

EMU CREEK UNDERPASS STRATHFIELDSAYE

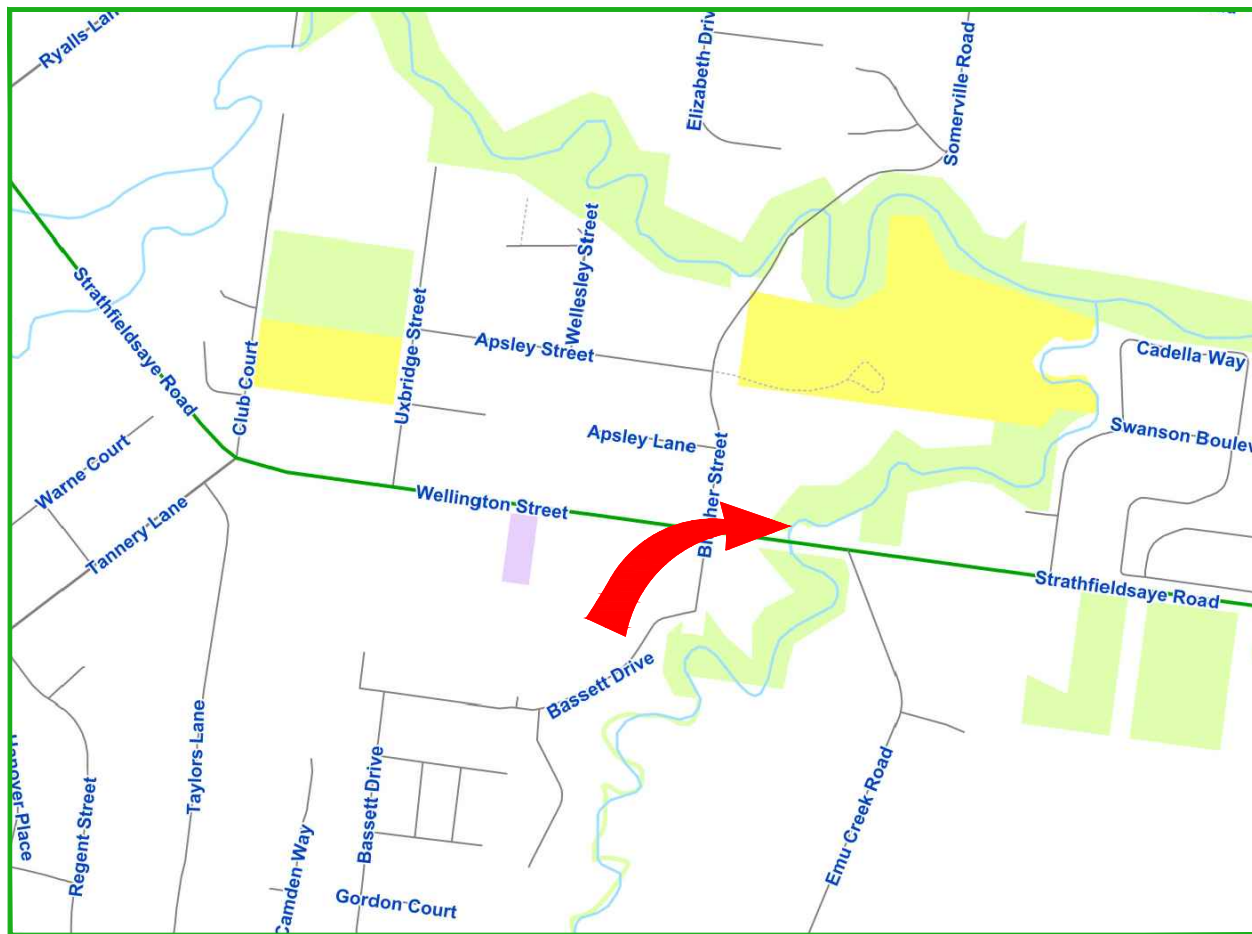
GB4505

FOOTPATH

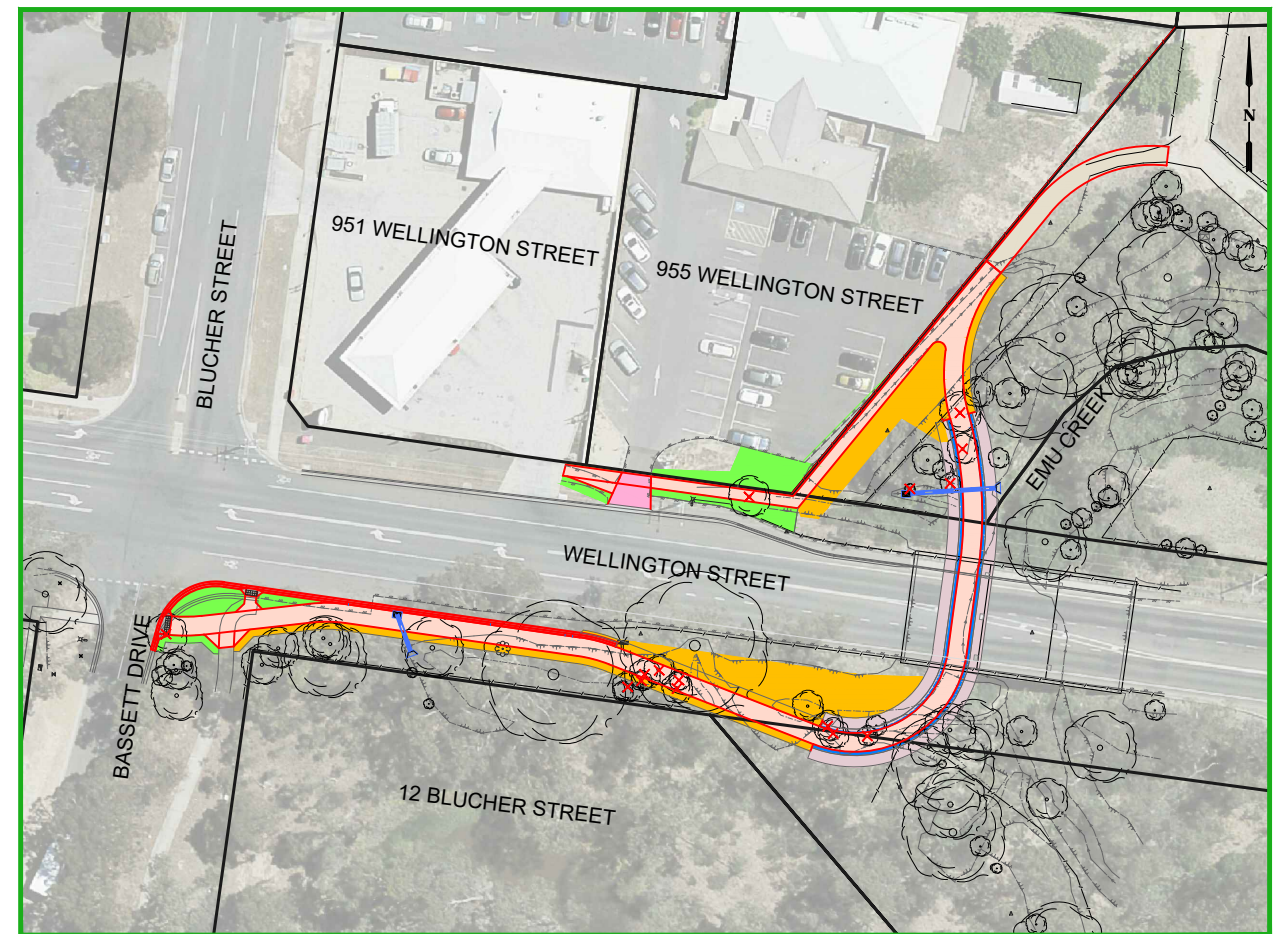
JUNE 2020



DOCUMENT CONTROL				
SHEET No.	SHEETD ESC.	02-06-2020	15-06-2020	xx/xx/xx
		DRAFT	TENDER	CONSTRUCTION
		REVISION	REVISION	REVISION
1	COVER SHEET	A	A	
2	GENERAL NOTES	A	A	
3	OVERALL LAYOUT & CONTROL	A	A	
4	DETAIL PLAN	A	A	
5	DETAIL PLAN	A	A	
6	DETAIL PLAN	A	A	
7	LONG SECTION	A	A	
8	CROSS SECTION	A	A	
9	LONG & CROSS SECTION	A	A	
10	DRAINAGE	A	A	
11	SETOUT	A	A	
12	SETOUT	A	A	




LOCALITY MAP



PROJECT EXTENTS

PROJECT PLANNING REQUIREMENTS				AMENDMENTS			
Item	Required	Comments	Contractor	Revision	Description	Approved by	Date
Vegetation	Yes	Contact arborist prior to works beginning	-	-	-	-	-
RRV	Yes	Plans updated	-	-	-	-	-
CMA	Yes	WOW Permit applied for	-	-	-	-	-
Planning Permit	?	-	-	-	-	-	-
Land Acquisition	No	-	-	-	-	-	-
CHMP	Yes	CHMP site induction required	-	-	-	-	-
Other	No	-	-	-	-	-	-

CITY OF GREATER BENDIGO



WELLINGTON STREET
EMU CREEK
UNDERPASS
COVER SHEET

Survey	Adrian Cummins	31/7/2019
Design	Andrew Smith	5/8/2019
Checked	Leigh Oliver	-/-/19
Approved by	Nathan Sartori	-/-/19
Scale: -	Revision: A	
Original sheet size: A3	File: GB4505.dwg	
Sheet: 1 OF 12	Reference: GB4505	

**ISSUED FOR
TENDER ONLY**
NOT FOR CONSTRUCTION

Plot Date: 6/05/2021
Plotted By: ANDREW SMITH

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.

FOOTPATH CONSTRUCTION NOTES

- Any property storm water pipes located during works are to be plumbed to the nearest pit. Where this is not practical, seek approval from superintendent to plumb to the creek invert.
- Footpath to be constructed as per IDM SD205 unless noted otherwise.
- An IDM SD210 expansion joint is to be constructed at any joins with existing footpath, existing driveways, existing kerb, or other design concrete areas
- IDM SD210 Expansion joints along any new sections of footpath are to be at a maximum separation of 15m centers.
- Tool joints are to be at 2.5m centers and constructed to SD210 unless noted otherwise.
- Where footpath is to be laid on an existing concrete surface, 100mm vertical N10 dowels shall be drilled and placed 50mm into the existing slab using an epoxy resin at a spacing no greater than 1 per 2.5m2

STRUCTURAL CONCRETE SLAB CONSTRUCTION NOTES

- Slab to be 100mm thick 25MPa concrete with central SL72 reinforcement
- Slab to be constructed on a 50mm thick base of CL3 FCR compacted to 95%SMDD
- Sawn crack control joints are to be constructed in the slab so as there are no uncontrolled areas greater than 9m2 (3x3m squares). Sawn joints are to be as per IDM SD225.
- Where the structural slab meets the footpath, a longitudinal Expansion joint is to be constructed as per IDM SD210
- Where the structural slab meets an abutment, retaining wall, existing crown unit, an isolation joint shall be constructed as per IDM SD220
- Structural slab areas shall have a light brushed finish

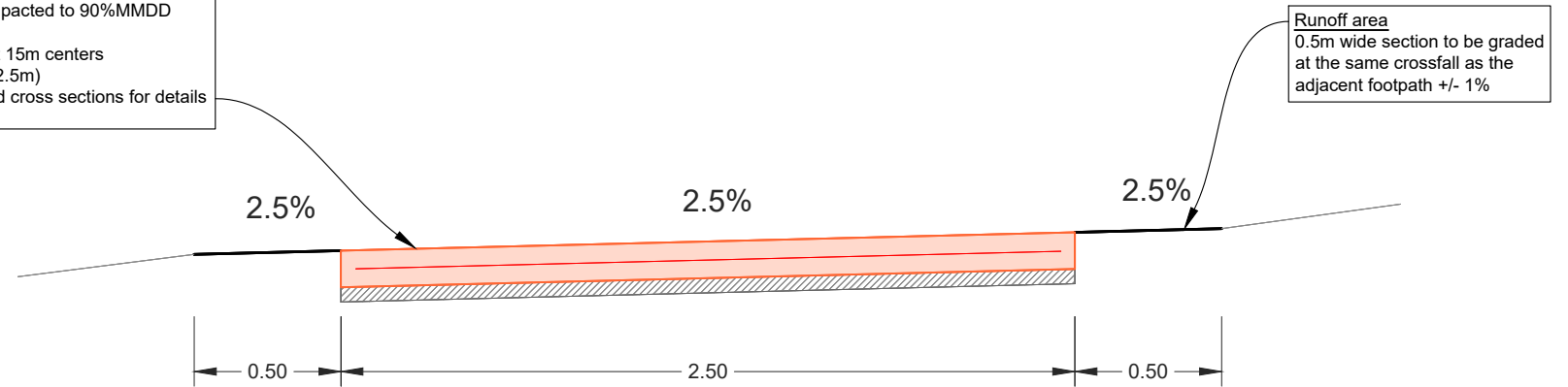
COLORED STRUCTURAL CONCRETE SLAB CONSTRUCTION NOTES

- In concreted creek areas, a 0.5m wide section of slab adjacent to the design footpath is to have a colored finish. This is to highlight the edge of the footpath and clearly define its extent and direction.
- The colored areas are to be constructed as per the 'Structural Concrete Slab notes' with the addition of the following note
- The concrete slab is to have a pigment powder trowelled into the surface that dries to a Charcoal (dark grey) color
- Colored structural concrete slabs shall have a trowelled finish

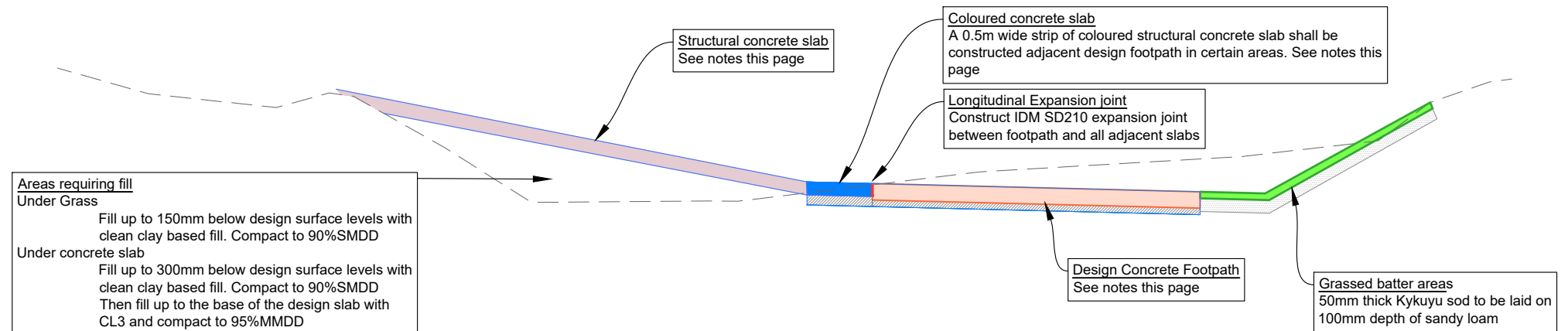
IDM SD205 Concrete Footpath:

- 125mm thick 25MPa concrete slab
- Central SL72 mesh with min 50mm cover to edges
- Construct on 50mm layer of CL3 FCR compacted to 90%MMDD
- Tool joints to be at 2.5m centers
- IDM SD210 Expansion joints to installed at 15m centers
- Typical cross fall of 2.5% (63mm fall over 2.5m)
- Design crossfall may vary, check plans and cross sections for details

TYPICAL 2.5m FOOTPATH DETAIL



SAMPLE CROSS SECTION



IMPORTANT!
The location of underground services have been derived from available information, however accuracy cannot be guaranteed. All existing service information should therefore be treated as indicative only, and service locations must be arranged prior to commencement of any excavation. The contractor will be held responsible for any damage caused to underground services.

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AMENDMENTS			
Revision	Description	Approved by	Date
-	-	-	-

CITY OF GREATER BENDIGO

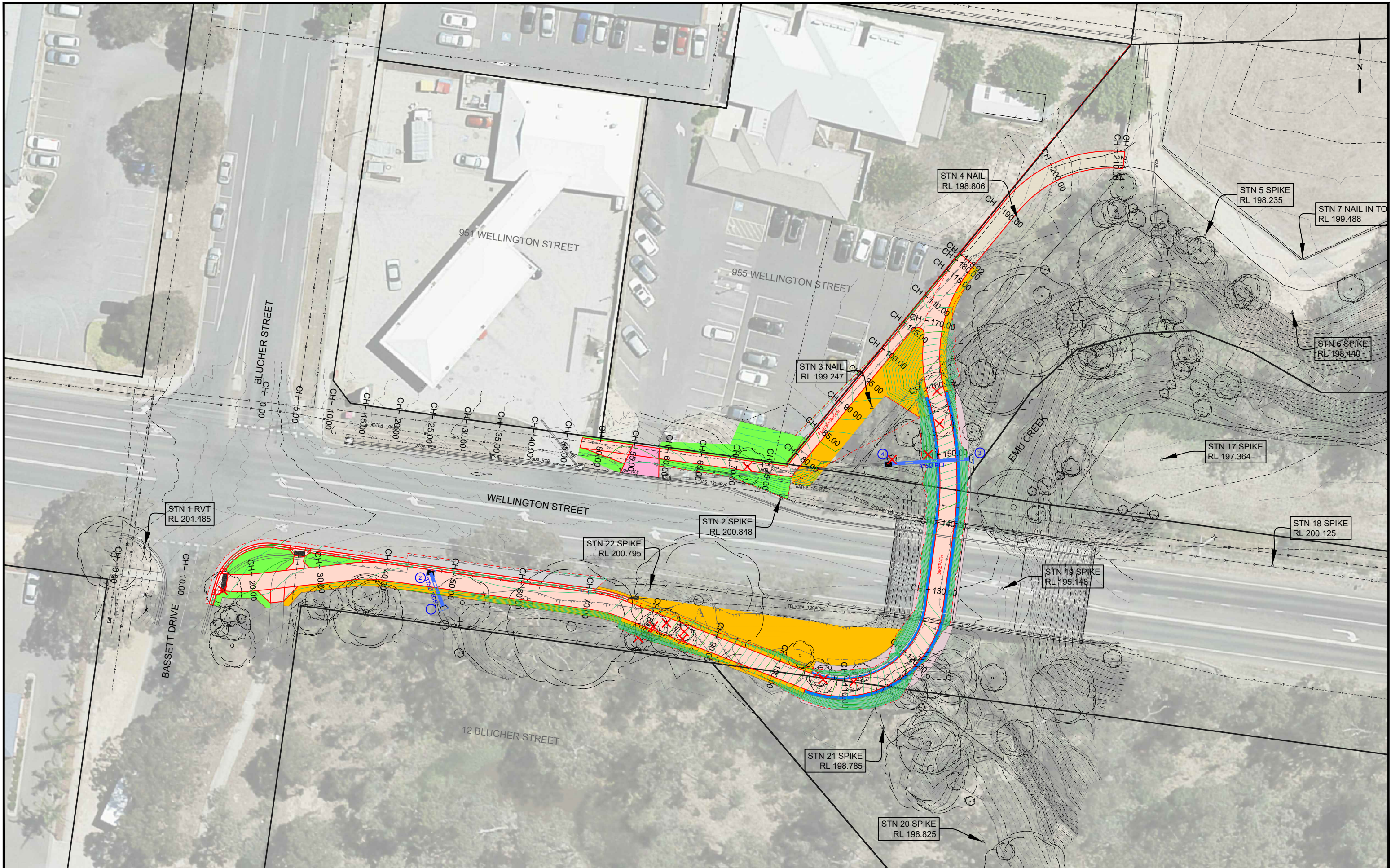
WELLINGTON STREET
EMU CREEK
UNDERPASS

GENERAL NOTES

Survey	Adrian Cummins	31/7/2019
Design	Andrew Smith	5/8/2019
Checked	Leigh Oliver	-/-/19
Approved by	Nathan Sartori	-/-/19
Scale: -	Revision: A	
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Plotted By: ANDREW SMITH



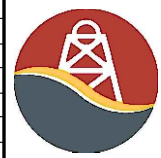
LEGEND

- | | | |
|--|--|--|
| Concrete Footpath PLAIN
IDM SD205 (See sheet 2) | Concrete Driveway PLAIN
150mm thick, SL82 mesh | Asphalt road reinstatement
40mm type N (10mm)
150mm SI deeplift (20mm) |
| Concrete slab COLOURED
See sheet 2 | Landscape: Mulch
100mm depth native mulch
with low level native planting | Concrete slab STRUCTURAL
See sheet 2 |
| Gravel Path
100mm depth Compacted
Axedale Gravel | Landscape: Instant Turf
50mm Kikuyu on 75mm
loamy sand | Concrete Kerb
Kerb - IDM SD100 SM2
Layback - CoGB SD192 |
- Removal: Tree

AMENDMENTS

Revision	Description	Approved by	Date

CITY OF GREATER BENDIGO

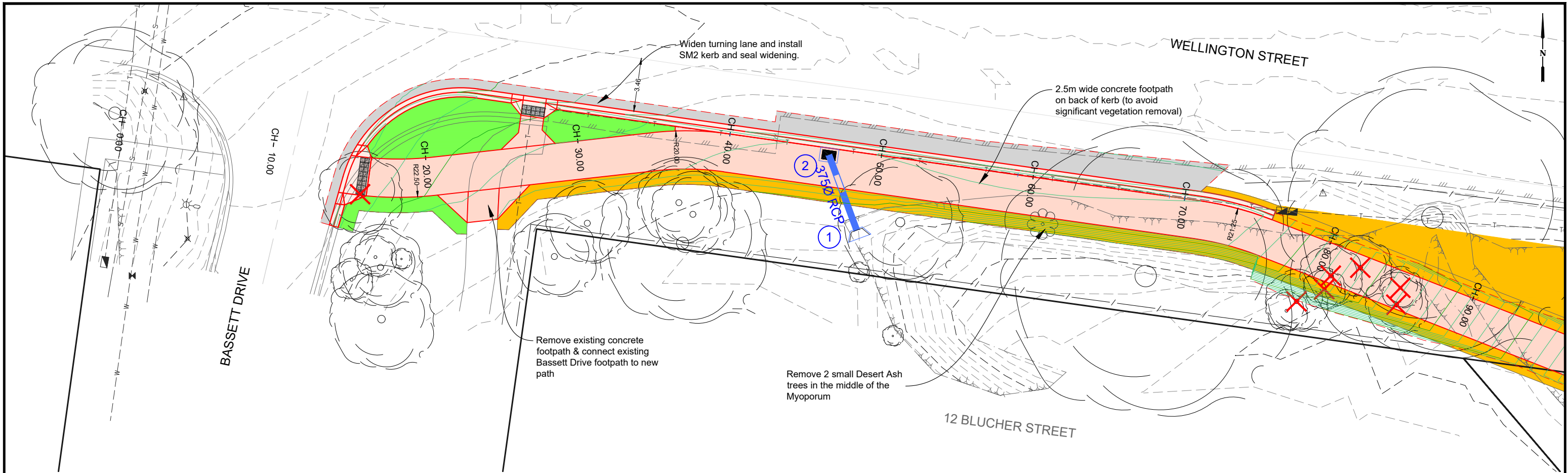


WELLINGTON STREET
EMU CREEK
UNDERPASS
OVERALL LAYOUT & CONTROL

Survey	Adrian Cummins	31/7/2019
Design	Andrew Smith	5/8/2019
Checked	Leigh Oliver	-/-/19
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Scale: 1 : 500	Revision : A	
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CHAINAGE	10.00	13.70	14.33	14.44	14.79	15.12	15.44	15.54	16.45	19.00	20.00	22.00	24.00	29.00	30.00	31.50	31.72	34.00	34.14	36.49	36.50	39.00	39.03	40.00	44.00	46.70	49.00	50.00	54.00	59.00	59.72	60.00	64.00	70.00	71.00	71.65	73.77	75.90	76.00	80.00	81.00			
DES LK		201.06	201.13	201.14	201.16	201.15	201.14	201.14	201.12	201.09	201.08	201.05	201.01		200.92	200.90	200.87	200.87	200.83	200.83	200.79	200.79	200.76	200.76	200.74	200.71	200.71	200.71	200.72		200.73		200.74	200.83	200.74	200.74		200.73		200.67	200.59		200.38	200.29
DES BFP																																												
NS BL	201.25	201.19	201.17	201.17	201.16	201.15	201.14	201.14	201.12	201.09	201.08	200.99	200.95		200.90	200.90	200.87	200.87	200.83	200.83	200.79	200.79	200.76	200.76	200.74	200.71	200.71	200.71	200.72		200.73		200.74	200.83	200.74	200.74		200.73		200.67	200.59		200.38	200.29
CHAINAGE	10.00	13.70	14.33	14.44	14.79	15.12	15.44	15.54	16.45	19.00	20.00	22.00	24.00	29.00	30.00	31.50	31.72	34.00	34.14	36.49	36.50	39.00	39.03	40.00	44.00	46.70	49.00	50.00	54.00	59.00	59.72	60.00	64.00	70.00	71.00	71.65	73.77	75.90	76.00	80.00	81.00			

BIKE PATH LONGITUDINAL SECTION CH 10.000 To 81.000
 SCALES: H 1:250 V 1:100 (A3)

LEGEND

Concrete Footpath PLAIN IDM SD205 (See sheet 2)	Concrete Driveway PLAIN 150mm thick, SL82 mesh	Asphalt road reinstatement 40mm type N (10mm) 150mm SI deeplift (20mm)
Concrete slab COLOURED See sheet 2	Landscape: Mulch 100mm depth native mulch with low level native planting	Concrete slab STRUCTURAL See sheet 2
Gravel Path 100mm depth Compacted Axedale Gravel	Landscape: Instant Turf 50mm Kikuyu on 75mm loamy sand	Concrete Kerb Kerb - IDM SD100 SM2 Layback - CoGB SD192

Removal: Tree

AMENDMENTS

Revision	Description	Approved by	Date

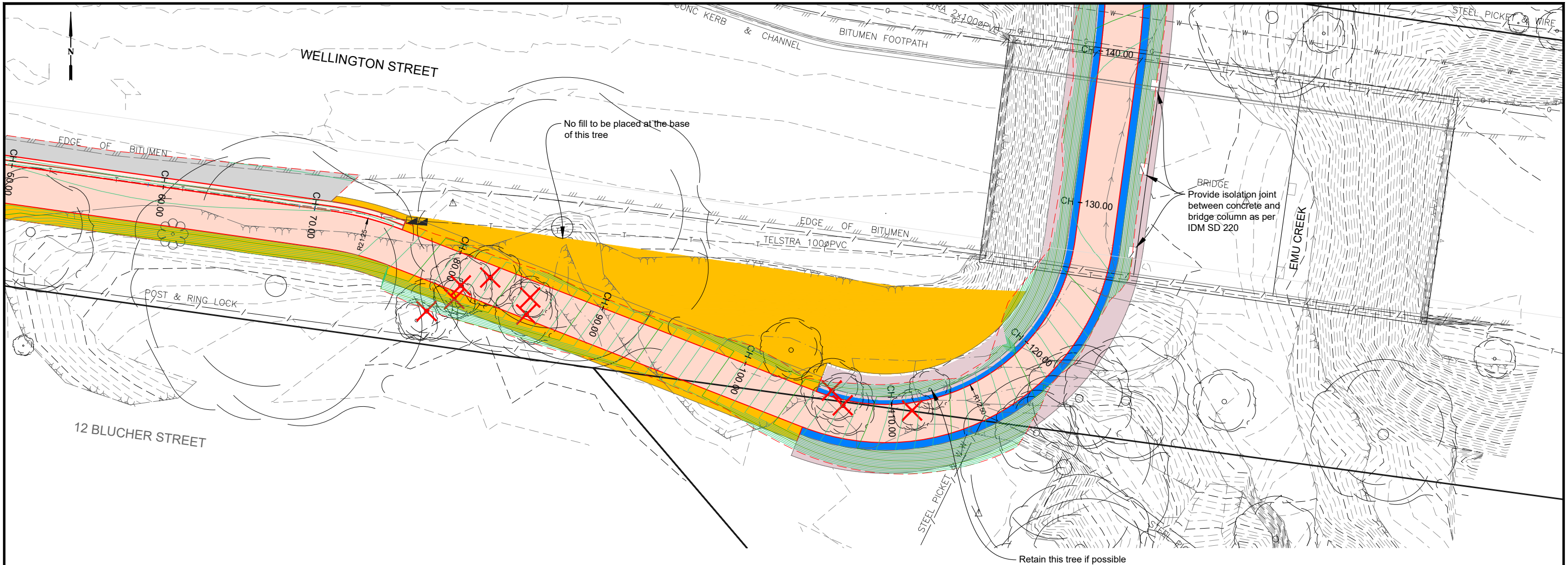
CITY OF GREATER BENDIGO











WELLINGTON STREET
 EMU CREEK
 UNDERPASS
 DETAIL LAYOUT

Survey	Adrian Cummins	31/7/2019
Design	Andrew Smith	5/8/2019
Checked	Leigh Oliver	-/19
Approved by	Nathan Sartori	-/19
Scale: 1 : 250	Revision : A	
Original sheet size: A3	File : GB4505.dwg	
Sheet: 4 OF 12	Reference: GB4505	

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Plot Date: 6/05/2021
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LEGEND		
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 Concrete slab COLOURED See sheet 2	 Landscape: Mulch 100mm depth native mulch with low level native planting	 Concrete slab STRUCTURAL See sheet 2
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 Removal: Tree		

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-	-	-	-

CITY OF GREATER BENDIGO

WELLINGTON STREET
EMU CREEK
UNDERPASS
DETAIL LAYOUT

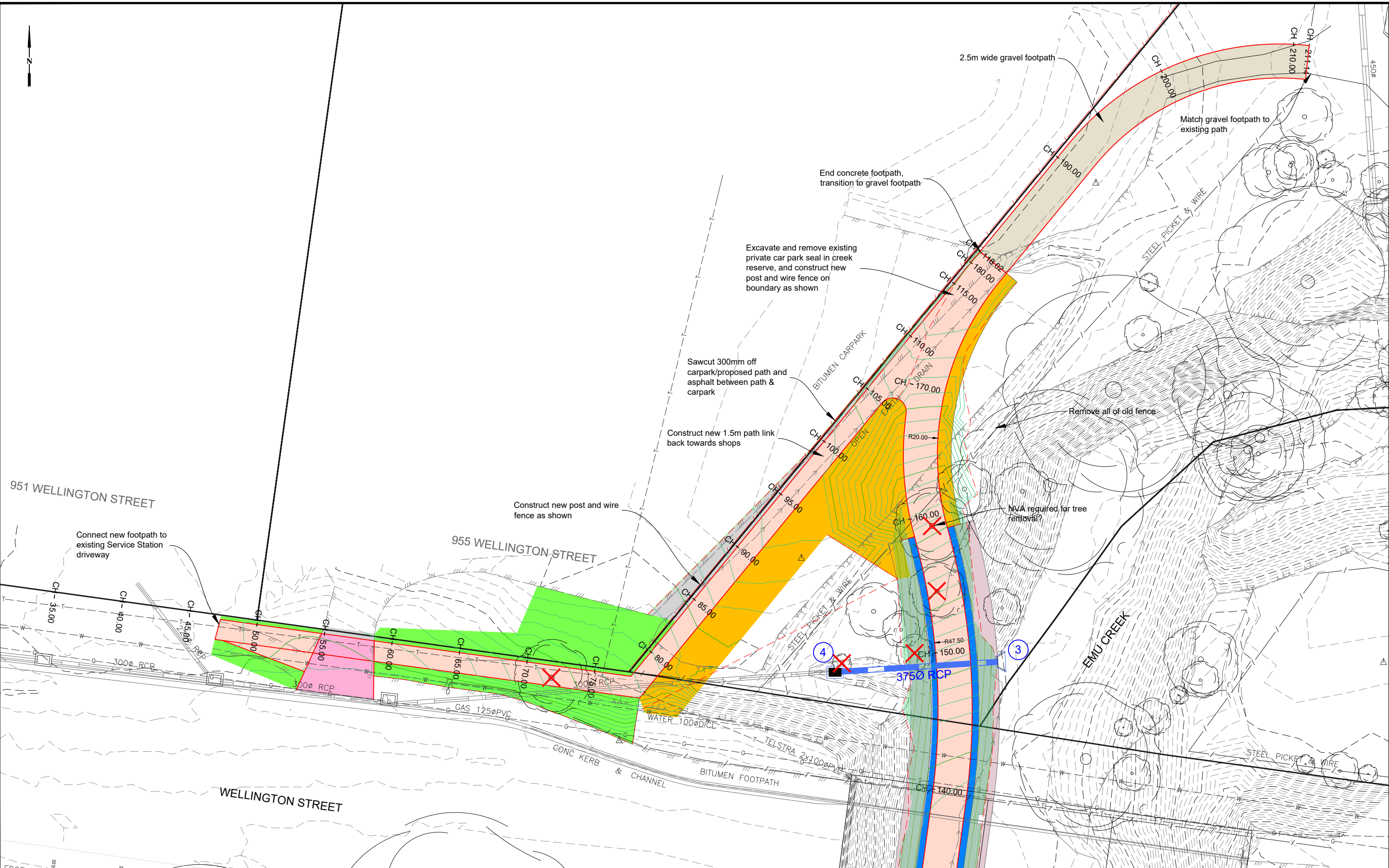


Survey	Adrian Cummins	31/7/2019
Design	Andrew Smith	5/8/2019
Checked	Leigh Oliver	-/-/19
Approved by	Nathan Sartori	-/-/19
Scale: 1 : 250	Revision : A	
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Plot Date: 6/05/2021
Plotted By: ANDREW SMITH



LEGEND	
	Concrete Footpath PLAIN IDM SD205 (See sheet 2)
	Concrete Driveway PLAIN 150mm thick, SL82 mesh
	Concrete slab COLOURED See sheet 2
	Gravel Path 100mm depth Compacted Axedale Gravel
	Landscape: Mulch 100mm depth native mulch with low level native planting
	Landscape: Instant Turf 50mm Kikuyu on 75mm loamy sand
	Asphalt road reinstatement 40mm type N (10mm) 150mm SI deeplift (20mm)
	Concrete slab STRUCTURAL See sheet 2
	Concrete Kerb Kerb - IDM SD100 SM2 Layback - CoGB SD192
	Removal: Tree

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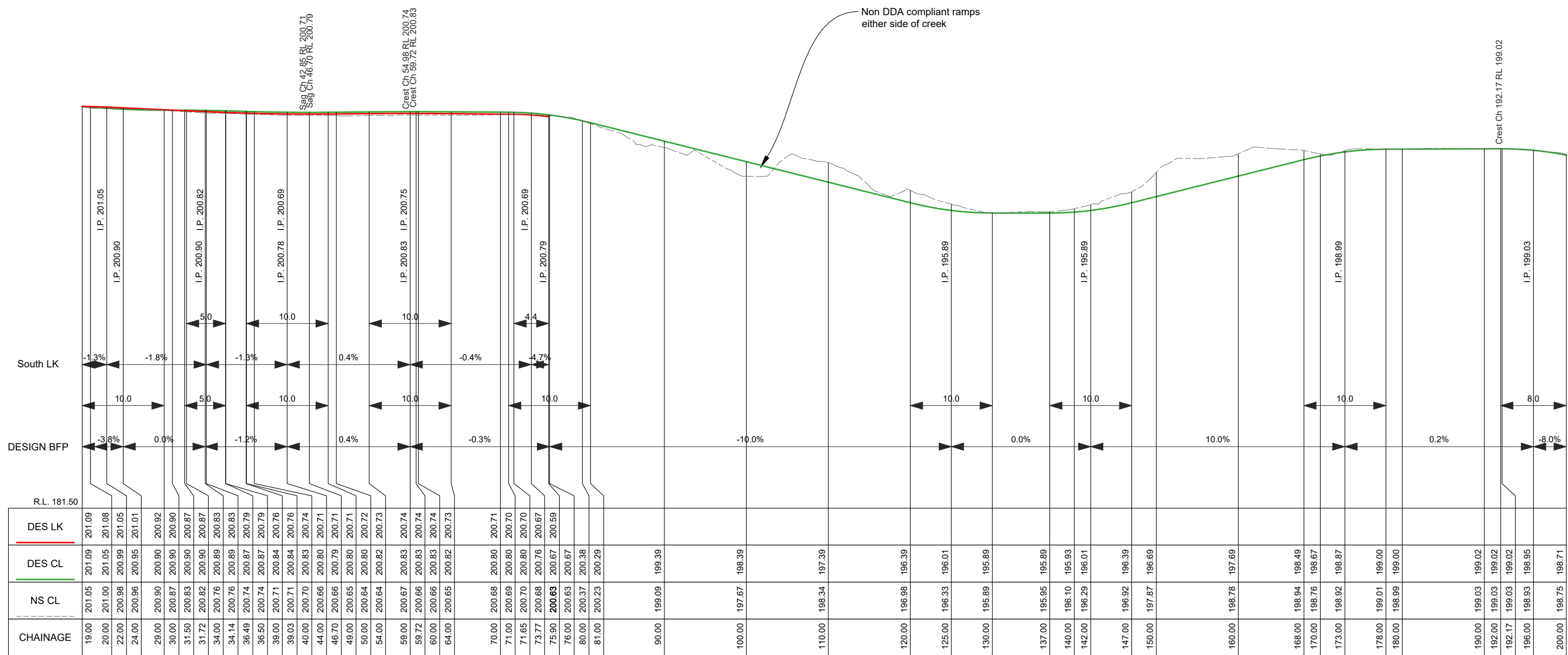
CITY OF GREATER BENDIGO

WELLINGTON STREET
EMU CREEK
UNDERPASS
DETAIL LAYOUT

Survey	Adrian Cummins	31/7/2019
Design	Andrew Smith	5/8/2019
Checked	Leigh Oliver	-/19
Approved by	Nathan Sartori	-/19
Scale: 1 : 250	Revision : A	
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Plotted By: ANDREW SMITH



NFP LONGITUDINAL SECTION CH 19.000 To 200.000
 SCALES: H 1:500 V 1:200 (A3)

LEGEND

- Concrete Footpath PLAIN
IDM SD205 (See sheet 2)
- Concrete Driveway PLAIN
150mm thick, SL82 mesh
- Asphalt road reinstatement
40mm type N (10mm)
150mm SI deeplift (20mm)
- Concrete slab COLOURED
See sheet 2
- Landscape: Mulch
100mm depth native mulch
with low level native planting
- Concrete slab STRUCTURAL
See sheet 2
- Landscape: Instant Turf
50mm Kikuyu on 75mm
loamy sand
- Gravel Path
100mm depth Compacted
Axedale Gravel
- Concrete Kerb
Kerb - IDM SD100 SM2
Layback - CoGB SD192
- Removal: Tree

AMENDMENTS

Revision	Description	Approved by	Date
-	-	-	-

CITY OF GREATER BENDIGO

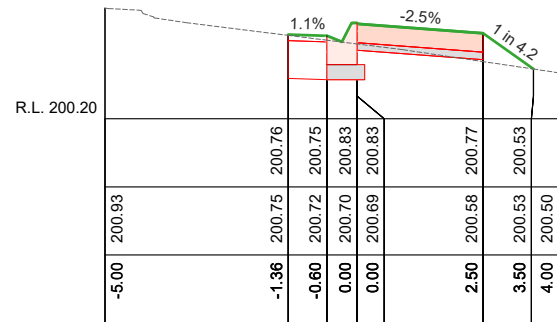
WELLINGTON STREET
 EMU CREEK
 UNDERPASS
 LONG SECTION

Survey	Adrian Cummins	31/7/2019
Design	Andrew Smith	5/8/2019
Checked	Leigh Oliver	-/-/19
Approved by	Nathan Sartori	-/-/19
Scale:	As Shown	Revision: A
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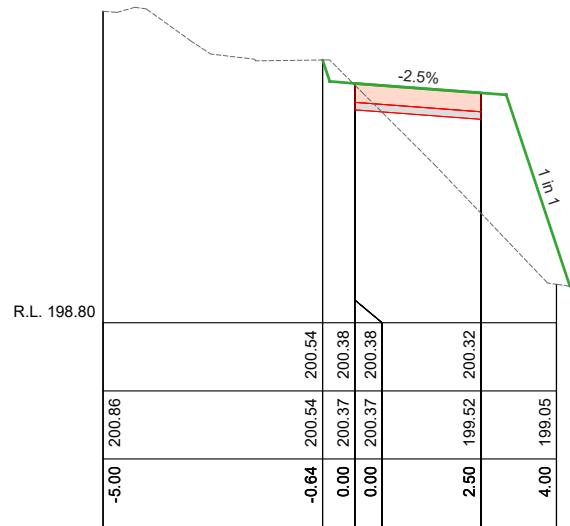
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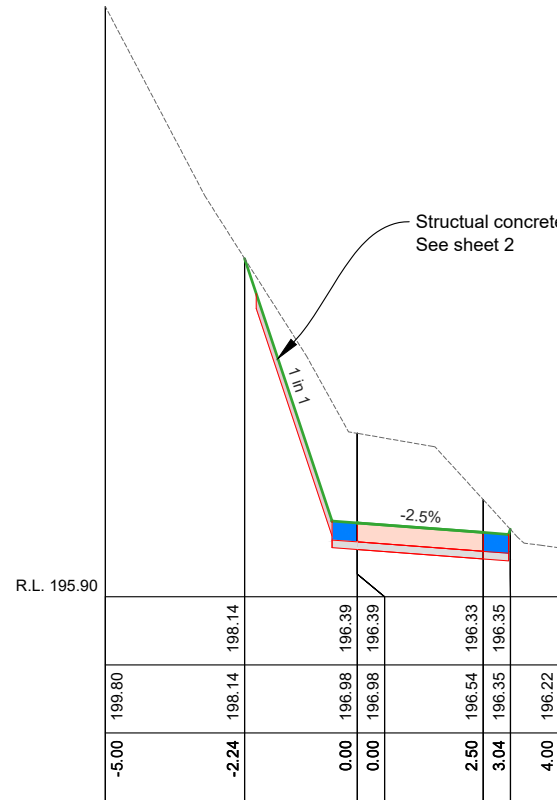
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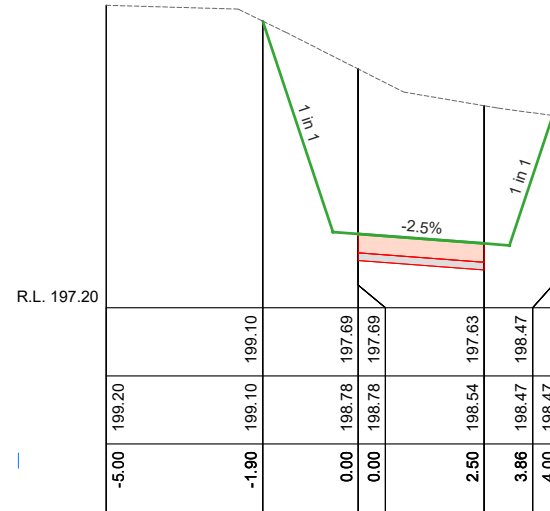
Ch 40.00



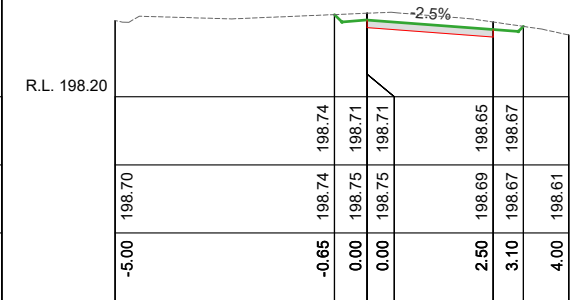
Ch 80.00



Ch 120.00



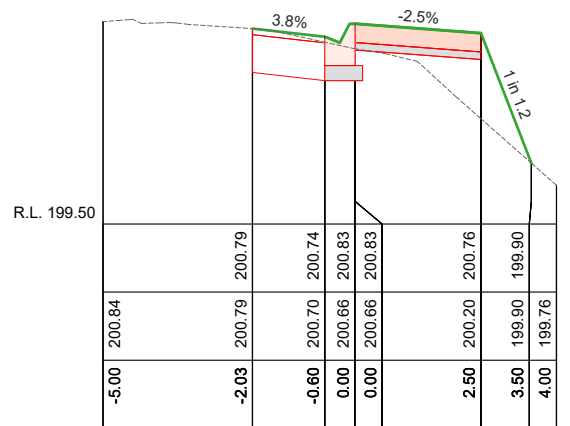
Ch 160.00



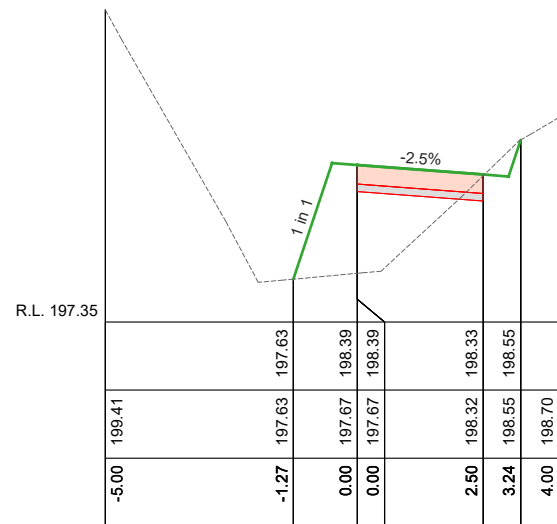
Ch 200.00



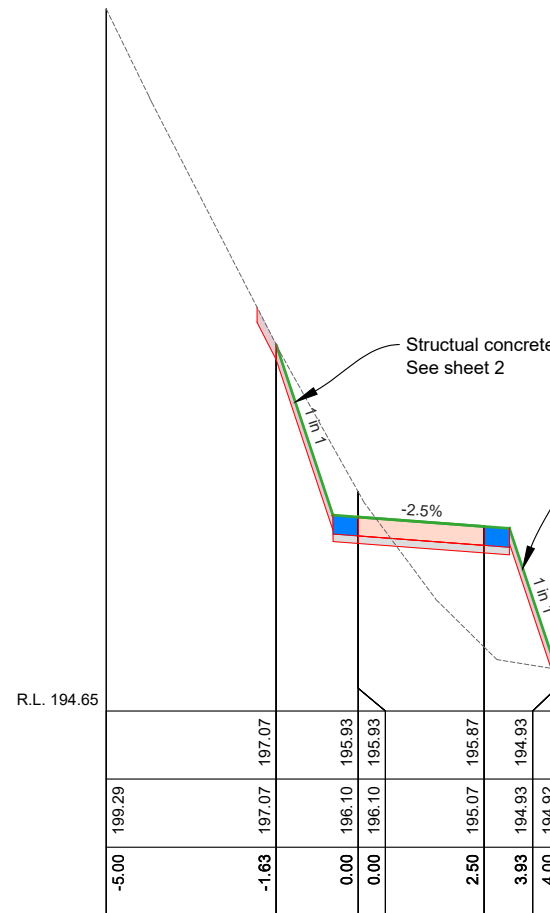
Ch 20.00



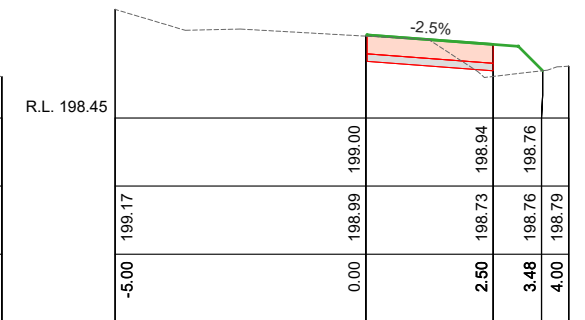
Ch 60.00



Ch 100.00



Ch 140.00



Ch 180.00

BIKEPATH CROSS SECTIONS
SCALES: H 1:150 V 1:50 (A3)

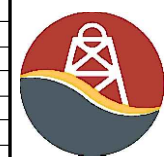
LEGEND

- Concrete Footpath PLAIN
IDM SD205 (See sheet 2)
- Concrete Driveway PLAIN
150mm thick, SL82 mesh
- Asphalt road reinstatement
40mm type N (10mm)
150mm SI deeplift (20mm)
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See sheet 2
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See sheet 2
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100mm depth Compacted
Axedale Gravel
- Landscape: Instant Turf
50mm Kikuyu on 75mm
loamy sand
- Concrete Kerb
Kerb - IDM SD100 SM2
Layback - CoGB SD192
- Removal: Tree

AMENDMENTS

Revision	Description	Approved by	Date
-	-	-	-

CITY OF GREATER BENDIGO

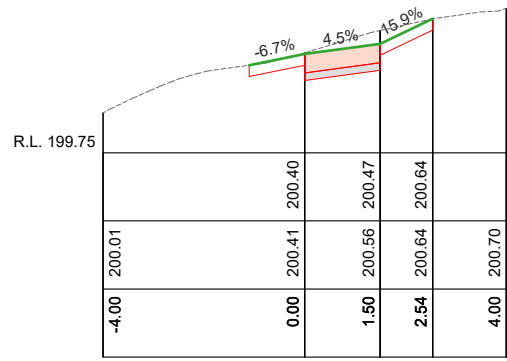


WELLINGTON STREET
EMU CREEK
UNDERPASS
CROSS SECTIONS

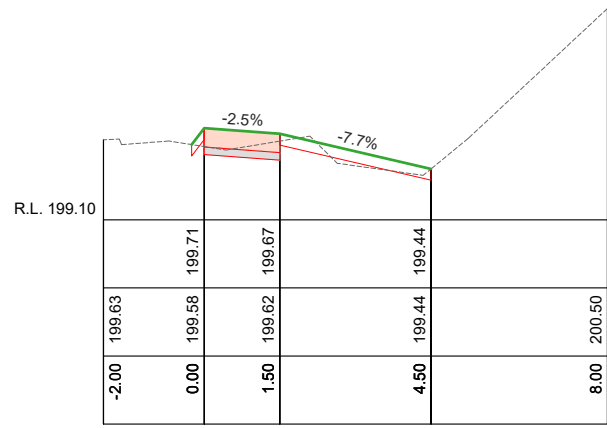
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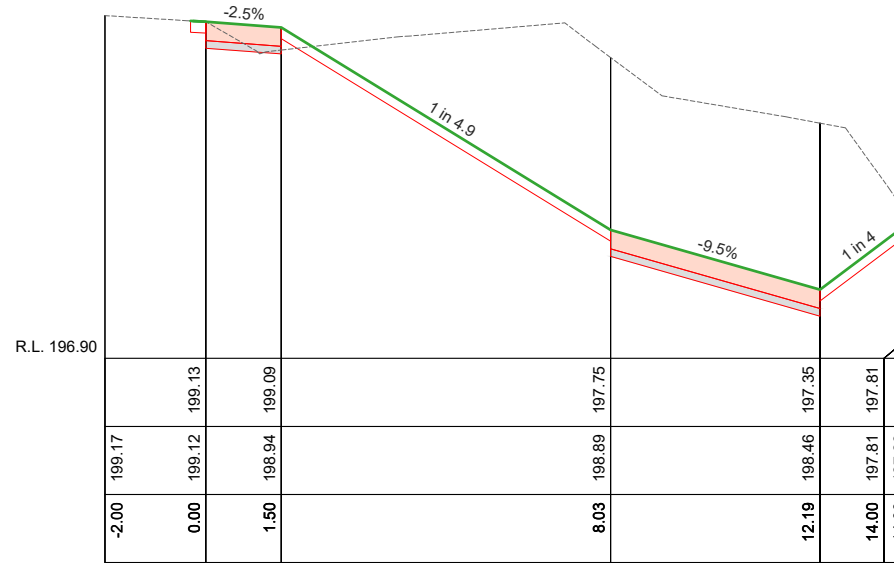
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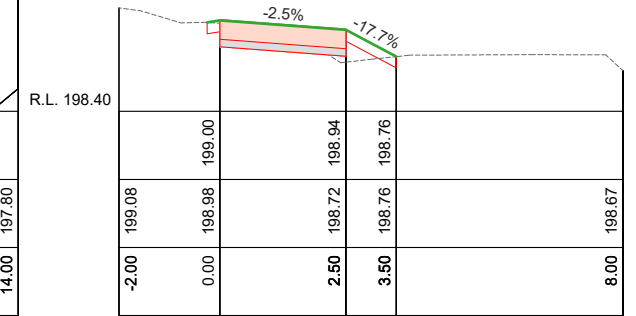
Ch 60.00



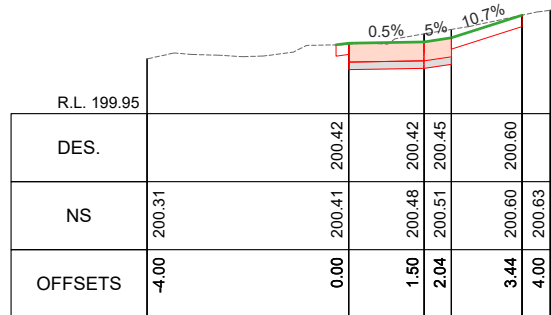
Ch 80.00



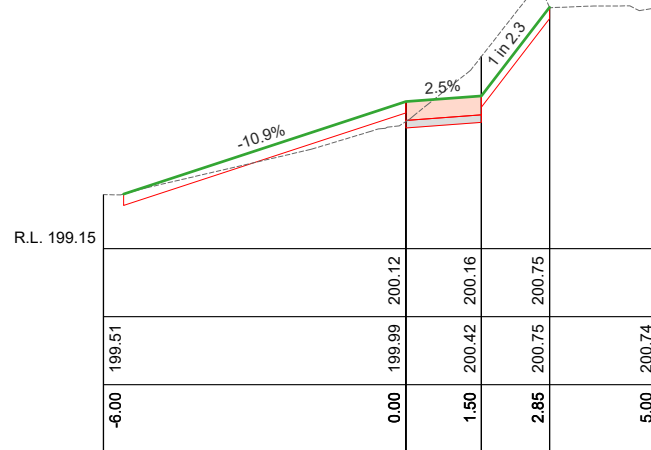
Ch 100.00



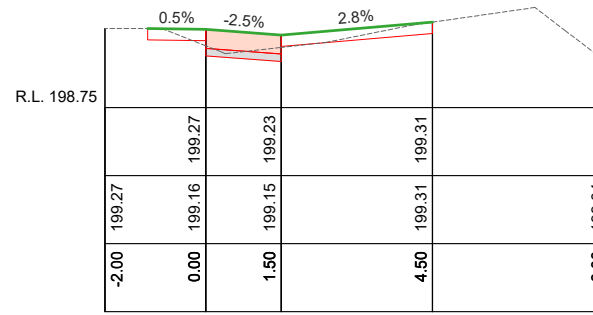
Ch 118.02



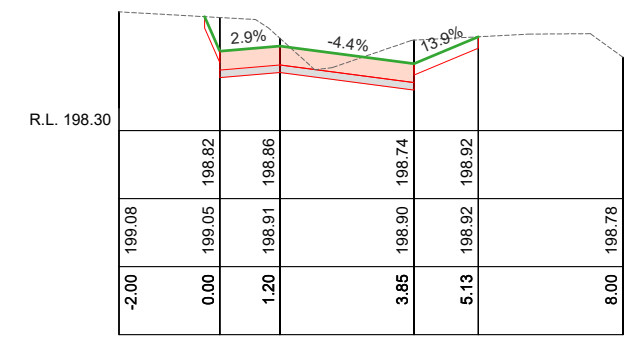
Ch 50.00



Ch 70.00



Ch 90.00

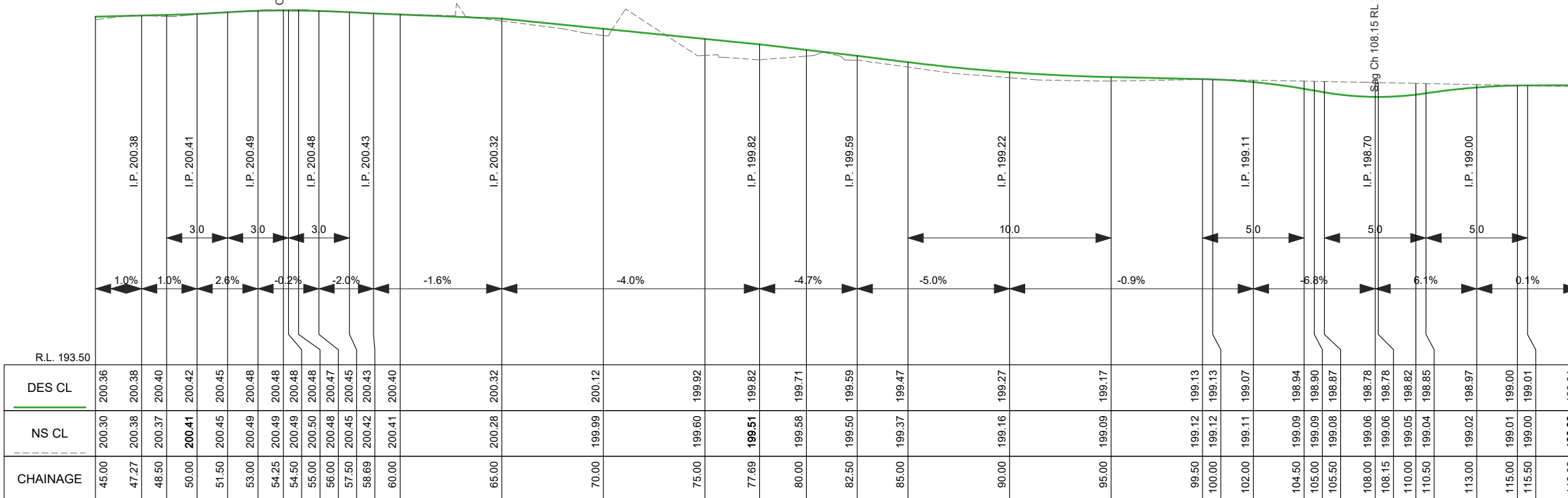


Ch 110.00

Footpath-Medical CROSS SECTIONS
 SCALES: H 1:150 V 1:50 (A3)

Crest Ch 54.25 RL 200.48

Sag Ch 108.15 RL 198.78



Footpath-Medical LONGITUDINAL SECTION CH 45.000 To 118.023
 SCALES: H 1:250 V 1:100 (A3)

AMENDMENTS			
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-	-	-	-

CITY OF GREATER BENDIGO

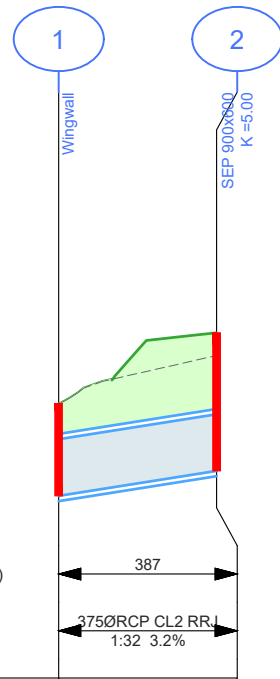
WELLINGTON STREET
 EMU CREEK
 UNDERPASS

LONG & CROSS SECTIONS

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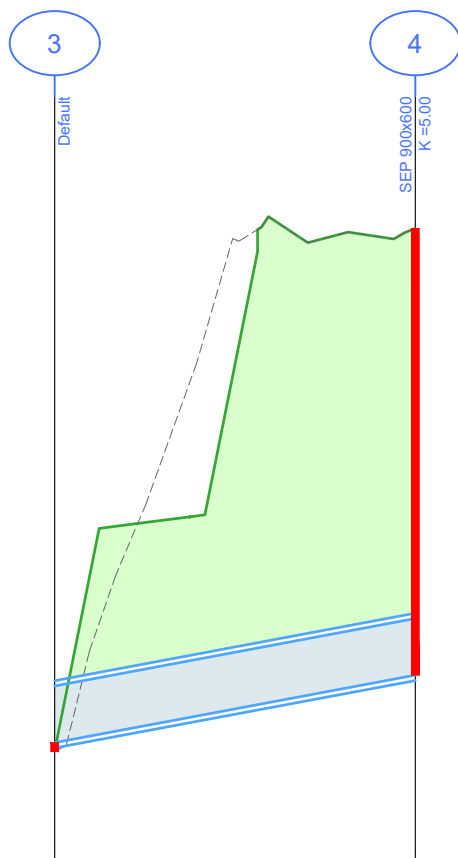
Plot Date: 6/05/2021
 Plotted By: ANDREW SMITH



HGL CAPACITY (L/s)
 PIPE DETAILS
 SLOPE/GRADE
 DATUM RL 198.5

INVERT LEVEL	199.704	199.869
DEPTH TO INVERT	0.61	0.91
EXISTING SURFACE	200.31	200.63
DESIGN SURFACE	200.31	200.78
CHAINAGE	0.00	5.23

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



HGL CAPACITY (L/s)
 PIPE DETAILS
 SLOPE/GRADE
 DATUM RL 193.5

INVERT LEVEL	195.100	195.546
DEPTH TO INVERT	0.00	2.95
EXISTING SURFACE	195.04	198.50
DESIGN SURFACE	195.04	198.50
CHAINAGE	10.10	22.03

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

Pit Schedule - Drain											
Pit No.	Pit Type	Standard Drawing	Pit Width (mm)	Pit Length (mm)	Outlet Diameter (mm)	Outlet Invert RL (m)	Inlet Diameter (mm)	Inlet Invert RL (m)	Pit Depth (m)	Pit Lid Level (m)	Comment
1	Wingwall	Endwall	-	-	-	-	375	199.704	0.610	200.314	
2	Side Entry Pits	SD590-A-D-G-T	600	900	375	199.869	-	-	0.914	200.783	
3	Wingwall	Endwall	-	-	-	-	375	195.100	0.000	195.100	
4	Side Entry Pits	SD590A-D-L-R	600	900	375	195.546	-	-	2.954	198.500	

LEGEND

- EXISTING PIPE TO REMAIN
- DESIGN PIPE / PIT or ENDWALL
- CoGB SD390 TRENCH BACKFILL (BEHIND KERB)
- CoGB SD391 TRENCH BACKFILL (UNDER NEW ROAD)
- CoGB SD392 TRENCH BACKFILL (UNDER EXISTING ROAD)

AMENDMENTS

Revision	Description	Approved by	Date
-	-	-	-

CITY OF GREATER BENDIGO

WELLINGTON STREET
 EMU CREEK
 UNDERPASS

DRAINAGE

Survey	Adrian Cummins	31/7/2019
Design	Andrew Smith	5/8/2019
Checked	Leigh Oliver	-/19
Approved by	Nathan Sartori	-/19
Scale:	As Shown	Revision: A
Original sheet size:	A3	File: GB4505.dwg
Sheet:	10 OF 12	Reference: GB4505


ISSUED FOR TENDER ONLY
 NOT FOR CONSTRUCTION

Plot Date: 6/05/2021
 Plotted By: ANDREW SMITH

STATION DATA				
Point #	Description	Easting	Northing	Level
901	STN 1 RVT	264317.470	5923310.649	201.485
902	STN 2 SPIKE	264411.244	5923317.885	200.848
903	STN 3 NAIL	264424.619	5923331.266	199.247
904	STN 4 NAIL	264446.224	5923358.788	198.806
905	STN 5 SPIKE	264473.667	5923356.461	198.235
906	STN 6 SPIKE	264486.544	5923345.226	198.440
907	STN 7 NAIL IN TOP OF FENCE POST	264488.051	5923353.117	199.488
908	STN 8 SPIKE	264520.240	5923357.341	197.988
909	STN 9 SPIKE	264545.409	5923369.828	197.823
910	STN 10 SPIKE	264566.585	5923379.488	196.953
911	STN 11 SPIKE	264580.835	5923412.542	197.460
912	STN 12 SPIKE	264599.522	5923404.007	197.387
913	STN 13 SPIKE	264604.833	5923362.642	197.610
914	STN 14 NAIL IN TOP OF POST	264570.417	5923335.703	199.243
915	STN 15 SPIKE	264550.969	5923336.593	196.656
916	STN 16 SPIKE	264511.472	5923316.432	197.647
917	STN 17 SPIKE	264467.322	5923323.622	197.364
918	STN 18 SPIKE	264483.644	5923308.025	200.125
919	STN 19 SPIKE	264443.795	5923304.520	195.148
920	STN 20 SPIKE	264440.997	5923267.269	198.825
921	STN 21 SPIKE	264426.298	5923284.074	198.785
922	STN 22 SPIKE	264391.912	5923304.367	200.795

AMENDMENTS			
Revision	Description	Approved by	Date
-	-	-	-

CITY OF GREATER BENDIGO



WELLINGTON STREET
EMU CREEK
UNDERPASS
SETOUT

Survey	Adrian Cummins	31/7/2019
Design	Andrew Smith	5/8/2019
Checked	Leigh Oliver	-/-/19
Approved by	Nathan Sartori	-/-/19
Scale: -	Revision: A	
Original sheet size: A3	File: GB4505.dwg	
Sheet: 11 OF 12	Reference: GB4505	


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Plot Date: 6/05/2021
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AMENDMENTS			
Revision	Description	Approved by	Date
-	-	-	-

CITY OF GREATER BENDIGO



WELLINGTON STREET
EMU CREEK
UNDERPASS
SETOUT

Survey	Adrian Cummins	31/7/2019
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Sheet: 12 OF 12	Reference: GB4505	

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Plot Date: 6/05/2021
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