

Bc = EXTERNAL DIAMETER OF PIPE

UNIFORM SOILS
A = Bc OR 100mm WHICHEVER IS GREATER

ROCK & SOILS CONTAINING HARD SPOTS
A= Bc OR 200mm WHICHEVER IS GREATER

NEEDLE PUNCHED GEOTEXTILE WRAPPED AROUND GRANULAR PIPE BEDDING TO PREVENT MIGRATION OF FINES FROM SURROUNDING SOILS. GEOTEXTILE NOT REQUIRED IN COHESIVE (CLAY) MEASURES

MAIN BACK FILL
SELECTED EXCAVATED MATERIAL. COMPACTED IN LAYERS NOT EXCEEDING 225mm. IN COHESIVE SOILS TRENCHES UNDER ROADS AND HARD STANDINGS SHALL BE BACK FILLED WITH IMPORTED GRANULAR MATERIAL.

TYPE A GRANULAR BEDDING
BEDDING

PIPE BEDDING DETAILS
CLASS S
SCALE 1:20

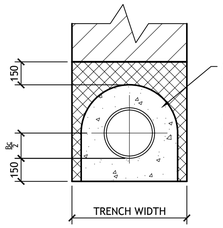
PIPE BEDDING MATERIAL SHALL CONSIST OF FREE-DRAINING, HARD, CLEAN, CHEMICALLY STABLE GRAVEL, CRUSHED STONE OR CRUSHED SLAG, GRADED IN ACCORDANCE WITH THE FOLLOWING TABLE. THE MATERIAL SHALL HAVE A COMPACTION FRACTION VALUE NOT EXCEEDING 0.2.

B.S. 410 TEST SIEVE	PERCENTAGE BY MASS PASSING			
	TYPE A40	TYPE A20	TYPE A14	TYPE A10
63mm	100	-	-	-
37.5mm	85-100	100	-	-
20mm	0-25	85-100	100	-
14mm	-	-	85-100	100
10mm	0-5	0-25	0-50	85-100
5mm	-	0-5	0-10	0-25
2.36mm	-	-	-	0-5

THE BEDDING MATERIAL TYPE SHALL BE CHOSEN ACCORDING TO PIPE SIZE IN ACCORDANCE WITH THE FOLLOWING TABLE.

PIPE BEDDING MATERIAL	
NOMINAL PIPE SIZE mm	BEDDING MATERIAL
LESS THAN 300	A10
300 - 525	A14

TRENCH WIDTHS	
MAXIMUM TRENCH WIDTHS	
PIPE Ø	WIDTH
100	550
150	600
225	700
300	750
375	1050

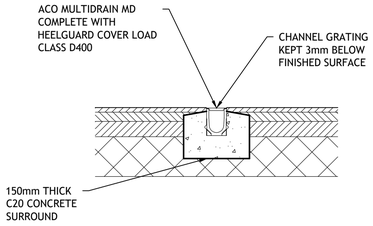


MINIMUM 150mm CONCRETE SURROUND AS SHOWN OR TO FULL TRENCH WIDTH. JOINTS REQUIRED IN SURROUND AT 5m MAXIMUM CENTRES USING 25mm COMPRESSIBLE FILLER BOARD ACROSS SECTION AT JOINT POSITIONS

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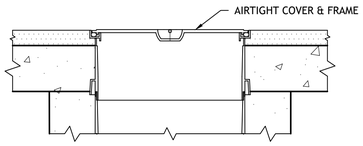
TYPE A GRANULAR BEDDING
BEDDING

CONCRETE SURROUND DETAIL
WHERE COVER LESS THAN 1.2m
UNLESS AGREED OTHERWISE WITH BUILDING CONTROL
SCALE 1:20

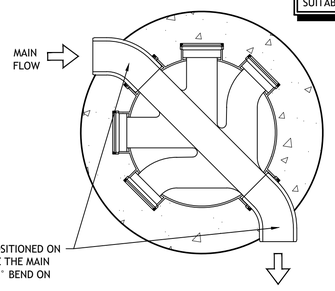


ACO CHANNEL DETAIL
SCALE 1:20

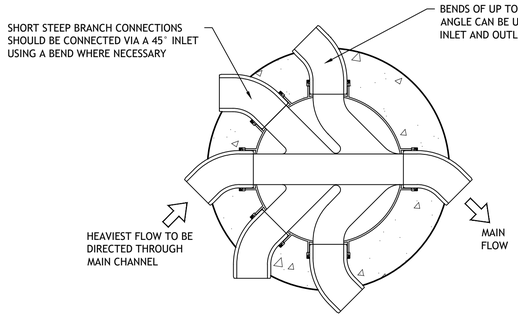
NOTE
WHERE PPIC'S ARE USED WITHIN ROADS AND CAR PARK AREAS TYPE D400 COVERS ARE TO BE USED TO ACHIEVE SUITABLE LOADING CAPACITY



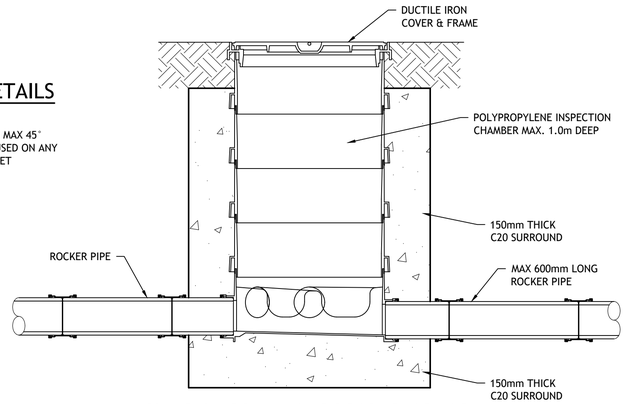
SITED IN CONCRETE FLOOR SLAB
SCALE 1:10



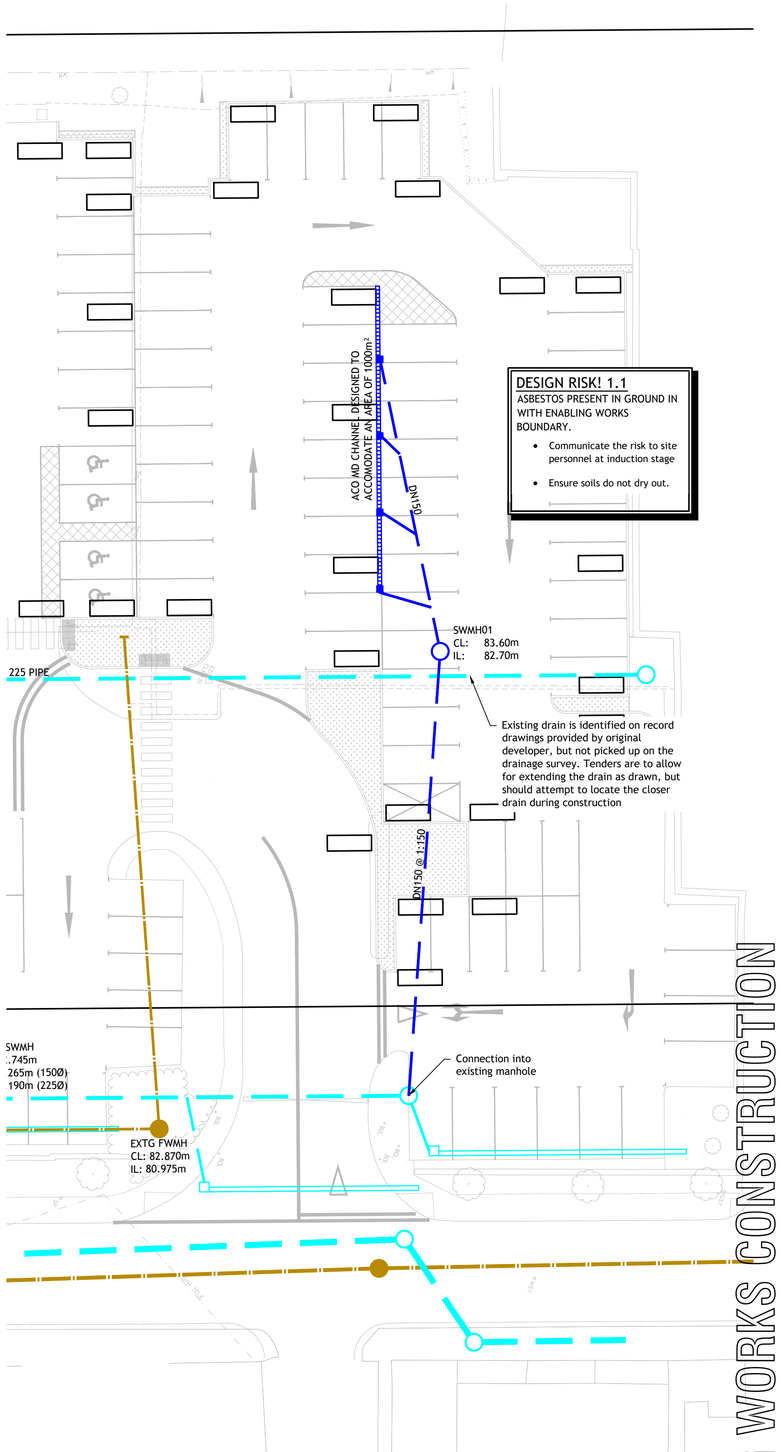
POLYPROPYLENE INSPECTION CHAMBER DETAILS
SCALE 1:10



POLYPROPYLENE INSPECTION CHAMBER DETAILS
SCALE 1:10



SITED IN SOFT LANDSCAPED AREAS
WITH STANDARD ROUND COVER
SCALE 1:10



DESIGN RISK! 1.1
ASBESTOS PRESENT IN GROUND IN WITH ENABLING WORKS BOUNDARY.
- Communicate the risk to site personnel at induction stage
- Ensure soils do not dry out.

GENERAL
1. ALL DRAWINGS TO BE READ IN CONJUNCTION WITH THE SPECIFICATION
2. ALL DRAWINGS TO BE READ IN CONJUNCTION WITH THE RELEVANT ARCHITECTURAL AND STRUCTURAL DRAWINGS.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
4. ALL LEVELS ARE IN METRES RELATIVE TO ORDNANCE DATUM.
5. ALL DIMENSIONS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION

DRAINAGE
1. THIS DRAWING USES THE ARCHITECTURAL DRAWING AS A BACKGROUND. THE CONTRACTOR SHOULD USE ARCHITECTURAL DRAWINGS FOR SETTING OUT OF ALL POP-UPS AND ABOVE GROUND DRAINAGE POSITIONS.
2. REFERENCE SHOULD BE MADE TO ALL OTHER DRAINAGE DRAWINGS PROVIDED BY SWF CONSULTING WHICH GIVES CONSTRUCTION DETAILS.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE DRAINAGE SPECIFICATION PREPARED FOR THIS PROJECT.
4. THE DESIGN OF THE PIPES HAS BEEN BASED ON THE FOLLOWING:
   a. 100Ø FOUL WATER PIPE: WAVIN OSMADRAIN
   b. 150Ø OR LARGER FOUL WATER PIPE: WAVIN ULTRARIB
   c. 150Ø OR LARGER SURFACE WATER PIPE: WAVIN TWINWALL.
   ALTERNATIVE PRODUCTS MAY BE USED WITH PRIOR APPROVAL FROM SWF CONSULTING.
5. THE EXACT LOCATION OF THE OUTFALL PIPE/MANHOLE IS TO BE CHECKED AND CONFIRMED TO SWF CONSULTING PRIOR TO COMMENCEMENT OF ANY DRAINAGE WORKS.
6. REFERENCE SHOULD BE MADE TO ANY CCTV SURVEY, SEWER RECORDS WHICH INDICATE THE EXISTING DRAINAGE SYSTEMS.
7. ON COMPLETION OF THE CONTRACT, THE PIPES AND OIL SEPARATOR SHALL BE JET CLEANED TO REMOVE ANY SILT OR CONSTRUCTION DEBRIS AND A CCTV SURVEY SHOULD BE UNDERTAKEN.
8. ONCE THE AS-BUILT SURVEY HAS BEEN COMPLETED A COPY OF THE SURVEY LOGS SHOULD BE ISSUED TO SWF CONSULTING TOGETHER WITH THE VIDEO FOOTAGE FOR THEIR COMMENT WITH DUPLICATE COPIES BEING ISSUED TO THE CDM CO-ORDINATOR FOR INCLUSION IN THE HEALTH & SAFETY FILES.
9. COVER LEVELS ARE INDICATIVE AND MAY NEED TO BE ADJUSTED TO SUIT THE ACTUAL FINISHED LEVELS OF THE EXTERNAL AREAS.
10. GRADIENTS INDICATED ON PIPES ARE MINIMUM GRADIENTS REQUIRED. HOWEVER, MANHOLE INVERT LEVELS ARE TO TAKE PRECEDENCE OVER THESE GRADIENTS.
11. POSITIONS OF MANHOLES, GULLYS AND DRAINAGE ARE TO BE SET OUT BY THE CONTRACTOR TO AVOID WHITE LINING DELINEATING CAR PARKING AREAS, KERB LINES ETC.

ABBREVIATIONS

CL	- COVER LEVEL	FG	- FLOOR GULLY
IL	- INVERT LEVEL	RE	- RODDING EYE
RG	- ROAD GULLY	SVP	- SOIL & VENT PIPE
YG	- YARD GULLY	SS	- STUB STACK

NOTE
THE ARCHITECTURAL BACKGROUNDS ARE A VISUAL REPRESENTATION OF THE PROPOSED BUILDING LAYOUT, BUT ARE NOT NECESSARILY DIMENSIONALLY ACCURATE AND THUS MAY NOT RELATE TO THE LOCATION OF THE STRUCTURAL MEMBERS

ENABLING WORKS CONSTRUCTION

Rev	Date	Description	By	Chkd
C01	26/10/20	Issued for enabling work Construction	DR	DR
P01	18/09/20	Issued for enabling work tender	DR	DR
P01.01	17/09/20	Work in Progress	DR	PSS

Client: ALDI STORE LTD

Project Title: ALDI KEMP STREET

Project Address: KEMP STREET, MIDDLETON

Drawing Title: DRAINAGE, PHASE 1 ENABLING WORKS, GENERAL ARRANGEMENT

Job No.	Originator	Zone	Level	Type	Role
8943	SWF	XX	XX	DR	D

System Classification	Drawing No.	Suitability	Revision
SS_50_35	1102	A1	C01

Drawn	Checked	Date	Scale	Size
DR	PSS	SEPT 2020	1:200	A1

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