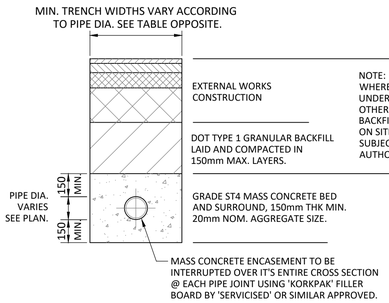
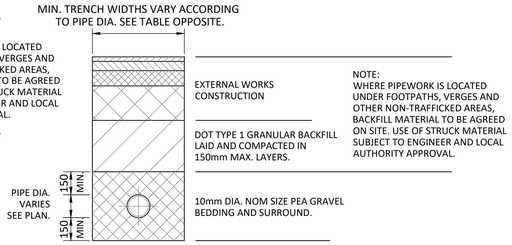


PIPE BEDDING DETAIL TYPE A

NOTE:
APPLICABLE WHERE PIPEWORK HAS LESS THAN 900mm COVER



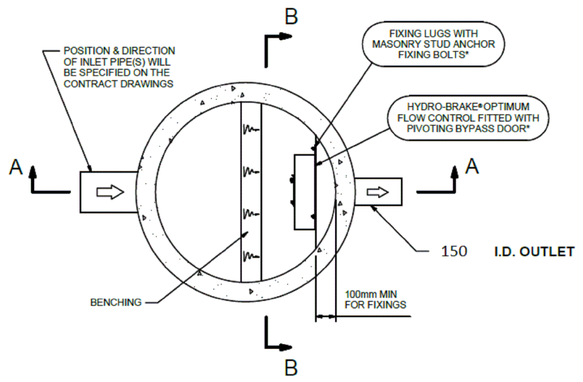
PIPE BEDDING DETAIL TYPE S

NOTE:
APPLICABLE WHERE PIPEWORK HAS MORE THAN 900mm COVER

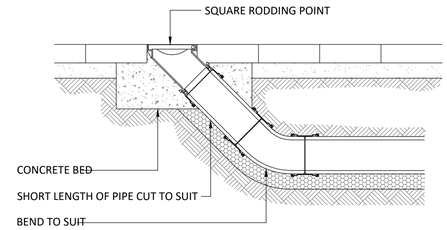
TRENCH WIDTHS:	
PIPE DIA. (mm)	MIN. TRENCH WIDTH (mm)
100	550
150	600
225	700

NOTE:
NO MECHANICAL COMPACTION TECHNIQUES TO BE USED WITHIN 300mm OF THE CROWN OF ALL PIPEWORK.

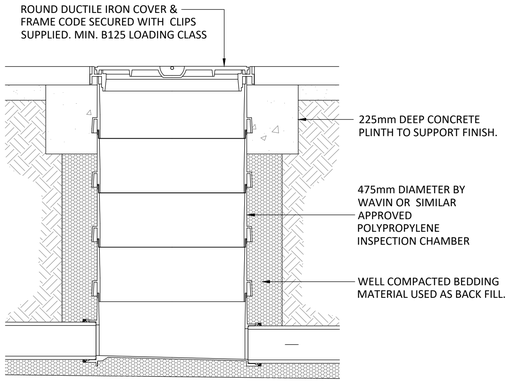
SEE STRUCTURAL ENGINEERS DETAILS FOR PIPEWORK LAID UNDER BUILDINGS / THROUGH FOUNDATIONS ETC.



FLOW CONTROL CHAMBER DETAILS (S1.26 FC & S3.8 FC)



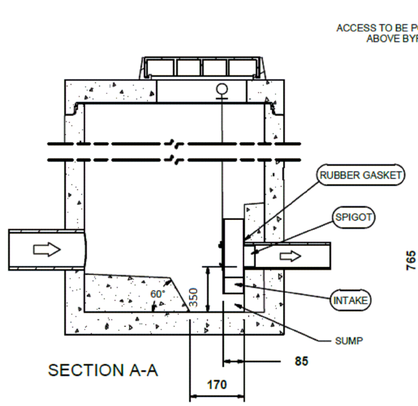
RODDING EYE DETAIL (SCALE 1:10)

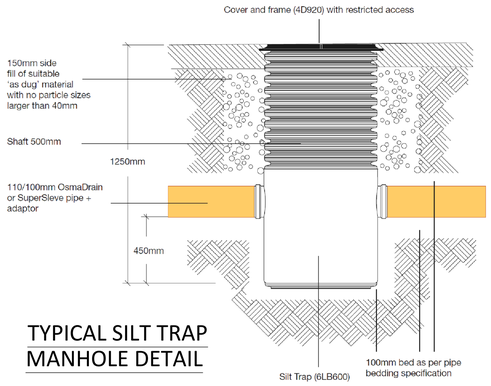


NB:- UNIVERSAL PRODUCT - ADAPTOR TO PVC-U PIPE INCLUDED.

POLYPROPYLENE INSPECTION CHAMBER (SCALE 1:10)

HARD LANDSCAPED AREAS WITH STANDARD ROUND COVER

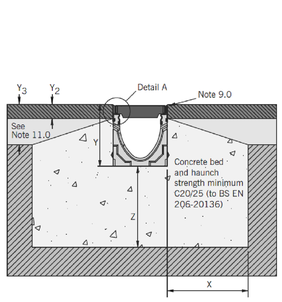


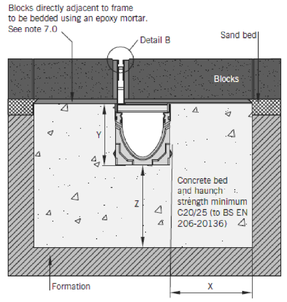


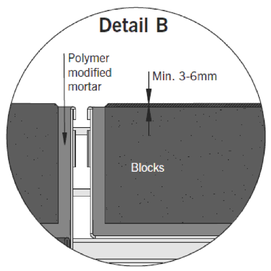
TYPICAL SILT TRAP MANHOLE DETAIL

CONCRETE SPECIFICATION FOR EXTERNAL WORKS

APPLICATION	GRADE	SULPHATE CONDITIONS CLASS 2 MIN. CEMENT CONTENT	SULPHATE CONDITIONS CLASS 2 MAX. FREE WATER/CEMENT RATIO
Gully Surround Saddle Surround General Pipe Surround Rodding Eye Surround	C10/20	130	0.8
Benching	GRANOLITHIC SCREED	330	0.5

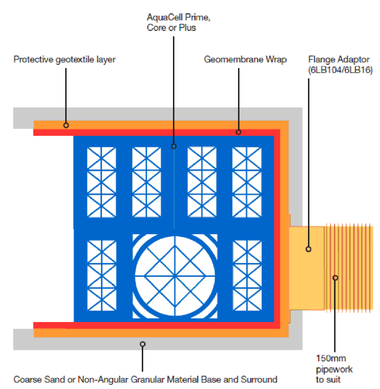




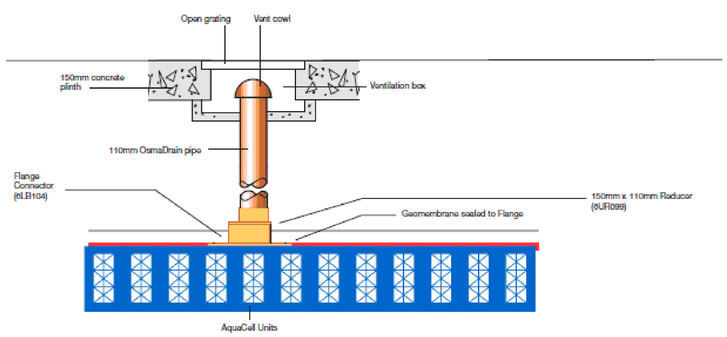


11.0 Minimum Dimensions of Concrete Surround

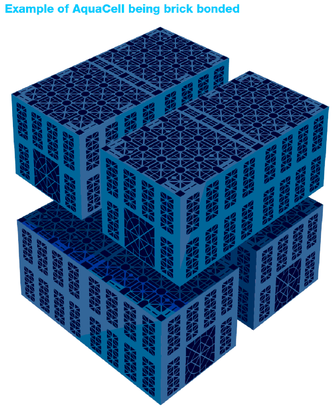
Load Class		A 15	B 125	C 250	D 400*
Minimum Dimensions (mm)	x	100	150	150	200
	y	Full channel height (less Y2 where necessary)			
	z	100	150	150	200
	Y2**	35	35	35	35
Asphalt pavement only	Y3	100	60	60	60

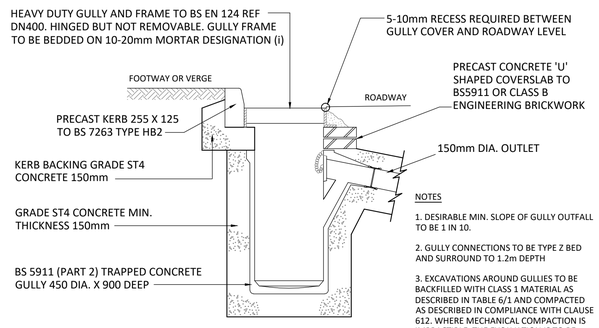


Typical Air Vent design



Example of AquaCell being brick bonded





TYPICAL PRECAST CONCRETE ROAD GULLY (SCALE 1:20)

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GENERAL NOTES

1. DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEERING & ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. ANY CONFLICTS BETWEEN THIS DRAWING AND INFORMATION ELSEWHERE TO BE REPORTED TO THE ENGINEER AS SOON AS POSSIBLE.
2. DO NOT SCALE FROM THIS DRAWING. IF THIS DRAWING HAS BEEN RECEIVED ELECTRONICALLY IT IS THE RESPONSIBILITY OF THE RECIPIENT TO PRINT THE DRAWING TO THE CORRECT SCALE.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE. CONTRACTOR TO CHECK ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.
4. TEMPORARY WORKS INDICATED OR IMPLIED AS PART OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS NOTED OTHERWISE.

DRAINAGE NOTES

1. ALL WORKS SHALL COMPLY WITH BUILDING REGULATIONS PART H - DRAINAGE AND WASTE DISPOSAL. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH DTP MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS - VOLUME 1 - SPECIFICATION FOR HIGHWAY WORKS (SWH) AND SEWERS FOR ADOPTION, 6TH EDITION.
2. THE CONCRETE SPECIFICATION IS TO BE READ IN ACCORDANCE WITH SWH CLAUSE 2602; STANDARD MIX IN ACCORDANCE WITH BS 5328. GRANOLITHIC SCREED TO COMPLY WITH SWH CLAUSE 2404(I).
3. FINAL DRAINAGE SCHEME SUBJECT TO LEVELS OF EXISTING ADOPTED SEWERS AND APPROVAL OF THE WATER AUTHORITY.
4. DRAIN RUNS WHICH ARE SITUATED IN TRAFFICKED AND HARD PAVED AREAS WHERE COVER IS LESS THAN 1.2m ARE TO BE CONSTRUCTED WITH TYPE S BED AND SURROUND & A CONCRETE COVER SLAB. DRAIN RUNS WHICH ARE SITUATED IN TRAFFICKED AREAS WHERE COVER IS GREATER THAN 1.2m AND SOFT LANDSCAPED AREAS ARE TO BE CONSTRUCTED WITH A TYPE S BED AND SURROUND.
5. ALL PIPEWORK IS TO BE LAID WITH LEVEL SOFFITS UNLESS OTHERWISE STATED.
6. PIPES UP TO AND INCLUDING 300mm DIA TO BE PVC-U PIPES TO BS EN 4660 & BS EN 1401-1. ALTERNATIVELY CLASS 160 STRENGTH CLAYWARE TO BS EN 295-1 CAN BE UTILISED.
7. MANHOLE COVERS ARE TO COMPLY WITH BS EN 124. B125 ARE TO BE USED IN PEDESTRIAN, CYCLIST AND LANDSCAPED AREAS. B125 ARE TO BE USED IN CAR PARKS, PEDESTRIAN FOOTWAYS AND PRIVATE DRIVES. C250 ARE TO BE USED FOR GULLIES TO KERBSIDE. D400 ARE TO BE USED IN PUBLIC ROADS, HARD SHOULDERS AND PARKING AREAS FOR ALL TYPES OF ROAD VEHICLES (INCLUDING POTENTIAL BUILDING SERVICE AND MAINTENANCE AREAS).
8. 100mmØ SURFACE WATER RUNS ARE TO BE LAID AT GRADIENTS OF AT LEAST 1 IN 100. 150mmØ SURFACE WATER RUNS ARE TO BE LAID AT GRADIENTS OF AT LEAST 1 IN 150.
9. ALL RAINWATER DOWNPIPES, SVPS AND STUB STACKS TO BE RODDABLE AT BASE OF STACK.
10. 100mmØ FOUL WATER RUNS TO BE LAID AT GRADIENTS OF AT LEAST 1 IN 80. 150mmØ FOUL WATER RUNS ARE TO BE LAID AT GRADIENTS OF AT LEAST 1 IN 150.
11. BELOW GROUND DRAINAGE FOR SINKS TO BE 100mmØ AT A MINIMUM FALL OF 1:40. DRAINS SERVING LESS THAN 5 WC'S TO BE 100mmØ AT A MINIMUM FALL OF 1:80.
12. ALL EXISTING DRAINAGE/STRUCTURES TO BE ABANDONED SHALL BE BROKEN OUT AND REMOVED FROM SITE. THE VOID IS TO BE EXCAVATED A FURTHER 250mm AND THEN BACKFILLED WITH TYPE 1 SUB BASE FILL MATERIAL AND BROUGHT UP TO REQUIRED LEVELS.
13. WHERE MANHOLE COVERS ARE INDICATED TO BE REPLACED, EXISTING COVER, FRAME AND BRICKWORK ARE TO BE REMOVED TO TIP OFF SITE. NEW COVER TO BE SET AT LEVEL TO TIE INTO EXTERNAL LEVELS DRAWING.
14. ALL CONNECTIONS TO RWP LOCATIONS TO BE 150mmØ. ALL FOUL DRAINAGE TO BE 100mmØ UNLESS NOTED OTHERWISE.

Rev	Drawn	Checked	Description	Date
C01	AB	DB	CONSTRUCTION ISSUE	12.08.20

Client
LINDUM GROUP LTD

Project
WELLAND HOSPITAL REDEVELOPMENT, SPALDING

Title
HOLBEACH ROAD SITE PRIVATE DRAINAGE DETAILS

HWA CONSULTING ENGINEERS
Howard Ward Associates
Brewery House, Walkers Yard
Nottingham NG12 2FF
Tel: 0115 933 2838

Scale	Size	Drawn	Checked
VARIES	A1	AB	DB

Drawing status
CONSTRUCTION

Drawing no. P19062-HWA-ZZ-XX-DR-C-5114 Rev C01