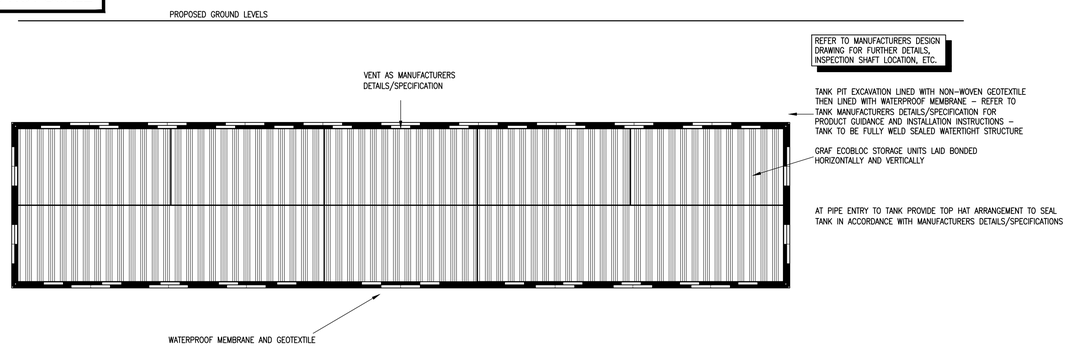
DO NOT SCALE

12/04/2021 15:39:12

RCA Document Reference: RCA A1 Landscape Version 1

M:\RCA Job Files\204 job\20447 - Former Narberth County Primary School Moorfield Road, Narberth Pembrokeshire SA67 7AG\F - RCA Civil Drawings\20447-07.dwg



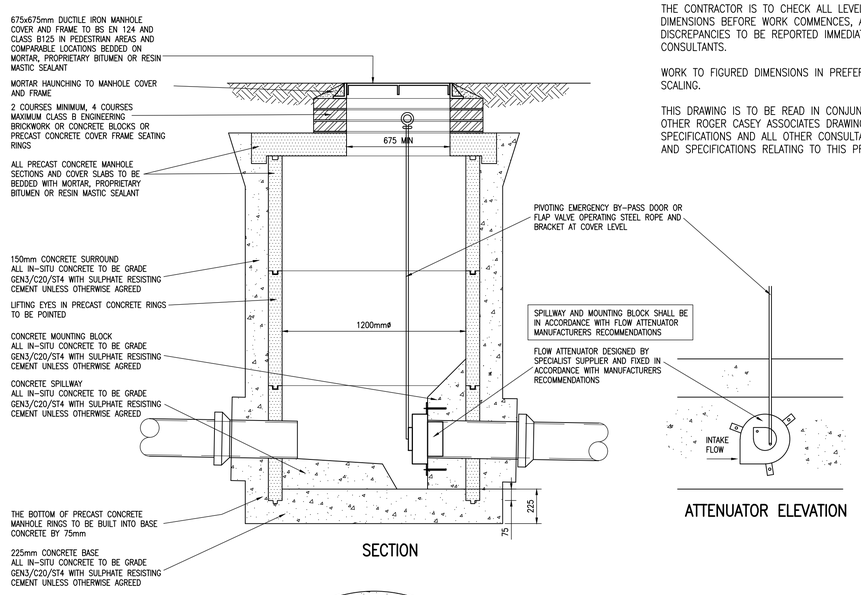
TYPICAL GRAF ECOBLOC MAXX STORAGE UNIT TANK CROSS SECTION - REFER TO MANUFACTURERS DRAWINGS AND SPECIFICATIONS ALSO

THE PROPERTY OF THIS DRAWING AND DESIGN IS VESTED IN ROGER CASEY ASSOCIATES AND MUST NOT BE COPIED OR REPRODUCED IN ANY WAY WITHOUT THE WRITTEN CONSENT OF ROGER CASEY ASSOCIATES.

THE CONTRACTOR IS TO CHECK ALL LEVELS AND DIMENSIONS BEFORE WORK COMMENCES, AND ANY DISCREPANCIES TO BE REPORTED IMMEDIATELY TO THE CONSULTANTS.

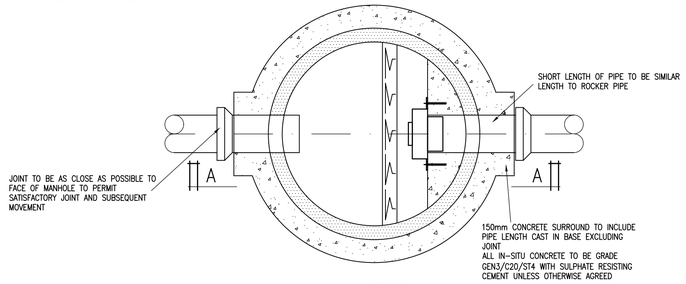
WORK TO FIGURED DIMENSIONS IN PREFERENCE TO SCALING.

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER ROGER CASEY ASSOCIATES DRAWINGS AND SPECIFICATIONS AND ALL OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS RELATING TO THIS PROJECT.



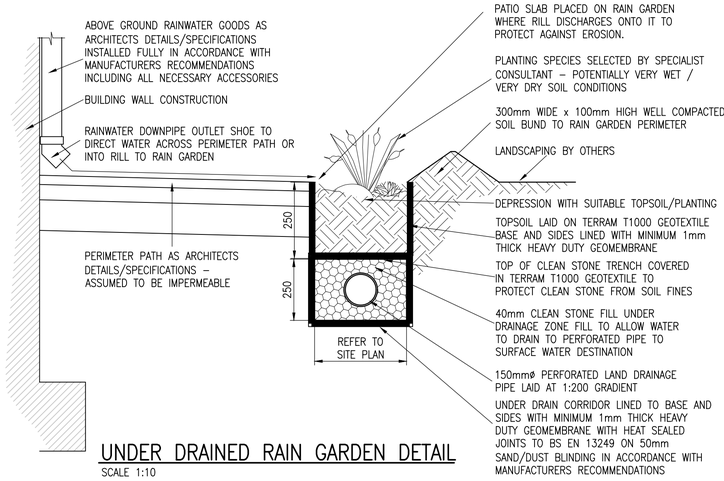
SECTION

ATTENUATOR ELEVATION



PLAN

TYPICAL FLOW ATTENUATOR MANHOLE



UNDER DRAINED RAIN GARDEN DETAIL

SCALE 1:10

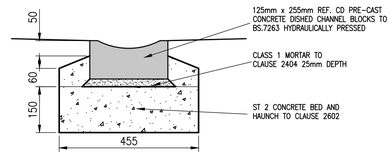
NOTES:

DRAINAGE NOTES

1. THIS DRAWING IS COPYRIGHT AND SHOULD BE READ IN CONJUNCTION WITH ALL OTHER RCA AND ARCHITECTS DRAWINGS AND SPECIFICATIONS RELATING TO THIS PROJECT AND SEWERS FOR ADOPTION 7th EDITION.
2. ALL DIMENSIONS SHALL BE CHECKED PRIOR TO CONSTRUCTION OR MANUFACTURE. ANY DISCREPANCY TO BE REPORTED TO THE ENGINEERS IMMEDIATELY.
3. DO NOT SCALE THIS CAD DRAWING WORK TO FIGURED DIMENSIONS ONLY - IF IN DOUBT ASK.
4. ALL DIMENSIONS ARE IN mm (MILLIMETRES) UNLESS OTHERWISE STATED.
5. THE DEVELOPER MUST SELF-VET AND CERTIFY THAT THE DESIGN CRITERIA, MATERIAL STANDARDS AND WORKMANSHIP SPECIFICATIONS FOR THE PROPOSED POTENTIALLY ADOPTABLE SEWERS ARE IN ACCORDANCE WITH THOSE SET OUT IN "SEWERS FOR ADOPTION - A DESIGN AND CONSTRUCTION GUIDE FOR DEVELOPERS" 7th EDITION AND CONFIRM THE SAME IN WRITING TO THE ADOPTION AUTHORITY.
6. MATERIALS AND WORKMANSHIP - ALL WORK SHALL COMPLY WITH THE CURRENT RELEVANT BRITISH STANDARDS, BUILDING REGULATIONS, HEATH & SAFETY REGULATIONS, SEWERS FOR ADOPTION AND THE SPECIFICATIONS SHOWN.
7. ALL PIPE CONNECTIONS TO BE 150mmø UNLESS OTHERWISE STATED.
8. SEWERS WITH LESS THAN 1200mm COVER IN ROADS, CAR PARKS AND VEHICLE CROSS-OVERS OR 900mm ELSEWHERE TO BE PROTECTED WITH 150mm GRADE GEN3/C20/ST4 CONCRETE SURROUND.
9. PIPEWORK TO CONFORM TO THE FOLLOWING - VITRIFIED CLAY DRAINAGE SYSTEMS WITH FLEXIBLE JOINTS TO BS65, PRECAST CONCRETE DRAINAGE SYSTEMS WITH FLEXIBLE JOINTS TO BS5911, uPVC DRAINAGE SYSTEMS WITH FLEXIBLE JOINTS TO BS4660 OR BS5481.
10. FLEXIBLE JOINTS SHALL BE PROVIDED TO ALL PIPES WITHIN 600mm OF INNER FACE OF MANHOLE. PROJECTING PIPES SHALL BE SURROUNDED WITH 150mm GRADE GEN3/C20/ST4 CONCRETE CAST MONOLITHICALLY WITH THE MANHOLE BASE.
11. WHERE PIPES WITH FLEXIBLE JOINTS ARE ARE ENCASED IN CONCRETE THE CONCRETE PROTECTION SHALL BE INTERRUPTED OVER ITS FULL CROSS SECTION AT EACH PIPE JOINT BY A SWAPED COMPRESSIBLE FILLER THICKNESS: (SEE TABLE C)
12. PIPES SHALL HAVE GRANULAR BED AND SURROUND UNLESS OTHERWISE DETAILED. GRANULAR MATERIAL SHALL CONFORM TO BS882 (TABLE 1) AND SHOULD BE CAREFULLY PLACED AND CONSOLIDATED BY HAND IN THIN LAYERS.
13. ALL PIPEWORK CONNECTIONS AT MANHOLES SHALL BE SOFFIT TO SOFFIT.
14. MANHOLE COVERS SHALL BE CO-ORDINATED WITH THE SURROUNDING AREA AND SHALL BE AS SPECIFIED ON THE DRAWINGS.
15. TOLERANCES - COVERS SHALL BE SET AT, OR NOT MORE THAN 5mm BELOW THE SURROUNDING LEVEL IN PAVED AREAS. INVERTS SHALL BE WITHIN 5mm OF GIVEN LEVEL, AND MAY NOT CAUSE THE AS-LAID GRADIEN OF THE PIPES TO VARY FROM THAT GIVEN ON THE DRAWING BY MORE THAN 10%.
16. MANHOLE COVERS AND FRAMES IN CARRIAGEWAYS (INCLUDING PEDESTRIAN STREETS), HARD SHOULDERS AND PARKING AREAS USED BY ALL TYPES OF ROAD VEHICLES SHALL BE GRADE D400 TO BS EN 124 OF NON-ROCKING DESIGN. MANHOLE COVERS AND FRAMES IN FOOTPATHS, PEDESTRIAN AREAS, FIELDS AND COMPARABLE LOCATIONS SHALL BE GRADE B125 TO BS EN 124 OF NON-ROCKING DESIGN ALL MANHOLES SHALL BE NON-VENTILATING TYPE WITH CLOSED KEYWAYS. MANHOLE COVERS, FRAMES AND COVER SLABS ON MANHOLES GREATER THAN 1.45m TO INVERT LEVEL SHALL HAVE 675mm CLEAR OPENING. MANHOLE COVERS, FRAMES AND COVER SLABS ON MANHOLES LESS THAN 1.45m TO INVERT SHALL HAVE MULTIPLE COVERS DETAILED. MINIMUM FRAME DEPTHS FOR NRSWA ROAD CATEGORIES 1 TO N AS TABLE E.
17. ALL MANHOLE COVERS AND FRAMES TO INCORPORATE BSI KITEMARK .
18. ADOPTABLE SEWERS LAID IN NON-ADOPTABLE AREAS I.E. GARDENS SHALL BE WITHIN A 6m EASEMENT ZONE WITH 3m ON EITHER SIDE OF PIPE. NO BUILDING SHALL BE CONSTRUCTED IN THIS EASEMENT ZONE.
19. ALL REDUNDANT / SURPLUS TO REQUIREMENTS INLET SPURS ON PROPRIETARY PLASTIC INSPECTION CHAMBER BASES SHALL BE / REMAIN SEALED TO PREVENT INGRESS OF GROUND WATER OR OTHER FLOWS INTO DRAINAGE NETWORKS.

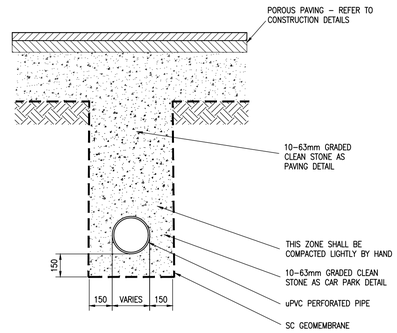
TABLE C	
NOMINAL PIPE DIAMETER (mm)	THICKNESS OF COMPRESSIBLE FILLER (mm)
LESS THAN 450	18
450 - 1200	36
EXCEEDING 1200	54

TABLE D PIPE BEDDING	
PIPE DIAMETER (mm)	GRANULAR MATERIAL SIZE (mm)
100	10 NOMINAL SINGLE SIZE
150	10 OR 14 NOMINAL SINGLE SIZE
150 - 500	10, 14 OR 20 NOMINAL SINGLE SIZE
OVER 500	10, 14, 20 OR 40 NOMINAL SINGLE SIZE

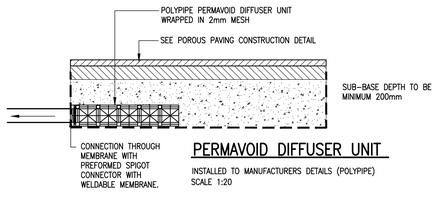


CD BEDDING DETAIL

SCALE 1:10

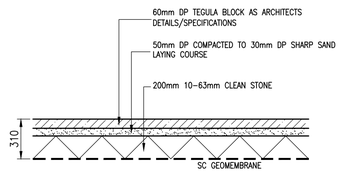


TYPICAL PERFORATED SEWER TRENCH DETAIL



PERMAVOID DIFFUSER UNIT

INSTALLED TO MANUFACTURERS DETAILS (POLYPIPE)
SCALE 1:20



BLOCK PAVING CONSTRUCTION SECTION

SCALE 1:20

REV.	DESCRIPTION	DRAWN	CHECK	DATE
A	ATTENUATION TANK REVISED	BWE	PWJL	12.04.21

DRAWING STATUS:

SAB APPROVAL

Roger Casey Associates

Consulting Civil & Structural Engineers

Ty Mansel, 6 Mansel Street, Carmarthen, Carmarthenshire SA31 1PX

T: 01267 222 646

Units 10 & 11, Merlin's Court, Winch Lane, Haverfordwest, Pembrokeshire SA61 1SB

T: 01437 762 795

E: office@rca-eng.co.uk

W: www.rca-eng.co.uk

CLIENT:

NARBERTH OLD SCHOOL DEVELOPMENT LTD

ARCHITECT:

ACANTHUS HOLDEN ARCHITECTS PEMBROKE

PROJECT:

Redevelopment of former CP School, MOORFIELD ROAD, NARBERTH, PEMBROKESHIRE SA67 7AG

DRAWING TITLE:

TYPICAL CONSTRUCTION DETAILS (DRAINAGE)

DRAWN BY:	DESIGN BY:	CHECKED BY:	DATE:
BWE	BWE	PWJL	12/04/2021

ORIGINAL DRAWING A1	SCALES: SHOWN	DRAWING No.: 20447/08	REVISION: A

© Roger Casey Associates Limited 2021