

7 Bibliography & Precedent List

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7.2 Existing New Urbanism Developments used for Precedent studies

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8 Appendices

- 8.1 Full Project Brief
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- 8.3 New Zealand Herald article, “Students design Onehunga’s grand rail future” 04/11/2008
- 8.4 Onehunga Railway Station and Future Development – Boffa Miskell
- 8.5 Auckland City Council Mainstreet Programme
- 8.6 Onehunga Mainstreet Plan – Landscape Requirements September 1997
- 8.7 Scoop article, “Funding approved for Onehunga master plan development” 19/09/2008
- 8.8 Auckland City Council, Onehunga Bay Reserve and Lagoon Development
- 8.9 Auckland City Council, Maungakiekie Area Outcomes 2030 – Interim Draft
- 8.10 The Campaign for Better Transport – Reopen Onehunga Rail Project 02/11/2006
- 8.11 The Campaign for Better Transport – Green Light for Onehunga Branch Line Upgrade
- 8.12 Scoop article, “Onehunga rail upgrade from the AK Regional Council” 9/9/2009
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8.1 Full Project Brief

Mark Ravening 1183617
Master of Architecture (Professional)
2009 Research Project
Brief

Primary Supervisor: Branko Mitrovic
Associate Supervisor: Graeme McConchie

This brief describes the architectural spaces that I will be designing in 2009. These spaces will help me to solve the architectural problems talked about in my research proposal. By setting design objectives and goals I can keep progressing with my research and design at a steady and efficient pace.

THE NEW URBANISM BASED DEVELOPMENT OF ONEHUNGA

Overview

The Auckland Regional Council has planned for a new railway station and transport interchange in Onehunga. This is due to the old railway line becoming active again in 2009. A temporary station will be set in place until the major buildings works go ahead. The council has purchased a site that has a close relationship with Onehunga Mall, Princes Street, Neilson Street and Galway Street. This became obvious as the suitable location for my New Urbanism based project. The Onehunga Business Association has been heavily involved with the development of Onehunga. They have lobbied the Auckland Regional Council to ensure the development is beneficial to the area and to have positive effects on the main street and surrounding businesses. The Onehunga business Association has put forward their vision statement to the Auckland Regional Council with the help of Unitec last year. My research project will result in a New Urbanism based development that addresses the problems that the Auckland Regional Council and Onehunga Business Association have outlined.

Project Goals

1. The successful application of New Urbanism design techniques to enhance the existing urban framework.
2. Establishing main axis networks across the site connecting Onehunga Mall, Onehunga Bay Reserve and Princes Street with the proposed site.
3. The successful design of a transport centre and its neighboring buildings, for example: apartments / hotel / restaurant.
4. To plan and develop an outdoor public space that will be actively used by the transport centre and surrounding buildings.
5. To effectively communicate design ideas using both graphical and verbal mediums
6. To plan and develop buildings with planned and allocated floor areas and volumes.

Project Stages

Part A: Traffic Analysis

A number of important arterial roads / highways and motorways exist in close proximity to my chosen site. Do these roadways have a positive or detrimental effect on Onehunga? How do people enter the township from other parts of Auckland? Do the surrounding feeder roads need adjustment or additions to better suit the township? Can the proposed modifications be completed without the excessive land works or the destruction of a great number of existing buildings? Various proposals should be conceptualized and developed.

Part B: Analysis of Architectural Heritage

The community of Onehunga has the slogan “something old, something new” suggesting that it is proud of its architectural and historical diversity. Heritage architecture across the wider suburb of Onehunga should be noted and studied. The main street “Onehunga Mall” should be studied and its architectural elements be continued down into my design work.

Part C: Council Master Plan Analysis

Council planning and future developments in the Onehunga area should be catered for. The Auckland City Council has just released a document “Draft Future Planning Framework 2009” which shows Onehunga as becoming a heavily developed area in the near future. How can my design solution help achieve the goals set by the Auckland City Council?

Part D: Community Analysis

The area in close walking distance of the site needs to be thoroughly researched to locate existing community / retail / hospitality buildings within the site. This will help for my reasoning and proposal of new buildings within my site. Researching the location of community buildings such as churches / community halls / libraries establishes how much of an existing community atmosphere Onehunga already has.

Part E: Urban Planning

This part of the process looks at the placement of buildings within my site. The placement of new buildings and the integration of existing buildings can actively form public space such as an urban square. The relationship of the main street to the site, and axial relationships must be planned for at this time. Movement of people to and from the site is a vital aspect of the urban proposal.

Part F: Detailed Design

1. Transport Centre

- To be located on council proposed site
- To have an integrated connection of bus and rail system
- Have a strong connection with the proposed public space
- Have retail shops / offices integrated into the design
- Provide adequate shelter for bus and train terminals
- Be designed in accordance to New Zealand safety and design specifications

2. Public Square

- Be integrated with the design and function of the transport centre
- Have retail / hospitality businesses facing onto it
- Have a connection and relationship with the proposed RSA
- Have a relationship with Onehunga Mall
- Be placed in an inviting and friendly position for safe night time use

3. Restaurant / Bar

- The restaurant must be easily accessible from public square
- Restaurant must be capable of seating 200 people in the dining area
- A small bar of should be accounted for and planned as a subsidiary space.
- Seating should flow out onto the public square to help create a vibrant public space
- The restaurant must also incorporate a kitchen area, food store, beverage store, dishwashing area, small offices for managers

4. Apartment Building

- A mixed use apartment building that faces directly onto public square
- Retail and community shops at ground level
- Mixture of single, two and three bedroom apartments
- Aiming for 12 to 15 apartments per floor over two levels

5. RSA

- Provide a new location for the removed RSA from existing site
- Develop a new building which uses the pedestrian street or square for vibrancy and memorial

Building Function and Area Requirement Specifications

Transport Centre

1. Retail 2000m² minimum
ground floor only
2. Community Shops 2000m² minimum
Ground floor only
3. Entrance Foyers 400m²
4. Circulation Cores 300m²
3 entry foyers 100-150m² for each
5. Department Store 1500m² – 2000m²
6. Super Market 800m² – 1000m²
7. Internal Public Space 1000m² – 1500m²
8. Car Parking 6000m²
1 car space =18m²
20% for circulation
Approx 250 parks
9. Toilets 100m²
Two blocks 50m² each with
male / female / disabled
10. Apartments 2000m²
1 bedroom apartment =60
2 bedroom apartment =75
3 bedroom apartment =95
Approx 26 apartments over two levels

Public Space

11. Public Space 3000m² maximum
12. Performance Pavilion 100m² – 200m²
13. Memorial 50m²
10. Taxi Area 1000m² – 1500m²
11. Toilets 50m²

RSA

14. RSA 1000m² – 1500m²
Bar 100m²
Bar Area 300m²
Function Room 100m²
Kitchen 100m²
Food Store 50m²
Office 10m²
Waiting Area 50m²
Toilets 40m²
Dining Area 350m²
Pool Tables etc...

Restaurant / Cafe

15. Café	300m2 Kitchen 50m2 Food Store 10m2 Toilets 30m2 Dining Area 210m2
16. Restaurant	650m2 Kitchen 100m2 Food Store 50m2 Bar 50m2 Office 10m2 Waiting Area 50m2 Toilets 40m2 Dining Area 350m2

Bus and Train Requirements

Train Terminal Sizes

- Greatest Density Possible: 6 persons per m2
- 4 People standing in line roughly takes up 1875mm
- 4 People standing side by side takes up 2250mm
- Bikes approx 1400mm length x 1000mm height
- Train platform length: at least 80m+ (for locomotive and 3 cars), 8m minimum wide (doubles), 5m minimum wide (single)
- Recommended that any station should have sufficient room for platforms up to 320m long (to allow for expansion)
- Trains can handle a 3% max slope.
- Bathroom Requirements
 - 1 toilet for every 100 males (up to 400 persons)
 - 1 toilet for every 50 females (up to 200 persons)
 - 1 basin per toilet
 - 1 unisex disabled toilet
 - At least 1 cleaner's cupboard / sink
 - User friendly layout
 - Use of stainless steel
 - Typical WC cubical size 1600 x 900
 - Disabled toilet 1700 x 1300
 - Basins

Classes of Auckland Trains

- ADK -consists of 9 diesel multiple units (DMU's)
- Owned by ARC, operated by Veoila.
 - Most trains will run as permanent 4-car sets (83m+ platform)
 - Width 2.7m
 - Height 3.8m
 - ADK (locomotive) length 20.3m
 - Carriage (ADB) length 15.9m
 - Seating Capacity -70 (ADK), 64 (ADB/Railcar)
 - Standing Capacity -50(ADK), 32 (ADB)
 - Passenger doors –air operated sliding doors: 2 each side (4 per car), double doors span 1.8m
 - Step height from rail level 1.1m
 - Top Speed 80km



- ADL -consists of 10 diesel multiple units (DMU)'s
- Width 2.7m
 - Height 3.8m
 - ADL (locomotive) length 20.3m
 - Carriage (ADL) Length 21.1m
 - Seating Capacity (train only) -68
 - Seating Capacity (train only) -62
 - Passenger Doors – operated sliding doors: 2 each side (4 per car) double doors span 1.3m
 - Step height from rail level 1.1m
 - Top Speed 80km



- DBR -2 DBR's since 2006
- Diesel electric
 - 5 car suburban local set
 - Locomotive Length 14m
 - Top Speed 90km

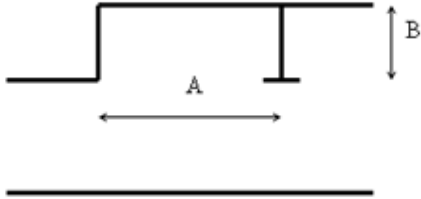


- DC
- 14 DC are operational
 - Diesel electric
 - DC used in push pull mode with sets of 2-4 SA cars and SD driving car
 - Freight trains can be over 1.2km long
 - Width 3.0m
 - Height 4.3m
 - Length 14.1m
 - Top Speed 90 – 100km



Bus Terminal Sizes

- Bus Curbside Parking Space 12 - 18m long by 2.5m wide
- Bus allowance of 15-30m of taper length of approach and departure from the park.
- For a 360 degree turn, the maximum outside diameter is 25m. The minimum inside radius is 5.3m.



Taxi Stand Sizes

- Taxi Curbside Parking Space 5.4m long by 2.5m wide

Public Space: Activities / Objectives / Aims

1. To be used as a small market place one or two days per week. With small food and gift stalls, live music and restaurant and cafés overlooking it.
2. RSA Anzac and other memorials taking place in the square. Flagstaff alongside the memorial feature. Square will have a significant impact in signifying the importance of these memorials.
3. Christmas parades and other community gatherings can take place at the square, the idea of the square to become a landmark will make it easy for people to congregate and know where to go.
4. Hotel guests will utilize the square for dining and for its connection with the different transport options available.
5. The transport centre flows out onto the square. Bypassing people will make the square vibrant and a safer place to be.
6. Performance pavilion will provide enclosure to the space architecturally and also house live performances by musicians etc.
7. People will be drawn down the main street because of a visual connection with the space. The performance pavilion will also help draw people to the space from the main street.
8. Restaurants and cafes that face and flow directly out onto the public space. People will enjoy dining in the space throughout the day and night.
9. Business people, shoppers and commuting pedestrians will enjoy stopping in the space for a short while before progressing on to their daily tasks.
10. The space is a good way for people to congregate, could be used as a meeting point etc.