PRELIMINARY CONSTRUCTION ENVIRONMENTAL MANAGEMENT STATEMENT

APPENDIX V

Sydney Metro City & South West

Victoria Cross Over Station Development:

Preliminary construction management statement

Applicable to:	Sydney Metro City & Southwest
Author:	Sydney Metro Delivery Office
Owner	Transport for NSW
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1.0 Introduction

1.1 Purpose of this report

This document has been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs) for a concept State Significant Development Application (concept SSD Application) proposing over station development (OSD) above the portal of Victoria Cross Station. The SEARs calls for the preparation of a preliminary construction management statement (the Statement) addressing how future construction stages will manage impacts to pedestrians, rail users, bus services and taxis.

This Statement supports a concept State Significant Development Application (concept SSD Application) submitted to the Department of Planning and Environment (DP&E) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The concept SSD Application is made under Section 4.22 of the EP&A Act.

Transport for NSW (TfNSW) is seeking to secure concept approval for a commercial office tower above the Victoria Cross Station, otherwise known as the over station development (OSD). The concept SSD Application seeks consent for a building envelope and its use as a commercial premises (office, business and retail), maximum building height, maximum gross floor area, pedestrian and vehicular access, circulation arrangements and associated car parking and the strategies and design parameters for the future detailed design of development.

TfNSW proposes to procure the construction of the OSD as part of an Integrated Station Development package, which would result in the combined delivery of the station, OSD and public domain improvements. The station and public domain elements form part of a separate planning approval for Critical State Significant Infrastructure (CSSI) approved by DP&E on 9 January 2017.

As the development is within a rail corridor, is associated with railway infrastructure and is for commercial premises with a Capital Investment Value of more than $30 million, the project is identified as State Significant Development (SSD) pursuant to Schedule 1, 19(2)(a) of the *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP).

This Statement has been prepared to specifically respond to the Secretary's Environmental Assessment Requirements (SEARs) issued for the concept SSD Application for Victoria Cross indicative OSD on 30th November 2017 which states that the Environmental Impact Statement (EIS) is to include a preliminary construction management statement (the Statement) addressing how future construction stages will manage impacts to pedestrians, rail users, bus services and taxis.

1.2 Overview of the Sydney Metro in its context

The New South Wales (NSW) Government is implementing *Sydney's Rail Future*, a plan to transform and modernise Sydney's rail network so that it can grow with the city's population and meet the needs of customers in the future (Transport for NSW, 2012). Sydney Metro is a new standalone rail network identified in *Sydney's Rail Future*.

Sydney Metro is Australia's biggest public transport project, consisting of Sydney Metro Northwest (Stage 1), which is due for completion in 2019 and Sydney Metro City & Southwest (Stage 2), which is due for completion in 2024 (Refer to **Figure 1**).

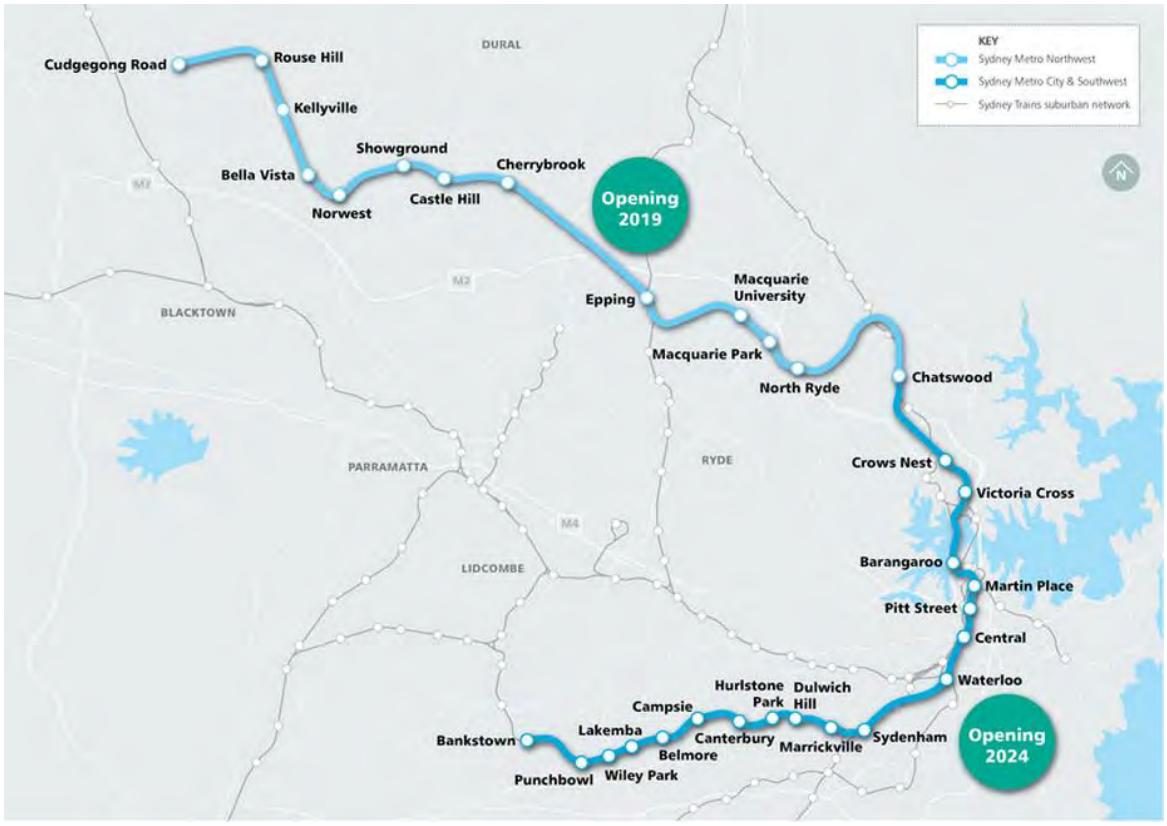

Figure 1: Sydney Metro alignment map

Stage 2 of Sydney Metro includes the construction and operation of a new metro rail line from Chatswood, under Sydney Harbour through Sydney's CBD to Sydenham and on to Bankstown through the conversion of the existing line to metro standards.

The project also involves the delivery of seven (7) new metro stations, including at North Sydney. Once completed, Sydney Metro will have the ultimate capacity for 30 trains an hour (one every two minutes) through the CBD in each direction - a level of service never seen before in Sydney.

On 9 January 2017, the Minister for Planning approved the Sydney Metro City & Southwest - Chatswood to Sydenham application lodged by TfNSW as a Critical State Significant Infrastructure project (reference SSI 15_7400), hereafter referred to as the CSSI Approval.

The CSSI Approval includes all physical work required to construct the CSSI, including the demolition of existing buildings and structures on each site. Importantly, the CSSI Approval also includes provision for the construction of below and above ground structures and other components of the future OSD (including building infrastructure and space for future lift cores, plant rooms, access, parking and building services, as relevant to each site). The rationale for this delivery approach, as identified within the CSSI application is to enable the OSD to be more efficiently built and appropriately integrated into the Metro station structure.

The EIS for the Chatswood to Sydenham component of the City & Southwest project identified that the OSD would be subject to a separate assessment process.

Since the CSSI Approval was issued, Sydney Metro has lodged four modification applications with DP&E to amend the CSSI Approval as outlined below:

- Modification 1- Victoria Cross and Artarmon Substation which involves relocation of the Victoria Cross northern services building from 194-196A Miller Street to 50 McLaren Street together with inclusion of a new station entrance at this location referred to as Victoria Cross North. 52 McLaren Street would also be used to support construction of these works. The modification also involves the relocation of the substation at Artarmon from Butchers Lane to 98 – 104 Reserve Road. This modification application was approved on 18 October 2017.
- Modification 2- Central Walk which involves additional works at Central Railway Station including construction of a new eastern concourse, a new eastern entry, and upgrades to suburban platforms. This modification application was approved on 21 December 2017.
- Modification 3 - Martin Place Station which involves changes to the Sydney Metro Martin Place Station to align with the Unsolicited Proposal by Macquarie Group Limited (Macquarie) for the development of the station precinct. The proposed modification involves a larger reconfigured station layout, provision of a new unpaid concourse link and retention of the existing MLC pedestrian link and works to connect into the Sydney Metro Martin Place Station. It is noted that if the Macquarie proposal does not proceed, the original station design remains approved. This modification application was approved on 22 March 2018.
- Modification 4 - Sydenham Station and Sydney Metro Trains Facility South which incorporates Sydenham Station and precinct works, the Sydney Metro Trains Facility South, works to Sydney Water's Sydenham Pit and Drainage Pumping Station and ancillary infrastructure and track and signalling works into the approved project. This modification application was approved on 13 December 2017.

Given the modifications, the CSSI Approval is now approved to operate to Sydenham Station and also includes the upgrade of Sydenham Station.

The remainder of Stage 2 of the City & Southwest project (Sydenham to Bankstown) proposes the conversion of the existing heavy rail line and the upgrade of the existing railway stations along this alignment to metro standards. This part of the project, referred to as the Sydenham to Bankstown Upgrade, is the subject of a separate CSSI Application (Application No. SSI 17_8256) which is currently being assessed by the DP&E.

1.3 Planning relationship between Victoria Cross Station and the OSD

While the Victoria Cross Station and OSD will form an Integrated Station Development, the planning pathways defined under the *Environmental Planning & Assessment Act 1979* require separate approval for each component of the development. In this regard, the approved station works (CSSI Approval) are subject to the provisions of Part 5.1 of the EP&A Act (now referred to as Division 5.2) and the OSD component is subject to the provisions of Part 4 of the EP&A Act.

For clarity, the approved station works under the CSSI Approval include the construction of below and above ground structures necessary for delivering the station and also enabling construction of the integrated OSD. This includes but is not limited to:

- Demolition of existing development
- Excavation
- Station structure including concourse and platforms
- Lobbies
- Retail spaces within the station building
- Public domain improvements
- Pedestrian through-site link
- Access arrangements including vertical transport such as escalators and lifts
- Structural and service elements and the relevant space provisioning necessary for constructing OSD, such as columns and beams, space for lift cores, plant rooms, access, parking, retail and building services.

The vertical extent of the approved station works above ground level is defined by the 'transfer slab' level (which for Victoria Cross is defined by RL 82), above which would sit the OSD. This delineation is illustrated in **Figure 2**.

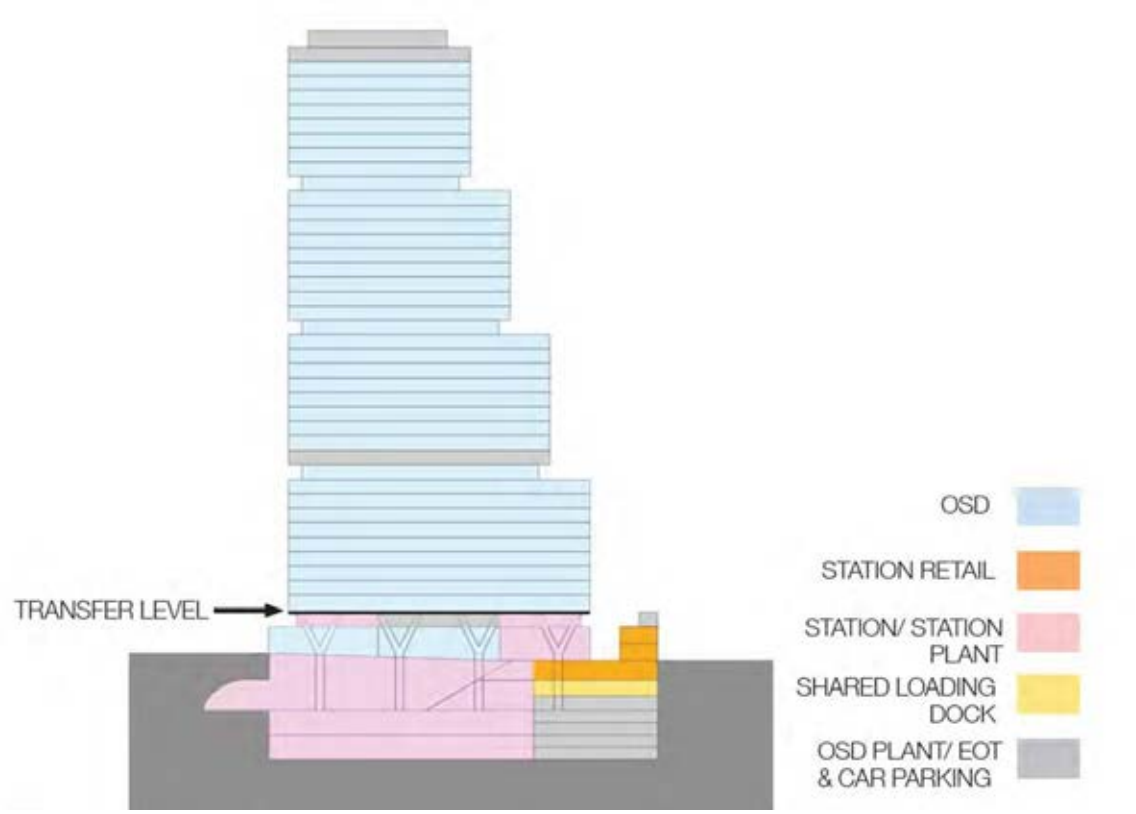

Figure 2: Delineation between Metro station and OSD

The CSSI Approval also establishes the general concept for the ground plane of Victoria Cross Station including access strategies for commuters, pedestrians and workers. In this regard, pedestrian access to the station would be from Miller and Denison Streets and the commercial lobby would be accessed from Miller Street. Retail uses (approved under the CSSI Approval) would be located on the ground floor of the development at both the Miller Street and Denison Street levels activating the through-site link. Separate consent would be sought in the future for the fit-out and specific use of this retail space.

Since the issue of the CSSI Approval, TfNSW has undertaken sufficient design work to determine the space planning and general layout for the station and identification of those spaces within the station area that would be available for the OSD. In addition, design work has been undertaken to determine the technical requirements for the structural integration of the OSD with the station. This level of design work has informed the concept proposal for the OSD. It is noted that ongoing design development of the works to be delivered under the CSSI Approval would continue with a view to developing an Interchange Access Plan (IAP) and Station Design Precinct Plan (SDPP) for Victoria Cross Station to satisfy Conditions E92 and E101 of the CSSI Approval.

The public domain improvement works around the site would be delivered as part of the CSSI Approval.

1.4 The site

The Victoria Cross OSD site is located at the southeast corner of the intersection of Miller and Berry Streets, North Sydney, above the portal of the future Victoria Cross Station (refer to **Figure 3**). The site is located in North Sydney CBD, which is identified as part of Sydney's "Harbour CBD" (along with Sydney CBD) in the *Greater Sydney Region Plan (2018).* It is the third largest office market in Sydney and is a key component of Sydney's Global Economic Corridor.

Figure 3: Victoria Cross Station location plan

The site is located in the North Sydney Local Government Area approximately 3km north of Sydney CBD, 5km southeast of Chatswood and 2km southeast of St Leonards.

Figure 4: The Site

The site (refer to **Figure 4**) has a total area of approximately 4,815 square metres and has street frontages of approximately 37 metres to Berry Street, 34 metres to Denison Street and 102 metres to Miller Street.

The site comprises the following properties:

- 155–167 Miller Street — SP 35644 (formerly Tower Square)
- 181 Miller Street — Lot 15 in DP 69345, Lot 1 & Lot 2 DP 123056 and Lot 10 in DP 70667
- 187 Miller Street — Lot A in DP 160018
- 189 Miller Street — Lot 1 in DP 633088
- Formerly part 65 Berry Street — Lot 1 in DP 1230458

1.5 Overview of the proposed development

This concept SSD Application comprises the first stage of the Victoria Cross OSD project. It will be followed by a detailed SSD Application for the design and construction of the OSD to be lodged by the successful developer who is awarded the contract to deliver the Integrated Station Development.

This concept SSD Application seeks approval for the planning and development framework and strategies to inform the future detailed design of the OSD. It specifically seeks approval for the following:

- A building envelope as illustrated in **Figure 5.**
- A maximum building height of RL 230 or 168 metres (approximately 42 storeys, compromising 40 commercial storeys and 2 additional storeys for the roof top plant) for the high rise portion of building envelope and RL 118 or 55 metres (approximately 13 storeys) for the lower rise eastern portion of the building envelope
- A maximum gross floor area (GFA) of 60,000 square metres for the OSD component, which is equivalent to a floor space ratio of 12.46:1
- Use of the building envelope area for commercial premises including commercial office, retail and business premises
- Use of the conceptual OSD space provisioning within the footprint of the CSSI Approval (both above and below ground), including the OSD lobby and associated retail space, basement parking, end-of-trip facilities, services and back-of-house facilities
- Car parking for a maximum of 150 parking spaces over four basement levels with an additional 11 parking spaces allocated to the station retail approved under the terms of the CSSI Approval.
- Loading, vehicle and pedestrian access arrangements from Denison Street
- Strategies for utility and services provision
- Strategies for the management of stormwater and drainage
- A strategy for the achievement of ecologically sustainable development
- Indicative signage zones
- A strategy for public art
- A design excellence framework
- The future subdivision of parts of the OSD footprint (if required).

The total GFA for the Integrated Station Development including the station GFA (i.e. retail, station circulation and associated facilities) and the OSD GFA is 67,000 square metres and is equivalent to a FSR of 13.9:1.

A drawing illustrating the proposed building envelope is provided in **Figure 5**. The concept SSD Application includes an indicative design for the OSD to demonstrate one potential design solution within the proposed building envelope (refer to **Figure 6**).

Victoria Cross Station is to be a key station on the future Sydney Metro network, providing access to the growing North Sydney Central Business District (CBD). The proposal combines the Metro station with a commercial office tower, contributing to the North Sydney skyline. The OSD would assist in strengthening the role of North Sydney as a key

component of Sydney's global economic arc and would contribute to the diversity, amenity and commercial sustainability of the CBD.

It is noted that Victoria Cross services building and new station entrance at Victoria Cross North do not form part of the concept SSD Application.

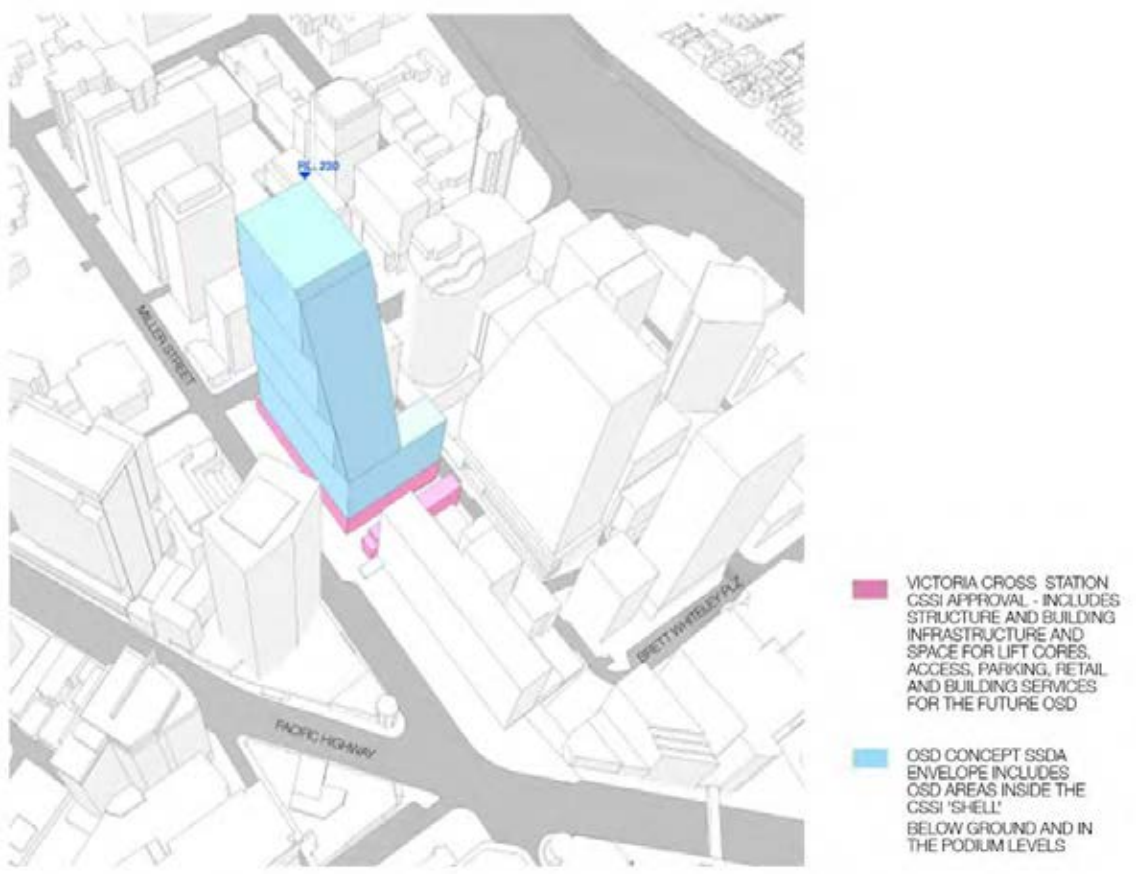

Figure 5: Proposed Victoria Cross OSD building envelope

Figure 6: Victoria Cross indicative OSD design

1.6 Staging and framework for managing environmental impacts

TfNSW proposes to procure the delivery of the Victoria Cross Integrated Station Development in one single package, which would entail the following works:

- station structure and fit out including mechanical and electrical
- OSD structure and fit-out, including mechanical and electrical.

Separate delivery packages are also proposed by TfNSW to deliver the excavation of the station boxes/shafts ahead of the ISD delivery package, and linewide systems (e.g. track, power, ventilation) and operational readiness works prior to the Sydney Metro City & Southwest metro system being able to operate.

Three possible construction staging scenarios have been identified for delivery of the Integrated Station Development:

1. *Scenario 1* – the station and OSD are constructed concurrently by constructing the transfer slab first and then building in both directions. Both the station and OSD would be completed in 2024.
2. *Scenario 2* – the station is constructed first and ready for operation in 2024. OSD construction may still be incomplete or soon ready to commence after station construction is completed. This means that some or all OSD construction is likely to still be underway upon opening of the station in 2024.
3. *Scenario 3* – the station is constructed first and ready for operation in 2024. The OSD is built at a later stage, with time yet to be determined. This creates two distinct construction periods for the station and OSD.

Scenario 1 represents TfNSW's preferred option as it would provide for completion of the full Integrated Station Development and therefore the optimum public benefit at the site at the earliest date possible (i.e. on or near 2024 when the station is operational). However, given the delivery of the OSD could be influenced by property market forces, Scenarios 2 or 3 could also occur, where there is a time lag between completion of the station (station open and operational) and the subsequent OSD.

The final staging for the delivery of the OSD would be resolved as part of the detailed SSD Application(s) by the OSD developer.

For the purposes of providing a high level assessment of the potential environmental impacts associated with construction, the following have been considered:

- Impacts directly associated with the separate construction of the OSD, the subject of this concept SSD Application
- Cumulative impacts of the construction of the OSD at the same time as the station works (subject of the CSSI Approval).

Given the integration of the delivery of the Metro station with an OSD development, TfNSW proposes the framework detailed in **Figure 7** to manage the design and environmental impacts in relation to construction management, consistent with the framework adopted for the CSSI Approval.

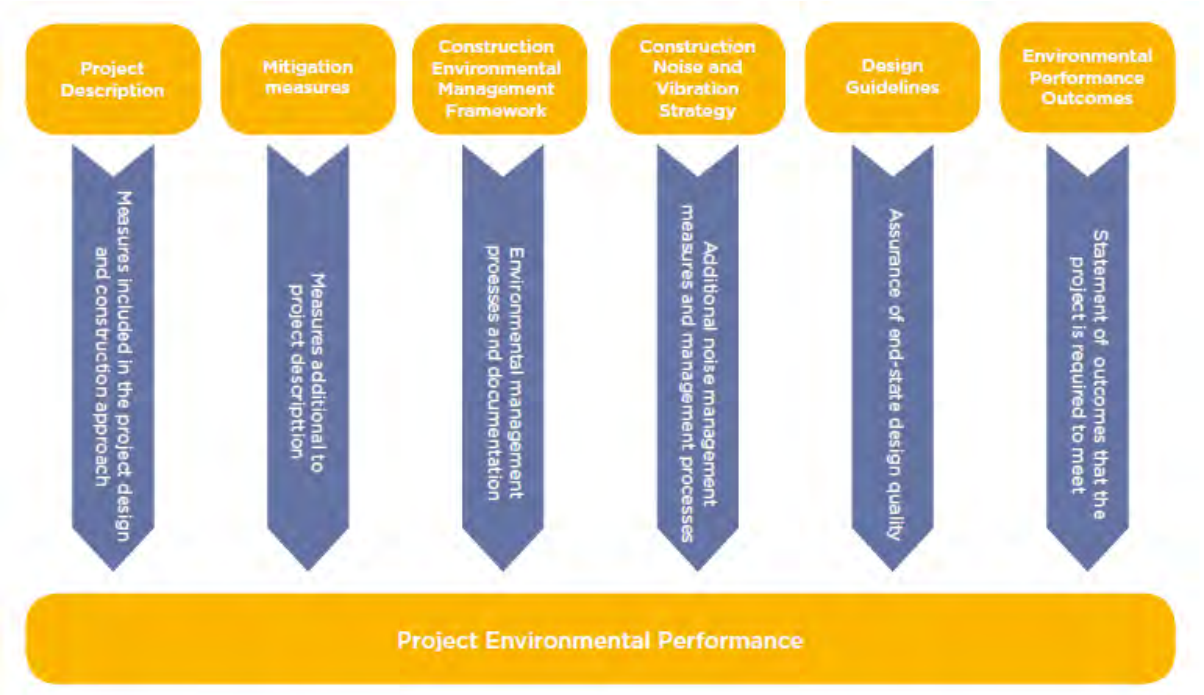

Figure 7: Project approach to environmental mitigation and management

This approach would be implemented until such time as completion of the station works (i.e. works under the CSSI Approval) is achieved. Beyond that point, standard construction

environmental management practices would be implemented by the developer in accordance with the terms of the detailed SSD Approval.

2.0 Construction Traffic Management Principles

2.1 CSSI EIS & CSSI approval conditions

Condition A4 of Schedule 2 of the CSSI Approval states that except to the extent described in the EIS or PIR, any OSD, including associated future uses, does not form part of this CSSI and will be subject to the relevant assessment pathway prescribed by the EP&A Act. Notwithstanding, the construction haulage routes identified within the CSSI EIS (refer to **Figure 8**) are those that would generally apply to any OSD construction on the site whilst OSD works are undertaken concurrently with works approved by the CSSI, subject to CTMP preparation and road authority views.

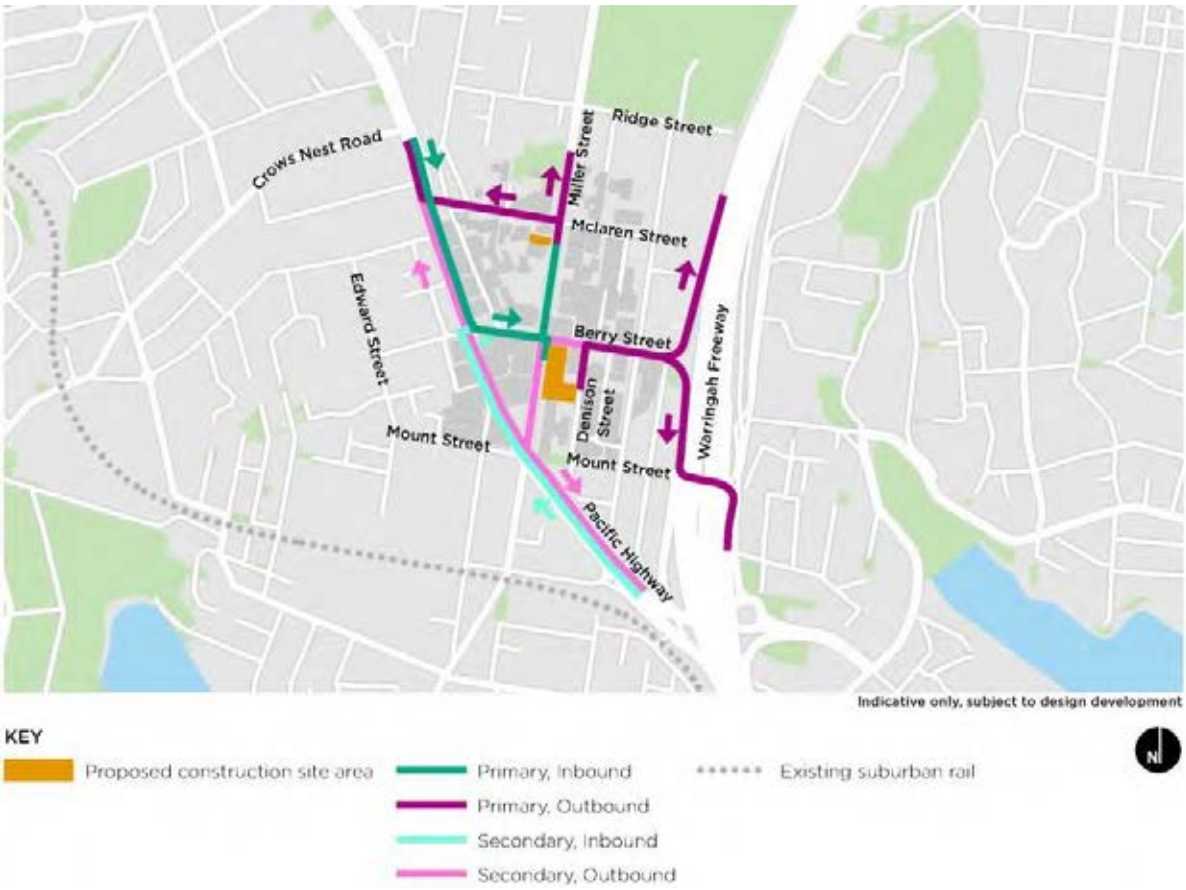

Figure 8: CSSI construction haulage routes, Victoria Cross

2.2 Construction traffic management framework

The OSD does not form part of the Sydney Metro CSSI Approval dated 9 January 2017. The Construction Traffic Management Framework (CTMF) prepared by the Sydney Metro Delivery Office in accordance with Condition E81 of the CSSI Approval provides the overall strategy and approach for construction traffic management for the Metro project, and an outline of the traffic management requirements and processes that will be common to each of the proposed work sites. It establishes the traffic management processes and acceptable criteria to be considered and followed in managing roads and footpaths adjacent to Project worksites. The principles and procedures outlined in the CTMF are proposed to apply to OSD construction where there is concurrent station and OSD construction, notwithstanding Clause A4, Schedule 2 of the CSSI Approval. However, the Sydney Co-Ordination Office (SCO) and the Roads and Maritime Services (RMS) may require that additional OSD specific requirements are placed on any approval. The CTMF identifies a number of issues at Victoria Cross that CTMPs will need to address and mitigate for all staging scenarios. These include:

- Pedestrian and cyclist safety.
- Pedestrian activity on Miller Street, Berry Street, McLaren Street, Denison Street.
- Impact on bus stops and bus operations.
- Impact of heavy vehicle movements on sensitive receivers (residents, schools).
- Business and residential access.
- Cumulative construction traffic from other developments.

Additionally, Appendix C of the CTMF identifies a number of RMS and SCO site specific access and routing operational imperatives as follows:

- Vehicular site access via Berry Street will not be supported, unless as otherwise agreed by SCO and RMS.
- Any vehicular site access via Miller Street shall provide sufficient separation from the Berry Street traffic signals.
- Any vehicular accesses via Miller Street shall be located and designed to avoid traffic delays for Miller Street traffic.

SCO does not support the use of on-street parking zones by trucks, without prior approval. The CTMP will also need to address the contractors approach to the management of active transport activities and the general public.

2.3 Other recently approved CTMPs for the site

On the 1 June 2017, the Metro Demolition CTMP was approved by RMS for the Victoria Cross (South) site. The Plan provided for the following:

- Class B hoardings along the Miller, Berry and Denison Street frontages.
- Entry and exit via a new driveway off Miller Street.
- No vehicular access via Berry Street.
- Closure of the western footpath in a section of Denison Street as a result of the hoarding.
- Short term temporary closure of Denison Street for pedestrian bridge demolition.

During Q1 2018, the TSE contractor documented and submitted a site specific CTMP for the Victoria Cross (South) site, covering site establishment works only.

The OSD contractor may need vehicular access to and from the (southern) kerbside lane in Berry Street immediately east of Miller Street, possibly designated as a work zone. If required, this would only be done following SCO endorsement and RMS approval.

2.4 Other OSD construction considerations

2.4.1. Approvals

Sydney Metro contractors would be required to secure all required statutory approvals prior to the commencement of works. Refer to Section 6 of the CTMF (prepared by Sydney Metro) for traffic management related approvals.

2.4.2. Hoardings

Hoardings would need to be placed around the perimeter of the site in accordance with relevant standards and having regard to Section 9.2 of the CTMF.

2.4.3. Vulnerable road users

The OSD Contractor would be required to adopt applicable vulnerable road user safety measures, as outlined in the CTMF and in accordance with the Sydney Metro Principal Contractor Health and Safety Standard.

3.0 OSD construction methodologies

3.1 Construction staging scenarios

Construction planning is proceeding on the basis of three possible staging scenarios:

- *Scenario 1:* OSD constructed while Metro construction is underway.
- *Scenario 2:* OSD construction may still be occurring after commencement of Metro station operations.
- *Scenario 3:* OSD construction starts after commencement of Metro station operations.

These staging scenarios are illustrated in **Figure 9**.

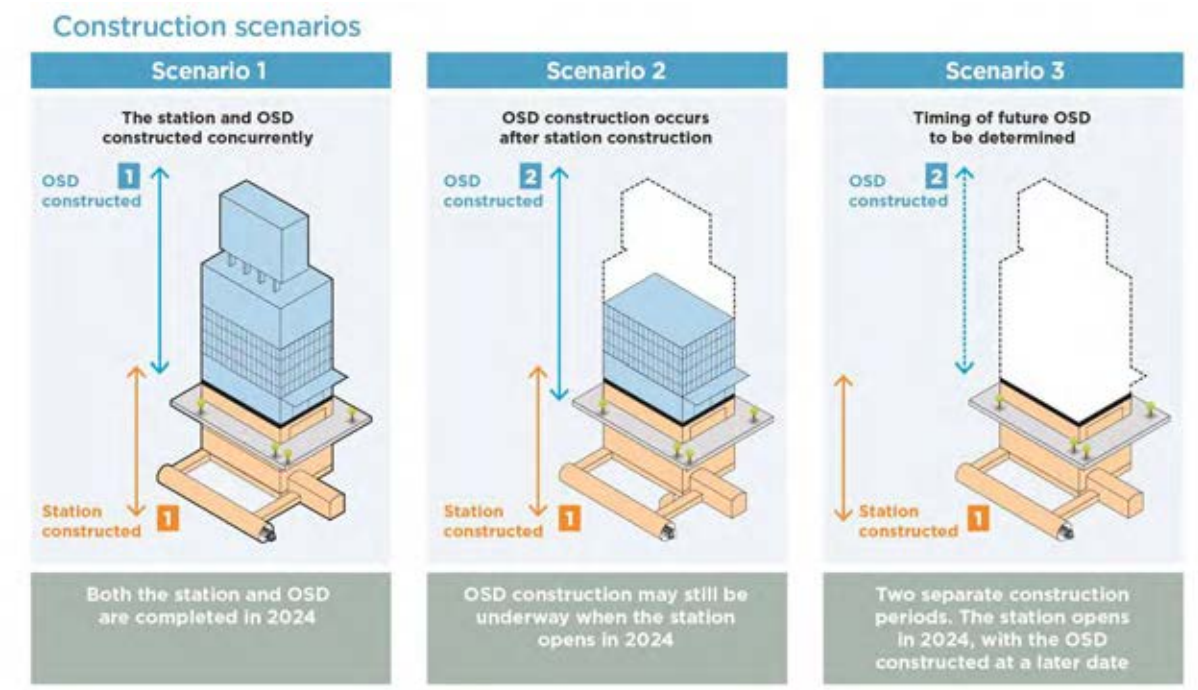

Figure 9: Victoria Cross OSD Construction Staging Scenarios

Anticipated construction timelines for each staging scenario are as follows:

- *Scenario 1:* Station work complete and station operational in 2024. OSD start: 2022. OSD completed by 2024.
- *Scenario 2:* Station work complete and station operational in 2024. OSD start: after 2023.
- *Scenario 3:* Station work complete and station operational in 2024. OSD start: after 2024.

3.2 Scenario 1 - concurrent Metro & OSD construction

Metro station construction and OSD construction coincide. Vehicular access via Denison Street will be required for OSD construction. If access via Denison Street is not available or not supported, this may require shared use of construction site accesses via Miller Street, however this is unlikely as the works are anticipated to be delivered as a single package by a single contractor. If access via Miller Street cannot be shared for contractual reasons, the extent of kerbside impacts along Miller Street will be increased. More than one tower crane will be operational at the site during Metro and OSD construction. The OSD construction methodology assumes vehicular access to basement levels for the loading dock facilities may be required during construction of the OSD.

3.3 Scenario 2 - OSD construction continues after Metro opening

The assumption is that Metro construction works have ceased and OSD construction continues after the Metro station commences operations. Metro construction activities are not assumed to coincide with OSD construction as the Metro station is open and operational. While shared construction accesses is unlikely to be an issue, the operational Metro station will restrict construction vehicle access to the loading docks which may require the OSD contractor to seek approval for loading or works zones on the street frontages. At least one OSD tower crane will be required. This is likely to be located near the Berry Street frontage. The construction methodology assumes vehicular access to basement levels for the shared loading dock facilities may be required at some points during construction of the OSD. The operating Metro station and retail tenants will also require access to these dock facilities.

3.4 Scenario 3 - OSD construction starts after Metro opening

The assumption is that Metro construction works have ceased, the Metro station is operational and OSD construction begins after the Metro station commences operations. Metro construction activities are not assumed to coincide with OSD construction. The impacts and risks associated with two separate Metro station and OSD construction periods are similar to Scenario 2. That is, OSD construction activities occurring above and around an operating Metro station.

4.0 Indicative construction traffic generation

Indicative estimates of traffic generation associated with the Metro station fitout and the OSD works are provided below in **Table 1**.

Table 1: Indicative traffic generation estimates

Period / Vehicle Type												
	Peak Hour[1]			Non Peak Hour[2]			Evening[3]			Night[4]		
	Light	HV	Total	Light	HV	Total	Light	HV	Total	Light	HV	Total
Metro Station[5]	2	6	8	10	22	32	2	6	8	2	6	8
OSD[6]	2	3	5	8	12	20	2	4	6	2	4	6
Total	4	9	13	18	34	52	4	10	14	4	10	14

Notes:

1. AM peak hour x 1 and PM peak hour x 1 (7-8am / 5-6pm)
2. 9 hours (8-5pm)
3. 4 hours (6-10pm)
4. 9 hours (10pm-7am)
5. Sourced from Sydney Metro Chatswood to Sydenham EIS, May 2016
6. SMDO Estimates

The intersection analyses undertaken as part of the Sydney Metro Chatswood to Sydenham EIS (CSSI) concluded that the Level of Service (LOS) at modelled intersections does not deteriorate with the addition of the Metro station construction vehicles. Minor improvements in the average delay or degree of saturation are evident for some intersections which is likely to be the result of the model optimising the operation of the intersection with the additional construction traffic on certain movements. Furthermore, these minor operational improvements are within the normal variability of the modelling software and are not statistically significant. The impact of the construction vehicles is not considered significant.

The EIS assessment did not include an assessment of concurrent Metro station fitout and OSD traffic (Scenario 1). The EIS analysis suggests that key intersections are likely to have the capacity to accommodate minor increases in peak hour traffic. SCO and RMS, however, may still require that restrictions be placed on peak hour OSD construction heavy vehicle traffic generation in order to maintain road network efficiency.

Further details and assessment in relation to construction traffic generation and mitigation of impacts will be provided at the future detailed SSD Application stage when the construction staging scenario is determined. This assessment will also take into consideration any neighbouring construction activities on surrounding sites and mitigation of cumulative impacts.

5.0 Impacts and preliminary mitigation proposals

The key impacts and possible mitigations for each staging scenario are considered separately below.

5.1 Scenario 1 - Concurrent Metro & OSD construction

Pedestrians – the number of construction driveways along Miller Street should be minimised to reduce the likelihood of pedestrian – vehicular conflict. The risk to pedestrians in Scenario 1 is high because OSD construction would be occurring at the same time as Metro construction. Specific pedestrian management measures would need to be put in place to manage pedestrians on all three frontages to the site. This may include a restriction on heavy vehicle access into and out of the site during the AM and PM peak periods.

Metro customers – The Metro station has yet to open and therefore, Metro customers would not be moving into and out of the station (circa 15,000 in the AM peak hour by 2036). This mitigates risk compared to Scenario 2.

Buses and bus customers – OSD and Metro works are ongoing which means that there is a moderate to high risk that construction vehicle activity may adversely impact bus operations along Miller Street. Bus interchange prior to Metro opening is planned to continue in Miller Street using the existing bus stops located north of the Pacific Highway intersection. As in Scenario 2, the number of construction site driveways along Miller Street should be reduced to avoid pedestrian conflicts and encroachment into this bus zone in Miller Street.

Taxis – the existing single space taxi zone in Miller Street (south of Berry Street) would most likely be displaced during construction to accommodate OSD and Metro access into the site. A replacement taxi space would need to be provided in the immediate vicinity of the site in consultation with the NSW Taxi Council.

5.2 Scenario 2 - OSD construction continues after Metro opening

Pedestrians – the risk to pedestrians is higher because OSD construction is occurring after the Metro station has opened. Specific pedestrian management measures would need to be put in place to manage pedestrians on all three frontages to the site. This may include a restriction on heavy vehicle access into and out of the site during the AM and PM peak periods. Preparation of a site specific Pedestrian Management Plan in accordance with the Principal's General Specifications G10 – Traffic & Transport Management may also be required.

Metro customers – the Victoria Cross Metro station contractor works have been completed, the Metro station is open and OSD contractor works are ongoing. This increases risks for Metro customers and pedestrians generally, if construction activities are not clearly segregated.

Buses and bus customers – OSD construction vehicle activity and higher Metro generated bus activity would coincide. Bus interchange for the new Metro station will occur in Miller Street using the existing bus stops located north of the Pacific Highway intersection. This will assist in mitigating direct conflict with bus pick-up and set-down in Miller Street. Nevertheless, the number of OSD site driveways along Miller Street should be reduced to avoid pedestrian conflicts and encroachment into this bus zone in Miller Street.

Taxis – as per Scenario 1.

Traffic and access - The OSD contractor may require vehicular access to basement levels for the shared loading dock facilities during construction. The operating Metro station will also require access to these dock facilities. This would require careful management of pedestrian and vehicular conflicts along Denison Street where the loading dock facilities are proposed to be located and accessed. Appendix C of the CTMF states that the SCO does not support the use of on-street parking zones by trucks, without prior approval. Any proposal to lift material to and from heavy vehicles located in the kerbside lanes to the site would need to be done in accordance with relevant standards and only after SCO endorsement and RMS approval of the CTMP. Materials lifts are expected to be required along the Miller and Berry Street frontages to the site. North Sydney Council is assessing the feasibility of introducing shared zones and associated traffic changes on local roads near the Metro station site. If approved and implemented, these will impact access to and from the Metro site and may have a bearing upon OSD construction methodologies.

5.3 Scenario 3 - OSD construction starts after Metro opening

Pedestrians – the risk to pedestrians is similar to Scenario 2 because OSD construction is occurring after the Metro station has opened. As would be the case for Scenario 2, specific pedestrian management measures would need to be put in place to manage pedestrians on all three frontages to the site.

Metro customers – As would be the case for Scenario 2, OSD contractor works occur after the Metro station is operational. Construction management procedures and risk mitigations would be similar to those adopted for Scenario 2.

Buses and bus customers – As with Scenario 2, OSD construction vehicle activity and higher Metro generated bus activity would coincide. Construction management procedures and risk mitigations would be similar to those adopted for Scenario 2.

Taxis – Depending on the timing of the start of OSD construction and on the kerbside taxi arrangements in place on or around 2024, replacement taxi space(s) may need to be provided in the immediate vicinity of the site to mitigate any OSD related displacement.

6.0 Conclusions

This document has been prepared in accordance with the SEARs for a concept SSD Application proposing OSD above the portal of Victoria Cross Station. The SEARs calls for the preparation of a preliminary construction management statement (the Statement) addressing how future construction stages will manage impacts to pedestrians, rail users, bus services and taxis. The conclusions are as follows:

- Construction would occur generally in accordance with the following traffic management principles and requirements:
  - Metro contract requirements and relevant standards.
  - Construction Traffic Haulage Routes (as provided for in the EIS and CSSI Approval).
  - Construction Traffic Management Framework (CTMF): The document provides the overall strategy and approach for construction traffic management for the Metro project, and an outline of the traffic management requirements and processes that will also apply to OSD construction at the Victoria Cross South and other OSD sites.
  - Relevant traffic management methodologies and procedures approved previously for the site. (Note that these did not take account of the possibility of concurrent Metro station and OSD construction as outlined below).
- Construction planning is proceeding on the basis of three possible staging scenarios:
  - *Scenario 1:* OSD constructed while Metro construction is underway.
  - *Scenario 2:* OSD construction may still be occurring after commencement of Metro station operation.
  - *Scenario 3:* OSD construction starts after the Metro station is operational.
- A number of measures have been identified to minimise and mitigate construction impacts having regard to the three construction staging scenarios identified above. Mitigation strategies have also been developed to ensure that impacts on pedestrians, rail users, bus services and taxis are manageable for all three staging scenarios.
- The developer awarded the OSD development rights will determine the final staging scenario and the timeframe of the OSD construction and communicate these in a Construction Traffic Management Plan (CTMP). Further details confirming the construction methodology and associated impact assessment and mitigation measures will be provided with the future detailed SSD Application.

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