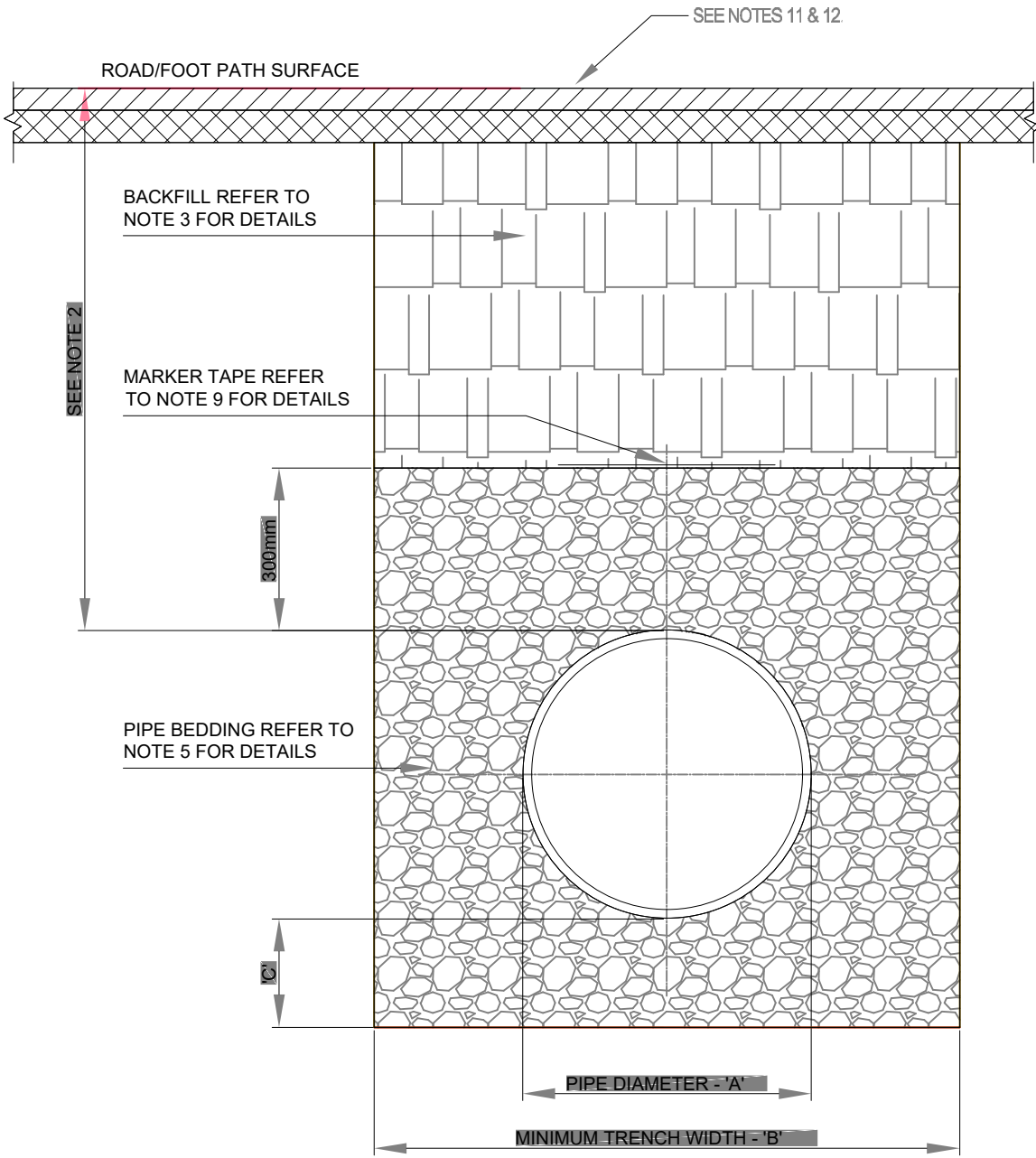
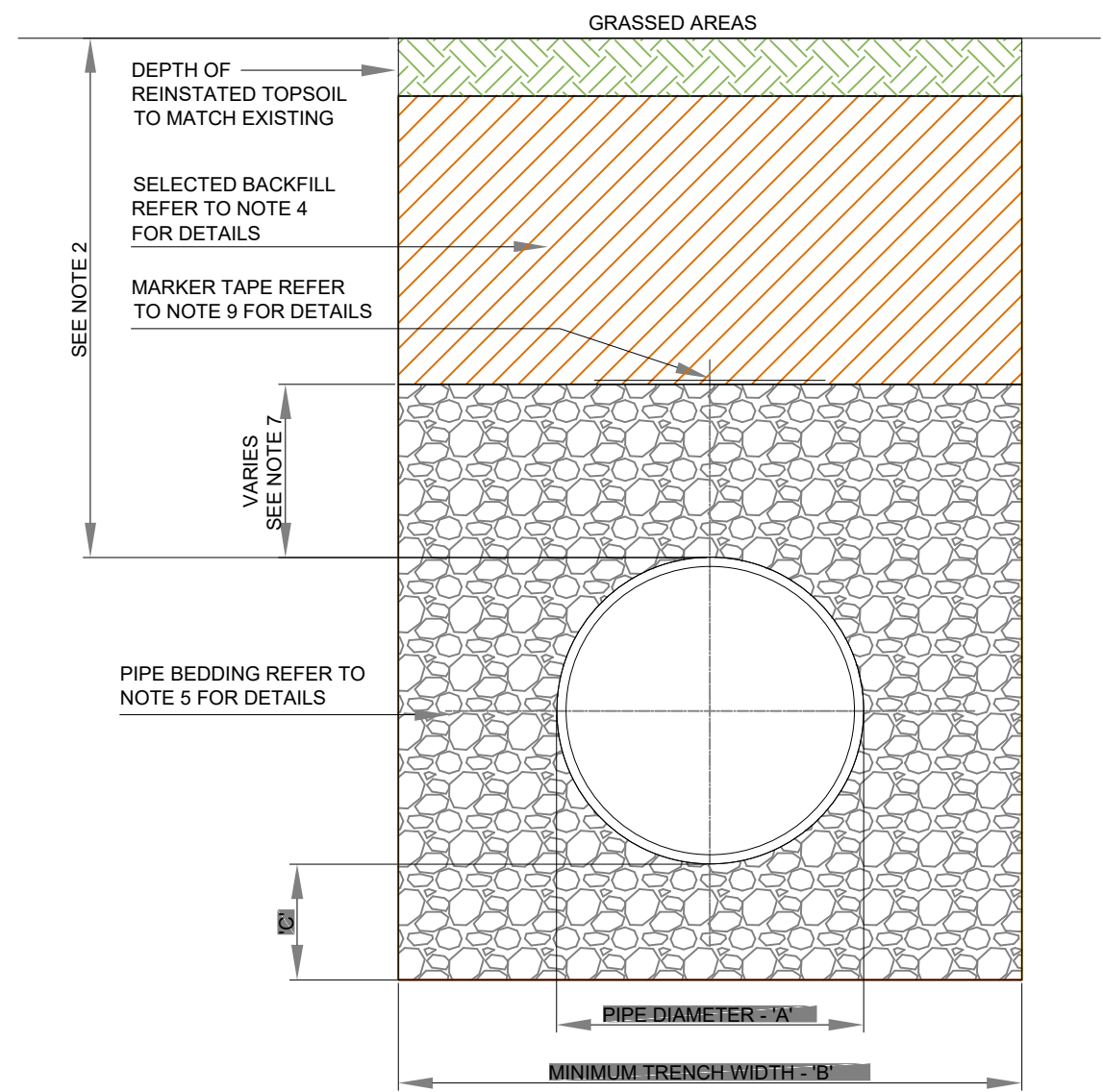




CROSS SECTION IN ROADS

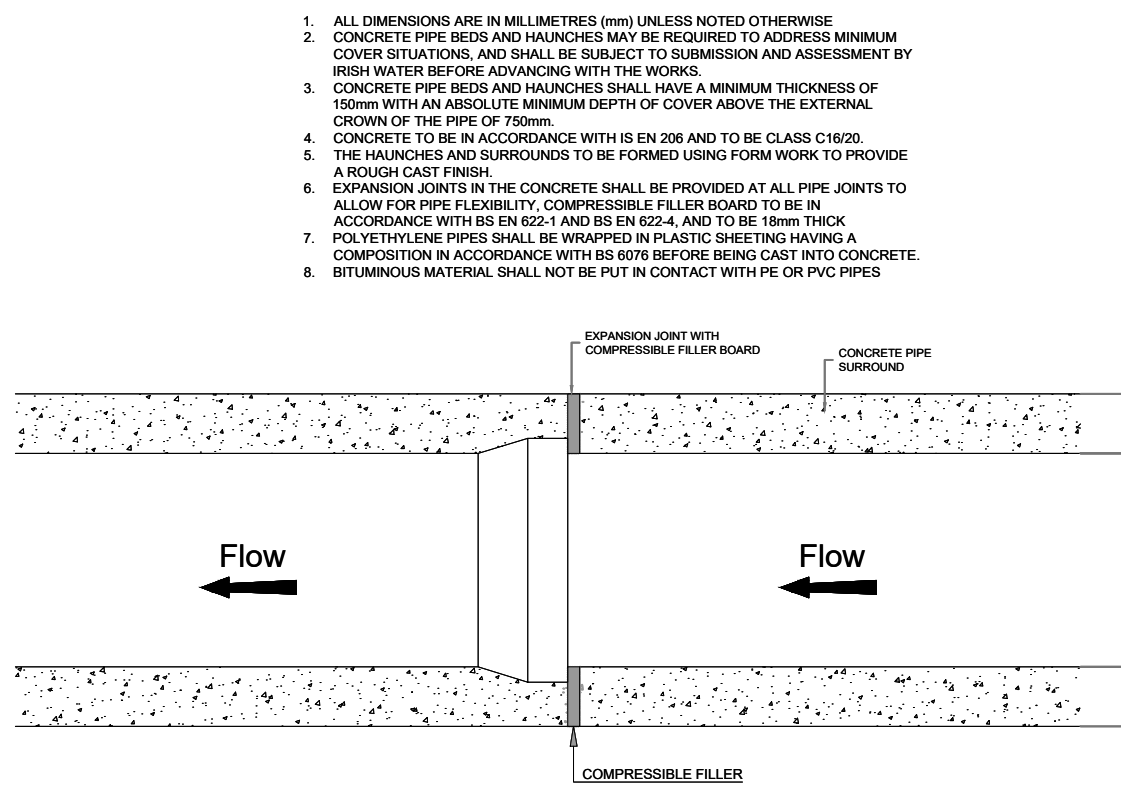


CROSS SECTION IN GRASSED AREAS

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. THE MINIMUM DEPTH OF COVER FROM THE FINISHED SURFACE TO THE CROWN OF GRAVITY PIPES WITHOUT PROTECTION SHOULD BE AS FOLLOWS:
 - A) GARDENS AND PATHWAYS WITHOUT ANY POSSIBILITY OF VEHICULAR ACCESS - DEPTH NOT LESS THAN 0.5 M. (THIS WOULD NORMALLY RELATE TO DRAINS IN PRIVATE PROPERTY, SHALLOW PIPES OF THIS NATURE ARE UNDESIRABLE AND SHOULD BE INSTALLED IN ACCORDANCE WITH THE CURRENT BUILDING REGULATIONS).
 - B) DRIVEWAYS, FOOTWAYS, PARKING AREAS AND YARDS WITH HEIGHT RESTRICTIONS TO PREVENT ENTRY BY VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES - DEPTH NOT LESS THAN 0.75 M.
 - C) DRIVEWAYS, FOOTWAYS, PARKING AREAS AND NARROW STREETS WITHOUT FOOTWAYS (E.G. MEWS DEVELOPMENTS) WITH LIMITED ACCESS FOR VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES - DEPTH NOT LESS THAN 0.9 M.
 - D) DEPTHS OF SEWERS IN GATED ESTATES SHALL BE SIMILAR TO THAT OUTLINED ABOVE.
 - E) AGRICULTURAL LAND AND PUBLIC OPEN SPACE - DEPTH NOT LESS THAN 0.9 M.
 - F) OTHER ROADWAYS, HIGHWAYS AND PARKING AREAS WITH UNRESTRICTED ACCESS TO VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES - DEPTH NOT LESS THAN 1.2m.
3. CLAUSE 804 / 808 MATERIAL IN ACCORDANCE WITH THE TRANSPORT INFRASTRUCTURE IRELAND SPECIFICATION FOR ROAD WORKS IS TO BE USED AS BACKFILL MATERIAL WHERE THE SEWER MAIN IS LOCATED IN ROADS, FOOTPATHS OR WHEN THE NEAREST PART OF THE TRENCH IS WITHIN 1m OF THE PAVED EDGE OF THE ROADWAY. CLAUSE 804 / 808 IS TO BE COMPACTED AS PER CLAUSE 802 OF THE TRANSPORT INFRASTRUCTURE IRELAND SPECIFICATION FOR ROAD WORKS. CLAUSE 808 IS TO BE USED WITHIN 500mm OF CEMENT BOUND MATERIALS, CONCRETE PAVEMENTS, CONCRETE STRUCTURES OR CONCRETE PRODUCTS. OTHERWISE CLAUSE 804 MAY BE USED. ALTERNATIVE BACKFILL MATERIAL TO THAT DESCRIBED ABOVE (CLAUSE 804 OR CLAUSE 808) OF THE PIPE TRENCH WILL ONLY BE ALLOWED BY IRISH WATER WHERE THE ROADS AUTHORITY IN WHOSE FUNCTIONAL AREA THE DEVELOPMENT IS LOCATED, PROVIDES WRITTEN APPROVAL TO THE DEVELOPER TO THE USE SUCH ALTERNATIVE MATERIAL EVIDENCE OF THIS WRITTEN APPROVAL TO BE PROVIDED TO IRISH WATER IN ADVANCE OF THE COMMENCEMENT OF WORKS.
4. SELECTED EXCAVATED MATERIAL COMPLYING WITH THE REQUIREMENTS OF "ACCEPTABLE MATERIAL" AS OUTLINED ON CLAUSE 601 OF THE TI SPECIFICATION FOR ROADWORKS, TABLE 6/1, CLASS 8, CLASS 2, MAY BE USED IN GREEN-FIELD AREAS ABOVE GRANULAR PIPE SURROUND MATERIAL SUBJECT TO REVIEW BY IRISH WATER.
5. PIPE BEDDING SHALL COMPLY WITH WIS 4-08-02 AND IGH 4-08-01. THE PIPE BEDDING GRANULAR MATERIAL SHALL BE 14mm TO 5mm (d₄, 2/14) GRADED AGGREGATE OR 10mm (d₄, 4/10) SINGLE SIZED AGGREGATE TO IS EN 13242. CONCRETE BED, HAUNCH, & SURROUND, WHERE REQUIRED, SHALL BE TO STD-WW-08.
6. IN SOFT GROUND CONDITIONS (CBR < 5) THE MATERIAL SHOULD BE EXCAVATED AND DISPOSED OF IN ACCORDANCE WITH THE WASTE MANAGEMENT ACT AND CLAUSE 804 / 808 MATERIAL IN ACCORDANCE WITH THE TRANSPORT INFRASTRUCTURE IRELAND SPECIFICATION FOR ROAD WORKS SHALL REPLACE THE EXCAVATED MATERIAL, WRAPPED IN GEO-TEXTILE WRAPPING. ALTERNATIVELY, SPECIAL PIPE SUPPORT ARRANGEMENTS, INCLUDING PILING ETC. MAY BE REQUIRED WHERE THE DEPTH OF SOFT MATERIAL IS EXCESSIVE. SUCH ARRANGEMENTS SHALL BE SUBJECT TO ASSESSMENT BY IRISH WATER BEFORE ADVANCING WITH THE WORK.
7. IN GREEN FIELD AREAS, TYPE B BACKFILL (SELECTED EXCAVATED MATERIAL COMPLYING WITH THE REQUIREMENTS OF "ACCEPTABLE MATERIAL" AS OUTLINED ON CLAUSE 601 OF THE TI SPECIFICATION FOR ROADWORKS, TABLE 6/1, CLASS 8, CLASS 2,) WILL BE ALLOWED ABOVE THE SIDE HAUNCH GRANULAR MATERIAL IN THE CASE OF RIGID PIPES. A GRANULAR SURROUND OF A MINIMUM, DEPTH OF 150mm ABOVE THE CROWN OF THE PIPE IS REQUIRED FOR FLEXIBLE PIPES AND TYPE B MATERIAL MAY BE USED AS BACKFILL ABOVE THIS. ALL RISING MAINS IN GREENFIELD AREAS SHALL HAVE A MINIMUM COVER OF 300mm OF GRANULAR MATERIAL ABOVE THE EXTERNAL CROWN OF THE PIPE.
8. PIPES SHALL NOT BE SUPPORTED ON STONES, ROCKS OR ANY HARD OBJECTS AT ANY POINT ALONG THE TRENCH. ROCK SHALL BE EXCAVATED TO A DEPTH OF 150mm BELOW THE ACTUAL DEPTH OF THE TRENCH WITH THE VOID FILLED WITH CLAUSE 804 / 808 MATERIAL IN ACCORDANCE WITH THE TRANSPORT INFRASTRUCTURE IRELAND SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAID ABOVE THIS VOID BACKFILL MATERIAL.
9. NON DEGRADABLE MARKER TAPE SHOULD BE INSTALLED AT THE TOP OF PIPE BEDDING LAYER FOR SEWERS AND RISING MAINS. IT SHOULD RUN CONTINUOUSLY AROUND MANHOLES. IN THE CASE OF NON METAL PIPE MATERIAL, THE MARKER TAPE SHOULD INCORPORATE A TRACE WIRE WHICH IS LINKED TO FITTINGS AND TERMINATED AT THE WASTE WATER PUMPING STATION (IF PROVIDED) AND THE DISCHARGE MANHOLE.
10. TRENCH WIDTHS FOR PIPE SIZES ≤80mm MAY BE <500mm, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS.
11. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
12. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, TOURISM & SPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS

PIPE DIAMETER 'A' (mm)	TRENCH WIDTH 'B' (mm)
≤ 80 RISING MAIN	SEE NOTE 10.
100	500
150 - 200	600
>200 - 350	750
>350 - 450	900

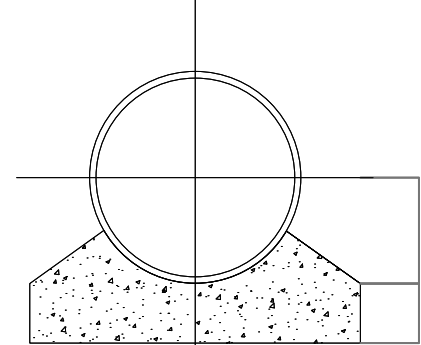
PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)
≤100	100
150 - 450	200



SPIGOT AND SOCKET JOINT

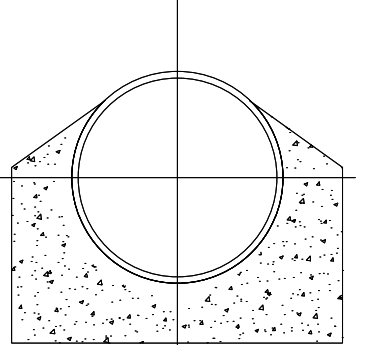
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CONCRETE BED, HAUNCH AND SURROUND TO DRAINAGE PIPES



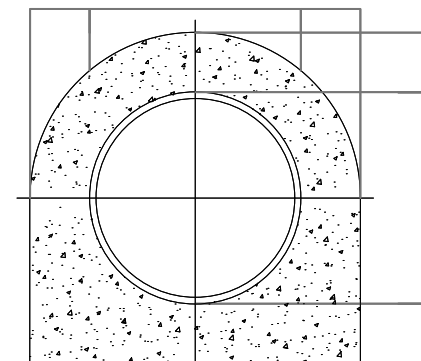
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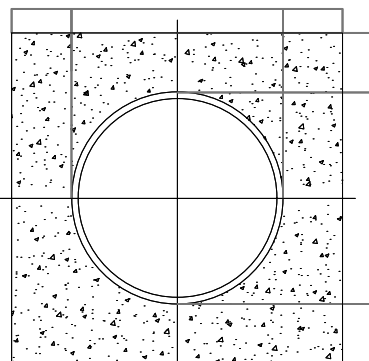
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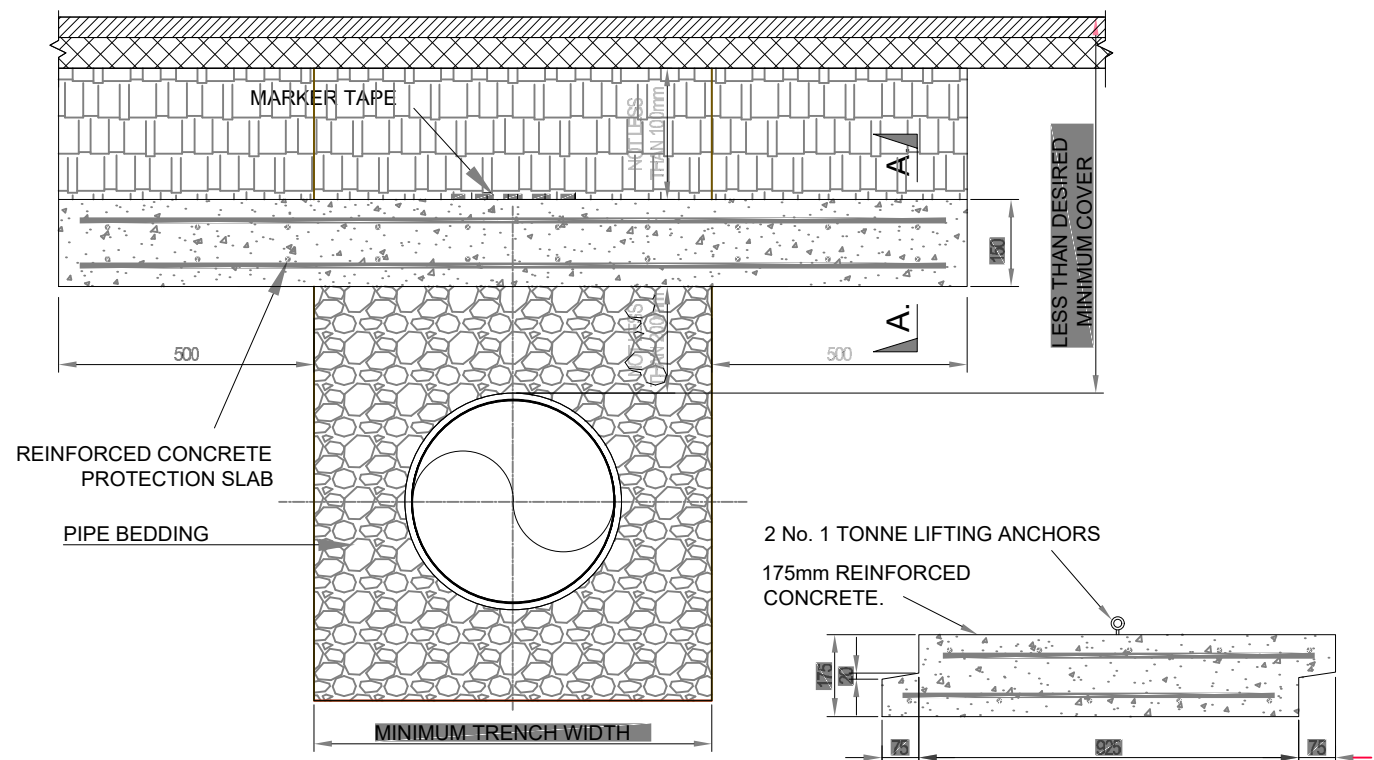
TYPE 'C'

SCALE 1:20



TYPE 'D'

SCALE 1:20



REDUCED COVER PROTECTION SLAB DETAIL

SECTION A-A

Foul Sewer Notes:

1. All foul sewer works shall be carried out in accordance with Irish Water Standard Details and Code of Practice for Wastewater Infrastructure Document CDS-5030-03.
2. All pipe materials shall comply with the Irish Water Code of Practice for Wastewater Infrastructure Document CDS-5030-03.
3. Foul sewer service connections and inspection chambers shall be in accordance with Irish Water standard details as set out in IW Wastewater Infrastructure Standard Details document - IW-CDS-5030-01.
4. All manhole chambers shall be in accordance with Irish Water standard details as set out in IW Wastewater Infrastructure Standard Details document - IW-CDS-5030-01.
5. Trench backfill and bedding shall be in accordance with Irish Water standard details as set out in IW Wastewater Infrastructure Standard Details document - IW-CDS-5030-01.
6. Concrete bed, haunch and surround shall be in accordance with Irish Water standard details as set out in IW Wastewater Infrastructure Standard Details document - IW-CDS-5030-01.
7. Separation distances from other services, boundary walls etc. shall be in accordance with Irish Water standard details as set out in IW Wastewater Infrastructure Standard Details document - IW-CDS-5030-01.
8. Separation distances from trees, shrubs etc. shall be in accordance with Irish Water standard details as set out in IW Wastewater Infrastructure Standard Details document - IW-CDS-5030-01.

Storm Sewer Notes:

1. All pipe materials shall comply with Irish Water Code of Practice for Wastewater Infrastructure Document CDS-5030-03.
2. All manhole chambers shall be in accordance with Irish Water standard details as set out in IW Wastewater Infrastructure Standard Details document - IW-CDS-5030-01.
3. Trench backfill and bedding shall be in accordance with Irish Water standard details as set out in IW Wastewater Infrastructure Standard Details document - IW-CDS-5030-01.
4. Concrete bed, haunch and surround shall be in accordance with Irish Water standard details as set out in IW Wastewater Infrastructure Standard Details document - IW-CDS-5030-01.

Watermain Notes:

1. All watermain works shall be carried out in accordance with Irish Water Standard Details and Code of Practice for Water Infrastructure Document CDS-5020-03.
2. All pipe materials shall be in compliance with Section 3.9 of Irish Water Code of Practice Document-CDS-5020-03.
3. Individual water service connections and boundary boxes shall be in accordance with Irish Water standard details as set out in IW Wastewater Infrastructure Standard Details document - IW-CDS-5030-01.
4. Separation distances from other services, boundary walls etc. shall be in accordance with Irish Water standard details as set out in IW Wastewater Infrastructure Standard Details document - IW-CDS-5030-01.
5. Separation distances from trees, shrubs etc. shall be in accordance with Irish Water standard details as set out in IW Wastewater Infrastructure Standard Details document - IW-CDS-5030-01.
6. On line and off-line air valve details shall be in accordance with Irish Water standard details as set out in IW Wastewater Infrastructure Standard Details document - IW-CDS-5030-01.
7. Sluice valve details shall be in accordance with Irish Water standard details as set out in IW Wastewater Infrastructure Standard Details document - IW-CDS-5030-01.
8. On line and off-line hydrant details shall be in accordance with Irish Water standard details as set out in IW Wastewater Infrastructure Standard Details document - IW-CDS-5030-01.
9. Scour valve and chamber details shall be in accordance with Irish Water standard details as set out in IW Wastewater Infrastructure Standard Details document - IW-CDS-5030-01.

P04	31.08.21	OK	Issue for Stage Approval		OK
Rev	Date	Drn/Chk	Amendment / Issue		App

Client

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Project

Housing Development ,
Keeraun, Ballymoneen Road, Galway

Title

TYPICAL WATERMAIN /
DRAINAGE DETAILS

Model File Identifier

N/A

File Identifier

MGC0716-RPS-00-XX-DR-DR0004-04

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January '21

Sheets

04 of 05

Scale

NTS @ A1
NTS @ A3

Status

S4

Rev

P04