EDWARDS ROAD, MAIDEN GULLY

GB5018
ROAD SAFETY
OCTOBER 2022



	DOCUMENT CONTRO	L		
SHEET No.	SHEET DESC.	20/10/22	xx/xx/xx	xx/xx/xx
		DRAFT	TENDER	CONSTRUCTION
		REVISION	REVISION	REVISION
1	COVER SHEET	Α		
2	GENERAL NOTES	А		
3	SIGN INSTALLATIONS, PROJECT EXTENTS & CONTROL	А		
4	SIGN INSTALLATIONS, PROJECT EXTENTS & CONTROL	А		
5	DILE ROAD INTERSECTION	А		
6	GUARD FENCE SECTION 1	Α		
7	GUARD FENCE SECTION 2	Α		
8	GUARD FENCE SECTION 3	Α		
9	GUARD FENCE SECTION 4	A		
10	GUARD FENCE SECTION 5	Α		
11	GUARD FENCE SECTION 6	Α		
12	CROSS SECTIONS	Α		
13	CROSS SECTIONS	Α		
14	CROSS SECTIONS	Α		
15	CROSS SECTIONS	Α		
16	CROSS SECTIONS	А		
17	DRAINAGE LONG SECTIONS	Α		



PROJECT EXTENTS

LOCALITY MAP

	PROJECT	PLANNING REQUIREMENTS			AMENDMENTS			CITY OF	GREATER BENDIGO	Survey	H. WHYTOCK		16/08/22	
Item	Required	Comments	Contractor	Revision	Description	Approved by	Date		GREATER BEINDIGO	Design	B. JANSSEN		20/10/22	BRELIMINARY BEGION
Vegetation	Yes	-		-	-	-	-			Checked	A. SMITH		-/-/22	PRELIMINARY DESIGN
RRV	No	-						A	EDWARDS ROAD	Approved by	N. SARTORI		-/-/22	DDAFT 2
CMA	No	-							MAIDEN GULLY	Scale: -		Revision : A		DRAFT 3
Planning Permit	TBC	May be require for Veg Removals								Original shee	size: A3	File: GB5018.dwg	g	
Land Acquisition	No	-							ROAD SAFETY	Sheet:	Reference:		-	
CHMP	No	-							OOVED OUEET	1 OF 1	√ GF	35018		Plot Date: 15/11/2022
Other	No	-)	COVER SHEET	1 01 1		55010		Plotted By: BAYLEY JANSSEN

ROAD CONSTRUCTION NOTES

- All Works to be carried out in accordance with CoGB Standard Drawings, Specifications, approved plans and to the satisfaction of the Superintendent's
- These notes also refer to the latest version of the Infrastructure Design Manual (IDM) and latest version of the IDM Standard Drawings.
- The Project Manager is to be notified seven days prior to the commencement of Works with a Pre-commencement meeting to be held between CoGB, the Consultant and the Contractor. A site management plan is to be submitted prior to the commencement of Works and prior to the onsite Pre-commencement meeting.
- Prior to commencement of the Works, the Contractor shall provide the following:
 - Source of quarry material
 - N.A.T.A. approved test results for the F.C.R that is to be used
 - If the source of the quarry material is changed during the course of the Works, then new test results shall be provided.
- Prior to commencement of Works on site, the Contractor must ensure that all matters relating to the Occupational Health and Safety Act 2004, have been and will be
- On the commencement of construction, the Contractor must comply with the recommendation of the Environment Protection Authority publication "Construction Techniques for Sediment Pollution Control". Appropriate siltation control is to be maintained throughout the construction and maintenance period of the Works.
- The disposal site for spoil storage, and truck removal route, is to be submitted in writing to, and approved by the Superintendent's Representative prior to the
- Where Works are in the vicinity of existing services, these services are to be located and exposed prior to commencement of the work. Relevant authorities are to be
- All dimensions are in metres unless noted otherwise
- All levels are to Australian Height Datum (AHD) unless noted otherwise.
- All co-ordinates are to Map Grid of Australia (MGA) unless noted otherwise.
- The Contractor must arrange the inspection of the Works with the Superintendent's Representative as per the hold points in the Specifications, or as directed by the Superintendent's Representative
- All redundant assets are to be removed and disposed off site unless noted otherwise.
- All service conduit trenches under road pavements, under footpaths and under swales are to be backfilled as per IDM SD310 unless noted otherwise. Compaction standards noted in SD310 shall be achieved.
- Blasting is not generally accepted.
- All existing assets affected by the Works (i.e. signs, vehicle crossings, footpaths, kerb and line marking) shall be reinstated by the Contractor before the completion of Works, to the satisfaction of the Superintendent's Representative.
- At the completion of all Works, all rubbish, debris and surplus spoil shall be removed and the site shall be cleared to the satisfaction of the Superintendent's
- The Contractor is to obtain a Building Permit for any structures, fences and for any retaining walls over 1.0m in height.
- Any infrastructure damage incurred during the Defects Liability Period noted on the contract is the responsibility of the Contractor and is to be reinstated to the satisfaction of the Superintendent's Representative.
- All disturbed areas (eg. nature strips, batters, allotments and reserves) are to be reinstated to a clean, tidy condition, top dressed with 75mm min. depth approved top soil, and seeded with a CoGB approved blend or unless otherwise noted. Soil & seeded treated areas must be satisfactorily established prior to the end of the Maintenance Period otherwise further treatment is required by the Contractor
- Any exposed aggregate concrete works are to be achieved by sandblasting only. /ashing aggregate off with water is not permitted.
- The Contractor shall notify the public of any impending road closures by providing sufficient signage 2 weeks prior to construction commencing.

ROADSIDE MANAGEMENT NOTES

Unless otherwise directed by the Superintendent's Representative, the following roadside

- Confine machinery operations to the existing road formation or a designated construction zone. Identify machinery turn around point in areas that will not result in disturbance to the existing vegetation.
- Clearly mark the construction zone prior to the commencement of works. The construction zone is the area where all construction activities take place. (See CoGB Roadside Handbook'). The roadside is any area outside the construction zone.
- Plant and equipment must not be parked on the roadside in this zone
- Avoid removal of native vegetation when locating drain cut off points.
- Spoil from grading and drain construction must not be placed or spread on the roadside. It is to be removed to a recognised dump site or tip, unless approved as fill material for incorporation in the works. Do not spread spoil onto the roadsides.
- Remove any topsoil (where necessary) prior to works and store in a designated area. Re-use as soon as practical.
- or disease affected areas, clean vehicles and machinery of all soil and plant debris prior working on High or Medium conservation value sites or weed free sites.

PAVEMENT NOTES

- Construction of road payements is to be in accordance with the requirements of VicRoad's Standard Specifications for Roadworks (Section 304). Testing must be carried out by a N.A.T.A. approved laboratory, or by calibrated nuclear densometer test to the relevant Australian Standard.
- Compaction tests are to be undertaken in the following locations:
 - At 2/3 depth of the pavement
 - At alternating sides of the road
 - 1.0m in from the seal edge or lip of kerb
- The number of compaction tests shall comply with the table below:

Location	Number of Compaction tests
Court bowls	3
Intersections	2
Straights	1 per 500m2 (1/50m for 10.2m wide pvmt.)

- Copies of the geotechnical results are to be submitted to the Superintendent's
- Sub-base and base materials are to be at 85% optimum moisture content (OMC) during compaction, and maintained at 85% OMC until proof rolling.
- Typical Compaction levels required (unless noted otherwise)

Subgrade: To be compacted to 100% standard dry density ratio

Subbase: Flexible pavements shall be compacted in accordance with Scale C in VicRoads table 304.082

Compaction shall be to 98% of the maximum dry density ratio determined by the modified compaction test.

Base: Flexible pavements shall be compacted in accordance with Scale C in VicRoads table 304.082

Compaction shall be to 100% of the maximum dry density ratio determined by the modified compaction test

- Proof rolling of the Subgrade. Sub base and Base must be undertaken as per Section 12.7.15 of the IDM. Proof rolling will be at the expense of the contractor in accordance with AS3798 and the requirements of section 173 and 204.12 of the VicRoad's Specification. The Superintendent's Representative must be present during the proof rolling. The Subgrade must not deflect more than 2mm vertically within 300mm of the
- Identification and treatment of soft areas during proof rolling shall be dealt with as per Sections 12.7.13 and 12.7.14 of the IDM and as approved by the Superintendent's

DRAINAGE CONSTRUCTION NOTES

- The Superintendent's Representative and Design Engineer must be notified if any any modifications to drainage design are required due to unforseen circumstances iden during works onsite.
- Any property storm water pipes located during Works are to be plumbed to the nearest pit. Where this is not practical, seek approval from the Superintendent's Representative to connect stormwater into kerb or into the nearest storm water pipe.
- All drainage pits are to be constructed as per the noted Standard Drawing
- Invert fall through pits is to be a min. of 30mm unless noted otherwise.
- Concrete pit walls are to be sponge finished and floors are to be shaped for best hydraulic efficiency unless noted otherwise.
- Pit lids are to be installed flush with the surrounding surface unless noted otherwise.
- Where concrete box culverts (CBC) or Crown Units are specified, they are to be compliant to AS1597.
- Pipe extensions are to be constructed by removing the remaining stub of the existing pipe to be extended, and then connecting the new pipe at the socket.
- All pipe backfill is to be constructed as per the noted Standard Drawing.
- The location of any saw cuts in asphalt are to be kept the minimum required trench width until after the pipe is laid and backfilled up to 300mm from surface. At this point, a further 150mm wide, 300mm deep section of asphalt/payement is to be sawcut and excavated so as to provide a longitudinal pavement join over the drainage tren This also should ensure a straight edge for re-asphalting. The top 300m depth of backfill should then be constructed accordingly.
- At the completion of the Works, pipes are to be visually inspected via inspection pits to check for construction debris, including crushed rock, soil and concrete over spill. Should a volume of debris be present enough to impede flows, pipe cleaning shall be
- Gas and water property services are generally not located during the design phase and therefore have not been shown on plans. It is therefore the Contractors esponsibility to consider these services when excavating and adjust or realign accordingingly whilst causing minimal disruption to property owners.
- Gas and Water property services encountered during construction are to be altered and reconnected to the appropriate standard and to the satisfaction of the

AMENDMENTS

SIGNAGE, GUIDE POSTS, DELINEATORS AND GUARD FENCE NOTES

- All existing signage within Works site to be removed (where required) & reinstated unless noted otherwise or directed by the Superintendent's Representative
- All signs to be installed shall be Class 1 high intensity type and comply with the requirements of AS1743-2001.
- All guideposts are to have delineators satisfying the requirements of AS1906.2
- Guideposts are to be installed 150mm clear of the edge of shoulder or 600mm behind

Curve Radii (m)	Outside (m)	Inside (m)
< 100	6	12
100 - 199	10	20
199 - 299	15	30
300 - 399	20	40
400 - 599	30	60
600 - 799	40	60
800 - 1199	60	60
1200 - 2000	90	90
Straights	150	150

NOTE:

- Reduce 90m spacings to 60m, or 150m spacings to 75m, in areas subject to fog.
- On guard fence, adjust increments to suit post spacings
- Post on inside of curve is to be placed opposite post on the outside of the curve

Guideposts on crests on a straight alignment are to be spaced such that at least 2 $\,$ pairs of delineators (the nearest pair being not less that 40m ahead of the vehicle)

On crests with a horizontal curve, this requirement is to be combined with those in the above table.

a) At bridges or culverts the following guidepost and delineator conditions shall apply:

No Guard fence, structure >5m in length:

4 guideposts, one pair at each end.

No Guard fence, Structure <5m in length:

2 guideposts, one on each left hand approach adjacent to the headwall or kerb.

Guard fence and bridge rail within 4m of the closest traffic lane edge:

Delineators to be placed on mounting brackets on guard fence/bridge rail, spaced at 12.5m centres. A delineator shall be located 5.0m from the leading end of the fence, discounting any flared sections of fence (unless the flare is within 4m of the traffic lane, in which case the delineator should be installed on the start of the flare)

Guard fence/bridge rail more than 4.0m from closest traffic lane edge

Delineators are not placed on the barrier, fence or rail, but guideposts are continued along the edge of formation at the required spacing's shown above.

Delineators are to be colored as per the following:

- left side of roadways - right side of roadways

yellow - right side of one way roadways

GENERAL CONSTRUCTION NOTES

- All kerb, footpath and pram crossing constructions shall have bedding/boxing inspected by the Superintendent's Representative prior to pouring of concrete
- If property stormwater outlets (not already identified on plan) are located during construction, it is the Contractors responsibility to connect them into council underground drainage or back of kerb (As per IDM SD 510 & IDM SD 505) to the approval of the Superintendent's Representative.
- Renewal of gas and water property service conduits to be 100mmØPVC (sewer grade).
- All sewer man-hole covers within the footpath alignment (wholly or partly) are to be renewed & adjusted to design finished levels unless noted otherwise or directed by the Superintendent's Representative
- All redundant footpath, kerb and road seal to be saw cut and removed from site.
- All service pits are to be renewed and matched into design surface unless noted otherwise noted or directed
- All TGSI's are to be Black Fibre Reinforced Resin Polymer type manufactured by ESP Aust. Or approved equivalent. TGSI's to be cast in place on new concrete works and installed in accordance with AS1428, unless noted otherwise or directed by the Superintendent's Representative

VEGETATION PROTECTION NOTES

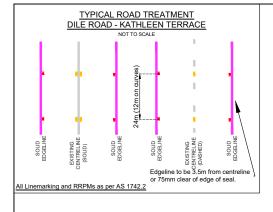
- If fencing is required as a condition of the Planning Permit or as a result of the pre-construction meeting, a three strand star picket and wire fence shall be constructed.
- All trees and shrubs are to be retained unless otherwise shown or directed by the Superintendent's
- No tree or native vegetation is to be disturbed or removed without prior approval. Any approved trees or vegetation removed as part of the works are not to be burnt onsite.
- If tree roots are discovered during excavation works, works in the immediate area shall cease until the Superintendent's Representative has inspected, and approved works to proceed.

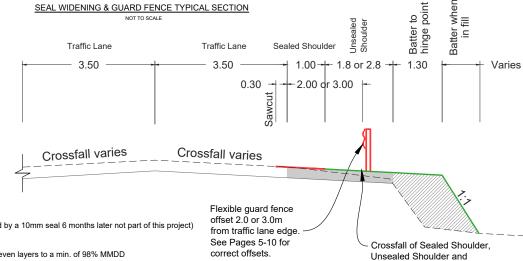
TREE REMOVAL NOTES

- 1. All trees, shrubs, stumps and roots within the batter limits of the project to be removed from site.
- Contractor must abide by any conditions set in the planning permit for removal of vegetation.
- Contractor must seek permission from the Superintendent's Representative to remove any trees not within batter extents that will potentially be disturbed with table drain earthworks.
- 4. Any approved trees or vegetation removed as part of the works are not to be burnt onsite.

FILL NOTES

- All earthworks and compaction are to be in accordance with VicRoad's Specification Section 204.
- All fill materials are to be approved by the Superintendent's Representative prior to being imported onto the site, and unless noted otherwise, shall be a clean clay based material free of vegetation matter or contaminants.
- All filling is to comply with AS3798-1996 Appendix B, level 1 (or 2) as specified
- The Contractor is responsible for ensuring that all imported fill material, including topsoil, satisfies the description for clean fill material in EPA bulletin publication No. 448 (Sep 95) and subsequent revisions. The Contractor shall provide verification including test certificates to the Superintendent's Representative.





PAVEMENT DETAILS:

SEAL: BASE:

TOTAL:

Approved by Date

7mm primerseal - (followed by a 10mm seal 6 months later not part of this project)

Place and Compact in two even layers to a min. of 98% MMDD (min CBR 80) SUB GRADE: Pulverise existing material to 200mm depth, roll and Compact to 95%SMDD

Class 1 FCR (20mm)

CITY OF GREATER BENDIGO

- All other fill areas are to be filled with approved clean material free of vegetative matter and compacted to 100% SMDD See notes this page for all compaction and testing requirement

155mm

EDWARDS ROAD MAIDEN GULLY ROAD SAFETY **GENERAL NOTES**

H. WHYTOCK Survey 16/08/22 B. JANSSEN 20/10/22 A. SMITH Checked -1-122 Approved by N. SARTOR -/-/22 Scale: Revision: A Original sheet size: A3 File: GB5018.dwg

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PRELIMINARY DESIGN DRAFT 3

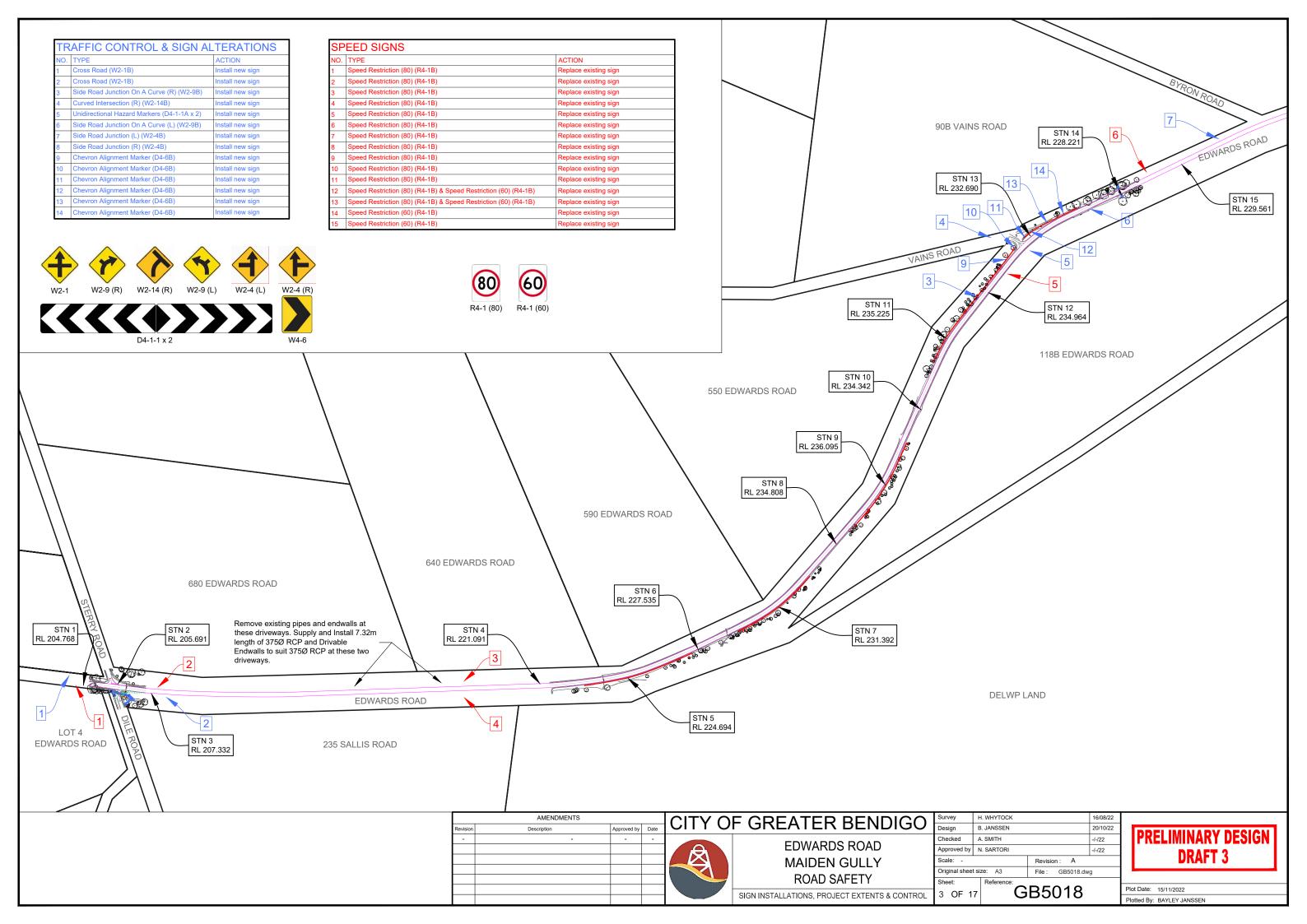
Batter to Hinge Point to match

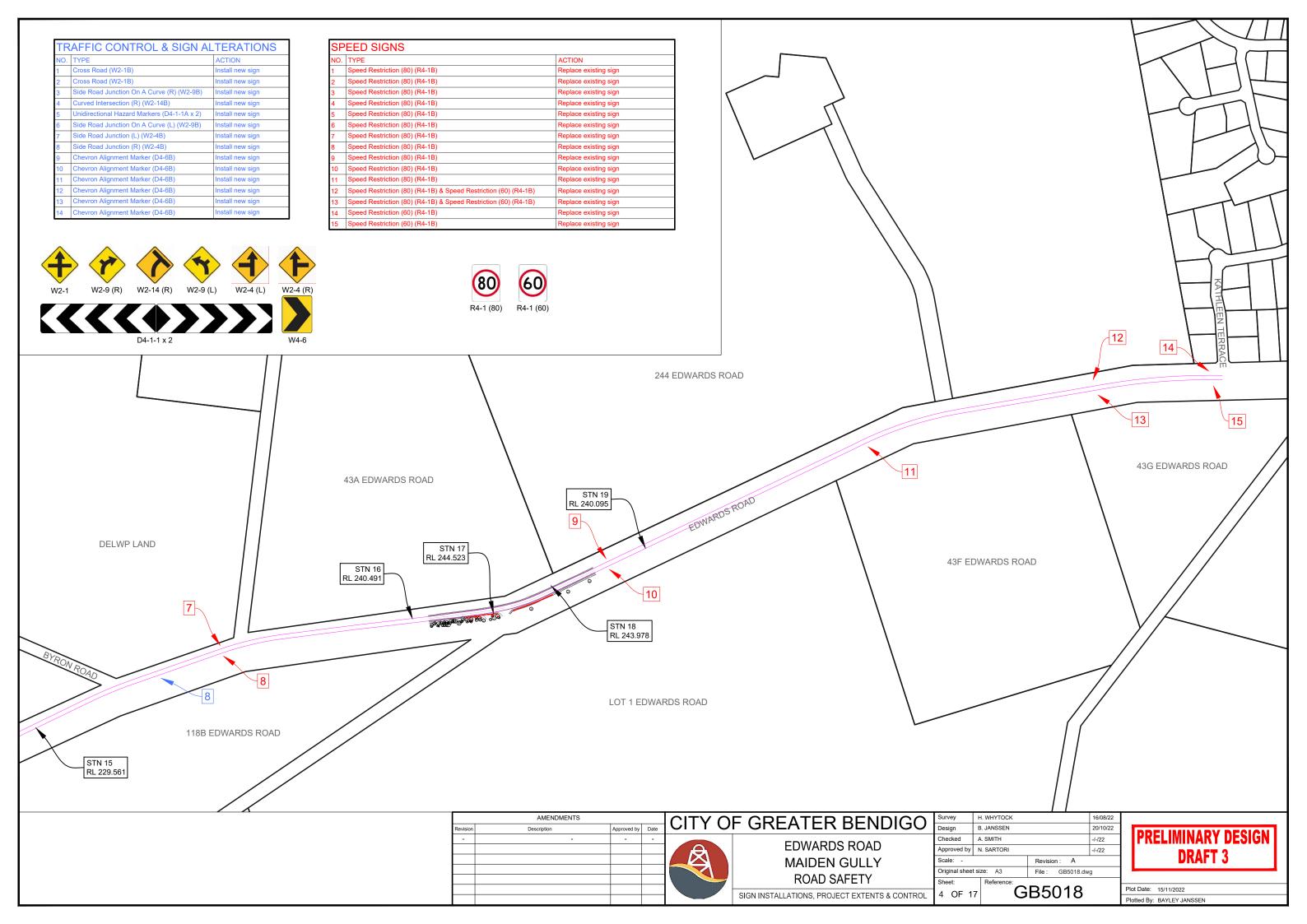
crossfall of existing pavement.

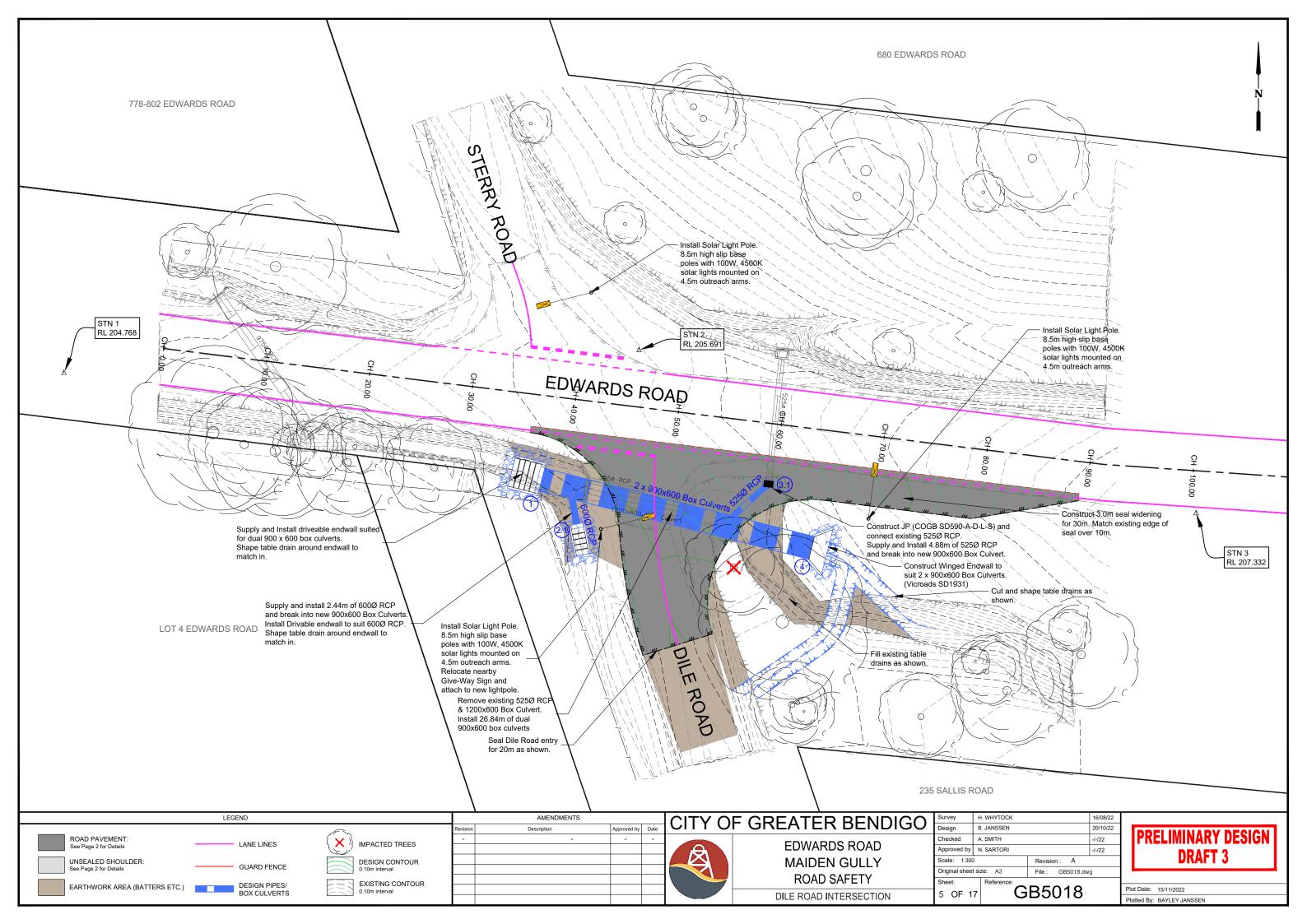
Plot Date: 15/11/2022 Plotted By: BAYLEY JANSSEN

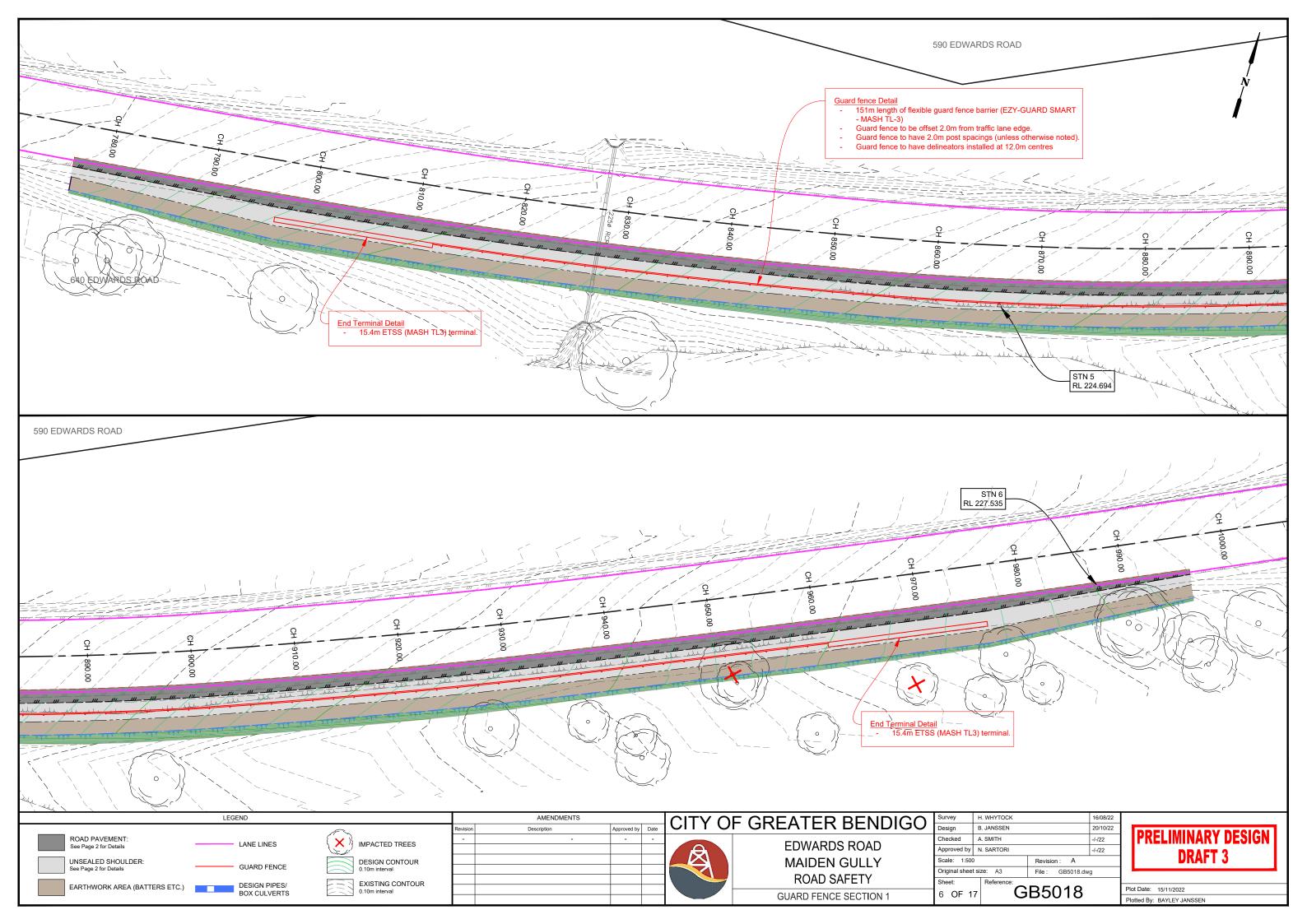
DIAL 1100 BEFORE YOU DIG

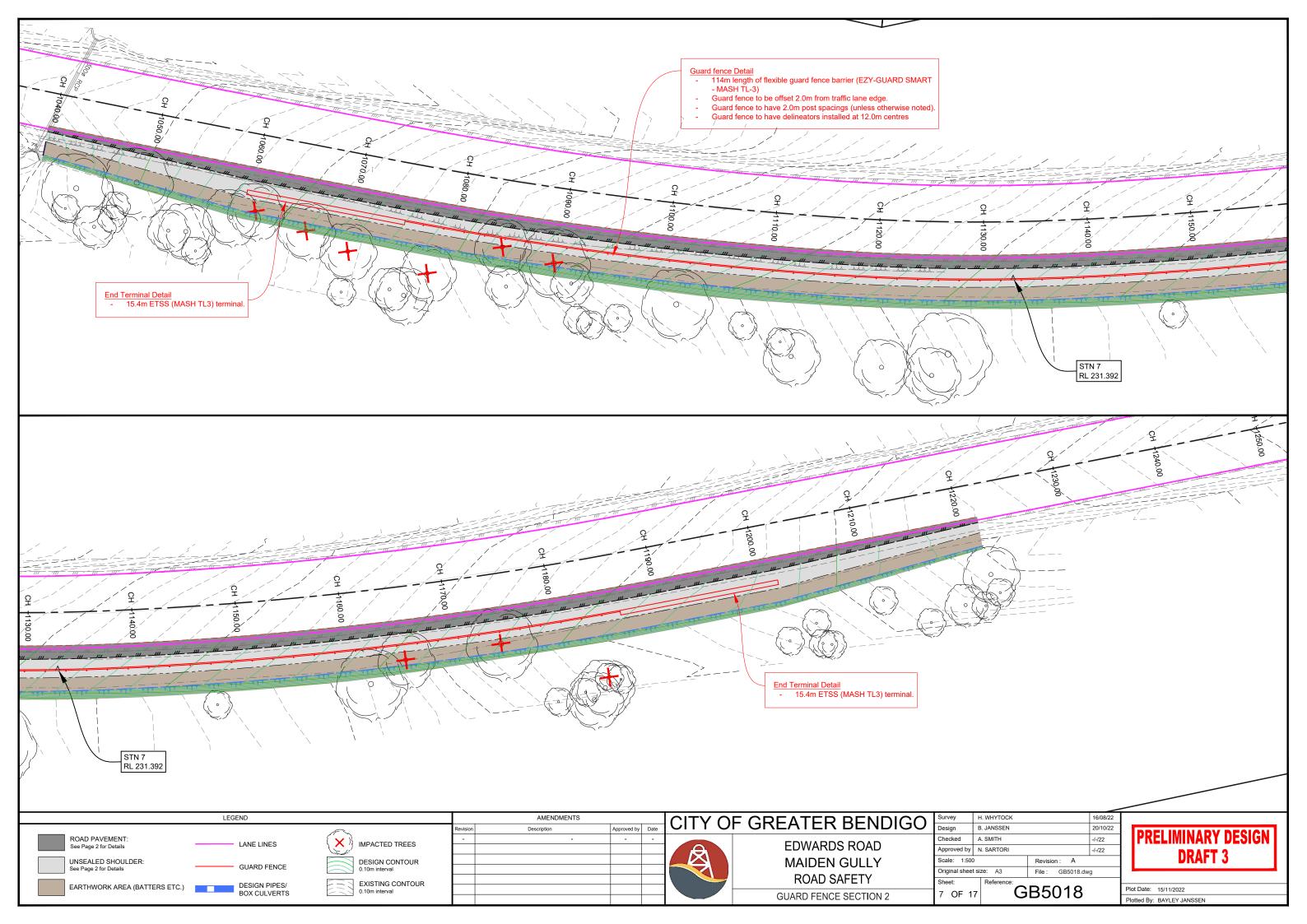
IMPORTANT!
The location of underground services have been derived from available information, however accuracy cannot be guarantee
All existing service information should therefore be treated as
indicative only, and service locations must be arranged prior to

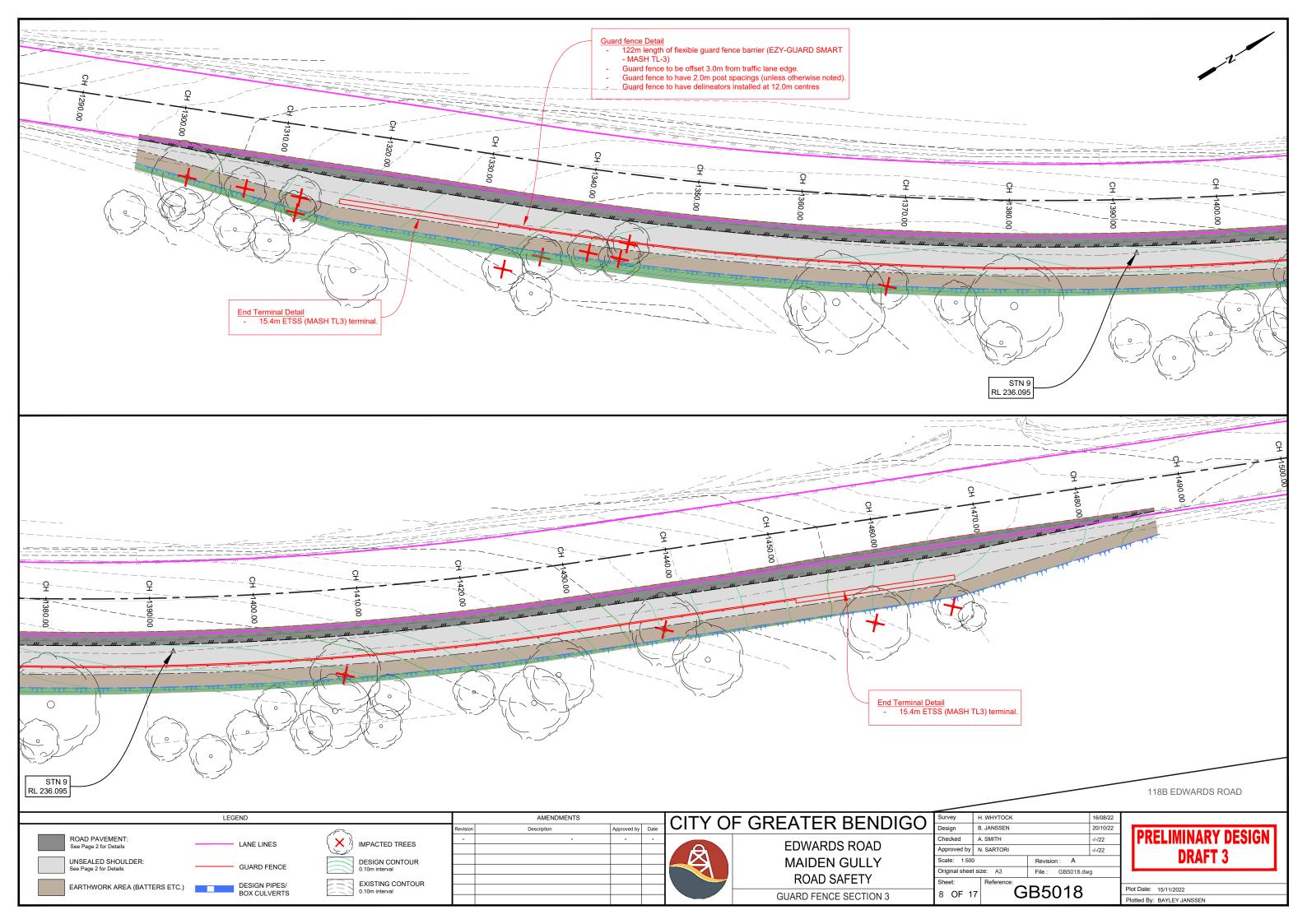


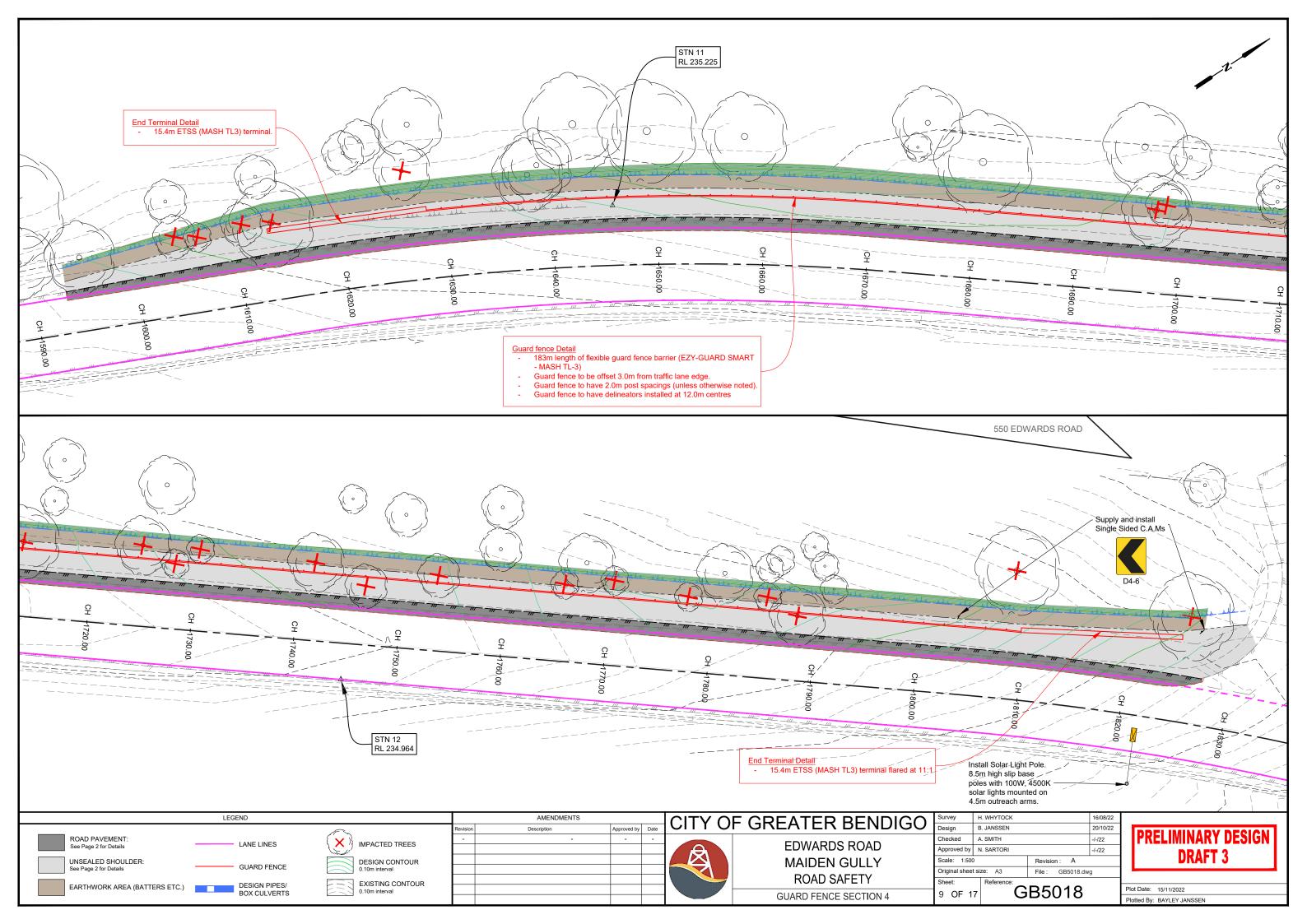


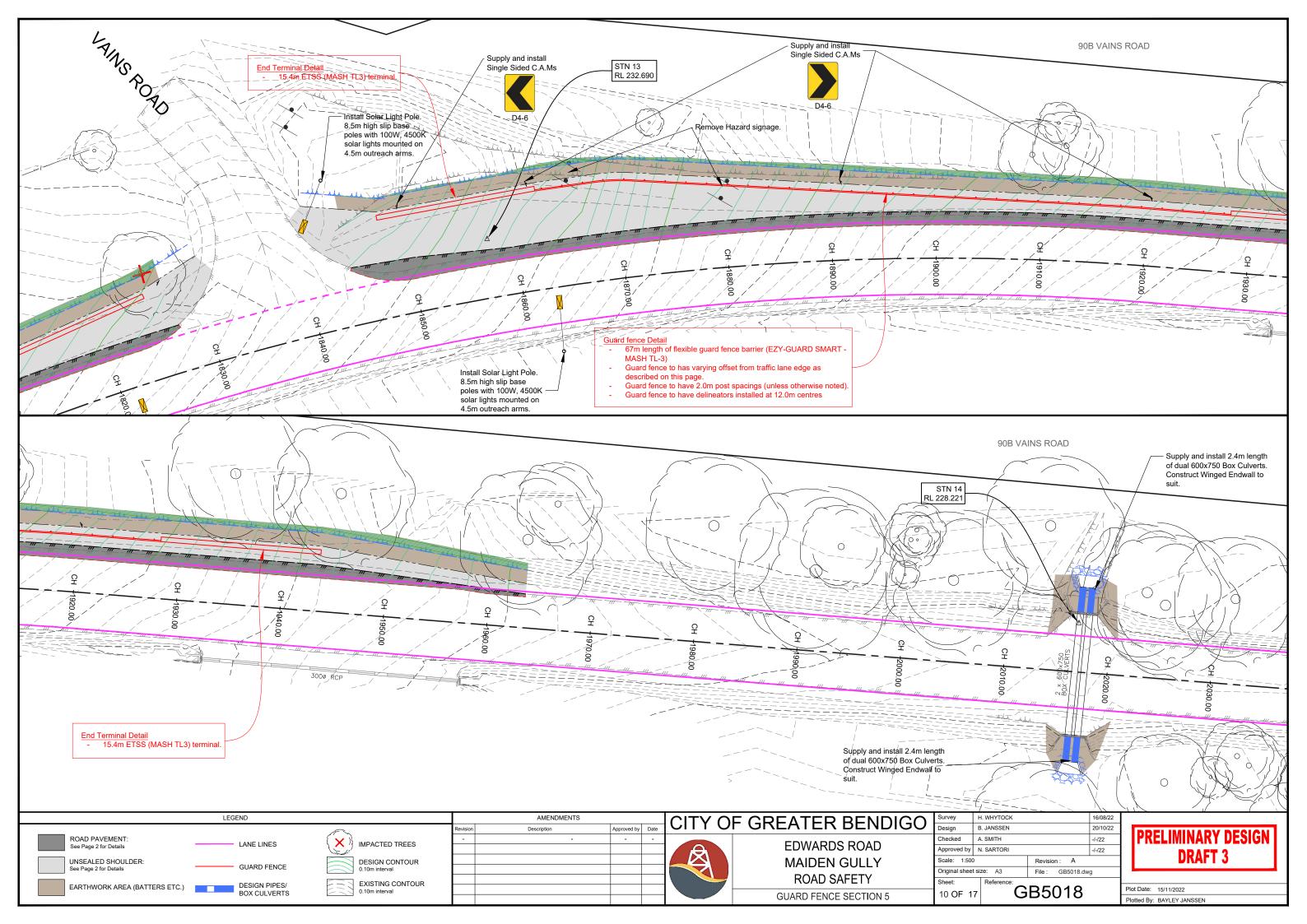


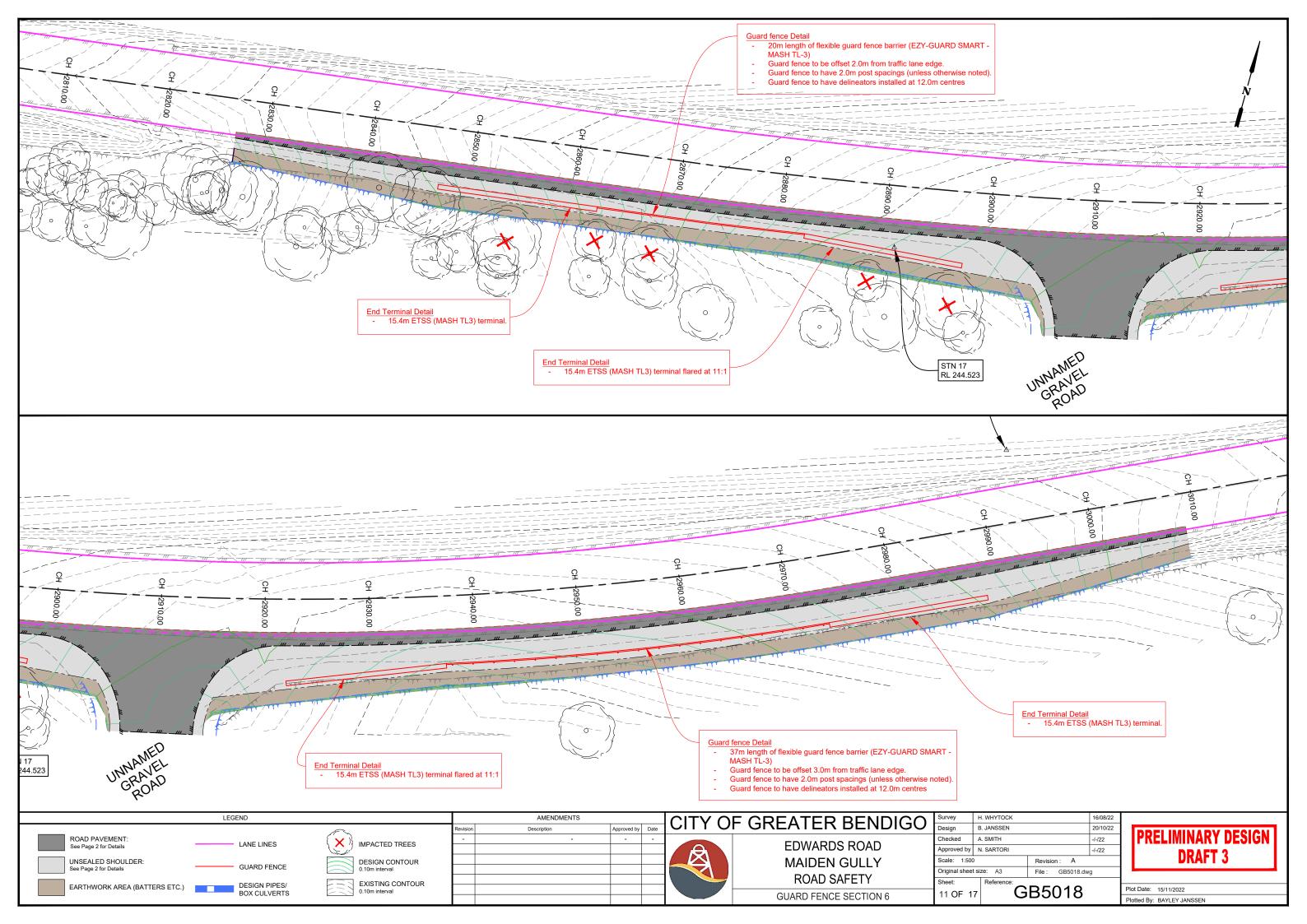


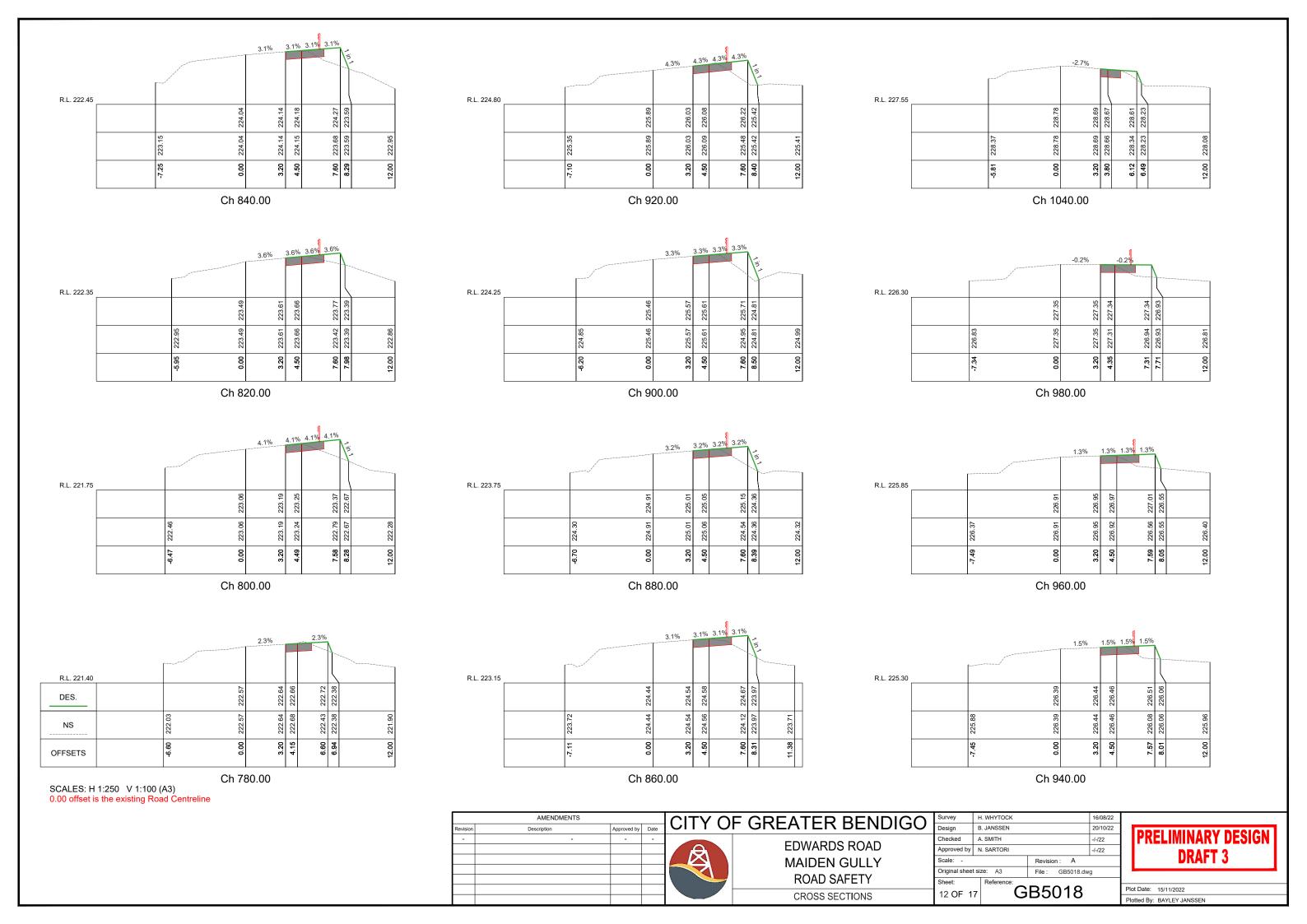


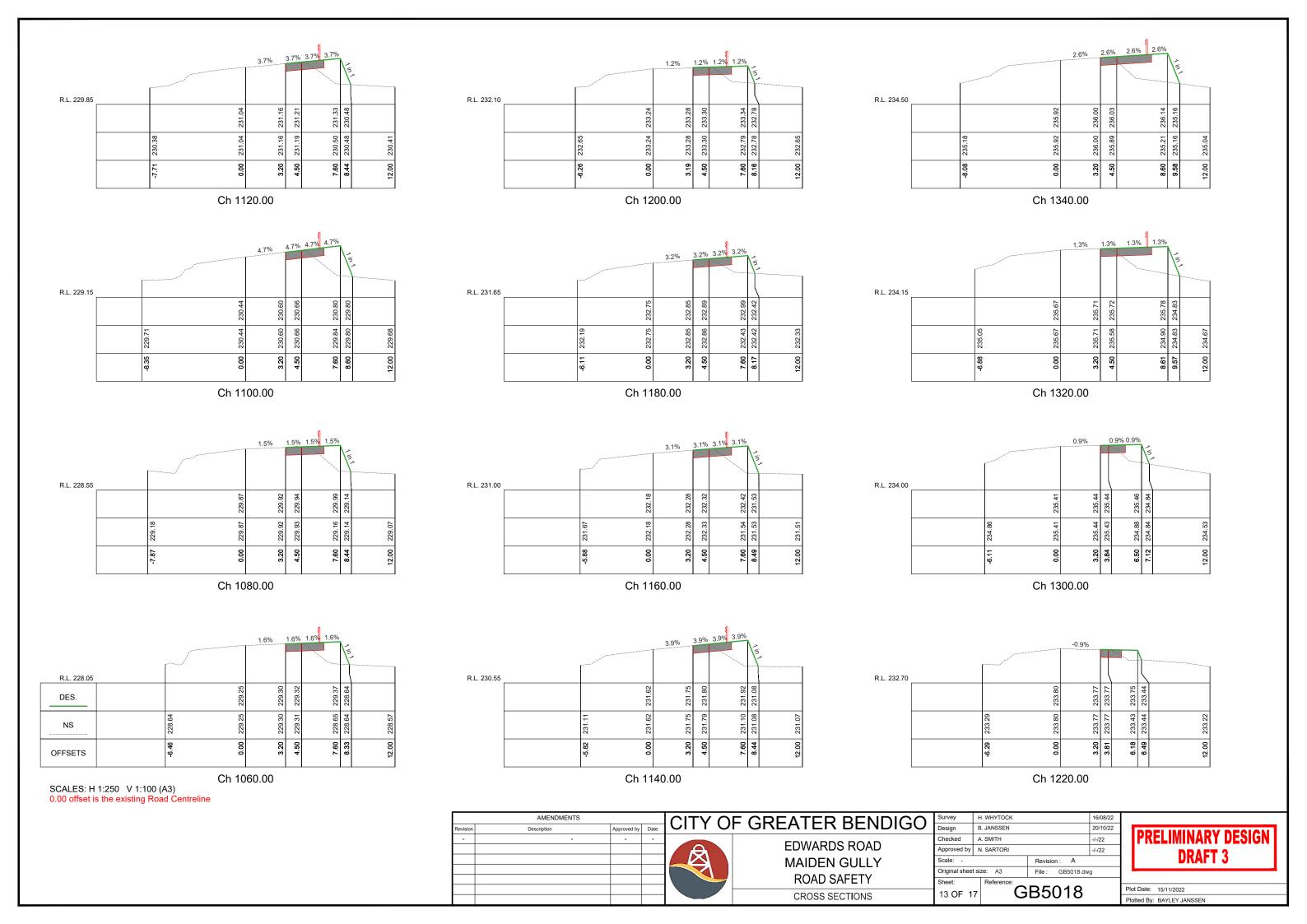


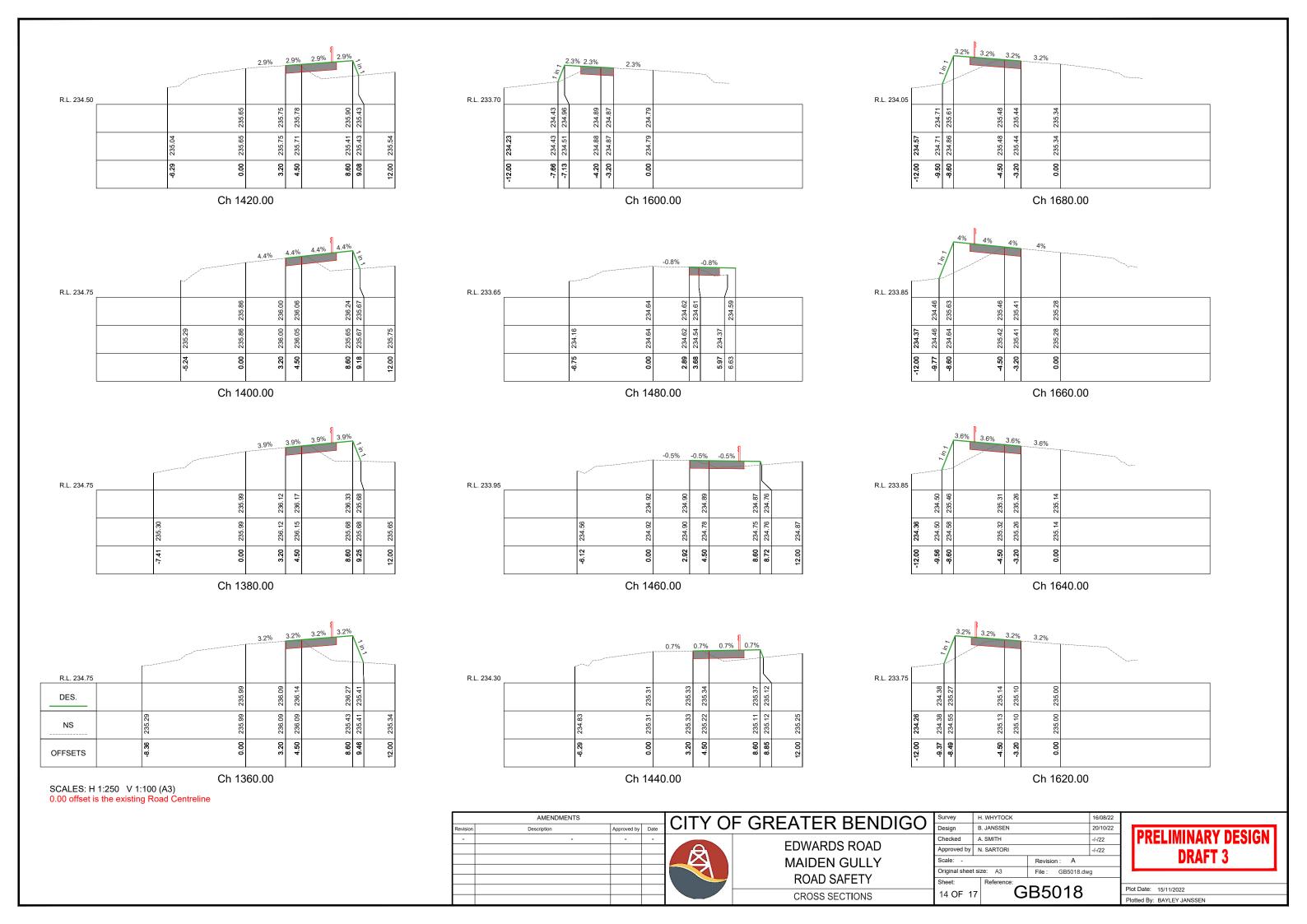


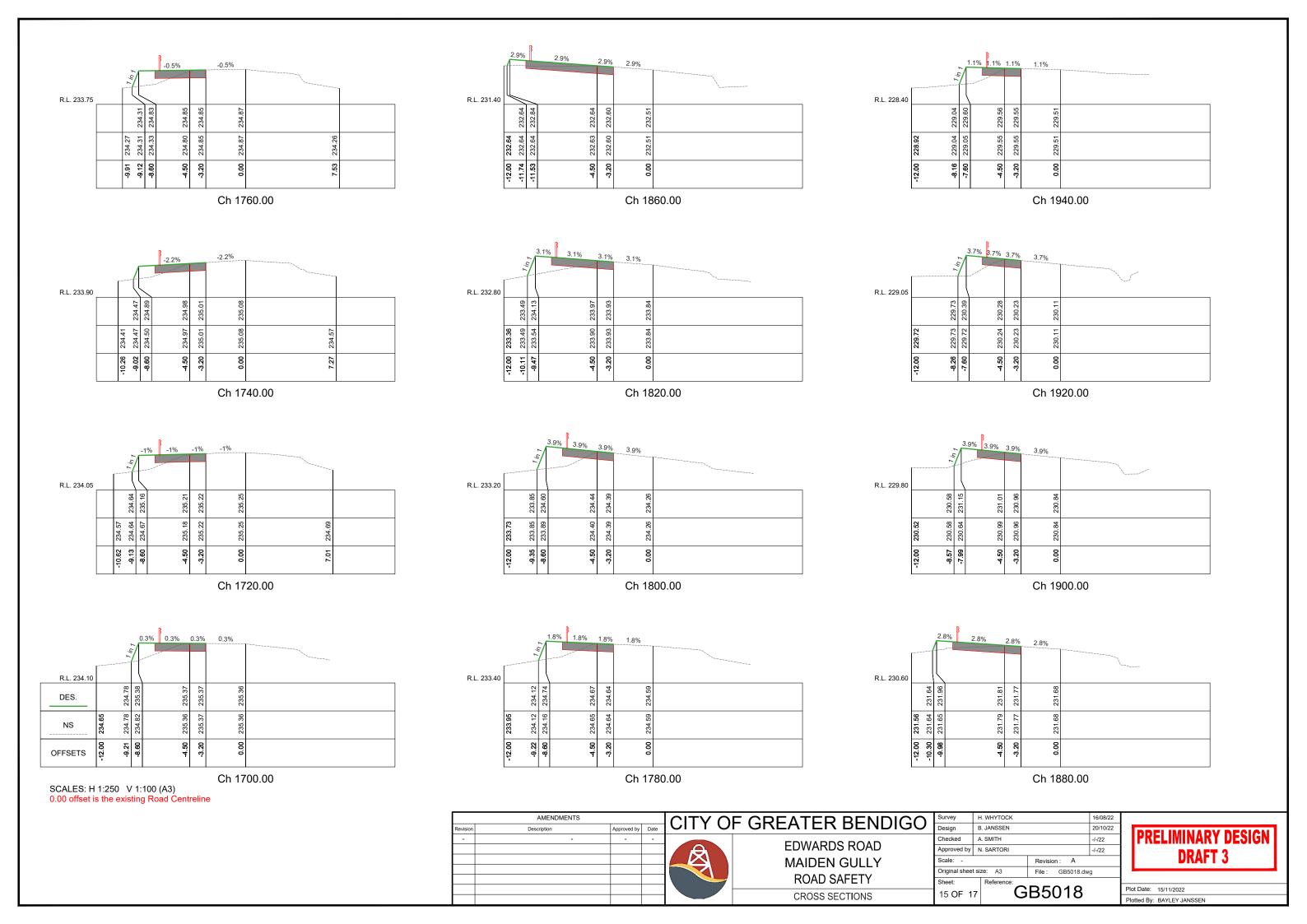


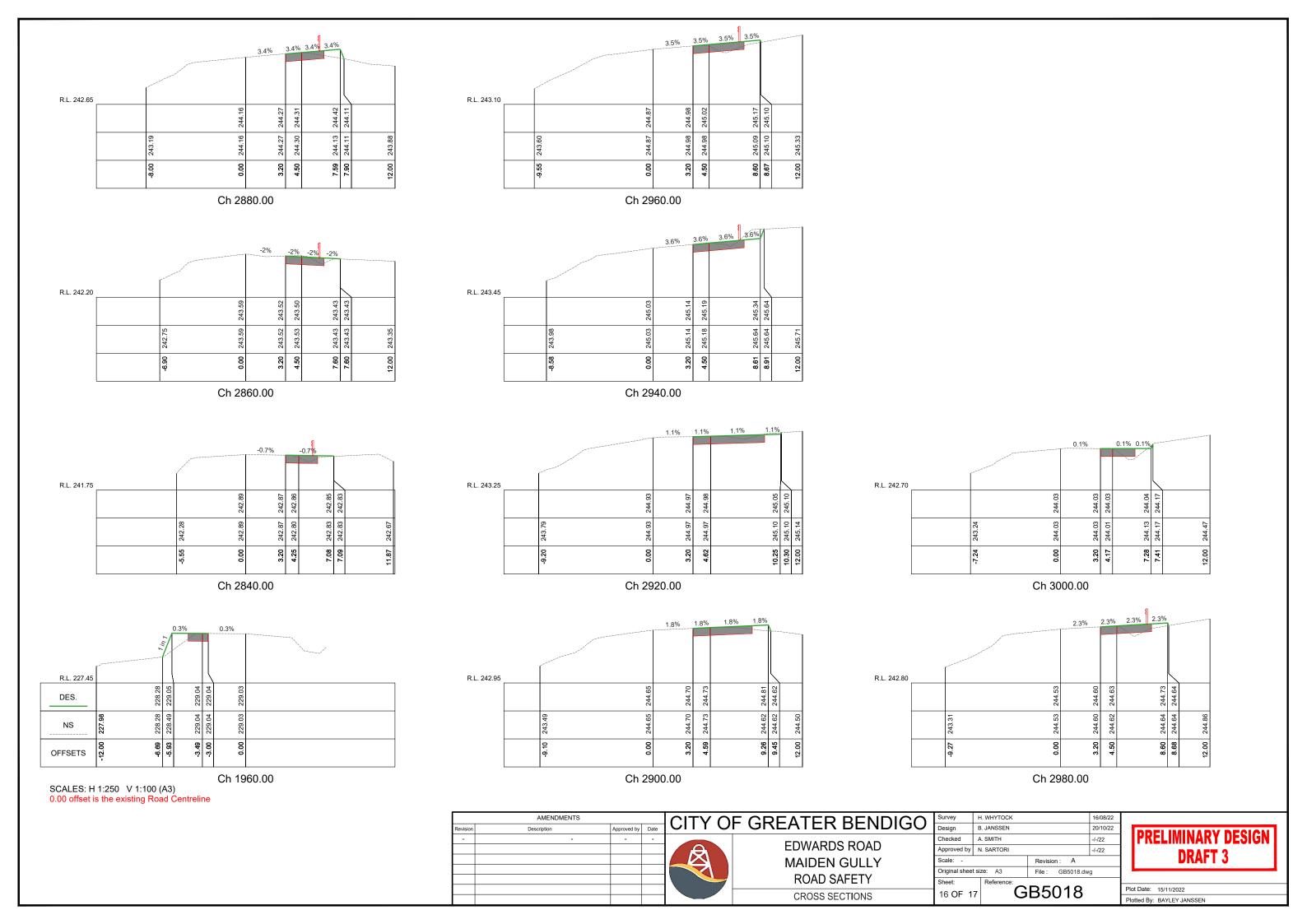




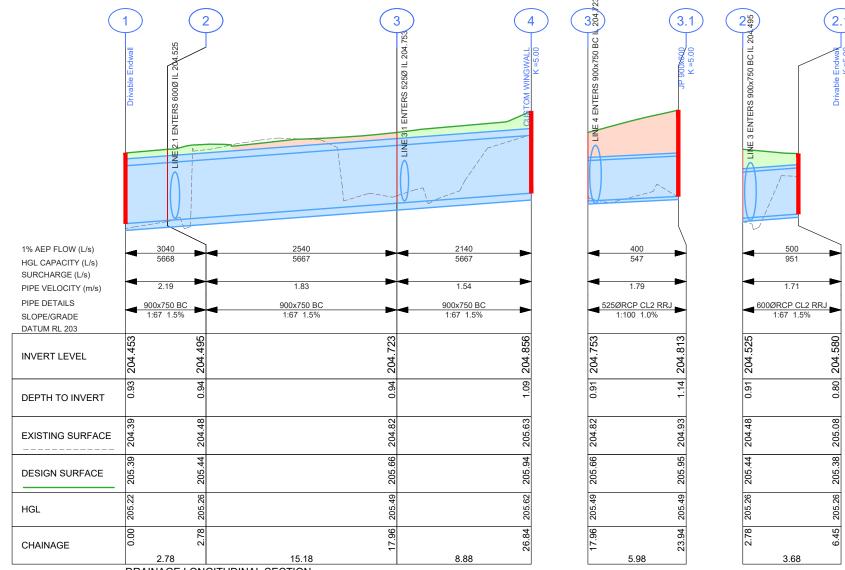








	Pit Schedule											
Pit No.	Pit Type	Pit Type Standard Drawing		Pit Length	Outlet Diameter	Outlet Invert RL	Inlet Diameter	Inlet Invert RL	Pit Depth	Pit Lid Level		
			(mm)	(mm)	(mm)	(m)	(mm)	(m)	(m)	(m)		
1	Endwall	Driveable Endwall					900x750	204.453	0.935	205.388		
2	Not a Pit	600RCP Break Into Box Culvert					600	204.525				
3	Not a Pit	525RCP Breaks Into Box Culvert					525	204.753				
4	Endwall	Winged Endwall	-	-	900x750	204.856			1.085	205.941		
3.1	Junction Pit	COGB SD590-A-D-L-S	600	900	525	204.813			1.142	205.955		
2.1	Endwall	Driveable Endwall			600	204.580			0.799	205.379		



DRAINAGE LONGITUDINAL SECTION SCALES: HORIZONTAL 1:250 VERTICAL 1:50

	AMENDMENTS			CITY	F GREATER BENDIGO	Survey	H. WHYTOCK
on	Description	Approved by	Date		F GREATER DENDIGO	Design	B. JANSSEN
	-	-	-			Checked	A. SMITH
					EDWARDS ROAD	Approved by	N. SARTORI
					MAIDEN GULLY	Scale: -	
						Original sheet	t size: A3
					ROAD SAFETY	Sheet:	Reference:
					DRAINAGE LONG SECTIONS	17 OF 1	7 (

16/08/22 20/10/22

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Revision : A
File : GB5018.dwg

GB5018

PRELIMINARY DESIGN

DRAFT 3

Plot Date: 15/11/2022 Plotted By: BAYLEY JANSSEN