# Shelly Bay Masterplan



PREPARED FOR The Wellington Company Limited

CONSULTANT TEAM architecture+\_McIndoe Urban\_Wraight + Associates Egmont Dixon\_Stantec\_Archifact\_Envelope

DOCUMENT COMPILED BY architecture+\_McIndoe Urban\_Wraight + Associates

#### ILLUSTRATIONS

All illustrations have been prepared by the consultant team unless otherwise stated.

#### DISCLAIMER

All images are provided as illustrative only to supplement the information set out by the guidelines.

The Shelly Bay Masterplan forms part of the global Resource Consent for Shelly Bay, and should be read with the Shelly Bay Design Guide.

Revision	Date	Author	Checked By
10	08.03.2019	architecture+ McIndoe Urban Wraight + Associates	TWC to confirm

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Retaining Strategy Planting Strategy

# **1 INTRODUCTION**

## 1.1 Vision

Community Vision .... the overarching vision is to build a strong community by creating a high quality mixed use development that is connected, environmentally responsible, and sets a new benchmark for living in Wellington City.

- truly unique
- sustainable
- compact
- staged and flexible
- setting for community

### "...a place that will become a very special part of Wellington..."

- Welcoming public waterfront
- Memorable city destination
- Liveable urban neighbourhood
- **Residential amenity and choice**
- Public attraction and generosity
- Sustainable innovation
- Certainty of high quality

## 1.2 Site in Context



fig. 1.1.1

Shelly Bay is located on the western side of the Miramar Peninsula close to the northern point, and in Evans Bay. The westerly aspect affords good sunshine and outlook over Evans Bay to Haitaitai and across Wellington Harbour to the northern hills.

## 1.3 Masterplan





Relocated Buildings

New Buildings 

- - - HASHAA - Housing Accords and Special Housing Areas Act Boundary

## 1.4 Overall Design Strategy

The Masterplan has evolved to respond to the unique characteristics and features of the Shelly Bay area, including the relationship to the wider peninsular, hills and harbour.

The figure opposite describes the key drivers and features of the plan and include:

- Landscape links and views to the bush-clad backdrop;
- Emphasising the promontory arrival points into Shelly Bay as natural landscape spaces;
- Creating a publicly accessible, continuous waterfront;
- Creating a heart to the area that optimises the existing character buildings; and,
- Stepping relationship of built form to foreshore. Lower scale finer grain to Shelly Bay Road, larger scale forms set up and back.

Typically, public facilities and amenities are located on the harbour side of the main through road (Shelly Bay Road / Massey Road). Residential accommodation is placed to the east of the road.

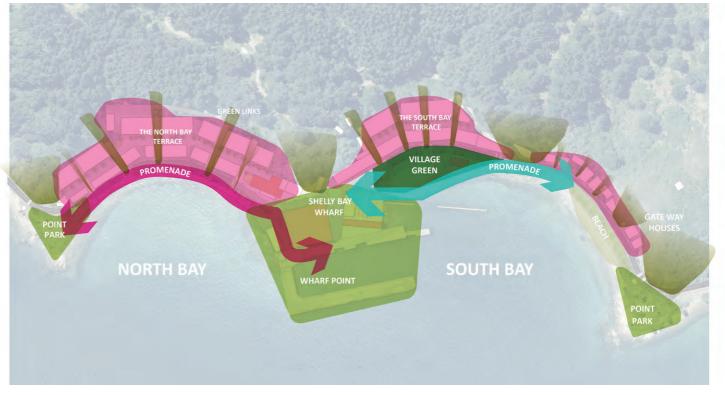
Two scales of residential development are proposed. The 'front row' adjacent to the main road are townhouse and detached house sites. These will be no greater than three levels in height. Behind these are apartment building sites. These will be no greater than six levels in height and will have a generous ground floor height to elevate the lower apartment levels to improve their outlook to the harbour. The townhouse sites and apartment sites are separated by a laneway that provides vehicle access and will create a 12m separation between buildings.

The Shelly Bay Masterplan sets out to create a unique waterfront destination for Wellington. Drawing on its military and Maori lineage and embracing the water's edge and hills. Shelly Bay will become a place of special retreat, a place to live and work, and to interact with the natural environment.

Key outcomes of the plan include:

- A high quality publicly accessible waterfront of promenade, wharf and beach;
- Strong expression of two bays and promontories;
- Historic character integrated and authentically displayed;
- Retained robustness and informality of the former air force base;
- A vibrant mixed use 'heart' at Shelly Bay Wharf;
- A unique living environment with a mix of housing and boutique hotel;
- Enhanced landscape and vegetation with visual and physical connections to the bush-clad hills;
- Upgraded Shelly Bay Road and Massey Road street system;
- Minimised intervention and earthworks to the escarpment; and,
- Development largely contained within the lower flat platforms of the two bays.

## 1.5 Spatial Concept Diagrams

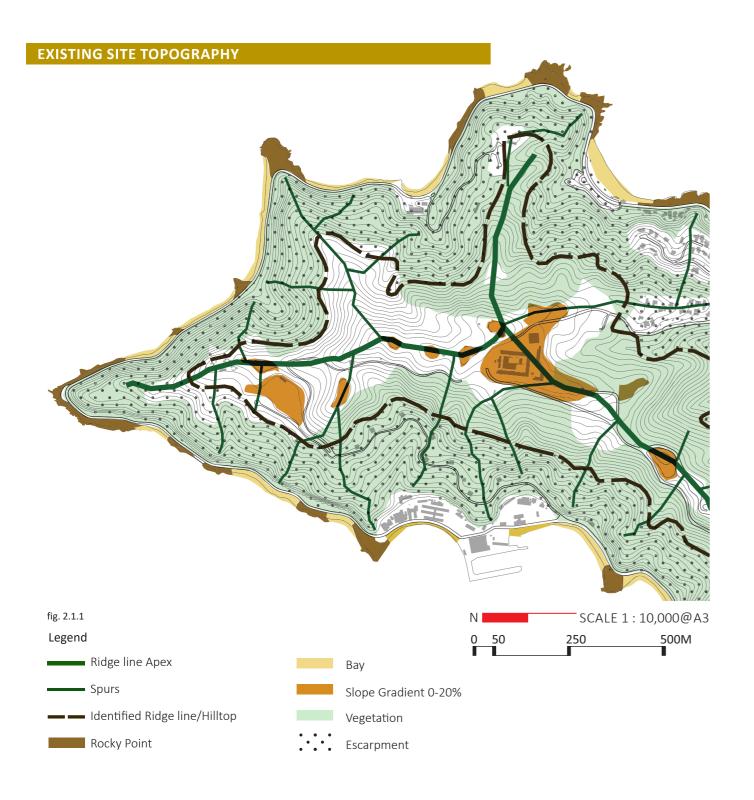






# 2 EXISTING SITE FEATURES

## 2.1 Topography



Shelly Bay is a character precinct sitting within the Watts Peninsula. The peninsula, which forms the northern end of the Miramar Peninsula, is characterised by steeply graded vegetated slopes rising from a narrow band of flat land at the coastal edge. The narrow coastal edge, which varies in width, accommodates a two-way road that circumnavigates the peninsula. The coastal edge has a variable character, shifting from natural rocky head land, to pebble and sandy beaches to constructed sea wall edges and wharves. Centrally located on the Peninsula's west coast, the Shelly Bay Precinct is a largely flat area sitting at between 2.5m and 4.0m elevation, the eastern portion of the precinct incorporates the steeply graded escarpment. The escarpment is characterised by a series of east-west orientated spurs emanating from the peninsula's upper dominant ridgeline. Spurs to the north and south frame the precinct's outer extremities, running into rocky headlands, whilst a third dominant spur dissects the precinct forming the Northern and Southern flat zones associated with the site's two bays. Historical cut and fill activities and wharf developments have dramatically altered the peninsula's original coastline and topography within the precinct. Reflecting the two crescent shaped bays that articulate the precinct's coastal edge north and south, the flat land expands inland to form two broader crescents either side of a central ridge line that runs in line with the precinct's existing wharf spaces.

## 2.2 Broadscale Landscape Character



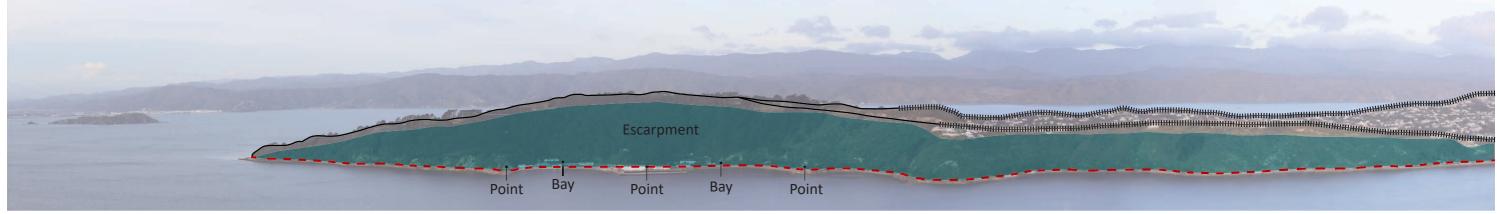


fig. 2.2.1 Legend – – – Coastal Edge Road

HIIII Built Ridge Line

Escarpment

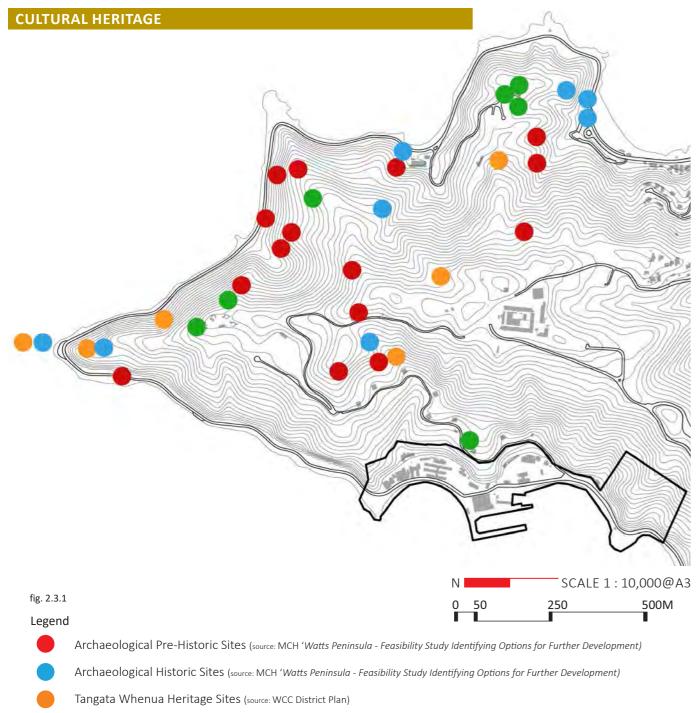
Constructed + Inhabited Coastal Edges

Shelly Bay 's unique character is the result of many factors including its separation and containment, its harbour edge location and engagement with nature, and the history of its occupation.

Existing built form and landscape elements have an aesthetic that is worthy of retention. New development should respect and develop that existing aesthetic rather than replace it. It is intended that Shelly Bay will continue to have a unique character that does not exist elsewhere.

Shelly Bay sits at the base of Watts Peninsula's western escarpment. A developed flat zone of ex-naval and working wharf buildings, the precinct is physically and visually contained by the densely vegetated escarpment backdrop to its east and the narrow coastal ledge running along the base of the escarpment. Along the escarpments upper north-south running ridgeline dense vegetation in the north gives way to suburban development in the south.

## 2.3 Local Cultural Heritage



- Military Sites NB: Site locations and reference to be confirmed.
- Property Boundary



fig. 2.3.2



fig. 2.3.3



fig. 2.3.4

Watts Peninsula sits within the Wellington City District Plan's Mataki-kaipoinga Landscape Feature Precinct. It accommodates several Category One, Heritage New Zealand registered historic places. (Source: Watts Peninsula - Feasibility Study Identifying Options for Further Development. Blaschke & Rutherford Environmental Consultants et al, March 2012, for Ministry for Culture and Heritage). Across the broader peninsular landscape there are a number of noted archaeological sites predating 1900s. (Refer page 22 Watts Peninsula - Feasibility Study Identifying Options for Further Development). These sites comprise a mix of both Maori and military heritage. The Wellington District Plan lists six Maori Site Points within the Watts Peninsula area. None of these sites are located within the Shelly Bay Precinct.

The site's occupation and development by the Shelly Bay Air Force Base has greatly influenced its current day character and form. The campuslike set out of the Precinct's remaining buildings reflect its military past. The site's association with submarine mining, in the late 19th Century, the development of the World War II naval base and armament depot and subsequent Air Force occupation contribute to its historic significance. (Source: page 2 Wellington City Council Design Guideline)

For Further information on cultural heritage refer to Archifact: *Heritage* Assessment and Assessment of Environmental Effects, Draft, March 2019 and Opus: Shelly Bay Character and Condition Assessment, January 2008.

## 2.4 Existing Site Buildings and Structures



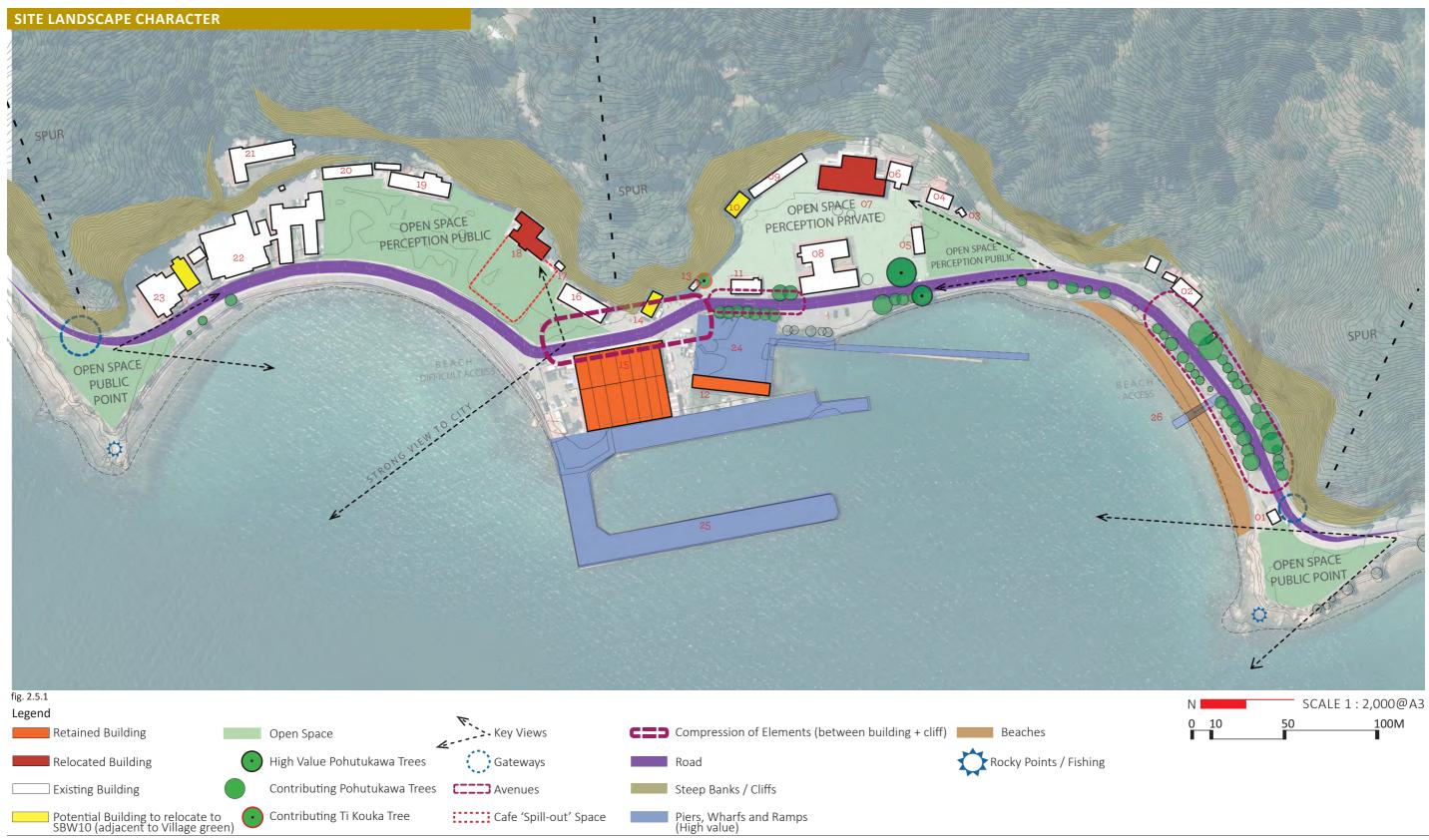
Legend	
	Retained Building
	Relocated Building
	Existing Building
	Potential Buildings to relocate to SBW10 (adjacent to Village green)

04 Officer's Mess Accommodation Annex 05 Officer's Mess Laundry Bldg. 06 Officer's Mess Games Room 07 Officer's Quarters and Mess 08 Studio 2 - HQ Studios

12 Shipwrights Bldg. 13 Out Building 14 Barack Warden Store 15 Shed 8 - Propeller Studios 16 Studio 3 - Artisan Screen Prints

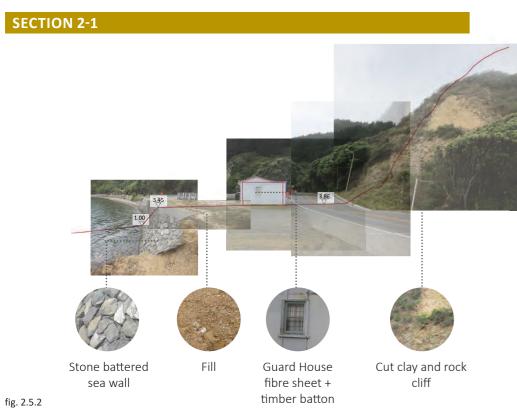
20 North Bay Garages 21 Old Hospital - Bayview Art Studios 22 Blackmore & Best Gallery 23 Whirlwind Designs & Theacrobatic Design Ltd.

## 2.5 Existing Local Site Character

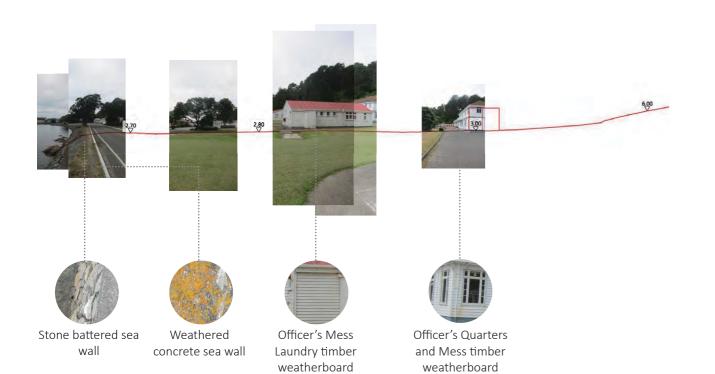


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## 2.5 Existing Local Site Character



**SECTION 2-3** 



### **SECTION 2-2**



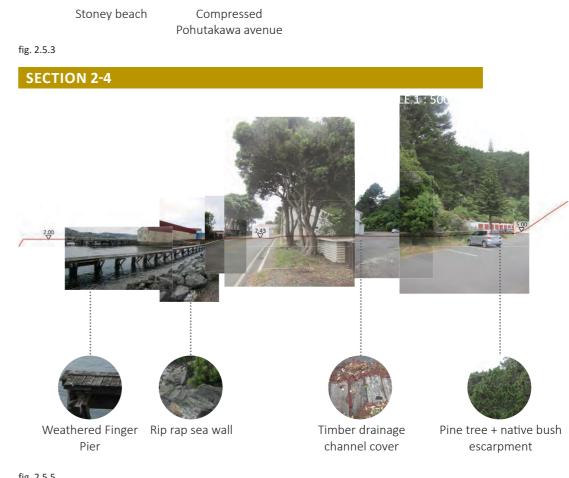


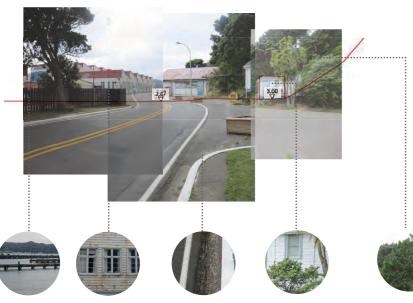
fig. 2.5.5

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fig. 2.5.4

## 2.5 Existing Local Site Character







Out Building Asphalt painted weatherboard edge + painted weatherboard concrete kerb

Pine tree + native bush escarpment

#### fig. 2.5.6





Sea Wall

Asphalt footpath



Painted concrete kerb / asphalt / lawn



Trimmed back + aerial pipe walk

#### **SECTION 2-6**





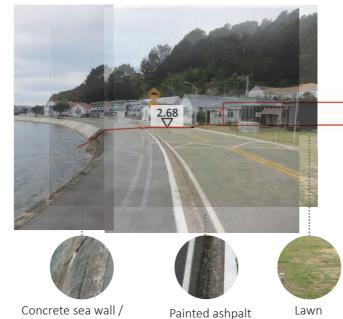


Shed 8 exterior weatherboards

Vegetated escarpment

fig. 2.5.7

**SECTION 2-8** 



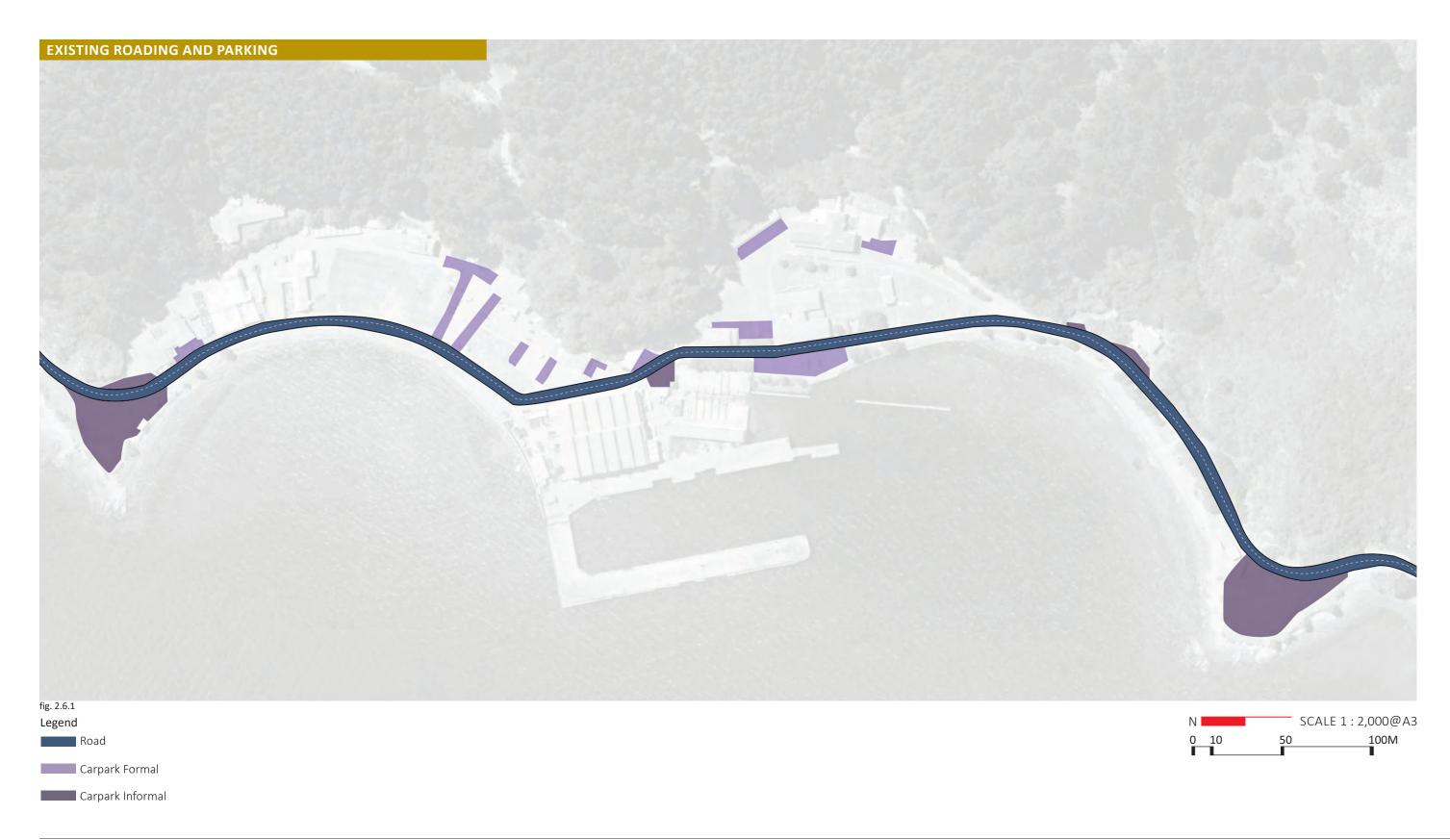
markings

asphalt footpath with steep kerb + painted road crossfall fig. 2.5.9

fig. 2.5.8 Shelly Bay Masterplan\_ Mar 2019

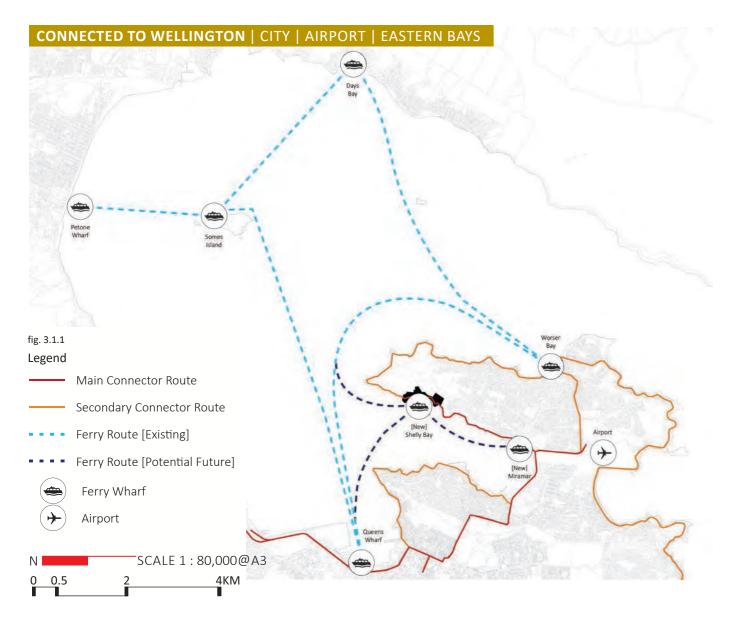


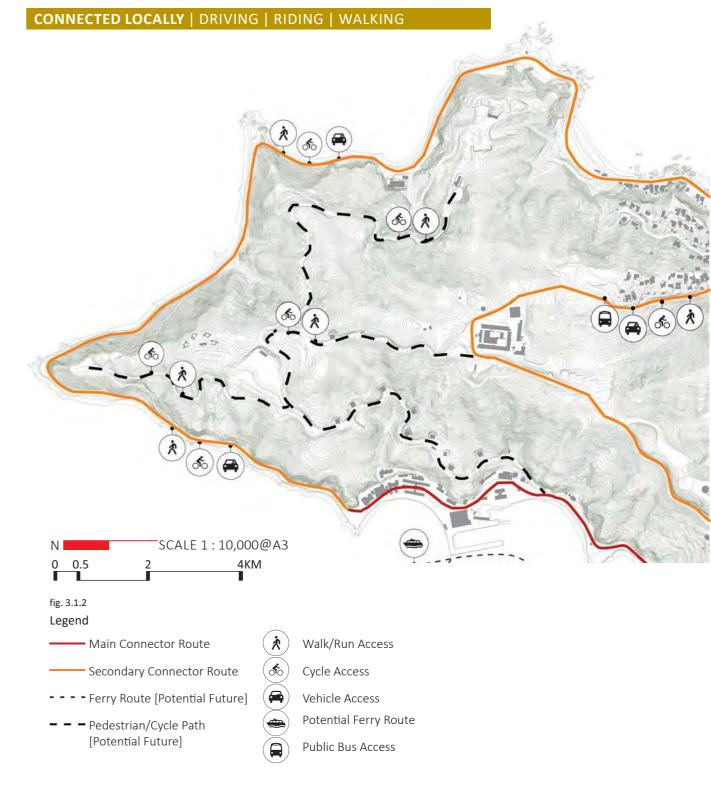
## 2.6 Existing Site Roading and Parking



# **3 CONNECTIONS**

## 3.1 Existing and Potential Public and Private Transport Connections





The site is currently serviced by the Miramar Peninsula's coastal road, a two-way road that circumnavigates the narrow coastal ledge of flat land. Through the Shelly Bay site, the northern section of coastal road is Massey Road, the southern section is Shelly Bay Road. The outer lying sections of the shared path will be aligned to the coastal road edge, through the development's central zone, the shared path is incorporated into the coastal promenades circumnavigating the Village Green and Shelly Bay Wharf spaces.

The Precinct's prominent harbour location and low elevation are well suited to a future ferry connection, integrating the Peninsula into Wellington Harbour's existing public ferry network. The centrally located Shelly Bay Wharf is proposed to accommodate the new ferry terminal.

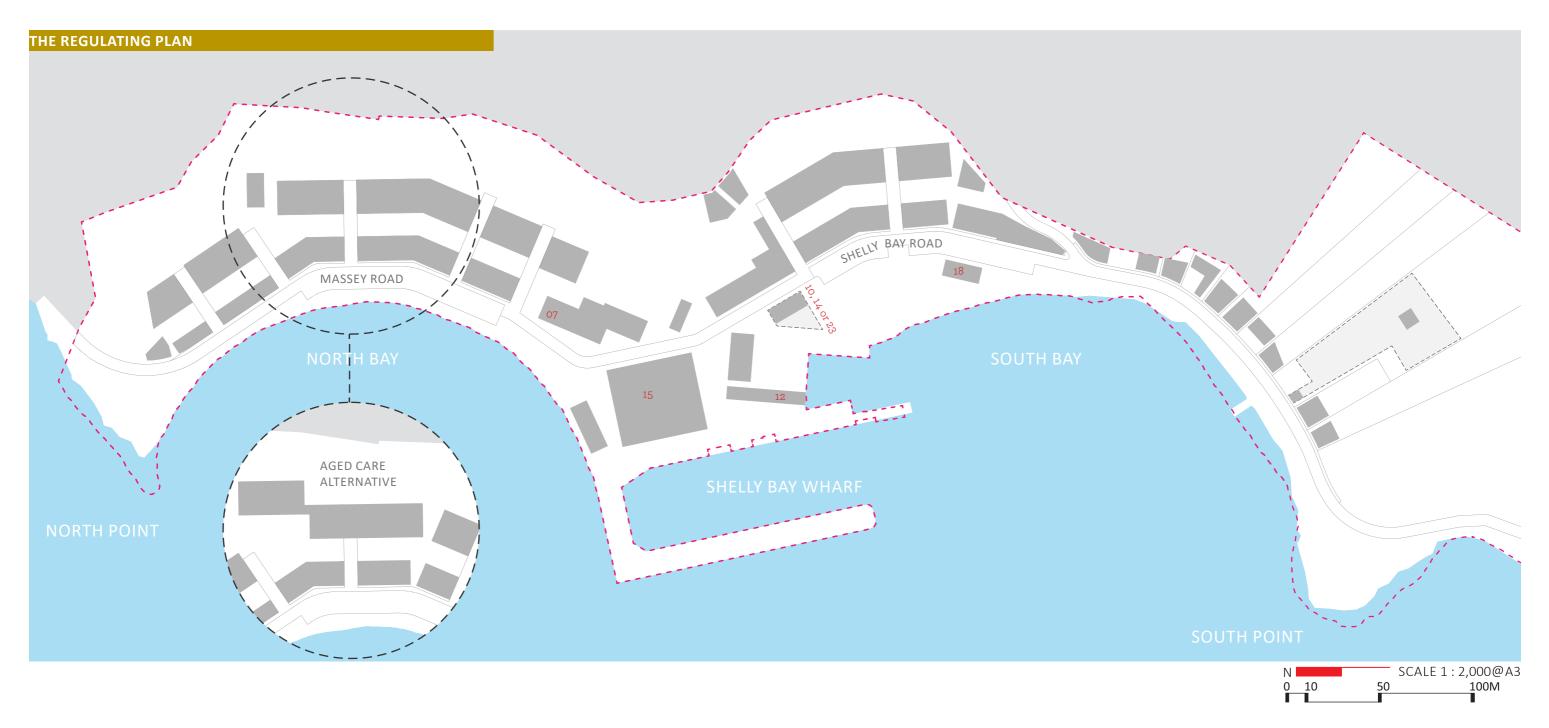
## **4 BUILT FORM**

## 4.1 Introduction

The site has five prominent landscape and built form elements and these form the basis of the site development. Two headland promontories define the site at each end. Between these two points the two distinct bays will be developed largely with residential accommodation and public open space. In the heart of the precinct is a centre with commercial, cultural, community and public amenities centred around Shelly Bay Wharf and existing historic character structures.

Two scales of residential development are established. The front row immediately to the east of the main road are townhouse and individual standalone houses. These will typically be three levels in height. Behind these, at the base of the hill, are apartment buildings. These will be no greater than six levels in height and will have a generous ground floor height to elevate the lower apartment levels to improve their outlook to the harbour over and around the townhouses that are in front. The townhouses and apartments are separated by Mews that provides vehicle access to the sites. The Mews will create a 12m separation between the townhouses and the apartments.

## 4.1 Development Site Plan



#### Legend

Sea

Neighbouring land

Envelope foot print

HASHAA boundary

Indicative building footprint within envelope

#### HISTORIC CHARACTER ASSETS

07 Officer's Quarters and Mess relocated
15 Shed 8 - Propeller Studios retained
10 Library option for relocation
12 Shipwrights Bldg. retained
14 Barack Warden Store option for relocation
18 Chocolate Fish Cafe (Submariners) relocated
23 (part) Whirlwind Designs & Theacrobatic Design Ltd. option for relocation

## 4.2 Building Types



#### Legend



4

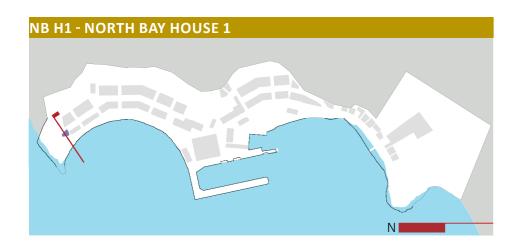
## 4.3 Building Uses







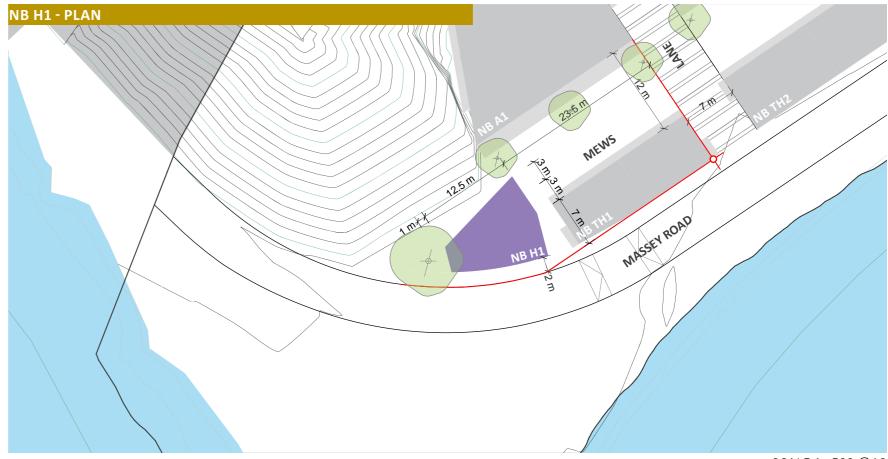
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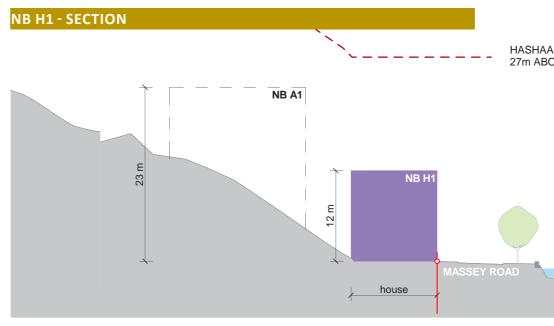


#### **BUILDING TYPE 3 - HOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 3 House Building. This defines Building Envelope, Protrusions and other design considerations.

max length max width	-
max height	12m
number of dwellings	1
max stories	4
covered parking	1
uncovered parking	0
envelope footprint	101m <sup>2</sup>
max floor area	320m <sup>2</sup>





#### Legend

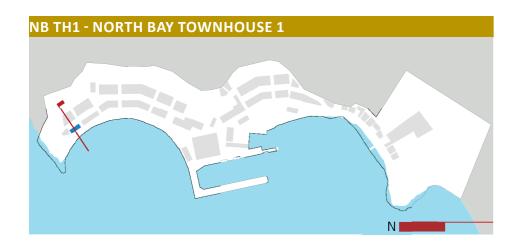


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SCALE 1 : 500 @A3

HASHAA HEIGHT LIMIT 27m ABOVE GL

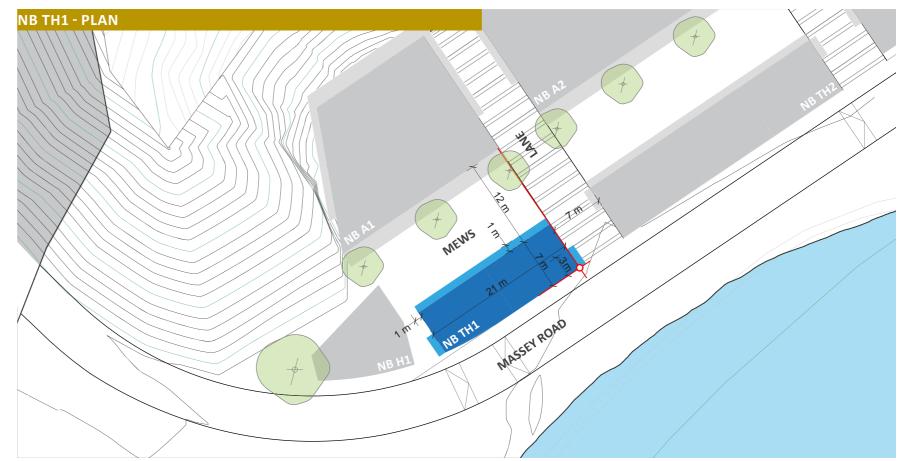
SCALE 1 : 500 @A3

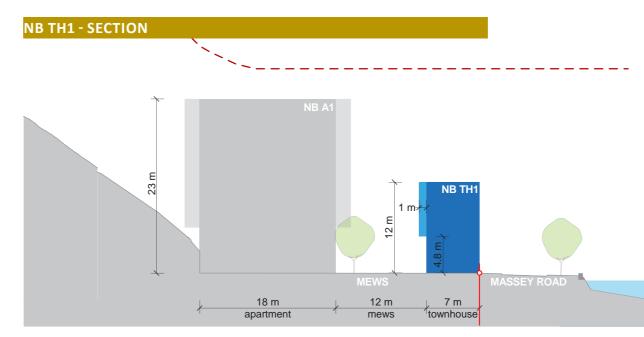


#### **BUILDING TYPE 2 - TOWNHOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 2 Townhouse Building. This defines Building Envelope, Protrusions and other design considerations.

max length	21m
max width	7m
max height	12m
number of dwellings	approximately 2
max stories	-
covered parking	approximately 2
uncovered parking	0
envelope footprint	145m <sup>2</sup>





#### Legend

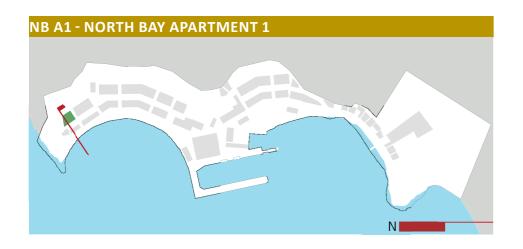


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#### SCALE 1:500@A3

HASHAA HEIGHT LIMIT 27m ABOVE GL

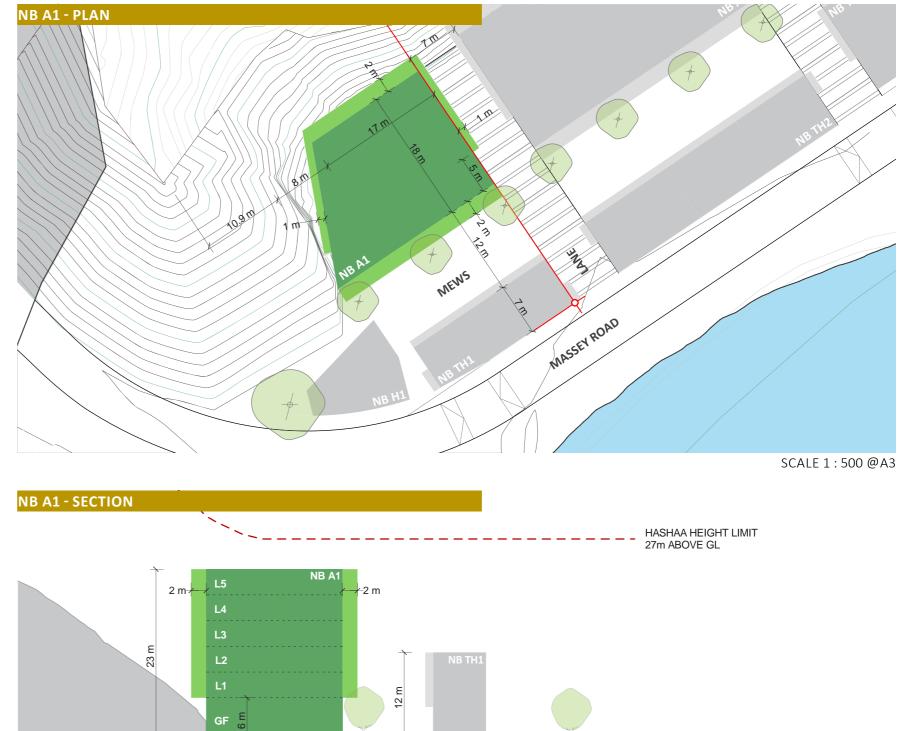
SCALE 1:500@A3

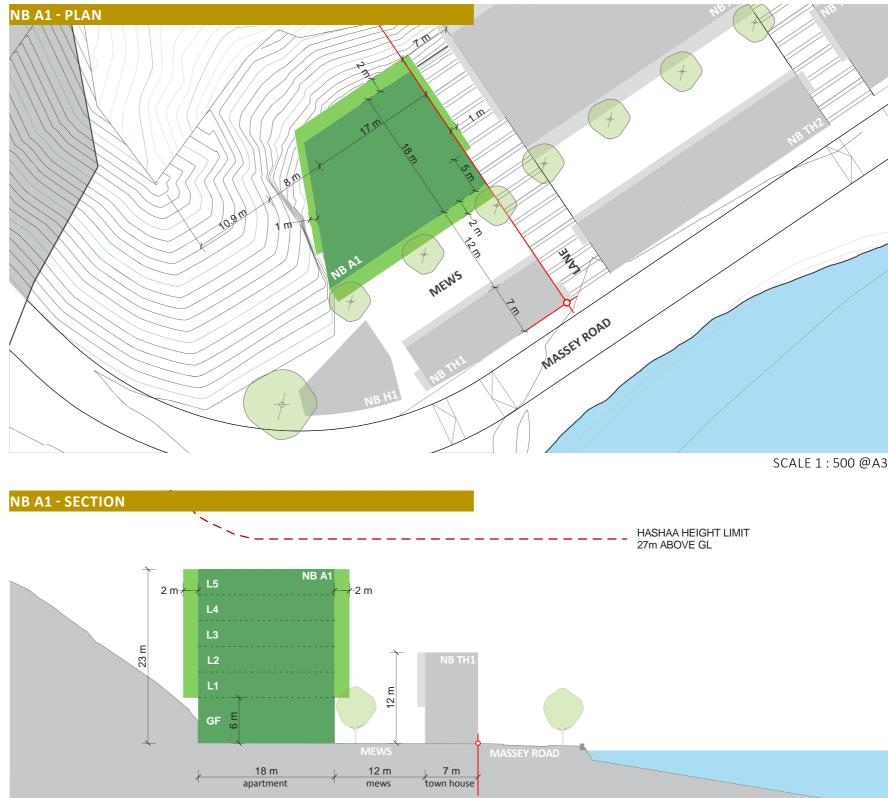


#### **BUILDING TYPE 1 - APARTMENT**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 1 Apartment Building. This defines Building Envelope, Protrusions and other design considerations.

max length	25m
max width	18m
max baight	23m
max height number of dwellings max stories	approximately 25
covered parking	approximately 13
uncovered parking	approximately 12
envelope footprint:	378m <sup>2</sup>



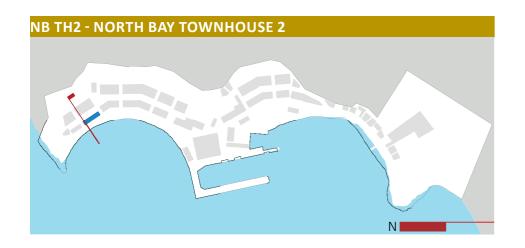


#### Legend



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SCALE 1:500@A3

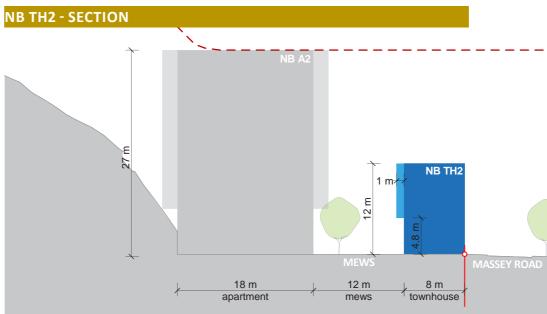


#### **BUILDING TYPE 2 - TOWNHOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 2 Townhouse Building. This defines Building Envelope, Protrusions and other design considerations.

max length	35m
max width	8m
max height	12m
number of dwellings	approximately 3
max stories	-
covered parking	approximately 3
uncovered parking	0
envelope footprint	280m <sup>2</sup>





#### Legend

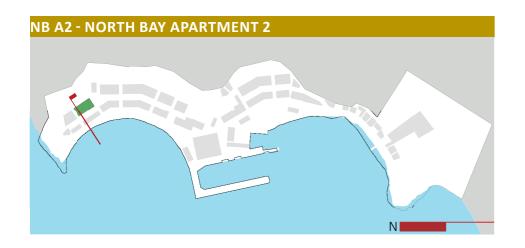
 Boundary	
Building envelope	
Building protrusion	

Height restriction of 8m applies (see design guide G2.19)
 Neighbouring building
 Neighbouring protrusion

SCALE 1 : 500 @A3

HASHAA HEIGHT LIMIT 27m ABOVE GL

SCALE 1 : 500 @A3

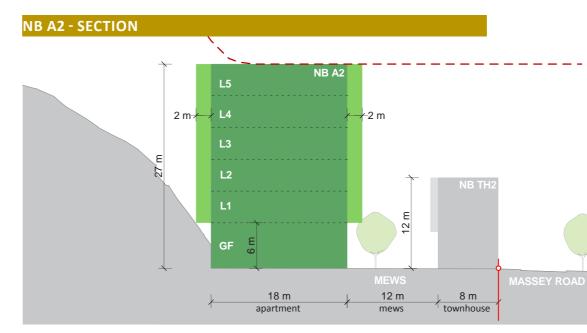


#### **BUILDING TYPE 1 - APARTMENT**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 1 Apartment Building. This defines Building Envelope, Protrusions and other design considerations.

max length	35m
max width	18m
max height	27m
number of dwellings	approximately 30
max stories	6
covered parking	approximately 17
uncovered parking	approximately 13
envelope footprint	630m <sup>2</sup>
envelope footprint	630m²





#### Legend



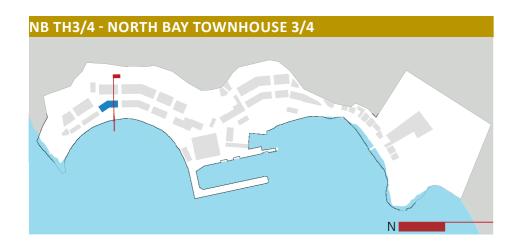
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#### SCALE 1:500@A3



SCALE 1 : 500 @A3

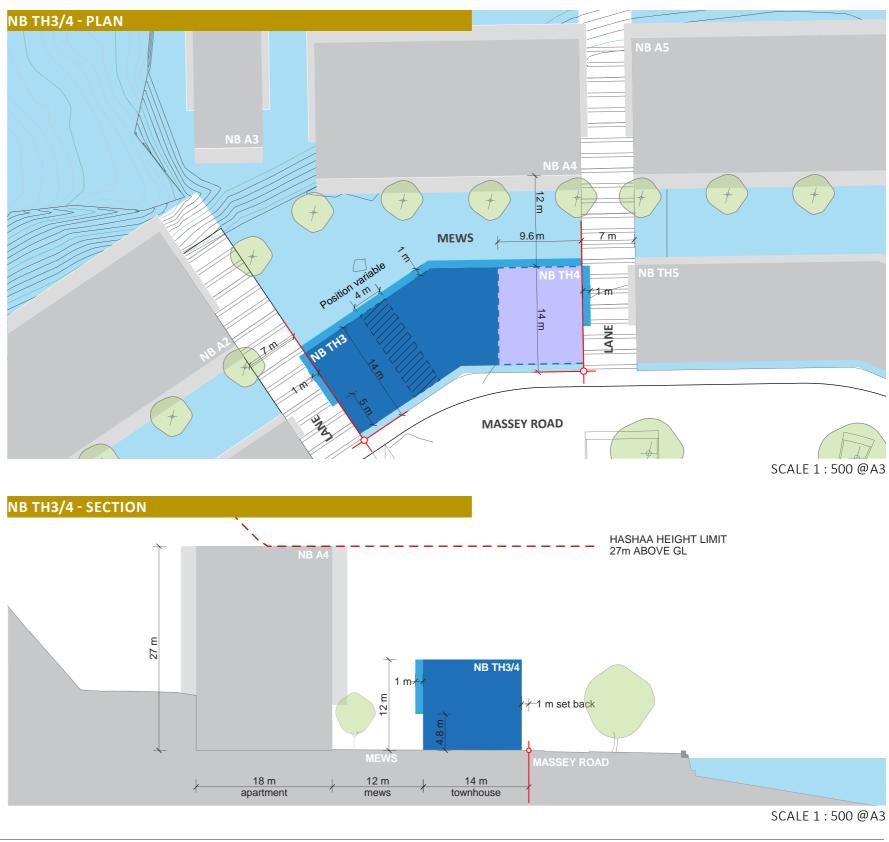
PAGE 23

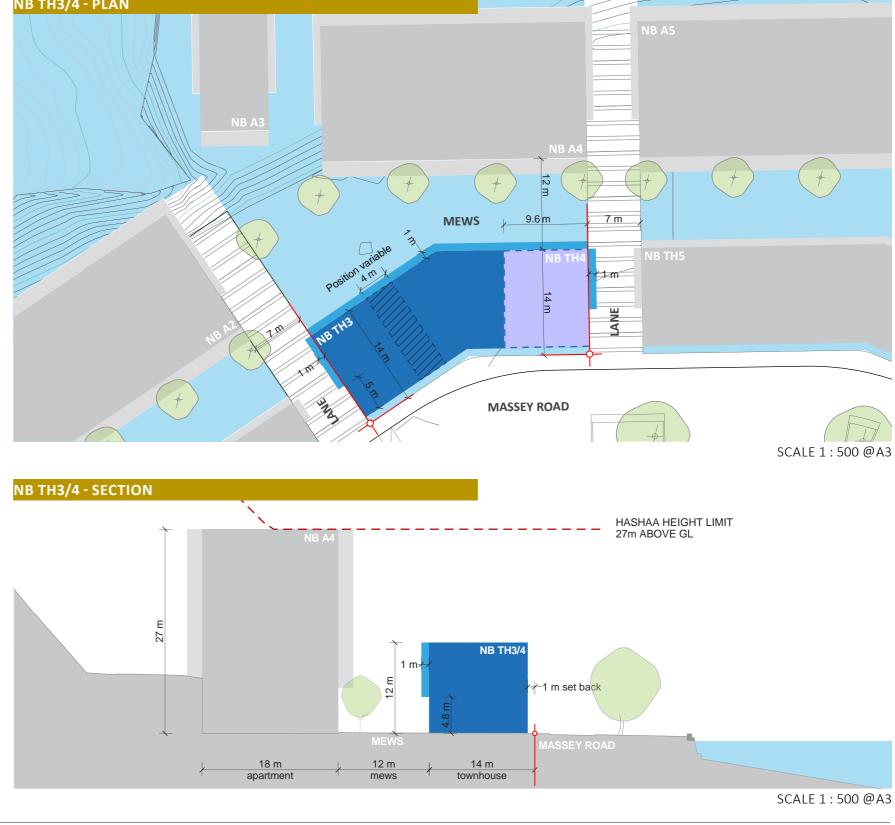


#### **BUILDING TYPE 2 - TOWNHOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 2 Townhouse Building. This defines Building Envelope, Protrusions and other design considerations. Two or more buildings are allowable within the envelope.

max individual building length	19.2m
max individual building width	13m
max individual building height	12m
number of dwellings	approximately 6
max stories	-
covered parking	approximately 6
uncovered parking	0
envelope footprint:	471m <sup>2</sup>





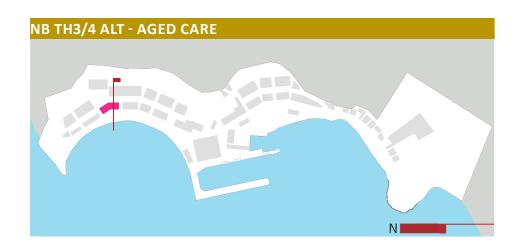
#### Legend



Area of ground floor level is mixed use (see Use Plan on page 6) ZZZA Height restriction of 8m applies (see design guide G2.19) Neighbouring building

Neighbouring protrusion

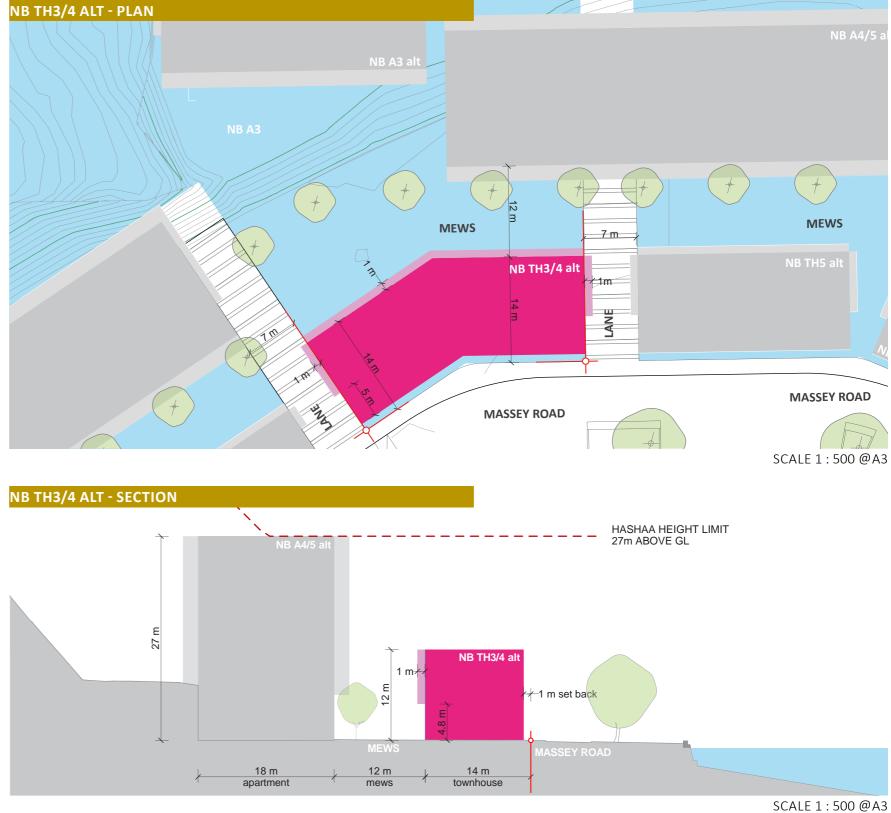
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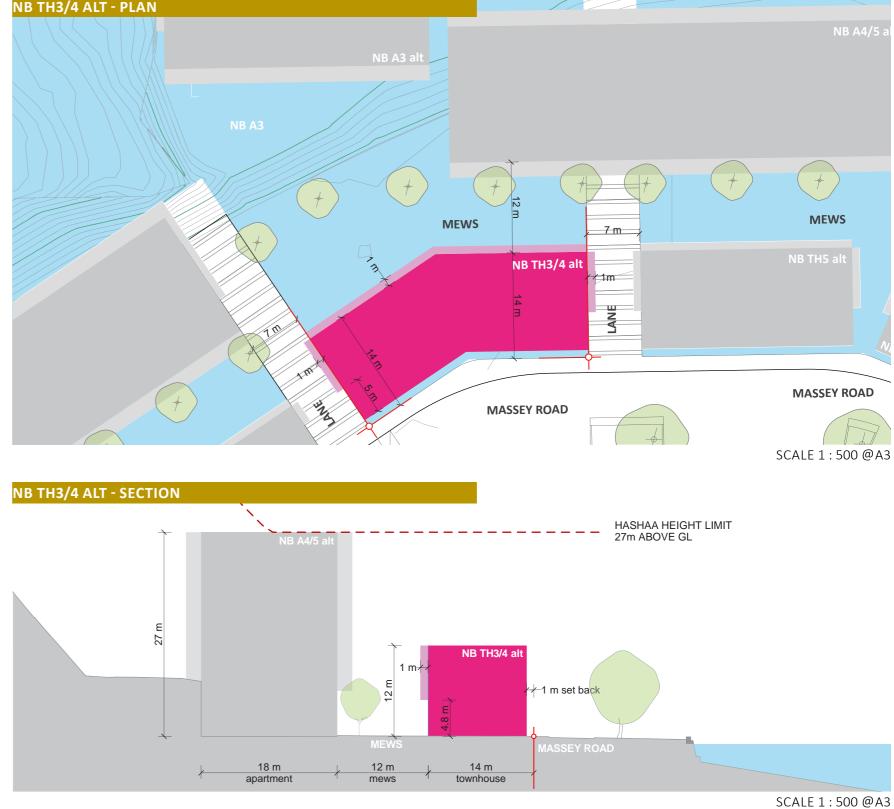


#### **BUILDING TYPE 4 - AGED CARE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 4 Aged Care. This defines Building Envelope, Protrusions and other design considerations Two or more buildings are allowable within the envelope.

max individual building length	19.2m
max individual building width	13m
max individual building height	12m
number of dwellings -	approximately 8
max stories	-
covered parking	approximately 8
uncovered parking	0
envelope footprint	471m <sup>2</sup>

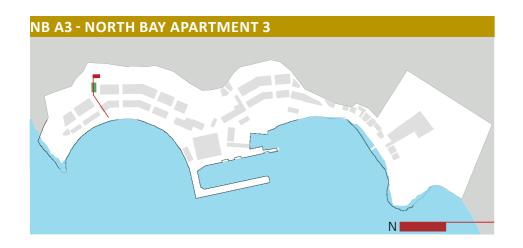




#### Legend



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#### **BUILDING TYPE 1 - APARTMENT**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 1 Apartment Building. This defines Building Envelope, Protrusions and other design considerations.

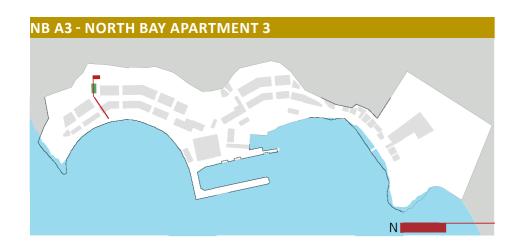
max length	9m	
max width	18m	
max height	27m	
number of dwellings	approximately 10	
max stories	6	
covered parking	approximately 5	
uncovered parking	approximately 5	
envelope footprint	162m <sup>2</sup>	



#### Legend



SCALE 1 : 500 @A3





#### Legend

Boundary
 Building envelope
 Building protrusion
 Neighbouring protrusion

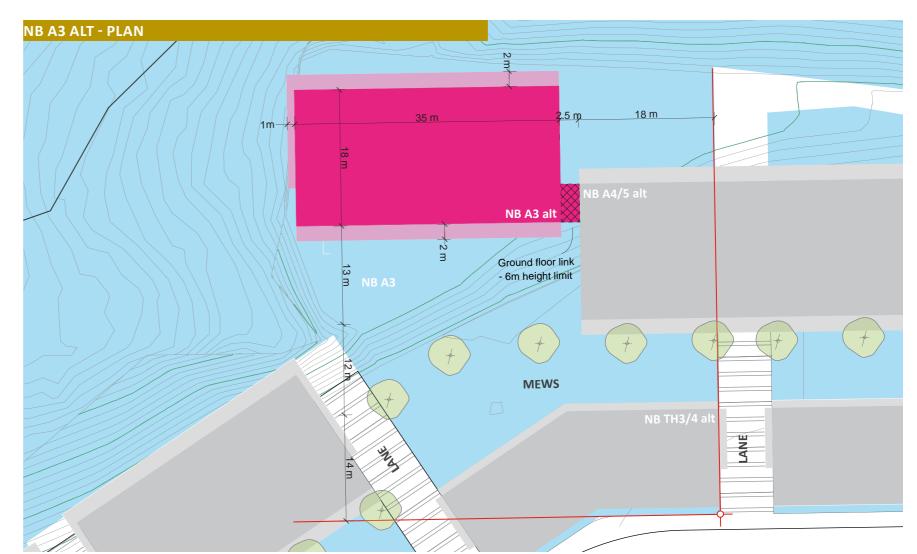
Shelly Bay Masterplan\_ Mar 2019



#### **BUILDING TYPE 4 - AGED CARE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 4 Aged Care Building. This defines Building Envelope, Protrusions and other design considerations.

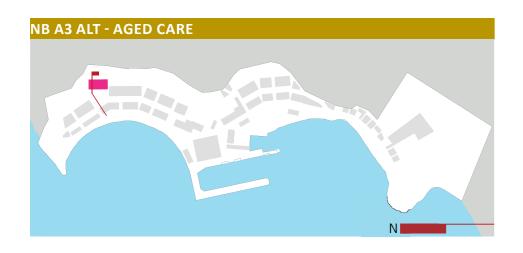
max length	35m
max width	18m
max height	27m
number of dwellings	approximately 39
max stories	6
covered parking	0
uncovered parking	20
envelope footprint:	630m <sup>2</sup>

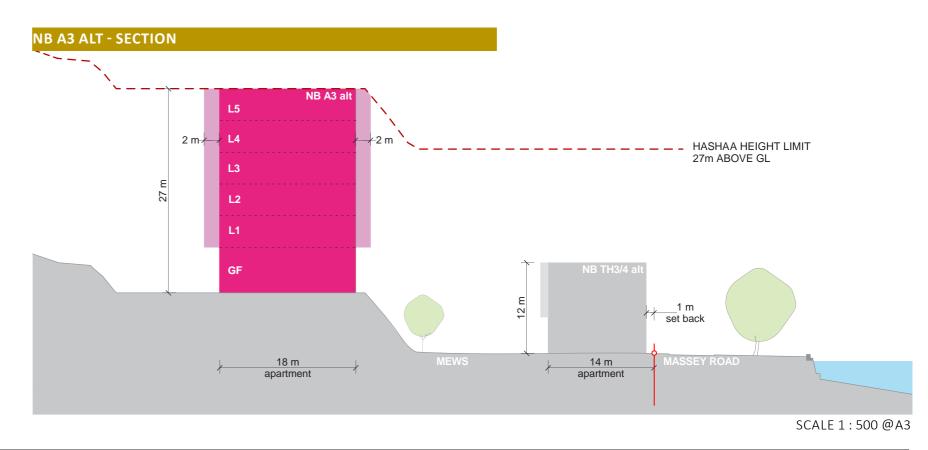


#### Legend



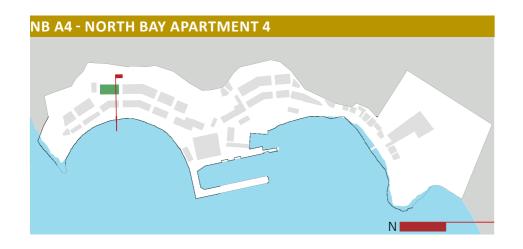
#### SCALE 1 : 500 @A3





#### Legend



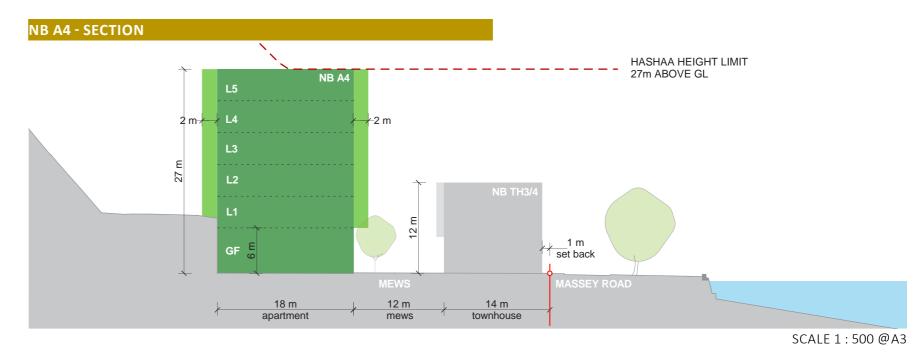


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This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 1 Apartment Building. This defines Building Envelope, Protrusions and other design considerations.

max length	35m
max width	18m
max height	27m
number of dwellings	approximately 30
max stories	6
covered parking	approximately 17
uncovered parking	approximately 13
envelope footprint:	630m <sup>2</sup>



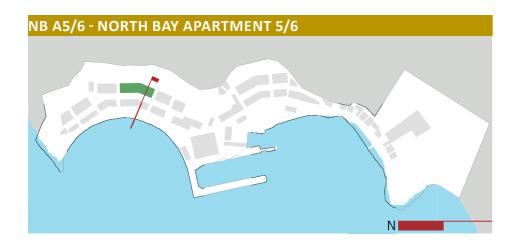


#### Legend



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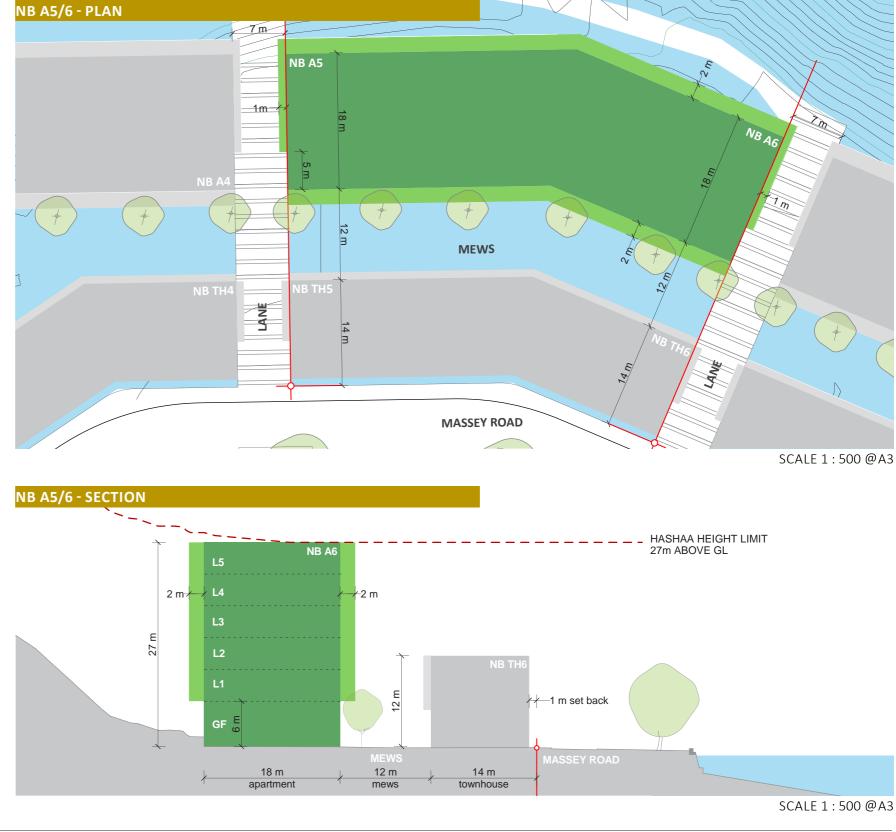
#### SCALE 1:500@A3

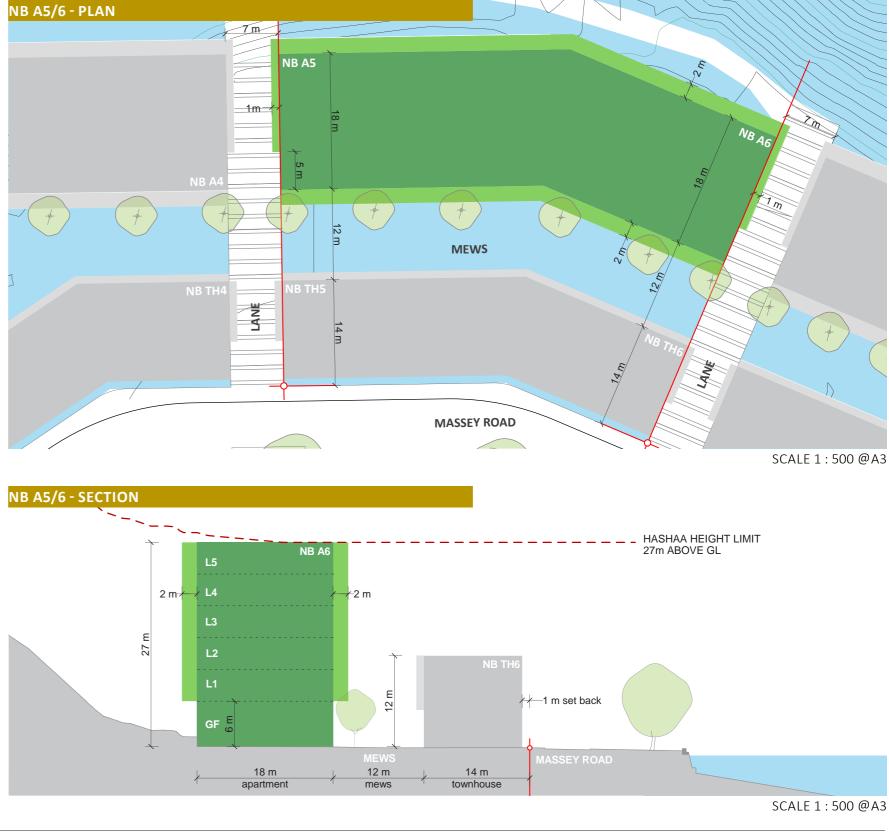


#### **BUILDING TYPE 1 - APARTMENT**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 1 Apartment Building. This defines Building Envelope, Protrusions and other design considerations. Two or more buildings are allowable within the envelope

max individual building length	35m
max individual building width	18m
max individual building height	27m
number of dwellings	approximately 50
max stories	6
covered parking	approximately 29
uncovered parking	approximately 21
envelope footprint	1161m <sup>2</sup>



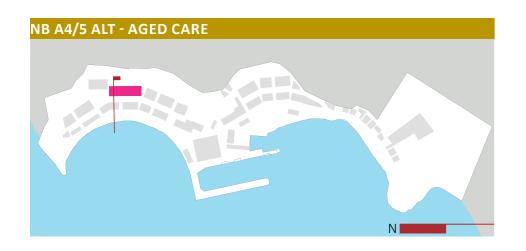


#### Legend



Shelly Bay Masterplan\_ Mar 2019

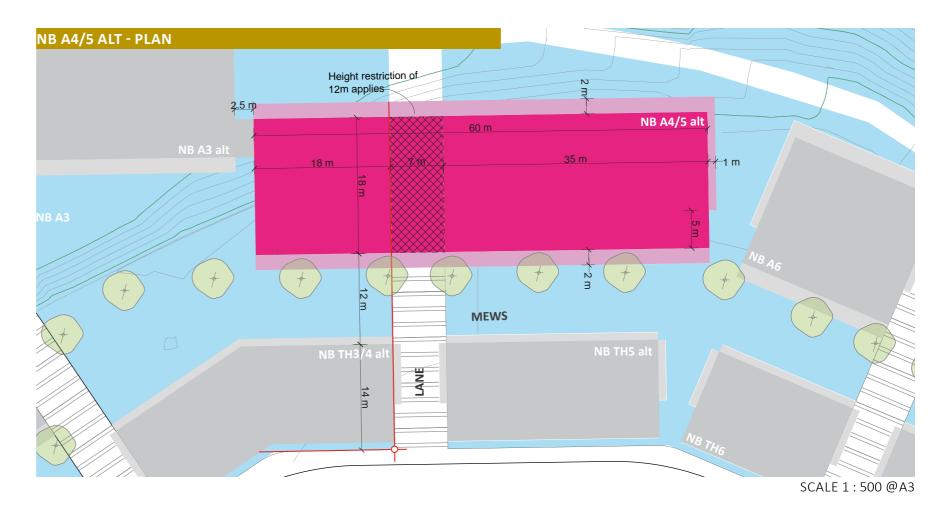
PAGE 31

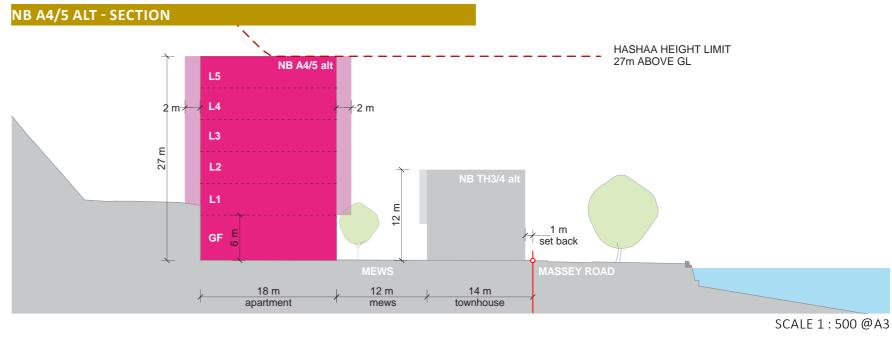


#### **BUILDING TYPE 4 - AGED CARE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 4 Aged Care Building. This defines Building Envelope, Protrusions and other design considerations. Two or more buildings are allowable within the envelope.

max individual building length	35m
max individual building width	18m
max individual height	27m
number of dwellings	approximately 77
max stories	6
covered parking	0
uncovered parking	approximately 31
envelope footprint	1080m <sup>2</sup>





#### Legend



PAGE 32



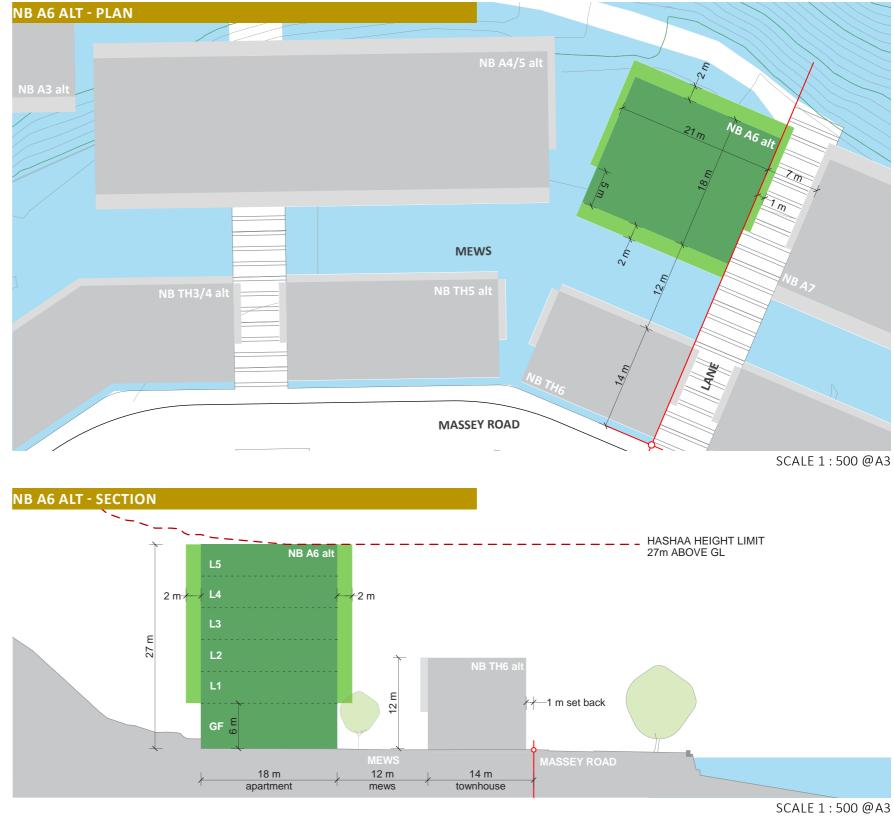
#### **BUILDING TYPE 1 - APARTMENT**

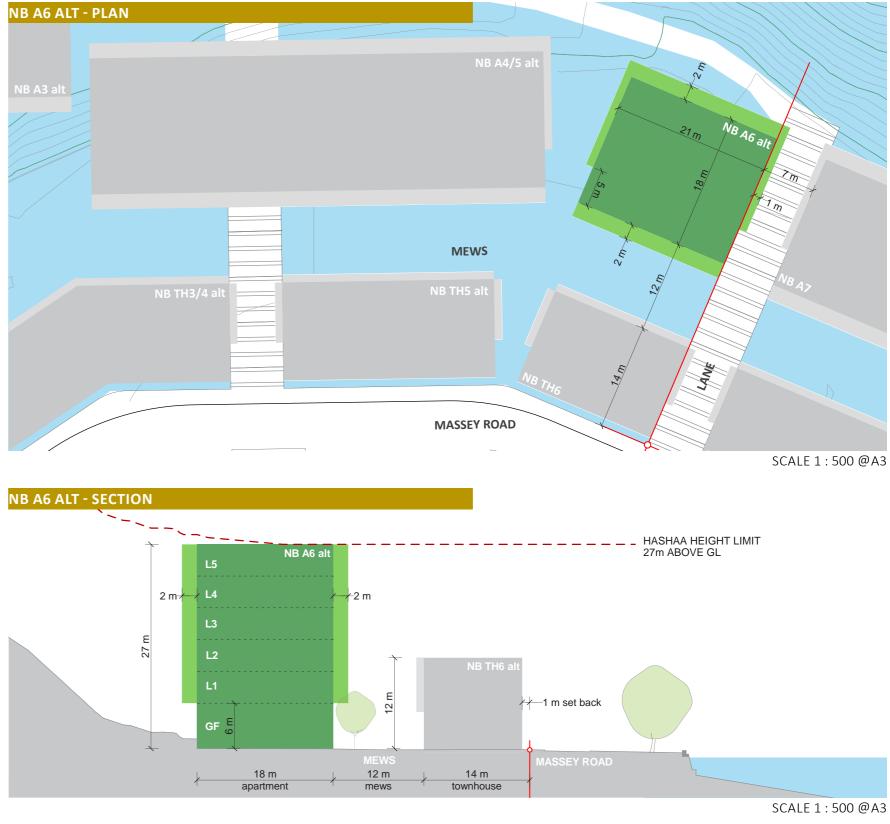
This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 1 Apartment Building. This defines Building Envelope, Protrusions and other design considerations.

max length	21m
max width	18m
max height	27m
number of dwellings	approximately 20
max stories	6
covered parking	approximately 12
uncovered parking	approximately 8

envelope footprint

378m<sup>2</sup>

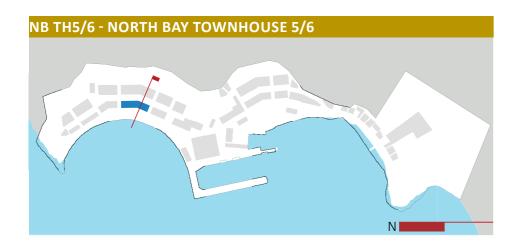




#### Legend



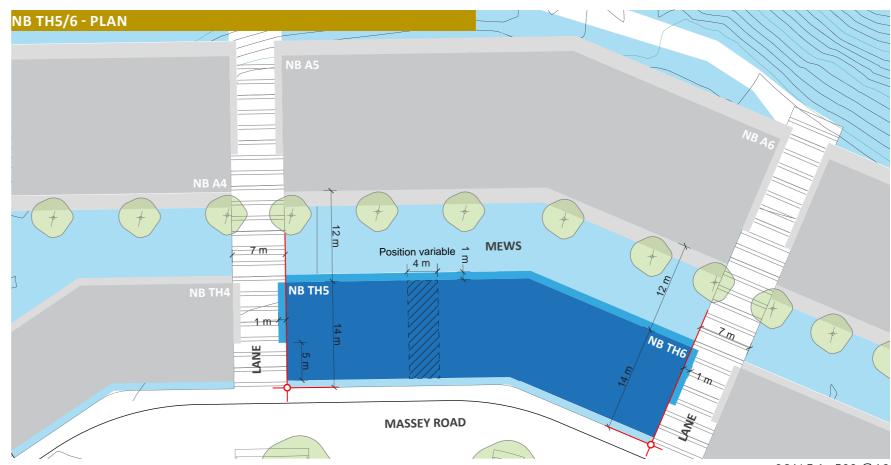
Shelly Bay Masterplan\_ Mar 2019

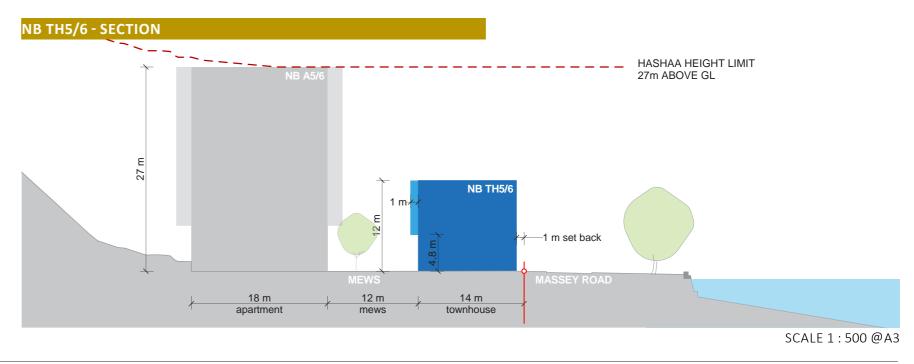


#### **BUILDING TYPE 2 - TOWNHOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 2 Townhouse Building. This defines Building Envelope, Protrusions and other design considerations. Two or more buildings are allowable within the envelope.

max individual building length	28m
max individual building width	13m
max individual building height	12m
number of dwellings	approximately 9
max stories	-
covered parking	approximately 9
uncovered parking	0
envelope footprint:	687m <sup>2</sup>





#### Legend

Boundary	ZZZ Height restriction of 8m applies (see design guide G2.19)
Building envelope	Neighbouring building
Building protrusion	Neighbouring protrusion

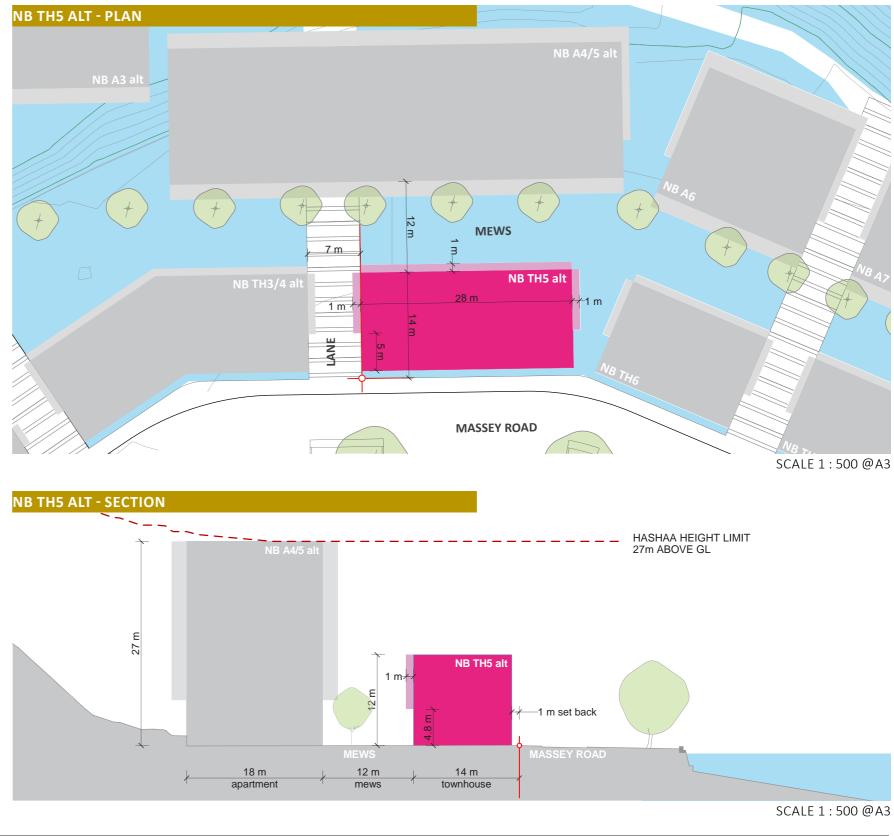
#### SCALE 1:500@A3

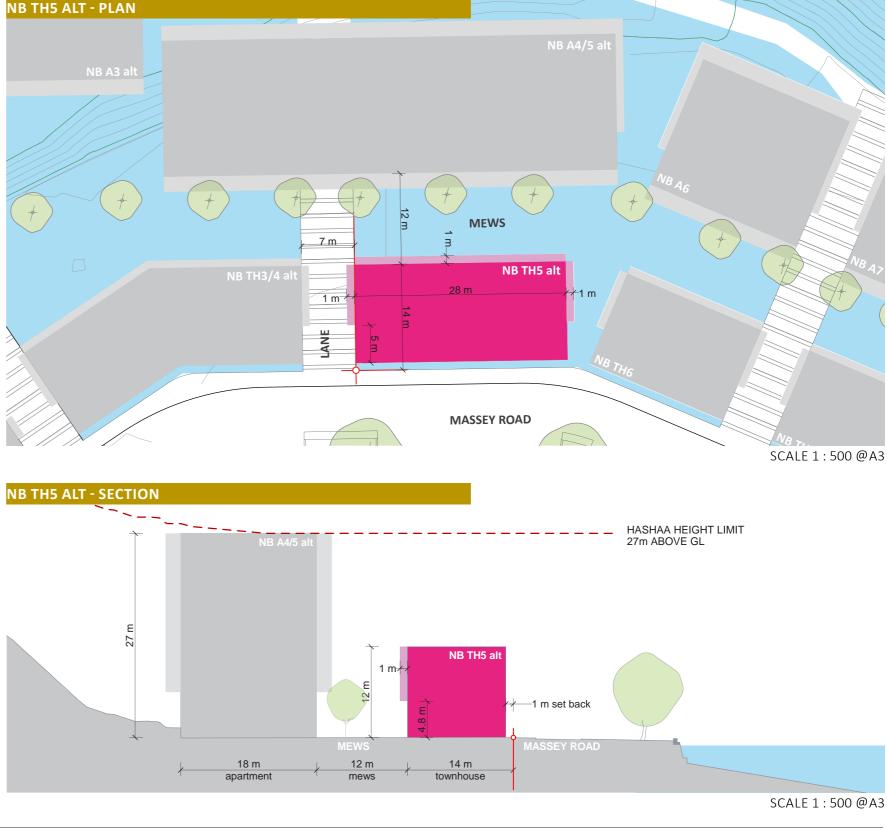


#### **BUILDING TYPE 4 - AGED CARE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 4 Aged Care. This defines Building Envelope, Protrusions and other design considerations.

max length	28m
max width	13m
max height	12m
number of dwellings max stories covered parking uncovered parking	approximately 8 - approximately 8 0
envelope footprint	364m²



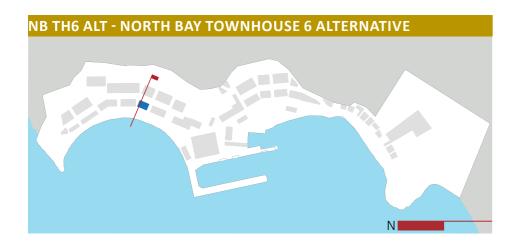


#### Legend



Shelly Bay Masterplan\_ Mar 2019

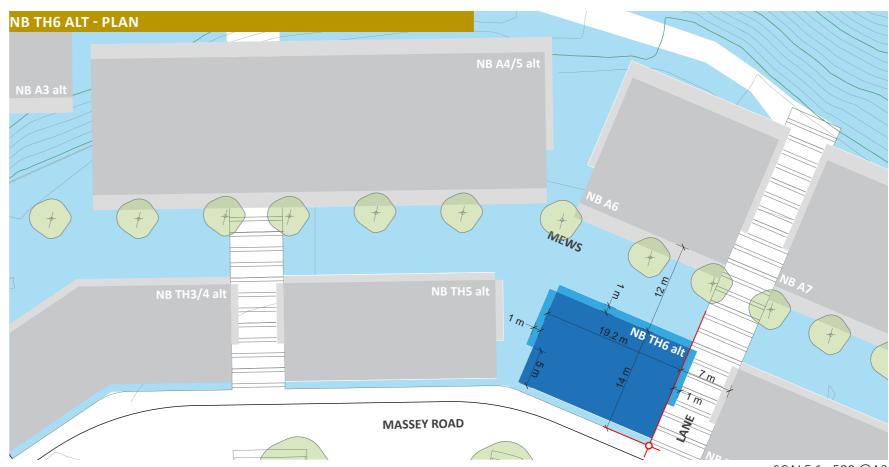
PAGE 35

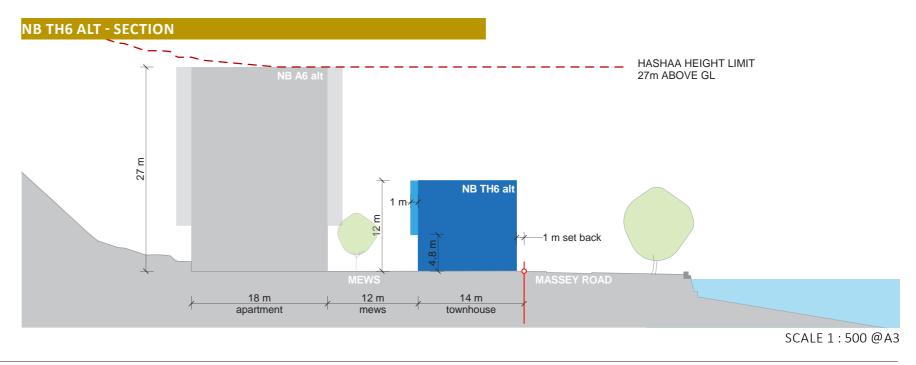


#### **BUILDING TYPE 2 - TOWNHOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 2 Townhouse Building. This defines Building Envelope, Protrusions and other design considerations. Two or more buildings are allowable within the envelope.

max length	19.2m
max width	13m
max height	12m
number of dwellings	approximately 4
max stories	-
covered parking	approximately 4
uncovered parking	0
envelope footprint:	273m <sup>2</sup>

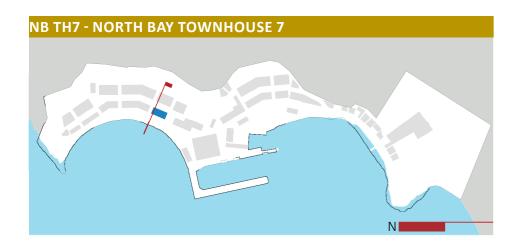




#### Legend

Boundary	Height restriction of 8m applies (see design guide G2.19)
Building envelope	Neighbouring building
Building protrusion	Neighbouring protrusion

#### SCALE 1:500@A3

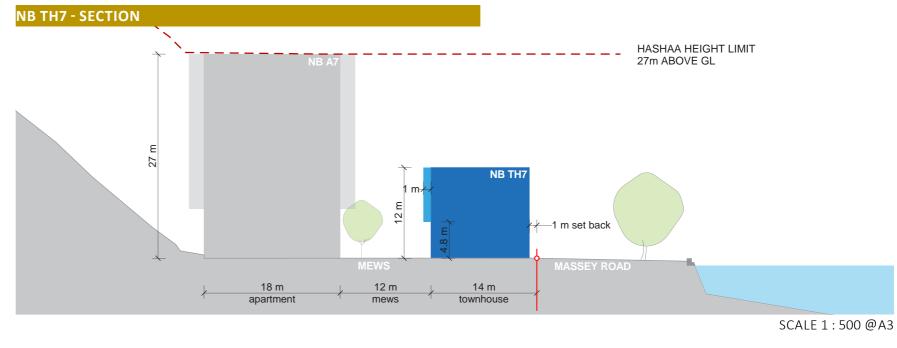


### **BUILDING TYPE 2 - TOWNHOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 2 Townhouse Building. This defines Building Envelope, Protrusions and other design considerations.

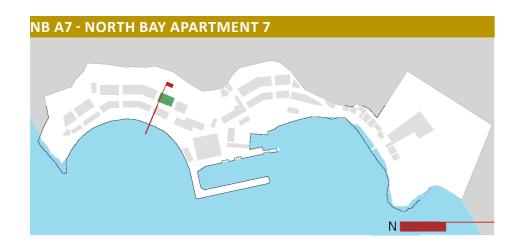
max length	28m
max width	13m
max height	12m
number of dwellings	approximately 5
max stories	-
covered parking	approximately 5
uncovered parking	0
envelope footprint	364m <sup>2</sup>





#### Legend



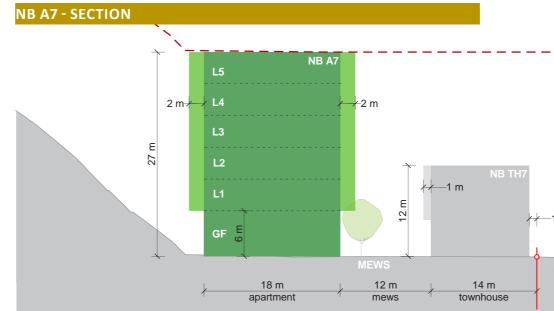


### **BUILDING TYPE 1 - APARTMENT**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 1 Apartment Building. This defines Building Envelope, Protrusions and other design considerations.

max length	28m	
max width	18m	
max height	27m	
number of dwellings	approximately 25	
max stories	6	
covered parking	approximately 15	
uncovered parking	approximately 10	
envelope footprint	504m <sup>2</sup>	





#### Legend



HASHAA HEIGHT LIMIT 27m ABOVE GL



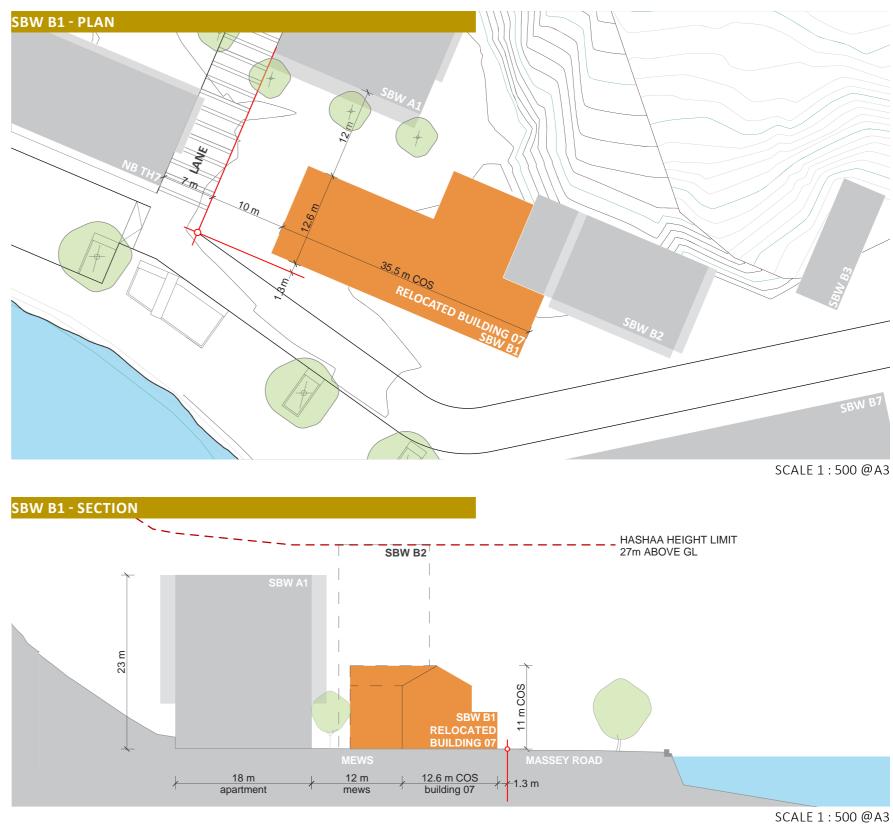
#### HISTORIC CHARACTER ASSET - BUILDING 07

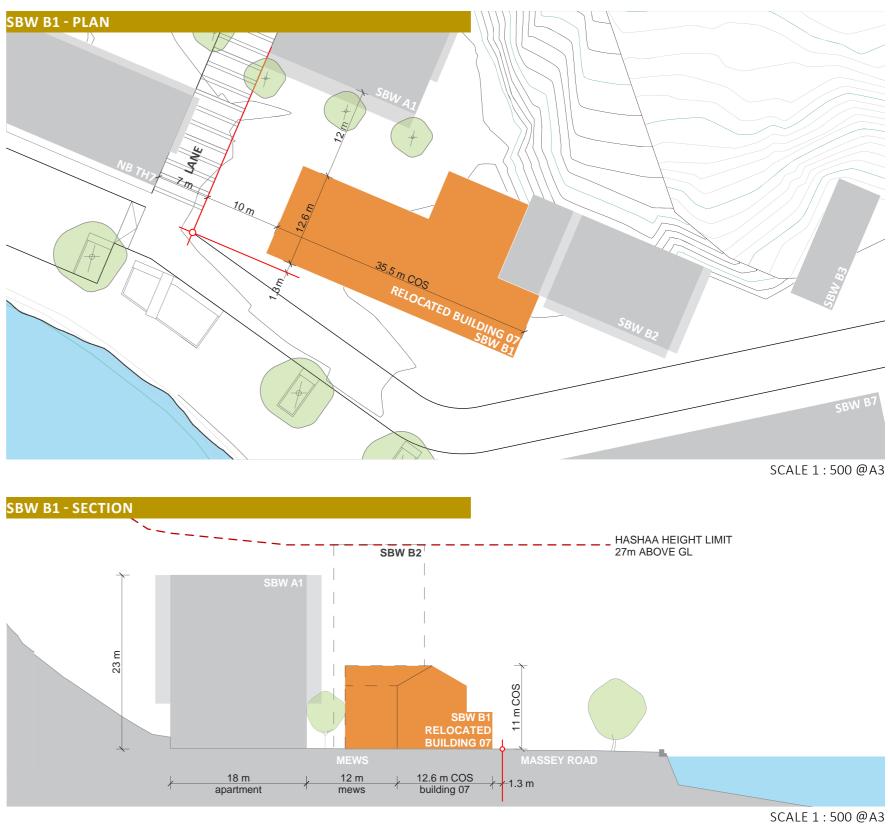
This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Historic character assets. This defines Building Envelope, Protrusions and other design considerations.

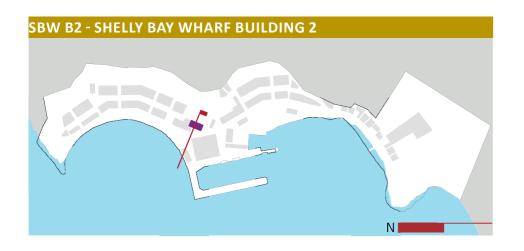
existing length existing width	35.5m cos 19.5m cos
existing height number of dwellings	11.55m cos -
max stories	2
covered parking	0
uncovered parking	8
envelope footprint	505m <sup>2</sup>

Noise mitigation and ventilation applies to this building.







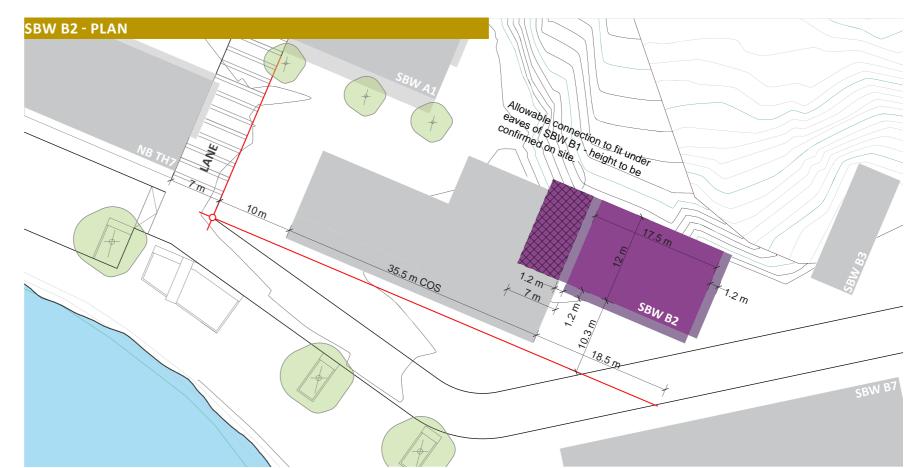


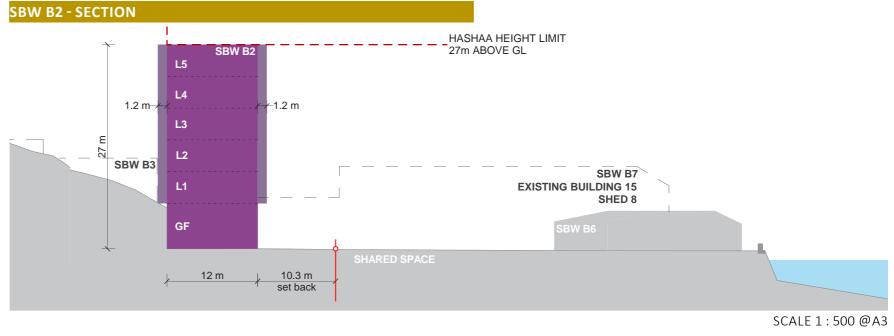
#### **BUILDING TYPE 5 - SPECIAL - HOTEL**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 5 Special Building. This defines Building Envelope, Protrusions and other design considerations.

max length	17.5m lower connection 7m
max width	12m
max height	27m
number of dwellings	-
max stories	6
covered parking	0
uncovered parking	0
envelope footprint	294m <sup>2</sup>

Noise mitigation and ventilation applies to this building.





#### Legend



SCALE 1:500@A3

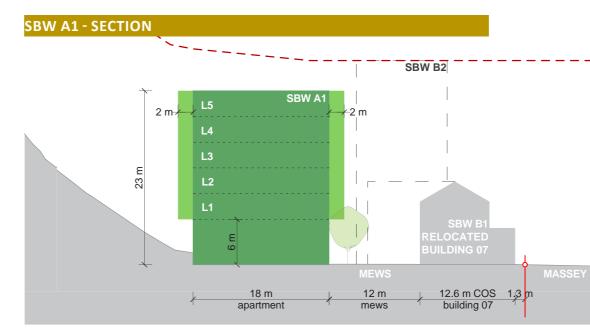


#### **BUILDING TYPE 1 - APARTMENT**

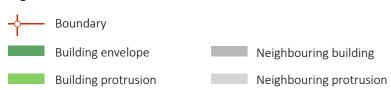
This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 1 Apartment Building. This defines Building Envelope, Protrusions and other design considerations.

max length	21m
max width	18m
max height	23m
number of dwellings	approximately 21
max stories	6
covered parking	approximately 13
uncovered parking	approximately 8
envelope footprint	378m <sup>2</sup>





#### Legend



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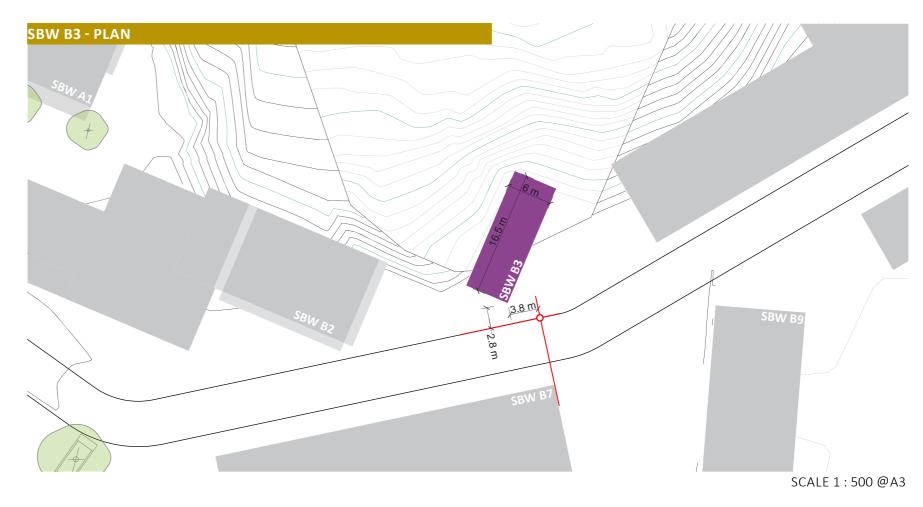




### **BUILDING TYPE 5 - SPECIAL - CAR STACKER**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 5 Special Building. This defines Building Envelope, Protrusions and other design considerations.

max length	16.5m
max width	6m
max height	12m
number of dwellings	0
max stories	-
covered parking	30 (carstacker)
uncovered parking	0
envelope footprint	99m²

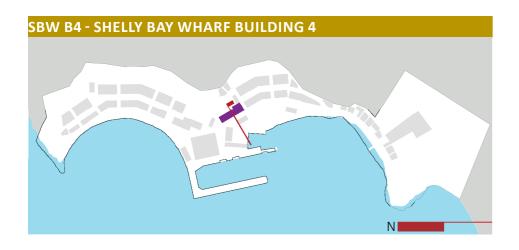






### Legend Boundary Neighbouring building Building envelope Neighbouring protrusion

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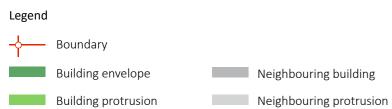
### **BUILDING TYPE 5 - SPECIAL - MIXED USE BUILDING**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 5 Special Building. This defines Building Envelope, Protrusions and other design considerations.

max length	48m
max width	17m
max height	15m
number of dwellings	approximately 10
max stories	3
covered parking	10 (Located in carparking stacker in SBW. B5)
uncovered parking	0
envelope footprint	661m <sup>2</sup>



↓ 5 m ↓ 12 m ↓ 10.5 m ↓ COS ↓ special building shared space





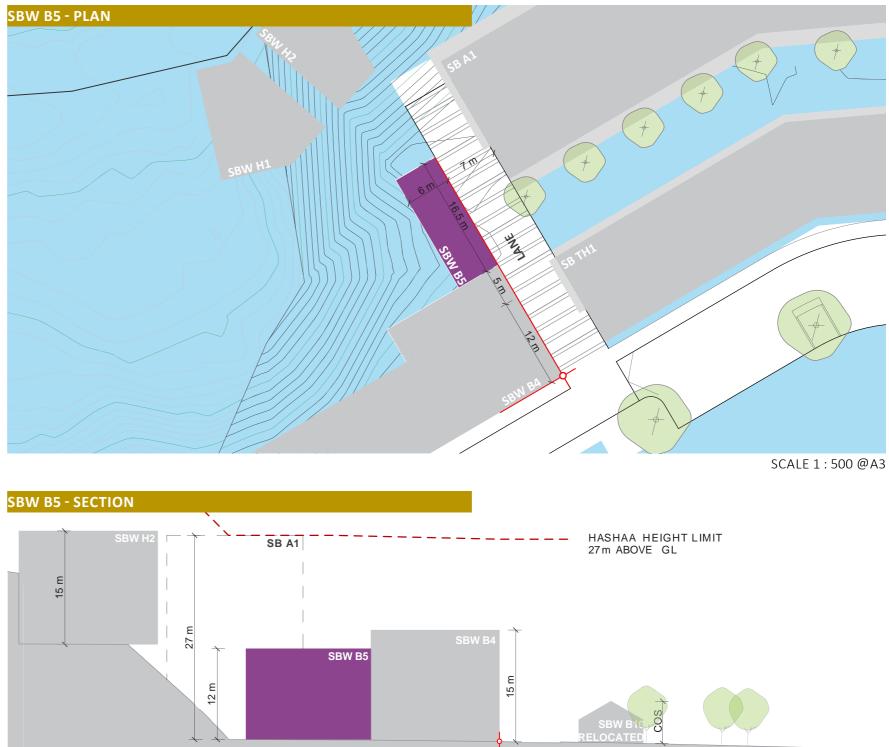


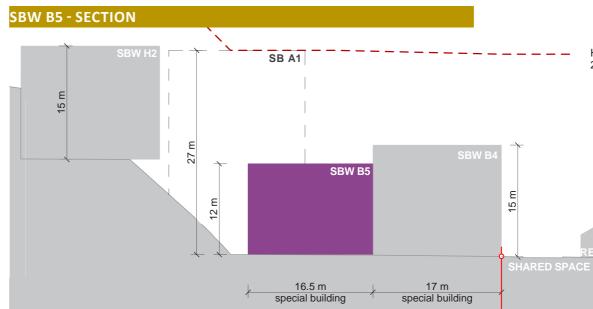


### **BUILDING TYPE 5 - SPECIAL - CAR STACKER**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 5 Special Building. This defines Building Envelope, Protrusions and other design considerations.

max length	16.5m
max width	6m
max height	12m
number of dwellings	0
max stories	-
covered parking	30
uncovered parking	0
envelope footprint	99m²

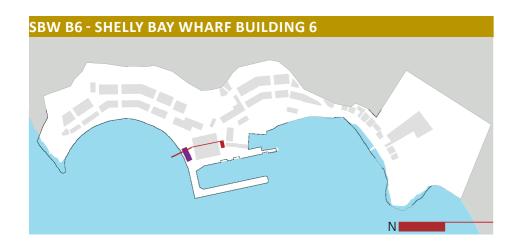








SCALE 1:500@A3

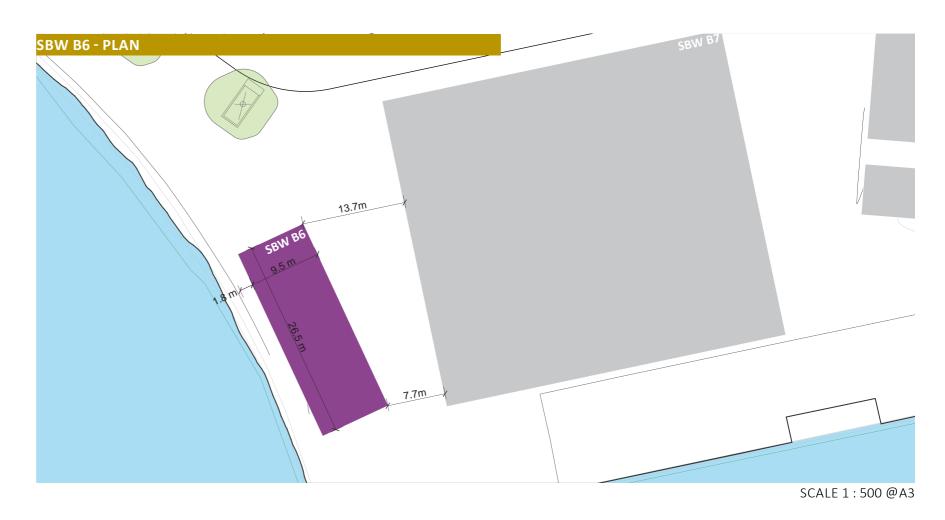


### **BUILDING TYPE 5 - SPECIAL - KIOSKS**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 5 Special Building. This defines Building Envelope, Protrusions and other design considerations.

max length	26.5m
max width	9.5m
max height	5.5m
number of dwellings	0
max stories	1
covered parking	0
uncovered parking	0
envelope footprint	252m <sup>2</sup>

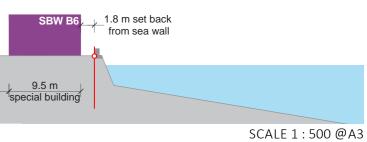
Noise mitigation and ventilation applies to this building.



### SBW B6 - SECTION



HARED SPACE HARED SPACE





### HISTORIC CHARACTER ASSET - BUILDING 15/SHED 8

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Historic character assets. This defines Building Envelope, Protrusions and other design considerations.

existing length	45.8m cos
existing width	41.3m cos
existing height	10m cos
number of dwellings	0
max stories	1
covered parking	0 (Located in carparking stacker in SBW. B3)
uncovered parking	0
envelope footprint	1892m <sup>2</sup>

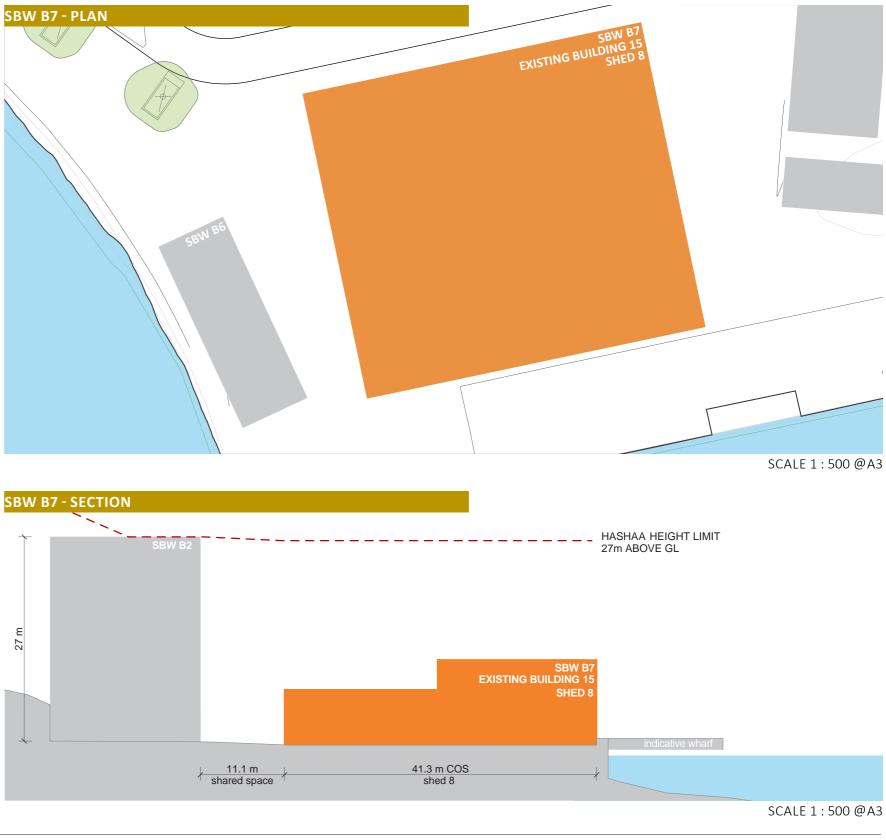
Noise mitigation and ventilation applies to this building.





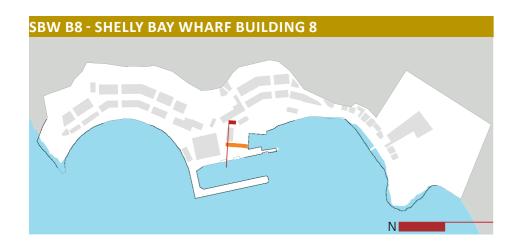
Neighbouring building

Neighbouring protrusion





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### HISTORIC CHARACTER ASSET - BUILDING 12/SHIPWRIGHT'S

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Historic character assets. This defines Building Envelope, Protrusions and other design considerations.

existing length	41.625m cos
existing width	6.7m cos
existing height	6m cos
number of dwellings	0
max stories	1
covered parking	0 (Located in carparking stacker in SBW. B3)
uncovered parking	0
envelope footprint	279m <sup>2</sup>

Noise mitigation and ventilation applies to this building.

#### Legend

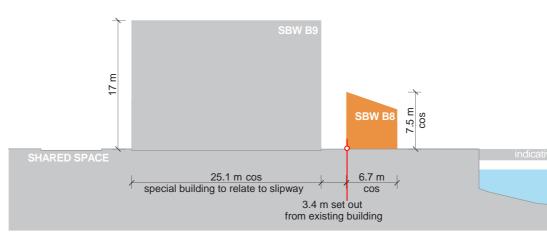
------ Boundary

Neighbouring building

Neighbouring protrusion



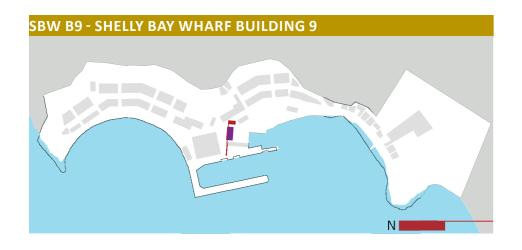
### SBW B8 - SECTION



Building envelope

SCALE 1 : 500 @A3

ve wharf

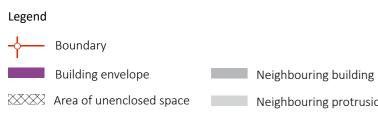


#### **BUILDING TYPE 5 - SPECIAL - SLIPWAY WITH APARTMENTS ABOVE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 5 Special Building. This defines Building Envelope, Protrusions and other design considerations.

max length	25.1m cos - to relate to slipway
max width	12m
max height	17m
number of dwellings	approximately 9
max stories	4
covered parking	0 (Located in carparking stacker in SBW. B5)
uncovered parking	0
envelope footprint	300m <sup>2</sup>

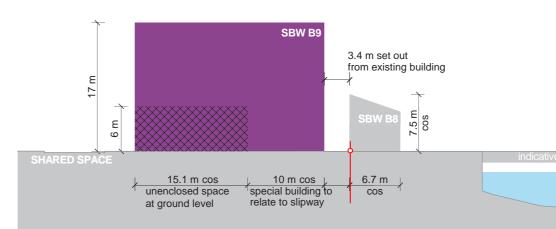
Noise mitigation and ventilation applies to this building.



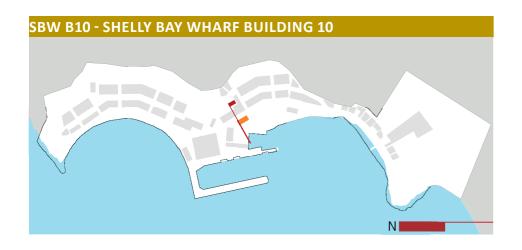
Neighbouring protrusion



### SBW B9 - SECTION



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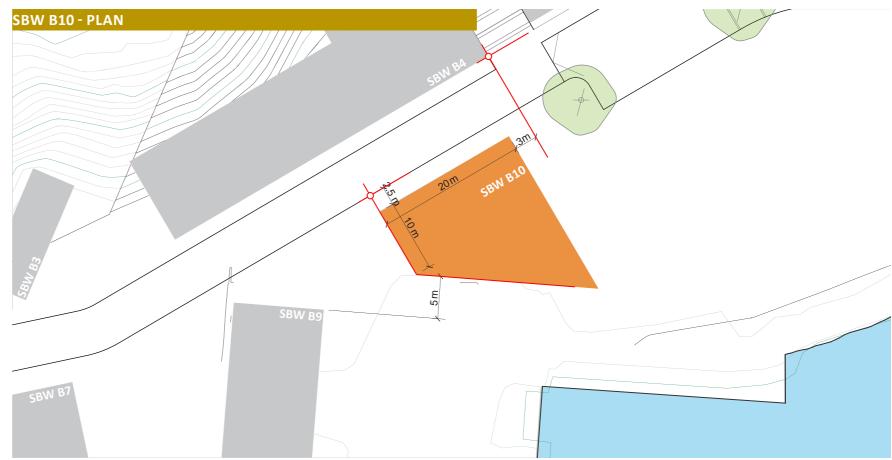


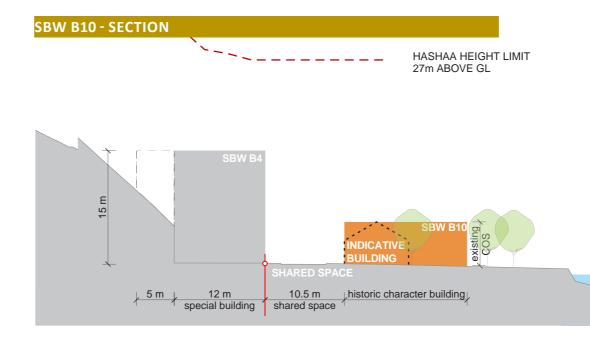
### HISTORIC CHARACTER ASSETS - BUILDING or BUILDINGS 10, 14 and 23

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Historic character assets. This defines Building Envelope, Protrusions and other design considerations. One or two buildings are allowable within the envelope.

max length	-
max width	-
existing height/s	COS
number of dwellings	0
max stories	1
covered parking	0 (Located in carparking stacker in SBW. B3)
uncovered parking	0
envelope footprint	340m <sup>2</sup>
max floor area	250m <sup>2</sup>

Noise mitigation and ventilation applies to this building.

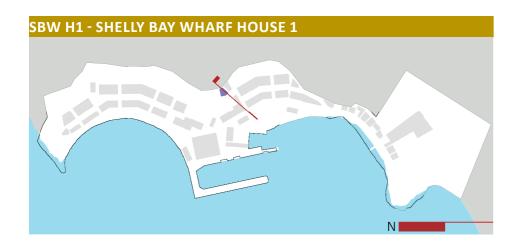






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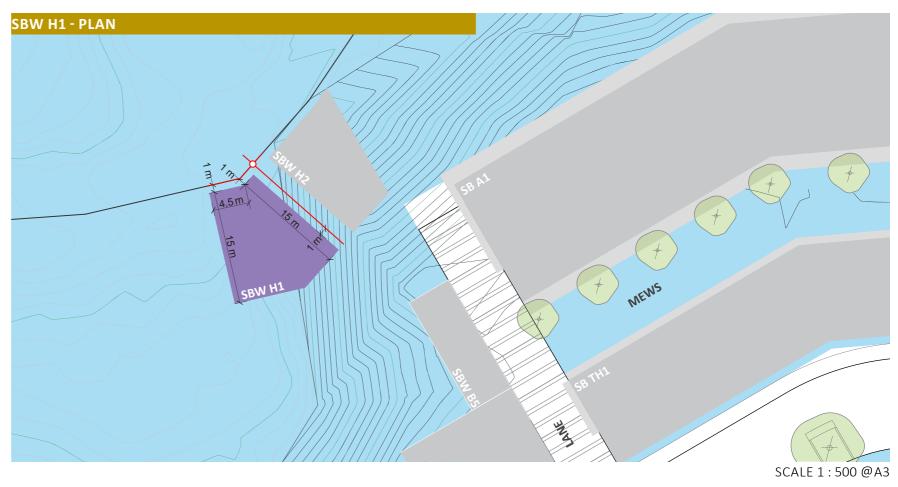
SCALE 1:500@A3

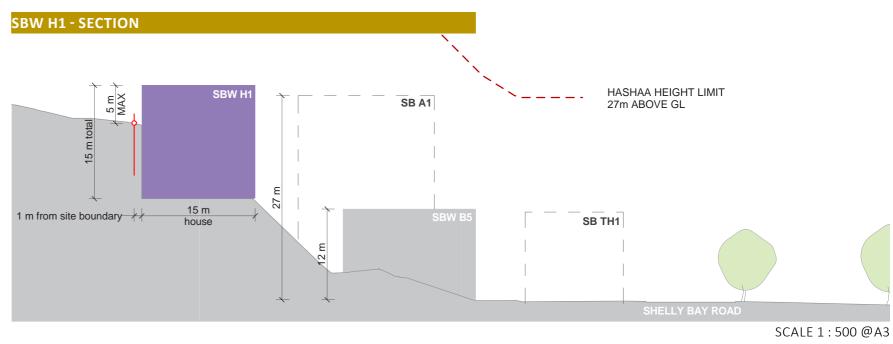


### **BUILDING TYPE 3 - DETACHED HOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 3 House Building. This defines Building Envelope, Protrusions and other design considerations.

max length max width	-
max height	15m
number of dwellings	1
max stories	4
covered parking	1 (Located in carparking stacker in SBW. B5)
uncovered parking	0
envelope footprint	171m <sup>2</sup>
max floor area	320m <sup>2</sup>





#### Legend

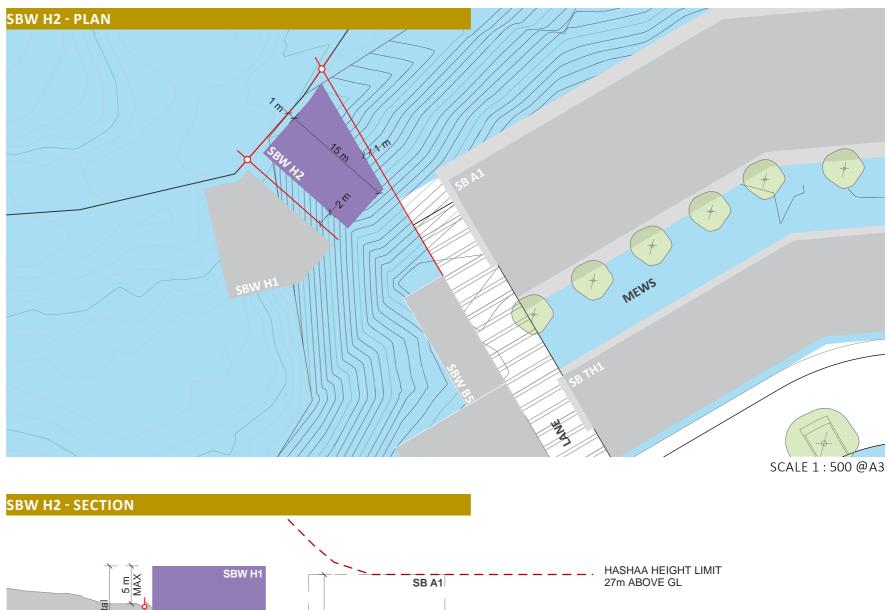


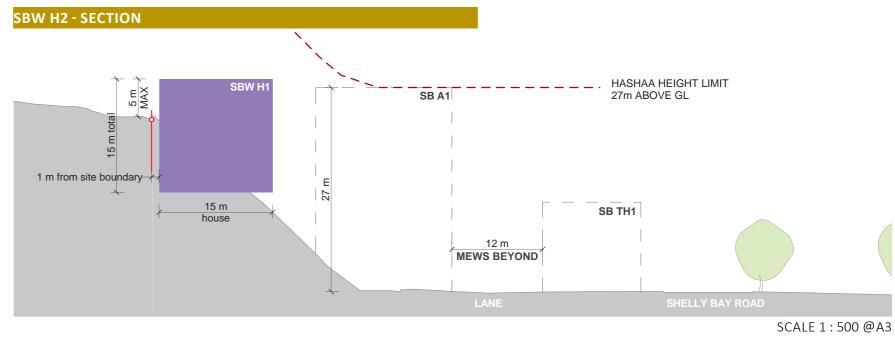


### **BUILDING TYPE 3 - DETACHED HOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 3 House Building. This defines Building Envelope, Protrusions and other design considerations.

max length	-
max width max height	- 15m
max neight	1011
number of dwellings	1
max stories	4
covered parking	1 (Located in carparking stacker in SBW. B5)
uncovered parking	0
envelope footprint	142m <sup>2</sup>
max floor area	320m <sup>2</sup>





#### Legend

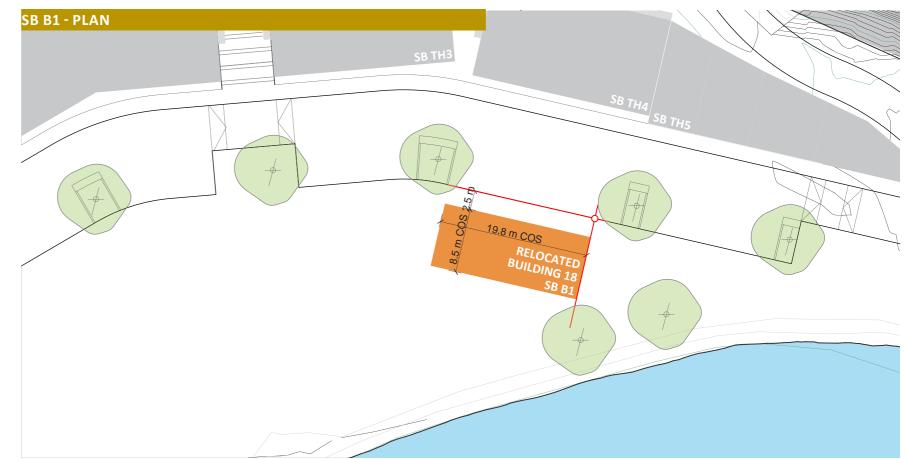


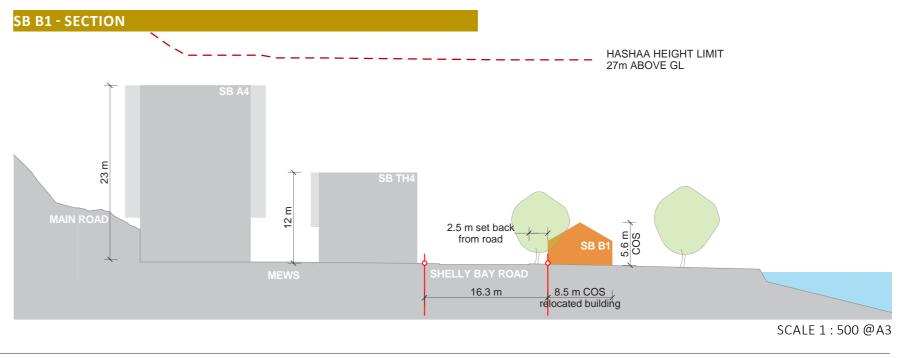


#### **HISTORIC CHARACTER ASSETS - BUILDING 18**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Historic character assets. This defines Building Envelope, Protrusions and other design considerations.

19.8m cos
8.5m cos
5.6m cos
0
1
0
0
168m <sup>2</sup>







#### SCALE 1 : 500 @A3

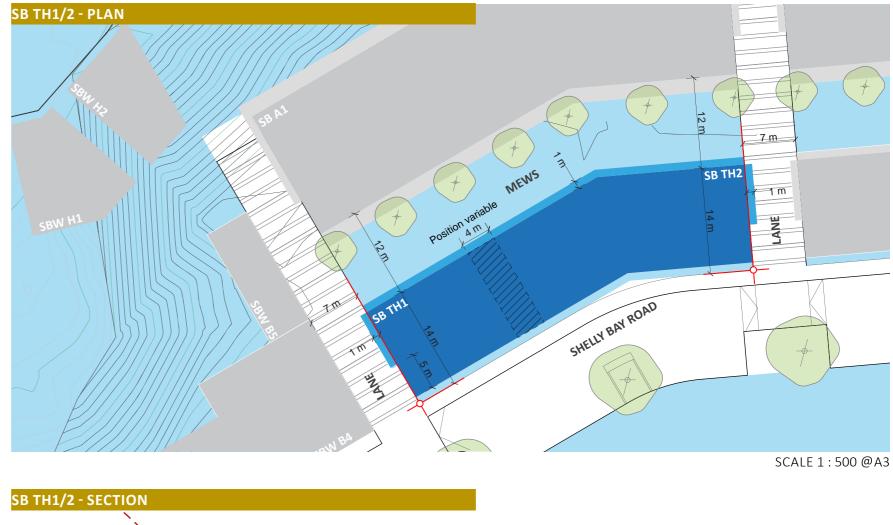
PAGE 52

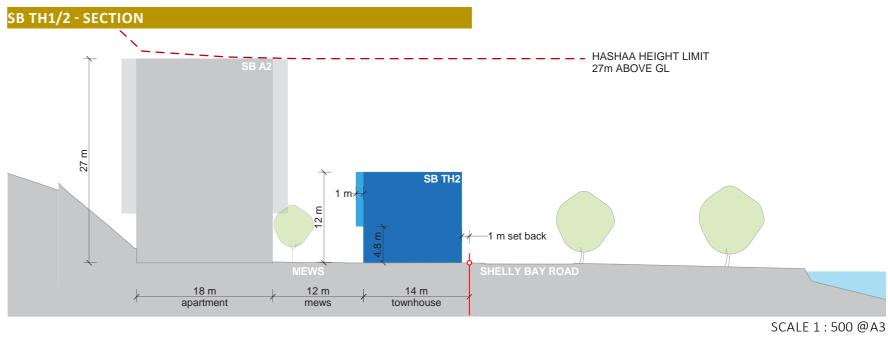


### **BUILDING TYPE 2 - TOWNHOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 2 Townhouse Building. This defines Building Envelope, Protrusions and other design considerations. Two or more buildings are allowable within the envelope.

max individual building length	28m
max individual building width	13m
max individual building height	12m
number of dwellings	approximately 9
max stories	-
covered parking	approximately 9
uncovered parking	0
envelope footprint:	676m <sup>2</sup>





#### Legend

 Boundary
Building envelope
Building protrusion

Height restriction of 8m applies (see design guide G2.19)
 Neighbouring building
 Neighbouring protrusion



### **BUILDING TYPE 1 - APARTMENT**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 1 Apartment Building. This defines Building Envelope, Protrusions and other design considerations. Two or more buildings are allowable within the envelope.

max individual building length	35m
max individual building width	18m
max individual building height	27m
number of dwellings	approximately 50
max stories	6
covered parking	approximately 29
uncovered parking -	approximately 21
envelope footprint:	1159m <sup>2</sup>



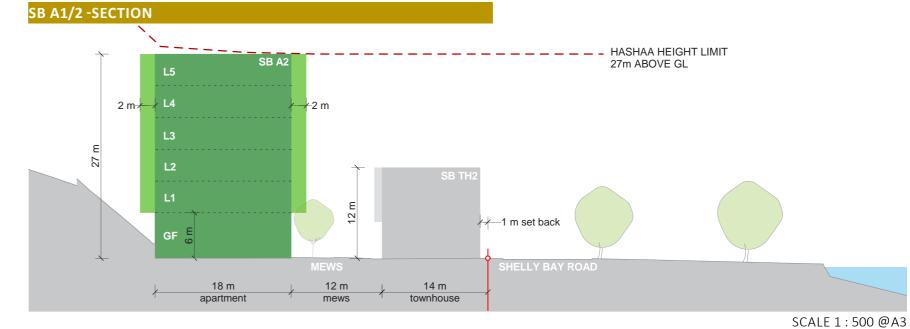
Neighbouring building Neighbouring protrusion



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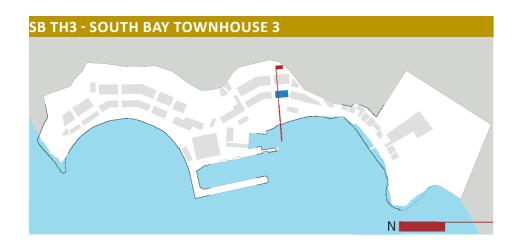
#### SCALE 1:500@A3





#### Legend

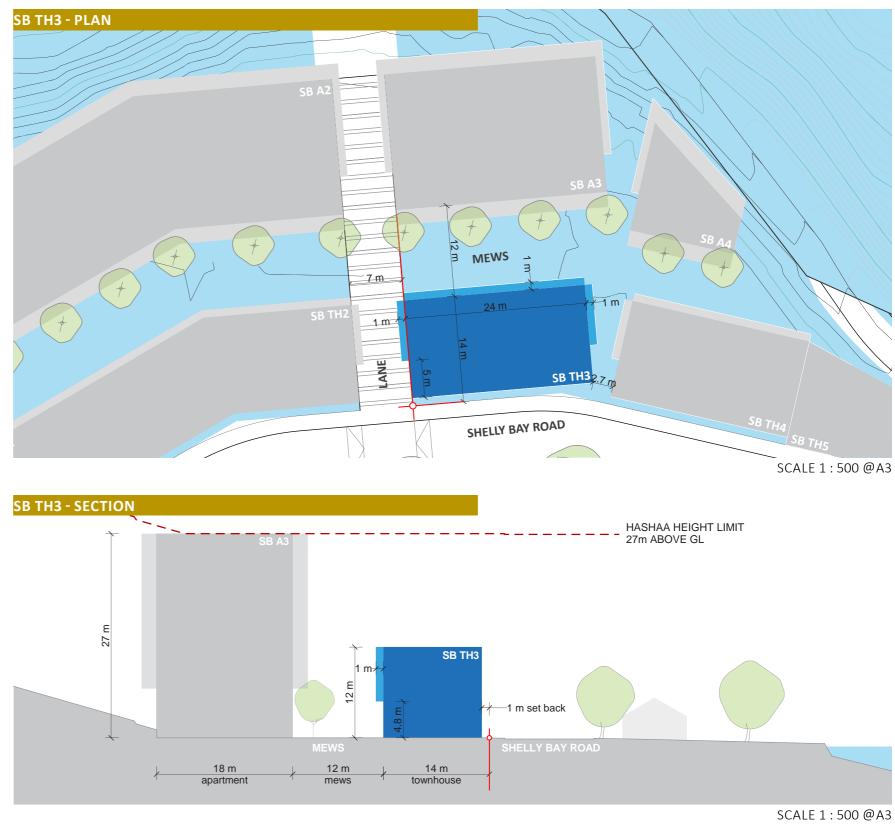
- Boundary -Building envelope Neighbouring building Building protrusion Neighbouring protrusion

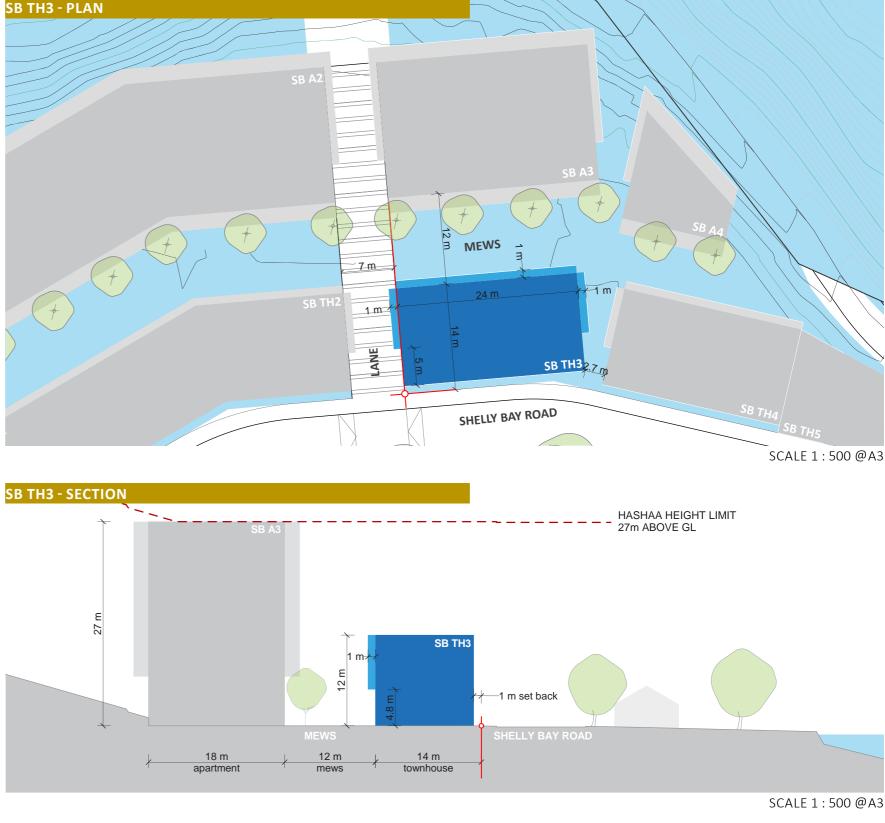


#### **BUILDING TYPE 2 - TOWNHOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 2 Townhouse Building. This defines Building Envelope, Protrusions and other design considerations.

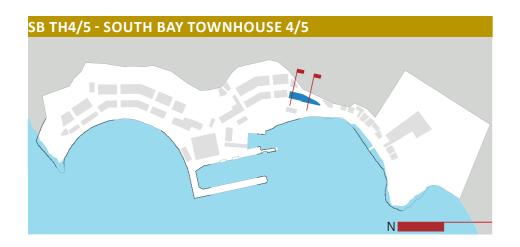
max length	24m	
max width	13m	
max height	12m	
number of dwellings	approximately 5	
max stories	-	
covered parking	approximately 5	
uncovered parking	0	
envelope footprint	312m <sup>2</sup>	





#### Legend

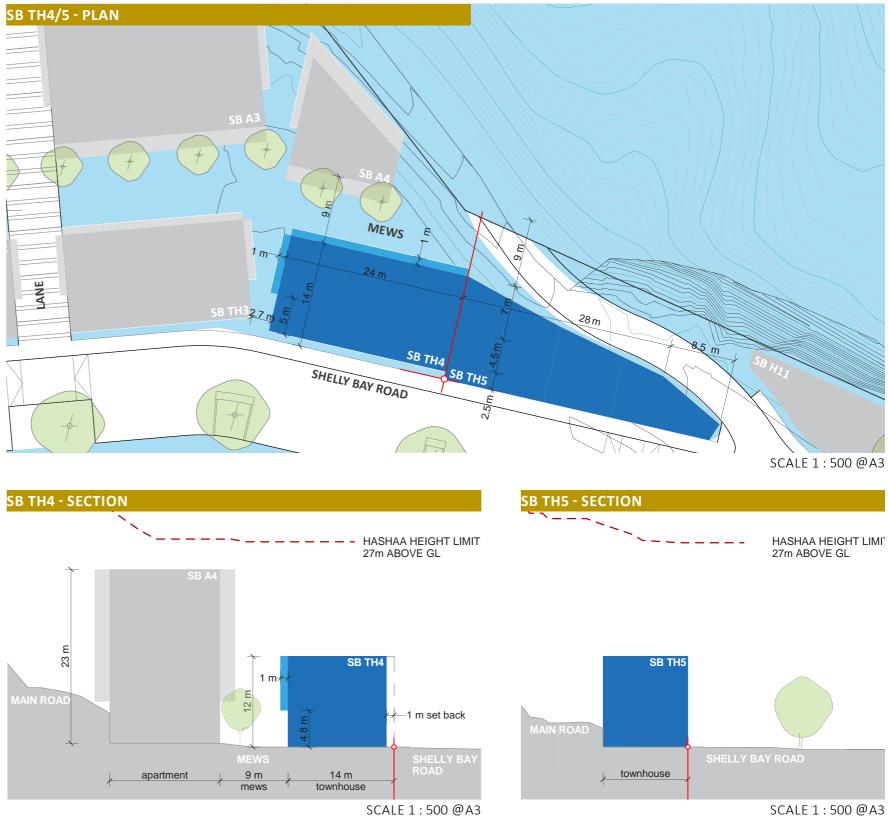


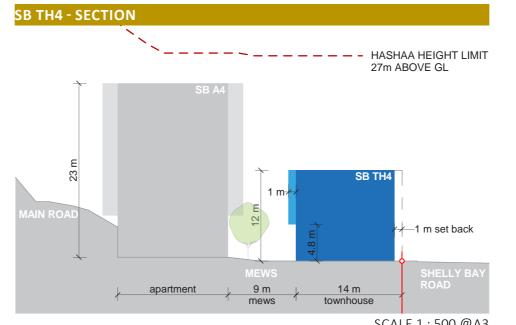


#### **BUILDING TYPE 2 - TOWNHOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 2 Townhouse Building. This defines Building Envelope, Protrusions and other design considerations.

max length	60.5m
max width	13m
max height	12m
number of dwellings	approximately 9
max stories	-
covered parking	approximately 9
uncovered parking	0
envelope footprint	640m <sup>2</sup>





#### Legend

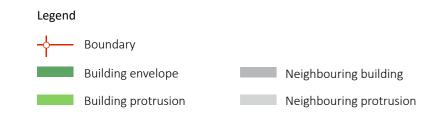


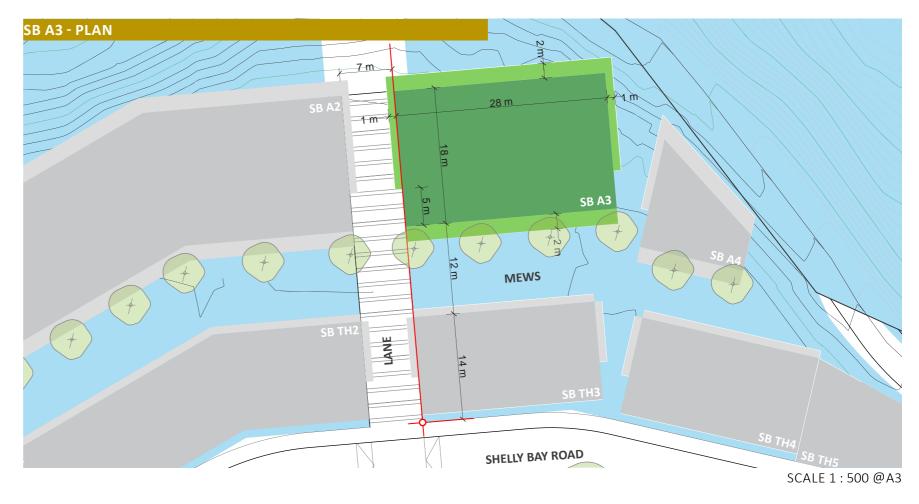


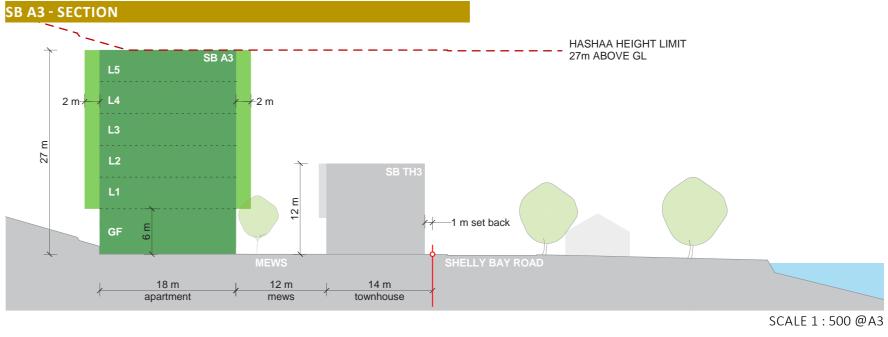
### **BUILDING TYPE 1 - APARTMENT**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 1 Apartment Building. This defines Building Envelope, Protrusions and other design considerations.

max length	28m
max width	18m
max height	27m
number of dwellings	approximately 25
max stories	6
covered parking	approximately 15
uncovered parking	approximately 10
envelope footprint:	504m <sup>2</sup>



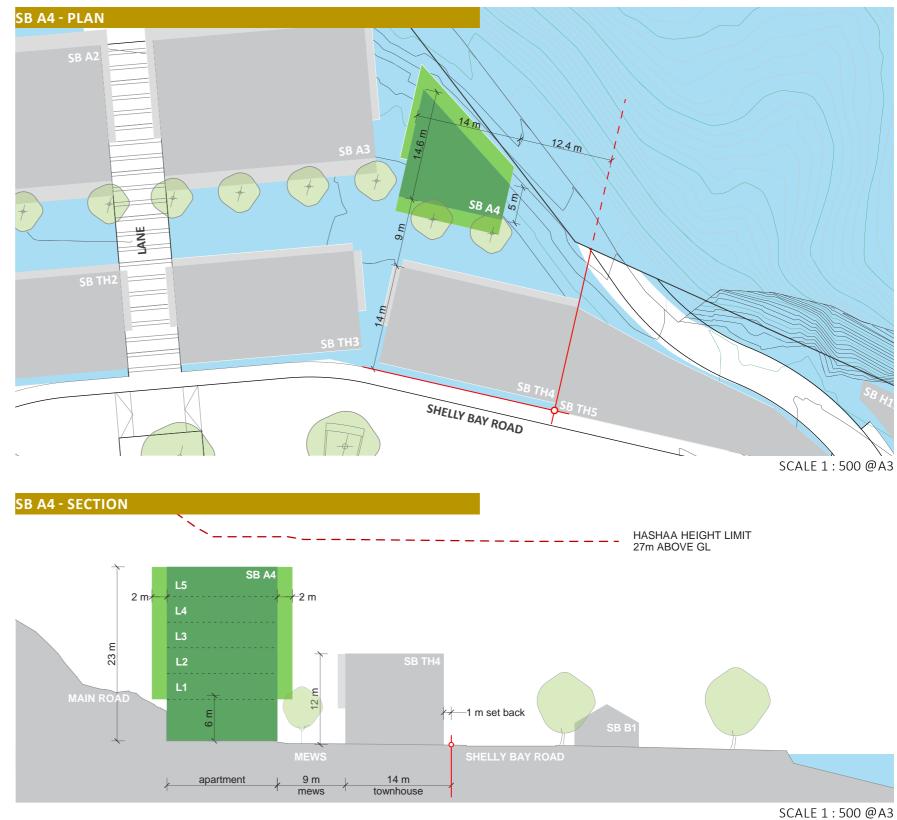


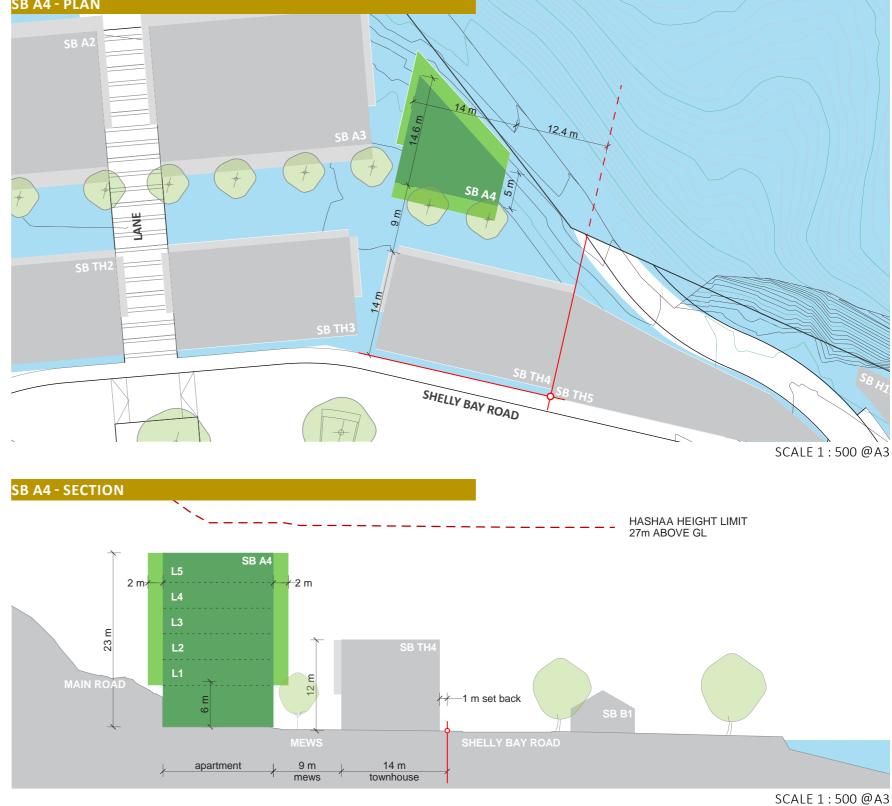




### **BUILDING TYPE 1 - APARTMENT**

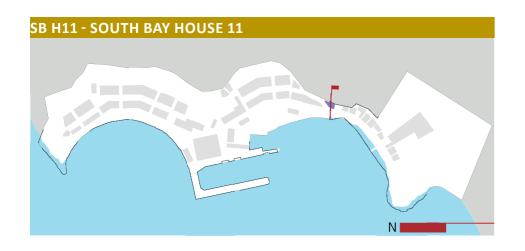
This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 1 Apartment Building. This defines Building Envelope, Protrusions and other design considerations.





#### Legend

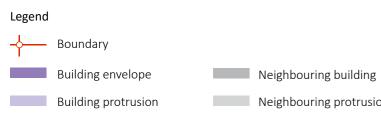




### **BUILDING TYPE 3 - DETACHED HOUSE**

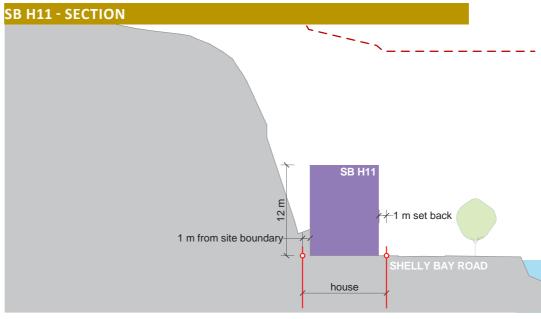
This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 3 House Building. This defines Building Envelope, Protrusions and other design considerations.

max length	-
max width	-
max height	12m
number of dwellings	1
max stories	4
covered parking	1
uncovered parking	0
envelope footprint	149m <sup>2</sup>
max floor area	320m <sup>2</sup>



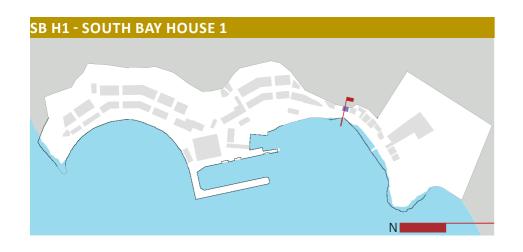
Neighbouring protrusion





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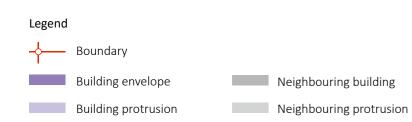
HASHAA HEIGHT LIMIT 27m ABOVE GL

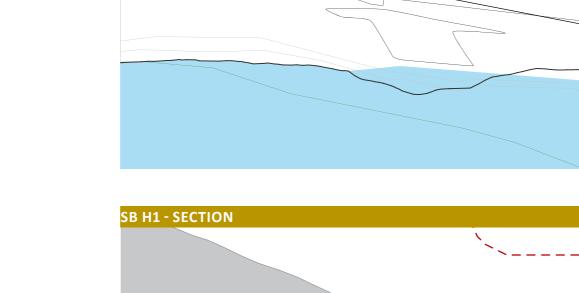


### **BUILDING TYPE 3 - DETACHED HOUSE**

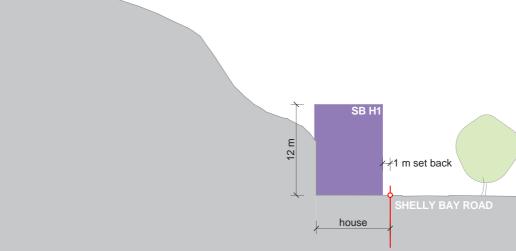
This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 3 House Building. This defines Building Envelope, Protrusions and other design considerations.

max length max width	-
max height	12m
number of dwellings	1
max stories	4
covered parking	1
uncovered parking	0
envelope footprint	96m <sup>2</sup>
max floor area	320m <sup>2</sup>





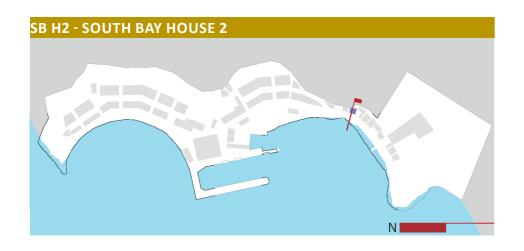
SB H1 - PLAN



### Shelly Bay Masterplan\_ Mar 2019







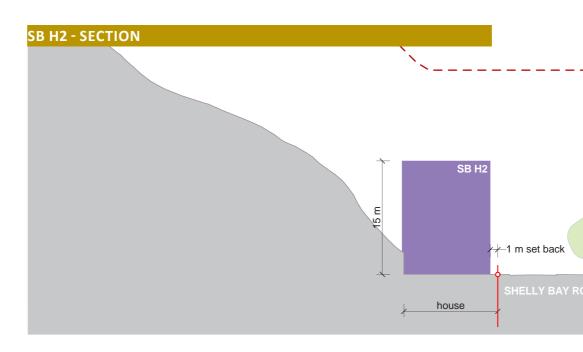
### **BUILDING TYPE 3 - DETACHED HOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 3 House Building. This defines Building Envelope, Protrusions and other design considerations.

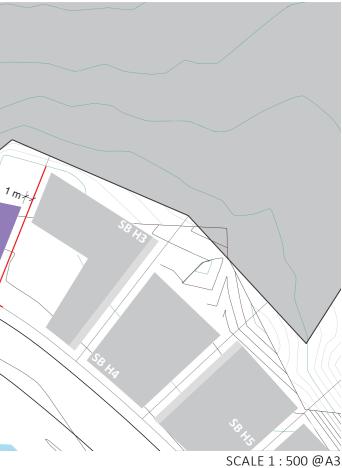
max length max width	-
max height	15m
number of dwellings	1
max stories	4
covered parking	1
uncovered parking	0
envelope footprint	120m <sup>2</sup>
max floor area	320m <sup>2</sup>



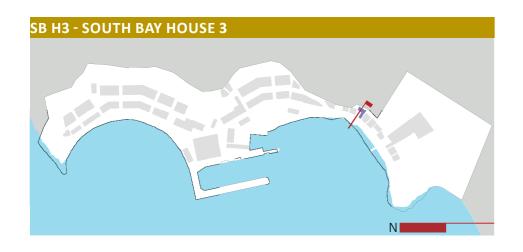
SB H2 - PLAN



### Shelly Bay Masterplan\_ Mar 2019



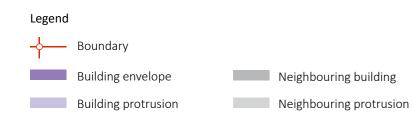


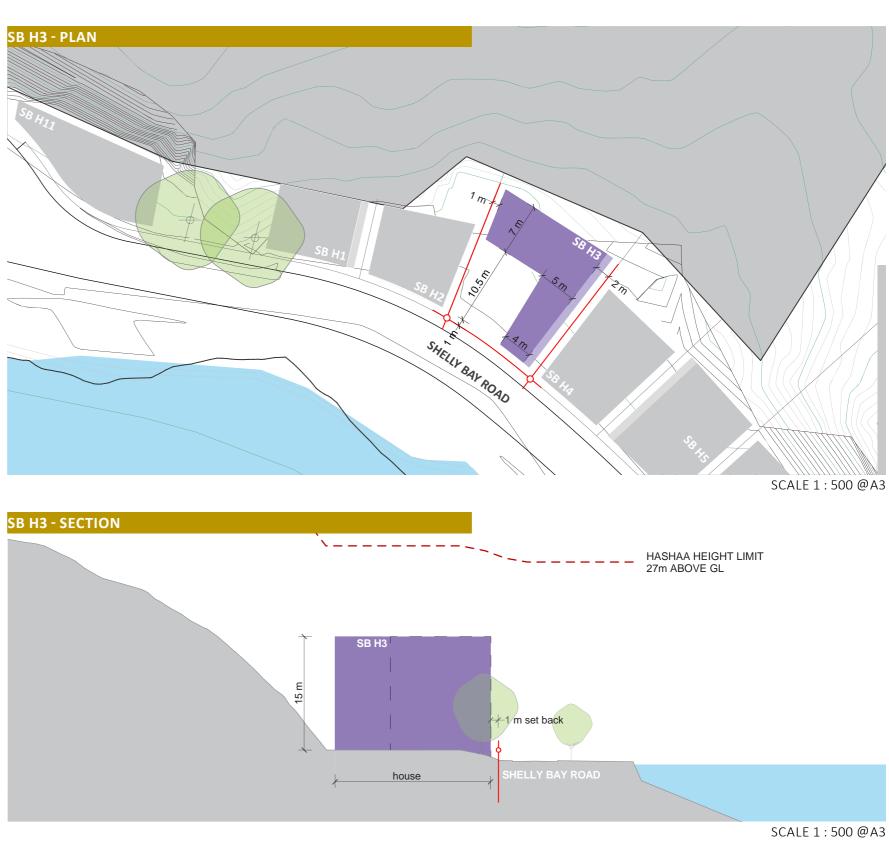


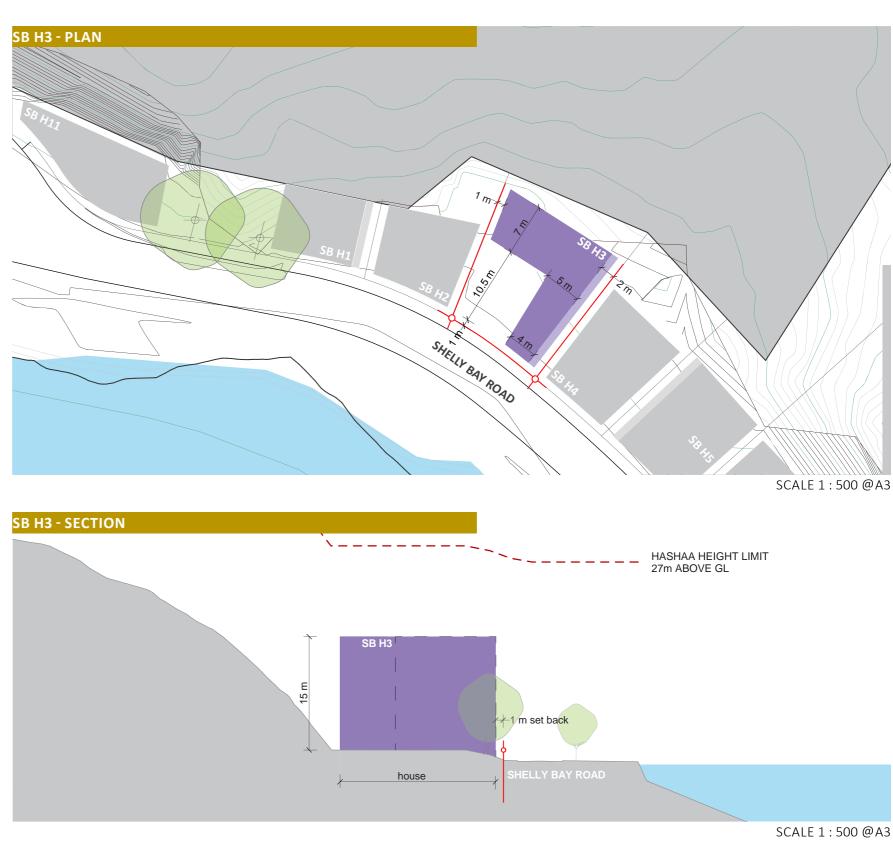
### **BUILDING TYPE 3 - DETACHED HOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 3 House Building. This defines Building Envelope, Protrusions and other design considerations.

max length	-
max width	-
max height	15m
www.how.of.du.uollingo	1
number of dwellings	1
max stories	4
covered parking	1
uncovered parking	0
envelope footprint	220m <sup>2</sup>
max floor area	320m <sup>2</sup>

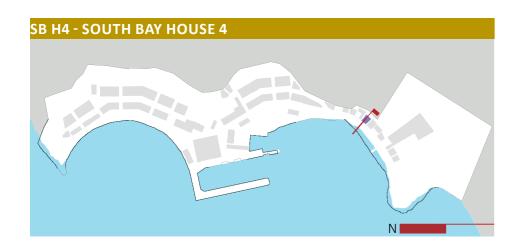






### Shelly Bay Masterplan\_ Mar 2019

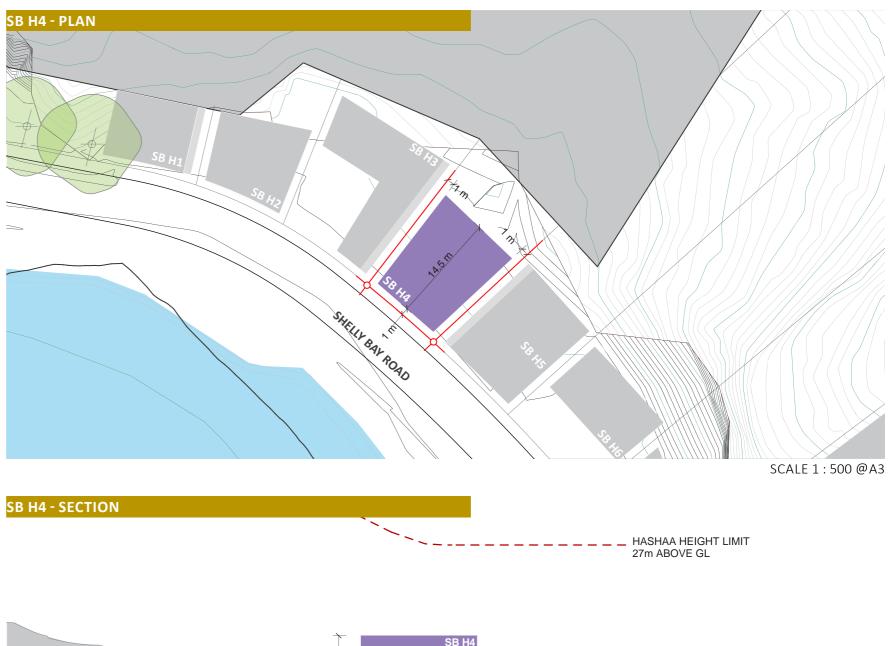
PAGE 63

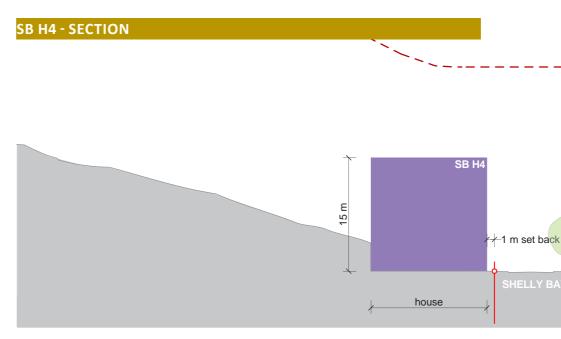


### **BUILDING TYPE 3 - DETACHED HOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 3 House Building. This defines Building Envelope, Protrusions and other design considerations.

max length max width	-
max height	15m
number of dwellings	1
max stories	4
covered parking	1
uncovered parking	0
envelope footprint	158m²
max floor area	320m²

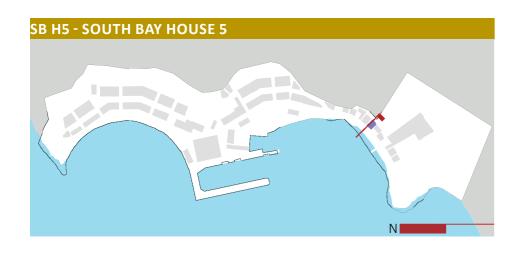




#### Legend

Boundary
 Building envelope
 Building protrusion
 Neighbouring protrusion

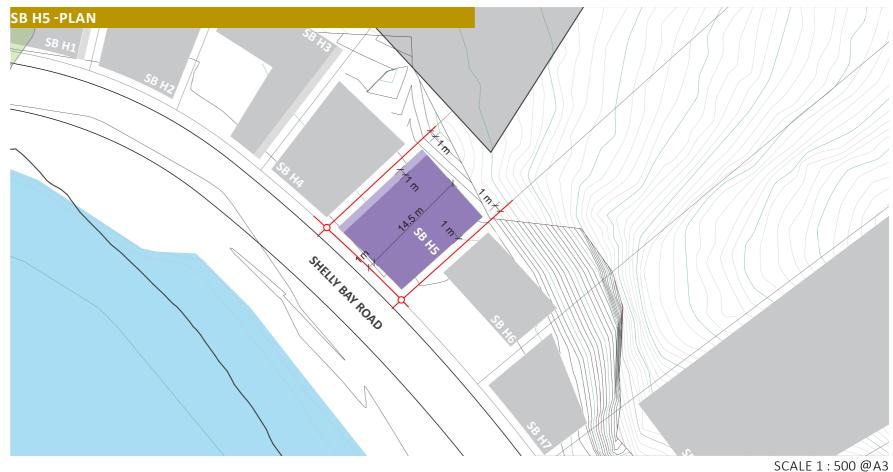
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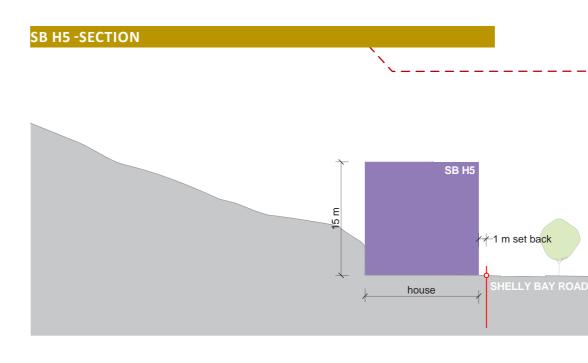


### **BUILDING TYPE 3 - DETACHED HOUSE**

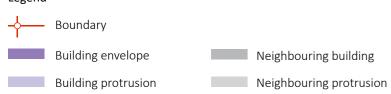
This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 3 House Building. This defines Building Envelope, Protrusions and other design considerations.

max length max width	-
max height	15m
number of dwellings	1
max stories	4
covered parking	1
uncovered parking	0
envelope footprint	160m <sup>2</sup>
max floor area	320m <sup>2</sup>

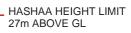


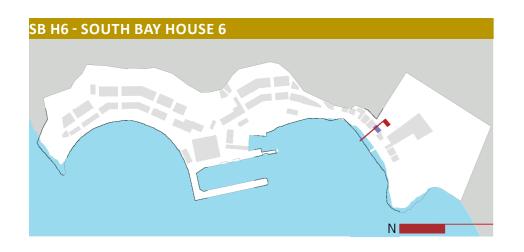


#### Legend



JCALL I. JUU @A.

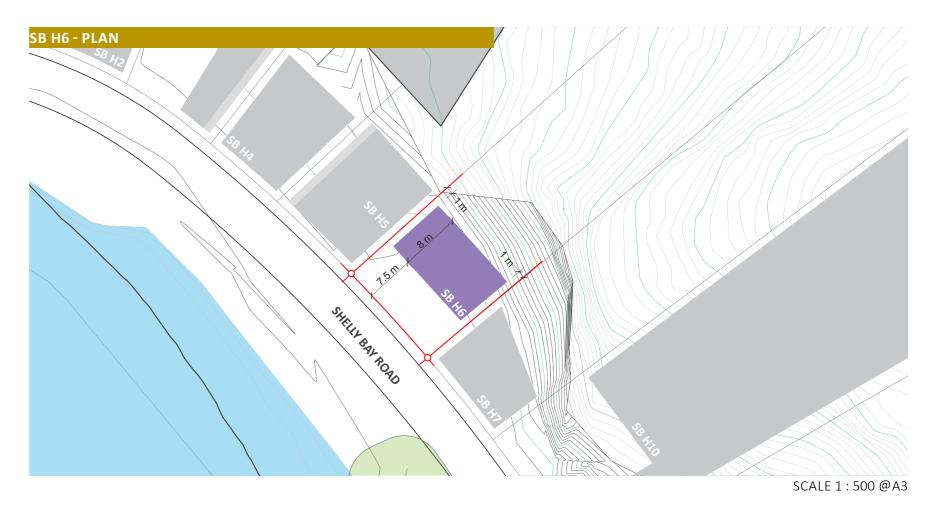


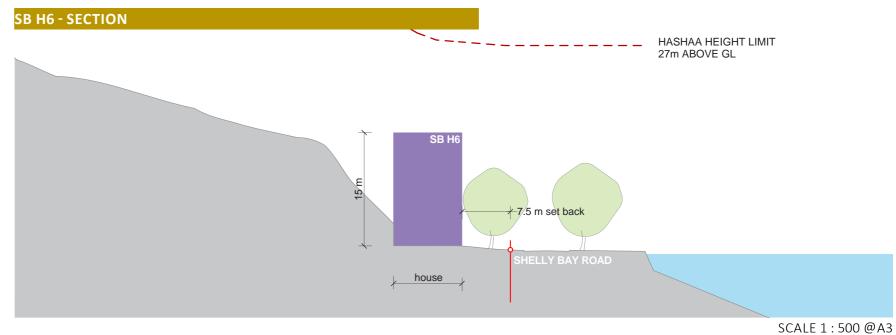


### **BUILDING TYPE 3 - DETACHED HOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 3 House Building. This defines Building Envelope, Protrusions and other design considerations.

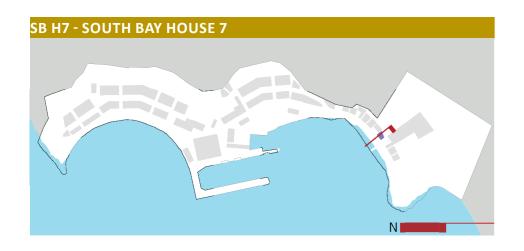
max length max width	-
max height	15m
number of dwellings	1
max stories	4
covered parking	1
uncovered parking	0
envelope footprint	152m <sup>2</sup>
max floor area	320m <sup>2</sup>





### Legend

Boundary Building envelope Neighbouring building Building protrusion Neighbouring protrusion

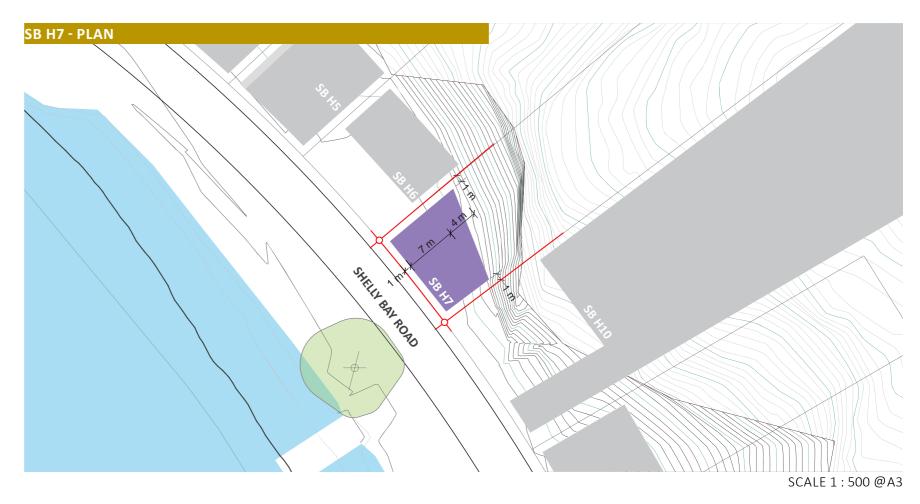


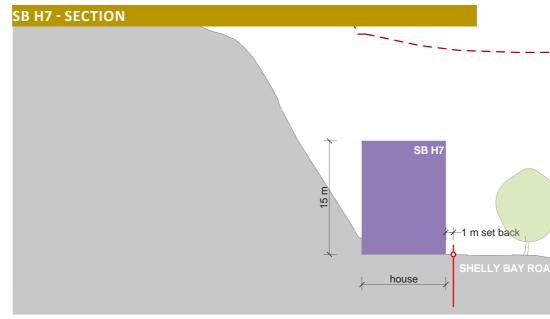
### **BUILDING TYPE 3 - DETACHED HOUSE**

This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 3 House Building. This defines Building Envelope, Protrusions and other design considerations.

max length max width	-	
max height	15m	
number of dwellings max stories covered parking uncovered parking	1 4 1 0	
envelope footprint max floor area	108m <sup>2</sup> 320m <sup>2</sup>	

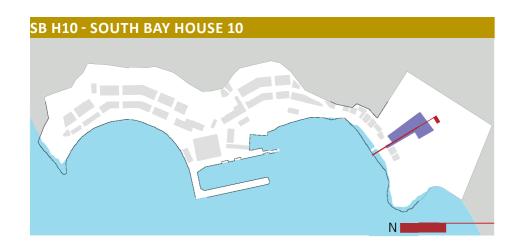






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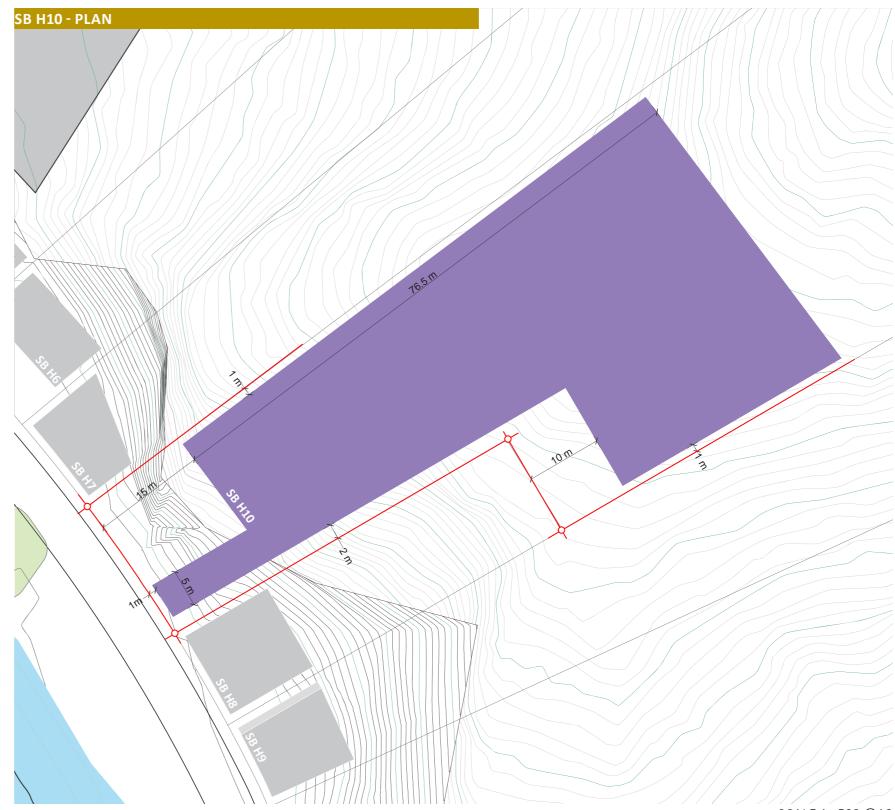
### **BUILDING TYPE 3 - DETACHED HOUSE**

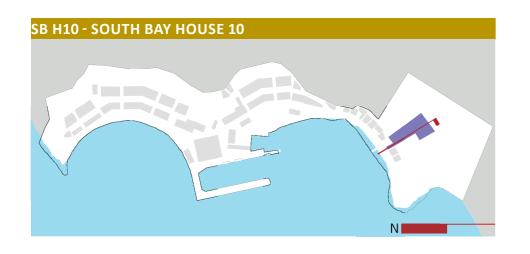
This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 3 House Building. This defines Building Envelope, Protrusions and other design considerations. One or more buildings are allowable within the envelope.

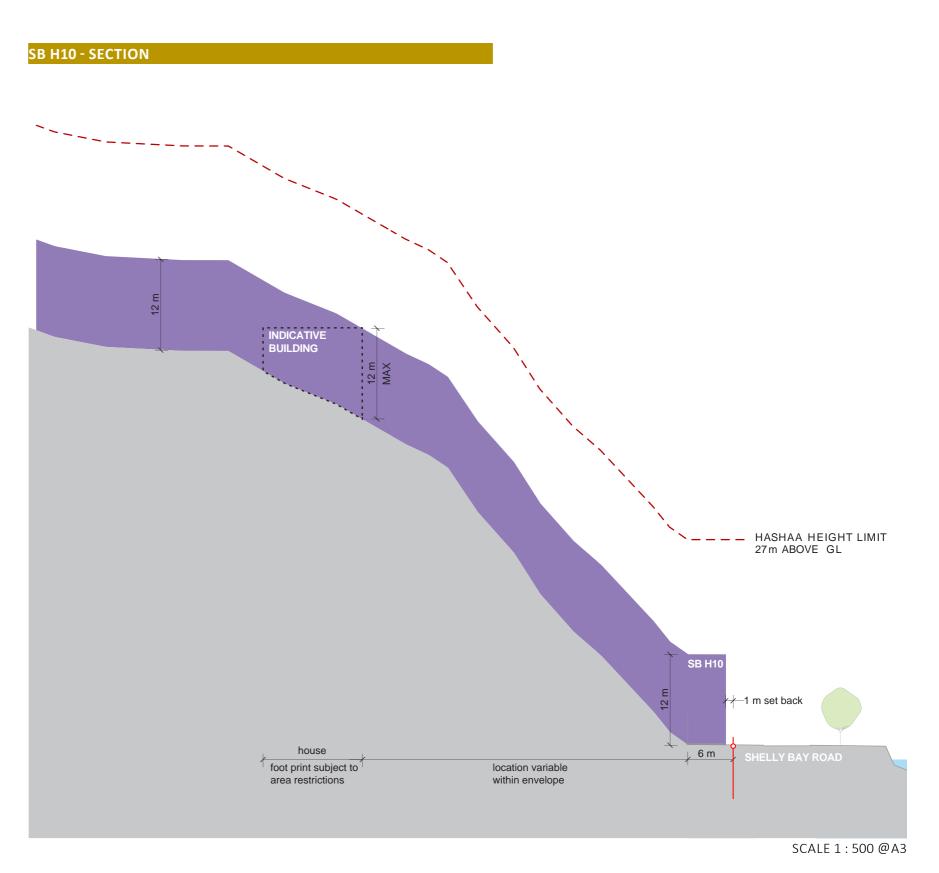
max length	-
max width	-
max height	12m
number of dwellings	1
max stories	4
covered parking	1
uncovered parking	0
envelope footprint	2370m <sup>2</sup>
max floor area	320m <sup>2</sup>



Neighbouring building







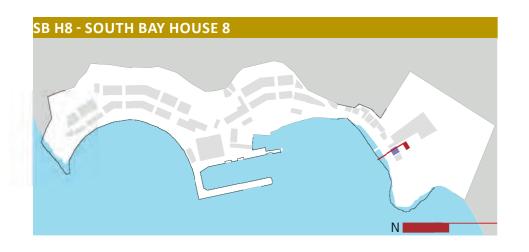
#### Legend

Boundary
 Building envelope
 Building protrusion

Neighbouring building

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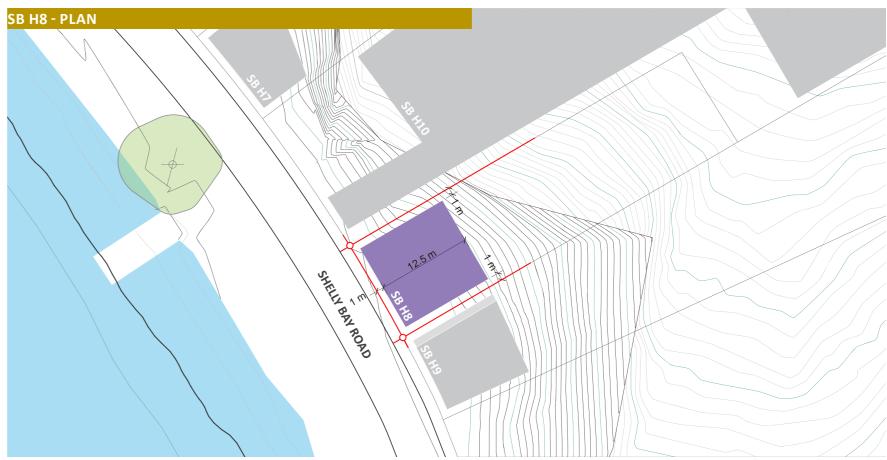
### **BUILDING TYPE 3 - DETACHED HOUSE**

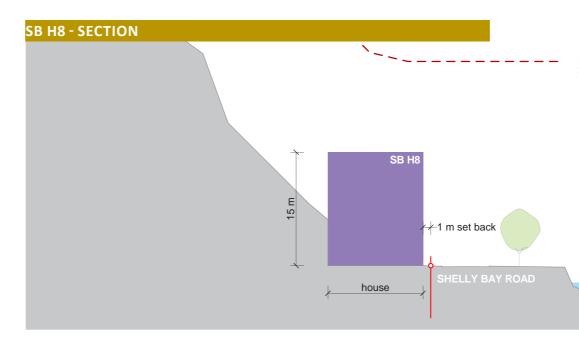
This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 3 House Building. This defines Building Envelope, Protrusions and other design considerations.

max length max width	-
max height	15m
number of dwellings	1
max stories	4
covered parking	1
uncovered parking	0
envelope footprint	150m <sup>2</sup>
max floor area	320m <sup>2</sup>



Neighbouring building Neighbouring protrusion

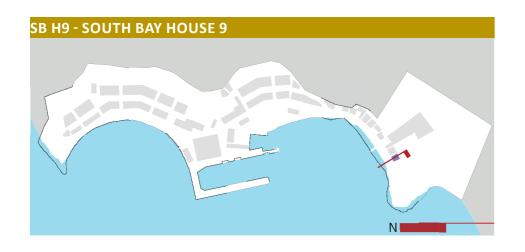




### Shelly Bay Masterplan\_ Mar 2019

SCALE 1:500@A3

HASHAA HEIGHT LIMIT 27m ABOVE GL



### **BUILDING TYPE 3 - DETACHED HOUSE**

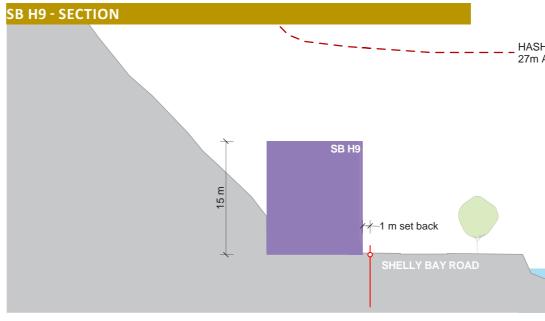
This building typology is subject to design guidelines. Refer to the Shelly Bay Design Guide, Part Two - Urban Form, Type 3 House Building. This defines Building Envelope, Protrusions and other design considerations.

max length max width	-
max height	12m
number of dwellings	1
max stories	4
covered parking	1
uncovered parking	0
envelope footprint	117m <sup>2</sup>
max floor area	320m <sup>2</sup>



Neighbouring protrusion





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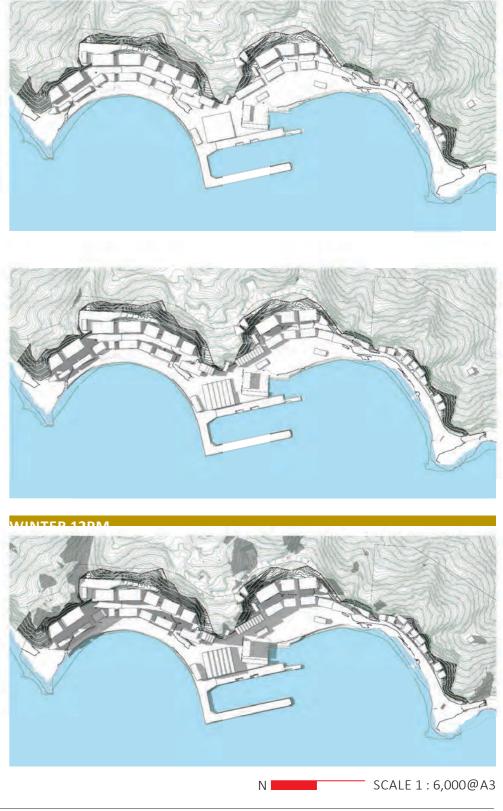
SCALE 1:500@A3

HASHAA HEIGHT LIMIT 27m ABOVE GL

# 4.5 Solar Studies

These solar studies are illustrative of how the Shelly Bay site is inherently orientated to benefit from the sun. Its south-westerly aspect allows for direct sunshine to reach far into both the north and south bays almost all year round. Particularly in the Spring, Summer and Autumn months, the Shelly Bay's favourable positioning allows for sunlight access which stretches into the afternoons and evenings.

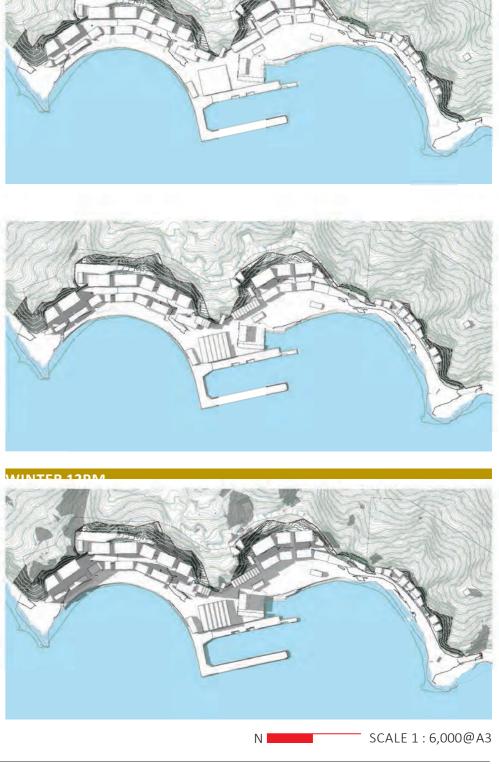






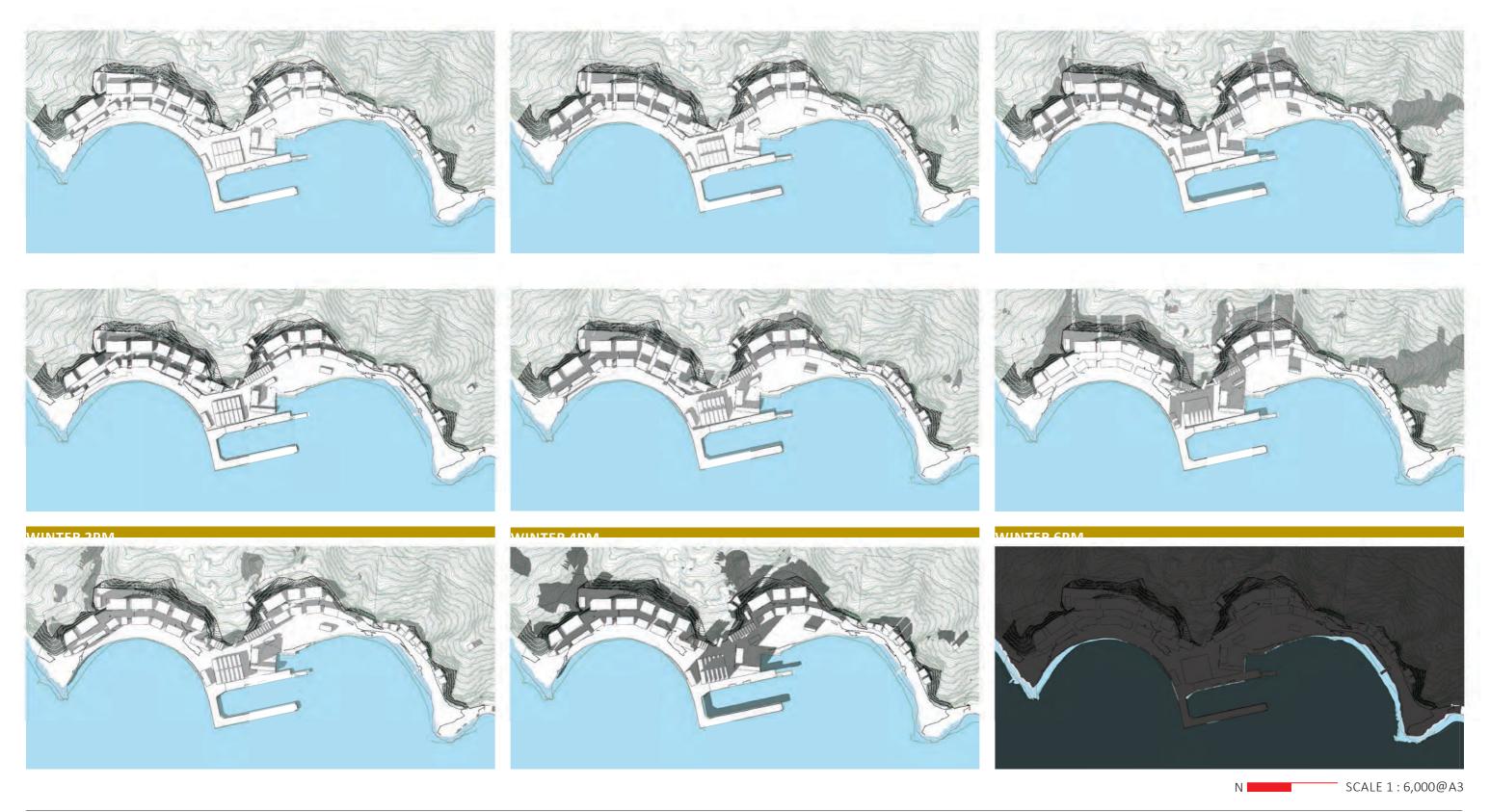








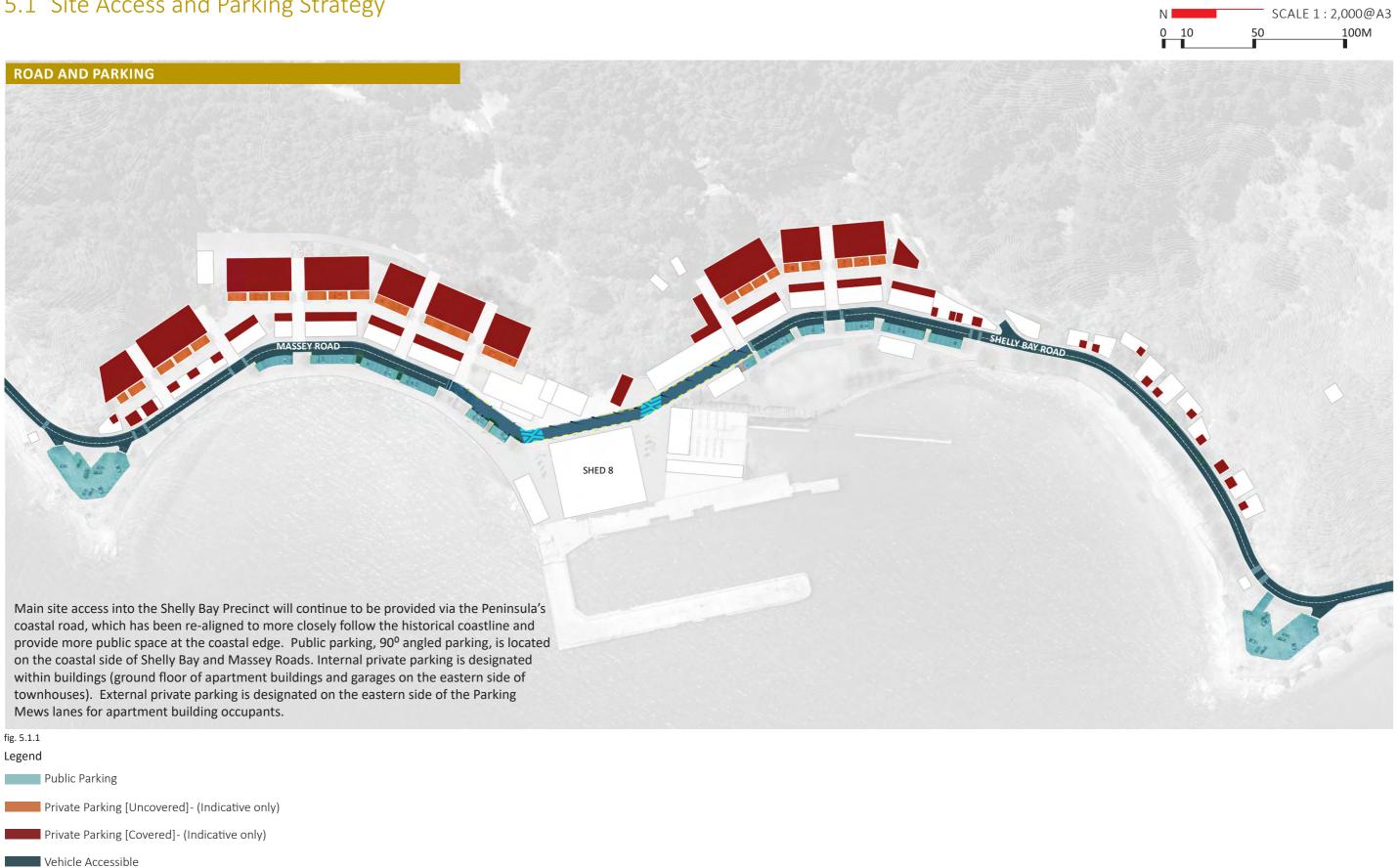
#### 4.5 Solar Studies



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## **5** STREETS

#### 5.1 Site Access and Parking Strategy



### 5.2 Streets, Lanes and Mews



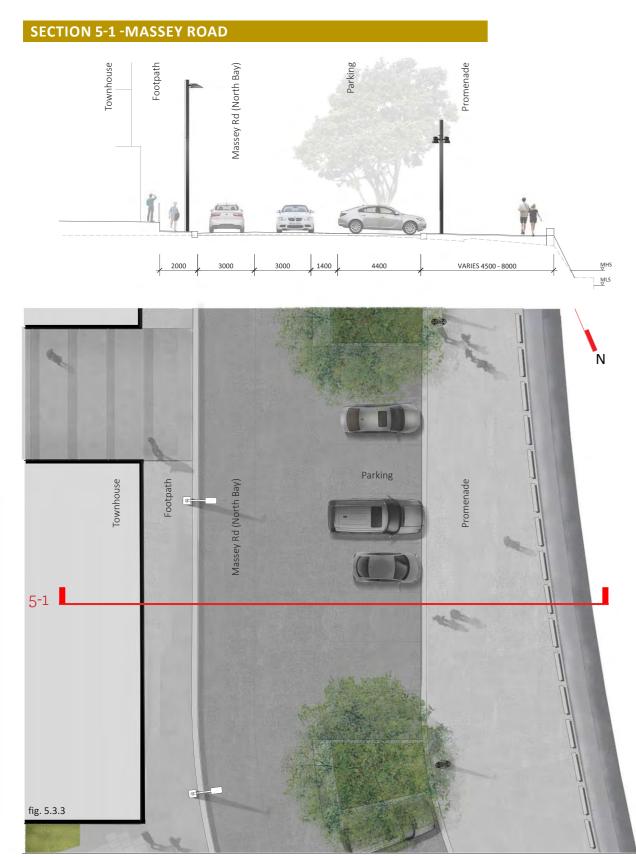
### 5.3 Massey Road and Shelly Bay Road



fig. 5.3.1

5

#### 5.3 Street Sections

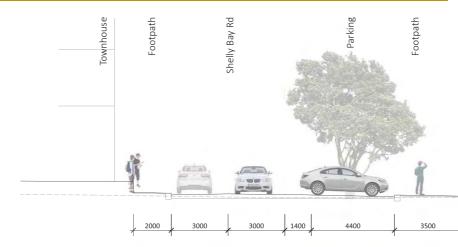


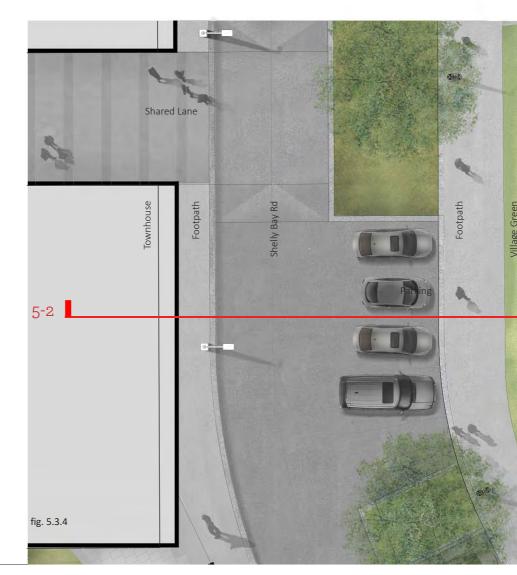
Shelly Bay Masterplan\_ Mar 2019



fig. 5.3.2

#### SECTION 5-2 - SHELLY BAY ROAD





20M

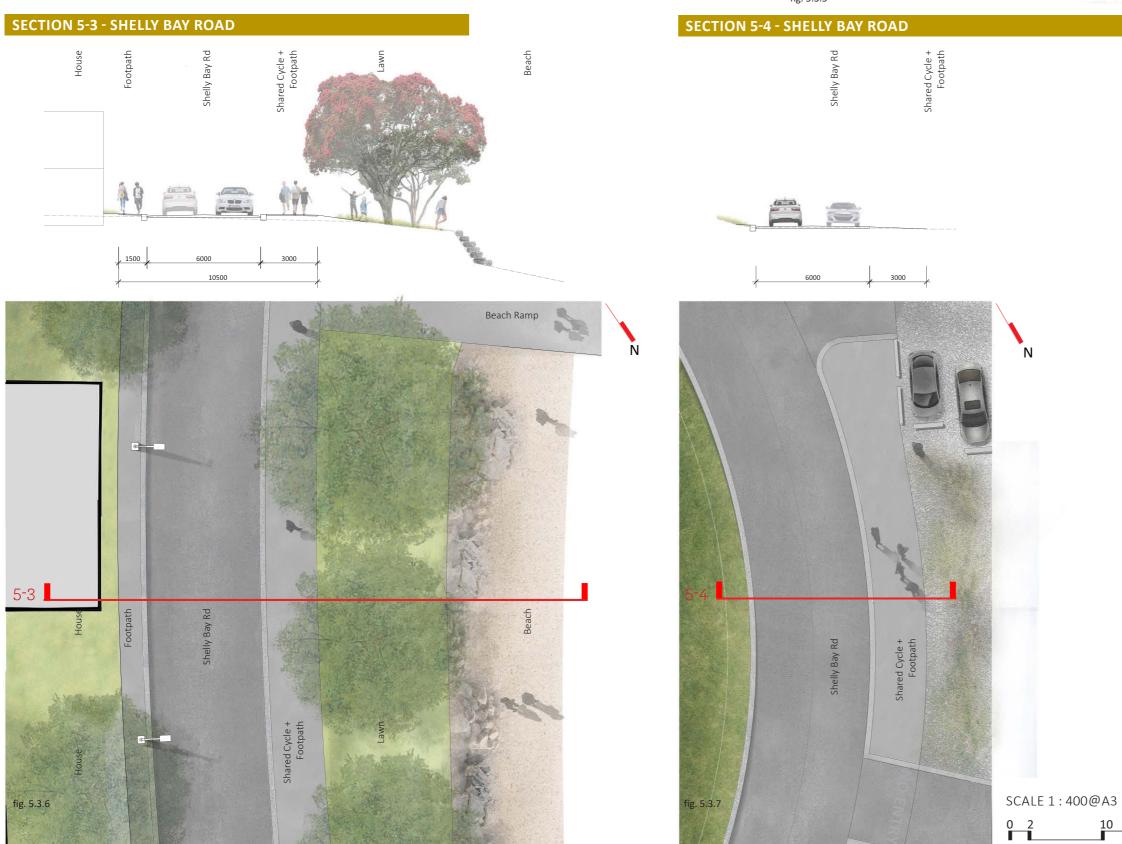
#### SCALE 1:400@A3

10



N

### 5.3 Street Sections



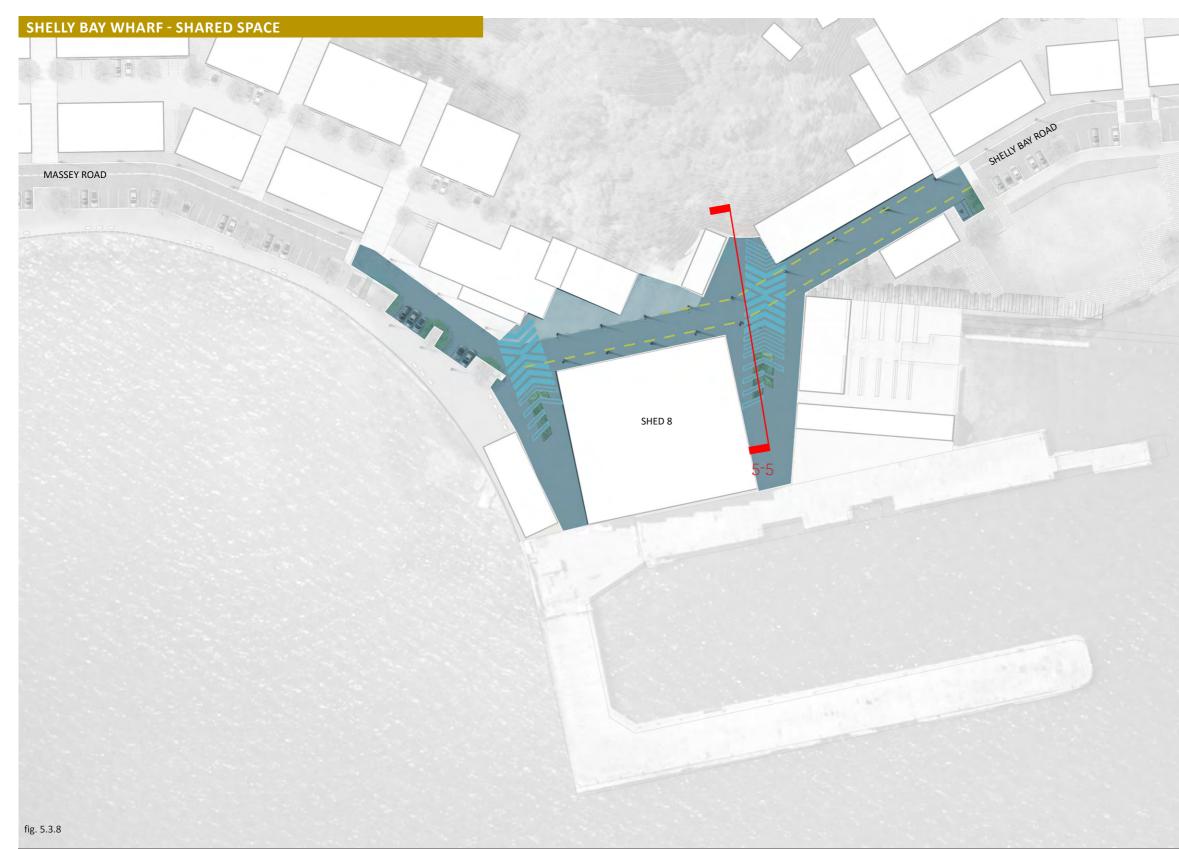
Shelly Bay Masterplan\_ Mar 2019



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20M

## 5.3 Shelly Bay Wharf Shared Space



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WHARF SHARED SPACE fig. 5.3.9

### 5.3 Street Sections Shelly Bay Wharf Shared Space



fig. 5.3.10

#### SECTION 5-5 - SHELLY BAY WHARF SHARED SPACE

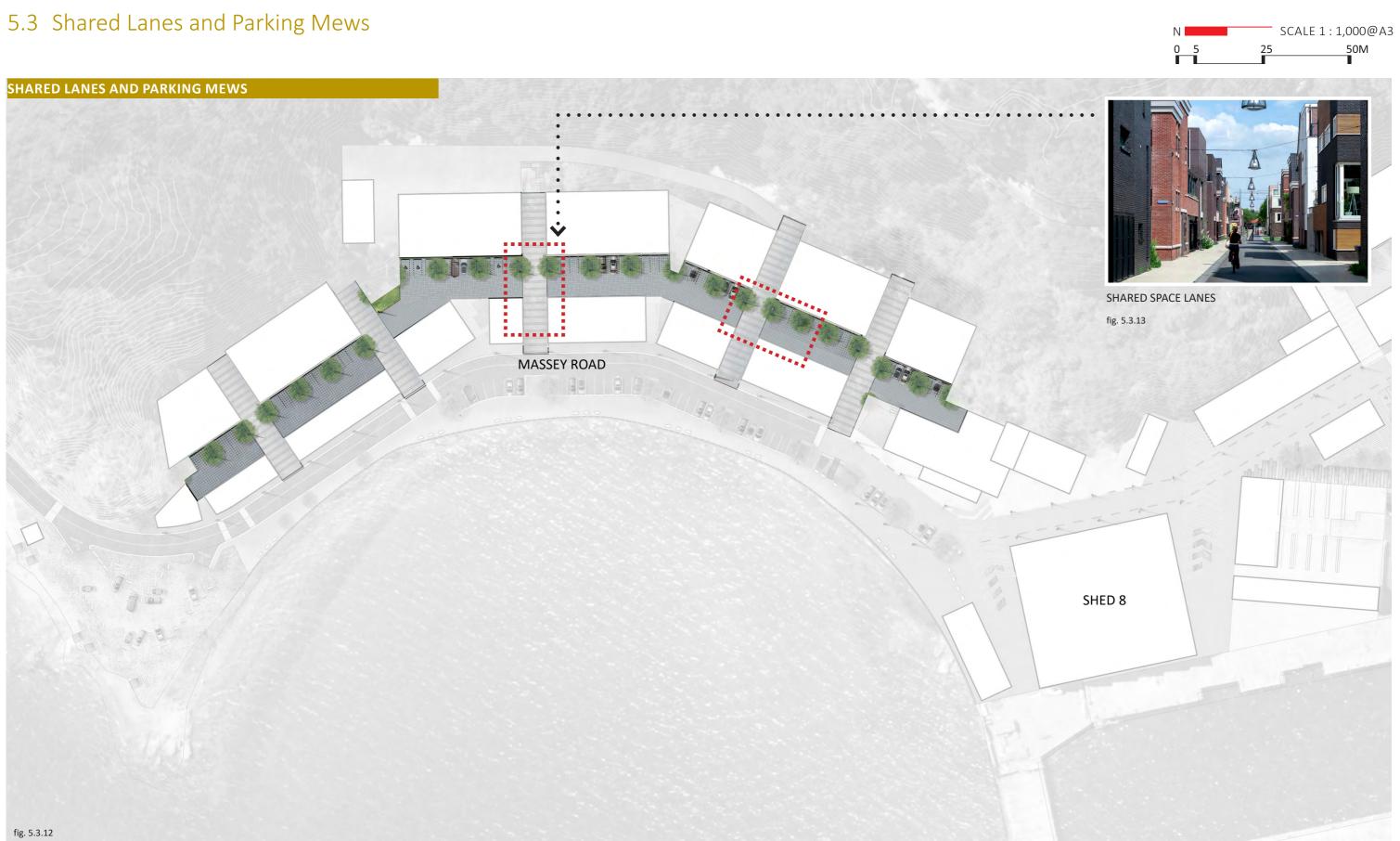


fig. 5.3.11

#### SCALE 1 : 200@A3 0 1 5 10M

EXISTING GROUNDLINE





### 5.3 Street Sections Shared Lanes and Mews

SECTION 5-6 - SHARED LANE / PARKING MEWS Mews red Lane Two Way Pit tata) 10 1400 2600 2600 1400 7000 Ν \_\_\_\_\_ Apartments Shared Lane fig. 5.3.15

5-61-1 2 5-7

fig. 5.3.14

fig. 5.3.16

**SECTION 5-7 - PARKING MEWS** Apartments Parking Mews 7000 26.00 N ...... owr ....... Carles a . . . . 5-7 ..... Shared Lane

Shelly Bay Masterplan\_ Mar 2019

SCALE 1:400@A3

10

0 2

20M

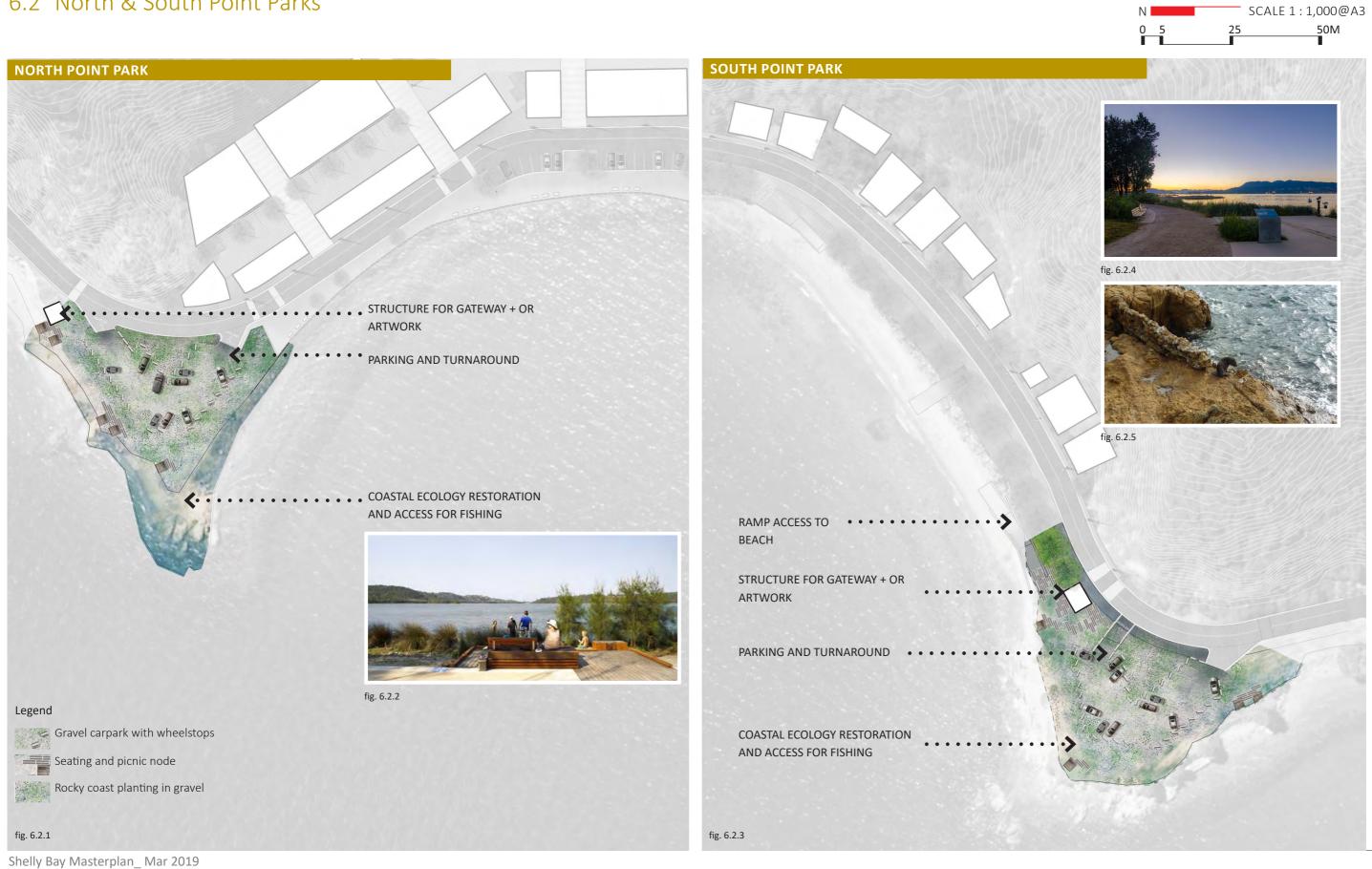
## **6 PUBLIC REALM**

### 6.1 Open Space Strategy Diagram

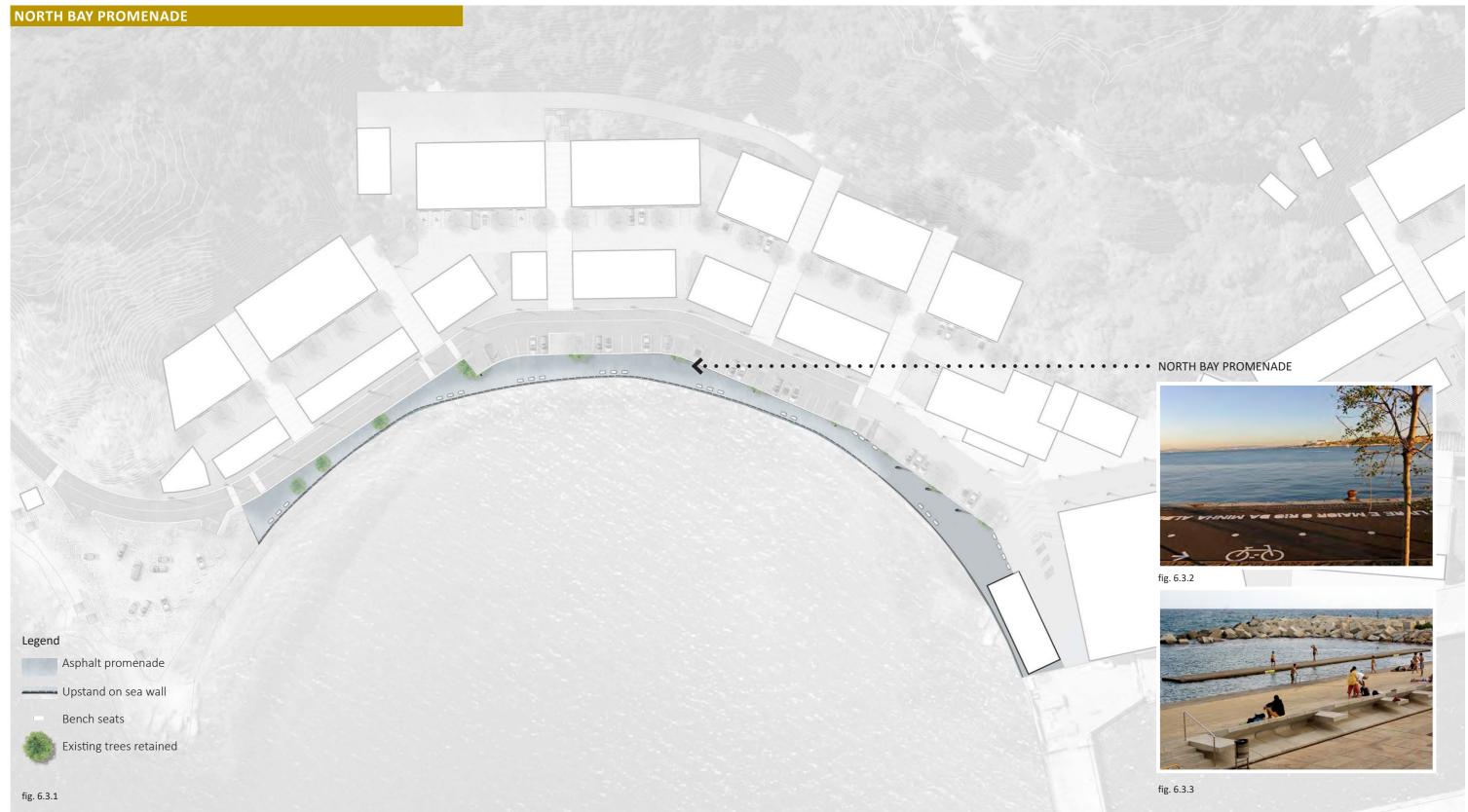


fig. 6.1.1

#### 6.2 North & South Point Parks



### 6.3 North Bay



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### 6.4 Shelly Bay Wharf



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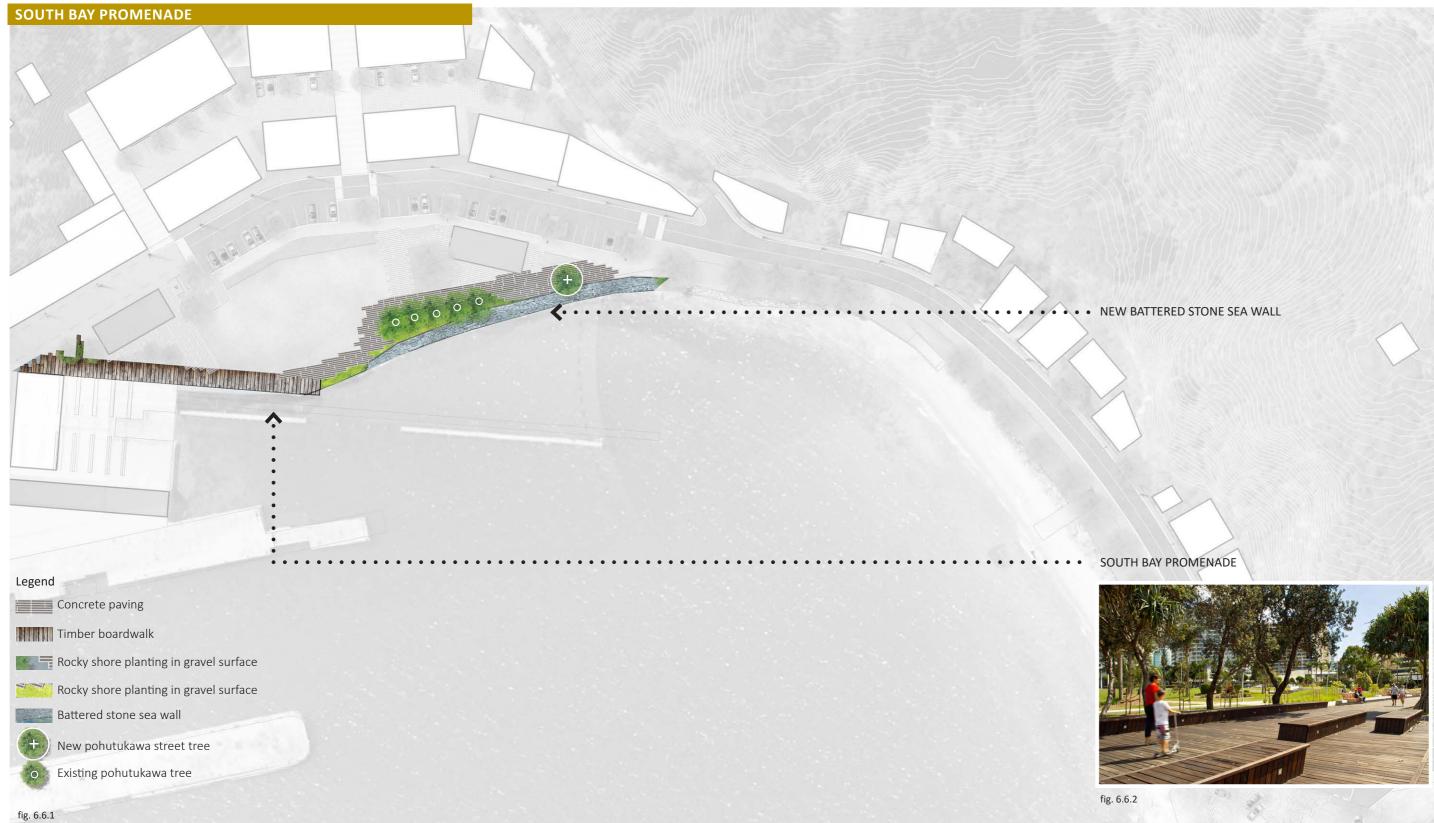
6

### 6.5 Village Green





### 6.6 South Bay Promenade

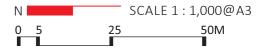




### 6.7 South Bay Beach



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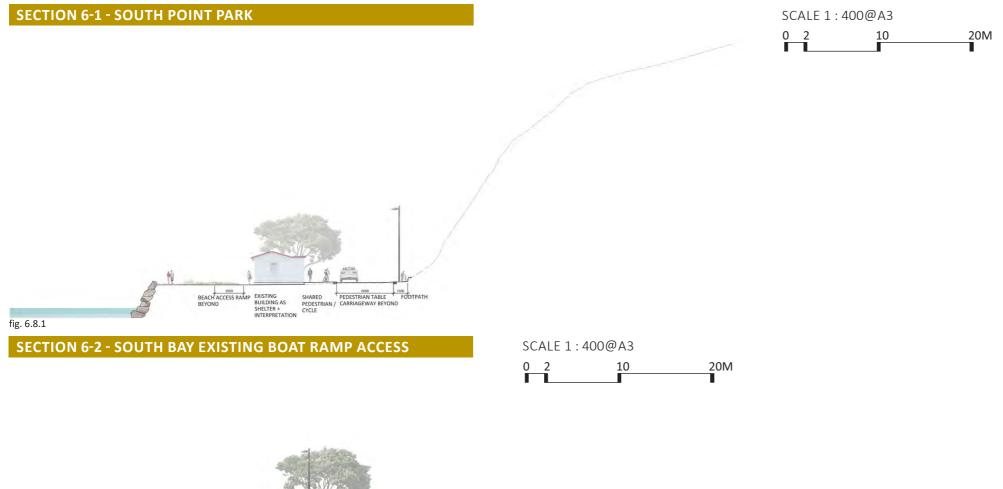
•••••• EXISTING BATTERED STONE SEA WALL

• • EXISTING RAMP

NEW CAREFULLY PLACED RIP RAP

• • • ACCESS RAMP

6.8 Site Sections



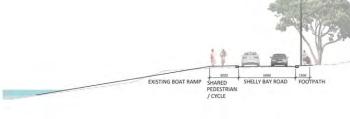


fig. 6.8.2



fig. 6.8.3

#### 6.9 Site Sections

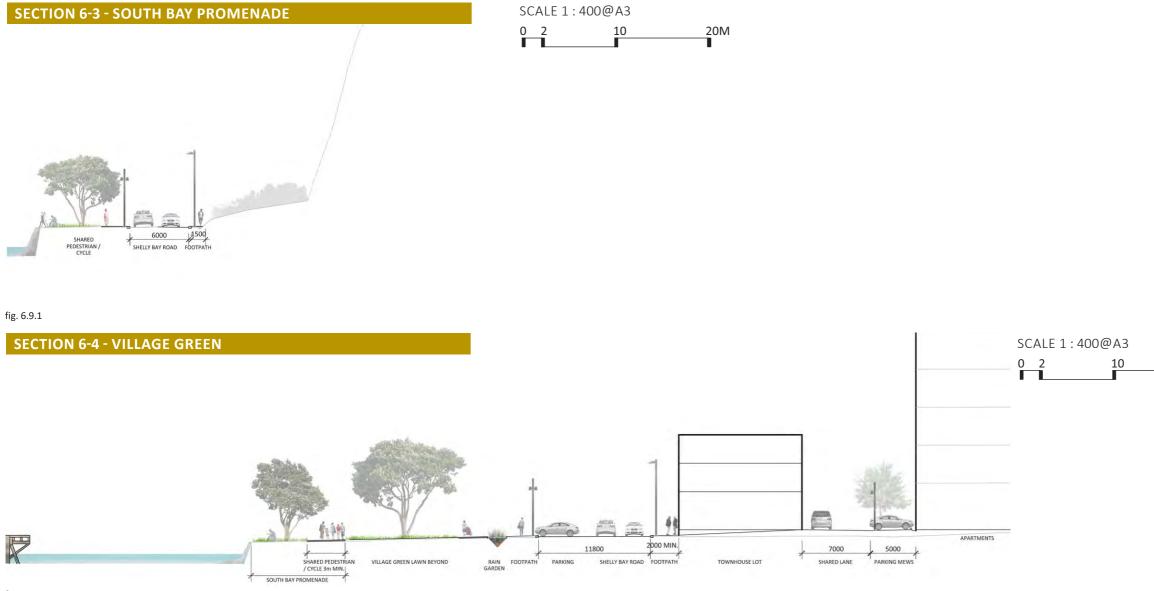


fig. 6.9.2





20M

### 6.10 Site Sections

SECTION 6-5 - SHELLY BAY WHARF 1



fig. 6.10.1

SECTION 6-6 - SHELLY BAY WHARF 2

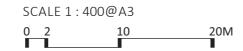
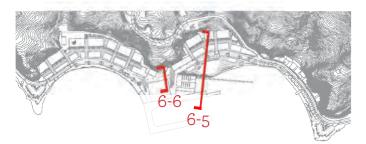
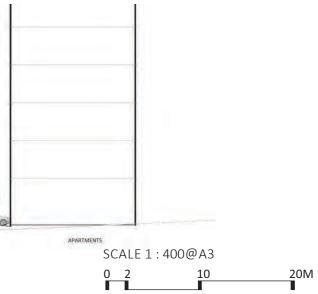




fig. 6.10.2



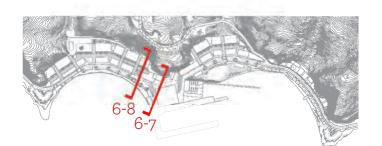
#### fig. 6.10.3



### 6.11 Site Sections



tig. 6.11.2



### 6.12 Site Sections

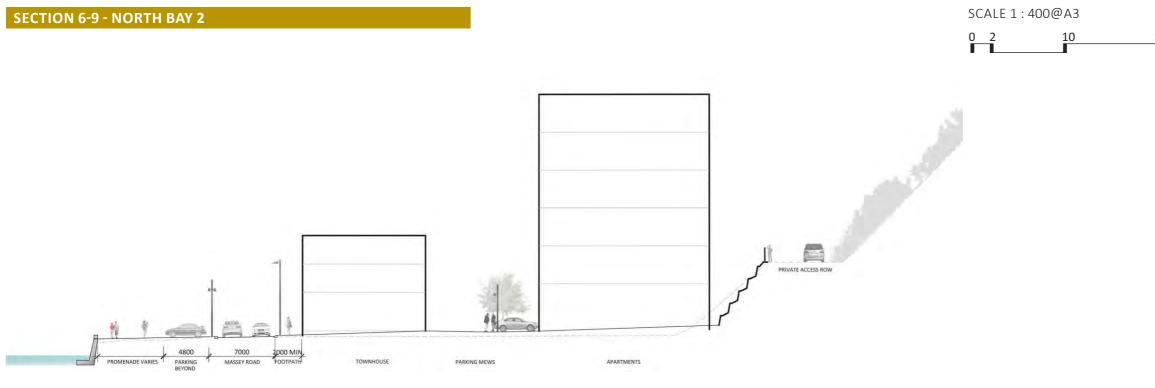
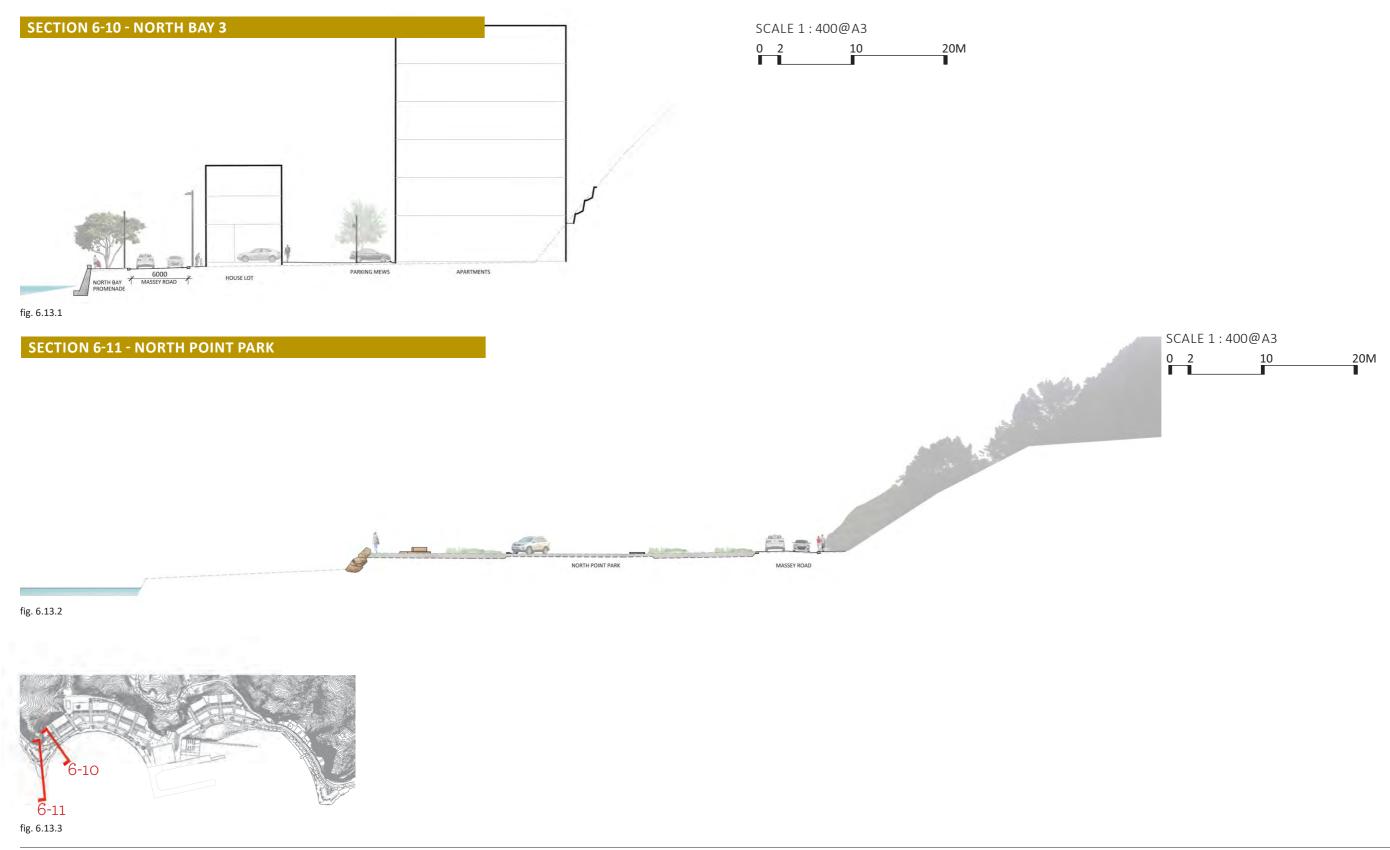


fig. 6.12.1



20M

#### 6.13 Site Sections



# 7 PLANTING AND RETAINING STRATEGY

#### 7.1 Retaining Strategy

RETAINING STRATEGY

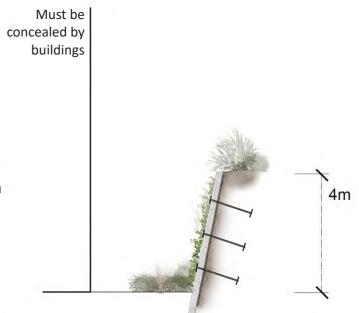
MAX 1:1 Planted slope with geogrid MAX 1.5 : 1 Terraces of timber retaining MAX 4 : 1 Timber crib wall MAX 1:0.7 Cut slope natural ground

• A 2m bench (flat depth) must follow every 8m vertical rise

System selection subject to gradient.

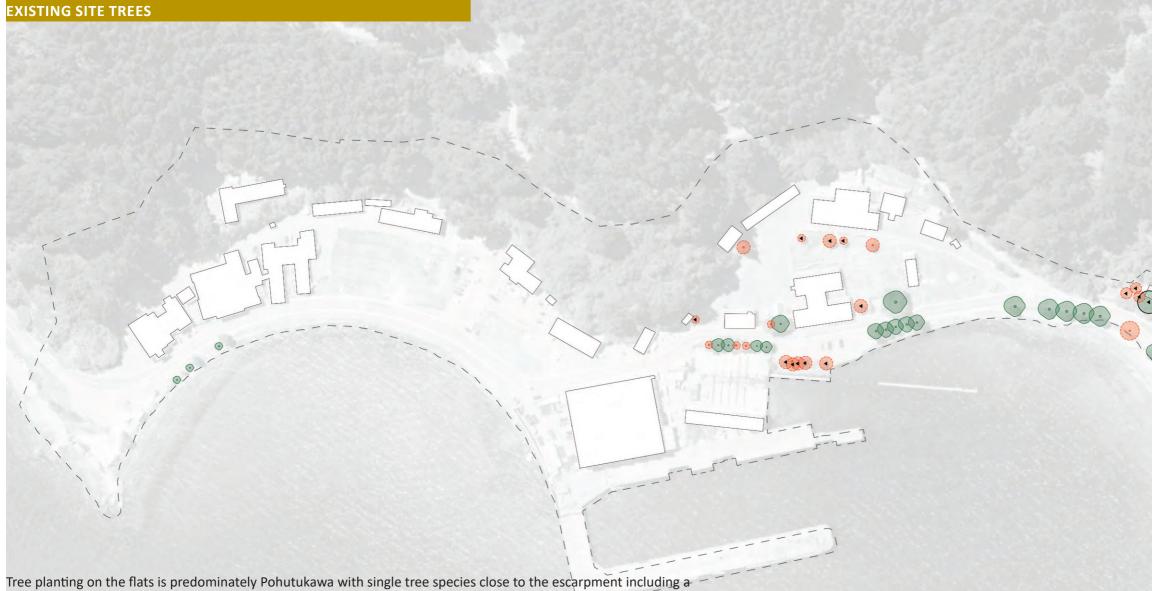
OBJECTIVES

- Minimise adverse visual impacts of retaining systems.
- Maximise green/planted outlook from apartments and public lanes.



#### MAX 4m HIGH Low level hidden shotcrete

- Shotcrete wall must be in-line and behind the buildings. The lanes will require closure to prohibit access to the back of the buildings.
- Adjacent to uninhabited spaces



large Norfolk Island Pine and a Tī Kouka. The proposal is to retain as many of these mature trees as practicable.

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The strategy for the planting on the Escarpment is to remove the pine and other exotic trees carefully to protect as much of the regenerating native bush as practicable, then plant the Escarpment with indigenous native species into the gullies and spurs.

#### fig. 7.2.1





Existing Trees to be Removed



Existing Trees to be Retained

Existing Trees to be Removed - Location to be confirmed by survey  $(\cdot)$ 

Existing Trees to be Retained - Location to be confirmed by survey

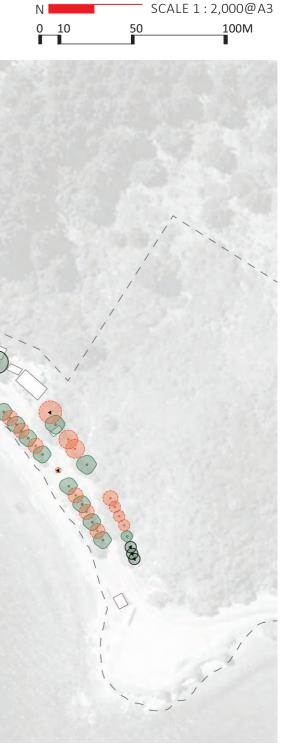




fig. 7.2.2



Existing Trees to be Retained - Location to be confirmed by survey Existing Pohutukawa Street Trees



New Pohutukawa Street Trees

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 $(\cdot)$ 

New Kowhai or Chinese Elm Mews Trees

Escarpment Vegetation Management Zone

New Tī Kōuka Park Trees

#### INDICATIVE TREES: STREETS, PARK + MEWS

- Street trees along Massey and Shelly Bay Road are proposed to be pohutukawa to build on existing pohutukawa along these roads.

- Park trees include many existing pohutukawa and these are augmented by new pohutukawa and tī kouka.

- Trees in the mews are proposed to be native with light canopies or exotic deciduous trees to allow sunlight in winter.



#### INDICATIVE UNDERPLANTING: ROCKY COAST, RAINGARDENS, TOE SLOPE, GULLIES + SPURS

- Pines to be removed from the Escarpment Vegetation Management Zone up to the site boundary + replaced with indigenous native species selected from historical survey of plants found on Miramar Peninsula.

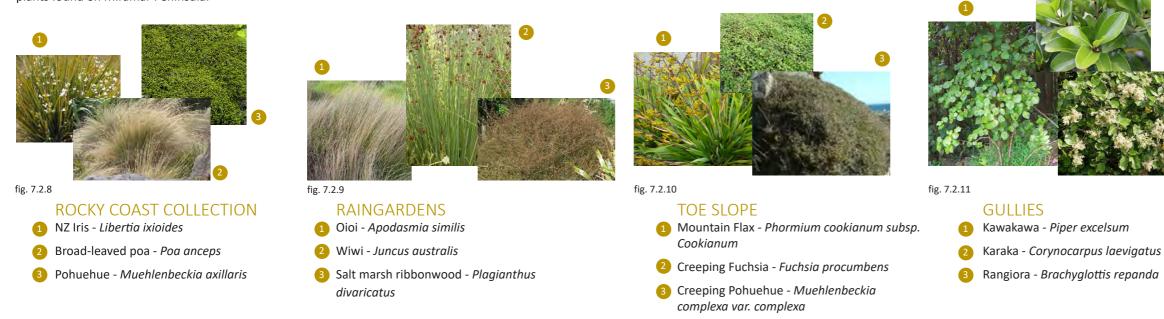


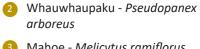




fig. 7.2.11

#### SPURS

1 Manuka - Leptospermum scoparium var. scoparium



arboreus

3 Mahoe - *Melicytus ramiflorus* 

#### INDICATIVE LIST OF PLANT SPECIES FOR ESCARPMENT VEGETATION MANAGEMENT ZONE

#### ESCARPMENT

#### SPURS

Carmichaelia australis – nz broom Cordyline australis – ti kouka Coprosma robusta – karamu Leptospermum scoparium var. scoparium - manuka, tea tree Melicope ternata – wharangi Melicytus ramiflorus -mahoe, hinahina, whitey wood Myoporum laetum – ngaio Olearia virgata – tree daisy Ozothamnus leptophyllus - tauhinu Pennantia corymbosa – kaikomako Pseudopanax arboreus - whauwhaupaku , five finger

#### GULLIES

Brachyglottis repanda – rangiora Carpodetus serratus – putaputaweta Cordyline australis – ti kouka Corynocarpus laevigatus – karaka Cyathea dealbata – silver fern, ponga Dysoxylum spectabile – kohekohe Freycinetia banksii – kiekie Fuchsia excorticata – kotukutuku, tree Fuchsia Piper excelsum – kawkawa Pseudopanax arboreus – whauwhaupaku , five finger

Source: Buchanan - List of Plants found on Miramar Peninsula, 1872.

#### TOE SLOPE

Asplenium bulbiferum -hen and chicken fern, pikopiko *Asplenium obtusatum* – shore spleenwort *Clematis foetida* – clematis Clematis paniculata – puawananga, white clematis Cordyline australis - ti kouka Libertia ixioides – mikoikoi, NZ iris Metrosideros perforata – akatea, white rata *Muehlenbeckia axillaris* – creeping pohuehue Muehlenbeckia complexa var. complexa – small-leaved pohuehue Olearia virgata - twiggy tree daisy Ozothamnus leptophyllus – tauhinu Passiflora tetrandra - kohia, NZ passionflower Phormium cookianum subsp. Cookianum – wharariki, mountain flax Pseudopanax arboreus - whauwhaupaku, five finger

#### RAINGARDENS

Apodasmia similis – oioi Carex forsteri – Forsters sedge Carex virgata – pukio, swamp sedge Juncus australis – wiwi Plagianthus divaricatus – salt marsh ribbonwood

#### **ROCKY SHORE**

Acaena anserinifolia – hutiwai, piripiri, bidibid Libertia ixioides – mikoikoi, NZ iris Linum monogynum var. monogynum – rauhuia, NZ linen flax Lobelia anceps – shore lobelia Muehlenbeckia axillaris – creeping pohuehue Muehlenbeckia complexa var. complexa – small-leaved pohuehue Ozothamnus leptophyllus – tauhinu Pimelea prostrata subsp. Prostrata – pinatoro, New Zealand daphne Poa anceps – broad-leaved poa Poa foliosa – muttonbird poa Selliera rotundifolia – selliera Tetragonia implexicoma – native spinach

#### Image Credits

2.0 fig. 2.3.2 Heaphy, Charles 1820-1881 :[Birdseye view of Port Nicholson, in New Zealand, shewing the site of the town of Wellington, the river and valley of the Hutt and adjacent country, taken from the charts and drawings made during Col[one]! Wakefield's survey, [Reference Number: C-029-006-b. http://mp.natlib.govt.nz/ detail/?id=8204

fig. 2.3.3 Gold, Charles Emilius (Lieutenant-Colonel), 1809-1871. Gold, Charles Emilius, 1809-1871 :N. Z. / C. E. Gold [Cabbage tree, canoe and rocky headland, possibly Wellington Heads or Miramar Peninsula. Between 1847 and 1860]. Gold, Charles Emilius 1809-1871 :Sketches by General Gold, 1846 to 1860. Ref: A-288-011. Alexander Turnbull Library, Wellington, New Zealand. http://natlib.govt.nz/records/22328779

fig. 2.3.4 Aerial view of Shelly Bay, with Mount Crawford Prison, and a flying boat. Evening post (Newspaper. 1865-2002) :Photographic negatives and prints of the Evening Post newspaper. Ref: EP/1959/1451-F. Alexander Turnbull Library, Wellington, New Zealand.

- 5.0 fig. 5.3.9 City Works Depot, Auckland. Simon Wilson. Cheshire Architects. Image Source Cheshire Architects.fig. 5.3.13 New Leyden, Leiden, Netherlands. MVRDV. Image Source from MVRDV.
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- fig. 6.7.2 Glebe Foreshore Walk, Sydney. Brett Boardman. JMD design. Image Source from Landezine.

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