



Planning Approval Consistency Assessment Form

SM ES-FT-414

Sydney Metro Integrated Management System (IMS)

Assessment Name:	Noise mitigation of heritage items
Prepared by:	Sydney Metro
Prepared for:	Sydney Metro
Assessment number:	TfNSW 19
Status:	Final
Version:	1.0
Planning approval:	SSI 15_7400
Date required:	31 August 2018
iCentral number	SM-18-00138807

Form information – do not alter

Form number	SM ES-FT-414
Applicable to:	Sydney Metro
Document Owner:	Principal Manager, Sustainability, Environment & Planning
System Owner:	Executive Director, Safety, Sustainability & Environment
Status:	Final
Version:	2.0
Date of issue:	14 July 2017
Review date:	14 July 2018

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The Planning Approval Consistency Assessment Form should be completed in accordance with the Sydney Metro Planning Approval Consistency Assessment Procedure (SM ES-PW-314) and Sydney Metro Environmental Planning and Approval Manual (SM ES-ST-216)

1.0 Existing Approved Project

Planning approval reference details (Application/Document No. (including modifications)):

SSI 15_7400 Sydney Metro City & Southwest – Chatswood to Sydenham, as modified.

Modification 1 – Relocation of Victoria Cross northern services building, additional station entry and relocation of Artarmon Substation

Modification 2 – Central Walk

Modification 3 – Martin Place Metro Station

Modification 4 – Sydenham Station and Sydney Metro Trains Facility South

Date of determination:

SSI 15_7400 – 9 January 2017

Mod 1 – 18 October 2017

Mod 2 – 21 December 2017

Mod 3 – 22 March 2018

Mod 4 – 13 December 2017

Type of planning approval:

Division 5.2 – critical State significant infrastructure

Description of existing approved project you are assessing for consistency:

The Chatswood to Sydenham component of Sydney Metro City & Southwest comprises a new metro rail line, approximately 16 kilometres long, between Chatswood and Sydenham. New metro stations would be provided as Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street, Waterloo as well as new metro platforms at Central and Sydenham stations.

Construction works at a number of locations would result in predicted noise levels that may exceed the noise management levels identified in accordance with the Interim Construction Noise Guidelines. In accordance with the Construction Noise and Vibration Strategy and mitigation measure NV1, mitigation measures would be implemented where feasible and reasonable with the aim of achieving the noise management levels. Condition E33 requires construction noise and vibration impact statements to be prepared for each construction site and include specific mitigation measures identified through consultation with affected sensitive receivers.

Condition E10 states that the Proponent must not destroy, modify or otherwise physically affect any heritage item not identified in documents referred to in Condition A1. The non-Aboriginal heritage assessment in the documents listed in Condition A1 identified heritage items within a 25 metre buffer area around each construction site and project footprint, as well as heritage items that were identified in the noise and vibration assessments and heritage items that were directly visible from the project footprint.

Relevant background information (including EA, REF, Submissions Report, Director General's Report, MCoA):

Chatswood to Sydenham Environmental Impact Statement May 2016

Chatswood to Sydenham Submissions and Preferred Infrastructure Report October 2016

Chatswood to Sydenham conditions of approval 9 January 2017, as modified

Modifications 1 -4 Modification Reports and Submission Reports

All proposed works identified in this assessment would be undertaken in accordance with the mitigation measures identified in the EIS, SPIR, modification reports, submission reports and the Infrastructure Approval, as modified.

2.0 Description of proposed development/activity/works

During the preparation of construction noise and vibration impact statements, in accordance with Condition E33, mitigation measures have been identified to manage noise and vibration impacts to nearby heritage items. In some circumstances, the identified and agreed mitigation measures involves physical works to the heritage item itself, such as proposed window treatments. This consistency assessment deals only with the installation of noise and vibration mitigation measures at heritage items that have been identified in the documents listed in Condition A1 and where mitigation measures have been agreed with the relevant property owner. This consistency assessment does not cover the installation of noise mitigation measures at heritage items that have not been identified in the documents listed in Condition A1.

Proposed window treatments and the like would be installed on nearby heritage items to mitigate potential noise and vibration impacts as a result of the construction works for the approved project. The noise and vibration mitigation measures would be installed in a manner so that there is no significant heritage impact as a result of the works and impacts would be reversible with no long term negative impact. For example, mitigation measures would be secured to non-significant fabric and can be readily removed to minimise any damage to the item, with little or no making good required.

At this stage, it is known that noise mitigation would need to be installed at the Great Synagogue, Sydney which is a State significant heritage item on Castlereagh Street, near the Pitt Street North metro construction site. It is also understood that noise mitigation would need to be installed on the locally listed City of Sydney Fire Station – Brigade Headquarters on Castlereagh Street, near the Pitt Street South metro construction site. Others may be identified as other construction noise and vibration impact statements are prepared for the project.

At all heritage items, the noise and vibration mitigation measures would be preceded by pre-work investigations to confirm the exact requirements of the proposed treatments and to develop site-specific detailed methodologies for the works at each location. All works would be undertaken in consultation with an appropriately experienced heritage conservation architect and the relevant property owner. The heritage conservation architect would make recommendations for the proposed works at each heritage item similar to those provided for the Great Synagogue in Attachment A. All recommendations and proposed works would be undertaken in accordance with the performance standards in Attachment B.

The proposed working hours, direction, staffing levels and wastes generated are as per the assessment of the approved project. Traffic movements associated with the proposed noise and vibration mitigation measures would be undertaken in accordance with the approved Construction Traffic Management Framework and associated management plans.

3.0 Timeframe

There is no change to the proposed timeframe for the construction works. Works are anticipated to commence in late 2018.

4.0 Site description

Works would be carried out on heritage items within the vicinity of the construction works for the approved project that have been identified for at-property treatment through construction noise and vibration impact statements. The heritage items must be identified in the documents listed in Condition A1.

5.0 Site Environmental Characteristics

The proposed works would be carried out on heritage items in the vicinity of the construction works. Details of the relevant heritage items are identified in the documents listed in Condition A1. Heritage items are either listed on the State Heritage Register, or are of local heritage significance.

6.0 Justification for the proposed works

The proposed works are required to ensure the approved project is carried out in accordance with the Condition of Approvals, mitigation measures and Construction Noise and Vibration Strategy and that noise and vibration impacts to sensitive receivers are minimised.

7.0 Environmental Benefit

The environmental benefits of the proposed works relate to the management of noise and vibration impacts at affected sensitive receivers.

8.0 Control Measures

Will a project and site specific EMP be prepared? Yes

Are appropriate control measures already identified in an existing EMP? Yes. An EMP and Heritage Management Plan for the proposed works have been developed by the relevant contractors.

9.0 Climate Change Impacts

Is the site likely to be adversely affected by the impacts of climate change? If yes, what adaptation/mitigation measures will be incorporated into the design?

N/A

10.0 Impact Assessment – Construction

Attach supporting evidence in the Appendices if required. Make reference to the relevant Appendix if used.

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Flora and fauna	No change from impacts described for the approved project	No additional mitigation is required.	Y	Y	
Water	No change from impacts described for the approved project	No additional mitigation is required.	Y	Y	
Air quality	No change from impacts described for the approved project	No additional mitigation is required.	Y	Y	
Noise vibration	The proposed works would minimise the noise and vibration impacts of the construction of the approved project and enable relevant noise management levels to be achieved at heritage listed sensitive receivers.	No additional mitigation is required.	Y	Y	
Indigenous heritage	No change from impacts described for the approved project	No additional mitigation is required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Non-indigenous heritage	The installation of the proposed noise and vibration mitigation measures may affect listed heritage items. An assessment of the potential impacts on the State listed Great Synagogue is provided in Attachment A. This site is likely to have the highest heritage significance level of all heritage items that would be affected by the proposed works. This assessment concludes that the proposed works can be undertaken with a neutral impact to the heritage item. It is expected that a neutral impact can be achieved at all other sites. However, site-specific detailed methodologies and recommendations to minimise heritage impacts would be identified by an appropriately experienced heritage conservation architect as part of the pre-work investigations.	The proposed works shall be carried out in accordance with the relevant mitigation measures and Conditions of Approval as well as the performance standards identified in Attachment B, measures identified in the contractor's EMP and Heritage Management Plan, and site-specific detailed methodologies and recommendations provided by a heritage conservation architect. All works would be undertaken in consultation with an appropriately experienced heritage conservation architect and the relevant property owner.	Y	Y	
Community and stakeholder	The proposed works would be identified and agreed with the relevant property owner.	No additional mitigation is required	Y	Y	
Traffic	No change from impacts described for the approved project	No additional mitigation is required.	Y	Y	
Waste	No change from impacts described for the approved project	No additional mitigation is required.	Y	Y	
Social	No change from impacts described for the approved project	No additional mitigation is required.	Y	Y	
Economic	No change from impacts described for the approved project	No additional mitigation is required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Visual	Visual impacts to the heritage items would be minimised through the recommendations of an appropriately experienced heritage conservation architect, including the need to colour-match the proposed works to the existing fabric and make good any damage resulting from the proposed works.	All works would be undertaken in consultation with an appropriately experienced heritage conservation architect and the relevant property owner.	Y	Y	
Urban design	No change from impacts described for the approved project	No additional mitigation is required.	Y	Y	
Geotechnical	No change from impacts described for the approved project	No additional mitigation is required.	Y	Y	
Land use	No change from impacts described for the approved project	No additional mitigation is required.	Y	Y	
Climate Change	No change from impacts described for the approved project	No additional mitigation is required.	Y	Y	
Risk	No change from impacts described for the approved project	No additional mitigation is required.	Y	Y	
Other	No change from impacts described for the approved project	No additional mitigation is required.	Y	Y	
Management and mitigation measures	No change from impacts described for the approved project	No additional mitigation is required.	Y	Y	

11.0 Impact Assessment – Operation

Attach supporting evidence in the Appendix if required. Make reference to the relevant Appendix if used.

Aspect	Nature and extent of impacts (negative and positive) during operation (if control measures implemented) of the proposed activity/works, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Flora and fauna	N/A	N/A	Y	Y	
Water	N/A	N/A	Y	Y	
Air quality	N/A	N/A	Y	Y	
Noise vibration	N/A	N/A	Y	Y	
Indigenous heritage	N/A	N/A	Y	Y	
Non-indigenous heritage	N/A	N/A	Y	Y	
Community and stakeholder	N/A	N/A	Y	Y	
Traffic	N/A	N/A	Y	Y	
Waste	N/A	N/A	Y	Y	
Social	N/A	N/A	Y	Y	
Economic	N/A	N/A	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during operation (if control measures implemented) of the proposed activity/works, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Visual	N/A	N/A	Y	Y	
Urban design	N/A	N/A	Y	Y	
Geotechnical	N/A	N/A	Y	Y	
Land use	N/A	N/A	Y	Y	
Climate Change	N/A	N/A	Y	Y	
Risk	N/A	N/A	Y	Y	
Other	N/A	N/A	Y	Y	
Management and mitigation measures	N/A	N/A	Y	Y	

12.0 Consistency with the Approved Project

<p>Based on a review and understanding of the existing Approved Project and the proposed modifications, is there a transformation of the Project?</p>	<p>No. The proposed works would not transform the project. The project would continue to provide a new metro rail line from Chatswood to Sydenham.</p>
<p>Is the project as modified consistent with the objectives and functions of the Approved Project as a whole?</p>	<p>Yes. The proposed works would be consistent with the objectives and functions of the approved project.</p>
<p>Is the project as modified consistent with the objectives and functions of elements of the Approved Project?</p>	<p>Yes. The proposed works would be consistent with the objectives and functions of the construction elements of the approved project.</p>
<p>Are there any new environmental impacts as a result of the proposed works/modifications?</p>	<p>The proposed works would result in direct impacts to heritage items in the vicinity of the approved project; however the proposed works would not adversely affect these items and noise and vibration impacts to these items would be minimised through the implementation of the proposed works. The proposed works are required to ensure the approved project is undertaken in accordance with the conditions of approval, mitigation measures and Construction Noise and Vibration Strategy.</p>
<p>Is the project as modified consistent with the conditions of approval?</p>	<p>Yes. The proposed works would be consistent with the conditions of approval.</p>
<p>Are the impacts of the proposed activity/works known and understood?</p>	<p>Yes. The impacts of the proposed works are understood.</p>
<p>Are the impacts of the proposed activity/works able to be managed so as not to have an adverse impact?</p>	<p>Yes. The impacts of the proposed works can be managed so as to avoid an adverse impact.</p>

13.0 Other Environmental Approvals

Identify all other approvals required for the project:

N/A

Author certification

To be completed by person preparing checklist.

I certify that to the best of my knowledge this Consistency Checklist:

- Examines and takes into account the fullest extent possible all matters affecting or likely to affect the environment as a result of activities associated with the Proposed Revision; and
- Examines the consistency of the Proposed Revision with the Approved Project; is accurate in all material respects and does not omit any material information.

Name:	Yvette Buchli	Signature:	
Title:	Planning Approvals Manager	Date:	23 August 2018
Company:	Sydney Metro		

Environmental Representative Review


(Additional step for City & Southwest projects only – if this is a CA against a Northwest Project or REF delete this table)

As an approved ER for the Sydney Metro City & Southwest project, I have reviewed the information provided in this assessment. I am satisfied that mitigation measures are adequate to minimise the impact of the proposed work.

Name:	Jo Robertson	Signature:	
Title:	Environmental Representative	Date:	24/8/18

This section is for Sydney Metro only.

Application supported and submitted by

Name:	CAROLYN RILEY	Date:	12/9/18
Title:	ASSOCIATE DIRECTOR PLANNING APPROVALS	Comments:	
Signature:			

Based on the above assessment, are the impacts and scope of the proposed activity/modification consistent with the existing Approved Project?

Yes The proposed activity/works are consistent and no further assessment is required.



(Uncontrolled when printed)

No The proposed works/activity is not consistent with the Approved Project. A modification or a new activity approval/ consent is required. Advise Project Manager of appropriate alternative planning approvals pathway to be undertaken.

Endorsed by			
Name:	CAROLYN RILEY	Date:	12/9/18
Title:	Acting Director City & Southwest, Sustainability, Environment & Planning	Comments:	
Signature:			

Attachment A – Heritage impact statement of the Great Synagogue, Sydney



HERITAGE IMPACT STATEMENT

THE GREAT SYNAGOGUE SYDNEY

AUGUST 2018



ORWELL & PETER PHILLIPS
HERITAGE CONSERVATION ARCHITECTURE

Revision	Date	Description	Author
P1	09/08/18	Draft issue to client and Synagogue	OPP
A	16//08/18	Final	OPP

Cover: The Castlereagh Street façade of the Great Synagogue.
Source: *Chris Bennett Photography, 2005*

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HERITAGE IMPACT STATEMENT

THE GREAT SYNAGOGUE, SYDNEY

Introduction

This report has been commissioned by Sydney Metro to assess the heritage impact of proposed temporary acoustic upgrading to the Castlereagh Street façade of the Great Synagogue, Sydney, with the objective of mitigating the environmental impact of construction work associated with the Tunnelling and Stations Excavation (TSE) package of the Sydney Metro project. A draft of this report has been reviewed by both Sydney Metro and the Great Synagogue.

Background

The project conditions of approval for the Sydney Metro City and South West (Application No SSI 15-7400) include the following:

E34: Noise generating works in the vicinity of potentially-affected, religious, educational, community institutions and noise- and vibration-sensitive businesses and critical working areas (such as theatres, laboratories and operating theatres) must not be timetabled within sensitive periods, unless other reasonable arrangements to the affected institutions are made at no cost to the affected institution or otherwise approved by the Secretary.

Subsequent conditions of approval (E37 and E38) require the identification of all receivers likely to experience internal noise levels due to construction work that are greater than a specified minimum between the hours of 7am and 8pm, and consultation with the identified receivers with the objective of determining appropriate hours of respite (again with specified noise levels). The Great Synagogue is in the vicinity of the Pitt Street North station site (Figure 1) and has been identified as a sensitive receiver.



Figure 1

Location plan of the Great Synagogue (outlined in yellow) in relation to the Pitt Street North Metro station site (outlined in red).

Source (base plan): SIX maps

A report by SLR Consulting Australia in May 2018 assessed the existing acoustic performance of the Castlereagh Street facade of the Great Synagogue building, and concluded that the additional airborne noise resulting from the TSE work site would give rise to internal noise levels exceeding recommended acceptable levels. The report also considered mitigation measures, and concluded that the introduction of secondary glazing would assist in mitigating airborne noise to acceptable levels on three of the five internal floors of the Castlereagh Street building. The report noted that mitigation of vibration and ground-borne noise was unable to be achieved by any physical intervention in the building, and that could be managed only by means of work scheduling.

A site inspection was conducted on 9 August 2018 with representatives from the Great Synagogue, Sydney Metro, the contractor for the TSE works, SLR Consulting, and Magnetite. The purpose of the inspection was to confirm the feasibility of the proposed installation of temporary secondary glazing on the inner face of windows to Castlereagh Street, and to assess any potential heritage impacts.

The property

The Great Synagogue was completed in 1878, with the sanctuary facing Elizabeth Street, and a smaller three-storey Beadle's residence on Castlereagh Street, connected by two common stairs. The residence was converted over time to office and educational uses. Between 1978 and 1981, the former residence was demolished and a new five-storey building (the Education Centre) was constructed behind the retained three-storey façade (see cover photograph). The original intention had been to retain and refurbish many of the original timber windows, but the discovery of white-ant damage in the frames during construction resulted in the replacement of all of the timber framed windows with reconstructed elements¹. The double-hung sashes in five of the six main windows on the third floor were later replaced with fixed panels of leadlight stained glass.

Proposed acoustic upgrading

The proposal by Sydney Metro is to use a reversible secondary glazing system known as Magnetite. This consists of a metal subframe fixed to the existing window frame or surround, and a fixed clear acrylic-glazed sash which is held against the subframe by magnetic force (Figure 2). The installation could potentially be removed subsequently.

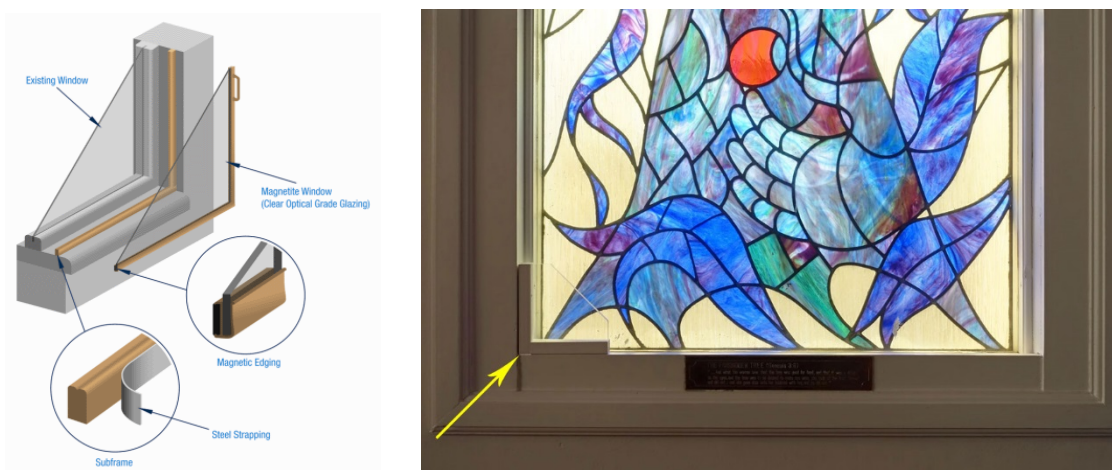


Figure 2


Detail of Magnetite secondary glazing (left) and sample in proposed location (right)


Source: Magnetite web site (left) and Orwell & Peter Phillips (right)


¹ Comment by David Newman, builder of the Education Centre, confirmed by site meeting minutes and Architect's Instruction of 18 March 1981 in archives of Orwell & Peter Phillips.


Heritage impact assessment


The following table includes the elements affected by the works, details of the works proposed, the significance of the fabric affected and the assessed heritage impact of the work, together with suggested mitigation measures where appropriate.

Element	Ground floor windows
Image	
Significance	Low
Proposed works	Fix Magnetite subframe in window reveal so that Magnetite window sits just behind the face of the wall.
Heritage impact	Neutral. The windows are recent fixed glazed timber framed units installed in the lower half of the original window opening which has been cut in two by the insertion of the new floor above.
Mitigation	Subframe should be fixed reversibly and colour matched to windows.

Element	First floor windows
Image	
Significance	Low
Proposed works	Fix Magnetite glazing directly to the window frame within the outer reveal, using flexible compressible seal around all edges and screws to hold the glazing in place. Normal Magnetite framing unable to be curved to suit arched head. Glazing will need to be trimmed around cable duct (right)
Heritage impact	Neutral. The windows are recent fixed glazed timber framed units installed in the upper half of the original window opening which has been cut in two by the insertion of the new floor.
Mitigation	Compressible seals should be colour matched to window frames. Screws should be discreet. Method will need confirmation on site.

Element	Second floor windows
Image	
Significance	Medium
Proposed works	Remove and store steel slats (fall protection) and existing blinds, and fix Magnetite subframe within window reveal, in two sections with midrail at height of window meeting rails. Lower Magnetite sash to be screw-fixed to subframe for fall protection;
Heritage impact	Neutral. The windows are reproductions of the originals with some likely simplification of details such as horns.
Mitigation	Subframe should be fixed reversibly, and colour-matched to timber windows. Holes in existing box frame from slat fixings that are not covered by subframe should be filled with putty matching frame colour.

Element	Third floor windows
Image	
Significance	Medium
Proposed works	Fix Magnetite subframe within window reveal, with single full-height secondary glazing panel. Supplementary timber piece will be needed at head to give adequate fixing for subframe (right).
Heritage impact	Neutral. The window frames are reproductions of the originals, five of the six being further modified by removal of sashes and installation of stained glass panels.
Mitigation	Subframe should be fixed reversibly, and colour-matched to timber windows (five painted white, one stained). Great care should be taken not to damage the stained glass.

Element	Fourth floor windows
Image	
Significance	Low
Proposed works	Fix Magnetite subframes on face of window mullions. Note that owing to the difficulty of acoustically sealing the openable roof, the benefit of the additional secondary glazing may be less than predicted.
Heritage impact	Neutral. These are modern aluminium framed windows extending above the original masonry façade.
Mitigation	Subframes should be fixed reversibly, and allow pivot windows to be opened periodically for cleaning and maintenance.

Summary and recommendations

The proposed installation of secondary glazing will be undertaken to windows that are mostly of low significance, having been replaced or reconstructed in the 1980s. The secondary glazing will be effectively invisible from outside the building (the most significant viewpoint) and largely unobtrusive from inside providing the Magnetite framing is colour-matched to the existing window frames and installed within timber window reveals.

Given that the acoustic upgrading is proposed to deal with a temporary increase in external noise levels, it is important that the methods of fixing are reversible, so that damage to existing fabric is minimised and little or no making good will be needed if the secondary glazing is removed in future. It is also important for the Synagogue to be provided with a maintenance manual showing how the secondary glazing can be safely removed and replaced for window maintenance and cleaning.

The installation should be detailed and executed in consultation with an appropriately experience heritage conservation architect.

ORWELL & PETER PHILLIPS



O P PHILLIPS

Attachment B – Performance standards

The proposed works shall be undertaken in accordance with the following performance standards:

1. Mitigation of adverse effect of noise mitigation measures and fixings

Noise mitigation measures must not have any adverse heritage impact to significant fabric or impair its function and must be reversible without incurring any long term negative impact.

2. Appropriate visual effect

Assessment must consider the associated visual impact from the proposed works and make recommendations accordingly.

3. Safe removal of noise mitigation measures

Temporary noise mitigation measures must be installed so that they can be removed safely, and without any further heritage impact.