

A1 Birtley to Coal House

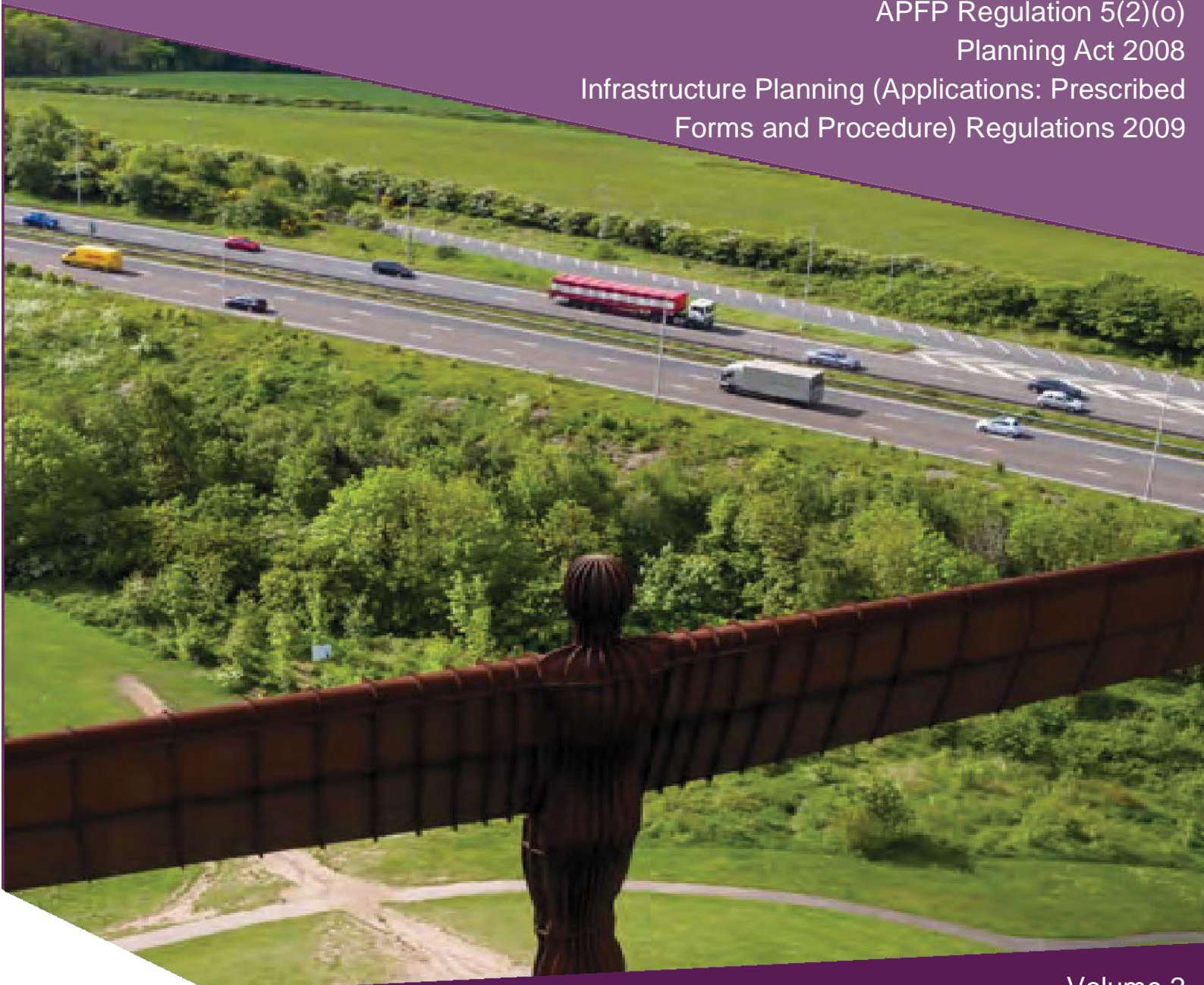
Scheme Number: TR010031

2.7 Structures Engineering Drawings and Sections

APFP Regulation 5(2)(o)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed
Forms and Procedure) Regulations 2009



Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning
(Applications: Prescribed Forms and
Procedure - APFP) Regulations 2009**

**The A1 Birtley to Coal House
Development Consent Order 20[xx]**

STRUCTURES ENGINEERING DRAWINGS AND SECTIONS

Regulation Reference:	APFP Regulation 5(2)(o)
Planning Inspectorate Scheme Reference	TR010031
Application Document Reference	TR010031/APP/2.7
Author:	A1 Birtley to Coal House Project Team, Highways England

Version	Date	Status of Version
Rev 0	14/08/19	Application Issue
Rev 1	25/02/20	Examination Deadline 2 Issue
Rev 2	20/04/20	Examination Deadline 4 Issue

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1 INTRODUCTION

1.1 Purpose of this Document

- 1.1.1 These Structures Engineering Drawings and Sections (the "Drawings") relates to an application made by Highways England (the "Applicant") to the Secretary of State for Transport via the Planning Inspectorate under the Planning Act 2008 (the "2008 Act") for a Development Consent Order (DCO). If made, the DCO would grant consent for the A1 Birtley to Coal House (the "Scheme"). A detailed description of the Scheme can be found in **Chapter 2** of the Environmental Statement (ES) (**Application Document Reference: TR010031/APP/6.1**).
- 1.1.2 These drawings have been amended since the previous version [REP2-042] by the inclusion of additional land with the order limits to the south of Allerdene Railway Bridge as shown on the key plan drawing no. TR010031/APP/2.7(A). They also allow the inclusion of additional engineering options within the order limits as shown on drawing no. TR010031/APP/2.7(B1) and TR010031/APP/2.7(C1) in relation to narrower lanes on Kingsway Viaduct; and in respect of a three-span viaduct option for the proposed Allerdene Railway Bridge as shown on drawing no. TR010031/APP/2.7(F1).
- 1.1.3 The Applicant has submitted a request to the Examining Authority [AS-009] to amend the Order limits to include additional land to be subject to powers of temporary possession that is required for a construction compound and materials stockpile, and to accommodate these additional engineering options. Should the amendments to the application be admitted by the Examining Authority these drawings should be substituted for those shown in the table in section 2 of this document.
- 1.1.4 These Drawings comprises part of the suite of Application documentation and are included in the Application in compliance with Regulation 5(2)(o), of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, which requires:
"5(2)(o) any other plans, drawings and sections necessary to describe the proposals for which development consent is sought, showing details of design, external appearance, and the preferred layout of buildings or structures, drainage, surface water management, means of vehicular and pedestrian access, any car parking to be provided, and means of landscaping."
- 1.1.5 These Drawings are also being submitted under Regulation 5(4) of the 2009 Regulations which states:
"Where a plan comprises three or more separate sheets a key plan must be provided showing the relationship between the different sheets."
- 1.1.6 As these Drawings are part of the Application documentation, they should be read alongside and are informed by the other Application documents. In particular, the Drawings should be read alongside Schedule 1 of the draft Development Consent Order (**Application Document Reference: TR010031/APP/3.1**), the Engineering Section Drawings (**Application Document Reference: TR010031/APP/2.5**) and the General Arrangement Plan (**Application Document Reference: TR010031/APP/2.6**).

2 SCHEDULE OF PLANS INCLUDED IN THIS APPLICATION DOCUMENT




Document Title	Document Number	Revision	Change(s)
Structures Engineering Drawings & Sections Regulation 5(2)(o) & 5(4) Key Plan	TR010031/A PP/2.7(A)	Rev 2	Plan updated with red line boundary inclusive of additional plot of land to the south of Allerdene Railway Bridge.
Structures Engineering Drawings & Sections Regulation 5(2)(o) Kingsway Viaduct (Junction 67) Sheet 1 of 16	TR010031/A PP/2.7(B)	Rev 2	Sheet no. amended from 1 of 14 to 1 of 16
Structures Engineering Drawings & Sections Regulation 5(2)(o) Kingsway Viaduct (Junction 67) Sheet 2 of 16	TR010031/A PP/2.7(C)	Rev 2	Sheet no. amended from 2 of 14 to 2 of 16
Structures Engineering Drawings & Sections Regulation 5(2)(o) Allerdene Bridge (Embankment Option) Sheet 3 of 16	TR010031/A PP/2.7(D)	Rev 2	Sheet no. amended from 3 of 14 to 3 of 16
Structures Engineering Drawings & Sections Regulation 5(2)(o) Allerdene Bridge (6 Span Viaduct Option) Sheet 4 of 16	TR010031/A PP/2.7(E)	Rev 2	Sheet no. amended from 4 of 14 to 4 of 16
Structures Engineering Drawings & Sections Regulation 5(2)(o) Allerdene Bridge (7 Span Viaduct Option) Sheet 5 of 16	TR010031/A PP/2.7(F)	Rev 2	Sheet no. amended from 5 of 14 to 5 of 16
Structures Engineering Drawings & Sections Regulation 5(2)(o) Eighton Lodge Slip Road Underbridge Sheet 6 of 16	TR010031/A PP/2.7(G)	Rev 2	Sheet no. amended from 6 of 14 to 6 of 16
Structures Engineering Drawings & Sections Regulation 5(2)(o) Eighton Lodge North Underbridge Sheet 7 of 16	TR010031/A PP/2.7(H)	Rev 2	Sheet no. amended from 7 of 14 to 7 of 16

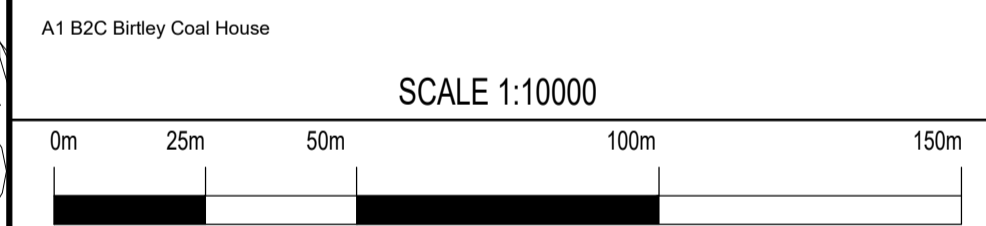
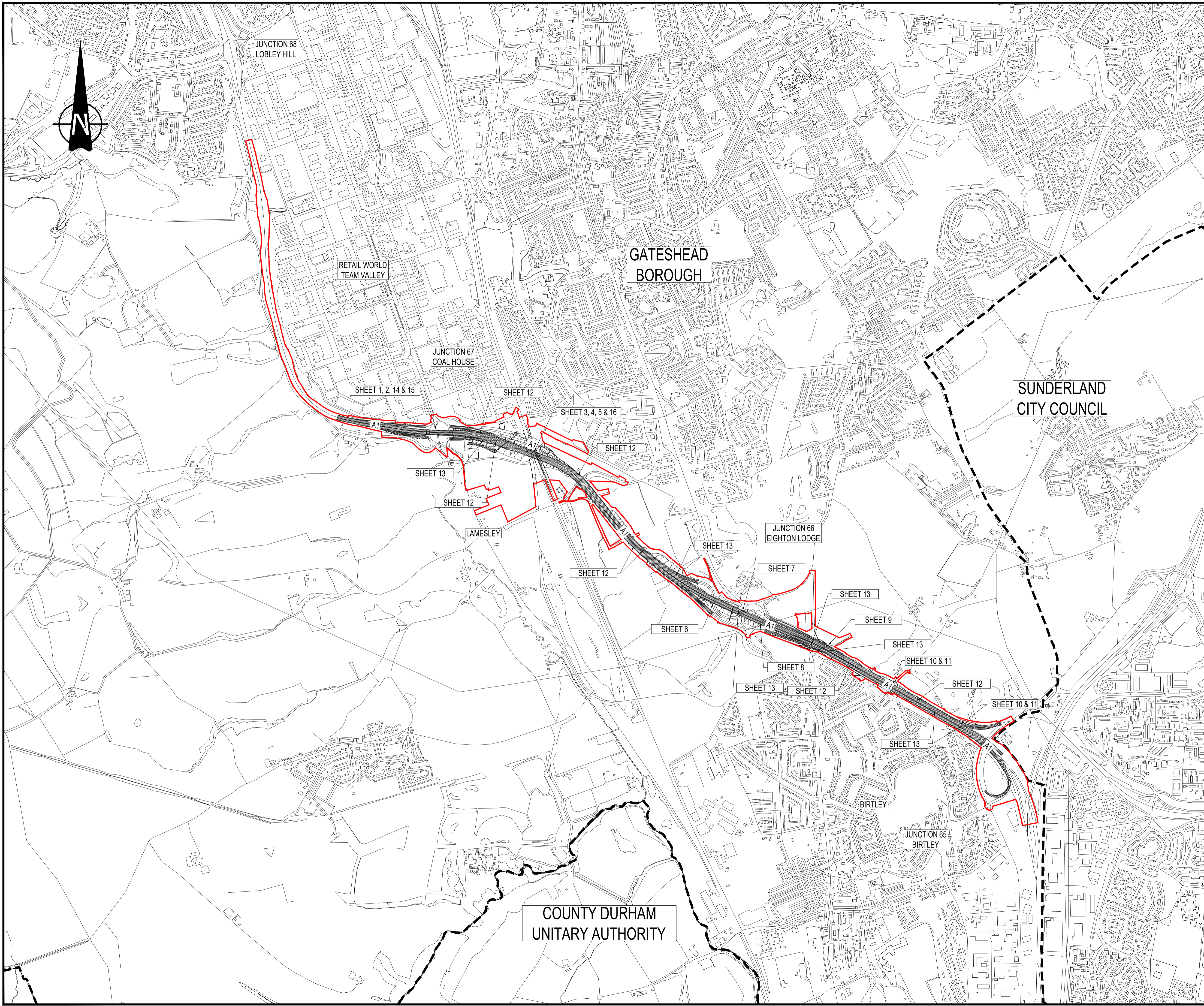
Structures Engineering Drawings & Sections Regulation 5(2)(o) Eighton Lodge South Underbridge Sheet 8 of 16	TR010031/A PP/2.7(I)	Rev 2	Sheet no. amended from 8 of 14 to 8 of 16
Structures Engineering Drawings & Sections Regulation 5(2)(o) Longbank Underpass Sheet 9 of 16	TR010031/A PP/2.7(J)	Rev 2	Sheet no. amended from 9 of 14 to 9 of 16
Structures Engineering Drawings & Sections Regulation 5(2)(o) North Dene Footbridge Sheet 10 of 16	TR010031/A PP/2.7(K)	Rev 2	Sheet no. amended from 10 of 14 to 10 of 16
Structures Engineering Drawings & Sections Regulation 5(2)(o) North Dene Footbridge Sheet 11 of 16	TR010031/A PP/2.7(L)	Rev 2	Sheet no. amended from 11 of 14 to 11 of 16
Structures Engineering Drawings & Sections Regulation 5(2)(o) Typical ADS Gantry – Truss Cantilever Type Sheet 12 of 16	TR010031/A PP/2.7(M)	Rev 2	Sheet no. amended from 12 of 14 to 12 of 16
Structures Engineering Drawings & Sections Regulation 5(2)(o) Typical ADS Gantry Portal Type Sheet 13 of 16	TR010031/A PP/2.7(N)	Rev 2	Sheet no. amended from 13 of 14 to 13 of 16
Structures Engineering Drawings & Sections Regulation 5(2)(o) Kingsway Viaduct Narrow Lanes (Junction 67) Sheet 14 of 16	TR010031/A PP/2.7(B1)	Rev 0	New drawing (sheet 14 of 16) added to show narrower lanes option on Kingsway Viaduct.
Structures Engineering Drawings & Sections Regulation 5(2)(o) Kingsway Viaduct Narrow Lanes (Junction 67) Sheet 15 of 16	TR010031/A PP/2.7(C1)	Rev 0	New drawing (sheet 15 of 16) added to show narrower lanes option on Kingsway Viaduct.
Structures Engineering Drawings & Sections Regulation 5(2)(o) Allerdene Bridge (3 Span Viaduct Option) Sheet 16 of 16	TR010031/A PP/2.7(F1)	Rev 0	New drawing (sheet 16 of 16) added to show 3 span option for Allerdene Railway Bridge.

NOTES:

- NO DETAILS HAVE BEEN PROVIDED NORTH OF JUNCTION 76 (COAL HOUSE) AS THE CARRIAGEWAY IS NOT BEING AMENDED.

KEY

-  ORDER LIMITS
-  LOCAL AUTHORITY BOUNDARY
-  INDICATIVE SCHEME (SHOWN FOR ILLUSTRATIVE PURPOSES ONLY)



Rev.	Date	Description	By	Eng' Chk	Disc' Chk	App'd
2	20/04/20	For Examination Deadline 4		RA	IM	HM NR
1	25/02/20	For Examination Deadline 2		RA	IA	IA NR
0	27/09/19	For Application		RA	IA	IA NR

For Examination Deadline 4 A3

PINS Reference Number **TR010031/APP/2.7(A)**

Client



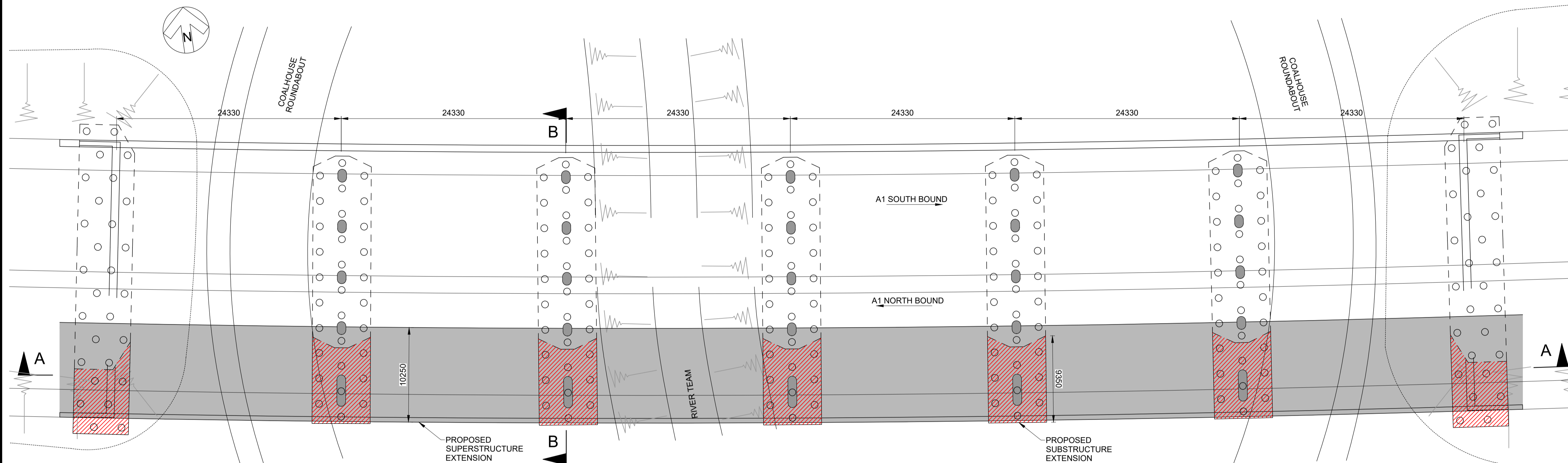
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Drawing Title **STRUCTURES ENGINEERING DRAWINGS & SECTIONS REGULATION 5(2)(o) & 5(4) KEY PLAN**

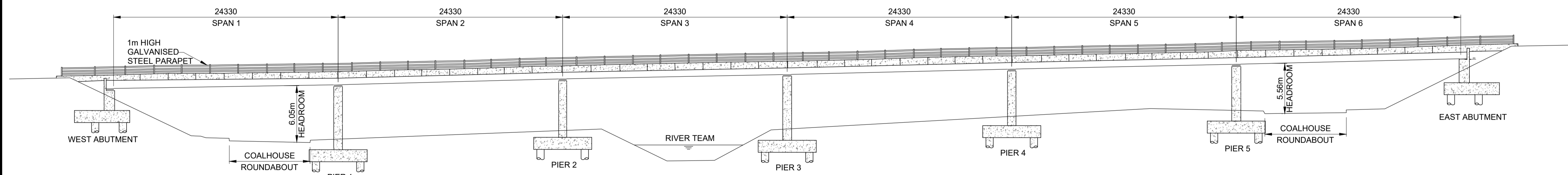
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N/A	R.Ayre	I.Mulla	H.Mistry	N.Rawcliffe
Original Size	Date	Date	Date	Date
A1	20/04/20	20/04/20	20/04/20	20/04/20
Drawing Number	Originator	Volume	Revision	
HE551462	WSP	LSI	2	
Section	Type	Role	Number	
ZZ	DR	ZL	45023	
			3	

NOTES:

1. ALL DIMENSION ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS AND CHAINAGES ARE IN METRES UNLESS NOTED OTHERWISE.
3. STRUCTURE ENGINEERING DRAWINGS & SECTIONS, REGULATIONS 5(2)(a) & 6(2) SHOULD BE READ IN CONJUNCTION WITH GENERAL ARRANGEMENT DRAWINGS (DOCUMENT REFERENCE TR010031/APP/2.6).
4. PLANS TO BE READ IN CONJUNCTION WITH ALL OTHER PLANS AND DOCUMENTS INCLUDED IN THE DEVELOPMENT CONSENT ORDER APPLICATION.



KINGSWAY VIADUCT (JUNCTION 67)
DECK PLAN
SCALE 1:250



KINGSWAY VIADUCT (JUNCTION 67)
TYPICAL LONGITUDINAL SECTION A-A
SCALE 1:250

Rev.	Date	Description	By	Eng' Chk	Disc' Chk	App'd
2	20/04/20	For Examination Deadline 4		RA	IM	HM NR
1	25/02/20	For Examination Deadline 2		RA	IA	IA NR
0	27/09/19	For Application		RA	IA	IA NR

Suitability	For Examination Deadline 4	Status	A3
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PINS Reference Number: **TR010031/APP/2.7(B)**

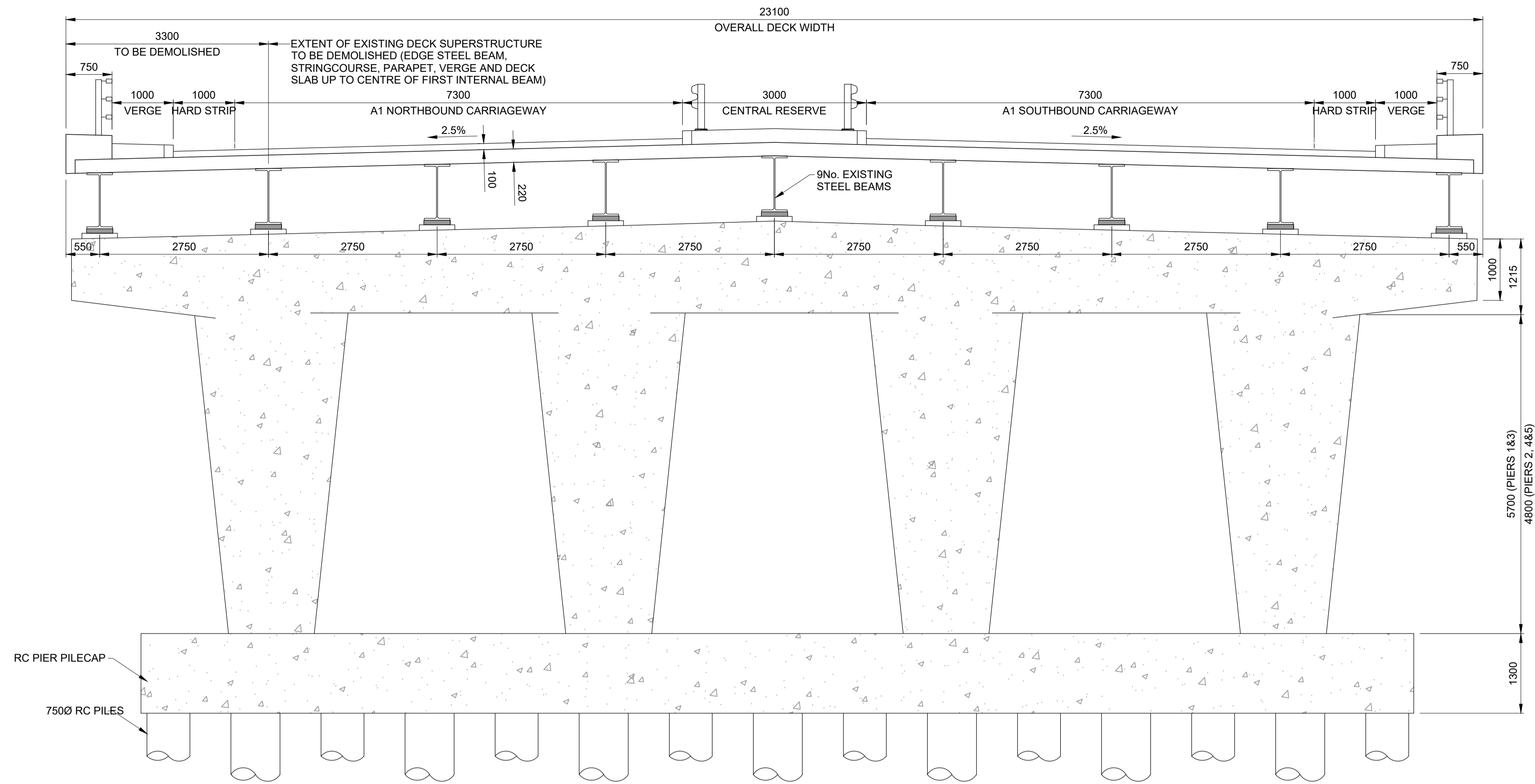


Client: **A1 BIRTLEY TO COAL HOUSE**

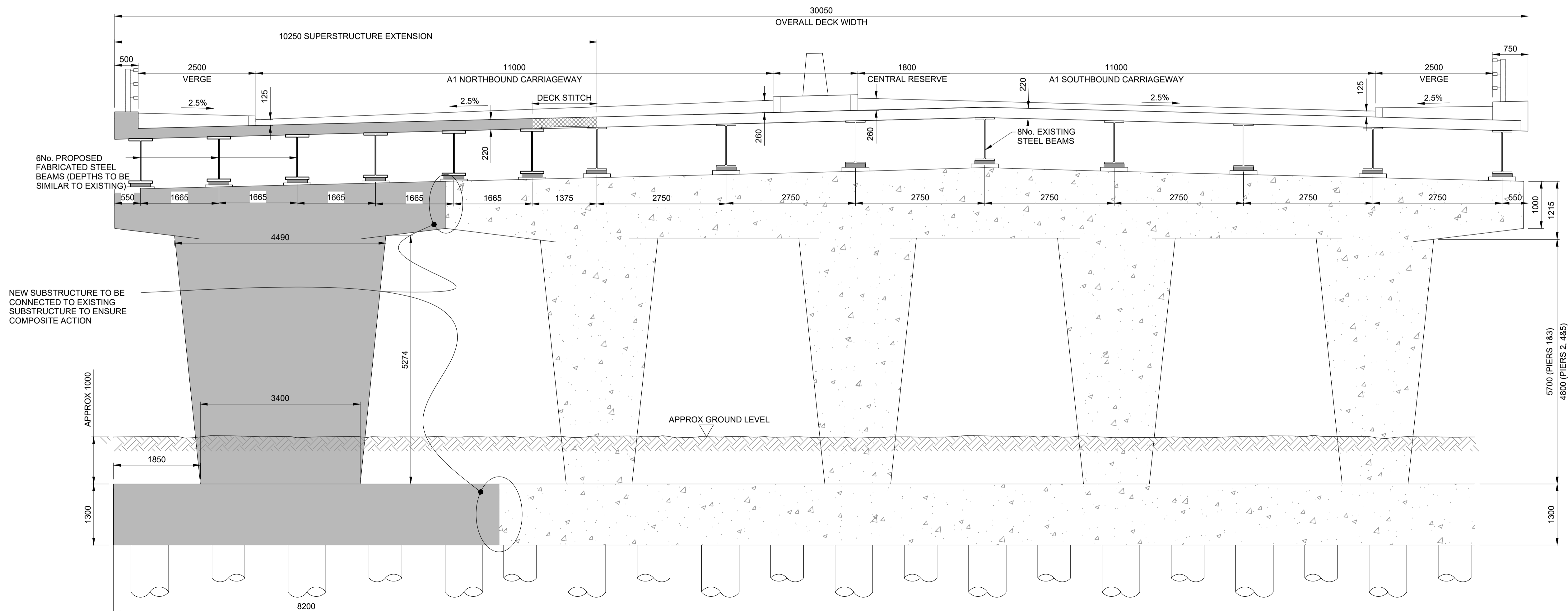
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Scale	Drawn	Eng. Check	Approved	Authorised
N/A	R.Ayre	I.Mulla	H.Mistry	N.Rawcliffe
Original Size	Date	Date	Date	Date
A1	20/04/20	20/04/20	20/04/20	20/04/20

Drawing Number	Originator	Volume	Revision			
HE551462	WSP	LSI	2			
Section	Type	ID	Direction	Type	Role	Number
ZZ			DR	ZL	45010	3



KINGSWAY VIADUCT (JUNCTION 67)
EXISTING CROSS SECTION B-B
SCALE 1:50



KINGSWAY VIADUCT (JUNCTION 67)
PROPOSED CROSS SECTION B-B
SCALE 1:50

NOTES:

1. ALL DIMENSION ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS AND CHAINAGES ARE IN METRES UNLESS NOTED OTHERWISE.
3. STRUCTURE ENGINEERING DRAWINGS & SECTIONS, REGULATIONS 5(2)(c) & 6(2) SHOULD BE READ IN CONJUNCTION WITH GENERAL ARRANGEMENT DRAWINGS (DOCUMENT REFERENCE TR010031/APP/2.6).
4. PLANS TO BE READ IN CONJUNCTION WITH ALL OTHER PLANS AND DOCUMENTS INCLUDED IN THE DEVELOPMENT CONSENT ORDER APPLICATION.

Rev.	Date	Description	By	Eng' Chk	Disc' Chk	App'd
2	20/04/20	For Examination Deadline 4		RA	IM	HM NR
1	25/02/20	For Examination Deadline 2		RA	IA	IA NR
0	27/09/19	For Application		RA	IA	IA NR

Suitability	For Examination Deadline 4				Status	A3
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PINS Reference Number
TR010031/APP/2.7(C)



Client
A1 BIRTLEY TO COAL HOUSE

Drawing Title
STRUCTURES ENGINEERING
DRAWINGS & SECTIONS
REGULATIONS 5(2)(c) & 6(2)
KINGSWAY VIADUCT (JUNCTION 67) (SHEET 2 OF 16)

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N/A	R.Ayre	I.Mulla	H.Mistry	N.Rawcliffe
Original Size	Date	Date	Date	Date
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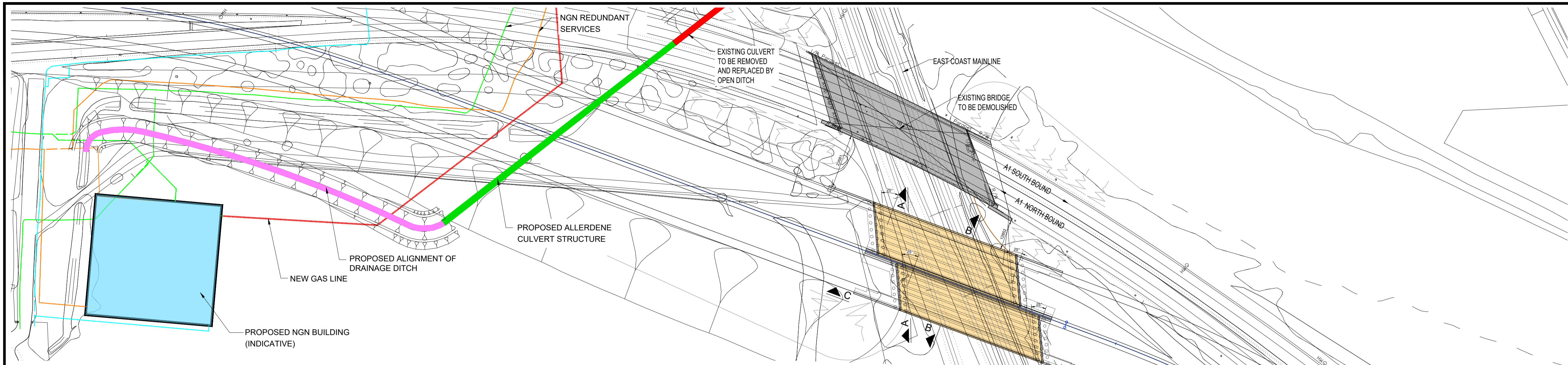
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Confidential

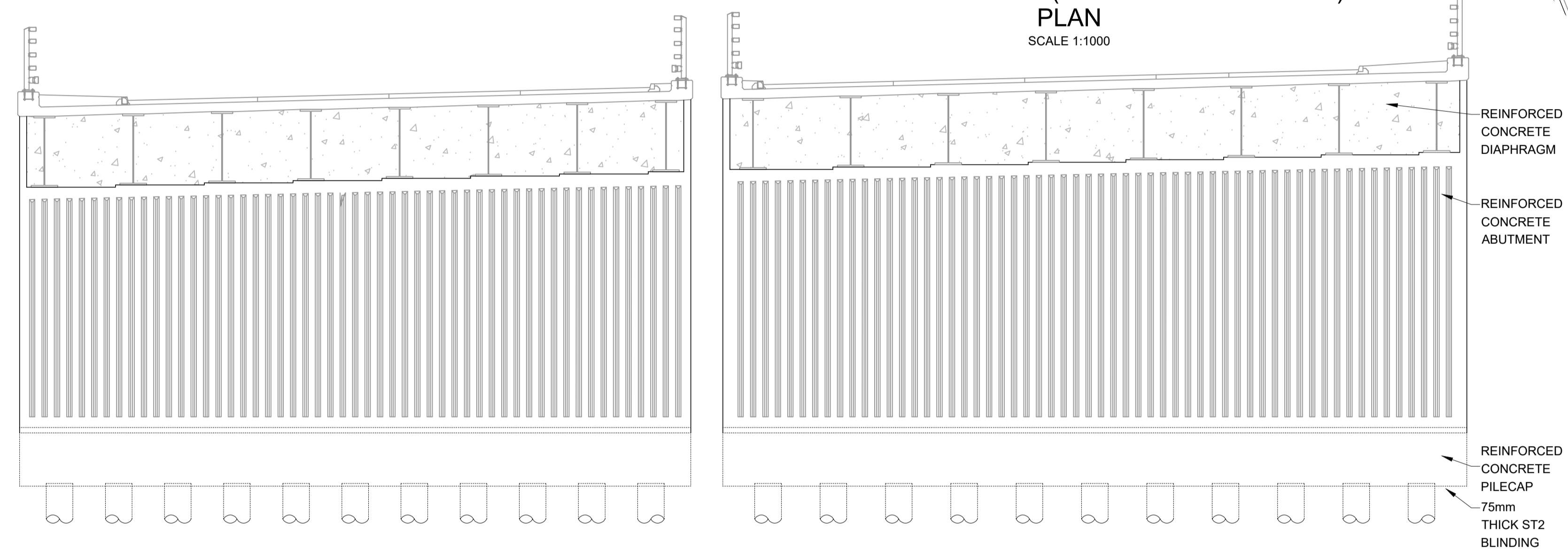
- NOTES:**
- ALL DIMENSION ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 - ALL LEVELS AND CHAINAGES ARE IN METRES UNLESS NOTED OTHERWISE.
 - DO NOT SCALE. IN CASE OF DOUBTS, OMISSIONS OR ERRORS SEEK CLARIFICATION FROM THE DESIGNER.

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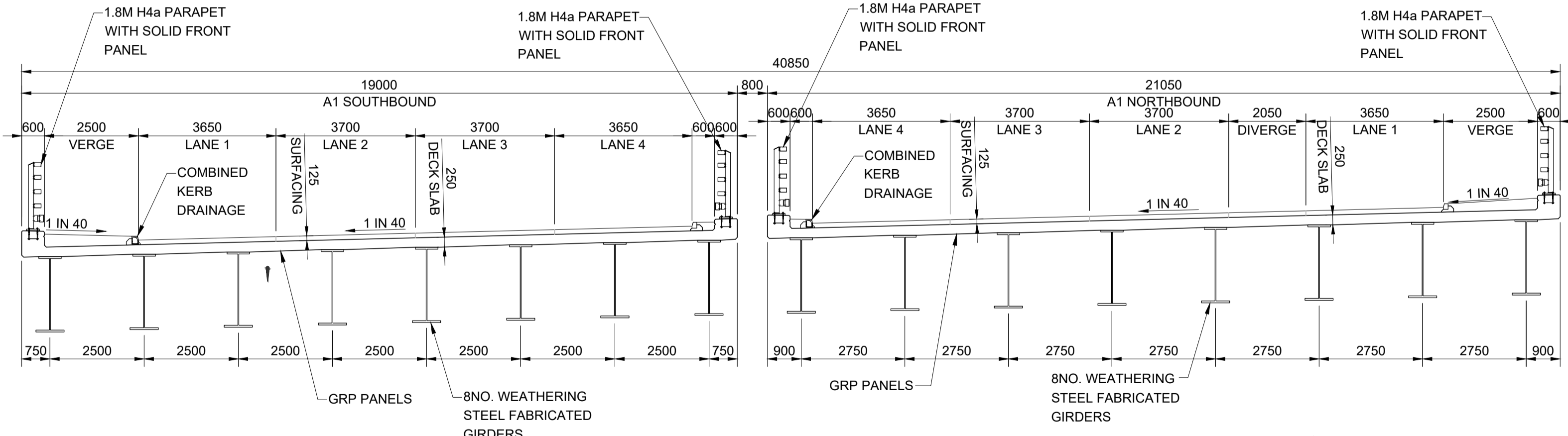
- EXISTING BRIDGE (TO BE DEMOLISHED)
- NEW BRIDGE
- EXISTING ALLERDENE CULVERT TO BE REMOVED AND REPLACED WITH OPEN DITCH
- PROPOSED ALLERDENE CULVERT STRUCTURE
- PROPOSED OPEN DRAINAGE DITCH



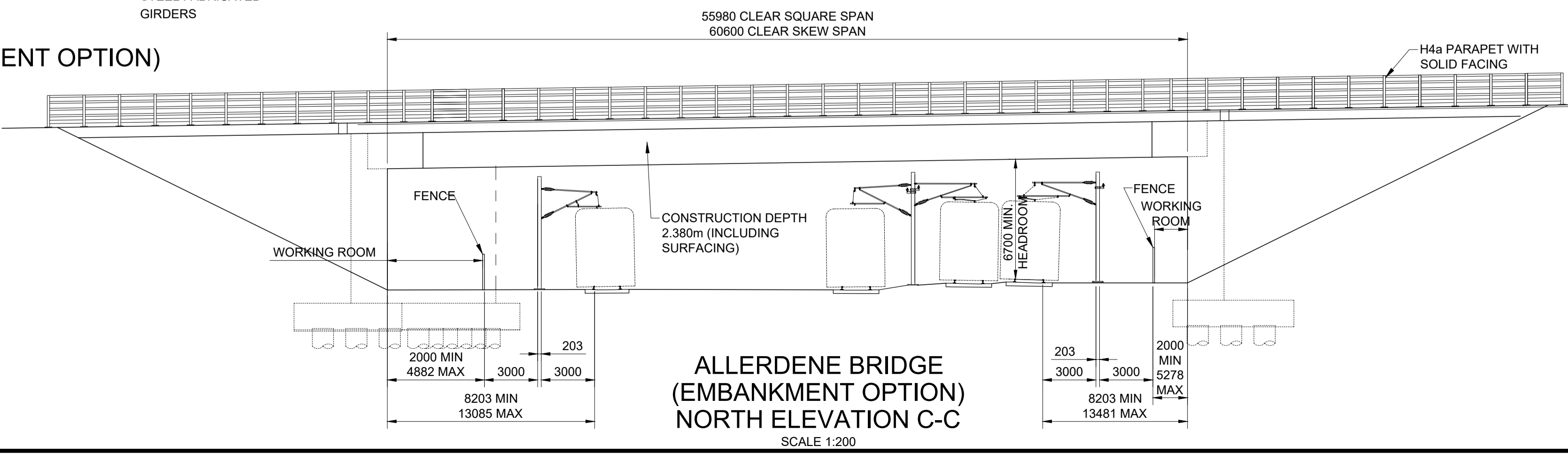
**ALLERDENE BRIDGE (EMBANKMENT OPTION)
PLAN
SCALE 1:1000**



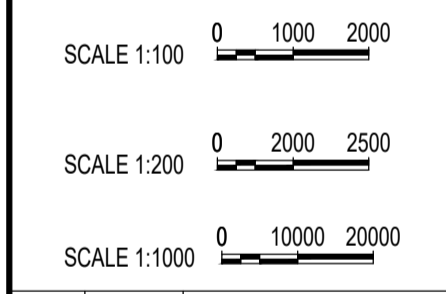
**ALLERDENE BRIDGE (EMBANKMENT OPTION)
TYPICAL ABUTMENT ELEVATION A-A
SCALE 1:100**



**ALLERDENE BRIDGE (EMBANKMENT OPTION)
SECTION B-B
SCALE 1:100**



**ALLERDENE BRIDGE (EMBANKMENT OPTION)
NORTH ELEVATION C-C
SCALE 1:200**



Rev.	Date	Description	By	Eng' Chk	Disc' Chk	App'd
2	20/04/20	For Examination Deadline 4		RA	IM	HM NR
1	25/02/20	For Examination Deadline 2		RA	IA	IA NR
0	27/09/19	For Application		RA	IA	IA NR

Submittal Status: For Examination Deadline 4 A3

Reference Number: TR010031/APP/2.7(D)



Project Title: A1 BIRTLEY TO COAL HOUSE

Drawing Title: STRUCTURES ENGINEERING DRAWINGS & SECTIONS REGULATION 5(2)(o) ALLERDENE BRIDGE (EMBANKMENT OPTION) (SHEET 3 OF 16)

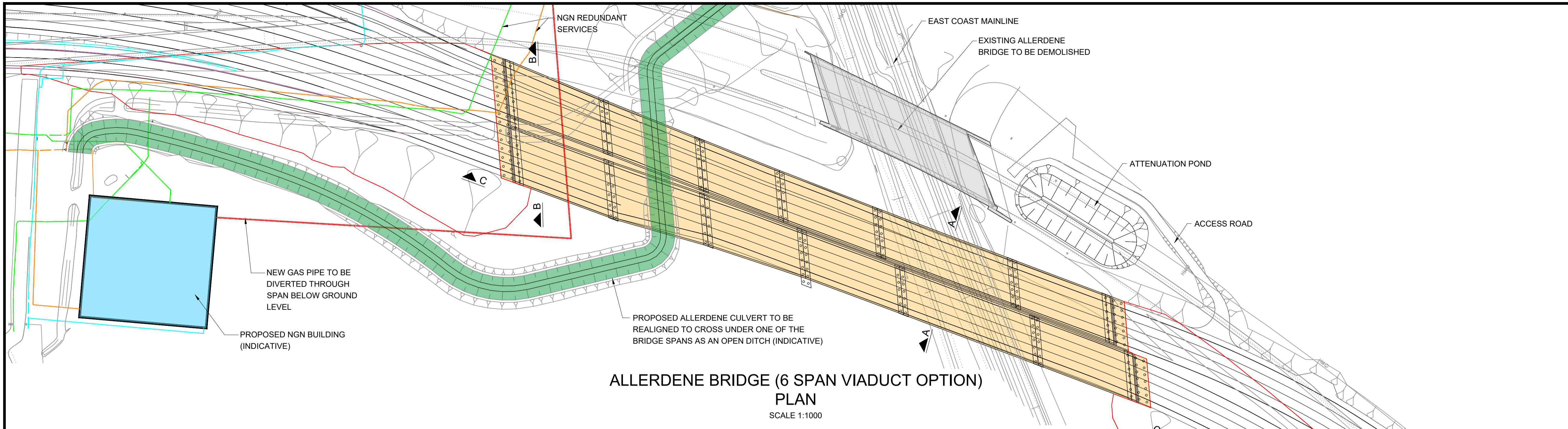
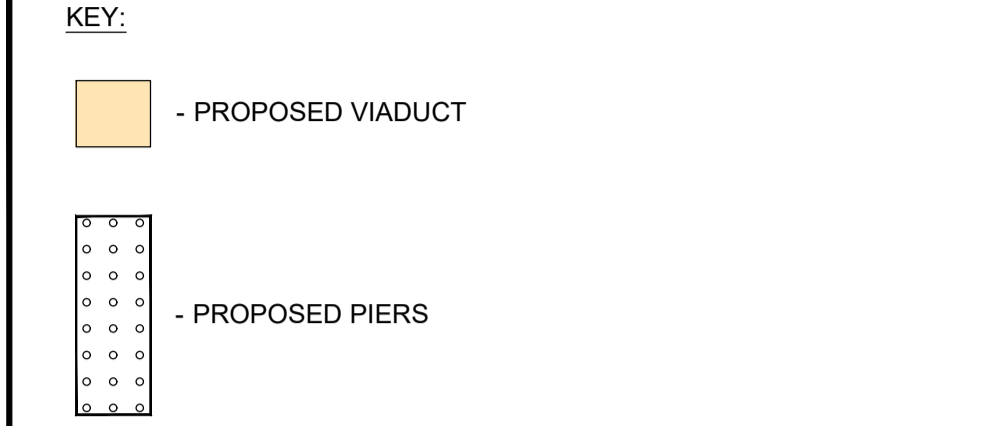
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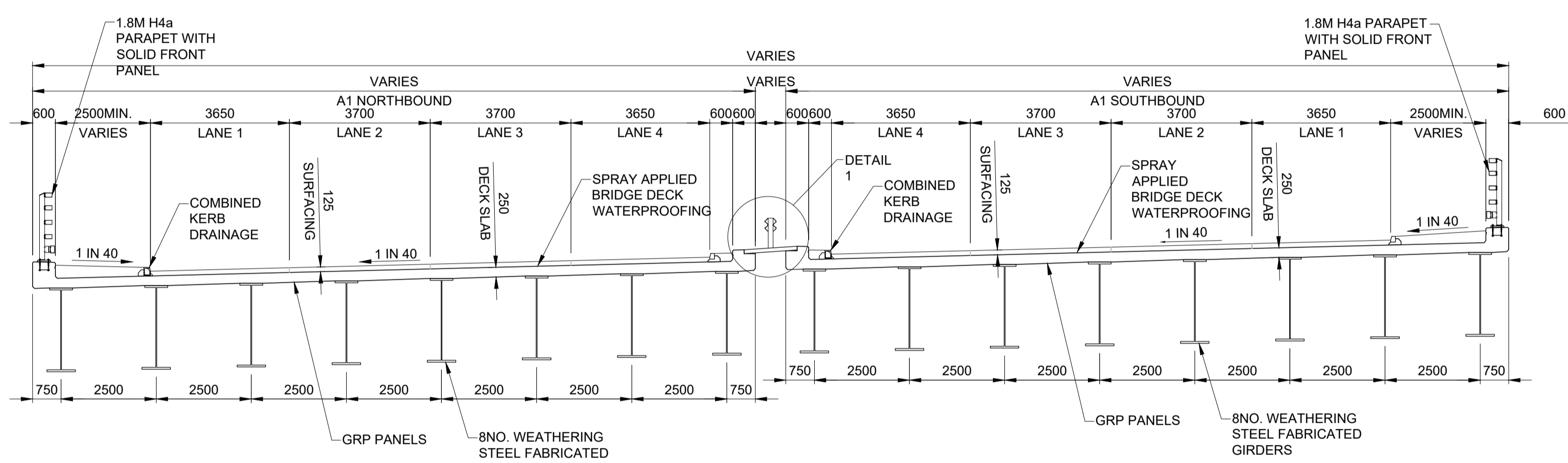
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HE551462	WSP	LSI	2

Section	Type	ID	Direction	Type	Role	Number
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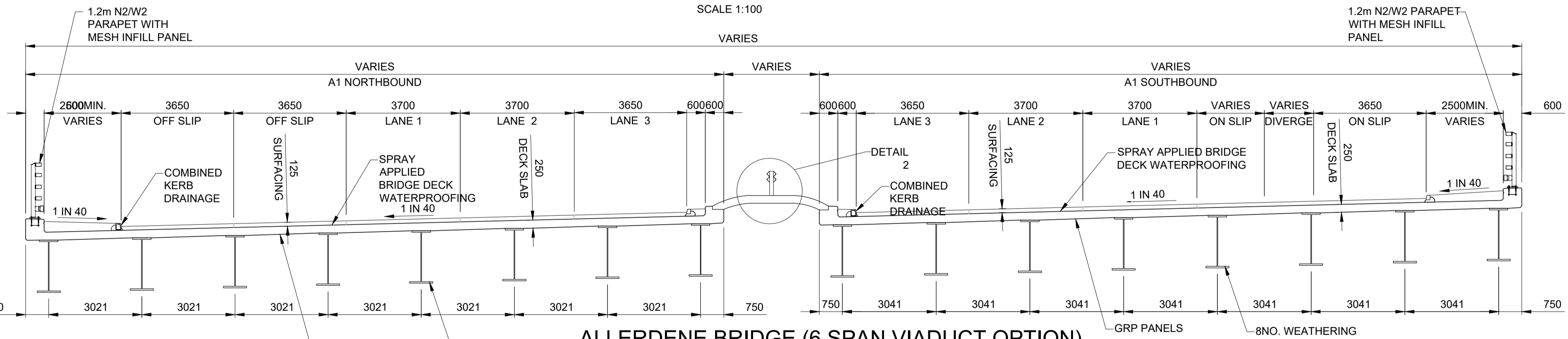
- NOTES:**
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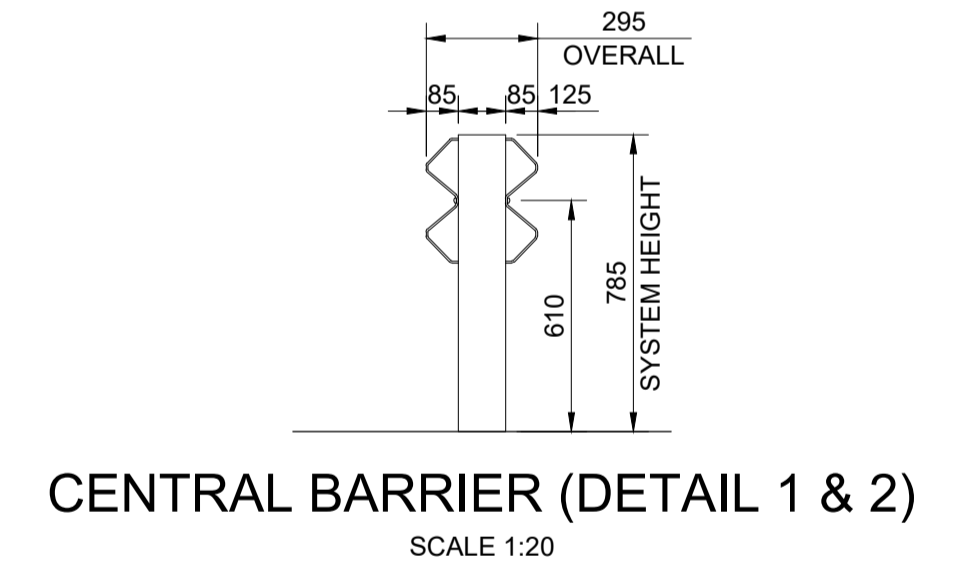
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PLAN
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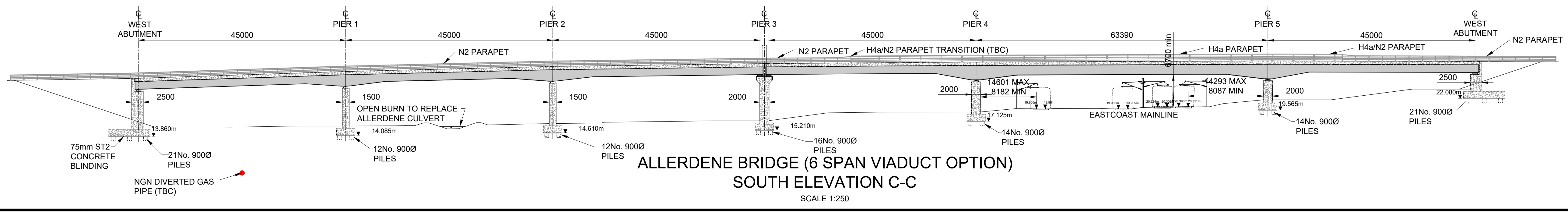
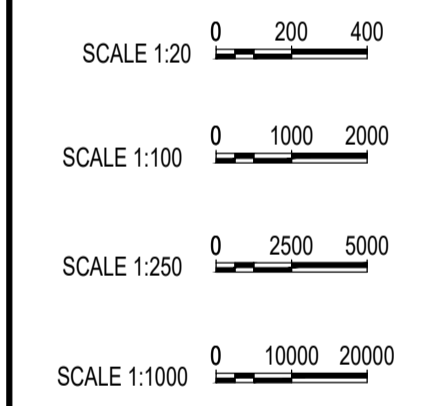
**ALLERDENE BRIDGE (6 SPAN VIADUCT OPTION)
SECTION A-A
SCALE 1:100**



**ALLERDENE BRIDGE (6 SPAN VIADUCT OPTION)
SECTION B-B
SCALE 1:100**



**CENTRAL BARRIER (DETAIL 1 & 2)
SCALE 1:20**



**ALLERDENE BRIDGE (6 SPAN VIADUCT OPTION)
SOUTH ELEVATION C-C
SCALE 1:250**

Rev.	Date	Description	By	Eng' Chk	Disc' Chk	App'd
2	20/04/20	For Examination Deadline 4		RA	IM	HM NR
1	25/02/20	For Examination Deadline 2		RA	IA	IA NR
0	27/09/19	For Application		RA	IA	IA NR

For Examination Deadline 4 A3

TR010031/APP/2.7(E)



A1 BIRTLEY TO COAL HOUSE

**STRUCTURES ENGINEERING DRAWINGS
& SECTIONS REGULATION 5(2)(o)
ALLERDENE BRIDGE (6 SPAN VIADUCT OPTION)
(SHEET 4 OF 16)**

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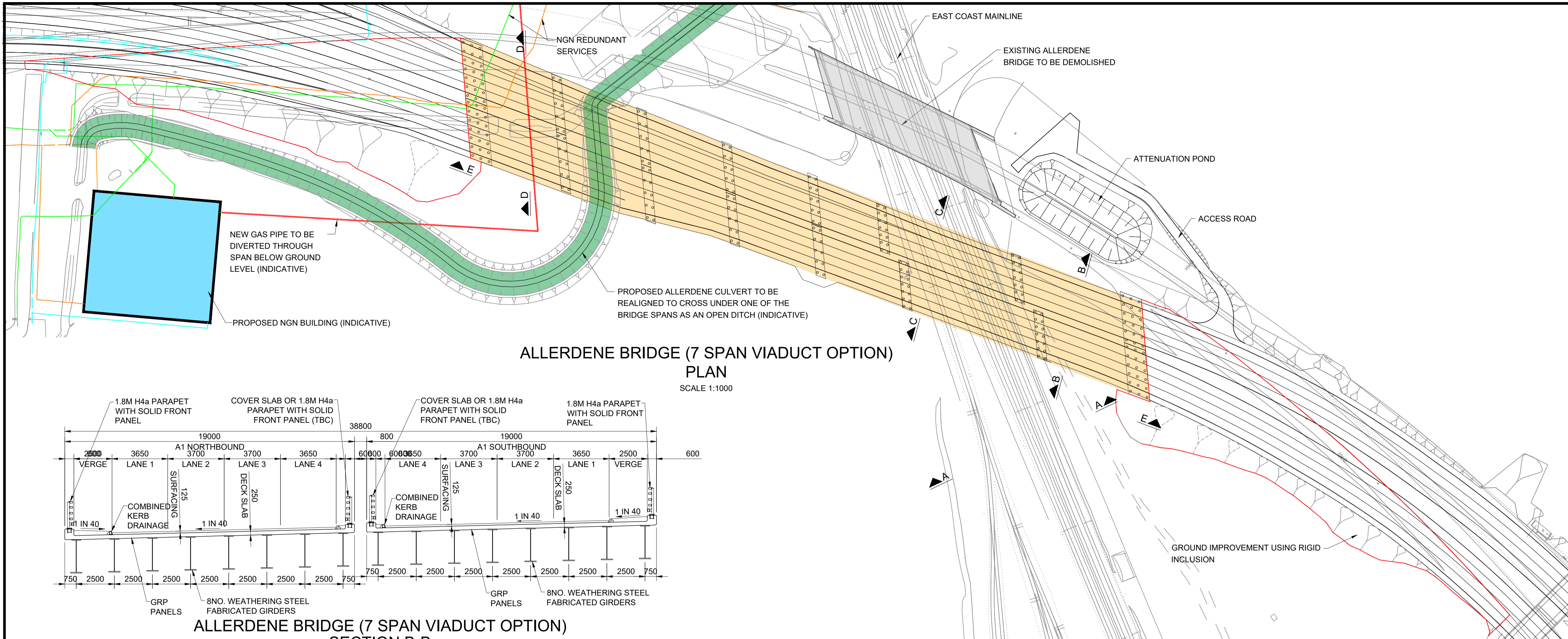
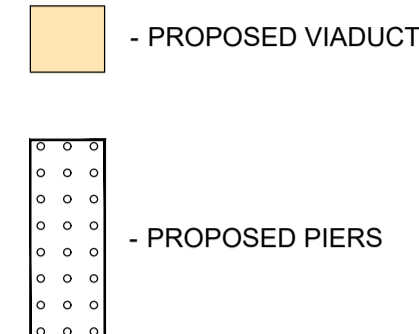
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Confidential

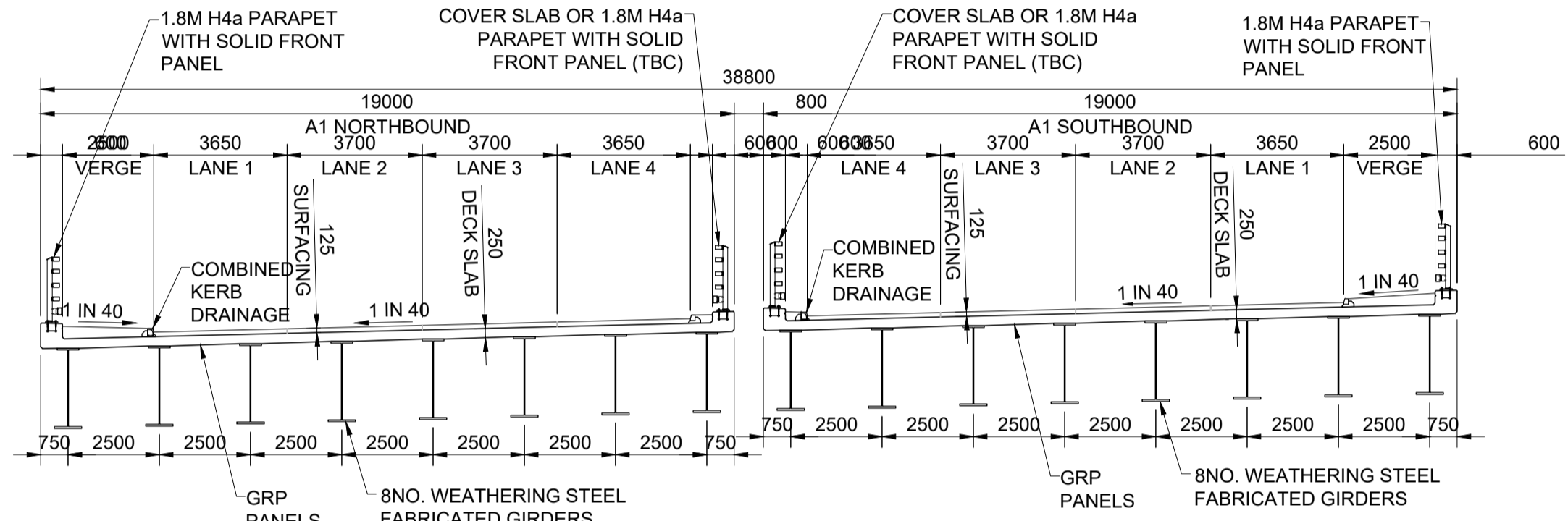
NOTES:

1. ALL DIMENSION ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS AND CHAINAGES ARE IN METRES UNLESS NOTED OTHERWISE.
3. DO NOT SCALE. IN CASE OF DOUBTS, OMISSIONS OR ERRORS SEEK CLARIFICATION FROM THE DESIGNER.

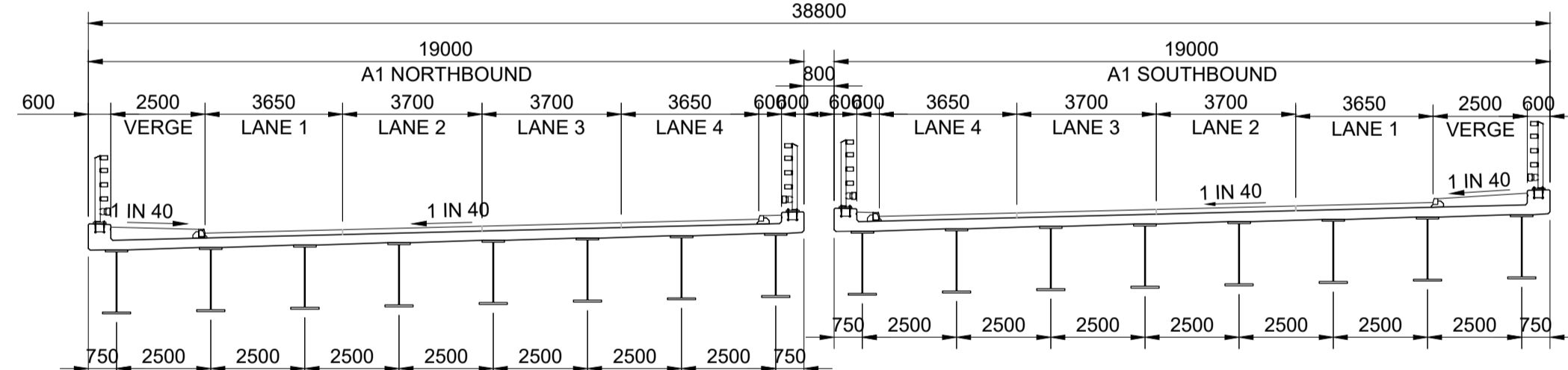
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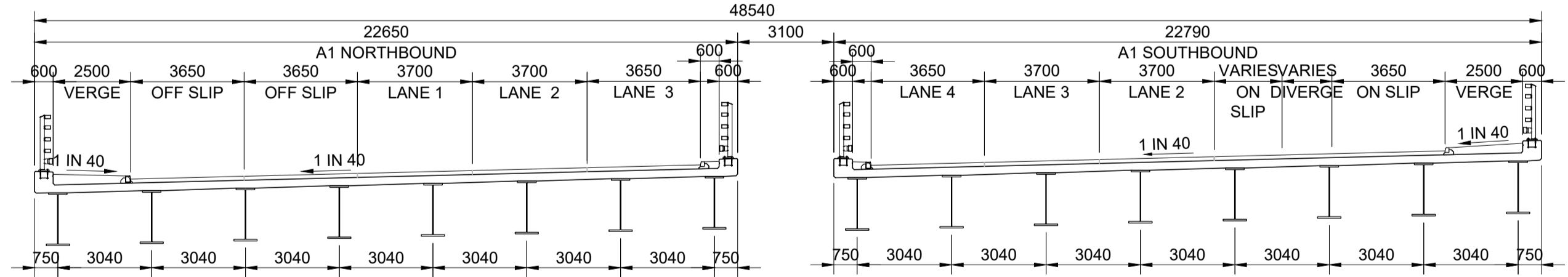
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PLAN**
SCALE 1:1000



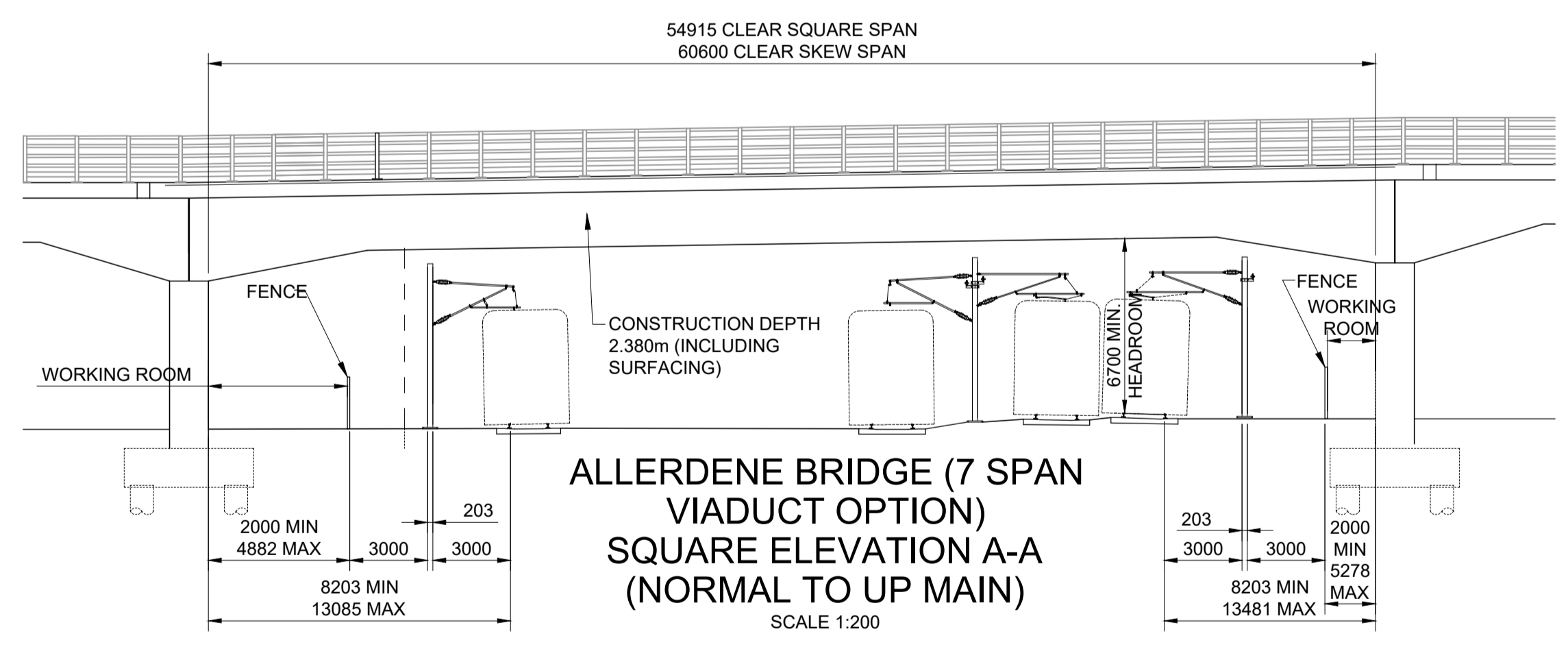
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SECTION B-B**
SCALE 1:150



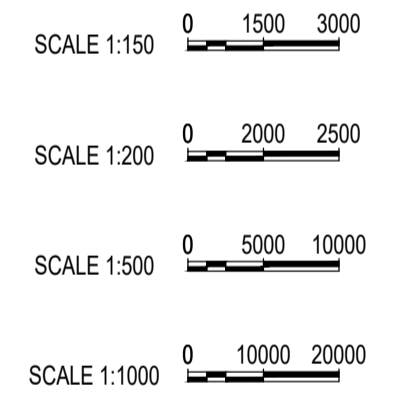
**ALLERDENE BRIDGE (7 SPAN VIADUCT OPTION)
SECTION C-C**
SCALE 1:150



**ALLERDENE BRIDGE (7 SPAN VIADUCT OPTION)
SECTION D-D**
SCALE 1:150



**ALLERDENE BRIDGE (7 SPAN VIADUCT OPTION)
SQUARE ELEVATION A-A
(NORMAL TO UP MAIN)**
SCALE 1:200



Rev.	Date	Description	By	Eng' Chk	Disc' Chk	App'd
2	20/04/20	For Examination Deadline 4		RA	IM	HM NR
1	25/02/20	For Examination Deadline 2		RA	IA	IA NR
0	27/09/19	For Application		RA	IA	IA NR

For Examination Deadline 4 A3

PINS Reference Number **TR010031/APP/2.7(F)**



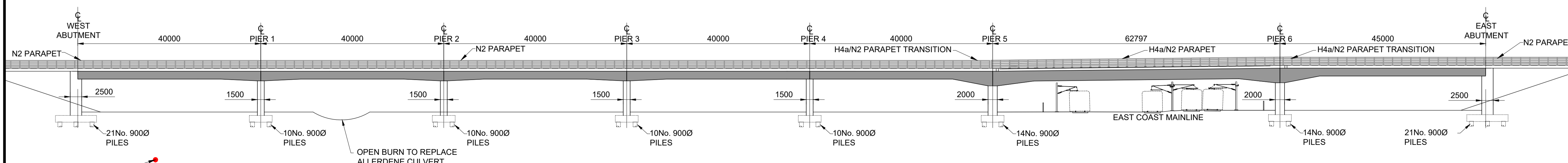
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Drawing Title **STRUCTURES ENGINEERING DRAWINGS & SECTIONS REGULATION 5(2)(o)
ALLERDENE BRIDGE (7 SPAN VIADUCT OPTION)
(SHEET 5 OF 16)**

Scale	Drawn	Eng. Check	Approved	Authorised
N/A	R.Ayre	I.Mulla	H.Mistry	N.Rawcliffe

Original Size	Date	Date	Date	Date
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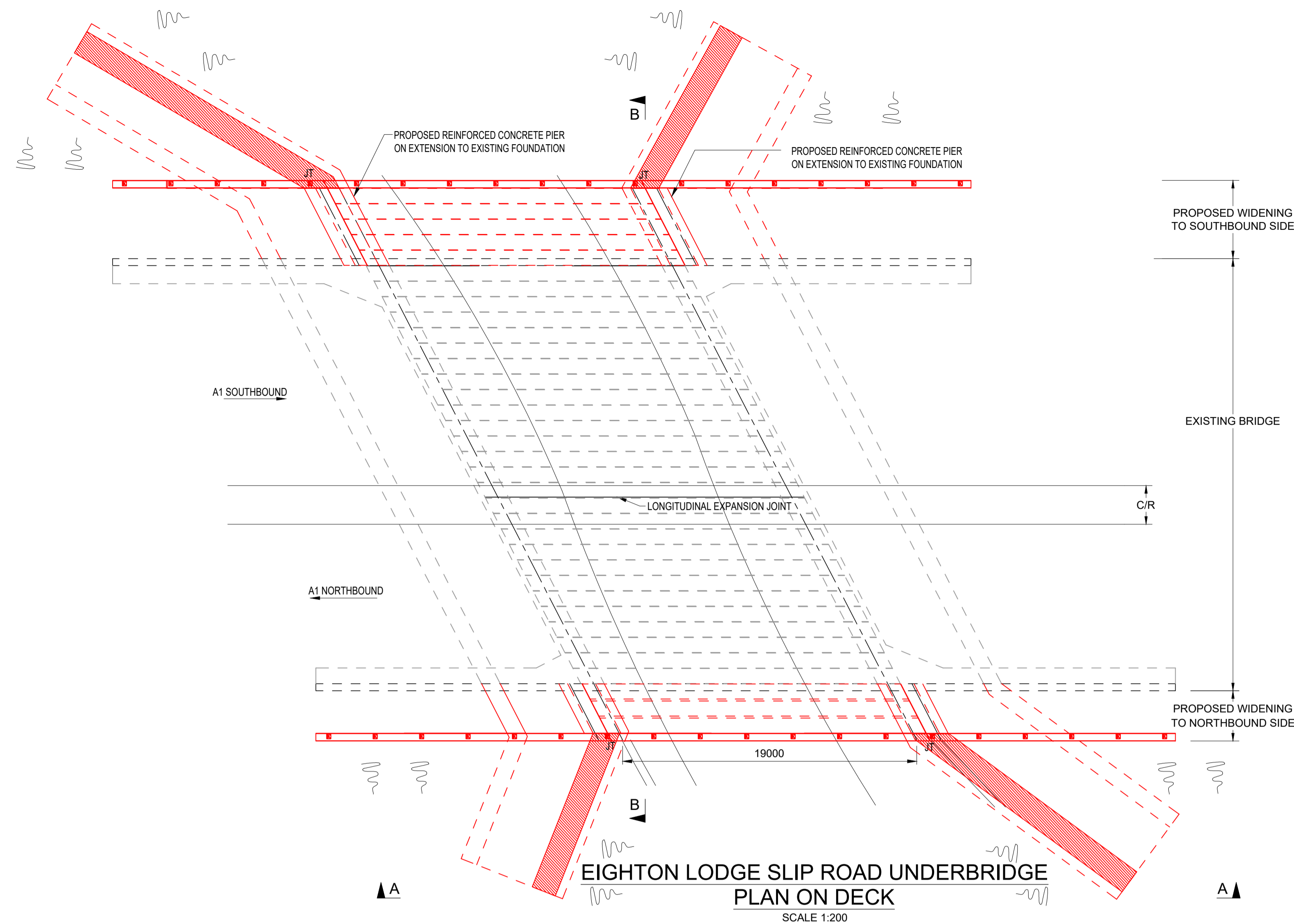
HE551462 WSP LSI DR ZL 45014 2
ZZ Section Type ID Direction Type Role Number 3



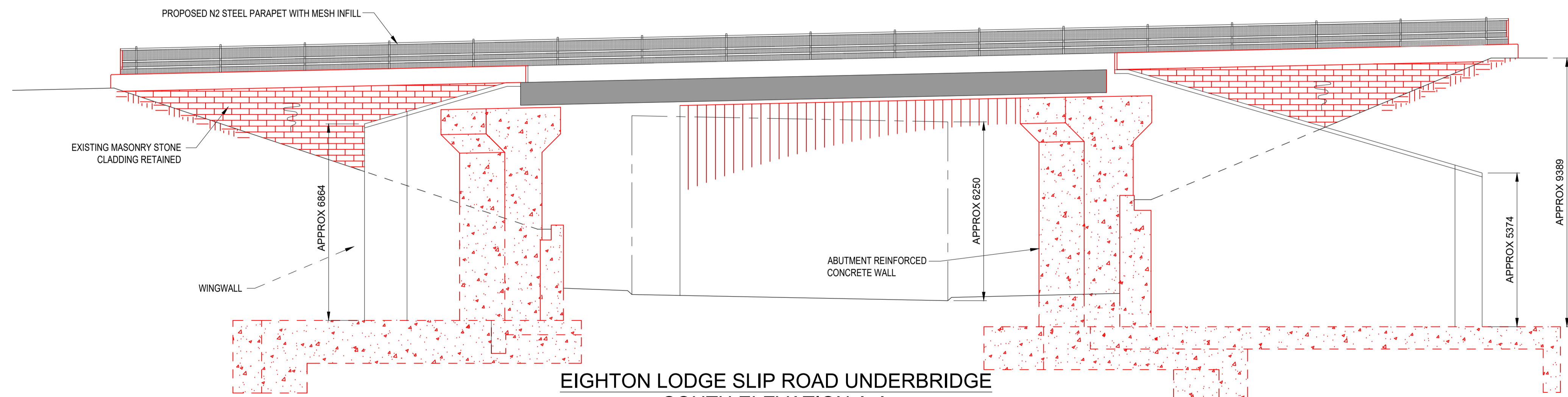
**ALLERDENE BRIDGE (7 SPAN VIADUCT OPTION)
SOUTH ELEVATION E-E**
SCALE 1:500

NOTES:

1. ALL DIMENSION ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
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3. DO NOT SCALE. IN CASE OF DOUBTS, OMISSIONS OR ERRORS SEEK CLARIFICATION FROM THE DESIGNER.

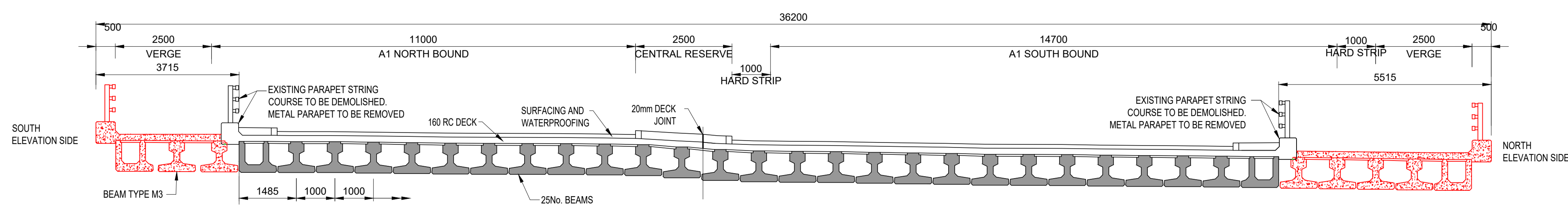


EIGHTON LODGE SLIP ROAD UNDERBRIDGE
PLAN ON DECK
 SCALE 1:200

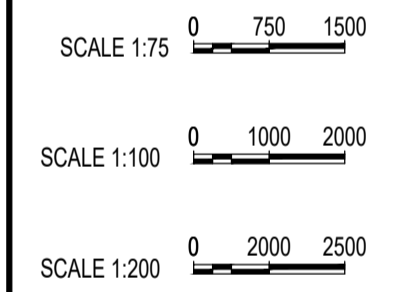


EIGHTON LODGE SLIP ROAD UNDERBRIDGE
SOUTH ELEVATION A-A
 SCALE 1:100

NOTE
 ABUTMENT FOUNDATION AND STEM TO BE FIXED TO THE EXISTING ABUTMENT BASE AND EXISTING ABUTMENT END FACE USING DOWEL BARS



EIGHTON LODGE SLIP ROAD UNDERBRIDGE
SECTION B-B
 SCALE 1:75



Rev.	Date	Description	By	Eng' Chk	Disc' Chk	App'd	Status
2	20/04/20	For Examination Deadline 4		RA	IM	HM	NR
1	25/02/20	For Examination Deadline 2		RA	IA	IA	NR
0	27/09/19	For Application		RA	IA	IA	NR

For Examination Deadline 4

A3

TR010031/APP/2.7(G)



A1 BIRTLEY TO COAL HOUSE

STRUCTURES ENGINEERING DRAWINGS
 & SECTIONS REGULATION 5(2)(o)
 EIGHTON LODGE SLIP ROAD UNDERBRIDGE
 (SHEET 6 OF 16)

Scale	Drawn	Eng. Check	Approved	Authorised
N/A	R.Ayre	I.Mulla	H.Mistry	N.Rawcliffe

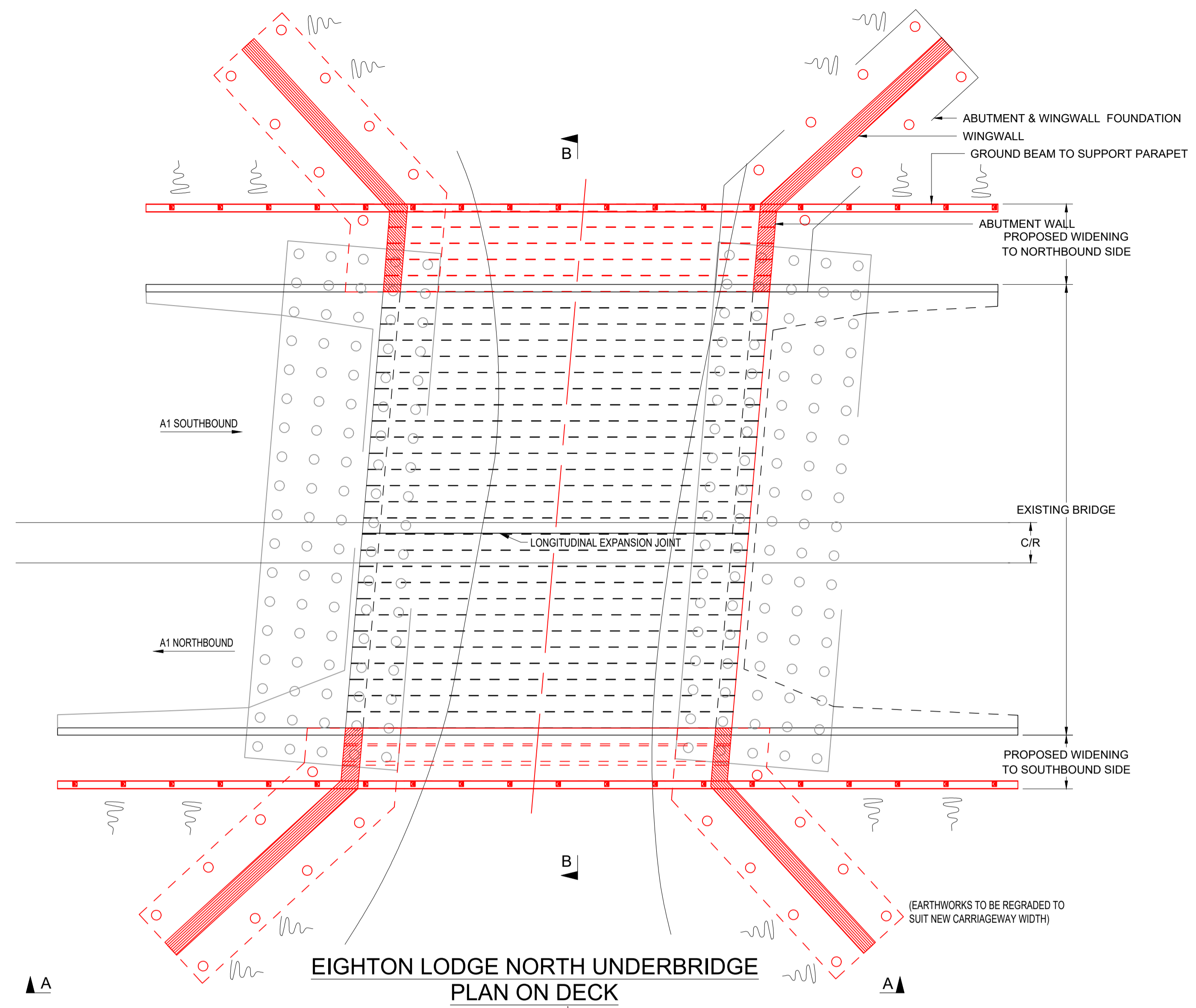
Original Size	Date	Date	Date	Date
A1	20/04/20	20/04/20	20/04/20	20/04/20

Drawing Number	Originator	Volume	Revision
HE551462	WSP	LSI	2

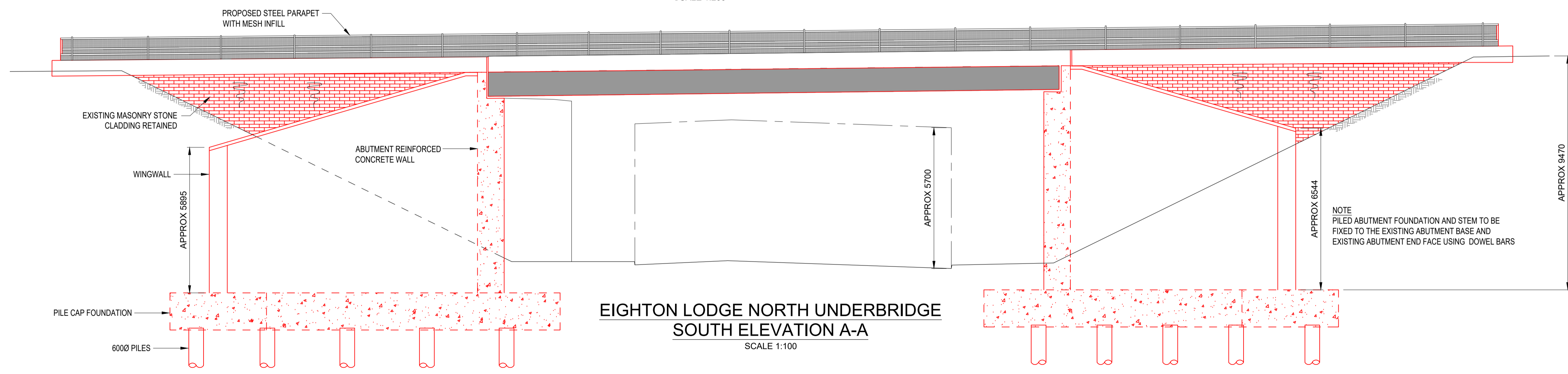
Section	Type	ID	Direction	Type	Role	Number
ZZ	DR	ZL	45015			3

NOTES:

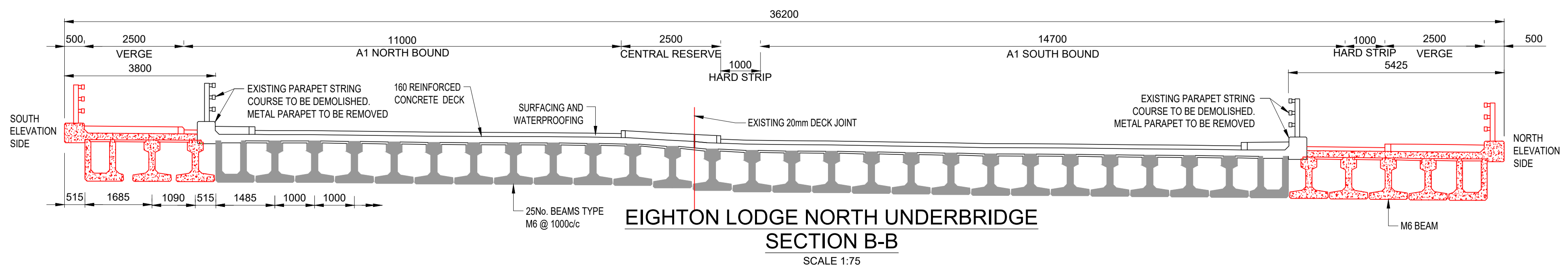
1. ALL DIMENSION ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS AND CHAINAGES ARE IN METRES UNLESS NOTED OTHERWISE.
3. DO NOT SCALE. IN CASE OF DOUBTS, OMISSIONS OR ERRORS SEEK CLARIFICATION FROM THE DESIGNER.



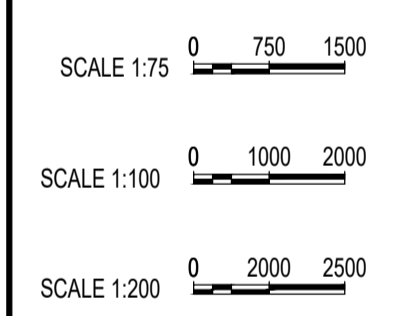
EIGHTON LODGE NORTH UNDERBRIDGE
PLAN ON DECK
SCALE 1:200



EIGHTON LODGE NORTH UNDERBRIDGE
SOUTH ELEVATION A-A
SCALE 1:100



EIGHTON LODGE NORTH UNDERBRIDGE
SECTION B-B
SCALE 1:75



Rev.	Date	Description	By	Eng' Chk	Disc' Chk	App'd
2	20/04/20	For Examination Deadline 4		RA	IM	HM NR
1	25/02/20	For Examination Deadline 2		RA	IA	IA NR
0	27/09/19	For Application		RA	IA	IA NR

Submittal	For Examination Deadline 4	Status	A3
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PINS Reference Number: **TR010031/APP/2.7(H)**



Project Title: **A1 BIRTLEY TO COAL HOUSE**

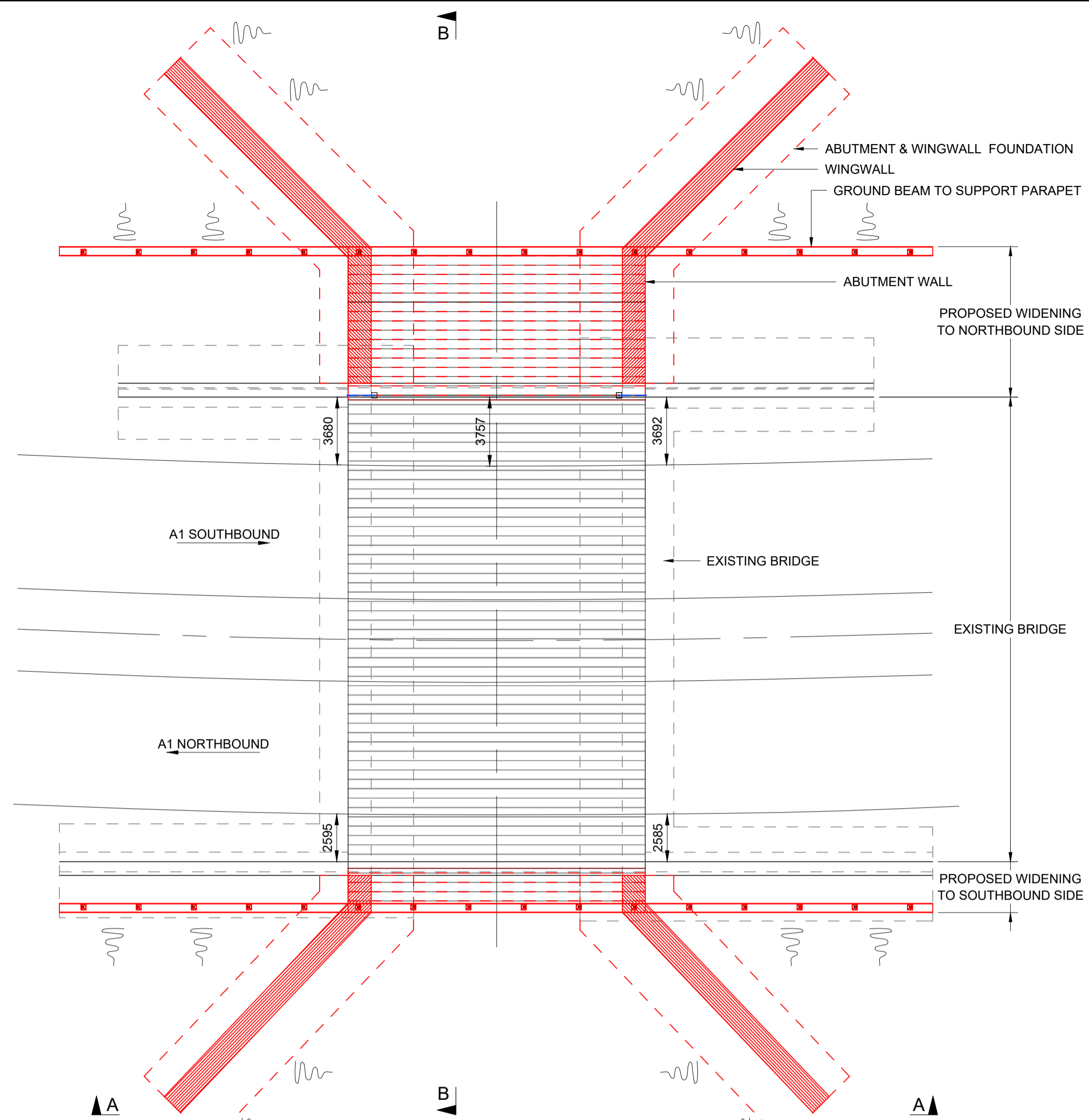
Drawing Title: **STRUCTURES ENGINEERING DRAWINGS & SECTIONS REGULATION 5(2)(o) EIGHTON LODGE NORTH UNDERBRIDGE (SHEET 7 OF 16)**

Scale	Drawn	Eng. Check	Approved	Authorised
N/A	R.Ayre	I.Mulla	H.Mistry	N.Rawcliffe
Original Size	Date	Date	Date	Date
A1	20/04/20	20/04/20	20/04/20	20/04/20

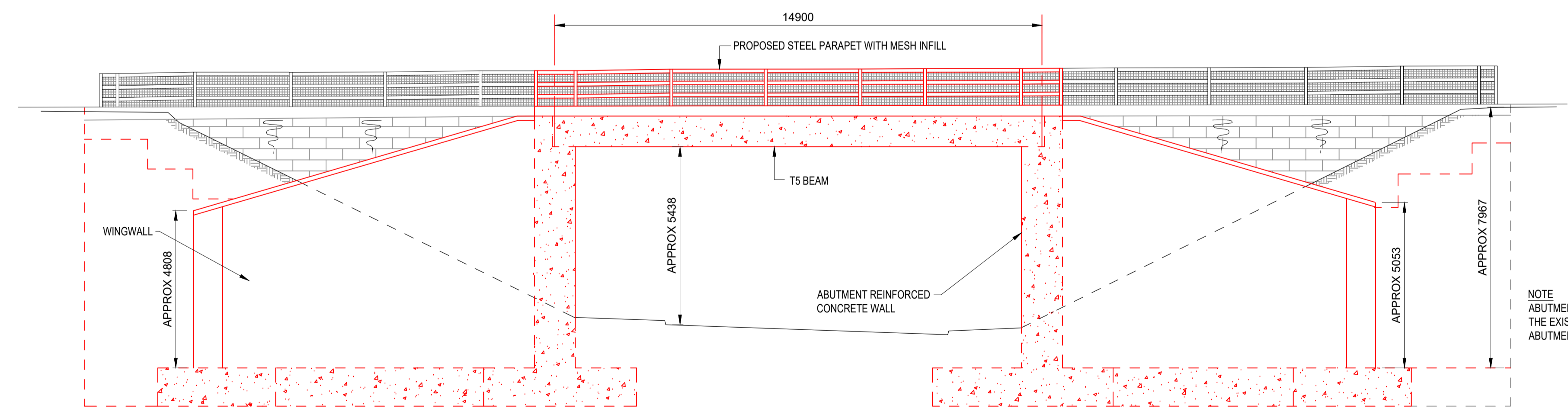
Drawing Number	Originator	Volume	Revision
HE551462	WSP	LSI	2
Section	Type	Role	Number
ZZ	DR	ZL	45016

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS AND CHAINAGES ARE IN METRES UNLESS NOTED OTHERWISE.
3. DO NOT SCALE. IN CASE OF DOUBTS, OMISSIONS OR ERRORS SEEK CLARIFICATION FROM THE DESIGNER.

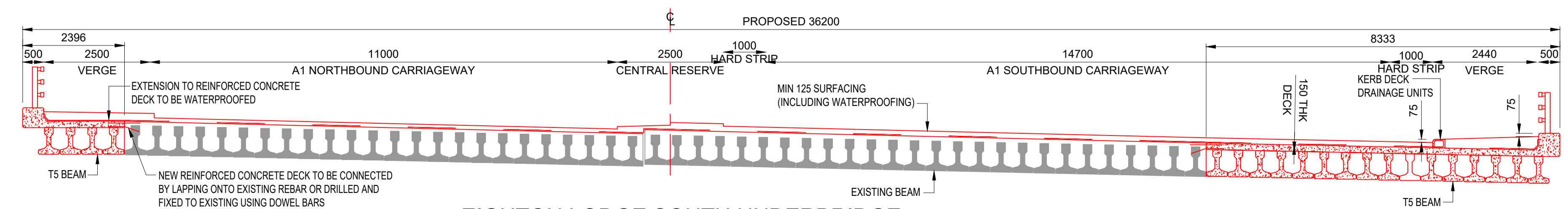


**EIGHTON LODGE SOUTH UNDERBRIDGE
PLAN ON DECK**
SCALE 1:200

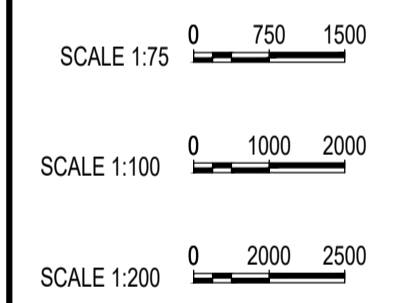


**EIGHTON LODGE SOUTH UNDERBRIDGE
SOUTH ELEVATION A-A**
SCALE 1:100

NOTE
ABUTMENT FOUNDATION AND STEM TO BE FIXED TO THE EXISTING ABUTMENT BASE AND EXISTING ABUTMENT END FACE USING DOWEL BARS



**EIGHTON LODGE SOUTH UNDERBRIDGE
SECTION B-B**
SCALE 1:75



Rev.	Date	Description	By	Eng' Chk	Disc' Chk	App'd	Status
2	20/04/20	For Examination Deadline 4		RA	IM	HM	NR
1	25/02/20	For Examination Deadline 2		RA	IA	IA	NR
0	27/09/19	For Application		RA	IA	IA	NR

For Examination Deadline 4 A3

Reference Number: TR010031/APP/2.7(1)



Project Title: A1 BIRTLEY TO COAL HOUSE

Drawing Title: STRUCTURES ENGINEERING DRAWINGS & SECTIONS REGULATION 5(2)(o) EIGHTON LODGE SOUTH UNDERBRIDGE (SHEET 8 OF 16)

Scale	Drawn	Eng. Check	Approved	Authorised
N/A	R.Ayre	I.Mulla	H.Mistry	N.Rawcliffe

Original Size	Date	Date	Date	Date
A1	20/04/20	20/04/20	20/04/20	20/04/20

Revision: 2
PW Stage Code: 3

Confidential

NOTES:

1. ALL DIMENSION ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS AND CHAINAGES ARE IN METRES UNLESS NOTED OTHERWISE.
3. DO NOT SCALE. IN CASE OF DOUBTS, OMISSIONS OR ERRORS SEEK CLARIFICATION FROM THE DESIGNER.

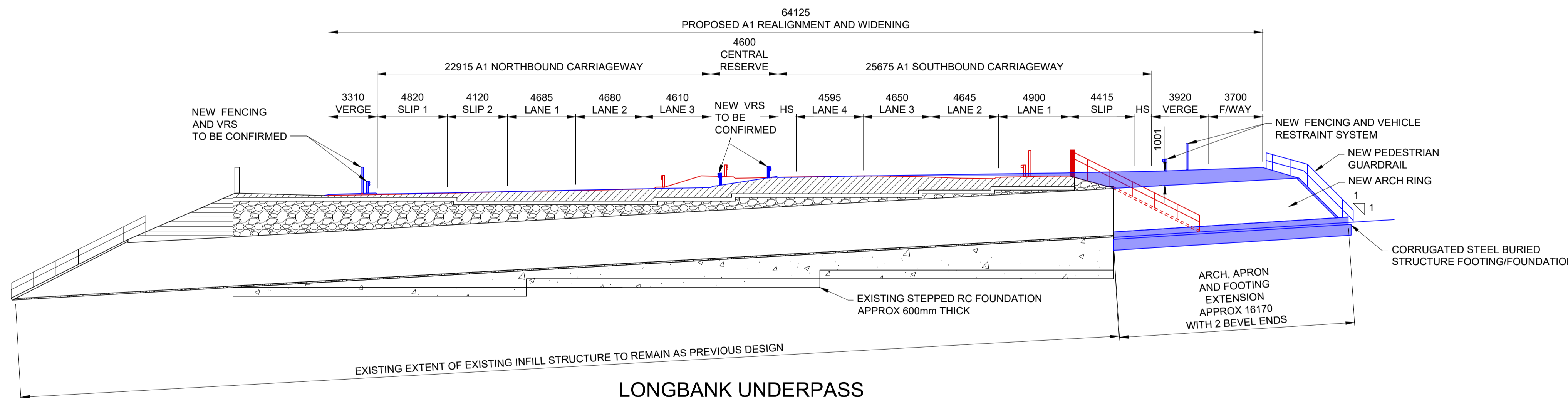
KEY:

- VRS - VEHICLE RESTRAINT SYSTEM
- CSBS - CORRUGATED STEEL BURIED STRUCTURE
- EXISTING, TO BE REMOVED
- PROPOSED EXTENSION

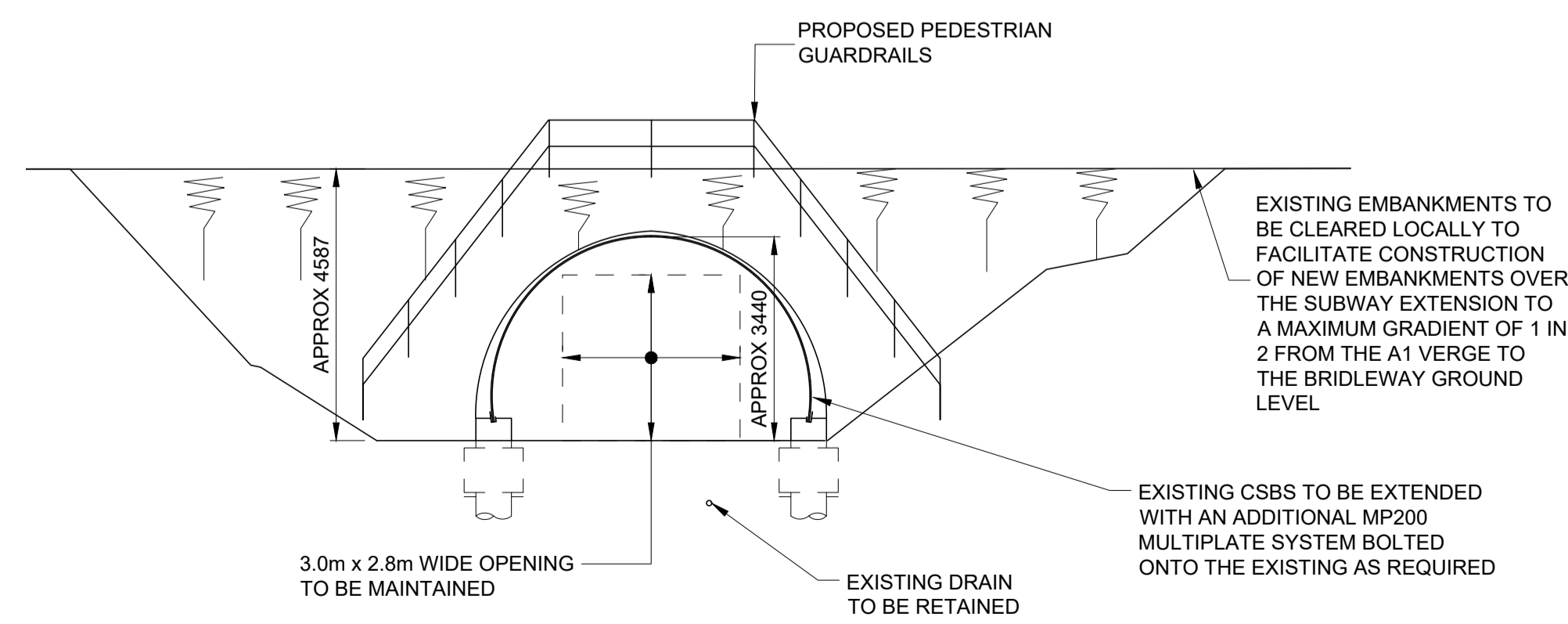
POSSIBILITY OF EXISTING RETAINING WALL COVERED BY EARTHWORK EMBANKMENT. RECORDS TO BE CHECKED BEFORE WORKS.



LONGBANK UNDERPASS
PLAN
SCALE 1:200



LONGBANK UNDERPASS
SECTION A-A
SCALE 1:100



LONGBANK UNDERPASS
EAST ELEVATION B-B
SCALE 1:100

SCALE 1:100

SCALE 1:200

Rev.	Date	Description	By	Eng' Chk	Disc' Chk	App'd	Status
2	20/04/20	For Examination Deadline 4		RA	IM	HM	NR
1	25/02/20	For Examination Deadline 2		RA	IA	IA	NR
0	27/09/19	For Application		RA	IA	IA	NR

For Examination Deadline 4 A3

PINS Reference Number **TR010031/APP/2.7(J)**



Client **A1 BIRTLEY TO COAL HOUSE**

Drawing Title **STRUCTURES ENGINEERING DRAWINGS & SECTIONS REGULATION 5(2)(o) LONGBANK UNDERPASS (SHEET 9 OF 16)**

Scale	Drawn	Eng. Check	Approved	Authorised
N/A	R.Ayre	I.Mulla	H.Mistry	N.Rawcliffe

Original Size	Date	Date	Date	Date
A1	20/04/20	20/04/20	20/04/20	20/04/20

HE551462 WSP LSI 2
ZZ DR ZL 45018 3

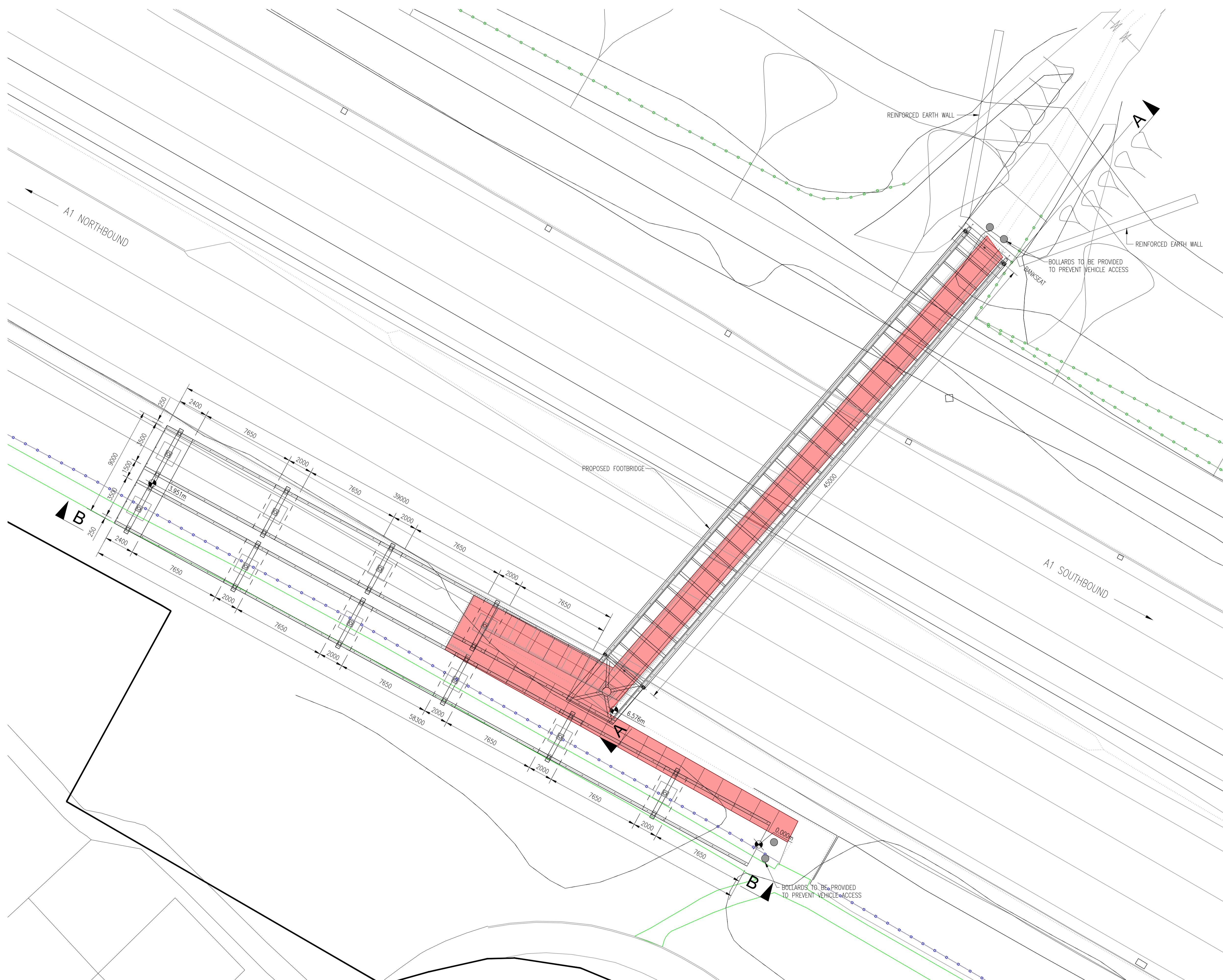
Confidential

NOTES:

1. ALL DIMENSION ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS AND CHAINAGES ARE IN METRES UNLESS NOTED OTHERWISE.
3. DO NOT SCALE. IN CASE OF DOUBTS, OMISSIONS OR ERRORS SEEK CLARIFICATION FROM THE DESIGNER.

KEY:

EXISTING FOOTBRIDGE TO BE REPLACED



NORTH DENE FOOTBRIDGE (GRADIENT 1:12)
PLAN
 SCALE 1:150

SCALE 1:150 0 1500 3000

Rev.	Date	Description	By	Eng' Chk	Disc' Chk	App'd	Status
2	20/04/20	For Examination Deadline 4		RA	IM	HM	NR
1	25/02/20	For Examination Deadline 2		RA	IA	IA	NR
0	27/09/19	For Application		RA	IA	IA	NR

For Examination Deadline 4						A3
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PINS Reference Number: TR010031/APP/2.7(K)



Client: A1 BIRTLEY TO COAL HOUSE

Drawing Title: STRUCTURES ENGINEERING DRAWINGS & SECTIONS REGULATION 5(2)(o) NORTH DENE FOOTBRIDGE (SHEET 10 OF 16)

Scale	Drawn	Eng. Check	Approved	Authorised
N/A	R.Ayre	I.Mulla	H.Mistry	N.Rawcliffe
Original Size	Date	Date	Date	Date
A1	20/04/20	20/04/20	20/04/20	20/04/20

Drawing Number	Originator	Volume	Revision
HE551462	WSP	LSI	2
Section	Type	Role	Number
ZZ	DR	ZL	45019
			3

Confidential

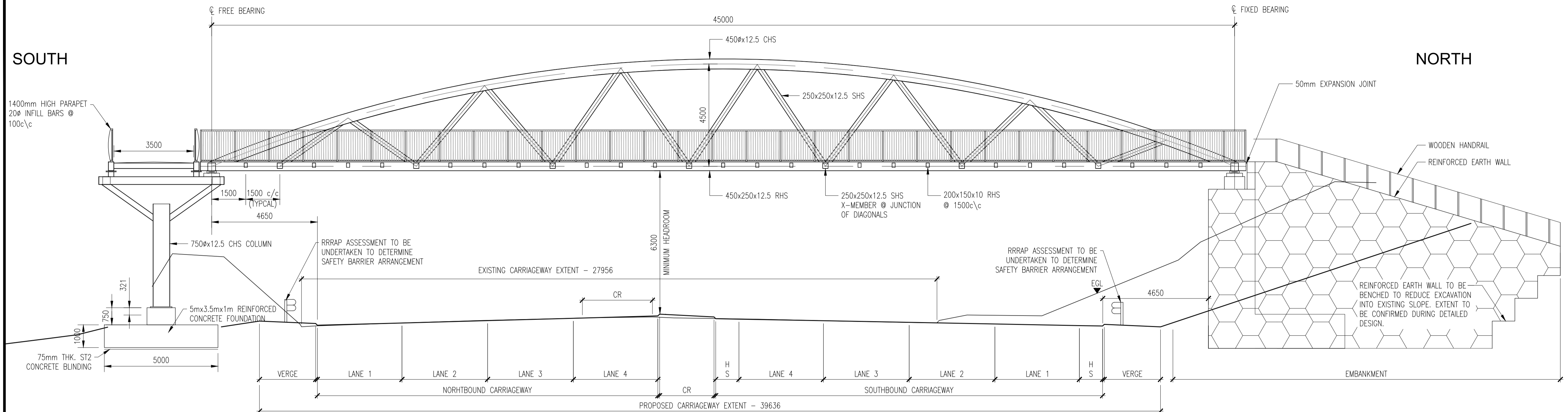
NOTES:

1. ALL DIMENSION ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS AND CHAINAGES ARE IN METRES UNLESS NOTED OTHERWISE.
3. DO NOT SCALE. IN CASE OF DOUBTS, OMISSIONS OR ERRORS SEEK CLARIFICATION FROM THE DESIGNER.

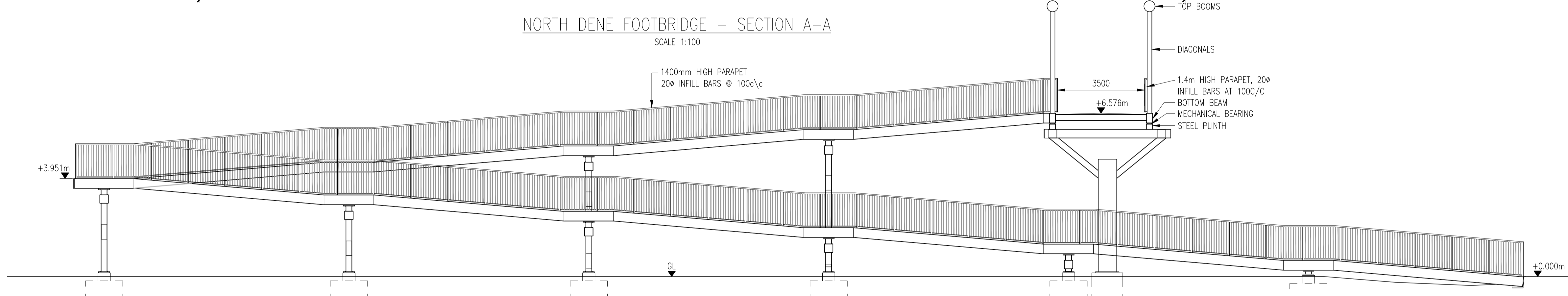
- KEY:**
- SHS - SQUARE HOLLOW SECTION
 - RHS - RECTANGULAR HOLLOW SECTION
 - CHS - CIRCULAR HOLLOW SECTION
 - RRRAP - ROAD RESTRAINT RISK ASSESSMENT PROCESS

SOUTH

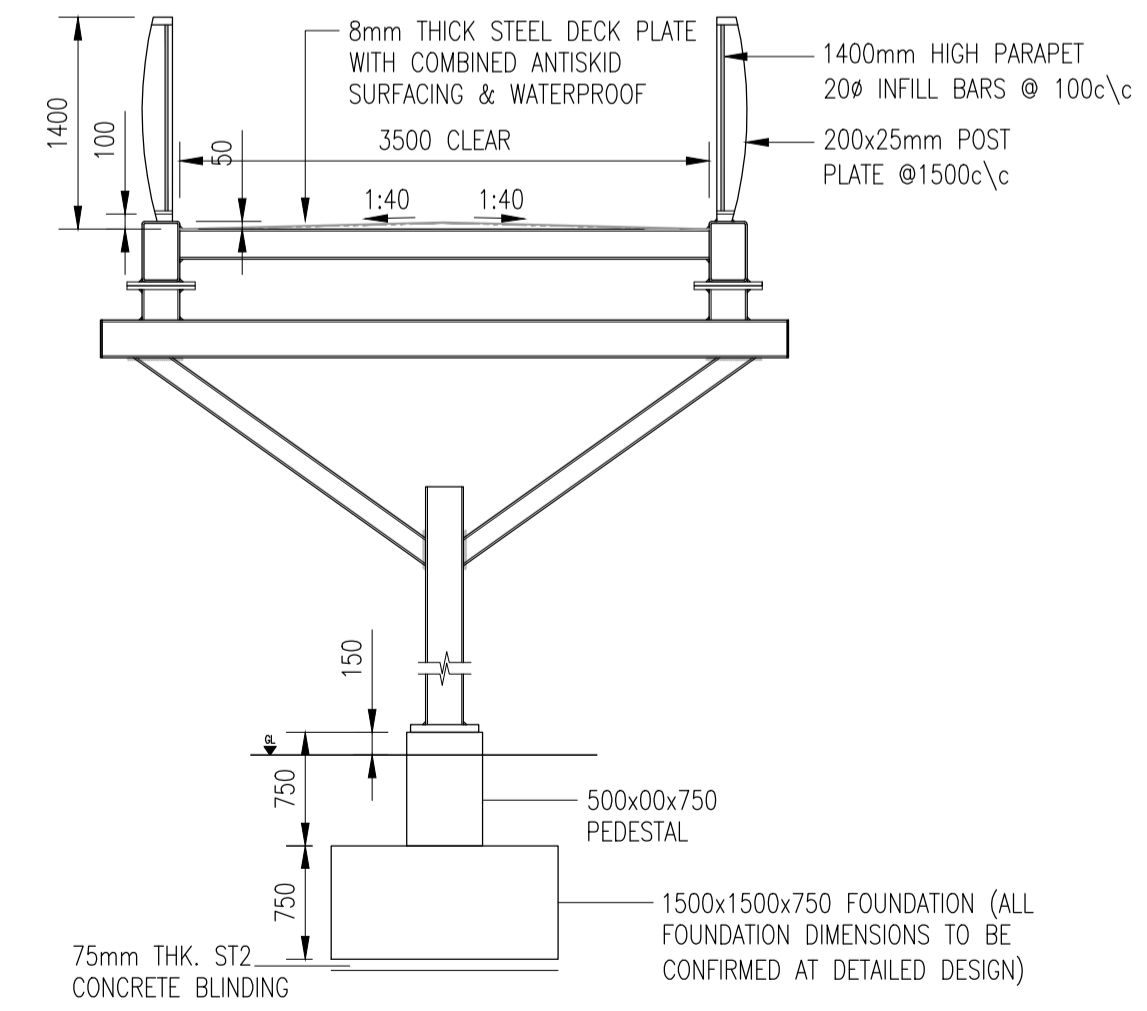
NORTH



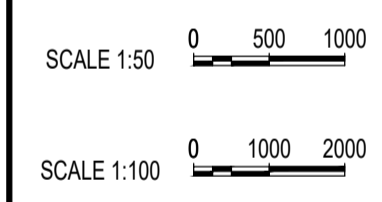
NORTH DENE FOOTBRIDGE - SECTION A-A
SCALE 1:100



NORTH DENE FOOTBRIDGE - ELEVATION B-B
SCALE 1:100



NORTH DENE FOOTBRIDGE - TYPICAL SECTION THROUGH RAMP
SCALE 1:50



Rev.	Date	Description	By	Eng' Chk	Disc' Chk	App'd	Status
2	20/04/20	For Examination Deadline 4					RA IM HM NR
1	25/02/20	For Examination Deadline 2					RA IA IA NR
0	27/09/19	For Application					RA IA IA NR

For Examination Deadline 4 A3

PINS Reference Number: TR010031/APP/2.7(L)



Project Title: A1 BIRTLEY TO COAL HOUSE

Drawing Title: STRUCTURES ENGINEERING DRAWINGS & SECTIONS REGULATION 5(2)(o) NORTH DENE FOOTBRIDGE (SHEET 11 OF 16)

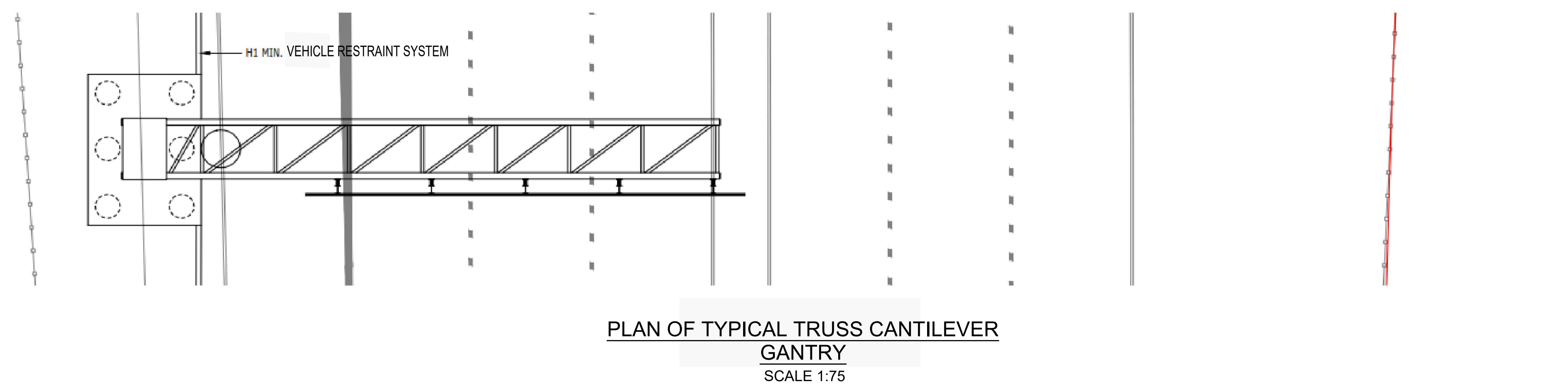
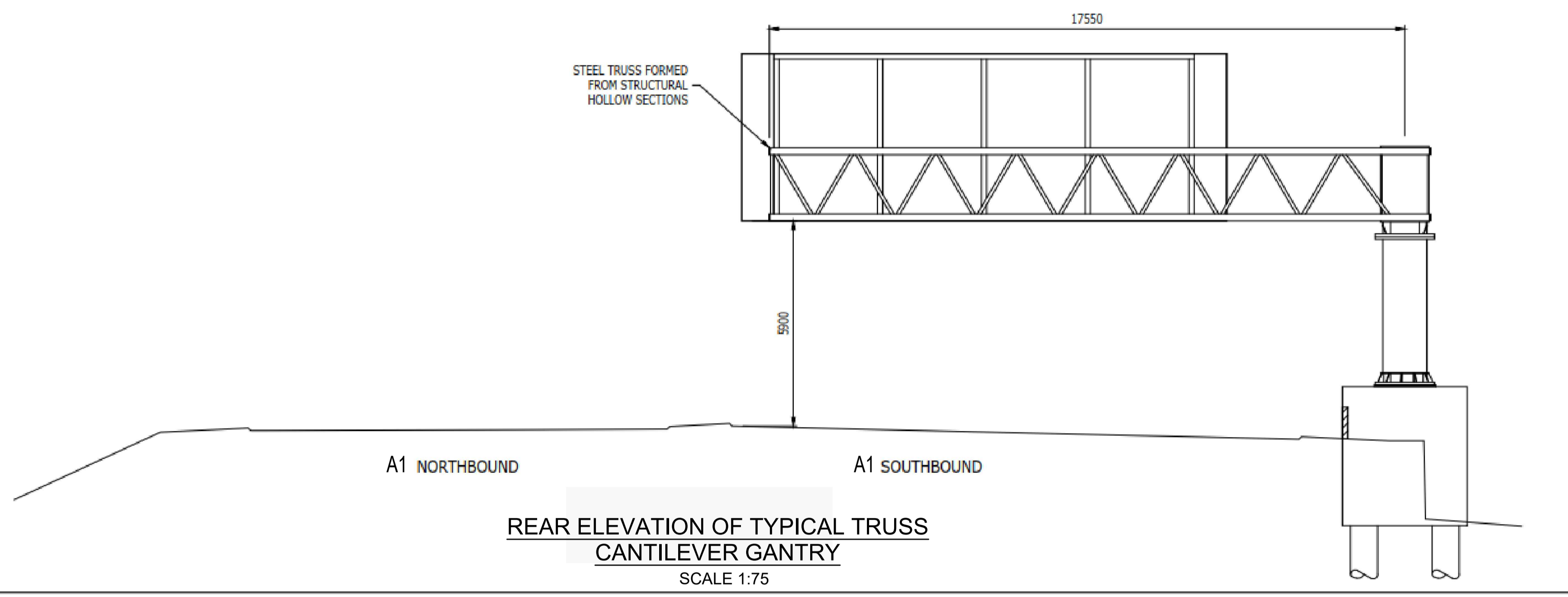
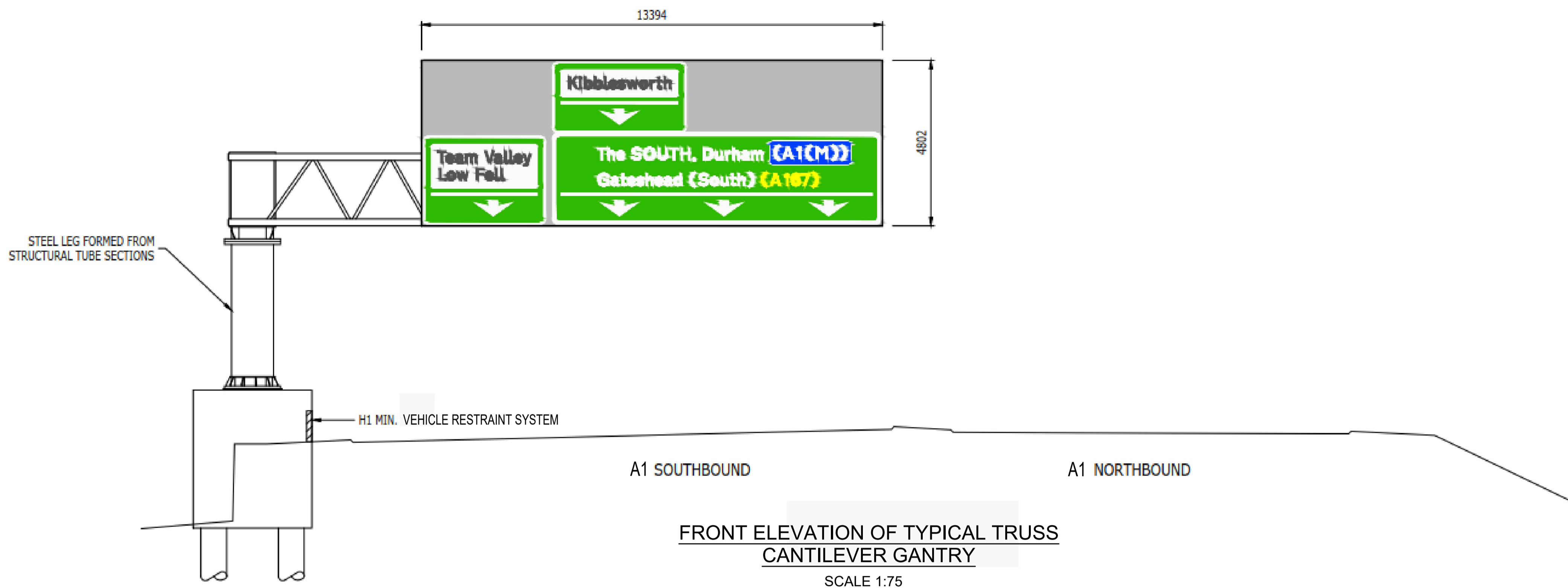
Scale	Drawn	Eng. Check	Approved	Authorised
N/A	R.Ayre	I.Mulla	H.Mistry	N.Rawcliffe
Original Size	Date	Date	Date	Date
A1	20/04/20	20/04/20	20/04/20	20/04/20

Drawing Number	Originator	Volume	Revision			
HE551462	WSP	LSI	2			
Section	Type	ID	Direction	Type	Role	Number
ZZ	DR	ZL	45020			3

Confidential

NOTES:

1. ALL DIMENSION ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS AND CHAINAGES ARE IN METRES UNLESS NOTED OTHERWISE.
3. DO NOT SCALE. IN CASE OF DOUBTS, OMISSIONS OR ERRORS SEEK CLARIFICATION FROM THE DESIGNER.
4. TEXT ON THE GANTRY SIGNS IS INDICATIVE
5. DRAWING APPLICABLE TO GANTRIES SG001 TO SG006 (SEE KEY PLAN DRAWING HE551462-WSP-LSI-ZZ-DR-ZL-45023)



SCALE 1:75 0 750 1500

Rev.	Date	Description	By	Eng' Chk	Disc' Chk	App'd	Status
2	20/04/20	For Examination Deadline 4					RA IM HM NR
1	25/02/20	For Examination Deadline 2					RA IA IA NR
0	27/09/19	For Application					RA IA IA NR

For Examination Deadline 4 A3

PINS Reference Number TR010031/APP/2.7(M)



Client A1 BIRTLEY TO COAL HOUSE

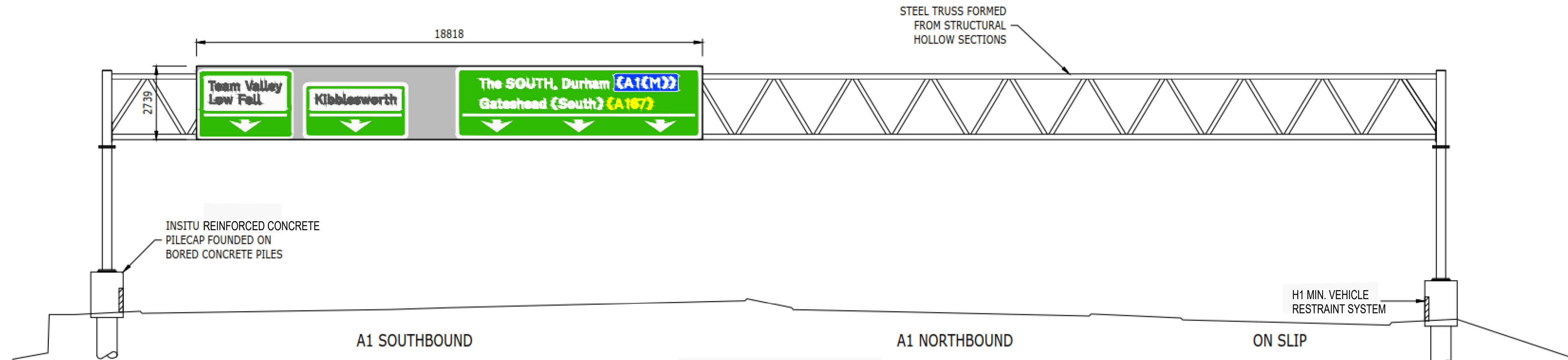
Drawing Title
STRUCTURES ENGINEERING DRAWINGS & SECTIONS REGULATION 5(2)(o)
TYPICAL ADS GANTRY - TRUSS CANTILEVER TYPE (SHEET 12 OF 16)

Scale	Drawn	Eng. Check	Approved	Authorised
N/A	R.Ayre	I.Mulla	H.Mistry	N.Rawcliffe
Original Size	Date	Date	Date	Date
A1	20/04/20	20/04/20	20/04/20	20/04/20

Drawing Number	Originator	Volume	Revision
HE PIN HE551462	WSP	LSI	2
Section	Type	Role	Number
ZZ	DR	ZL	45021
			3

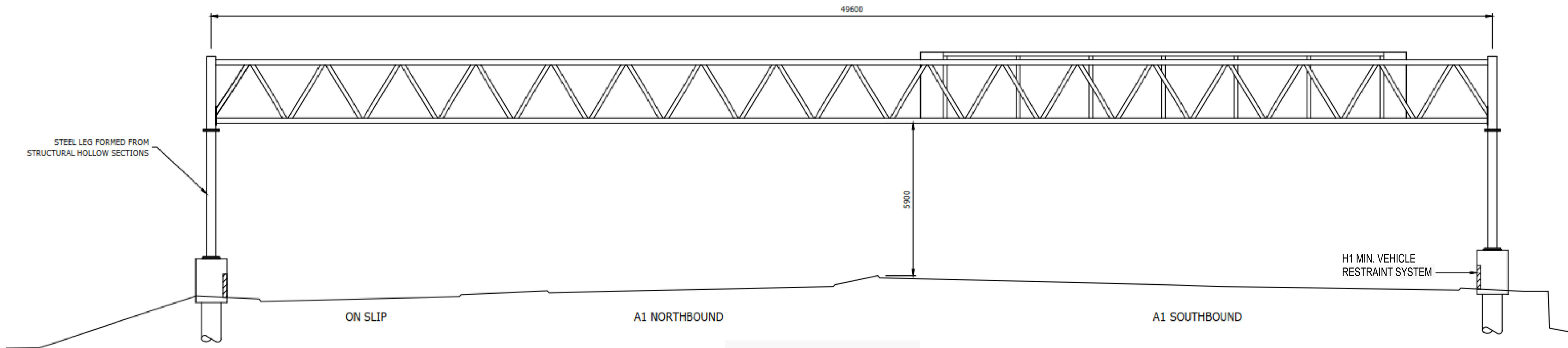
NOTES:

1. ALL DIMENSION ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS AND CHAINAGES ARE IN METRES UNLESS NOTED OTHERWISE.
3. DO NOT SCALE. IN CASE OF DOUBTS, OMISSIONS OR ERRORS SEEK CLARIFICATION FROM THE DESIGNER.
4. TEXT ON THE GANTRY SIGNS IS INDICATIVE.
5. DRAWING APPLICABLE TO GANTRIES SG007 TO SG012 (SEE KEY PLAN DRAWING HE551462-WSP-LSI-ZZ-DR-ZL-45023)



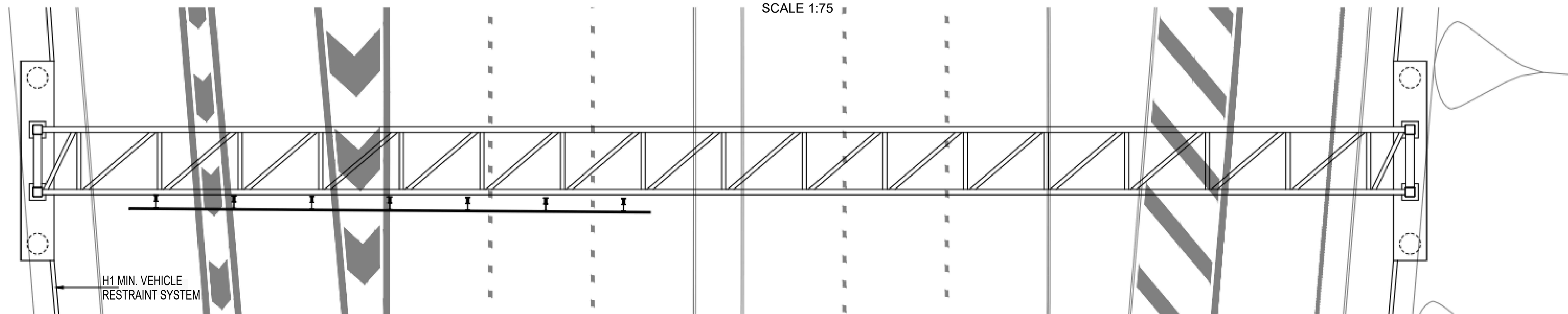
FRONT ELEVATION OF TYPICAL SUPER-SPAN GANTRY

SCALE 1:75



REAR ELEVATION OF TYPICAL SUPER-SPAN GANTRY

SCALE 1:75



PLAN OF TYPICAL SUPER-SPAN GANTRY

SCALE 1:75

SCALE 1:75 0 750 1500

Rev.	Date	Description	By	Eng' Chk	Disc' Chk	App'd
2	20/04/20	For Examination Deadline 4		RA	IM	HM NR
1	25/02/20	For Examination Deadline 2		RA	IA	IA NR
0	27/09/19	For Application		RA	IA	IA NR

Suitability	For Examination Deadline 4			Status	A3
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PINS Reference Number TR010031/APP/2.7(N)



Project Title A1 BIRTLEY TO COAL HOUSE

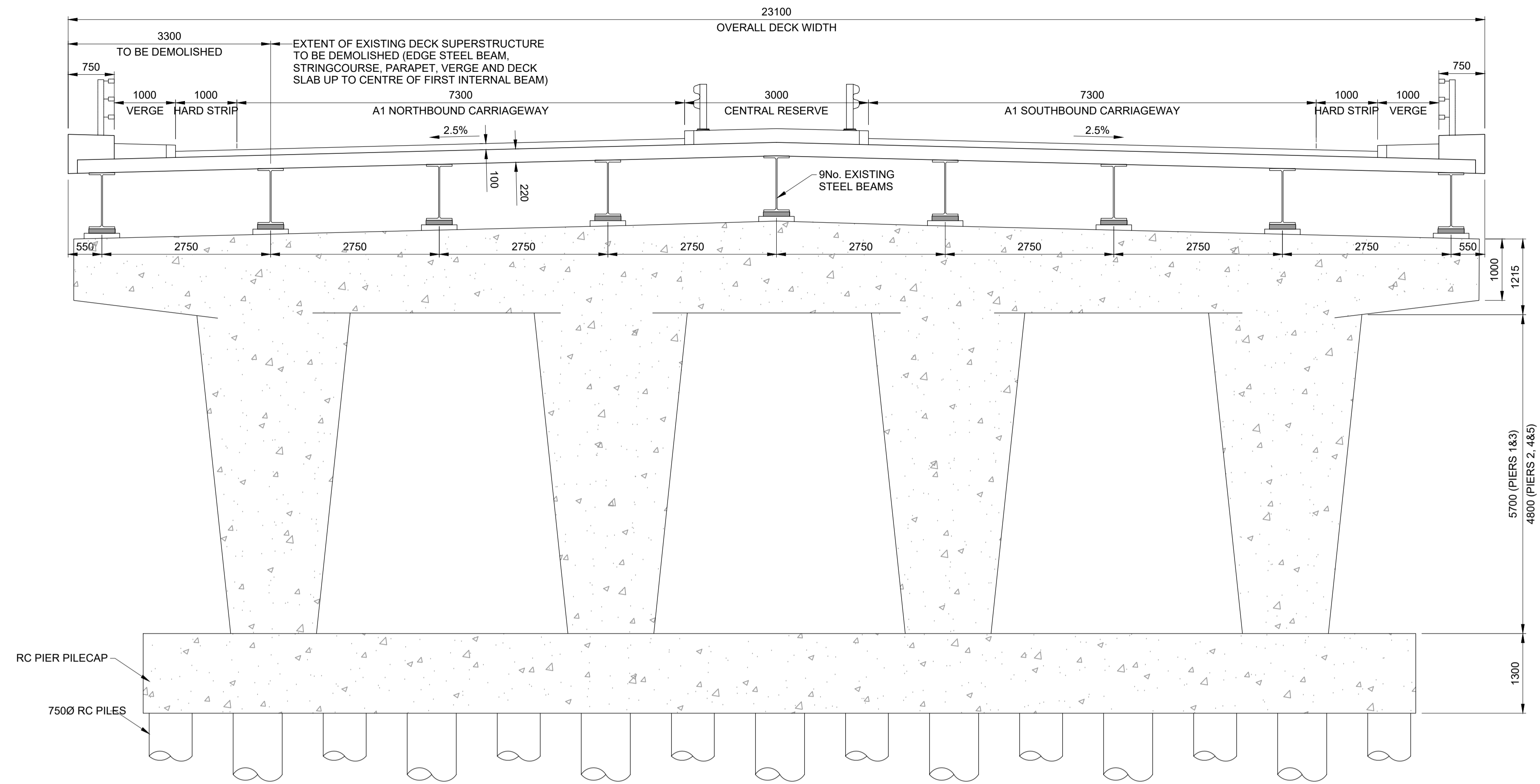
Drawing Title STRUCTURES ENGINEERING DRAWINGS & SECTIONS REGULATION 5(2)(o) TYPICAL ADS GANTRY PORTAL TYPE (SHEET 13 OF 16)

Scale	N/A	Drawn	R.Ayre	Eng. Check	I.Mulla	Approved	H.Mistry	Authorised	N.Rawcliffe
Original Size	A1	Date	20/04/20	Date	20/04/20	Date	20/04/20	Date	20/04/20

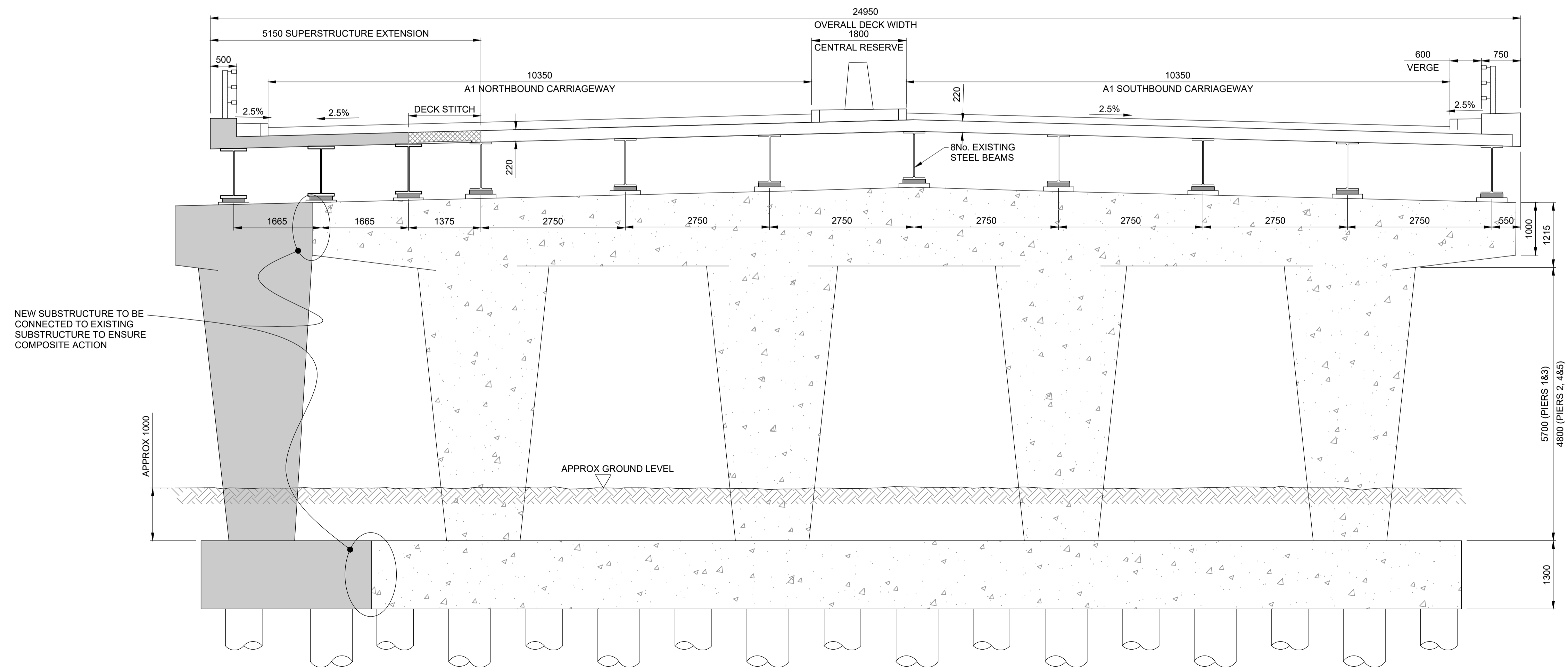
Drawing Number	HE551462	Originator	WSP	Volume	LSI	Revision	2	
Section	ZZ	Type	DR	Role	ZL	Number	45022	
							PW Stage Code	3

NOTES:

1. ALL DIMENSION ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS AND CHAINAGES ARE IN METRES UNLESS NOTED OTHERWISE.
3. DO NOT SCALE. IN CASE OF DOUBTS, OMISSIONS OR ERRORS SEEK CLARIFICATION FROM THE DESIGNER.



KINGSWAY VIADUCT (JUNCTION 67)
EXISTING CROSS SECTION B-B
SCALE 1:50



KINGSWAY VIADUCT (JUNCTION 67)
PROPOSED CROSS SECTION B-B
SCALE 1:50

SCALE 1:50 0 500 1000

Rev.	Date	Description	By	Eng' Chk	Disc' Chk	App'd	Status
0	20/04/20	For Examination Deadline 4					RA IM HM NR
For Examination Deadline 4							A3

TR010031/APP/2.7(C1)



A1 BIRTLEY TO COAL HOUSE

STRUCTURES ENGINEERING DRAWINGS
& SECTIONS REGULATION 5(2)(o)
KINGSWAY VIADUCT NARROW LANES (JUNCTION 67)
(SHEET 15 OF 16)

Scale	Drawn	Eng. Check	Approved	Authorised
N/A	R.Ayre	I.Mulla	H.Mistry	N.Rawcliffe
Original Size	Date	Date	Date	Date
A1	20/04/20	20/04/20	20/04/20	20/04/20

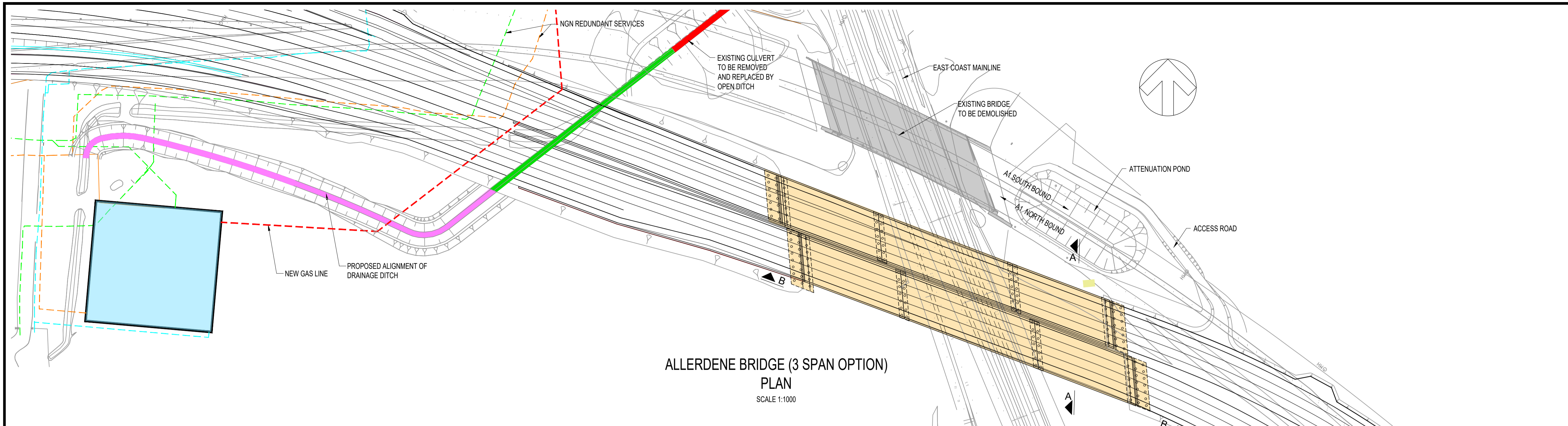
Drawing Number	Originator	Volume	Revision
HE551462	WSP	LSI	0
Section	Type	Role	Number
ZZ	DR	ZL	45025
			3

Confidential

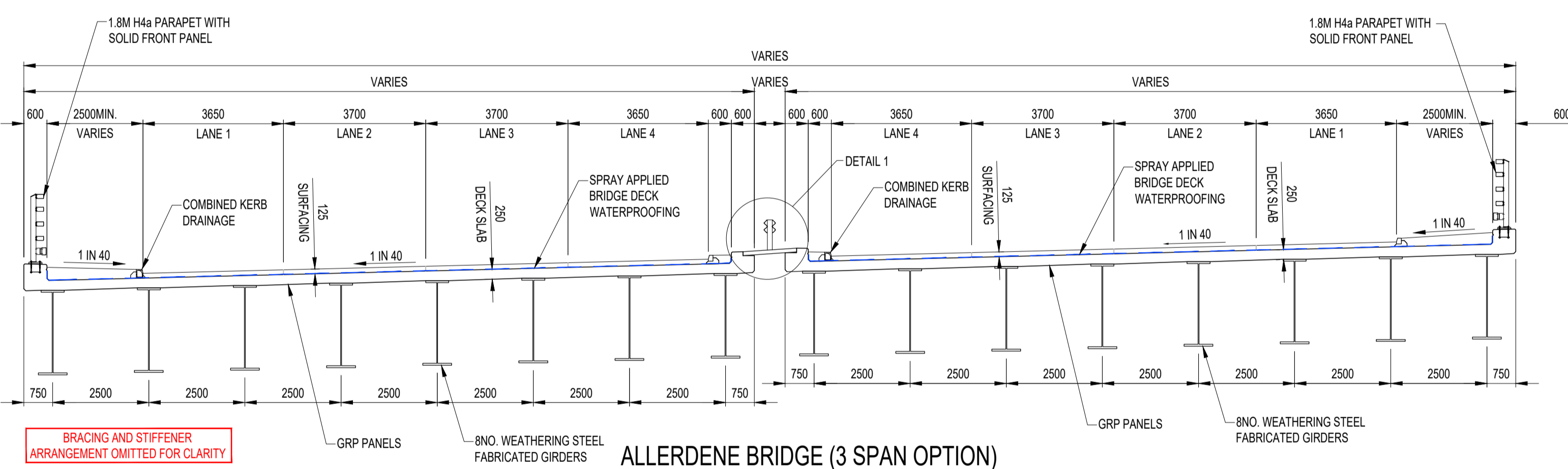
- NOTES:**
- ALL DIMENSION ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 - ALL LEVELS AND CHAINAGES ARE IN METRES UNLESS NOTED OTHERWISE.
 - DO NOT SCALE. IN CASE OF DOUBTS, OMISSIONS OR ERRORS SEEK CLARIFICATION FROM THE DESIGNER.

KEY:

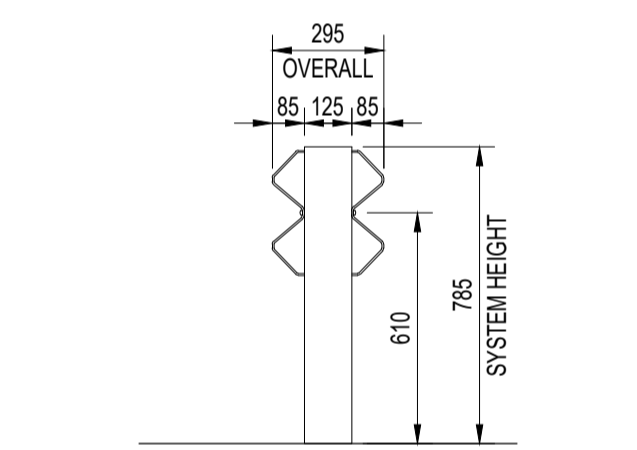
- EXISTING BRIDGE (TO BE DEMOLISHED)
- NEW BRIDGE
- EXISTING ALLERDENE CULVERT TO BE REMOVED AND REPLACED WITH OPEN DITCH
- PROPOSED ALLERDENE CULVERT STRUCTURE
- PROPOSED OPEN DRAINAGE DITCH



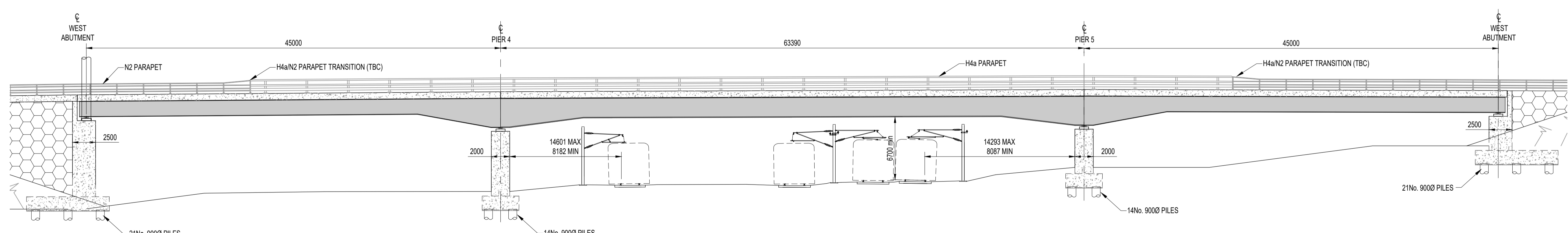
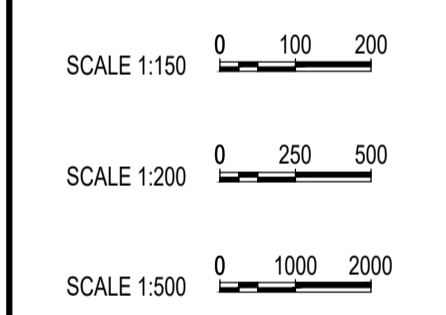
**ALLERDENE BRIDGE (3 SPAN OPTION)
PLAN**
SCALE 1:1000



**ALLERDENE BRIDGE (3 SPAN OPTION)
SECTION A-A**
SCALE 1:100



CENTRAL BARRIER (DETAIL 1)
SCALE 1:20



**ALLERDENE BRIDGE (3 SPAN OPTION)
SOUTH ELEVATION B-B**
SCALE 1:250

0	20/04/20	For Examination Deadline 4	RA	IM	HM	NR
Rev.	Date	Description	By	Eng. Ck	Disc. Ck	Appd.
For Examination Deadline 4						A3

PNRS Reference Number: TR010031/APP/2.7(F1)



Project Title: A1 BIRTLEY TO COAL HOUSE

Drawing Title: STRUCTURES ENGINEERING DRAWINGS & SECTIONS REGULATION 5(2)(o) ALLERDENE BRIDGE (3 SPAN VIADUCT OPTION) (SHEET 16 OF 16)

Scale	N/A	Drawn	R.Ayre	Eng. Check	I.Mulla	Approved	H.Mistry	Authorised	N.Rawcliffe
Original Size	A1	Date	20/04/20	Date	20/04/20	Date	20/04/20	Date	20/04/20

Drawing Number	HE551462	Originator	WSP	Volume	LSI	Revision	0	
Section	ZZ	Type	DR	Role	ZL	Number	45026	
							PW Stage Code	3

Confidential