

8.24. Coal Loader Shade and Other Facilities

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ENDORSED BY: Rob Emerson, Director Open Space and Environmental Services

ATTACHMENTS: Nil

PURPOSE:

This report considers matters raised in MM01: Trees at the Coal Loader from the meeting of Council on 23 September 2019 (Min. No. 254) regarding additional shade and other facilities, such as toilets, drinking fountains and site furniture on the Coal Loader Platform in Waverton.

EXECUTIVE SUMMARY:

At the Council meeting of 23 September 2019 (MM01 Min. No. 254) it was resolved:

- 1. THAT a report be prepared on ways to provide additional shade at the Coal Loader Platform in time for the 2020/21 summer. The report should:*
 - a) provide a range of options for Council to consider, including planting additional trees along the periphery of the Platform as well as options for shade using the existing colonnade;*
 - b) include a review of essential facilities on the Platform and recommendations for providing additional facilities, such as toilets and a drinking fountain, if required;*
 - c) include the cost of installing and maintaining each option; and*
 - d) be provided to Council in time to incorporate a project in the 2020/21 Operational Plan if required.*

This report outlines progress to date on the above items.

FINANCIAL IMPLICATIONS:

Funding for any proposed work will be dealt with as part of the budgeting process for the 2021/22 financial year.

RECOMMENDATION:

- 1. THAT** the report be received.

LINK TO COMMUNITY STRATEGIC PLAN

The relationship with the Community Strategic Plan is as follows:

1. Our Living Environment
- 1.2 North Sydney is sustainable and resilient
- 1.3 Quality urban greenspaces
- 1.4 Public open space and recreation facilities and services meet community needs

BACKGROUND

At the Council meeting of 23 September 2019 (MM01 Min. No. 254) it was resolved:

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 - a) *provide a range of options for Council to consider, including planting additional trees along the periphery of the Platform as well as options for shade using the existing colonnade;*
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 - c) *include the cost of installing and maintaining each option; and*
 - d) *be provided to Council in time to incorporate a project in the 2020/21 Operational Plan if required.*

CONSULTATION REQUIREMENTS

Community engagement will be undertaken in accordance with Council's Community Engagement Protocol.

DETAIL

Background

The Coal Loader Platform was completed in 2018 – the fourth and last major phase of the broader Coal Loader site's redevelopment from industrial site to public parkland, which has taken place over several years since the adoption of the Waverton Peninsula Strategic Master Plan (WPSMP) in 1999. Since being opened the platform has received increasingly high levels of patronage and feedback from visitors has been overwhelmingly positive. However, in the period since opening there have been some requests for additional shade provision, as well as other facilities to enhance the recreational experience of the site visitors.

Each of these matters is dealt with in turn below, after a brief summary of the design approach to the platform features.

Platform Design

The design for the platform (as it is for the broader Coal Loader complex) is based on an adaptive reuse approach, in accordance with the principles of the adopted master plan (WPSMP). The adaptive reuse approach aims to balance the highly significant heritage values of this unique site with the overlay of contemporary features, activities & events. Ensuring the heritage was clearly and sensitively interpreted in the redevelopment of the former coal loading platform was particularly important, to prevent obscuration of the essential heritage qualities and to enable the landmark industrial scale and unique operational layout, intrinsic to an appreciation of the sites heritage, to be expressed.

In addition, the master plan and subsequent detailed design provided for the platform to be an open, multi-purpose, uncluttered space in order to maintain flexibility for a range of proposed uses, including larger events. Not blocking or hindering the panoramic views over the western harbour was another key consideration influencing the final design layout. Furthermore, site constraints such as the shallow profile of the growing media upon which the turf is grown has meant that the grass areas need to be maintained in full sun in order to ensure the best growing conditions. In addition, foundation conditions created by the fragile material of the original unreinforced platform concrete slab and underlying granular sandstone fill limits the extent to which larger structures and associated footings can be accommodated.

Shade on the Platform

The requirement for shade was a key consideration during the platform detailed design & consultation phase. To balance the need for shade with the other important design objectives noted earlier, with various options and locations were explored for shade within the layout.

Trees were initially suggested for the platform area but ruled out, as due to their growth habit they would block the highly valued cross-platform views. Their root systems could also damage the heritage structure and the strong prevailing winds and shallow soil profile over the platform slab would likely adversely affect the trees growth. Thus, the western *shade colonnade* was designed to provide ‘structured shade’ in a form that could be controlled so as not to impact on views and to overcome the issues associated with trees noted earlier.

In order to avoid cluttering the central zone of the platform (including the northern interpretive area, main grassed area, gravel ‘performance / stage’ area, demonstration native green-roof planting area at the south end and urban harvest plots zone adjacent to the eastern apron of the platform) for the reasons raised earlier in this report, and to concentrate the shade over the main seating and viewing areas, the final design provided

for concentrating the shade around the perimeter of the platform, including particularly the western shade colonnade and the upper east apron area along the Balls Head Drive frontage.

Western Shade Colonnade

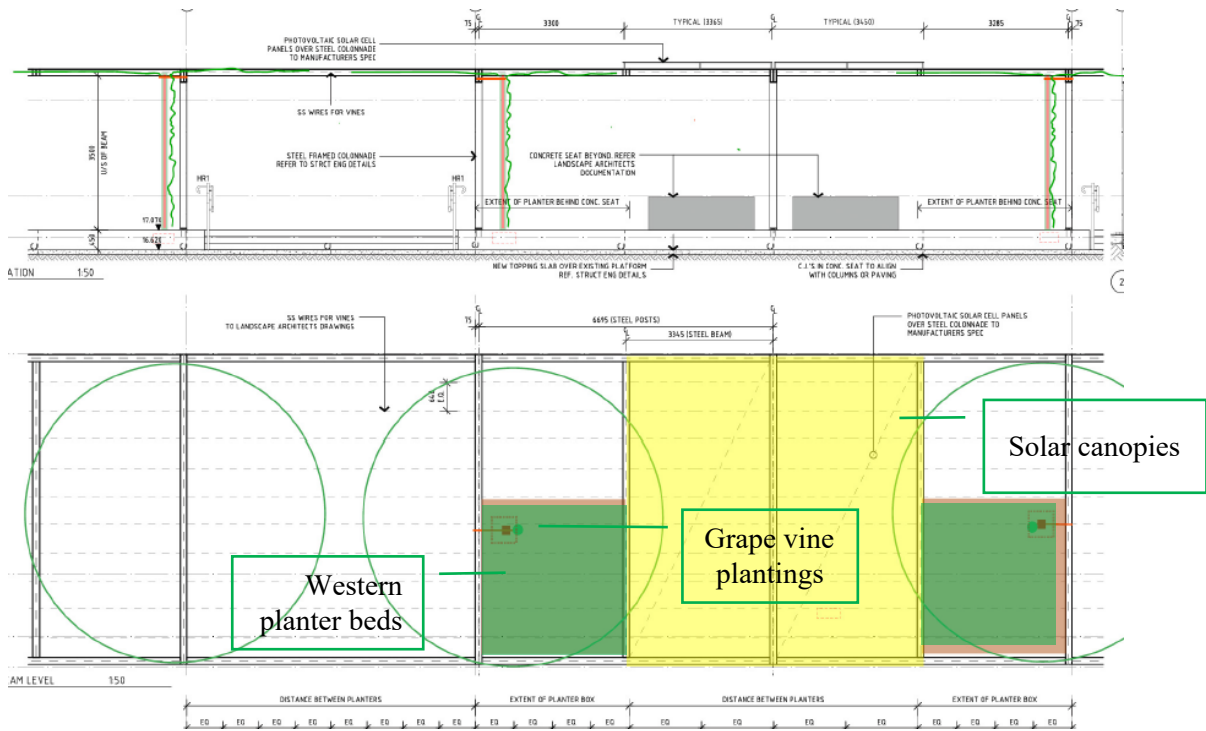
The western shade colonnade is situated to provide shade along the western seating and viewing edge. The colonnade provides some shade already, through the provision of 8 bays of glazed solar panel canopies, generally coinciding with where the seats are along that side. It should be noted that the location of the shade moves throughout the day / seasons – for example during a mid-autumn afternoon the panels cast shade onto the western side of the lawn area.

The colonnade is designed to support grape vines that will provide quite dense shade during the hot summer months. The grape vines will provide functional, attractive shade and are an interpretive reference back to Alexander Berry who was granted the peninsula lands in the 1800s and who was an early importer of wine grapes into Australia.

The grapes vines were purchased last season following sourcing of the required cultivar and have been potted up and held in the Coal Loader nursery for further establishment. They will be planted out following maintenance works to the beds under the colonnade and installation of supporting trestles to train the vines onto the colonnade. Below are drawings showing the proposed layout, extracts from the design model and precedent images:



Oblique aerial view looking north showing western shade colonnade with solar PV shade & shelter canopies



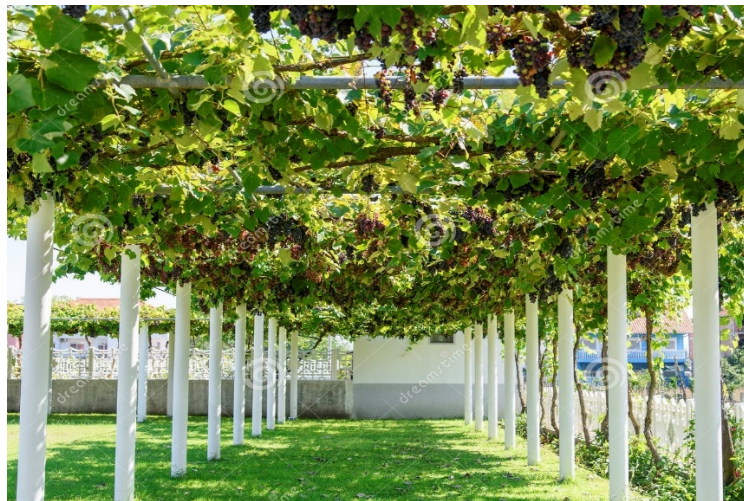
Grape vine layout on colonnade



Shade colonnade looking south from northern end showing support wires for grape vines and PV solar & shade canopies



Extract from platform design model showing proposed grape vine coverage on colonnade.



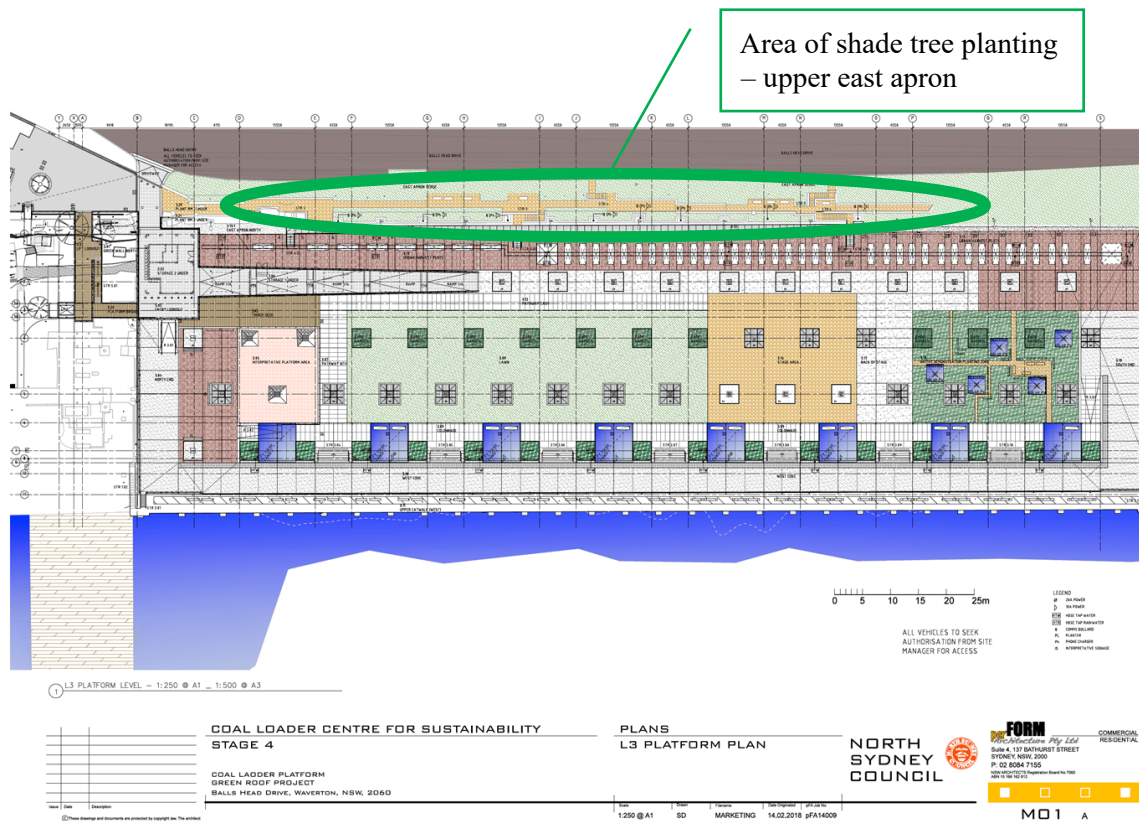


Proposed shade cloth canopy to be erected between existing colonnade posts (refer locations identified in plan above).

This was deemed to be the most cost-effective solution from a range of options looked at for interim shade on the colonnade, including fixed perforated metal panels, retractable canvas type canopy, retractable bamboo type canopy and extending the number of existing solar panels. These shade cloth canopies are a proprietary product readily installed and removed without drilling into the corrosion protection on the existing colonnade. They are made of a breathable permeable fabric that will provide shade whilst enabling water to drain through rather than collect on the canopy. They should last for at least the 2 to 3 years that will be required to start to establish a degree of grape vine coverage. They can be left in place below the level of the grape vines if needed for an extended period. Due to their low cost it is anticipated the purchase, installation and maintenance of these canopies can be funded from the existing coal loader operational budget.

Upper East Apron (Balls Head Drive frontage)

As noted earlier in this report, tree planting along the upper east apron, immediately adjacent to the Balls Head Drive frontage, is designed to coincide with seating along this area. A number of existing remnant plantings were retained during the construction of the platform to maintain shade over this seating area, which affords broad elevated views over the platform and to the harbour beyond. However, the existing trees - a variety of non-endemic wattle - are now reaching the end of their life and some have been dying off. Additional shade tree species including *Banksia integrifolia* (Coastal Banksia) and *Angophora costata* (Sydney Red Gum) have now been planted along this edge to contribute to the shading over this area. Further trees will be planted as the original wattles continue to decline. It is anticipated that any additional trees required will be grown at the Coal Loader Bushcare Nursery and their supply, installation and maintenance can be funded from existing operational budgets.



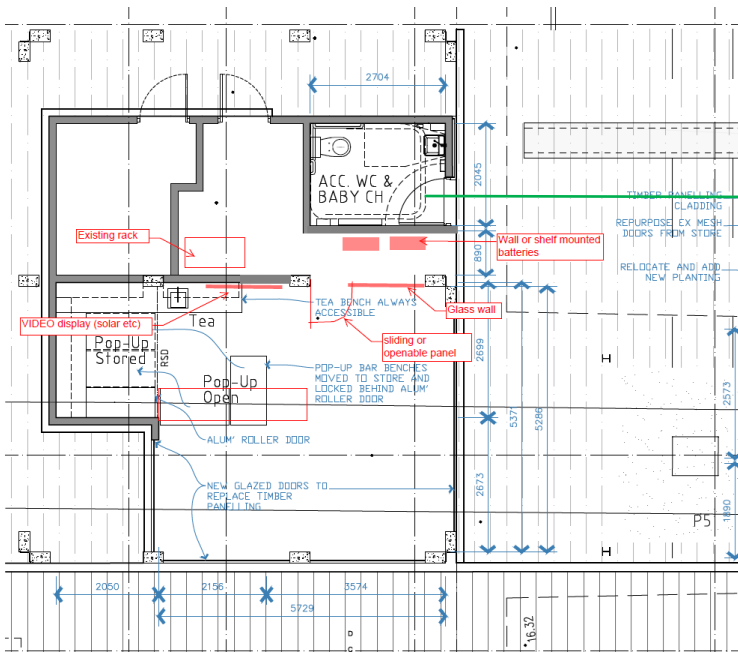
Plan view of coal loader platform layout showing location of existing and proposed tree planting over upper east apron

Other Shade

Other existing opportunities for shade on the platform includes some individual retractable shade canopies over the seating benches in the urban harvest (community garden) area and also the shade afforded by the solar tracking solar panels at the southern end of the platform, in the demonstration native green-roof garden area.

As noted earlier in this report, it is necessary to maintain the main central platform area as an open area, unencumbered by permanent structures. However, there is opportunity to use temporary shade canopy type devices, such as small personal shade shelters, shade umbrellas and small shade gazebos where needed for personal or group activities or for organised events. The Coal Loader currently has several such shade umbrellas that are used for periodic events and it is proposed to fund additional similar from existing operational budgets. It is noted that due to the constraints with the green-roof profile, pegs cannot be used to hold these lightweight structures down. Therefore, proprietary weight type methods (such as sandbags or plastic covered metal weights) need to be used.

It should also be noted that over the broader coal loader site there are a number of other opportunities for sitting or undertaking activities in a shaded setting, including the lower terrace area north of the platform, in the bushland area south of the platform, and in the tunnels & spaces beneath the platform.



Proposed fully accessible unisex toilet facility within community hub space beneath entrance platform north end of site

Plan view detail of potential accessible cubicle facility north end coal loader platform.

The layout of the second location is yet to be designed conceptually. Servicing of both locations remains difficult, as the toilets will need to gravity feed to a sump and pump out facility at park level, then be pumped up to the existing pump-out facility located in the north of the main coal loader site near the existing wetland. However, the southern location is particularly difficult due to the distance involved and the need to minimise heritage impacts, as the pump out pipe would most likely need to traverse through one of the existing tunnels. It is suggested that the best way forward would be to work towards providing the accessible cubicle in the northern hub facility in the first instance and undertake further work on the southern facility should it prove warranted later.

It should be noted at this point that the existing site pump out facility was recently upgraded. It had pre-dated Council's tenure of the site and was increasingly subject to failure as it was not designed to cater for the demand of the current site patronage levels. The new sewer pump-out facility now installed has been designed to take a connection from a supply from a proposed future coal loader platform toilet facility.

It should be noted also that for larger events it will remain necessary to bring in hire toilets, as currently done for such events held at the Coal Loader.

In order to progress the design of the toilets it will be necessary to engage the services of a hydraulic engineer, to amongst other things design the reticulation and pump out system for that facility. In addition, it will be necessary to engage further design services, including architectural, structural, electrical, heritage, access & planning to bring the design to a point whereby plans can be lodged as part of a development application for the toilet facility, and combined community hub and pop-up bar space.

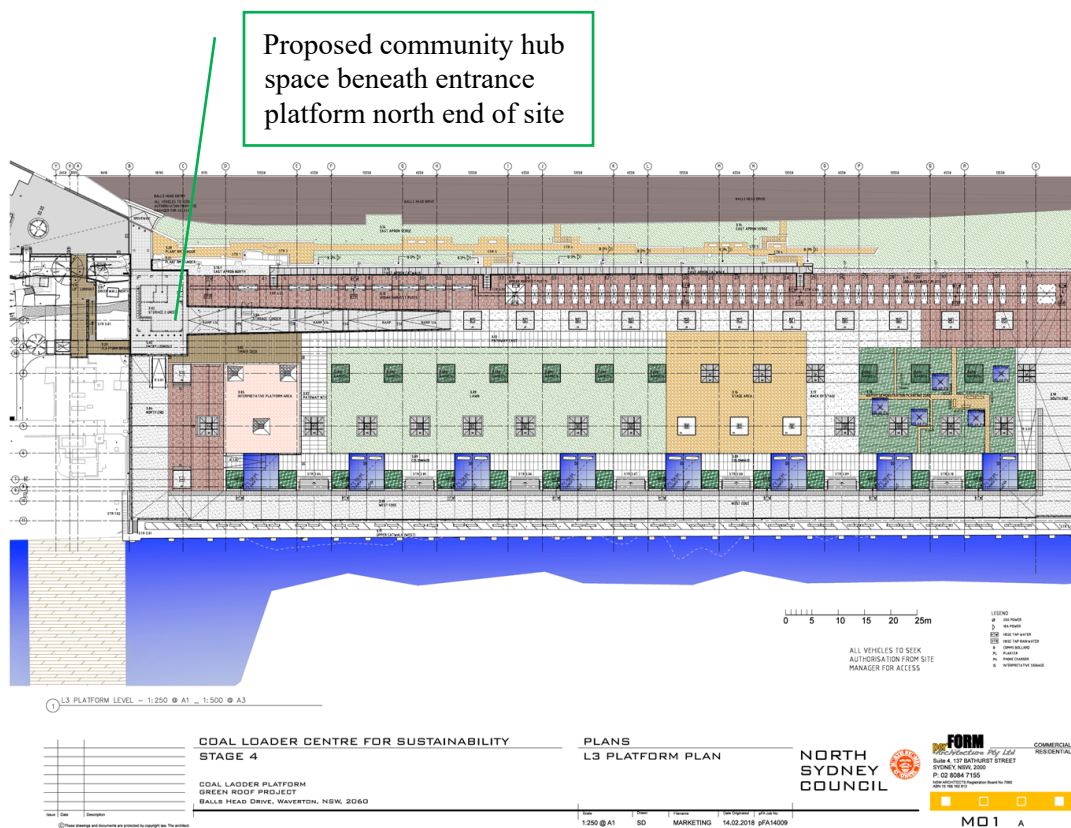
Funding is further discussed in relation to the Community Hub & Pop-up Bar Space, as outlined below.

Community Hub and Pop-up Bar Space

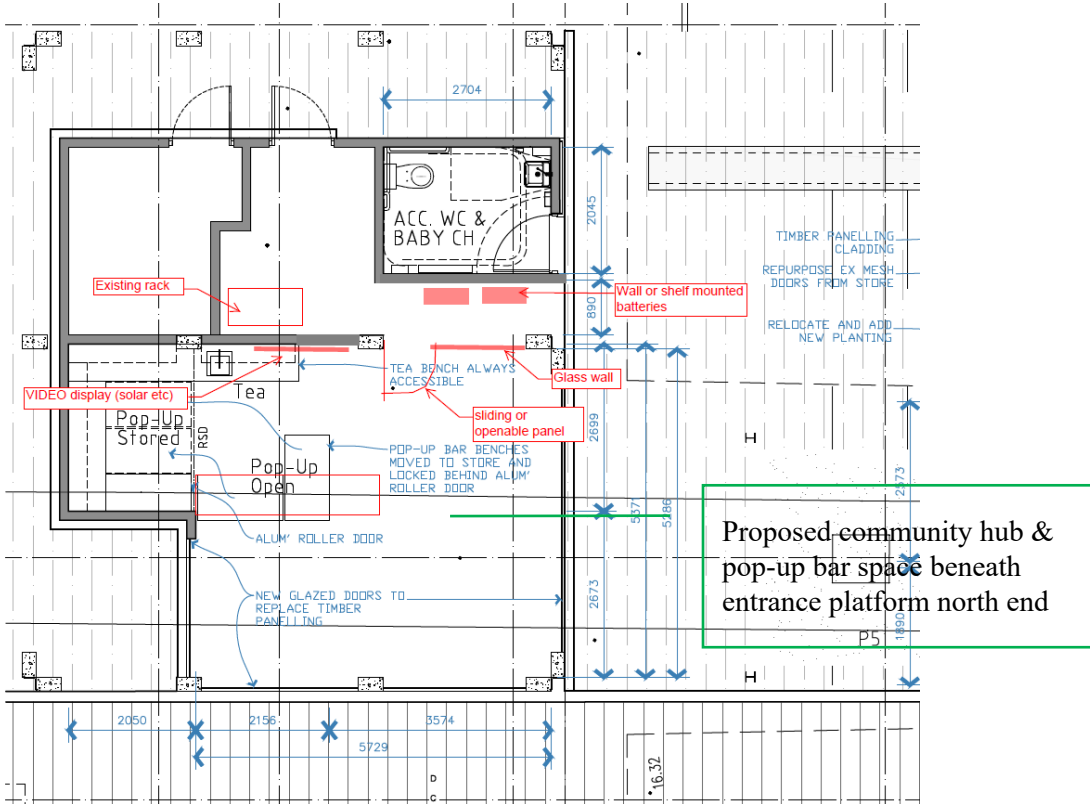
This space was proposed beneath the main entrance platform slab as part of the original platform design concept, primarily as a ‘meet and greet’ point / front-of-house facilities for the community garden / urban harvest participants to interact & interface with the public. The area is currently used as a storage space. Early draft layout designs are in preparation for this space, which centres on:

- replacing the of the existing fixed fibre-cement sheeting panels on three sides of the space with fully retractable bi-fold glazed timber door panels, enabling the space to be fully opened to an outlook onto the adjacent deck and platform beyond.
- Installing a dual purpose, flexible internal layout that can be used as a community meet and greet space during the day, and be converted to a pop-up bar space in the evening or outside community use hours.
- Installing a solar battery storage area and associated smart displays as a backdrop to the space.

The location and draft layout of this space is illustrated below:



Plan view of coal loader platform layout showing location of community hub and pop-up bar facilities



Plan view detail of proposed community hub and pop-up bar space

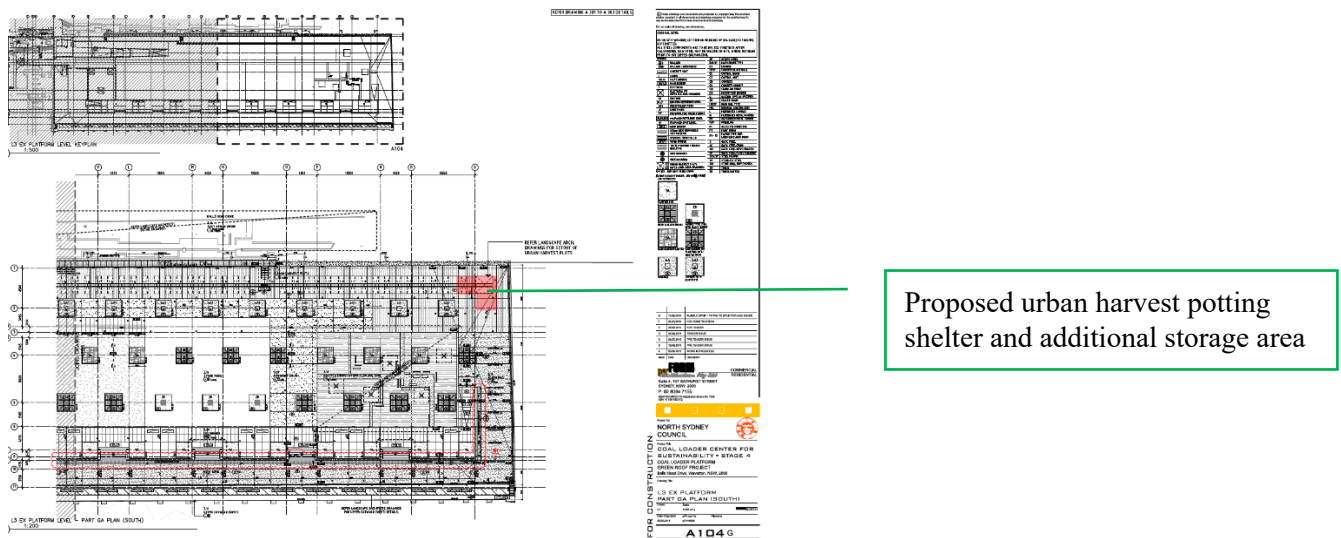
The glazed concertina / bifold doors on three sides of the internal space, opening out to the existing deck are based on a similar arrangement as in the image below:



Funding for the design and construction of this space is further discussed after the section below regarding provision of a southern facility for the community gardeners.

Community Garden Potting and Storage Area South End of Platform

Due to the distance involved in carrying goods and material along the length of the platform, community gardeners have indicated the need for additional facilities at the southern end of the site, primarily a shelter with shade and facilities for potting up and additional storage. With some reconfiguration of how this area works currently (including the existing igloo and compost area) it is considered possible to design a small structure that would cater for the needs of the group, whilst also being in keeping with heritage and architectural design constraints of the platform. The proposed location in the south-east corner of the site is illustrated below:



As noted earlier in the report it is possible that this location could be co-designed, subject to a number of constraints, to include an option for a southern-end toilet facility should demand necessitate.

In relation to funding for the northern and southern facilities as described above, it is noted as follows:

It is anticipated funding in the order of \$70,000 may be needed to further the design and approvals for the northern toilet, and shared community hub / pop-up bar area. In addition, it is estimated that the construction and fit-out of the space, inclusive of new perimeter doors, internal fit-out, toilet including electrical and hydraulic services and battery storage display area may be in the order of \$500,000 (preliminary estimate only subject to detailed design development).

It is further estimated that to include the design of the southern potting and storage facility and potential additional toilet in that area, that additional fees in the order of \$40,000 may be required and a cost for construction and fit-out may be in the order of \$500,000. This a preliminary estimate only and subject to conceptual and detailed design development – particularly in regards the sewer-servicing component. If the toilet facility was to be not considered for the south end of the platform, the cost for

only the community garden potting and storage facility would be considerably less, possibly in the order of \$150,000 (again subject to further conceptual and detailed design development).

This funding will be sought during budgeting for the 21/22 financial year.

Moveable Furniture

Another request that has come from platform users has been the provision of additional site furniture, including benches with back rests and picnic type settings to augment the existing seating arrangements. As noted in the *Platform Design* section of this report, the main central platform has been designed not to have fixed items of furniture that may preclude flexibility of use and clutter the space. However, it is intended in the design, and in keeping with current trends in park and urban space design, to provide a range of moveable type settings that will cater for a range of user groups, that can be moved or relocated as necessary where events and activities dictate.

The final selection of this equipment is yet to be determined. However, it will be based on criteria including: aesthetics (fit with the existing architectural and heritage constraints), functionality, safety, cost, maintenance and longevity, end-of-life reuse potential and related considerations.

As a guide the following types of settings are envisaged:





Picnic type settings (range of sizes)





Table and chair type settings

Whilst the location proposed for these movable settings is primarily the alcove areas beneath the western shade colonnade, therefore taking advantage of both the shade and the view, they could also be utilised for around the perimeter of the performance space area, in conjunction with some removable shade umbrellas.

The funding required for these settings will be dependent on the final design chosen. However, it is anticipated that to purchase a reasonable number of settings, given the size of the space a budget in the order of \$100,000 would be required. In addition, there would be costs to maintain the settings as well as staff costs for relocation and storage when events require.

Drinking Fountains

It is not considered necessary to provide additional drinking fountains on the platform at this point in time. Spring load tap facilities have been fitted to the sinks within the community garden area of a design that facilitate filling of personal water bottles. In addition, a drinking fountain facility is located outside the existing toilet facilities on the site. For larger events additional drinking water facilities are brought in on a hire basis.