length shall be 750mm - 1000mm.
21. Manholes with outgoing pipes greater than 600mm dia. shall be fitted with guard bars, safety chains or other approved safety devices.
22. Sewer easements at any change in width, these should be 1.2m each side from the pipe OD.
23. Protective concrete cover slabs to be used on pipes in non-traffic area which doesn't achieve 0.9m/900mm cover level and 1.2/1200mm cover in traffic area.
24. All concrete pipework with cover less than 1.2m shall be to Class 120 and have concrete slab protection.
25. Where pipe crossing, membrane to be used for protection to eliminate any changes of cross contamination.
26. The outside of the sewer should be in vehicle carriageway (not footpath) and be at least 1.0m away from the kerb line. The outside of manholes should be at least 0.5m away from the kerb line.
27. All soft spots encountered in the trench formation to be removed and replaced with graded granular material unless instructed otherwise.
28. Where the formation of a pipe trench is above original ground level, levels are to be made up with compacted DTP Type 2 material or better.
29. All buried concrete must cater for Class 2 sulphates conditions in accordance with Table 1 of BRE Digest 363.
30. Concrete protection shall be provided to all pipes with less than 300mm cover in pedestrian areas, to all pipes with less than 600mm cover in private driveways not used by commercial vehicles, and to all pipes with less than 1200mm cover in roads or private driveways used by commercial vehicles. Where concrete surround is specified flexibility of joints is to be maintained by using compressible bitumen impregnated fibreboard at each point.
31. All materials used are suitable for the ground conditions.
32. The design of any temporary works required shall be the responsibility of the Contractor.
33. Any discrepancies are to be recorded and reported to the Engineers immediately.
34. All work is to be to the satisfaction of the Engineer and Adopting Water Authority.
35. The Contractor is responsible for and must take all necessary precautions to ensure the stability of the works at all times during construction.
36. All services are to be located and protected as necessary by the Contractor prior to the commencement of the works.
37. No backdrops to be used, steeper gradients are preferred to the use of backdrops.
38. In situation where traffic loading is anticipated to be heavier than would occur on a typical road estate distributor road (i.e. braking or turning near a junction) a higher specification cover (E600) should be used.

This drawing is to be read in conjunction with:
FW2127-P2-C-071 S104 AG3 Long Sections and Manhole Schedules
FW2127-P2-C-072 S104 AG3 Adoptable Drainage Construction Details

Sewer Notes

1. Infill covers and frames in block paved areas are not to be used
2. Catchpits shall not be adopted.
3. Easements at any change in width should be 1.2m to each side from pipe OD.
4. Where pipe crossing, plastic membrane to be used for protection to eliminate any chances of cross contamination.
5. No back drops to be used, steeper gradients are preferred to the use of back drops.
6. Precast concrete manhole rings will not be cut under any circumstances. Other options are preferred, manhole built up with concrete or brickwork to the top of the pipe.
7. Protective concrete cover slabs to be used on pipes in non traffic area which doesn't achieve 0.9m/900mm cover level and 1.2m/1200mm cover in traffic area.
8. The outside of the sewer should be in vehicle carriageway (not footpath) and be at least 1m from the kerb line. The outside manholes should be at least 0.5m from the kerb line.
9. All proposed manhole covers & frames at a minimum 675mmx675mm to maintain clear opening and comply with IWNL current Health & Safety Standards.
10. The materials to be used are suitable for the ground conditions.
11. Temporary screen to be fitted during construction works to avoid debris going into the existing network.
12. Cover and frames should be kitemarked.

1 Proposed Section 106 Connection (Foul)
Discharge into Existing Sewers subject to S106 approval by Severn Trent Water (to be submitted by Contractor).

2 Existing Sewer Connection
Invert levels and location of the existing sewer to be confirmed to Engineer by Contractor prior to commencement of any site works.

3 Mesh Screening
Mesh screen to be placed over the outlet pipe of chambers during site construction works and removed immediately prior to the first occupancy of the dwellings served by the sewers.

LEGEND

- Development Boundary
- S104 Foul Sewer
- S104 Storm Water Sewer
- S104 Foul Rising Main
- Foul Lateral chamber adopted under S104 per IWNL instruction
- S38 Storm Water Sewer / Lateral Chambers / Private Drainage
- Sewer Easement - 3m

SAFETY, HEALTH AND ENVIRONMENTAL HAZARD INFORMATION BOX

THE HAZARDS NOTED BELOW ARE IN ADDITION TO THE NORMAL HAZARDS AND RISKS FACED BY A COMPETENT CONTRACTOR WHEN DEALING WITH THE TYPES OF WORKS DETAILED ON THIS DRAWING.

CONSTRUCTION RISKS
EXISTING LIVE DRAINAGE
EXISTING WATERCOURSE

MAINTENANCE / CLEANING RISKS
NONE RELEVANT TO THIS DRAWING.

DEMOLITION RISKS
NONE RELEVANT TO THIS DRAWING.

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Rev	Description of updates	Drawn	Check'd	App'd	Date
A1	S104 separated into agreement package.	EC	JD	DM	27.02.23

Revision Schedule

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FOR APPROVAL

Client:
Jelson Ltd

Project:
Lower Grange Farm,
Markfield

Title:
Section 104 Agreement 3
Layout Sheet 6 of 6

Drawn:	Checked:	Approved:	Date:	Scale:
EC	JD	DM	February 2023	1:250 @ A1

Drawing No.
FW2127-P2-C-070-6

Revision:
A1