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Contractors must verify all dimensions, levels and co-ordinates at the site before commencing any work or making any shop drawings; no dimensions to be taken from drawing.

ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF LINCOLNSHIRE COUNTY COUNCILS DEVELOPMENT ROAD AND SUSTAINABLE DRAINAGE DESIGN GUIDE AND DEVELOPMENT ROAD AND SUSTAINABLE DRAINAGE SPECIFICATION AND CONSTRUCTION.

1) "The specification in all respects shall be in accordance with the current Lincolnshire Development Road and Sustainable Drainage Design Guide"and "Development Road and Sustainable Drainage Specification and Construction" publications in force in the county at the time of construction.

2) The minimum longitudinal fall for highways, without channel blocks shall be 1 in 150, and with channel blocks 1 in 250 (see Clause 10.1).

3) In addition, ensure that the first section of any side road falls away from the road to which it is connecting. If general topography requires it to rise, this change of direction should take place after the first set of gullies. This is to ensure a 'false channel' with associated drainage problems is not created in the bellmouth of junctions.

4) "General deterioration of the existing highway/footway/verges created through construction of the new Section 38 Development will be reinstated to the current Development Road Specification at the developers' own cost at the agreement of the inspecting Highway and Flood Authority Officer".

5) "No Private surface water shall discharge onto the adoptable highway"

6) "No private, structural features shall overhang the adoptable highway".

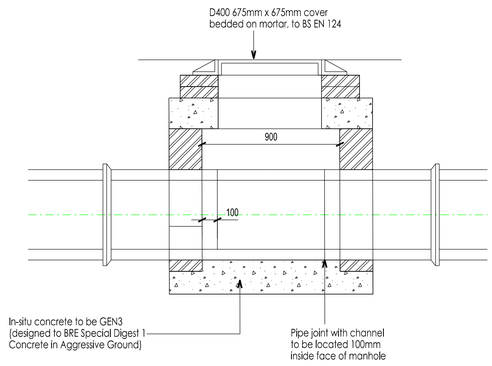
7) "No private retaining walls exceeding 1.37m shall be within 3.66m of the highway boundary".

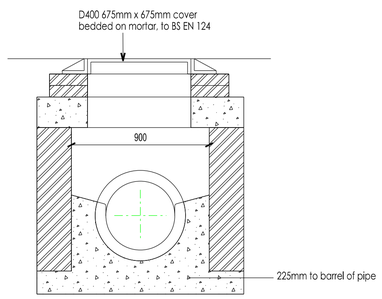
8) - Warning signs shall be located in the upstream, downstream and actual manholes containing ancillary devices and structures i.e. flow control devices, storm water tanks etc.

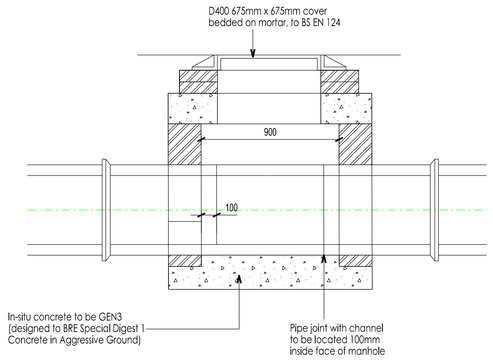
9)- The signs shall be designed in accordance with BS 5499-1:2002 utilising sign reference BS EN ISO 7010:2012 + A5:2015 with supplementary text specific to the hazard and agreed by the Highway and Flood Authority.

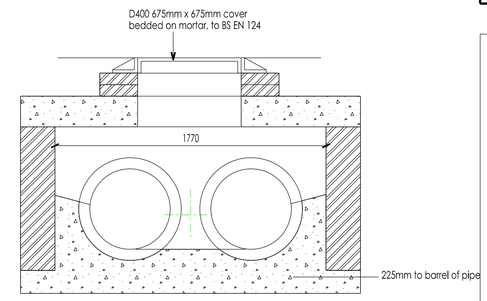
10)- The signs shall be manufactured from materials that are not adversely affected by the environment and effluent typically found in surface water sewer systems. The signs shall be clearly legible for a minimum of 10 years.

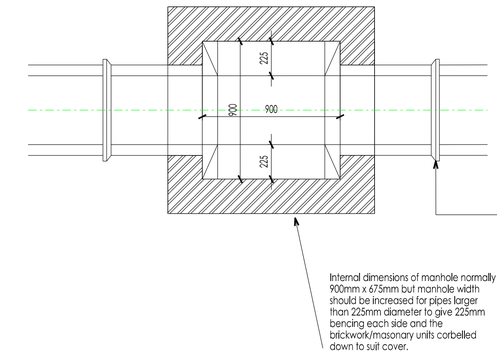
11) - The signs shall be mechanically fixed within the manhole where they can be clearly read without entering the chamber and in a position where they will not hinder access into the chamber. The fixing position shall be agreed with the Highway and Flood Authority. The fixings shall be Grade 316S31 stainless steel in accordance with BS970 Part 1, BS ENs 10084, 10085, 10087, 10088, 10095 and 10250-4.

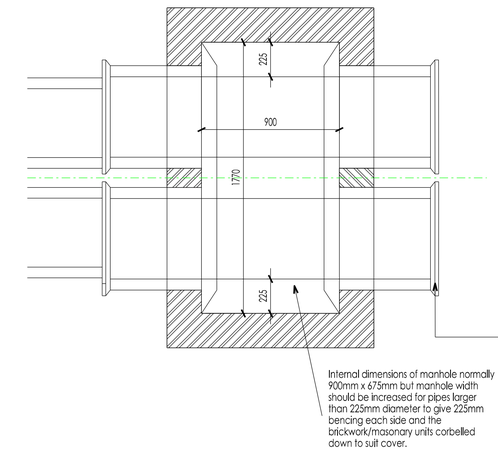




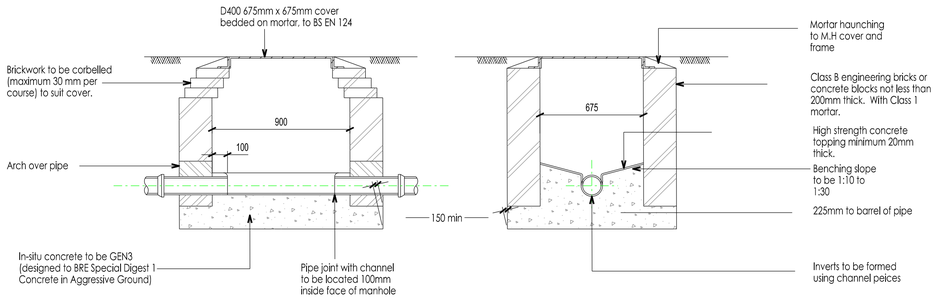


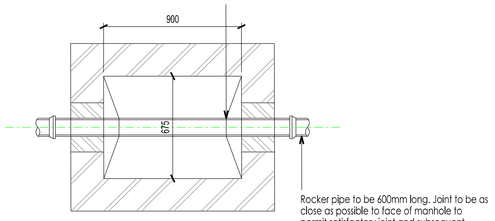






900 x 900 TYPE D CHAMBER
450mm Ø PIPE

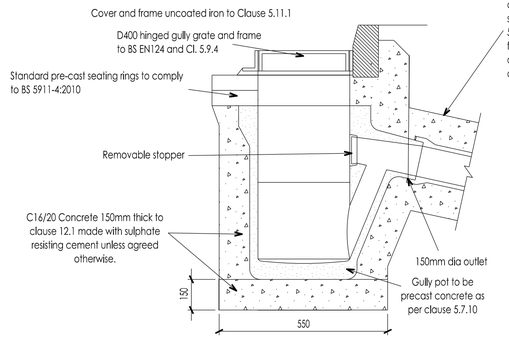




Manhole Detail - Type D
Depth from cover level to soffit of pipe less than 1.0m

NOTE: The use of precast rectangular concrete manhole units with 150mm grade GEN3 concrete surround (designed to BRE Digest Special Digest 1 Concrete in Aggressive Ground) is permitted.

675 x 900 TYPE D CHAMBER



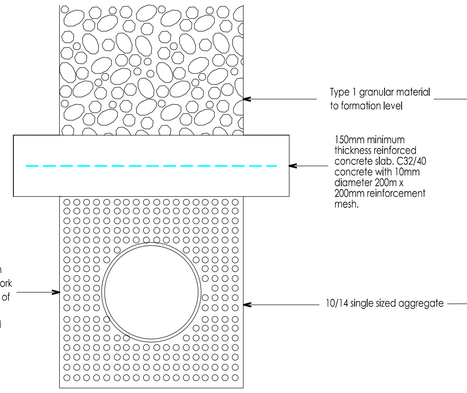
GULLY (TYPE G5 TRAPPED)

Sidefill material to be placed evenly on both sides of the pipe taking care to work the material under the lower quadrant of the pipe, ensuring the pipe is not lifted. Both sides of the trench should be filled simultaneously to avoid horizontal movement of the pipe.

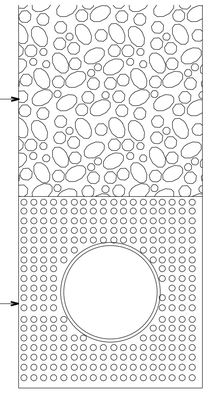
Mechanical compaction of backfill material should not be commenced unti there is a total depth of cover of 300mm above the crown of the pipe.

Lincs approved supplier required for all material for backfilling of trenches.

1770 x 900 TYPE D CHAMBER
TWIN 525mm Ø PIPE



CONCRETE SLAB PROTECTION
WHERE COVER IS LESS THAN 1.2m



CLASS S GRANULAR BED AND SURROUND
WHERE COVER IS GREATER THAN 1.2m

Rev	Description	Drn	Vf'd	Date
A	Twin 525 Type D manhole detail added.	CM	AG	21/05/19
-	Issued for S38 Approval	CM	AG	12/18

As outlined in section 2.3 of the CITB Industry Guidance to Designers, insignificant risks can usually be ignored, as can risks arising from routine construction activities, unless the design compounds or significantly alters these risks. In accordance with CDM Regulations 8, 9 and 11, any significant risks relating to the design features shown on this drawing have been identified and are annotated thus: [I]

☒ No significant risks have been identified.

☐ Significant risks have been identified - refer to notes on drawing for information on residual risks and any control measures to be employed.

Refer to the current Designer's Risk Assessment sheets for further details.

Designer's Signature	CM	Date	12/18

Drawing Status
APPROVAL

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Also at Leeds, Lincoln, Wirksworth

Project
RESIDENTIAL DEVELOPMENT
SMALL DROVE
WESTON
SPALDING

Client
SOUTH HOLLAND DISTRICT COUNCIL

Title
S38 DRAINAGE DETAILS

Drawn	Date	Scale	@ A1
CM	DECEMBER 2018	NTS	
Discipline	Project Number	Drawing Number	Revision
CIVILS	11505	(9)08	A