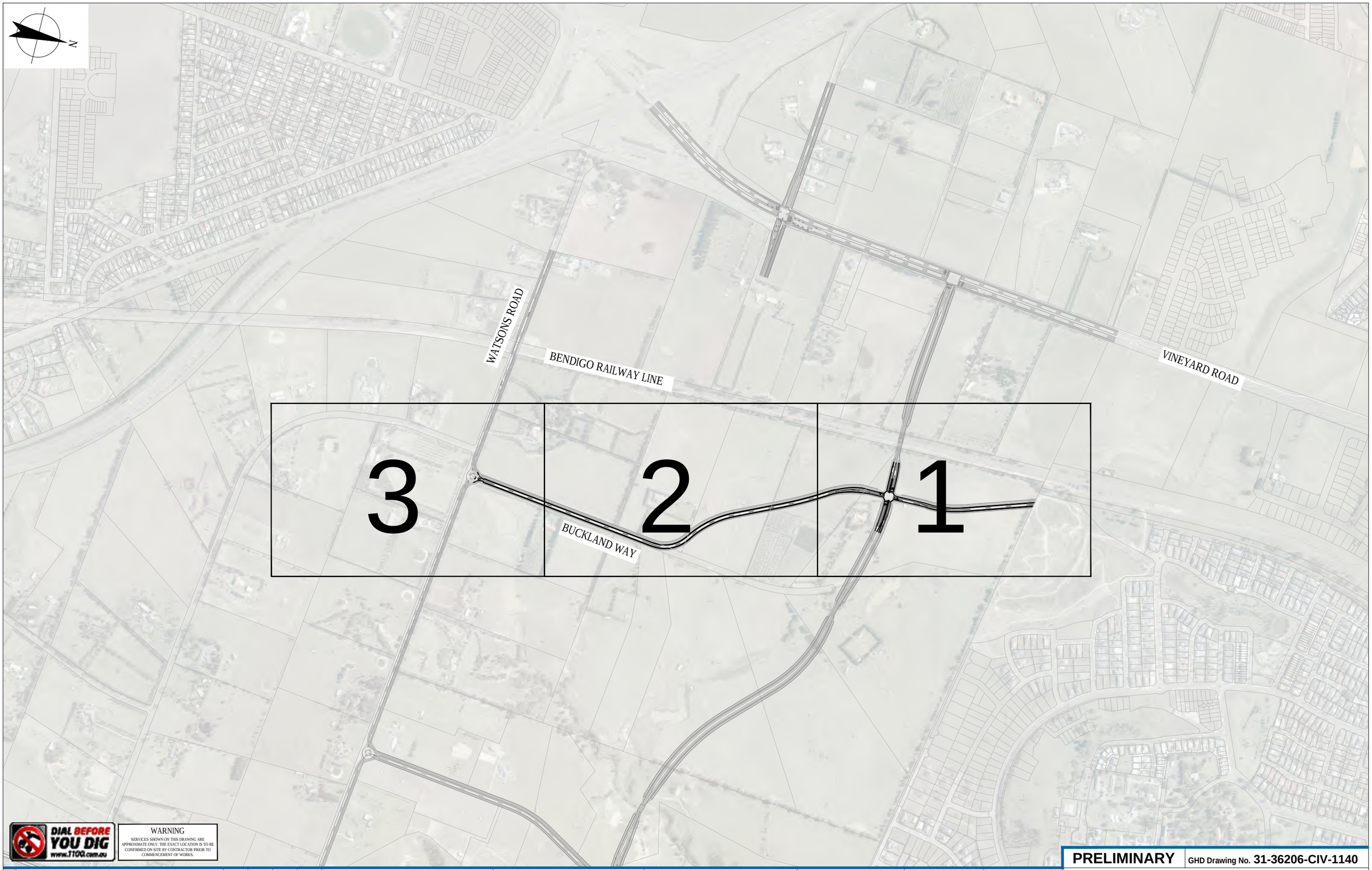

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WARNING

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No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Project Manager	Project Director	Date
E	UPDATED DESIGN - GHD		SL	LM*	MW*	18.09.19
D	AMENDED TO VPA COMMENTS - GHD		SL	LM*	MW*	06.08.19
C	AMENDED TO VPA COMMENTS - GHD		DH	LM*	MW*	27.05.19
B	UPDATED TO INCLUDE JACKSONS HILL OPTION 2		DH	-	-	25.07.16

0 50 100 150m

SCALE 1:5000 AT ORIGINAL SIZE

Victorian Planning Authority

GHD

Level 8, 180 Lonsdale Street, Melbourne VIC 3000 Australia
T 61 3 8687 8000 **F** 61 3 8687 8111
E melmail@ghd.com.au **W** www.ghd.com

DO NOT SCALE

Drawn D.COMBEN | Designer J.THAI
Drafting Check | Design Check
Approved (Project Director)
Date
Scale 1:2000

This Drawing must not be used for Construction unless signed as Approved

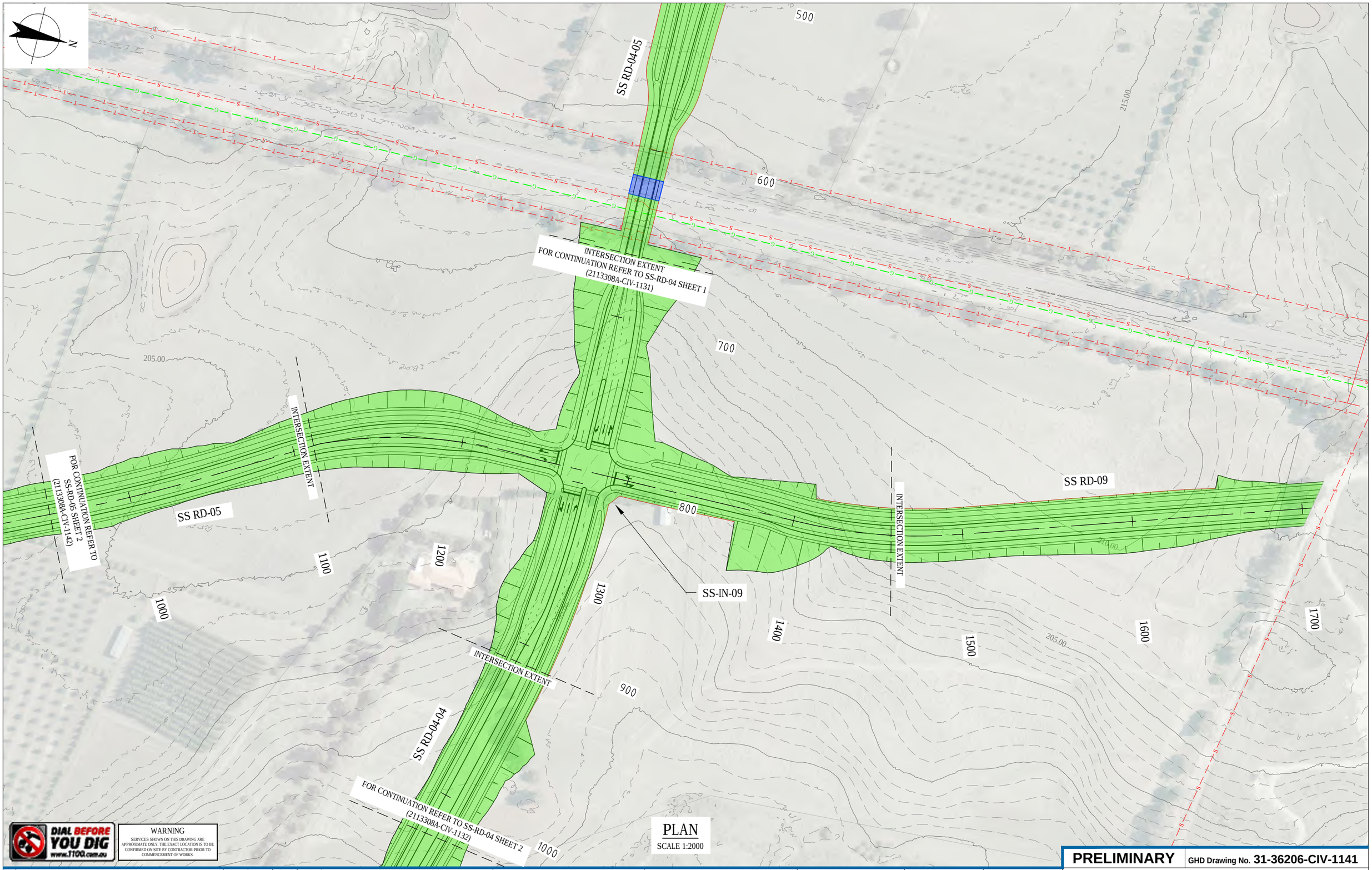
PRELIMINARY GHD Drawing No. **31-36206-CIV-1140**

Project **SUNBURY STH AND LANCEFIELD RD PSP**

Title **LAYOUT PLAN - ULTIMATE LAYOUT BUCKLAND WAY/JACKSONS HILL LINK (SS-RD-05)**

Original Size **A3** Drawing No: **2113308A-CIV-1140** Rev: **E**

Plot Date: 19 September 2019 - 10:47 AM Plotted By: Shane Laybourne Cad File No: G:\31\36206\CADD\Drawings\31-36206-CIV-1140.dwg



No	Revision	Drawn	Project Manager	Project Director	Date
I	UPDATED TO VPA COMMENTS - GHD	SL	LM*	MW*	07.10.19
H	UPDATED TO VPA COMMENTS - GHD	SL	LM*	MW*	18.09.19
G	UPDATED TO VPA COMMENTS - GHD	SL	LM*	MW*	06.08.19
F	UPDATED TO COMMENTS - GHD	SL	LM*	MW*	08.02.19
E	UPDATED TO VPA COMMENTS - GHD	DRE	LM*	MW*	03.12.18

Note: * indicates signatures on original issue of drawing or last revision of drawing

0 20 40 60m
SCALE 1:2000 AT ORIGINAL SIZE

Victorian Planning Authority

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Level 8, 180 Lonsdale Street, Melbourne VIC 3000 Australia
T 61 3 8687 8000 F 61 3 8687 8111
E melmail@ghd.com.au W www.ghd.com

DO NOT SCALE

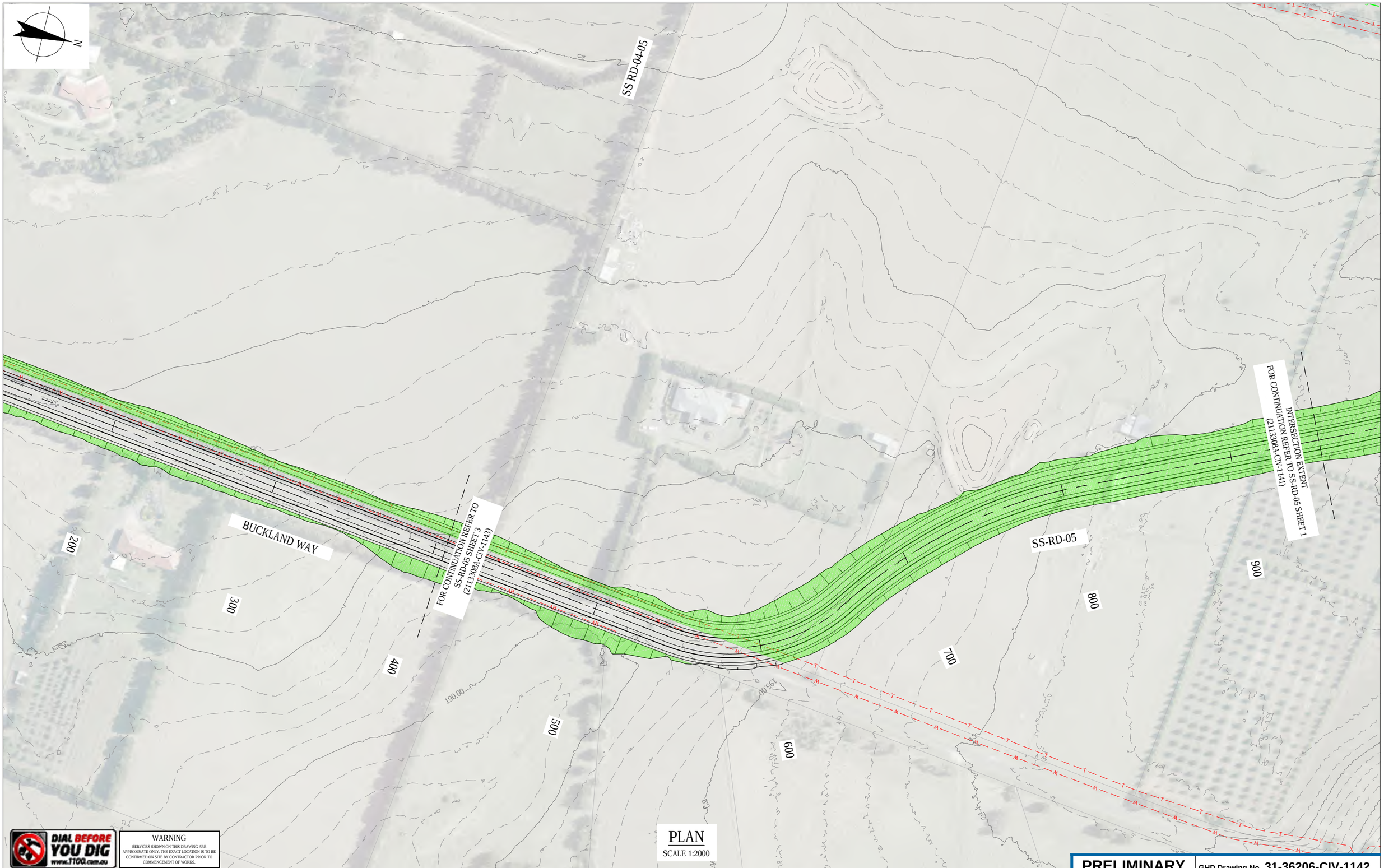
Drawn	D.COMBEN	Designer	J.THAI
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale	1:2000	This Drawing must not be used for Construction unless signed as Approved	

PRELIMINARY GHD Drawing No. 31-36206-CIV-1141

Project SUNBURY STH AND LANCEFIELD RD PSP
Title ALIGNMENT PLAN - ULTIMATE LAYOUT
BUCKLAND WAY/JACKSONS HILL LINK
(SS-RD5) SHEET 1

Original Size A3 Drawing No. 2113308A-CIV-1141 Rev: I

Plot Date: 21 October 2019 - 3:26 PM Plotted By: Nick van Agtmaal Cad File No: G:\31\36206\CADD\Drawings\31-36206-CIV-1141-1143.dwg



PLAN
SCALE 1:2000

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No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Project Manager	Project Director	Date
E	UPDATED TO VPA COMMENTS - GHD		SL	LM*	MW*	06.08.19

0 20 40 60m
SCALE 1:2000 AT ORIGINAL SIZE

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DO NOT SCALE

Drawn	D.COMBEN	Designer	J.THAI
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale	1:2000	This Drawing must not be used for Construction unless signed as Approved	

PRELIMINARY

GHD Drawing No. **31-36206-CIV-1142**

Project **SUNBURY STH AND LANCEFIELD RD PSP**

Title **ALIGNMENT PLAN - ULTIMATE LAYOUT BUCKLAND WAY/JACKSONS HILL LINK (SS-RD-05) SHEET 2**

Original Size **A3**

Drawing No: **2113308A-CIV-1142**

Rev: **E**

Plot Date: 8 August 2019 - 11:03 AM Plotted By: Doug Ewert Cad File No: \\ghdnet\ghd\AU\Melbourne\Projects\31\36206\CADD\Drawings\31-36206-CIV-1141-1143.dwg

PLAN
SCALE 1:2000

PRELIMINARY GHD Drawing No. 31-36206-CIV-1143

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Project Manager	Project Director	Date
F	UPDATED TO VPA COMMENTS - GHD		SL	LM*	MW*	07.10.19
E	UPDATED TO VPA COMMENTS - GHD		SL	LM*	MW*	06.08.19

0 20 40 60m
SCALE 1:2000 AT ORIGINAL SIZE

Victorian Planning Authority

GHD
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E melmail@ghd.com.au W www.ghd.com

DO NOT SCALE

Drawn	D.COMBEN	Designer	J.THAI
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale	1:2000	This Drawing must not be used for Construction unless signed as Approved	

Project SUNBURY STH AND LANCEFIELD RD PSP
Title ALIGNMENT PLAN - ULTIMATE LAYOUT
BUCKLAND WAY/JACKSONS HILL LINK
(SS-RD5) SHEET 3

Original Size A3 Drawing No: **2113308A-CIV-1143** Rev: F

Plot Date: 8 October 2019 - 9:26 AM Plotted By: Alina Pham Cad File No: N:\AU\Melbourne\Projects\31\36206\CADD\Drawings\31-36206-CIV-1141-1143.dwg

PLAN
SCALE 1:2000

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Project Manager	Project Director	Date
G	AMENDED TO VPA COMMENTS - GHD		SL	LM*	MW*	7.10.19
F	AMENDED TO VPA COMMENTS - GHD		SL	LM*	MW*	12.09.19
E	AMENDED TO VPA COMMENTS - GHD		DAC	LM*	MW*	02.08.18
D	ISSUED FOR REVIEW - GHD		DAC	GK*	MW*	05.06.18
C	ALIGNMENT MODIFIED DUE TO INTERSECTION SS-IT10 - PB		GW	-	-	28.10.16

0 20 40 60m
SCALE 1:2000 AT ORIGINAL SIZE

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Level 8, 180 Lonsdale Street, Melbourne VIC 3000 Australia
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DO NOT SCALE

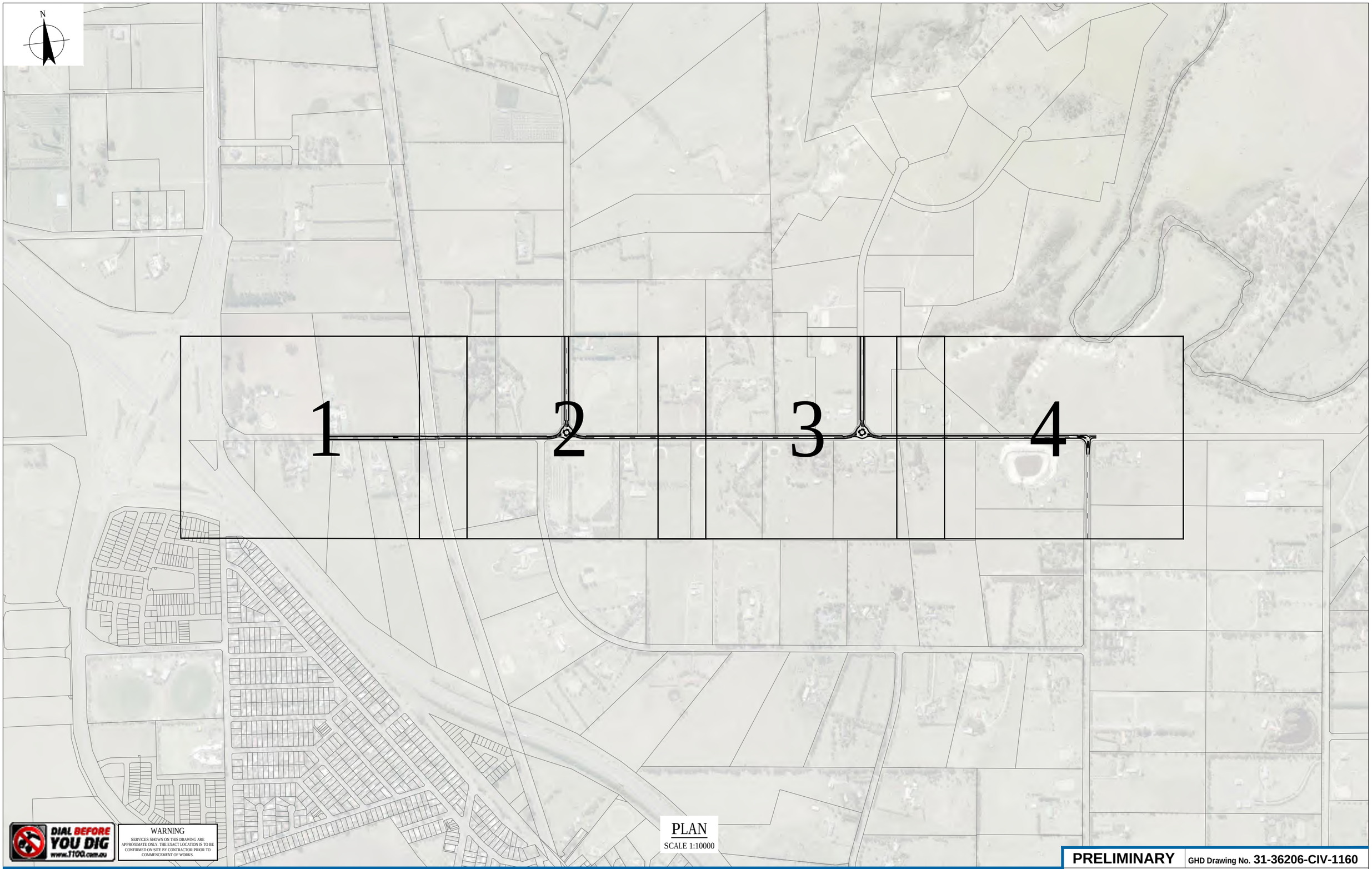
Drawn	D.COMBEN	Designer	G.KERR
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale	1:2000	This Drawing must not be used for Construction unless signed as Approved	

PRELIMINARY GHD Drawing No. **31-36206-CIV-1151**

Project **SUNBURY STH AND LANCEFIELD RD PSP**
Title **ALIGNMENT PLAN**
ULTIMATE LAYOUT
FOX FOLLOW DRIVE (SS-RD6) SHEET 1

Original Size **A3** Drawing No: **2113308A-CIV-1151** Rev: **G**

Plot Date: 8 October 2019 - 9:03 AM Plotted By: Alina Pham Cad File No: N:\AU\Melbourne\Projects\31\36206\CADD\Drawings\31-36206-CIV-1151.dwg



PLAN
SCALE 1:10000

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No	Revision	Drawn	Project Manager	Project Director	Date
F	INTERSECTION SS-IN-15 ADDED - GHD	SL	LM*	MW*	21.08.19
E	AMENDED TO VPA COMMENTS - GHD	SL	LM*	MW*	12.08.19
D	AMENDED TO VPA COMMENTS - GHD	SL	LM*	MW*	06.08.19
C	RE-ISSUED FOR INFORMATION - GHD	DAC	LM*	MW*	02.08.18

Note: * indicates signatures on original issue of drawing or last revision of drawing

0 100 200 300m
SCALE 1:10,000 AT ORIGINAL SIZE

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E melmail@ghd.com.au **W** www.ghd.com

DO NOT SCALE

Drawn D.COMBEN | Designer G.KERR
Drafting Check | Design Check
Approved (Project Director)
Date
Scale AS SHOWN

This Drawing must not be used for Construction unless signed as Approved

PRELIMINARY GHD Drawing No. **31-36206-CIV-1160**

Project **SUNBURY STH AND LANCEFIELD RD PSP**
Title **LAYOUT PLAN**
ULTIMATE LAYOUT
WATSONS ROAD (SS-RD-07)

Original Size **A3** Drawing No: **2113308A-CIV-1160** Rev: **F**

Plot Date: 21 August 2019 - 9:43 AM Plotted By: Shane Laybourne Cad File No: \\ghdnet\GHD\AU\Melbourne\Projects\31\36206\CADD\Drawings\31-36206-CIV-1160.dwg

50mm AT FULL SIZE

REV	DATE	DESCRIPTION	DRAWN	CHECK	DESIGN	VERIFY
C	9/09/16	CROSS SECTION MODIFIED	JM	GW	JM	GW
B	30/06/2016	CROSS SECTION CHANGED TO MODIFIED CONNECTOR	DH	GW	DH	DR
A	10/12/15	ISSUED FOR INFORMATION	RAM	GW	RAM	DR

SCALES

0 25 50m

SCALE 1:2000

A3 ORIGINAL

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY
VERIFY ALL DIMENSIONS ON SITE

APPROVED FOR AND ON BEHALF OF
PARSONS BRINCKERHOFF AUSTRALIA PTY LIMITED

SIGNED

DATE

PARSONS BRINCKERHOFF
Level 15
28 Freshwater Place
Southbank, Melbourne
VIC 3006
PO BOX 19016
Melbourne VIC 3006
Australia
ABN 80 078 004 798
Telephone +61 3 9861 1111
Facsimile +61 3 9861 1144
Email: melbourne@pb.com.au

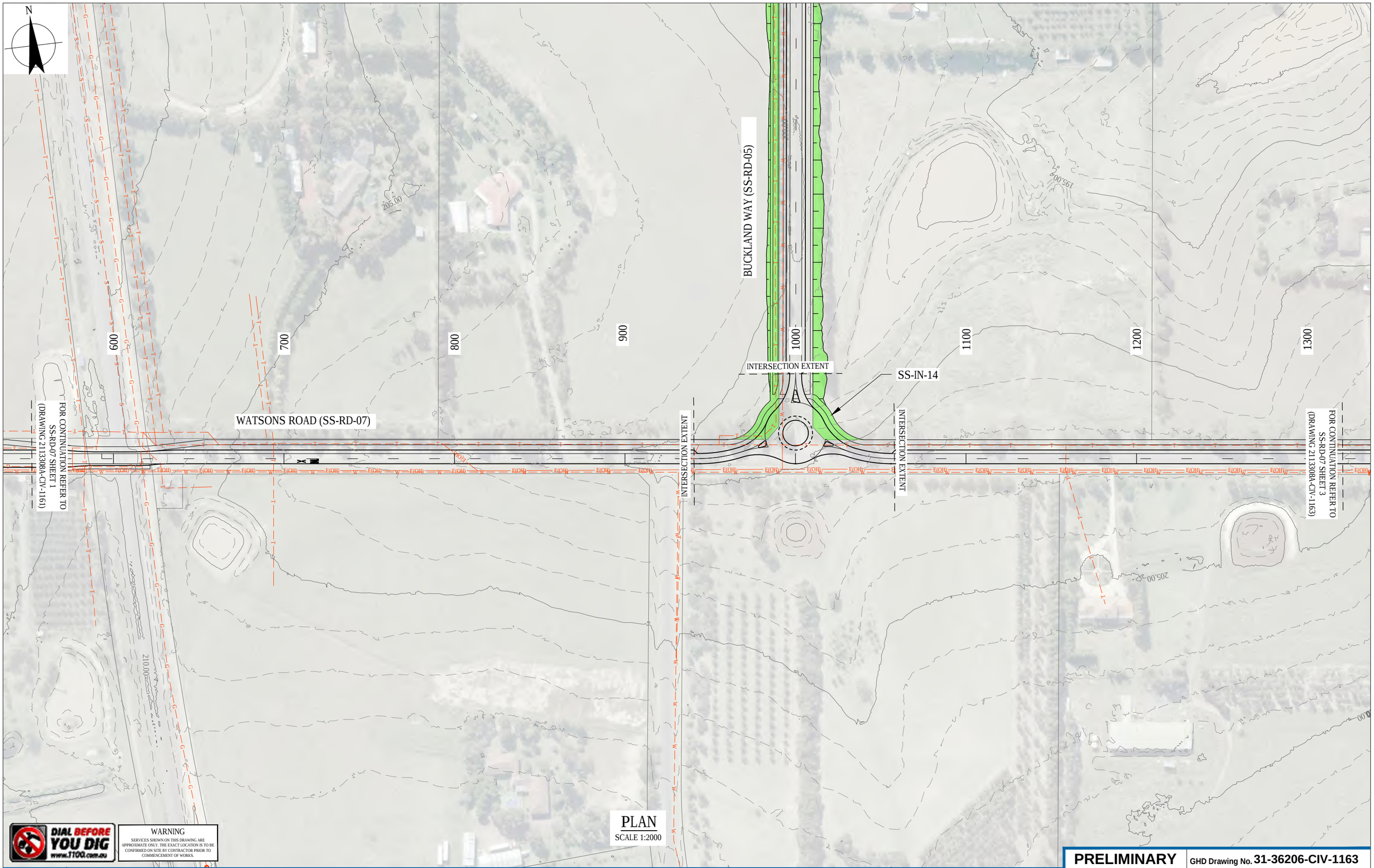
CLIENT

MPA METROPOLITAN PLANNING AUTHORITY

PROJECT
SUNBURY STH AND LANCEFIELD RD PSP

ALIGNMENT PLAN
ULTIMATE LAYOUT
WATSONS ROAD (SS-RD7)
SHEET 1

PROJECT No.	DISCIPLINE	NUMBER	REV.
2113308A	CIV	1161	C



PLAN
SCALE 1:2000

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No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Project Manager	Project Director	Date
C	AMENDED TO VPA COMMENTS - GHD		SL	LM*	MW*	12.08.19

0 20 40 60m
SCALE 1:2000 AT ORIGINAL SIZE

Victorian Planning Authority

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Level 8, 180 Lonsdale Street, Melbourne VIC 3000 Australia
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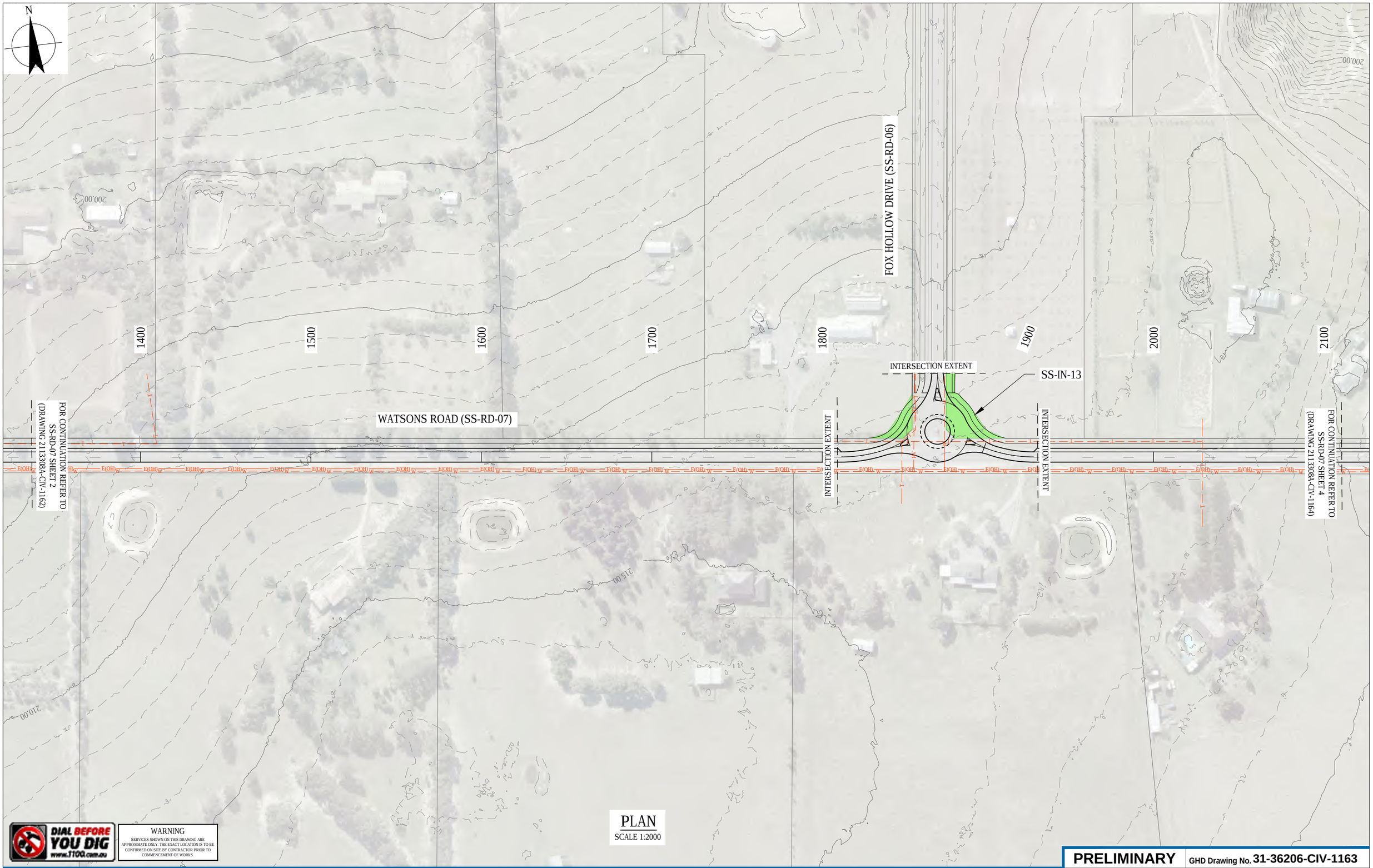
Drawn	D.COMBEN	Designer	G.KERR
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale	1:2000	This Drawing must not be used for Construction unless signed as Approved	

PRELIMINARY GHD Drawing No. 31-36206-CIV-1163

Project SUNBURY STH AND LANCEFIELD RD PSP
Title ALIGNMENT PLAN
ULTIMATE LAYOUT
WATSONS ROAD (SS-RD-07) SHEET 2

Original Size A3 Drawing No: 2113308A-CIV-1162 Rev: C

Plot Date: 12 August 2019 - 5:20 PM Plotted By: Shane Laybourne Cad File No: \\ghdnet\GHD\AU\Melbourne\Projects\31\36206\CADD\Drawings\31-36206-CIV-1162.dwg



PLAN
SCALE 1:2000

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No	Revision	Drawn	Project Manager	Project Director	Date
F	AMENDED TO VPA COMMENTS - GHD	SL	LM*	MW*	12.08.19
E	AMENDED TO VPA COMMENTS - GHD	DAC	LM*	MW*	02.08.18
D	ISSUED FOR REVIEW - GHD	DAC	GK*	MW*	05.06.18
C	RE-ISSUED FOR INFORMATION - GHD	DAC	GK*	MW*	30.05.18
B	UPDATED CROSS SECTION - PB	DH	-	-	25.07.16

Note: * indicates signatures on original issue of drawing or last revision of drawing

0 20 40 60m
SCALE 1:2000 AT ORIGINAL SIZE

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DO NOT SCALE

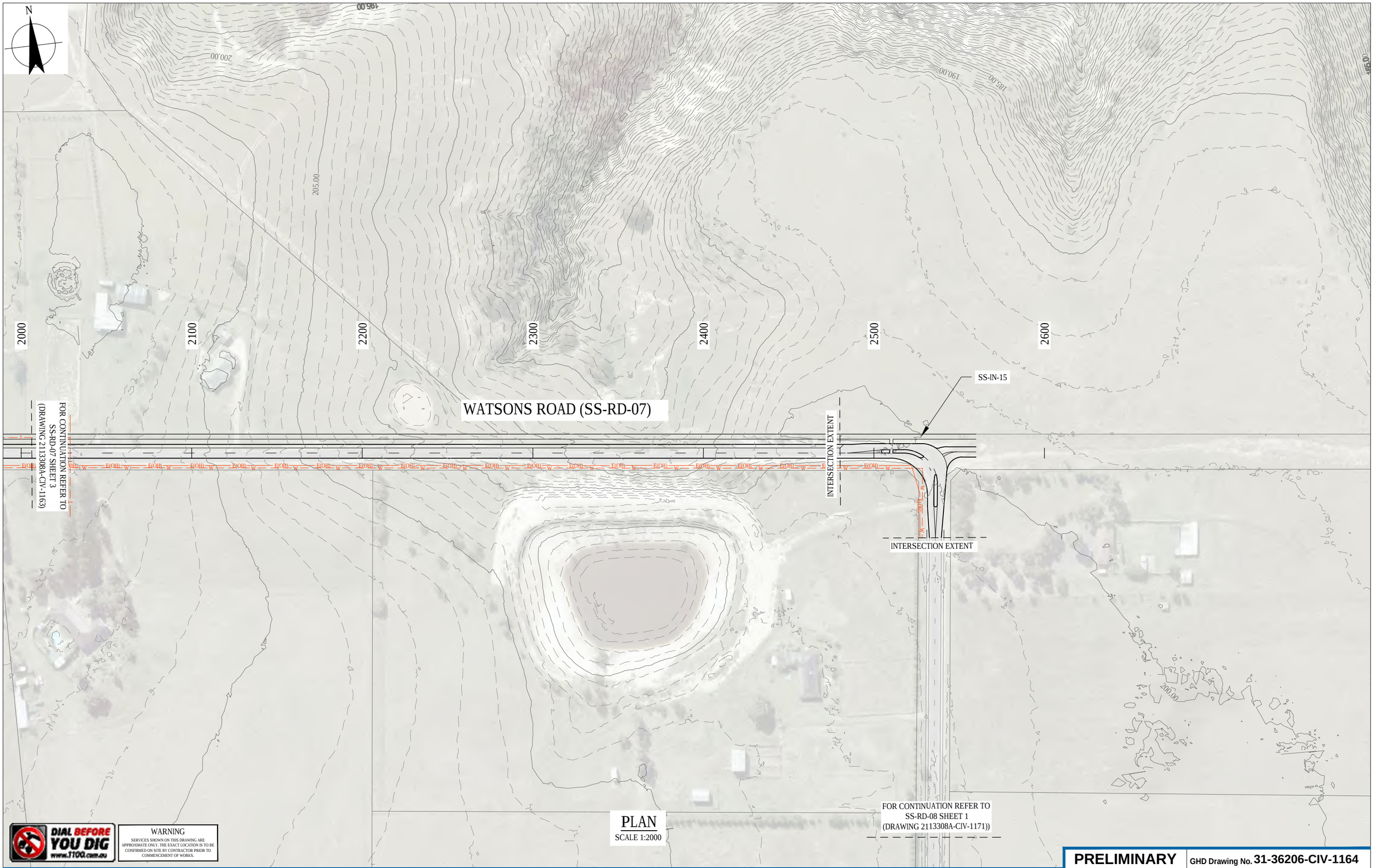
Drawn	D.COMBEN	Designer	G.KERR
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale	1:2000	This Drawing must not be used for Construction unless signed as Approved	

PRELIMINARY GHD Drawing No. 31-36206-CIV-1163

Project SUNBURY STH AND LANCEFIELD RD PSP
Title ALIGNMENT PLAN
ULTIMATE LAYOUT
WATSONS ROAD (SS-RD-07) SHEET 3

Original Size **A3** Drawing No: **2113308A-CIV-1163** Rev: **F**

Plot Date: 12 August 2019 - 5:22 PM Plotted By: Shane Laybourne Cad File No: \\ghdnet\GHD\AU\Melbourne\Projects\31\36206\CADD\Drawings\31-36206-CIV-1163.dwg



PLAN
SCALE 1:2000

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PRELIMINARY GHD Drawing No. 31-36206-CIV-1164

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Project Manager	Project Director	Date
E	INTERSECTION EXTENT AMENDED		NV	LM*	MW*	25.10.19
D	INTERSECTION SS-IN-15 ADDED		SL	LM*	MW*	21.08.19
C	AMENDED TO VPA COMMENTS		SL	LM*	MW*	08.08.19

0 20 40 60m
SCALE 1:2000 AT ORIGINAL SIZE

Victorian Planning Authority

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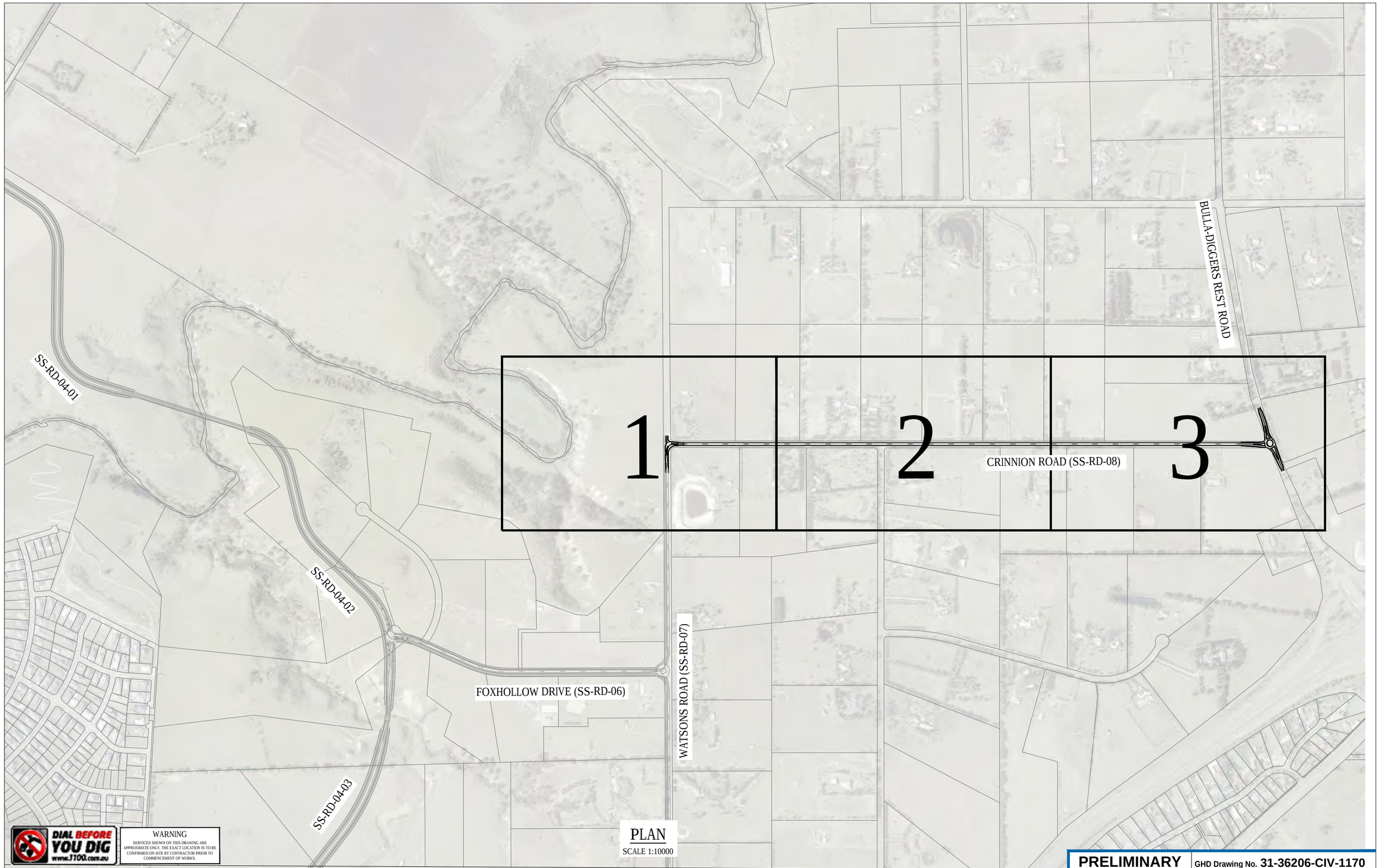
Drawn	D.COMBEN	Designer	G.KERR
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale	1:2000	This Drawing must not be used for Construction unless signed as Approved	

Project SUNBURY STH AND LANCEFIELD RD PSP
Title ALIGNMENT PLAN
ULTIMATE LAYOUT
WATSONS ROAD (SS-RD-07) SHEET 4

Original Size A3 Drawing No: 2113308A-CIV-1164 Rev: E

Plot Date: 25 October 2019 - 3:49 PM Plotted By: Nick van Agtmaal Cad File No: G:\31\36206\CADD\Drawings\31-36206-CIV-1164.dwg



PLAN
SCALE 1:10000

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PRELIMINARY

GHD Drawing No. **31-36206-CIV-1170**

No	Revision	Drawn	Project Manager	Project Director	Date
B	INTERSECTION SS-IN-15 ADDED	SL	LM*	MW*	21.08.19
A	ISSUED TO VPA FOR COMMENTS	SL	LM*	MW*	06.08.19

Note: * indicates signatures on original issue of drawing or last revision of drawing

0 100 200 300m
SCALE 1:10,000 AT ORIGINAL SIZE

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DO NOT SCALE

Drawn	D.COMBEN	Designer	G.KERR
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale	1:10000	This Drawing must not be used for Construction unless signed as Approved	

Project: **SUNBURY STH AND LANCEFIELD RD PSP**
Title: **LAYOUT PLAN**
ULTIMATE LAYOUT
CRINNION ROAD SS-RD-08

Original Size **A3**
Drawing No: **2113308A-CIV-1170**
Rev: **B**

Plot Date: 21 August 2019 - 9:33 AM Plotted By: Shane Laybourne Cad File No: \\ghdnet\GHD\AU\Melbourne\Projects\31\36206\CADD\Drawings\31-36206-CIV-1170.dwg

PLAN
SCALE 1:2000

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No	Revision	Drawn	Project Manager	Project Director	Date
E	ADDEDINTERSECTION EXTENTS	NV	LM*	MW*	25.10.19
D	INTERSECTION SS-IN-15 ADDED	SL	LM*	MW*	21.08.19
C	ISSUED TO VPA FOR COMMENTS	SL	LM*	MW*	08.08.19

Note: * indicates signatures on original issue of drawing or last revision of drawing

0 20 40 60m
SCALE 1:2000 AT ORIGINAL SIZE

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Drawn D.COMBEN | Designer G.KERR
Drafting Check | Design Check
Approved (Project Director)
Date
Scale 1:2000
This Drawing must not be used for Construction unless signed as Approved

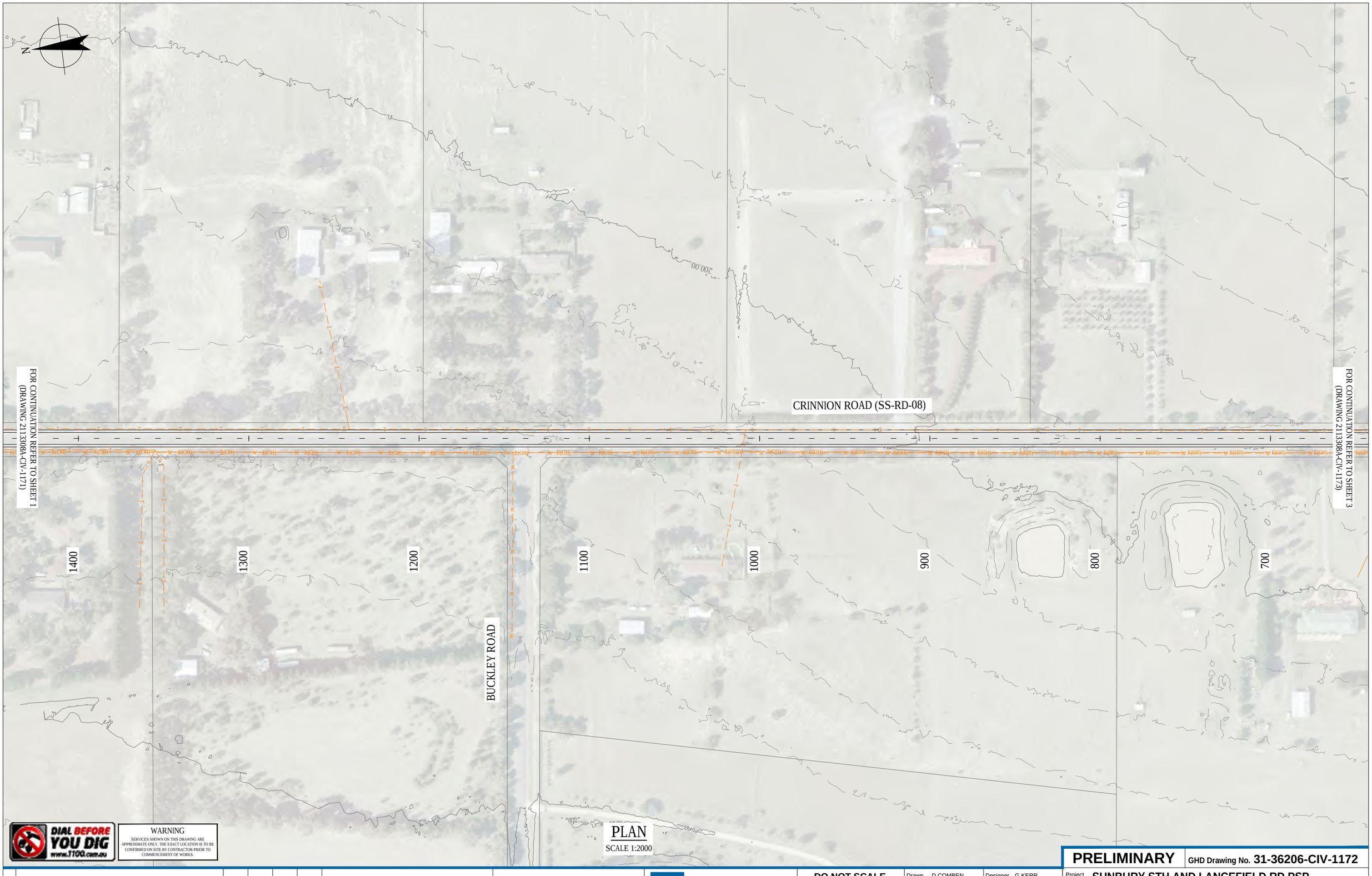
PRELIMINARY

GHD Drawing No. **31-36206-CIV-1171**

Project SUNBURY STH AND LANCEFIELD RD PSP
Title ALIGNMENT PLAN
ULTIMATE LAYOUT
CRINNION ROAD (SS-RD-08) SHEET 1

Original Size **A3**
Drawing No: **2113308A-CIV-1171**
Rev: **E**

Plot Date: 25 October 2019 - 5:03 PM Plotted By: Nick van Agtmaal Cad File No: G:\31\36206\CADD\Drawings\31-36206-CIV-1171-1173.dwg



PLAN
SCALE 1:2000

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No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Project Manager	Project Director	Date
A	ISSUED TO VPA FOR COMMENTS		SL	LM*	MW*	08.08.19

0 20 40 60m
SCALE 1:2000 AT ORIGINAL SIZE

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E melmail@ghd.com.au W www.ghd.com

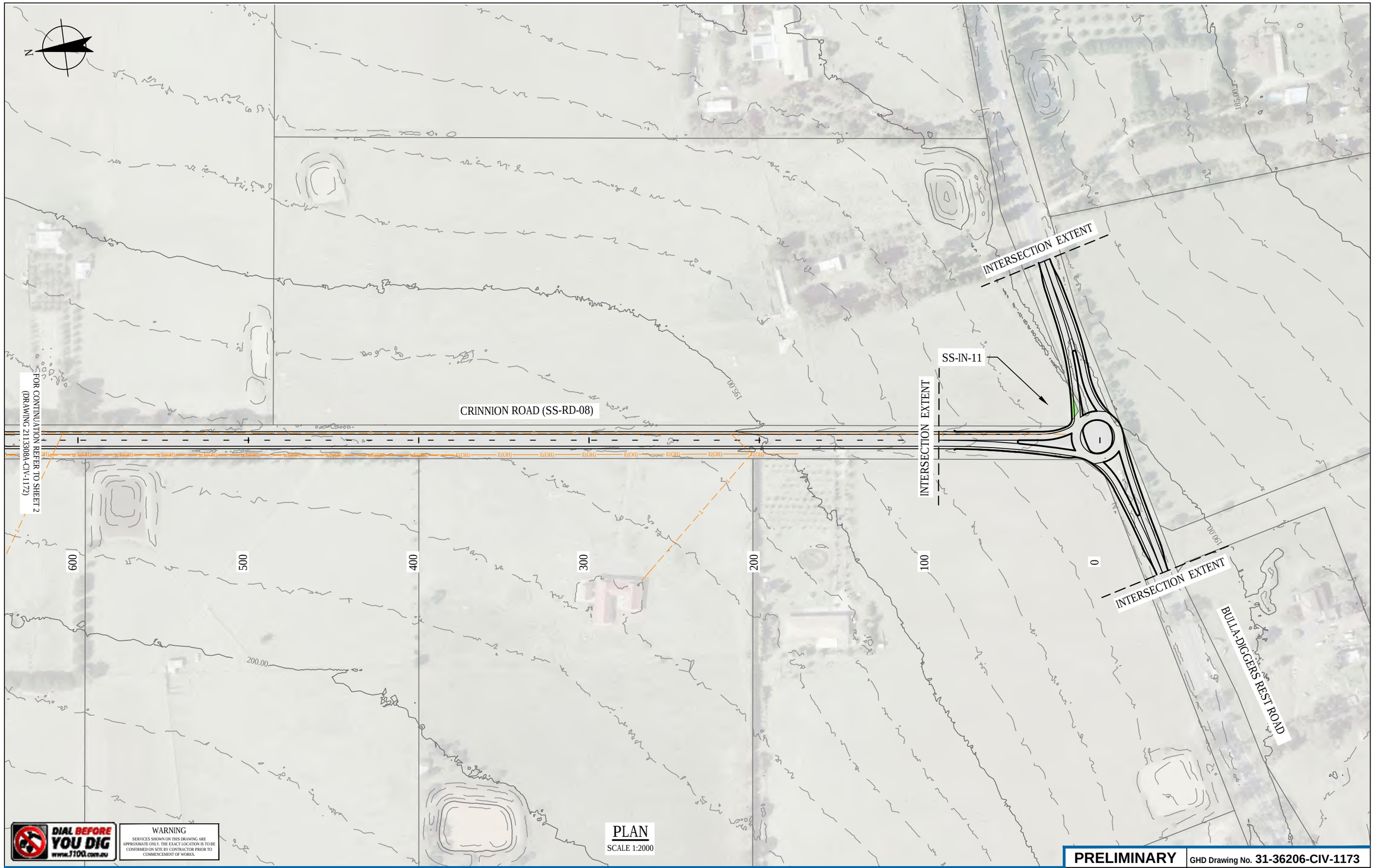
Drawn D.COMBEN		Designer G.KERR
Drafting Check		Design Check
Approved (Project Director)		
Date		
Scale 1:2000	This Drawing must not be used for Construction unless signed as Approved	

PRELIMINARY GHD Drawing No. 31-36206-CIV-1172

Project SUNBURY STH AND LANCEFIELD RD PSP
Title ALIGNMENT PLAN
ULTIMATE LAYOUT
CRINNION ROAD (SS-RD-08) SHEET 2

Original Size A3 Drawing No: 2113308A-CIV-1172 Rev: A

Plot Date: 8 August 2019 - 9:15 AM Plotted By: Doug Ewert Cad File No: \\ghdnet\ghd\AU\Melbourne\Projects\31\36206\CADD\Drawings\31-36206-CIV-1171-1173.dwg



PLAN
SCALE 1:2000

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No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Project Manager	Project Director	Date
B	AMENDED TO VPA COMMENTS - GHD		NV	LM*	MW*	25.10.19
A	ISSUED TO VPA FOR COMMENTS		SL	LM*	MW*	08.08.19

0 20 40 60m
SCALE 1:2000 AT ORIGINAL SIZE

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E melmail@ghd.com.au W www.ghd.com

Drawn D.COMBEN		Designer G.KERR	
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale 1:2000	This Drawing must not be used for Construction unless signed as Approved		

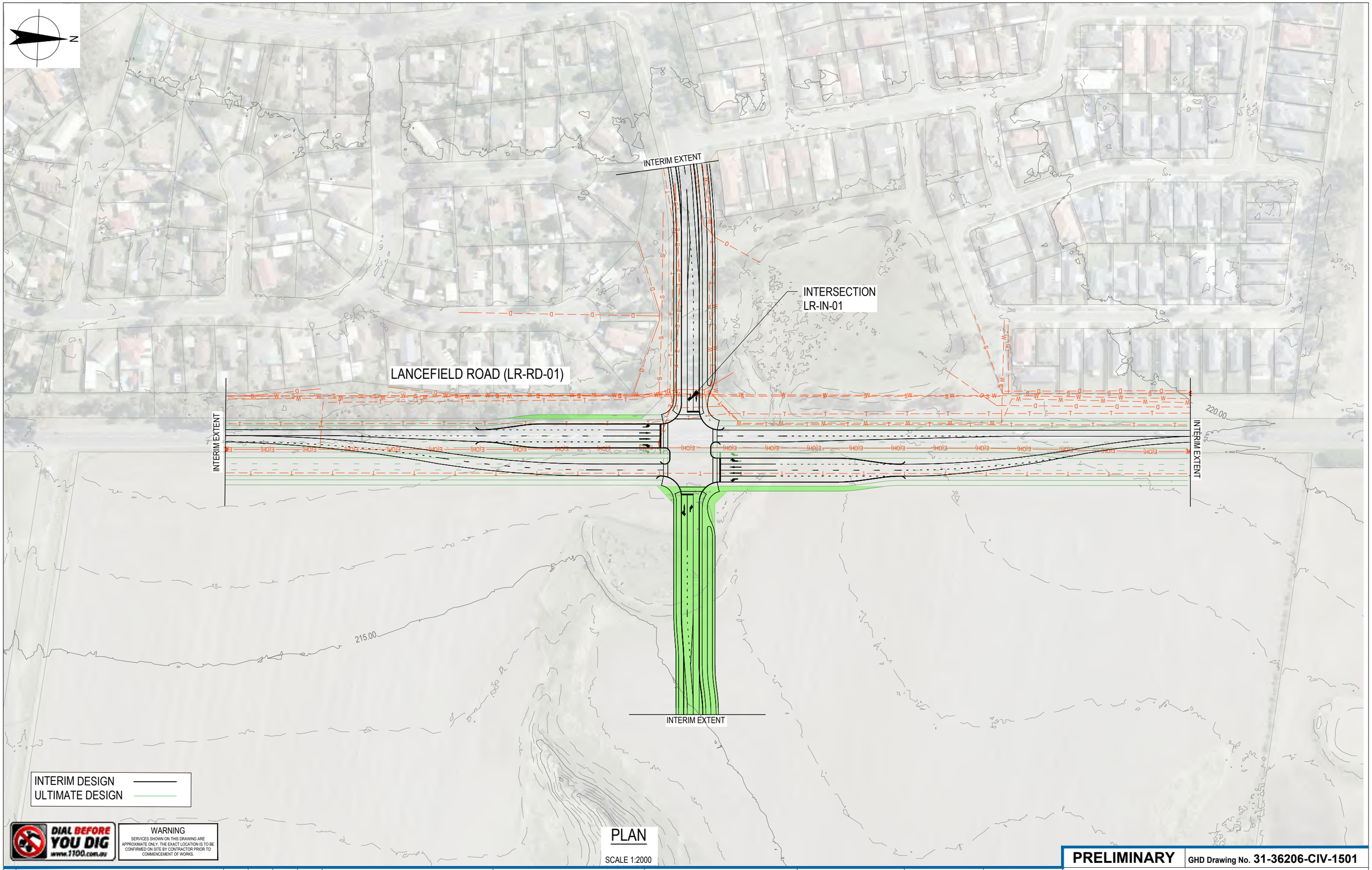
PRELIMINARY

GHD Drawing No. 31-36206-CIV-1173

Project SUNBURY STH AND LANCEFIELD RD PSP
Title ALIGNMENT PLAN
ULTIMATE LAYOUT
CRINNION ROAD (SS-RD-08) SHEET 3

Original Size A3
Drawing No: 2113308A-CIV-1173
Rev: B

Plot Date: 25 October 2019 - 4:21 PM Plotted By: Nick van Agtmaal Cad File No: G:\31\36206\CADD\Drawings\31-36206-CIV-1171-1173.dwg



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WARNING
SERVICES SHOWN ON THIS DRAWING ARE APPROXIMATE ONLY. THE EXACT LOCATION IS TO BE CONFIRMED ON SITE BY CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS.

PLAN
SCALE 1:2000

No	Revision	Drawn	Project Manager	Project Director	Date
D	UPDATED TO VPA COMMENTS	SL	DE	LM	26.02.21
C	INTERIM TAPER ADDED	SL	DE	LM	03.12.20
B	6 AMENDED TO TIE IN WITH GELLIES ROAD INTERSECTION - PB	DH	GW	DR	30.06.16
A	ISSUED FOR INFORMATION - PB	RAM	GW	DR	10.12.15

Note: * indicates signatures on original issue of drawing or last revision of drawing

0 20 40 60m
SCALE 1:2000 AT ORIGINAL SIZE

Victorian Planning Authority

GHD
Level 8, 180 Lonsdale Street, Melbourne VIC 3000 Australia
T 61 3 8687 8000 F 61 3 8687 8111
E melmail@ghd.com.au W www.ghd.com

DO NOT SCALE

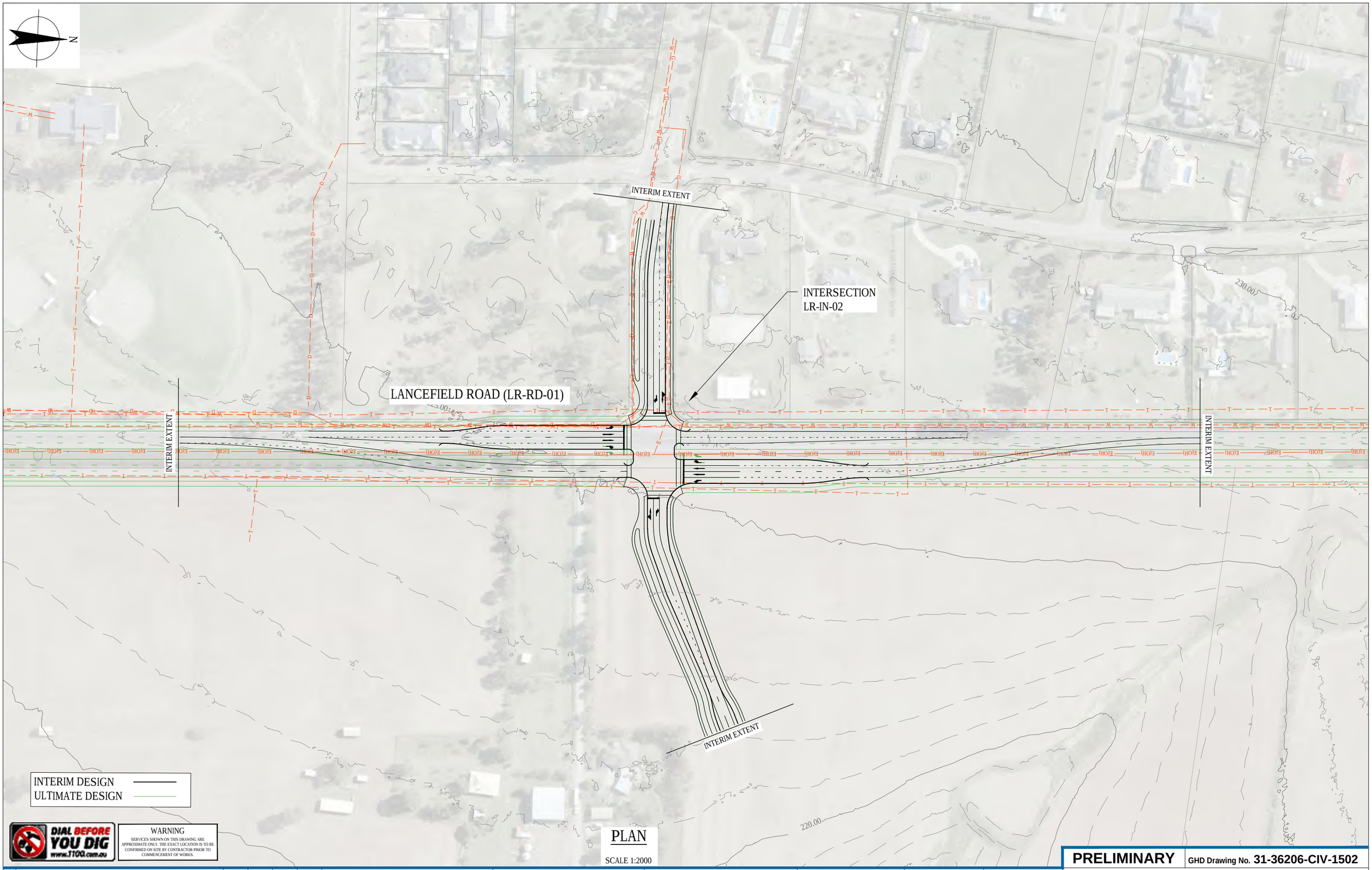
Drawn D.EWERT | Designer D.EWERT
Drafting Check | Design Check
Approved (Project Director)
Date
Scale 1:2000
This Drawing must not be used for Construction unless signed as Approved

PRELIMINARY GHD Drawing No. 31-36206-CIV-1501

Project SUNBURY STH AND LANCEFIELD RD PSP
Title ALIGNMENT PLAN
INTERIM INTERSECTION
LR-IN-01

Original Size A3
Drawing No: 2113308A-CIV-1501
Rev: D

Plot Date: 25 February 2021 - 3:40 PM Plotted By: Mikael Radfar
Cad File No: C:\12d\SW\data\P-00-12D-001\31-36206 - Sunbury Sth Lancefield Rd ICP_85\CADD\Drawings\31-36206-CIV-1501.dwg



PLAN

SCALE 1:2000

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No	Revision	Drawn	Project Manager	Project Director	Date
C	INTERIM INTERSECTION UPDATED TO VPA COMMENTS - GHD	SL	LM*	MW*	12.09.19
B	AMENDED TO VPA COMMENTS - GHD	SL	LM*	MW*	12.08.19

Note: * indicates signatures on original issue of drawing or last revision of drawing

0 20 40 60m

SCALE 1:2000 AT ORIGINAL SIZE

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DO NOT SCALE

Drawn	D.EWERT	Designer	M. BISHOP
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale	1:2000	This Drawing must not be used for Construction unless signed as Approved	

PRELIMINARY

GHD Drawing No. **31-36206-CIV-1502**

Project **SUNBURY STH AND LANCEFIELD RD PSP**

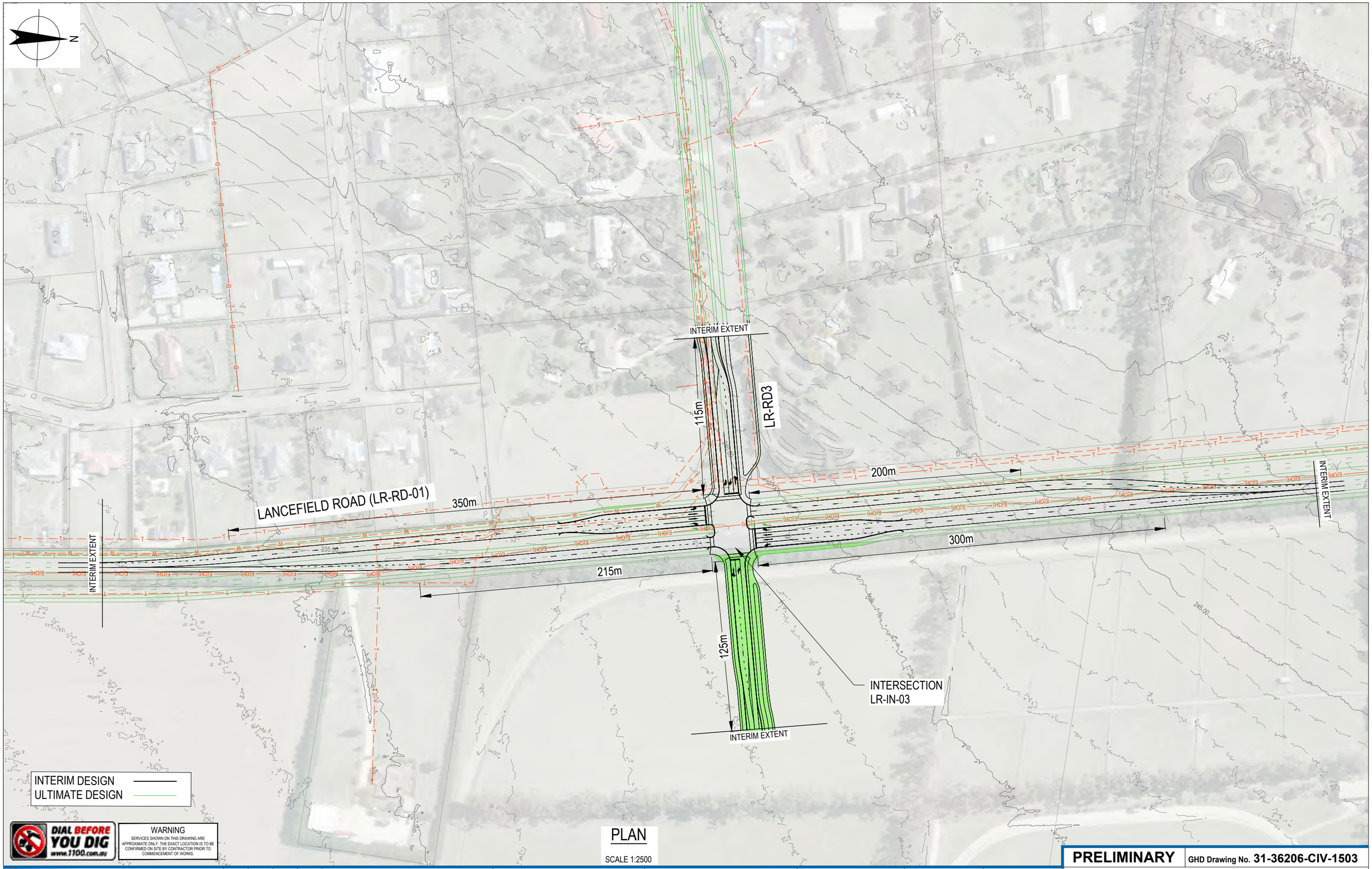
Title **ALIGNMENT PLAN**
INTERIM INTERSECTION
LR-IN-02

Original Size **A3**

Drawing No: **2113308A-CIV-1502**

Rev: **C**

Plot Date: 16 September 2019 - 12:14 PM Plotted By: Shane Laybourne Cad File No: G:\31\36206\CADD\Drawings\31-36206-CIV-1502.dwg



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PLAN

SCALE 1:2500

No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Project Manager	Project Director	Date
E	DRAWING UPDATED TO VPA COMMENTS - GHD	MR	LM*	MW*	26.02.21
D	INTERSECTION UPDATED TO GTA RECOMMENDATIONS - GHD	MR	LM*	MW*	10.02.21
C	INTERIM INTERSECTION UPDATED TO VPA COMMENTS - GHD	SL	LM*	MW*	12.09.19
B	AMENDED TO VPA COMMENTS - GHD	SL	LM*	MW*	12.08.19

0 25 50 75m

SCALE 1:2500 AT ORIGINAL SIZE

Victorian Planning Authority

GHD
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E melmail@ghd.com.au W www.ghd.com

Drawn M.RADFAR		Designer D. EWERT	
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale 1:2500	This Drawing must not be used for Construction unless signed as Approved		

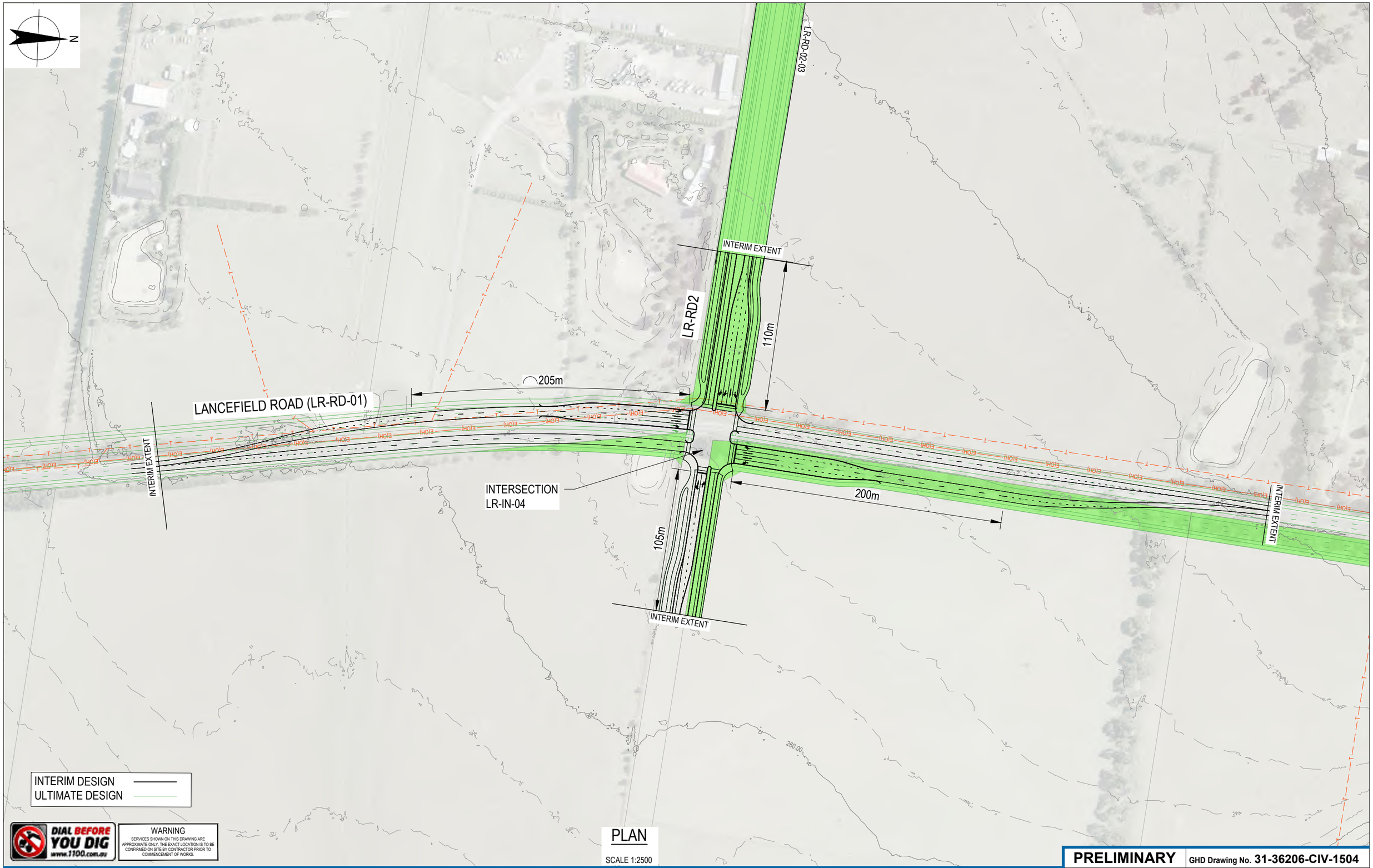
PRELIMINARY GHD Drawing No. 31-36206-CIV-1503

Project SUNBURY STH AND LANCEFIELD RD PSP

Title ALIGNMENT PLAN
INTERIM INTERSECTION
LR-IN-03

Original Size A3 Drawing No: 2113308A-CIV-1503 Rev: E

Plot Date: 25 February 2021 - 9:45 AM Plotted By: Mikael Radfar Cad File No: C:\12d\SW\data\P-00-12D-001\31-36206 - Sunbury Sth Lancefield Rd ICP_85\CADD\Drawings\31-36206-CIV-1503.dwg



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PLAN
SCALE 1:2500

No	Revision	Drawn	Project Manager	Project Director	Date
E	DRAWING UPDATED TO VPA COMMENTS - GHD	MR	LM*	MW*	24.02.21
D	INTERSECTION UPDATED TO GTA RECOMMENDATIONS - GHD	MR	LM*	MW*	10.02.21
C	INTERIM INTERSECTION UPDATED TO VPA COMMENTS - GHD	SL	LM*	MW*	12.09.19
B	AMENDED TO VPA COMMENTS - GHD	SL	LM*	MW*	12.08.19

Note: * indicates signatures on original issue of drawing or last revision of drawing

0 25 50 75m
SCALE 1:2500 AT ORIGINAL SIZE

Victorian Planning Authority

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Level 8, 180 Lonsdale Street, Melbourne VIC 3000 Australia
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E melmail@ghd.com.au W www.ghd.com

Drawn	M.RADFAR	Designer	M. BISHOP
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale	1:2500	This Drawing must not be used for Construction unless signed as Approved	

PRELIMINARY GHD Drawing No. 31-36206-CIV-1504

Project: SUNBURY STH AND LANCEFIELD RD PSP

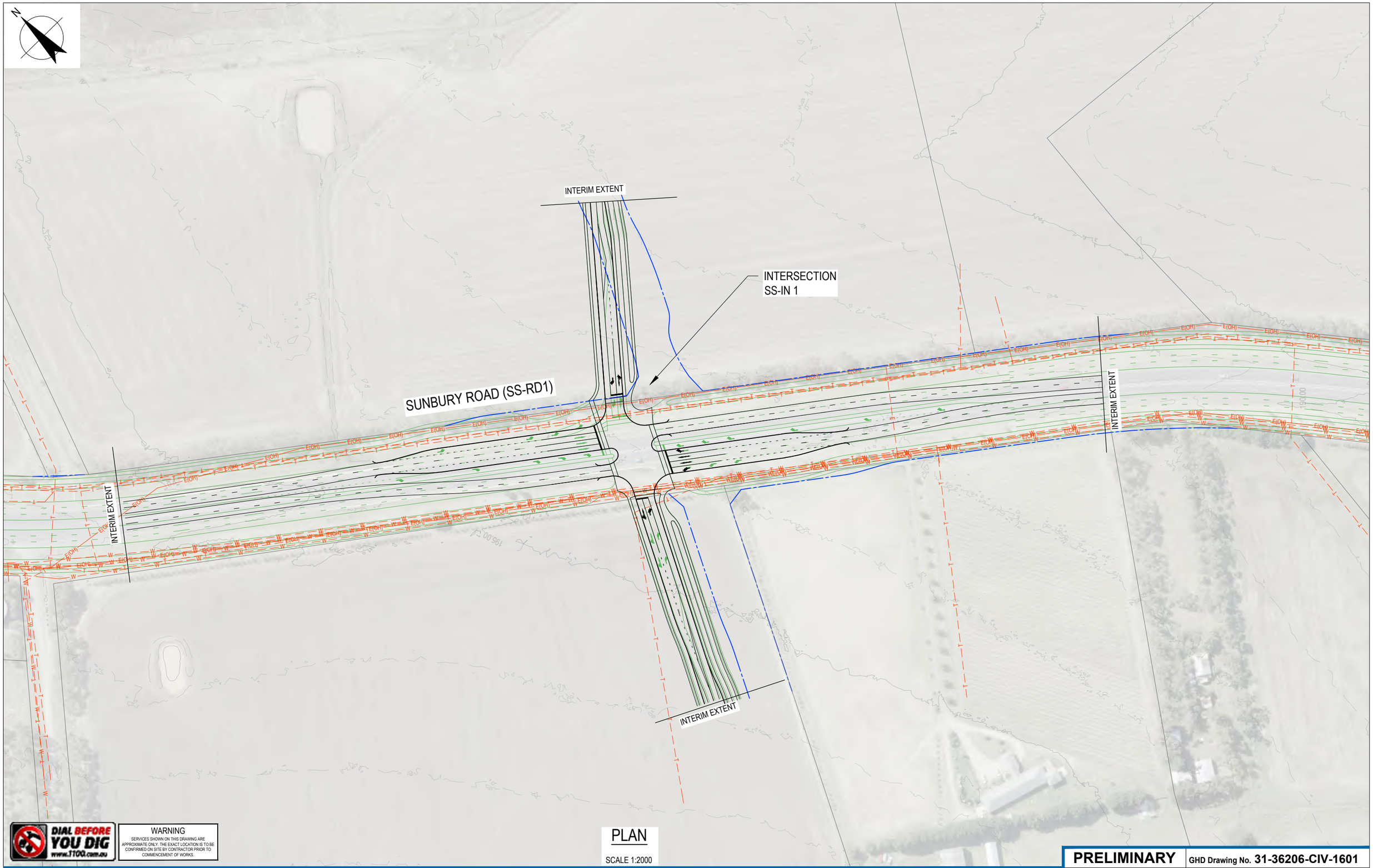
Title: ALIGNMENT PLAN
INTERIM INTERSECTION
LR-IN-04

Original Size: A3

Drawing No: 2113308A-CIV-1504 Rev: E

Plot Date: 25 February 2021 - 9:43 AM Plotted By: Mikael Radfar

Cad File No: C:\12d\SW\data\P-00-12D-001\31-36206 - Sunbury Sth Lancefield Rd ICP_85\CADD\Drawings\31-36206-CIV-1504.dwg



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PLAN

SCALE 1:2000

No	Revision	Drawn	Project Manager	Project Director	Date
G	UPDATE MEDIAN STRIP WIDTH - GHD	SL	LM*	MW*	19.01.21
F	AMENDED TO VPA COMMENTS - GHD	DE	LM*	MW*	23.08.19
D	AMENDED TO VPA COMMENTS - GHD	DE	LM*	MW*	07.12.18
C	AMENDED TO VPA COMMENTS - GHD	DRE	LM*	MW*	03.12.18
B	AMENDED TO VPA COMMENTS - GHD	DRE	LM*	MW*	19.09.18

Note: * indicates signatures on original issue of drawing or last revision of drawing

0 20 40 60m

SCALE 1:2000 AT ORIGINAL SIZE

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Drawn	D.EWERT	Designer	M. BISHOP
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale	1:2000	This Drawing must not be used for Construction unless signed as Approved	

PRELIMINARY GHD Drawing No. **31-36206-CIV-1601**

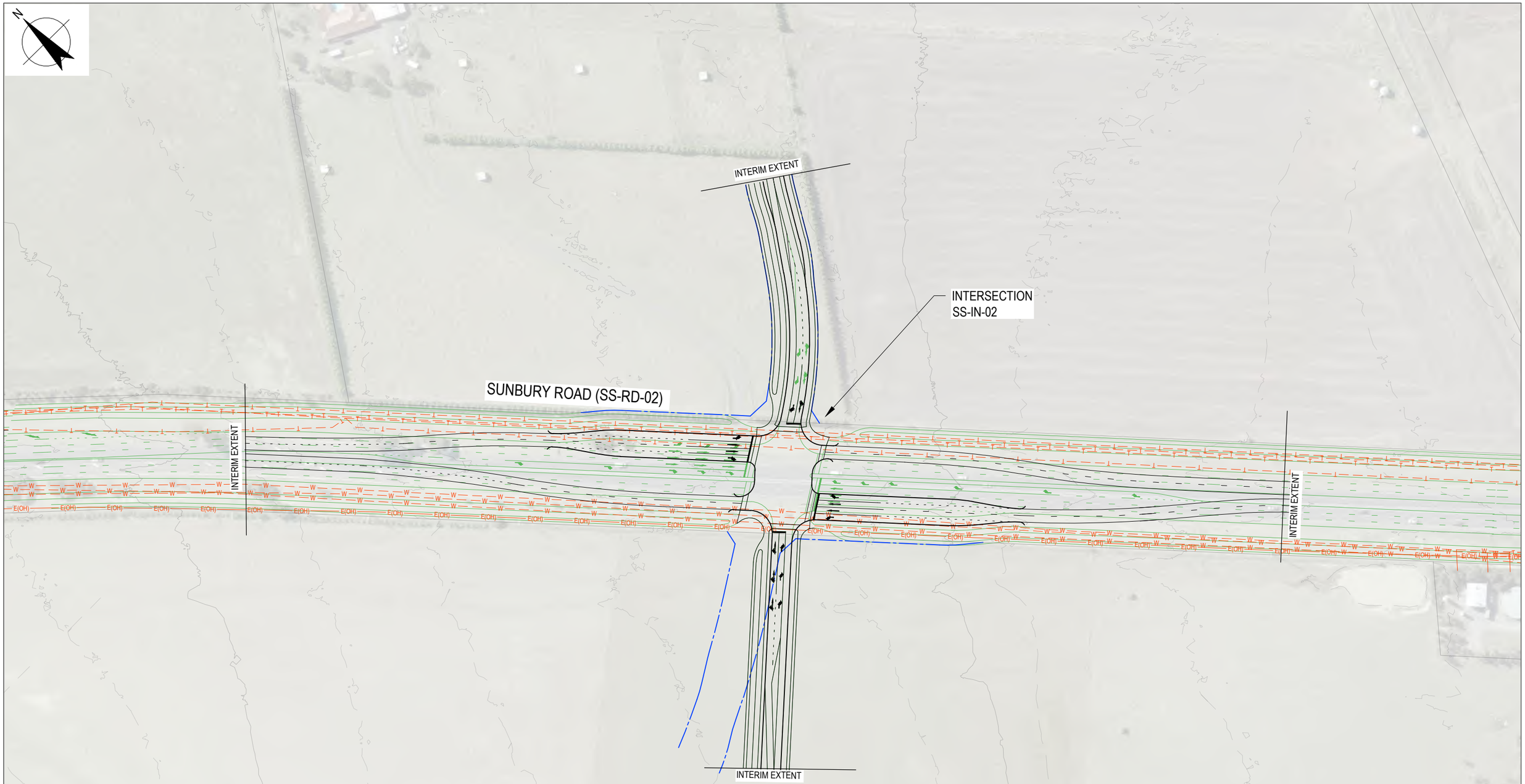
Project **SUNBURY STH AND LANCEFIELD RD PSP**

Title **ALIGNMENT PLAN**
INTERIM INTERSECTION
SS-IN1

Original Size **A3**

Drawing No: **2113308A-CIV-1601** Rev: **G**

Plot Date: 19 January 2021 - 5:36 PM Plotted By: Shane Laybourne Cad File No: C:\12d\SW\data\P-00-12D-001\31-36206 - Sunbury Sth Lancefield Rd ICP_85\CADD\Drawings\31-36206-CIV-1601.dwg



PLAN

SCALE 1:2000

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No	Revision	Drawn	Project Manager	Project Director	Date
F	UPDATE MEDIAN STRIP WIDTH - GHD	SL	LM*	MW*	19.01.21
E	AMENDED TO VPA COMMENTS - GHD	SL	LM*	MW*	18.09.19
D	AMENDED TO VPA COMMENTS - GHD	SL	LM*	MW*	08.08.19
C	AMENDED TO VPA COMMENTS - GHD	DRE	LM*	MW*	03.12.18
B	AMENDED TO VPA COMMENTS - GHD	DRE	LM*	MW*	19.09.18

Note: * indicates signatures on original issue of drawing or last revision of drawing

0 20 40 60m

SCALE 1:2000 AT ORIGINAL SIZE

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E melmail@ghd.com.au **W** www.ghd.com

DO NOT SCALE

Drawn D.EWERT | Designer M. BISHOP

Drafting Check | Design Check

Approved (Project Director)

Date

Scale 1:2000

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PRELIMINARY

GHD Drawing No. **31-36206-CIV-1602**

Project **SUNBURY STH AND LANCEFIELD RD PSP**

Title **ALIGNMENT PLAN**
INTERIM INTERSECTION
SS-IN-02

Original Size **A3**

Drawing No: **2113308A-CIV-1602**

Rev: **F**

Plot Date: 19 January 2021 - 5:16 PM Plotted By: Shane Laybourne Cad File No: C:\12d\SW\data\P-00-12D-001\31-36206 - Sunbury Sth Lancefield Rd ICP_85\CADD\Drawings\31-36206-CIV-1602.dwg

N

INTERSECTION EXTENT

LANCEFIELD ROAD

200m

SUNBURY ROAD (SS-RD-02)

300m

INTERSECTION EXTENT

SS-IN-03

110m

110m

130m

300m

INTERSECTION EXTENT

INTERSECTION EXTENT

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SCALE 1:2000

No	Revision	Drawn	Project Manager	Project Director	Date
K	DRAWING UPDATED TO VPA COMMENTS - GHD	MR	LM*	MW*	26.02.21
J	INTERSECTION UPDATED TO GTA RECOMMENDATIONS - GHD	MR	LM*	MW*	10.02.21
I	UPDATE MEDIAN STRIP WIDTH - GHD	SL	LM*	MW*	19.01.21
H	ULTIMATE AMENDED TO VPA COMMENTS - GHD	SL	LM*	MW*	08.08.19
G	ULTIMATE AMENDED TO VPA COMMENTS - GHD	SL	LM*	MW*	08.02.19

Note: * indicates signatures on original issue of drawing or last revision of drawing

0 20 40 60m

SCALE 1:2000 AT ORIGINAL SIZE

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DO NOT SCALE

Drawn	M.RADFAR	Designer	D.EWERT
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale	1:2000	This Drawing must not be used for Construction unless signed as Approved	

PRELIMINARY GHD Drawing No. 31-36206-CIV-1603

Project SUNBURY STH AND LANCEFIELD RD PSP

Title ALIGNMENT PLAN
INTERIM INTERSECTION
SS-IN-03

Original Size A3

Drawing No: 2113308A-CIV-1603 Rev: K

Plot Date: 25 February 2021 - 3:33 PM Plotted By: Mikael Radfar Cad File No: C:\12d\SW\data\P-00-12D-001\31-36206 - Sunbury Sth Lancefield Rd ICP_85\CADD\Drawings\31-36206-CIV-1603.dwg

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No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Project Manager	Project Director	Date
C	UPDATE MEDIAN STRIP WIDTH - GHD	SL	LM*	MW*	19.01.21
B	AMENDED TO VPA COMMENTS - GHD	DRE	LM*	MW*	19.09.18
A	REVISED SS-RD4 CROSS SECTION - PB	RAM	-	-	10.12.15

0 20 40 60m

SCALE 1:2000 AT ORIGINAL SIZE

Victorian Planning Authority

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E melmail@ghd.com.au **W** www.ghd.com

DO NOT SCALE

Drawn D.EWERT | Designer M. BISHOP
Drafting Check | Design Check
Approved (Project Director)
Date
Scale 1:2000

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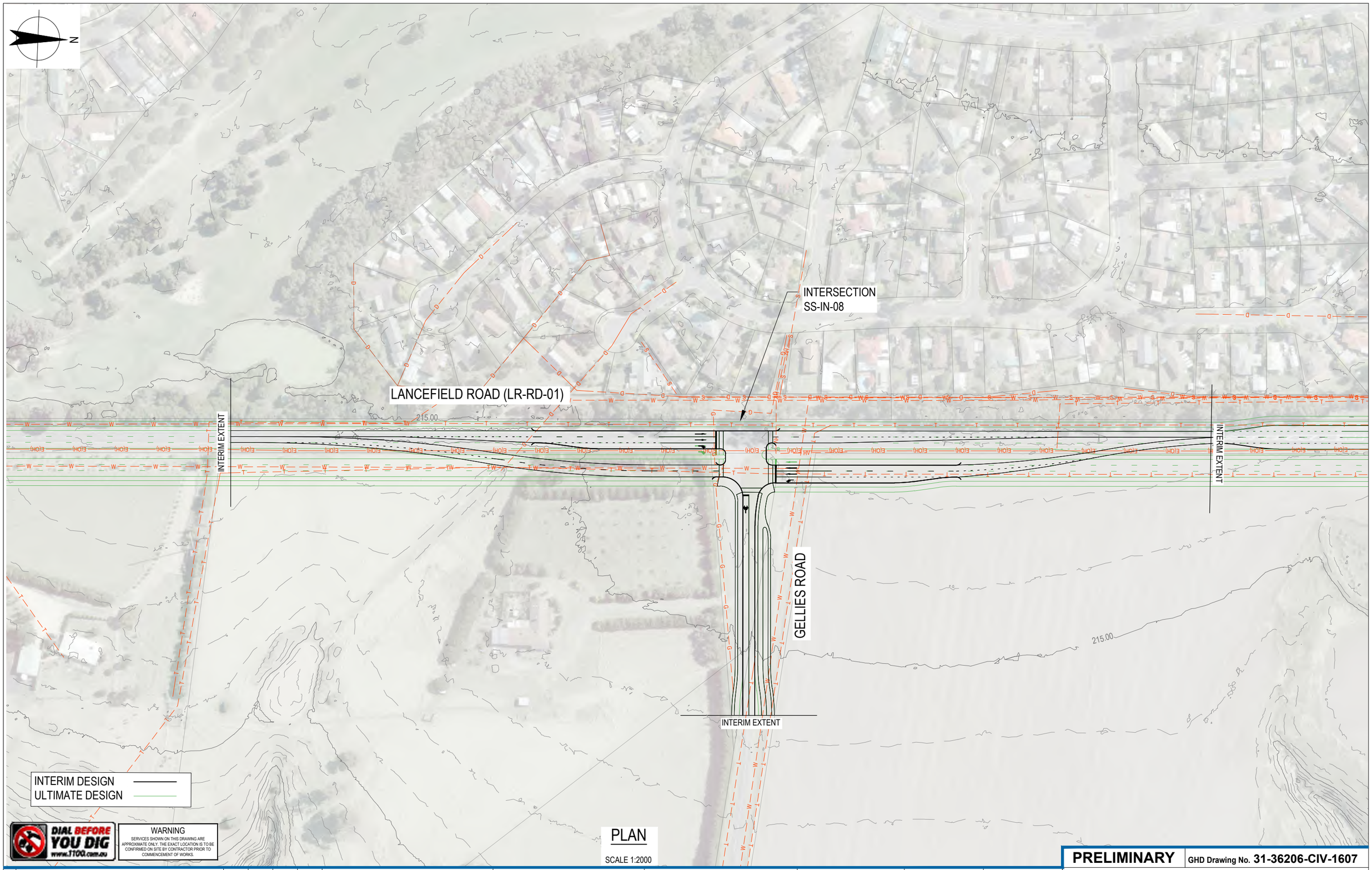
PRELIMINARY GHD Drawing No. **31-36206-CIV-1604**

Project **SUNBURY STH AND LANCEFIELD RD PSP**
Title **ALIGNMENT PLAN**
INTERIM INTERSECTION
SS-IT4

Original Size **A3** Drawing No: **2113308A-CIV-1604** Rev: **C**

Plot Date: 19 January 2021 - 4:59 PM Plotted By: Shane Laybourne Cad File No: C:\12d\SW\data\P-00-12D-001\31-36206 - Sunbury Sth Lancefield Rd ICP_85\CADD\Drawings\31-36206-CIV-1604.dwg



PLAN

SCALE 1:2000

D	UPDATED TO VPA COMMENTS	SL	DE	LM	01.03.21
C	UPDATED TO VPA COMMENTS	SL	DE	LM	26.02.21
B	INTERIM TAPER ADDED	SL	DE	LM	04.12.20
A	ISSUED FOR INFORMATION - PB	DH	GW	DR	30.06.16
No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Project Manager	Project Director	Date

0 20 40 60m

SCALE 1:2000 AT ORIGINAL SIZE

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Drawn	D.EWERT	Designer	D.EWERT
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale	1:2000	This Drawing must not be used for Construction unless signed as Approved	

PRELIMINARY GHD Drawing No. **31-36206-CIV-1607**

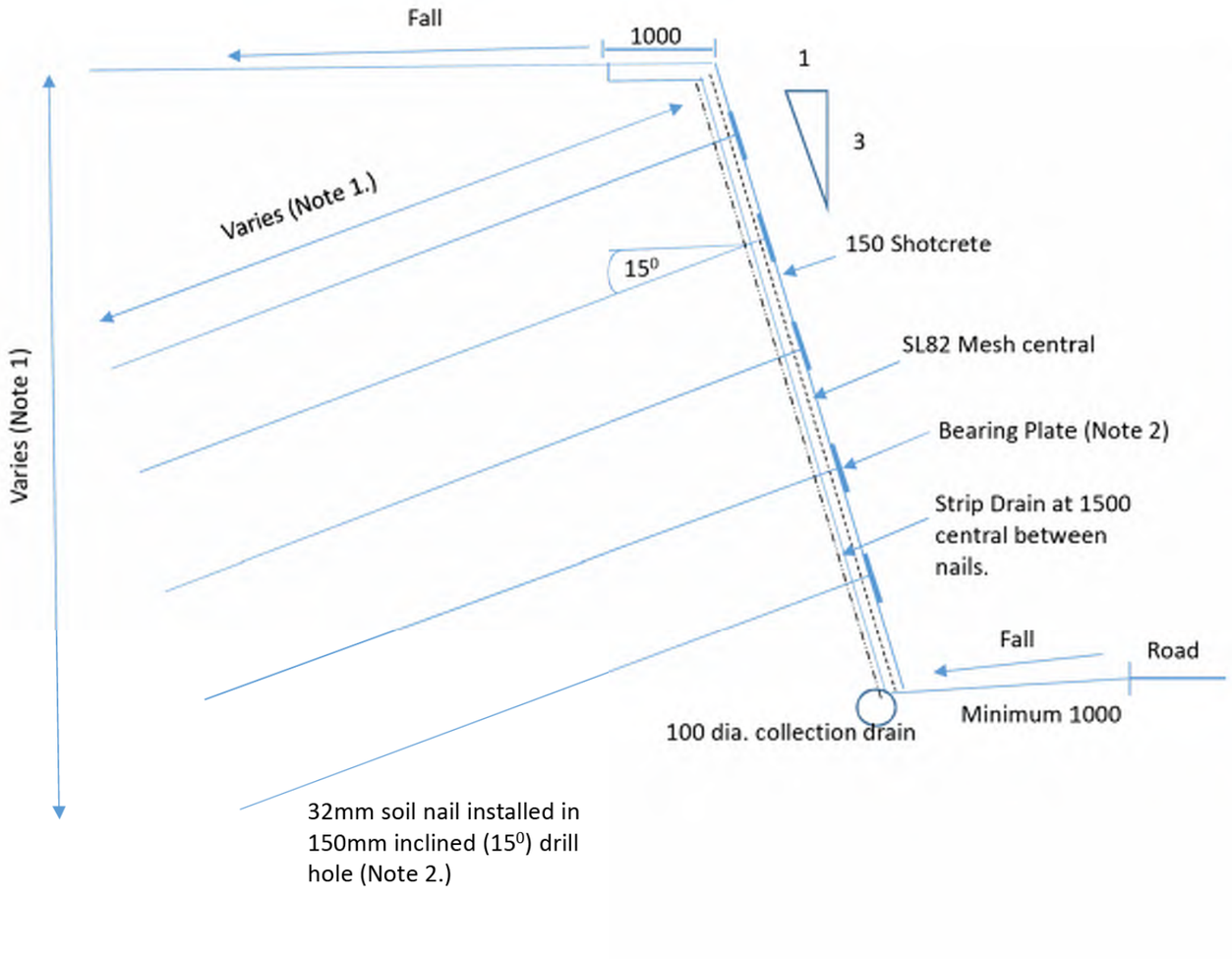
Project **SUNBURY STH AND LANCEFIELD RD PSP**

Title **ALIGNMENT PLAN**
INTERIM INTERSECTION
SS-IN-08

Original Size **A3**

Drawing No: **2113308A-CIV-1607** Rev: **D**

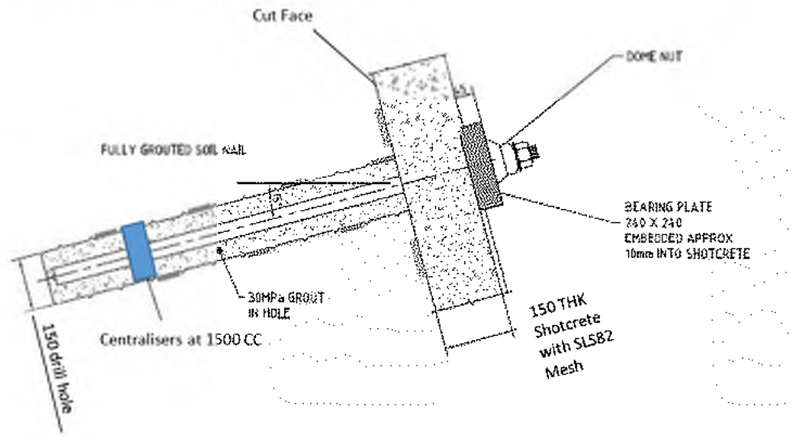
Plot Date: 2 March 2021 - 9:44 AM Plotted By: Mikael Radfar Cad File No: C:\12d\SW\data\P-00-12D-001\31-36206 - Sunbury Sth Lancefield Rd ICP_85\CADD\Drawings\31-36206-CIV-1607.dwg



Note 1: Soil nail details for varying retained wall heights.

Retained Wall Height	Length of Soil Nails (m)	Vertical Nail Spacing (m)	Horizontal Spacing (m)
12m	10	1.2	1.5
10m	8	1.2	1.5
7m	6	1.2	1.5
5m	5	1.2	1.5
3m	4	1.2	1.5
<3m	Use of gabion walls / Mass Bloc ® Instant Wall or equivalent.		

Note 2: Soil nail bearing plate and grouting details.



2015

50mm AT FULL SIZE

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PRELIMINARY ISSUE
NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	DRAWN	CHECK	DESIGN	VERIFY
B	07/03/16	ISSUED FOR INFORMATION	RAM	GW	RAM	DR
A	19/10/15	ISSUED FOR INFORMATION	RAM	GW	RAM	DR

SCALES: N.T.S.

A3 ORIGINAL
DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY
VERIFY ALL DIMENSIONS ON SITE

APPROVED FOR AND ON BEHALF OF PARSONS BRINCKERHOFF AUSTRALIA PTY LIMITED
SIGNED
DATE

PARSONS BRINCKERHOFF
Level 15
28 Freshwater Place
Southbank, Melbourne
VIC 3006
PO BOX 19016
Melbourne VIC 3006
Australia
ABN 80 078 004 798
Telephone +61 3 9861 1111
Facsimile +61 3 9861 1144
Email: melbourne@pb.com.au

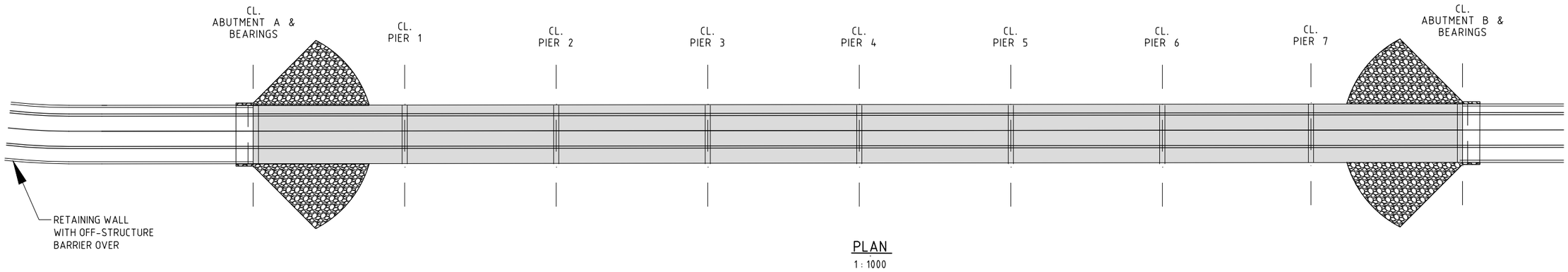
CLIENT: MPA Metropolitan Planning Authority

PROJECT: SUNBURY STH AND LANCEFIELD RD PSP
JACKSONS HILL LINK INVESTIGATION
RETAINING WALL
SOIL NAIL DETAILS

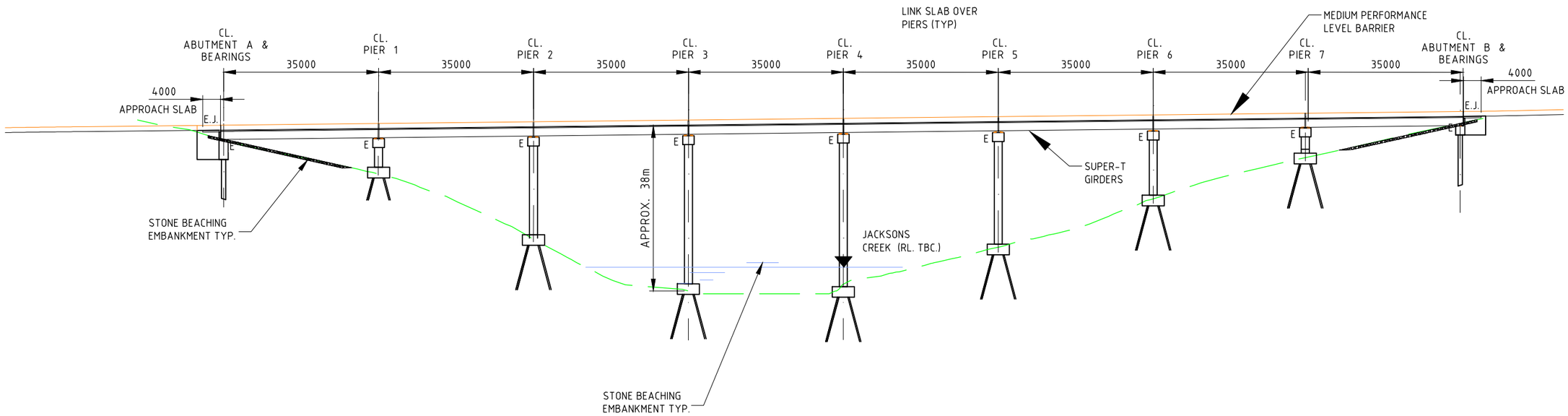
PROJECT No.	DISCIPLINE	NUMBER	REV.
2113308A	CIV	2015	B

7/03/2016 5:32:54 PM

\\APMELFIL01\proj\M\METROPOLITAN_PLANNING\2113308A_SUNBURY_SOUTH_AND_LANCEFIELD\09_CADD\Drawings\02_Civil\02_Drawings\2113308a-civ-2015.dgn



PLAN
1 : 1000



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No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Project Manager	Project Director	Date
B	BRIDGE HEIGHT ADJUSTED - GHD		SL	LM*	MW*	19.01.21
A	ISSUED FOR INFORMATION - PB		JD	-	-	07.03.16

0 10 20 30m
SCALE 1:1000 AT ORIGINAL SIZE

Victorian Planning Authority

GHD
Level 8, 180 Lonsdale Street, Melbourne VIC 3000 Australia
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E melmail@ghd.com.au W www.ghd.com

DO NOT SCALE

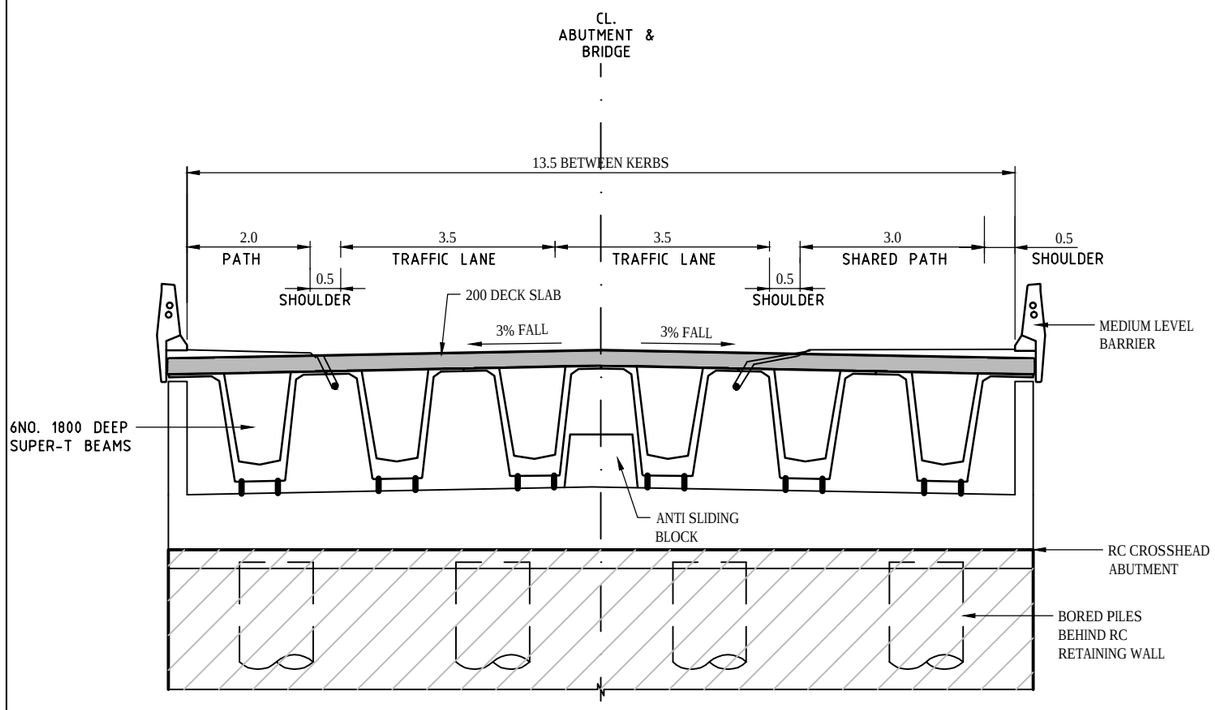
Drawn D.COMBEN | Designer G.KERR
Drafting Check | Design Check
Approved (Project Director)
Date
Scale AS SHOWN
This Drawing must not be used for Construction unless signed as Approved

PRELIMINARY GHD Drawing No. 31-36206-STR-0102

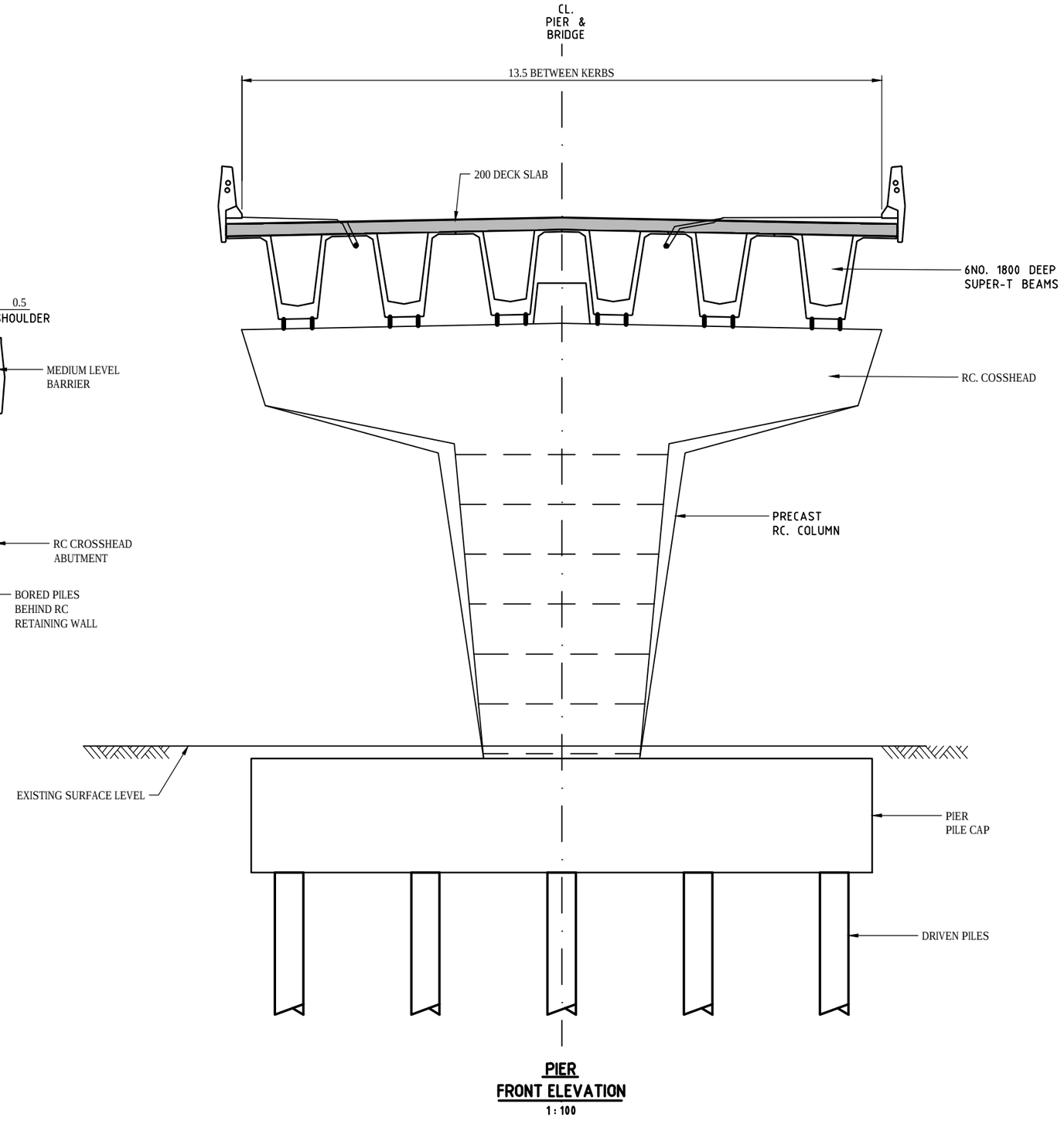
Project JACKSON CREEK BRIDGE (SS-BR-01)
Title REVISED HEIGHT - LENGTH OPTION
GENERAL ARRANGEMENT
SHEET 1

Original Size A3 Drawing No: 2113308A-STR-0102 Rev: B

Plot Date: 19 January 2021 - 5:46 PM Plotted By: Shane Laybourne Cad File No: C:\12d\SW\data\P-00-12D-001\31-36206 - Sunbury Sth Lancefield Rd ICP_85\CADD\Drawings\31-36206-STR-0102.dwg



ABUTMENT
FRONT ELEVATION
1 : 100



PIER
FRONT ELEVATION
1 : 100

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PRELIMINARY

No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Project Manager	Project Director	Date
B	ISSUED FOR INFORMATION	DH	LM	MW	18.09.20
A	ISSUED FOR INFORMATION	DH	LM	MW	11.09.20

Victorian Planning Authority

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Level 8, 180 Lonsdale Street, Melbourne VIC 3000 Australia
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E melmail@ghd.com.au **W** www.ghd.com

DO NOT SCALE

Drawn	D.HOWARD	Designer	L.MORRISON
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale	NTS	This Drawing must not be used for Construction unless signed as Approved	

Project: SUNBURY STH AND LANCEFIELD RD PSP
Title: JACKSON CREEK BRIDGE (SS-BR-01)
CONCRETE SUPER TEE SKETCH
CROSS SECTION

Original Size: A3 **Drawing No: 31-36206-SKT-0002** **Rev: B**

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Appendix B – Supplied Information

Amendment C243

Hume Planning Scheme
Traffic Analysis Report

Sunbury Growth Corridor
Jacksons Creek Northern Bridge Removal

Prepared by: GTA Consultants (VIC) Pty Ltd for Victorian Planning Authority
on 21/12/2020
Reference: V198070
Issue #: A

GTAconsultants

Amendment C243

Hume Planning Scheme
Traffic Analysis Report

Client: Victorian Planning Authority

on 21/12/2020

Reference: V198070

Issue #: A

Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A	21/12/2020	Final	Colin Roche	Reece Humphreys	Reece Humphreys	

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1. INTRODUCTION

1.1. Background

Amendment C243 makes changes to the Hume Planning Scheme to incorporate the final Sunbury South and Lancefield Road Infrastructure Contributions Plan (ICP). The Amendment seeks to incorporate a supplementary levy ICP which will be applied to the PSP's. Of relevance to my evidence, the ICP is necessary to deliver the infrastructure items that are required within the respective precincts. The infrastructure items listed in the PSP include two new bridge crossings of the Jacksons Creek in Sunbury.

As part of the exhibition process for the Amendment, a number of submissions were received opposing the high cost of the proposed ICP levies primarily around the two bridges.

In October 2015, GTA Consultants prepared a report titled "Strategic Transport Modelling of the Sunbury and Diggers Rest Growth Corridor (Sunbury South PSP 1074 & Lancefield Road PSP 1075)". That report outlined the impacts of potential new road crossings of Jacksons Creek, with nine potential options for works to improve transport in the area.

The modelling work has been revisited as part of this Amendment to reflect changes to land use for metropolitan Melbourne and align with the Sunbury Growth Corridor. These have been circulated in three Supplementary Reports in September 2020.

In October 2020 a traffic conclave (meeting of traffic experts) for the ICP agreed that the *'road network can function without the northern bridge within acceptable parameters, based on the strategic operation for the ICP. Accordingly, the northern bridge should be removed from the ICP.'* From a traffic and transport perspective, the removal of the northern bridge has the potential to impact the performance of the interim intersections on Lancefield Road as all traffic from the PSP's will now travel through them.

1.2. Scope of Report

In order to finalise the Sunbury South and Lancefield Road Infrastructure Contributions Plan (ICP), the VPA are seeking to understand the suitability of the interim intersection arrangements without the delivery of the northern bridge. The key questions that this report seeks to answer are:

1. The suitability of the interim intersections proposed in the ICP.
2. The level of development (traffic flow) that could occur prior to the need for the interim intersections of LR-IN-04, LR-IN-03 and S-IN-03 being upgraded to their ultimate configuration.

The recent transport modelling completed as part of the hearing was completed for the full development scenario of the Sunbury Growth Corridor. This assessment will focus on the 75% level of the full development traffic flows which represents the typical lifespan of interim intersections prior to the State constructing the ultimate arrangement.

1.3. References

In preparing this evidence, reference has been made to the following:

- The Hume Planning Scheme
- Lancefield Road Precinct Structure Plan (PSP)
- Sunbury South PSP
- Drawing No 2113308A-CIV-1503-B (Interim Concept Plan for LR-IN-04)
- Drawing No 2113308A-CIV-1504 (Interim Concept Plan for LR-IN-03)
- Drawing No 2113308A-CIV-1603 (Interim Concept Plan for SS-IN-03)
- relevant Government policies and documents
- various technical data as referenced in this report.

2. THE PSP

2.1. Sunbury Growth Corridor

The Sunbury South and Lancefield Road Precinct Structure Plans (PSP 1074 & 1075) are located in the Sunbury-Diggers Rest Growth Corridor in Melbourne's northwest. Both Sunbury South and Lancefield Road are located in the City of Hume and will ultimately form part of an expansion of Sunbury, along with the Sunbury North, Sunbury West and Diggers Rest PSPs.

The location of the Sunbury and Diggers Rest Growth Corridor in its local context are illustrated in Figure 2.1.

Figure 2.1: Sunbury and Diggers Rest Growth Corridor

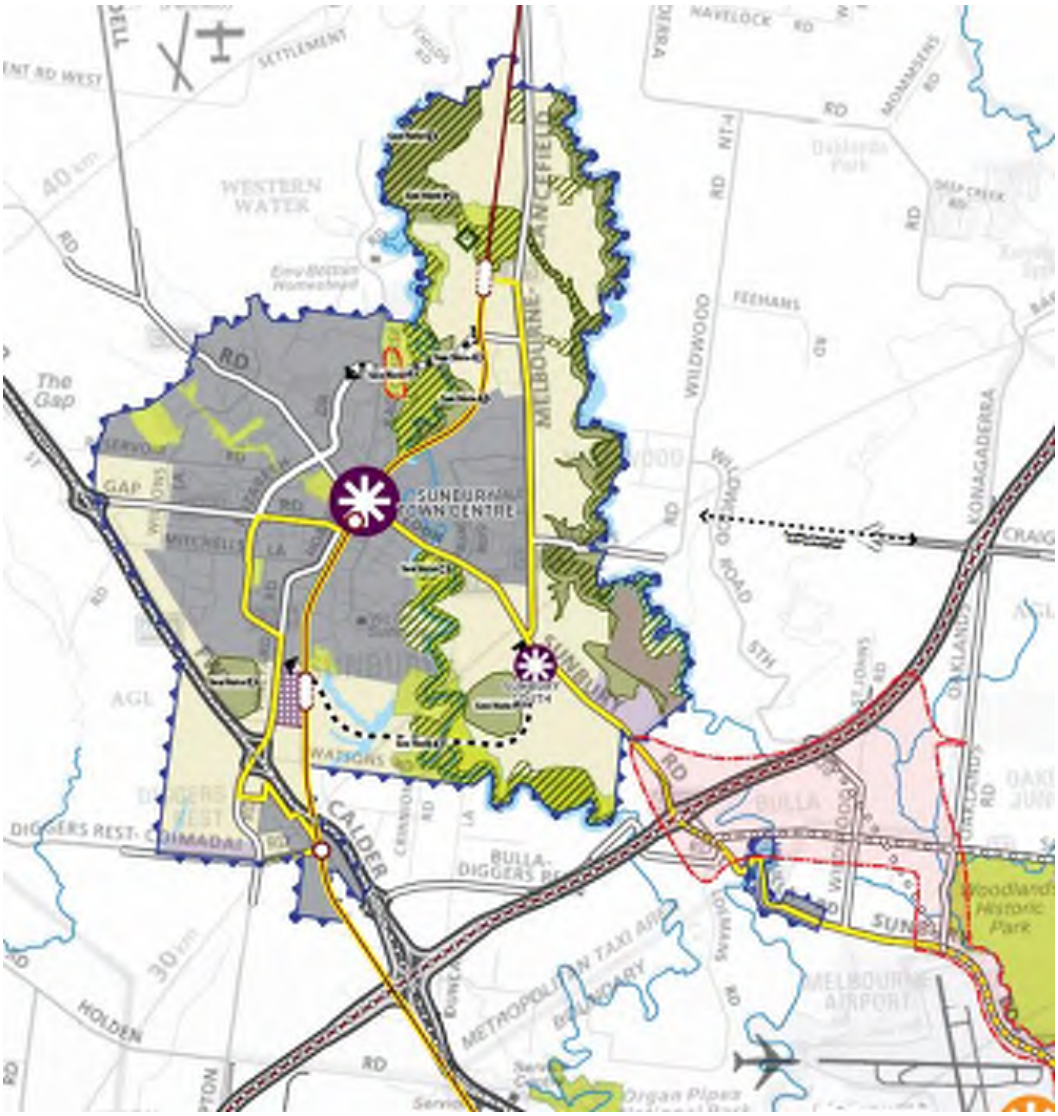
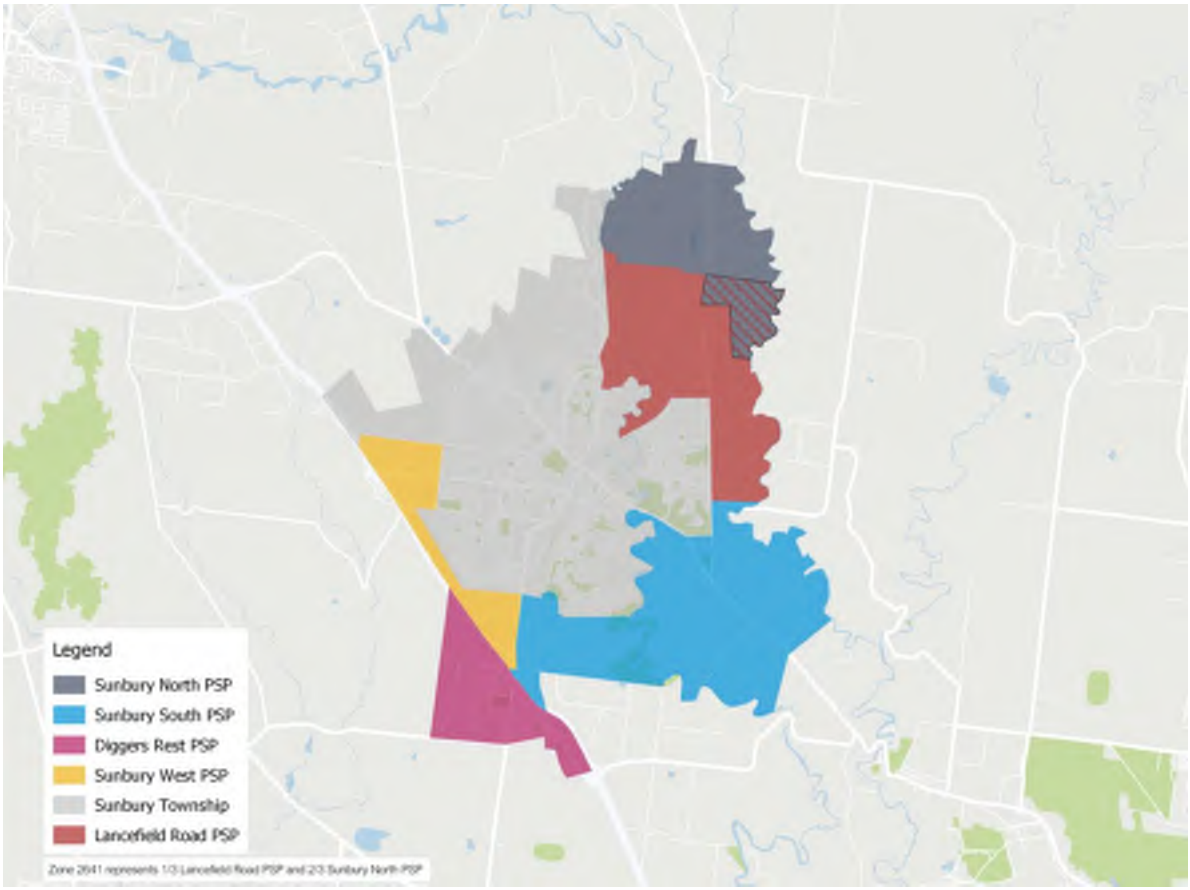


Figure 2.2 on the following page has also been prepared to show the location of the two PSP's in the context of Sunbury, as well as the location of Sunbury West and Sunbury North PSP's which are yet to be gazetted.

Figure 2.2: Sunbury Growth Corridor



Jacksons Creek plays an important role within Sunbury not only in a transport sense but the inability to provide connectivity between existing and future communities within the Corridor. Two bridges crossing Jacksons Creek have been gazetted in the Hume Planning Scheme, one in the Sunbury South PSP and one located in the Lancefield Road PSP.

The Sunbury North PSP, which is yet to commence planning, is located immediately north of the Lancefield Road PSP. It plays an important role in the ultimate assessment of the road network in the corridor, particularly Lancefield Road and the northern bridge. This is explored in more detail within this report.

3. PROJECT CONTEXT

3.1. Transport Modelling Work Completed

In October 2015, GTA Consultants prepared a report titled "Strategic Transport Modelling of the Sunbury and Diggers Rest Growth Corridor (Sunbury South PSP 1074 & Lancefield Road PSP 1075)". That report outlined the impacts of potential new road crossings of Jacksons Creek, with nine potential options for works to improve transport in the area.

Since the completion of the October 2015 report, the land use projections for Metropolitan Melbourne and Victoria have undertaken significant change. Victoria has grown by a million people between 2011 and 2019 and is expected to grow by a further million by 2026. The increased population forecast for Melbourne will have an impact on the level and the movement of traffic across the statistical division.

In this regard, the modelling work was updated to understand the impact to traffic demand in Sunbury as a result of these changes.

All of the updated work was undertaken for a design year of 2046 which assumes full development of the two PSP's and the supporting transport networks including the southern bridge crossing of Jacksons Creek (Option 2 and 5), the northern bridge crossing of Jacksons Creek (option 5), the OMR and road network upgrades within the Sunbury Growth Corridor including Lancefield Road and Sunbury Road.

The key network features used for the assessments of the intersections are summarised in Table 3.1.

Table 3.1: Option 2a and Option 5 Transport Infrastructure Items

Option	Creek Crossing in Sunbury South (PSP 1074)	Railway Station in PSP 1074 (Jacksons Hill Station)	Creek Crossing in Lancefield Road (PSP 1075)	Railway Station in PSP 1075 (Raes Road Station)	Additional Connection to Calder Highway south of PSP 1074	Outer Metropolitan Ring Road (OMR)
2a	✓	✓		✓	✓	Includes OMR
5	✓	✓	✓	✓	✓	Includes OMR

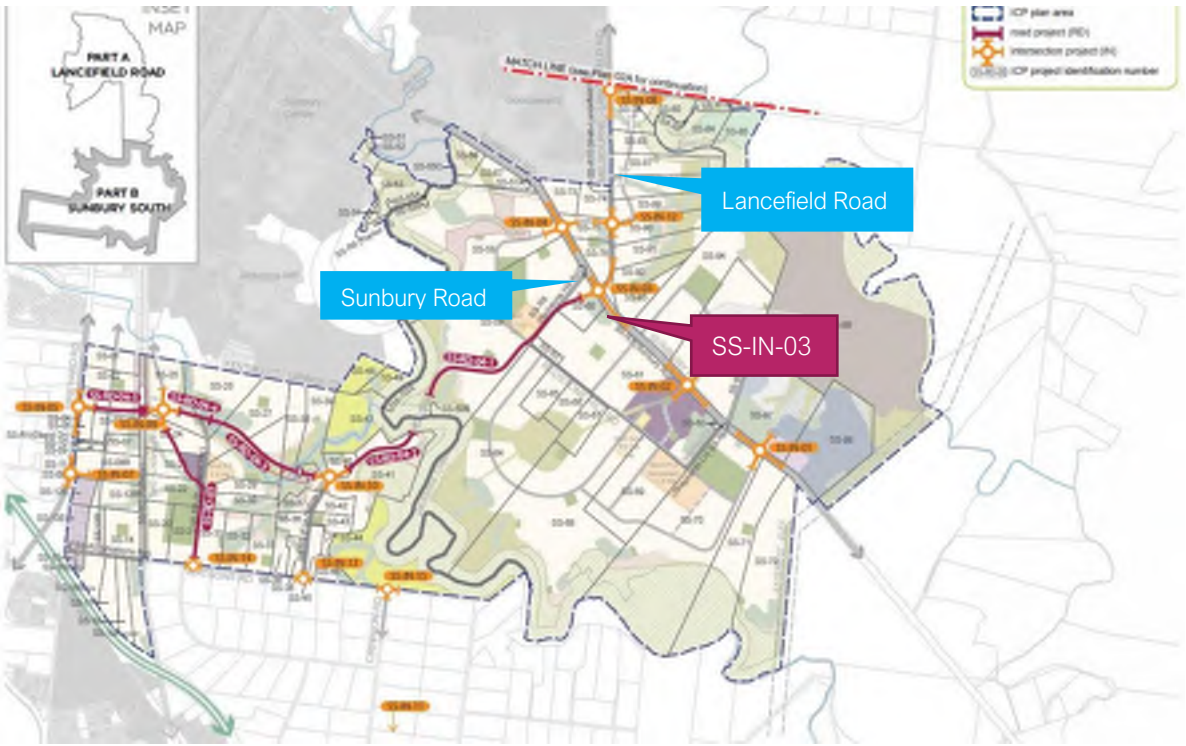
The modelled networks and outputs used in this assessment are documented in the three Supplementary Reports circulated in September 2020.

3.2. Intersection Locations

The traffic assessment focuses on three key intersections that are considered to be most impacted by the removal of the northern bridge which are referred to as LR-IN-04, LR-IN-03 and SS-IN-03 in the Sunbury South and Lancefield Road ICP. The location of these intersections in the context of the Lancefield Road PSP and Sunbury South PSP are illustrated in Figure 3.1 and Figure 3.2.

Figure 3.1: LR-IN-04 and LR-IN-03 (as shown in the Sunbury South and Lancefield Road ICP)

Figure 3.2: SS-IN-03 (as shown in the Sunbury South and Lancefield Road ICP)



4. INTERSECTION ASSESSMENT

4.1. Introduction

This section focuses on the intersection performance with and without the northern bridge for intersections LR-IN-04, LR-IN-03 and SS-IN-03. The traffic volumes have been obtained from the updated VITM modelling completed as part of the recent panel hearing.

The interim concept layout plans for the intersections are in Appendix A.

4.2. Traffic Volumes

The traffic volumes that will be used to analyse the interim intersection models have been extracted from the VITM model for Option 2a and Option 5 which are described in Section 3. An interim scenario was contemplated as part of the 2015 study which assumed land use equivalent of 75% of the assumed development, however an interim scenario was not prepared for the modelling completed in 2020.

For the purposes of this assessment the traffic volumes extracted from the VITM model have been multiplied by 0.75 to best represent the interim scenario. It is noted that these volumes are approximate in that they rely on the ultimate network being delivered including key infrastructure such as the OMR. In reality, the interim network would be more constrained and may provide different travel patterns. Notwithstanding, the 75% assumption is considered suitable for this assessment.

The volumes extracted from VITM are strategic in nature and as such further refinements have been undertaken to account for turns and movements that may have been captured at parallel intersections. For example, the right turn from west to south in LR-IN-04 considers two intersections as all of the turning traffic was assigned to this intersection whereby the adjacent intersection to the north assigned zero movements.

The input volumes used in this assessment are shown in Figure 4.1 to Figure 4.6.

Figure 4.1: LR-IN-04 (AM Peak)

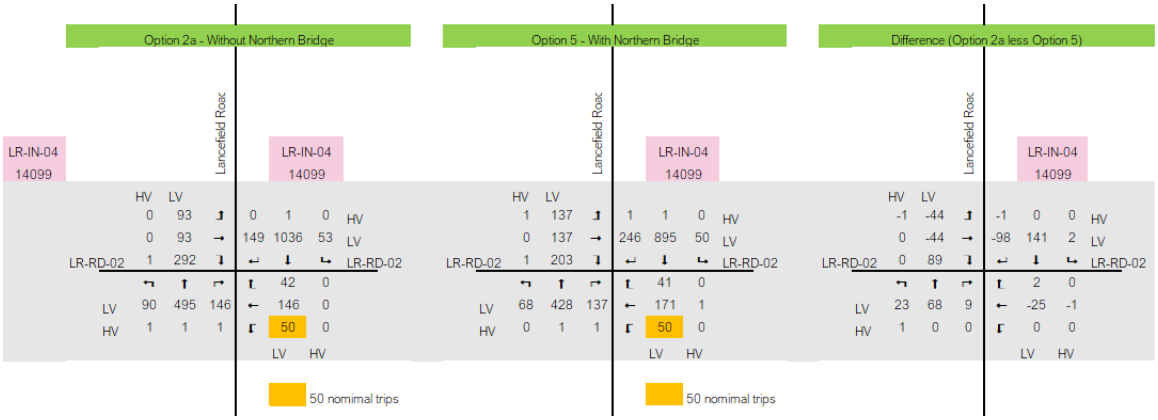


Figure 4.2: LR-IN-04 (PM Peak)

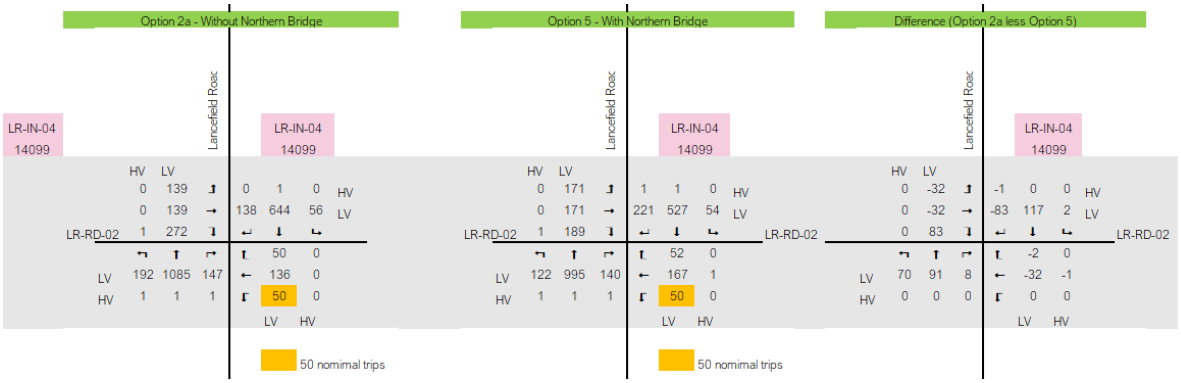


Figure 4.3: LR-IN-03 (AM Peak)

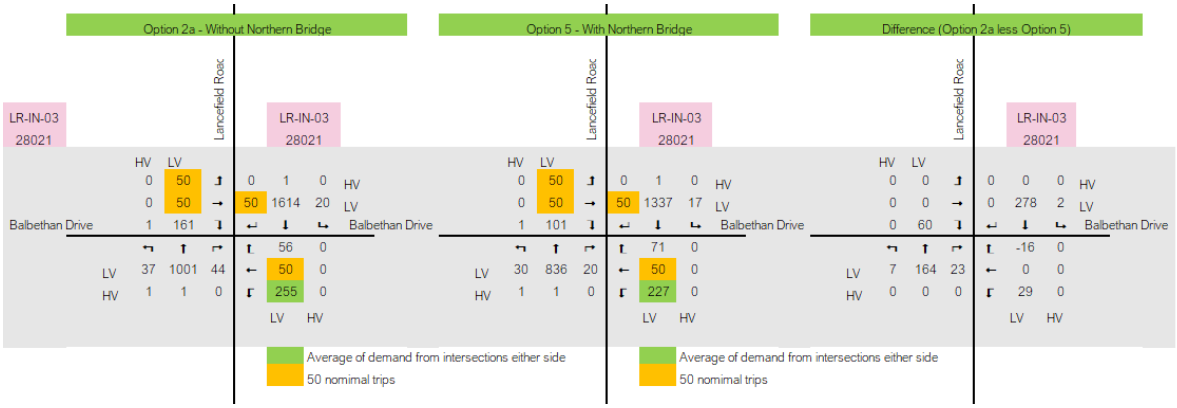


Figure 4.4: LR-IN-03 (PM Peak)

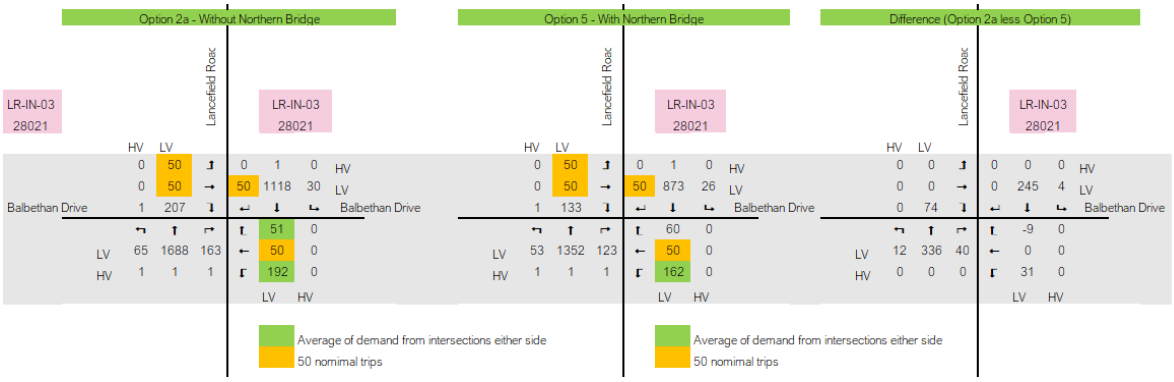


Figure 4.5: SS-IN-03 (AM Peak)

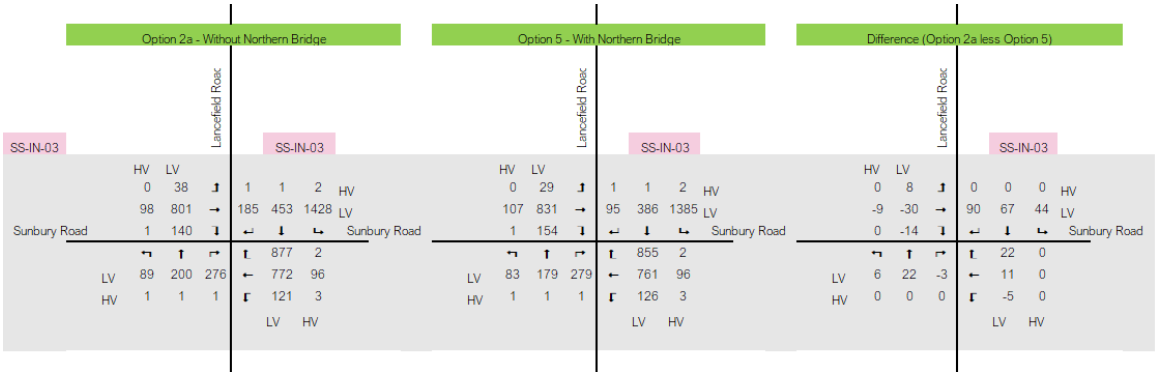
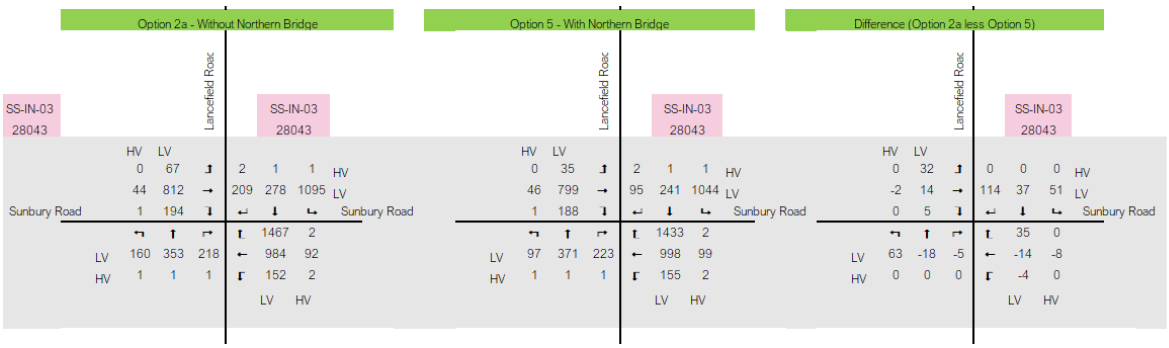


Figure 4.6: SS-IN-03 (PM Peak)



4.3. Intersection Analysis Assumptions

The operations of the LR-IN-03, LR-IN-04 and SS-IN-03 intersections have been assessed using *SIDRA INTERSECTION 8*[1].The commonly used measure of intersection performance is referred to as the *Degree of Saturation (DOS)*. The DOS represents the flow-to-capacity ratio for the most critical movement on each leg of the intersection. For signalised intersections, a DOS of around 0.95 has been typically considered the 'ideal' limit, beyond which queues, and delays increase disproportionately[2].

In order to develop a consistent approach to the intersection analysis, a number of basic principles were adopted which are the same as those used for recent projects completed for Major Road Projects Victoria (MRPV).

1 Program used under license from Akcelik & Associates Pty Ltd.

2 SIDRA INTERSECTION adopts the following criteria for Level of Service assessment:

Level of Service		Intersection Degree of Saturation (DOS)		
		Unsignalised Intersection	Signalised Intersection	Roundabout
A	Excellent	<=0.60	<=0.60	<=0.60
B	Very Good	0.60-0.70	0.60-0.70	0.60-0.70
C	Good	0.70-0.80	0.70-0.90	0.70-0.85
D	Acceptable	0.80-0.90	0.90-0.95	0.85-0.95
E	Poor	0.90-1.00	0.95-1.00	0.95-1.00
F	Very Poor	>=1.0	>=1.0	>=1.0

The principles are:

1. Traffic Volumes:
    - The AM and PM peak hour design traffic volumes have been input as specified in Section 4.2.
    - The SIDRA parameter for Peak Flow Factor has been set to 100%.
2. Pedestrian Demands:
    - Intersections which include pedestrian movements have been modelled with a pedestrian volume that is the greater of existing peak period pedestrian movements; or 50 pedestrians per hour.
3. Intersection Geometry and Operation:
    - Short lane lengths have been modelled as the available storage length excluding taper.
    - If the modelling identified capacity constraints, alternative lane or operational arrangements have been investigated. These could include consideration of:
        - Providing additional lanes.
        - Extending storage lengths available in short lanes.
4. Intersection Phasing:
    - Diamond right turn phasing is provided wherever simultaneous right turn movements are possible.
    - A maximum cycle length of 140 seconds is desirable.
    - Left turn overlap phasing has been adopted.
5. Target Degree of Saturation and Level of Service:
    - Achieve a degree of saturation (DOS) of 0.90 and a level of service (LOS) D.

4.4. Interim Intersection Operation

Table 4.1 provides a comparison of the interim intersection design with and without the northern bridge Options 5 and 2a respectively for the 75% demand flows.

Table 4.1: Interim Intersection Operation (Option 5 versus Option 2a)

Intersection/Location	AM Peak			PM Peak		
	DOS	LOS	Cycle Length (s)	DOS	LOS	Cycle Length (s)
Interim ICP Layout – With Northern Bridge (Option 5)						
LR-IN-04	0.86	D	90	0.90	D	140
LR-IN-03	0.87	C	110	0.89	C	110
SS-IN-03	1.06	F	140	1.14	F	140
Interim ICP Layout – Without Northern Bridge (Option 2a)						
LR-IN-04	0.89	D	130	0.95	D	140
LR-IN-03	1.19	F	140	1.22	F	140
SS-IN-03	1.08	F	140	1.18	F	140

The following comments are provided for the results presented in Table 4.1:

- LR-IN-04 operates satisfactorily with a DOS of lesser than 0.9 and LOS D for both options bridge during the morning AM Peak. However, during the PM peak Option 2a operates with a DOS of 0.95 which exceeds the target of 0.9.
- LR-IN-03 operates satisfactorily under the Option 5 scenario with a DOS of less than 0.9 and a LOS C. The intersection operates significantly worse with Option 2 with a DOS of 1.19 and 1.22 during the AM and PM peaks, respectively. This is not a surprise as the traffic previously on the northern bridge is being diverted to the intersection.
- SS-IN-03 – SS-IN-03 fails in both peak periods with a DOS over 1 for both options. Of note, the intersection operates worse without the northern bridge.

The following sections provide more detailed analysis on the performance of the intersections for the without northern bridge scenario including recommended mitigations to achieve the targe DOS and LOS.

4.5. LR-IN-04 (Lancefield Road – Intersection 4)

The interim intersection layout of LR-IN-04 as per the ICP documents is shown conceptually in Figure 4.7.

Figure 4.7: LR-IN-04 Interim Intersection SIDRA Model Layout

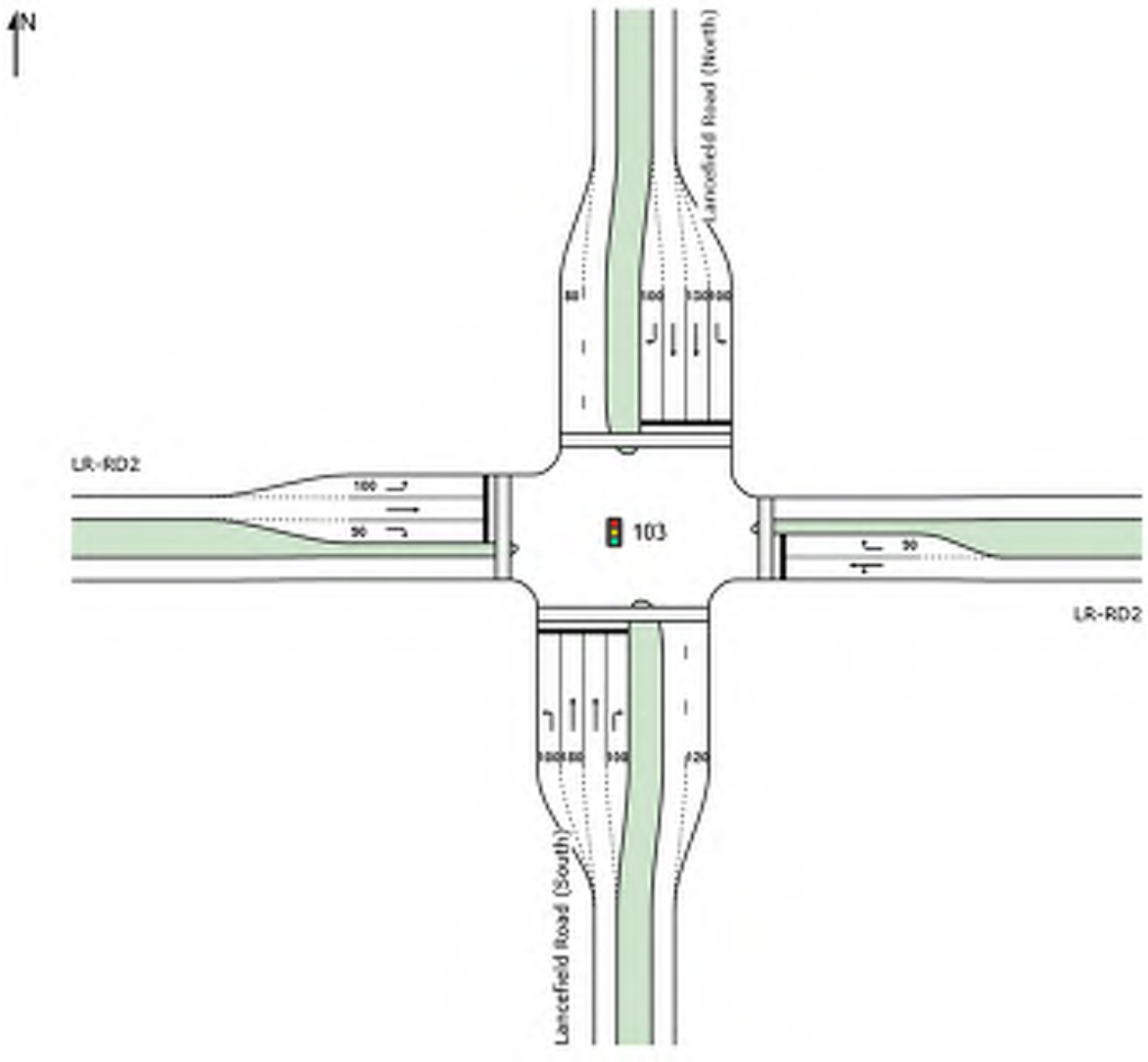


Table 4.2 summarises the intersection performance of LR-IN-04 with full SIDRA outputs included in Appendix B.

Table 4.2: LR-IN-04 - SIDRA Intersection Analysis

Approach	Movement	AM Peak				PM Peak				Lane Length
		DOS	LOS	Average Delay	95th %ile Queue	DOS	LOS	Average Delay	95th %ile Queue	
Lancefield Road (South)	Left	0.10	C	21s	19m	0.18	B	17s	37m	100m
	Thru	0.25	C	34s	51m	0.43	C	29s	120m	180m
	Thru	0.54	D	39s	123m	0.94	E	62s	389m	500m
	Right	0.86	E	78s	73m	0.53	E	66s	67m	100m
	Approach	0.86	D	43s	123m	0.94	D	48s	389m	-
LR-RD2 (East)	Thru + Left	0.61	D	51s	78m	0.60	D	55s	79m	500m
	Right	0.21	E	64s	17m	0.31	E	72s	23m	90m
	Approach	0.61	D	53s	78m	0.60	E	59s	79m	-
Lancefield Road (North)	Left	0.06	C	21s	11m	0.07	C	25s	14m	100m
	Thru	0.58	C	34s	152m	0.36	C	35s	88m	130m
	Thru	0.89	D	49s	273m	0.55	D	38s	147m	500m
	Right	0.52	E	61s	62m	0.95	F	97s	80m	100m
	Approach	0.89	D	44s	273m	0.95	D	46s	147m	-
LR-RD2 (West)	Left	0.13	C	30s	25m	0.24	D	40s	47m	100m
	Thru	0.21	D	43s	33m	0.31	D	48s	55m	500m
	Right	0.89	E	75s	148m	0.94	F	91s	158m	90m
	Approach	0.89	E	60s	148m	0.94	E	67s	158m	-
Intersection		**0.89**	**D**	**48s**	**273m**	**0.95**	**D**	**51s**	**389m**	**-**

[1] Note: 500m lane length represents full length lane in SIDRA
[2] Note: Values highlighted in red have 95th percentile queues longer than the proposed lane length

Table 4.2 shows that the interim intersection configuration for LR-IN-04 will operate satisfactorily during the AM peak with a DOS of 0.89 but marginally worse in the PM peak with a DOS of 0.95.

Specifically, it is noted that the 95th percentile queue length at the short through lane and right turn lane at the northern and southern approaches exceed the lane length.

4.5.1. Recommended Changes

Based on the SIDRA analysis and results, the following changes are recommended to be provided for LR-IN-04:

1. An additional right turn lane on the western approach (leg) of the intersection.
2. Lengthening the short through and downstream lanes at the northern and southern approaches to 200m.

The recommended layout of the modelling intersection geometry is shown in Figure 4.8

Figure 4.8: LR-IN-04 Amendment Intersection SIDRA Model Layout

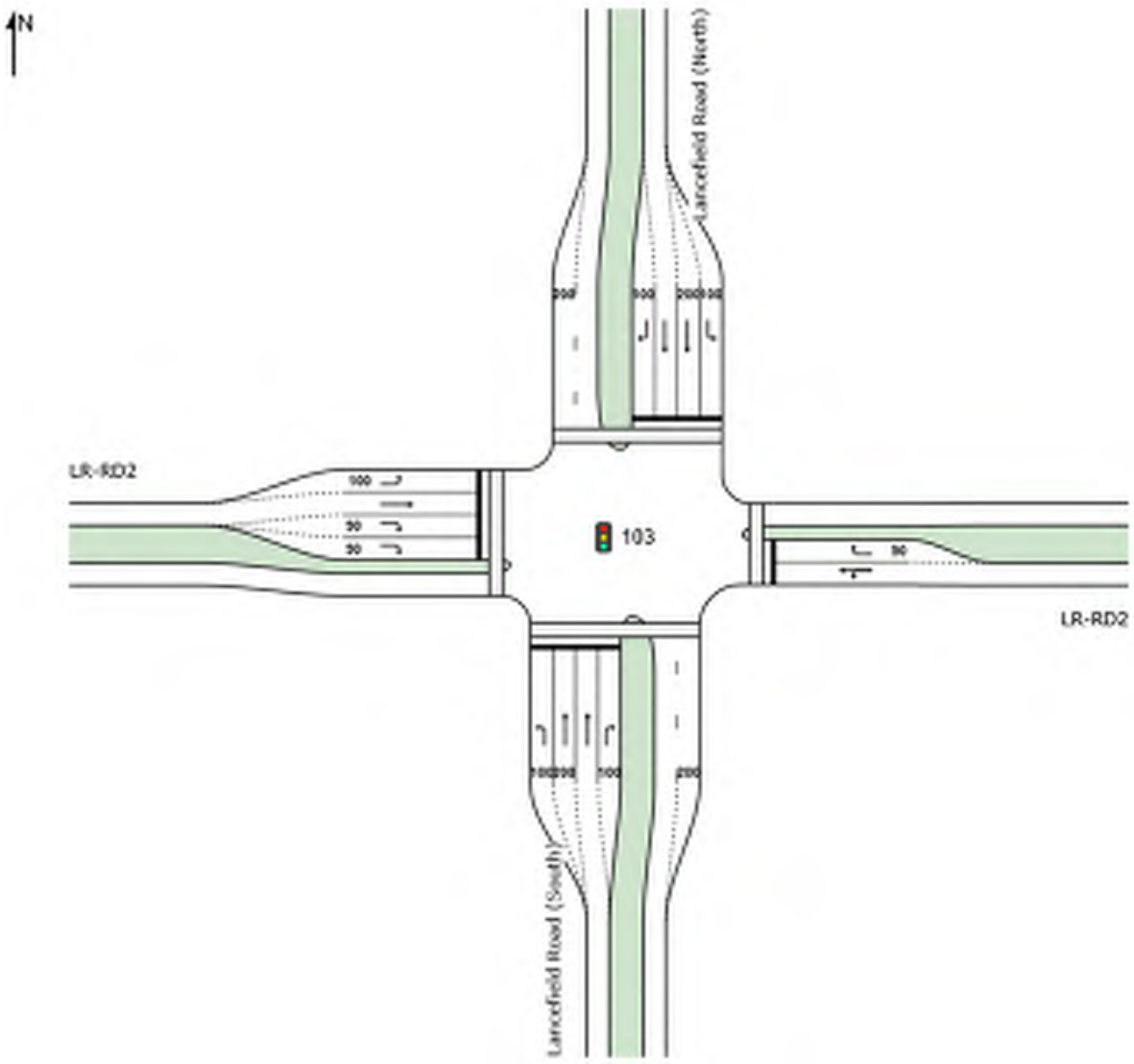


Table 4.3 summarises the intersection performance with full SIDRA outputs included in Appendix B.

Table 4.3: LR-IN-04 Amended Design - SIDRA Intersection Analysis

Approach	Movement	AM Peak				PM Peak				Lane Length
		DOS	LOS	Average Delay	95th %ile Queue	DOS	LOS	Average Delay	95th %ile Queue	
Lancefield Road (South)	Left	0.11	B	18s	14m	0.25	B	19s	31m	100m
	Thru	0.37	C	24s	58m	0.86	D	35s	163m	200m
	Thru	0.37	C	24s	58m	0.86	D	35s	163m	500m
	Right	0.80	D	54s	50m	0.58	D	42s	40m	100m
	Approach	0.80	C	29s	58m	0.86	C	34s	163m	-
LR-RD2 (East)	Thru + Left	0.52	C	32s	51m	0.46	C	27s	41m	500m
	Right	0.23	D	48s	12m	0.31	D	45s	14m	90m
	Approach	0.52	C	35s	51m	0.46	C	31s	41m	-
Lancefield Road (North)	Left	0.06	B	18s	8m	0.08	B	20s	9m	100m
	Thru	0.77	C	31s	150m	0.60	C	28s	78m	200m
	Thru	0.77	C	31s	150m	0.60	C	28s	78m	500m
	Right	0.80	D	54s	50m	0.85	D	52s	43m	100m
	Approach	0.80	C	33s	150m	0.85	C	31s	78m	-
LR-RD2 (West)	Left	0.17	C	27s	20m	0.26	C	25s	27m	100m
	Thru	0.25	C	34s	25m	0.36	C	30s	34m	500m
	Right	0.79	D	54s	49m	0.84	D	52s	43m	90m
	Right	0.79	D	54s	49m	0.84	D	52s	43m	90m
	Approach	0.79	D	45s	49m	0.84	D	40s	43m	-
Intersection		**0.80**	**C**	**34s**	**150m**	**0.86**	**C**	**34s**	**163m**	**-**

[3] Note: 500m lane length represents full length lane in SIDRA

Table 4.3 shows that the amendments to the interim intersection with the lengthening of the northern and southern short through lane and departure lanes and the inclusion of a second right turn lane at the western approach will be able operate satisfactorily with a DOS of 0.80 and 0.86 in the AM and PM peaks, respectively. Both intersections are predicted to operate with a LOS C. The delays and 95th percentile queue lengths are within acceptable limits.

4.6. LR-IN-03 (Lancefield Road – Intersection 3)

The interim intersection layout of LR-IN-03 as per the ICP documents is shown conceptually in Figure 4.9

Figure 4.9: LR-IN-03 Interim Intersection SIDRA Model Layout

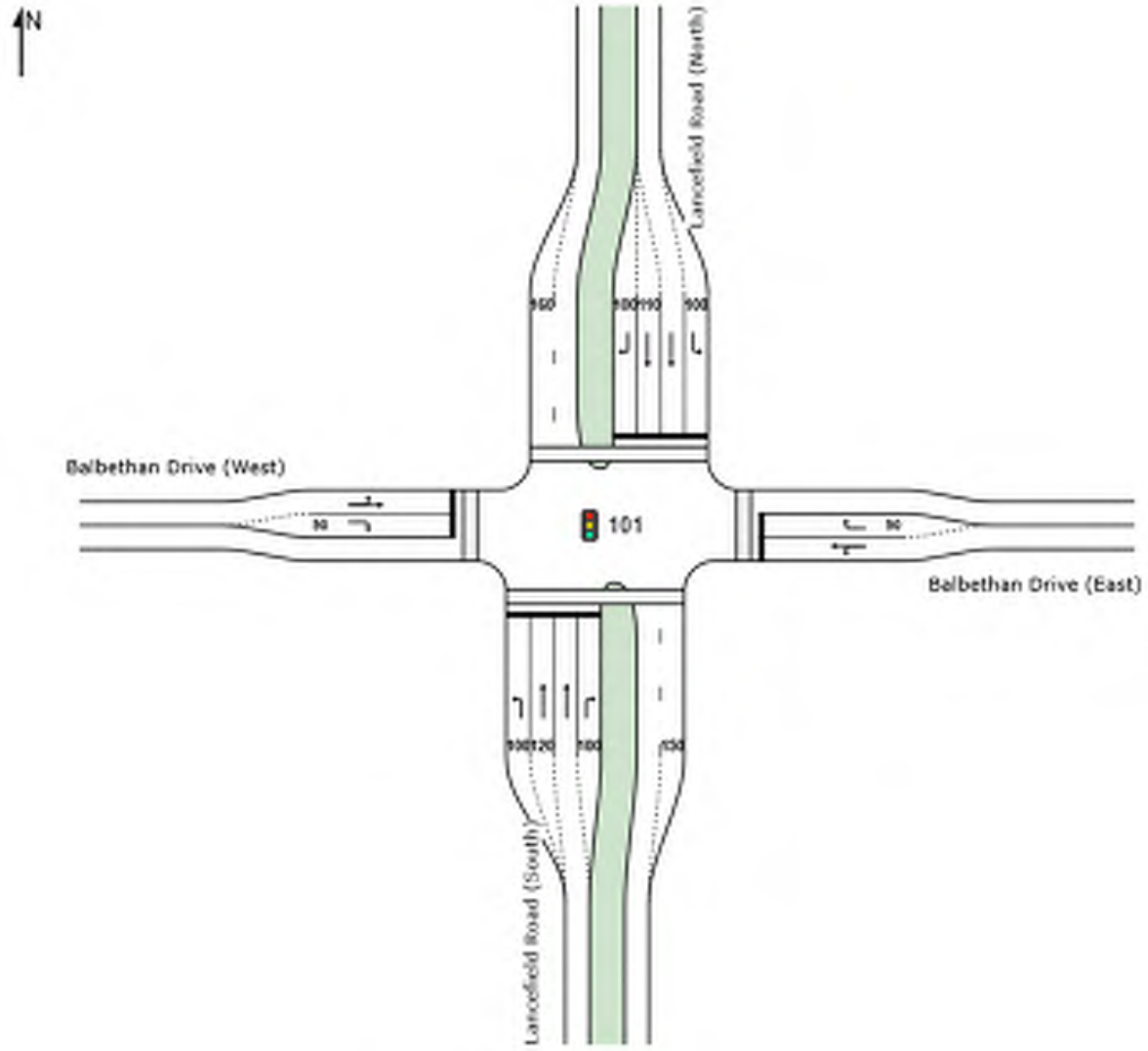


Table 4.4 summarises the intersection performance of LR-IN-03 with full SIDRA outputs included in Appendix B.

Table 4.4: LR-IN-03 - SIDRA Intersection Analysis

Approach	Movement	AM Peak				PM Peak				Lane Length
		DOS	LOS	Average Delay	95th %ile Queue	DOS	LOS	Average Delay	95th %ile Queue	
Lancefield Road (South)	Left	0.03	B	14s	6m	0.06	B	14s	11m	100m
	Thru	0.43	B	20s	127m	1.04	F	121s	581m	120m
	Thru	0.51	C	21s	158m	1.22	F	265s	1,086m	500m
	Right	0.55	F	82s	22m	0.73	E	73s	80m	100m
	Approach	0.55	C	22s	158m	1.22	F	185s	1,086m	-
Balbethan Drive (East)	Thru + Left	0.86	E	66s	148m	0.63	D	54s	101m	500m
	Right	0.38	E	74s	26m	0.32	E	73s	24m	90m
	Approach	0.86	E	67s	148m	0.63	E	57s	101m	-
Lancefield Road (North)	Left	0.02	B	14s	3m	0.03	B	18s	6m	100m
	Thru	0.94	E	55s	321m	0.60	C	30s	188m	500m
	Thru	1.19	F	232s	1,004m	0.76	C	31s	214m	110m
	Right	0.63	F	82s	25m	0.63	F	82s	25m	100m
	Approach	1.19	F	154s	1,004m	0.76	C	33s	214m	-
Balbethan Drive (West)	Thru + Left	0.31	D	53s	40m	0.30	D	52s	40m	500m
	Right	1.12	F	192s	140m	1.21	F	269s	218m	90m
	Approach	1.12	F	139s	140m	1.21	F	198s	218m	-
Intersection		**1.19**	**F**	**102s**	**1,004m**	**1.22**	**F**	**127s**	**1,086m**	**-**

[4] Note: 500m lane length represents full length lane in SIDRA
[5] Note: Values highlighted in red have 95th percentile queues longer than the proposed lane length

Table 4.4 shows that the interim intersection configuration for LR-IN-03 will not be able operate satisfactorily with a DOS of 1.19 and 1.22 in the AM and PM peaks, respectively.

Specifically, the DOS will be over 1, showing that vehicles will need two or more traffic signal cycles to clear the intersection during both peaks. In the AM and PM peaks, queues of over 1km long are predicted at the northern and southern approaches, respectively.

It is noted that the 95th percentile queue length for the right turn lane at the western leg during both AM and PM peaks exceeds the available lane length.

4.6.1. Recommended Changes

Based on the SIDRA analysis and results, the following changes are recommended to be provided for LR-IN-03:

1. An additional right turn lane at the western approach (leg) of the intersection
2. Lengthening the short downstream lanes at the northern and southern approaches to 200m
3. Lengthening the short through lanes at the northern approach and southern approaches to 300m and 350m, respectively.

The layout of the modelling intersection geometry is shown in Figure 4.10.

Figure 4.10:LR-IN-03 Amendment Intersection SIDRA Model Layout

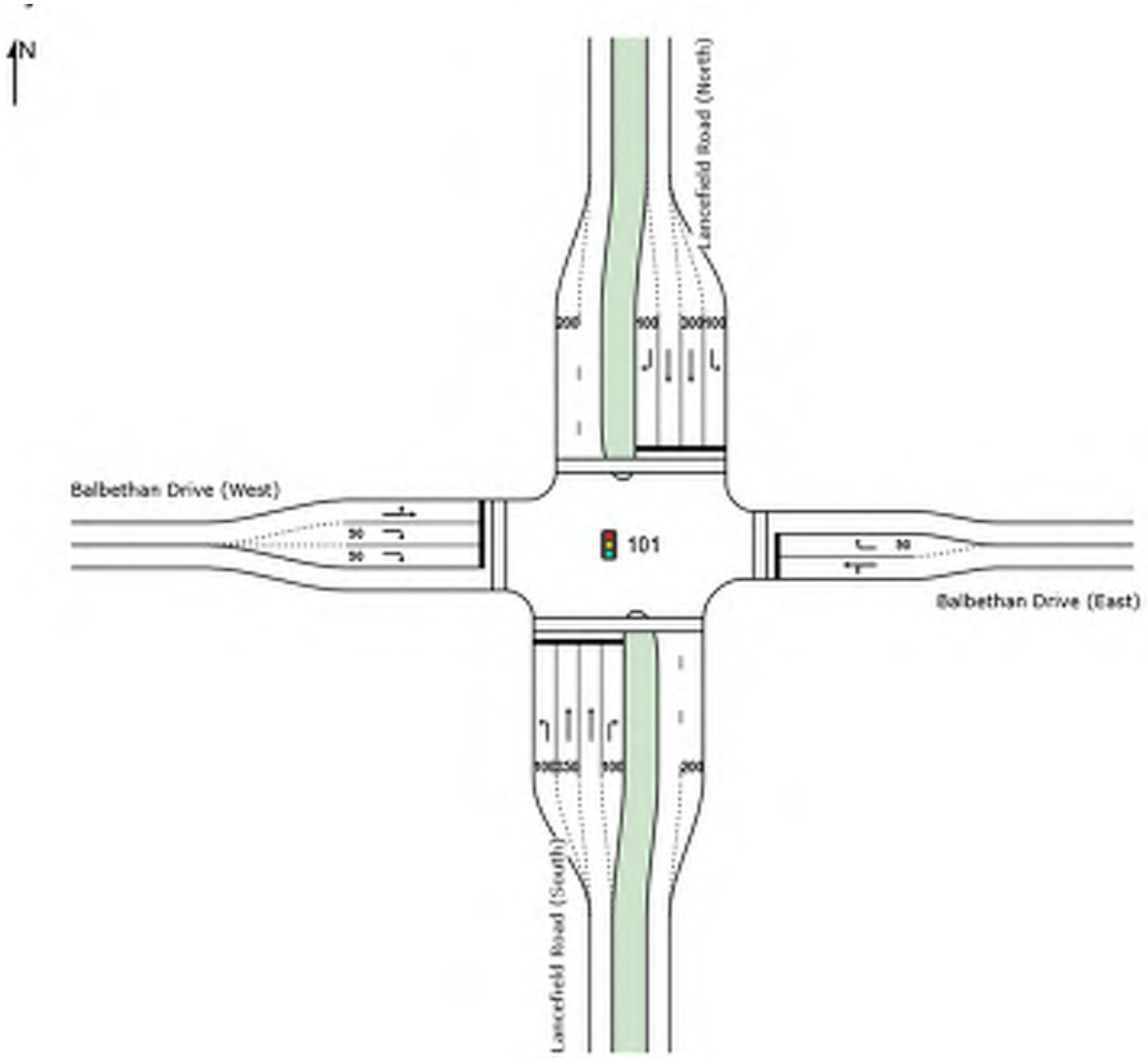


Table 4.5 summarises the intersection performance with full SIDRA outputs included in Appendix B.

Table 4.5: LR-IN-03 Amended Design - SIDRA Intersection Analysis

Approach	Movement	AM Peak				PM Peak				Lane Length
		DOS	LOS	Average Delay	95th %ile Queue	DOS	LOS	Average Delay	95th %ile Queue	
Lancefield Road (South)	Left	0.04	B	15s	5m	0.06	B	14s	10m	100m
	Thru	0.52	C	20s	128m	0.87	C	32s	348m	350m
	Thru	0.52	C	20s	128m	0.87	C	32s	315m	500m
	Right	0.43	E	64s	17m	0.64	E	64s	71m	100m
	Approach	0.52	C	22s	128m	0.87	C	34s	348m	-
LR-RD2 (East)	Thru + Left	0.24	D	37s	30m	0.61	D	49s	93m	500m
	Right	0.55	E	65s	22m	0.40	E	71s	23m	90m
	Approach	0.55	D	46s	30m	0.61	D	53s	93m	-
Lancefield Road (North)	Left	0.02	B	15s	3m	0.03	B	19s	6m	100m
	Thru	0.87	C	33s	301m	0.66	C	30s	196m	300m
	Thru	0.87	C	33s	285m	0.66	C	29s	185m	500m
	Right	0.73	E	67s	30m	0.58	E	76s	24m	100m
	Approach	0.87	C	34s	301m	0.66	C	31s	196m	-
LR-RD2 (West)	Left + Thru	0.26	D	38s	29m	0.30	D	48s	37m	500m
	Right	0.80	E	69s	34m	0.81	E	77s	50m	90m
	Right	0.80	E	69s	34m	0.81	E	77s	50m	90m
	Approach	0.80	E	57s	34m	0.81	E	68s	50m	-
Intersection		**0.87**	**C**	**32s**	**301m**	**0.87**	**D**	**37s**	**348m**	**-**

[6] Note: 500m lane length represents full length lane in SIDRA

Table 4.5 shows that the amendments to the interim intersection with the lengthening of the northern and southern short through lane and departure lanes and the inclusion of a second right turn lane at the western approach will be able operate satisfactorily with a DOS of 0.87 and a LOS of D in the AM and PM peaks. The delays and 95th percentile queue lengths are within acceptable limits.

4.7. SS-IN-03 (Sunbury South – Intersection 3

The interim intersection layout of SS-IN-03 as per the ICP documents is shown conceptually in Figure 4.11.

Figure 4.11:SS-IN-03 Interim Intersection SIDRA Model Layout

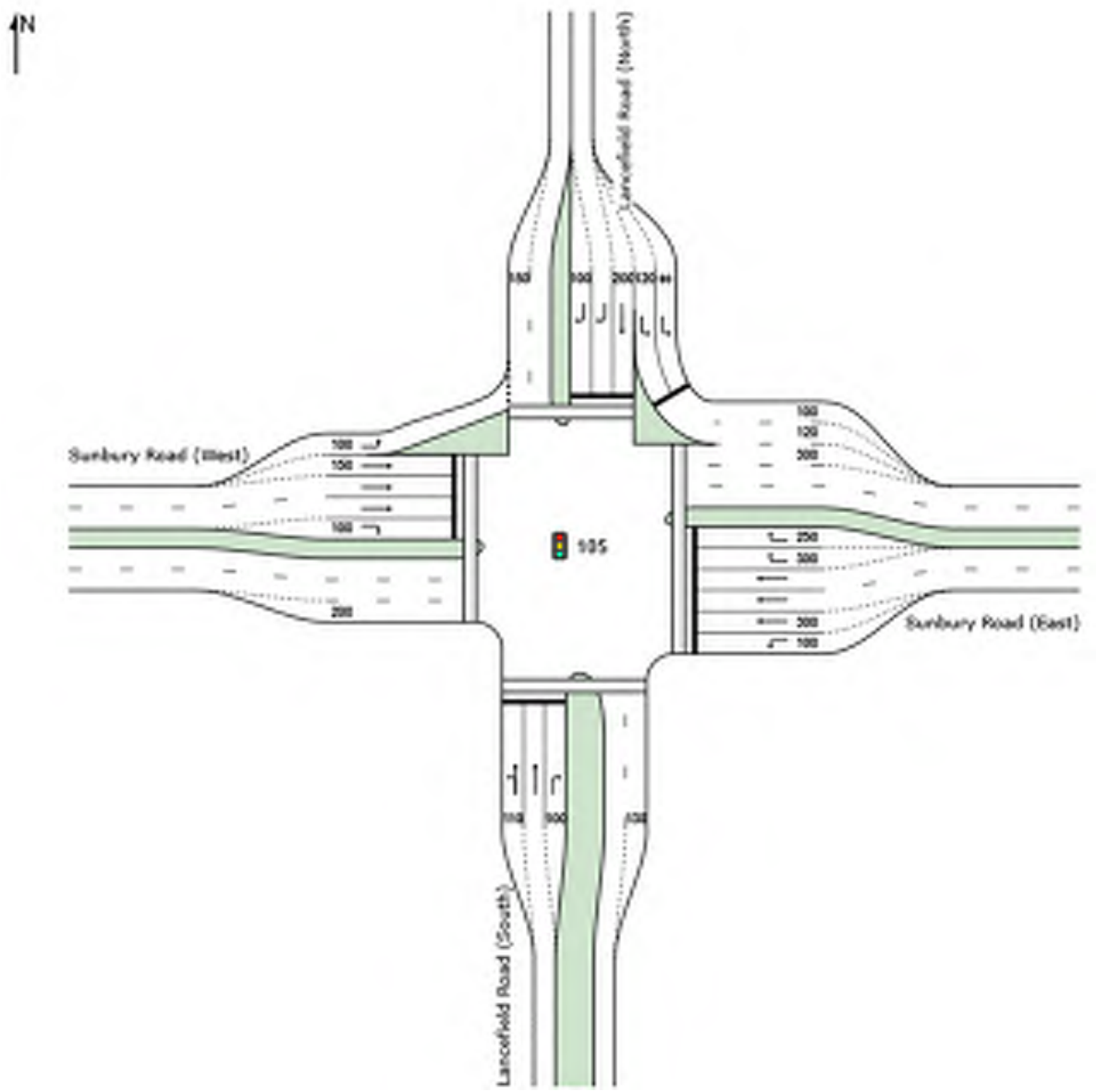


Table 4.6 summarises the intersection performance of SS-IN-03 with full SIDRA outputs included in Appendix B.

Table 4.6: SS-IN-03 - SIDRA Intersection Analysis

Approach	Movement	AM Peak				PM Peak				Lane Length
		DOS	LOS	Average Delay	95th %ile Queue	DOS	LOS	Average Delay	95th %ile Queue	
Lancefield Road (South)	Thru + Left	0.28	D	40s	50m	0.54	D	47s	101m	110m
	Thru	0.29	D	45s	56m	0.58	D	52s	110m	500m
	Right	1.05	F	143s	206m	1.18	F	246s	219m	100m
	Approach	1.05	F	91s	206m	1.18	F	108s	219m	-
Sunbury Road (East)	Left	0.15	C	26s	32m	0.20	C	29s	43m	100m
	Thru	0.51	D	42s	123m	0.60	D	43s	154m	300m
	Thru	0.51	D	42s	123m	0.60	D	43s	154m	500m
	Thru	0.51	D	42s	123m	0.60	D	43s	154m	500m
	Right	0.82	E	62s	198m	1.01	F	107s	481m	300m
	Right	0.92	E	77s	259m	1.13	F	191s	717m	250m
	Approach	0.92	D	54s	259m	1.13	F	101s	717m	-
Lancefield Road (North)	Left	0.93	D	53s	280m	0.42	B	19s	116m	90m
	Left	1.08	F	152s	689m	0.49	B	19s	144m	120m
	Thru	0.91	E	69s	244m	0.63	D	52s	121m	200m
	Right	0.35	E	65s	41m	0.57	E	73s	50m	500m
	Right	0.35	E	65s	41m	0.57	E	73s	50m	100m
	Approach	1.08	F	95s	689m	0.63	C	32s	144m	-
Sunbury Road (West)	Left	0.04	B	13s	6m	0.08	C	26s	17m	100m
	Thru	1.05	F	137s	244m	1.18	F	234s	294m	150m
	Thru	1.05	F	137s	244m	1.18	F	234s	294m	500m
	Thru	1.05	F	137s	244m	1.18	F	234s	294m	500m
	Right	0.67	E	72s	68m	0.59	E	63s	87m	100m
	Approach	1.05	F	125s	244m	1.18	F	192s	294m	-
Intersection		**1.08**	**F**	**87s**	**689m**	**1.18**	**F**	**101s**	**717m**	**-**

[7] Note: 500m lane length represents full length lane in SIDRA
[8] Note: Values highlighted in red have 95th percentile queues longer than the proposed lane length

Table 4.6 shows that the existing intersection configuration (with signalised left turn slip lane from the north) will not be able to operate satisfactorily with the proposed design volumes in both peak periods.

Specifically, the DOS will be over 1, showing that vehicles will need two or more traffic signal cycles to clear the intersection during both peaks. This is particularly evidence in the PM peak, where the DOS is over 1 at the southern, eastern and western approaches. At the western approaches delays of just under four minutes are predicted for vehicles turning right from Sunbury Road onto Lancefield Drive.

4.7.1. Recommended Changes

Based on the SIDRA analysis and results, the following changes are recommended to be provided for SS-IN-03:

1. An additional right turn lane at the southern approach (leg) of the intersection.
2. An additional right turn lane on the eastern approach (leg) of the intersection.
3. Lengthening the signalised left turn slip lanes on the northern approach from 180m to 220m and from 80m to 120m.

The layout of the modelling intersection geometry is shown in Figure 4.12.

Figure 4.12: SS-IN-03 Amendment Intersection SIDRA Model Layout

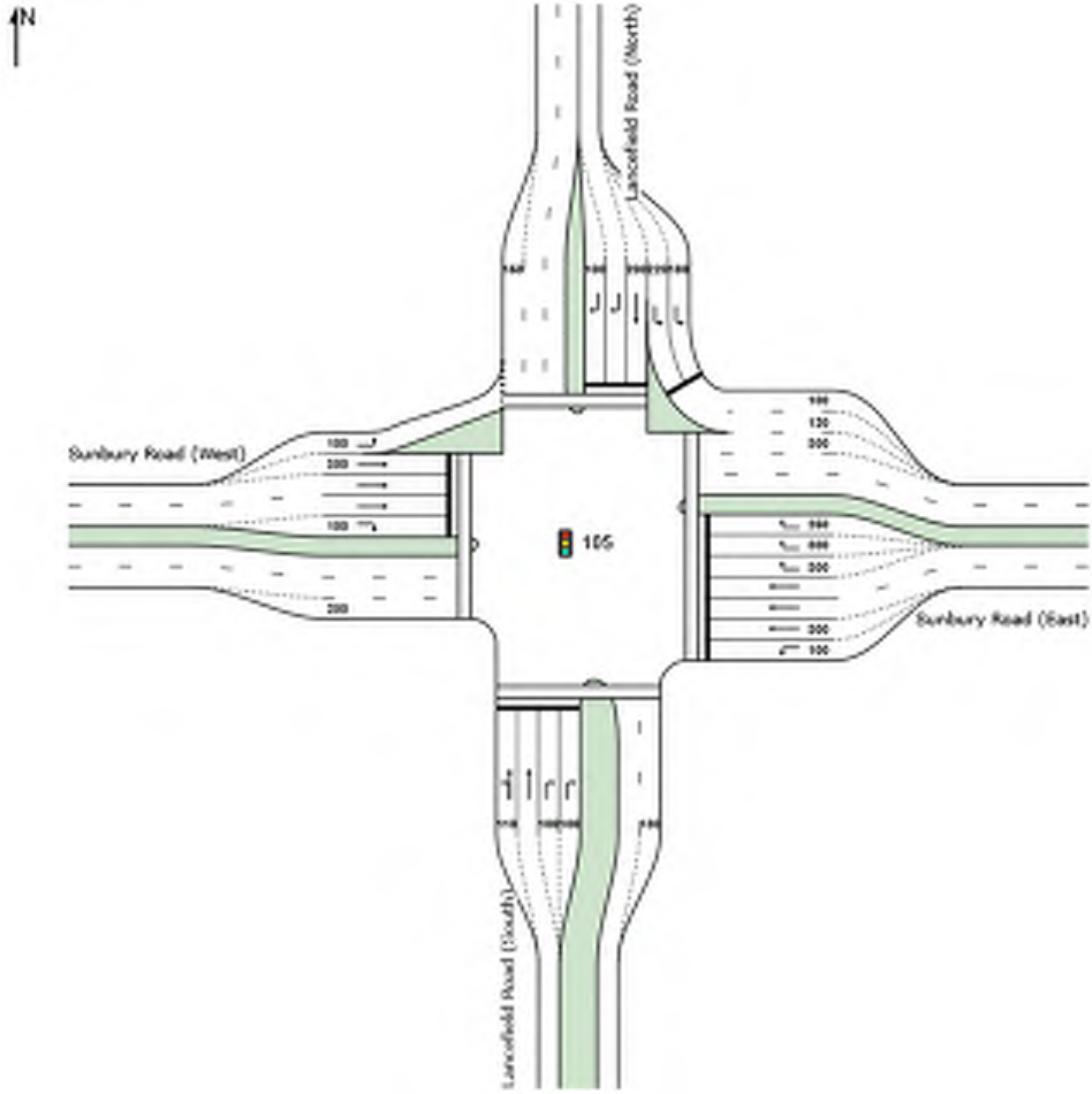


Table 4.7 summarises the intersection performance with full SIDRA outputs included in Appendix B.

Table 4.7: SS-IN-03 Amended Design - SIDRA Intersection Analysis

Approach	Movement	AM Peak				PM Peak				Lane Length
		DOS	LOS	Average Delay	95th %ile Queue	DOS	LOS	Average Delay	95th %ile Queue	
Lancefield Road (South)	Thru + Left	0.24	C	25s	34m	0.54	D	43s	94m	110m
	Thru	0.24	C	28s	37m	0.57	D	48s	101m	500m
	Right	0.83	E	61s	53m	0.85	E	80s	54m	100m
	Right	0.83	E	61s	53m	0.85	E	80s	54m	100m
	Approach	0.83	D	44s	53m	0.85	E	56s	101m	-
Sunbury Road (East)	Left	0.20	C	27s	28m	0.22	C	30s	43m	100m
	Thru	0.64	D	37s	98m	0.62	D	41s	145m	300m
	Thru	0.64	D	37s	98m	0.62	D	41s	145m	500m
	Thru	0.64	D	37s	98m	0.62	D	41s	145m	500m
	Right	0.88	E	59s	114m	0.80	D	52s	192m	300m
	Right	0.88	E	59s	114m	0.89	E	63s	247m	300m
	Right	0.88	E	59s	114m	0.89	E	63s	247m	250m
	Approach	0.88	D	47s	114m	0.89	D	51s	247m	-
Lancefield Road (North)	Left	0.66	C	23s	160m	0.44	B	20s	117m	180m
	Left	0.77	C	25s	205m	0.52	C	20s	145m	220m
	Thru	0.78	D	37s	149m	0.55	D	45s	107m	200m
	Right	0.56	E	55s	32m	0.57	E	68s	47m	500m
	Right	0.56	E	55s	32m	0.57	E	68s	47m	100m
	Approach	0.78	C	30s	205m	0.57	C	31s	145m	-
Sunbury Road (West)	Left	0.03	A	9s	3m	0.07	B	17s	12m	100m
	Thru	0.87	D	52s	126m	0.85	E	64s	142m	300m
	Thru	0.87	D	52s	126m	0.85	E	64s	142m	500m
	Thru	0.87	D	52s	126m	0.85	E	64s	142m	500m
	Right	0.64	D	53s	49m	0.62	E	61s	82m	100m
	Approach	0.87	D	51s	126m	0.85	E	61s	142m	-
Intersection		**0.88**	**D**	**41s**	**205m**	**0.89**	**D**	**48s**	**247m**	**-**

[9] Note: 500m lane length represents full length lane in SIDRA
[10] Note: Values in red have been highlighted as key operational movements at the intersection

Table 4.7 s shows that the amendments to the interim intersection with the lengthening of the northern and southern short through lane and departure lanes and the inclusion of a second right turn lane at the western approach will be able operate satisfactorily with a DOS of 0.88 and 0.89 in the AM and PM peaks, respectively. Both intersections are predicted to operate with a LOS D in the AM and PM peaks. The delays and 95th percentile queue lengths are within acceptable limits.

4.8. Summary

The recommended upgrades to the interim intersections are summarised as follows:

1. LR-IN-04 (Lancefield Road – Intersection 4)
    - An additional right turn lane at the western approach (leg) of the intersection.
    - Lengthening the short through and downstream lanes at the northern and southern approaches to 200m.
2. LR-IN-03 (Lancefield Road – Intersection 3)
    - An additional right turn lane at the western approach (leg) of the intersection.
    - Lengthening the short downstream lanes at the northern and southern approaches to 200m.
    - Lengthening the short through lanes at the northern approach and southern approaches to 300m and 350m respectively.
3. SS-IN-03 (Sunbury South – Intersection 3)
    - An additional right turn lane at the southern and eastern approaches of the intersection.
    - Lengthening the signalised left turn slip lanes at the northern approach to 180m and 220m from 80m and 120m.

5. SENSITIVITY ANALYSIS

5.1. Introduction

In addition to the intersection assessments set out in this report, sensitivity analysis has been undertaken to determine the level of development (flow) that the interim intersections are able to accommodate. The sensitivity tests included a scenario with 60% and 50% of the full traffic build out of the surrounding developments from Option 2a.

Table 5.1 provides a summary of the sensitivity assessment based on 60% and 50% of the full traffic buildout for the interim intersection layouts within the ICP.

Table 5.1: Interim Intersection Layout SIDRA Intersection Analysis - Summary

Intersection/Location	AM Peak			PM Peak		
	DOS	LOS	Cycle Length (s)	DOS	LOS	Cycle Length (s)
Interim Layout with 60% of Development (Option 2a)						
LR-IN-04	0.83	D	90	0.89	D	90
LR-IN-03	0.91	C	100	0.90	D	120
SS-IN-03	0.88	D	110	0.94	D	140
Interim Layout with 50% of Development (Option 2a)						
LR-IN-04	0.88	C	70	0.85	C	80
LR-IN-03	0.88	C	80	0.84	C	90
SS-IN-03	0.83	D	100	0.86	D	120

[1] Minimum Cycle Length operating at the Pedestrian Operated signals

Table 5.1 indicates that at 60% of the full development traffic flow the following will occur:

- LR-IN-04 will operate satisfactorily with a maximum DOS of 0.88 during the PM.
- LR-IN-03 will operate close to the desired DOS with 0.91 and 0.9 in the AM and PM peaks respectively. Notwithstanding, these do not meet the target of less than 0.9.
- SS-IN-03 will operate satisfactorily during the AM peak but is nearing practical capacity during the PM peak with a DOS of 0.94, also not meeting the target of 0.9.

At 50% of full development flows all three intersections operate satisfactorily with a DOS of under 0.9 and a minimum level of service D.

Full results of the sensitivity analysis are available in Appendix B.

6. CONCLUSION

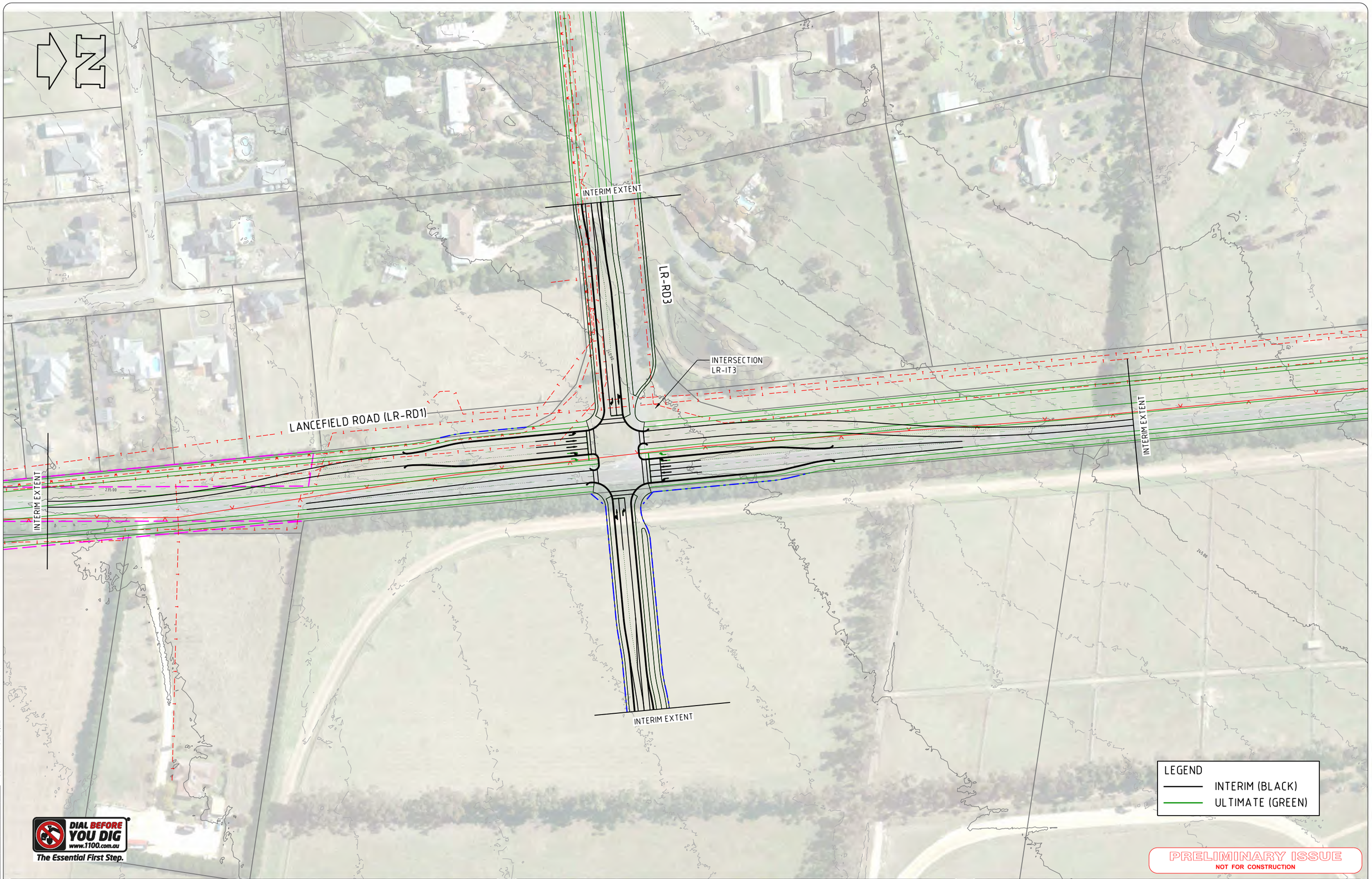
6.1. Summary

The suitability of the interim intersections for LR-IN-04, LR-IN-03 and SS-IN-03 proposed in the ICP have been assessed using SIDRA to determine their suitability without the delivery of the northern bridge in the ICP. The following comments are provided with respect to the analysis presented in this report:

1. The interim traffic volumes extracted from VITM are approximate in that they rely on the ultimate network being delivered which includes key infrastructure such as the OMR.
2. Some refinements have been undertaken in the development of input volumes to account for turns and movements that have been captured at parallel intersections in the model.
3. Without the northern bridge, all three intersections do not meet the target criteria of DOS of 0.9 and LOS C for the interim configurations.
4. The following changes are recommended to be provided for LR-IN-04 to accommodate the 75% of development:
    - An additional right turn lane at the western approach (leg) of the intersection.
    - Lengthening the short through and downstream lanes at the northern and southern approaches to 200m.
5. The following changes are recommended to be provided for LR-IN-03 to accommodate the 75% of development:
    - An additional right turn lane at the western approach (leg) of the intersection.
    - Lengthening the short downstream lanes at the northern and southern approaches to 200m.
    - Lengthening the short through lanes at the northern approach and southern approaches to 300m and 350m respectively.
6. The following changes are recommended to be provided for SS-IN-03 to accommodate the 75% of development:
    - An additional right turn lane at the southern and eastern approaches of the intersection.
    - Lengthening the signalised left turn slip lanes at the northern approach to 180m and 220m from 80m and 120m.
7. LR-IN-04 and LR-IN-03 are able to accommodate 60% of the full build out without any modifications.
8. All of the interim intersection designs are able to accommodate 50% of the full build out without any modifications required.

A. INTERIM CONCEPT LAYOUT PLANS

A



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REV	DATE	DESCRIPTION	DRAWN	CHECK	DESIGN	VERIFY
B	25/07/16	REALIGNED LR-RD3 AND AMENDED CROSS SECTION	DH	GW	DH	DR
A	10/12/15	ISSUED FOR INFORMATION	RAM	GW	RAM	DR

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CLIENT
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PROJECT
SUNBURY STH AND LANCEFIELD RD PSP

ALIGNMENT PLAN
INTERIM INTERSECTION
LR-IT3

PROJECT No.	DISCIPLINE	NUMBER	REV.
2113308A	CIV	1503	B

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B	4/10/16	LR-RD2 CROSS SECTION REVISED	GW	DR	GW	DR
A	10/12/15	ISSUED FOR INFORMATION	RAM	GW	RAM	DR

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PROJECT
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INTERIM INTERSECTION
LR-IT4

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INTERSECTION EXTENT

SUNBURY ROAD (SS-RD-02)

INTERSECTION EXTENT

LANCEFIELD ROAD

SS-IN-03

INTERSECTION EXTENT

FOR CONTINUATION REFER TO SHEET2

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G	ULTIMATE AMENDED TO VPA COMMENTS - GHD	SL	LM*	MW*	08.02.19
F	ULTIMATE AMENDED TO VPA COMMENTS - GHD	DE	LM*	MW*	03.12.18
E	ULTIMATE AMENDED TO VPA COMMENTS - GHD	DE	LM*	MW*	28.09.18
D	ULTIMATE AMENDED TO VPA COMMENTS - GHD	DE	LM*	MW*	26.09.18

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Project **SUNBURY STH AND LANCEFIELD RD PSP**

Title **ALIGNMENT PLAN**
INTERIM INTERSECTION
SS-IN-03

Original Size **A3**

Drawing No: **2113308A-CIV-1603** Rev: **H**

Plot Date: 8 August 2019 - 9:38 AM Plotted By: Shane Laybourne Cad File No: \\ghdnet\GHD\AU\Melbourne\Projects\31\36206\CADD\Drawings\31-36206-CIV-1603.dwg