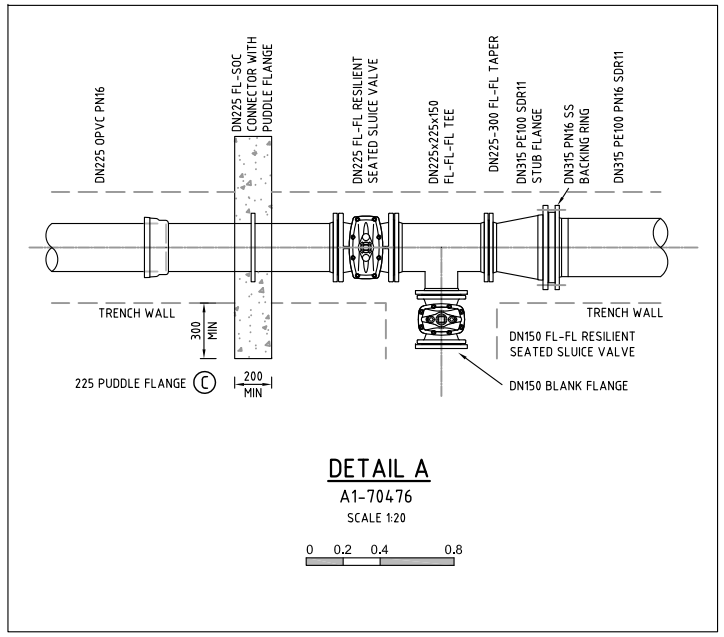
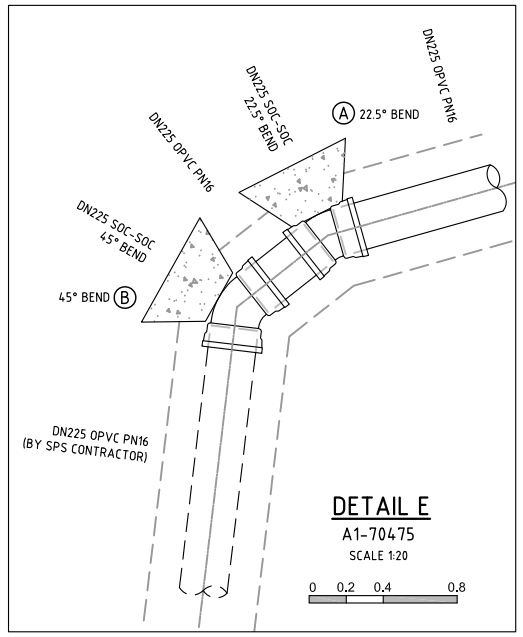


DETAIL A

A1-70476

SCALE 1:20

0 0.2 0.4 0.8

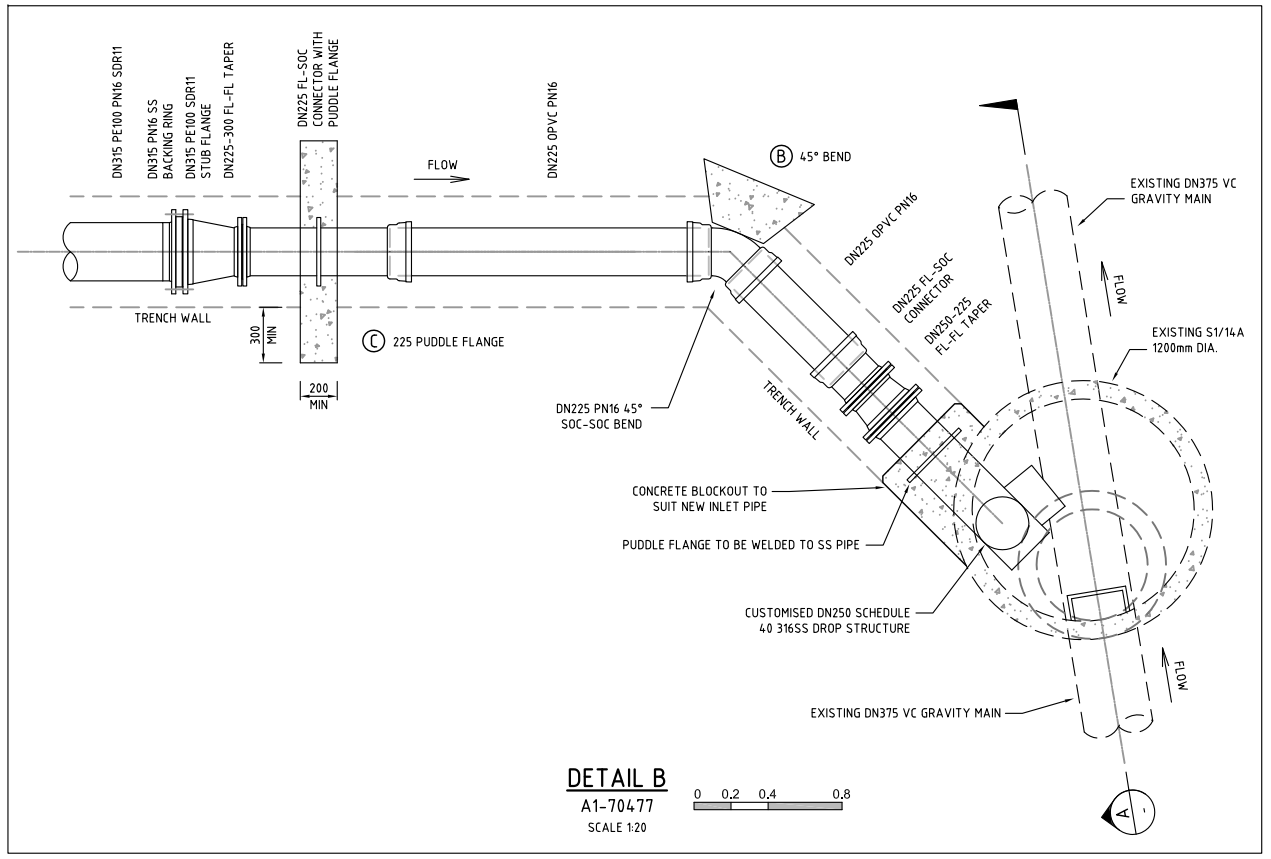


DETAIL E

A1-70475

SCALE 1:20

0 0.2 0.4 0.8



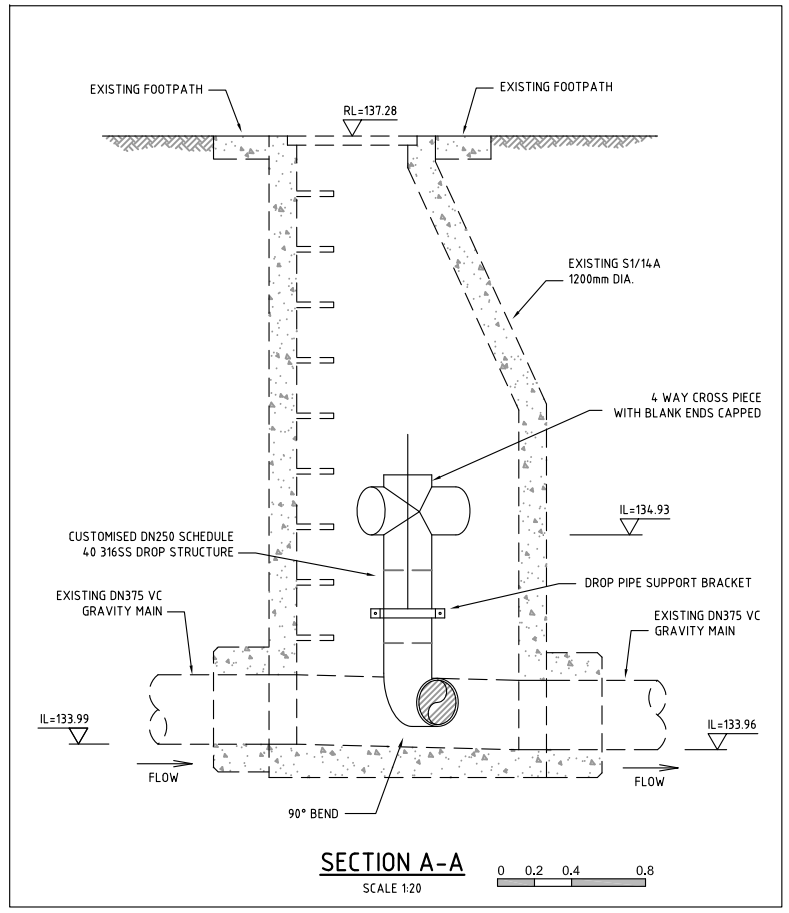
DETAIL B

A1-70477

SCALE 1:20

0 0.2 0.4 0.8

(EXAMPLE ONLY)
TO SHOW LEVEL OF
DETAIL REQUIRED



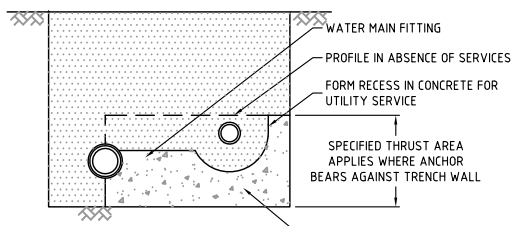
SECTION A-A

SCALE 1:20

0 0.2 0.4 0.8

TOTAL NEW WORK				
SIZE	TYPE	CLASS	STANDARD	LENGTH
DN225	OPVC SERIES 2 (CREAM)	PN16	AS4441	1350m
DN315	PE100 SDR11	PN16	AS2280	335.328m

THRUST RESTRAINT SCHEDULE (AHBP=50kPa, STP=1000kPa)				
	LOCATION	TYPE	AREA (m^2)	NUMBER
A	225 22.5° BEND	CONCRETE	0.40	4
B	225 45° BEND	CONCRETE	0.79	9
C	225 PUDDLE FLANGE	CONCRETE	1.03	4



THRUST ANCHORS FOR POTABLE WATER IN VICINITY OF OTHER SERVICES

NOT TO SCALE

DESIGN HEAD=82m

NOTES

1. ALL DIMENSIONS ARE IN METERS UNLESS SHOWN OTHERWISE.
2. ALL LEVELS ARE IN METRES TO AUSTRALIAN HEIGHT DATUM (AHD). CO-ORDINATES FOR SETTING OUT ARE TO MAP GRID OF AUSTRALIA (MGA).
3. ALL CHAINAGES SHOWN ON THE PLAN ARE DISCONTINUOUS.
4. AGREEMENT WORKS – THESE ARE WORKS DESIGNED, FINANCED AND CONSTRUCTED BY THE LAND OWNER.
5. WORKS MUST BE CONSTRUCTED IN ACCORDANCE WITH WSA 03-2011 -3.1 MRWA EDITION, GIPPSLAND WATERS ADDENDUMS AND STANDARD DRAWINGS. THE CONTRACTOR SHALL ENSURE THAT THEY ARE CONVERSANT WITH ALL CURRENT REVISIONS, AMENDMENTS AND UPDATES THAT THE RELEVANT WATER AGENCY HAS MADE TO THEIR CONSTRUCTION STANDARDS.
6. ALL RISING MAINS UNDER ROADWAYS TO BE BACKFILLED WITH 20mm CLASS 2 CRUSHED ROCK IN 150mm LAYERS COMPACTED TO 100% (UPPER BACKFILL) AND 95% (LOWER BACKFILL) IN ACCORDANCE WITH MRWA-W-201
7. ALL RISING MAINS UNDER FOOTPATHS/VEHICLE CROSSINGS TO BE BACKFILLED WITH 20mm CLASS 3 CRUSHED ROCK AND EXTENDED 500mm EITHER SIDE OF FUTURE PAVING IN 150mm LAYERS COMPACTED TO 95% IN ACCORDANCE WITH MRWA-W-201.
8. THE CONTRACTOR MUST ENSURE THAT THE EXCAVATED BASE OF THE TRENCH HAS A MINIMUM DRY DENSITY RATIO OF 95% OR A MINIMUM DENSITY INDEX OF 70%.
9. THE CONTRACTOR IS REQUIRED TO UNDERTAKE TESTING OF FILL COMPACTION AND DENSITY IN ACCORDANCE WITH WATER AGENCY TRENCH FILL SPECIFICATION. TESTING OF WATER MAINS IS TO BE CARRIED OUT FOR ALL ROAD CROSSINGS, ONE PER CROSSING. THE CONTRACTOR SHALL ENGAGE AN APPROVED NATA REGISTERED GEOTECHNICAL ENGINEER TO CARRY OUT THESE TESTS AS NECESSARY AND SUBMIT TEST RESULTS.
10. THRUST RESTRAINTS HAVE BEEN DESIGNED FOR 50KPa ALLOWABLE BEARING PRESSURE OF GROUND (STIFF CLAY). THE CONTRACTOR SHALL CONFIRM THE ACTUAL GROUND CONDITIONS WITH THE SUPERINTENDENT PRIOR TO CONSTRUCTING RESTRAINTS.
11. THE CONTRACTOR IS NOT PERMITTED TO BREAK-IN TO AN EXISTING LIVE PIPELINE, ENTER A LIVE MAINTENANCE HOLE OR REMOVE THE COVER TO A LIVE MAINTENANCE HOLE, UNLESS APPROVED BY THE WATER AGENCY.
12. ALL WORKS ON LIVE SEWER IS TO BE CARRIED OUT BY THE WATER AGENCY'S LIVE WORKS APPROVED CONTRACTOR. THE CONTRACTOR IS TO NOTIFY THE CONSULTANT AT LEAST TWO (2) WORKING DAYS BEFORE PROCEEDING.
13. THE CONTRACTOR IS DIRECTLY RESPONSIBLE FOR THE SETOUT. SHOULD ACTUAL SITE CONDITIONS CONFLICT IN ANY WAY WITH THAT DOCUMENTED, THE CONTRACTOR MUST CONTACT THE OFFICE OF THE CONSULTANT FOR CLARIFICATION BEFORE PROCEEDING.
14. THE CONTRACTOR IS TO ENGAGE A SUITABLY QUALIFIED AND EXPERIENCED SURVEYOR TO UNDERTAKE ASSET RECORDING OF THE WORK. ALL SURVEYING WORKS AND DATA TO BE SUBMITTED MUST BE IN ACCORDANCE WITH THE WSA 03-2011 -3.1 MRWA EDITION & GIPPSLAND WATERS ADDENDUM.
15. THE CONTRACTOR SHALL OBTAIN A ROAD OPENING PERMIT FOR ANY WORKS WITHIN THE ROAD RESERVE AND COMPLY WITH ALL REQUIREMENTS.
16. PRESSURE TESTING OF RISING MAINS SHALL BE CARRIED OUT STRICTLY IN ACCORDANCE WITH WSA 03-2011 -3.1 MRWA EDITION AND WATER AGENCY SPECIFICATIONS. ALL TESTING MUST BE UNDERTAKEN UNDER DIRECT CONSULTANT SUPERVISION. THE CONTRACTOR IS TO GIVE A MINIMUM OF FOURTEEN (14) DAYS NOTICE TO THE OFFICE OF CONSULTANT PRIOR TO THE TESTING BEING UNDERTAKEN. THE CONTRACTOR IS NOT ALLOWED TO CARRY OUT ANY TESTING OPERATION IN THE ABSENCE OF THE CONSULTANT ON SITE. NONE OF THE VALVES INTO THE WATER AUTHORITY'S SYSTEM SHALL BE OPENED UNTIL THE NEW MAIN HAS PASSED ALL THE TESTS MENTIONED ABOVE AND WRITTEN APPROVAL GIVEN TO THE CONTRACTOR STATING THE WORKS HAVE BEEN SATISFACTORILY COMPLETED.
17. ALL WORKS DISCHARGE TO EXISTING SEWERS.
18. PIPE JOINTING TO BE RRJ FOR ALL PVC PIPES AND BUTT WELDED FOR ALL PE PIPES.
19. IN AREAS SUBJECT TO EARTHWORKS, THE CONSTRUCTION OF SEWERS MUST NOT COMMENCE UNTIL THE EARTHWORKS HAVE BEEN COMPLETED OR THE SUPERINTENDENT GIVES WRITTEN NOTICE TO COMMENCE.
20. IN ACCORDANCE WITH CLAUSE 15 OF AS4000-1997, THE CONTRACTOR MUST ENSURE THE SAFETY OF THE CONTRACTOR'S EMPLOYEES AND ALL OTHER PEOPLE WHO ARE ON OR ADJACENT TO THE SITE. THE CONTRACTOR MUST COMPLY WITH THE VICTORIAN OCCUPATIONAL HEALTH & SAFETY ACT.
21. THE CONTRACTOR MUST ENSURE THAT ALL PEOPLE EMPLOYED ON THE SITE WEAR APPROVED SAFETY APPAREL. THIS INCLUDES SAFETY HELMETS, VESTS, SAFETY BOOTS, EAR & EYE PROTECTION, WHERE APPROPRIATE.
22. THE CONTRACTOR SHALL REINSTATE ANY AFFECTED FOOTPATH, VEHICLE CROSSINGS & NATURE STRIP TO THE REQUIREMENTS OF THE MUNICIPAL COUNCIL.
23. THE CONSULTANT IS RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE WORKS. ANY PROBLEMS ARISING DURING CONSTRUCTION SHALL BE DIRECTED TO THE CONSULTANT.
24. SHOULD ACTUAL SITE CONDITIONS CONFLICT IN ANY WAY WITH THAT DOCUMENTED, THE CONTRACTOR MUST CONTACT THE OFFICE OF THE CONSULTANT FOR CLARIFICATION BEFORE PROCEEDING.
25. BORING SHALL BE CARRIED OUT WHERE SPECIFIED IN ACCORDANCE WITH WSA 02-1999 AND GIPPSLAND WATER'S RELEVANT ADDENDUMS SPECIFICATIONS AND STANDARD DRAWINGS.
26. BUTT WELDED PE PIPE JOINTS SHALL BE DE-BEADED INTERNALLY
27. NO BORING IS PERMITTED BEYOND Ch.1520m WITHOUT PRIOR DIVERSION OF OF THE EXISTING RISING MAIN FLOWS.
28. A CONSTRUCTION MANAGEMENT PLAN IS TO BE PREPARED AND APPROVED BY GIPPSLAND WATER PRIOR TO THE TEMPORARY DIVERSION OF EXISTING RISING MAIN FLOWS INTO Ex S23S/2.

RISING MAIN SETOUT SCHEDULE			
CHAINAGE	EASTING	NORTHING	REMARKS
0.000	399234.391	5776259.389	LIMIT OF WORKS. CONNECT TO EX. BEND
100.000	399331.607	5776282.817	
200.000	399428.824	5776306.246	
280.572	399507.154	5776325.123	45° & 22.5° HORIZONTAL BENDS. AIR VALVE (TYPE 2)
300.000	399509.899	5776344.355	
400.000	399524.031	5776443.352	0.1° VERTICAL DEFLECTION
500.000	399538.162	5776542.348	
600.000	399552.294	5776641.344	45° HORIZONTAL BEND
602.828	399550.596	5776643.607	45° HORIZONTAL BEND
650.000	399557.262	5776690.306	0.3° VERTICAL DEFLECTION
700.000	399564.328	5776739.804	
750.000	399571.394	5776789.302	0.9° VERTICAL DEFLECTION
759.589	399573.755	5776798.793	SCOUR VALVE TYPE 2 & 45° HORIZONTAL BEND
770.888	399581.787	5776805.574	45° HORIZONTAL BEND & 12.1° VERTICAL DEFLECTION
800.000	399585.903	5776834.394	6° VERTICAL BEND
825.000	399589.438	5776859.143	1.8° VERTICAL DEFLECTION USING DI SOC-SOC CONNECTOR
850.000	399592.972	5776883.892	0.8° VERTICAL DEFLECTION
875.000	399596.507	5776908.641	4.3° VERTICAL DEFLECTION USING DI SOC-SOC CONNECTOR
900.000	399600.041	5776933.390	1.7° VERTICAL DEFLECTION USING DI SOC-SOC CONNECTOR
925.000	399603.576	5776958.139	0.6° VERTICAL DEFLECTION
950.000	399607.110	5776982.886	AIR VALVE (TYPE 2)
1000.000	399614.180	5777032.385	0.5° VERTICAL DEFLECTION
1050.000	399621.249	5777081.883	
1057.316	399622.283	5777089.126	45° HORIZONTAL BEND
1068.782	399616.617	5777099.094	45° HORIZONTAL BEND
1110.000	399622.435	5777139.899	0.7° VERTICAL DEFLECTION
1200.000	399635.141	5777228.998	0.7° VERTICAL DEFLECTION
1230.000	399639.376	5777258.697	STOP VALVE / SCOUR VALVE TYPE 2 / STOP VALVE
1276.340	399645.918	5777304.573	1.1° VERTICAL DEFLECTION
1297.260	399648.871	5777325.283	22.5° HORIZONTAL BEND & 3.0° VERTICAL DEFLECTION
1314.726	399644.524	5777342.201	22.5° HORIZONTAL BEND & 1.4° VERTICAL DEFLECTION
1350.000	399649.504	5777377.121	START OF HDD BORE
1381.292	399653.921	5777408.100	1.8° VERTICAL DEFLECTION
1400.000	399656.562	5777426.620	1.4° VERTICAL DEFLECTION
1451.758	399663.869	5777477.860	
1500.000	399670.679	5777525.619	
1571.150	399680.724	5777596.057	0.1° HORIZONTAL DEFLECTION & 0.6° VERTICAL DEFLECTION
1600.000	399684.905	5777624.602	0.2° VERTICAL DEFLECTION
1681.839	399696.772	5777705.575	END OF BORE & 3.2° VERTICAL DEFLECTION
1683.539	399697.012	5777707.258	45° HORIZONTAL BEND
1685.328	399698.442	5777708.333	CONNECT TO Ex S1/14A. REFER TO A1-64655 DETAIL B

REVISIONS

No.	DATE	DESCRIPTION	APP'D
0	28/06/21	INITIAL ISSUE	GM

REFERENCES

PLAN No.	TITLE
A1-70471	DRAWING INDEX (CAD MASTER FILE)

DESIGNED BY:

DO NOT SCALE

CERTIFICATION OF COMPLIANCE WITH GIPPSLAND WATER'S DESIGN & DRAFTING REQUIREMENTS.

DESIGNED: / / -

DRAWN: 13/02/19 GM

CHECKED: 09/04/21 RD/FR

GIPPSLAND WATER DRAWING STATUS: TYPICAL DRAWING ONLY

GIPPSLAND WATER FACILITY CODE: TBD

GIPPSLAND WATER

DRAWING No. A1-70474 REV. 0

"LOCATION" SEWER RETICULATION
SEWAGE PUMP STATION
RETICULATION ASSETS
EXAMPLE RISING MAIN DETAILS