

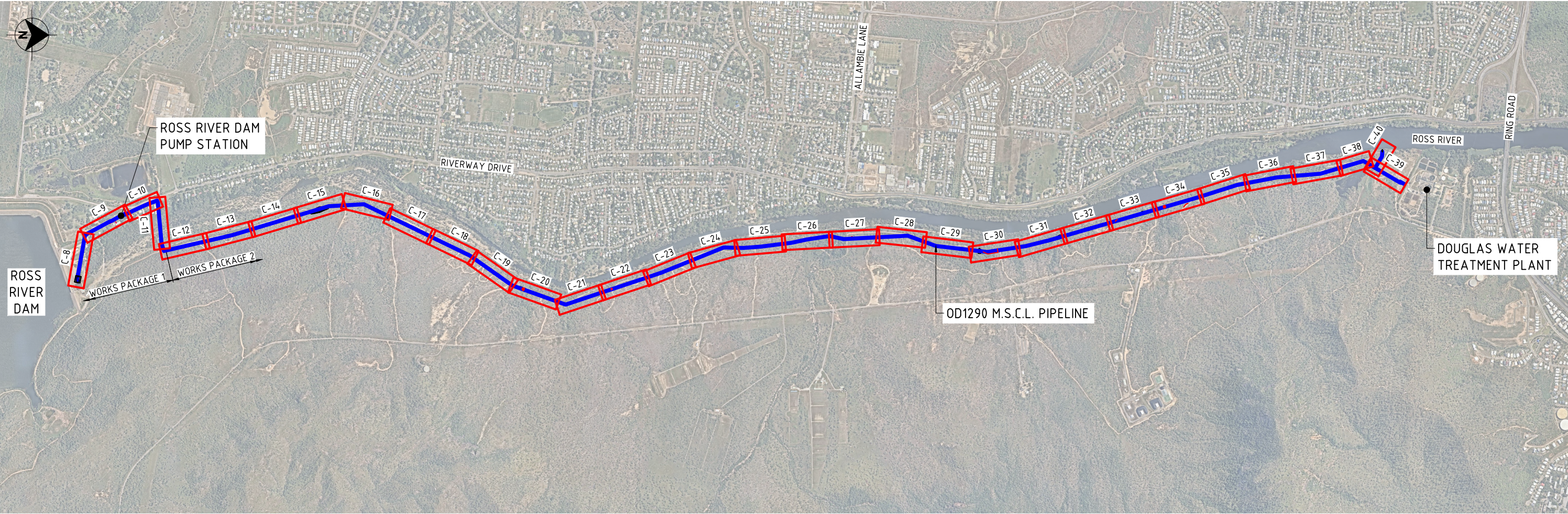
# Appendix B

## Detailed Design



# ROSS RIVER DAM TO DOUGLAS WATER TREATMENT PLANT

## OD1290 M.S.C.L. PIPELINE



LOCALITY PLAN  
AND SHEET KEY PLAN

This drawing is confidential and shall only be used for the purposes of this project.

No.	BY	DATE	DESCRIPTION	APPROVED
D	PSA	19.11.21	ISSUED FOR TENDER	
C	PSA	20.10.21	90% DESIGN	
B	PSA	17.09.21	PIPELINE SUPPLY TENDER	
A	PSA	24.08.21	50% SUBMISSION	

Scale

SCALE U



THE SIGNING OF THIS TITLE BLOCK CONFIRMS THE DESIGN AND DRAFTING OF THIS PROJECT HAVE BEEN PREPARED AND CHECKED IN ACCORDANCE WITH THE AECOM QUALITY ASSURANCE SYSTEM TO ISO 9001-2000

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APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

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AECOM Australia Pty Ltd A.B.N. 20 093 846 925



ROSS RIVER DAM TO DOUGLAS WTP PIPELINE  
COVER SHEET

Status TENDER

Proj No. 60662058-C-01

Rev. D



LAST MODIFIED: 17/12/2021 3:49 PM  
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DRAWING LIST

DRAWING NUMBER	TITLE
CIVIL DRAWINGS	
60662058-C-01	COVER SHEET
60662058-C-02	DRAWING INDEX
60662058-C-03	GENERAL NOTES SHEET 1
60662058-C-04	GENERAL NOTES SHEET 2
60662058-C-05	PIPEWORK LEGENDS
60662058-C-06	PIPELINE SETOUT TABLE
60662058-C-07	OVERALL LONGITUDINAL SECTION
60662058-C-08	PLAN AND LONGITUDINAL SECTION SHEET 1
60662058-C-09	PLAN AND LONGITUDINAL SECTION SHEET 2
60662058-C-10	PLAN AND LONGITUDINAL SECTION SHEET 3
60662058-C-11	PLAN AND LONGITUDINAL SECTION SHEET 4
60662058-C-12	PLAN AND LONGITUDINAL SECTION SHEET 5
60662058-C-13	PLAN AND LONGITUDINAL SECTION SHEET 6
60662058-C-14	PLAN AND LONGITUDINAL SECTION SHEET 7
60662058-C-15	PLAN AND LONGITUDINAL SECTION SHEET 8
60662058-C-16	PLAN AND LONGITUDINAL SECTION SHEET 9
60662058-C-17	PLAN AND LONGITUDINAL SECTION SHEET 10
60662058-C-18	PLAN AND LONGITUDINAL SECTION SHEET 11
60662058-C-19	PLAN AND LONGITUDINAL SECTION SHEET 12
60662058-C-20	PLAN AND LONGITUDINAL SECTION SHEET 13
60662058-C-21	PLAN AND LONGITUDINAL SECTION SHEET 14
60662058-C-22	PLAN AND LONGITUDINAL SECTION SHEET 15
60662058-C-23	PLAN AND LONGITUDINAL SECTION SHEET 16
60662058-C-24	PLAN AND LONGITUDINAL SECTION SHEET 17
60662058-C-25	PLAN AND LONGITUDINAL SECTION SHEET 18
60662058-C-26	PLAN AND LONGITUDINAL SECTION SHEET 19
60662058-C-27	PLAN AND LONGITUDINAL SECTION SHEET 20
60662058-C-28	PLAN AND LONGITUDINAL SECTION SHEET 21
60662058-C-29	PLAN AND LONGITUDINAL SECTION SHEET 22
60662058-C-30	PLAN AND LONGITUDINAL SECTION SHEET 23
60662058-C-31	PLAN AND LONGITUDINAL SECTION SHEET 24
60662058-C-32	PLAN AND LONGITUDINAL SECTION SHEET 25
60662058-C-33	PLAN AND LONGITUDINAL SECTION SHEET 26
60662058-C-34	PLAN AND LONGITUDINAL SECTION SHEET 27
60662058-C-35	PLAN AND LONGITUDINAL SECTION SHEET 28
60662058-C-36	PLAN AND LONGITUDINAL SECTION SHEET 29
60662058-C-37	PLAN AND LONGITUDINAL SECTION SHEET 30
60662058-C-38	PLAN AND LONGITUDINAL SECTION SHEET 31
60662058-C-39	PLAN AND LONGITUDINAL SECTION SHEET 32
60662058-C-40	HIGH FLOW SCOUR PLAN AND LONGITUDINAL SECTION
60662058-C-41	CONNECTION DETAILS SHEET 1
60662058-C-42	CONNECTION DETAILS SHEET 2
60662058-C-43	CONNECTION DETAILS SHEET 3
60662058-C-44	CONNECTION DETAILS SHEET 4
60662058-C-45	NOT USED
60662058-C-46	NOT USED
60662058-C-47	CONNECTION DETAILS SHEET 5
60662058-C-48	CONNECTION DETAILS SHEET 6
60662058-C-49	CONNECTION DETAILS SHEET 7
60662058-C-50	VALVE CHAMBER 1 - GENERAL ARRANGEMENT PLAN
60662058-C-51	VALVE CHAMBER 1 - GENERAL ARRANGEMENT SECTIONS - SHEET 1
60662058-C-52	VALVE CHAMBER 1 - GENERAL ARRANGEMENT SECTIONS - SHEET 2
60662058-C-53	VALVE CHAMBER 2 - GENERAL ARRANGEMENT PLAN
60662058-C-54	VALVE CHAMBER 2 - GENERAL ARRANGEMENT SECTIONS
60662058-C-55	VALVE CHAMBER 3 - GENERAL ARRANGEMENT PLAN
60662058-C-56	VALVE CHAMBER 3 - GENERAL ARRANGEMENT SECTIONS - SHEET 1
60662058-C-57	VALVE CHAMBER 3 - GENERAL ARRANGEMENT SECTIONS - SHEET 2
60662058-C-58	FLOW METER CHAMBER - GENERAL ARRANGEMENT
60662058-C-59	NOT USED
60662058-C-60	CONCRETE BULKHEAD AND TRENCH STOP DETAILS

60662058-C-61	SCOUR TYPICAL DETAILS GENERAL ARRANGEMENT
60662058-C-62	AIR VALVE TYPICAL DETAILS GENERAL ARRANGEMENT
60662058-C-63	STEEL PIPE SPECIALS SHEET 1
60662058-C-64	STEEL PIPE SPECIALS SHEET 2
60662058-C-65	STEEL PIPE SPECIALS SHEET 3
60662058-C-66	TYPICAL TRENCH SECTIONS
60662058-C-67	PIPELINE SECTIONS
60662058-C-68	INDICATIVE CORRIDOR SECTIONS
60662058-C-69	CH0 TO CH30 REINSTATEMENT
60662058-C-70	ROCK PROTECTION DETAILS
60662058-C-71	MARKER POST DETAILS
60662058-C-72	AERIAL CROSSING CREEK 8 PLAN AND LONGITUDINAL SECTION
60662058-C-73	AERIAL CROSSING CREEK 10 PLAN AND LONGITUDINAL SECTION
60662058-C-74	AERIAL CROSSING CREEK 18 PLAN AND LONGITUDINAL SECTION
60662058-C-75	EXPANSION JOINT CHAMBER - GENERAL ARRANGEMENT
60662058-C-76	PIPE PEDESTALS - GENERAL ARRANGEMENT
60662058-C-77	TYPICAL GATE AND FENCE DETAILS
60662058-C-78	DIRECT BURIED VALVE INSTALLATION DETAILS SHEET 1
60662058-C-79	DIRECT BURIED VALVE INSTALLATION DETAILS SHEET 2
60662058-C-80	VALVE GEARBOX PROTECTIVE ENCLOSURE SHEET 1
60662058-C-81	VALVE GEARBOX PROTECTIVE ENCLOSURE SHEET 2
60662058-C-82	REVEGETATION LAYOUT (ON HOLD)
60662058-C-83	REVEGETATION LAYOUT (ON HOLD)
60662058-C-100	CREEK 8 TRENCHED OPTION PLAN AND LONGITUDINAL SECTION
60662058-C-101	CREEK 10 TRENCHED OPTION PLAN AND LONGITUDINAL SECTION
60662058-C-102	CREEK 18 TRENCHED OPTION PLAN AND LONGITUDINAL SECTION
STRUCTURAL DRAWINGS	
60662058-S-01	STRUCTURAL GENERAL NOTES SHEET 1
60662058-S-02	STRUCTURAL GENERAL NOTES SHEET 2
60662058-S-03	VALVE CHAMBER 1 - REINFORCEMENT DETAILS UPPER SLAB REINFORCEMENT MESH
60662058-S-04	VALVE CHAMBER 1 - REINFORCEMENT DETAILS SECTION 1 & 2 VIEW
60662058-S-05	VALVE CHAMBER 1 - REINFORCEMENT DETAILS SECTION 3 VIEW
60662058-S-06	VALVE CHAMBER 2 - REINFORCEMENT DETAILS TOP SLAB REINFORCEMENT MESH
60662058-S-07	VALVE CHAMBER 2 - REINFORCEMENT DETAILS SECTION 1,2 & 3 VIEW
60662058-S-08	VALVE CHAMBER 3 - REINFORCEMENT DETAILS
60662058-S-09	VALVE CHAMBER 3 - GRATED COVER SHEET 1
60662058-S-10	VALVE CHAMBER 3 - GRATED COVER SHEET 2
60662058-S-11	FLOW METER CHAMBER - REINFORCEMENT DETAILS SHEET 1
60662058-S-12	FLOW METER CHAMBER - REINFORCEMENT DETAILS SHEET 2
60662058-S-13	FLOW METER CHAMBER - REINFORCEMENT DETAILS SHEET 3
60662058-S-14	PIPE CONCRETE ENCASEMENT - REINFORCEMENT DETAILS
60662058-S-15	AIR VALVE CHAMBER - REINFORCEMENT DETAILS SHEET 1
60662058-S-16	AIR VALVE CHAMBER - REINFORCEMENT DETAILS SHEET 2
60662058-S-17	STRUCTURAL COMMON DETAILS
60662058-S-18	SCOUR CHAMBER - REINFORCEMENT DETAILS
60662058-S-100	STRUCTURAL NOTES AND LEGEND
60662058-S-101	PIPE PEDESTALS - REINFORCEMENT DETAILS SHEET 1
60662058-S-102	PIPE PEDESTALS - STAINLESS STEEL STRAP DETAILS SHEET 1
60662058-S-103	EXPANSION JOINT CHAMBER - REINFORCEMENT DETAILS SHEET 1
60662058-S-104	EXPANSION JOINT CHAMBER - REINFORCEMENT DETAILS SHEET 2
ELECTRICAL DRAWINGS	
60662058-E-01	ELECTRICAL DETAILS FLOWMETER LAYOUT PLAN
60662058-E-02	ELECTRICAL DETAILS FLOWMETER CONNECTION BLOCK DIAGRAM
60662058-E-11	ELECTRICAL DETAILS GROUND BED AND TEST POINT DETAILS SHEET 1 (ON HOLD)
60662058-E-12	ELECTRICAL DETAILS GROUND BED AND TEST POINT DETAILS SHEET 2 (ON HOLD)
60662058-E-13	ELECTRICAL DETAILS GROUND BED AND TEST POINT DETAILS SHEET 3 (ON HOLD)
60662058-E-14	ELECTRICAL DETAILS GROUND BED AND TEST POINT DETAILS SHEET 4 (ON HOLD)

TOWNSVILLE CITY COUNCIL DRAWINGS	
15-T07D	ROSS RIVER DAM TREATMENT PLANT GRAVITY MAIN VALVE CHAMBER AT TREATMENT PLANT
3-T07C	ROSS RIVER DAM TREATMENT PLANT GRAVITY MAIN PLAN & LONG SECTION (SHEET 1 OF 3)
30867	ROSS RIVER DAM PUMP STATION - PIPES AND FITTINGS SCHEDULE
28298	ROSS RIVER DAM IMPROVEMENTS TO CAR PARK AND PINIC AREA BASE PLAN
P600/042/01	ROSS RIVER DAM PUMP STTAION - LANDSACPING
P600/042/02	ROSS RIVER DAM PUMP STTAION - LANDSACPING
30937	ROSS RIVER DAM PUMP STATION - LOCALITY PLAN AND SITE PLANS
41-13683-C004	ROSS RIVER DAM UPGRADE PROJECT STAGE 2 TO 5 - SITE LAYOUT AREA AND SPILLWAY
25660	ROSS RIVER DAM REMEDIAL WORKS - SEEPAGE DRAIN PLAN & LONG SECTION CH 00 TO 600
DO-E-10-7006	ROSS RIVER DAM BOOSTER PUMP STATION 415V & 240v DISTRIBUTION BOARDS - SINGLE LINE DIAGRAM
DO-E-10-7020	ROSS RIVER DAM BOOSTER PUMP STATION PLC MARSHALLING - ANALOGUE INPUTS INTERCONNECTION DIAGRAM SHEET 1 OF 15
DO-E-10-7124	ROSS RIVER DAM BOOSTER PUMP STATION MODICON PREMIUM TSX RACK 0 SLOT 2A ANALOG INPUT

HOLD

HOLD

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ROSS RIVER DAM TO DOUGLAS WTP PIPELINE

DRAWING INDEX

Status TENDER

Dwg No. 60662058-C-02

Rev. D



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LAST MODIFIED: 07/28/2021 14:2 PM

GENERAL NOTES

- DESIGN BY: AECOM AUSTRALIA PTY LTD  
FOR: TOWNSVILLE CITY COUNCIL
- ALL LEVELS IN METRES.
- ALL DIMENSIONS IN METRES U.O.N.
- ALL CO-ORDINATE VALUES ARE IN METRES TO THE SURVEY LEVEL DATUM.
- ALL PIPE DIAMETERS IN MILLIMETRES U.O.N.
- MINIMUM COVER TO WATERMAINS SHALL BE 1000mm BELOW EXISTING GROUND LEVEL U.O.N.
- PIPE DESIGN PRESSURES:  
TEST PRESSURE SHALL BE 2000kPa  
SYSTEM DESIGN PRESSURE SHALL BE 1600kPa.
- ALL VALVE BOXES IN THE ROADWAY ARE TO BE INSTALLED FLUSH WITH THE SURROUNDING RUNNING SURFACE. THE AREA AROUND THE VALVE BOX IS TO BE THOROUGHLY COMPACTED TO REDUCE THE LIKELIHOOD OF SETTLEMENT.
- DILAPIDATION SURVEY TO BE COMPLETED PRIOR TO WORKS STARTING AND THEN ON COMPLETION. REFER SPECIFICATION 60662058-TS-01 FOR REINSTATEMENT REQUIREMENTS.
- THE CONTRACTOR SHALL UNDERTAKE ALL TEMPORARY AND PERMANENT WORKS TO ENSURE A SAFE AND STABLE WORK SITE INCLUDING STABILITY OF EXCAVATIONS AND OF ADJACENT STRUCTURES. THE CONTRACTOR MUST UNSURE THAT NO DAMAGE IS CAUSED TO ADJACENT STRUCTURES DUE TO WORK ACTIVITIES.
- PIPELINE CENTRELINE LOCATION IS EITHER SETOUT FROM PROPERTY BOUNDARIES, BY CO-ORDINATES OF CENTRELINE INTERSECTION POINTS OR BY OFFSETS TO EXISTING STRUCTURES OR SERVICES. REFER DRAWINGS FOR DETAILS.
- PIPEWORK DISTANCES ON PLANS AND LONGITUDINAL SECTIONS ARE MEASURED HORIZONTALLY IN PLAN AND DO NOT ALLOW FOR ADDITIONAL PIPE LENGTH REQUIRED DUE TO CHANGES IN VERTICAL ALIGNMENT.
- EXISTING SURFACE LEVELS ON LONGITUDINAL SECTIONS TAKEN FROM SURVEY DATA WHICH CONTAINS FIELD SURVEY PICKUP AND ALS (AERIAL LASER SCAN).
- THE INVERT LEVELS TABULATED ON THE LONGITUDINAL SECTIONS ARE PIPELINE CONTROL I.L'S
- THE VERTICAL GRADING OF THE PIPELINE IS DETAILED AS STRAIGHT GRADES BETWEEN THE CONTROL I.L'S. THE EVEN GRADING OF PIPEWORK IMPLIES THAT THE CONTRACTOR SHALL USE PIPE JOINT DEFLECTIONS AND THE NOMINATED FITTINGS TO ACHIEVE THE SPECIFIED VERTICAL CHANGES OF GRADE WHILST ENSURING MINIMUM COVER IS ACHIEVED.
- HORIZONTAL AND VERTICAL DEFLECTIONS FOR ALL PIPELINES SHALL BE ACHIEVED BY USING STANDARD PIPE FITTINGS WITH PIPE JOINT DEFLECTIONS/PIPE CURVATURE OR BY PIPE JOINT DEFLECTIONS/PIPE CURVATURE ALONE U.O.N.
- VERTICAL DEFLECTIONS MAY ALSO BE ACHIEVED BY ROTATION OF THE LEG OF A HORIZONTAL BEND AT A HORIZONTAL SET-OUT POINT
- MAXIMUM PIPE JOINT DEFLECTIONS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- ALL DEFLECTION ANGLES PROVIDED ARE DESIGN ANGLES ONLY. THE CONTRACTOR MAY PULL JOINTS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- BENDS WHERE REQUIRED ARE NOMINATED ON THE PLANS. THE CONTRACTOR SHALL CONFIRM ALL BEND REQUIREMENTS
- THE PIPE LAID IN TRENCH SHALL BE PROTECTED AGAINST FLOTATION DURING CONSTRUCTION.
- WORKS MAY INVOLVE THE CUTTING AND REMOVAL OF ASBESTOS CEMENT PIPES. CONTRACTOR SHALL HAVE IN PLACE PROCEDURES FOR CUTTING OF ASBESTOS CEMENT PIPES AND FOR THE DISPOSAL OF ASBESTOS CEMENT PIPE.
- THE CONTRACTOR SHALL ALLOW FOR THE COSTS OF UNDERTAKING CLEANING OF PIPES AND CCTV VERIFICATION OF CLEAN PIPES AND LASER SCANNING FOR ROUNDNESS AFTER THE COMPLETION OF CONSTRUCTION AND BEFORE HANDING OVER TO T.C.C.
- A MINIMUM 3.5m CLEARANCE SHALL BE PROVIDED TO ALL ELECTRICAL POLES AT ALL TIMES WHEN WORKING IN THE PROXIMITY TO ELECTRICAL POLES. WHERE MINIMUM CLEARANCE CANNOT BE ACHIEVED, TEMPORARY SUPPORT SHALL BE PROVIDED BY THE CONSTRUCTOR AND CERTIFIED BY THE CONSTRUCTOR'S RPEQ ENGINEER.
- HYDROSTATIC TEST SECTIONS INDICATED ON THE DRAWINGS ARE THE MINIMUM REQUIRED. CONSTRUCTION RISK ASSOCIATED WITH TEST FAILURE REMAINS THAT OF THE CONTRACTOR. THE CONTRACTOR MAY ELECT TO INCREASE TESTING FREQUENCY TO MANAGE CONSTRUCTION RISK AS DEEMED APPROPRIATE BY THE CONTRACTOR. ANY MODIFICATIONS TO THE TESTING SECTIONS SHALL BE DETAILED IN THE CONTRACTOR'S TESTING PLAN.

PIPELINE NOTES

- ALL FITTINGS SHALL BE MIN. PN16 D.I.C.L. U.O.N.
- ALL FLANGES SHALL BE A.S. 4087 PN16 U.O.N.
- ALL P.V.C. PIPE TO BE PN16 SERIES 2 U.O.N.
- ALL BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL 316L. ALL BOLTS SHALL BE IN ACCORDANCE WITH AS4087 TABLE C1. THE THREADED SECTION OF THE BOLTS SHALL BE COATED WITH ANTI-SIEZE LUBRICANT LOCTITE 771 OR APPROVED EQUIVALENT PRIOR TO INSTALLATION
- GASKETS SHALL BE 15MM THICK COMPRESSED FIBRE TEADIT NA1000 OR APPROVED EQUIVALENT.
- DN DENOTES PIPE NOMINAL BORE FOR D.I.C.L. AND P.V.C. PIPE.
- DN DENOTES OUTSIDE DIAMETER FOR M.S.C.L. PIPE AND POLYETHYLENE PIPE.
- ALL FITTINGS CONNECTED BY FLEXIBLE JOINTS TO BE RESTRAINED BY CONCRETE ANCHORS.
- CONCRETE ANCHORS FOR PIPELINE WHERE REQUIRED ARE DETAILED ON THE PROJECT DRAWINGS
- ALL VALVES TO BE SUPPORTED ON CONCRETE PADS TO CARRY WEIGHT ONLY.
- ALL BURIED VALVES TO BE INSTALLED WITH A VALVE COVER BOX AND CHAMBER.
- VALVES TO BE INSTALLED WITH EXTENDED SPINDLES IF REQUIRED.
- EXTENSION SPINDLES SHALL BE SS316 AND COMPLY WITH WSA PS-262
- PIPELINE MARKERS TO BE INSTALLED AT ALL GATE VALVES, AIR VALVES, SCOURS, CHANGES OF DIRECTIONS AND AT INTERVALS NOT GREATER THAN 100m ALONG PIPELINE ALIGNMENT.
- ALL D.I.C.L. THRUST FLANGES TO BE INTEGRALLY CAST TO PIPE OR REBATED WEEP FLANGES.
- FLANGE GASKETS AND TO BE IN ACCORDANCE WITH WSA 109.
- ALL BURIED FLANGES AND MECHANICAL JOINTS SHALL BE WRAPPED USING AN APPROVED BUTYL PRIMER, PRIMARY TAPE OUTER WRAP AND SECONDARY TAPE SYSTEM (DENSO OR APPROVED EQUIVALENT).
- CONTRACTOR SHALL CONFIRM QUALITY OF ALL PIPES AND FITTINGS HANDED OVER BY T.C.C. ALL PIPES AND FITTINGS SHALL BE PROPERLY SECURED AND PROTECTED BY CONTRACTOR. ANY DAMAGES OR LOSS OF PIPES AND FITTINGS SHALL BE BORNE BY THE CONTRACTOR.
- WHERE PROPRIETARY ITEMS HAVE BEEN SPECIFIED, A SUITABLE EQUIVALENT MAY BE USED IF APPROVED BY THE SUPERINTENDENT.
- MARKING TAPE TO WSA PS-318 SHALL BE LAID ON TOP OF PIPE EMBEDMENT MATERIAL. REFER TO SEQ-WAT-1202-2.
- THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY MEASURES INCLUDING ISOLATION VALVES, HYDRANTS AND SCOUR VALVES TO FACILITATE THE TESTING AND COMMISSIONING OF THE MAINS.
- THE CONTRACTOR SHALL ARRANGE AND PAY FOR THE WATER SUPPLY FOR TESTING AND COMMISSIONING, ALL CHLORINATED WATER SHALL BE TREATED PRIOR TO DISPOSAL.
- ANY DAMAGED CEMENT MORTAR LINING (CML) SHALL BE REPAIRED USING EZLINE MORTAR MIX OR APPROVED EQUIVALENT IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. AT THE TIME OF APPLICATION OF THE MORTAR THE SURFACE OF THE PIPE OR FITTINGS SHALL BE FREE OF LOOSE RUST, LOOSE MILL SCALE, DIRT, DEBRIS, OIL, GREASE, AND OTHER DETRIMENTAL MATERIALS ONCE THE CML IS CURED. SEAL COAT SHALL BE APPLIED TO CEMENT LINING.

EXISTING SERVICES

- THE GENERAL LOCATION OF EXISTING WATERMAINS, SEWERS, SEWAGE RISING MAINS AND STORMWATER DRAINS ON THE DRAWINGS WERE SOURCED FROM T.C.C.'s "TOWNSVILLE MAPS" MAPPING SERVICE. SUBSEQUENTLY EXISTING SERVICES CROSSING THE PROPOSED ALIGNMENT HAVE BEEN LOCATED WHERE POSSIBLE TO AS 5488 QLA OR QLB, REFER SURVEY RECORDS. ALL EXISTING SERVICES MAY NOT HAVE BEEN FOUND. PRIOR TO ANY EXCAVATION ON SITE THE RELEVANT AUTHORITY SHOULD BE CONTACTED FOR LOCATION OF EXISTING UNDERGROUND SERVICES.
- LOCATION AND LEVELS OF ALL EXISTING SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR ON SITE PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE ALL CUT-IN OPERATIONS TO EXISTING SERVICES WITH ALL RELEVANT AUTHORITIES
- THE CONTRACTOR SHALL CONFIRM DIMENSIONS OF EXISTING PIPELINES AT ALL CONNECTION POINTS PRIOR TO FABRICATION AND SUPPLY OF FITTINGS.
- EXISTING PIPELINES SHALL REMAIN OPERATIONAL UNTIL COMMENCEMENT OF CUT-INS.
- THE CONTRACTOR SHALL FULLY SUPPORT ALL EXISTING SERVICES EXPOSED DURING CONSTRUCTION

D.I.C.L. PIPEWORK NOTES

- DUCTILE IRON PIPE AND FITTINGS TO BE IN ACCORDANCE WITH AS 2280 - DUCTILE IRON PIPES AND FITTINGS.
- ALL D.I.C.L. RRJ PIPE SHALL BE PN35 U.O.N.

STEEL PIPEWORK NOTES

- PIPE FITTINGS SHALL BE MANUFACTURED IN ACCORDANCE WITH A.S.1579. REINFORCING FOR TEES AND BRANCHES SHALL BE DESIGNED BY THE CONTRACTOR IN ACCORDANCE WITH AWWA MANUAL M11 (5<sup>TH</sup> EDITION) STEEL PIPE - A GUIDE FOR DESIGN AND INSTALLATION. CONTRACTOR TO PROVIDE SHOP DRAWINGS TO THE SUPERINTENDENT FOR ALL FITTINGS FOR VERIFICATION PRIOR TO COMMENCEMENT OF FABRICATION.
- CONTRACTOR'S DESIGNER SHALL BE AN RPEQ ENGINEER.
- PNEUMATIC TEST PLUG HOLES SHALL BE PROVIDED FOR ALL SINTALOCK JOINTS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. TEST HOLE POSITIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- STEEL PIPES AND FITTINGS SHALL HAVE A MINIMUM YIELD STRENGTH OF 300MPa IN ACCORDANCE WITH AS/NZS 1594
- ALL M.S.C.L. PIPE SHALL HAVE A MILD STEEL THICKNESS OF 10.0mm U.O.N.
- ALL PIPE SHALL BE CEMENT LINED
- PLAIN ENDS SHALL BE PREPARED TO SUIT WELDED COLLAR JOINT U.O.N.
- ALL EXTERNAL SURFACES OF STEEL PIPE, FITTINGS AND FLANGES SHALL BE COATED WITH SINTAKOTE (FUSION BONDED POLYETHYLENE) OR APPROVED EQUIVALENT TO AS 4321. THE INTERNAL LINING FOR PIPE AND FITTINGS SHALL BE CEMENT MORTAR LINING TO AS 1281. THE CEMENT MORTAR LINING SHALL BE COATED WITH A SEAL COAT 'INTERLINE 876' OR APPROVED EQUIVALENT.
- ALL M.S.C.L. PIPE, INCLUDING REPAIRS SHALL BE TESTED WITH A HIGH VOLTAGE HOLIDAY DETECTOR PRIOR TO INSTALLATION. ANY COATING DEFECTS SHALL BE REPAIRED IN ACCORDANCE WITH THE STEEL MAINS STEEL PIPE MANUAL.

STEEL WELDING

- ALL WELDS SHALL BE CATEGORY SP IN ACCORDANCE WITH A.S. 1554.1
- WELD SHALL BE HEAT SHRINK SLEEVED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- WELDING OF SINTALOCK JOINTS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS - MMAW OR FCAW PROCESSES.
- USE PREQUALIFIED WELD PROCEDURES & CONSUMABLES TO AS/NZS 1554.1 CLAUSE 4.3 OR DEVELOP QUALIFICATION OF WELD PROCEDURE & CONSUMABLES BY TESTING TO SA/NZS1554.1 CLAUSE 4.2. LIST APPLICABLE PARAMETERS ON WELDING PROCEDURE QUALIFICATION RECORD & MAKE RECORD AVAILABLE FOR INSPECTION.
- WELDING TO BE UNDERTAKEN BY A SUITABLY QUALIFIED EXPERIENCED WELDER UNDER SUPERVISION OF QUALIFIED WELDING SUPERVISOR.
- WELDS TO BE INSPECTED BY INDEPENDENT NATA ACCREDITED QUALIFIED WELDING INSPECTOR TO AS 2214.
- UNLESS NOTED OTHERWISE, ALL FILLET WELDS SHALL BE MINIMUM 6mm CONTINUOUS WELD CATEGORY SP.

CATHODIC PROTECTION AND EPR / LFI NOTES

- THE CONSTRUCTION SAFETY PLAN SHALL INCLUDE MITIGATION METHODS FOR INSTALLATION APPROACH NEARBY THE IDENTIFIED EPR AND LFI HAZARDS, BASED ON AS/NZS 4853.

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REVISONS					
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ROSS RIVER DAM TO DOUGLAS WTP PIPELINE

GENERAL NOTES  
SHEET 1

Status TENDER

Org No. 60662058-C-03

Rev. D



SEQ STANDARD DRAWINGS

THE FOLLOWING SEQ STANDARD DRAWINGS SHALL FORM PART OF THE DRAWING SET. IN CASE OF ANY DISCREPANCY BETWEEN THE AECOM / TCC DRAWINGS AND THE SEQ STANDARD DRAWINGS, THE AECOM / TCC DRAWINGS SHALL TAKE PRECEDENCE.

SEQ-WAT-1200-1	FOR TYPICAL SOIL CLASSIFICATION GUIDELINES AND ALLOWABLE BEARING PRESSURES FOR ANCHORS AND THRUST BLOCKS
SEQ-WAT-1202-1	FOR TYPICAL SPECIAL EMBEDMENT - INADEQUATE FOUNDATIONS REQUIRING OVER EXCAVATION AND REPLACEMENT
SEQ-WAT-1301-1	FOR TYPICAL VALVE INSTALLATION GENERAL ARRANGEMENT
SEQ-WAT-1305-1	FOR TYPICAL SURFACE FITTING INSTALLATION VALVE AND HYDRANT SURFACE BOXES TRAFFICABLE AND NON-TRAFFICABLE
SEQ-WAT-1306-1	FOR TYPICAL SURFACE FITTING INSTALLATION VALVE AND HYDRANT SURFACE BOXES SUPPORT AND SURROUND DETAILS
SEQ-WAT-1311-2	TYPICAL AERIAL CROSSINGS - AQUEDUCT PROTECTION GRILLE
SEQ-WAT-1313-1	FLANGED JOINTS TYPICAL BOLTING DETAILS
SEQ-WAT-1402-1	FOR TYPICAL STEEL PIPE JOINTING - PIPE WELD COLLARS
SEQ-WAT-1408-1	FOR TYPICAL JOINT CORROSION PROTECTION CEMENT MORTAR LINED STEEL PIPE > DN750 TO DN1200

SEQ-SPS-1305-1	ALUMINIUM LADDERS
SEQ-SPS-1305-2	ALUMINIUM EXTENDABLE HANDGRIP STANCHIONS

TCC STANDARD DRAWINGS

THE FOLLOWING TCC STANDARD DRAWINGS SHALL FORM PART OF THE DRAWING SET. IN CASE OF ANY DISCREPANCY BETWEEN THE AECOM / TCC DRAWINGS AND THE SEQ STANDARD DRAWINGS, THE AECOM / TCC DRAWINGS SHALL TAKE PRECEDENCE.

SD-020	FOR CONCRETE KERBING
SD-055	FOR ROAD CROSSING AND FOOTPATH REINSTATEMENT FOR TRENCH LAID SERVICES
SD-350	FOR TYPICAL VALVE AND HYDRANT INSTALLATION - VALVE ARRANGEMENT

PROJECT SURVEY NOTES

- REFER ROWLANDS SURVEYS DRAWINGS 43993-01 TO 08 FOR SURVEY DATA INCLUDING SURVEY CONTROL, SURVEY AZIMUTH, LEVEL DATUM AND POTHOLE TO EXISTING SERVICES DETAILS
- WATER LEVELS SHOWN ON LONGITUDINAL SECTIONS ARE INDICATIVE ONLY AT THE TIME OF SURVEY AND WILL LIKELY VARY.

PROJECT GEOTECHNICAL NOTES

- REFER GOLDER REPORT 21455484-001-R ROSS RIVER DAM TO DOUGLAS FOR GEOTECHNICAL DETAILS
- GEOTECHNICAL INFORMATION SHOWN ON THESE DRAWINGS IS INDICATIVE AND FOR INFORMATION ONLY. REFER TO THE GEOTECHNICAL REPORT FOR DETAILS.

REINSTATEMENT OF LANDSCAPE SURFACES NOTES

- THE CONTRACTOR SHALL RETURN TOP SOIL TO DISTURBED AREAS IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION AND THE DRAWINGS.
- EROSION AND SEDIMENT CONTROL SHALL REMAIN IN PLACE ON COMPLETION.
- REVEGETATION SHALL BE CARRIED OUT BY OTHERS

ROAD RESTORATION NOTES

- EXISTING ROAD AND FOOTPATH REINSTATEMENT FOR PIPELINE CONSTRUCTION TO BE IN ACCORDANCE WITH T.C.C. STANDARD DWG SD-055
- KERB AND CHANNEL REINSTATEMENT TO BE IN ACCORDANCE WITH T.C.C. DWG SD-020

GROUTING OF EXISTING PIPE NOTES

- WHERE SPECIFIED, THE CONTRACTOR SHALL GROUT THE EXISTING MAIN
- GROUT FILLING OF ABANDONED MAINS SHALL BE CONTROLLED LOW STRENGTH FLOWABLE MATERIAL (CLSM) MEETING REQUIREMENTS OF AS 2566.2 FOR CLSM AND GUIDANCE IN CCAA DATASHEET FOR CLSM APRIL 2008.

ENVIRONMENTAL

- CONTRACTOR IS REQUIRED TO PREPARE AND SUBMIT A CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP) AS SPECIFIED IN THE CONTRACT. SITE WORK MUST NOT COMMENCE WITHOUT AN APPROVED CEMP.
- THE CONTRACTOR SHALL OBTAIN AN ENVIRONMENTAL COMPLIANCE CERTIFICATE (ECC) AND COMPLY WITH SUCH AT ALL TIMES FOR WORKS WITHIN DoD LAND.
- SILT-STOP FENCES OR STRAW BALE FILTERS TO BE INSTALLED DOWNSLOPE OF ALL WORKS, PRIOR TO ANY CONSTRUCTION ACTIVITY. THEY ARE TO BE EFFECTIVELY MAINTAINED & ARE TO BE REMOVED ONLY AFTER THE AREA HAS BEEN SATISFACTORILY REVEGETATED OR RESTORED.
- THE EXTENT OF CLEARING OF VEGETATION IS TO BE KEPT TO THE ABSOLUTE MINIMUM NECESSARY TO UNDERTAKE THE WORKS. NO VEGETATION SHALL BE REMOVED OUTSIDE THE NOMINATED EXTENTS WITHOUT THE APPROVAL OF SUPERINTENDENT.

ACCESS TRACK PAVEMENT NOTES

- PROVIDE COMPACTED FILL (100% SDD) UNDER OR TRIM EXISTING SURFACE TO PROVIDE MAX. 3% CROSS FALL TO ACCESS TRACK. BATTERS TO SIDE OF ACCESS TRACK ARE 1 ON 4 U.O.N.
- PAVEMENT SHALL BE 200mm THICK UNSEALED WEARING COURSE IN ACCORDANCE WITH THE SPECIFICATION.

CREEK CROSSINGS NOTES

- CONSTRUCTION THROUGH CREEKS COMPRISES VARIABLE SURFACE GRADES AND GROUND COMPOSITION. DEPENDENT ON THE CONTRACTOR'S METHODS OF CONSTRUCTION, TEMPORARY FLATTENING OF SLOPES IS LIKELY TO BE REQUIRED.
- REINSTATEMENT OF CREEK SECTIONS AND BANKS SHALL BE CARRIED OUT GENERALLY IN ACCORDANCE WITH THE PRE-EXISTING PROFILES, NOTING THAT SOME FLATTENING AND RE-CONTOURING IS ACCEPTABLE WHERE IT CAN BE SUITABLY TIED IN TO ADJACENT NATURAL CREEK PROFILE WITHOUT CREATION OF SUDDEN CHANGES IN GRADES AND WHERE MINIMUM COVER IS MAINTAINED.

FENCE AND GATES NOTES

- ALL FENCES AND GATES SHALL BE REINSTATED FOLLOWING WORKS TO THE SAME AS-NEW STANDARD OR AS MODIFIED BY THESE DRAWINGS AND SPECIFICATION.
- WHERE FENCING IS REQUIRED TO BE REMOVED FOR WORKS, TEMPORARY FENCING SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE LAND CONTROLLER REQUIREMENTS.
- NEW GATES, WHERE INDICATED ON THE DRAWINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DRAWING 60662058-C-77 AND THE TECHNICAL SPECIFICATION

CAD: REF-P: 60662058-004\_CAD\_GIS: 918\_CAD: 025\_SHEETS: 60662058-C-04.DWG  
LAST MODIFIED: 17/07/2021 2:16 PM

REVISIONS

This drawing is confidential and shall only be used for the purposes of this project.					
D	PSA	19.11.21	ISSUED FOR TENDER		
C	PSA	20.10.21	90% DESIGN		
B	PSA	17.09.21	PIPELINE SUPPLY TENDER		
A	PSA	24.08.21	50% SUBMISSION		
No.	BY	DATE	DESCRIPTION	APPRO	

Scale

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ROSS RIVER DAM TO DOUGLAS WTP PIPELINE

GENERAL NOTES  
SHEET 2

Status TENDER

Dwg No. 60662058-C-04

Rev. D



CAD: REF: P:\666X\6662058\900\_CAD\_GIS\900\_CAD\20\_SHEETS\6662058-C-05.DWG  
LAST MODIFIED: 15/12/2021 10:14 AM

LEGEND

AB	CONCRETE ANCHOR BLOCK
ABL	AIR BLEED
A.B.V.	ACTUATED BUTTERFLY VALVE
A.C.	ASBESTOS CEMENT
AV	AIR VALVE INSTALLATION
B	BEND
B.F.	BLANK FLANGE
B.V.	BUTTERFLY VALVE
C	CONNECTOR
CSS	CEMENT STABILISED SAND
D.I.C.L.	DUCTILE IRON CEMENT LINED
DoD	DEPARTMENT OF DEFENCE
DN	NOMINAL DIAMETER
DWV	DRAIN WASTE VENT PIPE
FBPE	FUSION BONDED POLYETHYLENE
fl	FLANGE
GJ	GIBAULT JOINT
MH	MANHOLE ACCESS INSTALLATION
M.S.C.L.	MILD STEEL CEMENT LINE
I.L.	INVERT LEVEL
IP	INTERSECTION POINT
N.S.	NATURAL SURFACE
N.V.	NEEDLE VALVE
PE	POLYETHYLENE
PN	NOMINAL PRESSURE
P.V.C.	POLYVINYLCHLORIDE
pl	PLAIN END
R	REDUCER
R.C.P.	REINFORCED CONCRETE PIPE
R.L.	REDUCED LEVEL
SC	SCOUR VALVE INSTALLATION
so	SOCKET
sp	SPIGOT
S.V.	SLUICE VALVE
SWJ	SOCKET WELDED JOINT
T	TEE
T.C.C.	TOWNSVILLE CITY COUNCIL
TDJ	THRUST DISMANTLING JOINT (AVK OR APPROVED EQUIVALENT)
T.F.	THRUST FLANGE
TMR	QUEENSLAND DEPARTMENT OF TRANSPORT AND MAIN ROADS
U.O.N.	UNLESS OTHERWISE NOTED
V.J.D.	VERTICAL JOINT DEFLECTION
WC	WELD COLLAR
W.F.	WEEP FLANGE

LEGEND

	NEW WATER MAIN
	EXISTING SEWER
	EXISTING WATER MAIN
	EXISTING STORMWATER
	EXISTING COMMUNICATIONS
	EXISTING ELECTRICITY ABOVE GROUND
	NEW ELECTRICITY UNDERGROUND
	EXISTING ELECTRICITY UNDERGROUND
	DIMENSION, RL OR CO-ORDINATE TO BE CONFIRMED BY CONTRACTOR PRIOR TO CONSTRUCTION.
	EXISTING FENCE
	CONSTRUCTION CORRIDOR BOUNDARY
	DP-B3 GEOTECHNICAL TEST PIT / BOREHOLE LOCATION AND IDENTIFICATION
	INDICATIVE WATER SURFACE LEVEL AS AT TIME OF SURVEY
	NEW ACCESS TRACK
	AV1 AIR VALVE (TYPE 1 SHOWN)
	DOSING DOSING POINT
	ABL AIR BLEED
	MH MAINTENANCE ACCESS
	SC SCOUR MANHOLE AND OVERFLOW
	SCOUR BRANCH DISCHARGE PIPE MANHOLE
	SV ISOLATION VALVE
	NV NEEDLE VALVE

GEOTECHNICAL LEGEND

	FILL
	UNIT 1 - TOPSOIL / ALLUVIUM
	UNIT 2 - COLLUVIUM / ALLUVIUM
	UNIT 3 - RESIDUAL SOIL & EXTREMELY WEATHERED ROCK
	UNIT 4 - VERY LOW AND LOW STRENGTH ROCK
	UNIT 5 - RESISTANT BEDROCK
	UNIT 6 - HIGH RESISTANCE CRYSTALLINE VOLCANIC AND IGNEOUS ROCK

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REVISIONS

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A	PSA	24.08.21	50% SUBMISSION	

Scale

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ROSS RIVER DAM TO DOUGLAS WTP PIPELINE  
PIPEWORK LEGENDS

Status TENDER

Org No. 60662058-C-05

Rev. D



LAST MODIFIED: 20/02/2021 14:14 PM  
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SET OUT TABLE FOR OD1290 PIPELINE		
CHAINAGE	EASTING	NORTHING
0.000	472388.466	785384.1508
3.500	472385.023	7853842.141
15.704	472373.926	7853837.062
299.949	472093.981	7853886.313
481.795	472007.832	7854046.458
487.797	472005.909	7854052.144
545.076	471978.773	7854102.587
551.199	471975.947	7854108.018
553.299	471974.994	7854109.889
573.625	471965.927	7854128.082
584.625	471966.600	7854139.061
645.157	471939.599	7854193.237
658.156	471933.977	7854204.957
693.309	471919.253	7854236.878
706.308	471913.963	7854248.752
729.642	471904.748	7854270.190
742.641	471899.757	7854282.192
756.634	471894.537	7854295.174
769.633	471889.830	7854307.291
805.213	471877.341	7854340.608
819.135	471890.377	7854345.494
1076.602	472146.765	7854369.046
1128.312	472196.207	7854384.194
1568.825	472096.005	7854813.159
2205.981	471912.901	7855423.439
2429.148	471900.268	7855646.247
3173.583	472225.389	7856315.934
3499.957	472413.233	7856582.832
3857.041	472534.228	7856918.792
4493.175	472333.200	7857522.326

SET OUT TABLE FOR OD1290 PIPELINE		
CHAINAGE	EASTING	NORTHING
4919.461	472173.712	7857917.654
5040.634	472176.299	7858038.799
5154.589	472168.679	7858152.499
5350.000	472143.367	7858346.264
5451.012	472122.790	7858445.158
5593.241	472101.511	7858585.786
5683.189	472120.215	7858673.768
6089.253	472098.976	7859079.276
6278.572	472163.555	7859257.240
6604.094	472202.190	7859580.462
6850.323	472164.733	7859823.824
6972.869	472135.557	7859942.847
6999.632	472128.568	7859968.681
7977.182	471858.330	7860908.136
8240.093	471779.082	7861158.819
8494.836	471731.415	7861409.063
8770.010	471708.137	7861683.251
9053.783	471627.680	7861955.378
9322.940	471764.555	7862187.134
9334.940	471764.673	7862199.134
9348.777	471771.710	7862211.048

REVISIONS

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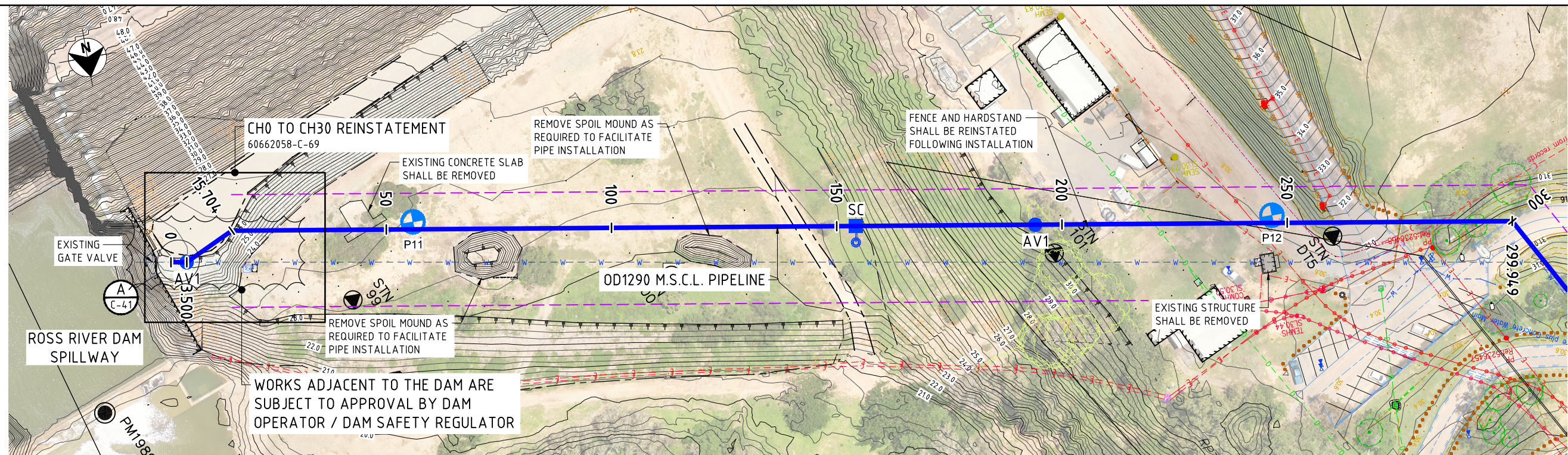
ROSS RIVER DAM TO DOUGLAS WTP PIPELINE		
PIPELINE SETOUT TABLE		
Status	TENDER	Rev. D

Drwg No.	60662058-C-06
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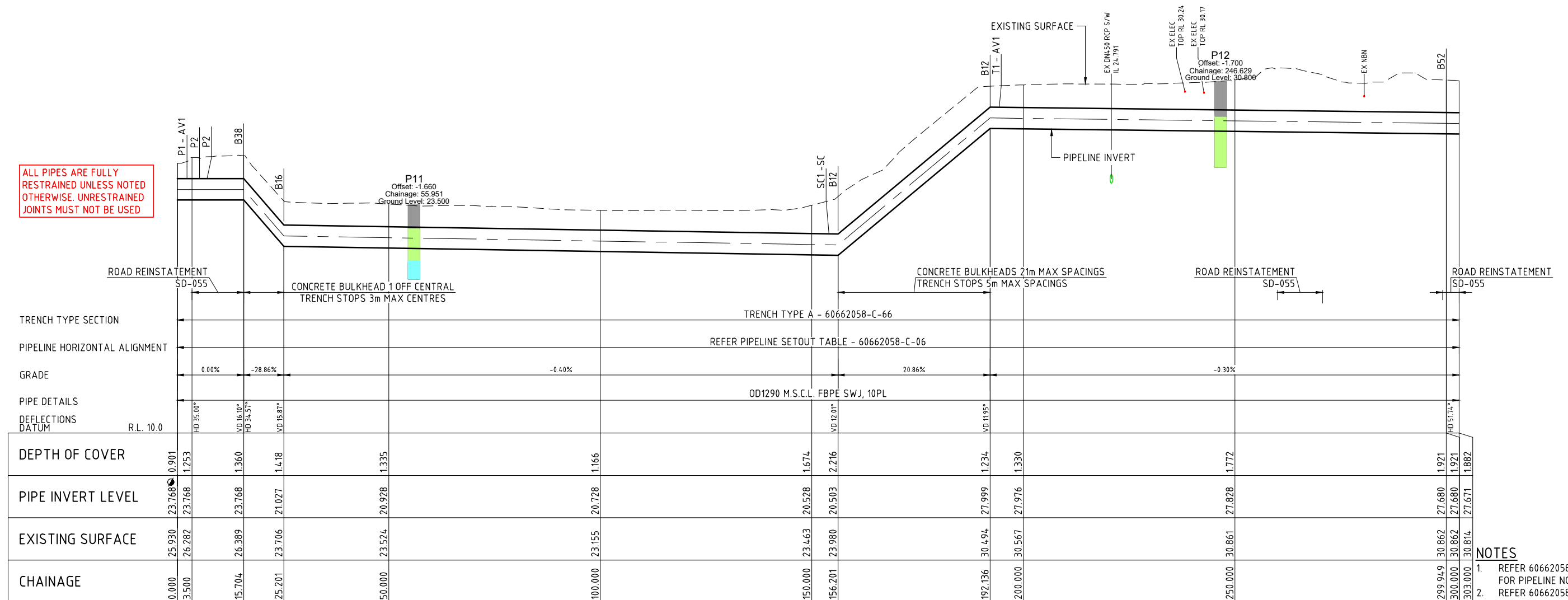








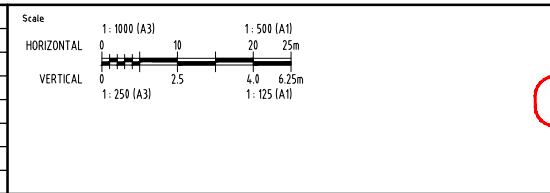
PLAN



LONGITUDINAL SECTION

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APPROVED	DATE

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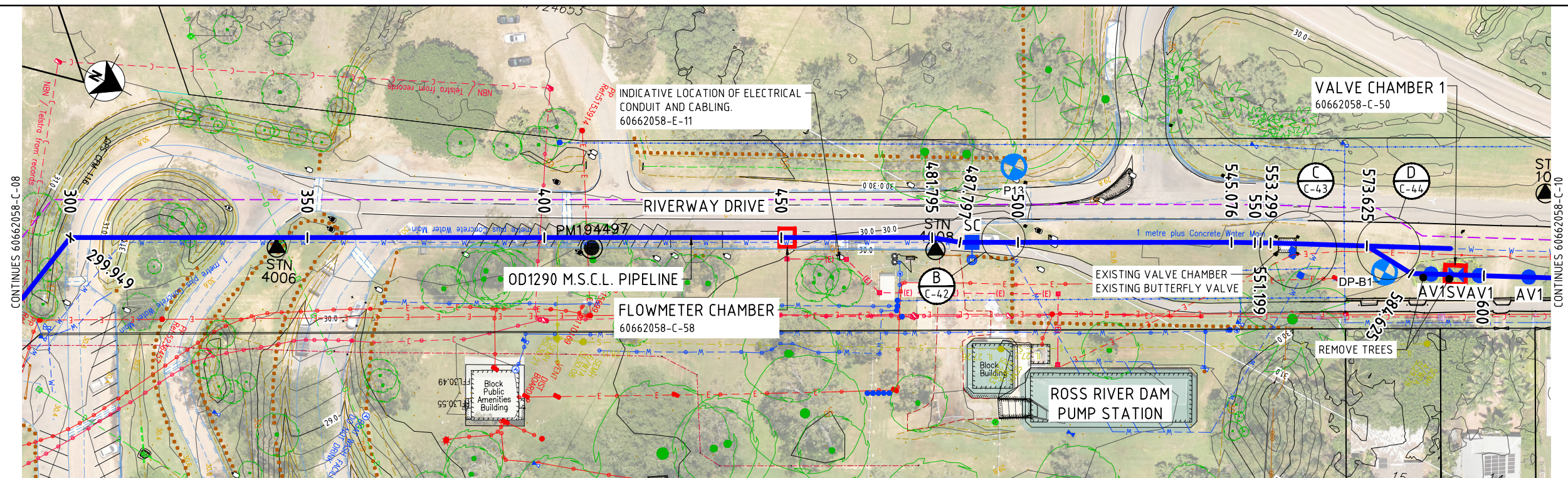
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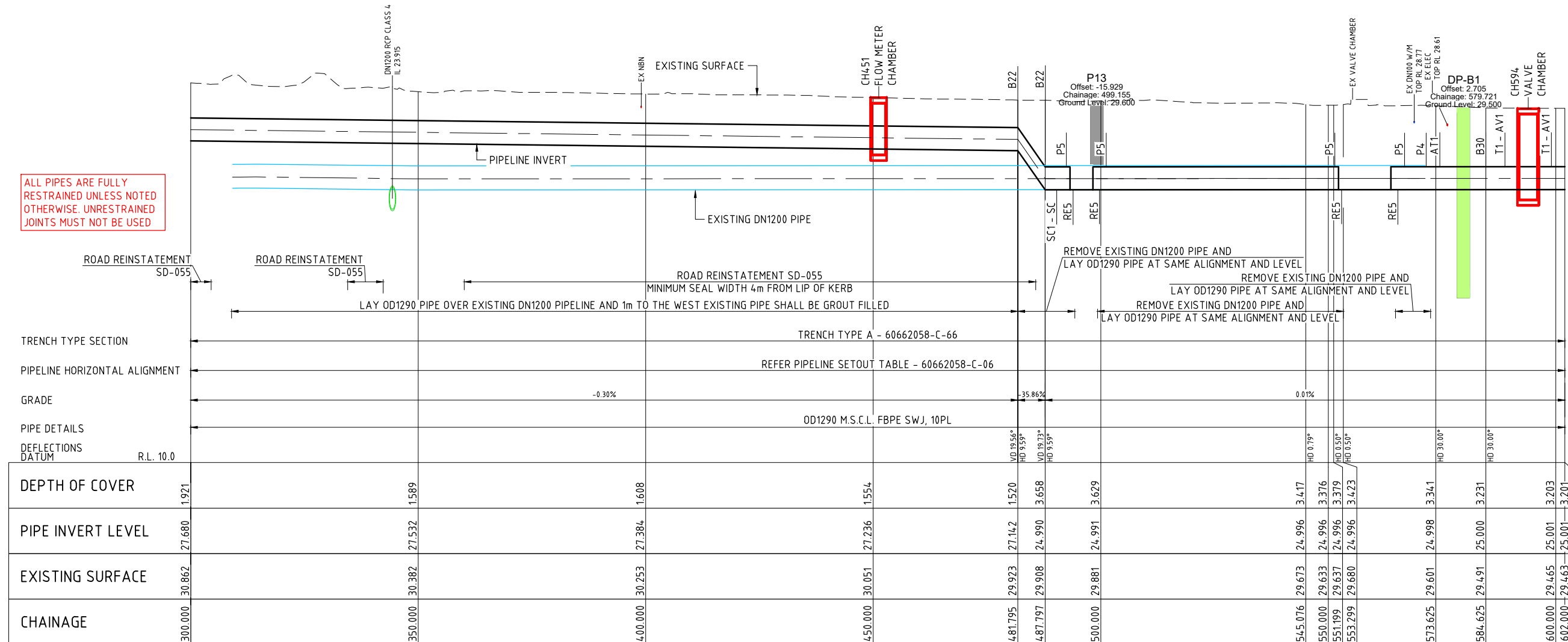


ROSS RIVER DAM TO DOUGLAS WTP PIPELINE	
PLAN AND LONGITUDINAL SECTION	
SHEET 1	
Status	TENDER
Org No.	60662058-C-08
Rev.	D





PLAN

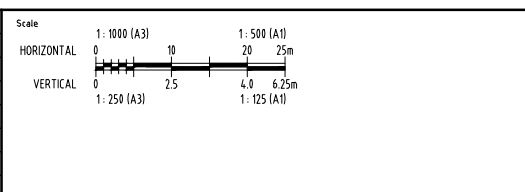


LONGITUDINAL SECTION

- NOTES
1. REFER 60662058-C-03 AND C-04 FOR PIPELINE NOTES
  2. REFER 60662058-C-05 FOR PIPELINE LEGENDS

CAD: REP-1-666X16662058-000\_CAD\_GIS-100\_CAD-100\_SHEETS-6662058-C-09.DWG

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REVISIONS				
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No.	BY	DATE	DESCRIPTION	APPRO



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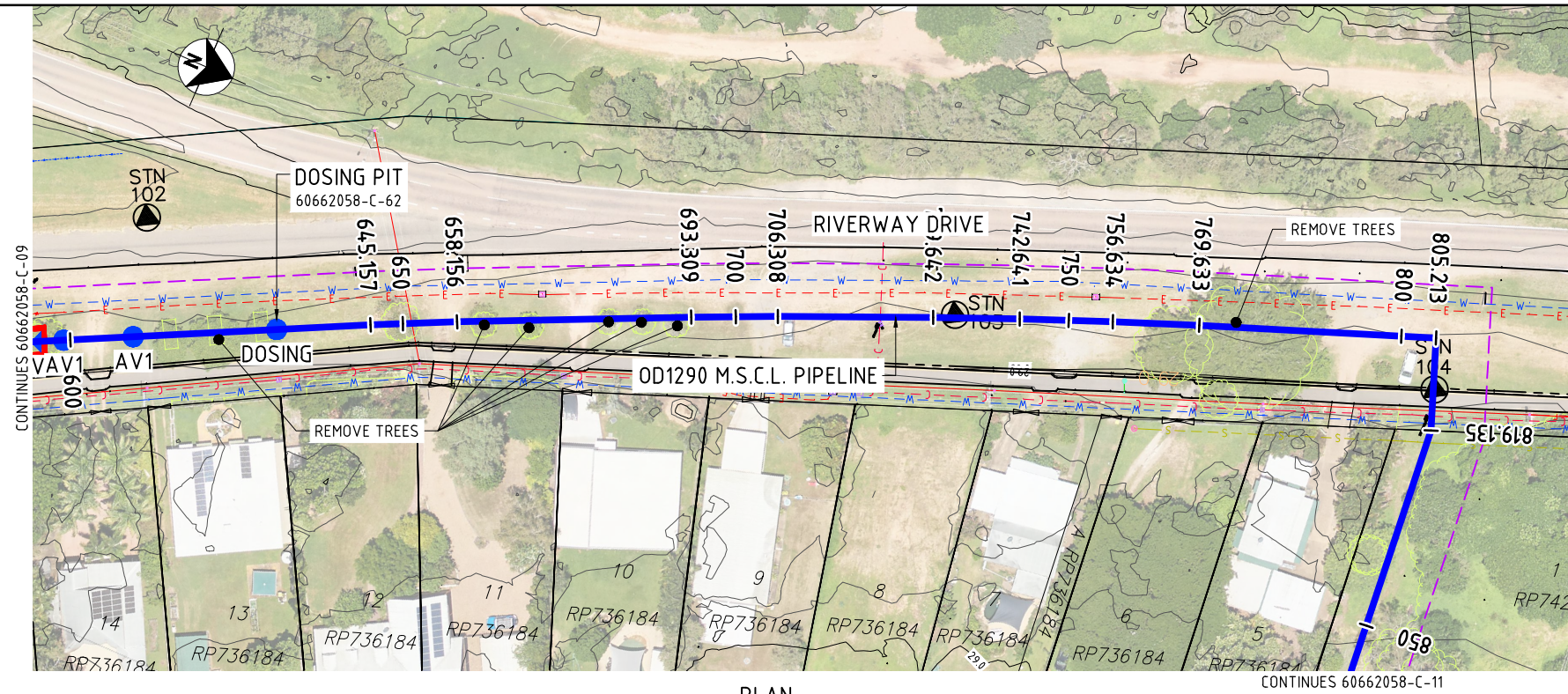
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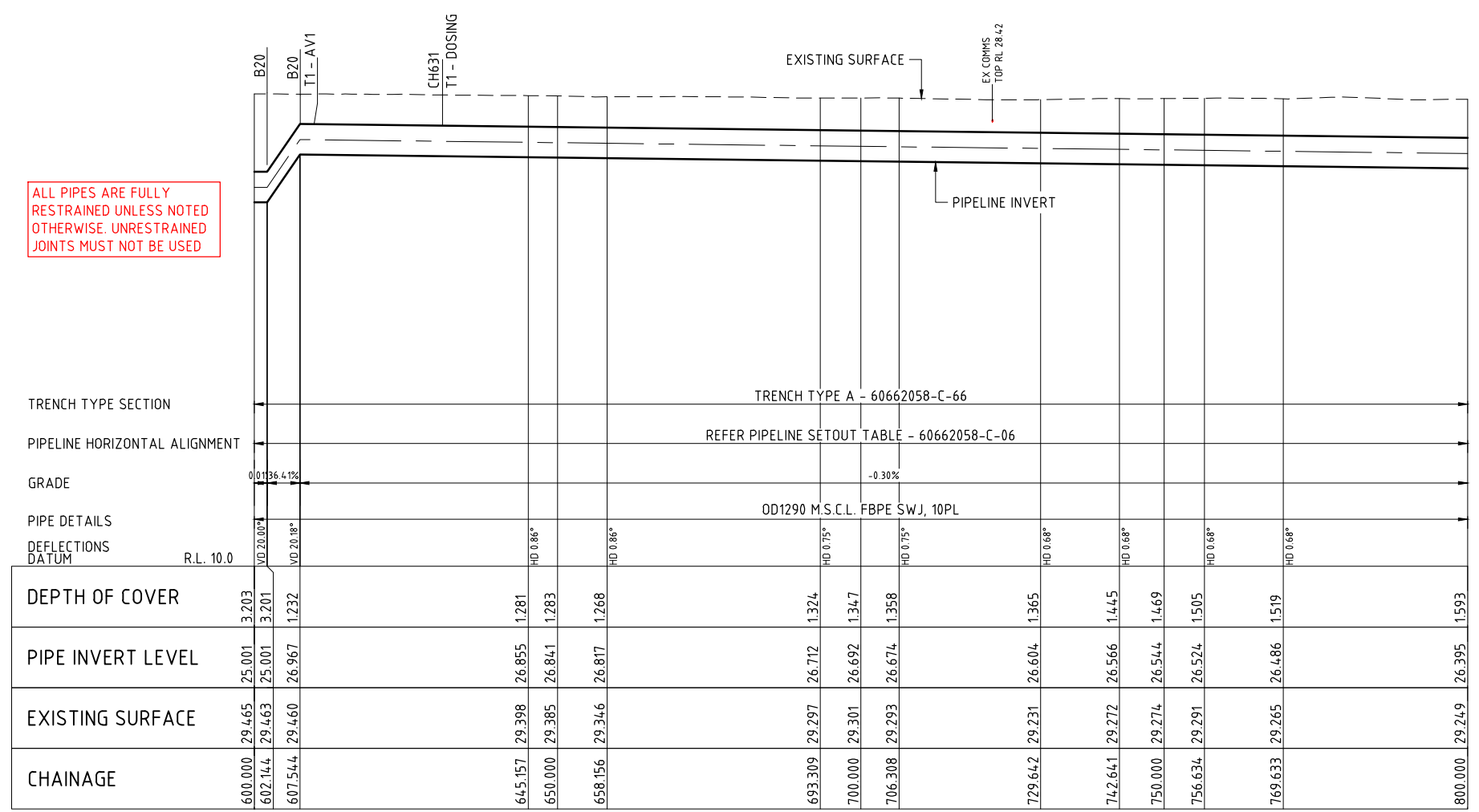


ROSS RIVER DAM TO DOUGLAS WTP PIPELINE		
PLAN AND LONGITUDINAL SECTION		
SHEET 2		
Status	TENDER	Rev. D
Proj No.	60662058-C-09	





PLAN

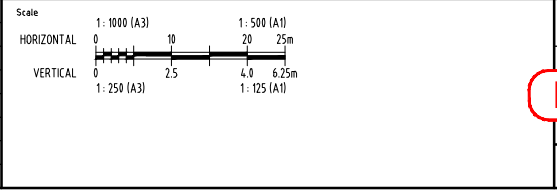


LONGITUDINAL SECTION

- NOTES
1. REFER 60662058-C-03 AND C-04 FOR PIPELINE NOTES
  2. REFER 60662058-C-05 FOR PIPELINE LEGENDS

CAD: REP-1446X16662058-008\_CAD\_GIS-108\_CAD-108\_SHEETS-16662058-C-10.DWG

REVISIONS				
No.	BY	DATE	DESCRIPTION	APPROVED
D	PSA	19.11.21	ISSUED FOR TENDER	
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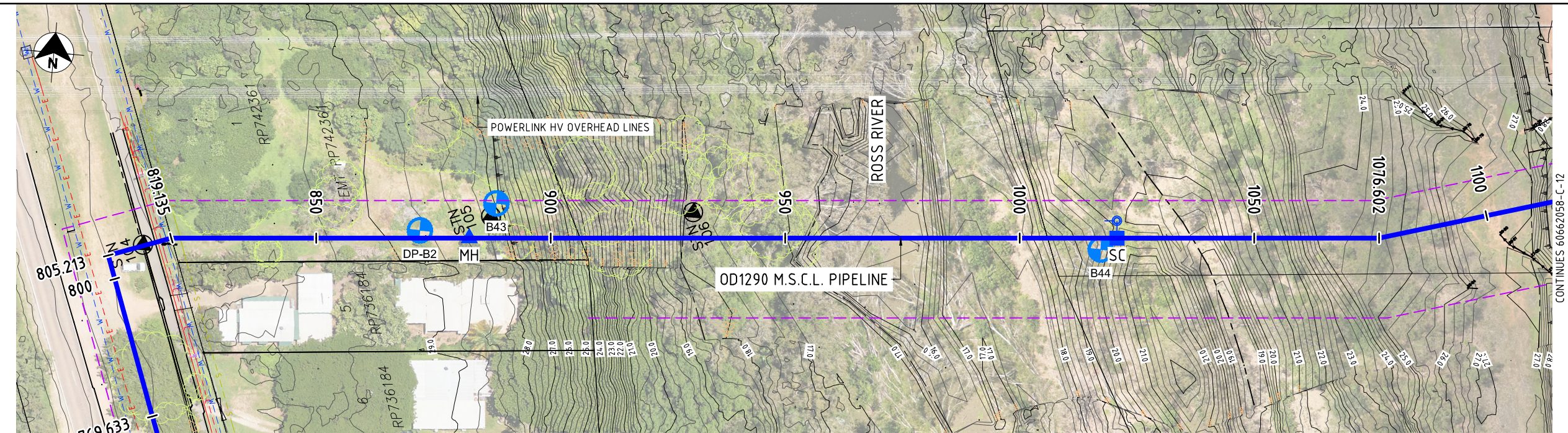
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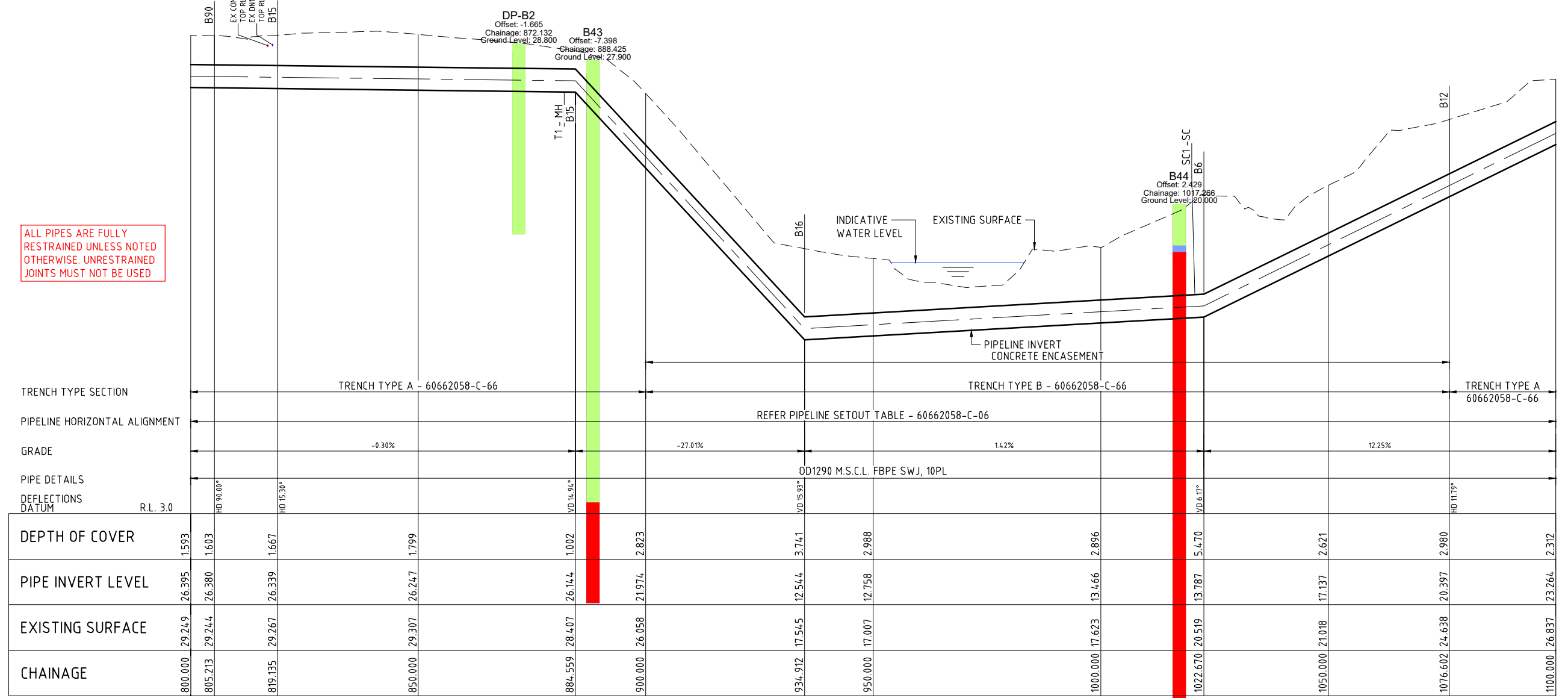


ROSS RIVER DAM TO DOUGLAS WTP PIPELINE		
PLAN AND LONGITUDINAL SECTION SHEET 3		
Status	TENDER	Rev. D
Proj No.	60662058-C-10	





PLAN



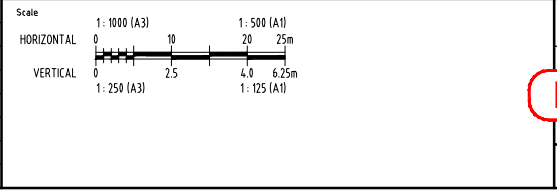
LONGITUDINAL SECTION

ALL PIPES ARE FULLY RESTRAINED UNLESS NOTED OTHERWISE. UNRESTRAINED JOINTS MUST NOT BE USED

- NOTES
1. REFER 60662058-C-03 AND C-04 FOR PIPELINE NOTES
  2. REFER 60662058-C-05 FOR PIPELINE LEGENDS

CAD: REP-P-60662058-000\_CAD\_GIS-V08\_CAD-V08\_SHEETS-60662058-C-11DWG

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REVISIONS				
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ROSS RIVER DAM TO DOUGLAS WTP PIPELINE

PLAN AND LONGITUDINAL SECTION

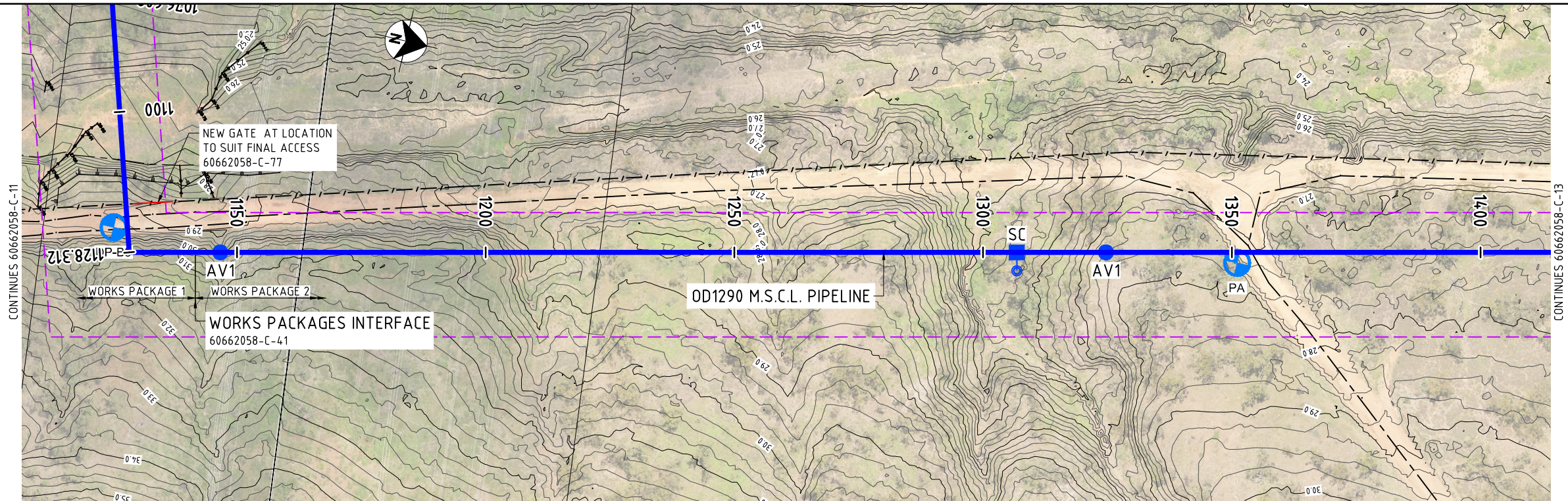
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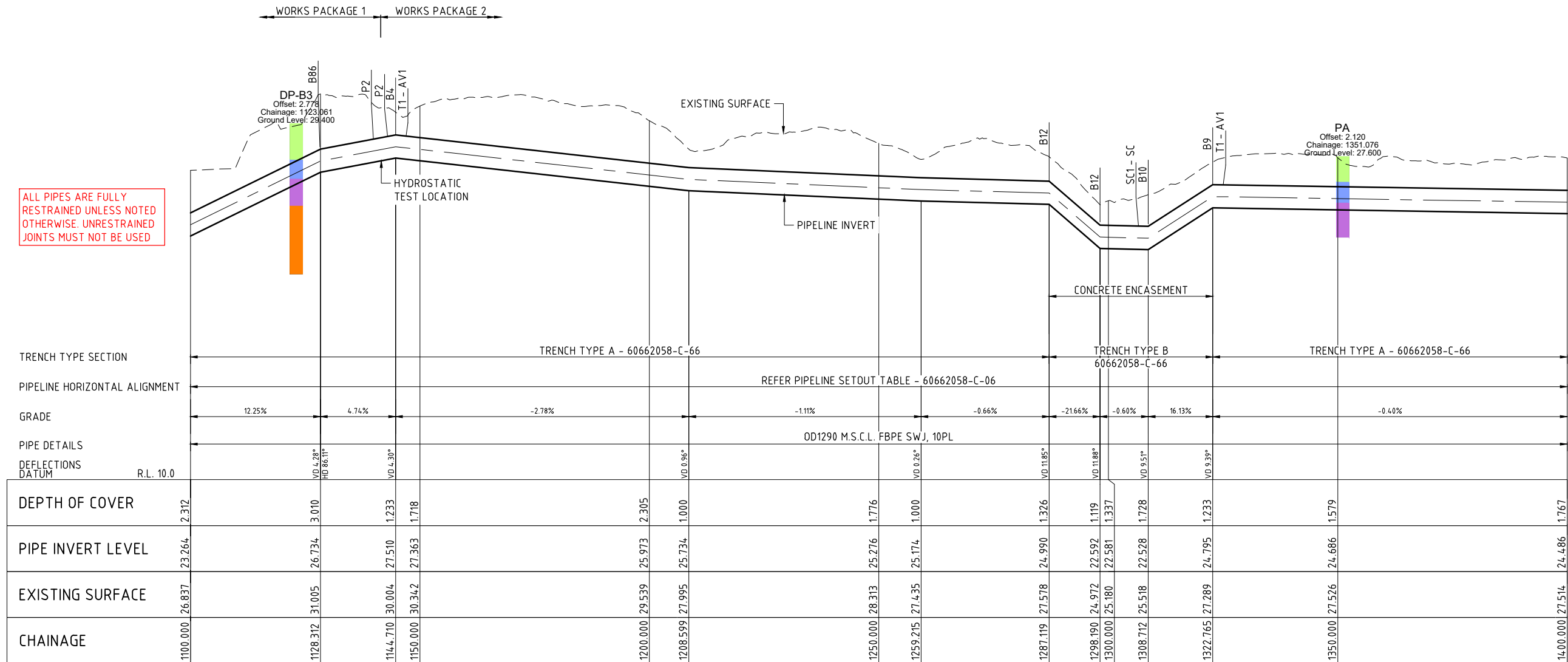
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Rev: D





PLAN

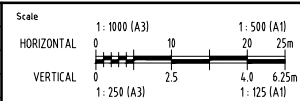


LONGITUDINAL SECTION

- NOTES
- REFER 60662058-C-03 AND C-04 FOR PIPELINE NOTES
  - REFER 60662058-C-05 FOR PIPELINE LEGENDS

CAD: REP-P-60662058-000\_CAD\_GIS-V08\_CAD-V08\_SHEETS-60662058-C-12.DWG

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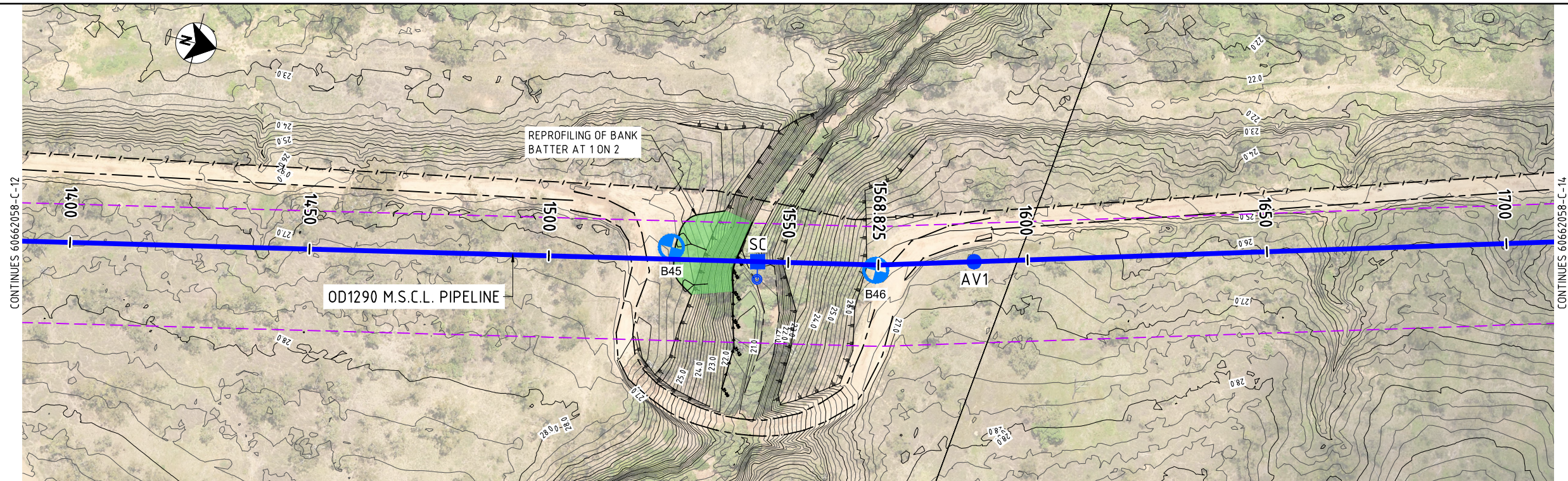
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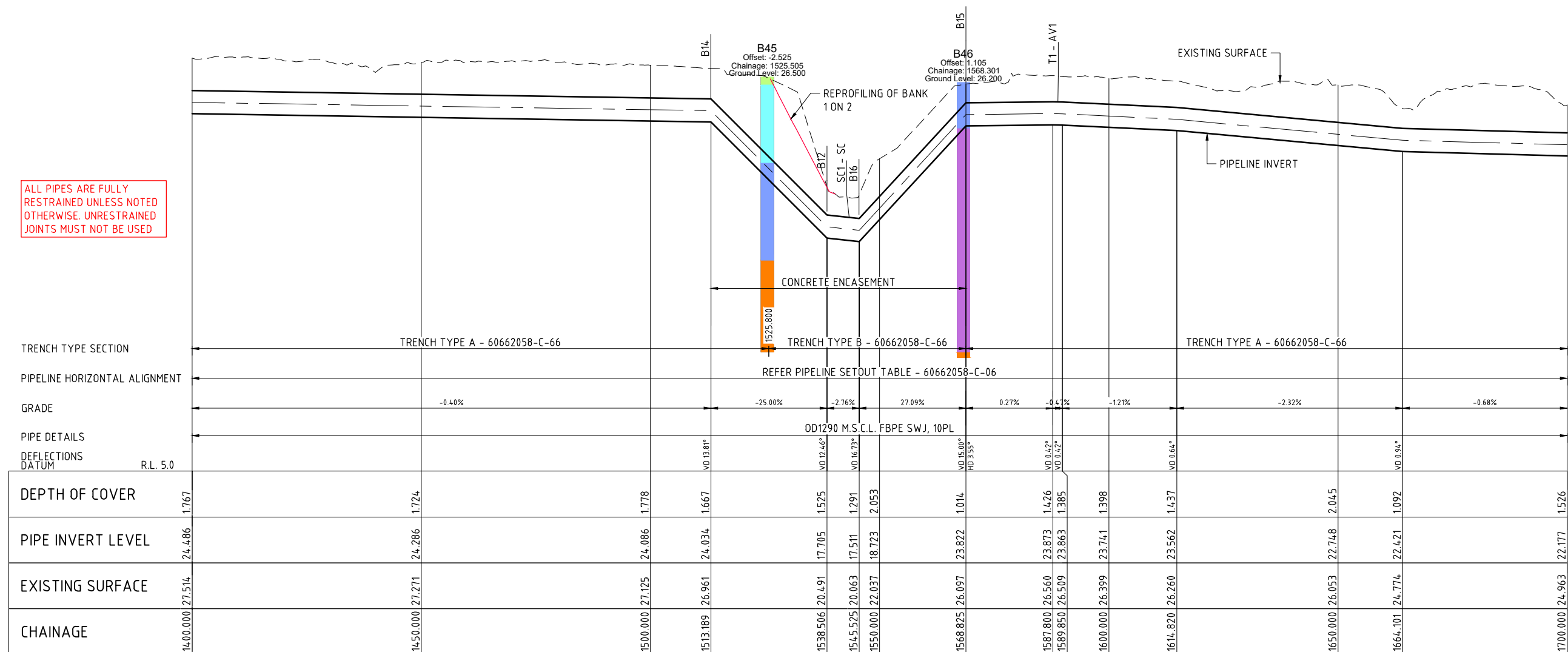


ROSS RIVER DAM TO DOUGLAS WTP PIPELINE		
PLAN AND LONGITUDINAL SECTION		
SHEET 5		
Status	TENDER	Rev. D
Proj No.	60662058-C-12	





PLAN

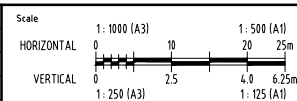


LONGITUDINAL SECTION

- NOTES
- REFER 60662058-C-03 AND C-04 FOR PIPELINE NOTES
  - REFER 60662058-C-05 FOR PIPELINE LEGENDS

CAD: REP-P-60662058-000\_CAD\_GIS-010\_SHEETS-60662058-C-13.DWG

This drawing is confidential and shall only be used for the purposes of this project.					
REVISIONS					
D	PSA	19.11.21	ISSUED FOR TENDER		
C	PSA	20.10.21	90% DESIGN		
B	PSA	17.09.21	PIPELINE SUPPLY TENDER		
A	PSA	24.08.21	50% SUBMISSION		
No.	BY	DATE	DESCRIPTION		APPROD



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DESIGNED

CHECKED

APPROVED

DATE

**NOT FOR CONSTRUCTION**

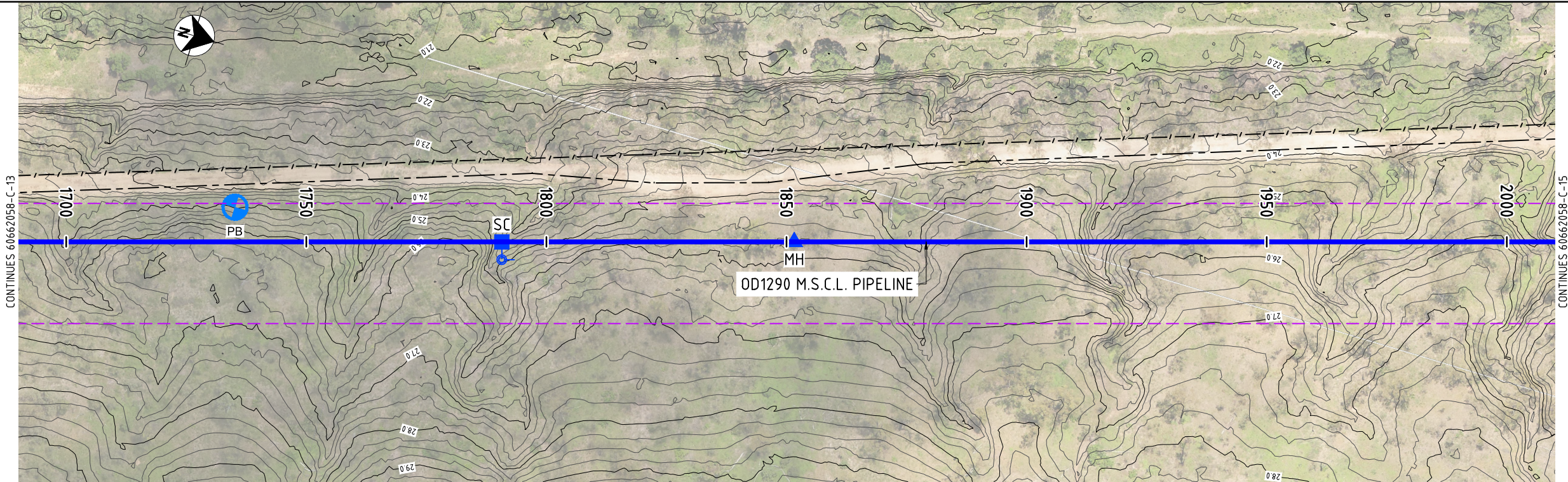
**AECOM**

AECOM Australia Pty Ltd A.B.N. 20 093 846 925



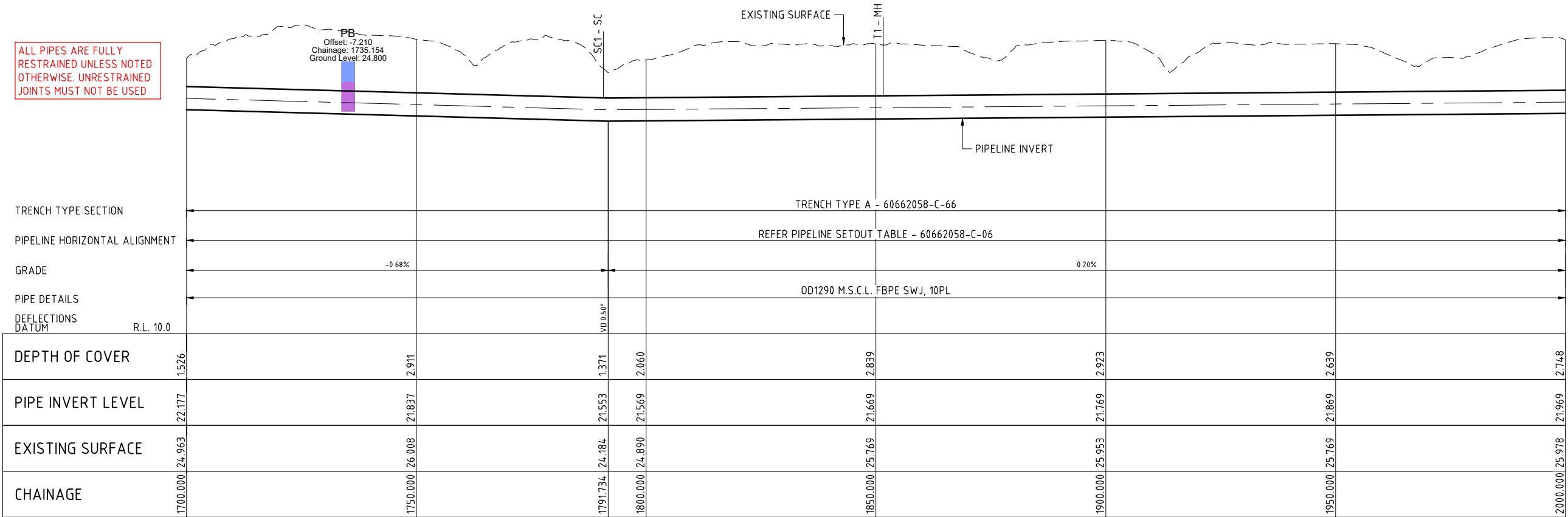
ROSS RIVER DAM TO DOUGLAS WTP PIPELINE			
PLAN AND LONGITUDINAL SECTION			
SHEET 6			
Status	TENDER	Dwg No.	60662058-C-13
Rev.	D		





PLAN

ALL PIPES ARE FULLY  
RESTRAINED UNLESS NOTED  
OTHERWISE. UNRESTRAINED  
JOINTS MUST NOT BE USED

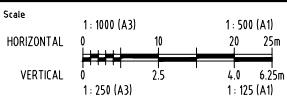


LONGITUDINAL SECTION

- NOTES
- REFER 60662058-C-03 AND C-04 FOR PIPELINE NOTES
  - REFER 60662058-C-05 FOR PIPELINE LEGENDS

LAST MODIFIED: 19/12/2021 12:02 PM  
C:\D:\P\60662058\908\_CAD\_GIS\908\_CAD\13\_SHEETS\60662058-C-14.DWG

REVISIONS				
No.	BY	DATE	DESCRIPTION	APPROD
D	PSA	19.11.21	ISSUED FOR TENDER	
C	PSA	20.10.21	90% DESIGN	
B	PSA	17.09.21	PIPELINE SUPPLY TENDER	
A	PSA	24.08.21	50% SUBMISSION	



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DESIGNED: [ ] CHECKED: [ ]

APPROVED: [ ] DATE: [ ]

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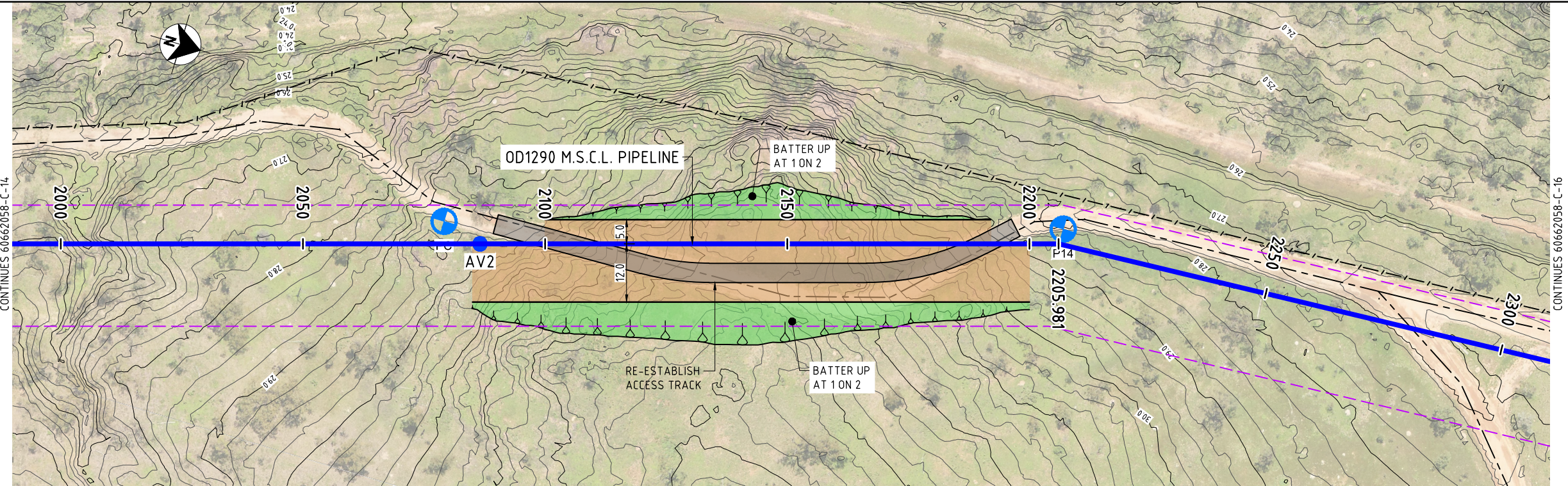
ROSS RIVER DAM TO DOUGLAS WTP PIPELINE  
PLAN AND LONGITUDINAL SECTION  
SHEET 7

Status TENDER

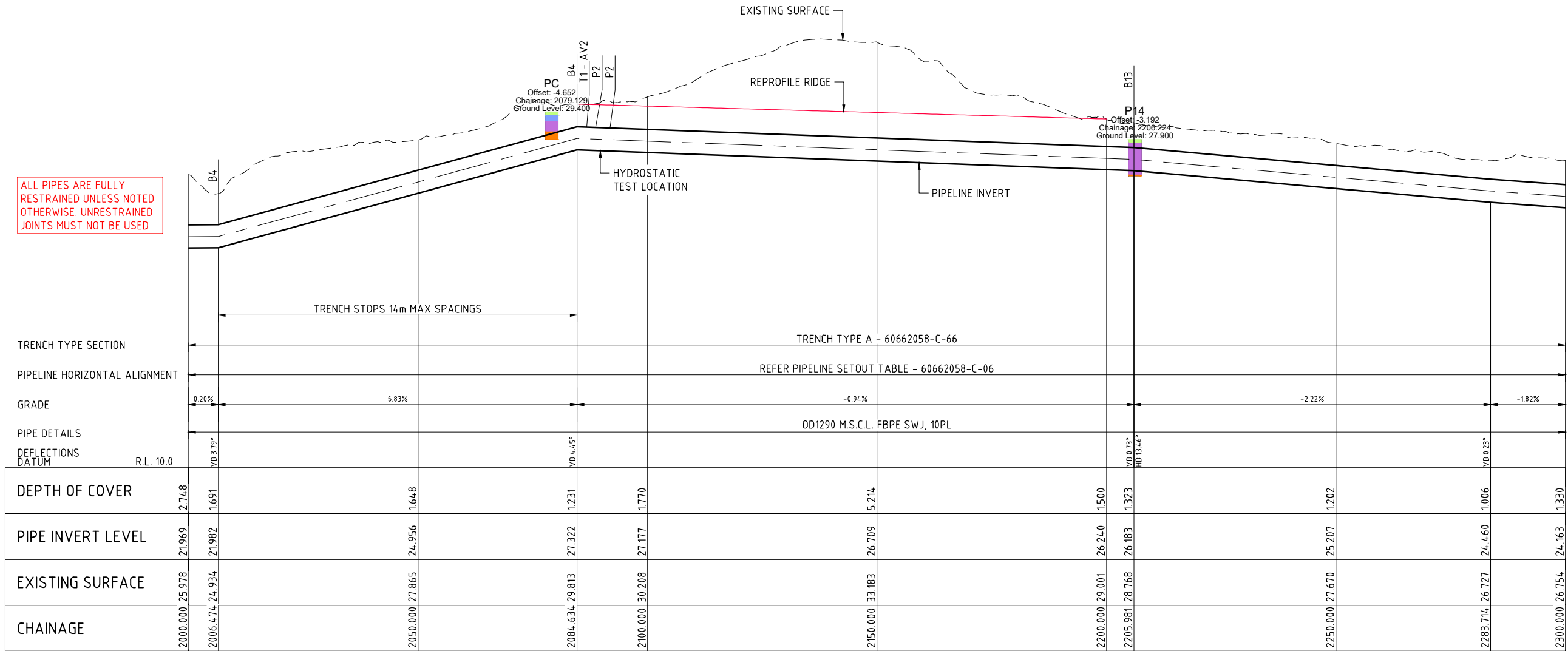
Drw No. 60662058-C-14

Rev. D





PLAN

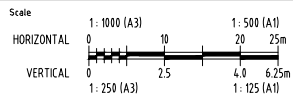


LONGITUDINAL SECTION

- NOTES
1. REFER 60662058-C-03 AND C-04 FOR PIPELINE NOTES
  2. REFER 60662058-C-05 FOR PIPELINE LEGENDS

CAD: REP-1440X10662058-000\_CAD\_GIS-100\_CAD-100\_SHEETS-10662058-C-15.DWG  
LAST MODIFIED: 19/12/2023 12:22 AM

REVISIONS				
No.	BY	DATE	DESCRIPTION	APPROVED
D	PSA	19.11.21	ISSUED FOR TENDER	
C	PSA	20.10.21	90% DESIGN	
B	PSA	17.09.21	PIPELINE SUPPLY TENDER	
A	PSA	24.08.21	50% SUBMISSION	



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DESIGNED	CHECKED
APPROVED	DATE

**NOT FOR CONSTRUCTION**

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AECOM Australia Pty Ltd A.B.N. 20 093 846 925

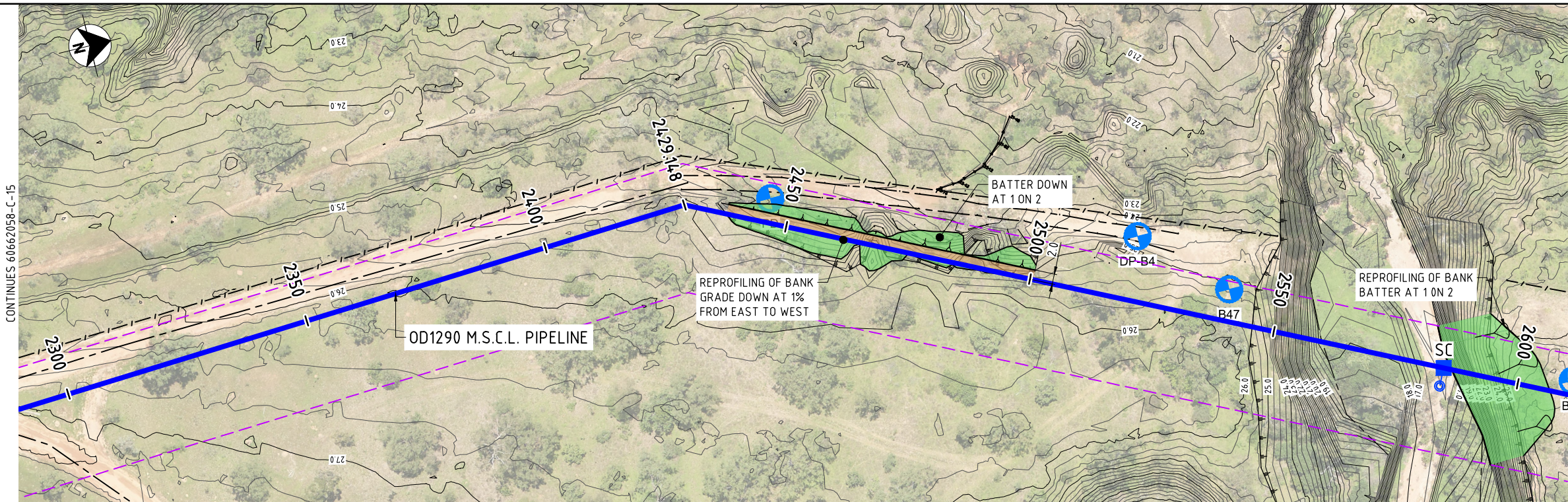
ROSS RIVER DAM TO DOUGLAS WTP PIPELINE

PLAN AND LONGITUDINAL SECTION

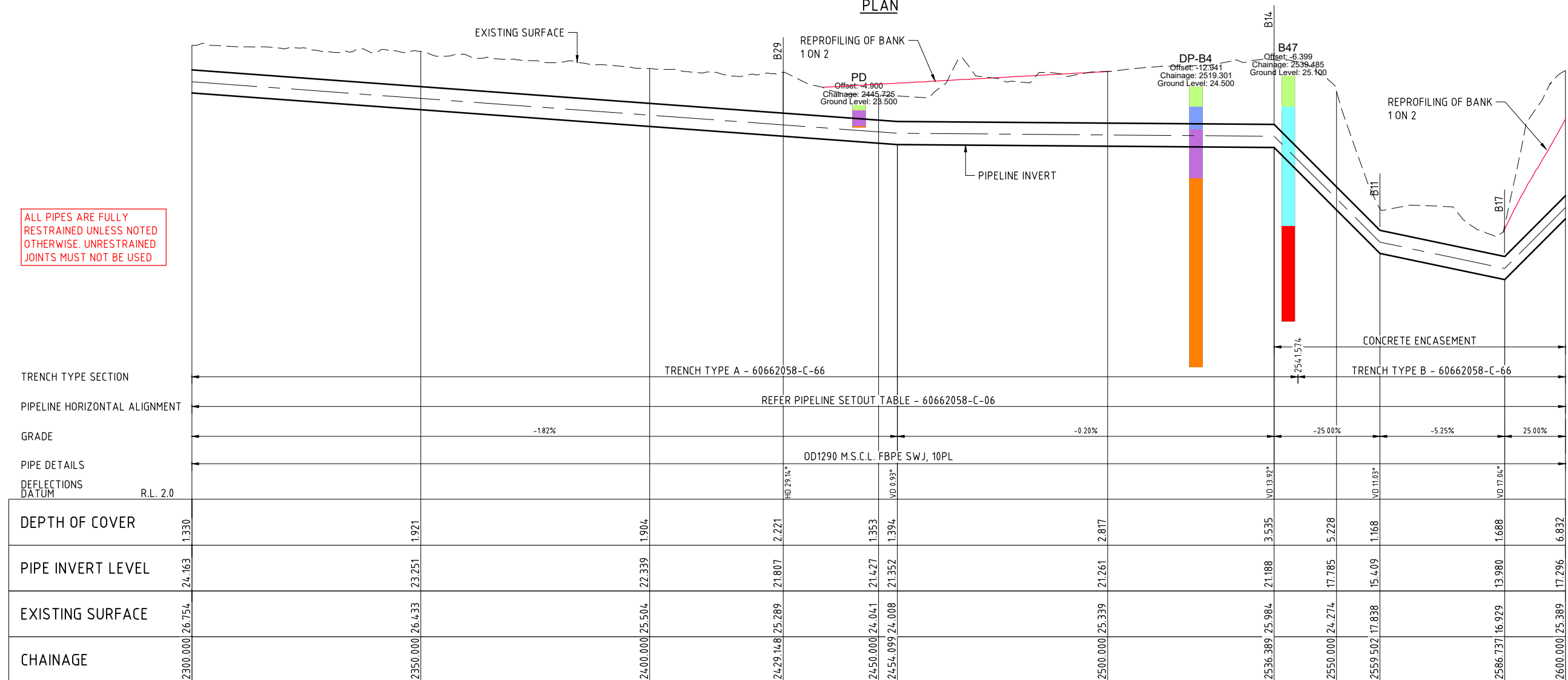
SHEET 8

Status	TENDER	Dwg No.	60662058-C-15	Rev.	D
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PLAN

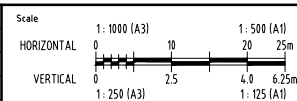


LONGITUDINAL SECTION

- NOTES
1. REFER 60662058-C-03 AND C-04 FOR PIPELINE NOTES
  2. REFER 60662058-C-05 FOR PIPELINE LEGENDS

LAST MODIFIED: 19/12/2019 12:29 AM  
CADD: REP-P-60662058-000\_CADD\_GIS-010\_CADD-010\_SHEETS-60662058-C-16.DWG

This drawing is confidential and shall only be used for the purposes of this project.				
REV	NO.	DATE	DESCRIPTION	APPROVED
D	PSA	19.11.21	ISSUED FOR TENDER	
C	PSA	20.10.21	90% DESIGN	
B	PSA	17.09.21	PIPELINE SUPPLY TENDER	
A	PSA	24.08.21	50% SUBMISSION	



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DESIGNED	CHECKED
APPROVED	DATE

**NOT FOR CONSTRUCTION**

**AECOM**

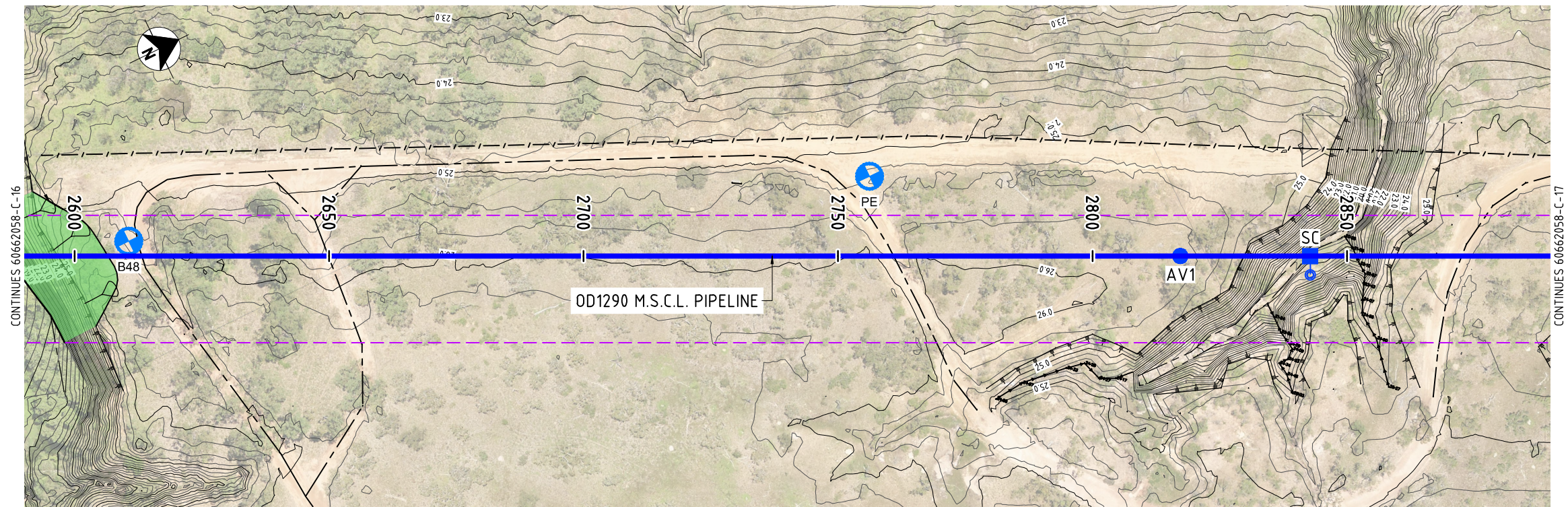
AECOM Australia Pty Ltd A.B.N. 20 093 846 925



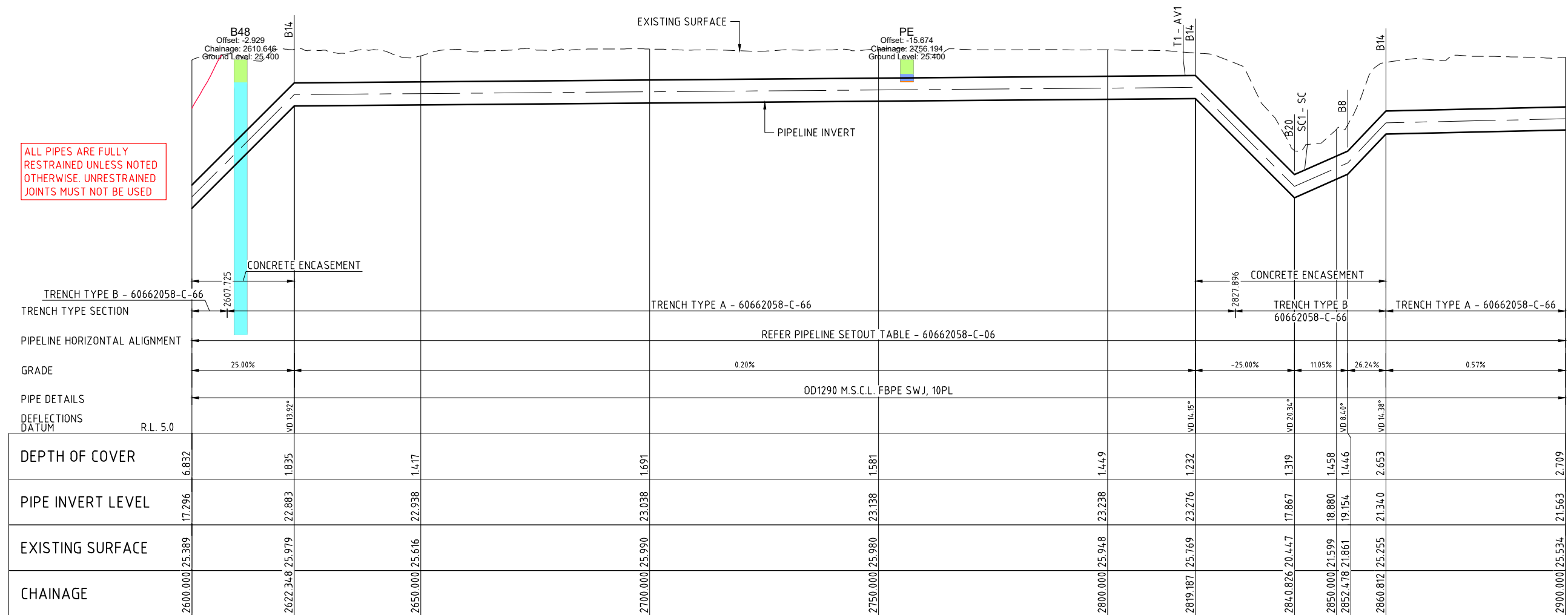
ROSS RIVER DAM TO DOUGLAS WTP PIPELINE  
PLAN AND LONGITUDINAL SECTION  
SHEET 9

Status	TENDER	Dwg No.	60662058-C-16	Rev.	D
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PLAN

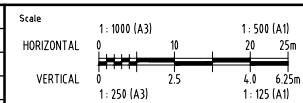


LONGITUDINAL SECTION

- NOTES
1. REFER 60662058-C-03 AND C-04 FOR PIPELINE NOTES
  2. REFER 60662058-C-05 FOR PIPELINE LEGENDS

LAST MODIFIED: 19/12/2023 13:37 AM  
CAD: REP-P-60662058-000\_CAD\_GIS-V08\_CAD-V08\_SHEETS-60662058-C-17.DWG

REVISIONS				
No.	BY	DATE	DESCRIPTION	APPROVED
D	PSA	19.11.21	ISSUED FOR TENDER	
C	PSA	20.10.21	90% DESIGN	
B	PSA	17.09.21	PIPELINE SUPPLY TENDER	
A	PSA	24.08.21	50% SUBMISSION	



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DESIGNED	CHECKED
APPROVED	DATE

**NOT FOR CONSTRUCTION**

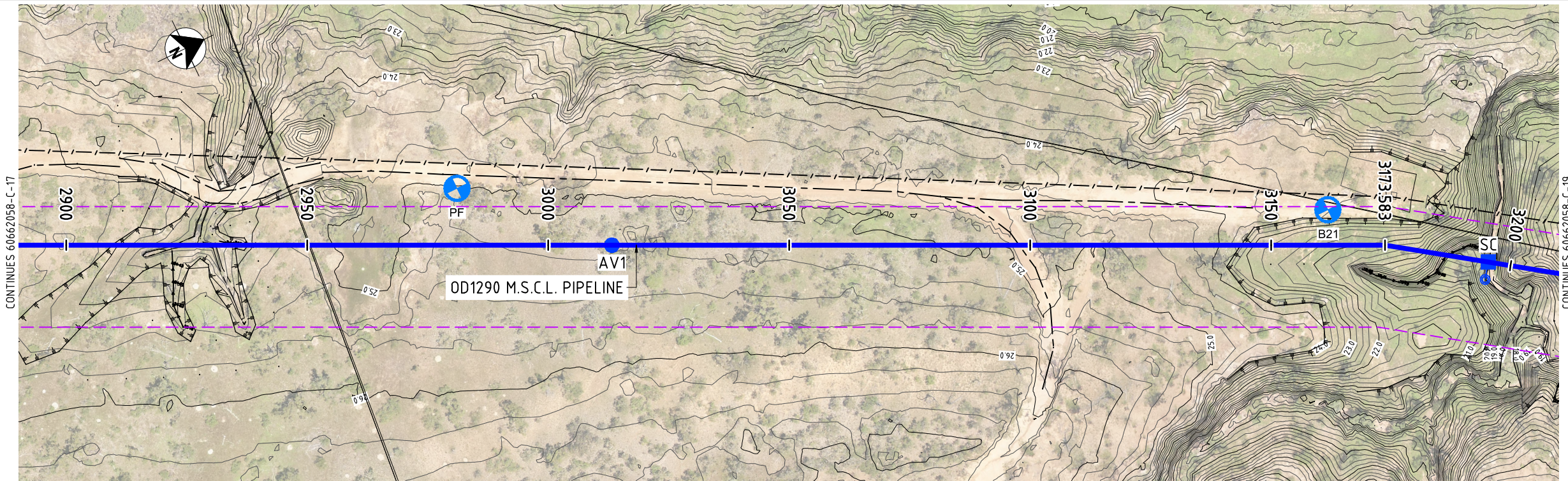
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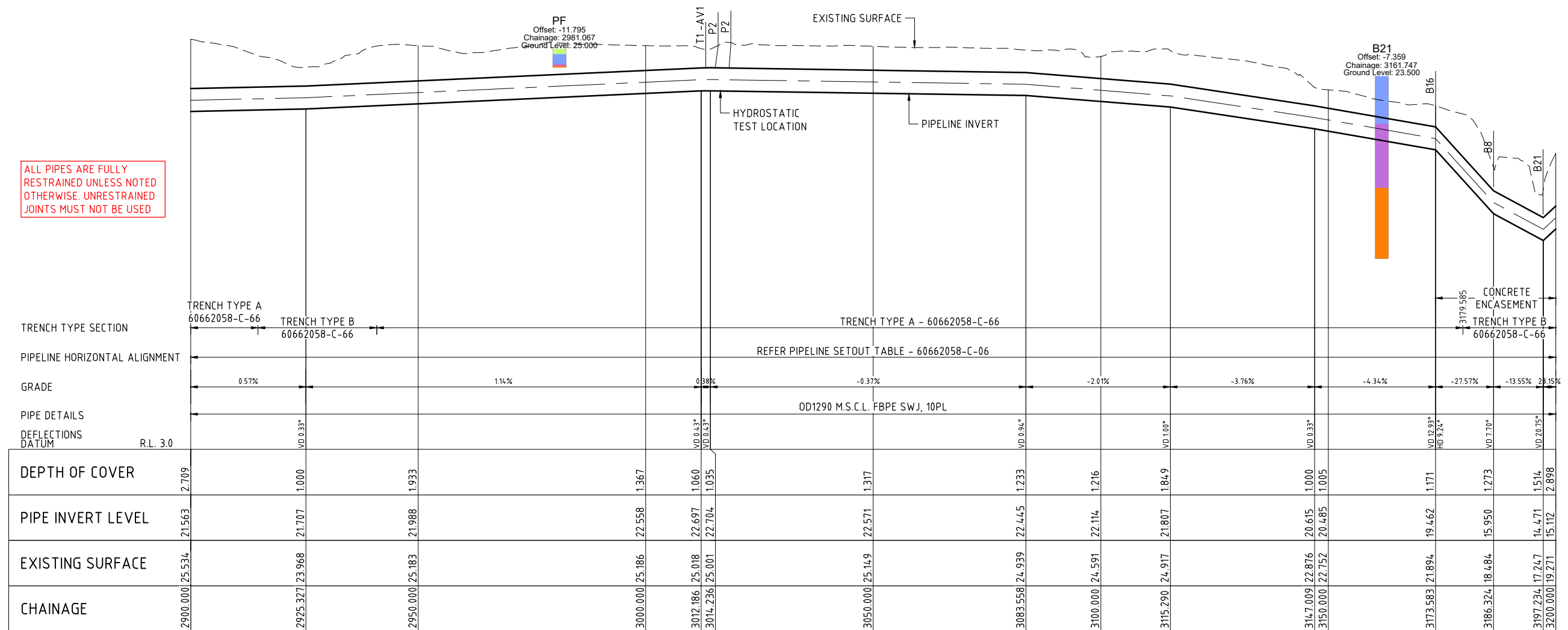


ROSS RIVER DAM TO DOUGLAS WTP PIPELINE		
PLAN AND LONGITUDINAL SECTION		
SHEET 10		
Status	TENDER	Rev. D
Dwg No.	60662058-C-17	





PLAN

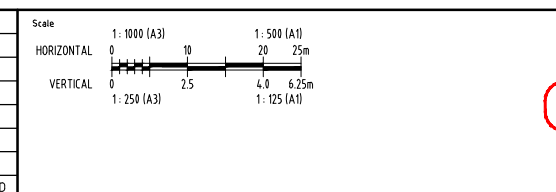


LONGITUDINAL SECTION

- NOTES
1. REFER 60662058-C-03 AND C-04 FOR PIPELINE NOTES
  2. REFER 60662058-C-05 FOR PIPELINE LEGENDS

CAD: REP-P-666X-6662058-000\_CAD\_GIS-V08\_CAD-V03\_SHEETS-60662058-C-18.DWG  
LAST MODIFIED: 19/12/2023 14:44 AM  
REVISIONS

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No.	BY	DATE	DESCRIPTION	APPROD
D	PSA	19.11.21	ISSUED FOR TENDER	
C	PSA	20.10.21	90% DESIGN	
B	PSA	17.09.21	PIPELINE SUPPLY TENDER	
A	PSA	24.08.21	50% SUBMISSION	



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DESIGNED	CHECKED
APPROVED	DATE

**NOT FOR CONSTRUCTION**

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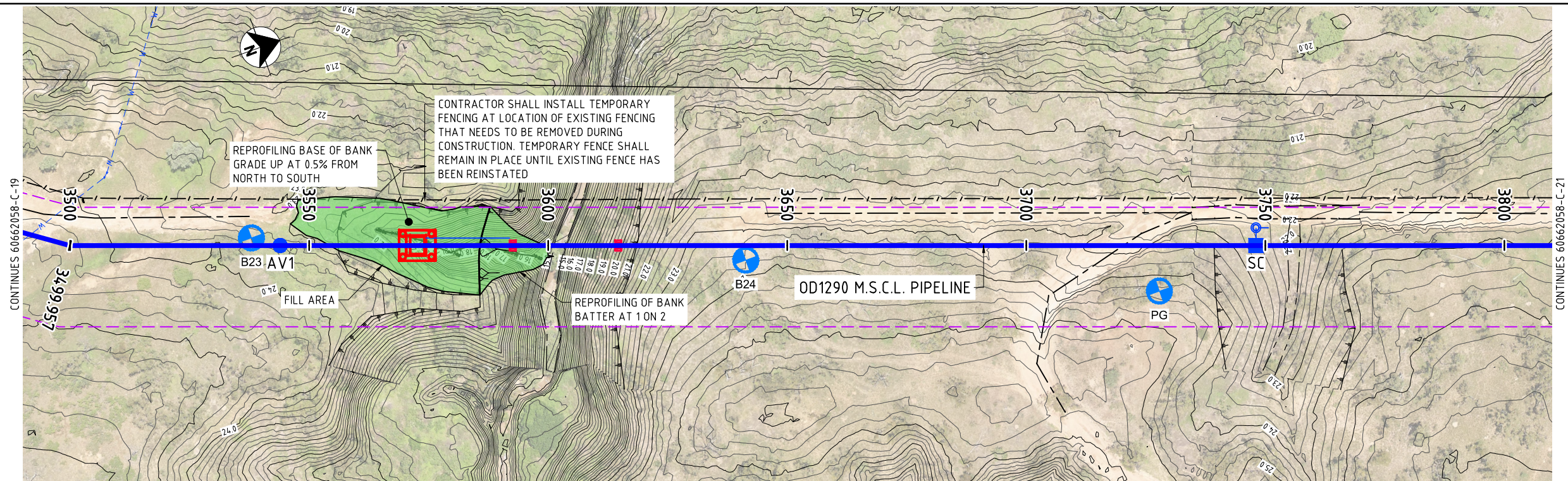
ROSS RIVER DAM TO DOUGLAS WTP PIPELINE  
PLAN AND LONGITUDINAL SECTION  
SHEET 11

Status	TENDER	Dwg No.	60662058-C-18	Rev.	D
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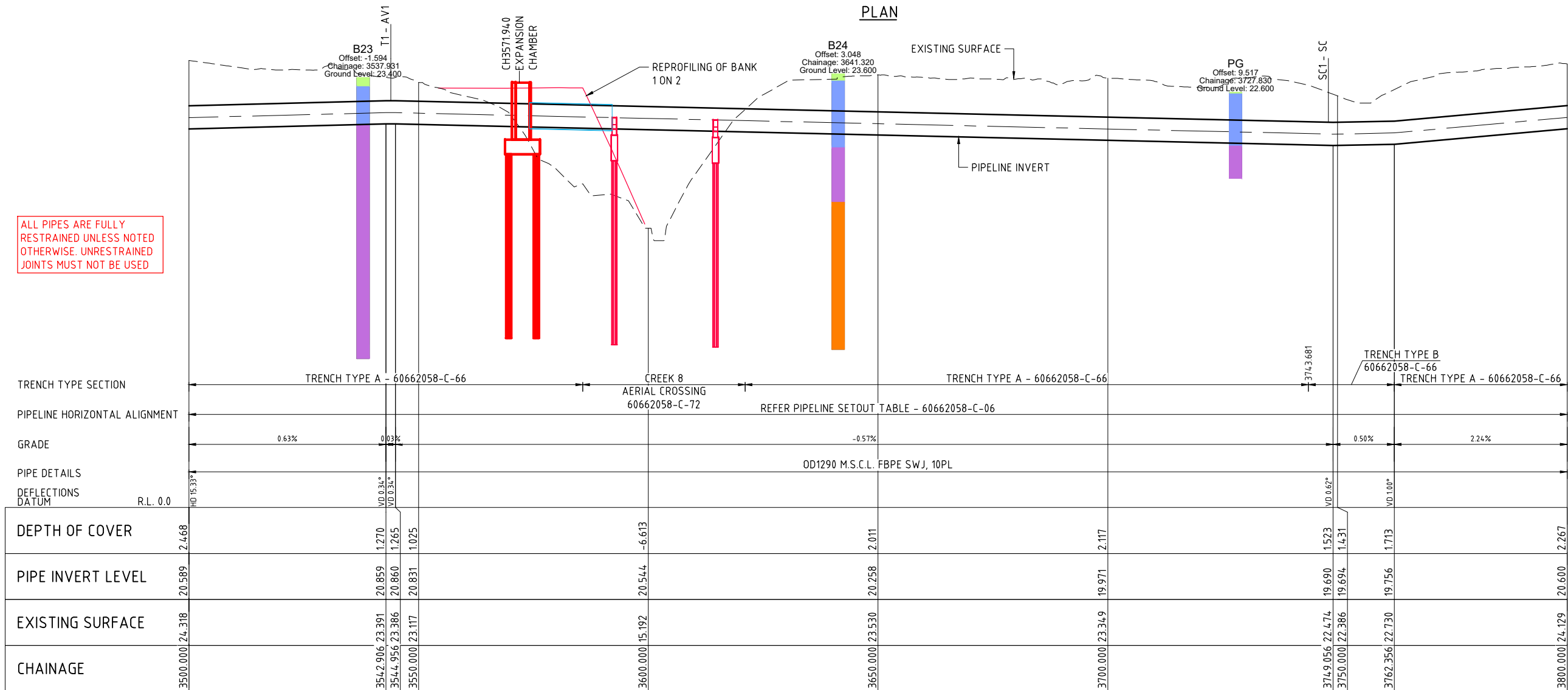








PLAN

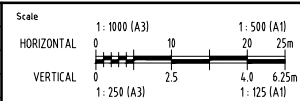


LONGITUDINAL SECTION

- NOTES
1. REFER 60662058-C-03 AND C-04 FOR PIPELINE NOTES
  2. REFER 60662058-C-05 FOR PIPELINE LEGENDS

CAD: REP-P-666X-6662058-908\_CAD\_GIS-908\_CAD-135\_SHEETS-6662058-C-20.DWG  
LAST MODIFIED: 17/07/2021 02:02 AM

REVISIONS				
No.	BY	DATE	DESCRIPTION	APPROD
D	PSA	19.11.21	ISSUED FOR TENDER	
C	PSA	20.10.21	90% DESIGN	
B	PSA	17.09.21	PIPELINE SUPPLY TENDER	
A	PSA	24.08.21	50% SUBMISSION	



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DESIGNED

CHECKED

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DATE

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**AECOM**

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ROSS RIVER DAM TO DOUGLAS WTP PIPELINE

PLAN AND LONGITUDINAL SECTION

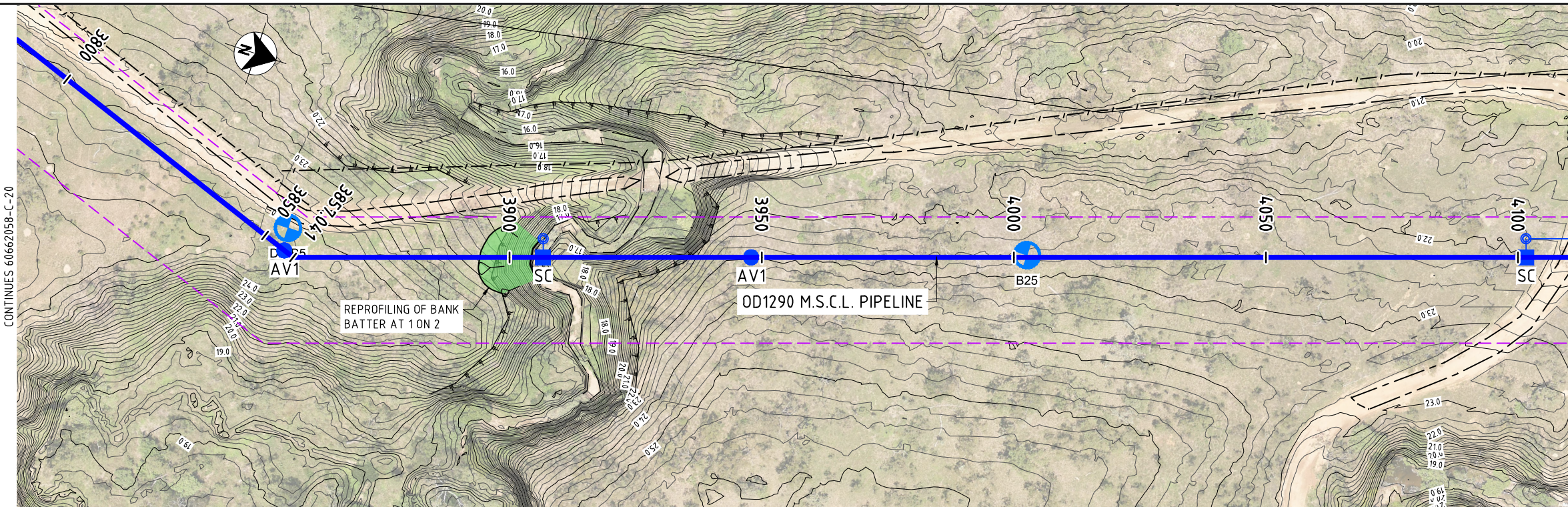
SHEET 13

Status TENDER

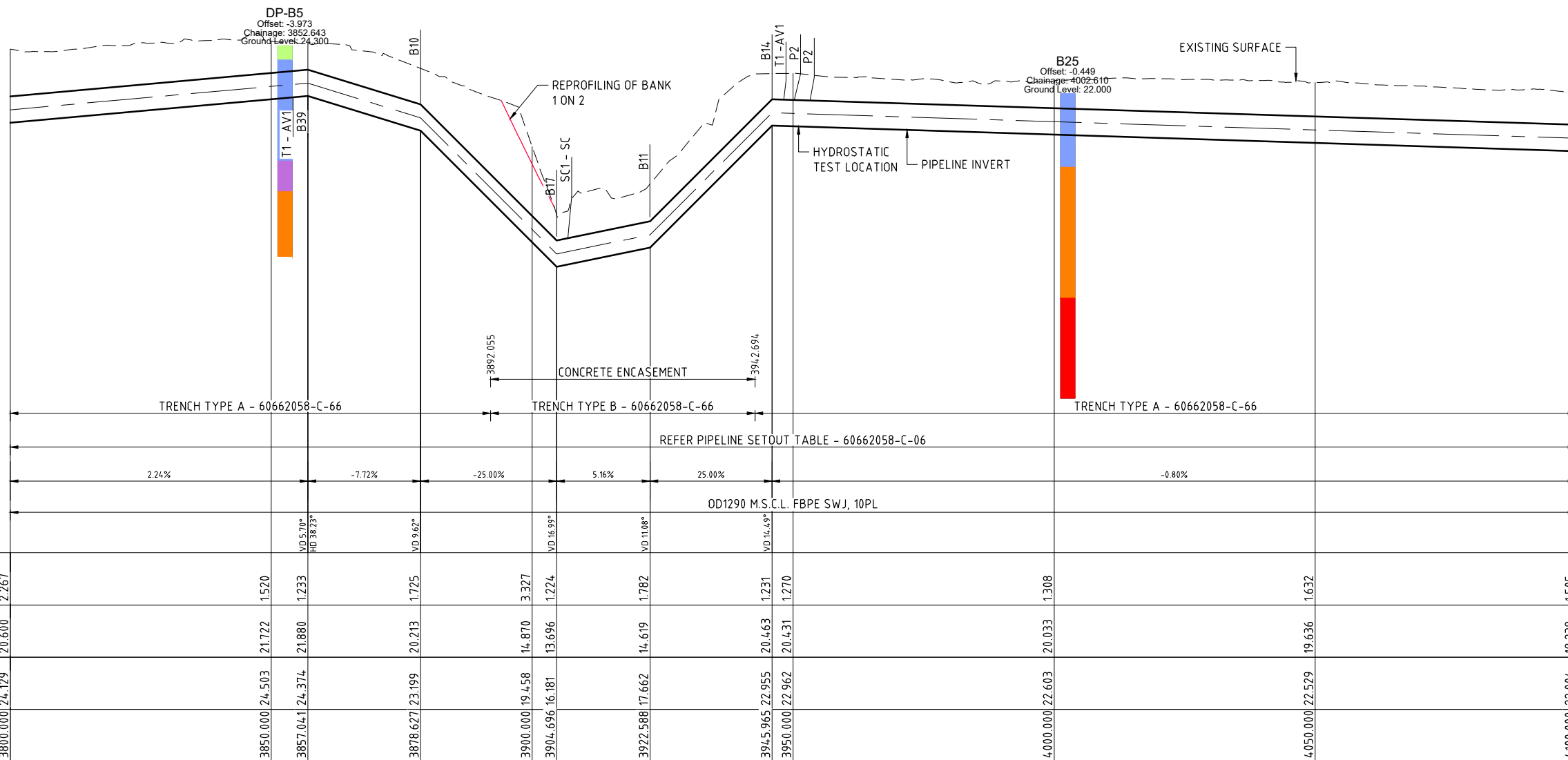
Proj No. 60662058-C-20

Rev. D





PLAN



LONGITUDINAL SECTION

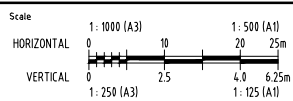
ALL PIPES ARE FULLY RESTRAINED UNLESS NOTED OTHERWISE. UNRESTRAINED JOINTS MUST NOT BE USED

NOTES

1. REFER 60662058-C-03 AND C-04 FOR PIPELINE NOTES
2. REFER 60662058-C-05 FOR PIPELINE LEGENDS

CAD: REP-P-60662058-000\_CAD\_GIS-V08\_CAD-V08\_SHEETS-60662058-C-21.DWG  
LAST MODIFIED: 17/12/2021 08:08 AM

REVISIONS				
No.	BY	DATE	DESCRIPTION	APPROD
D	PSA	19.11.21	ISSUED FOR TENDER	
C	PSA	20.10.21	90% DESIGN	
B	PSA	17.09.21	PIPELINE SUPPLY TENDER	
A	PSA	24.08.21	50% SUBMISSION	



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DESIGNED	CHECKED
APPROVED	DATE

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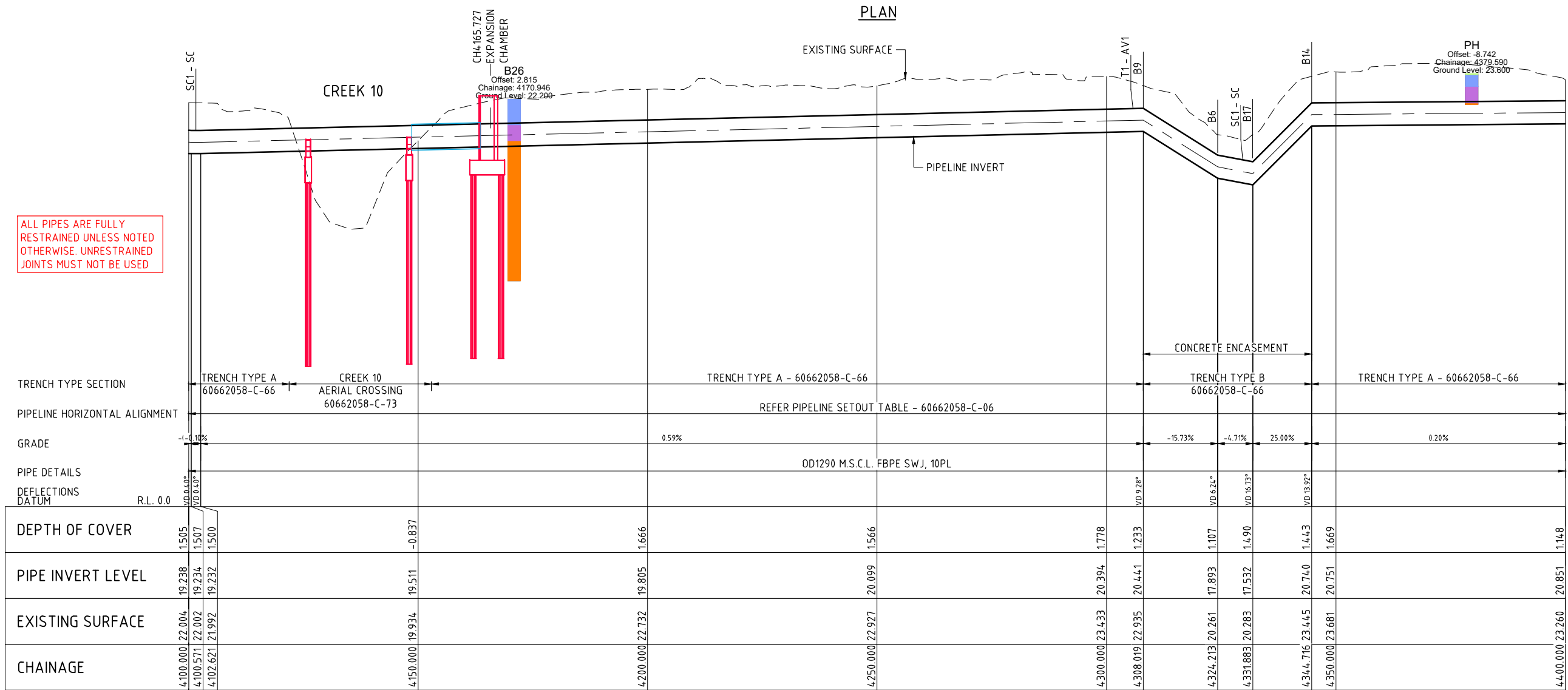
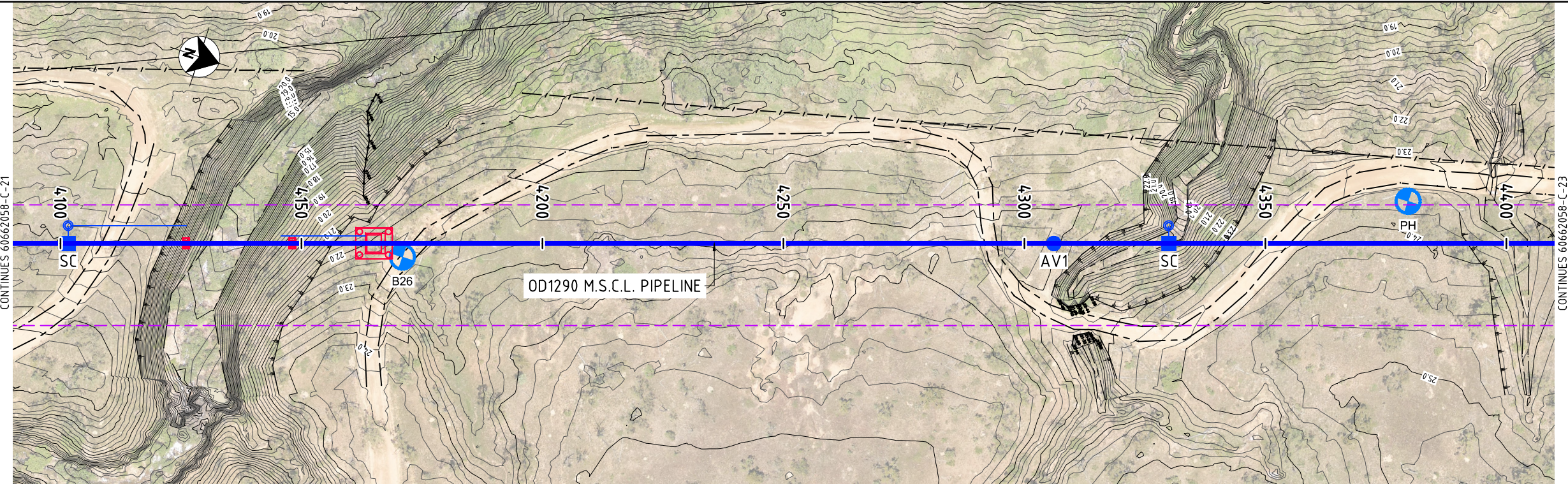
ROSS RIVER DAM TO DOUGLAS WTP PIPELINE  
PLAN AND LONGITUDINAL SECTION  
SHEET 14

Status TENDER

Proj No. 60662058-C-21

Rev. D

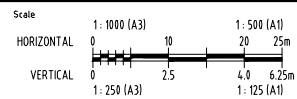




- NOTES
1. REFER 60662058-C-03 AND C-04 FOR PIPELINE NOTES
  2. REFER 60662058-C-05 FOR PIPELINE LEGENDS

LAST MODIFIED: 17/07/2021 2:08 PM  
CADD: REP-1-666X16662058-908\_CADD\_GIS-908\_CADD-135\_SHEETS-6662058-C-22.DWG

This drawing is confidential and shall only be used for the purposes of this project.				
REVISIONS				
No.	BY	DATE	DESCRIPTION	APPRO
D	PSA	19.11.21	ISSUED FOR TENDER	
C	PSA	20.10.21	90% DESIGN	
B	PSA	17.09.21	PIPELINE SUPPLY TENDER	
A	PSA	24.08.21	50% SUBMISSION	



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DESIGNED

CHECKED

APPROVED

DATE

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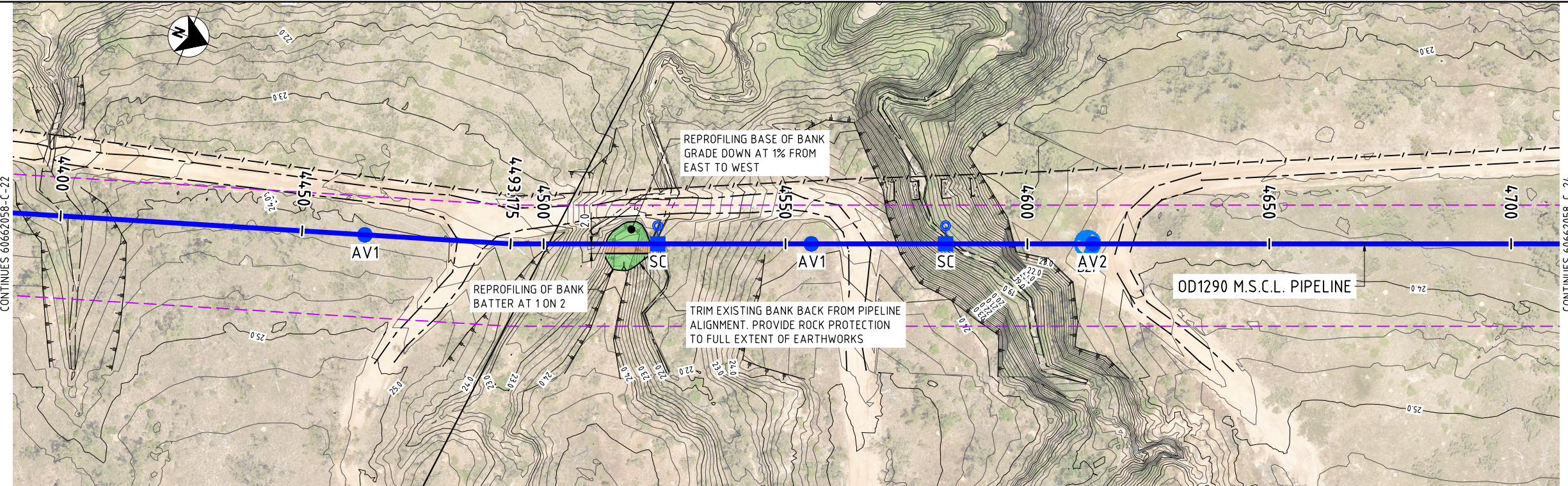
ROSS RIVER DAM TO DOUGLAS WTP PIPELINE

PLAN AND LONGITUDINAL SECTION

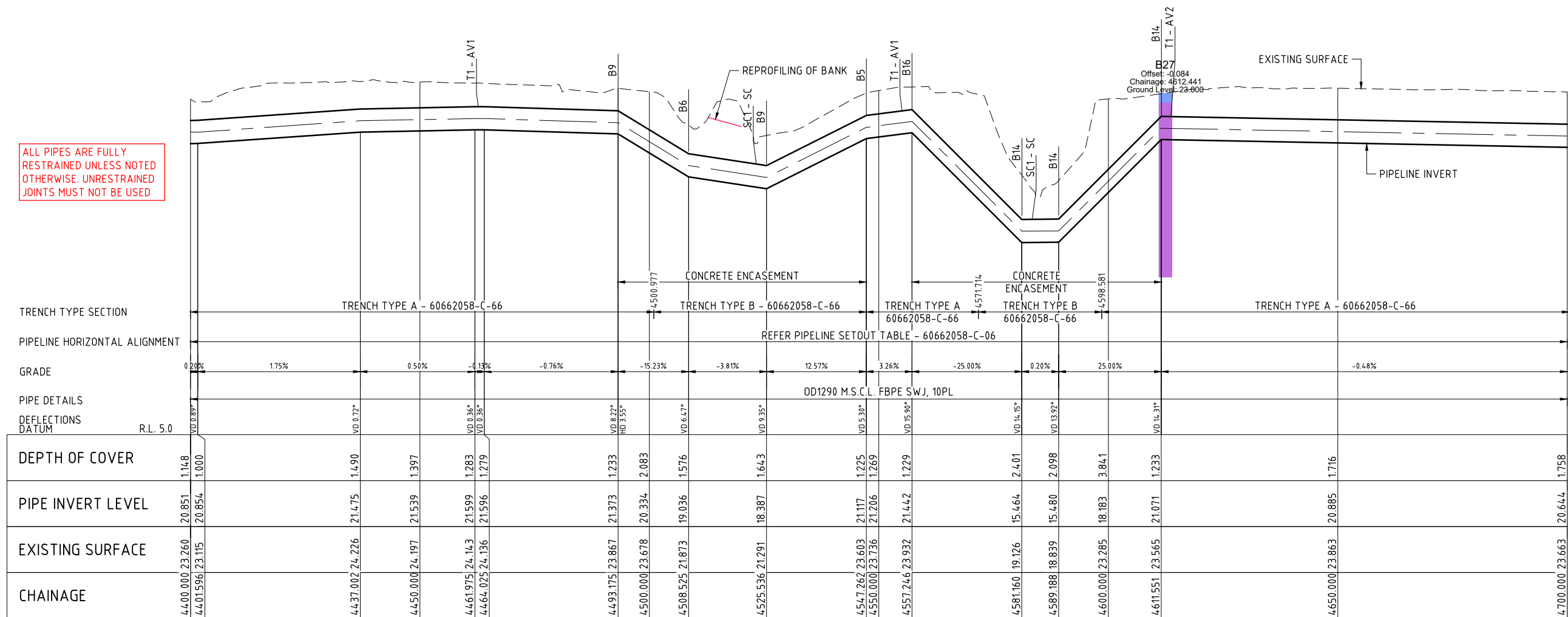
SHEET 15

Status	TENDER	Dwg No.	60662058-C-22	Rev.	D
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PLAN

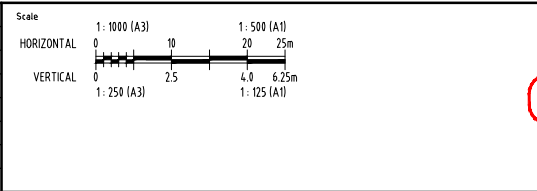


LONGITUDINAL SECTION

- NOTES
1. REFER 60662058-C-03 AND C-04 FOR PIPELINE NOTES
  2. REFER 60662058-C-05 FOR PIPELINE LEGENDS

CAD: REP-P-60662058-000\_CAD\_GIS-V08\_CAD-V08\_SHEETS-60662058-C-23.DWG

REVISIONS				
No.	BY	DATE	DESCRIPTION	APPROVED
D	PSA	19.11.21	ISSUED FOR TENDER	
C	PSA	20.10.21	90% DESIGN	
B	PSA	17.09.21	PIPELINE SUPPLY TENDER	
A	PSA	24.08.21	50% SUBMISSION	



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DESIGNED	CHECKED
APPROVED	DATE

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ROSS RIVER DAM TO DOUGLAS WTP PIPELINE		
PLAN AND LONGITUDINAL SECTION SHEET 16		
Status	TENDER	Rev. D
Dwg No.	60662058-C-23	