

Request for Signing - Other



Location:
141 - 4239 - DECEPTION BAY RD INTERCHANGE

Submitted By:
Madeline Walkington

Type of Document:
Critical Demolition Plan

Other Party:
Mathew Quay-Verlander

Value:

Gross Margin:

If applicable

Strategic Value:
0

Security:
0

Unusual Conditions/Risk (Payments Terms):

Original Document held by:
Madeline Walkington

Forward/return signed documents to:
Madeline Walkington

Have terms been reviewed?:
On previous Job

Previous Job OR Name of Reviewer:
Katie ODonoghue, Sead Jukic, Madeline Walkington

Contract Changes Made Pursuant to the Contract / Legal Review:

Remaining Contractual Risks:

Please refer to RFA-141-4239-01070

Approved Electronically: Date: Mar 16, 2022



Approved Electronically: Date: Mar 17, 2022



Project Manager Name: Shawn Davis

Construction Manager Name: Justin Devantier

RFA Replies

Shawn Davis @ Katie ODonoghue, Matthew Richardson

16-Mar-2022 5:22 PM

Level 1 Approval - Approved - JD - Ok to proceed. We have worked with Demex and the team regarding the timing, sequencing and run sheet required to effect the demolition from next Tuesday night, the 23rd March. The attached Demolition plan has bolstered the information provided regarding details of the saw cuts and locations. RPEQ assessment and involved, capability has been confirmed. I am comfortable that the schedule has relevant Go/No Go provisions and contingency allocations. We have confirmed a peer review from Madsengiersing which we hope is received tomorrow on the certification Demolition Plan. A meeting/workshop was held today with the CA/TMR which was well facilitated, and well received by all parties.

Justin Devantier @ Shawn Davis, Katie ODonoghue, Matthew Richardson @ 17-Mar-2022 11:34 AM

Shawn. Thanks for sending through. I will review and come back to you this afternoon.

Justin Devantier @ Shawn Davis, Katie ODonoghue, Matthew Richardson

17-Mar-2022 12:45 PM

Level 2 Approval - Approved - Thanks Team. Comprehensive CMS and attachments. A have a couple of comments; When will the 2nd Microbat survey be undertaken? We mention a survey 48hrs prior but I can't seem to see this as part of the program. BMD's CMS is a little confusing in terms of sequence. Program methodology indicates NB span is demolished 1st followed by SB, but we call SB Stage 1 and NB Stage 2. Can this please be tidied up in our document for completeness. OK to proceed following changes made above.

Madeline Walkington

From: Reeves, Stuart <Stuart.Reeves@jacobs.com>
Sent: Wednesday, 16 March 2022 7:24 PM
To: Katie ODonoghue
Cc: Madeline Walkington; Shawn Davis; Sead Jukic; Dean Searle; Anthony Parlato; Gary Grant; Matthew Richardson
Subject: Re: [EXTERNAL] RFI-141-4239-00582 - RE: Construction Method Statement - Demolition of Bridge

Thanks Katie and Maddy, I wish to put on record as I expressed today, congratulations on your team's efforts in bringing this issue to a timely resolution in order to ensure the projects continued success.
Please pass on to any respondents I may not have included.

Regards,
Stuart Reeves
B Eng Civil, Grad Dip Mun Eng, MBA
Director Reeves Civil Consulting Pty Ltd
Mob # 0412370463

From: Katie.ODonoghue@bmd.com.au <Katie.ODonoghue@bmd.com.au>
Sent: Wednesday, March 16, 2022 5:06:50 PM
To: Reeves, Stuart <Stuart.Reeves@jacobs.com>
Subject: [EXTERNAL] RFI-141-4239-00582 - RE: Construction Method Statement - Demolition of Bridge

[Click here to reply the correspondence and download any attachments](#)

Hi Krystyna,

Please see attached updated CMS as per discussions in todays meeting.

Also attached is a Capability Statement of Demex and their RPEQ Richard Erwin.

If there is anything else required, please do not hesitate to contact me.

Kind Regards,

Katie

TO:	Stuart Reeves, Phil Henderson, DBRIU CA Correspondence (Jacobs), Grahame Ritchie, Graham Cash, Tom Penrose, Boyd Moore, Mick Hook, Krystyna Kuhnel, Tony Summerfeldt
CC:	Shawn Davis, Richard Morrison, Sead Jukic, Madeline Walkington, Anthony Parlato, Katie ODonoghue, Chris Stack, James Carroll, Neil den Exter, Kyle Sherrieff, Anthony Atkinson, Elliott Stanton, Amy Hudson, Melville Tobena, Samuel Neck, Brendyn Rheinberger, Bridget Burton

From:	Katie ODonoghue
Subject:	Construction Method Statement - Demolition of Bridge
Number:	RFI-141-4239-00582
Type / Area:	RFI / General / Structures
Location:	141 - 4239 - DECEPTION BAY RD INTERCHANGE
Attachments:	4239-CMS-017 - Demolition of Existing Deception Road Overpass.pdf, Appendix B - Demex Demolition Management Plan.pdf,
Sent Date:	19-Nov-2021
Response Required By:	14-Jan-2022
Sub Types:	General
Status:	Over Due

Madeline Walkington - 15-Mar-2022 5:59 PM

Hi Krystyna,

Please see attached updated CMS and appendices.

Please note the following:

- There is no risk assessment or associated weight calculation for the excavators holding the weight of spans during the demolition works, these elements will be separated in a manner that will allow them to fall directly onto the road protection and processed from there;
- The Girders are locked in by the transverse beam above the centre pier, this in conjunction with the sections of deck / transverse beams left while saw cutting and the wing walls on the abutments which will provide stability to the beams;
- The inspection form is a blank document that is completed on the night, an example of this is attached.
- The hour by hour program considers discussions today around approval of an additional 45min on the northbound highway closure. Southbound demo has been programmed such that it falls with the additional hours already approved for the Friday and Saturday nights;
- Signed OHRF is attached.

Cheers,

Maddy

Krystyna Kuhnel - 14-Mar-2022 1:36 PM

Hi Katie, Please find attached review comments from CA & TMR. In addition to the OOHW form can following attachments also be included in the CMS: - Bridge Demo properties over night criteria - TMR - Demo Noise relocation approach

Katie ODonoghue - 09-Mar-2022 10:11 AM

Hi Krystyna,

Please see attached updated CMS Document.

Note that the hourly program is still under review and will be submitted this afternoon following the meeting.

Other outstanding items are the Form 65 and RPEQ letter which should also follow this afternoon.

If there is any issues with the attached, please do not hesitate to contact me.

Thanks,

Katie

Tom Penrose - 02-Feb-2022 8:01 AM

Thanks Katie - we will review and provide comments as soon as possible. In the meantime, from an environmental perspective, can BMD please review the Noise and Vibration Impact Assessment report and advise it is still applicable for the demo (in regards to the assessment of the bridge demolition works and proposed demo methodology). As per BMD's Noise and vibration Management Plan the out of hours work procedure is required to be addressed for the work activity of Bridge Demolition. This includes • Confirm the predicated noise levels for the works and extent of impact. • Review and advise on reasonable and practicable mitigation measures • Discuss community consultation requirements with the community engagement manager • Confirm if monitoring is required.

Krystyna Kuhnel - 08-Feb-2022 10:03 AM

Hi Katie, Please find attached initial comments for the updated CMS.

Katie ODonoghue - 01-Feb-2022 12:32 PM

Hi Krystyna,

Please see attached update to demolition plan, please note this is a live document with some items still outstanding in relation to Micro Bat Surveys and RPEQ certification.

If there is any further information you require, please do not hesitate to contact me.

Kind Regards,

Katie

Katie ODonoghue - 02-Dec-2021 4:29 PM

Hi Krystyna,

With our onsite meeting occurring tomorrow, please see attached updated CMS to address comments. I have attached a tracked changes document as well to make things clearer.

Also attached is the Appendix we have available to us at this point in time. I am still working with the subcontractor to address your comments on their methodology and we will have this shortly.

Thanks,

Katie

Krystyna Kuhnel - 29-Nov-2021 2:26 PM

Hi Katie, Please find attached initial comments regarding the submitted procedure for demolition and removal of the existing Deception Bay Road Bridge.

Original Message

Hi Tom,

In accordance with MRTS04.1 Clause 15.1.1 the contractor proposes the attached procedure for demolition and removal of the existing Deception Bay Road Bridge.

This work is currently programmed to commence in February 2022, in accordance with MRTS04.1 Clause 14 and Drawing 837583 Note 9, this plan is submitted for approval greater than the 56 days prior to closing of existing bridge.

As inspections are completed and forms and permits are approved in lead up to the works the appendixes within this CMS and the CMS itself will be updated accordingly.

Can you please review and provide approval for use of this methodology.

If there is any questions or queries in relation to the attached, please do not hesitate to contact me.

Thanks again,

Katie

Regards,

Katie ODonoghue Senior Project Engineer
BMD CONSTRUCTIONS PTY LTD
Mobile: 0467734254

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Construction Method Statement

Demolition of Existing Deception Bay Road Overpass



CMS No: 4239-CMS-017

Rev: C

CMS Title: Demolition of Existing Deception Bay Road Overpass

Project No: 4239

Project Name: Deception Bay Road Interchange Upgrade

Project Address: 1 Arthur Drewett Drive, Burpengary, QLD, 4505

Principal Contractor: BMD Constructions

Name of Safety Officer: Ben Weston

Risks: Construction safety hazards are further addressed in the SWMS for the works

Approval of CMS for Use

Project Manager:

Date:

Comments: _____

Document Version Control

Revision No.	Revision Date	Details of Revision	Approved By
A	19/11/2021	Original Submission – DRAFT ONLY	KO
B	02/03/2022	Revised Submission	KO
C	15/03/2022	Revised Submission	KO

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1. Introduction

This Construction Method Statement (CMS) governs the process and procedure for demolition of the existing Deception Bay Road Overpass for the Deception Bay Road Interchange Upgrade Project.

The CMS will document and describe the applicable contract specifications, drawings, and project specific BMD management plans that are to be referenced in undertaking this site activity. The CMS will also detail the responsibilities of the management personnel, the construction sequence, the construction methodology, the resources to be utilised and the associated risks for this site activity.

The CMS has been developed by the site Senior Project Engineer in conjunction with members of the project management team, the bridge demolition subcontractor and site personnel. This document will be authorised for use by the BMD Project Manager.

Certain aspects of the works governed by this CMS may require additional approval per BMD Group Policies (for example some CMS's require General Manager review/approval), and where required, these approvals shall be sought prior to final acceptance of this CMS for implementation on site.

As per MRTS04.1 (General Earthworks), this document forms part of the bridge demolition process. This plan is required to be submitted the Administrator 56 days prior to works occurring.

1.1. Location

This Construction Method Statement outlines the Methodology, Safety and Environmental aspects of the demolition of the structure above (BIS 8595) and is to be carried out by the licenced demolition subcontractor, Demex Pty Ltd who have been engaged by BMD Constructions.

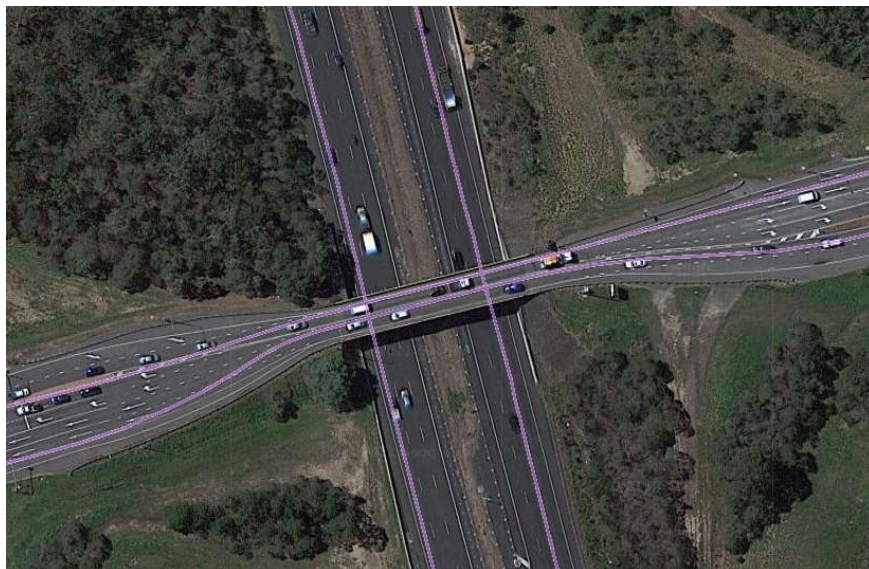


Figure 1 – Deception Bay Road Overpass BIS8595

1.1. Description of Structure

The Deception Bay Road Overpass is a 2 span, 2 lane road bridge constructed from precast beam and insitu reinforced concrete deck. The bridge superstructure is constructed from insitu reinforced concrete by abutment and pier headstocks, with precast beams supporting the cast in-situ reinforced concrete deck, cast in-situ Kerbs/barriers running the length of each side. The deck is constructed of insitu concrete with an asphalt deck wearing surface. The substructure consists of reinforced concrete abutment headstocks and a reinforced concrete pier. Abutment A, Abutment B and the Centre Pier have bored piles.

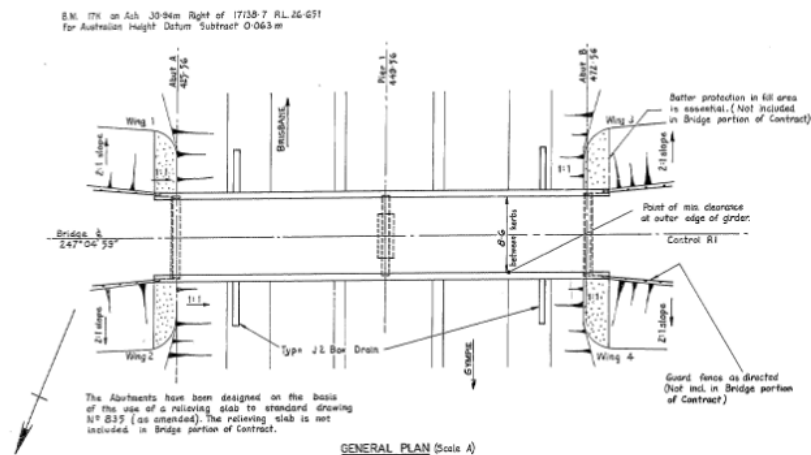


Figure 2 - Existing Bridge Plan View

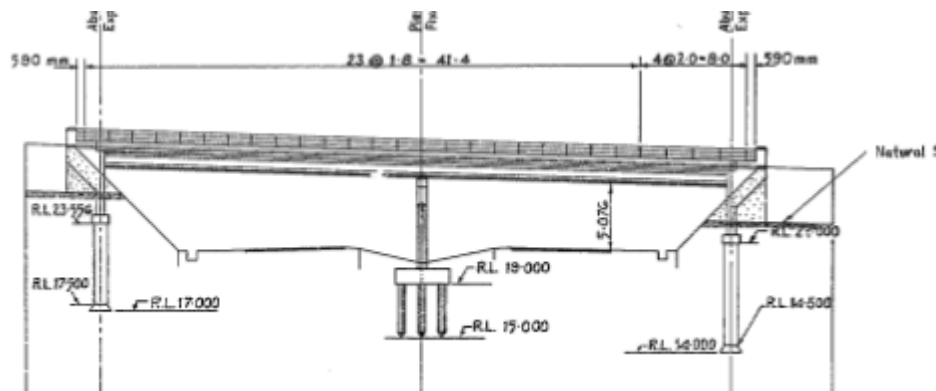


Figure 3 - Existing Bridge Elevation View

2. References

2.1. Specifications

Number	Description
MRTS02	Provision for Traffic (07/20)
MRTS50	Specific Quality System Requirements (11/19)
MRTS51	Environmental Management (07/20)
MRTS14	Road Furniture (03/21)
MRTS52	Erosion and Sediment Control

2.2. Drawings

Description
Project:
837583 – Existing Features – Notes and Legends
837587 – Existing Features Layout – Sheet 4 of 15
Drawings of existing bridge:
177848 – Plan, Elevation and General Details
177849 – General Arrangement Abutments A
177850 – Steel Reinforcement Abutment A
177851 – General Arrangement Abutment B
177852 – Steel Reinforcement Abutment B
177853 – General Arrangement Pier 1
177854 – Steel Reinforcement Pier 1
177855 – Deck
177856 – Cross Girders
177857 – 24m Prestressed Concrete Girder
177858 – 23m Prestressed Concrete Girder

2.3. Legislation

References
Workplace Health and Safety Regulation 2021
Workplace Health and Safety Act 2019
AS2601:2001 – Demolition of Structures
AS4361.2:2017 – Guide to Hazardous Paint Management Part 2 Lead Paint in Residential, Public and Commercial Buildings
AS/NZS1715:2009 - Selection Use and Maintenance of Respiratory Protective Equipment
Managing Risks of Plant in the Workplace Code of Practice 2013
Environmental Protection Act 1994 and Regulations 2008
Hazardous Manual Tasks Code of Practice 2011
Heavy Vehicle National Law 2012 (HVNL) (Chain of Responsibility)
Demolition of Structures – Australian Standard 2601
Safe Work Australia: Demolition Work – Code of Practice (February 2016)
Code of Practice: • Demolition work • How to safely remove asbestos • How to manage and control asbestos in the workplace • Managing risks of plant in the workplace • Managing the risk of falls at workplaces • Confined spaces • Hazardous manual tasks • How to manage work health and safety risks
Transport Noise Management Code of Practice Volume 2 - Construction Noise and Vibration

2.4. Project Management Plans and Documents

Description
Integrated Project Management Plan
Quality Management Plan
Safety Management Plan
Environmental Management Plan
Traffic Management Plan
Community Liaison Plan
Demolition Management Plan (Demex)
Vehicle Management Plan
TMR - Bridge Demolition Noise Relocation Approach
Out of Hours Works Form
Progressive Erosion and Sediment Control Plan (PESCP)
Noise and Vibration Management Plan

3. Staff Responsibilities

3.1. Project Manager

The Project Manager is responsible for the following:

- Review and authorisation of project documents including Project Plans, CMS, WMS and ESCP
- Appointment of suitably qualified and experienced personnel to perform the work
- Overall responsibility for the completion of the activity to the requirements of the governing specification and the satisfaction of the Client
- Programming and sequencing of the works within the construction program
- Auditing the implementation of requirements of this plan
- Sourcing and assessment of personnel and resources to perform the works
- Pre-planning of work activity to be performed
- Liaise with the Community Liaison Officer for any complaints received and the management of communications with residents and TMR.

3.2. Senior Project Engineer

The Senior Project Engineer is responsible for the following:

- Generation of project documents including Project Plans, CMS, WMS and ESCP
- Evaluating the activity in terms of quality, safety and environmental issues
- Arranging for, accumulating and submitting the identified records as listed in the specification
- Pre-planning of work activity to be performed
- Submission of relevant Hold/Witness Points
- Implementation of requirements of this plan
- As the Temporary Works Co-ordinator, ensuring all temporary works are designed and inspected by a RPEQ as required, and that temporary works are installed as per certified designs.

3.3. General Foreman, Structures

The BMD General Foreman, Structures is responsible for the following:

- Review and initiate project documents including Project Plans, CMS, WMS and ESCP
- Pre-planning of work activity to be performed
- Evaluation of site personnel and resources to perform the activity
- Monitoring the activity in terms of quality, safety and environmental issues
- Inducting personnel onto the WMS for the activity
- Conducting daily pre-start meeting with personnel involved in the activity
- Daily management of personnel and resources required for the activity

3.4. BMD Community Liaison Officer

The BMD Community Liaison Officer is responsible for the following:

- Manage consultation and liaison with the community
- Manage the 1800 community hotline during works
- Investigate and respond to any community complaints in liaison with the project team and TMR.

3.5. BMD Environmental Representative

The BMD Environmental Representative is responsible for the following:

- Implement all monitoring and reporting requirements detailed in the project Environmental Management Plan including all regular site inspections to ensure all protection measures are in place and adequate.
- Liaise with the Community Liaison Officer and project team in the event of an environmental complaint including implementing any required monitoring and subsequent remedial action.
- Ensure compliance with all environmental responsibilities assigned in relevant legislation, procedures, WMS, plans or any other environmental documentation.
- Investigate and report any environmental non-conformances or incidents and oversee the implementation of any required corrective actions.

3.6. Demex Project Manager

- Oversee development of Demolition Management Plan and overall approval of that Plan
- Appointment of suitably qualified and experienced RPEQ Engineer to review the Demolition Plan and Demolition Method and certify the suitability and safety of these plans
- Ensure Demex holds relevant licences and permits (eg. demolition and asbestos)
- Appointment of suitably qualified and experienced personnel to perform the work
- Responsibility for the completion of the activity to the requirements of the governing specification and the demolition permit, and in accordance the Subcontractor's Demolition Licence
- Programming and sequencing of the works
- Pre-planning of work activity to be performed
- Undertake works in accordance with this plan
- Comply with relevant Hold Points and Witness Points from this plan
- Sourcing and assessment of personnel and resources to perform the works
- Management of demolition and other waste in accordance with this plan and relevant Legislation, including supply of waste records to BMD

3.7. Demex Demolition Supervisor

- Hold relevant licencing and training for demolition and asbestos management
- Oversee implementation of Demolition Management Plan
- Ensure Demex holds relevant licences and permits (eg. demolition and asbestos)
- Appointment of suitably qualified and experienced personnel to perform the work

- Responsibility for the completion of the activity to the requirements of the governing specification and the demolition permit, and in accordance the Subcontractor's Demolition Licence
- Programming and sequencing of the works
- Pre-planning of work activity to be performed
- Undertake works in accordance with this plan
- Comply with relevant Hold Points and Witness Points from this plan
- Sourcing and assessment of personnel and resources to perform the works
- Management of demolition and other waste in accordance with this plan and relevant Legislation, including supply of waste records to BMD
- Receive from RPEQ at the completion of each shift the RPEQ acceptance certificate of inspected structure and road prior to the road being handed back to traffic control for opening.

3.8. RPEQ Engineer (Demex)

- Assist in development of Demolition Management Plan and Demolition Method
- Provide RPEQ certification of the Demex Demolition Management Plan and Demolition Method plans
- Design and certify temporary works drawings for suitability and safety including all temporary works required
- Inspect the works in progress at end of each shift and provide RPEQ certification for the progress of works and acceptance of structure (eg. prior to re-opening roads to live traffic). Site Inspection Record to be received by BMD and provided to Administrator for record.
- Provide RPEQ certification of the Demex Demolition Management Plan and Demolition Method plans

3.9. Fauna Spotter Catcher

- Undertake pre-demolition fauna survey
- On-call during demolition works for any unexpected fauna finds.

3.10. Key Contacts

3.7.1. BMD Staff

Name	Position	Contact Number
Community Hotline		1800 209 020
Shawn Davis	Project Manager	0439 791 073
Matthew Richardson	Project Director	0402 898 623
Sead Jukic	General Foreman - Structures	0400 803 462
Dean Searle	Supervisor	0408 402 968
Katie O'Donoghue	Senior Project Engineer	0467 734 254
Madeline Walkington	Project Engineer	0409 627 796
Ben Weston	Safety Manager	0428 943 135
Jenny Butler	Environmental Advisor	0424 139 609
Anthony Parlato	Traffic Advisor	0417 703 884
Beth Burgess	Community Liaison	0438 784 582

3.7.2. Other Personnel

Name	Position	Company	Contact Number
Stuart Reeves	Administrator	Jacobs	0412 370 463
Tom Penrose	Administrator's Rep	Jacobs	0409 779 902
Graham Cash	Inspector, Structures	Jacobs	0432 554 557
Neil Randall	Transport and Main Road Rep	TMR	0477 303 260
Rebecca Dewar	Community Relations	TMR	0412 962 016
David Buckeridge	Traffic Control Coordinator	Verifact	0457 231 804
Toby Swennesen	Project Manager	Demex	0407 222 051
Ben Frerker	Demolition Supervisor	Demex	0449 548 673
Daniel Joyce	Fauna Spotter Catcher	Biodiversity Australia	0417 732 915

4. Permits, Approvals and Requirements

4.1. Project Approvals and Requirements

Approvals/Permits	Status/ Reference
Demolition License	2321795
Asbestos Removal Licence	2300363
Permit-To-Work (DBYD, Service Control Plan)	To be completed prior to commencement of works
Inspection & Test Plan (ITP)	4239-ITP240-Bridge Demolition
Safe Work Method Statement (SWMS)	PF898 Deception Bay Road Bridge Demolition
Heavy Vehicle National Law (HVNL)	Nil permits required
BMD Permit to Work at Height (HEQ-FRM-00949)	Raised as required by BMD Supervision
Notification of Demolition to Worksafe – Form 65	Form65-00011395
Out of Hours Work Permit	20220209_Out of Hours Request Form Bridge Demo
Hot Works Permit	To be provided on the shift
Community consultation	To be completed by BMD & TMR community liaison in the lead up to works
Relevant PESCPs	20000354-10-PESCP-East 1 and 3-REV 05 20000354-11-PESCP-East 2-REV 08 20000354-04-PESCP-West 1 West 2 Stage 2 Earthworks-REV 14 20000354-09-PESCP-West 3-REV 05

4.2. Prestart Requirements

The following are to be carried out prior to starting/commencement of works:

Requirement
Project Site Induction
CMS induction
SWMS induction
BMD Permit to Work induction (i.e. for working near underground/overhead services)
Client approval of Hold Points and Witness Points required before starting works
Submission and Client approval of relevant identified records required before starting works
Daily prestart talks
Plant inspection checklists
Toolbox on Out of Hours Form Requirements
Toolbox on Fatigue Management

4.3. Program of Works Including Traffic Requirements

BRUCE HIGHWAY CLOSURE REQUIREMENT			
Program	Works		Area
<u>Preliminary and preparation works:</u>			
Day Shift (Monday 21st through Wednesday 23rd)	Mobilisation of Plant equipment into Highway area		
Night 1 (Tuesday 22 nd March)	Removal of Asphalt from Deck with profiler (Span 1 & Span 2) Longitudinal saw cuts full depth of bridge in 4 sections	Northbound Double fast lane Closure. Stop/Go for single slow lane on Highway. Southbound Double fast lane Closure. Stop/Go for single slow lane on Highway.	Span 1 (West) Span 2 (East)

Mechanical Demolition:

*Once works start, the bridge demo team must be cautious to ensure that there is sufficient time to allow for safe demolition and demobilisation within allowable timeframe. Demolition waste stockpiled on site the night before will be removed on days clearing laydown each day.

Night 2 (Wednesday 23 rd March)	Mechanical demolition of Span 2 –Section 1 (Southern half)	Detour Northbound and Single Lane Closure Southbound	Span 2 (West)
Night 3 (Thursday 24 th March)	Mechanical demolition of Span 2 –Section 2	Detour Northbound and Single Lane Closure Southbound	Span 2 (West)
Night 4 (Friday 25 th March)	Mechanical demolition of Span 1 – Section 1 (Southern half)	Detour Southbound and Single Lane Closure Northbound	Span 1(East)
Night 5 (Saturday 26 th March)	Mechanical demolition of Span 1 – Section 2 (Northern half)	Detour Southbound and Single Lane Closure Northbound	Span 1(East)
Night 6 (Sunday 27 th March)	Mechanical demolition of Centre Pier and Footing	Double Lane Closure both Northbound and Southbound	Pier 1
Day (Tuesday 29 th March)	Clean centre pier and remove pile	Nil	Pier 1
Night 7 & 8 (Monday 28 th March & Tuesday 29 th March)	Mechanical demolition of Abutment A	Southbound Detour	Abutment A

Night 9& 10 (Wednesday 30 th & Thursday 31 st March	Mechanical demolition of Abutment B	Northbound Detour	AbutmentB
Day 11	Demobilisation		All

4.4. Current Bruce Highway detour start and finish times

- Southbound
 - Sunday – 9:00pm – 4am
 - Monday – 9:00pm – 4am
 - Fast lane closure at 7:00pm
 - Tuesday – 9:00pm – 4am
 - Fast lane closure at 7:00pm
 - Wednesday – 9:00pm – 4am
 - Fast lane closure at 7:00pm
 - Thursday – 9:00pm – 4am
 - Fast lane closure at 7:00pm
 - Friday – 9:00pm – 5am
 - Fast lane closures at 7:00pm
 - Saturday – 9:00pm – 6am
 - Fast lane closures at 7:00pm
 -
- Northbound *
 - Sunday – 9.15pm – 5am
 - Monday – 9.15pm – 5am
 - Tuesday – 9.15pm – 5am
 - Wednesday – 9.15pm – 5am
 - Thursday – 9:15pm – 5am
 - Friday – 10:15pm – 5am
 - Saturday - 8:15pm to 5am
- During Detours, single fast lanes closures will be setup at 7.00pm (Sunday to Saturday) to allow for preparation works to start
- Works are night shift, Sunday to Saturday and day shift Monday to Saturday

*consideration to 45min additional time on road per RFI-141-4239-00702 has been made in the northbound times above

4.5. Species Management Plan

BMD has been made aware that a Species Management Plan is applicable to the project site. In compliance with this plan, a microbat habitat survey will be conducted by Biodiversity Australia Fauna Spotter Catchers at the time. This survey will be undertaken to determine the likely presence of microbats in the gaps under the Deception Bay Road overpass. The survey involves using torches to inspect the gaps in the Deception Bay Road Bridge on the eastern and western side of the Bruce Highway Motorway for the presence of microbats, microbat guano, and urine staining. A dusk survey will be carried out which involves monitoring the gaps in the bridge over a period of four hours from 1700 to 2000 to identify any microbats that may be using the bridge as refuge or breeding habitat through visual and/or audible identification.

The survey results are attached in Appendix K. A second and final fauna survey will be undertaken 48 hours prior to bridge demolition.

5. Construction Sequence (summarised)

5.1. Completed Previous Works

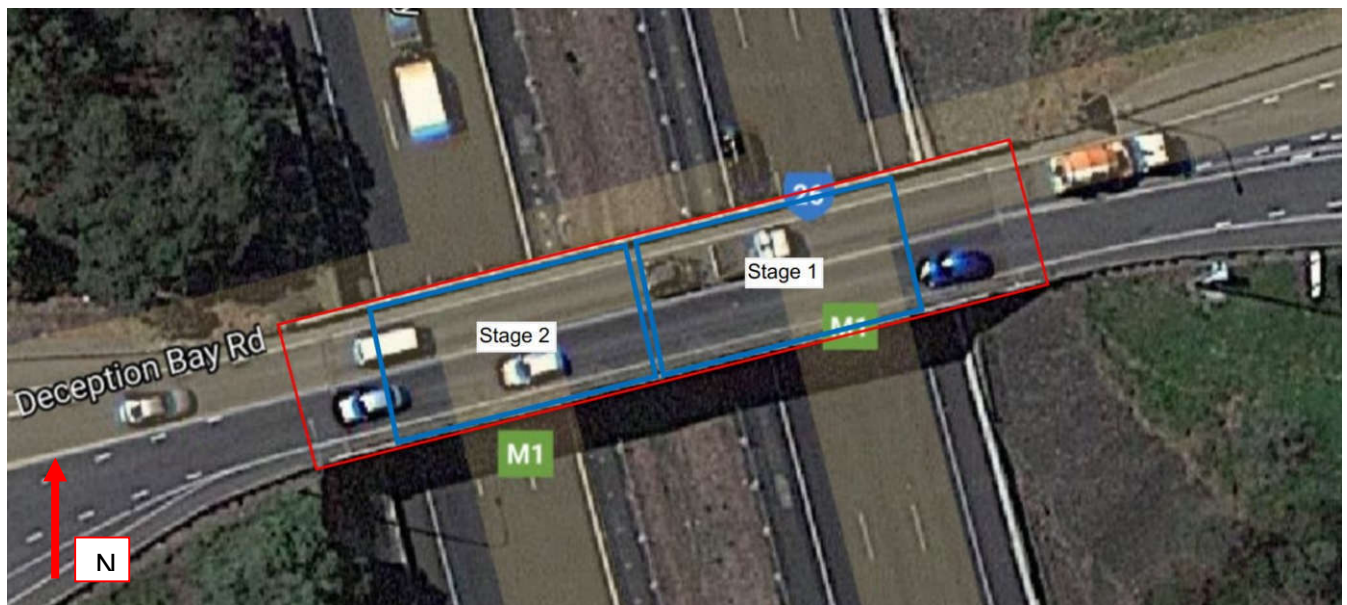
- Verify existing services have been disconnected
 - Electrical - Energex
 - Communications - NBN / Telstra
- Confirm no microbats / wildlife prior to works as per Appendix K
- Community consultation via BMD and TMR community liaison officers

5.2. Preliminary Works (prior to starting)

- Preparation of site-specific documentation and finalisation of program and CMS
- Site establishment
- Mobilisation of plant and equipment
- Prestart meeting
- Final 48-hour prior survey to verify no Microbats or other fauna as per advice in Appendix K

5.3. General Overview of Demolition Methodology

- Demolition Works – Bridge Deck & Piers
- Stage 1 – Demolition bridge Span 1 above south bound lane of Bruce Highway
- Stage 2 – Demolition bridge Span 2 above north bound lane of Bruce Highway
- Day works – Removal of earthworks material behind abutments
- Day works – Removal of bridge demolition waste
- Waste Disposal



5.4. Overview of Demolition Methodology

BMD has engaged a specialist licenced demolition subcontractor to carry out the demolition works in accordance with AS2601-2001 and the Safe Work Australia: Demolition Work – Code of Practice (February 2016).

The Demolition subcontractor (Demex Pty Ltd) will work under their own Health, Safety, Environment and Quality systems and compliance with these will be audited by BMD via pre-award evaluation process.

All works involved with demolition and removal of the bridge and include all design, construction activities and temporary works required to undertake the works and shall be certified by a suitably experienced and qualified RPEQ engineer prior to start of demolition.

5.5. Scope of Works

The main works to be completed as part of this CMS are:

- Traffic Control
- Removal of bridge Asphalt surfacing (profile milling)
- Saw cutting (full depth) of bridge deck along centreline of bridge
- Demolish spans over North and Southbound highway
- Demolish Centre median pier (and Pier Piles)
- Demolish east and west abutments (and Abutment Piles)
- Demolish abutment protection (stone pitching and soil reinforced panels)
- Processing and removal of demolition waste to off-site registered waste facilities

5.6. Hold Points

Prior to commencement of demolition:

- Installation of any temporary works (i.e. saw cut) prior to demolition per RPEQ approved drawings

Prior to proceeding to demo of next cut:

- BMD and Demex supervisor to check no go times

Prior to reopening road at the end of each shift:

- RPEQ inspection and signoff to be received documenting that it is safe to traffic road below and adjacent to the partially demolished structure. Site Inspection Record to be received at handover of each night for record.

5.7. Vehicle Management Plan

Refer attached Appendix L for a copy of the Vehicle Management Plan for this demolition works

6. Detailed Demolition Methodology

6.1. Completed Previous Works

6.1.1. Services Disconnection

Electrical - Energex

Communications - NBN / Telstra

6.1.2. Confirm no microbats / wildlife prior to works as per Appendix K

(1) Methodology

A dusk (5 pm to 8 pm) fly over survey and bridge assessment was conducted by a Biodiversity Australia Ecologist on Thursday 20th January 2022. This assessment was undertaken to determine if the bridge is currently being used by native fauna for roosting / breeding. The priority of the survey was to determine if the bridge was being used by microbats or nesting birds.

The survey was conducted from the underside of the bridge in the barricaded median strip as this was the most reliable and safest location to observe the length of the bridge. The survey was conducted just prior to dusk to detect chatter prior to typical flight time for microbats. The following methods were undertaken during the survey:

- A live directional Anabat Walkabout Bat Detector was used during the survey. The anabat allows for immediate feedback by allowing the user to listen to the calls.
- During the survey, the bridge was scanned using thermal imagery binoculars and spotlights. The thermal imagery binoculars detects heat signatures of the bridge and was used to identify activity

particularly around any crevices or nest like structures.

- The survey methods were repeated over a 3 hour period to allow for late fly outs which was expected with the heavy rain present on site.

(2) Results

- No fauna activity was detected around the bridge during the survey period.
- One nest was identified above the median strip on the southbound side of the overpass. The nest was determined to likely belong to a welcome swallow (*Hirundo neoxena*). The nest was monitored throughout the survey period and was surveyed with the thermal imagery binoculars with no signs of activity identified around the nest.
- No additional signs of fauna use were detected in the bridge structure (i.e. microbat scat)

(3) Recommendations / Works prior to Demolition

- Refer to section 6.2.5 for further information

6.2. Preliminary Works (prior to starting)

6.2.1. Preparation of site-specific documentation

- Safe Work Method Statements (SWMS) for high-risk construction work
- Notifications to regulator
 - WHS Notification Form 65
- Dial Before You Dig assessment
- Project risk assessment
- Demolition meeting with client in the lead up to works (CMS review and methodology run-through including risk management)

6.2.2. Site establishment

- Disconnections to be managed by BMD to ensure area cleared for Demex prior to commencement of works. Refer to previous Section 6.1.1 and BMD Permit to Work required. All services to be confirmed as disconnected by BMD electrical subcontractor prior to works commencing.

6.2.3. Mobilisation of plant and equipment

- Mobilisation of machines to site. This includes safely floating all excavators and attachments to site and ensuring that they are serviced, fuelled, weed and seed inspected and ready to begin works. All machines will have a pre-start taken at the beginning of the day to ensure that they are operating in a safe manner prior to start of works. Machines will be floated to site as required throughout the programme of works.

6.2.4. Prestart meeting

- Mandatory daily prestart meeting to be conducted by the DEMEX site supervisor before commencement of work each day/night. Workers to be advised of any specific issues relating to the site and work to be carried out. Meeting to cover daily works program, exclusion zones, spotters, UHF channel, identified risks, daily targets etc. Records will be kept of all pre-start meetings including attendances and matters covered in the meeting.
- All personnel to participate in mandatory BMD site induction prior to commencing any work on site
- All personnel to have completed the Contractor Management System induction requirements prior to undertaking a BMD Site induction
- Onsite traffic movement will be discussed and planned at the daily prestart meeting. Onsite traffic movement will be based on daily works program, plant and equipment onsite and expected truck movements. All personnel are to understand onsite traffic movement and visitors will be instructed accordingly.
- Familiarise everyone on site with the evacuation plans and locations of the environmental response equipment i.e. spill kits

6.2.5. Final 48-hour prior survey to verify no Microbats

Biodiversity Australia recommends that a second survey be conducted by a suitably qualified person prior to the night of the bridge demolition to ensure no fauna is detected and to ensure the bird nest has not become active between the initial survey and the demolition. If activity is observed at the bridge, works are to stop until microbat flyout has ceased for the night and block up any entrance/exit holes that are not immediately being destroyed with expanding foam, once cleared of microbats. An inspection camera may be used to check the holes if it is unclear whether all microbats have left prior to applying the expanding foam. A Fauna Spotter Catcher has been organised to be on call throughout the demolition process to respond to any unexpected finds.

6.3. Demolition Works

To be read in conjunction with Demex Demolition Management Plan attached in **Appendix B**.

6.3.1. Prep Works

(1) Removal of Existing Asphalt off Deck and longitudinal sawcut

- Remove asphalt surface of Deception Bay Road by profiling and loading into trucks. The profiler will work from the top of the bridge to complete this work. Double lane and stop/go on highway below works area to facilitate safe works.
- The depth of Asphalt is nominal 60mm thick over the entire deck per WAE drawings supplied by the client.
- Works will be completed on night shift. Material to be scrapped to abutment and then loaded into the trucks.
- Spotters will be utilised whilst works are being performed under double lane closures to ensure material is retained on the bridge deck.
- The longitudinal sawcuts per Appendix A will occur on nightshift with double lane closures and a stop/go on slow lane traffic.
- Geofabric to be rolled out following traffic control stop of highway traffic to capture slurry from cuts over live lane and rolled back / road cleaned prior to releasing traffic from the hold.

(2) Road Closures

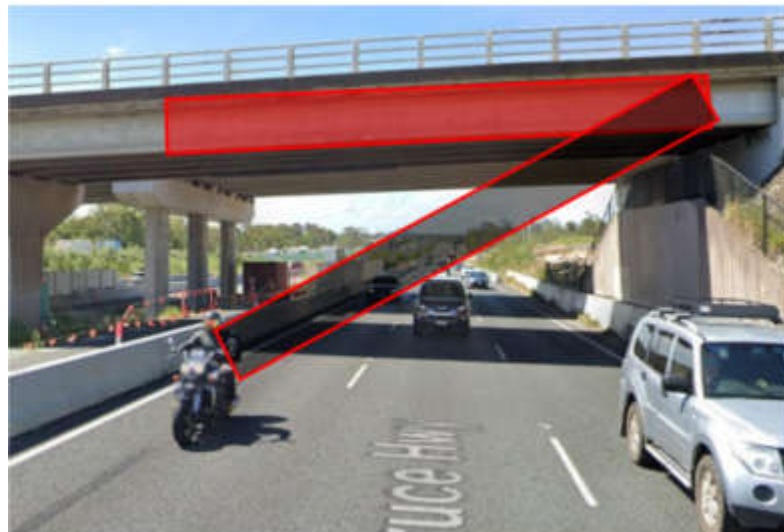
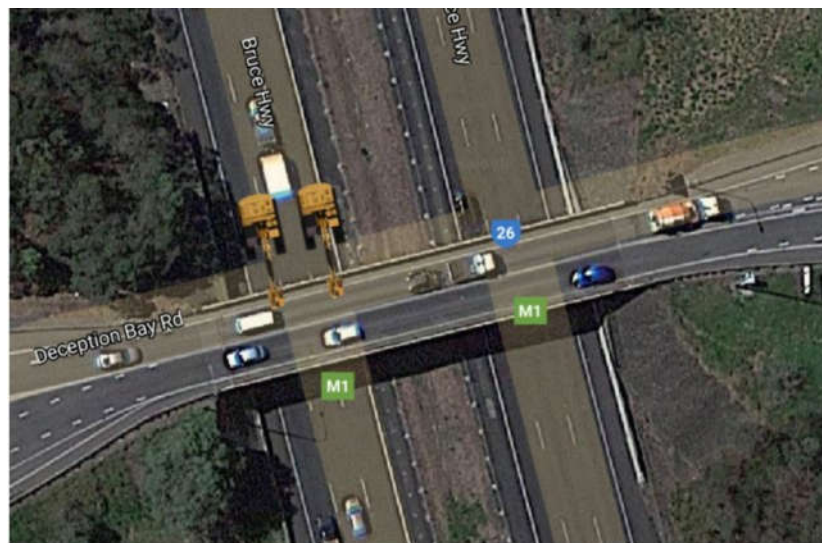
- Deception Bay Road existing bridge BIS 816 is to be closed for the duration of the project. BR01 will be constructed and operating prior to the commencement of demolition and will be utilised for diversions during the demolition works.
- Main demolition works are to commence after hours each night and all works (including the removal of road protection measures) is to be completed by 5am (with Southbound earlier at 4am) the following morning. Works are proposed to be completed between Sunday and Saturday. The actual start times will be as per the approved traffic permit times and conditions.
- The road and work area will be inspected by both Demex and BMD Supervisors to ensure there are no potential impacts to road users once the road is opened. If a repair is deemed necessary then cold mix is to be readily available on site and hot mix is to be available from nightshift plant.

6.3.1. Demolition Works – Bridge Deck & Piers

- The following steps will be implemented within the following four stages;
- All excavators will utilise spotters with dust suppression hoses who will work in conjunction with the excavator operator, maintaining clear communication with the UHF. A water truck fitted with a high-pressure cannon will be utilised for dust suppression. Continual visual monitoring of dust will be undertaken per the approved SWMS to control risk of silica dust and where necessary, additional dust suppression measures will be implemented (i.e additional dust suppression hoses). Depositional dust gauges are also in place near sensitive receiver locations including Arethusa College, 787 Old Gympie Road and 24 New Settlement Road. Additional dust monitoring will be undertaken in the event of a complaint as detailed in the project Environmental Management Plan;
- Installation of road protection measures across the demolition zone for that particular area of work for the night;
- Road protection will consist of:
 - Layer of geofab (200mm overlap)
 - Track Mats
 - Swamp boards (200mm)
 - Steel road plates (in main impact zone/direct drop)
- Roadmats will be used throughout for protection when tracking outside of work zone to protect the existing pavement surface. Road barriers in the fall zone will be removed entirely prior to works commencing and reinstalled each night. Where required, additional material will be utilised in the fall zone of demolition material;
- Moxy dump trucks will be utilised to transport the demolition waste to a designated onsite stock piling location. Rock access from the highway has been constructed to facilitate safe entry/exit of the moxy trucks. Where highway closure times allow insufficient time for moxy trucks to load out, debris/material will be stockpiled in centre median to be removed during day shift.
- Upon completion of each night's work, all road protection measures will be removed from site, barriers will be reinstated, and the roadway thoroughly inspected prior to reopening. An RPEQ supplied by Demex will facilitate the onsite inspection of the entire works area including the remaining portions of the existing structure and confirm that the Motorway is safe to reopen following each shift. Site Inspection Record to be received at handover of each shift for record.

6.3.2. Stage 1 – Demolition bridge Span 1 above south bound lane of Bruce Highway (Friday and Saturday night)

- Two 50T excavators positioned on the highway on the southern side of the bridge, the excavator towards the eastern side of the bridge deck will pulverise until the deck is severed and allow the deck to be lowered to the protected area on the road.
- Once lowered (see below), the western excavator will commence pulverising the beam into a manageable portion to load into an articulated haul truck (Moxy) to be taken to the processing and load out area. The eastern excavator will assist in holding steady the beam until such time as the demolished structure shall drop to the road.



- Once the section up to the central sawcut has been pulverised, the remaining time for the night will be assessed to determine if the next section of span 1 can be demolished the same night. (Hold Point - BMD and Demex Supervisor in consultation with BMD Engineer monitoring progress).
- Works will continue working in easterly direction through the bridge deck leaving a clean working face adjacent the eastern pier.
- Works will cease with enough time to pack up and clean road and be off the highway to re-open per

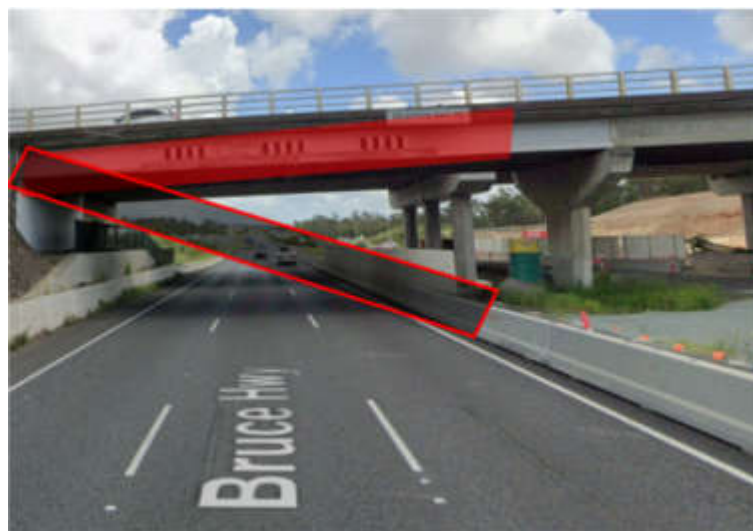
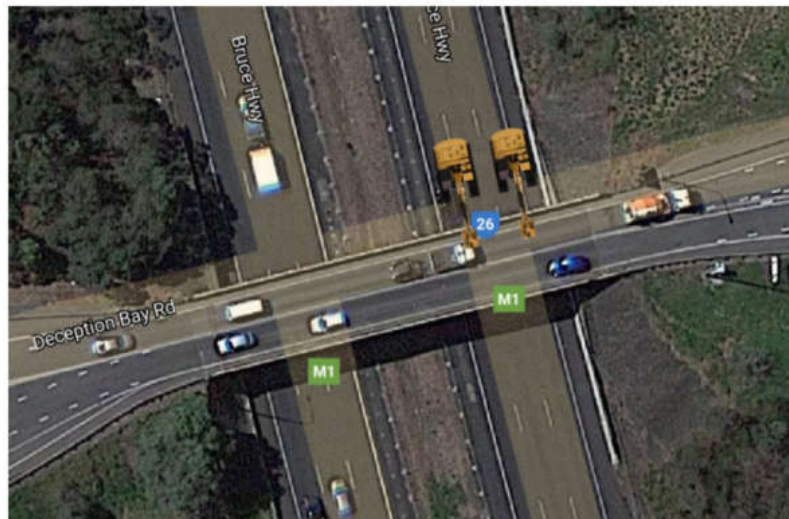
allowable closure times (refer clause 4.4). Where highway closure times allow insufficient time for moxy trucks to load out, debris/material will be stockpiled in centre median to be removed during day shift.

- For the southern and northern most decks of both spans, the locations of the plunge cuts and the lowering of the bridge deck towards the central headstock will allow the wings to the abutment to support the decks during pulverising
- The centre pier will be self-supporting once the span has been removed. Demex RPEQ engineer will confirm structural stability of the pier at the end of each demolition shift.



6.3.3. Stage 2 – Demolition bridge Span 2 above Northbound lane abutment (Wednesday and Thursday night)

- Two 50T excavators positioned on southern side of the bridge, will commence pulverising of the bridge deck on span 2 above the western extremity adjacent the bridge piers.
- The excavator toward the western side of the bridge deck will pulverise until the deck is severed and allow the deck to fall onto the protected area on the road.
- Once this has been conducted, the western excavator will hold the deck steady whilst the eastern excavator commences pulverising the beam into a manageable portion to load into an articulated haul truck (Moxy) to be taken to the processing and load out area. Where highway closure times allow insufficient time for moxy trucks to load out, debris/material will be stockpiled in centre median to be removed during day shift. This process will be repeated for the southern half of the span the following night.



- Once the section up to the central sawcut has been pulverised, the remaining time for the night will be assessed to determine if the second half of span 2 can be demolished the same night. (Hold Point - BMD and Demex Supervisor in consultation with BMD Engineer monitoring progress)
- Works will continue working in westerly direction through the bridge deck leaving a clean working face adjacent the Abutment B.
- The centre pier and pier footings will be pulverised by the 50T excavators with a double lane closure on either side.
- 30T excavator with ripper & bucket attachment to remove embankment material during day works.

6.3.4. Demolition Centre Pier

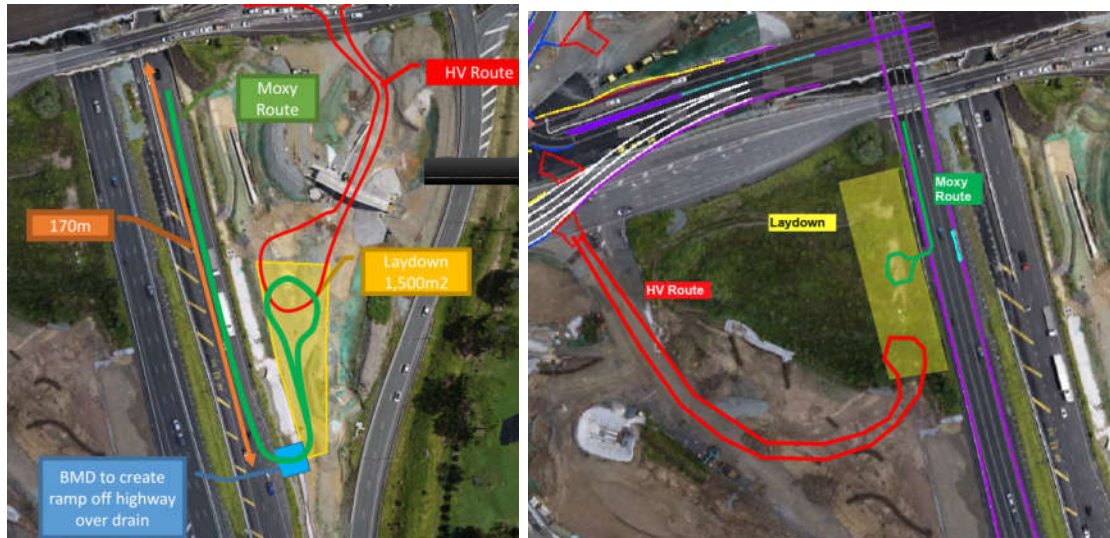
- A double lane closure will be installed on each side of the centre pier to protect vehicles traveling Southbound and Northbound on the Bruce Highway.
- The centre piers will be pulverised down to ground level and footings will be removed to 50mm below bottom of pile cap level with 1 pile being removed completely due to clash with BR02 piling works. Survey to pickup all existing pile locations to ensure that there is no clash with future works.

6.3.5. Demolition of Abutments

- Material behind abutments to be removed to 50mm behind and then battered to a safe profile. Existing temporary works soil nails to be removed during the excavation works.
- Detour to be in place during the works with excavators working from the lanes to demo the abutments. During the demo of the abutments existing retaining wall and RSS panels to also be removed.

6.3.6. Day works – Removal of bridge demolition waste

- All generated demolition material will be processed and loaded out into semi-trailers from the designated onsite stockpiling area during day works (see below). Site will be left level and free of all residual demolition materials.



- All waste is to be taken to a registered disposal facility with BMD to receive all waste dockets.
- Chain of Responsibility (CoR) requirements are to be adhered to. All parties in the supply chain are to do their part to ensure trucks are not overloaded.
- Final clean-up of site, removal of remaining demolition waste. Any columns, reinforced steel and concrete cut lines are to be tidied up utilising small machines and hand methods.
- All remaining plant, equipment and resources will be demobilised from site and the site is handed back

7. Plant, Equipment and Materials

7.1. Plant and Equipment

Excavators	Support Equipment
50T excavators with attachments	OXY / LPG cutting equipment
30T excavators with attachments	Skid steer
5T / 8T support excavators with attachments	Water truck
	Onsite machine refuelling truck
Cranes	Various hand tools
Franna	Moxy
Height Access Equipment	Profiler
Boom lift (EWP)	

7.2. Material Handling

7.2.1. Concrete

- Handled with an excavator both in demolition and removal
- Trucks will be used to transport concrete to disposal site

7.2.2. Steel

- Handled with an excavator both in demolition and removal
- Trucks will be used to transport steel materials to recyclers yard
- Hand cutting devices (Oxy / LPG) may be used when necessary. A Hot Works Permit will be required

8. Hazards/Risks

8.1. Critical Items

The following items have been identified as critical for the safe delivery of this project.

- Competent supervision for demolition works
- Management of silica dust (RCS)
- Protection against unauthorised entry to the demolition area. Adequate perimeter fencing and or signage
- Exclusions zones to works areas to be established. Exclusion zones to be determined by the site supervisor based on the site conditions, scope of works and the identified risk factors. These to be communicated to other workers during prestart meetings, inductions and with clear signage and delineation
- Clear communication and understanding of step-by-step controls and procedures amongst all operators and site personal
- All personnel to maintain appropriate conduct on site, ensuring clear unhindered radio communication during mechanical demolition processes
- Risks associated with hot works to be controlled by housekeeping and visual inspections by competent personnel
- Implementation of separation and protection of surrounding assets during demolition process
- Implementation of separation and protection of area following demolition of the structure
- Implementation of dust and debris minimisation control measures (including water cannons) during demolition processes
- Implementation of noise and vibration minimisation as per controls in Out of Hours Permit during demolition process
- Implementation of microbat/habitat management control measures before and during demo process. A final fauna survey has been arranged for 48hrs prior to the bridge being demolished. A Fauna Spotter Catcher has been arranged to be on call during the demolition.

8.2. Health & Safety

The following work health and safety control measures have been identified and are to be implanted throughout the project. Control measures will be periodically reviewed for effectiveness.

- BMD Contractor Management System (CMS) to be completed by all workers
- All workers to receive BMD Project Induction
- Daily prestart meetings mandatory for all staff to discuss risk, control measures and demolition methodologies
- All personnel to have the appropriate training and competencies for the activities they are completing
- All personnel to have the appropriate PPE for the activities they are completing and have been trained in the proper
- Tagged fire extinguishers are always to be onsite and within the work area hot work is being conducted
- Electrical test and tagging to be in date for all electrical equipment
- First aid kits to be adequately stocked and available onsite
- Exclusion zones and signage to be implemented to secure work zones
- Dust control measures, housekeeping and water suppression measures to be utilised throughout the project
- Silica dust management processes
- Vehicle movement and any live traffic to be considered and Traffic Management Plan prepared if required
- People/Plant Interaction
- Falling Materials
- Hazardous Chemicals
- Noise
- Working with hand tools, sharp materials
- Working at Heights
- Working Adjacent and above road and live traffic
- Refer to relevant BMD WMS and subcontractor WMS

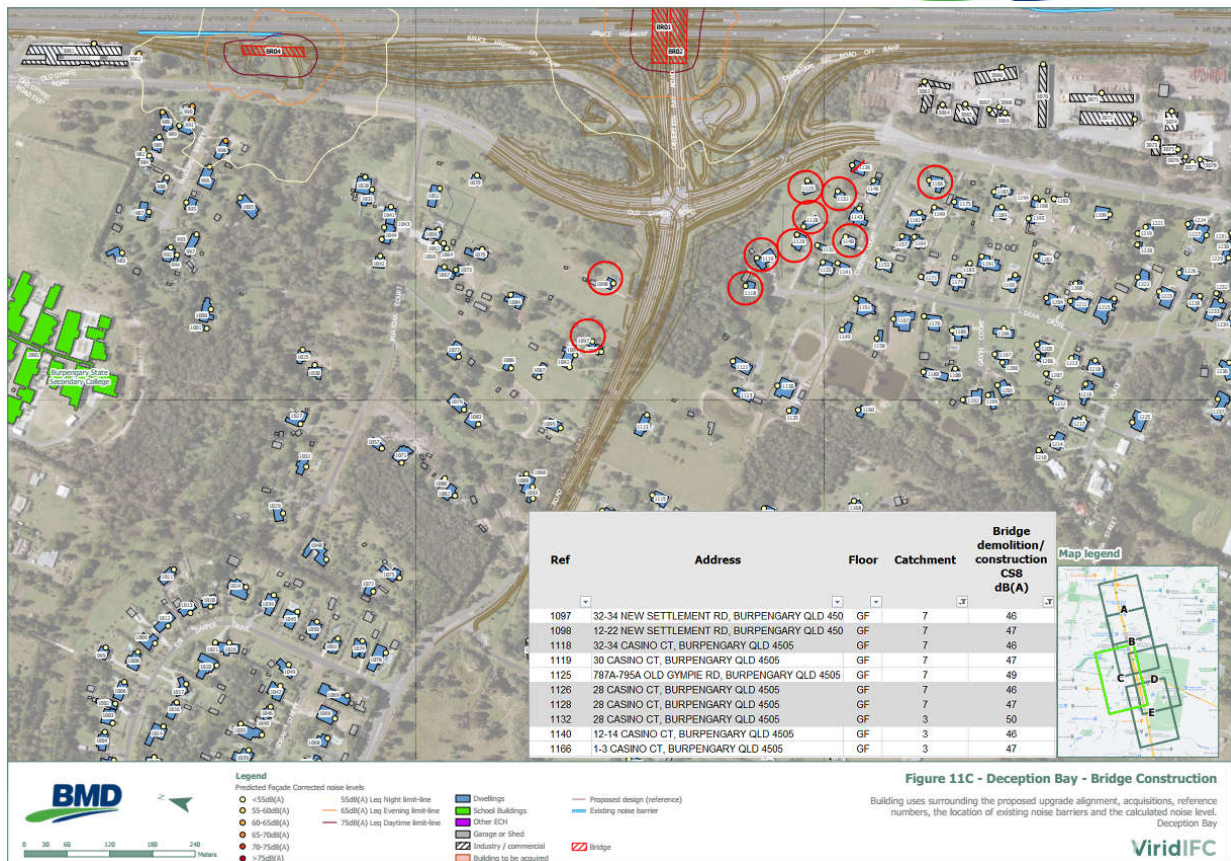
8.3. Environment

The following environmental control measures have been identified and are to be implanted throughout the project. Control measures will be periodically reviewed for effectiveness.

- Prior to bringing any equipment or plant onsite or leaving site, it is to be thoroughly cleaned to ensure no transportation of weeds or soils onto the site
- Daily prestart checks to be undertaken on equipment to identify any leaking oils or fuel that could present a hazard to the environment. If any such leaks are identified they will be repaired before the equipment is allowed to be used
- Dust control measures (including water cannons), housekeeping, screens and water suppression to be utilised throughout the course of the project
- Noise –
 - Out of Hours Permit to be raised prior to any works commencing
- Vibration
 - Vibration risk assessment has confirmed nil impacts are anticipated from this work to nearby stakeholders. Pre-Condition surveys have been completed. (Ref. Noise and Vibration Management Plan)
- Modern, well-maintained equipment to be used to reduce noise pollution onsite, noise levels to be periodically monitored
- All non-recyclable waste will go to landfill at approved landfill site nominated by Demex.
- All concrete will be taken to approved recycling site nominated by Demex
- All scrap metal/steel will be taken to local scrap metal recycler.
- Dust from demolition and processing to be managed using watercarts
- Runoff from saw cutting is to be managed by ensuring all stormwater pits are protected as per the PESCPs. Geofabric will be laid out on the road surface to capture all concrete slurry generated during saw cutting. A vac truck or similar will be on standby to clean up any built up debris/sediment at erosion/sediment capture locations prior to any expected rain event. All waste concrete is to be disposed of appropriately at licenced facilities (i.e. Alex Fraser waste facility).
- All materials taken off site will be tracked and recorded onsite.

8.4. Community

- Noise from plant and equipment and demolition processes. Virid IFC Pty Ltd has completed a detailed construction noise and vibration assessment for the project as part of the DBRIU Noise and Vibration Management Plan. The acoustic model includes predicted noise levels for bridge demolition for each sensitive receiver. The works are predicted to slightly exceed the noise criteria particularly in the night periods (45dBA) at 10 properties as highlighted below. Therefore, all reasonable and feasible noise mitigation measures as outlined in the BMD Out of Hours Works Permit must be implemented to minimise the impact of these works. Noise monitoring will also be conducted at 2 representative locations and additionally in response to any noise complaints.



- Traffic Closures & Notifications to community
- BMD Out of Hours Works Permit and TMR - Bridge Demolition Noise Relocation Approach
- Dust from demolition and processing to be managed with water suppression as detailed in this CMS. Continual visual monitoring of dust will be undertaken in addition to the depositional dust gauges located near sensitive receiver locations including Arethusa College, 787 Old Gympie Road and 24 New Settlement Road. Additional dust monitoring will be undertaken in the event of a complaint as detailed in the project Environmental Management Plan;
- Any Complaints will be managed in accordance with the DBRIU Community Liaison Plan and Environmental Management Plan.

8.5. Public Protection

- Prevent unauthorised pedestrian access onto site
- Prevent risk to adjacent road users (live lanes)

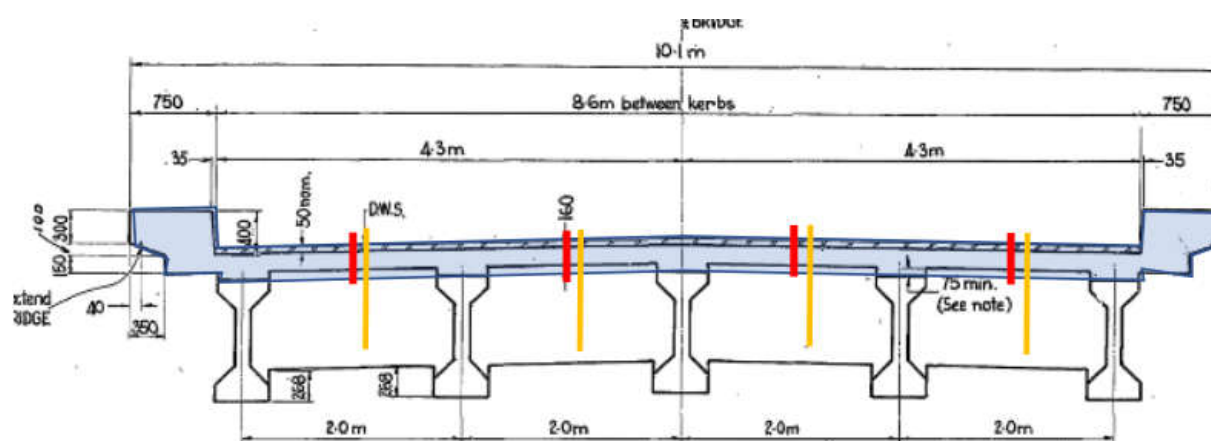
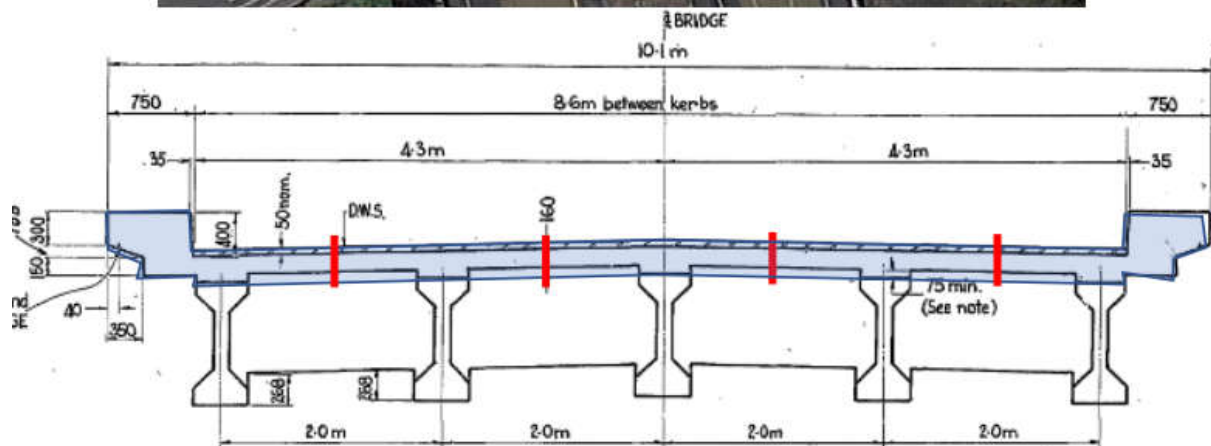
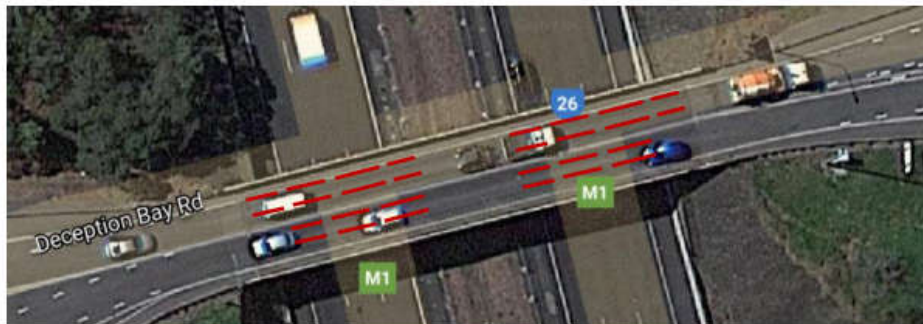
8.6. Key Risk Assessment

#	Hazard/Aspect (Procedure Step)	Impact (what can go wrong)	RISK SCORE without Controls			Management Controls (controls to be in place in order to manage Health, Safety and Environmental Risks)	RISK SCORE with Controls			Person Responsible (to ensure controls are applied)
			Cons	Prob	Risk		Cons	Prob	Risk	
1	Methodology - Refer to demolition management plan (DMP) Failure to follow DMP and RPEQ design drawings –no certification of plan/drawings.	Bridge collapse Injured workers Members of public Traffic congestion/Highway closure	4	3	12	- RPEQ signed off for DMP and design drawings. - All personnel to understand Demolition method as per Demolition Method Plan. - Demex Supervisor to enforce DMP and audit compliance of works.	3	2	6	Demex/BMD
2	Planning for plant mobilization and demob	Traffic congestion/Highway closure Confusion over works	4	3	12	- Comply with TGS and site VMP - Pre-start meeting - Follow permit Conditions - SWMS - Toolbox	3	2	6	Demex
3	Interaction with otherwork groups/non authorised personnel	Disruption to works Serious injury	4	3	12	- Planning/co-ordination meetings - Exclusion zone - Stop work and control unauthorised persons - SWMS - Pre-start Briefings	3	2	6	Demex/BMD
4	Night works	Fatigue Poor lighting Failure of lighting	4	3	12	- Adhere to Demex fatigue management plan - Ensure all lighting is adequate for areas and task - Stop works and control area	3	2	6	Demex
5	Highway reopening late	Traffic Delays Road unsafe Reopening lane late	4	3	12	- Agree & implement cutoff time for demolition of next girder in line. BMD Supervisor to manage with Demex supervisor prior to each new cut being demolished. - RPEQ on site to inspect & certify remaining structure is safe - BMD and Demex Supervisors to inspect road surface condition. Cold/Hot mix repairs to be implements if deemed necessary.	3	2	6	Demex

6	Unplanned Event	Disruption to work schedule and traffic	4	3	12	Demex to ensure roadway clear at schedule times and should unplanned event take place during night works, time will be allotted to ensure public not put at risk. (make early call)	3	2	6	Demex
7	Emergency planning	Unfamiliar with site rules/Induction	3	3	9	Ensure all workers complete and be familiar with site induction and emergency planning requirements	3	2	6	Demex/BMD

#	Hazard/Aspect (Procedure Step)	Impact (what can go wrong)	RISK SCORE without Controls			Management Controls (controls to be in place in order to manage Health, Safety and Environmental Risks)	RISK SCORE with Controls			Person Responsible (to ensure controls are applied)
			Cons	Prob	Risk		Cons	Prob	Risk	
		Work methodology Site first aid/assembly area				Appoint site first aiders for nights				
8	Environmental / Community	Noise Complaints	3	3	9	- Control measures as outlined in the Out of Hours Permit - Trucks to be loaded on the highway (furthest possible point from residential areas) - Saw cutting to be performed early in the shift - Noise Monitoring - TMR - Bridge Demolition Noise Relocation Approach	3	2	6	Demex/BMD
		Dust Complaints	3	3	9	- Water cannons and water carts to be used during works - Dust monitoring	3	2	6	Demex/BMD
		Rain Event / Water Quality Impacts	3	4	12	- ESC controls to be installed as per PESCPs - All concrete slurry and wastes to be collected/contained prior to rain	3	2	6	Demex/BMD
9	Asbestos	Uncontrolled asbestos demolition	3	4	12	- Experienced Asbestos removal contractor and can remove if required - Investigate bridge voids to confirm no Asbestos	3	1	3	Demex
10	COVID-19		3	4	12	- Social Distancing of 1.5m - Mandatory site rules for COVID-19 risk management (as current during the BMD Project Induction) - Secondary crew to be available as backup (won't be immediate start)	2	3	6	Demex/BMD

Appendix A – Saw cut Design





Appendix B – Demex Demolition Management Plan

Appendix C – Hourly Program

REMOVE AC - SAW CUT JOINTS	Commence time	Duration	Complete	Critical Times
Tuesday, 22 March 2022				
Daily Pre-start Meeting	6:30:00 PM	0:30:00	7:00:00 PM	
Establishment of Traffic Control for lane set-up - double lane closure Both Directions	7:00:00 PM	1:00:00	8:00:00 PM	
Profiling Southbound span	9:15:00 AM	1:30:00	10:45:00 AM	
Profiling Northbound Span	10:45:00 AM	1:30:00	12:15:00 PM	
Sawcut Center Half of Bridge (Either Side of Centre Pier)	10:45:00 AM	2:00:00	12:45:00 PM	
SOUTHBOUND - stop/go arrangement				
Sawcut above Slowlane	12:45:00 PM	1:15:00	2:00:00 PM	
Go / No Go to allow for Pack Up (southbound)			2:00:00 AM	
Clean Road Surface	2:00:00 PM	0:30:00	2:30:00 PM	
NORTHBOUND - stop/go arrangement				
Finish Sawcutting Centre Half of Bridge (contingency)	2:00:00 PM	1:00:00	3:00:00 PM	
Sawcut above Slowlane	3:00:00 PM	1:00:00	4:00:00 PM	
Go / No Go to allow for Pack Up (northbound)			4:00:00 AM	
Clean Road Surface	4:00:00 PM	0:30:00	4:30:00 PM	
Remove Traffic Control and Devices to single lane	4:30:00 PM	0:30:00	5:00:00 PM	5:00:00
Reopen highway	5:00:00 PM	1:00:00	6:00:00 PM	6:00:00

	Commence time	Duration	Complete	Critical Times
Wednesday, 23 March 2022				
Daily Pre-start Meeting	6:30:00 AM	0:30:00	7:00:00 AM	
Establishment of Traffic Control for lane set-up	7:00:00 AM	2:00:00	9:00:00 AM	
Removal of Barrier in Centre Median	8:00:00 PM	0:15:00	8:15:00 PM	
Detour implementation	9:15:00 PM	0:15:00	9:30:00 PM	
Dilapidation assessment	9:30:00 PM	0:10:00	9:40:00 PM	
Installation of road protection Measures	9:30:00 PM	1:30:00	11:00:00 PM	
Mechanical Demolition of Super T #1	11:00:00 PM	1:00:00	12:00:00 AM	
Go / No Go to allow super T #2			12:45:00 AM	<< Can be increased to 1:30AM by pulling spoil into centre median
Mechanical Demolition of Super T #2	12:45:00 AM	0:50:00	1:35:00 AM	
Removal of debris - to centre median	1:35:00 AM	0:30:00	2:05:00 AM	
Removal of debris - to stockpile Extra Over/contingency	2:05:00 AM	0:45:00	2:50:00 AM	
Removal of Protection measures	2:50:00 AM	1:30:00	4:20:00 AM	<<any road repairs to be completed during this period up until 4:30am
Geofab Removal and Final Clean up of Road	4:20:00 AM	0:10:00	4:30:00 AM	
RPEQ Dilapidation of Road and Structure	2:45:00 AM	1:15:00	4:00:00 AM	
Remove Traffic Control and Devices to single lane	4:30:00 AM	0:30:00	5:00:00 AM	5:00:00
Barrier reinstatement	4:20:00 AM	1:00:00	5:20:00 AM	
Reopen highway	5:00:00 AM	1:00:00	6:00:00 AM	6:00:00

	Commence time	Duration	Complete	Critical Times
Thursday, 24 March 2022				
Daily Pre-start Meeting	6:30:00 PM	0:30:00	7:00:00 PM	
Establishment of Traffic Control for lane set-up	7:00:00 PM	2:00:00	9:00:00 PM	
Detour implementation	9:15:00 PM	0:15:00	9:30:00 PM	<<assumes successful trial to start 45min earlier than approved times
Dilapidation assessment	9:30:00 PM	0:10:00	9:40:00 PM	
Installation of road protection Measures	9:40:00 PM	1:30:00	11:10:00 PM	
Mechanical Demolition of Super T #3	11:10:00 PM	0:50:00	12:00:00 AM	
Go / No Go to allow for next super T			12:00:00 AM	<<super T 3 must be seperated and free from structure @ 12pm to continue
Mechanical Demolition of Super T #4	12:00:00 AM	0:50:00	12:50:00 AM	
Mechanical Demolition of Super T #5	12:50:00 AM	0:40:00	1:30:00 AM	
Go / No Go to allow for Pack Up			1:30:00 AM	<<critical time to start placing debris in median
Removal of debris - to centre median	1:30:00 AM	0:50:00	2:20:00 AM	
Removal of Protection measures	2:20:00 AM	1:30:00	3:50:00 AM	<<any road repairs to be completed during this period up until 4:30am
Geofab Removal and Final Clean up of Road	3:50:00 AM	0:10:00	4:00:00 AM	
RPEQ Dilapidation of Road and Structure	3:10:00 AM	1:10:00	4:20:00 AM	
Contingency	4:00:00 AM	0:30:00	4:30:00 AM	
Remove Traffic Control and Devices to single lane	4:30:00 AM	0:30:00	5:00:00 AM	5:00:00
Barrier reinstatement	3:50:00 AM	1:00:00	4:50:00 AM	
Reopen highway	5:00:00 AM	1:00:00	6:00:00 AM	6:00:00

	Commence time	Duration	Complete	Critical Times
Friday, 25 March 2022				
Daily Pre-start Meeting	6:30:00 PM	0:15:00	6:45:00 PM	
Establishment of Traffic Control for lane set-up	7:00:00 PM	2:00:00	9:00:00 PM	
Detour implementation	9:00:00 PM	0:15:00	9:15:00 PM	
Dilapidation assessment	9:15:00 PM	0:10:00	9:25:00 PM	
Installation of road protection Measures	9:25:00 PM	1:30:00	10:55:00 PM	
Mechanical Demolition of Super T #1	10:55:00 PM	1:00:00	11:55:00 PM	
Contingency	11:55:00 PM	0:50:00	12:45:00 AM	
Go / No Go for Super T #2			12:45:00 AM	
Mechanical Demolition of Super T #2	12:45:00 AM	0:50:00	1:35:00 AM	
Removal of debris - to centre median	1:35:00 AM	0:30:00	2:05:00 AM	
Removal of debris - to stockpile Extra Over/contingency	2:05:00 AM	0:45:00	2:50:00 AM	
Removal of Protection measures	2:50:00 AM	1:30:00	4:20:00 AM	<<any road repairs to be completed during this period up until 4:30am
Geofab Removal and Final Clean up of Road	4:20:00 AM	0:10:00	4:30:00 AM	
RPEQ Dilapidation of Road and Structure	2:40:00 AM	1:10:00	3:50:00 AM	
Remove Traffic Control and Devices to single lane	4:30:00 AM	0:30:00	5:00:00 AM	5:00:00
Barrier reinstatement	4:20:00 AM	1:00:00	5:20:00 AM	
Remove Traffic Control and Devices	5:00:00 AM	1:00:00	6:00:00 AM	6:00:00

	Commence time	Duration	Complete	Critical Times
Saturday, 26 March 2022				
Daily Pre-start Meeting	6:30:00 PM	0:15:00	6:45:00 PM	
Establishment of Traffic Control for lane set-up	7:00:00 PM	2:00:00	9:00:00 PM	
Detour implementation	9:00:00 PM	0:15:00	9:15:00 PM	
Dilapidation assessment	9:15:00 PM	0:10:00	9:25:00 PM	
Installation of road protection Measures	9:25:00 PM	1:30:00	10:55:00 PM	
Mechanical Demolition of Super T #3	10:55:00 PM	0:50:00	11:45:00 PM	
Contingency	11:45:00 PM	0:35:00	12:20:00 AM	
Go / No Go to allow for Pack Up			12:20:00 AM	
Mechanical Demolition of Super T #4	12:20:00 AM	0:50:00	1:10:00 AM	
Mechanical Demolition of Super T #5	1:10:00 AM	0:40:00	1:50:00 AM	
Removal of Centre Pier Transverse Beam	1:50:00 AM	0:30:00	2:20:00 AM	
Removal of debris - to centre median	2:20:00 AM	0:30:00	2:50:00 AM	
Removal of debris - to stockpile Extra Over/contingency	2:50:00 AM	1:00:00	3:50:00 AM	
Removal of Protection measures	3:50:00 AM	1:30:00	5:20:00 AM	<<any road repairs to be completed during this period up until 4:30am
Geofab Removal and Final Clean up of Road	5:20:00 AM	0:10:00	5:30:00 AM	
RPEQ Dilapidation of Road and Structure	3:55:00 AM	1:10:00	5:05:00 AM	
Remove Traffic Control and Devices to single lane	5:30:00 AM	0:30:00	6:00:00 AM	6:00:00
Barrier reinstatement	5:20:00 AM	1:00:00	6:20:00 AM	
Remove Traffic Control and Devices	6:20:00 AM	1:00:00	7:20:00 AM	7:00:00

	contingency	
	go / no go critical times	
	highway lanes reopening	

Appendix D – SWMS for Demolition

- Demex Safe Work Method Statement – Deception Bay Bridge Demolition
- BMD Safety Work Method Statement 018 – Respirable Silica Dust RCS



Appendix E – WHS Notification Form 65

Appendix F – Existing Bridge Drawings

Appendix G – TGS for Demolition

Night 1: Double fast lane closure NB + SB - NB Double

TGS-089A / SB Double fast - TGS-124E

Night 2 & 3: Northbound Highway closure + single fast lane SB - NB Detour

TGS-122C & 123A / SB single fast - TGS-124D

Night 4 & 5: Southbound Highway closure + single fast lane NB - SB Detour

TGS-124C & 125A / NB single fast - TGS-089

Night 6: Double fast lane closure NB + SB

NB Double - TGS-089A / SB Double fast - TGS-124E

Night 7 & 8: Southbound detour

- SB Detour - TGS-124C & 125A

Night 8 & 9: Northbound detour

- NB Detour - TGS-122C & 123A

Appendix H – Detours for Bruce Hwy

Night 1: Double fast lane closure NB + SB - NB Double

[TGS-089A](#) / SB Double fast - [TGS-124E](#)

Night 2 & 3: Northbound Highway closure + single fast lane SB - NB Detour

[TGS-122C](#) & [123A](#) / SB single fast - [TGS-124D](#)

Night 4 & 5: Southbound Highway closure + single fast lane NB - SB Detour

[TGS-124C](#) & [125A](#) / NB single fast - [TGS-089](#)

Night 6: Double fast lane closure NB + SB

NB Double - [TGS-089A](#) / SB Double fast - [TGS-124E](#)

Night 7 & 8: Southbound detour

- SB Detour - [TGS-124C](#) & [125A](#)

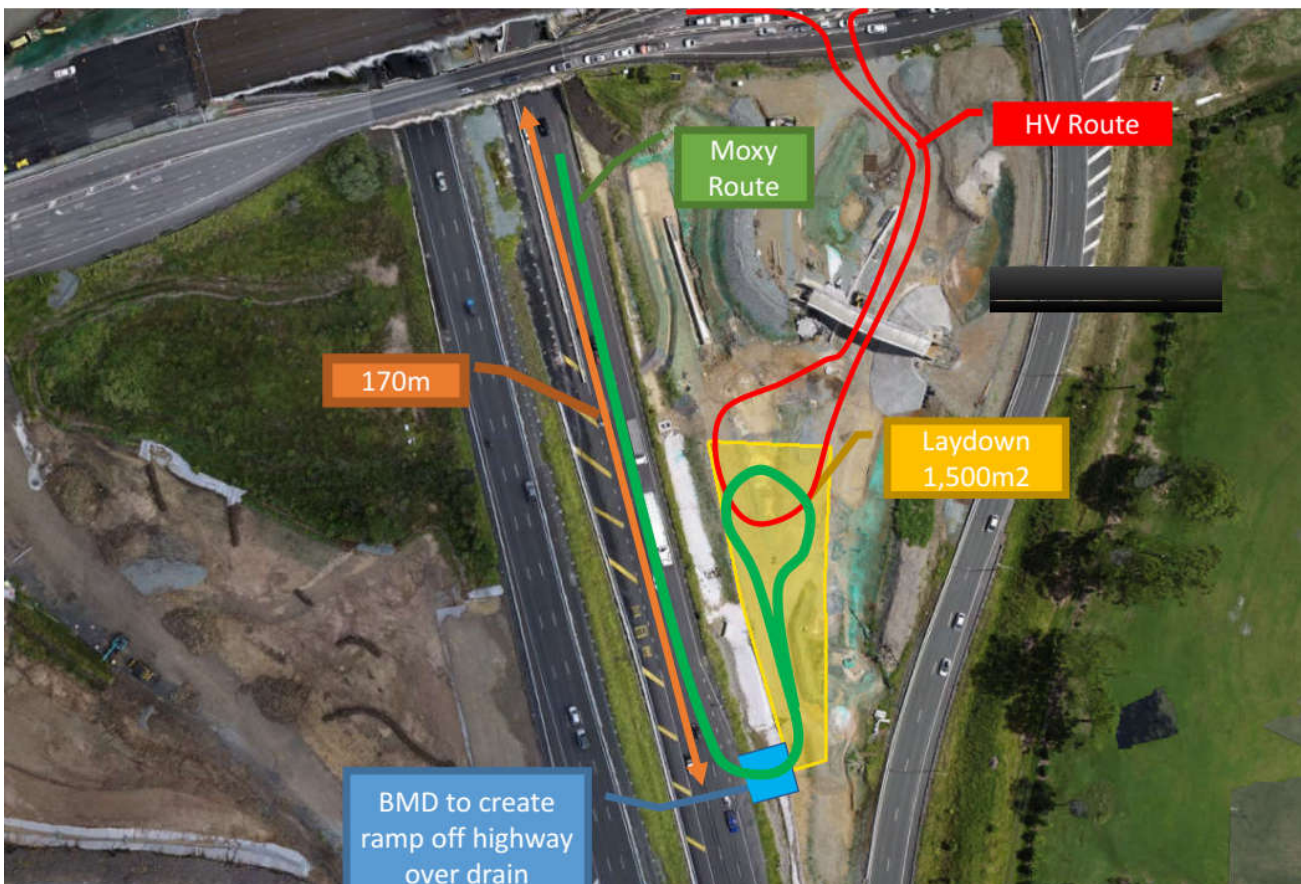
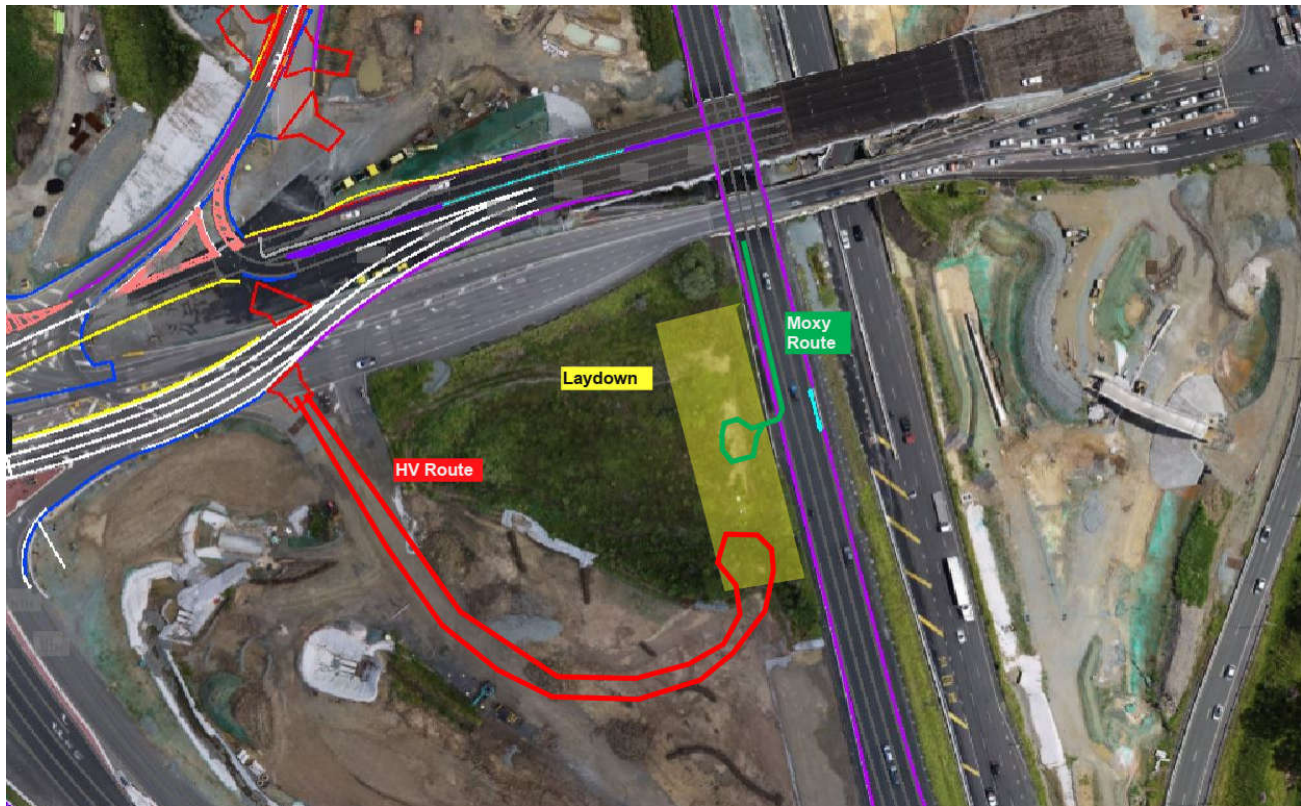
Night 8 & 9: Northbound detour

- NB Detour - [TGS-122C](#) & [123A](#)



Appendix K – Microbat Survey

Appendix L – Vehicle Management Plan





We, the undersigned, confirm that this CMS has been explained, its contents are clearly understood, and that we have been given the opportunity to make comments. We also confirm that our required qualifications to undertake this activity are current. We also clearly understand that the controls in this CMS must be applied as documented, otherwise work is to cease immediately.

Date	Name	Employer	Signature

Comments: