

VOLUME FIVE: GENERAL CODES

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1.0 Introduction

1.1 Overview

This volume includes the codes that are relevant in assessing any development proposal within the Cityport and Seaport areas. These codes support the individual Local Area Plans (LAP) and give guidance on a range of matters including impacts on ecological values, managing adverse environmental impacts, potential acid sulphate soils, car parking and industrial building design.

For ease of use the codes are listed alphabetically.

The codes form part of the overall Cairns Port Authority Land Use Plan (LUP). Volume 1 of the LUP sets out the administrative and assessment requirements for each of the LAPs, with Volumes 2, 3 and 4 being the LAPs for Cityport and Seaport respectively. This volume should be read in conjunction with Volume 1 and the applicable LAP. The overall structure of the LUP is outlined in the flowchart (right).

1.2 Structure

Codes may be used in the assessment of self-assessable and code assessable development proposals. The codes (in this volume) are used in assessing whether a proposed material change of use is consistent with the LUP. Where a proposal is not consistent with the LUP such applications are code assessable under the *Sustainable Planning Act 2009* (SPA) and the LUP is an applicable code.

Where there is any inconsistency between the provisions of the codes that apply to a development, the planning area or precinct codes shall take precedence.

It should be noted that in some instances all of the codes may be applicable.

Each of the codes have been structured to include an —

- intent;
- applicability; and
- development principles.

The *intent* explains what the code seeks to achieve, with the *development principles* outlining the performance criteria and acceptable solutions to achieve this intent. The *applicability* of the code has also been specified to identify which LAP and/or planning area or precinct the code is relevant – this will remove any confusion over when the code may be relevant. In some instances other codes that should be considered in association with the particular code are also specified.

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The *development principles* include performance criteria and acceptable solutions. These guidelines generally adopt a performance based planning approach, although in some instances prescriptive provisions have been specified (e.g. building height). The performance criteria are in the left-hand column and provide the statement of intent for a particular matter. The acceptable solutions are in the right-hand column and provide the preferred solution for achieving the performance criteria. In some cases, meeting the acceptable solution will require compliance with the Australian Standards and/or the Far North Queensland Regional Organisation of Council's (FNQROC) Development Manual. These solutions are deemed to meet the performance criteria, although there may be other ways of meeting the relevant criterion.

The following table is a guide to the codes that are likely to be applicable to development within each of the LAPs.

Code	Cityport LAP	Seaport LAP
Assessment & Management of Acid Sulphate Soils Code	✓	✓
Development of Flood Prone Land Code	✓	✓
Development in the Vicinity of the Airport Code	✓	
Environmental Protection Code	✓	✓
Heritage Conservation Code	✓	✓
Industrial Development Code		✓
Landscape Design Code	✓	✓
Outdoor Dining Code	✓	
Parking Code	✓	✓
Sustainable Development Code	✓	✓
Traffic & Access Planning Code	✓	✓
Works, Services & Infrastructure Code	✓	✓

1.3 Development Standards

In addition to the controls outlined in this LUP, Far North Queensland Ports Corporation Limited (Ports North) has established standards for particular development on strategic port land. The key aspects covered by these development standards include —

- signage;
- car park and road design;
- headworks and general services;
- landscape species;
- airport security;
- percents;
- security bond; and
- as constructed drawing requirements.

Development will also be assessed against the relevant requirements of the Cairns City Council, including —

- the Far North Queensland (FNQROC) Development Manual;
- the Cairns Bikeway Strategy;
- Code for Disability Access; and
- any other relevant codes, standards or requirements.

It should be noted that, to the extent that the requirements of Far North Queensland (FNQROC) Development Manual are inconsistent with the LUP, the provisions of this LUP will apply.

1.4 Infrastructure Charges

Depending on the nature of development, contributions towards infrastructure, road works and the like may be charged. In this respect, development contributions and the provision of infrastructure (particular in the Cityport area) will be in accordance with the agreement between Cairns City Council and Ports North.

2.0 General Codes

2.1 Assessment & Management of Acid Sulphate Soils Code

Intent

The purpose of this code is to —

- ensure the environmental values and ecological health of receiving waters are maintained and protected; and
- identify, assess, contain and/or manage Potential Acid Sulphate Soils (PASS) and Actual Acid Sulphate Soils (AASS).

Applicability

This code applies to development within the Cityport or Seaport LAPS that —

- is exempt or assessable development;
- includes land, soil and sediment at or below 5 metres Australian Height Datum (AHD) where the natural ground level is less than 20 metres AHD;
- involves the following activities –
 - excavating or otherwise removing 5m³ or more of soil or sediment; or
 - filling of land involving 500m³ or more of material with an average depth of 0.5 metres or greater.

This code should be read in conjunction with the **Environmental Protection Code** and the **Landscape Design Code**.

Elements of the Code

Development Principles

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
General			
P1	The release of acid and associated metal contaminants into the environment is avoided.	A1	Acid sulphate soils are not disturbed when excavating or otherwise removing soil or sediment, extracting groundwater or filling land. OR If acid sulphate soils are disturbed they are treated and, if required, ongoing management of any disturbed acid sulphate soils and drainage waters is undertaken.

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PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
P2	Prior to any site works, the likelihood of AASS or PASS and the associated environmental impacts are determined.	A2.1	<p>Sampling and analysis is carried out in accordance with the procedures described in The Guidelines for Sampling and Analysis of Lowland Acid Sulfate Soils (AASS) in Queensland produced by the Department of Natural Resources, Mines & Water.</p>
		A2.2	<p>An Acid Sulphate Soil Investigation Report is submitted to and approved by the assessment manager prior to any approval. This report is to include at least the following –</p> <ul style="list-style-type: none"> • the testing results; • sampling methods; • an assessment of the potential for acid sulphate soils to be disturbed either through drainage or excavation; and • potential impacts on adjoining areas. <p>The level of testing should be commensurate with the level of risk.</p>
P3	Where in an area of PASS or AASS, development is managed in a manner that ensures the environmental values including receiving water quality are not adversely impacted and that assets are not subject to accelerated corrosion.	A3.1	<p>Where AASS or PASS is identified, an Acid Sulphate Soils Environmental Management Plan is prepared. The EMP is to detail at least the following –</p> <ul style="list-style-type: none"> • the sampling & analysis procedures to be adopted; • the methods of treating/managing soils; • details of monitoring procedures; and • details of contingency procedures.
		A3.2	<p>All development is to be carried out in accordance with the approved Environmental Management Plan.</p>

2.2 Development of Flood Prone Land Code

Intent

The purpose of this code is to ensure that all development has an acceptable level of flood immunity.

Applicability

This code applies to development that is —

- exempt or assessable development; and
- in the Cityport or Seaport LAP areas.

This code should be read in conjunction with the **Assessment and Management of Acid Sulphate Soils Code** and **Landscape Design Code**.

Elements of the Code

Development Principles

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
General			
P1	Any developing involving the excavation or filling of land is carried out so as not to have a “worsening” effect on flood water levels or flow results either upstream or downstream of the development site.	A1.1	Development does not significantly alter the levels of the site AND/OR Development does not impact on downstream properties AND/OR Where sites levels are to be altered, adequate retention and retardation mechanisms are provided to ensure the quantity of water leaving the site is not increased above present volumes and flow rates.
		A1.2	Water quality measures are established to ensure the quality of water (surface and sub-surface) is of an equivalent or higher standard than presently exists.
		A1.3	A water quality monitoring program is implemented.

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PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
P2	All buildings and uses have a reasonable level of flood immunity.	A2	<p>The floor level of all buildings and structures is located above Q100 flood heights.</p> <p>OR</p> <p>Where a lower level of flood immunity is required for the intended use, an appropriate floor level is provided for the use. In these circumstances appropriate mechanisms should also be developed to manage flood events.</p>

2.3 Development in the Vicinity of the Airport Code

Intent

The purpose of this code is to —

- ensure the safe and efficient operation of the Airport;
- maintain acceptable levels of impact from aviation activities, including noise impacts from aircraft and the operation of the Airport;
- ensure development does not intrude into the Obstacle Limitation Surface or PAN-OPS to minimise impacts to operational airspace;
- ensure development is within the appropriate ANEF contour to minimise noise impacts;
- ensure development is in accordance with the *Cairns International Airport Strategic Development Plan*; and
- ensure development balances economic, social and environmental factors to minimise adverse impacts on the community and environment.

Applicability

This code applies to development that is —

- exempt or assessable development; and
- in the Cityport or Seaport LAP areas.

This code should be read in conjunction with State Planning Policy SPP1/02 – Development in the Vicinity of Certain Airports and Aviation Facilities.

Elements of the Code

Development Principles

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
General			
P1	Development is consistent with State Planning Policy 1/02 – Development in the Vicinity of Certain Airports and Aviation Facilities.	A1	No acceptable solution provided. The applicant is to provide a solution which achieves the Performance Criteria.
Noise Impacts			
P2	Future development is located and designed to minimise the impacts of aircraft noise.	A2.1	Development is consistent with SPPP1/02.
		A2.2	Development is located within the appropriate ANEF area as outlined on Airport LAP Plan 4: Cairns Port Authority 2005 ANEF Contours .

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PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
		A2.3	No development is be located on land affected by aircraft noise levels greater than 75 dB(A), assessed as the maximum sound pressure level, using the (S) time-weighting, equalled or exceeded for more than 5 minutes over a 24 hour period (TALA).
		A2.4	If located between 70 dB (A) and 75 dB (A) TALA contour, noise attenuation measures consistent with AS2021 are adopted.
Protection of Operational Airspace			
P3	The construction of buildings or other structures does not interfere with the movement of aircraft or the safe operation of the Airport.	A3.1	Buildings and other structures do not protrude into the Obstacle Limitation Surface or PAN-OPS for the Cairns International Airport, as identified on Airport LAP Plan 3: Obstacle Limitation Surface .
		A3.2	No industrial or other structures intrude into the prescribed airspace for the Airport, either physically or by a discharge plume of a velocity exceeding 4.3m/sec, with depleted oxygen content, of high temperature, or of high particulate content, or likely to cause visibility problems shall be permitted.
		A3.3	All lighting and illumination satisfies the requirements of Civil Aviation Regulation 1998 and the Civil Aviation Safety Regulations 1998.
		A3.4	Development does not emit high electromagnetic or signal transmissions in the vicinity of Cairns Airport.
		A3.5	Development in the vicinity of the Airport runway end does not constitute a safety hazard to aviation operations.
		A3.6	Future developments and ongoing operations are managed to minimise the risk of bird strike.
Public Safety Areas			
P4	Development in the public safety area does not increase the risk to life or property.	A4	A significant increase in the number of people living, working or congregating in the public safety area is avoided.

2.4 Environmental Protection Code

Intent

The purpose of this code is to ensure that —

- any potential impacts on the environment are minimised and/or avoided;
- the significant environmental values of the area, including waterways and wetlands, are protected; and
- areas of recognised conservation status (marine parks, fish habitat areas etc) are protected from adverse environmental impacts.

Applicability

This Code applies to development that is —

- exempt or assessable development; and
- in the Cityport or Seaport LAP areas.

This code should be read in conjunction with the **Assessment & Management of Acid Sulphate Soils Code**, **Industrial Development Code** and **Landscape Design Code**.

Elements of the Code

Development Principles

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
Impacts on Ecological Areas			
P1	Development does not detrimentally impact on areas of high ecological value, including Trinity Inlet.	A1	No acceptable solution provided. The applicant is to provide a solution which achieves the Performance Criteria.
P2	The environmental values of adjoining waterways and wetlands are maintained and protected.	A2.1	The siting of buildings and on-site works considers the existing natural drainage systems and surrounding waterways and wetlands.
		A2.2	Where appropriate, development is setback from waterways and wetlands to provide an adequate buffer to these areas.
		A2.3	Development maintains an acceptable level of environmental protection including water quality and stormwater discharge.

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PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
P3	During the construction and operational phases effective site management practices are adopted to ensure there are no adverse impacts on the ecological values of the adjoining areas.	A3.1	Environmental Management Plans (to the satisfaction of the CPA) are prepared to minimise the potential impact of development on the environment. All development is carried out in accordance with the approved EMP.
		A3.2	Any land disturbed, cleared or degraded as part of the construction or operation of development is to be rehabilitated immediately to the satisfaction of Ports North.
P4	Where vulnerable, rare or endangered species occur or are likely to occur, management and protection measures are established to avoid any negative impacts on these areas.	A4	Development complies with any relevant guidelines (State or Commonwealth) for conservation management of rare and threatened species.
Environmental Protection			
P5	Emission of contaminants including air pollutants, noise, vibration, heat, light, radioactivity and electromagnetic radiation, does not cause environmental harm, nuisance or contamination.	A5.1	Development, whether or not involving an Environmentally Relevant Activity, complies with the requirements of the Environmental Protection Act 1994 and other relevant legislation.
		A5.2	Any emissions produced from development comply with the Environmental Protection Policy (EPP) (Air).
P6	Land management including construction and ongoing operations are conducted in a manner that prevents pollutant emissions to waterways.	A6.1	An EMP is prepared and implemented to ensure compliance with the EPP (water) or applicable industry standards.
		A6.2	The EMP is prepared to prevent contamination of surface and groundwater, pollutant control methodology (including erosion and sediment runoff), and water quality monitoring.
		A6.3	Release of water from the development into receiving waters complies with the water quality objectives stated in the EPP (Water).
		A6.4	Development and operations are conducted in compliance with the EPP (Water).
P7	Stormwater is of a standard that prevents contamination of surface and or groundwater.	A7	Development does not result in contaminants being discharged to the stormwater system.

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PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
P8	Liquid and solid wastes do not result in environmental harm or nuisance.	A8	Development, whether or not involving an Environmentally Relevant Activity, complies with the EPP (Waste) and any other relevant requirements.
P9	The risk to public safety, property and the environment from technological hazards (fire, explosion, and chemical release) is as low as reasonably practical and within acceptable limits.	A9.1	Risks and hazards associated with development and ongoing operations are within acceptable limits and adequate safety measures and contingency plans are in place. An EMP dealing with risk and hazard management may be required to demonstrate how risk will be minimised and managed, as well as detailing emergency procedures.
		A9.2	Development complies with the requirements of relevant Queensland Legislation.
		A9.3	Hazardous materials are handled and stored in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail and any relevant Australian Standards.
P10	Noise emissions are within acceptable limits for the particular use.	A10.1	Development is in accordance with the EPP (noise) (except for Airport related activities).
		A10.2	Where necessary, an EMP is prepared to address potential noise impacts. Such an EMP should also include a noise monitoring program.
P11	Noise and lighting emissions are within acceptable limits for the particular use.	A11	An EMP is prepared for industrial operations that occur outside daylight hours. This EMP is to include measures for minimising light spillage, including the siting of light sources.

2.5 Heritage Conservation Code

Intent

The purpose of this code is to ensure that places and structures which are of cultural heritage significance are protected. This code is intended to allow for the adaptive re-use of historical buildings and structures where this is appropriate and can occur without impacting on the historical fabric of the building/structure.

The code's purpose is also to protect places of Indigenous cultural heritage significance.

Applicability

This code applies to development that is —

- exempt or assessable development;
- in a area listed on the Queensland Cultural Heritage Register (Precincts 3, 4, 5 & 6 of the Cityport LAP area);
- development involves work to a registered Heritage Place or building, structure or item of cultural heritage significance

Should items of cultural heritage significance be identified elsewhere within Cityport or Seaport, this Code will also be relevant in the development of these areas.

Elements of the Code

Development Principles

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS
General		
P1	Future development is designed and sited to protect the cultural heritage significance of the place(s), building(s) and structure(s).	<p>Where in Cityport LAP —</p> <p>A1.1 Development within the Heritage Area is consistent with the Cairns Cityport Wharf Area Conservation and Management Plan.</p> <p>A1.2 Tall buildings are setback from the historic Wharf Sheds to maintain low scale development along the waterfront.</p>

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PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
P2	Development does not impair the culturally significant attributes of a heritage place identified by the Indigenous people for who the place is significant.	A2	No acceptable solution provided. The applicant is to provide a solution which achieves the Performance Criteria.
P3	Where existing historical buildings are to be re-used, the significance of the buildings and structures is protected.	A3.1	<p>The re-design and re-use of the historical buildings and structure is to –</p> <ul style="list-style-type: none"> • ensure the “historical features” are integrated into the alterations; • be sympathetic to the existing structure and its historical significance; • create a visual distinction between the original and the new building; and • provide for public interaction and interpretation.
		A3.2	The redevelopment of any historical feature carefully considers the potential impacts of development on the broader heritage area.
P4	Future development within the heritage area reinforces a historical theme.	A4	The history and character of the area is reflected in design elements.

2.6 Industrial Development Code

Intent

The purpose of this code is to ensure industrial development is appropriately designed and sited. This code is also intended to —

- ensure the impacts of industrial premises are within acceptable limits, particularly in prominent locations;
- facilitate a high standard of environmental management through the implementation of environmental best practice in the design, construction and operational phases of industrial development; and
- ensure future development does not have an adverse impact on adjoining natural or developed areas.

Applicability

This code applies to development that is —

- exempt or assessable development; and
- in the Seaport LAP areas.

Elements of the Code

Development Principles

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
Design & Layout			
P1	Buildings are of a scale and design generally compatible with those of nearby buildings.	A1.1	The following maximum building heights are applicable – <ul style="list-style-type: none"> • in all other planning areas no maximum building height is specified (unless otherwise stated in the relevant planning area code), although building height should be similar to surrounding development and will not intrude into the prescribed airspace for the Airport.
		A1.2	Buildings on sites with frontages to a State-controlled road, existing or proposed arterial road or existing or proposed sub-arterial road are set back 8 metres from the road frontage.

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PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS
	<p>A1.3 In the case of a corner site, which has frontage to two of these higher order roads, buildings are setback 8 metres from the highest order road and 6 metres from the other road.</p> <p>A1.4 In other cases, buildings are setback –</p> <ul style="list-style-type: none"> • 6m from the main road frontage; and • 3m from any secondary road frontage. <p>A1.5 A maximum site cover of 70% of the planning area is applicable.</p> <p>A1.6 The main entry to the building is to be easily identifiable, and directly accessible from the street (or water, which ever is appropriate).</p> <p>A1.7 Loading/unloading and storage areas are designed and located to be visually unobtrusive.</p> <p>A1.8 Open storage areas are screened to enhance the visual appearance of the development.</p>
P2 The design of industrial buildings within Seaport considers the impacts of development on this waterfront location.	A2 No acceptable solution provided. The applicant is to provide a solution which achieves the Performance Criteria.
P3 Development is carried out in a manner which “buffers” incompatible land uses.	A3 Where the site is located near or adjoining any land use, which is likely to be sensitive to noise, odour, dust, noise or lighting emissions, the design of the development incorporates measures to minimise any associated impacts.
P4 Landscaping is provided to enhance and soften the appearance of the development when viewed from major public vantage points.	<p>A4.1 A minimum of 10% of the site is landscaped.</p> <p>A4.2 A minimum landscape strip of 3m is provided to all street frontages.</p> <p>A4.3 Where possible, existing trees that already contribute to these requirements are retained.</p>

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PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
		A4.4	Large screening shrubs and vegetation of an appropriate density to complement the scale and bulk of the subject building are provided in areas where screening is a priority.
		A4.5	Areas used for storage are screened from view from the street by dense planting, fencing or buildings.
		A4.6	Street tree planting and pavement improvements are provided to the street frontage.
P5	Buildings are of an appropriate design to cater for the proposed use.	A5.1	The relevant approvals for the storage of chemicals on site are obtained.
		A5.2	Adequate provision is made for the safe storage of chemicals, fuel etc on site.
		A5.3	Appropriate Environment Management Plans (EMPs) and procedures are implemented to manage spill events, disposal of waste etc.
P6	Adverse impacts on water quality are minimised.	A6	Pollution interception/treatment devices or methodologies are considered at the design stage of development.
Operational Impacts			
P7	The use is of a scale and intensity that has minimal impacts on the surrounding area.	A7	The use is consistent with the Environmental Protection Code .
P8	The design and siting of buildings does not impact on surrounding land uses.	A8	No acceptable solution provided. The applicant is to provide a solution which achieves the Performance Criteria.
P9	Emissions of air pollutants (including odours) are minimised.	A9.1	The activity (whether or not involving an Environmentally Relevant Activity) complies with the requirements of the Environmental Protection Act 1994 and any other relevant legislation.
		A9.2	The activity complies with the relevant EPP (Air).
P10	Emissions of water pollutants are minimised.	A10.1	Release of water into receiving waters from the use complies with the water quality objectives of the EPP (Water).
		A10.3	Where necessary, an EMP is prepared to manage emissions of water pollutants.

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PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS
	A10.4 Monitoring of discharge quality is undertaken.
P11 Liquid and solid waste does not result in environmental nuisance.	<p>A11.1 The activity (whether or not involving an Environmentally Relevant Activity) complies with the requirements of the Environmental Protection Act 1994 and any other relevant legislation.</p> <p>A11.2 Development complies with the relevant requirements of the Quarantine Act 1908 and any subordinate legislation.</p> <p>A11.3 The waste management hierarchy framework is adopted as per the EPP (Waste).</p>
P12 Particulate and dust emissions are minimised.	<p>A12.1 Particulate and dust emissions meet the goals stated in the EPP (Air).</p> <p>A12.2 An EMP to address dust minimisation methods and a dust monitoring program is prepared, where necessary.</p>
P13 Noise and lighting emissions are within acceptable limits for the particular use.	<p>A13.1 All activity is in accordance with the relevant EPPs for noise.</p> <p>A13.2 Where necessary, an EMP is prepared incorporating appropriate measures to minimise noise levels. Such an EMP should also include a noise monitoring program.</p> <p>A13.3 An EMP is prepared for operations occurring outside daylight hours to address measures of minimising light spillage, including the siting of light sources.</p> <p>A13.4 All lighting, which may impact on the operation of the Airport, is designed in accordance with the Advice to Lighting Designers – Lighting in the Vicinity of Aerodromes.</p>
P14 Stormwater does not contaminate surface water or ground water.	<p>A14.1 The activity does not result in contaminants being discharged to the stormwater system.</p> <p>A14.2 Stormwater drainage from the developed lease area/precinct is controlled within the lease area/precinct.</p>

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PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS
	<p>A14.3 Where there is potential for contaminants to be released, management practices to prevent such contamination occurring must be implemented. This may require a Stormwater EMP to be prepared and implemented.</p> <p>A14.4 Monitoring of stormwater quality is undertaken.</p>

2.7 Landscape Design Code

Intent

The purpose of this code is to —

- ensure landscaping is appropriate and complements the scale of development;
- ensure visual and physical links are provided;
- provide pleasant pedestrian environments through the effective treatment of the streetscape and buildings.
- ensure plant species complement the surrounding landscaping (e.g. The Esplanade and Shields Street) and where possible are endemic to the Cairns region; and
- ensure significant on-site vegetation is retained, protected and integrated into future development.

Landscaping is an important component of any development. It has the ability to create the 'character' or feel of the area and to 'direct' sight lines and pedestrian movements.

Landscaping within each of the LAP areas, but particularly within Cityport, should also take account of the landscape strategies developed through the CBD Design Palette and the CBD Landscaping Strategy.

For the purposes of this code, landscaped areas are those areas that are not occupied by buildings, car parking spaces, driveways, garbage collection areas, wharves and jetties. Landscaped areas include balcony plantings, planter areas, internal courtyards, water features and swimming pools.

Applicability

This code applies to development that is —

- exempt or assessable development; and
- in the Cityport or Seaport areas.

This code should also be addressed in the preparation of any Landscape Concept Plan, or a Landscape Management and Site Works Plan.

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Elements of the Code

Development Principles - General

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
Design			
P1	The appearance and amenity of development is enhanced through use of high quality landscape design. Landscaping promotes the character of the area, and is of an appropriate scale and type relative to the size and nature of development and its surroundings.	A1.1	Landscaping is in accordance with an approved Landscape Plan that demonstrates the proposal's satisfaction of the performance criteria.
		A1.2	Landscaped areas along and/or near retaining walls, broken walls, service areas, car parking areas and recreational uses consist of an appropriate combination of trees shrubs and ground covers.
		A1.3	Important views are maintained and enhanced through landscape design.
P2	Landscape siting and design assists microclimate management to conserve energy.	A2	In landscaped areas, trees and vegetation are selected and located to provide as much shade as possible.
P3	Vertical landscaping 'softens' the appearance of multi-level buildings and provides increased privacy between buildings.	A3.1	Species selected for planting are suitable and of an adequate size or maturity to improve the appearance of the development.
		A3.2	Landscaping is sited and designed considering site specific conditions.
P4	A high standard of landscape design is provided to residential uses.	A4.1	Landscaping provides accessible communal open space areas, privacy between other uses and enhances the streetscape character.
		A4.2	Where development is accessible to the general public, landscaping is undertaken in accordance with an approved Landscape Plan.
P5	A high standard of landscape design is provided to industrial and commercial development.	A5.1	On-site landscaping is designed to provide open space areas for the enjoyment of employees, to provide landscaping to the frontages of the site and to provide screening to car parks and other service areas.
		A5.2	Where development is accessible to the general public, landscaping is in accordance with an approved Landscape Plan.

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PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
P6	Significant vegetation is retained where its removal is not required for the proposed building.	A6.1	Existing on-site vegetation is retained wherever possible.
		A6.2	Existing trees are protected during construction.
P7	Landscaping is designed to provide a buffer between adjacent buildings to improve privacy and to provide a buffer to the site frontage.	A7.1	Screen planting is provided in accordance with the provisions of the FNQROC Development Manual, and/or Ports North's development standards.
		A7.2	Landscaped set back areas to the street frontage are provided in accordance with the provisions of the FNQROC Development Manual and/or Ports North's development standards.
P8	Landscaping incorporates predominantly local native plant species which are suited to the environmental and climatic conditions of the North Queensland coastal region.	A8.1	Plant species used in any development within the Cityport are generally those listed in Schedule 1 of the Landscaping Code.
		A8.2	Plant selections within the Seaport Area incorporate native species – some of those species identified in Schedule 1 being appropriate.
		A8.3	The introduction of species that are not Australian natives is discouraged.
P9	Soil preparation and garden edging is implemented to provide every chance of survival of newly landscaped areas.	A9	Planting, edging and soil preparation is in accordance with the provisions of the FNQROC Development Manual and/or Ports North's development standards.
P10	Paving is provided to pedestrian and mixed vehicle and pedestrian areas to ensure a safe, low maintenance and useable environment.	A10.1	Paving is either concrete surfacing or concrete/clay pavers.
		A10.2	Paving incorporates materials and colours that complement the development, and are of adequate strength and in non slip finishes.
		A10.3	Paving surfaces avoid directing runoff towards hard surfaces, and instead guide runoff towards areas of high filtration, as per the requirements of the FNQROC Development Manual and/or Ports North's development standards.

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PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
P11	Landscaping is consistent with the strategies of the CBD Design Palette and the CBD Landscaping Strategy.	A11	No acceptable solution provided. The applicant is to provide a solution which achieves the Performance Criteria.
Car Parking Area			
P12	Exposed car parking and driveway areas are enhanced through the planting of appropriate vegetation. Landscaping within these areas is designed to encourage and direct pedestrian movement.	A12	Landscaping in and around exposed car parking areas and driveways is designed in accordance with the FNQROC Development Manual and/or Ports North's development standards.
Buffer Zones			
P13	Landscaping of buffers between incompatible land uses is of a suitable width and density to achieve its intended effect and to minimise land use conflict.	A13	Screening vegetation is provided between adjoining different land uses, in accordance with the provisions of the FNQROC Development Manual and/or Ports North's development standards.
Safety			
P14	Landscape design reduces the potential for crime and vandalism.	A14.1	Landscaping is designed to provide visibility along pathways so as to restrict opportunities for concealment.
		A14.2	Security and foot lighting is provided to site entries, driveways, parking areas, building entries and pedestrian ways.
Maintenance			
P15	Landscaping is maintained in accordance with – <ul style="list-style-type: none"> • the original design intent expressed in the landscaping plan; and • horticultural industry best practice. 	A15	Landscaping is sited and designed considering site specific conditions.

Cityport LAP – Specific Area Provisions

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
Design			
P1	The Shields Street pedestrian spine links the activities of Cityport’s Marina facilities, the Esplanade, City Place and the core activities of the CBD.	A1.1	A shady pedestrian boulevard is created with the planting of species listed in Schedule 1 of the Landscape Code specifically for Shields Street.
		A1.2	The above planting theme extends to Shields Street, creating a visually distinctive connector between Cityport and the CBD.
P2	Pedestrian boardwalk extends from the intersection of The Esplanade and Shields Street through the Domain to the Reef Fleet Square.	A2	The existing Ficus Benjamina along the Esplanade is supplemented by additional plantings of this species.
P3	Reef Fleet Square functions as a major public gathering space on the water’s edge.	A3	Those species listed in Schedule 1 for Reef Fleet Square are planted in the portion of the square not required for service vehicle and minibus access.
P4	Wharf and Lake Streets link the CBD with the southern half of Cityport.	A4.1	Species listed in Schedule 1 for the Wharf and Lake Street area are used to extend the existing landscaping theme north to Shields Street and South beyond the Cruise Terminal to the Sheridan Street intersection.
		A4.2	Lake Street is developed as a major pedestrian route linking City Place with the cruise terminal.
		A4.3	A coordinated planting scheme is developed in conjunction with Cairns City Council using those species listed in Schedule 1 for Lake Street, to connect City Place with the Gateway Plaza.
P5	View corridors visually and physically connect the City centre with the waterfront.	A5.1	The main tree species used for any planting along Wharf and Lake Street are those listed in Schedule 1.
		A5.2	Relatively mature trees are planted to provide unobstructed views at eye level through to Trinity Inlet.
P6	The waterfront promenade is constructed as a timber boardwalk system that runs the length of Cityport.	A6	No acceptable solution provided. The applicant is to provide a solution which achieves the Performance Criteria.

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
Street & Courtyard Lighting			
P7	A cohesive lighting strategy is implemented that creates a distinct and unified character.	A7.1	Courtyards, pedestrian ways and awning edges incorporate a combination of recessed light (e.g. downlights and wall lights) as well as pole mounted metal halide lights.
		A7.2	The boardwalk and other sections of the waterfront promenade have a continuous treatment of bollard lighting, in addition to awning lighting along building edges to create a warm white wash.
		A7.3	Trees are illuminated by uplighting and garden beds are discreetly lit by a similar quality of in-ground lighting.
		A7.4	Seating areas are lit with high colour rendering >80k warm white light sources, typically 300k.
Street Furniture			
P8	All street furniture elements are of contemporary design.	A8.1	Where possible, local materials are used in the manufacture of non-proprietary elements.
		A8.2	Finishes to all metalwork should be black, charcoal or silver.
Paving Treatment			
P9	Paving is provided to pedestrian and mixed vehicle and pedestrian areas to ensure a safe, low maintenance and useable environment.	A9.1	Paving is either concrete surfacing or concrete/clay pavers.
		A9.2	Paving materials and colours complement the development, and are of an adequate strength and in non-slip finishes.
		A9.3	General paving comprises honed precast concrete slabs 400 x 400, 55 mm with local aggregates (eg. Chillagoe marble) laid on a mortar bed on a concrete slab.
		A9.4	Banding comprises Herberton Granite sets 75 x 75 mm laid on a mortar bed on a concrete slab and grouted.
		A9.5	External steps comprises honed precast concrete slabs.
		A9.6	Locally produced paving materials are preferred.

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS
	<p>A9.7 Paving surfaces should avoid direct runoff towards hard surfaces, and shall instead be guided towards areas of high filtration, following the provisions of the FNQROC Development Manual.</p> <p>A9.8 Paving is constructed in accordance with the provisions of the FNQROC Development Manual.</p>
Public Artwork	
<p>P10 Public artwork created by local and regional artists, including Torres Strait Islander and Pacific Islander artists, provides a distinctive character and a sense of community ownership.</p>	<p>A10.1 Artists work together with designers to create site specific artwork rather than by direct purchase or procurement.</p> <p>A10.2 Public artwork ranges from major (signature) works through to subtle ephemeral works.</p> <p>A10.3 At least two pieces of artwork are placed within Reef Fleet Square.</p> <p>A10.4 Signature works are provided at the end of the Shields Street pedestrian boulevard.</p> <p>A10.5 Some form of signature artwork is included on the Cruise Terminal wharf apron.</p> <p>A10.6 Signature artworks are provided in the courtyards, adjacent the wharf sheds in Precincts 3 and 5.</p> <p>A10.7 Signature artwork is provided within the public square in Precinct 4.</p>
Awnings	
<p>P11 Any pedestrian way covered by an awning is adequately lit.</p>	<p>A11 A lighting system is provided and fully maintained so that there is a minimum of 20 lux at footpath level.</p>

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Schedule 1

Planting Species for Cityport

NAME	USE	LANDSCAPE CHARACTER
Esplanade	Pedestrian Vehicular	WODYETIA bifurcata
Wharf Street	Pedestrian Vehicular	BARRINGTONIA asiatica FICUS benjamina
Abbott Street	Pedestrian Vehicular	BARRINGTONIA asiatica FICUS benjamina
Abbott Street Extension	Pedestrian Vehicular	LIVISTONA decipiens
Lake Street	Pedestrian Vehicular	CUPANIOPSIS anacardioides PONGAMIA pinnata
Lake Street Extension	Pedestrian Vehicular	LIVISTONA decipiens
Grafton Street	Pedestrian Vehicular	HERITIERA littoralis TERMINALIA sericocarpa
Sheridan Street	Pedestrian Vehicular	FICUS microcarpa 'hilli'
Hartley Street	Pedestrian Vehicular	HERITIERA littoralis FICUS microcarpa 'hilli'
Spence Street	Pedestrian Vehicular	BARRINGTONIA asiatica CALOPHYLLUM inophyllum
Spence Street Extension	Pedestrian Vehicular	BARRINGTONIA asiatica CALOPHYLLUM inophyllum
Shields Street	Pedestrian Vehicular	BARRINGTONIA asiatica FICUS longifolia
The Gateway	Pedestrian Vehicular	LIVISTONA decipiens BARRINGTONIA asiatica
Access Corridor Precincts 3/4	Pedestrian Vehicular	LIVISTONA decipiens BARRINGTONIA asiatica
Access Corridor Precincts 4/5	Pedestrian Vehicular	LIVISTONA decipiens BARRINGTONIA asiatica
Access Corridor Precincts 6/7	Pedestrian Vehicular	LIVISTONA decipiens
Access Corridor Precincts 8/10	Pedestrian Vehicular	LIVISTONA decipiens
Shields Street Extension	Pedestrian Vehicular	FICUS benjamina
Boardwalk Promenade	Pedestrian Vehicular	FICUS benjamina
Trinity Wharf	Pedestrian Vehicular	FICUS benjamina
Precincts 5/6 Plaza	Pedestrian Vehicular	FICUS benjamina LIVISTONA decipiens
Main Public Plaza Reef Fleet Square	Pedestrian Vehicular	LIVISTONA decipiens
Main Public Plaza Precinct 2	Pedestrian Vehicular	HERITIERA littoralis WODYETIA bifurcata
Fogarty Park 1	Pedestrian Vehicular	FICUS benjamina
Fogarty Park 2	Pedestrian Vehicular	WODYETIA bifurcata
Public Plaza Marina facilities	Pedestrian Vehicular	LIVISTONA decipiens

2.8 Outdoor Dining Code

Intent

The purpose of this code is to encourage and regulate outdoor dining within Cityport. It is intended that any outdoor dining areas are appropriately designed and sited to allow for pedestrian movement by maintaining clear circulation patterns.

Application

This code applies to development that is —

- exempt or assessable development;
- in the Cityport LAP area;
- all outdoor dining areas located within the footpath or road reserve, including adjoining the new service roads (and view corridors) and pedestrian boardwalk.

Elements of the Code

Development Principles

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
General			
P1	All chairs and tables, and associated items are removed from the footpath and outdoor areas after trading.	A1	Tables, chairs and associated items are not to be fixed to the footpath so they are able to be removed.
P2	Any shade structures are located not cause danger to adjoining users, patrons of the site or pedestrians.	A2.1	Shade structures are secured when in use.
		A2.2	Shade structures have a minimum height of 2 metres so as not to limit pedestrian movements.
P3	Outdoor dining areas are situated so as not to prevent pedestrians from accessing adequate protection from weather.	A3.1	Outdoor dining areas are located at least 1.2 metres from any kerb.
		A3.2	The location of outdoor dining areas does not prevent pedestrian access under awnings, particularly along Wharf Street.
P4	Outdoor dining areas are situated so as not to prevent the movement of pedestrian traffic.	A4.1	Outdoor dining areas do not encroach on the waterfront boardwalk/promenade.
		A4.2	The placing of partitions, fences or planter boxes does not limit pedestrian movement.

2.9 Parking Code

Intent

It is intended that visitors and employees are able to park their vehicles in relatively safe and convenient off-street parking areas and that traffic movement is relatively unobstructed by on-street parking manoeuvres.

This code is also intended to ensure that the amount of on-site parking provided for particular forms of development is sufficient to meet the parking needs of that use. In determining the adequate provision of on-site vehicle parking, the parking needs of visitors and tourists alike are to be considered.

It should be noted that within Cityport, the design of some precincts may not allow for the incorporation of adequate car parking and in most instances this parking should be provided elsewhere within the Cityport area.

Applicability

This Code applies to development that is —

- exempt or assessable development; and
- in the Cityport or Seaport LAP areas.

This code should be read in conjunction with the **Landscape Design Code** and **Traffic Impact & Assess Management Code**.

Elements of the Code

Development Principles

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
Location			
P1	Car parking areas are located on the site so they are more convenient to use than alternative on-street spaces.	A1.1	Car parking areas are conveniently located adjoining the access to new buildings and uses.
		A1.2	Within Cityport – <ul style="list-style-type: none"> • parking areas are provided at the basement and semi-basement level of all new buildings; • access to parking areas is provided as specified in the precinct, and generally this is via shared pedestrian and vehicle areas or directly from the street; • where car parking spaces are located inside security areas, unrestricted access to visitor spaces is provided.

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
Design & Layout			
P2	Car parking spaces are of an adequate area and dimension to meet user requirements.	A2	Car parking spaces are designed in accordance with Australian Standard AS2890.1–1993.
P3	Loading and service vehicle areas have an adequate area and dimension to meet user requirements.	A3	Service vehicle loading areas are designed in accordance with Australian Standard AS2890.1–1989.
P4	Provision is made for a reasonable portion of the total number of car parking spaces to provide disabled access with adequate spaces identified and reserved for such access.	A4.1	The proportion of total parking spaces provided for people with disabilities is in accordance with AS2890.1–1993 C1.
		A4.2	Access to spaces for people with disabilities is provided in accordance with AS1428.1 – General Requirements for Access: Buildings and AS2890.1 – Car Parking Facilities (Off-Street Parking) .
P5	The car parking layout, manoeuvring and service areas are designed to ensure they are safe, convenient and functional.	A5	The design and layout of car parking areas, including car park widths, aisle widths and circulation are in accordance with the relevant provisions of the FNQROC Development Manual or CairnsPlan .
On-site Vehicle Movement			
P6	Appropriate circulation arrangements are provided to ensure all vehicles are able to arrive and leave the area in forward gear.	A6	Circulation and/or turning areas comply with the relevant requirements of the FNQROC Development Manual and/or Australian Standards AS2890.–1993 and AS2890.2–1989.
P7	Circulation systems provide adequate and safe access to all parking, loading/unloading and manoeuvring areas.	A7.1	Circulation driveways comply with the relevant requirements of the FNQROC Development Manual and/or Australian Standards AS2890.1–1993 and AS2890.2–1989.
		A7.2	Queuing areas comply with the requirements of Australian Standard AS2890.1–1993 and/or AUSTROAD Guidelines to Traffic Engineering Practice.

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PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
P8	On-site driveways, turning areas and vehicle standing areas are designed, constructed and maintained to an acceptable standard.	A8	<p>Vehicle manoeuvring and loading/unloading areas –</p> <ul style="list-style-type: none"> • cater for the minimum service vehicle access requirements for the use; • are designed in accordance with the relevant provisions of AS2890.1 – 1993 and AS2890.2 – 1989; • are adequately sealed; • have gradients in accordance with the FNQROC Development Manual and/or the relevant provisions of AS2890.1-1993 and AS2890.2-1989; and • drain adequately and in such a way that adjoining downstream land and Trinity Inlet is not adversely affected.
Minimum On-Site Vehicle Parking			
P9	Sufficient car parking spaces are provided to accommodate the amount and type of vehicle traffic expected to be generated by any proposed use and by each precinct.	A9.1	Within Cityport, except as provided for in A1.3 below, the minimum number of vehicle spaces provided for each development is not less than the number prescribed in Schedule 1 to this Code.
		A9.2	Within the Seaport LAP, except otherwise approved by Ports North, the minimum number of vehicle spaces provided for each development is not less than the number prescribed in Schedule 2 to this Code.
		A9.3	<p>Within Cityport a lesser number of spaces than that specified in Schedule 1 may be appropriate where –</p> <ul style="list-style-type: none"> • cross utilisation and discounting is applicable as set out in Schedule 1; or • considered appropriate by Ports North.

Schedule 1

Minimum Parking Requirements for the Cityport LAP

USE	MINIMUM NUMBER OF CAR PARKING SPACES
Residential Uses	
Accommodation Unit	1.75 spaces per unit and 1 wash-down bay
Holiday Accommodation	
Hotel	0.3 spaces per unit
Commercial Uses	
Convention Centre	Sufficient spaces in the opinion of Ports North to accommodate the amount of vehicular traffic likely to be generated by the particular use.
Function rooms	1 space per 20m ² of GFA.
Indoor Sport & Entertainment (including theatres, and licensed clubs)	1 space per 20m ² of GFA.
Offices	1 space per 50m ² of net lettable area
Nightclub	1 space per 50m ² of net lettable area
Restaurants, cafes etc	1 space per 50m ² of net lettable area
Shops	1 space per 50m ² of net lettable area
Shopping Centre	1 space per 50m ² of net lettable area
Marina Facilities	
Marina	1 space per 50m ² of GFA.
Marina berths	1 space per 3 berths.
Other Uses	
Any other use	Sufficient spaces in the opinion of Ports North to accommodate the amount of vehicular traffic likely to be generated by the particular use.

Cross Utilisation

Where it is reasonable to expect that a proportion of patrons will already be parked within other precincts or will walk (especially considering the extent of available accommodation within the Cityport) to restaurants, bars, entertainment venues and cafes, a relaxation of the above car parking requirements may be granted. In these instances a discount factor of 25% will apply to the parking provision for restaurants, function centres, indoor entertainments and the like, where cross utilisation of uses will occur. Ports North may accept a higher discount rate where it can be demonstrated that adequate parking facilities are provided on site.

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Peak Spreading

Given that individual uses within each precinct may have different peak parking demand times, a relaxation of the above car parking requirements may be appropriate where it can be demonstrated that adequate parking facilities are provided on-site.

Schedule 2

Minimum Parking Requirements for Seaport LAP

USE	MINIMUM NUMBER OF CAR PARKING SPACES
Commercial Uses	
Offices	1 space per 50m ² of GFA on the ground level and 1 space per 50m ² of GFA for all levels above ground level.
Restaurants, cafes etc	1 space per 50m ² of GFA.
Industrial Activities	
Airport	Sufficient spaces in the opinion of Ports North to accommodate the amount of vehicular traffic likely to be generated by the particular use.
Fuel Depot	Sufficient spaces in the opinion of Ports North to accommodate the amount of vehicular traffic likely to be generated by the particular use.
Industry	1 space per 90m ² of net lettable area unless otherwise determined by Ports North
Transport & Equipment Depot	1 space per 25m ² of office floor space plus the provision of truck loading, unloading and manoeuvring space on site as required by the use
Warehouse	1 space per 90m ² of net lettable area
Other Uses	
Any other use	Sufficient spaces in the opinion of Ports North to accommodate the amount of vehicular traffic likely to be generated by the particular use.

2.10 Sustainable Development Code

Intent

The purpose of this Code is to encourage development within Cityport and Seaport to achieve a standard of ecologically sustainable development that balances environmental, economic and social factors and encourages improved resource efficiency and minimisation of negative impacts on the natural environment and community.

These issues are addressed in this code through the following priority areas —

- land and ecology – preservation
- energy – efficiency
- water – conservation
- waste – minimisation
- building materials – non toxic and renewable
- indoor environmental quality – non toxic
- transport – non motorised alternatives

Ports North encourages advanced sustainable development beyond the requirements of this code including best-practice sustainable operational management.

Applicability

This Code applies to development that is:

- exempt or assessable development; and
- in the Cityport or Seaport LAP areas.

Elements of the Code

Development Principles

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
Land & ecology			
P1	Development of sites containing contaminated land does not result in environmental impacts from the contamination.	A1	Where a site is listed on the Environmental Management Register or Contaminated Land Register, all civil and construction works shall incorporate practices to minimise environmental impacts from the contamination.
P2	Existing mature trees (e.g. large mature fig trees and mature palms) and vegetation are retained, reused or relocated	P2	Mature trees and vegetation with notable aesthetic or environmental value shall be retained or relocated for reuse where possible.

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
P3	Stormwater runoff from hardstand areas is reused where feasible for landscape irrigation or other purposes. Stormwater treatment is provided where necessary to protect water quality.	A3.1	Un-polluted stormwater runoff from paved areas is directed into landscaping, infiltration trenches or stormwater re-use system.
		A3.2	In Airport, any polluted stormwater runoff from external hardstand industrial areas and extensive car parking areas is treated on-site with pollutant interceptors or similar.
Water			
P4	Alternative water supply sources such as rainwater harvesting systems are used where feasible to minimise consumption of potable mains water supply.	A4	Water supply alternatives as outlined in the Sustainable Development Policy are considered where applicable.
P5	Mains potable water consumption is minimised through the installation and use of water conservation fittings and fixtures.	A5.1	Minimum 4 star Water Efficiency Labelling Scheme rated tap fittings are installed in basins and sinks.
		A5.2	4 star Water Efficiency Labelling Scheme rated showerheads are installed in showers.
		A5.3	Minimum 4 star Water Efficiency Labelling Scheme rated dual flush 6/3 litre toilets are installed.
		A5.4	Minimum 4 star Water Efficiency Labelling Scheme rated urinals or water-less urinals are installed.
		A5.5	Additional water conservation alternatives as outlined in the Sustainable Development Policy are considered where applicable
P6	Water meters are installed to monitor water consumption to assist in water conservation.	A6.1	Water metering is installed for all major uses to enable consumption to be monitored.
		A6.2	Additional water use monitoring alternatives as outlined in the Sustainable Development Policy are considered where applicable
P7	Landscape irrigation systems minimise consumption of mains potable water supply.	A7.1	Landscape irrigation utilises water captured from rainwater harvesting or stormwater reuse systems.
			OR

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
		A7.2	Where landscape irrigation systems utilise mains potable water, they incorporate timers, soil moisture sensors, sub-surface irrigation and other techniques to minimise water wastage.
P8	Vehicle washing facilities minimise potable water consumption.	A8.1	Vehicle washing facilities are designed to enable collection, treatment and reuse of runoff water from vehicle cleaning.
		A8.2	Vehicle washing facilities incorporate water minimisation techniques.
Energy			
P9	Any commercial office component of developments should achieve an energy efficiency rating to assist in minimising greenhouse emissions and long term running costs.	P9	Any commercial office component of a development, where incorporated, should be designed to achieve a certified Australian Building Greenhouse Rating (ABGR) of a minimum of 4 stars.
P10	Passive thermal design principles are incorporated into building design to maximise energy efficiency of the heating ventilation and air-conditioning (HVAC) systems.	A10.1	Buildings encourage natural lighting while avoiding unwanted heat gain.
		A10.2	External shading devices such as eaves and window awnings are provided as part of the development.
		A10.3	Light coloured roofs are used to reduce internal heat gain.
		A10.4	Where appropriate, high-quality emissivity rated glazing is installed to reduce internal heat gain to air-conditioned areas.
		A10.5	Where appropriate, shade trees are planted in front of western and eastern elevations to shade walls and windows.
		A10.6	Where appropriate, buildings encourage natural ventilation through design and inclusion of elements such as roof ventilators and operable windows.
P11	Mechanical plant and equipment are designed to improve on the requirements of the Building Code of Australia (BCA), Section J Energy Efficiency.	A11.1	HVAC system is designed, commissioned and maintained to ensure optimal efficiency.
		A11.2	All office appliances and equipment achieve a minimum Energy Star Rating of 3.5 stars.

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PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS
	<p>A11.3 Energy efficient hot water systems are installed.</p> <p>A11.4 Additional energy efficiency measures for mechanical plant and equipment as outlined in the Sustainable Development Policy are considered where applicable.</p>
<p>P12 Electrical lighting is energy efficient and improves on the energy efficiency requirements required by the Building Code of Australia (BCA).</p>	<p>A12.1 All lighting is designed to be energy efficient through use of energy efficient fittings and / or incorporation of lighting control systems. Such systems may include dimmers, sensors and timers to turn lighting off automatically when not required.</p> <p>A12.2 Electrical lighting layout is designed to work efficiently with natural lighting. This may include reduced lighting or light sensors to control electric lighting at glazed building perimeters where ample natural lighting is provided.</p> <p>A12.3 Lighting layout is designed in zones related to building occupancy and use. This provides improved flexibility for light switching, making it easier to light only occupied areas.</p> <p>A12.4 Additional energy efficiency measures for lighting as outlined in the Sustainable Development Policy are considered where applicable.</p>
<p>P13 Water heating is energy efficient.</p>	<p>A13 Additional energy efficiency measures for water heating as outlined in the Sustainable Development Policy are considered where applicable.</p>
<p>P14 Natural lighting is provided where possible.</p>	<p>A14 Natural lighting devices such as skylights or translucent roof sheeting are used where appropriate to admit light without heat.</p>
<p>P15 Energy meters are installed to enable monitoring of energy use.</p>	<p>A15.1 Energy metering is installed for all major uses. This enables consumption to be monitored and energy reduction targets to be established and tested.</p> <p>A15.2 Additional energy metering measures as outlined in the Sustainable Development Policy are considered where applicable.</p>

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
Waste			
P16	Waste management principles are addressed by the development to minimise waste to landfill.	A16.1	Waste management facilities, including a recycling area of an appropriate size for the development are provided and are indicated on plans. The facilities are easily accessible by building users and the required service vehicles.
		A16.2	Additional waste reduction and management measures as outlined in the Sustainable Development Policy are considered where applicable.
Building Materials			
P17	Where feasible, timber is sourced from certified plantations or from recycled supplies to reduce destruction of rainforests and old growth forests.	A17.1	Timber is sourced from plantations that have certified environmentally responsible forest management practices, eg. Forest Stewardship Council (FSC), Plantation Timber Certification (PTC).
			AND/OR
		A17.2	Timber is sourced from post consumer, reused timber supplies.
P18	Where possible, PVC drainage products are avoided.	A18	High Density Poly Ethylene (HDPE) waste water pipes are specified in place of PVC.
Indoor Environment Quality			
P19	A high standard of indoor air quality is achieved and maintained in enclosed buildings that are occupied for extended lengths of time (offices, residential, retail, hospitality, tourism etc) to ensure occupant health.	A19.1	Products and materials with low or no Volatile Organic Compounds are specified. At a minimum, this should include floor and paint finishes.
		A19.2	A high level of ventilation with clean outside air is provided through natural and/or mechanical ventilation systems.
Transport			
P20	The development encourages occupants to use non-motorised forms of transport such as cycling and walking.	A20	Cyclist facilities including secure bike storage, showers, change rooms and lockers are provided for a minimum of 3% of building occupants.

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2.11 Traffic and Access Planning Code

Intent

The purpose of this code is to ensure that the internal traffic system for Cityport provides for the convenient access and movement of people, cars, service vehicles and public transport.

Applicability

This code applies to development that is —

- exempt or assessable development; and
- in the Cityport LAP area.

This code should be read in conjunction with the **Parking Code**.

Elements of the Code

Development Principles

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
Precinct Access			
P1	A series of new roads and accesses are provided within Cityport to improve the internal access.	A1.1	The road network for Cityport is developed as depicted on Cityport LAP Plan 5: Road Network .
		A1.2	Spence Street is extended to provide the main access to the Pier, the Central Marina, the Esplanade, the Esplanade Project car park, Reef Fleet Terminal, Reef Fleet Square, Marlin Wharf and Precinct 10.
		A1.3	The road north of Precinct 8 is upgraded to provide access to the Hilton Hotel, Precinct 10, the proposed wharf south of the existing Marlin Wharf and the waterfront promenade.
		A1.4	The following access roads are created — <ul style="list-style-type: none"> • between Precincts 6 & 7 to provide access to these precincts, the proposed new wharf and the waterfront promenade; • an extension to Abbott Street between Precincts 5 & 6 to provide access to these precincts; and • at the southern end of Precinct 3 to provide access to this precinct.

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
		A1.5	The part of Wharf Street located to the south of the intersection with Abbott Street is upgraded to a divided four lane standard to provide a suitable southern entrance to Cityport.
Roadway Standards			
P2	New roadways are appropriately designed to handle the anticipated vehicle movements.	A2.1	The extension to Spence Street is constructed as a four lane divided road to the Reef Fleet Terminal. This extension continues as a two lane road beyond the Reef Fleet Terminal to service The Pier, the Esplanade car park, the marina and marina car park areas.
		A2.2	Traffic between The Pier and the central marina is restricted to service vehicles only. The roadway will be one way with associated setdown areas.
		A2.3	All other access roads are constructed to a two lane standard with separate adjoining pedestrian paths so as to accommodate minor traffic flows.
Parking and Setdown Areas			
P3	Each precinct is adequately services with appropriate car parking and setdown areas.	A3.1	On-site car parking and the design of these areas is in accordance with the Parking Code .
		A3.2	The following setdown areas are provided — <ul style="list-style-type: none"> • a passenger setdown area will be provided at the Reef Fleet Square; • existing passenger setdown areas at The Pier shall be maintained; • a passenger setdown area is to be provided between The Pier and the central marina area; and • a setdown area will be provided along the access road servicing the cruise line terminal.

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PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS
	<p>A3.3 The following car parking areas are provided –</p> <ul style="list-style-type: none"> • a marina car park shall be provided to the north of The Pier; • a car park shall be provided to service the marina facilities adjacent to the central marina; • car parking shall be provided along the access road to the Hilton Hotel; • car parking shall be provided along Wharf Street; • car parking shall be provided on-site for those developments in Precincts 2, 4, 5, 6, 7, 10 and 12; • the parking station located to the south of The Pier will be removed as part of the Reef Fleet Square development; and • interim parking arrangements will need to be provided as the various stages of development occur. <p>A3.4 Bus parking is provided –</p> <ul style="list-style-type: none"> • along Spence Street, the marina access road and in the Reef Fleet Square to service the Reef Fleet Terminal; and • in Precinct 3 and on the adjacent wharf to service the cruiseliner terminal.
Design	
<p>P4 Pedestrian and vehicle access is of a design and standard which is consistent with adjoining areas.</p>	<p>A4 Vehicle and pedestrian pathways are designed to include those characteristics outlined in Schedule 1 to this Code and/or Ports North’s development standards.</p>

Schedule 1

Path Type and Design Characteristics

PATH NO.	NAME	USE	LANDSCAPE CHARACTER		
			Species	Path Width (m)	Surfaces
B1	Esplanade	Pedestrian Vehicular	WODYETIA bifurcata	4	Clay Pavers Asphalted Concrete
B2	Wharf Street	Pedestrian Vehicular	BARRINGTONIA asiatica FICUS benjamina	6.9	Clay Pavers Asphalted Concrete
B3	Abbott Street	Pedestrian Vehicular	BARRINGTONIA asiatica FICUS benjamina	6.9	Clay Pavers Asphalted Concrete
B3A	Abbott Street Extension	Pedestrian Vehicular	LIVISTONA decipiens	4	Clay Pavers Clay Pavers
B4	Lake Street	Pedestrian Vehicular	CUPANIOPSIS anacardioides PONGAMIA pinnata	6.9	Clay Pavers Asphalted Concrete
B4A	Lake Street Extension	Pedestrian Vehicular	LINISTONA decipiens	16	Clay Pavers Clay Pavers
B5	Grafton Street	Pedestrian Vehicular	HERITIERA littoralis TERMINALIA sericocarpa	6.9	Clay Pavers Asphalted Concrete
B6	Sheridan Street	Pedestrian Vehicular	FICUS macrocarpa 'hillii'	Existing	Clay Pavers
B7	Hartley Street	Pedestrian Vehicular	HERITIERA littoralis FICUS macrocarpa 'hillii'	Existing	Clay Pavers Asphalted Concrete
B8	Spence Street	Pedestrian Vehicular	BARRINGTONIA asiatica CALOPHYLLUM inophyllum	Existing	Clay Pavers Asphalted Concrete
B8A	Spence Street Extension	Pedestrian Vehicular	BARRINGTONIA asiatica CALOPHYLLUM inophyllum	20	Clay Pavers Asphalted Concrete
B9	Shield Street	Pedestrian Vehicular	BARRINGTONIA asiatica FICUS benjamina	Existing	Honed Precast Concrete Asphalted Concrete
B10	The Gateway	Pedestrian Vehicular	LIVISTONA decipiens BARRINGTONIA asiatica	24	Clay Pavers Clay Pavers

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PATH NO.	NAME	USE	LANDSCAPE CHARACTER		
			Species	Path Width (m)	Surfaces
B11	Access Corridor Precinct 3/4	Pedestrian Vehicular	LIVISTONIA decipiens BARRINGTONIA asiatica	24	Clay Pavers Asphalted Concrete
B12	Access Corridor Precinct6/7	Pedestrian Vehicular	LIVISTONA decipiens	16	Clay Pavers Asphalted Concrete
B13	Access Corridor Precinct 8/10	Pedestrian Vehicular	LIVISTONA decipiens	20	Clay Pavers Asphalted Concrete
B14	Shield Street	Pedestrian Vehicular	FICUS benjamina	16	Clay Pavers
B15	Boardwalk	Pedestrian Vehicular	FICUS benjamina	6	Timber
B16	Trinity Wharf	Pedestrian Vehicular	FICUS benjamina	26 max	Timber Timber
B17	Precinct 5/6 Plaza	Pedestrian Vehicular	FICUS benjamina LIVISTONA decipiens		Clay Pavers
B18	Main Public Plaza Reef Fleet Square	Pedestrian Vehicular	LIVISTONA decipiens		Honed Precast Concrete Honed Precast Concrete
B19	Main Public Plaza Precinct 2	Pedestrian Vehicular	HERTIERA littoralis WODYETIA bifurcata		Honed Precast Concrete
B20	Fogarty Park 1	Pedestrian Vehicular	FICUS benjamina	8	Clay Pavers
B21	Fogarty Park 2	Pedestrian Vehicular	WODYETIA bifurcata	8	Clay Pavers
B22	Public Plaza Marina Facilities	Pedestrian Vehicular	LIVISTONA decipiens	8	Honed Precast Concrete Honed Precast Concrete

Road Type and Design Characteristics

ROAD NO.	NAME	ROAD TYPE			PAVEMENT WIDTH	ON STREET PARKING			VERGE WIDTH (M)	RESERVE WIDTH (M)	MAX DESIGN SPEED (K/HR)
		Old Streets	CCC Classification			Type	Lane Width (m)	No. Bays			
			Per DCP	Per CCC Std Dwgs							
A1	Esplanade	Trunk Collector	N/A	Minor Collector	10.5m	P	2.5	2	5	20.5	50
A2	Wharf Street	Trunk Collector	CBD Sub Arterial	Trunk Collector	2/10.1m	P	3	2	4.5	35 (nom)	60
A3	Abbott Street	Trunk Collector	CBD Sub Arterial	Trunk Collector	11.2/12.5	P+A	3+5	2	9+5	40	60
A3A	Abbott Street Extension	Access Street	Access Street	Minor Street	8				4	16	40
A4	Lake Street	Trunk Collector	CBD Collector	Trunk Collector	2/6m (30m)	A+C+A	6+6+6	3	5	40	60
A4A	Lake Street Extension	Access Street	Access Street	Minor Collector	8				4	16	40
A5	Grafton Street	Trunk Collector	CBD Collector	Trunk Collector*	2/5.25m (28m)	A+C+A	6+6+5.5	3	4.5+5	37.5	60
A6	Sheridan Street	Trunk Collector	CBD Sub Arterial	Trunk Collector	2/7m (30.5m)	A+C+A	5+6+5.5	3	5	40	60
A7	Hartley Street	Trunk Collector	CBD Collector	Trunk Collector*	2/7m (30.3m)	90+C+90	5.3+5.7+5.3	3	5+5.4	40	60
A8	Spence Street	Trunk Collector	CBD Sub Arterial	Trunk Collector*	2/6.25m	A+C+A	6+6+6	3	5	40	60
A8A	Spence Street Extension	CBD Collector	CBD Collector	Trunk Collector	2/9m	P	3	2	4.5	30	40

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ROAD NO.	NAME	ROAD TYPE			PAVEMENT WIDTH	ON STREET PARKING			VERGE WIDTH (M)	RESERVE WIDTH (M)	MAX DESIGN SPEED (K/HR)
		Old Streets	CCC Classification			Type	Lane Width (m)	No. Bays			
			Per DCP	Per CCC Std Dwgs							
A9	Shield Street	CBD Collector	CBD Collector	Trunk Collector*	2/6.5m (30m)	90+C+90	5.5+6+5.5	3	5	40	60
A10	The Gateway	Access Street	Access Street	Minor Collector	8m				8	24	40
A10A	Access Corridor Precincts 3/4	Access Street	Access Street	Minor Collector	8m				8	24	40
A11	Access Corridor Precincts 4/5	Access Street	Access Street	Minor Collector	8m				8	24	40
A12	Access Corridor Precincts 6/7	Access Street	Access Street	Minor Collector	8m				4	16	40
A13	Access Corridor Precincts 8/10	Access Street	Access Street	Minor Collector	11m	P	3	2	4.5	20	40
A14	Access Corridor Shield Street	Access Street One Way Traffic	Access Street	Minor Collector	8m						40
A15	Service Access, The Pier	Access Street One Way Traffic	Access Street	Access Street	8m	A	4.5	1	4 (nom)		20

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Table data provided by Sinclair Knight Merz

Note:

- *** = divided with central parking
- P** = parallel parking
- A** = angled parking
- C** = central parking
- 90** = 90 degree parking
- 30m** = overall bitumen width & carriageway width

2.12 Works, Services & Infrastructure Code

Intent

This code is intended to ensure an appropriate level of engineering infrastructure servicing is provided to all development.

Applicability

This code applies to development that is —

- exempt or assessable development; and
- in the Cityport or Seaport LAP areas.

Elements of the Code

Development Principles

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	
General			
P1	Land is adequately serviced with water, waste disposal, telecommunications and energy.	A1	All land is provided with reticulated water, sewerage, electricity and telephone services and gas services where applicable.
P2	Land is provided with internal and external drainage to an appropriate standard to minimise runoff and impacts on receiving waters.	A2.1	Internal and external stormwater management is designed in accordance with the FNQROC Development Manual and is to be consistent with the requirements of Ports North.
		A2.2	Open paved areas for the storage or operation of mobile equipment incorporates a system to prevent contaminants or spillage entering the stormwater system.
P3	Engineering standards for land based development components meet or exceed those standards set in the FNQROC Development Manual.	A3.1	Engineering infrastructure & services are designed and constructed in accordance with the FNQROC Development Manual as required by Ports North.
		A3.2	The relevant service authority is contacted to ascertain standards applicable to the provision of power and telecommunications.
		A3.3	The standards adopted for aviation and marine based components and infrastructure are consistent with the requirements of Ports North.

3.0 General Policies

3.1 Sustainable Development Policy

Intent

The Policy intent is to support the Sustainability Code by providing additional information and options **to encourage** ecologically sustainable development within Cityport and Seaport.

Ecologically sustainable development encompasses environmental, economic, and social factors in decision making in planning and development and operations to improve resource efficiency and minimise negative impacts on the natural environment and community.

Application

This Policy applies to all development located within Cityport and Seaport Local Areas.

Land

- where a site is listed on the Environmental Management Register or Contaminated Land Register, all civil and construction works shall incorporate practices to minimise environmental impacts from the contamination;
- mature trees and vegetation with notable aesthetic or environmental value shall be retained or relocated for reuse where feasible; and
- stormwater runoff from hardstand areas is reused where feasible for landscape irrigation or other purposes. Stormwater treatment is provided where necessary to protect water quality —
 - un-polluted stormwater runoff from paved areas is directed into landscaping, infiltration trenches or stormwater re-use system; and
 - any polluted stormwater runoff from external hardstand industrial areas and extensive car parking areas is treated on-site with pollutant interceptors or similar.

Water

- alternative water supply sources are used to minimise consumption of potable mains water supply including —
 - rainwater: rainwater is harvested from roofs for treatment and re-use in potable and non-potable uses. This may include, air conditioning cooling towers, amenities (toilets, washing machines, bathrooms), industrial cleaning equipment, machinery lubricant and coolant, carpet cleaning or other services requiring large amounts of water, restoring and maintaining wetlands and landscape irrigation.
 - stormwater: stormwater runoff is collected from hardstand areas into storage tanks or detention basins and treated for re-use in non-potable uses such as cleaning, WC flushing and irrigation.

- mains potable water consumption is minimised through the installation and use of water conservation fittings and fixtures —
 - minimum 4 star Water Efficiency Labelling Scheme (WELS) rated appliances (eg dishwashers) are installed in kitchens and laundries;
 - minimum 4 star (WELS) rated tap fittings are installed in basins and sinks;
 - 4 star (WELS) rated showerheads are installed in showers.
 - minimum 4 star (WELS) rated dual flush 6/3 Litre toilets are installed;
 - minimum 4 star (WELS) rated urinals or water-less urinals are installed;
 - tap control options such as spring loaded taps, time flow taps or infrared taps (note that infra red requires energy to operate); and
 - where appropriate, water pressure limiting to mains supply is investigated to minimise water leakage and associated maintenance issues. Water pressure limiting systems should not hinder fire protection water pressure requirements.
- water meters are installed to monitor water consumption —
 - water metering is installed for all major uses. This enables consumption to be monitored and water consumption reduction targets to be established and tested; and
 - where developments incorporate a Building Management System (BMS), water meters are connected to the BMS to enable water leakage detection.
- landscape irrigation systems minimise consumption of mains potable water supply —
 - landscape irrigation utilises water captured from rainwater harvesting or reuse systems.
 - where landscape irrigation systems using mains potable water are installed, they incorporate timers, soil moisture sensors, sub-surface irrigation and other techniques to minimise water wastage.
- vehicle washing facilities are designed to enable collection, treatment and reuse of runoff water from vehicle cleaning.

Energy

- maximise the use of alternative, renewable energy sources and incorporate where feasible to reduce the use of greenhouse intensive non-renewable fuels:
 - solar powered independent systems are considered for water heating, water pumping and landscape lighting;
 - gas is used to power ovens, cooktops and BBQs
 - generating energy on-site from existing equipment including utilisation of waste heat for other purposes, such as space or water heating or cooling is investigated; and

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- alternative commercial biofuels that produce less greenhouse gases (biodiesel etc) are considered to power plant and equipment .
- Purchase of Green Power™ is investigated for some electricity supply to support research and development of renewable energy sources.
- passive thermal design principles are incorporated in building design to maximise energy efficiency of the heating ventilation and air-conditioning (HVAC) systems.
 - buildings encourage natural lighting while avoiding unwanted heat gain;
 - external shading devices such as eaves and window awnings are provided over all glazed areas of the building. All shading is designed to suit the orientation;
 - where appropriate, high-quality emissivity rated glazing is installed to reduce internal heat gain to air-conditioned areas;
 - where appropriate, shade trees are planted in front of western and eastern elevations to shade walls and windows;
 - insulation for roof, ceiling and external walls exceeds the requirements of the Building Code of Australia where appropriate (eg. exposed western walls);
 - light coloured or reflective roofs are used to reduce internal heat gain; and
 - where appropriate, buildings encourage natural ventilation through design and inclusion of elements such as roof ventilators and operable windows.
- mechanical plant and equipment are designed to exceed the energy efficiency requirements required by the Building Code of Australia (BCA). Mechanical plant and equipment are energy efficient.
 - the HVAC system is designed, commissioned and maintained to ensure optimal efficiency;
 - HVAC systems are controlled by timers and occupancy sensors to ensure optimal energy efficiency;
 - air conditioning is set to a wider temperature range to minimise the cooling energy required. Temperatures settings are altered for summer and winter. Settings align more closely with outdoor temperatures (warmer in summer and cooler in winter); and
 - all office appliances and equipment achieve a minimum Energy Star Rating of 3.5 stars.
- electrical lighting is designed to exceed the energy efficiency requirements required by the Building Code of Australia (BCA).
 - energy efficient light fittings are installed. Investigate lamp life, energy usage, type of reflectors, electronic ballasts;

- efficient lighting control systems are installed where appropriate. This may include dimmers, occupancy sensors, daylight sensors and timers to automatically turn lighting off when not required;
- electrical lighting layout is designed to work efficiently with natural lighting. This may include reduced lighting or sensors at glazed building perimeters where ample natural lighting is provided;
- lighting layout is designed in zones related to building occupancy and use. This provides improved flexibility for light switching, making it easier to light only occupied areas;
- clearly labelled switches are provided to enhance accessibility for building occupants;
- Individual lighting control is provided where appropriate. fluorescent task lighting are provided for workstations where bright light is needed, and reducing lighting levels for general areas; and
- overall lighting energy consumption is controlled while maintaining appropriate lighting levels for the area uses.
- natural lighting is provided where feasible.
 - natural lighting devices such as skylights or translucent roof sheeting are used where appropriate to admit light without heat; and
 - interiors are painted in light colours to reflect light and reduce the amount of lighting required.
- water heating is energy efficient —
 - energy efficient hot water systems are installed, including but not limited to solar-hot water systems or heat pump systems;
 - hot water systems are designed to take advantage of waste heat flows from other energy services (eg. the air-conditioning system);
 - hot water pipes are insulated to minimise heat loss; and
 - a heat trace system is installed to maintain water heat in the water pipe while water sits in the hot water pipe between the heating system and the tap.
- energy meters are installed to enable monitoring of energy use.
 - energy metering is installed for all major uses. This enables consumption to be monitored and energy reduction targets to be established and tested;
 - sub-metering is provided to monitor lighting, air-conditioning and any large electrical uses separately;
 - meters are located in a highly visible and frequently used area to enable optimal access and awareness. Metering information includes current period, previous energy use and associated cost of that use; and
 - where developments incorporate a Building Management System (BMS), energy use meters are connected to the BMS.

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Waste

- waste is managed during design, construction and occupancy with a focus on 1. Minimisation, 2. Re-use, and 3. Re-cycling to reduce waste sent to landfill.
- waste is managed during **design** through practices such as:
 - inclusion of waste recycling facilities of an appropriate size for the development functions. These facilities must be easily accessible by building users and the required service vehicles and clearly indicated on plans;
 - specification of re-used or recycled materials including concrete with recycled content, recycled timber and recycled steel;
 - design to suit standard material sizes to minimise off cuts;
 - design for prefabrication off site;
 - selection of suppliers with a proven environmental track record; and
 - specification of low maintenance materials.
- waste is managed during **construction** through practices such as —
 - implementation of a construction Environmental Management Plan.
 - prefabrication off site
 - ordering materials in bulk to minimise packaging.
 - arranging with suppliers to collect unused materials.
- waste is managed during **occupancy** through practices such as —
 - implementation of an operational Environmental Management Plan;
 - educating cleaners and staff on separation of recyclable waste; and
 - amalgamating with surrounding businesses (eg. small businesses) to enable access to recycling collection companies that have minimum recyclable waste requirements.

Materials

- timber is sourced from certified plantations or from recycled supplies to reduce destruction of rainforests and old growth forests.
- timber is sourced from plantations that have certified environmentally responsible forest management practices. Eg Forest Stewardship Council (FSC), Plantation Timber Certification (PTC); and
- timber is sourced from post consumer, reused timber supplies.
- PVC drainage products are avoided where feasible and high Density Poly Ethylene (HDPE) waste water pipes are specified where feasible.

Indoor Environment Quality

- a high standard of indoor air quality is achieved and maintained in buildings that are occupied for extended lengths of time (offices, residential, retail, hospitality, tourism etc)
 - products and materials with low or no Volatile Organic Compounds are specified. At a minimum this should include floor and paint finishes. Examples of VOCs include aromatics, ketones, halogens, esters, alcohols, aldehydes, epoxies, aliphatic hydrocarbons and formaldehyde; and
 - a high level of ventilation with clean outside air is provided through natural and / or mechanical ventilation systems.

Transport

Cyclist facilities including secure bike storage, showers, change rooms and lockers are provided for a minimum of 3% of building occupants.