1. PLEASE NOTE THIS IS AN ALL ENCOMPASSING SERIES OF DRAINAGE NOTES. IF THE INFORMATION DETAILED IN THE NOTE IS NOT ON THE DRAWING THE NOTE SHOULD BE IGNORED AS IT IS NOT APPLICABLE.

2. For Proposed Drainage Layout refer to the following FAIRHURST drawing 149100/2021/D.

3. For Construction Details refer to the following FAIRHURST drawings 149100/2024/C, 2025/C, 2026/C, 2027/C.

4. All adoptable drainage works shall be carried out in accordance with The Code Approved Version 2.2, 29th June 2022.

5. All private drainage to be carried out in accordance with Building Regulation requirements.

6. The position, line and diameter of all existing drainage apparatus should be confirmed on site prior to the commencement of the works. Any discrepancies should be reported to the Engineer in writing immediately.

7. The connection of proposed drainage to the existing public sewer system shall be subject to the approval of the local Water Authority .

8. The following pipe strengths shall be used unless stated otherwise.

   Clay pipes –
   Pipes up to and including 150mm diam to be 28kN/m min. crush strength to BSEN295 1 and BS 65 (surface water only).

   Pipes between 225mm diam and 300mm diam to be class 160 to BSEN295 1.

   Concrete pipes –
   Pipes above 300mm diam to be concrete pipe strength class 120 to BS EN 1916 and BS 5911–1.

   Thermoplastic pipes –
   PVC–U pipes to comply with BS EN 1401–1, BS EB 1852 and BS EN 12666–1.

   Thermoplastic Structured wall pipes –
   Pipes to comply with BS EN 13476–1, WIS 4–35–01 and BS EN 13476–2 or BS EN 13476–3.

9. Trenches to be backfilled with 'approved as dug' material compacted in layers not exceeding 150mm. Method to be determined on site by ground conditions and to the approval of the inspector. Material for Granular bedding & surround shall be single size and rounded.

10. All pipe runs to be laid with flexible joints.

    All pipes entering and exiting manholes are to be connected with pipe soffits level unless noted otherwise.

    Bedding and Surround to be as follows:

| Location | Cover to Soffit | Bedding |
|---|---|---|
| Road | >1.2m | Class S Granular Bed & Surround |
| | <1.2m | Class A Concrete Surround |
| Non–Adoptable Sewers below Car Parking | >0.9m | Class S Granular Bed & Surround |
| | <0.9m | Class A Concrete Surround |
| Hard & Soft Landscaping | >0.6m | Class S Granular Bed & Surround |
| | <0.6m | Class A Concrete Surround |

11. The following concrete mixes are to be used all in accordance with BS5328):–

| Location | Mix Reference |
|---|---|
| Concrete surround to pipes | GEN3 |
| Concrete base & surround to manholes | GEN3 |

12. All insitu concrete to be sulphate resisting (Cement to BS EN197).

    All precast concrete products (ie pipes, manholes, etc) are to be sulphate resisting (Cement to BS EN197).

13. Granolithic concrete benching to be steel trowelled to a dense smooth face neatly shaped and finished to all branch connections (min thk. 20mm).

    Pre–formed channels are to be used in all manholes with 300mm dia pipes or less.

    Pre–cast concrete seating rings shall NOT be used on Adoptable Manholes.

14. All connections to be turned in direction of flow using pipe bends.

15. Manhole covers & frames to be ductile iron to BS EN124 Class D400 minimum.

16. The Principal Contractor shall be responsible for checking the existing line and invert levels of any connection points for both the foul and surface water systems, prior to undertaking installation of any new drainage works. Any deviation to the levels and positions indicated on the drawing should be brought to the attention of the Engineer.

17. Road gully connections to be 150mm diameter laid at a minimum gradient of 1:150 unless noted otherwise.

18. All polypropylene inspection chambers shall be in accordance with BS7158.

19. All drains to be tested prior to backfilling, after backfilling and upon completion of hard landscaping, in addition all drains to be inspected by CCTV methods prior to hard landscaping.

20. Surface water Linear Drainage Channels are to be as indicated or similar approved. All gratings to be ductile iron to BS EN 124, Class D400 minimum. Gratings within car parks to be "Heelsure" type or similar. Gratings within service yards to be "Intercept" type or similar.

21. All kerbdrains to be ACO as shown or similar approved.

22. All foul sewer pipes to be 100mm diameter minimum gradient 1:40 unless noted otherwise.

23. All surface water sewer pipes to be 100mm diameter minimum 1:100 unless noted otherwise.

24. For setting out of all internal drainage & rainwater pipes refer to Architects drawings. Details of all internal drainage & rainwater pipes to be by others.

25. Contractor to check that existing survey information shown is correct before proceeding with works and inform Engineer if any discrepancies noted.

26. Pipes with less than 1.2m cover to be laid with a concrete surround, as per Fairhurst drainage details.

27. Abandonment of existing drainage:
    – Linear channels and pipes with less than 1m below finished ground level: Excavate entire length and backfill with selected fill under landscape areas and with Type 1 subbase under hardstandings and buildings.
    – pipes greater than 1m below finished ground levels: Grout sewers by sealing lowest point and commencing grouting from the lowest point continue progressively up the pipe so as to fill all voids. Grouts to be Class G3 or G4 in accordance with Civil Engineering Specification for the Water Industry.
    – Manholes and gullies: Break down to 1.5m below finished ground level. Backfill and compact any remaining void with selected fill in landscape areas and Type 1 subbase under hardstandings and buildings.

28. Separators to be as noted on the drainage drawing or similar approved. Ventilation in accordance with manufacturer and Local Authority requirements. Separators to be alarmed.

29. Where necessary internal stacks to be fitted with large access fittings in accordance with BS EN 12056.

30. All connections to and abandonment of adopted sewers to be by approved Water Authority Contractors.

31. All foul stacks from food prep. areas to be fitted with grease traps. Details to be confirmed by others.

32. The drainage design shown on the drainage drawing assumes all parts of the drainage system will be regularly maintained to ensure the long term efficiency of the system.

33. All internal manhole/PPIC covers to be double/triple sealed to Architects requirements.

Do not scale from this drawing.

SAFETY HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARD/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING RISKS AND INFORMATION.

RISKS LISTED HERE ARE NOT EXHAUSTIVE. REFER TO DESIGN ASSESSMENT FORM NO. DID/149100/01.

CONSTRUCTION
–DRAINAGE CONNECTIONS REQUIRED TO EXISTING LIVE SEWERS.
–EXISTING SERVICES.
–EXISTING SEWER.
–WORKS ADJACENT TO ROAD.

DEMOLITION
–BREAKING OUT EXISTING DRAINS & SEWERS.

FOR INFORMATION RELATING TO USE, CLEANING AND MAINTENANCE SEE THE HEALTH AND SAFETY FILE

IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT.

## NOTES

1. This drawing is based on the following received information:
   –JDDK TOPO/UTILITY SURVEY 2344100 REV A,
   –JDDK PROPOSED SITE PLAN 4252–JDK–XX–XX–DR–A–1001–C1,

2. This drawing is to be read in conjunction with the following FAIRHURST drawings:
   –149100/2021 – Grant Street Proposed Drainage Layout,
   –149100/2022 – Grant Street Proposed Spot Levels,
   –149100/2024 – Grant Street Drainage Construction Details Sheet 1,
   –149100/2025 – Grant Street Drainage Construction Details Sheet 2,
   –149100/2026 – Grant Street Drainage Construction Details Sheet 3,
   –149100/2027 – Grant Street Drainage Construction Details Sheet 4,
   –149100/2028 – Grant Street Manhole Schedule,
   –149100/2029 – Grant Street Proposed Surface Finishes,
   –149100/2030 – Grant Street External Works Construction Details Sheet 1,
   –149100/2031 – Grant Street Drainage Construction Details Sheet 5.

| Rev. | Date | Description | Drwn. | Chkd. | Appd. |
|---|---|---|---|---|---|
| E | 19/07/23 | ISSUED FOR CONSTRUCTION | FM | AS | JMM |
| D | 20/04/23 | ISSUED FOR TENDER | FM | HB | JMM |
| C | 16/02/23 | POINTS 2 & 3 UPDATED TO REFLECT DRAWING REVISIONS | CP | KS/HB | JMM |
| B | 18/01/23 | REF TO SURFACE FINISHES AND DETAILS DRAWINGS ADDED | CP | KS/HB | JMM |
| A | 25/11/22 | ISSUED FOR TENDER | CP | RH | JMM |

FAIRHURST
1 Arngrove Court
Barrack Road,
Newcastle–upon–Tyne
NE4 6DB
Tel: 0191 221 0505
Fax: 0844 381 4412

Client: South Tyneside Council

Project Title:
STC CHILDREN'S HOMES

Drawing Title:
GRANT STREET
PROPOSED DRAINAGE NOTES

| Scale at A2: | Status: | |
|---|---|---|
| NTS | Construction | |
| Drawn: | Checked: | Approved: |
| KHS | RH | DF |
| Date: | Date: | Date: |
| 15/09/22 | 15/09/22 | 15/09/22 |

Drawing No.: 149100/2023 Revision: E