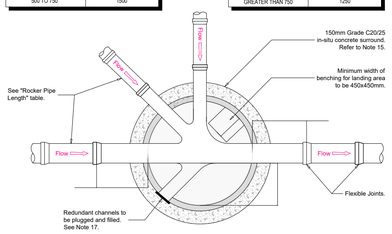
A1

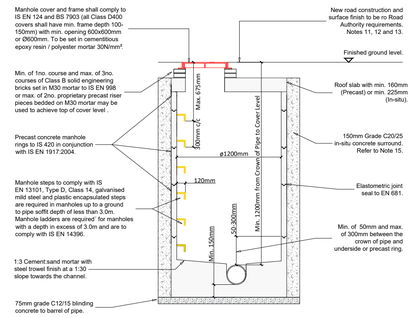
## PRECAST CONCRETE MANHOLE WITH PRECAST BASE. IRISH WATER STD-WW-10A.

| MINIMUM MANHOLE DIAMETERS | |
|---|---|
| DIAMETER OF LARGEST PIPE IN MANHOLE (mm) | INTERNAL DIAMETER OF MANHOLE (mm) |
| LESS THAN 375 | 1200 |
| 375 TO 450 | 1350 |
| 500 TO 750 | 1500 |

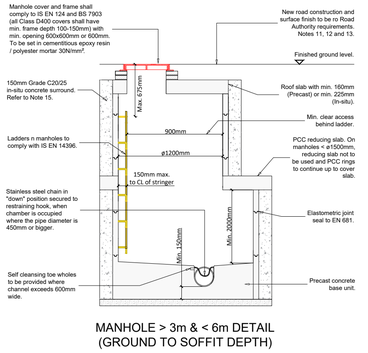
| ROCKER PIPE LENGTH | |
|---|---|
| PIPE DIAMETER (mm) | ROCKER PIPE LENGTH (mm) |
| 150 TO 600 | 600 |
| GREATER THAN 600 TO 750 | 1000 |
| GREATER THAN 750 | 1250 |




MANHOLE PLAN VIEW




MANHOLE DETAIL (=> 3m)

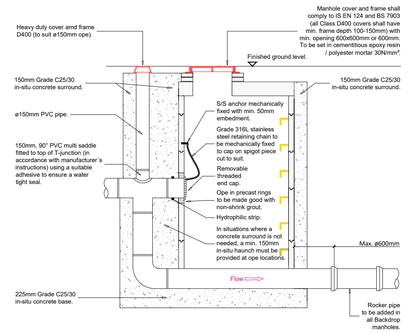



MANHOLE > 3m & < 6m DETAIL (GROUND TO SOFFIT DEPTH)

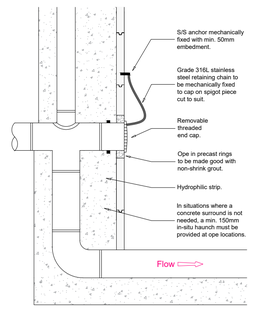
Note: Precast concrete manholes shall only be used where the water table is low. They shall not be used where there is perched water table, where the sewer is located next to a river, lake or other water body and within areas that are identified by the office of public works catchment flood risk assessment and manage- ment (of RAM) with a flood risk of 1 in 10 years.

## BACKDROP MANHOLE. IRISH WATER STD-WW-12.

1. All dimensions are in millimetres (mm) unless noted otherwise.
2. Pre-cast manholes units: complying with requirements of IS EN 1917 and IS 420.
3. Pre-cast concrete base incorporating channels, benching etc. Subject to IW review and complying with requirements of IS EN 1917 and IS 420.
4. In situations where p.c.c. manhole bases have redundant channels, these shall be plugged and filled by scabbling, and in-filled with Grade C20/25 concrete to match existing base and benched to suit flow within the manhole base.
5. Manholes greater than 3m in depth will require a detailed structural design and be subject to Irish Water review.
6. Pre-cast concrete roof slabs to be used subject to irish water review and compliance with IS 420.
7. Covers and frames shall be suitable for road and traffic conditions subject to review by Irish Water.
8. 200mm all around x 100mm deep, C20/25 concrete plinth complete with bull nose finish and to be provided complete with mild steel reinforcement link around covers in green areas.
9. All chambers to be checked for uplift by the developer based on ground conditions within the site. should anti flotation measures be required they shall be subject to review by Irish Water.
10. All concrete to be in accordance with IS EN 206:2013.
11. Any special road reinstatement around cover and frame shall be to road authority's requirements.
12. New road construction and surface finish to be to road authority requirements.
13. 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's requirements.
14. If depth from ground to pipe soffit is greater than 6m deep, a site specific engineered solution for access shall be provided.
15. Proprietary watertight PCC manhole ring systems with a wall thickness > 125mm and a water tight joint sealing system may be used without concrete surround, subject to the ground water level at the manhole being low, and subject to review by Irish Water.
16. The internal manhole diameters shown in the table below are minimum dimensions and will increase depending on the number and diameter of additional inlets and finished with a 1:3 sand/cement finish to suit flow of inlets and outlet.




BACKDROP MANHOLE (TYPE 2)



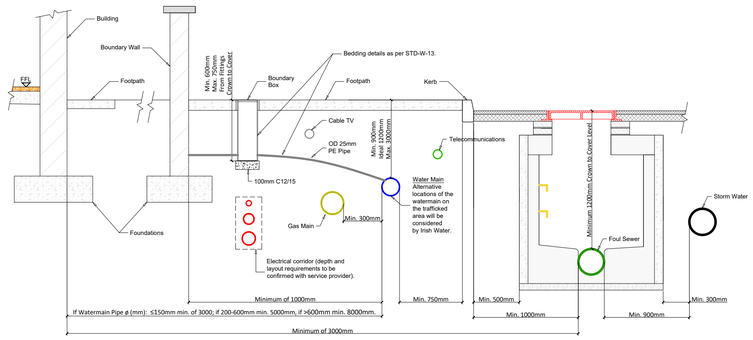

1. All dimensions are in millimetres (mm) unless noted otherwise.
2. Rodding eye vertical pipe shall be covered with approved heavy duty metal covers to IS 261 and BS 5834. Cover and frame shall be suitable for road and traffic conditions and is subject to review by Irish Water.
3. All chambers to be checked for uplift by the developer based on ground conditions within the site. Should anti flotation measures be required, they shall be subject to review by Irish Water.
4. All concrete to be in accordance with IS EN 206.
5. Manhole details to be in accordance with STD-WW-09, 10, 10a and 11.
6. All backdrops should terminate at their lower end with a bend into the main channel to ensure the discharge is 45° or less on plan.
7. 200mm all around x 100mm deep, C20/25 concrete plinth complete with bull nose finish and to be provided complete with mild steel reinforcement link around covers in green areas.

Notes: Precast concrete manholes shall only be used where the water table is low. They shall not be used where there is a perched water table where the sewer is located next to a river, lake or other water body and within areas that are identified by the Office of Public Works catchment flood risk assessment and management (CFRAM) with a flood risk of 1 and 10 years.

**NOTES:**

- **ø150-450mm pipe: Drop shall be > 900mm < 1700mm.**
- **ø500-900mm pipe: Drop shall be > 1300mm < 2300mm.**
- **Sewers greater than ø450mm are outside the scope of the Standard Details.**

## TYPICAL SERVICE LAYOUT INDICATING SEPARATION DISTANCES - STD-W-11 and STD-WW-05.




1. SEPARATION DISTANCES BETWEEN SEWERS ASSOCIATED WITH THE WORKS FROM OTHER UTILITY PIPES AND ACCESSORIES SHALL BE IN ACCORDANCE WITH SECTION 3.5.9 TO 3.5.21 OF THE CODE OF PRACTICE. SEPARATION DISTANCES FOR ALL NEW INSTALLATIONS FROM EXISTING IRISH WATER PIPES SHALL BE AS OUTLINED IN SECTION 3.20 OF THE CODE OF PRACTICE.
2. SPECIFIC SEPARATION CLEARANCE DISTANCES IN EXCESS OF THESE MINIMA SHALL BE PROVIDED FOR SERVICES SUCH AS GAS, ELECTRICITY, FIBRE-OPTIC OR OIL FILLED CABLES AS THE CASE MAY BE. THE PARTICULAR UTILITY PROVIDERS SHALL BE CONSULTED TO DETERMINE THESE MINIMUM SEPARATION DISTANCES AND EVIDENCE OF THIS CONSULTATION, WITH THE SPECIFIED SEPARATION DISTANCES, SHALL BE PROVIDED TO IRISH WATER AT DESIGN STAGE.
3. NOTIFICATION IN WRITING IS REQUIRED SHOULD WORKS BE WITHIN THE FOLLOWING DISTANCES FROM AN EXISTING WATER MAIN OR WASTEWATER RISING MAIN WHERE THE DEPTH OF THE EXISTING INFRASTRUCTURE DOES NOT EXCEED 1.5m:

   HORIZONTAL:
   1m AT EITHER SIDE OF AN EXISTING PIPE LESS THAN 200mm IN DIAMETER,
   2m AT EITHER SIDE OF AN EXISTING PIPE OF 200mm TO 350mm IN DIAMETER
   5m AT EITHER SIDE OF AN EXISTING PIPE OF 350mm OR GREATER IN DIAMETER.

   WHERE DUCTS OR PIPES ARE TO BE LAID CLOSE TO AN EXISTING WATER MAIN OR SEWER IN THE OWNERSHIP OF IRISH WATER, NOTIFICATION IN WRITING SHALL BE PROVIDED A MINIMUM OF 10 DAYS AHEAD OF ADVANCEMENT OF THE WORK. THIS ALSO APPLIES WHERE THE DEPTH OF THE IRISH WATER WATER MAIN OR SEWER EXCEEDS 1.5m.
   IN ALL OF THESE INSTANCES, SPECIFIC WRITTEN APPROVAL WILL BE REQUIRED FROM IRISH WATER BEFORE PROCEEDING WITH THE WORK.

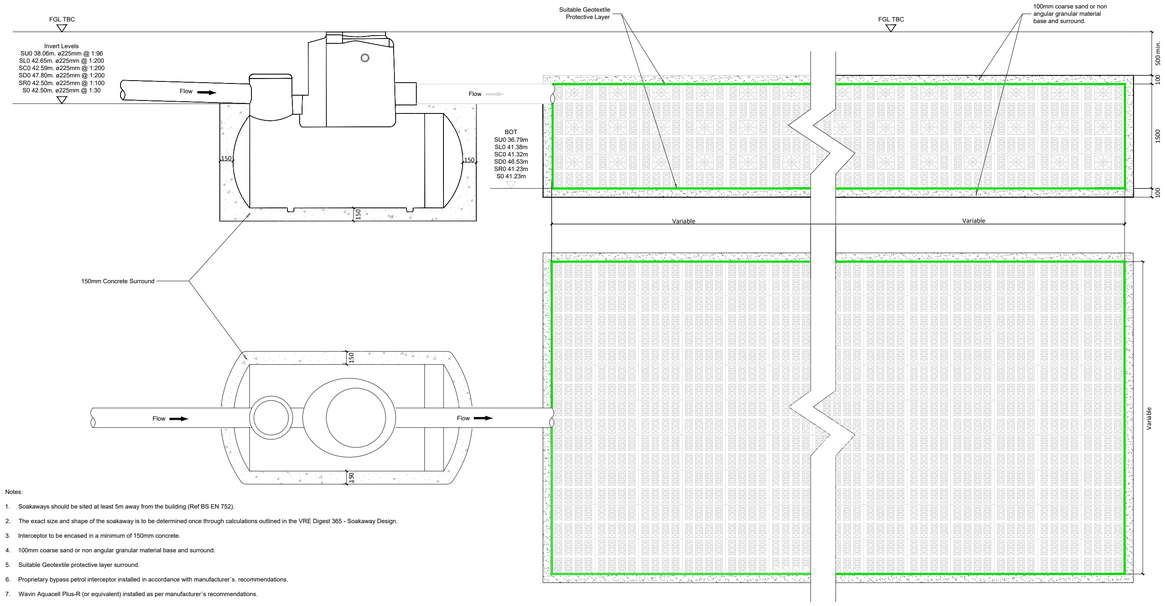
   NOTIFICATION IN WRITING IS REQUIRED SHOULD WORKS BE WITHIN 1.5m DISTANCE OF A WASTEWATER SEWER.

   REQUIREMENTS SHALL ALSO APPLY TO TRIAL HOLES OR SLIT TRENCHES TO LOCATE THE MAIN OR GAIN GROUND INFO DATA.

   LARGER DIAMETERS >350mm DISTRIBUTION AND TRUNK MAINS, IRISH WATER MUST BE NOTIFIED AT LEAST 1 MONTH IN ADVANCE.

   DEVELOPERS SHALL ALSO COMPLY WITH ANY NOTIFICATION REQUIREMENTS OF OTHER UTILITY PROVIDERS (ESB, GAS MAIN, TELECOMMUNICATION ETC.).
4. DETAILED PROPOSALS, INCLUDING WORK METHOD STATEMENTS, INSURANCE CONFIRMATION AND DETAILS OF WORK COMPLETED OF A SIMILAR NATURE MUST BE SUBMITTED TO IRISH WATER FOR ITS CONSIDERATION BEFORE AGREEMENT WILL ISSUE. ALL SUCH WORKS IN THE VICINITY OF ARTERIAL WATER MAINS AND SEWERS (MAINS GREATER THAN 400mm) SHALL BE SUBJECT TO WRITTEN AGREEMENT WITH IRISH WATER BEFORE CONSTRUCTION COMMENCES ON SITE. THIS AGREEMENT SHALL ALSO INCLUDE ANY NECESSARY PROTECTION FOR WATER MAINS.
5. ANY DAMAGE SHALL BE NOTIFIED IMMEDIATELY TO IRISH WATER. THE PERSON WHO CAUSES THE DAMAGE TO A SEWER MAIN OR FITTING WILL BE DEEMED TO HAVE COMMITTED AN OFFENCE UNDER SECTION 45 OF THE WATER SERVICES ACT 2007.
6. UNDER NO CIRCUMSTANCES WILL IRISH WATER ACCEPT SEWER MAIN INSTALLATIONS UNDER STRUCTURES, EXISTING OR PROPOSED, OR IN CLOSE PROXIMITY TO ANY EXISTING STRUCTURES OR FEATURES THAT WILL INHIBIT ACCESS FOR POST INSTALLATION MAINTENANCE AND ACCESS.
7. THE MINIMUM CLEAR HORIZONTAL DISTANCES SHOWN BELOW WILL BE INCREASED IF THE DEPTH OF THE SEWER EXCEEDS 3M OR IF THE DIAMETER IS GREATER THAN 375mm. THE MINIMUM CLEAR DISTANCES FOR PIPE DIAMETERS OF 450mm AND GREATER OR FOR DEPTHS EXCEEDING 4.0m SHALL BE BASED ON SPECIFIC CONSULTATION WITH IRISH WATER. THESE SEPARATION DISTANCES SHALL ALSO APPLY TO SEPARATION FROM EXISTING STRUCTURES, INCLUDING ATTENUATION TANKS AND SWALES.
8. THE EXTERNAL FACES OF MANHOLES SHALL BE AT LEAST 0.5m FROM THE EXTERNAL FACE OF THE KERB LINE.
9. THE EXTERNAL WALL OF THE SEWER IS TO BE AT LEAST 1.0m FROM THE EXTERNAL FACE OF THE KERB LINE.
10. WHERE DESIGN DEVIATES FROM TYPICAL DETAILS, THE LAYOUT SHALL BE SUBMITTED TO IRISH WATER FOR REVIEW AND AGREEMENT, WHICH IS TO BE OBTAINED IN WRITING BEFORE WORK COMMENCES.

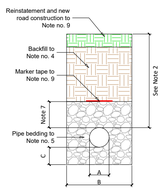
## PETROL INTERCEPTOR AND SOAKPIT DETAILS



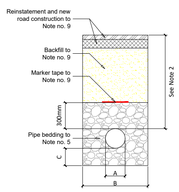

Notes:

1. Soakaways should be sited at least 5m away from the building (Ref BS EN 752).
2. The exact size and shape of the soakaway is to be determined once through calculations outlined in the VRE Digest 365 - Soakaway Design.
3. Interceptor to be encased in a minimum of 150mm concrete.
4. 100mm coarse sand or non angular granular material base and surround.
5. Suitable Geotextile protective layer surround.
6. Proprietary bypass petrol interceptor installed in accordance with manufacturer's. recommendations.
7. Wavin Aquacell Plus-R (or equivalent) installed as per manufacturer's recommendations.

## TRENCH, BACKFILL AND BEDDING. IRISH WATER STD-WW-07.




CROSS SECTION IN GREEN AREAS

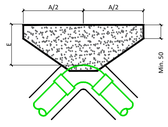



CROSS SECTION IN ROADS

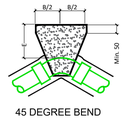
| PIPE DIAMETER "A" (mm) | TRENCH WIDTH "B" (mm) | BEDDING DEPTH "C" (mm) |
|---|---|---|
| ≤ 80 RISING MAIN | SEE NOTE 10 | 100 |
| 80-100 | 500 | |
| 100 - 200 | 600 | |
| 200 - 350 | 750 | 200 |
| 350 - 450 | 900 | |

1. ALL DIMENSIONS ARE IN METERS (m) 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 0.5m. 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 0.75m.
   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 0.90m.
   d) DEPTHS OF SEWERS IN GATED ESTATES SHALL BE SIMILAR TO THAT OUTLINES ABOVE.
   e) AGRICULTURAL LAND AND PUBLIC OPEN SPACES: DEPTH NOT LESS THAN 0.9m.
   f) OTHER ROADWAYS, HIGHWAYS AND PARKING AREAS WITH UNRESTRICTED ACCESS TO VEHICLES WITH A GROSS 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) 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. EVIDENCE OF THE WRITTEN APPROVAL OF ALTERNATIVE MATERIAL IS 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 TII SPECIFICATION FOR ROAD WORKS, TABLE 6/1 , CLASS 8, CLASS 2, MAY BE USED IN GREENFILED AREAS ABOVE GRANULAR PIPE SURROUND MATERIAL SUBJECT TO REVIEW BY IRISH WATER.
5. PIPE BEDDING SHALL COMPLY WITH WIS 4-08-02 AND IGN 4-08-01. THE PIPE BEDDING GRANULAR MATERIAL SHALL BE 14mm TO 5mm (dD 2 14) GRADED AGGREGATE OR 10mm (d D 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 TII SPECIFICATION FOR ROADWORKS, TABLE 6/1,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 GREENFIELED 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.

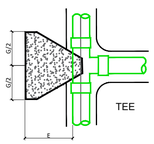
## THRUST BLOCKS. IRISH WATER STD-WW-14.




90 DEGREE BEND




45 DEGREE BEND

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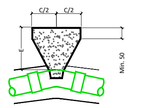
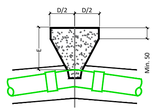
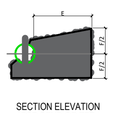



22.5 DEGREE BEND




11.25 DEGREE BEND




SECTION ELEVATION FOR BEND OR TEE

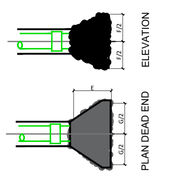
HORIZONTAL BENDS

< 12 BAR TEST PRESSURE

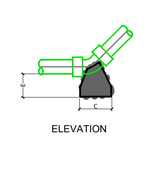
| NOM. DIA. (mm) | DIMENSIONS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | J | K |
| 100 | 600 | 330 | 160 | 80 | 200 | 350 | 390 | 700 | 600 | 400 |
| 150 | 950 | 510 | 260 | 130 | 225 | 450 | 660 | 900 | 750 | 600 |
| 200 | 1150 | 600 | 310 | 160 | 300 | 650 | 790 | 1050 | 900 | 700 |
| 250 | 1350 | 750 | 380 | 200 | 300 | 800 | 970 | 1200 | 1000 | 750 |
| 300 | 1580 | 850 | 450 | 220 | 320 | 950 | 1110 | 1300 | 1100 | 850 |
| 350 | 2100 | 1150 | 570 | 290 | 450 | 1000 | 1450 | 1550 | 1200 | 900 |
| 400 | 2550 | 1400 | 700 | 350 | 500 | 1050 | 1800 | 1700 | 1250 | 1000 |
| 450 | 3000 | 1630 | 830 | 420 | 680 | 1100 | 2130 | 1800 | 1450 | 1150 |
| 500 | 3590 | 1950 | 990 | 500 | 800 | 1200 | 2540 | 1950 | 1600 | 1250 |
| 600 | 4100 | 2200 | 1120 | 570 | 850 | 1400 | 2880 | 2100 | 1700 | 1300 |

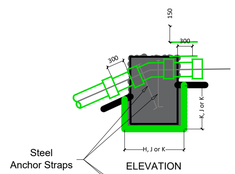
12 BAR TO 15 BAR TEST PRESSURE

| NOM. DIA. (mm) | DIMENSIONS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | J | K |
| 100 | 700 | 380 | 190 | 100 | 200 | 350 | 510 | 750 | 600 | 400 |
| 150 | 1135 | 620 | 320 | 160 | 225 | 450 | 760 | 950 | 750 | 600 |
| 200 | 1400 | 750 | 380 | 190 | 300 | 650 | 980 | 1150 | 950 | 700 |
| 250 | 1730 | 940 | 480 | 240 | 320 | 800 | 1210 | 1350 | 1050 | 850 |
| 300 | 2090 | 1130 | 580 | 300 | 380 | 950 | 1480 | 1500 | 1200 | 950 |
| 350 | 2600 | 1410 | 720 | 360 | 500 | 1050 | 1840 | 1700 | 1350 | 1050 |
| 400 | 2980 | 1610 | 820 | 420 | 750 | 1200 | 2110 | 1850 | 1500 | 1150 |
| 450 | 3400 | 1840 | 940 | 470 | 900 | 1300 | 2330 | 2000 | 1600 | 1250 |
| 500 | 4090 | 2210 | 1130 | 570 | 1000 | 1400 | 2890 | 2200 | 1750 | 1350 |
| 600 | 5010* | 2710* | 1380 | 700 | 1000 | 1500 | 3550* | 2350 | 1900 | 1500 |




ELEVATION
PLAN DEAD END
DEAD ENDS

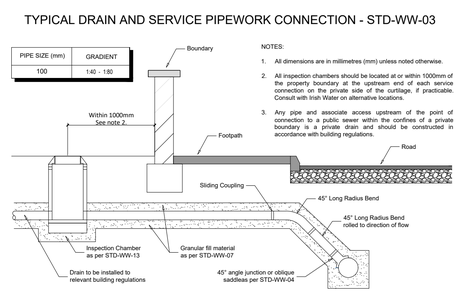



VERTICAL BENDS

## TYPICAL DRAIN AND SERVICE PIPEWORK CONNECTION - STD-WW-03

| PIPE SIZE (mm) | GRADIENT |
|---|---|
| 100 | 1:40 - 1:80 |




NOTES:

1. All dimensions are in millimetres (mm) unless noted otherwise.
2. All inspection chambers should be located at or within 1000mm of the property boundary at the upstream end of each service connection on the private side of the curtilage, if practicable. Consult with Irish Water on alternative locations.
3. Any pipe and associate access upstream of the point of connection to a public sewer within the confines of a private boundary is a private drain and should be constructed in accordance with building regulations.

| Revision Suffix | Revision details | Date |
|---|---|---|
| A | - | - |
| B | - | - |
| C | - | - |
| D | - | - |
| E | - | - |

Drawing status: SHD - STAGE 3

Client: LIMEHILL ESKER LTD.

Project title: BALLINASLOE TOWN CENTRE SHD

Drawing title: Foul & Storm Drainage Standard Details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| chkd. | date | scale | drawn |
|---|---|---|---|
| R.G. | 14/08/2022 | Not to Scale | R.D. |

Drawing No. 2521-301 rev -