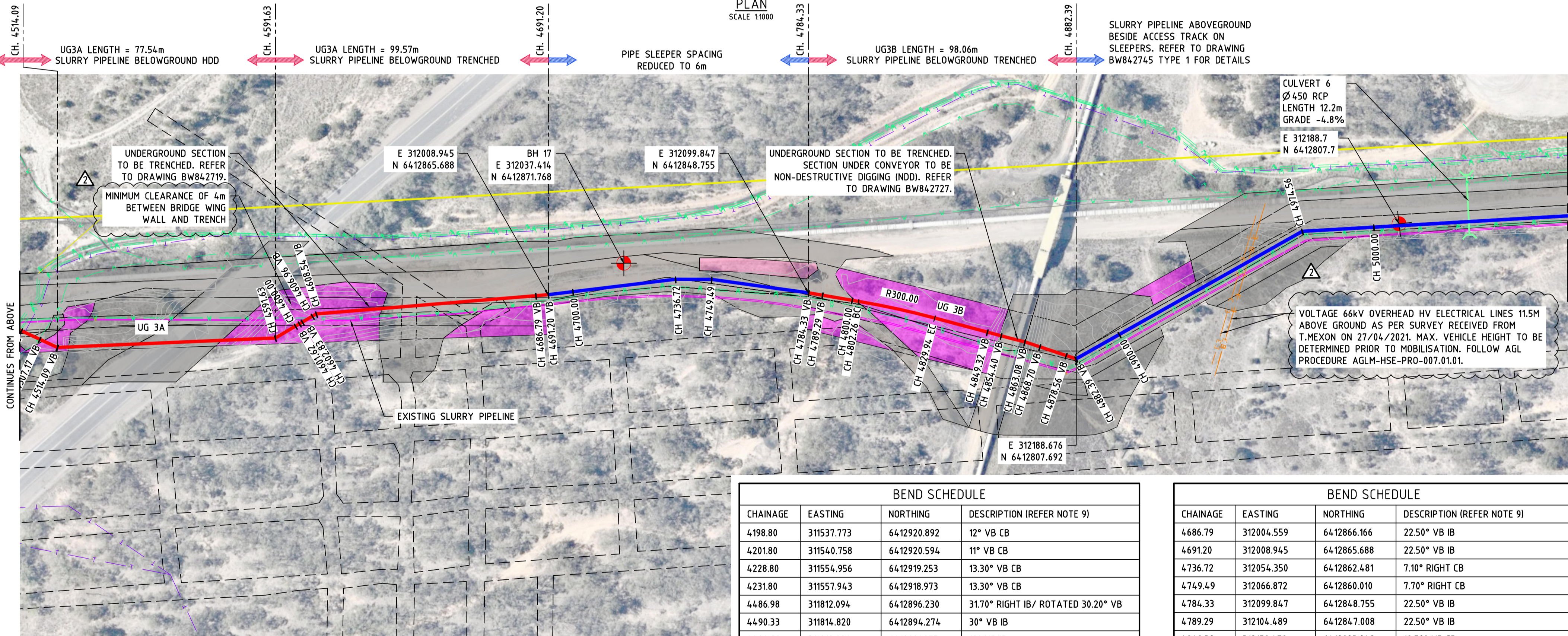


LEGEND:

- NEW ABOVEGROUND SLURRY PIPELINE
- NEW UNDERGROUND SLURRY PIPELINE
- EXISTING SLURRY PIPELINE
- BH FOR UNDERGROUND PIPE
- BH FOR ABOVEGROUND PIPE
- CHAINAGE
- EXISTING WATER LINE
- EXISTING OVERHEAD POWER LINE
- EXISTING TELECOM
- EXISTING OIL LINE
- EXISTING STORMWATER CULVERT
- EXISTING CREEK
- AGL BOUNDARY (FINAL)
- AGL BOUNDARY (ESTIMATE)
- AHIMS SITE
- FLOOD BOUNDARIES
- VEGETATION ZONE 0
- VEGETATION ZONE 1
- VEGETATION ZONE 2
- VEGETATION ZONE 3
- VEGETATION ZONE 4
- VEGETATION ZONE 5
- VEGETATION ZONE 7
- VEGETATION ZONE 9

- NOTES:**
- REFER TO BASIS OF DESIGN DOCUMENT AGLM-CPG-049-RPT-001
 - REFER TO DESIGN REPORT AGLM-CPG-049-RPT-007
 - UNDERGROUND SERVICE LOCATIONS SHALL BE IDENTIFIED PRIOR TO CONSTRUCTION.
 - REFER TO DRAWING BW842713 FOR TYPICAL PIPE TRANSITION DETAILS BETWEEN ABOVEGROUND AND UNDERGROUND SECTIONS.
 - ALL PIPELINE RL VALUES ARE TAKEN FROM THE INVERT LEVEL (IL) OF THE SOUTHERN MOST PIPELINE AND THE DATUM USED IS AHD.
 - ALL SET OUT COORDINATES ARE TAKEN FROM THE CENTRE OF THE SOUTHERN MOST PIPELINE COORDINATES ARE BASED ON MGA94.
 - THE NEW SLURRY PIPELINES ARE OFFSET 600mm NOMINALLY FROM THE EXISTING RETURN WATER PIPELINE UNLESS NOTED OTHERWISE.
 - GENERALLY THE PIPELINE SHALL BE LAID ON CONCRETE SLEEPERS SHOWN ON DRAWING BW842745 TYPE 1 FOLLOWING EXISTING SURFACE LEVELS ALONG THE PIPELINE CORRIDOR AS SHOWN ON THE ALIGNMENT AND DETAILED DRAWINGS.
 - THE HORIZONTAL BEND DIRECTION SHOWN IN THE BENDING SCHEDULE (i.e. LEFT OR RIGHT) IS BASED ON THE DIRECTION OF FLOW. VB DENOTES VERTICAL BEND AND IB DENOTES FACTORY MANUFACTURED INDUCTION BEND (1.4m MIN. RADIUS). ALL OTHER BENDS ARE EITHER FIELD COLD BENDS (CB) (8.8m MIN. RADIUS) OR FIELD ROPED BENDS (300m MIN. RADIUS). BC DENOTES BEGINNING OF CURVE AND EC DENOTES END OF CURVE.
 - ACCESS TRACKS TO BE WIDENED TO MAINTAIN EXISTING TRACK WIDTH WHERE REQUIRED. REFER TO DRAWING BW842743 FOR MODIFICATION DETAILS.
 - GRADE AND COMPACT ENTIRE PIPE ROUTE AT 1% CROSSFALL. MIN. BEARING REQUIREMENT 75 kPa. THE CONTRACTOR SHALL VERIFY THAT SURFACE IRREGULARITIES IN THE PIPELINE CORRIDOR OVER ANY 10m LENGTH DO NOT EXCEED +/- 50mm.
 - STANDARD SPACING OF CONCRETE SLEEPERS AND RAISED PIPE SUPPORTS IS 11m MAXIMUM. SPACING IS TO BE REDUCED ACCORDINGLY IN AREAS WITH POOR BEARING CAPACITY AND OVER OLD MINE WORKINGS AS INDICATED ON THE PIPE ALIGNMENT DRAWINGS.
 - THE ALIGNMENT FOR EXISTING UNDERGROUND SLURRY PIPELINES A & B AND RETURN WATER PIPELINE A IS BASED ON THE ORIGINAL DESIGN DRAWINGS. RETURN WATER PIPELINE B WAS CONSTRUCTED AFTER THE OTHER THREE PIPELINES WERE CONSTRUCTED AND NO INFORMATION HAS BEEN PROVIDED FOR ITS UNDERGROUND SECTIONS.
 - REFER TO DRAWING BW842744 FOR PIPELINE EARTHING DETAILS.



BEND SCHEDULE

CHAINAGE	EASTING	NORTHING	DESCRIPTION (REFER NOTE 9)
4198.80	311537.773	6412920.892	12° VB CB
4201.80	311540.758	6412920.594	11° VB CB
4228.80	311554.956	6412919.253	13.30° VB CB
4231.80	311557.943	6412918.973	13.30° VB CB
4486.98	311812.094	6412896.230	31.70° RIGHT IB/ ROTATED 30.20° VB
4490.33	311814.820	6412894.274	30° VB IB
4494.28	311818.026	6412891.975	19° VB IB
4497.41	311820.569	6412890.151	22.50° VB IB
4507.17	311828.502	6412884.460	3° VB CB
4514.09	311834.126	6412880.426	27.20° LEFT CB/ ROTATED 1.90° VB
4591.64	311910.822	6412868.989	28° LEFT CB
4601.62	311920.234	6412872.324	22.50° VB IB
4602.83	311921.379	6412872.730	22.50° VB IB
4606.96	311925.267	6412874.108	22.50° VB IB
4608.54	311926.764	6412874.601	25.70° RIGHT IB/ ROTATED 20.50° VB

BEND SCHEDULE

CHAINAGE	EASTING	NORTHING	DESCRIPTION (REFER NOTE 9)
4686.79	312004.559	6412866.166	22.50° VB IB
4691.20	312008.945	6412865.688	22.50° VB IB
4736.72	312054.350	6412862.481	7.10° RIGHT CB
4749.49	312066.872	6412860.010	7.70° RIGHT CB
4784.33	312099.847	6412848.755	22.50° VB IB
4789.29	312104.489	6412847.008	22.50° VB IB
4849.32	312159.478	6412823.042	19.50° VB CB
4854.40	312164.053	6412820.819	16.90° VB CB
4863.08	312171.894	6412817.095	29° VB IB
4868.70	312176.794	6412814.349	24.90° VB IB
4878.56	312185.393	6412809.531	18.90° VB IB
4882.39	312188.740	6412807.713	47.70° LEFT CB/ ROTATED 22.30° VB
4974.56	312276.176	6412836.894	26° RIGHT IB

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21 Jun 2022
CONDITIONS OF DA - ATTACHED
MELANIE FITYUS
FOR SUBSIDENCE ADVISORY NSW

UNLESS NOTED OTHERWISE ALL UNITS ARE IN MM

AMENDMENTS	ISSUED FOR CONSTRUCTION	REV	DWN	JL	CKD	BC	DATE
0	ISSUED FOR CONSTRUCTION	0					14.07.22
1	ISSUED FOR CONSTRUCTION	1					04.02.22
2	ISSUED FOR CONSTRUCTION	2					25.02.22



Monadelphous

GHD

agl

PROJECT No. 12543143

REFERENCE DRAWINGS	DRAWN	JL	DATE
BW842700	JL		24.03.21
BW842701	MW		24.03.21
BW842702	DB		12.01.22
BW842703	RR		12.01.22
BW842704	BC		14.01.22
BW842706			
BW842707			

DO NOT AMEND MANUALLY

KKS CODING ETK

ORIGINAL DRAWING APPROVED BY

PROJECT DIRECTOR
B. COLLEY
14.01.22

FOR CONSTRUCTION

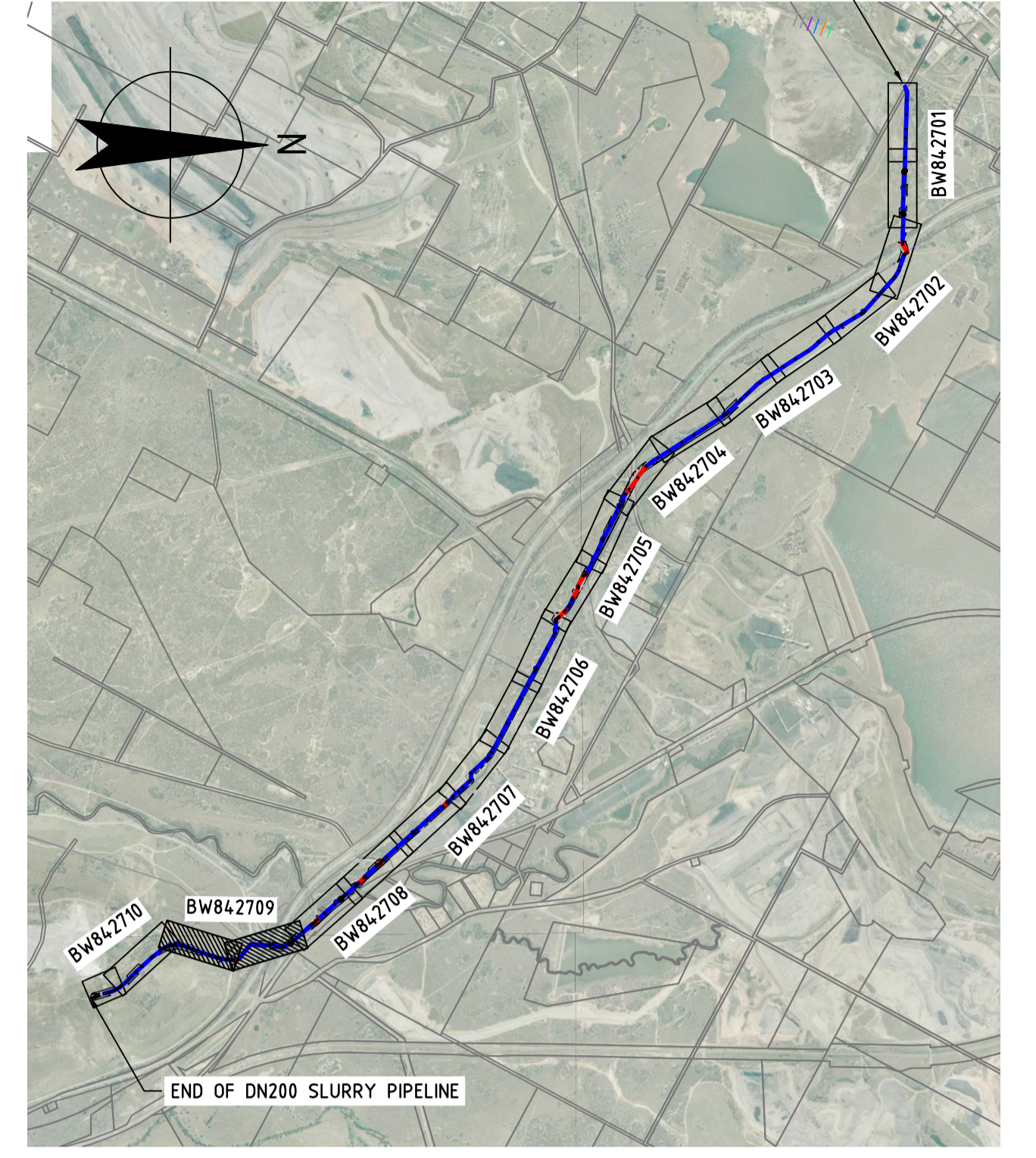
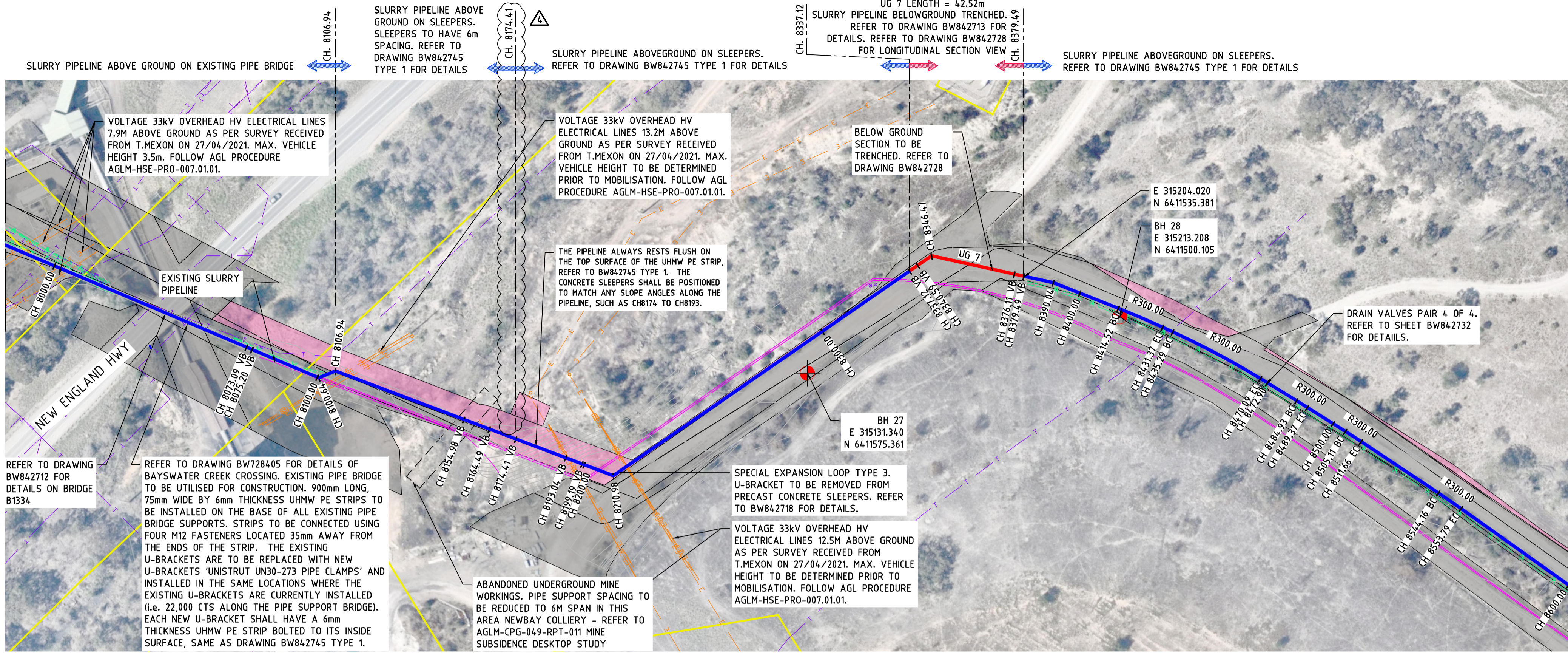
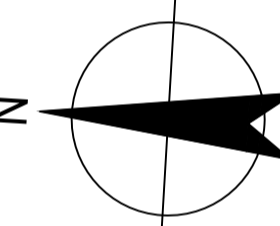
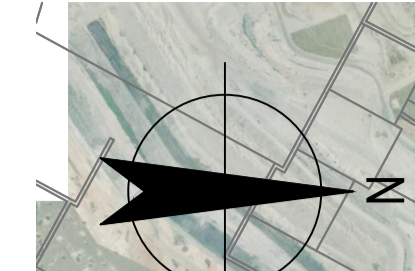
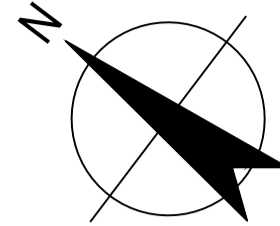
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AGL MACQUARIE

BAYSWATER POWER STATION
FLY ASH PLANT UPGRADE
ASH TRANSFER
PIPELINE ALIGNMENT
SHEET 5 OF 10

A1 BW842705 2

SCALE PREFIX NUMBER SHEET AMDT



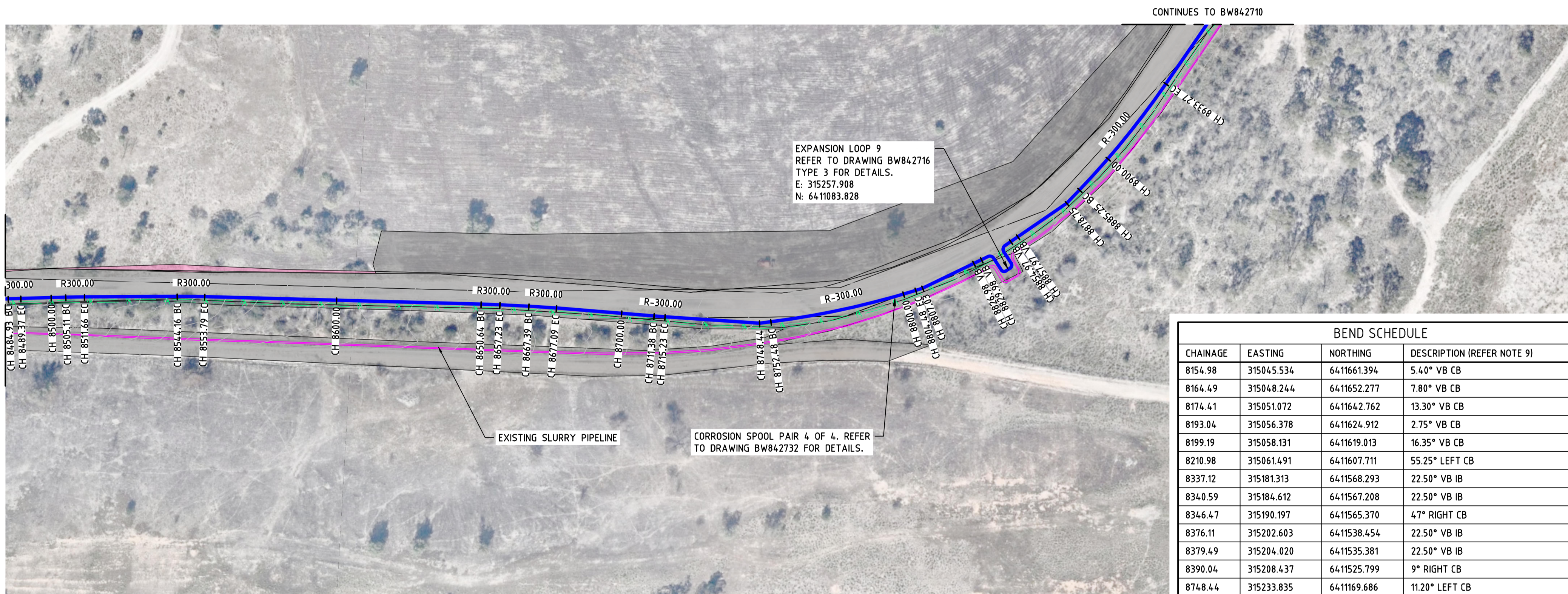
PLAN
SCALE 1:1000

KEYPLAN
NTS

LEGEND:

	NEW ABOVEGROUND SLURRY PIPELINE		AHIMS SITE
	NEW UNDERGROUND SLURRY PIPELINE		FLOOD BOUNDARIES
	EXISTING SLURRY PIPELINE		VEGETATION ZONE 0
	BH FOR UNDERGROUND PIPE		VEGETATION ZONE 1
	BH FOR ABOVEGROUND PIPE		VEGETATION ZONE 2
	CHAINAGE		VEGETATION ZONE 3
	EXISTING WATER LINE		VEGETATION ZONE 4
	EXISTING OVERHEAD POWER LINE		VEGETATION ZONE 5
	EXISTING TELECOM		VEGETATION ZONE 7
	EXISTING OIL LINE		VEGETATION ZONE 9
	EXISTING STORMWATER CULVERT		
	EXISTING CREEK		
	AGL BOUNDARY (FINAL)		
	AGL BOUNDARY (ESTIMATE)		

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 - REFER TO DRAWING BW842744 FOR PIPELINE EARTHING DETAILS.



PLAN
SCALE 1:1000

CHAINAGE	EASTING	NORTHING	DESCRIPTION (REFER NOTE 9)
8154.98	315045.534	6411661.394	5.40° VB CB
8164.49	315048.244	6411652.277	7.80° VB CB
8174.41	315051.072	6411642.762	13.30° VB CB
8193.04	315056.378	6411624.912	2.75° VB CB
8199.19	315058.131	6411619.013	16.35° VB CB
8210.98	315061.491	6411607.711	55.25° LEFT CB
8337.12	315181.313	6411568.293	22.50° VB IB
8340.59	315184.612	6411567.208	22.50° VB IB
8346.47	315190.197	6411565.370	4.7° RIGHT CB
8376.11	315202.603	6411538.454	22.50° VB IB
8379.49	315204.020	6411535.381	22.50° VB IB
8390.04	315208.437	6411525.799	9° RIGHT CB
8748.44	315233.835	6411169.686	11.20° LEFT CB
8807.03	315249.413	6411113.297	8.70° LEFT CB
8826.98	315259.147	6411095.887	9.90° VB CB
8829.98	315260.611	6411093.268	10.40° VB CB
8854.97	315267.542	6411083.388	10.40° VB CB
8857.97	315269.378	6411081.016	9.90° VB CB
8878.75	315282.096	6411064.581	11.90° LEFT CB



21 Jun 2022
CONDITIONS OF DA - ATTACHED
MELANIE FITYUS
FOR SUBSIDENCE ADVISORY NSW



REFERENCE DRAWINGS	DRAWN	JL	DATE
BW842700	DESIGN	MW	24.03.21
BW842701	DO	DB	24.03.21
BW842702	ENG	RR	12.01.22
BW842703	ENG	RR	12.01.22
BW842704	ENG	RR	12.01.22
BW842705	ENG	RR	12.01.22
BW842706	ENG	RR	12.01.22

PROJECT No.	12543143
CONTRACT No.	CW2236665

PROJECT No.	12543143
CONTRACT No.	CW2236665
PROJECT DIRECTOR	B. COLLEY
DATE	14.01.22
FOR CONSTRUCTION	
DRAWING STATUS	
SCALE	1:1000
PREFIX	A1
NUMBER	BW842709
SHEET	4
AMDT	

AMENDMENTS	ISSUED FOR CONSTRUCTION	DATE
REV 0	ISSUED FOR CONSTRUCTION	14.01.22
REV 1	ISSUED FOR CONSTRUCTION	04.02.22
REV 2	ISSUED FOR CONSTRUCTION	14.02.22
REV 3	ISSUED FOR CONSTRUCTION	25.02.22
REV 4	ISSUED FOR CONSTRUCTION	08.03.22

COORDINATES MGA94

UNLESS NOTED OTHERWISE ALL UNITS ARE IN MM

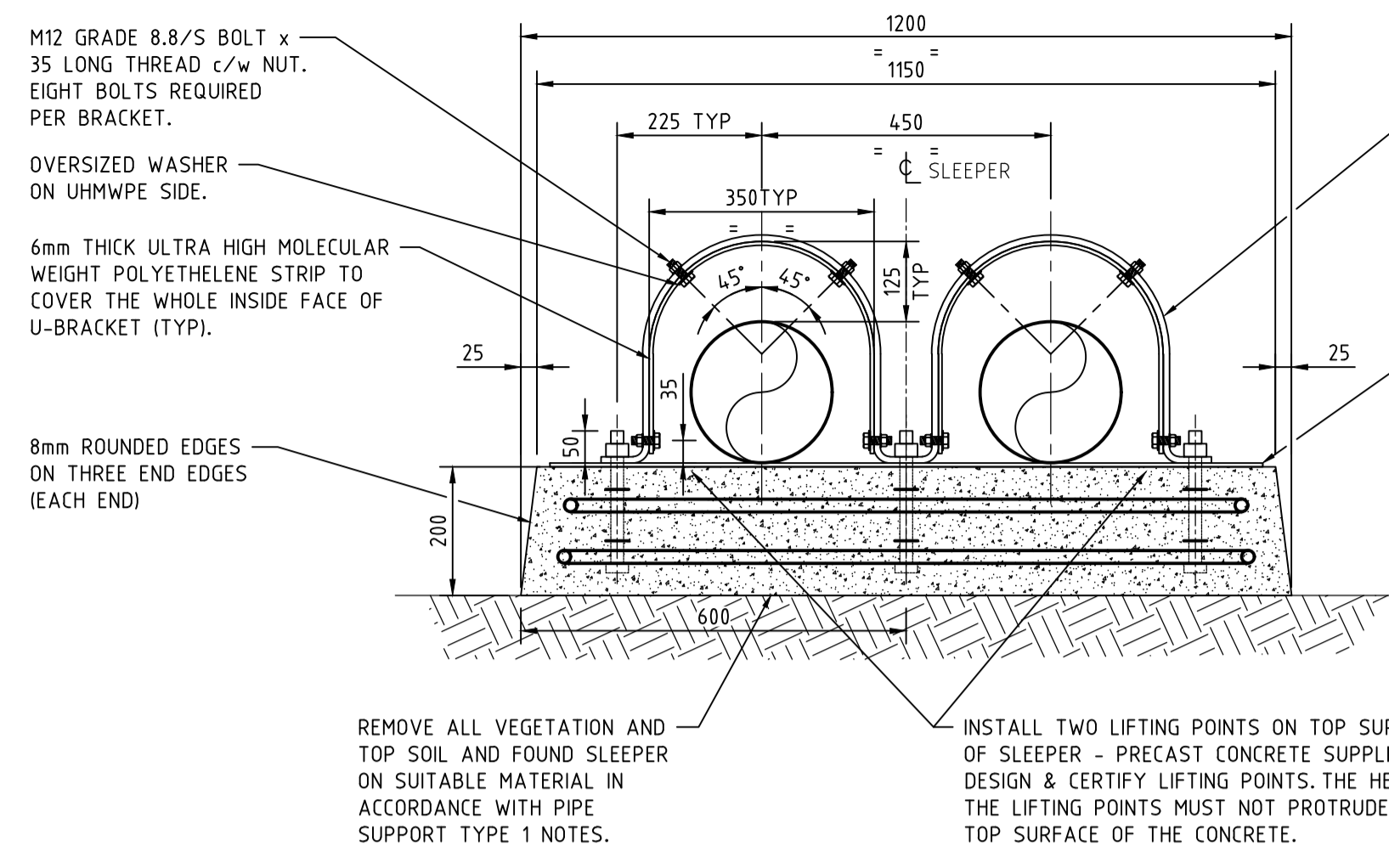
ISSUED FOR CONSTRUCTION	DATE
REV 0	14.01.22
REV 1	04.02.22
REV 2	14.02.22
REV 3	25.02.22
REV 4	08.03.22

PROJECT No. 12543143

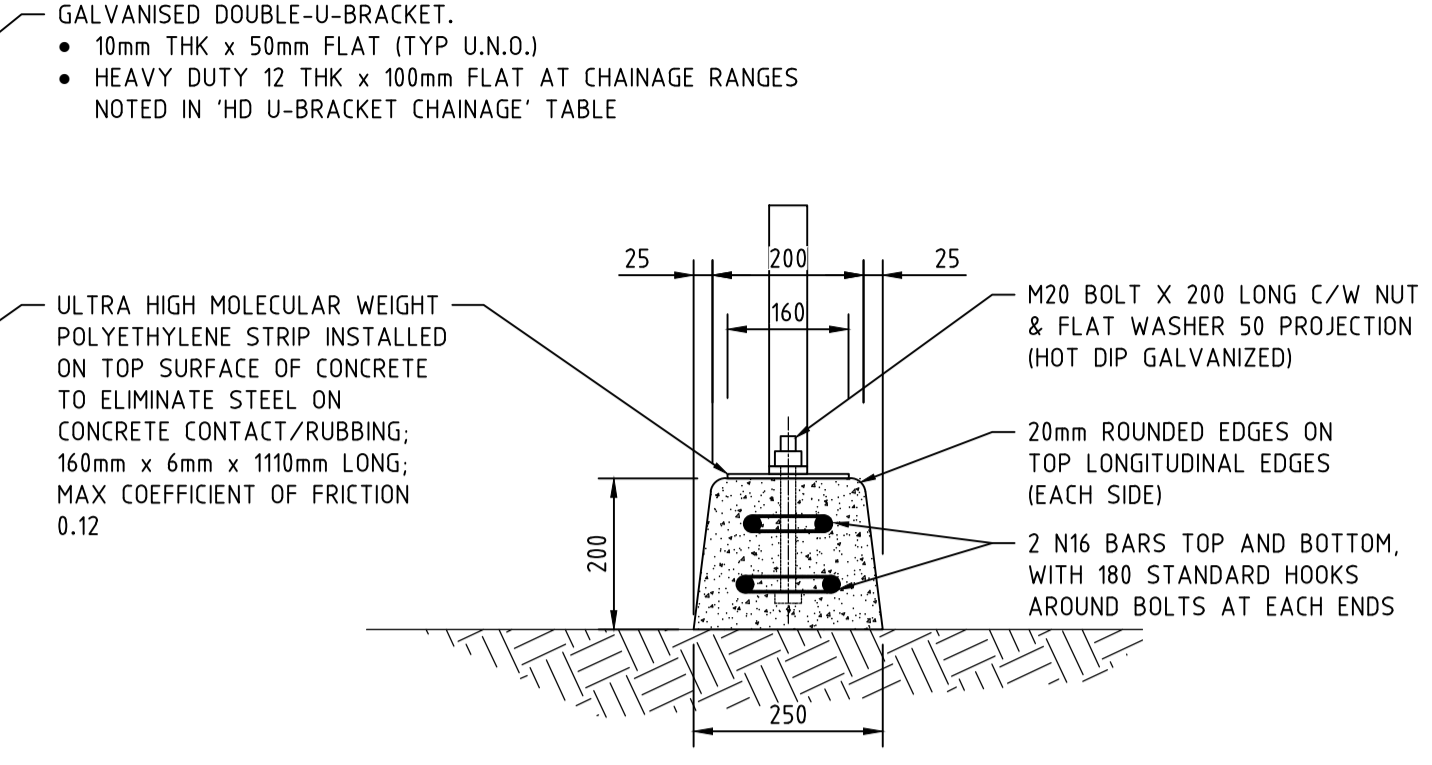
DO NOT AMEND MANUALLY

SCALE 1:1000

PREFIX NUMBER SHEET AMDT



ELEVATION
SCALE 1:10



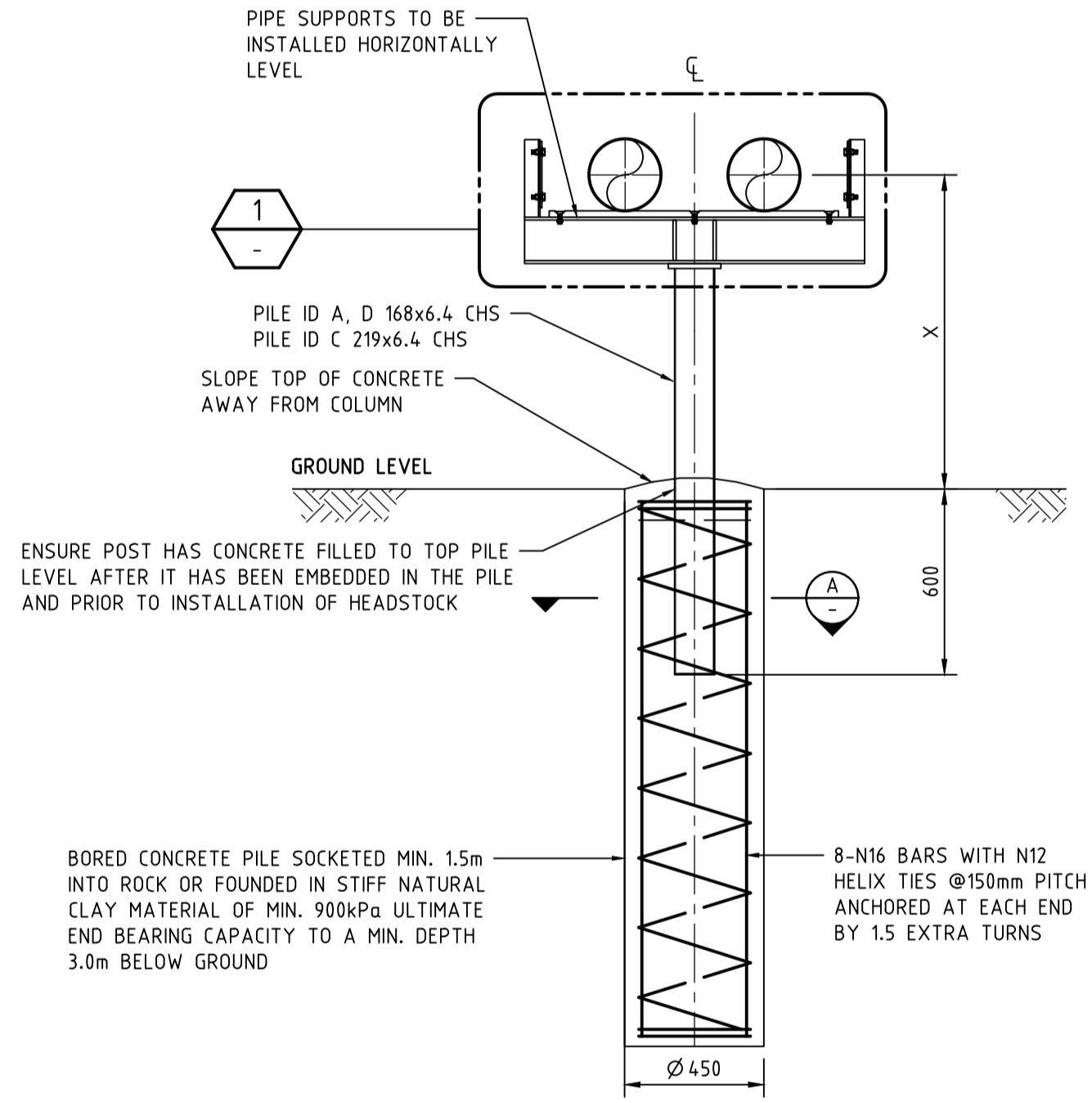
TYPICAL SECTION
SCALE 1:10

PIPE SUPPORT TYPE 1 PRECAST SLEEPER
SCALE 1:10

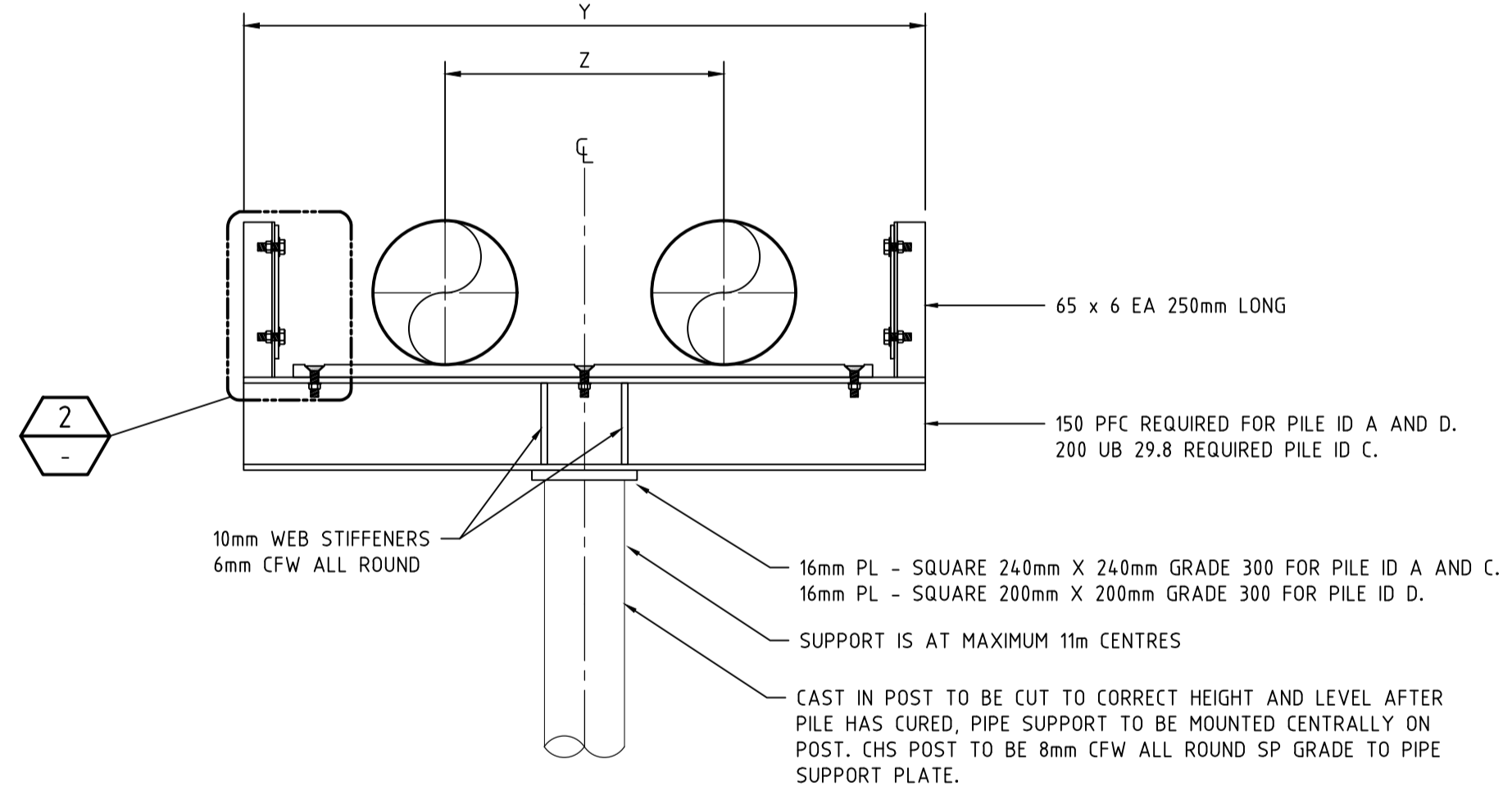
HD U-BRACKET CHAINAGE	HD U-BRACKET CHAINAGE	HD U-BRACKET CHAINAGE
CHAINAGE (m)	CHAINAGE (m)	CHAINAGE (m)
40 TO 51	4730 TO 4754	7913 TO 7921
593 TO 600	4882 TO 4894	7950
904 TO 912	4967 TO 4979	7983
1323 TO 1335	5927 TO 5939	8088 TO 8118
1373 TO 1385	5966 TO 5978	8187
1689 TO 1701	6124	8235
1728 TO 1744	6199	8379 TO 8400
3591 TO 3603	6400 TO 6418	8742 TO 8754
3843 TO 3855	7020 TO 7036	9400 TO 9430
4474 TO 4486	7382 TO 7394	

- PIPE SUPPORT TYPE 1 NOTES:**
- REFER TO THE GEOTECHNICAL REPORT FOR TYPICAL LOCATION AND VALUES OF ALLOWABLE BEARING PRESSURE.
 - ANY UNSUITABLE AREA OR LOCATIONS REQUIRING FILL TO ACHIEVE VERTICAL ALIGNMENT SHALL HAVE ROAD BASE MATERIAL PLACED, SUCH AS DGB20 OR BETTER, AND COMPACTED TO ACHIEVE AT LEAST 75kPa ALLOWABLE BEARING CAPACITY.
 - OBTAIN APPROVAL OF FOUNDATION MATERIAL FROM A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER BEFORE PLACING SLEEPER.
 - SLEEPERS ARE TO BE FOUND ON SUITABLE MATERIAL AND SPACED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
- | ULTIMATE VERTICAL LOAD PER PIPE | MIN. ALLOWABLE BEARING CAPACITY OF FOUNDATION MATERIAL | MAXIMUM SLEEPER SPACING |
|---------------------------------|--|-------------------------|
| 9kN | 50kPa | 8m |
| 13kN | 75kPa | 11m |
- PROVIDE MINIMUM 50mm COVER TO REINFORCEMENT
 - CONCRETE STRENGTH GRADE N32
 - FOR LESS THAN 50 kPa BEARING CAPACITY OF FOUNDING MATERIAL REFER TO GEOTECHNICAL ENGINEER FOR ADVICE.

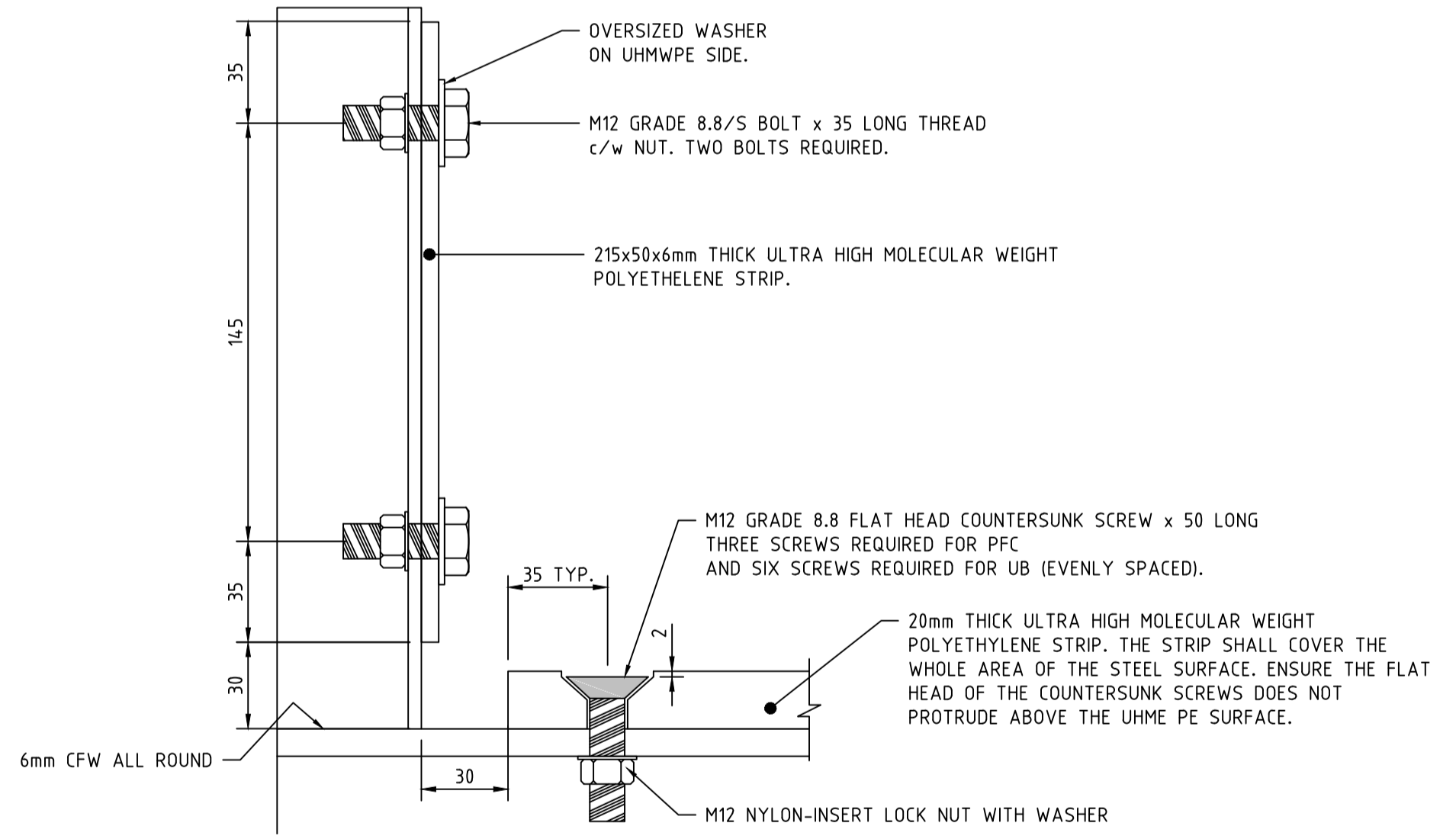
- PIPE SUPPORT TYPE 2 NOTES:**
- THE WORKING LOADS PROVIDED FOR EACH PILE TYPE ARE CALCULATED ASSUMING THE DIMENSION "X" IS THE MAXIMUM HEIGHT BETWEEN GROUND LEVEL AND THE CENTRE OF SLURRY PIPELINE.
 - ALL STRUCTURAL STEEL AND STEEL EMBEDMENTS ON THE PIPE SUPPORT SHALL BE GALVANISED TO HDG600.
 - FOR STRUCTURAL NOTES, REFER TO DRAWINGS BW842733, BW842734, AND BW842735.
 - PILE ID C SHALL ONLY BE USED BETWEEN CH6299.00 TO CH6395.80. REFER TO DRAWING BW842719 FOR DETAILS.
 - PILE ID D SHALL ONLY BE USED ON THE NOMINATED EXPANSION LOOPS.
 - APPLY PROTECTIVE COATING SYSTEM TO SITE WELDED JOINT. SURFACE COATINGS AND PREPARATION TO BE IN ACCORDANCE WITH AGL MACQUARIE CONSTRUCTION SPECIFICATION SECTION 7.



ELEVATION
SCALE 1:20



1 DETAIL
SCALE 1:10



2 DETAIL
SCALE 1:2

PILE ID	DESCRIPTION	SUPPORT DIMENSIONAL DATA			PILE LOADS		
		X, mm	Y, mm	Z, mm	AXIAL LOAD, kN	SHEAR LOAD, kN	BENDING MOMENT, kNm
A	PIPELINE SUPPORT	1000	1100	450	37	17.6	27.4
C	FLOOD ZONE CH6299.00 TO CH6395.80	1780 (MAX)	1100	450	25	9.2	22
D	EXPANSION LOOPS 2, 3, 4, 5, 6, 7 & 9	1000	1100	450	17.5	5.8	10.6

PIPE SUPPORT TYPE 2 - CONCRETE BORED PILE
SCALE 1:20

UNLESS NOTED OTHERWISE ALL UNITS ARE IN MM

AMENDMENTS ISSUED FOR CONSTRUCTION REV DWN AL CKD RC DATE 1 02.03.22	0 20 40 60 80 100mm SCALE 1:2 AT ORIGINAL SIZE	0 200 400 600 800 1000mm SCALE 1:20 AT ORIGINAL SIZE				REFERENCE DRAWINGS BW842700 BW842719 BW842730 BW842733 BW842734 BW842735	DRAWN SL 31.03.21 DESIGN TM 02.03.22 CHECKED DO DB 02.03.22 ENG DS 02.03.22 PASSED SC 02.03.22	KKS CODING ETY ORIGINAL DRAWING APPROVED BY R. COLLEY PROJECT DIRECTOR 03.02.22	AGL MACQUARIE BAYSWATER POWER STATION FLY ASH PLANT UPGRADE ASH PLANT - CONTROL SLURRY PIPE SUPPORT TYPES 1 & 2 DETAILS	DO NOT AMEND MANUALLY CONTRACT No. CW2236665	DRAWING STATUS SCALE AS SHOWN	A1 BW842745 1 PREFIX NUMBER SHEET AMDT
	PROJECT No. 12543143						CONTRACT No. CW2236665	SCALE AS SHOWN	A1 BW842745 1 PREFIX NUMBER SHEET AMDT			