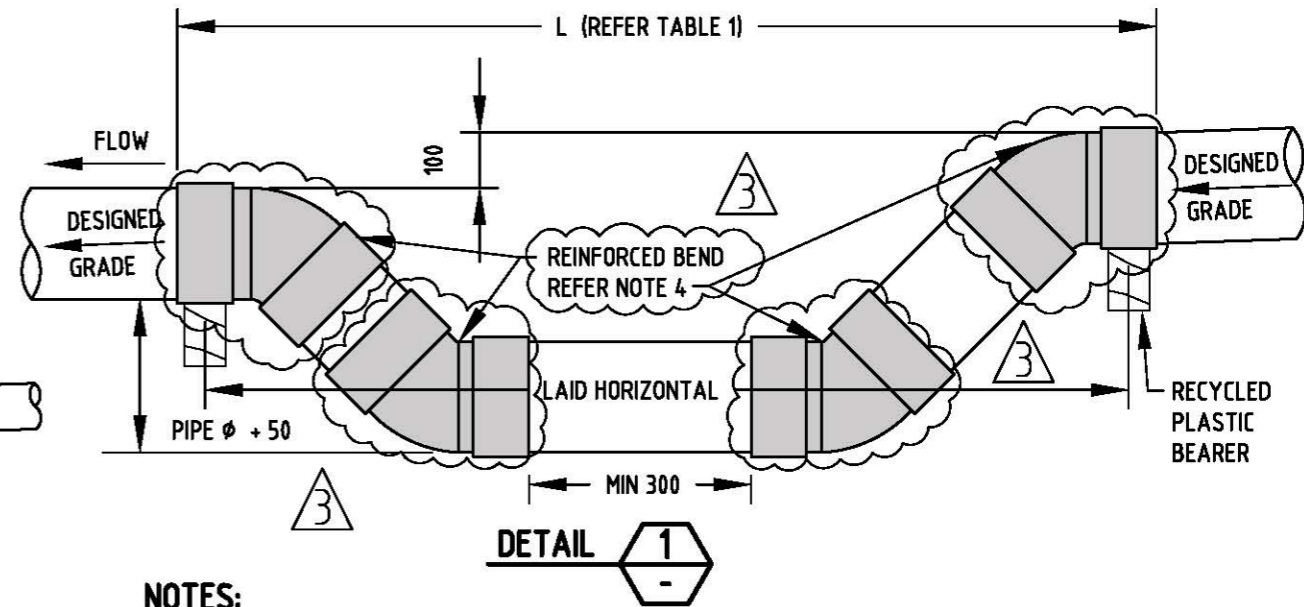


OPTION 1



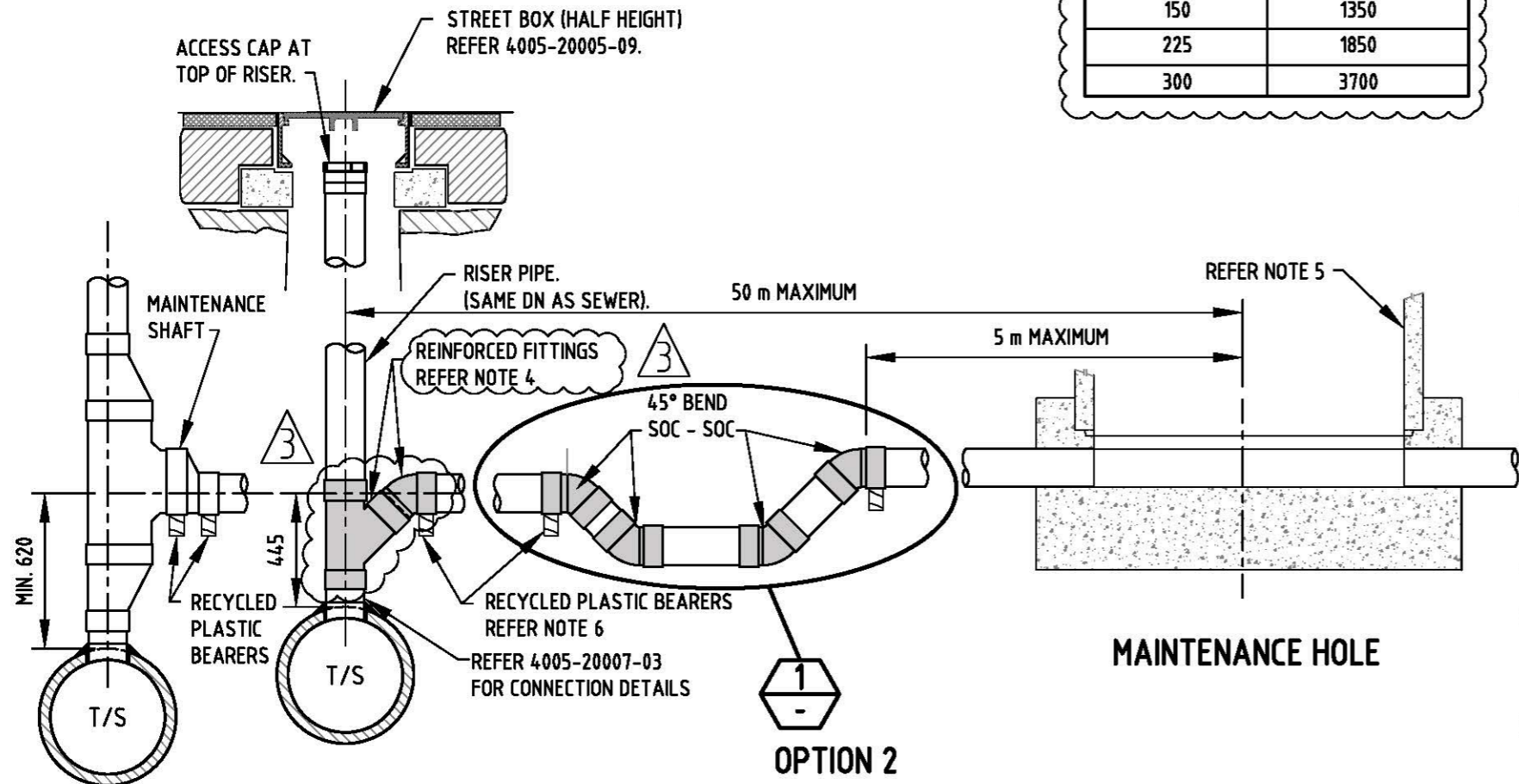
DETAIL 1

TABLE 1

MINIMUM LENGTH OF WATER SEAL (APPROX)	
DN	L
150	1350
225	1850
300	3700

NOTES:

- REFER 4005-20002-01 TO 4005-20002-03 FOR GENERAL NOTES.
- WATER SEALS:
  - WATER SEALS SHALL BE CONSTRUCTED ON BRANCH SEWERS UP TO AND INCLUDING DN375, WHICH FLOW INTO TRUNK SEWERS DN450 AND LARGER.
  - WATER SEALS SHALL BE LAID HORIZONTAL. THE REMAINDER OF THE SEWER SHALL BE LAID ON THE DESIGNED GRADE.
  - OPTIMUM WATER SEAL DEPTH SHALL BE PIPE DIAMETER + 50 mm FOR ALL PIPE DIAMETERS.
  - WATER SEALS CAN BE FACTORY FABRICATED FROM PIPE SECTIONS (TO THE CONFIGURATION SHOWN) PARTICULARLY WHERE THE USE OF STANDARD BENDS RESULTS IN THE OPTIMUM WATER SEAL DEPTH BEING EXCEEDED.
  - OPTION 2 SHALL ONLY BE USED WHEN RISER DN ≤ 50% OF TRUNK SEWER DN
- JUNCTION OF SEWERS:
  - FOR BRANCH SEWERS ≤ DN300 THE JUNCTION OF SEWERS SHALL BE CONSTRUCTED 'TOP TO TOP'. (IN SPECIAL CIRCUMSTANCES AND DEPENDING ON SEWAGE FLOWS, THE SA WATER REPRESENTATIVE MAY DIRECT THAT THE JUNCTION BE CONSTRUCTED 'FLOW-LINE TO FLOW-LINE'.)
  - FOR BRANCH SEWERS LARGER THAN DN300 THE JUNCTION OF SEWERS SHALL BE CONSTRUCTED 'FLOW-LINE TO FLOW-LINE'.
- PRODUCTS:
  - SEWER SHALL BE CONSTRUCTED FROM ONLY APPROVED PIPE MATERIALS. REFER TS 0502, CLAUSE 3.1.
  - FOR OPTION 2 THE PREFERRED JUNCTION AT THE RISER SHALL BE THE MAINTENANCE SHAFT (FITTED VERTICALLY). WHERE LEVELS DO NOT ENABLE THE USE OF THE MS FITTING THE ANGLED JUNCTION AND BEND SHALL BE USED.
  - THE BEND OR JUNCTION FITTINGS SHALL BE A REINFORCED FITTING WHERE PIPE IS DN 150. REFER TS 0502, 3.2.1.1.
- MAINTENANCE STRUCTURES:
  - FOR DN150 AND DN225 BRANCH SEWERS, THE MAINTENANCE STRUCTURE MAY BE MH OR MS.
  - FOR ≥ DN300 BRANCH SEWERS, THE MAINTENANCE STRUCTURE SHALL BE MH.
- RECYCLED PLASTIC BEARERS:
  - WHERE REQUIRED FOR SUPPORT THE BEARER SHALL EXTEND BEYOND THE TRENCH INTO UNDISTURBED SOIL. MINIMUM DISTANCE 250 EACH SIDE.



OPTION 2

REVISION PANEL				
REV	DATE	DRN	DETAILS	APR
3	10/01/19	RP	REINFORCED FITTINGS ADDED WHERE INDICATED	TG
2	08/08/18	RP	TABLE 1, DETAIL 1 ADDED. OPTION 2 CHANGED.	TG
1	31/03/16	MS	2016 STANDARDS REVIEW	TG

DESIGN PANEL			
DESIGNED:	03/08/15	AUTHORISED:	31/03/16
RJP		T.GALEK	
DRAWN:	25/09/15	SIGNATURE:	
MS		ORIGINAL SIGNED	
REVIEWED:	21/03/16		
TG			

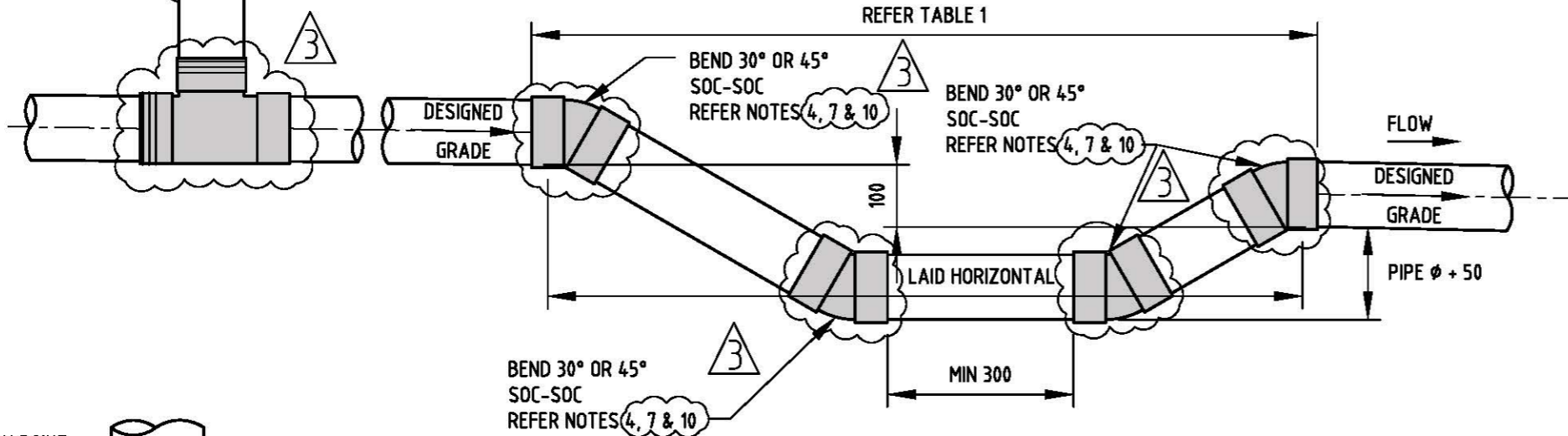
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**SA WATER STANDARD DRAWINGS**  
**SEWER CONSTRUCTION MANUAL**  
**WATER SEAL ASSEMBLY DETAILS**  
**BRANCH SEWER MAIN INTO TRUNK SEWER MAIN**

A3	3
SHT SIZE	REVISION
TOTAL SHEETS:	
SUPERSEDES: 96-0059-01 (H1)	
DRAWING NUMBER	
4005-20007-01	
PREFIX	NUMBER SHEET

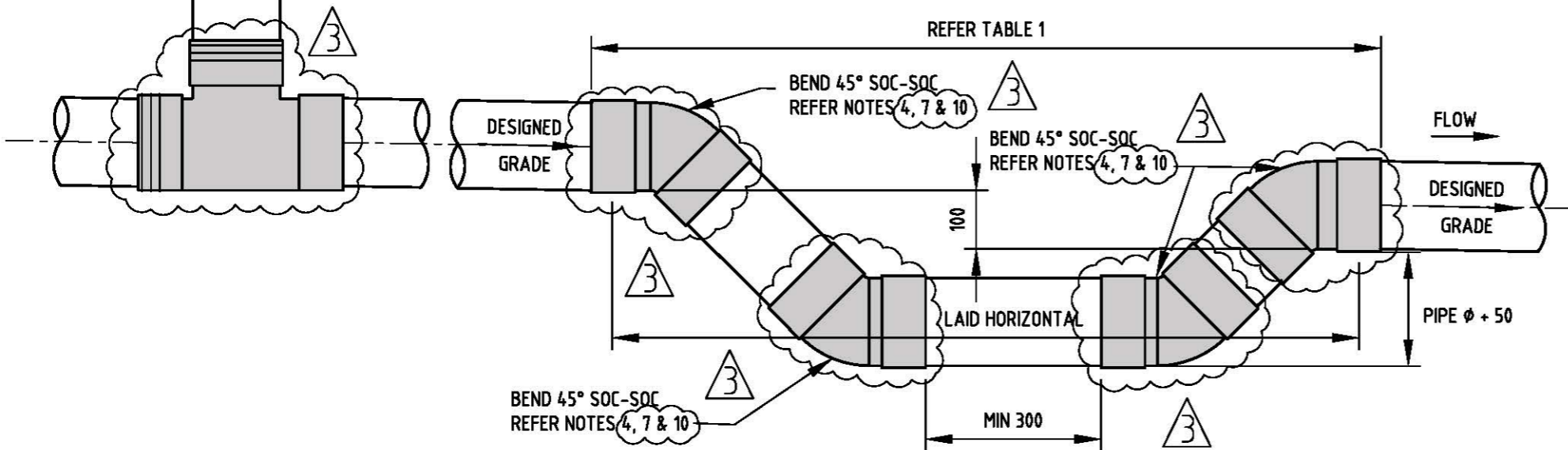


INSPECTION POINT  
REFER NOTE 9



**DN100 WATER SEAL**

INSPECTION POINT  
REFER NOTE 9



**DN150 WATER SEAL**

**TABLE 1**  
(REFER NOTE 7)

LENGTH OF WATER SEAL (APPROX)		
DN	30°	45°
100	1250	980
150	NOT APPROVED	1350

**NOTES:**

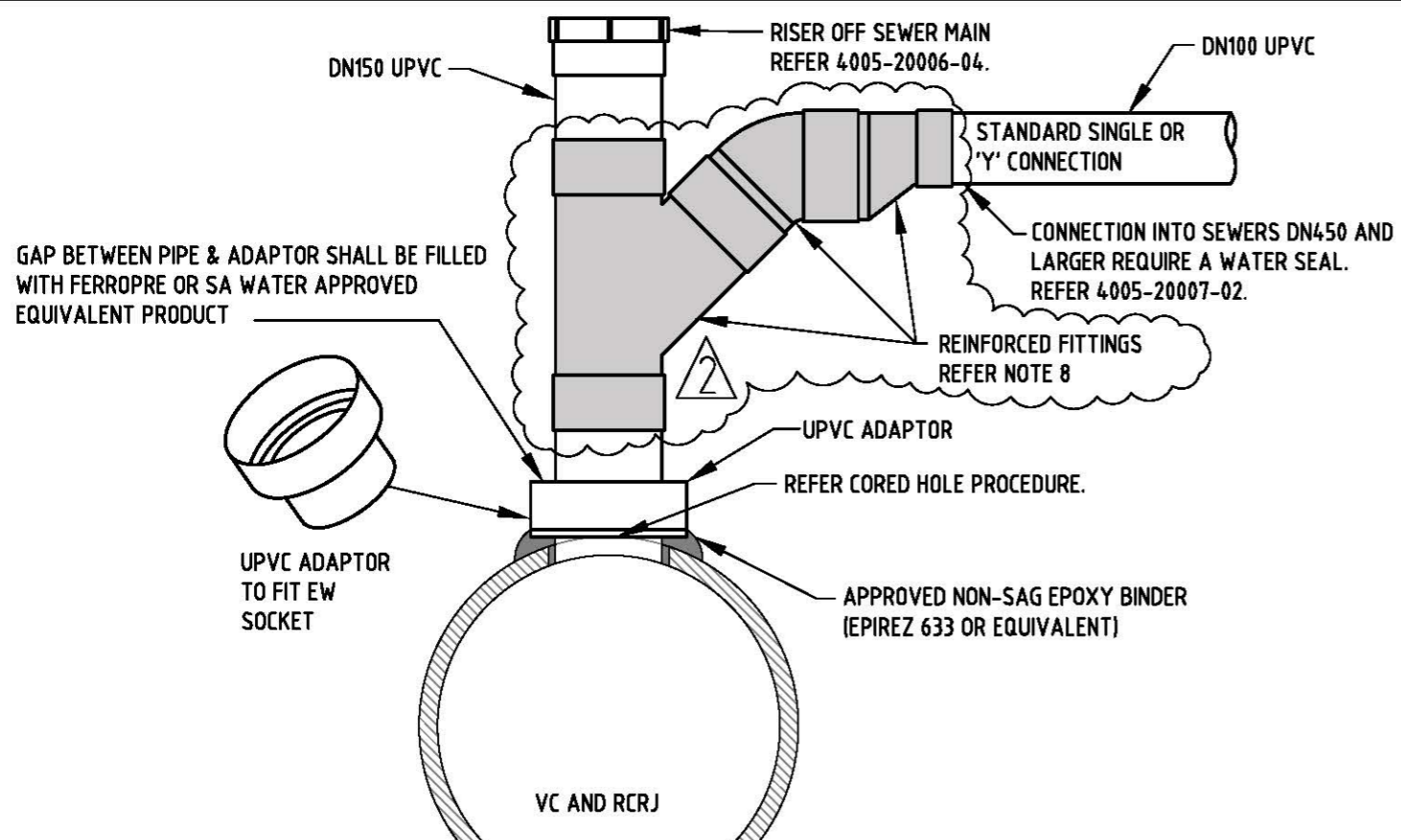
1. REFER 4005-20002-01 TO 4005-20002-03 FOR GENERAL NOTES.
2. A WATER SEAL SHALL BE CONSTRUCTED ON ALL CONNECTIONS WHICH FLOW INTO THE SEWERS DN450 AND LARGER.
3. THE WATER SEAL SHALL BE CONSTRUCTED ADJACENT AND DOWNSTREAM OF THE CONNECTION IP.
4. THE WATER SEAL SHALL BE LAID HORIZONTAL. THE REMAINDER OF THE CONNECTION SHALL BE LAID AT THE DESIGNED GRADE.
5. REFER 4005-20006-03 FOR MINIMUM CONNECTION GRADE.
6. OPTIMUM WATER SEAL DEPTH SHALL BE PIPE DIAMETER + 50 FOR ALL PIPE DIAMETERS.
7. REFER TABLE 1 FOR APPROVED BEND OPTIONS.
8. CONNECTION LENGTH SHALL NOT EXCEED 30 m.
9. REFER 4005-20006-02 FOR INSPECTION POINT CONSTRUCTION DETAIL.
10. ALL FITTINGS IDENTIFIED BY SHADING SHALL BE A 'REINFORCED' FITTING. REFER TS 0502, 3.2.1.1.
11. ALL DIMENSIONS IN MILLIMETRES UNLESS NOTE OTHERWISE.



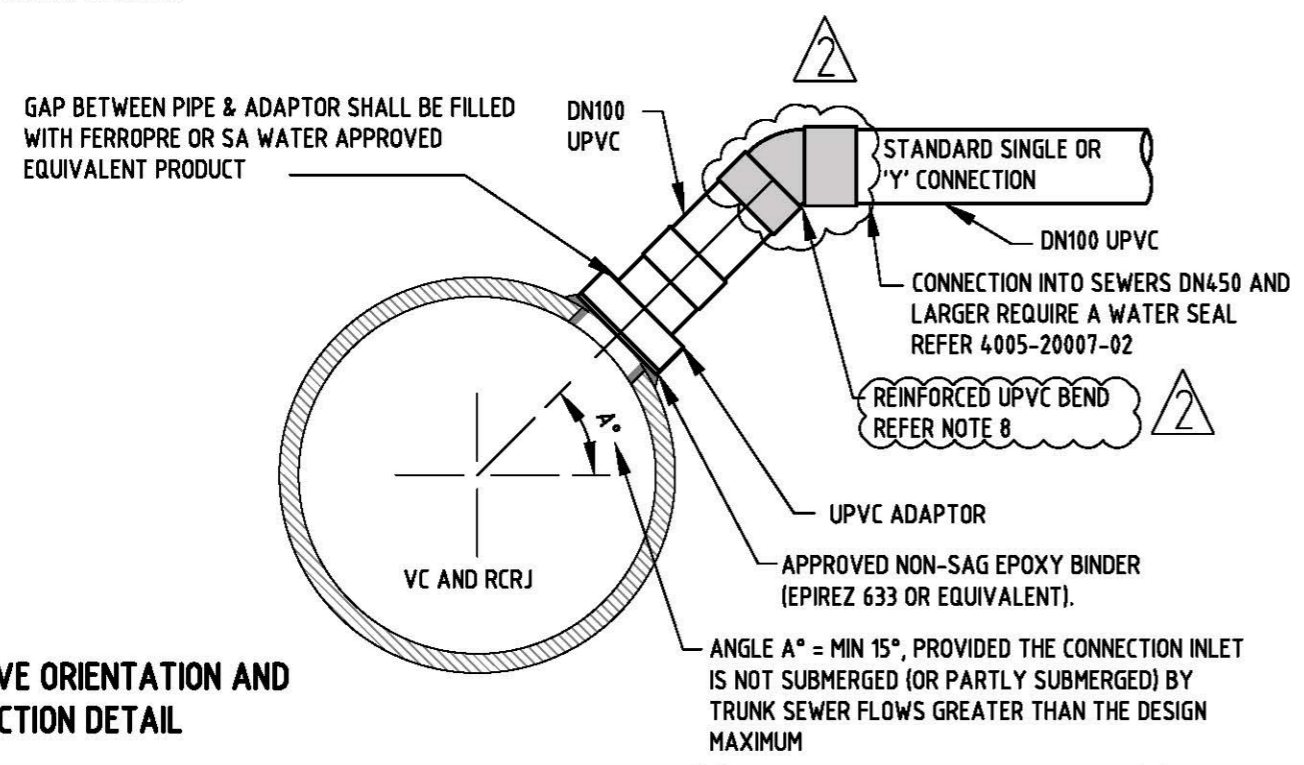
REVISION PANEL					DESIGN PANEL			 SA WATER STANDARD DRAWINGS SEWER CONSTRUCTION MANUAL WATER SEAL ASSEMBLY DETAILS PROPERTY CONNECTION INTO TRUNK SEWER MAIN	A3 SHT SIZE		3 REVISION	
REV	DATE	DRN	DETAILS	APR	CURRENT REV 26/02/19	DESIGNED: 03/08/15	AUTHORISED: 31/03/16			TOTAL SHEETS:	SUPERSEDES: 94-0164-11 (K11)	
					AUTHORISED: T. GALEK	RJP	T. GALEK		DRAWING NUMBER	4005-20007-02		
3	10/01/19	RP	REINFORCED FITTINGS ADDED WHERE INDICATED	TG	SIGNATURE: <i>T. Galek</i>	DRAWN: 25/09/15	SIGNATURE:		PREFIX	NUMBER	SHEET	
2	08/08/18	RP	TABLE 1 INCLUDED; CONTENT ENHANCED	TG		MS	ORIGINAL SIGNED					
1	31/03/16	MS	2016 STANDARDS REVIEW	TG		REVIEWED: 21/03/16						

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**PREFERRED ORIENTATION AND JUNCTION DETAIL**



**ALTERNATIVE ORIENTATION AND JUNCTION DETAIL**

**CORED HOLE:**

- ALL FACES OF THE STUB SHALL BE CUT FLUSH WITH THE INSIDE FACE OF THE TRUNK SEWER, TO AVOID SNAGGING AND TO FACILITATE THE INSTALLATION OF POSSIBLE FUTURE LININGS.
- HOLE SHALL BE CORED OVERSIZE USING A DIAMOND TIPPED CUTTER (MIN 12 - MAX 15).
- THE DRILL CORE SHALL NOT BE ALLOWED TO FALL INTO THE SEWER.
- THOROUGHLY CLEAN THE VERTICAL CUT EDGES OF THE CORED HOLE. INCLUDING A 50 WIDE BAND AROUND THE CORED HOLE ON BOTH THE INSIDE AND OUTSIDE SURFACES OF THE TRUNK SEWER, IN READINESS FOR THE STUB.
- THE CONTRACTOR SHALL RETAIN THE DRILL CORE FOR PRESENTATION TO THE INSPECTOR.

**PREPARATION OF UPVC STUB:**

- THOROUGHLY CLEAN THE OUTSIDE FACE OF THE STUB AT THE JOINT USING UPVC CLEANER.
- POINT THE CLEANED STUB WITH A THIN CONTINUOUS LAYER OF APPROVED SOLVENT CEMENT, AND SPRINKLE CLEAN COARSE DRY SAND OVER THE FRESHLY PAINTED SURFACE TO PROVIDE A 'KEY' FOR THE EPOXY BINDER.
- LEAVE TO DRY FOR 15 MINUTES BEFORE USING STUB. (ENSURE THE 'KEY' SHALL EXTEND FOR THE FULL DEPTH OF THE PROPOSED JOINT).

**INSTALLATION OF STUB:**

**STAGE 1 - PRIMING OPERATION:**

- APPLY ONE THICK COAT OF THE APPROVED EPOXY BINDER AS A PRIMER COAT:
  - TO THE OUTSIDE FACE OF THE UPVC STUB, OVER THE SAND 'KEY', FOR THE FULL DEPTH OF THE PROPOSED JOINT.
  - TO THE VERTICAL CUT EDGES OF THE CORED HOLE. FINISH THE EPOXY FLUSH WITH THE INSIDE FACE OF THE TRUNK SEWER AND EXTEND TO THE CLEANED OUTSIDE FACE AS SHOWN.

**STAGE 2 - INSTALL PRIMED STUB**

- INSTALL THE PRIMED STUB CENTRALLY (AS SHOWN) WHILE THE PRIMER COAT IS STILL 'TACKY' (WORK TIME IS APPROX. 30 MINUTES AT 25°C).
- FILL THE JOINT TO ITS FULL DEPTH WITH THE SAME EPOXY BINDER.
- FINISH THE EPOXY FLUSH WITH THE INSIDE FACE OF THE TRUNK SEWER AND EXTEND ON TO THE CLEANED OUTSIDE FACE AS SHOWN. TROWEL THE FINISHED JOINT.

NOTE: COVERAGE WITH THE EPOXY IS CRITICAL TO ACHIEVE A JOINT OF ADEQUATE MECHANICAL STRENGTH AND TO PROVIDE PROTECTION FROM CORROSION WHERE REINFORCEMENT HAS BEEN EXPOSED DURING CORING.

**RE-LINED TRUNK SEWER:**


- FOR CORING OF PIPE & INSTALLATION OF THE UPVC ADAPTOR UTILISE SAME PROCEDURES AS DETAILED ABOVE.
- AT THE CORED HOLE, INTEGRITY OF THE HOLE LINER SHALL BE PRESERVED BY UTILISATION OF A 'TOP HAT' OR FERROPRE PROTECTING THE EXPOSED EDGES.

**NOTES:**

1. REFER 4005-20002-01 & 4005-20002-02 FOR GENERAL NOTES.
2. USE ALTERNATIVE ORIENTATION OPTION WHERE DEPTH IS INSUFFICIENT TO ACHIEVE THE PREFERRED OPTION, AND WHERE APPROVED BY THE SA WATER REPRESENTATIVE.
3. METHOD SHALL NOT BE USED ON PLASTILINED PIPES.
4. SIMILAR DETAILS FOR VC AND RCRJ SEWERS.
5. TEMPORARY ISOLATION OF TRUNK SEWER (OR DIVERSION OF FLOWS) MAY BE NECESSARY DURING LIVE INSTALLATIONS.
6. DN100 CONNECTIONS ILLUSTRATED. DN150 IS AN APPROVED OPTION.
7. REFER SECTION 6 FOR CONNECTION CONSTRUCTION.
8. ALL FITTINGS IDENTIFIED BY SHADING SHALL BE A 'REINFORCED' FITTING. REFER TS 0502, 3.2.1.1
9. ALL DIMENSIONS IN MILLIMETRES.

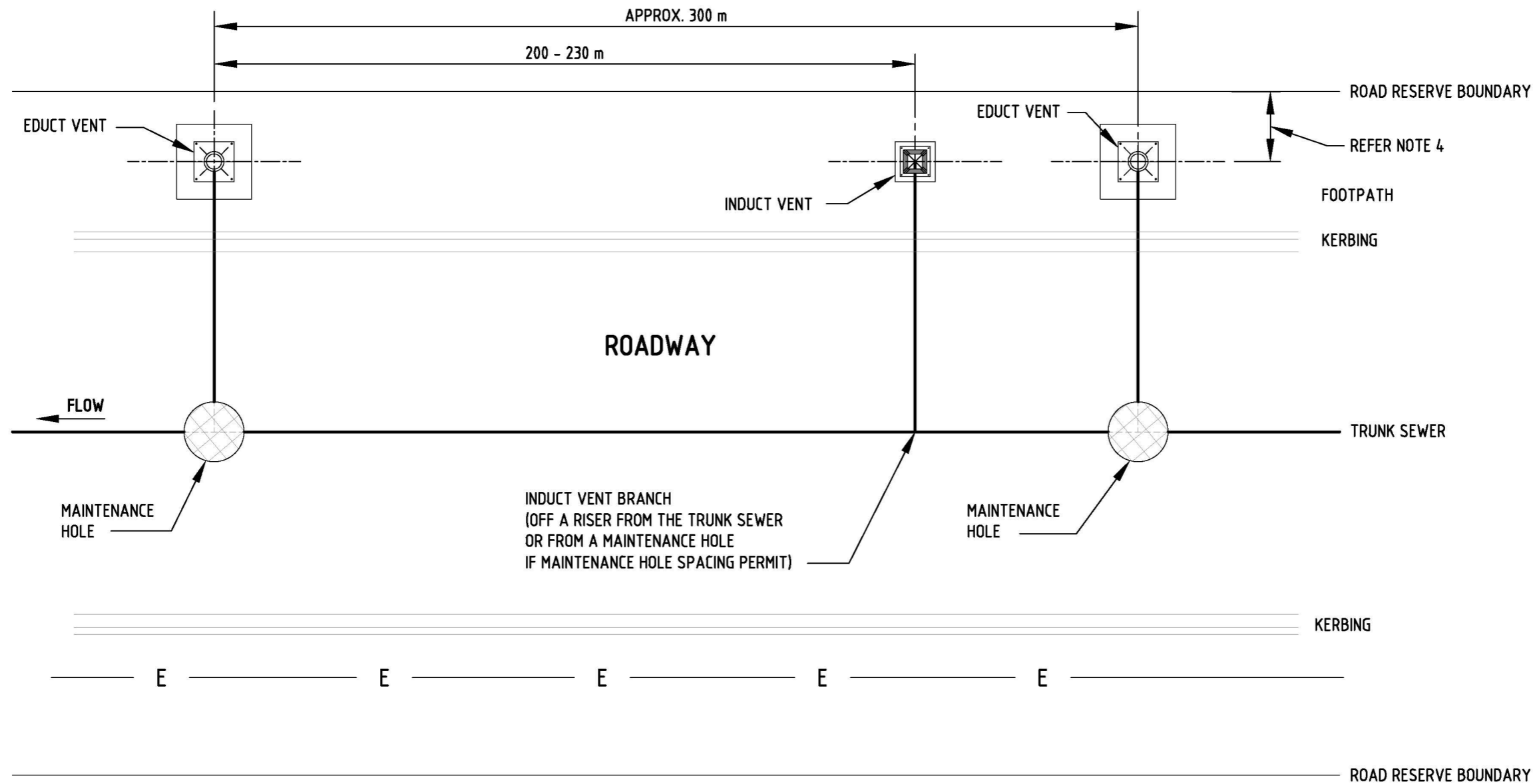
REVISION PANEL				
REV	DATE	DRN	DETAILS	APR
2	10/01/19	RP	REINFORCED FITTINGS ADDED WHERE INDICATED	TG
1	31/03/16	MS	2016 STANDARDS REVIEW	TG

DESIGN PANEL		
DESIGNED:	03/08/15	AUTHORISED:
RJP		T.GALEK
DRAWN:	25/09/15	SIGNATURE:
MS		ORIGINAL SIGNED
REVIEWED:	21/03/16	
TG		

  
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**SA WATER STANDARD DRAWINGS**  
**SEWER CONSTRUCTION MANUAL**  
**NEW PROPERTY CONNECTION OFF**  
**EXISTING VC & RCRJ**  
**SEWER DN375 & LARGER**

A3	2
SHT SIZE	REVISION
TOTAL SHEETS:	
SUPERSEDES: 94-0162-01 (K12)	
DRAWING NUMBER	
4005-20007-03	
PREFIX	NUMBER SHEET

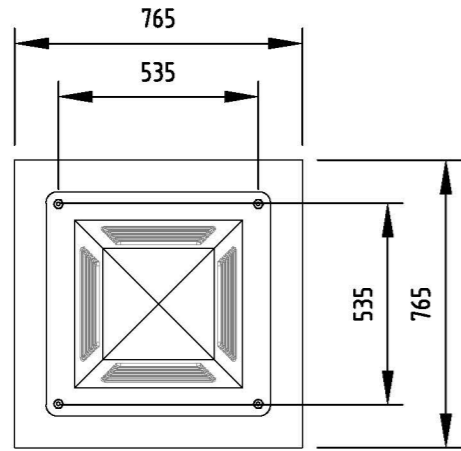


**NOTES:**

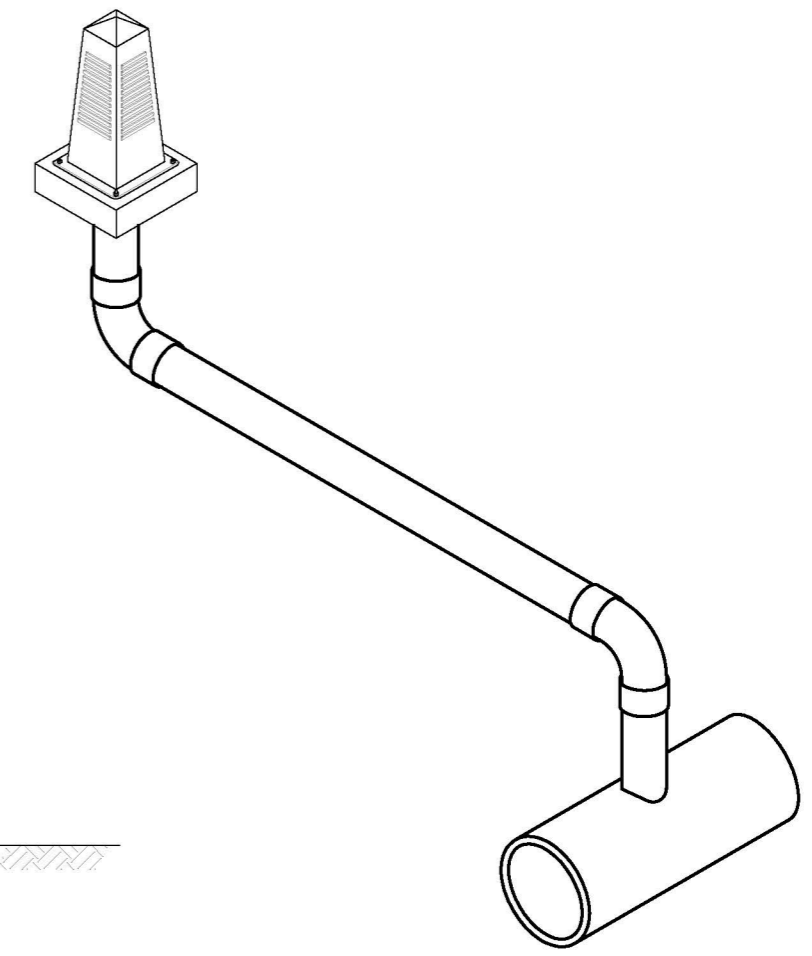
1. REFER 4005-20002-01 & 4005-20002-02 FOR GENERAL NOTES.
2. INDUCT AND EDUCT VENTS:
  - SHALL BE USED ON ALL TRUNK SEWERS DN450 AND LARGER, UNLESS OTHERWISE DIRECTED BY SA WATER REPRESENTATIVE,
  - SHALL BE SITED IN THE LEAST OBTRUSIVE LOCATION, GIVING DUE REGARD TO THE GENERAL STREETScape.
3. INDUCT VENTS (REFER 4005-20007-05)
  - CAN BE SITED ON EITHER SIDE OF THE ROAD RESERVE PROVIDING THEY ARE WELL CLEAR OF ALL UNDERGROUND SERVICES (INCLUDING SAPN, GAS, TELSTRA, OPTUS ETC), TREES, DRIVEWAYS AND ANY OTHER FACILITIES.
  - SHALL BE PREFERABLY ALIGNED WITH THE SIDE BOUNDARY OF ADJACENT ALLOTMENTS, REMOTE FROM DRIVEWAYS.
4. EDUCT VENTS, (REFER 4005-20007-06):
  - SHALL BE SITED ON THE OPPOSITE SIDE OF THE ROAD RESERVE TO SAPN OVERHEAD MAINS (OR UNDERGROUND DISTRIBUTION CABLES) .
  - WHERE THIS IS NOT POSSIBLE APPROVAL SHALL BE SOUGHT FROM THE SA WATER REPRESENTATIVE FOR THE VENTS TO BE LOCATED ON THE SAME SIDE AS THE SAPN INFRASTRUCTURE.
  - SHALL ALWAYS BE SITED WELL CLEAR OF ALL OVERHEAD AND UNDERGROUND SERVICES (INCLUDING SAPN, GAS, TELSTRA, OPTUS ETC),
  - SHALL BE WELL CLEAR OF ALL TREES, DRIVEWAYS AND ANY OTHER FACILITIES. PREFERABLY THEY SHALL BE ALIGNED WITH THE SIDE BOUNDARY BETWEEN ADJACENT ALLOTMENTS, REMOTE FROM DRIVEWAYS.
  - BOUNDARY OFFSET VARIABLE DEPENDING ON COMMON SERVICE TRENCH AND OTHER SERVICES WITHIN THE FOOTPATH AREA.

REVISION PANEL					DESIGN PANEL		 <small>Government of South Australia</small> SA Water This drawing is the property of the SOUTH AUSTRALIAN WATER CORPORATION and shall not be copied or modified in part or in whole without authorization.	SA WATER STANDARD DRAWINGS SEWER CONSTRUCTION MANUAL		A3 SHT SIZE	1 REVISION
REV	DATE	DRN	DETAILS	APR	CURRENT REV AUTHORISED:	DESIGNED: 03/08/15 RJP		AUTHORISED: 31/03/16 T.GALEK	END EDUCT VENTS SITTING AND SPACING FOR TRUNK SEWER		TOTAL SHEETS:
					SIGNATURE:	DRAWN: 25/09/15 MS	SIGNATURE: <i>T. Galek</i>			SUPERSEDES: 94-0168-01 (J1)	
1	31/03/16	MS	2016 STANDARDS REVIEW	TG		REVIEWED: 21/03/16 TG				DRAWING NUMBER	
								4005-20007-04		PREFIX	NUMBER
											SHEET

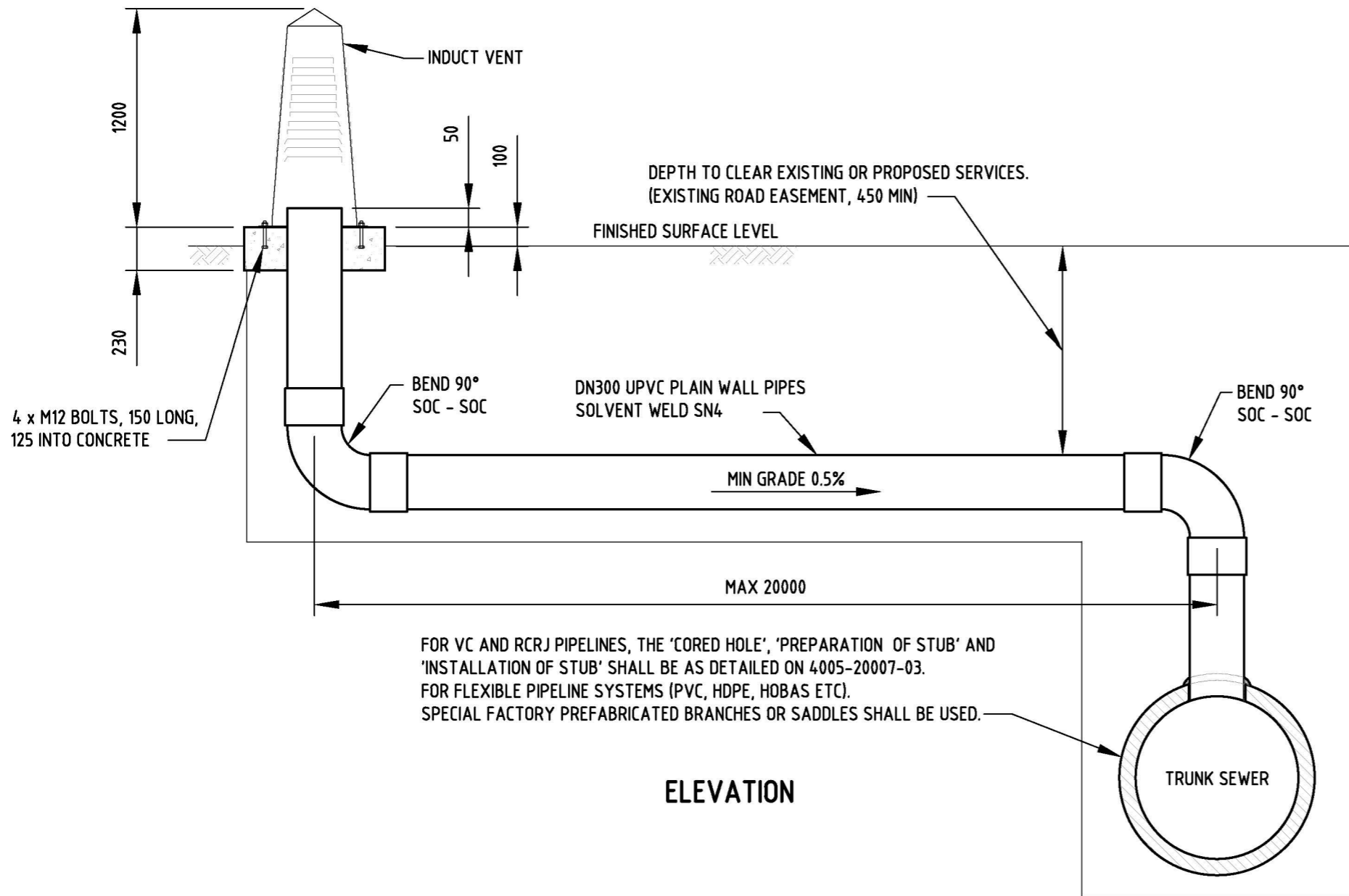




PLAN



ISOMETRIC




ELEVATION

**NOTES:**

1. REFER 4005-20002-01 & 4005-20002-02 FOR GENERAL NOTES.
2. VENT PENETRATIONS NOT PERMITTED INTO PLASTILINED AND HDPE PIPES.
3. HOLDING DOWN BOLTS AND NUTS SHALL BE HOT DIP GALVANISED.
4. REFER 4005-20007-04 FOR POSITIONING OF VENTS.
5. ALL DIMENSIONS IN MILLIMETRES.

REVISION PANEL				
REV	DATE	DRN	DETAILS	APR
1	31/03/16	MS	2016 STANDARDS REVIEW	TG

DESIGN PANEL	
DESIGNED: 03/08/15	AUTHORISED: 31/03/16
RJP	T.GALEK
DRAWN: 25/09/15	SIGNATURE:
MS	<i>T. Galek</i>
REVIEWED: 21/03/16	
TG	

  
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**SA WATER STANDARD DRAWINGS**  
**SEWER CONSTRUCTION MANUAL**  
**INDUCT VENT**  
**GENERAL ARRANGEMENT**

A3	1
SHT SIZE	REVISION
TOTAL SHEETS:	
SUPERSEDES: 94-0168-02 (J2)	
DRAWING NUMBER	
<b>4005-20007-05</b>	
PREFIX	NUMBER SHEET



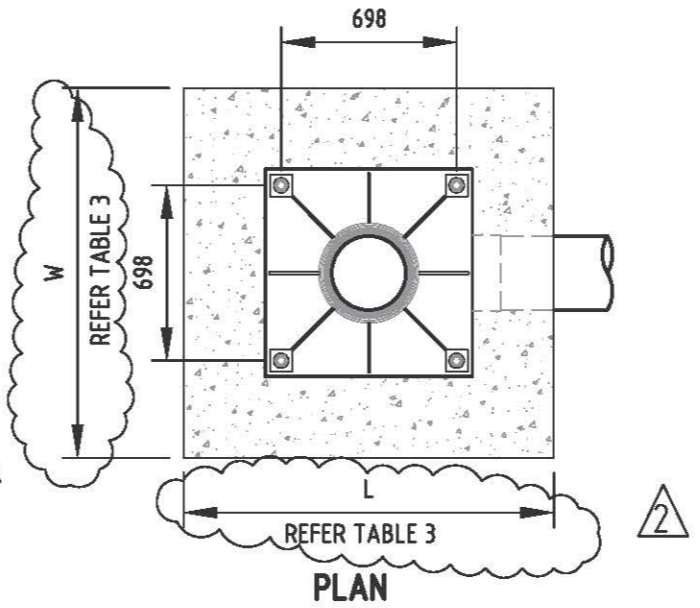
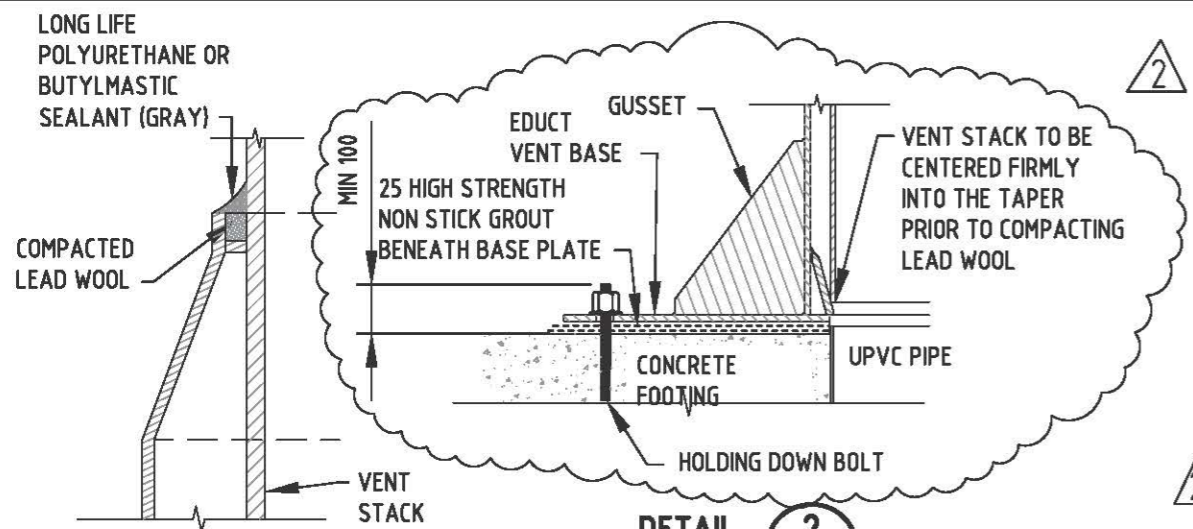
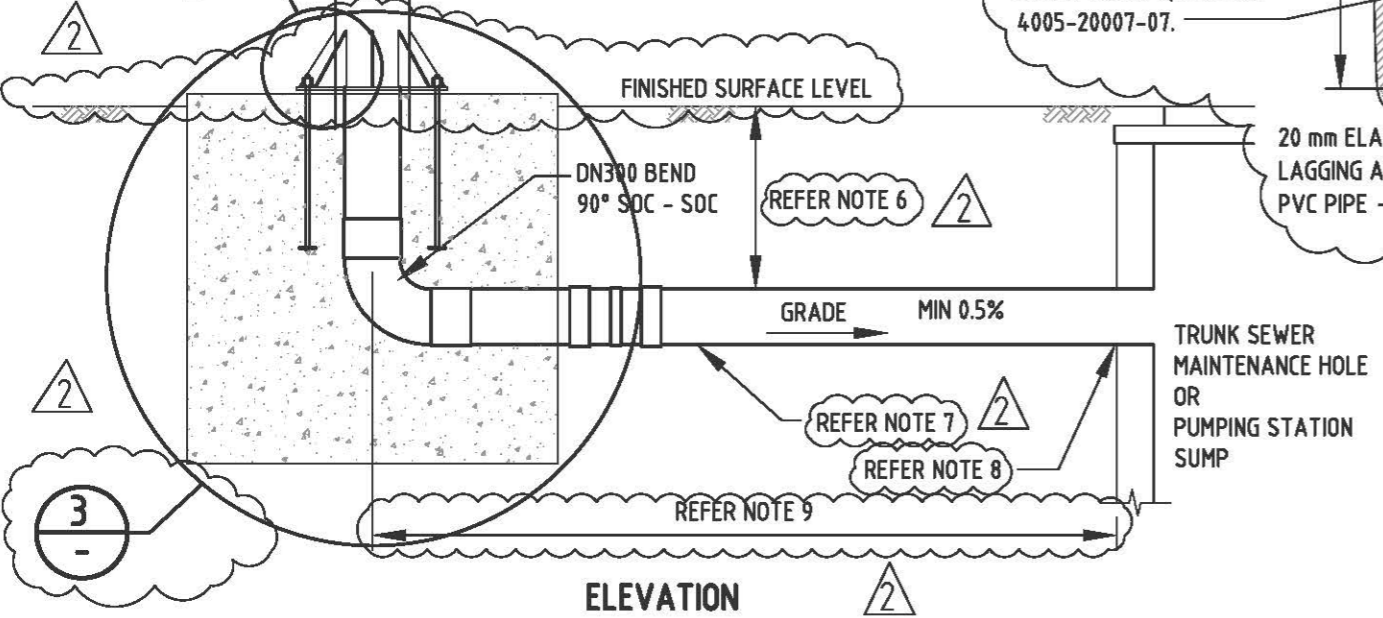
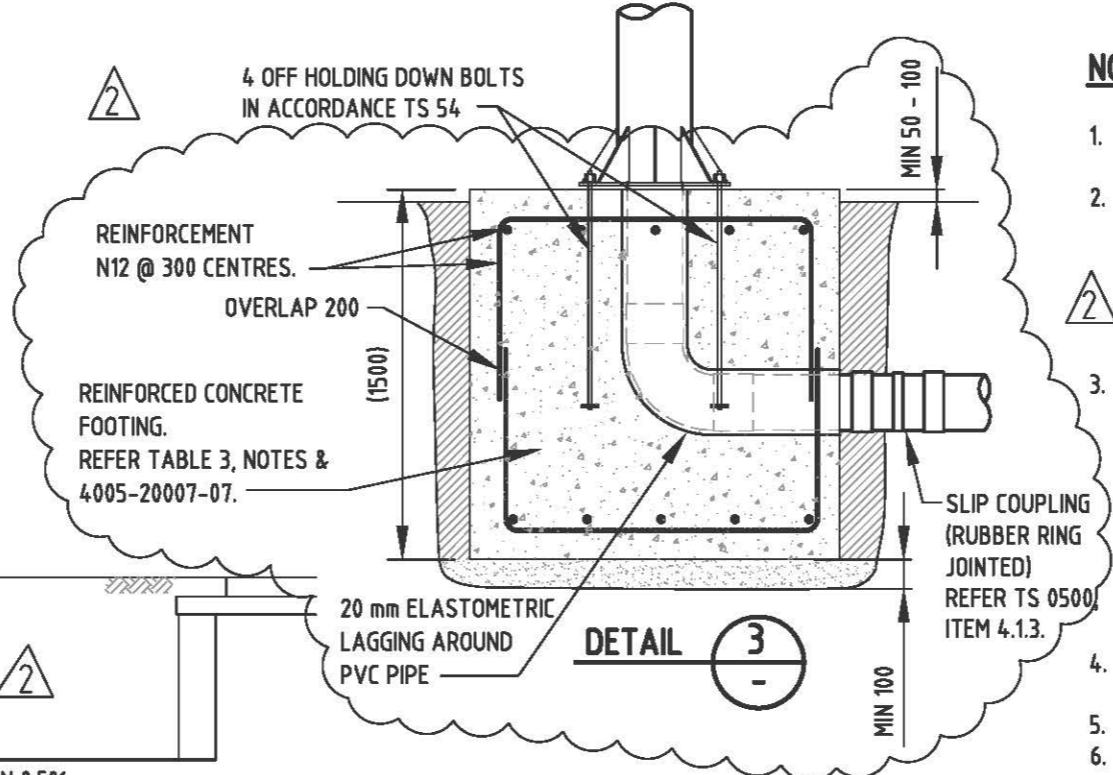
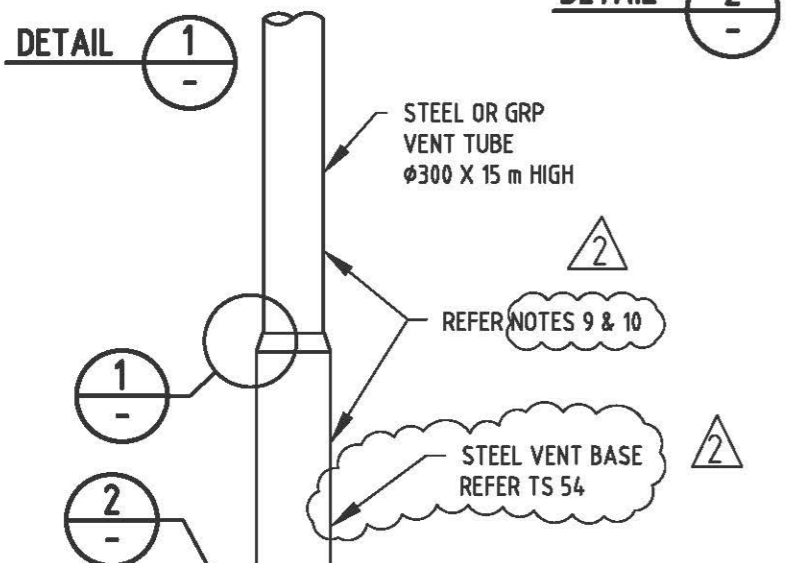


TABLE 3  
 CONCRETE FOOTING DIMENSIONS

VENT MATERIAL	L	W
STEEL	1500	1500
GRP	1800	1800

NOTE: DIMENSIONS DEPENDENT UPON SOIL TYPE. REFER NOTES 2 TO 4.



**NOTES:**

- THIS DRAWING SHOULD BE CONSIDERED TOGETHER WITH THE DETAILED NOTES PROVIDED ON 4:005-20007-07.
- THE DESIGN ASSUMPTIONS ARE:
  - THE VERTICAL BEARING CAPACITY OF THE SOIL AT THE BOTTOM OF THE EXCAVATION IS ASSESSED TO BE  $\geq 100$  KPa,
  - NO GROUNDWATER ENCOUNTERED HIGHER THAN 500 ABOVE THE BOTTOM OF THE FOOTING,
  - MAXIMUM FILL COVER ABOVE THE CONCRETE FOOTING SHALL BE 500.
- WHERE THE SOIL VERTICAL BEARING CAPACITY  $< 100$  KPa, A QUALIFIED GEOTECHNICAL ENGINEER SHALL BE ENGAGED. THE ENGINEER SHALL:
  - ASSESS THE BEARING CAPACITY OF THE FOUNDING SOIL AT THE FOOTING OF THE EXCAVATION,
  - DESIGN THE CONCRETE FOOTING SIZE, REINFORCEMENT DETAIL AND ANY SITE SPECIFIC REQUIREMENTS
  - THIS INFORMATION SHALL BE PROVIDED TO THE DESIGNER TOGETHER WITH ANY CALCULATIONS
- THE DESIGNER SHALL PROVIDE A DRAWING DETAILING THE CONCRETE FOOTING AND ENGINEER'S REQUIREMENTS.
- REFER 4:005-20002-01 TO 4:005-20002-03 FOR GENERAL NOTES.
- PIPE DEPTH TO CLEAR EXISTING OR PROPOSED SERVICES:
  - MIN 750 COVER IN EXISTING ROAD AND PUMPING STATION SITE,
  - MIN 450 COVER IN EASEMENT.
- DN300 UPVC PLAN WALL PIPE (CLASS SH) WITH SOLVENT CEMENT JOINTS.
- REFER 4:005-20005-03 FOR PIPE SEALING & CORING DETAILS, (BOTH INSITU & PRECAST STRUCTURES).
- THE MAXIMUM DISTANCE OF THE VENT FROM THE VENTED PIPE OR STRUCTURE SHALL BE 20 METRES.
- REFER TS 0500 FOR VENT BASE & STACK SUPPLIER DETAILS.
- ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.

REVISION PANEL			
REV	DATE	DRN	DETAILS
2	30/04/18	RP	FOOTING REINFORCEMENT ADDED: NOTES CHANGED
1	31/03/16	MS	2016 STANDARDS REVIEW

DESIGN PANEL			
DESIGNED:	03/08/15	AUTHORISED:	31/03/16
RJP		T.GALEK	
DRAWN:	25/09/15	SIGNATURE:	
MS		ORIGINAL SIGNED	
REVIEWED:	21/03/16		
TG			

**SA Water**  
 Government of South Australia

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**SA WATER STANDARD DRAWINGS**  
**SEWER CONSTRUCTION MANUAL**  
**EDUCT VENT**  
**VENT FOOTING AND FIXING DETAILS**  
**SHEET 1 OF 2**

A3	2
SHT SIZE	REVISION
TOTAL SHEETS: 7	
SUPERSEDES: 94-0168-03 (J3)	
DRAWING NUMBER	
<b>4005-20007-06</b>	
PREFIX	NUMBER SHEET



**NOTES:**

**GENERAL**

1. REFER 4005-20007-06 FOR DESIGN ASSUMPTIONS, CONCRETE FOOTING SIZE AND FIXING DETAILS.
2. REFER 4005-20007-04 FOR POSITIONING OF VENTS ALONG TRUNK SEWER MAINS.
3. CORROSION PROTECTION:
  - ALL NUTS SHALL BE COATED WITH MASTIC AND SEALED WITH RADLOID CAPS FILLED WITH MASTIC.
  - WHERE PORTION OF THE STEEL VENT BASE IS BELOW NS LEVEL IT SHALL BE PROTECTED USING PETROLATUM ANTI CORROSION SYSTEM IN ACCORDANCE WITH TS 18.
4. REFER 4005-20002-01 TO 4005-20002-03 FOR GENERAL NOTES.
5. ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.

**SITE PREPARATION FOR THE EXCAVATION**

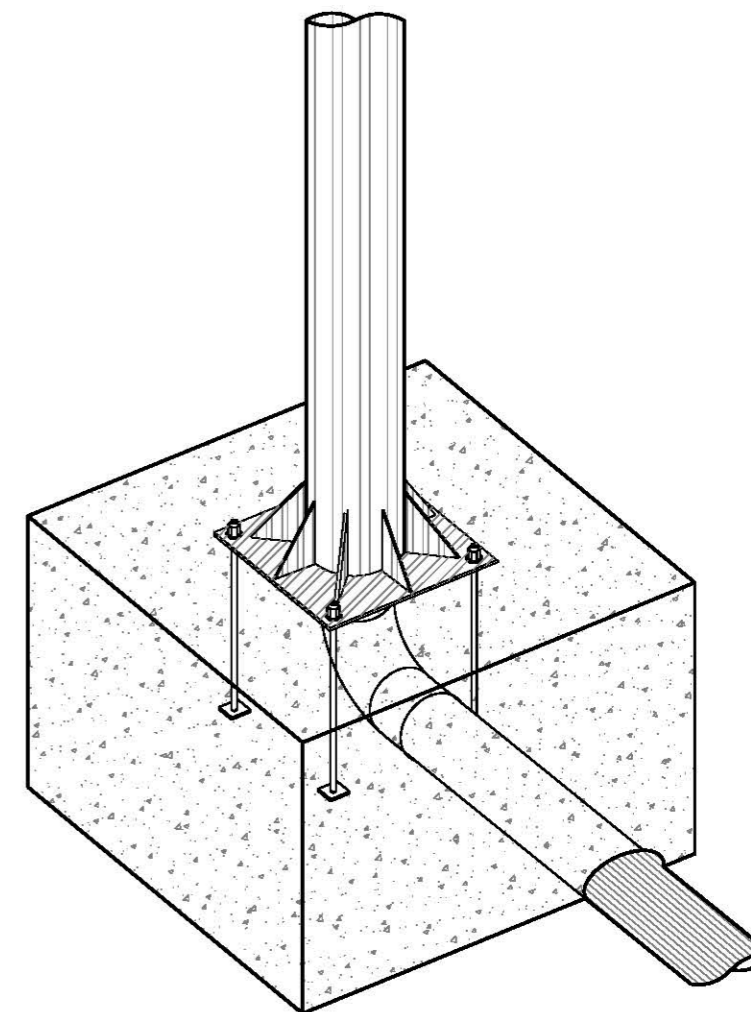
6. ALL VEGETATION, ORGANIC TOP SOIL, DISTURBED NATURAL SOIL, SOFT, WET OR WEAK SOIL SHALL BE EXCAVATED OUT. IF ENCOUNTERED AT FOUNDING LEVEL, THE EXCAVATION SHALL BE DEEPENED.
7. SURPLUS EXCAVATED MATERIAL SHALL BE DISPOSED OFF SITE UNLESS OTHERWISE APPROVED.
8. THE SIDES OF THE EXCAVATION SHALL BE SHORED OR SLOPED TO THE SOIL ANGLE OF REPOSE TO PREVENT SIDE COLLAPSE.
9. EXCAVATION AND BACKFILL:
  - THE EXCAVATION SHALL:
    - a. BE HORIZONTAL & LEVEL,
    - b. BE CLEAN AND FREE OF ALL LOOSE MATERIAL,
    - c. HAVE A BASE COURSE OF QUARRY RUBBLE, MIN. 100T, COMPACTED, (APPROVED ALTERNATIVE IS LEAN MIX CONCRETE),
    - d. ANY BACKFILL BETWEEN CONCRETE FOOTING AND SIDE SUPPORT/ SHORING SHALL BE COMPACTED.
    - e. BE DRY PRIOR TO POURING CONCRETE.
  - ALL COMPACTED MATERIALS SHALL BE MIN. 95% SMDD.
12. OVER EXCAVATION SHALL BE FILLED WITH CLEAN FILL MATERIAL COMPACTED TO 95% SMDD. ALTERNATIVELY IT MAY BE FILLED WITH LEAN MIX CONCRETE.
13. FLOW OF WATER INTO THE EXCAVATION SHALL BE PREVENTED. ANY WATER COLLECTING IN THE EXCAVATION SHALL BE PUMPED OUT. DEWATERING SHALL CONTINUE TO THE END OF THE CURING PERIOD (7 DAYS) TO PREVENT DAMAGE TO THE BASE COURSE OR CONCRETE FOOTING BY EROSION OR PERCOLATION.

**CONCRETE NOTES**

1. GENERALLY CONCRETE POURED IN SITU SHALL BE:
  - MIN. GRADE N40, WITH NOMINAL MAXIMUM AGGREGATE SIZE OF 20 TO 40, SLUMP BETWEEN 80 - 100.
  - CLEAR COVER TO REINFORCEMENT MIN. 65.
2. FOR SANDY/ HIGHLY AGGRESSIVE SOIL, (WITH SULPHATE CONTENT > 20,000 PPM OR SULPHATE IN GROUNDWATER > 10,000 PPM OR PH < 4), CONCRETE SHALL BE:
  - MIN. GRADE N50 WITH
  - CLEAR COVER TO REINFORCEMENT MIN. 85.
3. CONCRETE SHALL BE CONTINUOUSLY CURED FOR MIN. 7 DAYS.
4. FOR REINFORCEMENT DETAILS REFER 4005-20007-06.
5. ALL WORKMANSHIP SHALL BE IN ACCORDANCE WITH AS 3600 AND TS 0710.

**VENT STACK REPLACEMENT PROCEDURE**

1. FOR ALL REPLACEMENTS THE CONDITION OF THE EXISTING FOOTING AND VENT BASE SHALL BE ASSESSED PRIOR TO ANY WORK PROCEEDING.
2. THE FOOTING SIZE SHALL BE CONFIRMED AS MINIMUM 1500 x 1500 x 1500.



**ISOMETRIC VIEW OF VENT BASE AND CONCRETE FOOTING**

REVISION PANEL				DESIGN PANEL		 SA Water Government of South Australia This drawing is the property of the SOUTH AUSTRALIAN WATER CORPORATION and shall not be copied or modified in part or in whole without authorization.	<b>SA WATER STANDARD DRAWINGS</b> <b>SEWER CONSTRUCTION MANUAL</b> <b>EDUCT VENT</b> <b>GENERAL AND CONCRETE NOTES</b> <b>SHEET 2 OF 2</b>	A3	1
REV	DATE	DRN	DETAILS	APR	CURRENT REV AUTHORIZED:			SHT SIZE	REVISION
					DESIGNED: 31/01/18 RJP	AUTHORISED: 08/08/18 T.GALEK	TOTAL SHEETS:		
					DRAWN: 31/01/18 RP	SIGNATURE: <i>T. Galek</i>	SUPERSEDES:		
					REVIEWED: TG		DRAWING NUMBER		
1	08/05/18	MBT	NEW DRAWING AS ADDITION TO 4005-20007-06				<b>4005-20007-07</b>		
							PREFIX	NUMBER	SHEET