NOTES: WHERE THE 1 ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE. DEPTH OF 2 THE MINIMUM DEPTH OF COVER FROM THE FINISHED SURFACE TO THE CROWN OF GRAVITY PIPES WITHOUT PROTECTION SHOULD SOFT BE AS FOLLOWS: MATERIAL

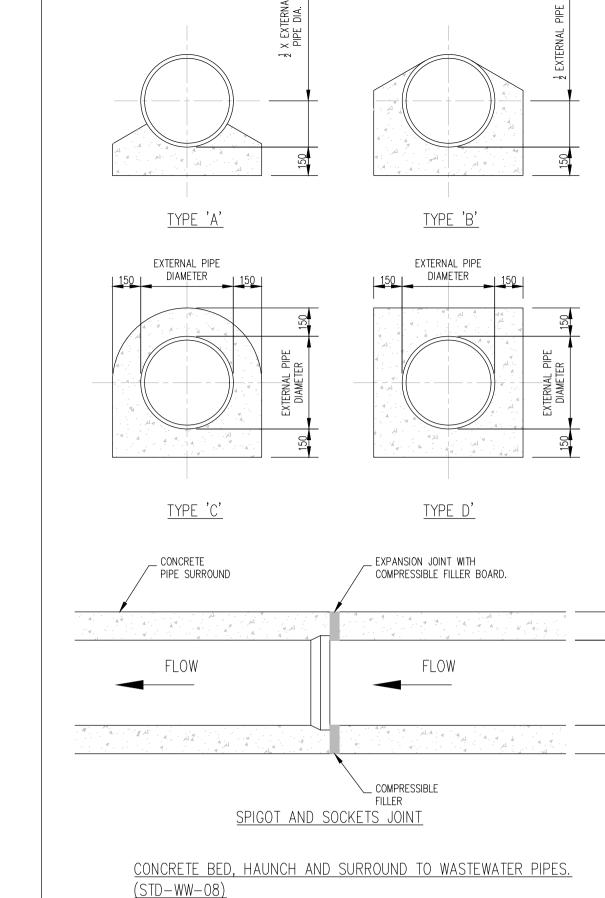
- A. GARDENS AND PATHWAYS WITHOUT ANY POSSIBILITY OF VEHICULAR ACCESS DEPTH NOT LESS THAN 0.5M (THIS WOULD IS NORMALLY RELATE TO DRAINS IN PRIVATE PROPERTY, SHALLOW PIPES OF THIS NATURE ARE UNDESIRABLE AND SHOULD BE EXCESSIVE. INSTALLED IN ACCORDANCE WITH THE CURRENT BUILDING REGULATIONS). SUCH ARRANGEMENTS
- B. DRIVEWAYS, PARKING AREAS AND YARDS WITH HEIGHT RÉSTRICTIONS TO PREVENT ENTRY BY VEHICLES WITH A GROSS VEHICLE SHALL WEIGHT IN EXCESS OF 7.5 TONNES - DEPTH NOT LESS
- C. DRIVEWAYS, PARKING AREAS AND NARROW STREETS WITHOUT FOOTWAYS (EG MEWS DEVELOPMENTS) WITH LIMITED ACCESS FOR SUBJECT VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES - DEPTH NOT LESS THAN 0.9m. TO ASSESSMENT
- DEPTHS OF SEWERS IN GATED ESTATES SHALL BE SIMILAR TO THAT OUTLINED ABOVE. BY AGRICULTURAL LAND AND PUBLIC OPEN SPACE - DEPTH NOT LESS THAN 0.9m. IRISH WATER OTHER HIGHWAYS AND PARKING AREAS WITH UNRESTRICTED ACCESS TO VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF BEFORE 7.5 TONNES - DEPTH NOT LESS THAN 1.2m. ADVANCING 3 CLAUSE 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS IS TO BE USED WITH AS BACKFILL MATERIAL WHERE THE SEWER MAIN IS LOCATED IN ROADS, FOOTPATHS OR WHEN THE NEAREST PART OF THE THE TRENCH IS WITHIN 1M OF THE PAVED EDGE OF THE ROADWAY, CLAUSE 808 IS TO BE COMPACTED AS PER CLAUSE 802 OF THE WORK. NATIONAL ROADS AUTHORITY SPECIFICATION
- FOR ROAD WORKS. 7 IN GREEN FIELD AREAS, TYPE 4 SELECTED EXCAVATED MATERIAL MAY BE USED IN GREEN-FIELD AREAS ABOVE GRANULAR PIPE SURROUND MATERIAL SUBJECT B TO THE APPROVAL OF IRISH WATER. BACKFILL 5 PIPE BEDDING SHALL COMPLY WITH WIS 4-08-02 AND IGN 4-08-01 GRANULAR MATERIAL SHALL BE 14mm TO 5MM GRADED (SELECTED AGGREGATE OR 10MM SINGLE SIZED AGGREGATE IS EN 13242. CONCRETE BED, HAUNCH & SURROUND, WHERE REQUIRED, SHALL EXCAVATED BE TO STD-WW-08. MATERIAL) WILL BE 6 IN SOFT GROUND CONDITIONS ALLOWED (CBR ABOVE < THE 5) SIDE THE HAUNCH MATERIAL GRANULAR SHOULD MATERIAL BE IN EXCAVATED THE AND CASE DISPOSED OF OF RIGID IN PIPES. ACCORDANCE A WITH GRANULAR THE SURROUND WASTE OF MANAGEMENT A ACT MINIMUM AND DEPTH CLAUSE OF 808 150mm MATERIAL ABOVE IN THE ACCORDANCE CROWN WITH OF THE THE NATIONAL PIPE ROADS IS AUTHORITY REQUIRED SPECIFICATION FOR FOR FLEXIBLE ROAD PIPES, WORKS AND SHALL TYPE REPLACE B THE MATERIAL EXCAVATED MAY MATERIAL, BE WRAPPED USED IN AS GEO-TEXTILE BACKFILL WRAPPING, ABOVE ALTERNATIVELY, THIS. SPECIAL ALL PIPE RISING SUPPORT MAINS ARRANGEMENTS, IN INCLUDING GREENFIELD PILING AREAS ETC. SHALL MAY HAVE BE A REQUIRED 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 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAID ABOVE THIS VOID BACKFILL MATERIAL. 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 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.

PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)				
< 80 RISING MAIN	< SEE NOTE 10.				
< 100	100				
150 - 450	200				
600	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					
600	1250					



SCALE 1:20

<u>NOTES</u>

1. ALL DIMENSIONS ARE IN MILLIMETERS (mm)

2. CONCRETE PIPELINE BEDS AND HAUNCHES MAY

SITUATIONS. AND SHALL BE SUBJECT TO

BEFORE ADVANCING WITH THE WORKS.

3. CONCRETE PIPE BEDS AND HAUNCHES SHALL

BE REQUIRED TO ADDRESS MINIMUM COVER

SUBMISSION AND ASSESSMENT BY IRISH WATER

HAVE A MINIMUM THICKNESS OF 150MM WITH AN

FORMED USING FORM WORK TO PROVIDE A ROUGH

PROVIDED AT ALL PIPE JOINTS TO ALLOW FOR

PIPE FLEXIBILITY, COMPRESSIBILITY FILLER BOARD

PLASTIC SHEETING HAVING A COMPETITION WITH

ACCORDANCE WITH BS6076 BEFORE BEING CAST

TO BE IN ACCORDANCE WITH BS EN 622-1 AND

ABSOLUTE MINIM DEPTH OF COVER ABOVE THE

EXTERNAL CROWN OF THE PIPE OF 750MM.

4. CONCRETE TO BE IN ACCORDANCE WITH IS EN

6. EXPANSION JOINTS IN THE CONCRETE SHALL BE

BS EN 622-4, AND TO BE 18mm THICK.

8. BITUMMINOUS MATERIAL SHALL NOT BE PUT IN

CONTACT WITH PE OR PVC PIPES.

7. POLYETHYLENE PIPES SHALL BE WRAPPED IN

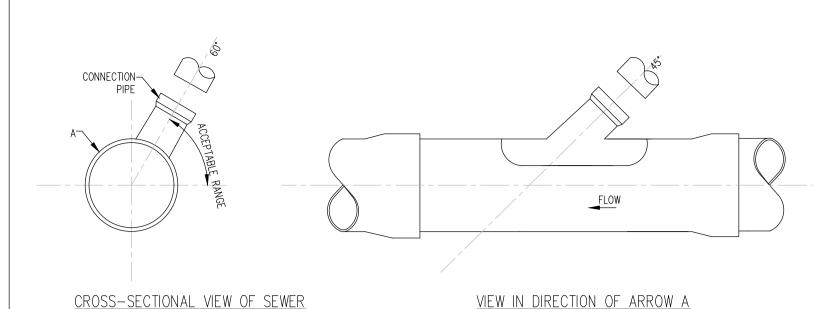
206 AND TO BE CLASSED C16/20.

CAST FINISH.

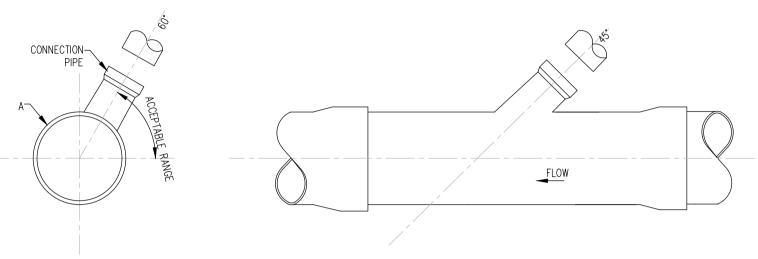
INTO CONCRETE.

5. THE HAUNCHES AND SURROUNDINGS TO BE

UNLESS NOTED OTHERWISE.



APPROVED 45° SADDLE CONNECTION



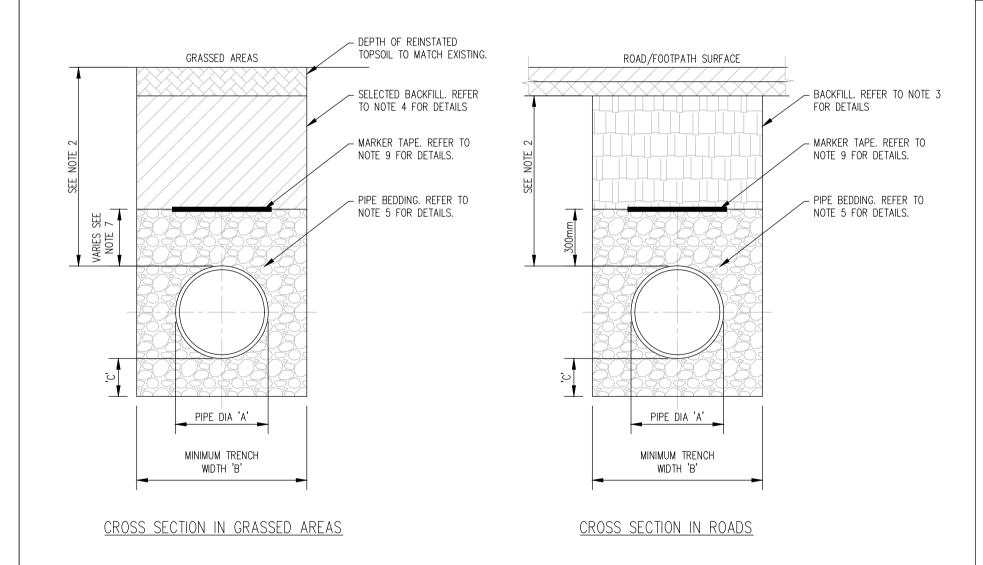
CROSS-SECTIONAL VIEW OF SEWER

VIEW IN DIRECTION OF ARROW A

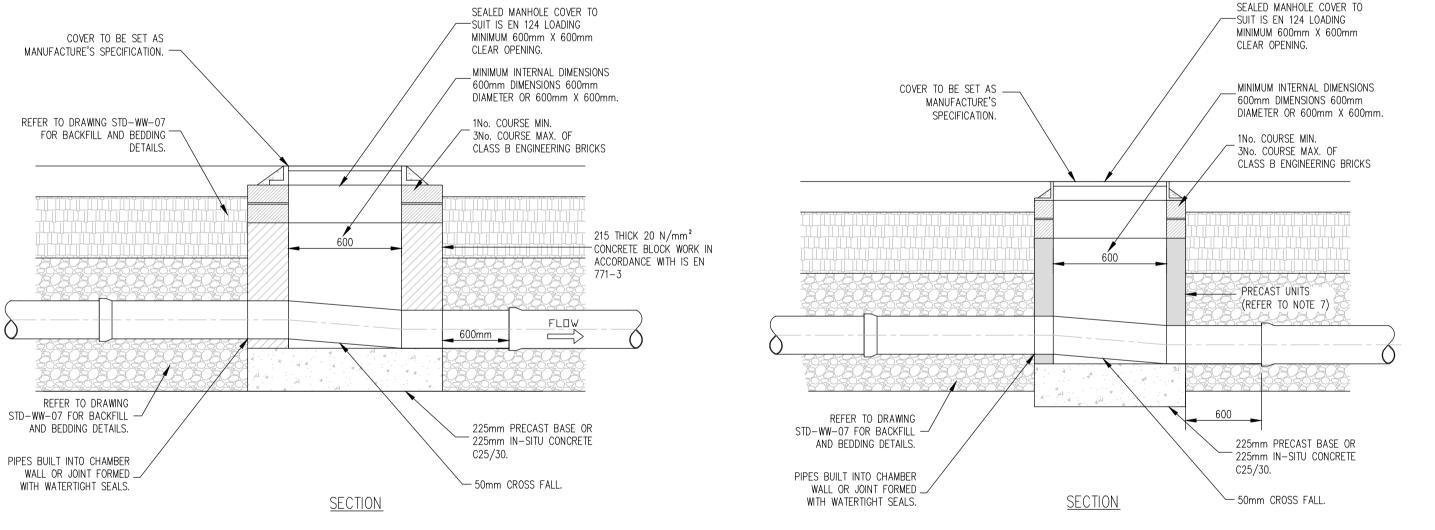
APPROVED 45° SADDLE CONNECTION

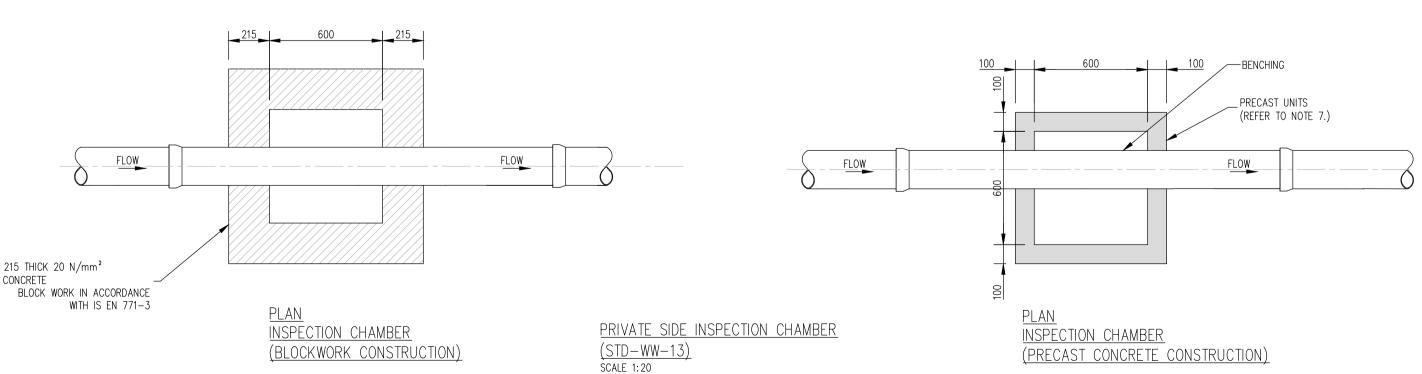
(STD-WW-04)

TYPICAL SEWER/SERVICE PIPE



TRENCH BACKFILL AND BEDDING (STD - WW - 07) SCALE 1:20





NOTES:

NOTED OTHERWISE.

1. ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS

2. AS FAR AS PERFECTIBLE, JUNCTION AND SERVICE

WHETHER IT IS NECESSARY TO MAKE A

3. THE VERTICAL ANGLE BETWEEN THE SERVICE

GREATER THAN O' AND NOT MORE THAN 60'.

SEWER WITH A NORMAL INTERNAL DIAMETER OF

4. WHERE THE CONNECTION IS BEING MADE TO A

5. 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

SEWER/DRAIN.

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

PREFORMED SADDLE FITTING WITH A SLOW BEND

BETWEEN THE SADDLE AND THE CONNECTION

6. CONNECTIONS MADE WITH THE SADDLE FITTINGS

PROTRUDE INTO THE SEWERS.

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

SEAL THE UPSTREAM END UNTIL THE CONNECTION IS

SHALL BRING THE SEWER TO THE INSPECTION

- 1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- 2. AN INSPECTION CHAMBER SHOULD BE LOCATED AT OR WITHIN 1m OF THE PROPERTY BOUNDARY AT THE UPSTREAM END OF EACH SERVICE CONNECTION ON 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 WITH THE BUILDING REGULATIONS.
- 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
- 5. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO APPROVAL FROM IRISH

OVERLAIN WITH SURFACE DRESSING, TOPSOIL, ETC.

- 6. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH WITH PROTECTIVE STAINLESS STEEL METAL BAND AROUND COVERS IN GREEN AREAS.
- 7. PROPRIETY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED SUBJECT TO APPROVAL FROM IRISH WATER.
- 8. CONCRETE CHAMBER SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 804 OR CLAUSE 808 MATERIAL AS PER STD-WW-07.



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