



Chapter 22

**Public
Transport -
Ferries and
Wharves**

22 Public Transport – Ferries and Wharves

22.1 Introduction

22.1.1 Purpose

This chapter is to be used by all persons involved in the planning, design, documentation and procurement of new ferry terminals, as well as upgrade work on existing ferry terminals in the Auckland Region, for Auckland Transport (AT).

Compliance with this chapter is required as far as practical, however, compliance does not constitute acceptance of any proposal, or compliance with legislative requirements.

This chapter outlines the principles and processes for ferry terminals relating to;

- General design principles:
- Functional Design Principles
- Site Specific Design Considerations
- Common Elements
- Finishes and Specifications

This chapter does not address the ownership or funding arrangements for the facilities to be provided. It is concerned with passenger ferry terminals to be built or upgraded by AT. The design and provision of any new passenger ferry terminal on the Auckland Ferry Network (by any developer) should, however, be consistent with this chapter.

This chapter is not prescriptive, and requires intelligent implementation of standards and principles by designers and project managers. AT would particularly welcome feedback from users on any aspects of this chapter that proves difficult to apply, requires improvement or clarification, or that may lead to unintended outcomes - so that these can be constantly improved and updated.

22.1.2 Background

In accordance with AT's strategic outcomes, ferry services form part of an efficient and integrated PT network that encourages patronage growth, provides improved and more reliable services for current and future users and is an attractive alternative to the private car. AT's plans for ferry service and infrastructure development are set out in the Passenger Transport Network Plan (PTNP) and the Regional Public Transport Plan (prepared 2008/09).

The provision of comfortable terminal facilities which provide shelter for waiting passengers will help to maintain existing ferry patronage and contribute to the growth of the market. Customer satisfaction surveys show that ferry passengers are generally very content with most aspects of ferry services except for terminals which often have low ratings. Upgrading or replacing inadequate infrastructure is important in improving customer satisfaction and thus the use of the services. This chapter is intended to ensure that satisfactory standards are considered during the design, procurement, construction and maintenance of the works related to ferry terminals.

22.1.3 Process

It is important to note that the contents of this chapter are generic and are likely to be modified on an individual terminal basis to take account of factors such as patronage, physical constraints, and access to / use of the adjacent land and water space. A full range of facilities may not be provided initially, but designs should consider their provision in the future. The development of designs should be carried out on a terminal-specific basis, taking account of all criteria and requirements in consultation with local communities.

The individual concept designs for each terminal will be developed by AT's consultants in consultation with stakeholders and will be sufficiently detailed to enable any necessary consultation with the wider community to occur, as well as providing a basis for cost estimating and to seek appropriate levels of funding. The detailed design will be undertaken in accordance with this concept design and will be finalised in consultation with the key stakeholders. Detailed design will comprise all necessary drawings and documentation to permit consenting, procurement and construction, and will include an outline of ongoing maintenance and future renewal costs of the terminal and facilities (a "whole of life" design approach).

The key stakeholder organisations are identified as:

- Auckland Council
- Auckland Transport
- Auckland Waterfront Development Agency Ltd
- Ferry operators
- Charter service operators
- NZTA (a possible funding source)
- Other interest groups (as appropriate) including from the local community.

22.1.4 Functions and General Design Considerations

22.1.4.1 *Functions of a Ferry Terminal*

The ferry network provides for the movement of people between key origins and destinations. In terms of its role in the wider transport network, the function of the ferry network is primarily a commuter-based operation, with tourist patronage contributing to several routes (particularly Waiheke Island).

The terminal is the public interface of the ferry system. It is the place where customers access and exit the system. The most important function of a ferry terminal is the safe and efficient movement of people to and from ferries, and should be one of the principle influences in the design of the terminal.

Terminal function is defined by the individual demands placed on each terminal. Each terminal is different in terms of the facilities required to ensure that it can deliver its required function. In some cases, park and ride may be a significant demand of users of a ferry terminals, whereas in others pedestrian or bus transfer demands may be significant factors.

The design of the terminal will need to be responsive to the functional needs of each terminal.

In many cases, ferry terminals are located in residential or urban areas and have a high degree of interface with the surrounding land and sea uses. In such cases, as a principle, the terminal should be designed as sensitively as possible and provide a positive enhancement to the existing environment, however, the transportation functions of the terminal are always the primary consideration.

22.1.4.2 Key Drivers

In approaching the design of ferry terminals, there are four key drivers which have guided the development of standards in this chapter. It is important that designers use these key drivers as guiding principles when undertaking design of all elements of ferry terminals.

Safety

Safety has two distinct aspects.

1. Safety of the terminal environment relates to avoiding hazards such as trip hazards, obstructions and avoidance of conflicts between pedestrians and vehicles / vessels.
2. Safety also relates to personal security of the user (CPTED). This has implications for terminal design in terms of sight lines, lighting, avoiding hidden areas, provision of CCTV and design for passive surveillance.

Functionality

Ferry terminals are transport focused facilities. The main role of a terminal is the movement of people to and from ferries. Functionality means designing for the specific transportation functions required of the terminal. This means designing for the appropriate provision of parking, drop off areas, bus facilities, ferry berths and pedestrian facilities sized to meet the expected demands.

Operationability

Ferry terminals exist within an operational environment. Structures must be designed to allow for the operational needs of the ferry network. In terms of terminal design, this relates to ensuring that the design does not inhibit the ability of the ferries to run on time by affecting turn-around, waiting and loading / off-loading times.

Maintainability

Ferry terminals are frequently the targets of vandalism. While new ferry terminals are designed to increase passive surveillance and include CCTV and improved lighting, it is accepted that vandalism will continue to occur. Ferry terminals also require regular cleaning and removal of litter. Terminals need to be designed to make cleaning and maintenance as easy and as safe as possible. This means using fit-for-purpose materials and seeking design solutions that provide low levels of maintenance and replacement / repair.

22.1.4.3 *General Planning Considerations*

The terminal is the primary entry point to the ferry network. It is the point where ferry users:

- Board (and alight from) ferries
- Obtain information
- Transfer to and from other methods of transport

Terminal users will arrive as:

- Pedestrian and cycle users
- Inter-model public transport transfers
- Drivers and passengers of private vehicles

The overall appearance of AT's ferry terminals should be bright, clean, efficient and consistent with a modern public transport system.

22.1.4.4 *Terminal-Specific Planning and Design Considerations*

In general, the planning and design constraints for new and upgraded terminals will be prepared by AT together with the business case justification for each location. This information will be provided to the designers as part of the Design Brief, and shall include:

- Site location and geographic / topographic layout
- Level of Service to be provided (e.g. full-cover terminal or shelter only)
- Forecast passenger numbers
- Forecast vessel numbers, types, dimensions and tonnage, schedule of arrivals / departures, berthing and layover requirements
- Checklist of Amenities to be provided (e.g. staff facilities, CCTV, PA system etc.)

22.2 General Design Principles

22.2.1 **Urban Design**

22.2.1.1 *Urban Design Principles*

Each terminal forms part of the ferry network and part of a community. The guidelines provide a balance between the need for the terminal to be a readily identifiable part of a passenger transport network and a local community. This is also important in the context of capital costs and ongoing operational costs which, in general are higher for a greater level of individuality among ferry terminals.

In general, standardised layout, materials and design of structures is required for simple shelters, with reference to the AT Common Elements (refer to *ATCOP Chapter 21 PT Rail*). The planning and design of large, full interchange terminal facilities may be proposed on a unique design concept, and should utilise the physical and topographic conditions to maximise the terminal's operational, functional and construction effectiveness.

The transportation function(s) and operational requirements of a terminal are the highest priority consideration in terminal design. However, as far as possible, terminal design and precinct planning should also incorporate urban design principles including:

- Design strategies for maximising integration with the surrounding environment
- Design strategies for minimising negative urban impacts, for instance the effect of lighting on the neighbourhood environment

Good visibility along corridors leading to the terminal should be provided. The terminal itself should be made clearly visible from the surrounding area in a manner appropriate to the local community. The architectural concept for the new ferry terminals should reflect their context and become recognisable and accepted by users within the local and wider catchment areas as their transit terminal.

The developed concept should consider the heritage value and history of the site and the surrounding environment as well as possess positive social attributes and serve to enhance the identity of the public transport system to the community. Linking into existing pedestrian and vehicle networks to provide fast and easy access into and out of the terminal is vital for the terminal to function efficiently.

22.2.1.2 Auckland Transport Major Projects Design Review Team (AT MPDRT)

The design of remodelled or new ferry terminals may be subject to review by the Auckland Transport Major Projects Design Review Team depending on the scale and location. Time and resources should be allocated to undertake this process and incorporate the resulting inclusion of the Urban Design Protocol (UDP) recommendations.

22.2.1.3 Urban Design Protocol

The Protocol is a voluntary commitment to specific urban design initiatives by signatory organisations, which include central and local government, the property sector, design professionals, professional institutes and other groups.

The Protocol aims to make our towns and cities more successful by using quality urban design to help them become:

- Competitive places that thrive economically and facilitate creativity and innovation
- Liveable places that provide a choice of housing, work and lifestyle options
- A healthy environment that sustains people and nature
- Inclusive places that offer opportunities for all citizens
- Distinctive places that have a strong identity and sense of place
- Well-governed places that have a shared vision and sense of direction
- The Protocol identifies seven essential design qualities:
- **Context:** Seeing that buildings, places and spaces are part of the whole town or city
- **Character:** Reflecting and enhancing the distinctive character, heritage and identity of our urban environment
- **Choice:** Ensuring diversity and choice for people

- **Connections:** Enhancing how different networks link together for people
- **Creativity:** Encouraging innovative and imaginative solutions
- **Custodianship:** Ensuring design is environmentally sustainable, safe and healthy
- **Collaboration:** Communicating and sharing knowledge across sectors, professions and with communities.

AT is a signatory to this protocol and expects all of its infrastructure designs to adhere as far as reasonably practicably to these principles. Additional information can be found on the following link.

<http://www.mfe.govt.nz/publications/urban/design-protocol-mar05/index.html>

22.2.2 Environmental Sustainable Design (ESD)

22.2.2.1 Environmental Sustainable Design Principles

The design of ferry terminals should aim to mitigate adverse environmental impact and promote sustainable methodology in terms of its design, construction, and maintainability over its lifetime. Ferry terminals should be designed in context with the surrounding urban and natural environment to minimise impact while designing to a level appropriate to the scale and nature of the network. Materials should be considered carefully and preference for renewable and sustainable resources selected where appropriate, with consideration also made to their durability, and maintainability. Audio and visual impact should accordingly be designed to minimise impact relative to the surrounding environment without compromising the functional requirements of the ferry network. Terminal components should ideally be standardised as much as possible to take benefit of efficiencies and economies of mass production.

Key considerations are:

- Design – environmental impact and sustainability
- Materials – renewable sources, durability, maintainability
- Construction – minimising environmental impact, maximising standardised elements, efficiencies and economies
- Permeability – water collection and run off
- Lighting – light spill, levels, typology - efficiency
- Audio – sound spill
- Access – designs that encourage passengers to walk, cycle, and even car pool

22.2.3 Crime Prevention Through Environmental Design (CPTED)

22.2.3.1 CPTED Principles

Designing to CPTED principles aims to provide a safe and secure environment within the ferry network through the implementation of crime prevention through environmental design. Careful environmental design can help make places less susceptible to crime and enable people to feel more comfortable outdoors. The design of the ferry terminals and access

within the network and the surrounding environs and the arrangement of streets, parks and other outdoor spaces can influence the opportunity for crime and the level of fear of crime. Crime prevention through environmental design (CPTED) is one important strategy to achieve this.

22.2.3.2 *The Four Strategies of CPTED*

- **Natural Surveillance** - A design concept directed primarily at keeping intruders easily observable. Promoted by features that maximize visibility of people, parking areas and building entrances: doors and windows that look out on to streets and parking areas; pedestrian-friendly sidewalks and streets; front porches; adequate night-time lighting.
- **Territorial Reinforcement** - Physical design can create or extend a sphere of influence. Users then develop a sense of territorial control while potential offenders, perceiving this control, are discouraged. Promoted by features that define property lines and distinguish private spaces from public spaces using landscape plantings, pavement designs, gateway treatments, and "CPTED" fences.
- **Natural Access Control** - A design concept directed primarily at decreasing crime opportunity by denying access to crime targets and creating in offenders a perception of risk. Gained by designing streets, sidewalks, building entrances and neighbourhood gateways to clearly indicate public routes and discouraging access to private areas with structural elements.
- **Target Hardening** - Accomplished by features that prohibit entry or access: window locks, dead bolts for doors, interior door hinges. The design guide address issues of:

22.2.3.3 *CPTED Implementation*

Ferry terminal environs due to their nature are susceptible to issues of crime and should be designed with consideration to:

- natural surveillance – “see and be seen” – people are usually less likely to commit crime if they are (or think they may be) being watched. Conversely people are likely to feel safer if they think someone is looking out for them.
- ensuring there are clear sightlines along routes – avoiding sudden corners or blind bends along pedestrian or cyclist routes. Ensuring that planting does not grow to obscure the view or provide hiding places for offenders.
- providing good standards of lighting – choosing lighting that illuminates pedestrian areas as well as roads and car parks. Providing consistently placed, high quality lighting which will not conflict with planting or create areas of shadow.
- ensuring there is plenty of activity – designing pedestrian/cycling routes to ensure that they will be well used to prevent them becoming isolated and unsafe. Designing pedestrian routes so that they run alongside vehicular routes and are highly visible. Encouraging a mix of uses so that space is used throughout the day and the evening.

- avoiding potential entrapment situations – people will feel vulnerable in situations where they could be trapped in a space with a potential attacker. Clear signage can be used to warn people of potential entrapment spots.
- keeping up good appearance – places which are run down and neglected tend to feel less safe. Regular maintenance of buildings and garden area along with the removal of graffiti and litter all help to make people feel more comfortable in outdoor spaces.
- clear ownership – people have a proprietary interest in their own property. Where there is no clear ownership of space, offenders can be indistinguishable from legitimate users. Damage to property is less likely if it is clear who owns it, therefore communal or “left over spaces” which no-one assumes ownership are best avoided.
- not everywhere can be safe – it would be impossible to make everywhere feel safe and the experience of our environment would likely be poorer if we did. Some areas will be “off limits” particularly at night. People who do not feel safe in these areas should be able to choose not to go there and have access to an alternative safe route.

22.2.4 Scope Enhancement

22.2.4.1 Enhanced Scope Proposals

The standards in this chapter have been reviewed in terms of their cost implications and are considered appropriate in terms of the Region’s anticipated expenditure levels on ferry terminals. The standards set in this chapter also reflect the operational requirements of the ferry network and the functional requirements of terminals to meet the needs of users.

Where another party, for example, a private developer seeks to vary from the standards adopted in this chapter, this can be considered at the discretion of AT. Design exceptions must be agreed to and signed-off by the relevant AT Engineer.

The standards should not be varied to reduce scale, quality or construction standards or to affect any stated priorities, however, enhancements may be considered.

In such cases, the standards in this chapter should be adhered to as far as practicable and be used as a minimum provision. In the adoption of alternative materials and designs, proposals should be guided by the demands of the environment and principles outlined in this chapter.

22.2.5 Holistic Design

22.2.5.1 Future proofing

As the design of a remodelled or new terminal evolves, due care must be taken to not preclude further enhancements, changes in patronage or services. At present the design must meet the service levels specified to some future date. But that design should make provision for increases in services and an increase in the level of amenities provided. The design should

make allowances for future systems such as 'Real Time Passenger Information' and 'Integrated Ticketing'.

22.2.5.2 Constructability

All elements of the proposed design may be subject to a review of their ease of construction within a live ferry network and urban environment. The design should allow for offsite fabrication and precast elements that will minimise the onsite activities

22.2.5.3 Whole of Life Design

The 'whole of life' principle that solutions should be cost effective in capital terms and minimise ongoing operational costs applies to all aspects of terminal design.

22.3 Functional Design Principles

22.3.1 General

The PTNP sets out high level guidelines for passenger facilities at interchanges and stops. The level of provision varies according to the level in the network, which reflects the level of use and the importance of the route - numbers of users, peak demand and number of trips.

In addition to access and passenger facilities, design for a ferry terminal must take into account the vessels that are likely to use it and their berthing needs. This will determine matters such as the number, size and spacing of piles, provision of fendering, boarding and off-loading facilities, mooring points and aids to manoeuvring such as placement of dolphin piles.

The standards will also specify use of materials that will endure in a marine environment, as well details of common elements to be incorporated in all new terminals.

22.3.2 Accessibility and Connectivity

A ferry terminal should have good connectivity and accessibility to the community it serves, between the available transport modes and within its precinct. Safe and convenient access is fundamental to the attractiveness of the ferry network and terminals are the "front door" of the system.

- Access for pedestrians should be safe, well lit and convenient for use in particular by children and passengers with physical disabilities – the "universal accessibility" principle.²⁹
- Access to terminals and ferries for disabled people should be provided in accordance with the New Zealand Disability Strategy. Consultation should be

made with representatives of organisations such as the Royal New Zealand Foundation for the Blind, and CCS Disability.

- Access paths connecting to the street and to bus stops and car parks should also meet universal accessibility criteria. Paths should be wide enough for two-way streams of passengers to pass allowing also for wheelchairs and cycles.
- Ferry terminals will have common features or themes that identify them as part of the PT Network but, where possible, will also have a connection to local identity and heritage - subject to cost and design practicality.
- Where there are heritage issues, consultation must be undertaken with the relevant stakeholders e.g. NZ Historic Places Trust (if appropriate) and any relevant local preservation groups. Infrastructure such as shelters and seating may be designed to integrate with the heritage character of the terminal where it exists and will remain.

22.3.3 Integration

Design must be undertaken in consultation with the AT to ensure that land-side access (footpaths, cycleways, bus stops, car parking, Kiss & Ride car parks) will facilitate and encourage use of the terminal and services.

To encourage use of ferry services it is important that modal integration (linking the various modes of transport) is as seamless as possible and transfers are short, convenient and comfortable. A basic objective is to maximise the potential passenger numbers carried on the ferry network.

The modal hierarchy ranks different modes in priority order and this determines each mode's access to terminals. Layout and amenity for these modes is determined on the basis of this hierarchy, so that pedestrians, cycle and bus users are rewarded with shorter distances, higher convenience and higher comfort levels than private car users.

The principles of modal hierarchy are that:

- Buses are given priority of access with set down areas located as close as possible to the terminal entry linked by covered access ways or localised cover for weather protection.
- Walking and cycle facilities are planned around the terminal entry with convenient access paths as part of the approach.
- Kiss & Ride and taxi stands (if provided) are placed adjacent to the bus stop, as close as possible to the terminal entry, but without disadvantaging bus transfer.
- Park & Ride is generally the furthest from the terminal. Ideally, walking distance between the car park and the terminal should be reduced where the distance on the wharf between the terminal entry and the embarkation point is longer than [80m].
- Provision will be made to allow installation of equipment for integrated ticketing, if not immediately, at a later stage.

- Provision should be made for secure cycle storage or cycle lockers at all terminals.

22.3.4 Functionality

Ferry terminals occupy a valued waterfront location and the local community often sees them as a neighbourhood recreation facility. Where feasible, design can allow for community use for passive recreation but should not facilitate swimming and diving (safety concerns) or fishing (safety, cleanliness, access concerns). Design must take into account local sea and weather conditions and the vessels to be used and provide what is needed to minimise chances for damage to the wharf structure or to the ferry vessel and to avoid the possibility of injury to crew or passengers.

In general, AT will provide a basic, functional ferry terminal in accordance with these guidelines. If a private developer wishes to have a more highly specified terminal, AT will expect the extra elements to be funded by the other party and that an ongoing maintenance contribution will be made.

- Terminals will be designed for efficient passenger movement to reduce delays and congestion and for logical passenger flows from entrance, through ticketing (if provided) to a waiting area, and to the embarkation point
- Design must consider 'whole of life' costs, and provide for easy maintenance, replacement and repair. Cleaning considerations include graffiti-proof surfaces where feasible and reduced opportunities for vandalism e.g. no access to hydraulic ramps except for boarding/alighting. Access should be available for use by emergency vehicles, delivery and rubbish removal vehicles. This should generally be kept separate from pedestrian access.
- Commercial uses appropriate to the ferry transport primary business may be accommodated provided this is without disrupting the movement of passengers, supply vehicles or ferries and at no additional cost to AT. The conditions will be the same as for commercial use of rail stations.
- Terminals will be designed to minimise chances for vessel damage, to allow for easy movement in and out of berths, with all necessary aids in place. To some extent, the profile of the vessels to be used will determine what is provided. A standard terminal design should be developed for a range of vessel profiles to ensure that operators are aware what can be accommodated.
- It is preferred that terminal design is standardised in terms of materials, fittings and fixtures to reduce overall costs and ensure supplies can readily be made available (e.g. for repairs). This may take some time to achieve as upgrades and renewals are carried out.

22.3.5 Amenity Principles

Ferry terminals are functional infrastructure that must provide for the safety and comfort of passengers. The main role of a terminal is to provide for the effective and efficient movement of people to and from the terminal and ferries and to provide safety and shelter during waiting periods. Given the water edge locations, terminals are often exposed to strong winds and

inclement weather. Amenity at ferry terminals should be functionally focussed, driven from the perspective of the user. New terminal designs and precinct planning must incorporate user amenity features including:

- safe, convenient and unobstructed access to all parts of the terminal infrastructure, including between waiting areas and boarding ramps
- passenger comfort, including reasonable weather protection from wind and rain;
- general security and safety including appropriate levels of lighting;
- sufficient logical, clear, understandable, easy to read and well located signage and timetable display board systems;
- adequate and well laid out vehicle access, drop off and parking facilities with clear lines of sight and pedestrian access through parking and approach areas;
- adoption of good urban design practice and landscaping principles;
- adoption of concepts to minimise accidental and wilful damage;
- convenient, safe, and comfortable bus transfer facilities;
- easy recognition and high visibility from and to pedestrian access paths through the terminal precinct (for passengers and crew)
- Durable, slip-resistant surfaces with safety barriers where appropriate

22.3.6 Maintenance

22.3.6.1 Life cycle costs

In the implementation of the standards contained in this chapter, thought must be given to the overall 'Life Cycle Costs' of the proposed design. As the existing ferry terminals are upgraded or new ferry terminals added, the costs of operating and maintaining must be given due consideration in both the design and selection of materials and finishes.

22.3.6.2 Maintenance and Maintainability

Consideration should be made in the design of ferry terminals regarding issues of maintenance and ongoing maintainability. Terminal elements should be suitably designed and of durable materials appropriate to the nature of the environment to minimise maintenance costs.

22.4 Site Specific Design Considerations

22.4.1 Amenities

Consideration must be given to providing relevant amenities, the requirements for which must be specified in the AT Design Brief for individual terminals.

Refer to Appendix 22A at the end of this chapter.

The exact number of each item (if required) to be installed at individual ferry terminals is based upon peak patronage numbers and the specific terminal requirements so that they provide reasonable levels of passenger comfort while ensuring that operating costs are acceptable.

22.4.2 Common Elements

Where feasible, elements of the terminal facilities should be standardised across the ferry network, to promote efficiencies in design, procurement, operations and maintenance. In addition, the common elements contribute to awareness of the AT brand.

Design and procurement information is held by AT for the following proven common elements, which will be made available to the Designer:

- Canopy structures
- Seating units
- Rubbish bins
- Cycle racks
- Help Points
- Signage and Information Panels
- Wharf edge handrails
- Passenger Information Display (PID) units
- Acceptable Finishes for Marine Environments
- Corrosion Protection & Paint Systems
- Metalwork (stainless steel, aluminium or corrosion-protected mild steel)
- Metal Roofing

22.4.3 Shelter

Canopies and shelters are an important component in the provision of comfort and amenity at ferry terminals.

The level of shelter to be provided is determined by the specific requirements of the terminal in conjunction with peak patronage levels of the terminal.

Where provided, canopies should provide reasonable shelter and rain and sun protection. Shelters should adhere to the CPTED principles outlined in this document and maintain clear sightlines.

Areas covered by canopies should be well lit, covered by CCTV, contain a Safety Point and key information such as timetables and network and local area maps.

22.4.4 Seating

Seating should be arranged in a manner that does not obstruct passenger flow and access to information and is integrated with other terminal elements, i.e. location of advertising signs and bins.

22.4.5 Rubbish Bins

Rubbish bins are to be provided. These are to be of a reasonable quality while being robust and are to be securely fixed to prevent theft.

Bins are generally stainless steel frames and liners.

22.4.6 Cycling

All ferry terminals should be designed to encourage use by cyclists. Secure cycle parking (short term and long term – preferably lockable) should be provided within the terminal precinct, particularly at major ferry terminals. Terminal design should not be responsive to existing patronage level by cyclists, but should aim to attract and promote increased patronage by cyclists.

Refer to *Chapter 13 Cycling Infrastructure Design – Section 13.6* for information on the provision of cycle parking and storage in the form of lockable cycle cages and cycle racks etc.

22.4.7 Lighting and Power

Terminals should be well lit after dark up to the last trip with “after hours” lighting adequate for CCTV operations and to deter vandalism. Lighting should cover the passenger waiting area and access points, avoiding shadows and glare, and should cover areas containing any equipment, features or walls that may be the subject of acts of vandalism. Lighting design should minimise overspill onto adjacent residential properties and prevent lighting pollution (i.e. downwards beam only), however it should also provide a safe transition into the surrounding area. While meeting safety requirements, lighting should also be as energy-efficient as possible.

Light fittings must generally be IP65-rated to allow for wash-down of surrounding surfaces.

Power must be provided for operations and maintenance purposes in all terminals (240V single phase, vandal proof, IP65-rated).

Specific power requirements may be required for vending machines, ATM’s, public phones, sullage pump-out facilities and shore-power to vessels. Where required, these requirements must be specified in the AT Design Brief for individual terminals.

22.4.8 Surveillance, CCTV and Help-points

Terminals shall be fitted with colour CCTV cameras with low light capability and associated control/transmission equipment that permits the remote control and real time recording of images. Coverage should provide for passenger waiting areas, access and egress points, help point, rubbish bins.

Design should also consider where integration opportunities exist to provide for CCTV coverage of precinct areas including bus stops, car parks, kiss-and-ride and Park-&-Ride areas immediately adjacent to the terminal. The monitoring activity should be linked to a rapid response security patrol. There should be an emergency help point with CCTV coverage, where waiting passengers can call for assistance.

At terminals where ferries are berthed overnight, provision must be made for security cover for vessels to prevent vandalism, interference and graffiti. A safe environment shall be provided for any crew or passengers leaving terminals late at night after the last trip.

Help-points shall be provided and located in visually prominent and accessible positions. Particular consideration should be given to the access route passengers will take after dark. Signs indicating the location of the help points should be clearly displayed. Clearly visible and signed CCTV should be provided at the help points, as part of the overall video monitoring system.

22.4.9 Way-finding Signage & Information

Refer to *ATCOP Chapter 6 Street Amenities* and to *ATCOP Chapter 21 PT Rail – Appendix 21B*.

22.4.10 Public Address System

All terminals should be designed to be fitted with remote Public Address systems, linked to a central operations room. The PA system will serve both as an announcement for departures/delays and for use as a security measure linked to CCTV monitoring. Music over the PA system is not required.

22.4.11 Ticketing and Staffing Facilities

22.4.11.1 Ticketing

Where required, ticketing facilities shall be specified in the AT Design Brief for individual terminals.

22.4.11.2 Integrated Ticketing and Fares

Integrated ticketing and fares were introduced in the Auckland Region in 2010. An integrated ticket is either a smart-card or a paper-ticket that is valid for a defined time period (e.g. two hours). The concept is that a person can use a single ticket for travel on any public transport service in the Auckland Region (bus, rail or ferry) regardless of operator or transfer activity (integrated ticket) for the payment of a fare no greater than the equivalent fare of the same journey by a single mode (integrated fares between bus and rail).

Multi-use smart cards can be purchased at selected locations and will be able to be recharged at ticket vending machines, or Vending and Reload Devices (VRD) located at all railway ferry terminals, transport centres, the Downtown ferry terminal or at agencies. VRDs will also dispense paper tickets valid for a defined time-period (e.g. two hours). VRDs will accept cash, EFT-POS and credit card payments.

To validate travel a passenger will either present a valid card (i.e. one that has a cash balance stored on the card) to a Fare Payment Device (FPD), or an Electronic Gate (EG) at major ferry terminals and the Downtown ferry terminal to “tag on” to the system, at which point a default fare will be deducted from the card. At the conclusion of the journey, or each leg of a journey involving a transfer between modes, the passenger will again present the card to an FPD, or EG, to “tag off” at which point the system will calculate the difference between the actual fare for the travel since the last “tag on” and the default fare already deducted and either credit or deduct value from the card for the actual travel. Paper tickets

will be printed with details of the boarding location, time of purchase and the number of fare zones purchased.

FPDs will be located at the entry/exits points of rail, bus and ferry terminals, at the doors of buses and at the entry/exit point of ferries. EGs will be located at the Downtown ferry terminal, and may be installed at other locations at a later date. There will be revenue protection staff roving the system to randomly check that all passengers are in possession of a valid ticket.

The integrated ticketing may include the option to pay for parking at Park-and-Ride locations where payment for parking is introduced in the future. Multi-use smart cards could also be used for this purpose.

22.4.11.3 Staffing Facilities

Where required, staffing facilities must be specified in the AT Design Brief for individual terminals.

In principle, staffing and cleaners' facilities must only be provided at full-cover terminals.

22.4.12 Commercial Opportunities

AT's first focus is to provide appropriate levels of amenity for customers using the PT infrastructure. Commercial opportunities should be identified through consideration of customer segmentation using the facilities in the first place. It should be kept in mind that the right commercial opportunity with the right design - as part of an attractive facility and ambience - can and should be used to attract new customers to PT.

1. The design should accommodate levels of amenity for the respective asset categories and associated commercial opportunities. The level of amenity and commercial opportunity is influenced by what the customer wants/expects.
2. The initial step in the design process is accurate market analysis of what the customer wants and respective customer segments/types i.e. office workers, students, families, retirees, peak/off peak commuters. The customer segments/types will determine customer expectations, which will be reflected in the concept design.
3. Input from respective stakeholders i.e. AT's Property Dept, PT Operations etc. must occur early in the preparation of the concept design - not afterwards.
4. AT will identify the levels of amenity to be provided within each asset by categorising them and considering customer needs within each of those categories. In so doing, opportunities will arise for commercial arrangements to be established with amenity providers.
5. AT will source amenity provision strategically and in doing so will seek to optimise both the amenity and the commercial returns available.
6. Consideration should be given to commercial opportunities at the planning and design stages of new facilities so that they are seamlessly integrated into the facility and are driven from the user (Customer Experience) perspective.



7. Where commercial enterprises are to be added to existing facilities, care should be taken to ensure that they support the primary transport function of the facility and that they are consistent with AT branding guidelines.
8. While AT's policy is to maximise commercial opportunities, AT may work with commercial partners to provide services that benefit customers even if there is little or no direct commercial benefit to AT.

Consideration should be given to:

- Retail outlets (all forms including kiosks, cafes, dry-cleaning pick up and drop off, flowers, shoe repair, key cutting and shops)
- Travel agents, real estate agents
- Vending machines, photo booths
- ATM's
- Public telephones
- Wifi hotspot and mobile device charging points
- Advertising and promotional opportunities
- Temporary exhibition spaces
- Any other commercial opportunity

Appendix 22A - Information to be provided to Designers in the Ferry Terminal Design Brief

The following information must be provided to the Designer in the Design Brief for each particular Ferry Terminal:

- Resource Consents - status / requirement for / responsibility for obtaining
- Consultation - major Stakeholder entities / status of consultation
- Prior designs – any design work carried out to establish planning constraints etc
- Heritage constraints and considerations
- Interfaces with other modes of transport (bus, train, car etc.)
- Site location and geographic / topographic layout
- Level of Service to be provided (e.g. full-cover terminal or shelter only)
- Forecast passenger numbers
- Forecast vessel numbers, dimensions and tonnage, schedule of arrivals / departures, berthing and layover requirements
- Requirements for ‘future-proofing’ for expanded services, if any
- Checklist of Amenities to be provided, including consideration of:
 - Shelter (canopy or enclosed structure)
 - Seats
 - Rubbish Bins
 - Cycle Racks
 - Lighting & Power
 - Surveillance / CCTV / Help-points
 - Way-finding Signage and Information
 - Public Address System
 - Ticketing & Staffing Facilities
 - Commercial opportunities
 - Clock (when PIDS supplied)
 - Time Tables (ferry and other integrated modes)
 - Water Tap (vandal proof)
 - Electricity (240V single phase, vandal proof, IP65)
 - Food & Beverage Power supply and distribution boards should be able to accommodate 3-phase supply (essential for some retail uses and should also be located in main public activity zones).
 - Water supply include separate metering for commercial users and back flow prevention devices (a pre-require for food licence)
 - Gas supply
 - Drainage to include provision for grease traps
 - Extraction and other HVAC services (necessary for most commercial/retail uses)

- Access to communal toilets
- Accessibility for delivery vehicles to service retail uses (especially food and beverage)
- Provision for appropriate waste management area, hidden from customers view

Appendix 22B - AT Common Elements Drawing Register

The Common Elements Drawing Register details materials and elements approved for usage by AT on both rail and ferry project infrastructure. The [Register](#) (PDF 272KB) and [Drawings](#) (PDF 11MB) can be found via the respective embedded hyperlinks.

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