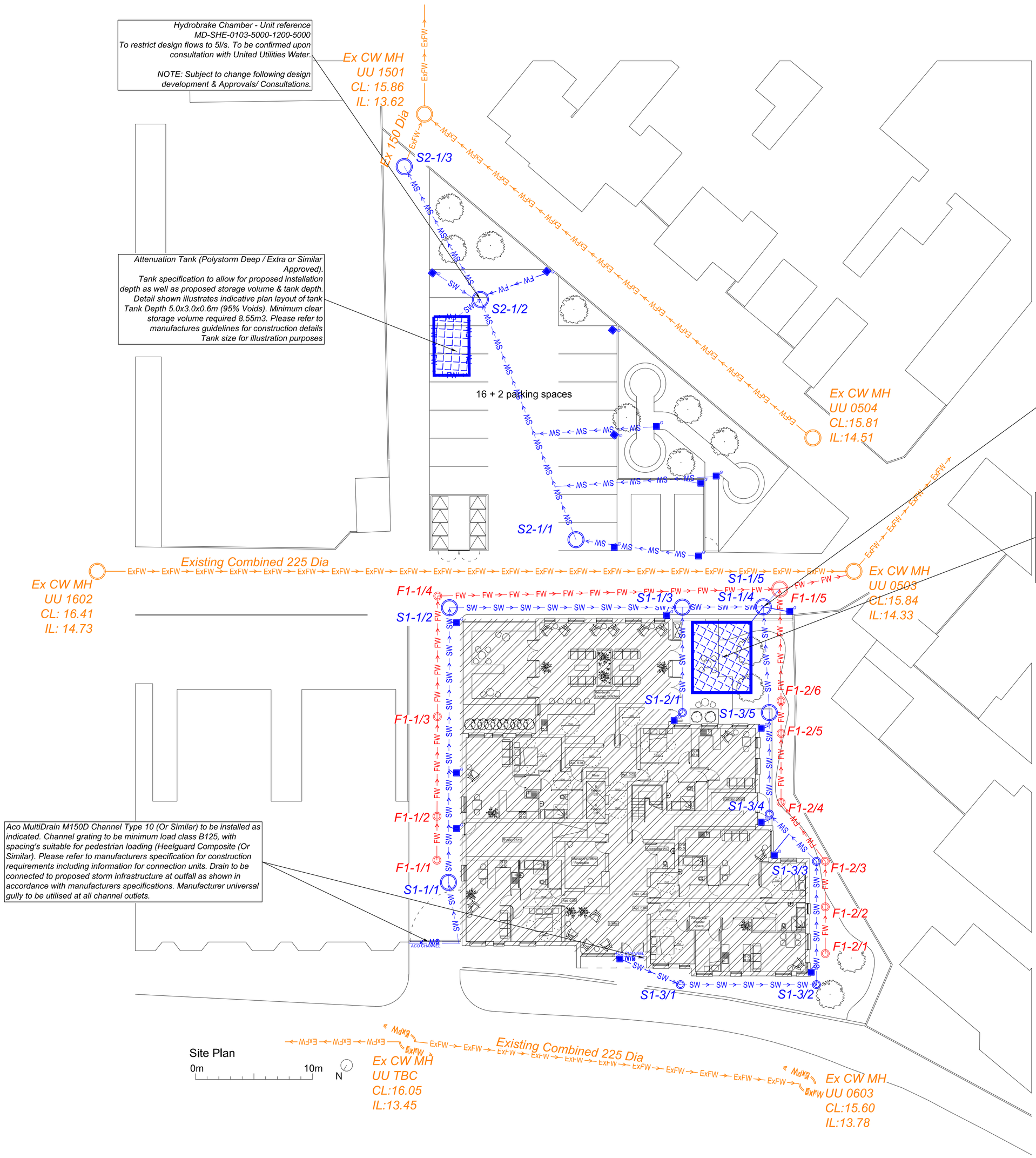


ACO CHANNEL DRAINS TO INTERCEPT FLOWS AT ALL EXTERNAL ENTRANCES TO BUILDING AS INDICATED. ALL CHANNELS TO BE ACO BRICKSLOT [OR SIMILAR]. TO MANUFACTURERS SPECIFICATIONS AND CONSTRUCTION GUIDELINES. UNIVERSAL GULLY SITED AT CHANNEL OUTLET.

ALL FILTER / LAND DRAINS SHOWN TO BE FULLY PERFORATED 100Ø DRAINS TO INTERCEPT RUNOFF FROM EARTHWORK BANK. PIPE LAID WITHIN MINIMUM 0.3m WIDE TRENCH AT 600mm COVER AND AT MINIMUM GRADIENT 1 IN 100 TO THE OUTFALLS SHOWN. PIPE BEDDING AS PER HCD F SERIES DRG F2, TYPE K BEDDING [SHW CLAUSE 503.3 OR CLAUSE 505] / SUITABLE FILTER MATERIAL (TYPE B FILTER MATERIAL / PEA GRAVEL / 4-40MM AGGREGATE TO BS 7533-13)

ALL BELOW GROUND RAINWATER PIPES TO BE 150MM DIAMETER @ MIN GRADIENT 1 IN 40 UNLESS OTHERWISE INDICATED

WHERE STORM DRAINAGE PASSES THROUGH CONCRETE FOUNDATIONS ROCKER PIPES TO BE INSTALLED IN ACCORDANCE WITH CONSTRUCTION DETAIL DRAWINGS

FLOOR PLANS SHOWN FOR ILLUSTRATION PURPOSES ONLY. REFER TO ARCHITECTURAL GA PLANS FOR ACCURATE LAYOUTS

ALL INTERNAL FOUL CONNECTION LINES MUST BE ACCESSIBLE FROM A CHAMBER OR RODDING EYE. WHERE SOURCE E.G. SINK CONNECTS DIRECTLY TO UNDERGROUND FOUL DRAIN WITHOUT A CHAMBER A RODDING EYE MUST BE PROVIDED.

LOCATION OF SOIL VENT PIPES TO BE CO-ORDINATED WITH ARCHITECTURE + M&E

CHANNEL DRAIN / INTERNAL GULLIES CONNECTED TO FOUL DRAINAGE SYSTEM. SEE M&E/ARCHITECTURAL FOR INTERNAL CHANNEL/GULLY DETAIL

INTERNAL DRAINAGE TO BE GRADED TO CONNECT TO MANHOLE / CHAMBER BASES WHERE SHOWN. WHERE CONNECTING TO BACK INLET GULLIES @ EDGE GROUND BEAMS PIPE TO HAVE MINIMUM GRADIENT 1 IN 40

## LEGEND

- PROPOSED STORM SEWER
- PROPOSED FOUL SEWER
- PROPOSED CHANNEL DRAINAGE
- Fxxx PROPOSED FOUL MANHOLE
- Sxxx PROPOSED STORM MANHOLE
- PROPOSED TRAPPED GULLY
- EXISTING FOUL SEWER EXTENTS INDICATIVE ONLY SEE TOPO SURVEY

*Notes:*

1. *This drawing should be read in relation to the subject of the title. All other details illustrated on the drawing (e.g. The proposed layout/ building) are indicative only and are subject to change. For updated details of the proposed layout and finished levels see Proposed Layout & Levels drawings.*
2. *The mapping illustrated on this drawing is taken from the proposed site plan received with the tender documentation.*
3. *All storm & foul drainage designed in accordance with BS EN 752: 2008 drain and sewer systems outside buildings & The Building Regulations 2010, HM Government, Approved Document H (latest version).*
4. *Drainage works to carried out in accordance with Civil Engineering Specification for the Water Industry 6th Edition; published by WRC plc 2004.*
5. *Manholes to be constructed from precast concrete rings (unless otherwise stated / approved) to BS EN 1917:2002 & BS 5911-3:2002 with a D400 heavy duty cover for driveway/carpark and B125 for remaining surface (in accordance with BS EN 124:1994).*
6. *Pipes to be uPVC to BS EN 1401-1:1998 for sizes Ø100 & Ø150mm. Pipes to be uPVC to WIS 4-35-01, for sizes Ø225 & Ø300mm.*
7. *Pipes for storm drainage to be Polypipe Rigidrain (or similar approved).*
8. *All levels and dimensions are in meters unless stated otherwise.*
9. *For indicative location for all sewers and services please see Existing Site Services drawings. It shall be the contractor's responsibility to verify position and level prior to commencing construction. The contractor shall also be responsible for the arrangement of all necessary permits as required prior to commencement.*
10. *Min cover to Clay / Concrete drainage Pipes to be 1200mm under roads/footpaths and 600mm under landscaping. Min cover to Thermoplastic drainage Pipes to be 900mm under roads/footpaths and 600mm under landscaping. Where adequate cover cannot be provided pipes are to be protected with a lean mix concrete surround.*
11. *Changes in invert levels at a manhole (not requiring a drop manhole) shall be graded evenly through the manhole in order to avoid an abrupt change in invert level.*
12. *Where concrete surround is specified for pipes the pipes shall be first wrapped with an approved plastic membrane. Flexibility at joints shall be maintained by insertion of 25mm 'flexcell' (or similar approved) at each joint to break the continuity of the concrete surround. However the plastic membrane shall be continuous at these locations to protect rubber jointing rings from ingress of grout. The minimum thickness of the concrete surround should be 150mm or the diameter of the pipe whichever is the greater.*
13. *Compressible boards to be laid between crossing pipes where cover between pipes limited.*
14. *All in-curtilage pipes to be minimum ø100mm unless otherwise indicated.*
15. *A drain which is at a level lower than the foundations of a building should either (a) where the trench is within 1m of the foundations, be filled with concrete up to the level of the underside of the foundations,*
    *(b) where the trench is more than 1m from the foundations, be filled with concrete up to a level, below the level of the underside of the foundations, equal to the distance from the foundations less 150mm,*
16. *Existing sewers to be maintained and kept in service at all times.*
17. *This drawing should be read in conjunction with proposed drainage schedule drawings, construction details drawings and all other relevant drawings.*
18. *All internal pipework extending outside the building must be constructed with rocker pipes through the foundations/ trench fill as per construction details.*
19. *To allow connection to the invert levels of the proposed drainage network a change in pipe gradient may be required. To allow this all internal infrastructure (sinks, dishwasher's, floor gullies etc, including rainwater downpipes) to be connected to a back inlet bottle gully prior to connection to the proposed drainage as per construction details with the exception of WCs.*
20. *To achieve invert levels of the foul drainage network all WC internal infrastructure must be connected via backdrop manhole (if required) as per construction details drawings, or similar approved.*
21. *All back inlet bottle gullies for foul drainage to be capped with closed lid with same strength class as adjacent manholes. Perforated lids will not be suitable.*
22. *Back inlet bottle gullies to be constructed directly adjacent to building provided construction achievable above foundations.*
23. *All drainage channels and outfalls to be constructed in accordance with manufactures specifications.*
24. *All details/ dimensions to be checked by the contractor. Any discrepancies to be reported to the engineer immediately.*
25. *Invert levels of catchpit chambers shown denote approximate invert levels of the lowest pipe and do not include for catchpit sump depth.*

| Rev | Issue Date | Description | App |
|---|---|---|---|
| P2 | 13/12/2021 | Amended Layout | PA |

Status: FOR INFORMATION

Client: Errigal Contracts

Project: Blackpool Norbreck Road

Drawing: Proposed Drainage Layout

Scale: 1:200 @ A1


McAdam ENHANCING LOCAL COMMUNITIES

Contact Details: 1c Montgomery House, 478 Castlereagh Road, Belfast, BT5 6BQ
T: 028 9040 2000
E: admin@mcadamdesign.co.uk
www.mcadamdesign.co.uk


| Drawn | Checked | Approved |
|---|---|---|
| ER | JS | PA |
| Date 16/09/2021 | Date 16/09/2021 | Date 16/09/2021 |

| Project Number | Drawing Number | Revision |
|---|---|---|
| E2333 | C-2000 | S4-P2 |