

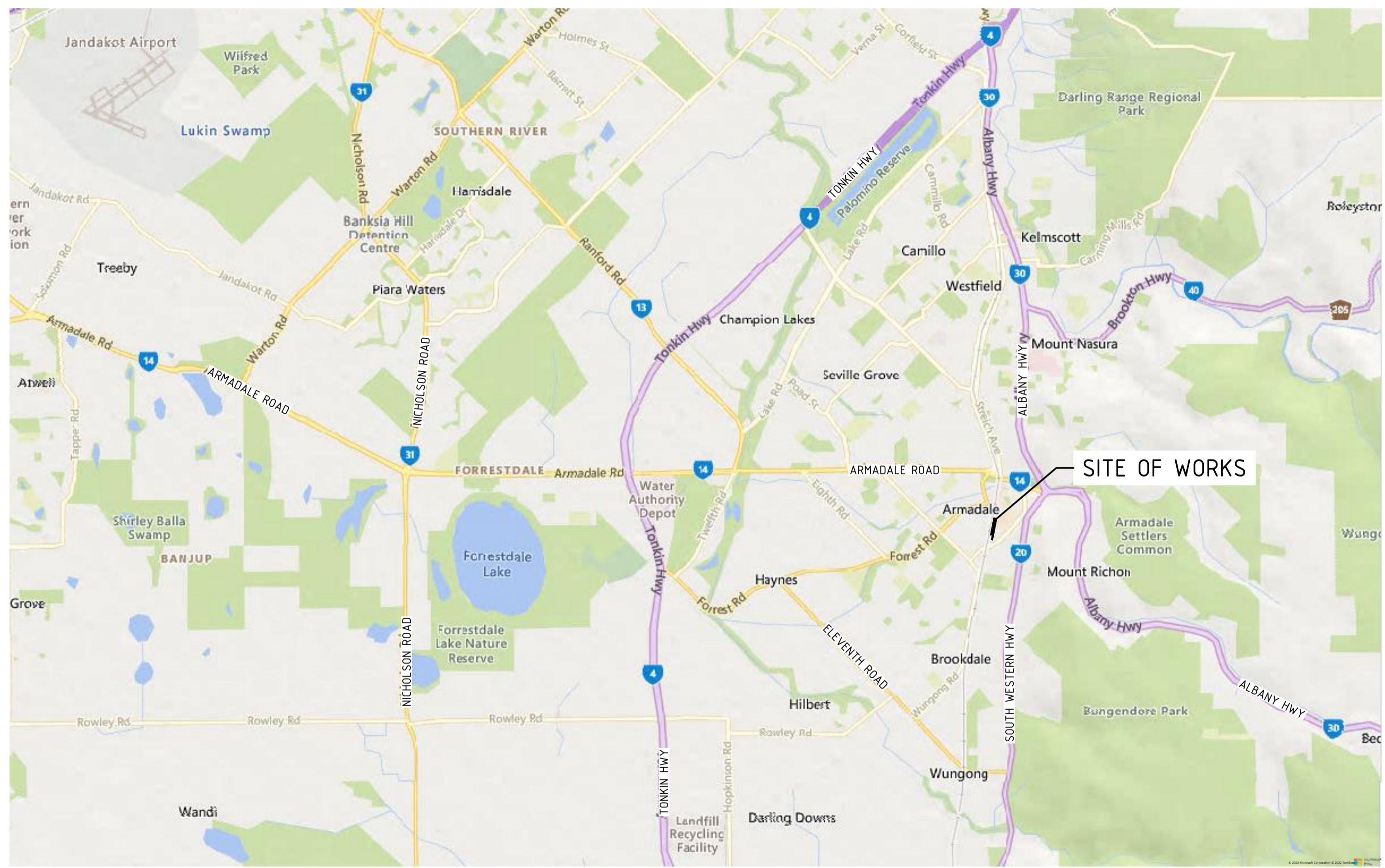
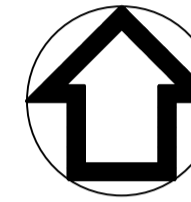
Appendix E: Civil Development Plans

BYFORD RAIL EXTENSION

ENABLING WORKS - TEMPORARY BUS INTERCHANGE

CITY OF ARMADALE

DRAWING INDEX		
PTA DRAWING No.	METCONX DRAWING No.	TITLE
11-C-01-0035	R30-MET-DWG-CI-001-01000	COVER SHEET, LOCALITY PLAN AND DRAWING INDEX
11-C-01-0036	R30-MET-DWG-CI-001-01001	SITE PLAN AND GENERAL NOTES
11-C-04-0025	R30-MET-DWG-CI-001-01002	OVERALL LAYOUT PLAN
11-C-04-0038	R30-MET-DWG-CI-001-02000	TYPICAL CROSS SECTIONS
11-C-04-0026	R30-MET-DWG-CI-001-02500	TYPICAL DETAILS - SHEET 1
11-C-04-0027	R30-MET-DWG-CI-001-02501	TYPICAL DETAILS - SHEET 2
11-C-04-0028	R30-MET-DWG-CI-001-02502	TYPICAL DETAILS - SHEET 3
11-C-04-0029	R30-MET-DWG-CI-001-02503	TYPICAL DETAILS - SHEET 4
11-C-04-0030	R30-MET-DWG-CI-001-02504	TYPICAL DETAILS - SHEET 5
11-C-04-0031	R30-MET-DWG-CI-001-02505	TYPICAL DETAILS - SHEET 6
11-C-15-0085	R30-MET-DWG-CI-001-03000	DEMOLITION PLAN - SHEET 1
11-C-15-0086	R30-MET-DWG-CI-001-03001	DEMOLITION PLAN - SHEET 2
11-C-15-0087	R30-MET-DWG-CI-001-03100	EARTHWORKS CUT AND FILL PLAN
11-C-23-0065	R30-MET-DWG-CI-001-04000	DRAINAGE LAYOUT PLAN - SHEET 1
11-C-23-0066	R30-MET-DWG-CI-001-04001	DRAINAGE LAYOUT PLAN - SHEET 2
11-C-23-0067	R30-MET-DWG-CI-001-04100	DRAINAGE CATCHMENT PLAN - SHEET 1
11-C-18-0160	R30-MET-DWG-CI-001-05000	ROAD LAYOUT PLAN - SHEET 1
11-C-18-0161	R30-MET-DWG-CI-001-05001	ROAD LAYOUT PLAN - SHEET 2
11-C-15-0088	R30-MET-DWG-CI-001-05002	BUS LAYOUT AND ARRANGEMENT PLAN - SHEET 1
11-C-15-0089	R30-MET-DWG-CI-001-05003	BUS LAYOUT AND ARRANGEMENT PLAN - SHEET 2
11-C-15-0090	R30-MET-DWG-CI-001-05004	BUS LAYOUT AND ARRANGEMENT PLAN - SHEET 3
11-C-15-0091	R30-MET-DWG-CI-001-05005	BUS LAYOUT AND ARRANGEMENT PLAN - SHEET 4
11-C-15-0092	R30-MET-DWG-CI-001-05006	BUS LAYOUT AND ARRANGEMENT PLAN - SHEET 5
11-C-15-0093	R30-MET-DWG-CI-001-05007	BUS LAYOUT AND ARRANGEMENT PLAN - SHEET 6
11-C-15-0094	R30-MET-DWG-CI-001-05008	BUS LAYOUT AND ARRANGEMENT PLAN - SHEET 7
11-C-16-0001	R30-MET-DWG-CI-001-05100	LEVELS, LAYOUT AND GRADING PLAN
11-C-08-0010	R30-MET-DWG-CI-001-05900	TURNING TEMPLATES PLAN - SHEET 1
11-C-08-0011	R30-MET-DWG-CI-001-05901	TURNING TEMPLATES PLAN - SHEET 2
11-C-18-0162	R30-MET-DWG-CI-001-07000	PAVEMENT AND SURFACING PLAN - SHEET 1
11-C-18-0163	R30-MET-DWG-CI-001-07001	PAVEMENT AND SURFACING PLAN - SHEET 2
11-C-18-0164	R30-MET-DWG-CI-001-09000	PAVEMENT MARKING AND SIGNAGE PLAN - SHEET 1
11-C-18-0165	R30-MET-DWG-CI-001-09001	PAVEMENT MARKING AND SIGNAGE PLAN - SHEET 2
11-C-18-0166	R30-MET-DWG-CI-001-11000	COMBINED UTILITIES PLAN
11-C-19-0001	R30-MET-DWG-CI-001-02510	ENABLING WORKS - CIVIL WORKS - RETAINING WALL AND FENCING - GENERAL NOTES - SHEET 1
11-C-19-0002	R30-MET-DWG-CI-001-02511	ENABLING WORKS - CIVIL WORKS - RETAINING WALL AND FENCING - GENERAL NOTES - SHEET 2
11-C-19-0003	R30-MET-DWG-CI-001-02512	ENABLING WORKS - CIVIL WORKS - RETAINING WALL AND FENCING - GENERAL ARRANGEMENT PLAN - SHEET 1
11-C-19-0004	R30-MET-DWG-CI-001-02513	ENABLING WORKS - CIVIL WORKS - RETAINING WALL AND FENCING - GENERAL ARRANGEMENT PLAN - SHEET 2
11-C-19-0005	R30-MET-DWG-CI-001-02514	ENABLING WORKS - CIVIL WORKS - RETAINING WALL AND FENCING DETAILS - ELEVATIONS
11-C-19-0006	R30-MET-DWG-CI-001-02515	ENABLING WORKS - CIVIL WORKS - RETAINING WALL AND FENCING DETAILS - SECTIONS - SHEET 1
11-C-19-0007	R30-MET-DWG-CI-001-02516	ENABLING WORKS - CIVIL WORKS - RETAINING WALL AND FENCING DETAILS - SECTIONS - SHEET 2
11-C-19-0008	R30-MET-DWG-CI-001-02517	ENABLING WORKS - CIVIL WORKS - RETAINING WALL AND FENCING DETAILS - SECTIONS - SHEET 3
11-C-19-0009	R30-MET-DWG-CI-001-02518	ENABLING WORKS - CIVIL WORKS - RETAINING WALL AND FENCING DETAILS - SECTIONS - SHEET 4
11-C-19-0010	R30-MET-DWG-CI-001-02519	ENABLING WORKS - CIVIL WORKS - RETAINING WALL AND FENCING DETAILS - SHEET 1



LOCALITY PLAN
NTS

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
B.1	23/11/22	ISSUED FOR DA	YK	MBS	FO	RS
A	5/07/22	ISSUED FOR RD	FO	TM	YK	NM
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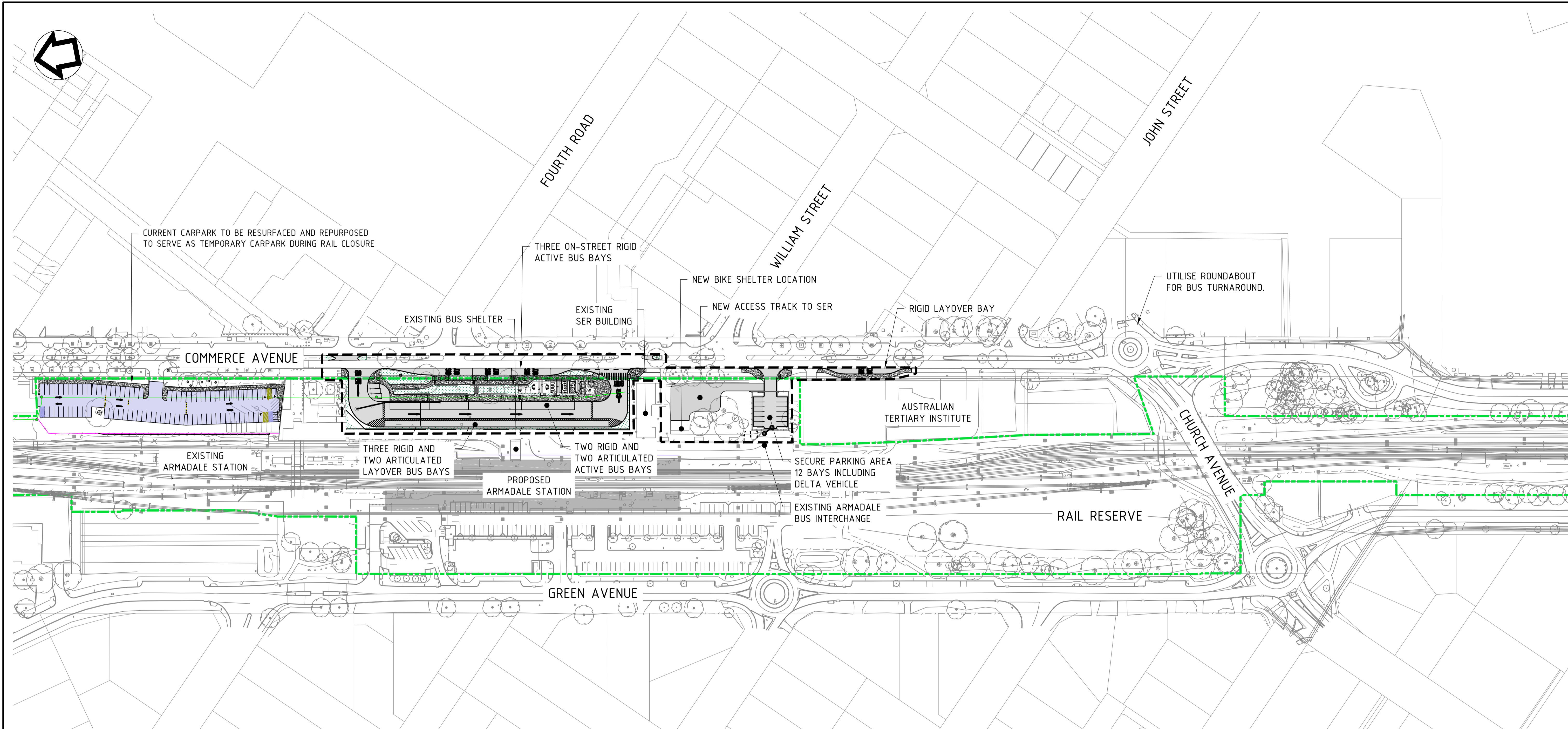
Contractor No: R30-MET-DWG-CI-001-01000 | Rev: B.1

REFERENCES	SCALE	DESIGNED	FO
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DATUM	HORIZONTAL: PCG2020	CHECKED	YK
VERTICAL: AHD71	APPROVED	APPROVED	NM
	DATE	DATE	5/07/22

ISSUED FOR DA

BYFORD RAIL EXTENSION

ENABLING WORKS
 CIVIL WORKS - TEMPORARY BUS INTERCHANGE
 COVER SHEET AND LOCALITY PLAN
 PTA Drawing No: 11-C-01-0035 | Rev: B.1

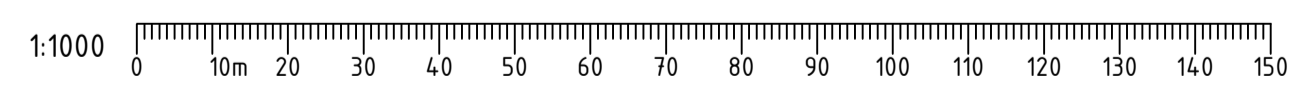


NOTE: ENABLING WORKS TO FACILITATE TRANSPERTH BUS OPERATIONS DURING PROPOSED RAIL SHUT DOWN PERIOD AND BASED ON TRANSPERTH REQUIREMENTS:

- 7 ACTIVE BAYS (INCLUDING 2x ARTICULATED)
- 6 LAYOVER BAYS (INCLUDING 2x ARTICULATED)
- 1 X TRANSIT OFFICER OFFICE AND SIGN ON
- 1 X TRANSIT OFFICER SUPERVISOR OFFICE
- 1 X STAFF TOILETS
- 1 X CRIB ROOM
- PUBLIC TOILETS
- 1 X OFFICE FOR SECURITY AND ADMIN TRANSIT OFFICER
- 1 X SECURE STORAGE AREA
- 1 X MALE STAFF SHOWER/CHANGE FACILITY
- 1 X FEMALE STAFF SHOWER/CHANGE FACILITY
- 1 X DDA TOILET
- 1 X TRANSWA BOOKING OFFICE

LEGEND

--- RAIL RESERVE BOUNDARY
 --- EXTENT OF WORKS BOUNDARY



REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
B.2	5/12/22	ISSUED FOR DA	YK	MBS	FO	RS
A	5/07/22	ISSUED FOR RD	FO	TM	YK	NM

ORIG SIZE: 0 10 20 30 40 50 100mm
 AT ORIGINAL PLOT SIZE



REFERENCES

- XR01GN_SURVEY_CI_001_PCG2020
- R30-DEA-CAD-ST-170-01001
- XR01GN_RAIL_RESERVE_BDY_PCG2020
- R30-MET-XRF-TR-100-00510
- R30-MET-XRF-TR-100-00310
- XR01GN_CADAstral_BDY_PCG2020
- R30-MET-XRF-CI-001-00001
- _LOGO_MetCONNX
- Temp Car North_07.11.22_OPTION 1_RevA
- R30-MET-XRF-CI-080-00001
- R30-MET-XRF-CI-200-00001_MBS
- Temp Car North_07.11.22_OPTION 1_RevB

SCALE

1:1000

DATUM

HORIZONTAL: PCG2020
 VERTICAL: AHD71

DESIGNED RT
DRAWN MBS
CHECKED YK
APPROVED AE
DATE 6/10/22

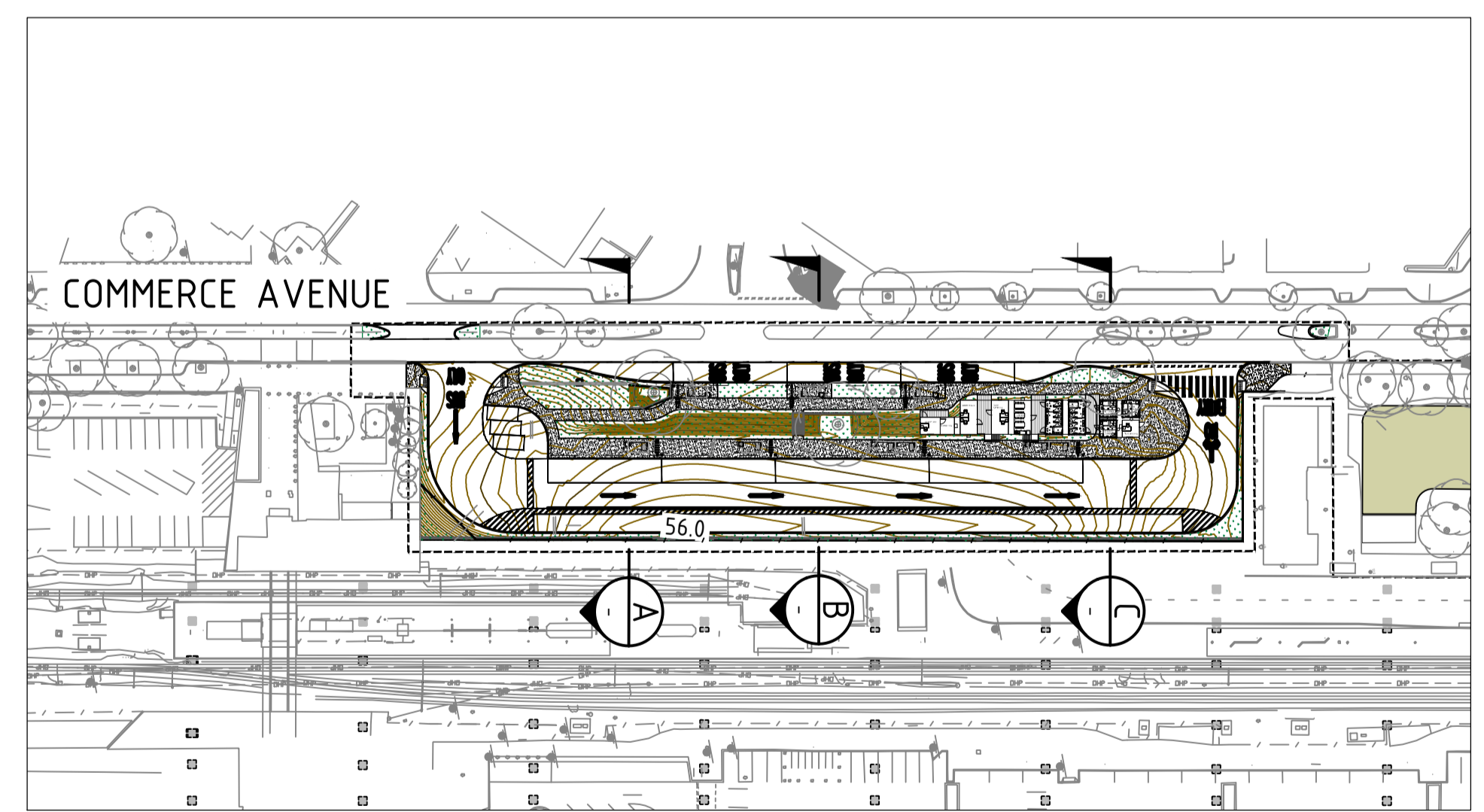
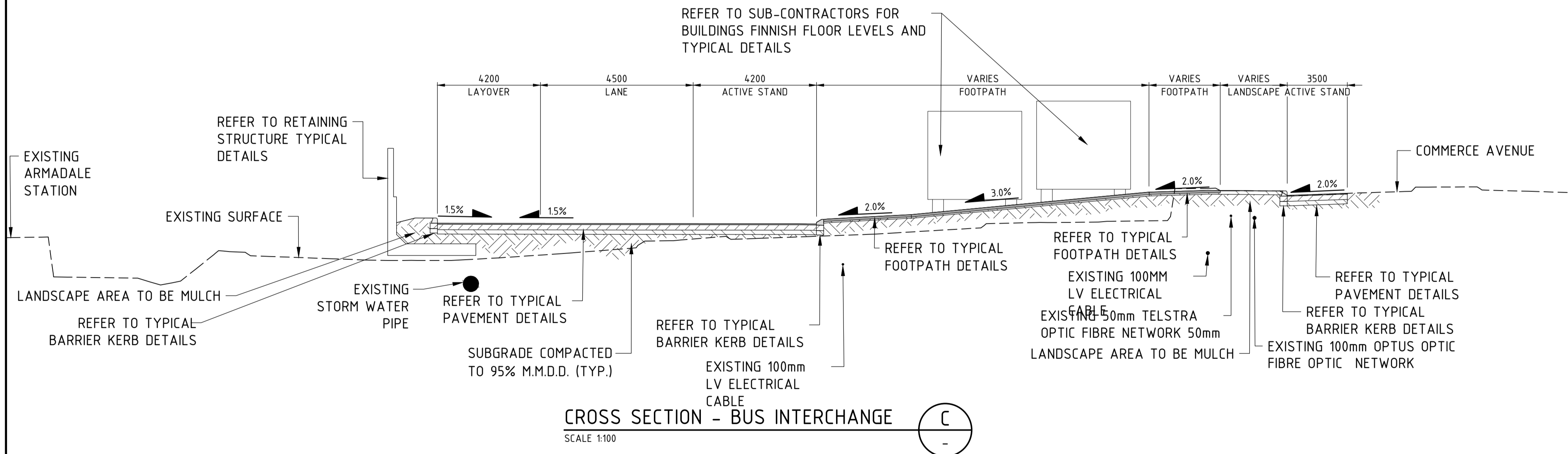
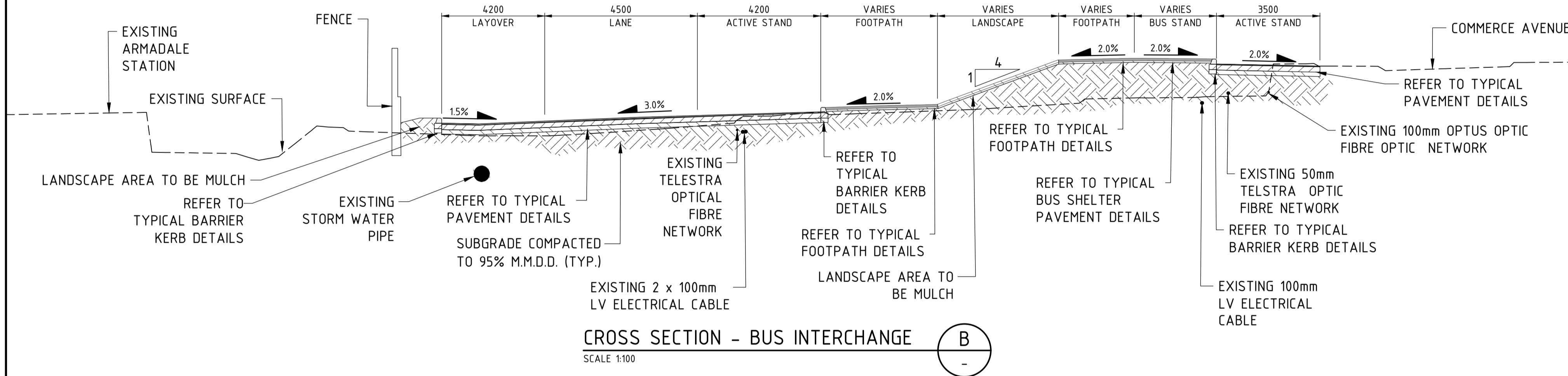
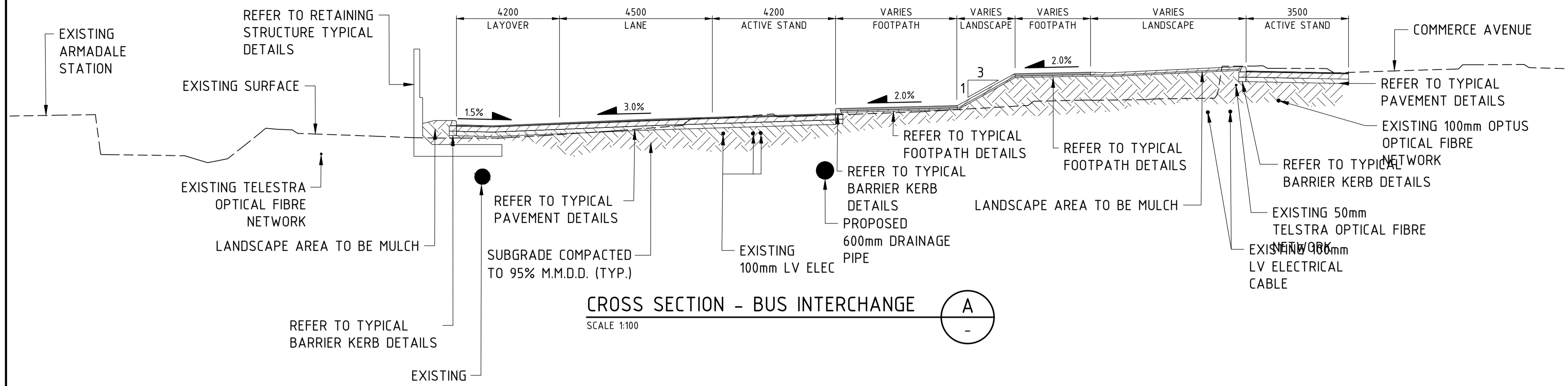
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 Public Transport Authority

BYFORD RAIL EXTENSION

ENABLING WORKS
 CIVIL WORKS - TEMPORARY BUS INTERCHANGE
 OVERALL LAYOUT PLAN

PTA Drawing No: 11-C-04-0025 Rev: B.2



CAUTION: HIGH PRESSURE GAS IN VICINITY.
 CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A.1	23/11/22	ISSUED FOR DA	YK	MBS	FO	RS
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REFERENCES
XR01GN_SURVEY_PCG2020 R30-MET-XRF-CI-001-00001 R30-DEA-XRF-ST-170-01001 _LOGO_METCONNX

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DATUM
HORIZONTAL: PCG2020 VERTICAL: AHD71

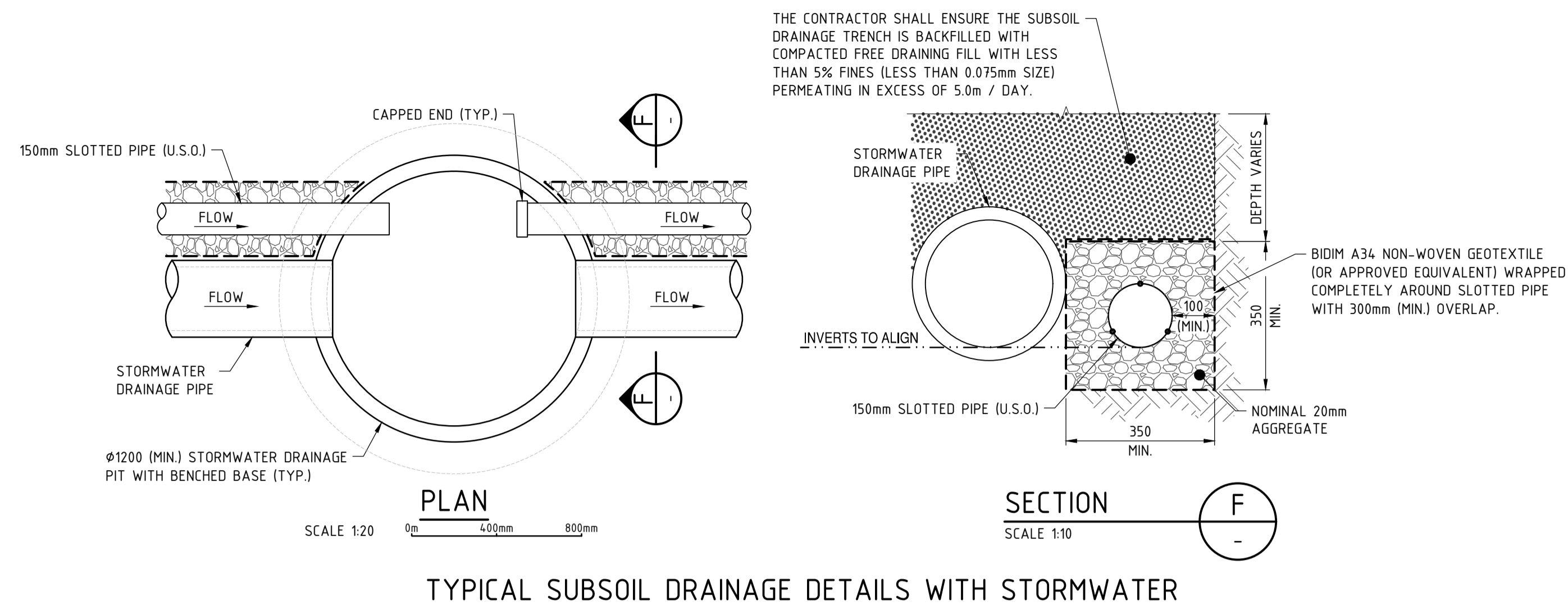
DESIGNED	RT
DRAWN	MBS
CHECKED	SN
APPROVED	AE
DATE	29/09/22

ISSUED FOR DA

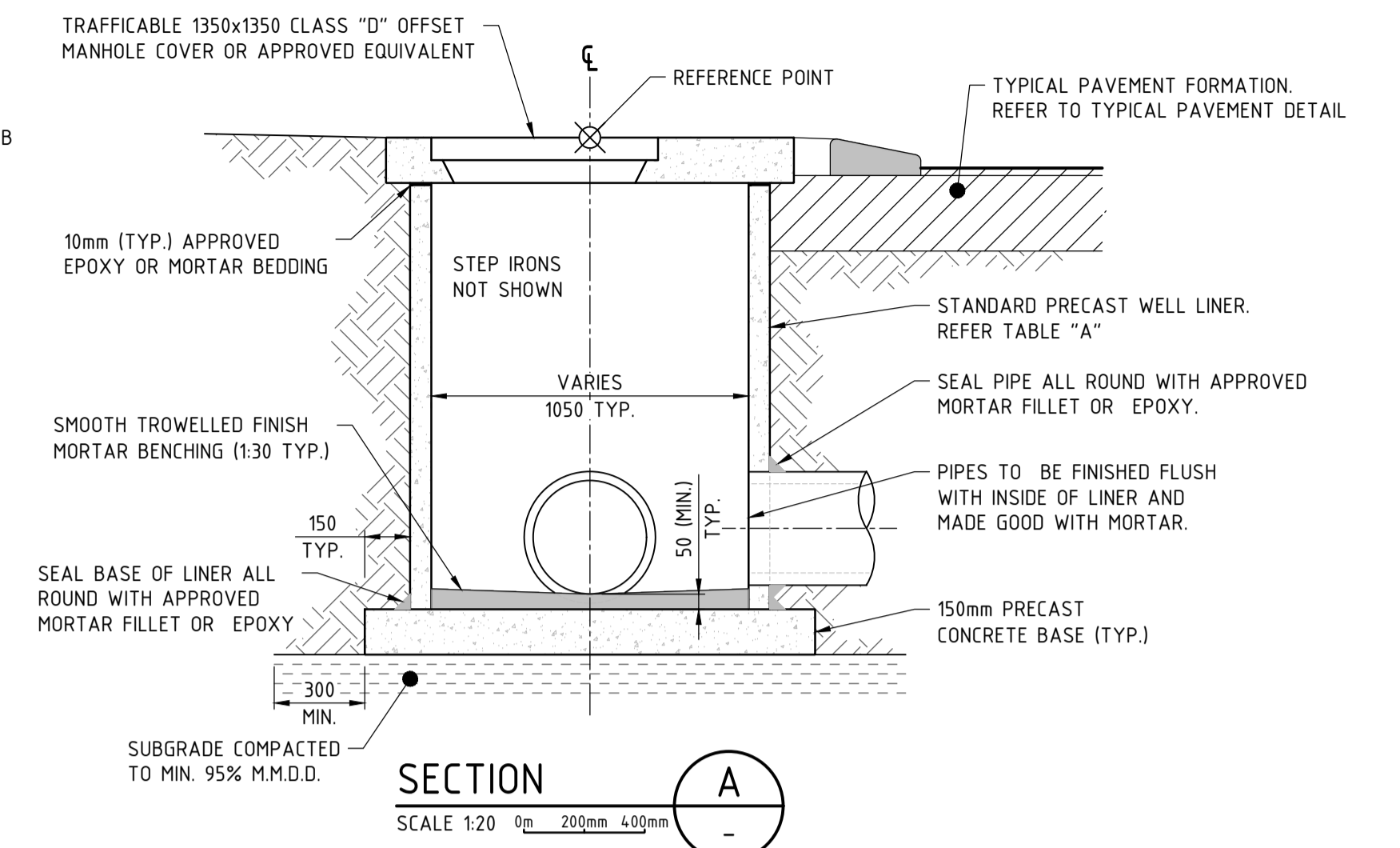
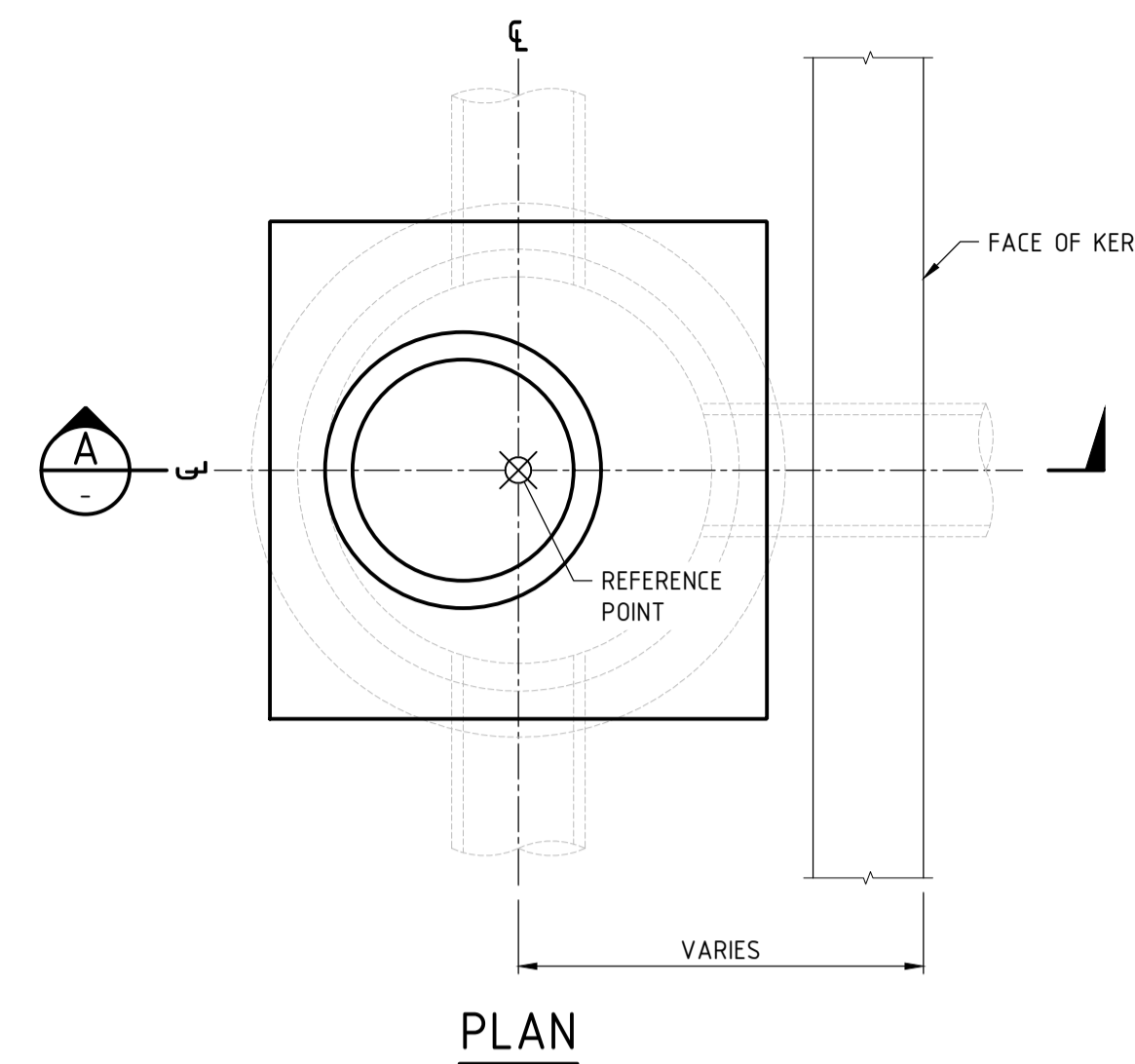
BYFORD RAIL EXTENSION

ENABLING WORKS
 CIVIL WORKS - TEMPORARY BUS INTERCHANGE
 TYPICAL CROSS SECTIONS

PTA Drawing No: **11-C-04-0038** Rev: **A.1**



TYPICAL SUBSOIL DRAINAGE DETAILS WITH STORMWATER



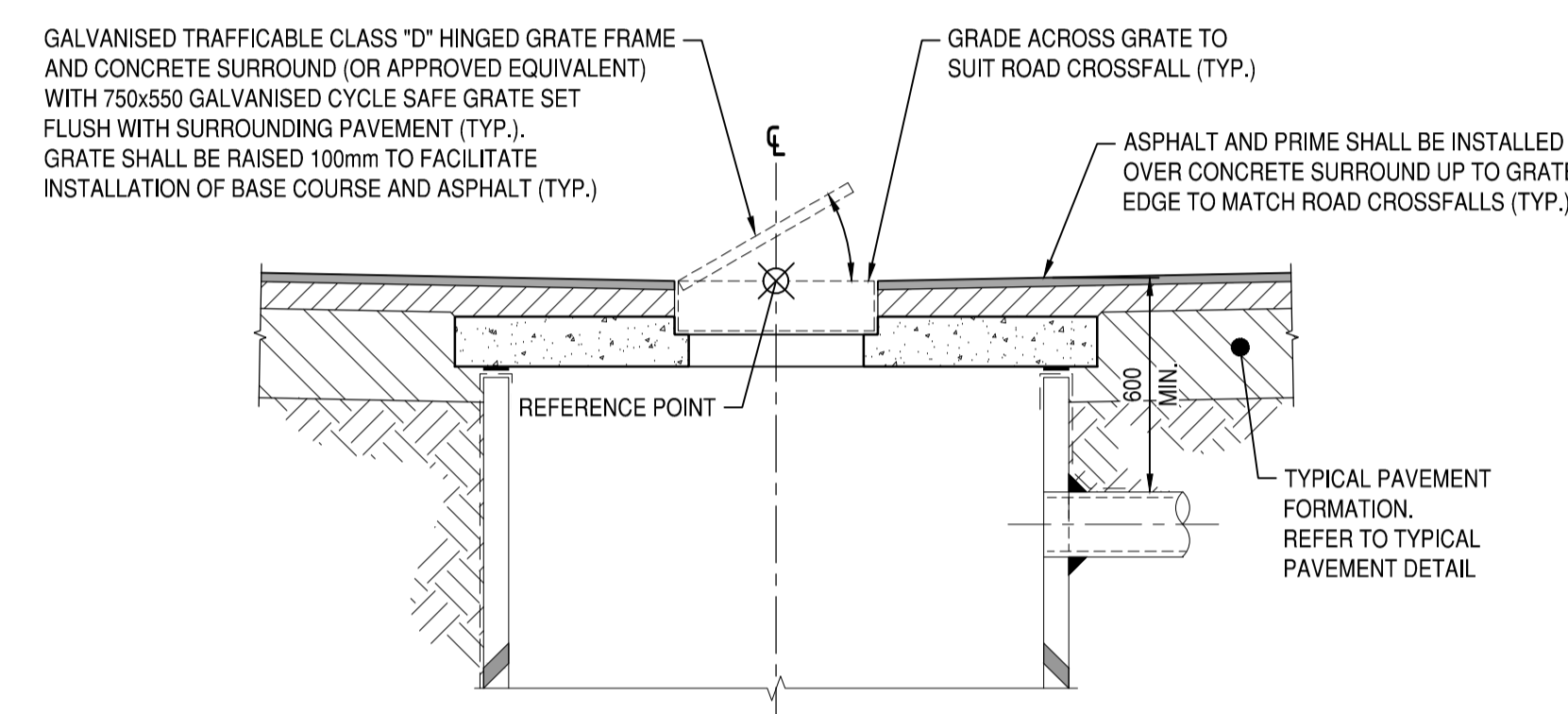
TYPICAL MANHOLE

TABLE A DRAINAGE PIT LINER SIZE		
NOM. LINER SIZE (mm)	PIPE SIZE MAX. (mm)	LINER TYPE
Ø 1050	Ø 450	CONCRETE
Ø 1200	Ø 600	CONCRETE
Ø 1500	Ø 750	CONCRETE
Ø 1800	Ø 900	CONCRETE
Ø 2250	Ø 1050	CONCRETE
N/A	N/A	CUSTOM

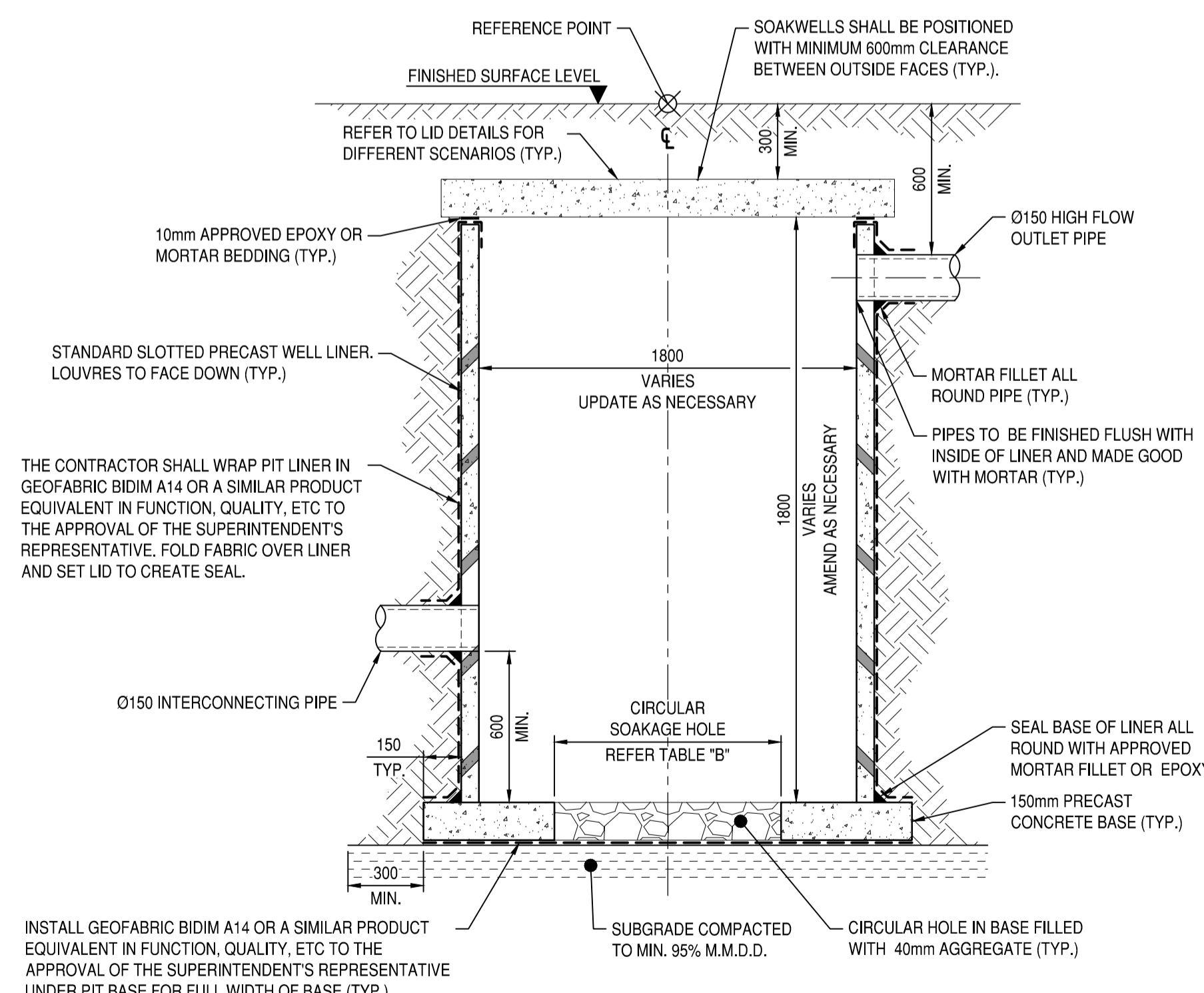
FOR PIPES Ø 1200 AND LARGER INSTALL A CUSTOM CHAMBER TO SUIT.

STORMWATER PIT NOTES

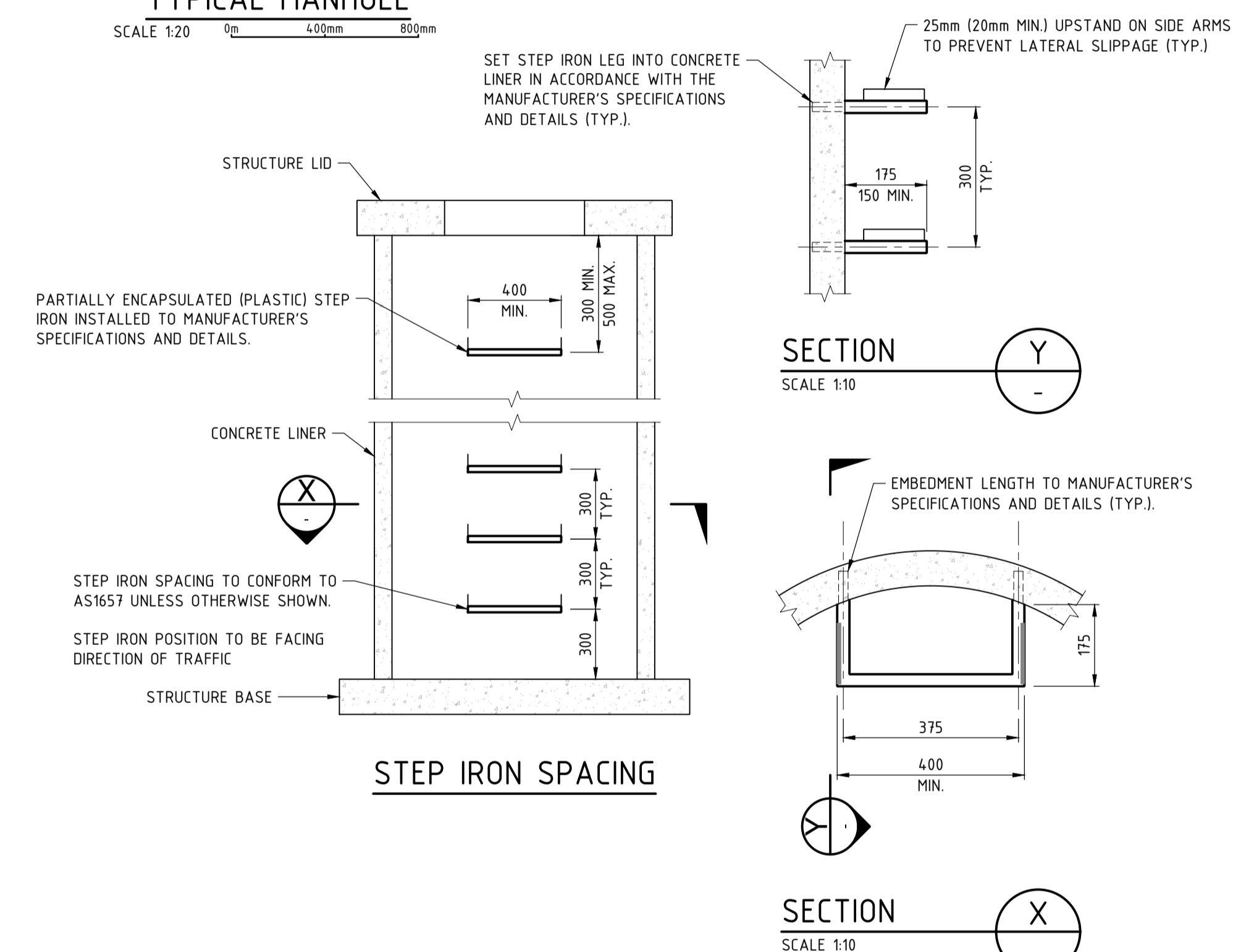
- ALL INSITU CONCRETE SHALL BE CLASS N32 IN ACCORDANCE WITH A1379.
- ALL INSITU CONCRETE CORNERS SHALL HAVE A 20mm CHAMFER UNLESS OTHERWISE NOTED.
- CEMENT MORTAR SHALL CONSIST OF ONE PART CEMENT AND THREE PARTS SAND.
- SL81 REINFORCEMENT SHALL CONFORM WITH HARD DRAWN FABRIC TO AS4671.
- MINIMUM CLEAR COVER TO REINFORCEMENT SHALL BE 50mm.
- THE LINER SHALL BE REINFORCED CONCRETE MANUFACTURED TO AS4058.
- THE MAXIMUM INLET/OUTLET PIPE OUTSIDE DIAMETER SHALL BE LESS THAN 60% OF THE LINER INTERNAL DIAMETER.
- MINIMUM OF 40% OF LINER SHALL REMAIN IN ANY HORIZONTAL PLANE.
- MINIMUM INTERNAL LINER SPACE OF 200mm BETWEEN PUNCHED/CUT HOLES.
- HOLES TO BE CUT/PUNCHED ON ACCORDANCE WITH MANUFACTURER'S SPECIFICATION.
- THE LINER SHALL HAVE EQUIVALENT PROPERTIES AND REINFORCEMENT OF CLASS 2 R.C.P. EXCEPT THAT THE REINFORCEMENT SHALL BE CIRCULAR.
- FOR STRUCTURES DEEPER THAN 1000mm, STEP IRONS OR PREFABRICATED GALVANISED STEEL LADDER SHALL BE FITTED. THE LADDER SHALL BE FIXED WITH STAINLESS STEEL MASONARY ANCHORS IN ACCORDANCE WITH AS1657.
- ORIENTATE STEP IRONS OR LADDER TO ENABLE EASY ACCESS AND TO FACE ONCOMING TRAFFIC.
- COVERS SHALL BE CLASS 'D' TO AS3996.
- SIDE ENTRY PIT APRON SHALL BE A COMBINATION OF PROPRIETARY MATCHING FRAME (UNIVERSAL SIDE ENTRY FRAME OR APPROVED EQUIVALENT) AND AN APPROVED APRON DEFLECTOR SLAB.
- SIDE ENTRY PIT COVER AND APRON SHALL SATISFY THE FOLLOWING CRITERIA:
 VERTICAL OPENING: 120mm MIN. 150mm MAX.
 HORIZONTAL OPENING: 880mm MIN.
 APRON GRADE: 3% WITH VERTICAL DEFLECTORS



TYPICAL INVERTED GULLY GRATE LID DETAIL (GSW) WITH ASPHALT PAVEMENT



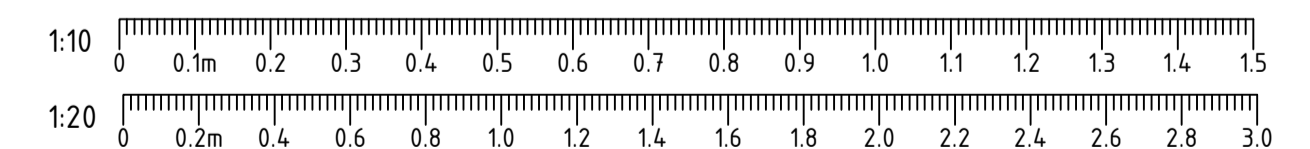
TYPICAL INTERCONNECTED SOAKWELL DETAIL



TYPICAL STORMWATER PIT STEP IRON DETAIL PARTIALLY ENCAPSULATED FOR CONCRETE STRUCTURE

SCALE 1:20 0m 400mm 800mm

NOTE:
STEP IRONS SHALL CONFORM WITH AS1657 AND THE CIVIL SPECIFICATIONS AND DETAILS



REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
B.1	23/11/22	ISSUED FOR DA	YK	MBS	FO	RS
A	5/07/22	ISSUED FOR RD	FO	TM	YK	NM

ORIG SIZE: A1
AT ORIGINAL PLOT SIZE

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Contractor No: R30-MET-DWG-CL-001-02500 Rev: B.1

REFERENCES	SCALE
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DATUM	HORIZONTAL: PCG2020 VERTICAL: AHD71

DESIGNED	DRAWN	CHECKED	APPROVED	DATE
RT	MBS	YK	AE	6/10/22

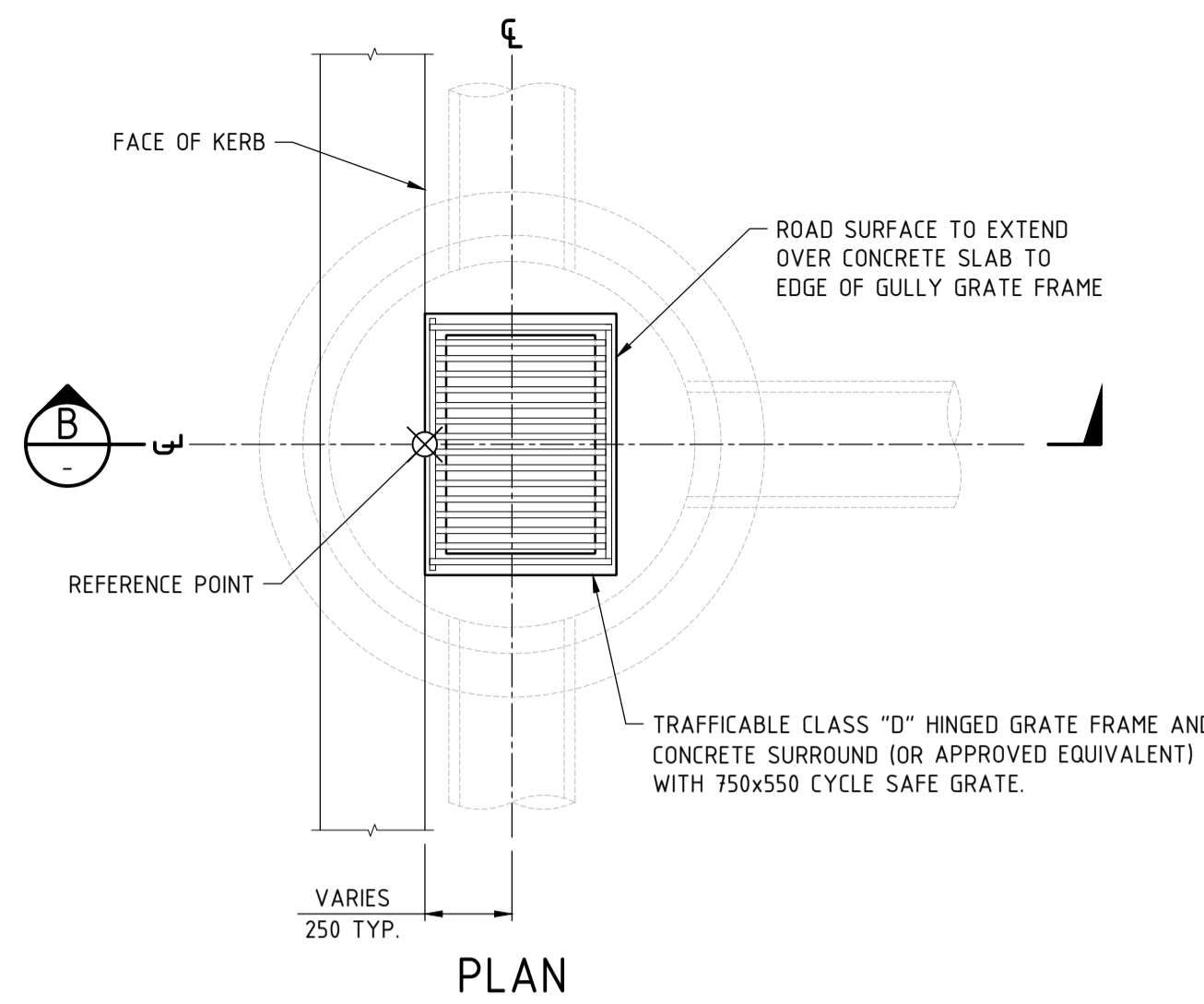
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Public Transport Authority

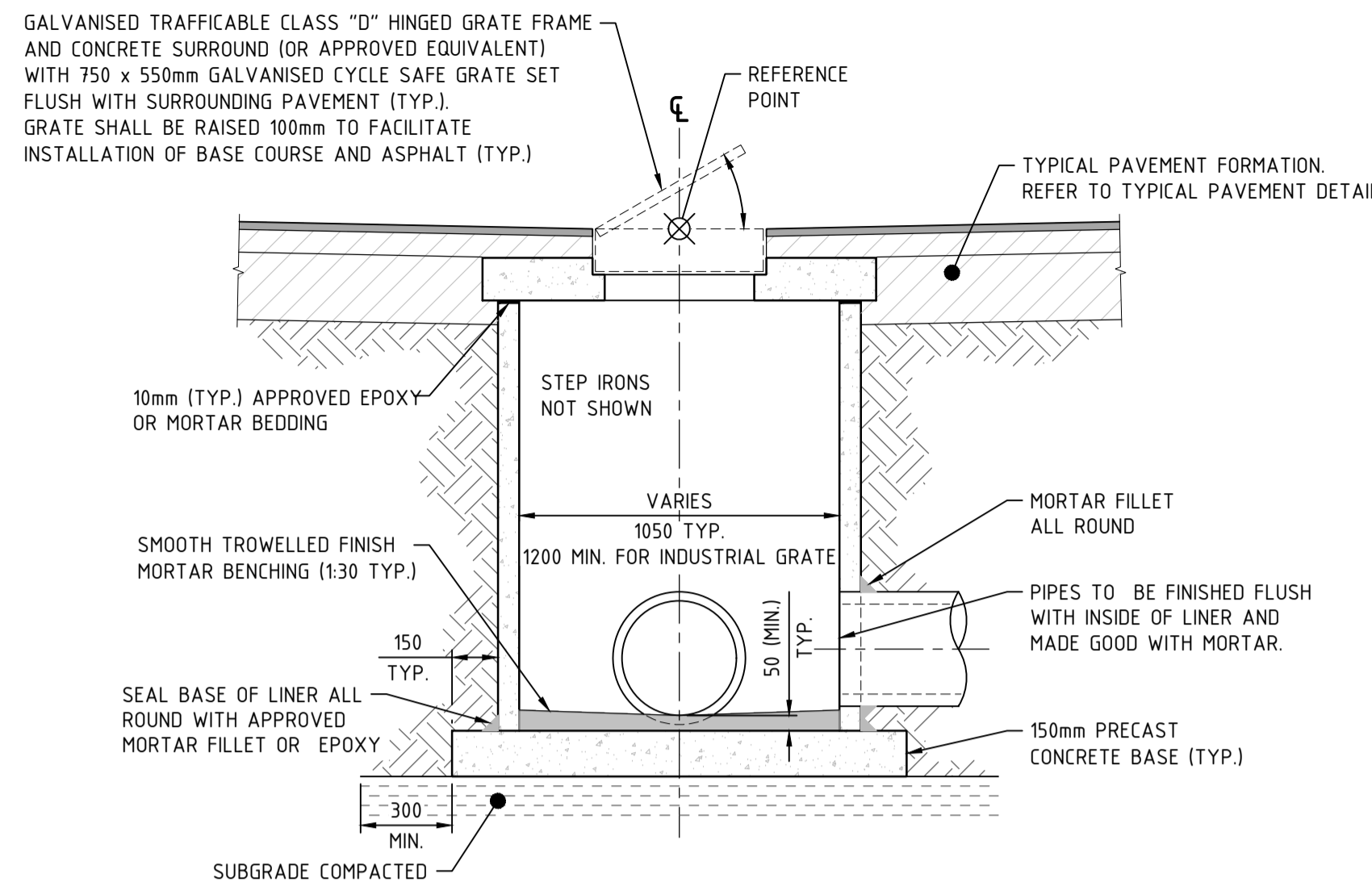
BYFORD RAIL EXTENSION

ENABLING WORKS
CIVIL WORKS - TEMPORARY BUS INTERCHANGE
TYPICAL DETAILS - SHEET 1

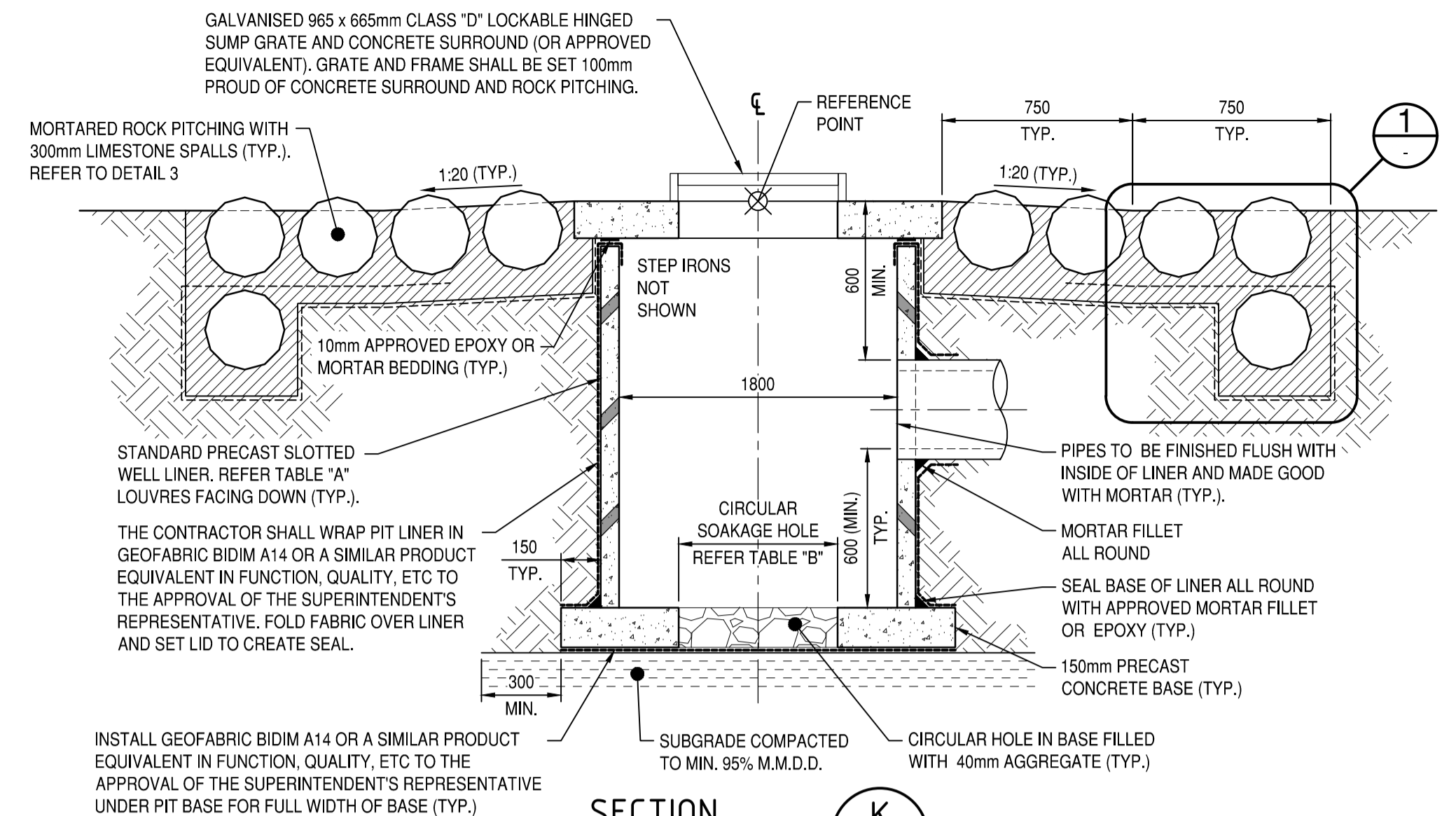
PTA Drawing No: 11-C-04-0026 Rev: B.1



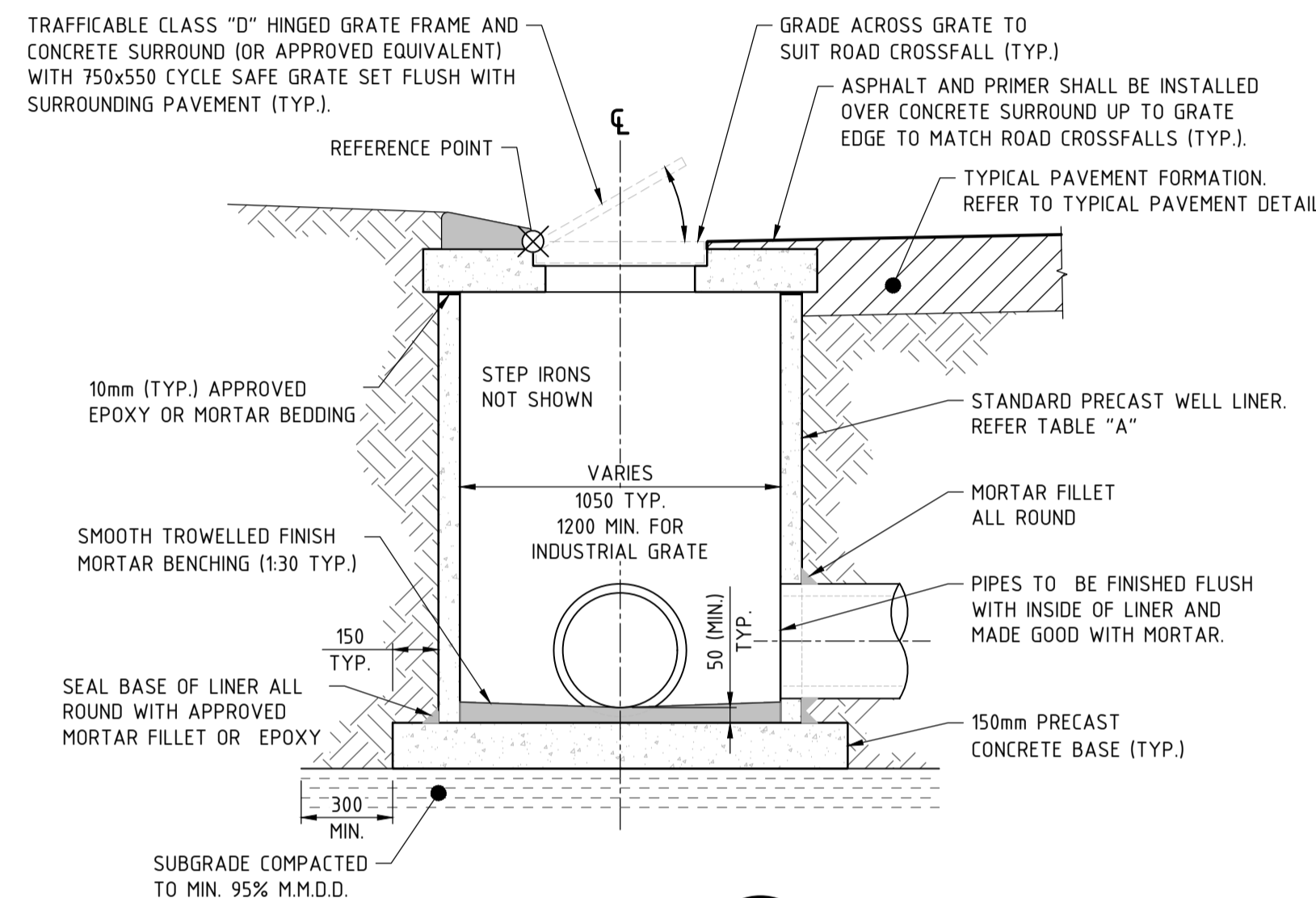
PLAN



SECTION G
SCALE 1:20

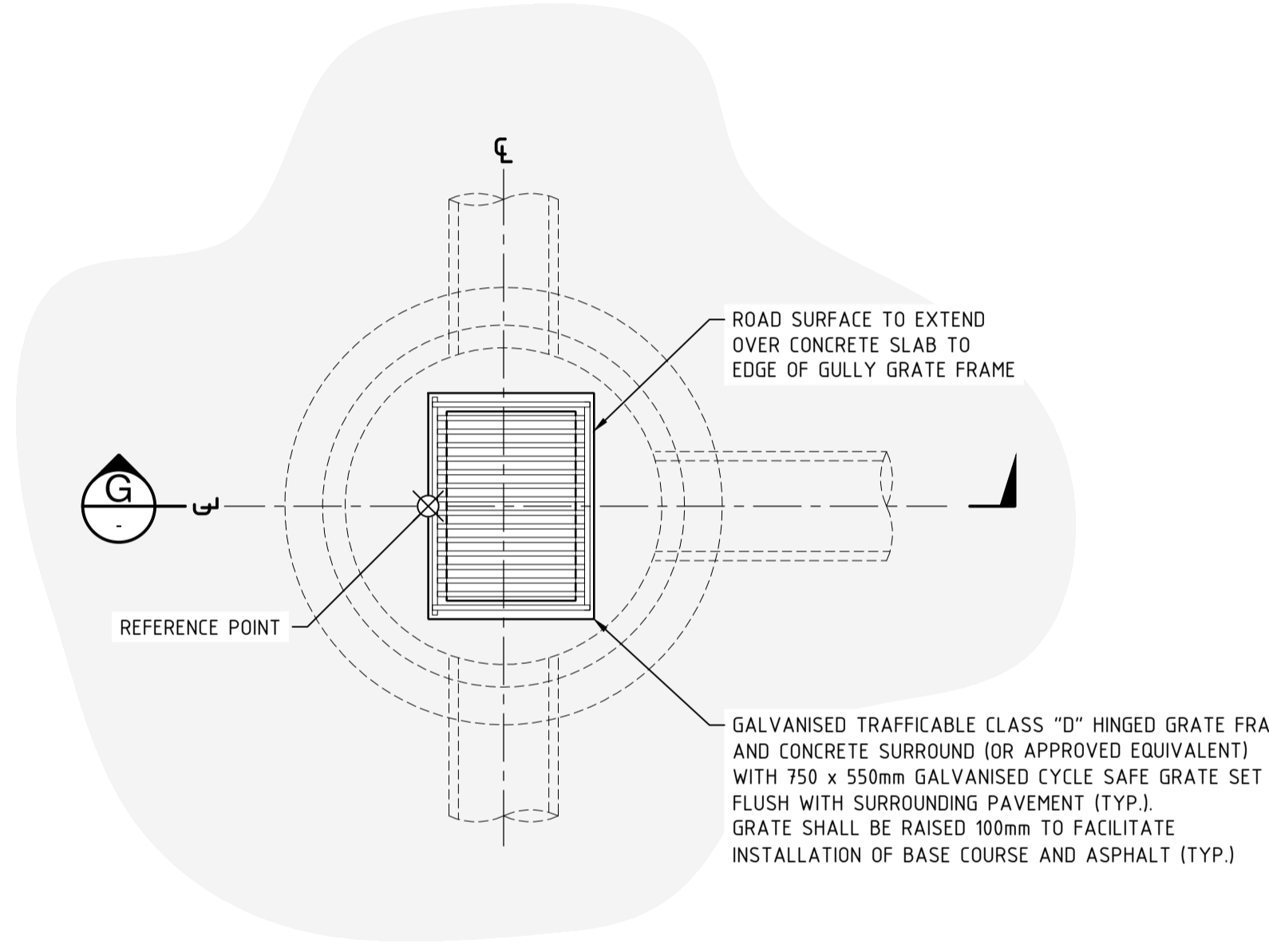


SECTION K
SCALE 1:20



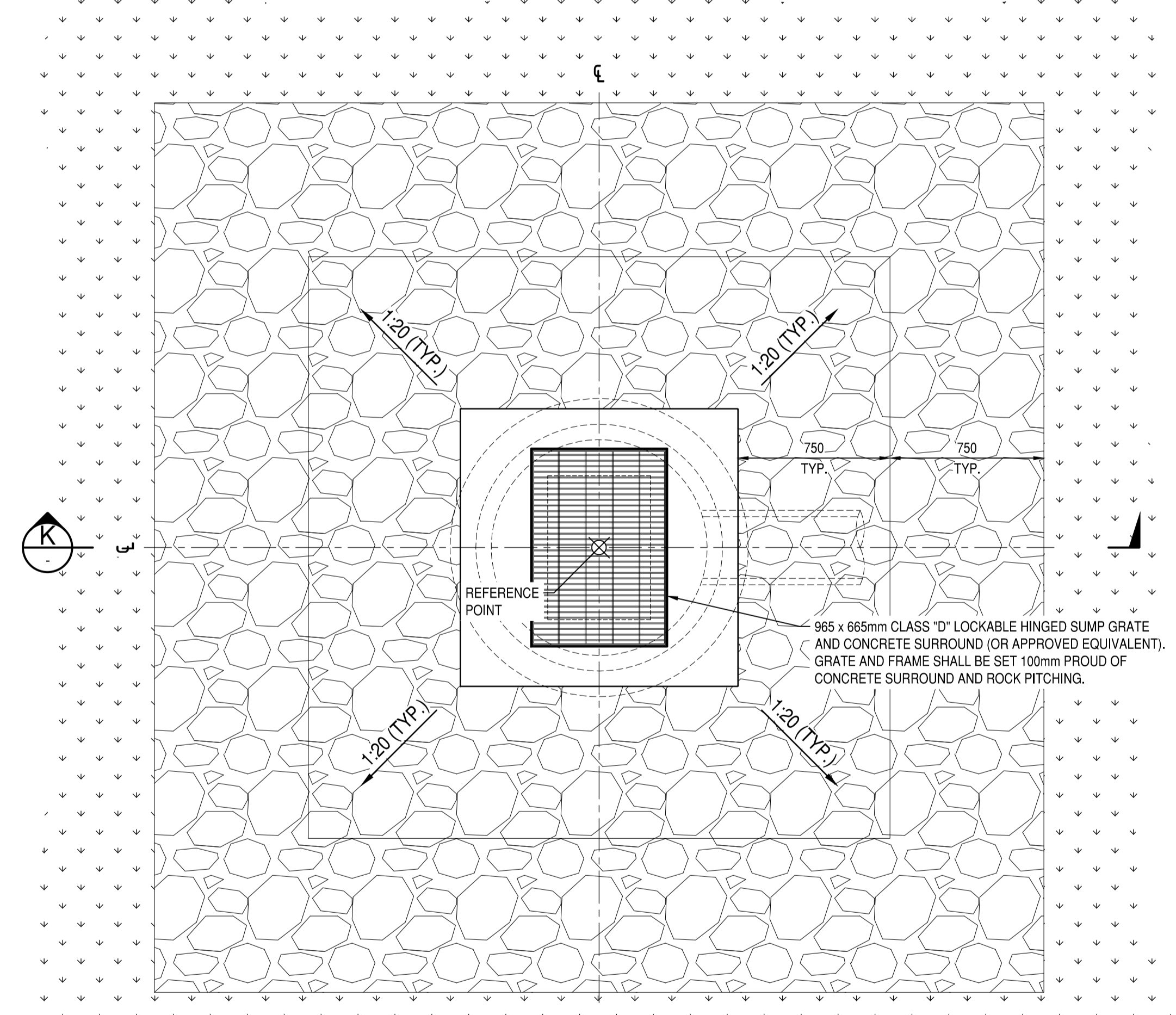
SECTION B
SCALE 1:20

TYPICAL GULLY GRATE PIT ON KERB
SCALE 1:20



PLAN

TYPICAL STORMWATER INVERTED CROWN GULLY PIT (VGB) - BENCHED
SCALE 1:20



PLAN

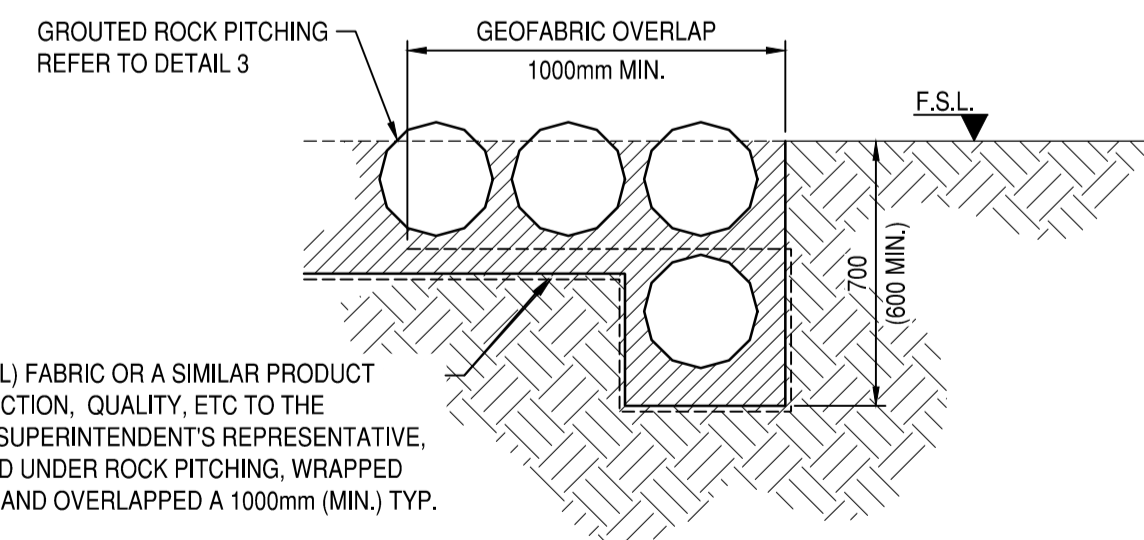
TYPICAL STORMWATER BUBBLE-UP SUMP GRATE PIT (BUP)
SCALE 1:20

STORMWATER PIT NOTES

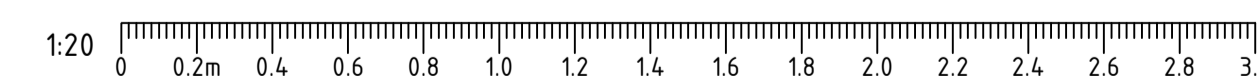
- ALL INSITU CONCRETE SHALL BE CLASS N32 IN ACCORDANCE WITH A1379.
- ALL INSITU CONCRETE CORNERS SHALL HAVE A 20mm CHAMFER UNLESS OTHERWISE NOTED.
- CEMENT MORTAR SHALL CONSIST OF ONE PART CEMENT AND THREE PARTS SAND.
- SLAB REINFORCEMENT SHALL CONFORM WITH HARD DRAWN FABRIC TO AS4671.
- MINIMUM CLEAR COVER TO REINFORCEMENT SHALL BE 50mm.
- THE LINER SHALL BE REINFORCED CONCRETE MANUFACTURED TO AS4058.
- THE MAXIMUM INLET/OUTLET PIPE OUTSIDE DIAMETER SHALL BE LESS THAN 60% OF THE LINER INTERNAL DIAMETER.
- MINIMUM OF 40% OF LINER SHALL REMAIN IN ANY HORIZONTAL PLANE.
- MINIMUM INTERNAL LINER SPACE OF 200mm BETWEEN PUNCHED/CUT HOLES.
- HOLES TO BE CUT/PUNCHED ON ACCORDANCE WITH MANUFACTURER'S SPECIFICATION.
- THE LINER SHALL HAVE EQUIVALENT PROPERTIES AND REINFORCEMENT OF CLASS 2 R.C.P. EXCEPT THAT THE REINFORCEMENT SHALL BE CIRCULAR.
- FOR STRUCTURES DEEPER THAN 1000mm, STEP IRONS OR PREFABRICATED GALVANISED STEEL LADDER SHALL BE FITTED. THE LADDER SHALL BE FIXED WITH STAINLESS STEEL MASONRY ANCHORS IN ACCORDANCE WITH AS1657.
- ORIENTATE STEP IRONS OR LADDER TO ENABLE EASY ACCESS AND TO FACE ONCOMING TRAFFIC.
- COVERS SHALL BE CLASS "D" TO AS3996.
- SIDE ENTRY PIT APRON SHALL BE A COMBINATION OF PROPRIETARY MATCHING FRAME (UNIVERSAL SIDE ENTRY FRAME OR APPROVED EQUIVALENT) AND AN APPROVED APRON DEFLECTOR SLAB.
- SIDE ENTRY PIT COVER AND APRON SHALL SATISFY THE FOLLOWING CRITERIA:
VERTICAL OPENING: 120mm MIN. 150mm MAX.
HORIZONTAL OPENING: 880mm MIN.
APRON GRADE: 3% WITH VERTICAL DEFLECTORS

NOM. LINER SIZE (mm)	PIPE SIZE MAX. (mm)	LINER TYPE
Ø 1050	Ø 450	CONCRETE
Ø 1200	Ø 600	CONCRETE
Ø 1500	Ø 750	CONCRETE
Ø 1800	Ø 900	CONCRETE
Ø 2250	Ø 1050	CONCRETE
N/A	N/A	CUSTOM

FOR PIPES Ø1200 AND LARGER INSTALL A CUSTOM CHAMBER TO SUIT.



DETAIL 1
SCALE 1:20



REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
B.1	23/11/22	ISSUED FOR DA	YK	MBS	FO	RS
A	5/07/22	ISSUED FOR RD	FO	TM	YK	NM

ORIG SIZE: A1
AT ORIGINAL PLOT SIZE

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REFERENCES	SCALE	DESIGNED
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	DATUM	DRAWN
	HORIZONTAL: PCG2020	MBS
	VERTICAL: AHD71	YK
		CHECKED
		APPROVED
		AE
		DATE
		6/10/22

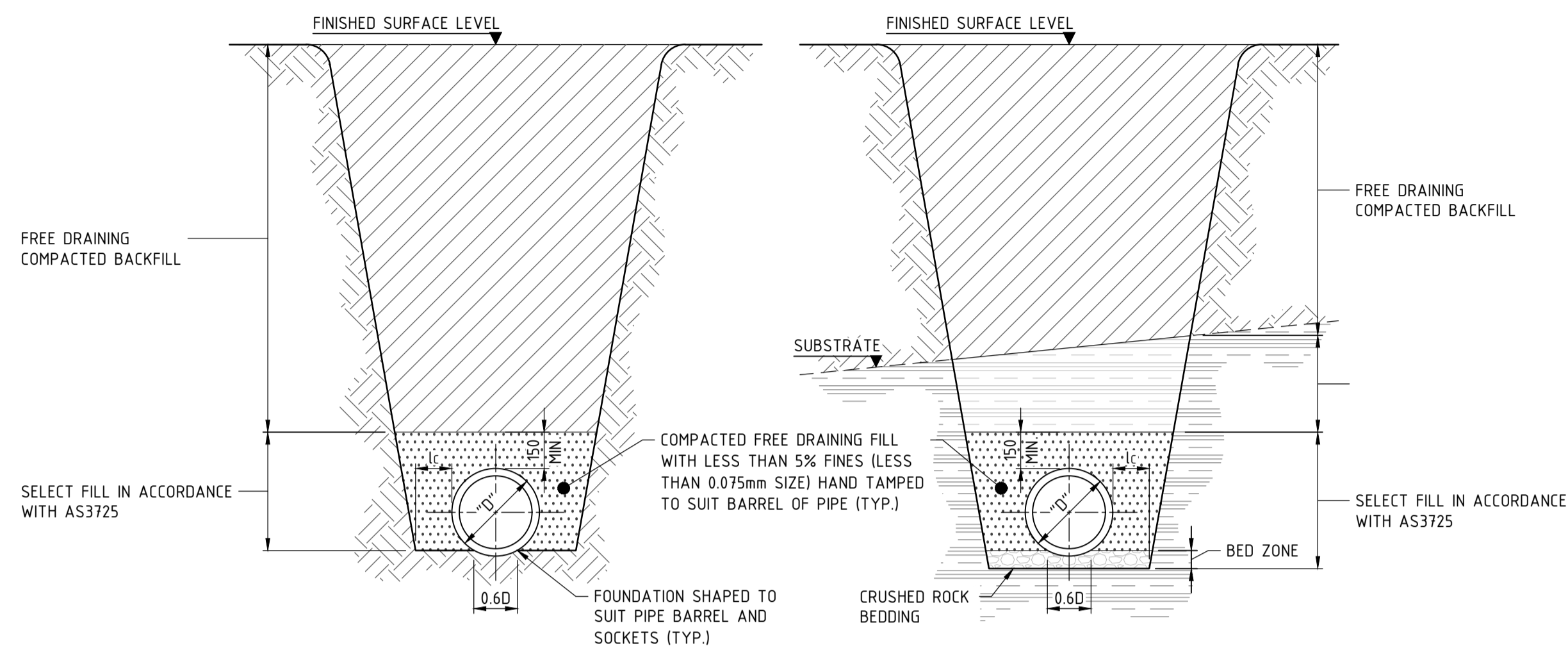
ISSUED FOR DA

Government of Western Australia
Public Transport Authority

BYFORD RAIL EXTENSION

ENABLING WORKS
CIVIL WORKS - TEMPORARY BUS INTERCHANGE
TYPICAL DETAILS - SHEET 2

PTA Drawing No: **11-C-04-0027** Rev: **B.1**



DRY CONDITIONS

WET CONDITIONS

TYPICAL CONCRETE PIPE TRENCH DETAILS

(SUPPORT TYPE "U")

SCALE 1:20 0m 400mm 800mm

MINIMUM BED ZONE DEPTHS	
SUPPORT TYPE	DEPTH (mm)
U	75
H / HS ≤ φ1500	100
H / HS > φ1500	150

MINIMUM SIDE CLEARANCE "Lc" (D/6 or Lc, WHICHEVER IS GREATER)	
PIPE DIAMETER	Lc
≤600	150
>600 - ≤1200	200
>1200	D/6

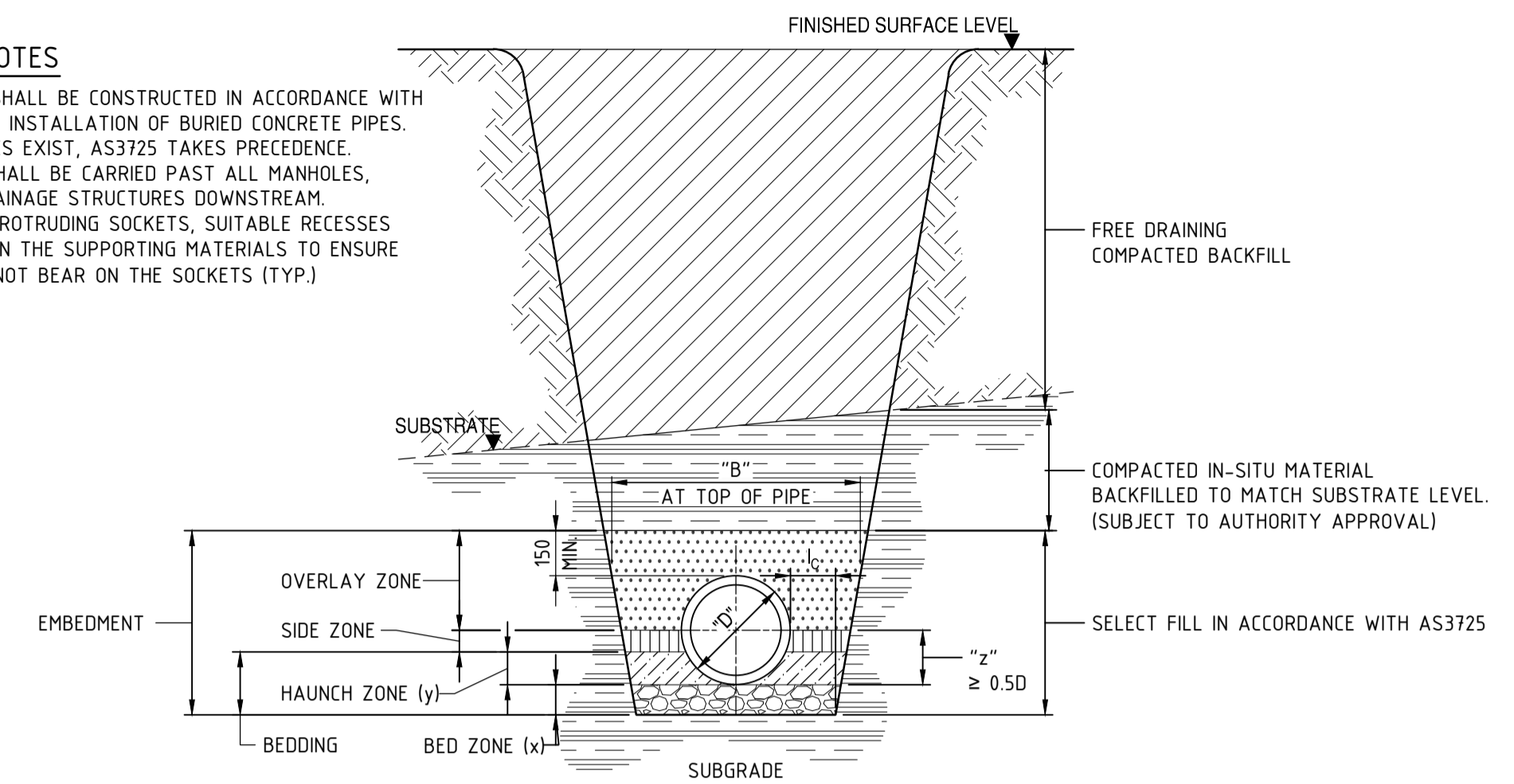
NOTE: THE MINIMUM Lc VALUES SHALL ONLY BE USED WHERE NECESSARY COMPACTION VALUES CAN BE ASSURED.

TRENCH DETAIL NOTES

- ALL PIPE TRENCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AS3725 - DESIGN FOR INSTALLATION OF BURIED CONCRETE PIPES. SHOULD DISCREPANCIES EXIST, AS3725 TAKES PRECEDENCE.
- DRY CONDITIONS SHALL BE SAND SOIL WHERE THE MAXIMUM PREDICTED GROUND WATER LEVEL (G.W.L.) IS A MINIMUM 300mm BELOW PIPE INVERT.
- WET CONDITIONS SHALL BE CONSIDERED AS BEING IN ROCK, CLAY OR SAND WHERE THE MAXIMUM PREDICTED G.W.L. IS HIGHER THAN 300mm BELOW PIPE INVERT.
- BEDDING CONDITION SHALL BE CARRIED PAST ALL MANHOLES, GULLIES & OTHER DRAINAGE STRUCTURES DOWNSTREAM.
- WHERE PIPES HAVE PROTRUDING SOCKETS, SUITABLE RECESSES SHALL BE PROVIDED IN THE SUPPORTING MATERIALS TO ENSURE THAT THE PIPES DO NOT BEAR ON THE SOCKETS (TYP.)

TRENCH DETAIL NOTES

- ALL PIPE TRENCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AS3725 - DESIGN FOR INSTALLATION OF BURIED CONCRETE PIPES. SHOULD DISCREPANCIES EXIST, AS3725 TAKES PRECEDENCE.
- BEDDING CONDITION SHALL BE CARRIED PAST ALL MANHOLES, GULLIES & OTHER DRAINAGE STRUCTURES DOWNSTREAM.
- WHERE PIPES HAVE PROTRUDING SOCKETS, SUITABLE RECESSES SHALL BE PROVIDED IN THE SUPPORTING MATERIALS TO ENSURE THAT THE PIPES DO NOT BEAR ON THE SOCKETS (TYP.)



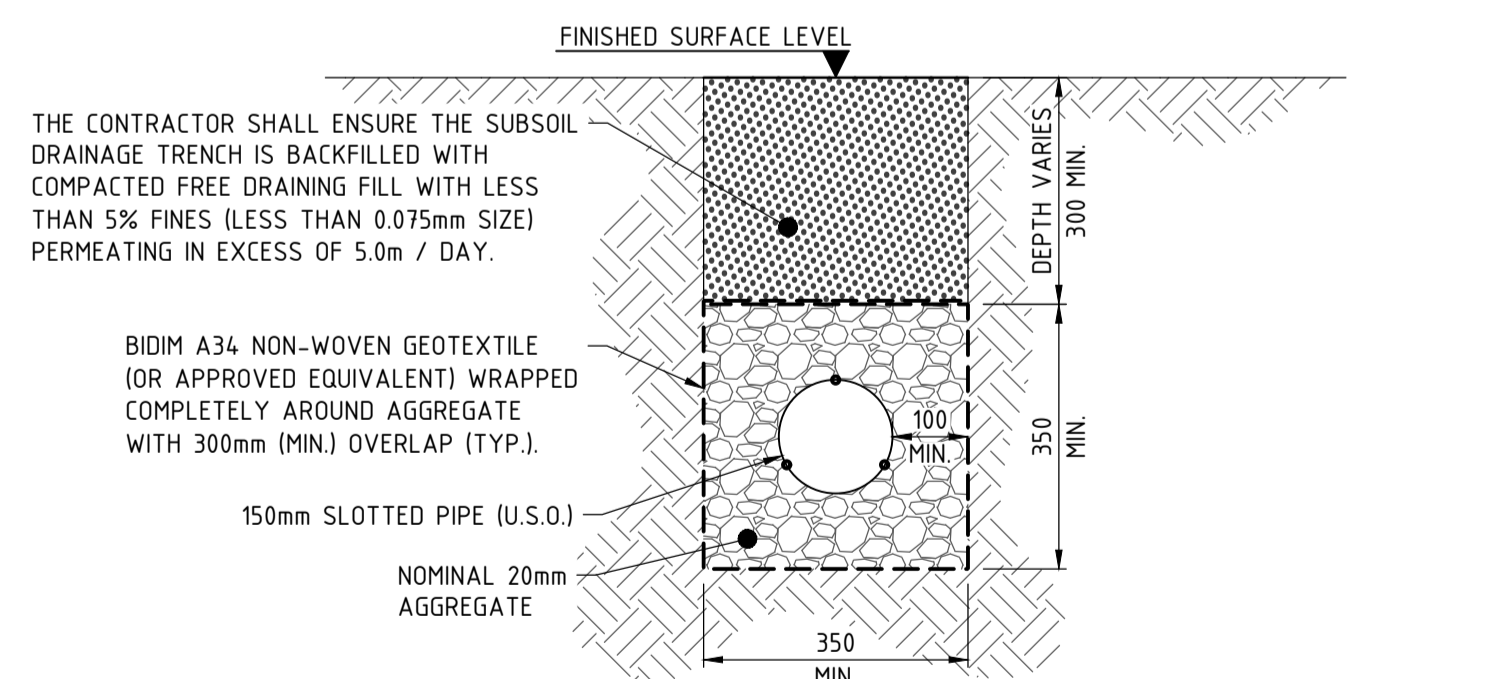
"H" AND "HS" PIPE TRENCH DETAILS									
PIPE I.D. (mm)	PIPE O.D. (mm) "D"	MINIMUM TRENCH WIDTH "B" (mm)	MINIMUM BED ZONE DEPTHS "x"			MINIMUM SIDE CLEARANCE "Lc"			
			SUPPORT TYPE	DEPTH (mm)	mm	PIPE DIAMETER	Lc		
300	362	650	H / HS ≤ φ1500	100	HAUNCH ZONE "y" = 0.10	HAUNCH ZONE "y" = 0.30	BEDDING "z" ≥ 0.50	≤600	150
375	445	750			37	109	185		
450	534	850			45	134	225		
525	616	900			54	161	270		
600	698	1000	H / HS > φ1500	150	62	185	310	>600 - ≤1200	200
750	864	1150			70	210	350		
900	1042	1400			87	260	435		
1050	1220	1650			105	313	525		
1200	1372	1850			122	366	610	>1200	D/6
					138	412	690		

NOTE: THE MINIMUM VALUES SHALL ONLY BE USED WHERE NECESSARY COMPACTION VALUES CAN BE ASSURED.

TYPICAL CONCRETE PIPE TRENCH DETAILS

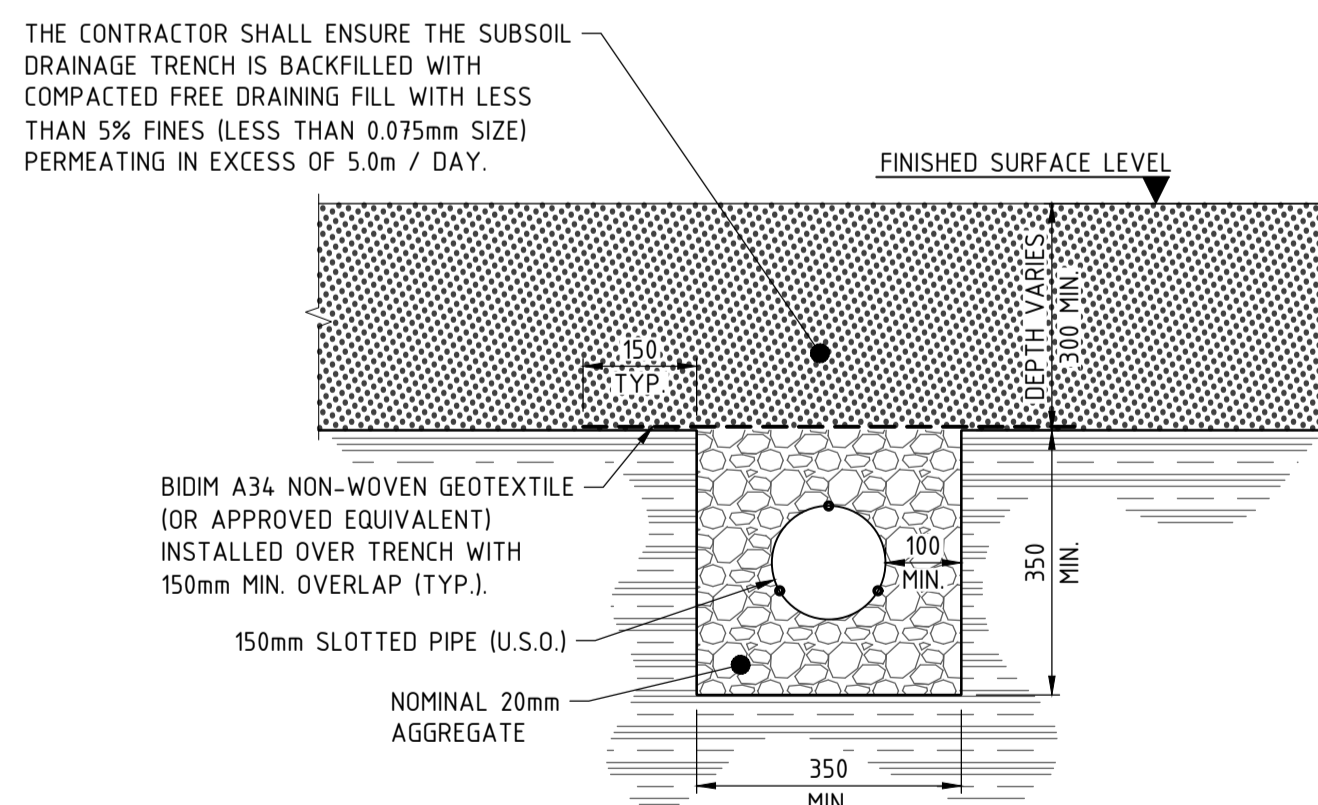
(SUPPORT TYPE "H" AND "HS")

SCALE 1:20 0m 400mm 800mm



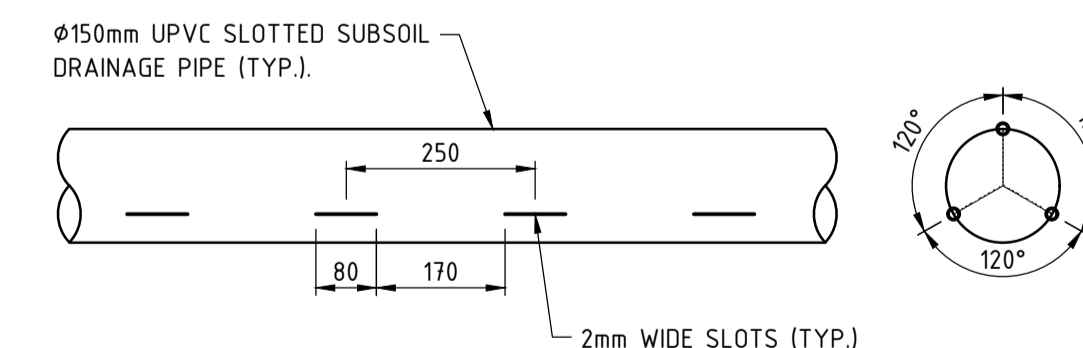
TYPICAL SUBSOIL DRAINAGE TRENCH DETAIL - PERVIOUS

SCALE 1:10 0m 200mm 400mm



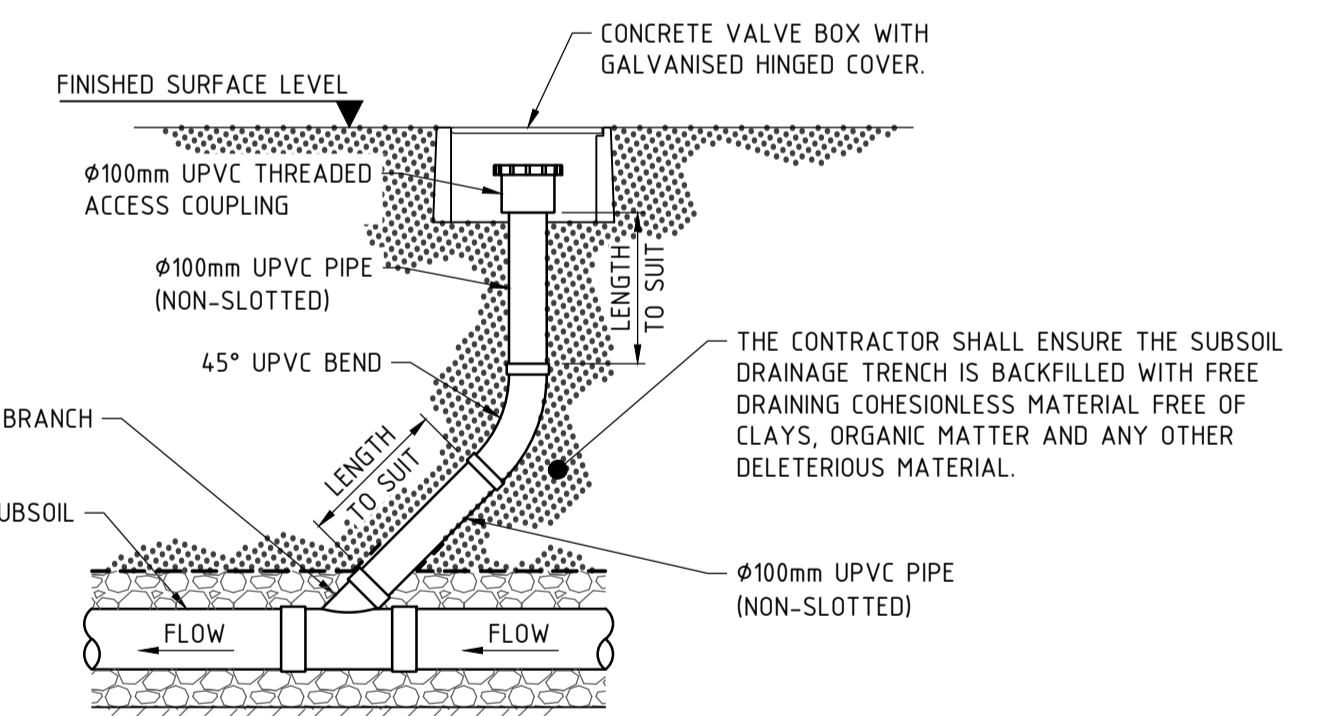
TYPICAL SUBSOIL DRAINAGE TRENCH DETAIL - IMPERVIOUS

SCALE 1:10 0m 200mm 400mm



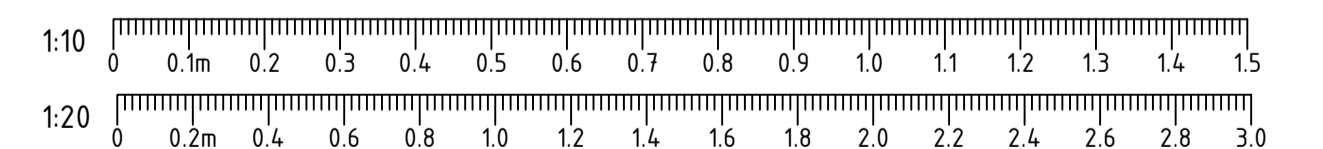
TYPICAL SUBSOIL PIPE SLOT LAYOUT DETAIL

SCALE 1:10 0m 200mm 400mm



TYPICAL SUBSOIL INSPECTION OPENING DETAIL

SCALE 1:20 0m 400mm 800mm



ISSUED FOR DA

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
B.1	23/11/22	ISSUED FOR DA	YK	MBS	FO	RS
A	5/07/22	ISSUED FOR RD	FO	TM	YK	NM



Contractor No: R30-MFT-DWG-CI-001-02502 | Rev: B.1

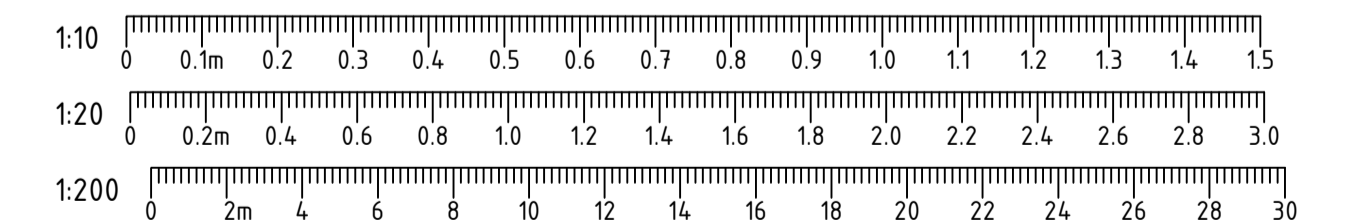
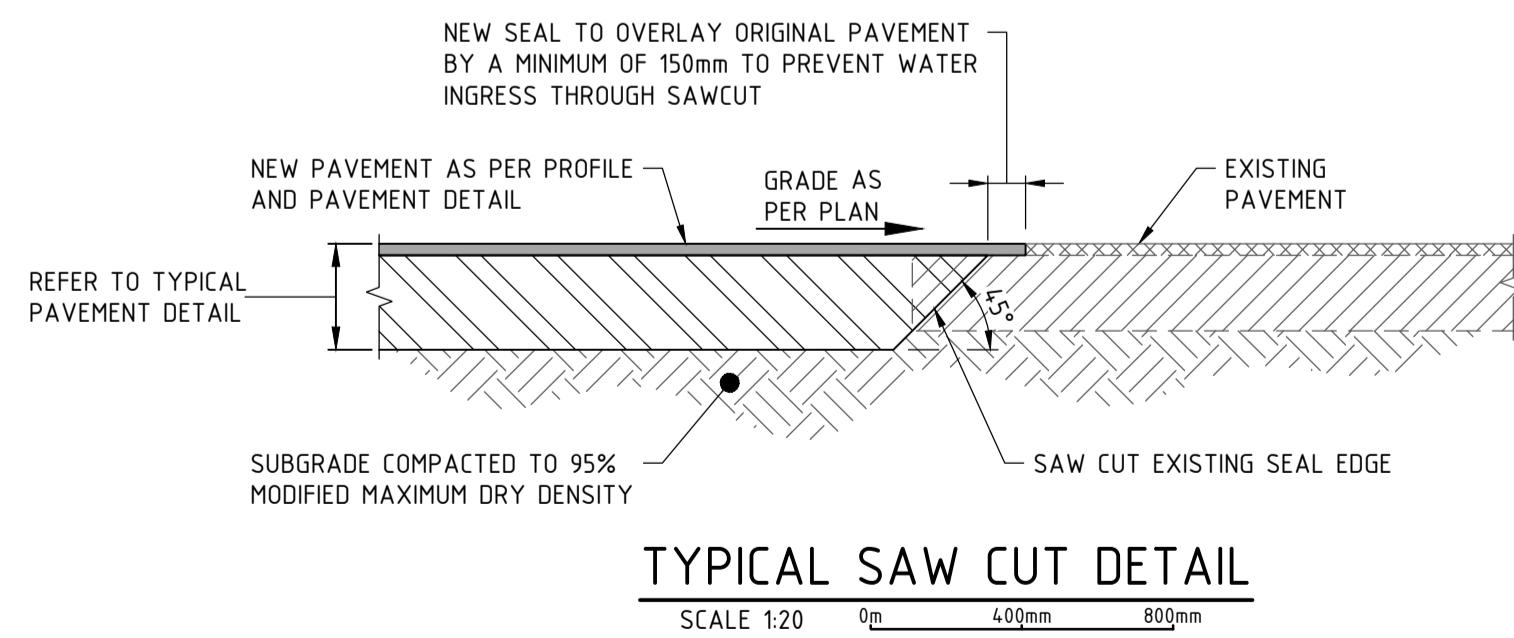
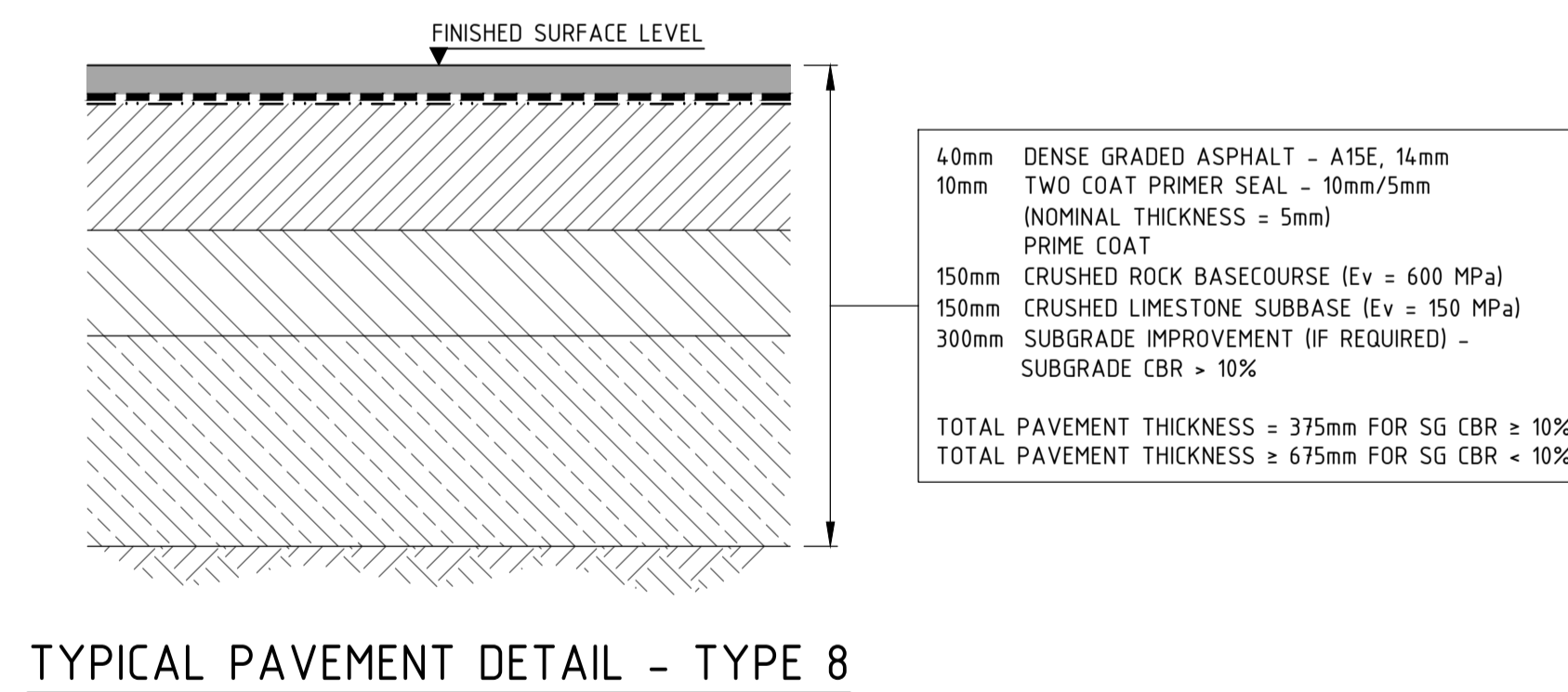
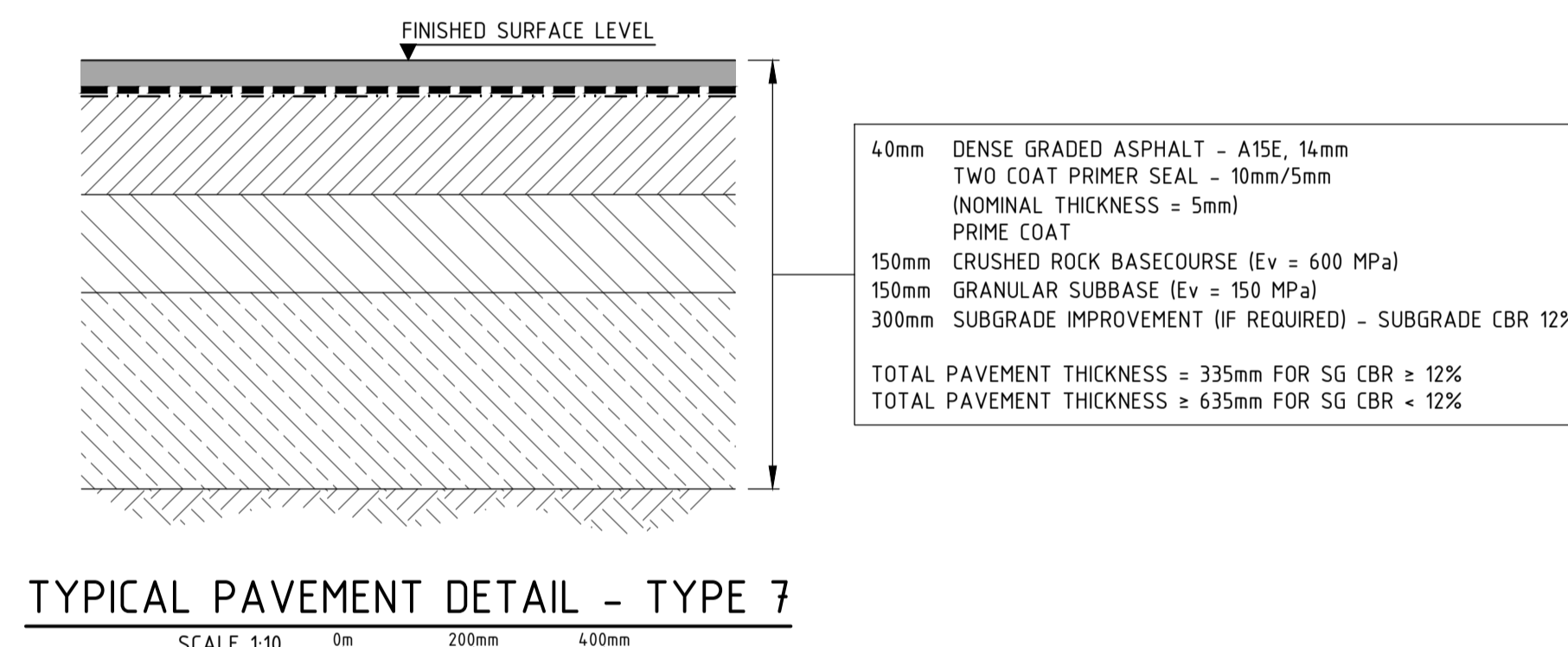
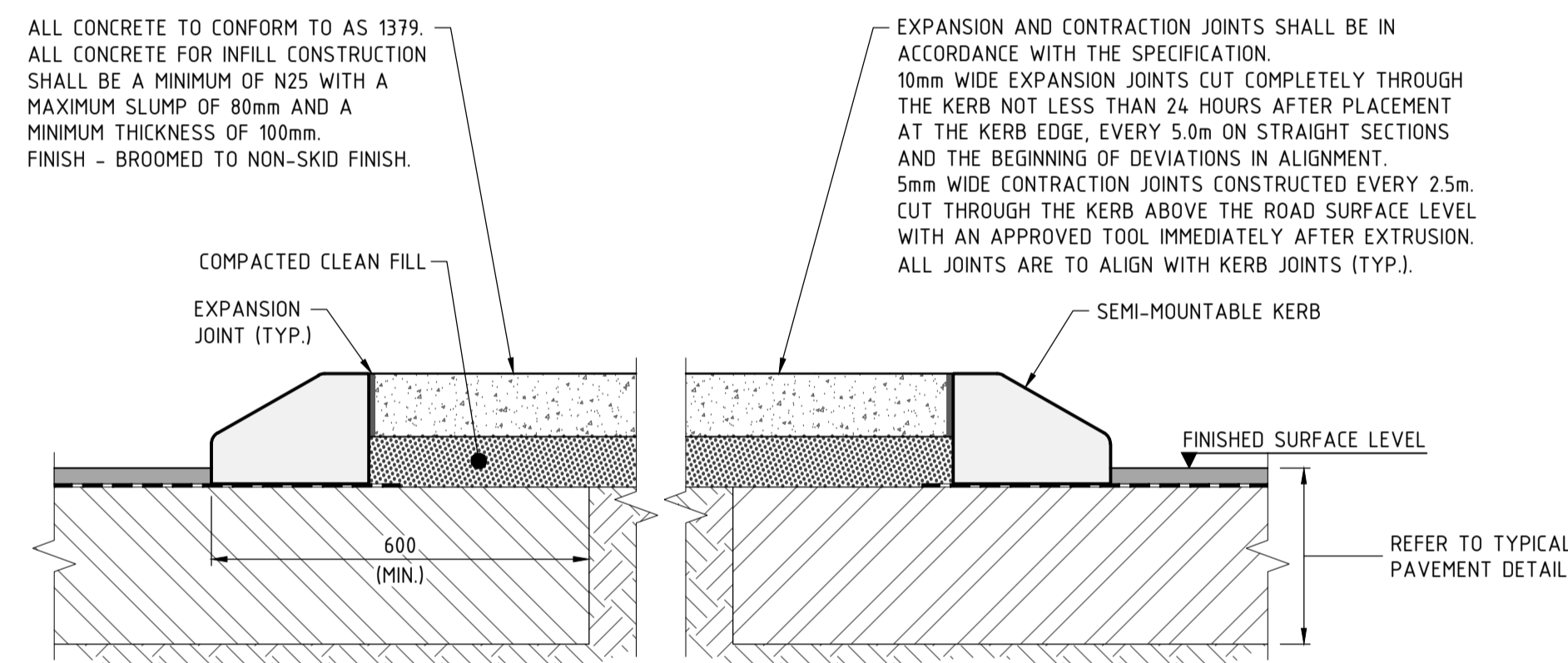
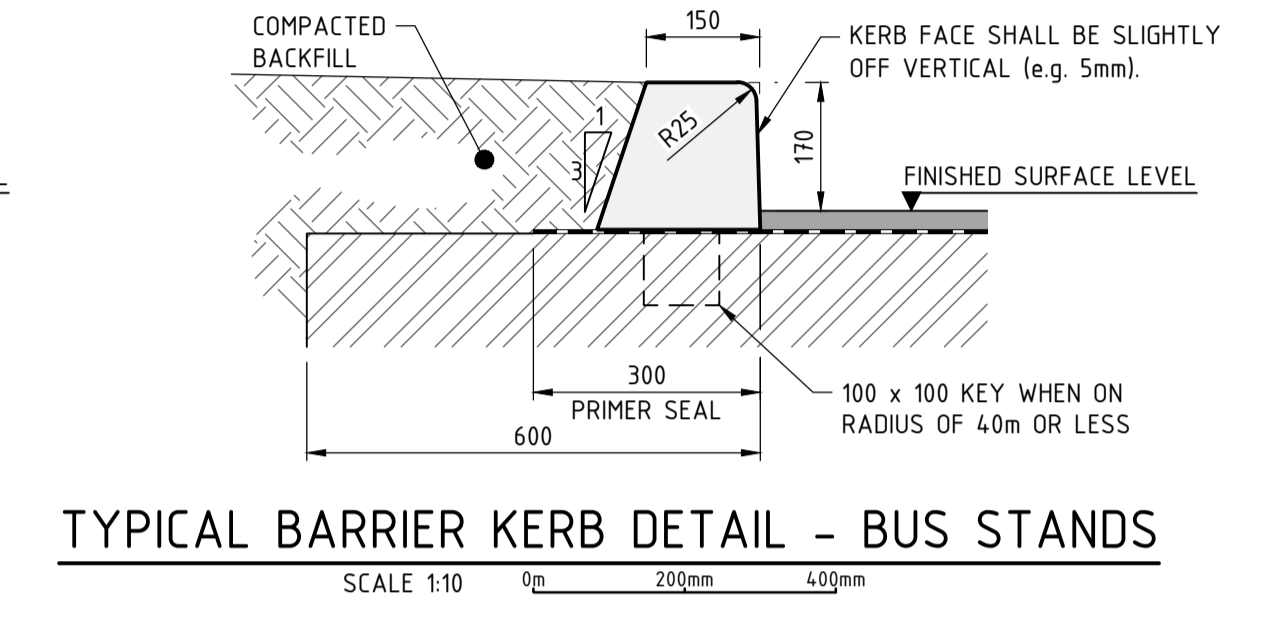
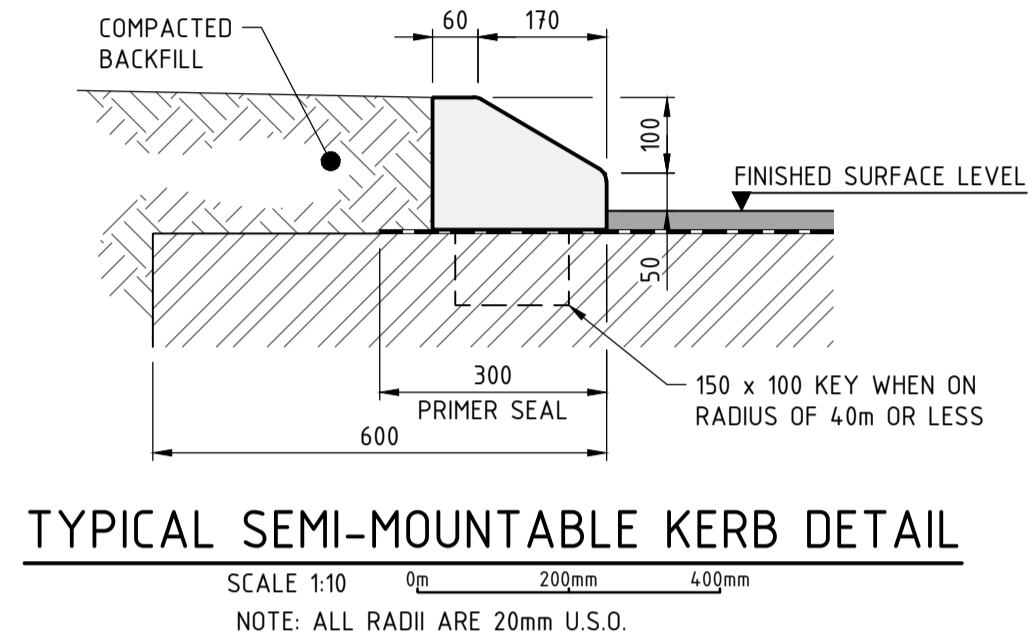
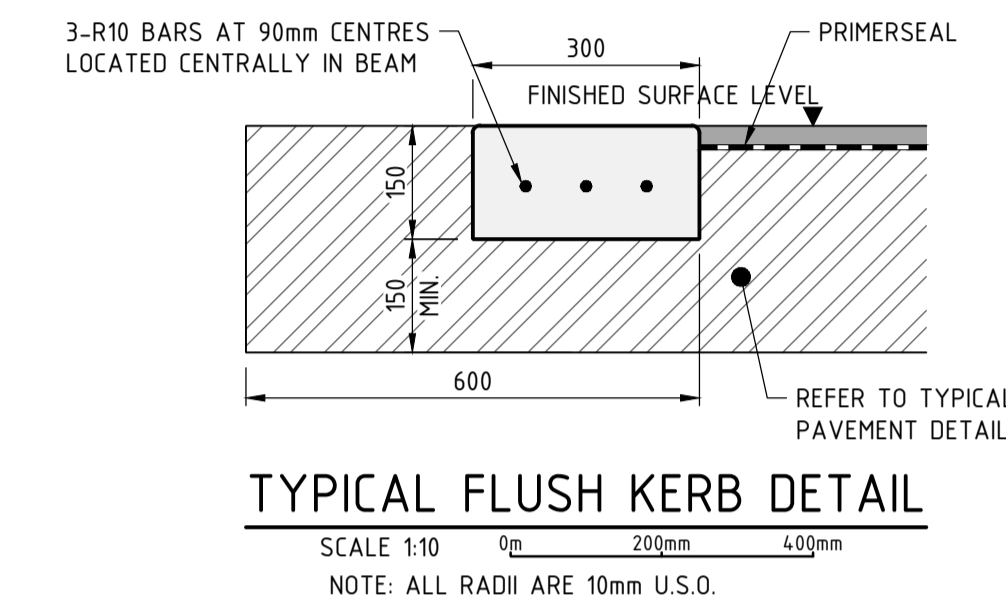
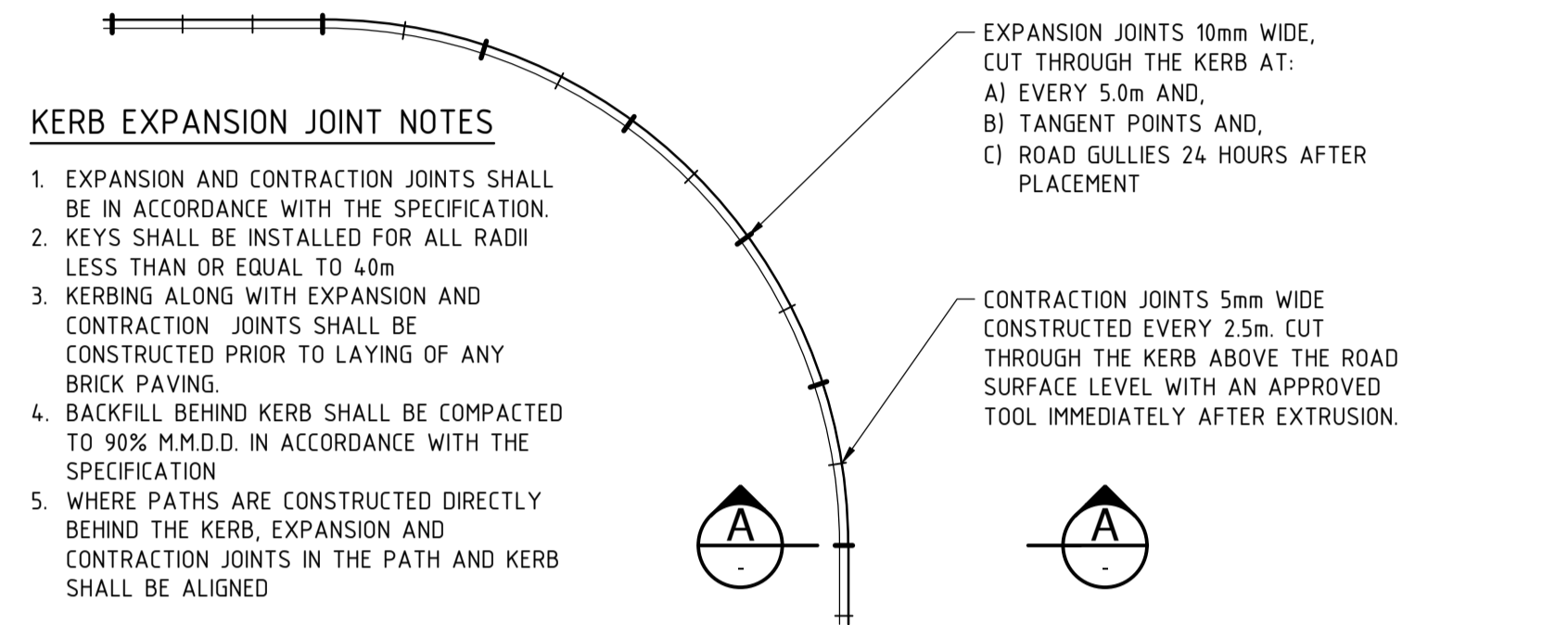
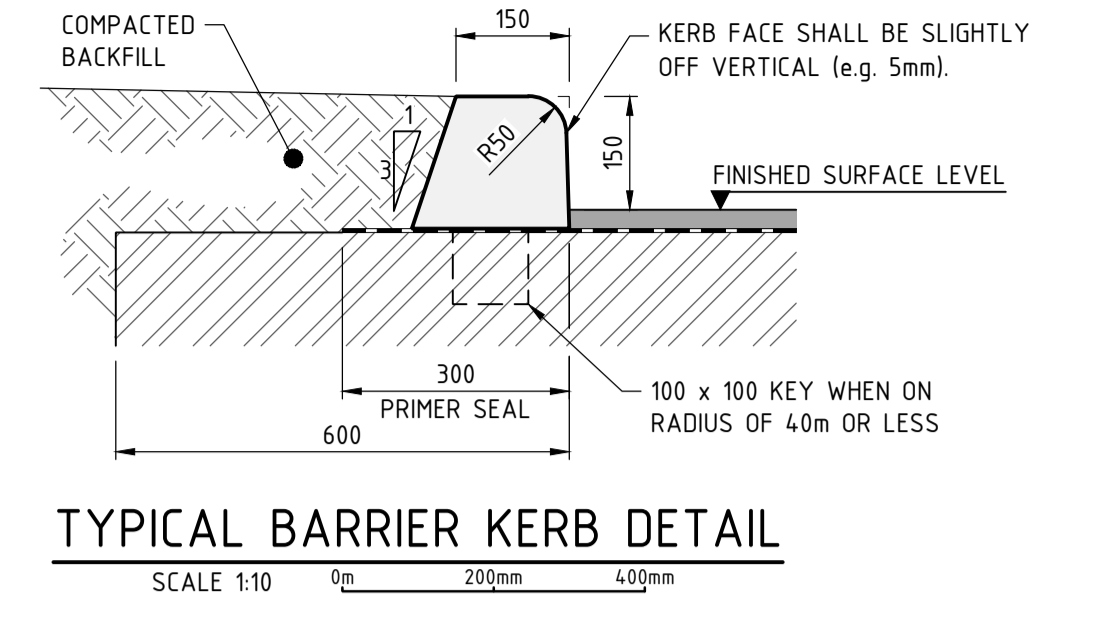
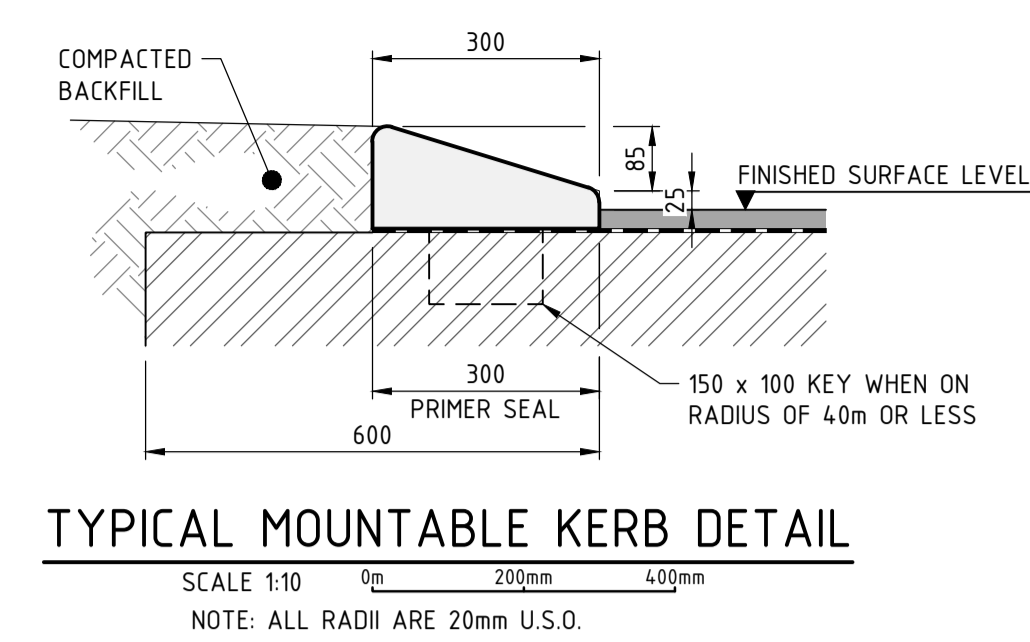
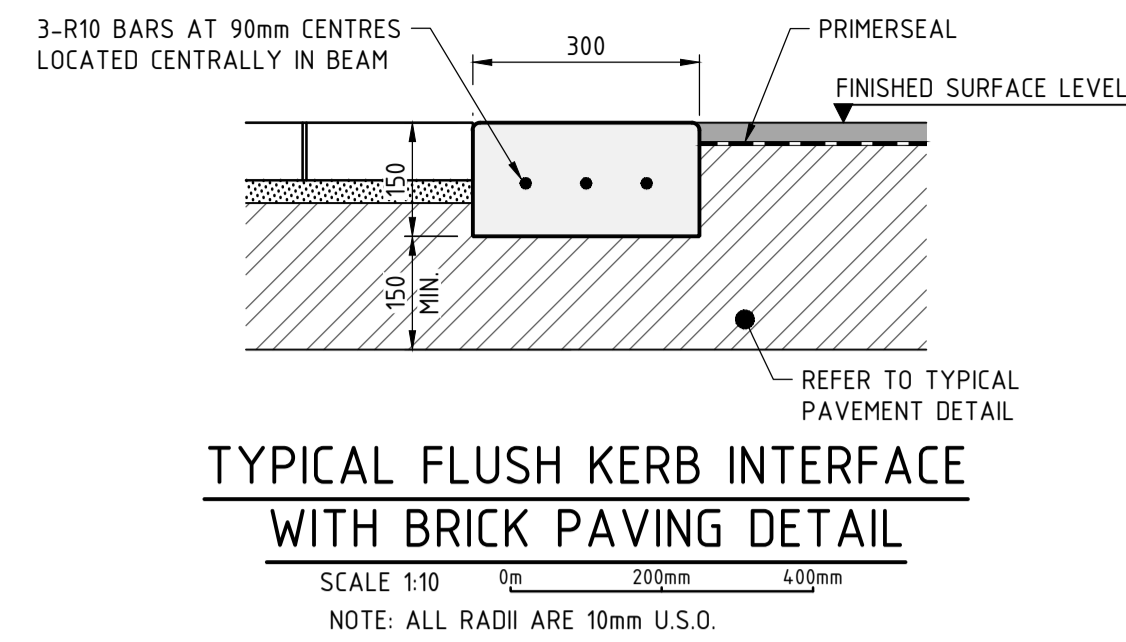
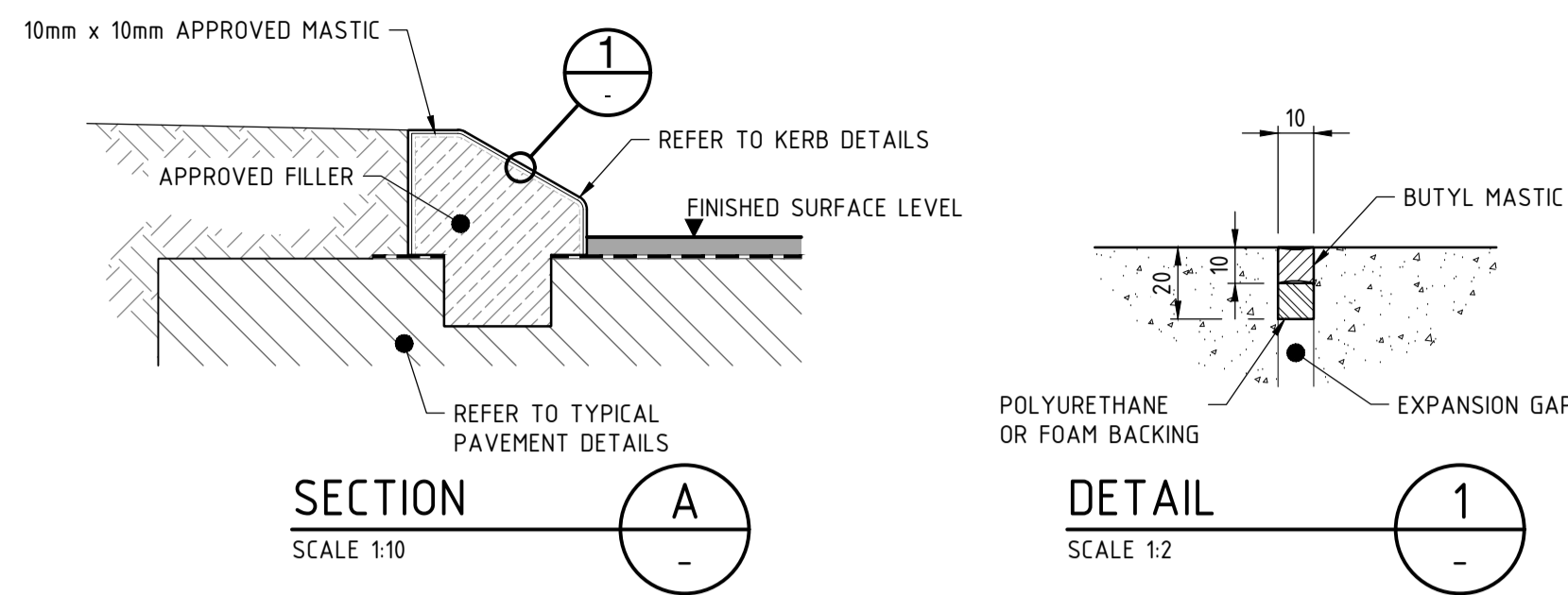
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	DATUM	DRAWN
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	VERTICAL: AHD71	CHECKED
		YK
		APPROVED
		AE
		DATE
		6/10/22

Government of Western Australia
Public Transport Authority

BYFORD RAIL EXTENSION

ENABLING WORKS
CIVIL WORKS - TEMPORARY BUS INTERCHANGE
TYPICAL DETAILS - SHEET 3

PTA Drawing No: **11-C-04-0028** | Rev: **B.1**



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Government of Western Australia
Public Transport Authority

BYFORD RAIL EXTENSION

ENABLING WORKS
CIVIL WORKS - TEMPORARY BUS INTERCHANGE
TYPICAL DETAILS - SHEET 4

PTA Drawing No: **11-C-04-0029** Rev: **B.1**

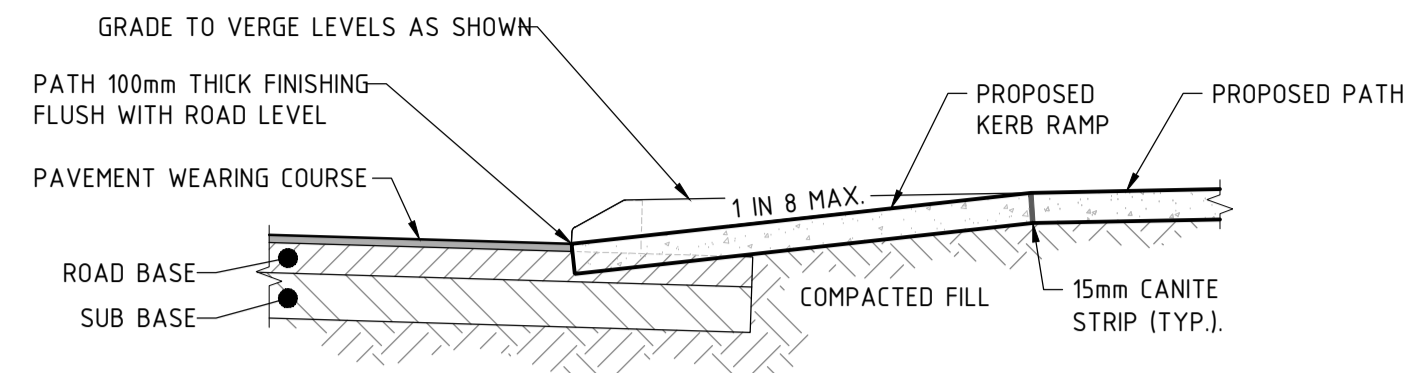
REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
B.1	23/11/22	ISSUED FOR DA	YK	MBS	FO	RS
A	5/07/22	ISSUED FOR RD	FO	TM	YK	NM

ORIG SIZE: **A1**
AT ORIGINAL PLOT SIZE

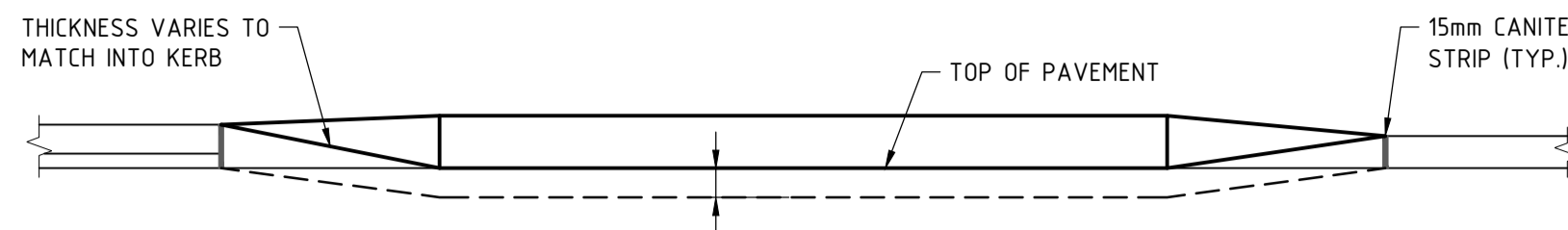
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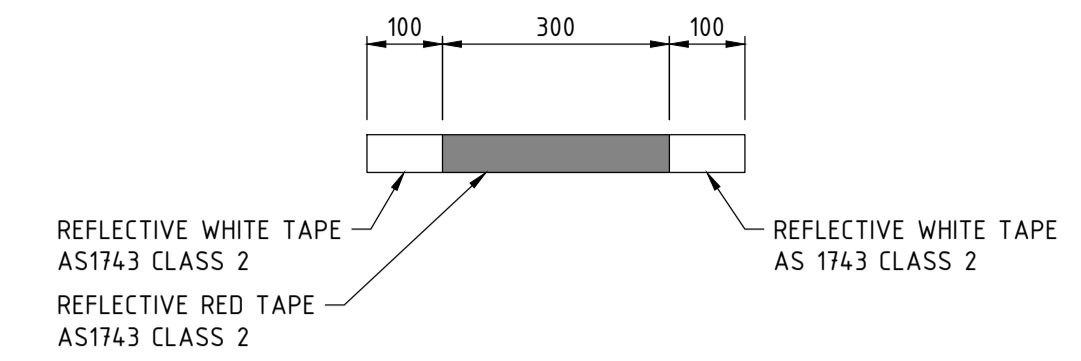
Contractor No: R30-MET-DWG-CL-001-02503 | Rev: B.1



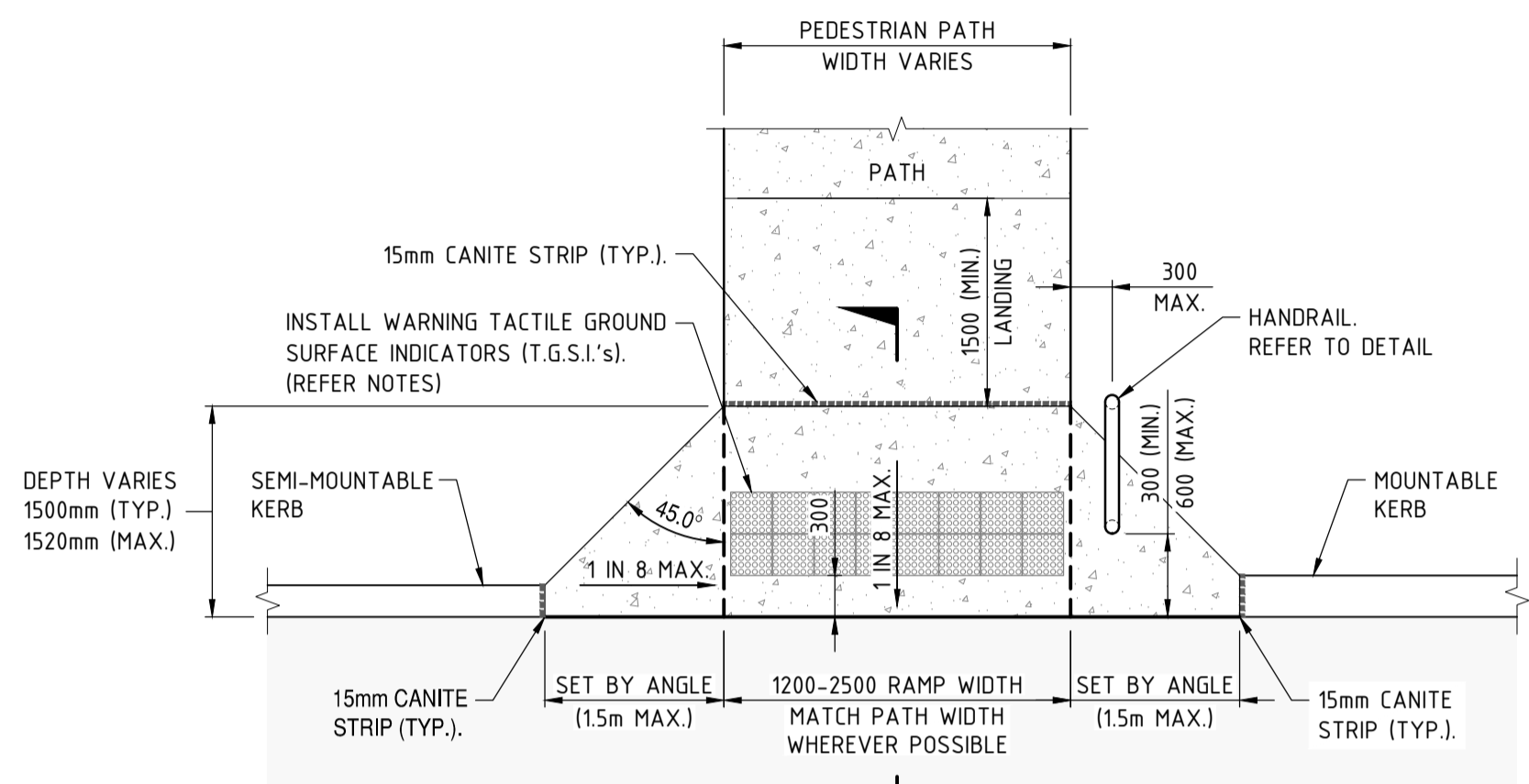
SECTION A
SCALE 1:25



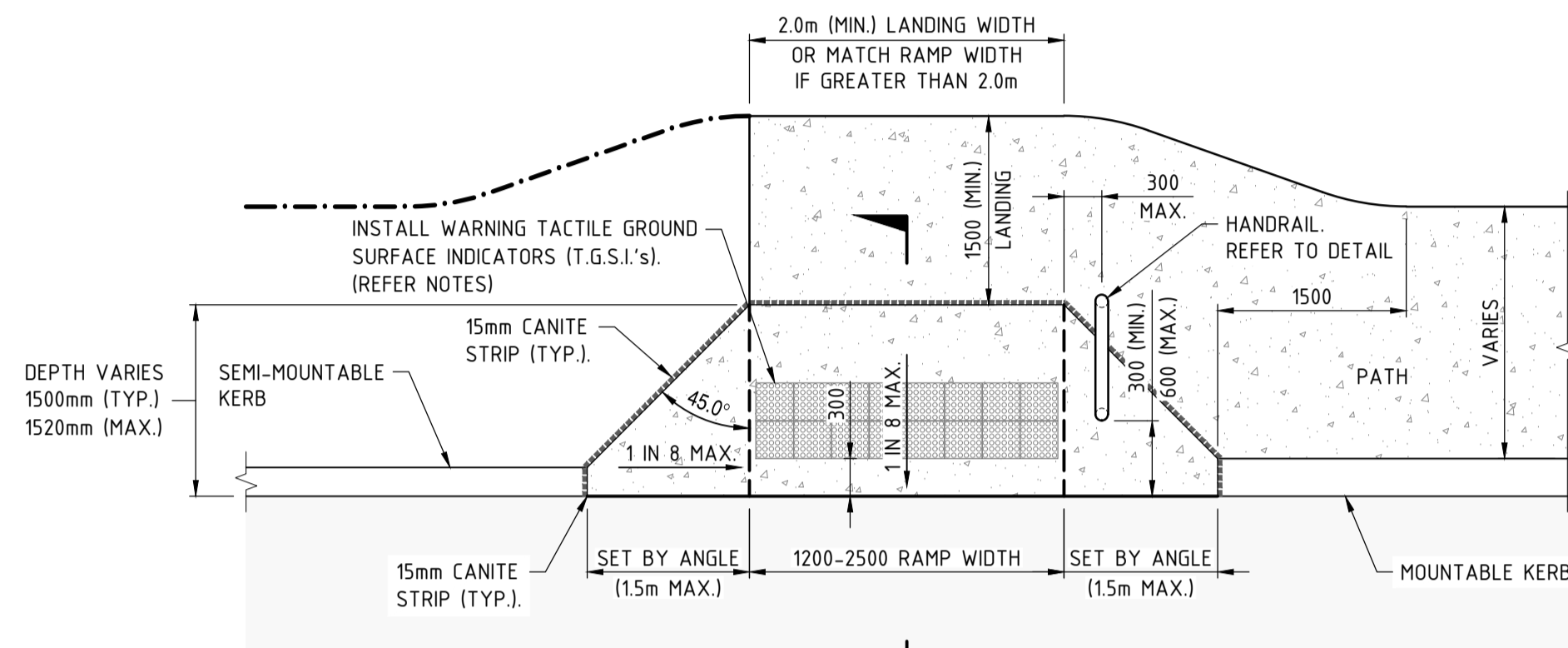
FRONT ELEVATION
SCALE 1:25



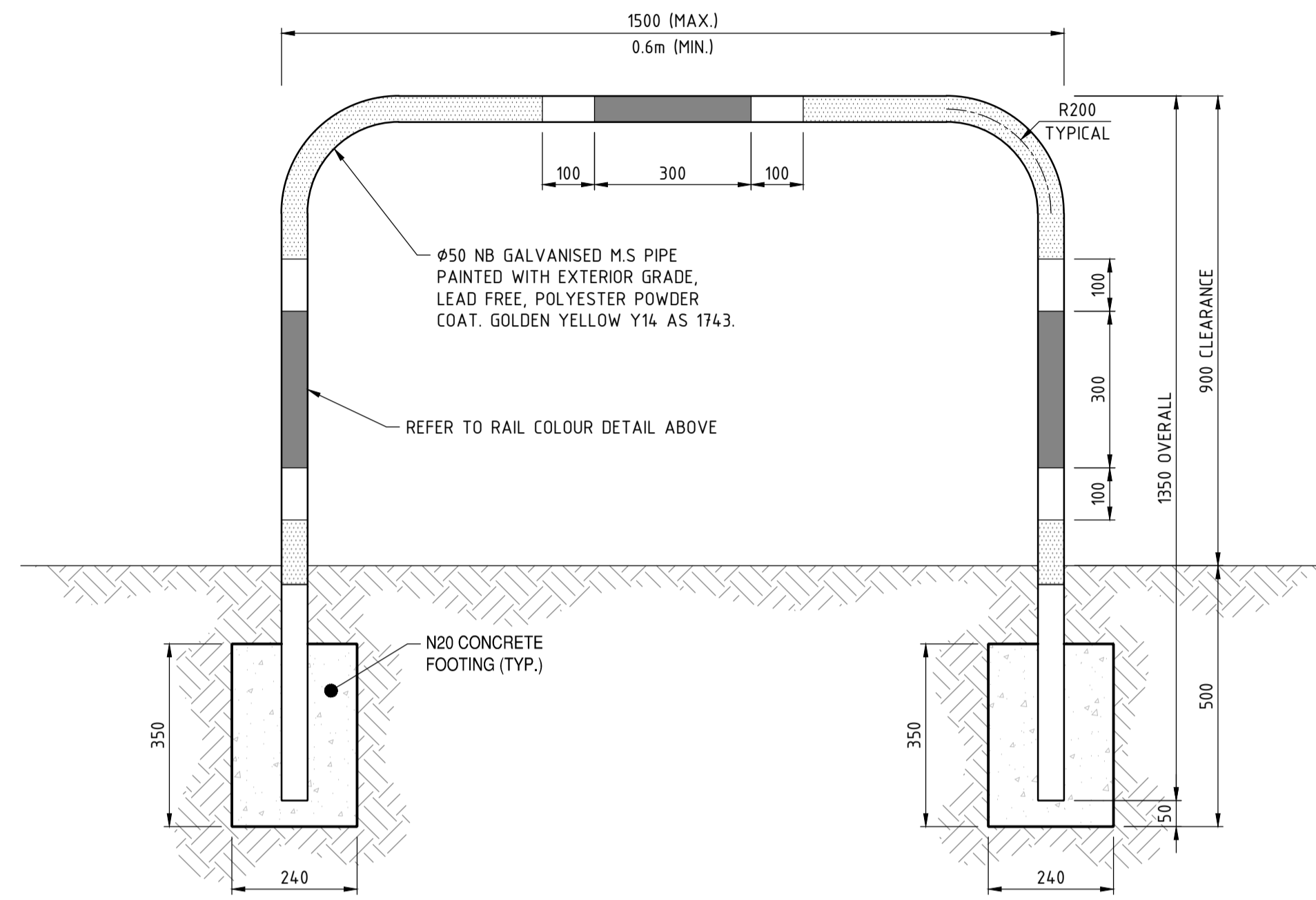
RAIL COLOUR DETAIL



PLAN



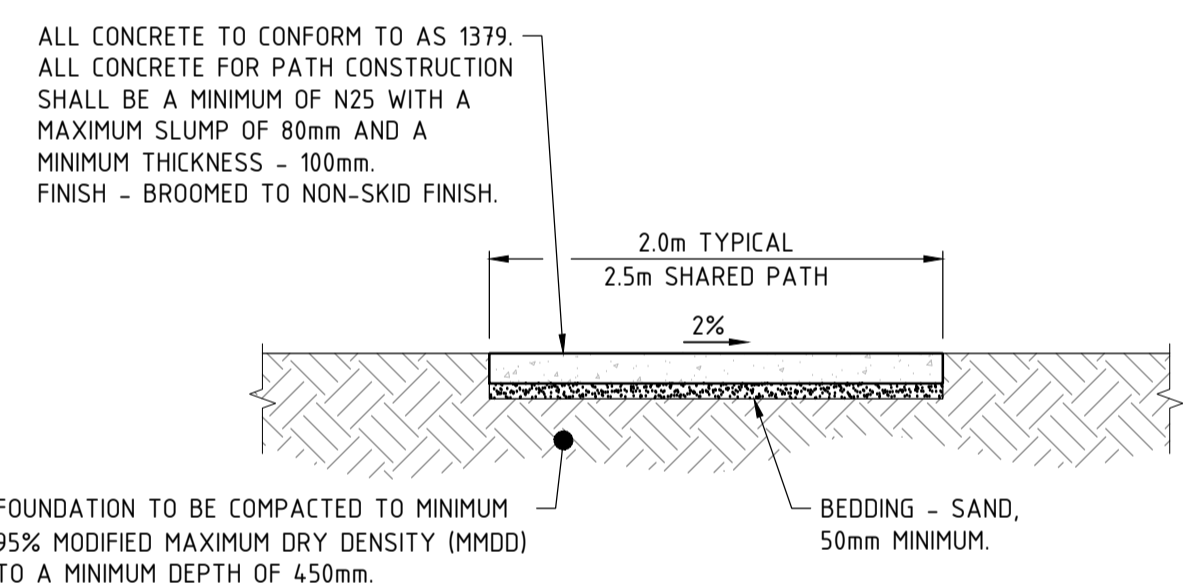
PLAN



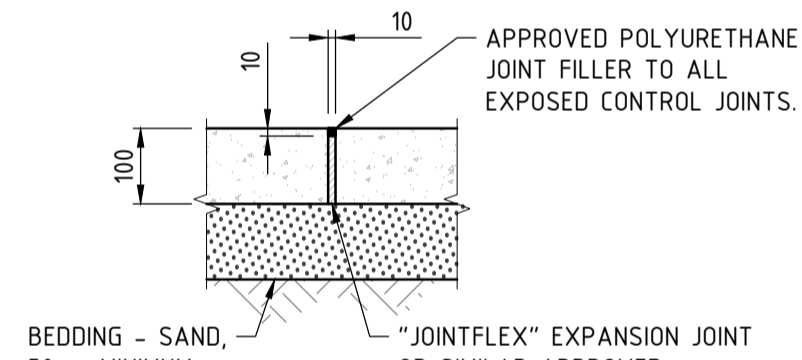
TYPICAL HANDRAIL DETAIL
SCALE 1:10

TYPICAL KERB RAMP DETAIL
SCALE 1:50

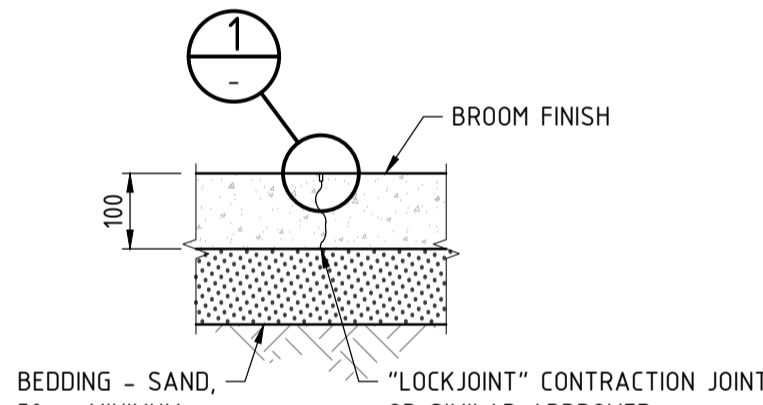
- NOTES
1. ALL CONCRETE TO BE A MINIMUM OF 25MPa, 20mm AGGREGATE AND A MAXIMUM SLUMP OF 80mm, FROM AN APPROVED PRE-MIX BATCH PLANT
 2. MINIMUM THICKNESS - 100mm.
 3. BEDDING - SAND, 50mm MINIMUM.
 4. FINISH - BROOMED TO NON-SKID FINISH PARALLEL TO LINE OF KERB WITH TOOLED EDGES
 5. EXPANSION JOINTS - APPROVED MATERIAL SHALL BE EXPANDITE-FLEXICEL.
 6. TACTILE GROUND SURFACE INDICATORS (T.G.S.I.'s) SHALL BE IN ACCORDANCE WITH AS1428.1 AND AS1428.4.
 7. CONTRACTOR TO INSTALL 2x ROWS OF TERRACOTTA WARNING T.G.S.I.'s (ADHESIVE TYPE) FOR FULL WIDTH OF CONCRETE KERB RAMP. ENSURE THE SPECIFIED ADHESIVE ACHIEVES 30% LUMINANCE CONTRAST REQUIREMENT AS PER STANDARDS.
 8. WARNING T.G.S.I.'s ARE NOT TO BE CUT. CONTRACTOR SHALL SELECT SUITABLE SIZE TO EXTEND ACROSS FULL WIDTH OF KERB RAMP (EXCLUDING SPLAYS).
 9. WHERE THE KERB RAMP IS CONSTRUCTED USING BLOCK PAVERS, THE CONTRACTOR SHALL INSTALL T.G.S.I. PAVERS IN A CONTRASTING COLOUR CONFORMING WITH AS1428.4 LUMINANCE REQUIREMENTS.



CONCRETE PATH SECTION
SCALE 1:25

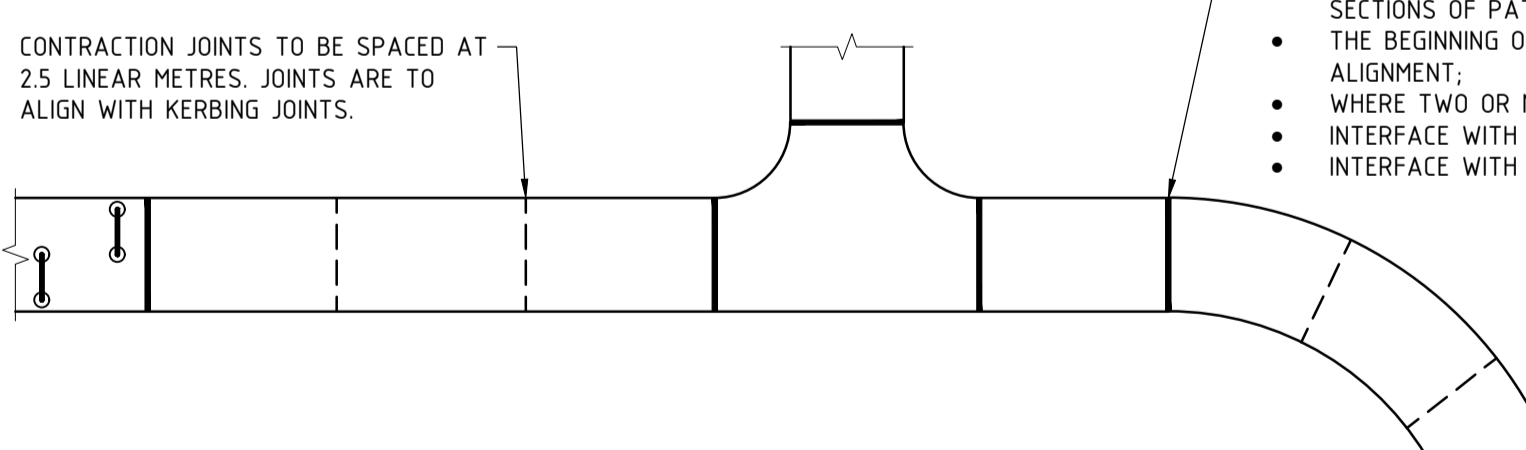


EXPANSION JOINT
SCALE 1:10

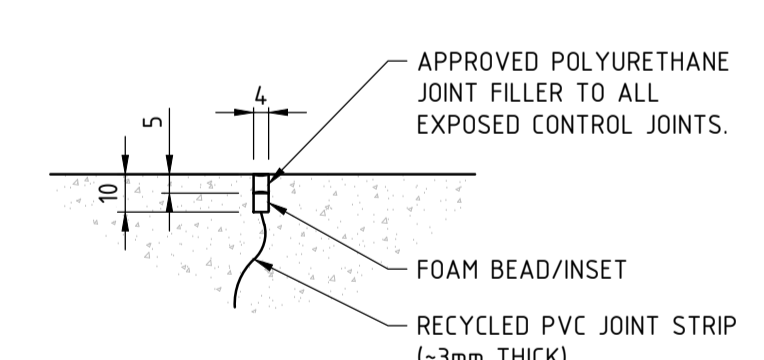


CONTRACTION JOINT
SCALE 1:10

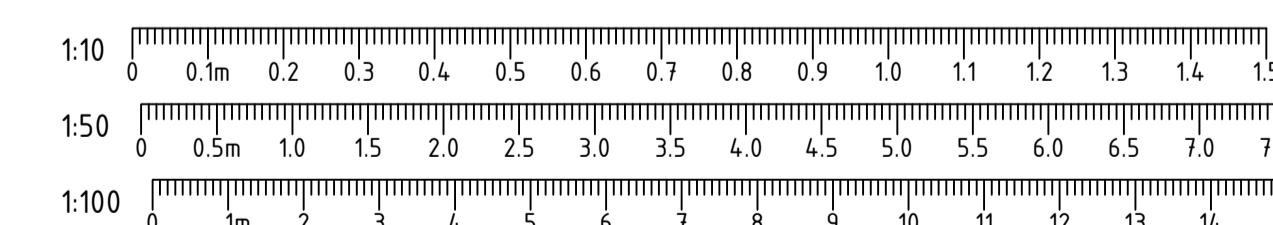
- CONTRACTION JOINTS TO BE SPACED AT 2.5 LINEAR METRES. JOINTS ARE TO ALIGN WITH KERBING JOINTS.
- EXPANSION JOINTS TO BE LOCATED AT THE FOLLOWING LOCATIONS:
- KERB EDGE;
 - BEFORE HANDRAILS;
 - EVERY 7.5 LINEAR METRES ON STRAIGHT SECTIONS OF PATHWAY;
 - THE BEGINNING OF DEVIATIONS IN ALIGNMENT;
 - WHERE TWO OR MORE PATHS JOIN
 - INTERFACE WITH WALLS AND;
 - INTERFACE WITH ANY OTHER RIGID ELEMENT



TYPICAL CONCRETE PATH PLAN
SCALE 1:100



DETAIL 1
SCALE 1:2



ISSUED FOR DA

**Government of Western Australia
Public Transport Authority**

BYFORD RAIL EXTENSION

**ENABLING WORKS
CIVIL WORKS - TEMPORARY BUS INTERCHANGE
TYPICAL DETAILS - SHEET 5**

PTA Drawing No: **11-C-04-0030** Rev: **B.1**

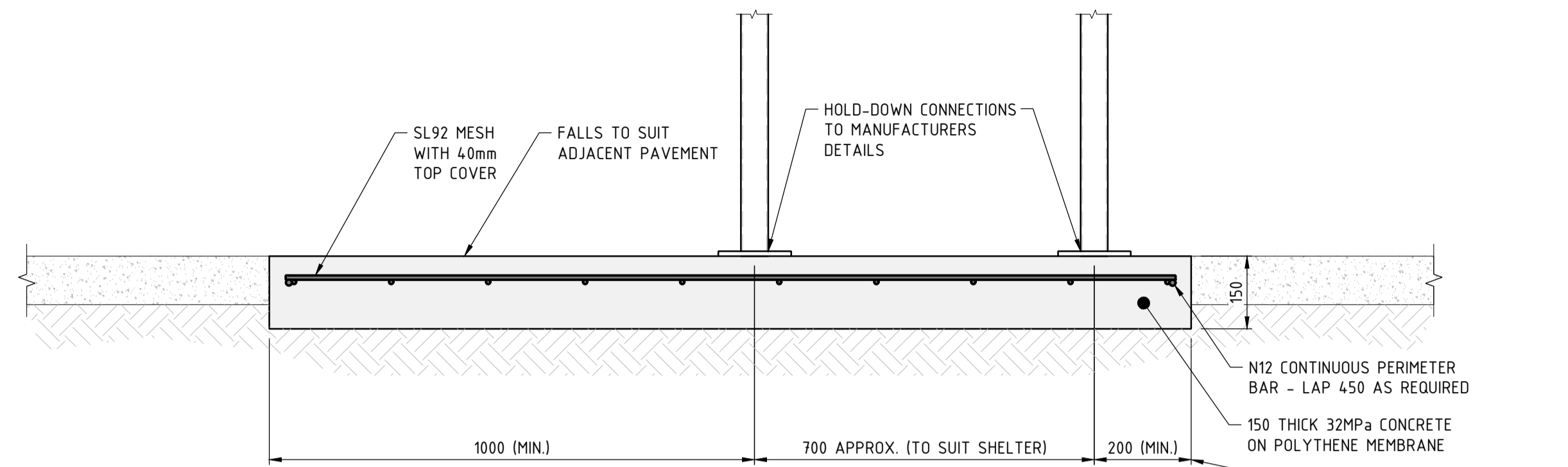
REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
B.1	23/11/22	ISSUED FOR DA	YK	MBS	FO	RS
A	5/07/22	ISSUED FOR RD	FO	TM	YK	NM

ORIG SIZE: 100mm
AT ORIGINAL PLOT SIZE

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REFERENCES	SCALE	DESIGNED
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	DATUM	DRAWN
	HORIZONTAL: PCG2020	MBS
	VERTICAL: AHD71	CHECKED
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		APPROVED
		AE
		DATE
		6/10/22

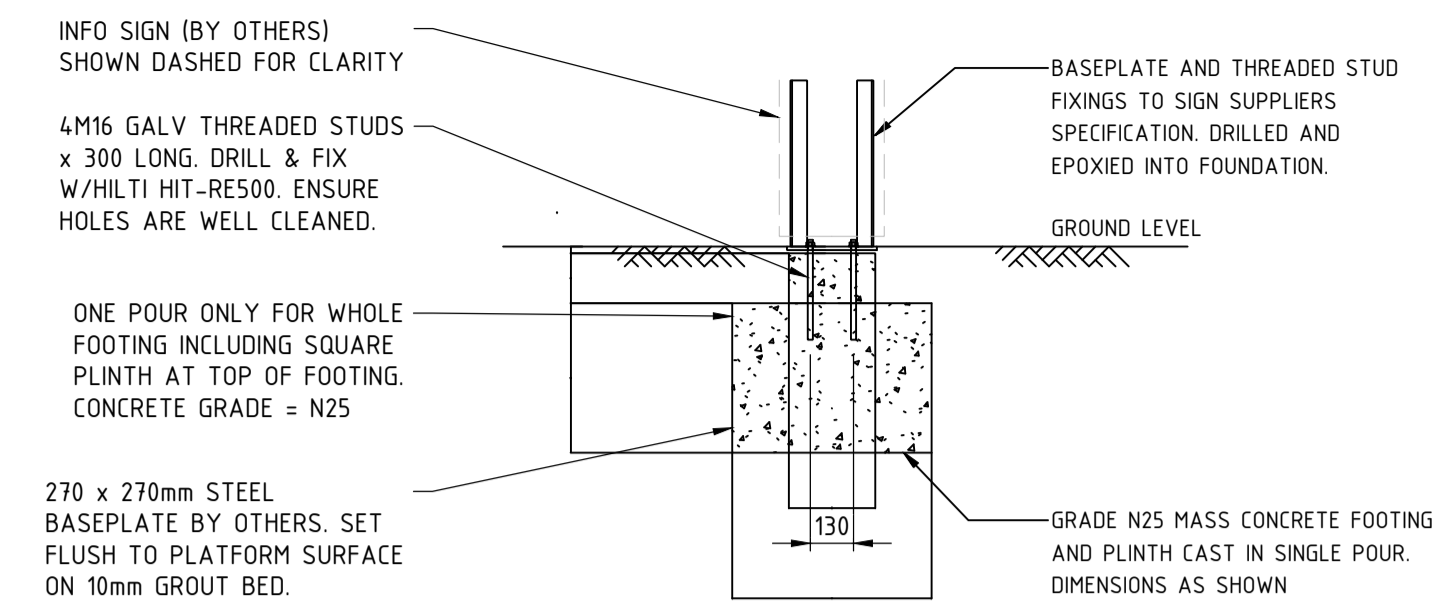


TYPICAL BUS SHELTER PAVEMENT DETAIL APPLIES TO JSF SHELTERS

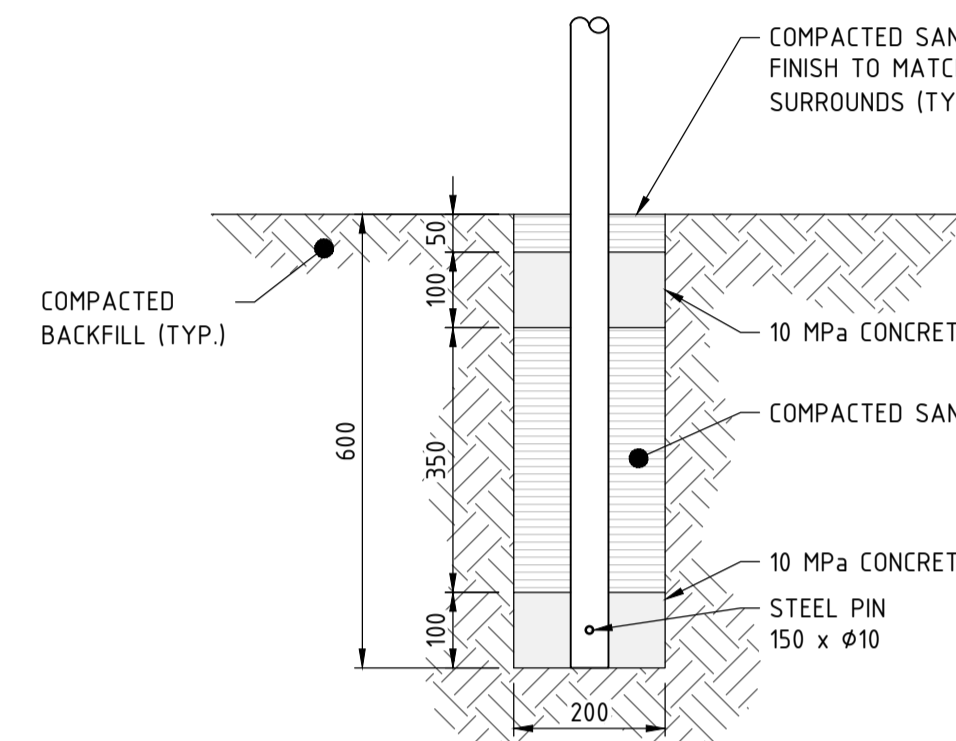
SCALE 1:10 0m 200mm 400mm

NOTE:

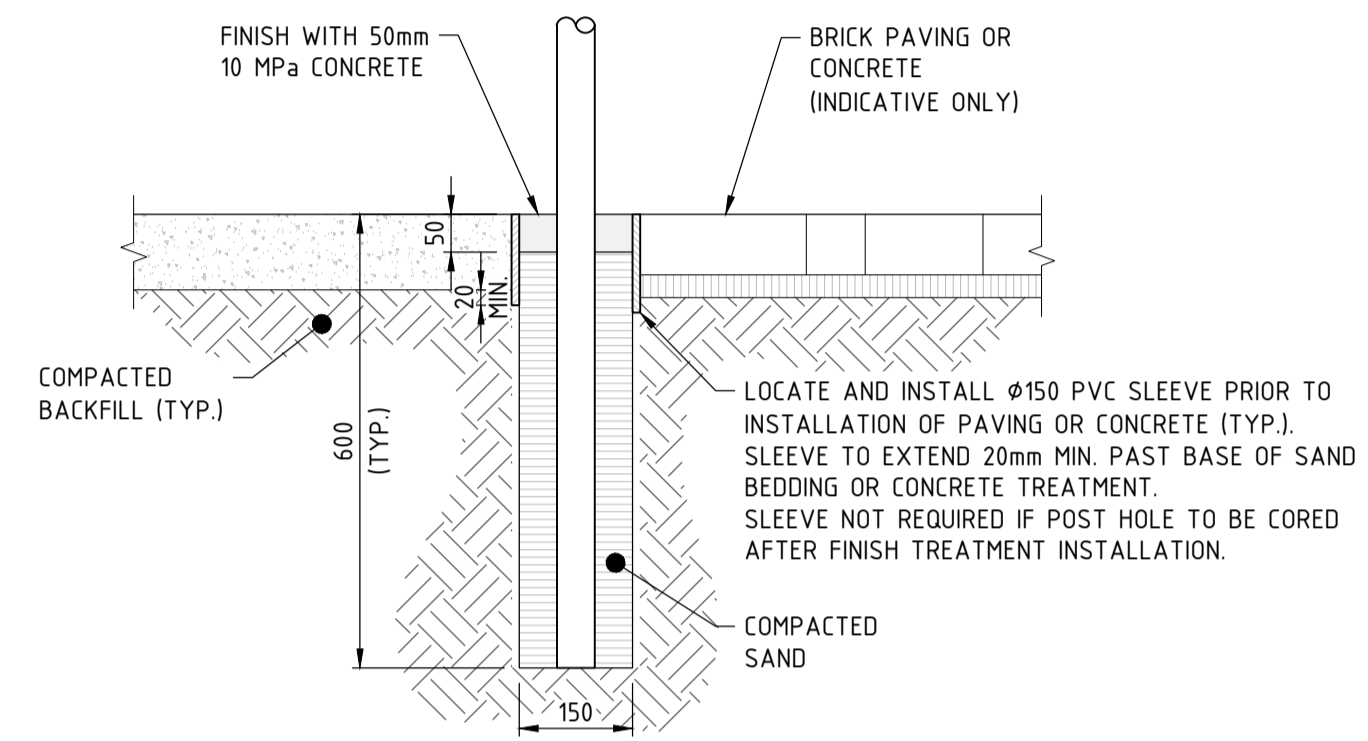
1. MINIMUM EDGE DISTANCE BETWEEN CONCRETE EDGE AND NEAREST ANCHORS: 100mm
2. PAVEMENT TO BE POURED ON DPM ON WELL COMPACTED SAND.



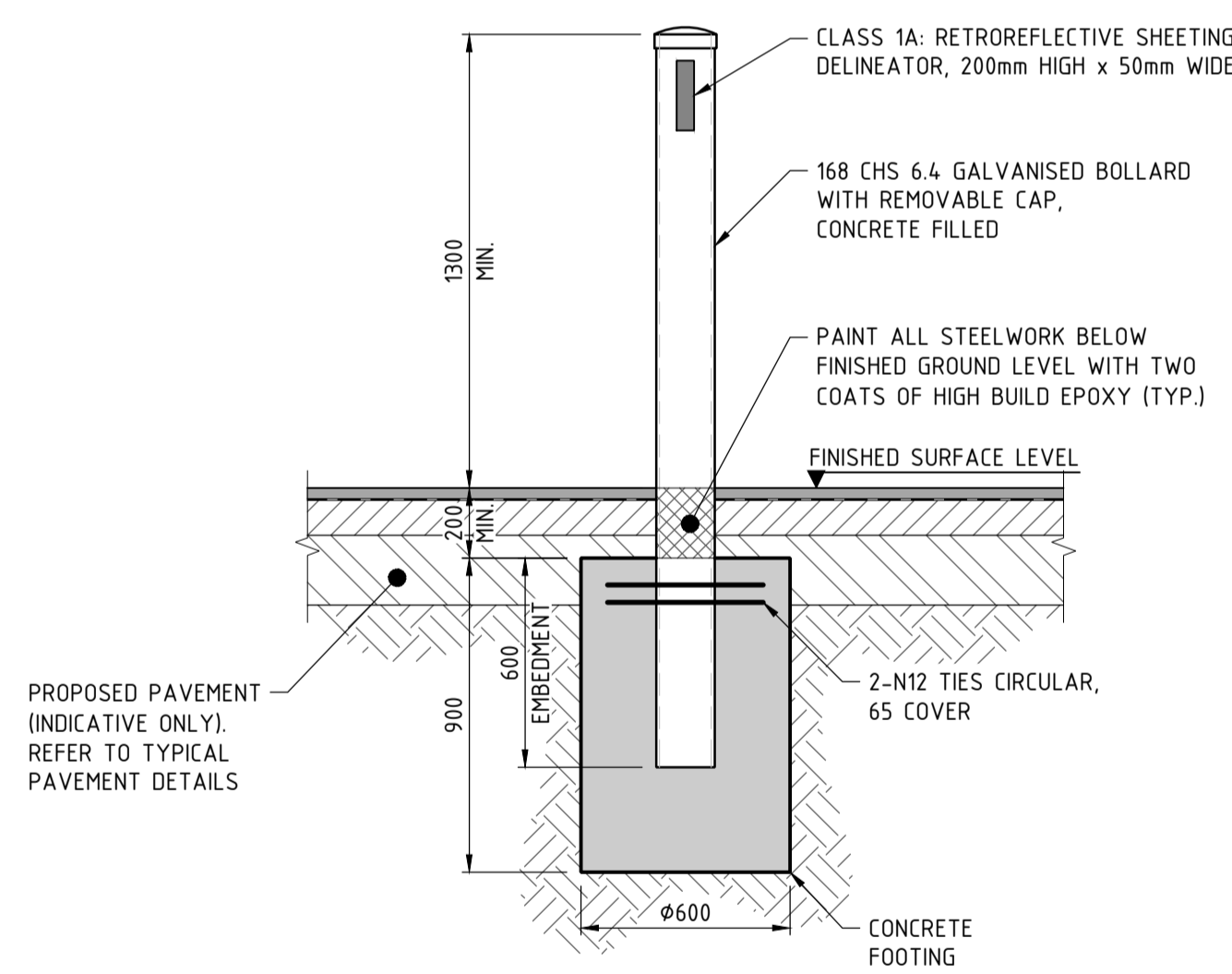
PTA INFO CUBE FOOTING DETAIL



FOOTING DETAIL GENERAL / VERGE



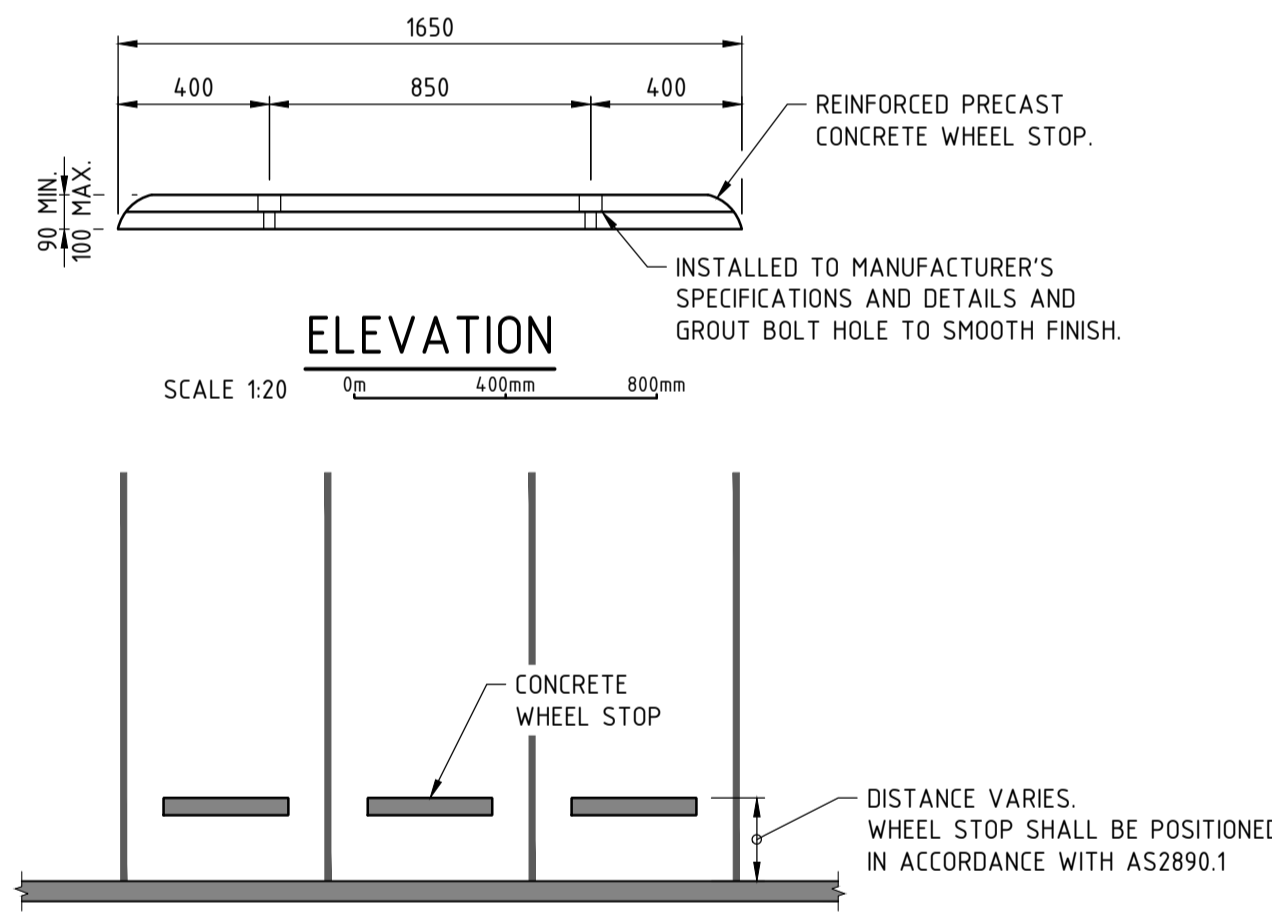
FOOTING DETAIL TRAFFIC ISLAND, PATH OR OTHER PAVED / SURFACED AREA



TYPICAL BOLLARD IN ASPHALT PAVEMENT DETAIL

SCALE 1:20 0m 400mm 800mm

- NOTES
1. THE BOLLARD SHALL COMPLY WITH AS3845.
 2. BOLLARD DESIGNED FOR 10KN INCIDENTAL LOAD ONLY. NOT DESIGNED TO AS1170.1 BARRIER LOADS.
 3. REFER TO THE ARCHITECTS DOCUMENTATION FOR LOCATIONS AND HEIGHTS.

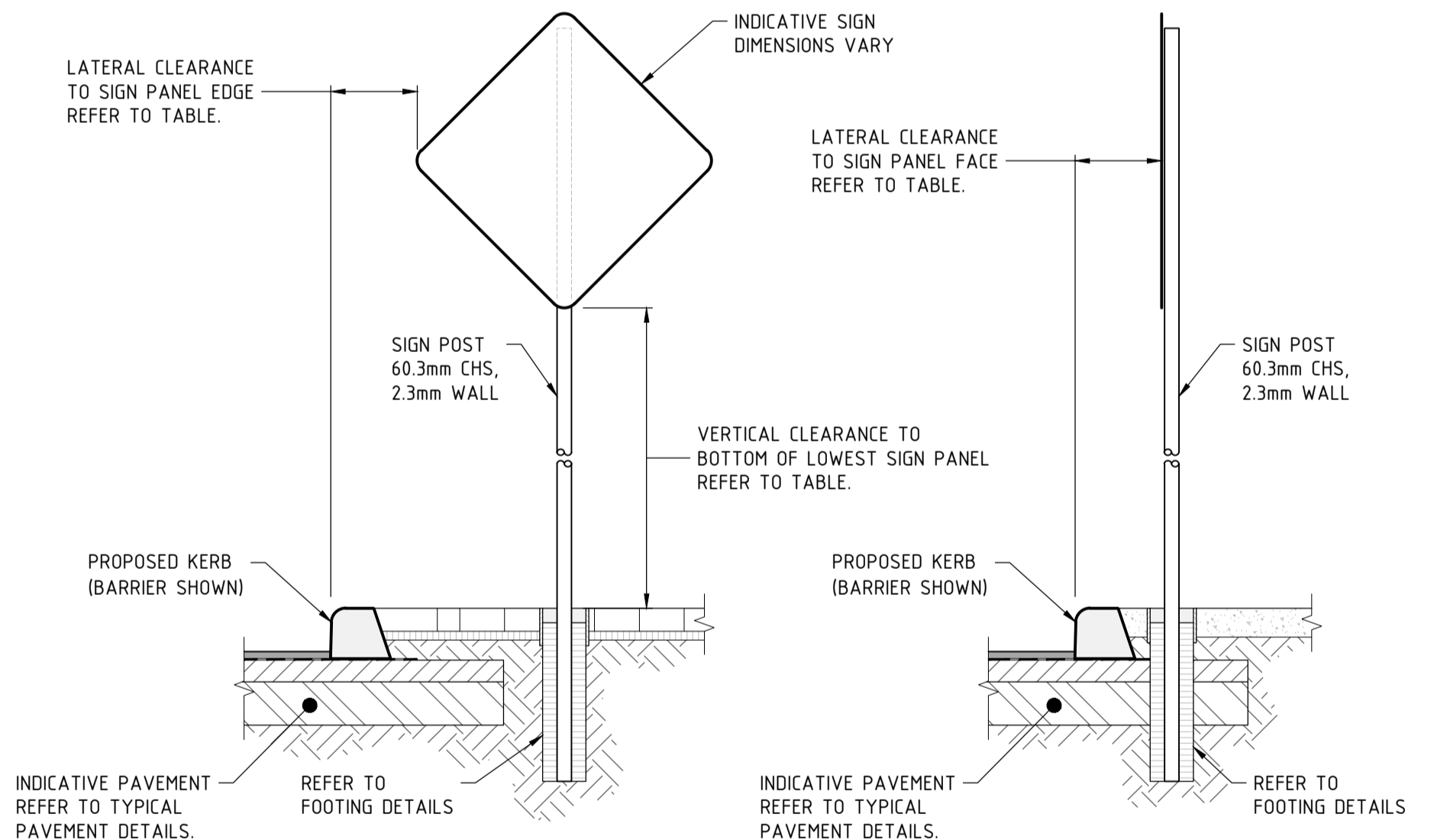


TYPICAL CONCRETE WHEEL STOP DETAIL

SCALE 1:100 0m 2m 4m

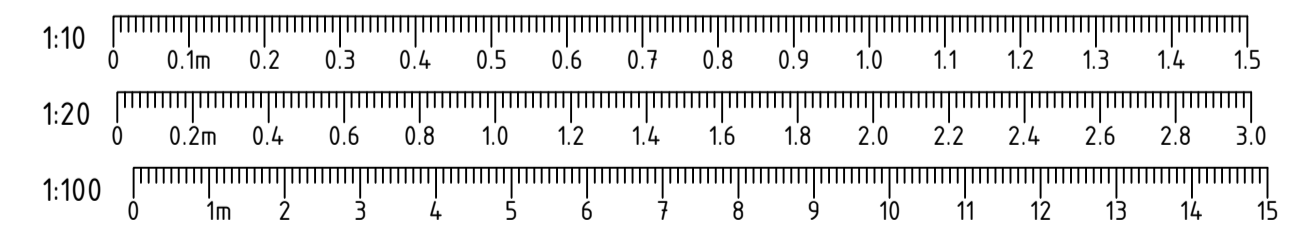
SIGN PANEL LATERAL CLEARANCE	
KERB TYPE	MIN. CLEARANCE (mm)
BARRIER KERB	300
SEMI-MOUNTABLE KERB	500
MOUNTABLE KERB	500
UNKERBED	2000

SIGN PANEL VERTICAL CLEARANCE	
DESIGN SCENARIO	MIN. CLEARANCE (mm)
LOCATED IN UNPAVED VERGE	2000
- FROM VERGE LEVEL	2200
- FROM PAVEMENT LEVEL	
WHEN OVER HANGING OR LOCATED WITHIN FOOTWAY	2500



TYPICAL ROAD SIGN CLEARANCE AND FOOTING DETAILS

- NOTES
1. LOCAL AUTHORITY OR CLIENT SPECIFICATIONS AND DETAILS TAKE PRECEDENCE.
 2. DETAIL FOR USE IN WIND REGIONS 'A' AND 'B' ONLY. FOOTINGS FOR WIND REGIONS 'C' AND 'D' SHALL BE STRUCTURALLY ENGINEERED.
 3. SIGN INSTALLATION SHALL COMPLY WITH AS2890 SERIES AND AS1742 SERIES
 4. IF LOCATED WITHIN ROAD RESERVE, SIGN INSTALLATION SHALL COMPLY WITH MAIN ROADS W.A. SPECIFICATIONS AND DETAILS.

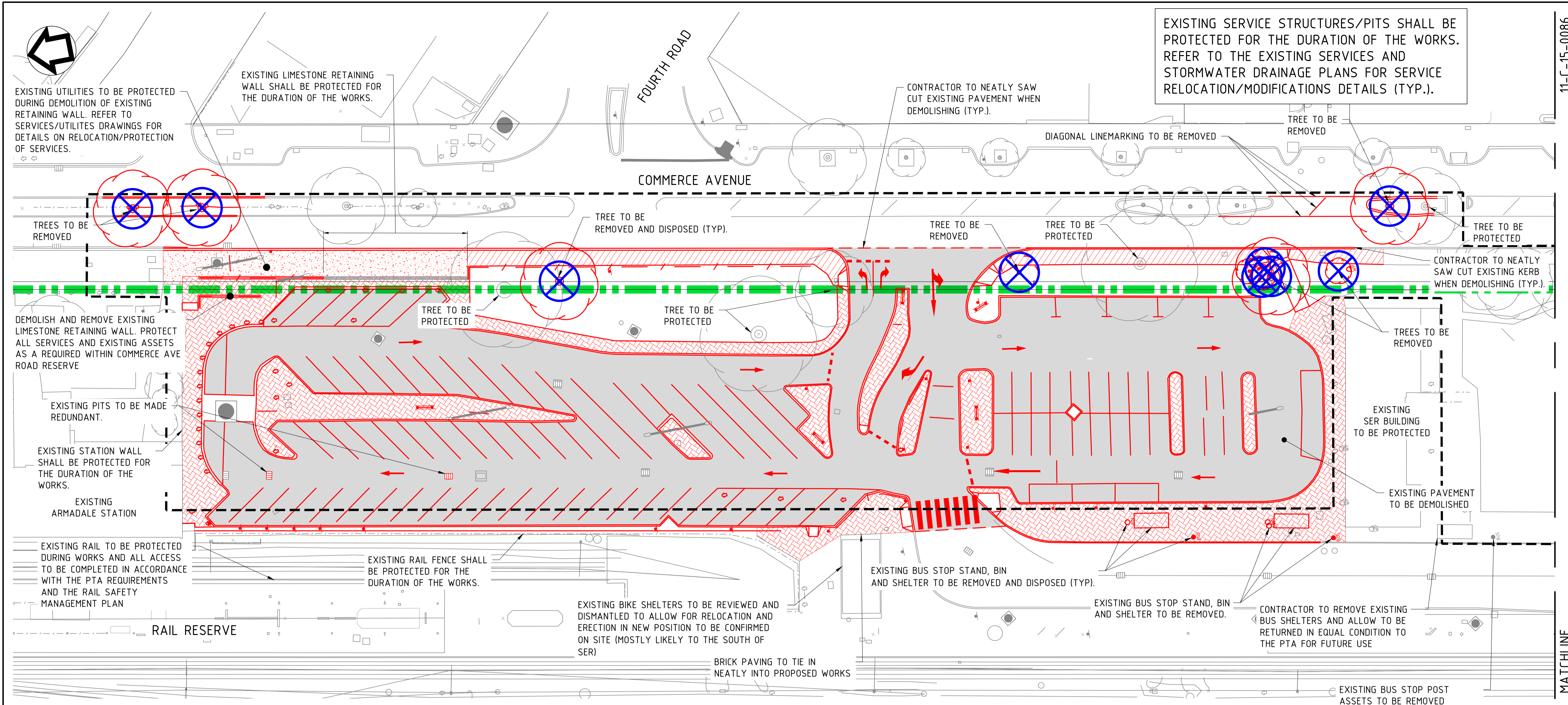


ISSUED FOR DA

BYFORD RAIL EXTENSION
ENABLING WORKS
CIVIL WORKS - TEMPORARY BUS INTERCHANGE
TYPICAL DETAILS - SHEET 6
 PTA Drawing No: **11-C-04-0031** | Rev: **B.1**



Contractor No: R30-MET-DWG-CI-001-02505 | Rev: B.1



EXISTING SERVICE STRUCTURES/PITS SHALL BE PROTECTED FOR THE DURATION OF THE WORKS. REFER TO THE EXISTING SERVICES AND STORMWATER DRAINAGE PLANS FOR SERVICE RELOCATION/MODIFICATIONS DETAILS (TYP.).

EXISTING UTILITIES TO BE PROTECTED DURING DEMOLITION OF EXISTING RETAINING WALL. REFER TO SERVICES/UTILITIES DRAWINGS FOR DETAILS ON RELOCATION/PROTECTION OF SERVICES.

EXISTING LIMESTONE RETAINING WALL SHALL BE PROTECTED FOR THE DURATION OF THE WORKS.

CONTRACTOR TO NEATLY SAW CUT EXISTING PAVEMENT WHEN DEMOLISHING (TYP.).

DIAGONAL LINEMARKING TO BE REMOVED

TREE TO BE REMOVED

TREES TO BE REMOVED

TREE TO BE REMOVED AND DISPOSED (TYP.).

TREE TO BE REMOVED

TREE TO BE PROTECTED

TREE TO BE PROTECTED

DEMOLISH AND REMOVE EXISTING LIMESTONE RETAINING WALL. PROTECT ALL SERVICES AND EXISTING ASSETS AS A REQUIRED WITHIN COMMERCE AVE ROAD RESERVE

TREE TO BE PROTECTED

TREE TO BE PROTECTED

CONTRACTOR TO NEATLY SAW CUT EXISTING KERB WHEN DEMOLISHING (TYP.).

TREES TO BE REMOVED

EXISTING SER BUILDING TO BE PROTECTED

EXISTING PAVEMENT TO BE DEMOLISHED

EXISTING PITS TO BE MADE REDUNDANT.

EXISTING STATION WALL SHALL BE PROTECTED FOR THE DURATION OF THE WORKS.

EXISTING ARMADALE STATION

EXISTING RAIL TO BE PROTECTED DURING WORKS AND ALL ACCESS TO BE COMPLETED IN ACCORDANCE WITH THE PTA REQUIREMENTS AND THE RAIL SAFETY MANAGEMENT PLAN

RAIL RESERVE

EXISTING RAIL FENCE SHALL BE PROTECTED FOR THE DURATION OF THE WORKS.

EXISTING BIKE SHELTERS TO BE REVIEWED AND DISMANTLED TO ALLOW FOR RELOCATION AND ERECTION IN NEW POSITION TO BE CONFIRMED ON SITE (MOSTLY LIKELY TO THE SOUTH OF SER)

EXISTING BUS STOP STAND, BIN AND SHELTER TO BE REMOVED AND DISPOSED (TYP.).

EXISTING BUS STOP STAND, BIN AND SHELTER TO BE REMOVED.

CONTRACTOR TO REMOVE EXISTING BUS SHELTERS AND ALLOW TO BE RETURNED IN EQUAL CONDITION TO THE PTA FOR FUTURE USE

BRICK PAVING TO TIE IN NEATLY INTO PROPOSED WORKS

EXISTING BUS STOP POST ASSETS TO BE REMOVED BY PTA BUS STOP MAINTENANCE CONTRACTORS

LEGEND

	RAIL RESERVE BOUNDARY		EXISTING ASPHALT PATH TO BE DEMOLISHED		EXISTING TREE TO BE REMOVED NO TREE SHALL BE REMOVED WITHOUT PRIOR WRITTEN CONSENT FROM THE CONTRACT ADMINISTRATOR
	CIVIL WORKS BOUNDARY		EXISTING CONCRETE PATH TO BE DEMOLISHED		EXISTING TREE TO BE PROTECTED ALL TREES SHALL BE PROTECTED FOR THE DURATION OF THE WORKS UNLESS SPECIFIED OTHERWISE
	EXISTING KERB TO BE DEMOLISHED		EXISTING BRICK PAVING TO BE DEMOLISHED		PROPOSED RAIL ALIGNMENT
	EXISTING KERB TO BE MAINTAINED		EXISTING SIGN TO BE DEMOLISHED		FUTURE RAIL ALIGNMENT
	EXISTING FENCE TO BE DEMOLISHED		EXISTING SIGN TO BE MAINTAINED		PROPOSED RETAINING WALL
	EXISTING FENCE TO BE MAINTAINED		EXISTING BOLLARD TO BE DEMOLISHED		PROPOSED KERBING
	EXISTING KERB RAMP TO BE DEMOLISHED		EXISTING ELECTRICAL DOME TO BE DEMOLISHED REFER TO ELECTRICAL PLANS FOR RELOCATION DETAILS		PROPOSED KERB RAMP
	EXISTING KERB RAMP TO BE MAINTAINED		EXISTING ELECTRICAL DOME TO BE PROTECTED		PROPOSED CONCRETE PATH
	EXISTING LIMESTONE RETAINING WALL TO BE DEMOLISHED		EXISTING DRAINAGE GRATED GULLY PIT		PROPOSED VIADUCT COLUMN REFER TO STRUCTURAL PLANS FOR DETAILS
	EXISTING LIMESTONE RETAINING WALL TO BE MAINTAINED		EXISTING DRAINAGE GRATED GULLY PIT		FUTURE VIADUCT COLUMN REFER TO STRUCTURAL PLANS FOR DETAILS
	EXISTING LIGHT POLE FOR REMOVAL		EXISTING DRAINAGE JUNCTION PIT		
	EXISTING PAVEMENT MARKING TO BE REMOVED MARKINGS TO BE REMOVED DURING PAVEMENT DEMOLITION		EXISTING DRAINAGE SIDE ENTRY PIT		
	EXISTING ZEBRA CROSSING MARKING TO BE REMOVED MARKINGS TO BE REMOVED DURING PAVEMENT DEMOLITION				

NOTES

- REFER TO PRELIMINARY CONSTRUCTION STAGING PLAN (DEVELOPED BY CONTRACTOR) FOR ENABLING WORKS STAGING AND COORDINATION OF PARKING AND SURROUNDING WORKS.
- CONTRACTOR SHALL AIM TO REUSE DEMOLISHED MATERIAL AS FAR AS POSSIBLE, SUBJECT TO TESTING AND TO THE SATISFACTION OF THE PAVEMENT AND GEOTECHNICAL ENGINEER. REVIEW ON SITE AND PROPOSE RECYCLING METHODOLOGY.
- PRIOR TO REMOVAL OF TREES, CONTRACTOR TO SEEK ARBORIST ADVICE AND APPROVAL. TO BE COORDINATED WITH CITY OF ARMADALE FOR APPROVAL.
- REFER TO RESPECTIVE SERVICE PLANS AND DETAILS FOR DEMOLITION AND PROTECTION REQUIREMENTS RELATED TO SERVICES AND CORRESPONDING INFRASTRUCTURE.
- REVIEW OF PAVEMENT DEMOLITION TO BE COMPLETED ON SITE IN COORDINATION WITH THE PROJECT GEOTECHNICAL ENGINEER. THERE MAY BE OPPORTUNITIES TO BUILD UP OVER EXISTING PAVEMENT WITH NEW PAVEMENT IN AREAS WHERE DESIGN FINISHED LEVELS ARE FAIRLY CLOSE TO THE EXISTING PAVEMENT LEVELS. THIS WILL BE SUBJECT TO EVALUATION OF THE EXISTING PAVEMENT CONDITION AND DEPTH ON SITE AND COORDINATION WITH THE GEOTECHNICAL ENGINEER TO DETERMINE AN APPROVED ALTERNATIVE CONSTRUCTION METHOD.

CAUTION: HIGH PRESSURE GAS IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

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The Essential First Step.

1:250

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B.1	23/11/22	ISSUED FOR DA	YK	MBS	FO	RS
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REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
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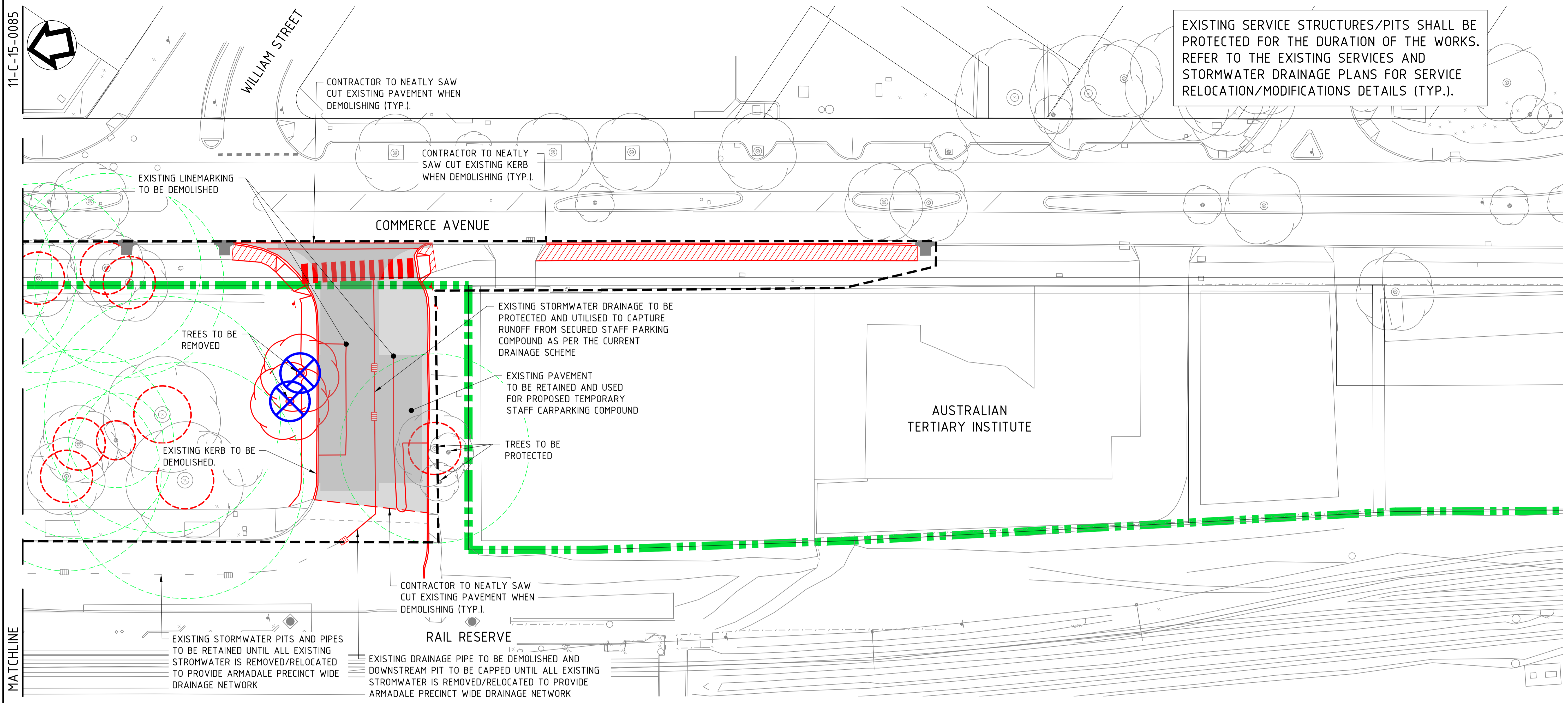


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XR01GN_RAIL_RESERVE_BDY_PCG2020
XR01GN_CADASTRAL_BDY_PCG2020
R30-MET-XRF-CI-001-00001
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SCALE	DESIGNED	RT
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DATUM	CHECKED	YK
HORIZONTAL: PCG2020	APPROVED	AE
VERTICAL: AHD71	DATE	6/10/22

Government of Western Australia Public Transport Authority	BYFORD RAIL EXTENSION
ENABLING WORKS	
CIVIL WORKS - TEMPORARY BUS INTERCHANGE	
DEMOLITION PLAN - SHEET 1	
PTA Drawing No:	11-C-15-0085
Rev:	B.1



EXISTING SERVICE STRUCTURES/PITS SHALL BE PROTECTED FOR THE DURATION OF THE WORKS. REFER TO THE EXISTING SERVICES AND STORMWATER DRAINAGE PLANS FOR SERVICE RELOCATION/MODIFICATIONS DETAILS (TYP.).

11-C-15-0085

MATCHLINE

LEGEND

	RAIL RESERVE BOUNDARY		EXISTING ASPHALT PATH TO BE DEMOLISHED		EXISTING TREE TO BE REMOVED NO TREE SHALL BE REMOVED WITHOUT PRIOR WRITTEN CONSENT FROM THE CONTRACT ADMINISTRATOR
	CIVIL WORKS BOUNDARY		EXISTING CONCRETE PATH TO BE DEMOLISHED		EXISTING TREE TO BE PROTECTED ALL TREES SHALL BE PROTECTED FOR THE DURATION OF THE WORKS UNLESS SPECIFIED OTHERWISE
	EXISTING KERB TO BE DEMOLISHED		EXISTING BRICK PAVING TO BE DEMOLISHED		FUTURE RAIL ALIGNMENT
	EXISTING KERB TO BE MAINTAINED		EXISTING SIGN TO BE DEMOLISHED		PROPOSED RETAINING WALL
	EXISTING FENCE TO BE DEMOLISHED		EXISTING SIGN TO BE MAINTAINED		PROPOSED KERBING
	EXISTING FENCE TO BE MAINTAINED		EXISTING BOLLARD TO BE DEMOLISHED		PROPOSED KERB RAMP
	EXISTING KERB RAMP TO BE DEMOLISHED		EXISTING ELECTRICAL DOME TO BE RELOCATED REFER TO ELECTRICAL PLANS FOR RELOCATION DETAILS		PROPOSED CONCRETE PATH
	EXISTING KERB RAMP TO BE MAINTAINED		EXISTING ELECTRICAL DOME TO BE PROTECTED		PROPOSED VIADUCT COLUMN REFER TO STRUCTURAL PLANS FOR DETAILS
	EXISTING LIMESTONE RETAINING WALL TO BE DEMOLISHED		EXISTING DRAINAGE GRATED GULLY PIT		FUTURE VIADUCT COLUMN REFER TO STRUCTURAL PLANS FOR DETAILS
	EXISTING LIMESTONE RETAINING WALL TO BE MAINTAINED		EXISTING DRAINAGE JUNCTION PIT		
	EXISTING LIGHT POLE FOR REMOVAL		EXISTING DRAINAGE SIDE ENTRY PIT		
	EXISTING PAVEMENT MARKING TO BE REMOVED MARKINGS TO BE REMOVED DURING PAVEMENT DEMOLITION				
	EXISTING ZEBRA CROSSING MARKING TO BE REMOVED MARKINGS TO BE REMOVED DURING PAVEMENT DEMOLITION				

NOTES

- REFER TO PRELIMINARY CONSTRUCTION STAGING PLAN FOR ENABLING WORKS STAGING AND COORDINATION OF PARKING AND SURROUNDING WORKS.
- CONTRACTOR SHALL AIM TO REUSE DEMOLISHED MATERIAL AS FAR AS POSSIBLE, SUBJECT TO TESTING AND TO THE SATISFACTION OF THE PAVEMENT AND GEOTECHNICAL ENGINEER. REVIEW ON SITE AND PROPOSE RECYCLING METHODOLOGY.
- PRIOR TO REMOVAL OF TREES, CONTRACTOR TO SEEK ARBORIST ADVICE AND APPROVAL. TO BE COORDINATED WITH CITY OF ARMADALE FOR APPROVAL.

CAUTION: HIGH PRESSURE GAS IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



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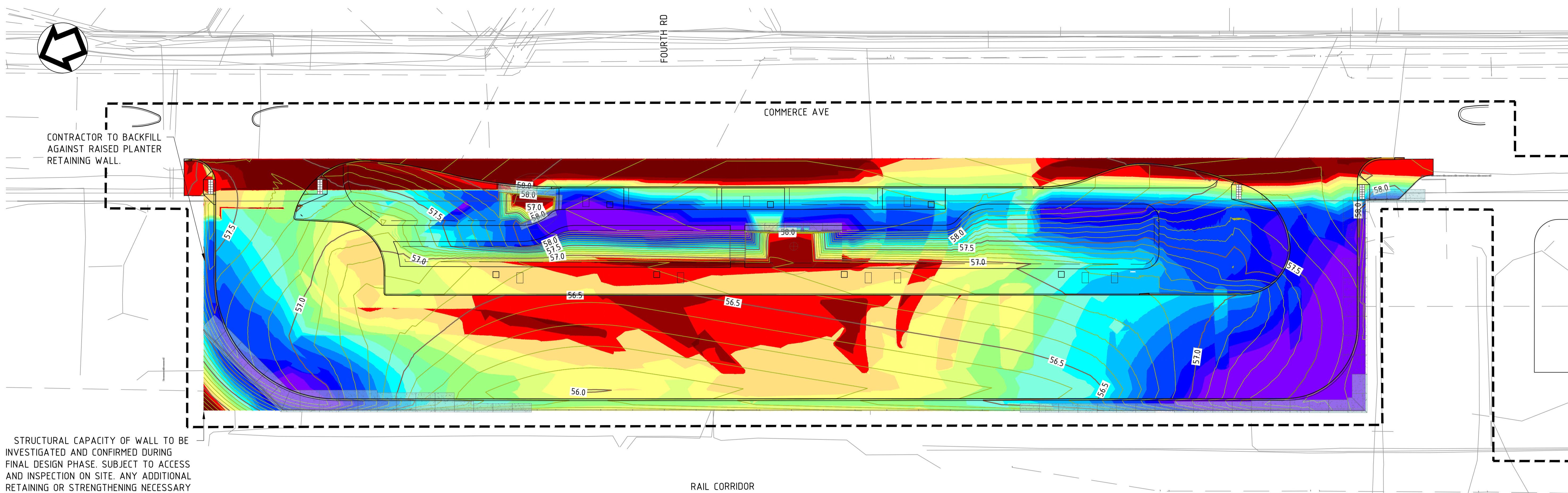
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XR01GN_CADAstral_BDY_PCG2020	
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SCALE	DESIGNED	RT
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DATUM	CHECKED	YK
HORIZONTAL: PCG2020	APPROVED	AE
VERTICAL: AHD71	DATE	6/10/22

Government of Western Australia Public Transport Authority		BYFORD RAIL EXTENSION	
ENABLING WORKS			
CIVIL WORKS - TEMPORARY BUS INTERCHANGE			
DEMOLITION PLAN - SHEET 2			
PTA Drawing No:		11-C-15-0086	Rev: B.1

TO PERTH

TO BYFORD



SITE PLAN
1:250

STRUCTURAL CAPACITY OF WALL TO BE INVESTIGATED AND CONFIRMED DURING FINAL DESIGN PHASE. SUBJECT TO ACCESS AND INSPECTION ON SITE. ANY ADDITIONAL RETAINING OR STRENGTHENING NECESSARY TO BE DEVELOPED FOLLOWING SITE INSPECTION DURING FD.

CUT 55m³
FILL 2,692m³
IMPORT 2,637m³

- NOTE:
- VOLUMES ARE ESTIMATED FROM FINISHED SURFACE TO EXISTING SURFACE NOT ALLOWING FOR BOX OUT OR ANY DEMOLITION INFRASTRUCTURE.
 - EXISTING DEMOLISHED PAVEMENT MATERIAL EXPECTED TO BE REUSED. SUBJECT TO REVIEW AND CONFIRMATION ON SITE AND APPROVAL BY THE PROJECT GEOTECHNICAL ENGINEER.
 - REVIEW OF PAVEMENT DEMOLITION TO BE COMPLETED ON SITE IN COORDINATION WITH THE PROJECT GEOTECHNICAL ENGINEER. THERE MAY BE OPPORTUNITIES TO BUILD UP OVER EXISTING PAVEMENT WITH NEW PAVEMENT IN AREAS WHERE DESIGN FINISHED LEVELS ARE FAIRLY CLOSE TO THE EXISTING PAVEMENT LEVELS. THIS WILL BE SUBJECT TO EVALUATION OF THE EXISTING PAVEMENT CONDITION AND DEPTH ON SITE AND COORDINATION WITH THE GEOTECHNICAL ENGINEER TO DETERMINE AN APPROVED ALTERNATIVE CONSTRUCTION METHOD.

Surface Analysis: Elevation Ranges			
Number	Color	Minimum Elevation (m)	Maximum Elevation (m)
1	Dark Red	-0.591	-0.100
2	Red	-0.100	0.000
3	Red-Orange	0.000	0.100
4	Orange	0.100	0.200
5	Yellow-Orange	0.200	0.300
6	Yellow	0.300	0.400
7	Light Green	0.400	0.500
8	Green	0.500	0.600
9	Light Cyan	0.600	0.700
10	Cyan	0.700	0.800
11	Blue-Cyan	0.800	0.900
12	Blue	0.900	1.000
13	Dark Blue	1.000	1.200
14	Very Dark Blue	1.200	1.300
15	Black	1.300	1.400
16	Purple	1.400	2.200

LEGEND

- CONTOURS - MAJOR
- CONTOURS - MINOR
- PROPOSED KERBING
- PROPOSED KERB RAMP
- PROPOSED RETAINING WALL
- CIVIL WORKS BOUNDARY

CAUTION: HIGH PRESSURE GAS IN VICINITY. CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



CAUTION: FIBRE OPTIC CABLE IN VICINITY. CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



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XR01GN_SURVEY_PCG2020
XR01UT_UTILITIES_PCG2020
R30-MET-CAD-CI-001- TEMP BUS INT - Earthworks
R30-MET-XRF-CI-001-00001
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SCALE

1:250

DATUM

HORIZONTAL: PCG2020
VERTICAL: AHD71

DESIGNED RT

DRAWN MBS

CHECKED YK

APPROVED AE

DATE 6/10/22

Government of Western Australia
Public Transport Authority

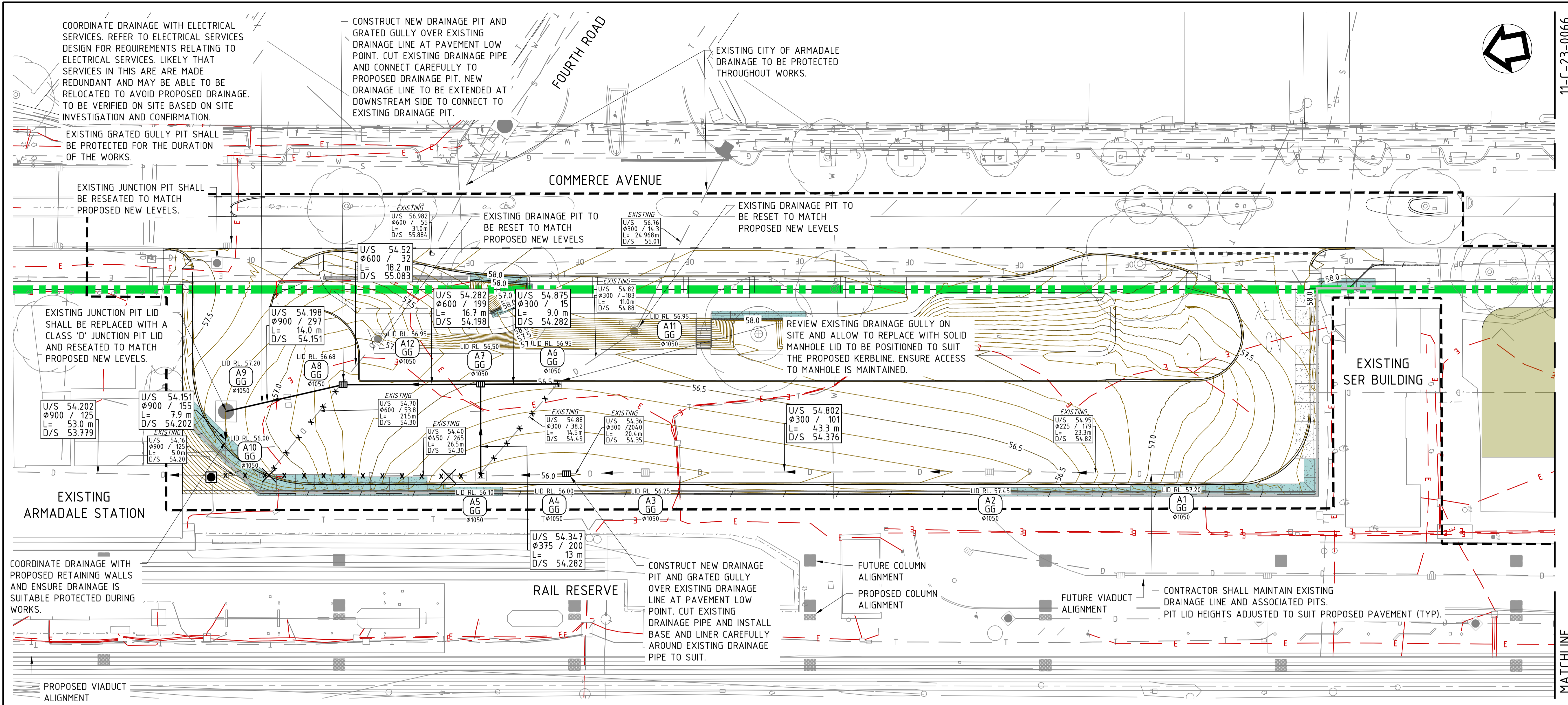
BYFORD RAIL EXTENSION

ENABLING WORKS

CIVIL WORKS - TEMPORARY BUS INTERCHANGE

EARTHWORKS CUT AND FILL PLAN

PTA Drawing No: 11-C-15-0087 | Rev: A.1



LEGEND

- RAIL RESERVE BOUNDARY
- CIVIL WORKS BOUNDARY
- FUTURE RAIL ALIGNMENT
- CONTOURS - MAJOR
- CONTOURS - MINOR
- PROPOSED RETAINING WALL
- PROPOSED KERBING
- PROPOSED KERB RAMP
- 600mm EARTHWORKS SHOULDER
- PROPOSED VIADUCT COLUMN
REFER TO STRUCTURAL PLANS FOR DETAILS
- FUTURE VIADUCT COLUMN
REFER TO STRUCTURAL PLANS FOR DETAILS
- EXISTING TREE
ALL TREES SHALL BE PROTECTED FOR THE DURATION OF THE WORKS UNLESS SPECIFIED OTHERWISE

	MODIFIED EXISTING DRAINAGE PIPE		MT	EXISTING COMMUNICATIONS - MRWA
	PROPOSED DRAINAGE PIPE		NBN	EXISTING COMMUNICATIONS - NBN
	PROPOSED DRAINAGE JUNCTION PIT		C	EXISTING COMMUNICATIONS - NEXGEN
	PROPOSED DRAINAGE GRATED GULLY PIT		O	EXISTING COMMUNICATIONS - OPTUS
	EXISTING DRAINAGE STRUCTURE (GRATED GULLY, SIDE ENTRY AND JUNCTION)		OF	EXISTING COMMUNICATIONS - OPTICAL FIBRE
	EXISTING DRAINAGE STRUCTURE TO BE DEMOLISHED (GRATED GULLY, SIDE ENTRY AND JUNCTION)		T	EXISTING COMMUNICATIONS - TELSTRA
	UPSTREAM INVERT LEVEL PIPE DIAMETER / PIPE GRADE LENGTH (CHAMBER CENTRE TO CENTRE) DOWNSTREAM INVERT LEVEL		VOCUS	EXISTING COMMUNICATIONS - VOCUS
	DOWNSTREAM INVERT LEVEL		D	EXISTING DRAINAGE PIPE
	UPSTREAM INVERT LEVEL PIPE DIAMETER / PIPE GRADE LENGTH (CHAMBER CENTRE TO CENTRE) DOWNSTREAM INVERT LEVEL		X	EXISTING DRAINAGE PIPE TO BE DEMOLISHED
	LID LEVEL (T.B.C.) PIT NUMBER PIT TYPE LINER SIZE (1050 U.S.O.)		E	EXISTING ELECTRICAL CABLE
			G	EXISTING ATCO GAS MAIN
			S	EXISTING SEWER PIPE
			SD	EXISTING UNKNOWN SERVICE
			W	EXISTING WATER PIPE

NOTES

- EXISTING DRAINAGE TO BE VERIFIED ON SITE.
- EXISTING DRAINAGE BEING MADE REDUNDANT TO BE REMOVED AND DISPOSED APPROPRIATELY OFF-SITE IN ACCORDANCE WITH THE CONSTRUCTION AND ENVIRONMENTAL MANAGEMENT PLANS
- PROPOSED DRAINAGE IS BASED GENERALLY ON MAINTAINING THE EXISTING DRAINAGE REGIME FOR THE TEMPORARY WORKS CASE. IT IS NOTED THAT THE EXISTING DRAINAGE ARRANGEMENT IS NOT IDEAL WHERE PIPE SIZES AND INVERTS ARE GENERALLY NOT TO STANDARD. IT IS INTENDED THAT THE MAJORITY OF EXISTING DRAINAGE IS MADE REDUNDANT POST TEMPORARY WORKS AND AS PART OF THE ULTIMATE DESIGN. THE ULTIMATE DESIGN ARRANGEMENT IS SUBJECT TO DEVELOPMENT AND CONFIRMATION AS PART OF THE OVERALL ARMADALE PRECINCT DESIGN AS INCLUDED IN PACKAGE CI-200. COORDINATION AND APPROVAL OF THE ULTIMATE DESIGN WITH THE CITY OF ARMADALE AND PTA WILL BE UNDERTAKEN.

CAUTION: HIGH PRESSURE GAS IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

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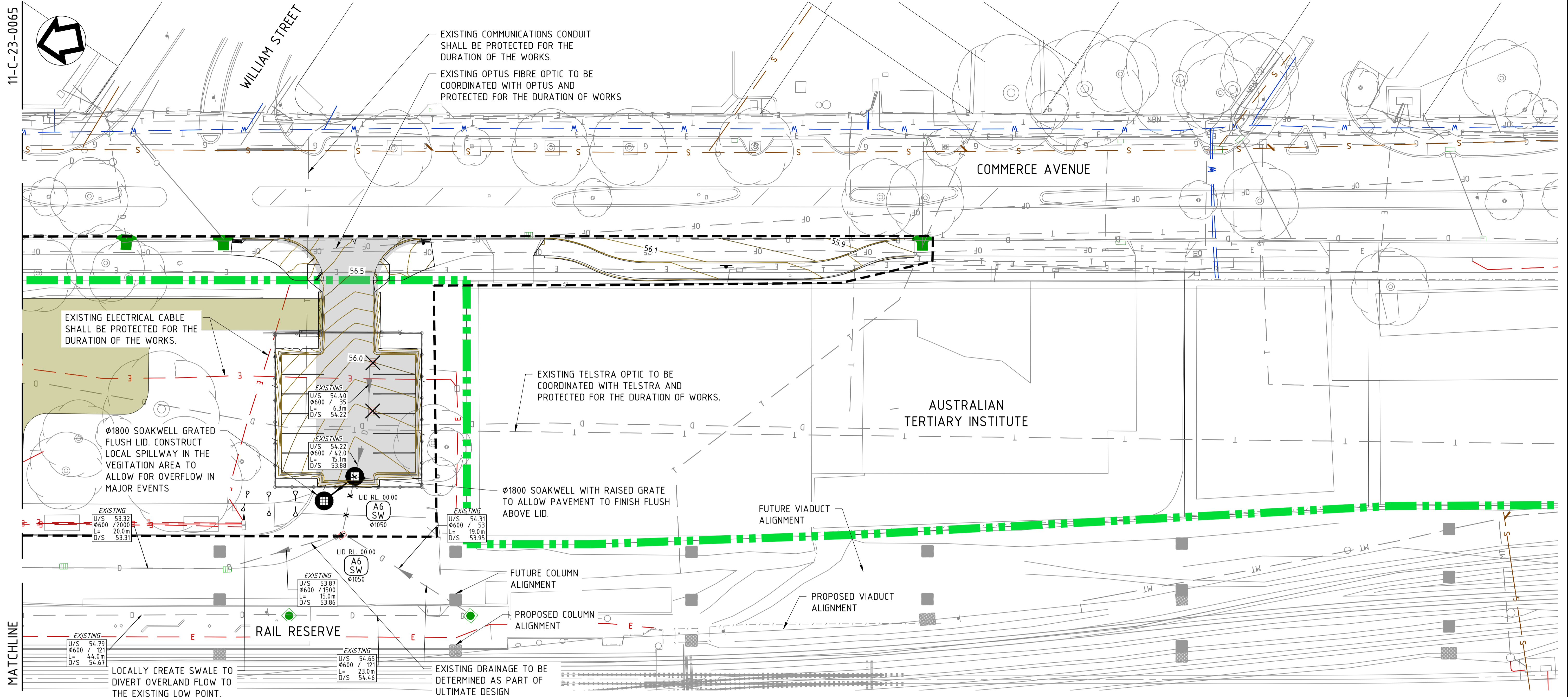
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- R30-MET-XRF-TR-100-00310
- XR01GN_CADASTRAL_BDY_PCG2020
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DATUM	CHECKED	YK
HORIZONTAL: PCG2020	APPROVED	AE
VERTICAL: AHD71	DATE	6/10/22

Government of Western Australia Public Transport Authority		BYFORD RAIL EXTENSION	
ENABLING WORKS			
CIVIL WORKS - TEMPORARY BUS INTERCHANGE			
DRAINAGE LAYOUT PLAN - SHEET 1			
PTA Drawing No:		11-C-23-0065	Rev: B.1

11-C-23-0065

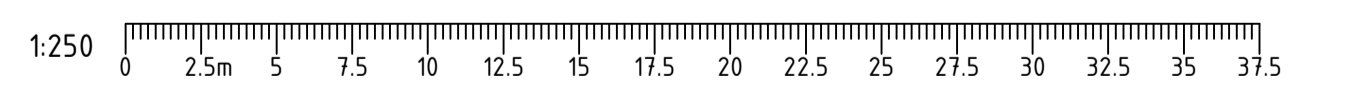


LEGEND

	RAIL RESERVE BOUNDARY		PROPOSED DRAINAGE PIPE		MT	EXISTING COMMUNICATIONS - MRWA
	CIVIL WORKS BOUNDARY		PROPOSED DRAINAGE JUNCTION PIT		NBN	EXISTING COMMUNICATIONS - NBN
	FUTURE RAIL ALIGNMENT		PROPOSED DRAINAGE GRATED GULLY PIT		C	EXISTING COMMUNICATIONS - NEXTGEN
	CONTOURS - MAJOR		EXISTING DRAINAGE STRUCTURE (GRATED GULLY, SIDE ENTRY AND JUNCTION)		O	EXISTING COMMUNICATIONS - OPTUS
	CONTOURS - MINOR		EXISTING DRAINAGE STRUCTURE TO BE DEMOLISHED (GRATED GULLY, SIDE ENTRY AND JUNCTION)		OF	EXISTING COMMUNICATIONS - OPTICAL FIBRE
	PROPOSED RETAINING WALL		UPSTREAM INVERT LEVEL PIPE DIAMETER / PIPE GRADE LENGTH (CHAMBER CENTRE TO CENTRE) DOWNSTREAM INVERT LEVEL		T	EXISTING COMMUNICATIONS - TELSTRA
	PROPOSED KERBING		UPSTREAM INVERT LEVEL PIPE DIAMETER / PIPE GRADE LENGTH (CHAMBER CENTRE TO CENTRE) DOWNSTREAM INVERT LEVEL		VOCUS	EXISTING COMMUNICATIONS - VOCUS
	PROPOSED KERB RAMP		LID LEVEL (T.B.C.) PIT NUMBER PIT TYPE LINER SIZE (1050 U.S.O.)		D	EXISTING DRAINAGE PIPE
	600mm EARTHWORKS SHOULDER				X - X - X - X - X	EXISTING DRAINAGE PIPE TO BE DEMOLISHED
	PROPOSED VIADUCT COLUMN REFER TO STRUCTURAL PLANS FOR DETAILS				E	EXISTING ELECTRICAL CABLE
	FUTURE VIADUCT COLUMN REFER TO STRUCTURAL PLANS FOR DETAILS				G	EXISTING ATCO GAS MAIN
	EXISTING TREE ALL TREES SHALL BE PROTECTED FOR THE DURATION OF THE WORKS UNLESS SPECIFIED OTHERWISE				S	EXISTING SEWER PIPE
					SD	EXISTING UNKNOWN SERVICE
					W	EXISTING WATER PIPE

CAUTION: HIGH PRESSURE GAS IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

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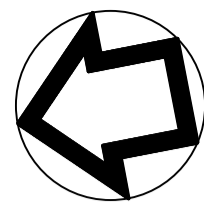
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SCALE	DESIGNED	RT
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Government of Western Australia Public Transport Authority		BYFORD RAIL EXTENSION	
ENABLING WORKS			
CIVIL WORKS - TEMPORARY BUS INTERCHANGE			
DRAINAGE LAYOUT PLAN - SHEET 2			
PTA Drawing No:	11-C-23-0066	Rev:	B.1

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Contractor No. R30-MET-DWG-CL-001-04.001 Rev. B.1



UPSTREAM CATCHMENTS SUBJECT TO CONFIRMATION AND DEVELOPMENT OF ULTIMATE PRECINCT LAYOUT DESIGN

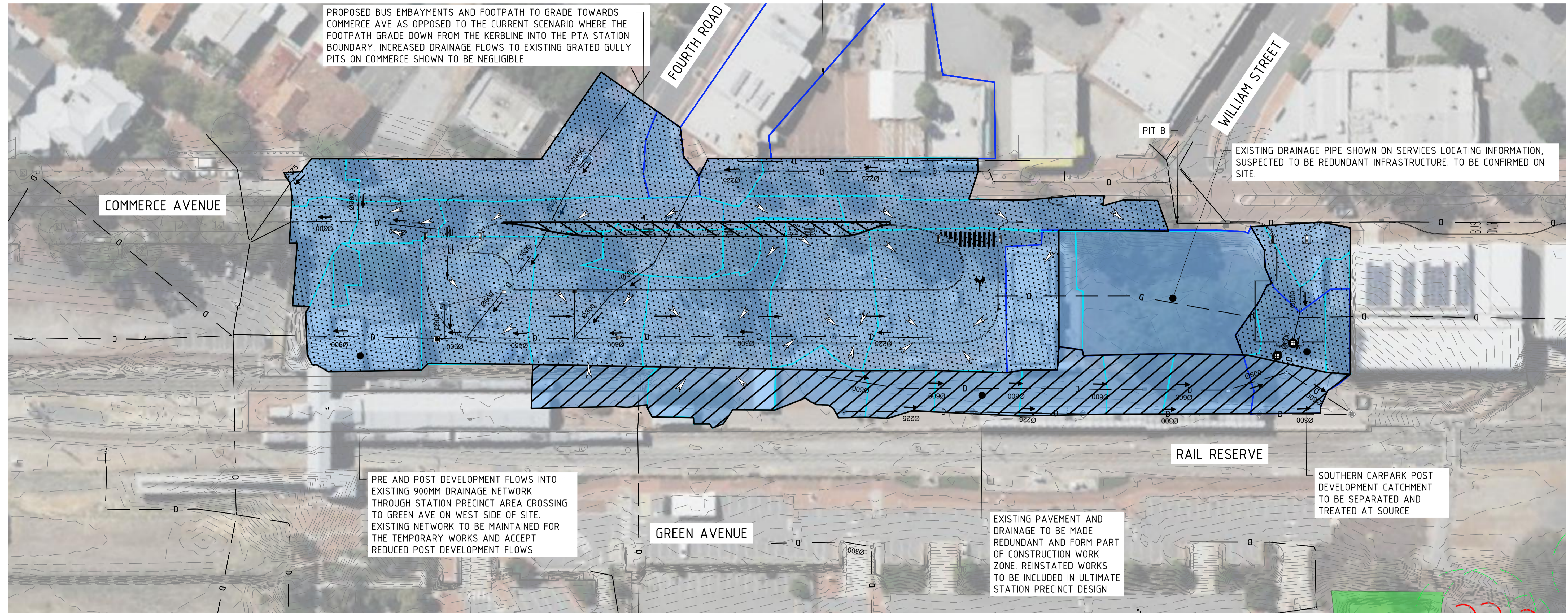
PROPOSED BUS EMBAYMENTS AND FOOTPATH TO GRADE TOWARDS COMMERCE AVE AS OPPOSED TO THE CURRENT SCENARIO WHERE THE FOOTPATH GRADE DOWN FROM THE KERBLINE INTO THE PTA STATION BOUNDARY. INCREASED DRAINAGE FLOWS TO EXISTING GRATED GULLY PITS ON COMMERCE SHOWN TO BE NEGLIGIBLE

EXISTING DRAINAGE PIPE SHOWN ON SERVICES LOCATING INFORMATION, SUSPECTED TO BE REDUNDANT INFRASTRUCTURE. TO BE CONFIRMED ON SITE.

PRE AND POST DEVELOPMENT FLOWS INTO EXISTING 900MM DRAINAGE NETWORK THROUGH STATION PRECINCT AREA CROSSING TO GREEN AVE ON WEST SIDE OF SITE. EXISTING NETWORK TO BE MAINTAINED FOR THE TEMPORARY WORKS AND ACCEPT REDUCED POST DEVELOPMENT FLOWS

EXISTING PAVEMENT AND DRAINAGE TO BE MADE REDUNDANT AND FORM PART OF CONSTRUCTION WORK ZONE. REINSTATED WORKS TO BE INCLUDED IN ULTIMATE STATION PRECINCT DESIGN.

SOUTHERN CARPARK POST DEVELOPMENT CATCHMENT TO BE SEPARATED AND TREATED AT SOURCE



LEGEND

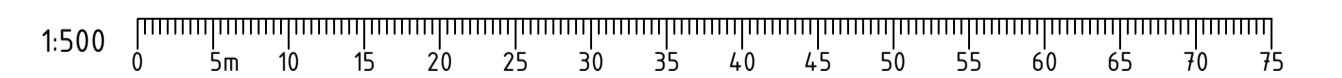
- PRE-DEVELOPMENT CATCHMENT BOUNDARY
- POST DEVELOPMENT CATCHMENT BOUNDARY
- EXISTING DRAINAGE PIPE
- EXISTING DRAINAGE PIPE FLOW DIRECTION
- MAJOR CATCHMENT BOUNDARY

NOTES

1. POST DEVELOPMENT CATCHMENT BOUNDARY IS REDUCED FROM THE PREDEVELOPMENT CATCHMENT BOUNDARY AND THE DEGREE OF IMPERVIOUS AREA IS DECREASING. THE INTENT FOR THE TEMPORARY WORKS, GIVEN THE REDUCED TIMEFRAME OF OPERATION IS TO MAINTAIN THE EXISTING DRAINAGE NETWORK UNTIL SUCH TIME THAT THE TEMPORARY WORKS ARE NO LONGER REQUIRED AND SUPERSEDED BY THE ULTIMATE PRECINCT DESIGN. THE ULTIMATE DRAINAGE STRATEGY FOR THE ARMADALE PRECINCT IS STILL TO BE DETERMINED AND SUBJECT TO COORDINATION WITH THE PTA AND CITY OF ARMADALE

CAUTION: HIGH PRESSURE GAS IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

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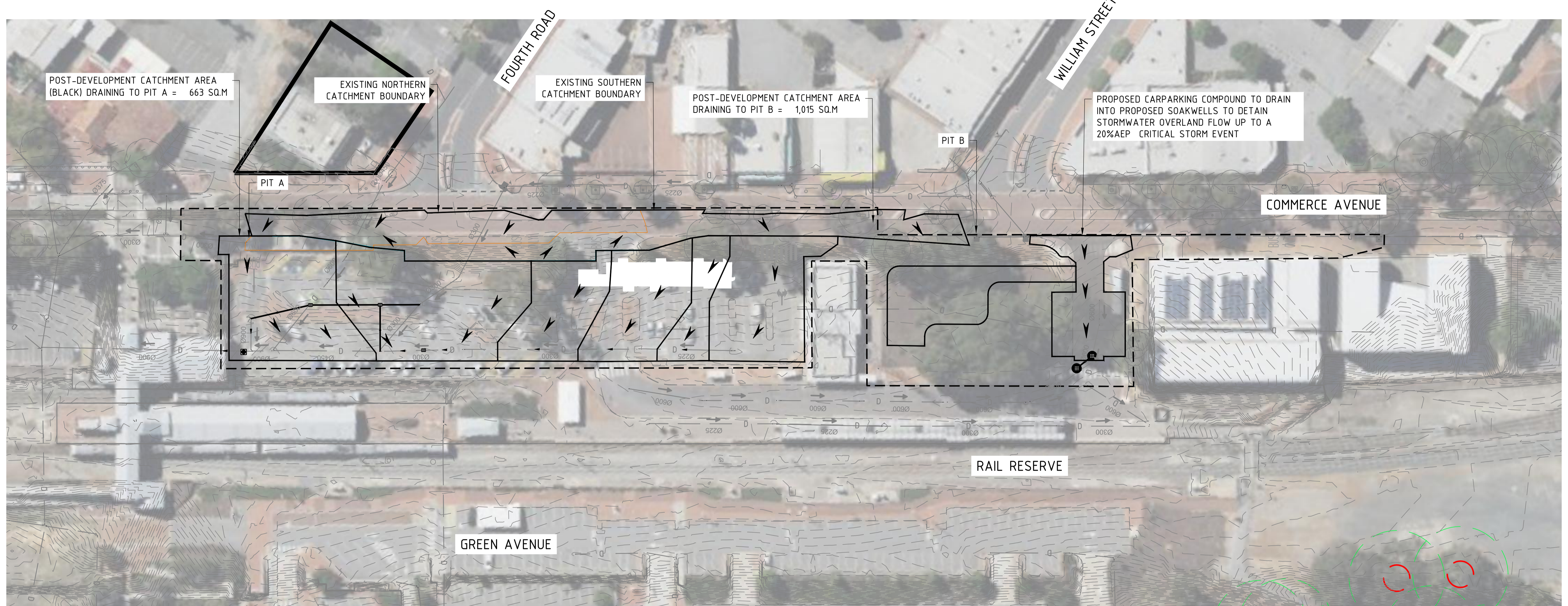
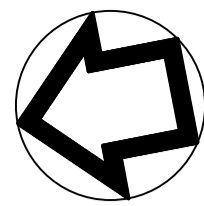
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Contractor No: R30-MET-DWG-CL-001-04.100 | Rev: A.1

REFERENCES	
XR01UT_UTILITIES_PCG2020 XR01GN_RAIL_RESERVE_BDY_PCG2020 R30-MET-XRF-TR-100-00310 XR01CI_ARM_TMP_BUS_INT_CONTOURS_PCG2020 XR01GN_CONTOURS_0.1M_PCG2020 XR01GN_SURVEY_PCG2020 - TRIMMED XR01UT_001_PRE_CATCHMENT_EXPORT_PCG2020 R30-MET-XRF-CL-001-00001 _LOGO_MetCONNX	
SCALE	DESIGNED RT
1:500	DRAWN MBS
DATUM	CHECKED YK
HORIZONTAL: PCG2020	APPROVED AE
VERTICAL: AHD71	DATE 6/10/22

DESIGNED	RT
DRAWN	MBS
CHECKED	YK
APPROVED	AE
DATE	6/10/22

		BYFORD RAIL EXTENSION	
ENABLING WORKS		CIVIL WORKS	
DRAINAGE CATCHMENT PLAN		PTA Drawing No: 11-C-23-0067	
		Rev: A.1	



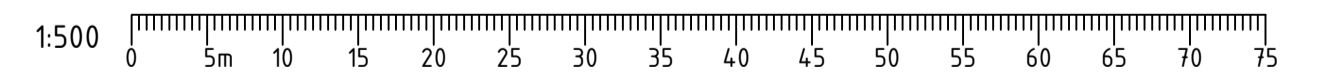
POST DEVELOPMENT CATCHMENT DISTRIBUTION		PRE-DEVELOPMENT CATCHMENT		POST-DEVELOPMENT CATCHMENT	
CATCHMENT	TOTAL CATCHMENT AREA (m ²)	PERVIOUS AREA (m ²)	IMPERVIOUS AREA (m ²)	PERVIOUS AREA (m ²)	IMPERVIOUS AREA (m ²)

LEGEND

- POST-DEVELOPMENT CATCHMENT BOUNDARY
- EXISTING DRAINAGE PIPE
- POST DRAINAGE PIPE FLOW DIRECTION
- MAJOR CATCHMENT BOUNDARY

CAUTION: HIGH PRESSURE GAS IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



ISSUED FOR DA

A.1	23/11/22	ISSUED FOR DA	YK	MBS	FO	RS	
REV	DATE	AMENDMENT	DSN	DRN	CHK	APP	
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A1	AT ORIGINAL PLOT SIZE		Contractor No: R30-MET-DWG-CI-001-04101 Rev: A.1				

REFERENCES	SCALE
XR01UT_UTILITIES_PCG2020 XR01GN_RAIL_RESERVE_BDY_PCG2020 R30-MET-XRF-TR-100-00310 XR01CI_ARM_TMP_BUS_INT_CONTOURS_PCG2020 XR01GN_CONTOURS_0.1M_PCG2020 XR01GN_SURVEY_PCG2020 - TRIMMED R30-MET-XRF-CI-001-00001 XR01UT_001_POST_CATCHMENT_EXPORT_PCG2020	1:500
DATUM	HORIZONTAL: PCG2020 VERTICAL: AHD71

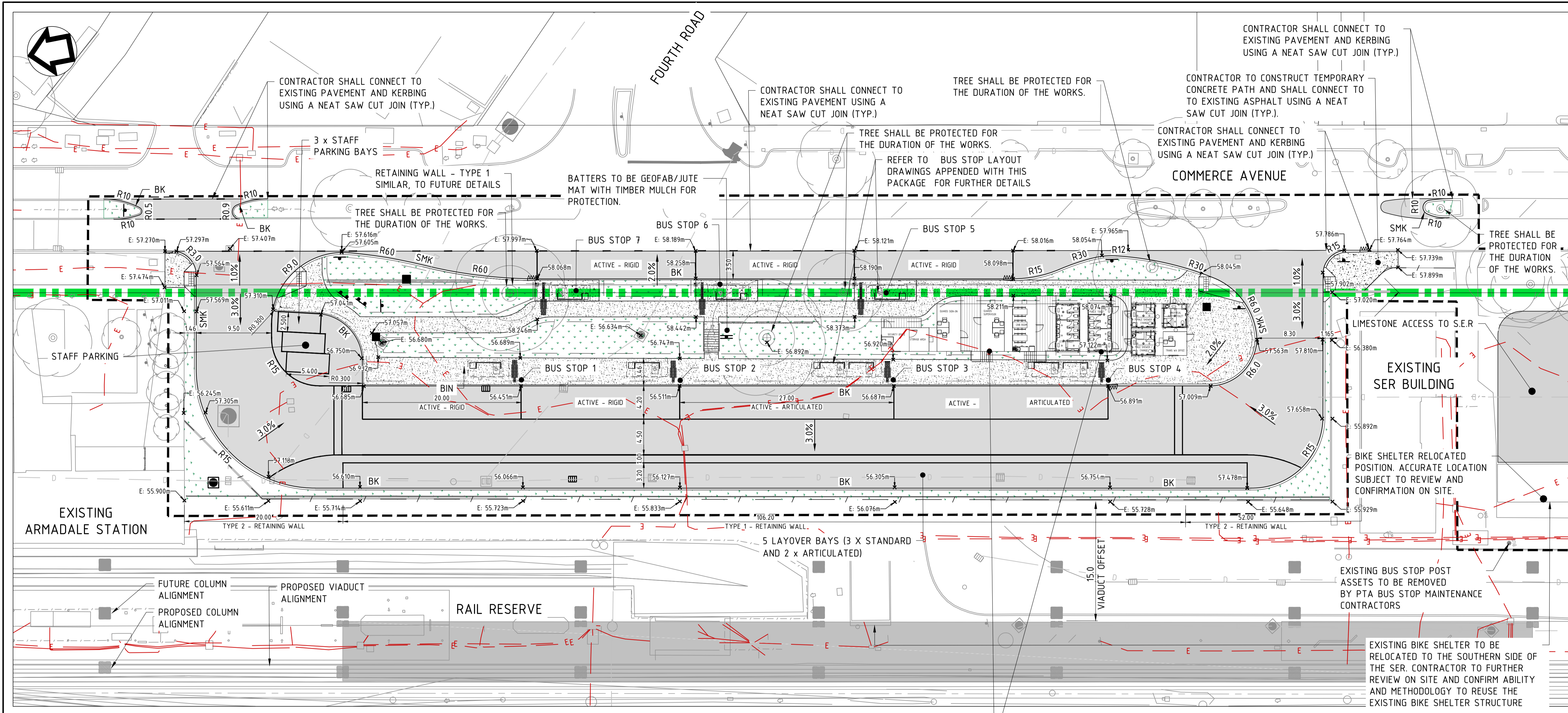
DESIGNED	RT
DRAWN	MBS
CHECKED	YK
APPROVED	AE
DATE	6/10/22

Government of Western Australia
Public Transport Authority

BYFORD RAIL EXTENSION

ENABLING WORKS
CIVIL WORKS
POST DEVELOPMENT CATCHMENT PLAN

PTA Drawing No: 11-C-23-0072 Rev: A.1



LEGEND

	RAIL RESERVE BOUNDARY
	CIVIL WORKS BOUNDARY
	PROPOSED PAVEMENT
	KERB TRANSITION
	PROPOSED KERBING (TYPE DEFINED BY TEXT)
	SEMI-MOUNTABLE KERB (KEYED)
	BARRIER KERB - 170mm HIGH
	PROPOSED CONCRETE PATH
	PROPOSED KERB RAMP WITH TACTILE PAVERS (TACTILE PAVERS IN ACCORDANCE WITH AS1428 TYP.)
	600mm EARTHWORKS SHOULDER
	PROPOSED JUTE MATTING AND MULCH TREATMENT
	EXISTING DRAINAGE PIPE

NOTES

- OVERHANG TREE BRANCHES TO BE TRIMMED TO PROVIDE VERTICAL CLEARANCE TO BUSES IN ACCORDANCE WITH PTA SPECIFICATIONS. ANY PRUNING TO TREES IS TO BE CARRIED OUT IN ACCORDANCE WITH CITY'S ARBORIST/PTA ADVICE. CONTRACTOR TO COORDINATE WITH PTA/CITY'S ARBORIST.
- REFER TO BUS STOP LAYOUT DRAWINGS APPENDED WITH THIS PACKAGE FOR FURTHER DETAILS.
- TREES SHALL BE PROTECTED FOR THE DURATION OF THE WORKS U.S.D.
- REFER TO STRUCTURAL DRAWINGS FOR RETAINING WALL TYPICAL DETAILS.

CONTRACTOR TO SOURCE AND SUPPLY TRANSPORTABLE BUILDINGS TO PROVIDE TRANSPERTH AND PTA OPERATIONAL FACILITIES. REFER TO DRAWINGS BY SELECT FOR FURTHER DETAILS.

REFER TO BUILDING SERVICES DISCIPLINE DRAWINGS FOR SERVICING REQUIREMENTS AND CONNECTIONS

CAUTION: HIGH PRESSURE GAS IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



ISSUED FOR DA

B.1	23/11/22	ISSUED FOR DA	YK	MBS	FO	RS
A	5/07/22	ISSUED FOR RD	FO	TM	YK	NM
REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
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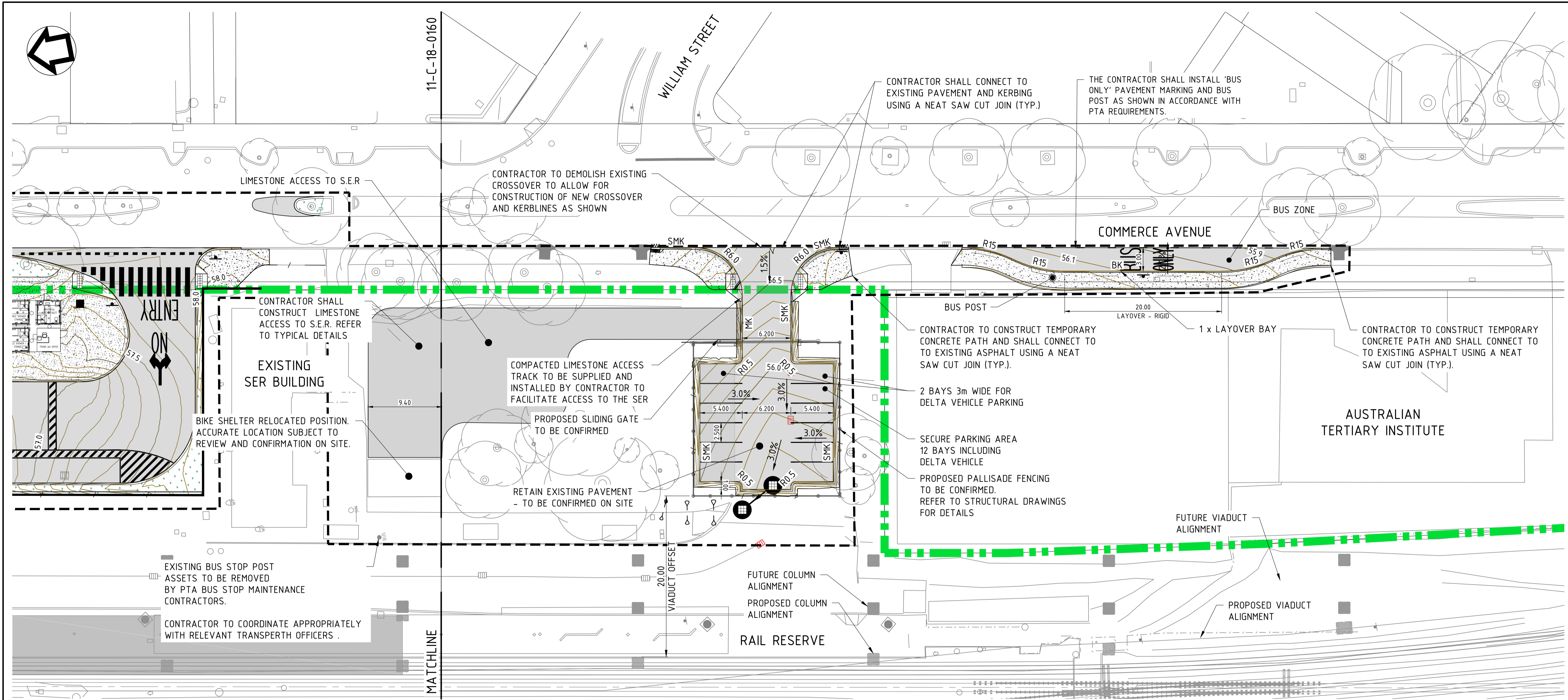


REFERENCES

XR01GN_SURVEY_CI_001_PCG2020
XR01GN_RAIL_RESERVE_BDY_PCG2020
R30-MET-XRF-TR-100-00510
R30-MET-XRF-TR-100-00310
XR01GN_CADAstral_BDY_PCG2020
R30-MET-XRF-CI-001-00001
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XREF-PLAN
XROTUT_UTILITIES_PCG2020
_LOGO_METCONNX

SCALE	DESIGNED	RT
1:250	DRAWN	MBS
DATUM	CHECKED	YK
HORIZONTAL: PCG2020	APPROVED	AE
VERTICAL: AHD71	DATE	6/10/22

	BYFORD RAIL EXTENSION
ENABLING WORKS	
CIVIL WORKS - TEMPORARY BUS INTERCHANGE	
ROAD LAYOUT PLAN - SHEET 1	
PTA Drawing No:	11-C-18-0160
Rev:	B.1



LEGEND	
	RAIL RESERVE BOUNDARY
	CIVIL WORKS BOUNDARY
	PROPOSED PAVEMENT
	KERB TRANSITION
	PROPOSED KERBING (TYPE DEFINED BY TEXT)
	SEMI-MOUNTABLE KERB (KEYED)
	BARRIER KERB - 170mm HIGH
	FLUSH KERB
	PROPOSED PAVED TREATMENT (INDICATIVE ONLY) REFER TO LANDSCAPE ARCHITECTS PLANS AND SPECIFICATIONS
	PROPOSED CONCRETE PATH
	PROPOSED KERB RAMP WITH TACTILE PAVERS (TACTILE PAVERS IN ACCORDANCE WITH AS1428 TYP.)
	600mm EARTHWORKS SHOULDER
	PROPOSED LANDSCAPE TREATMENT (INDICATIVE ONLY) REFER TO LANDSCAPE ARCHITECTS PLANS AND SPECIFICATIONS
	PROPOSED RAIL ALIGNMENT
	FUTURE RAIL ALIGNMENT
	PROPOSED RETAINING WALL
	PROPOSED PARKING BAY - 5.4m LONG x 2.5m WIDE INSTALLED IN ACCORDANCE WITH PTA REQUIREMENTS
	PROPOSED DIAGONAL PAVEMENT MARKING INSTALLED IN ACCORDANCE WITH PTA REQUIREMENTS
	PROPOSED DRAINAGE JUNCTION PIT REFER TO DRAINAGE PLANS FOR DETAILS
	PROPOSED DRAINAGE GRATED GULLY PIT REFER TO DRAINAGE PLANS FOR DETAILS
	EXISTING DRAINAGE STRUCTURE (GRATED GULLY, SIDE ENTRY AND JUNCTION)
	PROPOSED VIADUCT COLUMN REFER TO STRUCTURAL PLANS FOR DETAILS
	FUTURE VIADUCT COLUMN REFER TO STRUCTURAL PLANS FOR DETAILS
	EXISTING TREE ALL TREES SHALL BE PROTECTED FOR THE DURATION OF THE WORKS UNLESS SPECIFIED OTHERWISE

CAUTION: HIGH PRESSURE GAS IN VICINITY.
 CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
 CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



ISSUED FOR DA

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
B.1	23/11/22	ISSUED FOR DA				
A	5/07/22	ISSUED FOR RD	YK	MBS	FO	RS

ORIG SIZE 1:250

AT ORIGINAL PLOT SIZE

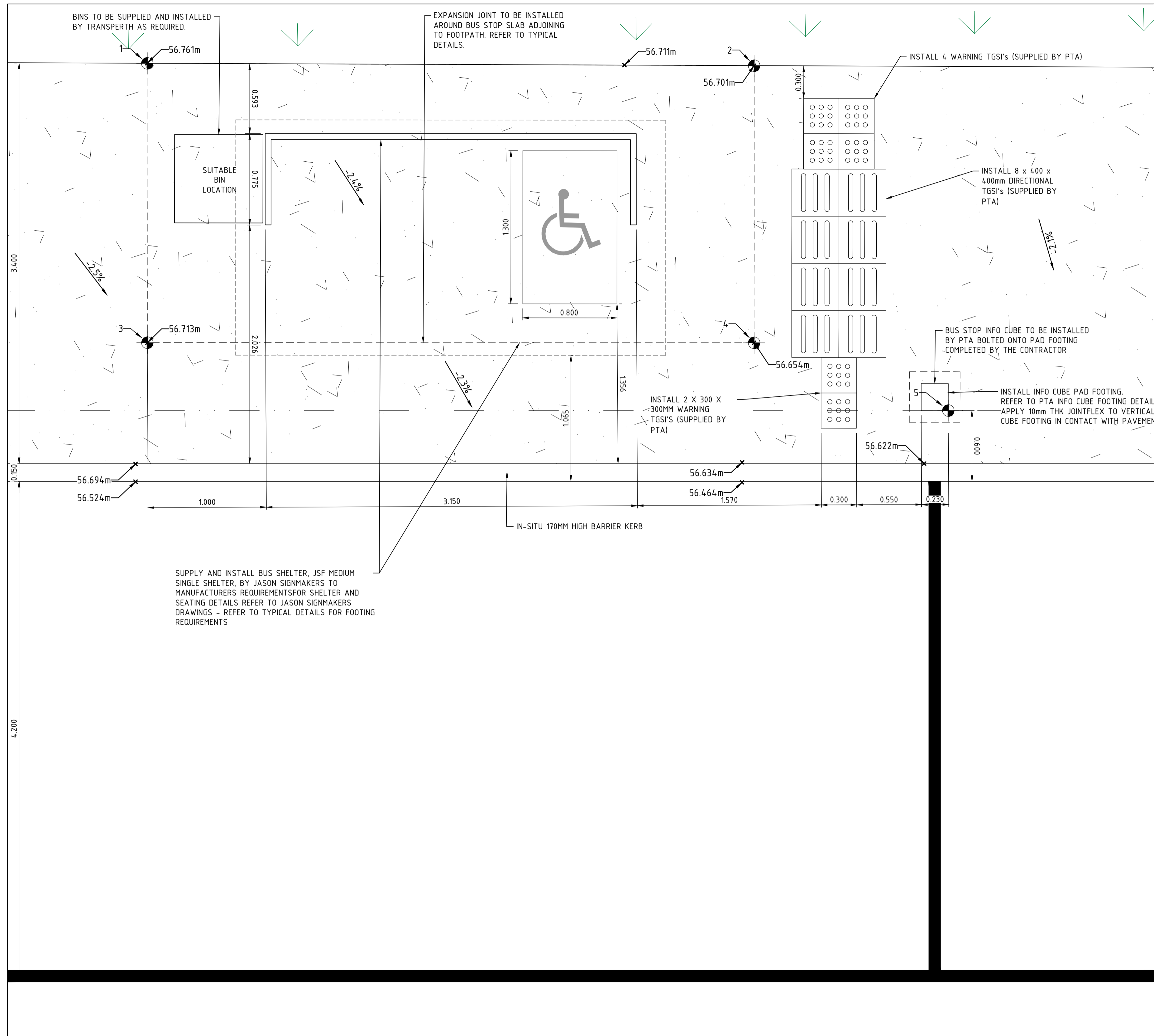
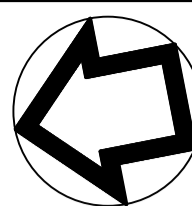
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REFERENCES
XR01GN_SURVEY_CI_001_PCG2020
R30-DEA-CAD-ST-170-01001
XR01GN_RAIL_RESERVE_BDY_PCG2020
R30-MET-XRF-TR-100-00510
R30-MET-XRF-TR-100-00310
XR01GN_CADAstral_BDY_PCG2020
R30-DEA-XRF-ST-170-01001
R30-MET-XRF-CI-001-00001
_LOGO_METCONNX

SCALE
1:250
DATUM
HORIZONTAL: PCG2020
VERTICAL: AHD71

DESIGNED	RT
DRAWN	MBS
CHECKED	YK
APPROVED	AE
DATE	6/10/22
BYFORD RAIL EXTENSION	
ENABLING WORKS	
CIVIL WORKS - TEMPORARY BUS INTERCHANGE	
ROAD LAYOUT PLAN - SHEET 2	
PTA Drawing No:	11-C-18-0161
Rev:	B.1



NOTES

- 1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.
- 2. ALL KERBING ADJACENT TO BUS STOP HARDSTAND IS KASSEL KERB.

HARDSTAND AND BUS STOP POST SETOUT POINTS		
Point #	Eastings	Northings
1	68551.57	341085.52
2	68550.56	341080.47
3	68549.24	341085.97
4	68548.26	341080.92
5	68547.38	341079.41

LEGEND

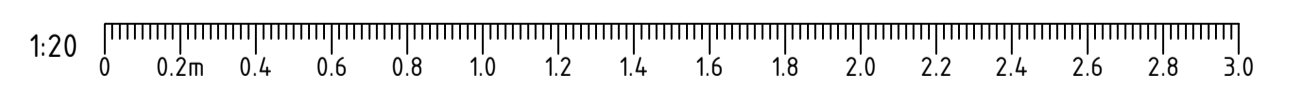
- SETOUT POINT
- PROPOSED BUS STOP FOOTINGS EXTENTS
- PROPOSED BUS STOP SHELTER CANOPY EXTENTS
- TACTILE GROUND SURFACE INDICATOR
- BUS STOP INFO CUBE
- PROPOSED KERBING
- LANDSCAPE TREATMENT, PROPOSED MULCH

CAUTION: HIGH PRESSURE GAS IN VICINITY.
 CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
 CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



BUS STOP 1
 SCALE 1:20 0m 400mm 800mm



ISSUED FOR DA

REV	DATE	ISSUED FOR	AMENDMENT	DSN	DRN	CHK	APP
A.1	23/11/22	ISSUED FOR DA		YK	MBS	FO	RS

ORIG SIZE 0 10 20 30 40 50 100mm
 AT ORIGINAL PLOT SIZE

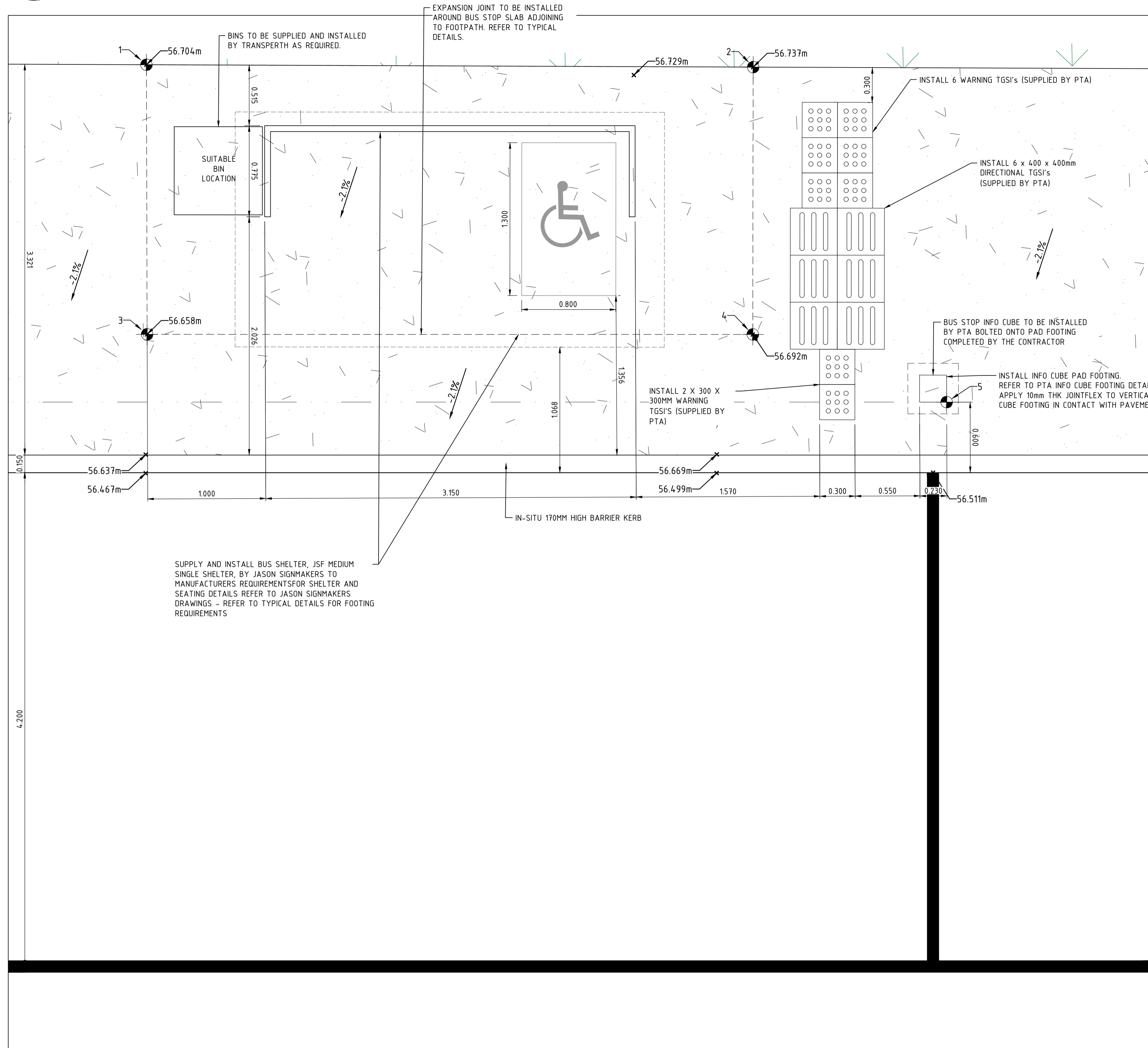
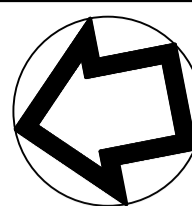
This document must not be copied without PTA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.



REFERENCES	
XR01GN_SURVEY_CI_001_PCG2020	
XR01GN_RAIL_RESERVE_BDY_PCG2020	
R30-MET-XRF-TR-100-00510	
R30-MET-XRF-TR-100-00310	
XR01GN_CADAstral_BDY_PCG2020	
R30-MET-XRF-CI-001-00001	
R30-DEA-XRF-ST-170-01001	
XREF-PLAN	
_LOGO_METCONN	

SCALE	
DESIGNED	RT
DRAWN	MBS
CHECKED	YK
APPROVED	AE
DATE	6/10/22
SCALE: 1:250	
DATUM: HORIZONTAL: PCG2020 VERTICAL: AHD71	

Government of Western Australia Public Transport Authority		BYFORD RAIL EXTENSION	
ENABLING WORKS			
CIVIL WORKS - TEMPORARY BUS INTERCHANGE			
BUS LAYOUT AND ARRANGEMENT PLAN - SHEET 1			
PTA Drawing No:		11-C-15-0088	
Rev:		A.1	



NOTES

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.
2. ALL KERBING ADJACENT TO BUS STOP HARDSTAND IS KASSEL KERB.

HARDSTAND AND BUS STOP POST SETOUT POINTS		
Point #	Eastings	Northings
1	68547.68	341065.91
2	68546.68	341060.85
3	68545.43	341066.34
4	68544.44	341061.28
5	68543.57	341059.77

LEGEND

- SETOUT POINT
- PROPOSED BUS STOP FOOTINGS EXTENTS
- PROPOSED BUS STOP SHELTER CANOPY EXTENTS
- TACTILE GROUND SURFACE INDICATOR
- BUS STOP INFO CUBE
- PROPOSED KERBING
- LANDSCAPE TREATMENT, PROPOSED MULCH

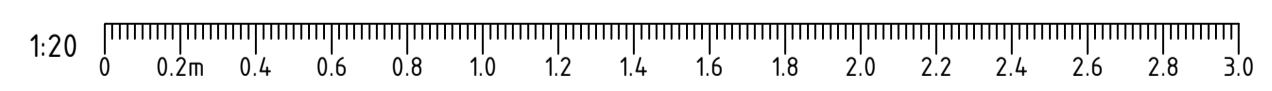
SUPPLY AND INSTALL BUS SHELTER, JSF MEDIUM SINGLE SHELTER, BY JASON SIGNSMAKERS TO MANUFACTURERS REQUIREMENTS FOR SHELTER AND SEATING DETAILS REFER TO JASON SIGNSMAKERS DRAWINGS - REFER TO TYPICAL DETAILS FOR FOOTING REQUIREMENTS

CAUTION: HIGH PRESSURE GAS IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



BUS STOP 2
SCALE 1:20



ISSUED FOR DA

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
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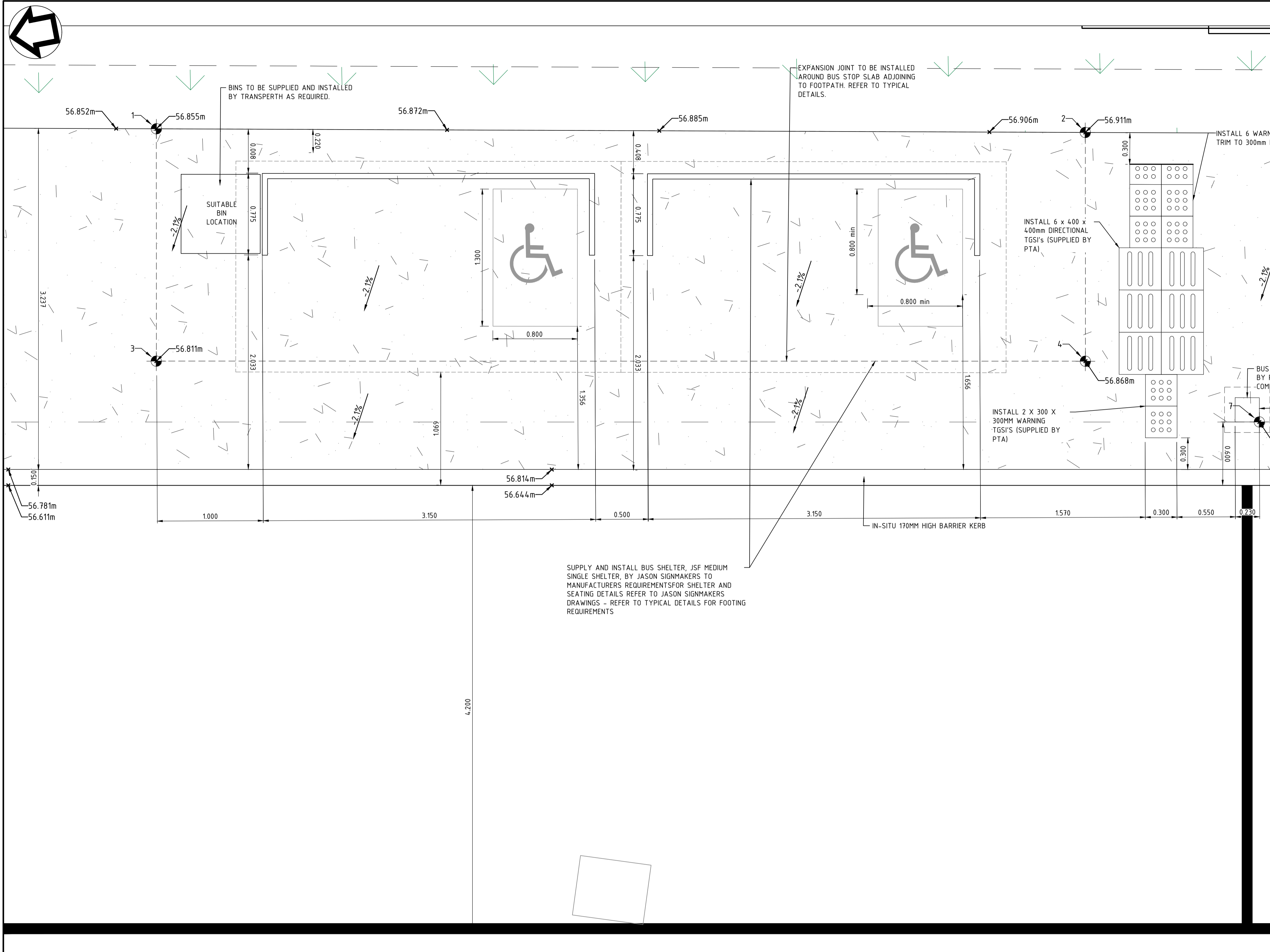
ORIG SIZE 0 10 20 30 40 50 100mm
AT ORIGINAL PLOT SIZE



REFERENCES	
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R30-MET-XRF-TR-100-00310	
XR01GN_CADAstral_BDY_PCG2020	
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R30-DEA-XRF-ST-170-01001	
XREF-PLAN	
_LOGO_MetCONNX	

SCALE	
DESIGNED	RT
DRAWN	MBS
CHECKED	YK
APPROVED	AE
DATE	6/10/22
1:250	
DATUM	
HORIZONTAL:	PCG2020
VERTICAL:	AHD71

Government of Western Australia Public Transport Authority		BYFORD RAIL EXTENSION	
ENABLING WORKS			
CIVIL WORKS - TEMPORARY BUS INTERCHANGE			
BUS LAYOUT AND ARRANGEMENT PLAN - SHEET 2			
PTA Drawing No:		11-C-15-0089	
Rev:		A.1	



LEGEND

- SETOUT POINT
- PROPOSED BUS STOP FOOTINGS EXTENTS
- PROPOSED BUS STOP SHELTER CANOPY EXTENTS
- TACTILE GROUND SURFACE INDICATOR
- BUS STOP INFO CUBE
- PROPOSED KERBING
- LANDSCAPE TREATMENT, PROPOSED MULCH

HARDSTAND AND BUS STOP POST SETOUT POINTS		
Point #	Eastings	Northings
1	68543.14	341043.00
2	68541.43	341034.37
3	68540.98	341043.42
4	68539.30	341034.78
7	68538.42	341033.27

- ### NOTES
- ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.
 - ALL KERBING ADJACENT TO BUS STOP HARDSTAND IS KASSEL KERB.

CAUTION: HIGH PRESSURE GAS IN VICINITY.
 CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
 CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

BUS STOP 3
 SCALE 1:20



ISSUED FOR DA

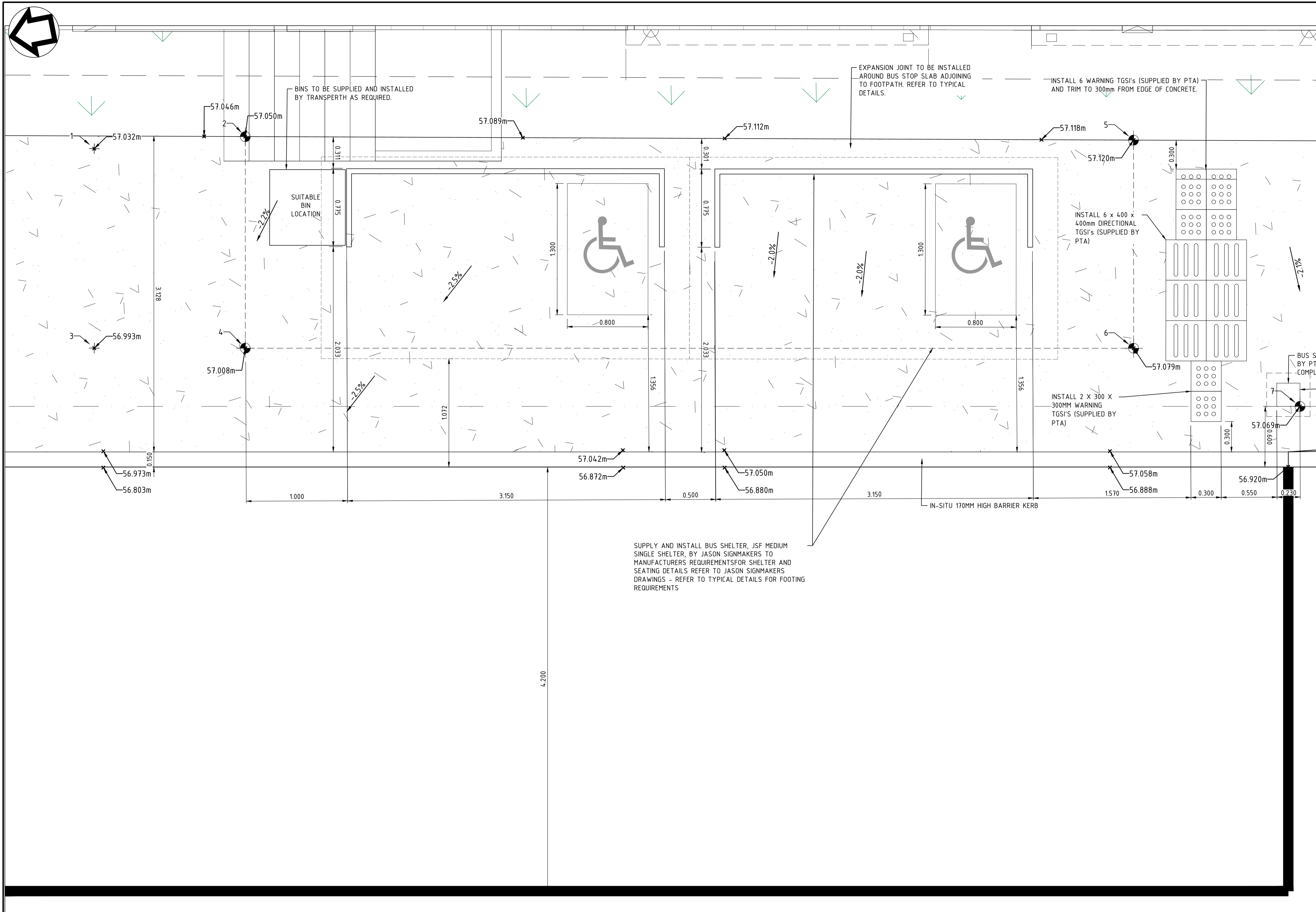
REV	DATE	ISSUED FOR	AMENDMENT	DSN	DRN	CHK	APP
A.1	23/11/22	ISSUED FOR DA		YK	MBS	FO	RS



REFERENCES	
XR01GN_SURVEY_CI_001_PCG2020	
XR01GN_RAIL_RESERVE_BDY_PCG2020	
R30-MET-XRF-TR-100-00510	
R30-MET-XRF-TR-100-00310	
XR01GN_CADAstral_BDY_PCG2020	
R30-MET-XRF-CI-001-00001	
R30-DEA-XRF-ST-170-01001	
XREF-PLAN	
_LOGO_METCONNX	

SCALE	
DESIGNED	RT
DRAWN	MBS
CHECKED	YK
APPROVED	AE
DATE	6/10/22

Government of Western Australia Public Transport Authority		BYFORD RAIL EXTENSION	
ENABLING WORKS			
CIVIL WORKS - TEMPORARY BUS INTERCHANGE			
BUS LAYOUT AND ARRANGEMENT PLAN - SHEET 3			
PTA Drawing No:	11-C-15-0090	Rev:	A.1



LEGEND

- SETOUT POINT
- PROPOSED BUS STOP FOOTINGS EXTENTS
- PROPOSED BUS STOP SHELTER CANOPY EXTENTS
- TACTILE GROUND SURFACE INDICATOR
- BUS STOP INFO CUBE
- PROPOSED KERBING
- LANDSCAPE TREATMENT, PROPOSED MULCH

- ### NOTES
- ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.
 - ALL KERBING ADJACENT TO BUS STOP HARDSTAND IS KASSEL KERB.

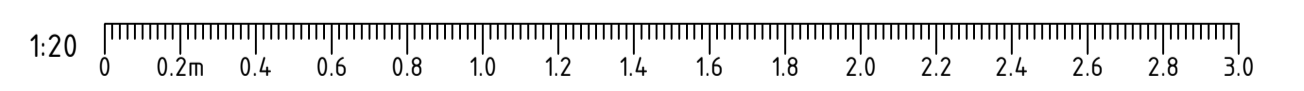
HARDSTAND AND BUS STOP POST SETOUT POINTS		
Point #	Eastings	Northings
1	68538.06	341018.01
2	68537.89	341016.52
3	68536.12	341018.38
4	68535.83	341016.91
5	68536.18	341007.88
6	68534.15	341008.27
7	68533.27	341006.76

CAUTION: HIGH PRESSURE GAS IN VICINITY.
 CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
 CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



BUS STOP 4
 SCALE 1:20



ISSUED FOR DA

REV	DATE	ISSUED FOR	AMENDMENT	DSN	DRN	CHK	APP
A.1	23/11/22	ISSUED FOR DA		YK	MBS	FO	RS

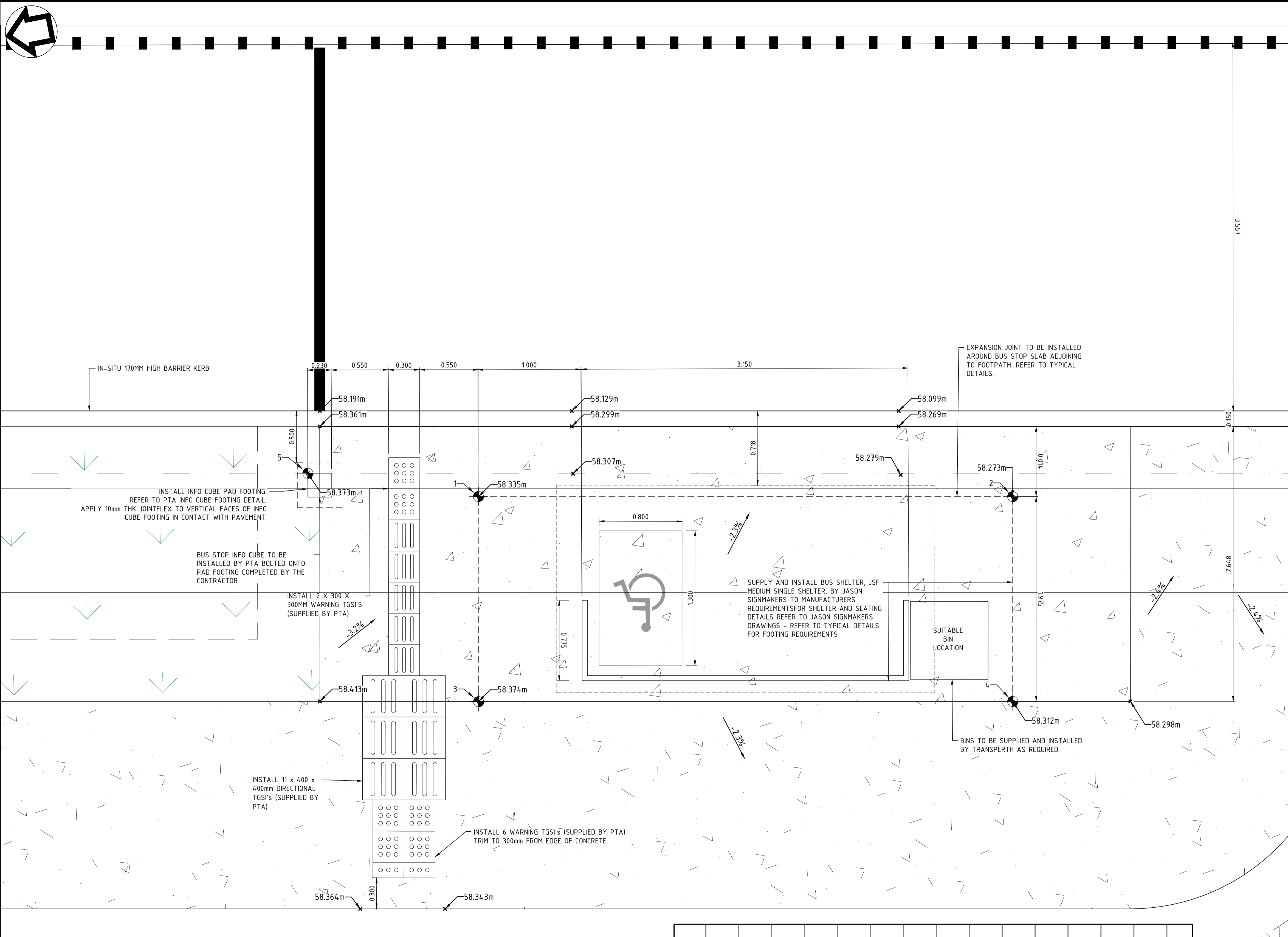
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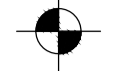


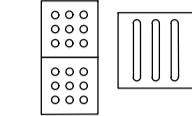
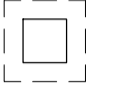
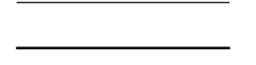



REFERENCES	SCALE	DESIGNED
XR01GN_SURVEY_CI_001_PCG2020 XR01GN_RAIL_RESERVE_BDY_PCG2020 R30-MET-XRF-TR-100-00510 R30-MET-XRF-TR-100-00310 XR01GN_CADAstral_BDY_PCG2020 R30-MET-XRF-CI-001-00001 R30-DEA-XRF-ST-170-01001 XREF-PLAN _LOGO_METCONN	1:250	RT
DATUM	HORIZONTAL: PCG2020 VERTICAL: AHD71	DRAWN: MBS CHECKED: YK APPROVED: AE DATE: 6/10/22

Government of Western Australia Public Transport Authority		BYFORD RAIL EXTENSION	
ENABLING WORKS			
CIVIL WORKS - TEMPORARY BUS INTERCHANGE			
BUS LAYOUT AND ARRANGEMENT PLAN - SHEET 4			
PTA Drawing No:	11-C-15-0091	Rev:	A.1



LEGEND

-  SETOUT POINT
-  PROPOSED BUS STOP FOOTINGS EXTENTS
-  PROPOSED BUS STOP SHELTER CANOPY EXTENTS
-  TACTILE GROUND SURFACE INDICATOR
-  BUS STOP INFO CUBE
-  PROPOSED KERBING
-  LANDSCAPE TREATMENT. PROPOSED MULCH

NOTES

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.
2. ALL KERBING ADJACENT TO BUS STOP HARDSTAND IS KASSEL KERB.

HARDSTAND AND BUS STOP POST SETOUT POINTS		
Point #	Eastings	Northings
1	68550.93	341034.47
2	68549.95	341029.42
3	68548.99	341034.85
4	68548.01	341029.79
5	68551.47	341036.05

CAUTION: HIGH PRESSURE GAS IN VICINITY.
 CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
 CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



BUS STOP 5
 SCALE 1:20



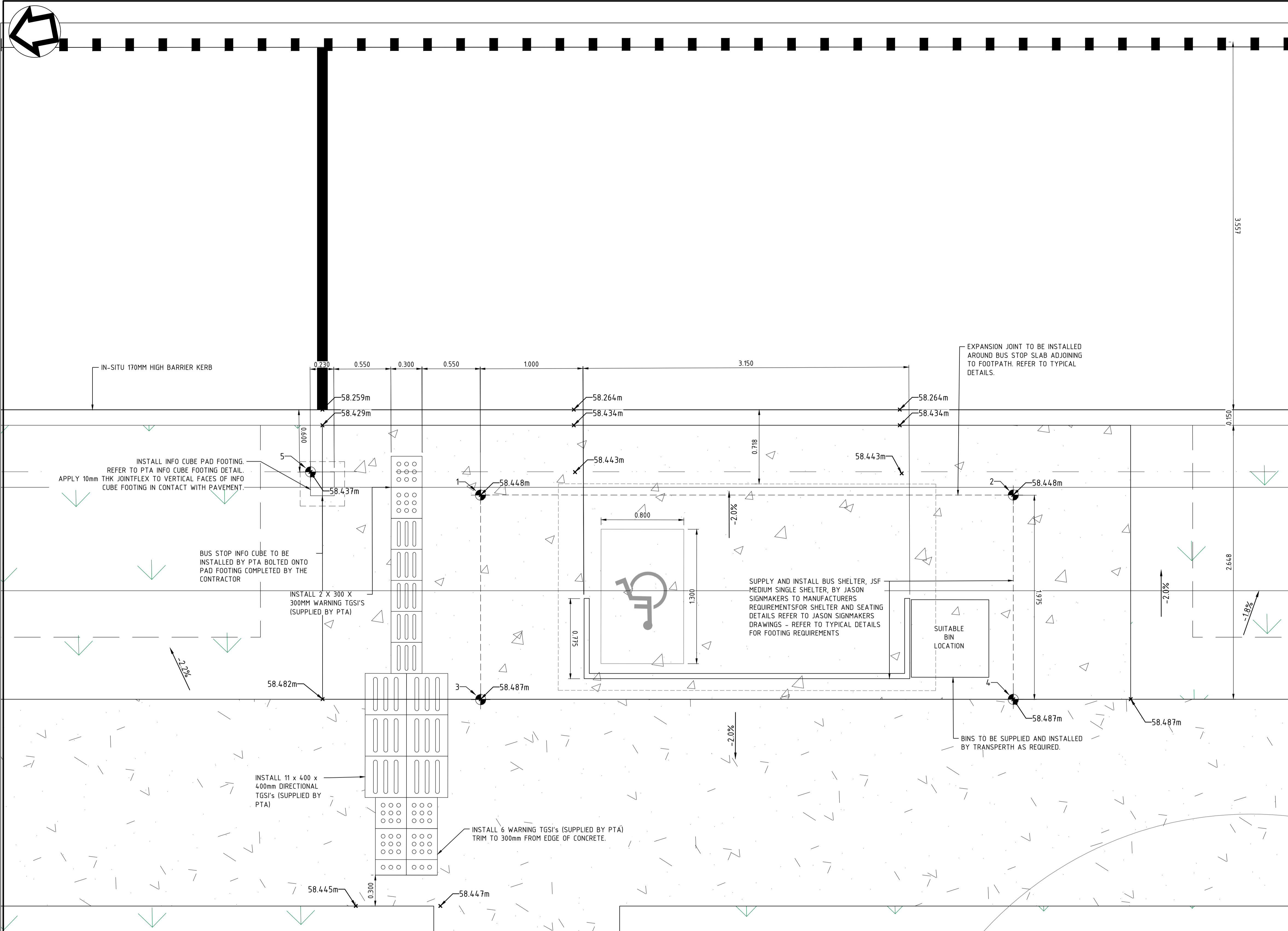
ISSUED FOR DA

	BYFORD RAIL EXTENSION
	ENABLING WORKS CIVIL WORKS - TEMPORARY BUS INTERCHANGE BUS LAYOUT AND ARRANGEMENT PLAN - SHEET 5
PTA Drawing No: 11-C-15-0092	Rev: A.1

REV	DATE	AMENDMENT	YK	MBS	FO	RS
A.1	23/11/22	ISSUED FOR DA				
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A1		AT ORIGINAL PLOT SIZE		Contractor No: R30-MET-DWG-CI-001-05006 Rev: A.1		



REFERENCES		SCALE		DESIGNED	
XR01GN_SURVEY_CI_001_PCG2020 XR01GN_RAIL_RESERVE_BDY_PCG2020 R30-MET-XRF-TR-100-00510 R30-MET-XRF-TR-100-00310 XR01GN_CADAstral_BDY_PCG2020 R30-MET-XRF-CI-001-00001 R30-DEA-XRF-ST-170-01001 XREF-PLAN _LOGO_METCONNX		1:250		RT	
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				MBS	
				CHECKED	
				YK	
				APPROVED	
				AE	
				DATE	
				6/10/22	



LEGEND

- SETOUT POINT
- PROPOSED BUS STOP FOOTINGS EXTENTS
- PROPOSED BUS STOP SHELTER CANOPY EXTENTS
- TACTILE GROUND SURFACE INDICATOR
- BUS STOP INFO CUBE
- PROPOSED KERBING
- LANDSCAPE TREATMENT. PROPOSED MULCH

NOTES

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.
2. ALL KERBING ADJACENT TO BUS STOP HARDSTAND IS KASSEL KERB.

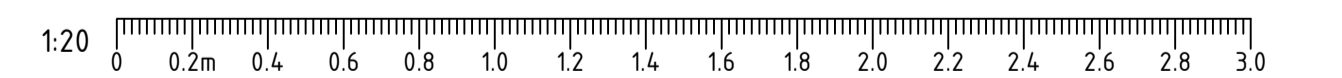
HARDSTAND AND BUS STOP POST SETOUT POINTS		
Point #	Eastings	Northings
1	68554.74	341054.11
2	68553.76	341049.05
3	68552.81	341054.48
4	68551.82	341049.43
5	68555.28	341055.68

CAUTION: HIGH PRESSURE GAS IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



BUS STOP 6
SCALE 1:20



ISSUED FOR DA

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A.1	23/11/22	ISSUED FOR DA	YK	MBS	FO	RS

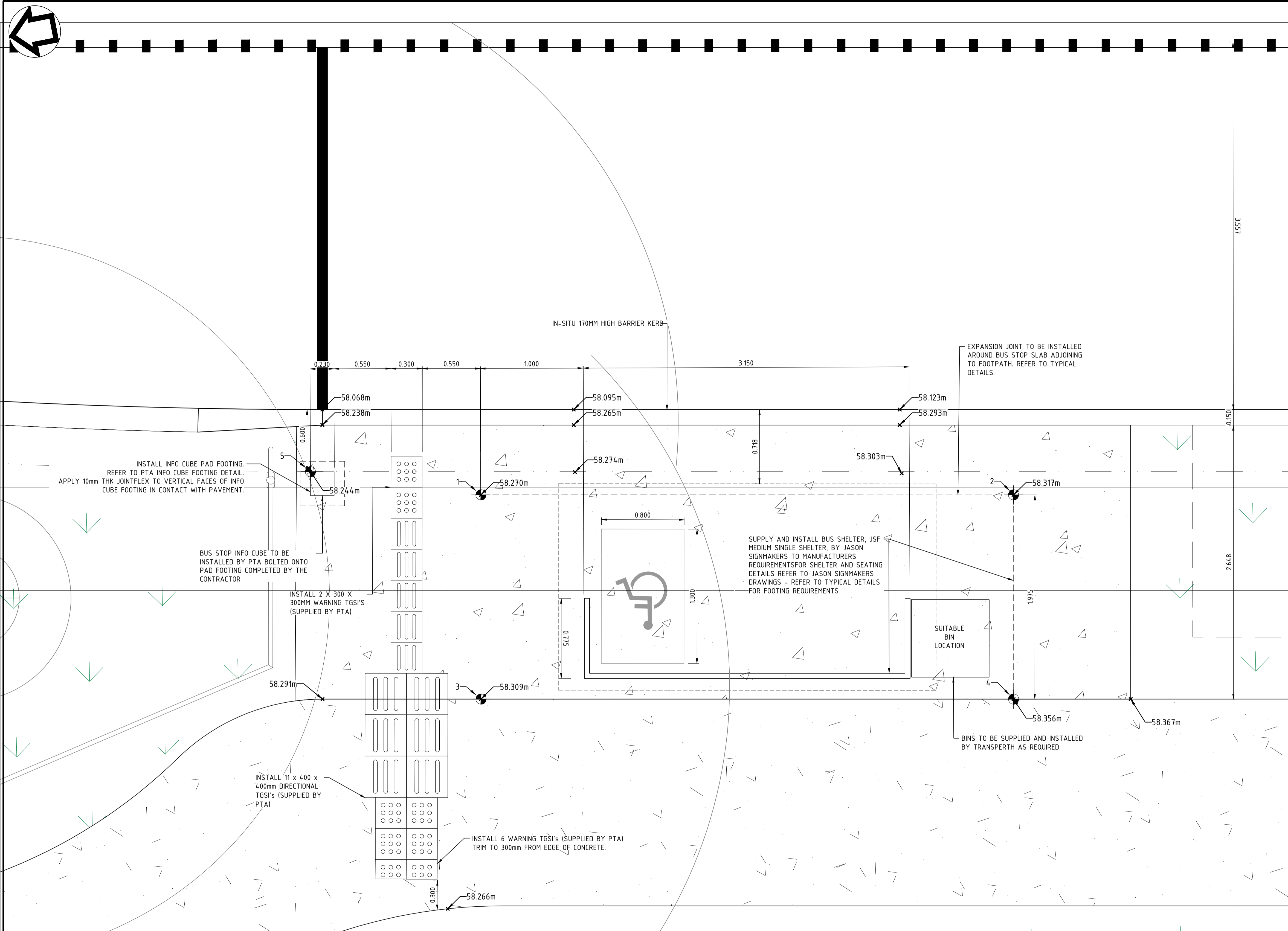


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XR01GN_SURVEY_CI_001_PCG2020 XR01GN_RAIL_RESERVE_BDY_PCG2020 R30-MET-XRF-TR-100-00510 R30-MET-XRF-TR-100-00310 XR01GN_CADAstral_BDY_PCG2020 R30-MET-XRF-CI-001-00001 R30-DEA-XRF-ST-170-01001 XREF-PLAN _LOGO_MetCONX

SCALE
1:250
DATUM
HORIZONTAL: PCG2020 VERTICAL: AHD71

DESIGNED	RT
DRAWN	MBS
CHECKED	YK
APPROVED	AE
DATE	6/10/22

	BYFORD RAIL EXTENSION
ENABLING WORKS	
CIVIL WORKS - TEMPORARY BUS INTERCHANGE	
BUS LAYOUT AND ARRANGEMENT PLAN - SHEET 6	
PTA Drawing No:	11-C-15-0093
Rev:	A.1



LEGEND

- SETOUT POINT
- PROPOSED BUS STOP FOOTINGS EXTENTS
- PROPOSED BUS STOP SHELTER CANOPY EXTENTS
- TACTILE GROUND SURFACE INDICATOR
- BUS STOP INFO CUBE
- PROPOSED KERBING
- LANDSCAPE TREATMENT, PROPOSED MULCH

- ### NOTES
- ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.
 - ALL KERBING ADJACENT TO BUS STOP HARDSTAND IS KASSEL KERB.

HARDSTAND AND BUS STOP POST SETOUT POINTS		
Point #	Eastings	Northings
1	68558.55	341073.74
2	68557.57	341068.68
3	68556.62	341074.11
4	68555.63	341069.06
5	68559.09	341075.31

CAUTION: HIGH PRESSURE GAS IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



BUS STOP 7
SCALE 1:20



REV	DATE	ISSUED FOR DA	AMENDMENT	YK	MBS	FO	RS
A.1	23/11/22	ISSUED FOR DA					

ORIG SIZE A1

AT ORIGINAL PLOT SIZE

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REFERENCES	SCALE	DESIGNED
XR01GN_SURVEY_CI_001_PCG2020 XR01GN_RAIL_RESERVE_BDY_PCG2020 R30-MET-XRF-TR-100-00510 R30-MET-XRF-TR-100-00310 XR01GN_CADAstral_BDY_PCG2020 R30-MET-XRF-CI-001-00001 R30-DEA-XRF-ST-170-01001 XREF-PLAN _LOGO_MetCONNX	1:250	RT
	DATUM	DRAWN
	HORIZONTAL: PCG2020	MBS
	VERTICAL: AHD71	CHECKED
		YK
		APPROVED
		AE
		DATE
		6/10/22

ISSUED FOR DA

Government of Western Australia
Public Transport Authority

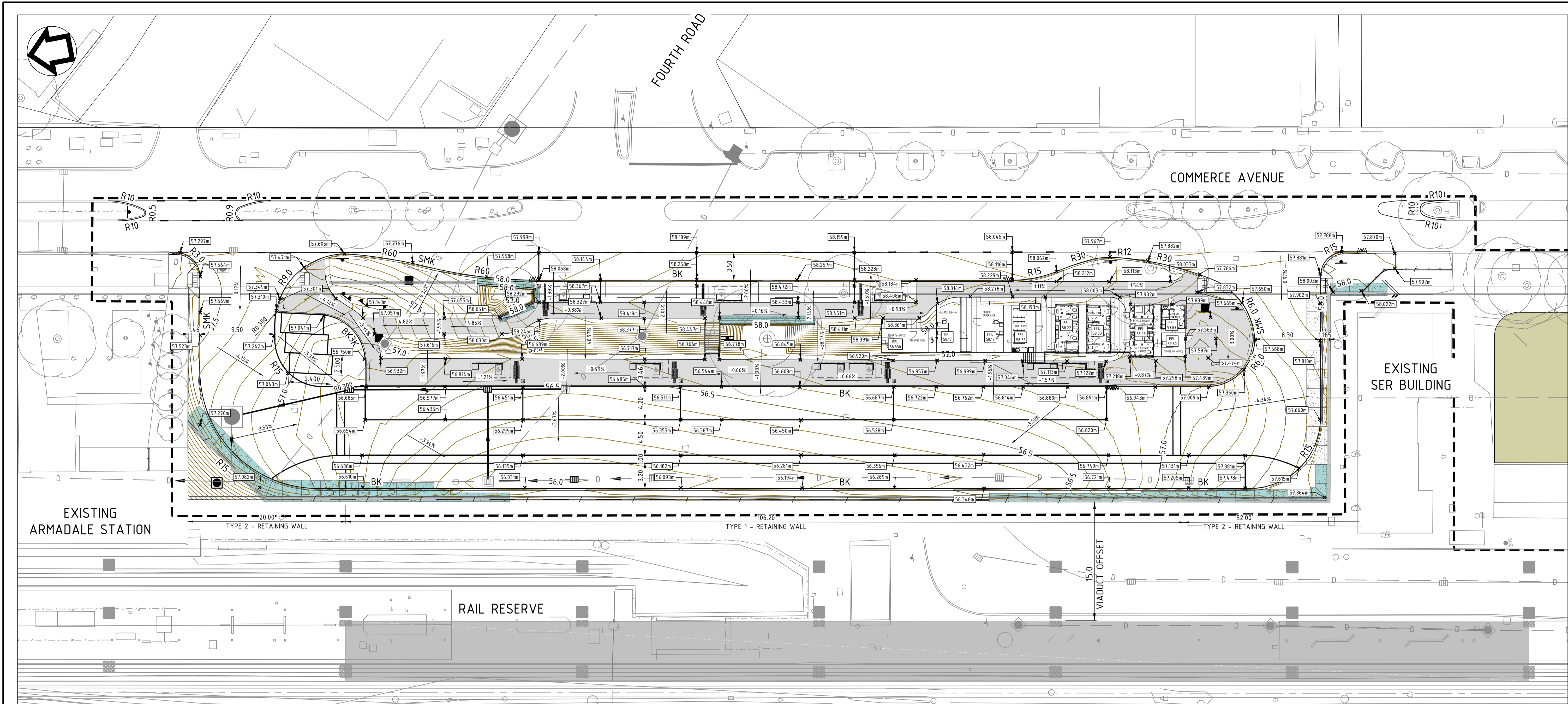
BYFORD RAIL EXTENSION

ENABLING WORKS

CIVIL WORKS - TEMPORARY BUS INTERCHANGE

BUS LAYOUT AND ARRANGEMENT PLAN - SHEET 7

PTA Drawing No: 11-C-15-0094 Rev: A.1



LEGEND

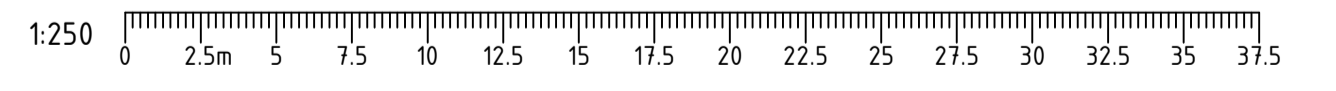
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	CIVIL WORKS BOUNDARY
	PROPOSED FOOTPATH
	KERB TRANSITION
	PROPOSED KERBING (TYPE DEFINED BY TEXT)
	SEMI-MOUNTABLE KERB (KEYED)
	BARRIER KERB - 170mm HIGH
	PROPOSED PAVED TREATMENT (INDICATIVE ONLY) REFER TO LANDSCAPE ARCHITECTS PLANS AND SPECIFICATIONS
	PROPOSED CONCRETE PATH
	PROPOSED KERB RAMP WITH TACTILE PAVERS (TACTILE PAVERS IN ACCORDANCE WITH AS1428 TYP.)
	600mm EARTHWORKS SHOULDER
	PROPOSED LANDSCAPE TREATMENT (INDICATIVE ONLY) REFER TO LANDSCAPE ARCHITECTS PLANS AND SPECIFICATIONS

	FUTURE RAIL ALIGNMENT
	PROPOSED RETAINING WALL
	PROPOSED PARKING BAY - 5.4m LONG x 2.5m WIDE INSTALLED IN ACCORDANCE WITH PTA REQUIREMENTS
	PROPOSED DIAGONAL PAVEMENT MARKING INSTALLED IN ACCORDANCE WITH PTA REQUIREMENTS
	PROPOSED DRAINAGE JUNCTION PIT REFER TO DRAINAGE PLANS FOR DETAILS
	PROPOSED DRAINAGE GRATED GULLY PIT REFER TO DRAINAGE PLANS FOR DETAILS
	EXISTING DRAINAGE STRUCTURE (GRATED GULLY, SIDE ENTRY AND JUNCTION)
	PROPOSED VIADUCT COLUMN REFER TO STRUCTURAL PLANS FOR DETAILS
	FUTURE VIADUCT COLUMN REFER TO STRUCTURAL PLANS FOR DETAILS
	EXISTING TREE ALL TREES SHALL BE PROTECTED FOR THE DURATION OF THE WORKS UNLESS SPECIFIED OTHERWISE

NOTES

	PROPOSED RETAINING WALL
	EXISTING DRAINAGE PIPE
	MODIFIED EXISTING DRAINAGE PIPE
	PROPOSED DRAINAGE PIPE

1. REFER TO STRUCTURAL DRAWINGS FOR RETAINING WALL DETAILS



ISSUED FOR DA

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A.1	23/11/22	ISSUED FOR DA	YK	MBS	FO	RS

MetCONNX

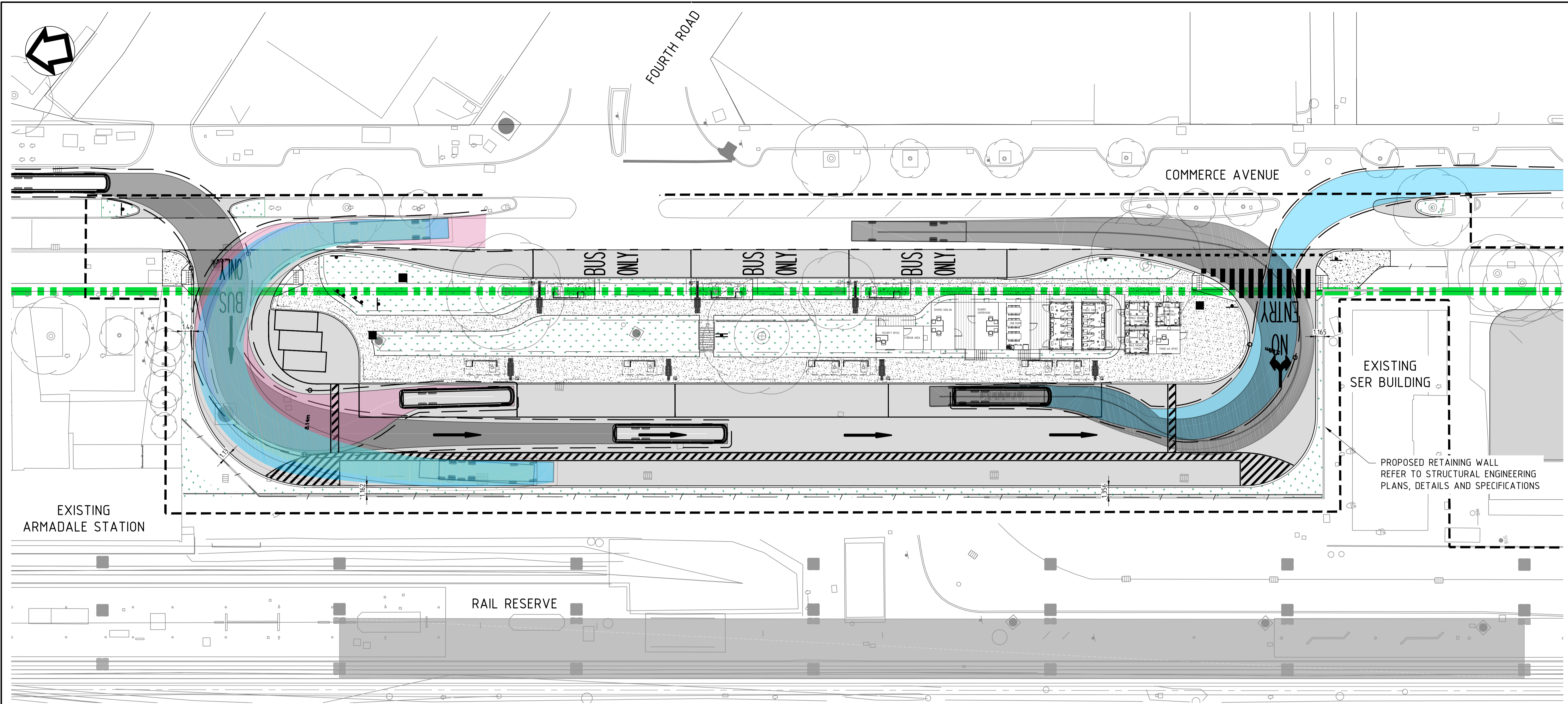
Contractor No: R30-MET-DWG-CI-001-05100 | Rev: A.1

REFERENCES

XR01GN_SURVEY_CI_001_PCG2020
XR01GN_RAIL_RESERVE_BDY_PCG2020
R30-MET-XRF-TR-100-00510
R30-MET-XRF-TR-100-00310
XR01GN_CADAstral_BDY_PCG2020
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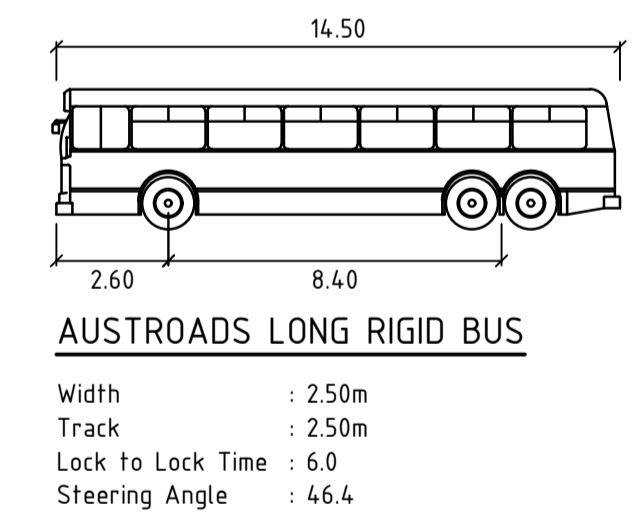
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DATUM	CHECKED	YK
HORIZONTAL: PCG2020	APPROVED	AE
VERTICAL: AHD71	DATE	6/10/22

		BYFORD RAIL EXTENSION
ENABLING WORKS CIVIL WORKS - TEMPORARY BUS INTERCHANGE LEVELS, LAYOUT AND GRADING PLAN		
PTA Drawing No:	11-C-16-0001	Rev: A.1



LEGEND

- RAIL RESERVE BOUNDARY
- CIVIL WORKS BOUNDARY
- PROPOSED PAVEMENT
- KERB TRANSITION
- PROPOSED KERBING (TYPE DEFINED BY TEXT)
- SEMI-MOUNTABLE KERB (KEYED)
- BARRIER KERB - 170mm HIGH
- PROPOSED PAVED TREATMENT (INDICATIVE ONLY) REFER TO LANDSCAPE ARCHITECTS PLANS AND SPECIFICATIONS
- PROPOSED CONCRETE PATH
- PROPOSED KERB RAMP WITH TACTILE PAVERS (TACTILE PAVERS IN ACCORDANCE WITH AS1428 TYP.)
- 600mm EARTHWORKS SHOULDER
- PROPOSED LANDSCAPE TREATMENT (INDICATIVE ONLY) REFER TO LANDSCAPE ARCHITECTS PLANS AND SPECIFICATIONS
- FUTURE RAIL ALIGNMENT
- PROPOSED RETAINING WALL
- PROPOSED PALISADE FENCE
- PROPOSED PARKING BAY - 5.4m LONG x 2.5m WIDE INSTALLED IN ACCORDANCE WITH PTA REQUIREMENTS
- PROPOSED DIAGONAL PAVEMENT MARKING INSTALLED IN ACCORDANCE WITH PTA REQUIREMENTS
- PROPOSED DRAINAGE JUNCTION PIT REFER TO DRAINAGE PLANS FOR DETAILS
- PROPOSED DRAINAGE GRATED GULLY PIT REFER TO DRAINAGE PLANS FOR DETAILS
- EXISTING DRAINAGE STRUCTURE (GRATED GULLY, SIDE ENTRY AND JUNCTION)
- FUTURE VIADUCT COLUMN REFER TO STRUCTURAL PLANS FOR DETAILS
- EXISTING TREE ALL TREES SHALL BE PROTECTED FOR THE DURATION OF THE WORKS UNLESS SPECIFIED OTHERWISE



CAUTION: HIGH PRESSURE GAS IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



ISSUED FOR DA

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
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A	5/07/22	ISSUED FOR RD	FO	TM	YK	NM

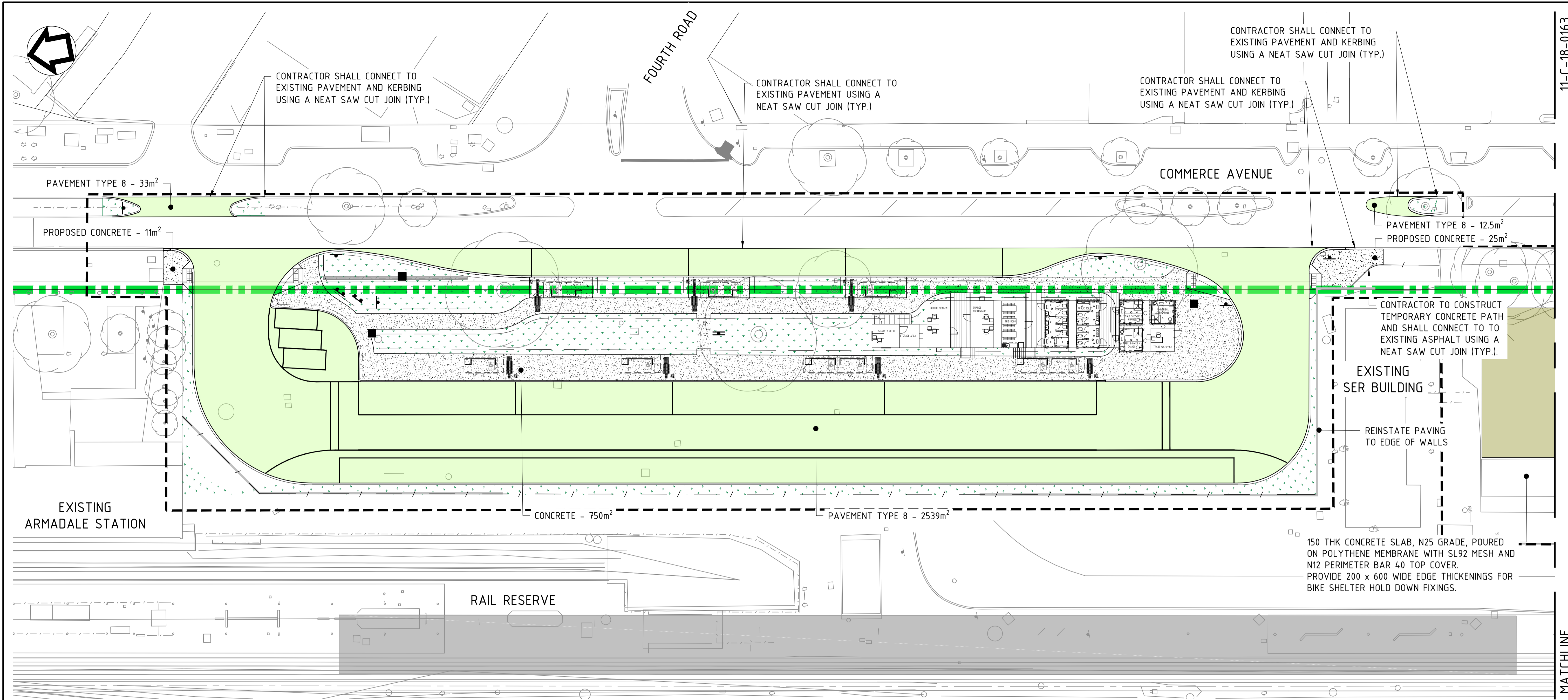
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AT ORIGINAL PLOT SIZE: 100mm

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REFERENCES	SCALE	DESIGNED
XR01GN_SURVEY_CI_001_PCG2020 XR01GN_RAIL_RESERVE_BDY_PCG2020 R30-MET-XRF-TR-100-00510 R30-MET-XRF-TR-100-00310 XR01GN_CADAstral_BDY_PCG2020 R30-MET-XRF-CI-001-00001 R30-DEA-XRF-ST-170-01001 _LOGO_METCONNX	1:250	RT
DATUM	HORIZONTAL: PCG2020 VERTICAL: AHD71	DRAWN: MBS CHECKED: YK APPROVED: AE DATE: 6/10/22

Government of Western Australia Public Transport Authority	BYFORD RAIL EXTENSION
ENABLING WORKS	
CIVIL WORKS - TEMPORARY BUS INTERCHANGE	
TURNING TEMPLATES PLAN - SHEET 1	
PTA Drawing No:	11-C-08-0010
Rev:	B.1



11-C-18-0163

MATCHLINE

LEGEND

- RAIL RESERVE BOUNDARY
- CIVIL WORKS BOUNDARY
- PROPOSED KERBING
- PROPOSED KERB RAMP WITH TACTILE PAVERS (TACTILE PAVERS IN ACCORDANCE WITH AS1428 TYP.)
- PROPOSED CONCRETE PATH
- PROPOSED PAVEMENT TYPE 7
- PROPOSED PAVEMENT TYPE 8
- PROPOSED LIMESTONE ACCESS TRACK
- PROPOSED LANDSCAPE TREATMENT MULCH
- PROPOSED PARKING BAY - 5.4m LONG x 2.5m WIDE INSTALLED IN ACCORDANCE WITH PTA REQUIREMENTS
- EXISTING TREE ALL TREES SHALL BE PROTECTED FOR THE DURATION OF THE WORKS UNLESS SPECIFIED OTHERWISE
- FUTURE RAIL ALIGNMENT
- PROPOSED RETAINING WALL
- PROPOSED PALISADE FENCE

CAUTION: HIGH PRESSURE GAS IN VICINITY.
 CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
 CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



ISSUED FOR DA

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
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A	5/07/22	ISSUED FOR RD	FO	SBO	YK	NM

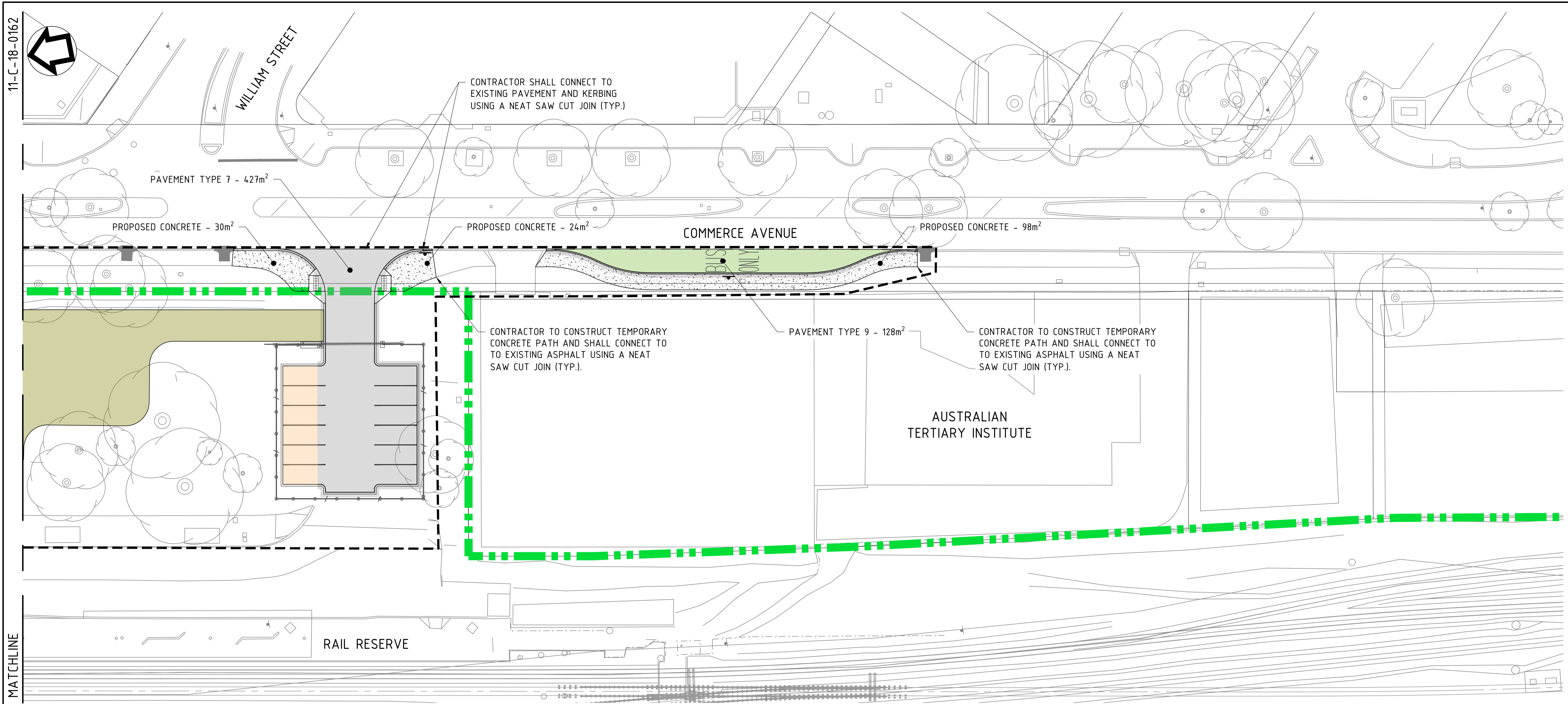
ORIG SIZE A1
 AT ORIGINAL PLOT SIZE

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REFERENCES	SCALE	DESIGNED
XR01GN_SURVEY_CI_001_PCG2020 R30-DEA-CAD-ST-170-01001 XR01GN_RAIL_RESERVE_BDY_PCG2020 R30-MET-XRF-TR-100-00510 R30-MET-XRF-TR-100-00310 XR01GN_CADAstral_BDY_PCG2020 R30-MET-XRF-CI-001-00001 _LOGO_METCONNX	1:250	RT
DATUM	HORIZONTAL: PCG2020 VERTICAL: AHD71	DRAWN: MBS CHECKED: YK APPROVED: AE DATE: 6/10/22

Government of Western Australia Public Transport Authority	BYFORD RAIL EXTENSION
ENABLING WORKS	
CIVIL WORKS - TEMPORARY BUS INTERCHANGE	
PAVEMENT AND SURFACING PLAN - SHEET 1	
PTA Drawing No:	11-C-18-0162
Rev:	B.1

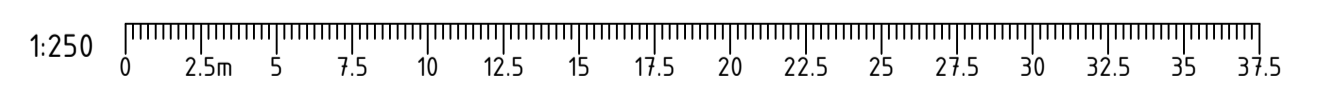


LEGEND

- RAIL RESERVE BOUNDARY
- CIVIL WORKS BOUNDARY
- PROPOSED KERBING
- 600mm EARTHWORKS SHOULDER
- MAINTAIN EXISTING PAVEMENT
- PROPOSED PAVEMENT TYPE 7
- PROPOSED PAVEMENT TYPE 8
- PROPOSED LIMESTONE ACCESS TRACK
- PROPOSED LANDSCAPE TREATMENT MULCH
- PROPOSED KERB RAMP WITH TACTILE PAVERS (TACTILE PAVERS IN ACCORDANCE WITH AS1428 TYP.)
- PROPOSED CONCRETE PATH
- PROPOSED PARKING BAY - 5.4m LONG x 2.5m WIDE (INSTALLED IN ACCORDANCE WITH PTA REQUIREMENTS)
- EXISTING TREE (ALL TREES SHALL BE PROTECTED FOR THE DURATION OF THE WORKS UNLESS SPECIFIED OTHERWISE)
- FUTURE RAIL ALIGNMENT
- PROPOSED RETAINING WALL

CAUTION: HIGH PRESSURE GAS IN VICINITY.
 CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
 CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



ISSUED FOR DA

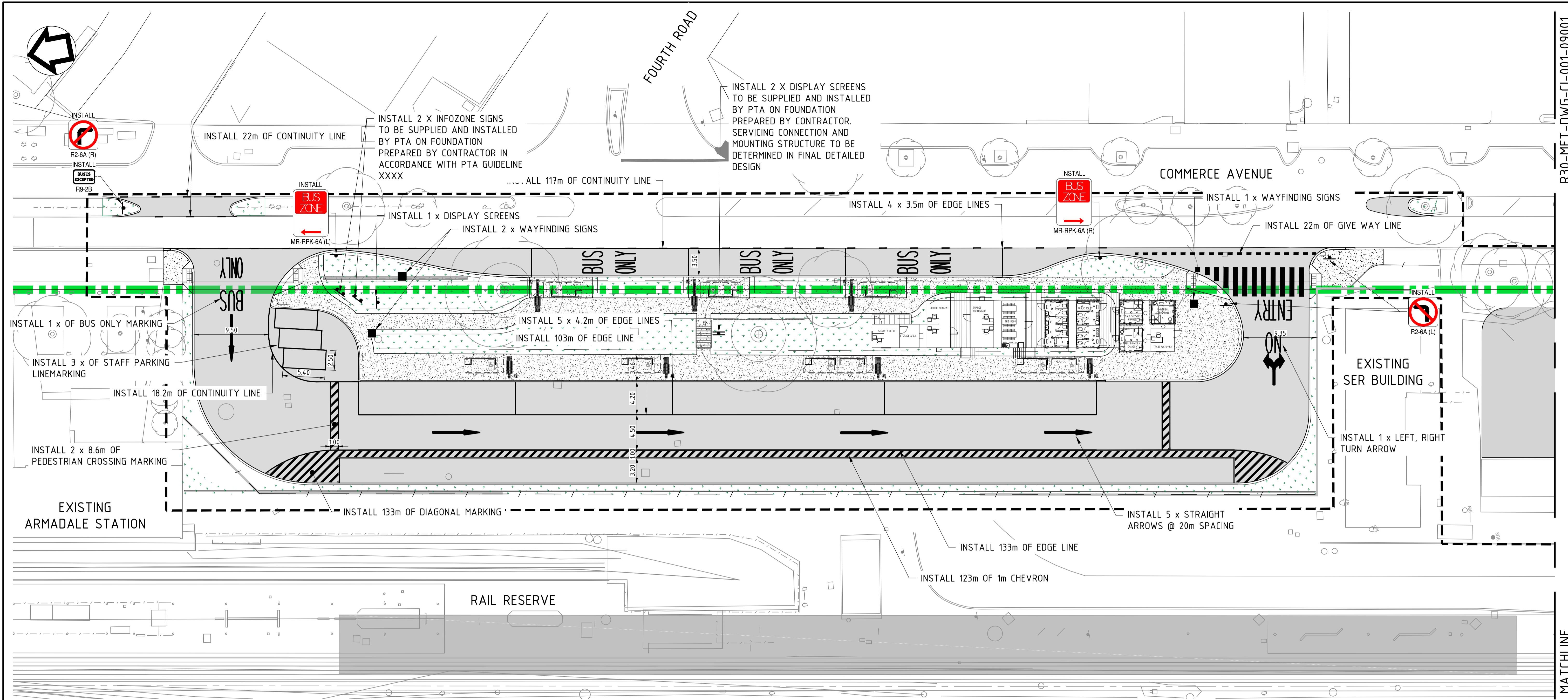
REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
B.1	23/11/22	ISSUED FOR DA	YK	MBS	FO	RS
A	5/07/22	ISSUED FOR RD	FO	SBO	YK	NM

ORIG SIZE: A1
 AT ORIGINAL PLOT SIZE: 0 10 20 30 40 50 100mm

Contractor No: R30-MET-DWG-CI-001-07001 Rev: B.1

REFERENCES	SCALE	DESIGNED
XR01GN_SURVEY_PCG2020 R30-DEA-CAD-ST-170-01001 XR01GN_RAIL_RESERVE_BDY_PCG2020 R30-MET-XRF-TR-100-00510 R30-MET-XRF-TR-100-00310 XR01GN_CADASTRAL_BDY_PCG2020 R30-MET-XRF-CI-001-00001 _LOGO_METCONNX	1:250	RT
DATUM	HORIZONTAL: PCG2020	DRAWN
	VERTICAL: AHD71	MBS
		CHECKED
		YK
		APPROVED
		AE
		DATE
		6/10/22

Government of Western Australia Public Transport Authority		BYFORD RAIL EXTENSION
ENABLING WORKS		
CIVIL WORKS - TEMPORARY BUS INTERCHANGE		
PAVEMENT AND SURFACING PLAN - SHEET 2		
PTA Drawing No:	11-C-18-0163	Rev: B.1



LEGEND

	RAIL RESERVE BOUNDARY		FUTURE RAIL ALIGNMENT
	CIVIL WORKS BOUNDARY		PROPOSED RETAINING WALL
	PROPOSED PAVEMENT		PROPOSED PALISADE FENCE
	PROPOSED KERBING		PROPOSED DIAGONAL PAVEMENT MARKING INSTALLED IN ACCORDANCE WITH PTA REQUIREMENTS
	PROPOSED GIVEWAY LINE		EXISTING TREE ALL TREES SHALL BE PROTECTED FOR THE DURATION OF THE WORKS UNLESS SPECIFIED OTHERWISE
	PROPOSED CONTINUITY LINE (NTS)		
	PROPOSED PAINTED EDGE LINE / UNBROKEN LANE LINE		
	PROPOSED PAINTED STRAIGHT ARROW AND LEFT & RIGHT TURN ARROW		
	PROPOSED CONCRETE PATH		
	PROPOSED KERB RAMP WITH TACTILE PAVERS (TACTILE PAVERS IN ACCORDANCE WITH AS1428 TYP.)		
	PROPOSED LANDSCAPE TREATMENT (INDICATIVE ONLY) REFER TO LANDSCAPE ARCHITECTS PLANS AND SPECIFICATIONS		

CAUTION: HIGH PRESSURE GAS IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



CITY OF ARMADALE APPROVAL	MRWA APPROVAL
SIGNED _____ DATE: / /	SIGNED _____ DATE: / /



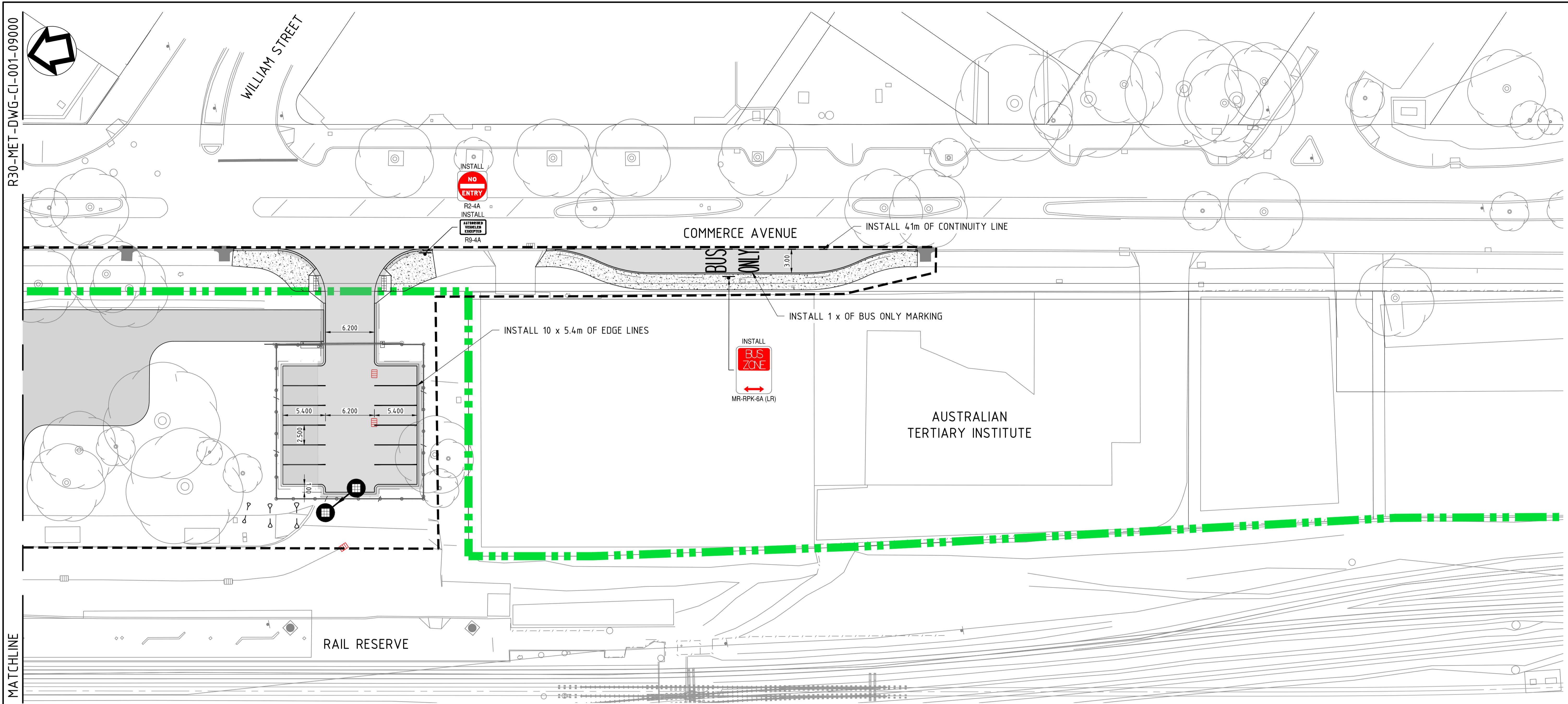
ISSUED FOR DA

REV	DATE	ISSUED FOR DA	AMENDMENT	YK	MBS	FO	RS
A.1	23/11/22	ISSUED FOR DA					
ORIG SIZE	0 10 20 30 40 50 100mm		AT ORIGINAL PLOT SIZE				



REFERENCES	SCALE	DESIGNED	RT
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R30-DEA-CAD-ST-170-01001	DATUM	CHECKED	YK
XR01GN_RAIL_RESERVE_BDY_PCG2020	HORIZONTAL: PCG2020	APPROVED	AE
R30-MET-XRF-TR-100-00510	VERTICAL: AHD71	DATE	6/10/22
R30-MET-XRF-TR-100-00310			
XR01GN_CADAstral_BDY_PCG2020			
R30-MET-XRF-CI-001-00001			
_LOGO_METCONN			

Government of Western Australia Public Transport Authority	BYFORD RAIL EXTENSION
ENABLING WORKS	
CIVIL WORKS - TEMPORARY BUS INTERCHANGE	
PAVEMENT MARKING AND SIGNAGE PLAN - SHEET 1	
PTA Drawing No:	11-C-18-0164
Rev:	A.1



LEGEND

	RAIL RESERVE BOUNDARY		CIVIL WORKS BOUNDARY		FUTURE RAIL ALIGNMENT
	PROPOSED PAVEMENT		PROPOSED RETAINING WALL		PROPOSED PARKING BAY - 5.4m LONG x 2.5m WIDE INSTALLED IN ACCORDANCE WITH PTA REQUIREMENTS
	PROPOSED KERBING		PROPOSED DIAGONAL PAVEMENT MARKING		PROPOSED DRAINAGE JUNCTION PIT REFER TO DRAINAGE PLANS FOR DETAILS
	PROPOSED GIVEWAY LINE		PROPOSED DRAINAGE GRATED GULLY PIT		PROPOSED DRAINAGE GRATED GULLY PIT REFER TO DRAINAGE PLANS FOR DETAILS
	PROPOSED CONTINUITY LINE (NTS)		EXISTING DRAINAGE STRUCTURE		EXISTING DRAINAGE STRUCTURE (GRATED GULLY, SIDE ENTRY AND JUNCTION)
	PROPOSED PAINTED EDGE LINE / UNBROKEN LANE LINE		PROPOSED VIADUCT COLUMN		PROPOSED VIADUCT COLUMN REFER TO STRUCTURAL PLANS FOR DETAILS
	PROPOSED PAINTED STRAIGHT ARROW AND LEFT & RIGHT TURN ARROW		FUTURE VIADUCT COLUMN		FUTURE VIADUCT COLUMN REFER TO STRUCTURAL PLANS FOR DETAILS
	PROPOSED CONCRETE PATH		EXISTING TREE		EXISTING TREE ALL TREES SHALL BE PROTECTED FOR THE DURATION OF THE WORKS UNLESS SPECIFIED OTHERWISE
	PROPOSED KERB RAMP WITH TACTILE PAVERS (TACTILE PAVERS IN ACCORDANCE WITH AS1428 TYP.)				
	PROPOSED LANDSCAPE TREATMENT (INDICATIVE ONLY) REFER TO LANDSCAPE ARCHITECTS PLANS AND SPECIFICATIONS				

CITY OF ARMADALE APPROVAL _____ SIGNED DATE: / /

MRWA APPROVAL _____ SIGNED DATE: / /

CAUTION: HIGH PRESSURE GAS IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE PIPELINE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

CAUTION: FIBRE OPTIC CABLE IN VICINITY.
CONTRACTOR TO LOCATE AND DETERMINE DEPTH PRIOR TO COMMENCEMENT OF WORKS. ALL WORK UNDERTAKEN WITHIN PROXIMITY OF THE CABLE SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.



ISSUED FOR DA

REV	DATE	ISSUED FOR DA	AMENDMENT	YK	MBS	FO	RS
A.1	23/11/22	ISSUED FOR DA					

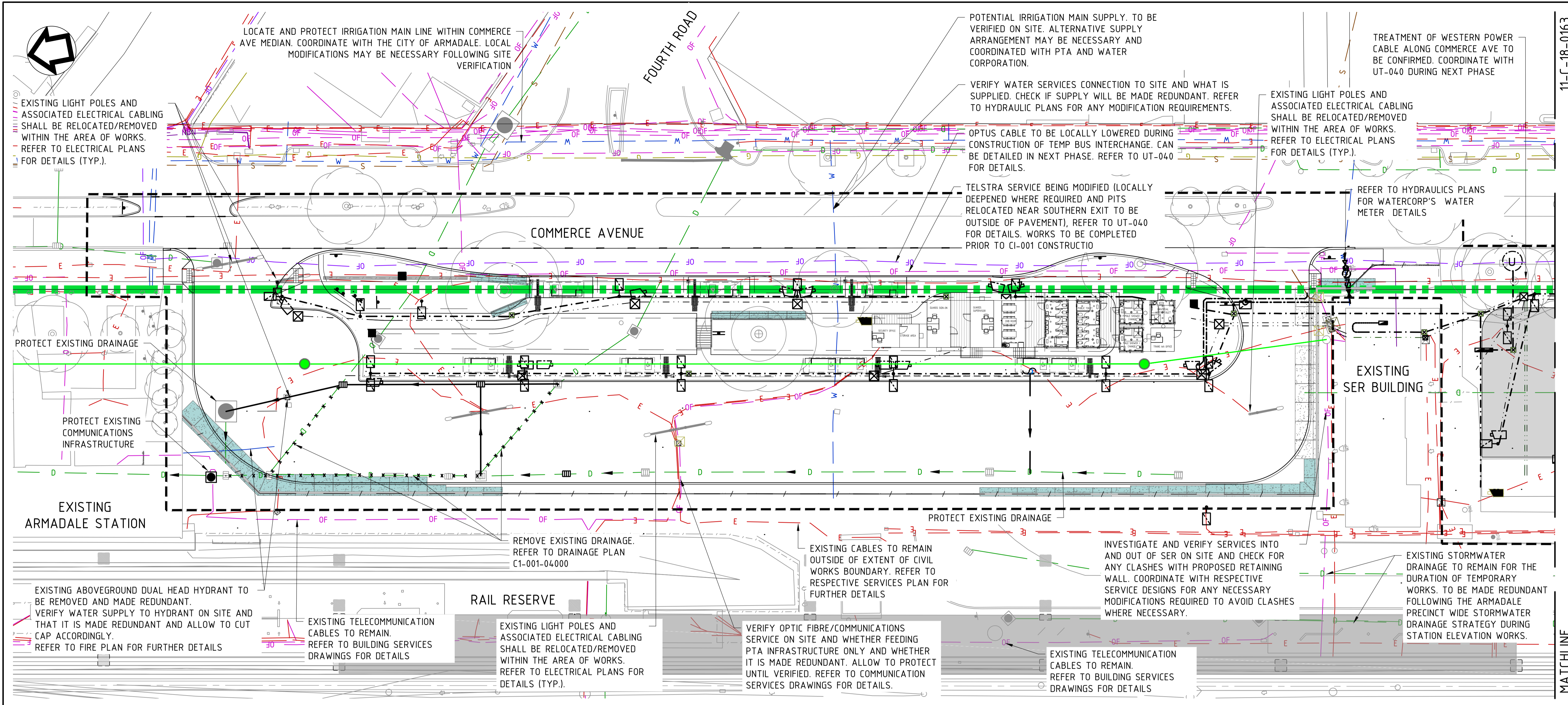
ORIG SIZE: 1:250
AT ORIGINAL PLOT SIZE: 1:250

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Contractor No: R30-MET-DWG-CI-001-09001 | Rev: A.1

REFERENCES	SCALE	DESIGNED	RT
XR01GN_SURVEY_CI_001_PCG2020 R30-DEA-CAD-ST-170-01001 XR01GN_RAIL_RESERVE_BDY_PCG2020 R30-MET-XRF-TR-100-00510 R30-MET-XRF-TR-100-00310 XR01GN_CADASTRAL_BDY_PCG2020 R30-MET-XRF-CI-001-00001 _LOGO_METCONNX	1:250	DRAWN	MBS
	DATUM	CHECKED	YK
	HORIZONTAL: PCG2020	APPROVED	AE
	VERTICAL: AHD71	DATE	6/10/22

Government of Western Australia Public Transport Authority		BYFORD RAIL EXTENSION	
ENABLING WORKS			
CIVIL WORKS - TEMPORARY BUS INTERCHANGE			
PAVEMENT MARKING AND SIGNAGE PLAN - SHEET 2			
PTA Drawing No:		11-C-18-0165	
		Rev: A.1	



LEGEND		EXISTING SERVICES		PROPOSED SERVICES		NOTES	
	RAIL RESERVE BOUNDARY		EXISTING COMMUNICATIONS - MRWA		PROPOSED NDY HYDRAULICS	<p>1. REFER TO RELEVANT SERVICES PLANS FOR DETAILS, PROTECTION OR MODIFICATION REQUIREMENTS FOR RESPECTIVE SERVICES.</p> <p>2. ALL SERVICES TO BE VERIFIED ON SITE PRIOR INTRUSIVE WORKS OR DISRUPTION IT IS CRITICAL TO IDENTIFY AND TRACE WHICH SERVICES ARE POTENTIALLY LINKED TO RAIL SYSTEMS AND INFRASTRUCTURE, AND WHICH SERVICES NEED TO BE MAINTAINED DURING THE CONSTRUCTION PERIOD OF THE TEMPORARY WORKS. ALL SERVICES RELATING TO LOCALISED INFRASTRUCTURE ASSOCIATED WITH THE EXISTING CARPARK THAT WILL BE MADE REDUNDANT ARE TO BE CLEARLY IDENTIFIED ON SITE. REFER TO RESPECTIVE SERVICE PLANS FOR FURTHER DETAILS AS NECESSARY.</p> <p>3. IDENTIFICATION AND VERIFICATION OF SERVICES ON SITE WILL NOT BE ACCURATELY DETERMINED DURING DETAILED DESIGN. POTHOLE INFORMATION IS BEING INTENDED TO BE COMPLETED DURING FDD TO INFORM DESIGN AS BEST AS POSSIBLE, HOWEVER, FURTHER VERIFICATION ON SITE DURING CONSTRUCTION WILL BE MOST LIKELY. ANY FINALISED MODIFICATIONS WILL NEED TO BE DETERMINED AT EARLY STAGES OF CONSTRUCTION.</p> <p>4. ALL SERVICES OUTSIDE OF THE EXTENT OF WORKS THAT ARE NOT IMPACTED ARE TO BE PROTECTED THROUGHOUT THE WORKS. CONFIRM EXISTING MCR SERVICES AND ALIGNMENTS AND ENSURE PROTECTION AT ALL TIMES DURING ENABLING WORKS.</p> <p>5. THE TEMPORARY MCR HAS BEEN SHOWN INDICATIVELY ON THIS COMBINED SERVICES DRAWING, HOWEVER, IT IS UNDERSTOOD THAT TEMPORARY MCR REQUIREMENTS ARE BEING DISCUSSED MORE BROADLY AND SUBJECT TO CHANGE. THE TEMPORARY MCR THROUGH THIS ENABLING WORKS AREA IS UNLIKELY TO DEVIATE GREATLY FROM THE PROPOSED DESIGN.</p> <p>6. THE EXISTING ARMADALE SER IS CRITICAL RAIL INFRASTRUCTURE THAT WILL REMAIN IN PLACE FOR THE ULTIMATE DESIGN. IT IS CRITICAL THAT ALL SERVICES INTO AND OUT OF THE SER THAT RELATE TO RAIL OPERATIONS FOR THE INTERIM AND PERMANENT CASE ARE ACCURATELY IDENTIFIED AND PROTECTED TO THE SATISFACTION OF THE PTA THROUGHOUT THE COURSE OF THE WORKS.</p> <p>7. THE PROPOSED BUS INTERCHANGE WORKS WILL PREDOMINANTLY INVOLVE FILL OVER EXISTING LEVELS. THE GENERAL INTENT OF THE TEMPORARY BUS INTERCHANGE IS TO LEAVE SERVICES IN PLACE EVEN IF THEY ARE MADE REDUNDANT DURING THE ENABLING WORKS IN ORDER TO MINIMISE ANY RISK OF DISRUPTING POSSIBLE EXISTING RAIL OPERATIONS SERVICE CONNECTIONS.</p>	
	CIVIL WORKS BOUNDARY		EXISTING COMMUNICATIONS - NBN		PROPOSED NDY CONDUIT ELECTRICAL CABLE		
	PROPOSED KERBING		EXISTING COMMUNICATIONS - NEXTGEN		PROPOSED NDY LIGHTING ELECTRICAL CABLE		
	600mm EARTHWORKS SHOULDER		EXISTING COMMUNICATIONS - OPTUS		PROPOSED NDY ELECTRICAL CABLE		
	PROPOSED KERB RAMP WITH TACTILE FIBRE (TACTILE PAVERS IN ACCORDANCE WITH AS1428 TYP.)		EXISTING COMMUNICATIONS - OPTICAL FIBRE		PROPOSED NDY DRAINAGE PIPE		
	PROPOSED DRAINAGE JUNCTION PIT REFER TO DRAINAGE PLANS FOR DETAILS		EXISTING COMMUNICATIONS - TELSTRA		PROPOSED NDY LIGHTING		
	PROPOSED DRAINAGE GRATED GULLY PIT REFER TO DRAINAGE PLANS FOR DETAILS		EXISTING COMMUNICATIONS - VOCUS		PROPOSED NDY CCTV		
	EXISTING DRAINAGE STRUCTURE (GRATED GULLY, SIDE ENTRY AND JUNCTION)		EXISTING DRAINAGE PIPE		PROPOSED NDY PIT		
	FUTURE VIADUCT COLUMN REFER TO STRUCTURAL PLANS FOR DETAILS		EXISTING DRAINAGE PIPE TO BE DEMOLISHED		PROPOSED DRAINAGE PIPE		
	EXISTING TREE ALL TREES SHALL BE PROTECTED FOR THE DURATION OF THE WORKS UNLESS SPECIFIED OTHERWISE		EXISTING ELECTRICAL CABLE		PROPOSED TEMPORARY MAIN CABLE ROUTE (MCR)		
	PROPOSED PALISADE FENCE		EXISTING ATCO GAS MAIN				
	FUTURE RAIL ALIGNMENT		EXISTING SEWER PIPE				
	PROPOSED RETAINING WALL		EXISTING UNKNOWN SERVICE				
			EXISTING WATER PIPE				

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ISSUED FOR DA

DESIGNED	RT	BYFORD RAIL EXTENSION
DRAWN	MBS	
CHECKED	YK	ENABLING WORKS
APPROVED	AE	CIVIL WORKS - TEMPORARY BUS INTERCHANGE
DATE	6/10/22	COMBINED UTILITIES PLAN
PTA Drawing No:		11-C-18-0166
		Rev: A.1

REV	DATE	ISSUED FOR DA	AMENDMENT	DSN	DRN	CHK	APP
A.1	23/11/22	ISSUED FOR DA		YK	MBS	FO	RS

ORIG SIZE: 0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

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REFERENCES		SCALE
XR01GN_SURVEY_CI_001_PCG2020	R30-DEA-CAD-ST-170-01001	1:250
XR01GN_RAIL_RESERVE_BDY_PCG2020	R30-MET-XRF-TR-100-00510	DATUM
XR01GN_CADAstral_BDY_PCG2020	R30-MET-XRF-CI-001-00001	HORIZONTAL: PCG2020
R30-MET-XRF-CI-001-00001	R30-MET-XRF-CI-080-00001	VERTICAL: AHD71
XR01UT_UTILITIES_PCG2020	LOGO_METCONX	
R30-MET-XRF-CI-001-00010		