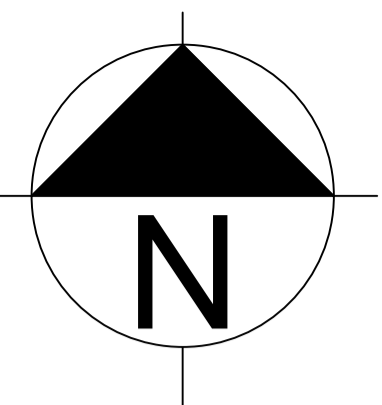


**Uisce Eireann - Wastewater Infrastructure Standard Details**

- STD-WW-01 Wastewater service connection maintenance responsibility
- STD-WW-02 Typical layout for sewer within new developments
- STD-WW-03 Drain & service connection pipework
- STD-WW-04 Typical sewer / service pipe connection
- STD-WW-05 Typical service layout indicating separation distances
- STD-WW-05A Wastewater service connection vertical separation distances
- STD-WW-06 Restrictions on wastewater infrastructure works adjacent to trees
- STD-WW-06A Restrictions on new trees/shrubs planting adjacent to sewers
- STD-WW-07 Trench backfill & bedding
- STD-WW-08 Concrete protection slab, bed, haunch & surround to wastewater pipes
- STD-WW-09 Blockwork manhole (<450mm dia)
- STD-WW-10 Pre-cast concrete manhole with cast in-situ base
- STD-WW-10A Pre-cast concrete manhole with pre-cast base
- STD-WW-10B Pre-cast concrete pumping station inlet manhole with cast in-situ concrete base
- STD-WW-10C Pre-cast concrete pumping station inlet manhole with precast concrete base
- STD-WW-11 In-situ concrete manhole
- STD-WW-11A Cast in-situ concrete pumping station inlet manhole
- STD-WW-12 Backdrop and cascade manholes 3
- STD-WW-13 Private side inspection chamber
- STD-WW-14 Thrust blocks for rising mains
- STD-WW-15 Scour valve chamber (foul rising main ≤200mm dia.)
- STD-WW-16 Sluice valve details for rising mains ductile iron (D.I.) pipe (≤200mm dia.) (sheet 1 of 2)
- STD-WW-17 Sluice valve details for rising mains polyethylene (P.E.) pipe (≤200mm dia.) (sheet 2 of 2)
- STD-WW-18 Air valve chamber (foul rising main ≤200mm dia.) 3
- STD-WW-19 Duct chamber
- STD-WW-20 Emergency overflow structure & emergency overflow to storm sewer
- STD-WW-21 Typical ditch/stream crossing for gravity sewer (sheet 1 of 2)
- STD-WW-22 Typical ditch/stream crossing for ductile iron rising main (sheet 2 of 2)
- STD-WW-22A Typical ditch/stream crossing for polyethylene rising main
- STD-WW-23 Typical bridge crossing for rising main (sheet 1 of 2)
- STD-WW-24 Typical bridge crossing for rising main (sheet 2 of 2)
- STD-WW-24A Typical culvert and services crossing details for rising main
- STD-WW-25 Security gate & fencing palisade option (preferred)
- STD-WW-25A Security gate & fencing wire mesh option
- STD-WW-26 Indicative pumping station site layout - access via lay-by
- STD-WW-26A Indicative pumping station site layout - direct access from public road
- STD-WW-27 Flow meter chamber (foul rising main ≤200mm dia.) cast in-situ concrete option
- STD-WW-27A Flow meter & valve chamber (foul rising main ≤200mm dia.) cast in-situ concrete option
- STD-WW-27B Flow meter & valve chamber (foul rising main ≤200mm dia.) pre-cast concrete option
- STD-WW-27C Flow meter & valve chamber (foul rising main ≤200mm dia.) pre-cast concrete option
- STD-WW-28 Cast in-situ Indicative submersible pumping station
- STD-WW-28A Indicative pre-cast concrete submersible pumping station with cast in-situ valve chamber
- STD-WW-28B Indicative pre-cast concrete submersible pumping station and pre-cast valve chamber
- STD-WW-29 Rising main discharge stand-off manhole 3
- STD-WW-30 Type 1 pumping station control kiosk
- STD-WW-30A Type 2 and type 3 pumping station control kiosk
- STD-WW-31 Pumping station wet kiosk
- STD-WW-32 Hardstanding area pumping station (permeable & impermeable)
- STD-WW-33 Lamp bollard & lamp standard
- STD-WW-34 Vent stack
- STD-WW-35 Rising main rodding chamber in-situ concrete option
- STD-WW-35A Rising main rodding chamber pre-cast concrete option
- STD-WW-36 Marker posts/plates
- STD-WW-37 Section showing wastewater services separation details in high density developments 2.5m wide footpaths with 6.0m wide carriageway
- STD-WW-38 Layout plan showing below ground services separation details in high density developments 2.5m wide footpaths with 6.0m wide carriageway
- STD-WW-39 Section showing wastewater services separation details in high density developments 1.8m wide footpaths, 2.5m wide parallel parking bays with 6.0m wide carriageway.
- STD-WW-40 Layout plan showing below ground services separation details in high density developments 1.8m wide footpaths, 2.5m wide parallel parking bays with 6.0m wide carriageway



**DRAINAGE LEGEND**

- Site Boundary
- Existing combined sewer Trunk Main
- Existing combined sewer
- Proposed Surface Water
- Proposed Foul
- Proposed Storm Inspection Chamber
- Proposed Foul Inspection Chamber
- Internal Floor Gully
- Landrain Proposed Channel Drain. (Lockable cover)

**Sustainable Drainage Systems Legend**  
Refer to Landscape Architects Layout

- PROPOSED RAIN GARDEN
- PROPOSED TREE PITS
- PROPOSED RAINWATER BUTTS
- FILTER DRAIN WITH 225mm DIA PERFORATED PIPE

Refer to drawing C-5001 for drainage details at Level 0

REV	DATE	DESCRIPTION	BY	APP
D	13.04.26	Layout aligned with Architect site plan	COS	DS
C	12.06.25	Layout aligned with Architect site plan	COS	DS
B	13.06.24	Layout updated and reissued	COS	DS
A	01.12.23	Issued for Draft Part 8 Planning Application	COS	DS

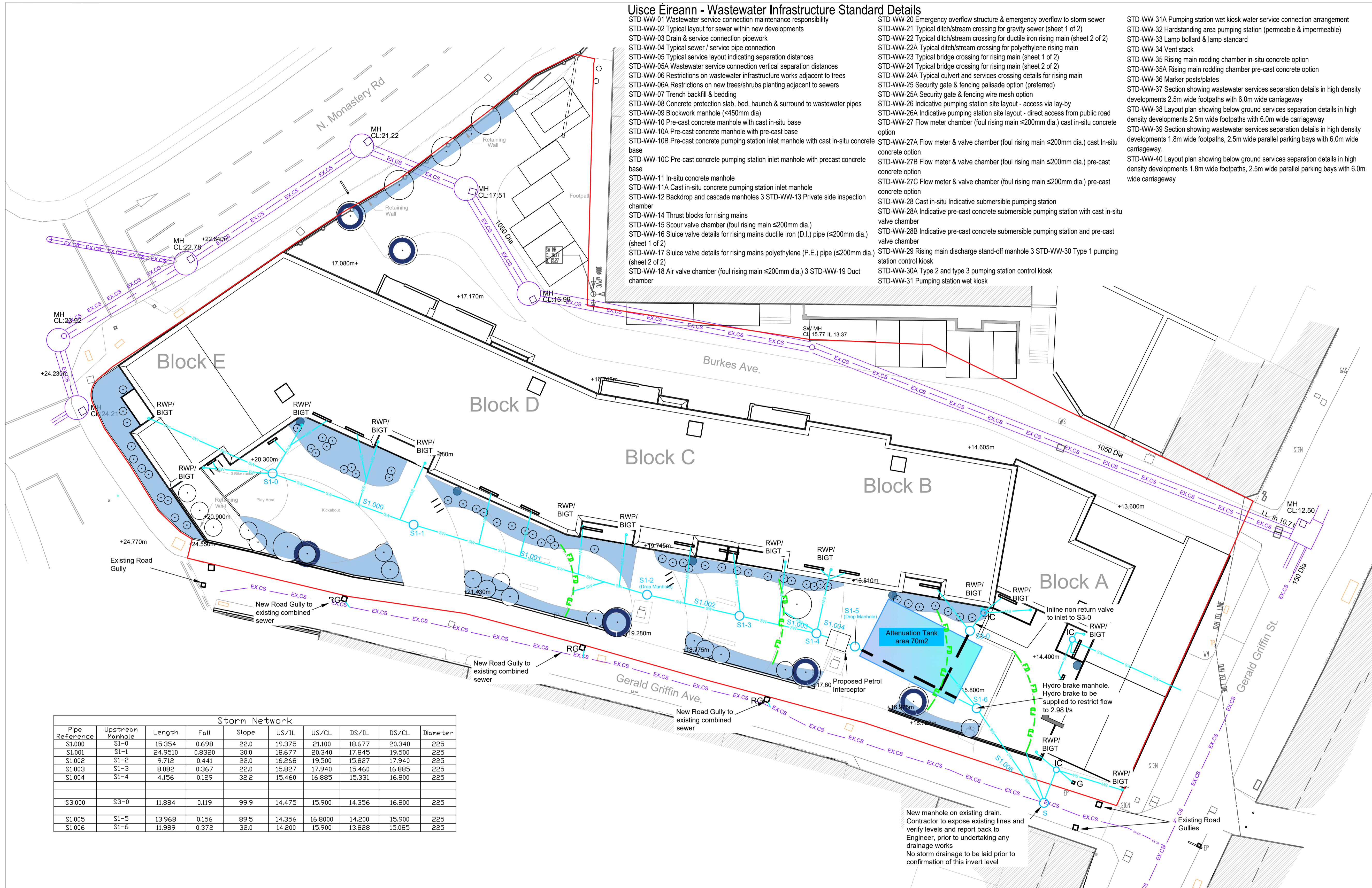
PROJECT: Gerald Griffin Street Housing Development

TITLE: Level 1 Proposed Drainage Layout

CLIENT: MMD Construction



DRAWN:	COS	CHECKED:	MS	APPROVED:	DS
PROJECT NUMBER:	24213	DATE:	27/11/2023	SCALE @ A1:	1:200
STATUS DESCRIPTION:	Statutory Submission Planning Permission			STATUS:	P3
DRAWING NUMBER:	GGS - MWP - ZZ - DR - C - 5002			REV:	D



**Storm Network**

Pipe Reference	Upstream Manhole	Length	Fall	Slope	US/IL	US/CL	DS/IL	DS/CL	Diameter
S1.000	S1-0	15.354	0.698	22.0	19.375	21.100	18.677	20.340	225
S1.001	S1-1	24.9510	0.8320	30.0	18.677	20.340	17.845	19.500	225
S1.002	S1-2	9.712	0.441	22.0	16.268	19.500	15.827	17.940	225
S1.003	S1-3	8.082	0.367	22.0	15.460	15.827	17.940	16.885	225
S1.004	S1-4	4.156	0.129	32.2	15.460	16.885	15.331	16.800	225
S3.000	S3-0	11.884	0.119	99.9	14.475	15.900	14.356	16.800	225
S1.005	S1-5	13.968	0.156	89.5	14.356	16.800	14.200	15.900	225
S1.006	S1-6	11.989	0.372	32.0	14.200	15.900	13.828	15.085	225

**DRAINAGE NOTES**

1. Contractor shall be responsible for setting out all drainage, infrastructure to ensure no clashes occur with service, ducts, chambers etc.
2. Care should be taken by the contractor when handling pipes, particularly when unloading and stacking, so as to avoid damaging them.
3. All pipe seals and gaskets should be stored indoors away from direct sunlight.
4. All sewers to be thermoplastic structured wall sewer pipe and shall comply with the relevant provisions of wis 4-35-01. (i.e.polysewer by polypipe civils or equivalent approved)
5. Excavation should not be carried out too far in advance of pipe installation. All relevant health & safety requirements in respect of excavation should be observed by the contractor during excavation works.
6. Minimum cover to pipes;
  - A) 1200mm roadways
  - B) 900mm open spaces & footpaths not adjacent to roads
  - C) 600mm gardens
7. The contractor should plan his work for chambers and manholes so as to minimise as much as possible working required in confined spaces.
8. Joint lubricants for sliding joints shall have no deleterious effect on either the joint rings or pipes and shall be unaffected by sewage.
9. All abandoned sewer pipes to be filled with c12/15 concrete. Abandoned manholes to be broken out if possible. Otherwise they should be filled with c12/15 concrete.
10. The contractor is responsible for contacting the relevant service providers in advance of any planned excavation works to verify the location, depth and nature of any underground services.
11. Rocker pipes;
  - A) rocker pipes should be provided at all locations where;
    - I. A pipe enters or leaves a manhole, pumping station or other rigid structure.
    - II. A pipe enters or leaves a concrete encasement.
    - III. Any location as directed by the engineer.
  - B) rocker pipe joint to be located no more than 150mm from the outside face of the structure to which the pipework is serving. The effective length of the rocker pipe should be;
    - I. Pipe diameter 150mm to 600mm: 0.60m
    - II. Pipe diameter 600mm to 750mm: 1.00m
    - III. Pipe diameter greater than 750mm: 1.25m
  - C) all rocker pipes are to be formed by cutting and trimming a length of spigot & socket pipe to form a spigot at the Cut end, thereby forming spigot & socket joints at both ends of the rocker pipe.
12. Pipework and benching to a single manhole chamber should be completed and the engineer invited to inspect same before all remaining chambers are completed.
13. Only proprietary connection pieces to be used for making connections to sewers.
14. When installing flexible pipes (single/twin walled pvc or similar) particular care should be taken by the contractor to ensure the pipes are well bedded and surrounded in good quality granular material in accordance with the specification.
15. The contractor must take great care when compacting material over drainage pipes so as not to dislodge them from their correct line and level.
16. Type E bedding to be used where minimum cover or greater is provided to flexible pipes.
17. For pipes in roadways where cover is less than 1200mm but greater than 800mm, type G bedding to be used.
18. For pipes in roadways where cover is less than 800mm type X bedding to be used.
19. For pipes in open spaces, footpaths not adjacent to roads and gardens where minimum cover or greater is not achieved, type G bedding to be used.
20. All manholes to be constructed with precast concrete rings including joint seals, in accordance with relevant engineers details drawing and manufacturers instructions.
21. Proprietary connections to be used throughout.
22. All joints to be watertight to cl 504 sub clause 3 of the TII specification for roadworks.
23. Manholes within paving to be D400 and recessed to receive paviers where required to match adjacent finish.
24. Manholes in tarmac/adam/grass areas to be non rock D400 lockable manholes.
25. Trenches in existing surfaces to be saw cut.
26. If constructing manhole chambers using precast concrete rings, the contractor should ensure that the joints in the precast concrete rings are staggered with the joints in the concrete surround to reduce the possibility of ground water ingress.
27. Where a connection is required to an existing public sewer system, the contractor must make a formal application to the local authority and Uisce Eireann to do so.
28. A detailed method statement must be submitted to the local authority for approval at least four weeks in advance of the planned construction works.
29. Where new drainage infrastructure is to cross an existing road, the contractor is required to:
  - A) contact the relevant authorities well in advance of the planned works.
  - B) make an application and pay for a road opening licence if applicable.
  - C) make good the existing road to the satisfaction of the engineer & the relevant authorities on completion of the works.
30. The contractor is advised to complete air testing on a daily basis during the course of the works to ensure isolation of any failed tests.
31. The complete drainage works should be protected, where necessary, from loads imposed by construction plant during construction.
32. On completion of the works, the contractor must ensure all internal surfaces of the new sewers are thoroughly cleaned to remove all deleterious material. This material must be prevented from entering the public sewer system.
33. A cctv survey of the completed underground drainage network should be carried out by the contractor on completion of the works. It is recommended that this exercise is completed before final surface courses and finishes are applied in case any remedial works are required to the drainage.