TRAFFIC IMPACT ASSESSMENT

Alterations and Additions
Sirius Site, 2-60 Cumberland Street, The Rocks

Reference: 19.589r02v06
Date: March 2021

TRAFFIX
TRAFFIC & TRANSPORT PLANNERS

Suite 2.08, 50 Holt St
Surry Hills, NSW 2010

t: (02) 8324 8700
w: www.traffix.com.au

DOCUMENT VERIFICATION

Job Number	19.589			
Project	Sirius, The Rocks			
Client	Sirius Developments Pty Ltd			
Revision	Date	Prepared By	Checked By	Signed
v06 **revised location of truck lift only** **(updated swept path analysis)**	17/03/2021	Shenara Wanigasekera	Vince Doan	

CONTENTS

Appendices

Appendix A: Reduced Plans

Appendix B: Swept Path Analysis

Appendix C: Correspondence with Council

Appendix D: Correspondence with TfNSW

1. INTRODUCTION

TRAFFIX has been commissioned by Sirius Developments Pty Ltd to undertake a traffic impact assessment (TIA) in support of a State Significant Development (SSD) application relating to alterations and additions to a residential development at 2-60 Cumberland Street in The Rocks, comprising of 76 residential units and 311m^2 gross floor area (GFA) of retail/commercial. The development will be assessed by the Department of Planning, Industry and Environment, for determination.

This report documents the findings of our investigations and should be read in the context of the Statement of Environmental Effects (SEE) prepared separately.

Reference should also be made to the Planning Secretary's Environmental Assessment Requirements (SEARs) dated 20/11/2019 (Application Number SSD-10384).

The report is structured as follows:

- Section 2: Describes the site and its location
- Section 3: Documents existing traffic conditions
- Section 4: Describes the proposed development
- Section 5: Assesses the parking requirements
- Section 6: Assesses traffic impacts
- Section 7: Describes sustainable travel plans
- Section 8: Discusses access and internal design aspects
- Section 9: Discusses preliminary construction traffic management
- Section 10: Presents SEARS requirements
- Section 11: Presents the overall study conclusions

2. LOCATION AND SITE

The subject site is known as the Sirius Building and is located at 2-60 Cumberland Street in The Rocks (Lot 100 DP264104 and Lot 101 DP264104) and is situated on the eastern side of Cumberland Street, approximately 110 metres north of Argyle Street. It is also located about 440 metres northwest of Circular Quay Railway Station and approximately 1.2 kilometres north of the Sydney central business district.

The site has a total site area of approximately 3,665m^2 and consists of a residential flat development. It has a western frontage of approximately 113 metres to Cumberland Street and eastern frontage of approximately 118 metres to Gloucester Walk. It is bounded to the north by a public parking area for motorcycles and to the south by a neighbouring commercial development for approximately 19 metres and 39 metres, respectively.

The existing development currently accommodates 79 residential units and 70 car parking spaces. Vehicular access to the site is currently provided via a vehicular crossing to Cumberland Street at the southwestern corner of the site.

A Location Plan is presented in **Figure 1**, with a Site Plan presented in **Figure 2**.

Figure 1: Location Plan

Figure 2: Site Plan

3. EXISTING TRAFFIC CONDITIONS

3.1 Road Network

The road hierarchy in the vicinity of the site is shown in **Figure 3** with the following roads of particular interest:

- George Street: a local road within the vicinity of the site, George Street traverses north to south between Lower Fort Street in the north and Harris Street in the south. In the vicinity of the site, George Street is a 'High Pedestrian Activity Area' and is subject to a 40km/h speed zoning, carrying a single lane of traffic in either direction. Limited on-street parking is permitted along either side of the road, subject to various restrictions.
- Cumberland Street: a local road that traverses north to south between Lower Fort Street in the north and Grosvenor Street in the south. In the vicinity of the site, Cumberland Street is a 'High Pedestrian Activity Area' and is subject to a 40km/h speed zoning, carrying a single lane of traffic in either direction. On-street parking is permitted along either side of the road, subject to various restrictions.
- Argyle Street: a local road that traverses east to west between George Street in the east and Windmill Street in the west. In the vicinity of the site, Argyle Street is a 'High Pedestrian Activity Area' and is subject to a 40km/h speed zoning, carrying a single lane of traffic in either direction. On-street parking is permitted along either side of the road, subject to various restrictions.
- Lower Fort Street: a local road that traverses north to south between Argyle Street in the south and terminating approximately 230 metres north of George Street. In the vicinity of the site, Lower Fort Street is subject to a 40km/h speed zoning and carries a single lane of traffic in either direction. On-street parking is permitted along either side of the road, subject to various restrictions.

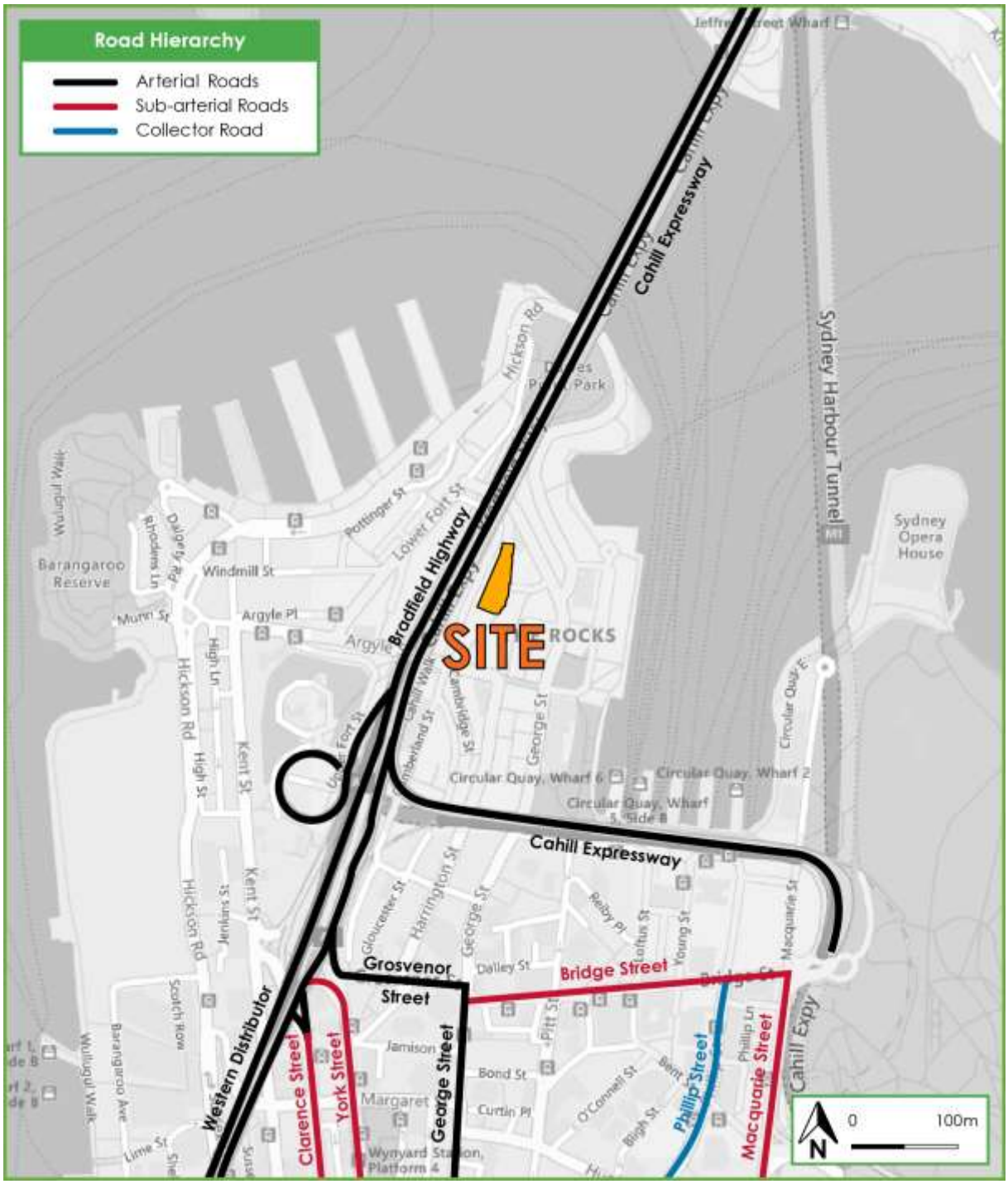


Figure 3: Road Hierarchy

3.2 Public Transport

The existing public transport services that operate in the locality are presented in **Figure 4** and are summarised as follows:

3.2.1 Bus Services

The subject site is within optimal walking distance (400 metres) of several bus services. These services and destinations are summarised below:

- 311 – Millers Point to Central Railway Square
- 324 – Watsons Bay to Walsh Bay
- 325 - Watsons Bay to Walsh Bay

3.2.2 Railway Services

Circular Quay Railway Station is located approximately 440 metres from the site. This station provides services to the routes outlined in **Table 1** below:

Table 1: Railway Services

Train Line	Routes
T2	Inner West and Leppington Line
T3	Bankstown Line
T4	Eastern Suburbs and Illawarra Line
T8	Airport and South Line

In addition to these services, the future Barangaroo Metro Station will be located within 800 metres of the subject site. This will provide additional connections to the wider transport network.

3.2.3 Light Rail Services

The site is also located within 500 metres of the Circular Quay Light Rail Station which provides services on the L2 – Randwick Line and the L3 – Kingsford Line.

3.2.4 Ferry Services

The site is located within 400 metres of the Circular Quay Wharf. This wharf provides services to the routes outlined in **Table 2** below:

Table 2: Ferry Services

Ferry Line	Routes
F1	Manly
F2	Taronga Zoo
F3	Parramatta River via Balmain and Sydney Olympic Park
F4	Cross Harbour (Pyrmont Bay, Barangaroo and Watsons Bay)
F5	Neutral Bay, North Sydney and Kurraba Point Loop
F6	Mosman Bay via Cremorne Point
F7	Double Bay via Darling Point
F8	Cockatoo Island via Barangaroo

3.2.5 Summary

In summary, the site is well located to take advantage of the available public transport services.

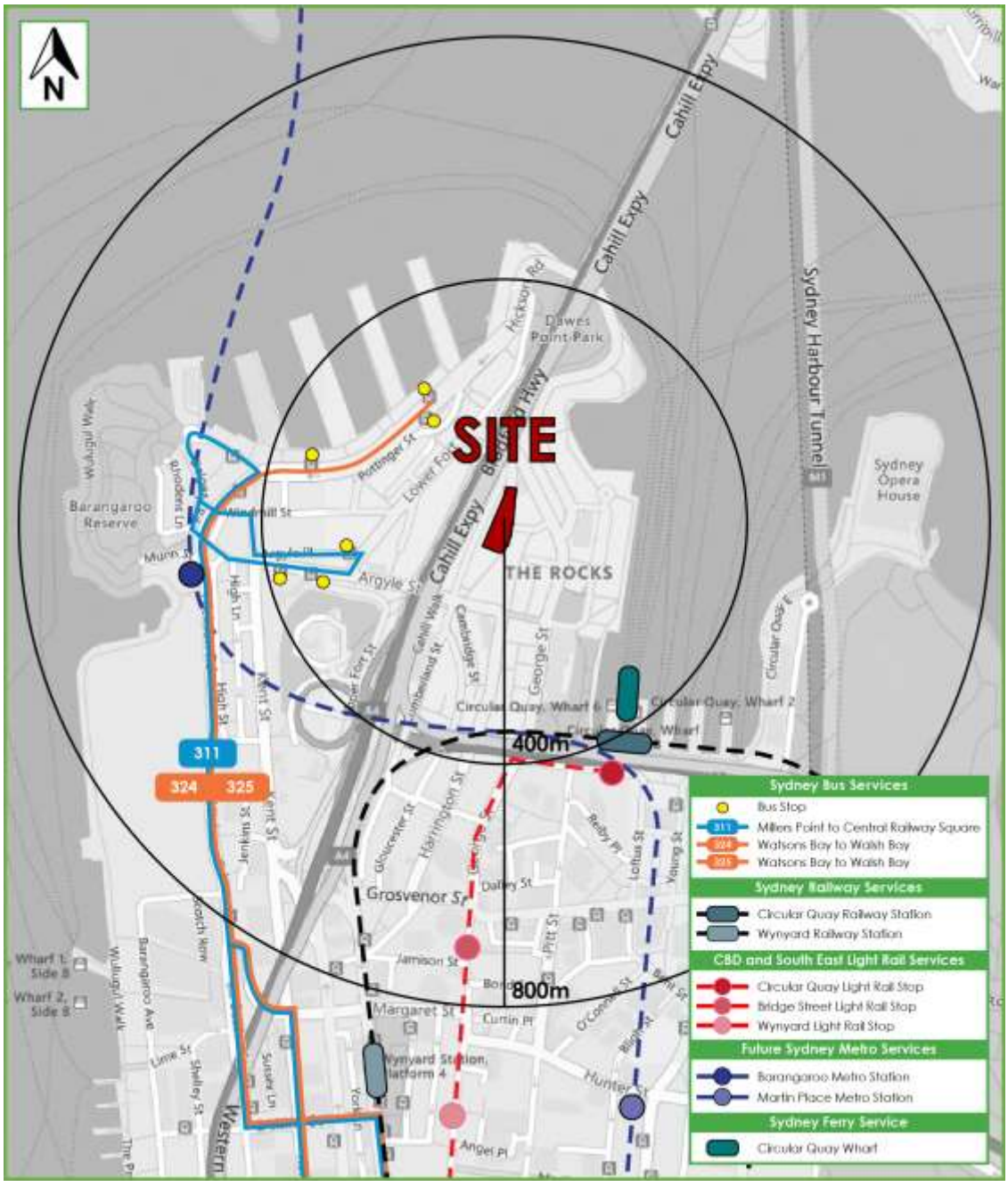


Figure 4: Public Transport

4. DESCRIPTION OF PROPOSED DEVELOPMENT

The proposed development is for the restoration and refurbishment of the existing Sirius building, including alterations and additions. The existing building is proposed to be substantially retained and restored with integrity. New residential additions are proposed to be added to the existing structure in appropriate locations to maintain the legibility of the original architectural form, and new structures for commercial uses are proposed to be added at the Cumberland Street and Gloucester Walk frontages of the site.

The existing Sirius building has a varied height profile due to its modular form and due to the fall across the site when observed from Cumberland Street and from Gloucester Walk. The existing building rises from the north and south towards a central tower with a maximum height of 34.6m above ground level at Cumberland Street (equivalent to an 11-storey building). Due to the existing split-level apartments, the building is conveyed as having a greater number of levels (25 storeys).

The proposed alterations and additions to the existing building will increase the overall building height by 5.4m to a maximum building height of 40.9m above ground level at Cumberland Street. On the Cumberland Street entry side of the site, the building presents as thirteen (13) levels at the highest occupied level. When observed from Gloucester Walk, and due to the fall across the site, the building presents as fourteen (14) occupied levels.

The building incorporates two levels of basement car parking.

The proposed works include:

- Alterations and additions to the existing building to provide for:
  - Residential accommodation (a total of 76 apartments);
  - Commercial premises, including retail floorspace; and
  - Basement car parking.
- Provision of a through-site link between Cumberland Street and Gloucester Walk.
- Upgrades to Gloucester Walk including landscaping and pedestrian access.
- Improvements to Cumberland Street including landscaping and improved carpark entry.

- Associates works, including:
  - Minor demolition works;
  - Earthworks;
  - Structural Upgrades;
  - Services Upgrades; and
  - Landscaping Works

The parking and traffic impacts arising from the development are discussed in **Section 5** and **Section 6**. Reference should be made to the plans submitted separately to Council which are presented at reduced scale in **Appendix A**.

5. PARKING REQUIREMENTS

5.1 Car Parking

The subject development is for the adaptive reuse of the existing Sirius building which involves a minor reduction in the overall apartment numbers from 79 dwellings to 76 dwellings. The existing building is proposed to be substantially retained and restored. The proposed development is not seeking to change to the existing use of the building and therefore is not required to seek approval for the existing land use.

The existing basement is to be retained, maintaining the same number of car parking spaces (70). It is noted that these spaces will service marginally fewer dwellings. In terms of parking ratio, there are currently 0.88 car parking spaces per dwelling. The proposed development will result in 0.92 car parking spaces per dwelling. As such, there is no significant change to the car parking ratio.

The reduction in dwelling numbers is not anticipated to generate any further demand in car parking and therefore it is considered that the existing car parking numbers are sufficient to meet the needs of the proposed development.

In addition to the above, the development proposes 310m^2 GFA of retail / commercial space on ground floor. No car parking spaces are proposed for the retail / commercial component of the development and is considered acceptable.

In summary, the proposal of retaining the 70 car parking spaces for residents is considered appropriate and supportable.

5.2 Accessible Parking

Accessible parking will be provided on site in accordance with the recommendations of an accessibility consultant.

5.3 Bicycle Parking

State Environmental Planning Policy (State Significant Precincts) 2005 (SEPP SSP), which provides site-specific planning controls for the Sirius site, does not include bicycle parking controls for the site. The proposed development will provide a total of 80 bicycle parking spaces, delivering a

viable transport option as an alternate to private cars. These are provided in the form of bicycle rails.

In the event that additional bicycle spaces are required, this could be provided in response to a suitable condition of consent, though the need for this is not considered justified.

5.4 Motorcycle Parking

Sufficient car parking spaces are provided to meet parking demands for residents. These car parking spaces may be used for motorcycle parking at the discretion of individual owners and tenants.

5.5 Refuse Collection and Servicing

The City of Sydney document entitled Guidelines for Waste Management in New Developments outlines the minimum waste management requirements for new developments, including multi-unit residential developments. The guideline states that all residential developments are to provide on-site collection of waste, recycling and bulky items by Council Vehicles (9.25m Council Waste Collection vehicle). While it is recognised that this policy is Council's preferred arrangement, it is understood that under the Guideline, Council has discretion to permit residential waste collection by private contractors where this is appropriate.

All servicing is thus proposed to be undertaken using service vehicles up to an 8.8m medium rigid vehicle (MRV) and all waste collection is to be undertaken using a specialised (but increasingly prevalent) private waste collection vehicle (7.5m rigid vehicle).

A loading bay is provided within Basement 2b and is accessed via a truck lift from the Cumberland Street frontage. The truck will enter the truck lift in a forward direction, proceed to Basement Level 2b and utilise the turntable to turn and then reverse into the dedicated loading bay. When egressing, waste collection vehicles will access the truck lift in a forward direction, proceed to the ground floor and exit the site in a forward direction via Cumberland Street. Reference should be made to the architectural plans provided in **Appendix A** and swept path analysis provided in **Appendix B.**

Access for removalist vehicles is also available. The truck will enter the truck lift from Cumberland Street and proceed to the loading dock in Basement 2b and park in the loading

bay. Goods/Furniture will be unloaded from the vehicle into the truck lift and the lift will be used to transfer goods/furniture to the B1b main car park level access via each lift core 1 to 5 from this level straight into each apartment.

Consultation with City of Sydney Council in relation to waste collection and servicing is provided in **Appendix C**. It is noted that a Loading Dock Management Plan (LDMP) is to be prepared for the development at construction certificate stage.

A future DA condition of consent may require that a LDMP is provided, requiring approval prior to the release of an occupation certificate, if deemed necessary by Council. The LDMP would outline the requirements of the site in relation to servicing activities, anticipated vehicle sizes and frequencies and management measures for removalist uses for tenants. The LDMP could include the following information:

- Details of all servicing activities to be carried out for all uses on-site;
- Details of how waste services will be accommodated to meet service requirements;
- Details of vehicle types required to conduct expected activities;
- Details of the frequency of visits per day and/or week of vehicles accessing the dock; and
- Details of how activities and vehicles will be managed to avoid conflict.
- Details of procedures to be followed in the case of a mechanical fault and/or breakdown.

In summary, the proposed loading bay is expected to accommodate the servicing requirements of the development and should operate satisfactorily. Therefore, it is considered supportable that a LDMP can be prepared prior to the release of an occupation certificate if required by Council.

6. TRAFFIC AND TRANSPORT IMPACTS

6.1 Development Trip Generation

The Sirius site currently accommodates a residential development accommodating 79 dwellings. The proposed adaptive reuse of the site involves alterations and additions to the existing building with a net decrease in the number of dwellings from 79 units to 76 units. The use of a high-density residential development falls under the RMS TDT 2013/04a, which provides revised trip generation advice for a number of land uses based on survey data obtained since 2009. The average Sydney weekday trip rates provided by TDT 2013/04a have been adopted for assessing the traffic generating potential of the subject development. The relevant trip rates are as follows:

- 0.19 vehicle trips per unit during the morning peak hour; and
- 0.15 vehicle trips per unit during the evening peak hour.

Application of these trip rates to the net reduction of three (3) dwellings, and adopting an 80:20 split, results in the following net trip generation volumes:

- -1 vehicle trips per hour (0 in, -1 out) during the morning peak hour; and
- 0 vehicle trips per hour (0 in, 0 out) during the evening peak hour.

In addition to the above, 310m^2 GFA of retail / commercial is proposed. It is noted that the retail / commercial is expected to generate minimal to no traffic volumes with a very high proportion of patrons expected to walk to / from the development. As a result, the retail / commercial component would generate negligible additional traffic generation.

6.2 Traffic Impacts

It is evident that the reduction in the total number of dwellings within the development results in a net reduction in trip generation in the morning peak period and no net change in trip generation in the evening peak period and as such, will be in the public interest.

The development is thus supportable on traffic grounds with no external improvements required to the road network.

7. SUSTAINABLE TRAVEL PLANS

7.1 Green Travel Plan

A comprehensive Green Travel Plan (GTP) is proposed for the residents of the Sirius Building and this can be conditioned by the Department of Planning (DPIE). This plan is intended to encourage the use of public transport and alternative modes of transportation, with the primary objectives outlined as follows:

- Promote the use of sustainable transport methods, thus reducing congestion and pollution in the local area;
- Promote the development as an innovative and environmentally friendly development; and
- Provide an active environment by encouraging healthier travel options for residents, such as walking and cycling.

A comprehensive GTP is considered to be an important part of managing the transport demand generated by the development. These plans would provide relevant transport and access information, including:

- Local bus facilities and network maps; and
- Local walking and cycling routes.

It is also noted that Green Travel Plans are generally more effective for new developments, prior to the establishment of regular travel behaviours. Consequently, the travel targets in this case will be designed to encourage alternative modes of transport as facilities in the area improve for non-car modes.

7.2 Travel Demand Management

It is envisaged that the reductions in car based travel modes to achieve any future nominated targets could be facilitated by a Transport Access Guide (TAG) which is considered to be a useful travel tool to encourage travel by alternative means other than private cars. This TAG would illustrate the public transport routes operating in the locality and is envisaged to be distributed to residents of the development.

8. ACCESS AND INTERNAL DESIGN ASPECTS

8.1 Site Vehicular Access

The development proposes to maintain the existing 70 residential parking spaces with access to Cumberland Street, a local access road. It will therefore require a Category 1 driveway under AS2890.1 (2004), being a combined entry and exit width of 3.0 to 5.5 metres. In response, a 7.5 metre access has been provided to service the basement parking and service vehicles.

A swept path analysis of all design vehicles entering and exiting the proposed development, including an 8.8m long MRV (largest vehicle on-site), is included in **Appendix B**, demonstrating satisfactory operation of the proposed Cumberland Street access.

8.2 Internal Design

The internal car park complies with the requirements of AS 2890.1 (2004), AS2890.2 (2018) and AS2890.3 (2015) and the following characteristics are noteworthy:

8.2.1 Parking Modules

- All standard car parking spaces have been designed in accordance with User Class 1A being for residential / employee parking. These spaces are provided with a minimum space length of 5.4m, a minimum width of 2.4m and a minimum aisle width of 5.8m.
- Two (2) small car parking spaces provide a minimum space length of 5.0m, a minimum width of 2.3m and a minimum aisle width of 5.8m.
- All spaces located adjacent to obstructions of greater than 150mm in height are provided with an additional width of 300mm.
- Dead-end aisles are provided with the required 1.0m aisle extension in accordance with Figure 2.3 of AS2890.1 (2004).

8.2.2 Ramps

- The internal ramp has a maximum gradient of 25% (1 in 4) with sag and summit transitions of 12.5% (1:8) respectively. These provisions satisfy the requirements of AS 2890.1 (2004).

8.2.3 Clear Head Heights

- A minimum clear head height of 2.2m is to be provided for all areas within the basement car park as required by AS 2890.1 (2004).

8.2.4 Servicing

- A loading bay accessed by a truck lift has been designed in accordance with AS2890.2 (2018) for the requirements of an 8.8m long MRV. The loading bay provides a minimum space width of 3.5m and a length of 8.8m.
- A head height clearance of 4.5 metres is to be provided above all areas traversed by the truck in accordance with AS2890.2 (2018)

8.2.5 Other Considerations

- Mostly all columns are located outside of the parking space design envelope shown in Figure 5.2 of AS 2890.1 (2004). It is noted four (4) parking spaces have a column encroaching the door envelope clearance from 130-250mm. The parking spaces are assigned to residents which will be familiar with the parking space and will park their vehicle accordingly to ensure doors are clear of the columns. Therefore, this arrangement considered acceptable.
- Visual splay has been provided at the access driveway in accordance with Figure 3.3 of AS 2890.1 (2004).

8.3 Summary

In summary, the internal configuration of the car park has been designed in accordance with AS 2890.1 (2004), AS 2890.2 (2018) and AS 2890.3 (2015). It is however envisaged that a condition of consent would be imposed requiring compliance with these standards and as such any minor amendments considered necessary (if any) can be dealt with prior to the release of a Construction Certificate.

9. PRELIMINARY CONSTRUCTION TRAFFIC MANAGEMENT PLAN

A detailed Construction Traffic Management Plan (CTMP) will be prepared in response to a suitable conditions of consent to the SSD application. The below commentary addresses the overall management principles for the site during the construction process. It is noted that the preparation of a detailed CTMP requires significant input from the appointed builder and would heavily rely upon the construction methodology, which at this point cannot be confirmed.

The proposed development would however adhere to the general CTMP aspects as outlined below, which have been provided for information purposes.

9.1 Vehicular Access

As the proposed changes to the site involve additions and alterations to an existing building, a works zone will be required adjacent to the site to accommodate any construction vehicles.

9.2 Construction Vehicles

9.2.1 Truck Routes

The truck routes for the construction of the development would utilise the main arterial roads serving the region, noting that all truck routes will begin and end at the Western Distributor.

Preliminary truck routes, suitable for an 8.8m long MRV are presented in **Figure 5** below. However, may be subject to change once a builder is appointed and further information about the construction methodology is discussed.

A copy of the routes would be provided to all drivers prior to attending the site and all trucks serving the site will do so via the proposed route only. The proposed truck routes are recommended so that all vehicles are able to enter and egress the site in a forward direction, thereby ensuring no reverse manoeuvres on public roadways.

9.2.2 Truck Size and Volumes

At this preliminary stage, the maximum permissible vehicle is anticipated to be an 8.8 metre long MRV. The frequency of construction deliveries will be documented at a later stage and

within a detailed CTMP report. The anticipated truck volumes should be estimated and discussed during future Pre-CTMP stages.

As with the truck routes, it is emphasised that the majority of truck movements would be limited to outside school peak periods, as much as possible.

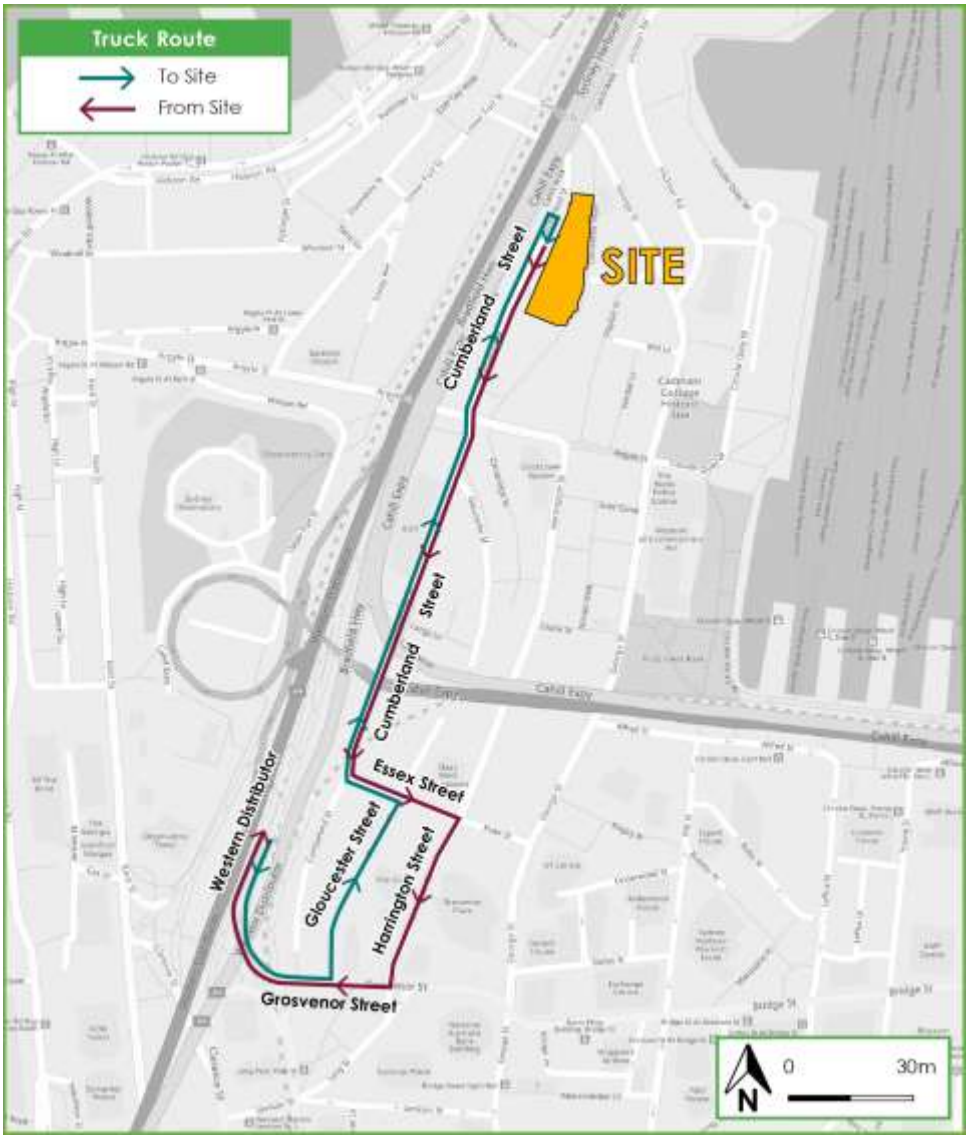


Figure 5: Preliminary Truck Route

10. SEARS REQUIREMENTS

A response to each relevant requirement of the Secretary's Environmental Assessment Requirements (SEARs) is provided below, including references to sections of this report where applicable. Reference should also be made to the full copy of the SEARs is provided in the EIS and the below matters relate specifically to Item 10:

Item 10: Traffic, Transport Parking and Access (Construction and Operation)

The EIS shall include a Traffic and Transport Impact Assessment that includes the following:

Details of the current and likely estimated future daily and peak hour vehicle (private and commercial), public transport, point to point transport, taxis, pedestrian and bicycle movements to/ from the site

- **TRAFFIX Response**

  The site is located in close proximity to the Sydney central business district which generates a large quantum of movements via various modes of transport. The proposed changes to the development are small in comparison to the existing development and therefore changes to future daily and peak hour travel are expected to have a negligible impact on surrounding road networks.

An assessment of the operation of existing and future transport networks and their ability to accommodate the forecast number of trips to and from the development, including identification of upgrades required

- **TRAFFIX Response**

  The existing public transport network is discussed in Section 3.2. An analysis of the anticipated traffic generation of the proposed development as presented in Section 6 which shows that the proposed changes to the site result in a net reduction of one vehicle in the morning and evening peak periods. Therefore, there will be no net increase in the number of trips and no upgrades are required due to the impact of the development.

Details of existing and proposed vehicular access, and proposed parking provision against the relevant requirements.

) **TRAFFIX Response**

The proposed access arrangements for the carpark and loading area are provided in accordance with relevant standards as discussed in Section 8.1. The development proposes to maintain the existing provision of 70 car parking spaces. These car parking spaces are designed in accordance with AS 2890.1 (2004).

Details of any road/intersection upgrades required as a result of the development, supported by appropriate modelling and analysis (to the satisfaction of TfNSW and RMS), and any other measures to mitigate impacts of the development

) **TRAFFIX Response**

The proposed development would result in a net reduction of a single vehicle trip per hour during the morning and evening peak periods. In turn, intersection/road upgrades are not proposed nor required as part of this application. In addition to the above, consultation with TfNSW in relation to parking requirements and traffic impacts of the proposed development is provided in **Appendix D**.

Proposals to encourage employees, residents, and visitors to make sustainable travel choices, such as a green travel plan, walking, cycling, public transport and car sharing and how these will be implemented.

) **TRAFFIX Response**

Section 7 discusses the requirements of the Green Travel Plan to be prepared at CC stage.

An assessment of pedestrian and cyclist safety

) **TRAFFIX Response**

The architectural plans include footpaths around the proposed development for convenient pedestrian access and all driveways comply with relevant standards, so that no safety issues are expected.

Details of existing and proposed service vehicle access arrangements, including consideration of loading dock and servicing provision, adequacy and management ensuring all servicing and loading, including waste/ recycling occurs on-site and does not rely on kerbside controls.

) **TRAFFIX Response**

The existing refuse collection arrangements require Council's Waste Collection vehicle to collect waste kerbside along Cumberland Street, adjacent to the development. The proposed servicing arrangements are discussed in detail in Section 5.5. All servicing will occur within the basement levels with waste collection proposed to be conducted by a private waste contractor. Therefore, refuse collection will occur on-site and will not rely on kerbside controls.

In relation to construction traffic:

Detail of vehicle routes, peak hour and daily truck movements, hours of operation, access arrangements, works zone location, haulage routes, construction program and traffic control measures for all demolition / construction activities.

An assessment of road safety at key intersections and locations subject to pedestrian / vehicle / bicycle conflicts

Details of temporary cycling and pedestrian access and end of trip facilities during construction

An assessment of the likely construction traffic impacts, such as required road / lane closures and diversions, impacts on bus and 'point to point' transport, impacts on pedestrian and cycle movement, and taking into account other construction activities.

Details of proposed mitigation measures should any impacts be identified, the duration of the impacts and measures proposed to mitigate any associated general traffic, public transport, pedestrian and cyclist impacts should be clearly identified.

Preparation of a draft Construction Pedestrian and Traffic Management Plan to demonstrate the proposed management of impact. This Plan needs to include works zone location, vehicle routes, number of trucks, hours of operation, indicative construction program, access arrangements and traffic control measures for all demolition/construction activities.

) **TRAFFIX Response**

Section 9 provides a Preliminary Construction Traffic Management Plan which addresses the above aspects as much as possible at this early stage. A detail Construction Traffic Management Plan will be provided at CC stage, once a builder has been appointed.

The policies below are identified in the SEARS as significant in relation to the development, following are any transport related comments with regards to each policy:

- Future Transport Strategy 2056 and supporting plans

) **TRAFFIX Response**

This strategy aims to encourage active and sustainable transport options and utilise the existing transport infrastructure. The proposed development is located in close proximity of numerous public transport options.

- Guide to Traffic Generating Development (RMS)

) **TRAFFIX Response**

The RMS Guide to Traffic Generating Developments has been used to assess the traffic generation of the proposed development. It was concluded that the net reduction in dwellings and the minimal addition in ancillary retail/commercial space would generate negligible traffic generation.

- NSW Planning Guidelines for Walking and Cycling

) **TRAFFIX Response**

The proposed development includes the provision of a through-site link which will improve the pedestrian amenity surrounding the site. This is in line with the NSW Planning Guidelines for Walking and Cycling which aim to make walking and cycling more convenient, safe and enjoyable as a transport option.

- Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development

) **TRAFFIX Response**

This guideline outlines traffic management strategies in relation to traffic engineering, road design, town planning and road safety. As the development will be maintaining the existing number of car parking spaces to the existing basement car park, additional traffic management measures are not anticipated to be required.

- Sydney's Cycling Future

) **TRAFFIX Response**

The development benefits from the close proximity to cycle routes along Cumberland Street, Argyle Street and George Street. This supports the objectives of Sydney's Cycling Future which aims to make cycling a feasible transport option, providing separated cycleways and bicycle networks to major centres and transport interchanges. It is also emphasised that the development provides a total of 80 bicycle parking spaces, encouraging residents to use alternate modes of transport.

- Sydney's Walking Future

) **TRAFFIX Response**

The development is located in close proximity to the Sydney CBD and is surrounded by various pedestrian infrastructure and services which encourages walking as a mode of transport.

11. CONCLUSIONS

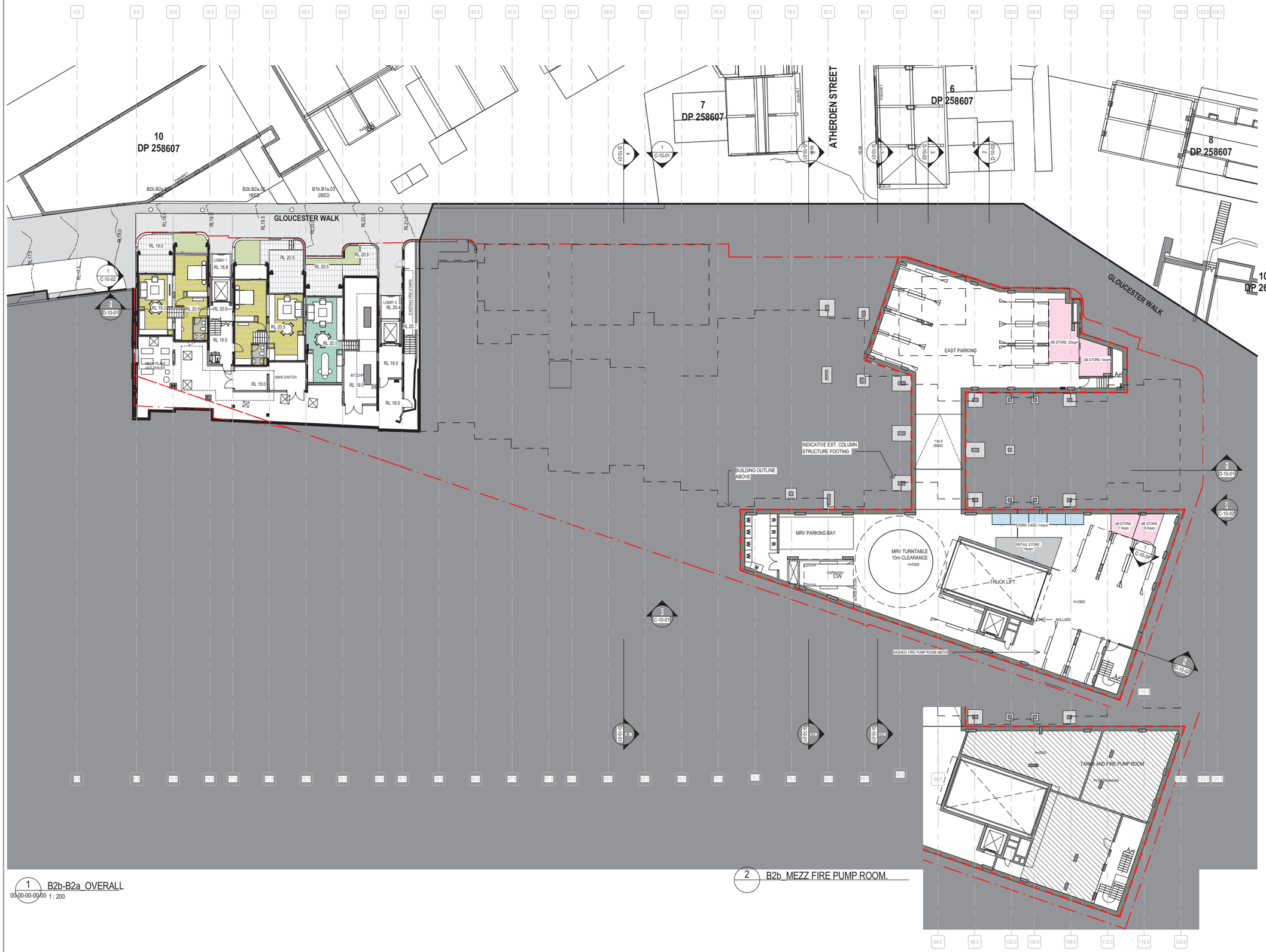
In summary:

- The proposal seeks approval for the adaptive reuse of the existing Sirius building including alterations and additions to provide for 76 apartments (existing building 79 apartments) and retain the existing 70 car parking spaces and in addition provide a dedicated truck loading bay.
- The subject site is well connected to the public transport network with reliable access to regular bus, ferry and rail services. These, along with existing pedestrian and cycle links, ensure the site is ideally situated for a high-density residential development.
- A comprehensive Green Travel Plan (GTP) is proposed for the residents of the Sirius Building and this can be conditioned by the Department of Planning (DPIE). This plan is intended to encourage the use of public transport and alternative modes of transportation.
- The proposed development provides a total of 70 residential parking spaces. This parking provision is expected to allow all normal parking demands to be readily accommodated on-site as discussed in detail in Section 5.1.
- The traffic generation arising from the development has been assessed as a net change over existing conditions, and equates to a net reduction of one (1) vehicle trip in the morning peak period and no net change in trip generation in the evening peak period due to the slight reduction in apartment yields over the existing residential development. As such, no external improvements are required to facilitate the propose development. The traffic impacts of the development are therefore considered acceptable.
- The basement car park has been assessed to comply with the requirements of AS 2890.1 (2004), AS 2890.2 (2002) and AS 2890.3 (2015), thereby ensuring safe and efficient operation.
- Waste collection for the site is to be undertaken onsite via the provision of a single loading bay located within Basement 2b. The servicing arrangements are discussed in greater detail within Section 5.5 of the report.

This traffic and transport assessment therefore demonstrates that the subject application is supportable on traffic planning grounds. TRAFFIX anticipates an ongoing involvement during the development approval process..

APPENDIX A

Reduced Plans



1 B2b-B2a_OVERALL
00-00-00-00-00 1 : 200

2 B2b_MEZZ FIRE PUMP ROOM.

NSW ARCHITECTS REGISTRATION BOARD / NOMINATED ARCHITECTS
6501 ABBIE GALVIN
9356 NIKOTSCHKA TITCHKOSKY
7115 JULIAN ASHTON
7053 MATTHEW BLAIR
7151 PHILLIP ROSSINGTON
4937 JAMES GROSE

Telephone +61 2 8297 7200
Facsimile +61 2 8297 7299
www.bvn.com.au

NOTE

CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF WORK OR PREPARATION OF SHOP DRAWINGS. DO NOT SCALE THIS DRAWING.

ISSUE	DATE	FOR
2	08.04.20	FOR INFORMATION
3	17.04.20	FOR INFORMATION
4	20.04.20	FOR INFORMATION
5	05.05.20	FOR INFORMATION
6	06.05.20	FOR INFORMATION
7	08.05.20	FOR INFORMATION
8	11.05.20	FOR INFORMATION
9	12.05.20	FOR INFORMATION
10	19.05.20	FOR INFORMATION
11	22.05.20	FOR INFORMATION
12	26.05.20	FOR INFORMATION
13	29.05.20	FOR INFORMATION
14	01.06.20	FOR INFORMATION
15	03.06.20	FOR INFORMATION
16	17.06.20	FOR INFORMATION
17	23.06.20	FOR INFORMATION
18	30.06.20	FOR INFORMATION
19	22.07.20	FOR INFORMATION
20	22.07.20	FOR INFORMATION_REV
21	23.07.20	FOR INFORMATION
22	05.08.20	FOR INFORMATION
23	14.08.20	FOR INFORMATION
24	26.08.20	FOR INFORMATION
25	27.08.20	FOR INFORMATION
26	31.08.20	FOR INFORMATION
27	04.09.20	NOT FOR SSDA - DRAFT
28	18.09.20	FOR SSDA
29	23.10.20	FOR SSDA

PROJECT MANAGER
DEDICO DEVELOPMENT SERVICES

CLIENT
SIRIUS DEVELOPMENTS PTY LTD

CLIENT NUMBER

PROJECT
SIRIUS SITE
2-60 CUMBERLAND ST, THE ROCKS

BVN PROJECT NUMBER
1712011

DRAWING KEY

TRUE NORTH

GRAPHIC SCALE
0 2000 5000

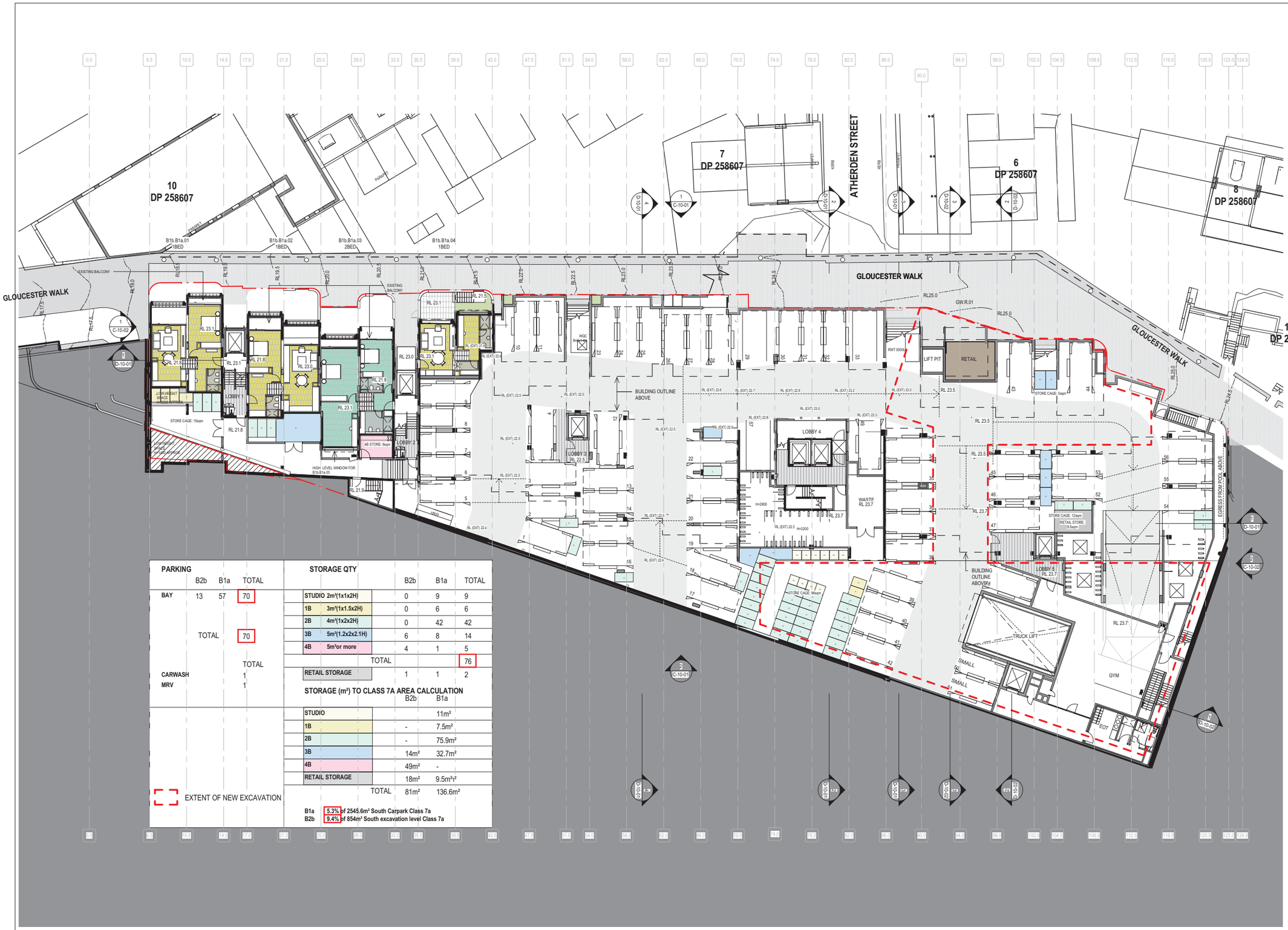
SCALE
1 : 200@A1

STATUS
FOR INFORMATION

DRAWING
BASEMENT B2b-B2a

AR-DA-B-10-01 | ISSUE 29

C:\REVIT_LOCAL2020\AR_1712011_SIR_SIRIUS_SSDA_2_Selina_Qiu.rvt 10/03/2021 3:01:17 PM



PARKING	B2b	B1a	TOTAL
BAY	13	57	70
TOTAL			70
			TOTAL
CARWASH			1
MRV			1

STORAGE QTY		B2b	B1a	TOTAL
STUDIO	2m³(1x1x2H)	0	9	9
1B	3m³(1x1.5x2H)	0	6	6
2B	4m³(1x2x2H)	0	42	42
3B	5m³(1.2x2x2.1H)	6	8	14
4B	5m³or more	4	1	5
	TOTAL			76
RETAIL STORAGE		1	1	2

STORAGE (m²) TO CLASS 7A AREA CALCULATION

	B2b	B1a
STUDIO		11m²
1B	-	7.5m²
2B	-	75.9m²
3B	14m²	32.7m²
4B	49m²	-
RETAIL STORAGE	18m²	9.5m²²
TOTAL	81m²	136.6m²

EXTENT OF NEW EXCAVATION

B1a 5.3% of 2545.6m² South Carpark Class 7a
B2b 9.4% of 854m² South excavation level Class 7a

1 B1b-B1a_OVERALL

BVN

NSW ARCHITECTS REGISTRATION BOARD / NOMINATED ARCHITECTS
6501 ABBIE GALVIN
9356 NIKOTSCHKA TITCHKOSKY
7115 JULIAN ASHTON
7053 MATTHEW BLAIR
7151 PHILLIP ROSSINGTON
4937 JAMES GROSE

Telephone +61 2 8297 7200
Facsimile +61 2 8297 7299
www.bvn.com.au

NOTE

CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF WORK OR PREPARATION OF SHOP DRAWINGS. DO NOT SCALE THIS DRAWING.

ISSUE	DATE	FOR
1	03.04.20	FOR INFORMATION
2	08.04.20	FOR INFORMATION
3	17.04.20	FOR INFORMATION
4	06.05.20	FOR INFORMATION
5	08.05.20	FOR INFORMATION
6	11.05.20	FOR INFORMATION
7	12.05.20	FOR INFORMATION
8	22.05.20	FOR INFORMATION
9	26.05.20	FOR INFORMATION
10	29.05.20	FOR INFORMATION
11	01.06.20	FOR INFORMATION
12	03.06.20	FOR INFORMATION
13	17.06.20	FOR INFORMATION
14	23.06.20	FOR INFORMATION
15	22.07.20	FOR INFORMATION
16	22.07.20	FOR INFORMATION_REV
17	23.07.20	FOR INFORMATION
18	14.08.20	FOR INFORMATION
19	26.08.20	FOR INFORMATION
20	27.08.20	FOR INFORMATION
21	31.08.20	FOR INFORAMTION
22	04.09.20	NOT FOR SSDA - DRAFT
23	18.09.20	FOR SSDA
24	23.10.20	FOR SSDA
25	27.10.20	FOR SSDA
26	30.11.20	FOR INFORMATION

PROJECT MANAGER
DEDICO DEVELOPMENT SERVICES

CLIENT

SIRIUS DEVELOPMENTS PTY LTD
CLIENT NUMBER

PROJECT

SIRIUS SITE
2-60 CUMBERLAND ST, THE ROCKS
BVN PROJECT NUMBER

1712011
DRAWING KEY

TRUE NORTH

GRAPHIC SCALE
0 2000 5000
SCALE

1 : 200@A1
STATUS

FOR INFORMATION
DRAWING

BASEMENT B1b-B1a

ISSUE
AR-DA-B-10-02 26

C:\REVIT_LOCAL2020\AR_1712011_SIR_SIRIUS_SSDA_2_Selina_Qiu.rvt 10/03/2021 2:41:51 PM

1 LEVEL 03-04

2 LEVEL 04-05

BVN

NSW ARCHITECTS REGISTRATION BOARD / NOMINATED ARCHITECTS
6501 ABBIE GALVIN
9356 NIKOTSCHKA TITCHKOSKY
7115 JULIAN ASHTON
7053 MATTHEW BLAIR
7151 PHILLIP ROSSINGTON
4937 JAMES GROSE

Telephone +61 2 8297 7200
Facsimile +61 2 8297 7299
www.bvn.com.au

NOTE
CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF WORK OR PREPARATION OF SHOP DRAWINGS. DO NOT SCALE THIS DRAWING.

ISSUE	DATE	FOR
1	08.04.20	FOR INFORMATION
2	17.04.20	FOR INFORMATION
3	05.05.20	FOR INFORMATION
4	08.05.20	FOR INFORMATION
5	22.05.20	FOR INFORMATION
6	01.06.20	FOR INFORMATION
7	03.06.20	FOR INFORMATION
8	23.06.20	FOR INFORMATION
9	09.07.20	FOR INFORMATION
10	14.07.20	FOR INFORMATION
11	22.07.20	FOR INFORMATION
12	27.07.20	FOR INFORMATION
13	14.08.20	FOR INFORMATION
14	31.08.20	FOR INFORMAMTION
15	04.09.20	NOT FOR SSDA - DRAFT
16	15.09.20	NOT FOR SSDA - DRAFT
17	18.09.20	FOR SSDA
18	23.10.20	FOR SSDA
19	28.10.20	FOR SSDA

PROJECT MANAGER
DEDICO DEVELOPMENT SERVICES

CLIENT
SIRIUS DEVELOPMENTS PTY LTD
CLIENT NUMBER

PROJECT
SIRIUS SITE
2-60 CUMBERLAND ST, THE ROCKS
BVN PROJECT NUMBER
1712011
DRAWING KEY

TRUE NORTH

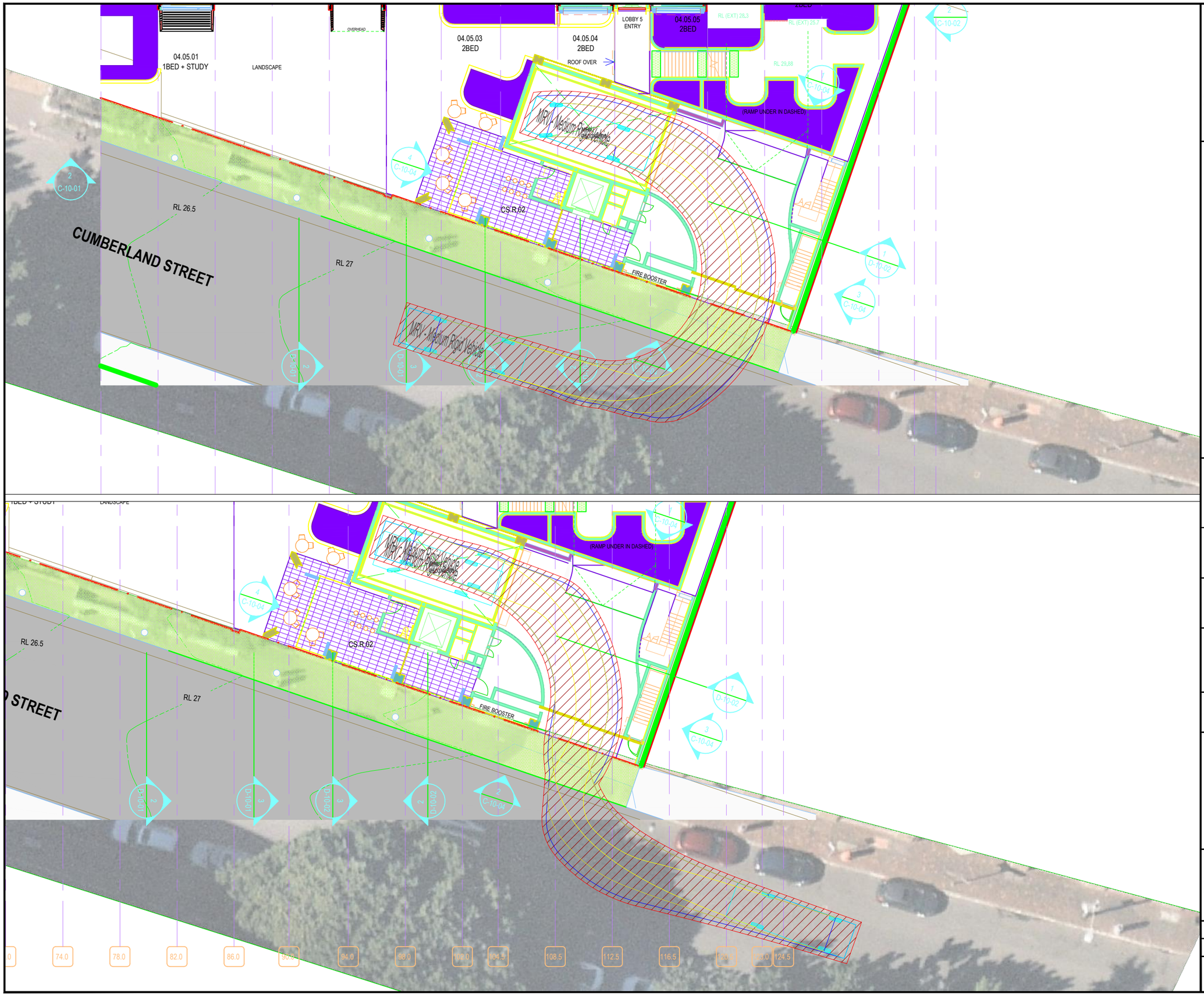
GRAPHIC SCALE
0 2000 5000
SCALE
1 : 200@A1
STATUS
FOR INFORMATION
DRAWING

LEVEL 03-05

AR-DA-B-10-04 | ISSUE 19

APPENDIX B

Swept Path Analysis



Notes:

This drawing is prepared for information purposes only. It is not to be used for construction.

TRAFFIX is responsible for vehicle swept path diagrams and/or drawing mark-ups only. Base drawing prepared by others.

Vehicle swept path diagrams prepared using computer generated turning path software and associated CAD drawing platforms. Vehicle data based upon relevant Australian Standards (*AS/NZS 2890.1:2004 Parking facilities - Off-street car parking*, and/or *AS2890.2:2002 Parking facilities - Off-street commercial vehicle facilities*). These standards embody a degree of tolerance, however the vehicle characteristics in these standards represent a suitable design vehicle and do not account for all variations in vehicle dimensions / specifications and/or driver ability or behaviour.

Rev.	Revision Note	By.	Date
A	Initial Design Review	VD	12-03-20
B	Design Review	JP	24-06-20
C	Updated Plans	SW	01-09-20
D	Updated Plans	SW	17-03-21

Swept Path Legend

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

Architect
BVN
Level 11/255 Pitt Street,
Sydney NSW 2000

Client
Sirius Developments Pty Ltd

Scale / Plan Orientation

0 2.5 5 7.5 10m
1:250 @ A3

Project Description
Sirius Building

Drawing Prepared By

TRAFFIX
TRAFFIC & TRANSPORT PLANNERS

Suite 2.08, 50 Holt Street
Surry Hills, NSW 2010
PO Box 1124
Strawberry Hills, NSW 2012

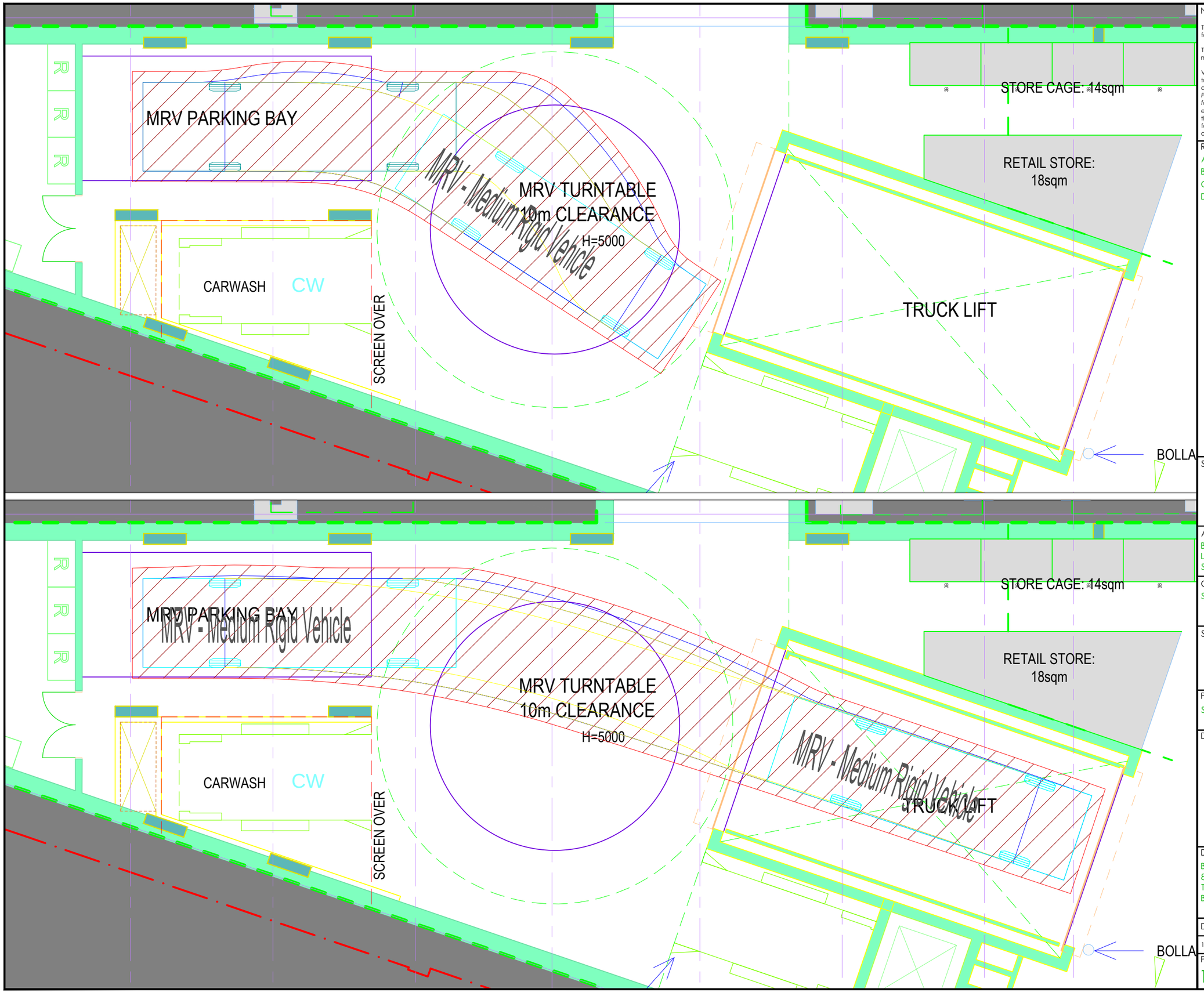
t: +61 2 8324 8700
f: +61 2 9830 4481
w: www.traffix.com.au

Drawing Title
Level 3-5 (Ground level)
Swept Path Anlaysis
8.8m MRV
Top: Entry Movement Bottom: Exit Movement

Drawn:	Checked:	Date:
JP	VD	24-06-2020

19.589d12v01 TRAFFIX [210316 Plans] Design Review.dwg

Project No.	Drawing Phase	Drawing No.	Rev.
19.589	DA	TX.01	D



Notes:

This drawing is prepared for information purposes only. It is not to be used for construction.

TRAFFIX is responsible for vehicle swept path diagrams and/or drawing mark-ups only. Base drawing prepared by others.

Vehicle swept path diagrams prepared using computer generated turning path software and associated CAD drawing platforms. Vehicle data based upon relevant Australian Standards (*AS/NZS 2890.1:2004 Parking facilities - Off-street car parking*, and/or *AS2890.2:2002 Parking facilities - Off-street commercial vehicle facilities*). These standards embody a degree of tolerance, however the vehicle characteristics in these standards represent a suitable design vehicle and do not account for all variations in vehicle dimensions / specifications and/or driver ability or behaviour.

Rev.	Revision Note	By.	Date
A	Initial Design Review	VD	12-03-20
B	Design Review	JP	24-06-20
C	Updated Plans	SW	01-09-20
D	Updated Plans	SW	17-03-21

Swept Path Legend

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

Architect
BVN
Level 11/255 Pitt Street,
Sydney NSW 2000

Client
Sirius Developments Pty Ltd

Scale / Plan Orientation
0 1 2 3 4m
1:100 @ A3

Project Description
Sirius Building

Drawing Prepared By

TRAFFIX
TRAFFIC & TRANSPORT PLANNERS
Suite 2.08, 50 Holt Street
Surry Hills, NSW 2010
PO Box 1124
Strawberry Hills, NSW 2012
t: +61 2 8324 8700
f: +61 2 9830 4481
w: www.traffix.com.au

Drawing Title
Basement 2b
8.8m MRV
Top: Reverse Entry From Turntable to Loading Bay
Bottom: Forward Entry From Loading Bay to Truck Lift

Drawn:	Checked:	Date:
VD	VD	12-03-2020

19.589d12v01 TRAFFIX [210316 Plans] Design Review.dwg

Project No.	Drawing Phase	Drawing No.	Rev.
19.589	DA	TX.02	D

APPENDIX C

Correspondence with Council

Vince Doan

Subject: [19.589] Sirius Development, The Rocks

From: Reinah Urqueza
Sent: Tuesday, 21 July 2020 4:16 PM
To: Vince Doan
Cc: Andrew Rees
Subject: RE: [19.589] Sirius Development, The Rocks

Hi Vince,

Please see the below comments regarding the preliminary waste collection and servicing arrangement statement for the Sirius redevelopment:

- **Waste**

  Generally, the proposed waste management strategy is supported in principle as it provides better outcomes for managing waste within the property.

  It should be noted that the *Waste Management Guidelines – General Requirements - Section A(1.7) states* that "storage areas are to be provided within the premises in reasonable proximity to the vehicle entrance, and no lower than one level below street level." The preliminary statement makes reference to Basement Level 4 and insinuates that the storage areas would be contrary to the required location of storage areas near street level.

- **Servicing and Traffic**

  Submitted traffic response has stated that the loading dock will be used for all loading and services (such as goods and furniture delivery, resident/tenant move in move out etc.), not only for waste collection. However, only waste collection (4 trips per week) has been estimated in the traffic report. A detailed loading and service management plan (LDMP) that considers all the loading and servicing needs of the site/development should be provided. Given that only one loading space is indicated in the Basement Level 4, a "pre-booking" system must be put in place to avoid more than one delivery to access the site in any one single time.

  The submitted plan shows that truck access to the loading dock and truck lift will not compromise the traffic flow on car ramp, which is good outcome. However, at the site access, in front of the vehicle lift, additional management and safety measures must be taken to maintain and manage truck access and car traffic at the ground level. These should form part of the LDMP.

  Given that, truck access to the mechanical parking installations (vehicle lift, turntable etc) will not be shared by the car, a vehicle queue analysis is not required. But the LDMP must ensure that no vehicle is kept waiting on public road while accessing and egressing the site at any time. The procedures to be followed in the case of mechanical fault and /or breakdown must be outlined in the LDMP. The mechanical parking installations needs to comply with relevant Australian Standard.

Please note that the above comments are advisory and do not constitute an approval. Nonetheless, I trust this is of assistance for the EIS.

Kind regards,

Reinah Urqueza
Specialist Planner
Planning Assessments

CITY OF SYDNEY

cityofsydney.nsw.gov.au

From: Vince Doan
Sent: Thursday, 9 July 2020 12:18 PM
To: Reinah Urqueza
Cc: Andrew Rees
Subject: RE: [19.589] Sirius Development, The Rocks

Hi Reinah,

Thank you for your prompt response. I look forward to hearing from you.

Please contact me should you have any queries.

Regards,

Vince Doan
Executive Engineer

TRAFFIX
www.traffix.com.au

APPENDIX D

Correspondence with TfNSW

Mr Vince Doan
Executive Engineer
TRAFFIX
Suite 2.08
50 Holt Street
Surry Hills, NSW 2010

Dear Mr Doan

Sirius Site, 2–60 Cumberland Street, The Rocks
Pre-DA Comments

Thank you for the opportunity of providing comments on the subject proposal prior to lodgment of the application with the relevant consent authority.

It is advised that Transport for NSW (TfNSW) has reviewed the Letter of Notification (TfNSW Reference CD19/08660) dated 4 September 2020 and no comments are provided at this stage.

Please note that the results of this review at this stage for above should not be interpreted as binding upon TfNSW and may change following formal assessment of a submitted development application from the appropriate consent authority.

If you require clarification on the above, please don't hesitate to contact Para Sangar, Senior Transport Planner, Land Use Planning and Development on 0466 024 892.

Yours sincerely

23/9/2020

Mark Ozinga
Principal Manager, Land Use Planning and Development
Customer Strategy and Technology

Objective Reference CD20/07342