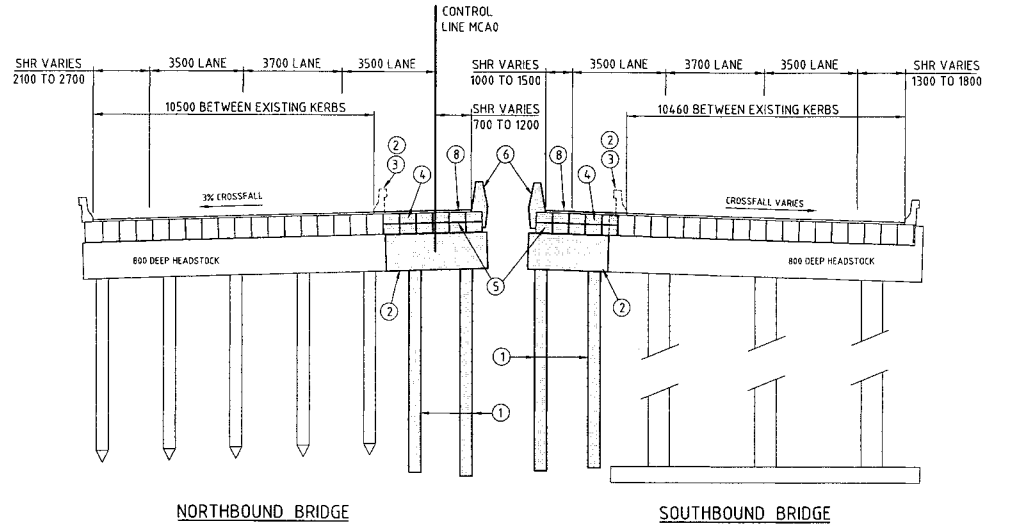




PLAN
SCALE 1:200



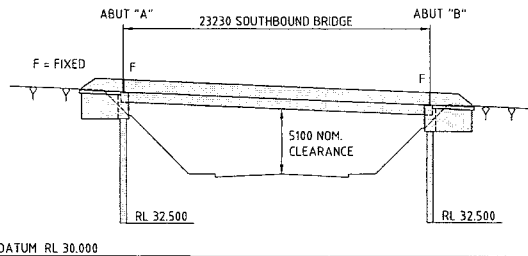
NORTHBOUND BRIDGE

SOUTHBOUND BRIDGE

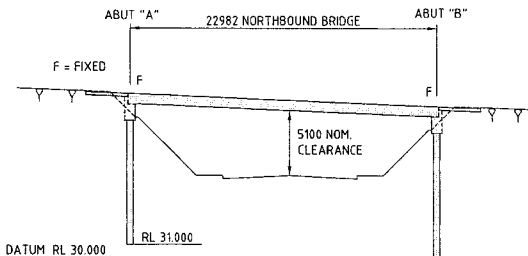
LEGEND

-  DENOTES NEW CONSTRUCTION
-  DENOTES CONSTRUCTION SEQUENCE ITEM

SECTION A
SCALE 1:100



SECTION B
SCALE 1:200



SECTION C
SCALE 1:200

SUGGESTED CONSTRUCTION WORKS

RE NORTHBOUND BRIDGE

1. 2 No 500Ø BORED PILES PER ABUTMENT
2. DEMOLISH EXISTING BARRIER TERMINALS, EXTEND ABUTMENT HEADSTOCKS, BUILD NEW BARRIER TERMINALS
3. DEMOLISH TRAFFIC BARRIER ON BRIDGE
4. ADD 6 No ADDITIONAL 750 DEEP PSC DECK UNITS AND STRESS BRIDGE WIDENING
5. COUPLE NEW TRANSVERSE STRESSING BARS TO EXISTING
6. BUILD NEW TRAFFIC BARRIER ON BRIDGE
7. EXTEND RELIEVING SLABS AT BOTH ABUTMENTS
8. LAY NEW DECK WEARING SURFACE

RE SOUTHBOUND BRIDGE

AS PER NORTHBOUND BRIDGE EXCEPT NOTE 4.
ADD 5 No ADDITIONAL 750 DEEP PSC DECK UNITS

NOTES

1. DESIGN LIVE LOADS AUSTRROADS BRIDGE DESIGN MANUAL HLP 400, T44/L44
2. BARRIER PERFORMANCE LEVEL AUSTRROADS LEVEL 2
3. PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION
4. CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVER SHALL COMPLY WITH A55100.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNO.
6. LEVELS ARE TO AHD
7. DETAILS SHOWN ARE BASED ON A CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.
8. THE EXISTING SOUTHBOUND BRIDGE DESIGN FOOTING PRESSURE IS 250kPa.
9. THE EXISTING NORTHBOUND BRIDGE PILED ABUTMENT HAVE BEEN DESIGNED USING END BEARING PRESSURE = 750kPa AND ALLOWABLE SIDE FRICTION OF 50 kPa.

PRELIMINARY

09-08-2004

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Queensland Government
Department of Main Roads



JOB No. Not 12 of 53 drgs

Drawing No. BRO01

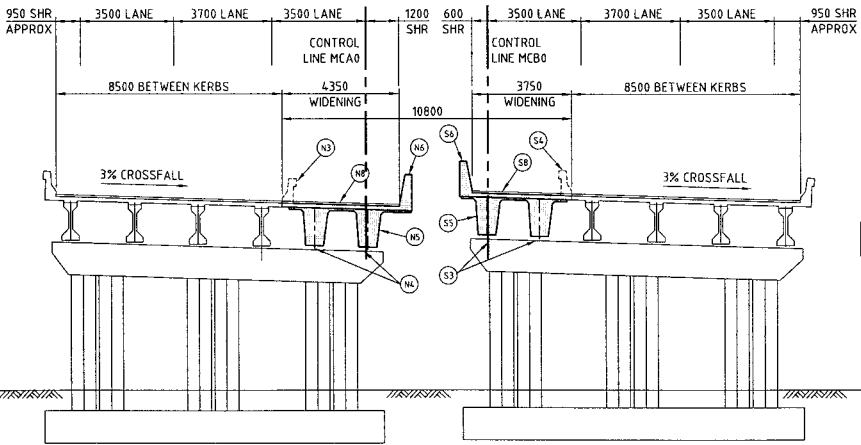
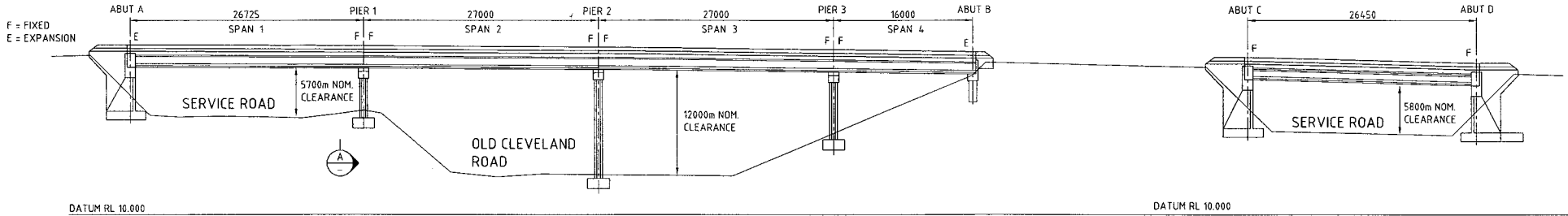
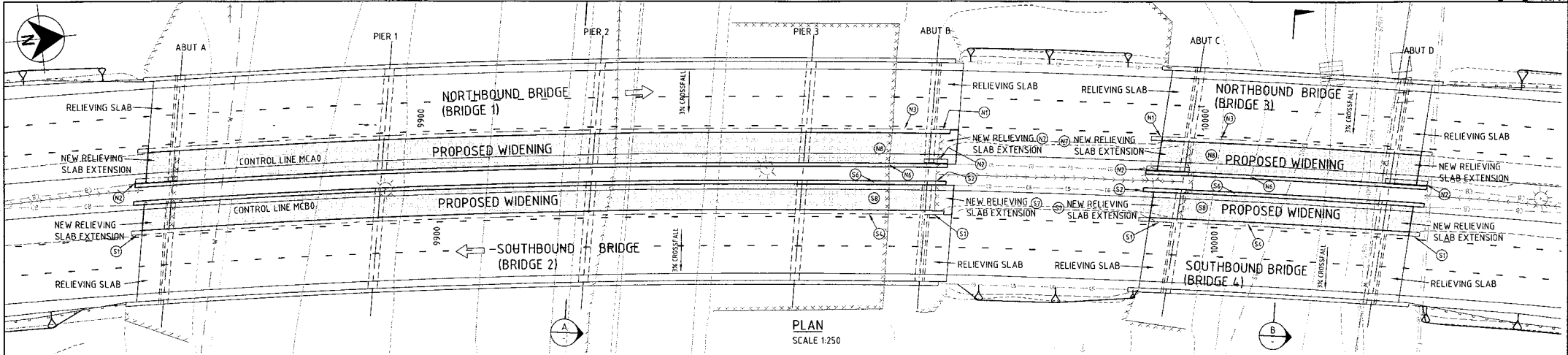
Contract No. A

CAD REF: //

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos <td>Scales</td> <td>Through chainage from</td>	Scales	Through chainage from
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A	Original issue				1:200 	

BRISBANE CITY COUNCIL					
GATEWAY UPGRADE PROJECT					
REFERENCE PROJECT					
GREENDALE WAY BRIDGE WIDENING					
GENERAL ARRANGEMENT					
Preceding RPC	Dist. to start of job (km)	Reference Points	Following RPC	Survey DMR Ckd	Bdys DMR Ckd
		From start to end of job	From end to following RPC		
				Drawn JAF Ckd	Design GRM Ckd
				Examined  Ckd	Certified  RPEQ
					Approved

PROJECT: 5572 - MRR - DETAIL A1 - BRIDGE WIDENING - GENERAL ARRANGEMENT - PLAN - SCALE 1:200 - 09/08/2004



LEGEND

■ DENOTES NEW CONSTRUCTION

② DENOTES CONSTRUCTION SEQUENCE ITEM

NOTE:
NORTHERN SERVICE ROAD SUPERSTRUCTURE SIMILAR TO SOUTHERN SERVICE ROAD SUPERSTRUCTURE

SUGGESTED CONSTRUCTION WORKS

RE. NORTHBOUND BRIDGE

- N1. DEMOLISH EXISTING BARRIER TERMINALS, NEAR CONTROL LINE MCA0 ON EASTERN SIDE OF BRIDGE, TO BELOW DECK LEVEL
- N2. DEMOLISH EXISTING BARRIER TERMINALS BUILT FOR FUTURE WIDENING, EXTEND ABUTMENT HEADSTOCKS, BUILD NEW BARRIER TERMINALS
- N3. DEMOLISH TRAFFIC BARRIER ON BRIDGE
- N4. DEMOLISH EXISTING PLINTHS AND H.D. BOLTS AND MODIFY FOR SUPER TEE GIRDERS
- N5. ADD 2 No 1500mm DEEP SUPER TEE BEAMS WITH 160 mm RC SLAB OVER CAST NEW DECK INTEGRAL WITH EXISTING DECK
- N6. BUILD NEW TRAFFIC BARRIER ON BRIDGE
- N7. EXTEND RELIEVING SLABS AT BOTH ABUTMENTS
- N8. LAY ADDITIONAL DECK WEARING SURFACE

RE. SOUTHBOUND BRIDGE

- S1. DEMOLISH EXISTING BARRIER TERMINALS, NEAR CONTROL LINE MCB0 ON WESTERN SIDE OF BRIDGE, TO BELOW DECK LEVEL
- S2. PARTLY DEMOLISH AND RECONSTRUCT EXISTING BARRIER TERMINALS, WESTERN SIDE ONLY TO NEW BARRIER PROFILES.
- S3. DEMOLISH EXISTING PLINTHS AND H.D. BOLTS AND MODIFY FOR SUPER TEE GIRDERS
- S4. DEMOLISH TRAFFIC BARRIER ON BRIDGE
- S5. ADD 2 No 1500mm DEEP SUPER TEE BEAMS WITH 160 mm RC SLAB OVER CAST NEW DECK INTEGRAL WITH EXISTING DECK
- S6. BUILD NEW TRAFFIC BARRIER ON BRIDGE
- S7. EXTEND RELIEVING SLABS AT BOTH ABUTMENTS
- S8. LAY ADDITIONAL DECK WEARING SURFACE

- NOTES**
- DESIGN LOADS
AUSTROADS BRIDGE DESIGN MANUAL
HLP400, T44/L44
 - BARRIERS TO BE SPECIAL PERFORMANCE BARRIERS, GREATER THAN TEST LEVEL 6 TO ASS100
 - PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION
 - CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH ASS100
 - ALL DIMENSIONS ARE IN MILLIMETRES UNO.
 - LEVELS ARE TO AHD
 - DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.
 - EXISTING BRIDGES DESIGN FOUNDATION BEARING PRESSURE = 350kPa AT ABUTMENT A BEARING PRESSURE = 850kPa AT ABUTMENT B BEARING PRESSURE = 325kPa AT PIERS
 - EXISTING BRIDGE 3-4 DESIGN FOUNDATION BEARING PRESSURE = 350kPa AT ABUTMENTS A AND B.

PRELIMINARY
09-08-2004

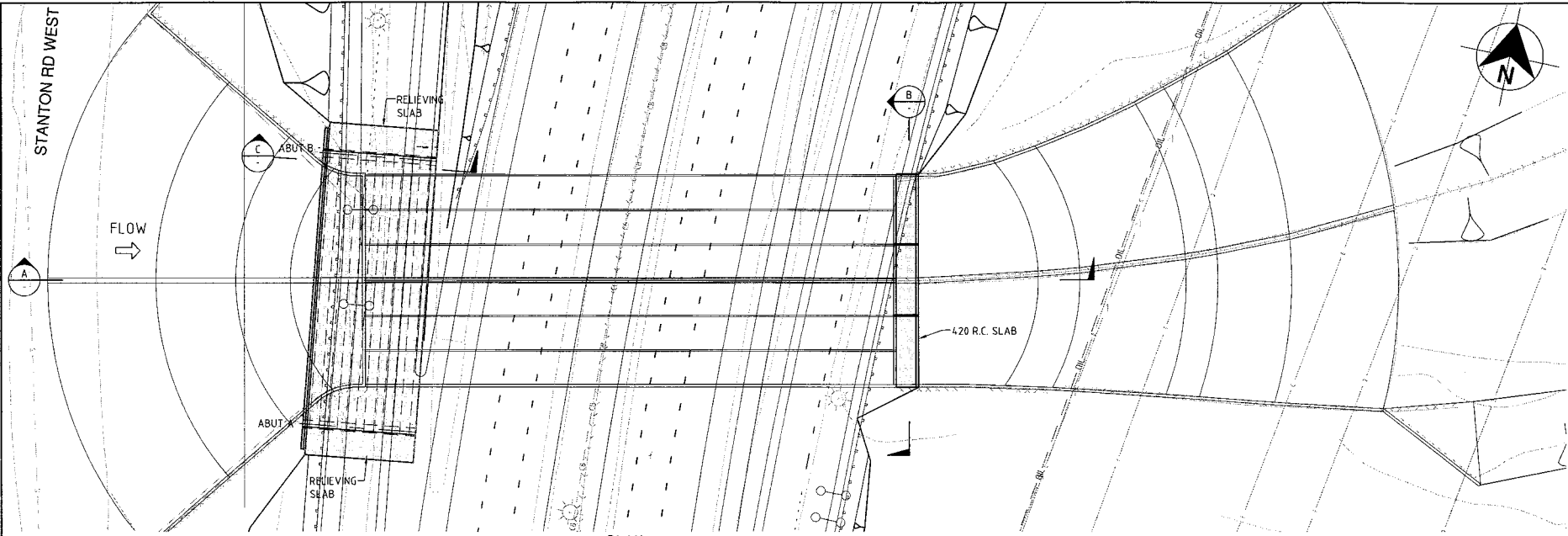
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Email: cwb@connellwagner.com

Revisions	Certified	Date	Microfied	Associated job nos	Dimensions in metres except where shown otherwise; Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos <td>Scales</td> <td>Through chainage from</td>	Scales	Through chainage from
					1:100	
					1:250	
A	Original issue			(Office use only)		

BRISBANE CITY COUNCIL GATEWAY UPGRADE PROJECT					
CTL CHGE 5160 TO 25250					
Reference Points					
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Following RPC	
Survey Ckd	Bdys Ckd	Drawn Ckd	Design Ckd	Examined Ckd	Certified

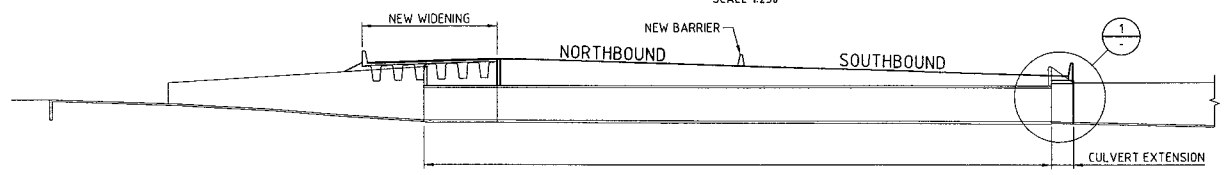
REFERENCE PROJECT OLD CLEVELAND ROAD OVERPASS WIDENING GENERAL ARRANGEMENT					

Queensland Government Department of Main Roads	
JOB No.	No13 of 53 drgs
Contract No.	Drawing No. BRO02

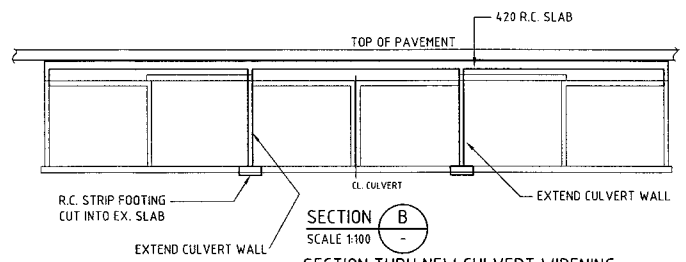


- NOTES**
- DESIGN LOADS
AUSTRROADS BRIDGE DESIGN MANUAL
HLP400, T44/L44
 - BARRIERS TO BE SPECIAL PERFORMANCE BARRIERS, GREATER THAN TEST LEVEL 6 TO AS5100
 - PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION
 - CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH AS5100
 - ALL DIMENSIONS ARE IN MILLIMETRES UNO. LEVELS ARE TO AHD
 - DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.

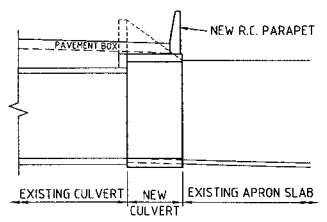
PLAN
SCALE 1:250



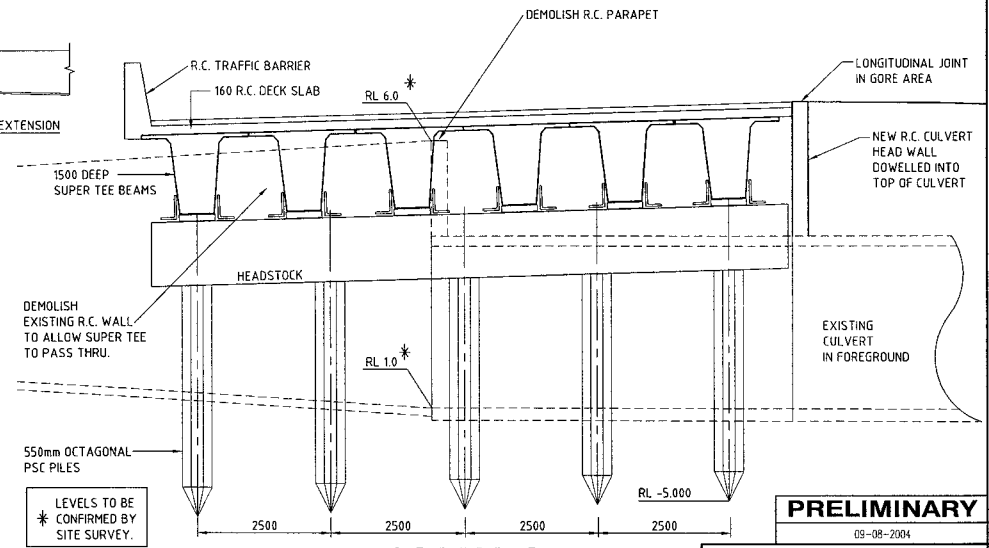
SECTION A
SCALE 1:250



SECTION B
SCALE 1:100
SECTION THRU NEW CULVERT WIDENING WITH EXISTING CULVERT BEHIND



DETAIL 1
SCALE 1:100



LEVELS TO BE CONFIRMED BY SITE SURVEY.

ABUTMENT ELEVATION

SECTION C
SCALE 1:50

PRELIMINARY
09-08-2004

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Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos	Scales	Through chainage from
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A	Original issue			(Office use only)		

BRISBANE CITY COUNCIL						REFERENCE PROJECT					
GATEWAY UPGRADE PROJECT						CH 13120 CULVERT WIDENING					
GENERAL ARRANGEMENT						GENERAL ARRANGEMENT					
CTL CHGE 5160 TO 25250						Preceding RPC: _____ Dist. to start of job (km): _____ From start to end of job: _____ From end to following RPC: _____ Following RPC: _____					
Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd	Examined _____	Certified _____	Approved _____					
RPEQ 3297											

Queensland Government
Department of Main Roads

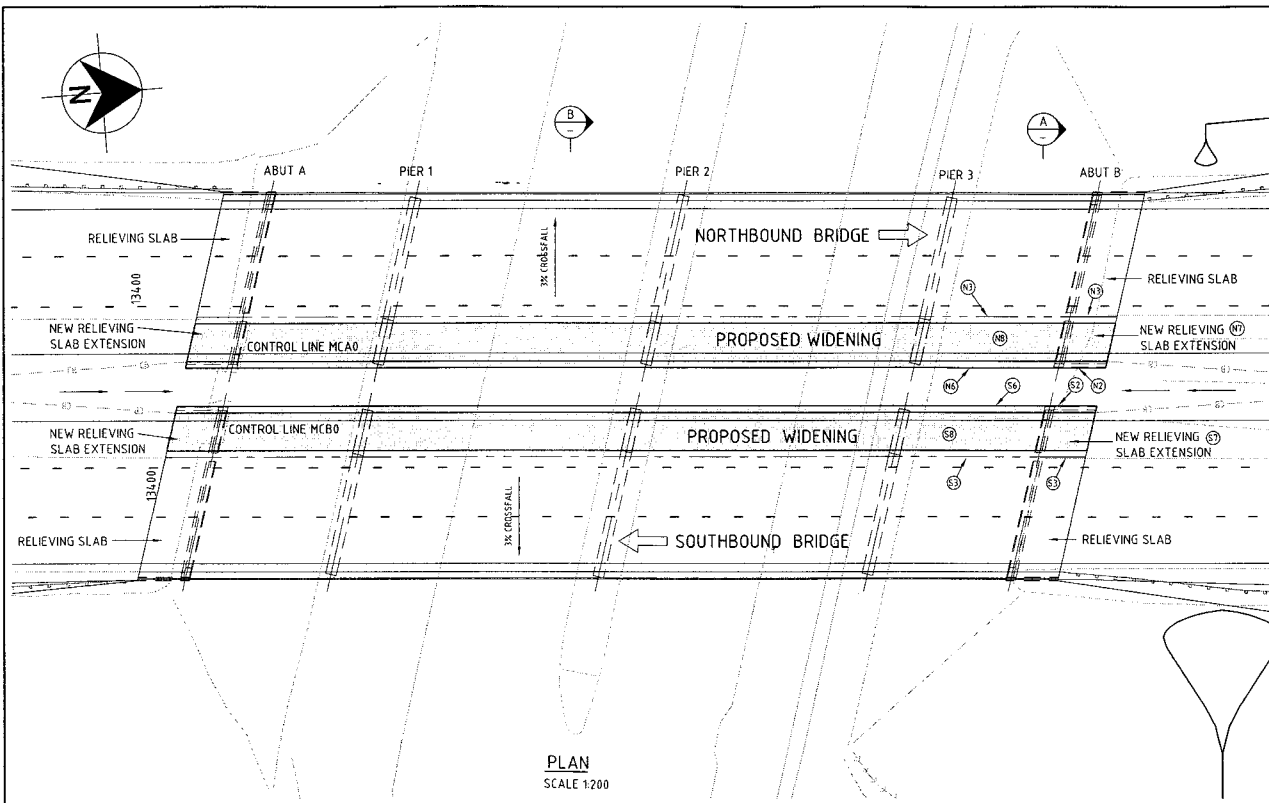
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Drawing No. BR003

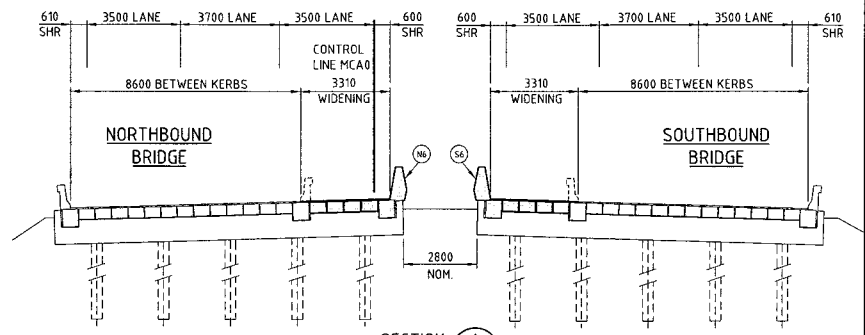
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CAD REF: _____

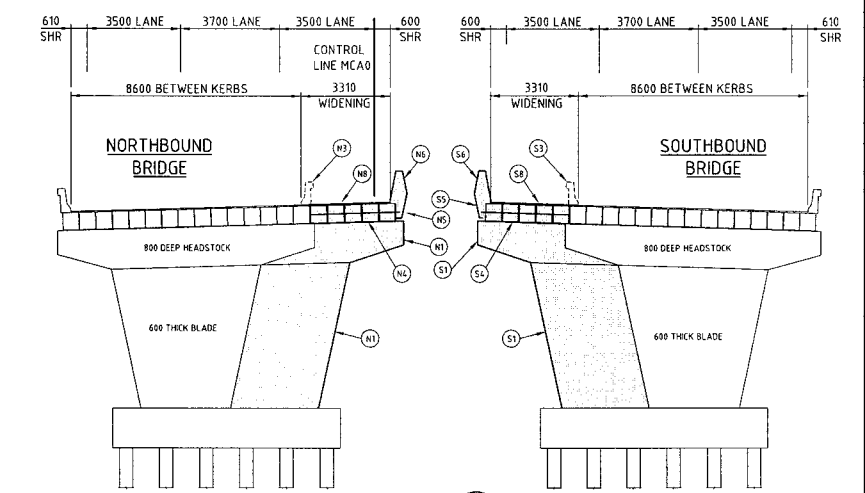
MRR - SITE PRELIMINARY - PROJECT - CH 13120 - CULVERT WIDENING - GATEWAY UPGRADE PROJECT - BRISBANE CITY COUNCIL - 09-08-2004



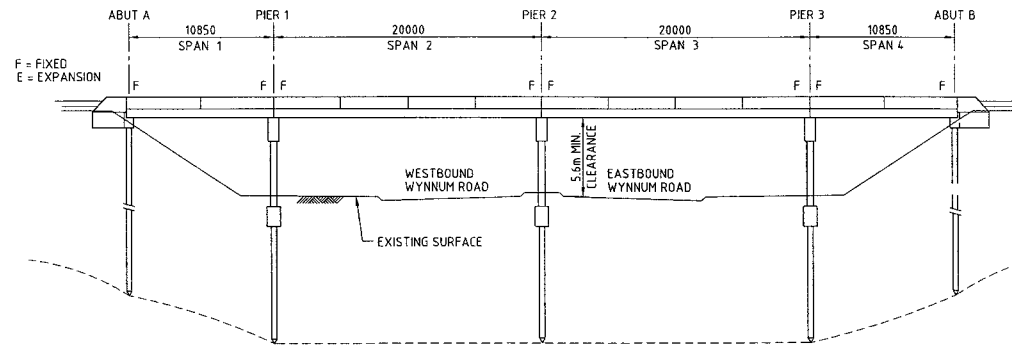
PLAN
SCALE 1:200



SECTION A
SCALE 1:100



SECTION B
SCALE 1:100



EAST ELEVATION
SCALE 1:200

LEGEND

- DENOTES NEW CONSTRUCTION
- ② DENOTES CONSTRUCTION SEQUENCE ITEM

SUGGESTED CONSTRUCTION WORKS

- RE NORTHBOUND BRIDGE**
- N1. PIER BLADE / HEADSTOCK EXTENDED
 - N2. DEMOLISH EXISTING BARRIER TERMINALS BUILT FOR FUTURE WIDENING BUILD NEW BARRIER TERMINALS AT ABUTMENTS TO MATCH NEW PROFILE
 - N3. DEMOLISH TRAFFIC BARRIER ON BRIDGE
 - N4. ADD 5 No ADDITIONAL 650 & 390 DEEP PSC DECK UNITS
 - N5. COUPLE NEW TRANSVERSE STRESSING BARS TO EXISTING AND STRESS BRIDGE WIDENING.
 - N6. BUILD NEW TRAFFIC BARRIER ON BRIDGE
 - N7. EXTEND RELIEVING SLABS AT BOTH ABUTMENTS
 - N8. LAY ADDITIONAL DECK WEARING SURFACE
- RE SOUTHBOUND BRIDGE**
- AS PER NORTHBOUND BRIDGE - NOTES PREFIXED WITH S IE S1.

NOTES

1. DESIGN LOADS
AUSTRROADS BRIDGE DESIGN MANUAL HLP400, T44/1.44
2. BARRIER PERFORMANCE LEVEL
AUSTRROADS LEVEL 2
3. PILE FOUNDING LEVELS (WHERE SHOWN)
SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION
4. CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS
SHALL COMPLY WITH ASS100
5. ALL DIMENSIONS ARE IN MILLIMETRES UNO.
6. LEVELS ARE TO AHD
7. DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN
AND SHALL BE VERIFIED DURING DETAILED DESIGN
8. ORIGINAL CONSTRUCTION DESIGN WORKING PILE
LOAD = 800kN AT PIER 1 AND 3
LOAD = 1000kN AT PIER 2
LOAD = 450kN AT ABUTMENTS A AND B

PRELIMINARY
09-08-2004

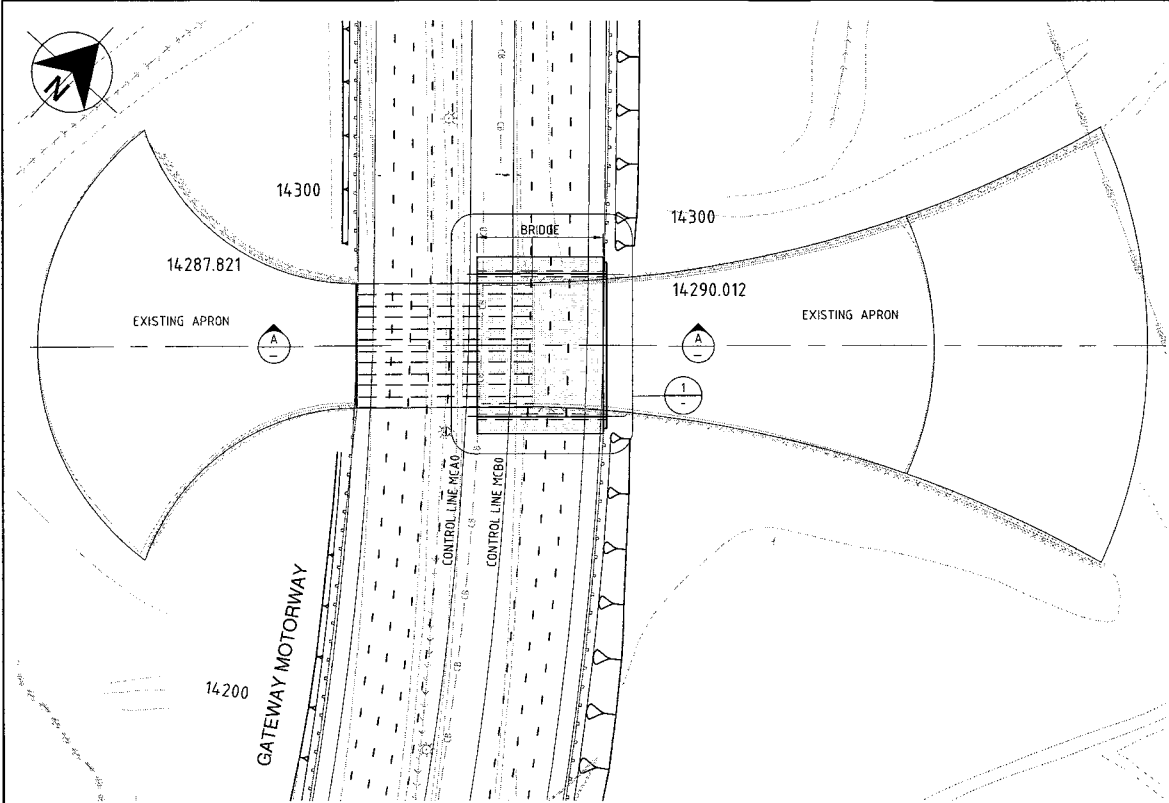
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Queensland QDC Australia Email: cwn@connel.com.au

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos	Scales	Through chainage from
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A	Original issue			(Office use only)		

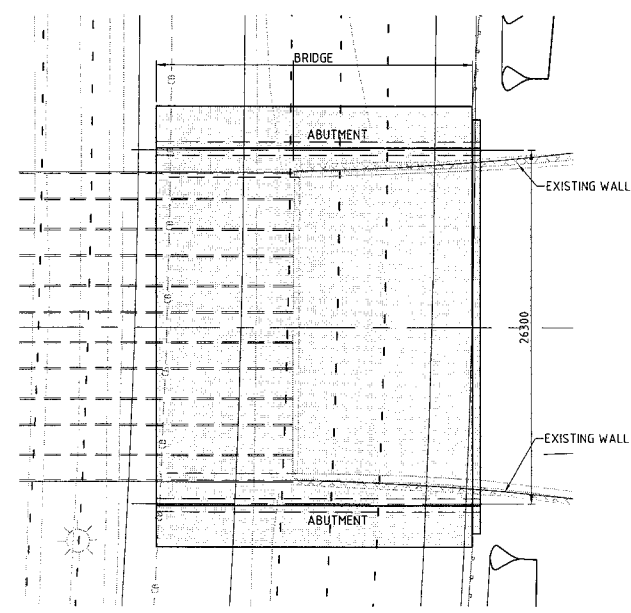
BRISBANE CITY COUNCIL				REFERENCE PROJECT			
GATEWAY UPGRADE PROJECT				WYNNUM ROAD OVERPASS WIDENING			
CTL CHGE				GENERAL ARRANGEMENT			
5160 TO 25250							
Preceding RPC		Reference Points		Survey		Examined	
		From start to end of job	From end to following RPC	DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd

Certified	Approved
RPEQ 3297	

Queensland Government Department of Main Roads	
JOB No.	No115 of 53 Drgs
	Drawing No. BR004
Contract No.	
CAD REF:	

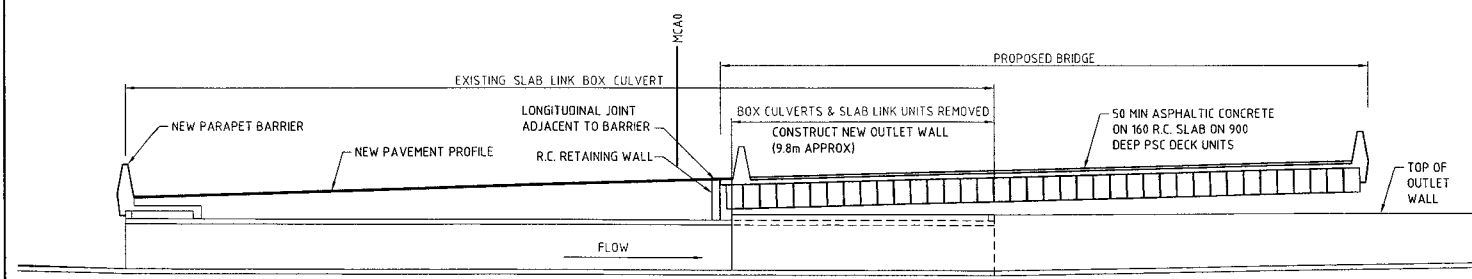


PLAN
SCALE 1:500

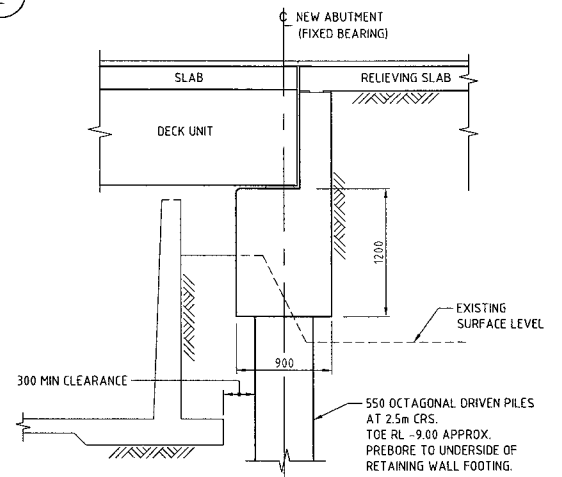


DETAIL 1
SCALE 1:200

- NOTES**
- DESIGN LOADS
SM1600, HLP400 TO AS5100
 - BARRIERS TO BE SPECIAL PERFORMANCE BARRIERS, GREATER THAN TEST LEVEL 6 TO AS5100
 - PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION
 - CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH AS5100
 - ALL DIMENSIONS ARE IN MILLIMETRES UNO
 - LEVELS ARE TO AHD
 - DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN



SECTION A
SCALE 1:100



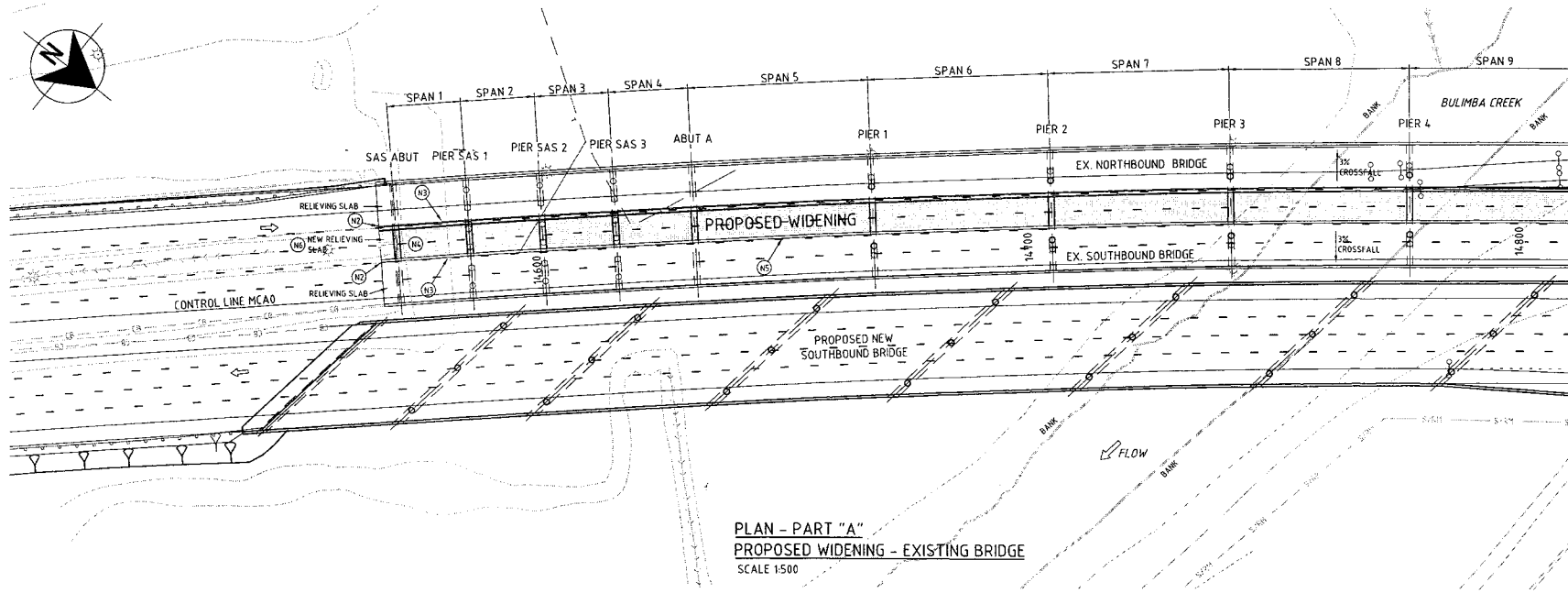
TYPICAL SECTION AT ABUTMENT
NOT TO SCALE

PRELIMINARY
09-08-2004

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Revisions		Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books	BRISBANE CITY COUNCIL GATEWAY UPGRADE PROJECT				REFERENCE PROJECT CH 14260 NEW SINGLE SPAN BRIDGE AT MEL CULVERT				Queensland Government Department of Main Roads		
					Auxiliary drawing nos	Scales	Through chainage from	CTL CHGE 5160 TO 25250				Job No. No116 of 53 drgs Drawing No. BR005				Contract No. A		
					(Office use only)	1:100		Reference Points				Certified RPEQ 3297				CAD REF.		
						1:200		Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Following RPC	Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd	Examined	Approved
A		Original issue				1:500												

REF: 5192 LAMB DETAIL_A1; X: 09-08-2004; PROJECT: CH 14260 NEW SINGLE SPAN BRIDGE AT MEL CULVERT; DRAWING: BR005; SCALE: 1:500

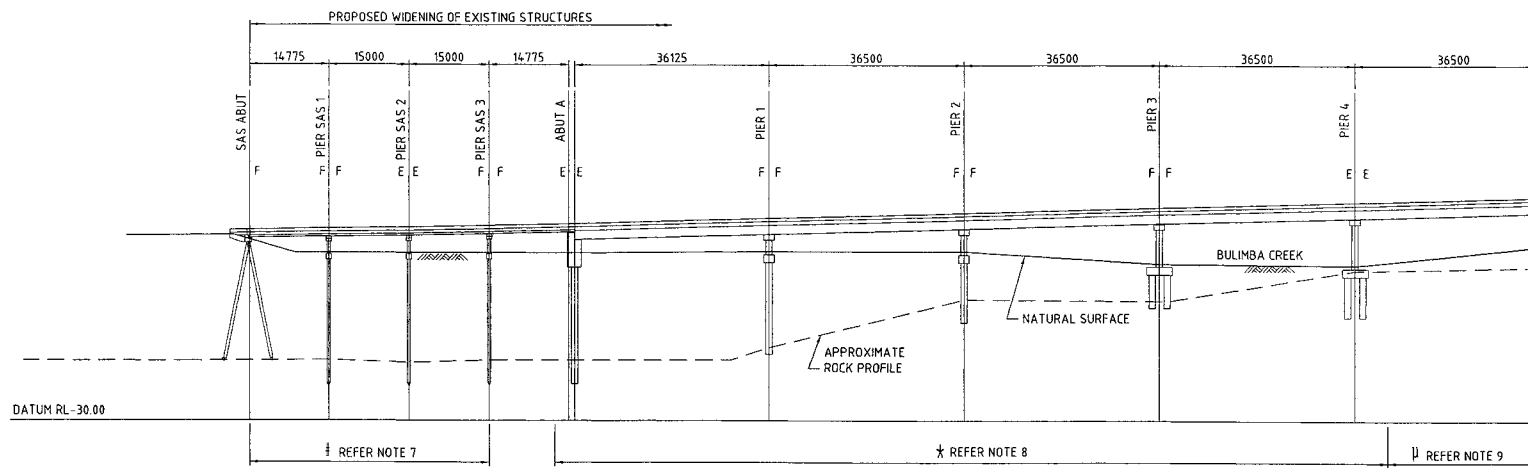


PLAN - PART "A"
 PROPOSED WIDENING - EXISTING BRIDGE
 SCALE 1:500

- SUGGESTED CONSTRUCTION WORKS**
- PROPOSED NORTHBOUND BRIDGE
 - N1. STRENGTHEN PIERS 1 TO 10 OF EXISTING BRIDGES REFER DRAWING BR011
 - N2. DEMOLISH INNER BARRIER TERMINALS ON BOTH ENDS OF EXISTING NORTHBOUND AND SOUTHBOUND BRIDGES
 - N3. DEMOLISH INNER TRAFFIC BARRIERS ON EXISTING NORTHBOUND AND SOUTHBOUND BRIDGES
 - N4. ADD 11 No ADDITIONAL PSC DECK UNITS WITH RC SLAB OVER CAST INTEGRAL WITH EXISTING SLAB - SPANS 1 TO 4
 - N5. ADD 4 No ADDITIONAL PSC SUPER TEE GIRDERS WITH RC SLAB OVER - SPANS 5 TO 15
 - N6. AT SAS ABUTMENTS, CONSTRUCT NEW RELIEVING SLAB BETWEEN EXISTING RELIEVING SLABS
 - N7. AT EXISTING BRIDGES NORTHERN ABUTMENTS, CONSTRUCT NEW RELIEVING SLAB BETWEEN EXISTING RELIEVING SLABS
 - N8. LAY ADDITIONAL DECK WEARING SURFACE
- PROPOSED NEW SOUTHBOUND BRIDGE
- S1. CONSTRUCT NEW 11 SPAN BRIDGE STRUCTURE AS SHOWN ON DRAWINGS BR008 TO BR009.

- LEGEND**
- DENOTES NEW CONSTRUCTION
 - ② DENOTES CONSTRUCTION SEQUENCE ITEM REFER DRGS. BR010 & BR011 FOR DETAILS

- NOTES**
1. DESIGN LOADS
 AUSTRROADS BRIDGE DESIGN MANUAL
 HLP400, T44/L44
 2. BARRIER PERFORMANCE LEVEL
 AUSTRROADS LEVEL 2
 3. PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION
 4. CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH AS5100
 5. ALL DIMENSIONS ARE IN MILLIMETRES UNO.
 6. LEVELS ARE TO AHD
 7. DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.
 8. DESIGN PILE WORKING LOAD = 1400kN
 9. DESIGN PILE WORKING LOAD = 4200kN IN HIGHLY WEATHERED ROCK DESIGN BASE BEARING PRESSURE = 1500kPa AND DESIGN SIDE SHEAR PRESSURE = 250kPa. THE MINIMUM UNLINED SOCKET LENGTH SHALL BE 3.0m IN HIGHLY WEATHERED SANDSTONE WITH AN UNCONFINED COMPRESSIVE STRENGTH OF AT LEAST 5000 kPa.
 10. DESIGN BEARING PRESSURE FOR FOOTINGS IS 900 kPa IN HIGHLY WEATHERED SANDSTONE.



ELEVATION - PART "A"
 PROPOSED NORTHBOUND BRIDGE
 SCALE 1:500

PRELIMINARY
 09-08-2004

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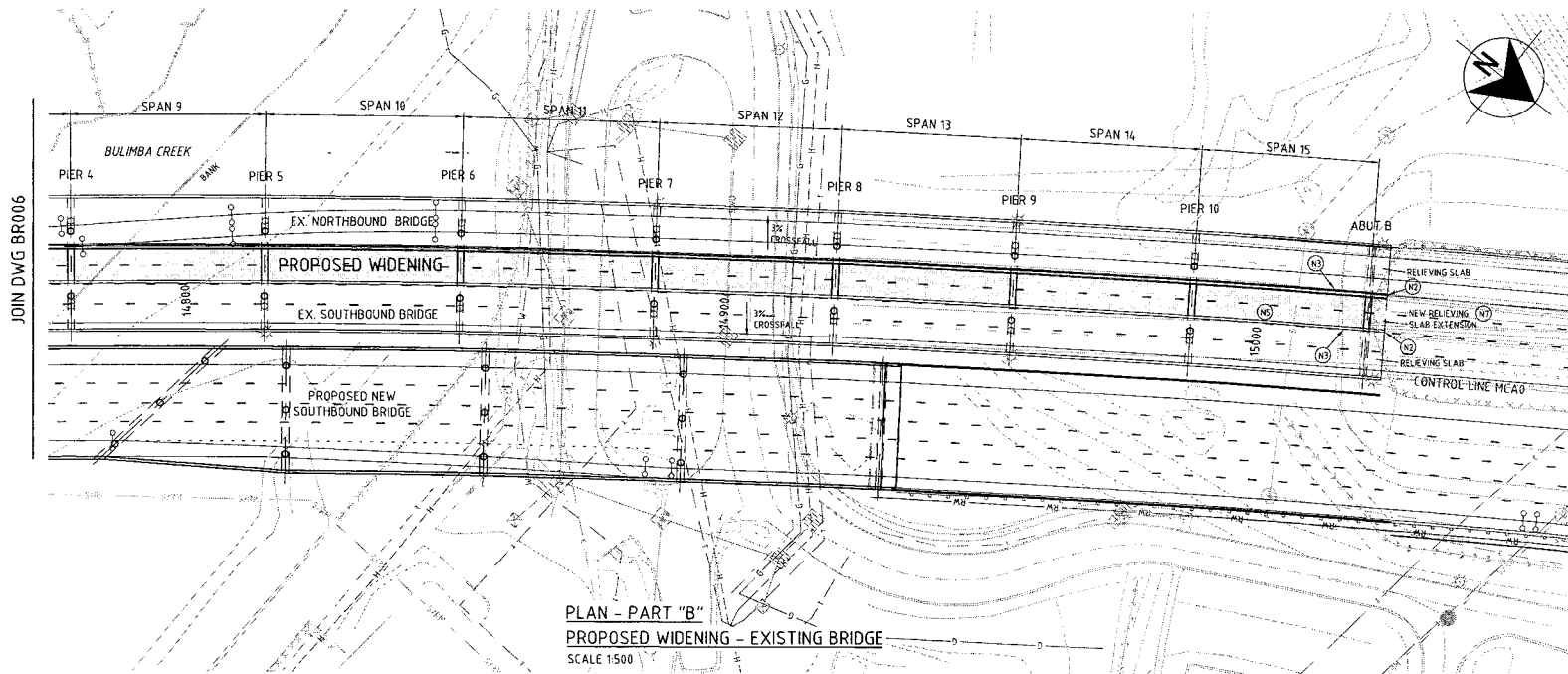
Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos	Scales	Through change from
					1:500	
A	Original issue			(Office use only)		

BRISBANE CITY COUNCIL				REFERENCE PROJECT			
GATEWAY UPGRADE PROJECT				BULIMBA CREEK VIADUCT WIDENING			
CTL CHGE				GENERAL ARRANGEMENT SHEET 1 OF 2			
5160 TO 25250							
Preceding RPC	Dist. to start of job (km)	Reference Points From start to end of job	From end to following RPC	Following RPC	Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd
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							Examined [Signature]
							Certified [Signature]
							Approved
							Contract No. //
							CAO REF: RPEO 3297

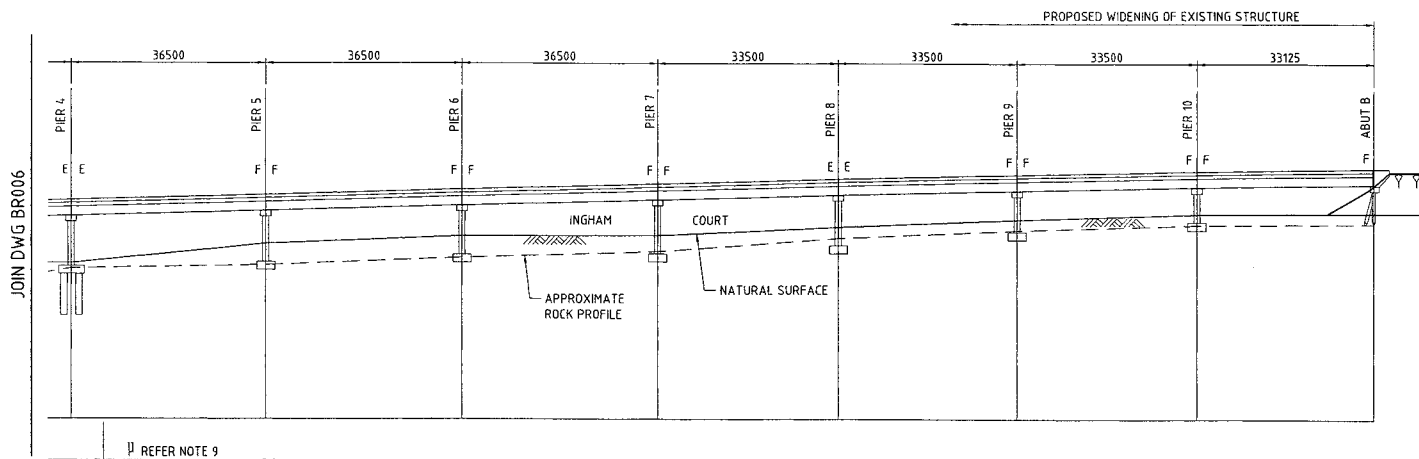
Queensland Government
 Department of Main Roads

JOB No. No117 of 53 drgs
 Drawing No. BR006
 Contract No. A
 CAO REF: //

BR006 - 5160 TO 25250 - GATEWAY UPGRADE PROJECT - BRISBANE CITY COUNCIL - BRISBANE - QLD - AUSTRALIA - 2004 - 08 - 09



PLAN - PART "B"
PROPOSED WIDENING - EXISTING BRIDGE
SCALE 1:500



ELEVATION - PART "B"
PROPOSED WIDENING - EXISTING BRIDGE
SCALE 1:500

LEGEND

- DENOTES NEW CONSTRUCTION
- DENOTES CONSTRUCTION SEQUENCE ITEM REFER DRGS. BR010 & BR011 FOR DETAILS

NOTE

FOR NOTES AND SUGGESTED CONSTRUCTION WORKS REFER DRAWING BR006.

PRELIMINARY

09-08-2004

Connell Wagner

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Facsimile: +61 7 3246 1001
Email: cwn@connellwagner.com.au

Queensland Government
Department of Main Roads

JOB No. Not 18 of 53 drgs

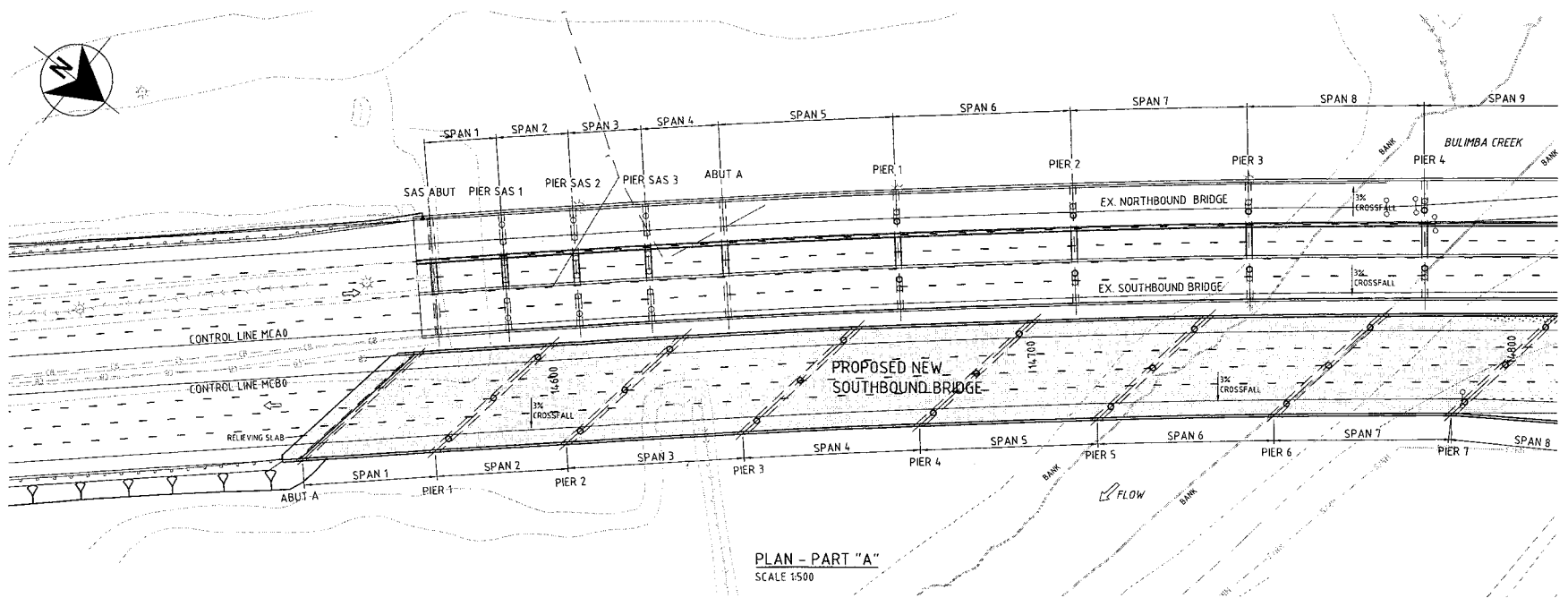
Drawing No. **BR007**

Contract No. //

CAO REF:

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
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BRISBANE CITY COUNCIL GATEWAY UPGRADE PROJECT				REFERENCE PROJECT BULIMBA CREEK VIADUCT WIDENING GENERAL ARRANGEMENT SHEET 2 OF 2			
CTL CHGE				5160 TO 25250			
Preceding RPC	Dist. to start of job (km)	Reference Points From start to end of job	From end to following RPC	Following RPC	Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd
							Examined GRM Ckd
							Certified RPEQ 3297
				Approved			

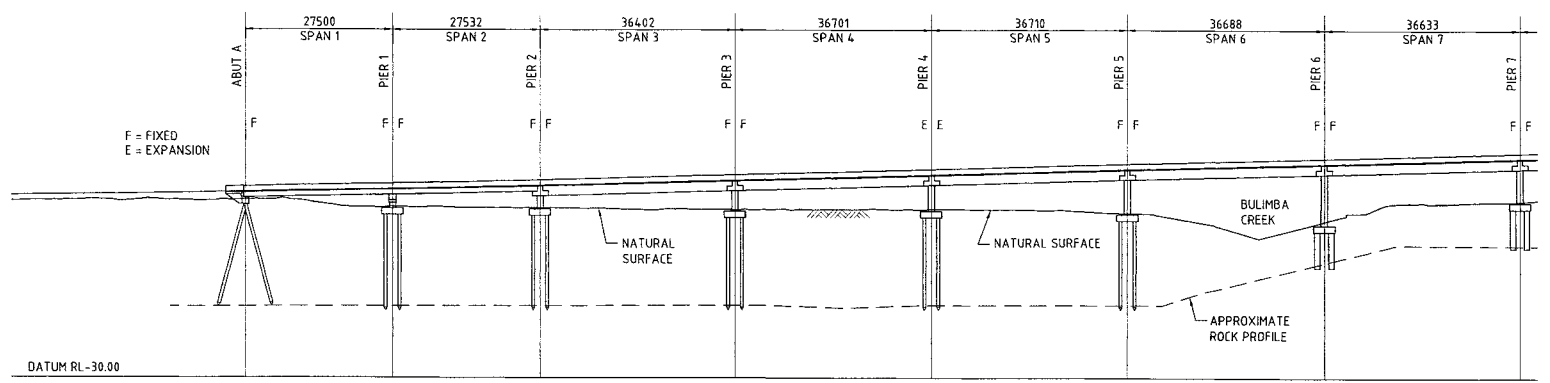


PLAN - PART "A"
SCALE 1:500

JOIN DWG BR009

- LEGEND**
- DENOTES NEW CONSTRUCTION
 - ② DENOTES CONSTRUCTION SEQUENCE ITEM

NOTE
FOR CONSTRUCTION WORKS REFER DRAWING BR006



ELEVATION - PART "A"
PROPOSED NEW SOUTHBOUND BRIDGE
SCALE 1:500

JOIN DWG BR009

- NOTES**
1. DESIGN LOADS SM1600, HLP400 TO ASS100
 2. BARRIERS TO BE SPECIAL PERFORMANCE BARRIERS, GREATER THAN TEST LEVEL 6 TO ASS100
 3. PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION
 4. CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH ASS100
 5. ALL DIMENSIONS ARE IN MILLIMETRES UNO.
 6. LEVELS ARE TO AHD
 7. DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.

PRELIMINARY
09-08-2004

Connell Wagner
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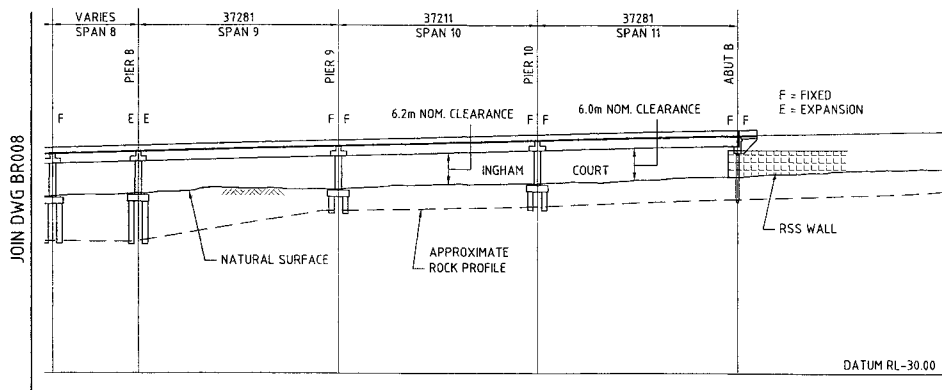
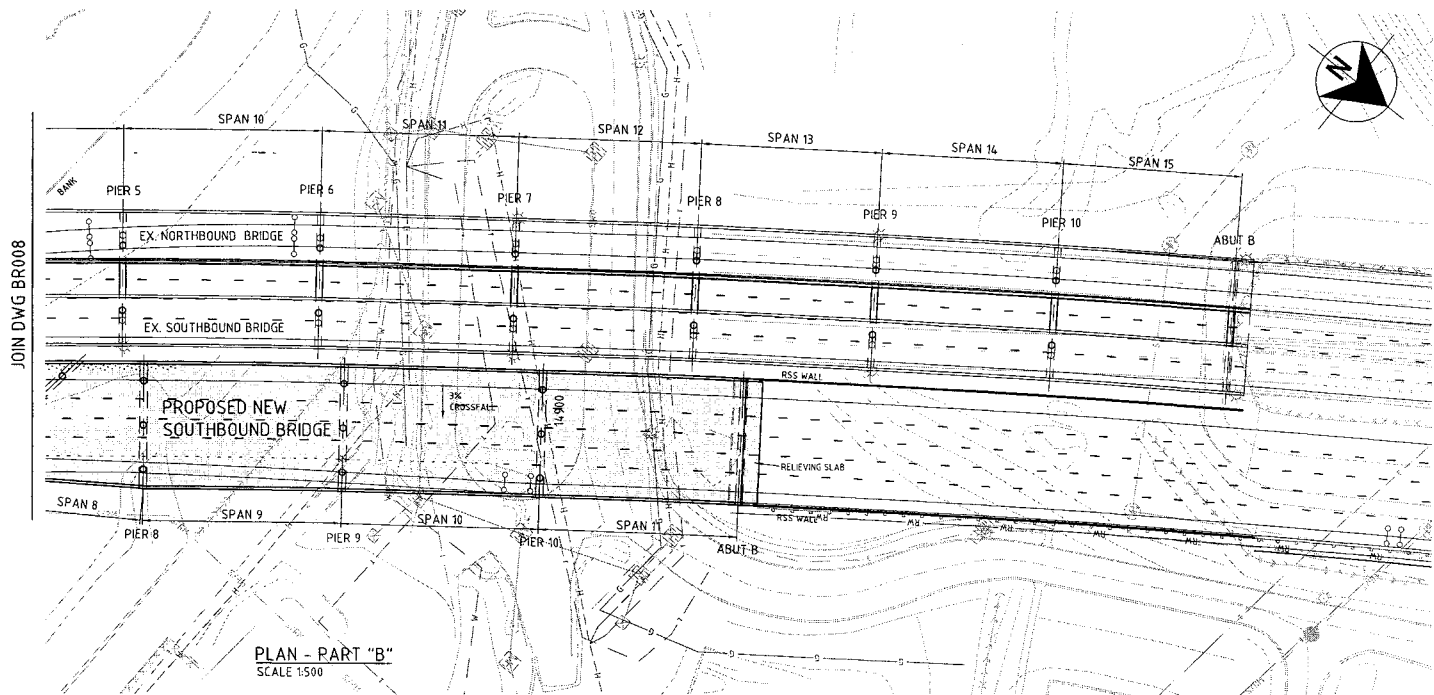
Queensland Government
Department of Main Roads
JOB No. No119 of 53 drgs
Drawing No. **BR008**
Contract No. A
CAD REF: //

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
A	Original issue			(Office use only)		

BRISBANE CITY COUNCIL GATEWAY UPGRADE PROJECT					
REFERENCE PROJECT BULIMBA CREEK VIADUCT NEW BRIDGE GENERAL ARRANGEMENT SHEET 1 OF 2					
CTL CHGE 5160 TO 25250					
Preceding RPC	Dist. to start of job (km)	Reference Points From start to end of job	Following RPC	Survey DMR Ckd	Bdys DMR Ckd
				Drawn JAF Ckd	Design GRM Ckd
				Examined <i>[Signature]</i>	Certified <i>[Signature]</i>
				Approved	Approved



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LEGEND

- DENOTES NEW CONSTRUCTION
- DENOTES CONSTRUCTION SEQUENCE ITEM

NOTE

FOR NOTES REFER DRAWING BR008.
FOR SUGGESTED CONSTRUCTION WORKS REFER DRAWING BR006.

ELEVATION - PART "B"
PROPOSED NEW SOUTHBOUND BRIDGE
SCALE 1:500

PRELIMINARY

09-08-2004

Connell Wagner
Department of Main Roads

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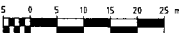
Queensland Government
Department of Main Roads

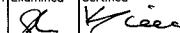
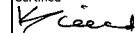
JOB No. No.120 of 153drgs

Drawing No.
BR009

Contract No. //

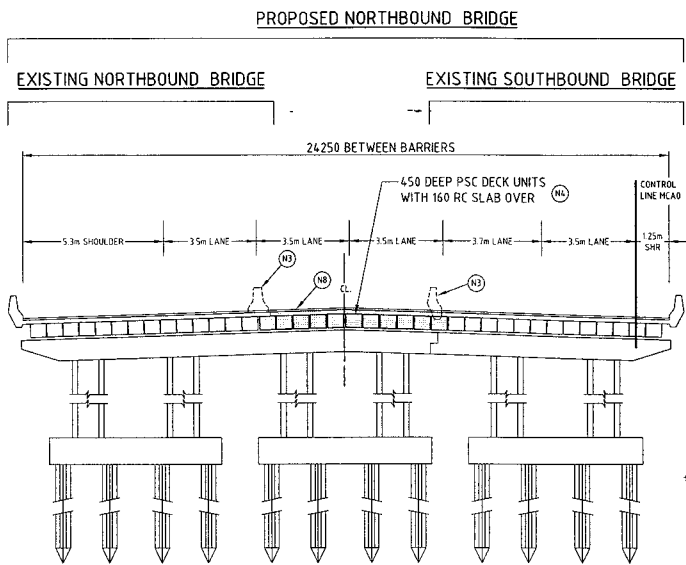
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				(Office use only)		
A	Original issue					

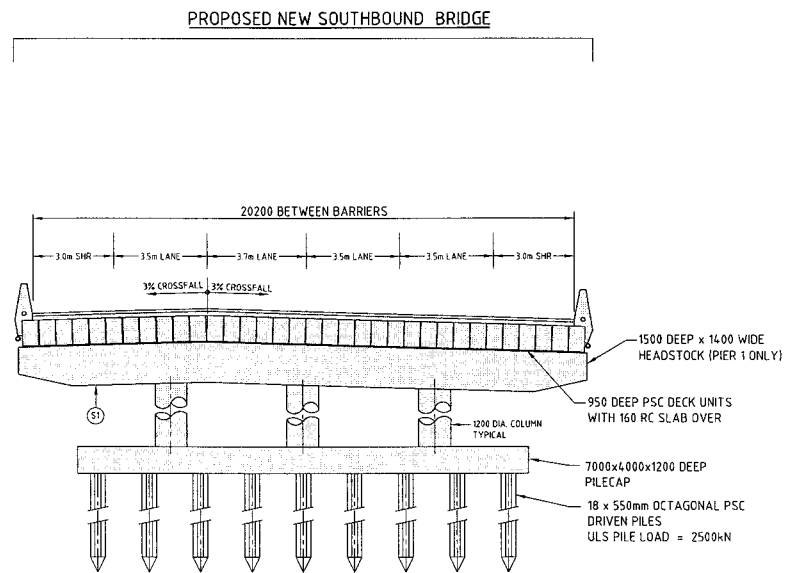
BRISBANE CITY COUNCIL							
GATEWAY UPGRADE PROJECT							
REFERENCE POINTS				Survey Bdays			
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					Drawn JAF	Design GRM	Examined 
					Ckd	Ckd	Certified 
							RPEQ 3297
Approved							

REFERENCE PROJECT			
BULIMBA CREEK VIADUCT NEW BRIDGE			
GENERAL ARRANGEMENT SHEET 2 OF 2			

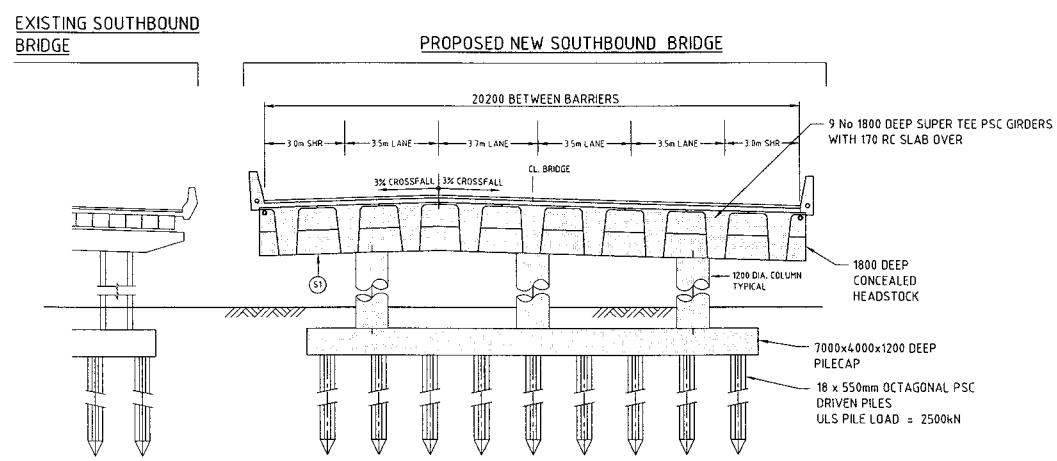
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PIERS SAS 1, 2 & 3
DECK SECTION - SPANS 1 TO 4
SOUTHERN APPROACH STRUCTURE
 SCALE 1:100



DECK SECTION - SPANS 1 TO 2
 SCALE 1:100



DECK SECTION - SPANS 3 TO 5
 SCALE 1:100

LEGEND

DENOTES NEW CONSTRUCTION

DENOTES CONSTRUCTION SEQUENCE ITEM

NOTE

FOR SUGGESTED CONSTRUCTION WORKS REFER DRAWING BR006

PRELIMINARY
 09-08-2004

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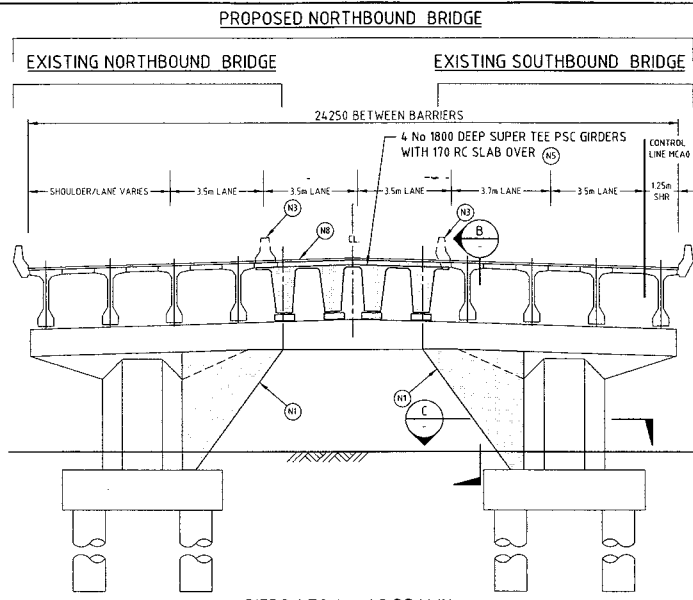
Queensland Government
 Department of Main Roads
 JOB No. NaJ21 of 53 drgs
 Drawing No. BR010

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
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A Original issue				(Office use only)		

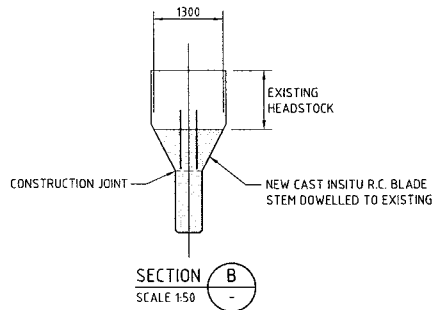
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GATEWAY UPGRADE PROJECT				BULIMBA CREEK VIADUCT WIDENING & NEW BRIDGE			
5160 TO 25250				TYPICAL SECTIONS SHEET 1			
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design CRM Ckd
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				Certified <i>[Signature]</i>	Approved		
				RPEQ 3297	//		

Contract No.	
CAD REF	

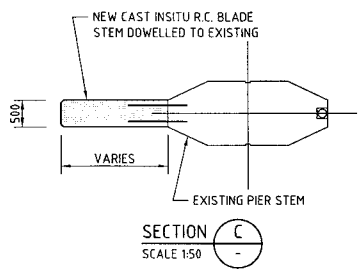
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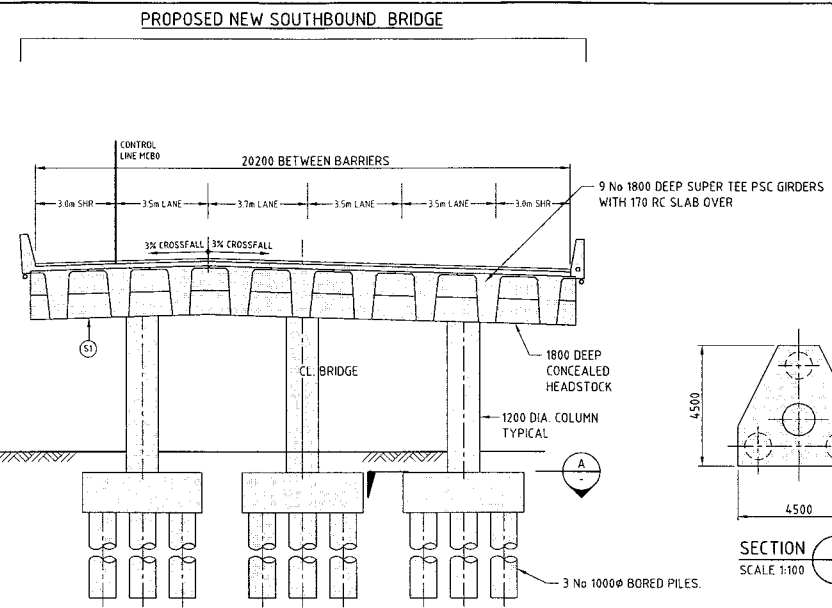
EXISTING NORTHBOUND BRIDGE
 EXISTING SOUTHBOUND BRIDGE
 24250 BETWEEN BARRIERS
 4 No 1800 DEEP SUPER TEE PSC GIRDERS WITH 170 RC SLAB OVER
 CONTROL LINE MCB0
 SHOULDER/LANE VARIES 3.5m LANE 3.5m LANE 3.7m LANE 3.5m LANE 1.25m SHR
 PIERS 1 TO 4 - AS DRAWN
 PIERS 5 TO 10 - SIMILAR WITH PAD FOOTINGS ONLY
 DECK SECTION - SPANS 5 TO 15
 MAIN STRUCTURE
 SCALE 1:100



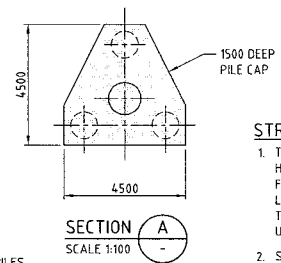
SECTION B
 SCALE 1:50



SECTION C
 SCALE 1:50



DECK SECTION - SPANS 6 & 7
 SCALE 1:100



SECTION A
 SCALE 1:100

STRENGTHENING NOTES

1. THE STRENGTHENING HAS CONSIDERED THE APPLICATION OF A HLP400 LOADING, CENTRALLY PLACED (OR UP TO 1.0m DEVIATION FROM CENTRELINE) WITHOUT ANY ADDITIONAL T44/L44 LIVE LOADING IN THE ADJACENT LANES. THIS CONDITION WOULD REQUIRE TEMPORARY LANE CLOSURE OF THE BRIDGE TO ALL OTHER TRAFFIC UNTIL THE HEAVY LOADING PLATFORM HAD PASSED.
2. STRENGTHENING WORKS ARE TO BE COMPLETED BEFORE PLACING GIRDERS FOR THE STAGE 3 SUPERSTRUCTURE WIDENING. THIS ALLOWS ALL OF THE NEW DEAD LOAD AND HLP400 LIVE LOADING TO BE ENGAGED BY THE STRENGTHENING ELEMENTS.

STRENGTHENING CONSTRUCTION PROCEDURE

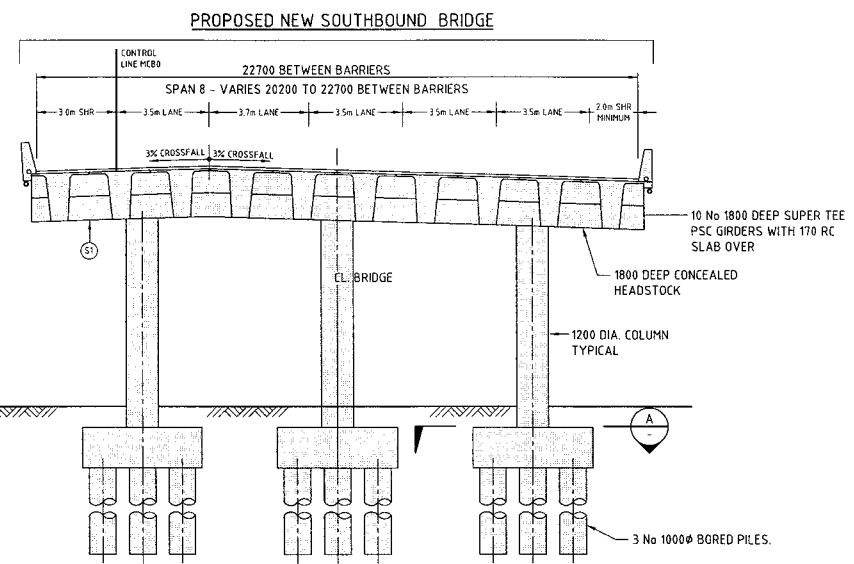
- CAST ADDITIONAL BLADE WALL ON EXISTING PILECAPS
1. CONSTRUCT INSITU CONCRETE PILE CAP WIDENING (EXTENSIONS) AT PIERS 3 & 4 FOR SKEWED PILE CAPS TO ALLOW THE CONSTRUCTION OF THE BLADE WALL EXTENSIONS. THE FIRST STAGE POUR TO CONSTRUCT THE BLADE WALL UP TO THE HORIZONTAL CONSTRUCTION JOINT FOR PIERS 1 TO 10.
 2. ALLOW THE FIRST STAGE BLADE WALL POUR TO DEVELOP ITS INITIAL SHRINKAGE. SHRINKAGE COMPENSATED CONCRETE IS TO BE USED TO CONSTRUCT THE BLADE WALL EXTENSION.
 3. CAST THE TRANSITION CONCRETE SECTION BETWEEN THE TOP OF THE BLADE WALL AND HEADSTOCK.
 4. PLACE GIRDERS.

LEGEND

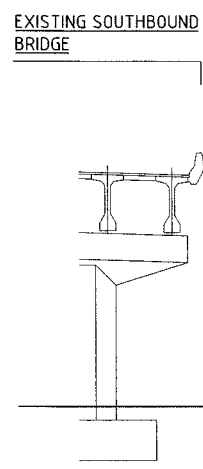
- DENOTES NEW CONSTRUCTION
- ② DENOTES CONSTRUCTION SEQUENCE ITEM

NOTE

FOR SUGGESTED CONSTRUCTION WORKS REFER DRAWING BR006



DECK SECTION - SPANS 9 TO 11
 DECK SECTION - SPAN 8 SIMILAR AS NOTED.
 SCALE 1:100

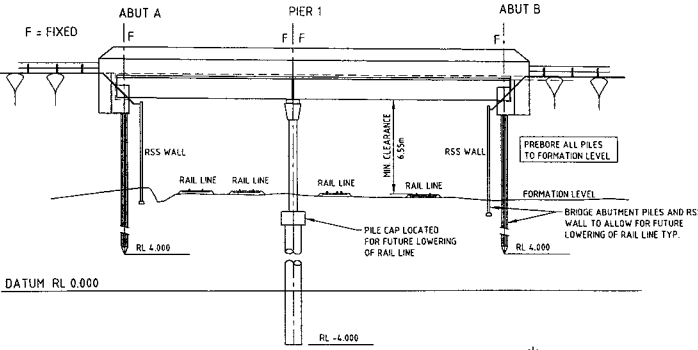
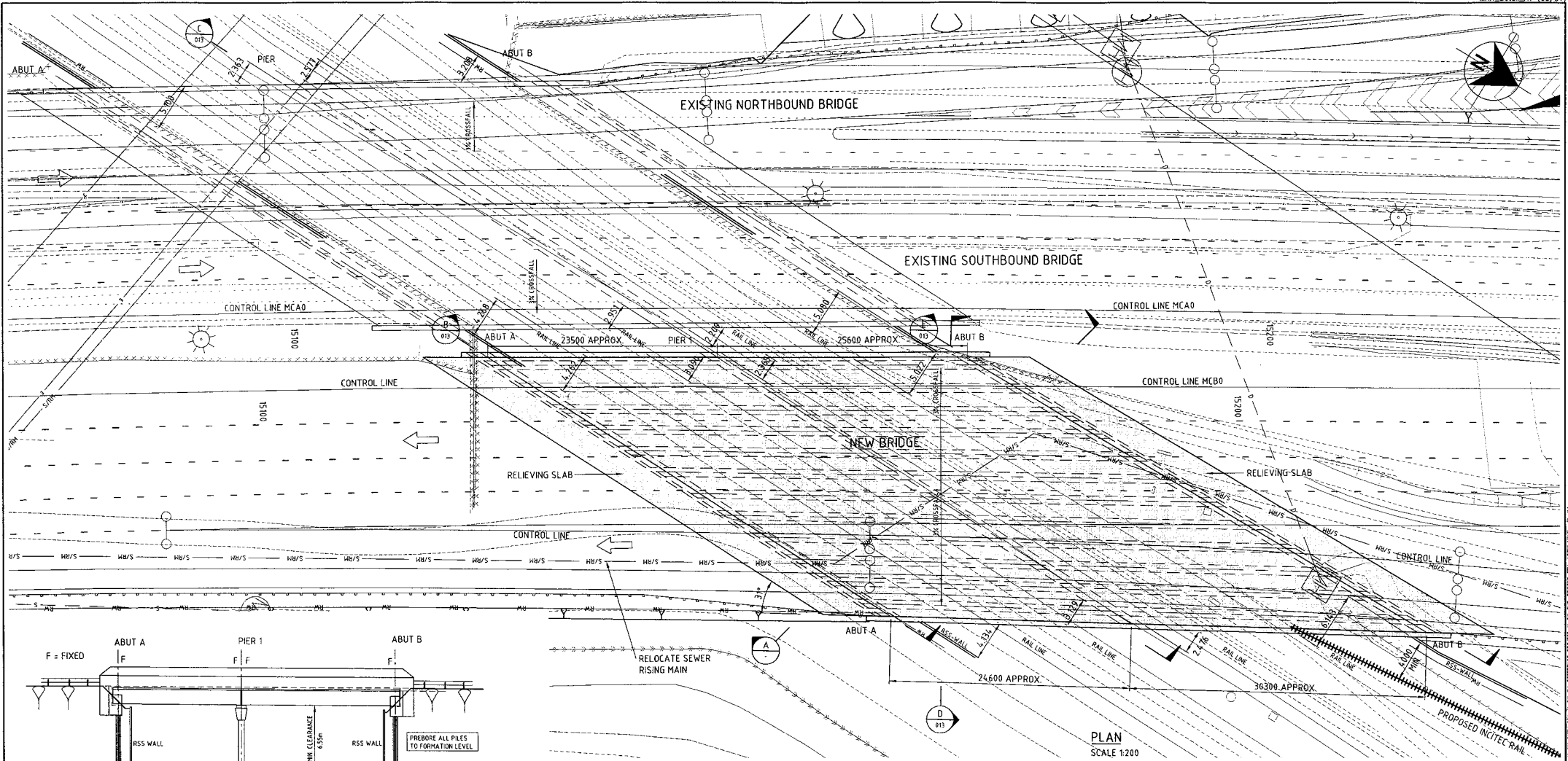


EXISTING SOUTHBOUND BRIDGE

PRELIMINARY
 09-08-2004

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 Queensland Australia Email: connell@connellwagner.com.au

Revisions		Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books	BRISBANE CITY COUNCIL GATEWAY UPGRADE PROJECT				REFERENCE PROJECT BULIMBA CREEK VIADUCT WIDENING & NEW BRIDGE				Queensland Government Department of Main Roads	
					Auxiliary drawing nos	Scales	Through chainage from	CTL CHGE 5160 TO 25250				TYPICAL SECTIONS SHEET 2				JOB No. No.122 of 153 drgs Drawing No. BR011	
					(Office use only)	1:50 1:100		Reference Points	Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd	Examined	Certified	Approved	Contract No. CAD REF:	
A Original issue								From start to end of job					<i>J. K. [Signature]</i>	RPEQ 3297			



ELEVATION SHOWN SQUARE TO RAIL CENTRELINES *
 SECTION A
 SCALE 1:200

NOTES

- DESIGN LOADS SM1600, HLP400 TO ASS100
- BARRIERS TO BE SPECIAL PERFORMANCE BARRIERS, GREATER THAN TEST LEVEL 6 TO ASS100
- BARRIERS OVER ELECTRIFIED RAILWAY SHALL COMPLY WITH GR DOCUMENT MCE-SR-001-CLAUSE 6
- PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION
- CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH ASS100
- ALL DIMENSIONS ARE IN MILLIMETRES UNO.
- LEVELS ARE TO AHD
- DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.
- HORIZONTAL CLEARANCES ARE LESS THAN OR STANDARD, HOWEVER THEY MATCH EXISTING, AND FUTURE REALIGNMENT WILL ALLOW STANDARD CLEARANCES.

LEGEND

DENOTES NEW CONSTRUCTION

PRELIMINARY
 09-05-2004

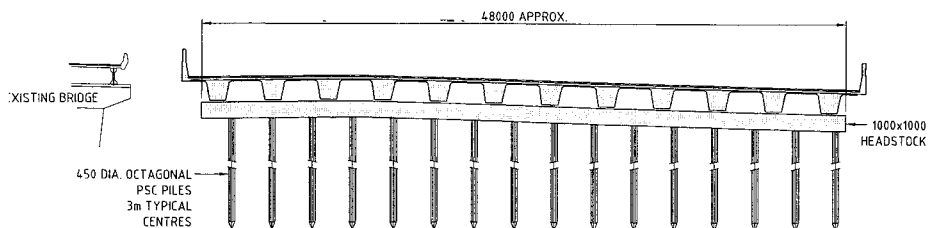
Connell Wagner
 Control Wagon Pty Ltd ABN 54 005 130 873 Telephone: +61 7 3248 1000
 433 Boundary St, Locked Bag 1800, Spring Hill Queensland 4004 Australia
 Facsimile: +61 7 3248 1001 Email: connell@connell.com.au

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise, Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos <td>Scales</td> <td>Through chainage from</td>	Scales	Through chainage from
					1:200	
A	Original issue			(Office use only)		

BRISBANE CITY COUNCIL				REFERENCE PROJECT			
GATEWAY UPGRADE PROJECT				CLEVELAND RAIL LINE OVERPASS BRIDGE			
				GENERAL ARRANGEMENT			
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd

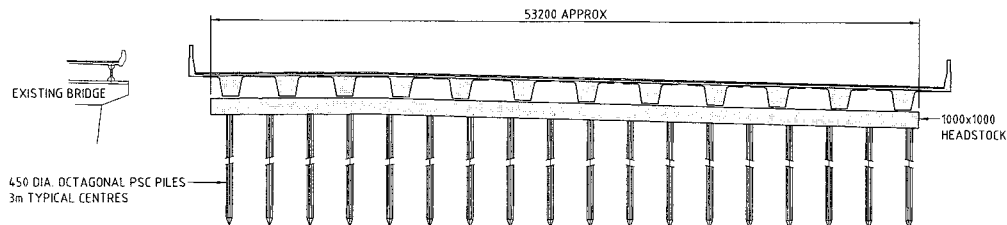
Examined	Certified	Approved

Queensland Government
 Department of Main Roads
JOB No. No.123 of 153drgs
Drawing No. BR012
 Contract No. A
 CAD REF: //



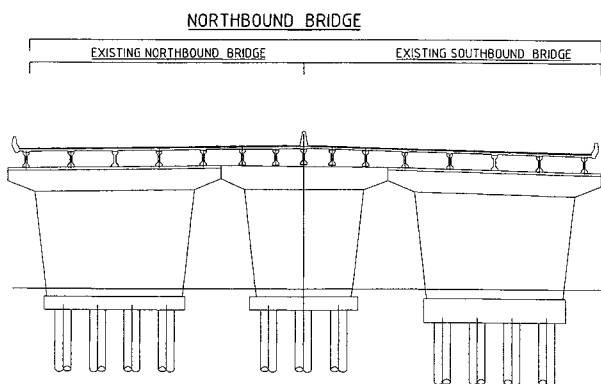
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SECTION **B**
SCALE 1:200 BR012



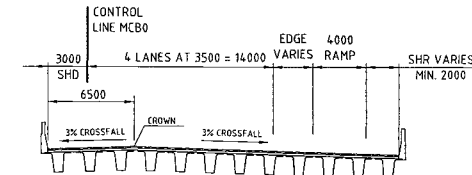
SECTION PARALLEL WITH ABUTMENT "B" CENTRELINE

SECTION **E**
SCALE 1:200 BR012



SECTION PARALLEL WITH PIER CENTRELINE

SECTION **C**
SCALE 1:200 BR012



SECTION **D**
SCALE 1:200 BR012

LEGEND

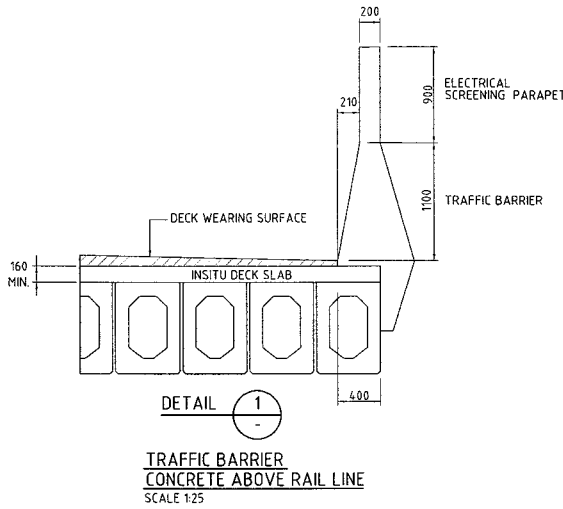
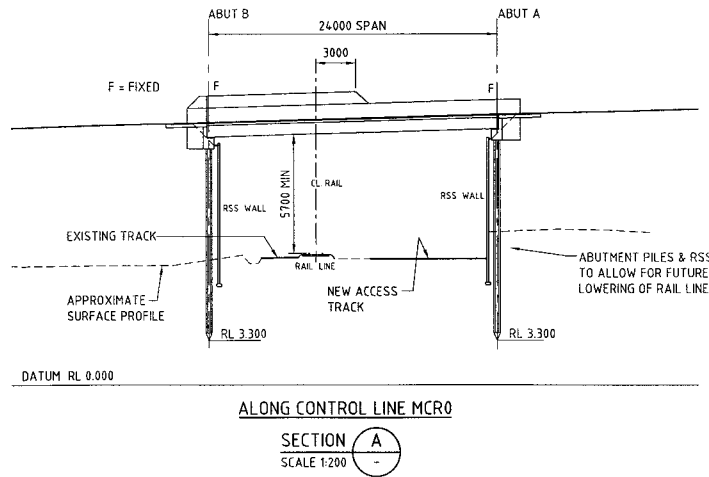
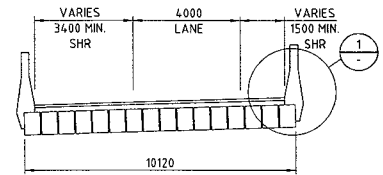
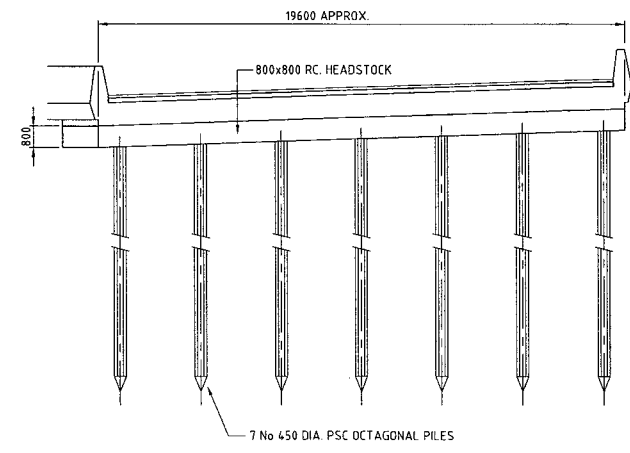
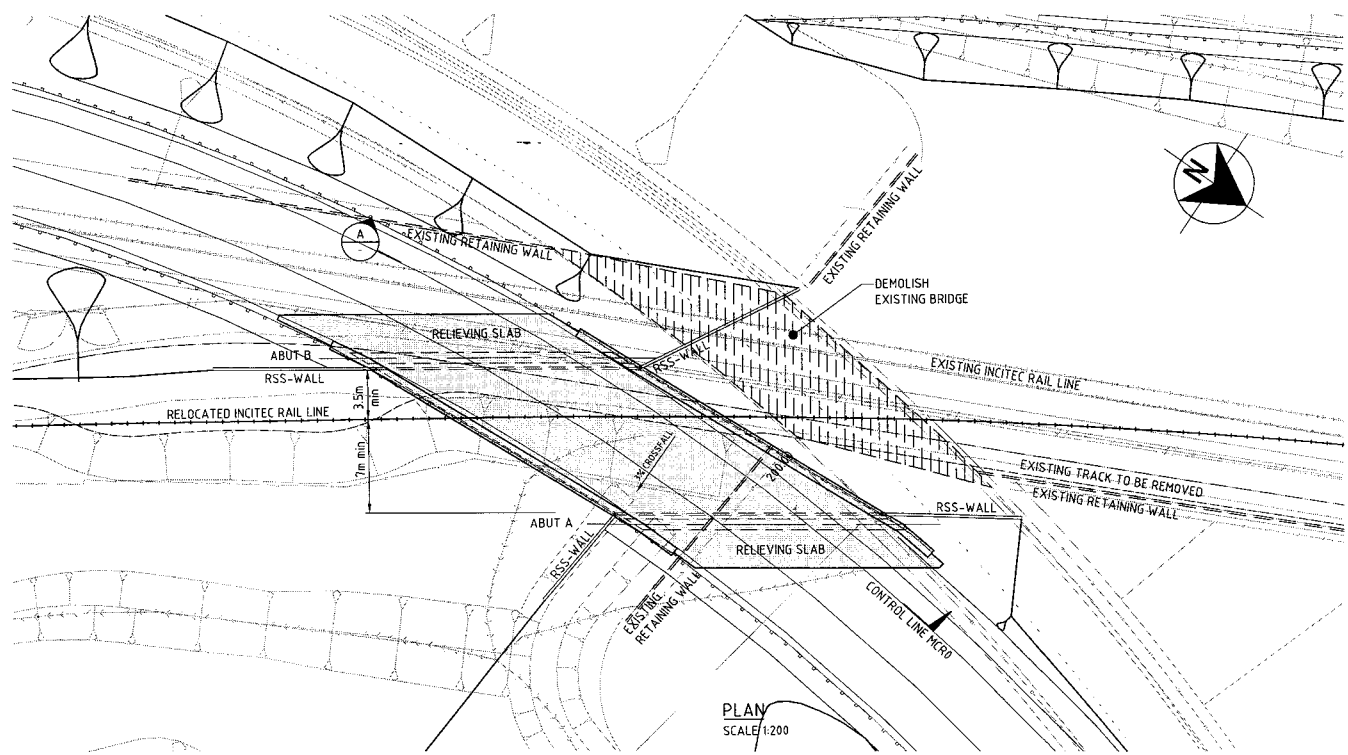
DENOTES NEW CONSTRUCTION

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
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				(Office use only)		
A	Original issue					

BRISBANE CITY COUNCIL GATEWAY UPGRADE PROJECT				REFERENCE PROJECT CLEVELAND RAIL LINE OVERPASS BRIDGE ABUTMENT, PIER & DECK SECTIONS			
CTL CHGE 5160 TO 25250							
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Following RPC	Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd
					Design GRM Ckd	Examined	Certified
						RPEQ 3297	Approved
							Contract No.
							A

PRELIMINARY	
09-08-2004	
Connell Wagner Department of Main Roads	
Connell Wagner Pty Ltd ABN 54 005 139 873 Telephone: +61 7 3246 1000 433 Boundary St. (Locked Bag 1800) Spring Hill Queensland 4004 Australia Facsimile: +61 7 3246 1001 Email: conn@connwagner.com	
JOB No. No124 of 53 drgs Drawing No. BR013 Contract No. //	CAD REF:

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NOTES

- DESIGN LOADS SM1600, HLP400 TO ASS100
- BARRIERS TO BE SPECIAL PERFORMANCE BARRIERS, GREATER THAN TEST LEVEL 6 TO ASS100
- BARRIERS OVER ELECTRIFIED RAILWAY SHALL COMPLY WITH QR DOCUMENT MCE-SR-001-CLAUSE 6
- PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION
- CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH ASS100
- ALL DIMENSIONS ARE IN MILLIMETRES UNO.
- LEVELS ARE TO AHD
- DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.

PRELIMINARY
09-08-2004

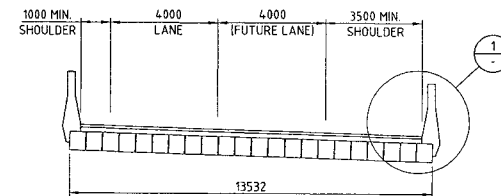
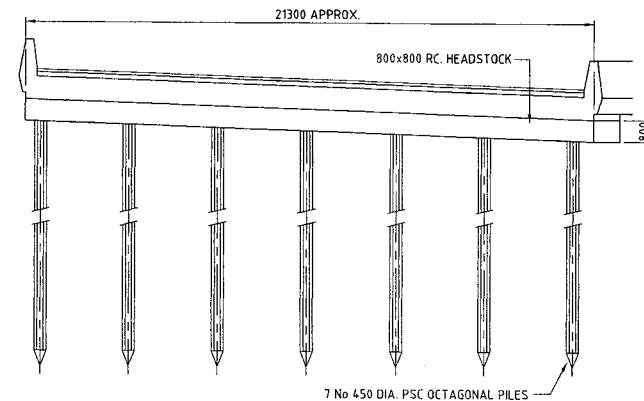
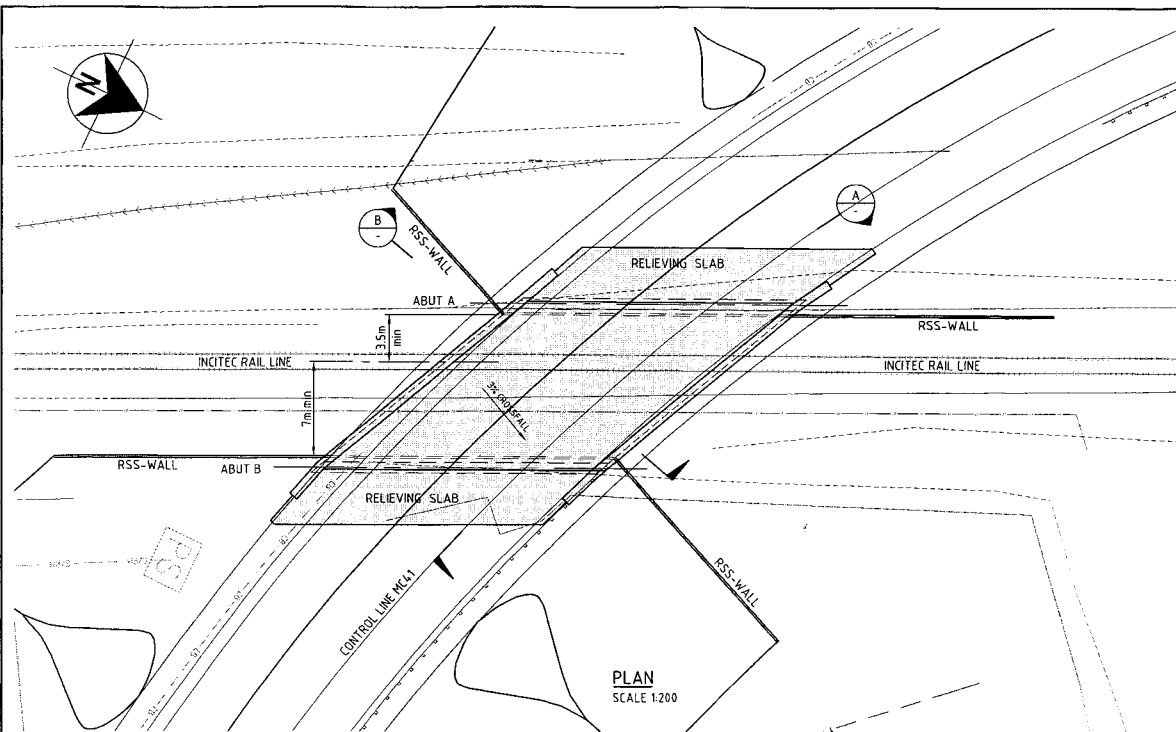
Connell Wagner
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433 Boundary St. (Locked Bag 1802) Spring Hill Queensland 4001, Australia. Facsimile: +61 7 3246 1001
Email: cwn@connellwagner.com

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos	Scales	Through chainage from
					1:100	
					1:200	
A	Original issue			(Office use only)		

BRISBANE CITY COUNCIL					REFERENCE PROJECT					
GATEWAY UPGRADE PROJECT					SOUTHBOUND ON RAMP BRIDGE OVER INCITEC RAIL					
5160 TO 25250					GENERAL ARRANGEMENT					
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Following RPC	Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd	Examined [Signature] Ckd	Certified [Signature] RPEQ 3297

Approved	Contract No.	CA01 REF:
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Queensland Government
Department of Main Roads
JOB No. No.125 of 153 drgs
Drawing No. BR014
Contract No. A

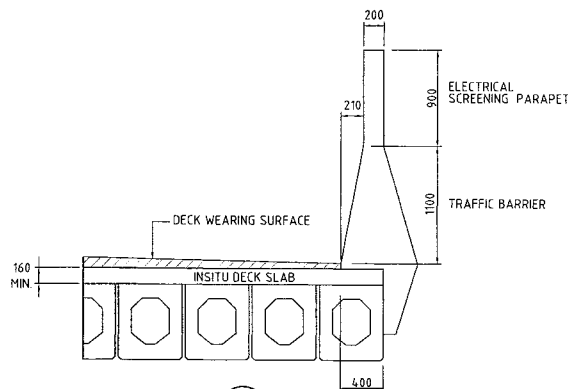
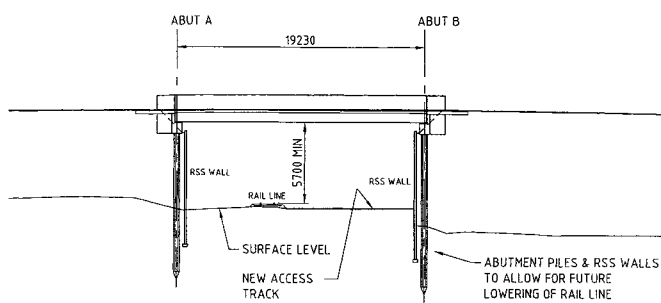


22 No PSC DECK UNITS WITH 20mm NOM. GAPS BETWEEN
700mm DEEP PSC DECK UNITS WITH 160mm R.C. SLAB OVER

SECTION B
SCALE 1:100

NOTES

- DESIGN LOADS SM1600, HLP400 TO ASS100
- BARRIERS TO BE SPECIAL PERFORMANCE BARRIERS, GREATER THAN TEST LEVEL 6 TO ASS100
- BARRIERS OVER ELECTRIFIED RAILWAY SHALL COMPLY WITH QR DOCUMENT MCE-SR-001-CLAUSE 6
- PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION
- CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH ASS100
- ALL DIMENSIONS ARE IN MILLIMETRES UNO
- LEVELS ARE TO AHD
- DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.



DATUM RL 0.000

ALONG CONTROL LINE MC41

PRELIMINARY

09-08-2004

Connell Wagner

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413 Bramley St, Locked Rg 1800, Spring Hill Facsimile +61 7 3246 1001
Queensland 4004 Australia Email: connell@connellwagner.com.au

Queensland Government
Department of Main Roads

JOB No. No.126 of 153drgs
Drawing No. BR015

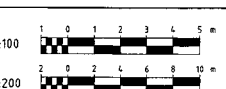
Contract No. //

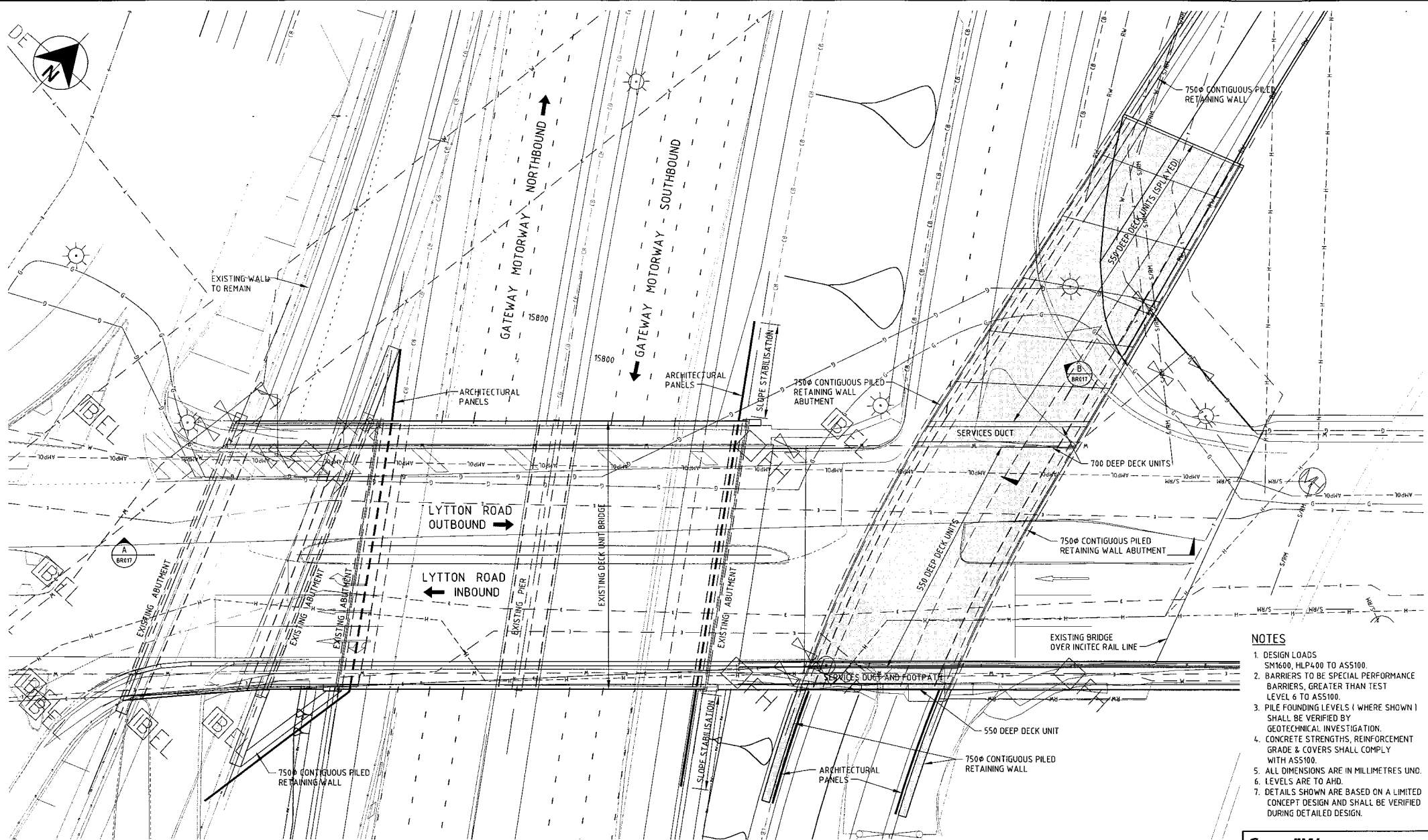
CAD REF:

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise, Culvert sizes in millimetres.	Survey books
A	Original issue			(Office use only)		

BRISBANE CITY COUNCIL			
GATEWAY UPGRADE PROJECT			
Through chainage from		CTL CHGE 5160 TO 25250	
Reference Points			
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC

REFERENCE PROJECT					
ON RAMP BRIDGE OVER INCITEC RAIL					
GENERAL ARRANGEMENT					
Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd	Examined <i>[Signature]</i>	Certified RPEQ 3297
				Approved	





NOTES

1. DESIGN LOADS
SM1600, HLP400 TO ASS100.
2. BARRIERS TO BE SPECIAL PERFORMANCE BARRIERS, GREATER THAN TEST LEVEL 6 TO ASS100.
3. PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION.
4. CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH ASS100.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNO.
6. LEVELS ARE TO AHD.
7. DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.

PLAN
SCALE 1:200

PRELIMINARY

09-08-2004

ConnellWagner

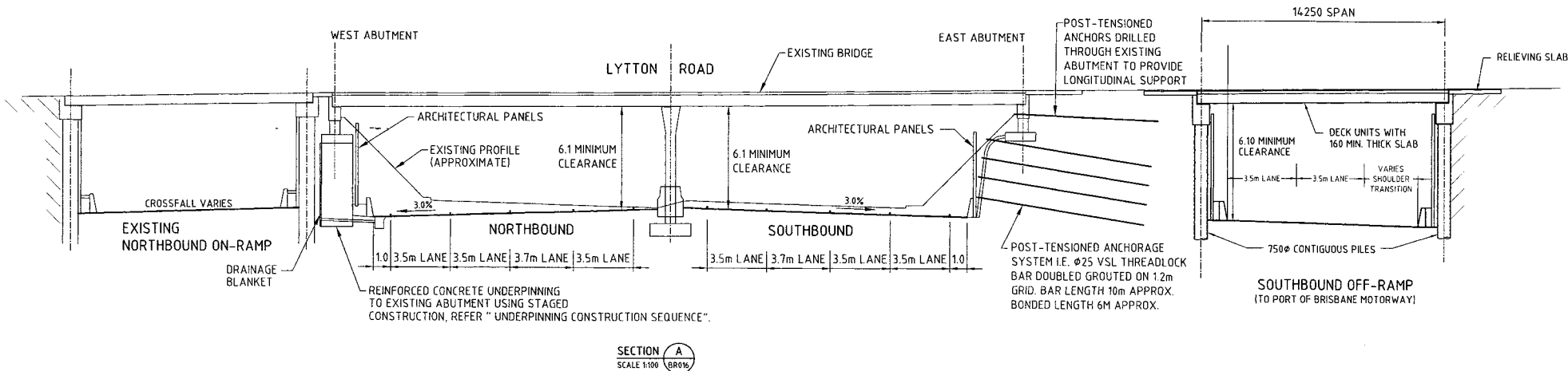
Connell Wagner Pty Ltd ABN 54 025 139 873 Telephone: +61 7 3246 1000
433 Boundary St, (Locked Bag 1800) Spring Hill Facsimile: +61 7 3246 1001
Queensland 4004 Australia Email: connellwagner.com.au

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos	Scales	Through chainage from
				(Office use only)		

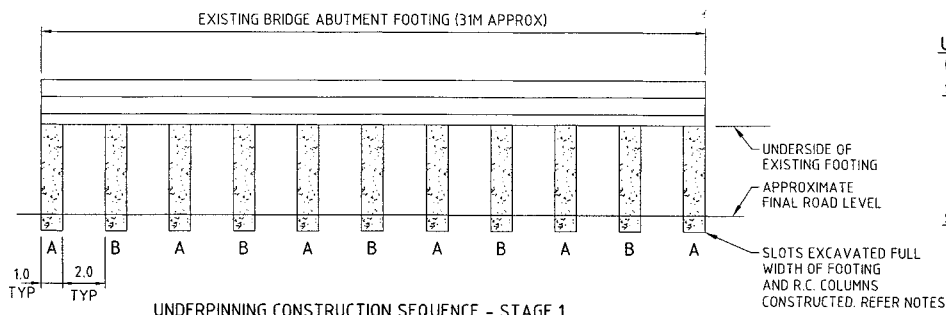
BRISBANE CITY COUNCIL					
GATEWAY UPGRADE PROJECT					
CLT CHGE 5160 TO 25250					
Preceding RPC	Dist. to start of job (km)	Reference Points From start to end of job	From end to following RPC	Following RPC	Survey DMR Ckd
					Bdys DMR Ckd
					Drawn JAF Ckd
					Design GRM Ckd
					Examined <i>[Signature]</i>
					Certified <i>[Signature]</i>
					Approved

REFERENCE PROJECT					
LYTTON ROAD BRIDGE & OFF RAMP BRIDGE					
GENERAL ARRANGEMENT					
Contract No.	RPEQ 3297				
QAD REF:	//				

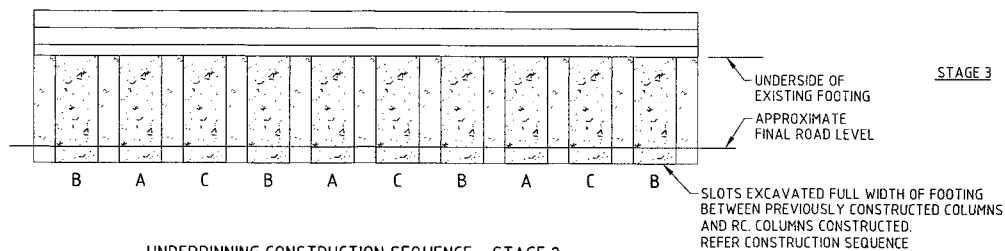
Queensland Government	
Department of Main Roads	
Job No.	Not 27 of 53 drgs
Contract No.	BR016
QAD REF:	A



SECTION A
SCALE 1:100 (BR016)



UNDERPINNING CONSTRUCTION SEQUENCE - STAGE 1

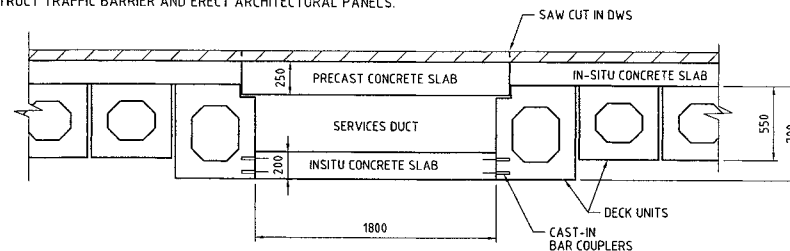


UNDERPINNING CONSTRUCTION SEQUENCE - STAGE 2

UNDERPINNING CONSTRUCTION SEQUENCE

(REFER DIAGRAMS)

- STAGE 1**
- A. EXCAVATE BELOW ABUTMENT FOOTING IN 1M WIDE SLOTS FOR STAGE 1A COLUMNS. INSTALL DRAINAGE BLANKET AND REINFORCEMENT. CAST COLUMNS.
 - B. AFTER STAGE 1A COLUMNS HAVE GAINED REQUIRED STRENGTH, EXCAVATE BELOW ABUTMENT FOOTING IN 1M WIDE SLOTS FOR STAGE 1B COLUMNS. INSTALL DRAINAGE BLANKET AND REINFORCEMENT. CAST COLUMNS.
- STAGE 2**
- A. EXCAVATE BELOW ABUTMENT FOOTING IN 2M WIDE SLOTS FOR STAGE 2A COLUMNS. INSTALL DRAINAGE BLANKET AND REINFORCEMENT. CAST COLUMNS.
 - B. AFTER STAGE 2A COLUMNS HAVE GAINED REQUIRED STRENGTH, EXCAVATE BELOW ABUTMENT FOOTING IN 2M WIDE SLOTS FOR STAGE 2B COLUMNS. INSTALL DRAINAGE BLANKET AND REINFORCEMENT. CAST COLUMNS.
 - C. AFTER STAGE 2B COLUMNS HAVE GAINED REQUIRED STRENGTH, EXCAVATE BELOW ABUTMENT FOOTING IN 2M WIDE SLOTS FOR STAGE 2C COLUMNS. INSTALL DRAINAGE BLANKET AND REINFORCEMENT. CAST COLUMNS.
- STAGE 3**
- CONSTRUCT TRAFFIC BARRIER AND ERECT ARCHITECTURAL PANELS.



CROSS SECTION AT NORTHERN SERVICES DUCT

SECTION B
SCALE 1:20 (BR016)

PRELIMINARY

09-08-2004

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Queensland Government
Department of Main Roads

JOB No. Not28 of 53 drgs

Drawing No. **BR017**

Contract No.

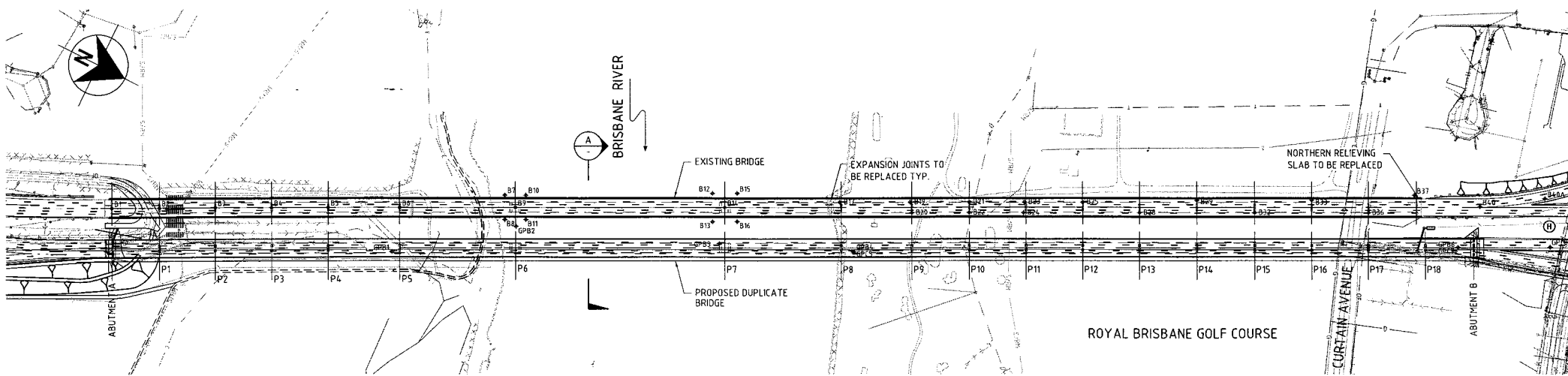
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CAD REF:

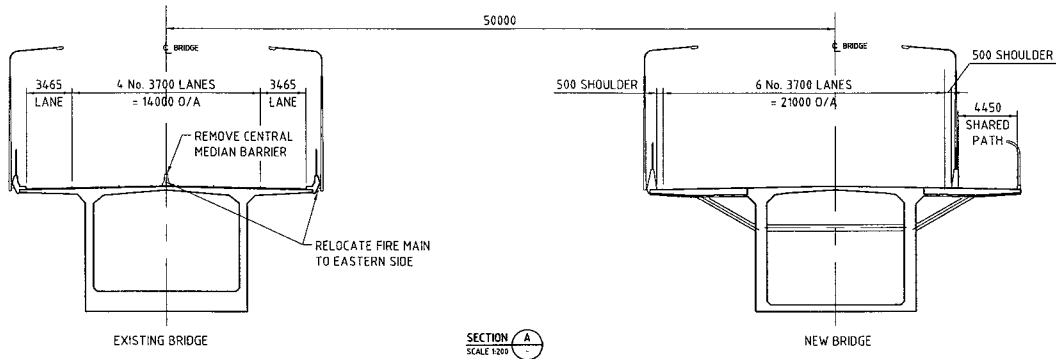
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				Auxiliary drawing nos	Scales	Through chainage from
				(Office use only)		

BRISBANE CITY COUNCIL				REFERENCE PROJECT			
GATEWAY UPGRADE PROJECT				LYTTON ROAD BRIDGE & SOUTHBOUND OFF RAMP BRIDGE - SECTIONS			
CTL CHGE 5160 TO 25250							
Reference Points				Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC			Examined	Certified
						<i>[Signature]</i>	<i>[Signature]</i>
						RPEO 3297	Approved

Approved	
Contract No.	
CAD REF:	



PLAN
SCALE 1:2500



SECTION A-A
SCALE 1:2500

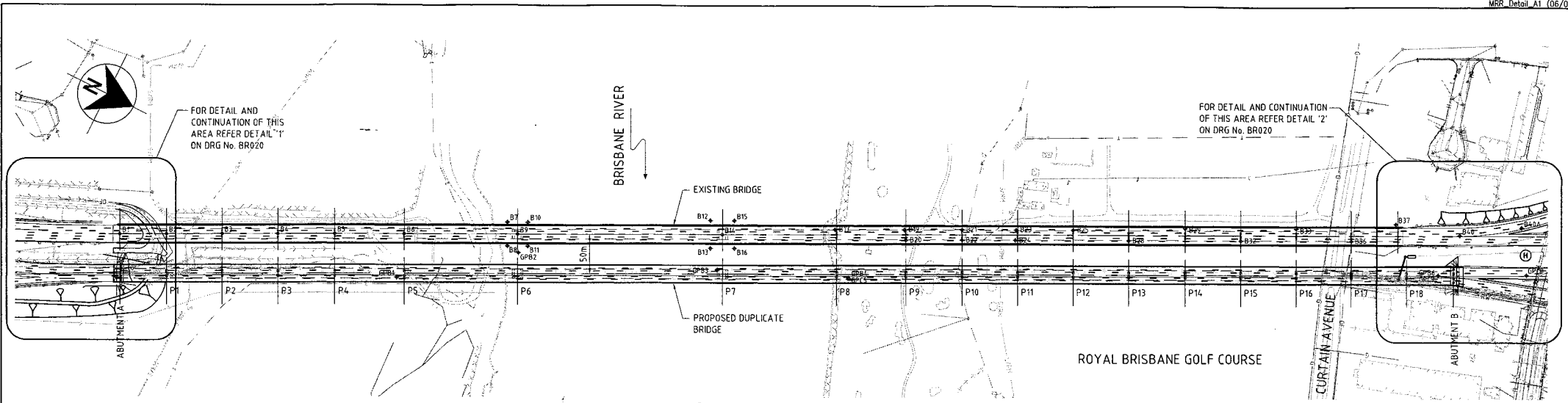
PRELIMINARY

09-08-2004

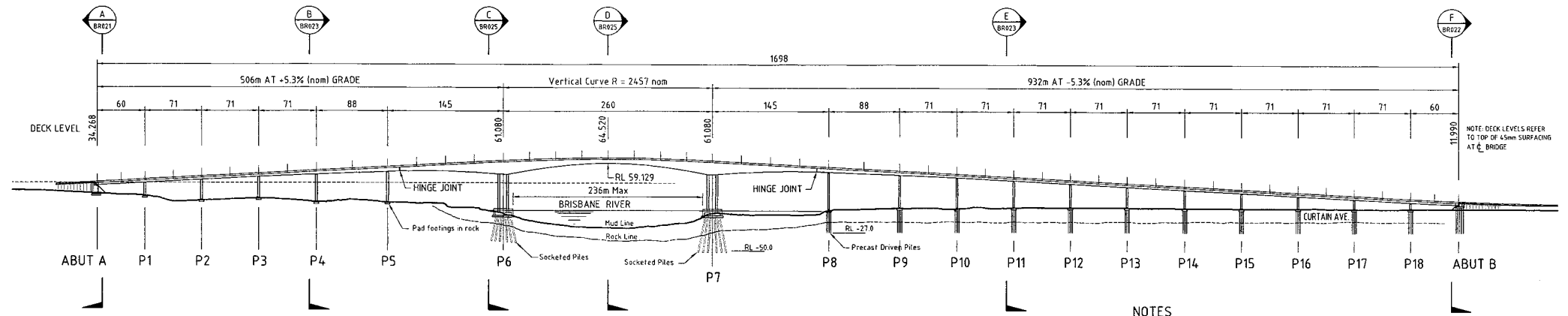
ConnellWagner
 Connell Wagner Pty Ltd ABN 54 025 139 873 Telephone: +61 7 3246 1000
 433 Boundary St. (Locked Bag 1800) Spring Hill Queensland 4004 Australia
 Facsimile: +61 7 3246 1031
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Queensland Government
 Department of Main Roads
JOB No. Not 29 of 53 drgs
Drawing No. BR018
Contract No. //
 CAD REF: A

Revisions		Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books	BRISBANE CITY COUNCIL GATEWAY UPGRADE PROJECT				REFERENCE PROJECT GATEWAY BRIDGE DUPLICATION							
					Auxiliary drawing nos	Scales	Through chainage from											Preceding RPC Dist. to start of job (km) From start to end of job From end to following RPC Following RPC Survey DMR Ckd Bds DMR Ckd Drawn JAF Ckd Design GRM Ckd Examined <i>J. Ward</i> Certified <i>J. Ward</i> Approved RPEQ 3297	
A		Original issue			(Office use only)	1:200 1:2500	CTL CHGE	5160 TO 25250											



PLAN
SCALE 1:2500



ELEVATION
(LOOKING UPSTREAM)
SCALE 1:2500

NOTES

- DESIGN LOADS
SM1600, HLP400 TO ASS100.
- BARRIERS TO BE SPECIAL PERFORMANCE BARRIERS, GREATER THAN TEST LEVEL 6 TO ASS100.
- PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION.
- CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH ASS100.
- ALL DIMENSIONS ARE IN MILLIMETRES UNO.
- LEVELS ARE TO AHD.
- DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.

PRELIMINARY

09-08-2004

Connell Wagner

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Queensland Government
Department of Main Roads

JOB No. No130 of 53 drgs

Drawing No. BR019

Contract No. A

CAD REF:

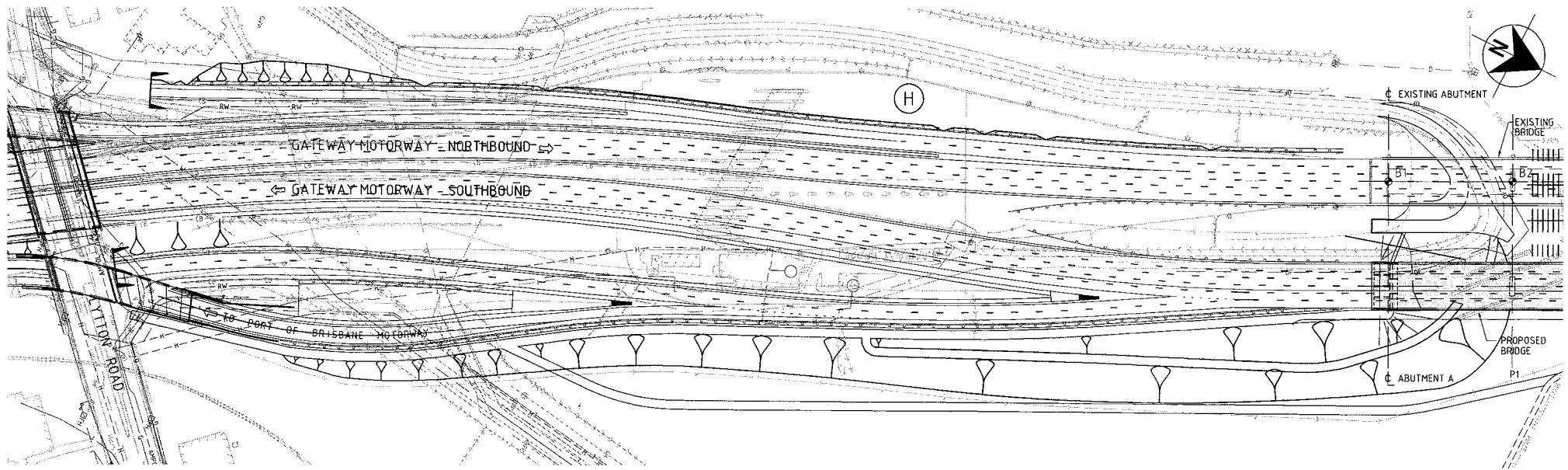
Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
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				(Office use only)		

BRISBANE CITY COUNCIL					
GATEWAY UPGRADE PROJECT					
CTL CHGE 5160 TO 25250					
Reference Points					
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Following RPC	

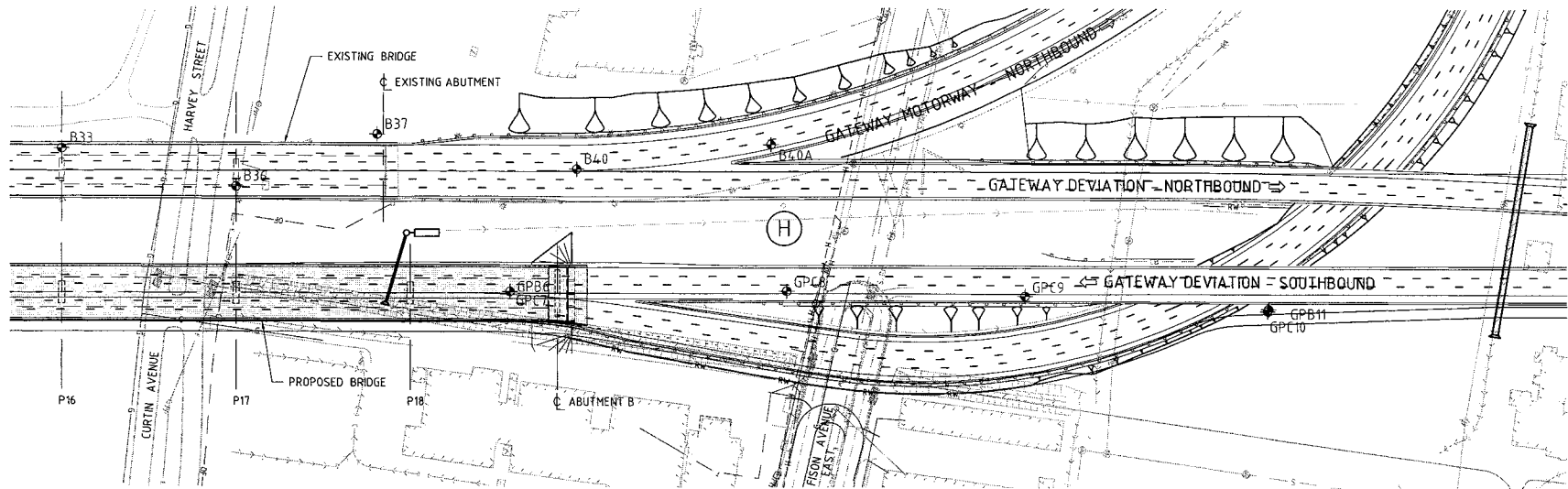
REFERENCE PROJECT					
GATEWAY BRIDGE DUPLICATION					
GENERAL ARRANGEMENT SHEET 1					
Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd	Examined	Certified
				Approved	

A Original issue

(Office use only)



DETAIL 1 SOUTHERN APPROACH - PLAN
SCALE 1:1000 BR019



DETAIL 2 NORTHERN APPROACH - PLAN
SCALE 1:1000 BR019

PRELIMINARY

09-08-2004

Connell Wagner

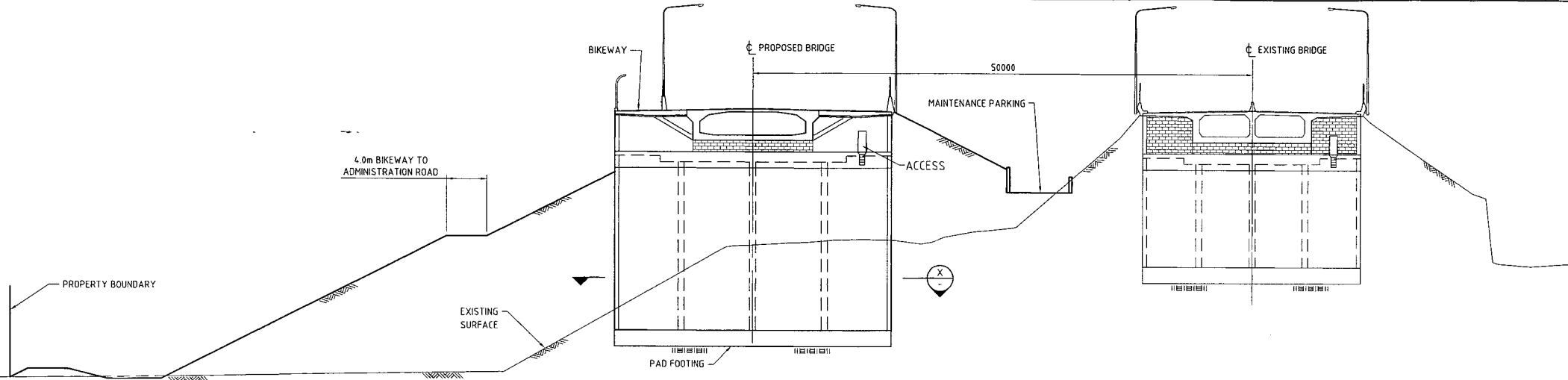
Connell Wagner Pty Ltd 413 Boundary St, Locked Bag 1800, Spring Hill, Queensland 4004 Australia
 09 451 825 139 873 Telephone: 437 7 2346 1000
 437 7 2246 1000 Facsimile: 467 7 2246 1000
 Email: cwa@connellwagner.com.au

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise, Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos	Scales	Through chainage from
				(Office use only)		

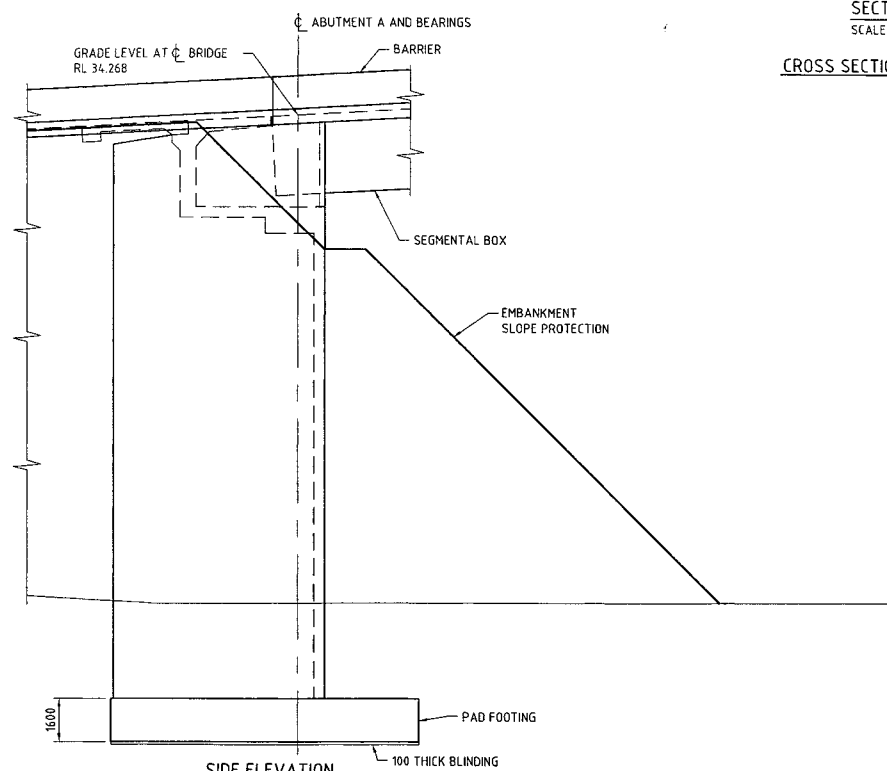
BRISBANE CITY COUNCIL			
GATEWAY UPGRADE PROJECT			
CTL CHGE		5160 TO 25250	
Reference Points			
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC
Survey Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd

REFERENCE PROJECT			
GATEWAY BRIDGE DUPLICATION			
GENERAL ARRANGEMENT SHEET 2			
Examined	Certified	Approved	
GRM Ckd	RPEQ 3297		

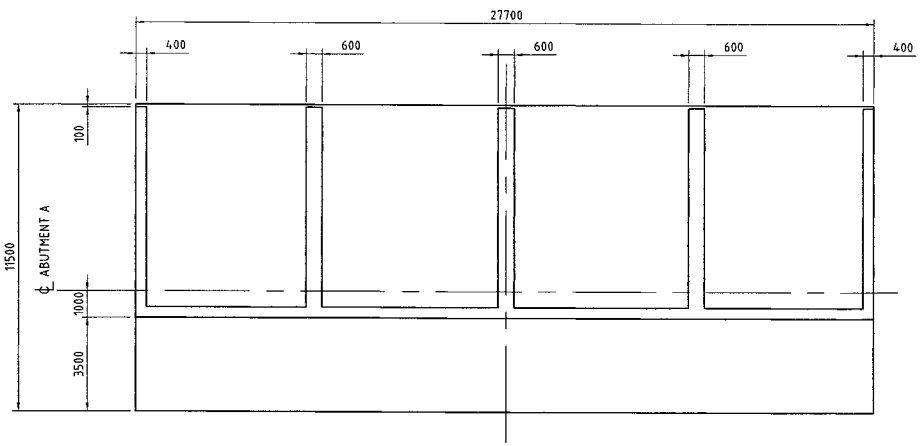
Queensland Government Department of Main Roads	
Job No.	No131 of 53 drgs
Contract No.	BR020
CAD REF:	



SECTION A
SCALE 1:200
BR019
CROSS SECTION AT ABUTMENT A



SIDE ELEVATION
SCALE 1:100



SECTION X
SCALE 1:100

PRELIMINARY
09-08-2004

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Dunedin 4004 Australia Email: connel@connel.com.au

Queensland Government
Department of Main Roads

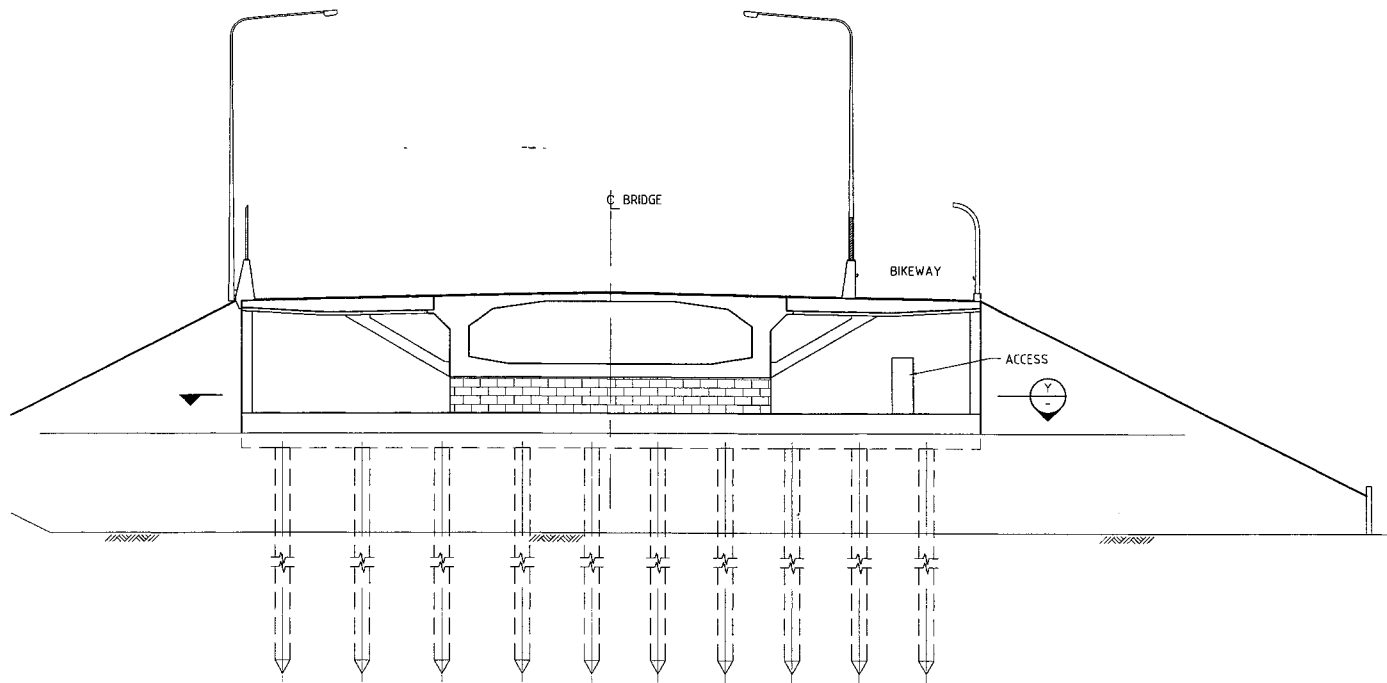
JOB No. Not 32 off 53 drgs
Drawing No. BR021

Contract No. //
CAD REF.

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
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					1:200	
				(Office use only)		

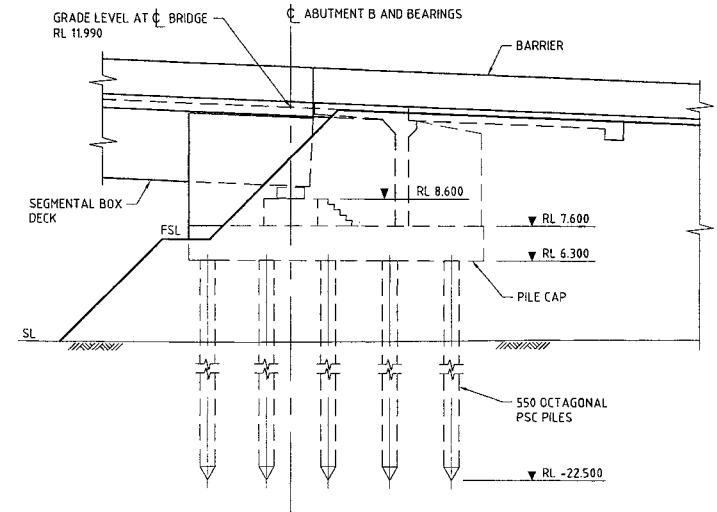
BRISBANE CITY COUNCIL				REFERENCE PROJECT			
GATEWAY UPGRADE PROJECT				GATEWAY BRIDGE DUPLICATION			
CTL CHGE				TYPICAL SECTIONS SHEET 1			
5160 TO 25250							
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Following RPC	Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd

Design GRM Ckd	Examined	Certified	Approved

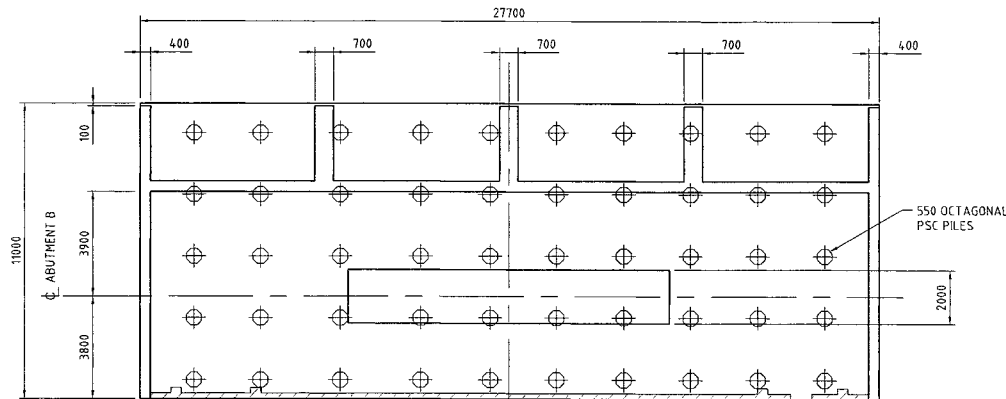


SECTION **F**
SCALE 1:100
BR019

CROSS SECTION AT ABUTMENT B



SIDE ELEVATION
SCALE 1:100



SECTION **Y**
SCALE 1:100

PRELIMINARY

09-08-2004

ConnellWagner

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Queensland 4034 Australia Email: cwn@connwagner.com

Queensland Government
Department of Main Roads

JOB No. Nal33 of 53 drgs

Drawing No. **BR022**

Contract No. //

CAD REF: A

Revisions	Certified	Date	Microfiled
A	Original issue		

Associated job nos	
Auxiliary drawing nos	
(Office use only)	

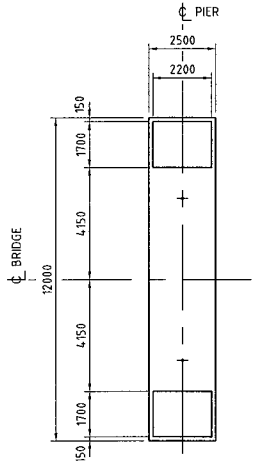
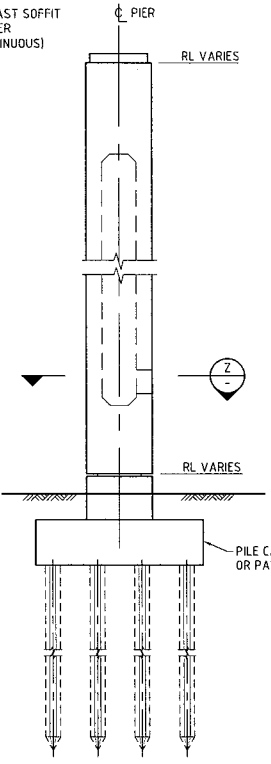
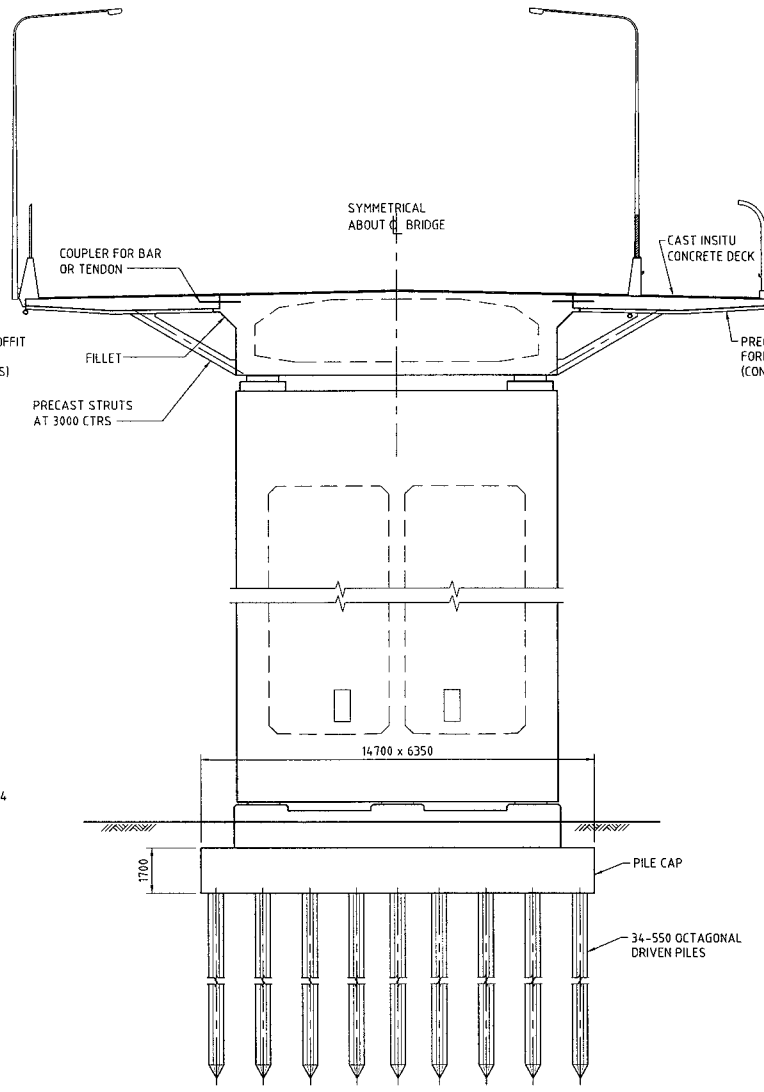
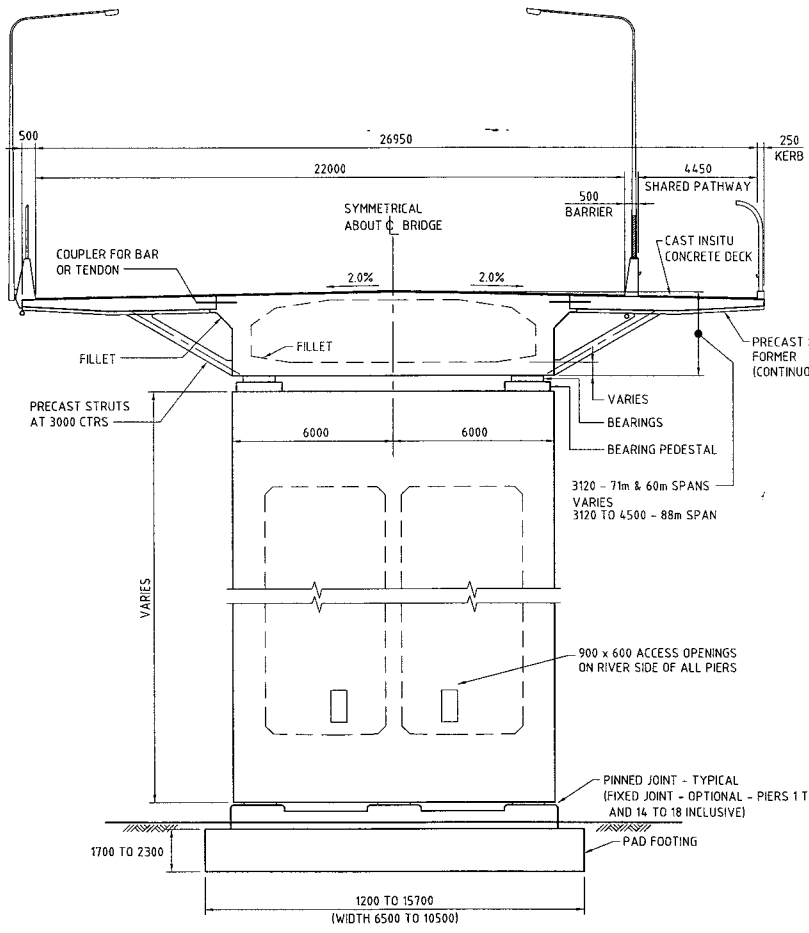
Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	
Scales	<p>1:100 </p> <p>1:200 </p>

Survey books	
Through chainage from	CTL CHGE

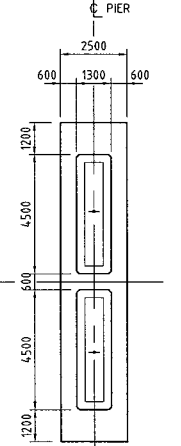
BRISBANE CITY COUNCIL				
GATEWAY UPGRADE PROJECT				
Reference Points				
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Following RPC

REFERENCE PROJECT									
GATEWAY BRIDGE DUPLICATION									
TYPICAL SECTIONS SHEET 2									
Survey DMR	Bdys DMR	Drawn JAF	Design GRM	Examined	Certified	Approved			
Ckd	Ckd	Ckd	Ckd						
					RPEQ 3297				

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PLAN AT TOP OF PIER
SCALE 1:100



SECTION Z
SCALE 1:100

PIER FOOTINGS

PIER No.	APPROX G.L.
1	18.04
2	12.07
3	15.21
4	10.53
5	9.98
8	0.24
9	3.46
10	2.72
11	4.12
12	4.33
13	4.51
14	3.54
15	3.54
16	3.04
17	3.53
18	3.23

SECTION B
SCALE 1:100
(SOUTHERN PIERS)

SECTION E
SCALE 1:100
(NORTHERN PIERS)
(DETAILS NOT NOTED ARE AS FOR SECTION 'B')

SIDE ELEVATION
SCALE 1:100

APPROACH SPANS - 88m, 71m & 60m

PRELIMINARY
09-08-2004

Connell Wagner
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433 Boundary St. (Lakeside Bldg 1800) Spring Hill Queensland 4006 Australia. Fax: +61 7 3246 1001
Email: connell@connellwagner.com

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos <td>Scales</td> <td>Through chainage from</td>	Scales	Through chainage from
					1:100	
				(Office use only)		
A	Original issue					

BRISBANE CITY COUNCIL
GATEWAY UPGRADE PROJECT

CTL CHGE 5160 TO 25250

Reference Points
From start to end of job
From end to following RPC

Survey Bkys
Ckd Ckd

Drawn JAF Ckd
Design GRM Ckd
Examined [Signature] Ckd
Certified [Signature] RPEQ 3297
Approved

REFERENCE PROJECT
GATEWAY BRIDGE DUPLICATION
TYPICAL CROSS SECTIONS SHEET 3

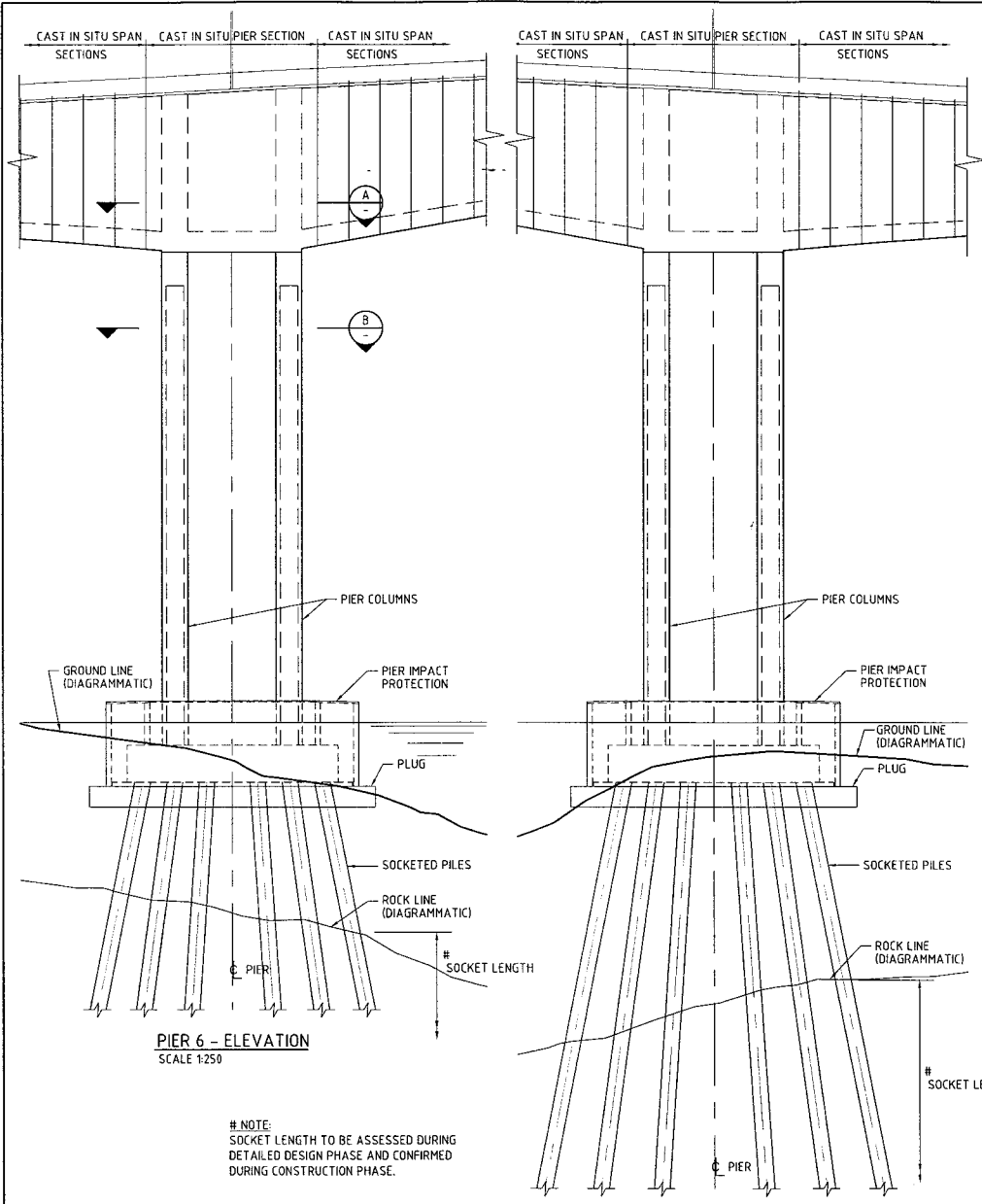
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Drawing No. **BR023**

Contract No. [Blank]
CAD REF: [Blank]

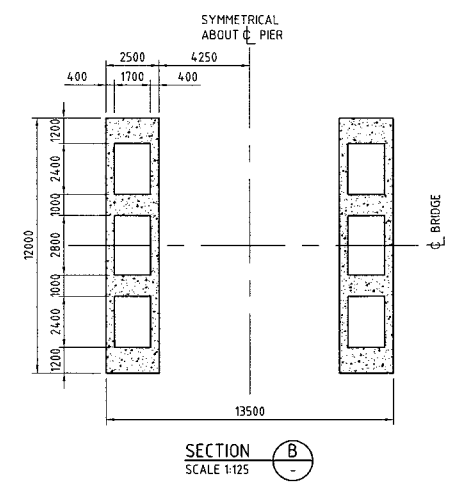
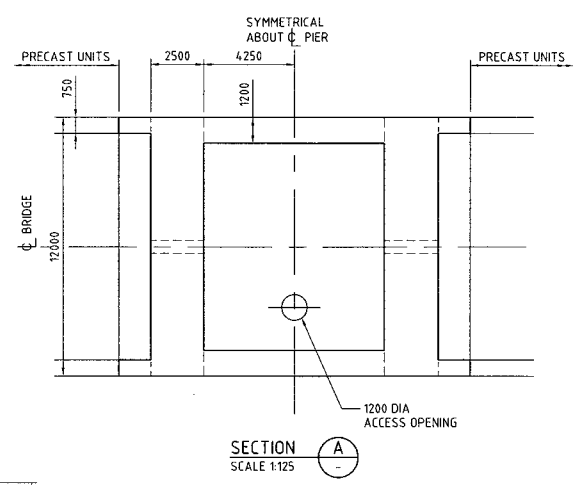
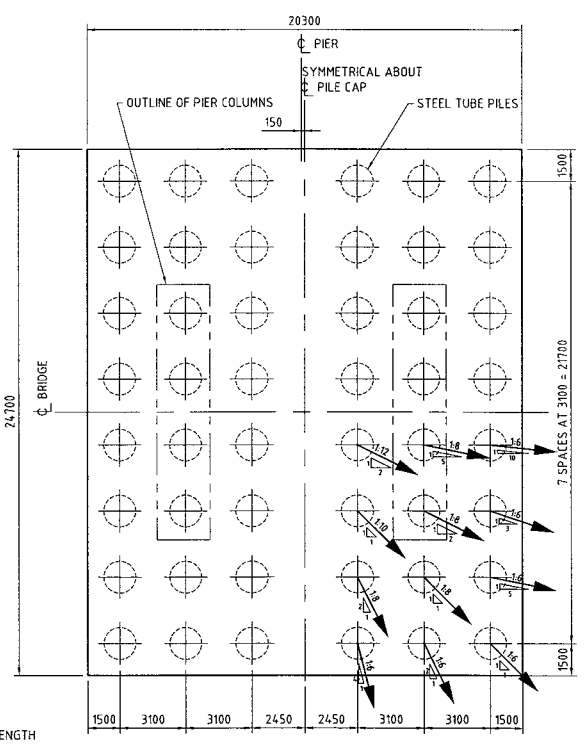
Queensland Government
Department of Main Roads

Job No. [Blank]
Drawing No. **BR023**

Contract No. [Blank]
CAD REF: [Blank]



NOTE:
SOCKET LENGTH TO BE ASSESSED DURING
DETAILED DESIGN PHASE AND CONFIRMED
DURING CONSTRUCTION PHASE.



PRELIMINARY

09-08-2004

Connell Wagner

Connell Wagner Pty Ltd AEN 54 005 139 873 Telephone: 451 7 2246 1000
433 Boundary St, (Locked Bag 1800) Spring Hill Facsimile: 451 7 2246 1001
Queensland 4004 Australia Email: connell@connell.com.au

Revisions	Certified	Date	Microfilied	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos	Scales	Through chainage from
					1:250	
A	Original issue			(Office use only)		

BRISBANE CITY COUNCIL				REFERENCE PROJECT			
GATEWAY UPGRADE PROJECT				GATEWAY BRIDGE DUPLICATION			
CTL CHGE				TYPICAL SECTIONS SHEET 4			
5160 TO 25250							
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd

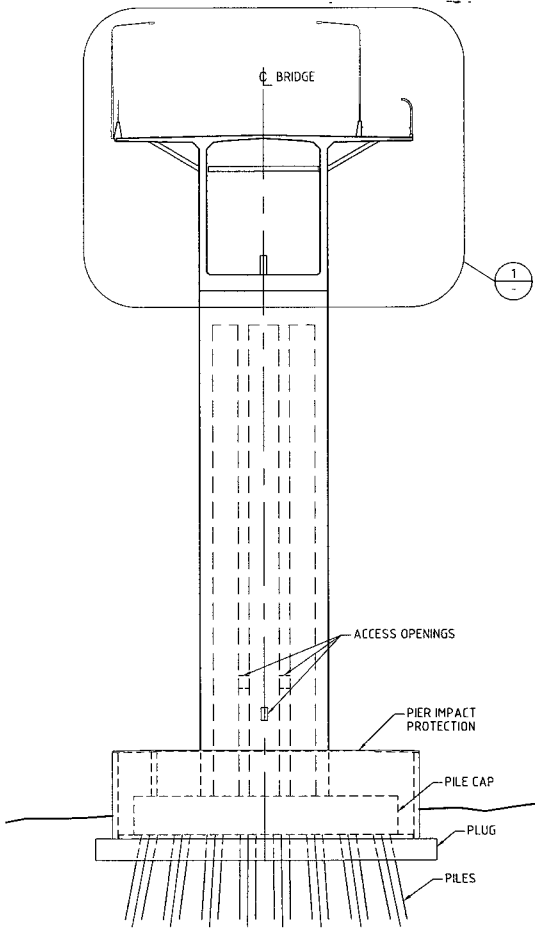
Examined	Certified	Approved

Queensland Government
Department of Main Roads

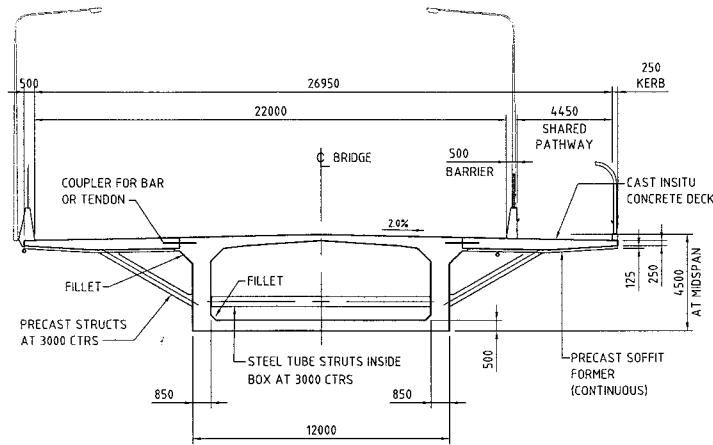
JOB No. No135 off 53 drgs
Drawing No. BR024

Contract No. //

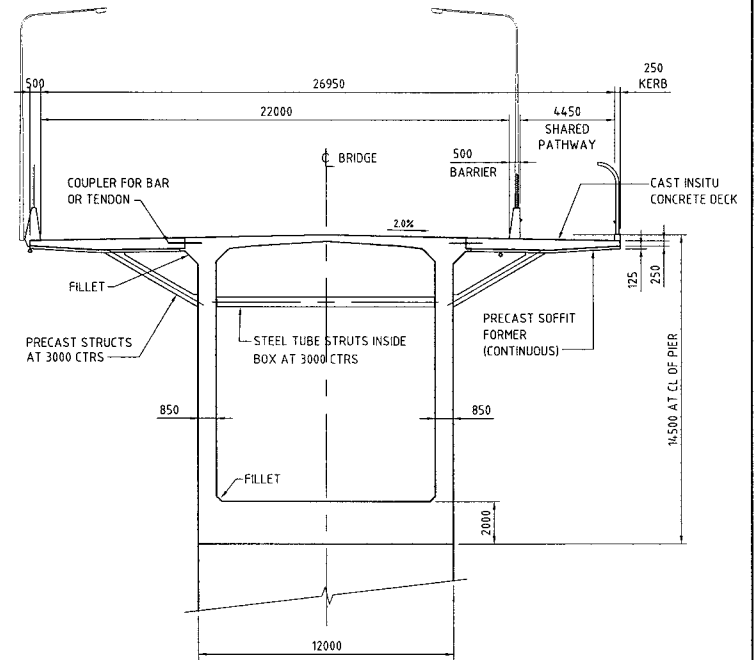
CAD REF:



SECTION C
SCALE 1:250 BR019



SECTION D
SCALE 1:125 BR019



DETAIL 1
SCALE 1:125

PRELIMINARY
09-08-2004

Connell Wagner

Connell Wagner Pty Ltd ABN 54 005 130 873 Telephone: +61 7 3248 1000
433 Boundary St, Locked Bag 18000 Spring Hill Queensland 4001 Australia
Email: enb@connellwagner.com

Queensland Government
Department of Main Roads

JOB No. No.136 of 153 drgs

Drawing No.
BR025

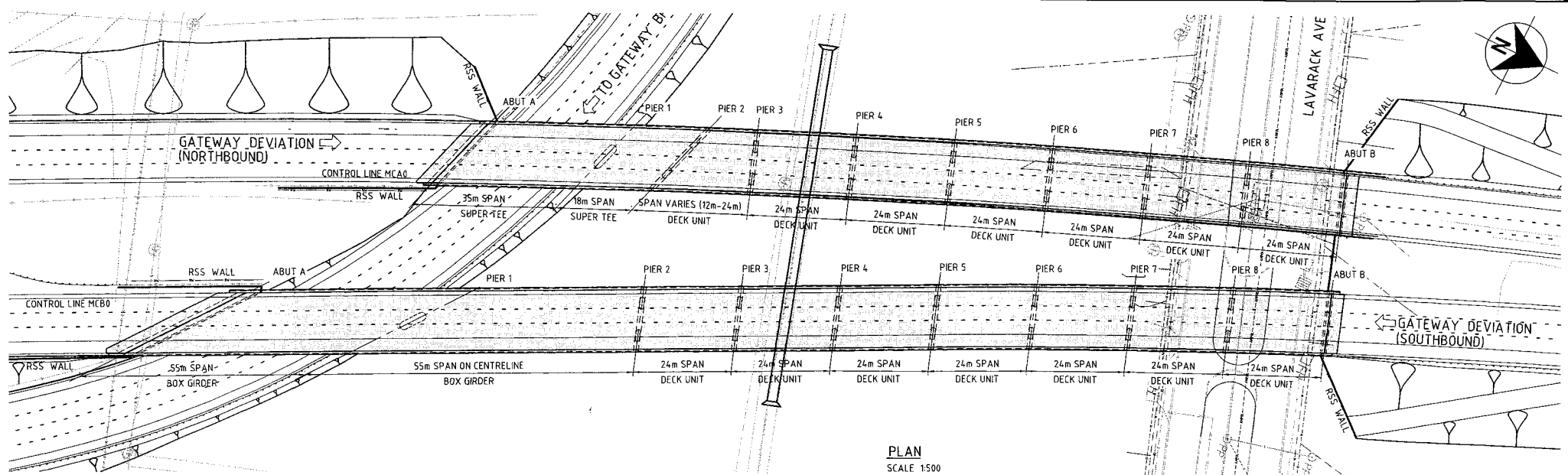
Contract No. //

CAD REF:

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos	Scales	Through chainage from
					1:50	
					1:250	
A	Original issue			(Office use only)		

BRISBANE CITY COUNCIL			
GATEWAY UPGRADE PROJECT			
REFERENCE PROJECT			
GATEWAY BRIDGE DUPLICATION			
TYPICAL SECTIONS SHEET 5			
CTL CHGE 5160 TO 25250			
Reference Points			
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC
Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design CRM Ckd
Examined	Certified	Approved	
	RPEQ 3297		

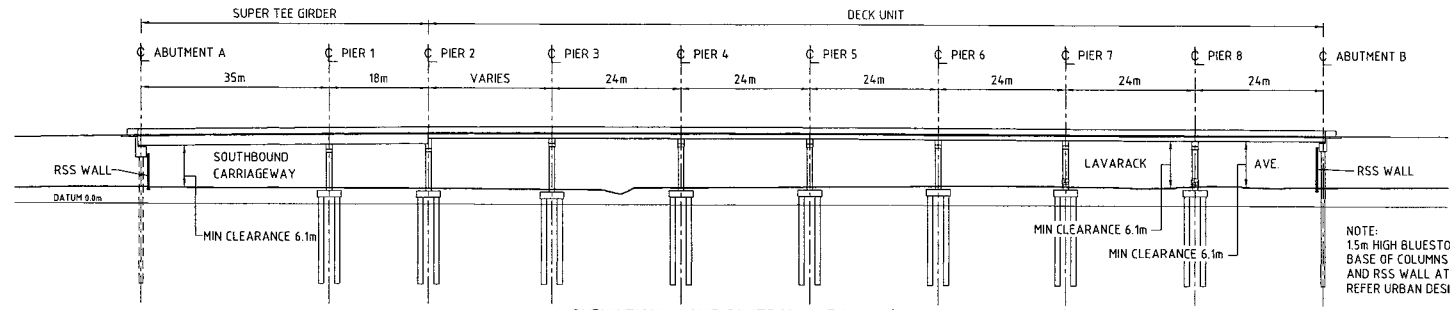
REF: 5732_MRR_DETAIL_A1_LOSN_MRR_E-ENR03



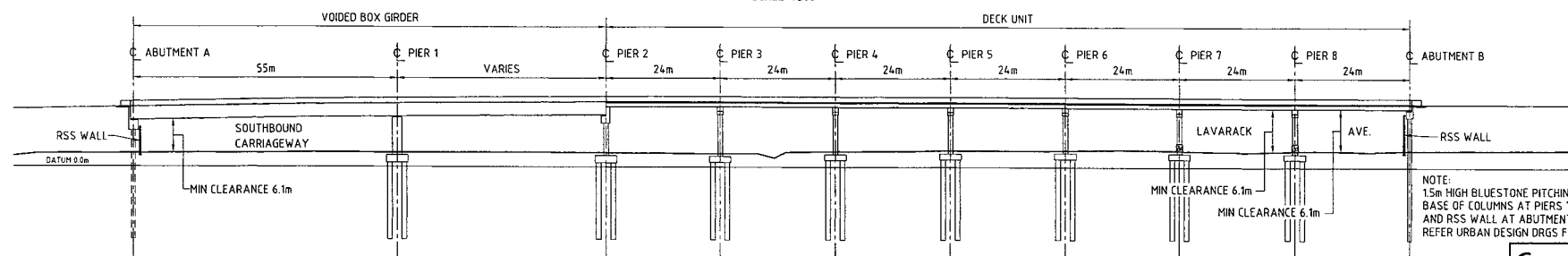
PLAN
SCALE 1:500

NOTES

- DESIGN LOADS
SM1600, HLP4.00 TO ASS100.
- BARRIERS TO BE SPECIAL PERFORMANCE BARRIERS, GREATER THAN TEST LEVEL 6 TO ASS100.
- PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION.
- CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH ASS100.
- ALL DIMENSIONS ARE IN MILLIMETRES UNO. LEVELS ARE TO AHD.
- DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.



NOTE:
1.5m HIGH BLUESTONE PITCHING TO BASE OF COLUMNS AT PIERS 7 & 8 AND RSS WALL AT ABUTMENT B REFER URBAN DESIGN DRGS FOR DETAILS



NOTE:
1.5m HIGH BLUESTONE PITCHING TO BASE OF COLUMNS AT PIERS 7 & 8 AND RSS WALL AT ABUTMENT B REFER URBAN DESIGN DRGS FOR DETAILS

ELEVATION ALONG CONTROL LINE MCB0 (SOUTHBOUND BRIDGE)
SCALE 1:500

PRELIMINARY
09-08-2004

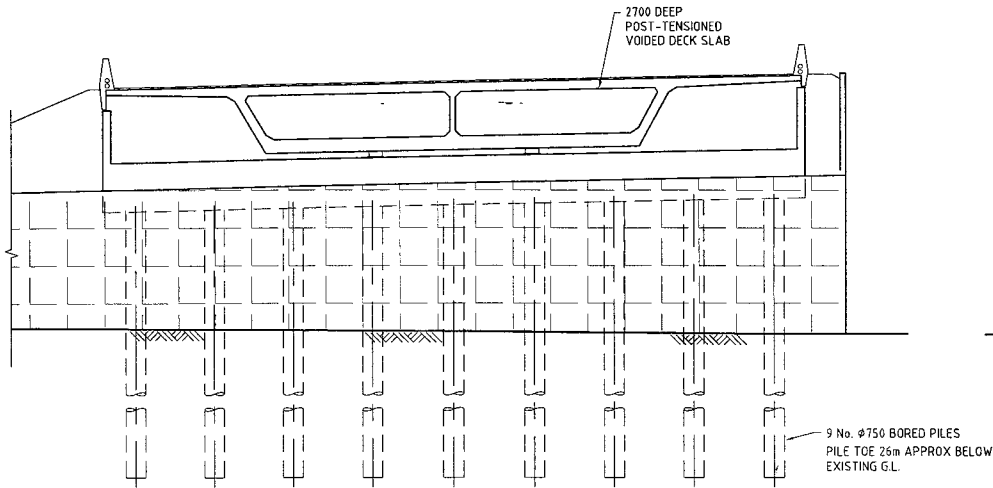
Connell Wagner
Department of Main Roads
Queensland 4004 Australia
Tel: +61 7 3246 1000
Fax: +61 7 3246 1001
Email: connell@connellwagner.com.au

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos	Scales	Through chainage from
A	Original issue			(Office use only)	1:500	

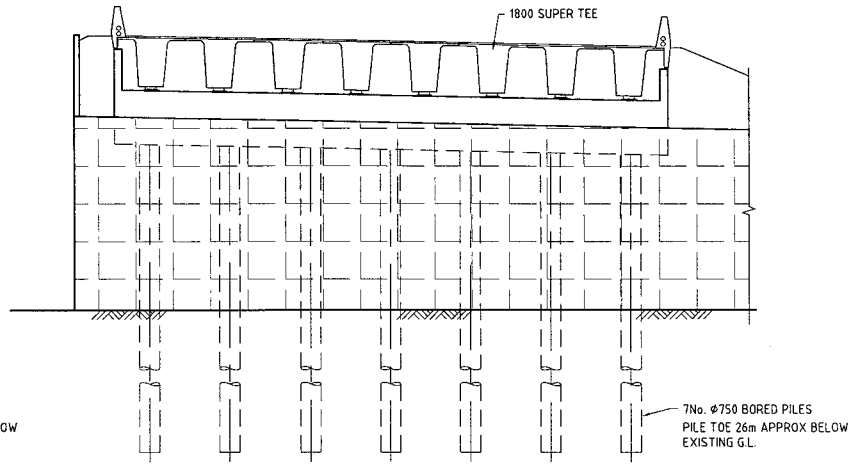
BRISBANE CITY COUNCIL GATEWAY UPGRADE PROJECT					
REFERENCE PROJECT SOUTHERN BIFURCATION UNDERPASS GENERAL ARRANGEMENT					
CTL CHGE 5160 TO 25250					
Preceding RPC	Dist. to start of job (km)	Reference Points From start to end of job	From end to following RPC	Following RPC	Survey Bkds DMR Ckd
					Drawn JAF Ckd
					Design GRM Ckd
					Examined
					Certified
					Approved

Survey Bkds DMR Ckd	Drawn JAF Ckd	Design GRM Ckd	Examined	Certified	Approved

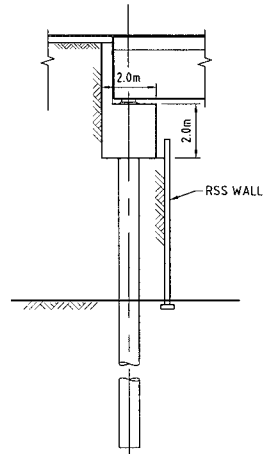
Queensland Government Department of Main Roads	
JOB No.	Not 37 of 53 drgs
Drawing No.	BR026
Contract No.	A
CAD REF.	



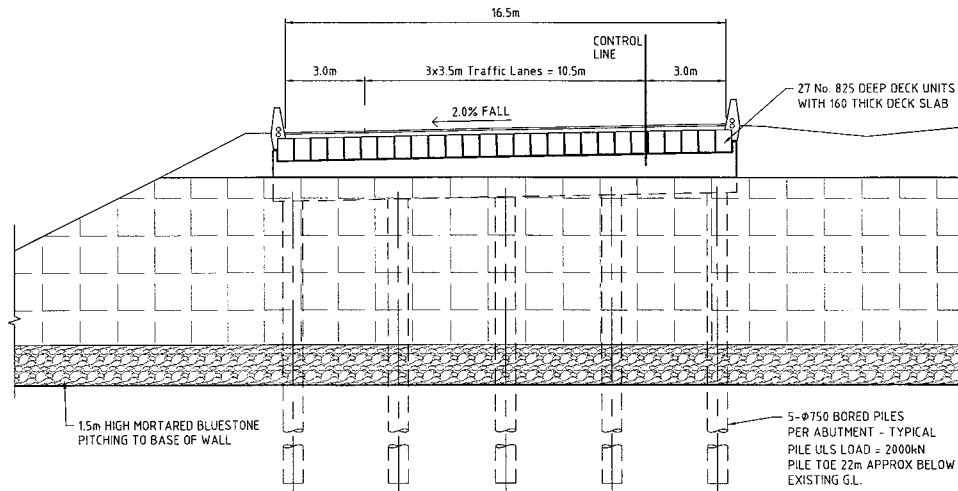
ELEVATION AT ABUTMENT A SOUTHBOUND
1:100



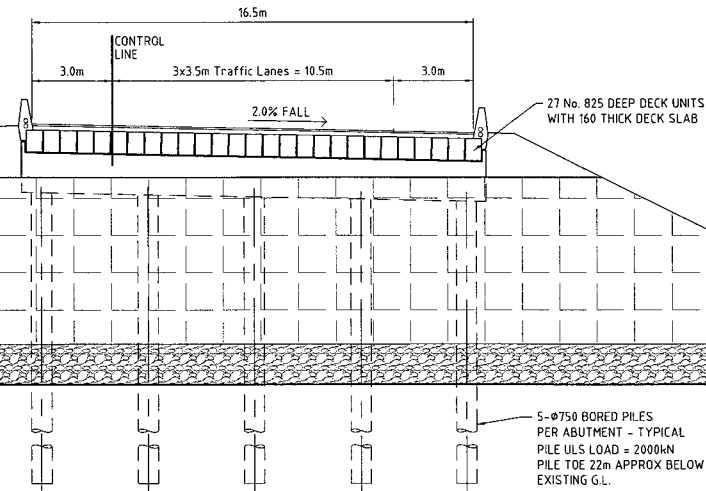
ELEVATION AT ABUTMENT A NORTHBOUND
1:100



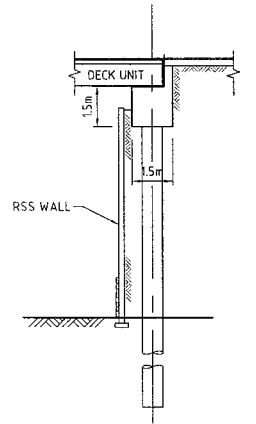
SECTION AT ABUTMENT A
1:100



ELEVATION AT ABUTMENT B NORTHBOUND
1:100



ELEVATION AT ABUTMENT B SOUTHBOUND
1:100



SECTION AT ABUTMENT B
1:100

PRELIMINARY
09-08-2004

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Email: connel@cwg.com.au

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos <td>Scales</td> <td>Through chainage from</td>	Scales	Through chainage from
					1:200	
A	Original issue			(Office use only)		

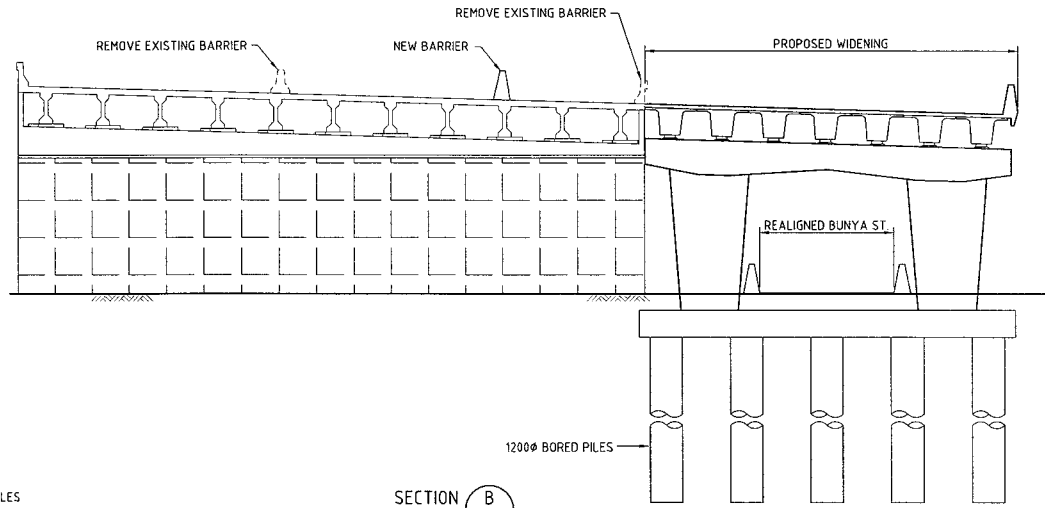
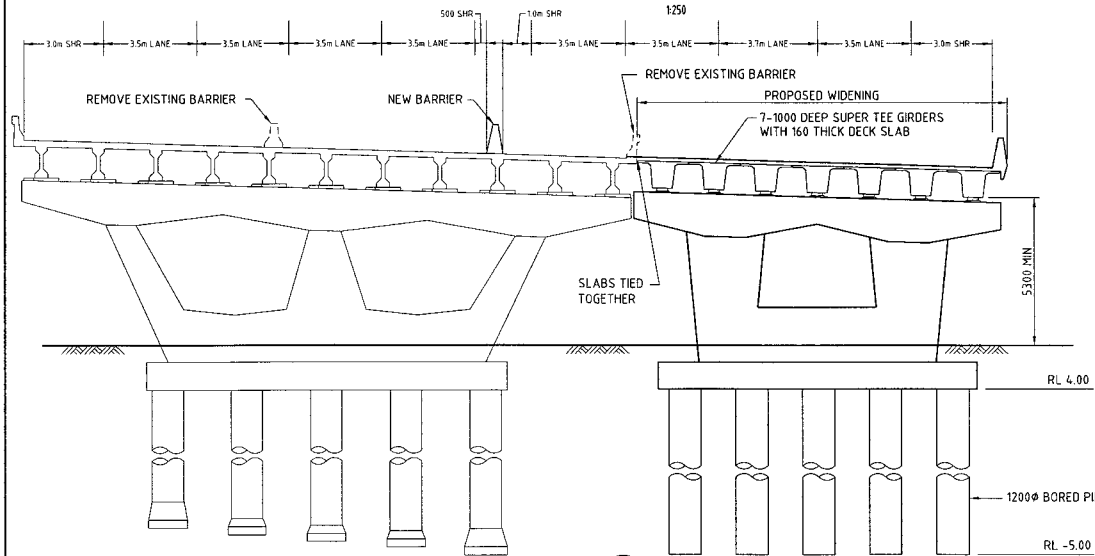
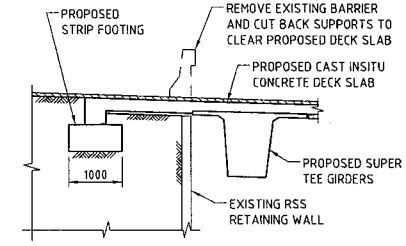
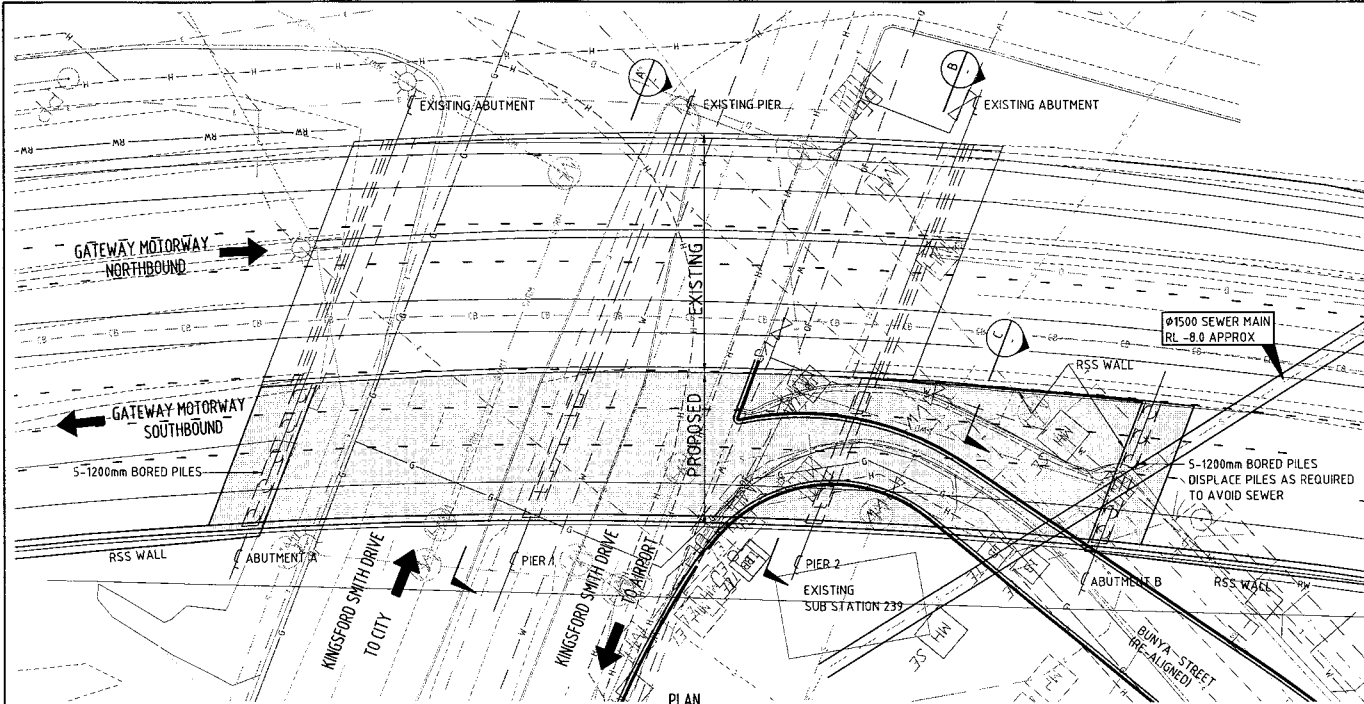
BRISBANE CITY COUNCIL				
GATEWAY UPGRADE PROJECT				
REFERENCE PROJECT				
SOUTHERN BIFURCATION UNDERPASS				
ABUTMENT ELEVATIONS				
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Following RPC
Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd	Examined <i>[Signature]</i> Ckd
				Certified <i>[Signature]</i> RPEQ 3297
				Approved
				//

Queensland Government	
Department of Main Roads	
JOB No.	No138 of 53 drgs
Drawing No.	BR027
Contract No.	
CAD REF:	

8/28/2004 11:24:26 P:\09\138\BIFURCATION\A1.dwg User: JAF

NOTES

- DESIGN LOADS
SM1600, HLP400 TO AS5100.
- BARRIERS TO BE SPECIAL PERFORMANCE BARRIERS, GREATER THAN TEST LEVEL 6 TO AS5100.
- PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION.
- CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH AS5100.
- ALL DIMENSIONS ARE IN MILLIMETRES UNO.
- LEVELS ARE TO AHD.
- DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.
- EXISTING BRIDGE PIER DESIGN FOUNDATION BEARING PRESSURE = 1500kPa.



PRELIMINARY
09-08-2004

Connell Wagner
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Queensland 4024, Australia Email: cw@connellwagner.com

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise Culvert sizes in millimetres.	Survey books
A	Original issue			(Office use only)		

Auxiliary drawing nos	Scales	Through chainage from
	1:100	CTL CHGE
	1:250	5160 TO 25250

BRISBANE CITY COUNCIL GATEWAY UPGRADE PROJECT				
Reference Points				
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Following RPC

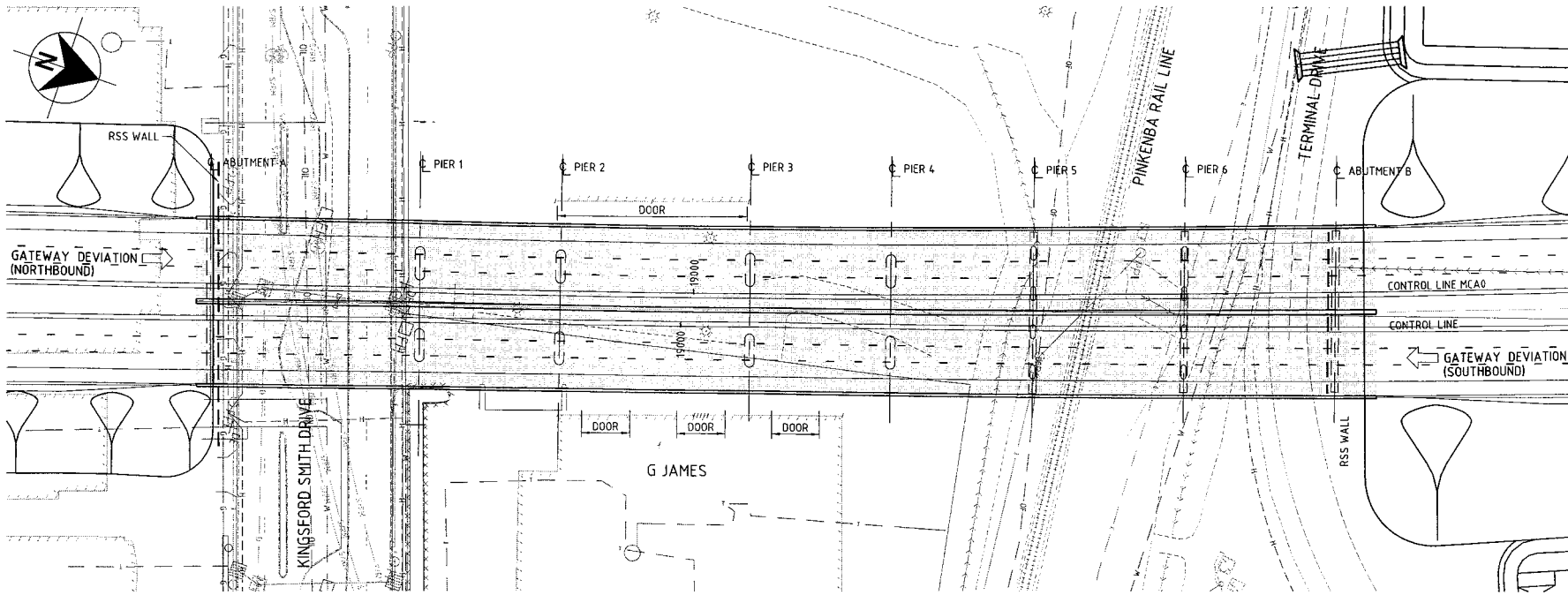
REFERENCE PROJECT KINGSFORD SMITH DRIVE BRIDGE WIDENING GENERAL ARRANGEMENT									
Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd	Examined	Certified	Approved			
					RPEQ 3297				

Queensland Government
Department of Main Roads

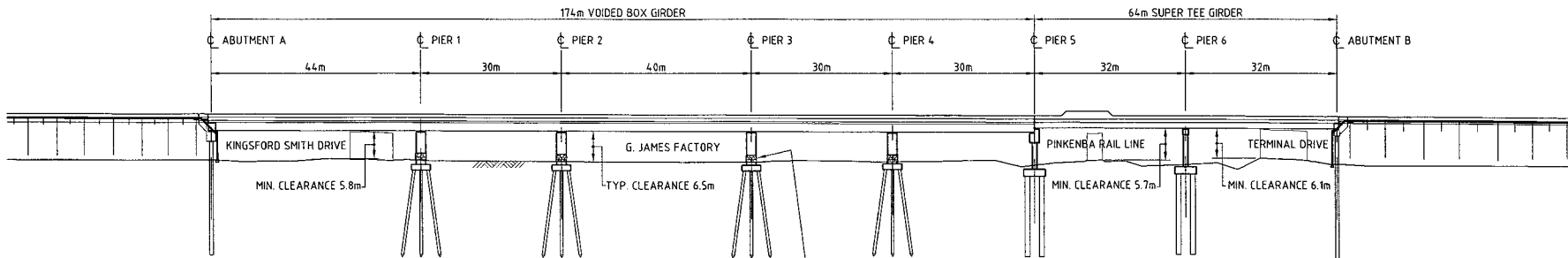
JOB No. No.140 of 153 drgs
Drawing No. BR029

Contract No. A

CAD REF: //



PLAN
SCALE 1:500



ELEVATION
SCALE 1:500

- NOTES**
- DESIGN LOADS
SM1600, HLP400 TO AS5100.
 - BARRIERS TO BE SPECIAL PERFORMANCE BARRIERS, GREATER THAN TEST LEVEL 6 TO AS5100.
 - BARRIERS OVER ELECTRIFIED RAILWAY SHALL COMPLY WITH OR DOCUMENT MCE-SR-001 - CLAUSE 6.
 - PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION.
 - CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH AS5100.
 - ALL DIMENSIONS ARE IN MILLIMETRES UNO.
 - LEVELS ARE TO AHD.
 - DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.

PRELIMINARY
09-08-2004

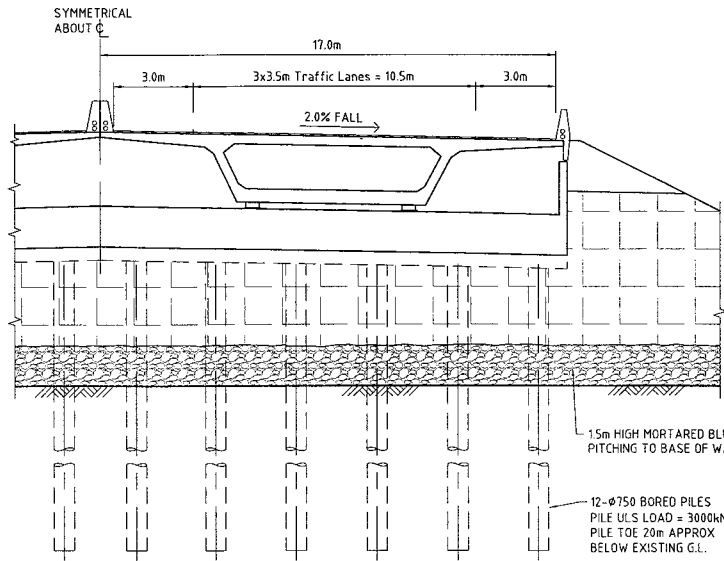
Connell Wagner
 Connell Wagner Pty Ltd ABN 54 005 139 873 Telephone: +61 7 3246 1000
 433 Bourke St, (Level 8) Spring Hill Facsimile: +61 7 3246 1001
 Queensland 4004 Australia Email: cw@connellwagner.com

Queensland Government
 Department of Main Roads
JOB No. No141 of 53 drgs
Drawing No. BR030
Contract No. //
 CAD REF:

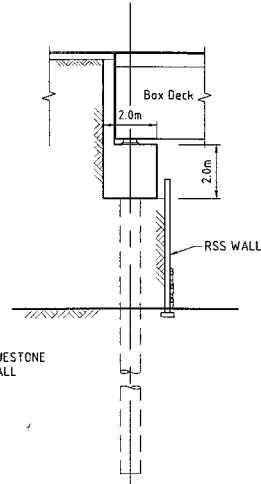
Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos	Scales	Through chainage from
A	Original issue			(Office use only)		

BRISBANE CITY COUNCIL					
GATEWAY UPGRADE PROJECT					
REFERENCE PROJECT					
KINGSFORD SMITH DRIVE BRIDGES					
GENERAL ARRANGEMENT					
Reference Points					
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Following RPC	

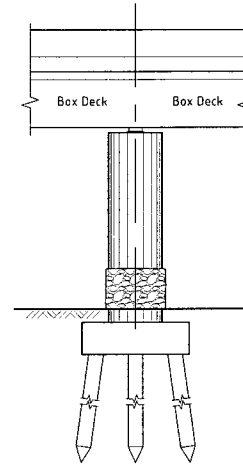
Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd	Examined RPEQ	Certified	Approved
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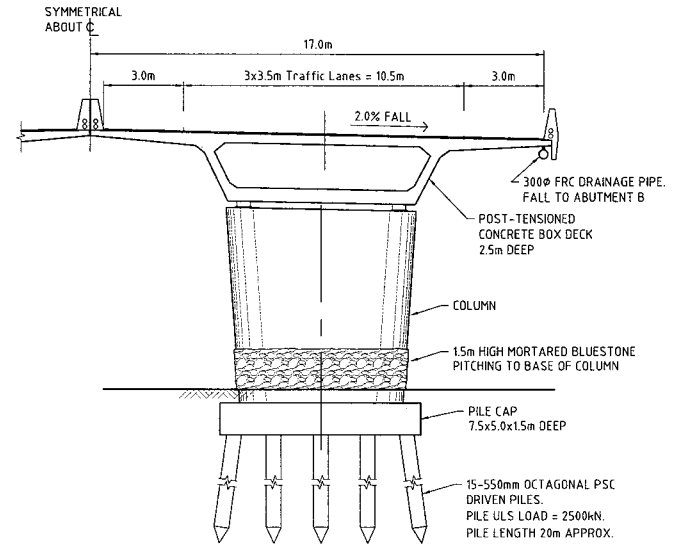
PART CROSS SECTION AT ABUTMENT A
1:100



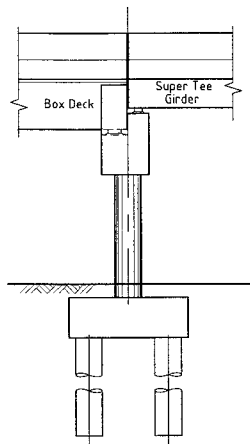
SECTION AT ABUTMENT A
1:100



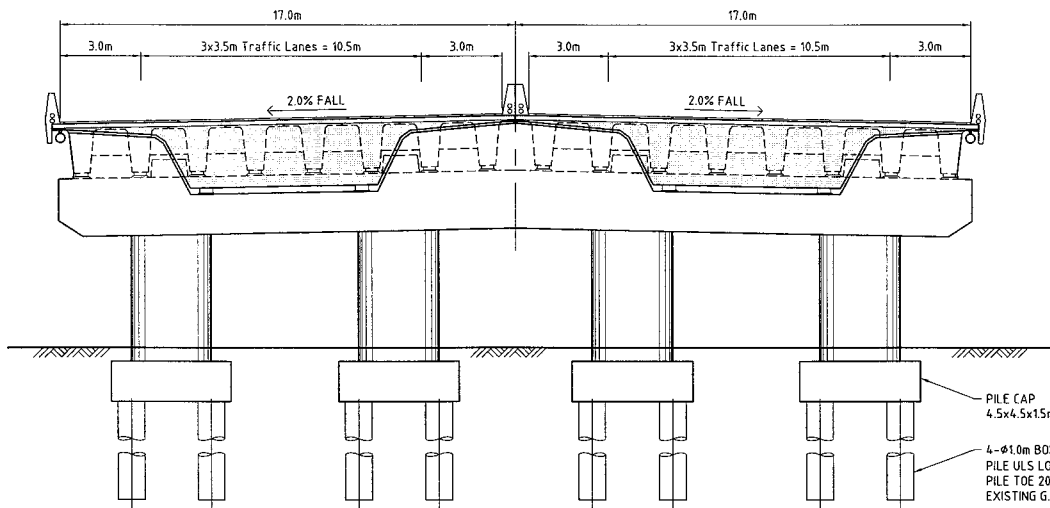
ELEVATION AT PIER 1
1:100



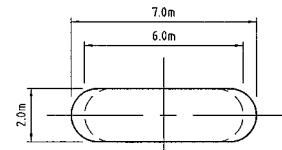
PART CROSS SECTION AT PIER 1
(PIERS 2, 3 & 4 SIMILAR)
1:100



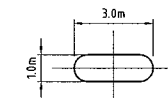
ELEVATION AT PIER 5
1:100



CROSS SECTION AT PIER 5
SCALE 1:100



PLAN ON HEADSTOCK AT PIERS 1, 2, 3 & 4
1:100



COLUMN SECTION AT PIER 5
1:100

PRELIMINARY
09-06-2004

Connell Wagner
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Email: connellwagner.com

Queensland Government
Department of Main Roads
JOB No. Not 42 of 53 drgs
Drawing No. BR031
Contract No. //
CAD REF:

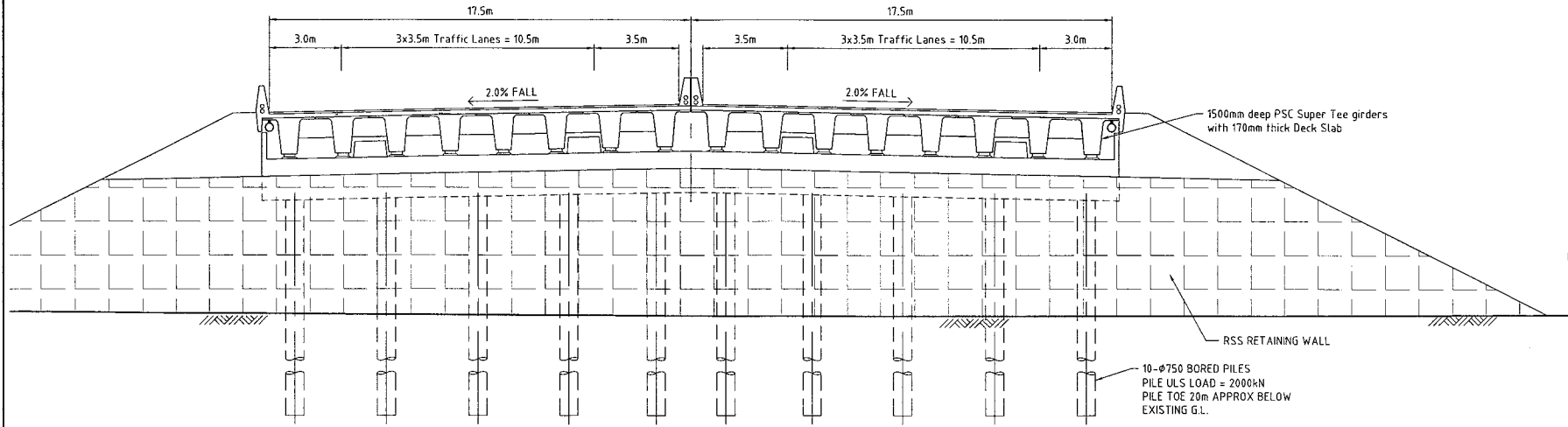
Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
A				(Office use only)		



BRISBANE CITY COUNCIL				REFERENCE PROJECT			
GATEWAY UPGRADE PROJECT				KINGSFORD SMITH DRIVE BRIDGES			
SECTIONS SHEET 1 OF 2							
CTL CHGE 5160 TO 25250							
Preceding RPC	Dist. to start of job (km)	From start to end of job	Following RPC	Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd
							Examined RPEQ 3297

Reference Points	Survey	Bdys	Drawn	Design	Examined	Certified	Approved
From start to end of job	DMR Ckd	DMR Ckd	JAF Ckd	GRM Ckd	RPEQ	3297	

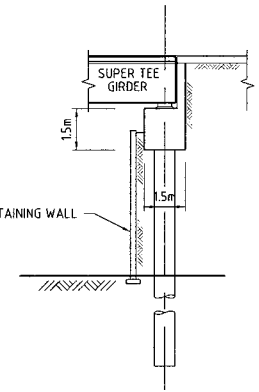
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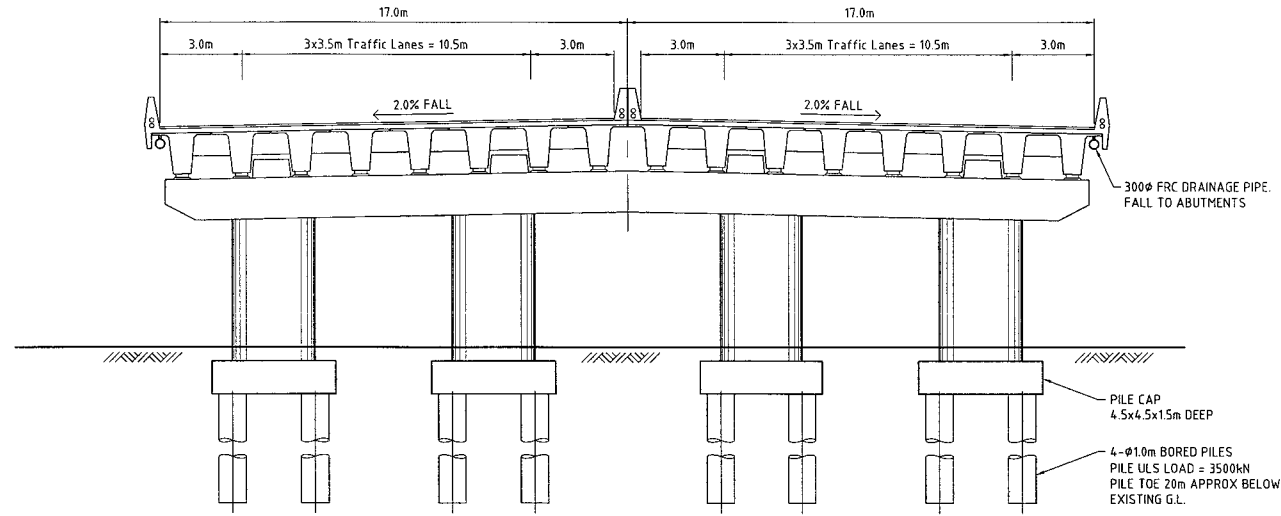
GATEWAY DEVIATION (NORTHBOUND)

GATEWAY DEVIATION (SOUTHBOUND)

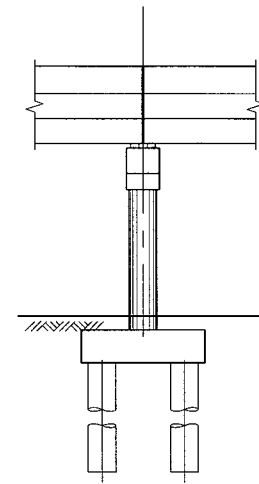
SECTION AT ABUTMENT B
SCALE 1:100



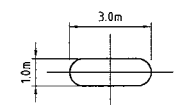
SECTION AT ABUTMENT B
1:100



SECTION AT PIER 6
SCALE 1:100



ELEVATION AT PIER 6
1:100



COLUMN SECTION
AT PIER 6
1:100

PRELIMINARY
09-08-2004

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Facsimile +61 7 3246 1001
Email connell@connellwagner.com

Queensland Government
Department of Main Roads

JOB No. Not 43 off 53 drgs
Drawing No. BR032

Contract No. A
CAD REF:

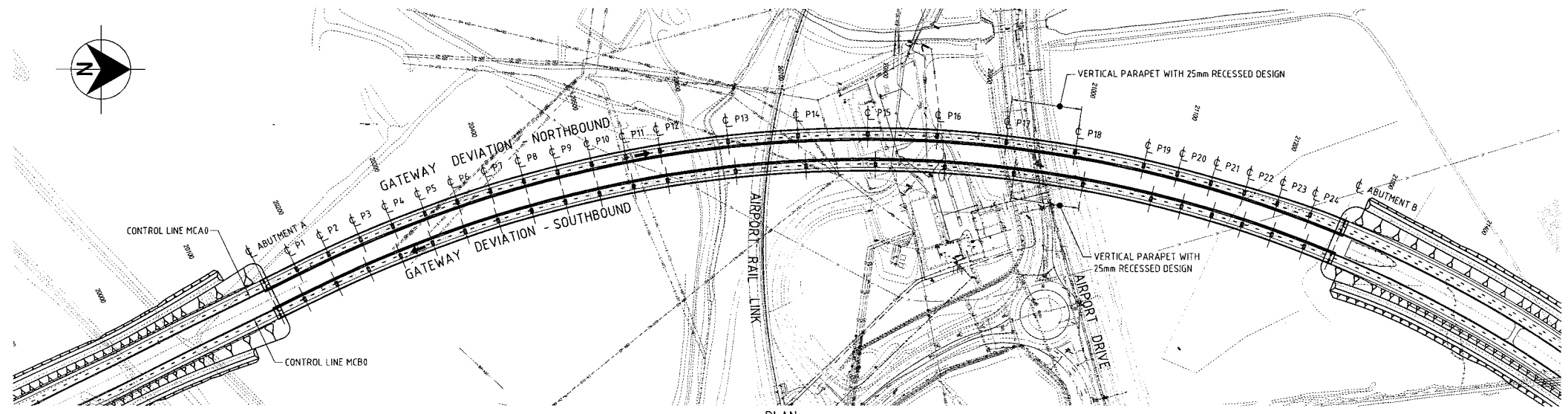
Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos	Scales	Through chainage from
				(Office use only)	1:100	



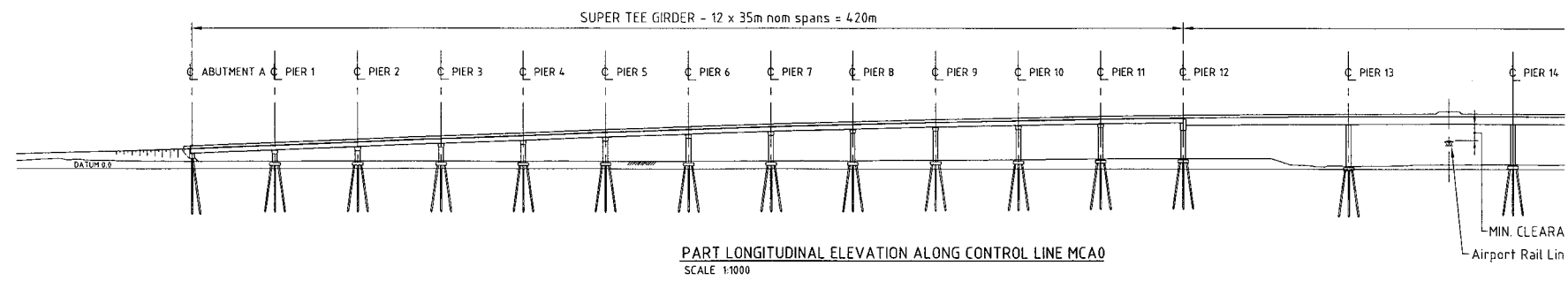
BRISBANE CITY COUNCIL						REFERENCE PROJECT					
GATEWAY UPGRADE PROJECT						KINGSFORD SMITH DRIVE BRIDGES					
5160 TO 25250						SECTIONS SHEET 2 OF 2					
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Following RPC	Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd	Examined RPEQ	Certified RPEQ	Approved

Survey DMR Ckd
Bdys DMR Ckd
Drawn JAF Ckd
Design GRM Ckd
Examined RPEQ
Certified RPEQ
Approved

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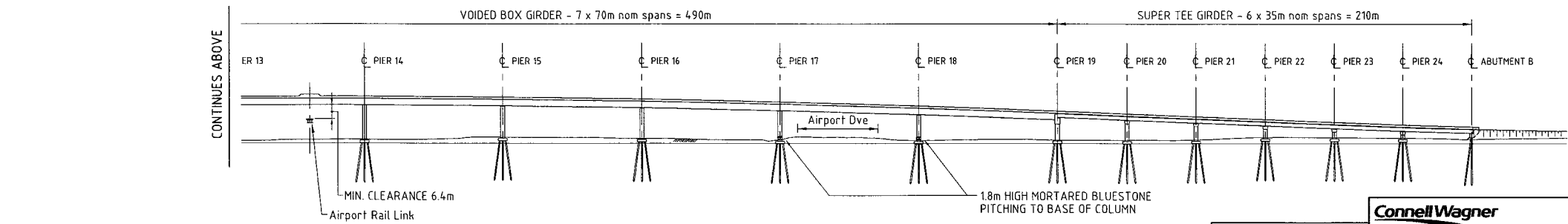


PLAN
SCALE 1:2000



PART LONGITUDINAL ELEVATION ALONG CONTROL LINE MCA0
SCALE 1:1000

CONTINUES BELOW



PART LONGITUDINAL ELEVATION ALONG CONTROL LINE MCA0
SCALE 1:1000

CONTINUES ABOVE

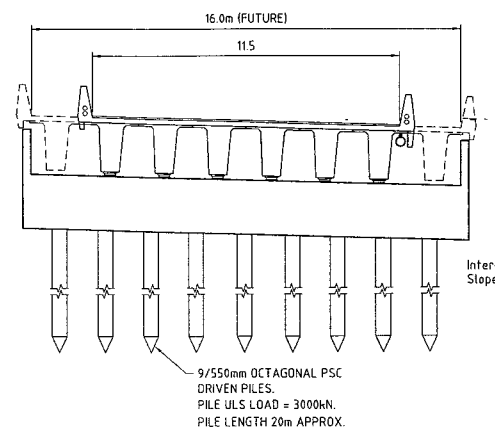
- NOTES**
- DESIGN LOADS
SM1600, HL P400 TO ASS100
 - BARRIERS TO BE SPECIAL PERFORMANCE BARRIERS, GREATER THAN TEST LEVEL 6 TO ASS100
 - BARRIERS OVER ELECTRIFIED RAILWAY SHALL COMPLY WITH QR DOCUMENT MCE-SR-001 - CLAUSE 6
 - PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION
 - CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH ASS100
 - ALL DIMENSIONS ARE IN MILLIMETRES UNO.
 - LEVELS ARE TO AHD.
 - DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.

PRELIMINARY
09-08-2004

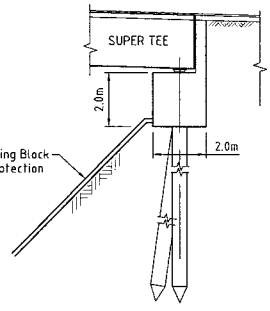
Connell Wagner
Connell Wagner Pty Ltd ABN 54 005 139 073 Telephone: +61 7 3246 1000
433 Boundary St, (Locked Bag 1800) Spring Hill Queensland 4004 Australia
Facsimile: +61 7 3246 1001
Email: connell@connellwagner.com.au

Revisions		Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books	BRISBANE CITY COUNCIL GATEWAY UPGRADE PROJECT				REFERENCE PROJECT AIRPORT DRIVE BRIDGES GENERAL ARRANGEMENT				Queensland Government Department of Main Roads		
					Auxiliary drawing nos	Scales	Through chainage from	CTL CHGE 5160 TO 25250				Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd	Examined R Ckd	Certified R Ckd	Approved
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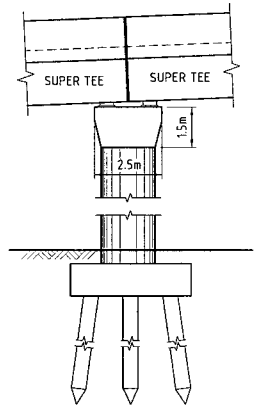
Job No. Not44 off 53 drgs
Drawing No. BR033
Contract No. //
DATE:



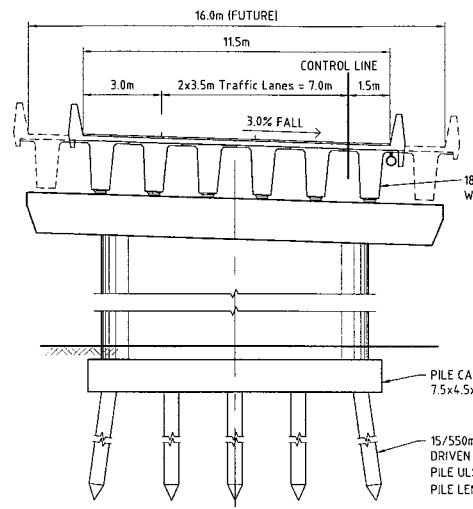
CROSS SECTION AT ABUTMENT
SCALE 1:100
(ABUTMENT AND ADJACENT FORMATION CONSTRUCTED TO SUIT ULTIMATE ARRANGEMENT)



ABUTMENT SECTION
SCALE 1:100

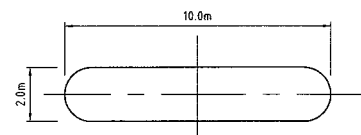


ELEVATION AT PIER 11
(PIERS 1 TO 10 AND 20 TO 24 SIMILAR)
SCALE 1:100

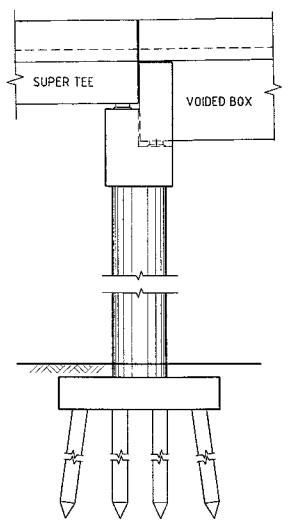


CROSS SECTION AT PIER 1
(PIERS 1 TO 10 AND 20 TO 24 SIMILAR)
SCALE 1:100

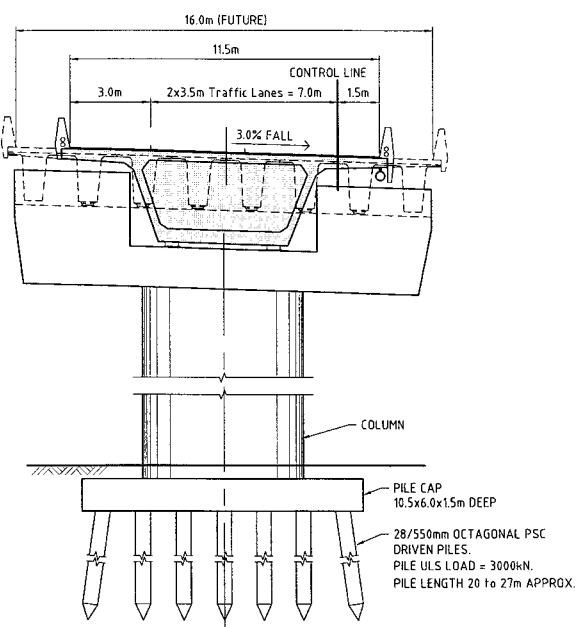
NOTE: PIER AND PILES TO BE DESIGNED FOR FUTURE WIDENING TO 16m BETWEEN KERBS



COLUMN - SECTION
PIERS 1 TO 12 AND 19 TO 24
SCALE 1:100

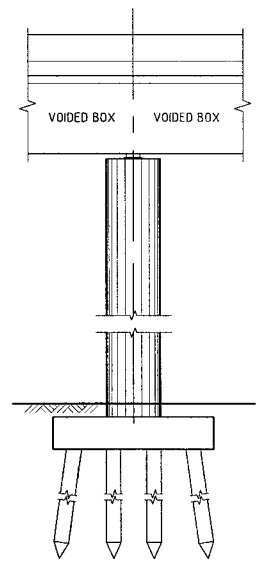


ELEVATION AT PIER 12
(PIER 19 SIMILAR)
SCALE 1:100

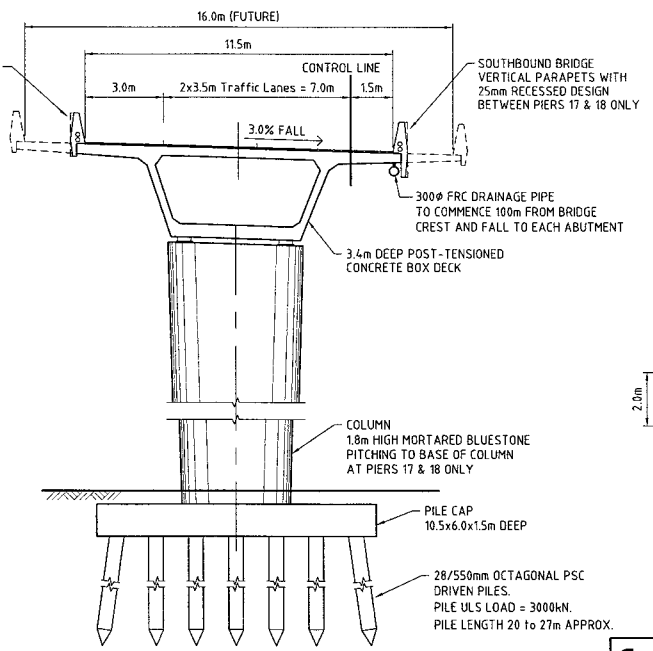


CROSS SECTION AT PIER 12
(PIER 19 SIMILAR)
SCALE 1:100

NOTE: PIER AND PILES TO BE DESIGNED FOR FUTURE WIDENING TO 16m BETWEEN KERBS

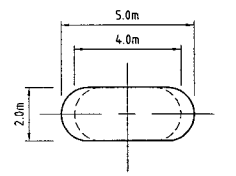


ELEVATION AT PIER 13
(PIERS 14 TO 18 SIMILAR)
SCALE 1:100



CROSS SECTION AT PIER 13
(PIERS 14 TO 18 SIMILAR)
SCALE 1:100

NOTE: PIER AND PILES TO BE DESIGNED FOR FUTURE WIDENING TO 16m BETWEEN KERBS



PLAN ON HEADSTOCK
PIERS 13 TO 18
SCALE 1:100

PRELIMINARY
09-08-2004

Connell Wagner
No.145 of 153 drgs
BR034

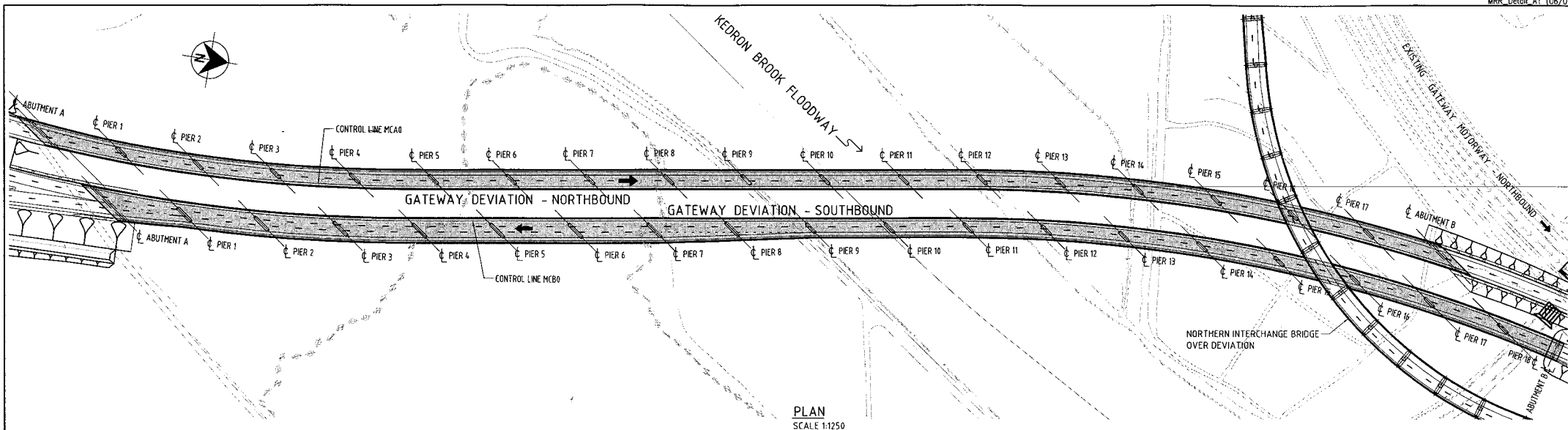
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				Auxiliary drawing nos	Scales	Through chainage from
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A	Original issue			(Office use only)		

BRISBANE CITY COUNCIL			
GATEWAY UPGRADE PROJECT			
CTL CHGE 5160 TO 25250			
Preceding RPC	Dist. to start of job (km)	Reference Points From start to end of job	Following RPC

REFERENCE PROJECT							
AIRPORT DRIVE BRIDGES							
ABUTMENTS, PIERS AND SECTIONS							
Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd	Examined	Certified	Approved	

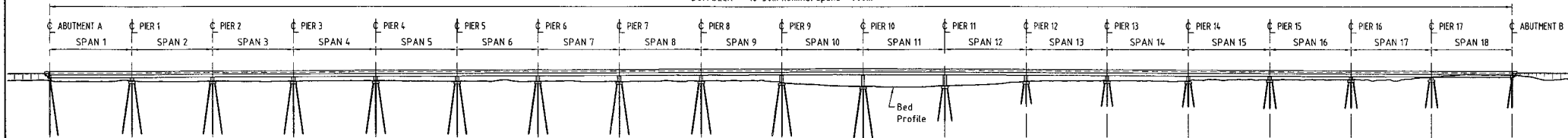
Queensland Government	
Department of Main Roads	
Job No.	No.145 of 153 drgs
	BR034
Contract No.	
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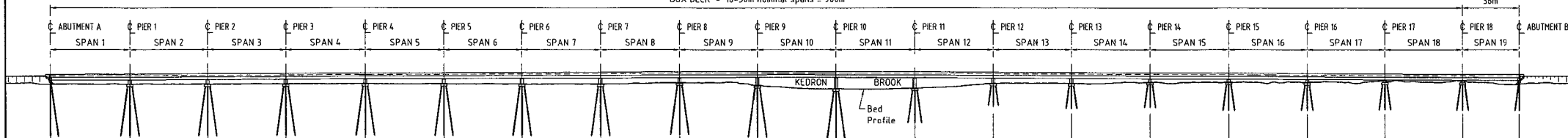
PLAN
SCALE 1:1250

BOX DECK - 18-50m nominal spans = 900m



PART LONGITUDINAL ELEVATION ALONG CONTROL LINE MCA0
SCALE 1:1250

BOX DECK - 18-50m nominal spans = 900m



PART LONGITUDINAL ELEVATION ALONG CONTROL LINE MCB0
SCALE 1:1250

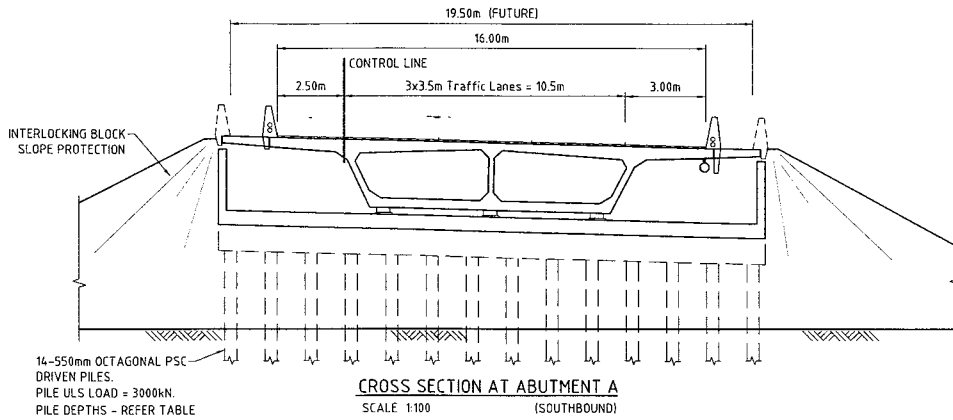
NOTES

- DESIGN LOADS SM1600, HLP400 TO ASS100.
- BARRIERS TO BE SPECIAL PERFORMANCE BARRIERS, GREATER THAN TEST LEVEL 6 TO ASS100.
- PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION
- CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH ASS100.
- ALL DIMENSIONS ARE IN MILLIMETRES UNO.
- LEVELS ARE TO AHD
- DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.

PRELIMINARY
09-08-2014

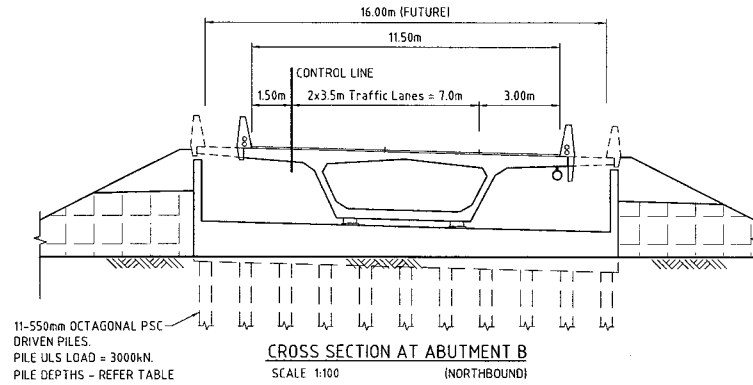
Connell Wagner
Connell Wagner Pty Ltd ABN 54 005 139 873 Telephone: +61 7 3246 1000
433 Boundary St, (Level 8) Spring Hill, Queensland 4000 Australia
Facsimile: +61 7 3246 1001
Email: enquire@connellwagner.com

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books	BRISBANE CITY COUNCIL GATEWAY UPGRADE PROJECT				REFERENCE PROJECT KEDRON BROOK BRIDGE GENERAL ARRANGEMENT					
				Auxiliary drawing nos	Scales	Through chainage from	CTL CHGE 5160 TO 25250				Contract No. No.146 of 153 drgs Drawing No. BR035				Contract No. 11 CAD REF:	
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A Original issue				(Office use only)												



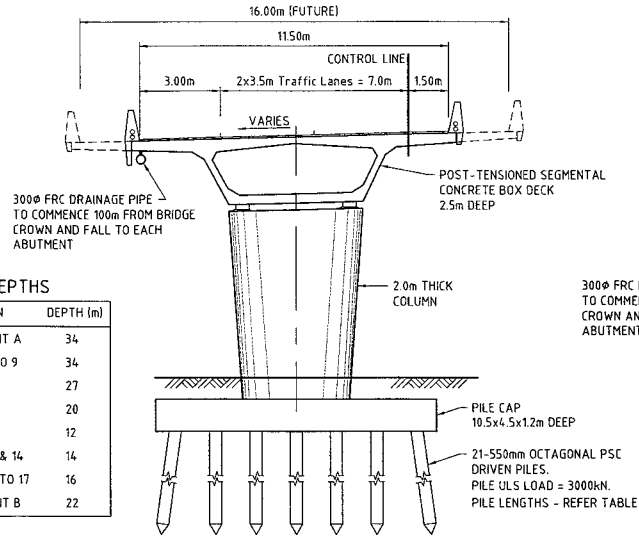
CROSS SECTION AT ABUTMENT A
SCALE 1:100 (SOUTHBOUND)

NOTE:
ABUTMENT AND ADJACENT FORMATION
CONSTRUCTED TO SUIT ULTIMATE ARRANGEMENT



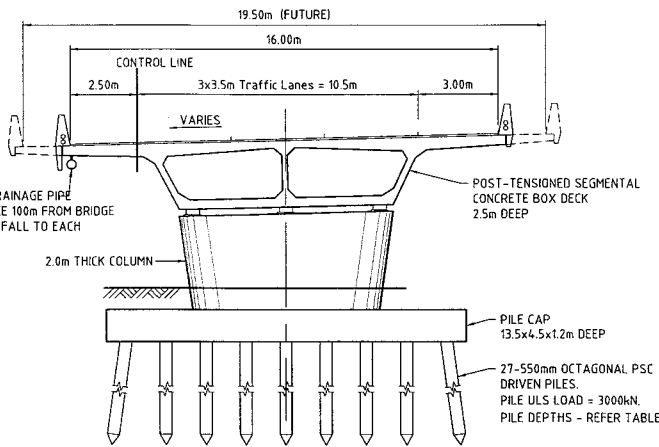
CROSS SECTION AT ABUTMENT B
SCALE 1:100 (NORTHBOUND)

NOTE:
ABUTMENT AND ADJACENT FORMATION
CONSTRUCTED TO SUIT ULTIMATE ARRANGEMENT



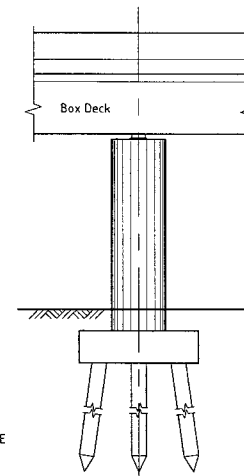
CROSS SECTIONS AT PIERS
SCALE 1:100

NOTE:
PIERS AND PILES DESIGNED
FOR FUTURE WIDENING

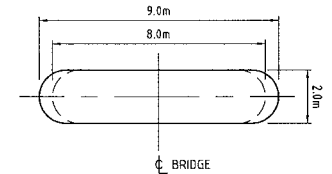


AT 16m CARRIAGEWAY
(SOUTHBOUND)

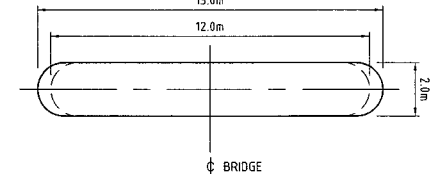
NOTE:
PIERS AND PILES DESIGNED
FOR FUTURE WIDENING



ELEVATION AT PIER
SCALE 1:100



PLAN ON HEADSTOCK
AT 11.5m CARRIAGEWAY
SCALE 1:100



PLAN ON HEADSTOCK
AT 15.0m CARRIAGEWAY
SCALE 1:100

LOCATION	DEPTH (m)
ABUTMENT A	34
PIERS 1 TO 9	34
PIER 10	27
PIER 11	20
PIER 12	12
PIERS 13 & 14	14
PIERS 15 TO 17	16
ABUTMENT B	22

Revisions	Certified	Date	Microwfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos	Scales	Through chainage from
				(Office use only)	1:100	

BRISBANE CITY COUNCIL				REFERENCE PROJECT			
GATEWAY UPGRADE PROJECT				KEDRON BROOK BRIDGE			
ABUTMENT AND PIER DETAILS				ABUTMENT AND PIER DETAILS			
Reference Points				Survey			
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd

Examined	Certified	Approved
<i>[Signature]</i>	<i>[Signature]</i>	
RPEQ 3297		

PRELIMINARY
09-06-2004

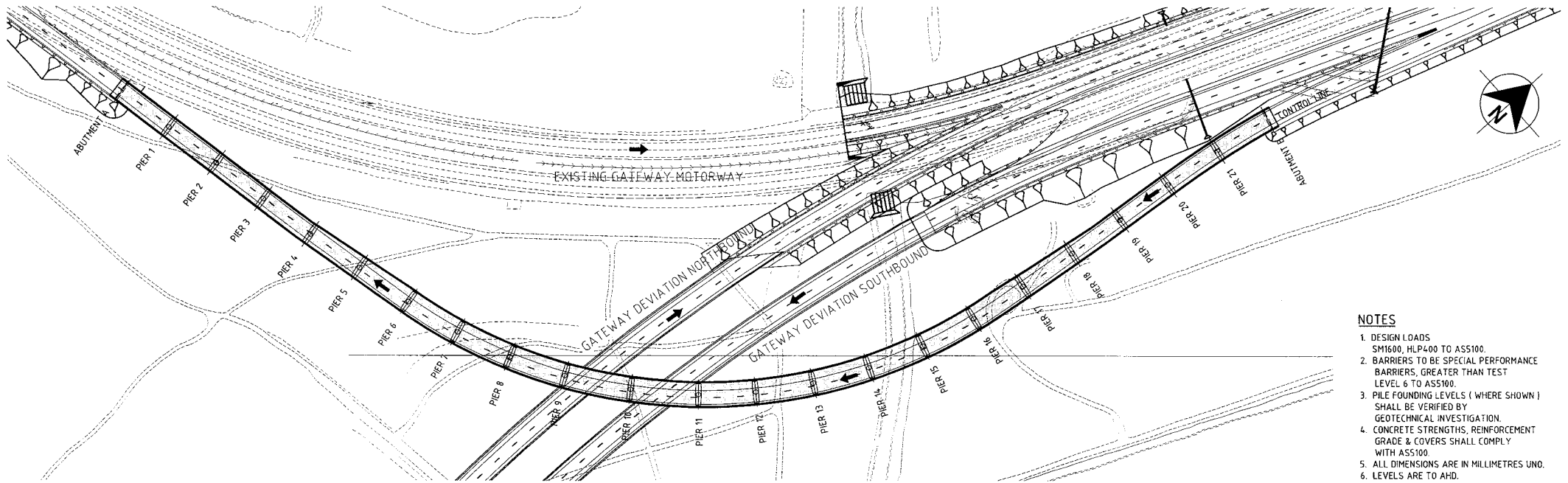
Connell Wagner
Connell Wagner Pty Ltd ABN 54 005 139 873 Telephone: +61 7 3246 1000
433 Boundary St. (Locked Bag 1800) Spring Hill Queensland 4004 Australia Facsimile: +61 7 3246 1001
Email: enquire@connellwagner.com

Queensland Government
Department of Main Roads

JOB No. No147 of 53 drgs
Drawing No. BR036

Contract No. //

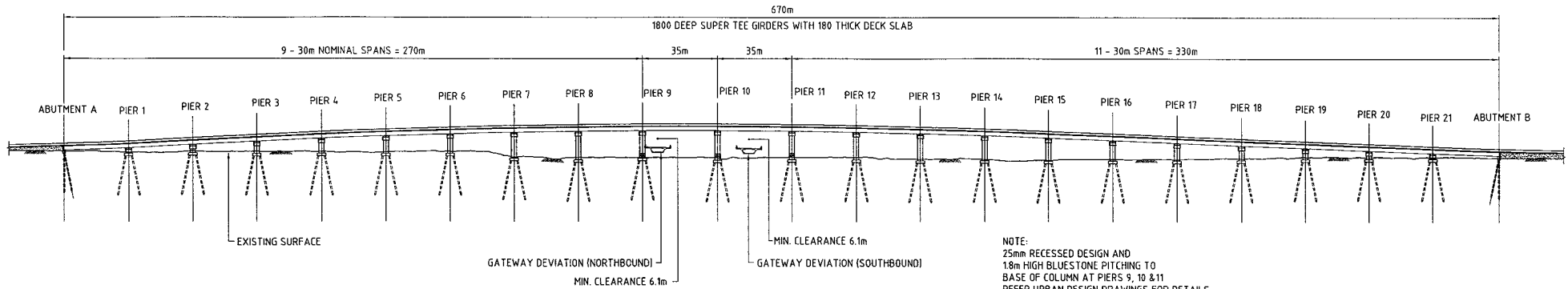
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PLAN
1:1000

NOTES

1. DESIGN LOADS
SM1600, HLP400 TO ASS100.
2. BARRIERS TO BE SPECIAL PERFORMANCE BARRIERS, GREATER THAN TEST LEVEL 6 TO ASS100.
3. PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION.
4. CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH ASS100.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNO.
6. LEVELS ARE TO AHD.
7. DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.



ELEVATION
1:1000

PRELIMINARY

09-08-2004

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 Queensland 4004 Australia Email: connell@connellwagner.com

Queensland Government
Department of Main Roads

JOB No. No148 off53 drgs

Drawing No. BR037

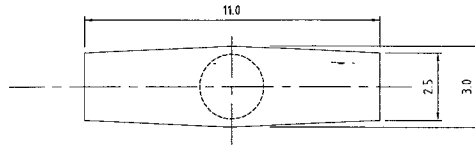
Contract No. //

CAD REF:

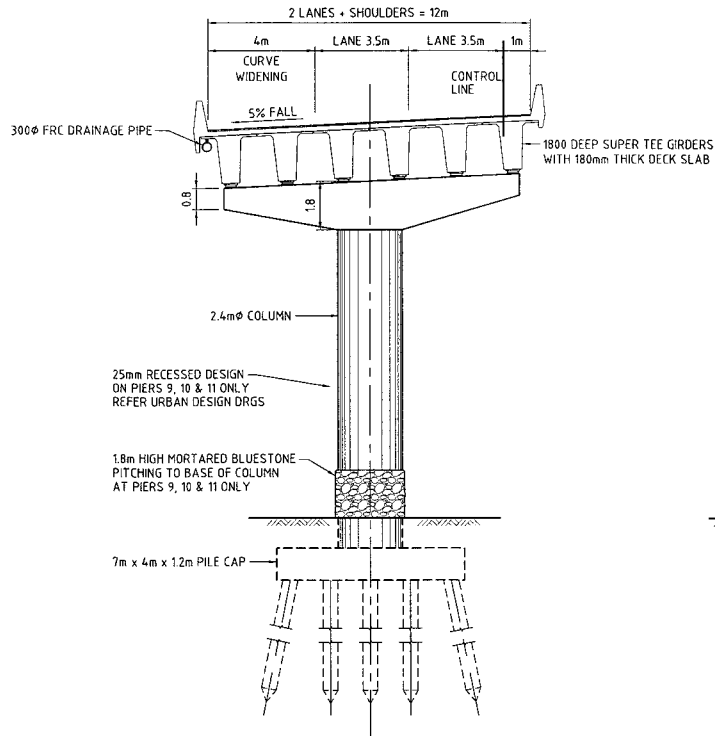
Revisions	Certified	Date	Micrafilled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos	Scales	Through chainage from
				(Office use only)		

BRISBANE CITY COUNCIL						REFERENCE PROJECT					
GATEWAY UPGRADE PROJECT						NORTHERN BIFURCATION RAMP BRIDGE					
GENERAL ARRANGEMENT						GENERAL ARRANGEMENT					
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Following RPC	Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd	Examined	Certified	Approved
<i>CTL CHGE</i>						5160 TO 25250					

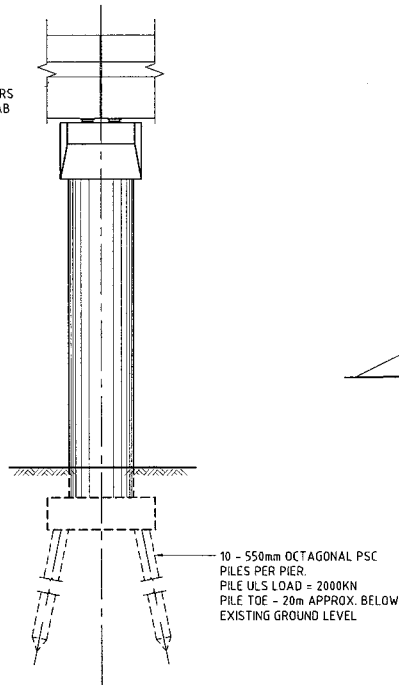
RPEQ 3297			
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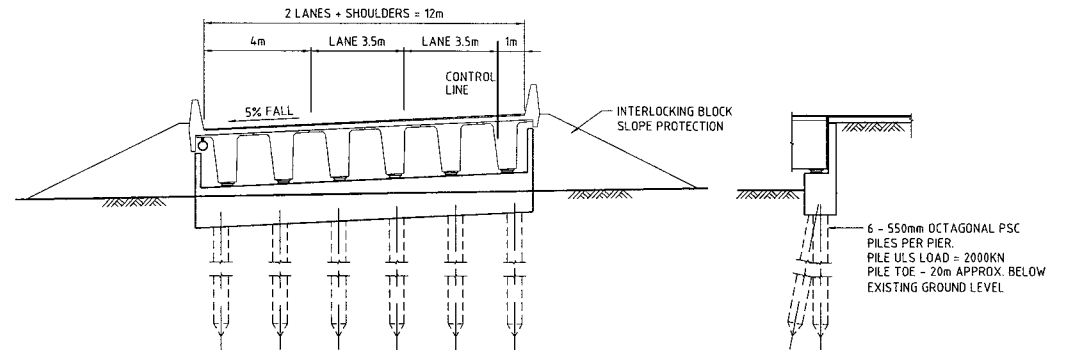
PLAN ON HEADSTOCK
1:100



CROSS SECTION AT PIER
1:100



PIER ELEVATION
1:100



CROSS SECTION AT ABUTMENT
1:100

ABUTMENT SECTION
1:100

PRELIMINARY

09-08-2004

Connell Wagner

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Connell Drive 4006 Australia Email: connell@connell.com.au

Queensland Government
Department of Main Roads

JOB No. Not 49 of 53 dirgs
Drawing No. BR038

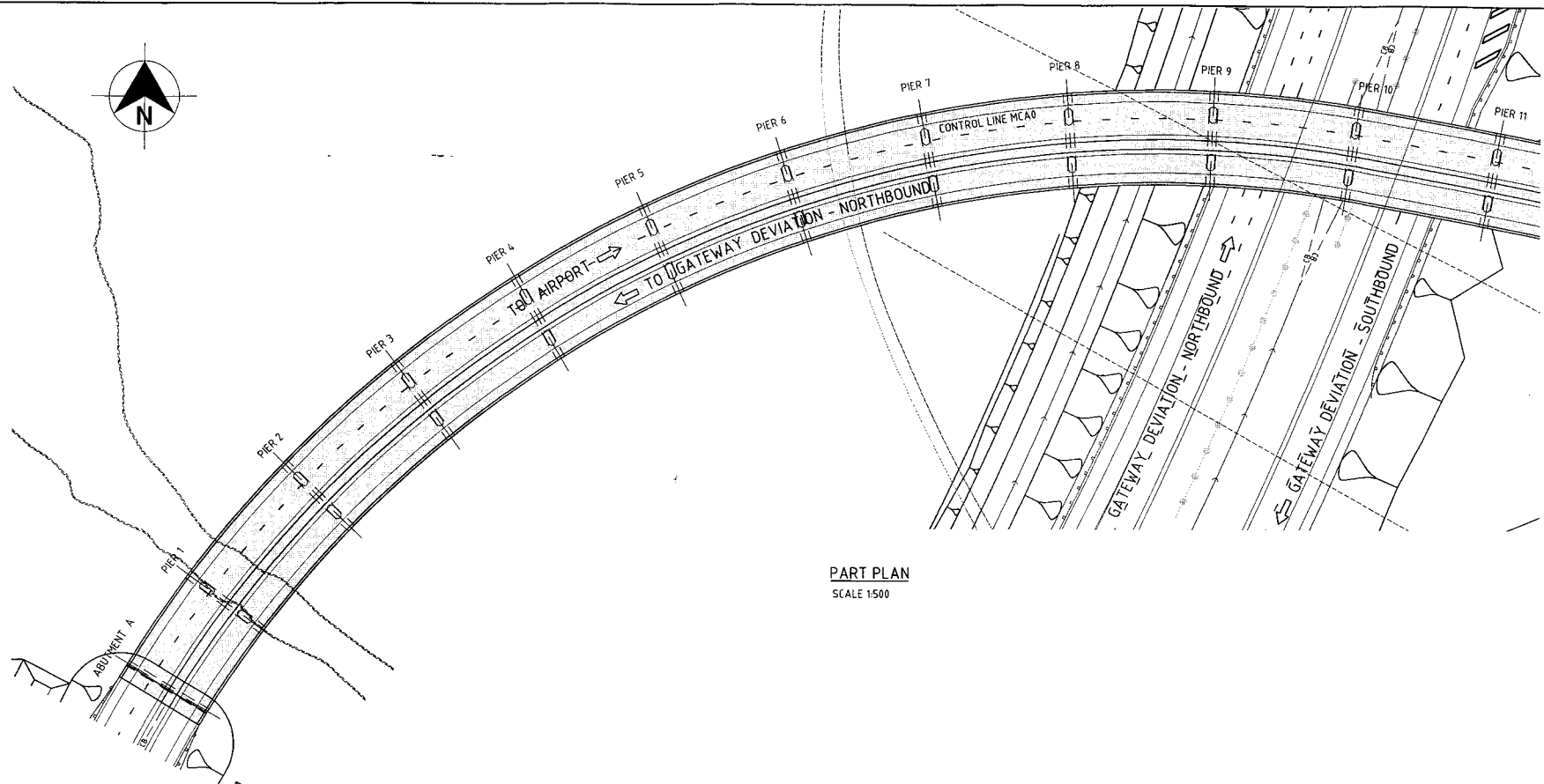
Contract No. A
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				Auxiliary drawing nos	Scales	Through chainage from
				(Office use only)		

BRISBANE CITY COUNCIL				REFERENCE PROJECT			
GATEWAY UPGRADE PROJECT				NORTHERN BIFURCATION RAMP BRIDGE			
CTL CHGE				ABUTMENT AND PIER DETAILS			
5160 TO 25250							
Reference Points				Survey			
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Following RPC	Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd

Design GRM Ckd	Examined R	Certified R	Approved
		RPEQ 3297	//

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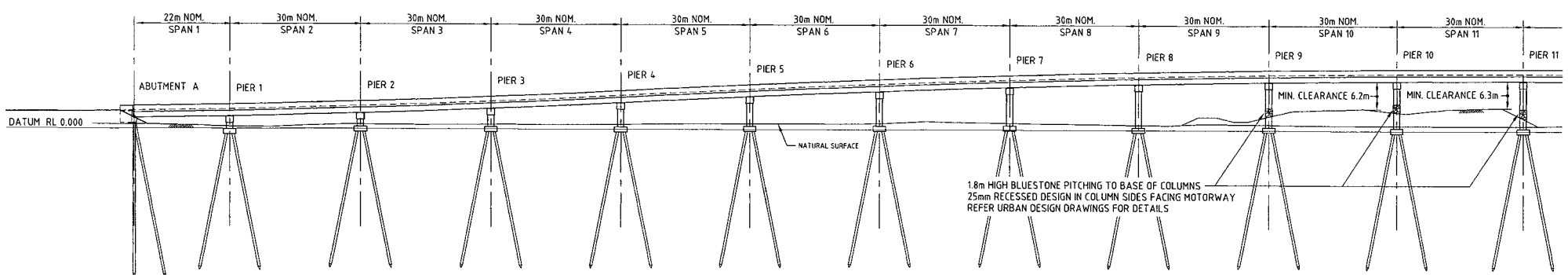


PART PLAN
SCALE 1:500

NOTES

1. DESIGN LOADS
SM1600, HLP400 TO ASS100.
2. BARRIERS TO BE SPECIAL PERFORMANCE BARRIERS, GREATER THAN TEST LEVEL 6 TO ASS100.
3. PILE FOUNDING LEVELS (WHERE SHOWN) SHALL BE VERIFIED BY GEOTECHNICAL INVESTIGATION.
4. CONCRETE STRENGTHS, REINFORCEMENT GRADE & COVERS SHALL COMPLY WITH ASS100.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNO.
6. LEVELS ARE TO AHD.
7. DETAILS SHOWN ARE BASED ON A LIMITED CONCEPT DESIGN AND SHALL BE VERIFIED DURING DETAILED DESIGN.

JOIN SHEET 2



PART SECTIONAL ELEVATION ALONG CONTROL LINE
SCALE 1:500

JOIN SHEET 2

PRELIMINARY

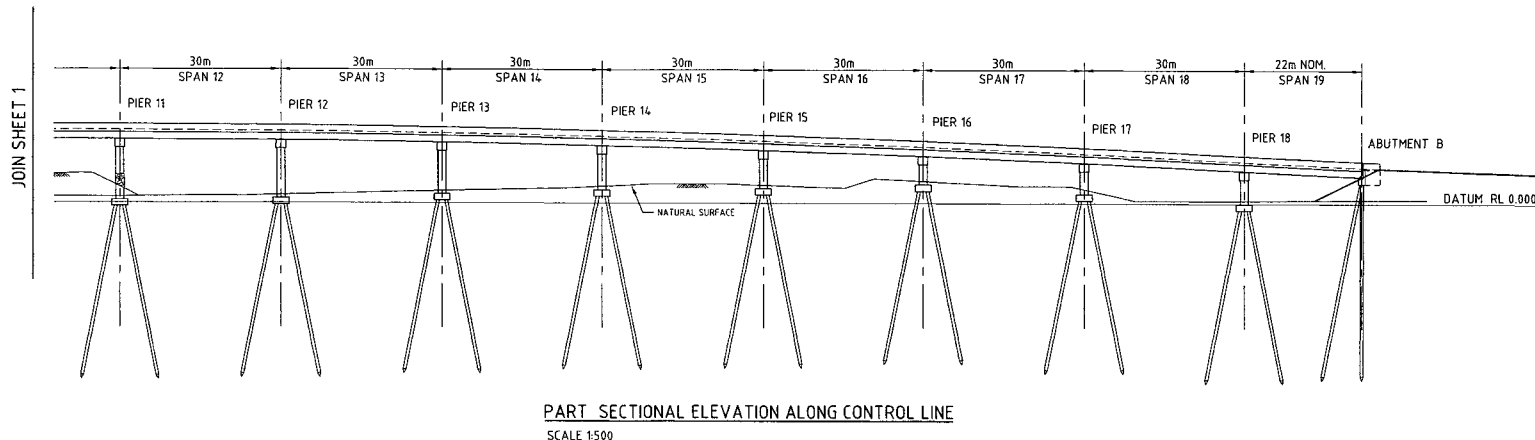
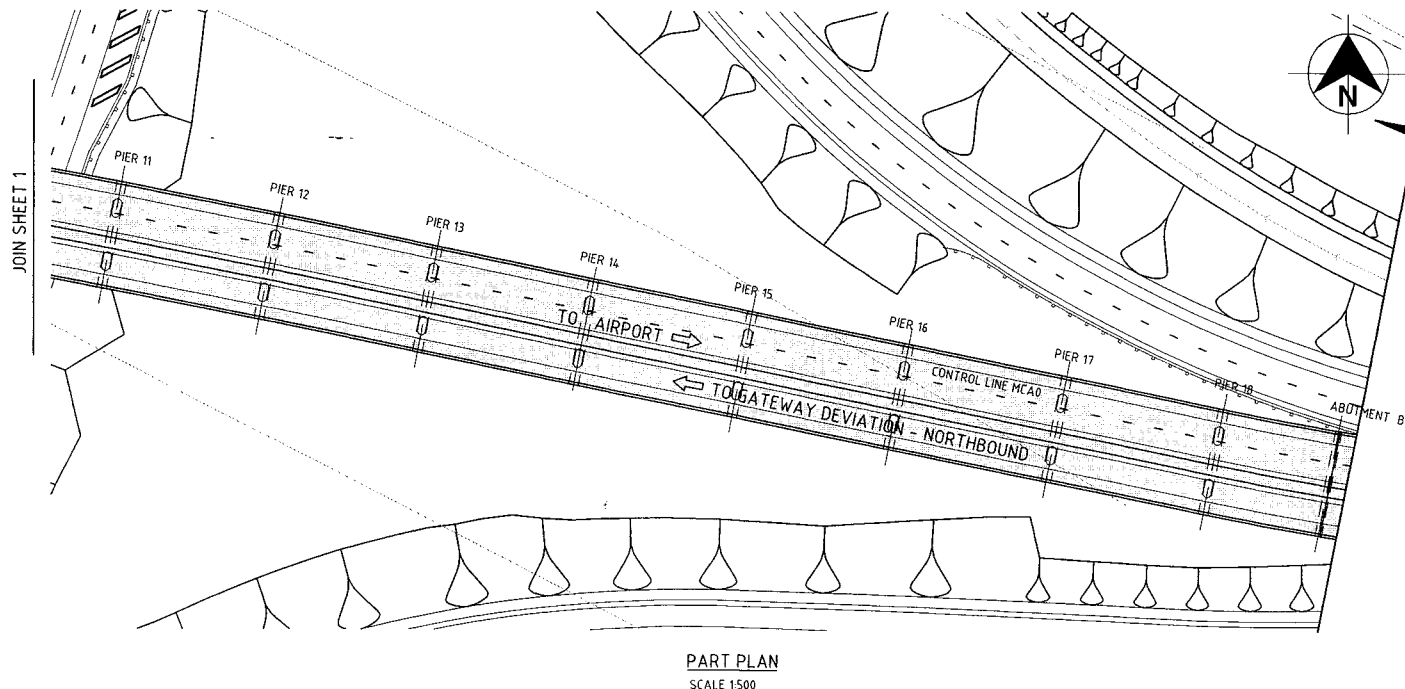
Connell Wagner

Connell Wagner Pty Ltd ABN: 64 005 139 873 Telephone: +61 7 3246 1000
433 Boundary St. (Locked Bag 1850) Spring Hill Queensland 4004 Australia Facsimile: +61 7 3246 1001
Email: cwn@connellwagner.com.au

09-08-2004

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books	BRISBANE CITY COUNCIL				REFERENCE PROJECT																										
							GATEWAY UPGRADE PROJECT				NORTHERN AIRPORT ACCESS INTERCHANGE BRIDGE																										
Auxiliary drawing nos						Through chainage from				GENERAL ARRANGEMENT SHEET 1 OF 2																											
Scales						CTL CHGE 5160 TO 25250				JOB No. Not 50 of 53 drgs																											
1:500						Reference Points				Drawing No. BR039																											
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Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Following RPC	Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd	Examined	Certified	Approved																										
										<i>J. Cairns</i>																											
A Original issue						RPEQ 3297				CAD REF: //																											

NOTES
REFER DRAWING BR039



PRELIMINARY
09-08-2004

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Email: cwb@cnw.com.au

Queensland Government
Department of Main Roads

JOB No. No151 of53 drgs
Drawing No. BR040

Contract No. A

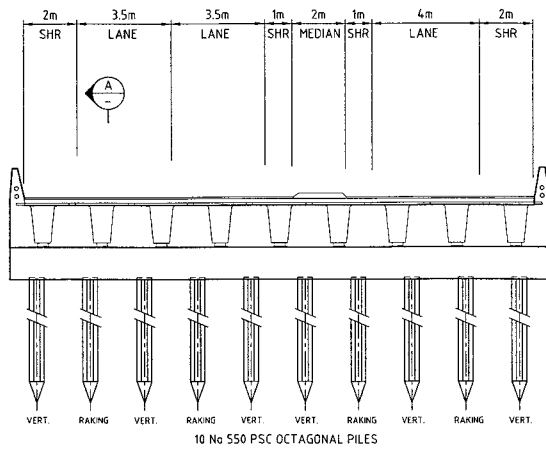
Revisions	Certified	Date	Microfiled	Associated job nos
				Auxiliary drawing nos
				(Office use only)
A	Original issue			

Dimensions in metres except where shown otherwise Culvert sizes in millimetres.	Survey books
Scales 	Through change from

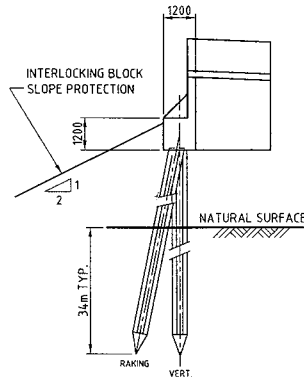
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GATEWAY UPGRADE PROJECT																																	
REFERENCE PROJECT																																	
NORTHERN AIRPORT ACCESS INTERCHANGE BRIDGE																																	
GENERAL ARRANGEMENT SHEET 2 OF 2																																	
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Reference Points					Survey DMR Ckd	Bdys DMR Ckd	Drawn JAF Ckd	Design GRM Ckd	Examined								Certified RPEQ 3297	Approved															
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Following RPC																													

CAJ REF: //

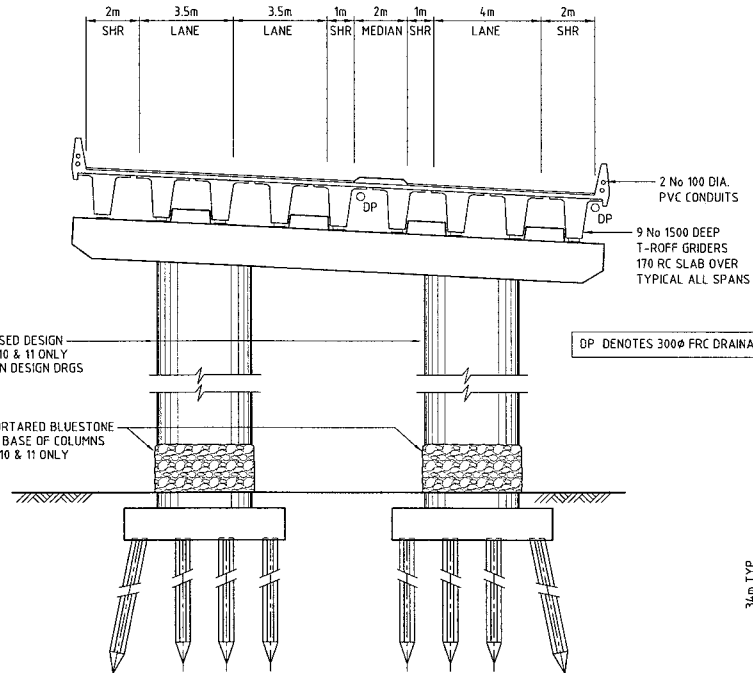
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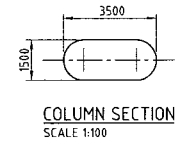
ELEVATION - ABUTMENT B
 ABUTMENT A - OPPOSITE HAND
 SCALE 1:100



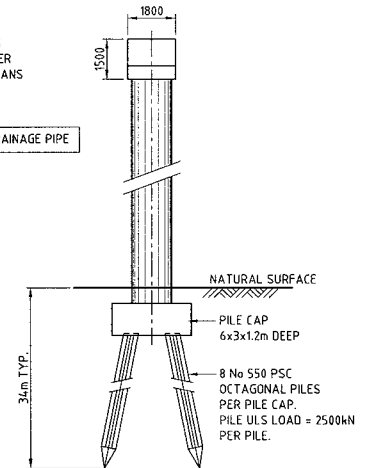
SECTION A
 SCALE 1:100



CROSS SECTION AT PIER
 SCALE 1:100



COLUMN SECTION
 SCALE 1:100



PIER ELEVATION
 SCALE 1:100

NOTES
 REFER DRAWING BR039

PRELIMINARY
 09-08-2004

ConnellWagner

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 433 Boundary St, (Locked Bag 1800) Spring Hill Queensland 4004 Australia
 Facsimile: +61 7 3246 1100 Email: connell@connellwagner.com

Queenland Government
 Department of Main Roads

JOB No. Not 52 of 53 drgs
 Drawing No. BR041

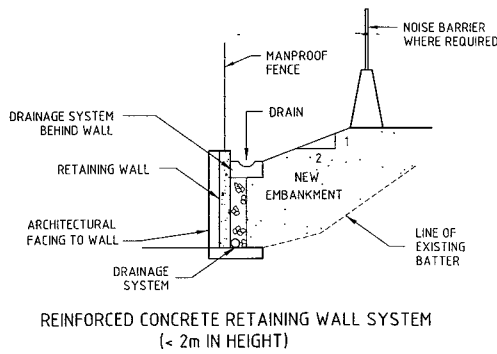
Contract No. //
 CAD REF: A

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos	Scales	Through chainage from
					1:100	
A	Original issue			(Office use only)		

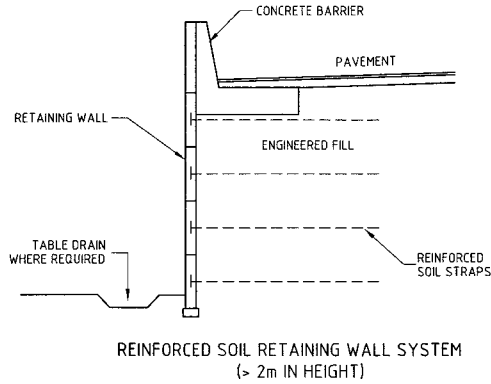
BRISBANE CITY COUNCIL				REFERENCE PROJECT			
GATEWAY UPGRADE PROJECT				NORTHERN AIRPORT ACCESS INTERCHANGE BRIDGE			
CTL CHGE 5160 TO 25250				ABUTMENT AND PIER ELEVATIONS			
Reference Points				Survey	Bdys	Drawn	Design
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	DMR Ckd	DMR Ckd	JAF Ckd	GRM Ckd

Examined	Certified	Approved
RPEQ	3297	//

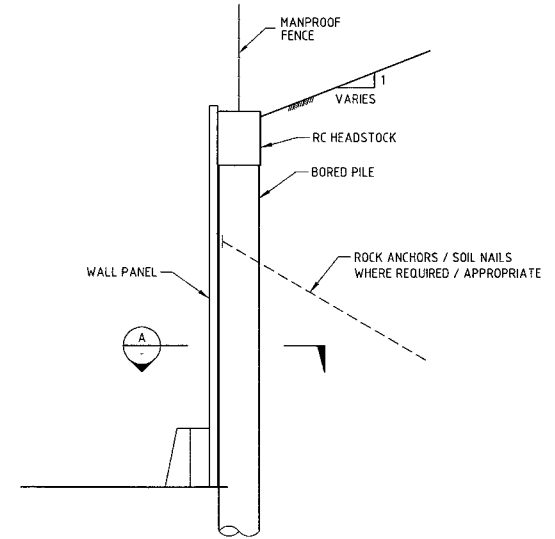
98282808W.P04.dwg P:\31212\BR041.dwg (09/08/04) (09/08/04) (09/08/04)



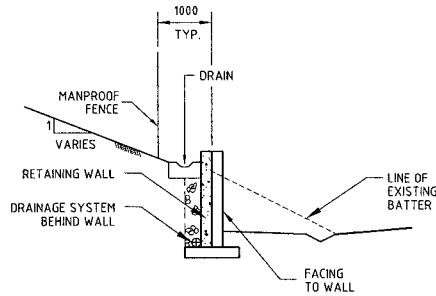
REINFORCED CONCRETE RETAINING WALL SYSTEM (< 2m IN HEIGHT)



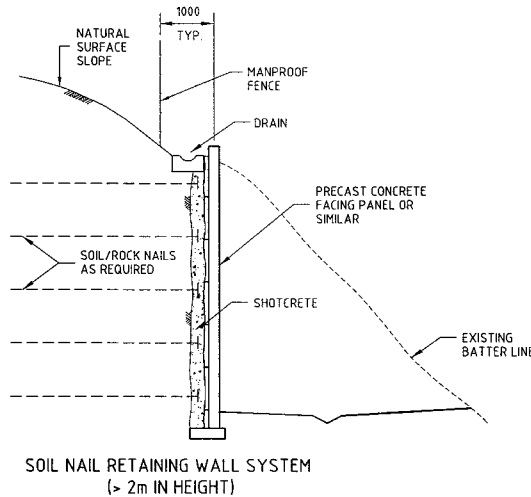
REINFORCED SOIL RETAINING WALL SYSTEM (> 2m IN HEIGHT)



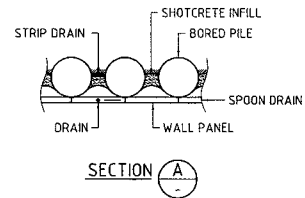
BORED PILE WALL



REINFORCED CONCRETE RETAINING WALL SYSTEM (< 2m IN HEIGHT)



SOIL NAIL RETAINING WALL SYSTEM (> 2m IN HEIGHT)



NOTES

1. WALL TYPES ARE INDICATIVE ONLY. SIMILAR SYSTEMS MAY BE APPROVED FOR USE.
2. WALL FACINGS SHALL BE CONSISTENT THROUGHOUT PROJECT. THE TYPE OF FINISH IS TO BE CONSISTENT WITH THE REQUIREMENTS IN THE LANDSCAPE AND URBAN DESIGN REQUIREMENTS.

RETAINING WALLS IN FILL

RETAINING WALLS IN CUT

PRELIMINARY

09-08-2004

Connell Wagner

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433 Boundary St. (Locked Bag 1600) Spring Hill Queensland 4004 Australia Email: cwn@connellwagner.com

Queensland Government Department of Main Roads

JOB No. Not 53 of 53 drgs
Drawing No. BR042

Contract No. A

CAD REF: //

Revisions	Certified	Date	Microfiled	Associated job nos	Dimensions in metres except where shown otherwise. Culvert sizes in millimetres.	Survey books
				Auxiliary drawing nos	Scales	Through chainage from
					1:100	
				(Office use only)		

BRISBANE CITY COUNCIL					
GATEWAY UPGRADE PROJECT					
CTL CHGE 5160 TO 25250					
Reference Points					
Preceding RPC	Dist. to start of job (km)	From start to end of job	From end to following RPC	Following RPC	

REFERENCE PROJECT					
RETAINING WALLS					
TYPICAL DETAILS					
Drawn	Design	Examined	Certified	Approved	
JAF	GRM		V. [Signature]		
Ckd	Ckd		RPEQ 3297		

P:\CA\2004\09\08\BR042.dwg (1/05/2011) 1:100 MBE (1/05/2011)