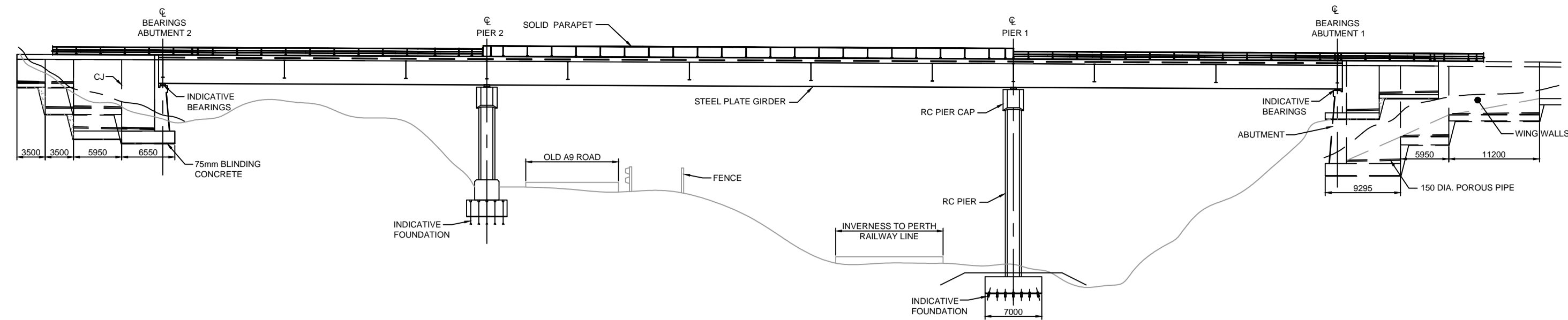
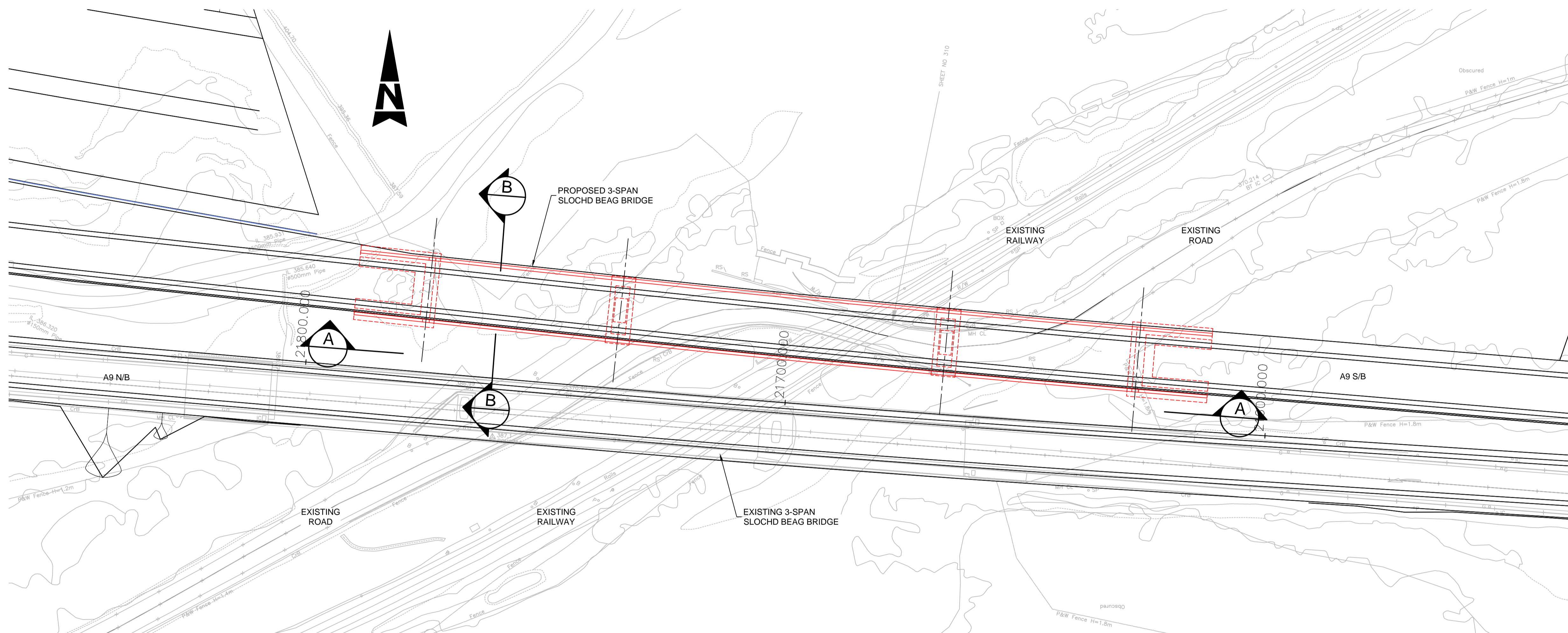


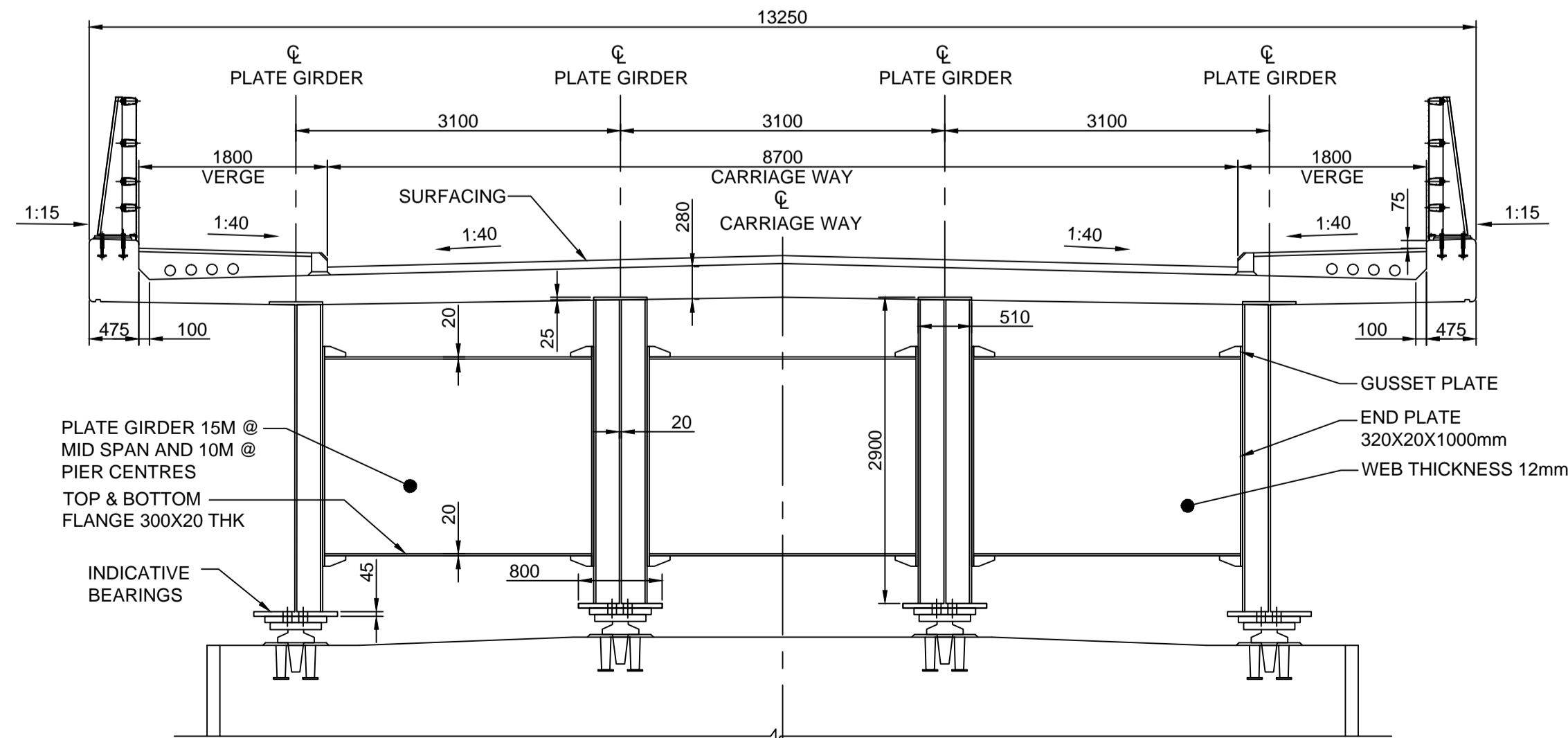
100
0 10
Millimetres
DO NOT SCALE



A ELEVATION
SCALE 1:500



PLAN
1:500



B SECTION
SCALE 1:50

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
 2. ALL LEVELS IN METRES ABOVE ORDNANCE DATUM.
 3. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT STRUCTURE, ROAD WORKS AND EARTHWORKS DRAWINGS, LAND CONSTRAINT PLANS AND SPECIFICATION APPENDICES.
 4. BEAM DEPTH MAY ALTER DURING FURTHER DETAILED DESIGN.
 5. INDICATIVE FOUNDATIONS SHOWN, FOUNDATION ARRANGEMENT TO BE CONFIRMED.
 6. UNCLASSIFIED ROAD OVER RAIL BRIDGE NOT SHOWN FOR CLARITY.

P01	RH	EF	MD	21/01/16
FIRST ISSUE				
P02	BO	GRL	CM	01/12/16
FIRST ISSUE				
P03	RM	GRL	MD	17/03/17
TEXT BOX AMENDED				
Rev	Drawn / Des	Checked	Approved	Date
Description				
Drawing Status				Suitability
FINAL				B

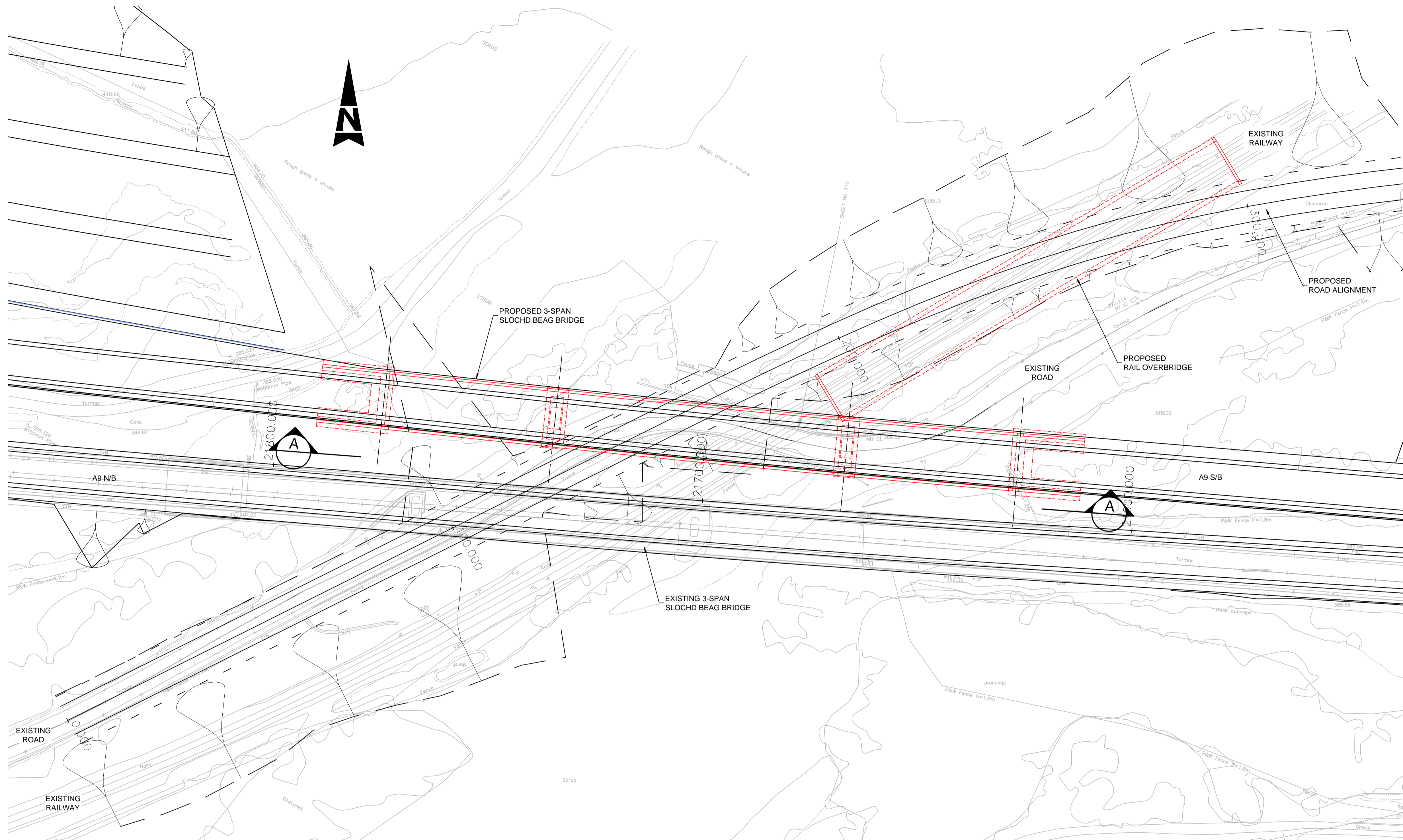


Drawing Title				
FIGURE 5.38 SHEET 1 OF 6 SLOCHD BEAG BRIDGE OPTION 1				
Scale	Designed / Drawn	Checked	Approved	Authorised
AS SHOWN	RM	GRL	MD	RST
Original Size	Date	Date	Date	Date
A1	15/03/17	15/03/17	15/03/17	17/03/17
Drawing Number	Project	Originator	Volume	Revision
	A9P11 - AMJ - SBR -			P03
	E_MLSLB_ST - SK - ST - 0001			
Location	Type	Role	Number	

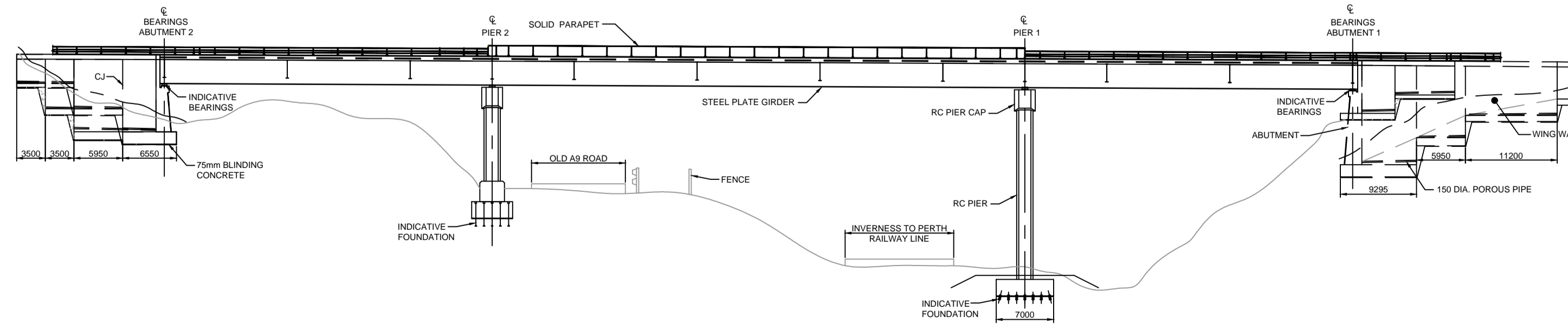
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100
0 10
Millimetres
DO NOT SCALE



PLAN
1:500



A ELEVATION
SCALE 1:500

- NOTES:**
1. All dimensions are in millimetres unless stated otherwise.
 2. All levels in metres above Ordnance Datum.
 3. These drawings are to be read in conjunction with all relevant structure, road works and earthworks drawings, land constraint plans and specification appendices.
 4. Beam depth may alter during further detailed design.
 5. Indicative foundations shown, foundation arrangement to be confirmed.

P01	RH	EF	MD	21/01/16
FIRST ISSUE				
P02	BO	GRL	CM	01/12/16
FIRST ISSUE				
P03	RM	GRL	MD	15/03/17
TEXT BOX AMENDED				
Rev	Drawn / Des	Checked	Approved	Date
Description				
Drawing Status				Suitability
FINAL				B

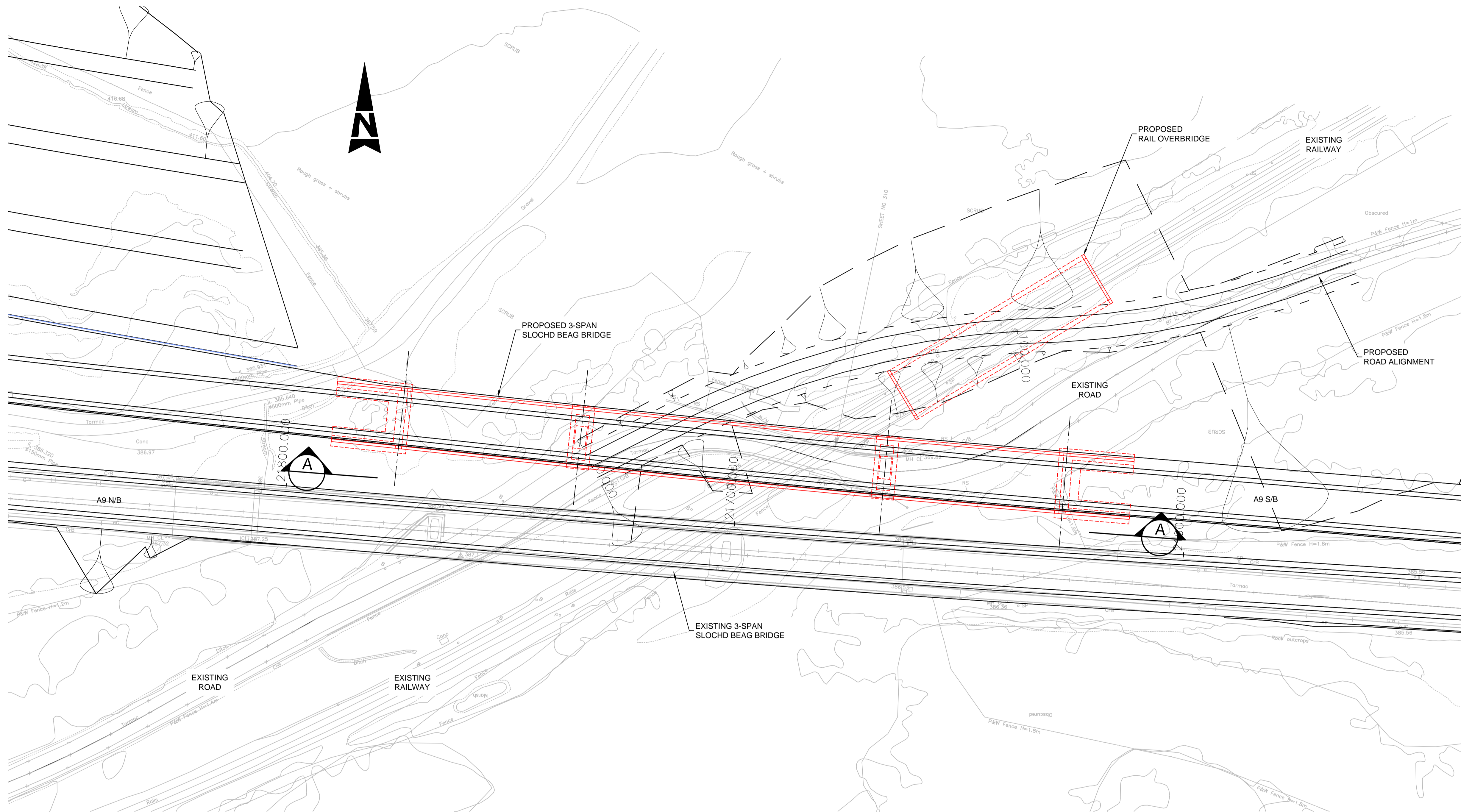


Drawing Title				
FIGURE 5.38 SHEET 2 OF 6 SLOCHD BEAG BRIDGE OPTION 2				
Scale	Designed / Drawn	Checked	Approved	Authorised
AS SHOWN	RM	GRL	MD	RST
Original Size	Date	Date	Date	Date
A1	15/03/17	15/03/17	15/03/17	15/03/17
Drawing Number				Revision
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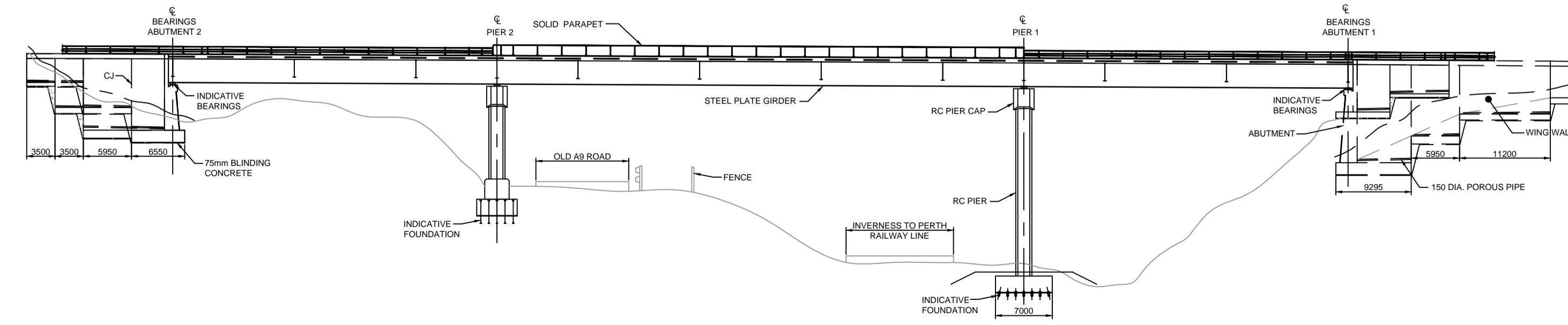
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100
0 10
Millimetres
DO NOT SCALE



PLAN
1 : 500



A ELEVATION
SCALE 1 : 500

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
 2. ALL LEVELS IN METRES ABOVE ORDNANCE DATUM.
 3. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT STRUCTURE, ROAD WORKS AND EARTHWORKS DRAWINGS, LAND CONSTRAINT PLANS AND SPECIFICATION APPENDICES.
 4. BEAM DEPTH MAY ALTER DURING FURTHER DETAILED DESIGN.
 5. INDICATIVE FOUNDATIONS SHOWN, FOUNDATION ARRANGEMENT TO BE CONFIRMED.

P01	RH	EF	MD	21/01/16
FIRST ISSUE				
P02	BO	GRL	CM	01/12/16
FIRST ISSUE				
P03	RM	GRL	MD	17/03/17
TEXT BOX AMENDED				
Rev	Drawn / Des	Checked	Approved	Date
Description				Suitability
Drawing Status				B
FINAL				

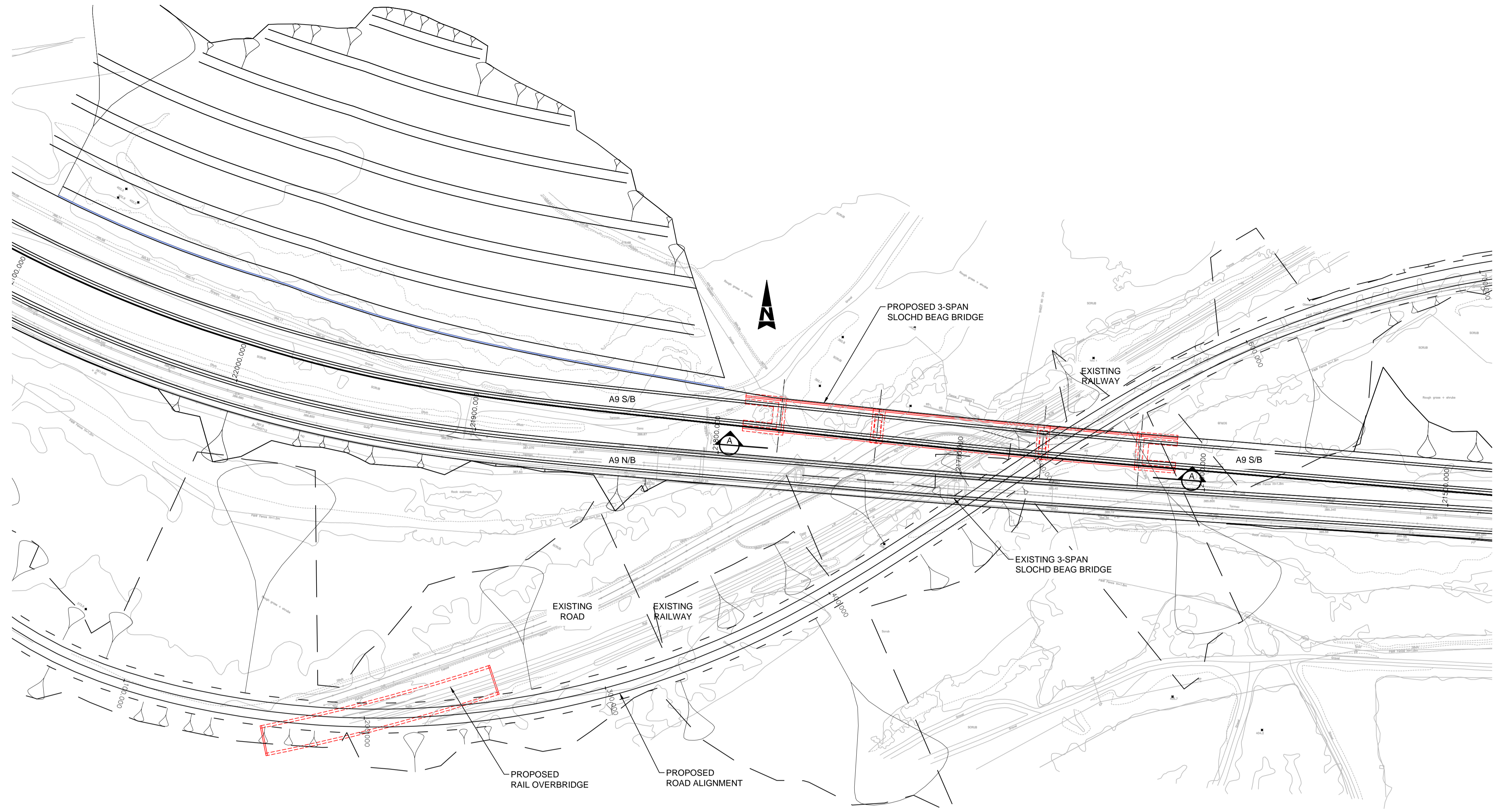


Drawing Title				
FIGURE 5.38 SHEET 3 OF 6 SLOCHD BEAG BRIDGE OPTION 2A				
Scale	Designed / Drawn	Checked	Approved	Authorised
AS SHOWN	RM	GRL	MD	RST
Original Size	Date	Date	Date	Date
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Drawing Number	Project	Originator	Volume	Revision
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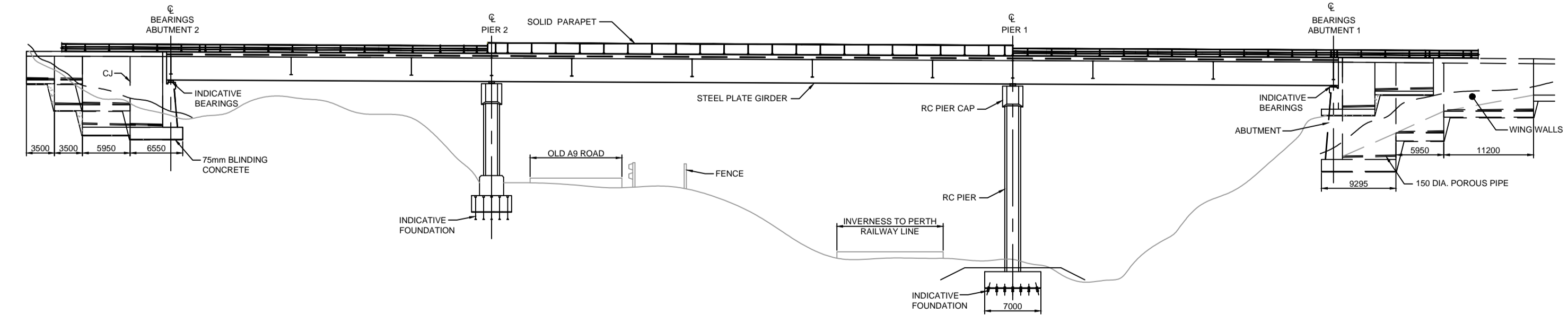
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100
Millimetres
0 10
DO NOT SCALE



PLAN
1 : 1000



A ELEVATION
SCALE 1: 500

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
 2. ALL LEVELS IN METRES ABOVE ORDNANCE DATUM.
 3. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT STRUCTURE, ROAD WORKS AND EARTHWORKS DRAWINGS, LAND CONSTRAINT PLANS AND SPECIFICATION APPENDICES.
 4. BEAM DEPTH MAY ALTER DURING FURTHER DETAILED DESIGN.
 5. INDICATIVE FOUNDATIONS SHOWN, FOUNDATION ARRANGEMENT TO BE CONFIRMED.

P01	RH	EF	MD	21/01/16
FIRST ISSUE				
P02	BO	GRL	CM	01/12/16
FIRST ISSUE				
P03	RM	GRL	MD	17/03/17
TEXT BOX AMENDED				
Rev	Drawn / Des	Checked	Approved	Date
Description				
Drawing Status				Suitability
FINAL				B



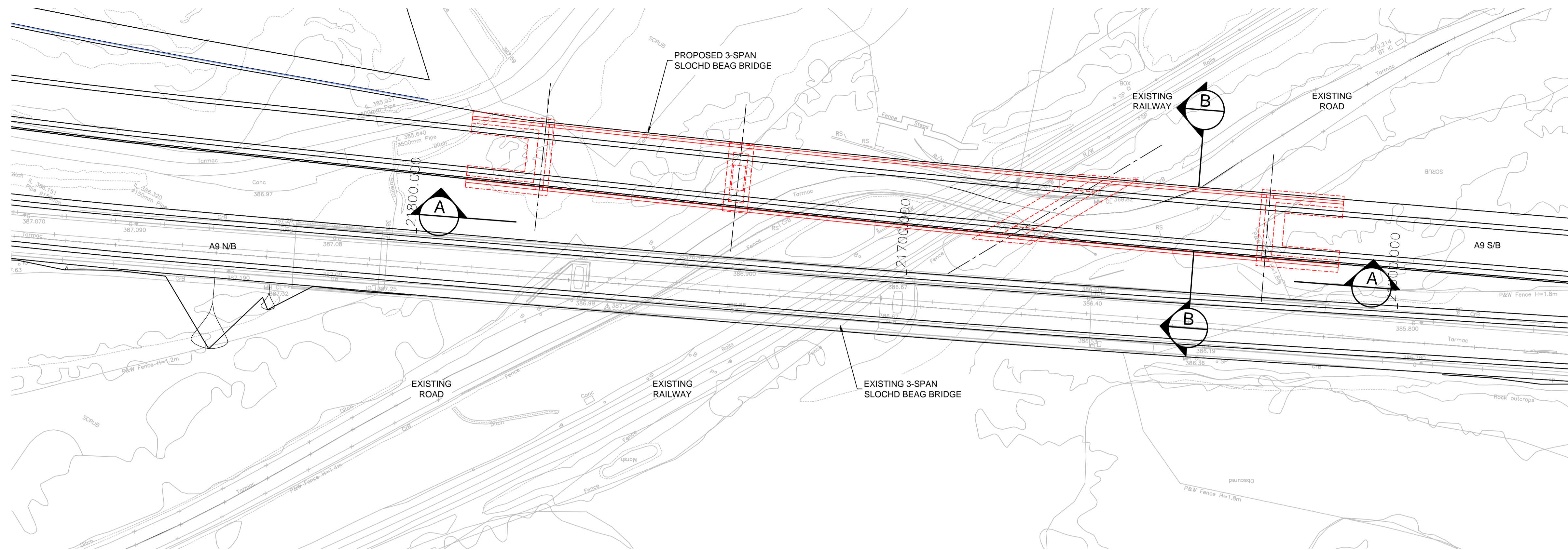
Drawing Title
**FIGURE 5.38 SHEET 4 OF 6
SLOCHD BEAG BRIDGE
OPTION 3**

Scale	Designed / Drawn	Checked	Approved	Authorised
AS SHOWN	RM	GRL	MD	RST
Original Size	Date	Date	Date	Date
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Drawing Number	Project	Originator	Volume	Revision
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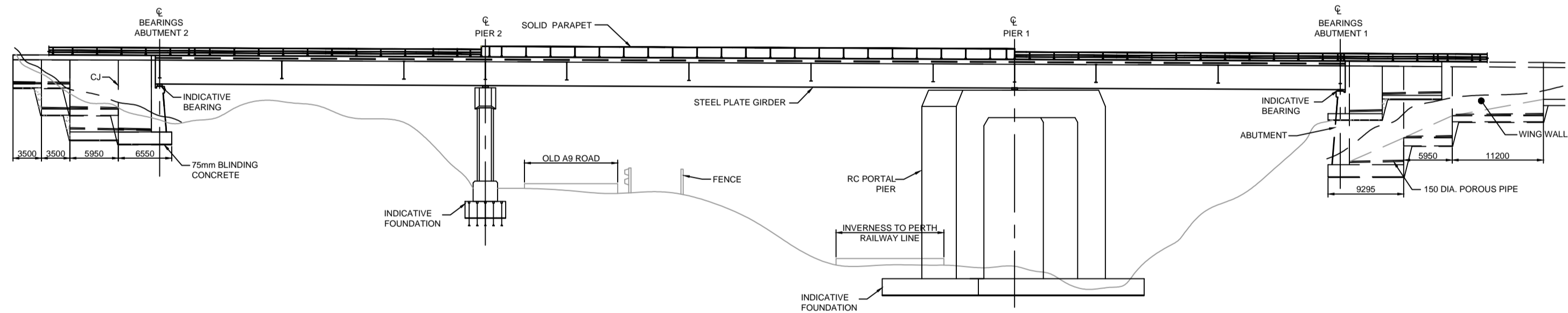
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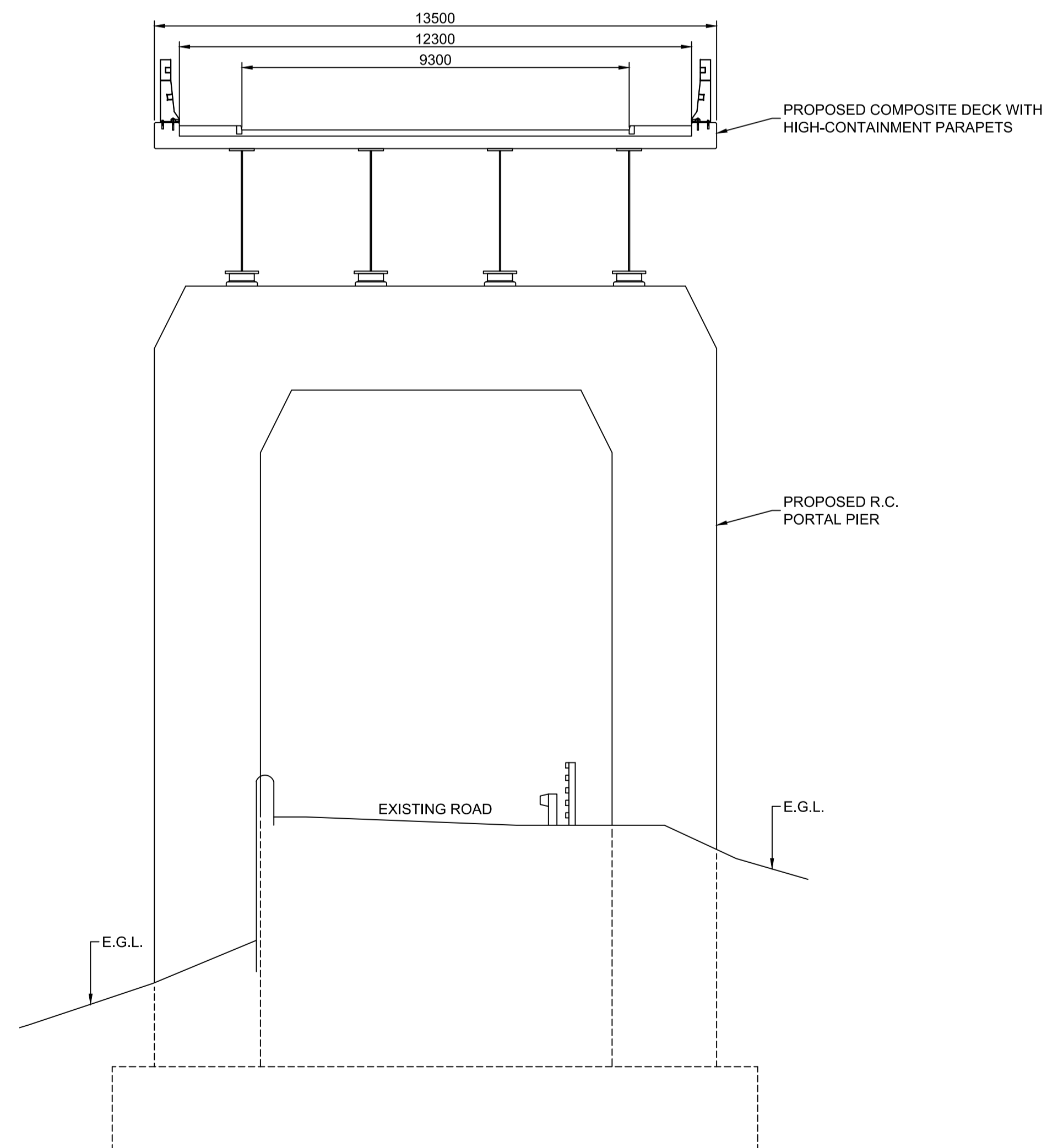
100
0 10
Millimetres
DO NOT SCALE



PLAN
1:500



A ELEVATION
SCALE 1:500



B SECTION
SCALE 1:100

- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
 2. ALL LEVELS IN METRES ABOVE ORDNANCE DATUM.
 3. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT STRUCTURE, ROAD WORKS AND EARTHWORKS DRAWINGS, LAND CONSTRAINT PLANS AND SPECIFICATION APPENDICES.
 4. BEAM DEPTH MAY ALTER DURING FURTHER DETAILED DESIGN.
 5. INDICATIVE FOUNDATIONS SHOWN, FOUNDATION ARRANGEMENT TO BE CONFIRMED.

P01	RH	EF	MD	21/01/16
FIRST ISSUE				
P02	BO	GRL	CM	01/12/16
FIRST ISSUE				
P03	RM	GRL	MD	15/03/17
TEXT BOX AMENDED				
Rev	Drawn / Des	Checked	Approved	Date
Description				Suitability
FINAL				B

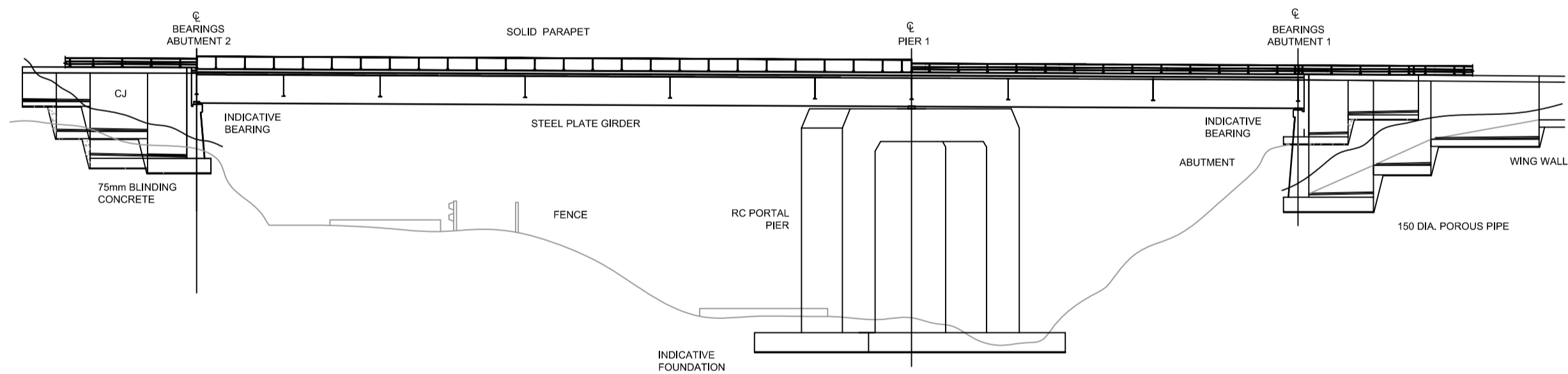
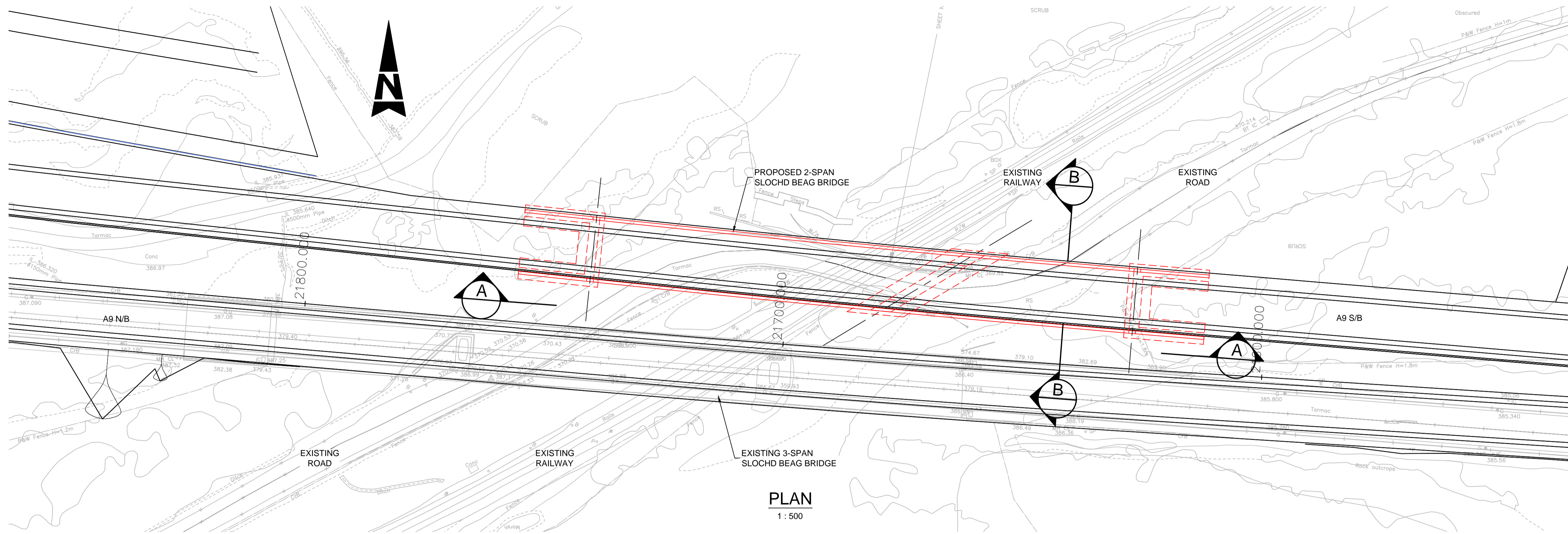


Drawing Title				
FIGURE 5.38 SHEET 5 OF 6 SLOCHD BEAG BRIDGE OPTION 4				
Scale	Designed / Drawn	Checked	Approved	Authorised
AS SHOWN	RM	GRL	MD	RST
Original Size	Date	Date	Date	Date
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Drawing Number				Revision
Project	Originator	Volume	P03	
A9P11 - AMJ - SBR - E_MLSLB_ST - SK - ST - 0005				
Location	Type	Role	Number	

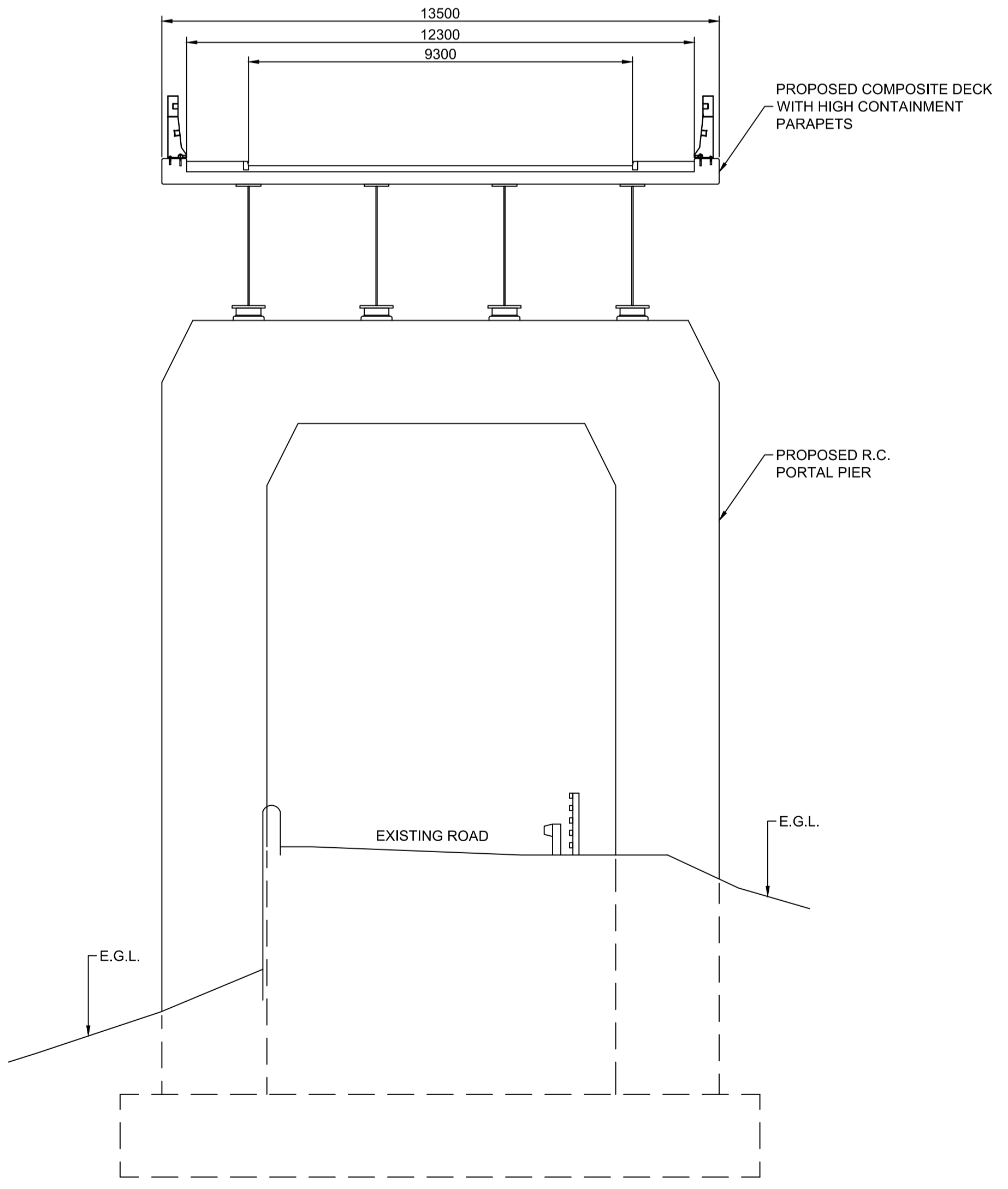
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100
0 10
Millimetres
DO NOT SCALE



A ELEVATION
SCALE 1:500



B SECTION
SCALE 1:100

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
 2. ALL LEVELS IN METRES ABOVE ORDNANCE DATUM.
 3. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT STRUCTURE, ROAD WORKS AND EARTHWORKS DRAWINGS, LAND CONSTRAINT PLANS AND SPECIFICATION APPENDICES.
 4. BEAM DEPTH MAY ALTER DURING FURTHER DETAILED DESIGN.
 5. INDICATIVE FOUNDATIONS SHOWN, FOUNDATION ARRANGEMENT TO BE CONFIRMED.

P01	RH	EF	MD	21/01/16
FIRST ISSUE				
P02	BO	GRL	CM	01/12/16
FIRST ISSUE				
P03	RM	GRL	MD	17/03/17
TEXT BOX AMENDED				
Rev	Drawn / Des	Checked	Approved	Date
Description				
Drawing Status				Suitability
FINAL				B



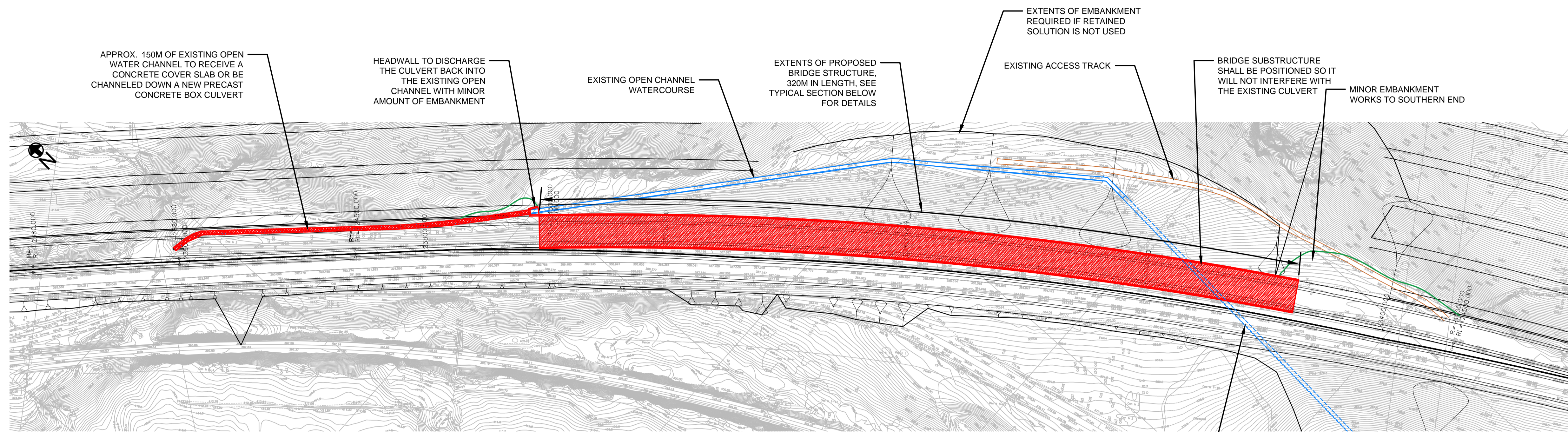
Drawing Title
**FIGURE 5.38 SHEET 6 OF 6
SLOCHD BEAG BRIDGE
OPTION 5**

Scale	Designed / Drawn	Checked	Approved	Authorised
AS SHOWN	RM	GRL	MD	RST
Original Size	Date	Date	Date	Date
A1	15/03/17	15/03/17	15/03/17	17/03/17
Drawing Number	Project	Originator	Volume	Revision
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Location	Type	Role	Number	

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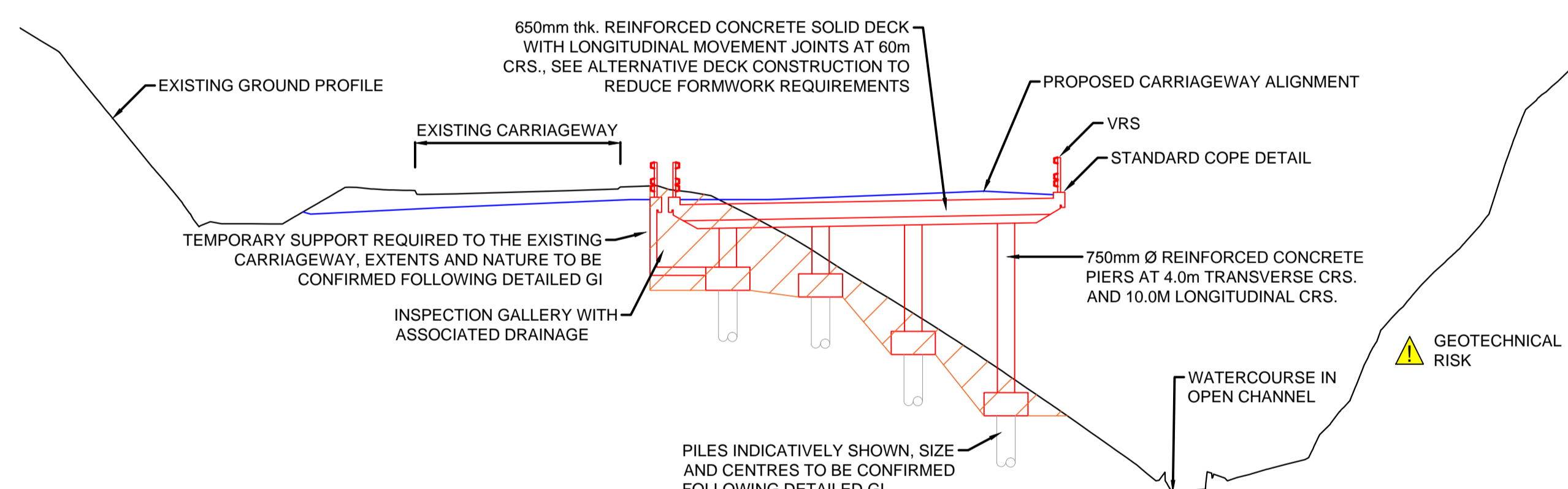
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100
10
0
DO NOT SCALE

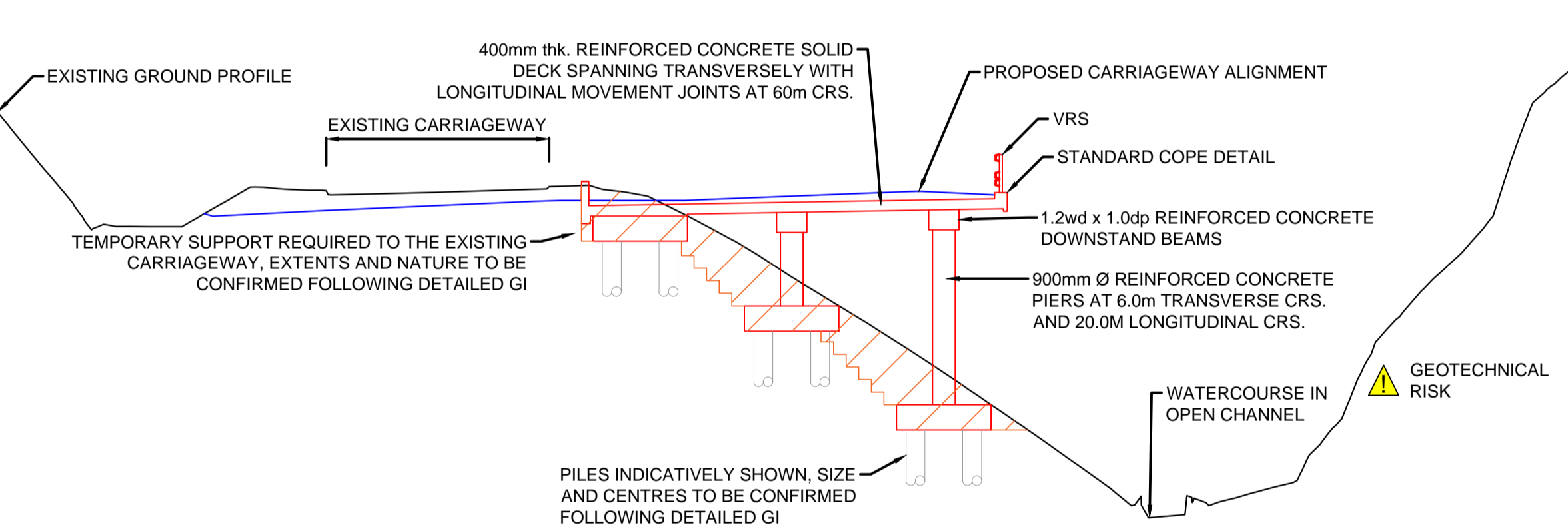


SCALE 1:2000

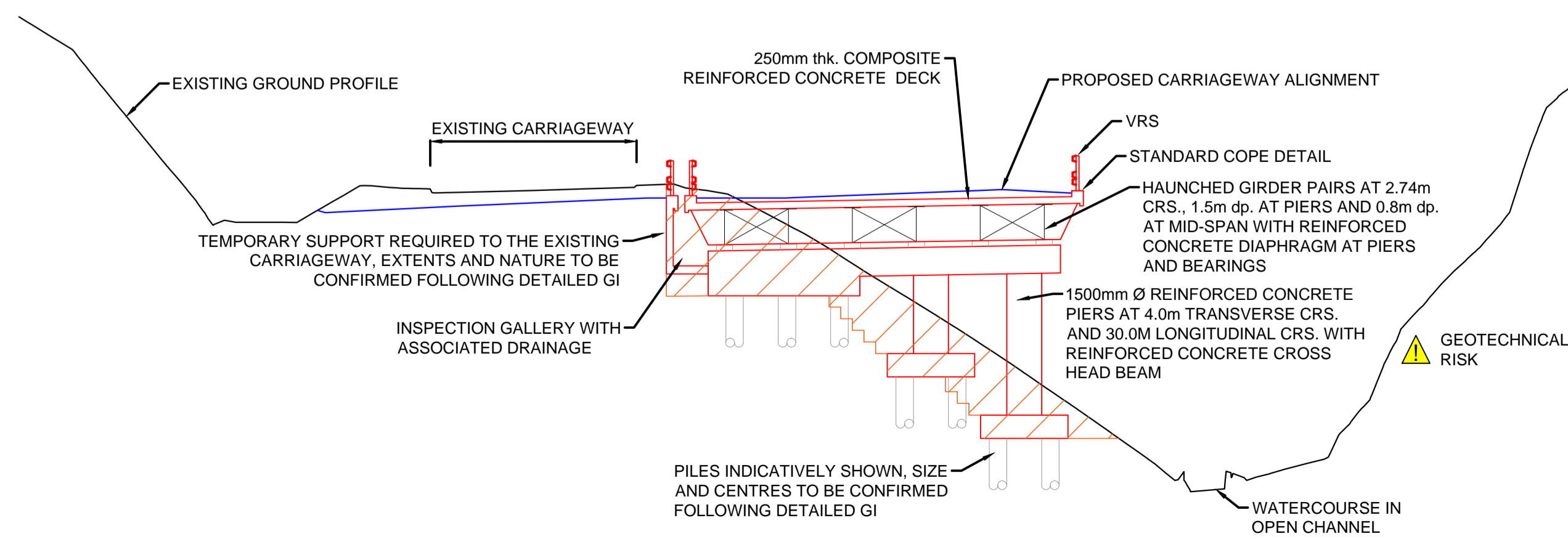
ALTERNATIVE DECK CONSTRUCTION:
450mm thk. PRESTRESSED BOX BEAMS WITH 150mm thk. CONCRETE



BRIDGE OPTION 1. - LONGITUDINALLY SPANNING REINFORCED CONCRETE DECK WITH PIERS AT CLOSE CENTRES
SCALE 1:40



BRIDGE OPTION 2. - TRANSVERSELY SPANNING REINFORCED CONCRETE DECK WITH PIERS AT MODERATE CENTRES
SCALE 1:40



BRIDGE OPTION 3. - LONGITUDINALLY SPANNING COMPOSITE REINFORCED CONCRETE DECK WITH HAUNCHED STEEL GIRDERS
SCALE 1:40

▲ GEOTECHNICAL RISK SLOPE IS POTENTIALLY UNSTABLE, DETAILED GROUND INVESTIGATION WORKS REQUIRED TO DETERMINE THE SEVERITY OF THE RISK



P01	TR	EF	MD	21/01/16
FIRST ISSUE				
P02	BO	GRL	CM	01/12/16
FIRST ISSUE				
P03	RM	GRL	MD	15/03/17
TEXT BOX AMENDED				
Rev	Drawn / Des	Checked	Approved	Date
Description				Suitability
FINAL				B



Drawing Title
**FIGURE 5.39 SHEET 1 OF 1
PRELIMINARY SLOCHD MOR AT
GRADE BRIDGE STRUCTURE OPTIONS**

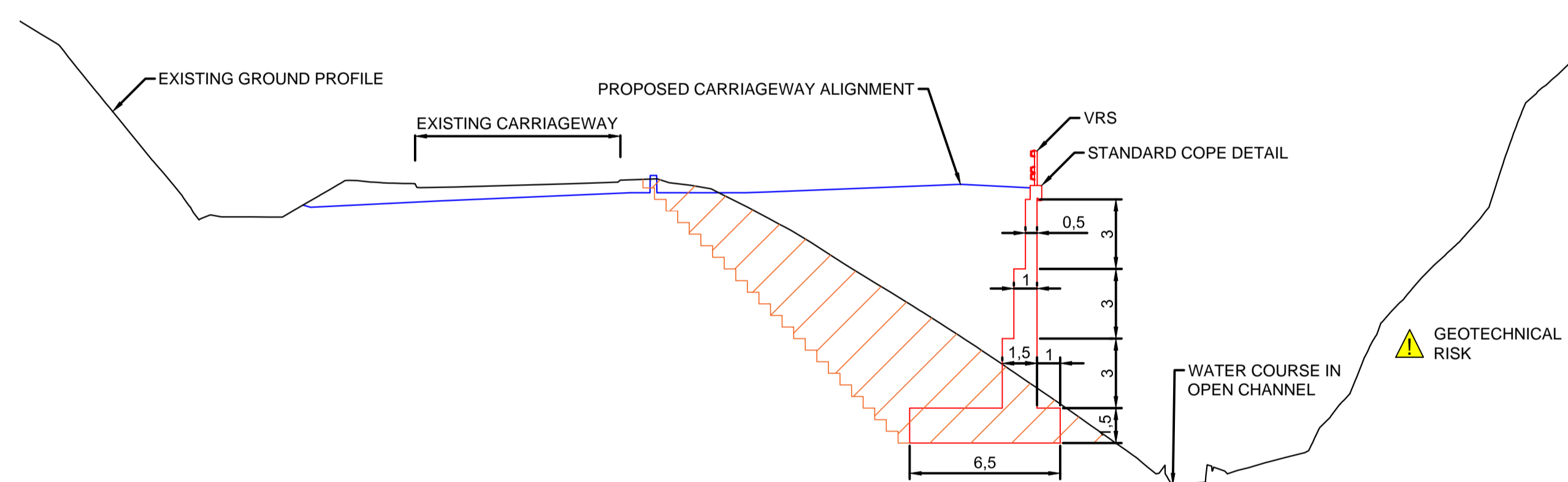
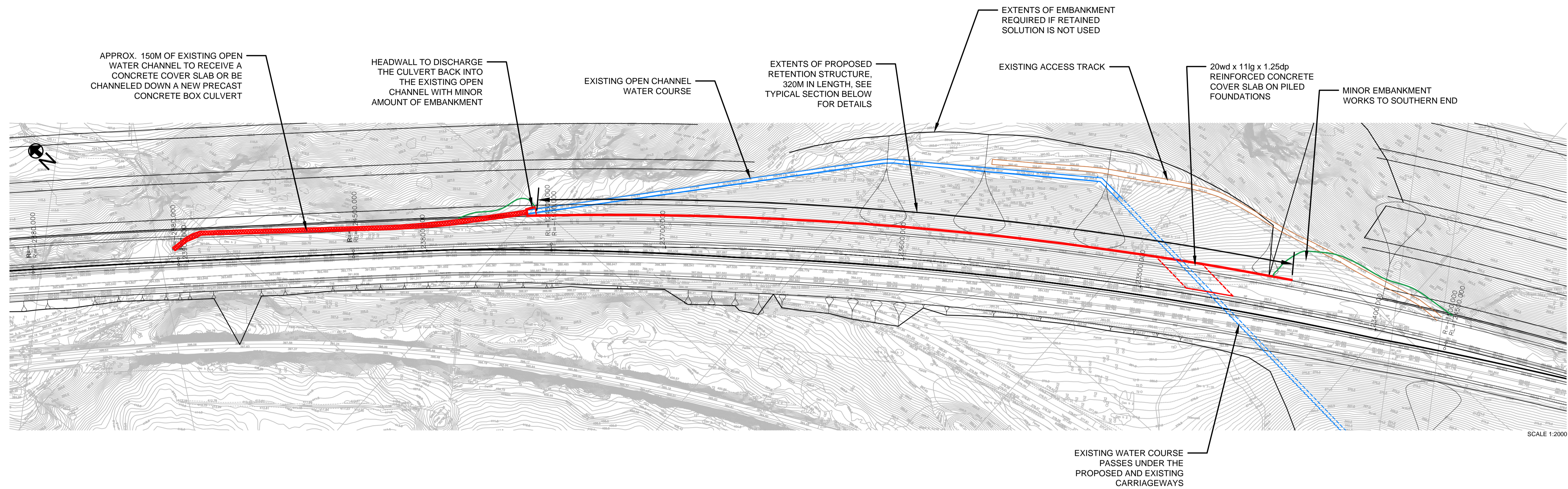
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AS SHOWN	RM	GRL	MD	RST
Original Size	Date	Date	Date	Date
A1	15/03/17	15/03/17	15/03/17	15/03/17

Drawing Number	Project	Originator	Volume	Revision
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Location	Type	Role	Number	

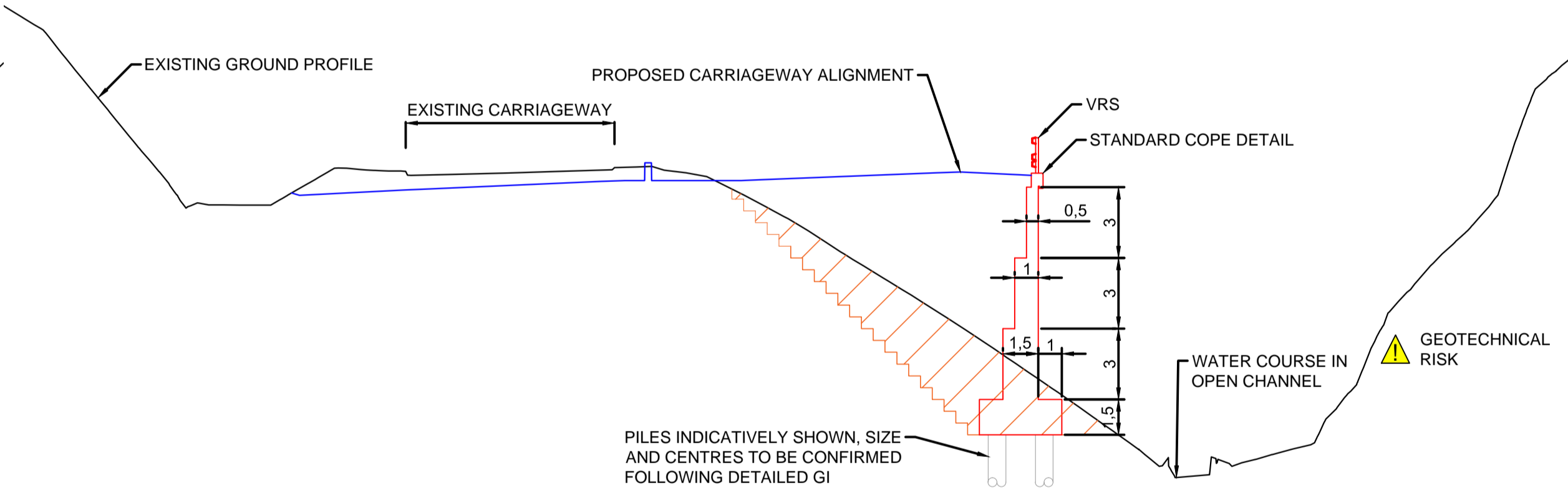
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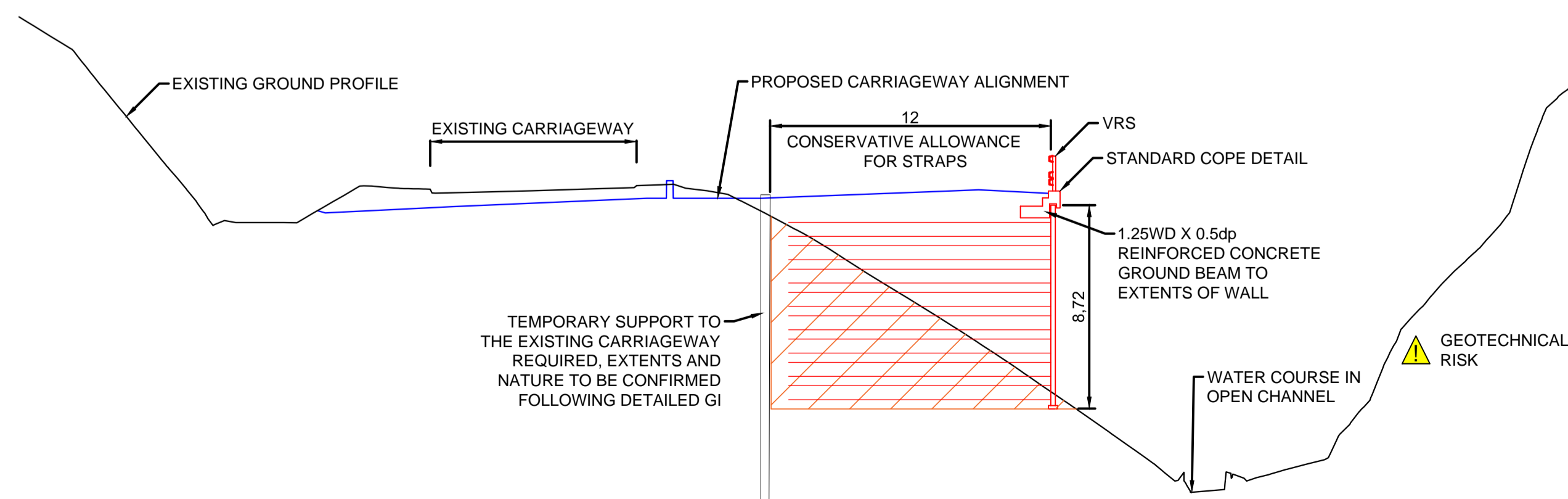
100
10
0
Millimetres
DO NOT SCALE



RETENTION OPTION 1. - REINFORCED CONCRETE CANTILEVER RETAINING WALL ON PAD FOUNDATION
SCALE 1:40



RETENTION OPTION 2. - REINFORCED CONCRETE CANTILEVER RETAINING WALL ON PILED FOUNDATION
SCALE 1:40



RETENTION OPTION 3. - REINFORCED SOIL WALL
SCALE 1:40

GEOTECHNICAL RISK SLOPE IS POTENTIALLY UNSTABLE, DETAILED GROUND INVESTIGATION WORKS REQUIRED TO DETERMINE THE SEVERITY OF THE RISK

INDICATIVE EXTENTS OF REQUIRED EXCAVATION

P01	TR	EF	MD	21/01/16
FIRST ISSUE				
P02	BO	GRL	CM	01/12/16
FIRST ISSUE				
P03	RM	GRL	MD	15/03/17
TEXT BOX AMENDED				
Rev	Drawn / Des	Checked	Approved	Date

Drawing Status	FINAL	Suitability	B
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Drawing Title
**FIGURE 5.40 SHEET 1 OF 1
PRELIMINARY SLOCHD MOR AT
GRADE RETENTION STRUCTURE OPTIONS**

Scale	Designed / Drawn	Checked	Approved	Authorised
AS SHOWN	RM	GRL	MD	RST
Original Size	Date	Date	Date	Date
A1	15/03/17	15/03/17	15/03/17	15/03/17

Drawing Number	Project	Originator	Volume	Revision
	A9P11 - AMJ - SBR - E_MLOP1_ST - SK - ST - 0001			P03
Location	Type	Role	Number	

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