

# V&A Waterfront: Granger Bay

Transport Specialist Study

Final Draft 6.0

16 March 2026



Prepared for

Infinity Environmental (Pty) Ltd

Prepared by

**Motion**  
CONSULTING ENGINEERS

+27 61437 0452

[info@motionengineers.co.za](mailto:info@motionengineers.co.za)

[www.motionengineers.co.za](http://www.motionengineers.co.za)

## Document information

|                      |   |
|----------------------|---|
| Report title:        | V&A Waterfront Granger Bay:<br>Transport Specialist Study   |
| Version:             | Final Draft 6.0   |
| Date of issue:       | 16 March 2026   |
| Electronic location: | <a href="https://motionengineers365.sharepoint.com/sites/TransportEngineering/Shared Documents/Projects/P0256 - VAW TIA for EIA/E_Reports/Motion_VAW TIA_Final Draft_6.0.docx">https://motionengineers365.sharepoint.com/sites/TransportEngineering/Shared Documents/Projects/P0256 - VAW TIA for EIA/E_Reports/Motion_VAW TIA_Final Draft_6.0.docx</a> |

## Client information

|                 |                        |
|-----------------|------------------------|
| Client:         | Infinity Environmental |
| Client contact: | Jeremy Rose            |

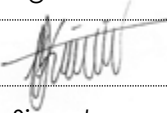
## Project information

|                  |                             |
|------------------|-----------------------------|
| Project name:    | VAW TIA for EA              |
| Project address: | Granger Bay, V&A Waterfront |
| Project number:  | P0256                       |

## Version history

| <i>Version</i>    | <i>Description</i>           | <i>Date</i>      |
|-------------------|------------------------------|------------------|
| Working Draft 1.0 | For information              | 22 June 2025     |
| Final Draft       | Client comment/input, if any | 07 July 2025     |
| Final Draft 2.0   | Client comments incorporated | 17 July 2025     |
| Final Draft 3.0   | Client comments incorporated | 21 October 2025  |
| Final Draft 4.0   | Edits to site boundary       | 22 October 2025  |
| Final Draft 5.0   | Edits to site boundary       | 16 February 2026 |
| Final Draft 6.0   | Additional comments          | 16 March 2026    |

## Quality control

| <i>Author</i>   | <i>Signature</i>  | <i>Date</i>   |
|-----------------|---|---------------|
| Sergei Kiewiet  |  | 15 March 2026 |
| <i>Reviewer</i> | <i>Signature</i>  | <i>Date</i>   |
|                 |   |               |

# Table of Contents

|   |            |
|---|------------|
| <b>Appendices</b>                             | <b>iii</b> |
| <b>List of Figures</b>                        | <b>iii</b> |
| <b>List of Tables</b>                         | <b>iii</b> |
| <b>1 Introduction</b>                         | <b>1</b>   |
| 1.1 Background                                | 1          |
| 1.2 Development proposal                      | 1          |
| 1.3 Purpose of report                         | 2          |
| <b>2 Overview of Transport Network</b>        | <b>7</b>   |
| 2.1 Roads                                     | 7          |
| 2.2 Public transport                          | 9          |
| 2.3 Pedestrians and cycling                   | 12         |
| <b>3 Impact of Proposed Development</b>       | <b>14</b>  |
| 3.1 Vehicular access                          | 14         |
| 3.2 Parking                                   | 17         |
| 3.3 Vehicular traffic and network performance | 20         |
| 3.4 Public Transport Accessibility            | 25         |
| 3.5 Pedestrians and Cycling                   | 27         |
| 3.6 Impact Ratings                            | 27         |
| <b>4 Conclusions and Recommendations</b>      | <b>31</b>  |
| 4.1 Conclusions                               | 31         |
| 4.2 Recommendations                           | 32         |

# Appendices

Appendix A: Granger Bay Phase 2 Transport Impact Assessment (GIBB, April 2015) 33  
Appendix B: Transport-Related Conditions from Amended Rezoning Approval (Case ID 1500109534, 16 January 2026) 34

## List of Figures

Figure 1.1: Locality Plan ..... 4  
Figure 1.2: Aerial view of site ..... 5  
Figure 1.3: Notional Precinct Development ..... 6  
Figure 2.1: Road network and classification ..... 8  
Figure 2.2: MyCiTi Routes ..... 10  
Figure 2.3: Public transport routes ..... 11  
Figure 3.1: Access Points..... 14  
Figure 3.2: PT1 and PT2 Zone ..... 18  
Figure 3.3: MyCiTi Stops..... 26

## List of Tables

Table 1.1: Land use ..... 2  
Table 3.1: Minimum Access Spacing Requirements (per AMG 2020) ..... 15  
Table 3.2: Physically disabled accessible parking..... 19  
Table 3.3: City of Cape Town Parking Standards - Parking Bay Dimensions..... 20  
Table 3.4: Growth in AM and PM Peak Hour Volumes (2012–2023) ..... 21  
Table 3.5: Comparative Trip Generation – Previous vs Current Proposal ..... 24  
Table 3.6: Trip reduction factors used ..... 24  
Table 3.7: Impact: Construction Phase..... 29  
Table 3.8: Impact: Operational Phase..... 30  
Table 3.9: Impact: Summary of Construction and Operational Phases ..... 30

# 1 Introduction

## 1.1 Background

Infinity Environmental (Pty) Ltd has been appointed by V&A Waterfront Holdings (Pty) Ltd to manage the Scoping and Environmental Impact Assessment (EIA) process for the proposed development of the Granger Bay Precinct at the V&A Waterfront in Cape Town. As part of this process, Motion Consulting Engineers has been appointed to carry out the required Traffic Specialist Study.

The V&A Waterfront is a well-established, mixed-use precinct that includes retail, residential, commercial, and harbour-related land uses. Over the past 30 years, it has developed into a major local and international destination. The current proposal aims to continue this growth in a way that is financially and environmentally sustainable.

This report has been prepared in accordance with the Terms of Reference issued by Infinity Environmental on 13 March 2025. It forms part of the documentation required to support an application for environmental authorisation under the National Environmental Management Act (NEMA).

## 1.2 Development proposal

This assessment considers two alternatives:

- **Proposed development footprint with land reclamation and coastal public space (2023 Scheme, Preferred Alternative):** This alternative proposes to maximise development on the site and includes land reclamation to provide coastal protection, increase coastal public amenities and improve coastal access. It is understood that this alternative will encounter environmental impacts, specifically on marine habitats and species in and surrounding the site.
- **No-Development Alternative:** This represents the current state of the site, with no new construction or infrastructure changes (i.e., the status quo will remain). The site will continue to be utilised as a parking area, and the other activities currently taking place on site, including the Grand Café & Beach restaurant, and Oceana Power Boat Club slipway, will continue to operate, subject to their lease agreements and other approvals. It serves as the benchmark for assessing environmental impacts, including transport-related effects, in line with the NEMA and Integrated Coastal Management Act requirements.

Although the brief specifies that the No-Development Alternative be used for comparative purposes, this Traffic Specialist Study further benchmarks the 2023 Scheme against the findings of the 2015 *Granger Bay Phase 2 Transport Impact Assessment (TIA)* (GIBB, 2015) – included as **Appendix A**. This historic study included a full precinct-wide microsimulation and remains a technically valid basis for comparison given the modest background traffic growth since 2012 and the similarity in total development yield.

By comparing current traffic volumes against the 2012 baseline used in the 2015 TIA, and updating the trip generation estimate, this study demonstrates that the 2023 scheme is unlikely to impose new constraints or require road network upgrades. This approach is taken to ensure that the impacts of the new proposal remain within

acceptable limits that were already evaluated and approved under the previous scheme.

It is also noted that the V&A Waterfront undertook TIAs in May 2024 and June 2025 to assess the transport implications of an additional 440 000 m<sup>2</sup> of development rights across the broader Waterfront development area. In contrast, the current proposal is understood to fall within the **development rights already approved** under the V&A Waterfront's existing planning framework. In terms of the amended rezoning approval (City of Cape Town Case ID 1500109534 – **Appendix B**), the additional 440 000 m<sup>2</sup> of floor space may only be utilised once the existing approved bulk has been fully utilised.

The current proposal utilises approximately 78 000 m<sup>2</sup> of existing approved bulk rights and does not rely on any portion of the additional allocation. Accordingly, the transport-related conditions linked to the utilisation of the additional bulk are not triggered by the present application.

The application site is shown in **Figure 1.1** and **Figure 1.2** and land use in **Figure 1.3** and **Table 1.1**.

**Table 1.1: Land use**

| Land Use Type           | Quantity      | Measure                  |
|-------------------------|---------------|--------------------------|
| Residential             | 50 700        | m <sup>2</sup> GLA       |
| Cultural                | 1 200         | m <sup>2</sup> GLA       |
| Hotel                   | 11 400        | m <sup>2</sup> GLA       |
| Retail/Restaurant       | 6 200         | m <sup>2</sup> GLA       |
| Retail/Light Industrial | 8 500         | m <sup>2</sup> GLA       |
| <b>TOTAL</b>            | <b>78 000</b> | <b>m<sup>2</sup> GLA</b> |

Note:

1. The average residential unit size is approximately 100 m<sup>2</sup> GLA per unit
2. The V&A Waterfront definition of bulk is almost equivalent to the City of Cape Town definition of GLA and therefore for the purpose of this TIA, these figures have been used as equivalent.

### 1.3 Purpose of report

The purpose of this Traffic Specialist Study is to assess the likely transport impacts of the Proposed Development Scheme (2023) and determine whether these fall within the acceptable limits of prior assessments. The study is structured to:

- Confirm the suitability of the current road network to accommodate the proposed development;
- Compare the current development scenario to the No-Development Alternative (as required under NEMA); and
- Evaluate whether the 2023 Scheme imposes a greater or lesser traffic impact than the 2015 TIA, which modelled a similar level of development using 2012 background traffic.

This approach is technically justified based on the following:

- New intersection counts and parking data indicate only modest traffic growth ( $\leq 2.6\%$  per annum), with weekday peak volumes remaining below theoretical road capacity. Localised congestion may nevertheless occur due to the highly pedestrian-oriented environment.
- The road network configuration and modal split assumptions used in the 2015 microsimulation remain largely applicable.
- The development quantum and land use mix are consistent with the assumptions used in the 2015 study.

A new capacity analysis is therefore not required. The analysis confirms that the proposed development does not place greater strain on the network than what was already modelled, accepted, and approved under the 2015 scheme.



**LEGEND**

 Site Boundary

PROJECT  
**V&A Waterfront TIA**

Approved By  
**S. Kiewiet**

Date  
**October 2025**

DETAIL  
**Locality Plan**

Drawn By  
**E. Jacobs**

Project No.  
**P0256**





**LEGEND**

Site Boundary

PROJECT  
**V&A Waterfront TIA**

Approved By  
**S. Kiewiet**

Date  
**October 2025**

DETAIL  
**Aerial View**

Drawn By  
**E. Jacobs**

Project No.  
**P0256**



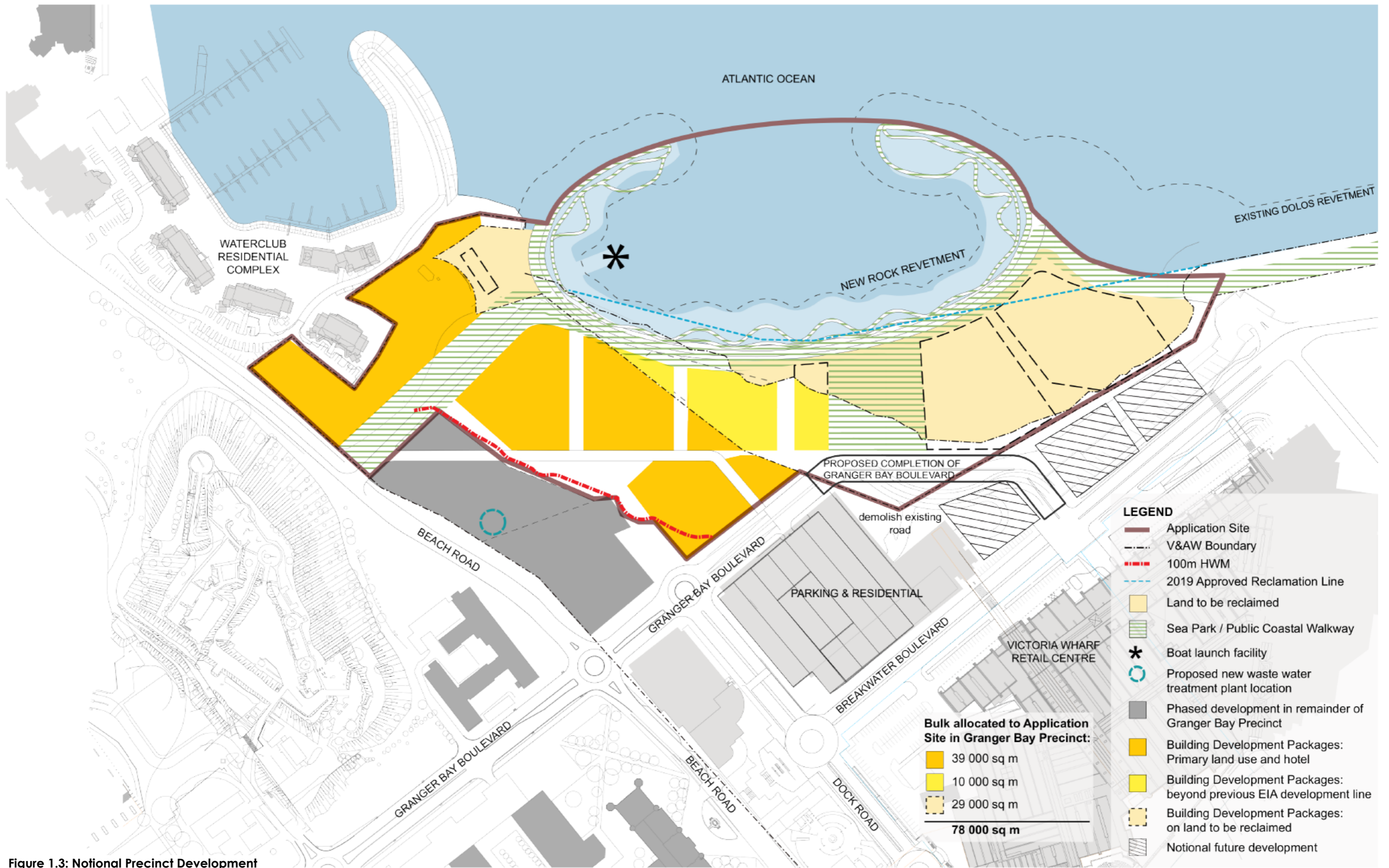


Figure 1.3: Notional Precinct Development



# V&AW GRANGER BAY PRECINCT

NOTIONAL PRECINCT DEVELOPMENT (AUGUST 2023)



DRAWING NO.  
1A/23/01



## 2 Overview of Transport Network

### 2.1 Roads

#### 2.1.1 Road Hierarchy and Classifications

The road network within and surrounding the Granger Bay Precinct is structured according to the City of Cape Town's 2017 Public Right of Way (PROW) classifications. These classifications are as follows and as shown in **Figure 2.1** below:

- **Class 2: Major Arterial**
  - Helen Suzman Boulevard (M6): This route serves as a primary east-west arterial, connecting the Cape Town Central Business District (CBD) to the Atlantic Seaboard and facilitating significant traffic volumes.
- **Class 3: Minor Arterial**
  - Somerset Road (M61): Functioning as a secondary arterial, Main Road links the CBD with surrounding suburbs, accommodating moderate traffic flows.
- **Class 4: Collector Roads**
  - Granger Boulevard
  - Dock Road
  - Beach Road
  - Portswood Road

These roads collect and distribute traffic between local streets and the arterial network, providing access to various precincts within the V&A Waterfront area.

- **Class 5: Local Streets**
  - Haul Road
  - South Arm Road
  - Granger Boulevard (east of Beach Road)

These streets primarily serve local traffic, providing direct access to adjacent properties and facilities.

#### 2.1.2 Planned Road Network Upgrades

Several road infrastructure upgrades have been proposed to enhance traffic flow and connectivity in the wider area (see **Figure 2.1**):

1. **Completion of the Foreshore Freeways:** This project involves extending the N1 highway to connect directly with Helen Suzman Boulevard, aiming to alleviate congestion at the Buitengracht Street intersections. The initiative has been under consideration for several decades, with various proposals submitted. However, as of now, no definitive plans or timelines have been established for its implementation.
2. **Widening of Somerset Road (M61):** Plans have been discussed to upgrade Main Road to a dual carriageway between Buitengracht Street and Ebenezer Road. This enhancement is intended to increase capacity and improve traffic flow. Similar to the Foreshore Freeways project, this upgrade remains in the proposal stage, with no confirmed schedule for execution.



PROJECT  
**V&A Waterfront TIA**

Approved By  
**S. Kiewiet**

Date  
**October 2025**

DETAIL  
**Road Network & Classification**

Drawn By  
**E. Jacobs**

Project No.  
**P0256**



It is important to note that while these upgrades are recognised in strategic planning documents, they are separate from any road improvements proposed as part of the current Granger Bay Precinct development. Any specific upgrades associated with the proposed development will be addressed in subsequent sections of this report.

## 2.2 Public transport

The V&A Waterfront and Granger Bay Precinct are directly served by several MyCiTi trunk and feeder routes, providing access to and from key areas across Cape Town. Additional routes on Somerset Road (closest stop being Upper Portswood) serve the Granger Bay side of the V&A, providing connectivity to Hout Bay, Camps Bay, Sea Point, Green Point and the CBD. The following routes currently operate to the Waterfront and along Somerset Road, as shown on the official MyCiTi map<sup>1</sup>:

Directly to/from V&A Waterfront:

- **Route T01:** *Dunoon – Table View – Civic Centre – Waterfront*: This is the primary trunk route linking West Coast Suburbs to the Waterfront via the Civic Centre, offering high-frequency service during peak times, and intermodally via Civic Centre-Cape Town Station.
- **Route D05:** *Dunoon – Parklands – Table View – Civic Centre – Waterfront*: This direct route serves commuters from the Parklands area with access to the CBD and the Waterfront.
- **Route 104:** *Sea Point – Waterfront – Civic Centre*: This loop route provides connectivity between Sea Point, the Waterfront, and central Cape Town, catering to both residents and visitors.
- **Route 113:** *Upper Kloof Street – Adderley – Waterfront*: This route provides a link between the City Bowl and the Waterfront via Adderley Street, offering an alternative for passengers in the Oranjezicht and Tamboerskloof areas.

Upper Portswood MyCiTi stop on Somerset Road, accessible via a 10-minute walk:

- **Route T02X:** *Atlantis – Table View – Civic Centre*: This express trunk route connects the West Coast suburbs with central Cape Town and continues along Somerset Road. While Green Point is not formally noted in the route name, it does extend into the area.
- **Route 108:** *Hangberg – Hout Bay Harbour – Sea Point – Adderley*: This service links Hout Bay and the Atlantic Seaboard with the CBD via Sea Point and Green Point.
- **Route 109:** *Hout Bay Beach – Imizamo Yethu – Sea Point – Adderley*: Operating along the same corridor as Route 108 through Camps Bay, Sea Point, and Green Point, this service also provides direct access to Upper Portswood and a short walk to Granger Bay.
- **Route 118:** *Hangberg – Imizamo Yethu – Sea Point – Adderley*: Supplementing Routes 108 and 109, this service links Hout Bay with Sea Point, Green Point, and the CBD.

---

<sup>1</sup> City of Cape Town. (2025). *MyCiTi Routes and Timetables*. Available at: <https://www.myciti.org.za/en/routes/> [Accessed 17 June 2025].

These services offer reliable coverage with frequencies suited to both peak and off-peak periods. All four routes terminate or pass through dedicated MyCiTi stops and stations located at or near the V&A Waterfront and Granger Bay, facilitating easy access for commuters, visitors, and employees working within the precinct.



**Figure 2.2: MyCiTi Routes**

In addition to the MyCiTi services, minibus taxis operate along Main Road (M61) and Helen Suzman Boulevard (M6) as seen in **Figure 2.3** below, providing informal yet widely used transport options. While these services are less regulated, they offer flexible routing and frequent departures, catering to a significant portion of daily commuters.

Private shuttle services (including hotel shuttle services), traditional metered-taxis, and e-hailing platforms like Uber and Bolt also operate in the area, offering alternative transport options for residents and visitors.

The Granger Bay Precinct benefits from well-maintained pedestrian pathways and cycling infrastructure that support non-motorised transport modes. The Urban Design Guidelines for the area place strong emphasis on pedestrian-oriented environments and the provision of non-motorised transport facilities, ensuring that this pattern of urban mobility will continue to be supported and enhanced through future development.

The existing public transport infrastructure, particularly the MyCiTi BRT system, provides a robust framework to accommodate the anticipated increase in travel demand resulting from the proposed development. The availability of multiple transport options ensures that the precinct remains accessible and can support the projected growth without significant strain on the existing network.



**LEGEND**

- Site Boundary
- MBT Routes
- GABS Routes
- MyCiti Routes

PROJECT  
**V&A Waterfront TIA**

Approved By  
**S. Kiewiet**

Date  
**October 2025**

DETAIL  
**Public Transport Routes**

Drawn By  
**E. Jacobs**

Project No.  
**P0256**



## 2.3 Pedestrians and cycling

### 2.3.1 Pedestrian Infrastructure

The V&A Waterfront precinct benefits from an extensive and well-developed pedestrian environment. Pedestrian movement has historically been prioritised in the design of public spaces, with the V&A Waterfront establishing itself as one of Cape Town's most walkable mixed-use precincts. Sidewalks along major internal streets such as Dock Road and Granger Bay Boulevard are wide and surfaced, with formal crossings at key junctions.

A key feature is the coastal boardwalk, which connects the Mouille Point Promenade with the broader V&A Waterfront development area. This walkway runs along the shoreline and provides both recreational and commuter access for pedestrians. The boardwalk forms part of a continuous non-motorised transport (NMT) corridor and enhances public access to the seafront — a core objective of both City and V&A Waterfront spatial policies.

### 2.3.2 Cycling Infrastructure

Cycling infrastructure within the Granger Bay precinct includes a range of existing and planned facilities that collectively establish a functional local network, though some improvements in connectivity remain desirable. These facilities are classified using the City of Cape Town's definitions for cycle routes and shared pedestrian-cycle ways, summarised below:

Cycle Facilities:

- Class 1: An exclusive cycle way that follows an independent alignment not associated with a road.
- Class 2: An exclusive cycle way within the road reserve, physically separated from traffic.
- Class 3: A cycle route located within the road carriageway, demarcated by exclusive bicycle lane markings.
- Class 4: A route without an exclusive use area, but with applicable signage provided.

Shared Pedestrian–Cycle Facilities:

- Shared Class 1: An off-street shared facility on an alignment independent of any road, with no separation between pedestrian and cycle use.
- Shared Class 2: An on-road shared facility within the road reserve but physically separated from traffic, again with no separation between pedestrian and cycle use.

The classification of existing and planned facilities in and around the Granger Bay precinct is as follows:

- Shared Class 1 (existing): A shared off-road pedestrian-cycle facility runs beneath the Green Point Traffic Circle, connecting through to the Sea Point

Promenade. This facility provides a traffic-free link along the coastline and forms part of the area's major recreational NMT spine.

- Shared Class 2 (existing): Somerset Road and Granger Bay Boulevard both accommodate shared pedestrian-cycle paths within the road reserve, separated from vehicle lanes by kerbing and verge space. These routes offer key east-west and north-south links between the CBD, Green Point, and Granger Bay.
- Class 3 Cycle Facility (existing): Dock Road, a key internal spine route, includes a marked on-road cycle facility. This Class 3 cycle route provides access between the Canal District, Silo Precinct, and Granger Bay Boulevard, supporting direct movement by bicycle within the precinct.
- Class 2 Cycle Facility (required)<sup>2</sup>: A dedicated cycle route is proposed along Beach Road, physically separated from vehicular traffic. The facility forms part of the non-motorised transport improvements required as a condition of development approval (see **Appendix B**) and will enhance connectivity between Mouille Point, the Promenade and the Granger Bay beachfront, providing an important missing link in the broader coastal cycling network.

Taken together, these facilities create a multi-directional NMT network.

---

<sup>2</sup> City of Cape Town, 2022. *Standards and Guidelines for Roads & Stormwater – Version 3.0*. Available at [https://resource.capetown.gov.za/documentcentre/Documents/Procedures%2C%20guidelines%20and%20regulations/Standards\\_Guidelines\\_RSW.pdf](https://resource.capetown.gov.za/documentcentre/Documents/Procedures%2C%20guidelines%20and%20regulations/Standards_Guidelines_RSW.pdf)

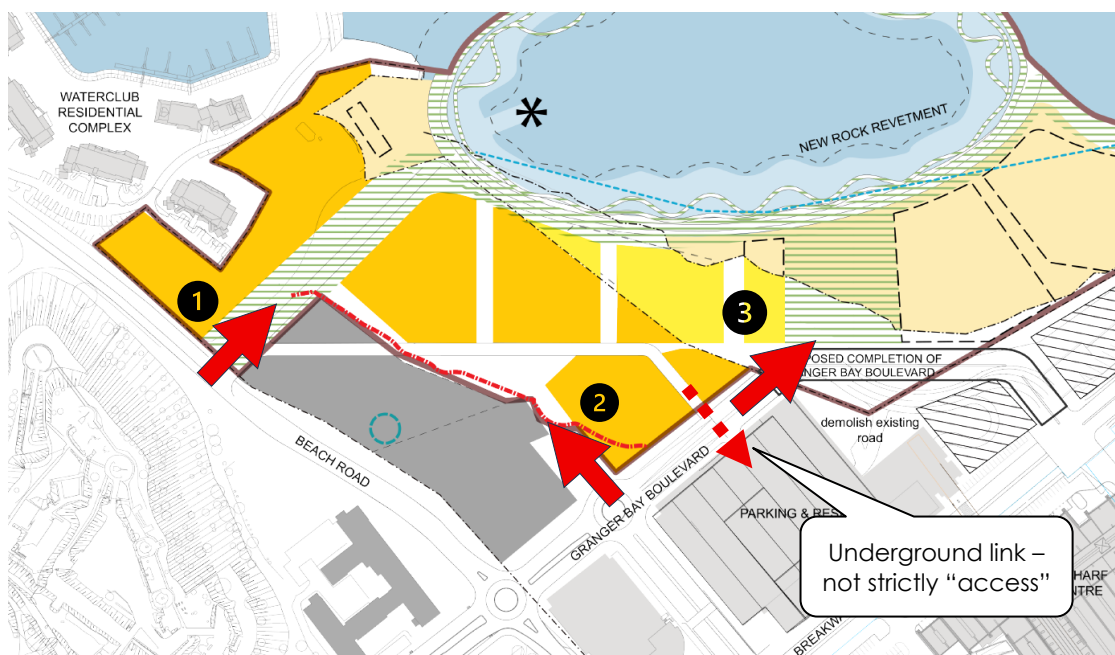
# 3 Impact of Proposed Development

## 3.1 Vehicular access

### 3.1.1 Access positions

The subject site is accessible via a network of primary and secondary roads that serve both development parcels and broader V&A Waterfront circulation. According to the 2015 TIA (GIBB), three primary access points are provided to the site:

- **Access Point 1:** Off Beach Road (Class 4)
- **Access Point 2:** Granger Bay Boulevard roundabout
- **Access Point 3:** Primary Granger Bay Boulevard ingress



**Figure 3.1: Access Points**

In addition, several minor internal access points will serve individual land parcels via Haul Road and newly realigned internal roads, all classified as Class 5 roads.

### 3.1.2 Spacing

As the site design has progressed, a reassessment of access provision was undertaken using the Western Cape Government's Access Management Guidelines (AMG, 2020). **Table 3.1** presents the required minimum access spacing distances for signalised intersections, unsignalised intersections, and driveways relevant to each road classification.

**Table 3.1: Minimum Access Spacing Requirements (per AMG 2020)**

| Road Class | Road Segment                        | Intersection Type                         | Minimum Spacing (m) |
|------------|-------------------------------------|---|---------------------|
| Class 4    | Beach Road, Granger Bay Blvd (part) | Signalised Full Intersection / Roundabout | 120                 |
|            |                                     | Unsignalised Full Intersection            | 120                 |
|            |                                     | High-Volume Driveway                      | 80                  |
|            |                                     | Low-Volume Driveway                       | 80                  |
| Class 5    | Haul Road & Internal Roads          | Signalised Full Intersection / Roundabout | 110                 |
|            | Granger Bay Blvd (internal portion) | Signalised Full Intersection / Roundabout | 75                  |
|            |                                     | High-Volume Driveway                      | 25                  |
|            |                                     | Low-Volume Driveway                       | 25                  |

Preliminary layout assessments indicate that the proposed access arrangement is broadly compliant with the AMG 2020.

- **Beach Road (Class 4)**
  - *Granger Bay Boulevard Roundabout to Access Point 1: ±215 m →*  
Complies with minimum 120 m requirement
  
- **Granger Bay Boulevard (Class 4 and 5)**
  - *Class 4 segment (Beach Road to the first internal roundabout):*
    - Roundabout to roundabout spacing: ±75 m → Does not comply with the 120 m minimum for signalised full intersections
    - The reduced spacing reflects an existing built condition. Given current low approach speeds and operational conditions, the existing layout is considered acceptable. Should future traffic growth necessitate intervention, signalisation and coordination or synchronisation between the two intersections may be considered. Alternatively, operational refinements to the roundabout configuration, including the potential removal of an access leg, could be considered to reduce conflict movements and improve intersection performance.
  - *Class 5 segment (internal portion serving Access Points 2 and 3):*
    - Not applicable for spacing assessment as accesses do not form part of formal intersections. These will be assessed as part of internal access management at detailed design stage.

Where minor deviations may arise for low-volume internal accesses, these will be addressed through context-specific design responses and detailed review during Site Development Plan (SDP) processes.

Overall, no adverse traffic impacts are anticipated with respect to spacing adequacy.

### 3.1.3 Shoulder sight distance

All proposed access points must comply with the minimum sight triangle requirements as set out in the City of Cape Town's *Standards and Guidelines for Roads and Stormwater* (Version 3.0, Feb 2022). Based on the nature and location of the development, the applicable category is "Central and suburban/regional business areas." The corresponding sight triangle dimensions are provided in the table below:

**Table 3-14: Recommended Sight Triangle dimensions for Industrial/Commercial Developments**

| Type of Development   | Dimensions (m) |    |              |    |
|---|----------------|----|--------------|----|
|   | Yield Control  |    | Stop Control |    |
|   | X              | Y  | X            | Y  |
| Regional shopping centre/single site commercial development | 9              | 55 | 2.4          | 45 |
| Industrial townships/parks                                  | 9              | 90 | 4.5          | 90 |
| Office/science parks  | 9              | 55 | 2.4          | 45 |
| Truck parks/transhipment centres/warehousing                | 9              | 75 | 4.5          | 55 |
| Exhibition centres/theme parks/sports centres and stadia    | 9              | 55 | 2.4          | 45 |
| Central and suburban/regional business areas                | 9              | 55 | 2.4          | 45 |

**Note:** The X-distance refers to the setback along the minor road (measured from the edge of the major road), and the Y-distance represents the length along the major road that must remain unobstructed to ensure adequate visibility.

Any accesses points along Beach Road, Granger Bay Boulevard, and internal Class 5 roads (including Haul Road) will be required to demonstrate compliance with the above, depending on the form of traffic control applied. Stop-controlled intersections are expected to comply with the 2.4 m × 45 m sight triangle dimensions, while yield-controlled accesses and driveways should provide the more conservative 9.0 m × 55 m clear zone where feasible.

All access points are expected to meet the relevant sight distance requirements, subject to SDP-level design. It will be necessary to ensure that sight triangles are kept free of obstructions such as landscaping, or boundary walls. No sight distance-related impacts are anticipated.

### 3.1.4 Stacking space

There will be no access control measures (e.g. boom gates) along external public roads, thereby allowing for uninterrupted flow into and out of the precinct. Instead, access control will be applied at the entrances to individual buildings and structured parking garages, where relevant.

The adequacy of stacking space and entry lanes at these internal access points must be demonstrated through detailed queueing assessments. These assessments should be conducted using the methodology outlined in the Committee of Transport Officials (COTO) *TMH 16 Volume 2: South African Traffic Impact and Site Traffic Assessment Standards and Requirements Manual* (Version 1.01, February 2014) which provides guidance for calculating 90<sup>th</sup>-percentile queues based on site-specific arrival patterns and control types (service flow rates).

No stacking-related concerns are anticipated on the external road network, provided that internal access control points are set back sufficiently (or additional ingress lanes provided) and designed in accordance with the above. Queueing requirements should be addressed at the design stage for each individual site.

## **3.2 Parking**

### **3.2.1 Off-street parking**




The site falls within a designated Public Transport (PT) 2 area, as identified in the *City of Cape Town Municipal Planning By-Law, 2015* (MPBL 2015, as amended). PT areas are zones in which public transport accessibility is prioritised, and where reduced off-street parking requirements are deemed appropriate in support of sustainable urban mobility objectives. According to Section 137 of Chapter 15 of the By-Law, PT2 areas are defined as:

“Areas where the use of public transport is promoted, and the City considers the provision of public transport good, or where the use of motor vehicles is very limited.”

The PT2 classification for the Granger Bay precinct is confirmed by the City and reflected in its demarcated plans (see **Figure 3.2**). Within PT2 areas, no minimum off-street parking is required for the vast majority of land uses, including retail, office, residential, and hospitality uses. This is clearly outlined in the Minimum Off-Street Parking Requirements table under the By-Law, which prescribes nil requirements across all listed land uses in PT2 zones, unless otherwise specified.



**LEGEND**

-  Site Boundary
-  Parking\_PT1 Zone
-  Parking\_PT2 Zone

PROJECT  
**V&A Waterfront TIA**

Approved By  
**S. Kiewiet**

Date  
**October 2025**

DETAIL  
**Parking\_Public Transport Zone**

Drawn By  
**E. Jacobs**

Project No.  
**P0256**



Given the precinct's location and integration with high-quality public transport services, most notably the MyCiTi network, the application of the current PT2 parking standards is appropriate. The nil-parking requirement provides the flexibility for the development to be market-driven in its parking provision, enabling optimisation based on tenant demands and development typologies, rather than regulatory minimums.

The previous 2015 TIA (GIBB) applied the minimum off-street parking requirements set out in the City of Cape Town Zoning Scheme (November 2012). At the time, the site was classified within a PT2 area, although the current nil parking requirements had not yet been introduced. The resulting parking provision reflected the zoning requirements applicable at the time. These ratios are no longer applicable under the current Development Management Scheme (DMS).

The Granger Bay Precinct is a key component of the broader V&A Waterfront, forming part of an interconnected, mixed-use urban node. The precincts are well-linked via internal roads and pedestrian routes, with short walking distances between destinations. Parking is managed at a precinct-wide level rather than on a site-by-site basis, allowing Granger Bay to utilise shared structured parking and on-street facilities. This is well-suited to a mixed-use environment, where land uses with different peak demand periods, such as residential, office, and retail, can share parking efficiently.

Provision must also be made for accessible parking bays for use by persons with physical disabilities. These bays must be provided in accordance with the MPBL, which prescribes the minimum number and design standards for physically disabled accessible parking. While specific bay quantities will be confirmed during the design stage, the required rates must align with the thresholds indicated in **Table 3.2**, and design specifications must comply with the dimensional, locational, and signage criteria outlined in Section 142 of the By-Law.

**Table 3.2: Physically disabled accessible parking**

| Total no of parking bays                      | Required number of bays accessible to the physically disabled |
|---|---|
| 1-50  | 1   |
| 51-100  | 2   |
| 101-150                                       | 3   |
| 151-200                                       | 4   |
| For every additional 100 bays or part thereof | 1 additional parking bay                                      |

### 3.2.2 Internal geometry

Parking layout design must comply with the City's Standards and Guidelines for Roads & Stormwater. These guidelines prescribe the minimum dimensions for perpendicular, angled, and parallel parking bays to ensure safe, accessible, and functional parking facilities.

For perpendicular and angled parking, the following minimum dimensions apply:

**Table 3.3: City of Cape Town Parking Standards - Parking Bay Dimensions**

| PARKING ANGLE       | BAY DEPTH L.P. | BAY WIDTH PUBLIC & PRIVATE W | BAY WIDTH SUB-STANDARDS W(PRIVATE ONLY) | END BAY WIDTH PUBLIC & PRIVATE EBW | END BAY WIDTH SUB-STANDARD | AISLE WIDTHS     |               |
|---------------------|----------------|------------------------------|---|------------------------------------|----------------------------|------------------|---------------|
|                     |                |                              |   |                                    |                            | 20 BAYS REQUIRED |               |
|                     |                |                              |   |                                    |                            | 2 WAY            | 1 WAY         |
| 90                  | 5.0            | 2.5                          | 2.4                                     | 2.9                                | 2.8                        | 7.5 (7.0 min)    | 7.5 (7.0 min) |
| 60 non-interlocking | 5.3            | 2.5                          | 2.5                                     | 2.9                                |                            | 5.4 (5.2 min)    | 4.4           |
| 60 interlocking     | 5.3            | 2.5                          | 2.5                                     | 2.9                                |                            | 5.4              | 4.4           |
| 45 non-interlocking | 4.9            | 2.5                          | 2.5                                     | 2.9                                |                            | 5.2              | 4.4           |
| 45 interlocking     | 4.9            | 2.5                          | 2.5                                     | 2.9                                |                            | 5.2              | 4.4           |

For parallel parking, the standard dimensions are:

- Bay length: 6.0 m
- Bay width: 2.2 m to 2.5 m
- End bay length: 6.0 m

In the case of kerb-side embayments, a bay length of 6.0 m is also required. Where bays are adjacent to motorcycle bays or constrained edges, the length may be increased to 6.6 m to accommodate manoeuvrability.

Compliance with the above standards must be demonstrated during the building plan application stage. At that point, it will be the designer's responsibility to ensure that the parking layouts accommodate the minimum dimensional requirements, including the swept paths and turning movements of the applicable design vehicle. Where appropriate, departures from these standards may be considered, subject to demonstration that the layout remains operationally safe and acceptable to the City.

### 3.3 Vehicular traffic and network performance

#### 3.3.1 Background Link Volume Growth (2012–2023)

This section evaluates the impact of the proposed Granger Bay development by comparing current baseline traffic volumes and trip generation with those documented in the previously approved 2015 TIA (GIBB). Although the TIA was finalised in that year, it assessed development impacts using a 2012 base year traffic scenario. To maintain consistency, comparisons in this section refer to 2012 as the baseline traffic year, while citing the 2015 TIA as the relevant source of analysis.

The 2015 TIA took a cumulative view, assessing the combined impact of full build-out of the V&A Waterfront precinct. The purpose of this current analysis is to determine whether any changes in background traffic levels or land use since 2012 have occurred that would require updated mitigation measures or road network interventions.

Recent and historical traffic data were obtained from the V&A Waterfront's parking management system, project-specific intersection counts, and the 2015 TIA. These

sources allow for a comparison of peak hour volumes over time, with a focus on four key road segments:

- Breakwater Boulevard
- Dock Road
- Portswood Road
- Beach Road

Peak hour volumes are presented for the AM peak (08:00–09:00) and PM peak (17:30–18:30) to align directly with the previous assessment periods used in the 2015 TIA, allowing for a like-for-like comparison. The “V&A Parking Management System: vehicle entry and exit data” for Tuesday, 5 September 2023 was used to obtain link traffic volumes.

The comparison with 2012 volumes is summarised in **Table 3.4**.

**Table 3.4: Growth in AM and PM Peak Hour Volumes (2012–2023)**

| Road Segment                       | AM Peak 2023 | AM Peak 2012 | PM Peak 2023 | PM Peak 2012 |
|------------------------------------|--------------|--------------|--------------|--------------|
| Dock Rd (to Portswood)             | 604          | 438          | 1 226        | 784          |
| Portswood Rd (to Somerset)         | 482          | 511          | 927          | 578          |
| Beach Rd (to Breakwater)           | 379          | 540          | 635          | 829          |
| Breakwater Blvd (to Beach)         | 246          | 147          | 704          | 453          |
| <b>TOTAL</b>                       | <b>1 711</b> | <b>1 636</b> | <b>3 492</b> | <b>2 644</b> |
| <b>Compound Annual Growth Rate</b> | <b>0.41%</b> | <b>-</b>     | <b>2.56%</b> | <b>-</b>     |

The PM peak shows a cumulative increase of ~850 vehicles/hour across the study links, corresponding to a compound annual growth rate (CAGR) of 2.56%. AM peak growth is minimal, at just 0.41% per annum. According to COTO TMH 17: *South African Trip Data Manual* (COTO TMH 17, 2013), Table 6.1.1, this falls within the 0–3% “low growth” band, which typically does not necessitate new road upgrades unless linked to congestion or safety concerns.

Despite additional development (e.g., Oranjezicht Market, expanded structured parking), the observed traffic growth remains modest. COTO guidelines also state that urban arterial lanes under interrupted flow conditions can typically handle 1,200–1,400 vehicles/hour/lane. The highest directional flow recorded (772 vehicles/hour on Dock Road in the 2023 PM peak) remains well within these conservative thresholds.

This confirms that current external volumes are still within the operational limits of the road network. While PM growth is evident, the system overall is operating comfortably, and no further geometric upgrades or mitigation measures are required at this time.

### 3.3.2 Total traffic scenarios

The 2015 TIA modelled cumulative impact scenarios for the entire V&A Waterfront development area using a microsimulation model (Paramics), based on:

- 2012 Background Traffic (Base Year)
- 2026 Completion of Approved Rights (including the Granger Bay Phase 1 & 2)

Inputs included observed volumes, a 40:60 private/public transport modal split, intersection control, and internal street operations. Results indicated that, even under full-build conditions, the network generally operated within capacity, with localised constraints on Dock Road approaching the CBD.

Trip generation rates were custom-developed for the V&A Waterfront and calibrated using 2011–2012 counts. For consistency, the current assessment compares those rates with updated COTO TMH 17 rates, which are also rooted in 2012-era survey data. This enables a like-for-like evaluation of future demand – see **Table 3.5** overleaf.

Trip reduction factors from COTO TMH 17 (Section 4.7, Table 3.2) were applied to the corresponding base trip generation rates, accounting for low vehicle ownership, good public transport access, and internal trip potential from mixed land use. The combined reduction factor (PC) was calculated from the applicable individual reductions in accordance with the TMH 17 formula:

- **P<sub>M</sub>** (Mixed-use development): All assessed land uses form part of a dense, integrated mixed-use node with high internal trip capture due to the close proximity of residential, retail, office and hospitality functions.
- **P<sub>T</sub>** (Transit accessibility): The V&A Waterfront has its own MyCiTi station with trunk and feeder connections and excellent pedestrian links to Cape Town Station via the Buitengracht Street footbridge.
- **P<sub>V</sub>** (Vehicle ownership): Although typically applied to low-ownership areas, this factor is appropriate for both residential and hotel uses:
  - **Residential:** The units form part of a "work-live-play" environment within Cape Town's central city, surrounded by employment, services and leisure destinations. Despite residents potentially owning vehicles, many can choose non-motorised modes, public transport for daily commuting, and in future initiatives like the V&A Waterfront's micromobility services (e.g. e-tuk-tuks) reducing reliance on private cars for short-distance intra-city travel.
  - **Hotel:** The widespread uptake of e-hailing services in Cape Town has significantly reduced the need for on-site hotel parking, particularly in the CBD and Waterfront. Many recent hotels have been developed with little or no parking provision, with guests instead arriving via Uber, Bolt, or transfers.

The results show that total AM and PM trip generation estimates are similar or slightly lower than in the 2015 TIA:

- AM peak: no net increase in vehicle trips
- PM peak: current proposal generates 73 fewer trips than previously approved (COTO vs. V&A Waterfront rates)

This appears to be a result of changes in land use mix. For example, with offices now excluded and their GLA reallocated primarily to residential, retail and leisure uses, the latter two generate few AM peak trips: retail activity increases mainly from midday onwards, while leisure uses typically have low trip generation overall. This results in a lower total AM peak trip rate compared with the previously assessed mixed-use

scheme. The mitigation measures identified in the 2015 TIA, including internal circulation and access control, therefore remain appropriate, with no additional off-site upgrades required. The proposal also remains within the development envelope previously assessed under the "2026 Completion of Approved Rights" scenario in the 2015 TIA.

It is also noted that the increased residential component, and corresponding reduction of commercial floor space, is inherently mitigatory: residential development generates fewer inbound trips during the AM peak and contributes to a more balanced land-use mix within the V&A Waterfront, increasing internal trips and reduced external peak-hour demand.

**Table 3.5: Comparative Trip Generation – Previous vs Current Proposal**

| Land Use Type           | Quantity | Type               | Converted Quantity | Type    | Rate Difference |      |      |      | Trip Estimate |       | Trip Estimate    |            |                 |            |
|-------------------------|----------|--------------------|--------------------|---------|-----------------|------|------|------|---------------|-------|------------------|------------|-----------------|------------|
|                         |          |                    |                    |         | VAW             |      | COTO |      | COTO-VAW      |       | using COTO Rates |            | using VAW Rates |            |
|                         |          |                    |                    |         | AM              | PM   | AM   | PM   | AM            | PM    | AM               | PM         | AM              | PM         |
| Residential             | 50,700   | m <sup>2</sup> GLA | 500                | Units   | 0.33            | 0.33 | 0.40 | 0.40 | 0.07          | 0.07  | 200              | 200        | 165             | 165        |
| Cultural                | 1,200    | m <sup>2</sup> GLA | 514                | Persons | 0.10            | 0.40 | 0.04 | 0.04 | -0.06         | -0.36 | 20               | 20         | 11              | 5          |
| Hotel                   | 11,400   | m <sup>2</sup> GLA | 125                | Rooms   | 0.27            | 0.27 | 0.24 | 0.24 | -0.03         | -0.03 | 30               | 30         | 34              | 34         |
| Retail/Restaurant       | 6,200    | m <sup>2</sup> GLA | -                  | -       | 0.13            | 1.33 | 0.46 | 2.60 | 0.33          | 1.27  | 28               | 161        | 8               | 82         |
| Retail/Light Industrial | 8,500    | m <sup>2</sup> GLA | -                  | -       | 0.50            | 0.50 | 0.48 | 0.48 | -0.02         | -0.02 | 41               | 41         | 43              | 43         |
| <b>TOTAL (2025 TIA)</b> |          |                    |                    |         |                 |      |      |      |               |       | <b>319</b>       | <b>451</b> | <b>261</b>      | <b>329</b> |
| <b>TOTAL (2015 TIA)</b> |          |                    |                    |         |                 |      |      |      |               |       | <b>318</b>       | <b>402</b> | <b>318</b>      | <b>402</b> |
| <b>DIFFERENCE</b>       |          |                    |                    |         |                 |      |      |      |               |       | <b>1</b>         | <b>49</b>  | <b>-57</b>      | <b>-73</b> |

Notes:

- Retail/Restaurant: Shopping centre trip rates were applied with no size adjustment factor, as the retail component is primarily intended to serve convenience demand within the V&A Waterfront and Granger Bay area. As such, a proportion of trips is expected to be internally captured from residents, hotel guests and visitors already present within the precinct.
- Retail/Light industrial: Light manufacturing rate used
- Place of Worship: considered closest land use representing "cultural". Other uses such as conference centre or amusement parks will likely over-estimate the trip generation. 60% assumed to be occupiable space, and 1.4 m<sup>2</sup> per seat.
- Hotel use: approximately 35% of total hotel GLA was assumed to be attributable to guest rooms, with the balance accommodating circulation, services and ancillary facilities. This equates to approximately 3 990 m<sup>2</sup> of room area, corresponding to ±125 rooms based on an average room size of approximately 32 m<sup>2</sup>. The proportion of GLA attributable to rooms can vary depending on hotel layout and amenities, but the assumption adopted is considered reasonable for trip generation estimation purposes.

**Table 3.6: Trip reduction factors used**

| Land Use Type           | P <sub>M</sub> | P <sub>I</sub> | P <sub>V</sub> | P <sub>C</sub> |
|-------------------------|----------------|----------------|----------------|----------------|
| Residential             | 15%            | 15%            | 15%            | <b>39%</b>     |
| Cultural                | 10%            | 15%            | -              | <b>24%</b>     |
| Hotel                   | 20%            | 15%            | 30%            | <b>52%</b>     |
| Retail/Restaurant       | 10%            | 15%            | -              | <b>24%</b>     |
| Retail/Light Industrial | 5%             | 15%            | -              | <b>19%</b>     |

### 3.4 Public Transport Accessibility

The MyCiTi system is well-established and integrated into the Granger Bay precinct, providing a high level of accessibility for both residents and visitors. The area is served by a network of high-capacity closed stations and kerbside stops, including Waterfront Station, Breakwater stops, Somerset stops, Granger Bay stops, Granger stops, and Portswood stops, all located within the precinct or a short walking distance thereof – see **Figure 3.3**.

The integration of these services directly supports the viability and sustainability of the MyCiTi system, which is predicated on the presence of high-density, mixed-use development nodes along its trunk and feeder corridors. The Granger Bay precinct represents such a node, comprising a mix of residential, hotel, retail, and cultural uses within a compact and walkable urban structure.

In this context, the proposed development not only benefits from existing public transport accessibility but also contributes to the long-term resilience of the MyCiTi system. As with other parts of the city, it is expected that the system will continue to evolve in response to increasing demand. This may include operational adjustments such as higher peak hour frequencies, modifications to station layouts or capacities, or the introduction of new stops and service branches to reflect shifting movement patterns.

No off-site mitigation is considered necessary at this stage. Nonetheless, continued engagement with the City of Cape Town's transport directorate is recommended to ensure that demand generated by the development is appropriately accounted for in future service planning and infrastructure investment.



PROJECT  
**V&A Waterfront TIA**

Approved By  
**S. Kiewiet**

Date  
**October 2025**

DETAIL  
**MyCiTi Bus Stops**

Drawn By  
**E. Jacobs**

Project No.  
**P0256**



### 3.5 Pedestrians and Cycling

The Granger Bay precinct benefits from a strong pedestrian network anchored by wide sidewalks, clear desire line connections, and public realm investments such as the waterfront boardwalk. The boardwalk provides an attractive and accessible coastal pedestrian route and enhances connectivity between the V&A Waterfront and Mouille Point. Sidewalks in the area are generally surfaced and well-defined, although future detailed design should ensure they are wide enough to support an adequate pedestrian Level of Service (LOS), particularly in higher-traffic areas.

Provisions for pedestrian priority should be extended in the precinct's future street design. Shared pedestrian–vehicular environments (similar to other existing areas of the V&A Waterfront) can be introduced where low-speed vehicular movement coincides with high pedestrian activity. Crossings should be aligned with established desire lines and, at high-volume locations, signalised or grade-separated crossings may be required. These measures should be embedded in all planning and carried through to road and precinct designs.

For cyclists, there is currently partial provision in the form of dedicated lanes along Dock Road. However, these facilities are approximately 0.9 m wide—below the minimum width recommended in national guidelines (typically 1.2 m for a dedicated one-way cycle lane). The City of Cape Town's *2017 Cycling Strategy* identifies the V&A Waterfront as a key mixed-use precinct where commuter and recreational cycling should be actively supported through network expansion and upgraded infrastructure.

To support a meaningful modal shift away from private vehicles, future street designs should accommodate safer and more visible cycling routes. These should ideally be protected or physically separated from general traffic and extended to connect seamlessly with the broader cycling network, including access routes along Granger Bay Boulevard and Dock Road. In addition, secure bicycle parking should be provided near residential entrances, hotels, retail clusters, and public transport nodes.

Recommendations for implementation include the following: widening existing substandard cycle lanes closer to standard widths (feasibility to be tested) with clear demarcation; ensuring continuity of cycle paths across intersections; and integrating end-of-trip facilities into building and precinct planning. These interventions will significantly strengthen the precinct's ability to accommodate and encourage cycling as a viable, everyday mode of travel.

### 3.6 Impact Ratings

This section applies the NEMA impact-rating framework - Extent, Duration, Intensity, Probability, Degree of Confidence, Status and Significance (without and with mitigation) - to the transport impacts identified in **Sections 3.1–3.5**. Noise, emissions, job creation, dust and other non-transport matters lie outside the author's specialist scope and are not assessed here.

### 3.6.1 Construction-phase Impacts

Construction activities (earthworks, structure installation and utility diversions) will generate elevated truck and workforce-vehicle movements along some of the roads described in **Section 3.2**. This study provides only a high-level overview of those traffic effects. A detailed Traffic Management Plan (TMP) covering site access, hoarding, sequencing of works, traffic controls, safety protocols, dust suppression and stakeholder communications must be prepared prior to the completion of the detailed design stage<sup>3</sup> in accordance with municipal requirements.

Construction and reclamation will generate sustained heavy-vehicle movements associated with the importation of approximately 351 000 t ( $\approx 125\ 000\ \text{m}^3$ ) of rock material to the site over a two-year period. Based on input from the project civil engineers (Nadeson, September 2025), this equates to about 16 700 truckloads, averaging 35 loaded trips per day, or 4–6 trucks per hour during active daytime haulage.

Most material is expected to be hauled from Dorstberg and other quarries via Contermans Kloof → N7 → N1 → Buitengracht (M62) → Helen Suzman Blvd (M6) → Granger Bay Boulevard. Construction activity will likely be confined to standard daytime hours, with deliveries restricted during commuter peaks. A detailed Traffic Management Plan (TMP) will prescribe specific controls for scheduling, haul-route maintenance, signage and coordination with the MyCiTi Operations team and the City's Urban Mobility Directorate. The final haul routes will be confirmed as part of the TMP process, which will include engagement with the relevant City departments and affected stakeholders in accordance with the City's procedures for managing temporary road closures and traffic impacts.

#### **Key mitigation measures (to be expanded in the TMP):**

- Off-peak scheduling of heavy-vehicle movements.
- Advance public notice of road, lane or shoulder closures, with on-site flagmen, barriers and signage compliant with Southern African Road Traffic Signs Manual (SARTSM).
- Site traffic-management plan with qualified marshals
- Early liaison with MyCiTi operations to phase any temporary stop or route restrictions and obtain route deviations.
- Wheel-wash bays and routine road-sweeping to prevent debris spillage.
- Condition checks of Granger Bay Boulevard and adjacent intersections along well-used haul routes.
- Stakeholder notifications and information boards within the Waterfront precinct.

---

<sup>3</sup> City of Cape Town, Standards and Guidelines, Chapter 18, "Approval of Detailed Engineering Drawings"

**Table 3.7: Impact: Construction Phase**

| Impact Sub-category                   | Extent             | Duration                       | Intensity | Probability | Confidence | Significance (W/O Mitigation) | Significance (With Mitigation) | Notes   |
|---------------------------------------|--------------------|--------------------------------|-----------|-------------|------------|-------------------------------|--------------------------------|---|
| Traffic volumes (trucks & staff cars) | Regional and Local | Short-term (≈ 24 mo)           | High      | Definite    | High       | High                          | Medium                         | ≈ 35 loaded trucks/day (≈ 70 movements); off-peak scheduling over two years             |
| Pavement wear & dust                  | Local              | Short-term                     | Medium    | Probable    | Medium     | Medium                        | Low                            | Wheel-wash bays, haul-route maintenance, dust suppression                               |
| Safety (workers & public)             | Local              | Short-term                     | High      | Possible    | Medium     | High                          | Medium                         | Marshals, flagmen, segregated walkways, TMP enforcement                                 |
| Temporary closures & diversions       | Local / Phased     | Temporary (≤ 1 wk per section) | High      | Definite    | High       | High                          | Low                            | Signed detours, advance public notices, MyCiti coordination, night works where feasible |

### 3.6.2 Operational-phase Impacts

Once occupied (**Section 3.3**), the development will add approximately 830 inbound vehicles in the AM peak and 740 in the PM peak across Beach Road, Granger Bay Boulevard, and Dock Road. Intense investment in Travel Demand Management (TDM) will be undertaken and internally, Granger Bay Boulevard Extension will be constructed as a four-lane divided (dual-carriageway) road to maintain capacity within the precinct.

Key mitigation measures:

- Granger Bay Boulevard Extension as a dual carriageway
- Internal road geometry to City guidelines (access spacing, aisle widths)
- Cycle/pedestrian network throughout the precinct
- Promote TDM (park-and-ride, rail/bus feeders, micromobility, inclusionary housing incentives)

**Table 3.8: Impact: Operational Phase**

| Impact Sub-category                   | Extent     | Duration  | Intensity | Probability | Confidence | Significance (W/O Mitigation) | Significance (With Mitigation) | Notes   |
|---------------------------------------|------------|-----------|-----------|-------------|------------|-------------------------------|--------------------------------|---|
| Increased traffic volumes             | Widespread | Long-term | High      | Definite    | High       | High                          | Low                            | Investment in TDM to offset growth in traffic volumes, Granger Boulevard dual-carriageway |
| Intersection performance & capacity   | Local      | Long-term | High      | Definite    | High       | High                          | Low                            | Investment in TDM to offset growth in traffic volumes, Signalisation if required;         |
| Access safety & local circulation     | Local      | Long-term | Medium    | Probable    | Medium     | Medium                        | Very Low                       | Minimum stacking (lanes/setback); crossings   |
| Non-motorised & PT facility provision | Local      | Long-term | Medium    | Possible    | Medium     | Medium                        | Very Low                       | Cycle lanes; additional stops, walkable environment                                       |

### 3.6.3 Combined Summary of Transport Impact Ratings

The table below aggregates all construction- and operational-phase impacts to illustrate overall residual significance under each scenario. By explicitly requiring a contractor-prepared Construction and Traffic Management Plan and leveraging V&A Waterfront's TDM strategy alongside the internal dual-carriageway extension, the residual significance for all transport themes is reduced to "Low".

**Table 3.9: Impact: Summary of Construction and Operational Phases**

| Phase / Category   | Extent           | Duration          | Intensity | Probability       | Confidence | Significance (W/O ♦ With) | Principal Mitigation Highlights                                       |
|--------------------|------------------|-------------------|-----------|-------------------|------------|---------------------------|---|
| Construction-phase | Regional & Local | Short-term/phased | High      | Definite          | High       | High ♦ Med                | Off-peak routing; CMP; wheel-wash; TMP; signed detours                |
| Operational-phase  | Local            | Long-term         | Med-High  | Definite/Possible | Med-High   | High ♦ Low                | Signalisation if required; stacking; walkability and cycle lanes; TDM |

## 4 Conclusions and Recommendations

### 4.1 Conclusions

This report presents an updated Transport Impact Assessment for the Proposed Development Scheme (2023) within the Granger Bay Precinct of the V&A Waterfront. The assessment has been undertaken in support of an application for environmental authorisation and responds to the Terms of Reference issued by Infinity Environmental in March 2025.

The development proposal consists of a mixed-use precinct incorporating residential, hotel, retail, cultural, and light industrial land uses, as well as the upgrading of coastal infrastructure. It is supported by internal circulation upgrades and reconfiguration of access points along Granger Bay Boulevard and Beach Road.

The key findings of the assessment are as follows:

- The 2025 proposal falls within the existing development rights approved for the V&A Waterfront and does not rely on any new land use rights. As such, it is not expected to introduce additional trip generation beyond what was previously tested. The transport-related conditions associated with the utilisation of the additional 440 000 m<sup>2</sup> development rights across the broader V&A Waterfront are therefore not applicable to the current proposal.
- Updated traffic data collected in September 2023 confirms that background traffic growth across the study area has been modest since the previous full precinct-wide assessment conducted in 2015. Compound annual growth rates of approximately 2.6% are observed, with link volumes remaining well within the capacity ranges modelled in the earlier study.
- The Proposed Development Scheme (2023) is projected to generate peak hour vehicle trips similar to, or marginally lower than, the scheme assessed in the 2015 TIA (GIBB). This is due to an improved land use mix, greater internalisation potential, and a stable or slightly declining reliance on private vehicle travel within the precinct.
- No material changes to the external road network affecting the study area have occurred since the 2015 study. The precinct remains well-served by MyCiTi trunk and feeder routes, and pedestrian and cycle facilities have been maintained or enhanced.
- Temporary interaction with MyCiTi operations may occur during construction due to short-term lane or shoulder closures on Helen Suzman Boulevard and Granger Bay Boulevard; these will be managed through advance notice and coordination with the City's Urban Mobility Directorate.
- The No-Go alternative has been considered as required under the National Environmental Management Act (NEMA). In transport terms, this alternative is reflected by the current baseline conditions, as captured through recent traffic volume monitoring. Given the absence of existing congestion or capacity issues, the Proposed Development Scheme (2023) is not expected to compromise network functionality when compared to the No-Go scenario.
- The network conditions, access provisions, and anticipated trip generation associated with the 2025 development scenario remain within the thresholds previously assessed and accepted by the relevant authorities. However,

construction-phase truck activity associated with reclamation works (approximately 35 loaded trucks per day over a period of approximately 24 months) represents a temporary high-intensity impact that will require dedicated management through the TMP.

- The TMP must be finalised, detailing haul routes, off-peak scheduling, and coordination with MyCiTi and relevant City departments. The TMP will confirm the final construction haul routes and traffic management measures following consultation with the City.
- By explicitly requiring a TMP and implementing TDM measures alongside the internal dual-carriageway extension, the residual significance for all transport themes is reduced to "Medium" and "Low".

## 4.2 Recommendations

Based on the above findings, the following recommendations are made:

- Approval of the Proposed Development Scheme (2023) is supported from a transport perspective. The development can be accommodated by the existing road network and public transport infrastructure, with no adverse impacts on external network performance anticipated.
- A TMP must be finalised, detailing haul routes, off-peak scheduling, and coordination with MyCiTi and other relevant City departments.
- No additional mitigation measures are considered necessary beyond those already implemented or previously committed under earlier approvals. Existing access arrangements are broadly compliant with the WCG AMG 2020, and no further signalisation or capacity upgrades are warranted.
- Continued monitoring of traffic volumes and parking demand is recommended post-implementation, using the V&A Waterfront's access control and parking management system. This will allow for proactive responses in the event of unforeseen operational issues, although none are currently anticipated.
- NMT infrastructure should be retained and enhanced where practical, in support of broader mobility and sustainability objectives.
- Should any substantial revisions to the development layout or land use mix occur at a later stage, a review of this assessment should be undertaken to ensure continued alignment with acceptable transport planning parameters.

In conclusion, the Proposed Development Scheme (2023) is not expected to result in any significant traffic or transport-related environmental impacts provided that the recommended mitigation measures are implemented. The proposal is therefore considered acceptable from a transport planning and traffic engineering perspective.

**Appendix A: Granger Bay Phase 2 Transport Impact Assessment (GIBB, April 2015)**

**Appendix B: Transport-Related Conditions from  
Amended Rezoning Approval (Case ID 1500109534,  
16 January 2026)**

## Transport

- 3.27. The owner/developer, at its own cost, shall implement the following road and/or NMT upgrades/improvements recommended in the TIA attached as Annexure F to the MPT Report prior to the transfer of any individual erven/section or the occupancy of any building utilising the additional floor space granted in respect to Phase 1 (as detailed in condition 3.3.1), or at an alternative appropriate time to the satisfaction of the authorised official (Development Management):
- 3.27.1. Upgrade the intersection of Beach Road and Haul Road.
  - 3.27.2. Upgrade pedestrian facilities along one side of Beach Road, between Fritz Sonnenberg Road and Granger Bay Boulevard, to improve network connectivity for both cyclists and pedestrians.
  - 3.27.3. Widen the Dock Road sidewalk around the Dock/Ebenezer Road circle and upgrade the NMT connection with Ebenezer Road.
  - 3.27.4. Upgrade the NMT connection between Ebenezer Road and Canal Plaza within the V&A Waterfront.
  - 3.27.5. Ensure Suzman Square and associated network links can facilitate micromobility links between public transport and destinations within the V&A Waterfront.
  - 3.27.6. Construct an NMT connection between Somerset Road and Battery Park.
- 3.28. The above upgrades/improvements to roads, NMT routes and related infrastructure shall be to the satisfaction of the authorised official (Development Management) after consultation with the Urban Mobility Department.
- 3.29. Engineering drawings with respect to any road and/or NMT improvements referred to in condition 3.27 above (at a Stage 2: Concept and Viability level of detail, as defined by the Guideline for Services and Processes for Estimating Fees for Persons Registered in terms of the Engineering Profession Act), prepared by a Registered Civil Engineering Professional, shall be submitted for approval to the satisfaction of the authorised official (Urban Mobility Department).
- 3.30. Development following Phase 1, as stipulated in condition 3.3.2 above, shall be subject to the submission of a Transport Impact Assessment (TIA) in respect of each proposed phase to the satisfaction and approval of the authorised official (Development Management) after consultation with City's Urban Mobility Department.
- 3.31. A TIA required in terms of condition 3.30 above shall *inter alia* measure the current trip generation and traffic impact of the proposed development phase and provide evidence to verify that the planned trip reduction, mode shift and road network performance identified in the TIA attached as Annexure F to the MPT Report has been achieved in the preceding phase of development, to the satisfaction of the authorised official (Urban Mobility Department). Any additional road improvements or mitigation measures deemed necessary by the City's Urban Mobility Department shall be included in such a TIA, and implemented to the satisfaction of the authorised official (Urban Mobility Department) prior to any development within the proposed phase.