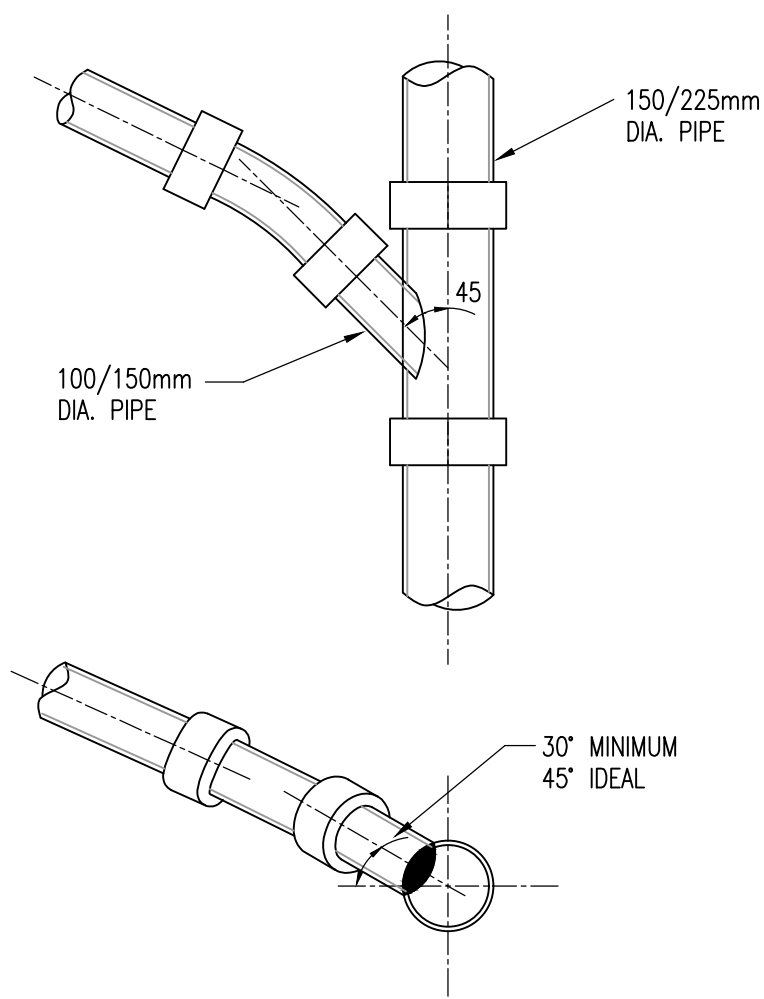
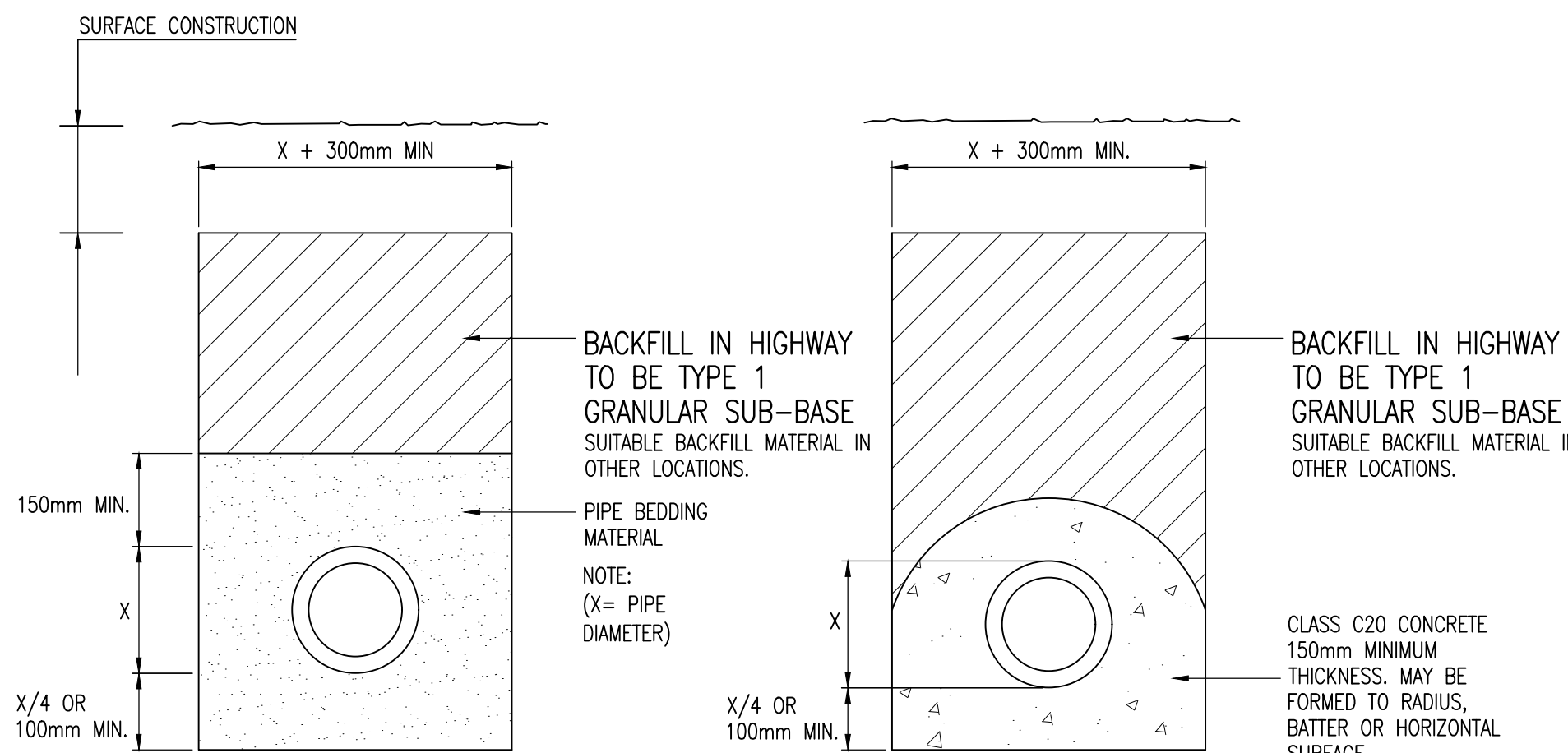




TYPICAL BRANCH CONNECTION

(N.T.S.)



GRANULAR PIPE SURROUND DETAIL

CLASS 'S'

(1:10)

CONCRETE PIPE SURROUND DETAIL

CLASS 'Z'

(1:10)

GRANULAR MATERIAL	
DIA OF DRAIN	AGGREGATE
100	6mm SINGLE SIZE
150	10 OR 14mm SINGLE SIZE OR 14-5mm GRADED *
150-500	10, 14 OR 20mm SINGLE SIZE OR 20-5mm GRADED *
OVER 500	10, 14, 20 OR 40mm SINGLE SIZE OR 40-5mm GRADED *

* NON PREFERRED

NOTE	
1.	NO MECHANICAL COMPACTION WITHIN 300mm OF CROWN OF PIPE.
2.	DRAINAGE TRENCHES IN ROADS TO HAVE HIGHWAYS AGENCY SPECIFICATION FOR ROADS AND BRIDGE WORKS TYPE 1 GRANULAR MATERIAL.

LOCATION	COVER TO SOFFIT	BEDDING
ROADS.	>1.2m	CLASS 'S' GRANULAR BED AND SURROUND.
	<1.2m	CLASS 'Z' CONCRETE SURROUND.
NON-ADOPTABLE SEWERS BELOW CAR PARKING.	>0.9m	CLASS 'S' GRANULAR BED AND SURROUND.
	<0.9m	CLASS 'Z' CONCRETE SURROUND.
HARD AND SOFT LANDSCAPING.	>0.6m	CLASS 'S' GRANULAR BED AND SURROUND.
	<0.6m	CLASS 'Z' CONCRETE SURROUND.

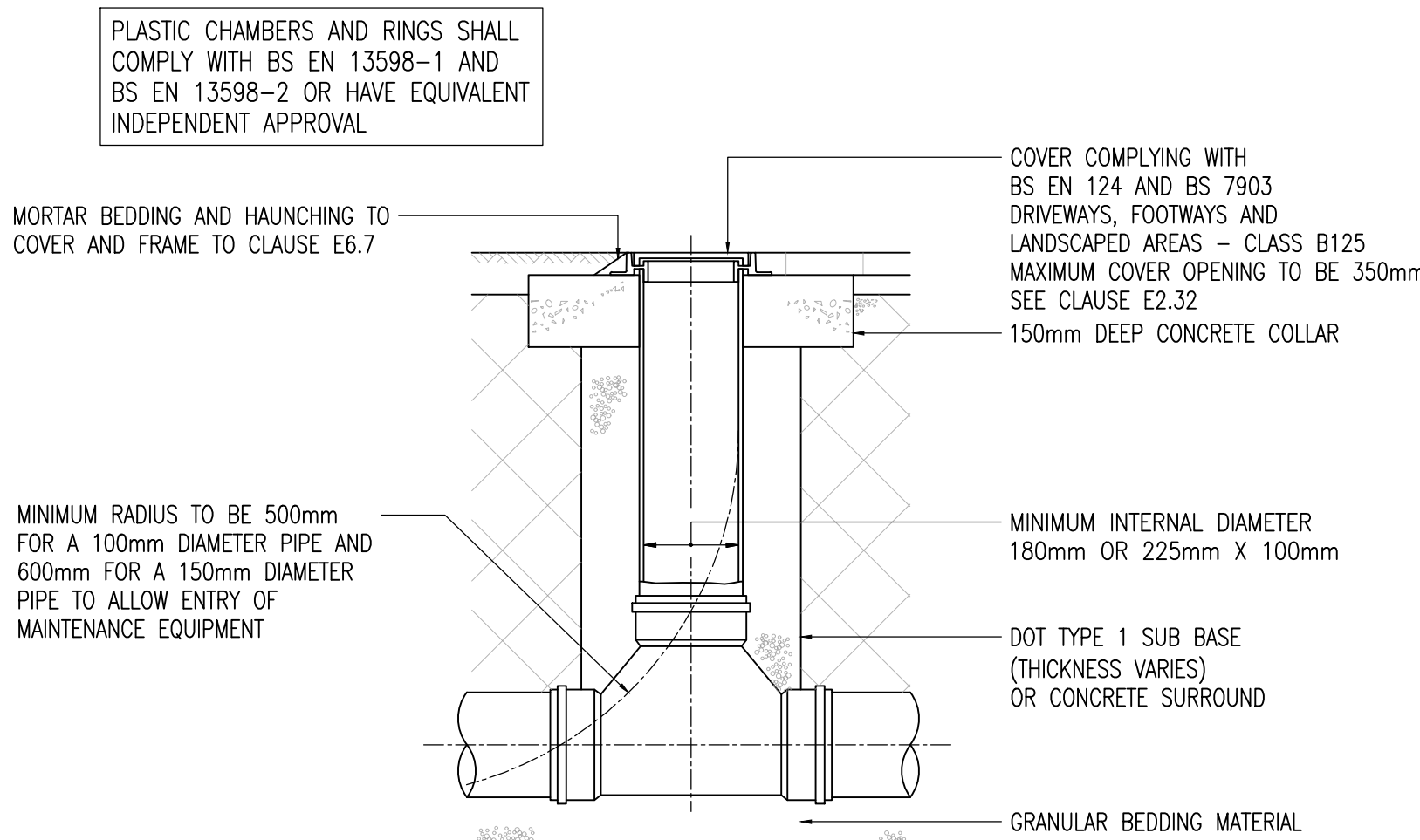
TRENCH WIDTHS	
DIA OF DRAIN	WIDTH
100	550
150	600
225	700
300	750
375	1050
450	1150
525	1200
600	1350
675	1450
750	1500
825	1600
900	1900
975	2000
1050	2300
1200	2300
OVER 1200	DIA + 1000

NOTE
PROTECTION FROM SETTLEMENT
TAKEN FROM BUILDING REGULATIONS PART H

- WHERE THE TRENCH IS WITHIN 1m OF THE FOUNDATION THE TRENCH IS FILLED WITH CONCRETE UP TO THE LOWEST LEVEL OF THE FOUNDATION; OR
- WHERE THE TRENCH IS FURTHER THAN 1m FROM THE BUILDING, THE TRENCH IS FILLED WITH CONCRETE TO A LEVEL BELOW THE LOWEST LEVEL FOR THE BUILDING EQUAL TO THE DISTANCE FROM THE BUILDING, LESS 150mm.

TYPICAL PIPE BEDDING AND TRENCH DETAILS

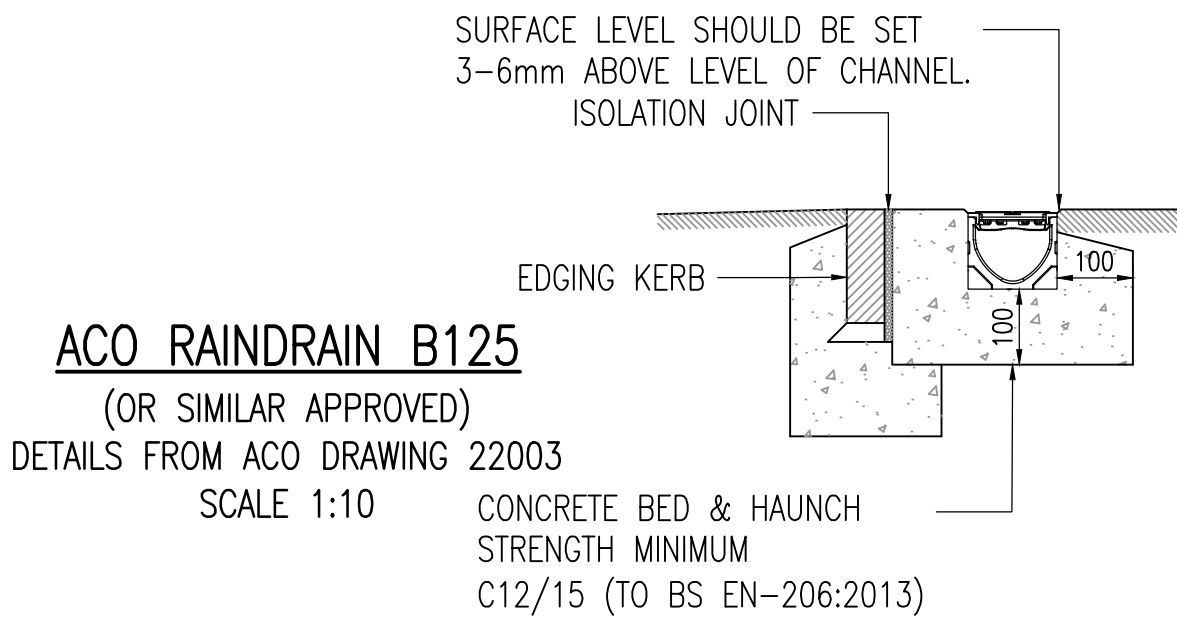
NOTE: NO MECHANICAL COMPACTION WITHIN 300mm OF CROWN PIPE.



INSPECTION CHAMBER TYPE 4 (ø180)

MAX. DEPTH TO SOFFIT OF PIPE 2m NON ENTRY

(N.T.S.)



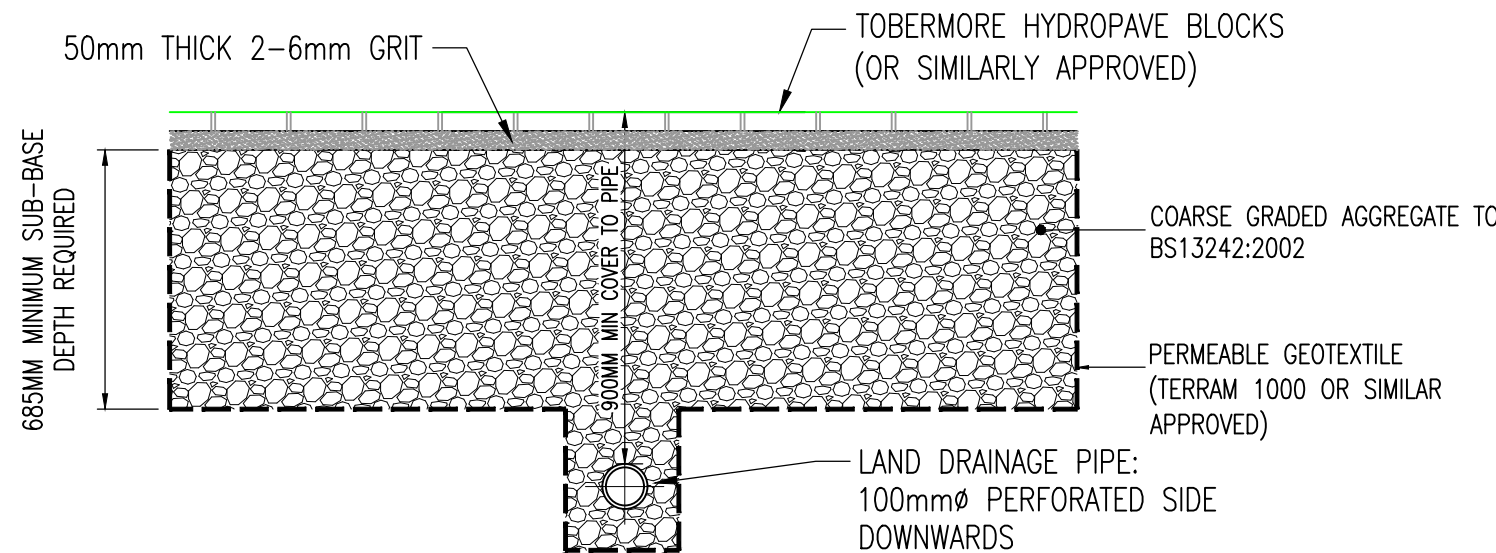
ACO RAINDRAIN B125

(OR SIMILAR APPROVED)

DETAILS FROM ACO DRAWING 22003

SCALE 1:10

CONCRETE BED & HAUNCH
STRENGTH MINIMUM
C12/15 (TO BS EN-206:2013)



PERMEABLE PARKING BAY CONSTRUCTION

SCALE 1:20

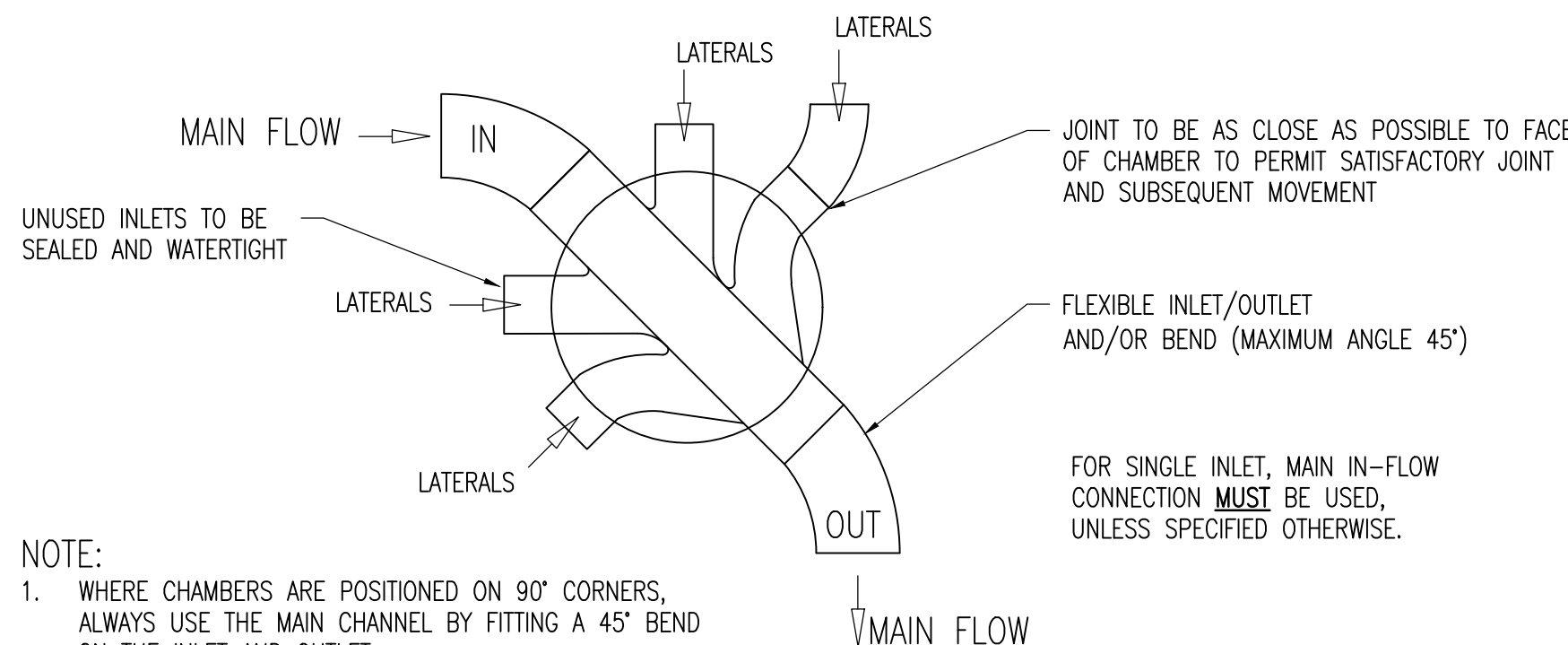
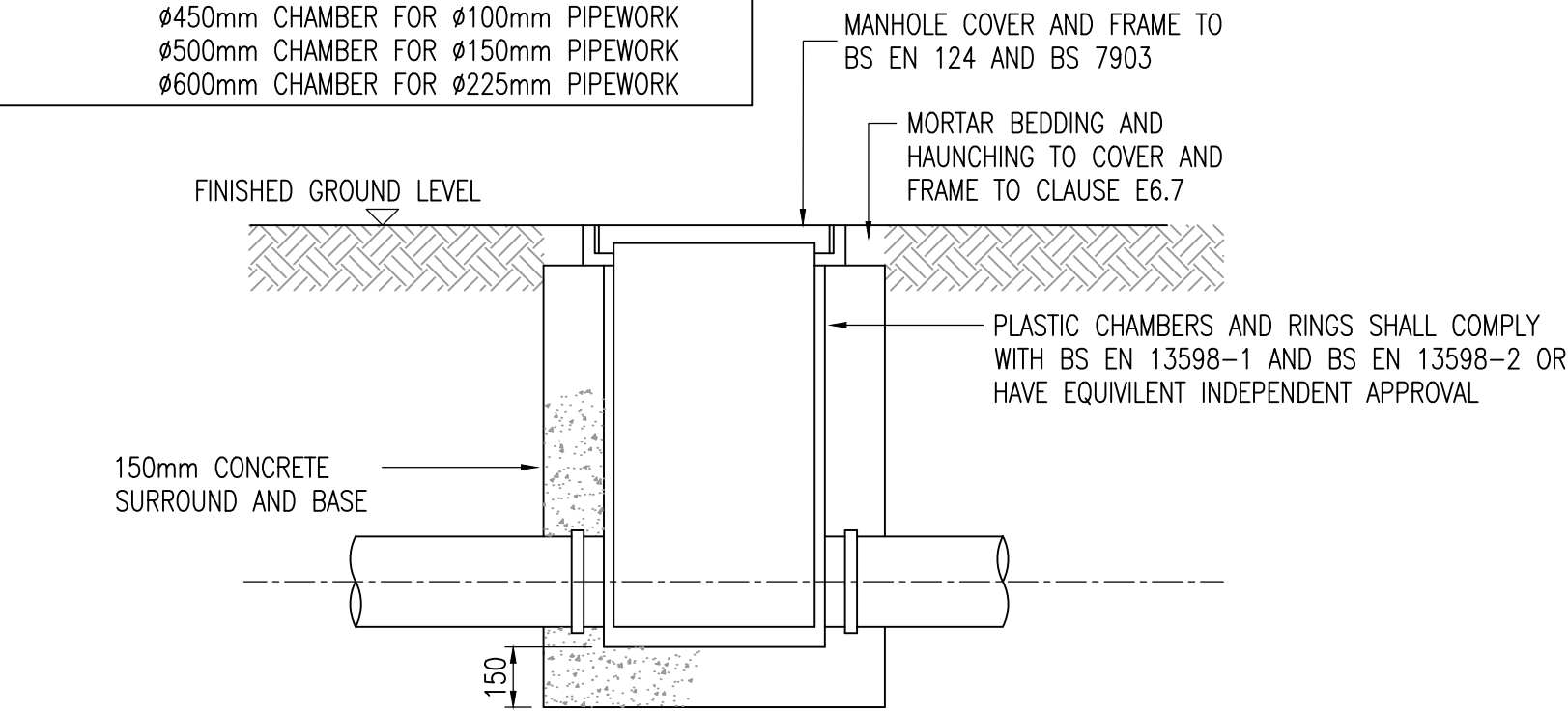
SURFACE WATER MANHOLE SCHEDULE

MH REF.	COVER LEVEL	OUTLET LEVEL	DEPTH	MH TYPE	MH RING DIA.	COVER TYPE
S1	108.1	107.1	1.0	4	450	B125
S2	108.1	107.1	1.0	4	450	B125
S3	108.1	107.1	1.0	4	450	B125
S4	108.1	107.1	1.0	4	450	B125
S5	108.1	107.1	1.0	4	450	B125
S6	108.1	107.1	1.0	4	450	B125

FOUL WATER MANHOLE SCHEDULE

MH REF.	COVER LEVEL	OUTLET LEVEL	DEPTH	MH TYPE	MH RING DIA.	COVER TYPE
F1	108.1	107.62	0.38	4	225	B125
F2	108.1	107.49	0.51	4	450	B125
F3	108.1	107.34	0.66	4	450	B125
F4	107.5	106.70	0.7	4	225	B125

- NOTE:
- IN UNTRAFFICKED AREAS BASE AND SURROUND MAY BE SINGLE SIZED GRANULAR MATERIAL TO MATCH PIPE BEDDING.
 - MINIMUM RADIUS TO BE 500mm FOR A 100mm DIAMETER PIPE AND 600mm FOR A 150mm DIAMETER PIPE TO ALLOW ENTRY OF MAINTENANCE EQUIPMENT.
 - JOINTS BETWEEN BASE AND SHAFT AND SHAFT COMPONENTS TO BE FITTED WITH WATERTIGHT SEALS. CHAMBER DIAMETER DIFFERS DEPENDING ON CONNECTING PIPEWORK:
 - ø450mm CHAMBER FOR ø100mm PIPEWORK
 - ø500mm CHAMBER FOR ø150mm PIPEWORK
 - ø600mm CHAMBER FOR ø225mm PIPEWORK



- NOTE:
- WHERE CHAMBERS ARE POSITIONED ON 90° CORNERS, ALWAYS USE THE MAIN CHANNEL BY FITTING A 45° BEND ON THE INLET AND OUTLET.
 - WHERE A BEND IS USED IMMEDIATELY OUTSIDE THE MANHOLE, THIS MAY BE USED AS THE ROCKER PIPE.
 - HALF CHANNEL UPSTAND PROVIDED FOR LATERAL INLETS AT DESIGN STAGE FOR PREFORMED BASES, CONTRACTOR MUST INFORM ENGINEER IF THIS DIFFERS.

INSPECTION CHAMBER TYPE 4 (FLEX)

MAX. DEPTH TO SOFFIT OF PIPE 2m NON ENTRY

(N.T.S.)

PLASTIC GRAVITY SEWER PIPE SPECIFICATION

THERMOPLASTIC PIPE, JOINTS AND FITTINGS FOR GRAVITY SEWERS MUST COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 1401-1, BS EN 1852 AND BS EN 12666-1. BS EN 1295-1 GIVES GUIDANCE ON THE STRUCTURAL DESIGN OF UNDERGROUND NON-PRESSURE PVC-U PIPES. STRUCTURED WALL PIPES AS FOLLOWS:

- OSMA ULTRARIB SYSTEM BY WAVIN PLASTICS LIMITED IN STIFFNESS CLASS SN8 BETWEEN 150mm AND 300mm DIAMETER.
- MARLEY TWINWALL SYSTEM BY MARLEY PLUMBING AND DRAINAGE IN STIFFNESS CLASS SN8 BETWEEN 150mm AND 300mm DIAMETER.
- UPONOR ULTRARIB SYSTEM BY UPONOR LIMITED IN STIFFNESS CLASS SN8 BETWEEN 150mm AND 300mm DIAMETER.
- POLYSEWER TWINWALL SYSTEM BY POLYPIPE BUILDING PRODUCTS LIMITED IN STIFFNESS CLASS SN8 BETWEEN 150mm AND 300mm DIAMETER.
- RIDGISEWER TWINWALL SYSTEM BY POLYPIPE CIVILS LIMITED IN STIFFNESS CLASS SN4 AND 8 BETWEEN 400mm AND 600mm DIAMETER AND IN STIFFNESS CLASS SN4 BETWEEN 750mm AND 900mm DIAMETER.

MAXIMUM ALLOWABLE PIPE LENGTH IS 3.0m

NOTES

- DO NOT SCALE THIS DRAWING
- CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER

B	TEXT HEIGHT INCREASED	DF	19.09.19
A	LINEAR CHANNEL ADDED	DF	27.08.19
Rev.	Detail	By	Date

Revisions

Reinforcement schedules nos.



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Client

IAN SADLER

Project

WOODLAND ROAD
CRYNANT

Drawing Title

STANDARD DRAINAGE
DETAILS

INFORMATION

Project No.		Drawing No.	
C1184		C-002	
Scales	AS SHOWN	Date	Revision
Drawn	CD	Checked	DF
Sheet Size	A1		B