NOTES:

- 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 WRAPPING, ALTERNATIVELY, SPECIAL PIPE NOT LESS THAN 0.5M (THIS WOULD NORMALLY SUPPORT ARRANGEMENTS, INCLUDING PILING RELATE TO DRAINS IN PRIVATE PROPERTY, SHALLOW PIPES OF THIS NATURE ARE UNDESIRABLE AND SHOULD BE INSTALLED IN ACCORDANCE WITH THE CURRENT BUILDING REGULATIONS).
- HEIGHT RESTRICTIONS TO PREVENT ENTRY BY (SELECTED EXCAVATED MATERIAL) WILL BE VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES - DEPTH NOT LESS THAN 0.75m.
- C. DRIVEWAYS, PARKING AREAS AND NARROW STREETS WITHOUT FOOTWAYS (EG MEWS DEVELOPMENTS) WITH LIMITED ACCESS FOR VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES - DEPTH NOT LESS THAN 0.9m.
- D. DEPTHS OF SEWERS IN GATED ESTATES SHALL 8 PIPES SHALL NOT BE SUPPORTED ON STONES, BE SIMILAR TO THAT OUTLINED ABOVE.
- E. AGRICULTURAL LAND AND PUBLIC OPEN SPACE - DEPTH NOT LESS THAN 0.9m.
- F. OTHER 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 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY 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 808 IS TO BE COMPACTED AS PER CLAUSE 802 OF THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS.
- 4 SELECTED EXCAVATED MATERIAL MAY BE USED

 MAT BE SOCIED., SOCIED., SOCIED.

 BEING GIVEN TO THE TRENCH DEPTH, HEALTH IN GREEN-FIELD AREAS ABOVE GRANULAR PIPE SURROUND MATERIAL SUBJECT TO THE APPROVAL OF IRISH WATER.
- 5 PIPE BEDDING SHALL COMPLY WITH WIS 4-08-02 AND IGN 4-08-01 GRANULAR MATERIAL SHALL BE 14mm TO 5MM GRADED AGGREGATE OR 10MM SINGLE SIZED AGGREGATE IS EN 13242. CONCRETE BED, HAUNCH & SURROUND, WHERE REQUIRED, SHALL BE TO STD-WW-08.

GRASSED AREAS

MINIMUM TRENCH

CROSS SECTION IN GRASSED AREAS

1 ALL DIMENSIONS ARE IN MILLIMETRES (mm) 6 IN SOFT GROUND CONDITIONS (CBR < 5) THE MATERIAL SHOULD BE EXCAVATED AND DISPOSED OF IN ACCORDANCE WITH THE WASTE MANAGEMENT ACT AND CLAUSE 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS SHALL REPLACE THE EXCAVATED MATERIAL, WRAPPED IN GEO-TEXTILE

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. B. DRIVEWAYS, PARKING AREAS AND YARDS WITH 7 IN GREEN FIELD AREAS, TYPE B BACKFILL 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.
 - 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 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAID
 - 9 NON DEGRADABLE MARKER TAPE SHOULD BE INSTALLED AT TOP OF PIPE BEDDING LAYER. 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 AND THE DISCHARGE

ABOVE THIS VOID BACKFILL MATERIAL.

10 TRENCH WIDTHS FOR PIPE SIZES ≤80mm MAY BE <500mm, SUBJECT TO CONSIDERATION & SAFETY & CONSTRUCTION ACCESS

DEPTH OF REINSTATED

TOPSOIL TO MATCH EXISTING.

SELECTED BACKFILL. REFER TO NOTE 4 FOR DETAILS

MARKER TAPE. REFER TO

PIPE BEDDING. REFER TO

NOTE 5 FOR DETAILS.

NOTE 9 FOR DETAILS.

PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)
< 80 RISING MAIN	< SEE NOTE 10.
< 100	100
150 – 450	200
·	

PIPE DIAMETER 'A' (mm)	TRENCH WIDTH 'B' (mm)
< 80 RISING MAIN	< SEE NOTE 10.
100	500
150	600
200	600
250	750
300	750
350	750
400	900
450	900

ROAD/FOOTPATH SURFACE

MINIMUM TRENCH

CROSS SECTION IN ROADS

BACKFILL. REFER TO NOTE 3

MARKER TAPE, REFER TO

NOTE 9 FOR DETAILS.

PIPE BEDDING. REFER TO

WALL OR JOINT FORMED _

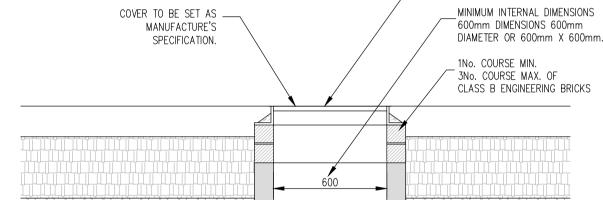
WITH WATERTIGHT SEALS.

NOTE 5 FOR DETAILS.

FOR DETAILS

TYPE 'B' TYPE 'A' EXTERNAL PIPE EXTERNAL PIPE DIAMETER DIAMETER TYPE 'C' TYPE D' EXPANSION JOINT WITH COMPRESSIBLE FILLER BOARD. PIPE SURROUND FLOW FLOW _ COMPRESSIBLE SPIGOT AND SOCKETS JOINT CONCRETE BED, HAUNCH AND SURROUND TO WASTEWATER PIPES. (STD-WW-08)SCALE 1:20

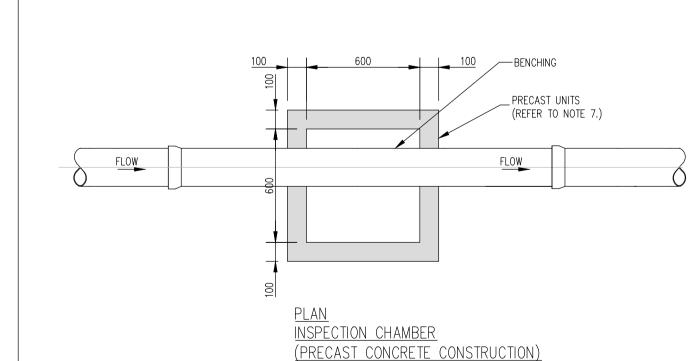
SEALED MANHOLE COVER TO SUIT IS EN 124 LOADING MINIMUM 600mm X 600mm CLEAR OPENING. COVER TO BE SET AS MANUFACTURE'S



PRECAST UNITS (REFER TO NOTE 7) REFER TO DRAWING STD-WW-07 FOR BACKFILL -AND BEDDING DETAILS. 225mm PRECAST BASE OR 225mm IN-SITU CONCRETE C25/30. PIPES BUILT INTO CHAMBER

<u>SECTION</u>

- 50mm CROSS FALL.



- 1. ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS NOTED OTHERWISE. 2. CONCRETE PIPELINE BEDS AND HAUNCHES MAY BE REQUIRED TO ADDRESS MINIMUM COVER
- SITUATIONS. AND SHALL BE SUBJECT TO SUBMISSION AND ASSESSMENT BY IRISH WATER BEFORE ADVANCING WITH THE WORKS. CONCRETE PIPE BEDS AND HAUNCHES SHALL HAVE A MINIMUM THICKNESS OF 150MM WITH AN
- ABSOLUTE MINIM DEPTH OF COVER ABOVE THE EXTERNAL CROWN OF THE PIPE OF 750MM. 4. CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 AND TO BE CLASSED C16/20
- 5. THE HAUNCHES AND SURROUNDINGS TO BE FORMED USING FORM WORK TO PROVIDE A ROUGH 6. EXPANSION JOINTS IN THE CONCRETE SHALL BE
- PROVIDED AT ALL PIPE JOINTS TO ALLOW FOR PIPE FLEXIBILITY, COMPRESSIBILITY FILLER BOARD TO BE IN ACCORDANCE WITH BS EN 622-1 AND BS EN 622-4, AND TO BE 18mm THICK. 7. POLYETHYLENE PIPES SHALL BE WRAPPED IN
- PLASTIC SHEETING HAVING A COMPETITION WITH ACCORDANCE WITH BS6076 BEFORE BEING CAST INTO CONCRETE.
- 8. BITUMMINOUS MATERIAL SHALL NOT BE PUT IN CONTACT WITH PE OR PVC PIPES.

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED

2. AN INSPECTION CHAMBER SHOULD BE LOCATED AT OR

UPSTREAM END OF EACH SERVICE CONNECTION ON THE

WITHIN 1m OF THE PROPERTY BOUNDARY AT THE

PRIVATE SIDE OF THE CURTILAGE, IF PRACTICABLE.

3. ANY PIPE AND ASSOCIATED ACCESS UPSTREAM OF THE

POINT OF CONNECTION TO A PUBLIC SEWER IS A PRIVATE

DRAIN AND SHOULD BE CONSTRUCTED IN ACCORDANCE

4. ACCESS POINTS SHOULD BE LOCATED SO THAT THEY ARE

ACCESSIBLE AND APPARENT TO THE MAINTAINER AT ALL

TIMES FOR USE. THEY SHOULD AVOID REAR GARDENS OR ENCLOSED LOCATION S AND THEY SHOULD NEVER BE

OVERLAIN WITH SURFACE DRESSING, TOPSOIL, ETC.

5. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND

TRAFFIC CONDITIONS SUBJECT TO APPROVAL FROM IRISH

6. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH WITH

PROTECTIVE STAINLESS STEEL METAL BAND AROUND

7. PROPRIETY PREFABRICATED CHAMBER UNITS MAY ALSO BE

8. CONCRETE CHAMBER SHALL BE SURROUNDED BY A MINIMUM

OF 150mm COMPACTED CLAUSE 804 OR CLAUSE 808

USED SUBJECT TO APPROVAL FROM IRISH WATER.

WITH THE BUILDING REGULATIONS.

COVERS IN GREEN AREAS.

MATERIAL AS PER STD-WW-07.

OTHERWISE.

FLOW

CROSS-SECTIONAL VIEW OF SEWER

CROSS-SECTIONAL VIEW OF SEWER

DIRECTION OF

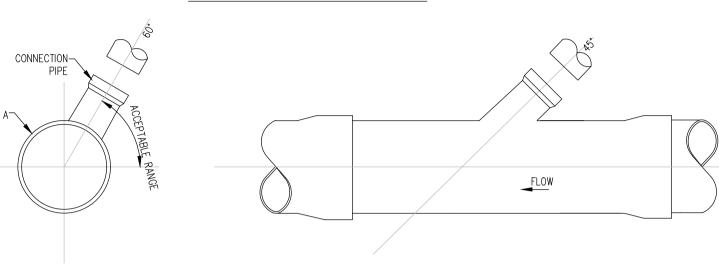
VEHICLE TRAVEL

GULLY GRATE

VIEW IN DIRECTION OF ARROW A

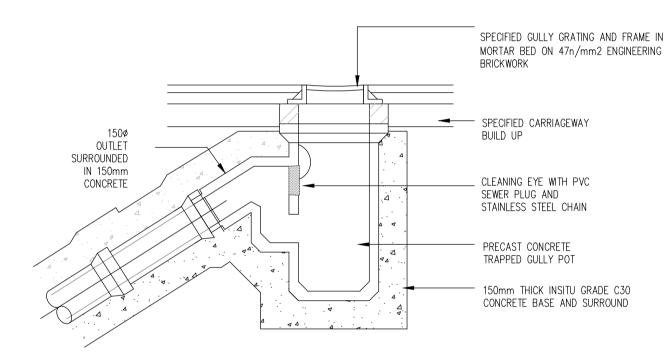
VIEW IN DIRECTION OF ARROW A

APPROVED 45° SADDLE CONNECTION



APPROVED 45° SADDLE CONNECTION

TYPICAL SEWER/SERVICE PIPE (STD-WW-04)SCALE 1:20



NOTES:

NOTED OTHERWISE.

1. ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS

CONNECTION SHALL BE BUILT IN FOR ALL PLANED

USERS WHEN THE SEWER IS BEING CONSTRUCTED.

POST-CONSTRUCTION CONNECTION THE DEVELOPER

CHAMBER, INSTALL THE INSPECTION CHAMBER AND

CONNECTING PIPE AND THE HORIZONTAL SHALL BE

300mm DIAMETER OF LESS, CONNECTIONS SHALL BE

SEWER WITH NORMAL INTERNAL DIAMETER GREATER

GREATER THAN HALF THE DIAMETER OF THE SEWER,

AN ACCESS MANHOLE SHALL BE CONSTRUCTED TO

B) IF THE DIAMETER OF THE CONNECTION PIPE IS LESS

THAN OR EQUAL TO HALF DIAMETER OF THE SEWER,

SHALL BE MADE BY CUTTING AND SAFELY REMOVING

MANUFACTORIES INSTRUCTIONS TO ENSURE A WATER

A CORE FROM THE PIPE AND JOINTING THE SADDLE

FITTING TO THE PIPE IN ACCORDANCE WITH THE

TIGHT JOINT. THE CONNECTING PIPE SHALL NOT

THAN THE CONNECTION SHALL BE MADE USING A

PREFORMED SADDLE FITTING WITH A SLOW BEND

BETWEEN THE SADDLE AND THE CONNECTION

6. CONNECTIONS MADE WITH THE SADDLE FITTINGS

PROTRUDE INTO THE SEWERS.

SEAL THE UPSTREAM END UNTIL THE CONNECTION IS

SHALL BRING THE SEWER TO THE INSPECTION

2. AS FAR AS PERFECTIBLE, JUNCTION AND SERVICE

WHETHER IT IS NECESSARY TO MAKE A

THE VERTICAL ANGLE BETWEEN THE SERVICE

GREATER THAN 0° AND NOT MORE THAN 60°.

WHERE THE CONNECTION IS BEING MADE TO A

WHERE THE CONNECTION IS BEING MADE TO A

A) IF THE DIAMETER OF THE CONNECTION PIPE IS

MADE USING 45° ANGLE JUNCTION.

FORM THE CONNECTION POINT; OR

THAN 300mm;

SEWER/DRAIN.

SEWER WITH A NORMAL INTERNAL DIAMETER OF

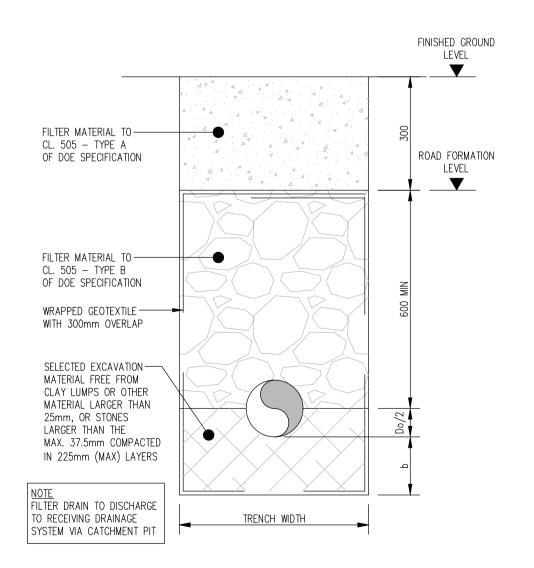
PRECAST CONCRETE TRAPPED GULLY POT

JFOC Architects

Edmondstown Lands

Typical Drainage Details Sheet 2 of 2

EDM-CSC-GF-XX-DR-C-0016



FILTER DRAINS

(STD - WW - 07)SCALE 1:20

TRENCH BACKFILL AND BEDDING

PLANNING DRAWING

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