

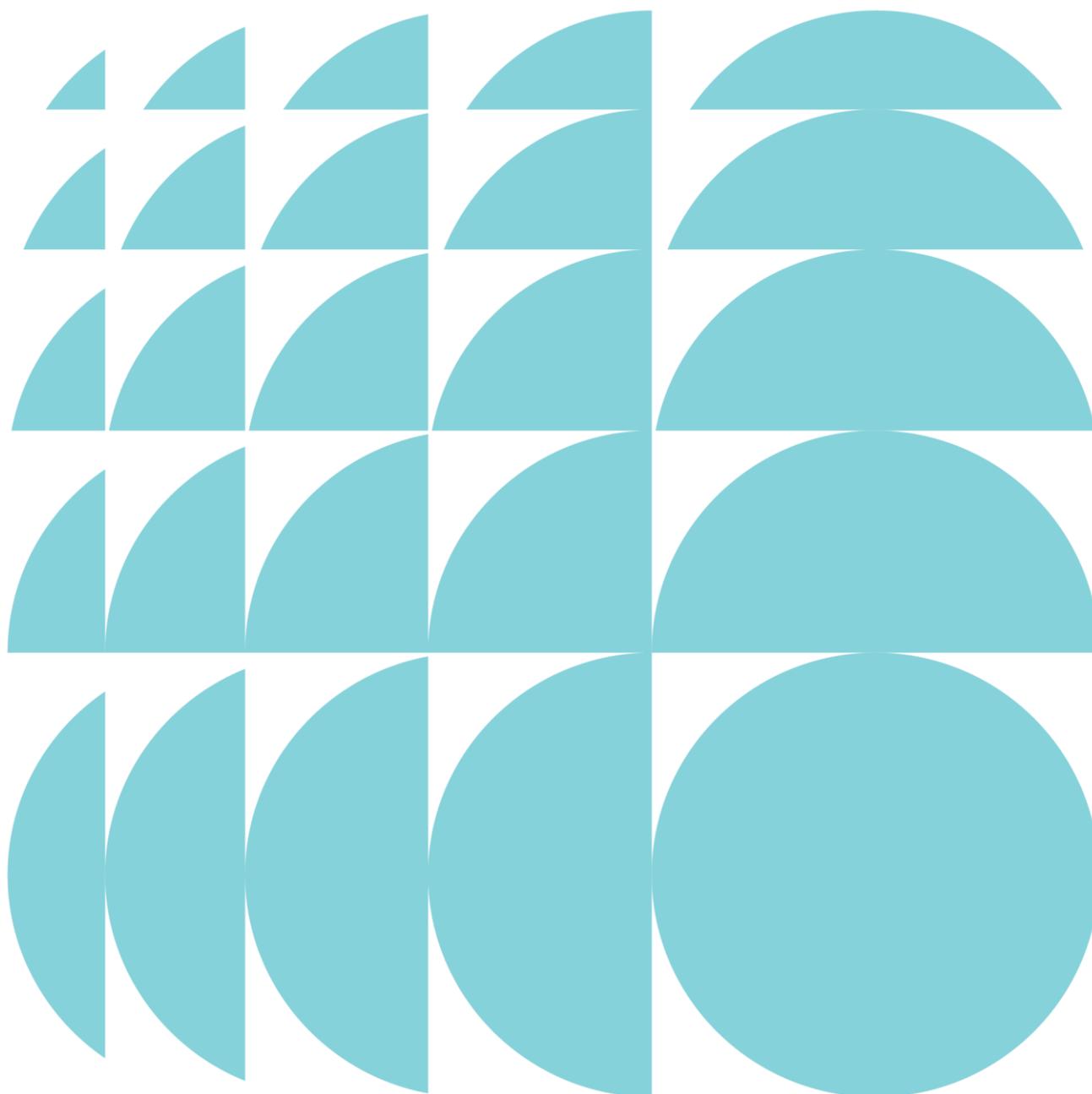
ETHOS URBAN

SSDA 8449 - Response to Submissions

Bays 5-15 Locomotive Workshop,
Australian Technology Park, Eveleigh

Submitted to Department of Planning &
Environment
On behalf of Mirvac Projects Pty Ltd

12 June 2018 | 17068



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Executive Summary

In November 2017, two Environmental Impact Statements (EIS) were prepared in support of two State Significant Development Applications (SSD 8517 and SSD 8449) that related to the eastern and western portions of the Locomotive Workshop, at the Australian Technology Park, Eveleigh.

These EISs and accompanying documents were concurrently placed on exhibition for a period of 31 days inclusive between 16 November 2017 and 15 December 2017. Public exhibition occurred in accordance with the requirements of the *Environmental Planning & Assessment Act 1979*.

Submissions were received from 78 separate parties in response to the public exhibition of both applications. Whilst the two applications are to be considered separately, there were no submissions that just related to SSDA 8449. The Table below shows that 65 submissions were received that included aspects that related to both SSDA 8517 and 8449 and the breakdown between relevant agencies, independent bodies and the public.

Relating to both SSD 8517 (Bays 1-4a) and SSD 8449 (Bays 5-15)	
Government agency/ authority	8
Independent bodies	5
Public	52
TOTAL	65

In addition, the Department of Planning and Environment (the Department) issued a letter on 21 December 2017, requesting additional information and outlining the key issues associated with both proposals.

The key issues raised in relation to SSDA 8449 generally relate to the following:

- Heritage Interpretation and Impacts on the Heritage Fabric; and
- Detailed Design elements (i.e. the Central Atria).
- Parking and Loading Management.

In refining the exhibited State Significant Development Application, Mirvac has considered all the public and agency submissions, undertaken indicative detailed design exercises and considered advice from the Department, Heritage Council and City of Sydney. In light of this, Mirvac proposes to amend and clarify aspects of the previously exhibited scheme as set out below.

Construction

- Provision of an indication of the construction works program;

Post approval submission

- Outline of the intended timing for the submission of the detailed drawings for the base build elements;
- Outline of an approval strategy for the detailed design elements, such as operation and fit-out of tenanted spaces and signage; and
- Define the fit-out design strategy and establish a set of guiding principles to inform fit-out design.

Amendments to the proposed design

- Removal of light industrial tenancy in Bays 5-7 south;
- Extend the commercial tenancy in Bays 5-7 south;
- Relocate and reorientate the service pods in Bays 5-7 south;
- Reconfiguration of the layout of Bay 15 at Ground Floor, Level 1 and Level 2;

- Provision of a new plant platform on top of the roof within the valley of Bays 14 and 15;
- Retention of existing skylights in Bay 14 instead of the provision of skylight slots; and
- Addition of a new roof maintenance access system.

Further detailing of concepts

- Provision of details to describe the proposed floor treatments.

Updating and improving the heritage

- Updates to the key Heritage interpretation concepts, to reflect the updated design concepts proposed with Locomotive Workshop.

Notwithstanding the extent of proposed changes, all environmental impacts of the amended development remain generally consistent with those addressed within EIS as confirmed in Section 5.

Given the merits, and the significant public benefits associated with the proposed development, it is recommended that this application be approved.

1.0 Introduction

Environmental Impact Statements (EIS) were prepared in support of State Significant Development Applications SSD 8517 and SSD 8449 for the adaptive reuse and redevelopment of the Locomotive Workshop (being Bays 1-15).

These EISs and accompanying documents were placed on exhibition for a period of 31 days inclusive between 16 November 2017 and 15 December 2017. Public exhibition occurred in accordance with the requirements of the EP&A Act.

As set in **Table 1** in total 65 submissions were received in response to the public exhibition of both EISs (SSD 8517 and SSD 8449), that referred to SSDA 8449. No submissions received related exclusively to SSDA 8449.

Table 1 Submission Breakdown

	Relating to both SSD 8517 (Bays 1-4a) and SSD 8449 (Bays 5-15)
Government agency/ authority	8
Independent bodies	5
Public	52
TOTAL	65

In addition, the Department of Planning & Environment (the Department) issued a letter on 21 December 2017, requesting additional information and outlining the key issues associated with both proposals.

The proponent, Mirvac Projects Pty Ltd (Mircvac) and its specialist consultant team has reviewed and considered all the issues raised. This report, prepared by Ethos Urban on behalf of the proponent, sets out the responses to the issues in accordance with Clause 85A of the *Environmental Planning and Assessment Regulation 2000* (EP&A Reg) and provides details of any necessary amendments to SSD 8449 for which approval is sought. Any amendments to the applications are made by Mirvac pursuant to Clause 55 of the EP&A Reg, including changes to address matters raised in the submissions.

The report and the Appendices provides a detailed response to all of the issues raised by the various government agencies, independent bodies and the general public.

2.0 Key Issues - Department of Planning, City of Sydney and Heritage Council

This section of the report provides a detailed response to the key issues collectively raised by the Department, the City of Sydney Council and Heritage Council during the public exhibition of SSDA 8449. In addition, a response to each of the individual issues is provided in the tables **Appendix A** and **Appendix B**.

2.1 Strategy for the on-going management of the Locomotive Workshop

The Department has asked for further information in regard to the strategy to achieve the heritage conservation and management objectives for the Locomotive Workshop. Furthermore, the Heritage Division requires further information on how the Heritage Interpretation will inform the detailed design and Public Domain design.

Response

Mirvac's strategy to achieve heritage conservation and management objectives of the Locomotive Workshop is as follows:

1. The principal aim of this SSDA is to gain approval for the following concepts and a works programme for the base build elements as set out in **Section 4.4**:
 - Demolition of all the internal and external elements as outlined on the demolition plans;
 - Land uses;
 - Relocation and removal of in-situ and moveable heritage items;
 - Construction of the base build elements and associated structural works associated with the following:
 - Bays 5-13;
 - construction of the level 1 structure;
 - service pods;
 - lifts and stairs;
 - public circulation space at Ground Floor in Bays 5-7
 - Bay 15:
 - construction of the Level 1 and 2 structure;
 - commercial intertenancy walls at Ground Floor, Level 1 and Level 2;
 - End-Of-Trip facilities and bicycle storage areas;
 - plant and back of house rooms;
 - lifts and stairs; and
 - public circulation space at Ground Floor.
 - Refurbishment of the Retail Annexes adjacent to Bays 8 and 9, and 9 and 10
 - Enlargement and upgrade of existing openings in the intertenancy walls between Bays 4a and 5 and Bays 7 and 8;
 - Enhancement of the exterior entrances and openings;
 - Roof upgrade works including the insertion of natural day light slots above the Central Spine in Bays 5-13 and Bay 15 and above the atria within Bays 6, 9 and 12 and addition of a new roof maintenance access system;
 - A new plant platform and access within the valley of the roof between Bays 14 and 15;
 - Installation of external lighting; and
 - Signage zones.
2. A detailed framework has been established in **Section 4.4** and **Section 4.5**. This sets out the list of documents that will be commissioned to guide and inform the detailed design elements within Bays 5-15.

3. Separate applications will be submitted for the detailed signage designs and the operation and fit-out of the tenancies within Bays 5-15 as clearly set out in **Section 4.4.3**. The future development applications will be required to ensure that the fit-out works demonstrate consistency with the design framework guiding documents.

With regard to the heritage interpretation within the Public Domain, the Stage 2 Heritage Interpretation strategy for the Public Domain is a requirement under the development consent issued for the commercial campus currently being developed within the ATP Precinct (SSD 7317). Curio Projects has been commissioned by Mirvac to prepare the Stage 2 Heritage Interpretation Strategy for the both the broader ATP Public Domain and the Locomotive Workshop. Trigger Design has similarly been commissioned to design the physical interpretative elements for both the Stage 2 Heritage Interpretation Strategies. Furthermore, Aspect were commissioned by Mirvac to prepare the Public Domain landscape design for SSDA 7317 and has also been commissioned to prepare the Public Domain/landscaping plans for the Locomotive Workshop development. It is noted that the Public Domain works have been removed from SSDA 8449 and are now proposed within SSDA 8517.

Curio Projects, Trigger Design, Aspect along with Mirvac, and all other relevant stakeholders are working in close consultation to ensure the interpretation being developed for the ATP in its entirety is authentic, consistent and captures the key significance of the place, as described in detail in Curio Projects Heritage Response to Submissions report (herein referred to as the Heritage Response Report) (**Appendix D**).

2.2 Heritage Interpretation Strategy

The Department has asked for further consideration of the design framework that will guide the co-ordination of the heritage interpretation works between SSDAs 8449 and 8517 and future applications. In addition, the Heritage Division has asked for details of the interpretation and requested that the Stage 2 Heritage Interpretation Strategy to be developed in consultation with the Heritage Division, include the Public Domain, lighting and signage within its detailed design and clearly integrate into the projects overall detailed design.

Response

As noted in the EIS for SSD 8517 and 8449, and in Section 2.1 above, Curio Projects and Trigger Design have been commissioned by Mirvac to prepare the Stage 2 Heritage Interpretation Plan and design the interpretive elements for the Locomotive Workshop as well as the Stage 2 Heritage Interpretation Plan for the broader ATP Public Domain. The Stage 2 Heritage Interpretation Plan will cover the entire Locomotive Workshop and will include all interpretation requirements, including the base build elements, and the requirements for tenancy fit-outs. A suggested condition of consent is included within **Appendix F** that requires the Stage 2 Heritage Interpretation Plan for the Locomotive Workshop to be prepared in consultation with the Heritage Council and other stakeholders, including former workers, Aboriginal stakeholders, volunteers, the local community and relevant railway associations.

The Heritage Response Report (**Appendix D**) provides information in regard to:

- The anticipated content of the Stage 2 Heritage Interpretation Strategy;
- The proposed design framework for guiding the co-ordination of the heritage interpretation works between SSDAs 8517 and 8449, and the future applications for fit-out of individual tenancies;
- The framework for how the Stage 2 Interpretation Strategy for the Locomotive Workshops will manage and integrate the moveable heritage collection into the proposed outcomes of the Stage 2 Interpretation Strategy;
- The inter-relationship between the landscaping and Public Domain design work, construction of Buildings 1,2 and 3, the redevelopment of the Locomotive Workshop and the design and implementation of the public art strategy; and
- A framework showing how all the interpretation strategies across the entire ATP site are interrelated with one another, to ensure that there is a consistent, comprehensive interpretation program and design. This framework is replicated in **Appendix E**.

2.3 Conservation Works

The Department has asked for confirmation of Mirvac's commitment to conservation works.

Response

Mirvac has commissioned a series of reports that includes an audit of all the heritage items and the building integrity, especially in regard to required building maintenance works, including identification of cyclical maintenance works. This review includes input from specialist professionals, including structural engineers, heritage consultants and other relevant experts.

Mirvac suggests that the following conditions of consent be included within the Instrument of Approval to demonstrate its commitment to the conservation of the building:

Ongoing curation, interpretation and conservation

Prior to the issue of the last occupation certificate, the proponent must prepare a strategy in consultation with the Heritage Council in regard to the on-going management of the cultural heritage tourism initiatives including curatorial programs, interpretation updates, and repairs and maintenance to moveable heritage assets.

2.4 Heritage Exhibition Space – public accessibility

The Department has requested clear delineation of publicly accessible areas and the heritage items/ space as well as confirmation of the accessibility to the proposed exhibition space and publicly accessible exhibits.

Response

The Response to Submissions Report for SSSA 8517 outlines that the primary Heritage Exhibition Space for the Locomotive Workshop will be located at the Ground Floor level of Bays 1 and 2 and the strategy for determining the exact extent of the publicly accessible areas, heritage items/ space and parameters of the times and areas that will be publicly accessible within Bays 1-4a.

The Ground Floor layout within Bays 5-7 continues to provide a publicly accessible Central Spine that connects to the Central Spine in Bays 1-4a and it is intended that heritage items will be on display in this area. Bays 8-13 will be occupied by one tenant and will not generally be publicly accessible, however, the tenant fit-out will incorporate heritage items.

In line with the strategy for Bays 1-4a, the exact extent of the publicly accessible areas, heritage items/ space and parameters of the times and areas that will be publicly accessible within Bays 5-7 will be undertaken after:

- the consultation process in regard to the preparation of the Stage 2 Heritage Interpretation Plan and finalisation of the strategy and detailed design of the interpretative elements; and
- the confirmation of the curation strategy for the heritage interpretation areas and exhibits.

2.5 Principles of reversibility

The Department has asked for principles and/ or typical details to demonstrate the impacts and the reversibility of the proposed service pods, mezzanine floor, structural supports, and elevator installation.

Response

The proposed design is based on the premise that all new structures are to be of lightweight steel framed construction that can be bolted together and are generally self-supporting. Similar to the existing modern infill fit-out, the proposed structures will be designed and engineered to be able to be removed in the future without having any undue impacts on the existing heritage fabric or its structure.

2.5.1 Reversibility of in-ground works

As illustrated in **Appendix H**, following demolition, a series of inground works will be undertaken. These involve the excavation and construction of the lift pits and the construction of footings and piles. The intention is to utilise the existing footings where possible, however where the existing footings are found not to be structurally adequate, new footings will be required in limited areas. These will be sensitively designed to ensure there is minimal disruption to any affected heritage fabric.

For structural members to utilise the original footings, localised areas of the existing slab will be opened up and made good after installation. Accordingly, the location and number of new columns required to be installed has been carefully considered to ensure a minimum number of interventions are required.

The Heritage Impact Statement submitted with the EIS, states that the internal floor surfaces would have once been soil, and the majority of this was excavated during the 1990s redevelopment of the Site for decontamination purposes and to enable the laying of new (now existing) concrete floors¹. The concrete floor slab is therefore not original fabric. Accordingly, the Heritage Impact Statement confirms that the Locomotive Workshop has nil to low potential for archaeological relics to survive within the footprint of the extant building. Furthermore, the Heritage Response Report (**Appendix D**) confirms that the penetrations into the concrete floor for the proposed in-ground works (i.e. new footings and piles (where required) and lift pits) will only have a minimal and acceptable impact in those localised positions given the existing floor is to be protected and covered.

It is considered that, if necessary, the proposed penetrations could be filled in, if future works to the building, remove or relocate the lifts, structural supports or in ground services.

2.5.2 Reversibility of new floor over the existing concrete floor

As discussed in **Section 4.13**, within the Central Spine, the existing concrete floor slab is to remain and will be covered with insulation and a topping slab. Within the tenancies, a new raised access floor will sit on pedestals that will be laid over the existing slab, to allow cabling and pipework to be reticulated without the need for chasing or significant intervention.

If necessary, the new floors can be removed in future leaving the existing concrete floor below.

2.5.3 Reversibility of the service pods

The service pods in Bays 5-13 will be lightweight steel self-contained structures that incorporate plant decks on the roof and service shafts around their perimeter for vertical service reticulation. The service pods will utilise a propriety access floor system at both Ground Floor Level and Level 1 to reticulate smaller diameter pipes and cables. The design of the pods is illustrated in **Appendix H**. Much like the existing, 'fit-out elements, if required in the future, the service pods will be able to be removed.

2.5.4 Reversibility of mezzanine floors

As addressed within the Response Package, prepared by Sissons (**Appendix H**), the first floor inserts (and the second floor insert in Bay 15) are to be constructed using Bondek, a permanent formwork product which is installed using a profiled metal sheet, onto which concrete is poured in-situ. The Bondek sheet will be connected to the new self-supporting new steel structures and then remains in place once the concrete is cured. This allows for the efficient and non-invasive construction of floor slabs.

The steel structure supporting the mezzanine slab within the commercial tenancies in Bays 5-13 will be a hybrid construction designed to minimise the number of new columns and therefore minimise inground structural works. Material testing undertaken by the structural engineer has established that the cast iron columns in Bays 5-15 are robust enough to support some of the load from the new mezzanine floor. At certain locations the floor slab is hung from the heritage structure via steel rods. This strategy uses a bolted connection and is therefore inherently reversible.

¹ Refer to Section 5.2.3 of the Heritage Impact Statement – Locomotive Workshops, Bays 5-15 SSDA, prepared by Curio Projects

2.5.5 Reversibility of vents, flues and structural members through the roof

Where vents, flues and structural members (to support the roof platforms) are required to penetrate the roof, they will be positioned in locations that will cause minimal impact to the localised area of the heritage roof sheet but will not impact upon the original roof trusses and will be set back from the façade to reduce visibility wherever possible.

Should these be required to be removed in future, the localise areas of roof sheeting could be patched.

2.6 Accommodation of Major Service needs

The Department has asked for further information in regard to the major service needs, such as connections to roof plants and lifts installation.

Response

As noted in the Response to Submissions Package, prepared by Sissons (**Appendix H**), throughout the Locomotive Workshop, the majority of the pipework and cabling will be reticulated through a consolidated service run around the perimeter of the building, similar to the existing situation and beneath the access floors. Services required to be reticulated from the new roof plant platform within the valley between Bays 14 and 15, will do so via a service riser located within the northern wall that will connect to the plant rooms located within the northern portion of Bay 15. The provision of the service riser will be designed to minimise any impact upon the northern heritage wall physically.

2.7 Design resolutions for ESD commitments

The Department has asked for further information in regard to the options to resolve any potential conflicts between the proposed ESD commitments and any heritage design framework, including materiality and construction. Furthermore, the Heritage Council has asked for clarification on whether any existing external walls are to be upgraded to meet requirements of Section J of the BCA and has requested that any upgrades must ensure that significant fabric is not impacted and undertaken in consultation with the nominated heritage consultant.

Response

As set out within the ESD report that was submitted with the EIS, the ESD strategy for the Locomotive Workshop has been based upon the principles of the Green Star rating system in order to improve the environmental performance of the building, including water and energy efficiency, however NDY have confirmed that the Green Star strategy is limited, because its basis is the preservation of the heritage elements of the building rather than attempting to modify the existing fabric to achieve compliance.

In regard to compliance with Section J of the BCA, NDY have confirmed in correspondence with Mirvac that the proposed solution does not require changes or upgrade to the existing uninsulated walls and only insulation is being provided within the roof.

In line with the Heritage Council's comment, the following condition of consent (as replicated in **Appendix F**) is proposed:

BCA Compliance

The proposed works must comply with the applicable performance requirements of the BCA so as to achieve and maintain acceptable standards of structural sufficiency, safety (including fire safety), health and amenity for the ongoing benefit of the community. Compliance with the performance requirements can only be achieved by:

- a) *Complying with the deemed to satisfy provisions, or*
- b) *Formulating an alternative solution which:*
 - a. *Complies with the performance requirements, or*
 - b. *Is shown to be at least equivalent to the deemed to satisfy provision, or*
 - c. *A combination of a) and b).*

All new structural works are to comply with the BCA including structural, building services, acoustic, fire protection and access upgrades are to be designed and integrated into the Locomotive Workshop in a manner that maximises the conservation and enhancement of its historic spatial qualities and the conservation and exposure of significant heritage fabric. Alternate solutions are to be proposed, wherever these are necessary to ensure the most sympathetic heritage outcome.

The proposed designs and strategies must be prepared in consultation with the appointed Heritage Specialist to ensure adverse impacts are minimised.

2.8 Roof Lantern Louvres

The Heritage Council has noted that a number of the original roof lantern louvres are proposed to be removed throughout the building and replaced with smoke attenuation louvres. They have requested that consideration be given to reducing the number of original lantern louvres to be removed and a range of considered options be prepared and reviewed prior to issuing approval for any stated fire solutions.

Response

It is Mirvac's intention to retain the existing roof lantern louvres in-situ wherever possible. The maximum extent of louvres that may potentially be removed to achieve compliance is illustrated in the Architectural Drawings at **Appendix C** and the Response Package at **Appendix H**.

Notwithstanding this, a suggested condition of consent is included at **Appendix H**, that requires any removed roof lantern louvres to be securely stored for future use.

2.9 Detailed Design

The Department and Heritage Council requested further details in regard to a number of aspects that relate to the detailed design resolution and construction methodology. The key comments relate to:

- materials, methods and finishes for all the internal additions;
- materials and finishes of the proposed service pods;
- the proposed 'wrapping' of the cast iron columns located within the service pod footprint;
- the travelator, its balustrade design and details of how the escalator interacts with the existing southern wall of the Locomotive Workshop (proposed in Bay 4 so not relevant to SSDA 8449);
- the proposed construction of the loading dock and the mezzanine level, the introduction of new structure and how the significant fabric/ columns are to be protected (internally and externally) from impact of large vehicles (proposed in Bays 1 and 2 so not relevant to SSAD 8449);
- the introduction of additional structural support (if necessary) for the roof;
- external enclosures, such as the sub-stations;
- the introduction of new structure for the roof plants; and
- the design of back of house, storage areas, retail, interpretation and the Blacksmiths area (proposed in Bays 1-4a so not relevant to SSDA 8449).

However, the Heritage Council has also noted that in respect to each of these aspects, the design details are to be provided to the Heritage Council for assessment prior to the approval of this project.

Response

Additional information to support the concepts has been prepared by Sissons in their Response to Submissions Package (**Appendix H**) in relation to the following elements:

- Loading Dock (proposed in Bays 1 and 2 so not relevant to SSDA 8449);
- Roof Plant and Roof Upgrade;
- Floor transitions;
- Travelator (proposed in Bay 4 so not relevant to SSDA 8449);
- Signage on the Service Towers (proposed above Bays 4 and 4a so not relevant to SSDA 8449);
- Back of House wall treatment;
- Materials;

- The Central Spine;
- Amenities Pods;
- Smoke Attenuation Louvres; and
- Service Reticulation.

As set out in **Section 2.1**, the principal aim of this SSDA is to gain approval for the key concepts, as listed. However, where possible the revised development description at **Section 4.0** provides greater detail and **Section 4.4** clearly sets out items where detailed design and the materiality details will be provided either as part of the construction certificate documentation or within a separate application such as future applications for tenant fit-outs covering internal additions. Suggested conditions of consent in relation to this strategy are included within **Appendix F**.

A further condition of consent is also suggested that requires the input from a suitably qualified and experienced heritage consultant with regard to the detailed design and the demolition and removal of material.

2.10 Intertenancy Walls – Fire Separation

The Heritage Council has asked that further consideration be given to utilizing alternative design solutions such as fire curtains or concealed fire doors within the intertenancy wall design between Bays 2 and 3, Bays 4a and 5 and Bays 7 and 8 for fire compartmentalisation purposes. They also note that if these are not suitable, a reduction in framing is recommended to make the intertenancy walls as transparent as possible, in order to retain the east-west access view line.

Response

The intertenancy wall design between Bays 2 and 3 is discussed in the Response to Submission Report for SSDA 8517.

As discussed in the Response to Submissions Package, prepared by Sissons (**Appendix H**), the fire rating strategy for the entire Locomotive Workshop requires fire separation based on the change of use. Therefore Bays 5-13 is treated as a single fire compartment and fire separation is only required between Bays 4a and 5. No fire separation is required between Bays 7 and 8.

The design of the intertenancy wall proposed between Bays 4a and 5 has been reconsidered and reduced framing is proposed. The design continues to be a framed, glazed structure which is in keeping with the style of the new windows and doors proposed throughout the building. As discussed in the Response to Submissions Package, prepared by Sissons (**Appendix H**) a fully retractable door system is currently being explored to provide fire separation between Bays 4a and 5, which will allow the Central Spine to be completely open at Ground Floor Level, unless in the event of a fire. The retractable door system will maximise the view lines along the east-west Central Spine and create a sense of openness as indicatively illustrated in **Figure 1**.

Notwithstanding the above, the exact fire separation concept for the intertenancy wall between Bays 4a and 5 will be given further consideration and the exact details will be provided within the construction certificate documentation submitted to the PCA for Construction Certificate CC4 – Services and Base Building Fit-Out.



Figure 1 Indicative illustration of the wall between Bays 4a and 5

Source: Sissons

2.11 Central Atria

The Department has asked for further analysis of the sightlines and visual connection to demonstrate that significant views and the spatial qualities for the proposed Central Atria can be achieved cohesively for the whole building.

Response

The Central Spine within Bays 5-7 will be an extension of the Central Spine that runs through Bays 1-4a and whilst not generally publicly accessible in Bays 8-13 the same floor treatment is proposed throughout Bays 1-13 to ensure that the spatial quality of the Locomotive Workshop can be interpreted.

As set out in the EIS, and shown on the revised Architectural Plans, included at **Appendix C**, a Visual Sight Line zone (refer to **Figure 2**) has been established within Bays 5-7 at the Ground Floor level and Level 1. Within this zone, all balustrades on Level 1 will provide a transparent edge, in order to enhance the expansive views from Bay 4a towards the Bay 7/ Bay 8 wall (as shown in **Appendix H**).

It is noted that at present the existing fit-out limits views, sightlines and visual connection along this central spine. The design intent for the central spine and framed glazed walls between Bay 4a and Bay 5, and Bay 7 and Bay 8 is to improve the sightlines and achieve maximum transparency throughout the building. Furthermore, views from within Bays 8 to 13 towards Bays 14 and 15 are also to be provided in **Appendix H**.

It should be noted however, that the final design of the proposed intertenancy walls will be confirmed either during as part of the relevant base build construction certificate documentation or within the tenant fit-out application. The tenant fit-out design guidelines will also provide specific details to guide the design of the structures and tenancy walls, setbacks and open areas. They will seek to ensure that:

- any tenancy walls and fit-outs within this 'zone' will be low height (maximum of 1850mm) open or transparent;
- the integration of the heritage collection items is encouraged into and features as part of the fit-out; and
- fit-out items must not cover or obscure the heritage structure or equipment.

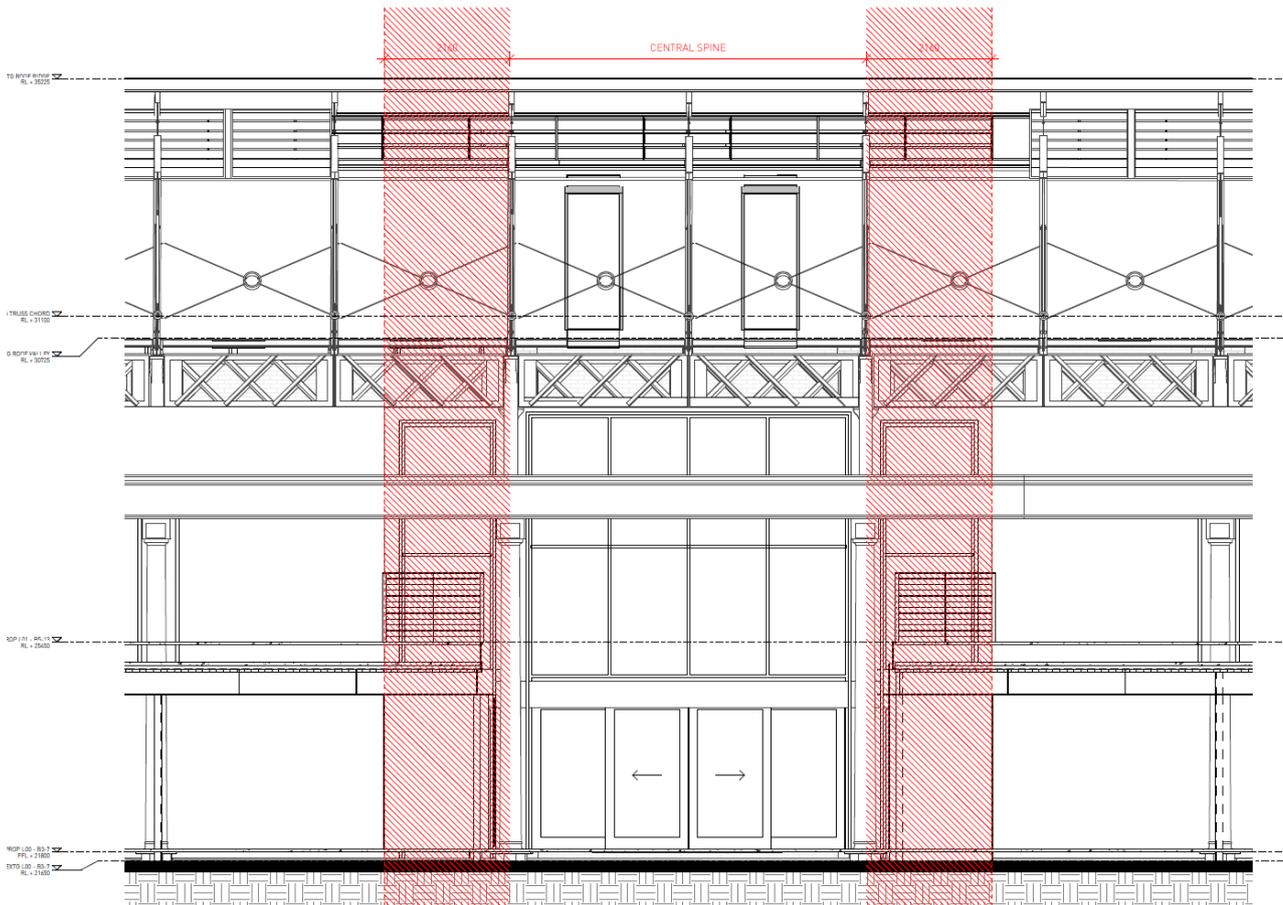


Figure 2 Visual Sightline zone

Source: Sissons

3.0 Key Issues – Independent Bodies and the General Public

A response to each of the individual issues raised by the Independent Bodies is included within **Appendix A** and a response to the issues raised by members of the general public is provided at **Appendix B**.

However, the Heritage Response Report included at **Appendix D**, provides a detailed response to all heritage related matters.

4.0 Revised Description of Development – Bays 5-15

4.1 Modifications to the original Description of Development

In refining the exhibited State Significant Development Application, Mirvac has considered all the public and agency submissions, undertaken indicative detailed design exercises and considered advice from the Department, Heritage Council and City of Sydney. In light of this, Mirvac proposes to amend and clarify aspects of the previously exhibited scheme as set out below.

Construction

- Provision of an indication of the construction works program;

Post approval submission

- Outline of the intended timing for the submission of the detailed drawings for the base build elements;
- Outline of an approval strategy for the detailed design elements, such as operation and fit-out of tenanted spaces and signage; and
- Define the fit-out design strategy and establish a set of guiding principles to inform fit-out design.

Amendments to the proposed design

- Removal of light industrial tenancy in Bays 5-7 south;
- Extend the commercial tenancy in Bays 5-7 south;
- Relocate and reorientate the service pods in Bays 5-7 south;
- Reconfiguration of the layout of Bay 15 at Ground Floor, Level 1 and Level 2;
- Provision of a new plant platform on top of the roof within the valley of Bays 14 and 15;
- Retention of existing skylights in Bay 14 instead of the provision of skylight slots; and
- Addition of a new roof maintenance access system.

Further detailing of concepts

- Provision of details to describe the proposed floor treatments.

Updating and improving the heritage

- Updates to the key Heritage interpretation concepts, to reflect the updated design concepts proposed with Locomotive Workshop.

The following sub-sections of **Section 4.0** set out the proposed description of development (as revised).

4.2 Overall Design Principles

The proposed design for the adaptive re-use and redevelopment of Bays 5-15 within the Locomotive Workshop has undergone a detailed, robust and iterative design development from project inception to finalisation of the Response to Submission documentation. From the outset, the proposed design has been based on the following principles:

- **Activation:** Contribute to an active and enlivened precinct through the revitalisation of a significant heritage building.
- **Technology:** Reimagine the Locomotive Workshop as a hub for contemporary technology and innovation that sensitively responds to the heritage elements which give the Building its unique character.
- **Community:** Integrate the ATP with the surrounding local community and meet the needs of the new worker population.
- **Transparency:** Use an independent, removable structure within the existing shell to provide transparency and openness to the Locomotive Workshop's fabric.
- **Interpretation:** Conserve, celebrate and interpret the in-situ elements.
- **Authenticity:** Conserve the authentic industrial character.

The concept design for the Locomotive Workshop, as revised by this Response to Submissions Report, is based on the following architectural design principles:

Activation:

- Provide opportunities for the public to enter and circulate through the Locomotive Workshop.
- Provide spaces that will foster interaction, transparency and flexibility within the interior design of spaces.

Community:

- Remove existing barriers to the ATP, open its doors and reintegrate it with the surrounding neighbourhood.
- Create a substantial point of difference from typical CBD commercial buildings and provide a unique spatial experience afforded by the low expansive building form with an industrial aesthetic.
- Provide spaces that will foster interaction, transparency and flexibility within the interior design of spaces.

Transparency:

- Where possible ensure that new internal structures will be independent of the existing fabric and allow the new development to maintain a minimum impact on this significant heritage site.
- Provide for interaction and visual connectivity both within the existing heritage building fabric and the Public Domain for both building tenants and the wider community.
- Provide open atria and a central access spine that incorporates an interpretation of the former railway tracks guiding pedestrians through the building along an east-west axis.

Interpretation:

- Provide a high level of appeal aligned with the aspirational expectations of a premium commercial tenant, whilst showcasing the unique heritage elements.
- Maintain important physical aspects of the existing heritage building, including the inspiring sense and size of the internal volume and careful interpretation of the Locomotive Workshop's previous uses.
- Ensure new building work is detailed in a contemporary manner and touches the building lightly.

Authenticity:

- Ensure all new materials introduced to the building are distinctly new but take their lead from the existing elements and use glazing and other transparent materials to ensure legibility of heritage items and the scale of the building.

4.3 Overview of the Proposal

This SSDA seeks development consent for the following:

- demolition works;
- adaptive re-use of Bays 5-13, Bay 15 and two annex structures for commercial premises uses;
- establishment of a maximum quantum of 27,458m² GFA to be provided within Bays 5-15;
- construction of the base build internal and external alterations to Bays 5-15;
- relocation of moveable heritage items;
- heritage interpretation and conservation works;
- provision of an external building illumination system;
- signage zones; and
- associated utilities and infrastructure.

The following detailed description of the proposal is based on the Architectural Plans and the Response to Submissions Package both prepared by Sissons (**Appendices C and H**).

4.4 Approval Strategy

This application seeks consent for the base building alterations and works illustrated on the Architectural Plans (**Appendix C**) prepared by Sissons and the land uses, as outlined in **Section 0**.

4.4.1 Works Program

The adaptive reuse of the Locomotive Workshop is an extremely complex process requiring significant work and co-ordination to inform the final details of the design. The general works program is targeting receipt of the development consent for SSDA 8449 by mid 2018, with the commencement of the demolition works, during Q4 2018 and the commencement of the construction of the base build elements, that are proposed within SSDA 8449 in February 2019.

It is proposed that staged construction certificates will be obtained for the five key development stages:

- CC1 - Demolition
- CC2 - Foundations, excavation, in-ground works and services
- CC3 - Structure
- CC4 – Services and Base Building Fit-Out
- CC5 – Façade and Roof

The main intent of obtaining staged construction certificates is to enable a smooth construction process and minimise the extent of conditions that must be satisfied in order to commence works as soon as practicable following the issue of the development consent.

4.4.2 Base build detail strategy

In line with the six key construction stages as identified in **Section 4.4.1**, whilst the general intent of the base build elements are set out within the following sections of this report, documentation to illustrate the construction details of the following elements will be submitted to the Heritage Council and City of Sydney for comment prior to the issue of the nominated Construction Certificate in **Table 2**.

Table 2 Strategy for the provision of detail

Documentation	Construction Certificate
Details of the floor finishes within the Central Spine within Bays 5-7	CC4 – Services and Base Building Fit-Out
Detailed plans of the Bay 5 wall face (dividing wall between Bay 4a and Bay 5).	CC3 - Structure
Details of the proposed construction of the service pods, materials and finishes and mezzanine levels and the methods of protection to significant heritage fabric.	CC3 - Structure
Details of the extent of existing heritage superstructure that will be removed.	CC3 - Structure
Details of the materials to be used for recladding the roof, and details of the exact location and extent of the removal of the existing smoke attenuation louvres.	CC5 – Façade and Roof
Details of the roof platform and its structural supports.	CC3 - Structure
Details of the external lighting.	CC4 – Services and Base Building Fit-Out

4.4.3 Approval strategy for the detailed design

Separate applications will be submitted for approval (by the relevant authority) for the following:

- operation and fit out of tenancies within Bays 5-7 at Ground Floor and Level 1;
- operation and fit out of the tenancy in Bays 8-13 at Ground Floor and Level 1;
- operation and fit out of tenancies in Bay 15 at Ground Floor, Level 1 and Level 2;
- operation and fit out of the retail annexes adjacent to Bays 8 and 9 and Bays 9 and 10;
- detailed signage design for signs behind the upper glazed panels of the entrance doorways along the southern and northern elevations of the Locomotive Workshop and the retail annexes.

Accordingly, Mirvac suggest that the following condition of consent (as included in **Appendix F**) is included within the Instrument of Approvals:

Limits of Consent

This consent does not approve the following components of the development:

- a) operation and fit out of tenancies within Bays 5-7 at Ground Floor and Level 1;*
- b) operation and fit out of tenancy in Bays 8-13 at Ground Floor and Level 1;*
- c) operation and fit out of tenancies in Bay 15 at Ground Floor, Level 1 and Level 2;*
- d) operation and fit out of the retail annexes adjacent to Bays 8 and 9 and 9 and 10;*
- e) detailed signage design for signs behind the upper glazed panels of the entrance doorways along the eastern, southern and northern elevations of the Locomotive Workshop and the retail annexes.*

4.5 Detailed design framework

4.5.1 Fit-out design strategy

Given the highly significant heritage nature of the Locomotive Workshop in order to guide and inform the detailed design elements within the Bays 5-13 and Bay 15, Mirvac will commission the following documents to be prepared in consultation with the Heritage Division, the City of Sydney and other relevant stakeholders as necessary:

- Stage 2 Heritage Interpretation Strategy; and
- Fit-out Guidelines for Bays 5-13 and Bay 15 (Ground Floor, Level 1 and Level 2).

Accordingly, Mirvac suggest that the following conditions of consent (as included in **Appendix F**) are included within the Instrument of Approval:

Heritage Interpretation

Prior to the issue of the first Occupation Certificate for Bays 5-13 and Bay 15, the Applicant shall submit a Stage 2 Heritage Interpretation Plan for the Locomotive Workshop to the satisfaction of and approval by the Secretary. This plan shall be prepared in accordance with the Stage 1 Heritage Interpretation Plan for the ATP, prepared by Curio Projects dated November 2016, the ATP Conservation Management Plan and the relevant NSW Heritage Division guidelines and in consultation with the Heritage Council and other stakeholders, including former workers, Aboriginal stakeholders, volunteers, the local community and relevant railway associations, and document the findings and recommendations raised.

Prior to the issue of the last Occupation Certificate for SSSA 8449, the Applicant shall implement the proposals and recommendations of the approved Stage 2 Heritage Interpretation Plan that relate to Bays 5-13 and Bay 15.

Future development applications shall ensure that fit-out works demonstrate consistency with the approved Stage 2 Heritage Interpretation Strategy.

Fit-out guidelines

Prior to the issue of CC4 – Services and Base Build Fit-Out, fit-out design guidelines for Bays 5-13 and Bay 15 within the Locomotive Workshop are to be prepared in consultation with the Heritage Council and to the satisfaction of the Secretary.

The tenant fit-out guidelines are to be drafted to ensure that they make tenants aware of the cultural significance of the Locomotive Workshop and the requirements for their on-going conservation and management.

Future development applications shall ensure that fit-out works address the approved fit-out design guidelines.

4.5.2 Tenant Fit-out Guiding Principals

It is intended the fit-out design guidelines will be prepared and finalised prior to the issue of the Construction Certificate CC4 – Services and Base Build Fit-Out. In order to create a memorable experience within this unique destination, Mirvac has undertaken extensive research and consultation into the history of the Locomotive Workshop and with the help of former workers, the local community, the City of Sydney Council and the Heritage Council, the following guiding principals have been formulated. These will be used as a basis to ensure that the future tenancy design within all areas of the Locomotive Workshop provides an appropriate, coherent and sympathetic aesthetic which show cases the significant heritage fabric of the building.

Design Principles for Bay 5-13 and Bay 15

The general principles defining the arrangement within the commercial tenancies in Bays 5-13 and in Bay 15 will:

- include a visual sightline zone that incorporates and extends the central circulation spine within Bays 5-7, which is to be kept clear of any solid items exceeding 1850mm in height to ensure vistas through the building remain unimpeded;
- maintain a strong visual east-west axis that is provided by the Central Spine throughout the building, and ensure that the flooring material is consistent with Bays 1-4a up to Bay 9;
- ensure that new insertions are reversible and suitably positioned amongst the significant heritage fabric;
- include new tenancy structures that will be aesthetically complimentary to the heritage space;
- ensure the heritage equipment and structure is not covered or concealed, rather it is carefully considered and featured as an integral part of the fit-out;
- encourage the continued exposure of the heritage structure; and
- ensure that the lighting design of the tenancies is approached in a holistic manner, integrates with and compliments the lighting strategy for the entire Locomotive Workshop and does not detract from the overall space or the heritage displays.

4.6 Numeric Overview

The key numeric development information is summarised in **Table 3**.

Table 3 Key Development Information

Component	Proposal
Footprint area (Bays 5-15 only)	17,340m ²
Existing GFA (Bays 5-15 only)	23,229m ²
Gross Floor Area Total	<ul style="list-style-type: none"> • 27,458m² • 14,659m² • 11,454m² • 1,345m²
Maximum Height	RL 35.225 (existing height of the Building to the top of the ridge) (excluding vents and flues)
Car Parking	0 – refer to SSSA 8517
Bicycle Spaces	184

4.7 Land Use & Gross Floor Area

The Architectural Plans included at **Appendix C** illustrate a total GFA of 27,458m² across Bays 5-15 which includes the existing GFA included within Bay 14 (3,299m²).

The primary use of Bays 5-15 is for commercial premises² that may potentially include up to a maximum of 156m² for specific retail premises uses. Within the EIS, light industrial uses were previously proposed, however this component has been removed.

As indicatively illustrated on the Architectural Plans at **Appendix C**, the two existing office annexes that are located on the southern side of the Locomotive Workshop between Bays 8 and 9 and Bay 9 and 10 may accommodate future retail premises uses.

Whilst the fit out and operation of the defined spaces illustrated in the Architectural Plans at **Appendix C** will be the subject of future applications, Mirvac seek consent for the overall GFA and use parameters in order to provide certainty for future tenants.

4.8 Hours of Operation

It is intended that the commercial premises will be operable, 24 hours day, 7 days a week.

The hours of operation for the retail tenancies are intended to be:

- 6am – 12am (midnight) on Mondays – Saturdays;
- 6am – 10pm on Sundays and Public Holidays.

4.9 Renaming the Bays

Until the 1990's the Bays within the Locomotive Workshop were numbered 1-4, 4a and 5-15. They are currently named Bays 1-16. Mirvac wishes to re-instate the numbering of the Bays, back to their original sequence in order to provide the most historical and interpretative context for the Locomotive Workshop within its broader Eveleigh Railway Workshops Setting. As set out in **Section 0** the current high level and ground level signs that identify the different Bays are to be removed as part of the demolition works. New signage that identify the revised bay numbers will be provided, however approval for these signs will be the subject of a separate application associated with way finding signage within the Public Domain areas.

² A Commercial Premises use is defined under the Standard Instrument – Principal Local Environmental Plan "any of the following:

- a) Business premises,
- b) Office premises,
- c) Retail premises."

4.10 Demolition

Demolition plans are included within the Architectural Plans provided at **Appendix C**. As shown and outlined within **Table 4** the proposed development will remove the following existing elements.

Table 4 Description of proposed demolition

Floor level	Proposed Demolition Works
Ground Floor	<ul style="list-style-type: none"> • Enlarging the opening within the heritage wall between Bays 4a and 5. • Removal of localised areas of the concrete slab; • Removal of existing separation wall between Bays 8 and 9. • Removal of existing doorways fronting Locomotive Street into Bays 5, 6, 7, 8, 13,14 and 15. • Removal of doorways in Bay 15 opening to western façade. • Removal of existing doorways into Bays 7 and 14 opening to the northern access way. • Removal of existing internal commercial fit-out within Bays 5 to 8 and Bay 15. • Removal of existing barrier surrounding existing heritage collection in Bay 9. • Removal of existing doorways and internal commercial fit-out of the two office annexes fronting Locomotive Street, between Bays 8 and 9 and 9 and 10.
Level 1	<ul style="list-style-type: none"> • Removal of existing wall between Bays 8 and 9. • Enlarging the opening within the heritage wall between Bays 4a and 5. • Removal of existing internal commercial fit-out within Bays 5 to 8 and Bay 15. • Removal of existing mezzanine structure within Bays 5 to 8 and Bay 15. • Removal of existing internal commercial fit-out within the two office annexes fronting Locomotive Street, between Bays 8 and 9 and 9 and 10. • Removal of existing cladding to substations fronting Locomotive Street.
Level 2	<ul style="list-style-type: none"> • Removal of existing separation wall between Bays 8 and 9. • Enlarging the opening within the heritage wall between Bays 4a and 5. • Removal of internal commercial fit-out elements including lighting within Bays 5-13 and Bay 15. • Removal of existing generator structure attached to the southern side of the Locomotive Workshop between Bays 5 and 6.
External	<ul style="list-style-type: none"> • Removal of existing cladding to substations fronting Locomotive Street. • Removal of existing external building signage. • Removal of existing doorways fronting Locomotive Street into Bays 5, 6, 7, 8, 13,14 and 15. • Removal of existing doorways into Bays 7 and 14 opening to the northern access way. • Removal of doorways in Bay 15 opening to western façade. • Removal of existing cladding to substations fronting Locomotive Street.
Roof	<ul style="list-style-type: none"> • Removal of the existing polycarbonate, and portions of metal sheeting of the roof structure on Bays 5 to 15.

4.10.1 Hazardous Materials Removal

A Hazardous Materials Survey has been prepared by JBS&G (submitted with the EIS) which confirms the following materials are in existence within the Locomotive Workshop:

- lead based paint;
- lead dusts;
- asbestos containing materials; and
- synthetic mineral fibres.

During the demolition phase of the development all hazardous materials will be removed by suitably licenced contractors in accordance with the relevant legislative requirements, codes and practice guidelines, as recommended in the Hazardous Materials Report and the Remedial Action Plan, prepared by JBS&G as submitted with the EIS.

Furthermore, in line with the recommendations within the report, areas that are currently inaccessible will be inspected and surveyed for hazardous materials as the demolition progresses. If hazardous materials are observed, confirmation of the presence or absence of hazardous materials will be confirmed through laboratory testing.

4.11 Structural Works

The proposed development incorporates structural modifications to the Locomotive Workshop in the form of new built elements and potential upgrades to the existing structure. Structural design recommendations for the new built and existing structure upgrades are specified within the Structural Design Report, prepared by Arcadis that was submitted with the EIS.

Furthermore, Arcadis have provided a statement (refer to **Appendix G**) that confirms that the structural design intent as outlined in the Structural Design Report that was submitted with the EIS is not required to be altered by the proposed changes made in the revised Architectural Drawings.

Accordingly, all structural systems proposed within the development will be designed to satisfy the provisions of relevant Australian Standards, and the National Construction Code of Australian, and in accordance with the accepted practice and principles of structural engineering. Where there is no relevant Australian Standard or Code, appropriate overseas standards or recognised methods of analysis, design or testing will be used.

Appendix F includes a suggested condition of consent that amongst other things, requires that the proposed works to comply with the applicable performance requirements of the BCA so as to achieve and maintain acceptable standards of structural sufficiency, safety (including fire safety), health and amenity and that all new structural works comply with the BCA in a manner that maximises the conservation and enhancement of its historic spatial qualities. This was also set out in **Section 2.7**.

4.12 Bays 5-13 and Bay 15 Design

As explained in the Architectural Design Report (submitted with the EIS), during the evolution of the design, Sissons undertook multiple studies of the entire Locomotive Workshop. One of the studies involved an exercise whereby the grouping of the Bays for the entire Building were re-organised as illustrated in **Figure 3**.

The revised grouping then evolved to form the arrangement that was submitted with the EIS as illustrated in **Figure 4**, **Figure 6** and **Figure 8**. However, the arrangement has been further refined as a result of the consideration of the submissions and design development. The revised arrangement is illustrated in **Figure 5**, **Figure 7** and **Figure 9**.

The updated general arrangement for Bays 5-15 therefore comprises:

- A group of three bays (Bays 5-7) which will be occupied by:
 - two tenancies and public circulation at Ground Floor that will include lift cores, service pods and stairwells;
 - two tenancies at Level 1, that will include service pods, stairs and lift cores.
- A group of 6 bays (Bays 8-13) that will be occupied by one large tenant over two levels and will include services pods at each level, lift cores, and stairwells.
- Two retail tenancies within the Annexes located between Bays 8 and 9 and Bays 9 and 10.
- Bay 14, which will continue to be occupied over three levels by the existing tenant, which has a lease until 2023.
- Bay 15, which will provide:
 - a reduced commercial tenancy, circulation space, two bicycle storage areas providing a total of 184 bicycle spaces, and back of house and facilities rooms, two lift cores and stairs at Ground Floor level;
 - a commercial tenancy, circulation space, End-Of-Trip changing facilities, lift cores, stairs and plant at Level 1;
 - a commercial tenancy, circulation space, stairs and lift core within the southern portion of Level 2.

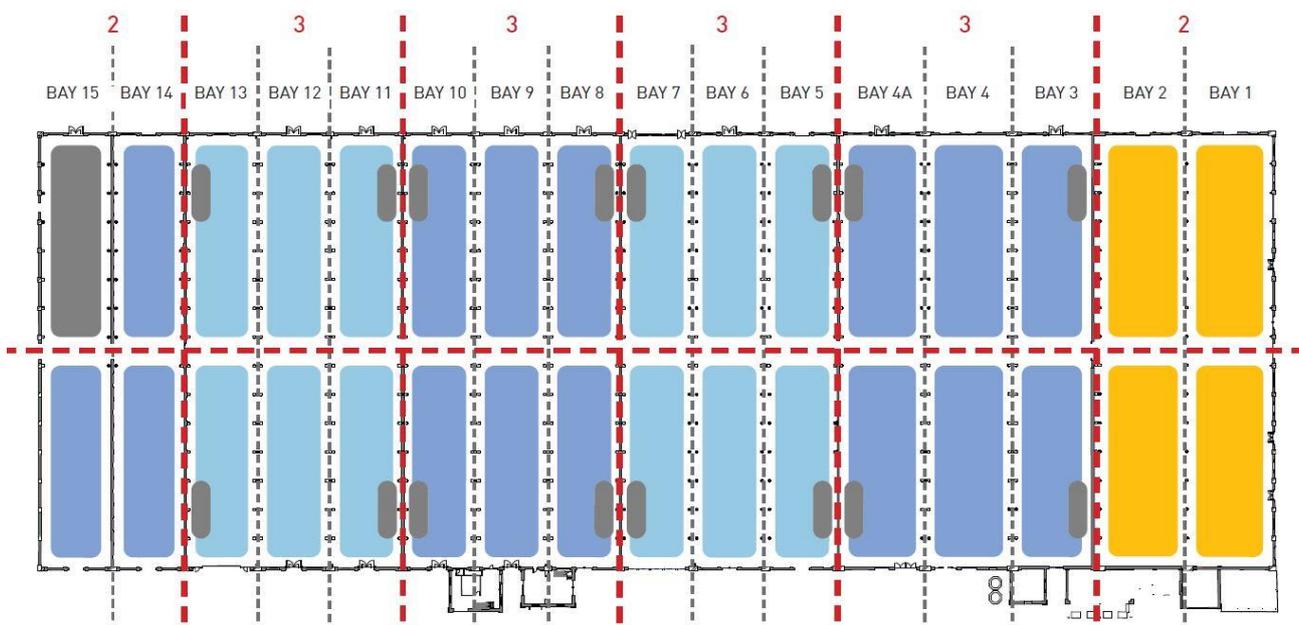


Figure 3 Existing Bay grouping arrangement

Source: Sissons

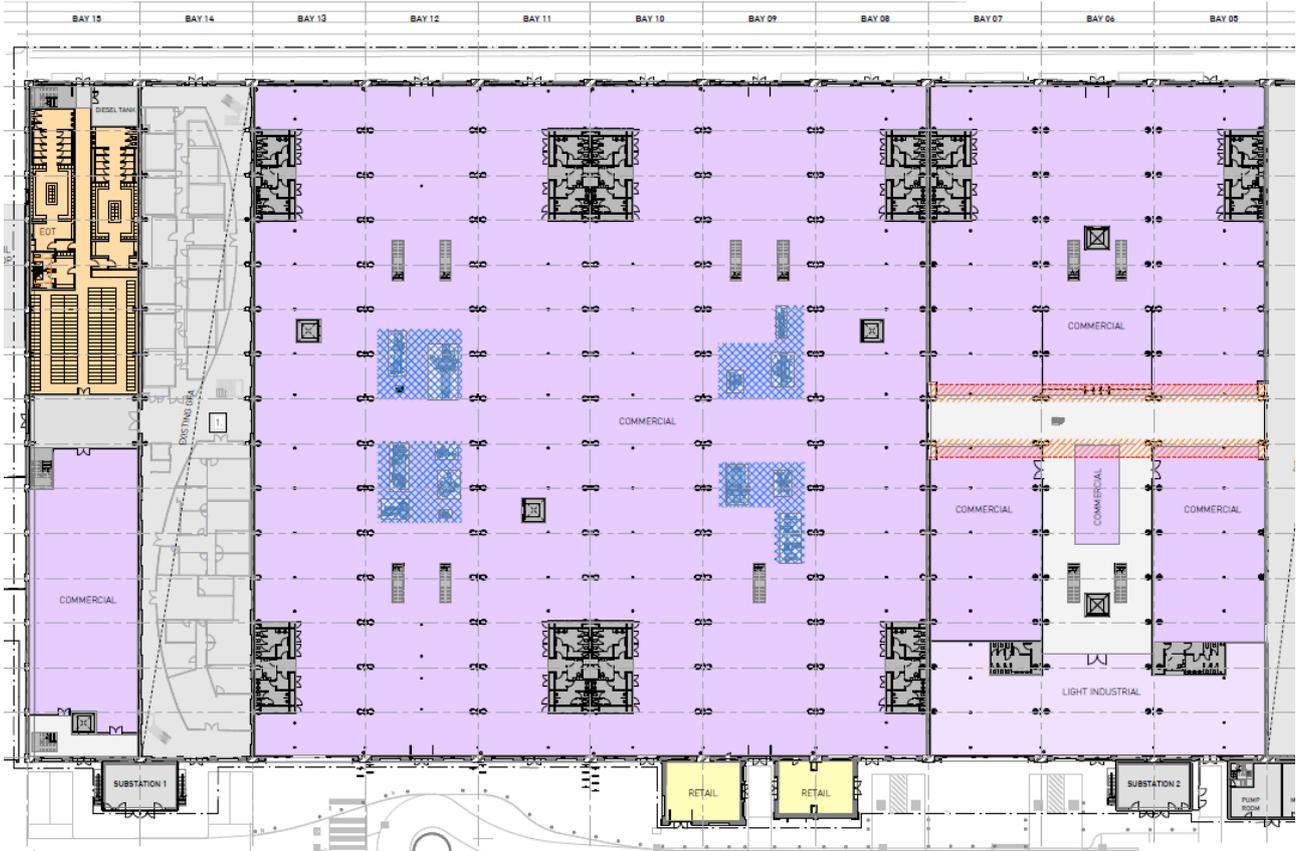


Figure 4 Proposed Ground Floor plan for Bays 5-15 – EIS submission

Source: Sissons

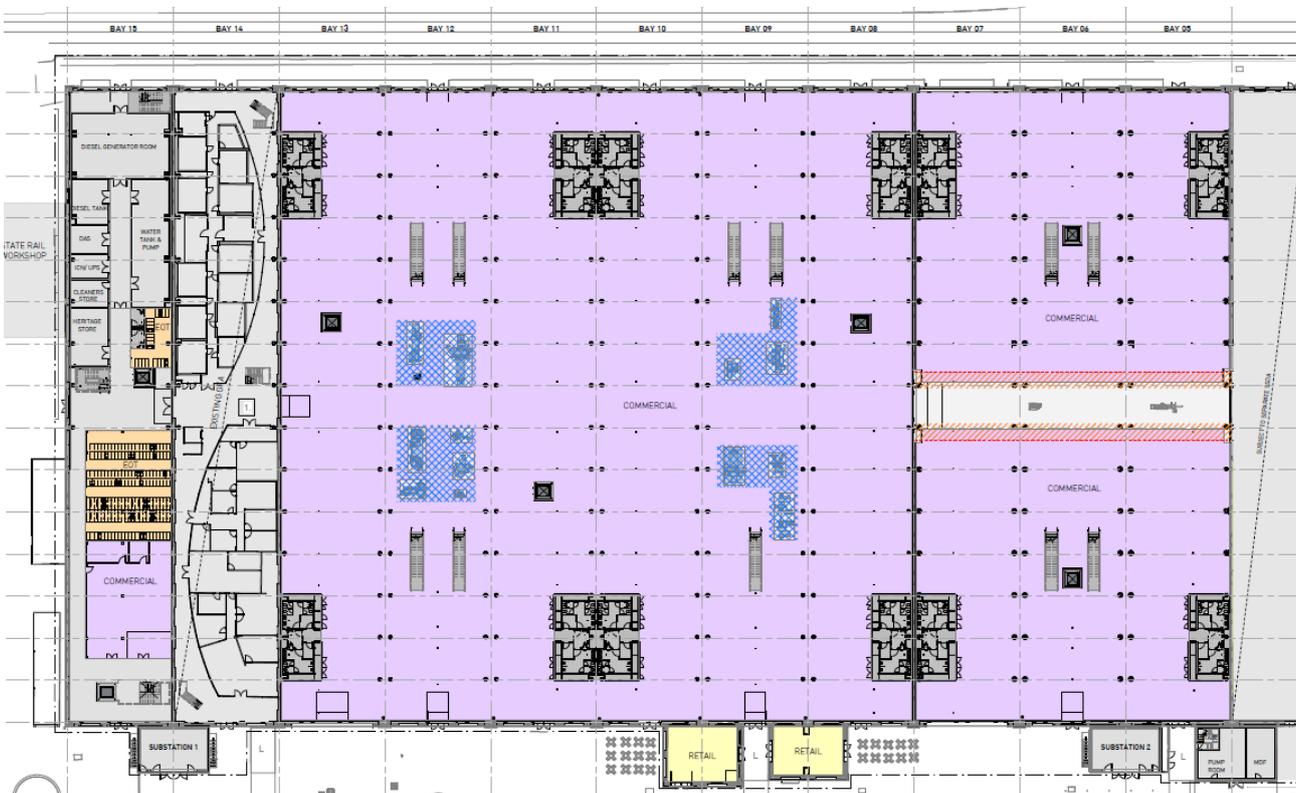


Figure 5 Proposed Ground Floor plan for Bays 5-15 – RTS submission

Source: Sissons



Figure 6 Proposed Level 1 plan for Bays 5-15 – EIS submission

Source: Sissons

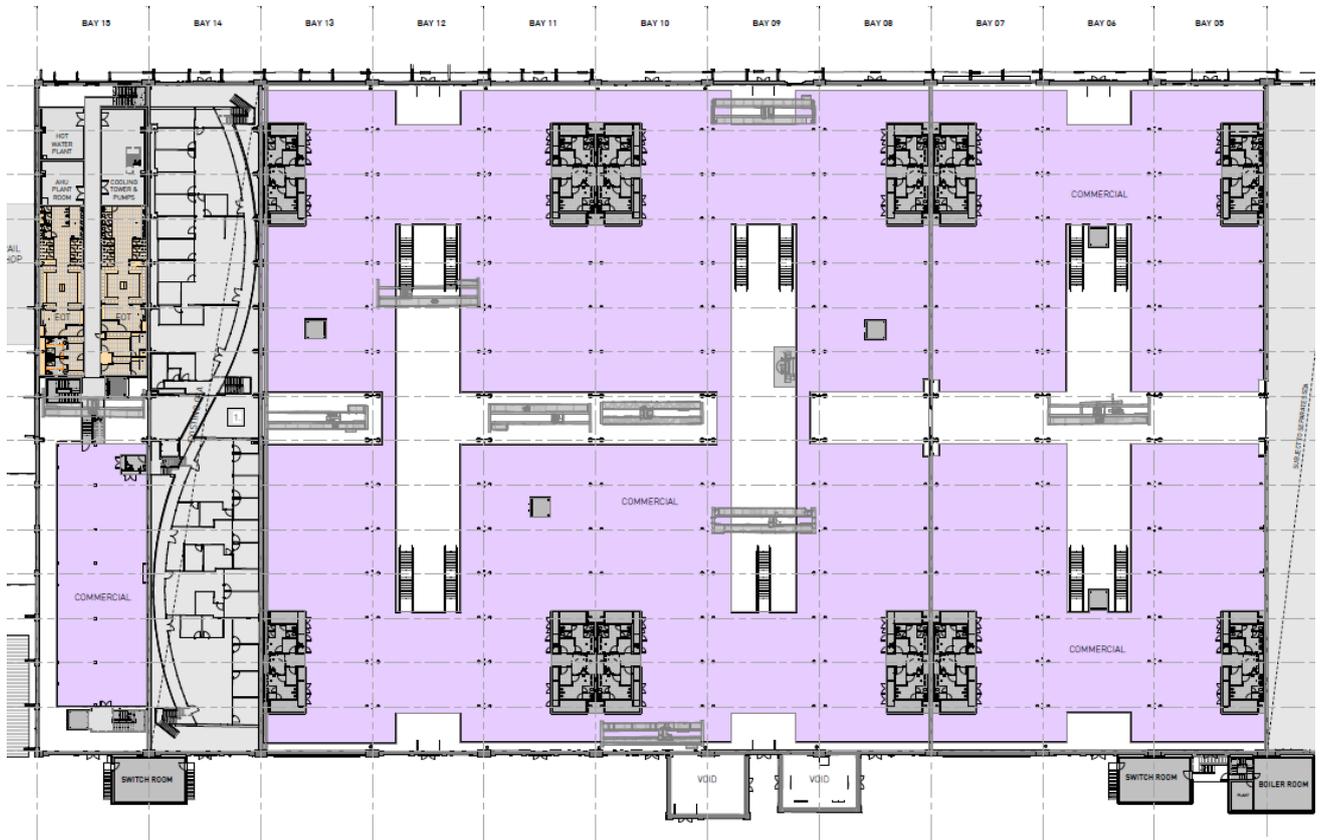


Figure 7 Proposed Level 1 plan for Bays 5-15 – RTS submission

Source: Sissons



Figure 8 Proposed Level 2 plan for Bay 15 – EIS submission

Source: Sissons

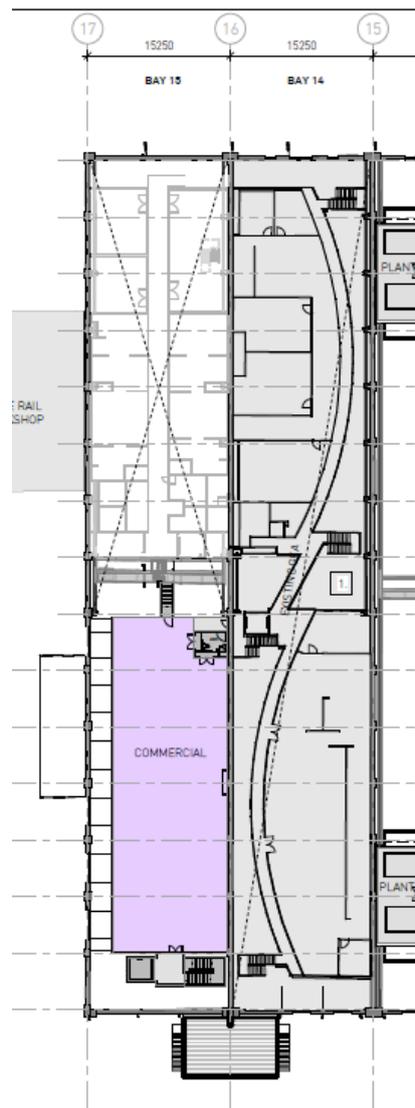


Figure 9 Proposed Level 2 plan for Bay 15 - RTS submission

Source: Sissons

A summary of the proposed physical works is outlined in **Table 5**. Details of the key elements are provided in the Architectural Design Report submitted with the EIS and in **Sections 4.13 to 4.24**.

Table 5 Summary of proposed physical works

Bay	Proposed Development
Building Interior Bays 5 - 13	<ul style="list-style-type: none"> • Construction of internal tenancy divisions, including new floor structures, amenities and service pods, new stairs and lifts • Enhancements of entrances including the enlargement of the opening between Bays 4a and 5. • Provision of new floor treatments.
Building Interior Bay 14	No works proposed
Building Interior Bay 15	<ul style="list-style-type: none"> • Construction of commercial tenancy divisions, mezzanine floors, end of trip facilities and central plant equipment, new stairs and lifts • Enhancements of entrances
Building Exterior Bays 5-15	<ul style="list-style-type: none"> • Installation of external lighting to enhance the building façade.
Roof	<ul style="list-style-type: none"> • Roof upgrade - installation of insulation, upgrade of existing conditions (if required), insertion of natural daylight 'slots', incorporation of smoke attenuation louvres where required and recladding if necessary • Construction of a new plant platform within the valley between Bays 14 and 15. • Addition of a new roof maintenance access system
Retail/ Office Annexes	<ul style="list-style-type: none"> • Refurbishment of single level retail tenancy • Enhancement of entrances
Plant Annexes	<ul style="list-style-type: none"> • Recladding

4.13 Floor Treatments

4.13.1 Bays 5-13

A new access floor will be provided throughout the Ground Floor level of Bays 5-13 to allow data cabling and pipework to be reticulated beneath the floorplate and minimise the need for chasing or intervention into the existing floor slabs. The access floor will sit on pedestals on top of the existing floor slabs, in order to protect the original floor slab and finish.

At Level 1, an access floor is also to be provided to allow for service reticulation as well as the proposed displacement of the heating/ cooling system.

Definitive specifications of the floor finishes will be determined in consultation with Mirvac's heritage consultant and confirmed within the detailed documentation that will be submitted with Construction Certificate CC3 – Structure.

4.13.2 Central Spine

Within the Central Spine in Bays 5-7, a new floor slab is to be built over the original substrate. Its purpose is to protect the original floor finish. The new floor slab will be constructed of honed concrete over a rigid insulation board and will include decorative inlays which will form part of the interpretation works to tell the story of the Locomotive Workshop.

In Bays 8-13, the Central Spine is proposed to be visually connected by utilising a concrete topping slab to match the finish of the screed throughout Bays 1-7.

4.13.3 Bay 15

Floor treatment at the Ground Floor level of Bay 15 is to be resilient flooring such as vinyl, laid directly onto the existing slab, with carpet provided to the commercial tenancy. At Level 1 and Level 2, the floor finish is intended to be a polished concrete to plant and common areas, with carpet tiles on the slab within the commercial tenancies.

4.14 Internal Walls

4.14.1 Bay 4a and Bay 5 Wall

The enlargement of the central opening between Bay 4a and Bay 5 is still proposed as part of the revised design. In order to broaden sightlines and views down the Central Spine the existing modern blockwork wall is to be retracted by approximately 2m on either side. Whilst the exact details of the internal wall openings and proposed doorways will be submitted with the Construction Certificate documentation for CC3 – Structure, it is intended that the wall between Bays 4a and 5 will be a framed, glazed structure in keeping with the style of the new windows and doors throughout the building.

The concept currently being explored for the fire separation door between Bays 4a and 5 is a fully retractable door system, allowing the Central Spine to be completely open (as illustrated in **Figure 10**) at Ground Floor Level except in the case of a fire. This will ensure that vision along the Central Spine is maximised and the feeling of openness and democratic space is retained. Options currently being considered include large sliding panel doors, or a horizontal roller shutter system, both of which would be contained in a cavity and therefore not visible within the space when not in use.

In addition, as annotated on the Ground Floor Plan at **Appendix C**, and discussed in **Section 2.11** a Visual Sight Line zone (refer to **Figure 2**) has been established. Within this 'zone' all balustrades on Level 1 will be designed to provide a transparent edge.



Figure 10 Illustrative view from Bay 4a towards Bay 5 and beyond

Source: Sissons

4.14.2 Bay 7 and 8 Wall

As outlined within the EIS a new intertenancy wall is to be inserted between Bays 7 and 8. Whilst the exact details of the internal wall openings and proposed doorways will be submitted with the Construction Certificate documentation for CC3 – Structure, it is intended that the wall between Bays 7 and 8 will be a framed, glazed structure in keeping with the style of the new windows, doors and the wall between Bays 4a and 5.

4.15 Service Pods

The proposed service pods in the southern portion of Bays 5-7 have been re-orientated and relocated to align with the general pattern provided within the northern portion of Bays 5-7 and Bays 8-13. As discussed in the Response to Submissions Package at **Appendix H**, they have been designed to incorporate amenities, mechanical, electrical and hydraulic service requirements within a consolidated location and illustrations of the proposed layout, elevations and sections of the proposed service pods are also provided.

4.16 Roof works

The current roof structure comprises two layers of sheet metal. The exterior comprises a contemporary layer of corrugated sheet metal and polycarbonate that was added in the 1990's and beneath this is the original roof trusses and other associated historic fabric which is visible internally.

The proposed roof works seek to improve the thermal and daylight performance and will include the following:

- retention of the original structure of the roof and its interior heritage fabric including trusses, soffits and other associated fabric, including the majority of the historic louvres;
- removal of the contemporary outer sheet metal layer in Bays 5-15 and modern polycarbonate cladding over the curved lanterns in Bays 5-15 to allow for the installation of new insulation and then the installation of a new outer layer of metal sheeting that has a consistent colour, fabric and profile to that of the existing external roof;
- insertion of skylight 'slots' within the new exterior cladding layer along the Central Spine and Bay 6, 9 and 12 and replacement of the polycarbonate cladding over the curved lanterns in all Bays to provide daylight penetration;
- installation of operable smoke attenuation louvres to meet the BCA fire safety and smoke management regulations; and
- the addition of a new roof maintenance access system.

However, as set out in the Response to Submissions Package, prepared by Sissons (**Appendix H**) the intention is to retain existing smoke attenuation louvres on the roof where possible and only remove sections of the existing louvres in order to achieve compliance with the relevant BCA requirements and Australian Standards. Testing will be undertaken during the design development stage to ascertain the exact locations and extent that will be impacted.

4.16.1 Roof Maintenance Access System

The roof maintenance access system within the Locomotive Workshop is to be upgraded. This includes the provision of new roof stairs and safety handrails to the roof as illustrated within the Architectural Plans at **Appendix C** and in **Figure 11** and **Figure 12**. The proposed stairs and hand rails are to be set back from the northern façade line and will be connected using clips and screw connections to mechanically fit to the top roof sheet material. The exact detail of the proposed roof maintenance access system will be provided within the documentation submitted for Construction Certificate CC5 – Façade and Roof.

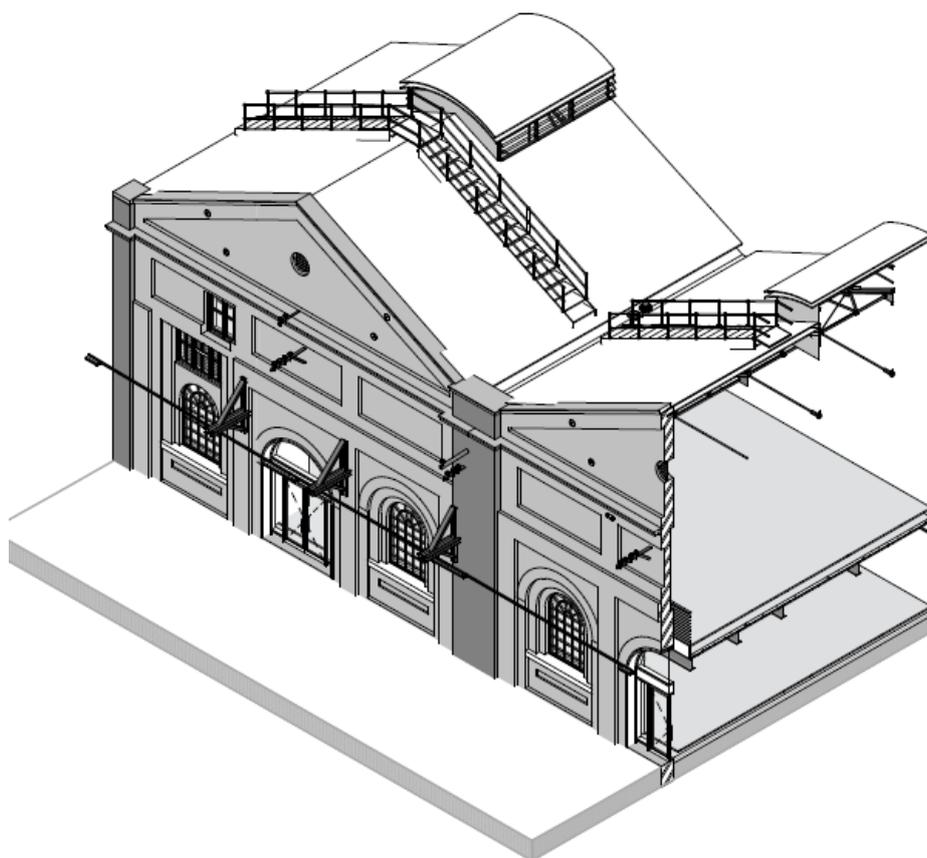


Figure 11 3D view of the proposed roof maintenance access system

Source: Sissons

4.17 Roof Plant and Platforms

The revised design includes a new platform to support roof plant within the roof valley between Bays 14 and 15. It is to be accessed via new access stairs that will lead from the fire egress stairs in Bay 15 and will be of steel construction, supported by new columns that will transfer the load to bear on the supports for the new Level 1 floor structure (refer to **Figure 12**). The detailed design drawings of the roof platforms and their structural supports will be included within the construction certificate documentation for CC3 – Structure.

The positioning of the plant platforms has been carefully considered to ensure that they are located where visibility is limited from street level or from people on passing trains.

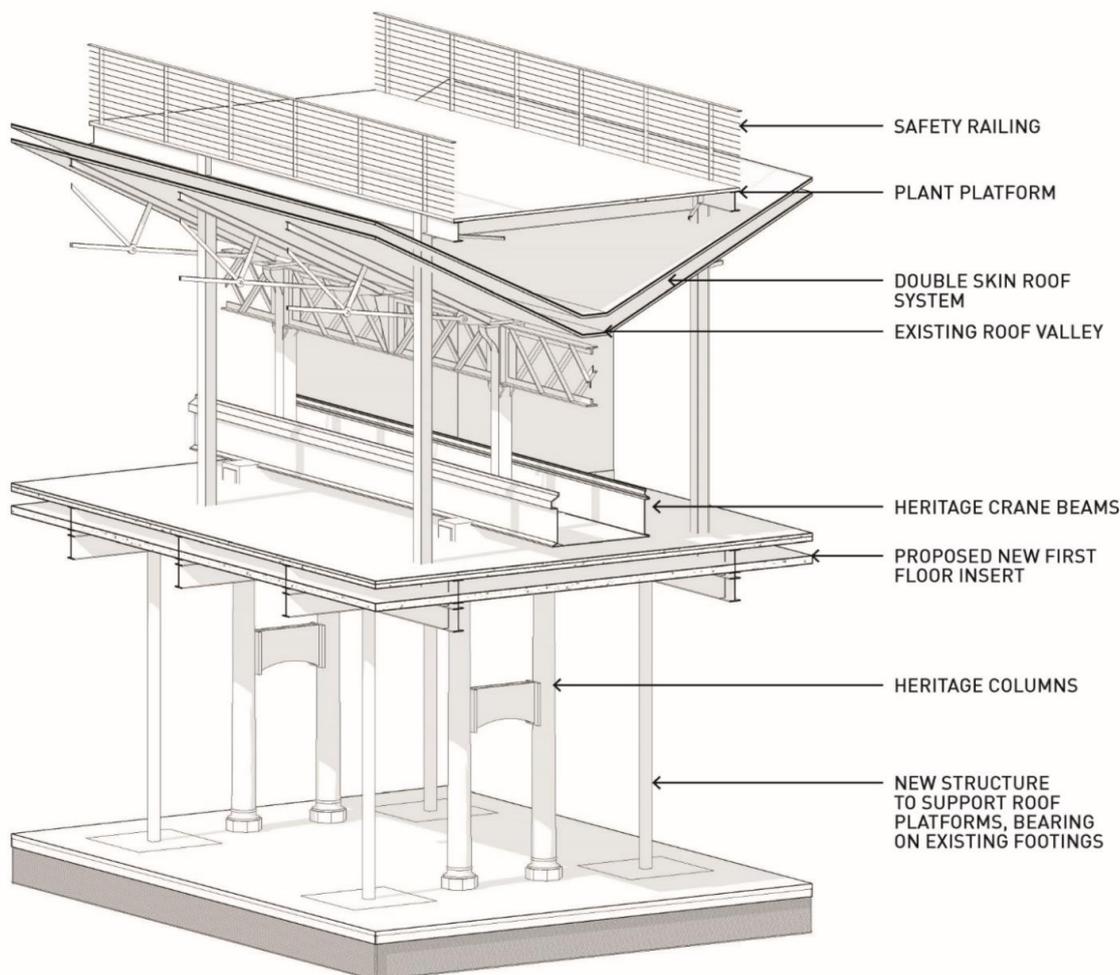


Figure 12 3D sectional view of the proposed Plant Platforms

Source: Sissons

4.18 Building Entrances and Windows

The proposed works to the building entrances and windows have not been amended. The proposal will therefore seek to remove:

- refurbish the existing steel/ wrought iron frame and sashes;
- install new clear glazing along the southern façade;
- retain and replace (to match) existing patterned glass along the northern façade;
- perform maintenance to remove rust, improve the operability of the sashes and make watertight;
- restore infilled windows in line with the overall aesthetic approach; and
- preserve the existing timber doors and retain them in-situ in an open position internally.

Furthermore, the large rectangular doorways will also be sensitively upgraded, and an additional pane of clear glass installed internally (where required) to meet ESD requirements and improve thermal comfort. Due to the variation of openings, each door and window opening will be individually assessed, and the appropriate treatment determined.

4.19 Recladding of Plant Annexes

The revised design continues to reclad the Plant Annexes as described in the EIS. The final external appearance of the Plant Annexes will however be determined in conjunction with the Stage 2 Heritage Interpretation Plan, as it is considered that they provide a suitable canvas to display a heritage story.

4.20 Exterior Material Palette

The exterior material palette will be determined as the detailed design progresses, however it will be in-keeping with the original appearance of the Locomotive Workshop and will retain all original features where possible. An updated indicative material palette for the external works is included in the Response to Submissions Package, prepared by Sissons (**Appendix H**) however, the exact materials that will be used for each element will be determined in consultation with Mirvac's heritage consultant and specified within the construction certificate documentation.

4.21 Relocation of the Moveable Heritage Collection in Bay 9 and Overhead Gantries

As indicated in the EIS, approval is sought for the relocation of the items currently stored within the northern portion of Bay 9 and the overhead gantries. The exact location of the moveable items and overhead gantries will be determined in line with the Stage 2 Heritage Interpretation Plan and the future Tenant fit-out development applications.

4.22 Heritage Interpretation

The Interpretation Strategy for the entire ATP, including the Locomotive Workshop, was prepared by Curio Project in November 2016. It was approved by the NSW Heritage Division in February 2017 and provides an overarching framework in heritage interpretation at the ATP including the key themes, stories, interpretive products and opportunities. The Interpretation Strategy forms Stage 1 of a three-staged interpretive planning process.

As clearly set out within the Heritage Response Report, (**Appendix D**), Curio Projects has been commissioned by Mirvac to prepare the Stage 2 Interpretation Strategy for the Locomotive Workshop and well as the Stage 2 Interpretation Plan for the broader ATP precinct. Trigger Design has been commissioned to design the physical interpretive elements within the Locomotive Workshop, and also the broader ATP Public Domain.

Since lodgement of the EIS for SSDA 8449, Curio Projects and Trigger Design have been working in close consultation with Mirvac, Sissons, The Buchan Group and other relevant stakeholders to ensure that the heritage interpretation being developed for the Locomotive Workshop and ATP Public Domain is authentic, consistent across the whole of the ATP precinct and captures the key significance of the place. The revised concepts that will be developed as part of the finalisation of the Stage 2 Interpretation Strategy for Bays 5-15 of the Locomotive Workshop are as follows:

- **Relocation of some of the moveable heritage items** to better improve contextual location and heritage interpretation opportunities and to ensure that heritage items are located in effective locations for communication of heritage values to site users. The Architectural Plans at **Appendix C**, identifies indicative heritage interpretation zones at Ground Floor level. It is intended that following careful consideration and development of the detailed heritage interpretation design that the majority of the moveable heritage items that are currently located in Bay 9 will be relocated to these zones or other heritage interpretation zones within the Bays 1-4a.
- **Focus on cultural heritage tourism**, that will integrate Bays 1-4a and 5-15 within the Locomotive Workshop with each other and integrate the Locomotive Workshop with the remainder of the ATP. Mirvac is working in partnership with the NSW State Government's 'Heritage Near Me' program to develop a unique digital platform for the ATP to create closer connections with the community and to allow the key stakeholders to tell their stories, and the stories of the Site through virtual reality and augmented reality treatments. It will also form part of a key network of journeys both within the Locomotive Workshop and beyond to allow people to engage with and enjoy the significance of the Site using the latest digital technology and prototypes.
- **Improve the internal and external reading of the original function** of the Locomotive Workshop through the redevelopment and its associated improvements to the heritage ambience, external and internal lighting, revised bay numbering (i.e. returning to the original numbering) and a clearer communication of the heritage significance of the Site using a variety of media and other techniques.

- **Tell key stories of the Locomotive Workshop and the ATP site**, such as how it created a place of positive empowerment for the Aboriginal Community and the story of Unionism, Activism and the iconic strikes waged by the workers at ATP and how events that unfolded at Eveleigh over its history have led to the improved workplace conditions in place today. This involves concept ideas for artworks outside Bay 15 or on the exterior of the substation cladding, with a digital or other type of interpretive overlay to tell the stories of the workers, the strikes and the rise of the Unions.

4.23 Signage

As indicated on the revised Architectural Drawings (**Appendix C**), the extent of the proposed signage zones has not been amended since submission of the EIS. Therefore, approval is sought for the signage zones behind the upper glazed panels of the entrance doorways along the southern and northern elevations of the Locomotive Workshop.

The dimensions of the signage zones are as follows:

Table 6 Signage zones

Sign Type	Height (approximately)	Length (approximately)
Tenant signage zone, behind glazing above modern entrances	1.62 m	4.1m
Tenant signage zone, behind glazing above arched heritage entrances	0.92m or to infill the panel above door	2.7m to infill the panel above the door

As clearly stated in the EIS, approval for all the detailed signage designs, their materiality and illumination will be the subject of a separate application.

4.24 Illumination Strategy

A conceptual Lighting Design Strategy prepared by Point of View was submitted with the EIS. It set out guiding principles, luminaire typology and design concepts for the external facades, elements and signage and interiors. For ease of reference, the general approach which will be adopted to determining the detailed external and interior lighting design is set out in **Sections 4.24.1** and **0** below.

4.24.1 Exterior Lighting

The general approach that will be adopted for the southern façade of Bays 5-15 includes:

- linear in ground uplights to graze the pilasters;
- inground uplights to accent the doorways;
- luminaire mounted window ledges to light the window reveals;
- linear LEDs to uplight the façade pediment;
- signage with integrated lighting;
- linear LEDs located above the entrance portals; and
- low glare and non-obtrusive signage lighting that is sympathetic to the heritage facades.

Along the northern façade, the strategy proposes linear LEDs to uplight the faced pediment and pendants suspended from the existing steel brackets.

4.24.2 Interior Lighting

The general interior lighting strategy proposes the following:

- in ground uplights with low glare to light the columns;
- track and spot lighting to light the gantry;
- a series of high bay luminaires within the high ceiling spaces to provide general lighting to the space below. The look and feel will be of traditional heritage style;
- surface mounted luminaires in areas where the ceilings are lower;
- track and spot lighting throughout to provide accent lighting to architectural elements and zones;
- floor mounted lighting, table lighting and localise task lighting in break-out areas;
- accent lighting to heritage artefacts.

As part of the construction certificate documentation for CC 5 – Façade and Roof, a consolidated and detailed lighting design for both the external facades and internal base build elements will be formulated for the entire Locomotive Workshop.

In addition, the tenant fit-out guidelines will specify that all specialist lighting provided by tenants is in keeping with Mirvac's proposed overall vision for the Locomotive Workshop and enhances the significant heritage fabric. Tenants will be required to submit their lighting scheme for review and comment by Mirvac's appointed design team as part of the land owners consent process.

4.25 Public Access & Circulation

The proposed primary pedestrian access points into the Locomotive Workshop have not been altered. As set out in the EIS, they will be provided from Locomotive Street into:

- Bay 7;
- Bay 13;
- Bay 14; and
- Bay 15.

Other doorways along both the southern and northern facades of the Locomotive Workshop will also be openable and may be utilised according to the requirements of the tenants

The two retail annexes will have access independent of the Bays and have access directly from Locomotive Street.

In terms of internal circulation space, the revised design maintains the central circulation spine that runs from Bay 1 to Bay 7. This Central Spine will provide access for the general public and future workers within hours of operation.

The exact extent of the publicly accessible areas and parameters of the times will be determined after the finalisation of the Stage 2 Heritage Interpretation Strategy.

4.26 Vehicle Access, Loading and Car Parking

4.26.1 Vehicle Access

Vehicular access to Bays 5-15 will continue to be provided via Locomotive Street.

4.26.2 Car Parking

Approval for all the Public Domain works within the curtilage of the Locomotive Workshop, including the area south of Bays 5-15 and the provision of car and loading spaces are now sought under SSDA 8517. Approval for the provision of the on-street spaces is no longer sought under SSDA 8449.

4.26.3 Bicycle Parking

The revised design of Bay 15 requires a greater area of the Ground Floor Level of Bay 15 to be allocated to plant equipment. In order to accommodate the additional plant equipment, the end-of trip and bicycle storage rooms have been reduced in size which results in a reduction to the number of bicycle spaces that can physically be accommodated. The revised design therefore only allows 184 spaces to be provided.

However, as noted in SSDA 8517, 46 on-street spaces continue to be located within the Public Domain area that surrounds the Locomotive Workshop.

4.26.4 Loading and Servicing

The revised design for the Locomotive Workshop, as discussed in the Response to Submissions Report for SSDA 8517, proposes that loading and servicing for the entire development will be provided in two ways:

- five on-street loading bays provided adjacent to the southern façade of the Locomotive Workshop, is illustrated in the Public Domain plans included with the Response to Submissions Report for SSDA 8517; and
- within the loading dock located within the northern part of Bays 1 and 2.

As addressed in the EIS, given the provision of the designated loading dock within Bays 1 and 2 and the provision of the on-street loading bays is subject to SSDA 8517, until such time as the proposed on-street loading facilities and the loading dock has development consent, servicing and loading activities for Bays 5-15 will utilise the existing loading spaces on Locomotive Street.

4.27 Operational Management

An Operational Plan of Management prepared by Mirvac was appended to the EIS to explain how Bays 5-15 within the Locomotive Workshop will be operated to meet its obligations associated with Mirvac's management policies and other relevant requirements. The public access details have since been revised as discussed in **Section 4.25**, however, the proposed amendments do not alter the Operational Management details in regard to:

- Site Management;
- Number of Staff; and
- Waste Management.

4.27.1 Site Management

Mirvac's Facilities Management team are currently located in Bay 7 within the Locomotive Workshop. However, following the redevelopment of Bays 5-15, the Facilities Management offices will be located on Level 2 of Bay 15. They will be staffed Monday to Friday between 8am and 5pm. Out of these hours, on-site security personnel will be the point of contact. The Facilities Management team will be responsible for the management of the entire Locomotive Workshop including Bays 5-15.

Furthermore, Facilities Management will be responsible for offering and managing the following services to tenants:

- Lost and Found; and
- End of Trip Facilities

Facilities Management will also engage a private contractor to manage cleaning throughout the Locomotive Workshop, including all communal areas and individual tenancies, if specified under the leasing agreement.

4.27.2 Site Security

Security offices will be located on Level 2 of Bay 15 adjacent to the Site management offices. Security personnel will be on-site 24 hours, 7 days a week and will be responsible for on-foot patrols of the Locomotive Workshop both internally and externally. The exterior of the Locomotive Workshop will also be monitored by close circuit television (CCTV).

4.27.3 Staff

The Facilities Management team will comprise of approximately 4 staff. However, the total number of staff employed within Bays 5-15 across all tenancies will be approximately 2,800.

4.27.4 Waste Management

As discussed in the EIS, the overall strategy for loading and servicing, including waste collection and storage within the Locomotive Workshop continues to be based on the provision of a loading dock located within the north-eastern corner of Bays 1 and 2. The proposed development, as amended by this report, does not alter this strategy.

However, under the non-loading dock scenario, the requisite number and type of bins will be provided within the existing waste storage location and waste management will be undertaken in accordance with the measures outlined within the Operational Plan of Management included within the EIS.

4.28 Environmentally Sustainable Development

Mirvac is committed to redeveloping the Locomotive Workshop to maximise energy efficiency and create a sustainable working environment for future tenants and visitors. The proposed amended design continues to target the following sustainability benchmarks and certifications:

- 5 Star Green Star 'Design & As Built' v1.1 rating;
- 5 Star NABERS Office Energy (Base Building) rating;
- 4 Star NABERS Water (Whole Building) rating; and
- NCC Section J Compliance

In order to meet these benchmarks the ESD initiatives (as set out within the Ecologically Sustainable Development Report, prepared by NYD within the EIS) will be considered and incorporated (where possible) into the detailed design and operation of the Locomotive Workshop.

4.29 Infrastructure and Services

A Stormwater and Hydraulic Infrastructure Report prepared by NDY and an Electrical Services Report prepared by IGS were submitted with the EIS. These reports assess whether the proposed development will require the upgrade or augmentation of the existing utility infrastructure that service the Site. The proposed amendments to the development do not alter the description of Infrastructure and Services contained within the EIS regarding:

- Sewer, Water and Gas;
- Electricity;
- Telecommunications;
- Stormwater Management; and
- Electrical and Mechanical Engineering.

5.0 Environmental Assessment

The exhibited EIS provided a robust assessment of the environmental impacts of the proposed development and addressed all the matters for consideration set out in the SEARs being:

- compliance with the EP&A Act, relevant planning policies and environmental planning instruments;
- design excellence;
- built form;
- heritage impacts;
- economic and social impacts;
- traffic, parking & access;
- public access;
- waste management;
- contamination;
- noise and vibration;
- accessibility;
- BCA compliance;
- services and utilities management;
- water cycle management;
- railway infrastructure impacts;
- construction management;
- ecologically sustainable development;
- development contributions;
- site suitability; and
- public interest.

Ethos Urban has reviewed each of the detailed reports and assessments that supported the development proposed within the EIS and consider that the revised elements, as outlined in **Section 4.0** do not change the original assessment of the following matters:

- compliance against the objects of the EP&A Act and matters for consideration listed in Section 4.15 of the EP&A Act;
- consistency with relevant strategies, policies and guidelines (as set out in the SEARs);
- compliance with the following State Environmental Planning Polices (SEPPs):
 - SEPP (State and Regional Development) 2011;
 - SEPP 55 – Remediation of Land;
 - SEPP 64 – Advertising and Signage;
 - SEPP (Infrastructure) 2007; and
 - SEPP (Urban Renewal) 2010.
- design excellence;
- economic and social impacts;
- public access;
- waste management;

- contamination;
- noise and vibration;
- services and utilities management;
- railway infrastructure impacts;
- social and economic benefits;
- construction management;
- ecologically sustainable development;
- developer contributions;
- site suitability; and
- public interest.

Where it has emerged that further assessment is necessary, either through proposed changes to the design or in response to submissions, this has been undertaken. The following specialist technical statements have therefore been prepared to reflect and assess the additional issues and/ or proposed design changes:

- Architectural Drawings prepared by Sissons Architecture (**Appendix C**)
- Heritage Response Report (**Appendix D**);
- Structural Design Statement (**Appendix G**);
- Traffic and Transport Response to Agency Submissions Report (**Appendix I**);
- Accessibility Statement (**Appendix J**); and
- BCA Statement (**Appendix K**).

The relevant matters that require specific detailed assessment are further discussed below.

5.1 Consistency with SEPP (State Significant Precincts) 2005

SEPP (State Significant Precincts) 2005 is the principal planning instrument applying to the site. The revised design for Bays 5-15 continues to be consistent with the provisions set out within Part 5 of Schedule 3 of the SEPP. Matters that require additional assessment against the relevant development controls within Part 5 of Schedule 3 of the SEPP are set out in **Table 7**.

Table 7 Summary of consistency with Schedule 3, Part 5 of SEPP SRD

Relevant Provision	Consistency
Clause 7 – Land Use Zones & Clause 8 – Business Zone – Business Park	The revised design seeks consent for commercial premises uses which are permissible with development consent.
Clause 21 (2A) – Gross Floor Area	<p>The revised maximum total GFA within Bays 5-15 is 27,458m².</p> <p>The existing GFA of Bays 1-4a is 12,731m².</p> <p>Should Bays 1-4a not be developed as proposed in SSD 8517, the total GFA within the Locomotive Workshop will be 40,189m². However, if Bays 1-4a are developed as proposed in the Response to Submissions report submitted for SSSA 8517, then the total GFA across the Locomotive Workshop will be 39,134m².</p> <p>The above demonstrates that the revised development will not exceed the maximum GFA control for the Locomotive Workshop of 42,055m².</p>
Clause 23 – Car Parks	The revised design does not seek to provide any additional parking on the site.
Clause 27 – Heritage conservation	The revised design proposes a number of minor amendments that may move and alter elements within the State Heritage Listed Locomotive Workshop. An assessment of the proposed additional heritage impacts is included in Appendix D .

5.2 Built Form

The revised designs for both the eastern and western portions of the Locomotive Workshop, as described in detail within **Section 4.0** of each of the respective Response to Submissions reports have continued to be developed together to provide one integrated building that comprises a number of different, but inter-connected functions. **Figure 13** to **Figure 14** demonstrate that the overall layout of the Locomotive Workshop continue to work together.

Furthermore, the overall design principles for the project have generally remained the same as those set out in the EIS's submitted for SSDAs 8517 and 8449, and the proposed Approval Strategy and the Detailed Design Framework for both applications adopt similar processes and protocols.

Overall the design quality of the proposal, continues to be to an extremely high standard and carefully seeks to convert Bays 1-4a into a spectacular destination that celebrates and enhances the significant heritage fabric and its industrial history.

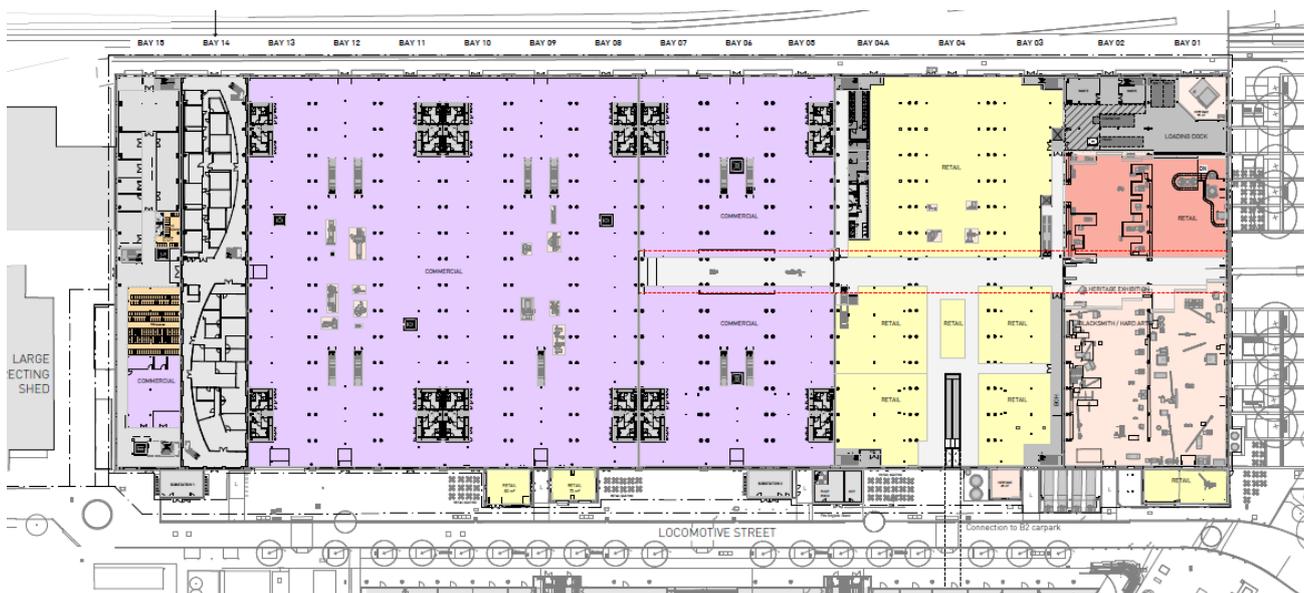


Figure 13 Proposed Ground Floor of the Locomotive Workshop

Source: Sissons



Figure 14 Proposed Level 1 of the Locomotive Workshop

Source: Sissons

5.3 Heritage Impacts of Additional Works

The heritage impacts associated with the proposed changes to the exhibited scheme are addressed within the Heritage Response to Submissions Report, prepared by Curio Project (**Appendix D**).

5.4 Bicycle Parking

The assessment of the proposed Bicycle Parking within the EIS noted that whilst the City of Sydney DCP was not a matter for consideration in the assessment of SSD DAs by virtue of Clause 11 of SEPP SRD the relevant bicycle parking requirement rates to the proposal had been applied.

If the same requirements are applied to the revised design, the employee bicycle parking requirements are as follows:

Table 8 Bicycle Parking requirements for the Locomotive Workshop

Use	Size	DCP Rate		DCP Requirement	
		Employee		Employee	
Bays 1-4a	11,676m ²	1 per 150m ² GFA		78	
Bays 5-15	27,458m ²	1 per 200m ² GFA		137	
Total				215	

Table 8 indicates that if the City of Sydney requirements are strictly applied to the proposed development, then 215 employee spaces are required to be provided. As discussed in **Section 4.26.3**, the number of bicycle spaces that can be provided in Bay 15 has been reduced in order to accommodate additional plant equipment at the Ground Floor level. This results in a variation from the City of Sydney DCP requirement by 30 spaces.

The Department are reminded that Clause 11 of SEPP SRD states that *‘Development control plans...do not apply to...State significant development’*. Furthermore, that Section 3.32 of the EP&A Act states that *“the provisions of a development control plan made for that purpose are **not statutory requirements**” (emphasis added)* and Section 4.15(3A) of the Act makes it clear that when considering a standard contained within a DCP with which a development application does not comply, a consent authority must *“be flexible in applying those provisions and allow reasonable alternative solutions that achieve the objects of those standards”*.

Mirvac are committed to encouraging cycling as a key mode of transport for the ATP precinct, however the requirement to provide the significant additional plant as illustrated in **Figure 5** results in a reduction to the size of the bicycle parking and end of trip rooms in Bay 15 and therefore there is not enough space to accommodate the number of bicycle racks that were originally anticipated. Notwithstanding this, the provision of 184 bicycle spaces for the employees within the Locomotive Workshop is considered acceptable as the ATP precinct has a high level of accessibility from public transport and the proposed number of spaces are in accordance with the Green Star targets.

5.5 Accessibility

Morris Goding has undertaken a review of the revised Architectural Drawings (**Appendix C**). Following the review Morris Goding have provided a statement (**Appendix J**) which confirms that the revised design is able to achieve the accessibility design requirements.

On this basis, the recommendations made within the Accessibility Report submitted with the EIS are considered relevant to the development. In order to ensure that the proposed development meets the relevant statutory requirements and standards, the recommendations will be incorporated into the detailed design of the development and submitted with the construction certificate documentation.

5.6 BCA

Philip Chun has reviewed the revised Architectural Drawings, as included at **Appendix C**, and confirm in its statement at **Appendix K** that they are consistent with the intent of the previous BCA report (that was submitted with the EIS). Furthermore, Philip Chun confirm that it is confident that the proposed works can comply with either Deemed-to-Satisfy provisions of the BCA or the Performance Requirements of the BCA (subject to Fire Safety Engineering) and all recommendation in the previous report, remain the same.

6.0 Mitigation Measures

The collective measures required to mitigate the impacts associated with the proposed works are detailed in **Table 9** below. These measures have been derived from the previous assessment in the EIS and **Section 5.0**.

Table 9 Mitigation Measures

Mitigation Measures
<p>Heritage Impacts</p> <ul style="list-style-type: none"> All works will be undertaken in accordance with the recommendations and proposed strategies outlined within the Heritage Impact Statement and the Heritage Response Report. A Stage 2 Heritage Interpretation Strategy for the Locomotive Workshop will be prepared in consultation with NSW Heritage Division and the City of Sydney to provide guidance on the curation of the moveable heritage items. Should any unexpected archaeological artefacts be found, then works will cease in the immediate area and archaeological advice sought.
<p>Accessibility</p> <ul style="list-style-type: none"> In order to ensure equal access is provided throughout the proposed development, the detailed design of the proposal will need to ensure compliance with the relevant accessibility provisions of the BCA 2015 and other applicable legislation.
<p>Construction Noise and Vibration</p> <ul style="list-style-type: none"> Implementation of mitigation measures in the Acoustic Assessment (submitted with the EIS). Implementation of mitigation measures in the Preliminary Construction Environmental Management Plan (submitted with the EIS). Preparation of a detailed construction Noise and Vibration Management Plan, prior to construction certificate.
<p>Operational Noise</p> <ul style="list-style-type: none"> Acoustic assessment of mechanical services equipment will be undertaken during the detail design phase of the development to ensure that noise of all equipment does not exceed the applicable noise criteria. Development consent conditions typically require detailed assessment of mechanical plant and equipment prior to construction.
<p>Operational Waste Management</p> <ul style="list-style-type: none"> Comply with the waste management processes outlined within the Operational Plan of Management (submitted with the EIS) or Operational Waste Management Plan (submitted with the EIS).
<p>Contamination</p> <ul style="list-style-type: none"> Implement the measures and the recommendations as described in the RAP relevant to the Locomotive Workshop.
<p>BCA</p> <ul style="list-style-type: none"> The detailed design of the development must ensure that it complies with the current provisions of the BCA 2016 or appropriate alternative solutions should be developed and verified by a qualified BCA Consultant or Fire Safety Engineer.
<p>Environmental and Construction Management</p> <ul style="list-style-type: none"> Works are to be carried out in accordance with the Preliminary Construction Environmental Management Plan, which details mitigation measures to manage environmental impacts (submitted with the EIS). Works are to be carried out in accordance with the Heritage and Archaeological Impact Statement, which details mitigation measures to manage heritage impacts (submitted with the EIS).

Suggested conditions of consent in relation to the proposed development and outlined mitigation measures are further detailed within **Appendix F**.