

# City of Cape Town

## **Muizenberg Beachfront**

Traffic Impact and Site Traffic Assessment

For Rezoning Application

7517

December 2022



## DOCUMENT VERIFICATION

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**Synopsis:** Contextual analysis of transport related aspects informing the rezoning application that forms part of the Muizenberg beachfront project.

**Quality Verification:**

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APPENDIX A: GENERAL LAYOUT PLANS

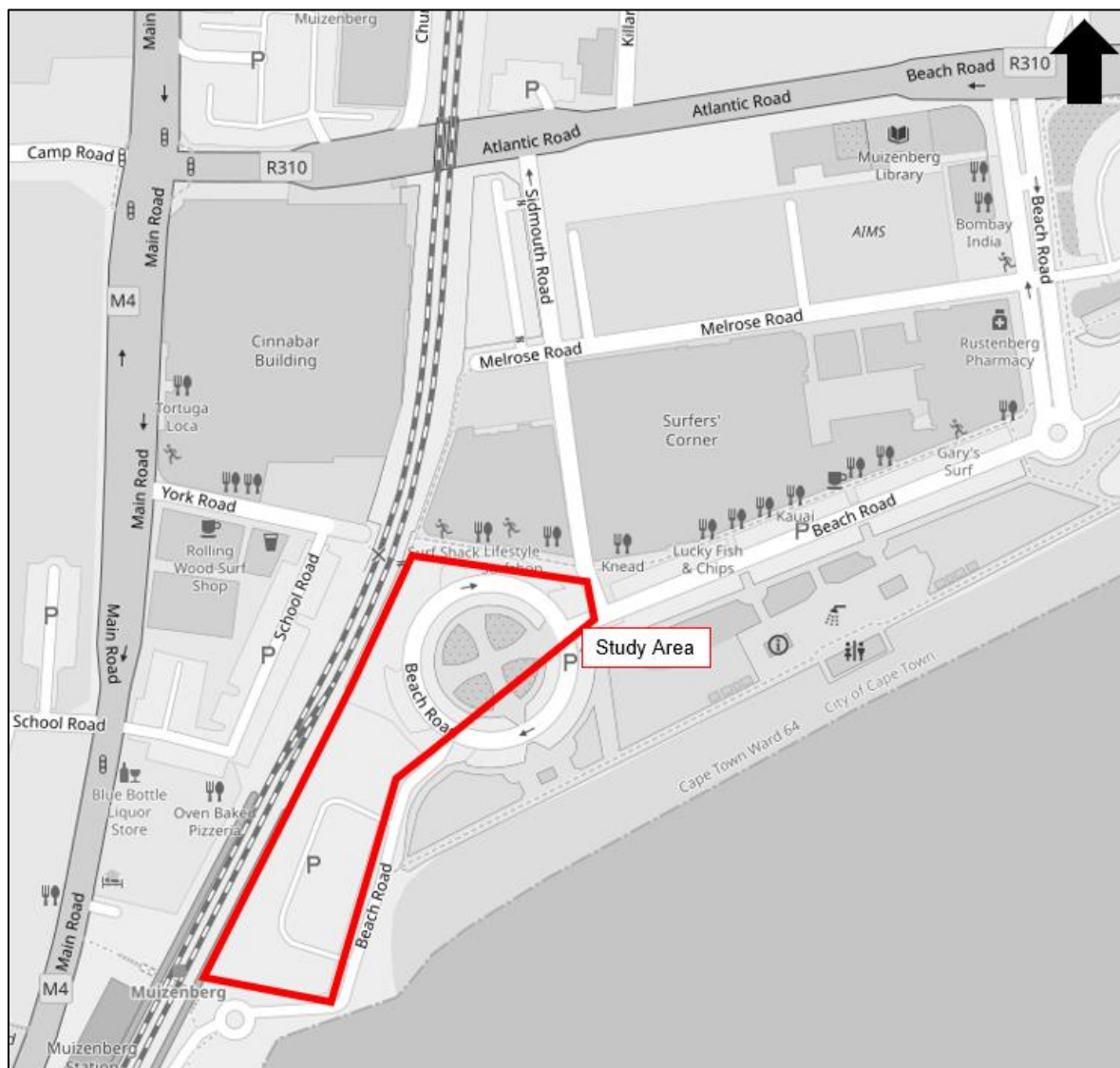
# 1 INTRODUCTION

## 1.1 Background

The City of Cape Town has embarked on a project to redevelop the current Muizenberg beachfront. Muizenberg beachfront was previously identified as one of the most universally accessible beaches offering a wide variety of recreational and social opportunities and is also known as one of the most utilised and diverse coastal beachfronts in Cape Town. However, public coastal infrastructure and services at Muizenberg are in decline.

A number of civil and coastal projects has therefore been identified to improve, rehabilitate and restore the recreational amenities at the Muizenberg Beachfront. Part of the project involves the rezoning and consolidation of a number of erven adjacent to the beachfront. Currently the erven are zoned as residential, as well as commercial, yet is being used for an informal gravel parking area and traffic circle. The ultimate aim is to zone the whole area as “Transport Zone 2” whereby the informal public parking area would be formalised.

Figure 1-1 indicates the locality of the Muizenberg Beachfront study area. The site is located between the railway line on the western and Beach Road on the east.



**Figure 1-1: Muizenberg Beachfront Study Area**

HHO Consulting Engineers was appointed as part of a transversal panel appointment to perform consulting services that forms part of the Contract 375C/2018/19. A Traffic Impact and Site Traffic Assessment was therefore performed to be used as part of the application for rezoning and consolidation of the identified erven.

## **1.2 Previous studies**

The City of Cape Town previously undertook a transport study for the greater Muizenberg CBD area. The study assessed the existing (2019) transportation conditions within the Muizenberg CBD and provided an assessment of the transportation impacts and associated remedial measures of foreseen developments. An investigation was also undertaken in determining the utilisation of the current public parking in the area of Muizenberg beachfront.

Since Muizenberg beachfront is a great tourist attraction it was noted from the previous study that the parking areas in consideration is over utilised during the weekends and holidays. This is also confirmed with the overall parking utilisation at the beachfront and surrounding area.

## **1.3 Scope of This Report**

This report will provide an overview of the transport related impacts with regards to the rezoning of the current erven. The report will further elaborate on the proposed parking layout, vehicle access and circulation as well as the current state of the public transport services and non-motorised transport facilitates.

The erven will be rezoned as "Transport Zone 2", therefore, no new trips will be generated as part of the rezoning application. Hence the report does not focus on trip generation and trip distribution as users of the proposed formalised parking facility will be pass-by traffic, traffic which is already on the road network.

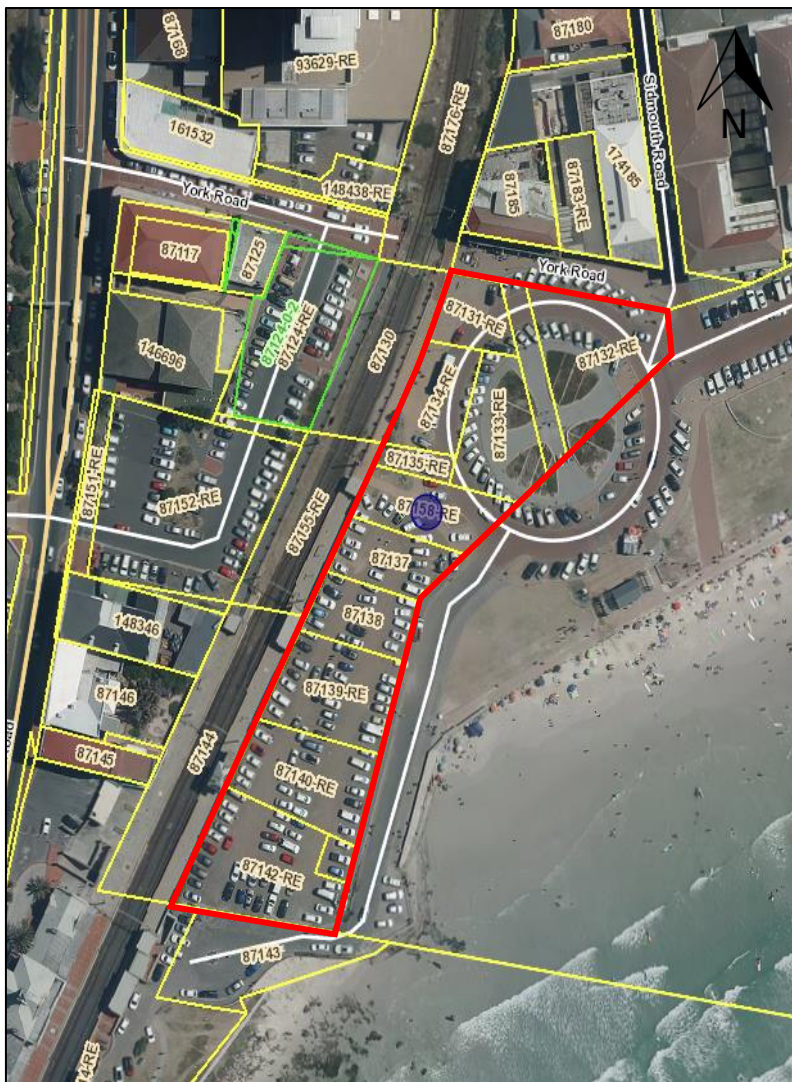
## 2 EXISTING SITUATION

### 2.1 Land Use

The site measuring approximately 7800 m<sup>2</sup> is currently zoned as a combination of “General Residential 4” and “General Business 5”. Rezoning is required for the twelve erven situated in the current informal parking area and existing traffic circle. The proposal is to rezone the consolidated area to “Transport Zone 2” with the ancillary NGO building located along the railway line zoned to Open Space 2.

The area is currently used as informal parking for visitors to the beach, as well as the Muizenberg Railway station. The informal parking area is in desperate need to be formalised as the space available is not used efficiently during peak demand periods.

Figure 2-1 indicates the locality of the proposed erven that needs to be rezoned and consolidated.





## 2.2 Road Network and Access

It is essential to assess the current state of the access to the proposed upgrade in determining if there is any need for improvement. The access roads to the site under investigation includes:

- Beach Road: Class 5 (Local Street) which consist of one lane per direction, no shoulders, with sidewalks and on-street parking on both sides of the road.
- Sidmouth Road: Class 5 (Residential Street) which consist of one northbound lane, no shoulders, with intermitted sidewalks on both side of the road. Sidmouth Road also provides an alternative exit from the parking area and beachfront.

Access to the informal parking is currently gained from the extension of Beach Road by passing the formalised traffic circle at Beach Road and Sidmouth Road. Figure 2-2 illustrates the existing access from the traffic circle to the informal parking area.



**Figure 2-2: Existing Access from Traffic Circle to Informal Parking Area**

## 2.3 Existing Public Parking & Services

The Muizenberg CBD Transport Study (May 2019) indicated that the parking area is not utilised efficiently during the peak periods. Figure 2-3 and Figure 2-4 illustrates the typical utilisation of the informal parking area during a school holiday period 8 August 2022 and a typical Friday 12 August 2022 respectively. These photos were taken around 14h00 in the afternoon, and as illustrated, the utilisation of the parking area is different. During public or school holidays the parking demand in the vicinity of the beachfront increase, whereas during the normal weekday periods the parking area is typically underutilised.





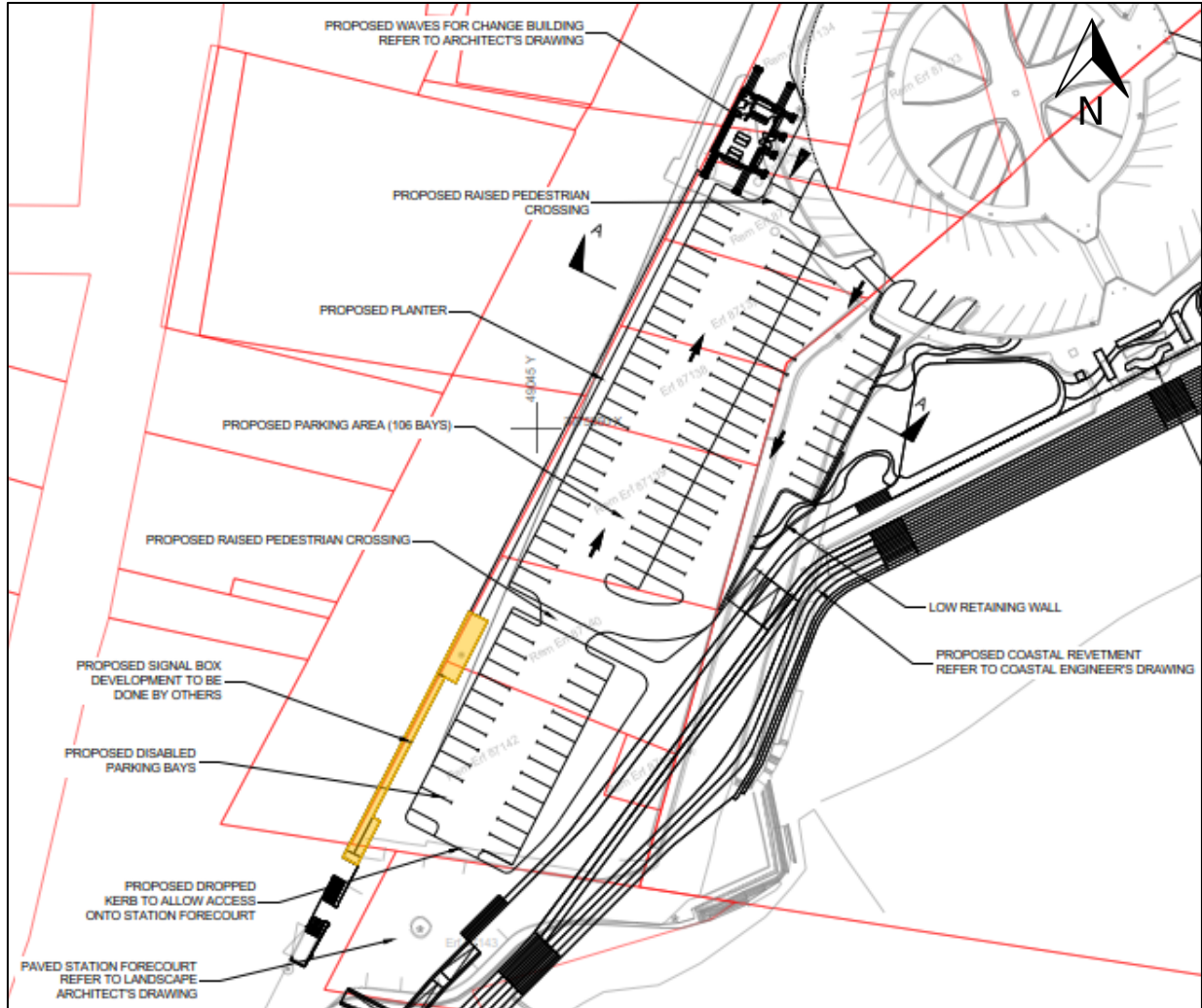
Figure 2-3: Utilisation of Existing Informal Parking Area (8 August 2022)



Figure 2-4: Utilisation of Existing Informal Parking Area (12 August 2022)

### 3 PROPOSED PARKING UPGRADE

The proposed parking upgrade entails the formalisation of the parking area. The proposed upgrade will be evaluated on the functionality, access arrangements, internal circulation as well as the number of parking bays. The proposed upgrade is presented in Figure 3-1.



**Figure 3-1: Proposed Parking Layout**

For the detailed layout of the proposed parking area refer to Appendix A.

#### 3.1 Vehicle Traffic

The proposed parking upgrade and associated rezoning and consolidation of the 12 erven should not result in new vehicle trips to and from the area. The users of the proposed formalised parking facility will be pass-by traffic, traffic which is already on the road network.

As a result vehicle trips should not increase on the road network within the study area. However, due to the formalisation of the area and the improvement in vehicle circulation the parking operation and congestion during peak periods could be slightly alleviated.

#### 3.2 Access Considerations

Currently the extension of Beach Road provides an informal access to the parking area, as well as the Muizenberg train station forecourt. Therefore, all vehicles need to maneuver in and out of the parking area though the extension of Beach Road which consist of one lane per direction.

As illustrated in Figure 3-1 the entry to the proposed parking area will differ slightly from the existing location. The exit from the proposed parking area will be at a separate location to the west of the entrance providing a separate entrance and exit. This will allow for sufficient circulation of the traffic through the parking area as well as the adjacent traffic circle.

No access is gained from the southern side of the parking area, which is bounded by the railway line. This will in an effect provide a secure public parking area and assist in the event should any control measures be implemented in future.

### **3.3 Internal Circulation**

The separate entrance and exit to the proposed parking area improves the internal circulation as the area will operate with one-way traffic. The proposed upgrade therefore promotes an efficient way for circulation.

With the large number of pedestrians that will pass through the area, especially at the beachfront where wide walkways are provided it is essential to limit and reduce the conflict between vehicular movements and pedestrians in this environment.

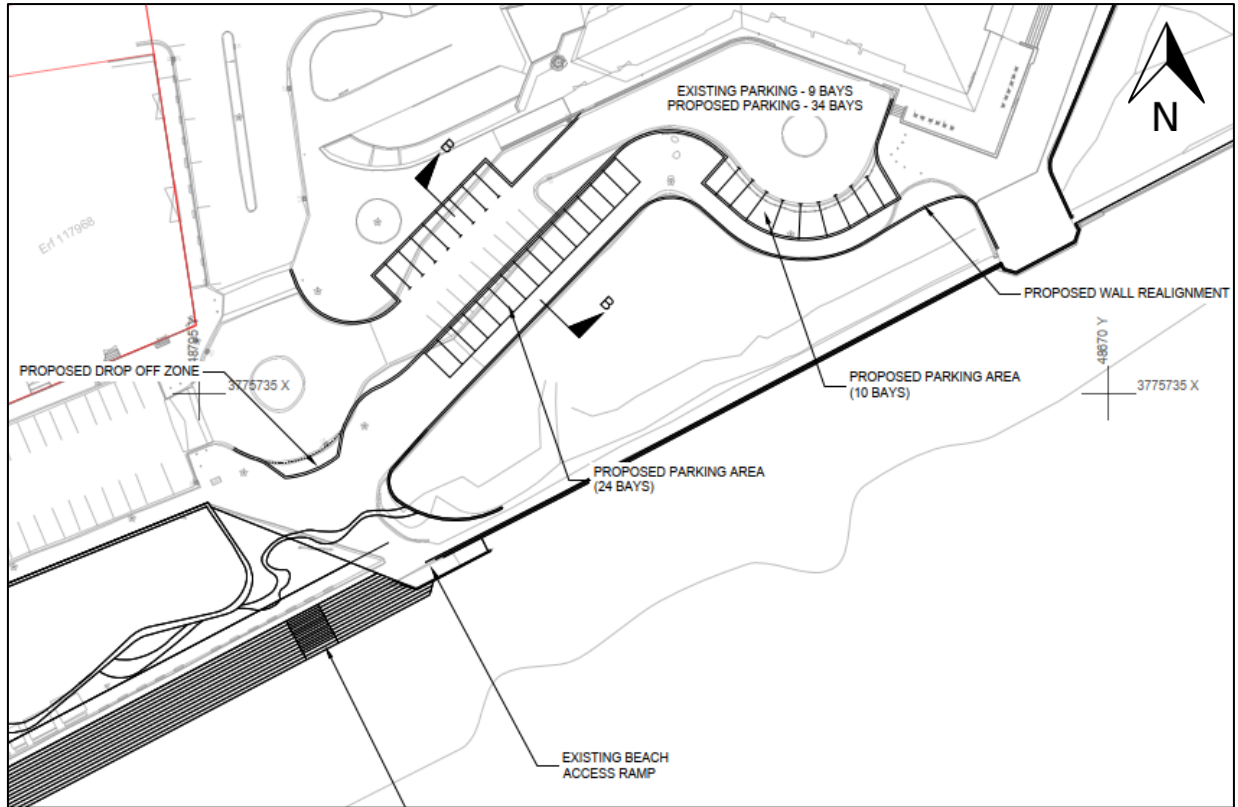
### **3.4 Parking**

With the parking survey that was performed during the previous transport study for Muizenberg CBD it was eminent that additional opportunities for parking be explored. This project is therefore an opportunity to formalised the current parking area at the Muizenberg Beachfront. Although the formalisation of the parking will not necessarily result in additional parking it could however optimise the space available, improve on vehicle circulation and create a safer environment for pedestrians.

The capacity of the existing parking area was estimated at 116 bays as per The Muizenberg CBD Transport Study (May 2019). The proposed parking layout provides a total of 106 formalised parking bays including two disabled parking bays as shown in Figure 3-1. The proposed layout also allows for improved vehicle circulation as well as the provision of formalised NMT facilities to the railway station.

Apart from the parking area under consideration, additional parking bays are being proposed towards the eastern end of the Muizenberg Beachfront in the vicinity of the Muizenberg Civic Centre. Currently 9 formalised parking bays is provided, whereas the proposed layout make provision for a total of 34 parking bays. The proposed area and upgrade are illustrated in Figure 3-2.





**Figure 3-2: Proposed Parking Layout - Additional parking bays vicinity of Muizenberg Civic Centre**

For the detailed layout of the proposed parking area refer to Appendix A.

## 4 PUBLIC TRANSPORT AND NMT FACILITIES

Public transport and Non-Motorised Transport (NMT) accessibility to a site promotes its overall sustainability and helps to reduce the need for private car for all mobility needs. It will also reduce the demand for parking at public spaces.

At the Muizenberg beachfront it is also essential to provide both these facilities. The public transport routes and facilities have been identified through the previous study and is as follows:

- From a broader perspective Main Road and Atlantic Road are key public transport routes in the area with minibuss taxis operating along these roads.
- A bus embayment is provided within the roundabout at the western end of Beach Road.
- Muizenberg rail station is also significant attractor and generator of pedestrian movements.

The state of the current NMT facilities along the beachfront is in dire need to be upgraded or maintained. The proposed upgrade will provide walkways along the promenade as well as through the parking area to the Muizenberg Railway station as detailed in Appendix A.

## 5 SUMMARY OF FINDINGS

As part of the Muizenberg Beachfront project the City of Cape Town has identified a number of upgrades to improve, rehabilitate and restore recreational amenities at the Muizenberg Beachfront. In order for the informal parking area at the Muizenberg Railway station to be formalised, rezoning and consolidation of a number of erven adjacent to the beachfront is needed.

This report serves as a Traffic Impact and Site Traffic Assessment that will be used as part of the application for rezoning and consolidation. The proposed upgrade will be evaluated on the functionality, access arrangements, internal circulation as well as the number of parking bays.

It was found that the proposed parking layout will provide improved access and circulation to the parking area. The number of parking bays is sufficient for the purpose of this study and the vehicle traffic within the study area will not be impacted negatively as a result of the formalization of the parking area.

NMT facilities is also essential at the beachfront and the proposed upgrade will provide sufficient pedestrian walkways along the promenade and thereby minimize the conflict between vehicles and pedestrians.

In summary, the proposed formalisation of the parking area should have minimal impact on the local road network from a traffic operations perspective. It is also noted that the formalisation will have a positive impact on pedestrian movements and a marginal impact on parking provision.

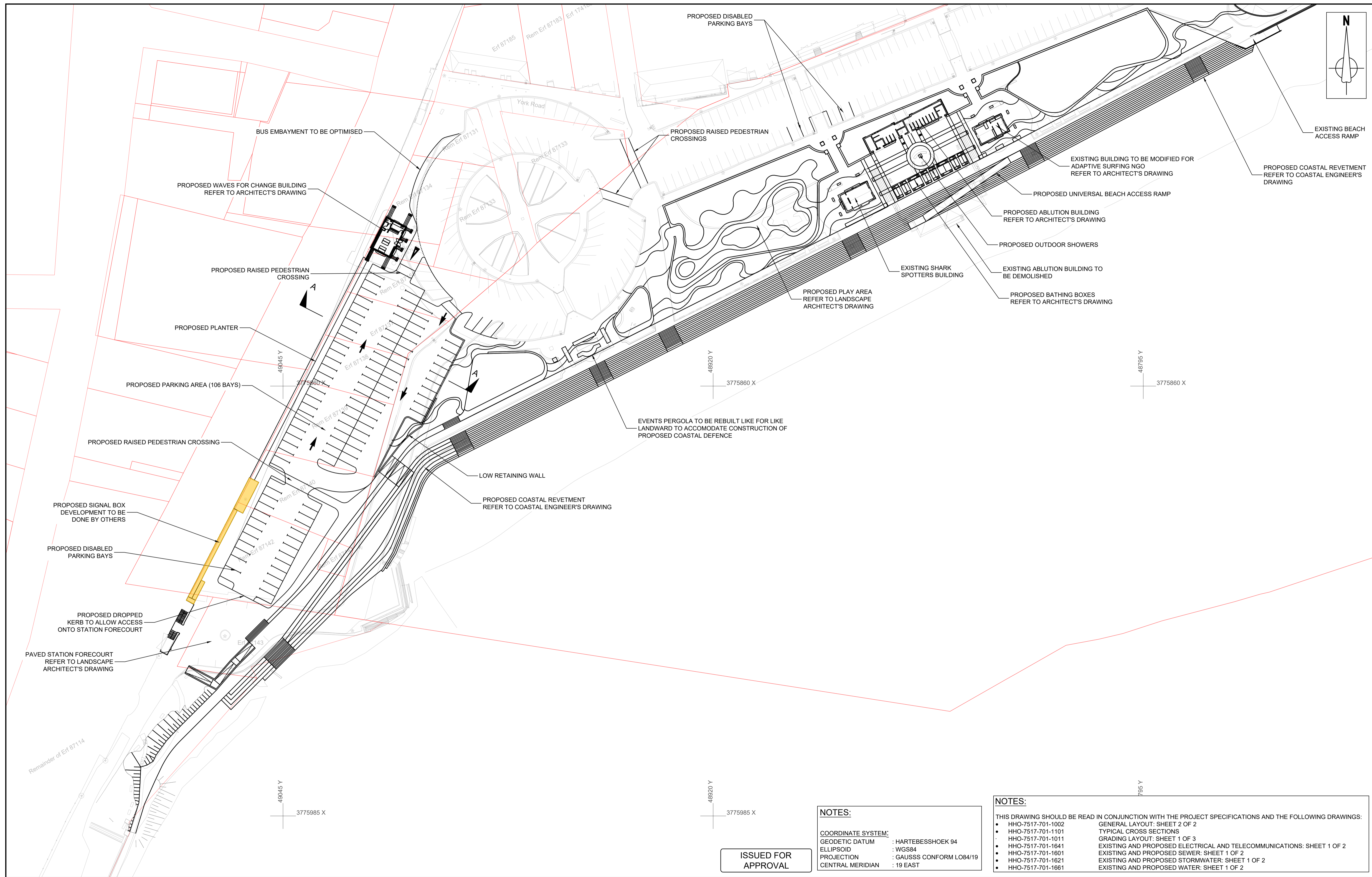
## 6 REFERENCES

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2. ***Muizenberg CBD Transport Study 1<sup>st</sup> Draft, Transport Impact Assessment Muizenberg, Cape Town, Innovative Transport Solutions (Pty) Ltd, May 2019.***
3. ***South African Traffic Impact and Site Traffic Assessment Manual (TMH 16 – Volume 1), Version 1.0.*** Prepared by the Roads Coordinating Body of the Committee of Transport Officials (COTO). Pretoria, August 2012.
4. ***South African Traffic Impact and Site Traffic Assessment Standards and Requirements Manual (TMH 16 – Volume 2), Version 1.01.*** Prepared by the Roads Coordinating Body of the Committee of Transport Officials (COTO). Pretoria, February 2014.
5. ***South African Trip Data Manual (TMH 17), Version 1.01.*** Prepared by the Roads Coordinating Body of the Committee of Transport Officials (COTO). Pretoria, September 2013.



## **APPENDIX A: GENERAL LAYOUT PLANS**





**NOTES:**

**COORDINATE SYSTEM:**  
 GEODETIC DATUM : HARTEBESSHOEK 94  
 ELLIPSOID : WGS84  
 PROJECTION : GAUSSS CONFORM LO84/19  
 CENTRAL MERIDIAN : 19 EAST

**NOTES:**

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND THE FOLLOWING DRAWINGS:

- HHO-7517-701-1002 GENERAL LAYOUT: SHEET 2 OF 2
- HHO-7517-701-1101 TYPICAL CROSS SECTIONS
- HHO-7517-701-1011 GRADING LAYOUT: SHEET 1 OF 3
- HHO-7517-701-1641 EXISTING AND PROPOSED ELECTRICAL AND TELECOMMUNICATIONS: SHEET 1 OF 2
- HHO-7517-701-1601 EXISTING AND PROPOSED SEWER: SHEET 1 OF 2
- HHO-7517-701-1621 EXISTING AND PROPOSED STORMWATER: SHEET 1 OF 2
- HHO-7517-701-1661 EXISTING AND PROPOSED WATER: SHEET 1 OF 2

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Client Approval

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Date

Consultant Signature

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Date

Project Title

**MUIZENBERG BEACHFRONT  
REFURBISHMENT: PHASE 1  
375C-2018-19:WP 118**

Drawing Title

**GENERAL LAYOUT  
SHEET 1 OF 2**

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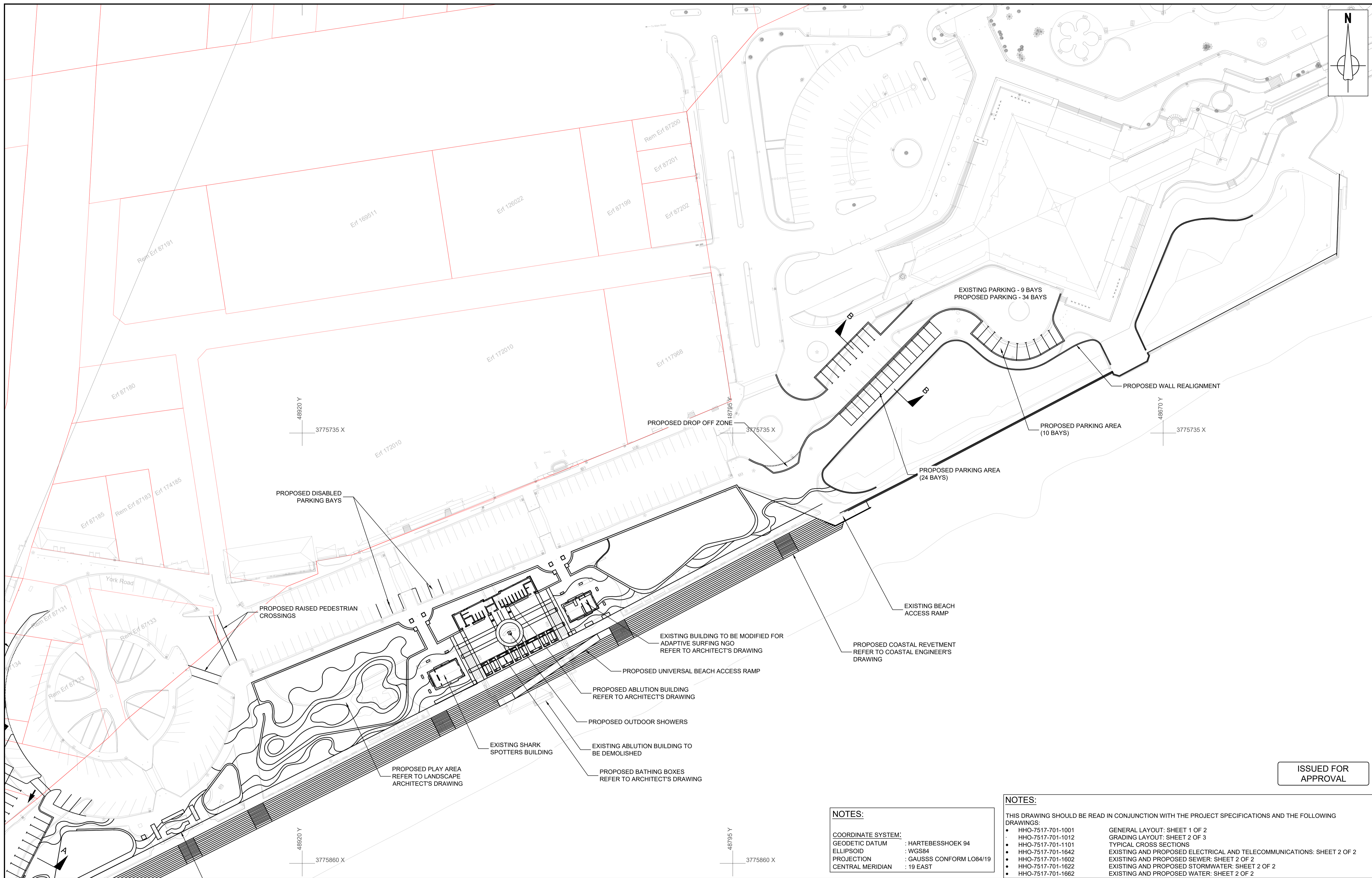
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 • HHO-7517-701-1642  
 • HHO-7517-701-1602  
 • HHO-7517-701-1622  
 • HHO-7517-701-1662  
 GENERAL LAYOUT: SHEET 1 OF 2  
 GRADING LAYOUT: SHEET 2 OF 3  
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 EXISTING AND PROPOSED ELECTRICAL AND TELECOMMUNICATIONS: SHEET 2 OF 2  
 EXISTING AND PROPOSED SEWER: SHEET 2 OF 2  
 EXISTING AND PROPOSED STORMWATER: SHEET 2 OF 2  
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