

LUCAS
RESIDENTIAL DEVELOPMENT - STAGE E2
CITY OF BALLARAT

CONSTRUCTION NOTES (CITY OF BALLARAT)

SITE MANAGEMENT

Prior to commencement of works on site, the contractor must ensure that all matters relating to the Occupational Health and Safety Act 2004, including all relevant regulations, have been addressed. In particular, the required notifications must be conveyed to the Victorian Workcover Authority - Health & Safety division with respect to trenching operations. Details of the contractors occupational health & safety procedures must be lodged with the Superintendent prior to commencement of works.

1. All native trees and shrubs to be retained unless road construction necessitates their removal or removal is directed by the engineer. A town planning permit is required for the removal of native trees and/or vegetation. The removal or retention of any existing trees must be in accordance with the approved landscape plan, or else approval will be required from the City of Ballarat landscape approvals officer.
2. Existing dams or watercourses to be excavated to a firm base and backfilled as specified. Consulting engineer to be notified when the dam or watercourses are excavated to a firm base. No filling is to be placed prior to dams being inspected and levels taken. Backfilling is to be carried out to the satisfaction of the Superintendent and Council Works Supervisor.
- 3.
4. Prior to commencement of works, the contractor must submit a Construction Management Plan (CMP) to the Superintendent for approval. The contractor must comply with the recommendations of the Environment Protection Authority publication No.275 "Construction techniques for sediment pollution control". Appropriate siltation control is to be maintained throughout the construction and maintenance period of the works.

GENERAL

5. All levels are in metres to Australian Height datum and taken from Level Plan by Beveridge Williams & Co. Pty Ltd.
6. All works to be carried out in accordance with AS2124-1992 General Conditions of Contract, City of Ballarat and Infrastructure Design Manual (IDM) current specification and standard drawings and to the satisfaction of the Superintendent and City of Ballarat works supervisor. The contractor shall ensure that they are conversant with all current revisions, amendments and updates that have been made that have been made to these standards.
7. The Superintendent, Council and all service authorities should be notified by the contractor, in writing, seven days prior to commencement of the works.
8. All existing services shall be confirmed to have been located prior to commencement of works. Where services have not been previously proven or located the Contractor shall make allowance or be satisfied that construction in accordance with the design can be achieved.
9. Where works are in the vicinity of existing services these services are to be located and the various authorities notified prior to the commencement of works.
10. The contractor shall erect and maintain all shoring, planking and strutting, dewatering devices, barricades, signs, lights, etc., necessary to keep works in a safe and stable condition and for the protection of the public.
11. Before commencement of works on trenches in excess of 1.5m deep, the civil contractors construction supervisor must give notice in writing of such proposals to Worksafe Victoria in accordance with Part 5.1, Division 4 of the Occupational Health & Safety regulations (2007) and undertake safety precautions in trenching operations in accordance with Workcover's Code of Practice (1988).
12. Lots to be graded (1 in 200 min slope) & left clean to the satisfaction of the engineer. Finished levels to be compatible with lots adjoining this stage.
13. On completion the contractor is responsible for the removal of all rubbish and spoil from site. No surplus trees, vegetation or other material is to be burnt on site.
14. Reserves to be free draining and to be left in a condition satisfactory to the Superintendent and City of Ballarat works supervisor.
15. All TBMs & control points are to be maintained and protected at all times during construction. Should any marks be disturbed, the contractor will immediately notify the consultant to arrange re-installment at the contractors expense.

EARTHWORKS

16. All areas shown on the drawings to be cut or filled are to be stripped of topsoil and all topsoil must be stockpiled on site.
17. Upon completion of the bulk earthworks topsoil is to be spread to a depth of 100mm over the nominated area and graded to finished levels shown on the drawings with a minimum slope of 1 in 200.
18. Batters to be 1 in 5 for fill and 1 in 5 for cut unless noted otherwise.
19. All nature strips and batters will be covered with 100mm min. depth topsoil and seeded with an approved seed.
20. Filling in all properties and road reserves is to be carried out using approved clay fill. Top soil and all vegetable matter to be stripped from site prior to filling. All filling to be carried out in 150mm layers and compacted to 95% of max dry density.
21. Importing Fill:- All imported fill must be tested by a NATA approved laboratory to ensure it is suitable for use on site, and any contaminants are within accepted levels. Under No circumstances should fill material enter or leave the site without the permission of the Superintendent or prior to it being appropriately tested.
22. All fill material must be clean, uniform and free of organic matter and meet requirements of AS 3798-2007 "Guidelines on Earthworks for Commercial and Residential Developments".
23. Fill material should be placed in layers of uniform thickness, deposited systematically across the fill area. The contractor must excavate or "box" into the existing surface at the edge of fill to provide a suitable junction with the existing surface and to avoid feathered edges.
24. Prior to disposal of excess spoil the truck route and disposal location is to be approved by the Superintendent prior to commencing to dispose of spoil.
25. All vehicles transporting fill material to and from the site must have appropriate measures in place to ensure that material does not get onto roads and into stormwater systems and natural waterways.
26. Cut batters behind vehicular accesses must not exceed maximum grade of 1 in 8.
27. Before any loose layer of fill is compacted, the material and its moisture condition should be as uniform as is practicable throughout its depth.
28. If there is a delay in the placement of subsequent fill layers, previously accepted layers should conform with the specification before further fill is placed. If these layers have wetted up or dried out, they may inhibit compaction or cause heaving of subsequent layers. In these instances, drying or wetting of the fill by the contractor will be required to achieve optimum compaction.
29. All lots are to be brought to a finished surface level and top soiled to ensure that front boundaries are a minimum of 130mm above the top of kerb.

30. The maximum particle size of any rocks or other lumps within the fill layer, after compaction, should not exceed 100mm or two-thirds of the compacted layer thickness.
31. Fill is to be tested in increments of depth not greater than 500mm.
32. Fill batter faces are to be overfilled and cut back, the trimmed and compacted face should have a roughened surface to reduce runoff.
33. The surface of all fill layers must be shaped to provide drainage and to prevent ponding.
34. All fill to be compacted to that shown or 95% standard density or better. Moisture content must be in the range of -10% to +5% optimum.
35. Where fill placement is less than 200mm stripping of topsoil may be deleted, in which case the contractor shall remove all organic matter from existing surface prior to placing topsoil.
36. Filling to be completed prior to sewer and drainage construction, unless approved by the Superintendent and relevant Authority.

ROADWORKS

37. 100mm dia. agricultural pipe drains (Refer BCC SD-D2-1) to be placed behind kerb and channel or as directed by Superintendent and at minimum grade of 1 in 250.
38. The water conduit offset from the lot boundary is given on the water reticulation plan. The contractor must construct conduits to accord with the given offset and ensure that the concreter marks the kerb and footpath exactly above the conduit.
39. All footpaths and shared pedestrian/bicycle paths are to be 125mm thick concrete as per IDM Standard Drawings SD205, 210, 215, 220 and 225.
40. Telecommunication contractor to be notified seven (7) days prior to concrete works being placed.
41. Electrical distribution pits within footpaths are to be a minimum of 300mm from the edge of the path. Concrete is to be placed around distribution pits to a minimum depth of 200mm.
42. All street signs to be constructed and erected to current City of Ballarat standards including logo. Sign to be placed in 3000 hole 500mm deep 15MPa concrete to 100mm below FSL of nature strip.
43. Traffic control signs, markings & delineators to be installed in accordance with AS1742.2. All line marking is to be long life road marking, with longitudinal lines in thermoplastic and transverse markings in cold applied.
44. Kerb transition to take place in the minor street over a 1.0m length from either the tangent point or TP pit.
45. Existing road works to be reconstructed as required to provide, without discontinuity, a connection in accordance with design levels and grades.
46. Tactile ground surface indicators (TGSIs) are to be installed at all pram crossings and pedestrian cross points in accordance with AS1428.4 : 2002 and BCC Standard Drawings SD-C4.

PAVEMENT

47. Pavement shall be constructed in accordance with construction plans, IDM and City of Ballarat Specifications and Standard Drawings.
48. Modification of the pavement requires approval by the City of Ballarat and Superintendent.
49. Prior to the commencement of the works, the contractor shall provide to Superintendent and Council the following information:-
 - a. Source of quarry material.
 - b. Optimum Moisture Content and Maximum Modified Dry Density of the F.C.R. to be used (from NATA approved laboratory)
 - c. If the source of the quarry material is changed during the course of the works, new test results shall be provided.
51. Subgrade, sub base and base compaction densities shall be in accordance with that shown in Table 1 and Clause 304.07 of Vicroads Standard Specification for Roadworks and Bridgeworks.
52. Compaction testing must be undertaken by NATA approved laboratory.
53. Compaction testing and proof rolling shall be undertaken on same day.
54. Superintendent and Council must be given minimum 24 hours notice of proof roll.
55. All pavement areas shall be proof rolled in the presence of Superintendent and Council Inspection Engineer, at the expense of contractor and in accordance with AS 3798 and Clause 173 and 204.12 of Vicroads Standard Specification for Roadworks and Bridgeworks.
56. If more than 20 percent of pavement area fails proof roll then total area must be reworked.

DRAINAGE

59. Drainage and pits to be set out from offsets shown rather than from centreline pipe chainages.
60. Stormwater pits shall be reinforced concrete and constructed in accordance with IDM and City of Ballarat Specifications and Standard Drawings. Minimum drop through pit shall be 20mm unless shown otherwise. For specific details refer Pit Schedule and IDM Standard Drawings SD 400 to SD 495. Minimum Concrete Strength FC 25MPa at 28 Days.
61. Precast pits are permitted where manufacturer can demonstrate compliance with requirements of IDM and City of Ballarat Specifications and Standard Drawings.
62. Pit Covers and surrounds in trafficable areas shall be Class D Gatic or similar, other areas shall be Class B precast reinforced concrete unless otherwise shown.
63. All pipes under pavement to be RCP(RR/J) Class 3. All 150mm diameter pipes to be UPVC SN4. Pipes other than under pavement or trafficable area may be approved ribbed stormwater pipe such as Blackmax or Stormpro®. Where ribbed stormwater pipe is used embedment shall be to manufacturers specification.
64. Pipe trenches beneath the road pavement and footpath to be backfilled with 20mm Class 3 F.C.R. At all other locations backfill with an approved material to a minimum 300mm above top of pipe. Backfill material shall be in maximum 150mm layers and in accordance with BCC Standard Drawing SD-D8-1.
65. Pipe trenches behind kerb and in easements or nature strips to be backfilled with Red Dredge or other approved material in

- 150mm layers to 300mm above top of pipe and in accordance with BCC Standard Drawing SD-D8-1.
66. Easement Property Inlets at rear of property shall be 100mm PVC SN4 constructed in accordance with BCC Standard Drawing SD-D9 located 1.0m. from the low corner of the lot unless otherwise shown.
67. House Drain Property Inlets at front of property shall be 100mm PVC SN4 constructed in accordance with BCC Standard Drawing SD-D9 and located 1.0m from the low corner of the lot unless otherwise shown. Lots denoted H shall be connected to kerb. Lots denoted PI shall be connected to pipe to pit.
68. Property Inlets for allotments shall be at a sufficient depth to control drainage at minimum of 1 in 200 fall from all points within the building area.
69. All proposed drainage stubs to be blanked off at end of pipe with timber planks to the satisfaction of the Superintendent and Council supervising engineer.
70. All drainage backfill under pavement shall be tested and results provided to the Superintendent.

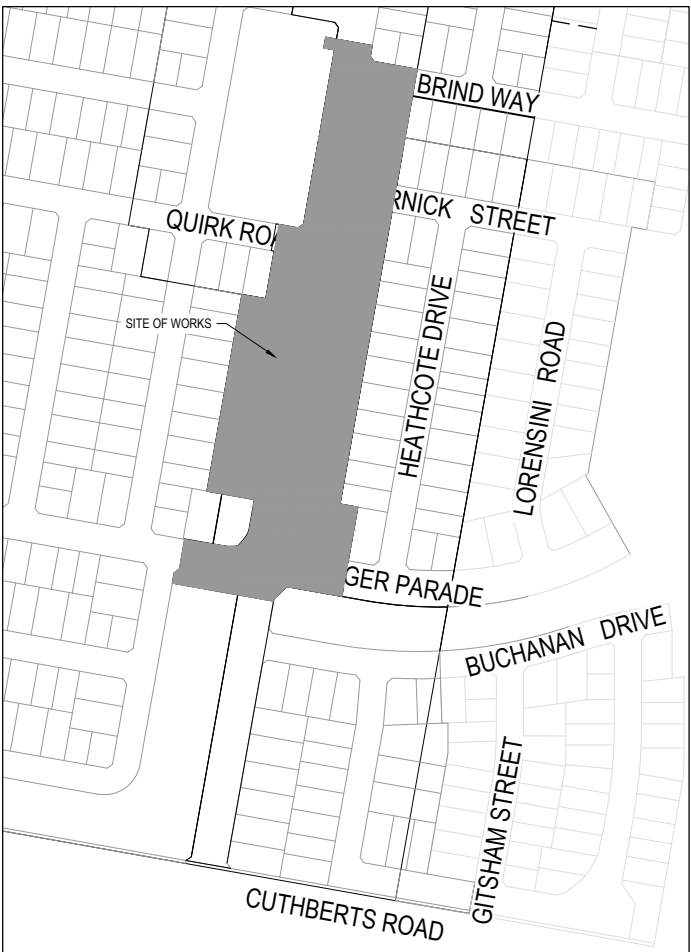
SERVICES

71. All service trenches under footpath, vehicular crossings and kerb & channel shall be backfilled with 20mm Class 3 crushed rock. All service conduit trenches under road pavement shall be backfilled with compacted crushed rock.
72. Gas and water conduits and mains must be laid in trenches excavated and backfilled by the contractor. Conduits are to be 50mm diameter Class 12 PVC service conduits laid at a minimum depth of 600mm below finished surface level. Contractor shall supply all sand embedment. The contractor shall give the gas contractor 7 days notice prior to commencing work.
73. Telecommunications conduits and cable ducts must be laid in trenches excavated and backfilled by the contractor. Conduits are to be type and size as shown on approved telecommunications plans and laid at a minimum depth of 600mm below finished surface level. Contractor shall supply all sand embedment. The contractor shall give the Telecommunications contractor 7 days notice prior to commencing work.
74. Electrical conduits and cables must be laid in trenches excavated and backfilled by an VEDN approved contractor. Conduits are to be type and size as shown on approved electrical plans and laid at a minimum depth of 600mm below finished surface level. Contractor shall supply all sand embedment. The contractor shall give the Electrical contractor 7 days notice prior to commencing work.
75. All conduit ends immediately upon placement of the conduit must be plugged.
76. Conduits under footpaths to be 450mm deep extending a minimum of 250mm either side of the path. The footpath above the conduits is to be marked with two contraction joints over the conduits 400mm apart.
77. The reinstatement and compaction of public authority service trenches shall be the contractor's responsibility.
78. The contractor must note the existence of telecom, gas, power, water and any other services in the area prior to tendering. Any disturbance to existing services, footpaths etc. shall be rectified at the contractor's expense to the satisfaction of the superintending and relevant service authority as appropriate.

ATTENTION TO CONTRACTOR

In accordance with Clause 15 of AS2124 Australian Standard Conditions of Contract, the contractor must ensure the safety of the contractor's employees and all other people who are on or adjacent to the site. The contractor must comply with the Victorian Occupational Health and Safety Act.

79. The contractor must ensure that all people employed on the site wear approved safety apparel. This includes safety helmets, vests, safety boots, eye & ear protection, where appropriate.
80. The contractor shall reinstate any affected footpath, vehicle crossing and nature strip to the satisfaction of the City of Ballarat
81. Beveridge Williams & Co Pty Ltd is responsible for design of the works. Any proposed alterations to the design shall be directed to the consultant for approval prior to making any alterations to the design.
82. The contractor is directly responsible for the setout. Should actual site conditions conflict in any way with that documented, the contractor must contact the office of Beveridge Williams & Co. Pty. Ltd. for clarification before proceeding.



SITE PLAN
NOT TO SCALE

DRAWING INDEX

DRAWING No.	TITLE
1800071-E2-001	COVER SHEET
1800071-E2-002	TYPICAL ROAD CROSS SECTIONS
1800071-E2-003	PAVEMENT MAKEUP & GENERAL DETAILS
1800071-E2-010	LAYOUT PLAN
1800071-E2-011	FINISHED SURFACE & OVERLAND FLOW PLAN
1800071-E2-100	MESSINGER PARADE (EAST) LONGITUDINAL SECTIONS (SHEET 1 OF 7)
1800071-E2-101	MESSINGER PARADE (WEST) LONGITUDINAL SECTIONS (SHEET 2 OF 7)
1800071-E2-102	SHORTRIDGE DRIVE LONGITUDINAL SECTIONS (SHEET 3 OF 7)
1800071-E2-103	SHORTRIDGE DRIVE LONGITUDINAL SECTIONS (SHEET 4 OF 7)
1800071-E2-104	KERNICK STREET LONGITUDINAL SECTIONS (SHEET 5 OF 7)
1800071-E2-105	QUIRK ROAD LONGITUDINAL SECTIONS (SHEET 6 OF 7)
1800071-E2-106	BRIND ROAD LONGITUDINAL SECTIONS (SHEET 7 OF 7)
1800071-E2-200	MESSINGER PARADE CROSS SECTIONS (SHEET 1 OF 7)
1800071-E2-201	SHORTRIDGE DRIVE CROSS SECTIONS (SHEET 2 OF 7)
1800071-E2-202	SHORTRIDGE DRIVE CROSS SECTIONS (SHEET 3 OF 7)
1800071-E2-203	SHORTRIDGE DRIVE CROSS SECTIONS (SHEET 4 OF 7)
1800071-E2-204	KERNICK STREET CROSS SECTIONS (SHEET 5 OF 7)
1800071-E2-205	QUIRK ROAD CROSS SECTIONS (SHEET 6 OF 7)
1800071-E2-206	BRIND WAY CROSS SECTIONS (SHEET 7 OF 7)
1800071-E2-300	INTERSECTION DETAILS (SHEET 1 OF 4)
1800071-E2-301	INTERSECTION DETAILS (SHEET 2 OF 4)
1800071-E2-302	INTERSECTION DETAILS (SHEET 3 OF 4)
1800071-E2-303	INTERSECTION DETAILS (SHEET 4 OF 4)
1800071-E2-350	SGNAGE & LINE MARKING PLANS (SHEET 1 OF 2)
1800071-E2-351	SGNAGE & LINE MARKING PLANS (SHEET 2 OF 2)
1800071-E2-400	DRAINAGE LONGITUDINAL SECTIONS (SHEET 1 OF 3)
1800071-E2-401	DRAINAGE LONGITUDINAL SECTIONS (SHEET 2 OF 3)
1800071-E2-402	DRAINAGE LONGITUDINAL SECTIONS & PIT SCHEDULE (SHEET 3 OF 3)


COPYRIGHT All rights reserved Beveridge Williams & Co. Pty Ltd has granted a licence to the principle to use this document for its intended purpose. No unauthorised copying is permitted																			
							G		AS CONSTRUCTED		01.10.19 JS JZ								
A ISSUED FOR APPROVAL							04.03.19 JS JZ		F FOOTPATH IN NORTHWEST MESSENGER AMENDED		29.04.19 JS JZ								
P3 FOR COUNCIL APPROVAL							06.02.19 JS JZ		E DRAIN LONG SECTIONS FILL NOTE AMENDED		11.04.19 JS JZ								
P2 MINOR AMENDMENTS							29.11.18 JS JZ		D BASECOURSE CLASS AMENDED		04.04.19 JS JZ								
P1 MINOR AMENDMENTS							13.11.18 JS JZ		C DRAINAGE 4-20-33-34 AND CH 1850 AMENDED		29.03.19 JS JZ								
P0 ISSUED FOR INFORMATION							19.10.18 JS JZ		B ISSUED FOR CONSTRUCTION		18.03.19 JS JZ								
REV	DESCRIPTION						DATE	DRN.	APP.	REV	DESCRIPTION						DATE	DRN.	APP.

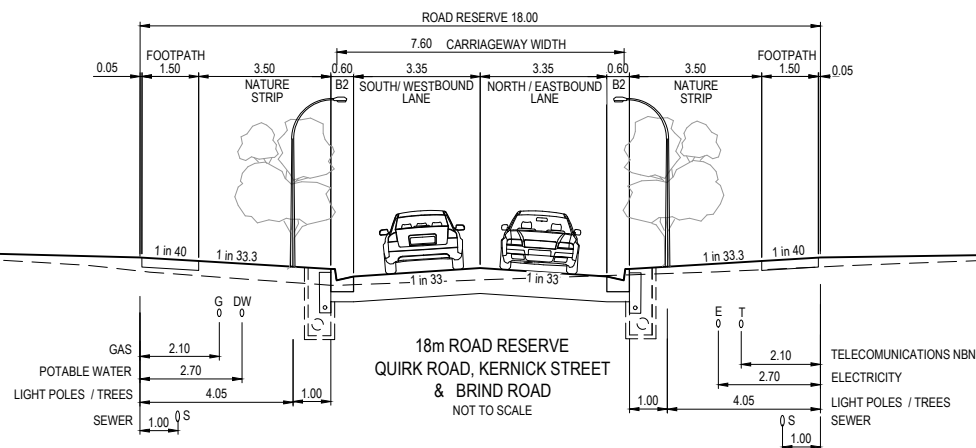
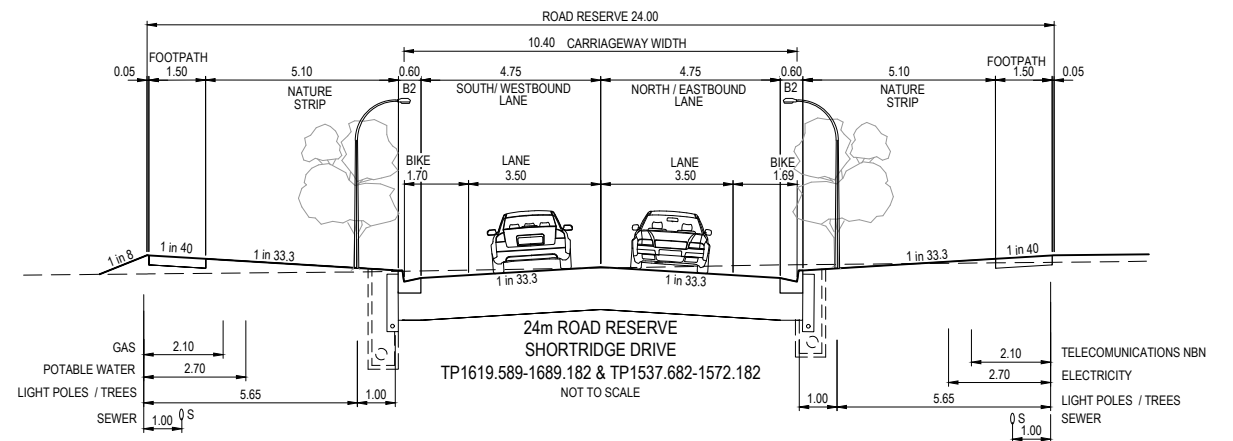
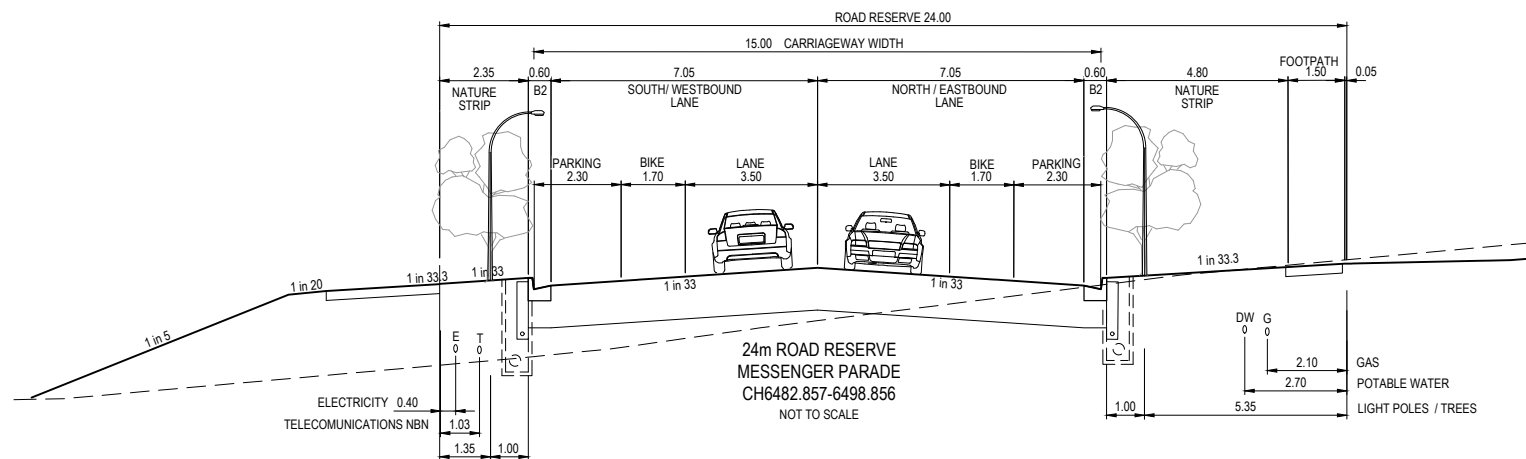
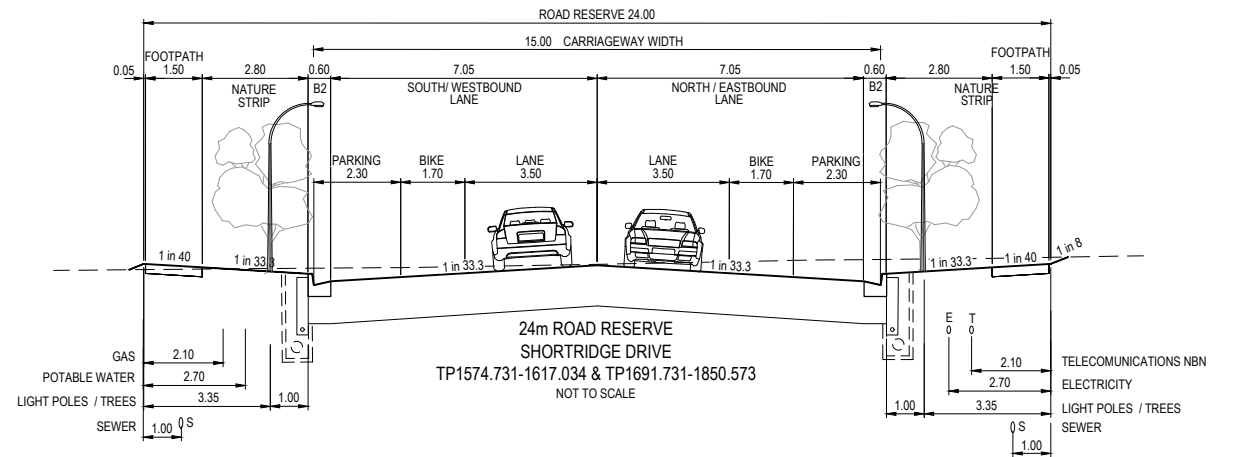
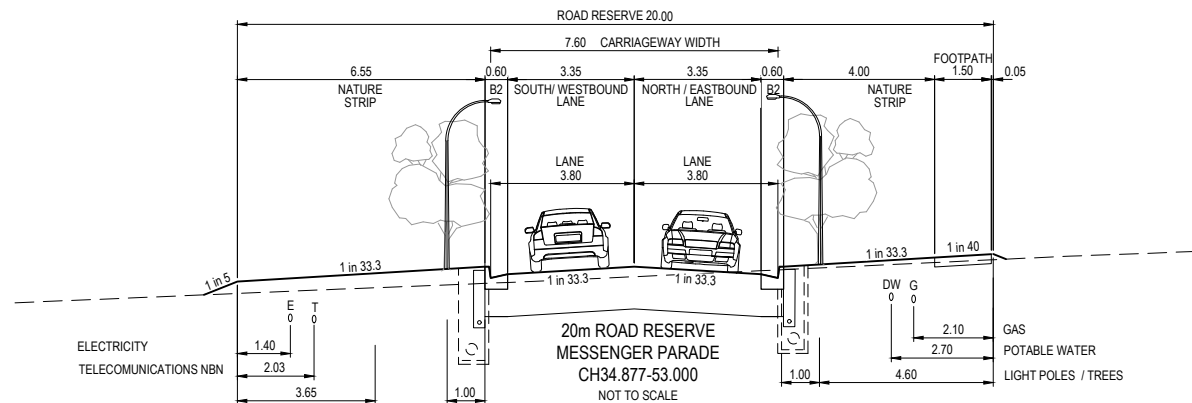
Designed	J.SPARK
Date	19.10.2018
Drawn	J.SPARK
Approved	J.ZAAL
Date	25.07.2018
PS Number	PS1000



Beveridge Williams
96 Main Road
Ballarat Vic 3350
ph: 03 5327 2000
www.beveridgewilliams.com.au

Project Details	LUCAS STAGE E2 CITY OF BALLARAT
Drawing Title	COVER SHEET

Sheet 01 of 28			
Scale NOT TO SCALE			
Project Ref	Stage No	Drawing No	Rev
1800971	E2	001	G



WARNING
BEWARE OF UNDERGROUND SERVICES
The locations of underground services are approximate only and their exact position should be proven on site.
No guarantee is given that all existing services are shown.
Locate all underground services before commencement of works
DIAL 1100 BEFORE YOU DIG
www.1100.com.au



APPROVED
By Jeff Colb at 12:30 pm, Oct 02, 2019

APPROVED PLANS
AS-CONSTRUCTED PLANS

© COPYRIGHT All rights reserved
Beveridge Williams & Co. Pty Ltd has granted a licence to the principle to use this document for its intended purpose.
No unauthorised copying is permitted

REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	29.04.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	11.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	04.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	29.03.19	JS	JZ
P0	ISSUED FOR INFORMATION	19.10.18	JS	JZ	B	ISSUED FOR CONSTRUCTION	18.03.19	JS	JZ

Designed
Date
19.10.2016
J.SPARK
Drawn
J.SPARK
Approved
Date
25.07.2018
J.ZAAL
PS Number
PS1000



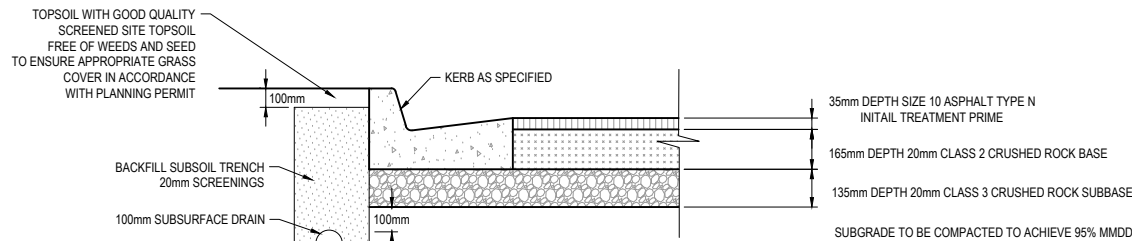
Project
Details
LUCAS
STAGE E2
CITY OF BALLARAT
Drawing
Title
TYPICAL ROAD CROSS SECTIONS

Sheet 02 of 28

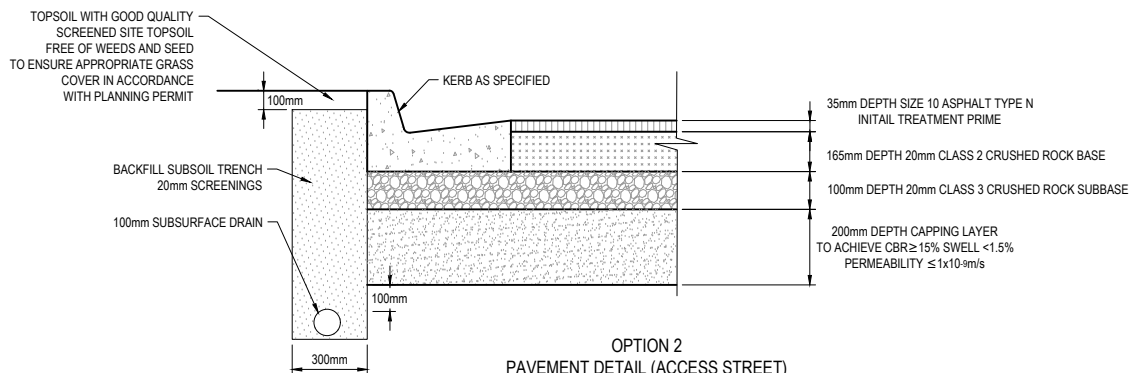
Scale
NOT TO SCALE

Project Ref
1800971
Stage No
E2
Drawing No
002
Rev
G

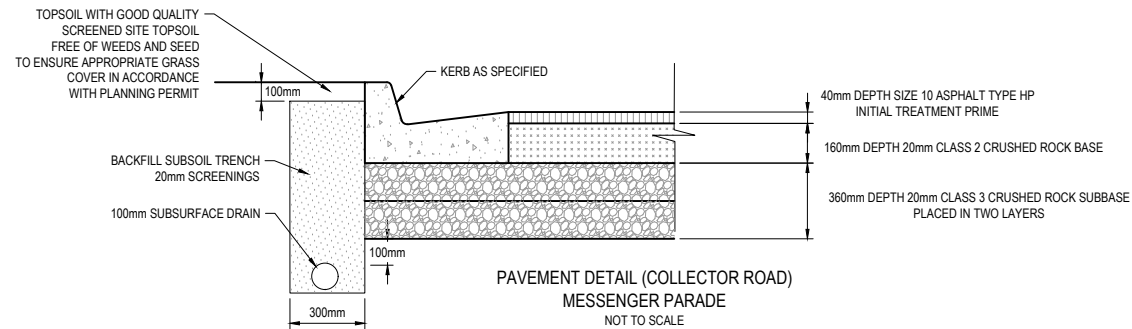
X:\181800971\Lucas_Eng\Stage E2\Drawings\1800971-E2-002-DET.dwg



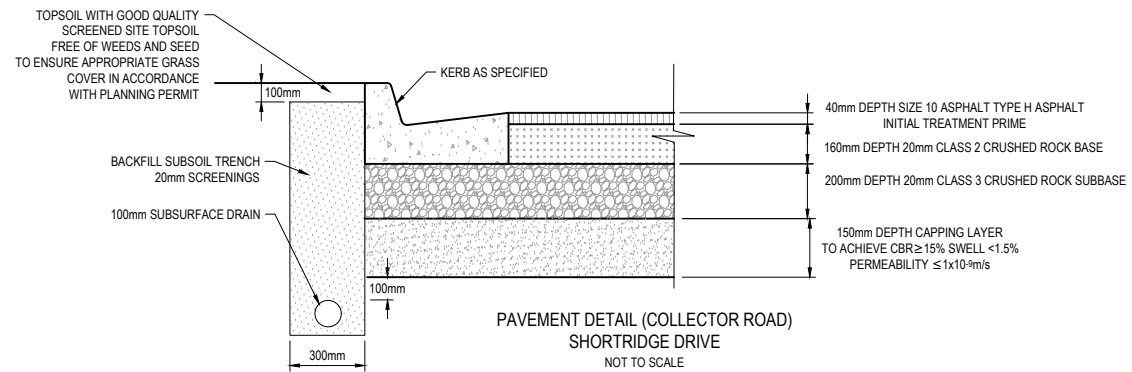
OPTION 1
PAVEMENT DETAIL (ACCESS STREET)
QUIRK ROAD, BRIND WAY & KERNICK STREET
NOT TO SCALE
SUBGRADE TO BE EVALUATED IN CONSULTATION WITH CITY OF BALLARAT TO DETERMINE APPROPRIATE PAVEMENT OPTION



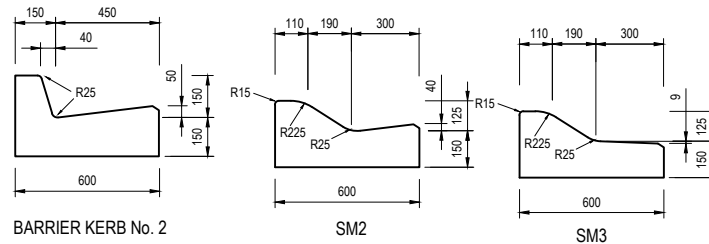
OPTION 2
PAVEMENT DETAIL (ACCESS STREET)
QUIRK ROAD, BRIND WAY & KERNICK STREET
NOT TO SCALE
SUBGRADE TO BE EVALUATED IN CONSULTATION WITH CITY OF BALLARAT TO DETERMINE APPROPRIATE PAVEMENT OPTION



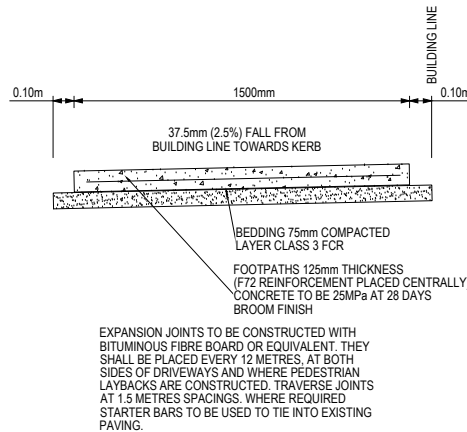
PAVEMENT DETAIL (COLLECTOR ROAD)
MESSENGER PARADE
NOT TO SCALE



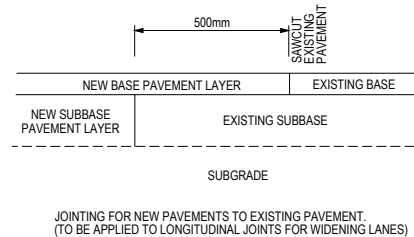
PAVEMENT DETAIL (COLLECTOR ROAD)
SHORTRIDGE DRIVE
NOT TO SCALE



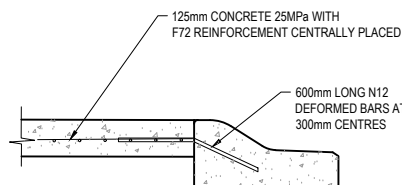
KERB DETAILS



FOOTPATH DETAIL
NOT TO SCALE

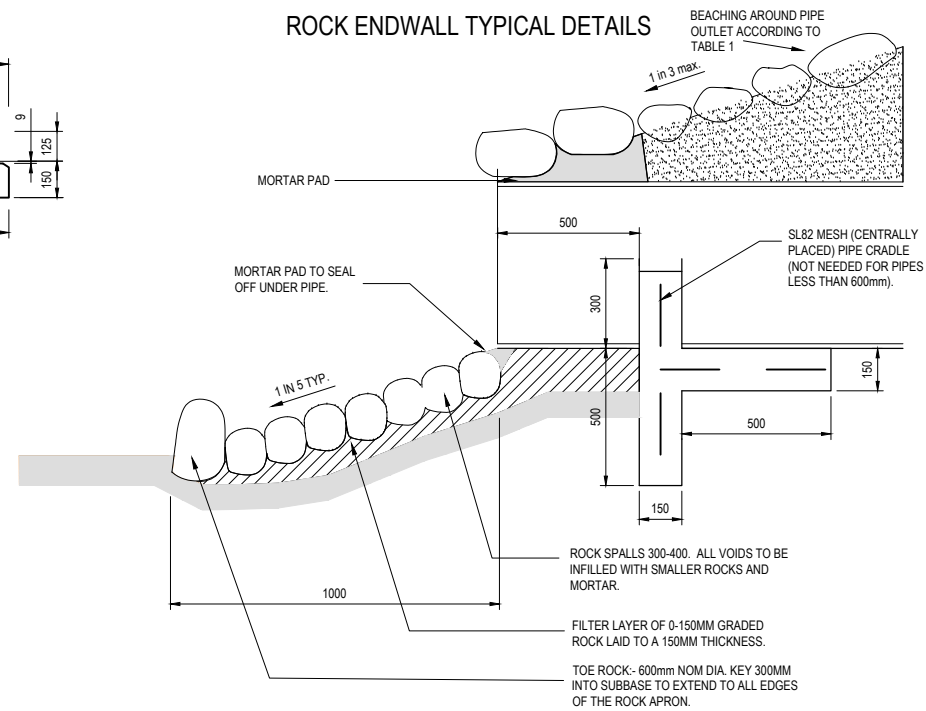


PAVEMENT JOINT
LAPPING BASE LAYER
NOT TO SCALE



CONCRETE INFILL
SPITTER ISLAND & ROUNDABOUT DETAIL
NOT TO SCALE
FOR PEDESTRIAN REFUGE THROUGH TRAFFIC ISLAND REFER BCC SD-C4.4

ROCK ENDWALL TYPICAL DETAILS



ROCK ENDWALL TYPICAL SECTION
N.T.S.

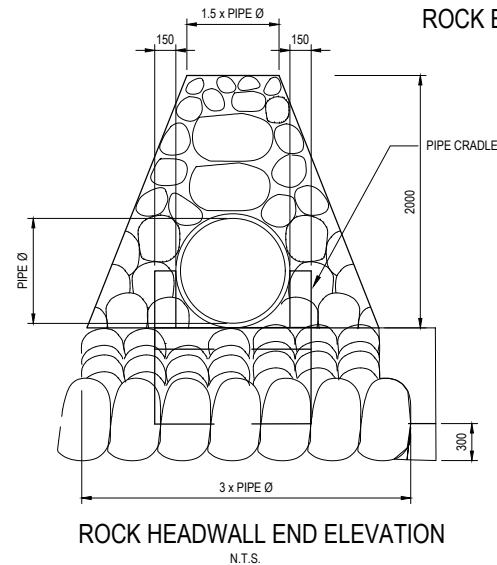


TABLE 1

ROCK NOMINAL DIAMETER (mm)	% OF ROCK LARGER THAN
600	0
300	50
150	90

WARNING
BEWARE OF UNDERGROUND SERVICES
The locations of underground services are approximate only and their exact position should be proven on site.
No guarantee is given that all existing services are shown.
Locate all underground services before commencement of works
DIAL 1100 BEFORE YOU DIG
www.1100.com.au



APPROVED
By JeffColb at 12:30 pm, Oct 02, 2019

APPROVED PLANS
AS-CONSTRUCTED PLANS

REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	29.04.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	11.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	04.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	29.03.19	JS	JZ
P0	ISSUED FOR INFORMATION	19.10.18	JS	JZ	B	ISSUED FOR CONSTRUCTION	18.03.19	JS	JZ

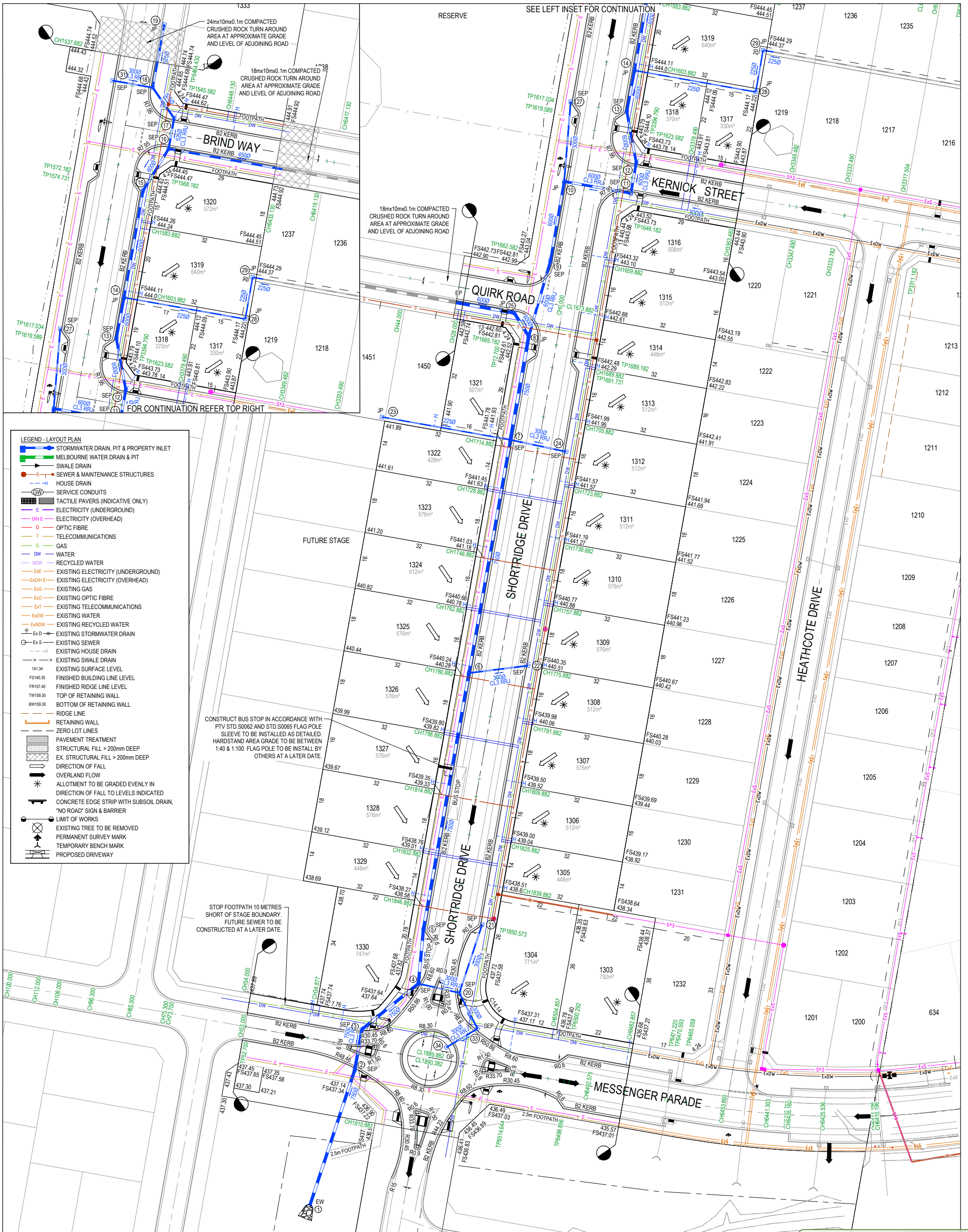
REV	DESCRIPTION	DATE	DRN.	APP.
G	AS CONSTRUCTED	01.10.19	JS	JZ

Designed Date	J.SPARK 19.10.2016
Drawn	J.SPARK
Approved Date	J.ZAAL 25.07.2018
PS Number	PS1000



Project Details	LUCAS STAGE E2 CITY OF BALLARAT
Drawing Title	PAVEMENT MAKEUP & GENERAL DETAILS

Sheet 03 of 28	Scale NOT TO SCALE
Project Ref 1800971	Stage No E2
Drawing No 003	Rev G

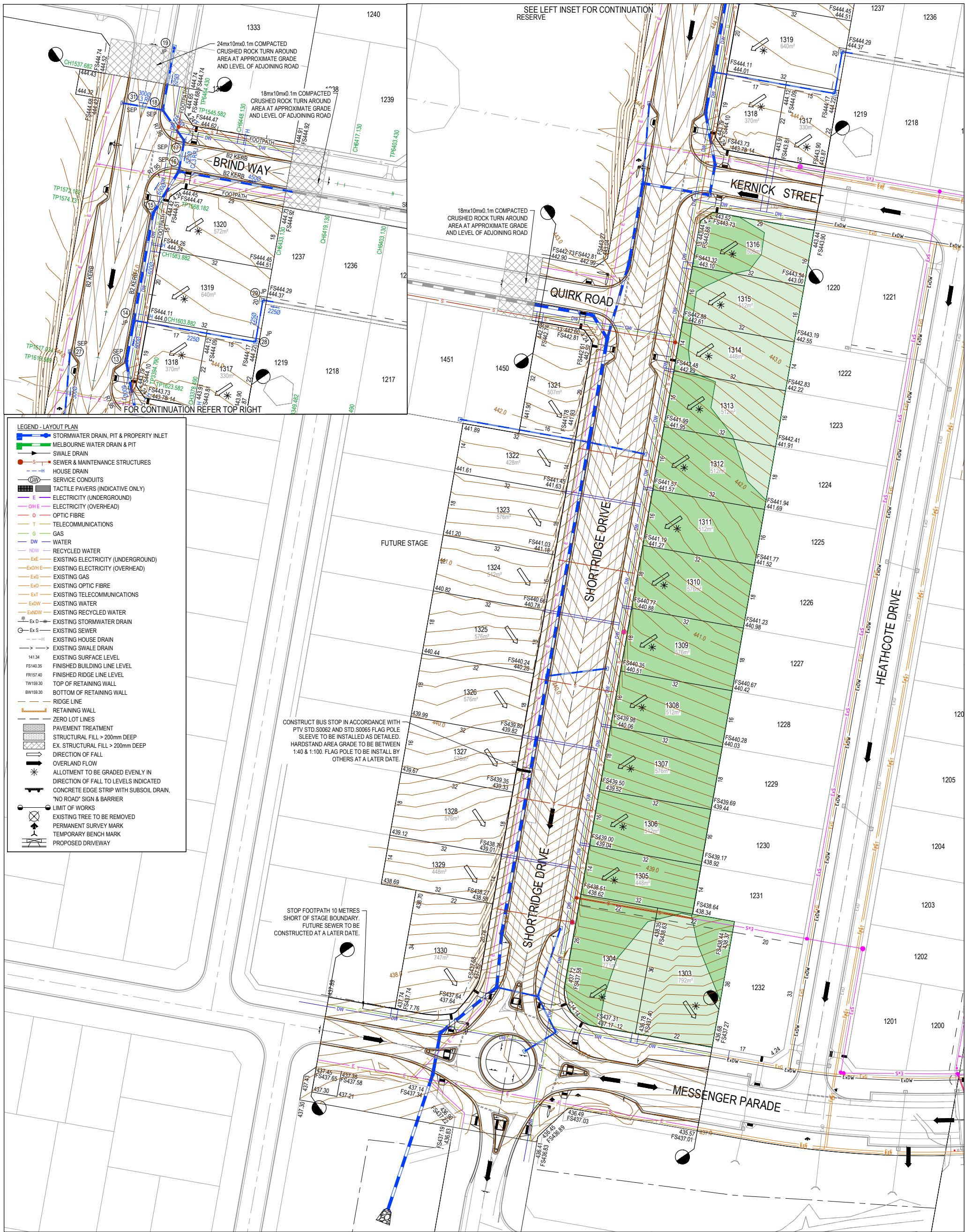


ROAD NAME	SERVICES OFFSET SCHEDULE									
	GAS		WATER		ELECTRICITY		TELECOMMUNICATIONS		SEWER	
	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET
MESSINGER PARADE	NORTH	2.1	NORTH	2.7	SOUTH	0.4, 2.03	SOUTH	1.03, 1.40	NORTH	1.0
SHORTRIDGE DRIVE	EAST	2.1	EAST	2.7	WEST	2.55	WEST	1.85	WEST	1.0
KERNICK STREET	SOUTH	2.1	SOUTH	2.7	NORTH	2.7	NORTH	2.1	NORTH	1.0
QUIRK ROAD	SOUTH	2.1	SOUTH	2.7	NORTH	2.7	NORTH	2.1	SOUTH	1.0
BRIND WAY	NORTH	2.1	NORTH	2.7	SOUTH	2.7	SOUTH	2.1	SOUTH	1.0

WARNING
BEWARE OF UNDERGROUND SERVICES
The locations of underground services are approximate only and their exact position should be proven on site.
No guarantee is given that all existing services are shown.
Locate all underground services before commencement of works
DIAL 1100 BEFORE YOU DIG
www.1100.com.au

APPROVED
By Jeff Colb at 12:30 pm, Oct 02, 2019

APPROVED PLANS
AS-CONSTRUCTED PLANS



- LEGEND - LAYOUT PLAN**
- STORMWATER DRAIN, PIT & PROPERTY INLET
 - MELBOURNE WATER DRAIN & PIT
 - SWALE DRAIN
 - SEWER & MAINTENANCE STRUCTURES
 - HOUSE DRAIN
 - SERVICE CONDUITS
 - TACTILE PAVERS (INDICATIVE ONLY)
 - ELECTRICITY (UNDERGROUND)
 - ELECTRICITY (OVERHEAD)
 - OPTIC FIBRE
 - TELECOMMUNICATIONS
 - GAS
 - WATER
 - RECYCLED WATER
 - EXISTING ELECTRICITY (UNDERGROUND)
 - EXISTING ELECTRICITY (OVERHEAD)
 - EXISTING GAS
 - EXISTING OPTIC FIBRE
 - EXISTING TELECOMMUNICATIONS
 - EXISTING WATER
 - EXISTING RECYCLED WATER
 - EXISTING STORMWATER DRAIN
 - EXISTING SEWER
 - EXISTING HOUSE DRAIN
 - EXISTING SWALE DRAIN
 - EXISTING SURFACE LEVEL
 - FINISHED BUILDING LINE LEVEL
 - FINISHED RIDGE LINE LEVEL
 - TOP OF RETAINING WALL
 - BOTTOM OF RETAINING WALL
 - RIDGE LINE
 - RETAINING WALL
 - ZERO LOT LINES
 - PAVEMENT TREATMENT
 - STRUCTURAL FILL > 200mm DEEP
 - EX. STRUCTURAL FILL > 200mm DEEP
 - DIRECTION OF FALL
 - OVERLAND FLOW
 - ALLOTMENT TO BE GRADED EVENLY IN DIRECTION OF FALL TO LEVELS INDICATED
 - CONCRETE EDGE STRIP WITH SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER
 - LIMIT OF WORKS
 - EXISTING TREE TO BE REMOVED
 - PERMANENT SURVEY MARK
 - TEMPORARY BENCH MARK
 - PROPOSED DRIVEWAY

CONSTRUCT BUS STOP IN ACCORDANCE WITH PTV STD.S0062 AND STD.S0065 FLAG POLE SLEEVE TO BE INSTALLED AS DETAILED. HARDSTAND AREA GRADE TO BE BETWEEN 1:40 & 1:100. FLAG POLE TO BE INSTALLED BY OTHERS AT A LATER DATE.

STOP FOOTPATH 10 METRES SHORT OF STAGE BOUNDARY. FUTURE SEWER TO BE CONSTRUCTED AT A LATER DATE.

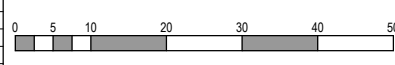
WARNING
BEWARE OF UNDERGROUND SERVICES
The locations of underground services are approximate only and their exact position should be proven on site. No guarantee is given that all existing services are shown. Locate all underground services before commencement of works
DIAL 1100 BEFORE YOU DIG
www.1100.com.au

DENOTES FILL > 300mm
DENOTES FILL < 300mm

APPROVED
By Jeff Colb at 12:30 pm, Oct 02, 2019

APPROVED PLANS
AS-CONSTRUCTED PLANS

REV	DESCRIPTION	DATE	DRN	APP.
G	AS CONSTRUCTED	01.10.19	JS	JZ
F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	29.04.19	JS	JZ
E	DRAIN LONG SECTIONS FILL NOTE AMENDED	11.04.19	JS	JZ
D	BASECOURSE CLASS AMENDED	04.04.19	JS	JZ
C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	29.03.19	JS	JZ



Designed Date J. SPARK 19.10.2018
Drawn J. SPARK
Approved Date J. ZAAL 25.07.2018
PS Number PS1000

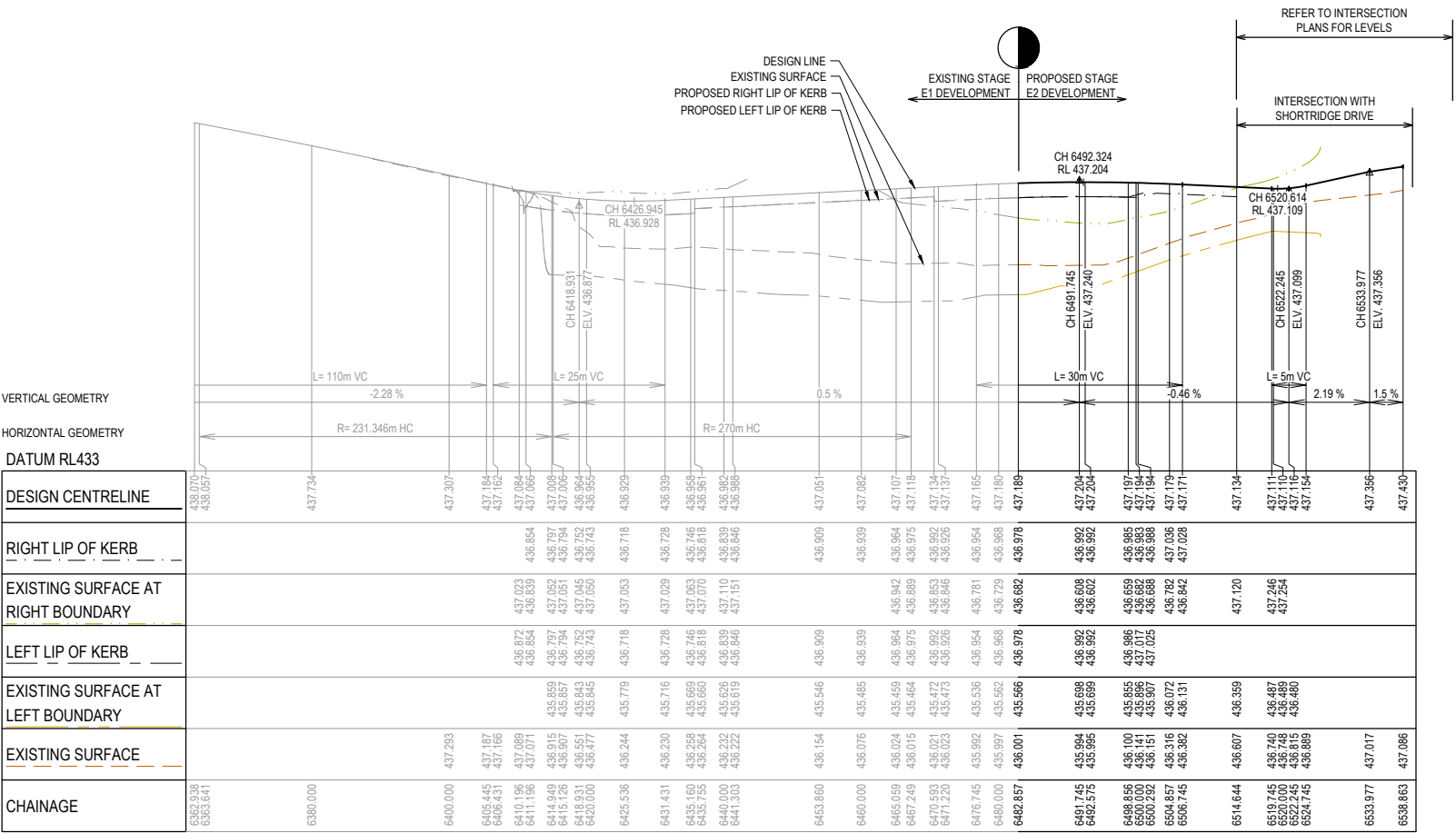
BW Beveridge Williams
96 Main Road
Ballarat Vic 3350
ph: 03 5327 2000
www.beveridgewilliams.com.au

Project Details LUCAS STAGE E2 CITY OF BALLARAT
Drawing Title FINISHED SURFACE & OVERLAND FLOW PLAN

Sheet 05 of 28
Scale 1:500 @ A1
Project Ref 1800971 Stage No E2 Drawing No 011 Rev G

X:\18\1800971 Lucas_Eng\Stage E2\Drawings\1800971-E2-010-LAY.dwg

LEGEND	
	EXISTING SURFACE
	DESIGN LINE
	FUTURE DESIGN LINE
	RIGHT BUILDING LINE
	RIGHT LIP OF KERB
	LEFT BUILDING LINE
	LEFT LIP OF KERB

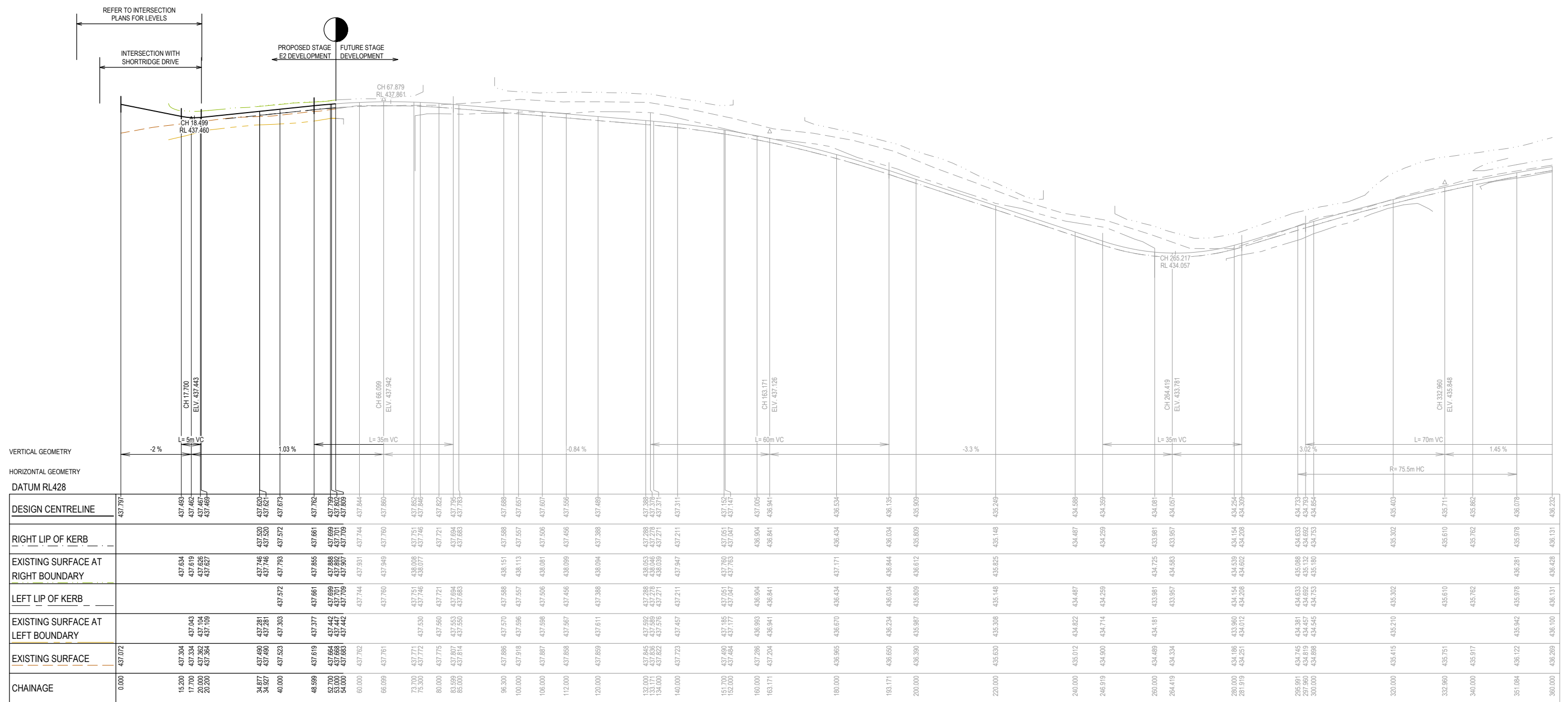


MESSENGER PARADE EAST LONGITUDINAL SECTION

APPROVED
By Jeff Colb at 12:31 pm, Oct 02, 2019

APPROVED PLANS
AS-CONSTRUCTED PLANS

© COPYRIGHT All rights reserved Beveridge Williams & Co. Pty Ltd has granted a licence to the principle to use this document for its intended purpose. No unauthorised copying is permitted									



APPROVED
By JeffColb at 12:31 pm, Oct 02, 2019

© COPYRIGHT All rights reserved
Beveridge Williams & Co. Pty Ltd has granted a licence to the principle to use this document for its intended purpose.
No unauthorised copying is permitted

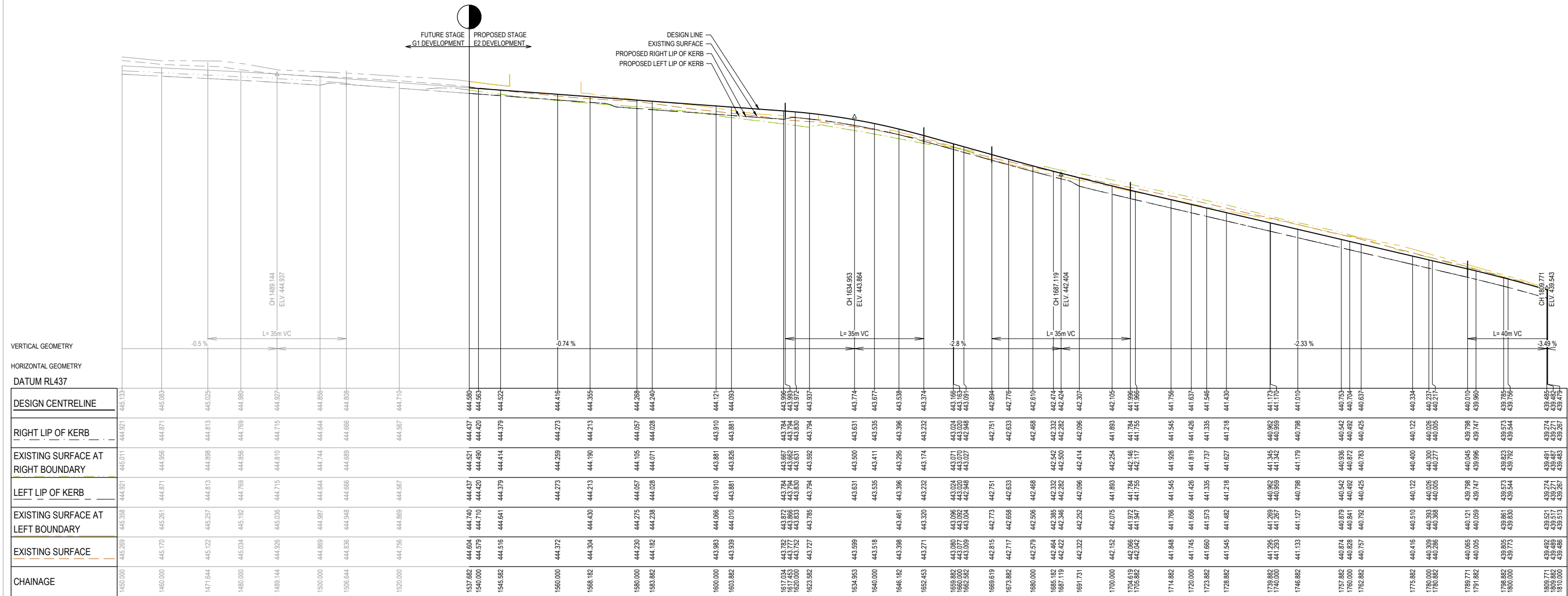
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Designed	J.SPARK
Date	19.10.2018
Drawn	J.SPARK
Approved	J.ZAAL
Date	25.07.2018
PS Number	PS1000

Beveridge Williams

Project Details

Sheet 07 of 28

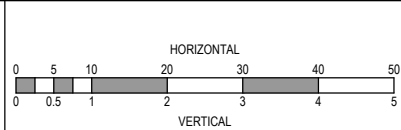


SHORTRIDGE DRIVE LONGITUDINAL SECTION

APPROVED
By Jeff Colb at 12:31 pm, Oct 02, 2019

APPROVED PLANS
AS-CONSTRUCTED PLANS

REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	29.04.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	11.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	04.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	29.03.19	JS	JZ
P0	ISSUED FOR INFORMATION	19.10.18	JS	JZ	B	ISSUED FOR CONSTRUCTION	18.03.19	JS	JZ



Designed
Date

J.SPARK
19.10.2018

Drawn

J.SPARK

Approved
Date

J.ZAAL
25.07.2018

PS Number

PS1000

BW Beveridge Williams

96 Main Road
Ballarat VIC 3350
ph: 03 5327 2000
www.beveridgewilliams.com.au

Project
Details

LUCAS
STAGE E2
CITY OF BALLARAT

Drawing
Title

SHORTRIDGE DRIVE
LONGITUDINAL SECTIONS (SHEET 3 OF 7)

Sheet 08 of 28

Scale

1:500 H 1:50 V @ A1

Project Ref

1800971

Stage No

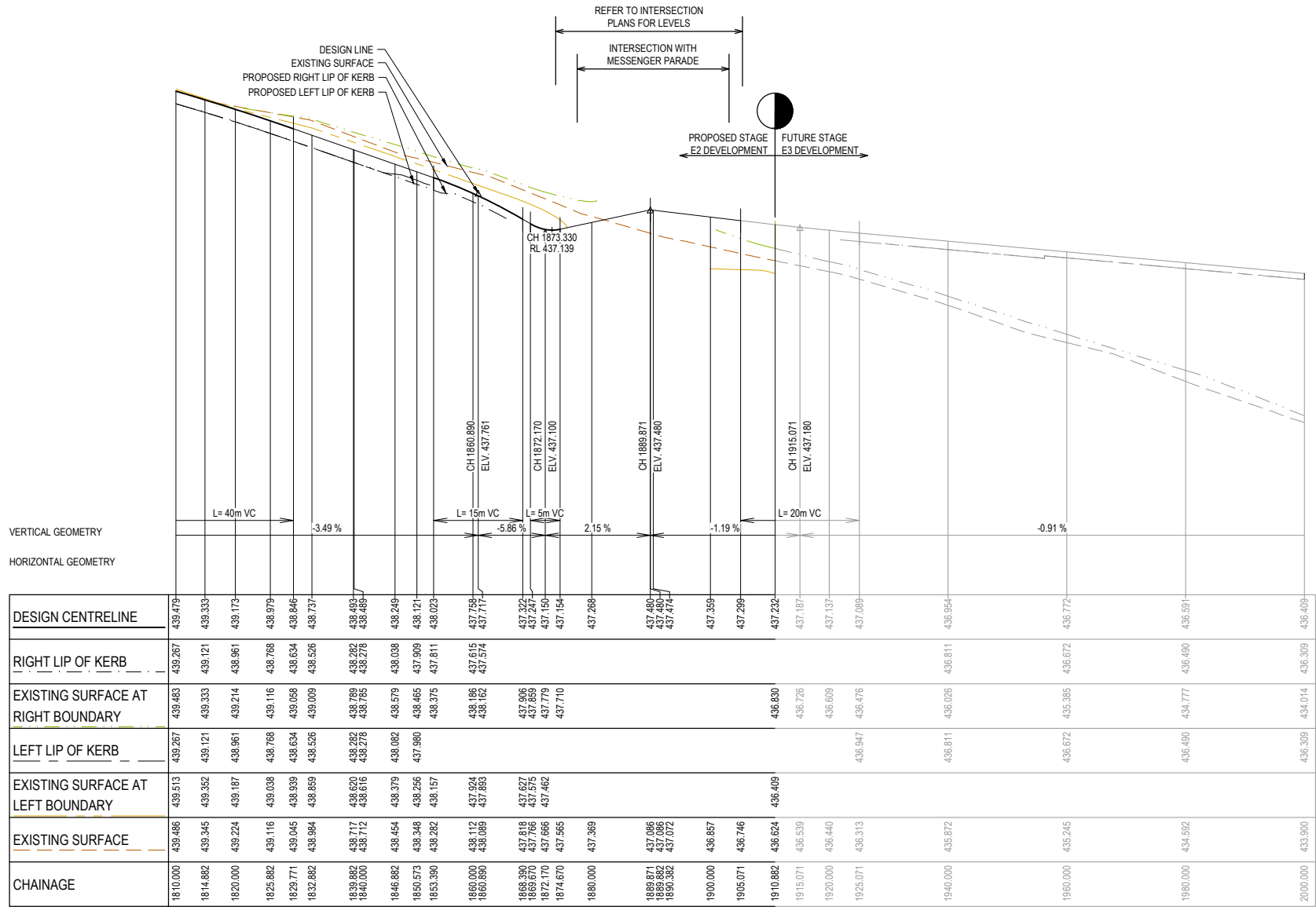
E2

Drawing No

102

Rev

G

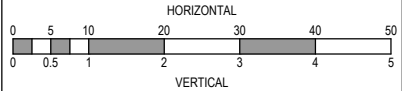


Shortridge LONGITUDINAL SECTION

APPROVED
By Jeff Colb at 12:31 pm, Oct 02, 2019

APPROVED PLANS
AS-CONSTRUCTED PLANS

© COPYRIGHT All rights reserved Beveridge Williams & Co. Pty Ltd has granted a licence to the principle to use this document for its intended purpose. No unauthorised copying is permitted									
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	29.04.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	11.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	04.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	29.03.19	JS	JZ
P0	ISSUED FOR INFORMATION	19.10.18	JS	JZ	B	ISSUED FOR CONSTRUCTION	18.03.19	JS	JZ
REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.



Designed
Date
J.SPARK
19.10.2018

Drawn
J.SPARK

Approved
Date
J.ZAAL
25.07.2018

PS Number
PS1000



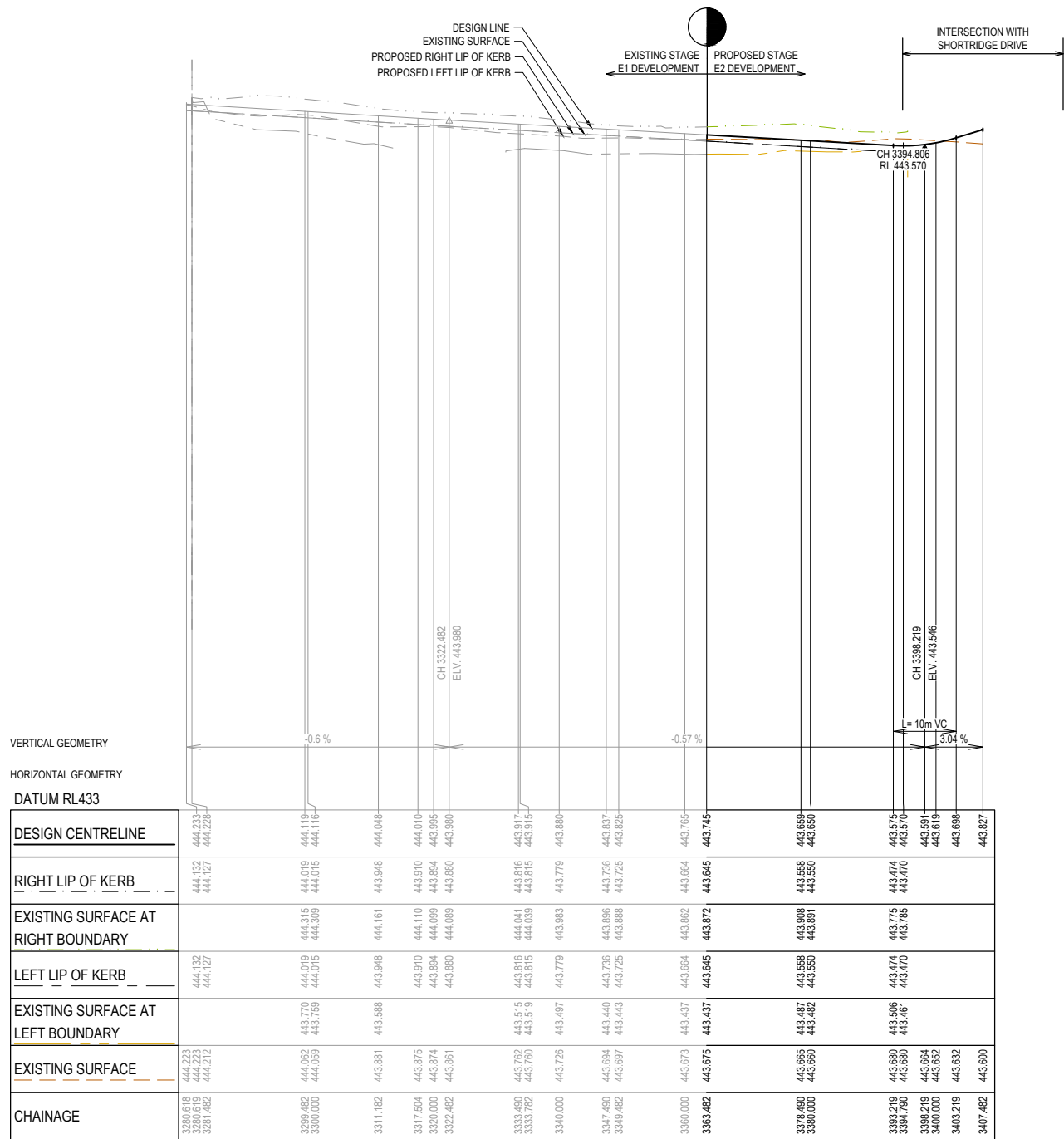
Project Details
LUCAS
STAGE E2
CITY OF BALLARAT

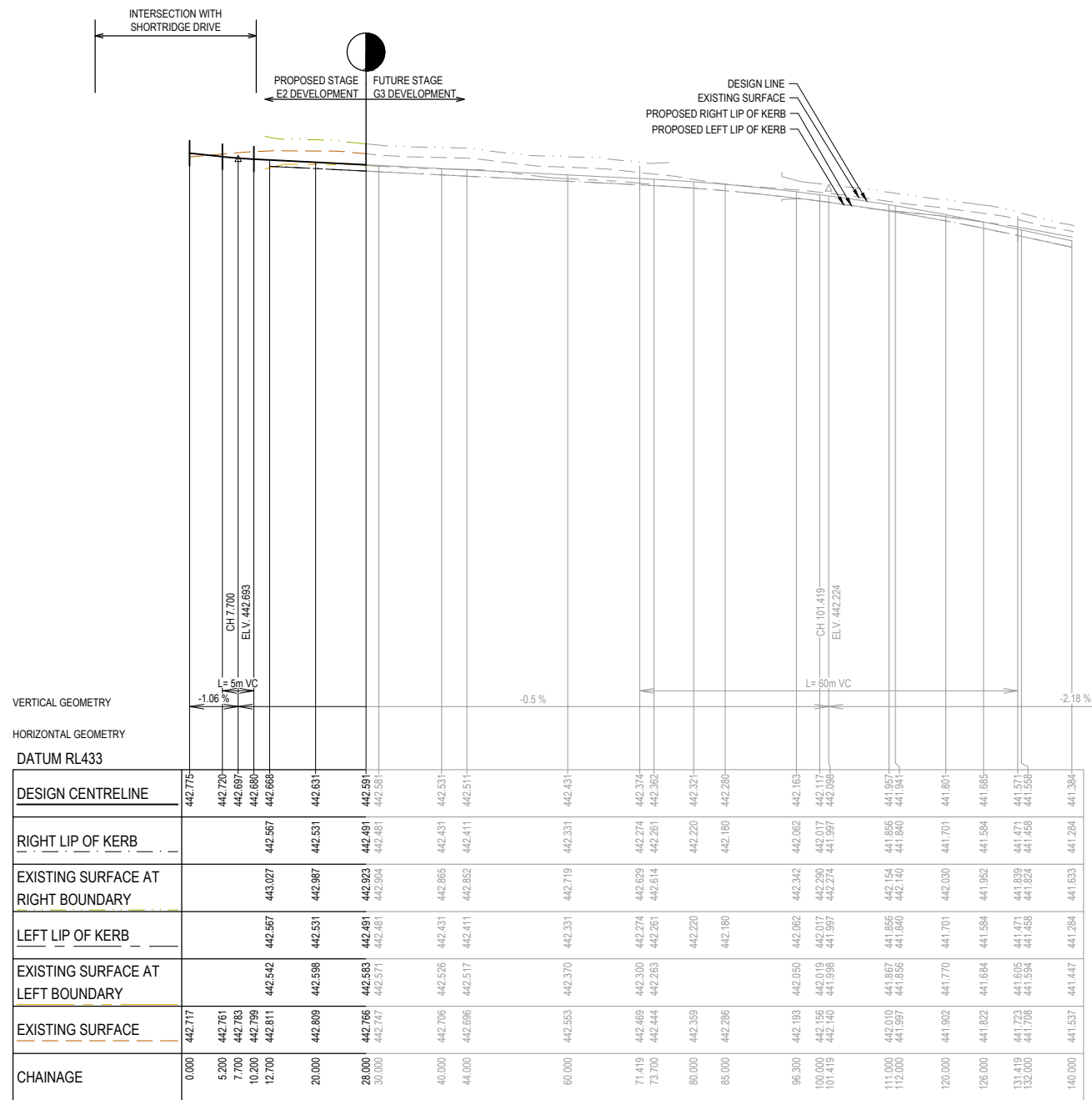
Drawing Title
SHORTTRIDGE DRIVE
LONGITUDINAL SECTIONS (SHEET 4 OF 7)

Sheet 09 of 28

Scale
1:500 H 1:50 V @ A1

Project Ref	Stage No	Drawing No	Rev
1800971	E2	103	G





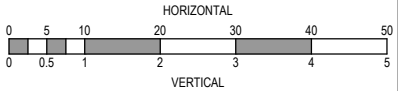
QUIRK ROAD LONGITUDINAL SECTION

APPROVED
By Jeff Colb at 12:31 pm, Oct 02, 2019

APPROVED PLANS
AS-CONSTRUCTED PLANS

© COPYRIGHT All rights reserved
Beveridge Williams & Co. Pty Ltd has granted a licence to the principle to use this document for its intended purpose.
No unauthorised copying is permitted

REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	29.04.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	11.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	04.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	29.03.19	JS	JZ
P0	ISSUED FOR INFORMATION	19.10.18	JS	JZ	B	ISSUED FOR CONSTRUCTION	18.03.19	JS	JZ



Designed Date
J.SPARK
19.10.2018

Drawn
J.SPARK

Approved Date
J.ZAAL
25.07.2018

PS Number
PS1000



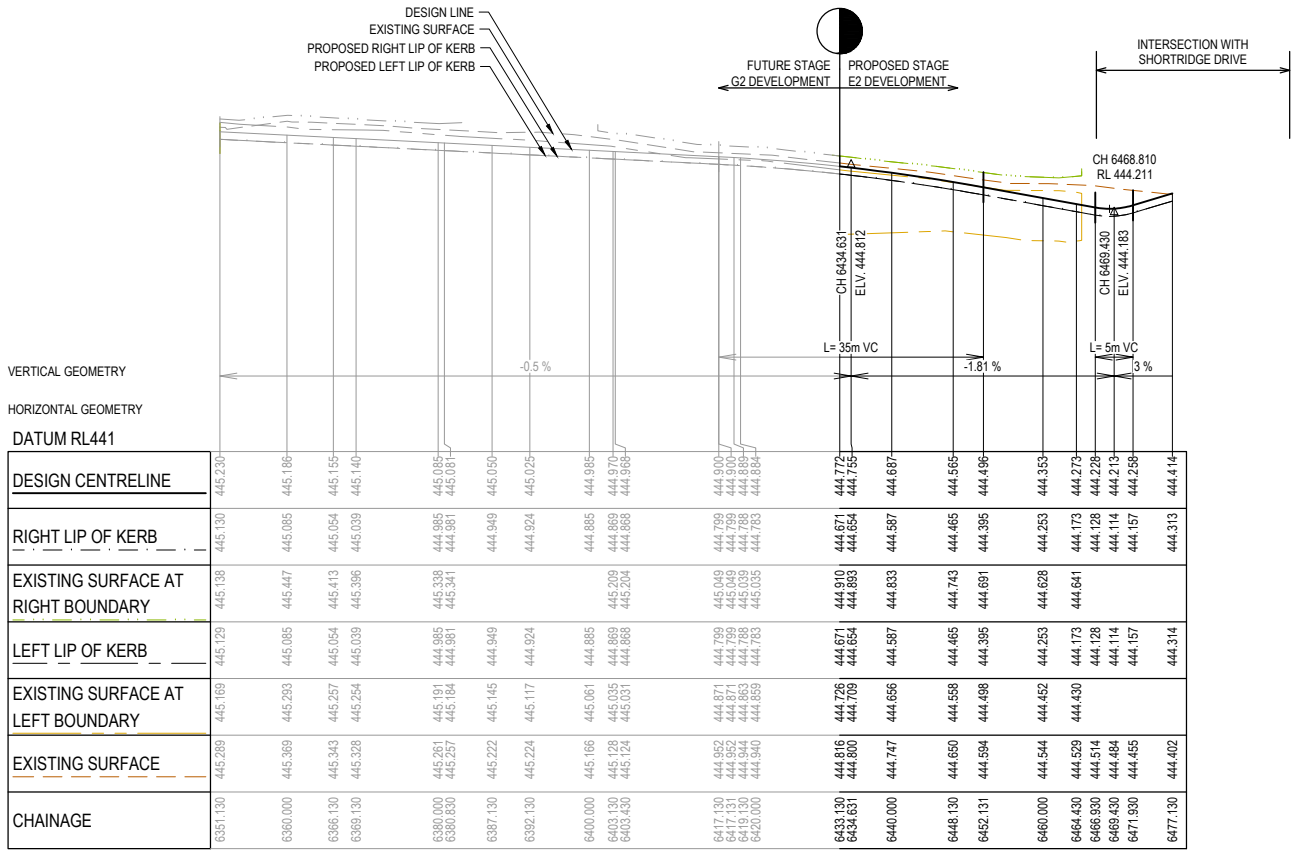
Project Details
LUCAS
STAGE E2
CITY OF BALLARAT

Drawing Title
QUIRK ROAD LONGITUDINAL SECTIONS
(SHEET 6 OF 7)

Sheet 11 of 28

Scale
1:500 H 1:50 V @ A1

Project Ref	Stage No	Drawing No	Rev
1800971	E2	105	G

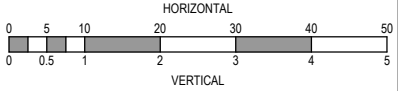


BRIND WAY LONGITUDINAL SECTION

APPROVED
By Jeff Colb at 12:32 pm, Oct 02, 2019

APPROVED PLANS
AS-CONSTRUCTED PLANS

© COPYRIGHT All rights reserved Beveridge Williams & Co. Pty Ltd has granted a licence to the principle to use this document for its intended purpose. No unauthorised copying is permitted									
					G	AS CONSTRUCTED	01.10.19	JS	JZ
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	29.04.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	11.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	04.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	29.03.19	JS	JZ
P0	ISSUED FOR INFORMATION	19.10.18	JS	JZ	B	ISSUED FOR CONSTRUCTION	18.03.19	JS	JZ
REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.



Designed
Date
J.SPARK
19.10.2018

Drawn
J.SPARK

Approved
Date
J.ZAAL
25.07.2018

PS Number
PS1000



Beveridge Williams

96 Main Road
Ballarat VIC 3350
ph: 03 9327 2000
www.beveridgewilliams.com.au

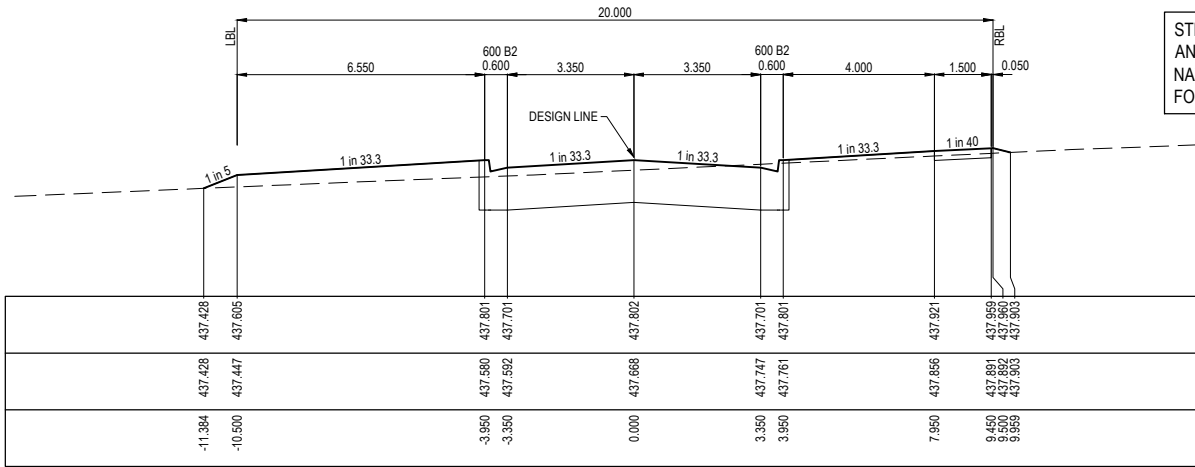
Project
Details
LUCAS
STAGE E2
CITY OF BALLARAT

Drawing
Title
BRIND ROAD LONGITUDINAL SECTIONS
(SHEET 7 OF 7)

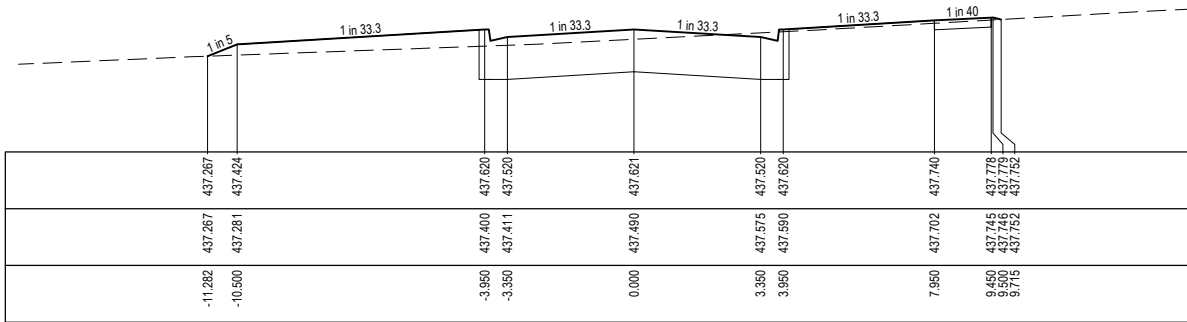
Sheet 12 of 28

Scale
1:500 H 1:50 V @ A1

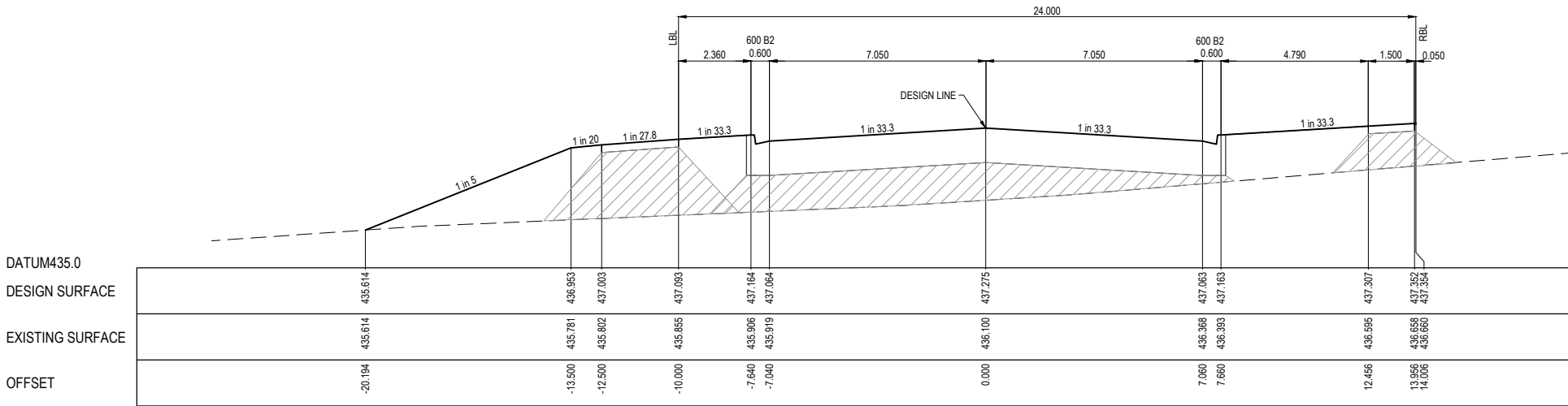
Project Ref	Stage No	Drawing No	Rev
1800971	E2	106	G



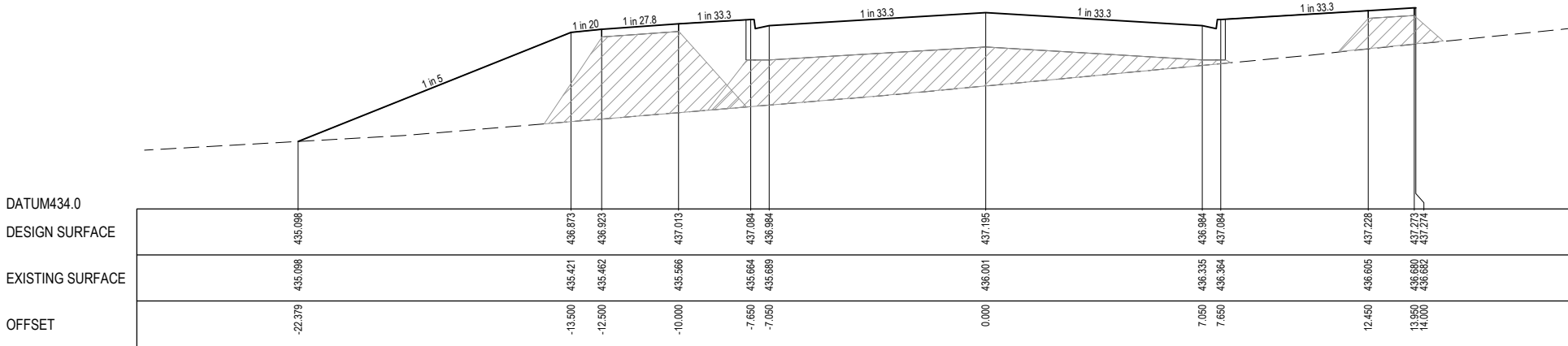
CH 53.000



CH 34.927



CH 6498.856



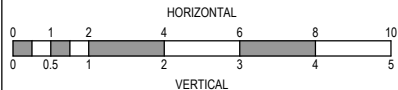
CH 6482.857

APPROVED
By Jeff Colb at 12:32 pm, Oct 02, 2019

APPROVED PLANS
AS-CONSTRUCTED PLANS

© COPYRIGHT All rights reserved
Beveridge Williams & Co. Pty Ltd has granted a licence to the principle to use this document for its intended purpose.
No unauthorised copying is permitted

REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	01.10.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	29.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	11.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	04.04.19	JS	JZ
P0	ISSUED FOR INFORMATION	19.10.18	JS	JZ	B	ISSUED FOR CONSTRUCTION	29.03.19	JS	JZ
		19.03.19	JS	JZ			18.03.19	JS	JZ



Designed
Date
J.SPARK
19.10.2018
Drawn
J.SPARK
Approved
Date
J.ZAAL
25.07.2018
PS Number
PS1000



Project
Details
LUCAS
STAGE E2
CITY OF BALLARAT
Drawing
Title
MESSENGER PARADE CROSS SECTIONS
(SHEET 1 OF 7)

Sheet 13 of 28

Scale
1:100 H 1:50 V @ A1

Project Ref	Stage No	Drawing No	Rev
1800971	E2	200	G

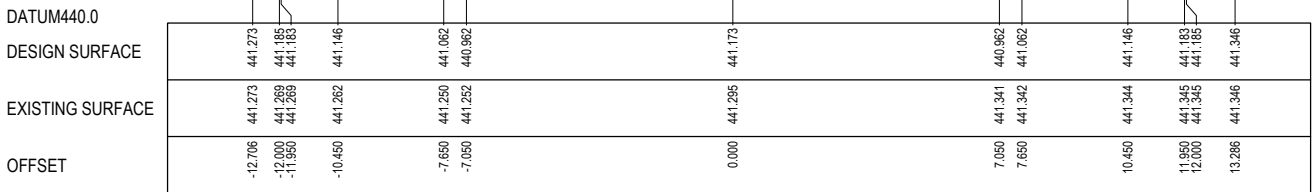
X:\18\1800971\Lucas_Eng\Stage E2\Drawings\1800971-E2-200-RXS.dwg

APPROVED PLANS
AS-CONSTRUCTED PLANS

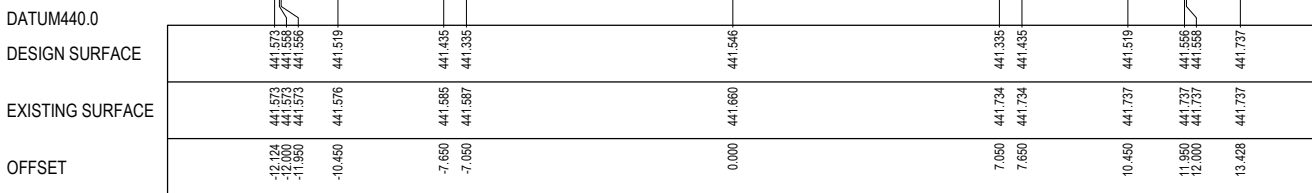
STRUCTURAL FILL REQUIRED UNDER PAVEMENT
AND FOOTPATHS WHERE CONSTRUCTED ABOVE
NATURAL SURFACE. REFER GEOTECH REPORT
FOR SPECIFICATION

LEGEND

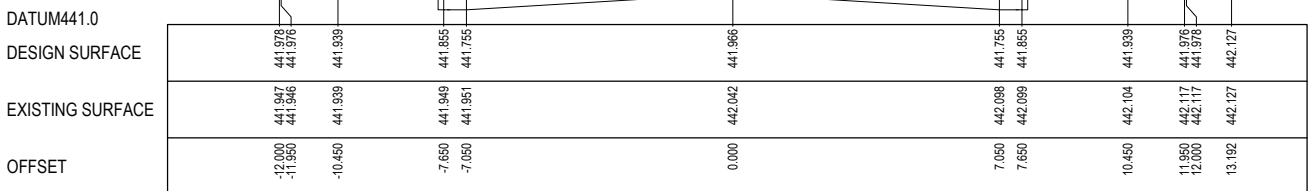
----- EXISTING SURFACE
————— DESIGN SURFACE



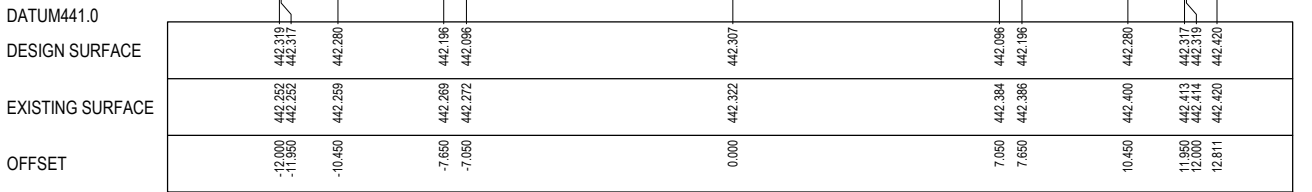
CH 1739.882



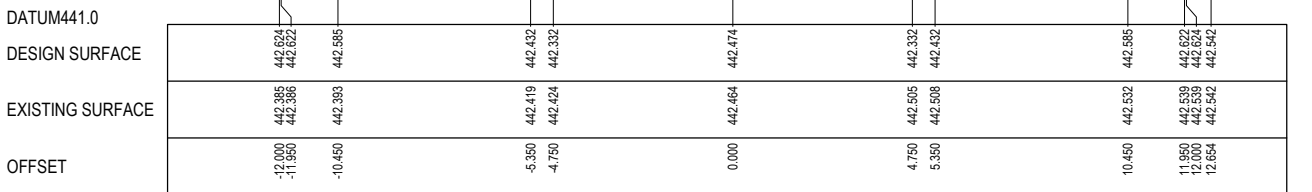
CH 1723.882



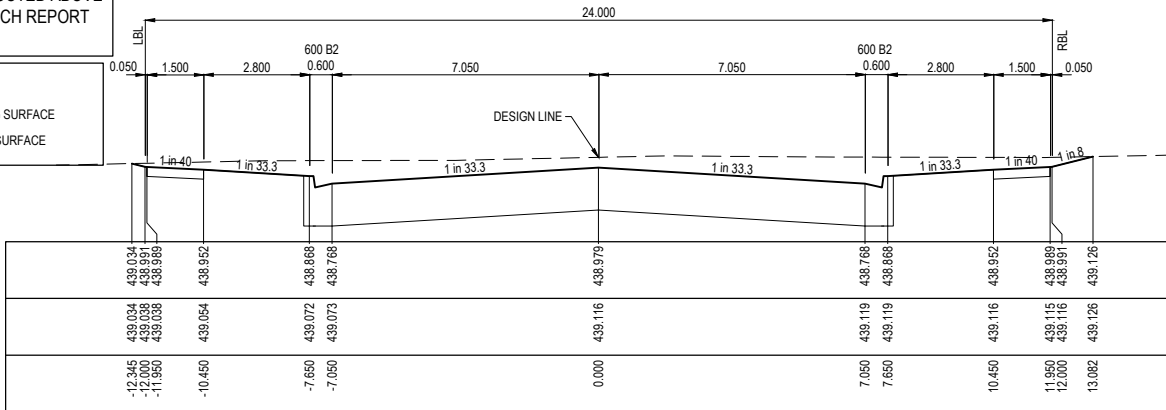
CH 1705.882



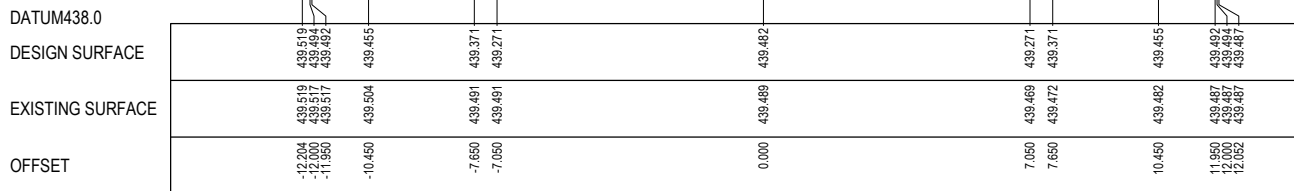
CH 1691.731



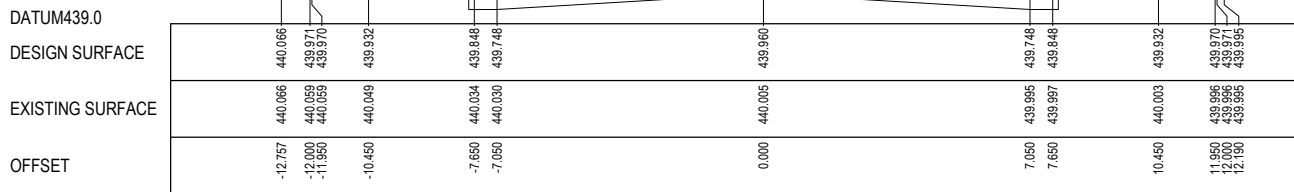
CH 1685.182



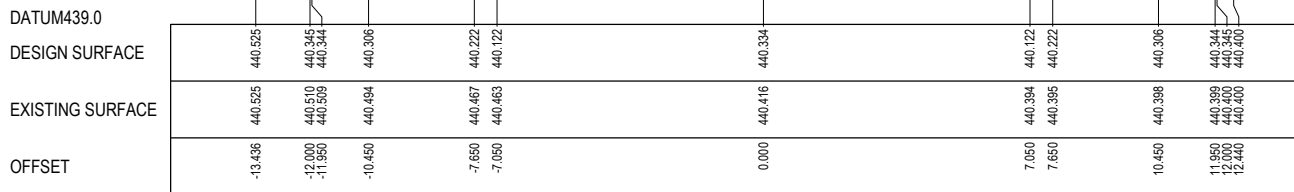
CH 1825.882



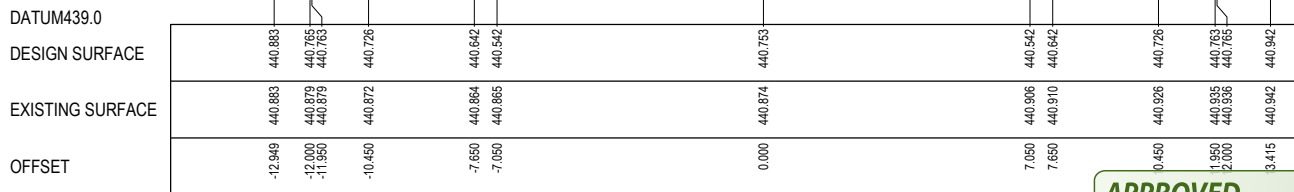
CH 1809.882



CH 1791.882



CH 1775.882

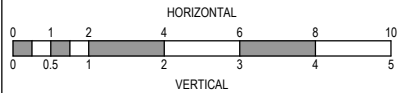


CH 1757.882

APPROVED
By Jeff Colb at 12:32 pm, Oct 02, 2019

© COPYRIGHT All rights reserved
Beveridge Williams & Co. Pty Ltd has granted a licence to the principle to use this document for its intended purpose.
No unauthorised copying is permitted

REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	01.10.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	29.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	11.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	04.04.19	JS	JZ
P0	ISSUED FOR INFORMATION	19.10.18	JS	JZ	B	ISSUED FOR CONSTRUCTION	29.03.19	JS	JZ
REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.



Designed
Date
J.SPARK
19.10.2018

Drawn
J.SPARK

Approved
Date
J.ZAAL
25.07.2018

PS Number
PS1000



Beveridge Williams

96 Main Road
Ballarat VIC 3350
ph: 03 5327 2000
www.beveridgewilliams.com.au

Project
Details
LUCAS
STAGE E2
CITY OF BALLARAT

Drawing
Title
SHORTTRIDGE DRIVE CROSS SECTIONS
(SHEET 3 OF 7)

Sheet 15 of 28

Scale
1:100 H 1:50 V @ A1

Project Ref
1800971

Stage No
E2

Drawing No
202

Rev
G

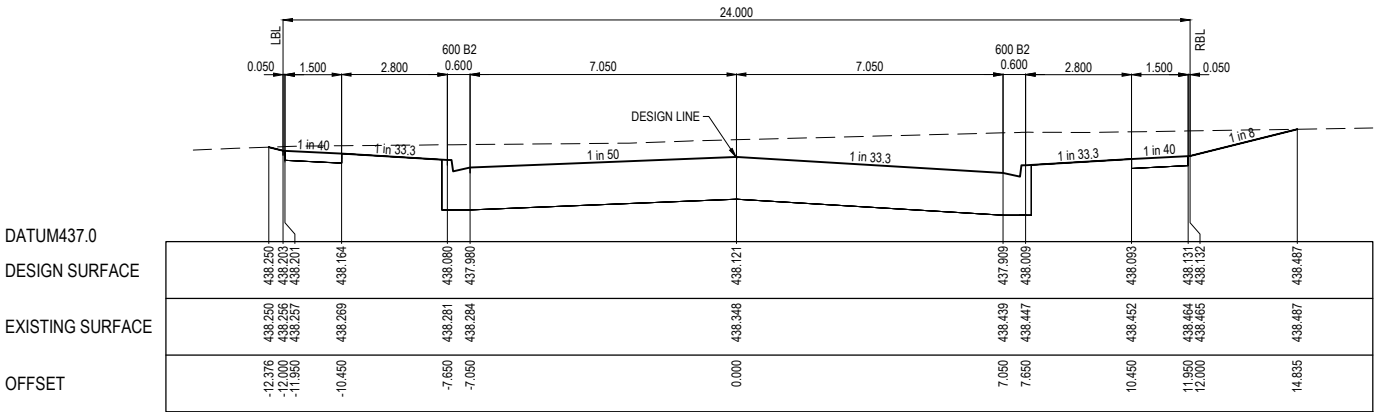
X:\181800971\Lucas_Eng\Stage E2\Drawings\1800971-E2-200-RXS.dwg

STRUCTURAL FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE. REFER GEOTECH REPORT FOR SPECIFICATION

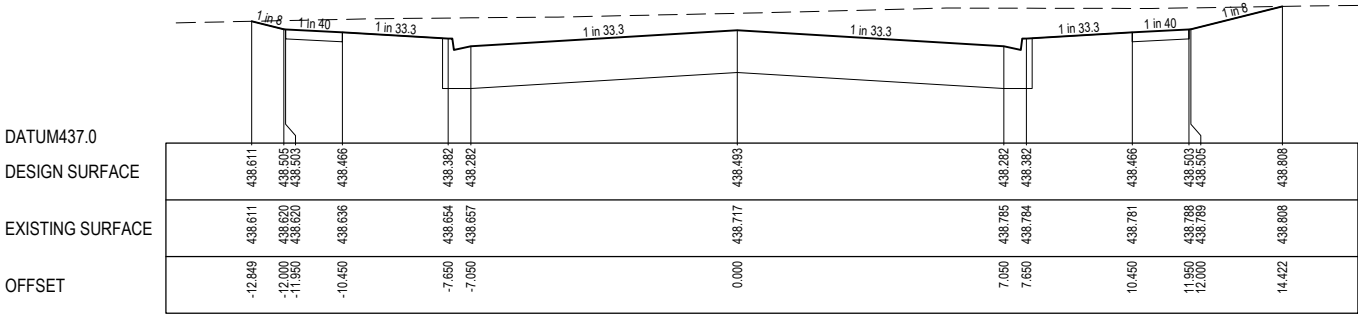
LEGEND

EXISTING SURFACE

DESIGN SURFACE



CH 1850.573



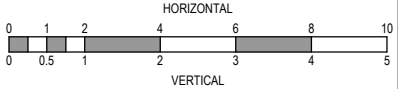
CH 1839.882

APPROVED
By JeffColb at 12:32 pm, Oct 02, 2019

APPROVED PLANS
AS-CONSTRUCTED PLANS

© COPYRIGHT All rights reserved
Beveridge Williams & Co. Pty Ltd has granted a licence to the principle to use this document for its intended purpose.
No unauthorised copying is permitted

REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	01.10.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	11.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	04.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	29.03.19	JS	JZ
P0	ISSUED FOR INFORMATION	19.10.18	JS	JZ	B	ISSUED FOR CONSTRUCTION	18.03.19	JS	JZ



Designed
Date
J.SPARK
19.10.2018

Drawn
J.SPARK

Approved
Date
J.ZAAL
25.07.2018

PS Number
PS1000



Beveridge Williams

96 Main Road
Ballarat VIC 3350
ph: 03 5327 2000
www.beveridgewilliams.com.au

Project
Details
LUCAS
STAGE E2
CITY OF BALLARAT

Drawing
Title
SHORTTRIDGE DRIVE CROSS SECTIONS
(SHEET 4 OF 7)

Sheet 16 of 28

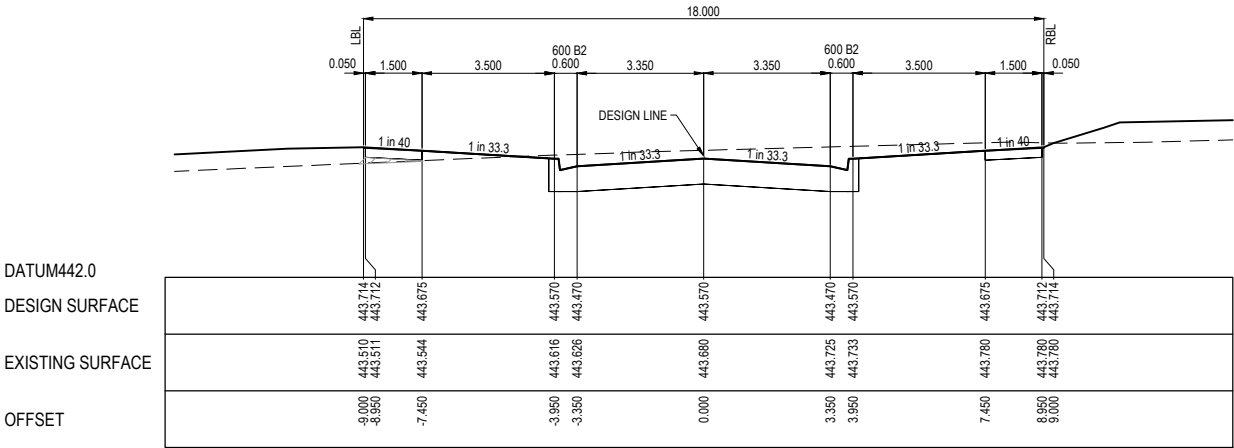
Scale
1:100 H 1:50 V @ A1

Project Ref	Stage No	Drawing No	Rev
1800971	E2	203	G

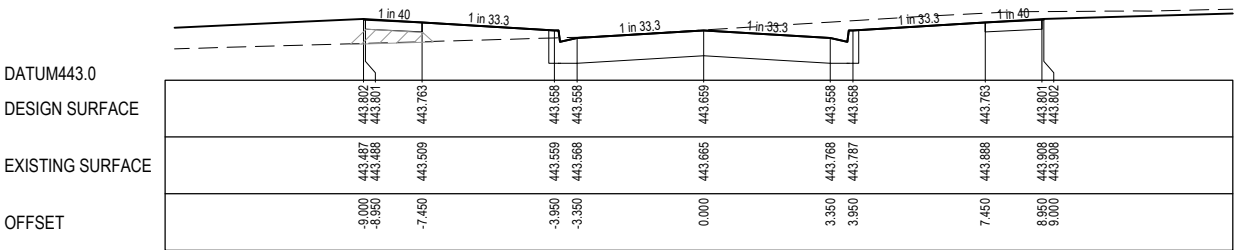
X:\18\1800971\Lucas_E2\Drawings\1800971-E2-200-RXS.dwg

STRUCTURAL FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE. REFER GEOTECH REPORT FOR SPECIFICATION

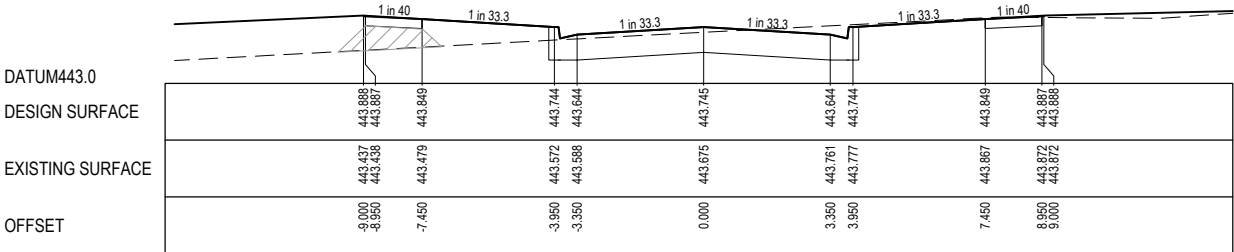
LEGEND
--- EXISTING SURFACE
— DESIGN SURFACE



CH 3394.790



CH 3378.490



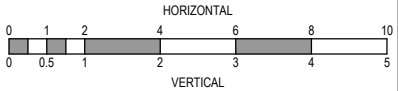
CH 3363.490

APPROVED
By JeffColb at 12:32 pm, Oct 02, 2019

APPROVED PLANS
AS-CONSTRUCTED PLANS

© COPYRIGHT All rights reserved
Beveridge Williams & Co. Pty Ltd has granted a licence to the principle to use this document for its intended purpose.
No unauthorised copying is permitted

REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	01.10.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	29.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	11.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	04.04.19	JS	JZ
P0	ISSUED FOR INFORMATION	29.03.19	JS	JZ	B	ISSUED FOR CONSTRUCTION	29.03.19	JS	JZ
		19.10.18	JS	JZ			18.03.19	JS	JZ



Designed
Date
J.SPARK
19.10.2018

Drawn
J.SPARK

Approved
Date
J.ZAAL
25.07.2018

PS Number
PS1000



Project
Details
LUCAS
STAGE E2
CITY OF BALLARAT

Drawing
Title
KERNICK STREET CROSS SECTIONS
(SHEET 5 OF 7)

Sheet 17 of 28

Scale
1:100 H 1:50 V @ A1

Project Ref	Stage No	Drawing No	Rev
1800971	E2	204	G

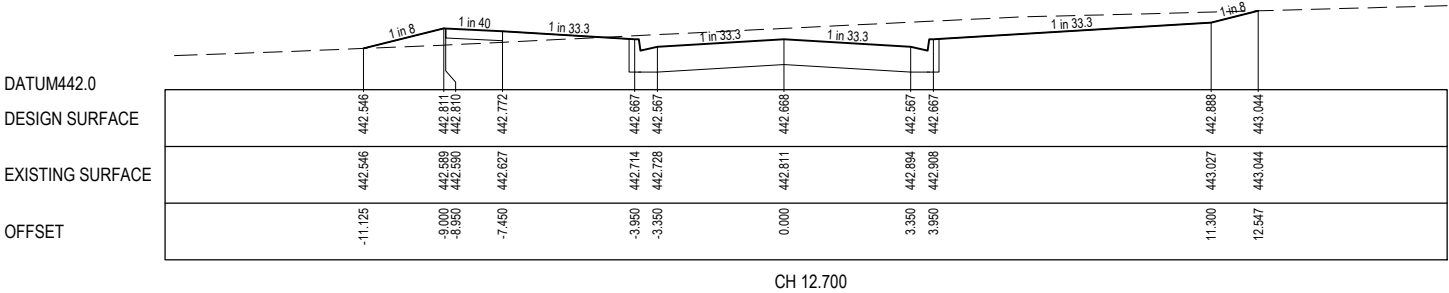
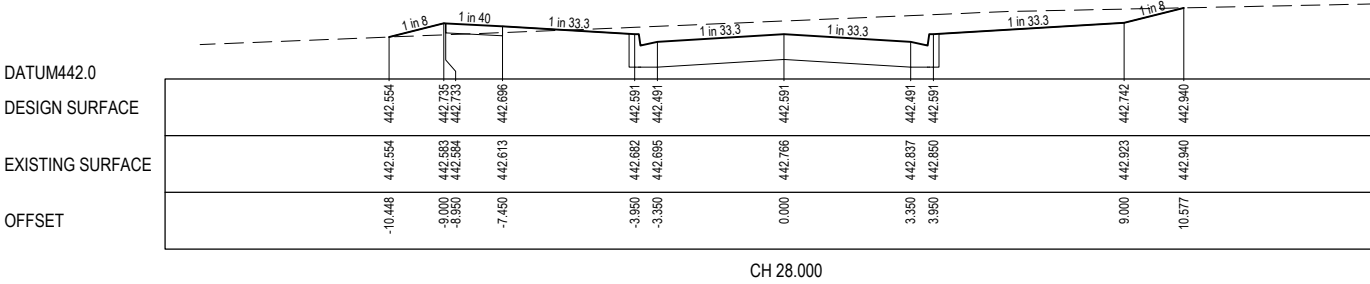
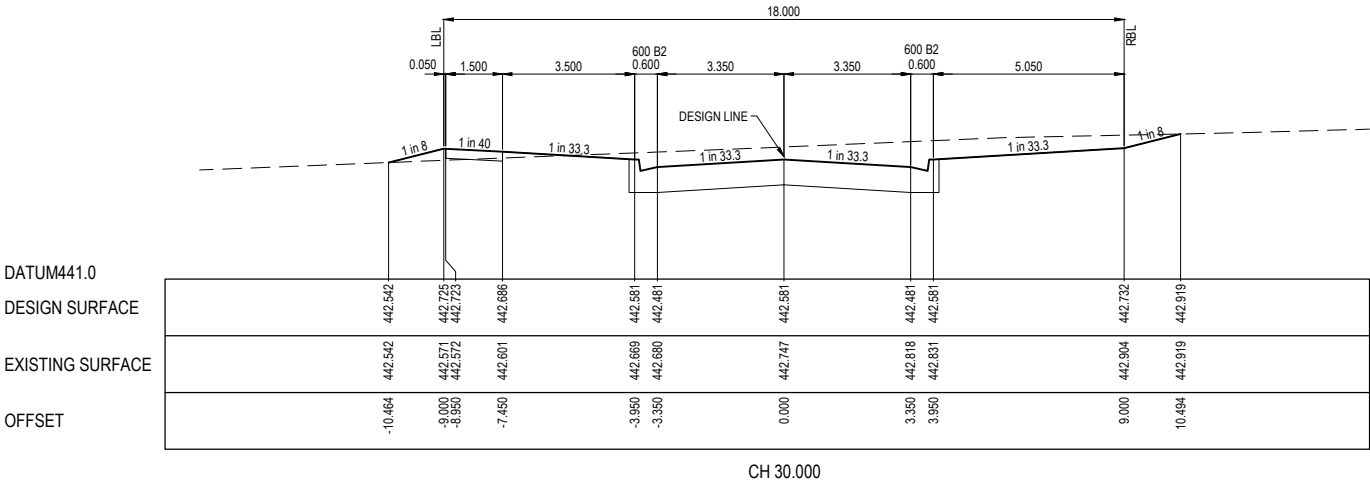
X:\18\1800971\Lucas_E2\Drawings\1800971-E2-200-RXS.dwg

STRUCTURAL FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE. REFER GEOTECH REPORT FOR SPECIFICATION

LEGEND

EXISTING SURFACE

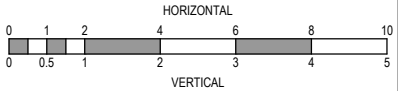
DESIGN SURFACE



APPROVED
By JeffColb at 12:33 pm, Oct 02, 2019

APPROVED PLANS
AS-CONSTRUCTED PLANS

© COPYRIGHT All rights reserved Beveridge Williams & Co. Pty Ltd has granted a licence to the principle to use this document for its intended purpose. No unauthorised copying is permitted									
					G	AS CONSTRUCTED	01.10.19	JS	JZ
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	29.04.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	11.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	04.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	29.03.19	JS	JZ
P0	ISSUED FOR INFORMATION	19.10.18	JS	JZ	B	ISSUED FOR CONSTRUCTION	18.03.19	JS	JZ
REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.



Designed
Date

J.SPARK
19.10.2018

Drawn

J.SPARK

Approved
Date

J.ZAAL
25.07.2018

PS Number

PS1000



Beveridge Williams

96 Main Road
Ballarat VIC 3350
ph: 03 5327 2000
www.beveridgewilliams.com.au

Project
Details

LUCAS
STAGE E2
CITY OF BALLARAT

Drawing
Title

QUIRK ROAD CROSS SECTIONS
(SHEET 6 OF 7)

Sheet 18 of 28

Scale
1:100 H 1:50 V @ A1

Project Ref	Stage No	Drawing No	Rev
1800971	E2	205	G

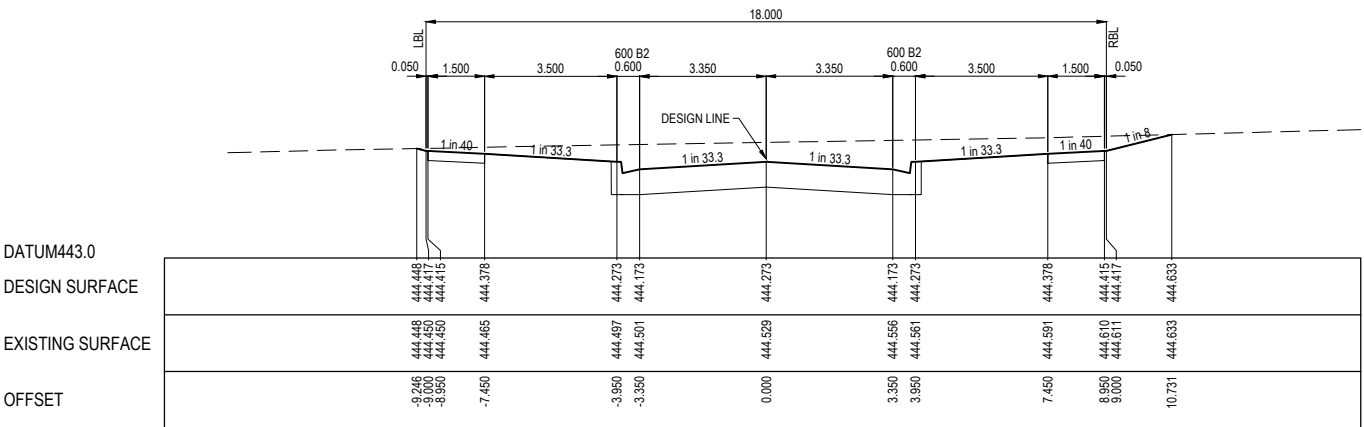
X:\18\1800971\Lucas_Eng\Stage E2\Drawings\1800971-E2-200-RXS.dwg

STRUCTURAL FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE. REFER GEOTECH REPORT FOR SPECIFICATION

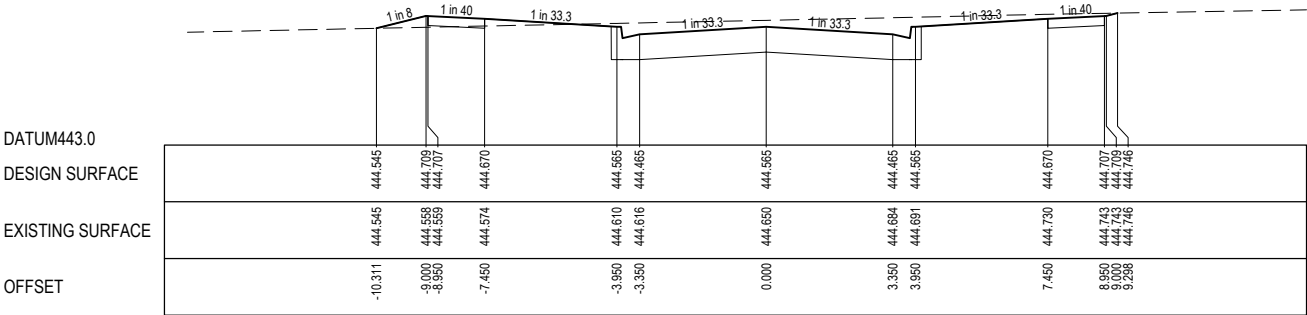
LEGEND

EXISTING SURFACE

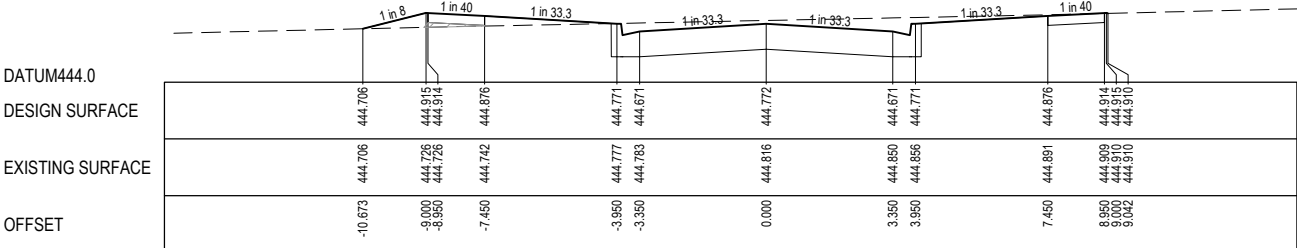
DESIGN SURFACE



CH 6464.430



CH 6448.130

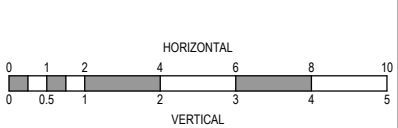


CH 6433.130

APPROVED
By JeffColb at 12:33 pm, Oct 02, 2019

APPROVED PLANS
AS-CONSTRUCTED PLANS

© COPYRIGHT All rights reserved Beveridge Williams & Co. Pty Ltd has granted a licence to the principle to use this document for its intended purpose. No unauthorised copying is permitted									
					G	AS CONSTRUCTED	01.10.19	JS	JZ
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	29.04.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	11.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	04.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	29.03.19	JS	JZ
P0	ISSUED FOR INFORMATION	19.10.18	JS	JZ	B	ISSUED FOR CONSTRUCTION	18.03.19	JS	JZ
REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.



Designed
Date
J.SPARK
19.10.2018

Drawn
J.SPARK

Approved
Date
J.ZAAL
25.07.2018

PS Number
PS1000

BW

Beveridge Williams

96 Main Road
Ballarat VIC 3350
ph: 03 5327 2000
www.beveridgewilliams.com.au

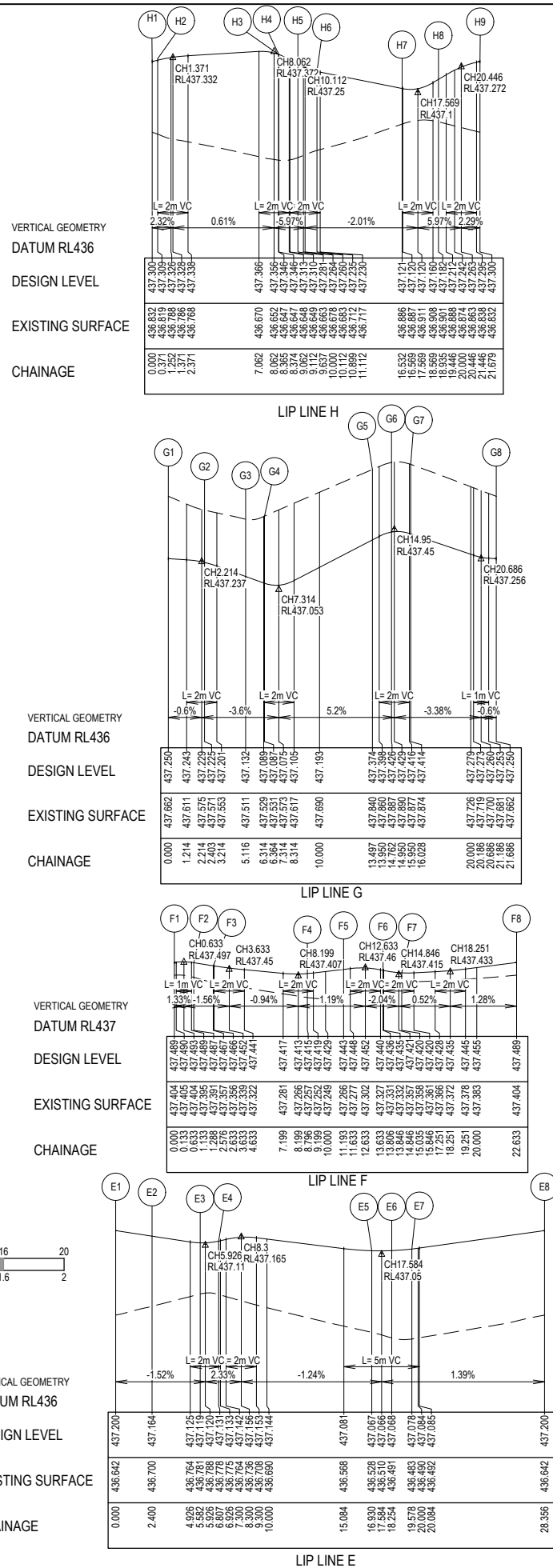
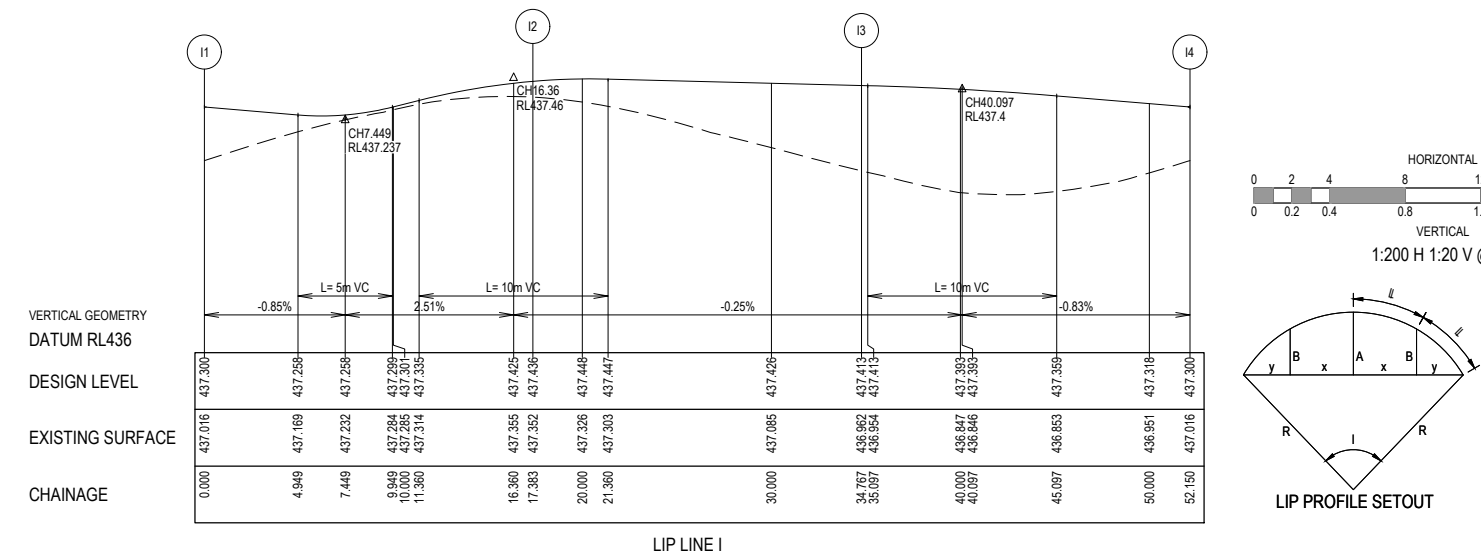
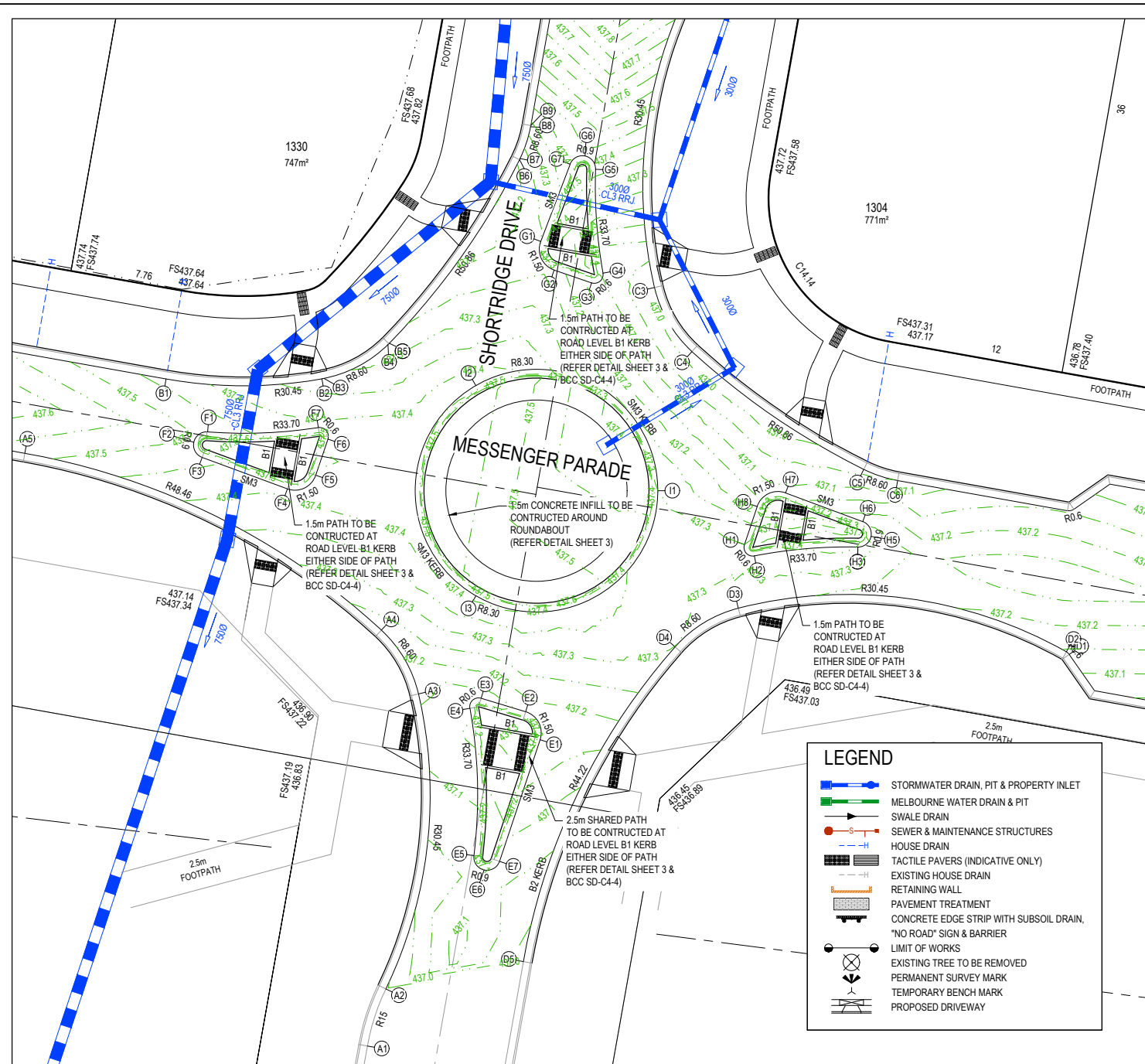
Project
Details
LUCAS
STAGE E2
CITY OF BALLARAT

Drawing
Title
BRIND WAY CROSS SECTIONS
(SHEET 7 OF 7)

Sheet 19 of 28

Scale
1:100 H 1:50 V @ A1

Project Ref	Stage No	Drawing No	Rev
1800971	E2	206	G

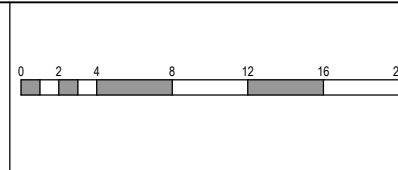


Alignment E									
Point no	Easting	Northing	RL						
E1	744700.256	5840675.989	437.200						
E2	744699.266	5840677.900	437.164						
E3	744696.219	5840678.819	437.119						
E4	744695.456	5840678.139	437.131						
E5	744695.731	5840668.057	437.067						
E6	744696.426	5840667.069	437.068						
E7	744697.478	5840667.662	437.078						
Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
E1 - E2	91.662	1.500	2.400	0.455	0.336	0.584	0.492	0.600	437.182
E3 - E4	116.959	0.600	1.225	0.286	0.210	0.293	0.218	0.306	437.121
E4 - E5	17.211	33.700	10.123	0.379	0.284	2.528	2.514	2.531	437.121
E5 - E6	84.297	0.900	1.324	0.233	0.173	0.324	0.280	0.331	437.066
E6 - E7	84.297	0.900	1.324	0.233	0.173	0.324	0.280	0.331	437.072
Alignment F									
Point no	Easting	Northing	RL						
F1	744677.505	5840697.041	437.489						
F2	744676.559	5840696.334	437.487						
F3	744677.127	5840695.299	437.467						
F4	744682.964	5840693.149	437.415						
F5	744684.903	5840694.077	437.443						
F6	744685.739	5840696.553	437.436						
F7	744685.080	5840697.338	437.420						
Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
F1 - F2	81.995	0.900	1.288	0.221	0.164	0.315	0.275	0.322	437.493
F2 - F3	81.995	0.900	1.288	0.221	0.164	0.315	0.275	0.322	437.477
F4 - F5	91.569	1.500	2.397	0.454	0.336	0.583	0.492	0.599	437.429
F6 - F7	117.358	0.600	1.229	0.288	0.211	0.294	0.219	0.307	437.426
F7 - F1	12.917	33.700	7.597	0.214	0.160	1.898	1.892	1.899	437.440
Alignment G									
Point no	Easting	Northing	RL						
G1	744700.303	5840710.069	437.250						
G2	744701.216	5840708.117	437.225						
G3	744703.780	5840707.232	437.132						
G4	744704.567	5840707.905	437.087						
G5	744704.057	5840715.006	437.374						
G6	744703.335	5840715.919	437.426						
G7	744702.316	5840715.357	437.414						
Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
G1 - G2	91.792	1.500	2.403	0.456	0.337	0.585	0.492	0.601	437.243
G3 - G4	119.216	0.600	1.248	0.296	0.217	0.298	0.219	0.312	437.110
G4 - G5	12.126	33.700	7.132	0.189	0.141	1.782	1.777	1.783	437.189
G5 - G6	80.559	0.900	1.265	0.213	0.158	0.310	0.272	0.316	437.407
G6 - G7	80.559	0.900	1.265	0.213	0.158	0.310	0.272	0.316	437.428
Alignment H									
Point no	Easting	Northing	RL						
H1	744714.243	5840689.335	437.300						
H2	744714.926	5840688.555	437.326						
H3	744721.999	5840689.163	437.346						
H4	744722.008	5840689.163	437.346						
H5	744722.911	5840689.894	437.281						
H6	744722.340	5840690.906	437.235						
H7	744717.059	5840692.866	437.121						
H8	744715.115	5840691.936	437.182						
Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
H1 - H2	119.525	0.600	1.252	0.298	0.218	0.299	0.219	0.313	437.314
H2 - H3	12.093	33.700	7.113	0.187	0.141	1.777	1.772	1.778	437.353
H4 - H5	80.395	0.900	1.263	0.213	0.158	0.309	0.272	0.316	437.316
H5 - H6	80.395	0.900	1.263	0.213	0.158	0.309	0.272	0.316	437.254
H7 - H8	91.821	1.500	2.404	0.456	0.338	0.585	0.492	0.601	437.124
Alignment I									
Point no	Easting	Northing	RL						
I1	744708.311	5840693.022	437.300						
I2	744695.861	5840700.210	437.436						
I3	744695.861	5840685.834	437.413						
Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
I1 - I2	120.000	8.300	17.383	4.150	3.038	4.150	3.038	4.346	437.273
I2 - I3	120.000	8.300	17.383	4.150	3.038	4.150	3.038	4.346	437.435
I3 - I1	120.000	8.300	17.383	4.150	3.038	4.150	3.038	4.346	437.371

APPROVED

By JeffColb at 12:33 pm, Oct 02, 2019

© COPYRIGHT All rights reserved Beveridge Williams & Co. Pty Ltd has granted a licence to the principle to use this document for its intended purpose. No unauthorised copying is permitted									
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	G	AS CONSTRUCTED	01.10.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	29.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	11.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	04.04.19	JS	JZ
P0	ISSUED FOR INFORMATION	19.10.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	29.03.19	JS	JZ
REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.



Designed Date
J.SPARK
19.10.2018

Drawn
J.SPARK

Approved Date
J.ZAAL
25.07.2018

PS Number
PS1000

Beveridge Williams
96 Main Road
Ballarat VIC 3350
ph: 03 9327 2000
www.beveridgewilliams.com.au

Project Details
LUCAS
STAGE E2
CITY OF BALLARAT

Drawing Title
INTERSECTION DETAILS
(SHEET 2 OF 4)

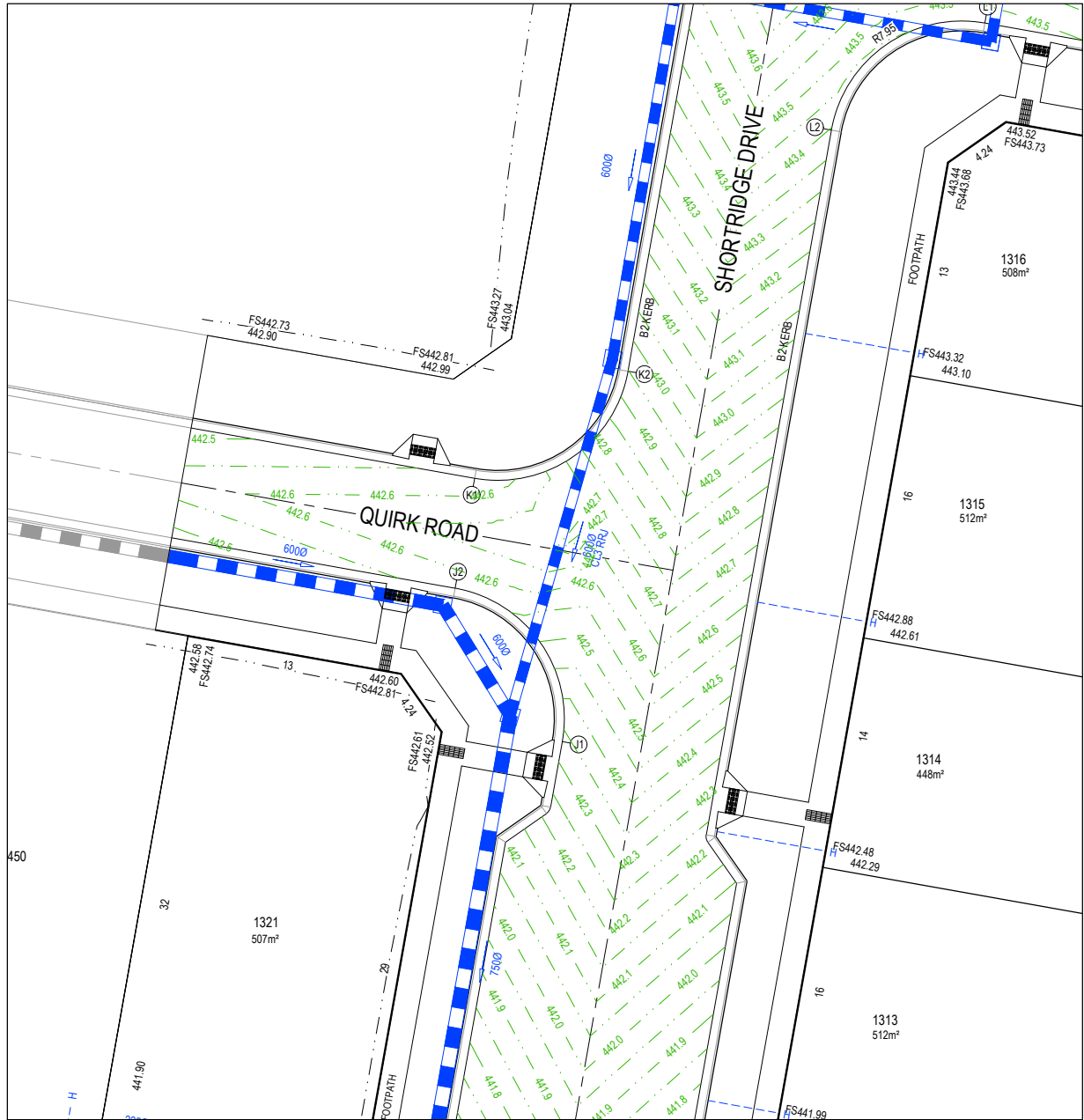
Sheet 21 of 28
Scale
1:200 @ A1

Project Ref
1800971

Stage No
E2

Drawing No
301

Rev
G



Alignment J

Point no	Easting	Northing	RL
J1	744731.183	5840895.637	442.332
J2	744724.746	5840904.855	442.567

Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
J1 - J2	90.000	7.950	12.488	2.329	1.723	3.042	2.579	3.122	442.498

Alignment K

Point no	Easting	Northing	RL
K1	744725.918	5840911.452	442.567
K2	744735.137	5840917.889	442.948

Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
K1 - K2	90.000	7.950	12.488	2.329	1.723	3.042	2.579	3.122	442.722

Alignment L

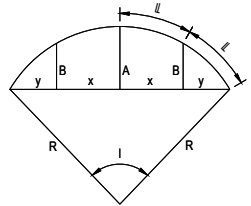
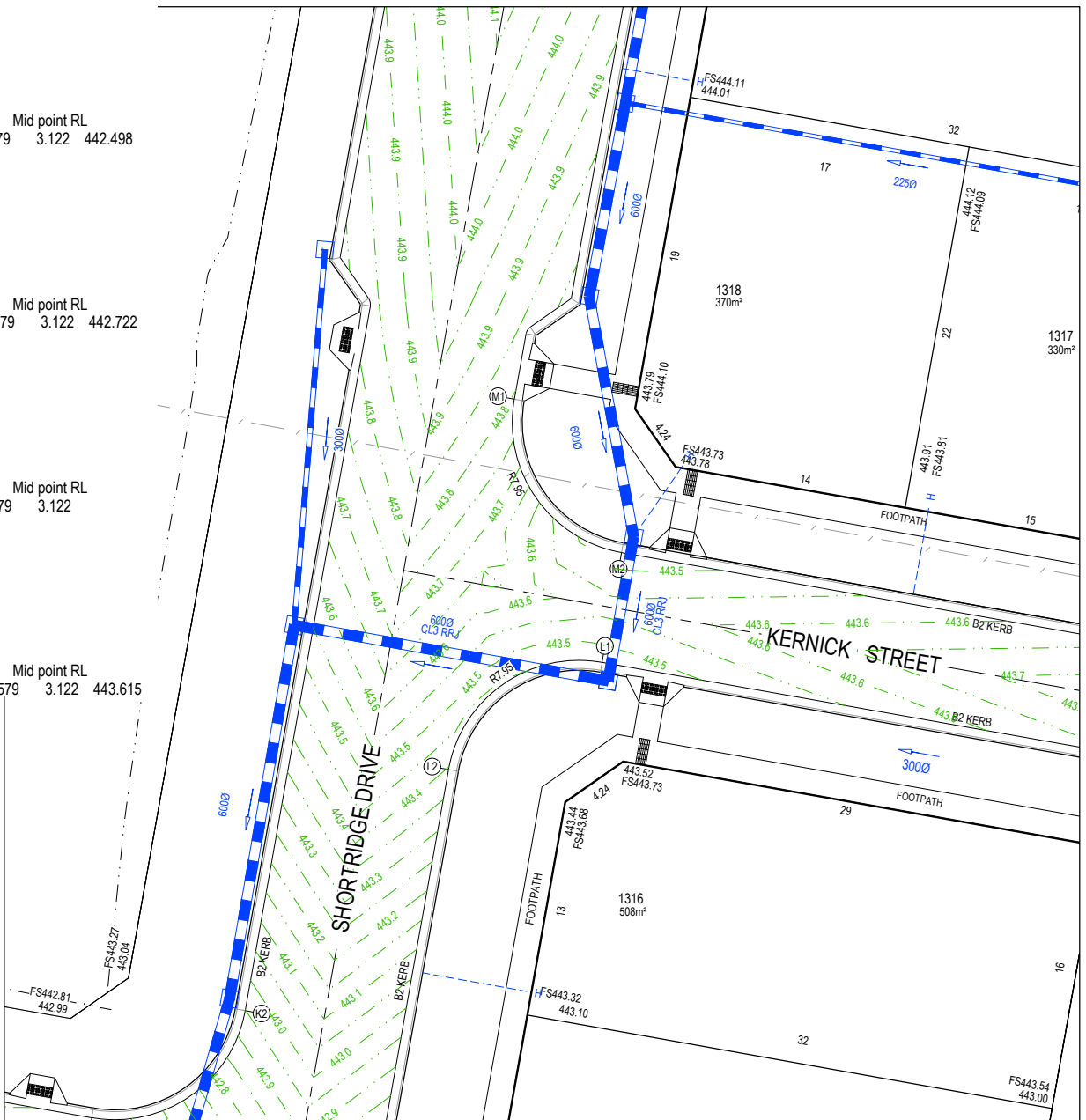
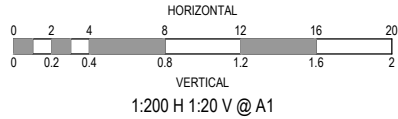
Point no	Easting	Northing	RL
L1	744725.918	5840911.452	442.567
L2	744735.137	5840917.889	442.948

Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
L1 - L2	90.000	7.950	12.488	2.329	1.723	3.042	2.579	3.122	442.722

Alignment M

Point no	Easting	Northing	RL
M1	744751.312	5840954.626	443.794
M2	744757.749	5840945.408	443.470

Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
M1 - M2	90.000	7.950	12.488	2.329	1.723	3.042	2.579	3.122	443.615



VERTICAL GEOMETRY	DATUM RL442	DESIGN LEVEL	EXISTING SURFACE	CHAINAGE
LIP LINE J				
		442.332	442.505	0.000
		442.414	442.573	3.122
		442.498	442.645	6.244
		442.567	442.699	9.366
		442.567	442.707	10.000
		442.567	442.728	12.488

VERTICAL GEOMETRY	DATUM RL442	DESIGN LEVEL	EXISTING SURFACE	CHAINAGE
LIP LINE K				
		442.567	442.894	0.000
		442.614	442.889	3.122
		442.722	442.905	6.244
		442.848	442.952	9.366
		442.870	442.965	10.000
		442.948	443.023	12.488

VERTICAL GEOMETRY	DATUM RL443	DESIGN LEVEL	EXISTING SURFACE	CHAINAGE
LIP LINE L				
		443.470	443.626	0.000
		443.426	443.462	10.000
		443.426	443.451	10.477
		443.415	443.428	11.477
		443.398	443.408	12.477
		443.386	443.395	12.488

VERTICAL GEOMETRY	DATUM RL443	DESIGN LEVEL	EXISTING SURFACE	CHAINAGE
LIP LINE M				
		443.794	443.777	0.000
		443.732	443.752	3.122
		443.615	443.731	6.244
		443.506	443.723	9.366
		443.492	443.724	10.000
		443.470	443.725	12.488

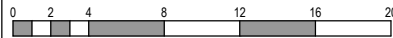
- LEGEND**
- STORMWATER DRAIN, PIT & PROPERTY INLET
 - MELBOURNE WATER DRAIN & PIT
 - SWALE DRAIN
 - SEWER & MAINTENANCE STRUCTURES
 - HOUSE DRAIN
 - TACTILE PAVERS (INDICATIVE ONLY)
 - EXISTING HOUSE DRAIN
 - RETAINING WALL
 - PAVEMENT TREATMENT
 - CONCRETE EDGE STRIP WITH SUBSOIL DRAIN.
 - "NO ROAD" SIGN & BARRIER
 - LIMIT OF WORKS
 - EXISTING TREE TO BE REMOVED
 - PERMANENT SURVEY MARK
 - TEMPORARY BENCH MARK
 - PROPOSED DRIVEWAY

APPROVED
By Jeff Colb at 12:33 pm, Oct 02, 2019

APPROVED PLANS
AS-CONSTRUCTED PLANS

© COPYRIGHT All rights reserved
Beveridge Williams & Co. Pty Ltd has granted a licence to the principle to use this document for its intended purpose.
No unauthorised copying is permitted

REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	01.10.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	29.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	11.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	04.04.19	JS	JZ
P0	ISSUED FOR INFORMATION	19.10.18	JS	JZ	B	ISSUED FOR CONSTRUCTION	29.03.19	JS	JZ
							18.03.19	JS	JZ



Designed
Date
J.SPARK
19.10.2018

Drawn
J.SPARK

Approved
Date
J.ZAAL
25.07.2018

PS Number
PS1000

BW Beveridge Williams

96 Main Road
Ballarat VIC 3350
ph: 03 5327 2000
www.beveridgewilliams.com.au

Project Details
LUCAS
STAGE E2
CITY OF BALLARAT

Drawing Title
INTERSECTION DETAILS
(SHEET 3 OF 4)

Sheet 22 of 28

Scale
1:200 @ A1

Project Ref
1800971

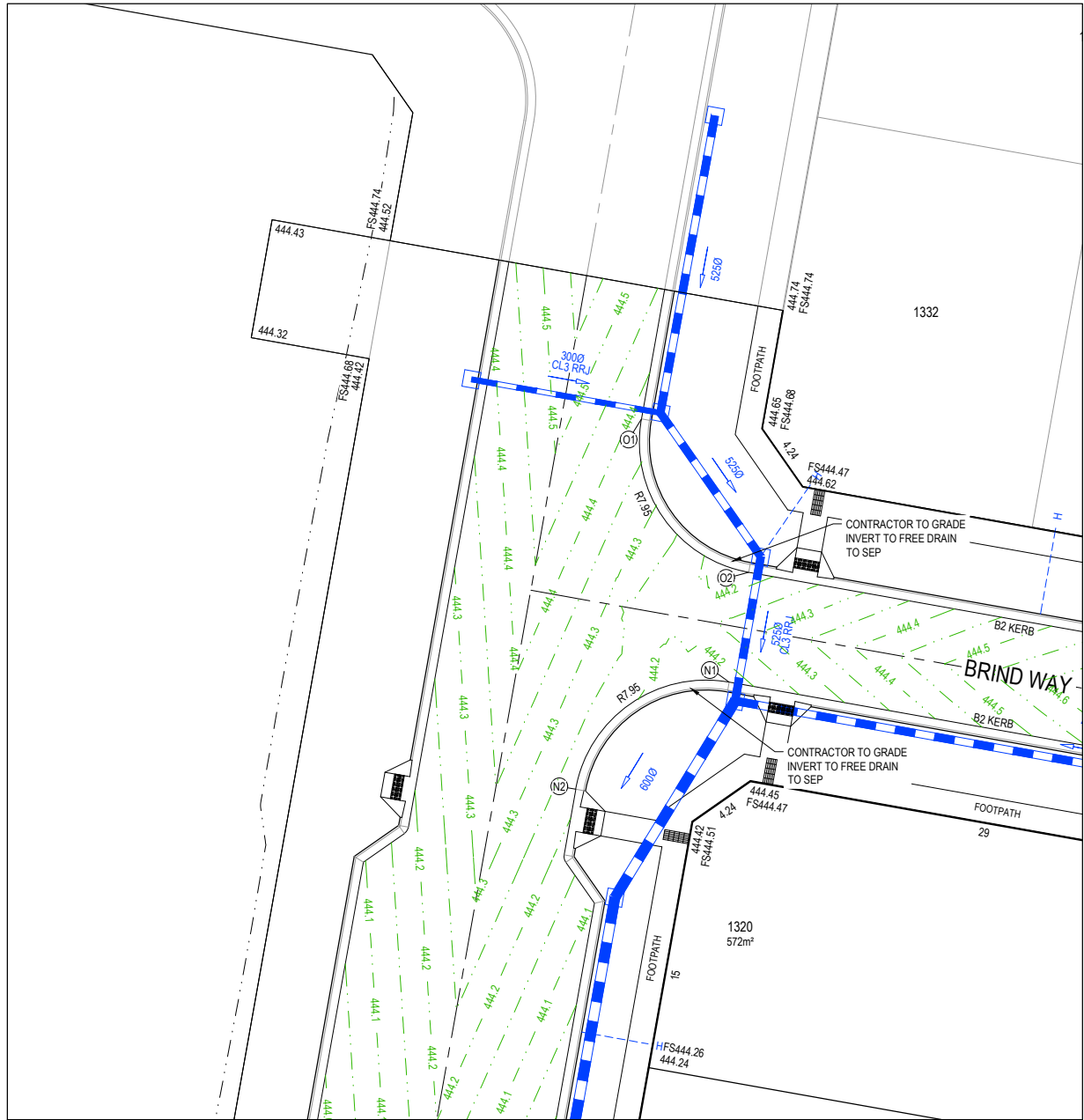
Stage No
E2

Drawing No
302

Rev
G



X:\181800971\Lucas_E2\Drawings\1800971-E2-300-INT.dwg



Alignment N

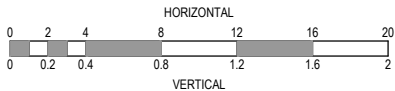
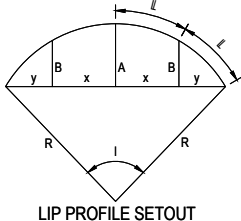
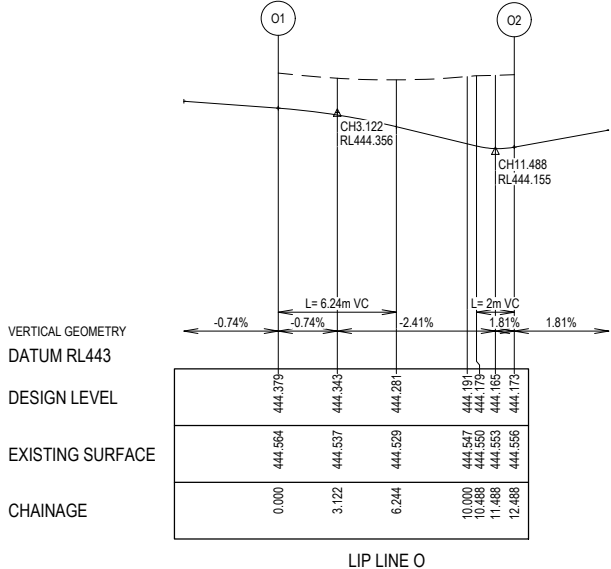
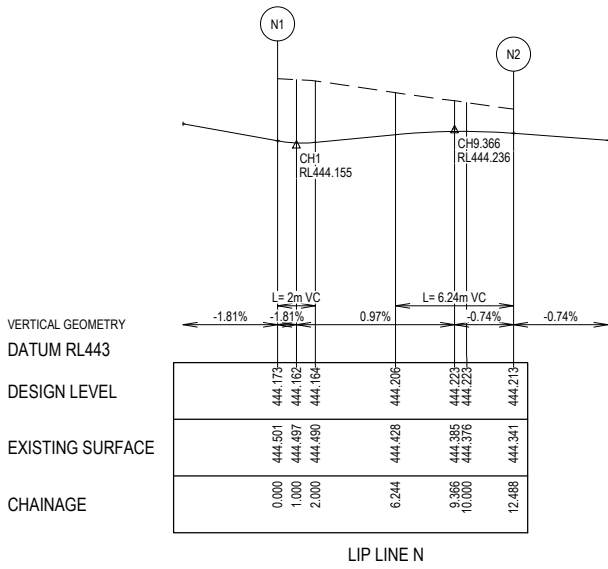
Point no	Easting	Northing	RL
N1	744770.221	5841015.609	444.173
N2	744761.003	5841009.172	444.213

Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
N1 - N2	90.000	7.950	12.488	2.329	1.723	3.042	2.579	3.122	444.206

Alignment O

Point no	Easting	Northing	RL
O1	744764.956	5841031.423	444.379
O2	744771.393	5841022.205	444.173

Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
O1 - O2	90.000	7.950	12.488	2.329	1.723	3.042	2.579	3.122	444.281

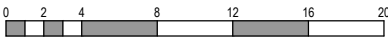


- LEGEND
- STORMWATER DRAIN, PIT & PROPERTY INLET
 - MELBOURNE WATER DRAIN & PIT
 - SWALE DRAIN
 - SEWER & MAINTENANCE STRUCTURES
 - HOUSE DRAIN
 - TACTILE PAVERS (INDICATIVE ONLY)
 - EXISTING HOUSE DRAIN
 - RETAINING WALL
 - PAVEMENT TREATMENT
 - CONCRETE EDGE STRIP WITH SUBSOIL DRAIN
 - "NO ROAD" SIGN & BARRIER
 - LIMIT OF WORKS
 - EXISTING TREE TO BE REMOVED
 - PERMANENT SURVEY MARK
 - TEMPORARY BENCH MARK
 - PROPOSED DRIVEWAY

APPROVED
By Jeff Colb at 12:34 pm, Oct 02, 2019

APPROVED PLANS
AS-CONSTRUCTED PLANS

REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	29.04.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	11.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	04.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	29.03.19	JS	JZ
P0	ISSUED FOR INFORMATION	19.10.18	JS	JZ	B	ISSUED FOR CONSTRUCTION	18.03.19	JS	JZ



Designed
Date
J.SPARK
19.10.2018

Drawn
J.SPARK

Approved
Date
J.ZAAL
25.07.2018

PS Number
PS1000

BW Beveridge Williams

96 Main Road
Ballarat VIC 3350
ph: 03 5327 2000
www.beveridgewilliams.com.au

Project
Details
LUCAS
STAGE E2
CITY OF BALLARAT

Drawing
Title
INTERSECTION DETAILS
(SHEET 4 OF 4)

Sheet 23 of 28

Scale
1:200 @ A1

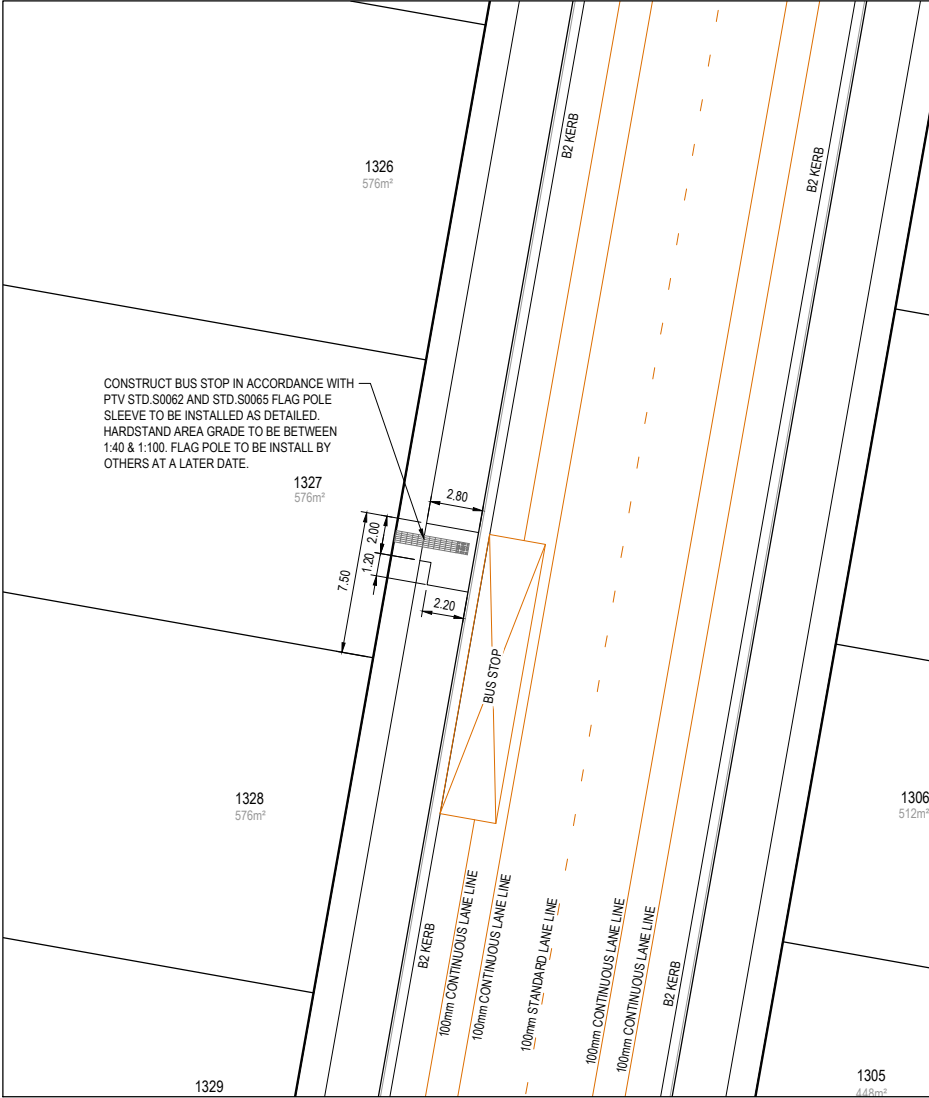
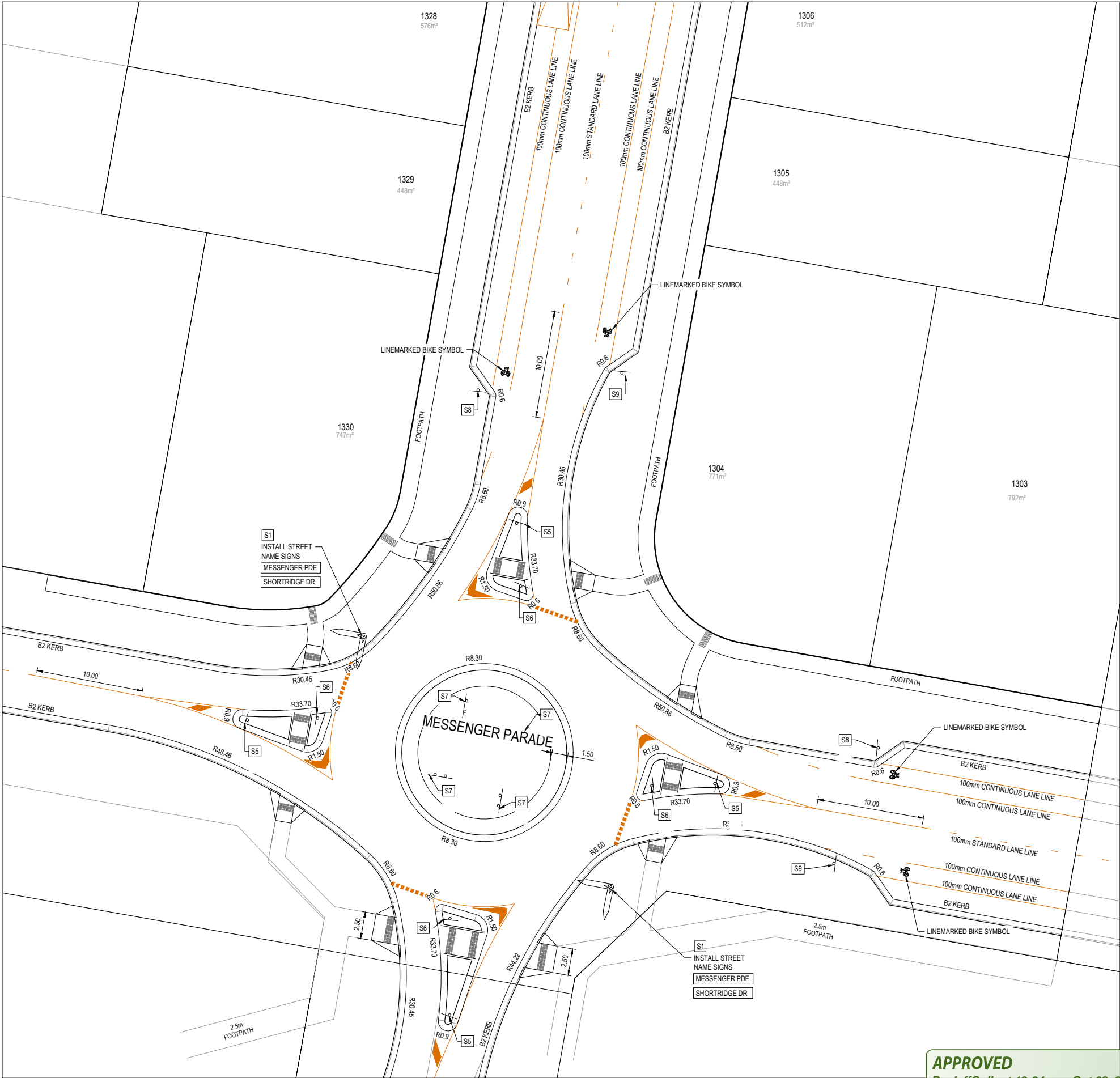
Project Ref
1800971

Stage No
E2

Drawing No
303

Rev
G



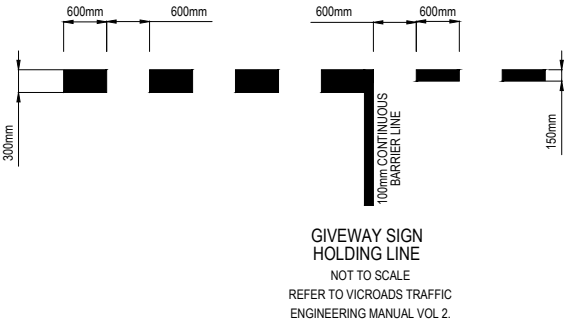


SIGN SCHEDULE

IDENTIFIER	NUMBER	SIGN
S1	STREET NAME SIGN	
S2	R1-2	
S3	D4-5	
S4	D4-2-1	
S5	S4	
S6	R1-3	
S7	D4-1-3	
S8	R7-1-4	
S9	R7-1-4 & R4-7	

SIGNS SHALL BE LOCATED SUCH THAT THE EDGE OF THE SIGN IS MINIMUM 0.5m BEHIND THE KERB INVERT.

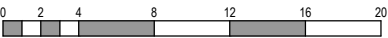
APPROVED PLANS
AS-CONSTRUCTED PLANS



- NOTES
- RRPM'S AT MAX 6m SPACING.
 - LINEMARKING TO BE EXTENDED AT LEAST 5m FROM THE TANGENT POINT
 - LINEMARKING IN ACCORDANCE WITH AS1742.
 - TGSI TO BE INSTALLED IN ACCORDANCE WITH COUNCIL STANDARD SD-C4-1

APPROVED
By Jeff Colb at 12:34 pm, Oct 02, 2019

REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	29.04.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	11.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	04.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	29.03.19	JS	JZ
P0	ISSUED FOR INFORMATION	19.10.18	JS	JZ	B	ISSUED FOR CONSTRUCTION	18.03.19	JS	JZ



Designed	J.SPARK
Date	19.10.2018
Drawn	J.SPARK
Approved	J.ZAAL
Date	25.07.2018
PS Number	PS1000

BW Beveridge Williams

96 Main Road
Ballarat VIC 3350
ph: 03 5327 2000
www.beveridgewilliams.com.au



Project Details	LUCAS STAGE E2 CITY OF BALLARAT
Drawing Title	SIGNAGE & LINE MARKING PLANS (SHEET 1 OF 2)

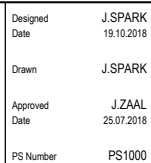
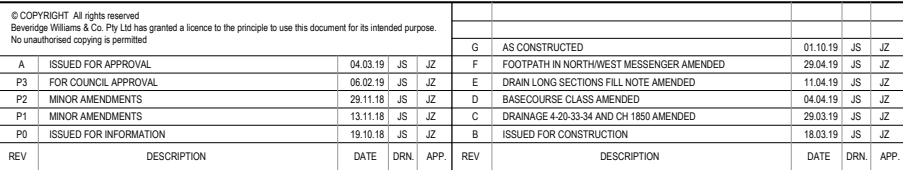
Sheet 24 of 28

Scale
1:200 @ A1

Project Ref	Stage No	Drawing No	Rev
1800971	E2	350	G



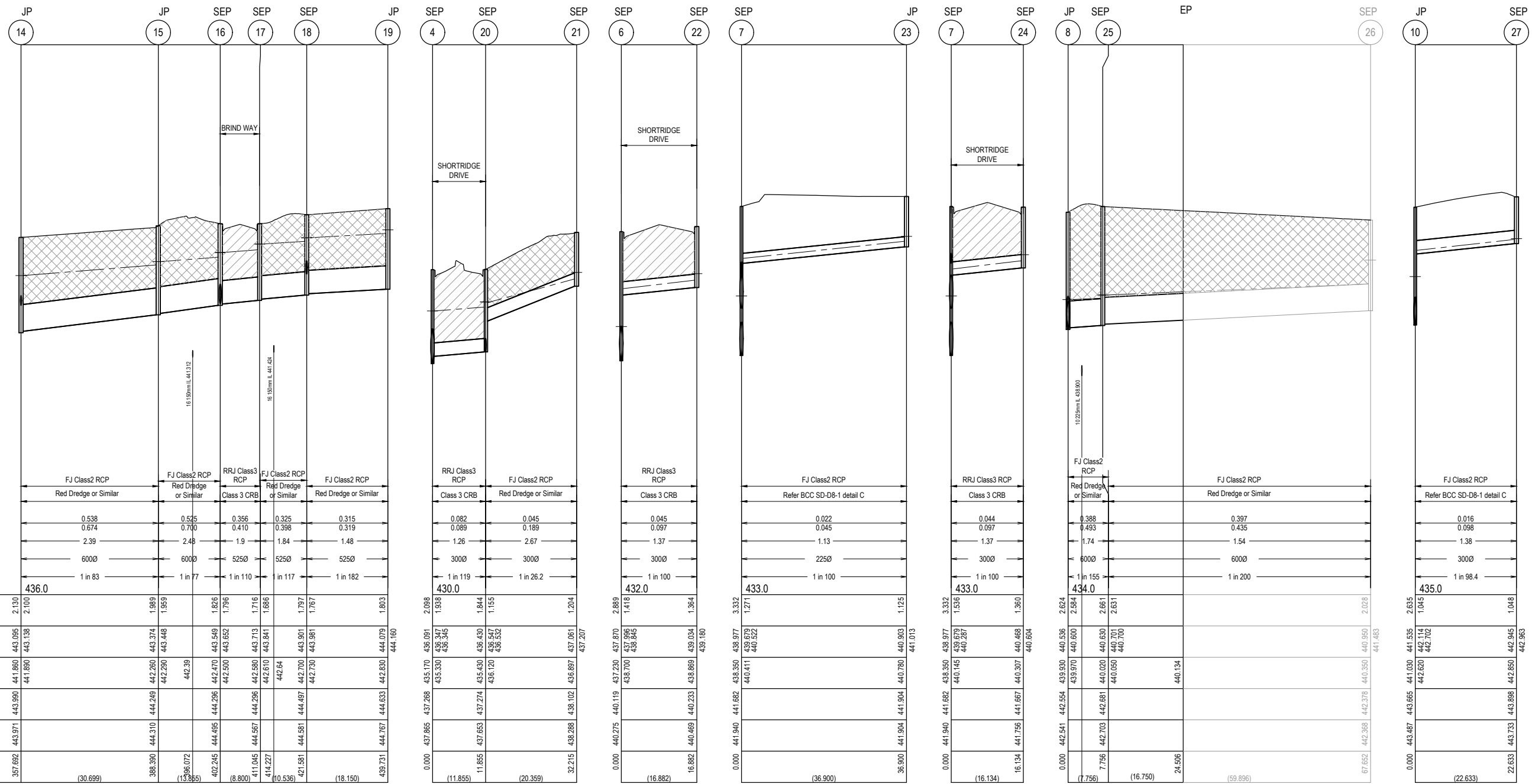
<u>LEGEND</u>	
_____	EXISTING SURFACE
_____	DESIGN SURFACE
_____	DRAINAGE PIPE/PIT
_____	EXISTING DRAINAGE PIPE/PIT
_____	HYDRAULIC GRADE LINE
	<p>DENOTES 20mm CLASS 3 FOR BACKFILL.</p>
	<p>DENOTES RED DREDGE OR OTHER APPROVED QUARRIED PRODUCT.</p>



Project Details	LUCAS STAGE E2 CITY OF BALLARAT
Drawing Title	DRAINAGE LONGITUDINAL SECTIONS (SHEET 1 OF 3)

Scale
1:500 H 1:50 V @ A1

Project Ref	Stage No	Drawing No	Rev
1800971	E2	400	G



APPROVED PLANS
AS-CONSTRUCTED PLANS

Sheet 27 of 28			
Scale 1:500 H 1:50 V @ A1			
Project Ref	Stage No	Drawing No	Rev
1800971	E2	401	G

LEGEND	
	EXISTING SURFACE
	DESIGN SURFACE
	DRAINAGE PIPE/PIT
	EXISTING DRAINAGE PIPE/PIT
	HYDRAULIC GRADE LINE
	DENOTES 20mm CLASS 3 FCR BACKFILL.
	DENOTES RED DREDGE OR OTHER APPROVED QUARRIED PRODUCT.

PIT SCHEDULE

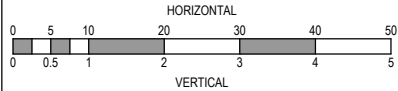
PIT NAME	TYPE	EASTING	NORTHING	INTERNAL WD	LEN	INLET DIA	INV LEV	OUTLET DIA	INV LEV	PIT SETOUT RL	DEPTH	REMARKS
1	ENDWALL	744666.207	5840651.575	0	0	750	433.615			437.131	2.961	ENDWALL & GRILL
2	SIDE ENTRY PIT	744678.842	5840689.695	1.0	0.9	750	434.450	750	434.420	437.471	3.051	PROVIDE STEP IRONS
3	SIDE ENTRY PIT	744680.930	5840701.270	1.0	0.9	750	434.700	750	434.670	437.479	2.809	PROVIDE STEP IRONS
4	SIDE ENTRY PIT	744696.869	5840714.164	1.0	0.9	750	435.200	750	435.170	437.314	2.144	PROVIDE STEP IRONS
						300	435.330					
5	SIDE ENTRY PIT	744698.286	5840729.620	1.0	0.9	750	435.500	750	435.470	437.889	2.419	PROVIDE STEP IRONS
6	SIDE ENTRY PIT	744711.145	5840801.999	1.0	0.9	750	437.260	750	437.230	440.119	2.889	PROVIDE STEP IRONS
						300	438.700					
7	SIDE ENTRY PIT	744722.865	5840867.966	1.0	0.9	750	439.400	750	438.350	441.682	3.332	PROVIDE STEP IRONS
						225	440.411					
						300	440.145					
8	JUNCTION PIT	744728.060	5840897.208	1.0	0.9	600	439.970	750	439.930	442.554	2.624	PROVIDE STEP IRONS
						750	439.970					
9	SIDE ENTRY PIT	744734.199	5840918.614	0.9	0.9	600	440.700	600	440.400	443.077	2.677	PROVIDE STEP IRONS
10	JUNCTION PIT	744738.083	5840941.048	0.9	0.9	600	441.060	600	441.030	443.665	2.635	PROVIDE STEP IRONS
						300	442.620					
11	SIDE ENTRY PIT	744756.946	5840937.696	0.9	0.9	600	441.330	600	441.300	443.584	2.284	PROVIDE STEP IRONS
12	SIDE ENTRY PIT	744758.474	5840946.346	0.9	0.9	600	441.490	600	441.460	443.585	2.125	PROVIDE STEP IRONS
13	SIDE ENTRY PIT	744755.809	5840960.784	0.9	0.9	600	441.680	600	441.650	443.900	2.250	PROVIDE STEP IRONS
14	JUNCTION PIT	744757.980	5840972.434	0.9	0.9	600	441.890	600	441.860	443.990	2.130	PROVIDE STEP IRONS
						225	442.466					
15	JUNCTION PIT	744763.350	5841002.659	0.9	0.9	600	442.290	600	442.260	444.249	1.989	PROVIDE STEP IRONS
16	SIDE ENTRY PIT	744770.578	5841014.479	0.9	0.9	525	442.500	600	442.470	444.296	1.826	PROVIDE STEP IRONS
						450	442.500					
17	SIDE ENTRY PIT	744772.118	5841023.143	0.9	0.9	525	442.610	525	442.580	444.296	1.716	PROVIDE STEP IRONS
18	SIDE ENTRY PIT	744766.086	5841031.781	0.9	0.9	525	442.730	525	442.700	444.497	1.797	PROVIDE STEP IRONS
						300	443.169					
19	JUNCTION PIT	744769.359	5841049.634	0.9	0.9			525	442.830	444.633	1.803	PROVIDE STEP IRONS
20	SIDE ENTRY PIT	744708.433	5840711.549	0.9	0.9	300	436.120	300	435.430	437.274	1.844	PROVIDE STEP IRONS
						300	435.430					
21	JUNCTION PIT	744714.884	5840730.859	0.6	0.9			300	436.897	438.031	1.134	PROVIDE STEP IRONS
22	SIDE ENTRY PIT	744727.896	5840804.101	0.9	0.9			300	438.869	440.233	1.364	PROVIDE STEP IRONS
23	JUNCTION PIT	744686.534	5840874.420	0.6	0.9			225	440.780	441.904	1.125	PROVIDE STEP IRONS
24	SIDE ENTRY PIT	744738.645	5840864.604	0.9	0.9			300	440.307	441.667	1.360	PROVIDE STEP IRONS
25	JUNCTION PIT	744724.004	5840903.819	1.0	0.9	750	440.050	750	440.020	442.681	2.661	PROVIDE STEP IRONS
26	SIDE ENTRY PIT	744665.049	5840914.395	0.9	0.9			750	440.350	442.378	2.028	PROVIDE STEP IRONS
27	SIDE ENTRY PIT	744739.932	5840963.605	0.75	0.9			300	442.850	443.898	1.048	PROVIDE STEP IRONS
28	JUNCTION PIT	744792.243	5840966.347	0.9	0.9	225	443.370	225	443.340	444.147	0.807	
29	JUNCTION PIT	744794.342	5840978.162	0.9	0.9	225	443.560	225	443.530	444.295	0.765	
30	JUNCTION PIT	744859.325	5840966.617	0.6	0.9			225	444.180	444.867	0.687	
31	SIDE ENTRY PIT	744754.738	5841033.797	0.75	0.9			300	443.300	444.494	1.194	PROVIDE STEP IRONS
32	SIDE ENTRY PIT	744836.873	5841002.599	0.9	0.9			450	442.900	445.019	2.119	PROVIDE STEP IRONS
33	SIDE ENTRY PIT	744715.886	5840699.448	0.9	0.9	300	435.560	300	435.530	437.071	1.541	PROVIDE STEP IRONS
34	GRATED PIT	744704.783	5840696.140	0.6	0.9			300	435.650	437.444	1.794	PROVIDE STEP IRONS

1. SETOUT CO-ORDINATES TO PIT CENTRE OF A 900X900 PIT
2. SETOUT LEVEL TO PIT COVER LEVEL
3. STEP IRONS ARE TO BE PROVIDED IN PITS DEEPER THAN 1m
4. COVER LEVELS AND PIT CO-ORDINATES ARE APPROX ONLY AND SHOULD BE CONSTRUCTED TO SUIT FINISHED SURFACE
5. PITS IN NON TRAFFICABLE AREAS TO BE CONSTRUCTED WITH CONCRETE LIDS AND SURROUNDS AS PER BALLARAT CITY STANDARD DRAWING SD-P1-1 / SD-P10-1
6. PITS IN TRAFFICABLE AREAS TO BE CONSTRUCTED WITH HEAVY DUTY LIDS AND SURROUNDS.

APPROVED
By JeffColb at 12:34 pm, Oct 02, 2019

PLANS FOR APPROVAL
AS-CONSTRUCTED PLANS

© COPYRIGHT All rights reserved Beveridge Williams & Co. Pty Ltd has granted a licence to the principle to use this document for its intended purpose. No unauthorised copying is permitted									
					G	AS CONSTRUCTED	01.10.19	JS	JZ
A	ISSUED FOR APPROVAL	04.03.19	JS	JZ	F	FOOTPATH IN NORTHWEST MESSENGER AMENDED	29.04.19	JS	JZ
P3	FOR COUNCIL APPROVAL	06.02.19	JS	JZ	E	DRAIN LONG SECTIONS FILL NOTE AMENDED	11.04.19	JS	JZ
P2	MINOR AMENDMENTS	29.11.18	JS	JZ	D	BASECOURSE CLASS AMENDED	04.04.19	JS	JZ
P1	MINOR AMENDMENTS	13.11.18	JS	JZ	C	DRAINAGE 4-20-33-34 AND CH 1850 AMENDED	29.03.19	JS	JZ
P0	ISSUED FOR INFORMATION	19.10.18	JS	JZ	B	ISSUED FOR CONSTRUCTION	18.03.19	JS	JZ
REV	DESCRIPTION	DATE	DRN.	APP.	REV	DESCRIPTION	DATE	DRN.	APP.



Designed
Date
J.SPARK
19.10.2018

Drawn
J.SPARK

Approved
Date
J.ZAAL
25.07.2018

PS Number
PS1000



Project Details
LUCAS
STAGE E2
CITY OF BALLARAT

Drawing Title
DRAINAGE LONGITUDINAL SECTIONS
& PIT SCHEDULE (SHEET 3 OF 3)

Sheet 28 of 28

Scale
1:500 H 1:50 V @ A1

Project Ref
1800971

Stage No
E2

Drawing No
402

Rev
G